

## Safinette Radio.

NEW MAIL ORDER \& SALES CNTE IN NEW TORK CITY Hyisid 165-08 LIRERTY AVE. JAMATX Y3,N.Y

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| NEW YORK, N.Y. | BOSTON, Mass. | BRONX, N.Y. | NEWARK, N.L. ${ }^{*}$ | PLAINFIELD, N.J. |
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| 100 6th Ave. | 110 Federal St. | 542 E. Fordham Rd. | 24 Central Ave. | 139 W. 2nd St. |
| REctor 2-8600 | Hubbard 2-7850 | FOrdham 7-8813 | MArket 2-1661 | PLainfield 6-4718 |
|  | open MONDAY fill 0:45 P.M. | open TMURSDAY -ifll 8:4S P.M | open WEDNESDAY | opon THURSDAY *ill 8:45 P.M. |
| cos Sped Shipmm | ${ }_{\text {rour }}^{\text {rout }}$ CATAL | OG 305 | by che cot or Money | Sor includ. umicie. |

#  STYLE MATCHED TUNEH AND AMPLIFIEIE 



MODEL LA-40 15 WATT MUSIC MATE AMPLIFIER
Beoulifully styled and moderately priced, the Lafoyette Music Mote omplifier hos all the bosic feotures needed for of fine high fidelity system. If utilizes the now oremium quality EL84 fubes to give plenty af distartion-free pawer. Inputs ond praper equalization are pravided for tuner, pre.recorded tope and every type of phano cortridge and record. Also has on auxillary input for such devices as TV Audlo, extra crystal phono or preamplified playback fram tope recarder.
The Music Mate has a tope output jack for use with tope recorders. Thraugh this jack you can feed any of the input signol to a tope recarder. Because this iock is un. offected by the amplifier volume and tane cantrals, you con record pragrams using the equalization of your tape recorder while listening to the pragram thraugh your hi-f system.
In addition to the seporate bass, treble and volume contral, there is a 3 positian laud. ness switch to retain the correct fonal bolance befween high and laws at different valume levels. Obiectianable motor vibration, sometimes intraduced by some record changers and turntables, can be eliminated by the rumble filfer switch. A hum adiustment control minimizes subsidiory hum.
An odditianol unit such as a phonagraph or tuner moy be plugged inta the auxiliary AC autlet and turned on or aff simultaneously with the omplifier.
The Lafoyette Music Mate amplifier is finished in attroctive dark maroon and gald and matches in styling and size the Lafayette Music Mate Tuner.
It is designed for simple mounting in cabinet ar in panel. Far this purpose arder the model LAA1 (less cage). For use on shelf, the model LAAO is supplied with on oftractive coge.

## SPECIFICATIONS

POWER OUTPUT: 15 Wolts continuaus, 30 Watis peak. FREQUENCY RESPONSE: $\pm 0.5$ DB fram 20.20,000 cycles. DISTORTION: Less than $1 \%$ GAIN: Magnetic Phono, Tape $=112 \mathrm{DB}$, Crystal Phano $=80 \mathrm{DB}_{3}$ Tuner, $\mathrm{Aux}=75 \mathrm{DB}$. SENSITIVITY: Mag. Phana, Tape $=4 M V_{i}$, Tuner, Aux $=0.25$ V $_{\text {; }}$ Crystal Phana $=0.16 \mathrm{~V}$. NOISE AND HUM: Tuner, Aux $=75$ DB belaw rated autput. Phano and Tape $=$ 55 DB belaw rated autput. 5 INPUTS: Crystal ar Ceramic Phano, Magnetic Phana, Tape, Tuner, Aux. 7 CONTROLS: Functian and Equalization Selectar, Valume, Bass, Treble.AC Power, Laudness, Rumble Filter Mum Adiustment. EQUALIZATION: 3 , pasi. tions: 78, RIAA (IP), Tape, (NARTB). TONE CONTROL ACTION: Cut or boost 10 D8 an bath boss or treble. OUTPUT CONNECTIONS: Speaker term and tape auput lock. OUTPUT SPKR. IMP.: 4, 8, 16 ahms. POWER OUTLET: Convenient AC Power Outlet on Reor Contralled by front ponel AC switch. TUBES: Two EL84, ECC83/ 12AX7, 6U8, and EZ81 rectitier. $512 E: 131 / 2^{\prime \prime} W \times 5 \% / \%^{\prime D} \times 4-3 / 16^{\prime H} H$. SHIPPING WT.: 12 lbs.
Lafayette LA-41 Amplifier (less Coge)
Net 43.50
Lafoyette LA-40 Ampllifier (with Cage)
Page 2
PRINTED IN

## MODEL LT-40 MUSIC-MATE DELUXE FM-AM TUNER

The Lafoyelte Music date Tuner is a sensitive, selective, stoble FM.AM tuner with oll the basic features for a deluxe high fidelity system. It has the some beoutiful styling as the Lafoyette Music: Mote omplifier and motches it in both decor and size. Freedom from drift is assured by the temperature compensated oscillator and pragrams ance tuned in ore "lackes in"" by automatic frequency contral oction. The circuit uses 6 tubes, a rectifier plu: 2 lang-life matched germonium crystal diades to reduce hum. Freavency respanse extends to 20,000 cycles. Covers the entire FM and AM ranges. Tho AM sectian is superheteradyne with automctic volume cantral action. Has buittin antennos for both AM. and FM os well as provision for outside antenno. The rechnical specificotious shawn on hum and distartion cleorly indicate the excellent reception you will get with ine Music Mote. Finished in attractive dark moroon and gold.
Easily mounted in cobinet or an panel. Far maunting, arder madel LT-41 (less Cage). Far use on shalf or fu-niture, order 1 T .40 (with cage).

## SPECIFICATIONS

CIRCUIT: FM: Armstmong circsit with limiter and Foster-Seeley Discriminator, AFC, AFC defeot, temperavie corrpensaled asclllatar. AM: Superheterodyne with AVC., SENSITIVITY: FM: 5 dicravalts far 30 db quieting AMs Loap $100 \mu \mathrm{~V} / \mathrm{m}$ for 20 db S $/ \mathrm{N}$. Terminal sensitivity $5 \mu \mathrm{~V}$ for $20 \mathrm{db} 5 / \mathrm{N}$. RANGE: 88.108 MC and 530.1650 KC FM DRIFT: $\pm 5 \mathrm{KC}$ AAX. SELECTIVITY: FM, 200 KC bondwidth 6 do down AM: 8 KC bandwith 6 db down. DISTORTION: Less thon $1 \%$. FREQ. RESPONSE: FM: 20 .
 madulotion. RADIAT ON: MJets FCC requirements TUBES: 2 DB below $100 \%$ 6AB4, 12A17, 6BA6, SBE 6 plus $6 \times 4$ rectifier and matshed pair 1 N 542 crystol diades. 5TAGES: FM: 2 IF; 5 mifer ond untuned RF;AM: 2 JF sloges. CONTROLS: Tuning, bond selector, AFC defeat, power. ANTENNA: 8 ulli-in 300 ahm FM line ontenno and ferrite AM toapstick. Pravisicn for outside antenna. $512 \mathrm{E}: 131 / 2^{\prime \prime} \mathrm{W} \times 51 / \mathrm{m}^{\prime \prime} \mathrm{D} \times$ $4.3 / 16^{\prime \prime} \mathrm{H}$. SHIPPING WT.: 10 lbs .

Madel LT-41 Tuner (less cogel
Nel 64.50
Model LT-40 Tuner (vith cage)
Net 67.50

## Lafayette HI-FI 6Music-Mates: SYSTEMS

 STYLED MATCHED COMPONENTS
## AS LOW AS 109.50

## ECONOMY "MUSIC MATES" PHONO SYSTEM

Here's thrilling high-fidelity of down-to-earth pricasl Provides exceptionally fine audio fidelity plus dependoble pertormance. If the components were purchased individually, the lotal cost wauld be 134.83 - which gives you a big savings of 25.331 This syslem (s buils around the exclusive lafayette value-pocked moner-soving $44-41$ is woll "Music-Mate" Amplifier (without cage). Also included are the Garrard EC-121-4 "Renown" A-speed Autamatic Manual and Intermix lecord Changer (less base) , Wew VRII Triple Play Voriable Reluctance Cortridge Madol 46 053 with Diame iP and Sapohire Standard Styli; the Lafarelle SX-58 Coaxial Hi-Fi 052 with Diamond speaker with brilliance Level Cantral ath noled fored plugs and interconnecting cabler once. This phono system is supplied with colts.ecoded plugs and incle A. Shpg. wt., 39 Ibs. HF 190 Ecenomy Phano System
HF 191 As above bul with cover for amplifier
Net 109.50

## DELUXE "MUSIC MATES" PHONO SYSTEM

The Delure "Music Mates" Phona System cansists of all of the quality component In the ECONOMY system above plus an attractive cage for the ampliner, a Mahogony ar Blande (specify which) Woad Bose far the Recard Changer and a lafoyelfe Resonato Speater Enclosure in which to mount the speoker Cabinet is lined with acoustic mo ppor Cutaut for $12^{\prime \prime}$ speaker. Dimensions: $20^{\prime \prime} \mathrm{W} \times 16^{\prime \prime} \mathrm{D} \times 23^{\prime \prime} \mathrm{H}$. Camplete system with coded plugs and cables. Shog. wf.. 76 lbs
MF- 192 Deluxe Phano System With CAB-16 Resonator Speaker Enclosure
and Mahogany Changer Bose
Net 142.50
HF-193 Deluxe Phono System with CAB-17 Resanator Speoker Enclasure and Blande Changer Base

Nei 144.50

## FM-AM PHONO SYSTEM DELUXE "MUSIC MATES"

This superb FM.AM Phana System Includes all of the ltems in the Deluxe Phana System above plus Lafarette's exclusive IT- 40 "Music-Mate" Deluxe FM-MM Tuner (in cage) This system cansists of all the ttems illustrated. Complete system with calor-coded olue and intercannecting cables for quick, simple Installatian. Shpg, wt., 86 Ibs. Specify finish of waad base desired.
MF-194 Deluxe Phono System With CAB-16 Resonoter Speaker Enclasure and Mahagany Changer Sase

Nei 206.50 HF-195 Deluxe Phano System with CAB-17 Resonalor Speaker Enclasure and Blonde Changer Base Net 208.50

## LAFAYETTE DELUXE PIIOND SYSTEM

## A SUPER-VALUE PHONO SYSTEM TO DELIGHT THE MUSIC LOVER

This extraardinary value in a phano system enobles yau ta enioy autstanding highAdelity perfarmance despite either limhed quarters or a limited budgell This exclusive Latayette phana system is camposed af top-performing camponents thraughout which bring realism to the reproduction of living music. The systom is bulit around the new incomparable Model th-40 is Wall "Music-Male" Ampllfier - an amplifier whose feotures, specificotions, smart styling and orice ore causing the entire Industry to sit UD and lake notice. In oddition to the amplifier in an attractive metal case, the system includes the Garrard RC-121-4 "Renown" A-speed Aufamatic Manual and Intermix Record Changer with either Mahogany or Blande Wood Base (Specity Chaice) and - quipped with the new GE VRII Series Priple Play Variable Reluctance Cortridge Model 4G-052 with Diomond IP and Sopphire Stondord Styli. Sound repraduction is sparkingly accamplished by the University Model UXC-123 12 3-Way Dinaxial Speaker on in. tegrated 3 -way speaker assembly campletely wired with built-in I/C network and Brilliance Contral and the Lafoyelle Call-19 Highbay Style Bass Refor Cobinet designed to give praper baming to the entire speoker system and imprave the boss response. This cabinet is available in aither lustraus hand-rubbed Mahagany or Blonde (Specity finish) and is $28 \% / 0^{\prime \prime} \mathrm{W} \times 161 / /^{\prime \prime} \mathrm{O}=231 / 2^{\prime \prime} \mathrm{H}$. If the camponents were purchased individ. ally, the total cost would be 22578 . However this camplete, compact, soce-saving oily. The tola cost would be 225.7 . However cals campleie. compoci, spoce-saving system is oriced io sove you as.83 on the taral cost of thesenclosure. System is supthen pilled with calor-caded plugs and 110.120 volts 60 cycle AC. Shpg. wf., 81 lbs. For 110.120 volts 60 cycle AC. Shpg . Wf., 81 lbs.


# Safayette LA-69 20 WATT HIFIDP/hTY AMPиTFITB 

## Value Available Only At Lafayette!

## Guaranteed To Oufperform Any Amplifier In Its Price Range Or Your Money Back

## 7 <br> Six Position Roll-Off Control

## 8 Inpur Selector and Turnover Contro


#### Abstract

cofoyefte confidently presents the new LA69, succersor to the enthusiasticolly oc croimed LA59. Supert high-fidelify perfarmonce meeting the mast criticol stondard ovaliabie of tess thon half of whot yau might expect to pay for o comparoble bution to hi-fil to include every aroctical feoture making o warth-while contri bution to hi-fi reproduction, the 14.69 is rated of 20 watts. The output stoge utiruggedness ond langer life. Extrem 6 Q fubes, oufstanding for superior performonce, ruggedness and langer life. Entreme versotility in lope recording ond ploybosk replaybock wich and the and autpul jocks in cenjunction with the new tape maniforlayback wirch and the tape position on the inpul selector switch. Incarporates advanced prinfed circuit techniques in the two boards used. The frequency response is phenamenal-ven of over $83 \%$ of full output, it is within $\pm 1$ db from 20 1040,000 cycles, with the range ealended further af lawer wattages. Three negative leedback loops virtually eliminate distortion. The unit is extremely sensifive and has effective individual rumble filter and loudnness cantrols which can be cuf out of the circuit of will. Separate adjustoble rallaff and furnover centrol provide 24 qualization positions to compensote for recerding curve characteristics. Continuously variable boss and treble contrals make possible on infinite selection of tone compensening odiustments. There ore 5 input jocks for Rodio. TV Tope, Monnetic hano and Crystal Phono. A tape oupput loct and autputs for 8 and 16 ahm also provided, Rear of chassis hos hum boloncing, rodia and phano input ievel conirols, 2 AC convenience oullets and fuse mounted in euproctor po inpul level 2-E184/68QS, 2-12AX7, 1-6AN8, and 1-EZ81 rectifter Modern ireomlinal ore olke" styling having beautiful satin eald panel, gald perforoted cage, and afpanel mounting. IMPORTED TO SAVE YOU MOMEY Size limavoble far easy ponel mounting. IMPORTED TO SAVE YOU MONEY. Sizet $131 / 2^{m} \mathrm{~W} \times 81 / 2^{\prime \prime} \mathrm{O}$ (exclusive of knabs) $\times 4 \mathrm{~s} / \mathrm{s}^{\mathrm{H}} \mathrm{H}$ (including rubber feet). Shpg. Wi., 19 (bs. LAFAYETTE LA69-Amplifier

Nel 64.50


## Amazing Hi-Fi Amplifier

## NEW! 64.50

## Another



POWER: 20 watts normal, 40 wott peak, at $1 \%$ hormanic distortion. RESPONSE: 20 to 40.000 cycles $\pm 1 \mathrm{db}$ al 15 waths. EQUALIZATION: 24 pasitions to motch all types of recordings. RUMELE FILTER: On-Off, liminates Mator naises. LOUDNESS CONTMOL: On-Olf, maintains high ond low frequencies at low volume levels. TAPE COMTROL: MonitorPley, controls tope playbock and recording. BASS CONTROL: Continuausly voriable; 16 db boosp to 16 db cut, "flof" pasilian marked. TREBLE CONTROL: Continuously variables 12 db boost to 15 db cut of 10,000 cycles. "flof" pasition morked. HUM CONTROL: Balancing contral on reó of chassis. PHONO LÉVEL \& RADIO EEVEL: Individual input level controls an rear of chossis. INPUTS: 5 jacks far rodio, lape, TV, magnetic phano and crystal or ceramic phano. OUTPUTS: Tope jock and choice of 8 or 16 ohm speaker SENSITIVITY full rated output with input of anly 8 mv in magnetic input or 0 y QUIETNESS: Noise plus hum is 75 db belaw magimum autput an db on phono input; 54 db below effective program level with 10 mv input. FEEOBACK: 3 negotive feedback loops; 20 db feedbock oround valfoge and power amplifier stages, POWER OUTLETS: 2 occessory 110 V AC ouflels far phano, tuner, elc. FUSE: 2 Amp fuse maunfed in extractor past for eosy replocemem. MOUNTING: Frent removable for simple, fost mounting. STY\&E: Modern law-lined "pancake" sotin-gald panel, gald coge, moroon Prim. POWER SOURCE: $110-120$ Volfs, $50-60$ cycles $A C$ only.

## SPECIAL CONBINATION $\begin{gathered}\text { OFFER }\end{gathered} 119.50$ <br> LAFAYETTE <br> MATCHED HIGH-FIDELITY PHONO SYSTEM

NOBODY BUT LAFAYETTE can bring you a phano sytem of this quality-and of this price. Indeed a lafayette "best buy" system designed oround the new Lafayette LA-89 20 watt amplfier. The performance of this phana system surposses the most crifical sequirements of music lovers of a price below thot of commerciol phonagraphs. Twenty.four cambinotians of record equalizatian provide an olmost endless variety of tone compensotion to match varying recardine chor. acteristics. In addition to the $\mathbf{L A} .69$ this system includes the fomous Gerrerd C121 Speed Necord Changer feoturing full outometic and monual par tions and Simplemix operation; the new improved Vilf Varieble Relvetance GE Triple Play Turnover Cortridge Model $4 G-052$ with genwiti GE diamand and sopphire siyli, and the celebrated Lefayette SK-S8 $12{ }^{\prime \prime}$ Coozial Mi-Fi speaker. All units are supplied with plugs, jocks and prepared color-coded interconnecting cebles for quick eosy installation. For 110.125 volt, 80 evcle AC. Shag. Wt., 50 lbs.
HF-179-Complele Phono System
Net 119.50
Poge 4


LAFAYETTE LA-22 12 WATT AMPLIFIER WITh CASE The Lafayette LA-22 amplifier is a complete 12 woll power omplifier with bullt-in pre-amplifier-equalizer that brings yau real high fidelity af law cost. Ifs wide range fredelight you. This undislorted power is ochieved fram circuitry employing the new premium quolity EL84 lubes in o pentode connecled bolonced autput circuif. Five inputs are provided for every type of crystal, ceramic or magnetic phona cortridge, for tuner
ond tope head as well as high level ausiliary input for such devices as TV audio, oddifional crystol phono. etc. A rear chassis switch changes fram tape head to magnetic Input. The fromt panel functian selector and equalization switch gives instant cholce of
funer oux, or phona with proper equalization for all types of records and tape head. Equalization pasitions ore RIAA (IP), 78 for old type records, and NARTB equalizod tape heod. This last position also pravides equalizatian for landon (ffrrlP) and other Europeon recordings.
The laudness contral is a compensated volume conirol that approzimates FletcherMunsen characteristics to give you tonol balonce af low listening levals. This cantrol also operates the AC on and aff switch. The boss and treble controls afford a wide variation of cut or baost for emphasis or deemphasis of highs and lows. Other features turned on of off with the amplifier switch. Provision is made for maunting in cabinet or on panel. It is aftractively finished in fine grain hammertane copper shade that biends hormoniously with both modern and traditional decor. Its appearance matches the lafayette IT- 25 tuner. It cames camplete with remaveable case.

SPECIFICATIONS
POWER: 12 watts normal, 24 watts peak. FREQUENCY RESPONSE: $\mathbf{3 0 - 2 0 , 0 0 0}$ Cps $\pm 1 \mathrm{db}$. I.M. DISTORTION: Less than $11 / 2 \%(60$ and 7000 cps) at full rated output. NUM: Tuner 80 db below full oulput; phono 60 db below. NPUTS: 5 : Tuner, and equalization; bass, treble and loudness with AC on-off switch, EQUABIZATION: RIAA (LP). 78, TAPE HEAD (NARTB) OR LON. (ffr) TONE CONTROL RANGE: 12 db cut or boost on boss and treble. INPUT LEVEL: For full outpuf; $1 / 2$ valt on puner, errstal or aux., ${ }^{8} \mathrm{mv}$, for magnetic phong or and pilot light. SPEAKER TER: MINALS: 8 and 16 ohms. AC OUTLET: Auxiliery AC outlet on rear controlled by front ponel on-off switch. MOUNTING: Pravision for mounting in cabinat or on ponel.
 of panel. SHIPPING WEIGMT: 15 lbs.

MATCHED HIGH FIDELITY EVERYONE W ANTS HIGH FIDELITY NOW EVERYONE CAN AFFORD IT!


LAFAYETTE LT-25 FM-AM Tuner with Case
tike its matching amplifier, the Lotayette $\mathbf{t T}-25$ FM. AM luner is a mast unusual value. A glance af the speclfication chart will show that we have incorporated all the basic qualities that go into a fine high fidelity tuner. The circuit teafures temperature "lack in" the station and AFC defeat far precision funing on wook stotions. High sensitivity and selectivity are likewise achieved by having 3 stages of I.F. Including limiter in the FM saction plus 2 I.F. stogos in the AM section. Wide range frequency programs clear, crisp and clean. Inertio llywheel makes tuning smooth. Has auxiliary AC outlet on rear far attoching a phono or other device ta be turned on ar off by tuner switch. Attractively finished in the some fine grained hammertone capper shade to match the LA-22 amplifier. A handsome edge-lighted dial further enhances the appeorance. It cames complete with removeable caver. Provision is included for mounting in cabinet or an panet if desired.

SPECIFICATIONS
FM CIRCUIT: Armstrong circuit with limiter and Foster-Seeley discriminotor, AFC and AFC defeat. AM CIRCUIT: Superheterodyne with automatic valume control. FRE. QUENCY RANGES: 88.108 MC and 530.1650 KC. FREQUENCFRESPONSE:
 on $F M_{\text {i }}$ less than $1 \%$ on AM for up to $80 \%$ modulation. CONTROLS: Function switch for OFF, FM, FM/AFC. and AM2 Tuning. OUTPUT LEVEL-FM: $21 / 2 \mathrm{~V}$ for $100 \%$ modulation. ANTENNA INPUT: Buitt-in AM fertite loopstick antenno and 300 ohm FM line ant. Terminal for outside antenna. RADIATION: Moets FCC requirements. OUTPUT
PMPEDANCE: High impedance output. CONVENIENCE OUTLET: $110 V$ AC cUz. outlel on rear. TUBES: 2-6AUS, I eoch 6At5, 6BA6, 6BES, SNB, I2AT7 plus sotonium rectifier SIZE: $131 / 2=t \times 41 / 2^{\prime \prime} \mathrm{H}=8 \cdot 3 / 16^{\prime \prime} \mathrm{D}$. Height includes rubber bumper feet. Knobs extend $5 \%^{\prime \prime}$ in frant of panel. AM antenng $13 \%^{\prime \prime}$ behind pear. SHIPPING WEIGHT: 15 tbs . Madel LT-25 FM-AM Tuner.


## LAFAYETTE

 DELUXE HI.FI FM TUNER - 9 TUBES PLUS RECTIFIER - 20-20,000 CYCLES $\pm 1 / 2 \mathrm{DB}$ - SELF-CONTAINED AC POWER SUPPLY - ARMSTRONG CIRCUIT- FOSTER-SEELEY DISCRIMINATOR
- dUAL limiters
- 3-GANG CONDENSER
- afc - afc defeat

The Lafayette LT. 60 FM funer was designed for the large group of discriminating music lovers who canfine their broodcast listening to FM fon which the anly true high. fideltity broadcasting is done). 8y cancentrating an pure FM, Lafayotto engineers have produced a tuner that gives the utmast value possible in perfarmance and quality. The circuit is the Armstrang circult with foster-Seelor discriminatar and dual limitors. It pravides extreme sensifivity which even pulls in "hard to get" statians. Tompera-ture-compensoied circuitry combined with outomatic freavency contral insures both drift-freo aperation ond outamatic "lacking in" af statians. Function solector knob has pasitions for OFF, FM and FM/AFC so the AFC action con bo defooted while tuning in weok stations. The exceedingly law hum level and wide-ronge flat frequency response aives you the full benofit of the finest in FM receptian.
The tuner has 9 subes plus a selonium rectifier, a 3 -gang condencer with o tuned RF stege, If stages (including dual limiters), mizer, discriminator and ascillatar. Twa outputs are provided; a cathode follower and o high impedance output. Input terminals for 300 ahm antenna ore on rear of chassis. It is completely self-pewered and wired, ready for aperation.

The tuner is built on long, law modern linos, handsamely finished with brushed goldbrass frant plate, dark maroon cover and attroctive brass-inlay knabs. With its coso, It mey be used on a shelf ar tabletop. It maunis easily in cabinet or on ponel, requiring anly remaval af cover and cutting a single raugh hole in the panel. Size is $14^{\prime \prime} \mathrm{L} \times 7^{\prime \prime} \mathrm{W} \times 41 / 4^{n} \mathrm{H}$. Cames complete with cover. Shpe. wt.. 13 lbe.

## SPECIFICATIONS

CIRCUIT: Armstrang with Foster-Seeler discriminator, dual limiters, AFC and AFC dofoat. RANGE: 88-108 MC. FREP. RESPONSE: $20 \cdot 20,000$ cycles $\pm 0.5 \mathrm{db}$. DISTORTION: Less than $1 \%$ hormanic. SENSITIVITY: $3-5$ uy for 20.30 db quieting. SELECTIVITY: 200 KC bondwidth 6 db down. HUM LEVEL: 70 db bolow averoge output. FM DRIFT: $\pm 5$ KC max. IMAGE REJECTION: 40 db. IF REJECTION: 70 db . OUTPUTS: Cothode fallowor and high Impedonce. CONTROLS: TUning and function seloctor IOFF-FM-FM/AFC). ANTENNA INPUT: 300 ohms. RADIA TION: Meets FCC requiremonts. TUBES: 4-6AU6, I each oCB6, 12AT7, 6AL5, 6AB4, 6Ci plus selonfum rectifier. SIZE: $14^{\prime \prime} L \times 7^{n} \mathrm{~W} \times 414^{n \prime} \mathrm{H}$. SHIPPING WT: 13 lbs . LT- 60 FM TUNER

Not 49.95


A supreme value in top-performing components capoble of pure, foithful musical repraduction to delight the souls af both modern and clossicel music lovers.
Every companent has been carefully chasen for best individual performance and Lafayette-designed to perfectly matched for brilliant tanal results.
Included among the components of this really deluxe systom arei the LAFAYETTE MODEL LT-60 FM TUNER with Armstrong FM circuit, frequency response of 20 to $20,000 \mathrm{cDs} \pm 1 / 2 \mathrm{db}, 3$ mieravalifs sensifivity, and diff.free aperations and the LAFAYETTE MODEL LA-40 "MUSIC MATE" 15 -wolt amplifier, with response of 30 to $20,000 \mathrm{cps} \pm 1 \mathrm{db}$, distorlion belaw $1 \%$. tope recorder output lack and promium-quality EL84 and ECC83 tubes; both the $1 T-60$ and LA- 40 are styled in dork maroon and gald. Also included in this system ores the fomous GARRARD MODEL RC-121 -speod autamatic record changor with optlonal monual aperations the now General Electric VR II Series MODEL \&G-052 "TRIPLE-PLAY'" CARTRIDGE with genuine GE diamand LP stylus and sapphire stylus for 78 roms the LAFAYETTE

MODEL PK-111 RECORD CHANGER BASE, moothly ioined and ottroctively finishod in dark mahogany or blonde (pleose specity which); the fomaus LAFAYETTE MODEL SK-58 $12^{\prime \prime}$ COAXIAL SPEAKER, nated of 20 wotts, with response of 30 15,000 CPS, with built-in crossaver netwark and with brilliance cantrals and the LAFAYETTE MODEL CAB-16 (Mahagany) or MODEL CAB-17 (Blonde) lowboy consolotto bass reflex specker cabinet (ploase specify which), solidiy built of the linest $3 / \mathrm{a}^{\prime \prime}$ stock. Shipg. wt., of systom, 82 lbs .
IF PURCHASED SEPARATELY, THESE COMPONENTS WOULD COST 223.23 LAFAYETTE'S SPECIAL PRICE:
MODEL HF-208
Complete systom as described........................... 199.50
MODEL HF-209

System as above but loss PK-III changer base 164.50


This top-performing phono system is the biggest value in hi-fiever offerad. Bult around the Bell "Pocemaker" ampliner, this sysiem shes allest possible the utmost in truly preosuroble record listening. Requires ithe In addition to the omount of spoce, with no odditional cobinets baing needed. In addition to tho omount of spocem "Pacemaker" 10 Weit Ampllfier, the systom includes the famous Bell'2285 "Gacemaker C-121-4 "Menown" 4-Speed Automatic Monvol ond intermix Garrard Changer equipped with the new GE VRII Series Model inGos2Record Changer equipped with Triple Cartridge with Olamond IV and SapVarlable Relvetonce Tripie widely occlolmed University "Tliny-Mite" Ene phire Standord Styll; the widely occioned Speotre. The system is reody to ploy clesure with UXC-122 12 Olwanies Spear. ond cables for quick eony in. - you noed lust connect the collation. For 110 V 60 cyclo AC . Shps. Wi., 65 lbs . stollation. For 110 V 60 cycl . W - 199 -Complete System with Mahogony Base and enclosure 129.50
 An exceptionol value in
high-fidelliy instruments. The heart matehed combination of the very finest in 5-1000 1136 Watt Amplifier, a new versatilem is the Sherwood Model Center in o beoutiful cabinet. The system alsatile amplifier-precmplifier-control S-2000 FM-AM Tuner in o beautlful eobinet includes the sensitive Sherwood mix Record Chonger and Mohogany cobinel; the new Colloro KC.4torwood oble lieluctonce GG-052 Triplegany base; the new GE VRIL Series VortStyli; the Universiey 62 Triple May Cartride with olam Series Vortspeoker ond Laforsity 6303 fomous high quality is wh Olamand-5apphire or Blonde hnish (Specify CAB-19 Mighboy Boss Refiem 3uwoy extended ronge in a choice of (Specify which). The Sherwood Amplifier ond Ture in Mahogony system ls ready ither brown or block fextone cabinet. (Specifyer both come system is reody to plor requiring only the connection of color-ceded cholce). The cobles. For 110 V 60 eycto AC. Shpg. Wi., 120 lbs. of color-coded plugs and MF-197-Complete Music System
MF-19 - Some system less speoter
Ner 365.02
BOGEN FM-AM PHONO SYSTEM


## SUPERB HIGH-FIDELITY PERFORMANCE DELUXE MUSIC SYSTEM AT BUDGET COST.

| COMPONENTS |  | REGULAR PRICE $287.78$ |
| :---: | :---: | :---: |
| BOGEN RRSOIC TUNER-AMPLIFIER | 129.50 |  |
| COLLARO RC-440 RECORO CHANGER | 41.50 | NLY |
| WOOD BASE POR CHANGER | 3.95 |  |
| UNIVELSITY UXC-123 | 04.00 | 30.22 |
| GE 4G.052 DIAmONO-SAPPHIRE CARTIIOGE | D/5 19.33 |  |
| RESOMATOR TYPE ENCLOSURE | 29.50 | OUU SAVE 57.56 |

Enjoy the thrilling reolism and presencs of a live orehestra right in the home with this system which provides the mast complete hi-fi performance of very modest cast. Each component has been solected to give maximum volue in its price class. A few minutes of pleasuroble listening wilt convince you of the unusually mooth, full-range reproduction of which this system is copoble Included in this system is the somen RRSOIC Tuner-Amplifier which combines in a single
 hossis a sensirvo m- Am uner, praomplifor all styled for open shelf, toble top or custom instollotion. The now Collaro icc-4co, d-speed, fully automatic ond manval, intermix Record Chonger performs excellently in hondling the record playng function of this system, it is equipped with the now serkes Rin Voriabie Relucionce Model 46-052. Triple Play Certridge with Olomond LP and Sopphire Standerd Styil. The Universiry UXC-123 fin trioxial $12^{\circ}$ speoter and Lafayette Resanotor Enclosure provide excellent wide ronge frequency response without reverberation or vibration. All units ore supplled with color coded plugs ond intercennecting cables for quick eosy installation. For $110-120$ valts 60 cycles AC. Shpg. wh., 76 Ibs. Complete system less funer-omplifier enclosure and record chonger base.
WF-201-Deluxe Phono System with Cob-16 Resanator Speaker
Enclosure and Mahogany Changer Bose.
230.22

NF-202-Same with blonde bose and enclosure
230.22

MF-203-Some system less spoter enclosure ond bose for chonger
Metal cabinet for tuner-ompllifer
BCB Blonde or BCM Mohogany

# CUSTOM PACKAGED HIGH FIDELITY 

EASILY ASSEMBLED COMPONENTS AMPLIFIER ............. 59.95 CARTRIDGE E.. 42.50 CARTRIDGE ........................ 33.00
SPEAKER ................. 8.40 8.95

REGULAR PRICE . 144.40

## LOWEST-PRICED CUSTOM PHONO SYSTEM FEATURING FAMOUS ONLY 109.50 YOU SAVE 34.90

## MUSIC SYSTEMS BY LAFAYETTE

## Specially Low Priced

## MODERATELY PRICED <br> FM-AM CUSTOM MUSIC SYSTEM COMPONENTS

ONLY 211.45<br>YOU SAVE..52.88

TUNER-AMPLIFER ................139.50
SPEAKER CHAMGER ..................... 41.50 RECORD CHANGER CARTRIDGE . 19.33


## DELUXE FM-AM CUSTOM MUSIC SYSTEM COMPONENTS

ONLY...... 316.95
YOU SAVE... 77.38

TUNER-AMPLIFIER
SPEAKER
249.50

RECORD CHANGEI
83.00

CARTRIDGE $\qquad$ .......... 42.50 19.33


Bring out the best in your record ond fope colloctions and radio pragroms with this perfoctly balaneed music system. The superlar fisher TA-500 3 -in.l with provides an extreme sensltivity FM. AM Puner, a powerful 30 .watt amplifier and The audio control canter-oll on one campact chossis (supplied less cabinet). "diffusicone" design ond coaziolly woy "Difiaxiol" speoker with enclusive sponse down 1030 cps and high frequency reaponseter provides rich bess reMy. Included is the world-fomous Gerraed EC I21 Mo Mreshaid of oudibilmanual changer, oquipped tith "riple play" varioble peluctance the NEW GE VRII Series Model 4G.052 for IF ond evorioble relustonce cartridge with genvine GE diamand styluz ith calor.eaped plugs and intendord recardings. System is suppliod complete AC . Shpg. wl., 55 lbs .
HF-184-Complete FM-AM Phano System less cabinet and base.
SPECIAL LAFAYETTE PRICE-Net 316.95

| FISHER CABINET FOR TA-500. Ionde or Mohogany. Ploase |
| :--- |
| spocity which ond ADD to above. | PK-111-Record Changer Bose in Mohogony ar....................................... 19.95

## OUTSTANDING HI-FIDELITY PERFORMANCE COMPLETE CUSTOM BOGEN MUSIC SYSTEM

## COMPONENTS

ONLY 307.50 YOU SAVE $\qquad$

| TUNER .........................-......119.50 |
| :---: |
| AMPLIFIER |
| SPEAKER ..........-.................. 33.00 |
| RECORD CHANGER ..... ....... 42.50 |
|  |
|  |



## Safayette DELUXE HI-FI CUSTOM SYSTEMS <br> THE MOST FOR YOUR MONEY IN CAREFULLY SELECTED FAMOUS BRANDS

Each hi-fi system listed below has been painstakingly selected and is recommended by Lofayofte as a "best-buy". Yau enioy big savings when yau buy a camplete systom, since they ore priced of far less then the total cost of the individual components. The amount you sove fis slearly shown in

## PILOT PHONO SYSTEM



## FISHER PHONO SYSTEM

Fisher CA 40 Amplifier........... 139.50 University $630315^{\prime \prime}$ Speaker 83.00 Garrard RC-121 4-Speed

Chonger .............................. 42.50
PK-111 WOOD BASE.................. 3.95
NEW GE Diamond-Sopphire Cart.19.33 Regularly 288.28
HF-174. Sale Price...... 230.68 You Save 57.60 Shpg. wt., 57 lbs.

## SCOTT PHONO SYSTEM

Scoft 99C Amplifier less case 99.95 Electro-Voice 12TRXB Triaxial 66.00 Garrard RC-121 4-Speed

Changer ............................... 42.50
PK-111 WOOD BASE............... 3.95 NEW GE Diamond-Sapphire Cart. 19.33 Regulorly 231.73 HF-175. Sale Price...... 185.39 You Save 46.34 Cose Extra...... 9.95 Shpg. wi., 47 lbs

```
                        BELL FM-AM
```

RADIO-PHONO SYSTEM BFL 2520 FM-AM TUNER.
sELL 232 SP AMPLIFIER (less cage) UNIVERSITY UXC-123 SPEAKER CAB-19 BASS REFLEX CABINEY COLLARO RC-440 4-SPEED CHANGER 41.50 new ge diamono-sapphire
CARTRIOGE

$$
19.33
$$


Regulariy
373.23

HF-204 ... Special Price
299.50

You Save
73.73

Soesity Mohogeny or blonde Finish for Woad Base and Cabinal
Amplifier Coge Extra....................... 9.bo Stupg. wt., 115 lbs

HARMON-KARDON FM-AM RADIO-PHONO SYSTEM
HARMON-KARDON TA. 1040
TUNER AMPLIFIER.
250.00

UNIVERSITY 6303 15"
83.00

AB-19 BASS REFLEX CABINET COLLARO TC-34O 4.5PEED

CHANGER .........................
NEW GE DIAMONO-SAPPMIRE CARTRIDGE
K-111 WOOD BASE
19.33

Requleriy
HF-205 Special Price
443.28
354.60

## You Save

88.68

Sperity Mohogany of Blonde Finish for Wood Bose and Cobinet.


## afayette For NEWEST



## TA-12 "SOLO" FM-AM TUNER AND 12 WATT AMPLIFIER

Combines FM.AM tuner, preamp and 12 watt hl-fi amplt
 mart styling. Ideal for a space-saving hi-fl systemneeds only a speaker and it's reody to play. Armstrong FM circuit whit sensitive low-noise front end including luned triode grounded grid amplifier ond triode mizer. Automatic frequency contral. AM superheterodyne with AVC and ferrite antenna. All the fine features of the T-12 tuner and A-12 amplifier are included. Ouppu 12 watis at less than $1 \%$ hormonic and $2 \%$ intermodu. lation distortion. Response $20.25,000 \mathrm{cps} \pm 1 \mathrm{db}$ of 12 wotls. Hum of Phono input - 60 db below 12 watts at Aux or Tuner - 70 db . Controlss Function switch (Aux., AM, FM. FM-AFC, RIAA-RUMBLE, RIAA, IP,
EUR); Loudness (with on-aff power iwitch), Troble (士 EUR); Loudness (with an-aff pawer switch). Treble (士
12 db of $10,000 \mathrm{cps}$ ); Boss ( $\pm 12 \mathrm{db}$ of 50 cps ); Tuning; Contour, Speoker Selector; Scratch Filier. Uses now ECC85 (2), E2 81 (1). EL84 (2) tubes. Copper contro ponel, matte block coge and thabs. Power requirements 90 wolts, $110-120$ volts, $50 / 80 \mathrm{cps} A C$. Rodiation with in FCC specs. Dimensions $14 \frac{s}{} /{ }^{\prime \prime} \times 1312^{\prime \prime} d \times 41 / 2^{\prime \prime} \mathrm{h}$. Shpg. wt., 20 Ibs.
HARMON-KARDON TA- 12
Net 139.50

## T-1 20'RONDO' FM-AM TUNER

A truly superb FM.AM funer with new printed circuitry A feast for the ves as well os the ears, its brushed capper and black color lends o welcome color cantrost. Armstrang circuit with 11 m ifer ond Faster-Seeley Discriminator. Automatic frequency control. Low naise front-and conslsting of tuned triode, grounded grid amplifier ond riode mixer. Rumble filter. AMy Super heterodyne with A.V.C. - 10 KC whistle filter. FM Drift: $\pm 5 \mathrm{KC}$ maximum. Frequency response $\pm 1 / 2 \mathrm{db}$. 20 to $20,000 \mathrm{cps}$. Two cathode fallower outpuls. 8 tubes plus rectifier. Controls (rotal 2) Function (aff FM-AFC, FM, FM-AFC.Rumble Filter); AM and iuning leval controi permits attenvation of output signal. Radiation: Within FCC requirements Hos two ECCS5 tubes. Dim. $121 / \%^{m} w \times 8 \%{ }^{m} d \times 2 \% \%^{\prime \prime} \mathrm{h}$. Far operotion fram 110.120 volis 60 eycle AC. Shpg. wi., 12 lbs.

HARMON-KARDON T-120
Net 99.85
TA-120 "RECITAL II"


Recitol il is a deluxe high fidelity electronic system, cambining o sensitive FM.AM funer and on extremely flexible preamplifier and a twenty watt power omplifier on a single chassis. Armstrong circuit with limiter and Foster-Seeley discriminator. Autamotic frequency cantral -low noise front end: AM-A.Y.C. Sensitivity, FM3 micravalts for 20 db avieting Selectivitys ${ }^{\circ} \mathrm{FM}$. If bend width 200 KC at 6 db down: discriminotor 375 KC width 200 KC of 6 db down: discriminotor 375 KC, peok-to-peaks Audio Outputs 20 watts at $1 \% 1 \mathrm{M}$. Peak power: 30 wotts. Frequency Response: 20-20,000 cps of 20 watts $\pm 1 \mathrm{db}, 15-40,000$ of 10 woffs. Damping foctor 20. Oufput Impedance: 8 and 16 ohms, 70 valts Consrols 8z Tuning, Loudness, Boss, Treble, Functian, (AM, FM-AFC, FM, AUX, EUR, IP, RIAA, TAPE), rumble filfer, Contour, Speoher Selector. Tubes polal 14 plua selenium rectifief. Size: $15 \%^{\prime \prime}$ wide, $31 /{ }^{\prime \prime}$ high, $14^{\prime \prime}$ deep. Escutcheon ond coge brushed copper display panal, matte black. Rodiation: Within FCC requinoments for $110-120$ voli AC 60 cycle. Shpg. wt., 22 lbs.
MARMON-KARDON TA- 120

Extremely sensitive FM funer, incorporoting oll the newest refinements in FM circuitry. Duol Itmifers and dis criminotor. Variable automatic frequency contral, vari oble outamatic noise gate (ta eliminate between-station hiss), sensifive low-noise front and cansisting af tuned triode grounded grid amplifier and triode mixer. Rumble filter. Sensilivity 3 muv. for 30 db quieting, 2 muv. far 20 db quieting. Less than $1 \%$ hormanic distortion. Response $\pm 1 / 3 \mathrm{db} 20-20,000 \mathrm{cps}$. Hum 60 db below $100 \%$ modulation. Rodiation within FCC standards. Oufput voltoge $21 / 2$ volls for $100 \%$ modulation. Cathode fallawer autput, tow impedance, olus high impedonce follower cutput, AFC deleot. Conirols: Tuning with cancentric Automatic AFC defeot. Controls: Tuning with cancentric Automatic Noise Gate, AFC and Power: on reor ponel-Meter Bol once, Output level, Rumble Filter. Tubes: 2-ECC85 OCA, 3-6AUS, ©AL5, 12AUZ, selenium rectlfier, IN3 erystol diode. Power consumption 35 watts; for 117 volis, $50 / 60 \mathrm{cps} A C$. Dimensions $121 / 2^{\prime \prime} \times 71 / 4^{\prime \prime} \mathrm{d} \times 27{ }^{\prime \prime}$ (with runners $31 / 4^{\prime \prime}$ ) h. Shpg. wi., 12 lbs.
MARMON-KARDON FM-100 ...................... 99.95

## T-12 "OVERTURE IJ' FM-AM TUNER

New 1958 model provides remorkable performance of low cost. Features perfected printed wiring for optimum performance. Armstrong FM with Automotic Frequency Control, broadbond superheterodyne AM with AVC and ferrite ontenno, flywheel precision funing. Hondsome outstanding Harmond-Kordon styling in copper and block. Designed to motch ony hi-fi omplifier with can rols. FM frequency response $20-20,000 \mathrm{cps} \pm 1 / 2 \mathrm{db}$ driff $\pm 5$ kc. max; sensitivity 5 muv for 30 db quieling 3 muv for 20 db quiesing; less than $1 \%$ harmonie dis torlion; radiation meets FCC requirements. Controls Function switch (Off, FM.AFC, FM, AM), and Tuning. Hum level 60 db belaw $100 \%$ modulatian. Output levels: $F M-21 / 2$ valts, $A M-1$ volt. Two high impedance output jocks. Edge-lighted dial gloss, yellow and white, Tubes: 2-ECCB5, 6BE6, 68A6, 2-6AU6, SAL5; selenium ectifier. Dimensions $12 \frac{1}{2 \prime \prime} \times 9^{\prime \prime} \times 3 \% /{ }^{\prime \prime}$. Power conrectifier. Dimensions $12^{\prime \prime} 2^{\prime \prime} \times 9^{\prime \prime} \times 3 \%{ }^{\prime \prime}$. Power con-
sumption 30 watts; 117 volis, $50 / 60 \mathrm{cps} A C$. Shpg. wi. sumption
10 lbs.
HARMON-KARDON T. 12 ..........................Nef 84.50

## A-120 "MELODY II' 20 WATT AMPLIFIER

Melody II is on altogether new 20 watt high fidelity ampllfier emplaying printed wiring and a new highly efficient law heat generating circuit. Output level 20 watts of $1 \%$ IM; peok power 30 wolts. Frequency re. spense $\pm 1$ db at $20-20,000$ cps of 20 wolts $\pm 0.5 \mathrm{db}$ at $15-40,000 \mathrm{cps}$ of 10 watts. Domping factor 20 . Aux and funer hum 70 db below 20 walls. DYNAMIC LOUDNESS CONTOUR: -6 positions Rumble filter 2 position RECORD EQUALIZATION:- IP, RIAA, EUR, TAPE EQUALIZATION: Standord fixed equalizotion selectable for $15,7.5$ and 3.75 IPS . TUAES: 2-12AX7; 1.12AVo; 1.12AT7; 2.12AB5; 2-6X4. ESCUTCHEON AND CAGE: brushed copper, display ponel, motte block. For 110.120 volt 60 cycle AC operotion. Size: $121 / 3^{\prime \prime}$ wide, $31 / 4^{\prime \prime}$ high, $71 / 2$ deep. Shpg. wi., 15 lbs .
HARMON-KARDON A-120
Net 99.95
FM-100 "COUNTERPOINT II' FM TUNER



## A-12 "PRELUDE II'"

## 12 WATT AMPLIFIER

## Ideal companion for T. 12 or similar tuners. Input for

 tap head with NARTB ployback equolization. 12 watts of less thon $1 \%$ hormonic or $2 \% \mathrm{IM}$ distortion. Response $20-25,000 \mathrm{cDs} \pm 1 \mathrm{db}$ at 12 wolts. Sensifivily, Tuner, Aux - 0.5 v.; Phono - 3 mv . (will nol overlood below 180 mv .1 : Tape- $1-2 \mathrm{mv}$. Equalizallons RIAA with rumble filtor, RIAA, IP, EUR. Conirolst Contour, Loudness, Bass, Treble, Function, Speaker Selector. Tope ree corder output. Copper finish cantral ponel and bottom plate, motte block cage and knobs. Power consumption 60 watls: 117 volfs, $50 / 60$ cps AC. Dimensions $121 / 3^{\prime \prime} \times$ $7 \% 4^{\prime \prime} \times 3 \%$ ". Shpg. wt., 12 lbs.
## HARMON-KARDON A-12

## T-1040 "THEME II' FM-AM TUNER

An outstanding FM-AM puner using printed circultry thraughaut. New automatic noise gote circult included to suppress interstation FM noise, voriable automatic frequency control and high sensitivity resull in extraordinary performance. Armstrang circuit with dual limiters. Low noise, all friode front with luned RF ampllfier and triode mizer. Ah: Superhet with funed RF stage and ferrite toop. Sensitivity: FM-2 microvalis for 30 db quieting: 1.5 micravalts for 20 db quieting: AM: terminal sensitivity: 5 microvalts. FM Drifi: 1 KC with AFC an; $21 / 8$ KC with AFC off. Distor. tian less than $1 \%$ hormanic on FM. Tuning Meter: FM discriminator balances AM carrier level. Cathode fallawer auppul. Tubes total 11 plus selenium recilfier. Rodiatian: within FCC requirements. Size $133 / 4^{\prime \prime}$ wide. $35 /{ }^{\prime \prime}$ high, $103 / 4^{\mu}$ deep; escutcheon ond cage brushed copper display pone: matte black. For $110-120$ volt 60 cycle AC. Shpg. wt. 14 Ibs.
HARMON-KARDON T- 1040

$\qquad$

Nel 140.00

## A-1040 "TREND II"

40 WATT AMPLIFIER
40 watts at less than $0.3 \%$ hormonic and $1 \%$ IM 40 watts at less than $0.3 \%$ hormonic and $1 \%$ Im
distortion. $20-20,000 \mathrm{cps} \pm 1 \mathrm{db}$ at 40 watts. Voriable damping foctor. Controls: Contour, Loudness, Boss, Ireble, Function (tp, RIAA, EUR. Tuner, Aux 1, Aux 2, Tape $15,7.5,3.75$ IPS), Rumble Filter, Spkr Selector. Dimensions $131 / 4^{\prime \prime} \times 91 / 4^{\prime \prime} \times 3 \% /{ }^{\prime \prime}$. Shpg wi., 25 lbs . HARMON-KARDON A. 1040 ..................Net 125.00

TA-1040 "FESTIVAL II" FM-AM TUNER and 40 WATT AMPLIFIER


Festival II is a brilliant high fidelity system-FM.AM runer, professional quality preomplifiep and 40 waft power amplifier on a single chossis. Armstrang circuit with dual double tuned limiters; varipble outomotic frequency contral. Senslifivity: FM: 2 microvolts for 30 db quieting; 1.5 micrevalts for 20 db quieting. AM: 30 microvolts/meter. Audio Section: Output -10 watts at $1 \%$ IMs frequency esponse $\pm 1 \mathrm{db} 20-20,000$ cycles Cps af 40 watts. Domping factor: 20. Output impedance 8 and 16 ohms, 70 v. Dynamic laudness cantour 6 posilions rumble filier; Tubes (total 21) 2-12AX7, 1.12AV6, 1.12AT7, 4.12AB5, 2-E281, ECC85, 1.68K7A 2-6BA6, 3-6AU6. 6BE6, 1.6AL5, 2.12AU7, selenium rectifier. Size: $16 \frac{1}{* \prime \prime} w \times 14^{\prime \prime} d \times 37 / \mathrm{m}^{\prime \prime} \mathrm{h}$. Finish; ercutcheon and coge brushed copper, displey ponel matte cutcheon and coge brushed copper, displey ponel mortion volt AC 60 cycle. Shpg. wt. 30 lbs
HARMON-KARDON TA- 1040
Net 250.00


## BOGEN R660 FM-AM TUNER

Extremely sensitive and highiy stable on FM und AM, new AFC, cireuitry provider Provision for balanced 300 conimol and insures continuous diatortionlean output. insuren fmproved senaltivity and areater freedom from fanition ohm input. This ference. Alwo built-jn tine ancenna for atmong aignal arean AVC on fM insures proper selectivity, and avoidance of atrong station interterence in very insures sixnal mreas. Double limited and Armatrong discriminator provides fult limiting on very wak signala. Tuning meter on both AM and FM makfs possible slmple and easy tuning in for roinimum noise and diatortion. Avaitable in chasais form or in

 ACB (Blonde) or ACM (Mahogany) metat enclosures with leas
122.50
Net 7.00

## FM 50 MI-FI FM TUNER

AM superb tuner that in comparable to Model Rogo that covers only the FM band. ACB (Blonde) or ACM (Mahogany) enclossure with legs ..................... Net 7,00

## NEW BOGEN R620 FM-AM TUNER

Here is a hith fidelity tumer for those who require fine FM-AM music reproduction dial pointer assure eany precise tuning through the full fM and AM bands. The FM circuit fentures a bulit-in lime cord antenna, iriode RF and triode mixer for minimum moime, balance rutio detector and an AVC circuit which prevents overloading under ohm unbatanced extermal FM antennas and has a hish "Q". AM ferrite loop antenna. There in only 20 distortion at ${ }^{1}$ volt on both AM and FM. Has a Tuning control and from $88-108 \mathrm{MC}$ on FM and 5 jo-1 B 20 KC on AM. FM pensitivits 10 UUV required for 30 db quiting, AM, 5 UV required for 20 db quieling. FM Selectivity, 180 KC
bundwidh, 3 db doun. AM. TKC bundwidih. 3 db down. The FM ratio detuctor has a bundwidth, 3 db down. AM, $7 K C$ bunduridth. 3 db down. The FM ratio detactor has FM, and $\pm 3$ db $15-3500$ CPS AM. Tube complement includes $1-12 A T 7$. $1-6 B A 6$,

 clozure and legs.) Shpz. Wi.. il ifbs. | Modol R620, less enclosure |
| :--- |
| ACB (Blonde) or ACM (Mabogany) Metal enclosure with legs............................. Net 89.95 |

## MODEL RR-501C FM-AM RECEIVER

Here is high-fidelity iadio reception at surprisingly moderate cost. The new Bogen Model RR-5018 receiver combines, on a aingle compact chasis, a aperhecerodyne heed only be connected to a loudsgmeaker and it la ready to play. KCC. SAnsit SPECIFICATIONS: Frequency Range: FM: 88-108 MC. AM: 530-1680 KC. Sensitivity: FM: 8 microvolte for 80 db guleting (IRE method) AM: 5 microw
volte for 20 db signal-to-noise. Selectivity: FM: 180 KC, 3 dh. AM: 8 KC 3 db .
FM Ratio Detector Peak to Peali. Separation: 82 K . Frequency Reeponse: FM: 30 : FM Ratio Detector Peak 20 Peali Separation: 326 KC. Frequency Response: FM: 30 : tortion. Controls: 1 . Volume, 2. Bask. 3. Treblew, 1). Equalizer-Selector (POP 78 ,


CB Blonde-finished metal enclos
Net 134.50
BCM Mahognay-finished metal enclosur

## THE NEW BOGEN DB- 130 AMPLIFIER

The superb new Bogen DB- 130 combines truly prolessional performance quality with very aignificam feature and refinement known to the audio art.
TECHNICAL SPECIFICATIONS: Power Output: 35 watta. Tone Burst Peak Power 100 whtla. Frequency reaponae: $1 \mathrm{k}-30,000$ cps $\pm 0.5 \mathrm{db}$. Harmonic Distortion: Phono (Lo Maz): 113 db; Phono (Hi Mag): 105 db; Aux, Tape, tuner: 85 db.


 Aux. Equalizer EU78, US78. ABs, RIAA, COL Lp. NAB, POP. Damping Factor:
 sum. Output impedancea: 16, 8, 4 ohms. TUNER TAPF, AUX
 ith BCB or BCM enclasure and legs). Shpe. wi., 24 lbs.

## - 130 Ampllfier Chasais

Net 119.85
C Blonde-finiahed metal enclosure
Page 12

## BOGEN RR550 DELUXE AM-FM RECEIVER

Space-saving dosign and supert englneering are combined in the hisso in give sou the best in one-chasis high indelity. It has a high-powered combination of tuner. preampli-
fer and 2 j -watt amplifer. AVC on FM and AM. Senstivity: FM. 2.5 iv for 30 dh
造 $1 / 2 \mathrm{db}$. ${ }^{\text {Detector: Foster-Secley diserlininator and double Immiter. Controls: Power }}$ On-On: Yolume: loudness Contnur ( $0,-10,-20$ ); Function Selector (AM. FM. AFC Tuning: Tuning Meter: Speaker selector (A. AB, B): Hikh Fiter (Flat, 6 ke) Low Fitter (Flat. 100 ems). Antenna: Bulli-In antenna for $F \mathbf{M}$ and AM, provision for 30 On ohm or 72 ohmin external antenna. Distortion: Iess than 0.3 es at 2 A watfo Innuts: High and Low maknetic phono, Hi-Fi erystal. Auxillary. Power: 2.2 watts, tone hurst peak. 30 watts Tubes: 18 , Incl
43 mp . Shpz. wt., 25 lbs .
Model RR550 Receiver-Chassis nnly................................ Net Each 224.50
Model CCB (Blonde) nr CCM (Maliogans) Cobinets

## BOGEN DE-115-15 WATT AMPLIFIER

whit a highly versatile $15-$ witt amplifier with extreanely $^{\text {lo }}$ eritical audiophiles who preamplifier with provisions for mnuts from radto tuner, tane recorder, television set and phonogragh with magnetic cartridges ai well an cryntai, ceramic and other
constant-umplitude cartridges. SPECIFICATIONS: Power Output 15 Constant-umplitude cartridges. SPECIFICATIONS: Power Output: 15 . H atte, Peak

 ing Facior: +0.1 Infinity
EL:
 Gogen DB. 115 , 15 Wate Amp Wi., 18 lbs.

## NEW BOGEN DBIIO- 10 WATT AMPLIFIER

The new Bogen DB1l0 offers an unusual value-per formance and specifications are
equal to amplifiers costing considerably more. Positive feed back circuit. New ex. clusive infinite damping factor control pernitting precise coupling of amplifier to the speak sis 10 w ott outpun with only $0.65 \%$ harmanic distortion response: $\pm 1 \mathrm{db}, 15 \cdot 50.000$ cyces at 10 watts. Four inguis: Mic, Tuner, Phone watls. Four inluits: Mic, Tuner, Phone
and AUX (for TV, crystal phono o: Tape
kecorder) 3 position record equalizer: LP (ORTHO, RIAA, AES) 78 and POP for oid noisy records: BASS, Trebie, Of. On Volume: Outpat 4,8 and 16 ohm Tubes: $3.12 \mathrm{AX} 7,2.6 \mathrm{VGGT}, 5 \mathrm{~V} 3 \mathrm{GT}$ recti Ger. For 110.120 v , 60 cycle AC. Size OOGEN DPIIO-Lest Cabinet. Not 59.95 As above but he ased in highily altractive Shpg. WL 1416 DB-110G

Net 64.50

## NEW SOGEN DE20 HIGH FIDELITY AMPLIPIER

The DB20 is a truly remarkahle new ampifier featuring the most complote duction available today in a aingle chassis high fidelity model. A ten po-
sition Input Selector provides a choice sition input Selector provides a choice
of radio, television, tape and seven different equalization curves for diac recordings. Has, built-in preamplifier
for C.E., Pickering, Audax and slmilar maxnetic pickups. Power output: 20 wuts at $0.3 \%:$ peak 30 waths. Fre*
quency response: $20-20,000 \mathrm{cps} \pm 0.7$ db. Gain: Magnetic, 106 db: cryatal Bass conirol. +17 to -18 db nt 40 $\begin{array}{ll}\text { cns: Treble control. }+18 \text { to } \\ \text { it AC. Output impedances } & -21 \text { db } \\ \text { or }\end{array}$
onms. Damping factor: 13. Record
 Inpui Selector positions: Mag. phono radio, TV, espe. 8 loudness contour

 cpa, 180 watte. Tubes: ( 3 ) 12 ATT (1) 12 AUT: (2) ${ }^{6 L 6 G,}$ (1) 5 U4G $8^{\text {rect }}$. Wimensions: 25 lbs.
NOLEL DB20 Amplifier and Tubes. MODEL OB2OG Amplifies in gold-fin-
ished metal enclosure .......... 106.50

## HFIOA CHALLENGER 10-WATT AMPLIFIER

## A 10 -watt amplifier that offers excentinailis kond listening at s mudget price. it feature

 separne boost-cut masa and ireble coniroin as well as preamplitteation and efualization fnr alf types of phonograph cartridges and for tape head. Controlied Positive Freedback elruitry provides the HF10A with extremels low distortion and guperb transient rosponse. Frequency Response: $20-23,000$ rpis $\pm 1 / 2$ dh. Num and Noise: 80 dh below ratedoutput. Distertion: 1 $\%$ at rated output. output. Distortion: I at rated output. Inputs: (5) Mannetle phono. Crysial (oz reControls: On-Off/ Volune: Rass: Treble: Pelector-Equalizer (Tane $33-15$ (Rias walls



Model HF10A Amplifief-Chasis onls:
Model HFTOAG Amplifier-In black race
Net Fach 44.50
Net Fiach 49.10

## NEW！LATEST BOGEN HI－FI COMPONENTS



BOGEN MODEL DD7O



BOGEN MODEL RTTF 5

fEATURES－Provides of full 70 wotts of sustoined power with peaks to 300 wolts to give Aowless reproduction fo the oudiophile and musical perfectionist Varioble Domping．Foctor 2．Speoker Solector Switch－＂powe Monitar＂．calfbrated output indicator＂Input tovel con－ trol－Extremely low noise and hum leval low dis tortion－ $41 / \mathrm{h}^{4}$ hish－sultoble for bookshelf or console mounting－Ideol componion plece to Bogen PRIOOA Audio Control or R775 or R710 Tuners．
SPECIFICATIONS：－TRE OUENCY RESPONSE：5－100， 000 cDs．$\pm 0.5 \mathrm{db}$ ．DISTONTION： $1 \%$ at 80 wotls， $0.5 \%$ of 70 watts， $0.125 \%$ of 10 wolts．HUM AND NOISE

## BOGEN PRIOOA AUDIO

## FEATURES－Serves os the heort of the very finest high

 fidelity systems－Incorporoles all the lotest known re finements－Provides precise equolizotion for overy re cording curve－ 8 inputs for all progrom sources in cluding binoural Pushbultion selection ond leval con rol for eoch input－Seporate 5 －pasition high and low frequency filters－Separate continuously－voriable Box andall－typ tone controls－ 2 cathode follomer outpul tope and moin）Simultoncous contral of goin for hannels with binoural feotureSPICIFICATIONS－FREQUENCY RESPONSE： 10.100 000 cps．$\pm 1 / 2 \mathrm{db}$ ，HUM：Inoudible．NOISE：Phono－72dt below outout produced by 10 mv ．inputs Other Inputs－ 95 db below output produced by $1 / 2$ volf input．DIspona TION：Proctically unmeasurable．SENSITIVITY：（For volts oull Phono－ 0.9 mv .8 Oiher Inputs－ 0.00

## BOGEN RT75 DELUXE FM－AM TUNER－PREAMPLIFIER

FEATURES－Designed for the very finest systoms with yeors－aheod odvonced footures Squelch circuit for eliminotion of belween－stotion noise on FM Auto． matic Frequency Control，which outomaticolly cuts out while tuning to permit luning of weak stations Now Bogen＂Aulo－loch＂outomoticolly provides finol pre－ cision luning on IM ofter the stotion has been locoted on the dial Tuning Meter Dual－bondwidith AM recoption－Complote control－center preomplifier SPECIFICATIONS－SENSITIVITY：FM－2 muv．for 30 db quieting；AM－5 muv．for 30db signol－to－noise ratio． ThE OUENCY RESPONSE：FM－20 10 $20,000 \mathrm{cos} \pm 1 / 2 \mathrm{db}$ ． FM DETECTOR：Apmstrong discriminotor with double Ilmiter．CONTROLS：Off－On，Volume，Loudness Contour （A－positions），Bast，Treble，Tuning，Function Selector

## EELL＂PACEMAKER＂MODEL

ffaturess modorn，streomlined high．fidelity ompliner． preomplifier Ideol for the ovoroge home Instollation or o budget price．incorporoter botest devolopmenhs such os bull－in preomplifer with Topo Recorder Head inpul for uis recordings white listoning，Boss Boost Control to provide the frequently detired entro emphotis to low frequencies， Troble Tone Control（b001t ond cul）which，together with the Bass Boost Control provides adequate ronot bolonce for most records，Equalizer Selector Swlich which selects inputs ond provides proper Axed tonol equalizotion for there Inputs，and modern high－fdellity equipmant styling with o $31 / 2$ high cobinct，sultoble for booksholf or toble top maunting ond also permitting cosy mounting in custom

FAMOUS LEAK AMPLIFIERS AND PREAMPLIFIERS
New high．fidelity units from Britoin，outstonding for their superiority in moterial used，croffsmanship ond flowless odvonced electronic design．
＂TLL－30 PLUS＂SO．WATT AMPLIFIER－A power ompli． fier with 4 tubes plus rectifier，inctuding 2 now KT－88＇s especiolly designed for high fidelity use．MAXIMUM OUTPUT： 64 wotts RMS．DISTORTION： $0.1 \%$ of 50 Wolts．SENSITIVITV： 125 mv ．for full output，RRE－ OUENCY RESPONSE： $20.20,000$ CPS．$\pm 0.50 \mathrm{bb}$ ．DAMP－ ING FACIOR： 25 INPUT IMPEDANCE： 1 megohm． OUTPUT IMPEDANCEST 4，8， 16 ohms．POWE SUP． PLY： 100.125 v ．， 50.100 cps ．AC，DIMENSIONS： 10 ＂ $7 \%{ }^{\prime \prime}$ a $71 / 2^{\prime \prime}$ high．SHIPPING WEIGNT： 21 lbs Leok Model＂PL－SO Plus Not 149.50 ＂TL． 25 PLUS＂25．WATT AMPLIFIER－A Dower ampli－ fier wimum Ouiput 32 iv．RMs DISTORTION MAXIMUM $0.1 \%$ of 25 watts，SENSITIVIIY： 125 mv ．for full oup－ DUAMPING PACTOR． 25 INPUT IMPEDANCE－ 1.3 d DAMPING OUTPUT IMPEDANCES：4，8， 16 ohms．POWE CONSUMPTION 130 welts，for 100.125 ． 50.100 CONSUMPIMNSIONS： $10^{\prime \prime} \times 7 \% /^{\prime \prime} \times 6.11 / 16^{\prime \prime}$ high SPs．AC．DIMENSIONS： 10
SHIPPING WEIGHT： 18 Ibs．
LEAK Model＂TL－25 Plus＂
Net 109.50
＂TL－12 PIUS＂12－waIt AMPLIFIFR－A bosic ompll－ fier with input sensitivity of 125 my ．for full output． 4

## FISHER MODEL 125－A 12

FEATURES：For the mort critical audiophile＂＇per formonce Monifor＂Jlluminoted meler shows tube blos， screen volloge．outpur bolonce，overoge power outpul contral Frequency Resconse 20 10 $20,000 \mathrm{cps} . \pm 1 / 2 \mathrm{db}$ －Moy be used with mast luners and preomps．
SPECIFICATIONS－POWER OUTPUT： 125 watts pro－ grom moteriol； 90 watts continuous sine wove $20-50,000$ cos $\pm 1 \mathrm{db}$ ．DISTORTION：Hormanic－ $0.5 \%$ of 90 walts， $0.6 \%$ at 125 wotts； $1 \mathrm{M}-1 \%$ of 90 watts， $2 \%$ of 125 Woths．HUM AND NOISE： 92 db below 90 wath．
DAMPING FACTOR：Better than 16 ．OUTPUT TAPS： 8

100 db below roled power．DAMPING FACTOR：+0.05 through infinity to－ 1.5 ．OUPPUT TAPS：4， 8 ，ond 16 ohms．INPUT SENSITIVITY： 1 voll for full output． CONTROLS：（Ponel）－Speoter Selector A，AB，B3（Chos sis）－Inpul Level，Vollage Regulotor，power Monitor． TUBES：GBFS，12AX7．12AU7，2．6CA7／EL3，SUAG （Recifier）．POWER：For 117 volls， 60 cPs AC．DIMEN
 PING WEIGHT： 22 Ib
Bogen Model Do70－Choice of Blonde or Mohogony metal sobinet．Add 8 or $M$ to model number when order－

## NTROL－PREAMPLIFIER

INPUTS：Low level mognotic phono，high or low level mognetic phono，erystol phono，funer，tope，oumiliary， tope monitor，binoural．CONTROLS：High frequency roll－ off，7－position；Low frequency furnover，6－position；Phono selector（low or high level）；Boss $\{ \pm 15 \mathrm{db}$ of 50 cps ）； Trebte（ $\pm 15 \mathrm{db}$ of 15 kc ） Low fiter， 5 positions；High filter 5－position；Volume；Loudness contour selector，5． position：Input selector pushbuttons，Input level controls on chossis．POWER： 117 volis， 60 cps AC．DIMENSIONS． $14 \% "$＂ $101 / 4^{\prime \prime} 41 / 0^{\prime \prime}$ ．SHIPPING WEIGHT： 14 Ibs
Bogen Model PR 100A－Chossis only ．．．．．．Net 119.50 Bogen Model BCB－

8londe cabinel for PRIOOA
Ner 7.50
Bogen Model DCM－
Not 3.50

AM Hify Phono，FM Aus）Equolizer 17 osition）Vorioble AFC．Squelch，High Filter（3－position） ANTENNA．FM and AM ontennas buitt－In．INPUTS Algh and Law mognetic phono crystol，ouxiliory．OUT PUTS，Main ToD．HUM AND NOISE： 95 db below It AUDIO DISTORTION．Less thon $0.1 \%$ of 2 volts OH． 15 ： 4 $41 /$ SHIPPING WEIGHT： 17 Ibs．
Bogen Model M77s－Chassis only ．．．．．．．．．．Net 249.50
Sogen Medel CCB－
Slonde cobinet for 1775
Net 8.00

Dogen Model CCM－
Mohogany cobinet
．N®
8.00

## 2285 10－WATT AMPLIFIEX

SPRCIFICATIONS：－POWE OUTPUT－ 10 wotts（peak 16 walts）FREOUENCY RESPONSE： $20-20,000 \mathrm{cps} \pm 1 \mathrm{db}$ －HUM LEVEL－ 63 db bolow 10 wolts：INPUTS－（3） Megnetic Phono or Tope Heod；Rodio or TV，Auk，for crys tal or ceromic phonogroph cortridge．CONTROLS－（4）， Equalizer Solector for Inputy，Volume；Bans boont 115 db al SOcpi）：Treble（ 11 db ，booif， 18 db cul，of $10,000 \mathrm{cps}$ ）With RECOPDE OUTPUT－Hioh impedonce AC CONYEN－ IENCE OUTLET．POWER CONSUMPTION－CONVEN ENCE OUTLET AC ONIY．TUAES 2 ．ECCO 3 Wotts of OXSGT（Recriner）DIMENSIONS－ $111 / \%^{\prime \prime}$ ， $0^{\circ} \mathrm{d}$ 6xSGT（Rectiner）DIMENSIONS－
$31 / 2^{w} \mathrm{~h}$ ．SHIPPING WEIGHT -10 Ibs． EELI＂PACEMAKER＂MODEL 2285 $\qquad$ ．Ne148．95
ubes plus rectifier，including 2－EL84＇s．MAXImUM OUTPUT： 14 watts RMS DISTORTION： $0.1 \%$ of 12 olts．RESPONSE： $20-20,000 \mathrm{cos}+0.5 \mathrm{db}$ ．DAMPING ACTOR 25 INPUT IMPEDANCE： 1 meg．OUTPUY APS： 8 ， 16 ohms．POWER CONSUMPTION： 75 APS：4， 8,16 ohms．POWER CONSUMPIION： 90.100 cps ．AC SIZE： $10^{\prime \prime} \times 7 \%{ }^{\prime \prime}$ oltsi for 100.125 Y．i so－100 cps．AC．SIS：
Leok Model＂TL－12 Plus＂
Net 89.00
＂VARISLOPE III＂PREAMPLIFIE共－Powered by plug ing into one of look power omplifiers， 2 tubes．2－posi tion pickup selector switchz b－position input selector witch，incuding 4 equalization positions，lope，funer bass and treble tone controls；3－position＂Filter control or high frequency rolleof plus continuously－varioble ＂Slope＂contral＂which vories rote of roll－on；volume centrol with on－off switch；rumble filter $(70 \mathrm{cps}$ furnaver）： duplicated front and reor panel lacks for tope recording and ploybock；inpul level controls．DISTORTION： $0.01 \%$ of 125 mv ．out， $0.1 \%$ of 1.25 v ．out．HUM AND NOISE：
 front ponel $111 / 2^{N} \times 4-7 / 16^{\circ}$ ，SHIPPING WEIGHT： 5 lbs．
Leak Model＂Varislope $111^{\prime \prime}$
Net 79.00
＂POINT ONE＇＂PREAMPIIFIER－Similar 10 ＂Varislope III．． rumble hiter，2－position plakup selector switch．
leak Model＂Point One＂
Net $5 \$ .00$
WATT BASIC HI－FI AMPLIFIER
and 16 ohms．CONTROLS：input Level．Meter Switch， Speoker Impedance Switch．Screen Vollage．Plote Cur rent，Output Bolanco，Driver Bolonce．POWE CON－ SUMPTION： 415 wats（full lood）；for 105.125 volts， $50 / 60$ cps AC．TUSES：12AU7，12AX7，4－EE34／6CA7， 6Y6，6AUS； 2 －NE 16 neon voltage regulators， $2.5 R 4 G Y$ recrifiers．SIZEz $14^{\prime \prime}$ 玉 $111 /{ }^{\prime \prime} \mathrm{d}$ 玉 $81 / 4 " \mathrm{~h}$ ．SHIPPING WEIGHT： 55 lbs．
Fisher Model 125－A ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．Net 219.50
Fisher Model $125-A x$－Same as above but with 4， 8 ， 16 ohms and 70.7 volis output tops for industrial and commerciol applicotions．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．Net 229.50

## MATCHED HIFI COMPPNENTS by Pilot



AA. 920
AA-900 PILOTONE AMPLIFIER Now 10 walt Williamson. type omplifier complete with preamplifier, tone contrals and equalization. A new design concept mini-
mizes efiect of furntable rumble yet mainfains full response obove 20 cyclos. Fre. quisncy response unofferted by volume can trol. Inpufs for Rosio, Tope Recorder. crysups. Sensilivity: Radia or Tape -150 mv . Phono- 8 mv . Distortions $1 \%$ harmanic, $1.5 \% \mathrm{IM}$ of 10 wolfs. Response $20-20,000$ cps $\pm$ idb. Oulpul impedonce 8 ohms. In. put impedances: Rodio or Tape- 470,000 ohms: Phono-47,000 ohms. Equalizotions
LP, AES, RIAA, NARTB. 2-speaker switch. Hum-70db belaw full outpui. Tubes: 3 . 12AX7, 2-EL84; EZE1 Rectifier, Power con-
 Dimensions $13 \mathrm{Y} \mathrm{a}^{\mathrm{m}}$
Shpg. wI., 11 lbs.
AA-900 Net 67.50

## AA-908 PILOTONE

40 WATT BASIC AMPLIFIER
NEWI Enpertly engineered for optimum per formance. Williomson-type 40 watl basic
amplifier ( 80 wolls peak). Companion 10 amplifier ( 80 wolls peak). Companion to
Pliot funers ond PA. 913 preamp, suitable for use with any others. Input sensitivity 0.4 volts for full output; input impedonce 470 .000 ahms. Slepped leval oftenuator cantrol
$10,6,12,18 \mathrm{dt}$ attenuation); compensatar switch (5-position) provides presel boss boost. Frequency eesponse $20-20,000$ cps $\pm 0.1 \mathrm{db}$; less than $1 \%$ harmonic or 1 m put impedances 8 and 16 ohms. Tubes: 2. 12AX7, 2-EI 34/6CAD; SUAGB (Rectifier). Power consumption 140 wotts; for 105-120 $612_{2}{ }^{\circ}$ high. Shog. w1. $271 / 2 \mathrm{lbs}$.

AA. 908

AA-903B PILOTONE AMPLIFIER 14-woll omplifier olus versotile 5 -input preand burgundy ena handsome brushed bross the burgundy enclosure, designed to form system. Frequency response 20 10 20.000 spl $\pm 1 \mathrm{db}$; less than $1 \%$ harmanic ar $11 / 2 \%$ Tope Heod, Kodio, Tope Amp, Aux. Outpuls: 4, 8, 16 ofims; Tape output. Controls: loud ness Contour Selector 15 -position, including - Flot pos.I: Equalization-Selector with 4 record plus tape head equalizotions, duat compensated Volume; 8oss and Treble. Vari-
oble magnetle phano lood 6800 to 100,000 ahms. Rumble ond Scratch Filters, with onon switches. Tubes: 3-12AXT, 2-Ei 84, EZ81 (Rectifier). Power Consumption 75 wotts,
105.120 V . so cos AC. Dimensions 131 m 105.120 V . ${ }^{60}$ cps AC. Dimensions $13 \frac{1}{4 \prime \prime}{ }^{\prime \prime}$


AA.903B $\qquad$
AA-410A PILOTONE
20 WATT BASIC AMPLIFIER
For use with Pilat preamp or tuners (will others). Frequency Response 20 to 20,000 cps $\pm 0.1 \mathrm{db}$; less shan $1 \%$ hormonic or $11 / 2 \%$ inter-modulation distartion of 20 wolts. Input sensitivity 1 volt; inpu! impedance 470,000 ohms. Hum and nalse 90 db below 20 walts. Output topi 4, 8, 16 ohms. Chassis and cover coge finished in brushed brass. Tubes: 6CS, 12AU7, 2-6L6GB/5881; 5Y3GT (lectifier). Power consumption 110 watrs; $105-120$ valis, 60 sDs AC. Dimensions $12 \%^{" 1} \times 4^{\prime \prime} \times 6^{\prime \prime} \mathrm{h}$. Shpo. Wr., 19 lts.

AA. 920 PILOTONE AMPLIFIER A completely new 20 woll $\mathrm{H}_{\mathrm{i}}$-Fi. Williomson and fone controls. SPECIFICATIONS SEN Sitivirys for full autour. Phono Tope Mead 3 MV: Radio Aux. Tope Amp 250 MY HUM LEVEL. 80 db below full outout MA MONIC DISTORTION, Approvimoldir. MAR 30 wotts, $20 \cdot 20,000$ cycles - 1 M. $1.5 \%$ 20 walls. SPEAKER OUTPUT IMPEDANCES , 8 and 16 ohms. POWER CONSUMPTION approximotoly 120 watts, 117 volts, 60 cy Cles. EQUALIZERS: IP, NAB, AES, RIAA, TAPE, INPUT IMPEDANCE: Rodio, AUK, rape Amp. $\$ 70,000$ ohms. Phono: Adiust able from 6,800 to 100,000 ohms. FRE. QUENCY RESPONSE: $\pm 1 \mathrm{db} 20$ io 20,000 SOX of rated output. TUBE COMPLEMÉNT (2AX7: 6CA; 12AU7; (2) 6l6GB H3-Recrifier. OVERALL DIMENSIONS: $41 / 4$ AA-920

## PILOTROL PA-913

PROFESSIONAL AUDIO CONTROL
Built-in colibroted decibel (db) meter
cathode follower outpuls frecording ond
moniforing), voriable input looding for magurnover pushbuttons, 20 cps rumble filter, 2 monifor oulput iacks, mike input, pushbut. on inpur selaction. loudness control, volume cantrol, (compensoted for hat response) boss ond 20,000 cps $\pm 1 \mathrm{db}$. Output 5 volts moz $0.2 \%$ harmanic or 1 M distortion of 1 volt
 $b^{\prime \prime}$ h. Suitoble for custom instollotion. Shpg r., 11 lbs. (less cobinet), 12 lbs. (with cobinel)

PA.913 (Mess sobinet) Nel 105.00 PA-913M (Mohagony cobinel) Nel 129.50

## PILOT HF-30 FM-AM TUNER

 AND 12 WATT AMPLIFIERNEWI FM.AM funer. Preomplifier-equalizer and 12-walt Williamson-type amplifier, en. losed in rich.looking brushed-brass finish metal Cabinet. Exclusive Pllot "Beocon" uning uning. 3 muv. FM sensifivity flor 20 db quietingl: 3 muv. AM sensitivity. AFC with witch; lOkc. AM whistle filter. Phona inout with equalizafions; continuously-variable phono input impedonce, boss and treble, loudness-contour and volume controls; tope ecorder oulput byposses confrals. 12 watls of less thon $1 \%$ hormonic distortion; re. sponse $20-20,000 \mathrm{cps} \pm 1 \mathrm{db} .4,8,16 \mathrm{ohm}$ oulput taps. 2-speoker selector switch. Dimensions $141 / 4^{\prime \prime} w=10.1 / 6^{\prime \prime} \mathrm{d} \times 41 / 4^{\prime \prime}$ Shpg. wf., 23 lbs .

HF 30
Net 189.50
PILOT HF-42 FM-AM TUNER
AND 20 WATT AMPLIFIER
20 Woll Williamson Type Amplifier in ond 20 Wolt Williamson Type Amplifier in one muv. for 20 db qulting Built-in line cord antenno. AFC with switch. AM SENSITIVITY: muv. for 1 volt DC af detector. HARMONC DISTORTION: less thon $1 \%$ af 20 watis outpul- 20 to $20,000 \mathrm{cps}$. IMz less thon $1.5 \%$. RESPONSE $\pm 1 \mathrm{db} 20-20,000 \mathrm{cy}$ cles. OUTPUT IMPEDANCE: 4, 8, and 16 hms. SENSITIVITY: Phono- 3 mv ; Tope eod - 3 mv ; Auz - 175 mv ; Tape - 175 v. HUM: 80db. INPUT IMPEDANCE: Phono variable 6,800 to 100 K ohms; Tope Heod 100,000 ohms; Aux, Tape - 470,000 hms, EQUALIZERS: IP, NAB, RIAA, AES,
APE. DIMENSIONS:
 $11 / 16$

Net 209.50


Distinguished for masimum performance, at the low: est price possible fur at luxurioun high fidelity tuner features hitherto unheard of at its moderate price. SPECIFICATIONS
POWER CONSUMPTION: 50 watts, 117 vole, fio cycles. AM-5 microvolis fur 20 db of quieting. FREQUENCX
RANGE: FM-88 to $108 K C$. AM- 40 to 1700 KC. HUM LEVEL: 70 db below 1.0 voll. MAMIMUM AUDIO OUT.
 cps to 20.000 cps. ALDDIO UC'TPL'T IMPBIVANCBi 500
ohma, cuthade fullower. SHLECTIVITY: AM-t db down at 9 KC , Kh- 8 db down at 200 Kl . Kutio detector peak to peak segaration 320 KC . Retio detector reaponke is linear or 190 Kt ANTLNNA INPLT: FM-300 ohma to mutch extrran dipole, or built-in line cord anteana. vision formatching to atandard RMA extermal antenna. TUBE COMPLEMENT: ©AAB-RF Amplifier. GUB - Us. cillator mixer 6HA6 - 1 int 1F Amplifier. 6 AUB - 2 nd $1 F$ Ampl fier. AM Detector, GALS - FM Kutio Detector. 12 AUT - Audio Amplitier, cathode follower. 6AB \& Automatic Frequeney Control. 6X4 - Power Rectifier, 8-21/i2" deep. SHIPPING WT., 14 lbs. FAS40
59.50 PA-P138 (Blande cobinet) Net 132.50

## $\square$ <br> THE FM-530 BASIC FM PILOTUNER

Armstrong Cireuit: Full Amstrong Dual Cascade Lim-ter-Discriminator circuit on Fsh.
FSI PEATURES: Bulle-in power
FSF AEATUREs: Buif-in power line antenm. Tuned RF Amplifier stage for improved sensitivity and selec-
tivity. 3 gang quning condenser. Automatic Frequency Civity. 3 kang tuning condenser, Automalic Frequency
Control (AF ) for ease in tuning. One position on Control (AFY) for ease in tuning. One position on
selector shitch provides for disabling the APC to selector sitich provides for disabling the Arc to
allow tuning to weak station adjucent to a strong
atation. Temperature compenamed oscillator for minimum drift. Fully shielded againat oscillator radiation to cunform with FCC radiation apecifications.
AB FFATURES: Tuned KF Amplifier miane for maximum sensitivity and gelectivity. \& Eank cuning condenmer. IF wave trap for refection of signuls with the pensmet for high frequency loss due to if selectivity. 10 KC whistle filter.
TUHE COMPLEMENT
TLBE COMPLEMENT: EBAG.FM/AM RF Amplifier: GBAG-FM/AM ISt IF Amplifier: UUR-FM/AM Oscil Iator converter: GAUB-1 al limiter and AM detector:
GAU' 2nd FM limiter; $6 A L 5-F M$ discrirainator: $12 A T 7:$ FM Automatic Frequency Control Amplifier: and ieactance tube: $12 A X 7$. Phono premmp; $12 A T 7$-Tone Am. plifier: 12 AU 7 -Audio nad devector output. cathode

-A. 530
Net 159.50

The famous FM Pilotuner brought up to date with the latest udvunces in FM deaign ut an amazink price for a true Ilish Fidelity Tuner. . this new Model Fil- 530 Incorporates many leatures of the most expensive
tunera and is buifi to Pilot's high standard of quality. tuners and is buift to Pilot'e high standard of quality.
Enjoy FM at its best with this Pilotuner. If features Enjoy FM at its best with this Pilotuner. It features
an unusual front panel with the now familiar "Pllotuner an unusual front panel with the now familiar "Plotun
escuteheon benutifully etched in Richlow Brass. SPECIFICATIONS
POWER CONSLMPTION: 80 watts, 117 voles, 60 cycles. SENSITIVITY: 3 micruvults for 20 dh of EEVEL: ${ }^{60}$ db below 1.0 vors MAXIMEMC ALDIO
 valt output. AUDJO FREQUSNC KESPONSE: $=0.6$ db
20 cps fo 20.000 ems. AUDIO OLTPLT IMPEDANCE: 20 cps lo 20.000 phe, AUDIO OLTPT at 200 KC . Ratio detector peak to peak separation
320 KC . Risio detpetor response is linear for 190 KC ANTENNA INPLT: Balanced 300 olmms of built-in Ane cord antennm. TUEE COMPLFinENT: ARA亩-RF
 Amplifier, fit' $-2 n d$ IF Amplifier. fiABf - Auto-
mbtic Frequency Control. $12 A L-$ Audio Amplifier. mutic Frequency Control. $12 A L$ - Audio Ampliner. $13-1 / 16^{\circ}$ wide, $x+21 / 132^{\circ}$ deep. SHPG, WT. 12 ibs. FM-530 ............................... Neq 89.50




## MODEL AM-80 AM TUNER

A prestision AM luner. the AM-80 combines the pullins power of a professional communicolions rectiver with The broot funing mecessary for high fidelity reception. METE R for micro-occurote funing, SENSITIVITY less thon one microvolf for moximum output. Three-posilion od lustable bondwidth limarp, medium, brood). Dual an onno inpuls. Thice Inputs-high impodance. Cothode ollower output. 10 ke whiskle filter. Dimensions $12 \% \mathrm{~s}^{*}$ $x 8 \%{ }^{\circ} \mathrm{d} \equiv 4 \mathrm{Ch}^{2}$. Shpo. Wi. 15 lbs
MODEL AM-EO (less cobInet) $\qquad$ .Net 119.50

## MODEL 80-T

FM/AM TUNER WITH CONTROLS
An odvanced FM/AM funer win complole, protersion al oudie control forilities. Some FM/AM sircuits os 80 -R. The first funer-centrol shossis with a separote tope head playback procompllifier (with NAlti equalliation). Six recerd aqualization wetimes. sepporote boss ond treble contrals, volume control, loudness bolance control, AFC control, channet welector switch lAM Brood, AM Shorp, FM, Phono, Aux 1, Aux 21, 15 tubes plus rectifioe. OC oudio tube filoment supply. Thack.roountad tunor and oudio chossis, freq. responso $20.20,000 \mathrm{cps} \pm 0.5 \mathrm{db}$, distortion less thon $.04 \%$ for one volt outpul, $0.5 \%$ lor five volts. Twe cathode follower outpuls (before and ofter tone ond volume controls), Dimensions $121 /{ }^{\circ}{ }^{\circ}$ $84 / 2^{\prime \prime} \mathrm{a}^{2} \mathrm{o}^{\prime \prime}$ high follow it additional depth for control knobs). Shps. Wi. 21 lbs MODEL E0-Y (lest cobinotl)....Not 199.50

## MODEL FM-90X

GOLD CASCODE FM TUNER

- Guorontoen the uhimate in signal semitivity for fleuls, bulls. ditatont stotiom ond weak signols in dif. duat llemiters suppess shorimet-duration notse pulses - noutralized trlade converter plus gold-coscodo if ampilfier form highly-efficient front and - balonced anienno input olimincter nolse plakup on lead-in cable - two meters: signal-strengit meter shown best onfenne oriontation and maxjmum.performonce tuning; conter-of-channal moter for micro-otcurate tuning - TECYNICAL SPECIFICATIONS, two ontonno Inputh- $\boldsymbol{T 2}$ ohm or 300 ohm bolonceds full 1 mminn ng down to $1 / 2$ micrevallenstlivity $1 / 4$ muv. for 20 db quideting, $11 / 4$ muv. for 30 db ; frequency response 20 to $20,000 \mathrm{cpo} \pm 1 \mathrm{db}$; three low Impedance outputi-maln, recorder. multiplexhandies output cobles up to 200 foet long; controlsvorioble AFC/Dower, varlable inter-station muting conrol/station solector, output lovel (on reor of chassib)? shoct-mounted chassiss brushod-bross diecest front Danol; nine lubes plus recither plus four ger manium
 wt. 15 lbs.
MODEL FM-90X (loss cebinet) ...............Nat 169.50


## MASTER CONTROL AMPLIFIER MODEL CA-40

- Madel CA-40 Master Control Ampllifior oftori, on ane compoct chosis, the moit odvanced preampllfier with contrals, as wall as a Dowerful 25 - - ant amplifier. Six Inputs, including two Availlory, Funer, Mogneflic Phono, Mic and Tope. Inpul Levol Adivilmenth U Uniforme. re: sonse 10 to 50,000 crsles $\pm 0.5 \mathrm{db}$. Conitant power whith I do at 25 woits, 17 to 30,000 cycies. 0.3 volt an high loval, 0.005 valt on low loval inputs producos full 25 watt output. Ies thon $1 \%$ distortion of roted power. - Threcpesilion liumble ond Seratch
Filters, with ponel indicotor lights. Pive equalizotion Flitori, with ponal indicotor lighth. Pive equallaotion
cositionsi EUR, AES, positions, EUR, AES, ILAA, LP, NAB. Botonced Spec-
 Setilings. - 4, 8 ond 16 -ohm speoker outputh. Cathode follower recorder output. © DC flloment voltoges on oll low lovel stoges. Estiolded, shock-maunted cansituction. - Contralsi Boss, Treble, Poweo On.Off.





## MODEL 80-R

## PROFESSIONAL FM-AM TUNER

Accioimed everrwhore os the finest FM.AM twne ovallable. Works where others foll. Hon two meters tor micro-accurate tuning, ceatures ©xrrme somsivily iM micravity for 20 db anid Adiusioble Af Ah seloctivity, separote FM ond AM front ends. Shockmounted chansis, superb-1mooth Hywheet funing. Com. deenir siond conalive 20 un within 0.5 \% 10 , 20 10 20,000 erien. Distortion bolaw $0.04 \%$ for 1 valt output. Cothode follower and

 MODEL so-R (lass rebinef) 169.50

## MODEL FM-40 CUSTOM FM TUNER

- A compoct, beoutifulty designed instrument of mad. implified contrals moke this remarkable tuner ox. coptlonolly cary to use. Moter for miero-ocsurato, conteroof-channel tuning. Sonsilivity: 3 miciovolth for 20 db quiating. Supplied with foldad dipole but can accommodote 300 or $72.0 h m$ antenna irslems, Drifhfree cirevit hos three outputss Dotector. Multiplex, plus cothode follower. Eight fubes, self-pomered. Mondsome brushed-brass panol for distinctivenoss. Sixes $12 \%_{4}$ a $\pi$ $81 / 3^{\prime \prime} \times 4^{\prime \prime}$ high. Woight: 15 pounds.
MODEL FM-40 (les, cobinal) $\qquad$


## MODEL 20-A

## LAB STANDARD AMPLIFIER

- Low in cols, ferrific in quallyy if is the 15 -wot omplifier thousonds of M.-A onthusiastr have reavestod. workmanihlp, handsome appearonct. Advanced derign throughout. froquency response within $0.1 \mathrm{db}, 20$ to 20,000 eyclos at 13 wath. Less than $0.7 \%$ disiortion. 1 m disiortion liess than $1.5 \%$ of 10 wath. Hum ond noive better than po db below full output. - Internal impedancer I ohm for 16.0 hm aperation, giving domp ing foctor of 16, onsuring low distortion ond superlor tronsiont response. Outpul 1 mosedonces 4, and 16
 MODEL 20-A (loss cobinotl)
59.50


## MODEL TA-500 FM-AM RECEIVER

## Home Muske Conter

A sensitive FM-AM iunar, a powerful 30 -wotl amplifioer. ond on oudio control center-all bult on one cemport cho ssisl Simply add a record ployer and loudipeoker ond YPECIFICATIONS. FM Operity infom
 microvall. Wide-bond dopeto. hroe if stoges, cascode tuned RF Hoges; Am-luned kf noge, diade dotecior for minimol distortion. sensitivity bother than throe microvolts for full autput. AUDIO. Frequency Renponse 16.
$32,000 \mathrm{con} t 1 \mathrm{db}$, four high. impedance inputs, low. Impodance tope recorder autputs phanoproph and tapehead preamplifier.eavolifers colibrated toudnens contour head prea mplifiow equarirery colibratad ioudness contour control, Mormonic Distortion less than $0.5 \%$ of 30 80 db ; Output Taps 4, 8, is ohms, Valume/Loudness 80 db ; Output Taps 4, 8, 16 ohms, Valume/loudnesi
control; separole bass ond treble fone controls; Meter control; reparole bast and treble fone controls; Meter for Micro-oceurate funing an NM and FM; four trees 2 -68A6, 2-6AUS, 68C8, SUA, SBES, 3-12AXY, 2-5811,
 $137110^{\circ} \mathrm{w} \times 12 \%^{\circ} \mathrm{d} \mathrm{x} 6 \mathrm{~K}^{2} \mathrm{~h}$. Shpg. Wi. 26 lbs .
MODEL TA-500 (less ceblnet) -........Net 249.30

## MODEL TR-1

## ALL-TRANSISTOR PREAMPLIFIER

 - Another great FISHER ochiovement- the first ollMransistor high fidelity product, Absolvidy two hum ond microphanism. Phana or microphone magnotic prompla oqualizolion. Three transistors, printed dircult wiring. fully inielded. Sizen $2^{\prime \prime} \equiv 4 \%^{\prime \prime} \times 4 y^{\prime \prime}$ deep. Wolght: 12 ounces. Nat 27.50 ©A-1 Eottery $8.95 /$ PS-1 110 VAC Power Supply 4.95moent ins
RTB
woors Pra

## MoDRL 204

## SERIES 80-C

## MASTER AUDIO CONTROL

"Breathtokingl" --Edward Tatnall Canby. The Mastor Andie Control con bo used with eny ampllfier. Froviden rofessional phone and tope-heod equallzetion, full rising and foding focillies. Two cothode followw outpufs. Unitorm response within $0.25 \mathrm{db}, 20$ to 20.000 ryeles. IM distartion and hum virtually non-measurable. Eloht Conirolsi boss. Troble, Mestor Volume, Dwol tino Swlich, Five Channal Setector Push iuttons. Five line Switch, five Channel Setector Push Suttons, Five Input Mreerlevel Controls. Soyen Inputh. Self.powered. Woights 10 lbs
MODEL EMC (less cabinm) $\qquad$ Not 99.50

## MODEL 80-AZ

## LAB STANDARD AMPLIFER

 - Groot new FISHER amplifier wilh Powerscepe, visvol Peak Power Indicotor. More clean woth per dollor thon ony ompllfier in its class. 60 wots peokl less thon $0.5 \%$ distortion of 30 watts $10.05 \%$ of 10 wath ). IM distortion less thon $0.5 \%$ of 25 watth. Unitorm response within $0.1 \mathrm{db}, 20$ to 20,000 ereles. Within $1 \mathrm{db}, 10$ to 50,000 creles. Hum and noise virfually mon-measurable (bofter thon 96 db below full outpull) Three controles 2.Matic, PowerScape, and Input Level. Output: 8 end 16ohms. Slzer $15 y^{\prime \prime}: 41 / 4^{\circ} \equiv 6 \% 0^{\circ}$ deep. Weighti 22 ohms. ${ }^{\text {pounds. }}$

MODEL 5 S-A 55 WATT AMPLIFIER

- Lesi than $1 \%$ harmonic distortion of 55 woth $10.5 \%$ of 5 wath, $0.08 \%$ of 10 matts). Mondien 110 wetts peak. IM distortion below $0.4 \%$ ot 10 weth $10.8 \%$ of 4 s wath, $2 \%$ of 50 wotti\}. "Uniform reapons $\pm 0.1 \mathrm{db} 20$ to $20,000 \mathrm{cms}$, (wiohin $1 \mathrm{db}, 5 \star 100,000$ CDS). Power autput constont within 1 dt of 50 woth, 15 to $00,000 \mathrm{cps}$. Hum and moise better then 92 db bolow full outpull - Blor Contrel to bolance outpul tubes. 2-Matic previder veriable doeping, from 32 to 0.08. Less thon 1 volf input produces full output. - Inpul level Contral. is and 16 - oh output in. pedancer. - Auxiliory $A C$ receptecle. Slaen $14 y_{4}{ }^{*}$ $\times 9 \%{ }^{\circ}$ d. x $8-3 / 10^{\circ}$ high. Shippine Weights 50 lbw.
MODEL $55-A$ (loss cobinet). MODEL SO-M MIXER-FADER - Miren Two signal sourtes, such earedio or phanogreph and velce (milio) inte tope recerder or hi-fi syive. Cothede follower Wt. $31 / 4$ lbs. ..
MODEL 50F MI-LO HLTE - Sherp cut-off olectronic filtor system for supprastion of rumble. nocerd fromle filtor system for suppresion of ruchblo. recer scretch, high frequency distortion. Comaects between pre-omp or funer ond cutofil points Fiat, $37,70,120 \mathrm{cps}$ of 10 db -freavenc cut-ofl points Fiat, 37, $70,120 \mathrm{cps}$ of 10 db per acteve high-trequency cut-ath roic.: IOle.. 3kc. of 20 db pe Wi. $31 / 4 \mathrm{Ib}$. 24.95
MODEL Ph P PREAMPLIFIEA CNASSIS - SNA powored, high soin, moderate cotl. Fer kow hevel may netk cortridet, Nape heod ploybark, for ropephone.
 Wi. ith lbs. ..................................... 10.95

FISHER NAND-CRATTED CABINTTS

## TAEM Mohogony for TA.500 Ne 19.95

 PMP-M Mahogeny, for FM.poX _........Net 17.95 FMP-
UN-M Mahogany, for s0-I, AM- $\mathbf{R}$. FM-40
Nen 17.95
UN-1 Blande, for 80-I, AM-80, FM-40 Nen 17.95

CM
ci
llonde, for $\mathbf{0}$ T.... N +


## Superlative HI-FI by IIllntosh \& SCOTT


MC. 3030 WATT AMPLIFIER

### 143.50

Intermodulation distortion responsible for "'lis. tener fatigue" in ordinary sound equipment in brought to a new low whit the aclusive patented melntesh circuit. Designed for those who expect the finest, you can liston to the Almost unbelievable clority of tone-cteon living soundl tis 0.5 valt input sensitivity for ull outpul mokes the Mcintosh MC- 30 suitoble for use difectly with ony AM.FM Puner, with cryitol or ceromic phonogroph pickup, or as a bridging ompllfier for broadcast applications. The McIntoth C. 4 ond C. 8 Preamplifiers (or ony others) may be usod with the MC. 30 for magnetic phonogroph pickups or stondord high.fidelity systems. Iwo inputs- 0.5 volf ond $\mathbf{2 . 5}$ volt sensitivities. The 0.5 input is provided with o gain controt. Frequency response $20-30,000 \mathrm{cds} \pm 0.1 \mathrm{db}, 15.50,000 \mathrm{cps} \pm 0.5 \mathrm{db}$. Mormonic distortion $1 / 2 \%$ at 30 watts, 20.20 .000 cps ; intermodulation lost than $1 / 2 \%$ for in. Honloneous peok power up 1060 watts. Damplng foctor 12 (16 of 600 ohm outpul). Hum ond Noise- 90 db . Outpuls 4, 8, 16 , ond 600 ohms (balonced). Tubets 2-12AX7, 12AU7, 128M7, 2-1614, SU4CA (Rectifier). Chrome ond block finish. Dimensions $131^{\prime \prime}$ a $8^{\circ} \mathrm{a}^{\prime \prime}$ high. Power Consumption 155 walts, $117 / 125$ volts, $50 / 00 \mathrm{cDs} A C$. Shpg. Wi., 34 lbs.

Not 143.50
 of 0.5 volts for full output mokes the MC. 60 suitoble for direct cennection to ony AM, amplifier in broodcost ond telephone line opplications. Moy be used with the Mclating C-4 of C. 8 Preamplitiers (or ony others) for mognetic ohono be uted with the Mcintosh heart of on estremely flexible high fidelify system. Froauency lesponse 20 to 30 the heart of on ertremely flexible high fidelity system. Froavency Response 20 to 30,000
$\mathrm{cps} \pm 0.1 \mathrm{db}$ ond 16 to $80,000 \mathrm{cpi} \pm 0.5 \mathrm{db}$ of 60 watts. Intermadulation distortion Cps tess than $0.5 \%$ for instontoneous peat power of 60 watts. Intermadulation distortion
 (balanced). Two inpuls -0.5 volt with goin contral 2.5 valif for 16 and 600 ohms or ather preamplifiers. Tubes: $2.12 \mathrm{AK7}, 12 \mathrm{AUF}, 12 \mathrm{BH7}, 2.6550$, 2-5U4GA (Rectitfers) Chrome ond block finish. Power coniumption 280 wolls, $11 \% / 125$ volls, $50 / 00 \mathrm{cp}$ AC. Dimensions $1414^{\prime \prime} \neq 10^{\prime *}=8^{\prime \prime}$ high. Shpg. wt. 48 lbs.
McINTOSH MC-60
Nel 198.50

## C- 8 Professional <br> Audio Compensotor Preamplifier 88.50

(C.SM IIlastrated)

Extremplyen vertiotile, with wide tonol ronge and verr low distortion. The C. 8 is supolied less cabinet for curtam instollotion ond must be plugoed into the Mcintosh MC. 30 or MC- 80 to abtoin ths power. The completes. self-powered Madel CP-8 moy be used with any ampllfier. All models are avalloble with blonde or mohogany cobinets.
Features and Specilicaflioms: Five boss turnover and fivo ireble cam. and freble pone controls, with is db boont and 20 db attenuation on 20 coids ond 17 db boost or 20 db otlenuetion at 20,000 cps; Aural Compensotor-Loudness Control switch; Rumble Filfer; five- pasition Program Selector Switch for fope. TV, funer, microphone, or ony type of phonagroph cortridge. Volume Contral with AC on-oll switch. Out. put volfoge 4 valts; Irequency response $20.20,000 \mathrm{cps}$ of less thon $0.3 \%$ distortion. Five inputs-tape, funer, micraphone, ond phonograph. Seporate level control on each linput. Three oufputs-iwo main ond one tape, all



C- Compensator-preamp for use with MC. 30 or MC. 60 . less cobinet
C. 3 As obove with mahagany hardwood cabinet

C-IA With blande cobinet
$\begin{array}{lr}\text { Nel } & 88.50 \\ \text { Nel } & 96.50 \\ \text { Nel } & 96.50 \\ \text { Nel } & 99.50 \\ \text { Nel } & 107.50 \\ \text { Nel } & 107.50\end{array}$


SCOTT 990
DE LUXE
22 WATT
AMPLIFIER
COMPLETE WITH

H. H. SCOTT HIGH FIDELITY COMPONENTS


## PREAMP 99.95

 Imporiant new leatures make this model a greater volue thon ever. 2.Spoaker solector mognetic phono inouls, selected by iwitch on from ponel; 5 -position record sompensotor, NARTB tope ployback chonnel to tef you play direct from tope recorder head without ipecial preamps rumble and scrotch filters with inwout switchot; volumeloud. ness control with swlichy level control to match phono cortridges to omplifier, separate boss and troble contrals. Harmonic distartion less than $0.8 \%$ af 22 waths im $0.3 \%$ : response 20 to $30,000 \mathrm{cps}$; hum level - 80 db ; 3 high level inpuis for TV. tope. funer: fier). For 105.125 volis $50 / 60 \mathrm{CDS}$ AC. Dimensions in occessory cose $151 / \mathrm{m}^{\circ} \mathrm{m}$, fier. . For 105.125 volis. $50 / 60$ cps AC. D$121 / 2^{\prime \prime}$. Ponel $43{ }^{2} \approx 15^{\circ}$. Shpg. Wi. 20 lbs .
MODEL 9PD fless cmel
Net 99.95

Siyling ond dimensions provide - perfect merch to the 99.0 and 210 camplete ompliliers.
A reolly wide ronge funt with AM sound comparoble to FM. Seporote AM and FM sections for stereo reception. Edge.fighted lucite tuning diols for both auick ond vernier funing. Stignol strength meter for pin-point AM or FM funing.
SPECIFICATIONS: FM-Sensitivity 2 muv. for 20 db quieting, drift dree $2 . \mathrm{mc}$. defectorz AGCi 2 sloges of full limifing: equipped for mutfiplez aperation. Meats FCC radiotion specticetions. AM-I muv, sensifivitry 10 kc . whistle filters 4 volts outpup. CON. IROLS-Function Switch tor FM, AM Wlde hange, AM Narmol. AM Distonce: seporate
 Power reguirements 60 walts, 105.125 volts, 60 cps AC. Dimentions (in cose) $151 / \mathrm{z}^{\prime \prime}$

MODEL 330-C (less cone)
Net 199.95
H. H. SCOTT ACEESSORY CASES Two types, oll tho some helght, for side by-side toble top or bookcase Installation of Scatl compononit.





## SCOTT <br> $311-C$ <br> FM TUNER 129.50

SPECIFICATIONS: The 3II-C is an extremety sensifive ond selective FM iuner incerporoting new driff-liee wide. band circults. SENSITIVITY, Two microvolts for 20 db quieting. CIRCUIT FEATURES, Two megocycle wide-band derector for highiv-solechive, drith-amd noise free ODeraThOL. METER? Illuminoted signal strength ond funing meter for precision Iuning. OUTPUT, Moximum oudio output 4 volts; low impedonce. TAPE AECORDER FACIITHES: Seporote tope output lor "off-the-air" recordings. MULIIPLEX: Speciol oufpui for mulifiplez. Meets olf FCC radiotion specs. For 105.125 volts, $50 / 00 \mathrm{cps}$. AC.
DIMENSIONS, (in cose) $131 / 4^{\circ}=43 / "^{\circ} \mathrm{m} / \mathrm{m}^{\mathrm{m}}$. Shps. DIMENSIONS
Wi.. IS lbs.
MODEL 3:1-C (les cose) ....................Net 129.95
Pame 16


## SCOIT 300

 AM-FM TUNER 149.95atches oerfectly oll other Scatt camponents. AM section hooturet eatended ronge and odfustable bandwidth fo high fidelity or normal reception. 10 kc . whistle filter seporafe tuned RF slage for moximum senslitivity and 20 db quieting, who bond FM detector for drift.fiee lownelse reception; outomatic goin control (ACC); two stopes of limiling: equipped for mulliplex operction: stoges fí limitingd equipped for mulliplez operation, mears llywheel. Separate outpul for tope recerding Edge-lighted slide rule luning dial with logging scale. For 105.125 volts, $50 / \mathrm{sO} \mathrm{cps}$ AC. Dimensions (in cosel $15 y^{\prime \prime}=41 / 4^{\prime \prime} \times 12^{\prime \prime}$. Shpg. Wi., $15 \mathrm{Ibs}$.
MODEL 300 (less cese)


SCOTT $210-F$ COMPLETE 36 WATT DYNAURAL AMPLIFIER
Response $19.35,000 \mathrm{cps}$, 11 ol ; hormonic distortion lest
than $0.5 \% 1 \mathrm{~m} 0.25 \%$ hum - 80 db. FEATURES, 2 . Than $0.5 \%$ : $1 \mathrm{~m} 0.25 \%$ : hum -80 db . FEATUEES, 2 . speaker selector swlichy tope monitor-playbeck switch; 2 noise suppressor (dynaurol) contrels for centinous adjustment of (low frequency) rumble and (high trequency) fromt panely loudness control, with switch; separate boss and treble controls; 8 -position record compensator; teval and treble controls; 8-position record compensator; fevel high level inputs; adiustable recerd distortion filter; pre. amp input for tope playboch directly from fape head; 2 tope recorder outpufs (fo byposi suppressor). Far 105 . 125 voles. $30 / 60 \mathrm{cDS}$ AC. Dimensions (in cose) For $151 / 4^{\prime \prime}{ }^{\prime}$ $4 \% 4^{\prime \prime}=121 / 2^{\prime \prime}$. Shpg. Wi. 27 lbs.
MODEL 210.F lless cose ..................Nes 189.95

# OUTSTANDING HI-FI TUNERS \& AMPLIFIER VALUES 

## BELL MODEL 2520 FM-AM TUNER

FEATURES: Highly senstive noise.free tuner fecturing Armstrong FM circuitry with dual limilers and fosterSeeley discriminotor, Grounded-grid FM RF sfoge and completely shielded construction for low-naise reception and canformance to FCC rodiation specificotions. Buitt-in line cord FM onfenno and AM loop-stick ontenno. Illuminated diol panel with logging scole. Automotic froquency Contral for drift-free FM reception, with defeat iwitch for luning in weak sfations. Ulira-madorn "new look" styling: only 4" high and fintshed in rich soddle ron. Ideol componion-piece for the Bell amplifier SPECIFICATIONS: SENSITIVITY-FM: 2 muv. AMB BEL MODEL 2325
Eniay the cufstonding perfarmance and smart styling of this new high fidelity ampllfer with buill-in preompllifer. tures thot now look in high hdelity whe firclusive fing and radio piogram material. Power output 20 wetts ( 40 watts peak) at less than $.3 \%$ harmanic distartion. Less than $0.5 \%$ intermodulation distortion. Frequency responi 20 $20.000 \mathrm{cps} \pm .3 \mathrm{db}$. Mum level 75 db below 20 wolts. Inpulsi two low magnetic or lope heod, ceromic or crystal. high magnetic, radio. IV, ouxiliory. Outputs for 4, 8 and 16 ohms and high impedance recording. two seperote out. puls for speaters to be switshed, ond two AC oullets. Equipped with AC power switch and loudness centrol. rumble fitter switch, scrotch fitter switch, soeoker selector

## BELL MODEL 2360

inko this shoek, now high fidelity amplifer-preamplifier designed far the discriminating oudiophile. Its compact size and cenveniont coniral provide o complelo audio control center in comparativaly litile spece. The omplifier delivers 50 wafts of power of Iess than $.5 \%$ harmanie distartion; less than $1 \%$ intermodulation distortion. Peak output 100 watts. Illuminated frant panel confrol includes the following: AC power swlich (exclusive push-pull type) and laudness conirol, rumble and scroich filter switches, 3-posilion speaker seloctor, boss and treble controls, level contral, rodia level contral, hum
bolance control, 8 -position selector-equalizer for tape, 78 ,
kc. during warmup without AFC; 2 ke with AFC FRE: QUENCY RESPONSE--FM: $20.20,000 \mathrm{cPs} \pm 1 \mathrm{db}$; AM $20.5000 \mathrm{cps} \pm 3 \mathrm{db}$ - OUTPUTS-dual iocks for leed. ing lape recorder and amplifier OUTPUT VOLTAGE2 volts at $30 \%$ modulation IMAGE REJECTION-FM: 31.5 db SELECTIVITY-FM: 6 db down of 200 kc AM: 6 db at 11.7 te CONTROLS-Off. AM, FM/AFC. FM: Tuning NOISE-FM: 65 db and $A \mathrm{M}_{2} 50 \mathrm{db}$ below $30 \%$ modulation TUBES-6AB4, 12AT7, 2-6BA6, 6AU6. 6AL5, 68E6; 6XA (Rectiffier) For 1177 volfs, 60 cDs AC DIMENSIONS- $13^{\prime \prime} \mathrm{W} \times 101 / 2^{\prime} \mathrm{D} \times 41 / 2^{\prime \prime} \mathrm{H}$ - SHIPPING WEIGHT-I 1 ibs

Bell Model 2520-FM.AM Tuner Complete.... Not 93.10

## 20-WATT AMPLIFIER

tral, treble for eoch, seporately and together), bass conbalonce conirol, ielector-equolizer flope, 78 , RIAA, iP Eur., Rodio. IV. Aum.I, and phono-input setector. A continuous strip of light along entire tength of control ponel functions as silat light and tllumination for controls. Easily panel mounted in cobinet. ON/OFf power iwiteh dssigned as puin in, pull out type with valume position praset os desired on same control. Tubes: 3 -ECC83,
 $11 "$ deep. For 117 volis, 60 cycles $A C$. 5 hpg, wi., 24 lbs . loss coge.
Bell Model 2325-P 20 wetl Amplifier.............Nel 97.95 Soddieton finish cage for obove.......................Nel 9.80

## SO-WATT AMPLIFIER

RIA LP. EUR, rodio IV and aum., phono-tope input selecter for all cortridges and microphones. Seven inpuls accommodol alf hpes of cortridees, rodia uner, TV, and auxiliory. Outpuls for 4,8 and 10 ohm speokers, high impedance recording. Wwo teparate outpurs for speakers to be swithehed. 2 AC oulleis. Frequency response 20-20,000 cpi $\pm .5 \mathrm{db}$. Hum level 75 db below 50 watts. Tubes: 2-ECC83, $12 A V 0$, GAN8, G23, $2.6 C A$, For 117 volh, 60 cycles AC. Dimensions $51 /{ }^{\prime \prime}$ high. $16^{\circ}$ wide. $11^{\prime \prime}$ deep. Shpo Wi. 35 ibs. Less coge.
Cell Model $2360-50 \mathrm{~W}$


## MARANTZ AUDIO CONSOLETTE PREAMPLIFIER

Fearunes: A high quolity audio control center and a fine lavish high-fidelity insiallations - Entremely low distor. tion and nolse houres - Two-chossis construction with seporate minioture olug-in power supply Cathode follower Oulput permits lone shielded leods to amplifer - Tape Recerder Output, cantralled by the solector switch and unofected by any controls other than the record equal. liers - Continuously-variable loudness Compensatar Control works independently of the Volume Contral and com pensoles for the Fletcher-Munson Hearing Charecteristics Curve Tope Playback or Maniter Switch, used for tape Curve loybeck or to directly manitar a tope while it is beine playbeck or to directly manitar a tope while it is being equalizer switches
SPECIFICATIONS EESPONSE - $20.60 .000 \mathrm{cps} \pm 1 \mathrm{db}$ SPECIFICATIONS EESPONS - $20.60,000 \mathrm{cps} \pm 1 \mathrm{db}$

## SMERWOOD MODEL

FEATURES: On of the most sensitive FM circuits ever de veloped - 0.95 muv. for 20 db quielling. Delayed Auto motic Goin Control. Armstrong FM circuit with 3 limiters Control (AFC) assures no.drift FM tuning. AFC disobling Control (AFC) assures no-drift FM tuning. AFC disobling to o strong local signol. " "Feotherspoy". tuning oye for pin-point funing. AM rection feotures selective bondposs$15 k$ for wide-range high-fidelity reception or Ste. for listening to weoker stations without noise and interference: lokc. whistle filter to eliminof between-stotion whistle
whil. reducing Audio responie bess thon 3 db at 8ke. Built. while reducing Audio responie tess thon 3 db at 8kc. Built. In fercite-rod AM ontenno, pivol-mounted. Edge-lighted SPECIFICAYIONS, SENSITIVITY-FM: 0.95 muv. for 20db SPECIFICGIIONS, SENSITIVITY-FM: O.95 muv. for 20db
quieting, 1.8 muv. for $30 d \mathrm{~d}$ quieting; AM, 2 muv. at $60 \%$ quieting, 1.8 muv. for $30 d \mathrm{~d}$ quiting. AMs 2 muv, at $60 \%$
modulation for 0.5 volis output . FIE QUENCY RESFONSE
 - Gdb D DISTORTION - FM: less thon $1 / 3 \% \mathrm{~lm} .1 / \%$ mod.; AM: 55db bolow $100 \%$ mad. FM DRIFT $- \pm 2 \mathrm{kc}$. mod.; AM: 55 db bolow $100 \%$ mod. FM DRIFT - $\pm$ 2kc.
with AFC. $\pm 15 k e$ without AFC OUTPUTS - Cothode
volrs RMS less thon $1 \%$. CONRIOLS - 6 -position input Equalizer; 6-position Treble Sor: bosifion boss pecard Compensolar; Boss Tones Troble Tone; Migh Frequency Cut. off Filter (3-position, 12db per actaveli OnoOh. INPUTs - 3 low level (mike, low and medium level magnetic phono): high level (Tuner, Tape. TV. Emtro). OUTPUTS - Colhode followers Tope Recorder. 3 AC OUTEETS - on Dewer supply, TUBES $-3 / 12 A x 7$ or ECCB3. DIMENSIONS PING WEICHT (less cobinet) $131 / 2 \mathrm{lbs.g}$ (with cobinet) 15 Marenfz IC Audlo Consolette (less cabinal)

Nel 153.00 Marantz IA Audlo Consolette
with mohogony cobinet
Not 168.00
Meronts 1t - with blonde
Net 188.00
-2000 FM-AM TUNER
follower audia; FM mulliolex - AUDIO OUTPUT - 2 volts - TUBES - 6858, 6AB4, 2-68A6, 3-6AU6, 6AL5, 6CN7, 60E6, 12AT7: 6X4 (Rectiner) - POWE CONSUMPTION


Sherwaod Model 5-2000 FM-AM Tuner
Sherwood model 5-2000 Fm-AM Tuner
(chossin only) .........................................
Sherwood Model $\$ .2000$ FM. AM Tumer bloct flemtone cobinet - pleore specify which]

Nol I44.50
SHET WOOD TM TUNER MODEE S-3000 - Circuitry and chorecteristics some os FM section of \$-2000 above but also has "locel-distonce" switch. Shpe. wi., 16 lbs

Sherweod Model S-3000 FM Tuner -
(chossls only) ...............................................Nef 99.50
Sherwoed Model $\$-3000$ YM Tuner - (in brown or black fiextan cabinet-pleose specity which......Net 104.50

## SHERWOOD MODEL S-1000II 36-WATT AMPLIFIER

PEATURES: A now, versotile combination omolifier and pre ampllifer-contral center, tastefully styled for use on bootsshelf, toble or dest lop, or for custom cabinet installation - Choice of speoker domping foctors. Tepe recerdiny provisions, including front-ponel monitoring switch for instantaneous cemperison of recorded and source 上ignols When used with a lape recorder hoving a monitor head - Focllities for equalized playboct directly fram a tape recorder heod - Flat equalization provided for microphone: Cathode follower recarding output permits lang
cablei. I2db/ostave seratch and rumble fliers. Presance cable: - 12db/ostove seratch and rumble fliers. Presence Wise Switch, "center-sel" loudness cantrol, "pivating" tome controls - orranged for simplleity of operation yel complete fexibility * 3 millivolt sensitivity of phono pre-
ompllfier, peovided with lowest possible nalse hum and omplifier, provided with lawest possible nalie, hum and microphonics, for use with
Fairchild and Electro-Sonic.
SPECIFICATIONS: POWER OUTPUT - 36 watls (I72 wolls Equalizetion: RIMM/AES, if ION EUR NARTE TAPE (for Equalization: RIAW/AES, IP, LON. EUR, NARTB TAPE (for direct tope heod playback). Flat (far mike); Bass and Treble: "pivating" tone contral curves provide smooth variefion fram the 900 eps crossover point; Loudness: center. sel" pravides loudness contral oction below "12-a"clock" position, valume cantral oction abover Loudness In-Out Swifch; Tope Manitor Switch; Prosence Switch (boosh response af 2500 cpis ; Seratch and Rumble Filfer Switches: Phono level. SENSITIVITY - Radio 0.3 v . Phono 3 mv . POWE CONSUMPTION - 85 watts, $110-120$ volre, 50.80 CPI AC. TUEES - A-EL8A, 6BABA, 2-12AX7/ECCA3, 6AOS: G234 (Rectifier). DIMENSIONS - $14^{\prime \prime} \times 10^{\prime \prime \prime} \times 3^{\prime \prime}$ high. SHPC. WT. - 23 Ibs

Net 109.50 SPECIPICATIONS: POWE OUTPUT - 36 wolts IT2 woll



MODEL 315-C SUPER $15^{\prime \prime}$-The NEW. improved 315-C has woofer whit high excursion, dual spider piston and fusicone mid-range section crasses over mechanicolly of 1000 cps. New heovy-duty T. 50 hypersonic driver and new wide-angle horn. New odjustable crossover network, 'weeter output also adiussiable. $6 \mathrm{lbs}, 71 / 2 \mathrm{oz}$. magnol. Response 25 cps to inoudibility. 50 wotts. 8-16 ohms. $12^{\circ}$ deep. Shpg. W1., $341 / 2 \mathrm{lbs}$.
UNIVERSITY 3IS-C - LIst 264.16 ...........Net 155.33
MODEL $630315^{\prime \prime}-3$-woy integrated speoker syslem incarparating super-emicient woofer, patented "diffusicone" mid-range with mechanical crossover at 1000 cps, and newly-improved HF-206 hypersonic iweeter true quency-dividing network includes "Brilliance" (treble) balance contral. 30 watts. $8-16$ ohms. $10^{\prime \prime}$ deep. Shpg. wt., 12 Ibs.
UNIVERSITY 6303 - List 138.33 _..........Net 81.34
MODEL 312 SUPER $12^{\prime \prime}$ - 3-way diffaxial with new hypersonic HF-206 super-tweeter true-axially mounted patented center af 12 wooter. Full-badied midrange by chanical crassover of 1000 cps . Bullt-in $1 / \mathrm{C}$ network for -lectrical crossover of 5000 cpi. With variable "brilliance" (treble) contral. 2 lb . Alnica 5 Gold Dot magnet. kesponse ${ }^{\text {with Integrated pragram material. } 8-16 \text { ahms. } 8^{\prime \prime} \text { deep. }}$ with infegrated pro
shps. wf. 11
lbs.
UNJVERSITT 312 - List 116.70 ...............Net 88.60 MODEL $3088^{\prime \prime}-8^{\prime \prime}$ version of 312. Response 50.15 ,000 cps .8 .16 ohms voice coil, 25 watts copocity. $61 /{ }^{\prime \prime}$ doep. Shpg. wt., 5 lbs. - List $66.25 \ldots . . . .$. .Nef 38.95 mombly with builp-in $1 / \mathrm{C}$ - Integrated 3 .way speoker asllance" (1reble) conirol. Has exclusive standard uni-sectianal "diffusicane" mid-range element, UXT-S super tweeter with "recipracating hares" wide-angle harn mounted through the center axis of woafor assembly. High effcioncr, low distortion, uniform wide-angle sound dispertion. Mechanical crossover of 1000 cps , electrical at 5000 cps. Response $45-17.500$ cps. 25 watts. 8-16
ohms voice cail. $81 / 4 "$ deep. Shoe ohms voice coll. $81 / /^{\prime \prime}$ deep. Shpg. Wt., 9 lbs.
UNIVERSIT UXC- 129 -
UNIVERSITY UXC-123 - List 106.70....Net 62.72

## 2-WAY DIFFAXIAL SPEAKERS

## DIFFUSICONE -12 12" -2 -way integrated system.

 Multisectional "diffusicone" with 1000 cps. mechonical crassover. Coaxlal dual horn laading at apez of cane extends mid-and high-frequency response. Full fidelity Ilstening at all points of speoker axis. $11 / 2 \mathrm{lbs}$. Alnica 5 Gaid Dot magnet. Response $40-14,000 \mathrm{cps}, 30$ watts. 8 16 ahms. $41 / 4^{\prime \prime}$ deep. Shpg. wi., 6 lbs. UNIVERSITY DIFFUSICONE-12 - List 61.67Net .................................................................... 36.26
DIFFUSICONE-15 - Same as Diffusicane-12 but $15^{\prime \prime}$ speaker, providing response of $30.14,000 \mathrm{cps}, 10^{\prime \prime \prime}$ deep. Shpg. w1., $81 / 4 \mathrm{Jbs}$. list 75.00 .....................Net 44.10 DIFFUSICONE-8 - Same os Diffusicane-12 but $8^{\prime \prime} .1$ lb. magnet, Response $70-13,000$ cps. 25 watti power handlins. $33 /{ }^{\prime \prime}$ deep. Shpg. wf., $31 / 4 \mathrm{lbs}$.
List 43.33 ...............................................t 25.48
MODEL UXC- 122 12" - 2 -way diffaxial with uni-section "diffusicane" design. Caaxial harn looding at opex af cane extends mid-and high-frequency response. Special woofer cane, extra-large vaice coil. Response $45-13.000$ cps; 25 watts; $8-16$ ahms. $4^{\prime \prime}$ deep. Shps. wi., $5 y_{4}$ Ibs. List 55.00

Nei 32.34

## MODEL 6201 12" COAXIAL

Popular dual range caaxial system. Tweeter coaxially maunted, with high-efficioncy, wide angle unifarm treble repraductian. Built-in $1 / C$ crasover network with "Britllance" Contral, 2000 cps crassover. Response 45-15,000 cpl. 25 Wotts. 8-16 ohms. $81 / 4^{\text {" }}$ deep. Shpg. Wf., $101 / 2$ lbs.
PNIVERSIT

## ADJUSTABLE CROSSOVER NETWORKS

MODEL N-1. Adjustable high-pass filter with built-in "Brilliance" cantral. Far 2.way (woofer and iweeter)
 $1250,2500,5000$ or $10,000 \mathrm{cps}$ of 16 ahmss 5000 or
$10,000 \mathrm{cps}$ ot 4 ahms. Con be used with $\mathrm{N}-2 \mathrm{~A}$ in 3 -way system. Fits panals uD to $1^{\prime \prime}$ thick. $3 y_{4^{\prime \prime}} \times 3 y_{4^{\prime \prime}} \times 3^{\prime \prime}$. Shpg. wl., $13 / 4 \mathrm{lbs}$.
UNIVERSITY N-I - List 17.50 ...............Net 10.29 MODEL N-3. "Acoustic Boton" adiustable L/C network wh built-in "Presence" 1 mid-range) and "Brilliance" (rrassaver conithats 350 or 700 -way syitems. Mid-range
 UNIVERSITY N-3 - List 46.66

Net 27.44 MODEL N-2A. Adjustable L/C network. For 2 -way aystems ar can be used in poirs or with N. 26 for 3-way dystems. 0 db per octove, or may be used in pairs as 12 low ar high pass filier. Crossover elther 350 or 700 cps of 8 ar 16 ohms, 700 cps of 4 ahms. $31 / 6^{N} \times 313^{\prime \prime} \times 3^{\prime \prime}$. Shpg. WH., $21 / 4$ lbs.
UNIVERSITY N-2A - List 30.00 ..............Net 17.64 MODEL N-28. Some os N-2A but with crossover at 1250 , 2500 or 5000 cps of 8 ohms; 2500 or 5000 cps of $16^{\circ}$ ohms; 2500 cps at 4 ahms .
Lhil 23.33.
UNIVERSITY MODEL AP-8 "BALANCE" CONTROL Altenuater pad far use with N-2A and N-2B nelworks. One side of escutcheon marked "Presence". Par mid.range
 Not
3.87

## MODEA MF-204 HYPKETERS

high frequency response high freavency respons to beyand audibility. Die-cast aluminum reciprocating-hore harn principle, with new super-efficient driver. Low end cutoff 3500 cps. $25-50$
watts. 8 ahms. N-1 or N-28 watts. 8 ahms. N-1 or N-28 recammended for 5000 cps crassover. $6^{\prime \prime} \times 3.5 / 16^{\prime \prime} \times 0.9 / 16^{\prime \prime}$. Shpg. Wh., $31 / 2 \mathrm{lbs}$. UNIVERSITY HF-206 - Llat $\$ 5.00$

Net 32.34
MODEL UXT-5 SUPER TWEETER - Compressian driver, patented "reciprocating Alare" horn. Unifarm disperslan
$120^{\circ}$ harizantolly, $50^{\circ}$ vertically. High canversion efin$120^{\circ}$ harizantolly, $50^{\circ}$ vertically. High canversian eficiency. Response 4500 cps to $17,500 \mathrm{cps}$. $25-50$ watts. Use N. 1 or N. 28 s 5000 cps crassaver netwarks. 8 ohms.

UNIVERSITY UXT-5 - List 35.00
Not 20.58
MODEL 4401 TWEETER - Recipracating flare type.
 $50^{\circ}$ vertical dispersion. $0^{\prime \prime} \times 23 / 4^{\prime \prime} \times 0.5 / 16^{\prime \prime}$. Shpo. wt.,
2 Ibs. List $30.00 \ldots \ldots .$.
MODEL T-SO HYPERSONIC DRIVER - New, highly efficient, heovy duty compression driver for uso with H- 600 horn. Response from 600 cps to inoudibility. For the ultimate in performance. Use with N-2A notwark. 8 ohms. $41 / 4^{*}$ diam., $41 / \mathrm{s}^{"}$ deep. Shpg. wh., 5 lbs.
UNIVERSITY T-5D - List 82.50................Net 48.51
MODEt P - 30 DWIVER - Newly redesioned, for midrange in 3 -or 4 -way systems, tweter in 2 way systom.
Use with $\mathrm{H}-600$ ar Cobrefex horns, N-2A netwark, 200 . Uso with H-600 ar Cobreflex horns, N-2A netwark. 200$15,000 \mathrm{Cps}_{8} 8$ ohms; $139^{\prime \prime}-18$ throat; $31 / 3^{\prime \prime}$ diam., $33 / 4^{\prime \prime}$ deep. Shpg, wt., $23 / 4 \mathrm{Ibs}$.
list 50.00
Not 29.40
MODEL H-600 HORN - for mid-range and high frequencies. 600 cps cufaff. Combines "recipracating hare"principle with hemispheris defection for uniform sound
distribution. Use with $T-30$ af $T-50$ drivers of ony with $12 / 0^{\prime \prime}-18$ throat. $73 / 4 \times 83 / 4 \times 43 / 40$ drivers or ony with UNIVERSITY H-600 - List 30.00 ...........Net 17.64
COBREFLEX HORN - Finest mid-fange harn for 3-way systems when used with T-30 driver, $13 / \pi^{\prime \prime}-18$ threat. $101 / 2^{\prime \prime} \times 181 / 2^{\prime \prime} \times 91 / 4^{\prime \prime}$. Shpo. wt., $101 / 4$ lbs.
List 38.35
Net 22.55


WOOFERS
MODEt C-15W 15" - Dual impadance range woofer Moximum conversion with now rype voice cail with greatest oxiol depth and excursion over attained, Exclu. sive twin spider arrangement and 6 lb . Alnica 5 Gald Dot magnel. Response fram belaw 25 to 1500 cps . Up to 50 wotts. Exclusive dual impedance valce coll assembly en. ables use with any system of $4 \mathrm{~K} 20 \mathrm{ahms} .101 / \mathrm{z}^{\prime \prime}$ deep. Shpg. wt., $263 / 4 \mathrm{lbs}$.
UNIVERSITY C-15W - List 141.06
Net 83.30

MODEL C-12W 12" - Builf-in adiusioble high-end limiter for 700,2500 or 5000 cps, sultable for mast tweeters in 2 -way systems, or you can use in coniunction with N-I high-pass fiter far complete L.C notwark for 2 way system. 11/3 lb. magnet. $40-6000$ cps. 8 ahms. Up ta 30 watts program material. $61 / 2^{\prime \prime}$ deep. Shpg. wt. | $71 / 4 \mathrm{los}$ |
| :--- |

UNIVERSITY C-12W - List 60.00 ............Not 35.28 MODEL C.8W $\mathbf{8 " \prime}^{\prime \prime}$ - Response down to 50 CDs in proper baffle. Sultable for crossaver up ta 5000 cps . Up to 25 watts. 8 ohms. $41 / 4^{\prime \prime}$ deep. Shpg. wt., 3 lbs. list 22.50

Net 13.23
MODEL C-63W 15" - Adjustable high-end, simitar to C. 12 W . Response averall $30.6000 \mathrm{cps}, 11 / 2 \mathrm{ib}$. magnet. 30 watts. 8 ahms. $10^{\prime \prime}$ deep. Shpg. wh., 10 lbs.
Llat 81.66
Net 48.02
MODEL C-ISHC 15" - New tyoe high compliance woofer using now Hiflux UNIFERROX-7 magnet material for posifive transient control during moximum excur sions. Yields ostaunding bass depth with ultra-linear response throughout entire low frequency range. Recam mended enclosure ar baffe valume 3.4 cu . ft. with duet $4^{\prime \prime}$ in longth and $3^{\mu}$ in dlam. at rear of onclasure. Resonance 15 cps . Response to 800 cpr. Dual impedance vaice cail. Power rating 20.70 watts depending on system. $91 / 2^{\prime \prime}$ deep. Shpe. Wt., $243 / 4 \mathrm{lbs}$
UNIVERSITY C-15HC - List $149.16 \ldots . .$. Net 87.71 MODEL C-12HC 12" - Similar to C-15HC. Pawor rating $25-60$ watts. Recammended baffe 1.8 cu . ft. wlth $10^{\prime \prime}$ duct and $3^{\prime \prime}$ diam. at rear af enclasure. Response to 2500 cps . Resonance 18 cps . Dual impedance voice coil. $61 / 2^{\prime \prime}$ deep. Shpg. wt., $81 / 2$ lbs. List B2.50. Not 48.51

# University SPEAKER SYSTEMS and ENCLOSURES 

## university "Decor-Coustic" speaker systems

## Model 5-5 "The Senior" 3-Way 5ystem

Fulfills the need for a lop quality performe where space and budget are limited. Includes basic C-12W woofer (less respanse limiter), H-600/T.30 mid-range combination, UXT-5 "reciprocating flare" wide angle super-fweeter, and Acoustic Baton (N-3) network with "Brilliance" ond "Presence" controls. This outstanding team of components per forms with excellent efficiency to beyond audibili Iy, handling up to 30 watts of integroted program material. Installed in University's newest folded harn enclosune, the result is smooth, natural repro duction of speech and music. Made by maste craftsmen with the same quality of material workmanship and finish as the finest furniture Available in mahogany, walnut and blonde. Size $2112^{\prime \prime} w \times 153 / 4^{\prime \prime} \mathrm{d} \times 30^{\prime \prime} \mathrm{h}$. Shpg. wt., 85 lb

UNIVERSITY 5-5-Speaker System Complete (Mo
hogany). List 333.33

UNIVERSITY S-5 Speaker System Complete (Wal nut). List 348.33
UNIVERSITY 5.5 - Speaker System Complete (Blonde). List 341.67 .................. 200.90 UNIVERSITY MODEL EN-12 ENCLOSURE ONIY As used in "The Senior" system but less speake components. May be used with ony University or ther $12^{\text {" }}$ speoker ar multiple speaker system with 12"1 woafer, H-600 horn with T-30 driver for mid range or T-50 driver for full range and with 4401 UXT-5 or HF- 206 as tweeter. Shpg. wt., 60 lbs
EN-12—Mahogany. List 126.67...... Net 74.48
EN-12-Walnut. List $139.17 \ldots .$. .....Net 81.83
EN-12—Blonde. List 132.50
Net 77.91
EN-12—Unfinished. List 109.17
Nel 64,19


Provides the full response and full dynamic range of musie at an attractive price for such quality. Includes the C-15W 15" woofer, the H. 600 horn with T-30 driver for mid-range, and the HF-206 hypersonic twester for natural highs. The N-3 hypersonic tweeter cror natural highs. The "Noustic Baton" crassover network with "Bril"Acoustic Baton" crassover network with "Brilmatehed feam of quality components. Performance matched team of quality components. Performante competes with many systems considerably lorger in
size and higher in cost. Handles up to 50 watts size and higher in cost. Handles up to 50 watts
of program material. All components installed in of program material. All components installed in which permits use either in a corner or hat against a wall. Size: $27^{\prime \prime} w \times 20^{\prime \prime} d \times 37^{\prime \prime} h$. Availoble in mahogany, wolnut or blande. Shpg. wi., 130 lbs. UNIVERSITY 5-6-Speoker System Complate (Mahogany). List $\$ 16.67$................. Net 303.80
" 3-Woy Sysfem
UNIVERSITY S-6-Speaker System Complete (Wol nut). List 541.67

Net 318.50
UNIVERSITY 3-6 - Speaker System Complete (Blonde). List 533.33 . ................ Net 313.00 UNIVERSITY MODEL EN-15 ENCIOSURE ONIYAs used in "The Moster" system but less speaker omponents. For use with any $12^{\prime \prime}$ or $15^{\prime \prime}$ speaker or for any multiple speaker combination such os $12^{\prime \prime}$ or $15^{\prime \prime}$ woofer; $8^{\prime \prime}$ speaker or H-600/T-30 for mid-range; 4401, UXP-5, HF-206 or H.600/T-50 as meeter. Available in mahogany, walnut, blond ar unfinithed. Shpg. $w \mathbf{I}$., 96 lbs
EN-15-Mohogany. List 208.33 . ..... Net 122.50 EN-15-Walnut. List 232.50 Net 136.71 EN-15--8londe, List 225.00 EN-15--8londe, List 225.00
EN-15-Unfinished. List 170.00 Net 136.71

## Model $5-8$ "The Classic" Deluxe Sysfem

The CLASSIC 3 -way systom embadies many engineering advances. Companents installed include the C-15W $15^{\prime \prime}$ woofer; Cobreflex wide-angle dual ex panential horn with T. 30 driver for rich, full-bodied panential horn with T-30 driver for rich, full-bodied
middle frequencies; the new HF-206 hypersonic middle frequencies; the new HF-206 hypersonic weeter plus the $\mathrm{N}-3$ "Acoustic Botan" network
with "Brilliance" and "Presence" controls. The en with "Brilliance and "presence"controls. The en aperating the woofer as a compression driver for moximum efficiency-thus functioning independently af walls and floor. May be used as a "lowboy or "highbay" console. Response 20 cps ta inaudi bility. Handles up to 50 wats of integrated pro grom material 8 ohms impedance. Available in mahagany, walnut and blonde. Size: $401 / 2^{\prime \prime} \times 251 / 2^{\prime \prime}$ x $341 / 2^{\prime \prime}$ high. Shpg. $\because \cdot 1,225$ lbs.
UNIVERSITY S-8-SL raker System Complete (Ma hogany). List 791.67 . . . . . . . . . . . . . . Nel 465.50 UNIVERSITY 5-8-Speoker System Complete (Wol nut). List 866.67 . . . . . . . . . . . . . . . . . . . . Net 509.60

UNIVERSITY S-8 - Speaker System Complete Blande). List 825.00 . . . . . . . . . . . . . . Net 485.10 UNIVERSITY $\mathbf{5}-9$-"Classic" System. Complete in unfinished EN.CB cobinet. Shpg. wt., 185 lbs list 533.33 ............................ 313.60 UNIVERSITY EN-CE ENCLOSURE ONIY-Some as used in "Classic" system, completely assembled but unfinished, less base and frame, complete with unfinished, less base and frame, complete with
 UNIVERSITY S-7 "DEAN" DELUXE CORNER SYS TEM-Same 3.way system as the "Classic" bui with full compression, front-looded, folded horn cornerless-corner" enclosure for corner or side wall. $3756^{\prime \prime} w \times 263 / 4^{\prime \prime} d \times 361 / 0^{\prime \prime} h$. Shpg. wi., 20 lbs
5-7-Mahagany. Lisi 791.67......... Nel 465.50
5-7-Walnut. List $886.67 \ldots . .$. .......Net 509.60
5-7-Blande. List 825.00

## Model 5-3TM "Tiny-Mite" System

"Cornerless-corner" design, suitoble for corne installations or against a flat wall. This well-pro portioned "Decor-Coustic" unit, with Model 30 B 3. woy Diffaxial Speaker is a powerhouse of acous. tic energy. Combines the best features of horn looding, phose inversion and direct radiation to ashieve balanced extended range performance with high output. Woofer section features specially reaved diaphragm with extro-large vaice coil and undistorled bass response; full-bodied midrange with mechanical crossover at 1000 cps provided by "diffusicone" element; smooth highs to 15,000 eps provided by driver and "reciprocating-flares" horn crossing over electrically at 5000 cps . Power rating up to 25 watts program material. 8 ohms. $151 / 2^{\prime \prime} w$ $\times 121 / 2^{\prime \prime \prime} \mathrm{d} \times 211 / 4^{\prime \prime} \mathrm{h}$. Shpg. wi., 30 lbs

UNIVERSITY S-37M-5peaker System Complete (Mahogany). List 141.67...............Nel 83.30 UNIVERSITY S-3TM-Speaker System Complere Walnut). List 149.17 . . . . . . . . . . . . . Net 87.71 UNIVERSITY S-37M-Speaker System Complete (Blonde). List 146.67 ....................Net 86.24 UNIVERSITY TM-812 ENCIOSURE ONIY-As used in "Tiny-Mite" system but liss speaker. Suitable for $8^{\prime \prime}$ or $12^{\prime \prime}$ speaker. Shpg. wt., 25 lbs.
TM-812-Mahogany. List 72.50 ...... Net 42.63 TM.812-Wolnut. List 80.83 . ......... Net 47.53 M-812-Blonde. List 77.50 ......... Net 45.57 TM-812-Unfinished. List 62.92......Net 36.99

## NEW FOLDED-HORN ENCLOSURE "KWIKITS"

Sturdy, carefully-engineered, genuine Korinc veneer speaker enclosures for "do-it-yourself" as sembly, similar to EN-Series enclosures. Pre-cui complete with all necessary hardware. Made from $3 /{ }^{\prime \prime}$ " first-grade, fully-cured lumber for top, botlom sides and bark. All pieces precision cut and pre drilled-only a serewdriver is needed! Baffie boare pre-cut-blonk plugs and adoptors supplied for easy installation of additional components as sys lem exponds.
Acoustic design combines direct speaker radia tion with rear horn loading to blend bass, middle and weble ranges for uniform respanse anywhere in the room. "Kwikits" performance is independen of room ocoustics and can be used against a flat
wall, in a corner or anywhere in the roam.
Kits complete with hardware, plastic wood, glue sondpoper, Tuffex insulation, and easy-to-fallow instructions. Size: KEN-12: 211/2"w x $151 / 2^{\prime \prime} \mathrm{d}$ $291 / 2^{\prime \prime} h$; KEN. 15; $29^{\prime \prime} w \times 181 / 2^{\prime \prime} \mathrm{d} \times 351 / 4^{\prime \prime} \mathrm{h}$. Shpg KEN-15: 70 lbs; KEN-12: 45 lbs .
UNIVERSITY KEN-15-Kwikit for $15^{\prime \prime}$ speakers and multi-speaker systems, complete. List 99.17 UNIVEPSITY KEN-12 Kwit for Nef 58.31 and multi Net 43.86 ADAPTER-For mounting $12^{\prime \prime}$ speaker in KEN-15. List 2.50

## ElectroVoice HI-FI SPEAKERS

## MID-BASS AND TREBLE DRIVER-HORN ASSEMBLIES



Model 118 -Mid-bass. dusl-driver assembly, Includes two segilf drivers, two nild-bass in Patrictan and custom Installitions. Ite sponse when used in recommended z01-rycle horm, 120 to 1000 eps. ARTMA sensitility rating 52 dh. Pover handiling rajuarlity in watts program, 60 watts peak. 16 ohms im-

Modef MT30-Mid-thass and treble driver
assentily. Inclutes 828ifF roavial driter, assemity. Inclucies s2alif coavial driver. treble horn. suld-bass horm apetions, angle range speakers and deluze pliase loided sysrange syeakers and deluse pliase loided sys-
tems.
giesponse in recommended $200-c y r l e$ harn, $200-11.000$ eps. Rensitirlis rating 12 dis. $3 n$ "itis progran, fio watts jeak power


Model MT308-Kimilar in MT30 ahove exceit euploss sanifiri driser unlt. for use with metlum-enicleics speakers and phase
loaded ss stems. Fienstitity rating is db. 20 watts urograju, t9 watt treak ponver estoclty. (Other sperfficalions same as MrT30.) Nrt
Barli .................................. 34.30

## DIFFRACTION HORNS <br>  <br> 43

Model 8HD Difrection Horn. Ner prin cinle provides berfect disuerslon of hish irk rutor tho cps. rrusioner sou rus, elliminating
 $71 / 2$ d Mounting hardware Included. Bhos. re \& Jhs
Net Each
17.6

Model 6HD Diflraction Horn. For Bystems utilizing 600 rps erossover. Horn designed with actual $\$ 00$ evis cutorf: prevents resjonse disturiances assorlated with onera-
tion two near actua! cuton lroint wif ration tlon too near actual rutov woint Dincartion $19 \%^{\prime \prime}$ W., $12^{\prime \prime} \mathrm{d}$. For TIOA and Teg.A drir
ers. Mounting hanjuare included. Shpg. wt 6 ibs.
21.56

Model AT37 Level Control. 16 uhm " 2 Dad. For use with T3:. Tish, TloA, Tyid justs output level to individual tasto. Mahoz Net fiach
3.81

## NEW IONOVAC IONIZED AIR VHF DRIVE

Moded $\mathrm{T} s 00$ lenovec-For those who desire the very finest in smooth, exiended hifh-frequeney
 phrazm. This cloud ta modulated directls by the audlo stgnal firoducing ramplurtlon and comareas sion of the alr forming eound. This sound is unrestrieted by properties of mass: not only dovew it


 Net Eai'h
147.00

## VERY-HIGH-FIEQUENCY DRIVERS

Bmooth. slliky reproductio
inger extended response to beyond audible limits ustng diffracti
lover's cholre
 Wed el T3S0. Adds very hizh frequencies with reserve power, extra snmblivity. For uw in arluxe


 Wide. Pot $24^{\circ}$ diameter, Overait depth $311^{\circ}$, Shime. Wi, 3 Jbs. Net Fach......... 34.30
 diameter, Overall depth $3^{\circ}$. Shag. Wit. 3 lbs. Net Each...................................... 21.56

## TRX INTEGRAR 3-WAY SPRAKERS

Three-in-one ennceniple damifn comblaps the atvantages of super-sonax VHF reproduciton Hadax uropagator, snd large bask cone with heavy maknel in one compact, low-priced anderibls: Mod of 15 TRXE-Integrated 3-way aqsembiy
completely, Wred with HE Conirol. Overall diant. $1555^{\circ}$. Remonance $38-48$ chs. 20 watts. Magnet ซelght $\frac{1}{2}$ tb, 2 oz Resionse $30-15,000$ efs in EMidRE. Merhaniral erosnover 20100 mounting panel 7 ? 3500 epa Depth behind
 X 36 not required. Net Each........ 77.42 Nod ef $157 \mathrm{RX}-153^{\circ}$ diameter overall. Res onance $35-45 \mathrm{cps} .30$ watis, Magnet weight, $5 \%$
ibs. liogoonse. $30-15,000$ cps in recommended libs, ikesponse, 3n-15,000 cips in recommended $94^{\circ}$. Mechanical erussuver 2000 cjs , electrical rug. SI db. Shipulne Weight 18 lbs. Wilh $\mathbf{~} 36$ and AT37. Net fiach............... 146.02 completely wired with HF control Usyentbly diam. $12:$. Resonagce 45 cis, 20 watts. Mas
 ARISTOCRAT. Mech, crossover, 2000 cus; bult-ja electrical crossover. 3500 rgs. Depth 16 db . Shipping Wexphi 14 ohms ibs. Xhe is itg required. Net Emeh
Medel 127 RX-Overall diameter 12 K 6.6 onance, to eps. 25 valls. Magnet welsht 34 onance, to eps. 25 watts. Magnet welkht. 3 gh ARISTOCRAT enclosure. Mechanical cross over, 2500 cps: electrical crossoyer, 3500 eps Depih hehind mounting panel, $8^{\circ}$. impedance 18 ohms. Scns. rif. 49 db. Shipplni Melight 32
lbs. With $X 36$ and AT37. Net Ea. 122.50

## RADAX COAXIAL SPEAKERS

The EV Radax Principle ta ma coonomical. superemcient methot of usting twio coarlal cones, moth operating from a slagle voice coll, to divide the awdible shertrum for clean, sparkillug repronturtion.

 Moder Sp128 Rodar Tworv- $12^{\circ}$ suenkr.


 Model SP12Radan Supor-Twolvo-120
 Sens. fig. 48 db . Crossover. 4000 cps. 3 lb . Anico maynet $124^{\circ}$ dismeter. 11. bame openhir. ${ }^{7}$ Kolgh $^{\circ}$ depth behiad panei. shlpping

## LOW-FREQUENCY DRIVERS


 pangel. Shipping Wetght 12 tos. Net Eseh
Mod el 12 W - 19 LF drtver. Resonance, 35-45 fis. 3 ib. Ainico $V$ maknet, 25 watts. 16 ohms 11 mas. bame opening 7 y in depth behind panel. shilpplat Wetrht 25 ths . Net? 64.68 Modd $158 \mathrm{~W}-15^{\circ}$ LF drlver. Resonance, 38 48 ens. 1 lb. Alatco $V$ magnee. 20 watty, 16 $134 \mathrm{y}^{\circ}$ max. bame opening. $74^{\circ}$ depth behtid mes. panel. Shpe. Wi. 15 ibe. Net. 42.14 Mod of 158 WK -Above, but 3.2 ohms DC. (for Indirect radiator horns). 16 ohms. 42.14 thedel $15 \mathrm{~W}-15^{\circ}$ LF difver. Resonince, $25-35$
cus. 5 s lb . Alaica V magnet. 30 waits. 16

## TRELE DRIVERS

Medel TESA-HF driver, 20-30 wates ReShonse, $400-13,000$ eps. Impedsper, 16 ohms: Welaht 6 ibs Net Each. .......... 58.84

 isk diam., $13{ }^{\prime} 4^{\circ}$ batile opening. 7 ; behind mig. pancl. Shlppligg Weizht is the Mo Len. ....................... 12.14 Model SPis Radax Super-Fifteen-IS
 50 db . Croasoyer, $3000 \mathrm{cps}, 5 \mathrm{~K} \mathrm{ib}$. Alnico magnet. $1544^{\prime \prime}$ diameter, $1344^{5}$ baifie openink N depth betiond panel. Shipolng Weight 11 ib
87.22 ohms Impedance. Sens. rtg., 50 Ab, $15 \mathrm{Y}^{\circ}$
 87.22 Medel 15 WK-Above, but 3,2 ahms DC. 29 eps resonance (for Indirert radiator horns). If
ohms Impedance. Net Esch......... 87.22 Woad $18 \mathrm{~W}-18^{\circ}$ LiF driver 30 watte Kesonanee, $25-35$ chs 18 ohms ingmance. sens
 8hipping Welght 43 lbs. Net Each. 117.80 Wedel 18 WK-Above, but 3.2 ohms DC. 20-30 eps rumonare (for Indirect radlator hurns). 16

Moded T10A-HF driver, 20 wetis. Hesponse tu0-13,000 cus impedance. 16 obras; Sens eter, 3 y - deep. Throat diameter. Ko. Shippling Hetght 4 lbs. Net Eimet............. 41.85



Page 20



Modet $x 425$ Croszover. In mection. Crwsover point. 400 gis.


Model XB25 Crossover as uned In F.Y 108 system. Y sertion. (ruatwor Imint, N(m) cims. Itapedances 16 ohms in and out. size



Model X6 Crossover. I/ sprition. Croxenver point, 60n eps. Shlushare Wetchi Hits. Net Fiach..................... 38.22 Moded X336 Crossover dealigned for Georgian and Centurion systems. Crosbover goints at 300 and 3500 cps. Impedances 16
 Moder K36 Crosevver. Recommended for use with T35 and T35R.
 Kut silut. Croasover jolnt, 3500 chs. lagyeriances 16 ohans in and wioded $\times 2635$ 4-Wey Creseerer. If and $1 / 2$ sections. Crossover points, 200,600 , and 3500 erw. Iminedances $t 6$ ohms in and out.
 Net fiach

## ElectroVoics SPEAKER SYSTEMS \& ENCLOSURES



REGENCY


ARISTOCRAT


MODEL 108A

E.V designed systems entond the lows ond enhance the highs wif Hzing the Klipseh-licensed horn tooding principle of employing the wolls of the room. Provides odded boss and direct fron rodiation of higher trequencies with smoother, cleaner, overal musicot Lolonce. Gives you musit as you want to hear it. Each is designed for proser room placement and room coveroge ond styled to complemant ony interior decor.

ARISTOCRAT THREE WAY SYSTEMS
The Axistocrat is on extremely populor, direct-rodiotor folded horn corner enclosure for $12^{\prime \prime}$ speations ond systems. Feature bolanced boss ond freble without boss boominess. Authentically styled in line veneers with tustrous hand rubbed finish. Brushed brass grille provides a groceful occent. Fits beoutliully in ony room. Sire $29 \%^{\circ} \mathrm{H}=19^{\circ} \mathrm{W}=16.5 / 10^{\circ} \mathrm{D}$.

ARISTOCRAT IA THREE WAY SYSTEM
An economicol seporale 3 -woy loudspeoker syslem, Model 108 a is completaly wired ond installed in Aristocror enclosure. Em plops $128 \mathrm{~W} \mathbf{1 2 "}^{\circ}$ If driver, $x 825$ scossover nelwork, 110 reble driver with 8 HO diffroction horn. 1338 VHF driver. X36 elec trical crossovet and 2AT37 contrals for level and brillionee. Shpg. wt., of lbs.
Mahogany ............ Net 235.20 Blonde Limed Ook or Wolnuf..............................tet 242.0 S AlISTOCRAT III THREE WAY SYSTEM
A doluat system ulilizing Model llla seporote 3 -woy speoker Aristocrot IA. Complete with components wired ond instolled in cabinet. Shpg. wi., 74 lbs.

## ARISTOCRAT ENCLOSUAE ONLY

Speoker enclosure described above bul lesss speoker components. Klipseh-licensed folded-horn design. Shpg. Wt., 44 ibe
Mologany
Blonde Limed Oat or Wolnut Net 10.56

REGENCY III THREE WAY SYSTEM
The Regency combines the odvantoges of loided horn perform. once with room.plocement versatility. A "built.in" corner onobles une ogoinss o woll for ensentiolly flat response or it can of the folded horn for ougmented boss production. Hondromely oryled in low.bor morit with selected hand rubbed vendsomsoly strled in low-bor motit, with selected hand rubbed veneers ond orushed brass grille.
A dolume seporote 3 woy loudspeaker sysiom Model 114 B is com pletely wired ond installed in the enclósure. Incfudes isw $15^{\circ}$ If Driver, X8 crossover network, T2SA trable driver with BHO diffroction harr, T3S VHF driver, X30 crossover network ond 2 Ar37 level controls for level and brilliance. Shpg. W'., 135 Jbs. Mohogany Blonde Limed Ooh or Wolnut ...N Net 394.94

MEGENCY ENCLOSURE ONLY
This folded horn speaker enclosure is for $15^{\prime \prime}$ speatiers ond sepa rote 2 and 3 -woy systems. Less speoker components. Shps. wl. 90 lbs
Mahogany
Blonde Limed Ooh or Walnut
Net 127.40


CENTURION SOUR WAY SPEAKER SYSTEMS The Centurion is o beoutifut, ocousticolly designed onclo. sure amploying o $W$ single poth indirect radiator folded horn. The 4 -way system reproduces tull tonal range. Mul.
liple drivers ond crossover points insure clean dislorlian liple drivers ond crossover points insure cleon dislorlion-
lree ceprodution of eoch portion of the oudio spectrum, Iree reprodution of eoch portion of the oudio spectrum
in pioper bolance. Size $42 \% 0^{\prime \prime} \mathrm{H} \equiv 29^{\prime \prime} \mathrm{W} \equiv 2212^{\prime \prime} \mathrm{O}$. CENTURION IV Complete A.woy $15^{-}$C Ioudspooker system using the 1178 economy $K$ type indirect radiotor folded-horn system, com oletely wired ond instalied in the Centurion enclosure. Consists of 158WK if driver, MY308 cooziol mid-boss ond ${ }_{2}^{2}$ Al37 controls lor level ond brillionce. Shpg. Wf.. 127 lbs Blonde Limed Oat or Wolnut.................. Not 391.02

SENIOR CENTURION IV
A delure instem simior fith the highty in oppeoronce. sire ond construction but with the highiy elficient Model tory wired and installed. Shpo. W1., 165 lbs.
Met
Blonde Limed Ook or Wolnut
Net 477.26 Blonde Limed Ook or Wolnut NETEM Ne1 484.12 IHF CENTURION ENCLOSURE SOLD ONLY WITH SYSTEM INSTALLEO

GEORGIAN IV FOUR WAY SPEAKER SYSTEM complete 4-woy loudspeater sritem wired and in. stolled in corner enclosure. Completely compression operated to minimise distortion and permit use of tipitisity of erossaver points ond speciolly designed crossover network per mits smooth tramition dram one section of the spectrum to another Luzurious cobimetry. selecied vencers with lustrous hand rubbod linish on oll enposed sides, and bruthed bross gritle. Employs 15wk sperialized $\alpha$ mpe if driver. mi30 reentront Mid-boss horn assembly. $\times 336$ networh. T350 VHF driver, and 2 AT37 level controls for presence and brilliance. Impedonce is 16 ohms Power hondling coopority is 35 watts of program material, 70 wotls on peot. Dimemions $53^{\circ}$ high. 34" wide, $26^{\prime \prime}$ deep. Shpe wt.. 290 lbs.
Mohogony 540.10 Blonde Limed Ook or Woinut ........Nel 553.60 THE GEORGIAN ENCLOSURE SOLD ONLY WITH SYSTEM INSTALLED


GEORGIAN

## SPEAKER ENCLOSURE KITS

Economicol, easy to obsemble, complete kits for construction of Klipsch-ticensed folded horn speaker enclosures. Kits include alt ports, pre-cul lumber, qlue, screws and noils. Delailed, easy-fo-follow ossembly instructions ore provided You can sove money oorts, pre-cul lumber. glue, scrows and noils. Delailed, easy-fo-fol

## KO7 THE BALONET UIT

 Shpg. wi. 24 hbs. KOV THE ARISTOCRAT MIT
 Shpe. wl.. 37 ibs.
KDo ANIStockat KIt


THE XOS EMPIRE XIT
An conomicol lowboy enclosure for $15^{\circ}$ speaters ond sysiems.
Finished size is $29 \% 5^{\circ} \mathrm{H}=32^{\circ} \mathrm{W}=16^{\circ} \mathrm{O}$. $\$ \mathrm{hpg}$. Wh. . 45 ibs Finished size is $29 \%{ }^{\prime \prime} \mathrm{H}=32^{\circ \mathrm{W}} \mathrm{W} \times 16^{\circ \prime \mathrm{O}}$. Shpg. Wl. 45 lbs.
KOS EMPIRE MIT. MODEL I16A 3 .
$\qquad$
XD3 THE CENTURION XIT
Delune enclosure designed for $15^{*}$ four.woy spolker susems us. shpg. wt. 75 ibs
KOS CENTURION XIT Ne1 05.26 MOOEL IIPB A.WoY SYSTEM FOR ABOVE
 Shpg. wi. 100 lbs Ne1 147.98 Net 240.10 Net 240. 10 DECORA Cusiom sets of metal trim ond grille provi
peronce of onclosure 4 its.
MODEL AX 3 TRIM KIT FOR GEORGIAN Shpg, wl., 4 Ibs......
Finishing kits make it easy to obtoin professionalolita furnifure
Finishing tits make it easy to obtain professionalalite furnifure
linighes. Complete tits comoin stain, Piller, seoler, shelfac vinishes. Complete lits comoin stain, fillel, seoler, shellos, shmpg. wi.. o lbs

Inished op.
Net 11.76 FINI
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EARONET ENCLOSURES AND


## Jensen High Fidelity Loudspeakers and Components



## 0 <br>  <br> YOU'RE AHEAD WITH JENSEN AUTMENTIC HIGH FIDELITYE

The new Jensen line of unltary loudspeakers ofers for the first time a complete range of types and bizek to meet every performance and budget requirement. Many have remarktypes and sizek to meet every periormance and budzet requirement. Many have remartudestgn and advanced manufacturing methods have resulted in more performance authenttc high adelity by Jensen . . . at lower cost.

## TRIAXIAL AND TRIAX 3-WAY SYSTEMS

The famous Jensen C-610A and new G-600 are genuine 3-way systems, the only speakera with three electrically and acoustically independent L-F, M-F and H-F channela for utmost balance, efmelency, amoothness and range extension to upper hearing limit. M-F and H-F sections both employ compression-driver horn-loajed units for low alstortion and wide angle dippersion of highs. Beparate dual cronsover network, M-F and H-F Balance Controds, fully wired. The ultimate th performance in a unitary speaker.

## COAXIAL 2-WAY SYSTEMS

Jensen "H" and "K" Series Coaxials are genuine 2-way with electrically and acousticaliy Independent "woofer" and "iweeter" "K" Sories uses direct radiator cone type "tweeters" for a maximum of value at low coat; they have integral electrical crossovers. KTX-2 Step-Up Kit will later provide compression-driver highs above 2000 cpss ."M"Sortes is denigned for ultimate comaxial performance; they employ the expensive through-hore com-presslon-driver "tweeter" for maximum 2-way system performance and low crossover requency ( 2000 eps). Full L-C crossover network. KTX-1 Step-Up Kit may be alded hater for range extension to upper hearing limit.

## COAXIAL 3-ELEMENT SYSTEMS

CX. Serfes apeakers are a combination of a compression driver supertweeter and a -element direct-radiator woofer-mid-channel. Electrical crossover is at 1000 eycles mail ditiusion radiator dispersen and balances radiation trom 2000 to 4000 cpa . Three cerminals for enay wiring of KTX-3 Btep-UD Kit for Iater converston to full 3-why syatem with compresaton driver mid-channel. A "beat buy" for performance interinediate between DUAX and "E" Gerles coarials.

## DUAX 2-ELEMENT SYSTEMS

"DX" Serten speakers have two carefully coordlnated cones driven by a slagle volce coll. Both operate together up to a "mechanical erostover" at 4000 cjs ; the small H -F radiator s effectlve above 4000 cips. May be expanded to 2 -way gystem with compression driver tweeter" with KTX-2 step-UP K1t

## UNAX SINGLE ELEMENT LOUDSPEAK哄S

A new bigh in single-cone alngle volce coll speakers with performance exceeding that of some gpeakers costing far more. Cone is apectally deaigned so central sector radatem smoothly and emctently at high irequencies. Viscous edge damping. KTX-2 Step-Up Kit may be added to make 2 -way system.

| Model No. | Type | Sire | Frequency Range | $\begin{aligned} & \text { mpod. } \\ & \text { Ohmin } \end{aligned}$ | $\begin{aligned} & \text { Power } \\ & \text { Reting } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Mognot } \\ & \text { Wolght } \end{aligned}$ | ${ }_{\mathrm{Klt}}^{\mathrm{St}}$ | Shipping Worght | $\begin{aligned} & \text { Not } \\ & \text { Price } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C-610A TRIAXIAL | 3-way | 15 | 25-UAL | 16 | 40 w. | $6 \%$ the. |  | 46 libs. | $\$ 252.75$ |
| G-500 TRIAX | 3-way | $15^{\circ}$ | 30-UHL | 16 | 35 F . | 34108. |  | 36 Y libe. | $128.50$ |
| म-320 Conslal | 2-way | 15 | 30-15.000 cps | 16 | 27 W. | $1 \%$ lbs. | KTX-1 | 16 libs. | 79.50 |
| M-222 Coaxial | 2-wry | 12 | 30-15,000 ера | 16 | 25 w. | 13 lbs | KTX-1 | 13 lbs. | 82.50 |
| K-3IUA Coaxlal | 2-x- | 15 | 40-14.000 cpos | 16 | 16 w | * Ib. | KTX-2 | 12 H14. | 38.75 |
| K-210 Coaria! | 2-way | $12{ }^{\prime \prime}$ | 45-14.000 cps | 8 | 14 w | 416. | KTX-2 | $7 \mathrm{lbs}$. | 27.50 |
| K-80 Comrlal | 2-w ${ }^{\text {- }}$ | $8{ }^{\circ}$ | 80-14,000 eps | 16 | 12 w | \% 1 lb . | KTX-2 | 4 Ibs. | 18.75 |
| cx-235 Coaxlal | 3-clement | 15 | 30-15,000 edR | 18 | 27 w . | 1\% 1\%s. | KTX-3 | 134 lbs . | 78.50 |
| CX-150 Coaxial | 3 -elerment | 15 | $30-15,000$ cj) | 16 | 25 w. | 1 lb . | KTX-3 | 1213 lbs . | 68.50 |
| CX-225 Coaxial | 3-element | 120 |  | 16 | 22 w. | 1/6 libs. | KTX-3 | 10\% Ibs. | 58.50 |
| Cx-120 Cosxial | 3-element | $12^{*}$ | 30-15.000 сря | 16 | 20 \% | 1 lb . | KTX-3 | $9 \% \mathrm{lbs}$. | 49.50 |
| DX- 50 DIfAX DX-120 DUAX | 2 -element | $15^{\circ}$ | 40-13.000 cps | 16 | 22 w | 1 ib. | KTX-2 | 11 lbs. | 35.50 |
| DX-120 DUAX | 2-alement | 12* | 40-13,000 cps | 16 | 20 w. | 1 lb. | KTX-2 | $7 \% 168$. | 25.50 |
| UX-120 UNAX UX-80 UNAX | single etement slingle element | ${ }_{8}^{89}$ | 10-12,000 cps $50-12,000$ cys | 8 | $\begin{aligned} & 14 \mathrm{w} \\ & 12 \mathrm{w} . \\ & \hline \end{aligned}$ | $\begin{aligned} & 14 \mathrm{lb} . \\ & 1 \mathrm{lb} . \end{aligned}$ | $\begin{aligned} & \text { KTX-2 } \\ & \text { KTX-2 } \end{aligned}$ | $\begin{aligned} & 51 / 2 \mathrm{lbs} . \\ & 4 \mathrm{lbs} . \end{aligned}$ | 18.50 |

## STEP-UP KITS

These new Step-Up Kits give inexpensive easy-to-add, acoustically correct, increased performance to starter speaker systems. Speaker, network and control packaged with wiring material and simple instruc. tions.


## KTX. 1 STEP.UP KIT

Supertweeter type. Adds smooth, clean distortion-free highs from 4000 cps to upper limits of audibility to any speaker system. Makes a 3-way system out of any 2 -way speaker or system. Consists of RP. 302 supertweeter, A-402 network and ST. 901 control. Power rating, 35 watts. Impedance, 16 ohms. Shpg. wt., 5 lbs.
KTX-1—STEP.UP KIT .... Net \$435


## KTX-2 STEP-UP KIT

Tweeter type. Gives full compressiondriver horn-loaded performance in the 2000-15000 cps range. Converts any single or dual cone or coaxial speaker with direct radiator tweeter to a fine 2 -way system. Consists of RP- 103 tweeter, A. 204 net work and ST-901 control. Power rating, 30 watts. Impedance, $8-16$ ohms. Shpg wt., 7 lbs.
KTX-2-STEP-UP KIT
Net ${ }^{5} 32^{50}$


KTX-3 STEP.UP KIT
Midrange type. Provides distortion-free compression-driver horn-loaded reproduc tion in the important midrange from 600 . 4000 cps. Converts coaxial speakers to true 3 -way systems. Consists of RP-201 midrange unit, A-61 network and ST-917 control. Power rating, 35 watts. Impedance, 16 olms. Shpg. wt., 17 lbs
KTX-3-STEP-UP KIT .... Net $\$ \mathbf{6 2} \mathbf{2 0}$


A guide to kit selection and enclosure construction: Describes Bass-Ultraflex and back-loading Folded-Horn enclosures in complete detail with exploded views and simplified wiring instructions.
JENSEN MANUAL 1080 . . Net

## NEW 2-WAY SYSTEM COMPONENTS

Ideal for inexpensive 2 -way systems. A choice of compression-driver RP103 or direct radiator P35-VH tweet. ers is available, either of which may be used with $\rho_{12-R L}\left(12^{\prime \prime}\right)$ or P8 RL ( $8^{\prime \prime}$ ) woofers for a matched sys. iten. For crossover use 2 mmf . capacitor or A-204 network.


## P12-RL OOFER

Power 20 watts. $40-2500$ cqus. 1 mp., 16 ohnis. Maynet $1 / 4 \mathrm{lb}$. D1-Ainlco-5, sise: $12 \% \%^{\circ}$ OD; 61 D: Cutout $10 \%$ dia. Nhtg Wit., 6 lbs. \$290


## PA-RL WOOFER

 $\mathrm{DP}^{\circ}-\mathrm{Ainico-5}$. Size. By" OD:


P-103 TWEETER Compression horn tybe. l'ower 20 watis. 2000-15000 cjes. 1 ml -

 shipg. Wi.:
Net Wiach.


P35-VH TWEETER
Direct radiator type. lower IS watts. $2000-1+000$ ehs. Imp. 18
 Cutout 34 dia. Shlpilng Wi Net Each

# HIGH FIDELITY SPEAKERS 

##  <br> WHARFEDALE LOUDSPEAKERS

Bullt under the personal supervision of world-fomous laudspeakef authority G. A. Briges. Feature foom cone-edge suspens
Quency distortion. and "Wooth response. Soocial cone for smoother response in upper-middle range. Extremely high sensilivity, Spocial cone for smoother response in upper-middle range. Exiremely high sonsiviry excellont domping. One of the most powerful magnets in use today- 17,000 lines flue density. Voice coll $12+15$ ohmsj reson
Response $30+18000$ cos. Sho. wt.. 19 lbs.
Response $30+18000$ cos. Sho, wt.. 19 lbs
WHARFEDALE SUPER 12/FS/AL
Net 76.93
SUPER 8/FS/AL 8" WIDE RANGE-Response $50-20,000 \mathrm{cps}$. Recommended os single speoker in moderately priced systems or in 2 -woy or 3 -woy systems with 1000 cps crossover. Impedance $8-10$ ohms; Resonance $55-65 \mathrm{cpsz}$ fluz density 13,000 lines: 4 watts power hand ling. Shpg. wt.. 4 lbs
WHARFEDALE SUPER 8/FS/Ai …................................................................ 22.05
W15/FS 15" LOW FREOUENCY DRIVER ("WOOFER'")-Response 25-3,000 cps. Impedance 12.15 ohms; pewer ratings 15 watts; resononce $25-30$ cps; flux density 13,500 liness depth $71 / 2^{\prime \prime}$. Shpg. wt., 18 lbs
WHARFEDALE W15/FS
Net 76.93
W12/FS 12" "WOOFER"-Similar to above. Impedance 12.15 ohms, resonance 30.35 cps; flux density 13,000 lines; power 12 watts; depth $61 / 2 \%$. Shog. wt. . $131 / 2 \mathrm{lbs}$ WHARFEDALE WIZFS

Not 43.12
SUPER 3 TREDLE SPEAKER ("TWEETER") - For extending high frequency ${ }^{\prime \prime}$ © sponse. Range 3,000 to $20,000 \mathrm{cps}$ eatremely smooth response, high sensfivity and efficiency. Yoice coil impedance 8.15 ohms; flux density 13,000 linesj depth $2 \% /$ Shoo, wt 4 ibs
WHARFEDALE SUPER 3 Not 22.05
WHARFEDLE WHRFEDALE CROSSOVER NETWORKS

| Network | Impedance | Attemuation | Net |
| :---: | :---: | :---: | :---: |
| 1000 cos | 7.16 ohms | $6.9 \mathrm{db} /$ octave | 15.19 |
| 3000 cps | 7.16 ahms | $6.9 \mathrm{db} /$ octave | 14.21 |
| 3-speoker | 7.16 ohms | $12 \mathrm{db} /$ octave | 34.30 |



The "Unidrive" series of coosiol high fidelity speakers by Unah Radio Products Corp. a long-estoblished leading speoker manufocfurer, presents unique desion and ossem bly techniques with resultont outstanding efficiency and cesponse charocteristics All models have: smooth respons and mintmum distortion over entire audio rongey perfectly motched and batone at tow and high frequency cones, singl high.fffi ciency magnetls strusture driving both hloh tow cones in phose inew " ${ }^{\text {biver }}$ rall. ${ }^{-}$magnetic siructure driving boih the high andow cones in phose, inem skive roies coil imperiance.
MODEL UDI5M 15"-Suitable as wide.range speaker or as "woofer" in 2- or 3 woy systems. Response $25-12,000 \mathrm{cps}$. 14.7 oz. Alnico 5 mognet. 25 watts power handling ability. $11 / 4^{\prime \prime}$ diameter voice cail. $8-1 / 32^{\prime \prime}$ deop. Shpe. wi.. 9 Ibs. MODEL UD12M 12" - Excellent for moderately-priced systems as wide-range speaker or woofer. Tesponse $30-14,000 \mathrm{cps}$. 14.7 oz . magnet. $11 / 4^{\prime \prime}$ diameter voice cail. 20 walts power rating. $6 \% /{ }^{\prime \prime}$ deep. Shpg. wh.. 7 lbs.

## UTAH UDI2M.

Net 20.87 MODEL UD12J 12 -Ecanomical wide.ronge speaker. Response $35-15,000 \mathrm{cps}$ 12 watts power handling. $6 \%$ deep. $1^{\prime \prime}$ diam, voice coll. Shpg. wh., $61 / 2 \mathrm{lbs}$ UTAM UDI2J

Net 11.73
MODEL UDMT8J $8^{\prime \prime}$-Superior qualiry mid-ronge and high-frequency speaker. suifable for 2- and 3-woy systems. Recommended crossover frequency 600 cps. Response $130-20,000 \mathrm{cps}$. Powter handling copobility 10 woth 125 wath with 600 cos crossover, 30 watls on peaksl. 6.8 oz. Alnico 5 magnet. $I^{\prime \prime}$ voice coil diameter $41 / 4$ deep. Shpg. wt., 4 lbs
UTAM UDMTBJ
Net 17.14
MODEL UD8J E-Economicol speaker for wide-range use alone or as mid. and high-frequency speoker in 2. and 3 -way $\$ y s t e m s .10$ wotts power rating. 6.8 oz . Alnico smopnet Respons $45.15,000 \mathrm{cos} 4.9 / 16^{\prime \prime}$ deep. I" voice coll diameter Shog. wt., 4 lbs.
UTAH UD8J
Net 10.29
MODEL UD893 $6^{\prime \prime}$ a - Eispeciolly suited for use as mid-range and high-frequency speoker in 2-way or 3-way systems or as wide range speaker where spoce is a prob em, os in autes ond TV or radio sets. " diameter vaice coil. 8.8 oz. mognet. wotts power handling. Respanse $60-16,000$ cps. $4 \%$ deep. Shpg. wi., ibs UTAM UD69J

Net 9.38


## GOODMANS LOUDSPEAKERS \& ARU

Goodmans laudspeokers, famous British Imporf, sound better beceuse of design ond concruction charocteristics with pesultant higher efficiency improved tronsient re. conse emporther everall performance. They empue ane structures and oxtra-heovy magnet systoms
ATIOA4 $2212^{\circ 0}$ TWIN-CONE-Considered one of the finest $12^{\prime \prime}$ full-ronge speokers Estro-heovy mognet system. Pawer roling 40 watts continuous pragram pleciol Response $30-15,000 \mathrm{cps}$
moleriol, Response $30-15$,
COODMANS AXIOM 22.
Net 71.49
AXIOM 150 12" TWIN-CONE-Similor to above bul power rating 30 wott
GOODMANS AXIOM 150
Net 52.43
ATIOM 100 12" TWIN-CONE-Economicol wideronge speaker. Pawer roting 20 wofts: freavency response $40-15,000 \mathrm{cps}$.

Net 26.46
GOODMANS AXIOM 100
Net 26.46
AXIOM 80 10 TWIM-CONE-Unique. World's only free cone (strui) susponsion. with 20 cps free aip resononce. Single speaker hondles 12 wafts conlinuous progrom 20 Nof 67.13
materiol (use 25 wattil. Response $20-20.000$ cps. 25 GOODMANS AXIOM 80
cally correct
ACOUSTICAL RESISTANCE UNIT (ARU)-A procticol and ocoustically correct opplicotion of the principle of friction looding. It permits the use of on encloure anly $2 / 3$ the size required by a convenionol bass reflez. Resulis in improved performance by praviding optimum loading to zero cps, lower distorion, boss raponse o 20 cps and virtual elimination of oll resonant peaks. 少epleces "pert" of bas reflex. May be installed in new cabinets or used to madity existing cobinats. MODEL 180 ARU F or $1-10^{\circ}$ speaker. Cutout required $12^{\prime \prime} \times 7^{\prime \prime}$; recommended onclosure $5900 \mathrm{cu} . \mathrm{in} . \pm 10 \%$.
MODEL 280 ARU-Far $2 \cdot 10^{\prime \prime}$ or $1.15^{\prime \prime}$ speokers. Cutout required $14 \frac{1}{2 \prime \prime} \times 10^{\prime \prime}$; ecommanded enclosure 8300 cu . in. $\pm 10 \%$. Net 14.06
MODEL 172 ARU-For $1.12^{\prime \prime}$ specker. Culoul required $10 \frac{1}{2 \prime \prime}$ $10^{\prime \prime}$; recammended

## Cafayette OUTSTANDING HI－FI SPEAKER VALLES

## ALTEC－LANSING HIGH－FIDELITY SPEAKERS

MODEL 604C 15＂－Oumtanding prafessianal－trpe＂Dv－ plen．（cooxiol）for high quality music ond manitoring syitems．Frequency response $30-22,000$ eps．Improved $15^{*}$ cone．exponential multi－cellutar rweeter horn coaxially mounted， 1600 cDs croswever notwork（included whith spotaker），and 5.6 lt magnel．Power roting 35 watts
 diameter． 40 cps cane resononce． $11 / \mathrm{co}^{\prime \prime}$ deep， $15-3 / 16^{\circ}$ diam．Shpp．Wi．． 40 lbs．
ALTEC－LINSTNG s04C－Complete ．．．．．．．．．Ner 177.00 MODEL GO1A $12^{\prime \prime}-{ }^{-1}$ Ouples＂coozial．Repponse 30 － $22,000 \mathrm{cps}$ ．With coaxiol exponential multi－cellulor horn．




Not 114.00 MODEL $412412^{\prime \prime}$－＂Biflen＊dual－range．Completaly now in delign concepl．Emplors multiple concentric cam． of reproduction and response range．Responso 40 ． 13 ality cps ．Power roting 20 woth． 8 ohm volce colit， $3^{00} \mathrm{diom}$ ． 1.8 lb ．masnet．So cps cone reso nomce． $5 \%{ }^{\#}$ deep．Shpe ．i．is lbs．
ALTEC－LANSING 412 A ＿－．．．．．．．．．．．．．．．．．．．．．．．．．．． 58.00

## IIM LANSING SIGNATURE SPEAKERS AND SYSTEMS

MODEL D．130 $15{ }^{\prime \prime}$－Pown mandlime 25 worts．Uioble Response 20.17 .000 eps．Cone resanonce 37 cph Dural highofrequancy center diophroem．Edgo－wound oluminum ribbon vaice－coll 4＂diometer． 3 it．Alnice 5 mognet．
16 ahm ．Completetr enclosed magnat mounted in heovy， righd，dio－cost aluminum frame．O．O．15－3／16＂，depih $5 \%{ }^{2}$ ．Shpg． 4. ． 23 IM
JIM LANSING D． 130 $\qquad$ MOOEL D－123 $12^{-\prime}$－An antended ronge speaker of odically now dosign．Extromoly shallow and compoct so 4＂walls． $3 \%$＂averall depth．Froe air cone resomance 35 cps ．Usoble retponse $35-\mathrm{is,000} \mathrm{cps}$ ． $3^{\circ}$ oluminum ribben edge wound voice coil．Copority 20 wolts 16 ohms．Shps．Wi．， 12 Ibs

Nol 59.40
JIM LANSING D． 123 $\qquad$
MODEL 0.208 日＂$A$ moderately－priced unit with power input of 12 walth． 15 az．Aínico ${ }^{5}$ mognet，${ }^{\circ}$ diam． dome ventad to elimininte non．lincor comprestion effects． 8 ohms．Response $40-13,000 \mathrm{cps} \pm 5 \mathrm{db}$ ．Froe oif come revoma
6 lbr.
JIM CANSING D． 208 Not 27.90 MODEL 075 HIGH－FREQUENCY RADIATOR－NOW onnuior fing dosion．Mighty afficient ond without res－
onances from 2500 cps to beyond oudibility． crossover 2500 cpt ．Voice cail diom $1 \%$＂．Boffle hole diam．3－3／1 $6^{\prime \prime}$ ．Overoll length $35 \%^{\prime \prime}$ ．Input 20 wath above 2500 eps．Impedance 16 ah ms．Dispersion $90^{\circ}$ solid angle． JIM LANSING 075 Not 59.40 D－34001 SPEAKER SYSTEM－A Mrue exponentiol folded． horn cobinel with o lorge mouth and affective length of a roam．At the low end of the audio the everage living matehes the speater Impedance for cleon，flat bess repro duction．Above the ocaustic crossover point labout iso cDi）the some soeaker oct on o direl rediatert with Lomsing Madol 175DIH Koustical Lons ond Model 130．A 15＂wooter．Model 1200 crossover notwort fwith 3－ponition treble oftenuator switchl．Capociry 25 tite impedance
 iso lbs．
JIM LANSING D－34001－M－System Complere．
dork mohogany …．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 390.25 JIM LANSING D．34001th－AE above，Morim

Not 390.25

## STEPHENS TRU－SONIC HIGH－FIDELITY SPEAKERS

## MODEL 206AXA $15^{\circ}$ COAXIAL One of the finent of

 Hts kind．The low freavancy driver hios bass responis to $35 \mathrm{cp1}$ ．Seporote high－frequency driver with $11 / 10$ volee
coil，hondspun dural diaphrogm and true exponentiol
 dispersement of highs．Builf－in crossover of 1200 cps with allenvator control．Meovy die cast aluminum frame．Re－
 ohms．Power hon
Shpo．wt．， 31
hbs
STEPHENS 20SAKA
STEPHENS 20SAXA COAXIAL－？Net 162.50 Call

 high frequency dispersioncy Bullf．in provides wide－ongle high frequency cisporsion．Bullf．in 5000 cpi dividing
nolwerk．Power coposity 20 wotm． $11 / 2 \mathrm{lbs}$ ．mognel．Io nohwork．Power copority 20 woth． $11 / 2$ lbs．mogn
ohms impedonce： $51 / \mathrm{m}^{2}$ doep．Shpg． m. ．，is 1 bs ： STEPMENS I22AX
STM

| STEPHENS |
| :--- |
| Page 24 |

## Jons $/$ en ELECTROSTATIC

## HIGH－FIDELITY SPEAKER

For mid－end high－frequency renge．Emplome a group of 4 miero－thin plastic diophrog renge．Each suspown a group of 2 porollol plates to which o constont ehorge is appliad． Complote with ith own builf－in high voltage bios power supply，audio signol step－up tronsformer， 300 cps cross over notwork and ocousticolly－treated cabinol．Availabie oniy os o completo，integroted unit．
complectely free of harmanic or intermoth sound，almost （lamper thon most omplificers）．Transiont response reaches －hithsito－untinamn perfection，recard serotch is reaches io nom lows clarity and reolism ore mointained of istening levets．
Froguency responit 500 cpl to beyond $30,000 \mathrm{cpr}$ ．Power upply 2 watm， 117 volts， 60 cpi AC Moximum propram input 50 watts． 1 mpodonce 8 or 16 ohms．locommended for use only with woofers hoving extremely smooth re． sponse below 1000 eps ；Dimenslom $71_{4}=22^{\circ} \equiv 13^{\prime \prime}$ ．

JANSEEN 1．3018＊－Unfinithed，sonded birch
JAMSZEM－Nel 176.00
JANSZEN 1－30E．Ebony ．．．．．．．．．．．．．．．．．．．．．．．． 188.00
JANSZEN 1．30M＂－Mohogony ．．．．．．．．．．．．．．．．． 184.00
JANSEEN IA3OM⿰氵 ${ }^{*}$－Unfinishod，ronded Mo－
hogent JANSZEN 1．30W＊－Wolnut ．．．．．．．．．．．．．．．．．．．．．．．． 188.00 JANSZEN 1．30K＊Karino blonde $\quad$ Net 188.00 Add 8 or 16 to model number to indiceto impedance

## HIGH FIDELITY SPEAKERS

## MODEL ETOTA CONXAL－A single compoct unit fir－

 ting over stondord cutoun for $12^{\prime \prime}$ or $15^{\circ \prime}$ spookers．1－bonsond 2 －trobto ocoustical slat bolween the anveolums disperson idely the uppor－middle frequencies from the woofer．Renponse 40－16．000 cps，extonded downword by wie in multiples； builf－in Crossover at 2500 cpas impedonse 8 ohmss powar copority 15 worts continuous，peaks to 30 woth．$O D$
 sozar e－207A Net $83 .{ }^{2} 5$ 8．209 MID－NANGE for uso in 3－woy intems Net 83． 5 by used with the bozok 8． 207 A and N． 10102 with crows． oven of 6 db per actave at 800 ．and 2500 cps ．Rerponie 200 to 3500 cpr．Riccommended crossovers 400 of 800 cpt ond 2500 cps ．Impedonce 8 ahmi．Power rating－ tor use in 30 ．woty syitems．Voice cail $11 /{ }^{\prime \prime}$ diam，ribbon． $11 / 2 \mathrm{1b}$ ．Alnica 5 mognaf． $61 / 2=00,31 / 2^{=}$deep $151 / 2^{\prime \prime}$

cozan b－209
No．．Not 48.00 N－10102 CEOSSOVER NETWORK－Not illustroted． Electricelly non－resonent $b$ do per octove frequedcy

 in 3－war sylem． $8^{\prime \prime} \sum_{8^{\prime \prime}} d^{2} \equiv 512^{\prime \prime} h$ ．Shpe． $61 / 2 \mathrm{lbs}$
SOZAR N－10102
Not 2750

## ACOUSTIC RESEARCH

AR－1 AND AR－2 SPEAKER SYSTEMS Based on now＂ocoustic surpension＂．principle，Unilizes
cebinets nillod with Fibregles，and with speciolly structed speaker－mechanlam iuspension olus oir－tighi cobinet in which camprossion of the oir by the rpeeter caures spring－like retum of the spoaker come．
 matended iow frequency indusiry，exceptionolly uniform for optimum performonce The and smoll cabinet size colly－suspended $12^{\prime \prime}$ low．fi mequency－1 indivder on ecoust：－ mid－range and high－trequeney unit．AR．1 is a i－ohm syitom．Amplitior should be 10 to 20 woits，domphng roctor tor shondord vie， 4 hor cerner use．Wooter mag． Systom resanances $43 \mathrm{cps} \pm 1 \mathrm{cps}$ ．Responso 38.1000
 of 20 cos and 17,000 eps．Hormanic distortion（ 10 is do inpul） $25-70$ cpsi $41 / 2 \%$ ； 70.1100 cpst $1 \%$｜ $100-14,000$ Cpl：lens than $1 \%$
The Al－2 is O lower－priced version of the All－1 with 10 ocoustic－surpension speoker and mowiy－devalaped 10 db of 30 and $16,000 \mathrm{cos}$ Hou monic distortion 110 watts inpull under $2 \%$ dawn to 60 cps ，under $3 \%$ down more cleon wath over entire ampllfier delivering 10 or
 ACOUSTIC PESEIACH AR lbs；Al． 2 ，is lb
complote（mahogony or birch）${ }^{2-w a y}$ arstom ACOUSTIC RESEARCH AR．1－As obove． ACOUSJIC RESEARCH AR－I二AS obovol
 complete ！mohogony or birch） 96.00 Acoust Nei 102.00 ACOUSTIC MESEARCN AR－Z AS AB


ALTEC－LANSING


604 C

ALTEC－LANSING SOIA


JANSEEN 1.30

## Safayette HI-FI Speakers At Pocket Book Prices

## 15", COAXIAL HIGH-FIDELITY SPEAKER



## 30-20,000 CPS- 25 WATTS-

### 21.5 OZ. ALNICO $V$ MAGNET

Supert standord of performonce throughout the oudio spectrum. Consith of spexiolly designod $15^{\prime \prime}$ woofor with of full $5^{\sim}$ high-frequency twoeter, cooxially mounted, ond $11 / \mathrm{h}^{\prime \prime}$ voice coil. Exira heavy mognets ore used in both units for highest efficiency and imoothest response. The $15^{\prime \prime}$ woofer gives the deop. rich bess notes for complete satisfaction. reaponse: $\mathbf{3 0 - 2 0 , 0 0 0}$ CPS. Crosiover troquencyi 3500 CPS. Hondiling cepocity 25 wotm, 35 woth pookk; 1 mpodances 8 oh mis. Rugased seomiass cone, finisthed in ottractive non-marting brown hammerloid onomol. Shpe. wi., 13 lbs . Cone Resonance 45 cycles
\$8.70.
Not 25.50

## 12" COAXIAL HI-FI SPEAKER

Same mognet weight and charocleristics os obove except for diometer. Cone Resonance 50 evcle SK-71-12" Coax.

## 25 WATTS-WITH EUHLT-IN

 CROSSOVER NETWORK CROSSOVER FREQUENCY 2000 CYCLES A fully enclosed high-frequency iwoeler with o zensiilivity and imoathness which in many cases sutperforms the much more costly compression horn typer of tweeter. Clean, with extended high trequency response of 600 to 15,000 CPS and crossaver frequency of 2500 . 3500 CPS, this tweoter will handle output of ampli3500 CPS. ihis tweeter will hande output of ample-fiers up to 25 woth. Will increase the frequency refiens up ronge ond odd much to the realistic reproduction of the orlginal performance. Vaice coll dia. $1 / 4 \approx$ impedonce 8 ohms; rugged seomloss cone-inherently moisture resistant! 3.16 oz. Alinico V magnet, with bullt in crossover network. Shps. Wt., $21 / 4 \mathrm{lbs}$.
SR-72.
Net 5.25
SX-73-Less croscover notwork.
Net 4.50


## HI-FI COAX SPEAKER WITH DUAL TWEETER

An unusual value in o hi.fl speater. Roted at 20 audia wotts, this speaker has 1wo $31 / 2^{\prime \prime}$ high frequaney units wolth, this speoker has iwo $312^{2}$ high frequancy units
cooxiolly mounted in a $12^{n}$ low frequency woofer givcooxioliy mounted in a ing smoothnoss and wide dispersion of all frequencies. Has lorge 14.7 oz . Alnico V magnet. Rugged housing -no resanonce from thin matal stompings. Frequency coveroge iubstantially flat from 30 to 19.500 cycles 8 ohm vaice coil. Worth twice the price. Shpg. wh. 10 lbs.
$5 \mathrm{SK}-44$
Not 22.95


## 8" HI-FI <br> WIDE RANGE SPEAKER

50-13.000 CPS
Answers the noed for a gaod quality but maderately prised speoker with a range of $50.13,000$ cyeles. An extremely smooth single cone reproducer - ideally suited for MI-Fi syitems. Encellont for limitod spocegood overall bolance- power handling copocity 8 watts- 6.8 or. Alnico $V$ mognet-frequency responte: $50-13,000$ CPS when prooerly boffled. Rim treatment on cone minimizes possibility of diaphrasm distortion. Voice coll impedance; 8 ohms. Shpg. Wt., 4 lbs,
Cone Resomonce 85 crcles
SK-69.
6.25


## $8^{\prime \prime}$ MID-RANGE \& WOOFER

A low frequency boss reoroducer, tree from distortion and copoble of clean reproduction down to 40 creles. Ideal for use with tweoters and cressover netwerks to make up a 2 -woy or 3-woy irstem. Con also be usod with odditional speotors os a multi-speater woofer. Perfoct, too, os mid-ronge unil in low cast 3 .woy sys. tems. Crossover at 350 CPS; Hrequancy response 350 13.500 excles; suitable for crossover to 5000 cyeles. Impodance 8 ohms. Cone Resenance 150 cycles
Sinpg. Wh., 4 lbs.
SK-74.
Net 6.50

## 12" COAXIAL SPEAKER

EXTENDED RANGE DUAL SPEAKER SYSTEM FOR FM OR AM RADIO, TELEVISION, SOUND AND WIDE RANGE RECORD PHONOGRAPHS. QUICK, EASY, MODERNIZING REPLACEMENT OF OLD STYLE SINGLE RANGE SPEAKERS.
12 -inch Alnice $V$ PM with 1 Inch voice coll and heary one piece cone. Specially designod 3-Inch Alnico V PM iweetor completes this combinotion spoaker, range 40 to 15,000 CPS. Built-In high ooss ifiter. Installs some as regulor PM speoker only two wires to connect. Impedance 8 ohm. Wt. 8 thes.
SK-22
Net 9.95

## $8^{\prime \prime}$ COAXIAL SPEAKER

The perfect answer ta Migh Fidelity audio repia. duction in limited soce. Alnice $V$ magnefs in both woofer and iweeler. Bullt-in hi-pass filter. 8 ohm coll. Wt, $\delta$ lbs.
SK-24..
Net 8.45

## 15" ECONOMY COAXIAL



## 15" HI-FI LOW FREQUENCY WOOFER

## - 31.5 OZ. ALNICO MAGNET

- 20 TO 5000 CYCLES- 35 WATTS

This efficiont $15^{\prime \prime}$ low frequaney woofer incorporates mony exclusive features. For original equipment or replocement, It provides highly efficient extended low.frequency respense. Ideal for assembling 2. and 3 woy spenter eytems. Mandles 35 motts of audio 3 -woy CPS, 455 fom 20 CPS 500 CPS mith CPS, and $t{ }^{5}{ }^{56}$ from 20 CPS to 500 Crs with oroper boifing. Voice call dio. Finithed in beau. ilful brown enomei. Cono is seamless type, par. thul briwn enomei. Cone is shomiess iypo, per.
manently bound to volce coil. Shpg. wt., $13 \mathrm{y} / \mathrm{lbs}$. Cone Remonance 45 cycles
5K-67.
.Not 23.95

## 12" HI-FI LOW <br> FREQUENCY WOOFER

### 21.5 OZ. ALNICO V MAGNET- 25 WATT

 Provides officiont, axtended low.frequency responio of $\pm 5$ db from 35108000 CPS, and feotures 25 worts of power handling copority. Porfect for high. fidelity installations or for modernization of older equipment. Ideal far assembling 2. and 3-way speaker sritoms at o budgel price. Enclosed mos. not structure completely dust proof. Compliance of outer cone and inner spider carafully calculatod for best bessi response. 21.5 or. Alnico $V$ magnel, $11 / 2^{\prime \prime}$ -dia. voice coil, 8 ohm impedonce. All exposed iuffaces are finished in beauliful brown anomel. Shpg. wt., 8 lbs. Cone Resonance 50 eycles$5 x-68$.
Not 16.50


## TV EXTENSION SPEAKER

Full range $4^{\prime \prime} \times 6^{\prime \prime}$ ouxiliary spaoker in an ocousHically constructed, finished wood cabinet. Two built. in volume controls ollow use of extension speaker olone. TV speaker atone, or both tagether for stereo. phonic sound quality. Na noed to get out of your easy chair to change the volume level. Wanderiul for the hard of heoring when used as a closeuvp personal speaker, Mahogany finish, with gold grille. Shpg. wt. 4 lbs.
5x.76
Net 6.97

# SPECIIL VALUES in HI-FI SPEaKERS 



Here's on excellent fidelity, powerful $12^{\prime \prime}$ PM speaker that is by for the besl buy ovoiloble for any compoioble speoker with the some pefformonce capobilities Highly recommended for replacement use or original installolion in top quality radio phono installotions. Ideal for PA use. Hondles 25 wolts of power without distortion or significant loss of bass or treble frequencies. Uniform response ossured over the range from 50 ta 10,000 cps. Alnico $V$ mognet alone weighs ounces. Precision formed oluminum bose voice coil. Voice coil impedonce. 8 ohms. Perfectiy alligned coil ond molded can canspruction. Precision engineering of ports built into this speaker for years of trouble-free service. This is one of the outstonding values we have ever offered. Shpg. w1, 8 lbs.
P19299-25 Wall, 12" PM Speoker

## IMPORTED FROM DENMARK



ROYAL DANISH
12" DUAL CONE SPEAKER

### 7.95

- HIGH FIDELITY MODEL
- RANGE: 45-14,000 cps.
- high flux density

Lafayette brings you this tine imperted high fidelity speoker at a froction of the price you would enpect to poy for 10 much quality. Two cones are mounted on o single asis, and provio. remorkoble wid range frequency response from 45 to $14,000 \mathrm{cps}$. Weproduction of program moterial is exceptionally lifelite throughout the entire range. An exclusive, special formula cone rim treatment elfminotes cone rim resononce ond distortion. Also, the domping tfect im proves fronsient respense and prevents "honoover-", Overall depth $5 \mathrm{~s}^{\prime \prime} \mathrm{mb}^{n}$ Completely enclosed, 1 " diameter vaic coll with on impedonce of 6 ohms. Shpg. wi., 6 lbs.
5k-46. $12^{\prime \prime}$ Dual Cone MI.Fi Speoke
Net 7.95


2-WAY SYSTEM
$\$ 24.95$

## LAFAYETTE 2-WAY SPEAKER SYSTEM

- WITM JENSEN $15^{\circ}$ WOOFER
- 2-5" TWEETERS
- crossover network
- $3 / 4^{\prime \prime}$ 7-PLY PRE-CUY BAFFLEBOARD

Mount this outstanding 2-woy speaker system In o horn-loaded cornar enclosure or in a boss reflez cobinet and enjoy full ronge musical repraduction, af on unusually low cost. System includes o Jensen $15^{\prime \prime}$ woofer: 2.5" iweetors: ond the Lofoyette LN-1 2000 -cycle 1/C cross. over networts. Bofle-board supplied is $10^{\circ}$. 24", of heavy $1 / 4^{\prime \prime}$ plywood, finished in brown stain. System frequency response 35 to 15,000 cps. 20 wolts power handling copability. 8 ohms impedonce. Shipped knocked-down, comlete with oll necessory instructions for eosy assembly, plus mounting hordwore ond wire. Shpe. wi., 20 lbs.
SY-9 Speaker System
Net 24.95


Special 21.51

NEW! EXCLUSIVE
LAFAYETTE QUADRALINEAR

## 12" 4 WAY SPEAKER

- TWIN TWEETERS
- PROPAGA TION ELEMENT
- 30-20,000 CYCLES
- 20 Watts
- BRILLIANCE CONTROL

A unique Lafoyetie develapment combinotion in a single frome, a $12^{\prime \prime}$ speaker cover ing the low and middle ranges, a propogotor to reinforce and disperse the upper middle range, and $221 / 2 "$ fweeters far the high frequencies. A brilliance cantrol, which may be remotely mounted, permits odfust frequancies. A brillance cantrol, ocauslics. Has built in mechanical ond electrical crossoyers frequen ury 30. 20,000 cycles, 14.7 oz . Alnico $V$ magnet. Mondles 20 wotts. 8 ohm volce coil. Bind. ing post ferminals. Finished in fine brown hommertone. Size. $12.3 / 16^{\prime \prime}$ diam. $7^{\prime \prime}$ deep. Shpg. wr., $101 / 2 \mathrm{lbs}$.
5K.88
Nef 29.50

## 12" GE HI-FI PM SPEAKER

- HANDLES 25 WATTS
- 14.5 OZ. ALNICO V MAGNET
- S0-15,000 CPS FREQUENTY RESPONSE
- aluminum voice coil

This GE deluxe speoker was designed by oudio engineer to meet the high stondards of performonce so essentio to high-fidelity and for dependobility and durability. The H.S oz. Ainica 5 mognet produces a dense magnatic field with resultont optlmum sensitivity and damping foc cor. The aluminum base vaice coil is unaffected by molsture and remperalure variations and eliminates buzzing. Exceplionally wide frequency range - 50 to 15,000 ycles which may bestended to 30 eycles in properly designed enclosures. Free ar resonance o5 CPS. The oice cail hos a $1 /$.o diometer and 8 ahms impedorce. this soester, hith sientific listoning tests indisuch this spaiter, which scientike listoning rests indicate co ideal for moderate-cosp hi-f custom instollotions. Shpg. wh., 7 lbs.
SK-60
Net 14.95

## $6 \times 9$ "Twin-Tweeter" COAXIAL HI-FI SPEAKER

- 5Pace saver construction
- EXCELLENT basS RESPONSE
- built-in crossover
- ADD hI-FI TO AUTOS, TV, RADIO SETS


$\qquad$ il

This $6^{\prime \prime} \times 9^{\prime \prime}$ hi-f cooxial speoker opens new possibilities for high-fidelity reproduction. Compoct enough for your cor, for rodio and relevision sets - ond for the high.fidelity enthusiost with o spoce problem. Twin high-frequency tweetors are designed to cross over mechonicolly of 5000 cps. The excellent boss charocteristics of the $6 \times 9$ woofer foithfulty reproduce the low frequencies. High-energy Alnico 5 mognet, voice coil $3 / 4$ " diam. Power hondling copacity 4 wotts ( 7 watts on peoks). deep. Impedonce 3.2 ohms. Shpg. wf., $21 / 2 \mathrm{lbs}$.
$5 K-75-6^{\prime \prime} \times 9^{\prime \prime}$ hi.fi speoker
Net 7.95

ver

## afayette HIGH-FIDELITY COMPONENTS



- FREQUENCY RANGE 30-15000 CPS - HANDLES 20 WATTS OF POWER COMPLETE WITH LEVEL CONTROL - POWERFUL TSK-5 MAGNETS SPECIAL SHEEP. SKIN-EDGED CONE
This Lofoyette exclusive import is o highty efficlent $12^{\prime \prime}$ cooxial speaker ond represents on oxceptional high fidelity value. The low frequency woofer has o $12^{\prime \prime}$ special chemically processed hbre composition cone with logorithmicaliy ploced pleots. The law resonant cone achieves a haoting edge by meons af ofree edge of sheepstin which suppresses unwantod circular and radial nodal vibrotians and insures clear beoutiful tane quality. A $21 / 2^{\prime \prime}$ tweeter is cooxially mounted within its own melal case ond protective prille with frant mounted diffuser. The construction is such that there is no back rodiation whatsoever. A crossover network to provide praper separotion of high and low freavencies, and having a crossover point of 3000 cps, is also buill-in. Mighly efficiont TSK- 5 magnets permit a compact systom, delivering full-bodied brilliont tone. A high frequency leval control provider variation of up to $b \mathrm{db}$ cut. Power handling cbpacity is 20 watts continuous and 35 watts peak. Vaice coll impedance 8 ohms, resonont freavency 40 cpi. Connections are made to screw cap terminals. Rugged all-metal frome. If mode in this country this speaker would sell far of least $\$ 49.50$. Shpg. wt. 11 lbs.
SK-58


Imported to Save You Moneyl
QUENCY TWEETER WITH ACOUSTIC LENS
Enioy the brilliant performance af a twa or three way systom by adding this tweeter to your pres. ent systom. Special diaphrogm gives distortion. free wide range reproduction fram 2000 cps to boyond oudibility. Mandles up to 25 watts of power. The highly directional characteristics of high frequencies is avercame by the wide dispersion angle of the shart horn and the acoustic lens. This combinatian disperses and radiates the high frequency motes throughout the antice listen high frequoncy noter hroughour he andio liston ng orea. The lons is delachable and can be mounted on the outside of a panel or cabinef. Soporate base is provided for external maunting, Tweoter sise, $41 / 2^{\prime \prime}$ L., $3^{\prime \prime}$ diomoter. Bose, $11 / 2^{\prime \prime}$ H. Acaustic lens extends $21 / 2^{\prime \prime}$ in front of and $11 / 2^{\text {n }}$ above top of tweoter. Aluminum vaice coll, 16 ohms impedance. Crossovec network required, preferably one with level cantrol,s uch as Lafayatte IN-2. Instructions included. Shpg. wt., 5 lbs.
HW-7-Tweeter with Acoustic Lens Nol 14.95


## CONE TYPE METALCASED HI-FI TWEETER

- FREQUENCY RESPONSE 2000-16.000 CPS.
- HANDLES 20 WATTS
- Imported to save you money

Withouf daubs ane of the finest cone type high frequency tweeters we have over tested, and is exceeded in perfarmance anly by diaphragm type tweefers. It is particularly efficient in the higher end of the audio spoctrum where ardinary cone tweeteri tend to lase clarity and volume. With this tweoter added to your present systom. you will be oble to heor all the fine trantionts ond high noter of the upper register as they were actually recorded. Entiroly enclosed in motal cose with base for standing by tiself, or mounting on a flat surfoce. Brockel is sup plied far mounting on panal or in cobinet. Reauires crassover notwark such as Lafayette LN-2. Diameter, $\mathbf{3}^{\prime \prime}$. Deoth, 21/". Voice coil impedance 8.16 ahms HK-3-MI-Fi Iwoefor_ Shpg. wt., 4 lbs.

Not 5.95


## NEW LAFAYETTE SUPER TWEETER



Moving coil iweater with crossover al 4000 cycles. Reproduces on unusually wide range of frequencies from 4,000 10 16,000 cycles with smooth response. excellent balance ond low distortion. Exclusive acoustic lóns for efficient wide angle high freavency dispersion. wide ongle high trequency dispersion. Enfirely enclosed in a metal cose whith a base bracket for either standing by
itself, for mounting on a flot surface. itself, for mounting on a fiot surface,
or can be maunted vertically in a bof or can be maunted vertically in a baf
fle cut out. Capocity 20 wotts of pro fe cut out. Copacity 20 watts of pro-
gram material when used in a multigram material when used in a multiple speoker system. Impedonce 16
ohms. Boffe hole diamoter $23 / 4^{\prime \prime}$ Handsome case ond brost finished metal lens. Supplied with long leads. Shpe. wri, 3 lbs. SK-87 Super Tweeler


## NEW LAPAYETTE "POINT SOURCE" TWEETER

 lofoyotte': latest Danish import features extromely low distortion and flat response of 3000 to $16,000 \mathrm{cps} \pm 2.5 \mathrm{db}$. Acts as point source of high frequency sound for maximum wideangle dispersion withour use of horns-excellent as twester ar super-tweeter in multiplenspeaker installations of the highest qualliry. For use in 10 wath systems with 12 do/octave crossover network of 3000 cps or higher. Use 2 or more of these units for higher powered systems. Size $2^{\prime \prime} \times 2^{\prime \prime} \times 11 / 2^{\prime \prime}$ more of these units for higher powered 8 ohm voice coll. Shpg. wt., 1 th.SK-91

## NEW 2-WAY CROSSOVER NETWORK

A constant impedance L.C network with 4000 cps crossover. Designed to be porticularly effective whon used in coniunction with the super tweeter SK-87 or wherever a crossover af 4000 cyctes is destrod. Impedance 16 ohms, aftenuation odb/octave. Easily occessible screw terminals for input' and speakers. Enclosed metal case, $21 / 2^{N}$ diameter ond $2 \%$ "high. Bracket provided for mounting. Shpg. wt. 2 lbs.
LN-4 Crossover Network
Not 4.50

## Lafayette CUSTOM DESIGNED

3 WAY SYSTEM WITH 15" WOOFER . . . 8" MID-RANGE

HANTOM VIEW SHOWS HOW SYSTEMS MOUNT
 SPEAKER . . . HORN TWEETER ... CROSSOVER NETWORK


- 15-INCH WOOFER WITH 31.5 OZ. MAGNET (SK-67)
- 8-INCH MID-RANGE SPEAKER (SK-74)
- NEW HIGM-FREQUENCY ACOUSTICAL LENS TWEETER (MW-T)
- 3-WAY CROSSOVER NETWORK (LN-3)

CABINET NOT INCLUDED

Coloyette presonts this outstonding 3-way speoker system designed for the high fidelity enthusiast who desires performonce formarly possible in mulfi-speoker systems costing mony times this price. You won't believe your eors when you heor the superb reproduction throughout the enlire oudio spectrum. The SK-67 $15^{\prime \prime}$ woofer provides phenomenol bass response, the SK- $748^{\prime \prime}$ speaker delivers full bodied, mid-range frequencies, ond the HW. 7 high frequency ocoustical lens tueater faithfully reproduces the highest audible frequencies. Crossover points of 350 and 5000 cycles ore provided by the $1 \mathrm{~N}-3$ 3-woy induclance-eapocitonce network with continuously voriable presence ond brillionce controls that odjust tone balonce to personal toste. Shpg. wr., 25 lbs.
SY-93. Complete System os listed obove


True HI-Fl Reproduction af a Budget Price!

## 3-WAY <br> SYSTEM INCLUDES

- 12-INCH WOOFER WITM 21.5 OZ. MAGNET (SK-68) - 8-INCH MID-RANGE SPEAKER (SK-74)
- METAL-CASED CONE TYPE MI-FI TWEETER (HK-3)
- 3-WAY CROSSOYER NETWORK WITM CONTINUOUSLY VARIABLE PRESENCE ( BRILIIANCE CONTROLS (LN-3)
Here is onother J-way speaker system designed to sove you money ond make your next hi-fi project quick and easy. Truly a triumph in the field of ocoustics. This combinotion crooted intense interest with budget-minded music lovers of vorious frade and consumer shows becouse of its unusuol performonce copabilities. Eoch component is specifically designed to reproduce ifs awn range with opfimum fidelity. The system consists of the SK-68 12 . Woofer which gives axceptionally slean mellow boss frequencies from 35 to 350 eycles, the $8^{\prime \prime}$ Driver which reproduces the mid-ronge frequencies from 350 to 5000 cyctes cloarly ond true.to-life, and the new metol-cased HK-3 High frequency Tweeter which provides brilliont freble response in the 5000 to 16,000 cycle region. The IN- 3 Crossover Networt, crossina over at 350 and 5000 CPS, completes this ultro modern system. Hos "Brilliance" and "Presence" controls. Shpg. wi., 22 lbs
SY-92-Complete system as listod obove
Net $\mathbf{3 8 . 5 0}$


## 2-WAY SPEAKER SYSTEM 25 WATTS 50-16,000 CYCLES



Here's real economy in o complete 2-way high fidelity speaker sysitem designed for the buyer with a small budget. The system consists of o GE $12^{\prime \prime}$ woofer with o frequency response of 50 to 13,000 cycles, and $11 / 2^{\prime \prime}$ oluminum voice coll copable of handling 25 watts of program material. Melal-cased, HK-3 cone trpe high frequency iweefer extends conge of systom to 16,000 cycles. IN-2 copocitonce-inductonce crossover network hos continuously voriable level-brillionce control to campensale for varying reem ocoustics. Woofer hos 9 oz. Alnico $V$ mognet. Shpg, wi., 15 lbs.
SY-85. Complete 2-way Speaker System.... Net 23.50

## DELUXE 2-WAY SYSTEM 35 CPS TO BEYOND AUDIBILITY



A modest budget no longer has to limit the quality and calibre of your high fidelity ospirations. This is a truly deluxe speoker system which gives you a frequency range that extends from 35 cps to beyond oudibility. It includes the $5 K-6812^{\mu}$ woofer with o heavy, 21.5 or. Alnico $V$ magnet ond $11 / 2^{\prime \prime}$ voice coil roted of 25 watts, HW. 7 diophragm type high frequancy tweeter complete with sound dispersing, louvered ocoustic lens, and IN-2 cepacitance-inductonce crossover networt with levelbrillionce control. The entire assembly gives you o wide range 2 -woy speaker syitem of a remorkably low price. Shog, wt., 22 lts.
57-86. Complete 2-woy Speaker System_. Net 36.30

## 2-WAY SPEAKER SYSTEM 40-16,000 CYCLES



This 2 -way speoker sysem is onother axcellent buy for the moderate purse. If is basicolly the some as the SY. 85 system described af the top of the poge, but in. corporates the deluxe $\mathrm{SK}-68$ speater with 21.5 ex. Alnico $V$ mognet. This results in more efficient reproduction ond extension of the lower register. Complele system includes the SK-68 $12^{\prime \prime} 25$ watt woofer, $\mathrm{HK}-3$ cone troe tweeter ond IN-2 crossover networt with level-billionce control Ronge of system $35-16.000$ cycles. Shpe. wt., 18 lbs. 5Y-87. Complete Systom.................................. 27.50

## 2 WAY \& 3 WAY SPEAKER SYSTEMS

## LAFAYETTE 3-WAY SYSTEM

with $15^{\prime \prime}$ WOOFER . . . 8" MID-RANGE SPEAKER HORN TWEETER . . . CROSSOVER NETWORK


CABINTT NOT INCLUDED

This now mulfi-spooker systom provides true high fidelity reproduction of the lowest price ever. Included in the 3 way system ore o Jensen $13^{\prime \prime}$ woofer, Jensen $8^{\prime \prime}$ mid-renge speaker, lensen cemprassion driver horn twoeter and Lafayelio IN- 3 copocitance-inductance crossover notwork. Crossover is of 350 and 5000 cycles, and unit is suppliod with two, built-in, continuously varioble "presence" ond " brilliance" controls wired on 2-ft. oxtension cables. Outwred on $2 \cdot n$. axtension cables. Ous and mid-rasge response, standing bass and mid-rasge response, plus brilliant reproduction of the highant oudible frequencies result in superb throyghout the entire audio spectrum. Powor hondling capacity in bass reflex enclosure, 25 wafts. tmpedance 16 ohres. Shpo. wi., 19 tbs.
SY-98_Speaker Syitem_...Nel 42.50

Completely assembled bass reflex cebinels constructed of $y / 4$ " hordwood, ready for finishing. Dimensions of highboy. less legs: $29^{\prime \prime} \mathrm{M}, 231 /{ }^{\prime \prime} \mathrm{W}, 10^{\circ} \mathrm{D}$. Lowboy some sire with $H$ and $W$ dimen. slons inferchanged. legs ore $\mathrm{s}^{\prime \prime} \mathrm{H}$. Shpg. wh., 42 Ibs.

CAR-23-Highboy Cobinet
Only............................... 39.50 CAB-24-lowboy Cobinet
Only......................................... 39.50

## LAFAYETTE 2-WAY SYSTEM

 with $15^{\prime \prime}$ WOOFER . . . HORN TWEETER . . . CROSSOVER NETWORK

Another now lafayette 2-way spooker systom that provides full frequency response at a low budget price. The system includes - jensen $15^{\prime \prime}$ woofer, Jensen compression driver horn tweeter, ond tafayatto inductance-capocitance (I-C) 200 -eyele crossover notwork. In a bass reflex enclosure, powor handling copocity is 20 woths. Enioy rich extended bass responie ond brilliant, high-frequency reproduction of the finest high fidelity recordings. Impedance 16 ahms. Shpg. wi., 12 lbs.
SY-96-Speaker 5 yritom
Not 27.50
Completely assembled boss reflex cabinet $\left(231 / 2^{\prime \prime} \mathrm{W}, 33 y^{\prime \prime} \mathrm{H}\right.$, $12 \%{ }^{\prime \prime}$ D), constructed of $4 / 4^{\prime \prime}$ hordwood, roody for finishing. Shag. wt., 30 lbs.
CAE-23 or CAE. 24 -Cabinet only......................Not 39.50

## LAFAYETTE 2-WAY SYSTEM WITH 12 " WOOFER

 . . . HORN TWEETER . . . CROSSOVER NETWORK

MHANTOM VIEW SHOWS HOW SYSTEMS MOUNT IN CASINET


JENSEN 12-INCH WOOFER

## LAFAYETTE

 L-C CROSSOVERMount this 2-way speaker instem in o bass reflex enclosure deccribed on the opposite poge and onjoy full range reproduction of your lovorlie recordings and radio progrem moterial. Power hondling copocity 20 watts. Syitem includes lensen comprestion driver hern tweeter, Jonsen 12" woofer and lafoyette inductance-copocitance (t-C) 2000 cycle cressover network. Impedance 16 ohms. Shpe. wi., 11 Ibs.
SY-9S-Speater System. $\qquad$ Net 23.95 Completoly assembled boss refler Cabinat $\left(231 / 2 \omega \mathrm{~W}_{1} 331 /{ }^{*} \mathrm{H}, 121 / /^{*} \mathrm{D}\right)$. Constructed of $3 / 4^{\prime \prime}$ hordwood, ready for finishing. Shps. wt., 30 Ibs.
CA-23-Cobinet only.


5" Tweoter Network

## 2-WAY SPEAKER SYSTEM

- G.E. 12" PM-25 Wapt-9 oz. magnet 'Woofer'
- 5" Tweeter and Crossover Network
Ideal for custom installations, where o 2-way spooker systom is dasired to obtoin a high degree of oudio fidelity of o price that will fll your pocketbook. You con now reploce your ald spoaker in your present phonograph with a 2 way speoker intem that will give you clean, distinct bass response provided by the famous G.E., hoary duty $12^{\prime \prime}$ PM "woofer" with oxceptionally lorge Alatice $\forall$ magnet ( $\uparrow$ or.). ond increose the high frequency ronge with the $5^{\text {T}}$ Iweeter and Crossover Notwark, making this assembly a complete 2 -woy music sysit m which assembly a complete 2 -woy music system whith yill recreate a tone bolance that will astonish you. Wil outperform ony speoker orrangemont Diogrom included. Shpo. wh., 13 lbs.
sTOCX NO. sY-12..................... 17.50

 speoker system described above, of a speciol low price. Cobinal is constructed of $3 / \mathrm{h}^{\prime \prime}$ hardwood, available finished or unfinished, and smoothly sonded for custom finishing. Tolol shipg. wh., 30 Ibs.
SY-133. SY-94 and SB.51. Unfinished …..................................................... 37.50
SY-134. SY-94 and \$8.52. Mahogany _-an............................................................ 40
SY-135. SY-94 and SB-53. Bionde ................................................................. 40.50


## CABINET ONLY

SE-51. Unfinishod. Shpe. wt., 22 lbs. ...-........................................................ 19.50
58-52. Some excopt Mohogony finish ...................................................................22.50
SE-53. Same except Blonde finish .......................................................22 22.

## 5" TWEETER AND CROSSOVER NETWORK


A speciolly derigned 5" Tweeter ond Crossover Net-wark thot will assure high frequency respanse whenused with ony spoaker you now possess. You cannow make your precent ypeoker into 9 may cannow make your procer yo hien trequency rey peok.er 15000 unclo Dio mo hig forto 15,000 cycles. Diagram included. Shog. Wi. 5 lbs.STOCK NO. SY-14 ................................. 7.25STOCK MO. MS-71 Crossover Notwork

$$
\begin{aligned}
& \text { only } \\
& \text { TOCK NO. } 5 K-35 \text { Fweoter anly. Net }
\end{aligned}
$$

$$
4.95
$$



## LAFAYETTE SPECIAL HI-FI SPEAKER ENCLOSURE \& SPEAKER COMBINATIONS AT TREMENDOUS SAVINGS!

## ELECTRO-VOICE $12 T R X B$ \& LAFAYETTE RESONATOR ENCLOSURE

## E-V Model 12TRXB Speaker Only shog. wt., 14 lbs. -...........Net 64.68 <br> 5Y-105 Sperial Combination Price (Mahogany or Walnut) Specify 75.70 SY-106 In Slondé Combinotion Price Speaker \& Cobinet.....Net 77.70 Total Shpe. wt., 52 lbs

sY-108 in Blonde, Combination rice Speoker \& Cobinet.
Totol Shpg. W1., 50 Js.

UNIVERSITY UXC-122 \&

## LAFAYETTE

RESONATOR ENCLOSURE
UNIVERSITY MODEL UXC-122 Spoaker Oniy $\qquad$
Shpg. wt., 5 lbs
SY-113 Spociol Combination Price (Mahogony or Wolnut) Spacity which -...-..............-. - . ......t srill4 in Blonde, Combinotion Price Speaker \& Cabinet Not Not 56.40 Totol Shpg. wt., 43 lbs .

## UNIVERSITY UXC-123 \& LAFAYETTE <br> RESONATOR ENCLOSURE

UNIVERSITY MODEL UXC-123 Speoker Only shpe. W., 7 lbs $\qquad$ Not

SY. 111 Soecial Combination Price
(Mohogony or Walnut) Specify
which ................................t
76.62

SY-112 In Blonde, Combination Tolel Star a Cobinel. Totol Shpg. wt., 45 lbs.
 56.10 32.34
54.40 56.40

## LAFAYETTE SK-58 \& LAFAYETTE RESONATOR ENCLOSURE


SY-109 Speciol Combinotion Price (Mohogony or Wolnut) Specity which
54.45

SY.llo In Blonde, Combinotion Price Speoker \& Cabinet.......Net 56.45 Tolol Shpe. wt., 49 lbs

## JENSEN CX-120 \& LAFAYETTE RESONATOR ENCLOSURE

JENSEN MODEL CX-120
Speokor Only
Shpq. wt., 10 lbs.....................el
49.50
 nut) Combinotion Price.........Net

SY-157 In Blonde. Combinotion 68.60 Price Speoker \& Cobinet ......t
. Total Shpo. wt., C 8 lbs .

JENSEN DX-120 \& LAFAYETTE RESONATOR ENCLOSURE

JENSEN MODEL DX-120
Speoker Only
Shpo. wt.. 8 lbs $\qquad$ Net

SV. 15 Speciol (Mohogony or Wal. nut) Combinotion Price............Net
48.60

SY-159 In Alonde, Combinotion 50.60
Price Speoker \& Cobinet........Net 50.6 Total Shpg. wt., 48 libs.

## JENSEN CX-225 \& LAFAYETTE RESONATOR ENCLOSURE

JENSEN MODEL CX-225
Speoker Only
Shpg. wt., 10 lb
. No।
59.50

SY-160 Speciol (Mahogany or Wal-
nut) Comblnotion Price..........
nol $\mathbf{4 . 1 0}$
76.10

SY-161 In Blande, Combinotion Price Speoker \& Cobinet........Net Total Shpe. wt., 48 lbs.


# IAFAYETTE III-FI BASS REFLEX CABINETS FDIE 2 and 3 WAY SPEAKER SYSTEMS 



## Lafayette SPECIAL. HI-FI SPEAKER ENCLDSITRES \& SPEAKEIR CDMBINATIDNS AT TREMENDDIS SAVINGX

LAFAYETTE BASS REFLEX ENCLOSURES AND $15^{\prime \prime}$ SPEAKERS SPEAKERS ARE NOT MOUNTED

UwIVERSITY 6303 a LaFAYETTE BASS


SPECIAL
COMBINATION
PRICE 92.50

YOU SAVE 25.50

Total Shpg. Wt., 69 lbs.
SY-11S—Includes CAB-13 Unfinished Highboy and Univer. sity 6303 Speoker..........Net SV-716-Includes CAB-14 Un. finished Lowboy and University 8303 Speaker............Net SY-117-Includes CAB-19 Finished Mohogany or Blonde Highboy and University 6303 (specify finish)..................Nel sY-118-Includes CAB 20 Fin. ished Mahogany or Blonde Lowboy and University 6303 Usiversity 6303-Speoter Ualversisy 6303 -Speoker $\quad 78.50$
Only. Shpg. wi. 15 lbs...Net

STEPHENS 2ObAXA \& LAFAYETTE

LOSURE
SPECIAL
COMMINSEDIO
COMBINATION
PRICE
166.50
YOU SAVE
35.50 !

Total Shpg. Wi., 85 Ibs.
SY-127-Includes CA8-13 Un. finished Highboy and Stephans 206AXA spooker....Net 166.50 SY-12s-Includes CAB-14 Unfinished towboy and Stephems 200AXA Speaker...Nei 166.50 SY-129-Includer CA8-19 Fin. ished Mahogany or Blonde Highboy and Stephens 206AXA (specity finish). Net 169.50 SY-130-Includes CAB-20 Fin . ished Mahagany or Blande 20wbay and specity finish).Not $\mathbf{1 6 9 . 5 0}$ Stephens 206AXA $\rightarrow$ Speoter Stephens 206AXA $\rightarrow$ Speoke

JENSEN CX-1so a LAFAYET

#  <br> Sprcial COMBINATION PRICE 85.80 <br> you save <br> 20.20 

Tolal Shpg. Wi., 66 Ibs.
SY-136-Includes CAB-13 Un.
finished Highboy and densen
CX-150 Speoker................Net 85.80 5Y-13y-includes CAE-14 Un. finished lowboy ond Jensen CX. 150 Socaker................ 85.80 SY-138--Includes CAB-19 Fin-
ished Mahogany or Blande
Highboy ond Jensen CX-150
Speoker (sperity finish)....Nel 96.30 $\mathbf{S Y}-139$-Includes CAB-20 Fin-
ished Mahogany or Blonde
Lowboy and Jensen CX-150
Speoker (specify finish)....Net 96.30 Jeasen CX-150-Speaker Only. Jeasen CX-150-Speaker Only.

## LAFAYETTE BASS REFLEX ENCLOSURES AND 12" SPEAKERS

- LaFareme eass meflex enclosure
SPECIAL
COMBINATIOTION
PRICE
84.75
YOU SAVE
19.431
Total Shpg. W4., 68 lbs .
57.140 -Includes CAB. 13 Un.
Finished Highboy and Electrovoice 121RXB Speaker....Nei 84.75 SV-141-Includes CAB-14 Un-
finished Lowboy and Electro. sYoice 12TRXB Speaker......Net 84.75 SY-142-Includes CAB-19 Fin. Highboy and Electro-Voice 12TRXB Speoker (spocify fin. ish! SY-143-Includes CAB-20 Fin. ished Mohogany or Blonde Lawboy and Electro-Voice l2TRXE Speoker (specify fin-Elecfro-Voice 12TRXB-Speak. er Only. Shog. w1. 14 lbs. Not 64.68

UNIVERSTTY UXC-122 a LaFATETE bass Rerlex enclosure
SPECIAL
IUNFINSMOION
COMBINATION
PRICE
59.95
YOU SAVE
11.89

Tofal Shpg. Wt., 59 lbs.
SY-144-Includes CAB-13 Un. finished Highboy and University UXC. 122 Speaker..........tot 59.95 SY-145-Includer CAB-14 Umfinished 10 UbCy and Univer. 59.95 $\mathbf{5 r}$-1tys-Includes CAB-19 Finished Mohogany or Blonde Mighboy and University UXC122. Speaker (specify finish)

5V-147-Includes CAB-20 Finished Mahogany or Blonde towboy and Universily UXC. 122 Speoker (specify finish)
University UXC.122-SBeoker Only. Shpg. wt., 5 lbs.....Nel

UNIVERSITY UXC-123 LAFAVETTE
DASS RELLEX ENCLOSURE
SPECIAL
IUNFISALOION
COMBINATION
PRICE
8

Total Shpe. Wt. 61 Ibs.
SY-148-Includes CAB. 13 Un-
finishod Highboy and Univer-
sity UXC-123 Speaker........Net
SY-149-includes CAB-14 Un.
finished Lowboy and Univer.
sity UXC-123 Speoker.......Net 83.95
SY-150-Ineludes CAS-19 Fin-
ished Mahogany or Blonde Highbor and University UXC.
123 Soeoker (specily linish)
5Y-151-Includes CAB-20 $\begin{gathered}\mathrm{Nef} \\ \mathrm{Fin}- \\ \text { Fit }\end{gathered}$ iģted Mahogany ar Blonde Lowboy and University UXC 123 Speaker (specity finish)
University UXC-123-Spooker
Only. Shpe. wh., 7 lbs... Net

HNSEN CX-120 LAFAYETE eass merlex enclosure


SPECIAL COMBEINATION PIICE
73.50

YOU SAVE
15.50

Total Shpg. Wt. 64 lbs,
5Y-152-Includes CAB. 13 Un. finished Highbay and Jenson CX-120 Speoker.................Net 73.5 n

SY-153-Includes CAB-14 Unfinished lawboy and Jensen CX-120 Speaker..................Net
73.50

5Y-154-Includes CAB-19 Fin-
lished Mahogany or Blonde
Highboy and Jensen CX-120 Soeaker (specify finish). Not 83.95

Jensen CX-120-Speoker Only. Shpg. wt., 10 lbs.

## EQUIPMENT CABINET MODEL 30


liff top equipment cabinet in pleasing mad ern strle, accommodotes record chonger in upper section, funer and amplifier in lower section. $1 / /^{\prime \prime}$ Birch Venoer is finished in choice of Bland or Mohogony. If desired equipment panel can be removed for conversion to storoge areo. Offset waod legs. Overoll dimensionss $31^{\prime \prime} \mathrm{H}, 21^{\prime \prime} \mathrm{W}, 16^{\prime \prime} \mathrm{D}$ tiecord changer comportment undor hinged lid: $191 / 2^{\prime \prime} \mathrm{W}, 141 / 2^{2 \prime} \mathrm{D}$. Tuner and omoli fier section: $13^{\prime \prime} \mathrm{H}, 191 / 2^{\prime \prime} \mathrm{W}, 141 / 2^{\prime \prime} \mathrm{D}$. Shpg. wt., 50 lbs.
Model 30-Blond or Moohgany.
Nel 57.00
Model 30U-Some in unfinished
Eirch....................................... 43.50

## MODEL 31 BASS REFLEX ENCLOSURE

Marching componion diece to Madel 30 equlpment cobinot described obove is o bose refor design enclosure providing excellent sound reproduction of the oudlo ronge. Constructed of the same quallty woods ond fine mish, the cobinet con be sel olongside the equipment cabinet or ploced in onother iection of the raam for maximum listening pleasure. Cutaut speoker port. Overoll dimensionst 31* H., 21"W., $1 \mathbf{d}^{\prime \prime}$ D. Bome areo: 4.5 cubic loet. Shpg. wh., 50 tbs.
Model 31. Blond or Mohogeny Finioh NEY 49.50
Model 31 U Some as obove except unfinitihed Birch Vencer NET 42.00


## UNFINISHED ENCLOSURES AND CABINETS AVAILABLE IN KIT OR ASSEMBLED FORM SAVE MONEY ON THESE HI-FI CUSTOM CABINET KITS

These matching equipment ond speaker cabinets in high grade unfinishad $3 / 0^{\prime \prime}$ white pine plywood, ore avoiloble in kit form or assembled. Kiss ore pre-cut ond complete in cluding plartic wood, olue, sondpoper, hordwore ond de. lolled instructions for assembling and finishing. Assembled units are smooth-sonded. Equipment cobinets hove removoble ponels to focilltate fufure equipment chonges. Speater cabinets ore boss reflex type ond include plostic grille cloth. Precut for $15^{\prime \prime}$ speoker. Adopter board for use with $12^{\prime \prime}$ specker. Boffle boord ottoches from inside cobinet by cleots making for eosy finishing of the cobinet. Boffle Volume, $6 \mathrm{cu} . \mathrm{ff}$. Overall dimensions of each cobinet $23^{\prime \prime} \mathrm{W} \times 16^{\prime \prime} \mathrm{D} \times 331 / 2^{\prime \prime} \mathrm{H}$. Tuner comportment; $21 \frac{1}{4}$ $\mathrm{W} \times 151 / 2^{\prime \prime} \mathrm{D} \times 20^{\prime \prime} \mathrm{H}$. Phano comportment; $213 / 4^{\prime \prime} \mathrm{W}$ $143 / /^{\prime \prime} \mathrm{D} \times 111 / 2^{\prime \prime} \mathrm{H}$. Shpg. wr., 40 lbs . per cobinet. Model 10 -EQUIPMENT CABINET KIT.........Net 30.00 Madel $8125-12^{\prime \prime}$ and $15^{\prime \prime}$ SPEAKER CABINET
KIr................................................... 24.00 COMPLETELY ASSEMBLED UNFINISHED CABINETS Modol 70 -EQUIPMENT CABINET...............Nel $\mathbf{3 9 . 0 0}$ Model $7125-12^{\prime \prime}$ ond $15^{*}$ SPEAKER

## KLIPSCH DESIGNED 4 ENCLOSURE KITS



True corner enclosures for 12 ond $15^{\prime}$ speokers. These Klipsch-Cabinont Kits ore unfinished ond unossembled. Smaoth. sonded, selected birch ply facines, tops and moldings. Hove side orilles and include boord for 2. or 3-way system components. Kits supplied with oll neces sory ports ond detailed ossembly instructions. REBEL K-12 XIT-For $12^{\prime \prime}$ Speoker. Size: $21^{\prime \prime}$ $W \times 141 /{ }^{\prime \prime} \mathrm{D} \times 32^{\prime \prime} \mathrm{H}$. Shpg. wt. 38 lbs .....Nel 39.00 REBEL K-I5 XIT-For $15^{\prime \prime}$ Speakers. Size: 24" 46.50

EQUIPMENT CABINET MODEL 28


Thit consorvativaly atrled contompo rary furniture plece accomadoles your hi.f equlpment including recerd chonger, tuner and ampllher. Pull-out record chonger drawer with blonk ponel, is mounted on boll-bearing sliden, Comportment meosures $11 /{ }^{2}$ H., 22" W., 15\%" D. The tuner-omp. llior comportment hos a blonk ponel for cut-out to At ony cemponents, and measures $181 / 2^{\prime \prime}$ H., $22^{\circ}$ W., is $y^{*}$ "
 W., $171 / 2^{\prime \prime}$ D. 5 hpg . wt., 78 lbs . Choles of mohogony, Wolnut, Korlno or llock Locquer Annishes. Model 28

## MET

## MODEL 27 BASS REFLEX ENCLOSURE

A moiching basi pater enclosure for the Model 28 equipmont cabinet. Strling, maod ond finishes ore the some. Bome oreo is 6 cublc feet. Foce panel is covered with plastic orille ond precut for 15" speoker (olso hos odopter ponel cut for $12^{\prime \prime}$ speoker). Uined wi. 70 lbs
Model 27. Mohogony, Woinut, Korino or Block Lacquer finish......... NET 69.00

## LIFT TOP EQUIPMENT CABINET with Matching BASS REFLEX ENCLOSURE



MODEL 33 EQUIPMENT CABINET. Hondiome, madern horizontol atyle cobinet for recard chonger, tuner, omplifer plus o generoug, storoge areo for all tixe records. Sliding front panels of perforoted mozonite cover the storage comporiment - $34^{\prime \prime}$ " W. $13^{\prime \prime} H^{\prime \prime} 151_{2 "} \mathrm{D}$. Hinged iop section houses the record chonger comportment $\left[161 / 2^{\prime \prime} \mathrm{W}\right.$. $\left.\times 141 / /^{\prime \prime} \mathrm{D}.\right)$ ond tuner-omplifer section $\left(172 / /^{\prime \prime} \mathrm{W}\right.$. $141 / 4^{\prime \prime} \mathrm{D} .1$. Overall dimensionsi woad log., Shpg, wt., 128 lbs.
Model 33
NET 87.00
Model 33U-Same unfinished $\qquad$
MODEL 34 SPEAKER Some size, woods ond Anish, Boss refiez design with b-cubic feet bome oreo to occom modato $12^{\prime \prime}$ or $15^{\prime \prime}$ speakers. Pre-cut portt. Acovalic insulation.
Model 34
NET 63.00
Model 34 U Some os obove in unfnished Birch Voneer......................... NET 53.40
LIFT TOP EQUIPMENT CABINET FOR ALL COMBINATIONS OF TURNTABLES

## AND TONE ARMS

A distinctively now hondsomely itrled lift top cabinet designed to house complete systems invalving combinations of turntoble and $12^{\prime \prime}$ or $10^{m}$ tone orm. The furntoble section is $21 " \mathrm{~W}, 181 / 4^{\circ} \mathrm{D}$ with $\mathrm{b}^{\prime \prime}$ below the shackmounted motor baord. Motching $1 / 4^{\prime \prime}$ wood sllding doors cover the $381 / 2^{\prime \prime} \mathrm{W}^{\prime} 18^{\prime \prime} \mathrm{D}$ 。 $141 /{ }^{\prime \prime} \mathrm{M}$ atorege oreo. The funer ond ompli. fier mount vertically. moking companont can. trols occessible from top in o section $17^{\wedge} \mathrm{W}$, $181 / \mathrm{s}^{\prime \prime} \mathrm{D}$, ond $\mathrm{o}^{\prime \prime}$ below ponel. Modern $7^{\prime \prime}$ wood tapered legs with adiustoble foet for true loveling. Overall dimensions $40^{\circ} \mathrm{W}$. $x$ $20^{\circ} \mathrm{D} \times 331 / 2^{\mathrm{N}} \mathrm{M}$. Birch veneer finished in choles of Mohagony. Wolnut, Ebony ond Blande Mohogeny. Shpg. wt., 115 lbs.
Model 45-Specify chalce of
color
Net 180.00

## CORNER SPEAKER ENCLOSURE KITS


deal for low cest music systems. Corner fotded horn design extends boss response o full octeve, improves tronsient response and increases power hondling copocity of ony hi-h speoker. $1 / 4^{\prime \prime}$ birch plywood Kits ore supplied with precut boffe, grille cloth, hordwore, glue, plostic wood, ocoustic insulotion. and ossembly insiructions.

Model 61. For $12^{\mu}$-Speokers. Overoll dimensions $317 / \mathrm{s}^{\prime \prime} \mathrm{H} ., 311 / \mathrm{m}^{\prime \prime}$ W., $221 / 2^{\prime \prime} \mathrm{D}$. Shpg. wt., 27 lbs NET
21.90

Model 63. For $15^{\prime \prime}$ Speokers. Overoll dimensions $11 / \mathbf{" N}^{\prime \prime}$. $341 / 2^{\prime \prime}$ W., $241 / 2^{\prime \prime}$ D. Shpg. wi., 29 lbs NET .................................................................. 26.40


# GARRARD 4 SPEED <br> RECORD CHANGER AUTO-MANUAL 

With New And Latest Model fairchild diamond long-play Cartridge
ONLY LAFAYETTE BRINGS YOU THESE SPECTACULAR SAVINGS ON THE LATEST MODEL GARRARD

RECORD CHANGERS AND FAIRCHILD DIAMONO CARTRIDGE (REG. \$37.50)


## O 11 <br> 83.41 net <br> RCE <br> TRIUMPH II

A-Speed deluse Auto-Manual chanter successor to the RCRO Trlumph. Full manuil poaition with finger+itp con-ingle-play turntable. Smooth, quiet ahaded 4-pole "In duction-Surge" motor, allent free-wheeling ballhearing turntible mount and overaized live rubber ider traction wherl. Features a true-turret drive with all 4 speeds operating of the motor on a angle turret which elim and relnforced uutomatie muting awiteh. Heavy ateel precialon turntable covered with rubber tractor mat Simplified stylus prensure and pichup heisht sdjust menis. Whteh-like construction with sennitive trip mechanism, automatic stop and shutof brake. Foolprool. gentle record pusher plitform. Foating motor completely inalated and damped. Size $151 / 2^{\prime \prime} \times 13^{2} / 4$ " with ing bourd. Complete with line cord, pickup lead, pluxpindles, is rpm adaptor. Lexs cartridge and less auto matic 45 rpm apindle. Shpg. wt. 16 lbm
Model RC88 - Less cortridge
Model RC88/GE - With New Ge YRII Serlet 53.41 Play Dual Sopphire cortridge ....... VRI Series Triple Model RCBB/GED - With New GE VRII Series Iriple Play Diamond-Sopohire Cortridge ..................Net 72.32 Play Diamond-SopahireM Cido RC88
MAMOGANY OR BLONDE WOODEASE CUT TO IT ABOVE
PK-111 - Specify finish. Shpo, wt., 5 Ibs. Net 3.95 MOUNTING BOARE TO FIF ABOVE PK = 110 - Unfinished. Shpg. wh., 3 lbs..... Net .os


NEW MODEL 1 CREST" MARK II -SPEED MANUAL RECORD PLAYER

Entirely new compact and efficient 4-speed manual record oloyer for fine reproduction where a chonger is not de. ired. Pravides quiet frouble.free performance from ane complete iurnioble and tone arm assembly. It storts oulo. matically with movement of the tone arm and shuts of autamatically at the end of the recard. Features a heavy duty canstant speed rumble-free 4 -pole shoded induction surge matar and heovy steel precisian turntable for fy wheel oction. All 4 speeds operate directly off mator an - single furrot. Exclusive finger farm "stor switeh" permits conventent. instantaneous 4-speed selection. Oversized live nubber idler wheel has pull-away mount ta prevent Aat spois when player is not in use. True-tangent aluminum tone arm provides rigidlty with low mast and light weight. Interchangeable plug-in heads accammadate all peoular magnelic crystal or ceramic cortridges. Knurled anob on bock of lone arm accessible for stylus pressure odjustments. Tane orm rest supports tone orm - ready far olay, and o simplo snap locks it far sofely. Constructed lite o wotch - oll ievers fully odiustoble; bronze bearings at all moving points; perfectly meshed precision - ground gears; moisoleas moin spindle. C. netmart acras emitch oliminotes "ploo" shutoff nolse. With 45 PPM odopter and rubber Iurntable mot. Size! $142 / /^{\prime \prime} \times 121 / "^{\prime \prime}$ requiring $3^{\prime \prime}$ clearance obove and $2-1 / 6^{\circ \prime}$ clearonce below mounting boord. UL oppraved. Complete whithine card and plug ond pickup coble terminating in stondard jock. Shpg. wt. 10 ibs. MODELT MA日K II - Less Cortridge Net 31.85 MODEL F/GE - With New GE VRII Series Triple Ploy Dual Sopphire Cortridge MODELT/GED 40.62 Diomond-Sopphire Cartsidew GE VRII Series Triple Foy MAHOGANY O SLONDE WOODBASE CUT TO FTT ABOVE
PK-112~ - Specify finish. Shpg. wi.. 5 lbs.... Net 3.95 MOUNTING POARD CUT TO FIT ABOVE MONTO TO FIT ABOV

Net .95

### 71.65 net

## A deluxe straight spindle type record changer comnact

 -nough far renlacement use. yet kuperior to other fixe 12 nsindle types. Features "Simpli.Mix" operation whereb tom to top in this order, londed on the fixed snindle a tom to top in this order, londed on the fixed Anindle at operation reaults with the tone arm dropping into correct position reasardlesk of record size. 45 RPM records are placed using clip-in adapters or with optionsl automatic spindle avallable below. Fully automatic and manasal operation. "induction-Surke" motor true-turret preas. balmearing turntable morhaniam, automatic sto pressure adjustmenta, trip merhaniam, automatic sow Garrard changerx are likowise incorporated in this model Size. $141 / 2^{\prime \prime} \times 13^{\prime \prime}$ requiring $43 /{ }^{\text {N }}$ clearance above and $31 / 4$ " below motorboard. $100-130 / 200-280$ volts, 60 ycle AC operation. Complete with Ine cord, sicikup cable, plug-in shell, mounting hardware. Less cartridg MODEL RC121 - Less Cartridge ...................... Net 41.65 MODEL RC121 - Less Carfridge ............... Net 41.65MODEL RC121/GE - With New GE VRII Series Triple MODEL RC121/GE - With New GE VRII Series Triple
Play Dual Sopphire Cartridge ................. Net 50.42 Play Dual Sopphire Cartridge ................. Net 50.42
MODEL RC121/GED-With New GE VRII Series Triple MODELRC12I/GED- With New GE VRII Series Triple
Play Diomand-Sapphire Cortridge ..................Net 60.56 MODEL S5S21 - 45 RPM outomatic spindle for use wit RCI 21
MAHOGANT OR BLONDE WOODEASE CUT TO FIT ABOVE
PK-111-Specify finish. Shpg. wf., 5 lbs........Nef 3.95 MOUNTING SOARD TO FIT ABOVE
PK=110-Unfinished. Shpe. wi., 3 lbs

## NEW! GARRARD TPA-10 TRANSCRIPTION TONE ARM



- LENGTM, TBACKING ANGE AND STYEUS Ferssuit indivibuaur abjustalle
- ACCOMMODATES YiATUALY AL CARTAIDGES
- miNIMIESS RECORD WEAR
- MOUNTING MEAGHT WIDELY ADJUSTAELE
- MPCESION ENOINEEING AS USED IN CHIONOMETES

Adiustability in length and tracking ongle as wall os in stylus pressure presents a new conceot in tone arms. The TPA/10 operates efficiently in the smallest pessible installation, yel can instantly became a full length $16^{\prime \prime}$ orm where space permits. The best feolures of static bolance and spring loading have been cambined in this new tone orm to give moximum vertical freedom. Few pivols minimize froversing friction offording record groove profection. Spring-loaded cone type ball bearing pivols are uned, timilar to those in shock-praof chronometers. The mounting heloht is widely adiustable, so that the orm may be used with ony transcriation furnioble withaut shims or ather pecial devices. Supplled with oll necessary mounting hordmare simplified templotes shom precisolr how to in hord are. armplined homploles show praciuelr how io in stall the arm under all cendions. $A$ uniave protroctor enables the recommended ongle of the cartridge to be set of any given radius, assuring minimum tracking error and lowest distartion. This adiustment enables enthusiasts to experiment and beneff from the most odvanced theories conceraing tracking. Distinctively styled in chrame and whife enamel. Though maderate in price this lone arm has finest high fdelity systems. Shpg. wi., 2 lbs.
TPA/10 TONE ARM
Net 24.01


## The RC 98 CROWN II 4 -apeed Super Auto-Manual

 record changer combines mil of the advancements of the RC80 which it succeeds, and af the new RC8B, including In uddition, it contains several new hish-fidelity innovaIn uddition, it contains several new high-fidelity innovationa which are characteristic of the model. A feature possible a continuously variable + or - wide range adjustment of each speed. This is important to those with "periect pitch" since if permits the RC98 to be "tuned" to the pitch or key of a musical instrumen. This variable apeed control is obiained by means of an ull electrical coils with no friction or efficiency losses. A mpecial 45 RPM automatic apindle is included in the Ress standard apindle equipment. Cabinet dimenaions are the name ne the RCBR. Complete with line cord, piekup lead. plug-in ahells, mounting hardware, spindles including automatic 17 lbsMODEL RC98 - Less Cortridge .. ..................Net 66.15 MODEL RC98/GE - With New GE VRll Series Triple Ploy Duol Sopphire Cortridge .............................Net 74.92 MODEL RC98/GED - With New GE VRII Series Triple Ploy Diomond-Sapohire Cartridge Net 85.06 MAHOGANY OR BLONDE WOODBASE CUT TO FIT ABOVE
PK-111- Specify finish. Shpg. wt., 5 lbs
MOUNTING BOARD TO FIT ABOVE
PK-110 - Unfinished. Shps. wi. 3 lbs.
Net 3.95
Ne1 .95
MODEL 301 PROFESSIONAL TURNTABLE


- vaniapar spred contiol
- HEAY DUTY 4-POL SHADED mOTOA
- PRAFECTED TURRET DRIVI mECHANISM
- EXCIUSIVE MOUNTINO SUSENSION SVSTEN
- heavt casf aluminum tunntase
- EUILT-IN PRESSURE LUERICATION SYSTEM
- hi-f turnable designed ta professional specificolions - simple foolproof eddy current brake permits instantoneous variation of all speeds, and makes it possible to "iune the furntable to watch the pitch of o musical instrument. Exclosive heavy duty mator hos a dynamically balanced armature and self-centering, self-fubricaling phasphor branze bushings to eliminate nais and rumble. Unique bronzer bushiting and motar-board suspension eliminate monsfer of vibration. Noisoless in spindle rototes on ransier of vibration. Noiseless moin spindle rolates on hosphor branze beoring and hos overized grease housin 2" $1 / 2$ Ib. cal colu $2^{\prime \prime} 61 / 2 \mathrm{lb}$. cast aluminum lurntable is precision machined and dynamicelly balanced. A resistor-candenser networ oliminates shut of noise, which is normally induced through pickup to loudspeoker. Speed Sofety lock mokes it mandatary to shut unit off before switching speeds which protects the mechonism. $100.130 / 200-250$ volt, 60 cyele AC aperotion. 50 cycle pulley avallable. Sizes $16^{\prime \prime}$ $13 \frac{1}{4} 4^{\prime \prime}$. requiring $21 / 3^{\prime \prime}$ abave and $31 / 2^{\prime \prime}$ below motorboard upplied with line cord, hardwore strabotcopic dis and MoDEL 30 ?



## GARRARD STYLUS PRESSURE GAUGE

Accurdely masures the welght exerted by the stylus upon record. Pressure is collbrated in grams. Can be used with any ton ar any pictup. All Attractive red and ivary plastic case. Shpg. wh., 5 az. PK. 77


# HIGH FIDELITY RECORD CHANGEIS 



DELUXE 1200A-1225A SERIES Plays $331 / 3,45$ and 78 rpm records automatically; popular tolking book $16 \% \mathrm{rpm}$ monvolly; optional manval operation of any speed. Positive intermiz of up io $10^{-1}-12^{\prime \prime}$ and $10^{\prime \prime}$ recards in any orders copacity $12-10^{\prime \prime}, 10-12^{\prime \prime}$ or $14-$ capacity 7 resords. "Tri-O.Motic" spindle gently lawers recards. Constont-speed drive mafor, low-forque mechonism, precision ball bearing, for minimum wow and freedom fram rumble. Jom-praof, child-proai mechanism. Automotic shutoff, automatic ider disengagement. Smat now styling, in charcoal groy and antique white. Far 110.120 valts, 60 sps AC. U/L Approved. Size $123 / \mathrm{s}^{=1} \times 13^{31} \mathrm{~m}^{2} \times 8.5 / 16^{\prime \prime}$ high averall. Shpg. wh., $101 / 2 \mathrm{lbs}$
VM 1225A-As described above, with motching metal base. Complete with ce pamic furnover cartridge with dual sopphire styll, 6' AC cord ond 4' phano autput cord whth plugs. Size $12 \%$ " $\times 133 /{ }^{\prime \prime}$ * $83 /{ }^{\prime \prime}$ Shog wt. $15 \mathrm{lbs} . \mathrm{Net} 39.95$

VM 1225 A.GE-As above but with GE Variable Reluctance triple-play cartridge with dual sapphire styli.........Net 46.00 VM 1225A-GED-Same as abave with GE Variable Reluctance triple-play cortridge GE diamand IP stylus and sapphire stylus for standard 78 rpm . Net 58.80 VM 1200A -Same as 1225A but less base and AC cord... Net 37.20 VM 1200A-GE-Some as 1225A-GE but less bose ond AC cord.........Net 41.20 VM 1200A-GED-Some as 1225A.GED but less base and AC cord.....Net 54.00

## 920A ECONOMY CHANGER

 On plastic base. For $331 / 3,45$ and 78 rpm. Intermix of any $10-12^{\prime \prime}$ and $10^{\prime \prime}$ recards. "Tri-O-Matic" spindle. Automatic shut-aff. Ceramic turnaver cartsidge. For $110-120$ vals. $60 \mathrm{cps} A C . U / L$ Appraved. Includes ' $6^{\prime}$ power cord and $4^{\prime}$ phono cord with plugs. Size $12^{\prime \prime} \times 10^{\prime \prime} \times$$71 / \mathrm{m}^{\mathrm{m}}$. Shpg. Wh., 10 lbs
VM 920A-Complete

## ACCESSORIES

## VM CHANGER ACCESS

975945 RPM SPINDLE-Fits all VM models listod............................................. 1.88
PK-110 MOUNTING BOARD-CUT to fit VM 1200 A-Series chongers. Unfinished.

## MONARCH 4-SPEED

 AUTOMATIC INTERMIX RECORD CHANGER 21.50
## Made In England

The new 8ritish-Made Monarch autamatically plays $7^{\prime \prime}$. $10^{\prime \prime \prime}$ of $12^{\prime \prime \prime}$ of $16-1 / 3,331 / 3$, 45 or 78 RPM. Intermized in any order! $16 \frac{1}{3}$ rpm speed ovailoble. for manual opero tion. Features a 4-Pale Induction-type motor eliminating "rumble" and "wow" Pickup automatically retorns to rest and motar switches off ofter lost record. Rotacam combined 4 speed control and Or-Off-Reject switch. Fitted suspension springs eliminotes feedback. 10 -record capacity. Simple design guarantees long life and frcuble-free operatian. Tone arm unfailingly cames down directly into the lead-in groove af the recard. Operases on $110-125$ VAC 60 cps . Shpg, wf., 15 lbs.
PK-143 Monarch Madel UAB -4.speed changer, less cartridge................Net 21.50
PK-144 Monarch Madel UABH-4.speed changer, with hi-fl crystal turnaver
cartridge 23.75
PK-145 Monorch Model UA8U-4-speed changer, with Gaidring No. 500 oriable reluctance cartridge with duol sapphire styli..............................Net 26.95
45 RPM Spindle: Fits in ploce af regulor spindle. Eliminotes use of spiders. MONARCH 45 5PINDLE ............................................................................................. Net 1:88
MAHOGANY OR BLONDE WOODBASE CUT TO FIT ABOVE MOUNTING BOARD CUT TO FIT ABOVE MOUNTING BOARD CUT TO FIT ABOVE Unfinished for easy staining. Shpg. wi., 3 lb

# THORENS CHANGER 

## AUDIOGERSH "MIRACORD" CHANGER MIRAPHON PLAYER



Heavy-duty 4-pole mator, rim drive, balanced turnioble for -canstant speed free from "wow" and "flutter". Maiar floots free, isolated from rest of ployer. Rubber mat. Plug-in heod. Tane orm has double row of ball beorings, special dompened plostic construction. Automatic shut off at end of record. Rich burgundy finish. with whit trim. For 110 of 220 valts $\mathrm{AC}, 60 \mathrm{cps}$. $121 / 2^{m \times 1} \times 101 / 4^{m}$. cleoronce $21 / 2^{\prime \prime}$ above mounting plate, $21 / 4^{\prime \prime}$ below. Shpg. wt., 10 ibs . Complefe ond reody for operotion, with all plugs and leads offached. MIkAPHON XM-I10A-4.speed manual play-
er as described above, less cartridge......Net 37.50 MIRAPHON XM-IOOA/GE-As above, with

GE variable reluctonce "Iriple-play" car-
tridge with dual sapphire styli..................Net 2HRAPHON XM-I10A/GED-As above, with diamand LP and sapphire 78 pom styil. Net PK- 111 -Mohogany ar blonde woodbase cut to fit either XA. 100 or XM-110A. Please specify finish. Shpg. wt., 5 lbs..............Net
PK-110_Mounting board cut to fit either XA-100 or XM-110A. Unflnished for ecsy sfaining. Shpg. wt., I Ib...............................
4.50
44.50
56.25 3.95
.95

## THORENS CBA-83N AUTOMATIC PLAYER

The Thorens "Audiomatic" is a push-bution contralled, fully automatic player for single records. Just press bution for $7^{\prime \prime}, 10^{\prime \prime}$ or $12^{\prime \prime}$ size; lone arm sets dawn outo. malically: player shuts off at end of recard. Reject control. Muting switch with "pop-click" filter. Control far manual operetion. Same precision, gavernor-controlled direct drive motor as CD.43N. 3-speeds. Size $15^{\prime \prime}=12^{\prime \prime}$; depth belaw base $3 \mathrm{~V} / \mathrm{s}^{\prime \prime}$. Supplied with 2 plup-in shells and cortridge.mounting hordwore plus 45 rpm adaptor; less AC line card and cartridge. Far $100-250$ volts, $50 / 60$ cps AC. Shpg. wt. . 20 lbs.
THORENS CBA-83N-3-speed outamatic ployer.
Net 59.95


CD-43N
MADE IN SWITZERLAND
According to results af tests an random somples, made by on independent festing laborotory, the Thorens record chonger oclually exceeds NARTB specificolians for broadcast reproducing turntobles. Wow ond flutter were better thon $0.2 \%$ PMS. These cesults were achieved Postly beceuse of the EXTRA-LARGE, 4-POLE DIRECTmostly becouse of the Extra-bakcE, 4 POIE DIRCCI Drive PRECISION MOTR, diminoling belr and pul leys often responsible far the varlatians in speed-and, Therefore, in musical pitch-knawn as "waw" and "flutter"
OTHER FEATURES: Speed selectar hos integral fine. tuning knab for "exoct-pitch" adiustment Rumble reduced by cast-iron frame and mechanical filter Electranically-balanced rotar shaft Governar-cantralled speeds Automatic intermix of $7^{\prime \prime}, 10^{\prime \prime}$ and $12^{\prime \prime}$ recards Optional manual operation " "Pause Control" for adiustoble between-record pauses af 1 to 13 minutes "Repeat Control" will replay any size pecord Automatic shut-aff after last record Instant record Automatic shut-aff ofter last record Instant
-ocord reiect Muting 5 witch for quiet chonge eycle -ocord reiect $2^{\prime \prime}$, depth belaw base $31 / 4^{\prime \prime}$; hoight obove
Size $15^{\prime \prime} \times 12^{\prime \prime}$, Sire $15^{\prime \prime} \times 12^{\prime \prime}$ : depth belaw base $31 / 4^{\prime \prime}$; height obove
$6^{\prime \prime}$; requires clearance above bose of $9^{\prime \prime}$ Balanced, $6^{\prime \prime}$ : requires clearance above bose of $9^{\prime \prime}$. Balanced, and hordware for most high.fidelity cortridges; less AC ine cord, cartridge, 45 rpm spindie for $100-250$ volts, $50 / 60 \mathrm{cps}$ AC Shpg. wi.. 24 lbs.
THOREN5 CD-43N.
Net 78.35

## THORENS ACCESSORIES

45-5-45 RPM spindle for CD-43N...........Nef 5.83
WB-B - Waaden bose, blande, for CD-43N or CBA-83N. $13^{\prime \prime} \times 16^{\prime \prime} \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~ N e f ~$
WB-M-Same as above, Mahagany..............Net 5.88
M8-Mounting board for CD. 43 N or C.A-83N.
Unfinished. $16^{\prime \prime}, 15^{\prime \prime} \ldots \ldots \ldots . . . . . . . . . . . . . . . . . .$.

## afayette <br> VISCOUS DAMPED PICKUP ARMS

ONLY Lafayeffe CAN BRING YOU A VISCOUS DAMPED TRANSCRIPTION TONE ARM AT SUCH A PRICE!

THE PROFESSIONAL 12" PK-90


LICENSED UNDER CES
U. S. PATENT NO. 2676806

- JEWEL BEARING SUPPORT - PERFECT RECORD TRACKING
- AUTOMATIC FLUID CONTROL
- INSTANT PLUG-IN CARTRIDGE CHANGE
- ACCOMMODATES ALL POPULAR AMERICAN CARTRIDGES

This transcription arm, with its "flooting action" principle of viscous-damping, gives depondable and stable operation. It is supported at a single point by a pivot and jewet bearing having negligible frie tion. Damping is occomplished by o silicone flutd occupying the gap between boll and socket. The resull is high compliance and proctically no trocking error. Domage to rocord or stylus is impossible if the orm is accidentally dropped. low frequency resonance, skidding and groove-iumping are also minimized. The tone arm plays all sizt records including $12{ }^{2}$, and accommodates virtuatly all ais-if cortridges by means of procisely engineered adapters which simplify installation and provide proper itylus pressure. Gray hammertone finish. Shpo. wt., $21 / 2 \mathrm{lbs}$.
PK- $\mathrm{PO}_{0}$-Transcription Tone Arm.


VISCOUS-DAMPED TRANSCRIPTION TONE ARM
Here is ane of the finest professional, transeription tone arms ovailable fodoy, Imoortod by Lafoyette Rodio, and sold at the lowest price ever. Evary important tone arm design and construction feafure hos been incorporated into this now addition to Lafayette's high fidelity fomily of line producis. Viscous damping means "flooting oction" Huid control which regulater the harizantal and vertical movement of the arm. This suspension principle virtually eliminates groove iumping and skipping. Tane arm resonance is elfminoted and perfect compliance is achieved at of speeds with correct stylus pressure. The silicane oil chamber is completely enclosed and sealed against teakage. All tone arm adiustments are sasily accessible and include means for carrecting height of arm, stylus pressure and leveling of the arm. The amaunt of damping and pressure is contratled by manual viscosity adjustments mounted on lop of the arm. Records and stylus cannot be damaged when the tone arm is occidentaly dropped. The slide-in cortridge holders and separate weights permit inslontaneous mounting of all standard types in. cluding GE furn-over cartridge. An odiustoble height piskup rest, three cortridge halders, and leads for connection to amplifior, are supplied with the pickup orm. Rich, hammerlone gray finish. Overall length of arm $141 / 2^{\prime \prime}$. Shpg. wl., $31 / 2 \mathrm{lbs}$.
PK-170_Tronscription Tane Arm.
Nel 17.95
ARGONNE PROFESSIONAL DELUXE $12^{\prime \prime}$ VISCOUS DAMPED TONE ARM

LICENSED UNDER CAS U.S. PATENT NO. 2678806

\$19.95
LICENSED UNDER CBS
U. S. PATENT NO. 2676806

## WITH NEW REVOLUTIONARY PATENTED PRINCIPLES

## - exclusive sealed oil chamber eliminates possibility of leakage

- factory adjusted for optimum damping position
- CORRECT STYLUS PRESSURE AUTOMATICALLY APPLIED

A new Argonne (Model AR-000) import for the discriminating audiophile who wants tone arm perfoction. Here is on arm utilizing distinctive design and construction to provide feoturas not found in other viscous damped tone arms. An entirely new princlple is used to pravide a sealed chamber to ellminate fluid leokage, a common defact of other viscous damped types. The tone arm is adiusted for oplimum damping al the faclory priar to shipment and in proctically all instances requires no further odjustment. Four adapters are supplied to accommodate all popular standard moke cortridges (GE, Falrchild, Pickering). When mounted in its proper odapter, the carrect stylus pressure is outamatically applifed for each specific cartridge. Perfect damping with a high grade silicone ail having a negligible temperature coefficlent, single point pivat support for smoother action, and canvenient variable height and leveling adjusiments ore a few of the other features of this exceliently designed unit. Viscosity of all keeps stylus in the groove and absorbs shocks and undesirable arm vibrations. Tane arm resonances are nonexistent within the audio range. Equipped with pickup rest and tone arm lift. Finished in attraciive gray hommertone. With installation instructions. Shpg. wi., 3 lbs. PK-150 Transcription Tone Arm

## LAFAYETTE TRANSCRIPTION TYPE MANUAL PLAYER

- MAGNETIC BRAKE FOR FINE ADJUSTMENT OF EACH SPEED
- 4-POLE, HEAYY DUTY TRANSCRIPTION-TYPE MOTOR
- STYLUS WEIGHT ADJUSTMENT SCREW ON TONE ARM

[^0]
## NEW! <br> PROFESSIONAL! <br> LAFAYETTE TRANSCRIPTION TURNTABLES

## LAFAYETTE MODEL PK-300

The Finest Transcription Turntable For Professional Or Audiophile!

- BUILT-IN STROBOSCOPE AND VIEWER FOR EXACT SPEED DETERMINATION - MAGNETIC BRAKE OR INSTANTANEOUS SPEED VARIATION - RC FILTER NETWORK - $12^{\prime \prime}$ CAST-ALUMIMUM RIM. RIVEN TURNTABLE HEAVY DUTY 4-POLE CONSTANT SPEED MOTOR - VARIABLE SPEED CON. TROL PERMITS ADJUSTMENT OF EACH SPEED WITHIN $\pm 7 \%$ - SPEED SELECTOR SAFETY SWITCH - freELY-FLOATING MOTOR MOUNT

Now 3-speed instrument to dolight the connoisseur, The bolanced turnoble hos on extroheory rim for anooth ffoctive Aywheol oction. ilm driven by perfectly true pulleys and on oversized idtor wheol; ball-beoring mounted intualr molsorit
 lower,
 acts ihe dropgoged, keeping portichy off position when witching speeds The motor is lsolated by shock mounting. An RC Aller notwork does away with unwanted inut off nolse For 110.130 Volts, 60 ercio AC. Draws 12 walls. Size: $131 / 2^{\prime \prime}$ d, $14^{\prime \prime} w$ cleorance $23 / 4^{\prime \prime}$ above matorboord lexclud ing pict-up arm) and $31 / 4$ " below. Supplied with a heavy rubber rocord cushion, 45 RPM odapler and mounting plate for tone arm. Shpg. wt., 20 lbs.
PK-300

## LaFAYETTE COMBINATIONS FOR EXTRA SAVINGS

- PK. 300 Turntable, PK. 90 Tone Arm, Now GE VRI Series "Triple-Play" Cortridge Madel 4G-052 wif Gonuine GE Diomond and Sapphire Styll SPECIALI NET 72.50
- Some as above, with Fairchild 225A Cartidge with Diamand IP Stylus _-ma.......SPECIAll Net 90.50
- Same as above, Plckering 350DS "Fluxvalve" Car tridge with Diamond and Sapohire Styil.

SPECIALI Nes 92.00

PK. 300 Turntable, PK. 170 Tone Arm, GE VRll Series Model 4G-052 Cartridge with GE Diomand and Sapphire Styll. ..........-................SPECIALI Not 78.50 Samo or above, with Fairchild 225A Cortridge with Diamond IP Stylus ...........SPECIALI Not 96.50 Same as above, with Pickering 350DS "Fluxvolve" Cartridge with Diamond and Sopphire Stril.

SPECIALI Not 98.00

## LAFAYETTE MODEL PK-225

## Professional Turniable with FYSTERESIS-SYNCHRONOUS MOTOR!

Th. LAFAYETTE TRUE HYSTERESIS-SYNCHRONOUS MOTOR. Since many so-colled hysteresis motars have appeored and will cantinue to oppeor on the market, il is importont that yau know the difference between the real thing, as provided by lafayette, and the imitotors with partial hysteresth matarsi
ONLY HYSTERESIS-SYNCHRONOUS MOTORS-SUCH AS LAFAYETTE'S-ore free from speed variations due to Auctuations in line voltoge, load and temperature
ONIY HYSTERESIS-SYNCHRONOUS MOTORS-SUCH AS LAFAYETTE'S-are the smoothest tro known, com pletely free from "cogging" (the minute varlations of speed which show up as waw and futtor)l
ONLY LAFAYETTE'S MYSTERESIS-SYNCHRONOUS MOTOR, in its price class, is mode to extromely fine toleronces on the ordor of .00001 inchestl Only Lafayetto's motar has 16 cores, a high permeability rotar mognet, ball thrust bearings, oilito sleeve beorings plus felt oll reservoir, cooling fins as on infegrat port of the rofor and a hollow rotor core for moximum efficiency ond minimum heof. Only Lafayetto's motor can be aliod rom abo without disassombly, through a unique ail fead syitom. Oniy Lafayotto's motor has a self-aligning armalure ONLY LAFAYETTE CAN GIVE YOU A REALIY PROFESSIONAL TURNTABLE WITH TRUE HYSTERESIS-

SYNCHRONOUS MOTO AT SUCH AMAZINGLY LOW PRICES!
ble-the Tost word in professional high-Adelity pertormancol Ane proctsion instrument in overy Here's THE furntable - the Tost wor TABLE: Heory diecost aluminum. Lathe-turned for perfect balonce and concentricity. $12^{\prime \prime}$ diamotor-woigh TABLE: Heory, diecast aluminum. Lathe-turned for porfect balonce ond conceniticity. Iz diometer-woigh
 Operotion RUMHE AND NOISE, 50db below overage recorded loval - INTEGRATED SPEED CONTROL: For all 3 speeds- 78,45 and $331 / 3 \mathrm{rPm} \cdot 2$ OVERSIZE, MEAVY DUTY IDLERS: Precislon-ground; pravide pasifive can stont-speed rim drive - SINGLE BALL THRUST BEARING: Turntable ridor smoorny over ball boring foating on thin film of oil © FREEFLOATING. SHOCK-MOUNTED MOTOR - RUBBER CUSMION SHOCKMOUNT - AUTOMATIC IDLER DISENGAGEMENT - CORK AND RUABER MAT - STAINLESS STEEL PRECISION SPINDLE - POWER REQUIREMENTS: For 105.130 volts, $60 \mathrm{cD:} \mathrm{AC;} \mathrm{drowi} 16 \mathrm{~V}$ A. A. ACCESSORIES SUP PLIED: 45 RPM adapter, Strabe disc - SIZE: $21 / 9^{\prime \prime}$ above and $4^{\prime \prime}$ below mator boord; $141 / 4^{" \prime}$ deep $\times 121 / 4^{\prime \prime}$ wide - SMIPPING WEIGMT: 16 lbs.

LAFAYETTE MODEL PK-225
Not 64.50
LAFAYETTE MONEY-SAVER COMBINATIONS

- PK. 225 Turntable, PK. 150 12" Tone Arm, New GE VRII Series "Triple. Play" Cortridge Model 4G-052 with Gemuino GE Diamond and Sopphire Sivil. Speciall Not 89.50
- Same ar above, with Folrchlid 225A Cartridge with Diamand IP Stylus. ...........SPECfAll Not 107.50
- Same, with Pickering 350DS "Fluzvalvo" Turnave Cartridge with Diamond and Sopphire Styli, 100.00
K. 225 Turntable, PK. 170 16" Tane Arm, GE VRll Sories Madel 4G-052 Cartridgo with Diomand and Sopphire Styil. 87.50 Some or above, with Fairehild 225A Cartidge with Dlamand tp Stylus. ...............SpeCIALI Not 105.50 Same, with Pickering 330DS "Flunvolva" Turnover Cortridge with Diomond and Sapphire Styll. SPECIALI Not 107.00

LAFAYETTE 4-SPEED DELUXE TRANSCRIPTION TURNTABLE - MAGNETIC EDDY-CURRENT BRAKE - FINE CONTROL OF SPEEDS $\pm 7 \%$

## - RIM

 WEIGHTED TURNTABLE- MEAVY-DH

CUSTOM 4-POIE MOTOR
The ideol unit for medium cosl true-fidelity systems. Has oll tha important foolures of the best professional furn tabler - of Lofoyotto's usual low, Low price. CHECK THESE FEATURES: - Hoavy $21 / 2 \mathrm{lb} .10^{\prime \prime}$ duraluminum turntable, with extra-heavy im for smoath, Aywheel oction, lathe-furned for perfect bolance ond rides on thrust bearing - Single-knab spoed contral, with stops between speed settings - Rim-drivej idier driven directly by motor shaft copston. Lorge heavr-duly 4 -pole custom induction motor. Estremely low noise. rumble, wow ond fuller - Magnetic brate for $\pm 7 \%$ voriotion of eoch speed; allows exact spoed adiustmont os well as voriation of musicol plith by a holftione or more, os may be desired. All 4. speedsi $78,45,33.1 / 3$ and $16-2 / 3$ RPM $91 / 2^{4}$ furntable diameter Qubber turnable mot - Idler autamotically disengogos in "af. positions Aluminum
 $31 / 4^{\prime \prime}$ bolow - Powert $105-130$ Volts, 60 cps AC. © Supplted with 45 rpm adopter - Shpg. w1., 10 lbs LAFAYETTE PK-180-4.Spoed Turntoble Nol 28.50 MODEL PK-192-UnAnished mounting board, cut for PK-180 Turniable and $12^{\prime \prime}$ fone arm. Strang, durable $\%^{* \prime}$ gumwood, reody to slain or point.
MODEL PK-191-Wood bere, eut for the Modal PK-180 Purntable ond $12^{\prime \prime}$ tano arm. Top quolity veneer at tractlyely finished in mahogany or blande (Specify). Shpg. wf., 5 lbs. Net 3.95

## LAFAYETTE SPECIAL-VALUE COMBINATION

- Model PK-180 Turnioble with Madel PK-90-12" viscous-domped tome
Play" Cortridge Madel 4G-052 with genuine GE diamond and sopphive strli.

E VRII Series Triple GPECIALII Not 52.50


## NATIDNALLY FAMDUS HI-FI TURNTABLES



GRAY HIGH FIDELITY TURNTABLE THORENS SWISS-CRAFTED PLAYERS Eliminates nolse, "wow". "Aufter". "rumbla" by
means of extremeiy heavy, rugged canstruetion (approx. imotely 42 lbs.) which obsorbs outside vibrations: heary turntable with extro-long topered steel beoring; direct contact between motor shaft and externat furnioble rim. eliminoting idlersy and precision-balanced motor weighing anty 4 lbs . Hondles up to $16^{\prime \prime}$ transcriptions and all 3 standord speeds. Neoprene ond cart turntable surface. Available with hysteresis-type synchronous motar or 4. . $10^{\circ} \times 20^{\circ}$. Shog. mor. For 110.120 volts, 60 cps AC. GRAY MODEL HF-500 A -
hanism only, with hrs-teresis-synchranous matar .......................t 119.50 GRAY MODEL HF - 400 - As above, with 4-pole inducGRAY MODEL MF-503 - DuPont Fobrilite.covered 89.00 net for above meshanism, in pebbled gray, red, green or yellow. Pleose specify. $16^{\prime \prime} \times 20^{\prime \prime} \times 61 / 2^{\prime \prime}$. Shpo. wt. 3 lbs. 20.00 GRAT MODEL HF-SOA-Cabinet, as aboro Ma 20.00 Wolnut or Blonde waod finish. Pleose specify. Ne1 27.50

## NEW FAIRCHILD TURNTABLES

 MODEL 412-

MODEL $\mathbf{4 1 2 . 1}$ - Single spead, $33.1 / 3 \mathrm{rpm}$ bosic unip Time-praven belf drive, self-lubricating hystereslis syn bearing in nylan seat. Moin shoff micro-honed, uns in polished babbitt. Vibrationless motor suspension syspem. Acoustically sitent - exceeds NARTB specs by 3 to 1 morgin. Requires mounting boord $16^{\prime \prime}$ wide culout $13 \% " 18^{\prime \prime \prime} ; 6^{\prime \prime}$ slearance below board. For $110-120$ volts, $60 \mathrm{cps} A C$. Shpg. Wh., 28 lbs. FAIRCHIED 412-1 - Tronscription Turntable

Net 99.50
FAIACHILD 412 - 4 -speed madel, os obove, with new Electronic Drive vorioble frequency power supply. Speeds odiustoble $\pm 3 \%$. For $50 / 00 \mathrm{cps} .110 .120$ volis AC . Drows 160 watls. Shps. wh. 45 lbs
FAIRCMILD 42 -ED - Electronic Del 186.50 Enchic Orive. Converts and amplifier. Uses $3.12847 A$ and $2-25006$. Size and amplifier. Uses 3.128474 and $2-25006$. Size
$41 / 2^{\prime \prime} \times 712^{\prime \prime} \times 121 / 2^{\prime \prime}$. Shpe. wh., 15 lbs . Net 94.00

## PRESTO "Pirouette"

 TURNTABLES

## BOGEN

 VARIABLE SPEED HIGH FIDELITY turntables

For discs up to $16^{\prime \prime}$ diametar. Contlnuously-varioble speed control from below 16 to 86 rpm , notched at $16-2 / 3,33-1 / 3$, 45 and 78 rpm . Meavy-duty 4-pole con. stoni-velocity motor. Weighted belonced furntable. $113 / 4$ " diameter. "Wow" less thon $0.5 \%$; negliglble rumble. "Feather-drop" oction af pictup orm prevents damoge to stylus or record. Adjustable stylus pressure. Equipped with o plug-in head. Supplied with vibrotion isolotors. For 95.125 volts, 60 cps AC. Mounting space $15^{\prime \prime} \times 11 \%^{\prime \prime} ; 2 \%{ }^{\prime \prime}$ obove and $1 \% \%^{\prime \prime}$ below mounting boord. Shpe. Wi. 17 ibs
BOGEN B50-16 - With wide-range crystol certridge ond duol sopphire shyli ............................. Net 42.00 8OGEN 850-16x-With GE variable reluctonce " ploy" cortridge ond dual sopphire stylf........Net 48.95 BOGEN B50.16xD - With GE "iriple-ploy" cortridge with diomond $4 P$ and sopphire 78 rpm styli....Net 59.75 BOGEN ESO-161C - Less cortridge .............Nei 40.40 BOGEN PES - Woodbase for obove plovers, $16^{\circ \prime} \times 13^{\prime \prime}$ $\times 2^{\prime \prime}$. Shpg. wi., 5 lbs.

Net 4.80

## Model 20

4 -speed manual player for dises up to $12^{\prime \prime}$. Each speed voriabl $\pm 5 \%$. 4-pole mofor, Automollc shut-of. Universal plug-in head. Mounting spoce $13^{\prime \prime} \times 10^{\prime \prime}$ $21 / 2^{\prime \prime}$ above and $21 / 2^{\prime \prime}$ below molar board. For 115 volls, 60 cps AC. Shpg. wh.. 12 Ibs.
BOGEN 120 - With erysiol hi-fi cortridge, duol sap. phire styli.

Net 31.55
SOGEN B20-X - With GE voriable reluctance "tripleplay" carlridge and dual sopphire styli ..... Net 38.95 BOGEN E20-XD - Whth GE cortridge with diamond $4 P$ ond sopphire 78 rpm slyll

Net 49.30 BOGEN B20-1C - Less Cortridge

Not 29.95 BOGEN PBO - Wood bose for obove ployers, $1334^{\prime \prime}$ $10 \%{ }^{\prime \prime} \times 2 \frac{1}{2 N}$. Shpe. wh., 5 lbs.

Net 4.80

## H. H. SCOTI <br> 710-A TURNTABLE

## scort

MODEL 710-
Rodically new desion isolates turntable from eternot vibrations. Pushbutton selection of $33-1 / 3,45$ or 78 rpm speeds; each speed varioble $\pm 5 \%$. Built-in expandedscale optical stroboscope. Motor rumble 60 db below recording level. Wow and hutter less than $0.1 \%$ of rated specarding Precisian nylon helicol drive gear and steel worm housed in permanently oil-filled transmission. Torsional housed in permanently oil-filled fransmission. Torsional and mechanical hitering to reduce vibrafion. Heavy-duty balanced induction motor, with extremely law eaternal hum field. Special cueing clutch. Special precision-honed sintered bronze permanently fubricated bearings throughaut. Size $16 \% \%^{\prime \prime}=141 / 2^{\prime \prime}$. Overall height $7 \%{ }^{\prime \prime}$. Power consumption 55 -wotts. For 105.125 valts, 60 cps $A C$. Shog. wl.. 24 lbs.
SCOTT 7 IOA - 120 turntable, less bose. Net 139.95 SCOTT 710-XI - Mohogany-finish mounting base for above. Shog. wi., 3 lbs. ...................... Net 14.95

3 -speeds $33.1 / 3,45,78.26 \mathrm{rpm} .3$ idlers, single con 3-speeds
trol knob; "off" positions between speeds, Idiers disengoged in "of". Cast aluminum, heovy, mochined turniable. Naise ievel - $47 \mathrm{db}(-55 \mathrm{db}$ with hys turniabie. Naise level motor). Waw and Aulter less thon $0.2 \%$ wh hyswith hysteresis matorl. For 115 volts, 60 CDs $A C$.
Presta Model $T-1 E-$ As above, with 4-pole indus Presta Model T-IE - As above, with 4-pole induc-
tion motor. $11 \%$ diameter, $41 / 2$ lbs. turntoble. Size $11 \%{ }^{\circ \prime} \times 141 /{ }^{\prime \prime}$; $21 /{ }^{\prime \prime}$ above bose. $33 / /^{\prime \prime}$ below. With retroctable 45 rpm spindle. Shpg. wf., 16 lbs.

Net 75.00 Tresto Model T-18H - As obove, with hysteres motor; $51 / 8^{\prime \prime}$ depth below base. Shpg. wh., 15 lbs. Presta Model T-68 - As above wh Ner 131.00 ion mater Turntable $7 \mathrm{lbs} 153 / \mathrm{me}$ diam, With special rubber mot for cueing and seporato 45 rpm odaptor rubber mer for cueing and seporafe 45 rpm odapior
disc. Shpg. wt., 19 lbs.............................t 99.00 Presto Model T $\$ 8 \mathrm{H}$ - As above, with hysferesis
motor motor

Poge $3:$

## HI-FI ACCESSORIES and SPEAKER SPECIALTIES

## DELUXE WOODBASES AND MOUNTING BOARDS FOR TRANSCRIPTION TURNTABLES

- individual adjustable feet for accurate leveling
- free-floating foam rubser mounted motor soard
- attractive custom cabinetmakers finishes
- finest selected harowood veneers

These substantiat woocouset ore deluxe units which ore mode of the finest selected hardwood veneers by shilled craftsmon.
All have firmly secuned millered corners. The four bumper feel All have firmly secuned milered corners. The four bumper feet
are individually adjustoble for occurate levelling. The free-flooting mounting boord is foam rubber mounted, ond the top hos a finish moiching the wood base. Availoble in five ottroctive cabinetmoter finishes. The mounting board is pre-cut to occom. modate PK-300 or PK-225, and is olso supplled uncut for ony populor moke of turnioble. The olegont styling and finish odd beauty to any high-fidelity installation

## FOR 12" TONE ARMS

For instoltotions using a furntoble and $1 \mathbf{1 2}^{\prime \prime}$ tone orm mountad on
woodboce. Overoll size $20^{\prime \prime} w \times 16^{\prime \prime} d \times 5 \% 4^{\prime \prime} \mathrm{h}$. Shpg. wt., 13 lbs.
CUT OUT FOR PK-300 CUT OUT FOR PK-225
PX-195-Motrogany
PK-196-Blonde
PK-197-Ebony
PK-198-Walaut
PK-199-Fruitwood PK-201-Mohogony PK-202-8londe
PK-203-Ebony
PX-204-Wolnut
PK-205-Finltwood

## FOR 16" TONE ARMS

PX-124-some as obove except suppliod uncut for mounting other mokes of furniobles. Specify finish.
PX-206 Pre-cut unfinished mounting boord for PK- 300 purntable. $18^{\prime \prime} w a$ 1.95
$15^{\circ} \mathrm{d} \times 3 /{ }^{\prime \prime}$. Smoothly sanded for eosy finlshing. Shpe. Wh., 3 lbs.....Ne
PK-207-Pro-cul unfinished mounting boord as obove for PK-225 iurnioble.
Shpg. Wr., 3 lbs.


## PLASTIC GRILLE CLOTH

Choice selection of lotest patterns and beoutiful colors. Acousticloth is mode of Anest quality vinyl plostlics Aceusticloth is mode of onest auality vinyl plosilis os well os lows. $3 \mathrm{a}^{\mathrm{m}}$ wide. Sold only in 1 yd . lengths. os woll or lows.
so-10 (fig. A.) Mahogony with gold stripe. 50.11 Fig. A. 1 Blonde with mahogony stripe SO-12 (None) Gold mesh.
sc-13 (Fig. 8. 1 Black with gold cobweb. SG-14 (fig. 8.) Mohogany with gald cobwab.
SG. 15 (Flo. C.) Copper with shoded squares. $\left\{\begin{array}{l}\text { PAR } \\ 2.60 \\ \text { PAR } \\ \text { YARO }\end{array}\right.$
\} 3.75
TEXTILE GRILLE CLOTH
Stondord speaker grille cloth th mahogony bockground with gold molif design. Shpg. Wt., 4 oz.
58.37 size $17^{\prime \prime} \times 12^{\prime \prime}$
Net
Net
71

(F)
(G)

SPEAKER REDUCING BOARDS (F)
Enobles mounting of smaller spookers in oversize onctosures. Boords ore sturdy th" "plywood, procut to exact $^{\text {p }}$ size. All maunting holes ore drilled. Brown atoined. SB-13 Adopti $8^{\prime \prime}$ apeoker to $12^{\prime \prime}$ speoker cobinet or bame. Wi. I lb. ............................................Nol . $2 \theta$


## FIBRE-GLASS ACOUSTIC

 INSULATIONExceltent sound obsorbing motorial. For lining Interiors of speaker cabinets, consoles, phanos, TV, etc. Domps medium ond hight frequency Damps madium and high frequency roverberatlon ond distortion. Suit-
oble for many ather insulation purposes, 9 squore foet, 1" thick with glve and opplicator. Shps. wt., I Ib.
SB-40 $\qquad$ $\times 16^{\prime} \times 1$. . Bonded fibre glass. Shpe. 20 square feet. $16^{\circ}$ Se-55.

PANDAMUS GRILLE CLOTH (D.)
A highly ottrocilive notural color strow fobric orille sloth that is ideal for many types of decar. $27^{\prime \prime}$ wide. Supplled only in 1 yd. lengths. Shpg. wt., 8 ox.
SC-16
Mot per yord l.5s
WALSCO ORNAMENTAL GRILLE(E)
Heary, metal perforoted grille, beoutliully "brushed bross" plated and locquered with geld Anish efect. For Speokers and iuke boxes


FINISHED PLYWOOD PANELS (G)
Blonk panals of highly-inished rencer. Con bo cut to
suit rour custom requirements. Sizei $16^{\prime \prime} \times 18^{\prime \prime} \times 14^{\prime \prime}$
(G) to


[^1]ML-22 Size $17^{\prime \prime} \times 18^{\prime \prime}$ thick. Shpg. wt., $21 / 4$ lbs.
SE-21 Mohogony Finlsh
Not
S8-22 Blonde Finish
Eoch
S5-23 Wolnut Finish
1.25

## REMOVABLE SLIDEBOARDS WITH RUNNERS <br> (H)

Proctical mounting boords for built-in Mi-fi oquipment. The boords silide out of wood runners for. eosy remaval of mounted units. Boord size: $18^{\prime \prime}$ = $12^{\prime \prime} \times 1 / 2^{\prime \prime}$ thick. $2-12^{\prime \prime}$ runners. tequires $181 / m^{\prime \prime}$ mounting width. Con be -osily cut to norrower width or depth. Brown stoin Anish. Shpo. wt., 3 lbs.
58-20
Net 1.50
TUFFLEX SOUND INSULATION (I)
Sound absorbing insulating moterial. Excellent for use in lining speater cabinets, rodio-phonogroph consales, ele. $1 / 2^{2}$ thlek. $11^{\prime \prime}$ widith only. 7-ft. is the minimum length sold.
SE-28
longths per foot
7 f.
Nol 1.00
Longer longths por foot
Not 14
1" TUFFLEX. Double the thictress of obove. Supplled
only in $\mathbf{1 2}^{\prime \prime}=18^{\prime \prime}$ sheets.
SE-29

-.

Fig. N. VOLUME CONTROL ON WALL PLATE. Constont impedance Y-pod on bross woll plate. Mounts in wall or cobinet. Fits sid. outlet boz. A-wotts continuous, 15 -wotts peok oudio. Molded knob and es. cutcheon. Sise: $41 / 2^{\prime \prime} N \times 2 \frac{1}{4^{\prime \prime}} W \times \mathbf{Y}^{\prime \prime} \mathrm{D}$.

Not 9.75
ms-323 .. 16 ohms .......................................75
PIg. O. VOLUME CONTROL WITH SACK ON
WALL PLATE.
As above, but has phone iock on plote. Used for phome plug equipped headphones or external speaker. Automatic swith hing disconnects moin speoker if desired.
ms-324... 8 otms
Not 10.75
ms-325 . 16 ohms
Net 10.75
FIg. P. MULTI-SPEAKER SELECTOR SWITCH
Used to select o combination of ony three speokers. Oniy 3 omplifier leods ore necessary. Impedonce motch is proserved when oll three speokers hove the rame impedance. Fits sid. $2^{\prime \prime}$ deep wall box. Brass plote. Sizes MS. 326

Not s.9s
Mg. Q. EKTENSION SPEAKER VOLUME CONTROL. Vories volump of individual speokers without ofeeting volume of other spookers in multiple installations. Con also werve oi high frequency ond medium range balonce control in 2 and 3 -way speoker sritoms. 15 . wotts peak oudia I-pod. $2^{\prime \prime}$ shofts. With bar knob, dial plote and instructions. Avo. shpe. wt., 7 oz.
MALLORY T-8.... 8 ohm MALLORY T-15 15 ohm ……………................ Net 2.50
HI-FI JUMPER CABLES
Imfercomecting cables for Phono, otipl, ofc.

$\qquad$ $C=-\infty$

## TYPE A

male phono plues
BOTH ENDS
Ms-at 26 LONG 5ec
Ms.00 34 LONG 65c
TYPE B
EXTENSION FOR ABOVE MALE PMONO PLUG
ONE END. FEMALE
SACK OTHER END
MS. 91 18 LONG 70c
MS.02 24"LONG 72c
MS.03 34"LONG 78 c
$0 \rightarrow \pi$

## TYPE C

## MICROPHONE

 EXTENSION STANDARD MALE ONE ENO.$\qquad$
MS-94 12 FF , LONG 1.95
MS-95 24 FT, LONG 3.15
TYPE D
FEED THRU. ACCEPTS MALE PHONO PLUG AT DOTH ENDS

## HIGH FIDELITY PIOND COMPONENTS

## "CLIP-IN-TIP"' STYLI FOR VRI SERIES (C)

 Replacement far individual strlus tips an either "triple. olay" or "single-ploy" models of the VRD Serios only NOT FOR RPX TYPE A SERIES ShPe WI R| TYPE | STYLus | NET |
| :---: | :---: | :---: |
| 46-015 | 1 mil sapphice | 1.96 |
| 4G-025* | 2.5 mil sopphire | 1.96 |
| 4G-035 | 3 mil sopphire | 1.96 |
| 4G-01D | 1 mil diamand | 12.00 |
| 4G-02D* | 2.5 mil diamond | 12.00 |
| 4G-030 | 3 mil diamond | 12.00 |

## DUAL STYUS ASSEMBLIES (D)

Convert old-style RPX-050, RPX-052, RPX-053, RPX-047 or use with "clip-in-ifip" individuolly moplaceoble stril. Completo with strll es shown. Shpg. wh., 2 oz

## J-01

PJJ-012A (pJ-013A RPJ-007A RPJ-011A.

## Trus

183 mil sapphire
183 mil diamand
1 mil diamond - 3 mil sapphire
182.5 mil sapphire

$$
\text { I } 82.5 \mathrm{mil} \text { diamond }
$$

3.50
24.45
13.47

## NEW! <br> GE REPLACEMENT STYLI FOR ALL MODELS

 GENERAL ELECTRIC VRI SERIES VARIABLE RELUCTANCE CARTRIDGESThe VR II SERIES cartidges are successors to the famous General Eloctric RPX series variable reluctance cart ridges, with o number af improved fectures. Will At
wherever ald RPX cortridges were used. All VR II Serios cartridges require the use of a preamplifier. SPECIFICA IIONS: Frequency Response - 20-20,000 cpt; Trocking Pressure - (with prafessional tone arms, such as GE A1.500 or A1.50114 grams - (with record changers) 6.8 grams; Equalization- 6200 ahms for RIM- $\mathbf{4 7 . 0 0 0}$ ohms lood for flat response; Output - 22 millivalts nominal at $10 \mathrm{~cm} . / \mathrm{sec}$. ; Complianct $1.7 \times 10^{.6} \mathrm{~cm} . / \mathrm{dyno}$ Mounting - either $1 / 2^{\prime \prime}$ stondard ór $7 / 16^{\circ}$ j Terminate Plug.in design. OTHER REATURES: New "Slim LOok" Independently replaceable Clip-In-Tip sylli, Famous GE precisian-ground diamands and sapphires (some sapphires ore synthetic); Unaffected by temperature and moisture; Mu-metal shielding and special anti-hum coils; No reuponse to vertical motion.

## "TRIPLE-PLAY" CARTRIDGES (A)

Convenient dual-strius varioble reluctance cortridges a twist of the knab brings sither microgroave (LP or 15 ppm ) or stondord 78 rpm styll into Dosition. 1 mil $\left(.001^{\prime \prime}\right)$ stritus is for microgreove. $3^{3} \mathrm{mil}\left(.003^{\prime \prime}\right)$ is for stondard records. All models have individually replace able, slide-in, "clip-in-tip" strlis. Shps. wr., \& oz.

## "CLIP-IN-TIP" STYLI (C)

For RPX Type A (RPX.050A, 052A, -053A, 041A 040A, .051A, .063A) and broodcost rypen RPX. 145 $140-147$. Also used as replocements in the obove Duol 40-147. Also used as replocements in the obove
Strlus Assemblies - RPJ. $010 \mathrm{~A}, ~ 012 A, ~ 013 A, ~$ Strius. Asemblles - Rid stylus tidesout, new one slides in.

## TYPE

| RPJ-010 | 1 mil diamond | 12.00 |
| :--- | :--- | ---: |
| RPJ-02D | 2.5 mil diamond | 12.00 |
| RPJ-03D | 3 mil diamond | 12.00 |
| RPJ-015 | 1 mil sapphire | 1.96 |
| RPJ-02S | 2.5 mil sopphire | 1.96 |
| RPJ-03s | 3 mil sopphire | 1.96 |

## SINGLE STYLI (E) (NOT Clip-In-TIp)

 For replacement in ald-style single-stylus cartridges RPX. 040, -041, -063, -061. Alsemblies camplete with 1 mil $\left(.001^{\prime \prime}\right), 2.5 \mathrm{mil}\left(.0025^{\prime \prime}\right)$ or $3 \mathrm{mll}\left(.003^{\prime \prime}\right)$ strif. These ortridges ore mol convertible to "clip-in-tipi". Shpe wt. 208.> 1)

> RPJ-004
RJ.002
> RPJ-002*
> RJJ-003

sTYLUS
2.5 mil diamon

3 mil diamond
1 mil sapphire
2.5 mil sapphire

3 mil sopphire

\section*{| TYPE | STYLUS | NET |
| :--- | :--- | :--- |
| 4G-0SO | 183 mil sapphire | 8.77 |
| $46-052$ | 1 mll diamond- 3 mil sopphice | 18.94 |
| $4 G-053$ | 18.3 mil diamand | 29.92 | <br> G-0SO 183 mil sapphire $\quad .77$ <br> GG-053 18.3 mil diomand 29.92}

## "SINGLE-PLAY" CARTRIDGES (BI

Single-stylus vorioble-reluctance cartridges with replaceable "ellp-in-tip" sopphire or diamond stylis 1 mil $\left(.001^{\prime \prime}\right)$ microgroove and $3 \mathrm{mil}\left(.003^{\prime \prime}\right.$ ) stondord 78 rpm types. Shpg. wrt., 6 ar.

| TYPE | STYLUS | NET |
| :--- | :--- | :--- |
| 4G-040 | 3 mil sopphire | 6.42 |
| 4G-041 | 1 mil sapphire | 6.42 |
| 4G-063 | 3 mil diomond | 17.18 |
| 4G-061 | 1 mil diomend | 17.18 |

Qeplacement Perts KIt, for VRII Serles Triple Ploy cartridge. Includes, spring, woshers, plostichnob.Wt., 2 oz RKP-009

## GE PREAMPLIFIERS

(F) UPX-0038 - Solf-powered preomp for une wifh GE or similar magnetic cartridges and low level mikes. Has 6 SC tube in equolizing circult, plus rectifier. Input lack, mike-phono switch, $14^{\prime \prime}$ output lead with phona plug. 18db boss booss at 50 cps on "phono". Flot on "Milte". For 117 volts, 60 cyclos AC. $34 \times 34 / 2 \times 33 / 4$ ". Complote with tube. Shpg. wh., 2 lbs.

## UPX-003

Net 10.55
(G) A1-203 TRANSISTTUBE PREAMPLIFIER - PRe. ampltior-equalizer for magnotic cartridges using 2NI68 transister and $12 \mathrm{AX7}$ fube. RIM compensation built-in. Operates on 105-125V. 50.60 cycles AC. 4 waths. Size $31 / 2 \times 3$
$41-203$

GENERAL PHONO


GE "SATON" PROFESSIONAL TRANSCRIPTION TONE A触A1-501 - For up to $16^{\prime \prime}$ transcriptions. Alum.inum, with minimum lateral and verticel imertio. Precision boll bearing system; vertical and lateral boll bearing races. Excellent Iracting, even on eccentric or warped records. Adjustable certridge pressure by means of sliding weight; pressure shown in grams directly on celibrated scoto. No eudibi resonances. Height odustable up to $\mathbf{2 º}^{\text {² }}$. Requires Al.s04 Adeptor for new GE Vall Series cortridges. Dimensions 14\%" long. Shpe. Wt., 2 lbs. A1-501

Not 28.91
GE "AATON" TONE ALM A1-500 - Some os AI-501 but $10 \%{ }^{\circ}$ long for up to $12^{\prime \prime}$ recards. Shpe. wi. I $1 /$ lbs. A1-500 ........................................................28.95

A1-504 ADAPTOD - for mounting new GE VRII Series cortridges in Al-500 or Al-501 "Baton" tone orms. Wt. of VRE cartidge plus adapior equols wt. of IPX-series cartridge.

Net. 73
RKP-il2 TONE ANM SAJDE KIT - For slide in Inser. tion of GE ond other popular cortridges, with above GE tane orms, without arm disossembly.
G.E. A1-901 RECORD FILTE AND COMPENSATOR improve yaur hi-fidelity performonce. Three independen filter controls combino to filter all undesirable noise, ond ta correct tonal balance for every record. 14 separete froquency odiustments. Le-cutaff centrol with 4 adjusi monts for suppression of purntable rumble, vibration, etc., Hi-cutoff contral with 4 adjustments for suppression of record scratch and high frequency distartions compensator control with six odiustments for most widely used recording curves. Connects between cartridge and pramp. Far use with systems using G.E. or similet ypos of magnetic cortridges. Hondsome cebinet, sive $7-9 / 16^{\prime \prime} \mathrm{L} \times 3-9 / 16^{\prime \prime} \mathrm{D} \times 3.9 / 16^{\prime \prime} \mathrm{H}$. \$hpo. wh., 5 lbs. A1-901

Not 19.55
GE Al-90S LUMBLE FILTE - Suppresses Turntoble umble and unwanted signolis belaw 50 cyeles and protects speaker from hormful sub-oudio surges. Minimizes ow frequency distortion. Cutof 12 db per ecteve bolow 50 cps. No power supply required. Hes standard phone Input jack ond $19^{\prime \prime}$ output lead with phono plug, on-of with. Size: $2^{\prime \prime} \mathrm{H} \times 23 / \mathrm{m}^{\mathrm{N}} \mathrm{W} \times 31 / \mathrm{m}^{\prime \prime} \mathrm{D}$, with convenien mounting brecket. Shpg. wh., $11 / 2$ Ibs
A1-90s
Net 8.33

## GENERAL ELECTRIC HI-FI SPEAKERS


$12^{\prime \prime}$ (1) GEotor A1-401 GOLOEN CO-AX
$12^{*}$ wooter, $2 \frac{1}{4}{ }^{\text {" }}$ Tweblor, built-in croswover of 1500 cps. 25 walts, 8 ohm voice coll. Response $40-15,000$ cps in enclosure. Magnet wis.z woofor -14.5 oz m . tweeter - 6.8 az . Carefully-designed and mode slatted plate reduces interference betweon woofer ond iweeter for smoother crossover. Rich gold Anish. The Anest ipoolkor mid. by General Electric. Overall size $12 \frac{1}{6}$ diom $\times 41 / 3 "$ deop. Shpe. wi., 91/h lbs.
A1-401
$N+18.75$
12", 25 wat. Successor to populer 5.1201 -D Response $30-13,000 \mathrm{cps}$. $14.5 \%$. magnot, 8 ohm volce cell, $11 / 4$ inch diam. aluminum volce coll unoffected by temperofure or humidity. Remarkably smoeth response over entire range, excellent for moderate-cost hi-f systems. Shps. wt., 7 lbs.
12014
Net 23.27
GE 1203A EXTENDED RANGE: (Not illustroted). 1903A
(3) GI Al-404 TWEETE

Wide dispersion ongle $1100^{\circ}$ verikal and horizontall
 deol high.frequency speoter for vie with Al - 104 woof in 2 -wey syitem -, no weparato crossaver networlin needed (5) GEA1-403 WOOFEI Dovigned to match A1-404 Twestor or for any 2.3 moy 25 wotss, instonioneous crossaver of 15002 pr . Ratin mopmets, ohm oluminum vaice coil. lespense 40-1 500 cpe. Size 12\%" diom. и $7^{\prime \prime}$ deep. Shoe. Wt.. 7 lbs. 35 8\% with 8.8 GE ESO-D EXTENDED WAMGE With 8.8 ois, mopnot and atuminum voile coll. 50 - 12,000 cos. 15 wetfs. Ideal for 1 mall cobinet syitomi
 is00-cycle cresever operoling from 8oohm omplifier Cower outpul 25 watts. Sizei $\mid x 4 \equiv 4 \%$. Shop. Wh., 1 lby A1-421 ....................................................... 13.67


## PICKERING

## NEW SERIES 370

SINGLE-STYLUS "FIUXVALVE"
New single-siylus version of fomous Pick ering Flunvalve. Uses 3500 -series " 7 guard " sivli, replaceable by simple slidein. Response $10-30,000 \mathrm{cps} \pm 2 \mathrm{db}$; lood
for Alot response 27,000 ohms; oulput 25 for hat response 27,000 ohms; output 25
millivalis at 1000 cps with strius velocity of $10 \mathrm{~cm} / \mathrm{sec} . ;$ DC resistance 2700 ohms incluctonce 325 millihenrys; Tracking pres sure 2 to o grams weight 9 ams with mount ing hordware. Avolfoble with $1 / 2 \mathrm{mil}$
$\left(.0005^{\prime \prime}\right), 1$ mil $\left(.001^{\prime \prime}\right)$ and 2.7 mil (.0027"| MODEL
$370-10$
370.10
370.15
$370-15$
$370-20$
$370-2 D$
$370-25$
$370-25$
styius
1 mil sopphire
2.7 mil diamond
2.7 mil sapphire

## 350 SERIES

DUAL-STYLUS "CLUXVALVE'
Fomous the warld over. Polented principle provides excellent trocking choracteristies with low stylus farce ( 2 to 6 grams) and very wide ronge response. Uses 1 or 2 replaceable "T.guard" 3500 -series strili. Turnover troe. DC resistance 3600 ohms
Response $10 \mathrm{io} 30,000 \mathrm{cps} \pm 2 \mathrm{db}$; antihum design; no audible resonances; extremely low distortion; excellent tronsiont respanse; hermetically seoled; 1000 cDs output is mv.s recommended load 27,000 MOL; weighp 10 oroms. STYLI NET
MODE

MODEL
STYLI
$35050 \quad 1$ mil OR
(Single Stylus) 2.7 mll sopothite 24.00
350 DO 1 mil OR
(Single strius) 2.7 mil diamond 36.00
350.5 DO
2.7 mil diamond 36.00
single siylus)
350 DS
1 mil diamond and
350.5 DS
2.7 mil sopphire 42.00

350 DD

350D.5D $1 / 2$ mil diamond ond 18.00
2.7 mill sapphire
diamand OR 2.1 mil diomonds OR 2.2.7
mil diomands
54.00 1 mil and $1 / 2 \mathrm{mil}$ dil and $1 / 2$ il diamonds
60.00

## RECOTON

RECOTON-GOLDRING MAGNETIC TURNOVER CARTRIDGES
Famous 500 -Series. Features push-pull coll orangement which concels out hum field pickup. Operates on voriable reluctonce pinciple. Unsurpassed high campliance ond low mass-ideal stylus pressure 6 to 7 gm. but can track of 3 gm . with tronistiprion tane orms. Virfuolly hot responie 20 io $16,000 \mathrm{cDs}$ of $33-1 / 3 \mathrm{rpm}$. Recommended lood 47.000 ohms. Oulput 10 millivolis. Styli eosily roploceoble. Weight less thon mu-metol shislding os the Model 555

| MODEL | StYLI | NET |
| :---: | :---: | :---: |
| S00ss | dual sopphire | 9.70 |
| S00sD | diomond-sapphire | 18.35 |
| S000D | dual diamond | 36.16 |
| 5355DM | diamand-sopphire | 25.81 |
| REPLACEMENT STYLI |  |  |
|  |  |  |
| MODEL | STYIUS | MET |
| 398 | 3 mil sapphire | 1.51 |
| 398 D | 3 mll diamand | 12.25 |
| 199 | 1 mil sapphire | 1.71 |
| 3990 | 1 mil diamond | 12.25 |

## PICKERING 3500 SERIES

"T-GUARD" STYLI
For simple, slide-in replocement in 350. series and 370 -series cortridges

| MODEL | STYLUS | NET |
| :--- | :--- | :--- |
| S.3510 | 1 mil sapohire | 6.00 |
| S.3527 | 2.7 mil rapphire | 6.00 |
| D.3510 | 1 mil diomond | 18.00 |
| D.3527 | 2.7 mil diomond | 18.00 |
| D.3505 | $1 / 2$ mil diamand | 24.00 |

## D. 3505 <br> 1/2 mil diamond <br> 18.00 18.00

## NEW FLUXVALVE - UNIPOISE

## PICKUP-ARM

lighlweigh kome arm whin single fric
tion.free pivot bearing for distortianless
tracking. Includes flunvalve turnover
trocking. Includes fluxvalve furnover
pickup as on integral, non-remavable. port of the ossembly. Styli are reploce-
oble. Output of cortridge of 1000 cps oble. Output of cortridge of 1000 cps $\mathrm{mv} . \pm 2 \mathrm{db}$. Recommended lood for flot response $\mathbf{2 7 , 0 0 0}$ ohms. DC resistance 3500 ohims (opproz.): inductonce 300 mh (co. pron.1. Recammended tracking force with $1 / 2$ mil stylus: ${ }^{2} 9 \mathrm{~m} . ;$ with 1 mll sylus: $49 m_{\text {ai }}$ with 2.7 mil strlus: 6 gm . Frequency response $10.30,000 \mathrm{cps}$. Wi, 7 oz . Overalt dimensions $111 / /^{\prime \prime} L \times 21 / /^{* W} \times 3^{\prime \prime}$ above motor boord
Piskering 199D - Arm with 1 mil or 2.7
mil diomond stylus Net 59.85 Pickering 194.50

## PICKERING MODEL 1900

## 16" TONE ARM

Minimum vertical mass - plays bodly warped records os eoslly os flot ones. Stotically bolonced oboup vertical onis wIII not jump grooves when bumped or porred. Tracking error less than $\pm 21 / 2$ friction. No spurious arm resonance. Sensifive racking force adjustment Hoisht ad tive fracking force adjustment. Height odling serews. Plug-in cartridge holder Pistering 190D Nel 31.50 PICKERING MODEL I32E

## RECORD COMPENSATOR

Permifs proper equalizotion of oll records ployed with high impedence mognetic cartridges. Standard phano soctiet and 20" coble with plug. 6 equalization settings. Size $1 \%$ square $x 3 \%$ overall. Wi.61/202s
Pickering 132 Nef 12.00

## AUDAK

TONE ARM KITS
Professionot a uolity $12^{\prime \prime}$ and $16^{\prime \prime}$ composspivoled tone arms, dupllceling the fomous Audak franscription arms. Assembled in about 20 minutes - and result in appromimalely $50 \%$ saving in costl '.SelectorIndez: for Instont adfustment to ony stylus pressure. Cortridge housing permits stylusito-groove olignment af oglonce. No springs. Aluminum arm. Frovides complete stylus protection, mininum lateral or verticel friction. No spurious responses. with instructions. Shpg. wf., $21 / 2$ lbs. Net
Audan K7-12 - $12^{\prime \prime}$ Tone Arm Kit 14.26 Audor MK-16-16". Tane Arm Kit 17.20 Audor PlO. 12 -
Auccrory-Assembled
KT-12
23.52

Audax P㫰O. 16 -

## GIBA

"MICRO-BALANCED" TONE ARM NEW GRAT MODEL 2-12. Sealed DUAL viscaus damping of vertical and harizantal pivals for moximum trocking stability; stotically balanced around ver. Sivlus force adjustable 0 ia 15 gms .

## SONOTONE

## $2 T$ CERAMIC CARTRIDGES

Feature flat frequency response without
the vie of special equalizing circuits. Immune io temperature and humidity candi tions. No preomplifier required - outpu 0.5 volts. Response $30.15 .000 \mathrm{cps} \pm 3 \mathrm{db}$ Turnaver type - only the needie turns alocement Tracking fore 8 gm Unirersol plocemen. Tracwing force 8 gm . Universol mount for $1 / 2^{4}$ of $5 / \mathrm{C}^{2}$ mounting center Complefe with 2 sivil far oll speeds. Car

| MODEL | STYLUS | NET |
| :--- | :--- | ---: |
| 2T-5 | duol sopphire | 5.00 |
| 2T-SD | diomond-sopphire | 12.94 |
| 2T-D | dual diamond | 23.23 | 2T-D dual diamond 23.23

## 3 T CERAMIC CARTRIDGES

Similor to 21 Series but with emtended response of $20.15,000 \mathrm{cps}$ with grodual roll-ofl to $20,000 \mathrm{cps}$. Superiar campli. once, troching farce 6 gm . Cortridge weigh

## MODEL

$31-5$
37.50
STYLUS
$3 \mathrm{~F}=5 \mathrm{D}$
$3 \mathrm{~F}=\mathrm{D}$
dual sapphire dual diomond

## REPLACEMENT STYLI

N. 2 F series for 37

MODEL
N-2T-5 STYLUS
N.2T.5D diomond-sopphire

NET

N-2T-D
N-3T-5
N-3T-SD
$\mathrm{N} .3 \mathrm{~T}-\mathrm{D}$
duol diomond
dual sapphir
dual sapphire diomond-sopph
duol diamond

NET

REK-O-KUT

## TONE ARMS

These orms may be used on Rek.O-Kut or other high-quolity iurntobles. Inferchonge able oluminum plug-in heods for oll stand ord carfridges. Tubulor oluminum, with odiustoble counterweight. Resononce
16 eps. Hoight odiustoble. Enceltent trock ing and domping. Less coriridge. Shpg Relx-O-Kut A-120-12". Net 26.95 Relc-O.Kut A.160-16". Net 29.95 Rek-O-Kut PA-20 - Eutro cortridge shell

## WEATHERS

## FM PICKUP AND TONE ARM

A unique cartridge and viscous-damped arm combinotion operaling on the princl. ple of frequency modulation (FM). Trocks af I gram. couses no weor of records. Will trock even bodir warped cenier records. Lowest disfortion knawn. Needle pressure odiustoble. Response flat 20 ta 20,000 cps. Hum free-insenslife to mognetic fields. Output of oscillator several volts. Arm is made of lowest-moss
wood.

WEATMERS MODEL MM-1 - Antlque white ane orm, ascillotor -power supply cartridge with diomond Lt strlus. 92.10 WEATMERS MODEC MM-S-Ebony tone arm, ascillatar-Dower supDiy, cartridge with sopphire IP syylus ... Net 74.20 WEATMERS MODEL P-675 STYLUS FORCE GAUGE-A simple, occurate meosure for boloncing o phonograph
pickup.
2.00

## SHURE

## OYNETIC REPRODUCER

## New moving magnet co:tridge ond studio

 orm with distortionless, linear response. Trosks of 1.2 gm . Resononce-free, domped. SHURE MODEL M-16-Tone arm assembly complete with cortridge and 0.7 msl
## FAIRCHILD "MICRADJUST"

## MAGNETIC CARTRIDGES

Famaus 225 Series moving cail type with entremely linear wide-range response. Flat $\pm 2 \mathrm{db} 20 \mathrm{to} 20,000 \mathrm{cps}$. Output 5 milli valis for 2.5 per second recorded velocity Low naminal impedance of 200 ohms per mifs running lang coble (up pa $50^{\prime}$ ) with out significant attenuation or high fre quency loss. DC resistance 195 ohms. Weight approx, 12 groms. Mounting di mensions RETMA slondord $1 / 0^{"}$ centers Tracking force 4 to 8 grams. Rugged can. struclion
MODEL STYLUS NET

## 225

Model 235 Transformer
Provides 5 fimes voltage goin ( 25 mv . with 225 Series cartridges. Requires termi notion of 47,000 ohms. Not required for mast modern preamps, but permits use of 225 Series with older preamps. Heavy mu metal shielding agoinst hum pickup. Stond ord phono jack and $30^{\prime \prime}$ leod with phono plug. $1^{\prime \prime}$ diom. $\mathrm{x}^{2 "}$ long. Shpg. wt., $11 / 2$ Foirchild 235-Tronsformer Net 11.95

## TRANSCRIPTION TONE ARMS

Emplay precision instrument pivats with mooth law friction characteristics. Non resonont within range of audibility. Con ceoled thumscrew strius pressure odiust ment. Will occep! ony standord mognelic cartridge. Slide-in, plug-in arrangement for eosy corfridge interchangeobility. No arm rest needed; hos self-locking stap. Adjust. oble height. Excellent frocking. Shpg, wi.

Fairchild 28DA -
12" Pronscription Arm .. Nel 37.50 Fairchild 2814 -
$16^{\circ}$ Iranseription Asm . Net 39.95

## AUDIOGERSH

MIRATWIN

## MAGNETIC CARTRIDGES

Varioble reluclance single and furnover cartridges with expremely wide response low distartion and high outpul. Fit oll stondord fane arms and require stylus pressure of 5 to groms. Tropicolized far Simple stylus replocement. Response $\pm 2$ db 30 to over $19,500 \mathrm{cps}$ of $331 / 3 \mathrm{rpm}$ $\pm 4 \mathrm{db}$ to 22.500 cos of 78 rom under -verage home cenditions. Outout of 1000
 cos 55 mv . Yor $3 \mathrm{l} / 3 \mathrm{pm}, 4 \mathrm{mv}$. of 78 MST a MST. 2 unover cund 2 Min completely independently of the other. completely indep


## AUDIOGERSN REPLACEMENT

## STYLI

| Far oll "Miratwin" madels. |  |  |
| :--- | :--- | ---: |
| MODEL | STYLUS |  |
| DM-2 | NET |  |
| DN-2 | 3 mil diomond diomand | 16.50 |
| SM-2 | 16.50 |  |
| SN-2 mil sapphire | 5.00 |  |
|  | 3 mil sapphire | 3.00 |

# PUSHBUTTON KEYBOARD TRANSISTOR PREAMPLIFIERS <br> tape Recordio 

## MODELS 702 and 712 SINGEE SPEED RECORDERS

Economical single-speed recorders that hove oll the
moior leofures of mony more expensive models. Duol track - use both edges of standard $1 / /^{\prime \prime}$ recording pope for moximum recording ond playing time. With exclusive original Wilcox.Goy "Prestomatic" pushbutton keyboord for the ullimate in operating simplicity. Other features include: for $3^{\prime \prime}, 5^{\prime \prime}$ and 7" reels; transistor preamplifier; rodia-phono.TV input jock (moy also be used os an "external amplifier" outpul); microphane input; external speoker output iock; 2 recording level indicators Normal" and "Distort"; full ronge tone contral; outomotic posifive rase; valume cantrol; 3-woll omplifier
output; lost gewind 123 minutes for $1200^{\prime}$ reel), record monitor switch far switching speoker on or of while re.
cofding; record-lock bultan to prevent occidentol eros ure: waw and hulter (Madel 702) 0.5\%, (Madel 712 $0.3 \%$; Frequency response (Model 702) 85 to 7000 cos (Model 712) 85 to 8500 cps; slenal-to-noise ratio 35 db A socket is provided for remole stort-stop operotion Tubes: 2N133 Hansistor, 6AO5, 124X7. 6X4 (rectifier) Power requirements 70 wotts of 117 volis, $60 \mathrm{cps} A C$ Size $14^{\prime \prime} \times 12^{\prime \prime} \times 8^{\prime \prime}$. Shog. Wi., 28 lbs. Supplied com plete with crystal microphone, $3^{\prime \prime}$ reel of tope, $5^{*}$ empl lokeup reel, delor hoble AC line cord
WILCOX-GAY MODEL 702 "THE STUDENT" For $3 \%$ I.P.S.
WILCOX-GAY MODEL 712 "THE PREP" Net 74.96

Nel 74.96

## MODEL 732 "THE COUNSELLOR" DUAL-SPEED RECORDER

Dual speed, dual trock recorder with bass- and treblecompensoled valume contral for boosting oulput of the
low ond high ends of the oudio soectrum fo compensate for humon hearing charocteristics. Features Include: 4" $\mathbf{x}^{" 4}$ Alnica 5 speakert record-lock bution to prevent occidental erasure; "Prestomotic" pushbutton keyboord; transistor preampllfier. fape speeds of $3 \%$ and $7 \frac{1}{3}$ transistor preamplifier; lape speeds of $3 / 4$ and $7 / / 8$ level ". "Eternol amplifier" outputl, meon "Morm low lovel "external amplifier" oufpul); neon "Normal' speaker lock; full range ione control; outomotic, posilive ernse; 3 -wolt omplifier; fost forwordwond fost re.
wind speeds; record monitor switch; frequency response 85 ta 8000 cps ; wow ond hutter $.35 \%$ of $71 / 2$ I.P.S. $5 \%$ al $3 \%$ 1.P.S.: signal.fo-noise ratio 35 db ; for UP ided. Tubes: XN132 transistor SAOS $12 \mathrm{AK7}$ or rectifierl. Power requirements io watts ot 117 . ox rectifier). Powar requiremenis 70 walts of 117 volts, Supplied complete with crystal microphone, $3^{\prime \prime} 28$ reel of Supplied complete with crystal microphone, $3^{\prime \prime}$ reel of
tope, $5^{\prime \prime}$ emply tokeup reel, detochoble $A C$ line cord WILCOX-GAY MODEL 732
'THE COUNSELOR'
Ne1 90.98

## MODEL 752 "THE SENATOR

This high.fidelity dual speed - dual trock recorder fea. tures on extended range $5^{\prime \prime} \times 7^{\prime \prime \prime}$ duof cane speoker and a visual lape index with radio-rype pointer scote for quickly locating any selection on o reel of tope. Other features include: $3 \%$ and $71 / 2$ I.P.S. speeds; for up to $7^{\prime \prime}$ reels; transistor preamplifier; Prestamatic kerboard; recard-lock to prevent occidentol erosure; rodio-phono. iv Input which moy also be used os o low level "externol omplifier" outpui; "Normal" and "Dlsport" nean re. cording levet indicators; external speoker output; full range fone controls bass- and treble-compensoted volume
controls fost forword and fast rewind speeds $12 \% \mathrm{~min}$.

## EXTENDED RANGE RECORDER

top: frequency response 65 to 10,000 cos; outomatic lutter $.35 \%$ of 71, I. P. 5 . $5 \%$ of 33 cps; waw and o-nolse ratio 35 db ; sacket for remote stort-stop; sienatomportment for line cord and microphone. Tubes XN132 fronsistor, $6 A Q 5,12 A X 7$; $6 \times 4$ (rectifier). Power equirements 70 watts of 117 valts, $60 \mathrm{cps} A C$ Size $13 \%$ " $14-11 / 32^{\prime \prime}$ = $8 \%{ }^{\prime \prime}$. Shog. Wi., 32 ibs. Supplied omplete with crystal microphone $3^{\mathrm{N}}$ reel of lope mply $7^{\prime \prime}$ takeup reel, built-in AC line card. of rose WILCOX-GAY MODEL $7 \$ 2$
"THE SENATOR"
Net 110.46

## MODEL 762 "THE EXECUTIVE's 2-SPEAKER RECORDER

This superb now madel feafures a rolf-lop carrying cose 8 -wott push-pull omplifier pith completely enciosed. 8-wott push-pull omplifier with wide-ronge tonol response of 65 to $12,500 \mathrm{cps}, \mathrm{a}^{\prime \prime} \times 7^{\prime \prime}$ antended ronge speoker plus o high freavency tweeter, ond on outomatic shwi-ofl switch. Other advanced feotures include: duat speed - $31 / 4$ and $71 / 3$ I.P.S.; duol track; Ironsisfor preomplifier! visuol tope index (counfer); record-lock to prevent ocsidental erosure; radio-phono-tv input jock which doubles as on output for exiernal amplifier; full ronge tone control; bass. and treble-compensoled volume contral; fost forword and fost rewind speeds; Prestamotic pushbulton keyboord: record monitor (speok.
i) switch; socket for occessory stort-stop remofe controly "Normal": and "Distort" recording level indicatars; wow and Alutter $0.3 \%$ of $71 / 2$ I.P. 5 .: $0.5 \%$ of $3 \%$ I.P.S.; signol-to-noise rotio 35 db ; starage comportment or spore reels of tope microphone, line cord ond patch cord. Tubes: ZN1 32 tronsistor, SAVG, 12AX7, 2.6AQS SY3GT (rectifier). Power requirements 110 wolls of 117
 w1., 39 lbs. Supplied complete with erystal micraphone, $5^{\prime \prime}$ reel of lope, empiy $7^{\prime \prime}$ tokeup reel, buili-in line cord and poich cord for recording from radio-phono-tr. WILCOX-GAY MODEL 762 WILCOX-GAY MOD:
"THE XECUTIVE"

## MODEL 772 "THE PRESIDENT" WITH ROVING SPEAKER

Identical in features and chorocteristics with Model 762 but with iwo-tone gray fabric-coxered luggoge-type cose, jock, and with $151 / 2 p$ " $5 / 2$ " $21 /$ " extension speoker $^{\prime \prime}$

## WILCOX-GAY MODEL 772

"THE PRESIDENT"

## MODEL 782 "THE ROYAL" DELUXE 4-SPEAKER RECORDER

This deluxe high-fidelity recorder features on 8 -watt push-pull omplifier with response of $65.15,000 \mathrm{cps}$, 2 - $6^{\prime \prime} \times 9^{\prime \prime}$ dual cone extended range speokers plus 0 high frequency tweeter built In, o roving extension speoker, extremely low wow and huiter $10.2 \%$ of $71 / 2$ I.P.S. $0.38 \%$ of $3 \%$ I.P.S.) and remote contral for instont sfort-stop recard or playbock. Other oufstonding feofures include: $33 / 4$ and $71 / 2$ I.P.S. speeds; cover moy be closed with reels up to $7^{\prime \prime}$ in diometer in position; Fronsistor preomolifier; Prestomatic pushbulton keyboord; visual tope index; recard-lock; radio-phono-tv inpuioulput; professional type Humi-Seal hi.fi crystal micro. phone with swifch and $12^{\prime}$ cord; switch to permil use of microphone while ploying bock, recording, or using recorder os o phonograph omplifier: "Normol" ond
'Oisfort' recording level indicators; full ronge tone controls bass. and treble-compensoted volume control fast rewind and fast forword speeds; signol-to-noise ratio 35 db ; outomollc shut-of: record manifor (speoker) witch; storoge comportment for spore lope, microphone ine cord, patch cords, remate contral and raving speoker Tubes: 2 Ni 32 transistor, SAVS, 12AX7, 2-6AQ5; 5Y3GT rectifer). Power requirements 110 wolts, 117 volts $0 \cos A C$. Size $16 \% \%^{\prime \prime} \times 161 / "^{\prime \prime} \times 11 \% "$. Shpg. Wi. 49 Ibs. Complete with $7^{\prime \prime}$ reel of tope, emoty $7^{\prime \prime}$ take p reel, poich cord for recording from radio-phono-fy icroohone, AC line cord, remote control ond roving microphon WILCOX-GAY MODEL 782
"THE ROYAL"

## TAPE \& DISC RECORDER

tress omplifier. Hum lovel -45 db . Frequency response
s $80.6000 \mathrm{cps} \pm 3 \mathrm{db}$. Uses up lo $\mathrm{g}^{\prime \prime \prime}$ reets of lope. Tope speed is $3 \%$ I. $\overline{\text { P. }} 5$. duol trock; record speed is 78 ppm . With confrolled-reluctonce dynomic microphone, two oned streomlined corrying cose, tope reels. Size $19^{\prime \prime}$ $161 / 2^{\prime \prime} \times 11^{\prime \prime}$. For 117 volis, $60 \mathrm{cps} A C$. Shpg. Wi., 32 lbs. WILCOX-GAY MODEL 4C10
"TME VERSATILE" Net 124.97 Model 9-2221.2 Microphone Expenston Cord-25 long, with connectors. Net 4.33 Model 20-233 Madio-Phano Recording Coble-Poth cord for use with Wilcox.Gay 3, 4, 5, 6 and 7 series (except 4 ClO ) Madel 9-2249 Patch Card for Duplicating Use When connecting recorder to recorder for tope duplicotion. For Wilcox-Goy 3, 4, 5, 6 and 7 serles lexcept 4 (10) $\qquad$

FRIRE STEREO \& MONAURAL

TAPE RECORDERS and MECHANISMS WITH
NEW 3rd DIMENSION TONE QUALITY
When you hear stereophonic sound you will not be satisfied with less than the best

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"ARISTOCRAT"
189.95 MONAURAL
219.95 STEREOPHONIC


## "MERCURY" MODEL NL-IS

All the most recent developmenti in tope recorderis ore included in the MERCURY ond brought ho you by LAFAY. heod for stereaphonic (binoural) ploybeck ond con olso be used for standard. monourol pecord/ploybock aulpped with expeo preamptifier which can be plugged into your rodio, TV sel of hi.fi ompllfier to provide stereophonic playbock. Mos o high auality longolosting mechonism, extremely simple to operote and with new, professional quallty recarding head with o auorter-mil gop for superiar tone. Dual Soeed $131 / 4$ and $71 / 3$ IPSI, Duol Trock. Frea. Response $40-11,000$ cDs of $71 / 2$ IPS
$40.7,000 \mathrm{cps}$ of $31 / 4$ IPS. SIMPIE ENOUGH FOR YOUR YOUNGSTE IN GRADE SCHOOL-enly one rofery YOUNGSTE IN GRADE SCHOOL-only one rofory Interlock Bulton provents aceidental erasure. IWO Interlock Bulton provents accidentol erasure. iWO
INPUTS for Mite or Magnetic Phono ond for Radio. TV.

## CHAMPION

The CHAMPION is on vitro-modern, deluxe recorder of - modest price, with stereo (stacked) playbock, manourel record or ploy. "mogic eye" recording level indicator. quorter-mil gop heods for superb lone, ecsy-reoding digitol type tope loologe counter, $8^{\prime \prime}$ woofor-speoker fidelity, ond the ultimote in simplikity of contral. Single retory control for Ploy, Record, Fost Forword, Fost Ro. wind. Extro pre-omp on stereo model for second chonnel connects to your rodio, $\boldsymbol{n}$ sel or hiofi ompllfier for two-chonnel stereophonic ployback-a thrilling ex. perience. Mos interlock button to prevent occidentol cose of tope, speed change lever, volume control, fone $3^{\prime \prime} .5^{\prime \prime}, 7 "$ reels. Five watt ompllfier. Frequency 2e. sponse $40.13,000 \mathrm{cps}$ of $71 / 7$ IPS, $40.7,000 \mathrm{cps}$ of $31 / 4$ IPS. Signol-to-noise ratio 48 db . Flutter ond Wow less

\section*{'ARISTOCRAT

## Truly on AlistaOcrat omong

## Truly on AlistaOcrat omong

 numerous professional teotures for the best in tope replayboct mosenable prices. Stacked siereo or monaurol ploybock; monoural recarding, half-trock. Autlf. in it luminated VU mefer recording level indicotor, frequency fesponse $10.15,000 \mathrm{cps}$ of $71 / 3$ IPS $\{40.7,500 \mathrm{cps}$ of $31 / 4$ IPS) due to use of quarter-mil pop heads; four speokers - iwo six-inch woofers with heary magnets, one sixinch mid-ronge speoker, one antended-range exponentiol iweeter; double I-C oross-over notwork. Hos foalproof AUTOMATIC SHUT-OFF SWITCH thot stoos motor the Instont lape breaks or runs out; with outomatic idier dinengogement, there is no donger of flot spols. Amplifier remoins on offer motor shuts off to eliminale need for rewarmup. Digital-ivpe counter with manval resel. Bolanced heavy duty motor, quality mechonism. One. simple rotory contral for Plov, Record, Rowind, FosiFormord. Hos Speed Change Lever (far $31 / 2$ ond $71 / 2$

Crystal or Cercmic Phono Cortridge. Outputs (iwo) for Externol Amplifier and External Speaker. Signal-Naise Rotio 45 db . Siz.inch extended ronge speoker. Bolonced 4.pole motor. Tokes $3^{\prime \prime} .5^{\prime \prime}$ or $7^{\text {r }}$ reels for up to three hours of playing time. Hos Speed Change Lever, Volume Control, Tone Contral: Noon Bulb Recording Leve ndicolor. Flutter and Wow under $0.4 \%$ of $71 / 2 \mathrm{IPS}$ 05.120 volls. 60 cps AC Consumption 70 wolls Approved Beetilully strled with gold trim groy mech Approved. Beatiluliy styled with gold trim. groy moch " tokeup real, Crystat wicrophone instructions. Dimit $14^{\circ}$ tokeup reol. crrstat microphone, instructions. Dim PENTION NL-15 Stereo...tist 189.95 ....Ne! 139.95 PENTRON NL- 1 Mamaural-Similar to obove


## MODEL NL-2S

thon $0.4 \%$ at $71 / 2$ IPS. 4-pole, shoded pole heavy duty balonced motor, quallity mechonism. Seporote power public oddess motor and omplifier-permils sasy use netic phono ond rodio. TV or erystal or ceromic phono cartridoss; outsuts for Exiernal Speoker and Externol Amplifier. Power sequirements 80 wotts of 105.120 volfs 60 eps AC. Underwriters' Lobaratories Appraved. Styled with gald trim, groy mechonism, gray cose. Supplied complete with $5^{\prime \prime}$ reel of tape, empty $7^{\prime \prime}$ takeup reel crystat mike and simple instructions. Dimensions 14 wide : $16 \%{ }^{\prime \prime}$ deep $=10 \%{ }^{\prime \prime}$ high. Shpg. wt. 33 lbs PENTRON NL-25 5teree....list 249.95....Not 179.95 PENTRON NL. 2 Monoural - Similar to
use only.... ist 208.95.........................Net 149.95
MODEL NL-3S
ure, Volume Coniral, Tone Contral. Flutter and waw Inputs (iwol for ith . Signolora-naise ratia 50 db Inputs (iwo) for mite or mognetic phano and for rodio, IV, crystol or ceromic phonoj outputs (iwo) for Exierno Amplifier and Ezternol Speoker. U/L Approved. Siereo model hos axtro preamp for second channal which moy be connected to rodio. Tr set, hitil systom to provide the chinare in realism which srereophonic sound con pro vide. Power requiremens 110 wam or $105-120$ volm 60 CDs AC. Atroctive in oppeoronce, with gold trim, brown mechonism, brown and ton cose. Comes complefe with $5^{\prime \prime}$ reel of tope, emply $7^{\prime \prime}$ tokeup reel, crystol microphone, simple instructions. Dim. $171 /{ }^{\prime \prime}$ wida $173 / 4^{\prime \prime}$ deeo a $11^{\prime \prime}$ high. Shog. wf. 38 lbs.
PENTRON NL-3S Stereo.... Lisi 309.95....Ne1 219.95
PENTRON NL. 3 Monoural - Similar to
obove but for stondord holf.frack monaurat
189.95

## PENTRON STEREO/MONAURAL TAPE DECKS WITH RECORDING PLUS PLAYBACK



PENTRON CONVERSION KITS FOR STEREO TAPE PLAYBACK

Add the realistic beouty ond "living presence" of stereo. phonic sound to any Pentran lope recarder lexcept Models RWN ond CT.1) with one of those kits.

MODEL SA-2 - Converts the following Pentron models to stocked slereo operotion: T-90, HF-400, TR-4, HT-225, 913, 913-C, HFW.500, TM.56, and the NL-Series. Will also convert previously converted stogeered models to stocked oper. otion os well. Consists of: preamplifier, 2-heads (1-stoched. l-combination play/record/erose), bracket with Aamur.X head odiustment. wire, hardware, and simple step-by-step instructions .............................................37.50

MODEL SA-4 - Similor to obove; for conversion of Models TM. 1 and TM- 3 mechanisms to stacked and staggered stereo. Includes slacked head and Instructians ...........Net 18.95

Designed for use with Pentron Tope Preamplifiers listed below, of others, to provide stereophonic (binaural) recording ond oloybock, monourol record/alayboch, or moy simply be used with high fidellity systoms for either monourol or stereo play dynomis and tanal renge and the ense of "presence." you con ochieve with the tope recordings these units can provide General Specificotions: Mechonisms listed below ore oll dual speed $\{3 \%$ and $71 / 2$ IPSI, dual trock. Speed-chonge lever on top plote. Frequency kesponse $40.14,000$ cps with proper equalizotion, due to use of auortar-mil gop heads. Simple, Singlo Rotary Contral for Fost Forward, Fast Rewind, Ploy, Record. Standard pin jocks for easy connection to preamps Two ouniliory AC outlefs, controlled by the mechonism's power swlich. Idiors are disengoged in the Neutral position to prevent flat spols. Flutter and Wow less than $0.4 \%$ of $71 / \mathrm{IPS}$. Heavy duty balonced 4 -pale rugged, long-life mechonism 21 as . flywheel. Takes up to $7^{\prime \prime}$, eelis. Speed vorlotion $\pm 2 \%$ mox.

Mounting: Vertical, horisontal, of ongle - sutout reavired $10.332^{\prime \prime} \times 13^{*} \approx 7$. The Pentron digital foolage counter can easily be added if desired. Mighly styled-finished in gray ond gold. Power Reavinents 55 wolls, 117 volts, $\Delta 0$ eps AC Supplied complele with cutaut template drawing ond removoble shoct absarber mounting brachets, two grommets to hold

PENTRON MODEL TM-1 TAPE MECHANISM - Monoural half-trock recording and ploybock only. Hos one
84.50

PENTEON MODEL TM-3 TAPE MECHANISM - Storeophonle \{stogeered) recording ond ploybock ond 95.00
PENTRON MODEL TM-4 TAPE MECHANISM - Siereo recarding and plarbock, stacked (in-line) or stogeared;


## PENTRON TAPE

 PREAMPLIFIERS TOR USE WITM TM OR OTHER tape mechanisms/stereo or monaural record/ playback or play oniy.PLAY-昗ECORO PREAMPLSFIER
derp, All Units will-powered, for 117 valt, oo EDS AC. . playbar oniy wilh Tm. m moshon . Ferconse 39.95 PENTHON CA- IS PREAMPLIFIEA moncural recerding ond lor playbort
ond binaural (ifereo) recrording ar plat ond binaural (itereo) recording or
$\mathbf{4 0 . 1 4 , 0 0 0}$ sps; $2 \%$ distortion, ileco $40-14,000$ sps: $2 \%$ diftortion. Miecordiploy $\$$ shong, indisalar.
$\qquad$ cing
mechon
ith $1 M$.
itch, $C$ Coin
Coin
Cil or The
or
Tonte SHNTROM binoural freceol AREAMPLIERER - Dual ehamal glaybock preamp for manauig or
 gain comeq!
gain control.

TAPE RECORDER ACCESSORIES
X-166 Cord with clips of one end, stondard plug of other end for recording from radio X-167 Mike entension cord. 20', with stond ord plug .................................... $\mathbf{N . 6 5}$ X-155 Telephone pistup ..........Net 8.95 FP88 Foot Pedal Altachment for Pentron NL.1131. NL-215). NL.3(5) escoodens. Sion th oul tools tooe. Afforhes in two minulet with X-18E DIGITAL COUNTE胃KIT Eoyy ieoding. monval reser. May be eeadily odded to ony

CA. 14 MICROPHONE MIXER-PREAMPLI FlEf foo use tith any tooe
public od llowf mithe, iwo high Impedanel, phonol Dufs (lowf mille, iwo high Impedane phonol

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## PORTABLE RECORDERS

with STEREOPHONIC PLAYBACK


The Ampex A122P Tape Recorder offers stereaphonic sound in - canvenient partable farm. for outdaor or away.from-home listening pleasure. It also records half-tsack and reproduces half. and full-track topes. Completo specifications are listed in the table to the right. Together with matching amplifier. speokers (A692), it provides the ultimale in three-dimensional wund os well os the lightwaight convenience of a top quolity portable recorder. The durable, beautifully finished twatone corrying case measures $:$ \& $171 / 2$ $15^{\prime \prime}$ and weighs less than 35 lbs. Less microphone.
Ampen A122-P-Stereo Tope Recarder................t 449.50 The Ampez A692P Amplifier-Speaker provides magnificent performonce in o size that will omaze the mast critical oudio. phile. Realistic sound reproduction from $65-10,000$ cps Through matshed speaker and 10 -wolt push-pull amplifier. Naise level 70 do below roled autput. Equipped with equalization and valume cantrols, selector and off switch. Case matches size and color of A122 recarder. Welghs anly 31 lbs . Ampez A692-P-Amplifier-Speaker.

Net 199.50 All2-P-Partable Monaural Tape Recarder recards half-tract and plays half. and full-rrack papes af $33 / 4$ and $71 / 2$ IPS. Otherwise som os A122P. With A692P Amplifier-Speaker, it forms on integrated system of superb quality ...Net 395.50 GENERAL SPECIFICATIONS for "A" SERIES RECORDERS HEADS:A111, A112P, half-track; A121, 122 P , half-track record, stepeo playback (in-line stereo heads): bath have halftrock erose heads. TAPE SPEED: $31 / 4$ and $71 / 3$ IPS. FRE. QUENCY RESPONSE: $30.15,000 \mathrm{cPs}+2 \mathrm{db}$ at $71 / \mathrm{lPS}$ $30.7,500$ cps $\pm 2 \mathrm{db}$ of $3 \%$ IPS. SIGNAL-TO-NOISE: Befter thon 50 db belaw peak record level $(3 \%$ distartian at 400 (PI) at $71 / 2$ IPS. Beter than 45 db of $3 \mathrm{~s} / \mathrm{IPS}$. FLUTTER AND WOW: Under $0.25 \% \mathrm{pms}$ of $71 / 2 \mathrm{IPS}$; under $0.3 \% \mathrm{~mm}$ at $33 / 4$ IPS. RECORD INPUTS: High impedance line input. 0.75 V . rms for pragram level. High impedance mieraphane inpul. PLAYBACK OUTPUT: 0.75 rms (armarom level tapes) from cathode follawer. POWER REQUIREMENTS: 117 alfs, 60 evcles $A C$. 0.9 omps

## AMPEX CONSOLE MUSTC SYSTEM



## AMPEX CONSOLE MUSIC SYSTEM

Complete music system in elegantly designed cobinetry. aptianal, hand-rubbed Cabinets
Includes Ampes half and full trock tape recorder with stereo playback, two ten wath hi-fi amplifiers, FM-AM high fidelity tuner, Garrord record changer with diamond and sapphire styli on variable reluctance sartridge, two spookers. Dim. $47^{\prime \prime}$ wide $\sum^{211 / 3^{\prime \prime} \text { deep } x ~}$ $36^{\prime \prime}$ high.
A423-Complete Console Music Srstem ...Net 1,495.00

COMPLETE TAPE RECORDER with STEREOPHONIC PLAYBACK


4621 AMMLIFIER-SPEAKER

A121 STEREO MAYER AND TAPE RECORDfR


COMPLETE STEREO SYSTEM as illustrated NTT 895.00

A121 STEREOPHONIC PLAYER-TAPE RECORDER
-Offers reolism of stereophonic sound on fope piorbock os well as two speed recording ond playback of standard tapes. When ulod with two, A621 motshed amplifier-speoters, the recorder makes a complete ster raphonic aslem Hat provides unercolled richness, depth and clority for vour Ilstening pleasure. Size: $101 / 2^{\prime \prime}$ high, $161 / 2^{\prime \prime}$ deep, $1714^{\prime \prime}$ wide. Avoiloble in Mahogany, Blond, Watnut or English Mairwood fin. Ishes. (less Micraphone)............................. 495.00

Accessony Microphone for obove
recerder $\qquad$ $\ldots{ }^{2}+$
65.00

A621 AMPLIFIER-SPEAKER - Push-pull amplifior ourpur 10 woits. Frequency response of systom essen. tially flof from $65-10,000 \mathrm{cps}$. Hum level 70 db below rafed oulput. Equipped with volume control equalization contral and push-button selectors for tope. TV Puner and ond push-bulton selectors for receptacle and fack for . Mas guziliary AC power eceptacie and lack for conmecting 8 af 16 ohm Avoiloble Dimensions : $21^{\prime \prime}$ wide, $11^{\prime \prime}$ high, $91 / 2^{\prime \prime}$ deep. Available in hond-rubbed Mahogany, Blond, Wolnut,
or English Hoirwood finishes.................Net 229.50 COMPLETE RECORDER STEREO SYSTEM Consisfs of A121 recorder and two, A621 amolifier. speaker systems, oll in matching woot cabinets. Less microphene. Sove $\$ 59.00$ over cost of units if pur. chased separofely.
A121-s
Net 895.00
AMIPE PROFESSIONAL SERIES PORTABLE TAPE EQUIPMENT

$601-P$


MODEL 601-P PORTABLE RECORDER
Mere is famous Ampen professional quality in a compact, playback mike ond line input omplifiers with negligible lightweight portable recerder for the mont critical high distortion. Individual mining contrels for mike and radio, fidelity recording requirements. Deslgned for use with - ifternal omplifier and speoker. Frequency response 40 $15,000 \mathrm{cps}$ at 71/2 IPS; down no more than 4 db at $15,000 \pm 2 \mathrm{db}$ from $40-10,000$. Signal-fo-noise refio over 55 db . Flutter and wow below $0.17 \%$. Separete erose, record and ploybock hoods conioined in a single head housing. Synchronous motor drive ossures preche timing accurocy within $3 . \mathbf{d}^{\text {decends in entire } 30 \text { minutes }}$ playbock. Simple, one hand "wrop areund" throading. Lorge scale meter for accurete progrom level manitaring during record or ploybock. Instantoneous starting, fost re: protection ogoinst orcidental erosure. Two inputs low and prosigh impedance mikes (use -ite transformer llsted) Out put, 600 ohms balonced of unbelanced. Separate recard

## MODEL 620-P PORTABLE AMPLIFIER-SPEAKER

Carsfully matched partable amplifier speaker combinction That is designed for use with the model c01P tope re. corder, or ony basis tope recorder, hiffl tuner, preampll. fied micraphone or record ployer. Ampez ongineered $8^{\prime \prime}$ speaker with large magnet site and flexible diophragm mounting is combined with o 10 -wott high fidelity push. pull ampifier to give on overall flal frequency response of 65-10,000 cps. Ampllfier response $20-20,000 \mathrm{cps} \pm 1 / 2$ db. Signal-fo-noise rolfo 70 db below raled output. No oudible harmonic distortion (less than $1 \%$ ). Mas externol speaker jock which bypasses built-in speaker-lor use with
8 or 16 ohm external soeakers. Controls ratume bass 8 or 16 ohm external speakers. Controlsi volume, bass treble, power switch, ON.OFF indicator light, and built-in
iv or phono inputs. Ploying time 32 minutes with 7 " 1200 ff . reel 132 minuter each direction on holf-lrack) Overall size in case: $8 \times 13 y \times 161 / \%^{\prime \prime}$. Less cose: 5 x $12 \frac{1}{2}=15 \mathrm{~K}{ }^{\prime \prime}$. For $117 \mathrm{~V} ., 60$ eyclos AC. Shpg, wi., 32 Ibs. in saddle fon Samsonife cose.
Model 601 -PF -Specify Full or Holf Track
Heads ..................................................Net 595.00 Madel 601-UF-Same os obovo, less cese....Net S\$5.00 Model 601-2PF-2-Track Stereophonic Portable Inciudes Model col lope tronsport. two Model s01 -lectronic chos. sis, ofllitrock erase, two-trock record ond iwo-track play. bock head ossembly. 8 z 13 z $241 / 3^{N}$. Shpg. wf. . 4610 s in cose.........................................................Nel 995.00 Models01.2UF Some os obove, less case....Nap 950.00

AC convenience outiet. Single equalization coniral. In Dut impedance 20,000 ohms; oufput impedance 12 ohms . For 117 valti, $50 / 60$ cycles AC. $13 \times 16 \times 8^{\prime \prime}$. Shpo. wi. 28 lbs. in case.
Model 620 -P—Partoble Amplifier-Specker . Net 169.50
PLUG-IN LOW IMPEDANCE INPUT TRANSFORMER -Permis use of low impodonce mites with $601 . \mathrm{P}$ re corder. Shpg. wi., I Ib..................................... 22.95
RACK MOUNT ADAPTER PANEL-For Model 601
recorder ..................................................................... 12.50

## the mignifient NEW! <br> TANCORDEX STEREO RECORDER

- 3 MOTORS FOR DRIVE, FAST FORWARD AND REWIND
- 3 SMIELDED HEADS FOR RECORD, PLAYBACK AND ERASE
- FREQUENCY RESPONSE 40-15,000 CPS
- flutter and wow less than 0.17\%
- built-in binaural playback preamplifier
- FOR BOTH BINAURAL AND MONAURAL RECORDING AND PLAYBACK
Lafoyette is proud to be the first to present the mognificent TANCORDEX stereo recorder and ploybock deck to fill the need for a moderolely priced unit that provides quality, feotures and performance in a class with the most expensive professionol tope recorders.
The TANCORDEX is a precisiontbuilt twin-track mechanism with extremely close tolerances in all bearings and shafts. It is designed for both binoural (stereaphonic) and monourol recording and playbock. The deck, on o gleoming stainless
 steel plate, is mounted in a finely finished blonde cabinet with a removeoble lid. The cobinet also contoins the binaural 2 -channel preampliffer for playbock of stereophonle recordings (as well as for monouroll. It is equipped with volume, boss and treble controls. Three powerful capocitor induction motors provide stablized operation for drive, fast forward and rewind. Mognetis brokes insure sofe, fost stops an alf pasitions. One of the outstanding features is the extraordinary quality of the fine-gap low impedance heods. The recarding head is double shielded by permalloy; the ployback heod by permalloy and capper.
In oddition to simple, positive push-button ond lever switch operotion, several safety feolures ore provided. The tope guides ore also automatk switches so that if you let the reel run out, or if the tope Is accidentally disengoged or broken, guides ore aiso autamalice switces butt is recessed to prevent occidental erasure. Yau connot shift from rewind to ploy the motor is lurned off. The recard buthon ts recessed ro prelton controls for RECORD, START and STOP; lever switch for Without depressing a sofety PUsh power-on.
For playback all that is requited is a basic power ampllifier and speaker (1 for monoural, 2 for binaural); for monaural recording, a recording amplifier with bios oscillator; for binaural recording on additional recording ampllfier less the blas osclllator.
The TANCORDEX tape deck, comes completely mounted in the cabinet with the stereopharic preamplifier. Site $251 / 2 " x$ $153 / 4^{\prime \prime} \times 12^{\prime \prime} \mathrm{H}$. Shpg. Wt., 75 lbs .
TANCORDEX Model V........... is Blonde or Mohogany Gmish (Spectity)
Net 495.00 NOTE: STEREOPHONIC RECORDING AMPLIFIER WILL BE AVAILABLE.


## SPECIFICATIONS








 track; erose head is full track. SHIELDING: Record heod double shielded by permallay, ploybock head by permaking

## door. MOTRRS AND DRIVE: FIY wheel drive, 3 heavy duly copacitior induction motors; positive. sP BELLL STEREO \& MONAURAL TAPE TRANSPORTS

## BELL TAPE TRANSPORT MECHANISMS



Profestional quality mechanisms-competitively criced. Enclusive combination of feofures, found only in these mechanisms, includes: 3 heavy-duty, 4 -pole, 4 -coil motors No belts, clutches, pulleys or mechanical brakes Instant, yet gentle, pasltlve electrodynomic braking withaut tope strain or breakage; stops from Rewind or Fast Forward in less than 3 seconds pasifive from Ploy or Record in less then I second. Flutter less than $0.25 \%$ of $71 / 2 \mathrm{ips} .7 \mathrm{l} / 2$ and $3 \mathrm{3} / \mathrm{h}$ inches per second (lips) Slops from Ploy or Record in less $\pm 1 \%$. Fosi Forward and Fast Rewind, overage speed 30 feet/second Piano keyboard lope speeds, controlled to within $\frac{ \pm}{2} 1 \%$ Fost Forward and Fast Rewind, Overage spith Spind; Fost Forward; Stop On.Off Swlich Stereo Selection Swlich for inline controls for: $71 / 2$ ips; $31 / 4$ ips; Play; Rewind; Fast Forward; Stop (stacked) or offset (sloggered) for those models having stereo head arnangements Tape to to top diometer Tape counter, during stop and high speeds O Uses stondard $1 / 4$ " type A recording lape Takes reels up to fecording Heod adiustments with manual reset, operates from takeup reel to prevent introduction of wow and factory set far standcrd topes) Mechonlsms ore designed to mount either the Bell p. 100 or for azimuth and tracking (factory set far standcrd fapes). Mechonisms are designed to mount either ano bized gold trim RP. 120 preamplifiers os on integral port - Siyled in Charcoal Gray with Satin Aluminum and embossed anadized gold rim - Plays in any position Power consumption 56 watts; for 117 volls below mounting surface and $1 \%$ " above - Shipping welght 21 lbs .
BELL MODEL T-200-Tape transport for moncural erase/record/playback......................................................................... 97.95 BELL MODEL T-201 -Tape tronsport for stereo inline (stocked) and affset (stoggered) playback anly.......Net 107.75 BELL MODEL T-202-Tape iransport for manaural erase/record/playbock and stereo inline (stocked) and affset 17.55
 BELL MODEL T-203-Tape fransport for munoural erase/recard/playbock, stereo inline and offset playbock, $\mathbf{3 7}$. 15 stereo inline ond offset record

## BELL PREAMPLIFIERS

Made to mount as on integral port of Bell tope tronsports. Plastic dial plate furnished that maunts on transport contral panel DC on as microphonism. Use 1. Model P. 100 for the T-200; use 2-Model P.100's with the T-201 for stereo ployback only; use 1 -Madel microphonism. Uso 100 and 1 Monal or stereo ploybock; use 2 -Model RP. 120 with the T. 203 far monaupol or stereo record/playbock.
MODEL P-100 PLAYBACK PREAMPLIFIER Characteristics when used with Bell tape transports:- Response: $40-10,000$ $\mathrm{cps}+2 \mathrm{db} ; 30-15,000 \mathrm{cps} \pm 4 \mathrm{db}$. Noise: 50 db below a signal hoving $3 \%$ third harmonic distartion recorded on tape. Distortion: $0.1 \%$ at 1 valt output. Output: At leost 15 valts from cathode follower. Controls: 1. Volume. Tubes: ECC83/12AX7. ECC82/12AU7; E280/6V4 rectifier; selenium rectifier for filament supply. Power Consumption: 15 watis,


## EELL MODEL P-100

Net 29.35
MODEL RP-120 RECORD/PLAYBACK PREAMPLIFIER—When used with Bell tope tronsports:- Response: $40.10,000$ $\mathrm{cps}+2 \mathrm{db} ; 30-15,000 \mathrm{cps} \pm 4 \mathrm{db}$. Bios Oscillotor frequency: 60 kc . Sewsitivity: 1 mv . (mike): 0.3 valts (high level inpui) for full recording level. Signol-to-Noise-Rotio: 50 db . Distortion: Less than $1 \%$. Inputs: High Impedance mike; high level for tuner, ete. Controls: Gain; Record/Playback Switch. Indicator Lights: White on-aff pilat; red pilot for
 $12 A X 7$ ECC82/12AU7. Ez80/6V4 rectifier, selenium rectifior for DC filament supply. Power Requirements: 25 watts, 117

EELL MODEL RP-120 $2 / 4$ Net 58.75
BELL MODEL 200CC CARRYING CASE-For Bell fope fransport mechanism plus 1 or 2 preamps. Hondsame $2-t a n e$ styling

## VIKING STEREO TAPE COMPONENTS

Viking components ore designed for use with high-fidelity music systems to toke fult odvantoge of the frequency and dynamic range possible with topo. If your present amplifie and speaker ore providing solsfoctory record playbock, then full fidelity tape recording can be odded to your system without modification.


## ADD STEREO SOUND TO YOUR PRESENT SYSTEM



Convert your present high fidelity music sritem to stereophonic sound by adding these componants: VIking FF7SSR Binaurol (Storked Heod) Ployback Unit plus Monaural Erase-Record Functions, Bogen ST-10 (less care) Sterco Amplifier with 2 equalized tape preamps for output of tope deck, and Lafoyette SK-58 $12^{\text {" }}$ Coorial Speaker which acts as the second speoker in your stereo syitem. Output acts as the second speoker in your stereo syitem. Output of one preamp is hed into your present hl-fi system to provide one channel of sound, and second preamp drives
the built-in 10 -wam ampllfier. Easy to cannect with the buils-in 10 -won ampllifer. Easy to connect with
cobles supplled. 117 Voits, 60 cps AC . Shpo. wt. 36 lbs. Reg. $\$ 195.00$ You Save $\$ 25.80$ sr-102 stereo Components .........SALEI 169.20

FF75SR STEREOPHONIC TAPE DECK-Incorporates three heads for stereo playbock of in-Iine (stacked) recordings and for stondord manoural erase-record-playback operation. May be used with both RPOI and RPOI-S record/playback amplifiers described below for In -line (stacked) recording of pre-erased tapes or for conventional monoural record-playback. Freq. Respanse 30.14 .000 cps at $71 / 2$ iPS, $40.7,000 \mathrm{cps}$ of $31 / 4 \mathrm{IPS}$. Signal-noise ratio 50 db , flufter $0.2 \%$. Record/Playbock heod gap $.00013^{\prime \prime}$ contributes to wide frequency range. 4.pole flooting molor, heavy capstan flywheel, highly compliant drive bell make for obsence of vibration, minimum "flutter" and "wow". Sizet $14 \% / 1$ wide, $93 / \%^{\prime \prime}$ deep; extends $31 / 2 "$ below maunting board (dimensions include clearance for $7^{\prime \prime}$ reel). For $110-120$ valls AC, 60 cps. Shog. wh., 14 lbs.
Viking FF7SSR Stereo Tape Deck
Not 113.00
RPGI RECORD/PLAYBACK AMPLIFIER-Provides completely fixed recording equalization during the recording cycle. Has variable playbock equalizer. Madified NARTB equalization. Frequency response, ploybock: $30-14,000 \mathrm{cps} \pm 2 \mathrm{db}$; record, $30-12,000 \mathrm{cps} \pm 2 \mathrm{db}$. Internol signal-lo-naise ratia 80 db . Distortion less than $2 \%$ whin spesified frequency range. An integral erose-blos oscillator provides 70 kc erase and bias voltage during recarding cycle. Output 1 volt, high impedonce. For 110.120 volts, 60 cycles

RPbI Record/Playback Amplifier.
Net 77.50
RPGI-S STEREO RECORD/PLAYBACK AMPLIFIER-For use with RPOI and FFTSSR tapo deckmonoural and stereo record and playbock. Matches RP61 in size ond oppeorance.
RP61-5 Stereophomic Amplifier..
Not 77.50
PB60 PREAMPLIFIER-An ideal componion to the Series FF75 tope decks. Feolures include o power swith on the volume leval control, o switched $A C$ outlet, hum boloncing adiustment, variable equalization and cathode followar output. Equipped with phono iacks for input and output connections. Frequency response $30.14,000 \mathrm{cps}$, Sire $61 / 2^{\prime \prime}$ D. $3^{\prime \prime}$ W. 2" H. For $110-120$ volts, 60 crcles AC. Shipg. wi. 2 lbs. PB60 Preomplifer.............................................................................................

## OTHER VIKING TAPE DECKS AND ACCESSORIES BINAURAL (STEREOPHONIC) <br> FF75SU -Playbock unit cansists of transpart, heed bracket, in-line (stacked) or stoggered hoad

 assembly, standord record/playback head, topeliffer and pressure pods...............Net MONAURAL PLAYBACK

## MONAURAL RECORD/PLAYBACK

FF75R-L Consists of tronsport, bracket, one record/playback head and one erose head and
FF75RM-LP - Monoural record monitor and playback with transport, heod brocket, orase head,
78.50

Mecord head, and manitor heod and topelifter and pressure pads …................Net 87.00

## ACCESSORIES

D396 PORTABLE CASE-luggage type with handle and removable cover. Accommodates any
Viking tape deck, one or two PB60, or one RP6I. Mounting holes pre.drilied..........................
24.50

## LAFAYETTE'S OWN STEREO TAPE PLAYBACK SYSTEM WITH VIKING TAPE DECK



Eniay full dimensional sound that thrilts you with the fooline of living presence. This systom, ovolioble of Lafoyelto's troically low prices, includes a VIking FF7SSR Binaural (Stacked Hoad) Ployback Unit plus monoural erose and recard faciltites, two Lolayelte LA.69 20 -wolt Amplifitir/freamp with five inputs, 24 equalizotion positions, and a Hrequentr response of 20 to $40,000 \mathrm{cps} \pm 1 \mathrm{db}$. at 15 wotts; and two laforette SK-58 $12^{\prime \prime}$ cooxial speokers, copoble of handling 20 wath at a frequency response of $30-15,000 \mathrm{cps}$. Intercannecting cables, clearly marked for easy identification. are supplied.

Reg. $\$ 301.00$. You Save $\$ 60.201$
SY.101-Stereo System.....SALEI 240.80

## STEREO TAPE PLAYBACK SYSTEM WITH BINAURAL AMPLIFIER



## Viking FF75SR

Lafayelta
Latayerra
SK- $5812^{\prime \prime}$


True high fidelity PLUS stereophonic sound give this sysfem breothraking realism that you must heor to oppre. ciato. And Lofayalie brings it ta you at a soving of \$-5345 under the total cosl of componenty purchased seporotoly! The system includes a Viking FF75SR Binaural Tape Deck with Monourol Erose-Record, Bell 3-DIG Dual-Channel Hi.fi Amplifler (12 wotts per channel) for reproduction of binaural recards, topes and broodcasts, and two Lafoyelte SK- $58 ~$
of
of $2^{\prime \prime}$ Coaxial Speokers. Here is o system copoble 20 walks per channel of a frequency response of handling 20 walss per channel of a frequency response of $20-20,000 \mathrm{cps}$ with all the depth, dynomics and sonorify of a corcert holl performance. Supplied with cables for eosy intercennection of cemponents. 117 volts, 60 cps AC. Shpa. Wr., 70 lbs.
Reg. \$331.95, You Save \$53.45
5Y-104 Stereo Tope Paybeck System........SALEI

## Safayette FOR THE BEST IN TAPE

1200 FT. $7^{\prime \prime}$ REEL

## LAFAYETTE HIGH FIDELITY RECORDING TAPE

## GUARANTEED SPLICE-FREE

 ALL LAFAYETTE TAPES SOLD ON MONEY-BACK GUARANTEELafayelfe's huge purchosing pawer enables our praviding you with standard first-quality tape of almost half the price you would pay for the same lape with the monufocturers' own labels. WE GUARANTEE ABSOLUTE SATISFACTION OR YOUR MONEY BACKI The fines! prafessional-quality recerding tope availoble. Highest performance for thousands of playings. Unifarmiy-coated red oxide on plastic bose with high oulput and unifarm Irequency response of $40-15,000 \mathrm{cps}, 1200 \mathrm{ft}$, reel gives 1 hr . of recording time at $71 / 2$ inches $/$ secand dual track,
and 2 hrs. at $33 / 4$ inches $/$ second. 1800 ft . reel gives $11 / 2 \mathrm{hrs}$. recarding time at $71 / 2$ ips dual tract, and 3 hrs of $31 / 4$ ips.
A true tefayetre value backed up by aur Maney Back


1800 FT. $7^{\prime \prime}$ REEL


Guarantee. You be the iud 90 -try it


MICROTRAN BULK TAPE ERASER AND DEMAGNETIZER
An absolute musf for sterea-recordingl Most sterea recorders do nal pravide focilities for pre-erasing both trocks, and tapes must be pre-erased in bulk. Develops a high intensity AC magnetle field and erases racarded material and noise from any magnetic fapes without rewinding and without wear on record ing heods. Mare effective erasure thon most builf-in tope recarder erose head - restores tape to "like-now" candition or belter. Takes $5 ", 7$ " or $101 / 2$ reels. Spindle remavable for ather reet sizes. May also be used as demagne ilier for too heods, watches matol, atc. Pawer requirements 5 amps at 11 volis AC. Size $3^{n \prime} \times 5^{\prime \prime} \times 8^{n \prime}$. Shpg. wt., $81 / 2 \mathrm{lbs}$ ML- 106
TRIPLETT VOLUME-UNIT (VU) METER Helps make professional quality tope recardings. Visually indicates correct record ing level and elfminoles uncertoin:les of nean bulb recarding level indicators. Bakolite caso $3^{\prime \prime} \times 3^{\prime \prime} \times 11 / 2^{*}$. With $18^{\prime \prime}$ card and phane plug ond iack - plug diractly into moss ro

Nel 22.54
WESTMINSTER SONOTAPE STEREO TEST TAPE
Stereophanic olignment tope - on essential item for balancing any stereophonic playbock sound system. Used for defermining carrect speaker spacing and valume level; pravides for odjustment of tape head alignment for high frequency re sponse; checks equalization and frequency response af amplifiers and response a speokers as woll os lope quipment. Checks wow and fulter of tope equipment and absolute accurecy of the lape speed. Checks proper spacing of stoggered heads. Includes a 440 -cycle funing fork far speed accuracy check. $7^{\prime \prime}$ reel, $71 / 2$ PS speed. Shpg. wi.. 2 lbs.
SONOTAPE AL-101 - Specify stacked or stoggered
Net 8.95
STEREOPHONY-EMC STEREO TEST TAPE
aystem. minimum necessity for determining correct spaaker positions and adiusting camplete playback system. $71 / 2$ IPS speed.
EAC TSOS - For Stacked heads ..
Net 1.98
EMC T50Z - For Sloggered heods
Net 1.98

## GELOSO HI-TONE MINIATURE TAPE RECORDER


 in Eurape-cames this remarkable dual rock, dual speed tape recarder. Unique, compoct, economical, precision-engineered and designed like o fine watch. With amazing true fidelity sound ond lifelike reproduction not equalled by many machines castier and much larger in size. May be used for every tape recarder application.
$71 / 2 \mathrm{lbs}$.

A completely versatile mochine. Can be used for recording ar dictating in the aftice or home. Adoptable for use in a car, baat or plane, to record telephane canversations and radia programs, or for repraducing prorecarded high fidelity lopes.
Dual Speod - Dual Trock - Far $1 \%$ and $3 \% \mathrm{jps}$ speeds - Extremely simple 4-pushbution controt-children con sately use it without danger af damaging the recarder Frequency response $100-4500 \mathrm{cps}$ at $1 \%$ ips, $80-6000$ cps of $33 / 4$ jps O Up to 90 minutes playing time Low Dower consumplian - conamical to aperate Very sen. silive pickup Quial in aperotion - Instant start and
stap-na danger af rearing tape - Fast rewind and fast lorward speeds - Now type, procision "Glo-light" re sording level indicalar - inpul jack for microphone, rodio, TV, recard player, telephane, etc. Outpul for extension speaker or external amplifier - Transparen lucito dusl cover Goad-laaking, malded plastic cabinot - Comes completb with micraphone, lape, takevp reel, and handsame cardavan type corrying case of dur able Tuflex - Carrying case has compartments for microphane. 3 extra tapes, dual earphanes, telephane and oxternal speoker cannoctars.
GELOSO G-255-S TAPE RECORDER Net 143.95

## GELOSO ACCESSORIES

DESX PEN SET MICROPHONE MODEL M5S-Can. cealed microphane with inkwell design. Exiremely sensitive, high impodance. Made of black anyx plastic with tronsporent lucite base. $41 / 4^{\prime \prime}$ square bose, $51 / 4^{\prime \prime}$ high. With $54^{\circ}$ cable and phane plug and with quality ballpoint pen.
GELOSO MS5
phone conversation moy be recarded. Complete with coble and plug.
GELOSO 9010
Not 5.56
CONNECTOR SET FOR EXTERNAL POWER AMPLIFIER MODEL 366-"Potch cord", camplete with plus

MICROPHONE WITH DESK STAND MODEL M50/ B85-Extremely sensitive high impedance micrephane. complete with $81 / 2^{\prime}$ cable and plug. $81 / 2^{\prime \prime}$ long by $11 / \%^{\prime}$ diameter, tapered down to $3 / 4^{\prime \prime}$. Block onym plastic. With swivel desk stand, finished in gray satin metallic. GELOSO M5O/B85 ......................................... 19.96 STETHOSCOPE DUAL HEADSET MODEL C38-Sensitive crystal heodset. Lightweight, cream-colored plastic. Plastic eartips remaveable far cleaning. With $5^{\circ}$ cable and plug.
GELOSO C38
...Not 11.96
TELEPHONE PICXUP MODEL 9010 -Both sides of a
and connector.
Nel 2.36
SINGLE EARPHONE MODEL C39-Fits comfartobly and securely on either ear. Clear tone, sensitivo, light. weight. Complete with lucite reversible ear halder, 5 card and plug.
GELOSO C39
Nel 796
CONNECTOR SET FOR EXTENSION SPEAKER MODEL 362-"Potch card", complete with phane plug and cannectar
GELOSO 362
Nét 2.36
MAGNETIC RADIO PICKUP MODEL 9009-Far re carding from radio, TV or phonogroph. Complete with cable and plug.
GELOSO 9009

## ACCESSORIES FOR TAPE RECORDING



All-mefal tape of record carring case. Holds 35 reels of tape in either bores or cons, or fram 250 ia $300 \quad 45 \mathrm{ppm}$ records in conventent indexed storage file. Supplied with 2 inder cards and 2 sets of reference tabs numbered from 1 to 150 for use with 45 npm records. Folding handie on removoble cover. Twin smop locks keep cover tiphily closed. Large sforage space subdivided by metal separators. Hondsome ham. merloid finish. Size: $15^{\prime \prime} \times 71 / 2^{\prime \prime}$ x $121 / 2^{\prime \prime}$. Shpp. wt., 10 lbs
ML-33.
Net 5.40


## STANDARD CASE

Standerd Cone: Sturdy oll ineol cerrying Case Holds $12 y^{\prime \prime}$ or s. reole and conk. focl porfobility-idoal for fiting ond for. -go. Gusrdi Agsintt erpowre to moiturg age. Euardi apainst orponure to moiture num grey hammorloid. Hendie folds fier num grey hammerloid. Hendte folds for identificalion. Motel seperators hold quick reel erect. Sippe. We, 5 ibi
ML-co


Fine plostic resls for recording rope. MS. 247 in loti of 6, Eorh. 38 Singly, Eoch. 45

An excallant accessory that splices tepes eccurately and eliminates joint naise. Both ends of tope ste cut sinaise. Both ends of tape ste cut si-
multeneously. Nickeled brass finish. Wh. I lb.
MS-289
1.47

MAGNETIC TAPE SPLICER


NEW
METAL STORAGE CANS
DQice con moldi $T 1200 \mathrm{H}$. tope reol. Gives ultimale in orotec tion to precious recerdingo. Mandiom. finith of ofer hemmertono onomal. Cons ore ibbeed for itacting oive - masimum storage In minimum soce. Precition fit metion 39 oponing and closing eatr fit pertoclly in chests shown eoch sbove. shpe Wi. or ML-61

## NE PICKUP <br> FOR RECORDING TELEPHONE CONVERSATIONS

## mauction ratophome pirtery

Foleptione conversetions cen now be picted wo fith motep pimon of circuits ar simply plece. the phone int ciredie or upright tree on the sicluve pleflorm ent commect mo loeds is the tigh impedence input of ony modium evin ovelio empli. fisp. or diecolly to eny toge. STOCK NO. MS. 16 $\$ 2.95$

## INDUCTION TELEPHONE PICKUP



Nowly designed telephone pickup thet ottoches to eorpiece of telephone by o suction cup. Picks up both sides of cenversation ond may be used on ony type telephone. No electricat connection to telephone needed. Just connect directly to any recorder. This method of pickup gives high output and enceptionol fidality. Complet with 6 ft . cerd and instructions. Shpg. wt., I lb.
MS-328
Net 7.35


## ELECTRO

 SCRIBER TELEPHONE PICKUP
## - new war to ammirr.

 RECORD, AND MAKE A mamanentrictond or rour murmone converastows.Avoid the onsiely and expones resulting frem "rehorh" of lang distonce converiotions. Simply ploce ohow bow on Electro Scriber. Nue Electro skite into recorder if a oermenent record is desired. Turn en osmplifher or eocorder and relaz. The conversation with be cleorly oudible te rou or onrone ele in the reem, or you will hore a cleor Dermonent recerd, If recorded. MS. 220 - Model ES701 -
ME-291 M E5703
for push bumen phome
0.53

ROBINS "GIBSON GIRL" SPLICER


Culi 2 mounded indentotions in the tope solice, leoving in edeer of the tape lirely free of adhesive. Adheiverar en. od on initial parth of Adecordep doposit awent couse of moe ond Auter a limio or $1 / 4$ tepe need be removed shes 1/7 16
aOHESIVE REEL LABELS
Ionveni-nt prees-on adhesive labele for pastife identification of tape reela. Faly to apply or remove. MS-322....... Pet. of 30.

## FLAHAN <br> TAPE THREADER

## - IT'S NTWI

- The TA"́ Therader Touvve EEN AEXIMO forl
At lonfl No more ertward fumblime, Throoding - reel. Jwit ploce the roee epeinct the reol, illp orer the empty repl. Tip of threoder holds the reoe Armity eqainat the reol. A fey turni on the crent, and rou'ro reedy to ploy or recard. Can to soed an a manal creat to relote reel by plocias tip in stot moerent peindle. Saves timecover tope. Shat. If.. 2 el
MS.272
74
LEADER-TIMER TAPE
150 H . E $1 / 4{ }^{\prime \prime}$ roll. Hos 1 secand inferval marts. ing: for $3 \% \%, 742^{m}$ and $13^{\prime \prime}$ per second sooeds

Pressure-comirive meperiolly for setetin $41-1 / 2$ s, $1 / 2$ is lape.

Not 358

## SCOTCH EMPTY PLASTIC REELS



Suppliad with thelf own Inder bor All plastic except as indicent


- 10

SCOTCM 43R1.5 ....Ne. . 51


## SPLICING TAPE

A

## ATTA-GLANCE DISCS

- Catalocine, indexing discs.

The Athe-Glonce tape wiector difc An on
the spindle ond revelven with the reet the spindle and revalven with phe reet It combiner I.P.S. timing, ediving, in doring. ond retologing right on 900 of the reot for lost easy reforence. Simple o colect storing and faikhing positions curate diting inderardes. Permith oc MS-22s, 5 ilo. ...................Eech ISt 12 fer M-214, 7 (io $\qquad$ 1.00 12 for Eoch Ise

"SCOTCH" WRITE-ON TAPE LABELS (FIG. A) Imprinted pressure-senstive odhesive tope for identification pur. poses. $2 / 4^{\prime \prime} \times 100^{\prime \prime}$, on handy metol dispenser. Shpe. wt., 5 oz SCOTCH TYPE 48-4/4S WRITE-ON LABELS ..........Not . 23

## TAPE THREADER (FIG. B)

For quick and slmple tape reel threading. Simply clip on and sfort recorder. Works on oll size reels. Hondsome chrome finish In plastic case. Shpg. Wi., 6 oz.
MS-374 TAPE TMREADER Lis1 2.50 $\qquad$ 1.47

SILACONE TAPE CLOTM (FIG. C)
Cleans, lubricates and protects by depositing a micrascapic film of silicone on the fape. Reduces heod weor, tope wear, fape squeal and chotter. Eliminotes "prime distortion". Washoble. Shpg. wt., 5 ot.
MS-375 TAPE CLOTH
..Net . 59

## REEVES TIMING CMART (FIG, D)

Easy to use timing chort aliminotes the cumbersome mothematics of defermining how lang a length of lope will play. Prevents orrors, soves tape. For single or double trock. Accurately calibroted in minutes and seconds. Shpe. Wt., 5 oz.
REEVES TIMING CHART Lisi 1.20

# RECORDING TAPE-DISCS- and ACCESSORIES 



## SCOTCH EXTRA PLAY TAPES

$50 \%$ more playing time on slandard size reels. 1 mil acelate bose. All on plastic reels excepl is $101 / 2^{*}$ NARTB aluminum resi.

| Type No. | neel | Length If. | Mst Price | Ne: 1.11 | ech 12 ar mere |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1904-9 | 5" | 900 | 3.50 | 2.34 | 2.10 |
| 1\%0A-18 | 7" | 1800 | 5.50 | 3.67 | 3.30 |
| 1804.36 | 101/2** | 3600 | 12.85 | 1. 57 | 7.71 |
| SCOTCN MYAR TAPG |  |  |  |  |  |
| Extro pley tope an 1 mil extro strang Mylar base. All plastic reols except is $101 / 2^{*}$ NARTB oluminum reel. |  |  |  |  |  |
|  |  |  | Hst Price | Net |  |
| Type Me. | Reel | Lengh Ft. |  | 1.11 | 12 or more |
| 150-9 | $5{ }^{\prime \prime}$ | 900 | 4.40 | 2.93 | 2.64 |
| 150-18 | 7" | 1800 | 7.95 | 5.30 | 4.77 |
| 130-36 | 101/2"* | 3600 | 17.95 | 11.97 | 10.77 |

4OO AUDIO
DEMAGNETIZER

NEW 7" AUOIODISC TOR is TPM Red lobel oluminum boie recording dise mode to exoct dimentions of commerciol 45 TVM records. Complope with center hole odopter that permits. these dizes to bo cut on ony standord dike recorder hoving the conventional contor pin and drive arrangament. Maybeck teo 1 Th ployer ar shonger.


"LONG LIFE"

## TAPE RECORDER

 MAINTENANCE KIT CIEANET L LUERICANT 1.50The "Lang life" hit contoins both o cleaner ond lubricant for tape recorder heads and guides. The cleaner dissolves grease ond grit, removing foreign motter from hoods and tape, while lubricant reduces friction to a minimum. Rocordings have greoter elority and better frequency response. Brushes con PK-103-Recorder Cliooner ond Lubricant Kit...........iet 1.50


## STERADAPTER

Convert Your
Recorder to Binaurol Playback

Permils full-fidelty ployboct of "in-line or stocted" phonic fope recordingi. Quick, asy installotion using ordinory toals. Designed to ft almast all popular make tape recorders. Firs only recorder having mounting room on side of case ond a clear passageway for lape to travel across the foee of the deck (See Illustrotion). After Installation, one chonnel plays through your present recorder and secand channel ploys through ony other amplifier system hoving a preomp. If your system does not hove a preamp, you will require preamp listed below MODEL 4902 Doctron 2 Chonnel Steradapter.....Not 22.46 MODEL 4501A Doctral 1 Chonnel-Transislor Booster Preamp with volume control .............................Net 18.37
CONVERSION UNITS FOR VIKING To converi Viking to in-ing stereo. Contoins hood, hardwore and new capstan cover
MODEL 4800
2 Chonnel tronsistor preamplifier VIKING MODEL 4502
29.35

## TAPE RECORDISTS KIT



A handy assartment of mast essential ilems for the tape recording enthusiast. Contains PK-103 Long LIfe Cleoner and Iubri. cant hit, Cousino tape splicer, Flahon tope threader, $190^{\circ}$ roll $1 / 7$ splicing tope 150 ft , pall leader-timer lape, and pocizage of $127^{\prime \prime}$ olfo-glance cetaloging indexing discs. Shpg. Weight $3 \mathrm{lbs}$.
MS .372
4.69


REEVES SOUNDCRAFT
"PLUS 50" AND "PLUS 100"

The new Dupant Mylor plostic, in base playing time on the same size reel. Yau can now record on entire sym. phony on a single reel. Elfminating annoying interruptions. All on plastic reels except is Aberglas with filled center, $5 / 16^{\prime \prime}$ hale.

| REEVES NO. | $\begin{aligned} & \text { REEL } \\ & \text { SIZ } \end{aligned}$ | LENGTH FT. | LIST <br> PRICE | NET EACH |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | SINGIY | In Lots of 10 |
| PL.9 | $5{ }^{\prime \prime}$ | $900{ }^{\prime}$ | 3.50 | 2.33 | 2.10 |
| PL-18 | 7" | $1800{ }^{\circ}$ | 6.00 | 4.00 | 3.60 |
| XP-12 | 5"' | $1200^{\circ}$ | 4.75 | 3.17 | 2.85 |
| $X P-24$ | 7" | 2400' | 8.50 | 5.67 | 5.10 |
| XP-520 | 104/8" | $5200^{\prime}$ | 21.00 | 14.00 | 12.60 |



## COLOR CODED <br> AUDIOTAPE

$11 / \mathrm{m}$ mil acetote bose is calor coded for easy identification to locote specific recordings, etc. Same high qualiry os unealored tapes. On olostic reols.
COLOR BLUE LENGTM TT. REEL
NETEACN

| 6516 | 6518 | $600^{\circ}$ | $5^{\prime \prime}$ | 1.55 | 1.43 |
| ---: | ---: | ---: | ---: | ---: | ---: |
| 12516 | 12518 | $1200^{\circ}$ | $7^{\prime \prime}$ | 2.40 | 2.23 |

## SHURE RECORDING HEADS



Holf track (upper troch) replacement heods for tope recorders. All ore high limpedonce ereept in low. Type th5s equipped with
Cinch plug ond $14^{\prime \prime}$ insuloted leads. Averoge shpg. Wt. $1 / 8 \mathrm{ib}$. SHURE FIG. FUNCTIONS REPLACEMENT HOM HIST NET
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IISH A EECORD.

116 B RECORO.
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PIAYBACK ERASE PIAYBACK erase playback playback ERASE BELI RT-65 REVERE TIOC, TR200 SHURE TES, TRSH evere TSOO, TE000 TAPEME TS00, TR600 TAPEMASTER TH21. AMPI, PTI25 730,731 MASCO R.3. M. 60 SHURE TRGC RCA SRT-403, 402, 401 WILCOX GAY 3All SMURE TEIGA REVERE T. 700 . TR 800 , TR. 20 wilcox gar 3alo. wilcox
24-104
15.00 .
15.0
$12.00 \quad 7.06$
$9.00 \quad 3.20$ playback
$17.00 \quad 10.00$
$\bigcirc .00 \quad 5.29$

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|  | A selection of the finest stereoph All brand now | ic recordings of money-saving pric foctory fresh stock. | minam er 2, th |
|  | CAPITOL MERCURY WESTMINSTER - SONOTAPE <br> For Stocked/Inline heads only  <br> Intro To stereo For Stacked/Inline or Sraggered <br> Specify Which    |  |  |
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# CONCERTONE $33^{11 / 3} 12^{\prime \prime}$ LONG PLAY RECORDS 



## 

 and maintemance of yaur recards and record playing equipment-and all at a cansiderable sovingl The items contained in this kit make possible a thorough check af the operation of your furntable ar recard changer ond examine the condition of your stylus and recard groaves. A well writion authoritative 25 page boak provides vau with expert information pertaining to the care of your recardings. Shpg. wt., 6 lbs.

1- 75 power microscope with needle groove; 1-Clarkston Pressure Gauge; 1-Anti-static sproy and opplicator; 1-Polyfoam turntoble mat; 1- Lovel for turntable; 1- Resord cloth; 1- Clip-on meedle brush; 12- $12^{\prime \prime}$ Polyethylene record sleeves; 15-10" Polyethylene recard sleeves; 1-Stroboscope card; 1- Book on the care of records.

Priced right, you save 2.72 an this kif.


## LEGEND





## Wole $w-22$ $w-5$ $w-2$ $w-2$ $w-2$ $w-3$ $w-3$ $w-3$ $w-3$ $w-3$ $w-3$ $w-3$ $w$. <br> 

 TOR AMERICAN MICROMHONE CARTRIDCES 185 W－3AGGS
W－3MGS
$w-4$
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W．SAGS

CR5，CR6，CRT
$105, \times 100$
OR ASTATIC CARTEIOGES

## w－as

$w-65$
W－Ghes 87 IT－A－D－IM，LTAAG，IT－4．78， 1.47
W．75 88 Nylon $1 J$, Nylon $1 \mathrm{~m}, 36$
 w－25A
$\qquad$ （811
B11 15L3．DM． $1513-\mathrm{DMB}$

w－30s CI PT，60－3M，66－3

on．

Cartridge
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409416
409A15－2
409A13．1
$409 A 14,40915.1$
409A14，40915－1
$409 \mathrm{~A} 11.98454-1$
409413.09413 .2
409819－9，409A300
409A17

| $17.1 \mathrm{M}, ~$ |
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| $60.3 \mathrm{~m}, ~$ |
| $06-3 \mathrm{~m}$ |

$\left(\begin{array}{l}82 \\ \text { CAC－AG，CAC．D，CAC．DJ，} \\ \text { B2 CAC－1，CAC－AGS，CAC－1I，} \\ \text { B2 } \\ \text { CACI，CAC－X，CAC－78，}\end{array}\right.$


 82 44－jx，40．3，48－1，
82 4TB，403，403－J．
2 62T，＂62TY＂62－5．
 83 GC－78， $51-1,51-2,51-11$ ， $31-21,51-31,51-3$ ， $53-1,53-11,53-21$, $\begin{array}{lll}3 & 53-31, & 53-3, \\ 39 & 59-1, \\ 3 & 59-1,50-7, & 59-91\end{array}$ 3 59－1，59－2J， $59-3 j$ ， 3402 m ．
U，U－78，U－1
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85 1013．1013－1，1013－m， 1113. 5 1113．J， $1111 \mathrm{M}, \mathrm{M}, 310 \mathrm{TS}$ ． $510 T A, A C O, A C D-C, A C O-J$,
5 AC，AC－C，AC．R，AC．AG－J 85
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## 劭


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## OR ELECTRO YOICE CARTRIDGES

$\begin{cases}01 & 14,145,1454,20,22,34, \\ 01 & 345,44,445,46-461,47,\end{cases}$
D1 345，44，135，43－431，43， DI 74，745，13，33，33－2，
D1 33．4，3jB， $335,33-52$,




W－22Tes D2 16， $16-\mathrm{T}, 16-0,16$－OTT， $16-5$ ， D2 $16-3,16.5,20$

FO：GENEAAL ELECTRIC CARTRIDGES W－675 E1 RPX－040，RPX－041，RPX－042
W－67MGS E1 RPX－046，RPX－061，RPX－063

## W－ $\mathbf{w}-\Delta$ $w-6$ $w-8$ $w-6$ $w-$

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# LAFAYETTE DIAMOND \& SAPPHIRE STYLI 

## ALL DIAMOND STYLI ARE NOT ALIKE pUll 1 year guaranter

- made from whole diamonds - precision ground and polished carofully sieved and selected for praper size. Especial core is taken so thot the groin structure ls praperly oriented vertically and edgewise to use the most wear-resistant surface of the diomand. They ore ground ond pollished ta olmost unbelievoble tolerances ond smoothness ond shodawgroph tested. With a Loforette diomand stylus you both preserve your records and pay less per playl
G.E. Curliidges

FOR GE "CLIP-IN" CARTRIDGES

MODERNIZE YOUR OLD TRIME-MAY CAR-
TRIDGE TMESE ASSEMBLIES REPLACE BOTM THE
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YOU CAN REMACE ONE POINT AT A TME.


Here't now cenomy in a replocement for the old GE PPJ-013 and the new RPJ-013A duol strlus. No need to throw eway the on. tire unlt when one palnt is worn. With this type, you can replace either the dlomond of sopohire epporotaly: The replocement simsopphire seporoiely. Complate assembly ply slides info place. Complate


## DIAMOND AND SAPPHIRE CLIP-IN STYLI

Individual styll replocements that clip in to oll GE " $A$ " series. PK-70 Diomond 1 mil (IP) reploces GE RPJ.010...Not 6.75 PK- Sop Sophire I wil (IP) replocen GE RPJ-015....Net 1.25 PK-68 Sopphire 3 mil (78) replocer GE RPJ-035...Net 1.25 STYL FOR OLD TYPE GE CARTRIDGES
Exact replacement for all old troe single medie GE cortridges. PK-31 Diomond 1 mil (LP) replacen GE RPJ-00e.Ner 6.75 PK-16 Sopphire 1 घill (LP) reploces GE RPJ.005...NA 1.19 FX-15 Sapphire 3 mil (78) reploces GE RPL-001_Not 1.19 DUAL DIAMOND
For old ype GE cortridges not using dip-in tips. Hes diomond IP and diamond 78 points.
PK-32


## LAFAYETTE DIAMDND STYLI FDR PDPIJLAR CARTRIDGES



Fig. A. For Atotic cortridges LQD, LQD-1, QT-33.J, OT-33M, CQ-J, CQ-M CAC. with Fik. E. For RCA cortridges 9890, 38453, 38598, 74087, 74625, 75575, 75967, 75976, diamand tip for $331 / 2$ and 45 mpm .

## PK-12



Fig. B. For Aatetic cartridges AC-J, AC-M, AC-CJ, AC-CM, ACD, 1013, 1113. with diamand Hip for $331 / 3$ and 45 rpm .
PK-129 $\qquad$ 76318. With diamond tip for $331 / 2$ and 45 rom .

FR-132
.Net Eoch 5.95 Flg. F. For Ronette cortridges TO-284-OV, RA-284.OV Webster Electic cortridges A-103, A.201. With diomond tip for $331 / 3$ anc 45 rpm .

Fig. C. For Astatic cortidoer GCD, 55-T S5.TI, CA cortridoe 100329 Twin diomand $331 / 3$ ond 45 , sapphire 78 rpm .

PK-127
....Not Eoch 5.95
Fig. G. For Shure cartridges W22A, W22AB, W21A, W21AR, WC22AB, P72V, PT3, P7oV. P77, PCA1V. Admiral 409A11, Webstor Electic F-11, F-11-1.

Fig 6.95
Fig. D. For Magnavox cartridges 5601334-4, 560153. Twin-tip-diomond $331 / 3$ and 45. sopphire 78 rpm

PK. 133
....Net Eoch 5.95 TM-135

## WALCO DIAMOND STYLI

Finest quolity diomand and diomond-sopphire noedies. Type numberi ending in DS hove both o diamond 1 mII (LP) and sopphire 3 mil (78) points; ending MGD ore single 1 mil (LP) styli; ending AGD are single 2 mll strll for both IP ond 78.

## HOW TO SELECT STYLI

Type numbers shown below ore identical lexcept for letters of end of eoch number) to the Walce sopphire type numbers shawn an focing poge. Column below hooded "Fig". refers to llfustrotions on focing page. Choose the type no. from the focing page that malctios your requirements ond then convert it to the number below by changing the ending letterr.

| melce me. | Ph. | Mot | Wence Mo. | 4. | not |
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| W.2MCO | 08. | 0.38 | W.7smes | $\mathrm{Cl}_{1}$ | 9.7 |
| W. 30med | 61 | -18 | W-mbs | m | 8.87 |
| w-34M60 | 19 | 0.7 |  |  |  |
| W.35es | 14 | 9.30 | eca |  |  |
| Astatic |  |  | W-5Met | 3 | - $0^{\text {a }}$ |
| W-2mes | \% | 9318 | W-tos | $\cdots$ | 0.18 |
| W.3MED | 13 | 0.7 | W-2y-so | 11 | - 37 |
| $w$-fine | 4 | 㽚 | W.30wes | GI | . 38 |
| W.sweo | 35 | 2.18 | W.12M60 | 12 | 0.30 |
| $w-w \in 0$ | 9 | 0.7 | $\cdots$ - $W$ Hed | 12 | 0.7 |
| W-us | ** | 0.38 | $w-4 \mathrm{mec}$ | 14 | 6.7 |
| W-19Mco | 417 | 0 | $\omega+7 M 60$ | ${ }_{4}$ | -. ${ }^{\text {\% }}$ |
| W.37w $w$. | ${ }_{17}^{17}$ | 8. 3 | w.7508 | ${ }^{\text {m }}$ | 9.73 |
| w-buco | c | 2.79 | w.rres | 0 | 9. ${ }^{7}$ |
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| W-21ucs | 01 00 | 6.78 | m-ameo | c |  |
| magmavor |  |  | Shuel |  |  |
| W.3303 | 4 | 8.97 | $\omega$ W- 30wed | $\mathrm{c}_{1}$ | - 3 |
| W. 3803 | 4 | - 30 | W-3imeo | 11 | 2.3 |
| W. 5208 | 1 | 9.97 | W. $\mathbf{W} 1103$ | 14 | 9.77 |
| m-7mes | 9 | -. 07 | w. 3503 | 4 | -. 30 |
| s0s | m | Q. 07 | SOMOTOM |  |  |
| milco |  |  | W-3mes | 4 | - 7 |
| w-4swas | 62 | 0.9 |  | 4 | 9.77 |
| W-4085 | 63 | 9.38 | m-70360 | m | - 30 |



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ROsETTE 3 SPEED PICKUP
-TURnOVER CARTAGE


A Ane plectup with the famous fonelte high out. put 12.2 volt) turnover cortridge complete whit h modulation distortion of leas than low inter hole mount. Shoe. wi.. I Ib.
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cartridges cotiaplete with styli.
ADMIRAL A174s. Improved version of A1372. 3 -prong snapin type replaces both numbers. For Admiral changers models RCi70. RCi>OA. RC180, RC181 and RC182. Complete with 78 RPM osmium needle. ADmiral No. Alias.
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Net 6.20 ADMIRAL 409 A13-1 repiceced br 409 Al 7 boles All speed single needle carriage for motels RC 500 , RC SSS, RC 550A, and RC 600. Complete with osmium needle. ADMIRAL Mo. sovait.

## Regular 8.50

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## HIGH FIDELITY TURNOVER CARTRIDGE -40-14.000 Cycles

Never before hos a turnover cartridge of this quality been offered of such
 a price. We didn't believe if positible vil we Hied it. Frequency response fem 40 to 14,000 cycles $2 d b 1$ Mon 2 zopphire sty id fo ploy ell spends and pe of records. Needle pressure is only 5 grams on Ip and 12.15 rom on 78 mpm . Output is .5 velum. Comes complete with turnover mechanism and knob. Fin Webster, Goriord, VM, Coltore and tom arm of leading monufocturers of record changers and players. This it ono of the mont outtranding volumes lofovetto hew ever othered. Yew cont match it oapumere. N-79....... In low of J. Each 2.50
simar. Each 2.75
PK-B4... SAPHIRE LP REPLACEMENT MEEDLE........63.


## GOLDRING MAGNETIC



## TURNOVER CARTRIDGE

Entirely unique, and exclusive among the " $500^{\circ}$ s" features is the push-pull coll ar rangement which outomoticelly cancels out inductive hum picked up from the radiation of changer motors and other nearby electrical devices. This feature permits users of the " 500 " to realize the full potential of the verlable-reluctance principle, and at the same time removes any annoyance which is inherent in many cartridges of the mag. metic trope.
The " 500 " will tit any tone arms having standard holf-inch mounting hales; thus it may be used to replace any cartridge without alteration of playing equipment No. PK-137-Cartridge with twa sapphire stylI.
5.75



## MAGNAYOX CARTRIDGES

Geninue Megnavoz erect replacement cartridges Complete with indicated if ll



[^2]
## ON PHONO PARTS

RONETTE HI-FI CARTRIDGE
MADE EY RONETTE OF HOLLAND

### 2.95

USED IN COLLARO CMANGERS. - outpur 7 volts

> Laterotte bringe you this famous high fideling cartridge or une in Collero, Wobster. Garrerd and VM ehangers. Turnover typil equiped fith 2 wpphire strli io ploy oll equeder frequency responm to 9,000 cycles. tpoode. Fequith turnover mochaniom and Compterts mont tone arms of leoding monus. tnob. Fits mon of record changers and players.
> Pex (70-284-OV) each. 2.95


QUANTITY LIMITED 2.75 to in lots of 3 singly, ta.

- Dual Turnover
- 2.2 V oll Ontpur
- Lew intermedulation Distertion

Low intermedulath as less thon Ronette cortridge - such as less thon plus the advantose of high autaver Alf inermodulotion distortion pleste with 2 sopphire styil, furnover I 2.2 valts. Turnover irpe clar typ maunting and size, flis most

In lots of 3, Each 2.75 Singly 2.95 .

Phono Cartridges 3.5 volt output Guaranteod high quality exect duplicates for direct replacement of all standard cartridges such as L70, L82. 192. W6OB, N10, and many others. Pin plug connectors
for all 78 r. p.m. LIST PRICE $\$ 5.50$
STOCK NO PK. 11
1.29



## SONOTONE 2T-S <br> (SUPERSEDES 9980-5)

 Turmover coramio cartidge aEplaces ASTATICAC. ACD, CAC. GC, LQD ELECTRO.VOICE $16 \pi, 33,43$. 46T, 967

## SHURE

WC Series from WC22 to WC36. W22, W26
WEBSTER ELECTRIC AX, A1, A9.1

## Uses in VM-C

With Dual Sopphire Needles
cortridge that is not only on exoct re
 will replace o lorge number of other rypestended ive you such hl -fl characteristitortion for befrequency renge and absence of dive all with the frequency cortridges it replaces from humidyond most contoges of ceramic sofety rom humian ity ond heat. Hos 1 mil stylus hor both sapphire. records ond 3 mi SPECIFY STOCK NO. PK-40 in lots of 5 , oach. $\qquad$ 3.75

- Dual Preclous Metol Needies
- Ceromic Element-Safo from Humldity ond Heat Thls populas Astotic Cartridge is complete with 2 styli, turnover brocket ond knab. To protect your sensive tip; records, the LP needie hos 78 r.p.m. has the standard needle coramic element is .003 tips. Long life ceramic elidity and proctically impervious to heot.
Stock No. PX-41-In lots of 5, each .. Singly, each


## REPLACEMENT

FOR RCA CHANGERS
EXACT REPLACEMENT FOR ALI RCA O5 RPM CHANGERS AND MOST ALL OTHER 33-1/3 and 45 PLAYERSI autput avality replocement cortridge with on ment for the hundreds of is on exoct reploceRPM changers, as wall thousonds of RCA 15 "45. "changers, os well as thausunds of ether 45 ployer mode. And ployors. Fits almost every PK-122
3.50

Not 3.98
..Not


QUANTITY LIMITED
1.65


## ZENITH COBRA CARTRIDGES

## all zonith cortridges are idontifiod by

 alar. Juyt match color to gel ersat Gold lacoment - Diamond cartide. Gleces will replace greon, blueblue grey repleces brawn.


COBRAMATIC CMANGERS Zenith $\$ 22000$ spindle fits all models "Cobro and other changers, and eliminates use of spidelar matehes ony devices to insert in records. Natura one. unit. Simple instructions with each one. ZENITH S22006

NET \begin{tabular}{l|l}
1 mil-Ormium \& 2.79 <br>
\hline 2.79

 

2 mil-Sepphire \& 2.79 <br>
1 mil-Sepphire \& 2.79
\end{tabular} 1 mil-sepphire 1 mil-Diamond 2 mil-Sapphire mil-Sopphire

mil-Sopphire | $3.9 t$ |  |
| :--- | ---: |
| mil-Diamiond | 15.98 | $\left\{\begin{array}{l}\left.1 \begin{array}{l}1 \\ \text { mil-Sepphire } \\ 1 \\ \text { mill-Sepphire }\end{array}\right\}\end{array}\right\} \quad 5.9$ $\left\{\begin{array}{l}1 \text { mil-Diamond } \\ 1 \text { mil-Seoohire }\end{array}\right\}$ 17.98

## PHONO CARTRIDGES - Astatic - ElectroVoice

TURNOVER TYPES
All are equipped with dual sopphire styli; 1 mil (LP) and 3 mil (Sid78).

STANDARD GROOVE TYPES Single needle troe for STD(78) only Type marked thave sopphire 3 Mil styll, $f$ hos osmium stylf; others les needle.

## New No

ASTATIC CARTRIDGES
 Ne
3.26
2.94
2.9
2.94
3.23
3.26
3.91
3.26
3.53
5.23
4.41
5.23
4.35
4.12
2.9
4.06
4.41
4.4 ES
ALL GROOVE TYPES All equipped with single 2 Mll sop phire styli for all speeds except
is Omium tip ond $\$$ is less needle is Omium tip ond $t$ is less needle.
Now No. Old No. Fig. Net
Nos.


## ASTATIC SUBMINIATURE CARTRIDGES

## SHURE CARTRIDGES

 "ace
 orm record VM, Philce efc. With dual sap. No. 118 s .......Net 3.81

MICROGROOVE TYPES All with sopphire 1 mil shrii for LP only.
Now No.

| New N | Old No. | Fig. | Net. |
| :---: | :---: | :---: | :---: |
| 40-1 | AC-J | A | 3.82 |
| 42-1 | AC-R-J | A | 5.23 |
| 44-1 | CAC-J | 0 | 4.41 |
| 50.1 | 0.J | M | 5.69 |
| 51.1 | 51-1-J | 0 | 4.35 |
| 53-1 | 53-1-J | Oo | 4.35 |
| 62-1 | 62.1-M | 0 | 4.12 |
| 66-1 | 66-1M | H | 4.12 |
| 408 |  | 0 | 3.77 |
| 414-1 |  | - | 3.80 |

AC.AG-J AC-C-AG-J CAC.AG-J
$51-2-1$
$53-2-1$
$53-2-1$
$59-2-1$ LT4-AG 66-2M

Net 3.81

## ASTATIC PICKUP CARTRIDGE SERVICE KIT \# 1

This new service kit contains 36 corfridge production parts in-
cluding knobs, springs, screws, spocers and other special hard. ware which simplifies the service and replacement of pickup cortridges. A must for anyane working with cortridges. Saves delay, annoyance and expense when these small sperlal parts are needed, for which there is no regular source. ASTATIC KIT \#1..........Nef 1.15


NEW POWER POINT PHONOGRAPH CARTRIDGES Power Polnt is a tolaliy new eonrept in phonugraph iransducern, combining integrally both record wear. Listua two sapphire playtng tha connected directly to the reramic element this unlque design rexults in high rompliance with excellent traching absity. After quick



FOR 45 AND $331 / 3$ RPM Moded St-2 ['owir Point eartridge only. lifs. Ner 3.10 PDealer Net 2.32 FOR 76 RPM
modet 53-3-Power polnt captridge only. biselt nylon rase. With tro $003^{\circ}$ napphire clus. Net $3.10 \quad$ Desler Net 2.32 Fixed, turnover and turnunder merhanams heve íp and mountink hole centers. Alt nerewsary hartwa
Mod ef PFF-1-Fixed mounting merhanism. Accepts nny model Power Point cariridge Net 39 Dealer Net 29 mounsing mechanism. For ump with dodels mounsing mechanism. For ump with hodels
sa and shis Power foint certidsen. Net Dealer Net . 59 momatine -2 - lever-Betion turnunder ard curnunderisnism. Replacem all miandMonels 56 and sarifidgen. For use with ridetw. Net . 78 - Dealer Net 59

FOR S5. $331 / 3$ AND 7 日 APM Modet $52-2$ - Power Pulnt rariridge only
Greven nylon case. With iwo $0024^{\circ}$. Ghtren thylon Net 3.10 With iwo Desler Nite 2.32 pedel se fower point rartriage only. Blue nylon rase. One dol salphite do
and one Nos sapphire ilp.

Net $3.10 \quad{ }^{\circ}$ Draler Net 2.32 Modet 560 s-Power Point rarridgee only diamond $U_{D}$ and one .003 ${ }^{\circ}$ apphire urai

EXACT R PLACEMENTS FO WHACOR FONOGRAFS
Moded 76Ds-Turnover rartridge, only
 Net 15.68 Healer Net 12.64 Whit 763 -Turnoyer cartridye only. White plastic raw. Wien one $001^{\circ}$ map-

$\qquad$

## WEBSTER ELEC. RETRACTOMATIC CARTRIDGE

Spring maunted high output crystol cortridge. Has 2 mil asmium stylus to ploy all speeds. Output $5 V$ on 78,2 valts an $1 P$. WEB ELEC NO. P 2-1

# VALUE PACKED PICKUPS 

## NEW! MODERN 4-SPEED TURNOVER PICKUP

### 2.45

- $21 / 2$ VOLT OUTPUT
- turnover crystal cartridge
- OVAL SAPPHIRE
- 4D-12,000 CYCLES

A terrific valuel Modern plastic straight-line design with offsel head and turnover $21 / 3 V$ crystal cartridge with dual sapphire styll. Stylus pressure odiustoble by variable sping tension. Finger lift for ase in hondling. Overall length $81 / 2^{\prime \prime}$. Height fram base ta bottom of arm $15 / 16^{\prime \prime}$. Simple bose maunt with $11 / 4^{\prime \prime}$ spaced mig. hales. Shielded leads. Smaoth gray finish plastic arm. Shpg. wt. 2 liss.
PK-157
Not 2.45
PK-158 sapphire iP replacement needle ....Not . 69 PK-159 sapphire sid. replacement needle ....Net . 69

## 4-SPEED TURNOVER HIGH OUTPUT PICKUP

### 3.75

## - DIE CAST METAL ARM

- 3 VOLT DUTPUT
- turnover crystal cartridge
- DUAL SAPPMIRE STYLI
- 40-12,000 CYCLES
A die cast metal orm with o wide range cartridge that has on unusuolly high output of 3 Valts. Turnaver type with dual sapphire styli. Simple single hale mount. Attractively decorated design. Arm is finished in baked maraan enamel. Overall length $81 / 2^{\prime \prime}$. Shpg. Wt., $21 / 2$ lbs.
PK-89 singly, each

|  |  |
| :--- | :--- |

## NEW! 4-SPEED HI-FI TURNOVER PICKUP



- FREQ. RESPONSE 40-13,000 CYCLES
- OUTPUT T1/2 V
- ADJUSTABLE HEIGNT
- TURNOVER CRYSTAL CARTRIDGE
- DUAL 5APPHIRE STYLI

This is a feoture packed pictup. In addition ta the furnaver $11 / 2 V$ wide range crystol cartridge with dual sapphire styll, it has on adjustoble bose so that height from base to bottam af arm can be varied fram $11 /{ }^{\prime \prime}$ ta $1.9 / 16^{\prime \prime}$. Stylus pressure adjustable by variable spring tension. Finger lift pravides easy handling of arm. Curved and straight lines are cembined in on unusually attractive desion. Plastic arm $91 / 2^{\prime \prime}$ long unusually ottractive design. Plastic arm $91 / 2 \mathrm{~m}$ lang overall. base $13 / 4$ w with mig . hales an $13 /{ }^{\prime}$ centers. Shielded leads. Satin smooth bright maroan finish. Shpg. Wt., 2 lbs
PK-146 Nef 2.75
PKN-158 Sopphire $1 P$ replacement needle ......Net . 69 PK-159 Sapphire STD replacement needle ....Net . 69


A really delume high fidelity pictup at a really law price. Wide range lurnover erystal cartridge with dual sapphire styli has output of 1 volt. Variable spring tensian adjusts pressure on $1 P$ ptylus. unique feature automatically increases pressure properly far the standard (78) stylus when cortridge is turned over to change needles. The height fram base to bottom of arm is adjustable fram $1.3 / 16^{\prime \prime}$ to $11 / 1^{\prime \prime}$. Swivel base is maunted an bearing for extra smooth easy mavement. A remavable trip lever is supplied in case you wish to trip o switch for automalic stop. Finger lift pravides ease in handing arm. Overoll length of plastic orm is $11 \%$. Sase $1 \$ / /^{\prime \prime}$ dlameter with 3 mounting holes. Finished in gleaming black with gald Irim. Shpg. wt. 3 lbs.

| PK-165 |  | Nel |
| :---: | :---: | :---: |
| PK. 166 | Sapphire \&P replacement needle | Net |
| PK-167 | Sopphire STD replacement need | N |



PROTECT YOUR RECORDS WITH PLASTIC COVERS
YOUR COST PER PACKAGE
Soft plioble plastic covers to protect records from dirt dust and moisfure. Avolloble in square beaded boltem to $\mathrm{fi} 7^{\prime \prime}, 10^{\prime \prime}$ $10^{\prime \prime}$ and $12^{\prime \prime}$ records without fackets. Shpe. wt., $1 / 3 \mathrm{lb}$.

PK-117-Pockope of 3017 Squore Jocket Covers Met PK-118 - Poskope of 40 10" Squore Jocket Covers PK-119 - Poctoge of $507^{\prime \prime}$ Square Jocllat Covers PK- 120 - Pochope of $3012^{\circ}$ Raund Record Covers Ni 1.49


## PLASTIC COVERS FOR CHANGERS AND

 TURNTABLESHeary vinyl covers to pratect changers and turniables from dust, dirt and moisture. Reinfarced stitched odges. Shpg. wt., 6 oz PK-153 for all recard changers. Net . 89 PK. 154 for purntables Net 1.29 ISOLATION PAD
Foam pad fits under changer or player bases, recorders, etc. Protects Jurniture, helps reduce ocoustical nolse. One side corrugated for no-slip. $16 \frac{1}{2 \prime \prime} \times 13 \frac{1}{4}=$
$3 /{ }^{\prime \prime}$ thick. Shpg. wt., 2 lbs.
PK. 155
PK-155

## WIRELESS PHONO BROADCASTER <br>  <br> - play your phonograph

 through your radio WITHOUT CONNECTING WIRES Campletely wired oscillatar permits playing ony recard player with erystal carfeet away without wises. Simple to apfeet owgy withou wires. Simple io apof oscillator tune radio ta any spat be of oscillator, fune radio ta any spat boween 1100 and station and adjust asciliofor to this frequency. 110 V AC. $47 / h^{\prime \prime}$ W $x 41 / s^{\prime \prime} \mathrm{H}^{2}$ $3 \%$ "D. Camplete with antenno, an ooff switch and instructians. Shpg. wt., 3 lbs. F-290RNOVER CARTRIDG

- AUTOMATIC STYLUS PRESSURE ADJUSTMENT
- adjustable height - bearing mounted base
- output I volt - turnover cartridge
- DUAL SAPPHIRE STYLI OPTIONAL TRIP LEVER


## Phono Oscillator \& Amplifiers

## PHONO OSCILLATOR

### 4.95

For use with ell types of phonos Compact, well-built unlt, tuned within broadcast band. Com. plefely wired ready for use Supplied with RCA type phono Supplied with RCA type phono fact: I-128es and I-35W4 fubes, hank ontenna, ${ }^{\circ} \mathrm{A}$. AC cord. For $l l 8 V$ AC/DC opera.
tion. Shpg. wt. epprox. 2 lbs. tion. Shpg. wt. epprox. 2 Ibs.
PK-25............................... 45

2-TUBE PHONO AMPLIFIER 3.95 with Tubes

a wo Aina a 5066 sind 3535 tube or Aind
 Hone and voluma Molum
PK-24-7wo tubo
amplifier
3.95

COMPLETE WITH TUBES

AC-DC Phono Amplifier


## PHONO MOTORS ano ACCESSORIES



## BUILD YOUR OWN RECORD PLAYERS

110V AC 4-SPEED KIT
 motor and flacked turntable. Ploys $78,45,331 / 3$ and $16 \frac{1}{\mathrm{~h}} \mathrm{RPM}$ records. A 2 fube AC.DC amplifier with seporate fane and volume cantrals, o $5^{\prime \prime} \mathrm{PM}$ speoker with matching output transfarmer, o crystal pickup with furnaver cartridge and dual stylf, and fubes. Shog. wt. ibs. K1.53.

## 3 SPEED BATTERY KIT


 K1-54.



Plays $16 \frac{1}{3}, 331 / 3,45$, and 78 RPM recards. Quier dependable aperation assured by rubber shack.maunted fricfion lype motor. Speed change cantral permits instantoneous meshing of proper ider far desired speed. Mount. ing centers $41 / 3 \times 33 \%$. Depth below base maunting plate $21 / \mathrm{m}$. For $110 \mathrm{~V}, 60$ cycies AC. Shpg. wt., $31 / 2 \mathrm{lbs}$. Stoct No. ML-24.

Net 5.50
No. PK-149_Mounting Board for Motor..........Nel . 95


## RGA PHONO SWITCHES

FIfITCHTYPE 240XI RADIO.PHONO SWITCH. Uied to operate record piayer through radio sets without phono inputs Protides changevser Prow radio we phano $15^{\prime \prime}$ shielded cable. plug. jacir and Instruc. thona. RCA $240 \times 1$-Llet $\$ 1.85 . . .$. .. NET 1.47 FIGEETYPE 202 wl EELECTOR SWITCH. Used to operate 2 record players through one radlo set or amplitior, as when siding a 15 RPM plaser to eo existing radso-phono. Quick essy changeover froum one dlayer to the other. Mounts on rear of plusi. ete. RCA 202WI-Liet 5.65

NET 3.33


- INPUTS FOR MAGNETIC CARTRIDGES OR MICROPNONE AND CRYSTAL CARTRIDGE
A compact 5 watt 4 tube amplifier for tow powered PA, paging, and phana sysiems. Hos 2 inputs, one for crystal cartridges and a duol imput for clther micrephone or input. Compensated tone contral with on-aff switch is effecitive on both inguts Oufput Impedance is 3.2 ohms. Supplied cemplete with tubes: $2-6 J 6,8 A O 5$ and 6X4 rectifier. for 11 IOV AC operation only. Sise: $9.1 / 2^{\prime \prime} 1 \times 4 \cdot 1 / 2^{\prime \prime} \mathrm{H} \times 4.1 / 2^{\prime \prime} \mathrm{D}$.
Shpg. Wt., 10 lbs.
PA-7


## WIRELESS BROADCASTER

- Pley your phono. greph through any rodle any. where in the house without connecting wires.
- Tult through reur redio by mlerophone.

tofoyette", new witeless broadcastor will extend your eniarment of yaur phano
groph to every room of the house that has a radio. After connecting the phono you simply tune in on the rodio lust the ony podio atotion. Frequency adiustoble If will nat interfere with regular broadcasts.
Has provision for erystal. G.E. and magnetic cartridges. Also hat input for braadcast yaur voice through the radio. Estremply quiat ond dittortionies.
Plenty of power. Circuit har 125C7. 12Sk7GT tubes plus selenium rectifor. Valume $51 / 4 \mathrm{D}$ : $11 / 2 m \mathrm{H}$. Shps. Wi., 4 lbi . Completely wired and osiembled with all W and operoting Initruclions. For IIOV AC/DC operation.
14.14

NET 9.75
A. 24 Crvital micraphone NET 4.25

## SHIELDED

 PHONO LEADS40 " long shielded phono cable. Overall Polytheylene insulation. Ideal for phono connections or for testers. ms- 10. In lots of 10
met 27c ea
$24 c$ ea.

LIVING LANGUAGE COURSE

$\rightarrow \infty=3$ TRENCM ITALIAN GERMAN SPANISH
Look what you gell 40 expert lessons recarded an 4 LP recards. A conversatianal manual that repeots each recorded lesson in print. Yau can both heor and see all the wards! You benefit frem the double impoct of sight and sound ... learn faster, retain the lessons bettor. Asa included is a Common Usage Dictionory that lists aver 16,000 frequently used wards and phrases, transloted from the foreign tonguage you choose inta English and vice.versa. You con grosp them of a glancel Entire Living Language Course consisting of 4 records and 2 books. Shpg. wr., 4 lbs.
PR-11 (Specify Longuage Desired).

## LISTEN AND LEARN <br> TRAVEL COURSE <br> FRENCH GERMAN <br> TIALIAN SPANISH

A language caurse designed for the busy odulf with limited time, wha wants a last practical caurso on common canversotion Gives in spoken and written form the bosic sentences, phrases and vacabulory for almast every travel situation. Does not ga inta grommatical structure ar canjugation of verbs, but cancen trates on proctical everyday usoge needed when frovelling. Consists of $3-10$ inch $331 / 3$ RPM recards spaken by professors of language from Calumbio. N.Y.U. and ather colfeges, and a 128 page poctet size monval that can be carried with you. 128 page pocket
Shpg. wt., 4 lbs.
PR-12-Specify languoge desired
3.98



Single prong shielded plug useo extensively for mike or phono pichup, other connections. Phono fock mounts in rear of panel through $\%^{\prime \prime}$ hol and is $t^{\prime \prime}$ betwoen centers.
K1-49 10 Pair
Ms-167 Plup Only Ne........Net . 79 MS-167 Plug Only Net eo. . 05

## SOLDERLESS

PHONO PLUG


For phana and coox cables. Pin contocts center canductor, tab wraps around shield.
MS-373-Lots of 10 .
.35
.38


\title{

Star Values in Phono Accessories


Designed for cuatom inalelle. tions of record changert in boolrcases, cabinett, tebles, ete. Mads of duroble ply. wood and equipped with heery duty ateol slides which operete amoothly and quietly on bafl-bearings. Stides ontend drawer up to $10 \%{ }^{\circ}$ beyond edge of cobinet. Supplied sither blank of cut to your spocifications. Unfinithed
-ood pormith your peinting to suit your own decor. Size
 Nx-47-blonk Net 6.95 Some as above. cut to your ipecificetions. Specify meke and model of
M-4 - eut

\section*{WOOD BASES FOR

## WOOD BASES FOR RECORD CHANGERS

OOR RECORD CHANGER


\section*{COMPENSATOR

## COMPENSATOR for G. E. CARTRIDGE Deigigned for us with G.E reluctonce cartildget and proamplifiers. Good 7 and Poor 7. No circuit loss is produced by wite of equal. izet. A must where greater bats and troble reiponie is desired. Flat position gives meximum high tre quency response. No hiring tre quired-iust plug in. With lead and <br> 

Strong, duroble $1 / 6^{*}$ gumwood, smoothly sonded and cut out for Gorrard, Webcor, V-M, Collare, Unfinished for eosy stoinling. Specify for particular model chonger desired. Shog. wt., 1 lb. PM-110

Wood boses cult to fit all popular changers such os Garrard, Colloro, Webcer, VM. Efc. Finished in mohagand model changer. Shpg. wt.. 5 lbs. PK- 111 Base for changers, $\quad 3.95$ PK-112 Base for Gorrord T 3.95
glua fust plug in. Wirh lead and
steel We. Mutl NET 3.95
ball bearing heayy duty drawer slides
Made of 16 gauge steel. Sell bearing, doubleistenalon trpe, for mounting changer: Length
 ML-34 $\qquad$


## BALANCED SOUND KIT



- STYLUS PRESSURE GAUGE - TURNTABLE LEVEL

The precision needie pressure goug is compoct and shollow eermitin vie dirstily on turniable to sher Presiure reod directly on seote Presiure reod direcily on sole of aruge. Cosily recalibreied wilh ordinory primary. Nit olso contain occurote morizontel plone of the turntoble. Shpe. Wt. 8 oz
atomic Jewil record neutralizer



|  | Attoches with odhesive pod with brush foc. ing upword. At eoch sycle of chonger orm, neodte is wiped over brush, heeping if ol wors cleon. Helght is odfustoble. Shpe. wi. $5{ }^{2} \mathrm{OXI}$ <br> PK-107 $\qquad$ Not 98s |
| :---: | :---: |
|  | COND DRUSH-CIEANS AS I <br> ap night on tome orm of record plo comel': hoirt cotting lightiv on opi surfoce cloon of lorelign mo دive -oor, Shpg, wi. 4 ox. . 102 |

## LYRIC RECORD RACK

Madel 64. Holds 50 recards all sizes. Hondsomely styled with convenlent hondles, plosticized wire separalon and plastic feet. With index. Shpg. wi., 4 lbs
PK-147.
1 with odhesive pod with bruith foc. neodie is wibed over bruih, changer it ol. wors cleon. Helght is odiustoble. Shpe wi pK-107
RECORD ORUSH -CLEANS AS IT PLAYS colt camel's hair resting lightiy on record Koep1 surfoce cleon of foreign matler, im pK. 302


UNIVERSAL 3-SPEED NEEDLE 29 ea.

## Lots of 10

Over $80 \%$ discount on these fomous brond neodles! Offset shonk with osmlum tip. Ploys oll 3 speeds. On Individual cords with monufocturar's nome. Regular resole $\$ 1.50$ PK-21 .singly, eo. . 39 -..lats of 10, eo. . 29


## RUBY

## PHONO

 NEEDLE
## Synthetic ruby lipped

 needle for chuck type phonogrophs. Offset shonk provides pring oction. Eoch in plostic cose PK-14-In lots of 3, eoch ... 79 Singly, eorh................. 89
## COMBINATION PHONO

 TABLE RECORD CABINET only o beoutiful piece of furniture, but thot hos the functional design to make it reolly use ful. A phonagraph or teoe recorder may be ploced on the amply sized top. The storape space hos o vertical divider for $10^{\prime \prime}$ or $12^{\prime \prime}$ recards or olbums. The horizental divider for 45 RPM records and albums is removable so space con be utilized for flat or upright stasking. Made of high grade beoutiful furniture veneer sturdily and solidly bullt, finely finished and styled. Size $28^{\prime \prime}$ high $\times 221 / 2^{\prime \prime}$ wide $\times 181 / 2^{\prime \prime}$ deep. Whis ib in blonde finish. Specity calor.Less sliding doors.
Universol 13M Cobinet MAHOGANY.... 14.90 Universal 138 Cobinet BLONDE ........ 16.40 Similor to above except with sliding doors 14M Mohogony Net 17.90 148 Blonde Ook
$\qquad$
$\qquad$ Net 19.40

## SPIDERS FOR AS RPM RECORDS



He.4)-Per phes. of 12.
met 264
motel spbect. Wh


RECORD CLEANING CLOTH
Remeves record statlc with
-m whpet Elliminater noises coused by urit in erooves "cllste". Adds months to recond life. Viayl recerde meke stoflc charem - of
Ow wlpe removen ehore Hith i...Net, ea. . 35


# RमलमVING PUBम与 Authorized Distributors 

AAL BOXED TUBES
GE, Syivonia. Hytron come from the tube foctory. We stoct the leading bronds-RCA
12 MONTH GUARANTEE
All receiving fubes are quaranteed for 12 months from date of purchase. We will replace any
tube that does not give efficient performance for a full 12 months' period. This of course does confidence. Dependability is assured by continual and thorough resting of eact you buy with stage of manulacture. Average shog. by. 4 ors., per 10 thbes 21 resting of each tube in every

DISCOUNTS UP $\mathrm{TO} 50 / 10 / 2 \%$

NEW IPPES: Lafayette will outamatically stock oll new trpes. If you don't find the type you noed in
this listing, do not hesitate to order $\mathrm{if}_{;}$w will ship it of our regular low prices.
REPLACED TYPES: When the original type is no longer ovailable we will ship the newer, directly


| $\begin{aligned} & \text { TUBE } \\ & \text { TYPE } \end{aligned}$ | $\begin{aligned} & \text { LIST } \\ & \text { PRICE } \end{aligned}$ | IN LOTS OI <br> 1 to 56 to 4 |  |
| :---: | :---: | :---: | :---: |
| OZ4 | 1.55 | 82 | . 76 |
| OZ4A | 2.00 | 1.06 | . 98 |
| OZ4G | 1.90 | 1.01 | 93 |
| 143 | 2.70 | 1.43 | 1.32 |
| 1A5GT | 2.55 | 1.35 | 1.25 |
| 146 | 3.65 | 1.93 | 1.79 |
| 1ATGT | 2.95 | 1.56 | 1.44 |
| 1485 | 5.70 | 3.02 | 2.79 |
| IADS | 3.90 | 2.07 | 1.91 |
| IAF4 | 3.60 | 1.90 | 1.76 |
| 1AG4 | 2.85 | 1.51 | 1.40 |
| IAM4 | 3.05 | 1.62 | 1.49 |
| 14.5 | 2.90 | 1.54. | 1.42 |
| 14x2 | 2.70 | 1.43 | 1.32 |
| 183GT | 2.60 | 1.40 | 1.30 |
| 184 P | 4.05 | 2.15 | 1.98 |
| 185/255 | 3.50 | 1.85 | 1.81 |
| 1C5GT | 2.90 | 1.54 | 1.42 |
| $1{ }^{1} 6$ | 3.50 | 1.85 | 1.71 |
| 1076 | 3.65 | 1.93 | 1.79 |
| 10N5 | 2.10 | 1.11 | 1.03 |
| $1{ }^{1} 8$ | 4.30 | 2.27 | 2.11 |
| $1 F 4$ | 2.85 | 1.51 | 1.40 |
| 1F5G | 2.85 | 1.51 | 1.40 |
| $1 \mathrm{G5G}$ | 3.30 | 1.74 | 1.62 |
| 1H5GT | 2.45 | 1.29 | 1.20 |
| 1H6G | 3.50 | 1.85 | 1.71 |
| 113 | 2.65 | 1.40 | 1.30 |
| 1J6GT | 3.50 | 1.85 | 1.71 |
| 114 | 2.35 | 1.24 | 1.15 |
| 116 | 2.90 | 1.54 | 1.42 |
| 1LA4 | 3.35 | 1.77 | 1.64 |
| ILA6 | 3.30 | 1.74 | 1.62 |
| 1184 | 3.55 | 1.88 | 1.74 |
| 11C5 | 3.15 | 1.67 | 1.54 |
| 1166 | 3.30 | 1.74 | 1.62 |
| 1LD5 | 3.30 | 1.74 | 1.62 |
| 1LE3 | 3.30 | 1.74 | 1.62 |
| 1LG5 | 3.15 | 1.67 | 1.54 |
| ILH4 | 3.15 | 1.67 | 1.54 |
| ILN5 | 3.15 | 1.67 | 1.54 |
| INSGT | 2.90 | 1.54 | 1.42 |
| 1PSGT | 2.90 | 1.54 | 1.42 |
| 105GT | 3.05 | 1.62 | 1.49 |
| 184 | 3.15 | 1.67 | 1.54 |
| 125 | 2.35 | 1.24 | 1.15 |
| 154 | 2.85 | 1.51 | 1.40 |
| 155 | 2.05 | 1.09 | 1.00 |
| 114 | 2.20 | 1.17 | 1.08 |
| 104 | 2.20 | 1.17 | 1.08 |
| 105 | 1.95 | 1.03 | 96 |
| 146 | 2.65 | 1.40 | 1.30 |
| IV | 2.90 | 1.54 | 1.42 |
| Iv2 | 1.80 | . 95 | . 88 |
| 1v6 | 3.70 | 1.96 | 1.81 |
| $1 \times 24$ | 2.70 | 1.43 | 1.32 |
| $1 \times 28$ | 2.70 | 1.43 | 1.32 |
| 1 $\times 24 / 8$ | 2.70 | 1.43 | 1.32 |
| $2{ }^{\text {A }} 3$ | 5.10 | 2.69 | 2.50 |
| 246 | 2.85 | 1.51 | 1.40 |
| 247 | 2.85 | 1.51 | 1.40 |
| 2AF4A | 3.65 | 1.93 | 1.79 |
| 283 | 2.60 | 1.37 | 1.27 |
| 287 | 3.55 | 1.88 | 1.74 |
| $2 \mathrm{NN4}$ | 2.25 | 1.19 | 1.10 |
| 2 CY 5 | 2.60 | 1.37 | 1.27 |
| 342 | 3.15 | 1.67 | 1.54 |
| 343 | 3.05 | 1.62 | 1.49 |
| 348 GT | 5.00 | 2.65 | 2.45 |
| 3AF4A | 3.65 | 1.93 | 1.79 |
| 3 AL5 | 1.70 | . 90 | . 83 |
| 3 AUS | 1.95 | 1.03 | . 96 |
| 3AV6 | 1.60 | . 84 | 78 |
| 382 | 4.85 | 2.57 | 2.37 |
| 387/1291 | 6.00 | 3.18 | 2.94 |
| 3846 | 2.05 | 1.09 | 1.00 |
| $38 \mathrm{C5}$ | 2.10 | 1.11 | 1.03 |
| 38 E 6 | 2.10 | 1.11 | 1.03 |


| $\begin{aligned} & \text { TUBE } \\ & \text { TYPE } \end{aligned}$ | $\begin{aligned} & \text { LIST } \\ & \text { PRICE } \end{aligned}$ | NET EACH IN LOTS OF 1 to 56 to 49 |  |
| :---: | :---: | :---: | :---: |
| 38N4 | 2.20 | 1.17 | 1.08 |
| 38N6 | 2.85 | 1.51 | 1.40 |
| $38 \mathrm{U8}$ | 2.60 | 1.37 | 1.27 |
| 3876 | 2.10 | 1.11 | 1.03 |
| $3 \mathrm{BZ6}$ | 2.10 | 1.11 | 1.03 |
| $3 C 86$ | 2.10 | 1.11 | 1.03 |
| 3CE5/3EC5 | 2.05 | 1.09 | 1.00 |
| 3 CF6 | 2.30 | 1.22 | 1.13 |
| $3 \mathrm{C56}$ | 2.20 | 1.17 | 1.08 |
| 306/1299 | 5.05 | 2.68 | 2.47 |
| 30k6 | 2.20 | 1.17 | 1.08 |
| 3 3T6 | 1.95 | 1.03 | . 96 |
| $3 \mathrm{LF4}$ | 3.55 | 1.88 | 1.74 |
| 304 | $2.35{ }^{\circ}$ | 1.24 | 1.15 |
| 305 GT | 3.10 | 1.64 | 1.52 |
| 354 | 2.30 | 1.22 | 1.13 |
| $3{ }^{3} 4$ | 2.20 | 1.17 | 1.08 |
| 4AU6 | 1.95 | 1.03 | 96 |
| $48 \mathrm{C5}$ | 2.10 | 1.11 | 1.03 |
| 48 CB | 3.65 | 1.93 | 1.79 |
| $43 \mathrm{N6}$ | 2.80 | 1.48 | 1.37 |
| 4897A | 3.55 | 1.88 | 1.74 |
| $44^{\text {4 }} 8$ | 3.65 | 1.93 | 1.79 |
| 4 BUB | 2.60 | 1.37 | 1.27 |
| $48 \times 8$ | 3.45 | 1.82 | 1.69 |
| 4827 | 3.65 | 1.93 | 1.79 |
| 4 CB 8 | 2.10 | 1.11 | 1.03 |
| $4{ }^{4} \mathrm{CY5}$ | 2.50 | 1.32 | 1.22 |
| 4DT6 | 1.95 | 1.03 | . 96 |
| $54 \mathrm{M8}$ | 2.95 | 1.56 | 1.44 |
| 5AN8 | 3.20 | 1.70 | 1.57 |
| 5495 | 2.05 | 1.09 | 1.00 |
| 5AS4 | 1.90 | 1.01 | .93 |
| 5AS8 | 3.05 | 1.62 | 1.49 |
| 5AT8 | 2.90 | 1.54 | 1.42 |
| 5AU4 | 3.10 | 1.64 | 1.52 |
| 5AV8 | 3.20 | 1.70 | 1.57 |
| 5AW4 | 2.50 | 1.32 | 1.22 |
| 5AZ4 | 2.15 | 1.14 | 1.05 |
| 588 | 3.20 | 1.70 | 1.57 |
| 58E8 | 2.90 | 1.54 | 1.42 |
| 58k7A | 3.20 | 1.70 | 1.57 |
| 5897a | 3.55 | 1,88 | 1.74 |
| 5BR8 | 3.05 | 1.62 | 1.49 |
| 5878 | 3.10 | 1.64 | 1.52 |
| 5CG8 | 2.90 | 1.54 | 1.42 |
| ${ }^{5 C L 8}$ | 2.90 | 1.54 | 1.42 |
| ${ }^{5 C M 8}$ | 3.20 | 1.70 | 1.57 |
| $5 \mathrm{CR5}$ | 2.60 | 1.37 | 1.27 |
| 50H8 | 3.20 | 1.70 | 1.57 |
| 5J6 | 2.55 | 1.35 | 1.25 |
| 574 | 5.45 | 2.88 | 2.67 |
| 578 | 3.15 | 1.67 | 1.54 |
| $5{ }^{5} 4.6$ | 1.90 | 1.01 | . 93 |
| 5U4GA/8 | 1.90 | 1.01 | . 93 |
| 5U4GB | 1.90 | 1.01 | . 93 |
| $5 \mathrm{5a}$ | 3.05 | 1.62 | 1.49 |
| $5{ }^{5} 3$ | 2.90 | 1.54 | 1.42 |
| 5 V 46 | 2.80 | 1.48 | 1.37 |
| 5V4GA | 2.80 | 1.48 | 1.37 |
| 5V6GT | 2.20 | 1.17 | 1.08 |
| 5X46 | 2.25 | 1.19 | 1.10 |
| $5 \times 8$ | 2.90 | 1.54 | 1.42 |
| $5 Y 36 T$ | 1.55 | . 82 | . 76 |
| $5 Y 46$ | 2.10 | 1.11 | 1.03 |
| 5Y4GA | 2.10 | 1.11 | 1.03 |
| 5Y4GT | 2.05 | 1.09 | 1.00 |
| 523 | 2.60 | 1.37 | 1.27 |
| 524 | 3.90 | 2.07 | 1.91 |
| 6 A3 | 3.90 | 2.07 | 1.91 |
| $6 A^{7}$ | 3.40 | 1.80 | 1.66 |
| 6A8 | 3.30 | 1.74 | 1.62 |
| 6AgG | 3.30 | 1.74 | 1.62 |
| GAEGT | 3.30 | 1.74 | 1.62 |
| $64{ }^{6}$ | 1.85 | . 98 | . 91 |
| 6AB5/6N5 | 3.15 | 1.67 | 1.54 |
| 6487 | 3.95 | 2.09 | 1.93 |
| SAC5GT | 3.45 | 1.82 | 1.69 |


| $\begin{aligned} & \text { TUBE } \\ & \text { TYPE } \end{aligned}$ | $\begin{aligned} & \text { PIST } \end{aligned}$ | NET EACH IN LOTS OF 110561049 |  |
| :---: | :---: | :---: | :---: |
| $6 \mathrm{AC7}$ | 3.45 | 1.82 | 1.69 |
| 6AD7G | 4.65 | 2.46 | 2.27 |
| bAFta | 3.60 | 1.90 | 1.76 |
| baf6G | 3.10 | 1.64 | 1.52 |
| bag5 | 2.20 | 1.17 | 1.08 |
| 6AG7 | 3.90 | 2.07 | 1.91 |
| GAH4GT | 2.75 | 1.45 | 1.35 |
| 6AH6 | 3.30 | 1.74 | 1.62 |
| 64.34 | 4.45 | 2.35 | 2.18 |
| 6AK5 | 4.05 | 2.15 | 1.98 |
| GAK6 | 2.55 | 1.35 | 1.25 |
| 6AL5 | 1.65 | . 87 | . 80 |
| 6ALTGT | 5.00 | 2.65 | 2.45 |
| 6AM4 | 5.35 | 2.83 | 2.62 |
| 6AM8 | 2.90 | 1.54 | 1.42 |
| GAM8A | 2.95 | 1.56 | 1.44 |
| 6AN4 | 4.55 | 2.41 | 2.23 |
| 6AN8 | 3.15 | 1.67 | 1.54 |
| 6405 | 2.00 | 1.06 | . 98 |
| SAC54 | 2.00 | 1.06 | . 98 |
| 6APG | 1.85 | 98 | 91 |
| SAPTGT | 3.05 | 1.62 | 1.49 |
| 6AR5 | 2.10 | 1.11 | 1.03 |
| 6AR8 | 3.55 | 1.88 | 1.74 |
| 6AS5 | 2.15 | 1.14 | 1.05 |
| 6AS8 | 3.05 | 1.62 | 1.49 |
| 6atb | 1.65 | . 87 | 80 |
| 6at8 | 2.90 | 1.54 | 1.42 |
| 6at8a | 2.95 | 1.56 | 1.44 |
| GAUAGTA | 3.05 | 1.62 | 1.49 |
| 6AU5GT | 3.65 | 1.93 | 1.79 |
| GAU6 | 1.90 | 1.01 | . 93 |
| 6AU6A | 1.90 | 1.01 | 93 |
| 6AUB | 3.15 | 1.67 | 1.54 |
| GAUBA | 3.15 | 1.67 | 1.54 |
| GAV5GA | 3.55 | 1.88 | 1.74 |
| bavo | 1.60 | . 84 | 78 |
| 6AW8 | 3.30 | 1.74 | 1.62 |
| 6AW8A | 3.30 | 1.74 | 1.62 |
| 6AX4GT | 2.45 | 1.29 | 1.20 |
| 6AX5GT | 2.55 | 1.35 | 1.25 |
| 6AX8 | 2.90 | 1.54 | 1.42 |
| 6AI8 | 3.55 | 1.88 | 1.74 |
| ${ }^{6846}$ | 4.55 | 2.41 | 2.23 |
| 687 | 3.60 | 1.90 | 1.76 |
| 688 | 3.90 | 2.07 | 1.91 |
| 6846 | 1.90 | 1.01 | . 93 |
| 6BA7 | 3.15 | 1.67 | 1.54 |
| bBABA | 3.30 | 1.74 | 1.62 |
| 68 C 4 | 4.45 | 2.35 | 2.18 |
| 6BC5 | 2.10 | 1.11 | 1.03 |
| 6 BC 7 | 3.20 | 1.70 | 1.57 |
| 68C8 | 3.60 | 1.90 | 1.76 |
| 68D4A | 21.50 | 11.38 | 10.53 |
| 6805GT | 3.60 | 1.90 | 1.76 |
| 6BD6 | 1.95 | 1.03 | . 96 |
| 68 Eb | 2.10 | 1.11 | 1.03 |
| 6BF5 | 2.25 | 1.19 | 1.10 |
| 6BF6 | 1.70 | . 90 | . 83 |
| 6BG6G | 5.55 | 2.94 | 2.71 |
| 68G6GA | 5.55 | 2.94 | 2.71 |
| 68H6 | 2.45 | 1.29 | 1.20 |
| 6 BH 8 | 3.15 | 1.67 | 1.54 |
| $68 \mathrm{J6}$ | 2.35 | 1.24 | 1.15 |
| 68.7 | 2.50 | 1.32 | 1.22 |
| 68 J 8 | 2.55 | 1.35 | 1.25 |
| 6BK4 | 6.35 | 3.36 | 3.11 |
| $68 K 5$ | 2.95 | 1.56 | 1.44 |
| 6BK7A | 3.15 | 1.67 | 1.54 |
| 6BK7B | 3.15 | 1.67 | 1.54 |
| 6814 | 5.60 | 2.96 | 2.74 |
| 6BL7GT | 3.55 | 1.88 | 1.74 |
| 6BN4 | 2.20 | 1.17 | 1.08 |
| 68N6 | 2.70 | 1.43 | 1.32 |
| 6BN: | 2.55 | 1.35 | 1.25 |
| 6BOGGA/ | 3.90 | 2.07 | 1.91 |
| 68Q6GT | 3.90 | 2.07 | 1.91 |

Tubes may be assarted for quontity prices os shown in price columns. net price calumn.

| $\begin{aligned} & \text { TUBE } \\ & \text { TYPE } \end{aligned}$ | $\begin{aligned} & \text { LIST } \\ & \text { PRICE } \end{aligned}$ |  | $\begin{aligned} & \text { ISCH } \\ & \text { is OF } \\ & \text { io } 49 \end{aligned}$ | $\begin{aligned} & \text { TUBE } \\ & \text { TYPE } \end{aligned}$ | LIST | $\begin{aligned} & \text { NET ERCH } \\ & \text { IN LOTS OF } \\ & 1 \text { to } 56 \text { to } 49 \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6BE6GTA | 3.90 | 2.07 | 1.91 | 6K5GT |  |  |  |
| 6B86GTB | 3.90 | 2.07 | 1.91 | 6K6GT | 2.65 2.00 | 1.40 | 1.30 .98 |
| 6807A | 3.55 | 1.88 | 1.74 | 6K7 | 3.10 | 1.64 | 1.52 |
| 6818 8858 | 2.95 | 1.56 | 1.44 | 6K76 | 2.65 | 1.40 | 1.30 |
| 6858 6848 | 3.50 | 1.85 | 1.71 | 6K7GT | 2.70 | 1.43 | 1.32 |
| 6848 68 V 8 | 2.60 2.75 | 1.37 1.45 | 1.27 1.35 | 6168 | 3.65 | 1.93 | 1.79 |
| 68W4 | 2.75 1.65 | 1.45 .87 | 1.35 .80 | 616 81668 | 5.15 | 2.72 | 2.52 |
| 68W8 | 2.90 | 1.54 | 1.42 | 617 | 3.90 3.55 | 2.07 1.88 | 1.91 |
| 68X7GT | 3.60 | 1.90 | 1.76 | 6N7 | 3.40 | 1.88 1.80 | 1.66 |
| 68Y5GA | 3.30 | 1.74 | 1.62 | 6N7GT | 3.30 |  |  |
| 68Y6 | 2.10 | 1.11 | 1.03 | 6P5GT | 3.30 2.55 | 1.74 | 1.62 |
| 6 6Y8 | 2.45 | 1.29 | 1.20 | 607 | 2.55 2.90 | 1.35 | 1.25 |
| 6826 | 2.10 | 1.11 | 1.03 | 6076 | 2.55 | 1.35 | 1.42 |
| 6827 | 3.60 | 1.90 | 1.76 | 60765 | 2.55 | 1.35 | 1.25 |
| 6B28/X155 | 3.85 | 2.04 | 1.89 | 6R7 | 3.10 | 1.64 | 1.52 |
| $6 \mathrm{C4}$ | 1.65 | . 87 | . 80 | 654A | 1.85 | . 98 | 1.92 |
| 6 C5 | 2.35 | 1.24 | 1.15 | 657 | 3.60 | 1.90 | 1.76 |
| 6C5GT | 2.15 | 1.14 | 1.05 | 6576 | 3.80 | 1.90 1.85 | 1.71 |
| $66_{6}$ | 3.15 | 1.67 | 1.54 | 6S8GT | 2.75 | 1.45 | 1.35 |
| $6 \mathrm{C8G}$ | 4.30 | 2.27 | 2.11 | 6547 | 2.60 | 1.37 | 1.27 |
| 6CB5A | 6.15 | 3.25 | 3.01 | 65A7GT | 2.60 | 1.37 | 1.27 |
| ${ }^{6}$ CB6 | 2.10 | 1.11 | 1.03 | 6587Y | 3.85 | 2.04 | 1.89 |
| 6C86A | 2.10 | 1.11 | 1.03 | $65 C 7$ | 2.70 | 1.43 | 1.32 |
| 6C06G | 5.20 | 2.75 | 2.55 | 65076T | 3.35 | 1.77 | 1.64 |
| 6CD6GA | 5.20 | 2.75 | 2.55 | 6SF5 | 2.30 | 1.22 | 1.13 |
| 6CE5/68C5 | 2.10 | 1.11 | 1.03 | SSF5GT | 2.30 | 1.22 | 1.13 |
| 6CF6 | 2.25 | 1.19 | 1.10 | 6SF7 | 3.05 | 1.62 | 1.49 |
| 6CG7 | 2.30 | 1.22 | 1.13 | 6567 | 2.95 | 1.56 | 1.44 |
| 6CG8 | 2.90 | 1.54 | 1.42 | $65 \mathrm{H7}$ | 3.05 | 1.62 | 1.49 |
| 6CG8A | 2.90 | 1.54 | 1.42 | 65.17 | 2.45 | 1.29 | 1.20 |
| $6 \mathrm{CH8}$ | 3.25 | 1.71 | 1.59 | 6SJ7GT | 2.35 | 1.24 | 1.15 |
| 6 CL6 | 3.25 | 1.71 | 1.59 | 6SK7 | 2.40 | 1.27 | 1.18 |
| 6 CL8 | 2.85 | 1.51 | 1.40 | 6SK76T | 2.40 | 1.27 | 1.18 |
| $6 \mathrm{CM6}$ | 2.25 | 1.19 | 1.10 | 65176T | 2.95 | 1.56 | 1.44 |
| ${ }^{6}$ CM7 | 2.55 | 1.35 | 1.25 | 6SNTGTB | 2.35 | 1.24 | 1.15 |
| 6 CM8 | 3.15 | 1.67 | 1.54 | 6507 | 2.10 | 1.11 | 1.03 |
| 6 CNT | 2.30 | 1.22 | 1.13 | 650767 | 2.10 | 1.11 | 1.03 |
| ${ }^{6 C 98}$ | 2.95 | 1.56 | 1.44 | 6SR7 | 2.35 | 1.24 | 1.15 |
| 6CR6 | 2.05 | 1.09 | 1.00 | 6557 | 2.70 | 1.43 | 1.32 |
| 6 C56 | 2.15 | 1.14 | 1.05 | 65V7 | 3.65 | 1.93 | 1.79 |
| 6 C 57 | 2.60 | 1.37 | 1.27 | 6527 | 2.70 | 1.43 | 1.32 |
| $6 \mathrm{CU5}$ | 2.10 | 1.11 | 1.03 | 674 | 3.60 | 1.90 | 1.76 |
| 6CU6 | 3.90 | 2.07 | 1.91 | 678 | 3.10 | 1.64 | 1.52 |
| ${ }_{6} \mathrm{CU8}$ | 3.30 | 1.74 | 1.62 | 6T8A | 3.10 | 1.64 . | 1.52 |
| $6 \mathrm{CX8}$ | 3.25 | 1.71 | 1.59 | 605 | 2.50 | 1.32 | 1.22 |
| 6CY7 | 2.60 | 1.37 | 1.27 | 6U6GT | 2.45 | 1.29 | 1.20 |
| 6CZ5 | 2.55 | 1.35 | 1.25 | $6 \cup 76$ | 2.40 | 1.27 | 1.18 |
| 606 | 3.15 | 1.67 | 1.54 | 648 | 2.95 | 1.56 | 1.44 |
| 6086 | 2.05 | 1.09 | 1.00 | 6U8A | 2.95 | 1.56 | 1.44 |
| 6DC6 | 2.55 | 1.35 | 1.25 | 6V3A | 3.95 | 2.09 |  |
| CDEG | 2.20 | 1.17 | 1.08 | 6 V ¢ | 3.90 | 2.07 | 1.91 |
| 6DG6GT | 2.20 | 1.17 | 1.08 | 6VGGT | 2.00 | 1.06 | . 98 |
| 60K6 | 2.05 | 1.09 | 1.00 | 6VGGTA | 2.05 | 1.09 | 1.00 |
| 60N6 | 5.15 | 2.72 | 2.52 | SV8 | 3.55 | 1.88 | 1.74 |
| 6095 | 6.95 | 3.68 | 3.41 | 6W4GT | 2.15 | 1.14 | 1.05 |
| 6086 | 3.90 | 2.07 | 1.91 | SWGGT | 2.60 | 1.37 | 1.27 |
| 60664 | 3.90 | 2.07 | 1.97 | $6 \times 4$ | 1.50 | . 79 | . 73 |
| 6055 | 2.35 | 1.24 | 1.15 | $6 \times 5 \mathrm{GT}$ | 1.75 | . 83 | . 86 |
| 6 6T6 | 1.95 | 1.03 | . 96 | 6XB | 2.90 | 1.54 | 1.42 |
| 6E5 | 2.55 | 1.35 | 1.25 | 6×84 | 2.90 | 1.54 | 1.42 |
| 6 F 5 | 2.65 | 1.40 | 1.30 | 6Y6G | 2.95 | 1.56 | 1.44 |
| 6F5GT | 2.60 | 1.37 | 1.27 | 6Y6GA | 2.95 | 1.56 | 1.44 |
| 6 F6 | 3.05 | 1.62 | 1.49 | 6Y6GT | 2.95 | 1.56 | 1.44 |
| $6 \mathrm{F6G}$ | 2.45 | 1.29 | 1.20 | 6275G | 2.55 | 1.35 | 1.25 |
| 6F6GT | 2.45 | 1.29 | 1.20 | 7A4/XXL | 2.60 | 1.37 | 1.27 |
| 6 67 | 4.65 | 2.46 | 2.27 | 745 | 2.95 | 1.56 | 1.44 |
| $\triangle 88 G$ | 4.30 | 2.27 | 2.11 | 746 | 2.55 | 1.35 | 1.25 |
| 6G66 | 3.35 | 1.77 | 1.64 | 747 | 2.65 | 1.40 | 1.30 |
| 6H6 | 2.40 | 1.27 | 1.18 | 748 | 3.55 | 1.88 | 1.74 |
| 6.55 | 2.15 | 1.14 | 1.05 | 7407 | 4.95 | 2.62 | 2.43 |
| 6J5GT | 2.15 | 1.14 | 1.05 | 7AF7 | 2.85 | 1.56 | 1.44 |
| 6J6 | 2.55 | 1.35 | 1.25 | 7467 | 3.10 | 1.64 | 1.52 |
| 6J6A | 2.55 | 1.35 | 1.25 | 7AH7 | 2.15 | 1.56 | 1.52 |
| 6.357 | 3.05 3.05 | 1.62 | 1.49 | 7407 | 2.35 | 1.24 | 1.15 |
| 6J7G $6 . J 7 G T$ | 3.05 3.05 | 1.62 | 1.49 | 784 | 2.40 | 1.27 | 1.18 |
| $6 \mathrm{6JBG}$ | 3.05 3.95 | 1.62 2.09 | 1.49 | 785 | 3.75 | 1.98 | 1.84 |
| 6586 | 3.95 | 2.09 | 1.83 | 786 | 2.65 | 1.40 | 1.30 |

- RECEIVING TUBES •

| $\begin{aligned} & \text { TUBE } \\ & \text { TYPE } \end{aligned}$ | $\begin{aligned} & \text { LIST } \\ & \text { PRICE } \end{aligned}$ | $\begin{aligned} & \text { NET EACH } \\ & \text { IN LOTS OF } \\ & \text { I to } 56 \text { to } 49 \end{aligned}$ |  | $\begin{aligned} & \text { TUBE } \\ & \text { TYPE } \end{aligned}$ | $\begin{aligned} & \text { LIST } \\ & \text { PRICE } \end{aligned}$ | NETEACH in LOTS OF 1 to $\$ 6$ to 49 |  | $\begin{aligned} & \text { TUBE } \\ & \text { TYPE } \end{aligned}$ | $\begin{aligned} & \text { LIST } \\ & \text { PRICE } \end{aligned}$ | NET EACH <br> IN LOTS'OF <br> 1 10 561049 |  | TUBE TYPE | $\begin{aligned} & \text { LIST } \\ & \text { PRICE } \end{aligned}$ | $\begin{aligned} & \text { NETEACH } \\ & \text { INLOTS OF } \\ & \text { I to } \$ 6 \text { to } 49 \end{aligned}$ |  | $\begin{aligned} & \text { TUBE } \\ & \text { TYPE } \end{aligned}$ | $\begin{aligned} & \text { LIST } \\ & \text { PRICE } \end{aligned}$ | NET EACH IN LOTS OF 1 to 56 to 49 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1.40 | 1.30 | 12AL5 | 1.70 | .10 | . 13 | 12 J GT | 2.15 | 1.14 | 1.05 | 17AV5GA | 3.60 | 1.40 | 1.76 | $35 \mathrm{W4}$ | 1.35 | .72 | . 68 |
| 787 | 2.85 2.85 | 1.51 | 1.30 | 12ALA | 3.35 | 1.77 | 1.64 | 12J7GT | 3.05 | 1.62 | 1.49 | 17AX4GT | 2.55 | 1.35 | 1.25 | 3574 | 2.20 | 1.17 | 1.08 |
| 784 | 3.90 | 2.07 | 1.91 | 12A05 | 2.00 | 1.06 | . 98 | $12 \mathrm{J8}$ | 3.15 | 1.67 | 1.54 | 178QbGT8 | 4.05 | 2.15 | 1.98 | 3523 | 2.20 | 1.17 | 1.08 |
| 7 C 5 | 2.80 | 1.48 | 1.37 | 12ATb | 1.65 | . 87 | . 80 | $12 \times 5$ | 2.55 |  | 1.25 | 17 CL | 2.05 | 1.09 | 1.00 | $35246 T$ $35256 T$ | 1.70 | . 80 | .18 |
| 7 Cb | 2.65 | 1.40 | 1.30 | 12AT7 | 2.85 | 1.51 | 1.40 | 12K76T | 2.70 | 1.43 | 1.32 | 17006 | 3.90 3.90 | 2.07 | 1.91 | 352561 | $\mathbf{2 . 9 0}$ | 1.84 | 1.72 |
| 7 Cl | 2.55 | 1.35 | 1.25 | 12AU6 | 1.90 2.30 | 1.01 | . 1.93 | 12k8 | 3.75 | 1. 93 | 1.79 | 17H3 | 1.80 | 2.07 | 1.88 |  |  |  | 1.42 |
| 7E5 | 3.15 | 1.67 | 1.54 | 12AU7 | 2.30 | 1.22 | 1.13 | 12K8GT | 3.05 | 1.62 | 1.49 | 1725 | 2.20 | 1.17 | 1.08 | 37 | 1.85 | . 28 | . 91 |
| 7E6 | 3.15 | 1.67 | 1.54 |  |  |  |  | 12L6GT | 2.20 | 1.17 | 1.08 | 1845 | 3.45 | 1.12 | 1.69 | 38 | 2.30 | 1.22 | 1.13 |
| 7E7 | 3.55 | 1.88 | 1.74 | 12AUTA | 2.30 3.60 | 1.22 | 1.13 | $12076 T$ | 2.55 | 1.35 | 1.25 |  |  |  |  | 39/44 | 2.75 | 1.45 | 1.35 |
| 7F7 | 2.95 | 1.56 | 1.44 | l2AV5GA 12 AVS | 3.60 1.60 | 1.90 | 1.76 .78 | 1265 | 2.50 2.20 | 1.17 | 1.08 | 19AU4 | 3.10 | 1.64 | 1.52 | 4041 | 2.15 2.15 | 1.14 | 1.05 1.05 |
| 7F8 | 3.65 | 1.93 | 1.79 | 12AVY | 3.05 | 1.62 | 1.49 | 125A7 I2SATGT | 2.60 2.62 | 1.37 | 1.27 1.27 | 19AUSGTA 19BGSG | 3.05 3.00 | 1.62 3.18 | 1.49 | 4012 | 2.15 2.55 | 1.14 | 1.05 1.25 |
| 767 | 3.20 | 1.70 | 1.57 | 12AWb | 2.60 | 1.37 | 1.27 | 12SC7 | 2.70 | 1.43 | 1.32 | 198GBGA | 6.00 | 3.11 | 2.94 | 42 | 2.40 | 1.27 | 1.18 |
| 747 | 3.30 | 1.74 | 1.62 | 12AX4GTA | 2.45 | 1.29 | 1.20 | 125 Fs | 2.35 | 1.24 | 1.15 | 19C8 | 3.20 | 1.70 | 1.57 | 43 | 2.60 | 1.37 | 1.27 |
| 717 | 4.05 | 2.15 | 1.98 | 12AX7 | 2.30 | 1.22 | 1.13 |  |  |  |  | 19J6 | 2.70 | 1.43 | 1.32 | 45 | 2.25 | 1.19 | 1.10 |
| 767 | 3.55 | 1.88 | 1.74 | 12427 | 2.60 | 1.37 | 1.27 | 125F5GT | 2.35 |  | 1.15 | 1978 | 3.15 | 1.67 | 1.54 | 4523 | 1.80 | . 95 | . 88 |
| 717 | 3.35 | 1.77 | 1.64 | 12844 | 2.55 | 1.35 | 1.25 | 12SF7 | 3.05 | 1.62 | 1.49 | 19V8 | 3.55 | 1.88 | 1.74 |  |  |  |  |
| 7N7 | 2.70 | 1.43 | 1.32 | 12846 | 1.90 | 1.01 | . 93 | 12SF7GT | 2.00 | 1.06 | . 98 | $19 \times 8$ | 3.35 | 1.77 | 1.64 | $45256 T$ | 1.80 | . 25 | . 88 |
| 797 | 3.30 | 1.74 | 1.62 | 12847 | 3.15 | 1.67 | 1.54 | 12567 | 2.85 | 1.51 | 1.40 | 24A | 3.05 | 1.62 | 1.49 | 46 | 3.05 | 1.62 | 1.49 |
| 7157 | 4.05 | 2.15 1.93 | 1.78 | 128D6 | 1.95 | 1.03 | . 96 | 125H7 | 3.05 | 1.62 | 1.49 |  |  |  |  | 47 | 5.85 | 3.10 | 2.86 |
|  |  |  |  | 128ES | 2.00 | 1.06 | . 98 | 12537 | 2.45 | 1.29 | 1.20 | 25AV5GA | 3.50 | 1.85 | 1.71 | 50 | 2.85 | 1.51 | 1.40 |
| 7v7 | 3.90 | 2.07 | 1.91 | $128 F 6$ | 1.70 | . 90 | . 83 | $125376 T$ | 2.35 | 1.24 | 1.15 | 25AYSGT | 2.80 | 1.48 | 1.37 | 501 | 2.75 | 1.45 | 2.52 1.35 |
| 7W7 | 3.75 | 1.98 | 1.84 | 128H7A | 2.70 | 1.4 | 32 | 125ky | 2.40 | 1.27 | 1.18 | 25Ax4 | 2.80 | 1.48 | 1.37 | SOA5 | 2.80 | 1.48 | 1.35 |
| $7 \times 6$ | 2.65 | 1.40 | 1.30 | 12815 12816 | 3.05 2.00 | 1.62 | . 48 | 125176\% | 2.95 | 1.56 | 1.48 | 25806GA/ | 3. | 1.62 | . 4 | S085 | 2.85 <br> 2.25 | 1.19 | 1.10 |
| 7x7/X2FM | 4.70 | 2.49 | 2.30 1.08 | 128L8 | 3.10 | 1.64 | 1.52 |  |  |  |  | cus | 4.05 | 2.15 | 1.98 | 50 C 5 | 2.00 | 1.06 | . 98 |
| TY4 | 2.20 | 1.17 | 1.08 1.08 |  |  |  |  | 12SNTGT | 2.40 | 1.27 | 1.18 | 25806GT | 4.10 | 2.17 | 2.01 | Socsg | 3.35 | 1.77 | 1.64 |
| 724 | 2.20 3.10 | 1.17 | 1.08 |  |  |  |  | 12SNTGTA | 2.40 | 1.27 | 1.18 | 25806GTB/ |  |  |  | 50LSGT | 2.15 | 1.14 | 1.05 |
| 8AUB | 3.10 3.35 | 1.64 | 1.52 |  |  |  |  | 12507 | 2.10 | 1.11 | 1.03 | 25 CUS | 4.10 | 2.17 | 2.01 | 50x6 | 2.60 | 1.37 | 1.27 |
| 8AWAA | 3.35 3.35 | 1.77 | 1.64 | 128OBGA/ |  |  | 3 | 12507GT | 2.10 | 1.11 | 1.03 | 25 CS | 2.00 | 1.06 | 14 | SOY6GT | 2.55 | 1.35 | 1.25 |
| 18H8 | 3.25 | 1.71 | 1.59 | 12890G7 | 4.05 | 2.15 | 98 | 12SR7 | 2.40 | 1.27 | 1.18 |  |  |  |  | SOY7GT | 2.25 | 1.19 | 1.10 |
|  |  |  |  | 12806GTE |  |  |  | 12 c | 2. | 1. | 17 | $25 C A 5$ | 2.20 | 1.17 | 1.08 | 55 | 2.30 | 1.22 | 1.13 |
| S日N8 | 2.55 | 1.35 | 1.25 | 12CU6 | 4.05 | 2.15 | 1.98 | $12 \times 4$ |  | . 79 |  | $25 C D B G B$ |  |  | 2.55 | 56 | 1.90 | 1.01 | .93 |
| 8 Cet | 2.35 | 1.24 | 1.15 | 128R7 | 2.35 | 1.24 | 1.15 | 1223 | 2.55 | 1.40 | 1.30 | 25 CDOGE 25 CUS | 4.10 | 2.17 | 2.55 | 57 | 2.15 | 1.14 | 1.05 |
| BCMT | 2.55 | 1.35 | 1.25 | 128V7 | 2.70 | 1.43 | 1.32 | 14A4 | 2.65 3.15 | 1.67 | 1.54 | 250N6 | 5.15 | 2.12 | 2.52 | 58 | 2.15 | 1.14 | 1.05 |
| 8CN7 | 2.35 | 1.24 | 1.15 | 128W4 | 1.65 | 87 | . 80 |  |  |  |  | 25006 | 3.05 | 2.04 | 1.89 | 70L76T | 6.95 | 3.68 | 3.41 |
| $8 \mathrm{CS7}$ | 2.65 | 1.40 | 1.30 | 128YTA | 2.80 | 1.48 | 1.37 | 14A5 | 4.70 | 2.49 | 2.30 | $25 E 68$ | 3.95 | 2.04 | 2.83 | 71 A | 2.40 | 1.27 | 1.18 |
| 8 CXB | 3.35 | 1.71 | 1.64 | 12827 | 2.80 | 1.48 | 1.37 | 14A7 | 2.65 | 1.40 | 1.30 | 25868 | 4.95 | 2.62 1.03 | 2.48 | 75 | 2.60 | 1.37 | 1.27 |
| 8SN7GTB | 2.35 | 1.24 | 1.15 |  |  |  |  | 14AF7/XXD | 2.95 | 1.56 | 1.44 | 2516 | 4.60 | 2.43 | 2.25 | 76 | 1.75 | .73 | . 86 |
| 9 CL | 2.40 | 1.54 | 1.42 | 1265 |  |  |  | 1486 | 2.65 | 1.40 | 1.30 | 25L6GT | 2.05 | 2.4 | 2.25 | 77 | 2.20 | 1.17 | 1.00 |
| ¢U8A | 2.95 | 1.56 | 1.44 | 12 Cu | 2.10 | 1.11 | 1.03 | 1488 | 2.85 | 1.51 | 1.40 | 25LGGGT | 2.05 | 1.04 | $\frac{1.90}{15}$ | 70 | 2.70 | 1.43 | 1.32 |
| 10C8 | 3.55 | 1.88 | 1.74 | 12C8 | 4.40 | 2.30 | 2.16 | 14C5 | 3.20 | 1.70 | 1.57 | 25W4GT | 2.35 | 1.24 | 1.15 | 80 | 1.90 | 1.01 | .93 |
|  |  |  |  | 12CA5 | 2.20 | 1.17 | 1.08 | $14 \mathrm{C7}$ | 2.65 | 1.40 | 1.30 | 25 WbGT | 2.75 | 1.45 | 1.35 | 83 | 2.60 | 1.37 | 1.27 |
| 10DE7 | 2.65 | 1.40 | 1.30 | 12 CNS | 2.10 | 1.11 | 1.03 | 14Eb | 3.15 | 1.67 | 1.54 | 2525 | 2.45 | 1.29 | 1.20 | 83V | 3.80 | 2.01 | 1.86 |
| 12 A 4 | 2.45 | 1.29 | 1.20 | 12CRS | 2.05 | 1.09 | 1.00 | 14F7 | 2.95 | 1.56 | 1.44 | $25266 T$ | 2.45 | 1.29 | 1.20 | 84 | $2.05{ }^{\circ}$ | 1.09 | 1.00 |
| 12A8G | 3.30 | 1.74 | 1.62 | 12C56 | 1.95 | 1.03 | . 96 | 14F8 | 3.65 | 1.93 | 1.79 | 27 | 2.25 | 1.19 | 1.10 | 85 | 2.30 | 1.22 | 1.13 |
| 12A8GT | 3.30 | 1.74 | 1.62 | 12 CT | 3.40 | 1.80 | 1.66 | 14M7 | 3.30 | 1.74 | 1.62 | 37 | 2.25 2.85 | 1.51 | 1.40 | 85 | 2.30 | 1.22 | 1.13 |
| 12AES | 2.10 | 1.11 | 1.03 | 12CU5 | 2.10 | 1.11 | 1.03 | $14 J 7$ | 4.05 | 2.15 | 1.98 | 321767 | 2.85 3.35 | 1.77 | 1.64 | マ99 | 3.35 | 1.77 | 1.64 |
| 12ACb | 1.05 | . 98 | .11 | 12Cx8 | 2.05 | 1.09 | 1.00 | 14 NT | 2.85 | 1.56 | 1.44 | 321761 | 3.35 3.65 | 1.73 | 1.64 | 117L7GT/ | 3.35 | 1.77 | 1.64 |
| 12ADS | 2.10 | 1.11 | 1.03 | 1204 | 2.55 | 1.35 | 1.25 | 1407 | 3.30 | 1.74 | 1.62 | 35/51 | 2.40 | 1.27 | 1.18 | MTET | 6.75 | 3.68 | 3.41 |
| 12AD7 | 2.50 | 1.32 | 1.22 | 120064 | 3.90 | 2.07 | 1.91 | 14R7 | 4.05 | 2.15 | 1.98 |  |  |  |  | 117NTGT | 7.30 | 3.86 | 3.58 |
| 12AE6 | 1.70 | . 90 | . 83 | 12 FSGT | 2.65 | 1.40 | 1.30 | 1457 | 3.65 | 1.93 | 1.79 | 3545 | 2.80 | 1.48 | 1.37 | 117P76T | 7.30 | 3.86 | 3.58 |
| 12AE7 | 2.95 | 1.56 | 1.44 |  |  |  | 1.15 |  | 3.75 | 1.98 | 1.84 | 3585 | 2.25 | 1.19 | 1.10 | :1723 | 2.10 | 1.18 | 1.03 |
| 12A*S | 2.00 | 1.06 | . 98 | 12F8 | 2.35 | 1.24 | 1.15 | $14 \times 7$ | 2.95 | 1.56 | 1.44 | 35 C 5 | 2.00 | 1.05 | .98 | i7286T | 3.55 | 1.88 | 1.74 |
| 12AH7GT | 3.40 | 1.80 | 1.66 | $12 \mathrm{H6}$ 12 l | 2.40 2.15 | 1.27 | 1.05 | 14 Y 4 | 2.80 | 1.48 | 1.37 | 35Lbet | 2.15 | 1.14 | 1.05 | 5642 | 2.60 | 1.37 | 1.27 |

##  <br> CBE RCA

| TYPE NO. | $\begin{aligned} & \text { LIST } \\ & \text { PRICE } \end{aligned}$ | NET <br> EACH | Type No. | $\begin{aligned} & \text { LIST } \\ & \text { PRICE } \end{aligned}$ | $\begin{aligned} & \text { NET } \\ & \text { ERCH } \end{aligned}$ | Typ* No. | $\begin{aligned} & \text { LIST } \\ & \text { PRICE } \end{aligned}$ | $\begin{aligned} & \text { NET } \\ & \text { EACH } \end{aligned}$ | TYPE NO. | $\begin{aligned} & \text { LIST } \\ & \text { PRICE } \end{aligned}$ | $\begin{aligned} & \text { NET } \\ & \text { EACH } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5AX |  | 19.35 | 16AEP4 | 35.25 | 25.90 | 170P4A* | 38.75 | 28.40 | 21CEP4* | 52.50 | 38.65 |
| STP4* | 78.25 | 57.48 | 16DP4A | 45.75 | 33.60 | $17 \mathrm{P} /{ }^{\text {/ }}$ / $\mathrm{HP4}$ | 35.25 | 25.80 | 21C2P4* | 53.30 | 37.15 |
| $7 \mathrm{DP4}$ | 19.75 | 29.20 | 16EP4A | 53.00 | 39.20 | 17TP4 | 43.75 | 32.19 | 21EP4 | 42.00 | 30.90 |
| 7JP4 | 29.50 | 21.70 | 16FP4 | 35.75 | 26.20 |  |  |  | 21EP4A | 42.00 | 30.90 |
| AP4A | 27.75 | 19.00 | 156P4 | 48.25 | 35.43 | 17VP4/LP4 | 35.25 | 25.80 | ${ }^{21 E P 4 B}$ | 49.75 | 31.46 |
| 8DP4 | 19.95 | 14.65 | 16GP48 | 48.25 | 35.43 | 19AP4A | 52.50 | 38.65 | 21FP4 | 43.75 | 32.19 |
| $8 \times 84$ |  | 21.55 | 16JP4A | 44.50 | 32.68 | 19AP4 | 52.50 | 38.65 | 21FP4A. | 43.75 | 32.19 |
| $99^{9} 4$ | 21.50 | 15.68 | 16KP4A/RP4A* | 40.50 | 29.74 | 20CP4/DP4 | 40.25 | 29.60 | 21FP4C | 51.50 47.50 |  |
| 10ABPAB | 23.25 | 17.10 | 16KP4A/RP4A* | 38.75 | 28.40 | 20CP4A/DP4A | 40.25 | 29.60 35.10 | 21KP4A 21MP4 | 57.50 |  |
| 10BP4A | 22.50 | 16.50 | 16LPAA/162P4 | 44.50 | 32.68 | 20CP4B/DP4B*** 20CP4D/DP4C* | $48.00$ | 35.10 35.10 | 21MP4 | 52.50 |  |
| 10FP4A* | 26.00 | 19.05 | 16RP4/KP4. | 33.25 40.50 | 29.74 | 20HP4 | 42.00 | 30.90 | $21 \mathrm{WP4}$ | 40.25 | 29.60 |
| 10HP4 | 37.25 | 27.44 | 16TPA KPA | . 33.25 | 24.50 | 20HP4A/LP4/MP4 | 42.00 | 30.90 | 21WP4A* | 48.00 | 35.18 |
| 10MP4A | 29.25 | 21.55 | 16WP4A | 44.50 | 32.68 |  |  |  | 21XP4 | 42.00 | 30.90 |
| $12 \mathrm{KP4A}$ | 31.75 | 23.23 | 17AP4 | 33.25 | 24.50 | 20HP4C* 20HP40* | 47.75 | 34.84 | 21XP4A* | 47.75 | 36.46 |
| 12LP4A | 27.25 | 19.94 | 17AVP4/TP4 | 35.25 | 25.80 | 20HP40* 20JP4 | 44.75 | 32.83 | 21YP4. $21 Y P 4$. | 42.00 | 30.90 |
| 140P4A* | 38.00 | 27.78 | 17AVP4A/ TP4A | - 42.50 | 31.07 | 21ACP4/MP4 | 40.25 | 29.60 | 21YP4A 21ZP4 | $\begin{array}{r} 49.15 \\ 40 .-55 \end{array}$ | 36.46 29.60 |
| 12UP4A | 30.25 | 19.94 |  |  |  | 21ACP4/MP4 | - 48.00 | 35.18 | 212P4 | 40.25 | 29.60 29.60 |
| 12UP48 | 30.25 | 19.94 | 178P4A | 33.25 | 24.50 | 214 CPA 2/MPAA | - 42.00 | 30.90 | 212P4A | 48.00 | 29.60 |
| 12VP4A | 33.75 | 24.84 | 178P4E* | 40.50 | 29.74 | 21ALP4A* | 47.50 | 34.84 | $212 P 4 B^{*}$ $24 A P 4$ | 132.29 | 97.15 |
| 14AJP4* | 41.85 | 30.70 | 176RP4* | 45.30 47.75 | 33.65 34.04 | 21ALP4B* | 47.50 | 34.84 | 24AP4 | 132.29 |  |
| 148P4/CP4/EP4 | 29.25 | 21.55 | 1762P4 | 45.50 | 33.50 | 21AMP4A* | 48.00 | 35.18 | 24CP4A/ADP4* | 69.06 | 50.67 |
| 14CP4/EP4 | 29.25 | 21.55 | $17 \mathrm{CP4}$ | 43.75 | 32.14 | $214 P 4$ | 50.75 | 37.24 | 24DP4A* | 71.25 | 52.28 |
| 14EP4/CP4 | 29.25 | 21.55 | 17CAP4 | 45.80 | 33.60 |  |  |  | 24VP4A* | 66.25 | 48.65 |
| $14 \mathrm{HP4}$ | 29.25 | 21.55 | 17FP4A | 37.25 | 25.53 | 21ARP4A* | 58.70 | 40.23 | 24YP4* | 71.25 | 52.20 |
| 140P4 | 31.25 | 22.78 | 17GP4 | 48.25 | 35.43 | 21ATP4* | 49.75 | 36.46 | 27EP4* | 118.75 <br> 163.50 | 87.20 120.20 |
| 140P4A* | 36.50 | 26.80 | 17HP4/RP4 | 35.25 | 25.80 | 21ATP4A $21 A U P 4 B / A$ | 49.75 | 36.46 | 27MP4* | 113.75 | 120.20 87.20 |
| 141P4A* | 36.00 | 26.46 | 17HP4E* | 42.50 | 31.07 | 21AUP4B/A | 42.00 | 30.90 | 27RP4* | 118.75 | 87.20 |
| 14RP4A* | 34.75 | 25.48 | 17NP4E/ AP4C* | 42.50 | 31.07 | 21AVPG/UPAPA | 42.00 | 31 |  |  |  |
| 145P4* | 38.00 | 27.73 | 17JP4 | 35.25 | 25.80 | RlAVPAA/UP4A* | 48.75 | 36.418 | COLOR | rubes |  |
| 14WP4 | 34.75 | 25.48 | 17KP4 | 35.75 | 26.20 | liAWPaf | 48.00 | 35.18 |  |  |  |
| 14XP4A* | 38.00 | 27.78 | 17LP4/VP4 | 35.25 40.50 | 25.80 | 21ASP4 | 48.75 | 35.16 | 21AXP22 |  |  |
| $150 P 4 A$ 1610143 | 37.75 48.25 | 27.68 35.43 | $171 P 4 A / Y P 48 *$ $179 P 4 / Y P 4$ | 40.50 33.25 | 27.74 | 218T4P* | \$5.00 | 40.38 | 21Axp22A* | 180.00 180.00 | $127.40$ |

## HIGH FIDELITY TUBES

spesially designed for
hi-fi applicatlons. Wide= ly used by hi-fi equip
ment manufocturers; the
ritical audiophsle is
now using them to replace conventional types. Types with " are directiy interchange-
able with the equivalent types listed.
Others may require some, wiring changes


#  <br>  <br>  <br>  <br>  <br>  




| ITPE | Net | TYPE | Net | TYPE | Net | TYPE | Not | TYPE | Net | MPE Not | MrPE Nol | TYPE |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C1K/6014 | 12.90 | 3FP7-A | 27.50 | $79 P 4$ | 45.50 | 803 |  |  |  |  | CW562 Nel | ITPL | N |
| C3J/5632 | 15.50 | 3JPI | $23.50$ | $78 \mathrm{P} 4$ | $\begin{aligned} & 65.50 \\ & 67.60 \end{aligned}$ | 804 | 21.65 | CK1023 | $\begin{aligned} & 13.25 \\ & 10.80 \end{aligned}$ | 5663 2.10 <br> 5670 5.05 <br> 567  | $\begin{array}{ll} \text { Cr5i62 } & 12.45 \end{array}$ | CK6418 | 3.05 |
| C3JA/5684 | 17.30 | 3JP7 | 27.15 | 7YP4 | 62.50 | 805 | 15.90 | CK1024 | $\begin{array}{r} 10.80 \\ 4.00 \end{array}$ | $\begin{array}{ll}5670 & 5.05 \\ 5670 \mathrm{Wa} & 5.80\end{array}$ | 5463 1.40 <br> 5964 1.40 | CK6437 | 8.30 8.50 |
| C6J/5C21 C65b/5605 | $\begin{aligned} & 28.90 \\ & 29.36 \end{aligned}$ | $3 \mathrm{KP1}$ | 26.90 | 7VP1 | 29.00 | 806 | 34.25 | CK1026 | 3.50 | 5671 1250.00 | $\begin{array}{ll}5984 & 1.40 \\ 5985 & 2.15\end{array}$ | $6442$ | $37.50$ |
| c16J/5665 | 27.36 56.90 | $3 \mathrm{KP4}$ $3 \mathrm{KP7}$ | 22.85 | 7WP4 | 825.00 1500.00 | 807 808 | 2.90 | CK1038 | 8.30 | CK5672 | CW5971 2.15 | 6448 | 4610.00 |
| OH2 | 1.26 | ${ }^{3 K P}$ 3KP1 | 22.85 | 9C21 | 1500.00 1015.00 | 808 |  | CK1049 | 5.85 | 5674 | $5973 \quad 400.00$ | 6463 | 2.15 |
| 0A2-wa | 3.80 | 3MP1 | 21.95 26.30 | 9C22 | 1430.00 | 810 | 17.50 | 1609 | 14.50 | $\begin{array}{ll}5675 & 13.20\end{array}$ | 6005 4.60 | 6472 /1854 | 10.20 1700.00 |
| OA3/VR75 | 1.27 | 3RP1 | 17.30 | ¢C22 | 1430.00 1190.00 | $811-4$ | + 5.65 | 1612 1613 | 3.20 | CK5676 | 6005/05w | $6474 / 1854$ <br> 6485 | $\begin{array}{r} 1700.00 \\ 1.65 \end{array}$ |
| 0 O44 6 | 1.68 | 3RP1-A | 23.75 | 10kP7 | 1190.00 57.50 | 812 | 5.65 5.65 | 1613 1614 | 2.45 2.72 | 5679 | 6405W 4.60 | $\begin{aligned} & 6485 \\ & 6499 \end{aligned}$ |  |
| OB2 | 1.32 | 3RP4 | 20.80 | 105P4 | 82.25 | 813 | 19.65 | 1618 | 2.72 8.65 | $\begin{array}{lr}5686 & 3.85 \\ 5687 & 4.25\end{array}$ | $8005 /$ | 6504 | 2642.00 |
| 082-WA | 4.20 | 3UP1 | 46.70 | 10-Y | 6.30 | 814 | 18.70 | 1619 | 3.30 | $\begin{array}{ll}5687 \\ 5690 & .25\end{array}$ | 801195W/6095 7.35 | 6509 | 486.25 |
| 083/YR90 | 1.65 | 3WP1 | 31.65 | 1246 | 2.09 | 015 | 18.75 | 1620 | 3.30 6.36 | 5690  <br> 5691 .65 <br> 692  | $\begin{array}{lr}8011 & 13.00 \\ 8012 & \end{array}$ | 6511 | 156.90 |
| OC3/YR105 | 1.27 | 3WP2 | 32.45 | 12AT7-WA | 4.85 | 816 | 2.15 | 1621 | 1.36 | $\begin{array}{ll}569 & 8.45 \\ 5692 & 8.15\end{array}$ | $\begin{array}{lr}8012 \\ 80214 & 6.25\end{array}$ | 6512 | 259.80 |
| 003/VR150 | 1.27 | 3WPII | 32.45 | 12AY7 | 2.53 | 826 | 18.95 | 1622 | 2.76 | $\begin{array}{lr}5692 & 8.15 \\ 5693 & 6.40\end{array}$ | 8021A 6014.17 | 6513 | 347.00 |
| 1AD4 | 3.05 | $3 \times 250043$ | 198.00 | 120P7-A | 73.95 | 827- | 235.00 | 1623 | 4.05 | $\begin{array}{ll}5693 & 6.40 \\ 5698 & 1.70\end{array}$ | 6017/CIK $\quad 12.10$ | 6514 |  |
| 1A05 | 1.75 | 4-654 | 20.00 | 125W7 | 1.55 | 828 | 20.95 | 1624 | 4.00 | 5696 <br> CK5702 | $\begin{array}{lr}6017 & 340.00 \\ 8016\end{array}$ | $\begin{aligned} & 6514 \\ & 6515 \end{aligned}$ |  |
| 1AG4 | 3.25 | 4832 | 12.00 | 125P7 | 57.00 | 27-8 | 16.25 | 1625 | 2.95 |  | 6021 | CW6519 | 3.05 |
| 1465 | 2.05 | Qur4032 | 30.95 | 125P78 | 67.60 | $330 \cdot 1$ | 12.65 | 1626 | 1.85 | $\begin{array}{lr}5713 & 215.00 \\ 5713\end{array}$ | 6021 5.85 <br> CK602 5.00 | 6521 | 325.00 |
| 18 | 7.50 | 4-125A/ |  | $125 Y 7$ | 1.70 | 832-A | 14.20 | 1629 | 1.40 |  | 6039 $\quad 1117.50$ | 6524 | 15.75 |
| 1886 | 7.50 | 1021 | 30.25 | 16ADP7 | 94.75 | 8334 | 49.00 | 1631 | 3.20 | 5719 3.60 | 4044 - 50.00 | 6525 | 2.15 |
| $1{ }^{1} 21$ | 3.65 | 4-250A/ |  | 17ADP7 | 187.00 | 134 | 14.50 | 1632 | 3.35 | 5719.A 3.75 | 6044 6 | 6550 | 4.35 |
| KC-1 | 685.00 | 5022 | 41.25 | 2646 | 3.20 | 336 | +.00 | 1634 | 1.55 | 5720 $\quad 34.75$ | 6046 | 6570 | 7.85 |
| $1 \mathrm{CR1}$ | 3.85 | 4-1000 A |  | 26A7GT | 7.25 | 837 | 6.30 | 1635 | 2.00 | 5725 / 34.75 | $\begin{array}{ll}6072 \\ 6073 & 4.80\end{array}$ | 8571 | 59.65 |
| 1EPI | 15.75 | 4 C 33 | 215.00 | 2666 | 2.35 | 838 | 16.00 | 1699 | 165.00 | 6456W 3.80 | 6073  <br> 6074 3.00 <br>   | 6655 | 56.25 |
| 1EP2 | 16.75 | 4E27/8001 | 26.00 | 2606 | 3.00 | 841 | 4.85 | 1818P1 | 505.00 | 5725/ 3.80 | 6080 | 6660/88A6 | 1.05 |
| IEPII | 16.75 | 4E27A/ | 16.00 | 274 | 40.25 | 842 | 3.65 | 1818P4 | 700.00 | 6A56W/6187 6.90 | 6080 WA $\quad 6.00$ | 6661/68HS | 1.33 |
| 1122 | 25.00 | 5.1258 | 35.75 | W(1) | 3.70 | 845 | 15.85 | 1818P27 | 505.00 | 5726 | 60825.30 | 6662/68J6 | 1.27 |
| 1123 | 39.00 | $4 \times 1504$ | 38.95 | 75TH/TSTL | 28.00 | 851 | 5\%0.00 | 1850-A | 565.00 | 5726 2.10 | $6087 \quad 6.40$ | 6663/6AL5 | .92 |
| 1124 | 55.00 | 4×1500 | 38.95 | S1A | 27.77 | - | 218.50 | 6 | 4 | 6 6L5W 2.10 | CM6088 $\quad 2.75$ | 8669 | 1.11 |
| 1125 | 21.00 | 5ABP1 | 121.00 | -7 | 1.32 | 860 | 36.65 | 1947 | 13.15 | 5726/ | 6097/SAL5W 2.44 | 8677 | 1.79 |
| 1131 | 26.50 | 5ABP4 | 31.80 | 98 A | 76.50 | 868 | 1190.00 | 1949 | 11.30 | $6415 \mathrm{~W} / 60973.40$ | 6100 2.90 | 6678/17AT7 | 1.61 |
| 1132 | 25.00 | SABP7 | 39.15 | 100TH | 18.25 | 865 | 1322.00 | 1950 | 8.35 | 5727 2727 2.90 | 6101/6J6-WA 7.25 | 6680/124U7 | 1.26 |
| 1133 | 46.00 | 5ABPII | 39.60 | 1007L | 20.50 | $866 . A$ | 2.65 | 2020 | 92.00 | $\begin{array}{ll}5727 / 2021-W & 2.90 \\ 5720 / F G-67 & 53.50\end{array}$ | $\begin{array}{ll}6111 & 6.70 \\ 6112 & 6.70\end{array}$ | 6881/12Ax7 | 1.25 |
| 1136 | 18.50 | 5ADPI | 29.50 | 105 | 48.00 | 868/PJ-23 | 3.65 | 2022 | 3.15 | 572./FG-67 53.50 | 6112 $6130 / 3 \mathrm{C} 5 \quad 6.70$ | 6694-A | 5.60 |
| 1138 | 33.25 | 5AHP7 | 36.60 | 154 | 88.75 | 869-8 | 138.00 | 2050 | 1.05 | $\begin{array}{lr}5734 \\ 5736 & 18.00 \\ 574000\end{array}$ | $\begin{array}{lr}61301 / 3 C 45 & 17.60 \\ \$ 135 & 2.60\end{array}$ | ${ }_{6806}$ | 6185.00 |
| $1 P 21$ | 50.00 | 5AHP7A | 44.80 | 172 | 71.75 | 870A | 1982.00 | 5513 | 467.25 | 5736 160.00 <br> $5740 / F P-54$ 163.50 | $\begin{array}{ll}6135 & 2.60 \\ 6136 & 3.70\end{array}$ | 6807 | - 29.30 |
| 1 P 22 | 15.25 | 5AUP24 | 125.00 | 207 |  | 1724/872 | 8.50 | 5516 | 7.95 | $\begin{array}{lr}5740 / F P-54 & 163.50 \\ 5749\end{array}$ | $\begin{array}{ll}6136 & 3.70 \\ 6146 & 4.90\end{array}$ | ¢80\% | 24.40 |
| 1P28 | 26.50 | SAYP4 | 125.00 55.00 | 2176 | 240.00 21.17 | 878 /872 | 12.50 | 5518 | 890.00 | 5749/696W <br> $5749 / 68.80$ |  | 6809 | 29.80 |
| 1P29 | 3.60 | 5A2P4 | 108.50 | 242 C | 15.50 | 880 | 545.00 | 5527 | 110.00 |  | 6156/4-2504 37.50 | 6810 | 220.00 |
| 1F37 | 3.10 | 58PI-A | 35.20 | 2507H | 33.00 | 884 | 545.00 | 5544 | 33.41 | $\begin{array}{ll}5750 \\ 5750 / 6 E E S W & 3.90 \\ 3.90\end{array}$ | $6156 / 4-2504$ 6159 | 6810-A | 275.00 |
| 1P39 | 2.00 | Sc21/C6J | 28.10 | 25071 | 33.00 | 885 | 2.00 | 5549 5550 | 653.50 | 5751 | 6159 6161 98.90 | 6816 | 80.00 |
| IP41 | 2.85 3.20 | 5C24 | 45.00 | 265 | 58.00 | 889-A | 210.00 | 5550 | 41.00 | 5751-WA 5.55 | 6166 1000.00 | 6829 | 7.10 |
| 1 P 42 | 11.65 | 5CPI-A | 36.70 | 3804 TH | 69.00 | 889R-A | 330.00 | 55 | 65.00 | 5762/7C24 215.00 | 6173 | 6840 | 4.55 |
| 2AP1-A | 14.70 | 5CP7-A | 44.30 | 304TL | 60.50 | 891 | 260.00 | 5551 / | 67.00 | 5763 | CK6174 3.80 | 6949 | 1425.00 |
| 2822 | 21.00 | SCPII-A | 32.30 | $\frac{30814}{3934}$ | 60.50 | 891-R | 410.00 | 5552 | 19.00 | 5770 | $6181 \quad 125.00$ | 6850 | 15.75 |
| 2823 | 31.50 | $5 C P 12$ | 32.80 | 300 | 13.25 | 892 | 255.00 | $55524 /$ | 101.25 | 5771 | 61822100.00 | 6855/716 | 9.60 |
| 28P1 | 14.80 | SFPA-A | 45.70 | 411 | 55.75 | 192-员 | 405.00 | 5553 -8 | 216.00 | 5779 | $6183 \quad 680.00$ | 6856/740 | 19.40 |
| 2PP11 | 14.30 | SFP7-A | 35.00 | 414 | 78.75 | 893-A | 710.00 | $55538 /$ | 21.75 | 5786 | 6186/ | 6857/740P | 20.10 |
| 2c39A | 22.50 | 5FP14 | 35.00 | 441 | . 0 | 893A-R | 1260.00 | 5554 | 13.00 | CK5787 5 | OAGS.WA 1.00 | 6851/760 | 28.90 |
| 2C39B | 32.15 | 5FP14-A | 37.80 | 450TH | 450.00 | 898-A | 00 | 5555 | 316.00 | 5788 | 61891 | 6859/760P | 24.40 |
| 2C40 | 27.50 | 5FP15-A | 34.50 | 450TL | 77.00 | 902-A | 14.80 | 5556 | 21.00 | 579714.10 | 12AUTWA 4.80 | 6860/C6J/F | 29.40 |
| 2C40A | 30.85 | 5R4GY | 1.90 | CK501ax | 77.00 | 908-4 | 25.50 | 555\%/R-1 | 1.50 | 5814-A 4.15 | $6197 \quad 2.55$ | 6861 | 915.00 |
| 2 C 42 | 23.45 | 5R4GYA | 1.90 | 502-A | 8.30 | -12 | 155.00 | 5553/FG32 | 17.50 | 5814.WA 5.05 | $6198 \quad 230.00$ | 6868 | 1550.00 |
| 2 C 43 | 24.55 | SUP1 | 32.20 | CM502AX | 2.03 | 917 | 4.95 | $5559 / F 657$ | 23.00 | $581 \%$ 56.90 | 6198 -A 285.00 | 6883 | 4.90 |
| 2C46 | 23.90 | SUP7 | 26.30 | CW | 5.82 | -18 | 3.80 | 5560/FG.95 | 23.00 | 5820 1200:00 | 6199 | 6884 | 60.00 |
| 2021 | 2.04 | 5UP11 | 27.65 | CW506AX | 2.30 | $\dagger 19$ | 4.95 | 556//FE. 104 | 45.75 | 5822 186.00 | $6201 \quad 4.85$ | 6887 | 1.25 |
| 2021w | 2.90 | 5 WP11 | 115.00 | CW510AX | 2.95 | 120 | 5.30 | 5563.4 | 47.00 | 5822A 116.00 | 62023.70 | 6893 | 3.85 |
| 2E24 | 4.65 | 5WP15 | 115.00 | Crsizax | 2.55 | 921 | 3.00 | 5564/507 | 1025.00 | 5823 1.57 | 6203 4.60 | 6894 | 25.00 |
| $2 E 26$ | 3.85 | 5Y3WGTE | 6.40 | Crs27ax | 2.76 | 922 | 2.65 | 5581 | 2.60 | 5824 | 6205 7.30 | 6895 | 25.00 |
| 2E30 | 2.95 | 52P16 | 115.00 | Crsitax | 2.69 | -23 | 2.65 | 5582 | 4.50 | 5825 [ 16.65 | 82112.15 | 6896/1855 | 1210.00 |
| 2E31 | 2.25 | BAC7-W | 4.20 | crsisax | 6.00 | 924 | 2.65 3.60 | 55.3 | 2.95 | Cx5 29 4.20 | 6216 | 6897 | 32.15 |
| 2E32 | 2.25 | 6AG7-Y | 2.35 | Cr5320x | 5.82 | 925 | 2.95 |  | 4. 60 | 5230/FG-41 320.00 | $6217 \quad 72.00$ | 6903 | 385.00 |
| 2E36 | 6.23 | 6AN5 | 3.65 | Cx533AX | 5.82 | -26 | 3.10 | 5588 | 150.00 | 5840 | 6228/506 3696.00 | 6919 | 1.05 |
| 2126 | 48.20 | 6A56 | 3.46 | CK534Ax | 2.52 | 927 | 3.25 | 5592 | 1229.00 | 5840-A 7.10 | 62512300.00 | 6930/635 | 13.60 |
| 2F21 | 144.00 | 6A57G | 4.45 | crs35ax | 2.26 | 928 | 4.30 | 5593 | 253.00 | 2.40 | 6263 18.00 | 6942 | 855.00 |
| 2G22 | 4.36 | bAUSWA | 3.70 | crs36Ax | 2.6 | -29 | 1.60 | 5804 | 570.00 | 5855 | 6263422.40 | 6953 | 2.65 |
| 2H21 | 253.00 | 6C4W | 3.90 | CKS390x | 5.82 | 930 | 2.65 | 5610 | 1.05 | CK5875 3.05 | 6264 18.00 | 6957 | 3.70 |
| $2 \times 25$ | 30.60 | 604 | 2.85 | Cx5420x | 5.82 | 931.A | 9.15 | 5618 | 4.93 | 5976 | 6264.422 .40 | 7034/4×150A | 46.75 |
| 2K26 | 48.20 | $6{ }^{6} 4$ | 7.00 | CX5420X5 | 5.82 | 934 | 3.65 | 5620/FE-50 | 22.25 | 5876-A 19.10 | $6265 \quad 4.60$ | 7035/4×1500 | 46.75 |
| 2x2A | 2.20 | 6.14 | 4.33 | Cx5470x | 2.97 | 935 | +.65 | 5623/8.8 | 25.50 | 5879 | 62936.00 | 8000 | 21.15 |
| $\mathrm{KC-3}^{\text {c }}$ | 565.00 | 6J4-WA | 6.00. | 575A | 20.00 | 954 | 7.40 | 5623/8.47 | 25.00 | 5881 [ 3.50 | 6299 56.00 | 8002 | 245.22 |
| 344 | 1.20 | 614 | 7.35 | 5748 | 16.50 | 955 | 4.00 | 5625/KC-4 | 225.00 | CK588 12.45 | 6326 515.00 | 8002震 | 320.38 |
| 345 | 1.30 | 65N7WGT | 2.70 | 592 | 30.25 | -56 | . 2.25 | 5626/FA. 15 | 76.75 | 5890 | 6326-A 585.00 | 8003 | 14.00 |
| 3API-A | 27.40 | 65U7GT-1 | 4.25 | 627 | 24.20 | +57 | 5.35 | 5627/FA-6 | 72.50 | 5893 | 634272.00 | 8005 | 12.65 |
| 3824W | 10.55 | 6X4WA | 3.70 |  |  | -58.A | +.70 | 5628/FA-13 | 56.50 | 5894 22.00 | 6346 | 8008 | 8.50 |
| 325 | 6.30 | 7BP7-A | 44.80 | 629 | 14.30 | -59 | 8.20 | 5629/FA.14 | 45.50 | 5396 | 6347 125.00 | 8012-A | 14.10 |
| 382: | 6.45 | $7 C 24$ | 46.75 | 632. | 28.00 | 991 | . 8.87 | 5630 | 1620.00 | 5397 | 6348 | 8013-A | 11.45 |
| 3EPIA | 25.00 | 7 7 29 | 189.50 | ${ }_{6} 673$ | 35.00 | CK1005 | 1.06 | 5632/C3J | 13.90 | 59027.50 | 6350 | 8020 | 24.00 |
| $3 \mathrm{C23}$ | 11.98 | 7 CPI | 41.20 | 673 | 21.00 | Cr100s |  | 5638 | 9.15 | 5915 | $6360 \quad 4.00$ | 8025-A | 17.60 |
| 1C33 | 21.25 | $7 \mathrm{CP4}$ | 46.75 | 678 | \$5.00 | CK1007 | 6.50 | 5636.4 | 9.15 | 5915A 1.55 | $6372 \quad 365.00$ | 9001 | 4.60 |
| 3Cx10045 | 32.15 | 7021 | 511.00 | 678 | 55.00 | CK1018 | 15.20 | 5641 | 5.94 | 5921 40.00 | 8383122.00 | 9002 | 3.10 |
| 3022-A | 17.00 | $7 \mathrm{MP7}$ | 39.40 | 800 | 11.50 | CK1019 | 15.85 | ${ }^{5643}$ | 2.12 | $5922 \quad 40.00$ | 6386 | 9003 | 4.60 |
| 3E22 | 8.30 | 7MPI4 | 41.75 | 801-A | 7.85 | CK1020 | 24.85 | 5644 | 7.71 | $5832 /$ | 6405/1640 7.30 | 1004 | 3.70 |
| 3E29 | 20.25 | 7NP4 | 760.00 | 802 | 7.55 | CM1021 | 10.80 | 5647 | 6.82 | $6 \mathrm{L6W6A} \quad 11.40$ | 6414 | 9005 | 4.40 |
|  |  |  |  |  |  |  | 10.80 | 5662 | 2.10 | 5946 115.00 | $6417 \quad 2.37$ | ¢006 | 2.15 |

TRANSISTOR AND HEARING AID BATTERIES Minioture batteries especially designed and constructed far transistor and subminiot

| Burgess Type | $\begin{aligned} & \text { RCA } \\ & \text { Type } \end{aligned}$ | －Replaces Eveready | Volts | $W \times D^{\text {size }} \times(I N)$ | Shpg． Wt． | Net Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NE | VSO73 | W468 | 1.5 | 7／16（diem）${ }^{\text {（ }}$／－11／16 | 108. | ． 08 |
| A4 |  |  | 1.5 | 19／32x1－9／32x2－11／32 | 2 oz． | 9 |
| 4D4 |  | 274 | 6 | 2－17／32x2x7．5／16 | 3 lbs． | 2.76 |
| 2N6 | V 5305 | 246 | － | 1－3／8x1－3／8x2－3／4 | 1 lb ． | 1.30 |
| $2 \mathrm{N6}$ | V305 | 216 | 9 | ｜x39／64x1－7／8 | 3 oz． | 1.16 |
| C6X |  | 2356 | 9 | 2．5／16x1．1／32x6．1／16 | 2 lbs. | 1.10 |
| D6 | V 5306 | 276 | 9 | 2．9／16x2x $3.5 / 32$ | $11 / 2$ lbs． | 1.16 |
| D6PI | VS301 | 2506 | 3，6．9 | 2－19／32x1．7／16x7－27／32 | 2 lbs. | 1.16 |
| P6 | V5314 | 226 | 9 | $31 / 32 \times 31 / 32 \times 1.31 / 32$ | 3 08． | 7 |
| $\times \times 9$ | $\checkmark 5304$ | 239 | 9.13 .5 | 1－9／32×29／32×2－17／32 | 402. | ． 95 |
| $\times 10$ |  |  | 15 | $1-1 / 4 \times 7 / 8 x 1-17 / 32$ | 40 cz | 1.05 |
| 410 | V5083 | 411 | 15 | 1x39／64x17／16 | 208. | ． 81 |
| $\bigcirc 10$ | － | 504 | 15 | 19／32×19／32x1－23／64 | 208. | ． 81 |
| K15 |  |  | 22.5 | $1-1 / 4 \times 7 / 8 \times 2-9 / 32$ | 408. | 1.16 |
| U15 | V 5084 | 412 | 22.5 | 1x39／64x1－31／32 | 308. | 1.05 |
| Y15 |  | 505 | 22.5 | 19／32×19／32x1－31／32 | 202. | 1.05 |
| $\times 20$ |  |  | 30 | 1．1／4x15／16x2－23／32 | 6 oz ． | 1.37 |
| U20 | $\checkmark 5085$ | 413 | 30 | 1×39／64．2－17／32 | 2 cz. | 1.23 |
| 120 |  | 506 | 30 | 1－3／16x19／32x1－13／32 | 208. | 1.30 |
| Y205 | － | 507 | 30 | 19／32×19／32－2－19／16 | 202. | 1.30 |
|  | V5313 | E9 | 1.4 | 9／16（diom）x31／32 | 3 oz ． | ． 51 |
|  | V 5308 | － | 4 | 15／16（diom）x1－1／8 | 3 oz ． | ． 90 |
| － | V\＄311 | － | 4 | 1／2（diom）$x 1$ | 1 oz ． | ． 77 |
|  | V 5400 | E233 | 4 | 1－1／32（diom）x1．31／32 | d oz． | 1.80 |
| － | V5307 | － | 5.5 | 15／16（diom）x1．1／4 | 3 oz． | 1.01 |
|  | V5310 | － | 5.5 | 1／2（diom） 1 1．1／4 | 1 oz． | ． 91 |
|  | V 5312 | 216 | 8 | ｜$\times 19 / 32 \times 1-15 / 16$ | 3 oz． | 1.85 |
|  | V\＄300 | 226 | 9 | 31／32（diom）×1．31／32 | 508. | 1.23 |
| － | VS309 | － | 9 | 1／2（diom）$\times 1.7 / 8$ | 208. | 1.13 |


| WILLARD <br> RECHARGEAB BATTERIES | Polystyrene cosed compatt，rechorgeable wol batteries for 2 volt power supplies providing the portobility of dry cells ond long life of storoge balleries．Non－spill construction utifizing fibrite insulo． tion which olso proveats plote shedding．Built－in chorge indicotop． Con be series connecled for higher volloges．Shipped wet．express only． <br> Type 25－2 Porioble Rodio Bottery．Roted of 2 volts for 21 ompere． hours．Originol quipment in G．E．models 250 and 260 ．Q plotes． Sire： $2-17 / 32^{\circ \prime} \times 2-31 / 32^{\prime \prime} \times 6^{\prime \prime}$ ．Shpe．Wt．， $31 / 3 \mathrm{lbs}$. <br> Willard 25.2 <br> list 11.15 <br> Net 7.80 <br> Type ER6． 28 Photo．Flosh Boltery．Rated of 2 valts for neorly 6 ompere－hours． 125 to 250 foshes before rechorging．Provides the high omperage needed for positive bulb hash and split－second synchronisation of solenoid shutter and bulb．Size： $1-11 / 16^{\prime \prime}$ $21 / \mathrm{s}^{\prime \prime} \times 41 / \mathrm{K}^{\prime \prime}$ ．Shpg．Wi．， $1 \mathrm{l} / \mathrm{s}$ lbs． <br> Whlard ER－6－28 <br> Net 5.28 <br> Type ER．34．2 Portable Rodio Bottery．Roted of 2 Volts for 34 amoerehours．Originol equipment in RCA 65BR9 portoble rodio． 17 platet．Sires $41 / 2^{\prime \prime} \times 3.11 / 16^{\prime \prime} \times 4 \frac{1 / 2 "}{}$ ．Shpe．$w$ ．． $51 / 2$ lbs． |
| :---: | :---: |

## MALLORY MERCURY BATTERIES

standard size Mercury batrories for Hansistarized minioture podios，hearing oids and experimenters．Provides 2 to 3 times the service and shelf life of ardinory types of lower costs．Unalfected by high temperotures or pressures，os well os extended periods of non－use．

| Typ | Volts |  | Size <br> Diom 4 H or $W \pm D \times H(\ln$. | Max <br> Drain <br> ）Ma | Std． Plitg． | Shpg． W\％． Each | $\sin$ ． gly Eoch | Std． <br> Plig． <br> Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TR－140R | 1.34 | 1600 | 2x1／2x1－1／4 | 200 | 2 | 3 ot． | 1.23 | 1.12 |
| TR－152R | 2.5 | 400 | 1／2x1．7／32 | 40 | 2 | 2 oz． | ． 79 | 2 |
| TR．162R | 2.5 | 500 | 23／32×29／32 | 50 | 2 | 3 оz． | ．84 | 76 |
| TR－120R | 2.5 | 800 | 2x1／2x1－1／4 | 100 | 2 | 3 oz ． | 1.21 | 1.10 |
| TR．132R | 2.5 | 1000 | $21 / 32 \times 1-5 / 16$ | 100 | 2 | 3 ors． | 2 | ． 84 |
| TR．113R | 4.0 | 250 | 21／32×27／32 | 20 | 2 | 3 oz ． | 1.01 | 2 |
| TR－153R | 4.0 | 400 | 1／2x1－23／32 | 40 | 2 | 208. | 1.01 |  |
| TR．163R | 4.0 | 500 | 21／32x1－15／16 | 50 | 2 | 3 oz． | 1.21 | 1.10 |
| TR．133R | 4.0 | 1000 | 21／32x2 | 100 | 2 | 308. | 1.30 | 1.18 |
| TR－233R | 4.0 | 2200 | 10x2 | 60 | 1 | 9 oz | 1.80 | 1.80 |
| TR－114R | 5.0 | 250 | 21／32x1 | 20 | 2 | 302. | 1.34 | 1.22 |
| TR．164R | 5.0 | 500 | 21／32×1－25／32 | 50 | 2 | 3 az ． | 1.49 | 1.35 |
| TR．134R | 5.0 | 1000 | 21／32＝2－5／8 | 100 | 2 | 3 oz． | 1.68 | 1.53 |
| TR．115R | 6.5 | 250 | 21／32×1．9／32 | 20 | 1 | 3 oz ． | 1.52 | ． 52 |
| TR－165 | 6.5 | 500 | 21／32x2－3／16 | 50 | 2 | 3 cz | 1.80 | 1.64 |
| TR．135R | 6.5 | 1000 | 21／32×3－1／4 | 100 | 2 | 402. | 2.04 | 1.85 |
| TR－145R | 7.5 | 350 | 21／32×1－1／16 | 20 | 2 | 3 oz ． | 1.60 | ． 4 |
| TR－136R | 8.0 | 1000 | 21／32－3－29／32 | 100 | 2 | 50 ct | 2.53 | 2.30 |
| TR．146R | 9.0 | 400 | ｜x17／32x1．15／16 | 40 | 2 | 3 oz ． | 2.04 | 1.85 |
| TR－246串 | 9.0 | 1500 | 1x17／32x1－15／16 | 100 | 2 | 7 oz． | 2.20 | 2.00 |
| FOR R | RADIO． | E1F | TRONIC AND IN | INDUS | 1AL | APP | ATI |  |
| RM－1R | 1.34 | 1000 | 5／8x21／32 | 100 | 4 | 302. | ． 40 | ． 36 |
| RN－3R | 1.34 | 2200 | $1 \times 21 / 32$ | 60 | 4 | 3 cz | ． 55 | ． 50 |
| RM－4R | 1.34 | 3400 | 1．2×21／32 | 80 | 4 | 4 oz． | ． 72 | ． 65 |
| RM－4RT＊ | 1.34 | 3400 | 1．2×21／32 | 80 | 4 | 408. | ． 77 | ． 70 |
| RM－42R | 1.34 | 2400 | 1．2×1／2 | 80 | 4 | 308. | ． 64 | ． 58 |
| RM－12R | 1.34 | 3600 | $5 / 8 \times 2$ | 250 | 2 | 3 oz． | ． 85 | ． 77 |
| RM－42R | 1.34 | 14000 | 1．2x2．3／8 | 1000 | 1 | 10 oz． | 1.85 | 1.85 |
| 具M－42RT＊ | － 1.34 | 14000 | 1．2x2－3／8 | 1000 | 1 | 10 oz ． | 1.90 | 1.90 |
| RM－400R | 1.34 | 80 | 15／32×1／8 | 10 |  | 1 oz ． | ． 28 | 25 |
| RN－401R | 1.34 | 800 | 15／32x1－1／8 | 100 | 2 | 208. | ． 35 | ． 32 |
| RM．450R | 1.34 | 400 | 15／32 $\mathrm{I}^{1 / 2}$ | 40 | 4 | 202. | .33 | ． 30 |
| RM－502R | 1.34 | 2400 | 1／2x2 | 200 | 2 | 3 oz． | ． 64 | ． 58 |
| RM－601R | 1.34 | 1800 | 5／8×1－5／32 | 150 | 2 | 308. | ． 56 | 51 |
| RM－625R | 1.34 | 250 | $5 / 8 \times 1 / 4$ | 20 | 4 | 108. | .31 | 28 |
| RM－625RT | T＊ 1.34 | 250 | $5 / 8 \times 1 / 4$ | 20 | 4 | 108. | ． 35 | ． 32 |
| RM－630R | 1.34 | 350 | 5／8x1／4 | 20 | 4 | 102. | .31 | ． 28 |
| RM－640R | 1.34 | 500 | 5／827／16 | 50 | 4 | 208. | ． 35 | .32 |
| RM－925R | 1.34 | 1500 | 1．2x5／16 | 15 | 1 | 3 or． | ． 52 | .47 |
| ZM－9 | 1.5 | 2400 | 1／2x1－31／32 | 200 | 2 | 5 ®2． | ． 56 | 51 |
| RM－411R | 15. | 130 | $\mid x 17 / 32 \times 1-13 / 32$ | 10 | 1 | 3 oz | 1.50 | 1.50 |
| QM－412R | 22.5 | 130 | 1x17／32x1－15／16 | －10 | 1 | 308. | 1.92 | 1.92 |
| RM－413R | 30 | 130 | 1817／32－2－1／2 | 10 | 1 | 308. | 2.27 | 2.27 |
| RM－415 | 34 | 130 | 1×17／32x3－1／2 | 10 | 1 | 6 ot． | 3.15 | 3.15 |
| －Indicates | s tob conf | focts． |  |  |  |  |  |  |

BATTERIES FOR PORTABLE RADIO RECEIVERS
Burges
Type
 Type Eveready Volts（Libs．）Net Type PORTABLE •••• ATTERES Type

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## Niso


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in

| $27 \times 10$ |  | W370 | $11 / 8.60$ |  | 3.38 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 47860 | V5064 | 779 | $11 / 3,9$ | 4\％ | 4.03 |
| Staso | $\checkmark 5054$ | W369 | 11\％， 9 | 51／2 | 4.10 |
| 179D60 | V5022 | 759 | 1\％， 90 | 21 | 7.21 |
| T5250 | $\checkmark$ S050 | 755 | 6，7\％，73 | $41 / 3$ | 4.30 |
| T5250 | V 5060 | 785 | $71 / 1,75$ | 41／3 | 4.38 |
| FbA60 | v 503 | 753 | $71 / 9,9$ | 7 | 5.08 |
| GSMSO | － | 754 | 71\％．9， 9 | 7 | 5.50 |
| T6Z60 | V5057W | 756 | $71 / 3,9,90$ | 51／3 | 4.73 |
| Fbasop | $\checkmark 5058$ | 757 | 9． 9 | 7 | 4.20 |
| G6860 | V5047 | 752 | 9． 9 |  | 5.43 |
| T6260P | $\checkmark 5054$ | 727 | 9.90 | 51／ | 4.80 |

MALLORY MERCURY PHOTO－FLASH BATTERIES AND B－C CARTRIDGES

Mallory Mercury photo－flosh batteries veroge two years of service in normo
 for surpas con any flash gun to dependoble，long osting bottery－copacitor operation Capocitor oives large surge for pos itive fring．Chonge in bolfery on ergy does not offect synchronizorion． Bottery life is lengthened．No wiring －odoption necessory－iust inser B－C cortridge in ploce of old bal reries．Complete ronge of units to fit $\mathrm{PX}-12$ can be adopted for 3 cell guns by odding PX－10A or PX－12A．

Std．Single Std．
Phe．Eq．Phg． Type Valts Stre

Stre
MERCURY BATTERES FOR LOW VOLTAGE FLASH GUNS PX－2 4.5 Power－Pak of 1.01 ．92 $\begin{array}{lllllll}\text { RM－12R } & 1.5 & \because A " C e l l ~ S i z e ~ & 10 & .72 & .65 \\ P X-502 & 1.5 & " A A " P e n ~ C o l l ~ S i z e ~ & 10 & .56 & .51\end{array}$

## CARTRIDGES SOR CONVERTING FLASH GUNS TO B－C

| PX－10＊ | BC | $2{ }^{\text {＂}} \mathrm{C}^{\prime \prime}$ Cell Vertical | 3 | 2.56 | 2.33 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PX－12＊ | 8 C | 2 ＂D＂Cell Vert | 3 | 2.92 | 2.65 |
| PX－18 | ${ }^{8 C}$ | 2 Penn Cell Horizontal | 3 | 2.37 | 2.15 |
| PX－20 | BC | $2{ }^{\text {＂C＇}}$＂Cell Morizontol | 3 | 3.14 | 2.85 |
| PX－10A | Adp． | $3^{\prime \prime} \mathrm{C}^{\prime \prime}$ Cell | 6 | ． 18 | ． 18 |
| PX－12A | Adp． | $3{ }^{\text {＂D }}$＂Call | 6 | ． 18 | 6 |
| MExCURY |  | EATTERIES FOR BUILT．IN 8－C UNITS |  |  |  |
| PX－411 | 15 | 9／16×1－1／16×1－7／16＂ | 12 | 1.05 | ． 95 |
| PX－412 | 22.5 | $9 / 16 \times 1-1 / 16 \times 2$ | 12 | 1.38 | 1.25 |
| PX－413 | 30 | $9 / 16 \times 1 \cdot 1 / 16 \times 2-1 / 16^{\prime \prime}$ | 12 | 1.58 | 1.43 |

G.E.

TRANSISTORS-DIODES
C B S


## Page 64

##  <br> mand rand

TEXAS SILICON DIODES

| TYPE | NET | TYPE | NFT |
| :---: | :---: | :---: | :---: |
| 600C | 1.94 | 6146 | 3.50 |
| $601 C$ | 3.60 | 618 C | 3.60 |
| 6046 | 3.25 | 618 C | 3.60 |
| 606 C | 3.25 | 620 C | 3.65 |
| 600C | 3.25 | 622 C | 3.70 |
| 610 C | 3.30 | 6246 | 3.75 |
| 612 C | 3.40 |  |  |


| VOLTAGE |  |  |  |
| :---: | :---: | :---: | :---: |
| REFERENCE DIODS |  |  |  |
| MPE | NET | TYPE | NET |
|  | 4.35 | $\begin{aligned} & 650 C 0 \\ & \$ 0 \\ & 653 \mathrm{Co} \end{aligned}$ | 4.85 |
| TEXAS SILICON RECTIFERS |  |  |  |
| TYPE | NET | TYPE | NET |
| 1N538 <br> IN539 <br> 1N540 <br> IN588 <br> 1N5 89 <br> 1NS90 | $\begin{array}{r} 3.00 \\ 4.08 \\ 5.45 \\ 9.10 \\ 14.00 \\ 14.00 \end{array}$ | 1N591 | 14.00 |
|  |  | IN1095 | 7.48 |
|  |  | 1N11096 | 10.20 |
|  |  | 1N1130 | 14.00 |
|  |  | IN1131 | 14.00 |
|  |  | 11/680 | 32.20 |
| TEXAS GLASS <br> DIODE/RECTIFIER |  |  |  |
| TYPE | NET | TYPE | NET |
| 1N645 1N646 1 N647 | 5.10 | 1NGA8 | 9.40 |
|  | 6.15 | 1N649 | 11.75 |
|  | 7.75 |  |  |
| HUGHES CERMANIUM OIOOES |  |  |  |
| TYPR | NET | TPP | MSt |
|  | 5.04 | 1M100 | 2.18 |
| 1N67A INGEA | 1.56 | 1N116 | . 0 |
|  | 1.07 | 1N117 | 1.11 |
| 1No9 | . 8 | 1N118 | 1.37 |
|  | . 46 | 1N126 | . 57 |
| INPS | .52 | 1N127 | 1.20 |
| 1N86 | . 65 | 1N128 | 1.01 |
| inet | 1.82 | 1N1P1 | 1.62 |
| INPEIN99 | 1.66 | 1N192 | 1.14 |
|  | 1.62 | IN19 | 1.8 |

HUGHES SILICON DIODES

| TYPE |  | NET | TYPE | NEI |
| :---: | :---: | :---: | :---: | :---: |
| 1N456 | (ND.6005) | 4.32 | 1N625 | 1.79 |
| 1N457 | (HD-6006) | 4.19 | 1N628 | 2.11 |
| 1N458 | (HD-6007 | 4.61 | 1M627 | 2.54 |
| IN459 | (ND-6008) | 4.78 | 1N628 | 2.86 |
| 1N461 | (HD-0001) | 2.15 | 1N82 | 3.12 |
| 1N462 | (HD-6002) | 3.19 |  |  |
| 1 N 463 | (HD-6003) | 3.31 |  |  |
| 1N464 | (ND.6009) | 3.32 |  |  |
| TRANSITITON |  | SILICON DIODES |  |  |
| TPE | NET |  |  | NET |
| 1N137A | 3.30 |  |  | 3.47 |
| INI3T | 3.30 |  | 3A | 4.07 |
| 1w138A | 3.30 |  | 831 | 4.70 |
| 1N1308 | 3.30 |  | 84 | 3.63 |
| IN350 | 4.64 |  | 84A | 4.35 |
| 1N351 | 5.17 |  | 848 | 5.25 |
| 1N352 | 5.80 |  | O5 | 3.85 |
| IN353 | 5.83 |  | 05A | 4.62 |
| IN354 | 13.20 |  | 988 | 5.50 |
| 1m436 | 4.73 |  |  | 4.29 |
| 1N4S7 | 4.90 |  | 6A | 5.50 |
| 1 N45 | 5.20 |  | 17 | 7.70 |
| 1N45 | 5.50 |  | 7A | ¢. 35 |
| 1 N4S2 | 2.37 |  |  | 13.20 |
| InatzA | 3.08 |  | 18A | 14.30 |
| 1N4E20 | 4.73 |  |  |  |


| TYPE | NET | TYPE | NET |
| :---: | :---: | :---: | :---: |
| IM240 | -. 90 | 1N340 | 3.74 |
| In24A | 11.00 | IN341 | 6.27 |
| 1N24 ${ }^{\text {d }}$ | 13.20 | IN342 | 6. 27 |
| IN244A | 14.30 | 1N343 | 4.40 |
| IN250 | 17.00 | IN344 | 4.40 |
| IN250A | 20.20 | IN345 | 3.01 |
| IN251 | 6.60 | 1N346 | 3.00 |
| IM2S | 4.13 | 1N347 | 4.80 |
| 1N253* | 4.62 | IN348 | 2.20 |
| 1N2S4* | 3.06 | 1N349 | 2.20 |
| 10253* | 9.90 | IN411A | 33.00 |
| 1N256* | 22.00 | INAI2A | 41.80 |
| IN332 | 9.63 | IN413A | 55.00 |
| IN333 | 9.63 | T15A | 1.34 |
| 1N334 | 7.43 | TJ30A | -25 |
| IN335 | 7.43 | TL3 | 3.30 |
| 1N336 | 4.95 | T61 | 18.15 |
| 1N337 | 4.93 | TM31 | 4.40 |
| 1N330 | 4.40 | TMES | 9.57 |
| 1N339 | 3.74 | -JAN | Trpo |



# Rartheon TRANSISTORS-DIODES SHIVaNiA 





BASIC FM-AM TUNER HAVING OUTSTANDING SPECIFICATIONS ANO DELIVERING ASTONISHING PERFORMANCE - ALL AT A BUDGET PRICE IN EASILY ASSEM BLED KIT FORM

## FM-AM TUNER KIT

- ARMSTRONG CIRCUIT AND FOSTER SEELEY DISCRIMINATOR - GROUNDED GRIO TRIODE AMPLIFIER - 20-20,000 CPS RESPONSE Choose this superb compoct high-ndelity FM-AM tuner whase characteristic features are found in units costing many times as much, and whose performance is unheord af of this low price. There are iwo front panel controls, a functian control far AM. FM. PHONO and a luning/AFC defeat cantral. Autamatic frequency control for fast occurate tuning can be momentorily disobled to ollow tuning weok stotions odiacent to stronger anes. Feotures Armstrong FM circuit with limiter and Foster-Seely discriminator. The law noise front end consists of priode grounded amptifier and seporate mixer and oscillatar. The AM superheterodyne recaiver has a law noise builf-in ferrite loopstisk and high impedance terminat for external antenne. Simplified funing with slide-rule dial and Aywheel counterweighted mechonism, high impedonce phono input and high impedance audio outpur. SPECIFICATIONS
FRE OUENCY RANGE: FM, 88-108MC, AM, $530-1650$ KC. ANTENNA INPUT: FM, 300 ohms, AM, Ferrite loapstick ond high impedance external antenna. DISTORTION: Less than $1 \%$ of rated autout. FREQUENCY RESPONSE: FM. $\pm .5 \mathrm{DB} 20$ to $20,000 \mathrm{cDs}$. AM $\pm 3$ DB 20 to 5000 SPs. SENSITIVITY: FM. 5 UV for 30 OB quiating. AM. 100 D sensitivity 80 UV/meter. SELECTIVITY: FM. 200 KC bondwidth, 6 DS down; 375 KC FM discriminator peolif to peak ieporation. AM, 8 KC bandwidth, 6 DB down. IMAGE REJECTION: 30 DB minimum. HUM LEVEL: 60 db below $100 \%$ modulotion: TUBE COM-
 $51 / "^{\prime \prime}$ high $\times 91 / "^{\prime \prime}$ wide $x 91 / 2^{\prime \prime}$ deep (excluding knabi). CONSUMPTION: 30 wats. For 110.120 V 60 eycles AC. Attractive copper plated and lacquered finish. Less metal case. Shpg. wr., 9 lbs
KT-100A
Net 34.95
ML- 100
Mefal coge for above. Shpg. wi., 3 lbs,
5.00

Build-it-Yourself and Save with NEW EICO HIGH FIDELITY AMPLIFIER KITS

## 12-WATT WILLIAMSON-TYPE

 HI-FI AMPLIFIER . . . PREAMP CONTROL SECTION

## COMPLETE KIT

WIRED
34.95

Compact, atpractivaly styled amplifier with complete
front end focllties and true high fidelity performance. front end fociltities ond true high fidelity performance. Direct tape heod and magnetic phono inputs with NARTB (tope) and RIAA (phono) feedbock equalizetions. Dual triode circult for varioble furnover boss and treble foed-
bock-type controls. Pawer oulputit 12 wotss continuous, 25 watts peok. intermodulation distortion $1.5 \%$ of 12 25 watts peok. at 6 walts, 60 to 8000 cps . Frequency waths, $0.55 \%$ at 6 walts, 60 to 8000 Cps. Frequency
responses $12.50,000$ cPs $\pm 0.5 \mathrm{dt}$ at 1 watt; 25.20 .000 $\mathrm{cps} \pm 0.5 \mathrm{db}$ of 12 watts. © Controls, Selector switeh, level control, bass and treble controls. Speoker connections for 16, 8, and 4 ohms. Tubess: (2) ECCB3/12AX7, ECCB2/12AU7, (2) EL84, EZ81. Size: $3 \% \%^{\circ} \mathrm{H}, 12^{*} \mathrm{~W}$. $81 / 4^{=}$D. Shpg. w1. 13 fbs. With instructions.
HF12K-Complete Kit_-.................................. 34.95
HF12 -As above, foclory wired.
Net 57.95

50-WATT ULTRA-LINEAR AMPLIFIER


Here is a now high powered, high fidelity amplifier wlith virtually obsoluto stobility and flewless translent re sponse under load. Extremely high qually output transformer, fully potted in seamless steel case. Preompli-fier-equolized control section has five equalizations for LP': and $78^{\circ}$ including RIAA, variable turnover feedbock tone conirols, loudness and level set controls. Six inpuis include four high level switched inpuls for iuner, TV, tope. crystal/ceramic phono, and twa low level in. puts for mognetic and high quolity crrital cortridges. Has hum balance control. Power autput 50 watts conlinuous, 100 watts peak. Hormenic and intermodula. linuous, 100 walts peak. Mormenic and intermodula-
tion distortion less than $1 \%$. Frequency response 15 . $30,000 \mathrm{cps} \pm 0.1 \mathrm{db}$. Hum and noise 60 db below rated output. Speoker connections for $4,8,16$ ohms. Size $7^{\prime \prime} \mathrm{H}, 14^{\prime \prime} \mathrm{W}, 8^{\prime \prime} \mathrm{D}$. Shpg. wt. $29^{\circ} \mathrm{lbs}$. With instruetions.
HF52K-Complete Xit_................................. 69.95 HF52 - As above, foctory wired...........Nep 109.95 Model E-1 Motching Cover ........................... 4.50 MFSOX-Power Amplifier Kit only............Net 57.95 HF50 -Facfory wired Amplifier anly.....Net 87.95 Madel E.2-Matching Cover ............................ 4.50

HIGH FIDELITY PREAMPLIFIER


## COMPLETE 24.95 Factory Wired KIT ONLY <br> 24.95

Provides camplete control and switching facilities for the finest power amplifiers. Hos feedbach-type, sharp culaff scratch and rumble filters (12db/actave). Law distortion feedbock tone controls include five most common recording curves for LP's ond 78's plus MIAA. Tone contrals provide large boost or cut in bots or trebie with controls previde large boost or cut in boss or trebie with mid-frequencles and volume unaffected. Equipped with
toudness centrol, feur high level switched inputs (TV, toudness centrol, four high lovel switched inputs (TV,
luner, tape, oux.) and three low level inputs for all luner, tape, aux.) and three low level inputs for all
cartridges. Hos hum balance control and faur convenience outlets. Negligible hum, noise, harmonic ond intermadulation distortion. Frequency response 8 $100,000 \mathrm{cps} \pm 1 \mathrm{db}$. Size: $4 / \mathrm{ch}^{\mathrm{mH}} \mathrm{H}, 12-5 / 16^{\circ} \mathrm{W}$. $4 \%$ " 5 . Shpg. wt. 8 lbs. With instructions.
HF61AK-Complete Kif_...............................Net 24.95
MF614 -Same as above, factory wired....Net 37.95 HF61K -Same as HF61A Kit except with
$\qquad$ .Net 29.95
HF61 -Same as obove, factary wired....Nef 44.95


New! 60 WATT

ULTRA-LINEAR
HI-FI
POWER
AMPLIFIER KIT
with ACRO
TO-330 Output Transformer

## COMPLETE

KIT
72.95

WIRED 99.95

Enjay superb performance and sove money too by building this top quality amplifier using the finest components and proven design foolures. The klf includes Acrosound's famous TO-330 output transformer which provides high undistorted power, pushpull parallel ullra-lineor operation. Circuit includes EF86 law. nolse voltage amplifier direct-caupled to 6SNTGTB cathodecoupled phose inverter driving two EL34 autput fubes aperated coupled phose inverter driving two EL34 output fubes aper ated
with fixed bias. Roted power output 60 wolts, with 130 watt with fixed bias. Roted power oufput 60 wolts, with 130 watt
peok. intermadulation distortion less than $1 \%$ of 60 W . Harmenic distortion less than $0.5 \%, 20-20,000 \mathrm{cps}$. $\pm 1 \mathrm{dt}$ at 60 W . Frequency response: $16 \cdot 90,000 \mathrm{cps}$. $\pm 0.1 \mathrm{db}$ of 60 W . Domping foctor 17. G234 rectiffer with. Indirectly heoted cathode - timinotes high starting voltogo on electrolytics and deloys $8+$ until tubes warm up. Mas input level control, bios and blasbalonce adjustments, stondard socket for preamp power toke-oft and remote on off switching. $7 \times 14 \times 8^{7 \prime}$. Shpg. Wf. 30 lbs . With instructions, tubes and all ports. Eico HFbO_Amplifier Kit. $\qquad$ .Net 72.95 Same as above campletely wired.

Nel 99.95 Madel E-2-Matching Cover

Net 4.50

## EASY TO BUILD HIGH FIDELITY KITS Enjoy the Best and you Save More! <br> NeW! EITDS 20 WATT HIGH FIDELITY AMPLIFIER KIT MODEL HF2OK <br> - $\pm 0.5 \mathrm{db} 13 \mathrm{fo} 35,000 \mathrm{cps} ; \pm 1.5 \mathrm{db}, 710 \mathbf{5 0 , 0 0 0} \mathrm{cps}$ <br> - COMPARES WITH moSt EXPENSIVE AMPLIFIER MADE! <br> - BEST BUY IN SUPERLATIVE MIGH FIDELITY AMPLIFIERSI <br> High quality equalizer and control section plus 20 watt Ultra-Linear Williamson-type power amplifier. Low distortion feed-back equalization: $\overline{5}$ equalizations provided for LP's and $78^{\circ}$ s including RIAA. Varlable turnover, low distortion feed-back tone controls. "Flat" bositions at center settings of control knobs. Loudness control and separate level set control both on front panel. Provides adjustable Fletcher-Munson compensation or no level without affecting tane output. Permits use of up to 30 ft . of cable. level without affecting tape output. Permits use of up to 30 ft . of cable. Six inputs: 4igh level switched inputs - Tuner. phono or second tuner) : 2 low level inputs (not switehed) - provides proper pick-up loading and attenuation for all leading magnetic, fM and high quality erystal cartridges with out changing resistors. Hum balance control or baitncing out 100 wats. Tubes:2-12AX7.2-12AU7A, 2-61.6GB. Power Consumption: $110-120$ volts. 60 eps. 100 watts. Tubes:2-12AX7. $2-12 \mathrm{~A}$ $1-5 U 1 \mathrm{~GB}$. Handsomely styled to eliminate the necessity for cabinety. Size: $81 / 2^{\prime \prime} \mathrm{H}, 1 \mathrm{~s}^{\prime \prime} \mathrm{W}$, 10 "D. Shpa. wt. 24 lbs <br> EICO MOOEL HFIOK - KIT, Complete <br> Net 49.95 <br> MODEL MF20 - Factory Wired <br> Net 79.95 Net 4.50 <br> ENCLOSURE FOR HF20 <br> - Cosos. <br> NEW DYNAKIT MARK III 60 WATT <br> POWER AMPLIFIER KIT <br> - PRE-WIRED PRINTED CIRCUIT ASSEMBEY <br> - MATCNED PAIR PREMIUM TUBES <br> - CHOKE FILTERING TO MINIMIZE NOISE <br> Compact 60 wall basic amplitier designed fare finest listening quality in modern hi-fi installations. Pre. wired printed circuit ossembly with ports mounted assures carrect frauble.free canstruction in as little as three hours. Accurate and simple bias setting independent of meter accuracy. Balancing ar critical ad iustments ore not required to meet performance specifications. Frequency response better than $\pm .5 \mathrm{db}$ from belaw 6 cps ta abave 60 kc . Response of any lavel up 10.00 watts is $\pm .1 \mathrm{db}$ over a range in excess listening levels. Less than $1 \%$ harmanic distartion within 1 db af 60 watis fram 20 cps to 20 kc . Excel. lent framient response an pulses, square waves, elc., and naise 90 db belaw maximum. 4, 8, and 16 ahm outputs. Utilizes 1 GAN8, 2 KT88 (or 65S0), 1 G234 and selenfum rectifier. Woshoble, chip-proof vinyl coated finish an caver. All parts, tubes and protective caver included in kit. Shpg. wi., 28 lbs MARK 11160 WaH Amplifier KH <br> Nel 79.95 Above. Campletely Wired and Tested. <br> Net 99.95 <br> NEW ACROSOUND <br> ULTRALINEAR II 60 WATT <br> POWER AMPLIFIER KIT <br> 79.50 <br>  <br>  <br>  <br> The Acrosaund Ulira-linear II is a 60 watl pawer ampllfier utlizing ulfra-linear circuitry and new feedback design ta pravide a new standard af stabllity in feedbask amplifier perfarmance. A varioble damp. ing cantrol is adiustable between .5 and 10 for aptimum speaker mateh, withaut valume change, increased distartion ar frequency discrimination. Critical wiring is preassembled on a printed circuit boord. A full chake candenser power supply and fully polted ransformers are supplied, and tubes are aperoted well within ratings. New 10.600 autput transformer with law teakoge reactances belween windings and novel feedback windings is used. IM distartian less than $1 \%$ at 60 watts far any standard cambinatian of test frequencies. Hormonic distortian less than $1 \%$ at any frequency between 20 cPs and 20 ke of power oufput within 1 db of 60 watts. Sensitivity is 2 volis RMS for 60 watts afuput. Hum is 85 db below rated output. Output impedances of 4,8 , ond 16 ahms. The tube lineup cansists of 2 EL34/6CA7, 12AU7, $12 A X 7$ and G234 the amalifier is oltractively styled and presents o professionally finished appearance that is both functional and pleosing, with dark brown chossts and cavep, and light brown transformer cons. Size $7^{\prime \prime \prime} \times 15 y^{\prime \prime} \times 8^{\prime \prime}$. Shpg. $w 1$.. 30 lbs <br> ACROSOUND 60 Watt Amplifec Kit <br> Net 79.50 <br> Above. Completely Wired and Tested. <br> Net 109.50 <br> DelUXE 9 TUBE FM <br> TUNER KIT <br> - dual limiters-FOSTER-SEELEY DISCRIMINATOR - CATHODE FOLLOWER OUTPUT <br> - TUNED RF FRONT END <br> - SELF-CONTAINED AC POWER SUPPLY <br> - RESPONSE 20-20.000 CPS $\pm .5$ DB <br> - TEMPERATURE COMPENSATED ARMSTRONG CIRCUIT <br> - TUBES PLUS SELENIUM REGTIFIER <br> Quality dorts oluz on ancellant circuit make this a top-notch unil. Uses - 3 gong voriable, iron core luned I.F.is and dieriminator franstorm. eft. heary 16 gauge copoer pleted and locquered chartis. Features include Armitrong circuif, hum level -70 db below overoge oufpul output volt overoge .5 volt: RMS, ennifivity of $10 \mathrm{u} / \mathrm{v}-20 \mathrm{ds}$, 200ke bondwidih and funed if ilage. Contiols ore funing, volume with 200ks bondeidit and fund ith thoge. Controls ore luning, volume with 115 rolt so cycle AC pewer iupoly. Iuber ore 4.0AUb, 2-6ABA, I each 6CB6, 6AL5 ond 6CA cothode lollower output plus selenium rectifier Every part is of finent quality-even the wectets ore mice klled, Illu. minoted dial, fich gold finithed arcuftheon ponel and motehing brass inlay inobr Chasiit dimensions $9 \%^{*} L \equiv 5^{\prime \prime} \mathrm{H}, ~=5 \%^{\prime \prime} \mathrm{W}$. Included is 24 page $81 / 3^{n}$. $11^{\text {m }}$ book complete with pictorial, mechonical and schemotic diogroms. plus slep by step ossembly initructions, kit is complete with tubet ond oll porti. Shpp. wight 11 lbe. <br> KT-107 Kit <br> 37.95 <br> 12 TUBE <br> AM-FM <br> TUNER KIT <br> - 12 TUBES pLUS CRYSTAL DIOdE DETECTOR <br> DUAL IIMITERS-FOSTER-SEELEY DISCRIMINATOR <br> - ARMSTRONG CIRCUIT-TEMPERATURE COMPENSATION <br> - FM RESPOPNSE 20-20,000 CPS $\pm .5 \mathrm{DB}$ <br> - SECTION VARIABLE-TUNED RF STAGES <br> Ovild this fine 12 lube AM.FM funer that covers both 88.108 MC and 530-1650KC AM and FM bonds with superb quality. Frequency cesponis is $20-20,000$ CPS $\pm .5 \mathrm{db}$ on FM , and 20.7500 CPS $\pm 3 \mathrm{db}$ on AM. Twelve lube sircuil includer 4.6AU6,2-6AB4. 2.6BA6, 1 oach 6CBS, SAL5, SBEb, and SCA cothode followor oufpul plui IN34.do ervitat diode detector. Mas b section voriable condenier, Jron core funed I.F.. diseriminotor, onfenna. Af and  Am $\% \mathrm{fm}$. Mum level it -70 db below overage outpul. Drift is held to minimum by temperoture compeniotion. Eatremaly cenallive. $5.10 \mathrm{v} / \mathrm{v}, 20.30 \mathrm{db}$ on $\mathrm{FM}, 5$ micrevalts en AM. Centrols are funing ond 3 position switch for AM, fm, On.Of. Copper ploted  gold finished escutcheon donal and brass inloy knobs. 24 poge intruction monual in ceplefe with eciy fo follow pictorial, mech onical and schematic diogromi fith slop by steo instructions for oniembly and operotion. Externel oower supply required is 190 volfi $O C .53$ mo and 6.3 volts AC 4 omp. KT- 109 power supply is ideal for this pursose. Kit is complete with all porty ond fuber. Shpg. wight 12 Ibs. <br> KT-106 AM-FM KIT <br> NET 43.95 <br>  <br> \section*{UNIVERSAL POWER SUPPLY} <br>  <br> KT.109 Power Subply 12.80

## Buind llaus Gurs lits ENJOY THE FINEST AND SAVE!

10 WATT PUSH PULL HI-FI AMPLIFIER KIT

- BUILT-IN P若EAMPLI pier bor ge aeluc
- selector switches permit choice of THREE INPUTS
- separate bass and TREBLE CONTROLS
- 4. AND 16 OHM outputs
EASY-IO-FOLLOW INSTRUCTIONS


### 24.50

nif omplifier hos mony deluxe feotures for exceptional perThis now, economy hi-fi omplifier hos mony deluxe feolude mognetic phono pickup formance. The three inputs ore rodiofervital phono picilio, erystol to microphone o ond mierophone. A selector switchos the inpur of o reor opron slide switch. magnelic pickup, depending upon the position of O rCY RESPONSE - $\pm 1$ db 30 OUTPUT - Roted 10 wolts, Deok 18 . PREOUENCY intermodulotion at 8 woth 15,000 cps. DISTORTION - $1.5 \%$ hormonic, $4 \%$ intormoduons TREBLE CON a CONTROLS - Input Selector; Volumet Tress CONTROL - Flat response up to TROL - Flot response up to 15 db boolt. 18 db oftenuotion. OUTPUT IMPEDANCES - AÚIIGARY AC OUTIET - Distinctive OSLTGT, 2 - $6 V 6 G T$ ond $5 Y 3 G T$ rectifier. AUXILIARY AC OUTLET Hommortane
120 Volts.
120 Volth.
Complefe kit wh soded wire, highent grode solder ond detoiled instruction monuol.
Net 24.50 KT-91

5-WATT PUSH-PULL AC-DC HI-FI AMPLIFIER KIT


- separate volume BASS AND TREELE CONTROLS
- PUSH-PULL AUDIO OUTPUT STAGE - inverse feedeack ciRCUIT
- ac or dc operation
10.95

Here in kit form is an AC.OC hi-fi omplifier that presents unusuol feotures despite its amozingly low price. The seporote boss ond sreble controls permit odiustment of both low and high frequency response and bolonce. Works equolly well with both crystol or ceromic rortridges. Hos a \&-fubs line up-o $12 A \times 7$ equolly well with both inverter, a $35 W^{4}$ rectifier ond o poir of $35 \mathrm{CS}^{\circ}$, in push-pull, hoving o power.pocked low disfortion outpuf. The circuit utilizes on inverse feedback loop to reduce the level of hum ond distortion. Kll is complete contoining oll essentiol ports, tubes ond defoiled Instruction monvol showing pictoriol ond schemotice diogroms. Shog. wt., 4 lbs.
K K .92
Net 10.95
NEW! EICO MODEL HFT90 FM TUNER KIT


- PRE-ASSEMBLED, PRE ALIGNED, SHIELDED FRONT END
- traveling tuning indICATOR
- EXCELLENT SENSITIVITY
- SIMPLIFIED CONSTRUCTION AIDS Kit includes on antrely complated and aligned "front end" housed in a solld Kit includes on entirely comploly provides excellent sensitivity ond low nolso, aluminum shield which drift-free becouse of advanced circuitry and temperalure. but is also stoble ond dris. This "Front end" makes possible construction of an campensated components. This FM tuner comparable to o fectory wired unit, oven diol, blaaming into an exclamoing tuning indicatar, trovels along the silde-rule dot, biures include fly-wheel tuntion point at the exact center of to elimiting threshold, broad band ratto deing, automatie gain coniral, stobilus flat frequency response. Importont construction tector, and very low distortion plus hat frequency oids include simplified dial cord orrongement and pro-wired hovietings full $\mathrm{Hm} / \mathrm{h}$. SENSITIVITY: 1.5 UV for 20db quieting, 2.5 VTPUTS. Cethode follower and Sen 25UV. INPUT: 300 ohm balonced. ing from 2SUBE COMPLEMENT: I-ECC85/0AO8, 3-6AUb, 1-6ALS, 1.6CA, to multiplex. TUBE CM SOdb bolow 1 volt. POWER: $110-125 \mathrm{~V}$ AC, 60 CDs; 40 $6 \times 4$. 1.DM70. MUN: wat consum

Net 39.95
instructions.
HFT 90 FM TUNER XIT (lass cover)........ Net 65.95
 Covar for abave.

Page 70

PUSH-PULL - 6 WATT HI-FI AMPLIFIER KIT


Ahgh-quolity down-to-corth priced hi-n oudio omplifer with separole $\frac{ \pm}{\bar{C}} 1.5 \mathrm{db}$. Self-contoined AC power supoly with frequency response boss contral boost 12 os oner awitch. The valume control. 117 volis, $30-60$ cycle
 phose inverter, $2-12 A$. The tube comploment conifat of 12 . Mazimum $\&$ woft oufpu cothede-ray output indicaior.pull beam power outout 5 y -1 it omplifier, 12517 out compoct size 11 " long, $81 /{ }^{\circ}$. Mica Klled sockets. The chreme pectifer and 1629 mounting. Supplied with $1^{2}$ wide and $51 / 夕^{\prime \prime}$ high and chrome plated chossis is plete with instruction book centaining mplate ond matching silveriable to boel sheif Shas. wi., 13 tbe. 4T-711


## TECHMASTER

60-WATT HIGH
FIDELITY AMPLIFIERPREAMPLIFIER KIT

Advonced citcuitry and top quolity components provide excellent high fidelity performonce at a moderote price. Undistorted power oupput 60 wotts from 20-20,000 cps. Intermodulation distortion bolaw $1 \%$ of 60 wolts and betow $0.25 \%$ at normol listening lavels. Frequency response flat from $10-50,000 \mathrm{cps}$. Preamplifier provides compensotion for all recording characteristics. R.C filter network assures clear, hum-froe signal. Hum level 65 db below rated oupput. Individual bass ond ireble controls hove o range of 30 db each. Special features include 10 lb . output transfarmer with tapned primary for "ultro-linear" cannection, direct interstage caupling, voriable colibrated pickup load contral to occommodate all magnotic cartridges, and cathode follower tape recording lake-offs far oll inpuls. Out. pul impedonces for 16,8, ohm speokers. Tubes: 12AX7, 12AU7, 6AN8, (2) $6550,5 U 4 G$, and seporate selenium rectifier for fixed bios. Sizes $141 /{ }^{\circ} \mathrm{W}$, $51 / 4^{\prime \prime} \mathrm{M}, 103 / 4{ }^{\circ 0} \mathrm{D}$. Shpg. wt. 27 Ibs. With instructions, tubes and oll components Techmaster Model 19K—Amplifler Klt....

## TECHMASTER DELUXE SELF.

 POWERED PREAMP-EQUALIZER KIT

Anyone cen build this fine self powered preomp-equallzer, ond have o really profecitional in. itrument thot will provide new beouty and versotility to your music reproducing srstem. Ho: 4 input chonnels, one low leval high $g$ oin and 3 high impedance $s$ orate boss and treble contrals give 15 db boest or attenuolion at 20 ercles and 20 KC respen ively. Perfeet motehing of resper ing curves ossured by 5 pesitlonOld $78^{\circ}$ oquion control for 78 RPM, Hos 12AX7, 12AUP, and 6C4 Pubes plus selenium Old $78^{\circ}$, R1AA, FFRR and AES, 0 c) cles - isoloted fronsformer. Cothode follower pectifer, AC power supply for 115 S conirol. If's simple to build. Sockets, ferminali ond conpur. Loudnest compensoting Simple diagrams. Kit is complete with oll lubes, ond connectors riveted on chossis, POn. Size $9 \%^{\prime \prime} \times 3 \%^{\prime \prime} \times 112^{\prime \prime}$. Shpg. wt. 5 lbs. cobinet ond motehing gold escutchTECMMASTER TM-IBA

## 3 WAY PORTABLE RADIO KITS

- ac-dC or batteries

FIG. A - BROADCAST RECEIVER
Bulld this extremely sensitive portable radio which operates on either IloV A.C., IIOV D.C. or batteries. Covers the entire broodcast bond from 550 to 1600 KC . Utilizes miniature low drain tubes: 1R5 converfer, IU4 I.f. omplifier, iUS detector ond first oudio omplifier. 3V4 power omplifier plus o selenium rectlier. Beautiful 2 tone polysterene cobinet $10^{\prime \prime} \times 41 / 2^{\prime \prime} \times 7^{\prime \prime}$. Built in loop ontenno. Complete with Pubes, parts, cobinet ond construction manual featuring life-size pictorial diograms, and easy step by step wiring instructions. Supolied less botterie's. Shog. wt. $\&$ lbs
FIG. $A$ KT-57

NET 20.00
FIG. - - AROADCAST-SHORTWAVE RECEIVER A high gain extremely sensifive portable sel cavering the 550.1000 KC broodcast bond plus the 6.18 MC shori wove bands. Operotes either on 110 V AC, 110 V OC or on self-contoined botteries. A selection of different countries indicated on shortwave dial. Uses tron core if's and minioture lubes including IU4, 1U5, 1R5 and 3V4 plus a selenium rectifier. Altractive leatherette cobinet with semi-airplane dial. Kit is complete with tubes, rectifier, cabinet and technical construction manual with easy to fallow schematic and pictorial diograms
less botteries. Shpg. wt. 10 lbs .
KT-5 8
NET 26.75

- ATtERIES $\begin{cases}\text { KT-57 Burgess } & \text { N } 60 \\ \text { KT-5 } 8 & \text { Burgess } \\ \text { N } 60\end{cases}$
2.98; Bs
2.98; Cs
1.05

FOR $\begin{cases}\text { KT-5 } 8 \text { Burgess } & \text { NGO }\end{cases}$

## PHOTO-ELECTRONIC <br> RELAY KIT

WITH CADMIUM SULPHIDE PHOTOCELL

Lafoyette 's super-sensitive Cadmium Sulphide Photocell Roloy Control KIt has proven itself in such critical applications os burglar olarm systems, door openers, lighting control systems, motor octivotion and in countless industrial uses. The very high sensitivity of the minioture codmium sulphide photocell plus o well engineered circuit make this reloy control unil highly dependoble. The relay circuit is operated directly from the 110 voli AC line ond incorporates o 5823 cold-cothode tube with resulling instontaneous operotion at low illumination levels. Activotion of the Single Pole Double Throw reloy can open or close the external circult which utilizes the same Double throw refoy can open or close the externol circuit which urimizes instruetions) enobles you to supply the externol circuit; with ony desired voltoge. Relay contocts enables you to supply the externol circuit with any desired valtoge. Relay contocts
rated of 5 amps. Complete with all parts, photocoll, tube, ripple finished cose and rated of 5 amps. Complete with all parts, photocell, tubo, ripple finis hed
chossis and simple illustrated instructions. $3^{m} \equiv 4^{\prime \prime}: 5^{n}$. Shpg. wh., 4 lbs. KT-8 $\mathbf{i}$ KIt, complete

Net 11.50

## NEW! REGENCY TRANSISTORIZED <br> PREAMPLIFIER- <br> EQUALIZER KIT



A tronsistorized printed circuit preamplifierequalizer with the versotility and low dis. tortion of vocuum tube designs. Complefely free of hum and microphonicsl 4 Inputs FM or AM Tuners, Cirstal Phono Cartridge or Tape Recorder; Mognetic Phono Cortridge; Dymomic or Ribbon Microphone. Conirolss Input Selector, Boss, Treble ond Level. less than 0.5 percent infermodulation disfortion of moximum output. Noise tevels 70 db below 1 voll output. Frequency Response: 20 to 20,000 cycles. Phono Compensotion: Masnetic phono input compensated for RIMA-ORTHO using GE cortridge. Simple tone control odiustment occommodotes other types of records ond cortridges. 3 low.noise pnp transistors. Gold anodized aluminum front ponel; block vinyl peb-
 thorough step-by-stop instructions. Less Bottery.
Model MrT-1K-Kif
Net 34.95
Model HFT-1A-Factory Wired
Net 47.50
BATTERY FON ABOVE - RCA V 5300 (or Equivolenl)
Net 1.23


## EMC MODEL 210 TRANSISTOR CHECKER

A neot completely wired checker for all P-N-P and N-P-N transistors. Measures GAIN in 3 ranges permitting test with. out meter needle going off scale. Measures leokoge on 2 color "Poor-Good" scole. Housed in molded bakelite cowe with on oftrostive black painted aluminom panel neotly letlered in white. Complete with four $11 / 2$ valt penlight batleftered in white. Complese with our $1 / 2$ valt penllohi borteries in weries, instructions and mfrst.
Sizes: $61 / 4^{\prime \prime}=31 / 4^{\prime \prime}=2^{n}$. Shpg. w1., 2 lbs.
EMC MOOEL 210
NET 10.95

BOGEN K-DB20DF 20 WATT HI-FI AMPLIFIER KIT NOW IN KIT FORMI
AUDIOPNILE'S 20 WATT HI-FI AMPLIFIER FAVORITE!
Offers o combinotion of autstonding Mi -Fi feotures. A 5 position Loudness Contour Selector; 7 position record equalizer Boxandall-iype boss ond treble controls; DC operated preomplifier filoments to mini mize hum; 5 feedback loops for minimum distortion; rumble filter. Permits precise odiustment of the omplifier to the speoker system. Domping foctor
 db . Hum and noise: 75 db below 20 watts. Distortion: $0.3 \%$ at 20 wotts. 5 Inputs Mognetic phono, Crystol phono, Rodio funer, TV. Tape recorder. Power: 20 watts, tone burst peok 30 watts, Domping Foctor: 13. Controls: Volume, Bass, Treble Contour Selector, Punction Selector IRodio, TV. Tope, IP, AES, NAB, Ortho, RIAA, AM78, EU78, POPI. Power On.Of. $15^{\prime \prime} \times 10^{\prime \prime} \times 8^{\prime \prime}$. Shpe. wi., $25^{\prime} \mathrm{lbs}$. Complete with exceptionolly clear ond illustrated Instructions
K-DB20DF Complete Kit
Net 69.50
CG22 Coge for K-D820DF
Net 8.25
BOGEN K-DBIIO 12 WATT AMPLIFIER KIT
K-dBilo Popular Bogen 12 Watt Amplifier DBill in kit form. Complete with eosy-to-follow instructions. $11^{\prime \prime} \times 71 / 4^{\prime \prime} \times 51 / 4^{\prime \prime}$. Shpg. wt., $15 \mathrm{lbs} . . .$. Net 43.90 CAG-110 Coge for D8110

## 5 TRANSISTOR AUDIO AMPLIFIER <br> KIT KT-104

- WITH NEW GE HIGHOUTPUT TRANSISTORS
- CLASS "E" PUSH-PULL

3/a WATT OUTPUT

- BASS AND TREBLE CONTROLS

WITH PREAMPLIFIER FOR MAGNETIC AND MICROPHONE INPUT A rewording opplication of the latest G.E. specialized fransistors in on odvanced 5 Iransistor oudio ampllifier circuit with a well designed preampllfier sloge. 3 Inputs Crystal and most mognetic phono cartridges; crystal and most mognefic microphones; AM, FM and Tronslstor Radio Tuners. Mas Bass and Treble controls for fine reproduction ond more enioyable listening. Employs inverse feedbock for minimum distortion. Fre quency respanse $30-10,000$ cps. Tronsformer coupled in driver ond closs " $B$ "" push pull output slages for clear $1 / 2$ walt output ond aptimum performance. Complete with oll parts, prepunched chossis, attractive front panel and knobs and easy-to-follow in structions. $5 y^{\prime \prime \prime} \times 4^{\prime \prime} \times 1$ ". Shpg. wi.. 3 Ibs. with Battery.
KT- 104 for 3.2 ohm voice coll speaker
Net 19.95
KT-105 For 8 ohm voice coll speaker

## TRANSISTOR-DIODE CHECKER KIT

## ANOTHER LAFAYETTE FIRST

- QUALITATIVE CHECK OF P-N-P and N-P-N TRANSISTORS FOR LEAK. AGE AND GAIN - CHECKS DIODES
- CHECKS SELENIUM RECTIFIERS Loloyette's tried ond proven transistor checker is indispensoble for ultra fast, retioble transistor testing. It checks P-N.P and N.P.N Monsistors for leokoge and shorts on a multi-colored scole and indicates of ance whether Hronsistar is good or bod. Solector switch permits direct GAIN reading on a calibrated GAIN scole without needle defecting off scole. Parmits rapid check of diode ond selenium rectifier quality by indicoting forward and reverse current choracteristics. Sturdy block bokellie case and altractive block boked enomel olumi num ponel with white lettering. Comple:e with defciled instructions and up.fo-date manufocturers GAIN standords. $61 / 4^{\prime \prime} \times 31 / 4^{\prime \prime} \times 2^{\prime \prime}$. Shpg. wh., 2 liss.


KT-86A-Transistor-Diode Checker KHI …..Net 7.95
ERIE "PAC" AUDIO AMPLIFIER KIT


## - PRINTED CIRCUIT BOARD <br> - PLUG-IN COMPONENTS

A unique d-fube, push-pull qualify audio amplifier leoturing an embossed wiring board, the Erie "Poc", and extreme ease of assembly. The controls, capacitors and iube sactets plug into place like tubes. Frequency response 30-12.000 cps. Oufput 4 watts. Compact measures only $6 \%$ "W., $4-5 / 16^{\prime \prime} \mathrm{D} ., 3 \%$ " M Complefe with oll parts, inctuding tubes, output transformer, and instructions. Shng, wi. 3 lb .
KT-12
Net 12.69


## BUILD A 6 TRANSISTOR SUPERHET RECEIVER

- $100 \%$ SUBMINIATURE PARTS-NO COMPROMISESI
- laboratory designed-sensitive, selective, stablei
- CLASS B PUSH-PULL AMPLIFICATION-PLENTY OF POWERI


## Superb Performance! Incomparable Value! <br> FOR GROUP AND PRIVATE LISTENING

Translstor-wise Lafayetle is proud to present its 6 Transistor Superhet Receiver Kil KT-119. An outsfonding achievement of constont reseorch and design, this kit represents the aptimum in sanslilvity, seloctivity and slability. You'll be amazed at ity superiar commercial qualltyl You'll be elated with its surprising performancel The circuit, using 3 high frequency RF Transistors, 3 dependable audio Transistors and Crystol Diode. features a specially matched set of 3 I.F.'s. Oscillatar, High.Q loop, Class B Push.Pull Audio Amplification, and Transfarmer Coupling in audia and output stages. Spectal care hos been taken in the design for exoct impedance matching throughout to effect moximum transfer of power. Has efficient $2 \mathrm{~J} / \mathrm{A}^{\prime \prime}$ speaker for exemplary repraduction, and earphone jock for privato Ilstening. Complete with all ports, fronsistors, pre-punched chassis, and eosy-to-fallow step by-step Instructions. $6^{\prime \prime} \times 31 / 2^{\prime \prime \prime} \times 11 / 2^{\prime \prime}$. Shpg. wt., 3 ibs.

BATTERY-9 VOLTS RCA V 5300.
Net 29.95
Net 1.23
OR BURGESS PS...
MS.339-Sturdy, oftroctive brown leothor cose with corrying strop for KT. 119 6".............Net 77

- $11 /{ }^{2}$ Shpe wt 1 th

MS.366-Sensifive motching eorphone.................................................................................................................. 29


## ERHET KITS-POCKET AND HOME RADIOS AND EARPHONE OPERATION

## POCKET SIZE: $4^{\prime \prime} L \times 3-5 / 16^{\prime \prime} W \times I^{\prime \prime} D$ BUILT-IN ANTENNAI REQUIRES NO EXTERNAL ANTENNA OR GROUNDI

Lafoyette enginears have designed this fascinating 4-transistor superhet receiver kil in a unique and interesting form. II is, by itself, a completely self-contalned pocket sized personal portable sat which operates o miniature corpiece so anly you can hear, by plugging into the KT-96 kit listed below, it is instantly converted to a full b-transistar hame radia, complete with speaker for the entire fomily ta enioy. Circuit features use of 4 tronsistors $(2$ high frequency and 2 oudia type) plus a germanium diode, 2 I.F. stages and buill-in high gain ferrite core and antenno. The result is a sensitive, stable and selective set covering the entire broodcast band. Requires na outside antenna or ground cannection. The kit is furnished complete with transistors and all parts, Including bottery and chossis already drilled and punched. The earpiece and carrying case are accessory thems, not supplied. All necessary pictorial and circult diogroms ore furnished with simple, casy-tonfollaw instructions. KT-94 -Kit, shpg. wt., 2 lbs.

Nel 19.95 MS-311-Leother Corrying Cose.............................................................................................................. 1.95
M5-260-Super power dynamle eorpiece.
Nel 3.95
or MIS-368 SENSITIVE ECONOMY DYNAMIC EARPHONE.
Net 1.44

## 2-TRANSISTOR PUSH-PULL OUTPUT KIT WITH SPEAKER SELF-CONTAINED

 IN BEAUTIFUL PLASTIC CASE- CONVERTS 4.TRANSISTOR KIT INTO A G-TRANSISTOR HOME RADIO WITH SPEAKER Add a completely transistorized push-pull audio stoge to yaur 4-tronsistor receiver. Complete stoge including speaker and cose meosures only $3^{\prime \prime} \mathrm{H}=23 / 6^{\prime \prime} \mathrm{W} \times 13 / 9^{\prime \prime} \mathrm{D}$. Plugs right inta 4-transistar kit above. Converts your d-transistar set to - 6.transistar plus diodes superhat receiver. Performance equal ar superiar to commercially wired sets selling at more thon twice the price. Kit includes 2 transistors, 2 transformers, $21 / 2^{\prime \prime}$ PM speaker, pre-punched chassls, speoker cose to hold entire stage, batlery, hardware, instructions ond diagrams,
KT-96-Shpg. wt., 1 lb.
Net 11.50
 DESIGNER'S DREAM IN A TRUE POCKET SUPERHET RECEIVERI NO EXTERNAL ANTENNA! NO EXTERNAL GROUND!

A highly sensitive, suber-selective true pocket superhet receiver that will surprise you with its performance over the complete braadcast band. Just place it in your shirt pocket, place the corphone to your eos, and yau're in for a treall Best of alll No pesky anternal antenna and ground leads to worry aboutl the circuit uses 2 high frequency converter and IF Tramistars, 2 specially matched if transfarmers for maximum powor transfer, an efficient crystal diode for detection and a dependoble Audio Transistor in o single-ended audio output sloge. The components are housed in on oltractive pratessional-looking plastic cose. Comes camplete with ON.OfF knob and strlish station dial that odds consideroble closs to the receiver'r appeorance. Complete with oll parts, transistors, battery, case, dial ond cosy-fo-follow step-by-slep instructians. 41/6" $\times 2 \%$ " $\times 1.1 / 16^{\prime \prime}$. Shpg. w1., I lb.
KT. 116 -Complete Kil.
Net 16.95
MS-260 Super power dynamic Eorphone
Net 3.95
Or. MS-368-SENSITIVE ECONOMY DYNAMIC EARPHONE.
Not 1.44

Poge 72


## POPULAR TRANSISTOR KITS

## NEWI "SUNFLEX" 2 TRANBISTOR REFLEX RADIO RECEIVER KIT



- for solar or flashlight sattery operation
- NPN-PNP COMPLIMENTARY SYMMETRY CIRCUIT SUPER-REFLEXED FOR 3 TRANSISTOR PERFORMANCE - BUILT-IN "HI-Q"' FERRITE ANTENNA

An efficient and economical miniature receiver kif for earphone operation. Uses one NPN tronsistor, one PNP tronsistar and o crystal diode in on Ingenious reflexed complimentory symmetry circuit for 3 rransistor performance. Gives surprisingly good reception of local stotions in most tocatians without external ontenna or ground connections. Antenna plug-in lead supplied for reception of distont stations. Current drain is less than 1 milliamp. Operates on 2 inexpensive penlight flashlight batteries ( 3 vols) or will give lifetime performance in sunlight or under artificial light with use of amazing new silicon solar bottery (not supplied). Ideal for the beoch, ball gomes and other outdoor uses as wall as for indoors. Complete with all parts, tran-
sistors, diade, perfarated chassis. Pwo-tone plastic cose, batteries, wire, solder ond easy to follow instructions. Size $43 / 4^{\prime \prime} \times 3-5 / 8^{\prime \prime} \times 1-5 / 8^{\prime \prime \prime}$. Shos. wl., 1 lb. KT-132-KIT (less eorphono)...................................... 11.95 MS-260-Super Power Oynamic Earphone

Nel 3.95
MIGHTY SUBMINIATURE 'HELIODYNE" SOLAR SILICON BATTERY - LATEST, MOST EFFICIENT TYPE OF SUN BATtERY - USED by ARMED SERVICES TO POWER ELECTRONIC EQUIPMENT
The most efficient tyoe af solor boltery yet developed to generate elec. trical energy from sunlight or from light rays from other sources, Rated Receiver $K$ it or ony ather receiver drawing up ta 2 ma at 3 volts. $1.1 / 1 \mathrm{~s}^{\text {" }}$ ix $3 / 32^{\prime \prime} \mathrm{W}$.

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## MILLER <br> NO. 555 <br> ALL TRANSISTOR

SUPER-REFLEX


## RECEIVER KIT

### 29.50

A smartly styled highly selective and sensifive 3 transistor speaker aperated superhoteradyne radio receiver "reflezed" for \& transistor Derformance. Full transistor performance is ochieved by a unique circuil employing only 3 transistors and 2 crystal diades. The circuit delivers opproximately 25 milli-waths of oudio to a heavy duty $2^{3 / 4}$ permenent mognet speoker. The " 555 " features printed circuitry for ease of construction, oufomatic goin conlrol, vernier tuning far easier station selection, an internal ferrife antenna, and a beautiful bokelite cabinet accentuated by o gold-colored front panel. All coils and transformers are factory adiusted. Bottery will operate receiver for approximately 300 hours. Ideal for outdoor os well as indoor listoning. size $\left.4^{\prime \prime} x^{\prime \prime} \times 31 /\right)^{n}$ deep. Complete with detailed step.by-step in structic and pictorial diagrams.

MILLER No. 555 Kit-Less Bomery
Net 29.50
BATTERY- 9 Volts Burgess $2 N 6$ or Equivalent
Net 1.30

MS - 20 - "HELIOOYNE" SIIICON SOLAR BATTERY


3 TRANSISTOR HI-FI PREAMPLIFIER KIT KT-117

With Volume, Bass ond Treble Controls
WITH NEW GE 2 N 190 TRANSISTORS

Lafayette 3 Tronsistar Mi-Fi Preamplifier Kil KT-117 provides the voltage gain neces sary for the operation of even the lowest level magnelic cartridges and micraphanes. It may be used with $\mathrm{Hi} . \mathrm{Fi}$ equipment to provide stoble, low naise preamplificatian with extremely low power cansumption, zera hum ond without ony mieraphanics in herent in vacuum tube oreamplifiers. It is ideal as a remate preamplifier since it is battery operated and can be cannected by cable up to 175 ft . fram ossociated equip. ment. It has its own Boss and Treble controls for improved quality af reproduction, and uses 3 quality oudia tronsistars. Frequency Response is 20 to 20,000 cycles. 40 db maximum gain. Lera hum leval; Noise level-apprax. 48 db below 10 millivalts in put for high impedance cartridges, better than 32 db belaw 2 millivalts for low im. pedonce cortridges: Faur Inputs: Three phono inputs-high output cortridges, high impedance voriable relurtance cortridges and low Impedonce low autput cartridges: Microphone Inpul. From 0.5 to 1 voll oulput: Controls-Phono-Microphone, Hi-Lo lovel. Power-Volume, Bose ond Treble. Complete with all parts, tronsistors, pre
 Shpg. wt., 2 lbs.
K7-117-Complete Kit

## 4 TRANSISTOR INTERCOM AND BABY SITTER KIT

## - EFFICIENT 2-STATION

 INTERCOM FOR HOME,OFFICE AND FARM.

- safe for baby NO ELECTRIC SHOCK

NO FIRE HAZARDI

tafayetle's new all-purdase 4 Tranststar Intercam and Boby Silter Kit XI. 113 is excollent for office, home ond form, as well os for boby-sitting. Master unit las volume control and switch for private or boby-sitler 2 way aperation. In privole operation bollery is used only when talk switch on master or remate station is oclivated. Insignificant bottery power used while idling in boby-sitting aperation. Instantaneous operation... no warm up time required. Superb for baby-sittingl No electric shock donger since there are no power wires. No fire hozord since there are no red hot pubes. So sensitive that even o boby's whimper con be clearly heord. No hum-no noise. Attroctive plastic master unill $6 y_{\prime^{\prime \prime}} \times 3 y_{夕^{\prime \prime}} \times 2^{\prime \prime}$. Remate unit cansists of efficient speoker and switsh housed in a $3.1 / 16^{-} \times 2 \frac{1}{4} 4^{\prime \prime} \times 1 \%^{\prime \prime}$ oltroctive moroan saund bax designed for superior performance. Two station unit camplete with 50 ft . of cable. Shpg. wl., 3 lbs
KT-1I3 COMPLETE KIT
Net 19.95


Lafayette" s new Super-Sensitive 4 Tronsistar Telephom Pick-up Amplifier with class "8" push-pull autput for effient speaker aperation. Permits the whole family to enjay phone canversolions. Involuable on lang distonce colls, as well os far gravp listening an business colls and conferences. No need for extenston phonesf lust plose the pickup coit under the felephone cradle base, or in cose af metallic bose, near phone receiver and you'll morvel at how loudly and clearly the iwoiway conversotion comes thraugh the speaker. Uses transfarmer coupling far optimum perfarmance. The kit cames complete with all parts inctuding i tronsistors, 3 tranststar oudio transformers, speaker, valume cantral, on attroctive ripple-finish metallic cabinet, a precut metallic chassis that mokes maunting and wirling of parts a "snap". wire and solder, less bethery and pick-up cail. Includes easy-ta-foflaw iltustrated instructions.

KT. 131 Completo Kit less Battery \& Plakup Coll .................................................................... 17.95
BATTERY 9 Volts RCA VS305 of Equivalent ........... ........ ... ........................................... 1.30 ms.16 Telephane Pickup Cail

Net 2.95


An ideal Cade Prectice Oscillotar for graup and clossroom code proctice, as well as for those who prefer loudspeoker to earphone listening. This ethractive unit incorperates a well designad trensistar audia circuif with a variable contral for vorying the signal tone. Yau choose the plich which is mast pleasing to you. In geniously designed on a ntol preepunched metal chassis io fil around the magnat of an extra efficient soeoker. All the compenents (except the koy) are housed in a $3-1 / 16^{\prime \prime} \times 23 / 4^{\prime \prime} \times 1 \%^{\prime \prime}$ attractive maraan calared saund box acaustically designed far superior speaker performance. Yau"ll be dellghted with the tane and volume of the signal. Complete with all parte, ransistor spooker, case, bottery, and simple step-by-step instructions. $3.1 / 16^{*} \times 2 \frac{1}{4} \times 1 \%$ ". Shpg. Wi., 1 lb .

MS-319-Key for KT.118. Shpg. wf., $1 / 2 \mathrm{Ib}$.. Not 1.25

## RADIO Control Equipment

## RADIO CONTROL TRANSMITTER assembled - tested - guaranteed

\author{

- Not a Klt - Fully Wirad -
} Includes Tube and 27.255 Mc Crystal - No Lliconse Examinotion Requiredl - Range I Mlle ond Morel Foolproof, factory ossembled ond testad transmitter. Woighs oniy a scant $41 / 2 \mathrm{lbr}$. with botteries. Uses powerful $3 A S$ tube for oll the range you need. Antenno is 4 fr .6 in . lang - siz sections telascope down to 10 inches. Novel plug. in feature ermifs simple remavol ond roploçement of ontonno. Overoll dimentions one ${ }^{* \prime \prime} \times 4^{\prime \prime} \times 12^{\prime \prime}$. exclusive of antonino. Will aperote ony $\$ / C$ recolver of 27.255 $M \mathrm{MC}$ Power output aflards unusual ronge of contral. Lens battories. 5hpg. Wf., 3 lbs. F-2
Satterlos for F-249 Yransmimer
1 -Surgess 20 or RCA VSO69
Not. Eoch .53
2-Eurges: XX45 or RCA VSO16
Not, Each 2.25
A truly sensational value in a superbly designed and canstructed hard-tube R/C recoiver. Operates an popular oxam-free 27.255 MC iemote contral bond. Exiremely efficient and dependoble, this amaz ing receiver hos mare than adeavale sensitivity for otange of op praximatoly I mile. Outsfonding for econamy af aperation. is miousily constructed for unmatched stability of performance, and ta withstand unusual vibration ond shact. Reavires ane 1.5 volt $A$ battery. one 45 volt 8 battery and $24^{\prime \prime}$ antenno lead. Size: $140^{\circ \prime} \times 1-13 / 16^{\prime \prime} \times 3^{\prime \prime}$ Weight 3.3 as
F-208
Net 8.95



### 27.255 R/C CRYSTAL

Used in remate control of model planes, boots, cors. Elc. Low drift, high output Tolerance $04 \%$. Size $0.720^{\circ}$ wide, $0.309^{\prime \prime}$ deep, $0.758^{\prime \prime}$ high. $1 / 2^{\prime \prime}$ between pins ms-296 Net 2.95
Crystal Socket: Low loss, ceromic socket for 27.255 crystals. Smail light-rugged.
MS-297
Cansists of R/C Transmitter (f-249), and R/C Recoiver (f.208)
F-259-Combinatian_.................................................................................20


## NEW! MULTI-PURPOSE ELECTRIC SERVO MECHANISM

- DESIGNED FOR MOABYISTS PRICED FOR HOBEYISTS
- POWERFUL, MOTOR DRIVEN R/C ACTUATOR
- POSITIVE, INSTANTANEOUS ACTION
- FOR MODEL 80 ATS AND CARS

Lofarefte's new, mofor driven remole cantral servomechanism. Imported by Lafayelte ta sell for half the price of ony comparable unitl Corefully constructed for power, durabllity and rugged use. Operates with any single channel, remate contral receiver and fronsmifter. When operated af the prescribed 3 valts, the action is accurate and rapid. Provides for selective steering and aulamatic relurn to neuiral. Exiremely effien whon used with modol boals or land vehicies. Hobbyists will electronic neutralization. Measures only $21 / 2^{\prime \prime} \times 2^{\prime \prime} \times 1 \frac{1}{4}{ }^{\prime \prime}$ averalt. Includes instructions and Ifntage to extend actuator arm. Shpg. wf.. 8 ozs.
f. 327
Net 5.95
TRANSISTORIZED RECEIVER KIT - PLANES - DOATS - CARS
- TME MIGNTY mite OF TNE R/C FIELDI
- WEICHS 1 OZ. - $100 \%$ SUE-MINIATURIZETOI Lofayette tokes the leod in the populor R/C reld with this super sensitive and efficiont subminiofure trawsista rized "Citiren Band" 'eceiver k8t. Operates on 27.255 MC and can the used with any "Cilizen sand" remole contral transmitter. A perfect mote for Lofayetle lemote Contral Transmitfer Kit KT.B7. Planned far compactnes and sturdiness to withstand severe vibration and shock, yol weighs no mere thon 1 oz. $2-1 / 16^{\prime \prime}$ L $11 /{ }^{\prime \prime}$ W E $1.11 / 16^{0}$, overoll. User one sise of madel KT-84
11.75


## REMOTE CONTROL ESCAPEMENT

## - AT THE LOWEST PRICE ANYWHERE

sturdy 2 orm self-neutralizing escopement. Completely wired (nat o kit). Convert alectrical impulses from remote control recelver to mechanical motion for varying movement of plane, boat, of cer. Faur $90^{\circ}$ rotations-iwo by armature octivotion, two by neutrolization. Has ratchet governor for mainfalning foolproof ratating speed. Weighs only $7 / 8$ of. Size: $1.3 / 8^{\prime \prime} L \times 2^{\prime \prime} \mathrm{W}$ overall. Shigg. wt., 5 oz .
F- 255
COMPOUND REMOTE CONTROL ESCAPEMENT
"JEWEL" REMOTE CONTROL RELAY

- lafayette's amazing value in a 4-arm self-neutralizing COMPOUND ESCAPEMENTI


## - no meed to worry about losing your model!

- The Mighty Mite of the R/C Field
Weighs less than $1 / 2$ ox. 1
- Size: $3 / /^{\prime \prime} \mathrm{H}_{\text {。 }}$ 17/32" W, 1-1/16"
A notural for remola control recoivers, if is highly sensitive, and built to withstond severe crashes. The smallest com merciol job ovailoble. it weighs less thon $1 / 202$. Foctory adjusted to pull in of 1.4 M. drop aut or .2 ma . ceivers. 5,000 ohm coill. IMPORTEO TO SAVE YOU MONEY.
F-260-Reloy
Net 2.75
You have no sequence of operation to worry aboufl Simple as ABCI One pulse always gives pight tum; two pulses alwoys gives left turn. Three pulses closes the circuit for the supolementory contral such as motor (F-257) ar olevator, if used. The rudder always re furns to neutral pastion after any turn as saan as transmitter keying button is released With ratiol With ratchel governor for foolproof operation. Siurdy consiruction-low current drain Uses $1.1 / 2$ voll battery. Weighs $1-1 / 8$ ox. Size: $2.7 / 8^{\circ \prime}\left[\times 1.9 / 16^{\prime \prime}\right.$ overoll. Shpg. wt. 6 oz. : F-256.


## REMOTE ENGINE CONTROL ESCAPEMENT

Lafayette's excliting new air-bleed self-neutrolizing remote engine cantrol. Varles engine speed of your madel. Neutral pasition of one orm is low speed, neutral position of 2 nd arm is high speed, and mointelined activated postition of either orm (armoture activated) stops molor. Perfoct mate for Lofayelle F-256. Camport and welghs only $3 / 4$ oz. Requires $1.1 / 2$ valt batfery. Low current drain. Size: $1.5 / 8^{\prime \prime} \times 1^{\prime \prime} \times 3 / 4^{\prime \prime}$. Shpg. wit., 5 oz. F-257


Page 76

# SPECIALTIES for the EXPERIMENTER and HOBBYIST 


"MIGHTY MIDGET" MOTOR

- powen ar youk mingelitips! - EECOMMENDED ROA INDUSTRIAL AND LABORATORY USEI A midget motor precision built to ensineering standards. Normal current consumption lest than a hoshlighi bulb. Armalure speed to 8000 RPM - enunfer shaft speed of 650 to 1000 $1.3 / 16^{\circ}$. Replaceoble brushes-brass
nold co. use set Wlads honescomit, spidericeb and role. appearance to factory job. Also sultable for winding chotes, tranaformers and olter inductors. Indicator counts number of turns on coll. Supplied with sccesmartes including wood socols. metsl pesholders and ineluded, but leas coll forms adod pers. Wh. 6 ins M1-43.
4.95


## AMPHENOL PRINTED

 CIRCUIT CONNECTORS
## 5" DIAMETER LAND

 MEASURE COMPASS aerial surver or tapographic maps Divided into faur quadrants, woch grad uafed from zero to 90 degrees. North and South are always zero paints and East and West marked 90 degrees pass). Printed red and black. Shpg. wf., 4 oz.F279.
Net 1.15

## INSULATED COUPLING

Bakelite insuleted coupling. Hub accom modates $1 / 4$ " dla. shaft which is held rigid by sef screws. Shpg. wt., MS.191 Net .54


## LOW-LOSS CERAMIC COUPLING

 Similor to abova but low.loss coramic for high voltageapplication. MS.192.

- 


## MINIATURE SWITCH

Has 4 postitions including OFF. Self confained wheal knob. $3 / 4^{\prime \prime}$ diam. in $1 / 2^{\prime \prime}$ deop. Quantity limited.
SP.88-10 for 3.25
RECTANGULAR AREA SCALE

|  |
| :---: |

An opoque, laminoted scele for engincers, laymen and surveyars "ith calibrotions $1^{\prime \prime}$ equals $660^{\prime}$ on one edg", and $1^{\prime \prime}$ equals 40 Shpg. w. 3 oz. F-277.

## 4-SQUARE LAND MEASURE COMPASS

160 acre arid to 860 scolto. Each 40 acre Is two Inches square. Colibroted with following easy to use scoless CHAINS 40 rods. $1^{\prime \prime}$ equali 20 rods; FEET-1 ${ }^{\text {N }}$ equals 330 foet, 660 foet and 100 feet. printed in red and black. $41 / 0^{"}$ square. Shpg. WI. 3 ox.
F278.
Net 1.15
screw ferminols. Operates on 3 10 6 plied complote with 7 to 1 reduction geart - puller otc. Shpe. whi, 6 oz.

## CAMARIDGE THERMIONIC CORPORATION SLUG-TUNED COILS

Fer TV trops, broodband RF omplifiers, general HF eircuits, etc. Coil bodios of LSM. $\operatorname{LS3}$ and LSA are HF poper bose phenolle; IS5 and IS6 are ceramic. 153 han lareer slug and greater bandpass, 154 for larger in. ductance and $O$. Slugs funable from bither and. Lecting feoture. Sizes: LSM, 27/32天 $1 /{ }^{\prime \prime}$

 LS5, $1-1 / 16 \pi 3 / 6^{\prime \prime}$ dia. LS6, 27/32x1/4" dia

| Tyee | Description | Met |
| :---: | :---: | :---: |
| 53 | Coil Form | . 53 |
| 153 | 1 Me Coil | 1.02 |
| 153 | 5 Mc Coll | .2 |
| 153 | 10 Mc Coil | . 05 |
| 153 | 30 Mc Coil | . 20 |
| 153 | 60 Me Coil | . 0 |
| 15M | Coil Form | . 53 |
| LSm | 1 Mc Coll | 1.0 |
| LSm | 5 Mc Coll | - 0 |
| LSM | 10 Mc Coil | . 20 |
| Lsm | 30 Me Coil | -0 |
| Usm | 60 me Coil | . 2 |
| 184 | Coil Form | 52 |
| 155 | Coil Form | . 70 |
| 156 | Coll Form | . 4 |

CAMERIDGE TMERMIONIC

## PRINTED CIRCUIT COIL FORMS

 An infernally threoded phenolic tube with collars and solder lups, with powdered fron core thot is adiustoble from either and of
the form. A simple vertical mounting by the form. A simple vertical mounting by punching two to four holes in board. Winding oreo on form is $11 / 16^{\prime \prime}$ long. Types
SPCI have $5 / 16^{\prime \prime}$ cere. Trpes SPC2 have *" core.

| Tre Mo. | Diem. | -. ${ }^{\text {e. }}$ | Number of tuy | Nol |
| :---: | :---: | :---: | :---: | :---: |
| SPC1-A.21 | .2197 | . $356^{\prime \prime}$ | 2 | . 27 |
| SPCI-A-31 | . $219^{\prime \prime}$ | . $356{ }^{\circ}$ | 3 | .25 |
| SPC1-A-4L | . $219^{\prime \prime}$ | .356" | 4 | . 21 |
| SPC2-8-21 | . $285^{\prime \prime}$ | .426" | 2 | . 29 |
| SPCS-E-3L | .285" | .426* | 3 | . 21 |
| SPC2-4L | .285* | . $426^{\circ}$ | , | 2 |

## AMPHENOL COIL FORMS

|  | High qualiry coil forms for the amateur. experimenter and builder. Outstanding performance in receivers and low power tronsmitters in the RF and UHF range. All plug in rype axcept type 24 which mounts by 6.32 screw $\mathrm{m} / \mathrm{g}$, hole in base. Shog. wi., 1 oz. |  |  |
| :---: | :---: | :---: | :---: |
|  | Description | Sise | Met |
| 24-4P | 4-Prong Std. | $21 / 4 \times 11 / 4$ | 24 |
| 24-5P | 5-Prong Sid. | $21 / 4 \times 11 / 4$ | . 24 |
| 24-6P | 6.Prong Sid. | $21 / 4 \times 11 / 4$ | . 24 |
| 24-5M | 5.Prang Min. | 1.9/16 * $11 /{ }^{\prime \prime}$ | . 24 |
| 24-6M | 6-Preng Min. | $1.9 / 16 \times 13 / 6^{\prime \prime}$ | . 24 |
| 24 Form | only No Prongs | 1.9/16 $\times 1 / 4$ | 09 |

## MINIATURE

## EQUIPMENT CASE

A miniature plastic case mounted on a standard octol bast. For equipment designers-experlmen. ters-bullders-hobbyists. Per. fect for madular construction. Mount relays-rmistor:-Conden: sors-networks-any miniaturized circultry-for plug-in use. Add whale stages in ane unit to ex. isting equipment. Thousands of uses. Size $1-13 / 16 \times 1-13 / 32 \mathrm{sq}$. Prolect $2^{\prime \prime}$ above chossis. Shpo. wh., 4 or.
MS-356 TELEPHONE INTERCOM

- DIAL-TO-RING
- OPERATES UP TO 1 MILE


## Full sizo-standard tolephone shape-bottery aperated-

 two station set. The loudesteclearest boltery aperated telephane ovailable. Operates on easily replaced llashlight oclls. No buttons to push for signoling or tatking. Perfect for communications room to room-office to office Perfert for communicanions room to room-ondice. Ex oftremely rugged censtruction. Includes instructions and 50 ff . of rugged construction.wire. teis batteries.
ML-104.

## \section*{DIAL TYPE} <br> 

- ADDS UP TO 999.999 ACCURATAY - SUBTRACTS AND MULTIPLIES TOOI - aUTOMATIC CLEARING EARI

Nowest "Dial-A.Maflic" odding mochine. Great for doily colculalion. small businesses . homework etc. Automatic clearing bar clears all diols Instant. itc. Automatic clearing bor clears all diols instant. hond operotion. All moving parts of DuPont Nylon. With dialing itylus and instructions. Shpg. wi.. I Ib. F-274
Nowest Dial.A.Matic odding mochine. Greal for

## PRINTED CIRCUIT PHONO AMPLIFIER <br> PRINTED CIRCUIT PHONO AMPLIFIER

## MINIATURE EARPHONES AND ACCESSORIES



## Argonne

DYNAMIC EARPHONE

- NEW PATENTED FEATURES
- flexiale plastic support
- transparent case and cord
- DETACHABLE PLUG-IN CORD
- EXCELLENT SOUND REPRODUCTION


## ECONOMY ALL-PURPOSE

 DYNAMIC EARPHONES.- for transistor and subminiature recelvers
- FOR SILENT RADIO AND TV LISTENING A sensilive all-purpose erphane designed with bolh your listening pleasure and pocketbook in mind. Extensive range and excelient tone combine, to pravide excellent repraduetion. Lightwaight, equipped with a prasticolly invisible ear support, that slips comfortably aver either ear, fram which the arphane can' slip out or fall. Ideal far use with TV and radia seis, amplifers, miniature and transistor receivers efc. Attractive unit with thiny chrome finish. Camplete with 3 It cord. A super value at this price. Shpg. wt., 5 oz MS-36s 6 ahm impedance, with phone tip plugs. For silent rodio ar TV listening ......................Net I. 10 MS-367 2000 ohm impedance, with pione fip plugs

Here is o sensitive dynomis earphane of exceptlanally fine quality. This lightweight minloture eorphone is convenient and comfortable to weor. A fealble polyothylene support holds the receiver securely in place for ither ear. The proctically invisitule transparent cord is cennected to the Iransporent cased earpiece by means of a special plup. Provides clear reproduction of music as well os speech - with a pleasing tone quality. Complete with 3 ft . cord. A superior earphone which must be seen and heard to be appreciatedl shpo wt 5 or
AR-Si 6 ohm impedonce with phone tip plug
Nel 1.25
MS-366 6 ohm impedonce with subminiature phome plug and matching phone jack ....................Net 1.29 MS-368 2000 ohm impedance with subminialure phone plug and matching phone jack ... ..................Net 1.44

## EARPHONE SUPPORT

A light, transparent plaste earphone support that nis comfortably pround ear and is practically invisible. Eerphone

## Net 1.95

Not 1.95
AR-SO 3000 ohm impedance with phone tip plug..... plug and matehing phone lock. Not 2.39
AR 47 o ohm impedonce with subminiature phone AR-46 3000 ahm impedance with subminiature plug ond motshing phone jack.........Net 2.39

## © CRYSTAL EAR PHONE

small, almost welghtless, plastic ear phone with eryste element, that features high powar and seniltivity. Ideal for all applicaflons where a very high impedance unit is proferred. Fits comfortably in the ear. Complete with 3 ft . plastic covered cord.

## CAN $\operatorname{EE}$ USED AS MICROPHONE

 This unit is so powerful and sansitive that it can be used as a closp-taliting highly directional crystal microphone. Just screw off the ear-inhert and your eapphone becomes o mike to use for all sorts of experiments and gadgets. MS-111.1.19

## 

This new lightweight, under-thechin crystol headset provides the utmost in listening cemior wherever a headset is usod. This unit is chorac terized by a high sensifivily and is ldeal for all applications where a very high impedonce unit is required. This headset affers fine repraduction and cemfortable listening in a lightweight de ign. Complete with 3 ft . cord and thandard phone tips Shog wi, 5 or. MS-369


As Low
As $\$ 1.10$ can't s
$\qquad$

## REMOTE CONTROL FOR SILENT TV VIEWING

## - simple to attach to any ty set or radio

- SEE AND HEAR一NOISELESSLY-CONVENIENTLY


## - LOOK AT THESE FEATURES!


. FOR LATE LISTEMERS: One or t people cen both see and hest the pro-
gram gith the loudspester cut off. faps for onioping the latelete show withoul disturbing the rest of the household or the neighbors.
2. FOW HARD-OFHEALING: Ther can see and heor without purning the sel volume so high that othors can't stand the noise. loudspenter cut off or, if the rest of the lamily want to hoer, with the ppester on . FOR MOISY PROGRAMS: Don"t let the tids' "Wild Western's' bother you.
bet them viow ond Witen with tho specier cut an.
FOR NORMAL OPERATION: DOEs not affect Your regular use
of the T.Y. set. Does nol heve to be disconnected from set.

REMOTE CONTROL: Comes complete with 20 It . of cable so can be operatied comforitebly from a disfance. Has ins own olume contral, spealior on-oli swilich, and
DYHAME EAR DHONE. Se is upplied with one of A GONNE exclusive Hi -H dynamic miniature earphone. Highiy enditive and efficient. Phone is complele with 3 H . cord and fips, reedy to insert in control bor.
 phone and 10 h . coble. Completely wired with instruction shpg. Wf. 3 lbs MODEL MS- 125
..MET 6.50

## EXTAA EARPMONE

To plu
A
 Latest and tiaiest phone plugy
and jeeln avalinble. Oniy
lont
$z$ Highese guality asy line and eonstruction. Excelioni submiature applications. Plua hee jomore aplesleeve. Jach can be moumt ed on panel up to $1 / 16{ }^{\text {m }}$ ehick Jack can be ured for both apen
and closed clreuits. and closed cireult. Net. Net. 17 ms-282-Jack …....Net. 13
MS-370 Plug and Jock Sef.
Net .25

## MINIATURE EARPHONES, HEADSETS \& SPEAKERS



- Smallest PM Speaker Made. FOR TRANSISTOR AND SUBMINIATURE CIRCUITS S1ZE: $11 / 2^{\prime \prime}$ ing forl Enperimenter's, tit builders, ond circuit ing forl Esperimenter's, hit builders, ond circuil designer's delight for Ironsistor ond subminiofure ceceivers, omplifiers, gnd circultw. The smollest $11 / \mathrm{m}^{2}$ diometer by $15 / 16^{\circ}$ Soeoker model Only $11 / 2^{\prime \prime}$ diometer by $15 / 16^{\prime \prime}$ deep. Alnice 5 mognet - 10 ohm voice coil-totol weight only $1 \%$ or. 1 Surprising frequency ronge ond output for its size. Mounts at front by four $\%^{\prime \prime}$ meunting holes on $1.9 / 32^{\prime \prime} \times 1.9 / 32^{\prime \prime}$ mounting centers. A true Lafoyette first super volue of this
unbelievoble tow pricel Shpg. wt., 6 oz. 5K-61
SPEAMER WITH OUTPUT TRANSF WITA OUTPUT TRANSFORMER With $\%{ }^{\prime \prime}=70^{\prime \prime}=11 / 16^{\prime \prime} 1 / 4$ or, motching transformer - motches 2000 ohms to 10 ohm voice coll. (Sultoble for mosp fronsistor outputs). Shpo. wh., 8 or. $5 x-62$

2 $1 / 2^{\prime \prime}$ PM SPEAKER AND BAFFLE

## - IDEAL FOR miniature work

- min. plug and jack connection
- choice of voice colls

A highly efficient PM speaker and carefully designed baffle that mokes on ideal combinotion for the experimenter. The speoker olso makes an ideol reptocemont for many portoble sets. Speaker is $21 / 2^{\prime \prime}$ squore, $11 / 4^{\prime \prime}$ doep with mounting holes on $2^{\prime \prime}$ canters. Hondsome moroon rough plostic botfle comes with built-in iock ond min. plug for quick easy connections. Size of boffle $3^{\prime \prime} H=21 / 6^{\prime \prime} W=13 / 0^{\prime \prime} D$. Shpos. wt., eash approx. 1 fb.
SK-65 -Spoaker only with 3.2 ohm V.C
SX-66 -Spoaker only with 10 ohm V.C.
MS-315-bathe only
.Not 1.49

## - RCA $23 / 4^{\circ "}$ PM SPEAKER -



This is the came minalature ipeater used in hundreds of thoumends of personal portable radiosi Leave it to Lafayptto to offer it al in unheord of prical A genuine RCA $3 \mathrm{~K}^{\prime \prime}$ PM ipontar-1 or. Alnico 5 magnot- 12 dmm Voice coll-total vaight only 4 ous Onty $11 / 4 "^{\circ}$ overall depth-prelapped for mownting. Just whal rou've been sooking for miniature equipmont - recoivers - omplifiors - intercoms trensistor eíreults - wherever - really amell. -fficiont spenter is neodedl Shpo. A. Ioss.
38. 39 $\qquad$ Net
1.98

## DYNAMIC PERSONAL SPEAKER

One simple "clip on" connection brings TV sound right to your ear without furning volume above normal ronge. Mard of heoring viemers can sit at a normal distonce from ret. No bloring valume to onnoy others. Just connect this miniofure portable speakor to TV sel-rodie-or console. Vir. tually indestructoble - light as a feathar一only $3^{\prime \prime}$ in diametor and $1 / 0^{\prime \prime}$ thick. Furnishod complete with 20 foot of wire. "clip-an" connections and instructians. Shpg. Wi., 116
SK-38
Lots of 3, Not 5.58
Single, wach 6.30


## TELEX MONOSET

Under-theochin lighiweight noodiol for Individual listaning. Mo. duces hood fotigue. tiomovoble wite mlostic eor pluge for ceany cleoning. Mopnatic troe. Woighs 1.2 ez . Complete with 5 h . cerd ond itondard phone plus.
moptl 41200 - 12 hmi moplt 4600 - 2000 onms

Not 7.38 MODEL 2843-128 OHM WITH VOLUME CONTROL NoI 10.05 MODEL 2841-2000 OHM WITH VOLUME CONTROL Net 10.05

## TELEX TWINSET

Bonishes heodechy sar pressure. Bond reets on mood and receivers set eently of temples; fubulor sound armi pipe sienol to cors. Oniy 1.6 oz. C.A.A. opproved for pitom. Completo wh 5 H. cord and stondord phone plue. Shpe. wt., 10 es. MODEL s7et - 64 ohms

Net 12.35 ?
MODEL 3775-1000 OHM FOR PILOT USE (CAATC3R2-1)


TELEX HI-FI DYNASET
 rescense to 25 MK . Midget $\mathrm{Y} / \mathrm{A}^{4}$ boohm ape
the plue. Lighi gray Anish. Shee. wt., 6 oz.
MODEL S701 - 6 ohms - Complene ..... lint 14.55 ......Net 4.ay
TELEX CORD SETS

定
All are 5 fl . cords without volume controls. All ith Monoset, twinset. and magnetic pillow speoker except - fits dynomic pillow speaker. Telex No. 3280
9200
925
8555

Plug Type

## Stondard Phane Plug.

 $90^{\circ}$ minialure phone plug. Stroight min. phone plug. Extension cord.Stondord phone plug.

## TELEX <br> 



## TELEX PILLOW SPEAKER

Only 3 $\mathrm{y}^{\prime \prime \prime}$ diometer ond only t/" thickl ldeol for comfortablo redlo or telovision listoning threvgh o pillow ho bed or in o ctioir without disturbing others. Morcen materprcof plontic. Complete with 5 H . cerd ond trandord phome plue. Shpe. wt., Ar.


## TELEX DYNAMIC SPEAKER-MICROPHONE



Truly an oufstanding addition to the fomous Tolex line of miniafure electronic equipment and parts. The now dynamic Speaker-Microphane Madal 100 may be used os a speaker or a microphone and is anly 1 z " $3 / 4$ " in sire. The odvontages of miniaturization are amazingly combined with sensifivity ond high quality dynomic parformance.
Sensitivity-microphone, with fronstormer: 52 db below 1 valt per dyme per sq. $\mathrm{em.s}$ speaker: 124 db with 10 milli-watts of power inpur. Impedance 10 ohms. Construction-Waight $11 / 202 . ;$ Size $1 \times 1 \times 3 / 4 \mathrm{~m}$. Tough thermo. selling plastic and steel case.
MODEL 9155 - less tronsform

## MATCHING TRANSFORMER

A minioture external transformer miniature Size $11 / 16^{\prime \prime} \times 5 / 16^{\prime \prime} \times 1 / 2^{\prime \prime}$-is avaliable at extro cost for matching Spoaker.Microphone Model 100 to grid circuits. MODEL B918-Transformer

## RYE SOUND TRANSISTOR RADIO EARSET

Now, you can enloy the cenvenience of listening to yaur transistor radio privately. lightwoight, highly afficient dynamic earseft, designed with the correct impedance velue to match circuit of specific set listed. Each earset is equipped with the proper plug to fit the jock on the recelver. Reversible plastic eartoop fifs either ear ond holds the earset in most canvenient positian. Eersal con be removed easily from earloop. Cord and plug included.
(MS-346 For Admiral Setm MS-347-For GE S-Tronsistor Sofs MS-348-For GE 6-Transistor MS-34.-For Mannovor Sefs MS.350-For Motorolo Sols Vow Cost, Amy Type

MS-352-For RCA Sels
MS.348-For Raythean Sels MS. 153 -For legency Sets MS-354-F or Westinghous MS-35s-for Zenith Sets

## LAFAYETTE TRANSISTOR RADIO EARSETS

## EXACT DUPLICATE REPLACEMENTS

 FOR POPULAR SETSDynamic earsets, with cord and piug praperly matched to fit sets listed below.
For Admiral, DeWald, Moffman, Motorale, RCA, Raytheon, Re gency, Roland, Troveler, and Western Auto.
MS-378
Not 1.29
Far Philce and Zenith modely 500 and 800.
MS. 379
Nel 1.44

| ARGONNE NUMBER | TYPE | IMPED PRIMARY OHMS | ANCE SECONDARY 1 OHMS | UNBALANCED CURRENT PRI. D.C. MA | POWER <br> MILL. <br> WATTS | D.C. RES PRI. OHMS | $\begin{aligned} & \text { TANCE } \\ & \text { SEC. } \end{aligned}$ | OVERALL SIZE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { ARR-141 } \\ & \text { AR-142 } \\ & \mathrm{AR}-16 \end{aligned}$ | Input Input | 500,000 500.000 250,000 | $\begin{aligned} 1.500 \mathrm{CT} \\ 200 \mathrm{CT} \\ 200 \mathrm{CT} \\ \hline \end{aligned}$ | $\begin{aligned} & .3 \\ & .3 \\ & .5 \\ & \hline \end{aligned}$ | $\begin{aligned} & 350 \\ & 350 \\ & 350 \\ & \hline \end{aligned}$ | $\begin{aligned} & 3500 \\ & 3500 \\ & 3500 \\ & \hline \end{aligned}$ | $\begin{aligned} & 60 \\ & 20 \\ & 20 \\ & \hline \end{aligned}$ |  |
| AR-144 RR- 100 $A R-126$ | Input Input Input | $\begin{aligned} & 200,000 \\ & 200,000 \\ & 150,000 \end{aligned}$ | $\begin{aligned} & 1.500 \mathrm{CT} \\ & 1.0000 \mathrm{CT} \\ & 1.5000 \end{aligned}$ | $\begin{array}{r} .5 \\ .^{.0} \\ \hline \end{array}$ | $\begin{aligned} & 350 \\ & 100 \\ & 100 \\ & \hline \end{aligned}$ | $\begin{aligned} & 3000 \\ & 3600 \\ & 3700 \\ & \hline \end{aligned}$ | $\begin{aligned} & 65 \\ & 90 \\ & 50 \\ & \hline \end{aligned}$ |  |
| $\begin{aligned} & \text { AR-101 } \\ & \text { AR. } 105 \end{aligned}$ $\text { A. } 102$ | $\begin{aligned} & \text { Input } \\ & \text { Input } \\ & \text { Input } \end{aligned}$ | $\begin{aligned} & 100.000 \\ & 100.000 \\ & 100.000 \\ & \hline \end{aligned}$ | $\begin{aligned} & 3.000 \mathrm{CT} \\ & 2.000 \mathrm{CT} \\ & 1.500 \mathrm{CT} \\ & \hline \end{aligned}$ | $\begin{aligned} & .5 \\ & .5 \\ & \hline \end{aligned}$ | $\begin{aligned} & 100 \\ & 350 \\ & 100 \\ & \hline \end{aligned}$ | $\begin{aligned} & 3600 \\ & 3000 \\ & 3600 \end{aligned}$ | $\begin{aligned} & 60 \\ & 50 \\ & 40 \\ & \hline \end{aligned}$ |  |
| $\begin{aligned} & \text { AR.146 } \\ & \text { AR. } 172 \\ & \text { R. } 128 \end{aligned}$ | Input Input Input | $\begin{aligned} & \begin{array}{l} 100.000 \\ 50.000 \\ 50,000 \end{array} \\ & \hline 0.0 \end{aligned}$ | $\begin{array}{r} 50 \\ 3.000 \mathrm{CT} \\ 1,500 \mathrm{CT} \\ \hline \end{array}$ | $\frac{1}{2}^{.5}$ | $\begin{aligned} & 350 \\ & 100 \\ & 100 \end{aligned}$ | $\begin{aligned} & 3000 \\ & 2000 \\ & 3000 \end{aligned}$ | $\begin{aligned} & 1.6 \\ & 50 \\ & 50 \\ & \hline \end{aligned}$ |  |
| RR-129 AR-148 <br> AR-149 | Input Input Input | $\begin{aligned} & 50.000 \\ & 50,000 \\ & 50,000 \end{aligned}$ | $\begin{array}{r} 1.000 \mathrm{CT} \\ 5000 \mathrm{CT} \end{array}$ | $\begin{aligned} & 2 . \\ & 1 . \\ & 1 . \\ & \hline \end{aligned}$ | $\begin{aligned} & 100 \\ & 175 \\ & 175 \end{aligned}$ | $\begin{aligned} & 2500 \\ & 1300 \\ & 1300 \end{aligned}$ | $\begin{aligned} & 20 \\ & 20 \\ & 10 \end{aligned}$ |  |
| RR. 147 AR 150 AR-103 | Input Input Driver | $\begin{aligned} & 50,000 \\ & 50.000 \\ & 20,000 \end{aligned}$ | $\begin{array}{r} 30 \mathrm{CT} \\ 100 \\ 2,000 \mathrm{CT} \end{array}$ | $\begin{aligned} & 1 . \\ & 1 . \\ & 1 . \end{aligned}$ | $\begin{aligned} & 175 \\ & 175 \\ & 100 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1300 \\ 800 \\ 800 \end{array}$ | $\begin{gathered} 1.5 \\ 50 \\ \hline \end{gathered}$ |  |
| $\begin{aligned} & \text { AR-10 } \\ & A-151 \\ & A R-105 \end{aligned}$ | Driver Driver Driver | $\begin{aligned} & 20.000 \\ & 20.000 \\ & 20.000 \end{aligned}$ | $\begin{gathered} 1.000 \\ \\ \hline 800 \\ 400 \end{gathered}$ | $1.0$ | $\begin{aligned} & 100 \\ & 175 \\ & 100 \end{aligned}$ | $\begin{aligned} & 400 \\ & 600 \\ & 600 \end{aligned}$ | $\begin{aligned} & 50 \\ & 60 \\ & 30 \end{aligned}$ |  |
| $\begin{aligned} & \text { AR. } 130 \\ & \text { AR. } 131 \\ & R R-106 \end{aligned}$ | $\begin{aligned} & \text { Output } \\ & \text { Output } \\ & \text { Driver } \end{aligned}$ | $\begin{aligned} & 20.000 \\ & 20,000 \\ & 16,000 \\ & \hline \end{aligned}$ | $\begin{array}{r} 8 \\ 4.2 \\ 4.000 \\ \hline \end{array}$ | $\begin{aligned} & .5 \\ & .^{5} \\ & \hline \end{aligned}$ | $\begin{aligned} & 100 \\ & 100 \\ & 100 \end{aligned}$ | $\begin{aligned} & 400 \\ & 400 \\ & 620 \end{aligned}$ | $\begin{array}{r} 0.6 \\ 35.3 \\ 350 \\ \hline \end{array}$ |  |
| $\begin{aligned} & \text { AR. } 152 \\ & \text { AR } 107 \\ & \text { AR. } 100 \end{aligned}$ | Driver Driver Driver | $\begin{aligned} & 15,000 \\ & 15.000 \\ & 10,000 \end{aligned}$ | $\begin{array}{r} 200 \mathrm{CT} \\ 3000 \mathrm{CT} \end{array}$ | 1.5 1.5 .0 | $\begin{aligned} & 175 \\ & 250 \\ & 100 \end{aligned}$ | $\begin{array}{r} 550 \\ 1000 \\ 200 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ 20 \\ 100 \\ \hline \end{array}$ |  |
| $\begin{aligned} & \text { RAR } 100 \\ & \text { RR-153 } \end{aligned}$ $A R-110$ | Driver <br> Driver <br> Output | $\begin{aligned} & 10.000 \\ & 10.000 \\ & 10,000 \end{aligned}$ | $\begin{array}{r} 2.000 \\ \\ 16 \end{array}$ | $\begin{aligned} & 2^{.0} \\ & 2 . \end{aligned}$ | $\begin{aligned} & 110 \\ & 175 \\ & 150 \end{aligned}$ | $\begin{aligned} & 500 \\ & 400 \\ & 600 \end{aligned}$ | $\begin{aligned} & 50 \\ & 10 \\ & 2.5 \end{aligned}$ |  |
| $\begin{aligned} & \mathrm{AR}-132 \\ & \mathrm{AR}-139 \\ & \mathrm{AR}-158 \\ & \hline \end{aligned}$ | Output Input | $\begin{aligned} & 10.000 \\ & 10.000 \\ & 5.000 \mathrm{CT} \end{aligned}$ | $\begin{array}{r} 8 \\ 80.2 \\ 80,000 \\ \hline \end{array}$ | $\begin{aligned} & 1 . \\ & 1 . \\ & 2 . \\ & \hline \end{aligned}$ | $\begin{aligned} & 100 \\ & 100 \\ & 177 \\ & \hline \end{aligned}$ | $\begin{aligned} & 600 \\ & 600 \\ & 300 \end{aligned}$ | $1800^{.3^{3}}$ |  |
| $\begin{aligned} & \mathrm{AR} .157 \\ & \text { AR. } 156 \\ & \text { RR-155 } \end{aligned}$ | Input Input Input | $\begin{aligned} & 5.000 \\ & 5.000 \\ & 5.000 \\ & \hline \end{aligned}$ | $\begin{aligned} & 4.000 \\ & 30,000 \\ & 10,000 \end{aligned}$ | $\begin{aligned} & 2 . \\ & 2 . \\ & 2 . \\ & \hline \end{aligned}$ | $\begin{aligned} & 175 \\ & 175 \\ & 175 \end{aligned}$ | $\begin{aligned} & 250 \\ & 150 \\ & 150 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1600 \\ 1300 \\ 450 \\ \hline \end{array}$ |  |
| $\begin{aligned} & \text { AR-154 } \\ & \text { AR.173 } \\ & \text { AR-111 } \end{aligned}$ | Input Driver Outpu | $\begin{aligned} & 5.000 \\ & 5.000 \\ & 5.000 \\ & \hline \end{aligned}$ | $\begin{aligned} & 7.500 \mathrm{CT} \\ & 3.000 \\ & 100 \end{aligned}$ | $\begin{aligned} & 2 . \\ & 2 . \\ & 1 . \\ & \hline \end{aligned}$ | $\begin{aligned} & 175 \\ & 350 \\ & 100 \end{aligned}$ | $\begin{aligned} & 150 \\ & 200 \\ & 600 \end{aligned}$ | $\begin{array}{r} 400 \\ 90 \\ 10 \\ \hline \end{array}$ |  |
| $\begin{aligned} & \mathrm{AR}-134 \\ & \mathrm{AR}-135 \\ & \mathrm{RR}-112 \end{aligned}$ | Output Output Outout | $\begin{aligned} & 4.000 \mathrm{CT} \\ & 4.000 \mathrm{CT} \\ & 3.500 \end{aligned}$ | $\begin{array}{r} 8 \\ 3.2 \\ 200 \\ \hline \end{array}$ | $\begin{aligned} & 4 . \\ & 1 . \end{aligned}$ | $\begin{aligned} & 220 \\ & 250 \\ & 150 \end{aligned}$ | $\begin{aligned} & 150 \\ & 150 \\ & 120 \end{aligned}$ | $\begin{array}{r} .8 \\ 25^{.8} \end{array}$ |  |
| AR 1113 AR 114 R-114 | Driver Output lnput | $\begin{aligned} & 3.000 \mathrm{CT} \\ & 2.500 \mathrm{CT} \\ & 2,000 \mathrm{CT} \end{aligned}$ | $\begin{aligned} & 1,000 \\ & 8,000 \\ & 811 \end{aligned}$ | ${ }^{9 .}$ | $\begin{aligned} & 150 \\ & 150 \\ & 150 \end{aligned}$ | $\begin{aligned} & 100 \\ & 150 \\ & 150 \\ & \hline \end{aligned}$ | $\begin{gathered} 60 \\ 1.1 \\ 660 \end{gathered}$ |  |
| $\begin{aligned} & \mathrm{AR}-116 \\ & \mathrm{AR}-175 \\ & \mathrm{AR}-159 \end{aligned}$ | Output Driver Driver | $\begin{aligned} & 2.000 \\ & 2.000 \\ & 1.500 \end{aligned}$ | $\begin{array}{r} 200 \\ 1.500 \\ 500 \mathrm{CT} \\ \hline \end{array}$ | $\begin{aligned} & 1 . \\ & 2 . \\ & 4 . \\ & \hline \end{aligned}$ | $\begin{aligned} & 250 \\ & 350 \\ & 175 \\ & \hline \end{aligned}$ | $\begin{aligned} & 120 \\ & 150 \\ & 100 \\ & \hline \end{aligned}$ | $\begin{aligned} & 20 \\ & 60 \\ & 20 \\ & \hline \end{aligned}$ |  |
| $\begin{aligned} & \text { AR-136 } \\ & \text { AR-137 } \\ & \text { AR- } 138 \end{aligned}$ | Output Output Output | $\begin{aligned} & 1.000 \mathrm{CT} \\ & 1.000 \mathrm{CT} \\ & 1.000 \mathrm{CT} \end{aligned}$ | $\begin{array}{r} 100 \\ 3.8 \\ 3.2 \\ \hline \end{array}$ | 4. | $\begin{aligned} & 250 \\ & 250 \\ & 250 \\ & 250 \end{aligned}$ | $\begin{aligned} & 120 \\ & 120 \\ & 120 \\ & \hline \end{aligned}$ | $\begin{array}{r} 10 \\ \hline 9 \\ \hline \end{array}$ |  |
| $\begin{aligned} & \text { RR-160 } \\ & A R-161 \\ & A R-162 \end{aligned}$ | Output Output | $\begin{aligned} & 800 \mathrm{CT} \\ & 650 \mathrm{CT} \\ & 500 \mathrm{CT} \\ & \hline \end{aligned}$ | $\begin{aligned} & \left.\begin{array}{c} 3.2 \\ i 6 \\ 500 \end{array}\right] \end{aligned}$ | $\begin{aligned} & \hline 5 . \\ & 5 . \\ & 5 . \\ & \hline \end{aligned}$ | $\begin{aligned} & 175 \\ & 175 \\ & 350 \\ & \hline \end{aligned}$ | $\begin{aligned} & 40 \\ & 27 \\ & 18 \end{aligned}$ | $\begin{aligned} & 1.3 \\ & 18 \\ & \hline \end{aligned}$ |  |
| $\begin{aligned} & \text { AR-163 } \\ & \text { AR-165 } \\ & \text { RR-117 } \end{aligned}$ | $\begin{aligned} & \text { Output } \\ & \text { Output } \\ & \text { Oulput } \end{aligned}$ | $\begin{aligned} & 500 \mathrm{CT} \\ & 500 \mathrm{CT} \\ & 500 \mathrm{CT} \end{aligned}$ | $\begin{aligned} & 150 \mathrm{CT} \\ & 50 \\ & 30 \end{aligned}$ | $\begin{aligned} & 5 . \\ & 5.0 \end{aligned}$ | $\begin{aligned} & 175 \\ & 175 \\ & 100 \\ & \hline \end{aligned}$ | $\begin{aligned} & 18 \\ & 18 \\ & 20 \\ & \hline \end{aligned}$ | $\begin{aligned} & 8 \\ & 1.5 \\ & \hline \end{aligned}$ |  |
| $\begin{aligned} & \text { AR-118 } \\ & \text { A-164 } \\ & \text { R-111 } \end{aligned}$ | $\begin{aligned} & \text { Ouput } \\ & \text { Output } \\ & \text { Output } \end{aligned}$ | $\begin{aligned} & 500 \mathrm{CT} \\ & 500 \mathrm{CT} \\ & 500 \mathrm{CT} \\ & \hline \end{aligned}$ | $\begin{array}{r} 16 \\ 8 \\ 3.2 \\ \hline \end{array}$ | $\begin{aligned} & .0 \\ & 5.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & 100 \\ & 175 \\ & 100 \end{aligned}$ | $\begin{aligned} & 20 \\ & 18 \\ & 20 \end{aligned}$ | $\begin{array}{r} 1.5 \\ 8 \\ 3 \end{array}$ |  |
| $\begin{aligned} & \text { AR } 1.166 \\ & \text { AR } 120 \\ & \text { AR-167 } \end{aligned}$ | $\begin{aligned} & \text { Output } \\ & \text { Output } \\ & \text { Output } \end{aligned}$ | $\begin{aligned} & 400 \mathrm{CT} \\ & 400 \mathrm{CT} \\ & 400 \mathrm{CT} \end{aligned}$ | $\begin{array}{r} 16 \\ 11 \\ 8 \text { or } 3.2 \\ \hline \end{array}$ | $\begin{aligned} & 5 . \\ & 1 . \\ & 5 \end{aligned}$ | $\begin{aligned} & 175 \\ & 150 \\ & 175 \\ & \hline \end{aligned}$ | $\begin{aligned} & 16 \\ & 20 \\ & 16 \end{aligned}$ | $\begin{array}{r} 1.3 \\ 6 / 3 \\ \hline \end{array}$ |  |
| $\begin{aligned} & \text { AR-168 } \\ & \text { AR.121 } \\ & R R-139 \end{aligned}$ | $\begin{aligned} & \text { Output } \\ & \text { Output } \\ & \text { Output } \end{aligned}$ | $\begin{aligned} & 300 \mathrm{CT} \\ & 300 \mathrm{CT} \\ & 250 \mathrm{CT} \end{aligned}$ | $\begin{array}{r} 16 \\ 3.2 \\ \hline 8 \\ \hline \end{array}$ | $\begin{aligned} & 6.0 \\ & 2.0 \end{aligned}$ | $\begin{aligned} & 175 \\ & 150 \\ & 250 \\ & \hline \end{aligned}$ | $\begin{aligned} & 12 \\ & 20 \\ & 15 \end{aligned}$ | 1.4 .75 .7 |  |
| $\begin{aligned} & \text { AR } 122 \\ & \text { AR } 123 \\ & \mathrm{RR}-124 \end{aligned}$ | $\begin{aligned} & \text { Output } \\ & \text { Input } \\ & \text { Output } \end{aligned}$ | $\begin{aligned} & 250 \mathrm{CT} \\ & 200 \mathrm{CT} \\ & 200 \mathrm{CT} \\ & \hline \end{aligned}$ | $\begin{array}{r} 3.2 \\ 2.000 \\ 16 \end{array}$ | $\begin{aligned} & .0 \\ & 2.0 \end{aligned}$ | $\begin{aligned} & 150 \\ & 150 \\ & 250 \\ & \hline \end{aligned}$ | $\begin{aligned} & 11 \\ & 11 \\ & 20 \end{aligned}$ | $\begin{array}{r} 50^{3} \\ 1.3 \end{array}$ |  |
| $\begin{aligned} & \text { AR-169 } \\ & \text { AR-100 } \\ & \text { R-170 } \end{aligned}$ | $\begin{aligned} & \text { Output } \\ & \text { Output } \\ & \text { Output } \end{aligned}$ | $\begin{aligned} & 200 \mathrm{CT}^{7} \\ & 200 \mathrm{CI} \\ & 160 \mathrm{CT} \end{aligned}$ | $\begin{aligned} & 8 \text { or } 3.2 \\ & 8 \text { or } 3.2 \\ & 8.2 \end{aligned}$ | $\begin{aligned} & 7 . \\ & 2 . \\ & 2 . \\ & \hline \end{aligned}$ | $\begin{aligned} & 175 \\ & 100 \\ & 350 \end{aligned}$ | $\begin{array}{r} 9 \\ 10 \\ 10 \end{array}$ | $\begin{aligned} & .6 / 3 \\ & 6 / 3 \end{aligned}$ |  |
| $\begin{aligned} & \mathrm{AR}-176 \\ & \mathrm{AR}-174 \\ & \mathrm{RR}-17 \end{aligned}$ | Output Output | $\begin{aligned} & 125 \mathrm{CT} \\ & 125 \mathrm{CT} \\ & 100 \mathrm{CT} \end{aligned}$ | $\begin{aligned} & 3.8 \\ & 3.2 \\ & 10 \\ & \hline \end{aligned}$ | $\begin{array}{r} 8 \\ 8 . \\ 80 \\ \hline \end{array}$ | $\begin{aligned} & \begin{array}{l} 350 \\ 350 \\ 175 \end{array} \\ & \hline \end{aligned}$ | $\begin{aligned} & 4 \\ & 6 \\ & 4 \end{aligned}$ | 7 3 3 8 |  |
| $\begin{aligned} & \mathrm{AR}-172 \\ & \mathrm{AR}-125 \end{aligned}$ | Output Input | ${ }_{3}^{48} \mathrm{CT}$ | $\begin{array}{r} 8 \text { or } 3.2 \\ 4,000 \\ \hline \end{array}$ | ${ }^{15} .0$ | $\begin{aligned} & 350 \\ & 250 \end{aligned}$ | $14^{2.3}$ | $\frac{.6 / 3}{50}$ |  |



## UTC DOTS... TRANSISTOR TRANSFORMERS

## $5 / 16^{\prime \prime}$ DIA. . . . $13 / 32^{\prime \prime}$ IONG ... 1/IOth OZ. WEIGHT. High power rating excelle

cesponse. low

| Type | Use |
| :--- | :--- |
| DOT. | Interstage |
| DOT-2 | Output |
| DOT-3 | Output |
| DOT. | Ouput |
| DOT- | Ouput |
| DOT. | Output |
| DOT.7 | Input |
| DOT. | Reoctor |


| Level |  |
| :---: | :---: |
| Mw |  |
| 50 |  |
| 100 |  |
| 100 |  |
| 100 |  |
| 100 |  |
| 100 | 10 |
| 25 | 20 |
|  |  |
|  |  |
|  |  |


| Pri. Imp. | Pri. Dc. | Sec. imp. |
| :---: | :---: | :---: |
| 30K: 20K | .5; . 5 ma | 1200: 800 |
| 600; 500 | 3) 3 ma | 60, 50 |
| 1200; 1000 | 3) 3 mo | 60; 50 |
| 600 | 3 mo | 3.2 |
| 1200 | 2 ma | 3.2 |
| 10.000 | 1 mo | 3.2 |
| 200,000 | Oma | 1000 |
| 3.5 Hys. at 2 ma | .C. 630 | ms $D C$ |


| Typ* | Use | $\begin{aligned} & \text { Level } \\ & \text { Mwi } \end{aligned}$ | Pri. Imp. | Pri. DC | Sec. Imp. | Nef |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DOT-9 | Output/Driver | 100 | 10K, 12.5K | 1: 1 mo | S | 6.46 |
| DOT-10 | Oriver | 100 | 10K. 12.5k | 1: 1 ma | $1200 \mathrm{CT}, 1300 \mathrm{CT}$ | 6.46 |
| DOT. 11 | Drive | 100 | 10K. 12.5K | 1:1 mo | $2000 \mathrm{Cl}, 2500 \mathrm{Cl}$ | 6.46 |
| DOT-12 | Single/PP output | 500 | $130 \mathrm{CT}, 200 \mathrm{CI}$ | 10: 10 ma | 12: 10 | 5.59 |
| DOT-13 | Single/pp output | 500 | 300 Cl . 400 Cl | 7: 7 mo | 12: 16 | 5.58 |
| DOT-14 | Single/pp output | 500 | $000 \mathrm{CT}, 800 \mathrm{Cl}$ | 3: 5 mo | 12: 18 | 5.88 |
| DOT-15 | Single PF output | 500 | 800 CT [ 1070 CT | 4: 4 mo | 12: 10 | 5.88 |
| DOT-16 | Single/PF output | 300 | 1K CT 1330 CI | 3.5; 3.5 me | 12: 16 | 5.88 |
| DOT-17 | Single/pp output | 500 | 1.5 Cbr 2 CkT | 3; 3 ma | 12, 18 | 5.88 |
| DOT-11 | Single/pp output | 500 500 | 7.5 KCT lok CI | 1: 1 ma | ${ }_{12,} 10$ | 4.17 5.88 |
| DOT-19 DOT-20 | Output to line | 500 500 | 300 Cl 500 CI | 7 l \% mo | 000 000 | 5.88 5.08 |
| DOT-21 | Output/line maich | 500 | 900 Cl |  | ¢00 | 5.88 |
| DOT-22 | Output to line | 300 | 11500 CI | 3 mo | 1000 | 5.88 |

Mw

## MEISSNER OSCILLATOR COILS

eplacement, habby and experimental purposes.
afoyette's lotest tsonsistor circuit component Engineered for construction projects using the increasingly popular power transistors. Wlll also serve as a general replacement lor many transistorized outo radios. Rated of 10 watts for oush-pull operation. Primory opped at 8, 12. 16, 24, 32 and 48 ahms. Secondary tapped at 4,8 and 16 ohms Sizes $3.1 / 16^{\prime \prime} \times 21 / 4^{\prime \prime} \times 2.9 / 16^{\prime \prime}$. Shog. wt. 3 lbs
-84

## UTC SUBOUNCER AND SUB-SUBOUNCER TRANSFORMERS

## SUBOUNCER TRANSFORMERS

## SUB-SUBOUNCER TRANSFORMERS

| \|Sso-1 | Use Input | $\begin{aligned} & \text { Pri. Imp, } \\ & 200,50 \end{aligned}$ | Pri. DC | Sec. Imp. 250K, 62.5K |
| :---: | :---: | :---: | :---: | :---: |
| NET ${ }^{\text {S }}$ SO-2 | Audio, 1:3 | 10,000 | $0-25 \mathrm{mo}$ | 90K |
| NETI SSO. 3 | PI. to line | 10k. 25k | 3. 1.5 mo | 200, 500 |
| 2.941550 .4 | Output | 30000 | 1 ma | 50 |
| . 1550.5 | lleactor | 50 hys (9) | mo $D C$ |  |
| 2.941550 .6 | Outout | 100,000 | .5 ma | 60 |
| 2.941550 .7 | Interstage | 20K: 30K | .5; . 5 ma | 800: 1200 |
| $2.94 ; 550-8$ | Interstoge, PP Sec. | 10,000 | 1 mo | 2000 CT |
| 3.781550 .9 | Oupput | 10,000 | 2 ma | 16 |
| $2.941550-10$ | Output | 10.000 | 2 mo | 3.2 |
| 3.531550 .11 | Output | 500; 600 | 3.5; 3.5 | 50; 60 |
| $3.531550-12$ | Output | 1K: 1.2 K | 3.3 mo | 50; 60 |
| 3.53 i 550.13 | Crystallopu | 200,000 | 0 ma | 1,000 |




## 365 MMF SINGLE GANG SUPER-MIDGET VARIABLE CONDENSER

The nawest and one of the Anest single gang ve oble condeniers on the market. Designed to give exceptianal performonce in TRF and experimental sircuitry. 10 to 365 mmf single gang. Tunes through $180^{\circ}$. Completely enclosed in plastic case. $5 / 8^{\prime \prime} \times 1 \mathrm{~s}^{\prime \prime} \times 1 \mathrm{~h}$ :
MS-274
Not 1.25

## 2-GANG <br> only 5/8" $\times 1-1 / 16^{\prime \prime}$ Square! MS-270 <br> 

Argonne "Poly-Varl-Cons"


Two-gang midget variable for top perfarmonce in transistor superhet circuits. Capacitance of ontenna ention, 10 to 208 mmf , and 10 to 100 mmf on the through $180^{\circ}$. Enclased in tronsparent plastic case. through $180^{\circ}$. Enclased in tronsporent plastic cave
Offers unlimited possibiltios to the enperimenter. Ofert unlimited possibillitios to the eaperimenter.
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3-GANG only
$13 / 16^{7} \times 1-1 / 16^{n}$ Square!

### 2.95



For transistor receivert with on RF stage. Copac. itonce ronges: Antenne section, II mmf to 235 mmf RF section, 11 mmf to 235 mmf ; Oscillator section, 11 mmf to 111 mmf . Coll inductance Antenno and RF, 352 microhenries each; Os clllator, 200 microhenries. Self.cantained trim mers. Clockwiso ratatlang runes thraugh $97^{\circ}$ M5.345.

TRANSISTOR SUPER-HET LOOP ANTENNA


The latest transistar laap antenna especially desioned to motch the input impedance of the RF stage in tronststor uperthot circuits. Requires maximum capacity of 208 mmi Super Midget 2 gang variable condenser, M $5-270$ to Now Super Midget 2 gang variable condenser. MS-270 10 give
 broodcast band of 540.1650 kc .
iron care $312^{2}$ dio. $\times 1 / 4^{" 1}$ dio. ms-272-Ant. Cail

motches MS ont. loop. Size $4 /$ "nlw $^{\text {nith MS264 }}$ MS-265...In lofi of 6 , E0. 69 lopi of 6, Eo. 694
Singly, Eoch 794

MATCHED TRANSISTOR 455 KC I.F.'S

- FERRITE CORE-SLUG TUNED *ONLY $1 / 2 " S Q . \times 3 / 4$ H

Products of the latest enginecring pemearch, these 45 : KC ransistof 1,F transformers are designed with improved ratios of primary to secandary turns and of capacity to inductance for periect impedare matehing. Exacting research impedaner of 25,000 ofims and atandary Impedance of 600 ohms with a 3rd 1.F. having a primary impedance of 25.000 ohms und a secondary impedsmee of 1.000 ohms Riven vastly improved mesulta ib transimior superhet circuits. Lafayetle in first to make these specially matched tranaistor
i5. KC l.F. transformers uvalable to yout MS-269 3rd I.F.

M55 KC I.F. tranmformers uvalable to youl 25,000 ohms, necondary 600 ohms .8
 primary impedance 28,000 ohms, secondary 1,000 ahms. 89

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Give your Tronsistar Receiver that prafessiano oppearance by dressing it UP with this very oftractive broadcost Iuning dial. Specifically deslened for use with the femaus Transistar "Paly-Vari-Con' tuning candenser. $11 / 3^{\prime \prime}$ diam, plastic dial neotly designed in ivary bacheraund with gold diglts and trim or moroon backgraund with silver digits and trim. Mounted on condenser shaft by o rich-looking, chrame.plated $5 / 8^{\circ}$ diam. Threaded retainer, centrally placed. You'll be amazed at the beouty this dial will odd ta your recolverl Knurled far easy octivelion KN-24-IVORY AND GOLD... KN-25-MAROON AND SIIVER. $\qquad$ Net 45 s

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M5-310..
Not 29 c


## MINIATURE 365 mmf VARIABLE COND.

- Ontr 3/16" Thick

Autider type of varinble condenner that is ident tor the Butlider of irnanintorized and miniature sutiment. Capocity vartabot from 10 to 365 mmf. single Rann meacurts oniy " 16 " thich $x 11 / \mathrm{m}^{\prime \prime}$ square. Bumining Ms-215

Net 69


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All the now miniofurizod transiztar aperated sels such or GE, Regoncr. otc., ore using this truly miniature 2 gang vorioble. lightwight - bath the frame and plates ore aluminum. Smooth boll beoring action aver entire $180^{\circ}$ rotalion. Boltelite statar insulotion. Copacity of 11 plote R.F. section is 6.3 to 123.1 $\mathrm{mmfd} ; 9$ plate oscllitotar section is 5.7 to 78.2 mml . Efective range of trimmers 15 mmf . These odd 2 mmf ta minimum copacity. Copocity increoset in counter clockwise directian. Flatted shaft. $1 / 4$ " diameter by $11 / 4$ " lang. Frame size anly $15 / 18^{\prime \prime} \mathrm{D} \times 1 \% \mathrm{w} \times 1.15 / 16^{\prime \prime} \mathrm{H}$. Shpg. wt. MS:
MS

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TRANSISTOR LOOP ANTENNA AND OSC. COIL

A loop nntenna with a primary inductance of 700 microhenry. eapecfally designed with the proper tup to mateh the input imped: ance required in iransistor circults. Covers the entire broadcast band from vandenie condensers such when used with lateet mintoture type miniative sets. (Latayettems.2si G. D. Regency and other sub. miniative seth. (lateythtems-2es is doealy, Requires maximum on high emeiency iron core 4 m lon of $x \mathrm{yariable}$ co Ms.2e4 … Net.95 in lots of 6, Each 89


## MATCHED SET

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 A Transistar loop Antenna with a fired Inductance loop; speciolly designed with $1 / 2^{\text {" }}$ diomeler Ferrite Rad to insure odequote signal to the first slage. Inductar is topped to motch on input impedance af 600 ohms. Frequency ronge $540-1830$ Kc. whon used with variable condenser hoving o moximum copacity of 365 mmfd . Dimensions $9 / 1 \mathrm{~d}^{\prime \prime} \times 41 /{ }^{\text {" }}$.

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Designed for transistor clrcuits ta supply the lacol ascillatar energy to mixer stoge. Intermediote freauency 455 Kc . Used with o varioble condenser maximum copacity of 365 mm md . Mounting clip fitz oble condenser maximum copacity of 365 mmfd . Mounting clip fits
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PLASTIC CASE FOR MINIATURE EQUIPMENT PHOTOCELL
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- 455 K.C. I.F. Transformers
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Newest - smallest - I.F.s available for tran-
 only, \%u"y square by are perfectly matched for the inest potions.
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minations in ransistor
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Experimenters' delizht! $\mathbf{1}^{\prime \prime}$ rectang ular controlled - raluciance microsids, amplifirs. etc. ${ }^{\text {pedance: outpui level }-75 \mathrm{ohms} \text { imp }}$ Realatant to heat, humidity: hoock SHURE MC- 20

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2/4" DIAMETER QUANTITYMITED

> Only \%" Diameter, overall dopen approslmatoly. ${ }^{m}$ including thrasded ihaft. Ideal for minlature redio. hening alds, etc. 14 C VC.19-Range 0 to i Met. IInear teper 3tc VC.20-Ranse 0 to 3 Mef. udio taper 3le In Lote of 10 - 53.25

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Superior resulta in AC

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Size of partm.
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 A cudmium selenide photoconductive cell extremely senstitive in red and near Inirared spectral reation. Acte es a fillumi nation frum lens of inousands of mek ohms down to thuusands of ohms. te used even with dayligist well in bus cent Itght present. Worky well in busclar and thre alarm AB or DC. The be ulsed with elither AClivity is 300 ud it 2 foot candles and 100 V . Time constant is $11 / 2$ milliseconds it it 1 foot rand le and perimite high speed yeply bow thons whaout comperil nolew is of tro dark current. yoltaze maslimum: 300 V consequence of pesk AC. Dissipation: 50 milit What or Ansbent temperature -50 to CLAIREX CL-3

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Barrter raver, velt-senernaling cype: current oumcleas to operater reteve
 try power. Luesime of of aumillput at 100 microamperet of output at 100 foot eandles. 2 inchet some plastic ease.
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 The first device to convert useful
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Beautiful pocket sized modern stream
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An exclusire Lafayette scoop! Minia one plug. Jack and antenna bank all at tenna set-ud for that personal transistorized recefrer, but may be used wherever a minlature olug and jack are requlred. Plu, housed in on jack are re-
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$1 / 3$ the sizo of provious small plugs lll the quality precision workman. hip. Plug is $1-7 / 32^{\circ}$ long by $1 / 4^{\prime \prime}$ diom-


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Poge 84


# PRINTED CIRCUITS • MINIATURE PARTS 



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Tronsistors may be damaged by the heot of saldering The utilizetion of these speciolly developed transistor sockets prolongs the life of your tronsistor. Molded from mica-filied low loss bakellie. Silver plated berpllium copper contocts. "For printed circults. Size is overall. stack

| Ne. | Type\| | Cont. | S18. | Net |
| :---: | :---: | :---: | :---: | :---: |
| MS.275 | A | 3 | 15/32"x11/32" $\times 7 / 32^{\prime \prime}$ | . 19 |
| MS. 253 | A | 5 | 15/32* ${ }^{\prime \prime} 11 / 32^{\prime \prime} \times 7 / 32^{\prime \prime}$ | .19 |
| MS-252 | C | 5 | $1 / 4^{\prime \prime} \times 3 / 18^{\prime \prime} \times 3 / 8^{\prime \prime}$ | . 22 |
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 TRANSISTOR SOCKETLatest transisfor socket takes tronsistors with 3 contacts in line, 3 contacts in triangle, 4 contacts in diamend shape (Telrade). Made of mico filled phenolic. Contacts are beryllium capper, gold flashed over silver plate. Complate with mounting ring MS. 345

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New type of electric humidity meos uring element. Film trpe element fo stability - reproducibility - polari-
zation. Resistance decreases with in. zation. Resistance decreases with in.
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New - highly occurate - extremely stoble humidity sensing element, Vories bios on contralled grid of vocuum. - directly contrals meter reoding in bridge circuit. Employs conducting plastic which changes re sistence in the presence of woter vapor kppid reoction time. Long ferm stobilityrauble free operation. Employs punied elec. lrodes on eoch face. $3 / 4^{\prime \prime} \times 11 / 2^{\prime \prime} \times 1 / 16^{\prime \prime}$ Irodes on each face. $3 / 4^{\prime \prime} \times 11 / 2^{\prime \prime} \times 1 / 16^{\prime \prime}$
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MS-327
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- FERRAMIC Q RODS AND STAIPSI
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Now you can wind your own ferrite rod on-tonno-to fit your own particular length, width and $Q$ requirements. A real boon ta the experimenter-builder-small lob. design englineer. A necessity in aftempting eceiver minioturization. Easlly cul to any size required. Avg. shpg. wf.. 4 oz.




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Printed sircuits are designed to eliminote wiring ond ore ideal for space soving, particularly where miniafure com. ponents ore used. They ore being used widely in on over increasing number of applications. With these kits, you can etch your own circultry on copper clod XXXP insulating boords with efthing materials provided. Kits olsa cantain variety of other moterials and parts such as printed eircuit sockets, various types of resist:moterial. printed sircuit sockets, various types of resist:moterial,
efc. Listing below gives contents. All in hondsome eic. listing
plostic box.

## INDUSTRIAL KTT

Contains 12 copper clad boards in sizes from or $=12^{\prime \prime}$ to $21 / 4^{\prime \prime}=3^{\prime \prime}, 3$ of which ore clod on both sides; 10 assorted 7 and 9 pin minioture prinled circuit sockets 1 gold-plated, bery-capper 10 contact connector; 5 packs efchant solution: I lape resist $1 / 16^{\prime \prime}$ wide; I bottle liquid resist; 1 phota sensitive emulsion develaper and dye; 5 dozen assorted brass eyelets; a cerbon drill. In plastic boz size $131 / 2 \times 91 / 2 \times 21 / 2$. ${ }^{5}$ thes. NO. 5004 P

## TECHNICIANS KIT

 Contains 8 copper ciod single loced and 2 double faced boords from $41 / 2^{\prime \prime} \times 6^{\prime \prime}$ to $3^{\prime \prime} \times 21 / 4^{\prime \prime} \mathrm{s}^{6}$ tube sockels; 2 packs etchont; 1 fope resist; 1 liquid resist; 3 dozen eyelets; 1 drill and typical circuit diograms ond direc. tlons. In plostic box size $9 \% \times 61 / 2 \times 2$. Shpg, wt. 1 lb .5 az.KIT NO. 5003P

## BASIC KIT

A good kit to stort off leorning the technique of efched circultry. Contains 3 copper clod boords from $41 / 2^{\prime \prime} \times 3^{\prime \prime}$ to $3^{\prime \prime} \times 21 / 4^{\prime \prime} 1$ eoch 7 and 9 pin sockets; 1 pock atch. ant; I tope resist; eyelet assartment; drill ond direc. tions. In plostic box size $51 / 4 \times 11 / 4 \times 4$. Shog. wt. 8 ox. XIT NO. $5001 P$

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Provides occurate, ropid meons for producing multiple ciecuit models. Provides resist potterns for circuitry, laboling lacotions, numbers, dials, trodemorks, te. Contoins ready mounted silk sereen, bose, squeegee, 4 ox. etch resist, poddle, phota stencil sheets, Instrue tions, brochure, in plastic case $0^{\prime \prime} \times 13^{\prime \prime} \times 2^{\prime \prime}$. Shpg. wions, 5 fbs.
KIT NO. 5006P NEW! "EALL POINT" RESIST KIT
BALL POINT TUBE DEPOSITS RESIST LINE 2 MILES LONGI
Moke resist potterns directly on copper clod board. As eosy to use os a boll point pen. Deposits line $1 / 16^{\prime \prime}$ wide. No need to "logy-out"" colors of resist for coler cooling of circuiting. 5 rolls of pressure sensitive tepe and die cut dols.
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Liquid resist ball point tubes are evailable in vorious colors. Yellow, green, blue, red, brown, block and crange.

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Bosic components for the experimenter-designer-lob - limited production-ic., in printed cirkuit consfruc. fion. Mighest quality materiolg-indispensable for prototvpe work.
Type No. Descripion Nefee.
PE.3 Etchant-S oxt. .......................................... 50

| PE-3 |  |
| :---: | :---: |
| PE-5 |  |
| PE.7 | Etchoni-Qr. - 2.25 |
| PEY-1 | Evelats-. 062 D. $\times .093$ L. -2 Doz. ....... . 20 |
| PEY-2 | Eyelets-. 062 D. $\times .125$ L. -2 Dot......... 20 |
| PRT-1 | Tope Resist $1 / 32 \times 320^{\prime \prime} \ldots \ldots . . . . . . . . . . . . . . . . . . .85$ |
| PRT-2 |  |
| PRT-4 | Tape Resis! $1 / 0 \times 320^{\prime \prime} \ldots \ldots \ldots$ |
| PRTD-6 | Tope Resist Circles 3/16" D. quon. 40.... . 40 |
| PR-L | Liquid Resist-1 ox. .............................. 50 |
| PC-A | XXXP Copper Lam.-1 side $-9^{\prime \prime} \times 12^{\prime \prime}$ _ 2.00 |
| PC-B | XXXP Copper Lom.-1 side- ${ }^{\prime \prime} \times 41 / 2^{\prime \prime}$.... . 60 |
| PC-C | XXXP Copper Lom, - 1 side $-3^{\prime \prime} \times 41 / 2^{\prime \prime} \ldots . . .40$ |
| PC-0 | XXXP Copper Lam.--1 side-2" $\times 41 / 2^{\prime \prime} \ldots . .30$ |
| PC-E |  |
| PC-AA |  |
| PC-AB | XXXP Copper Lam. 2 2 sides- $6^{\prime \prime} \times 41 /{ }^{\prime \prime}$.... . 90 |
| PC-CC | XXXP Copper Lom. -2 sides - $3^{* \prime \prime} \times 41 / 2^{\prime \prime}$.... 60 |
| PC-DO | XXXP Copper Lam.-2 sides- $2^{\prime \prime} \times 41^{\prime \prime}{ }^{\prime \prime}$ |
| PC-EE | XXXP Copper Lom. -2 sideg -3 " $\times 21 / 4^{\prime \prime} \ldots .$. . 40 |

## COPPER CLAD LAMINATE KIT

Consists of six each of the XXXP boards listed excepl PC-A ond PC-AA. Mokes most used sizes reodily avalloble. Shpg. wt. 6 lbs.
KIT NO. 5160
Net 21.90

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## KEYS-HEADSETS-CRYSTALS-SUNBATTERIES

## SPECIAL VALUE CODE KEY



A typieal Lafasette ralue. This key has an adjustable spm, with all metal party hearlly plated. Has suring arijm, smmoth hearings,
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MS. 319

## JOHNSON KEYS AND PRACTICE SETS



Fit. A. Standard Model. Heary die cast base. Black winkle amish. Smooth adjuate ble bearings. be" coin aliver contacts. Adjustable tenstion and apacing. shpg. Wh., ${ }^{2}$ ibe Madel 114.310
F19. B. Hearr. Duty


Model 114-320.
Fis. C. Practice Key. All metal parta except the base are nickel plated. Key ia designed Fif. C. Practice Key. All metal parta except the baso are nickel piated. Kes ia desiened coin silver. Molded pherolic base. shpe. wi., 8 oz.
Model 114.300
Net 2.20
Fis. D. Code Pratice Sol. Kes and hurzer mounted on a $4^{\prime \prime} \Sigma^{6 \prime \prime}$ bekelite base Ad
uzzer tone. sluver cantacts. Uses 2 dry लells or C balter. Shse. wi., 2 dos. 4
Mod $114-450$........................................................................... 4.80
HILb
Haz
Ma
Madel 114.400
Nas 1.81

## CRYSTAL SOCKETS

BLILEY CRYSTALS


NATIONAL SOCKETS (A)
These steacle insulated sockets will stronkly hold the crystal contacts can be used for
chassil of for panel mouniling. The buthing chasals of tor panel mounling. The busting
will project through round nole in nanel. Ar. shbr. WL. 2 uz.


| A. shor. | Pin | Svacino | Each |
| :---: | :---: | :---: | :---: |
| Tyoe | Pin |  |  |
| CS.8 | $.123^{\circ}$ | $.730^{\circ}$ | .35 |
| CS.6 | $.093^{\circ}$ | $.186^{\circ}$ | .35 |
| CS-5 | $.125^{\circ}$ | $.500^{\circ}$ | .35 |
| CS.7 | $.0 .50^{\circ}$ | $.486^{\circ}$ | .35 |

mosley crystal holder ADAPTORS (B)
Mosley $5-\frac{i 5}{}$ xdapte $\%{ }^{2 \prime}$ spaced holder to \%
spacing.
MS. 320
Monley $85-5$ adapts $3 / 4$ " soneced holder to sonket with $\mathrm{K}^{\prime \prime}$ sparlnE to octal socket. MS-321.

## POPULAR MIDGET JACKS

Quolity jacks with excellent springs for positive electricol cantoct. Mount in $3 / 8^{n}$ diom. hole. For stondord 2 and 3 con. duetor plug

## Sfock No. <br> MS.316 Type Eae.

| MS.317 | Open circuit-2 cond. | .19 |
| :--- | :--- | :--- |
| MS 317 | Closed circuil-2 cond. | .23 |


| MS.318 Open circuil-3 cand. | .29 |
| :--- | :--- | :--- |



HEARING AID Headphone hoaring device increases en FOR RADIO ioyment for persons hoving difficully hearing rodio programs properiy. Ex.
cellent for private listening. Connects to rodio in a fow minutes. With switeh for listoning to phones only, speoker anly, or to both. Phones match loudspeoker coll.
DC .2
SP .1
4.70

SP .1

## ECONOMY

 Ideol for smoll crystal, diade ond tronsistor broodeast ond shortwave sets. $50 \mathrm{f}, 7 \times 26$ bare copper oeriol wire, 25 \%. rubber cover ed lead in wire, 10 in. window leod in strip, 2 ontenno and 2 stand-off insulotors. Simple printed Instrusllons. Shpg. Wr., 2 lbs. KT. 77

Type AX-2. Most donular with hams. Apld etrhed quartz. Stainless steel electrodes. Pin drlfes less than 0002 C per dearee centlgrade. yperify frequency desired when ordering. $3100-1000$ ke ${ }_{2}^{2}$ ke. ......................... Net 2.89
$7000-7425$ ke 2.89
$9000-9000$ ke


Type sic-9. gupgeated primarlly for use in sicnal Generators and for lest equipment such $1-11 / 18^{\prime \prime} \times 17 / 16^{\prime \prime} \times 7 / 16^{m}$. $\operatorname{Pin}$ size $093^{m}$ apaefirs. $886^{\circ}$. The plug- in tinse holder apacket sesled for optimum protection acainst molsture.
Bliley MC. $9-$-i0n he. $.02 \%$. ..... Net 3.87

24 - HOUR STATION CLOCK


Tell warid-wide time at a gloncel
Ideal sleck for the moitur, short-weve listener and far cammercial staplons.
TD-2400, self-starting, accurole clock for telling world wide os well as local time. Calibrated in hours, 0100 to 2400; In minutes and seconds, 1 to 60 . Hos black hands with red sweep second hand. 6" dia. rolating Inner dial, frictionolly offoched to hour hand, in red and blue. Shows time directly in all time zones. Simply set hour hand and inner dial far your time-zone, then reod the time in any zone oosily, quickly, occurately. $10^{\prime \prime}$ dia. For 110.120 volt, 80 cycles, A.C. Shpg, wt., ML.82-Net including excise lox 14.85

B2M SUN BATTERY internotional Rectifier's Sun Bottery requires no extemal voltage
 source far operation. Average sun-light will generate a 2 mo milllommeter and used as a light measuring device. Con be used in series or series-paralleled os power supply for transistorized equipment. Troical opplications ore direct conversion of light to electricity-spectrophotometers-light meosurementtraffic contral-headlight dimmer-burglar alarms-limers-colormeters-gorage door opener-light beam communication.
 volts at 100 f . condles. Complete with $1 /{ }^{\circ}$ "me $6^{\prime \prime}$ leods.

MS. 112 ..
INTERNATIONAL SELENIUM SUN BATTERIES CONVERT NATURAL OR ARTIFICIAL LIGHT TO ELECTRICAL POWER ECONOMICALIYI


The International Sun Battery aupplies elec.
trical powep to a lond when exposed to sun. light or artificial lizht sources, and is spe. light or artificial light sources and is spe-
cially processed for high illumination level and high current density operation. Mounted on hracket with 6 color coded pictalil leads attuched. Impregnated for protection agninat
humidity and atmospheric contuminants. The humidity and atmospheric contuminants. The S8 sun batteries are sealed in a phenolic
case with plastic window, and mount by four holes in the frame.


$\qquad$


THE USE OF SELENIUM PHOTOCELLS SUN BATTERIES The first handbook ond guide on Photo cells and Sun Batteries for kit builders Contalns Coniains charts, diagrams, specifications Sun Botteries and their application. 74 Poges-lllustrated $6^{\prime \prime} \times 9^{\prime \prime}$ Write for FREE Reprint 'BUILO SOLAR-POWERED RADIO'


AM-15-1

CANNON-BALL" DOUBLE HEADSET Low-priced. tightwelght, with powerful Alnico $V$ mognes and double colls. Adiustable steel heodbond. $41 / 2 \mathrm{ft}$. care AM-15-2-2000 ohms D.C.2.06
2.20

AM-15-3-3000 ohms D.C..

AM-15.5-5000 ohms D.C
"CANNON-BALL" SINGLE HEADSET Single, elficient phone with spring steel headbond. $41 /$ fi. cord.
AM-15-1-1000 ohms D.C.
AM-15-1500-1500 ohms DC
BRANDES "ADMIRAL" NEADPHONES "Matched-tone" headset. Large diophragms. Dauble colls, chrome steel mognets. Adjustoble steel headbond. $41 / 2$ ff. cord.
BA-2-2000 ohms.
BA-3-3000 ohms
2.44

BA.5-5000 ohms
BRANDES "SUPERIOR" HEADPHONES "Matched-tone" headset of some general construction as the "Admiral" but with terminals on the ouside.
 CORDS $41 / 2$ Feef Long
sturdis madr. with cotton brald insulation. $4 \%$ feet longe. 42 W.3s- Duubir type. Iend npade tip, ot her stralght.
 .42

| MINIATURE PLUG AND JACK |  |
| :---: | :---: |
| Two-conductor precision ormy iype. Needs no screws; molded plostic cose cements together. Ideal for heoring oids, speaker extensions, eic. |  |
| MS-40-Plug only (Type PL-291). MS-41-lock only (Type JK-48). | Eoch . 36 <br> Eoch .40 |
| POPULAR PHONE PLUGS |  |
| For 1 or 2 phone with speaker cords. shell $23 / 4^{\prime \prime} \mathrm{L} \times 3 / 4^{\prime \prime}$ dio. Screw ferminol MS-38-Bicct | bokelite <br> Each . 32 |





## CENTRALAB CERAMIC CAPACITORS

TYPE D6 TUBULAR CERAMIC EYPASS COUPLING MI-KAPS 5 mall coromic copocitors providing exter ive sporation under oxtromesen of moicture -mperoture and vibration. Comport ond mant to old ityle mico and poper thbulor uniz liodial leads $11 / 2^{\prime \prime}$ lone koted 600 $Y$. Ho 11200 V . Toberance $\pm 10 \%$, ensept $\pm 20 \%$, ${ }^{\circ} \mathrm{GMV}$ IGvorontood minimum value). Mixe opprovimotioly $y_{1}{ }^{\prime \prime}$ body d $1.3 / 10^{\circ}$. Avorying in lonoth 1rom $1 / 2^{\prime \prime}$


TYPE MD MOLDED DISCS

2500 brookdown voltoo and insulation reblitance $3000^{\circ}$. 5000 mul raled 1000 V DCW. higher velues roted 600 V $10 \% 10$ thick. Tolorence $I$ $10 \%$ excepl $t \pm 20 \%,{ }^{\circ} \mathrm{Cuv}$ Shpe. Wh. 2 ox.

| TYP | Mm | TYPE | $0^{+3}$ |
| :---: | :---: | :---: | :---: |
| Mo-427 | 4.7 | mb-401 | 400 |
| MD-050 | 5 | MD-471 | 471 |
| Mb-930 |  | Mo-501 | 500 |
| MD-7 5 | 7.5 | mo-561 | \$40 |
| Mo-82 | E. 2 | - $0-\infty 1$ | 100 |
| 20-100 | 10 | mo-cil | 680 |
| MD-120 | 12 | mo-751 | 7set |
| M-150 | 15 | M0-821 | 2 |
| mb-180 | 18 | mos 102 |  |
| M0-200 | 20 | mo. 122 | 120er |
| M0-220 | 22 | MO-132 | 1800t |
| Mo-250 | 23 | MD- 182 | 1800t |
| M0-270 | 27 | M0-202 | 2000t |
| Mo-330 | 33 | M0-222 | 2200 |
| M0.30 | 39 | H0.252 | 2500t |
| M0-470 | 47 | mo-272 | 2700t |
| Mo-500 $M 0.500$ | 80 | Mo-302 | 3000t |
| mo-480 | 4 | M0-332 | 3100t |
| M0.750 | 75 | mo-402 | 47000 |
| Mo-820 | 12 | MS-502 | soept |
| MD- 110 | 91 | mo-562 | scee |
| Mo. 101 | 100 | mo-482 | 6800 |
| Mo. 121 | 120 | mo.732 | 75000 |
| mo-1s 1 | 190 | mb-103 | 10009 |
| mo-1 | 180 |  |  |
| Mo-221 | 220 |  |  |
| Mo-251 | 250 |  |  |
| Mb-271 | 270 |  |  |
| MO-301 | 300 |  |  |
| Mo-331 | 350 | NET EAC | - -15 |

LOW VOLTAGE TRANSISTOR (i) O2 CERAMIC CAPACITORS

| Type | Cep | DCWV | Nof |
| :---: | :---: | :---: | :---: |
| DA-203 | . 02 | 30 V | . 24 |
| DA. 503 | . 05 | 30 | . 38 |
| DA. 104 | . 1 | 30 | . 56 |
| DDA-503 | . 05 | 75 | . 29 |
| DDA-104 | . 1 | 75 | . 53 |

Migh copocifonce - low voltoge ceromic capaci tors designed fer tronsis. her circuit applications. Deuble resin insuloted. Typa DA in o plate capo. eltor $1 / 2^{\prime \prime}$ squore with. toleronce of $20 \%+$ $100 \%$. Trpe DDA is
disc copoclior it dion with a toleronce of $-30 \%+80 \%$ 5ho $\rightarrow$ + w.. 1 os

TYPE TC TEMPERATURE COMPENSATING

## MI-KAPS

Tubulor seromik unith denigned for rapid sorroctive respona to temperature chan acol and shows sere copecitronce chanes sotwoen $-20^{\circ}$ to $+85^{\circ} \mathrm{C}$. Type TCM ho nesolive contliciont (N750) and hos nome tive copority chonse of 750 oarti/million por dogerer C tomporoture rive. Roted 600

 $\frac{1}{2} 01$

| MPI | H4 | TYPE | + |
| :---: | :---: | :---: | :---: |
| TCP ${ }^{\text {res }}$ | . 3. | 1C8-47 | 47 |
| TCI-R48 | 0 | TCZ-50 | 6 |
| TCZ-1 | 1.0 | TCR-51 | 81 |
| TCE-1as | 1.3 | TCE-S | 30 |
| TCE-2t2 | 2.2 + | TCE-62 | 48 |
| TCZ-323 | 3.3 + | rcz-03 | 6 |
|  | 4.74 | TCX-73 | 75 |
| $\begin{aligned} & \text { TCX } \\ & \mathrm{TCX}-10 \end{aligned}$ |  | TCz-82 | 82 |
| TCZ-12 | 12 | TCR100 | 100 |
| TCZ-13 | 13 | TCE-110 | 110* |
| TCZ-18 | 18 | TCZ-130 | 130* |
| TC8-30 | 20 | TCZ-130 | 1300 |
| TCE-22 | 2 | TCE-130 | 150* |
| TCX-24 | 24 | TCZ-1 | 1100 |
| TCZ-23 | 23 | TC8-140 | 180 |
| TC2-27 | 27 | PCZ-200 | 200* |
| rCE-30 | 30 | rex-220 | 220. |
| Tcz-39 | 33 | rez-24 | 240* |
| TCI-36 | 36 | TCE 270 |  |
| TCZ-39 | 36 | TCZ-300 |  |
| rez-43 | 43 |  |  |
| NET EACM |  |  |  |
| TYME TCN-NEGATIVE (NTSO) |  |  |  |
| TYPI |  | TYP | 1 |
| TCN-314 | 3.34 | TCN-91 | 11 |
| TCN-S | 5 | TCN-100 | 100 |
| TCN- 10 | $10 \lambda$ | ICN. 110 | 110 |
| TCN-12 | 12 | TCN-130 | 1200 |
| TCN-13 | 15 | TCM 1 |  |
| TCN-18 | 14 | TCN-130 | 150* |
| TCN-20 | 20 | TCN-160 | $100^{\circ}$ |
| TCN-22 | 22 | TCN- 180 | 180* |
| TCN-24 | 24 | TCN-200 |  |
| $1 \mathrm{CN}-23$ | 25 | TCN. 270 | 220* |
| [CN-27 | 27 | TCN. 240 | $240 *$ |
| TCN-30 | 30 | TCN-270 | 770. |
| TCN-33 | 33 | TCN-300 | $300{ }^{\circ}$ |
| TCN-36 | 36 | TCN-330 | $330 *$ |
| TCN-39 | 38 | TCN-300 | 340* |
| TCN-43 | 45 | TCN-390 | 390* |
| TCN-47 | 47 | TCN-430 | $430 *$ |
| TCN-SO | So | TCN-470 | $470{ }^{\circ}$ |
| TCN-S1 | 31 | TCN-S 10 | 510 |
| TCN-S6 | 56 | TCN-S 60 | \$ $40 *$ |
| T $\mathrm{CN} \rightarrow 2$ | 42 | TCN- 420 | 620* |
| TCN- ${ }^{\text {P }}$ | ${ }^{68}$ | TCN-430 | -3D. |
| CN-75 | 73 | TCN-750 | 750. |
| TCN-82 | 12 |  |  |
| NET EACM |  |  |  |

TYPE DF

## FLAT PLATE

MH-KAPS
Unuzually thin hinh capority byporn ond hiter ceramis copociton. floted 600 VDCW , minimum valuel ericept $0+80 \%,-20 \%$. Size opprox. $1-7 / 16$ a $13 / 10$ n $\mathrm{k} / \mathrm{k}$. Shph. -T. 3 at.

| TTW | po | MIT LAOH |
| :---: | :---: | :---: |
| D0.303 | . 0.0 |  |
| DP-403 | .05 | 418 |
| DF-509 | . 08 |  |
| De 739 | .075 | 476 |
| DF-104 | . 1 |  |

## TYPE DD STANDARD CERAMIC DISCS

For byons, couplling and oinerot opalfcotion, where resistonce to molisturer, hoor overlood ore rogulired. Roted 1000 V . Sizem range from $1 / 4^{2}=1 / 4$ thediometer. Tolemo once $\pm 10 \%$, oncupt $\dagger \pm 20 \%_{2}$ - GMV . Averone shos. No, 2 oz.

|  |  |  | $\mu$ |
| :---: | :---: | :---: | :---: |
| 3 | 3.3 | DD-301 | 300 |
| DD-050 | 5 | DD-331 | 330 |
| DD-060 | 6 | DD-35 | 350 |
| DD-6m | 4.8 | DD-369 | 3609 |
| DD-725 | 7.5 | DD-391 | 390 |
| Do-000 |  | D0-401 |  |
| DD-100 | 10 | D0-47 | 47 |
| DD-120 | 12 | DD-501 | 500 |
| Do-150 | 15 | Do-561 |  |


| Do-150 | 15 | Do-561 | 5601 |
| :--- | :--- | :--- | :--- |
| DD. 100 | 18 | D0-601 | $600 \%$ |





 \begin{tabular}{l|l|l|l}
$00-330$ \& 33 \& $00-132$ \& 13001 <br>
$00-330$ \& 39 \& $00-152$ \& 15001 <br>
$00-470$ \& 47 \& $00-162$ \& 15001

 DD-500|50 DD-182 18001 

DD-560 \& 56 \& DD-202 \& $2000 \uparrow$ <br>
DD. \& De0 \& co \& DD-222 <br>
DD \& $2200 \dagger$
\end{tabular}

 | DD-910 | O1 | $00-272$ | 27001 |
| :--- | :--- | :--- | :--- |
| $0 D-302$ | 30001 |  |  |

 \begin{tabular}{l|l|l|l}
Do-121 \& 130 \& DD-402 \& 40001 <br>
DD-151 \& 150 \& DD-432 \& 43001

 

DD-151 \& 150 \& DD-432 \& 43009 <br>
DD-181 \& 120 \& DD-472 \& $4700 \%$

 DD-201 200 D D0-502 15000 * 

$00-221$ \& $220+$ \& $D 0-542$ \& 5600 <br>
$D 0-241$ \& $240 t$ \& D0-482 \& 6800

 

D0-251 \& 2501 \& $00-62$ \& 6000 <br>
DD-271 \& 2701 \& 00.752 \& 7500 <br>
\& $00-103$ \& 0000
\end{tabular} MET EACH

| DD-5022 | socot | D0- 203 | $20000 *$ |
| :--- | :--- | :--- | :--- | MET IACH

TYPE DD3 DUAL SECTION DISCS
Two Individually itholded ceoociton in the
shpe No., 2 oz.

| TYME | H | EA. |
| :---: | :---: | :---: |
| D03.102 | 2x.col |  |
| 003-132 | 2x.0015 | 36 |
| P63-502 | 2=.003 |  |
| D03-103 | 2 $=.01$ | 29* |

## CERAMIC FEBETHRU

 HI-KAPS
## TT

Wored 500 VDCW, 1.000 VDC rest. Treo Ts bushing mounted supplled with mount He nut. Troe MFT, tiny eyolet capocitor. Whered directly to shessis. Shpe. Wi., 2


| TYPE | $\mu_{\mu}$ | TOL | EACN |
| :---: | :---: | :---: | :---: |
| mart-50 | 50 | $\pm 10 \%$ | 24 |
| Mr- 100 | 100 | $\pm 10 \%$ |  |
| mrle 500 | 500 | $\pm 20 \%$ |  |
| MrT-1000 | 1000 | omy |  |



## ATTACHABLE TERMINAI HI-VO-KAP KIT

KIf contains 1 TV-30 WI-Vo-Kop and a N replecet of oftochable Herminah for 500 mm . cepociter reted of 20 KV DCWV. vithitond rwice roted voltores. Set of nerminats includen 1 eesh stomed-rod. thart mole and low mate and 2 eorh fomole tap and male throod. No trripplat or lowe Noringhts. Shos. Wh. © oz.

TVAE DDIS 1600 V HI-KAP EUFFEES

NET EACH
De10-133 . 015
TYPE DD3O 3000 V DISC CERAMICS

| TrPe | 品 ${ }^{\text {c }}$ | TYP | 0 |
| :---: | :---: | :---: | :---: |
| D030 417 | 4.7 | Desa-221 | 220 |
| Do30-6it | 6.8 | D030-231 | 250 |
| 0030- $0^{\text {a }} 2$ | 8.2 | D030-271 | 270 |
| D030. 100 | 10 | D030-301 | 300 |
| Dosa-120 | 12 | D030.331 | 330 |
| D030-130 | 15 | D030-391 | 3\% |
| P030-220 | 22 | 0030-401 | 400 |
| D030-250 | 23 | 0030-471 | 470 |
| Dosa-270 | 27 | Dosa-sol | 500 |
| 0030-330 | 33 | Dosa-561 | 560 |
| 0010-3\% | 31 | D030-631 | 80 |
| D030-470 | 47 | D030.731 | 750 |
| Dosa-500 | 50 | D030-821 | 120 |
| porab 540 | 5 | D030-102 | 1000 |
| D030-680 | -8 | D03a. 122 | 1200 |
| 0010-750 | 75 | Boso-152 | 1500 |
| 0030-720 |  | DD30-202 | 2000 |
| -030.101 |  |  |  |
| 0030-121 | 120 | D030-252 | 2500 |
| -03a-151 | 150 | D030-172 | 3700 |
| posa-111 | 180 | Dosa-302 | 3000 |
| D030-201 | 200 | 0030-472 | 4700 |
|  |  |  | 5000 |
| MET EACH |  |  |  |

TYPE DDEO G000V DISC CEAAMICS

| TYPP | M | TYP宣 | M $\boldsymbol{H}^{\text {F }}$ |
| :---: | :---: | :---: | :---: |
| DD60-487 | 4.7 | D060-181 | 180 |
| DDGO-4 | 4 | D060-201 | 200 |
| D060-3 2 | 8.2 | Dose-231 | 220 |
| D060-100 | 10 | Dosa-231 | 250 |
| DDSO-120 | 12 | Dos0-271 | 270 |
| 0080. 150 | 15 | Docas01 | 300 |
| D060-220 | 22 | Dose-331 | 230 |
| D060-250 | 25 | D060-391 | 290 |
| Dosa-270 | 27 | Deco-401 | 400 |
| 0040-300 | 30 | Doco-471 | 470 |
| Doso-330 | 33 | Dosa-501 | 300 |
| -090.390 | 31 | De40-541 | 340 |
| DDE0-470 | 47 | poco-bal | 830 |
| DOso-500 | 50 | Do40-751 | 750 |
| 0060.5c0 | 56 | Doser 11 | 420 |
| D060-680 | 48 | Doso. 102 | 1000 |
| D060-790 | 75 | D040-122 | 1200 |
| Deso- 10 | 8 | Doselis2 | 1500 |
| Doco-101 | 100 | D040-202 | 2000 |
| Doso-121 | 120 | D0s0-222 | 2200 |
| Becos 151 | 150 |  |  |

## TRIMMER CAPACITORS



YHE 120 Conveniently moverted, wide caperity ronge unih. \$oted 600 V DCW ant 1500 VDC. Mounting holen cheor \# Shpe. It., 1 ex

TrAE CAP. mat TrA cap. ne
 NET CACM

Mes $2 x$ Sroctite bowe. Iroes with N ndicates mepotive memper oture cosmcient $27 / 37$. Shpg. H . 1 ion.

TVE CAP. MH THP CAP. EC 522-CN 4.5-25.0 122-CR 2.0-7.3 822 -N $7.0-5.0$ 822-12 $2.5-13.0$ - z2-AN |e.0-50.0 |122-AZ $\mid 4.5-25.0$ NET LAON
 by loctrunt eqoingt metol poond of cheasil.

 NT NO NET

[^3]
## FLLTERS-CERAMIC DISCS-PRINTED CIRCUIT CONDENSERS

## CORNELL-DUBILIER "QUIETONE" FILTERS FOR SUPPRESSION OF RF INTERFERENCE



## PLUG-IN TYPE



Type 1F-18. Fig. A. An efficient oll-weve copocifive-inductive type filter for use wifh all types of electrical oppliances cousing severe interference. Equipped with frame connectlon for reduction of radiation. Rating: 110 V AC.DC, 5 amps. In bakelife case with cord and plug. Shpg, wt., 5 lbs.
Type IF-19. Fig. C. Capocitive-inductive lype filter for all rypes of home appliances with severe interference. Frame connection provided for grounding. Roted 110 V AC-DC, 5 amps. In bathelife case with card and plugs. Shpg. wi., 2 lbs.
Type If.4. Fig. D. For use with small rodia receivers for low or moderate intensity inferference. Roted of 110 V AC.DC, 5 omps. Connects to power line between rodia plug and outlet. Shipg. wi., 8 or.

Net .73
Type 1P-6. Fig. E. Plug-in pype filter far inferference canditions of moderately law intensity. Installed between power line and set ar oppliance. Mas shart lead ta cannect binding post ond fram to reduce radiation. Roted $110 y$ AC-DC, 5 omps. Shop. w., 8 az.

## WIRED-IN TYPE

IF-7A. Fig. B. Copacitive-inductive filter far severe interference from industrial and heary duly electrical equipment. For single phase $110-220 \mathrm{~V}$ AC-DC, 5 amps. Shpg, IF. 24 llbs. FIUORESCENT NOISE FILTER. Duol copacitive type filter Net 8.08
 ing fuorescent naise. Easily maunted and cannected by means of fexible leods. For
115 V AC.DC. Shpg. wi.. 8 oz. 115 V AC.DC. Shpg, wi., 8 az.
1F-54. Fig. G. Copositive-inductive filter for general purpose use in circuits up to 2
omperes current. Roted $110-220 \mathrm{~V}$ AC-DC. Shog. wf.. 8 oz......................... 1.47

## CORNELL-DUBILIER TYPE C TEMPERATURE COMPENSATING DISCS

Ceramic discs far rapid carrective respanse to temperature changes be tween $-55^{\circ} 10+85^{\circ} \mathrm{C}$. The copocity of coeficient NPO troe remains essentially constont. Tyou coefficient N750 has o megotive coefficient of 750 ports/millian/degree $C$ to campensote for lemperature rise. Rated hove unifarm thickness of $5 / 32^{\circ \prime}$ or $\pm .5$ uuf, whichever is 9 in diameter from $9 / 32^{\prime \prime}$ to $1 / \mathrm{sm}^{\prime \prime}$ Averoge shog. wt., 2 oz


## afayette ceramic discs

## RATED 1000 DCWV

These Lafayelte seramic dises are ideal for bypassing, blocking and coupling applico tions and os cost saving replacements for paper and mica capacitors. Each dise is checked on the production line for power factor, capocity. leakoge resistance and breakdown to assure dependable performance. Available in the following values.
uuf
5
6.8
10
12
15
18
20

| $u u F$ | u11F |
| :---: | :---: |
| 22 | 50 |
| 25 | 56 |
| 27 | 68 |
| 30 | 75 |
| 33 | 82 |
| 39 | 100 |
| 47 | 120 |

wиF
150
180
200
220
250
270
300
HuF
330
390
470
500
560
680
750
uF
.001
.0012
.0015
.0018
.002
.0022
.0025

C-601 All obove volues thru . 01 mf may be assorted for quantity price. Specify slock No. C-601 and capocity 10 for .......... 72 e - Singly, Each HIGH CAPACITY DISCS
C. $602.015 \mu f$

WhDE. WL., 2 oz
10 for 99 - Singly, Each Ile
C. $603.02 \mu \mathrm{f}$ 10 far 1.08 - Singly, Each 12 e

CORNELL-DUBILIER TYPE BC PRINTED CIRCUIT TUBULARS

Porollel leod wires permil these phenalic. plugged direstly inta printed circuits and dip soldered. Extremely wide temperature ronge. leads hove law resistance conmestions to foll. Withstonds extremes of Soldering lemperotures

| TYPE | $200 \mathrm{~V}$ | $\begin{aligned} & \text { DCW } \\ & \text { SIZE } \end{aligned}$ |
| :---: | :---: | :---: |
| B(-2068) | . 0068 | $3 \times 1$ |
| BC-251J | . 01 | $3 / 6 \times 1$ |
| BC-2515] | . 015 | $3 / 8 \times 11 / 4$ |
| 8C-2522J | . 022 | $1 / 6 \times 11 / 4$ |
| BC-2533J | 0.33 | 7/\|6x| $1 / 4$ |
| BC-2547] | . 047 | $1 / 2 \times 11 / 4$ |
| BC-2568J | . 068 | $1 / 2 \times 11 / 4$ |
| BC-2PIJ | 1 | $1 / 2 \times 11 / 2$ |
| 8 C-2P15J | 15 | $1 / 2 \times 11 / 2$ |
| BC. 2 P22J | 22 | 5/8 $\times 11 / 6$ |
| BC. 2P33J | . 33 | $5 / 6 \times 176$ |
| B(-2P47) | . 47 | 7/ $\times 21 / 2$ |
| BC-2P68J | . 68 | $7 / 6 \times 21 / 2$ |

## MALLORY INTERFERENCE FILTERS



PLUG-IN TYPE
Type X3. Fig. M. Copacitor type filter far moderate interference, Inserted between op pliance power cord and wall socket. Roped $110-220 \mathrm{~V}, 5 \mathrm{amp}, \mathrm{AC} \cdot \mathrm{DC}$. Shpg. wf. 6 oz Type X5. Fig. I. Dual-capositar type emplaying a shack-limiting copacior lead to oppliance for moderate to heavy interference. Rated $110.220 \mathrm{~V}, 5$ amps. AC. Shpg. wf., 8 oz.
Type X6. Fig. J. Single capocitar filter of law impedance for lighi interference. For $125 \mathrm{~V}, 15 \mathrm{omps}, \mathrm{AC} . \mathrm{DC}$. Shpg. wi., 8 or Net .94 Type 22. Fig. M. A dual copacitor-single inductor for moderate interference, most effective on grounded line systems. Roting $110-220 \mathrm{~V}$, $3 \mathrm{omps}, \mathrm{AC} \cdot \mathrm{DC}$. Shpg. wh., 6 az. Type 24. Fig. H. A dual capocitar-dual inductor filler far heavy interference on oppli. onces where a return lead from the filfer is impractical. Rating 110.220 V . 3 omp . Type z6. Fig. l. A dual capacitar-dual inductor fitter for severe interference, with return lead to ground. Rated $110.220 \mathrm{~V}, 3 \mathrm{mps}, \mathrm{AC} . \mathrm{DC}$. Shpg. wt. 12 az ....... Nei 2.12 WIRED-IN TYPE
Type W7. Fig. K. Metal encased dual capocitor for efficient filfering of light inferference such as Auorescents. For 110.220 V , AC-DC. Shpg. Wh. 6 ax. ......... Net 79
Type wll. Fig. K. Some as W7 but far heovy interference. Shpg wi., 8 az. Net 1.23

CENTRALAB PRINTED ELECTRONIC CIRCUITS (PEC)


Ideal for the replacement of entire eircuit sertionn in radis and TV. You reduce wirink sime luw-rnet PEC units AR complete printed electronic circuits cumpused uf renistorn. capacitark. and th some cases. Inductance. They art extromely nable since the wirint and all componenta



## PRINTED CIICUIT UNATS

| mo. | DESCHIPTIOM | Sacm |
| :---: | :---: | :---: |
| PC.EO | Filpee | 38 |
| EC. 1 | Filper | . 38 |
| PC.82 | Filpec | . 38 |
| Ec.eo | Reaintor-Capacitor | . 28 |
| Pc.el | Resietor-Capuritor | 28 |
| -C. 70 | Triode Couplinte | . 41 |
| Pc. 71 | Triode Couplete | 04 |
| PC. 30 | Triode Couplete | 44 |
| PC.EI | Triode Couplate | .48 |
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| PC. 04 | Triode Couplate | 44 |
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| ผอ. | E |
| :---: | :---: |
|  | Pentode Couplate |
| C. 100 | Vericel In |
| PC. 101 | Yerical Interrator |
| PC. 104 | Vertieal Interrator |
| PC. 108 | Vertical Incearator |
| -c. 106 | Vertical Integratur |
| PC-110 | Fiplate |
| PC. 112 | Filplate |
| PC-180 | Audet 0 |
| PC. 151 | Audet Outpus |
| PC. 154 | Audet Output |
| PC. 197 | Audet Output s |
|  |  |

$C N$
88
73
63
68
89
44
38
58
58
68


CERAMIC CAPACITORS
JUST 4 "UNIVERSALS" CAN BE
VAIUES BETWEEN . 0004 and .01
These ceramic plate capacitars have four leads. The many ratings may be obtained by using certain leads together and culting of ar shop. Rated 500 V DCW. With simple intructions an how to make up desired ratings

## CAPACITORS CORNELL DUBILIER <br> <br> SPRAGUE "ATOMS <br> <br> SPRAGUE "ATOMS TYPE TVA TYPE TVA <br> CORNELL-DUBILIER <br> "BLUE BEAVER" TYPE BBR AND BR <br> $\mathrm{r}^{2}=(\mathrm{c}$AEROVOX 'DANDEE' TYPE PRS <br>  <br> MALLORY TYPE TC <br> 

Compact, dry electrolytic capacitor de guirements. Has low leakage and can withstand high temperaturea, ripple currenta
and surge voltages.
placement capacitors. Sealed in aluminum sleeve indicating polarity, Tyme RBit is miniature serslong polarity

Compact. electrolytic tubular for radfo
and TV applications. Etched foil desirn
and TV appllications. Etched foil desikn aluminum can with cardboard insulating

Dry elpctrolytic cupacitorn for filler and audio bypass applicationa. Senled in alumnum tube and having external cardboard

SINGLE SECTION




DUAL UNITS - SEPARATE SECTIONS


| $\begin{aligned} & \text { Stoch } \\ & \text { No. } \end{aligned}$ | Cap. mid. | V. | Sorague TVA | $\begin{aligned} & \text { C.D } \\ & \text { BERT } \end{aligned}$ | TRIPLE SECTION |  |  |  |  | $w . v .$ | Sprapue | $\begin{gathered} \text { C-D } \\ \text { BERT } \end{gathered}$ | Aerovox PRS | $\begin{gathered} \text { Maltory } \\ \text { TCT } \end{gathered}$ | Net e. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{gathered} \text { Aerovox } \\ \text { PRS } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Mallory } \\ \text { TCT } \end{gathered}$ | $\begin{aligned} & N \in t \\ & e a . \end{aligned}$ | $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | Cap. Mid. |  |  |  |  |  |  |
| 2300 2301 | 20-10-10 | 150 150 | 3440 |  |  | 3109 | 1.18 | 2322 | 40-40/100 | 1.50 2.5 | $342 \%$ |  | PRS |  |  |
| 2302 | 30-20-10 | 150 | 3480 | 22215 | PRS |  | 1.29 | 2323 7324 | 40-40/2.30 | 15010 |  | $4115 \times 25$ | PRS |  | 1.44 1.53 |
| 2303 | 30-25-20 | 150 |  | 32 V 215 |  |  | 1.26 1.32 | 2324 2325 | $80-30 / 20$ $80-30$ 80 | $130 \cdot 25$ | 3430 | 54130 | PRS | $310 \%$ | 2.38 |
| 2304 | 30-30-20 | 150 |  | 3218 | PRS |  | 1.35 | $\begin{array}{r}2325 \\ \hline 326\end{array}$ | ¢0-30/200 | 180/25 |  | 5313C10 | PRS |  | 1.44 |
| 2305 | 30-30-30 | 180 | 3444 | 33315 | PRRS | 3113 | 1.38 |  |  |  |  | -310.20 |  |  | 1.50 |
| 2306 | 40-20-20 | 150 |  | 42215 | PRS | 8114 | 1.36 2.32 | 2327 | $50-30 / 200$ $80-30 / 250$ | 150/25 | 313:3 |  |  | 30.2 .4 | 1.62 |
| 2307 | 40-30-20 | 150 | 3448 | 43215 | PRS |  | 1.38 | 2329 | 50-50/20 | 150/2S | 3436 | 5:15c2m | PRS |  | 1.62 |
| 2308 | 40-40-20 | 180 |  | 44215 | PRS | 3116 | 1.38 | 8330 | ¢0-20/100 | 150/25 | 3.45 |  | PRN |  | 1.47 |
| 2309 | 10-40-40 | 150 | 3451 | 44415 | PRS | 3115 | 1.44 | 1331 | $\times \mathrm{x} 0-40,20^{\circ}$ | $150 / 25$ |  | 8215190 xal |  |  | 1.62 1.56 |
| 2310 | $50-30-10$ $50-30-20$ | 150 |  |  | PRS |  | 1.38 | 2332 | 20-20/20 | 250/25 |  |  |  |  |  |
| 2312 | 80-40-20 | 150 | 3455 | 84215 | PRS |  | 1.44 | 2333 | + $+10-20 / 20$ | 250/2\% |  | 42235 C |  |  | 1.32 |
| 2313 | A B-50-50 | 150 | 3455 | 84215 | PRS | 3118 | 1.62 | 2334 | 40-40/20 | 250:25 |  | 4.425 C | -... |  | 1.50 |
| 2314 | 20-20/20 | 150/25 | 3415 | 2215 C | PRS | 3058 | 1.22 | 2335 | 75-40-10 | 250 |  | 7V4125 |  |  | 1.71 |
| $2315$ | $30-20 / 20$ | 150/25 |  |  | PRE |  | 1.29 | 2336 | $40 / 30 / 40$ | $350 / 250 / 1.50$ |  |  |  | 3285 | 1.94 |
| 2316 | $30-20 / 100$ | 150/25 |  | $3218 C 10$ | PRS |  | 1.38 | 2337 | 12-20/20 | 150/2.7 | 3-14 |  |  |  |  |
| 2318 | $30-30 / 100$ | $150 / 25$ |  | 5315C |  | 3085 | 1.29 | 2338 | 1fi-16-16 | 450 |  |  |  |  | 1.35 |
| 2319 | 10-20/20 | 150/25 |  |  |  |  | 2.35 | 2339 | $20-20 / 30$ | $450 / 25$ |  | 22 15C | PHS |  | 1.71 |
| 2320 | 40-30/20 | 150/25 | 3423 | 4.15 C | PRS |  | 1.26 | 2340 | $140 / 50 / 100$ $30 / 30 / 30$ | 4.in/ish/2. |  |  |  | 3405 | 1.88 |
| z321 | 10-10 20 | 150/25 |  | 4115 C | PRS |  | 1.32 | 2342 | $40 / 20 / 10$ | +30/150/200 |  |  |  | 3432 | 2.09 |
|  |  |  |  |  | PRS |  |  | 2342 | $40 / 20 / 10$ | 150 |  |  |  | 3764 | 2.20 |

## SPRAGUE AEROVOX MALLORY Lafayette

## 

EVERY CONDENSER SOLD ON MONEY BACK GUARANTEE


Ear genaral replocement service, entremely durable and
very compact. Hove high insulation resistonce. Malded in
estro hord, nan-infommoble plastic, resistont ta maisture
high tempersture and shask. Extra strong copper weld
leads liminats breakage during installation. Tempera.
lure range $-40^{\circ}$ to $90^{\circ} \mathrm{C}$. Made by a leading condenser

| Stock |  |  |  |
| :---: | :---: | :---: | :---: |
| No. | Mfd. | Volfoge | Pri |
| C500 | .001 | 600 | 10 |
| C501 | .002 | 600 | 10 |
| C502 | .005 | 600 | 10 |
| C503 | .01 | 600 | 10 |
| C507 | .02 | 600 | 11 |
| C508 | .03 | 600 | 12 |
| C505 | .05 | 600 | 12 |
| C506 | .1 | 600 | 16 |
| C525 | .005 | 1600 | 14 |
| C526 | .008 | 1600 | 14 |
| C528 | .01 | 1600 | 14 |

## LAFAYETTE tubuar нitcroortics

The New tafayefle electrolytic capocitort ore specifically designed for service replocement opplications.
All ore sealed in oluminum cans. All have woi imoregnoted cordboard outer insulating sleeves, hove solid linned copper wire loods with negative as high as $85^{\circ} \mathrm{C}$. ONE OF THE BEST CONDENSERS ON THE MARKET TODAY, AND AT A CONSIDERABLE SAVING TO YOU!

| 5tock No. | Mfd. | W. V. | Net <br> Each | $\begin{aligned} & \text { Pri } \\ & \text { lots } \end{aligned}$ | $\begin{aligned} & \text { e in } \\ & \text { of } 10 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C-128 | 10 | 25 | 296 | 276 | Each |
| C-129 | 25 | 25 | 316 | 28. |  |
| C. 100 | 20 | 150 | 364 | 334 | - ${ }^{\prime}$ |
| C-101 | 40 | 150 | 41 | 376 |  |
| C-113 | 8 | 450 | 40 | 364 | * |
| C-130 | 20 | 450 | 56 | 516 |  |
| C-131 | 40 | 450 | 634 | 57. | ** |
|  | Dual | Tubular | alyic |  |  |
| C-127 | 20.20 | 150 | 56 | 504 | $\ldots$ |
| C-125 | 30.30 | 150 | 604 | 546 | * |
| C-126 | 40.40 | 150 | 62 | 57. | " |
| C-102 | 50.30 | 150 | 62 | 57 | * |
| C-106 | 50.50 | 150 | 66 | 60. | * |

5PRAGUE
BLACK BEAUTY TELECAP

MOLDED TUBULAR CAPACITORS



|  | Cars. | Ocw |  | $\begin{aligned} & \text { Praineo } \\ & \text { Tyio } \\ & \hline \end{aligned}$ |  |  | $\begin{gathered} 8120 \\ 8 \end{gathered}$ | m | $\begin{gathered} \text { Nat } \\ \text { Eact } \\ \hline \end{gathered}$ | $\begin{aligned} & \text { stow } \\ & \text { We. } \end{aligned}$ | Cas. mr. | DCwy | $\begin{aligned} & \text { C.D. } \\ & \text { Up. } \end{aligned}$ | $\begin{gathered} \text { spaese } \\ \left\|\begin{array}{l} \text { Trep } \end{array}\right\| \end{gathered}$ | $\begin{aligned} & \text { Maliver } \\ & \text { ₹ppopp } \end{aligned}$ |  |  | 0 | $\begin{aligned} & \text { Nat } \\ & \hline \end{aligned}$ | 8104 | Cas. Mr. | DCw | $\begin{aligned} & \text { C.D } \\ & \text { UFP } \\ & \text { UP } \end{aligned}$ | $\begin{aligned} & \text { Tpragwe } \\ & \text { TVPL } \end{aligned}$ |  | co |  | $\square$ | Ent |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2900 | 250-1000 | $10 \cdot 6$ | B | 2140 | 204 |  |  |  | 1.63 | 2 zeo | 100.150 | 250-50 | B0500 | 2509 |  | 1 | $L$ |  | 215 | 200 | 80-1 | 430-50 | B0122 | 2711 | 129.8 | N | $L$ |  | 24 |
| 2001 | 1000-1000 | 15 | B0031 | 2160 | 200 | 0 | F | K | 2.50 | 7823 | 20-20 | 250 | B0210 | 2515 | 219 | c | C | c | 1.12 | 2881 | 30-200 | 450-150 | 80705 | 2715 | 298.8 | $L$ | L | $\underline{1}$ | 2.05 |
| 2 lacs | 1000-1000 | 15 | B0040 | 1161 |  | K | K |  | 2.30 | 8324 | 40.40 | 250 |  | 2520 | 218. | E | $F_{\mathbf{P}}$ | $\stackrel{\text { E }}{ }$ | 1.47 | 274 | 20-59 | 450-250 | H0674 | 2721 | ${ }_{230.3}^{230}$ | 8 | E | E | 1.65 |
|  | ${ }^{500} 100$ | 20 35 | B0043 |  | 200.6 | c | * | c | 1.5 | 2025 | $154-150$ $200-200$ | $\begin{array}{r}250 \\ \hline 50\end{array}$ | B0230 $\times 80252$ | 2535 2538 | 217.8 | 8 | $\underset{P}{P}$ | P | 3.03 | 2942 | 40.10 20.80 | $450-300$ 480.350 |  | 2724 | ${ }_{230.3}^{230}$ | - | L | ${ }^{\text {E }}$ | 1515 |
| 2003 | 50-50 | 50 | B0080 | 22380 | 262 |  | c |  | 1.0 | z8e2 | 35-500 | 300-6 | $\times 80503$ | 2552 |  | D | D |  | 4.65 | 2047 | 40-10 | 450-350 | Borlo | 2135 |  | ${ }_{1}^{2}$ | K | R | ${ }^{2} 15$ |
| 2904 | $100 \cdot 100$ | 50 | B0085 | 2326 | 202.5 | c | c | c | 1.23 | 2083 | $10-40$ | $300-59$ |  | 2357 |  |  | C |  | 1.04 | 2943 | 5-5 | 450 | B0362 | 2748 | 239. | c | c |  | . 1 |
| 2 zes | 50-500 | 150-5 | 80376 | 2404 |  | b | E |  | 0.43 | zat | 150-100 | 300-150 | H0808 |  |  | N |  |  | 2.48 | 2348 | 10-10 | 450 | B0310 | 2750 | 231 | d | c | c | 1.12 |
| 207 | 150-100 | 150-25 | B0575 | 1411 |  | K | K |  | 1.50 | 2863 | 10-30 | 300 |  | 2574 |  |  |  |  | 1.36 | 2950 | 15-15 | 450 | 80390 | 2753 |  | d | D |  | 138 |
| 2906 | 20-20 | 130 | X80091 | 2415 | 208 | C | c | c | 1.00 | 2930 | 80-80 | 300 | B0870 | 8585 |  | $L$ | M |  | 2.38 | 295 | 30-10 | 430 | B0390 | 2754 | 231.3 | D | b | D | 1.32 |
| 24 | 30-20 | 150 | B0100 |  |  | c |  |  | 1.3 | 201 | 120-20 | 300 | B0280 | 2388 | 218 | 2 | M | 2 | 2.5 | ${ }_{2053}$ | 20-2n | 450 | B0400 | 275 | 234 | E | E | F | 130 |
| 200 | $30-30$ $60-20$ | 150 |  | 2482 | 211 |  | c | c | -0 | 2033 | 200-80 | 350 | ${ }^{\text {B0286 }}$ | 2625 | 125 | c | c | c | 1.38 | 2954 | $30-10$ 30.30 | 450 | B0410 | 2758 | 237 | ${ }^{\text {k }}$ | E |  | 1.4 |
| 7310 | 40-30 | 150 | B0130 | 8427 |  | c | c | c | 1.0 | 2935 | 30-30 | 150 | B0310 | 2628 | 287.3 |  | E | E | 171 | 2355 | 40.20 | 450 | Botio | 2762 |  | K | K | - | 1.74 |
| 2911 | 40-40 | 250 | X 20141 | 242\% | 112 | C | ${ }^{\text {d }}$ | D | 1.12 | 1887 | 30-30 | 350 | B0320 | 2830 |  | $\kappa$ | K |  | 1.85 | 2150 | 40-49 | 450 | Re450 | 8764 | 238 | - | I |  | 20 |
| 2812 | 50-30 | 150 | B0150 | 2432 | 213 | c | D | c | t. 18 | 7884 | 60-30 | 150 |  | 2631 |  |  | 1 |  | 1.45 | 2930 | 50-:00 | 450 | KR0455 | 3761 | 848 | L | L | 6 | 2.85 |
| 2913 | 50-50 | 150 | XB0161 | 2435 | 114 | D | D | D | 1.25 | 206\% | 80-20 | 350 | B0324 | 2633 | 287-4 | K | 1 | ${ }^{\mathbf{K}}$ | 2.0 | 2904 | 60-20 | 450 | Ro480 | 2768 | 842 | L | L | 2 | 20 |
| 2914 | $60-60$ $70-30$ | 150 | XB0165 | 2438 |  | , | F |  | 1.38 | 230, | 80-20 | 350 | 80328 | 2634 | 287.35 287.5 | G | I | ${ }^{\text {E }}$ | 2.12 | 2050 | 50.40 | 450 | H0468 | 81770 | 245 | N |  |  | 231 |
| 2915 | 75-75 | 1:0 | B01:0 | 2440 | 214.5 |  |  |  | 1.23 | 2037 | \% 0.80 | 350 | B0330 | 263.5 | 227.6 | N | P | $\stackrel{\rightharpoonup}{P}$ | 2.76 | 2\%62 | 89-90 | 450 | Bert3 | 2776 | 245.2 | N | - |  | 2.12 |
| 2318 | 80-40 | 150 | X B0181 | 2142 | 216 | D | K | ${ }^{\text {E }}$ | 1.35 | 2032 | 90-40 | 330 | B0331 | 2637 |  | 1 | $\underline{L}$ |  | 2.53 | 2063 | -0-30 | 450 |  | 2771 | 245.3 |  | P | P | 247 |
| 207 | 80-50 | 150 |  | 14481 |  |  | D |  | i.ci | $2 \mathrm{ze3}$ | 100.60 | 350 |  | 2839 |  |  | K |  | 2.85 | 294 | 30-40 | 450 | B0480 | 2778 |  | N | M |  | 250 |
| 2373 | R0-80 | 150 | XB0183 | 2442. |  | J | J |  | 1.54 | 204 | 100-100 | 350 | R0332 | 2841 | 281.9 | 9 | P | $P$ | 3.82 | 2035 | 100-40 | 450 | B0483 | 8780 | 241 | 0 | P |  | 2.85 |
| $\underline{818}$ | 125-100 | 150 150 | X80184.5 | 2443.3 | 215 | K | K | K | 1.97 | ${ }_{2038}$ | $160-10$ 35.100 | 350-50 | H0.334 |  |  | N |  |  | 2.53 1.53 | 2905 | 28-100 | 415 S 400 | B0726 | 2813 2820 | 258 | 0 | - | P | 2.4 |
| 288 | 130-80 | 150 |  | 2443 214 |  |  | K |  | 1.78 | 2938 7896 | $35-100$ $100-30$ | $400-50$ $400-50$ | HOH 23 $\mathrm{BOC2}$ | 2655 | 229 | $L$ | L | E | 1.51] | 294 | $15-15$ 30.10 | 475 | B0485 B0486 | 2820 2981 | 258 | ${ }^{\mathbf{J}}$ |  | ${ }_{0}$ | 1.38 |
| 7821 | 200-185 | 150 | KB0187 | $244{ }^{\prime}$ | 210.3 | N | M | ( | 220 | 2737 | 80-80 | 400-200 |  | 2636 |  |  | $\stackrel{4}{4}$ |  | 213 | 2071 | 40-10 | 173 | 80487 | 2971 | 280 | \% | K | L | 1.28 |
| 235 | 200-150 | 150 | XBolsa | 2446 |  | N | p |  | 2.21 | zent | 80.60 | 400 | R0.35 | 2617 |  | N | P |  | 27 | 2075 | 80-50 | 175 | B04R9 | 2831 | 265 | 0 | P | P | 3,48 |
| 782 | 200-200 | 150 | XB0189 | 2447 | 216.4 | N | P | P | 2.55 | 200\% | 80.80 | 400 | B0336 |  |  | 9 |  |  | 2.87 | 203 | ${ }^{16-10}$ | 500 | Bergo | 2937 |  | D | D |  | 1.35 |
| 2878 | 60-60 | 200 |  | 2461 |  |  | k |  | 2.00 | 2942 | 120-40 |  | B0336 | 2679 | 220.5 | 0 | F | $P$ | 2.00 | 25as | 20-20 | 500 | B0500 | 235 |  | K | K |  | 1.67 |
| ${ }^{20}$ | ${ }^{60.60}$ | 200 | B0190 | 2462 | 216.6 | $J$ | 1 | $\Sigma$ | 1.54 | ${ }_{2178} 818$ | 10.20 $40-100$ | $150-25$ $450-50$ | 80630 | 2709 |  | C | C |  | Ies | 2000 | $30-18$ $30-30$ | 560 | 80520 | 8337 |  | $\boldsymbol{K}$ | $\underline{L}$ |  | 1.5 |
| 2878 | $200-5$ | 200 | KB0194 $\mathbf{X B 0 1 9 6}$ | 2464 |  | $\frac{1}{k}$ |  |  | 2.5 | 2979 | 50-100 | 450-50 | B0715 | 2709.3 | 279.4 |  | k |  | 1.78 | 2001 | 49-40 | 500 | B0:30 | 2940 | 288 |  | $L$ | R | 1 |
|  |  |  |  |  |  |  |  |  |  | 243 | ง0-50 | 150-50 | B0720 | 2710 | 44 | L | $L$ | $L$ | 2.0 | 7 $5 \cdot 9$ | 60-40 | 300 | Be540 | 2944 |  |  | M | 6 | 25 |

TRIME SECTION

| $\begin{aligned} & \text { seak } \\ & \text { Ne. } \end{aligned}$ | Cs. | DCWV | $\begin{aligned} & \text { C.D. } \\ & \text { TyP } \end{aligned}$ | $\begin{gathered} \text { Seragwe } \\ \text { TYpi } \end{gathered}$ | $\begin{aligned} & \text { Mallery } \\ & \text { Type } \\ & \text { wP.Fp } \end{aligned}$ | CO |  | $\pm$ | $\begin{aligned} & \text { Nat } \\ & \text { Enct } \end{aligned}$ | Steck Me. | Cay. 41 | ocw | $\begin{aligned} & \text { C.O. } \\ & \text { Typ } \end{aligned}$ | $\begin{aligned} & \text { Sprapee } \\ & \text { Tybi } \\ & \text { TYe } \end{aligned}$ | $\begin{aligned} & \text { mallowy } \\ & \text { Typedp } \\ & \text { wp.ife } \end{aligned}$ | CD | $8120$ | $\pm$ | Nan |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21000 | 20-20-20 | 25 | C0010 | 3310 |  |  |  |  |  | 21137 | 100-10-60 | 300-300-50 | CW73 | 2576 | 326.8 |  | K | K | $2.3 *$ |
| 21001 | 40-10-40 | 25 | C0020 | 3230 | 320 | c | c | c | 1.25 | 2113 | 140-100-60 | 300-300-50 | C0734. 3 |  | 386.7 | 0 | K | $\stackrel{\mathrm{P}}{ }$ | 8.35 |
| 21003 | $15.15-1200$ $0-20-200$ | 150-150-2 | C0420 | 3410 | 302.1 | c | c | c | 1.77 | 21138 | 200-20-10 | 300-300-100 | C0735 | 3595 |  | 9 | P |  | 2.en |
| 2903 | 10-20-200 | 150-150-10 | C0520 |  |  | c |  |  | 1.41 | 21140 | 140-10-200 | 307-300-150 | C0734 |  | 326.74 | 0 |  | p | 3.24 |
| 21004 | $80-30-300$ $80-60-2.30$ | $150-150-10$ $150-150-10$ | XC0802 | 3414.2 | 302.7 | ${ }^{3}$ | J | D | 1.85 | 21034 | $10-10-10$ $60-20-10$ | 300 300 |  | ${ }^{3580}$ |  | - | C |  | 1.14 |
| 2005 | 100-80-200 | 150-150-10 | X $\times$ cosis | 3414.7 | 3025 308.8 | ${ }_{K}$ | K | D | 2.0 | 21142 | $60-20-10$ $80-40-40$ | 300 300 | C0190 C0194 | 3581 3583 |  | K | ${ }_{M}$ |  | 2.05 |
| 21007 | 10-20-20 | 150-150-25 | xcous 1 | 3422 | 306 | c | D | c | 1. 2.5 | 21035 | 120-50-40 | 300 | 00200 | 3585 |  | 0 | P |  | 3.15 |
| 21000 | 40-20-200 | 150-150-25 | Ce510 | 3423.2 | 304 | D | E | b | 1.54 | 21143 | 20-50-100 | 350-100-75 | C1300 | 3606 | 327.1 | E | E | E | 1.82 |
| 21011 | 40-40-20 | 150-150-25 | x Coss1 | 3426 | 310 | c | D | D | 1.41 | 2114 | 40-200-100 | $350-150-150$ | C1224 |  |  | N |  |  | 2.94 |
| 21012 | 40-40-200 | 150-150-25 |  | 3426,3 | 314 |  | E | E | 1.64 | 21145 | 60-200.30 | 350-150-150 | C1228 |  |  | N |  |  | 2.59 |
| 2087 | 40-40-250 $50-30-20$ | $150-150-25$ $150-150.25$ | $\mathrm{XCOS55}$ $\mathrm{Cos60}$ | 3426.4 3426. | 308. 1 | E | ${ }_{\text {E }}$ | E | 1.5 | 281146 | 135-5-100 | $350-200-75$ $350-300-25$ | ${ }_{C 1325}$ | 3610 3620 | 327.4 | N | M | P | 3.12 |
| 21013 | 50-30-100 | 150-150-25 | C0570 | 3427 | 309 | C | ${ }_{5}$ | D | 1.48 | 21039 | 15-10-20 | 350-350-25 | ${ }^{\text {corlo }}$ | 3620 3630 | 3318 | ${ }_{\text {c }}$ | D | ${ }^{\text {E }}$ | 1.85 |
| 21014 | 50-50-20 | 150-150-25 | C0580 | 3430 | 311 | D | E | E | 1.56 | 21147 | 20-4-100 | 350-350-25 | Cot73 |  | 329.1 | D |  | D | 0.53 |
| 298 | 80-40-20 | 150-150-25 | C0610 | 3438 |  | D | D |  | 1.65 | 21041 | 20-10-20 | 350-350-25 | Cotso | 3634 |  | C | D |  | 1.5 |
| 2989 | $80-40 \cdot 300$ | 150-150-23 | Xi'0]13 | 3438.4 | 311.15 | K | K | K | 2.18 | 21042 | 10-20-20 | 350-350-25 | Cosos | 3635 | 329.5 | D | D | C | 1.6 |
| 21015 |  |  |  |  |  |  |  |  |  | 21043 | 30-20-20 | $350-350-25$ | C0830 | 3638 | 330 | F | F | E | 1.2 |
| 21121 | +0-20-10 | 150 |  | 3433 3436 | 311.2 | c | D | c | 1.36 | 21148 | $30-30-20$ $30-5-150$ | $350-350-25$ $\mathbf{3 5 0 - 3 5 0 - 5 0}$ | Co840 | 3638.3 3638.1 |  | ${ }^{J}$ | J |  | 2.0 |
| 21016 | 10-30-20 | 150 | $\times \mathrm{COOFI} 1$ | 3437 | 311.4 | c | D | D | 1.41 | 21150 | 80-40-400 | 350-3>0-50 | XC0874 |  | 330.23 | 0 |  |  | 1.73 3.35 |
| 21017 | 40-30-20 | 150 | cooso | 3438 |  | c | c |  | 1.47 | 21151 | 30-20-100 | 350-350-150 | Con35 | 3638.7 | 330.25 | K | K | K | 2.36 |
| $\underline{1018}$ | 50-10-10 | 150 | C0090 | 3440 | 311.5 | B | F | F | 1.53 | 21044 | 20-10-5 | 350-350-250 | Cet90 | 3838.4 | 330.3 | c | $\mathbf{D}$ | c | 1.50 |
| 21012 | 50-10-10 | 150 | C0103 | 3441 | 311.6 | D | D | C | 1.3 | 21152 | 100-60-20 | 350-350-250 | C0815 |  |  | 9 |  |  | 3.24 |
| 21020 | 10-40-20 | 150 | xcolos | 3412 | 311.65 | L | E | $E$ | 1.75 | 21047 | 10-10-10 | 350 | C0220 |  | 3130.5 |  | C | C | 1.41 |
| 21123 | 10-15-15 | 150 | ${ }_{C O 111}$ | 3143 3143.3 |  | ${ }^{\mathbf{D}}$ | ${ }_{\text {b }}$ |  | 1. 2 | 21050 | $30-20-10$ $60-40-20$ | 350 | ${ }^{C 0225}$ | 3648. | 330.7 | E | \% | E | 1.84 |
| 21021 | 80-40-20, | 150 | C120 | 3444 | 311.7 | E | E | $J$ | 1.70 | 21353 | 60-50-50 | 350 | C0234 | 3641 | 330.0 | N | P | P | 2.8 |
| 21023 | 120-80-40 | 150 | XC0125 | 3448 |  | L | M |  | 2.24 | 21051 | 90-60-60 | 350 | C0236 | 3642 | 331.3 | 0 | P | P | 32 |
| 21024 | 120-120-40 | 150 | $\times \mathrm{XCOL28}$ | 3448.2 | 311.9 | $\underline{L}$ | $L$ | 2 | 2.31 | 21154 | 90-40-20 | 3 sm | C0237 | 3R4:\% | ${ }^{3} 31.6$ | N | P | P | 3.08 |
| 21025 | 200-100-60 | 130 | XC0127 | 3450 | 312.5 | N | M | P | 2.17 | 21052 | 100-100-10 | 350 | C023 |  | 332.4 | 0 |  | P | 3.24 |
| 21124 | 200-150-150 $250-200-10$ | 150 150 | XC0128 | 3452 |  | 9 | P |  | 4.41 | 21055 | 20-20-20 | 400-400-25 |  | 3878 |  |  | \% |  | 1.64 |
| 21126 | 60-200-140 | 200-150-150 | ${ }^{\mathrm{XCOL}} \mathrm{XC1202}$ | 3481.4 |  | 0 |  |  | 3.38 | 211155 | 80-10-150 $100-10-20$ | 400-400-50 $400-400-50$ | Corsea | 388. | 333.7 | N | $\stackrel{P}{P}$ | P | 3.03 |
| 21026 | 60-5-20 | 200-200-50 | C0836 | 3467 |  | D | b |  | 2.47 | 21856 | 20-20-10 | 400-400-350 | C0876 | 3437.4 | 333.6 | F | M | : | 2.48 |
| 21127 | 30-20-40 | 200-200-150 | COR32 | 3497 |  | 8 | D |  | . 8.59 | 21157 | 60-30-20 | 100-100-350 | C0885 | 3688 | 333. 7 | L | $\underline{L}$ | E | 2.17 |
| 21027 | 80.40-50 | 250-150-50 | C1280 | 3506 | 319 | K | K | K | 1.36 | 21158 | 80-20-10 | 400-400-350 |  | 3689 | 333.8 |  | L | 2 | 2.53 |
| 21128 | 15-15-20 | 250-250-25 | C0650 | 3510 |  | C | c |  | 1.38 | 21057 | 100-10-80 | 400-400-350 | Comes | 3489.3 | 333_45 | 9 | P | 9 | 3.59 |
| 2113 | $30-30-20$ $90-90-20$ | 250-250-23 | Costo | 3513 |  | D | E |  | 1.65 | 2105 | 10-10-10 | 400 |  | 3690 |  |  | D |  | 1.41 |
| 21130 | 20-20-20 | 22.0 | $\mathrm{COH}_{32}$ | 3532 | 319.5 319.8 | ${ }_{0}$ | ${ }^{1}$ | ${ }_{2}$ | 2.70 | 21039 | 90-10-3 $40-40-130$ | 150-150-50 | ${ }^{C 143023.2}$ | 3690 3706 | 333.9 |  |  |  | 2.58 |
| 21030 | 40-20-20 | 250 | Col60 | 3540 | $321^{\circ}$ | 8 | F | E | 1.75 | 21160 | 10-50-100 | +5a-150-75 | C1355 | 3701.1 | 332 | F | 2 | K | 2.18 |
| 21131 | $810-80-60$ | 250 | COI70 | 3545 |  | N | 2 |  | 2.86 | 21000 | 40-90-30 | 150-150-1.50 | C1260 | 3708 |  | 2 | 2 | 5 | 2.81 |
| 21132 | 10-500-500 | 300-13-15 | XC1204 | 3553 |  | K | K |  | 2.30 | 21101 | 20-80-50 | 450-200-50 | C1385 | 3709 |  | K | K |  | 2. |
| [1133 | $20-150-80$ $100-200-30$ | 300-150-150 | C1206 | 3580.8 | 386.2 | 1. | 2 | L | 2.33 | 21182 | 20-60-100 | 450-250-25 | C1390 | 3711 | 341.5 | K | K |  | 2.15 |
| 21135 | 100-200-60 | 300-150-150 | $\times$ | 3580.6 3.580 .5 |  | 8 | P |  | 2.8 | 21061 | $10-80-80$ $80-40-40$ | 450-250-250 | C1836 | 3712 | 341.6 | N | P | I. | 2.47 |
| 21136 | 200-60-20 | 300-250-250 | XC1218 | 3563. | 336.3 | 8 | ${ }_{\mathbf{p}}$ | $\underset{\mathbf{P}}{ }$ | 3.27 | $\underline{\$ 1082}$ | Rn-10-10 10-10-10 | $450-250-250$ $450-300-150$ | C1380 | 3713.4 3713.7 |  | $\frac{1}{3}$ | P |  | 2.08 |



Teper Me．1－For sudio or antenna shunt circults．
Teper Ne．2－For serle circuith or cathode voltage oontrols．


A hige qualty round ghare car－ to mervioe radio ots．＂it dia． to morvioe radio shalican empliaera to any requlred length．and th readily sadaprable to any type knob．Bupplied with two sueel ahaft and thob ad

| Type | Onme | Taper | Type | Ohme | Tamer | Tye | Otus | Taner |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U． 1 | 100 | 4 | U－22 | 15M | 2 | U－45 | 280M | － |
| U－2 | 600 | 4 | U－24 | 20 M | 1 | U－4 | 250 M | ＋ |
| U．3 | 1 M | 2 | U．26 | 20 M | 4 | U－40 | 500M | 1 |
| U－4 | 1 M | 4 | U－28 | 25M | 2 | U－50 | 800M | 4 |
| 4．E | 1800 | 2 | U－2\％ | 26 M | 4 | U－51 | 750M | 1 |
| U－한 | 1800 | 4 | U－23 | 60M | 1 | U．${ }^{\text {d }}$ | 1 Mes ． | 1 |
| U－ | 2 M | 4 | U．84 | 60M | 2 | U－8 | 1 mer | 4 |
| U．T | 2800 | 2 | U．38 | 60M | 4 | U－1 | 1.5 Me | 4 |
| U－ | 3 M | 4 | U－3 | 76M | 1 | U－E | 2 Mes． | 1 |
| U－9 | $3 \mathrm{M}$ | 2 | U．28 | 100 M | 1 | U－域 | 2 MeE | 4 |
| U－12 | 8M | 1 | U－40 | 100M | 2 | U．2EE | 2.5 Me | 4 |
| U－14 | 6M | 4 | U－1 | 100 M | 4 | U－ET | 3 MeE ． | 1 |
| U－18 | 10M | 1 | Y．418 | 126 M | 4 | U－3 | 3 Mer | 4 |
| $U-19$ $U-20$ | 10M | 2 | U－42 | 150M | 1 | $y-E$ | 6 Meg． | 1 |
| U． 20 4.21 | 10M | 1 | U－43 | 200M | 1 | U－87 | 8 Mez | 4 |
| －22 | Amy 7 | Mbov | － | 260 M | 2 |  | 10 Me | － |




DOUSLE TAPPED MOBTTROLS


## MIDGETROL ACCESSOTIES

D－35 Fratted，Split－Knurl Shaft End．Special replacement for os－3E Special 3．＂Extension Shaft．For tubular shaft Midgetrole and 2 －watt wire－wound controle．Also couples front and rear zec－
Ulons together for singleshaft dual control．Shpg．wt．， 2 ox．NET 29 e DS $-373 / 16^{\prime \prime}$ diameter shaft．For use with round shaft Midgetrols EE－158 Special Buahing．7／16＂-28 thread，1－11／16＂long with ER－214 Special Buahing． $1 / 2^{\prime \prime}-28$ thread， $2-3 / 16^{\prime \prime}$ long with ． 403 milled double fint．Shpg．Wt．， 2 oz

MALLOEY 2－WATT WIREWOUND TV ANOUSTRIAL POTS
Eapecially destened for replecement of hold postilining．focus，etce controla of TV men．Alao pultable for voltage divider and blas applications．
Ount－proot phenolle caer Luat－proot phenoile case 10 －diamezer． 1 nsu All have llidear taber．Knurled screw driver slot and stub shart with is atanderd buahion．With a－nul．Center tovied

| Type | 0 | Eech | True | $0{ }^{0}$ | Eect | Tye | 0 | E－ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| H2L | 2 | $\underline{13}$ | 623L | 28 | $\cdots$ | Hx360 | 08 | 61 |
| の314 |  | ． 82 | G304 |  | ． 73 | 62500 | 2500 | ． 2 |
| 哏 | 8 | ． 82 | Q30ct＊ | 30 | 1.08 | R3000 | 3000 | －1 |
| Wel | 8 | ． 82 | hsol | 50 | 1.73 | R 78000 L | 8000 | ．91 |
| W104 | 10 | 82 | R1002 | 100 | ． 73 | Crioml | 10000 | ．07 |
| R10ct＊ | 10 | 1.21 | R2sol | 250 | ． 71 | H1smL | 15000 | ． 97 |
| W18L | 15 | ． 82 | nsoor | 500 | ． 73 | R20mL | 20000 | .7 |
| W204． | 20 | 2.21 | W7800 | 750 1000 | ．731 |  |  |  |

SWITCHES FOR 2－WATT POTS
US30 SPST
US32 OPST
Page 96

## DUAL CONCENTRIC MIDGETROLS FOR TV

## （3）

Supplied an separate，front and rear control sections．Type UF and UR are $15 / 16^{\prime \prime}$ dia．car： wound．Combinalions ewervice over $00 \%$ of an cifevision acta and anto radion．Unes Midgetrot witches listed on this page．Bindware cupplied With each UF front section includen；one inner shaft one phenolle spacer，one coupling cupand knobs Depth without awiteh： $11 / \mathrm{m}^{\mathrm{m}}$ ；with owitch
$1-11 / 16$ ．Instructions included．Shps． frnat section． 5 orai rear，$f$ oz．

## CARBON FRONT SECTIONS



| UF182n | 1800 | 2 |  | 100K |
| :---: | :---: | :---: | :---: | :---: |
| UF23 | 2000 | 4 | UF15L | 100 K |
| UF23 | 2000 | 2 | UF254A | 260 K |
| UF2s2L | 2800 | 4 | UF2S4L | 250 K |
| UF252晨 | 2800 | 2 | UFSEA | SOOK |
| UF33L | 3000 | 4 | UFS 5 R | 600 K |
| UF33R | 3000 | 2 | UFSEL | 500 K |
| UFS3R | 5000 | 2 | UF18A | 1 Mex． |
| UFS34 | 8000 | 4 | uriee | 1 Mea． |
| UF73 | 7000 | 2 | UF155A | 1．6 Meat |
| UF142 | 10 K | 4 | Urist | 1.5 Meg － |
| UF14R | 10K | 2 | UF26A | 2 Mea． |
| UF153L | 15 K | 4 | UF2EL | 2 Mer． |
| UF2B37 | $28 \%$ | 2 | UF25sL | 2.5 Mea． |
| UF2834 | 25 K | 4 | UF4CA | 4 Mots． |
| UF34A | 30K | ， | UF106L | 10 Meg |



## TV WIREWOUND FOCUS


$1 \% / 0^{\prime \prime}$ dig．，wate，wire－wound control havine special teper． $2^{\prime \prime}$ round shaft with serew－driver
alot．Shaft lengt， $2^{\prime \prime}$ ．Shos wit


Denigned for use with Motiograph．Simplex，Im ternational and other ouldoor thenter motion picture equipment．Corrosion－resistant finish an－ sures long．noise－free life．TSA－ 10 in an L－pnd
with 10 －ohm imput and 4 －ohm output．TSA－ 35 with 10 －ohm input and iohm output．TSA－35
is 3 ohm ceries type potentiometer．TSA－6 is a 2 －watt shunt－type attenumitor．Knurled shaft． Typo
TSA． 10
TSA．3S $\qquad$
$\qquad$ Description
$3 \mathrm{~F}=0 \mathrm{hm}$ Potentiomete
$6-\mathrm{ohm}$ Potentiometer
ADJUSTABLE MOUNTING

## IRC a CONTROLS WITH UNIVERSAL SHAFTS



Knurled，flatfed and slotted， $3^{\prime \prime}$ shaft． $15 / 18^{\prime \prime}$ dio． $1 /{ }^{\prime \prime}$ lang bushint．Hos removable shaft，inferchange＊ able with special shafts listed on this poge．＂Includer 270 ohm， $1 / 2$－wall fixed bias resistor．Less switch．See toper explanotion bolow．Av．shpg．wt．， 4 oz.

| Type | Ohms | Tpr． | Type | Ohms | Tpr． |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 011.101 | 250 | A | 913－12 | 100K | C |
| 611.103 | 500 | A | 611．22 | 125K | A |
| 611－105 | 750 | A | 611－120 | 150X | A |
| 617－105 | 750 | P | Q13．328 | 150K | c |
| 811.108 | 1000 | A | 011.129 | 200K | A |
| 617．108 | 1000 | 0 | 011－130 | 250 K | A |
| 811．10 | 1300 | A | 013－130 | 250 K | C |
| －17．10 | 1500 | 0 | ¢11－131 | 300K | A |
| －11．110 | 2000 | A | 011－132 | 350 K | A |
| Q17．110 | 2000 | 0 | 013.132 | 350 K | c |
| ¢13．111 | 2500 | c | 811．133 | 500K | A |
| 617．111 | 2500 | 0 | Q13．133 | s00k | C |
| 011.112 | 3000 | A | 014．133 | 500K | D |
| －17－112 | 3000 | 0 | 017.133 | S00k | 0 |
| －11．114 | 5000 | A | 811．134 | s00x | A |
| 013.114 | 5000 | C | 811－136 | 750K | A |
| －17－114 | 5000 | 0 | 011.137 | 1 meg | A |
| 011.115 | 7500 | A | 613－137 | 1 mes | C |
| 611－116＊ | 10K | A | 014－137 | 1 mes | 0 |
| 013－116 | 10K | C | 917．137 | 1 meg | 0 |
| －14－116 | 10x | 0 | Q11．138 | 1.5 mog | A |
| －17－116 | 10K | 0 | 011.139 | 2 meg | A |
| 211－119 | 20K | A | 013－139 | 2 mog | C |
| 816－119＊ | 20K | 5 | 017－139 | 2 meg | 0 |
| 011.120 | 25K | A | 011－239 | 2.5 mog | A |
| 213．120 | 25K | C | 911.140 | 3 meg | A |
| －14．120 | 25K | D． | 013－140 | 3 meg | C |
| －11．121 | 30K | A | 017.140 | 3 mog | 0 |
| 211－122 | 35K | A | 011.141 | 5 meg | 4 |
| －11－123 | S0K | A | 912－141 | 5 meg | 5 |
| －13－123 | 50K | C | 013．141 | 5 mee | C |
| 614－123＊ | S0X | 0 | 017．141 | 5 meg | 0 |
| 911－125 | 75K | A | 011.142 | 7.5 meg | A |
| Q11－128 | 100K | A | ¢11－143 | 10 mep | A |

NET EACM

## TAPPED Q CONTROLS

All values ore in megohms except with＊

| Typ | Megs | Tepi．S8 | T | Type | Me9 | Taps． $8^{\text {d }}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 817－1051 | $750^{\circ}$ | 250 | 5 | Q17．137x13．137x\＄17．137x$818.137 x$$818.137 x$ | 1.0 | 35K | s |
| 617．110xx | 2k＇ | 250／500 | 5 |  | 1.0 | 2sok |  |
| Q13．118x | 15K | 10K | 5 |  | 1.0 | S0k／100k | S |
| 013．11882 | 15K＊ | 5x／ior | 5 |  | 1.0 | 100k | 5 |
| 617．118x | 15k＊ | 5K | 5 |  | 1.0 | 2 Sox／ 51 | 3 |
| 617－118x | 15k＊ | 5x／Ior | 5 |  | 1.0 | ． 51 | 3 |
| 817．3201x | ． 15 | 190／38k | 5 |  | 1.0 | ． 5 |  |
| 816－130x | 25 | 60 K | H |  | 1.5 | ． 254 | 3 |
| 813－130y | 25 | 12sk | 5 |  | 2.0 | Sok 150 x | \＄ |
| ¢18－130yx | 25 | 60K／120K | 5 |  | 2.0 | 150 x <br> 250 l | 5 |
| 017－132x | 35 | ${ }^{355}$ | 5 |  | 2.0 | $250 \mathrm{~V} / 54$ | S |
| 818．132 8 | ． 35 | 75k | H |  | 2.0 | $.5{ }^{1 / 1}$ | S |
| 817．133x | 5 | 25K | 5 |  | 2.0 |  | 5 |
| 813．133x | ． 5 | 125 K | ${ }_{3}$ |  | 3.0 | －00k | 5 |
| $819.133 x$ | ． 5 | 250 K | H |  | 3.0 | 1．51 |  |
| ¢1a－133x | 3 | 100\％／200K | 5 |  |  |  |  |
| NET EAC |  |  |  |  |  | 1.2 |  |

Q CONTROL SWITCHES
Quichly altached．U．L．Approved．Shpg．wf．， 2 oz．
Type 76－1－SpST．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 38 c
Type 76－2—DPST．
Not 38 c

## SPECIAL Q CONTROL SHAFTS

Master shaft used in O cantrol Slatfed or tanguad for
Slatted Philco Shaft． CA
1／8＂Shoft for Zenlth Motorala Shon
delmant and Manigomery Word Shaft Eelmant and Mantgomery Word Shaft 3／10＂Univerial Shatf．
$1 / 8$ full round shott． $1 / 4$ or $3 / 8$ bushing $3 / 4 "$ lang screw driver slatted shaft Iniulated sholt
Some as BQ，but with clutch
Magnavor Shaf
Zenith Shoft

4 WATT WIRE WOUND CONTROLS TYPE WPK

Niversal wire wound conrol，for replacement of 2， 3 and wall cantrels．Dimensionss 1．1／4＂dio．．45／64 Shpg，wi， 408

| Type | Ohms | Tpr． | Type | Onms | Tpr． |
| :---: | :---: | :---: | :---: | :---: | :---: |
| WPK10 | 10 | U | WPM1500L | 1500 | － |
| WPK20 | 20 | U | WPM 2000 | 2000 | U |
| WPM30 | 30 | U | WPK2000L | 2000 | 8 |
| WPK50 | 50 | U | WPK2250L | 2250 | 1 |
| WPK100 | 100 | U | WPK2500 | 2500 | U |
| WPK 200 | 200 | U | WPK2500R | 2500 | R |
| WPK 250 | 250 | U | WPK3000 | 3000 | U |
| WPK300 | 300 | U | WPK4000L | 4000 | 4 |
| WPK400 | 400 | U | WPK5000 | 5000 | U |
| WPK500 | 500 | U | WPK50001 | 5000 | 1 |
| WPK600 | 600 | U | WPK6000 | 6000 | U |
| WPK650 | 650 | U | WPK6000L | 6000 | 1 |
| WPK750 | 750 | U | WPK7500 | 7500 | U |
| WPK750L | 750 | 1 | WPK7500L | 7500 | 1 |
| WPK750 | 750 | R | WPK10000 | 10K | U |
| WPK1000 | 1000 | U | WPK12500 | 12．3K | U |
| WPK1350 | 1350 | U | WPK15000 | 15K | U |
| WPKI350\％ | 1350 | R | WPK20000 | 20K | U |
| WPK 1500 | 1500 | U | WPK25000 | 25K | U |
| Above Types 2．10K ohms． $\qquad$ each Above Types 10K－25K ohms． oosh 1.21 |  |  |  |  |  |
|  |  |  |  |  |  |



TYPE WPS 4 WATT WIRE WOUND

Universal wire wound contral．For replocemont of 2． 3 and 4 wott controls．Dimensions： $1-1 / 4^{\prime \prime}$ dia．， $45 / 64^{\prime \prime}$
deep behind mounting foce．3／4＊long shafi，slatied and knurled．All rypes have linear toper except those marked＊hlch have left hand toper for focus cantrel．


| Trpe | Ohm： | Tep $\Omega$ | Type | Ohmi | Tap $\Omega$ |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Wr $3200 \times 100$ | 200 | 100 |  |  |  | WPS20110 wps2s Wps $25 x / 1$ WPS40 WPS40X20 WPS 40 WPS

WPS 50840 WPS100Yse WPS $140 \times 70$ | WPS140X70 | 140 |
| :--- | :--- |
| WPSis0X75 | is |

| Type | Omm | Top |
| :---: | :---: | :---: |
| WP\＄200X100 | 200 | 100 |
| WPS 250 | 250 |  |
| WPS500 | 500 |  |
| WP\＄5001＊ | 500 |  |
| WPS1000 | 1000 | － |
| WPS1500 | 1300 | － |
| WPS2000 | 2000 | － |
| WP32250 | 2250 | － |
| WPs22501＊ | 2250 | － |
| WPS2300 | 2500 |  |
| WPS3000 | 3000 |  |
| WPS4000 | 4000 |  |
| WPS40001＊ | 4000 |  |
| WPS5000 | 3000 |  |

Ptoin Controls．

SWITCHES FOR IRC＂W＂CONTROLS 76.11 －SPST
76.12 OPST

## 3 WATT CLAROSTAT SERIES

 58 WIRE WOUND CONTROLS

MALLORY＂M＂AND＂MT＂ WIRE WOUND CONTROLS
Used os bios controls and valloge di－ viders for industrial and laborat
work．Also for TV coplocement． watfs．Arm insulated from shoft Knurled $1 / 4^{\prime \prime}$ shaft is $3 / 8^{\prime \prime}$ langs has crewdriver slol ond is hollow to ac cept extension shafts．MT types are center－tapped TV units． $1.5 / 8^{\prime \prime}$ dia． 9／16＂．Mount in $3 / 8^{\prime \prime}$ hole．Linear


POTENTIOMETERS
Ne1
.97
.97
.97
. .27
.97
.97
1.29
.97
. .297
.97
.97
.97
.97
.97

 | $Y P Q$ |
| :---: |
| $00 P K$ |
| 00PK |
| OOPK |
| $1 M P K$ |
| $1.5 M P K$ |
| $2 M P K$ |
| $2.5 M P K$ |
| $3 M P K$ |
| 5MPK |
| 5MPK |
| $10 M P K$ |
| $15 M P K$ |
| $20 M P K$ |
| $25 M P K$ |
| $50 M P K$ |
| $70 M P K$ |
| 175MPK |
| RHEOSTATS |

Net

M300

| Type | Ohms | Amps | Type | Ohms | Amps |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Moshn | 1／2 | 2.80 | M201n | 20 | ． 45 |
| M1崖 | 1 | 2.00 | M25厚 | 25 | ． 10 |
| M2ax | ， | 1.40 | M30 ${ }_{\text {ax }}$ | 30 | ． 37 |
| M3 ${ }^{\text {R }}$ | 3 | 1.15 | M40 ${ }^{\text {d }}$ | 40 | ． 32 |
| M4RK | 4 | 1.00 | MSOEK | 50 | ． 28 |
| M6累 | 6 | ． 82 | Msork | 60 | ． 26 |
| Mionk | 10 | ． 63 | M750x | 75 | ． 23 |
| M15AK | 15 | ． 52 | M100RK | 100 | ． 20 |
| Hove open Type 395 | or＂off Dial PI | postion <br> te．For | nterclock ．Contr | －Net $\qquad$ | $\begin{aligned} & \text { och } 82 \\ & 15 e \end{aligned}$ |

## OHMITE＇AB＇

POTENTIOMETERS

## （1）

Two wolt units for industrial．laborafory．TV servise and other uses requiring high reliobiliry．Molded resistor proof with imbedded cantoct and－proof and splosh smoath，noise．free operalion．Stze：Singlo units， $1.1 / 16^{\circ}$ dic． $19 / 16^{\prime \prime}$ ．Double units， $1.1 / 16^{\prime \prime}$ dio．$\times 1.3 / 16^{\prime \prime}$ Mount in $3 / 8^{\circ}$ hole on pands up to $1 / 4^{\prime \prime}$ thick．Trpes CU，CCU．CA and CB have $2^{\prime \prime}$ ild． $1 / 4^{\prime \prime}$ round shafts trpe CLU has lacking nut and slatted shaf for serew driver adlustment．CU，CCU and CLU trpes have linear laper；CA types，clockwiso logarithmic；Cs tyoes，counter clackwise lagarithmic．All $10 \%$ talerance．except－ $20 \%$

TYPES CA，CB，CN－2－INCM SMATT

| Yp | Ohms | Net | Type | Onms | Net |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C | 50 | 1.9 | C85031 | 50，000 |  |
| CU1011 | 100 | 1.91 | CU1041 | 100，000 |  |
| CU2511 | 250 | 1.81 | CA1041 | 100，000 | 2 |
| CUS011 | 500 | 1.91 | CU2541 | 250，000 |  |
| CU1021 | 1000 | 1.91 | CA2541 | 250.000 | 2.20 |
| CU2521 | 2500 | 1.91 | cU5041 | 300，000 |  |
| CU5021 | 5000 | 1.91 | CA5041 | 300．000 | 2. |
| CU1031 | 10.000 | 1.91 | CU1052 | 1 meg＊ |  |
| C81031 | 10.000 | 2.20 | CA1052 | 1 meg ＊ | 2.20 |
| CU2531 | 25，000 | 1.91 | CU2552 | 2.5 meg＊ |  |
| C82531 | 25，000 | 2.20 | CA2552 | 2.5 meg ＊ | 2.20 |
| cuso31 | 50，000 | 1.91 | CUSO | 5 mos |  |
| T1 | C | WIT | $L$ | SHAFT |  |
| TYpe | Ohms | Net | TYpe | Ohms | Net |
|  | 0 |  |  |  |  |
| ClUl011 | 100 | 2.50 | CLU5031 | 50，000 | 2.5 |
| CLU2511 | 250 | 2.50 | CLU1041 | ． 1 meg | 2.50 |
| CLU5011 | 500 | 2.50 | CLU2541 | 25 meg | 2.50 |
| Clul021 | 1000 | 2.50 | CLU5041 | .5 meg | 2.50 |
| CLU2521 | 2500 | 2.50 | Clulos2 | 1.0 meg＊ | 2.50 |
| CLU5021 | 3000 | 2.50 | CLU2552 | 2.5 mog＊ | 2.50 |
| CLUl031 | 10，000 | 2.50 | Clus052 | 5.0 mes ${ }^{\circ}$ | 2.50 |

TYPE CCU DUALS

| Typ | Ohms | Net | Type | Ohms | Net |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CCU1031 | 10,000 | 5.73 | CCU2541 | 250,000 | 5.73 |
| CCU2531 | 25,000 | 5.73 | CCU5041 | 500,000 | 5.73 |
| CCUS031 | 50,000 | 5.73 | CCU1052 | 1 mes | 5.73 |
| CCU1041 | 100.000 | 5.73 |  |  |  | Type CS－I SPST Switch．For AB pots．

##  <br> CINCH-JONES PLUGS SOCKITS <br> AMPHENOL


AMPHENOL "S" SOCKETS
For new: work. shinkte hole mounting. which reguires $121 / 64^{\circ}$. Frimaly held by tempered steel retainer ring. 9 and 11 $78-71$, fite mall and large bame tubes. Molded high difiectric bakelite.
TYPE

| TYPE | PROMGS | EACH |
| :---: | :---: | :---: |
| 78.54 | 4 | 08 |
| 78.55 | 5 | . 09 |
| 78.56 | 6 | . 10 |
| 78-57L | 7 Lurse | . 15 |
| 78-575 | 7 Small | .11 |
| 78-58 | Octal | 10 |
| 78-581 | Lacktal | 14 |
| 76.59 |  | 12 |
| 78.518 | 11 | .13 |


AMPHENOL "MIP" SOCKETS
Molded figh Belectric black for ik, mountind centers. work looge, $5 / 322^{\circ}$ mta. hole exerpt " $14 \%^{\circ}$ mik. TYPE

| TYPE | PROMGS | EACH |
| :---: | :---: | :---: |
| 77-M1P-4 | 4 | 09 |
| 77-M1P-5 | 5 | . 10 |
| 77-MIP.6 | 6 | .12 |
| 77.M1P.7L + | 3 Large | . 12 |
| 77-M1P-75 | $78 m a l 1$ | . 13 |
| 77-M1P.8 | Octal | 10 |
| 88.8* | Octal | 11 |
| $88.8 \times$ * | Luektal | 11 |
| 77-M1P-9 |  | 12 |
| 77.M1P-12 | 11 | 13 |



- 8


## AMPHENOL

MINIATURE 7 \& PIN SOCKETS
147 meries mounts for TV, FM, auto risilom, etc.a ints. etrs. $1 / 4$ Nerew bnies. 59 series mounta in Whte with ith mek. Ctr 095 moth holes. -suatise. iBlack Bakellte. 4 Mica-niked bakell BOTTOM MOUNTENG TYPE-FIG. B


TOP MOUNTING TYPE-FIG. A
Tube shleld thase accommodates tube shields TMPE

| TYPE | No. CONTACTS | EACH |
| :--- | :---: | :---: |
| 147.905 E | 7 | .22 |
| $147.925 \%$ | 7 | .27 |
| 147.9134 | 7 | .23 |
| $59.407 t$ | 9 | .29 |
| $59.406 t$ | 9 | .25 |


\section*{ <br> | No. | $\begin{aligned} & \text { Por } \\ & \text { sterip } \end{aligned}$ | Emen | Per | No. | $\begin{aligned} & \text { Per } \\ & \text { Strip } \end{aligned}$ | Eack | Per |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| W. 146 | 140 | . 03 | . 26 | V-140 | 140 | . 03 | - 26 |
| w-141 | 141 | . 04 | . 35 | V-141 | 141 | . 04 | . 35 |
| w-142 | 142 | . 64 | . 43 | V-142 | 142 | . 04 | .43 |

## at

## FAMNESTOCK CAIFS

to wtre. $f$ that asture gond elechical contact without injury Stock Wo. Fide except wbich are \$/16" Hole 10 for 100 for MSS. 240
$M S-249$ M5-250

| No. | Jern | Mte. Cer | Each |
| :---: | :---: | :---: | :---: |
| 2002 | 2 | $1{ }^{\prime \prime}$ | 08 |
| 2003 | 8 | 1-5/18 ${ }^{\prime \prime}$ | . 07 |
| 2004 | $\pm$ | $18 / 18$ | . 08 |
| 2008 |  | 1-15/16 ${ }^{\text {\% }}$ | . 09 |
| 2006 | 6 | 21/4" | .10 |
| 2007 | 7 | 2-9/16 ${ }^{\text {" }}$ | 11 |
| 2008 | 8 | 2 T " ${ }^{\text {\% }}$ | .11 |
| 2009 | 9 | 3-3/16" | . 12 |
| 2010 | 10 | $31 / 20$ | , 13 |
| 2011 | 11 | 3-13/16" | .14 |
| 2012 | 12 | 11/4" | . 15 |
| 2013 | 13 | 4.7/19" | 16 |

CINCH-JONES BARRIER STRIPS

 io metal traciak over bakellef hod. Tyo
 to metal Apacing over bakelite. Type 142 :
$1-5 / 16^{\prime \prime}$ hsh. So wide. Teminals mounted
on $A / 16^{\prime \prime}$ centers spaciar over hakelite. ment to metal

| Term | No. | Each | M. | Eech | Ne. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 2-140 | .14 | 2-141 | . 19 | 2-142 | 22 |
| 8 | 3.140 | 20 | 3.141 | 24 | 3.142 | 30 |
| 4 | 4.140 | . 24 | 4.141 | 31 | 4.142 | . 38 |
| 8 | 5.140 | . 30 | 5.141 | 36 | 5.142 | 46 |
| 6 | 6-140 | . 34 | 6.142 | . 44 | 6.142 | . 54 |
| 7 | 7-140 | . 40 | 7-141 | . 52 | 7-142 | 63 |
| H | - 8.140 | . 45 | 8.142 | . 58 | 8.142 | . 71 |
| 9 | 9-140 | . 51 | 9-141 | . 65 | 9.142 | 78 |
| 10 | 10-140 | . 56 | 10.141 | . 72 | 10-142 | 87 |
| 11 | 11-140 | . 61 | 11-141 | . 78 | 11-142 | 95 |
| 12 | 12-140 | . 66 | 12.141 | . 84 | 12-142 | 2.04 |




Multipie contart " $400^{\circ}$. meries heavy duty 25 ampere and "300" sprics standard duty 5 amp brackets-heavy duty type at pads, standard type at stdet


| SOCKETS FIG. (B) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 2 | S-3m-CCT | . 59 | 8-102-6CT | 78 |
| 3 | 8-303-CCT | . 48 |  |  |
| 4 | S-304-CCT | . 51 | S-404-CCT | 99 |
| 6 | 8-300-CCT | -89 | 8-406-C'CT | 1.20 |
| 8 | 8-30*-CT | . 69 | 8-408-CCT | 1.40 |
| 10 | 8-310-CCT | . 76 | SH10-CCT | 1.62 |
| 12 | 8-312-CCT | . 8 | 8-412-CCT | 1.81 |
| CHASSIS TVPE PLUG (C) |  |  |  |  |
| 2 | P-302-AB | . 19 | P-402-AB | 46 |
| 3 | P-303-AB | . 24 |  |  |
| 4 | P-304-AB | 25 | P-404-AB | . 57 |
| 8 | P-300-AB | . 31 | P-406-AB | . 69 |
| $\underset{10}{8}$ | $\stackrel{\text { P-304-A }}{\text { P-310-AE }}$ | . 43 | $P-409-A B$ $P-410-A B$ | . 78 |
| 12 | P-312-A ${ }^{\text {P- }}$ | ${ }^{4} 48$ |  | 98 |
| CHASSIS SOCKET (D) |  |  |  |  |
|  | 8-302-AB |  | B-102-AB | 52 |
| 3 | 8-303-AB | . 24 |  |  |
| 4 | B-30-AB | 27 | B-404-AB | . 69 |
| 6 | 8-300-AB | . 34 | $8-406-A B$ | . 83 |
| 8 | g-30x-AB | . 43 | S-108-AB | . 98 |
| 10 | B-310-AB | . 51 | 8-110-AB | 1.15 |
| 12 | B-312-AB | . 59 | B-412-AB | 1.29 |

CINCM-JONES "2000" TERMINAL STRIPS


Compact and sturdy bakelite ful in terminal trip. Une: chassin, wirine ete Steel eadmium plated bracketis. centera.

PLUGS \& CONNECTORS miniature shielded connectors


MINIATURE PLUGS SOCKETS Interchangeable with miniature type connectors. socketn have push-on mounting rings. Excelfeat for sueaker connec thons.

| Sortret Type No. | Cont. | Each | $\begin{aligned} & \hline \text { Pluk No. } \\ & \text { Type No } \end{aligned}$ | Cont. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 78.535 | 3 | .08 | 71.35 | 3 | . 08 |
| 78-545 | 4 | .00 | 71.45 | 4 | . 08 |
| 78-555 | 5 | . 11 | 71-55 | 6 | . 09 |
| 78-565 | 6 | . 11 | 71.65 | 6 | . 10 |
| 78.7P | 7 | . 14 |  |  |  |

CABLE CONNECTORS
Shletded eat and rubber
grommet-end opprina. Con-



Mast of " S ". Type tube sorkets

| Femsie Type No. | Cont. | Each | Male Tye No. | Cont. | Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 78.PF4 | 4 | . 17 | 8.PM4 | 4 | 21 |
| 78. PFs | 8 | . 18 | B6-PM5 | 5 | 21 |
| 78. PF6 6 | ${ }^{6}$ | . 19 | 86-PM6 | 6 | 22 |
| 78-PF75 | 78 | . 20 | 86-PM7S | \%S | 23 |
| 78-PF8 | R | . 19 | B6.PMB |  | 22 |
| 78.PF9 | 9 | . 21 | 86.PM9 | 8 | 22 |
| 78-PFI2 | 11 | . 22 | 86-PM11 | 11 | 23 |

AMPMENOL TYPE 79 -CCA. Cable-clamp used with
abowe connectorn to relleve atrain on soldered conabove con
nections.
Type 7s.cca

## TERMINAL <br> ค.A.A.

Supprior gunality hakelite terminal stripa Solder wfin 2,3 , or 6 xoblifer lues and serew ternilnais. Kiountlag holem, Hor 632 screwk.

 COLLAR STRIPS
lerininals, tinned molder lugs

| leminala, tinned mider lugs. |
| :--- |
| STOCK NO. TERMINALS EACH 10 FOR |


| M3-237 | 2 | . 12 | 1.08 |
| :---: | :---: | :---: | :---: |
| M-234 | 3 | . 17 | 1.53 |
| M S. 239 | 1 | 20 | 1.80 |
| M S-240 |  | 22 | 2.08 |
| Ms-241 |  | . 25 | 2.25 |
| M $\mathrm{S}-242$ | ; | . 21 | 2.60 |
| MS-243 | 8 | . 32 | 2.88 |
| MS.244 | , | . 36 | 3.24 |
| M S. 245 | 110 | 40 | 3.60 |

BAKELITE

## MOUNTING STRIPS

Mounte iurts on Chasests 1000

| STOCK 10 | LUES | EACM | 10 For |
| :---: | :---: | :---: | :---: |
| Ms. 231 | 1 | . 02 | Is |
| M9-232 | 2 | . 02 | . 19 |
| MS - 233 | 3 | .03 | . 24 |
| MS. 234 | 4 | . 05 | . 40 |
| MS-235 | 5 | . 05 | 45 |
| MS-236 | 6 | . 06 | . 51 |

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##  $=$ HART \& HEGEMAN



## MUELLER UNIVERSAL CLIPS AND INSULATORS

## Ponitive contaet. Standard pachare of 10 contains 5 elip is shown in churts. Insulutors not included in price

MINI-GATOR CLIP (A)
Smallest made steef eadmium plated alligator jawa For tit 20 or amaller wire. Uses No. 32 insulutor. MUELLER 30 Ench 7 Ce 10 for 45e
TEST CLIPS WITH MESH TEETH (8) All steel, emdmum plated exeept is nolld eopper.

+ is bronze, $\%$ han inaulation plercing needle in jaw.
 BATTERY CLIPS STEEL AND COPPER (B)


| Shartlnk Troe Cat No. | Shorting Cat. No. | SINGL Small, witche Threaded Th. nob an |  | SWITC <br> low notched g $1 \mathrm{a}^{\prime \prime}$ dia have a plete with hpg. wi., Olamuter of Base | HES <br> oltage shaft. $33^{\prime \prime}$ <br> djust. <br> bar <br> 4 oz. <br> List Prlce |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 31151 | 32185 | 1 | 5 | 11/4 | 82 |
| 311121 | 321121 |  | 2 | 11. |  |
| 31223 31235 312 | 32223 | $\frac{2}{2}$ | $\frac{2}{8}$ | 1\%" | .82 |
| 31265 | 32265 | 2 | 6 | 116 | . 82 |
| 31344 | 32341 |  |  |  |  |
| 31423 | 32421 | 4 | 2 |  | . 85 |
| 31431 | 32431 | 1 |  |  |  |
| 3111710 | 321171** |  |  |  |  |
| $31298 *$ $31363 \%$ | 32295*: | 2 | (109 | 1-11/180\% | 1.27 1.35 |
| $3163 j$ | 3263j0. | 8 | 2103 | 1-11/14: | 1.35 |
| SLIDE SWITCHES AT LOW PRICES! <br> Compart stide sultehen in enalmium steel housines. All rated 125 צ. AC: <br> $112{ }^{\prime \prime}$ mis. ctrs. <br> No. Cireult |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  | ${ }^{4}$ |  |  |  |  |
|  | SW-15 | Spipt |  | . 10 | 8 |
|  | SW. 16 | DPST |  | . 22 | . 28 |


$\Delta$ For reference only, ineulator not mupplied. phone tip in one fuw
ALLIGATOR CLIPS (E)

INSULATED ALLIGATOR CLIPS (F)

 TWIN CLIPS (G)
Jaws at both endk operate independently. Cad. plated nteel 2" long. Jowa open $1 / 2$ for aes FLEXIBLE INSULATORS (H)
Hefer to listing: of elips for proper iosulator. Box

| Mo. | Ean | 30 for | No. | Eash! | 10 for |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 23 | . 17 | ${ }^{3.33}$ | $4{ }^{48}$ | . 10 | . 69 |
| 26 | 24 | 1.67 | 42 | . 07 | . 47 |
| 25 | 16 | 1.08 | 07 | . 07 | . 17 |
| 32 | . 11 | 74 | 23 | . 10 | . 69 |
| 47 | 07 | 47 | 13 | . 75 | 3.29 |





HART AND HEGEMAN MOMENTARY PUSH BUTTON SWITCHES
tions, slotted sleeve $15 / 5: 32$ diam. hy $9 / 16{ }^{\circ}$ lang exeept $\frac{1}{}$ re 7/16". All have sulder lug terminal, and main tops except: Which have smap on hutcons
eify red os black: Hated $1 \mathrm{~A}-125 \mathrm{~V}$ AC. Shop, "i.

| normally closco |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| MFR. NO. | CIR- | 18. | LOTS 10 [A. | $\text { LOTS } 100$ |
| 3392 Ct | ${ }_{2}^{2}$ Cire | . 64 | . 58 | . 32 |
| 3392 A at | 2 Circ | . 81 | . 73 | . 87 |
| 3392 A. | $\frac{2}{2}$ Cire | . 81 | . 58 | . 67 |
| 3392 AC . | 2 Spsst | .81 | . 44 | . 40 |
| 33916. | SP'ST | 67 | . 60 | . 54 |
| NORMALLY OPEN |  |  |  |  |
| $3391 E$ 3391 CL | SPST | . 49 | . 64. | . 50 |
| 3391-194R - Red snap-on button for all switehes |  |  |  |  |
| 3391 -1948 - black anup-on bution for all switches |  |  |  |  |

##  <br> GRAYHILL MINIATURE SWITCHES Fig. (A)



 GORAVHIL 4001 Normally oden
GRATHILL 4002 Normully cloyed . 09
HEAVY DUTY TYFE Fig. (B)
 body.
GRAYNILL 2201 Normally open
GRATMILL 2202 Normally clowed
MINIATURE TYPE Fig. (C)
Deninned for miniaturizution. Ah ahove but, non-xnup. tomp. Rated life approx. 500.000 operations.
SUB MINIATURE TYPE FIG. (C)
Ideal for computer and ingtrument application. SimHar to $2: 1$ hut rated 100 milliamperes 118 V At Iresiativet body diam. ap bukhina lona. Rated
MUNIATURE ROTARY TAP SWITCMES fig. (D)
Ruted to break 1 mmp. 115 V.A.C. reshative or carry b amps as selector. All non shorting. Internal stops on all posiplated contacts and rotor. Single deck size $1-1 / 1 / 2$ : Diam.



UNIMAX SNAP-ACTION SWITCHES


Precision made for Industrial and laboratory, une. Types marked are basic unite to stainlexs steel "iadaptaplate" Rated 18 mmp. 125 volt. 5 nmp .250 V volt. plate cycle non-inductive AC. Type 2DHBTX-1 ham DPST


CUTLER-MAMMER NEW DESIGN SWITCHES Appreved tyje with nickel-plated mesial barta. Finkt action - excelent for abyliancex, radien receliers.
 Alidget Rated AC 627-228F3-Each .03 jection CUTLER-NAMMER NEAVY DUTY SWHTCHES Fig. 2, Lndernsiters appriveed. Nickel-引lated mefn paris. Famt nction
$\qquad$

| $\begin{gathered} \mathrm{C}-\mathrm{H} \\ \mathrm{No} . \end{gathered}$ | circ. | $125 v .$ | $1250 \mathrm{v} .$ | Each | $\begin{aligned} & 10 \\ & \text { Esen } \end{aligned}$ | $\begin{aligned} & 100 \\ & \text { tach } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $7362 K 5$ | $\begin{aligned} & \text { SPST } \\ & \text { DPST } \end{aligned}$ | 15 | 10 | $\begin{aligned} & 1.50 \\ & 1.50 \end{aligned}$ | 1.35 1.35 | 1.13 1.13 |

## PILOT LIGHT ASSEMBLIES and LAMPS



HALF-INCH ENCLOSED TYPE
FIG. A SERIES 81410. Compact. enclosed arlathon-type insmbly with amooth-faced jewel in $1 / 2 \mathrm{~m}$ nickel-plated thle from front of untt. Regulfes $11 / 16^{\prime \prime}$ mounting hole: $2 \%$ long; for panels UD to \%" thick UL approred. Avillable in Red. Grean, White and Anber Jowels (kreen not recommended with neon lamps). Lesi lamps. Shpr. wt., 302.
TYPE 81410 .
...........NET EACH 00 C SPECIFY COLOR 10 OR MORL, EACE 72 e REPLACEMENT JEWEL CAPS FOR 1410 TYPE 81 IEWEL CAFS FOR NET EACE SPECIFY COLOR 10 OR MORE, EACE lite

## HALF-INCM OPEN TYPE

Fig. BERIES 857B. Open type assembly for miniature bese bayonet lamps. 4 " $^{\prime \prime}$ faceted jewel. Requirea $11 / 16^{\prime \prime}$
 Blue ${ }^{\circ}$ ('not recommended for neon lamps). With mounting washer: less lamps. Shpr. Wt., 3 oz 2378

SPECIFY COLOR
10 OR MORE, FACR 40 c

## HALF-INCH MINIATURE OPEN TYPES

FIG. C SERIES 810. For miniature acrew and bayonet base lampe. H/ ficceted jewel. Mount in $11 / 18^{N}$ bole. Lamp rrmovable from front. Tinned solder luge. Avall.
able in Red, Green", Amber (o not for neon). Loen lampe. able in Red. Gr
Bhpe wt., 2 oz.
$810 \mathrm{M}-\mathrm{BCRFW}$ BABE
IOB-BAYONET BABL.
10 OR MORE, EACE 22 e SPECIFY COLOR
FIG. D SERIES 510, 610 amd 710 . Popular open type Ilsual indicators for atandard pllot lighs hutbs. Cholee of candelabra, min. screw and min. bayonet sockets. Fiscoted
jowels. Lur terininsis. Requires $7 / 2 \mathrm{~g}^{*}$ hole. Avalisble Io fewels. Lur terininals. Requirea $7 / 1 \theta^{\prime \prime}$ hole. Avalisble In
Red. Greow and Amber (© not for neon lemps). Less lempe. Bhpg. Wt., 2 oz
510-MINLATURE BCBEW.
net each 210 $610-$ CANDELABBA
710-MINIATURE BAYONET
sPECIFY COLOR

## NEON PANEL ASSEMBLIES

FIG. E SERIES 95408 PLABTIC CAP ABgEMBLIBg. Encinsed apemblion with builh-1n reslator for NE, 51 neon impi in $110-220 \mathrm{~V}$ elreulta, $2 \% "$ lonk; mounte In $11 / 16^{\circ}$ hole. Plasle cap threaded to hrass holder. UL spprored.
Avaliablo in Aed. Amber. Whito and Clear. Less NE 51. Stppr. Wt., 3 oz.
TVPE 95408.
. NET EACE 97e SPECIFY COLOR......... 10 OR MORR, FACE 7 E REPLACEMENT PLASTIC CAPS FOR 5408 TYPE 95 PLABTIC CAP.
............NET EACE ISe 8PECIFY COLOR 10 OR MORE. EACA 13e FIG. F SERIES JIQ14 JEWEL CAP AKGEMBLIFB, Enclosed exndelabra sockpt aspemblies for NE 45 . NE 57 and NF 58 lamps in $115 V$ elreults. Bmooth full riew lens:
lamp remorable from front. $2 \%$ 年
 lamps. Bhpr. wit. 4 oz . TYPE 31914.

NDP EACH 1.03 SPECIFY COLOR 10 OR MORE, EACE . 93 REPLACEMENT JEWEL CAPS FOR 31914 TYPE 3) JEWEL...

NET EACE $35 e$ SPECIFY COLOR 10 OR MOBE, BACE 31 c

## ONE-INCH ENCLOSED TYPE

FIG, G SERIES 314001, For 115 volt candelabre lempis. Brass and bakelite with faceted jewel. Lamp romorable from front. I" mus hole. Tlnned luge. Available In Red, lampai. UL approved. Less lemps. Shpg. wi., 4 oz. TVPE 314001

NET EACE 1.03
8PECIFY COLOR 10 OR MORE, EACH 9
GEPLACEMENT JEWEL CAPS FOR 314001
TYPE 31-43
SPECIFY COLOR 10 OR MORT EACH 35 e FIG. H SERIES 31 ITOI ASSEMBIY WITH, EACH 31 C
 Jemps. Chrome, frletion-fit cep. $1 \% \mathrm{mta}$. hole. Avaliable in Red. Grsen, Amber and Ciear ("not for neon). Less lemps. shpe. wi., 10 e
TYPE 312901
NET EACH 1.13 SPECIFY COLOQ 10 OR MORE, EACH 1.02 REPLACEMENT JEWEL CAPS FOR 312901 YPE 31-11 SPECIFY COLOR 10 O.....NET EACH 35 c

## ONE-INCN OPEN TYPES

FlG. SERIEs 75. For 115 Volt candelebra lampi. Fric-tion-fit faceted jewel In chrome holder. 1 to mtg . hole. Avaliable In Red. Green and Amber ("not for neon). TYPE 75. SPECIFY COLOR $\quad 10$ OR MORE, EACE 75 e REPLACEMENT JEWEL CAP FOR 75

## TYPE 31-43. <br> SPECIFY COLOR $\quad$ O....................... MORE EACH 35E

FIG. K SERIES 910. Popular serles for electronic equipment. Cholce of candelabra, min. nerew and min, bayonet sockets. Lamp replaceable from front. 1 mmta . hole. 1 ks lonk. Avallable In Aed, Green* and Amber ("not for TYPE 910 M -MINIATMRE ACREW

9108 -MINIATUHD BAYONET NET EACH 83 c $910 C$ CANDFLABRA 10 OR MORE. EACH 75 c SPECIFY COLOR

## PILOT LIGNT SOCKETS

Popular bayonet, screw and candelabre type sorkete with cadmium plated brackets and tinned lugs. Coll sopina conatruction on bayonet type. Supplied with Insulatias washers. Av. shpe. wh. I\% oz.
MINIATURE SCREW

|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TYPE | FIG. | TYPE | FIG. | EACH | 5 FOR | IOFOR |
| 501 | L | 505 | $\mathbf{N}$ | 8 e | 36 c | 64 c | MINHATURE BAYONET



| 701 | I | FPF | F |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 704 | M | 707 | $\mathbf{N}:$ | Pe | 39 e | 70 c |

-As Illustrated, but with basonet base
CANDELABRA 115 V

| TYPE | FIG. | TYPE | FIG. | EACH | 5 FOR | 10 FOR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 601 | $I$ | 605 | $N$ | 126 | $56 e$ | $98 c$ |

## PILOT BULA DEMOVER

To Install or remore miniature and candelabra lamps, especialtu In out-of-the-way places. Etgh grado rubber
afrords marimum protection to lamps. L. 73.

MINIATURE LAMPS 3 1 불

GENERAL PURPOSE MINIATURE LAMPS
For radio and telerision pilot lights, panels. Aashights, eandle power: 8 . C. sines; etc. Abbretiations: e.b. meinas Shpr. wh., 1 lamp 2 oz.: box of $10,5 \mathrm{oz}$. When ordering 100 or mors lamps of one type. deduct $10 \%$ from the " 10
or more. each" or more. each" erice.

| Ty* | Volts | Amps | Base | Net Each | $10$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PR2 | 2.4 | 0.50 | E.C. Flanged | . 20 | 1.33 |
| PR3 | 3.6 | 0.50 | 8.C. Flenged | . 20 | 1.33 |
| PR4 | 2.3 | 0.27 | 8.C. Flanged | . 20 | 1.33 |
| PR66 | 8.5 | 0.30 | 8.C. Flanged | 20 | 1.33 |
| PR12 | 5.95 | 0.50 | 8.C. Flanked | .20 | 1.33 |
| PR13 | 4.75 | 0.50 | 8.C. Flanged | . 20 | 1.33 |
| 13 | 3.7 | 0.30 | Berew | .17 | 1.14 |
| 14 | 2.5 | 0.30 | Screw | .17 | 1.14 |
| 27 | 4.9 | 0.30 | Screw | .17 | 1.14 |
| 40 | 6-8 | 0.15 | Screw | .15 | 1.00 |
| 41 | 2.5 | 0.50 | Gerew | .15 | 1.00 |
| 42 | 3.2 | 0.35 | Screw | .15 | 1.00 |
| 43 | 2.5 | 0.50 | Bayonet | .15 | 1.00 |
| 44 | 6-8 | 0.25 | Bayonel | .15 | 1.00 |
| 45 | 3.2 | 0.35 | Bayonet | . 15 | 1.00 |
| 46 | 6.8 | 0.25 | Screw | . 15 | 1.00 |
| 47 | 6-8 | 0.15 | Basonet | . 15 | 1.00 |
| 48 | 2.0 | 0.08 | gerew | . 15 | 1.00 |
| 49 | 2.0 | 0.08 | Bryonet | .15 | 1.00 |
| 50 | 6.8 | 1 c.p. | Screw | . 15 | 1.00 |
| 51 | 8.8 | 1 c.p. | Bayonet | .15 | 1.00 |
| 55 | 8-8 | 2 cb . | Bayonet | .15 | 1.00 |
| 112 | 1.2 | 0.22 | Kerew | . 15 | 1.00 |
| 123 | 1.25 | 0.30 | Screw | .17 | 1.14 |
| 222 | 2.2 | 0.25 | Serew | .17 | 1.14 |
| 224 | 2.15 | 0.22 | Apecisl | .17 | 1.14 |
| 233 | 2.2 | 0.27 | Rerew | . 16 | 1.00 |
| 291 | 2.8 | 0.17 | Beyonet | . 24 | 1.87 |
| 292 | 2.9 | 0.17 | gerew | . 24 | 1.67 |
| 502 | 5.1 | 0.15 | Screw | . 17 | 1.14 |
| 1458 | 20.0 | 0.25 | Basoner | . 17 | 1.14 |
| 1490 | 3.2 | 0.16 | Beyonet | .15 | 1.00 |
|  | 14.0 | 0.23 | Bayonet | . 15 | 1.00 |
| 1892 | 14.0 | 0.12 | Bayonet | . 20 | 1.33 |

NEON GLOW LAMPS
For $105-125 \mathrm{~V}$ operation except $\dagger$ which are for $210-250 \mathrm{~V}$ Screv Lypes have realstop in base for $105-125 \mathrm{~V}$; others re
quire external reaistor. $A C$ slarting voltagei shown; DC quire external reaistor, AC slarting voltages shown; DC
starting voltage $40 \%$ higher. Indjcates AC operation only starting voltage $40 \%$ higher. Indjcates AC operation only and Indicates DC operatioa only. S.C. means single con1 Inenp. 3 oz. ; bor of 10.5 oz .

| Typd | Watte | $\begin{aligned} & \text { A.C } \\ & \text { Vols } \end{aligned}$ | Bels | $\left\{\begin{array}{l} \text { Not } \\ \text { Each } \end{array}\right.$ | $\begin{aligned} & 10 \text { or } \\ & \text { More. } \\ & \text { Each } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| NE.2 | 1/25 | 65 | Wire Terininals | . 10 | . 09 |
| NE. 51 | 1/23 | 65 | B.C. Bey. Min. | 21 | . 19 |
| NE-7 | 1/4 | 55 | Wire Terininaie | .72 | . 65 |
| NE.57 | 1/4 | 55 | Cand. Screw | . 97 | . 87 |
| NE-48 | 1/4 | 65 | D.C. Bay. Cand. | . 69 | . 62 |
| NE-45 | 1/4 | 65 | Cand. Screw | . 83 | .74 |
| NE-21 | 1/4 | 55 | 8.C. Bay, Cand. | . 93 | . 83 |
| NE.58 4 | 1/2 | 65 | Cand. screw | . 93 | .83 |
| NE.17 | 1/4 | 55 | D.C. Bay. Cand. | . \% $^{8}$ | . 79 |
| NE. 56 t |  | 60 | Edison | 1.22 | 1.09 |
| NE-30 | $1$ | 60 | Edl son | 1.18 | 1.06 |
| NE-31 | $1$ | $60$ | Sk. Cand. Screw | 2.93 | 2.62 |
| NE-32 | $\frac{1}{9}$ | 80 | D.C. Bay. Cand. | 1.18 | 1.06 |
| NE-34 | 2 | 60 80 | Edison Sk D C. Bay, Cend | 1.81 | 1.62 |
| NE-36 NE - | $\frac{2}{3}$ | 60 60 | 8it. D.C. Bay. Cand. | 2.85 | 2.138 |
| NE-42 | 3 | 60 | Str. D.C. Bay. Can | 2.60 | 2.34 |

AC-DC PILOT LIGHTS
Beted $105-125 \mathrm{~V}$ Bated $105-125 \mathrm{~V}$. 1500 hours average use. D.C. means
double contect; Cand. Candelabra.

| Type | Shape | Watt |  | Base | $\begin{gathered} \text { Std. } \\ \text { Phg. } \end{gathered}$ | $\begin{gathered} \text { Net } \\ \text { Single } \end{gathered}$ | $\begin{aligned} & \text { Each } \\ & \text { Plig. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 386 | Clobe | 3 | Cand. | Screw | 10 | . 30 | . 27 |
| 636 | Globo | 6 | Cand. | Screw | 12 | . 19 | . 17 |
| 6560 C | Globe | 6 | D.C. | Bey. Cand. | 10 | . 25 | 23 |
| 767.Clear | Cone | 7 | Cand. | Screw | 12 | .17 | . 15 |
| 7C7.Whlte | Cone | \% | Cand. | Serew | 12 | . 19 | . 17 |
| 10c70c | Cone | 10 | D.C. | Hay. Cand. | 12 | . 21 | . 19 |
| M8313 | Tube | 1 | Cend. | Bcreu | 110 | . 39 | . 35 |

DASH LAMP ASSEMALY


For dashboard, pancl. otc. mounting. Bimple cantact miniature bayoner socket. Mounts in $\%^{\prime \prime}$ bola. With 12 " leed, nut and Waher. Esay Instaliation. Less lamp end MS.314.

# PLUGS - JACKS - TEST LEADS - KNOBS 



Insulated Phone Tip and Bonona Plug and Jacks are avallable in Rod.
INSULATED PLUGS
INig. K. Insulated Spode Iug. $3 /{ }^{* \prime \prime}$
Fig. A. Insulated Tip Plug. Heary duty. Solder trpe. 1" handle. 21/8" overall. Specity color
P-10
Net 0
.15
10 for 1.35 .............. 100 for 12.15
Fig. C. Insulated Solderless Tip Plug. $1^{\prime \prime}$ handle, $\mathbf{2}^{\prime \prime}$ length overall. Specify calor.
J. 11 . 14 10 for $1.26 \ldots \quad . \quad . \quad 100$ for 11.34
Fig. D. Insulated Short Tip Plug. Solder trpe $1^{\text {º }}$ handle. 1.17/32 overall length.
P-12.

## 8

$\qquad$ Not $\infty$. 10
. 100 for
Fig. E. Insulated Bonona Plug. Spring type. Internal set scrow for soldering. $1^{" 1}$ hondle. $1.15 / 16^{\prime \prime}$ length overall. Phospharbronze. Specify calar.
P1-13.
1.89 Not
100 for 17.01
Fig. F. Solderlosi Insulated Banana plug. Spring type. 1 " handie. 1.11/16" overall. Specify color.

P-14. 1.35 .....Not $\infty$. 10 for 1.35 .......... 100 for 12.15

Fig. G. Solderless Insulated Banana Plug. Split trpe. $1^{\prime \prime}$ handle. 1-9/18" overall. Specify color.
PJ.15.......................Not oo. $\quad .15$ 10 for $1.35 \ldots . . . . . . . . . . . .-100$ for 12.15
Fig. H. Insuloted Bonano Plug. Spring type. $1^{1 \prime}$ handle. $11 / 4^{\prime \prime}$ are oll. Solder type. Specity color. PJ-16................Net eo. 12 10 for $1.35 \ldots . . . . . . . . . . .100$ for 12.15 Fig. 1. Molded Meter Banana Mug. Specify Red or Block.
PS-1
Specity molded Moter Tip Pug.
Slest Rod or Block.
PJ. 18.


Atrastive, modern-shaped knobs for seplocement purposes, molded of high. quality plastic and beoulfully finished. All with rich-laaking gold insert. Avg. shpg. wt., 2 oz.

## SET SCREW TTPE

Fit round or flot $1 / 3^{n}$ shofth. All hove concave polishod gold inserts. "Indicates bock of knob recessed $1 / \%^{\prime \prime}$. others flush.


Fit flot $1 / 6^{\prime \prime}$ shoth. * Indicoles conver gold insert and back of thob protrudes $3 / 16^{\circ}$. Others hove flat gald insert and flush bock.

| KN1S | B | 11/* | Dorl | Maroon | . 15 | .12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| KN16* | 0 | $1.1 / 16^{\prime \prime}$ | Darl | Maraon | .15 | . 12 |
| KN17* | 0 | $11 /{ }^{\prime \prime}$ | Dart | Maroon | . 15 | .12 |
| KN18* | A | $1 \% /$ | Dart | Maroon | . 18 | .16 |
| KN2O | H | $1 / 8$ | Blac |  | . 12 | .10 |

This knob has a gold pointer and polished gold concave insert. Fis $1 / 4$ " flat shoth.
KN2
11/" Block

Fig. K. Insulated Spode lug. Red or Block.
PJ. 19
9.

Net ea. . 11

## INSULATED JACKS

Fig. L. Phone Tip or Bonana Pug. Mounts in $5 / 16^{\text {M }}$ hole. Specify color PJ.20... 10 for 1.35 .................... 100 for 12.15

Flg. N. 5-Way Binding Post. Tokes phone tips, banona plugs, spode lugs. allegator clip, wire. All Insuloted troe. Specity Red or Block.
PJ-21.................... 22 10 for $1.95 \quad 100$ for 17.55

Fig. O. Nylon Alt Insulated Tip Jack. Specity celor.
PJ-22...............Net oo. . 18
10 for 1.62................ 100 for 14.58
Flg. P. Insulated Tip Jack. $1-1 / 64^{\prime \prime}$ overall length. Mounts in $5 / 16^{\circ}$ hole. Specity color.
P-23. $\qquad$ Net *a. 12

Fig. ©. Nrion Insulated Tip Jock. With nylon washer. $1^{\prime \prime}$ overall length. Mounts in $5 / 16^{\prime \prime}$ hole. Spocity color.
PJ-24................................. 18 10 for $1.62 \ldots . . . . . . . .00$ for 14.59

F9. R. Insuleted Bamano Jock. 21/32" overall length. Mounts in $5 / 16^{*}$ hole. Specify celor.
J.25 ..........................teo. -12

4 Hg. S. Instrument Bonano Jock. $27 / 32^{\prime \prime}$ overall length. Mounts in $5 / 16^{\prime \prime}$ hole. Specity color.


Black, Yellow, Green and Blue.
Fig. T. Nyion Insulated Banano Jock. With nylon wosher. Overall length $53 / 64^{\circ \prime}$. Mounts in $5 / 10^{\circ}$ hole. Specify color.
PJ-27...................Netea. . 18 10 for 1.62 .................. 100 for 14.50

## METAL JACKS

Fig. U. Metal Tip Jack. Maunts in $1 / 4^{\prime \prime}$ hole.
PJ-28...
10 for . 81 ........................ 100 for 7.29
Fig. V. Metal Banano Jock. Mounts in $1 /{ }^{\prime \prime}$ nole.
PJ. 29
Net eo. . 09 10 for .81 …............... 100 for 7.29 Fg. W. Metal Banono Jack. Mounts in $1 /{ }^{\prime \prime}$ note.
PJ.30..........................Not \&o. . 09 10 for $.81 . . . . . . . . . . . . . . . . . . . . . . . ~ 100$ for 7.29

## NON-INSULATED PLUGS

Fig. X. Solderless phane $\mathrm{Hp}_{\mathrm{p}}, \mathrm{Sr}$. 1\%" long.
PJ-31...
Not wo. 10
10 far $.90 \ldots . . . . . . . . . . . . . . . .100$ for 8.10
Fig. Y. Solderless Phone Tip, Jr. 1.3/16" lang

PJ.32.
Fig. Z. Banano Plue Soring Hoe $1 \%^{\prime \prime}$ overall. $6.32 \times 1 / 2^{\prime \prime}$ stud.
1.33.............................eter. 12

10 for 1.09 ................... 100 for 9.72
Fig. A. Banono Plug. Spring typo. Screw in hood. 1-1/32" averall.
PJ.34.......................Noteo. . 15 10 for 1.35................. 100 for 12.15 Fig. 8B. Banano Plug. Spring trpe $11 / 4^{\prime \prime}$ overoll. $6.32 \equiv 3 / 0^{\prime \prime}$ itud.
PJ. 3 10 for $1.35 \quad . \quad$ Net eo. 12.15
Fig. CC. Bonana Plug. Split type. $11 / 4$ overoli. 6-32 $\times 1 / 3^{-2}$ sived.
PJ.36.................................... 100
10 for 9.72

## G-C SPECIAL TEST LEADS

Slim rreefonite solder lean prode. Extro long-extra hes. ible-kinklees-rubber Insulated leode. Phone tips beth ends. 5000 volt ingulation, Hi.guality teet loods. 5hps. wt. $1 / 2 \mathrm{lb}$.
Ms-258 ....Net per Dr. 594
G-C MASTER TEST LEADS
Heary duty fest leads. $50^{\prime \prime}$ long. Sol. derless rype. Entra Hexible leods run derless type. Extro fexible through the handles and ore fostened through the handes ond ore tostoned Shpg. Wi. 6 ozs.
G-C No. 5050 -Test Leods with sol. derless trpe strolght tips.
Net per poif.
G-E No. 8459 -Test leads with angle type lips.

## G-C STRETCH LEADS

Sell cailing-kink proot-retracts to
colls. Extends to 6 leet. Soves clutter
Never tongles or knats. Shpg. wi. 6 ozs.
G-C No. 930 ?.....Net per pair 2.91

## G-C HIGH VOLTAGE <br> LEADS

For hi-volt lesting in TV sets. Extro hoour duty. Special finger ouords. High tension wire. 22,000 volls breakdown. 48" long. Shpg. wt. 6 G-C No. 9100-with phone
G.C No. 9101-with soor poir
G.C No. 9101- Net per poir

G-C No. 1102-with ollt-
potor clips......Net per pair 3.53
G-C THIN TYPE-

## 50"

For hard to reach places. Extro
slim plastic handies with long. Dlim. insuloted prods atloched. 50, 6000 v . test wire. Angle tree phane tipt. shpe. w. 4 ors. G-C No. 8465
1.23

## G-C KLIPZON TEST LEADS

Moximum time soving, convonionce. soteryy Clips on 10 wires, Ivas. tor minot, for firm connoci of teit pointi. Hroes boin wind. phane tip terminols. Shpg. Wh.


Not per pair
1.47

## G-C KLIPZON ADAPTERS

Canvert old lest points to self holding prods. fits over standard phone tips or needle type. G-C No. 5623-Red ........Net each . 35 G.C No. 5624-black ......Net each . 35

UNIVERSAL TEST

## LEAD KITS

Spring pronges of end of prods permit chonging from spect tues to phone tipt or tprine cllos. Handies $\delta^{\prime \prime}$ long, $V{ }^{\prime \prime}$ diameter. liod and black kinklesi wirs. Com. plete with two afligotor cllpe, two needte point phane lipt ond rwo sopered lues.
MO-89-Poncil Prod Kif 1.87


# MEISSNER AND MILLER COILS 

FIg. 44 MC MINIATURE PICTURE I.F.'S Permeobitity tuned. For infercarrier receivers of loter
devign. Small physical size for use where spoce is lack. desion. Small phrsical size for use where space is lackfor use with tube socket hole. No. 6233 ond $\mathbf{6 2 3 4}$ hove Trop windings, $3 / 4 \times 2$
 Video peoking coils designed to provide proper bandwhunt wound on plastic forms, shignots. Coifs without resistor farms. No: 6175 is filament choke, isolates filo. ment to reduce feedbock, stray coupling etc. $9 / 32 \times 1 / \mathbf{"}^{\prime \prime}$ Type Uh /Shunt Net $/ \mathrm{e}^{\prime \prime}$ long.

| Type | Uh | Shunt | Net | TYpe | Uh | Shunt | Nef |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 6175 | 0.8 | None | .29 | 6179 | 180 | $39 K$ | .35 |
| 6152 | 20 | None | .29 | 6180 | 180 | None | .35 |
| 6176 | 36 | None | .29 | 6154 | 200 | Nane | .35 |
| 6172 | 73 | None | .35 | 6173 | 250 | 226 | .35 |
| 6177 | 93 | None | .35 | 6181 | 230 | None | .35 |
| 6178 | 120 | $22 K$ | .35 | 6155 | 300 | None | .35 |
| 6153 | 120 | None | .35 | 6174 | 300 | None | .15 |



Fig. D-SYNC. STABILIZER COIL (Ringino Coll Mig. clip fits o $7 / 16^{\prime \prime}$ hole. Adiustable within o ronge contoining the horizontal sweep frequency. Moy be used No. 6210. 14-42 MM

Fig. E-WIDTH LINEARITY CONTROL For une in width circuit w.C. WINDR it is desired
Width call 5-40 MH. A.G.C. winding $2.5 .7 \mathrm{MH}, 3 / 4.21 / 4 \mathrm{~m}$ 6316

Fig. F-4.5 MC INTERCARRIER SOUND I.F. COMPONENTS
For the pepulor Intercarrier sound TV receivers. Iron core tuning and Hi.Q no drift copocitors are used throughout. Aluminum shialds. Top and bottom funing. Maunling by $6 / 32$ spode bolts. 1469 and 1470 are unshielded. Discrimingtor is Foster-Seeley type. 1469 is used to remove 4.5 MC signat from output of sound defector ar plate of video amp. 1470 may be inserted in ony part of circult where o 4.5 MC signal
must be aftenuated.


Similar to above but only $1 / \mathbf{n}^{\prime \prime}$ squore by $2^{\circ \prime}$ high. Whth


| Pre | Item | Net |
| :---: | :---: | :---: |
| 6203 | ut or Interstogo | 88 |
| 6204 | Discriminator | . 00 |
| 6205 | Raflo Detect | 2.00 |
| Fig. G-HORIZONTAL OSC. AND STNC. CONTROL COILS |  |  |
| Permeabillty tuned-tor use in |  |  |
| A.F.C. circuits. Encosed in oluminum. No. 6194 hos |  |  |
|  |  |  |
| discrimination. No. 6182 has a tapped osc, coil for uso in o horizental blocking osc. and os sync. control. No |  |  |
|  |  |  |
| 6183 fs the some as 6182 except it has odditionol |  |  |
| a. $\$ 194$ Horizontal Osc. |  |  |
|  |  |  |
| Na. 6182 -Morizontal Osc. \& Sync. Contral........ 1.32Na. 6183 -Morizontol Osc. 8 Sync. Stabilizer.... 1.62 |  |  |
|  |  |  |
| Flg. M- "40 MC" TV PICTURE I.F.'S |  |  |
|  |  |  |
| Currently used in RCA models hoving picture I. F. cer-rier 45.75 MC , sound l.F. cortier of 41.25 ond inter- |  |  |
| cerrier 1.F. of 4.5 MC . All ore in oluminum shields ex. |  |  |
| cent 6219 which is unshielded. For use in subsequent sfoges. Range 41.75 to 45.75 MC . No. 6216, 6217 |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| Trpe I Item |  |  |
| 6215 Canverter IF |  |  |
| 62156216 |  |  |
| 6217 |  |  |
| $6218$ |  |  |
|  | 2nd Pix I.F. Grid | 1.62 |
|  | 3rd. 4th and 5ih Pir |  |

Fig. I-HORIZONTAL LINEARITY AND WIDTM CONTROLS
width adiustment. Exceptionally lorger linearity and inductonce ratio. Wound on a bolkelfte form $3 / \mathrm{m}^{\mathrm{m}}$ in diometer. Mrg. clip tits 5/10" hole 6300'

| Type |  | Millihenr | ies | Not |
| :---: | :---: | :---: | :---: | :---: |
| 6145 | . 185 | - 1.000 |  | 73 |
| 6196 | . 054 | - 0.245 |  | . 65 |
| 6196-A | . 054 | . 50 | Topped | . 73 |
| 6197 | . 530 | - 2.300 | rapped | . 73 |
| 6198 | . 170 | - 0.610 |  | . 65 |
| $6199-A$ | -1.300 | - 4.100 | Topped | . 76 |
| 6199-8 | . 500 | - 1.700 |  | . 73 |
| 6313 | . 50 | - 5.0 |  | . 88 |
| 6314 | 2.0 | - 18 |  | 1.03 |
| 6315 | 4.0 | - 30 |  | 1.06 |
| 6316 | 4.0 | - 30 | With AgE | 1.32 |
| 6317 | 3.2 | 9.0 | With AGE | 1.32 |
| 6318 | . 20 | - 3.0 |  | . 88 |
| 6319 | 15 | - 60 |  | 1.32 |
| 6320 | . 20 | $-3.0$ | Topped | . 88 |
| 6321 | 1.0 | - 3.0 | Tapped | .88 |
| 6322 | 1.5 | $-10$ |  | 1.03 |
| 6323 | 50 | - 5.0 | Topped | . 88 |
| 6324 | 60 | -130 | Topped | 1.32 |

Fig. J- 20 MC RANGE TV PICTURE I.F.'S Uushielded encept for types 6231 and 6252 . Types 0243
to 6248 ore single wound. 6249 to 6254 ape bifilg waund. Mto. clip to $1715 / 16^{\prime \prime \prime}$ chassis hole. $3 / 4$ " O.D.

| Type | I.F. | Mc | Trap Me | Net |
| :---: | :---: | :---: | :---: | :---: |
| 6245 | 25.5 | Ist l.f. | 27.25 | 1.47 |
| 6246 | 22.0 | 2nd I.F. | 21.2 | 1.47 |
| 6247 | 21.25 |  |  | 1.47 |
| 6248 | 24.5 |  |  | . 88 |
| \$249 | 21.25 |  |  | 88 |
| 6250 | 25.29 |  |  | . 88 |
| 6251 | 21.25 | Shielded |  | 1.32 |
| 6252 | 25.29 | Shielded |  | 1.32 |
| 6253 | 21.30 | Shiolded | 20.23 | 1.32 |
| 6254 | 22.32 |  | 24.29 | 1.62 |

Fig. K-CONVERTER AND PICTURE CHANNEL Permeobility funed. TRANSFORMERS
flrst video l.f. stage and for video tif mizer to caupling. Hove slup-puned trops for l.f. interstoge shoping ond sound or odjocent channel reiection. Type chonnet of 21.25 me , for sound take-off to sound I.F.


## MEISSNER COILS

Fig. A-"PLASTIC" I.F. TRANSFORMERS Irimmers "flaoted" awdy from base with on air gop Trimmers "flaoted" away from base with on air gop
befween the boltom plate ond the plostic bose. Wido ronge frequency adiustoble oither side of pre sef frequency, double funed. Metal shield can and Litz wire, Unoffected by temperoture or humidity. Sizes $11 / 4$ " square

INPUT | $\begin{array}{l}\text { INPUT } \\ \text { Iree }\end{array}$ |  | Sat at | OUTPUT |  |
| :--- | :--- | :--- | :--- | :--- |
| $16-6649$ | 1.18 | 175 KC | $16-6651$ | 1.56 |
| 16.6652 | 1.03 | 262 KC | $16-6654$ | 1.41 |
| 16.6658 | 1.03 | 456 KC | $16-6660$ | 1.41 | HI-O IRON CORE "PLPLASTIC" I.F.'S Tre

Meissmer 16-6662-inpul, pooked of 455 KC..... 1.47
Melssmer 16.6663-Oulput, peoked of 455 KC.... 1.47
Fig. B-STANDARD ANTENNA AND R.F. COILS
Designed to cover the broadcast band from 545 to 1580 KC ( 1 P0. 550 meterl) wih a 365 mmid . tuning conden ser. High Impedance primories, wound with litz wire. Shielded coils ore in black crockle finish, non mognetic $1 \mathrm{y} / \mathrm{m}^{\prime \prime}$ in diometer. $21 / \mathrm{m}^{\prime \prime}$ hioh.
UNSHIEIDED
Antenno call type 14-1010.
010
1.18
1.18

SHIELOED
Antenno cail type 14-1004
coil type 14-1005.............
Fig. C-"UNIVERSAL ADJUSTADLE" UNSHIELDED COILS
Reploce Broodcost bond ceils in most receivers, occu rotely trock other cails when adiusted. Matches inductonce of burned oul coil with screwdriver adiustment. Oscillotor coil odiustoble fram 175 to 520 kilecycles. For use with ither cut plate or podding condenser cir. cuif.
Meisseer type 14-1024_Ant.
Moissaer type 14-1027__R.
1.47
1.47

Fig. D-OSCILLATOR COILS FOR 190.550 METER BC BAND
Used with 365 mmid. Cond. IF, WF, ond Antenno colls
Shlelded iype. $11 / 4^{\prime \prime}$ n $11 / \%^{\prime \prime}$. Withaut padders.

| Meissmer | Type | Freq. | Podder | KC |
| :--- | :---: | :---: | :---: | :---: |
| 144242 | Shielded | 175 | 900 | 1.18 |
| 144243 | Shielded | 456 | 350 | 1.18 |
| $14-3732$ | Unshielded | 175 | 900 | 1.18 |
| $14-4034$ | Unshielded | 456 | 350 | 1.18 |
| $14-1033$ | Unshielded | 456 | 350 | 1.03 |

Fig. E- $1 / 4^{\text {"I }}$ PERMEABILITY TUNED I.F. COILS Tuned top ond bollom. powdered iron cores. Silvered mica candensers molded plastlc bases, elched aluminum cons. $1 / 4^{\prime \prime} \equiv 1 / 4^{\prime \prime} \equiv 2^{\prime \prime}$. With mounting clip ond plate. -Spode bolt mfg. with leods.
Melssmer
Type
16-6758 Function
$16-6770 \quad 455 \mathrm{KC}$ Input and Outpul
Each
455 KC Outpuf, with diode filter
1.29

1.35
1.47

16-6754 262 KC Oupput for aulo receivers,
16-3487 10.7 MC condenser
$16.6678^{\circ}$. 455 KCC AC-DC Iype Input or Oufput...1. 76
Fig. F-MINIATURE ADJUSTABLE BROADCAST OSCILLATOR COIL
For Battery and 3-Way Portables
Smoll phrsical size. $1^{11} 3^{1 / 1}$ and wide ronge of induc tonce odiustment. Ideal os replocement unit in mosp battery and 3 -way portablas. Inductonce unange allows use with gang candenser capacitter of 108 to 180 mm fd. Allows occurate adiustment of inductance far proper celibratian and tracking.
Moissner Type 14-1074

Fig. G-MINIATURE BROADCAST ANTENNA The smoll physicol AND R.F. COlls
The smoll physical size, $11^{\prime \prime}$ by $1 / 3^{\prime \prime}$ and the tedure of hoving adjustable inductonce mokes these coils ideolly mounting or original in compoct circulls or where mounting ar original coit is difficull to duplicate. Designed to caver the broadcost band with gong canden sme hoving efferfive oopoxities of 280 to 420 mmfd . Melssner Type 14-1071_An
Melssner Type 14-1072_RF
Fig. H-MINIATURE ADJUSTABEE BROADCAST OSCILHATOR COIL
With 100 mmid . Copocity Interwinding. For use with 6SA7, 12SA7, b8E6, 128E6, 707, and 1407 tubes in receivers hoving 455 KC Infermediofe Frequency and with effective gong condenser copocities of 108 to 180 momfo. in unpodded circuifs, and 365 to 420 mmfd . in podded circuis. Adjustoble iron core permits ascurate
 Meiss
Meissner Trpe 14-1073
Fig. I-PHONO OSCILLATOR COIL FOR WIRELESS RECORD PLAYERS
Knob adjustment for serection of clear freauency in BC bond. Meissmer Type $17-9373-1 \%$ н $1 / 231 / \%^{\circ h} \mathrm{hgh} .2 .22$ BFO COIL
 Meissner Type 17-6753.
Fig. J-"MINIATURE" ADJUSTABLE VIDEO PEAKING COILS
Permif "exact" scremariver odilustment of requency respanse in video omplifier sfoges by use- of powdered
Type
19.1920
$19-1921$
$19-1922$
$19-1923$
$19-1923$


## THORDARSON TELEVISION REPLACEMENT COMPONENTS



|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Y-1 | 8.3 | 80 | 14 | ${ }^{68}$ | $50^{\circ}$ | ${ }^{6.17}$ |
| V. | 8.3 | 48 50 | 18.5 | ${ }_{68}^{68}$ | 500. | 6.47 5.88 |
| $r=$ | 13.3 | 41 | 23.5 |  | $70^{\circ}$ | 6.35 |
| V-5 | 8.4 | 55 | 11.5 | 70 | $70^{\circ}$ | 6.53 |
| Y. 6 | 10.3 | 36 | 13.5 | 48.7 | $70^{\circ}$ | 6.53 |
| Y-7 | 13.3 | 41 | 23.5 | 48 | $70^{\circ}$. | 6.33 |
| V-5 | 30 17 | 48 | 45 | 63 | $70^{\circ}$ | 6.47 |
| $\gamma-10$ | 17 20 | $4{ }_{4}^{4}$ | 20 | ${ }_{60}^{60}$ | $70^{7}{ }^{\text {7 }}$ | 6.33 7.17 |
| V-11 | 25 | 3.3 | 27 | 4 | $70^{\circ}$. | 7.17 |
| Y-12 | 30 30 | ${ }_{4}^{3} 8$ | 45 | ${ }_{3} 3.5$ | $7{ }^{70}{ }^{\circ}$. | 6.53 6.53 |
| Y-14 | 12 | $41^{.5}$ | 14 | ${ }_{4 .} 3.8$ | $7{ }^{7} 90^{\circ}$ | ${ }_{8}^{6.53}$ |
| Y-15 | 30 | 42 | 60 | 44 | $90^{\circ}$ | 8.17 |
| Y-16 | 19 | 43 | 30 | 50 | $90^{\circ}$ | 7.17 |
| Y-17 | 30 30 | $45^{3.5}$ | 45 | $60^{3.5}$ | $70^{7}{ }^{\circ}$ | 6.94 |
| Y-18 | 14 | 36 | 20 | 80 | $70^{\circ}$ | 7.17 8.17 |
| Y-20 | 20 | 38 44 | 32 | 80 | $90^{\circ}$ | 8.17 |
|  |  |  |  |  |  | 8.50 |
| TYPE | MFR. |  | mFR. PART |  |  | NET |
| 724 $V 24$ V23 | $\begin{aligned} & \text { Crosley } \\ & \text { R.C.A. } \end{aligned}$ |  |  |  |  | 0.17 |
|  |  |  |  |
| Y25 $Y 22$ | $\begin{aligned} & \text { R.C.A. } \\ & \text { Sylvania } \end{aligned}$ |  |  |  |  |  |  |  | 8.17 |
| 723 |  |  | 7:18 |  |  |  |

## FILTER CHOKES

| $\begin{aligned} & \text { THORD. } \\ & \text { MO. } \end{aligned}$ | MYS. | ma | OHMS | sire | 165. | $\begin{aligned} & \text { NET } \\ & \text { EACH } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $20 ¢ 49$ | 5 | 150 | 88 | 23\% $\times 21 / 6 \times 4$ | 2.5 | 2.94 |
|  |  | 200 |  |  |  |  |
| $20 C 53$ | 17 | 60 80 | 375 | $2 \times 21 / 6 \times 31 / 4$ | 1.5 | 2.06 |
|  |  | 100 |  |  |  |  |
| 20cse* | ${ }_{8}^{12}$ | 100 150 | 148 | $31 / 6 \times 23 \times 25$ | 3.0 | 4.00 |
|  | 4 | 200 |  |  |  |  |
| 20c5s* | 9 <br> 6 | 150 <br> 200 <br> 200 | 75 | $31 / 2 \times 21 / 6 \times 31 / 4$ | 3.5 | 5.08 |
| 20C56* | ${ }_{2}^{2}$ | 300 250 | 60 | $31 / 6 \times 31 / 4 \times 41 / 4$ | 0.75 | 8.26 |
|  | 7 | 300 | 6 | $3 \% \times 314 \times 414$ | 0.75 | 0.26 |
|  | 1.5 | 375 200 |  |  |  |  |
| $26 \mathrm{C4} 4$ | 4.2 | 50 | 200 | $15 \times 13$ ¢ ${ }^{1}$ | 0.75 | 1.35 |
| 26C43 | 2 | 200 300 | 50 80 | $2 \times 2{ }^{1 / 8} \times 3{ }^{1 / n}$ | 1.0 | 2.78 |
| $26 \mathrm{C4}{ }^{\circ}$ | 10 | 200 | 140 | $312 \times 27 / 6 \times 4 \%$ | 4.9 | 2.76 |


| AL |  | BLOCKING |  | T |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Unit mart |  |  |  |  |  |
| THORD. | $\begin{aligned} & \text { TURNS } \\ & \text { RATIO } \end{aligned}$ | MTC. | size | MT. | CACH |
| 24487 | 1:4.14 | BAH | $13 / 4 \times 23 n \times 1 \%$ | 0.5 | 1.71 |
| 24488. | 1:4.14 | Tay | $1310 \times 23 \mathrm{n} \times 11 / 7$ | . 7.5 | 2.35 |
| $26401 *$ | 1:0.48 | BAH | 190821/8×15\% | 1.0 | 2.68 |
| 26402 | 1:1.5 | bav | 13/4x11/4x2 | 0.5 | 1.36 |
| 26403 | ${ }_{1}^{1: 4.2}$ | BAM | 1-3/16x1×2.1/8 | 0.5 | 2.76 |
| 26404 | 1:4.2 | xav |  |  |  |
| 26405 | . 5 | Bah | 1-3/16×1×2-1/8 | 0.75 | 1.71 |

## WIDTH AND <br> LINEARITY CONTROLS

| THONDO. | ino. $\mathrm{MH}$ | 囫 5 | motes | SIzE | MET |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { WC-10 } \\ & \text { WC-12 } \\ & \text { wc. } 12 \end{aligned}$ | . 05 - .3 |  |  | 2x9/16 | 65 |
|  | -08.-3 | 51 |  | 11/9 $\mathrm{x}^{1 / 7 / 16}$ | . 82 |
|  |  | 22 |  | 2 ${ }^{1 / 2} \mathrm{~m}^{1 / \%}$ | 1.32 |
|  | 8. $\mathrm{F}^{8}$ |  | AGC Windina |  |  |
| WC.1s | . 17.61 | 1 |  | 2 ${ }^{2} /{ }^{1 / 8} 1 / 2$ | $\therefore 15$ |
| wc.16 | 2.3 | 8.3 | Tapped | 2-13/16x | 73 |
|  | 1.3-4.3 |  | Tapped | 2x\% | . 78 |
| wc. ${ }^{\text {w }}$ - 19 | 2.5.17 10.50 | ${ }_{1}^{18}$ | Tapped | $21 / 6 \pi$ $21 / 48^{3 / 4}$ | -88 |
| wc. 20 | 2.6-7.3 | 1.2 |  | $21 / 4 \times 3 \%$ | 1.23 1.32 |
| wc-21* | 1.218 | 10 | Parsllel Coil | 31/4x\% | 2.06 |
|  | ${ }_{1-10^{-2}}$ | ${ }_{8} 2$. | Series Coll |  |  |
| wc-23. |  | $2^{2.3}$ |  | $2{ }^{2} / 1 x^{1} \times 1 / 2$ | . 12 |
|  | 4.4-2.9.3 | $128$ | Parallel Coll | 2 $16 \times 1 / 4$ | 1.78 |

[^4]
## THORDARSON TRANSFORMERS <br> "22R" SERIES FOWER TRANSFORMERS <br> ECONOMY "24" POWER TRANSFORMERS

Fio. AGF. Finest quality. Adiustable brachols ollow lluah, verlical or horizontol mounting. RETMA color. coded. 117 volt, 50.60 cycle primories; All voll CI wine ing, of 3.5 omps. Hhas odditional 2.5 volt. 5 amp senter-toped winding. "All plote windings center tapped.

Mt's $\mid$ Plato Rect. Fil. $1 |$|  | Mtg. | Wi. | Not |
| :--- | :--- | :--- | :--- |


"22R" SERIES POWER TRANSPORMERS Fig. GGV. 117 voll, $50-60$ evele primaries. All Fil. winding ome CI winding.


| TYP* |  | Mス |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22R30 | S50 | 50 | 5 | 2 | 6.3 | 2.5 | $2 \times 21 /{ }^{\prime \prime}$ | 34 | 0.12 8.67 |
| 22R31 | 720 | 80 | 5 | 2 | 6.3 | 2.5 | 2x2 ${ }^{\circ}$. | $51 / 2$ |  |
| 22R32 ${ }^{\circ}$ | 700 | 110 | 5 | 2 | 6.3 | 3.0 | $1 / 3 \times 24$ | $61 / 4$ | 10.76 |
| 22R33 | 750 | 160 | 5 | 3 | 6.3 | 5.0 |  |  | 11.4 |
| 22R34 | 770 | 225 | 5 | 3 | 6.3 | 5.0 | $3 \times 3 \mathrm{FI} .$. | $113 /$ | 13.15 |
| 22R35 | 800 | 340 | 5 | 6 | 6.3 | 7.0 | 3x41/." | 13 | 18.98 |
| 22 R36 | 1200 | 200 | 5 |  | 6.3 | 5.0 | 3x3n | 81/2 | 12.76 |

## CLASS "B" AND "AE" DRIVERS

For use in modulatars or high-powered audio ampllifiers. Indicates single plate to PP orids. Others can be used

| $\begin{aligned} & \text { Mir's } \\ & \text { Type } \end{aligned}$ | Mex. Pris to <br> Fiq. Ma DC $1 / 2$ Sec. |  |  | Mig. Ctre. | Wt. Lbe. | $\begin{aligned} & \text { Not } \\ & \text { Each } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20D75* | BAH | 5 | 2.4:1 |  |  | 2.78 |
| 20D76 ${ }^{\circ}$ | BAH | 15 | 5.21 | ${ }^{2 \prime}$ | 1 | 8 |
| 20D77* | FGV | 30 | 2.5:1 | 23/ | , | 4.23 |
| 20D78 | GGV | 40 | 4.0:1 | $13 / 4 \times 1{ }^{\prime \prime}$ | 3 | 6.12 5.97 |
| 20D79 | FGV | 30 | 5.2:1 | $21 /$ | , | 5.97 |
| 20 D 87 | BAH | 30 | 5.2:1 | 2\%/8 | $13 / 4$ | 4.90 |

## ACROSOUND HIGH-FIDELITY OUTPUT TRANSFORMERS

Types onding with $U$ ore for upright mounting Fie. GGV. Others have odiustable brackers to allow flush, verlical 50.60 cy mall plate windings ore center-tapped

| $\begin{aligned} & \text { Mirs. } \\ & \text { Irpe } \end{aligned}$ | Plate |  | Reci. |  | FIL I |  | Mig. Ctra | Wi.Lbs. | NET |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | V | A |  |  |  |
| 24800 | 480 | 40 | 5 | 2 | 6.3 | 2.0 |  | 2 | 4.41 |
| 24R00-U | 480 | 40 | 5 | 2 | 6.3 | 2.0 |  | ${ }^{2}$ |  |
| 24 OL | 650 | 40 | 5 | 2 | 6.3 | 2.0 | 2 | $23 / 4$ | 4.50 |
| 24ROI.0 | 650 | 40 | 5 | 2 | 6.3 | 2.0 | $2 \times 1$ | 23/4 | 0 |
| 24R02 | 700 | 70 | 5 | 2 | 6.3 | 2.5 | 21 |  | 2 |
| 24804 | 700 | 90 | 5 | 3 | 6.3 | 3.5 |  | 41/4 | 6.53 |
| 24R04-0 | 700 | 90 | 5 | 3 | 6.3 | 4 | $21 / 5$ | 53/4 | 6.51 |
| 24R05 | 700 | 120 | 5 | 3 | 6.3 | 4.7 | $21 / 7 \times 31 / 6$ | 4 | 6.91 |
| 24R05-0 | 700 | 120 | 5 | 3 | 6.3 | 4.7 | 2 | d |  |
| 24806 | 750 | 150 | 5 | 3 | 6.3 | 4.7 |  | $61 / 2$ | 8.17 |
| 24R06-0 | 750 | 150 | 5 | 3 |  | 5.0 |  |  |  |
| 24R07 | 800 | 200 | 5 | 3 | 6.3 | 5.0 |  |  | 9.32 9.32 |
| 24R07-0 | 800 | 200 | 5 | 3 | 6.3 |  |  |  | 9.32 |

## ECONOMY "24" SERIES TUEE-TO-VOICE

 COIL OUTPUT TRANSFORMERSFig. BAH. For economical replocement use in most popvar radios.

| Mir'. Type | Primery Impedance | $\begin{aligned} & \text { Pri. } \\ & \text { Ma } \end{aligned}$ | W | Mte. Clis. | Wi. Lbe. | $\begin{aligned} & \text { NET } \\ & \text { EA. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 24S48 | 4,000-5,000 | 10 | 5 | 13/ | $1 / 2$ | 1.29 |
| 24549 | 7,000-8,000 | 10 | 5 | 13 | 12 | 1.21 |
| 24550 | 2,000 | 55 | 5 | 2 | 1/2 | 1.21 |
| 24S51 | 5,000 | 40 | 5 | 2 | $1 / 2$ | 1.29 |
| 24552 | 7,000-10,000 | 30 | 5 | 2 " | $1 / 2$ | 1.26 |
| 24554 | 15,000-25,000 | 10 | 5 | $2^{\prime \prime}$ | 1/2 | 1.38 |

TUBE-TO-LINE TRANSFORMERS (LOW LEVEL) Primary for single or PP plates. Sec. to line. 60-15,000 cps. 22591 has hum-buching construetion. Shpg. wi. $11 / 4$ lbs.

| TYpe | Fig. | Pri. | Sec. | Ctre. | NET |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 22590 | FGV | $20,000 \mathrm{CT}$ | $125.200,500$ | $2^{3 / 1 /{ }^{\circ}}$ | 3.76 |
| 22591 | BAH | $20,000 \mathrm{CT}$ | 125.200500 | $2^{7 / 3} \cdots$ | 3.23 |


| UNIVERSAL LINE-TO-VOKCE COL <br> Fig. BHH. Secondary taps morket with impedance walues. <br> - Also morthet for 70 v . power distribution service. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Mtr' Type | Primery Impedence | Sec. <br> Imp. | Watte | Wt. <br> Lb․ | NET |
|  | 500, 600 | 3.2, 8, 16 | 8 | 21/2 | 3.91 |
| 22580 |  |  | 25 | $21 / 2$ | 3.53 |
| 22583 | 2000/1500/ |  | 15 | $21 / 2$ | 3.91 |
| 22584 | 1000/500 |  | 5 | $21 / 2$ | 3.41 |
| 22585 |  |  | 3 | $21 / 2$ | 3.76 |
| 24566 | .2000, 1500 | 3.2, 8 | 10 | $11 / 2$ | 2.73 |
|  | 1000.500 |  |  |  |  |
|  | 3000, 2500 |  |  |  | 4.23 |
|  | $\begin{gathered} 2000,1500 \\ 1000,500 \end{gathered}$ | 06-48 | 10 | 21/3 |  |

## AUDIO INFUT TRANSFORAERS

Electrastotic shielded. Response, $250-3500 \mathrm{cpe}$ I Re sponse, 60.7500 cps ; hum-bucking construction. All Fig BAH except 20A01, Fig. FGV. Av. shpe. Wi.il Ib. NEE

## Mí' Turn

Fig. FGV. AV.

Application | 20 R00 | 1:10 | Line or mic to sgl. or Pp |
| :--- | :--- | :--- | +20A01 1:20 Line or mic 10 sgl grid $20 \mathrm{A04} 1: 80$ Volce coil or mic to grid



## AUDIO INTERSTAGE TRANSFORMERS

 Primory current, 8 mo. Trpe 20425 has splif secandory, hum-bucking coll and core. Mas wire loods. All Fig. BAH encepl 20A23 and 20A24, Fig. FGV, 20A25, Fis. RTV, and 20A29. Fig. BAV. Av. shpg. wi.. $1 / 4$ lbs. Mín TurnsTipe Retio

-20凡16
20R17
20 R19 $1: 2$ Sql. plate to sgl. or PP grids
20 R22 1.3 Sgl. plate to sgl . or pp grids
$20 R 23$ i:3 Sg plate to sgl or PP grids
$20124|1: 3|$ Pp plates to PP grids
$20 \AA 25$ 1:1.41 Plates to grids, sgl. or Pp
20 R29 1:1.1.1 Univ, car radio interstage
THORDASON TRANSISTOR TRANSFORMERS

## 

XAV ISO of tiny oudio tronsformers for transistor ond other ininialurized circultry with 150 and 300 milliwatt outpufs. The 150 mw units heve $13 / 16^{\prime \prime}$ and the 300 mm units hove $13 /{ }^{\prime \prime}$ 300 m
For use with Williomson type amplifier circults. Providon. - much highor oudio oulput loval al vary low distortion. cuits to Ulitro linear aperation.
Model TO-300. 20 watts of undistorted power from 20 to $30,000 \mathrm{cps} ; 40$ watts 30 to $20,000 \mathrm{cps}$. Pimory 6600 ohms. Output 48 and 16 ohms . Frequency responses $\pm 1 \mathrm{db}$ from 10 to 100,000 cD9. Permissible foedboct 30 db . Moximum DC 10-300 Size: $41 / 4 \times 3 \% \times 31 /$. Shbs. Not 24.25 Model ro-3io. Similar to 10.300, but for 12 wot sirsuits. Primary 8000 ohms. Outpul 4,8 and 16 ohms. 10 weth , of undistorted power output from 20 to 30,000 cps; 20 watls 20 to 20,000 cps. Frequency responne: 30 db. Mormum DC per primary, $75 \mathrm{ma} .10^{\prime \prime}$ colorcoded isods size, $41 / 4 \% \times 31 / 4^{\prime \prime}$. Shpe. wt., 6 lbs. $10-310$............................................... 18.37 Model TO-305. Similor to 10-300, but has 4, 8, 16 , 125 and 300 ohm output impedonces. Primory 6800 ohms. Morches push-pull type 616 or 5881 tubes for Ultro linear operation. 20 wolts of undistortod power $10^{\prime \prime}$ color-ceded loods. Size. $41 / 4 \times 31 / 4 \times 31 / 4^{\prime \prime}$. Shpg. wt., 8 lbs. TO-305
wi., 16 , 10-305 ... 10.310 but hos 13 Madel TO. 315 . Similar to 10.310, but has 4, 8, 16 , 125 ond ohms. Motches push-pull ryoe ove lubes. 10 watts of
 7 lbs. $10-315$.......................................... 24.25 Model TO-330. Designed for Migh-power, push-pull parallet aperation. Will provide 50 watts of undistarted power lrom 20 to $30,000 \mathrm{cps}$ wilh 807 or KT- 66 tubes: 100 watts from 30 10 20,000 ohms. Pitmory 3300 ohms. Oulput 4, 8, 16 ohms. Frequency responset $\pm 1 \mathrm{db} 10$ cpis. to $100^{\circ}$ ike. Permissible foodbocki 30 db , Insertion losi all tops: 5 db maximum. DC aer primory moximum: 150 mo . Permisilble DC unbolonces $15 \%$. M1g. centers are $3 \times 3 \%$ ". Sizer $51 / 4 \times 4 \times 4 \% / 4^{"}$. $10^{\circ}$ color.coded leads. Shpg. wl., 15 lbs. TO-330.

Net 18.95

| Plications |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| A-INPUT |  | -8RIDGING |  | D-DRIVER |
|  | J-INTERSTAGE S-OUT |  |  |  |
| Thard. | Purns | * 1 |  |  |
| No. |  | Wdg. \# 1 | Wdg. \#\# 2 | Appicariont |
| TR-1* | 1.0011 | 300 CT | 500 Cl | 20J |
| TR-2 | 1,23:1 | 3000 CT | 7500 Cl | ${ }_{0} 0$ |
| TR.3 | 1.41.1 | 5000 CT | 10000 C1 | DJs |
| Te-s | 1.73 .1 | ${ }^{1} 5000$ | 150 CT | DS |
| TR. 5 | 1.818 1.8381 | ${ }_{10000}^{490}$ | 3000 CT | DJ |
| TR.7 | 1.8381 2.2481 | 10000 | 2000 CT | D 3 |
| TR-8* | 2.45.1 | 48 CT | 8 or 4 | 5 |
| TR-9 | 2.4511 | 5000 | $30000{ }^{\text {cti }}$ | as |
| TR.10 | 3.0011 | 5000 500 CT | 50 | DS |
| TR-11 | 3.1611 3.16 .1 | 100 CT | 10 CT | DS |
| Th. 13 | 4.00, 1 | 5000 CT | 80000 | A |
| Tm-19 | 4.08, 1 | 20000 | 1200 | 5 |
| TR.15 | 4.4711 | 300 CT | 16 | 5 |
| TR.16 | 5.00:1 | 400 CT | 800 ct | ads |
| 72.17 | 5.0011 | $\stackrel{20000}{ }$ | 16.4 | S |
| TR.18 | 5.5211 0.041 | ${ }_{400} \mathbf{C T}$ | 11 | 5 |
| TR.19 | 6.0.11 6.2211 | ${ }_{650} 6$ | 16.8 | 5 |
| TR-21* | 6.33:1 | 160 | 8 or 4 | 5 |
| TR-22* | $7.07: 1$ | 400 CT | 8 or ${ }^{800}$ CT | os |
| TR-23. | 7.07.1 | 10000 100000 | 1300 CT | As |
| TR-24. | 8.1781 8.664 | 15000 | 200 CT | ds |
| TR 26 | 10.011 | 50000 | 500 CT | ${ }_{5}$ |
| 12.27 | 12.5:1 | 500 CT | 3.2 |  |
| Tile 20 * | 14.1:1 | 200000 | 3.4 | 5 |
| T1.29 | 15.611 15.81 | 825 30000 | 200 ct | As |
| \%i.30 | 15.81 20.011 | \$0000 | 100 | As |
| TR - 32 | 25.5.1 | 9800 | 15 | As |
| TR-33* | 35.41 | 250000 | $300{ }^{\text {c }}$ | A |
| TM.34 | 40.8:1 | 50000 |  | , |
| TR-35* | 4.7 .1 | 100000 500000 | 200 CT | A |
| 1R.360 | 30.0.1 |  |  | 3.26 |

MINIATURE TRANSISTOR TRANSFORMERS

| $\begin{aligned} & \text { Port. } \\ & \text { No. } \end{aligned}$ | Turns RaHe | 1 mpedance |  | Powar milli. wetts | Apphl cation |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | wds. | Wdg. |  |  |
|  | 1+1 | 500 CT | 500 Cl | 50 | E-D-1 |
| TR-38 | 1.0981 | 6000 | 5000 CT | 50 | --D. |
| TR-39 | 1.24,1 | 4000 | 2600 CI | 50 | -2-2 |
| TR-40 | 2.23.1 | 10000 | 2000 CT | 50 | - ${ }^{\text {- }}$ |
| TE-41 | 3.16 .1 | 500 | 50 | 50 | -3 |
| TR-42 | $3.16: 1$ | 20000 | 2000 C1 | 50 | - 5 |
| TR-43 | 3.53:1 | 125 CT | 10 | 50 | A-3 |
| 12-4s | 4.07:1 | 1000 | 50 | 30 | 0.S |
| TR-4s | 4.461 | 1000 |  |  |  |
| TE-46 | 4.47.1 | 200 CT | 10 | 50 | 5 |
| Tile 48 | 5.46:1 | 20000 | 600 | 50 | n-3 |
| TR-48 | 5.7511 7.0881 | ${ }^{20000} 500$ | 10 | 50 | - |
| TR.So | 7.9.1 | 200 CI | 3.2 | 50 | 5 |
| TR-51 | 9.65 .1 | 300 CT | 3.2 | 50 | S |
| TR.52 | 11.8.1 | 7000 | 50 | 50 | -. 5 |
| TR-53 | 12.5.1 | 500 CT | 3.2 | 50 | 5 |
| TR-54 | 14.14.1 | 200000 | 1000 | 50 | A-3 |
| TR.55 | 44.7.1 | 100000 | 30 |  |  |
| Tr.5630+1Y @ 1 MADC 4000 ohms CC Resistance Chotil |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

POWER TRANSISTOR OUTPUTS

| No. | Impedance |  |  | Mos. Centers | Nof |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Primary | Secondery |  |  |  |
| TR.s7* | 32 Cl | $1.6 / 4$ | 375 | $2+3 / 6$ | 6 |
| T1T-58* | 32 Cl | 3.2/8/16 |  |  |  |
| The-59 | 48 CT | $1.6 / 4$ | 550 |  | 3.26 |
| TR-60 | 48 CT | $3.2 / 8 / 16$ | 550 | 21/2 |  |
| TR. 61 | 48 Cl | $3.2 / 8 / 16$ | 550 | $11 / 4$ | 1.78 |
| TR-62 | 100 | 3.2/8/16 | 500 | 2\% | 3.26 |
| TR. 63 | 100 Cl | 3.2/8 | 500 | 2\% | 3.26 |

HI-FI TRANSISTOR TRANSFORMERS comoletely Encosed, Resconse $\pm 1 / 2 \mathrm{db} 20 \cdot 20,000 \mathrm{cps}$. Type XAV mntg. Conters $1.3 / 16^{\prime \prime}$ Wh. . 75 lbs.


## STancor TRANSFORMERS-T.V. Replacements



## TRANSFORNERS \& INDUSTRIAL CAPACITORS

| TRANSFORM <br> TR-10 <br> VALUES | CORNELL-DLBILIER INDISTRIAL CAPACITORS DEMICON MINIATURE METAL-CASED TUBULAR CAPACITORS Deaigned to mpet rixid and severe onerating. requirements. Hermetically sealed in <br>  impregnant with temperature range $-55^{\circ} \mathrm{C}+\mathrm{c}^{\text {to }}+\mathrm{sb}$. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OUTPUT |  |  |  |  | 251  <br> 2522 01 <br> 022  | 200 |  |  |
|  | Type  <br> 101 UFD <br> 001  |  |  |  |  |  |  |  |
|  |  | 100 | ${ }^{11 / 64 \times 3}$ |  | 2 |  |  |  |
| 6.3 VOLT FILAMENT TRANSFORM | ${ }_{151}^{152}$ | 100 100 | 11/64 $13 / 6 \times^{3 / 4}$ | 1 | ${ }^{2 \times 47}$ | $\underset{200}{200}$ | $9 / 16 \times 1$ $4 / 3 / 64 \times 1$ |  |
|  |  | $1 \begin{aligned} & 100 \\ & 100\end{aligned}$ | - $5 / 16$ | ${ }_{1}^{1.53}$ | ${ }_{401}^{401}{ }^{4087}$ :001 | 400 400 | $15 / 64 x$ $15 / 64 x$ |  |
| UNIVERSAL OUTPUTS | ${ }_{10} \mathrm{P}_{1} \mathrm{P}_{1}$ | 100 100 100 | 126 | ( 1.53 |  | 400 400 400 |  |  |
| Motch ony single or push-pull output fubes to ony voice collt. Shpg. wr., $1 / 4 \mathrm{lbs}$. 90 | 201 <br> 2047 <br> 204 <br> 1001 <br> 0047 | 200 | [15/64x | 1.41 <br> 1.44 <br> 1 |  | 400 | 13/32x | 1.79 <br> 1.91 <br> 1.9 |
| TR-12-1 wot-Singly, eoch ..........99 i.15 In lits of | ${ }^{20154}$ | 200 | (15/64x | 1.44 |  | 400 | 13/16 |  |
| VIBRATOR TRANSFORMERS |  |  |  | 1.47 1.53 |  |  |  |  |
|  |  | 200 |  | 1.53 | 6847 |  |  |  |
|  |  |  | 1311 |  | ${ }^{651}$ 6522 | 60 60 | ${ }^{5} / 1 / 1{ }^{\text {b }}$ |  |
| ${ }_{\text {Shpg. }} \mathrm{wl}$., 2 lbs . | ${ }_{2}{ }^{2 \mathrm{~L}}$ | 200 | 9 9 | 2.33 | ${ }_{654} 65$ |  | 13/8 |  |
|  |  | 400400400 | 15/64x ${ }^{3 / 8}$ | 1.47 |  | 600600600600 |  |  |
|  | ${ }^{4047}{ }^{\text {S }}$ |  | 15/64x |  |  |  |  |  |
| CORNELL-DLBILIER INDISTRIAL. CAPACITOHS <br> TJU DYKANOL | 4522 .022 <br> 4547 047 <br> $4 P 1$ 10 | $\begin{aligned} & 400 \\ & 400 \\ & 40 \end{aligned}$ |  |  | TYPE MP PUP METAL $\quad$ END-CAP CARDBOARD |  |  |  |
|  |  | 400400400 |  |  |  |  |  |  |  |  |
| High quolity dependoble copoctiors with Drytonol Impr |  | $\begin{array}{ll}400 & 43 / 6 \\ 600 & 15 / 6\end{array}$ |  | 2.20 | END-CAP CARDBOARDtusular Capacitors |  |  |  |
|  |  |  | 15/64x $15 / 14 \times 3 / 4$ | (1.50 | Compact metalized-paper unlts featuring non-indurtive winding, bigh insulathon reiliatance, low power factor and |  |  |  |
| nonperimentol ond tronsmirting ooplictions. | 651 $\mathbf{6 5 2 2}$ 6522 |  |  |  |  |  |  |  |  |  |
| of Jan Cp.70. Supplied |  |  |  |  | tion resfalance, low power factor and and life. |  |  |  |
|  |  |  |  | 边 |  |  | $8{ }^{8} \times 1 x^{3 / 6}$ |  |
|  | (6P22 |  |  |  | MP2PS | 00 |  | 3 |
|  | rype uro | 硡 | SIEE | NET | ${ }_{\text {MPP2W }}$ |  |  |  |
|  |  | 100 | 11/64 |  |  |  |  |  |
|  | 11047 <br> 151 <br> 151 <br> 00047 <br> 15 | 100 | ${ }_{11 / 64}^{11 / 68}$ |  | $\mathrm{MPSP}^{\text {MP }}$ S ${ }^{\text {S }}$ |  |  |  |
| 18 | $2522: 022$ | 100 | 18/64x $1 / 4$ | 6 | MP4P5 |  |  | 8 |
| 6 4.R 510030 | ${ }_{1254}^{154}$ | $1 \begin{aligned} & 100 \\ & 00 \\ & 0\end{aligned}$ | 5/16x | ${ }_{0}$ | MP4W1  <br> MP6S 1.0 <br>  01 |  | 23/32x | 1 |
|  |  |  |  |  | MPSE1 01 |  |  | 3 |
| 6 | 01 | 100 | 15 |  |  |  |  |  |
|  | 2021.00 | 200 | 15/6 | 1.62 | W11 |  | 23/32×21/8 |  |



All primaries 117 V 60 cycle. All secondorles C.T. exciept P5 8415 hos extro All type $M$ excedt $P C$ is $C$ ond $P S$ is $A$

## POWER TRANSFORMERS

| Sten. No. | Vet |  |  |  | Sixe | Wt. Lbs. |  | A | Net Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PS-8415 | 125 | 15 | - |  | 23x13/6x ${ }^{\prime \prime}$ | $3 / 4$ | 8.3 | . 6 | 2.06 |
| P5-8416 | 250 | 25 | - |  |  | 1 | 6.3 | 1.0 | 2.58 |
| PM-8401 | 470 | 40 | 5 | 2 | $21 / 2 \times 3 \times 2 \%$ | 21/4 | 6.3 | 2.0 | 4.41 |
| PC-8401 | 470 | 40 | 5 | 2 | $3{ }^{3} \times 2 \% \times 2 \%{ }^{\prime \prime}$ | 21/4 | 6.3 | 2.0 | 4.41 |
| PM-8402 | 480 | 55 | 5 | 2 | $23 / 4 \times 21 / 2 \times 3{ }^{\prime \prime}$ | 21/2 | 6.3 | 2.0 | 4.90 |
| PC-8402 | 480 | 55 | 5 | 2 | $3 \mathrm{~T}^{1} \times 231 / 4 \times 23 /{ }^{\prime \prime}$ | 21/8 | 6.3 | 2.0 | 4.90 |
| PM-8419 | 480 | 70 | . |  | 27/8×21/2x3" | 23/4 | 6.3 | 3.0 | 4.90 |
| PC-8419 | 480 | 70 | - |  | $376 \times 8 / 627 /{ }^{\prime \prime}$ | 21/4 | 6.3 | 3.0 | 4.90 |
| PM-8403 | 500 | 70 | 5 | 2 | 3 $1 / 421 / 8=3{ }^{\prime \prime}$ | $31 / 4$ | 6.3 | 2.5 | 5.49 |
| PC-8403 | 500 | 70 | 5 | 2 | 3 3 $\times 2 \% \times 3 \%$ " | $31 / 4$ | 6.3 | 2.5 | 5.49 |
| PC-8404 | 520 | 90 | 5 | 2 | $31 / 6 \times 3 \times 31 / 2^{\prime \prime}$ | 4 | 6.3 | 3.0 | 6.17 |
| PM-8404 | 520 | 90 | 5 | 2 | 27/0x33/6 $51 /{ }^{\prime \prime}$ | 4 | 6.3 | 3.0 | 6.17 |
| PM.8405 | 540 | 120 | 5 | 3 | 31/8x31/631/4" | 41/2 | 6.3 | 3.5 | 6.82 |
| PC-8405 | 540 | 120 | 5 | 3 | 4×31/4 $\times 31 / 2{ }^{\prime \prime}$ | $41 / 2$ | 6.3 | 3.5 | 6.82 |
| PM-8406 | 650 | 40 | 5 | 2 | 21/2 $\times 3 \times 23 / 4$ " | $21 / 2$ | 6.3 | 2.0 | 4.51 |
| PM-8407 | 650 | 55 | 5 | 2 | 21/2×3×31/9 | $31 / 4$ | 6.3 | 2.0 | 4.96 |
| PC.8406 | 650 | 40 | 5 | 2 | $3+5 \times 2 / 0 \times 23{ }^{\prime \prime}$ | $21 / 4$ | 6.3 | 2.0 | 4.51 |
| PC-8407 | 650 | 55 | 5 | 2 |  | $31 / 2$ | 6.3 | 2.0 | 4.96 |
| PC. 8408 | 680 | 70 | 5 | 2 | $33 / 8 \times 3 / 4 \times 3$ | 4 | 6.3 | 2.5 | 5.62 |
| PM-8408 | 680 | 70 | 5 | 2 | 27/6 $\times 3 / 8 \times 31 / 2^{\prime \prime}$ | 4 | 6.3 | 2.5 | 5.62 |
| PM. 8409 | 700 | 90 | 5 | 2 | $27 / 6 \times 31 / 8 \times 31 / 4 "$ | $41 / 2$ | 6.3 | 3.0 | 6.27 |
| PC-8409 | 700 | 90 | 5 | 2 | 35/823x $31 /{ }^{\prime \prime}$ | 41/4 | 6.3 | 3.0 | 6.27 |
| PM-8410 | 720 | 120 | 5 | 3 | $31 / 8 \times 31 / 4 \times 31 /{ }^{\prime \prime}$ | $51 / 2$ | 6.3 | 3.5 | 6.92 |
| PC-8410 | 720 | 120 | 5 | 3 | $4 \times 31 / 431 / 4{ }^{\text {m }}$ | $51 / 2$ | 6.3 | 3.5 | 6.92 |
| PM-8411 | 750 | 150 | 5 | 3 | $31 / 6 \times 31 / 8 \times 41 /{ }^{\prime \prime}$ | $51 / 3$ | 6.3 | 4.5 | 8.29 |
| PC-8411 | 750 | 150 | 5 | 3 |  | $51 / 2$ | 6.3 | 4.5 | 8.29 |
| PM-8412 | 800 | 200 | 5 | 3 | $33 / 4{ }^{\prime \prime} \times 1 / 2 \times 37 /{ }^{\prime \prime}$ | $81 / 4$ | 6.3 | 5.0 | 9.34 |
| PC.8412 | 800 | 200 | 5 | 3 | $4 \mathrm{x} 4 \times 43 / 4$ | $81 / 4$ | 6.3 | 5.0 | 9.34 |
| PC-84141 | 1200 | 200 | 5 | 3 | $41 / 4 \times 43 \times 4{ }^{\prime \prime}$ | $81 / 2$ | 6.3 | 3.0 | 11.78 |

TV POWER TRANSFORMERS
All primories 117 V 60 cycie. All plote voltoges. doubler circuits. All type $M$ except is $C$. is M3. \& is C with 2 sockels. \& Duol 6.3 windings moy be used os 12.6 Y.C.T.

| Stan. No. | Piote Vep Mo |  | V ${ }^{\text {erec }}$ |  | $\begin{aligned} & \text { POWER } \\ & \text { Other } \\ & \text { Yolt } \end{aligned}$ | FH: Amp. | Stre | $\begin{aligned} & \text { Wt. } \\ & \text { Lbs. } \end{aligned}$ | $\begin{aligned} & \text { Not } \\ & \text { Eosh } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| P.5059* | 675 | 200 | 5 CT | 3 | 6.3 CT | 5 | $4 \% 343 / 44$ | 9.6 | 11.69 |
| P. 6315 | 740 | 275 | 5 CT | 3 | 6.3 CT | 7 | 4/6, $33 / 4 \times 4$ | . 3 | 12.73 |
| P-8154 | 750 | 205 |  | 3 | 5.0/6.3 | 2.0/5.0 | $41 /$ | 9.1 | 7.25 |
| P-E155 | 450 | 90 | 5 | 2 | 6.3 | 15 | 3 | 1.3 |  |
| P. 8156 | 730 | 295 | 5 | 6 | 5.0/12.6 CT | 2.0/5.0 | 41/531/ $51 /$ | 1.3 | 17.38 |
| P. 8157 | 770 | 195 | 5/5 | 3/2 | 6.3/6.3/5.0 | 7.43/0.0/2.0 | $41 / 4 \times 31 / 6 \times 41 / 3$ |  |  |
|  | 470 | 105 |  |  |  |  | 31/635841/6 | 6.2 | 10.35 |
| P- 1584 | 117 | 200 |  |  | 6.3/6.3/8.3 $3.0 / 6.3 / 8.3$ | 2.0/8.0/0.6 | $51 / 2 \times 3] \times 4 \%$ | 10.0 | 16.26 |
| P. 8159 | 720 | 250 | 5 | 3 | ${ }^{5.0 / 6.3 / 6.3}$ | $2.0 / 8.0 / 0.0$ 12.0 | $41 / 43 \% / 481 / 2$ | 9.6 | 14.00 |
| P-8160 | 720 | 185 | 5 | 3 |  |  |  |  |  |
|  | 330 | 65 |  |  |  | 9.0 |  | 11.8 | 18.61 |
| P-8161 | 770 | 230 | $3 / 5$ 5 | 3/2 | 6.3 6.3 | 9.0 | $51 / 8 \times 41 / 83$ \% | $9.0{ }^{\circ}$ | 11.32 |
| P-31621 | 700 | 180 | ${ }_{5} \mathrm{CT}$ | 3 | 6.3/6.3 | $7.75 / 1.2$ | $\left.5{ }^{1 / 6} \times 3+\right\} \times 1 / 6$ | 10.8 | 16.65 |
| P- 1816 | 740 | 190 225 | 5 5 | 3 | -.3/0.3 | 7.751. ${ }^{2}$ |  | 7.5 | 13.12 |
| P-8184 | 600 | 225 180 | 5 | 3 | 6.3/6.3 | 2.0/10.0 | $43 / 4 \times 31 / 4{ }^{4} 1 / 2$ | 11.0 | 18.68 |
| R-165 | $\begin{aligned} & 700 \\ & 440 \end{aligned}$ | $\begin{array}{r} 180 \\ 70 \end{array}$ | 5 |  |  |  |  |  |  |
| P. 11065 | 680 | 330 | 5 | - | 6.3/0.3/6.3 | 2.5/5.0/5.0 | On $314 \mathrm{x} 41 / 4$ | 13.0 |  |
| P. 1167 | 560 | 400 | 5 | 6 | 6.3/6.3 | 4.5/8.5 | 6x3r, $x$ e ${ }^{1 / 4}$ | 13.0 10.5 | 17.73 |
| P-81685 | 440 | 330 | 5 | 3 | $6.3 / 6.3$ | 6.5/0.5 | $41 / 631 / 4 \times 41 / 2$ | 10.5 |  |
|  | 260 | 220 |  |  |  |  |  | 10.5 | 15.44 |
| P-1169\% | 760 | 220 | 5 | 3 | $6.3 / 0.3 / 6.3$ $0.3 / 6.3 / 6.3$ | 1.2/5.0/7.0 | 41/6, $4 \times 41 / 4$ | 10.5 | 15.02 |
| F-8170* | 760 | 720 | 5 | 3 | $6.3 / 6.3 / 6.3$ $6.3 / 8.3$ | $2.0 / 9.0$ | 5831/641/2 | 10.5 | 15.42 |
| P-817145 | 750 | 225 240 | 5 | 3 | 6.3/0.3 | 6.4/3.0 | 41/2531/6 $\times 1 / 3$ | 9 | 12.97 |
| P-8331 <br> -8332 | \$20 | 240 260 | 5 | 5 | 0.3/0.3/6.3 | 7.1/1.2/.9 | 4) 1 ¢ $33 / 6841 / 2$ | 11 | 14.34 |
| P-8.331 | 590 | 225 |  | 3 | 0.3/0.3 | 11.4/.9 | $43 / 8 \times 33 / 4 \times 41 / 3$ | 10 | 13.48 |
| P-8.3314 | 590 590 | 225 305 | 5 Cl | 5 | 0.3/0.3 | 8.511 .2 | $51 / 8 \times 3 / 4 \times 41 / 3$ | 13 | 15.64 |
| P. 3335 | 800 | 325 | 5 | 6 | 6.3/6.3 | 8.8/1.5 | $51 / 8 \pi 33 / 4.81 / 8$ | 13 | 15.64 |
| P.8336 | 117 | 280 |  |  | 6.3/6.3/0.3 | 9.570.0/1.2 | $41 / 4 \times 31 / 4 \times 41 / 3$ | 8 | 11.07 |
| -.8337 | 630 | 225 | 3 | 3 | 0.3 | 8.75 | $41 / 3 \times 31 / 6 \times 41 / 2$ | 81/2 | 11.88 |
| P-8319 | 830 | 310 | 5 | 6 | 6.7/6.4 | 10.0/1.6 | $5 \% \times 37 / 8.43 / 4$ | 121/2 | 14.34 |
| P.8339* | 630 | 255 | 5 | 3 | 12.6 CT | 5.25 | 4/6x31/45 5 | $81 / 2$ | 11.59 |
| P. 3340 | 710 | 270 | 5 | 6 | 6.3/6.3/6.3 | 9.5/1.65/2.4 | $41 / 833 / 841 / 2$ | 12 | 14.69 |
| P.834* | 720 | 173 | 3/3 | $3 / 2$ | 12.6 CT | 3.45 | 4 $1 / 8 \times 31 / 4 \times 4 \%$ | 11 | 13.81 |
|  | 440 | 110 |  |  |  |  |  |  |  |
| P. 8142 | 730 | 260 | 5 | ¢ | 6.3/6.3 | $8.85 / 1.2$ |  |  | 13.25 |
| P. 8145 | 700 | 215 | 5 | 3/3 | 6.3/6.3 | 0.0/1.2 | $5 \times 31 / 4181 / 8$ $41 / 631 / 6 \times 4 / 4$ | $11^{1 / 2}$ |  |
| P.0346* | 800 | 180 | 5/5 | 3/3 |  |  | 41/6431/4x ${ }^{3} / 4$ |  |  |
|  | 800 | 180 | 5 | 3 | 5/6.45/0.3 | 2/7.4/1.6 |  | 13 | 19.56 |
| P.e348 | 730 | 270 | 5 | 6 | 6.7 | 4.5 | 4\% $1 / 31 / 8 \times 41 / 2$ | 10 | 15.61 |
| P- 3149 | 720 | 200 | 5 | \% | 5.0/6.3 | 2/8.85 | $51 / 2831 / 841 / 2$ | 13 | 18.22 |
| P. 3350 | 700 | 270 | 5 | - | 5.0/6.3/6.0 | 2/1.6/7.8 | $51 / 4 \times 31 / 8 \times 1 / 3$ | 13 | 15.64 |
| P-0351 | 720 | 240 | 5 | 6 | 6.5 | 9.3 | $419331 / 441 / 2$ | 101/3 | 15.61 |
| P- ${ }^{\text {P }} 352^{\circ}$ | 580 | 340 | 5 | 3 | 12.6 CT | 5.25 | 4/6*31/ $\times 43 / 6$ | $81 / 8$ | 12.97 |
| P-135311 | 530 | 300 | 5 | 10 | 12.6 CT | 8 | $51 / 4 \times 31 / 4 \times 51 / 4$ | 121/7 | 17.96 |

# BATTERY CHARGERS•CONVERTERS•ELIMINATORS 

## SCHAUER BATTERY CHARGERS

Model AB410

## 4 AMP CHARGERS

Here is small, highly efficient unit that
will recharge most balteries overnight. The
ampers charging rate tapers to approsimompere charging rate tapers to approsi charged. Equipped with special "Charger Guard". कhich provides instantaneous and fult automatic protection sgainst thart cir. cuits and overloedi. No manual resetting of circuit breater or replacing of blown out fuses. Selenium rectifier and quality construction. Quichty connected without disconnecting or removing the battery from youp car. Operafes on regular 110.115 volit
60 cyele. AC houso current. Steel cese is $4 / 4=41 / 4 \times 61 / \mathrm{m}^{m}$. Curront. Sieel cese is Shpg. wt. iv model $41 / 2 \mathrm{lbs}$. 12 V mode Ax-2-for 6 volt betteries _ Net 9.11 AX2-12-for 12 volt batterios. Nef 11.73

## 6 AMP CHARGERS

Heaviar ampere charger that will com
pletely charge the everage run-down bat fery in 7 to hours without disconnecling or removing it from the car. Has the came protective "Charger-Guard" feeture at the dial emmeter that shows the exact charging rate going into the bamery. Steel charging " $1 / 4^{*}$ going $6^{\prime \prime} 7 / 4^{\prime \prime}$. Complefo with cords and baltery clips. Operafes on 110.115 valt 60 crele AC. shipg. wt . iv model ibs., 12 V model 10 lbi
x-z-for 6 volt betterles __. Met 13.03 Ex2.12-for 12 volt batfories -Net 16.22

## CHARGER PLUG

nafes need of aftaching chargers leads to tbathery. Charger connected simply by plugging into car's cigar lighter receptocle. A-8410 6 voll charger plug
A-8412 12 volf charger plus. Net 1.15

"B'" BATTERY ELIMINATOR AND CHARGER FOR PORTABLE RADIOS
Reploces oll snop terminal $671 / 2 \mathrm{~V}, \mathrm{~B}$ botteries. When indoors you con operate set on regular 110 O AC wilhout using up your expensive " 8 " bottery. Also rejuvenates old batteries for many extro hours of use. Complete whit AC cord ond plug. Fif: in place of your battery. Size: $11 / 4^{\prime \prime} \times 21 / 2^{\prime \prime} \times 1 \frac{1}{y^{\prime \prime}}$. Shpg. $w{ }^{1 .,} 11 / 2 \mathrm{lbs}$.

## TERADO DC to AC COMVERTERS

## 10 AMP Chargers

## 

 battery in 6 hours or less. Ideal for hesuy duty bafteries used in pasiongar cars, sofe rate which automatically tepers to Finishing charge. Mas the Charger-Guard" teeture for profection against sharts and overlode. Accurate numeral dial ammeter shows charging rate. Complete with cords and clips. Steel cate size $61 / 3^{\prime \prime}$ K $\mathbf{b}^{1 /}$ Operetes on $110-115$ valts 60 cycles AC. Shpg. $w t$. 6 volt 10 lbs., 12 volt 12 lbs . Cx-2-for 6 volf batteries Not 16.97 cx2-12-tor 12 valt or iwa $\quad$ valt odferies. Net 21.53
## 20 AMP CHARGER WITH TRICKLE CHARGER FEATURE

## within ofew minutes to stort a pas wible

 - run down bottery and which con de liver ofull charge within $11 / 1$ to $21 / 2$ hours. Chonges the bottery of o 20 ompere rate which topers down os the bottery becomes chorged. The exact chorging rate is indiceted by on os curete numeral dial ammeter. This model is olso equipped with o trickle borgery fresh efter it has been charged As mony as 60 now storoge botferies con be trickle charged to mointain full charge. This charger may alse be used to charge os mony or 4 botheries over. night of a 5 ompere rate. Complete with cobles. Sise: $71 / 3^{\prime \prime} 101 / 0^{\prime \prime} \times 91 / 2^{\prime \prime}$. Shpg wh., 6 V madel $15 \mathrm{lbs} ., 12 \mathrm{~V}$ madel 22 ibs FX-3 for 6 valt batferies $\quad$ Net 32.63

TRAV-ELECTRIC SUPER CONVERTER (FIG. A)
Model 671160. New miniature converter delivers 10 wotti AC-from your car cigorette lighter! Mustry onough for small molors - run electric drills. vocuum cleaners. electric shavers in your corl Perfect for solesmen. phonogropts, radios tape recorders, eperate ing mochines. Compers use to light 110 pot fiworescent lomps. Servicemen use to operate lest equipment-ontenno rotators in field tests. Converts 6 valis DC from your car bottery to 110 volis AC, 10 crcles. is wothi intermittont List 46.95
27.61

Thpe 12-71160. As above, but for 12 volti AUTO SHAVER CONVERTER (FIG. B) For shaving in car, boet etc. Plug into cigarette lighter outlet. Converts the $6 v$ DC from your car batfery to 110 V AC. Un MODEL A-615 - 6 Volt....Net 7.61 MODEL A.1215-12 Yolt....Nef 7.61
(C)


NEW TERADO
SPECIAL CHIEF (FIG. C) Model 12-81160. This unlt sperificolly dasigned to operate portoble TV and other opplionces of comp, tokeshore, onywhere within stotion range. Eosily mounted under cor dash, truck or cobin cruiser. Ventileted metol case for constont ceol operation. Plug-in receptocle has automalic switch which cuis off the uni when applionces ore disconaected Conton voltoge relay essures steady autput yolton desplte decreasing boltery voltoge. Operate from 12 V battery only. Output copacity 100 125 wotts.
Model 12-81160 list 64.95...... Net 38.19
SENIOR CONVERTER (FIG. D) Model $6-1160$. Chonges 6 volls $D C$ to fiov AC. Capocity $40-45$ wolts. Will operote smol odios, phonagraphs, small mochines in cor boot, cobin or troiler. Plugs into cor cigarette ighier. Fully filtered. Reody to operate. Size $21 / 2 \times 21 / 2 \times 4$. Shog. Wt., $31 / a \mathrm{lbs}$. TELADO $6-1160$ list 21.95 ...........Net 12.91 TERADO 12-1160 As obove but for 12 volp tit12.95 Noll 12.91

## ${ }^{\text {Nal } 12.91}$ <br> NEW TERADO UNIVERSAL CONVERTERS CONVERTS BOTH 6 AND 12 V DC TO 110 V AC 60 CYCLES

## CORNELL DUBILIER CONVERTERS

## 首



## A COMPLETE LINE OF DC-AC CONVERTERS

 C-D "POWRECON" swaVtit-pACKPor that convenient and oppreclated shove In your cor, boot, etc. Pluys Into cloperette IIfhier outlef. Converts DC from your cer battery to 110 volfs AC for vour electric rezor, which plues into ouplet on cenverter. lated 20 wotti output centinuowi. llue. Eediy, constructed for long servlce. Model 65P2, usee vibrator Ne. 2329. Model
 Malel $12 s \mathrm{~m}_{2}$, for 12 K bertery

Nof 7.88 C POWRECON CONVERTRS
Deslaned to iupply 110 volf, 6 cycle. AC housthold power from DC lines for opere ion of rodie and TV recelvers, record ployers, fope recerders, amoll motor driven factery and butinees mechines, intercoms, ofc. Mighly dependable with bulli-ia facter aulpped nolie upprestion. Convertors fram 150 wetts up ore specially de: ifynd to meot the critical pewer converiton reauiroments of TV units

 |  |
| :--- |
|  |
| $7 Y$ |
| 252 |
| 251 |
| 252 |
| Pas |



Thosio now 6 ond 12 voll duolthout convereren oppliances, electric shavers, dicfoting machines, lape recorders, ond comp, on do-if-yourself electric lools IN ANY CARI Wonderful at "Aupomatlc". Model A-5585 features" Omozing outomatic switching fram 6 to 12 valts. No twitches ore omaxing outomatic switching fram 6 to 12 valts. No switches ore used. Just plug into ony cor

lighter, 6 or 12 volts. The "Dual" Model M-5585 has the some input ond output capacilies as the "Autamatic" without the sume matic switching feature. Instead, o convenient hidden switch is used to change from 6 to 12 volt operotion. Both models canvert 6 or 12 volif from your car boltery to 110 volts 60 cycle AC. Capacity on 6 valis is 55 wotts continuous; 75 wotts intermittent. Capacity on 12
valts is 85 wolts continuous; 110 wotts intermittent. Shpe Model A-5585 "Autamotic" tist 54.95 Net 32.33 Model M-5585 "Dual" 1 "t 51.95 Net 30.55


## CORNELL-DUBILIER "SPORTSMAN SENIOR"

 self-contained ac power sourceA completely portoble and self-contained source of 110 V 60 cycte
AC power for operoting small TV ar redie recelvert, record play-
ers, tope recarders and other $A C$ equipment not requiring over 140 ers, fope recorders and other AC equipment not requiring over 140
wath centinueusly or 175 watts infermitfently. This compoct power plant includes o highty officient heavy-duty vibrotor inverter, a buitt-in rapid bottery chorger, and o compartment for o 12 valt outo boltery. Extremely simple operation with all controls, meter, fuses, and outleft on front panel. Complete recharging of the battery accomplished overnight from ony regular power line. Heavy

MODEL 125514 corrying and loods provided for connecting boffery. In porfoble WITM 12V
AUTO BATTERY Mout botfery
Model 125514 Portable Powercon, Less Bottery......Net 77.91

## C-D SINE-WAVE REGULATED AC POWERCONS



These vibrotor inverters are designed for general morine service for uso in rodio communication, fathometers, fluorescient lights, ompliPowercan. Provides constant output voltages even whon input and lood varies. Sine-wave autput permits use of criticol oudio devices

| NO. | TYPE | $\begin{aligned} & \text { INPUT } \\ & \text { VOLTS } \end{aligned}$ | OUTPUT WATTS. | SIze |  | NET |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25w10 | Heary | 12 | 100 | $61 / 2 \times 71 / 2 \times 17$ | 20 | 22.03 |
| $65 W 15$ | Super Heavy | 6 | 150 | $8 \times 91 / 8 \times 13^{\circ}$ | 35 | 84.97 |
| 12SW25 | Super Heavy | 12 | 250 | 8 -9y | 35 | 90.85 |

PORCELAIN CASED TUBULAR CAPACITORS


Greatest Condenser Value Ever Offered!

| KIT Or 100 coov W V DC 600 V W V DC | Kir or so Soov $W$ Voc |
| :---: | :---: |
| arr mot | arr moo |
| 10 | $3 \quad .001$ |
| 100 0005 | \% |
| ${ }^{20}$ |  |
| 10 $20.10{ }^{20}$ |  |
| kIT no. кı-52 | кit no. Kı-51 |
| lise volue 32.00 | Lis Value 16.00 |
|  |  |
| SPECIAL NET | spiciat met |

- TESTED AT 3 tIMES WORKING VOLTAGE
- EXCEPTIONALLY RESISTANT TO MIGH TEMPERATURES AND MOISTURE
- SURPASSES PERFORMANCE OF MOLDED PLASTIC TUBULARS

Ther're now, ther're different, and thay're betterl Now, of o price for lors thon that of ordinory plostic molded tubviars, lafoyette brings you, for every day cerrice work, o candemer thot was derigned for erilical indurtriod opplicotion. The case is of duroble gleoming porceloin, o curamic known for ity high degree of imperviounners to mointure ond resintonce to hoot. The copocitor it of hnost quolity, tested of 3 limes the roted voltoge with much closer coposity roterance. If mainioins it chorocioriblice undor extreme condifions of heot ond humidiry. It i mechonical consiruction it excelieni, the vodiore ond put attochod ond seoled - they won't twint or break off. Wo vo relectiod the mort populor valuer ond pul them us in wo servicemon dill seo chart lor contents of
 each kit.
KI-S1 ....Kit of 30
2.95 KI. 52 ....Kit of 100

## UNIVERSAL 6 and 12 V. VIBRATORS



Standard 4 prong non-aynchronous. Replocos Mallory 294, 859, 901M, Radiart 5300, 5301 elc. Shog. Wi. $1 / 2 \mathrm{lb}$. MS. 14 $\qquad$ In lots of 100 . Eoch .90 In lots of 10, Each 1.19 singly. Eack i.s
12 VOLT-3 PRONG
Replaces Buick Olds., Pontiac, and G.M. part 1220155 , Mallory G874, CD6330 and Voliar 3129. Shpg. WI. $1 / 2 \mathrm{lb}$.
MS-127-In lots of 100, each 1.39

In lots of 10 , eech $\qquad$ $-$ . shpg. Wi singly, each $\qquad$ 1.59

12 VOLT— 4 PRONG
Roplacer Motorola 485522000 . Phico and Mopar 83 oazs-1. Mallory G-859, Voker 4124 . Shpz. Wi. $1 / 2 \mathrm{lb}$. MS-128-In lots of 100, each. $\qquad$ 1.29
1.42 In lats of 10 , each. Singly, each.

SERVICEMAN'S HARDWARE KIT

## 600 PIECES! <br> 79

Don't confuse this tit with the typical pile of unusoble iunk found in most hordwore kits. Over 600 pieces of selected hardware used every day including large asst. of screws of every pyoe. Packed in a handsome hinged plastic case $4 \%{ }^{\circ}$, $31 / 1^{\prime \prime} \times 1 "$. Shpg. wI. $11 / 2$ lbs.
K 1-40
Net 79:


SOLDER
LUG STRIPS

Mondy ossoriment of 48 solder lug terminal strips with 8 of eoch type from 1 through 6 lugs.
STOCK NO. KI. 18
Net
1.35

KIT OF 10
ROTARY
SWITCHES


A fine ossortment of rotory switches-for the sel buitders, amateurs and experimenters. Ideal for many circuit arrange.

STOCK NO. K1.19
.NET $\rho 9$

50 PIECE T.V. KNOB KIT

- A GREAT YALUE


## - LESS THAN 4

Just few of these inobs are worth more then the price of the entire Liel selection conlains so asorted TV lmobs ineludlag such types is channal solector, fine tuning such ume, tic. Uselul and ettractive. Many with gold leftering or gold inserts. Shpe. Wh.

## VIBRATOR TEST ADAPTER

- USE WITH ANY TUBE TESTER
- TESTS 3 AND 4 PRONG, 6 OR I2V VIBRATORS
Quick, simple check for oll standord 6 and 12 yolf vibrotors. Shows instontly if vibrolor is working or defevtive. Indicales open or sticking contocts ond starting vallaje. Sturdy melallic body. $3 \%{ }^{*} M \times 1.9 / 16^{\circ} \mathrm{W} \times 1.9 / 16^{*} \mathrm{D}$. Ship ping welght, 8 oz.
MS. 394



## CKSOSAX

## IN <br> Lois 4

 EA.smar 59 EA.

## STOCK UP ON THIS

 TERRIFIC CONDENSER VALUEIat of 10 aluminum can. pist prang, olug-in and screw nect electrolyties - Contains single, dual and triple section unjts in assorted values and valtages. Regular value $\$ 15.00$. All 10 cost you less than the normal price of iusl two if bought regularly. Quantl. ties ore limited - sugest you stock up now as at thit remarkably. low prise they will go fost.
KI-15 18.00 Volue for only

- Guaranteed
- Brand New





## SPEAKERS- BAFFLES-ACCESSORIES-VIBRATORS



Page 110

# AUTO SPEAKER KITS • GARAGE DOOR OPENERS 

DeLUXEREAR SEATAUTO SPEAKER KIT


## DeLUXE 6" $\times 9^{\prime \prime}$ KIT

## WITH 2.15 OZ. ALNICO $V$ MAGNET

A complete kil for odding anather speaker in the rear of your car. You got a $6^{\prime \prime} \times 9^{\prime \prime}$ PM speaker witho 2.15 ox . Alnico $V$ mognet (the some heavy duty type you find in kits selling for twice this price): o three postition selector witch so you can seloct either speoker alone or bath together, dial plate with mounting bracket, knab and hordware; © chrome grille, wire and wiring instructions. Simple to instoll. Shpg. wt., 5 Ibs.
SK-37

## DE LUXE $5^{\prime \prime} \times 7^{\prime \prime}$ KIT

Contoins same occessories as above kil-except uses lighter $5^{\prime \prime} \times 7^{\prime \prime}$ speaker ond shrame grille. Shpg. wi., 3 lbs
SX-42
...Nel
3.92

## FADER TYPE AUTO KITS

Rear seat aute spaaker kits, identical to the above but with foder type contral, which gradually increases volume on one speaker while diminishing other. Speakers can be set at equal valume or any variation desired. Shpg, wl., 5 lbs SK-55-5 $\times 7$ kit .Net Net 4.89

## STATION WAGON REAR SEAT AUTO SPEAKER KITS

- CUSTOM DESIGNED SPEAKER HOUSING TO FIT CURVATURE of your car
- easy to install-no holes to CuT
Solves problem af instolling additionol speaker in statian wogans. NO SPEAKER HOLES TO CUTI All wires, brockels and screws ore hidden from view after installation. Good quality $6 x^{\prime \prime} 9^{\prime \prime}$ speaker maunted in handsame ivary and gold housing de mounced in handsame wory ond alone, or both together. Supplied camplete with all parts, hordwore and instruc tions. Shpg. $w 1 ., 6 \mathrm{lbs}$.

| STOCK NO. | CAR | YEAR |  |
| :---: | :---: | :---: | :---: |
| SB-41 | Ford \& Merc. | 52 throu 56 |  |
| S8-43 | Ford \& Merc. | $57$ | YOUR COST |
| SB-42 $58-42$ | Chov. 8 Pont. | 53 thru 57 | ANY |
| S8-42 | Pockard |  | TYPE |
| $5 \mathrm{SB44}$ | Plym. \& Dodge | 56 |  |
| $5 \mathrm{SB-46}$ | Plym. \& Dodge $\}$ | 57 | -08 |
| $58-46$ 58.47 | Do Soto \& Chrysler Rombler | 56 thru 57 |  |
| 58.48 | Bulik \& Oldsmabile |  |  |

 Operates ane piece titf-up or sectional roll up doars up to $8818 \mathrm{ft} .21 / 2 \mathrm{in}$. clearance required between ceiling and high orc of door. Simple - one man-instollatianl Use common hand fools - no soldering. Once installed you need only push the button on your dash - door opens - light goes an. A second push closes and lacks doar from inside garage. May be hand operoted in event af pawer foilure. Adoplable clutch checks door trovel when obstructed. Transmitter only $b^{\prime \prime} x 6^{\prime \prime} \times 5^{\prime \prime}$ - fits under hood. Antenna is concealed behind front bumper. Receiver is instolled with mator - operates on 27.255 mc os authorized by F.C.C. Will actuate mechanism fram 100 to 300 feet oway. Complete system includes mator mechanism - tronsmilter - receiver - oniennas - manuol push bufton (for use In home or inside garoge for operotion withaut transmilfer) all mounting hordwore - wiring - tubes - ond instructions. A truly protransmitter) all mounting hordwore - wi .
ML-84 - List 219.00
154.00 Extro Transmitter-for twa car fomilies. Operate doar from either car. Shpg. wh., 8 lbs. ML-85-List $\mathbf{3 5 . 0 0}$
24.50

HI-FI REAR SEAT AUTO SPEAKER KITS
featuring 6x9 coaxial speaker with twin tweeters Add Hi-Fi Listening to Your Car


Identical to $\$ K-37$ auto speaker kit shown of left except for high fidelity $\delta \times 9^{\prime \prime}$ cooxial speaker instead of single cone unit. Excellent for the music listener wha wonts fine quality repraduction in his car. SK-77-Shpg. wi., 6 lbs.

Net 8.80
FADER TYPE AUTO KIT
Cooxial Kit identical to SK. 77 but with fader control which grodually increases valume on one speaker while diminishing volume on other. Speokers can the sef of equal valume ar any voriotion desired.
SK-78-Shpg. wt., 6 lbs.
..Net
9.00


Deluxe chrame speaker grille in o handsome modern motif. Perfect for rear sea installafian - recreatian roam - intercam or P.A. - test panel and equipment. Complete with flocked screen and mounting hardware.
Stock No. ML. 17, $4^{\prime \prime} \times 6^{\prime \prime}$ installation
stock No. ML-69, $-5 \times 7$ instaltotion
Slock No. ML-16, $6^{\prime \prime} \times 9^{\prime \prime}$ installotion .99

Stock No. ML-33, $8^{\prime \prime}$ instollatian
1.50
(B) CRL AUTO RADIO SPEAKER SWITCH

## AUTO RADIO <br> SWITCH KIT (F)

Switch Kit. Far use with dual auta spookers. Consists of 3 -position switch with $1 / 4{ }^{*}$ bushing and $7 / 16^{\prime \prime}$ knurled shoff, indicator plate and white push an knab. Wf. 2 oz. MS 266 ( 39

## DUAL SPEAKER CONTROL KIT (C)

Designed to vary the valume either front ar rear speaker - or both. Adds custom Dauch a from one speater while maximum audio is received from other, giving o dimensional -ffect. Includes wire wound contral-knab-mounting plote-and simple instructions.
MS-187
Net .83
REAR SEAT PERSONAL CONTROL (D)
Permits rear seat passenger to adiust saund level of rear speaker. Warks independently of frent cantral and daes nat offect front speaker
G.C. No. 9504

Nel 1.62
EXTERNAL SPEAKER CONTROL (E)
For use with either earpiece for private listening ar separate external speaker. Autamatically culs aut interior auta speaker system.
G.C. No. $\$ 500$

## ELECTRIC AUTOMATIC GARAGE DOOR OPENER

## Campact, rugged, dependable unif for opening residentio

 overheod garage doors outomotically. Gorage door opened right fram car by means af a key or from findaors by means of a button. Door is always tocked when closed, with no strain exerted on doar or hinges, Requires only 110 -valt alternating current. A key swilsh on outside post opens door automotically from car and button switch opens door from Inside house. Electricity is used only when the unit is in aperation. Simple installotion requires adjustment of spring tension an doar and mounting of lolch mechonism which -lectrically releases the latch. Mechonism mounts of top of door. Packoge consists of latch mechanism, ker switch with 2 keys, on indoor bution switch and complete do-ft-yourself Instructions. The only extras needed ore a past for mounting key switch ond the exoct omount of wire needed for your Installolion. Shpg. wt., $41 / 2$ lbs.ML-101 14.95 Wh-114 Sheathed \#18 2-conductor wire for out-
door or in corth use. .-............................. Net INSTALLATION WR-34 Rubber covered \#18 2-conductor wire AND OPERATION

Type 1483 Sp 3 -position switch for use with ouxiliary rear seof outo rodio speak. ers. Roted I amp at $\delta$ valts. Has posifive index. Shorting contacts. 3 " bushing. $17 /{ }^{\prime \prime}$ lang shaft. Spring brass centocts, liver plated Wi 2 atig brass coniocts. silver plated. Wt. 2 az.


- OPEN GARAGE DOOR FROM WITHIN THE CAR
- CURRENT USED ONLY FOR A FEW SECONDS
- SIMPIE
for indoar wiring
. 05
2.15


## AUTOMOBILE RADIOS - ANTENNAS - ACCESSORIES

## MOTOROLA AUTO SETS UNIVERSAL



## SPECIAL CUSTOM SERIES

- transistor powered
- PUSH BUTTON TUNING
- CuStom fitted to each car


## BUICK - CHEVROLET - DODGE OLDSMOBILE - PONTIAC VOLKSW AGON

Specifically designed to custom fit your car with simplest installation. Sensitive transistor powered circuit uses 5 lubes plus rectifier. Heavy duty $6^{\prime \prime} \times 9^{\prime \prime}$ PM speaker, autamatic valume cantrol, and tone control. Law battery drain. Available for 6 or $\mathbf{1 2}$-volt aperatian (specify).

Madel
CTAGX For Chevrolet 55.
BKA6X -Far Buick 56


BKA7X -For Buick 57
DG7A For Dodge 57
OEATX - for Oldsmobile
PCATX - for Pontiac 57
57 $\qquad$
VWAT F For Pantiac 57 $57 . .$.

CUSTOM


## PM SPEAKER

A truly floxible car radia that can be installed in a wide variaty of makes and years, including some forsign sparts cars. Equlpped with tane contral, noise - liminator circuit ond autamatic valume cantrol. Powerful $69^{\prime \prime}$ speaker" oives oxceptional music and vaice reproduction. Iron core IF and diode coils for meximum efficioncy.
7M - 6-For \&-valf Battery........................Net 41.25 7M. 12-For 12 -valt Battery.....................Net 43.75 7MX -For 12 -volt Transistar Pawernd...Not 43.75 TRIM PLATES FOR ABOVE-
SPECIFY MAKE AND YEAR
YEAR
54.55.56.57

53-54-55-56-57
57
55-56
57
55.56-57
53.54
59.50
52.53-54

55
56-57
52-53-54-55-56-57
54-55.56
55.56

53-54-55-56-57 55-56.57
53-54-55-56.57 53-54-55-56.57
1957 Chrysler. Dodgo and Pirmauth have $5 x 7^{\prime \prime}$ speaker


- COILTENNA
to $400 \%$. mance of present antenna up to $400 \%$. Quickly and easily instolled. Fifs all cors. Shpg. wt., I 16 . AA. 32.

Nef 2.75

## ELECTENNA

Replacoment antenna and coil-installs quicklyuses prosent mount and wiring. Increases goin over standard $54^{\prime \prime}$ antonno by as much as $100 \%$ Only $17^{\prime \prime \prime}$ lang-avaids future domage fram low hanging branches ofc. Takes anly minutes to install. Shpg. wl., $11 / 2$ lbs.
AA-31
Not 4.13


MS-411-(A) Converts Motarala to
MS-412-(B) Delco-Fitting
MS-A12-(B) Mofaralo Joct Net. 13
MS-413-(C) Matarolo Plus


Spring laaded cannoctar. Use botween load-In and nuto rodie.
MS-414. Net . 1 D


For use with various outo radias.



UNIVERSAL REPLACEMENT LEAD


54" replacement lead. Fits oll popular moke auto antennas. Law lass, high " Q " caor cable. Shpg. wt. 116.

AA. 37
UNIVERSAL EXTENSION LEAD
Add noeded length to existing leads.

| AA-38 | $24^{\prime \prime}$ | Net .65 |
| :--- | :--- | :--- |
| AA -39 | $36^{\prime \prime}$ | Net .75 |

NOISE SUPPRESSOR KITS
for all 6 cylinder cars. Includes spark plug suppressors-distributor suppressargenerator and light ar ommeter condon. sers. With instructions. Shpg. wt., 6 oz MS-418 .-...............................Net 2.16 MS-419 for 8 crlinder cars....Net 2.59



CHROME PLATED BRASS KNOB
Sel screw thpe. Fits mast outo rodios For $1 / 4$ " shaft.
KN-27. Not .21

## TIMERS fur HIME IIFICE \& INIIUSTHY <br>  <br> TYPE T101 TIME SWITCH Turns equipment on "and "on ""on" operations a dar <br> TYPE T171 "SKIPPER' <br> TIME SWITCH <br> SWITCH ACCESSORIES

can be obtained by use of extra trippers. Extro trippers can be odded without removing dial. Min. on or ofl time 1 hr . max. on or off lime 23 haurs. Can be turned on or aff manually with reset SPST switch rated at 35 anp 4000 woll capacity. Has conveniont mounting holes and knackauts. Lorge numbers - easy to read - door - can be Gray sleal case with knockouis - hinged door - can bo
 crci 82 T10

Net 7.12
MS- 360 P101. Similar to T101 except case is equipped with receptacle and of II. cord set for plugin. Capacity 1250 wats.

## TYPE T185 5-10-60 MINUTE TIME SWITCH

- UP TO 14 COMPLETE "ON-OFF" CYCLES.
- EACH CYCLE INDIVIDUALIY AD JUSTABLE FOR 5 TO 60 MINUTE OPERATION.
- 4000 WATT CAPACITY.

Here is an unusually versallie timer that has distinguished itsoll in the hame, an the form and in industry, in appli. cotions where multiple "on-off" cycles of S to 60 min utes are required within a 24 hr . periad. A minute selector is provided on each speciolly designed tripper for setting the number of minutes, ( 5 to 80 ), the "anan the same dial at the same lime. Minimum interval off" ' cycle will aperate. Up to 14 trippers con be placed belween stort of each cycle, $13 / 4$ hrs. Large, silver, snapbotween stort of each crele, $1 / 4$ hrs. Large, ${ }^{\text {lilver. }}{ }^{3 \text { nap }}$ aparity. High.arque slow. pead deoendable synchmon copocity. High-forque blow. speed dopendable synchmons timing motor, Gray steel cose, $7 \% \%^{\prime \prime} \times 5^{\prime \prime} \times 3^{\prime \prime}$. Supplied with 3 trippers (for 3 "anoof" cycles). For $110-125$
valts, 60 cycles, AC. Shpg. wf., 4 lbs.
Ms-143 T18s
MS-143 T18s MS.i4f" cycle. Wr., $40 z$.

## - skips operations on selected days

## - 4000 WATT CAPACITY

An ingeniaus time switch that not only autamatically turns equipment an or off, but will skip aperatians on any sulocted days. Ideol where anfess ar factaries are closed on Soturdays, Sundays or Halidays. Turns "on and af" ance every 24 hours with single sot af trippers supplied, but up to 11 on and off aperations con be had by odding extra lrippers listed belaw. Supplied with stipoing scrows; mare can be added. Alsa has I culaul sipper which adrances day dial aulomaticolly. Snap a ton contocts roted at 35 amps at 125 volts. Min on han contocts roted of 35 amps af 125 volfs. Min. on on off time 1 hour, maximum 23 haurs. Size $7 /{ }^{2} \times 5^{\prime \prime}$ ․
 .Ne1 II.02 MS- 146 Type TI7S - Single Pole Double Throw. Open one circuil and clases another. Skips either "ON" ar 'OFF" aperation. 12.32 MS-361 Type PI7I - Partable Plug-In version of Type F171. Switch SPST. Caparity 1250 wolls (cantocts 10 amps)
TYPE $T 109$ POULTRY TIME SWITCH

## MORE LIGHT, MORE EGGS, MORE

 PROFIT, HEALTHY HENSIProlongs daylight in winter and fall. Gives you addi. tianal eggs when ege prices are highest. Designed far morning and ovening lighting or evening lighting alane. morving and evening prinio "Dimming" period ofter Provides outamatic 20 -minuto "oniming to period ofrer bright lights do of circuit for bright lights, another
safely. Contrals one cither safely. Conlrals one circuit for bright lights, onother
circuit for dim lights. Copocily: "Might" 3000 wotis eircuit for dim lights. Copocity: "Dight
$(24$ amperas of 125 volis), "Dim"- 1000 wotls (8 amperes of 125 valtis). Gray steal case $7 \%^{\prime \prime}$ a $5^{\prime \prime} \times 3^{\prime \prime}$. Far 110 to 125 valti, 60 crelo, AC. Shps. Wr., 4 lbs. ms-14S $\mathbf{T} 109$

EXTRA TRIPPE日S - Set of ON ond OFF Trippers fone onch)-to add odditional operations to Types T101, T171 P1DI and P17I time switches.
MS-83 per set
Nol .26 SKIPPING SCREWS - For "'Skipper" types anly. MS-133 Not. 03
CUT-OUT TRIPPE自 - For "'Skipper" types only
MS-134
Net .20

## TYPE T965 TIME SWITCH

## - for 1 to 96 ON-off Operations

 EVERY 24 HOURS.An exceplionolly useful pragram limer designed for 24 hour contral of applications requiring many ON-OFF aperations in 15 minute increments. Con be set far as many os 48 ON and 48 OFF operotions of 15 minute durotions during any 24 hour period. Minimum "ON" durotions during ony 24 hour period. Minimum "ON "OFF" period is 23 hours 45 minutes. Ideol for control of heating, air-condilioning, ventilating, programming music, all well pumping, pouliry feeders, pracess timings, olc. To set ichodule simply depress the proper permanentIr attached trippers that slide in and aut of dial for fast, accurate setting. Dial is block an vellow far lull, easy visibility. Mechonism reodily removable from case by pressing single sping closp. Constructed for easy instollation. Single Pale Single Throw - narmally apen switch. Contocls eated to handle 20 amos of 125 volts 60 cycle AC. Repeois cyelo without resetting 7\%" $5^{\prime \prime}$ $\times 3^{n \prime}$. Shoo. wt. 4 lbs MS-362 Type T965 - For $105-125 V$; 60 cycle AC.
Not
24.38

MS-363 Type P961 - Partoble Plug.in version of Type 1965. Contocis rated 10 ampr of 125 volts- 60 evele AC. Net


## INTERMATIC TIMERS

 MODEL A211 TIME-ALL- thE AUTOMATIC TIMER WITH THE MIRACLE MEMORY.
Makes practically everything electrical completely autamotle. Will handle lood up to 1650 watts. Turns rodio on and off - does not have to be resel each night. Defrosts refrigeralor - turns lights an and aff - cantrols raaster. refrigerator electric blonket, olr cond Maner, washing machine, caftee makers, vaporizers, etc. 30 min , minimum on lime - 23 hours moximum. As cosy to set as on electric clock. Stonds on any surface - can be hung an wall. Eosy-foread 24 hour "day and night" dial. Operates doy after day withaut attention. Can be contralled manually withaut automatic reset. Plug in receplacle for eaulpment la be controlled. Far 110 voll 60 cycle AC only. Complete wilh 8 ft . cord and plug. Initructions included. $5^{\prime \prime} \times$ 4" $^{\prime \prime}$ x $21 / 3^{\prime \prime}$. Shpo. wh., 2 lbs.
MS-81 A211 TIME-ALL ...................................... 7.97 MODEL A221 TIME-ALt Similar to A211 oxcept has capocity of 875 watts.
MS-359 221
6.04

MODEL A401 CLOCK TIMER

## Not only lalls lime, but furns appliances both an and aff

 aufamatically for periods af 15 minules to $51 / 2$ hours. Cooks dinner while you're away, wakes you la music, contrals electric fons, heoters, radios, IV sens, etc. Na installatian problem - Just plug it in and set. Capocity 1650 walts. Plaskon case $43 / "^{\circ} \mathrm{W} \times 4 /^{\prime \prime} \mathrm{H}=21^{\prime \prime} \mathrm{D}$. 6 ff . cord. Far 110 V 60 cycle AC. Guaronteed for yeor. Shog. Wi., 3 lbs. Price includes encise tom.yeor. Shpa



TIME SWITCHES FOR WALL BOX INSTALLATION
A dependable and versolllo time switch to autometicolly furn afl attic lans, porch and garage lights, window lights, heating units, te, of any preset time. Hes special HOLD featuries turn al a knob cuts out timing mechanism and allows unit to be used as a regular tagele switch. Capacity 20 amps. 125 valls AC. Sotin-chrome dial Capacity 20 amps, 125 vaifs AC. Satin-chrome dial
 Fit any standord rectangular woll Lex. Shog. Wh... 3 ibs.

Not 4.48
MS-136 MODEt 9015 - time range up to 12 hours
Net 3.21
MODEL 2130 PORTABLE 2-SPEED PRECISION TIMER

- TWO TIMERS FOR THE PRICE OF ONEI - FOR PRECISE I SECOND TO I HOUR TIMING IN THE HOME, OFFICE AND LABORATORY Indispensable for timing preclse, shart operotions such as balling eggs, pressure cookine, heot and sun lamp treatment, home permanents, phato develaping and printing, lang distonce calls, tic. Times up to 6 minutes in seconds and up to 1 haur in minutes. Exclusive 2-speed foature permits instont timing speed change by tict of a lever. A clear, cesonant bell sounds af and of timing petiod. Con be ottoched to any surfoce with handy wall brocket supplied or can stond upright. 5 martly styled in white with dial foce a rich copper tone. $4^{\prime \prime} \times 21 / 2^{" .}$ Shpg. wt., 2 lbs.
MS-294 MODEL 2130


## MODEL 2090 UTILITY HOUSEHOLD TIMER

- dependaale I minute to i hour TIMING
This relloble fom-oriced timer in a neol durable white Thastic case has innumerable hausehald timing uses, J.e.. cooking, baking, home permanents, gomes, remember ing appointments, IV and radio pragrams, etc. Atpractive modern design. Tímes any interval up ta ano haur accur. ately and gives resonont bell signal at end of period. Large asy to set and easy to reod dial. $31 / 2^{\prime \prime} \times 3^{\prime \prime} \times$ $11 / 2$ ". Shpe, wh. $11 / 4$ lbs.
MS-295 MODEL 2090
Not 2.95


## MODEL 5904 PORTABLE

 PHOTOGRAPHIC TIME SWITCH- UP TO 60 SECOND AUTOMATIC CONTROL.

Pravides accurate time contrel for photegraphic devel. opers, enlarges or photo copy equipment, which are olugged into its combination cordsat - receptacle. Times any interval up to 60 seconds and shuts current off saunds clear resonant bell signal af the same time. May also be operated as o manual on-of switch when timing is unnecessory. Supplied with wall brocket for quict, -asy, one-hond operalion in the dark. Block and chromefinish: $105-125 V$ AC/DC 10 amps. $27 / s^{\omega} \times 270^{\omega}=21 / 2^{\prime \prime}$ approf. Shpe. wt., 2 Ibs.
MS. 344 Model 5904
Not 5.97

## BUD RELAY RACKS AND CABINETS

 rear doors, and the panel mounting aupport are adjustable so the panel ean be wet back to up to $6^{\circ}$ in $1^{\circ}$ steps. This enables use of spare in front or behind panel as needed. Attractive gray wrinkle Anlsh. Black wrinkie or light aray hammertone finlsh avallable on spertal order


| BUD NO. | OVERALL SIZE HEW: 0 | PANEL SFACE | $\begin{aligned} & \text { SHPG, WT. } \\ & \text { LBE. } \end{aligned}$ | NET |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { CR-2174G } \\ & C R-2171 G \\ & C R-2172 G \\ & C R-2173 G \end{aligned}$ | 42-1/16 $\times 22 \times 17$ \% 47-5/16 =22 217 W 66-9/16 =22 5174 $82-5 / 16$ I22 $=17 \%$ | $\begin{aligned} & 38 \%^{\prime \prime} \\ & 42^{\prime \prime} \\ & 61 y^{\prime \prime} \\ & 77^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 108 \\ & 117 \\ & 151 \\ & 183 \end{aligned}$ | $\begin{aligned} & 56.64 \\ & 63.45 \\ & 81.92 \\ & 8.34 \end{aligned}$ |

All panels are 19 "wide, \%" chicl: Alt have otandard motebing to ft all relay ractis. Arallable in blach STEEL PANELS

| Black But mo. | ${ }^{\text {Gray }}$ |  | ル |  |
| :---: | :---: | :---: | :---: | :---: |
| Ps. 12508 |  |  |  |  |
| Ps.0.2518 |  |  | 3 | Nif |
| (es.12338 |  | cos. | 8 | \% |
|  | (es.12356 | cin | ${ }^{8}$ | (180 |
|  | 俍 |  | (12 |  |
| cotile | Ps.12 |  | 3 |  |

Identical in aize, thickneas, and conseruction to stoos pancis but made of aluminum. Besy Lo euk

## STREAMLINED

## AMPLIFIER

 FOUNDATIONSConslat of a standard $3^{\text {m }}$ high chassis on which is mounted a rim. Sturdy easy Erip handlez wrinite finishes.

| Black <br> Bud No. | Gray Bud No. | Sire Inche: HEWED | wi. <br> Los. | Net |
| :---: | :---: | :---: | :---: | :---: |
| CA-17508 | CA-1750G | $9 \geq 10-1 / 16 \geq$ |  | 5.56 |
| CA. 17518 | CA.17516 | $9 \mathrm{x} 12-1 / 16 \times 7$ | $\underline{1}$ | 7.03 |
| CA-17528 | CA-17526 | 9 ㅍ17-1/16 = 7 | 10 | 7.43 |
| CA. 17538 | CA. 1753 G | 9 E 17-1/16 I 10 | 12 | 8.08 |

## PRESTIGE CABINETS



## BUD METAL CHASSIS AND CABINETS




## COMMUNICATION RECEIVERS-RADIO TELEPHONE



## HAMMARLUND RECEIVERS

## HAMMARLUND RECEIVER HO-100

Sensitivity and selectivity place this receiver in the reolly hof ciasi. Continuously unoble from 540 ke to 30 mc in four bands. Electrical bandspread funing with dial markings every 10 kes on 80,40 and 20 meter bandss every 20 kes on 15 moter band, and every 50 kes on 10 mefer band. O-multiplior dermils continuously variable selec: itivity. Sennitivity of 1.75 microvalt produces 10.1 signal-to-nolse rallo. Volfoge reguated and femperofure compensoted. AVC on RF and IF stoges. 10 pube circult with aviomalic noise limiter. Antenno campensation for vorloble loading effects. For
 oplional. $18 \%$ " $x 9.7 / 16$ H $x 9 \%$

```
HO.100 C Feceiver with clock-timer Net 169.00 Net 179.00 PL-38888-G1 Moiching speoker In cobinet _at....................................................... 14.95
```


## HAMMARLUND RECEIVER HO-11D


A 12 tube superhat receiver with dual canversion for encellent imoge reiection. Full dial coveroge of $5,10,15,20,40,80$, and 160 meter bonds. Diol morkIngs avery 5kes on $20,40,80$ and 160 meter bonds, every 10 kes on 15 mater band; every 20 kcs on 10 mefer bond; every 50 thes on 6 meter bond. AVC operates on if ond If: and Itmear detectar for $\$ 58$ and CW reception. to 3 kes . Separate stabilized ifO ond ilmear delector of vorlous antennos or bolonced fronsmission line Compensolor for loading New seriet trpe noise limiter. Bulti-in 100 ke erystel colibrotor. For log.ing moter.

HO-110 Receiver-less clock-timer ................................................................. 229.00 HO-110C Rectiver-with clock-timer .................................................................. 239.00 PL-38888-GI Matching speater in cabinet ............................................Net 14.95 ADDITIONAL HAMMARLUNP EOUIPMENT
 Shpg. wi., 17 lbs $\qquad$ HO-140-XA Recolver in cebinet, $13.15 / 32^{\circ}=20-5 / 32^{\circ}=11.1 / 32^{\circ \prime}$ 6017.03. Mot 249.50 40.950 . Net 14.50 H०-150, Recelver In cabinet, $13.15 / 32^{\circ} \times 20-5 / 32^{\circ} \times 11-1 / 32^{\circ}$. Shpe.


NATIONAL RECEIVERS
 around the globe. If hos centinuous bandwitching coverage of AM Broodcast, omo. lowing bands: A-.54-1.6 me. B-1.6-4.7 mc. C-4.6-14.5 me. D-12.30 mc. Voice of code may be recelved on this recelver. The easy reading indirectly lighted scole hos cleor markings for police, ship, amoteur and foreign stollions. A logging scale halso provided. A torge bandspread vernier knob sused for high runing occuracy. Jocks are phones Controls on front poner and earMain Tuning; Bandspread AC Off; Valume Contral; Bond Selector Switch; Speaker. Phones Switch: AM.CW Switch: Standby-Recoive Switch. Tube Complement 128 E 6 conv., 128 AB CW ON-IF amp.g 12AVs 2nd Det. 8 AVC-1st Audlo: 50C5 Audlo Output; 3525 Rertilier. Antenna Inpul $50-300$ ohmi baloneed or unbalanced, Groy hommertone finish cablnet. Slze: $11^{\prime \prime}$ wide $\times 7^{*}$ high a " doep. Shpo. wf., 13 lbs
Model 5W-54
OTHER NATHONAL EOUIPMENT NC-10)-Rocelver - S40kc to 40 mc in i bands. $16.13 / 10^{m} \mathrm{w}=10^{\circ} \mathrm{H} \times 10^{\%} / \mathrm{N}^{\prime}$
D Shoge D. Shog. Wt., 35 lbs, ..aco.. Nel 199.95
NC. 300 ... Recelver -7 bands 10 meters thru

$w 1 ., 60$ lbs.


A line quality 9 tube receiver that covers bandspread far $10,11,15,20,40$ and 80 meter bands. Large eory-toareod 12 inch stide-rule dial with combination edge and backlighting. Gong-Iuned RF omplifie: stoge for increased sensiflulity and Image relerfion. Seporate, tempergture cempensated high Irequency orclllator. Receives AM, CW, ond SSS signols. BFO for CW and SSB. Hos WF ond AF gain central, outomatic naire limiter, and " s " meter. Bolonced or unbolonced ontonno input of 50 to 300 ohms. Sensifivity under 2.5 microvolts $(10 \mathrm{db}$ sig nol/nolse rotio). Two-tone gray cobinet 16 35 lbs.
NC. 188 Recolver, less speaker, Nof 159.95 NTS-1 Motching Spooker .......Net 17.50 NATIONAL NC-66
Mam, 3-way portable, marine ond shor wave receiver. 5 bands cover 15010400 kc and 500 kc to 23 mc . $5^{\prime \prime}$ speoker; heodphone iack. $A C / D C$ and batlery operotion Whip onlenno for shortwove; loopitick fo broadcast. $12-5 / 18^{\prime \prime} \mathrm{W}$
$10^{\prime \prime} \mathrm{D}$. Shpg
$\mathrm{O}^{\prime \prime} \mathrm{D}$. Shpg. wt., 18 lbs
NC-66-Recolver, iens bottery_Net 129.95 Battery-BuRGESS F6AGDP; $61 / 2$ ROF-86-DIRECTION FINDER ACCESS 80 Used with NC. Used with NC. 66 as direction finder for
aleasure crof. $7^{k N} \times 8^{01} \times 10^{-1}$. Shog ${ }^{2}$.


## HALLICRAFTERS RECEIVERS <br> NEW POPULAR $5-380$

New and latest version of the world famavs S-38 SWL receiver. The low cos redio that amases the experts in smart new styling and perfarmance. Offers world-wide reception for the shortwave listener and the new redia amateur, Also tunes the regular standard broadcast band. Has regular communication type controls for greater flezibilty of operation. 48 AND COVERAGE. Three
shortwave bands $1650 \mathrm{KC}-32 \mathrm{MC}$. BroadCast band $540-1650 \mathrm{KC}$ Sepaste band shortwave bands 1650 KC- 32 MC; 8 roadcast Band $540-1650$ KC. Separale band spread dial simplifies tuning the crowded shortwave bands. Up-to-the minute employing 4 tubes plus rectifier. $5^{\prime \prime}$ PM Spatker gives excellent tone quality 2 wotts udio output. Tip lacks for use when headphone reception is desired Oscillafor for reception of code signals or AM phone transmission. Standby receive switch. The cabinet is tops in styling; Gray teel, sitver frame trim Site $12 \%$ " wide, $7^{\prime \prime}$ high, $71 / 4^{\prime \prime}$ deep. For $105-125$ volts, $50-60$ cycles $A C$ or DC
 HALLICRAFTERS S-3aDM Monogony

Net 54.05 HALLICRAFTERS S.38DB Blonde.................................................................... 54.95 220 Volt Adopler Cord for obove.

## S.53A LOW COST RECEIVER

The world's finest communieation receiver With truly professional peiformance of Unfiling cost. Contains the latest sensitive powerful circuit that provides Thrilling world-wlide receptlon. Full coverage of atl frequancies; 6 Amateur lands, Pollee, Aircraft, Marine. Foreign and damestic shortwave broadcasts and other services, as woll as the standard broedeast band. Excellent signal to nolse ratio. Tunes To 54.5 MC ; Range $540.1630 \mathrm{KC}: 2.5$ to 6.3 MC ; 8.3 to If MC: 14 to 11 MC : 48 to 54.5 MC : Encellont amateur 6 moter reception Edge llluminated allde-rule dial. All controls clearly identified: Main Tuning Bandspread: Bendswitch: Volume.On-Off: Sensitivity-Phono: Stand-by; Tone Automatic Noise Limiter: PhonowCode 'Switch: 5peater-Headphone Switch 5" PM Speater. Tubes Used: $1-6 \mathrm{CA}_{4}$ osc. (temperature compenseted for mini mum drlft); 1.6BA6 mirer; 2.6BA6 IF's: 1.6 HS detector-AVC noise limiter I-6SC7 8FO-lit AF: labkiG output ( 2.5 watts): $1.5736 T$ rectifier. Satin Blach

 ADDITIONAL HALLICRAFTERS EOUIPMENY


## SONAR 35 WATT PORTABLE MARINE RADIO-TELEPHONE

- 5 CHANNELS PLUS BROADCAST BAND
- RANGE TO 150 MILES
- NO INSTALLATION NECESSARY

M35W
Compoct portoble morine redio-telephone with 6 volt rechargeoble battery. Daes no require an installation and can be Heensed for use on any croff. Features dual tion in cancess of 60 db (surDosses FCC requiraments) and speech hormonic attonua Hon in eacess of 60 do (surposiss ${ }^{\prime}$. requiremenis), ond speech cilipping for belle audie, Monogany cose $12 \mathrm{H}, 7 / 4 \mathrm{~W}, 121 / 3$. Complere with 2 poirs of crystor mieroohone. Shas. wt. 39 lbe

```
Modal M3sw
Nof 339.50
```


## Model M35W

Madel M35WS-For flaed instollollon-Con bedeloched without requiring

 Zipper Bog...n-an....Net 4.95, Phone Mondrep Not 18.00

## SONAR DIRECTION FINDER

## - fot safe navigating at all times

 IN ALL WEATMEBottery operated unit tunes beocan, broadcosl, and morine freavencies. Crytol-confrolled reception on 2182 k e omergeney chonnel, or ony other frequency from 2 to 3 mc . Beorlng cen be taken in less thon 10 seconds, ond read plus or minus 1 degres. 4" water-proof speat Madel DFAX Direction Finder Botteries Requireds Burgess 2 eo. A.30, 1 or. BF....Nel 7.05 Crystols, entro-for oceration on 2 to 3 mc . Nef 5.00

#  HAM GEAR <br> ［20 <br> Fig．D．＂ADVENTURER＂ 

Fig．A．＂RANGER＂PHONE．CW TRANSMITTER KIT

75 waths CW input； 65 wates phone inpue．May bo uned as on ozeiter without modifiction， Bandewitching on 160,80 ． 40 ， 20 ， 15 ， 11 and
10 metera．Built－in atable vio winge 7 Inch dial．Also rrystal control with cholce of 2 crystais．Ercellent grid block break－In tey－
Ing． $100 \%$ AM modulated．Pl－network output Ink． $100 \%$ AM modulated．Pl－networim output
peeds 50 to 500 onm IInes．Moter switching． feeds 50 to 500 ohm lines．Motor switching
Comptetoly TVI Buppresied．Tuisen：6AU6 VFO 6CLE erystal osc．6CL6 buffer／idoubler． $12 A d 7$ keyer． $12 A X 7$ speech amp．． $12 A U 7$ sudio Ariver，OA2 VR， $614 B$ final amp．， $6 A Q 5$
clamper， $2-1614$ PP mod．， $6 A L 5$ blat rech． 6AX5 and 5B4GY ract．With essembly photis． diagrams，wirine directions and operating
initructions．Bize： $15{ }^{\circ \prime}$ I $115 / 16^{\circ \prime}$ go For
 Model 240－161 Banger Klt．．．．．．．．．Net 229.50 Model 240－161．2 Bancer Wired．．

Fig．E．240－141 MOEILE TRANSMITTER KIT

Compect．under dash mounting unit covern 75. 40，20．is and 11 － 10 meter bends．Marimum input： 60 wette 52 ohm output．RF fired blas aupply reduces battery draln．Band－ awliching and gang tuning of oselllator，buffer
and PA capacitore simplify tunfor ud． and PA eapscitorelector has tunine upition for poation eryital selector has position for provision．＂Tune－Transmit－Recelve＂switich controls sll atages－mules receiver．Meter reads current in oscillator，buffer．PA，and modulator rathode circulta：also PA Erid． Tubee：6BR6 one．．6AQ5 buffor／doubler，807
RF amp．6BEis peech，6BH6 driver．PP RF amp．6BE8 bidech，8BFE Revulres 300－

 Bnpe．
Medel 240－141 Moblle Elt

Fig．B．＂PACEMAKER＂SSB－CW－AM TRANSMITTER

90 watts Input for single aldeband or CW． 35 wat 15 And input．Bendswile In 3.4 me ．VFO． is highly stable，eanily tuncal and covers entire hand．Fas VOX and antl－trio elreults．Meter reude final ampilfier grid and plate current： inker readinga for balanelng and monitoring modulation lerel Soparate cryatal control for earh of the 5 bands．Output feeds 50 to 601
ohm reststive antenna loads．Power output： 60 watta peak．TV1 suppresed．Built－In VR power tupply for high，low and blas roltages． 19 tubes including 8146 final amplifler Ies．
 Medel 240－301－2 Peremaker．W＇Ired．Net 495.00
fig．C．＂valiant＂transmitter KIT

Full 275 watce Input on CW and $\operatorname{sinB}$（with auziliary 88B exciter）and 200 watts on AM ． Ntable，temp．compensated VFO operates Prom
$1.75-2$ ne．and $7.0-7.45 \mathrm{mc}$ ．PI－net wnst out－ put unes Abhitocs as flinal amps．；matches antenna loads from $50-600$ ohma．Timed sequence keying．Firh gain push－thotalk
andto．Features Iowp lerel sudio clippink： andto．Features lour lerel sudlo elippine：
huilf－In low pass audio filter：complete TVI iuppression．Self－contained reataled power kupply delivers 600 r．DC © $500 \mathrm{mm}$.300
DC 90 me．．and 6.3 ．AC 6 amps． thever recentario fins external une is providerl． Unlt upes 21 tubes，Supplied complete with
 Model $240-104$ Vallant Kit．．．．．．．Net 349.50
Model $240-104-2$ Vallent Wired．．．Net 439.50 Model 240－104－2 Villent Wired．．．．Net 439.50


 29，000－29，700 kc．Cryatal eonimlled 2 nd con－ repsion nke：stablized HF and BF asce．

 rejection，Double converaion on all hande：
douhle input tuning on hten hande．A vr and nolse IImiter．Rutti－in＂ge＂meter．3－watts sudin．Phone jank：ext ghiky and recelier
muting provisinas．Separated nower suppls

 Model 3046 O66B Recelver． Net 209.50
Net 44.50 Model 3069 Power iply．．spkr． ．Nift 44.50

## HIGH OUALITV FM TUNERS

$\begin{array}{llll}\text { Medet } 3009 . & 30-40 & \text { me．FM．．．．．Net } 69.50 \\ \text { Medel } 3010 . & 40-50 & \text { me．FM．．．．．Net } 69.50\end{array}$



## MATCHING AUDIO AMPLIFIER． POWER SUPPIV AND SPEAKER UNIT

 Medel $3034 .{ }^{6}$ \％．DC Input．．．．．．Net 47.50 Wedel 3035． 12 V．DC Input．．．．．．Net 47.50 Medel 3006．STEERING POST MOUNTING BRACKET FOR TUNERS ANO CONY．
## мови convertens F1G．C． 3030

 MOBILE CONVERTERMobjle converter enrers 10－11－15－20－40 and
75 meter phone bamit．Also has 19 and 49 meter BC band．High sensilifity，Inw drift nnige fector and Imaze respmase．Fi－10 im － ondance antenna switurh，RF sain contra and

 Minum care，cables Included．Shpe．Wi．Set 57.50

Fig．C． $30023 \cdot 30$ MC CONVERTER
Montinumus corerare mohlla converter covers
？to 30 me．Has hlah sencitirly on short whin． 1500 ke ．output，Four working tubes． Requires： $13 . i$ ．DC（n 10 mm and ${ }^{6} \mathrm{~m}$ ．DC minum caac：with rahies and insirurtion Model 3002 Moblile converter．

Net 49.50

Fig．A \＆B． 3041 MOBILE SUPER－CEIVER
Cryital montrolled 1F－audto unit for uce ufth amateur converters sueh an＂＂Buper $6{ }^{5}$ ．\＆tuned circults $(262 \mathrm{ke})$ proride harh selectivits．
Intezral vilirator nower supply furnishes voliage rezulated power to ronrerter and BFO． RF－AF gain mantroln：ndjustable snueleh
nolse elipper Ruitt－in speater． 1430 Kr nolse rupper．for A roll DCe onerition．Fastly
 ersutal．Shpe．wh．\＆Jo
Model 3041 太upeg－ediver

TRANSMITTER KIT
50 wetc input into 807 tube．Bandewitchine on 80．40．20， 15 and $11-10$ meters．Meter switching permite monltoring of final 807 Crid or plete currente．Cleen，eriop teying？ output handle：a Fide variety of antenmas： matehes $\$ 0-600$ ohm anterna Impedances． Completoly ahielded and filtered for TVI auppression．Tubes：6AG7 one．s07 power amp．， 5 USG rectifier．Bullt－in power pupply （ 450 F．DC 150 me and 6.3 ．AC 2 arope．）has recoptacio for use with auzillary aro furaished．Lais erritals and koy．Com－ plete assembly and operating direction in cluded．8ize：7世＂玉 $19 \%{ }^{\circ} \mathrm{z} 8 \%^{\circ \prime}$ ．Bhpe． wi．． 19 lba．
Medel 240 －181 Adrentures Kit．．．．．Net 54.05
Fig．6． $250-25$ SIGNAL SENTRY RF setuated monitor for CW or phone．Oper－ ates to 50 me．withnut tuninge．Monitors，sets recelver for＂breali－in＂opveration Cen be uned as ende prectlee oscllator．Whth $12 A \times 7$
and $12 A U 7$ ．Renuires： 250 ．DC at 5 ma
 supply．
3 loe．
Medel 250－25 Wired，with tubes．．．．．Net 22.00

Fig．M．240－122 VIKING VFO KIT Stable VFO．cecorately calibrated for 160．Bo． 40．${ }^{20}$ ． 13 and $11-10$ moteri．For use $\mathbf{F i l h}$ ouc．DA2 VR．Output raniet： $1.75-2 \mathrm{mc}$ ．Po 160.40 meteri： $7-7.125$ me for $10-10$ metert 6．7a7 me．for 11 metora．Festure ezeellen 250 ．DC at 15 mi power aupoly for 5.5 to 8 volt output．Bize： $7^{\prime \prime \prime}$ \＆ $6 / 16^{\circ}$ I $69 / 16$＂ Shpe wit． 8 lhs．
metol 240－18 VFO KIt．．．．．．．．．．．．Net 45.50 Wad 240－122－2 VFO WIred．．．．．Net 0.75

FIg．F．＂6N2＂VNF TRANSMBTTER An sutstandia areellenily designed crans mitter for both 6 and 2 meter opertion．Com pletely shielded ard TII suppressed．For uso Requires minipum of 6.3 VAC 300 UTVC 70 me 300 in 750 VDC 200 me and 30 or more wetts of audio Input rated 130 watts CW and 100 wate AM phone． Cathode kesing gires excellent wareform．Can be used with 8－9 me．ersatsl or external TFO． Whts dotalled Instruetions，photographs and diagrams．Dlmensions： $13 \%^{\prime \prime}$ ₹ $8 \%^{\prime \prime}$ \＆ $8 \%^{\prime \prime}$ ． ghpk．Wi．．it lbi．
Madel 240－201－1－＂6Nz＂Kit ．．．Net 129.50 Model 240－201－2－＂6．Nz＂Wired．．Net 169.50

## OTHER JOHNSON EQUIPMENT

## 240－126．1＂Navigator＂．Exciter／Trunsmitter，Kit Shpg wl， 2 it liss．．．．．．．．．．．．．．Net 100.00

 240．353．1＂Viking Thundertolt＂－2000 watts P．S．P．－KIL．shpg．wi．，itolbs．Net 450.00 240－353－2＂Vikink Thunderbolt＂－ 2000 wath P．E．P．－Wired．ghpe．wt．， 140 lbs ．Net 525.00 $250-23$＂Matchbox＂－ 250 wetts． 52 ohm line to load．Nhpe．we． 11 iths．Net 54.95
 250－28 Crystal Callbrator．Wired shpg，wL． 1 lb ．
NEW
GONSET PUSH－BUTTON
CONVERTER

VOCALINE TRANSCEIVER FOR CITIZENS BAND

Now！Private ahort diatance radlo al a price you
can asord．Practical 2 －way communicale for for
tion．Ialshewelsht units（ 4 ibs．$)$ work mrom 115 v．
AC or your car bettery．Talk into the handslised
mithe．Pour misaseg is reosived clearly over the
nudepreaker of other Vocaline units．That＇s all
$\begin{aligned} & \text { No tuning．No adjustmenta．Bulle－In whip an－} \\ & \text { teank．Auxiliary ground plane antenna avaliable }\end{aligned}$
tenna．Ausiliary ground plano antenna avaliable
or une when tramsmitter is unco ia cared 165 mc
frequencs（Cittions Bend）．No examisalion is re－
qulred for ilcenke．Complete with tubes and
choles of is AC and baltery operation．specify
frdertas．
Net per Unit et． 35

Vecalime RC． 400.
Model JRC－400－Net Der Pair 136.71 Net per Unit 60.35
Model JRC－425－8ame as JRC－400 oreepl has stainlest steel nalto with push－button control．and esrphone juck Net per Pair 195.50 Net per Unit 97.75 GROUND PLANE ANTENNAS
GP4－10 with 10 f cable．
Net 7.7
GP4－20 With 20 ft．cable．

## TRIPLETT PANLL METPRS

METER SPECIFICATIONS GLASS-FRONT PANEL METERS The panel meter with the quantey of
diatinction. Accurate to wlithin $2 \%$
 D Arsonval muving coil movements:
AC sypes use double tion repulaion
 movements. Fibest alloy steel per and steel hlloy piveta for dependi. ble eervice. Cushloned ceramie bumpers protect polinter axninst
Overtravel. Enn acales on white enamel metal dial facen. Molded black bakelite ense.
AY. Ahpe. Wit. 11 Ibs. LAFAYETTE OF TRIPLETT METERSLETE LINE depth including terminuls.

D.C. MICROAMMETERS

| range | D.C. MICROAMMETERS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 221.7 \\ & \text { 21/ } \\ & \text { Round } \\ & \hline \end{aligned}$ | $\begin{aligned} & 227.7^{21 / 2} \\ & \text { Hoir } \\ & \hline \end{aligned}$ |  | $\begin{gathered} 327,7 \\ \text { Bect. } \\ \text { Rect. } \\ \hline \end{gathered}$ | (420 |
| 0.20 | 17.25 | 17.25 | 17.84 | 17.84 | 18.91 |
| 0.50 0.100 | ${ }_{12}^{17.60}$ | ${ }_{1}^{14.60} 1$ | ${ }_{1}^{15.09}$ | ${ }_{15}^{15.09}$ | ${ }^{16.17}$ |
| 0.200 | 10.88 | ${ }_{10} 12.88$ | ${ }_{1}^{13.23}$ | 17.23 11.47 1.23 | (12.34 |
| 0.500 | 10.39 | 10.39 | 10.88 | 10.88 | 11.96 |
| S0.0. 100 100.0 | 12.74 | 12.74 | ${ }^{13.23}$ | ${ }^{13.23}$ | 14.31 |
| $10.0 \cdot 100$ $500.0-300$ | 10.88 9.70 | 10.88 9.70 | 10.47 10.29 | 10.47 10.29 | (12.36 |

D.C. MILLIAMMETERS

| Nange | $\begin{aligned} & 221-7 \\ & 21 / \mathrm{T} \\ & \text { hound } \end{aligned}$ | $\begin{aligned} & 227-7 \\ & 21 / 9 \\ & \text { lect. } \end{aligned}$ | $\begin{aligned} & 321-7 \\ & 31 / 20 \\ & \text { hound } \end{aligned}$ | $\begin{aligned} & 127 . T \\ & \text { nect. } \end{aligned}$ | $\begin{aligned} & 120 \\ & \text { 41/2m } \\ & \text { Rect. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0-1 | 9.70 | 9.70 | 10.29 | 10.29 | 11.37 |
| 0-1.5 | 9.70 | 9.70 | 10.29 | 10.29 | 11.37 |
| 0.3 | 9.70 | 9.70 | 10.29 | 10.29 | 11.37 |
| 0.5 | 9.70 | 9.70 | 10.29 | 10.29 | 11.37 |
| 0.10 | 9.70 | 9.70 | 10.29 | 10.29 | 11.37 |
| 0.15 | 9.70 | 9.70 | 10.29 | 10.29 | 11.37 |
| 0.25 | 10.09 | 10.09 | 10.68 | 10.68 | 11.76 |
| 0.30 | 10.09 | 10.09 | 10.68 | 10.68 | 11.76 |
| 0.75 | 10.09 | 10.09 | 10.68 | 10.68 | 11.76 |
| 0-100 | 10.09 | 19.09 | 10.68 | 10.68 | 11.76 |
| 0.150 | 10.09 | 10.09 | 10.68 | 10.68 | 11.76 |
| 0-200 | 10.09 | 10.09 | 10.68 | 10.68 | 11.76 |
| 0.250 | 10.09 | 10.09 | 10.68 | 10.68 | 11.76 |
| 0.300 | 10.09 | 10.09 | 10.68 | 10.68 | 11.76 |
| 0.404 | 10.09 | 10.09 | 10.68 | 10.68 | 11.76 |
| 0.500 | 10.09 | 10.09 | 10.68 | 10.68 | 11.76 |
| 0.750 | 10.09 | 10.09 | 10.68 | 10.68 | 11.76 |
| 0.1000 | 10.09 | 10.09 | 10.68 | 10.68 | 11.76 |
| $\begin{gathered} 500.0-500 \\ (G: \mid v .) \end{gathered}$ | 0.70 | 9.70 | 10.29 | 10.29 | 11.37 |

D.C. AMMETERS

Self contained up to and Including 50 amperes. Meters for 75 amperes iso millvalts) and hirher have

|  | $\begin{aligned} & 221-7 \\ & 21 / 2=1 \\ & \text { hound } \end{aligned}$ | $\begin{aligned} & 227 \cdot T \\ & 21 / \pi \\ & \text { lect. } \end{aligned}$ | $\begin{aligned} & 328-7 \\ & 31 / 2 \mathrm{~T} \\ & \text { Round } \end{aligned}$ | $\begin{aligned} & 327 . T \\ & \text { gece. } \end{aligned}$ | $\begin{gathered} 420 \\ 41 / 0 \\ \text { Hect. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0.1 | 9.70 | 9.70 | 10.29 | 10.29 | 11.37 |
| 0.3 | 9.70 | 9.70 | 10.29 | 10.29 | 11.37 |
| 0.5 | 10.49 | 10.49 | 10.98 | 10.98 | 12.05 |
| 0.10 | 10.49 | 10.49 | 10.98 | 10.98 | 12.05 |
| 0.15 | 10.49 | 10.49 | 10.98 | 10.98 | 12.05 |
| 0.25 | 10.49 | 10.49 | 10.98 | 10.98 | 12.05 |
| 0.30 | 10.49 | 10.49 | 10.98 | 10.98 | 12.05 |
| 0.50 | 10.49 | 10.49 | 10.98 | 10.98 | 12.05 |

PL METER DIMENSIONS

DECIBEL METERS

UPG down 10 D.B. For 500 ohm line. 6 mw ref. level. Zeru D.B. = $=1 . \mathrm{TiV}$. Internal reslstunce 5000 ohms. $\begin{array}{ccccc}321.7 & 327-7 & 420 & 321 . P L & 420 . P L \\ 31 / 9^{\prime \prime} & 30^{\circ} & 412^{\prime \prime} & 31 / 2^{\prime \prime} & 41 / 2^{\prime \prime}\end{array}$ | Round | Rect. | Rect. | Round | Rect. |
| :--- | :---: | :---: | :---: | :---: |
| 14.99 | 14.99 | 16.76 | 15.68 | 16.76 |

## D.C. VOLTMETERS

1000 Ohms per Volt - With Curbon, Fllm-Type Resla. tors. + Have external resistors. With wirewound re
sistors.

| RANGE | $\begin{aligned} & 221 . \mathrm{T} \\ & 21 / /^{\prime \prime} \\ & \text { Reund } \end{aligned}$ | $\begin{aligned} & 227-T \\ & 21 / a^{\prime \prime} \\ & \text { Reet. } \end{aligned}$ | $\begin{aligned} & 321-7 \\ & 31 / 2^{\prime \prime} \\ & \text { Round } \end{aligned}$ | $\begin{gathered} 327-7 \\ 3^{m} \\ \text { Rect. } \end{gathered}$ | $\begin{aligned} & 420 \\ & \text { 41/2" } \\ & \text { Rect. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0.1 * | 10.49 | 10.49 | 10.98 | 10.98 | 12.05 |
| 0.3* | 10.49 | 10.49 | 10.98 | 10.98 | 12.05 |
| 0.5 * | 10.49 | 10.49 | 10.98 | 10.98 | 12.05 |
| 0.10 | 10.49 | 10.49 | 10.98 | 10.98 | 12.05 |
| 0.15 | 10.49 | 10.49 | 10.98 | 10.98 | 12.05 |
| 0-25 | 10.49 | 10.49 | 10.98 | 10.98 | 12.05 |
| 0.50 | 10.49 | 10.49 | 10.98 | 10.98 | 12.05 |
| 0.100 | 10.49 | 10.49 | 10.98 | 10.98 | 12.05 |
| 0.150 | 10.49 | 10.49 | 10.98 | 10.98 | 12.05 |
| 0.200 | 10.49 | 10.49 | 10.98 | 10.98 | 12.05 |
| 0.250 | 10.49 | 10.49 | 10.98 | 10.98 | 12.05 |
| 0.300 | 10.49 | 10.49 | 10.98 | 10.98 | 12.05 |
| 0.500 | $10.98 \dagger$ | 10.98 + | 11.56 | 11.56 | 12.64 |
| 0.750 | 10.989 | 10.98 ¢ | 11.56 | 11.56 | 12.64 |
| 0.10009 | 13.03 | 13.03 | 13.62 | 13.62 | 14.70 |
| 0-2000\% | 13.03 | 13.03 | 13.62 | 13.62 | 14.70 |
| 0.3000 | 13.03 | 13.03 | 13.62 | 13.62 | 14.70 |
| 0.40001 | 13.03 | 13.03 | 13.62 | 13.62 | 14.70 |
| 0-5000 | 13.03 | 13.03 | 13.62 | 13.62 | 14.70 |
| D.C. MIALIVCLTMETERS |  |  |  |  |  |
| Tane | $\begin{aligned} & 221.7 \\ & 21 / 3 m \end{aligned}$ | $\begin{aligned} & 227.7 \\ & 21 /{ }^{\prime \prime \prime} \\ & \text { "oce } \end{aligned}$ | $\begin{aligned} & 321-7 \\ & 31 / 4 m \\ & \text { Roum } \end{aligned}$ | $\begin{aligned} & 327 \cdot \mathrm{~T} \\ & \mathbf{B e c t}^{30} \end{aligned}$ | $\begin{aligned} & 420 \\ & 41 /{ }^{\circ 1} \\ & \text { Hect. } \end{aligned}$ |
| 0.50 | 9.70 | 9.70 | 10.29 | 10.29 | 11.37 |
| 0.100 | 9.70 | 9.70 | 10.29 | 10.29 | 11.37 |
| 0.150 | 9.70 | 9.70 | 10.29 | 10.29 | 11.37 |

METER DIMENSIONS round flush mounting

\author{

| mod. |
| :--- |
| $\begin{array}{l}\text { ma1.1. } \\ 231 \\ 321.5 \\ 321.5 \\ 331.5\end{array}$ |

}

Flange Body

## PANEL METERS and TESTERS



## NEW PRECISE ALL-PLASTIC PDC "METER OF MANY FACES"

## - CONVERT ONE PANEL METER TO UP TO 26 DIFFERENT RANGES!

- ENGINEERED FOR MAXIMUM PRECISION AND ECONOMY.
Ingenious new precision panel meter enables you to obtain wo to 26 different ronges. Simply remove the old scole, designotor and multiplier resistor or shunt, and stip in the new. A new meter in a molter af seconds of a small fraction of the cest of an odditional unill Your meter cannot becom obsolete. All ore D'Arsanval meter movements with accuracy of $2 \%$ in millivalis and current. Almica $V$ permanent magnets and leweled bearings for exceptional service. Mirrared scales for befter slarity and appearance. Cross arm type bafance. Clear plastic frant and body. Froni-4\%" $4.3 / 16^{\prime \prime}$; Body-2.11/10" diam. Requires $23 / "^{\prime \prime}$ panel hole. Mounts by 4 threaded studs on $4^{* \prime} 3-9 / 16^{\prime \prime}$ mtg. ctrs. Average shog. Wt. I I/s Ibs. Order by type and range: i.e.. TYpe MIK 10 Volis DC; TYPE MIVA 100 MA AC ; of


PRECISE SPECIAL PDC METER KIT

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Here is a sensallonal meter pockope of six aftractive, precision mefers plus related quality resistars, shunts and mirrored scole faces that provides close ta 100 cusinm melers reody for immediate use. Illumination kil included. Ideal for labs, hobbrists, Experimenters, field measurements. efc. Covers all the PDC mefer ranges listed an this page. In a matter of seconds you canvert do on active quolity instrument. No mare absolete meters on you shelves! Packed into atloche-type light. weight poriable case. $17^{\prime \prime} \approx 151 / 2^{*} * 4^{\prime \prime}$. Shpg. wh..

PRECISE PDC METER KIT
Net 129.95

## 0-3 DC MILLIAMMETER

## Altroctive 0.3 OC Mo. ponel

meter with calared GOOD.
'GOOO" extends from 0 ia
.5 Ma. Yellaw "FA1R" from . 5
to 1.5 Mo . Red 1800 has internal resistonse. Pol 1.5 Ma. Ap solenoid type. Metal cose with telephane-black frant Requires 2-5/32" hale. Ideal for fransistor checker, remote cantral, grid dip meters, boltery checker AM-FM receiver funing, hobbyists, fic. Has twa $1 / s^{\circ}$ hates for panel mounting. $2 \%{ }^{\prime \prime}$ " $2.9 / 16^{\prime \prime}$ " $11 / 2^{\prime \prime}$ overall. Shpg, wi. 1 ib.
$\qquad$ Ib. $\qquad$ Net 2.50

## EBY SUBMINIATURE

## - NEW <br> - amazing

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## POCKET TESTER

Measures anly $3^{\prime \prime}$ $1 / 4^{\prime \prime}$ $11 /{ }^{\prime \prime}$ " yet this amazing unit ures $\mathrm{AC} . \mathrm{OC}$ volls fram 0.1000 ures AC.OC volis from 0.1000 high it's a signal tracer high. it's a signat tracer, condenser rester, oudio assil latar. AGC substitution valt age supply, visual outpul meter ond cantinuliy tester.
An outstanding value. Shpg. An autstanding value. Shpg EEY A 1000


## 3 NEW PRECISION INSTRUMENTS FOR THE LABORATORY AND SERVICEMAN <br> TV-FM SWEEP-MARKER-ALIGNMENT GENERATOR <br> Compare if wifh insfruments af twice the price! <br> - SWEEP RANGE 3MC-260MC - MARKER RANGE 3MC-225MC <br> - COMBINATION CRYSTAL AND VARIABLE MARKER-I \% ACCURATEI <br> - SUPPLIED WITH 4.5MC CRYSTAL 0.002\% ACCURATE <br> - SWEEP WIDTH 0-12 MC CONTINUOUSLY VARIABLE - TWO $5^{\prime \prime}$ dIALS <br> - Crystal calibration of both sweep and marker <br> - RF OUTPUT $100,000 \mu \mathrm{~V}$ WITH BOTH STEP AND CONTINUOUS ATTENUATION <br> The iafoyelte LSG. 50 is a foctory wired and calibrated precision instrument that incorporates in a single

 unit both TV-FM sweep and crystal morker generators with all the features and ranges required for last occurate alignment of If and RF stages of TV and FM receivers. It may, of caurse, be used also as a can. linuous RF generator. The occurate, linear electromognetir sweep system covers $3 \mathrm{MC}-260 \mathrm{MC}$ in 2 bands af 3 MC .120 MC and $140 \mathrm{MC}-260 \mathrm{MC}$. Sweep width is continuously variable from 0.12 MC or more. 3 valts \$MS, 60 cycle sine wave horizantal sweep volloge (for oscilloscope) avallable fram front panel. The marker cavers $3 \mathrm{MC}-225 \mathrm{MC}$ in 4 overlapping ranges, providing cantinuous coverage and marking for all FM and TV If frequencies. The combination of crystal and variable morking permits producing sevaral marker indications simultaneously alang the if curve. Marker callbration is occurote to better than $1 \%$. The 4.5 MC crystal supplied mounts on front panel socket and is accurate to $0.002 \%$. The output of the crystal may be used io callbrate bath the sweep and marker generotors over thoir entire ranges, os woll as lo calibrato ather to calibrers bathe input is provided sa an additianal external morker can bo used. The built-in marker generators. An exira input is provided so on oddicnol ofloralled by the may be operafed independently of the $s$ weep. RF oufput is over 100,000 microvolts ond is conirolied by the 3 step $(\mathrm{Xi}, \mathrm{XiO}, \mathrm{X} 100)$ ettenuation and the continuously variable fine adiustment conirol. Output impedonce is 75 ohms, unbolanced.Contrals are sweep width, harizantal phose, electronic retrace blanking with off pasition, marker amplifier, RF autput 3 step multiplier, RF output fine odiustment, sweep ronge selectar switch and marker range selector switch. Crystal sacket, pilat light and ezternal marker input are alsa on frant panel. Tubes are $616,2-12847$, 6 AVB and $6 \times 4$. Other feotures include filter to provent leakoge to line through pawer 6J6, 2-12 h7, GAVB and $6 x 4$. supply, officient complefely shieided ascillotar and aftenuator insuring exceptianaly low leakage of un. wanted slonal, two 5 easy-ta-read dials pratected by ciear, plastic covers and Sturdy gray wrinkie motal cabinet. Convenient handle. Camplete with fubes, 75 ah
marker input cables, and 4.5 MC crystal. Size $9^{\prime \prime} \times 131 / 2^{\prime \prime} \times 6^{\prime \prime}$. 5 hpg. wt., 20 lbs. MODEL LSG-50....

Net 79.50

## FM-TV MARKER GENERATOR

## WITH VERTICAL-HORIZONTAL BAR GENERATOR

- frequency range 3.5mC-250mC In 6 bands
- COMBINATION CRYSTAL AND VARIABLE MARKER-I\% ACCURATE
- generates variable vertical and horizontal bars
- SUPPLIED WITH 4.5MC CRYSTAL-0.002\% ACCURATE
- rf OUTPUT $100,000 \mu \mathrm{~V}$ WITh CONTINUOUSIY VARIABLE ATtENUATOR
- SELF CONTAINED AUDIO MODULATION

The LSG-30 TV.FM Marker Generatar is a factory wired, precision instrument that is bath a marker and bar generatar. It provides morker signals aver the entire range af $3.5 \mathrm{MC}-250 \mathrm{MC}$ in o bonds. The cambination of erystal and variable marking permits praducing 2 marker indications simultaneously an the respanse curve thus speeding up alignment. Marker colibration is better than $1 \%$ accurate. The 4.5 MC crystal supplied maunts in frant panel socket ond is accurate to $0.002 \%$. The output of the crystal may be used to calibrote the marker or other instruments.
In addition it provides both vertical and harizantal bars for fast visual adjustment of linearity af TV pictures. The bar generator frequencies are eosily adjustable by frant panel variable cantrols.
The harizontal bor madulation frequency is in the oudio range (apprax. 720 cps .) and is variobto, thus serving on a self-contained method af madulating the marker. This is especially valuable in stage-by-stage alignment eliminoting the use af an additional instrument.
The RF output of $100,000 \mu \mathrm{~V}$ is contrelled by a continuously variable altenuotor. Output impedance is 75 ahms unbolanced. Controls all on front panel, ane frequency range selector; 4 position signal solector switch (CW, Vert. bar, Horiz. bor, xtal), RF outpul ottenuator, horizontal bar contral, vertical bar cantral and power on-off. Also an frant ponel are crystal sacket, output connector, pitat light, ground post and vernier driven dial pointer.
Other feotures include filter to prevent leakage to line thraugh power supply, easily readable $51 / 2^{\prime \prime}$ dial scole protected by clear plastic caver and vernler driven dial painter, and sturdy gray wrinklo metal cobinel with handle. Tubes are 6C4, 128H7, 6 J 6 and $6 \times 4$. Complote with iubes, 75 ahms caor cable and erystal. size $8^{\prime \prime} \times 12^{\prime \prime} \times 5^{\prime \prime}$. Shpo. wi., 9 lbs


## TV-FM SWEEP GENERATOR

- RANGE 2MC-26OMC ACCURATE LINEAR SWEEP SYSTEM
- SWEEP WIDTH 0.12MC, CONTINUOUSLY VARIABLE
- RF OUTPUT $100,000 \mu \mathrm{~V}$ WITH BOTH STEP ATTENUATOR AND CONTINUOUS ADJUSTMERT
The LSW. 40 is a factory wired precision built TV-FM sweep generatar that furnishes swept signals for visual allgnment over the range of $2 \mathrm{MC}-260 \mathrm{MC}$ in 2 bonds of $2 \mathrm{MC}-120 \mathrm{MC}$ and $140 \mathrm{MC}-260 \mathrm{MC}$. The sweep width is cantinuausly varioble fram $0-12 \mathrm{MC}$ over the ontire range. The RF output of 100,000 microvalts is con. trolled by an accurate 3 step ( $\mathrm{X}, \mathrm{X} 10, \times 100$ ) attenuatar and a continuously variable fine adjustment cantrol. Output impedance is 75 ohms unbalanced. 3 valt RMS, 60 cycle sine wove horizantal sweep valtoge for escillascope is available fram frant panel.
Contrals, all on front panel, are frequency range selectar, adiustable harizontal phasing contrat with AC on-aff switch, continuausly variable blanking contral with aff pasition, sweep width, RF autput step attonuator, and RF output fine odjust contrat. Also on frant ponol ore pilot light, Rf output connection, 80 cycle autput, and vernier drive dial knab.
Additional features include completaly shielded, occurate, linear elactra-magnetic sweeo system, filtered pawer-line for minimum leakoge, and $51 / 2^{\prime \prime}$ easily read diol. Tubes ore 656,12 BM7, $6 A V 6$ ond $6 \times 4$. Sturdy power-ling for minimum leakoge, and $51 / 2$ easily read diol. Yubes ore ${ }^{\text {gond }} 75 \mathrm{hm}$ and 300 ahm cooxial cables. $5 i z e 8^{\prime \prime} \times 12^{\prime \prime} \times 5^{\prime \prime}$. Shpo. w1., 18 lbs.
MODEL LSW-40
Not 59.50


## TEST EQUIPMENT



## PRECISION E－200－C SIGNAL－MARKER GENERATOR

## －PROFESSIONAL PERFORMANCE

The outsianding generator in Its elass． 88 KC to 240 MC ．

 Site wate audio ascilistor－oier solitions autput；dual RF

 $100 \%$ indulatlon control；built－In AVC－AGC substitution
for orerenuling allennient troubles．Ficelient for allenment

 For 110－120 volts， $30 / 60$ cyeles．Complete．with tubes，cable and＂Serrieing by siznal Substitution＂manual．Shpg． E－200－C
E－200－C Deluxe－sitin hrushed，anoilized aluminum asine custom moldecl kmphs，color－etrhed charactera，blue－erar ripple cahinet．Shpa．wt． 17 lbs．．．．．．．．．．．．．．．．．．et 93.10

## SUPERIOR TW－11 TUBE TESTER

Tests all tubes Including 4，5，6， $\mathrm{J}_{\text {，actal，lock－in．peanut．}}$ haniam．hemrinf aid．Thyratron，uniniature，aub－miniature， ＂shoris＂and＂leakazes＂up to 5 megohms．Uses the new self－rleanins lerer section swlithes for indiriduel element testing．The user can instantly didentify which olement is under fest．Truly tests tuhes with tapped flamients as any of the pins mas he plared in the neutral poiltion when rombination morketa used．Built－in roll chart prosides mom－ plete data．Line volfage contmin compensates for veriations between 10.5 and 130 wolts．Jark on front nabel for nlukgiog In phones or mmplifier to deteet noise．The TV－11 mas also the uscal as an ertremely seasjiltre rondenser lenkage cheeker． WIIl detert leakage eren when the rrequency is one per minute．Operates on 103 － 130 volts， 60 meles In ．He．Hused $^{\text {In }}$ In an oak cabinet comiplete with raver． $11 /\}^{\circ} \times 13^{\prime \prime} x 6^{\prime \prime}$ SUPERIOR TW－11

## RCA WO－91A OSCILLOSCOPE

Alt new scope．Freuuency response on wide band portition Whith -1 db frum 10 cps to 1.5 luc，on aur row band
within -6 db frum 10 cDs to $1 . j$ Huc．Gensitivity 025 rolt wriak－to－peak per inch in narrow band position．．05w volt jeak－to－peak in wilise．
Other features：roltage calibrated，frequency compensated， a to 1 stey attenuator for＂$V$＂imp；buiti－in eallibration for meak－to－peak roliage meaburements；remurable aulti－
scult graph ocreen measures peak－Lo－neak rolsages as easily
 ur＂Inrerted＂trure display；one－plece low eapaclitance di－ rect prube；pre－set＂Y＂and＂H＂sweep positions；＂plus－ or－minus＂internal syne－selector：Dositire－lock internal syne．Complete with dusi vurpose protse shielded Input cably end instructions．Shps．Wt．， 40 lbs．
RCA W0．91A
Net 229.50

## SUPERIOR TV－50 GENOMETER

## －NEWI 7 SIGNAL GENERATORS IN

R．F．，A．F．Bar，Cross－Batch．Color Dot and Marker Gen －rator comilnation．A rersitile mill－inclualre Generatin Which smoides sill the outputs for serviring A．M．／F．M．

MODEL TV－50 Genometer．

## B \＆K 400 PICTURE TUBE REJUVENATOR TESTER

－NOT ONLY TESTS BUT REPAIRS TOOI Now it＇s essy to sare thousands of weak and Inoperative TY oscture suben．Designed expressly for the service man＇ use－fither in the shoo or the customer＇s home．Quickls and arcurately checks any make or model of TY picture tube，and Instantly determines If tube is good or bad．All this can be accompllshed without remoring the tabe from the set．It teste for emissioth，foter－olement shorts．leak－ are，open elrcuits，arld cut－onfigas content and prohoble trouhles which iflse．It restores emission and brightness， removes shorts，repairs open clrcuits．ple．No need to re－ more pleture tube from set when making repairs．Miaroon
 I $11 \%$ ． $41 / 2 \mathrm{~m}$ plastlc meter For $110-120$ volt 50 cycles．Shpg． BLK 400
B\＆K 400 ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 58.75


## PHAOSTRON 555A VOM

## － 43 UNDUPLICATED RANGES

－PROTECTED UP TO 1，000 TIMES OVERLOAD This expertby designed multimeter has double monneti shleldinx for extreme accurucy．Features f large easy－to． real coior brafes on a／2 scale：meter movement protec thon up to 1000 times overioad；separate kange and Func DC， $4 \%$ AC permanent securacy．Sensitivity： 20.000 ohms per roli DC； 2000 ohms per voit AC．AC current rances per solt $D C: 200$ ohms per roit AC．AC current rankes：
$0-1.5-5-15-50-150-500-1500$ ms，ind $0-15$ smps．DC cup－ rent ranges ： $0-50-150-500$ microamps． $0-1.5-5-15-50-150$－ $500-1500 \mathrm{mi}$ ．and $0-15$ amps．Reslstance： $0-1000-100.000$ ohms：0－1－10 megohins，AC and DC Volts： $0-1.5-5-50$
$500-1500$ ． 6 db runges． $500-1500$ ． 6 db runges．＂Transit＂sultch position for meter morement protection durlng transportation．Netal MODEL 555A MET 05 Genuine Leather Carrsing Case for $35 \mathrm{JA} . . . \mathrm{N}^{2} \mathrm{~N} T .79$ PHAOSTRON MODEL 666－Deluxe VOM teatures over－ load fusing and signul hixh．and bandsome leather carry－ Ing Clise． $3 * x^{\prime \prime} \times 6=x 71 /$ ．With probe．Dower cord and MODEL 655

NET 63.21 PHAOSTRON MODEL 777 －NEW V．T．V．M．－Complete Slipg ut a

NET 73.45

## TRIPLETT 3413－B TUBE TESTER

Latest model tube tester prorides conclusire tests of all re－ celving tubes，gaseous rectiflers，and dew series flament tubes（with adapter）for quailis．inter－cieasent shorts of leaikge．Seon shurt test shows sughtest inter－element
chort or leakage whil cathodes are hot．New 3 －posilion short or leakage while cathodes are hot．New 3 －position frorides short and eontinulty test for resistors．ballas tubes．yilot iamps，appliances，etc．Foll range of alamen voltakes from．B3 to 110 solts in 19 steps Big $6^{\prime \prime}$ Bed Do lifetime xuarantee tneter．Speed－Roll tube chart．Cumplete in countri－portabje metal case with remorable hinged cor er；baked－un black unamel thish． 1 C 5 Volts． $30-60$ cyele MODEL 343．B ．．．．．．．．．．．．．．．．．．．．．．．．．．．． 77.9

BV ADAPTER—FOR TY PICTURE TUBE AND CRT TESTS
IV PICTUNE TUBE ADAPTER

Check picture tulies right in sel or earton．Can be used with Triplett Models 3113－8，3423，2413，3212． 3413 and TRIPLETT T－2247－日V．

## RCA WV－98A NEW SR． VOLTOHMYST


#### Abstract

The ner Senior Voltohmyat features large．6 $/ /{ }^{\prime \prime}$ easy w－resd．Whde－riaton meter：expanded meter scele with seps－ AC and DC：sturds，sinale unlt streamlined probe with huitt－in DCFAC Ohms switeh；ruggedized dle－cest aluml－ nom case．DC OLTg－panger：0．1．5．．15．50． 150. 500， 1500,11 nerahms input resintance：AC VOLTS－14 Tenkes：Peak－to－peak $0,1,14.42 .140 .120,1400,1200$ Volts，RMs（for sine wares） $0,1.5,5,15,50,150,500$ ， 1500 Faltu；Ohms－ 7 ranges； $0-1000$ megohins．Frequeney  20． 150 ． 50 volt ranges fist from 30 cDS to 3 Me for roltare sourre hiring 100 ohm impedance，or lower． 1500 volts maztinuw－$D C$ and AC input voltage．For $103-125$ solts． cio／60 eps．Blue－Eray hammeroid case with atln－aluminum  new DC／AC－Ohms sufteh prohe WG－299A，shielded calble MODEL WV．98A．


## SIMPSON 260 VOM

This TOM features extreme verathlity，accuracy and rug： gedness．Current conaumpthom is practically negligible． hultipliters，proriding maximumbltenath and added insula tion．DC senslifrity of 20,000 ohms／volt．Heads as low as 2 inicroamps and ohm，and as high as 10 amps and 20 mess． $1 / 1 / 2$ meter．AC sensitivits， 1000 ohms／Fult．Ranges： volt on AC and DC only．DC current 0－100 mite 5000 $0 \cdot 10-100-500 \mathrm{ma}$ and $0-10$ amps．reals ance． $0-2000-200,000$ ohms and $0-20$ mess，$D b,-12$ to $+i 5$ in 5 ranges
 leads．Shps．wi． 3 jbs ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．itien 43.07 Na．IBIE Cowhide Case．Cartsing case for above，$\frac{1}{16} \frac{10}{50}$ Model 260RT－As abore but with＂roll top＂case． No． 0007 HV Probe Exteads DC range to 25.000 rolts．
Wi．， 8 oz．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 9.75

## TRIPLETT 630 MULTITESTER

Dual．high sensitivity multitester： 20.000 ohms／volt DC， 5000 ohms／rolt AC．DC and AC rolt ranges： $0-3 / 12 / 60$ j $300 / 1200 / 6000$ ．DC eurrent： $0-60$ microamps： $0-1.2 / 12 / 120$
mo．： $0-18$ mps．Res／stance： $0-1$ 000 $/ 10,000$ ohms： $0-1$ meg／$/ 100$ meg with center scales of $4.4 / 44 / 44,000 / 440,000$ ahms．siz direct reading db rankes Prom－ 30 to +70 ． Capacitor in serfes with AC volt rances．Single rotary switch．Black molded plastic case． $3-7 / 32^{\prime \prime}$ a $51 / \%^{\prime \prime}$ 玉 $7 \%{ }^{n}$ ． Coundete wlih baiteries and test leads． Triplett Model 630－Sipg．Wi．， 6 lbs．
43.61

TRIPLETT MODEL 630．A－Same as Model 630 ercept has long．mirrored scale that elfminate darallay in readings． MODEL 630 ． MODEL 639－Leather carrying case for 630，630A．G30NA，
E30T，631 ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 9.2 i

HICKOK MODEL 455 VOM
－ 20.000 ohms per volt dc and ac

## －YOU CAN＇T BURN TT OUT

sew streamined design with wide Nision monobreatabie ucite face．shagle Function－and－Runge selector switch． Ranges：Volts－3， $12,30,120,600,1200$ rolts AC and
DC：$U$ to 100 mexohns in 4 ranges：Current： 50 Us： 1.10 ．
 rom $3^{*}$ to 1 亩 ${ }^{\circ}$－shbg．we， 5 liss
MODEL 455.

## precise Easy-to-Build TEST EQUIPMENT KITS



## PRECISE POWER-LAB

- one instrument takes the place of more THAN II POWER SUPPLIES!

A Bottery Eliminatar ond chorger, AC Line Valtoge Meter, High Current line Valtage Vorioc. AC line Ammeter, AC line Woth meter. AC line frolotion Tronsformer, Low Voltage-High Current - AC Supply, AC Bios Box, DC Line Yottoge Voriable Supply, and DC. High Current Ammeter. Constant power sourse for servicing outo rodios and transistor sets. Can vory valloge output to check TV sets for imminent breakdown thus avoiding call-bocks. AC-DC conver:er. Wigh AC (With isolotion), 90.140 V , 10 mp , 10 wotts continuous; 90.140 V 3 omps, 300 wotts continuous. HIGH DC: 110.180 V , 075 amp linuous, 1 omp maz. $12^{\prime \prime} \times 81 / 2^{\prime \prime} \times 51 / 4^{"}$. For 110.120 V ; 60 cycle AC
MODEL TIIK (100 walts of isoletion) Kit - Shpg. Wt., is lbs.
Net 49.95
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## FOR COLOR AND BLACK.AND WHITE

- SUPER-VALUE - LABORATORY PRECISIONI An oxpertly engineered $7^{\prime \prime}$ scope kit. Vertical.flat $\pm 3$ db through 5 mego cycles with sensitivity of 10 millivolts. Bridge type postitioning on vertical and horizontal daes not vary tube chorocteristics. Frequency compensated vertical and horizontal stepping attenuators. Push-pull DC amplifiers, pushpull harizantal aut. Five way binding pasts for easy hoakup. Internal and external Blanking through Blanking amplifier circuit. Linear sweep from 1 cycle to 80 ks . Elestronis magnifier circuit altows any part of a signol a be magnified up ta ten times lequal to 70 inches of horizantal defection) Internal square wove calibratar and patentiameter for using scope as VTVM on Peak to Peak measurements. Edge-illuminated filtered calibratian creen - con be furned on ar aff. Astigmatic focus and intensily contral Hos 5 outputs an front panel - Plus Gate, Sawtooth, 60 cycle phasing, 60 cycle unphased, Calibration. High quality, low lass camponents thraugh out. Deeply atched aluminum panet; steel cabinet $11^{\prime \prime}$ 玉 $14^{\prime \prime}$ 玉 $17^{\prime \prime}$ Complate with all

MODEL 300BK - KIT, complete
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PRECISE MODEL $116 K$ TUBE AND TRANSISTOR TESTER KIT
 - ULTRAFAST, FOOLPROOF TRANSCONDUCTANCE AND EMISSION TESTER
Model 116 makes pube testing foolproaf by shecking mutual canductance, emission, gos and element sharting with incamparable speed and accuracy. Actually checks 5 similar lubes in 20 secands 4 secands per tubel Function switch facilitates checking individual sestions of multisection tubes. By testing a power tube for emissian and an if tube for mutual conductance, eff., you get a true indication of how goad the fube will be in the iab it wlll narmally have to perform. Only 3 bosic knobs. Cover chort lists all fubes including new 600 ma . series-string types. Checks P-N.P \& N.P.N transistars. Altractive, rugged moleskin covered wood corrying case, etched panel with easy, step-by-step instructions. $71 / 2^{\prime \prime}=161 / 2^{\prime \prime} \times 141 / 2^{\prime \prime}$. For 110.120 valts, 60 cycles AC. Shpg. Wi., 20 lbs
Model 116 K - Kit, complete Madel 116 W - Factory wired

Nel 69.95 … .......................... 119.95
PRECISE $81 / 2^{\prime \prime}$ OSCILLOSCOPE KIT MODEL 308K

- THE PROFESSIONAL'S WIDE-BAND SCOPE

EASY TO OBSERVE EVEN THE SHARPEST PULSE!
A super scope tif for the laboratary and shap designed with the larges sathade ray tube available in the cammersial field. Magnifier pasitioner permits extremely accurate wavefarm anolysis, Vertical sectian has feotures faund anly in the mast expensive and custam made scapes; Push-Pull Input for internally mining two signals or observing push-pull waveforms; fre quency-compensated Stepping Altenvatar; Bandwidth fram DC thraugh 5 m within $\pm 11 / 2 \mathrm{db}$. Sensifivity $10 \mathrm{mv} / \mathrm{inch}_{\text {; }}$ Bridge-type pasitioning; Return troce eliminalpr; External, internal pasitive or negative syns; Linear sweep fram 1 gycle to 80 kc ; Square-wave calibratar and pot. far using scope as Peak to Peak VTVM; Edge-illuminated scole and green filtered screen. Special law lass campanents. Sfeel cabinet with deeply etched aluminum panel and reinforced chassis construction. Complete with instruction boak and alt components. $11^{\prime \prime} \times 14^{\prime \prime} \times 19^{\prime \prime}$. Shpg. wi.. 36 lbs
MODEL 308K - K1T, complete
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Net 129.50
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## PRECISE PROBES

[^5]

PRECISE MODEL 111K TUBE TESTER KIT
THE ONLY TUBE TESTER BELOW $\$ 950.09$ THAT CHECKS TUBES the way they're tested at THE FACTORYI
CHECKS FOR SOTH EMISSION AND MUTUAL CONDUCTANCE TWO TESTERS IN ONEI

A truly outstonding engineering ochievement in o fube fester kill the speciolised tube gets lested for its speciolty os well as generolly. lotest type anti-bocthash roll chart indicater the most importont single test for normal applications. Tests all receiving ond cothode roy tubes for both mission and mufual conductance. Filoment current ond fube bias of conventional ond series floment fubes are measured directly on the meter. Feotures rotory type iwitches to cover oll tube elements, gos chect, and ultre-convenient single switch thort check. Hos spoce switch for fufure lube types. Rugesed steel cabinst with doeply elched oluminum pomel. 3-color, step-by-step instruction monuol. For 110 . $120 \mathrm{~V}, 60$ cyele $A C .14^{\prime \prime}: 16^{\circ} \mathrm{m} 6^{\prime \prime}$. Shpg. wi., 25 lbs MODEL IIIK - KIT, complete with cover ........ Net 79.95 MODEL IIIW - Foctory wired ................ Net 139.95
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PRECISE MODEL 909
VACUUM TUBE VOLTMETER

- BURN-OUT PROOF CIRCUIT
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MENT SCALE FOR FM R TY DISCRIMINATORS
A irue Precise ochievement with every port, ne motter how emoll, the right part for the iob. Fealurer $1 \%$ or befter ceromic practsion resistons: speciol, separole 5 Volf AC scole for accuracy on tow voltooes; 25 $+D C \quad 0.5-25-250-500-1000$ Vols; $-D C O$ 5.25 .250 .500 .1000 Volis: $A C \quad 0.5 \cdot 25.250$
 $500-1000$ Volfs; Ohms int-inilo- in 1000 An $10,000-\mathrm{ha1}, 000,000$ Ohms; from .2 Ohms to 1 sition Ohms; from -20 to +55 OB . Uien 65N7, 6A15, 6X5. Entra large $4-1 / 2^{\prime \prime}$ meter. Up to 250 megocycle rgnee with Model 912 Probes Up to 30,000 Volts with Madel 999 Migh Voltoge Probe. Attractive steel cabinet with deoply etched panel. Complete with test ieads, internal bottery, and sociotly prepared 3 color SPEED instruction books that enploin each itep. For 105.120 Volf; $50-60$ cycles, $A C$. $91^{\prime \prime} \times 6^{\prime \prime} \times 5^{\prime \prime}$; 5 hpg. MODEL SOQK - KIT, complete

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110 Mc on FUNDAMENTALS, 330 Mc ON HARMONICSI PRECISION ENGINEERED FOR TV, AM and FM ALIGNMENT WITH FACTORY PREASSEMBLED AND CALIBRATED RF HEAD

Fgatures Wien Bridge AF oscillator: Colpitts RF ascillator; audia of 20 20,000 cycles; cathade follower out. put: stepping attenuatar: external

## ([)] 41

 modulation; speech amplifier; crystal morker; pre-funed RF head; crystal amplitude cantrai, RF and AF stand-byz separate RF section; canstant autput impedance. Other features include vernier funing an RF and AF, individually funed calls, and complete shielding. Deeply etched alum. panel; wrinkle steel cabinef with genvina leather handl. For 110.120 valts, 60 cycle AC $8^{\prime \prime} \times 11^{\prime \prime} \times 5^{\prime \prime}$. Shpg. wt., 11 lbs.

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DeLuxe TV servicing scope that sets n new high for sen ditivity at wide handwiditi
 do ai 500 kc ; 3 rma v/ln. Sweep: K -follower inputs and step freq. compensated attenuitor. Kis. Retum irrace Mank-push-pull outputs ing of 60 cph sine sweep, internit orod
 are nawtooih from sweep oncilinior and $i$. Size: $15^{\prime \prime} \mathrm{H}$




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- for color and monochrome TV SERVICING

Makes your meope an accurate, wide-range, penk-to-peak AC electronic voltmeter! Enahies p-p
volsige meanuremnent of complez TV gweep wive forms displayed on scope, calfbration of wert we hor, scone nmplifiers, ©tc. Shuare wave output at power line frequency vert. an attenuated by a calibrated nmooth attenuntor and a 4 -atep decnde attenumtor scale readinies of $0.1,8,10$. and 100 volte from zero on every range uith full ench rance VR tube regulated power voltage varintion. Lifetime deepmetched aluminum panel. Size: 5 "Hpentifent of line Shog. Wit. 4 ibs.
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Relinble. accurate, nortable, enny-to-une-n wonder ful timesnaver Operates on chann hoR. linearity vertical bara (inh adj. to check to check yert linearity. Shown plcture nize and Connecta to antenna stablity, Output: 400 . terminals of any get wint shation-iransmitted airnnis tirely undepentior TV eervice work when all stations
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DELUXE PEAK-TO-PEAK VTVM MODEL 249

$71 / 2^{\prime \prime}$ METER AND DUAL PURPOSE AC/DC UNI-PROBE

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All the outstanding and exclukive features Alodel 232 plus the extra conipnience and resd etrument. Smart professional styllig -antinch finish

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BATTERY TESTER MODEL 584 Accurately tente wil A and 8 portahle rudio hatteries In or out of receiver. Tente lintern batherims and others. provides true dynamic tenta by checking battery terminni voltages






RETMA RESISTANCE SUESTITUTION BOX MODEL 1100
Enables rapid nubstitu RETMA readatance value from 15 ohms to 10 tiples of $15,22,33,47,68,100$ ohma. Une Convenient 5 -way jack-top binding pouts. Hand-
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5 MC CRYSTAL 4.5 MC CRYSTAL \#C-5 \#C-4.5 Designed for all generators and onclllators, these higheat quality crystals sockets sind circuite and sict ard sockets und circuile and kico No. C-5 .....Net 3.95

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Me (de voltmeter, ammeter, ohmmeter, An all-In-one Multi-Range ac/de voltmeter, ammetep, ohmopaira wattmetre and wakage and in automotive trouble-shooting of of eltecies, generators, distributors, etc. ichages irom oter in
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CAPACITANCE DECADE SOX MODEL 1180 Precialion ellver-mica capacitora ( $\pm 1$ \% accuracy, rated 350 VDC continuous. 800
VDC intermitient. 1000 VDC VDC intermittent. 1000 VDC test) wr. ranged in 3 decades for exeremely wide
range of 100 M MF to $0.111^{\text {Mr }}$ in ste wh of 100 simF. Positive detent ceramic wifer switehex ahlver plated coniacts. Sakin-finish




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## COMPLETELY WIRED NOT-A-KIT

A now streamlined tube tester with a realistic approoch to the problem of quickly fosting the ever increasing number of tuba typas. It incorporates now and advanced anginearing features and all at tube tester. Read these specifications.
"FREE POINT" ELEMENT SELECTOR SWITCHING: Nawly dasigned, 11 reduces possibility of obsolaseence to a minimum beces pany pin may be used as oflament pin and voltage applied be Tubes with tapped filaments ar with filements minating in more then I pin are truly fested. MULTIPURPOSE TUBES: Spacial isolating circuit allow each section of multi-purpose tubes ta be tested individually as if it wers in a seperate envelape.
SHORTS AND LEAXAGES: SUpersensitive method checks sharts and loakages up to 5 megohm between any and ALL aloments; continulty between various sections individually indicated
SIMPLICITY: Fast simple operotion. The 4 pasiHion fast action snap switches are all numbered in oxact accord with RMA standards. Thus when testing elemant ferminating in pin No. 7 of a pube thou use button No. Y. You cant insert abbe in the wrong
TUAE TVPES: Tests all octal, loctal, 7 pin miniatures, 9 pin miniatures as wall ds the now noval and Sub-Minar types. Old type sockats used for tosting obsolate typer-that you raraly see any-more-have been aliminated.
SIZE: A practical size to carry with you at well as for use in the shop-only $81 / 2$ y $4 \%$ a $21 / 4^{\prime \prime}$ deop.
Shgi. Wh. 5 lbs.
MODEL TC-SS complete with
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 AUTOMATIC TUBE TESTER MODEL WT-IIOA Modern outomatic high speed electron fube conter with gold-plated Activoted by inserting - bunched cord ond by slipping the power lover Into opereting position. Quickly gives true indicotion of tubes serviceobility by checking tronsconductonce. tions of twin type lubes. Tests boch section of multisection type tubes with no poralleling of sections. New punched cords ovailoble os new tubes come out. Sturdy portoble cose $71 / 4 \times 141 / 2 \times 171 / 2$ Shpg. $w t, 28 \mathrm{lbs}$.
RCA Model WT-IO0A Tube Tester. Net 199.50


B 8 DYNA-QUIK MODEL 500 TUBE TESTER
Fast occurote lube checker tests over $95 \%$
of oll popular TV fubes. of oll populor TV fubes.
including the new 600 including the now 600 mll series troe, for dy as content teol conduel life. Shoris, grid emission, gas content, leokoge and tube condtion on "Good.8od" scols ond in Micram hos on lorge $41 / 2^{*}$ plostic mefer. Tests tubes under dynomic conditions for foolproof defoction. Tubes lisfed on inside of cover - no roll chorts, no switch. ing. Informotion on new fubes supplied regulorly. Hondsome porloble cose - $151 / 4 \times 141 / 2 \times 53 / 4 "$ For $105-125$ VAC 60 cycle. Shigg. wi., 15 lbs - A Model $\$ 00$ Tube Tetier

Nel 107.75

20,000 OHM PER VOLT MULTITESTER SEMI KIT


New Kind of Kit



- 20,000 OHMS PER VOLT DC- $\mathbf{5 . 0 0 0}$ OHMS PER VOLT AC
- 40 MICROAMPERE $3^{\prime \prime}$ D'ARSONVAL METER MOVEMENT - HIGH INPUT RESISTANCE ON ALL DC AND AC RANGES

The semi-tir io a now concept in test equibment kim. The motar, rotarr selector switch, ohms odlust control, terminol strips and afudi oll ore already mounted on the frent panel, with mont of the wite loods from the switch in ploce wih one osd free. All that remaint to be done lo to moumt the bettery holder and wire in the multipliers ord renibsors, o lob io ilmple you'll fathh before you reolise $h$, and beat of olt. you'll hove one of the Anest high sensitivity multiterters on the morket. Ronges: DC VOLTS 0-10, 50, 230 ond 1000, AC VOLTS $0.2 .5,10,230$ and 1000: DC CURRENT, 0.100 . UA and 230 MA , OC RES: 0.5000 -$500,000-5$ Megohm with center icolen of 50,5000 and 50,000 ohmes DECIEEL, -20 to +10 db and $-810+22$
When used in o circult, the high input reilistonce on oll $D C$ and $A C$ ronges daes awoy with the highly inoccurote reodings common to low resisiance testore which load the circuit. Block bekellie. molded coese

TK-20—KIT
11.95

RW-20-WIRED
RW-20-

## NEW - PACO TEST <br> EQUIPMENT KITS ENGINEERED THROUGH LEADING ELECTRONIC TEST EQUIPMENT MANUFACTURER



## push-Pull vertical and horizontal om

 plifiers. High-sensifivity, I MC ver isal omplifier, ultro-modern printed circuir amplifier design. Buils-in vall peok-lo-peok self-colibrator. Efficient, two-color, easy-reading panel. Rugged, lourred steel cabinet, $13 \%$, $81 / 4 \times 17 \mathrm{M}$ ". Completo with CRT, all ports ond instructions. Shpg. w1.: 24PACO Model 5.50
Oscilloscope Kif
Ne: 47.50

## PACO MODEL V-70 VACUUM TUBE VOLTMETER KIT

## TDC and RMS HC voltoge ranges to

 1500 volls. 7 peok-10.peak voltoge ronges to 4000 Volts. 7 ohmmeter ranges to 1000 megohms. Speciol PACE 5 " ocrylic cosed meter. Atroc live, eosy-reoding iwo color panel Rugged ripple.finished steel cabinet size $71 / 2 \times 51 / 4 \times 41 / 4 \%$. Comblete with oll ports and instructions. Shpg. wt. - Ibs. Madel v. 70vTVM Kit
Net 31.50


PACO MODEL T-60 TUBE TESTER KIT
Tests oll AM-FM-TV Tubes includ ing new series, string troe free tem. Extro-lorges $5^{*}$,erelic cosed meter by PACE. Illuminoted, high speed, bross-geored, 3 column roll chart. In rugged offroctively with contrasting knobs. Size $101 / 2$
$151 / 4 \times 41 /{ }^{\prime \prime}$. Complete with oll parts, ond step-by-step instructions - ACO Model T-60 Tube Tester Kll

Nol 36.70


PACO MODEL C-20 RESISTANCE-CAPACITY-

RATIO BRIDGE KIT

Capocity Ranges from 10 mmid to 2000 mid . Resistance Ronges Rotio test ronges from os to 20 Tests ie ohms to 200 megohms. electrolytic copocitors. In ottroctive, ripole finished steel cobine and easy-reoding 2 color parel. Dimensions: $7 \times 111 / \times 5^{4}$ Com lete with oll ports and step-by-step instructions. Sheg . 4 . ths PACO Model C. 20 R-C Eridge KIt

## PACO MODEL 8-10

©ATTERY ELIMINATOR

## KIT

Speciol low.Ripple oulpul designed to power modern transistor circuits and automobile "hybrid" receivers (tube and Ironsistor). Both 6 and 12 volt outpuls. Aulomotic overlood polec. outpul. Doubles os ideal bollery chonger. In heovy-duly louvred
 Complete with PACO Model t-10 Battery Eliminator Kit .... Net 41.95

## ASTATIc ElectroZoice SHURI MICROPHONES <br> 

## ASTATIC MICROPHONES

## METRO 788 OTNAMIC $\boldsymbol{T}^{-2}$ MEKE

## Converts from hand to stand ta lavaller.

 Ideal for TV, recarding, PA and cammunice. tions. Omni-directional. DuPont "Mvlar" diaphragm. Response: 50.13 .000 cps. Mi and law (150 ohms) impodances. Outputlovels 55 db . On-0.f switch with "lockon" position. With $4 /{ }^{m}-27$ ihread swivel type adapiar for desth ar hoor stands, and lavalier osrembly. 20 ft . ceble included 8\%" long: $13 /{ }^{\prime \prime}$ dia. Shpg. wt., 12 ozs.
ASTATIC MODEt $788 .$. Not 46.75

TEMPO 888 OYNAMIC MIKE Mi-Fl, amni-directional milte far studio and delure use. Responses $50.15,000 \mathrm{cps}$. Quick change fram 50 ta 200 ahms (bolanced) ta hi-impedance. Output levels isc db. Converts from hand to stand io lavalier. With
$1 /{ }^{m}-27$ thread swivel adoptor, lavalier assembly and 20 fi. coble. $91 / e^{2}$ lang; $1.9 / 32$ dia. Shpo. $11 / 2$ lbs.
ASTATE MOOEL 888 Nei 64.68

## VOGUE 98S DTNAMIC MIKE

 Bacuifully styled, prafessional, omni-difram $40-20,000 \mathrm{cps}$. For broodcast and prafessional recording. 50.150 .250 ahm $i m$. pedonce easily selected. Output levelt Wher 58 db. For hond, lavaliet ar stond ure. With f. cable. $9.11 / 32^{\circ}$ lang; $1.9 / 32^{\circ}$ dia. Shog. wi., $11 / 3$ lbsASTATIC MODEL 988
Net 88. 20
FUTURA A-8 MIKE DESK STANO Satin block die cast base far 788, 888 and 988 mike
lor paly designed high impedance mike Complete with o melching desh stond. Has standord $3 /{ }^{\prime \prime}-27$ thread far desk and hoar stonds. Frequency responses $30 \cdot 10,000 \mathrm{cps}$. Outpul level of - 50 db is adequate for use with low gain amplifiers. Opalescent gray finish with chrome grille. 10 ff . cable and connector. Sizer $8^{\prime \prime}$ high; 2.5/16" orille dio.; $51 /{ }^{\prime \prime}$ bose dio. Shpe. $w 1 ., 3$ lbs. ASTATIC MODEL JT. 30 Net 9.97 S4-M3 CRYSTAL MIKE
Versatile high-output $\{-51$ db) mike is nandiractional in vertical position. Ideal for conference, PA and home recording op. plications. Frequency response 30.10,000 cps. High impedance. Supplied camplote with intertocking base. Handle has stand ord $3 / 3^{\prime \prime}-27$ thread. Brawn enomel finish. gold plated gillle; with 5 ff . coble. Shpg. wi., $21 / 2$ lbs.
ASTATIC MOOEL $54-$ M3 ...Nef 8.79
M-332 SLIM MI-FI CRYSTAL
Remarkobly lew-cost wide ronige mike -30 to $15,000 \mathrm{cps}$. Omni-directional. Ideol for improved tope recordings ond PA. For hond, stand. lavolier use. Output -57 db . high impedance. Supplied with $y_{0}$ " -27 ihreaded desh and foor stand adaptor, 8 fl . Emira. Aeabble coble and lavalier card. Satin chrome finish, sotin blach grille. $41 / 2^{\prime \prime}$ over. ASTATIC MOOEL M-332 Net 10.52 ASTATIC MODEL M-332-5—As obove.
with On.OW Switch
Net 11.70

## Electrofoics microphonis

## 030 HIGH-OUTPUT DYNAMIC

Omni-directianal troe designed for PA, re carding and amateur use. Head tilts through - $90^{\circ}$ arc; has $4 /{ }^{\circ}=27$ thread ceupler. Acoustallay diaphroom withstands high numidity. solf air, temperature emtremes ond severe shachs. Response: $60-11,000$ CDs. High impedance. Outout level: -55 db. Setin Chrame finish. Built-in MC. 3 coble connector: On-OH switch. Supplied with 18 ft . cable. Size: $2^{\prime \prime} \times 61 / 4^{\prime \prime}$. Shpg ELECTHO-VOICE MODEL 630 Net 30.87 636 "\$5LIMAI贾" DYNAMIC slim strle amni-directional mike for PA and recarding. Acaustallay dlaphragm. Maving $90^{\circ}$ en stud. Oufput level - 55 db . Swivels Giter On.Of wilch esponse $00-13,000$ cos. Selection of MI-7 ar 150 ahm, pr. Selection of Hi-Z or $150 \cdot \mathrm{ahm}$ im pedance made of plug. Solin chrome finish With 18 fl . coble and MCAM connectar Sires 11
$21 / 2$ lbs.
ELECTIO-VOICE MODEL 636 Ne1 42.63

## 9SI CRYSTAL CARDIOIO

ugoged high impedonce microphane using omous "Variable D. principle emplayed purpose PA and platform. Perfect for all. pordose pas and piolform use where sever noive. reverberation and acoustic leedboc condirions exist. Sealed. high capocity Bi morph crrital. Sesponse: 50.11 .000 cps Output -55 db. Satin chrame finish. On Of switch. MC-I connector. $5 \%$ " lang: $11 /{ }^{\prime \prime}$ dio. With $18^{\prime}$ coble, $8 / 0^{\circ}-27$ inreaded coupler Shpe. wi., 3 lbi
EUETAO-VOICE MODEL OSI. Net 29.1

High impedance mite designed for PA. home recording and omateur use. Rugged Aceustalloy diephragm resists humidity. temperolure extremes ond rough use. Fre quency responser $50-9,000 \mathrm{cps}$ nan-direc tional. Outpul level: -55 db . On-Oh rwitch. Standord $3 / 0^{2}-27$ adapior thread. Sotin chrome finish. Tilted heod. Supplied with 18 ft - coble and connector sise. $23 /$ * $31 /{ }^{\prime \prime}=61 /{ }^{\prime \prime}$. Shpg. wi., 3 ibs

ELECTO.VOICE
MODER 611 Net 26.46

## 911 CRTSTAE MIKE

Crystal version of Madel 611 mike. Fre quency respanse: $50-8,000 \mathrm{cps}$. Migh im pedance. Outpul levelt -50 db . Supolifed complete with 18 ff . cable and MC. I con. nector. Shpg. wi. 3 lbs.
ELECTIO-VOICE
MOOEL 911
Not 19.11
66 DYNAMAC CAMDIOIO
Desioned specifically for PA wark. True cordioid paftern of oll frequencies results in less leedbact. Blost filter permits clase talking without baaming ar bass accentua. tion. Acoustalloy diaphragm shielded againit dus and sponser $40.15,000$ cPs. Oual impedance Either 150 ahms or high impadance se lected at cannector terminal. On On switch Output: -55 db . Sapin chrome finish. $7.3 / 16^{\circ \prime}$ lang. $17 / 8^{\circ}$ dio. Supplied with 18 it. coble ond MC-4 connectar. Shpe. wi.,
3 lbs.
ELECT
ELECTRO-VOICE MODEL 44 ...Nel49.98

MICROPHONES Zine Zuality,

## A Buy of a lifetime mors ounall mop worch

 CRYSTAL
MICROPHONE COMPARE IT WITH ANY MIXE AT 2 TO 3 TIMES THE PRICE

### 3.95 eoch in lors of 3

 afert mith a migh quality CRYSTAL Lichormones nis price that is cot ous man any com. parable Crotal Microphone on ardati and genaral appollont for $A A$ systems, home recordarf end evcles. Out. pilcations. Foguoncy responno put lomi- 52 db . provides ample ousture saslod crrital: ow gesin amplifiers. Usas quality mois one mal finizh, with Die cast case in rich groon buippod with 5 toel of chrome grill. Complatoly beupad on any stand wimh Shioidod coble. Milil diametor $2 \psi^{\prime \prime}$. dopth $4 \%^{\prime \prime}$. hoight $4 / 2^{2}$. Shpo. Wt. $31 / 21 \mathrm{lbs}$. PA-24-In lote of 3, aech 3.95 singly. ach
## P? STUDIO CRYSTAL MICROPHONE

- dual crystal carTRIDGES
- all directional
- fine quality
- HIGH OUTPUT
6.95
in lots of 3
single, eoch 7.25

Here is a mieraphone with - $360^{\circ}$ pickup, ond the odded power and sensilivity of two individvolly shock mounted ond phosed erystal sar. tridges. This orrongement assures you of maximum pickup from all sides. Swivel mounted to give fuller flexibility. Cose is ehrome ploted. Slondord $4 / 0^{\circ}-27$ thread. Overall size $7^{\prime \prime} H \equiv$ $3^{\prime \prime}$ W complete with 4 it , coble. Shoo wi lbs.
PA.
LAFAYETTE'S OWN LAPEL MICROPHONE

## Reg. 16.00 Value

- mule -ss de output hevel - lotal gemiral puapose mies Most compect-spoclally engineered crystal microphone. Attaches to the lapel. Only ix in diamoter. Fantastically light wightwighs only IV, ars. Includling 5 feet cordl Exceptional frequency -55 d . -sovides high level speesh Infelligibility. Output lave. Handiomo, heevily chrome plated case and clip for attaching to lepel. Ideal for Inexpensiv. P.A. cyitemin-hems-home recerding -generel purpese. High impedence. Includes 5 ft. of extre inghi wight shielded single conductor ceble. Shpo. Wt. I Ib. PA-18
Not 2.95


## NEW CONTACT MICROPHONE


Easlly Apfoches to All String Instruments This low priced, high quality contact mierophone is ideol for amplification of single stringed instruments such os guitars, banjos, mondalins, cellos, ukeloles, elc. Provides rich, notural reproduction of the actual lorge hall The cla amplificalion to be heord in a under the sounding boord cufoul to give a secu:e It . Cemes equipped with 8 ff . cable for connection to public address amplifiers, pape recorders or rodios. freavency respense 40.9000 cps . Migh impedance. Size: $11 / 2^{\prime \prime}$ l, $15 / 16^{\prime \prime}$ W, 5/16" D. Shog. wi., 12 or PA. 41
Net 3.95
CRYSTAL MICROPHONE CARTRIDGE

- REPLACEMENT FOR ASTATIC SHURE,
PA-27-In loth of 3 AND MANY OTHER
$\qquad$ POPULAR MICROPHONES
A univeral erystal microphone cartridge with heavy fiarlble rubber cushloned rim deslgned for spoedty. cconamicel repelt. Fils tons of such is tho astelic JT 30 -pte. Overall diemeter $21^{\circ}$, dopth $1 / 2^{\circ}$. Output- 52 ob . Ezcelient tor quancy responso. Shpg. wt. ©oz.
MINIATURE CRYSTAL MICROPHONE

Here's a typical Lafayette special for the experimeater, student or dealer. An extremely sensi ive and small crystal microphone uned in hear ing aids and other small apparatus. Can be uked as hapel mike miniature iransmitter mike-ro gives it joint versatility Brand and Siee only gives it joint versatility. Brand new. Size only money. MS. 10 .
Ne 1.95

generol oppoctively styled crystal mierophone for oll ome recording ons such os public oddress and Trequency respons 30 . 10,000 king low pricel level- 52 db . Tilling he-10,000 cyeles. Outpul Con be used on amy sland with attractive plostic case pletely equipped with 5 with $5 / 0^{\prime \prime}-27$ thread. Come. cable. Grill diam $21 / 0$. plastic covered shiolde Shpg. wh. 2 liam $21 / 4^{\prime \prime}$. depth $31 / 2{ }^{2 \prime}$ heighiolded countryi" 2 lbs. One of the best buers in the
PA-42.
Net 2.95


## GUITAR MIGROPHONE <br> MAGNETIC TYPE ALNICO V MAGNET <br> Complefe with Individuol Tone and Volume Confrols <br> 9.95 <br> FOR GUTTAR WITH F HOLES High impedance centect type microphone specially designed for use with guitar. Easily mountod under strings without special aflochments. Separafe variable lone and volume conifols permit wide adjustment to suit personal requirements. While in mounted posilion, microphone unit con be raised of lowered eosily on red to creote varying tonal effects. Supplied with 8 ft . ceble and attached standerd size phene plug for cennection to ampli. fier. Shpg. wt., $21 / 2 \mathrm{lbs}$. <br> PA-38 GUITAR MICROMONE

SUBMINIATURE CRYSTAL MICROPHONE Only $13 / 8 \times 1 \times 1 / 4^{\prime \prime}$ Deep! Eatremely sensilive and small rectangular micro. phone for conceored locations, heoring aids, and ather miniolure equipment. Also suitable os 0 lapel or miniature transmititer mike. Enperimen ers. students and hobbyists will find mony appli cations for this uselul, low cost item orted by tor Sh. im or. PA-40

Net 1.75

## HARMONICA CONTACT MICROPHONE

This is a fine quality, sonsitive, erystal contort microphone with a high output that is especially designed to fif harmanicas. When the relatively weak sound of a harmonica is amplifiod, the rosults ore ostonithing. The microphone may be connected to any P. A. system, the oudio section of a phonagroph, or rodic. Installation is simpie. The microphone brocket slips under the serow on the bass end of the har manica and the leads connoct to the amplifier system. It is sturdily built and measures only $1 \% / \mathrm{m}=\mathrm{ym} \mathrm{W} \mathrm{m} / \mathrm{m}^{\prime \prime} \mathrm{D}$. Complete with 7 H . shielded cable.
8A-35.
Not 2.95

# afayette LOW COST MICROPHONES 

## 3 WAY SLIM CRYSTAL



May be hand-held, stond mounted or suspended by lovelier cord

- Frequency 60-10,000 CPS - On-O月 Swlich
a remendour volual Uniaue derign,
 pleto with avivel odopter to hi oll plondond mike stondi, and lavalior cord ond broctet mich leoven both honds froe. smooth wide ronge re. poente. lacking type on-oll illde viteh, Delachoble 7 h. coble and connector. Shpe. $\mathbf{w l} 2$ lbs


## A-31

Eort in rots of 3
5.65
5.95

DESK STAND FOR ABOVE Atroclive swept-boct design. Finish. Atroclive wing gray enomel. Felt ed in gleaning ogainst serotch. bumper twen prored $\$ / 8^{\prime \prime}-27$ thread. Sh. Hor sto 9
Shpo.

NEW DYNAMIC MICROPHONE
For Desk-Top or Hand-Held


Reg. Value 29.50

- HIGH IMPEDANCE50,000 OHMS
- RESPONSE: 40-9,500 CPS

Beoutilully designed and finished high impedance dy nomic mike with ingenious swivel mounting thot permits herlzontol and vertical rotation for most convenient angle. Mike easily removed from base for holding in hand. Boked enamel case with chrome finish bose gille and fittings. luggediy constructed to withetand alontr of hondling. $4^{\prime \prime}$ long $\times 1-3 / 16^{\prime \prime}$ diameter housing. With 5 ft . shielded coble
PA.39-Shpg. wi., 2 lbs

## SLIM DYNAMIC MICROPHONE

- dual impedance $50,000^{\circ}$ AND 250 OHMS HIGH OUTPUT
- 50-11,000 CYCLES
- use on stand or as HAND MIKE The lotest design in sim rype micro phones. A high-outpul dynamic mike of exceptional quality. Hos very
pram $50-11,000$ cy. smooth response Built-in external switch gives you choice of either high impedance (50,000 ohms) or low impedance head. Bracket has tond ahmsl. Omni-directional tilfable thead. This bracket is in. ard $8 / 8{ }^{\mathrm{N}}$. 27 -thread for use on shond he hondheld. Hos cost stanfly removable to mike con and acoustlcally correct case with satin-chrome finstructed. Size: $8^{\prime \prime}$ long, $11 / 4^{\prime \prime}$ grille head. Rupgedir consi

$$
\begin{aligned}
& \text { diam. barrel. Shog. wt., } 2 \text { lbs. } \\
& \text { In lofs of 3, Eoch } 9.25
\end{aligned}
$$

PA-29
Eoch

## CRYSTAL DESK MIKE

## - - 52 db autpet level - Range 30-10,000 cps

- Mondle and Inter-
- 10 ft . cable and connector


### 6.75

 locking bese A really fine microphone by menufecturer known ine warld over. Une for amateur broedcasting. public oddriess and home recarding. Cen be used with floor stand. Shpg. wt. $21 / 3$ lbs PA.21
## NEW "DYNA-SLIM" MICROPHONE

- HIGH IMPEDANCE - 50,000 OHMS
- ON-OFF SWITCH
- "QUICK-SLIP" ADAPTER
6.95

New dynamic, high output microphone with all the features of "mikes' costing 3 times Lafayette's pricel Output level $\mathbf{- 5 5}$ db. Smooth resoonse from 60 to 10.000 cyeles. Omnidirectionol head. External on. off switch. Slips on or of sland odopter in a wink. Standard $3 / /^{2}$ - 27 odapter permits tilting mike lor multi-ongle uso. Sotin black and chrome finish. Complete with delochoble coble ond
$11 /{ }^{\prime \prime}$ max. dia. topered barrel 7 ". Shog PA-A3


SERIES 7S. PRESSURE TYPE-SINGLE CONTACT
Polished chrome ploted bross fittings with $1 / s^{\prime \prime}-27$ threads

| Trpe | Fig. | Description | Eech |
| :---: | :---: | :---: | :---: |
|  |  |  | . 31 |
| $75-M C I M$ | 8 | Male. Fits above connector | . 21 |
| 75-PCIM | C | Male. Non-sharting, chossis mount. Fits MCIF | .23 |
| 75.CL-PCIM | - | As obove, except' closed circuil | . 33 |
| 75-MC1F-A | E | Angle type. lemole connector cou. pling sing. Use with PCIM, ofe. | . 63 |
| 75-MCIP | $F$ | Adoptor. Connects MCIF to stand. ard phone plug | . 30 |

SERIES 00. SINGLE AMD DOUBLE CONTACT TYPE5
For concentric lines, shielded milte coblen, elc. Conter contocts
trpe. Av. thog. wi.. $3^{\text {oz }}$

| Type | Fig. | Deseription | Each |
| :---: | :---: | :---: | :---: |
| - 0 F | 6 | Female cable jost | 37 |
| - 90 C | H | Femole chasti, receptacle | . 34 |
| - 30 M | 1 | Mole able plug | . 42 |
| + 1 O-MC2F | 6 | Femoie coble jock | .39 |
| 100-PC2F | H | Famale chasis receptocle | . 36 |
| +80-MC2M | 1 | Male coble plug | . 44 |



Morke Flanges, Entemsion Rods For neot, inconspicuous permonent Fifi on dest top, pulpit and omotour rigs Fit oll slondord $44^{"} \cdot 27$ mites Bose diom
ing contert Extention rodi mole on both endi- ADS 11-
ATLAS AD-12-mole Flonge....... 35 E ATH ATLAS AD-1I-

## MIKE ADAPTERS

ATLAS AD-1- $\%$ "-27 tomote to $\% 2^{\prime \prime}$ mole thíread (RCA) 50 C
ATLAS AB-2- $1 / \%$.. temate pipe to $x^{\prime \prime}-37$ male.
ATLAS AD-4- \%". long, \%" 27 mole running thread
polorized microphone connectors for portoble equipment. Stroin relieving clomps. "3. contoct trpe. 14 contoct trpe. Shog. wi.s

| Type | Flg. | Description | Eoch |
| :---: | :---: | :---: | :---: |
| -11-MC3F | J | Fomole coble lock | 6 |
| - 1 1-PC3F | K | Femole chossis receotocle | . 51 |
| -91-MC3M | 1 | Mole coble plug | . 64 |
| +11.MC4F | j | Fomole ceble lock | . 67 |
| 191-PC4F | K | Femole chossin recootacle | 52 |
| -91-MC4M | 1 | Mole cable plug | .6 |

"OWIK'" SERIES 91. 3. AND 4-CONTACT TTPES
New derign. Simply pushed logether; reloased by thumb pressure on lock button while pulting oufword. Polorited cantocts. Nickel ploted shells. "3-confact troe. f4-contoct trpe. Av. thps. Wh.,

" $Y$ " CONNECTOR
Has 2 male and 1 female. For use when using more than I mike or speaker from single circuit. MS-84

FLEXIBLE GOOSENECK
AHoches to om mite slond. Can be used where moderate odiustment is required. \%"'.27 thread; male and temale ands. Chrome finish.
ATLAS GN-I3- $13^{\circ}$ long

## MICROPHONE VOLUME

 CONTROL ADAPTER
### 4.09

Designed to reduce or incrase relatlve volume at the microphone. Used in high impedance cirhigh impedance circuits using shielded cring single conductor cable only. Re duces valuma to wortrable levalreduces feedback noises. Employs standard microphone connectorsone off-center for asy mounting on mites used with stands. Shpg. Wt. 8 ols. SWITCHCRAFT-329........Net 4.09


MICROPHONE SWITCH
Attoches between male and femole of 75 series connectors, Push-to-falk or slide swltch for pe
1.09

MIKE ATTACHMENT Atraches ony mike to any floor stand. 2 -section boll beoring spring sleeve pertachment. No threoding nently fostened to stand, other to mike. Chrome plated
1.62

## INTERCOMMUNICATION SYSTEMS



Dual - Purpose
Moster ta $\quad 6$ or 12 Stetlan
5 or il Remotes All. Moster System


The Bogen "Challenger" provides deluxe inferoffice communication for most office, form. ind ustriol and home applicafions. These ore dual purpose units for
MASTER-TO-REMOTE STSTEM: Model 600 Moster con converse with ony one or olf of up to 5 Remotes; Madel 1200 con talk with any ane of up to 11 Remotes. Remotes hove "Talk" bar to originate calls to Masters ance cantort has the Talk bar ond these Re.
langer need ute the motes may be maunted on sholves out of the woy of prying fingers if cell-arigination fram Remotes is not required. Remotes connot tolk with eoth orhar-only with the Moster.
ALL-MASTER-SYSTEM: Up 10 o stations in - Madel 600 All.Mastor Sysfomy up to 12 Both madels may be used in o single system If desired. Madel 600 has on "All" pasition ond may talk to alf statlons of ance, Madel Model 600 Masters moy hove conferences; ony All.Moster Systom moy hove any numbe: of seporate conversations going an simultaneously, without inferference, up to the limit of the number of stotions. Any station can
call ony other station, even if the called station's power is off. Power must be furned on to reply
All units ore housed In sfurdy, good-looking polystyrene cobinetsy size $0^{\prime \prime}$ 天 $61 / 2 " \times 7$ " d .
Masteri have "Mute" (stondby) position to Mosteri have Mute (atondby) position to
ellminate nolse from Remote stations while remalning ready to recelye calls from Remotes; they also hove 5 -pasition fo
position) station seloctor switches, "Mute" sosition, selustor "All" pwitiches, plus Model 600 only, return press-to-tolk also provided ore spiling tral with on-off switch. Model 60R Remotes hove press-fo-lalk switch. 117 volls $A C$ 6 Ibs.; Remate, 3 Ibs.
BOGEN 600 MASTER .........Net 23.43 BOGEN 1200 MASTER .............Net 29.43 BOGEN 60R REMOTE ….......Net 7.76

## WIRE REQUIREMENTS

FOR ANY MASTER-TOREMOTE SYSTEMS - Jse a seporate length of 3-wir cable fram the Master W/o rwitch use 2.wiro coble. FOR All MASTER SYSTEMS-Run multi-wire coble from first station and end with forthermost sto
tian. For Bogen 800 or 1200 use more than total number of stolions. For FANON Fim-12 All-Master, use some number of wires os there oro stations. FOR FANON INTERMIXED SYSTEMS-RUN Master-10-Master coble separately, using same number of wires as there ore Mosters. Use Alpha Type 1243 3-wire cable from each FC lemate to its Moster; use a separote length of Alpho Type $\$ 243$ from eoch FC. 6 Remote to each of lis Mosters
All stronded.wire cobles listed below have vinyl plostic jocket overall. Prices quoled ore Where necessory, 2 cobles listed may be combined to furnish the needed number of wires.
ALPHA 1172-2-wire, ber $100^{\circ}$ Net 2.41 WR-115-3-wire, per $100^{\prime} \ldots$ Nat......Nat 2.45 ALPHA 1243-3-wire, 1 wire shielded, per $100^{\prime} \ldots . . . . \omega^{\prime} . . . . . .$. Net 4.93
WR-116-5-wire, per $100^{\circ}$.....Net 3.65 WR-117-7.wire, per $100^{\prime}$...........Net 5.96 Wh-118-8.wire, per $100^{\prime}$ _.........Nol 6.94

## Bogera intercoms Bogen TWIN 2-STATION WIRELESS <br>  <br> - NO WIRES--USES POWER LINE

 TO CARRY THE VOICE- AUTOMATICALLY SUPPRESSES UNWANTED NOISE
- ElECTRONIC SHENT WATCHMAN AND BABY NURSE
- SENSITIVE AND POWERFUL

USE IT BETWEEN ROOMS BETWEEN NEIGHBORSBETWEEN FARM BULDINGS
This doluxe 2 -stotion wirclass system uses the power line to corty o rodlo signol on which is superimposed the voice or other desires mitter and receiver ond provides reliable ond quiet wireless operation. Operoting frequency is 175 kilocycles. All you do is plug in furn on the switth, press down and falk, lease to lister. Both slotions automatisolly suppress line naise until the desired signol comes in. The nolse suppressor can be screwdhe time of instollotion. The "isilent Watch. mon-Boby Nurso" teature consibts of a can. venient locking lever which locks o stotion in "Tronsmit" (Talk) position when it is desired To use the stotion as a silent pickup device with ehack for noises or ather sounds. Supplied portable from room to roam. Underwiter Laboratories Approved. Tubes: 2. 50B5, 1 12AX7, selenlum rectifier. Power consumption $25^{\text {w }}$ wotts, 117 volis $A C$ or DC. Dimensions $6^{\prime \prime} h \times 61 / 2^{\prime \prime} w \times 71 / 2^{\prime \prime} \mathrm{d}$. Shps. wl., 10 lbs . Power output $11 / 2$ wotls. An almost unbe used in o system.

### 63.00

BOGEN CW.I-Addifional Net
33.00

## Bogen TELEPHONE-TYPE INTERCOMS <br> 

- REACH ANYONE IN YOUR OFFICE INSTANTLY
- relieve regular telephone LINES
- NO DIALING; JUST PUSH A BUTTON

Bogen-Phones are the perfect answer to tied. up switehboards. Wonderful for inter-alfice calling white holding customers on the regu lor telophone Hine. Just press a button
buzzer soundz of the station or stotions called. You ore instantly connected when the receiver there is lified. Selective ringing, common tolking: allows only 1 sonversotion at lime. "Conference" feature lets you ralk io os many stations of once os there ore receivers in the system. Three models are avoilable to handle up to 13 stotions. All stations are housed in impoct-rasistont gray plastic. Rubber teet on the base prevem sliding. Eoch handset has o 4 H . cord, solf. coiling to prevent snorling. A single liov AC input power supply serves ooch entire syitem. Each station is supplied with of H . master cable and o iunction box for eosy wiring and supplied ready for dest or wall mounting. Alied with push bulvon direction rope if sup plied with eoch stotion. Coble required be tween stotions- ber conductors more thon num. TP.1-1.Button, 2.5tation Handset
$\qquad$
TP-6-6.8ultion, 7.5tation Handse
fp-6-6.8ulton, 7.5 tation Hondsol
fuo to 7 may be used in a system)
37.45
lup to 7 moy be used in a syitem)
20.95

TP-12-12.8utton, 13.5iation Hand
sef (up to 13 in a system) $\quad$ Net each unis 22.45
PRS-1-Power Suppiy for TP-1, TP-6
-
SOR WIRE, SEE ' WIRE REQUIREMENTS" 2-STATION SYSTEM

## $\frac{\text { WITH } 50 \mathrm{FT} . \text { CABLE }}{2}$

High pawer, senslitive infercom. For 117 volts, $A C$ or $D C$. U/L Approved. Mostert valume contro Pemate hos toll switeh swith pillo leff "open" for answering from a distane ar for boby-silling, or closed for privacy but stll receive colle Metal cabinets bun
 Wh. of system $61 / 2 \mathrm{lbs}$.

## Net 14.65

MASCO MM-5-5.Stotion Multiplitier bose 5 mall Tolk Moster mounts permanently a MM. 5 and corverts to a 5 .Station Master With $6^{\circ}$ cable. $63 / 4^{\prime \prime} \times 33^{\prime \prime} \times 2^{\prime \prime}$ h. Shpg. wt. 2 lbe Net 4.70 ST REMOTE STATION-For Small Tolk or


- Priced For Everybody's Pursel
- Home Intercom-Boby-Sitter a complete 2 station intercom system oary to hos volume centrot with an-aff switich so mote can answer calls fram o distance; ho no switch to operate. Remate is alway open", moking lts use os a "boby-sitter" deol. Extromely law hum and noise. Metal cobinetr-alze: $61 / 2^{\prime \prime} \times 33 / /^{n} \times 41 / 2^{\prime \prime} H_{5} 5$ tem includes 2 stotions, 50 H . cable and Instructions. 117 v. AC-DC. Shpg. wf., $61 / 2$

E-Z TALK SYSTEM COMPLETE..Net 11.71
FANON MULTI-STATION
 Comes where up to 12 stotions may be re. quired. Mosfers can call any ather station Master or Remato, while Remetes can only tolls with Mesters. Systems may consist of oll Masters, 1 Master with multiple Remotes, o any cembinotion of Masters ond Remotes. The Model FC Remote hos a Talk swlith and can ariginate colls to 1 Mastor only, when talled for "private" operation the FC sus always use its Talk switch to converse and connot be "Ilistened-in"" on by the Moster when installed for "non-privato" operation the FC can reply to calls from the Maste whout using the switich, the FC may also be installed for "non-privale" operation by possing the witch. The FC. 6 Remate con be possing the swirh. Th lifierent Mosters The Fim. 12 Mostor has o volume contral with on aff swith a 12 -station ratory salector swish with ."stond turn Tolk-listen witch with "Dictote" pasl ion for extended talting Master power aut put is $2 \%$ watts. Tubes ore 12AU6, SCCS 35 WA reciltier, NE-2 Pllat lioht Mum and aise ore ertremely low. For 117 valts AC or DC
All units ore conserveted of unbreckroble sheet metal. Dimensions. Mosters ond le motes $8^{\prime \prime} 4^{\prime \prime} 4^{\prime \prime}$ Shpe mi Moster 4 FANON FIM-12 MASTER

Net 26.43 FANON FC REMOTE Net 7.81 FANON FC-6 EEMOTE Ne1 11.71 FANON FC-6 REMOTE . FOR WIRE, SEE "WIRE REQUIREMENTS"

# Challenger pubic adoress amplifirs \& systems by Bogeth 




TEATURES: SELECTONE swith - Plug-in speoker connec tion. Microphone jock on front panel. Decaretar styling - Idaal for carnivals, store demanstrotians. restourants small clubs schoolroome
SPECIFICATIONS - RESPONSE: 30-15,000 cps $\pm 2 \mathrm{db}$ INPUTS: 1-mike 1-phono. GAIN: Mike- 115 db phono76 db . HUM: (Phonol-70 db ; (Mike)-55 db. OUTPUT TAPS: 4, 8 and 16 ohms. CONTROLS: Mike, phono, SELEC TONE, on-off. TUBES: 6L6GB, GAUS, GAVG; BBW4 (Rectifier) POWER: $70 \mathrm{w} ., 117 \mathrm{v} ., 60 \mathrm{cps} A C$. DIM: $11^{\prime \prime} w \times 71 / 2^{\prime \prime} \mathrm{d} \times 6 \frac{1}{2 / h}$ (with cage). SHIP WT.: $12 \mathrm{l} / 2$ lbs. (with cage) CHALENGER CHAIO - 10 -walt omplifier less coge ....................Net Net 34.50 CHALENGEL CHA 105 - Complese 1 -speoker Portoble System. Includes 1 -CHA10 complete: 1-8" PM speoker mounted in porfable corrying casez 1-8ogen-EV 927 erystal microphone with stand, $10^{\prime}$ mithe cable and MCIF connector.............Net 80.90 CHALLENGER CHA1Op - Complete 2-speoker Portable System. Includes I-CHA10 complete; 2-10" PM speakers, ach with $25^{\prime}$ cable and plug, mounled in split port. able carrying case; 1 -Bogen-EV 927 crystol microphone with stond, $10^{\prime}$ milke coble and MCIF cannector


EATURE 5: Separate boost/cut bass and treble tone canirals -70-volt lop. Avoiloble with 3 -speed phonogroph top with Ranette lurnover cortridge - Recommended for sethools churches small worehouses, garoges SPECIFICATIONS - RESPONSE: $30-15,000 \mathrm{cps} \pm 2 \mathrm{db}$. INPUTS: 1-mike 1-phono, GAlN, Mike- 120 db , phono76 db . OUTPUT TAPS: 4, 8, 16,245 ohms and 70 volts. CONTROLS: Mike, phono, boss, treble, on-on. TUBES: 2GVGGT, 2-12AX7, $6 A \times S G T$ (Rectifier). POWE : 80 w., 117
 CHKLUNGER CHA20-20-wolt omplifier complete...................... 50.10 CHALENGER CHA2OY - 20 -watt omplifier with 3 -speed phono top. Ranette turnCHALLENGER CHA2OP - Complete Portoble Srstem. Includes 1-CMA20 complete, 2-12" Alnico 5 PM speokers, each with 25' cable and plug. mounted in splli portable cose1 I-Bagen-EV 927 erystol micrephone with stand, $10^{\prime}$ cable and MCIF Connectar

Nel 100.80
CHALLENGER CHAZOYP - Complete Portable System with phonogroph top. Same as CHA20P (larger carrying case) with 3-speed phano top with Ronette furnover cort* ridge ................................................................. 118.80 2-12" Alnico 5PM speoters, ooch with 25' cable ond plug, mounted in hond-Anished 2-12" Alnico 5 PM speoters, och with $25^{\prime}$ cable and plug, mounted in hond- Anished
wainut woll bofies, 1 -Bogen-EV 927 crystal microphone with stand, $10^{\prime}$ cable and walnut woll bofles, 1-Bogen-EV 927 crysial microphane with stand, $10^{2}$ cable and
MCIF cennector ...................................................................................ep 92.10 CAALLENGER CHAzOY8 - Complete Indoor System with Phonooroph Top. Some os CMA20: with 3-speed phano tap with Ranette lumover cartrldge...............Net 110.10

fe ATURES: Bost and troble tone controls - 70 volt oulput


SPECIFICATIONS - RESPONSE; $30-15,000 \mathrm{cps} \pm 2 \mathrm{db}$. INPUTS: 2-mike, 1-phono. GAIN: Mike- 120 db ; phono82 db . CONTROL5: 2 -mike, phono, boss, treble. OUTPUT TAP5; 4, 8, 16 and 148 ohms ond 70 volt. TUBES: 2-6L6G8, 2-12AX7, GAVb; 2-5Y3GT (Rectifiers). FOWE良: 135 w. .
 $\times 81 /{ }^{\text {" }} \mathrm{d} \times 10 \frac{1}{4}$ "h. SHIP. WT. CHA33-22 Ibs.; CHA33Y-25 Ibs.
CHALLENGE CHA33 - 33-wott omplifier complete
Net 61.50 CHALENGER CNA33Y - 33-waft amplifier with built-in phono top, Ronette turnovar cortridoe

Net 79.50
CHALLENGER CHA33P - Complete Portable System. Includes 1-CMA33 complete: 2-12" Alnico 5 PM speakers, eoch with $25^{\prime}$ coble and plug, mounted in split partable bame; I-bogen-EV 927 erystol microphone with stand, 10 ' cabie and MCIF consector .................................................................................................................................. 11.63 CHALLENGER CHAJ3YP - Complete Portable System with phono top. Some as ChA33P (larger corrying cose) with 3 -speed phono top with Ronolte turnover cartCHALIENGEE CHA33B - Complete Indoor System. Includes I-CHA33 camplete CHALLENGE CHA33日 - Complete Indoor Systom. Includes I-CHA33 complete 2-12" Alnico 5 PM speokers, coch with $25^{\prime}$ coble and plug, mounted in $12^{\prime \prime}$ hand finished wolnut wall boffes; 1-8ogen-EV 927 erystal microphone with stand, 10
cable and MCIF connector ...................................................................... 103.05
CHALLENGE CHA33YB - Complete Indoor System with phono top. Some os CHA33B with 3 -speed phono top with Ronette turnover certridge Net 121.05 CHABENGEI CHA33T - Complete Outdoor System. Includes 1-CHA33 complete: CHALENGEI CMA33T - Complete Outdoor System. Includes 1-CHA33 complete;
1-University PH trunıpet with MA25 driver unity I - Bogen-EV 927 crystol microphone 1-University PH trunıpet with MA25 driver unity I - Bagen-EV 927 crystol microphone
with stond, $10^{\prime}$ coble and MC1F connector ............................................... 108.77 with stond, $10^{\prime}$ coble and MC1F connector
CHALLENGER CHA33YT - Complets Outdoor System whit phono top. Some o CHA33T with 3-speed phono lop with Ranette turnover cartridge ..............Net 124.77


FEATURES; For 6 valls DC, 12 volls DC, or 117 volls AC - Bottery-to-AC inverter builtion for 117 volls 60 cos AC to built-in ar external phonograph - Separate boost/cut bass and treble fane conirals. Plug-in speaker cannection - Only 15 ampere bottery drain at 6 valts, $71 / 2$ ompere af 12 volss - 70 volt output tap. Available with 3 -speed phiono lop with Ronetie turnover cortridge - For sound churches.
SPECIFICATIONS - TESPONSE $30-15,000 \mathrm{cps} \pm 2 \mathrm{db}$. INPUTS: 1 -mike, 1 -phona GAIN: Mike -120 db ; phono-76 db. HUM: (phonal-75 db; (Mike) -55 db below ofed output. OUTPUT TAPS: 4, 8, 16,245 ohms and 70 volt. CONPIOLS: Mike. phono, bass, treble, moster power switch, phono motor on=off. TUAES: 2-6V6GT, 2-12AX7, $6 A X S G T$ (Rectifier). POWE CONSUMPIION: 80 watts, 117 volts, 60 cps $A C, 88$ wotts, 6 volts $D C$ or 12 volts $D C$, with phono. DIM.: CHA620-151/4"w $\times 10^{\circ} \mathrm{d}$
 30 lbs
CHALLENGER CHA620 - 20-watl universol mobile omplifier with lubes, cage and $A C$ ond bottery cobles

Net 94.80 CHALEENGEL CHA620Y - 20 -watt Universol mobile omplifier with lubes, cage and AC and bottery cables and built-in 3 -speed phono top with Ronette turnover cort ige
CHALLENGER CHA620T - Complete Universal Moblle Outdoor System. Includes 1-CHA620 omplither complete or obove: 1 -University PM Irumpet with MA25 driver unit; 1 -Bogen-EV 927 crystal microphone with stand, $10^{\prime}$ cable and MCIF con-

Net 140.13
CHALLENGER CHA62OYT - Complete Universol Mobile System with phonograph top. Some os CHA620T with 3 -speed phono top with Ranefle lurnover cartridge

Net 153.48


FEATURES: Wide tonal ronge 2 microphone inputs, 1 phonogroph input, eoch Individually controlled Peatures the EXCLUSIVE Bogen Controlled Pasitive Feedbock Circuit which ossures perfect oufput regulation with varying lood and improved distertion figures, transient response and low frequency power handling chorocteristics. Fixed bias on power stoge contral prids for maximum safety 70 volt and bolonced 25 volt outpul laps. Separete boost/cut boss and treble tone controls. Plug-in speoker connection. Decorator styling - Recommended for large stodio, meeting halls, factories, warehouses, air poris, railioad stations, church corillon and steeple music systems, theaters.
SPECIFICATIONS - RESPONSE: $20-20,000 \mathrm{cps} \pm 2 \mathrm{db}$. INPUTS: 2 microphone, 1 phonogroph. GAIN: microphone 120 db , phonograph 85 db . MUM and NOISE! micro. hone -55 db , phonogroph -70 db bolow rated outpul. TONE CONTROL ACTION: ireble ( 10 ke ) +5 db to -17 db ; bass $(60 \mathrm{cps})+12 \mathrm{db}$ to -12 db . OUTPUT TAPs: $4,8,16,65$ ohms, 70 -volt and bolonced 25 -valt line. CONTROL5: 2 micro phone volume, i phonograph volume, boss, treble. TUBES: 4-6AV5A, $12 \mathrm{AX7}$, 6U6, $6 C M 7,6 \cup 8 ;$ 3-5Y3GT (Rectifiers). POWER: 370 wofts of full signali 117 volis, 60 cps AC. DIM.: $171 / 4$ "w $\times 12^{\prime \prime} d=61 / 2^{\prime \prime} \mathrm{h}$. SHIP. WT.: 34 lbs.
CHALLENGER CNATS - 75 watt omplifier complete
Net 101.70 CHALLENGER CHA758 - Complete Indoor System. Includes I-CHA75 complete; 4-12" Alnico 5 PM speakers, eoch with $25^{\circ}$ coble and plug, mounted in $12^{\prime \prime}$ hand-4-12" Alnico 5 PM speokers, eorh with $25^{\circ}$ coble and plug, mounted in 12 hand:
finished walnut wall boftes; 1 -Bogen-EV 927 erystol microphone with stand, $10^{\prime}$ cable and MCIF connector

Ne1 171.30
CHALLENGER CHATST - Complete Outdoor System. Includes 1 -CMA75 amplifier complete; 3-University PH Irumpets with MA25 driver unitsi I-Bogen-EV 927 erystal microphone with stand, $10^{\circ}$ cable and MCIF connector

Net 217.20


## RACK PANEL MOUNTING KITS

For CHA75 Amplifier $-19^{\prime \prime} \times 8 \% 4^{\prime \prime}$ for stondard $19^{\circ}$ rack. camplete with all necessory mounting hardware. Gray metallustre finish .................................................................. 8.91 For CMA33, CHA20 and CMA10 Amplifiers - $19^{\prime \prime} \times 7^{\prime \prime}$ for standord $19^{\prime \prime}$ rack, complete with all necessery mounting hard MOre. Gray metallustre finish plifiers Models CHAO20 and CHAB20Y.

Nobile 7 .
FEATURES: Self-powered - 4 microphone and 2 radio-phono inputs. Any 4 channels may be used at the some time All chonnels lindividually controlled for mizing and fading Cothode follawer oulput - permifs long cable to amplifier Connects to high impedonce rodio/phono input of any omplifier or tape recorder * volts output tow hum leval. RESPONSE: $50-15,000 \mathrm{cps} \pm 2 \mathrm{db}$. GAIN: Mike- 59 db , Phono -30 db . MUM: 70 db below 6 volts. OUTPUT IMPECANCE, Less thon 1000 ohms. CONTROLS: 2-mike volume, 2 -mike or phono volume, on-of.
TUBES: $2-12 A \times 7,12 A T 7$. DIMENSIONS: $8^{\prime \prime} \times 4 \frac{1}{4} \times 61 / 2^{\prime \prime}$. POWER CONSUMPTION: TUBES: $2-12 A \times 7$, $12 A T 7$. DIMENSIONS: $8^{\prime \prime} \times 4 \frac{1}{4 \prime \prime} \times 61 / 2^{\prime \prime}$.
10 watis, 117 volis. 60 cps AC. SHIPPING WEIGHT: 6 lbs. 10 watls, 117
BOGEN MX 6

## vew'afayette PUBLIC ADDRESS AMPLIFIERS



Page 132

## ALL LAFAYETTE AMPLIFIERS ARE GUARANTEED <br> FOR ONE FULL YEAR

LAFAYETTE MODEL PA-60 - 10-WATT P.A. AMPLIFIER FEATURES: Provides Extenive coveroge-up 1020,000 FREQUENCY RESPONSE: 70 10 $10,000 \mathrm{cPS} \pm 2 \mathrm{db}$. square feet when used with trumpet speokers. For TONE CONTROL ATTENUATION: Treble is db of store demonstrollons, clubs, churches, offices, closs. 10,000 cDs. CONTROLS: 3; Microphone, Phono or rooms, ouction soles, entertolnment. Incorporotes latest Radio, Tone. INPUTS: 2; 1.Microphone and 1,Phono circuit leolures for improved performance. Separate OUTPUT IMPEDANCES: 4, B, 16 ohms and 70 volts volume controls permit mixing microphone and phono. 1500 ohms). HUM AND NOISE: 60 db below maxi-
2 speaker output sockets. Cabinet is finished in baked mum output. POWER CONSUMPTION: 70 Wolls, SPECIFICATIOMS
(Rectifier). PEAK POWER: 12 Watts. INPUT GAIN: Microphone 105 db 2.2 Meg.. Phono $65 \mathrm{db} 1 / 2 \mathrm{Meg}$.

## LAFAYETTE MODEL PA-61 features:

 performance. Uses new 6973 hi .fi output ensure tubes and designed to give wide range response. Meets power requirements of chopels, clubs. schools, restouronts and industrial plants. Covers up 1050,000 square feet when used with trumpel type speakers. Chassis equipped with 2-speaker oulpul sockets. Housed in well ventiloted case of all steel construction. Lorge instrument typecontrol knobs. Cobinet is finished in baked hommerloid conirol $\begin{aligned} & \text { enomel. }\end{aligned}$
SPECIFICATIONS: TUBES: 2.12AX7, 2.6973; 6BW4 (Rectilier). INPUT GAIN: Microphone 115 db 3.3 Meg., Phono 70 db 1/h Meg. FREQUENCY RESPONSE: $\pm 2 \mathrm{db}$ from $30-15.000 \mathrm{cps}$. TONE CONTROLS: Bass $\pm 15 \mathrm{db}$ at 50 cps . Treble $\pm 15 \mathrm{db}$ of 10,000 cps.
POWER OUTPUT: 18 Wolts. INPUTS: 2; 1-Micro.

## LAFAYETTE MODEL PA-62

## FEATURES: Ideol for use in churches, schools, smoll

 theoters, lecture halls and industrial plonts. Priced ex Separate bass ond treble tone cantrols, permils adiust Separate bass and treble tone Controls, Dermils adiusi ments to meet all ocoustic requirements. Two mike in Duts; optional 4 -speed phono top. 70 volt constontvoltage output top. Provides coveroge up to 100,000 squore feet when used with trumpet type speokers Chossis is equipped with 2 -speaker plug-in output sock ets. Unit is housed in sfurdy steel, well-ventilated cobinet. Modern streamlined styling. Finished in baked hommerloid enomel. Removoble escutcheon plote for SPE and panel mountine.
SPECIFICATIONS: TUBES: 3-12AX7, 2.616GB SUAGB (Reclifier). POWER OUTPUT: 32 Walts. IN. PUT GAIN: Microphone 120 db 3.3 Meg., Phono 82 db
$1 / 7$ Meg. FREOUENCY RESPONSE: 30 io $15,000 \mathrm{cDs}$ $1 / 3$ Meg. FREQUENCY RESPONSE: 30 io 15.000 cDs

## LAFAYETTE MODEL PA-63

FEATURES: Conservatively raled for long life in con tinuous aperotion. Uses popular high fidelity high power output tubes type 6550 , and has extremely wide cange respanse. 1 -phono and 2 -mike inputs. Separate bass and treble ione controls. Modern streomlined strling. Input for magnetic phono cartridge. For large industrial paging and music systems, stadiums, amuse. ment porks, airports, roitrood yords, church raritlon systems. For groups of up to 10,000 persons of oreas
up to 200,000 square feet. up to 200,000 squore feet.
SPECIFICATIONS: TUBES: $3.12 A \times 7.2 .655082$ SUAGB (Rectifiers), POWER OUTPUT: 60 Wafts INPUT GAIN AND IMPEDANCES: Microphone 130 db 4.7 Meg. Phana $80 \mathrm{db} 1 / 2$ Meg. FREQUENCY RESPONSE: $30.15,000 \mathrm{cps} \pm 1 \mathrm{db}$. TONE CON. TROLS: Boss $\pm 15 \mathrm{db}$ al 50 cps; Treble $\pm 15 \mathrm{db}$ a 10,000 cDs. HUM LEVEL: 70 db below roled oupput INPUTS: 2-Mierophone. 1-Phonogroph. CONTROLS:

## MODEL PA-64 - 30-WATT MOBILE P.A. AMPLIFIER

OV OR I2V BATTERY AND IIOV AC OPERATIO FEATURES: A high-power combinalion 6 or 12 volt $D C$ battery and 117 r . AC amplifier for sound trucks, cir cuses, boll parks, large Dienics, political rallies, outdoor gotherings. DC to AC operation is accomplished by chonging "plug-in" power cables. 6 or 12 valt $D C$ operotion is selected by a switch on top of chassis. 5 eparote bass and treble controls. each hoving boost or altenuation, for proper acoustic correctlon. Phono motor operates on all oower sources. Standby switch for bat. fery economy. Available with optional 4 -speed phono
fop. Battery and AC cobles supplied lop. Baftery and AC cobles supplied.
SPECIFICATIONS: TUBES: 3.12AX7, 2.616GB and 2. $6 \times 5 G T$ (Reclifiers). HEAVY DUTY VIBRATOR. phone and 2.Phono INPUT GAIN. Microphonicro. db 4.7 Meg; Phono BO db .5 Meg. FREQUENCY

 Microphone-1. Microphone-2; Phono; Boss, Treble. Power offon for DC: Combination off.on for $A C$ and standby economizer swikh for $D C_{i} 6-12$ volt function swith. OUTPUT IMPEDANEES. 4, 8, 16. 500 ohms watts 117 volt line. POWER CONSUNPTION: 130 battery $12 A$; fused seporotely. POWER CABLES: 1-AC cable and $1 . D C$ coble. SIZE: $16^{\prime \prime} \mathrm{w}, 10^{\prime \prime} \mathrm{h}$ $10^{\prime \prime} \mathrm{d}$. SHIPPING WEIGHT: 25 lbs.
LAFAYETTE MODEL PA.64-Amplifier com-
plete with Tubes......................................... 91.5 D

## 4-SPEED PHONO TOP

For the PA- 64 amplifier. Fits in place of cover. Ploys all 4 slandard speeds- $16 \frac{1}{3}, 331 / 3,45$ and 78 rpm . Constanl speed molor, lurnover ceramic cartridge with dual precious-metal styli. With orm-rest, AC cord and plug. outpul cable and plug. Shpg. wh.. 10 lbs.
PA-67-4.5peed Phono Top............................Net 18.95

## Iafayette PUBLIC ADDRESS SYSTEMS

## DUAL SPEAKER 18 -WATT PORTABLE SYSTEM

## - Choice of crystal or dYnamic mike

- GE 25-WATT SPEAKERS A complate 18-watt Dual Speaker (2-GE 25-waHt 12" PM Speokers) Portable System, packed with features. Gives you mare value ond power for yaur dollor-o price thot beats all cam pellition. Ideal for lectures, ouctions, toverns, archestras; oxcellent os a rental system. AND DON'T FORGET LAFAYETTE'S MONEY-BACK GUARANTEE: If yau don't agree that Lafayotte's Sound Syatom meels overy cloim we moke for it-send it bock-enytime within 15 doys-and Lafayette will refund every penny-less only transportation chargesi COMPLETE PORTABLE SYSTEM, READY TO OPERATE, INCLUDES: 2 GE 25-waH 12" PM Speakers; the feoture-pocked 18 -wott Model PA. 61 ampllfier; yaur choice of the papulor Astatic Model JT. 30 crystal mike camplete with desk stand and $10^{\circ}$ cable with cannector, detachable from stand for use os a hand mike, or the Model PA. 43 high Impedance dynamis microphone with $7^{\prime}$ cable and cannector and with removable swivel-fype stand adoptor; plus $2.35^{\circ}$ speaker cables and plugs. Partable corrying case maunts the entire system conveniently for corrying and for use; covered with high quality dork blue lootherette; size $221 / 2^{\prime \prime}$ $161 / 2^{\prime \prime} \mathrm{w} \times 15^{\prime \prime} \mathrm{d}$. For $110 \cdot 130$ valts, 60 cps XC operation. Shps. wi., 50 lbs. (All systems ovalab
LAFAYETTE PA-80-18.watt Partable System, Less Phana Tap, camplete as de
scribed with JT. 30 micraphane ......................................................................................... 79.50
LAFAYETTE PA-81-Same as above, with lafoyette PA-43 dynamic mike..........Net 79.50
LAFAYETTE PA-82-Same as above, with 4-speed phana top and Altatic JT-30 96.25
LAFAYETTE PA-82-Same as above, with 4-speed phana top and Astatle JT-30 96.25
LAFAYETTE PA-83-Same, with 4-spoed phana top and lafoyette PA-43 mike... Net 96.25 arailable with any ather microphone of additianol cast. For ather mikes, se0 mike pages in index).



## DUAL SPEAKER 18 -WATT PERMANENT SYSTEM

- TWO GE 25-WATT SPEAKERS CHOICE OF CRYSTAL OR OYNAMIC MIKE - TWO POLISHED WALNUT WALL BAFFLES

Excellent far a great many public oddress, paging and sound reinforcement applications, the Lafoyette 18 -watt permanent bystem is an exceptional value. Speakers and paging harns may be added for wider areo coveroge or for multiple small oreas such as offices, looding platforms or stockrooms. Eosy to install in smoll dance halls or dance studios, schoal auditoriums Sunday school rooms, mission meeting holls or oymnosiums. Provides excellent caveroge for audiences ud to 2000 or areas up to 12,000 square $f$. THE AMPLIFIER IS UNCONDITIONAllY GUARANTEFD FOR ONE FULL YEAR.
THE COMPLETE PERMANENT SYSTEM INCLUDES: One 18 -wott Model PA-61 amplifier complete with tubes; 2-GE 25-wath $12^{\prime \prime}$ PM speakerss $2.5^{\prime \prime}$ speoker cobles ond plugs, 2 polished walnut wooden wall boffles; your choice of either the Astalic JT-30 crystot microphone camplete with detochoble desk stond far desk, table top or hand use, or the Lafayette Model PA- 43 high Impedonce dynomic hand microphane, proof ogainst temperofure and humidiry conditions and complete with 7 'cable and connector and with removable swivel-type stond adopter. For 110.130 volts, 60 cps AC use. Shpg. wf., 45 lbs.
LAFAYETTE PA-84-18-waH Parmanont System, Less Phana Tap, samplete as de-
scribed with JT- 30 misrophone......................................................................................... 73.50 LAFAYETTE PA.85-Some os obove, with Lofoyatte PA-43 dynamic microphone. Not 73.50 LAFAYETTE PA-86-Some, with bulli-in A-speod phano tap ond with Astotic JT. 30
 LAFAYETTE PA.87-Some, with A-speed phono top and Lafayette PA-43 mike....Net 89.50

Recommended for lectures, schools, churches, nigh elubs. Just the right size flubs. small manufocturing plants, offices, garages, blingo, missions.


## DUAL SPEAKER 32-WATT PORTABLE SYSTEM

- CHOICE OF CRYSTAL OR DYNAMIC MIKE - TWO GE 2S-WATT SPEAKERS

The 32-watt system is one of our most popular models. Lerge enough for the majority of sound system opplications-used in thausonds of school ouditoriums, churchos, theatres, dance holls, dance studios ond lecture halts. The ideal syslem for rentals; these optiems have been sold to many hundreds af dealers.
AND REMEMBER OUR MONEY-BACK GUARANTEE AND OUR LOW, LOW PRICE! DUAL SPEAKER 32-WATT PORTABLE SYSTEM INCLUDES: The autstonding featurefilled Lafayette Madel PA-62 32 -woth ompllifiar, 2-GE 25-watt PM speokers $2.35^{\circ}$ speaker cables and plugs, yaur chaice of the popular Astatic Model JT- 30 erystal mite with detachoble desk-stond for desk-top or hond use or the oxcellent now Lofoyelte Model PA-43 dynamic mike with removable swivel-type adopter for dask or floor stands ond the handsomely designed splittype portoble carrying cose covered in high quolity dork blue leatherette. Size af cose $22 \mathrm{~h} \mathrm{~h}^{\prime \prime} \mathrm{h}$ " $161 / /^{\prime \prime} w: 15^{\prime \prime}$. d-pravides a secure ploce for all the system components. For $110-130$ valts, $60 \mathrm{cps} A C$ operation. Shpg. wt, 55 lbs .
LAFAYETTE PA-88-32-woft Portable System, Less Phono Tap, complate os de
bod with Astatic JT. 30 erystal mierophone
LAFAYETTE PA-89—Same as above, with Lafoyette PA. 43 micraphone................ 89.50 LAFAYETTE PA-90-Some, with 4espeed phono top and JT. 30 mike....................... 113.00 LAFAYETTE PA-9I-Some, with 4 -speed phono top and Lafayette PA-43 micra. phone

## DUAL SPEAKER 32-WATT PERMANENT SYSTEM

- ChOICE OF CRYSTAL OR OYNAMIC MIKE - 2 ge 25-WATT SPEAKERS WALL BAFFLES

70 FT. OF SPEAKER CABLE This permanent saund system is espesially designed for torge halls, alrports, modium-sized industriat paging systems, loading platiarms, deportmont store music ond paging systems, restaurant music, ond rollroad stotions. The heavy duty Madal PA-62 32 -watt amplifier will give you exceptionol results and assures top quolity perfarmonce under all operating condilions. OUR LOW PRICE AND OUR ONE YEAR GUARANTEE make this irstom a "best buy" in P.A. COMPLETE SYSTEM CONSISTS OF: The PA- 62 32-wat amplifier camplete, ovalloble with or without 4 -speod phano top; 2.GE 25 .watt 12" PM speokers; 2-35' speaker cables ond plugs your choice of the Astatic $\mathbf{J T} 30$ crystol microphone or the Lafoyelife PA-43 dynomic microphone; 2 wood wall boffles handsomoly finishod in walnut. Far $110-130$ volts, 60 cPs AC. Shpg. wi., 50 lbs.
LAFAYETTE PA-92-32-watt Permanent System, Less Phono Top, complete as de ceribed with Astatic $\pi .30$ crystal micraphane........................................................... 84.95 LAFAYETTE PA-93-Same as above, with PA-43 dynomic microphone. Nel Not 99.95 LAFAYETTE PA-94-Same, with 4-speed phono tap and JT-30 mike. LAFAYETTE PA-95-same, with 4-speod phano top and PA- 43 mike.


The mast papular system for schools. RR walting fooms, gyms. weifing fooms, gyms, churches, noisy focto ries. Ideal for rentals.

## Cafayette Economy PUBLIC ADDRESS SYSTEMS



2 sound systems for the price of 1 , with plenty af power for any iab, whether mabile ar indoor. Provides coverage far areas up ta 100,000 square feat. Operates fram any 6 vali or 12 volt outomabile, truck or bus storage bollery or fram 110.130 valts so cycles AC; 30 watts aulput. REMEMBER: THE AMPLIFIER IS UNCONDITIONALIY GUARANTEED AGAINST DEFECTS IN MATERIAL AND WORKMANSHIP FOR I FUII YEAR

## 30-WATT MOBILE

 OUTDOOR SYSTEM
## - FOR 6V-12V BATTERY, $117 V$ AC

- WITH OR WITHOUT 4-SPEEO PHONO TOP
- ChOICE OF EITHER OF 2 DYNAMIC MIKES

COMPLETE MOBFLE SYSTEM INCLUDES:-The Lofayetto Madel PA-64 30.waH mobile ampllfier complete; a sef of AC and battery cobles; 2 University MA-25 driver units and PM reffex trumpets; your chaice of the fomous Shure "Ronger" series Model SOSC high impedance dynamic milke with push-totalk swith and 5' cable, or the new lafayette Model PA. 43 slim high impedance dynamle with removable swivel adapter for loor or desk stand, talk switch and 7' cable; PLUS 2.35' speoker cables and plugs. Shpg. wt. 75 lbs.
LAFAYETTE PA-120-Complete Mobile System, Less Phano Top, as described
with Shure 505C microphone...-........................................................................... 174.50 LAFAYETTE PA-121-Same, with Lafoyette PA-43 micraphane.....................Net 162.00 LAFAYETTE PA-122-Some, with 4.speed phonograph top and SOSC mike 192.50 LAFAYETTE PA-123-Same, with A-speed phana fap and PA-43 Mike Net 192.50

## 60-WATT HI-POWER OUTDOOR SYSTEM



This ruggediy-designed equipment is recammended for all high power heory dutr requirements, such os
 DOOR SYSTEMS INCLUDES: The conservallvely-roted Lafoyette Model PA- 63 60-wort amplifier completes 4 University Model PH trumpets with Madol MA- 25 driver units; yaur choice of the Astatic IT-30 crystal mieraphone with delachable desk stand, $10^{\prime}$ cable and plug, or the Lafayotte PA-43 high Impedance dynomir mike with removable swivel-iype stand adapter, talks switch and 7 'cable and plug, or the high quality Astatic GT-3 crystal microphone with grip-to-talk desk stand and with $6^{\prime}$ cable For 110.120 volts, 60 eps AC. Shpg. wt., 115 lbs.
LAFAYETTE PA-126-69-watl Ourdoor System, Less Phono Tap, completo as described with
Astatic JT-30 microphone
(17) PA 217.75

LAFAYETTE PA-122-Same, with Astatic GT-3 mike
Not 229.50
LAFAYETTE PA-129- 80 watt system, complete with 4 -speed phonograph rop, with JT -30
Net 235.00
 LAFAYETTE PA.131-Some, with GT. 3 mike.


## - COMPLETE PERMANENT SYSTEM

- CHOICE OF CRYSTAL OR DYNAMIC MIKE

High quality, law cost system engineered for smaller permonent installa tions. Far areas up ta 5500 sq . ft. For office, store, garage, small factory paging and music systems. THE COMPLETE' SYSTEM INCLUDES:-Th new Lafayetle Model PA 60 10-walt amplifior campleto; your chaice af new Lafayette Model PA 60 10.watt amplifiar camplete; your chaice a either the Astatic JT. 30 erystol microphane camplete with delochable desk stand, $10^{\prime}$ coble and connector, ar the new Lafayette Model PA-43 weatherproof, blast-proaf slim dynamic mike complete with talk swith, defachoble swivel-type stand adopter and $7^{\prime}$ cable ond cannectors $8^{\prime \prime}$ heory dury PM speaker; $3^{\prime}$ ' speaker cable and plug; and attractive pollished wofnut speaker wall baffle. For $110-120$ valts, 60 cps AC opero. lion. Shpg. wt., 25 lbs. (Any other microphone may be substifuted in all systems at additional cost. See mierophones in Index).
LAFAYETTE PA-124-Complete 10 -woff Permonent System
os described with Astatic JT-30 Crystol Microphone.........Net
38.50

LAFAYETTE PA-125-Some os above, with lafoyette PA. 43
dynomic mierophone
38.50


Lafayette

## PORTABLE PA CASE

A sfurdily canstructed cose for amplifier and two 12" seakers. Mode of heavy plywoad with reinfarced meta corners. Case splits inio 2 baffles, ach with leother carry-
ing handie. Strong wire mesh grilles covered with atiractive cloth. Has $\mathbf{Z}$ hooks in eoch half far carrying with offractive and provision for mike and mike bose. 4 snop locks. In side dimensions $201 / 2 \mathrm{~h}, 15-9 / 16 \mathrm{w} .143 / 3 \mathrm{~d}$. Cavered in dark blu washoble leatherette. Shpg, wt., 20 lbs. PA-51 CASE

## SWITCHCRAFT "MINI-MIX"

## Bogen

TRANSCRIPTION PLAYERS



## MODEL PP-I PORTABLE POWRPAGE

A highly compact and efficient portable saund reinfarcement system. Ideol tor palice and fire deportments, civil defense, rallraods, sporting ovents. High efficiency, high output reflex speaker projects sound in any desired direction. Hand microphone with $11^{\prime}$ cable for freedom af desired direction. Hand microphone with " 11 ' cable for freedom af instantaneous aperation withaut warmup ar power wasto. Equipped with instantaneous aperalion withaut warmup ar power wasto. Equipped with comfortoble carrying hondle and convenient microphone elip. Battery housing serves as base for the entire assembly. Uses standord 6 volt lontorn batteries (Burgess F4H, RCA VSO40C, of equivalent). Shpg. wh., 8 lbs. (less botteries).
UNIVERSITY PP.1—Less batheries.............................................. $\mathbf{6 8 . 3 5}$

## MODEL PP-2 PISTOLGRIP POWRPAGE

Aim, press, tolk-proiecis clear, powerful sound in any direction. Only $41 / 2$ lbs. including batteries. Pistalgrlp, with micraphone buili into horn bose, allaws reody, one-hand use. Ideol for marine, canstruction, auctions, cornivals. Slim handle holds pencil botteries. Hos "Powrsaver" press-lo-talk switch and requires na worm-up timez ultra-canservative in its use of power. Weatherproof, high officiency and high autout reflex horn. Builf, in socket for connection to 6 op 12 valt battery of boot or -auto. Shpg, wt., 5 lbs. (less batteries).
UNIVERSITY PP2-less batiories
Net 63.70

Unicersitify wide-ANGEL rrumpers Refex type with long oir column. Wide ongle projectors
for exceptionolly good speech orticulotion. Cobreflez has duol exponentiol flore desion with 2 identical 1-piece oluminum costings. CLM hos long oir column, wide ongle bell for low frequency response, and omniswivel mounting brockef for both vertical ond horizantol rotation. Both unifs use ony University driver.



## ElectroFoice COMPOUND diffraction Projectors - низтрооя

 - WEATHERPROOF INDESTRUCTIBLE Cooxlol horns ochieve full ponge peok-free sound with voice ond music. A single diophragm drives both hoHigh elficiency, wide ongle. Bell: molded fibregloss. Model 84825 -Watl CDP - Response 200-10,000 cps Model 84825 -Watt CDP - Wesponse $200-10,000 \mathrm{CP}$
$120^{\circ}$ dispersion. 16 ohms. With brockel. $101 / 2 \mathrm{~W}$ $201 /{ }^{*} H=20^{\circ} \mathrm{D}$. Shpg. wi. 17 lbs.
E-V 848 .............................................Net 4.10 Madel 847 12-Wat1 CDP - Similor 10 848. Response $\pm 5 \mathrm{db} 300-10,000 \mathrm{cps}$. Dispersion ongle $135^{\circ}$. Voice

coll 16 ohms. $113 / \mathrm{m}^{\prime \mathrm{W}} \times 7 \frac{1}{4} \mathrm{H} \times 10^{\circ} \mathrm{D}$. Shpg. wt.. | coll 16 ohms. $113 / 4$ "W 7 lbs . $71 / 4 \mathrm{H} \times 10^{\circ} \mathrm{D}$. Shpg. wt.. |
| :--- | E-Y 847 ELECTRO-VOICE ACCESSORIES

27.24 870 12-Wotl Line Matching Transformer - Mounts on 847. Primary lops $45 / 500 / 2500 / 5000$ ohms 70 volt line lops $12 / 8 / 4 / 2 / 1$ wolls. $21 / 2^{\prime \prime} \times 21 / 2^{\prime \prime} \times 3^{\prime \prime}$. Shpg. wf. 2 lbs.

Net 7.06 87625 - Wotp Line Matching Tronsformer - In weoth. erprool cose; mounts on 848 . Primary taps $45 / 200 / 500 /$
$1000 / 2000$ ohmss 70 voll line tops $25 / 10 / 5 / 2.5$ wots. $31 / 3^{\prime \prime} \times 51 / 4^{\text {" }}$ dia. Shpg. wi., $3 \mathrm{lbs} . . . . .$. Nel $^{2} 70$ 877 Line Matching Transformer - Some os 876 ; hos thermal bimelollic switch protection ogainst overlood. Net
879 joining Kit - For lostening projectors in a multiple orroy. Use I-Model 879 Kit for eoch junction. Shps.


LOWELL 360
CEILING BAFFLES

Surface-mounting ceiling bothes of spun oluminum. Dif fuser cone with "Aoo:ing conical oction" glves full $360^{\circ}$ fuser cone with hooing conical octsont department stores, sound caveroge. Ideal for restouronts, department stores, cocktail lounges, efc. Internolly lined with $3 / 4{ }^{\prime \prime}$ jute to prevent metallic resonance. Lacaver-cooted. ony normol height celling with 4 toggie bolis.
LOWELL MODEL BL6-A-For $6^{*}$ speakers. $121 / 4^{\prime \prime}$ diom. x $71 / 4^{\prime \prime}$. Shpg. wh., $71 / 2$ bbs. ......................Not 7.64 LOWELL MODEL BL8-A-For $8^{\prime \prime}$ speakers. $14 \frac{1}{4}$ " diom. $\times 81 /{ }^{\prime \prime}$. Shpg. wf., $91 / 2$ lbs. ................... Net 12.94 LOWELL MODEL BL12-A-For $12^{\prime \prime}$ speokers. $18 \%$
diam. $\times 9 / 4^{\prime \prime}$. Shpg. wt., $111 / 2$ tbs..........Net 15.88

## TRUMPETS • DRIUERS • SPEAKERS <br> cobreflex <br> 



## PAGING \& TALK-BACK SPEAKERS <br> PAGING \& TALK-BACK SPEAKERS

for all University trumpets. Mermeticolly sealed, tropicolized ond weatherproof. MA-25 for generol PA work: SA-MF for wider-ronge tonal response, superior noise penetration ond greoter efficiency: $\$$ A. 30 similar to SAHF but has built-in line motching transformer; PA-MF hos highest efficiency and power roting: PA-50 simitor to PA-HF, whith built-in line motching ransformer. PA-SO tronsformer topsi $2000 / 1000 / 500 / 250 / 165 / 100$ ohms:
$2.5 / 5 / 10 / 20 / 30 / 50$ watts. $5 A-30$ tronsformer tops: $2.5 / 5 / 10 / 20 / 30 / 50$ wats. SA- 30 tronstormer tops:
$2000 / 1000 / 500 / 250 / 165 / 45 \mathrm{ahms} ; 2.5 / 5 / 10 / 20 / 30$ wotts

| Model | Response <br> (CPS) | Waits | Lhpg. Wi. | L6s. |
| :--- | :---: | :---: | :---: | :---: | Net


| Model |
| :--- |
| MA-25 |
| SA-MF |

$M A-25$
$S A-M F$
SA-HF
SA-30
SA -30
PA-HF
PA-HF
85-6500
$85-6500$
$80-10,000$
$80-10,000$
$80-10,000$
70-10,000
Waits
Shpg. Wt.
Lbs.

MODEL MLC COAXIAL SPEAKER SYSTEM - For music and paging. Exceptionally noturol sound. 15 wolls; 150 . $\uparrow 5,000$ cps; $120^{\circ}$ dispersion; 8 ohms; $122 / 4 \mathrm{WW} \times 91 / 6^{\circ \mathrm{H}}$ $\times 10 \mathrm{~s} / \mathrm{m}^{\mathrm{D}} \mathrm{D}$. Shpg. wf. 10 lbs.
University MLC
Net 32.05

## UNIVERSITY ACCESSORIES

MODEL 5433 LINE MATCHING TRANSFORMER - 30 wolt. Primary $45 / 165 / 200 / 250 / 500 / 1000 / 2000$ ohms; secondory 4, 8 ond 16 ohms; 70 volt line tops $30 / 25$ / $20 / 10 / 5 / 2.5$ wotts. $13 / 4^{\prime \prime} \times 2-15 / 16^{\prime \prime} \times 1-15 / 16^{\prime \prime} .23{ }^{\prime \prime}$ cemters. Fits info CTR housing.
Shpg. wi.. 1 Jb. ................................................... 4.12
MODEL 5434 LINE MATCHING TRANSFORMER - 15 woll. Primary 45/325/500/1000/2000/4000/8000 ahms;
 $15 / 10 / 5 / 2.5 / 1.25 / .65$ wots $11 / /^{\prime \prime} \times 1-15 / 16^{\prime \prime} \times 11 / /^{\prime \prime}$ $2^{2 \prime}$ conters. Fits CTR ond P8-1 housings. Shpg. Whin MODEL CTR TRANSFORMER HOUSING AHD JUNCTION BOX - Die-cast oluminum, weatherproof. Mounts ION BOX - trumpet " ' ${ }^{\prime}$ " brocket or will hold ony University poging speoker. Shpg. wf., 2 lbs . Not 4.70 MODEL PB-I TRANSFORMER HOUSING - Wotershedding, weotherproof. For MIL, CMIL, IB ond CIB paging speokers. Shpo. w

## MIKE STAND



Economicol desk slond. Chrome ploted, heavy cast bose finished in groy wrinkle. $4 \% 6^{\prime \prime}$ diom. $7^{\prime \prime \prime} h$. Foll pad; $3 / 0^{\prime \prime}-27$ thre PA. 34 Nel 1.29 Smoll, highly-efficient horns and drivers Weotherproof penetrotion in noisy ond lorge oreos. Weotherproot MOOEL 1B-8 - Response $300-13.000$ sps; power copos ity 15 warrs; 0 , voice $10 \mathrm{dynes} / \mathrm{cm}^{2} .81 / 2$ diom., $9^{*}$ deep. Shpg. wh., 4 lbs.
University 18-8
Net 20.29
Madel 18-45 - Some os obove, 45 ohm voice coil
Nef MODEL MiL-8-Similor to 18.8. Roted of 5 w 21.17 dispersion - 23 dbm sensilivity, $6 \%{ }^{\prime \prime}$ diom. $7^{\prime \prime}$ deep 8 ohm voice coil. Shpg. wh.. $31 / 4 \mathrm{lbs}$. University MIL-8

Net 15.17 Model MIL. 45 - Some, 45 ohm ............ Not 16.02 MODEL M15-8 - Compoct refiex speoker similor to MlL-8 but designed for fonge or flush mounting. Cork. neoprene goskef supplied. 8 ohms. $51 / 2^{\prime \prime}$ o.d., 4-7/16 deep.
University MIS-8 WODEL CIB.8-Swivel TIG SPEAKERS
but for wide ongle ing. brocket. Similor to 18-8 de-ongle distribution. Dispersion $120^{\circ} \times 60^{\circ}$ $73 / \mathrm{s}^{\text {"Hx }} \mathrm{H} 14^{\prime \prime} \mathrm{W} \times 12^{\prime \prime} \mathrm{D}$. Shpg. $\mathrm{wf} .51 / 2$ Ibs. 8 ohm voice coll. University C1B-8

Nel 24.70 Model CIB-45-Some, 45 ohm MODEL CMIL-8 - Similor to MIL. 8 but for wide ongle sound. Dispersion $120^{\circ} \times 60^{\circ}$. Swivel mtg. $61 / 4^{\prime \prime} \mathrm{H}$ $91 / 2^{\prime W} \mathrm{~W} \times 81 / 2^{\mathrm{N}} \mathrm{D}$. 8 ohm voice coll. Shpg. Wh., 16 l . 49 University CMIL-8

Nef 18.23

## SWITCHCRAFT ADAPTERS

Shielded plug adapters for mikes a hi-fi cables



# Iffayette antinNas ond 

"U-INSTALL-IT"
KITS!

## ONE PACKAGE DOES IT - FROM ROOF TO RECEIVER 20 ELEMENT STACKED CONICAL

 HIn Lets of 3 singly.$\$ 5.25$ a ${ }^{\circ}$ Cest
The most deoler opproved antenno ever designed. Mundreds of thousands in use - in every type of reception areo. Mode expressly for laforette Rodio to resell at the lowest possible price. Un. quastioned quality - a real "proft maker" for the active service deoler. 20 aircroft oluminum olements - including hi-frequency stubs plus motching $Q$ bors. Eosy to assemble. Covers all VHF channels. You can insure reception with o 2 bay installation for the price of a single bay anteano. A full sized conical at. $1 / 2$ sized prices. Shpeg. wt., 8 lbs. AN- 10
Singly eo. 5.25
Lots of 3, eo. 4.95
'U-INSTALL-IT" KIT - Includes full 20 element stacked conical and installation kit as shawn with 25 .ff. masts. Shpo. wt., 18 lbs. AN-31
Net 7.47

8 Element Conical 171: All-aluminum 8 olement conical. Full slized. Rugeed insulator block. Designed for repid ossembly. Fan frant of 6 full length olements. Real volve. Shpg. w1., 4 Ibs.
AN-11..................................................... 2.60 Lots of 3, ©0. 2,40
"U-lastall-1t" Kit: Includes AN-11 and installation kit os shown with one 5 H . mast. Shpg, wt., II lbs. AN. 33. $\qquad$
Vee Beam (2): Popular primory areo antenno. Rugged aluminum construction. Light weight-oasiest to install. Shorply directionol. Shep. wt., 4 lbs.
AN-21 2 Boys stockod.
Not 2.49

UHF Bow Tie 13): Preassembled-time saving design. Just unfoid-ifighten-and erect. Embossed oluminum elements. Single U-Bolt Installation. Free spare terminais. Shpg, wt., 3 lbs.
AN-26.
Nel 1.85
UHF Corner Reffectar (1): Efficient corner reflector design. Foctory preassembled. Fost, cosy dual U-Bolt installation. All weldad reflecfor screen. Embossed aluminum elements. Shpg. w., $31 / 2$ lbs. AN-27

Not 2.89
3 Section Indoor Antenno (5): Adjustable indoor ontenno. 3 section oluminum sloffs. Heovy, crockle Minish base. Complete with 300r fwin lead. Shpg. wt.0 $21 / 2$ lbs.

Singly, oo. 1.15
AN-12 _ In lots of 3.00. . 99

Switeh Type Indoor Antewne (s): Most popular in-door-b position switch and crisscrass phasing elements. For VHF-UHF-FM. Three section bress elements. Eatro heovy base. Bakellte ball housing. With 300r lead in wire. Shpg. wt., 3 libs.
AN-39
..Net 1.99
PORTA-TENNA (7): A universal antenno with disappeoring dipoles. For partable and stationary TV sets. When not in use dipoles disappear behind TV set. Can be turned in full $360^{\circ}$ circle for arientation. Antenna can be placed anywhere on bock of ony TV set. 3 sec. tion, plated, telescoping dipoles. Completo with instruc. tions, maunting hardware and lead in. Shpo. wt., 2 lbs. AN-35..

Not 1.59

AN. 136
Page 136
TO SPEEO YOUR SHIPMENT USE OUR HANDY ORDER BLANK


## ALL CHANNEL＇S＂RIVIERA＂

## WORLD＇S MOST POWERFUL ULTRA－FRINGE VHF－UHF－FM ANTENNA

GUARANTEED 200 MILE
VHF RECEPTION OR YOUR MONEY BACK
－Rocelves channel 2－83 from all directions withont a rotor
－Eroadband UHFVHF and FM， motorless all slirection recep－ How
－All alamianvinip－out escembly
Fold lests reception on VHF of up to 200 miles has made possible this unprocedonted guaran－ toe．Here is on antenna with one transmission Ilin for all UHF，VHF and FM stations in all directions without the use of a rotator．The nine position seloctor switch connected at the iot electronically rotatas ontenna boam in－ itantly without physically moving the antonna． Galn on channels $2 \rightarrow$ comparable to 4 bay con－ icals；on channols 7.13 comparable to stacked 10 －aloment single channol yagis；on 14.83 com－ parable to bow．H10 roflector， $161 / /^{\prime \prime}$ dowelod aluminum elomants are 60 inchos long．Com－ plote with switch，coupler， $45^{\prime \prime}$ stacking bari and $2 \pi / 2^{-2}$ angle type mast insulators for poly micolone line listod bolow．Shpg．Wt． 10 lbs. all channel riviera
$\qquad$
In lots of 6 each．
Not 22.05
THE EIVIERA MUST EE USED WITH THE LOW LOSS LEAD IN WIRE LISTED BELOW

## ALL CHANNEL＇S MODEL AD2－8 FRINGE AREA ANTENNA

－Recelves cheand 2－33 frem all clicectloes withent o rotor The performance of the AD2．8 is exceeded only by its big brother the Riviera．Fol－ lowing the same basic principles as the Rivier it is designed for the same fine Rivierlese peception fringe and near fringe rotoriess reception in fringe and near ringe areas．Uses $45^{\prime \prime}$ lang $⿻ ⿵ 力 丶 丶 丶 丶 丶$ position switch located at this set gives you a choice of nine anfennes， 2 or more types for each direction．Comas complete with two stacked 8 element antenna array 9 position switch，completaly wired stacking harness and automatic impedance match－ Ing coupler．Requires all channel lead in wire listed below．Less mast．Shpg．Wh． 7 lbs．
MODEL AD2．8－List 36.50 ＿Net 14.95
ALL CHANNEL LEAD－IN WIRE FOR USE WITH
 Conductor Matched Im pino Lowtom mles fited POIYMICALEME Insul． tion and COPPE WELD conductors．Wh．13，per teet loc per 100 H． 8.90


## ALL CHANNEL

## COMPONENT PARTS

Ts． 22
15.230
15.231
？Porition Switch
Not 3.93 Eo． Net 2.87 Es．

# COLOR Tennas-N.C.B. 

JFD "FIREBALL" VHF-UHF INLINE An economicolly priced brood bond orroy with o senso high directivity. front-fa-bock and frant-ta-side relec tion of unwanied signals for dios interference - free re. cepion in both color and black and white on all chan nels. Wide spaced booster ond porosific elements assure maximum pick-up. All aluminum. Fast installotion -hip-lock elements. Stacked array has special open-end booster fransfarmer permitting close stocking far maximum high band response and electricol wide stocking or optimum low band. Shpg. Wt. single 5 lbs stocted 10 ibs.
FES00 -Single-List 17.35
Net 10.20 In lots of 6 , eoch
185005-Stacked-List 36.65
in lots of 6 , eoch
9.18
Net 21.55
Nef 19.39

## JFD CONICAL JETENNA

The oll-oluminum Jetenno is comoletely pre-ossembled to the smollest nut. Remorkable Jet action shoofs forword six elements in special chonnels, locking them instontly in position. Aircraft oluminum elemen:s ore reinforce with solid aluminum dowels that will nat swell or ro out. Cross arm of $1^{\prime \prime}$ square seomless oluminuml Alumi num brockets for yeor affer yeor service withouf rusting SINGLE BAY JETENNA. Delivers up to 8.8 db gain Shog, wi., 4 los
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Lotest VHF design-with erclusive "Fidel ity Phosing". Top performance an boph law and high bands-chonnel 2 thry 13 and color acceptonce. Unbelievable re ception of distances up to $\mathbf{2 0 0}$ milles from TV statian. Emplays four driven. law band, in-phase falded dipoles and twelve band, in-phase falded dipoles ond tweive
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DELUXE ANTENNA

## $\frac{\text { 14.09 }}{\text { 2nes }}$

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List 32.50
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Not 1.18
FINCO FM DIPOLE \& REFLECTOR ANTENNA


Folded dipole and reflector FM ontenno hos sain up ta 3.5 db . All oluminum canstruction. completely pre-assembled with snop-aut, self oligning aluminum brockets. Kit contains ontenno; 5 ft . mast. mast bose: 50 ft . of 300 ohm iwin line; two mot stand-off insulators, three screw eye stand-off insulators and installation instructions, Shpg. wi., $61 / 2$ lbs. FINCO FM-2

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FINCO 400-5A

## FINCO 4 ELEMENT BROAD BAND FM YAGI



A brood banded 4 element Yogi for high goin on FM band, 88 to 108 MC. All oluminum construction with square boam; special "Lack-Tite-No-Tilt" saddle brackef for permanent horizantal alignment. Reinforced elements are pre assembled with snap-aut brackets. 'Impedonce step.up" design for moximum energy transfer. Shog. whes 5 lbs.
FINCO FM. 3
Net 7.35

## TWIN CORNER REFLECTOR



Designed for deep fringe perfarmance Features twin bowties for 12 to back and frant to side ratia. Completely preassembled. Snops open like a baok All welded construction. Triple rein forced Less Mast. Shpg. wt., \& lbs. JFD UHF-2411-list 15.55 ... Net 9.14

# Indoor Antennas. Boosters. Converters 




SNYDER 5-D(1)
Lafest development in all channel coverage, this antenno features on 8 position push-button beam selector, tri-section dipoles ond duol phasing alement. These combine to give o variety of circuit arrangements enabling selection of best reception for the channel being tuned. Attractive gold tone
Snyder 50-List 12.95.
Net 5.50
Lots of 3 , each 4.98

## SNYDER 3-D(2)

Newest indoor antennal features the famous Snyder Directronic 6-position Beam Selector Switchl Gives the clearest picture an every channel-intontly no waitingl Covers oll chonnels from 2 to 831 New criss-cross phasing element gives high variefy of circuit orrongements. Aids in impedonce matching, ghost elimination and orientotion. Twa 3-saction gold tone bross shafts. Brass ploted phasing bor. Shpe. wt. $21 / 2 \mathrm{lbs}$.
Snyder 30-list 7.95.
Not 2.98

## SNYDER IMPERIAL 10-D(3)

- 12 POSITION BEAM SELECTOR SWITCH
- SINGLE, 4 SECTION, $48^{\prime \prime}$ STAFF
- ROTO-TILT ACTION

Guaranieed by Lloyd's of London
You must get o better picture under similor conditions of your money bock. Exclusive new single staf eliminotes spreading dipoles, turning for orientation, and toppling antennas. New, dramatic design features o 12 -position beam selector switch which electronically chooses the clearest picture, The single, 4 -sectian gold-toned staff extonds $48^{\circ}$. telescopes down to $71 / 2^{\prime \prime}$. Roto-tilt action permits full $360^{\circ}$ swivel adjustmont. Heavy, cast, topplepraof are base with gold-tone finish. Handsome Plastic cabinet ovoilable in traditional walnut tone, contemporary blande and smart ebony (specify color when ordering). Shpg. wt., 5 lbs.
Snyder Directronic 10-D-List Price 20.00
Not 11.76

## K-G DELTA BEAM (4)

Combines principles of Kelix coll, folded dipole, straight dipole and Deltq match transformer. 6-position switch matches line impedance and resonates antenno to moich receiver input circuit. Covers all channels $2 \cdot 83$. Half ball swivel on ciear plastic
chate base 10 beam ontenna in best direction. Mounted base to beam ontenna in best direction. Mounted
on rubber. Shpg. Wt. $\mathbb{4}$ lbs. list 9.95 . on rubber. Shpg. Wh. 4 lbs. List 9.95 .

## UTURAMA CONCEALED ANTENNA (5

Now universol disappearing indoor antenno attaches easily to all TV sels. four-section, chrome plated dipoles extend to $37^{\prime \prime}$. Telescope remains out of sight when not in use. Concealed, copper phosing element aids in tuning out ghosts ond interference. Ball jaints permit dipoles ta be set at any angle for moximum signal. Eliminates un. any angle for maximum signal. Eliminates unSighriy and unnecessary gadgots on tap of sot.
 above top of TV set. Shpg. wt., $31 / 2 \mathrm{lbs}$.
AN-36

Net 4.90

Net 4.50
1.18

In lops of 3, eo. 2.85
KT-101 with 2-5 ft. masts
Singly eo.
3.53

In lats of 3, ea. 3.35

## UHF ACCESSORY PACKAGE

Complete UHF antenna accessory package. Contains everything you need Includes 5 ft . steel mast. $11 / /^{\prime \prime}$ O.D.; all-angle base mount; UHF lightning arrestor for rubular and open line; 100 $71 / 2^{\prime \prime}$ screw eyes; 2 insulated mast stondoffs. Complete-nothing else to buy. Shpg, wt. 7 lbs.
KT-21
Same os obove........special 4.25 Some os obove-but with 100 ft . fubular iwin load.
KT. 22
Page 140

## BLONDER-TONGUE



## VHF

 BOOSTER 27.15Blonder-Tongue Model HA-3 is a fully outomatic booster. Powerful, broadband, 3-tube, 3-stage coscade push-pull circuit. Providas signol gain of 16 db an all 12 TV VHF channels. Goes on and off outomatically with the TV receiver by means of an automatic thermal ce lay. Employs three 616 low-noise dualtriode tubas. Exceltent signal- dualratio. For 300 Ehm orestignal-to-noise mohogany finish hommerion attroctive mohogany finish hammertone metal cabinet, $5^{\prime \prime} \times 53 / 4^{\prime \prime} \times 4^{\prime \prime}$. Completo with instructions. For oparation from 105. 120 polis, $50-60$ eycles AC. Shpg. wi. 4 libs. MODEL MA-3 BOOSTER.
List 44.50
Not 27.15


## BLONDER-TONGUE

 UHF CONVERTER
## The only converter for "Class $\mathrm{A}^{*}$ signa

 arees with these exclusive foatures. Tuned Input trects with osciliator, rajects spurl. ous slgnals suppresses osclliator padis. tion. Precle impedence mateh gives merimum signal cenversion-no line ghosth-no pleture smear. Drift-free performence if echleved by use of a thermally compansated onclliator circult. One inob tuaing; no VHF channel switching; out put on channal 4, 5, or 3. Complete with tubes end instructions. Shoo. Wt. 4 lbs.Mefel ©t-Llet 22.95
Hot 15.63

B-T ANTENNA BOOSTER
Brood band, oll.VHF chonnel omplifier de. signed for most mount ing. Features monual os well os outomatic remote operotion through TV "on/off" swifch. Completely onclased in o heavy, met ol, weatherprool housIng. Eosily mest mountod. Compact power supply locates of or near receiver. Single line between omplifier and set corrier power "up"
and TV signal "down." Exclusive, patented, 4 tube, push-pull circuil gives mare thon 25 db goln on all VHF chonnels. Matched 300 ohm inputs and outoufts. Power inouts for both 24 and 110 volts AC. Buitt-in filter not. works. Enclusive swing down chossis for easy service. Shpe. wt., 10 lbs Model AB Booster List 99.50 ...Net 80.76

Increases video and sound outpu ver $20 \%$. Consists of complefe If stage which easily plugs info any receiver inside the cabinet, thus eliminating ex. lernal switchos and connections. Has advantages of broad band boosters but without separate tuning for each chan nel. Ideal for poor signal areas.


Solid aluminum conatruction through. out - permanent ruat and corrosion resistance. Flip open design for rapid, easy installation. High front-Ex-back fatio maximum Uhf gain. Extremely rigid design for vibration proof operation. Properly engineered to create necessary dipole - reflector wave leagth relationship. Shpg. Wh. of the

## ALUMINUM CORNER REFLECTOR <br>  <br> ALL

T5.264

# Rotators－Towers－Masts MODEL T．12．Manualis operated with direction Indicator． 

 T．12．List 34.25 MODEL K－22 Econumy model－ 1 r．p．mi，motor．Full $380^{\circ}$ rotation．gear brake，start．
 TMRUST BEARING BRACKET．Incrwases rapactty of Tenna Rotors up to $30 n$ lbs Shps． TBE ${ }^{3}$ lbs．List 4.95

## SPECIAL UHF－VHF <br> TUBULAR TWIN LEAD <br> 300 OHM AIRSPACED



## RMS ROTOR QUEEN

llere is a rofator that is enginered with outitanding fuality fentures，lut wilhout any fancy dou－dad to add
to cust Wrather sealed all sluminum housing with to cost Wrather sealed all sluminum housing＂ith mail．Full $350^{\circ}$ rotation in euch direction with instans hraking for pingoint acruraces．Direvit aear drice for
 ports and hagpote type base for ensy Instaliation and ams．ni．mimeme sime ams a．sh matar
WR－49 Accessories
rhruat hearing for K －itis and M －int
RMS TB－2．．．．．．．．．．．．．．．．．．．．．．．．．
Dirent unsl indicator Blodel．Same hiri．．．．．．．．．．．．．．．．．．．．．．．． 2.91 Dost fertures as alove Plus．Same high quality，Loun atur to pinpoint dirertion antenna be facing shpt Whe．Thes．
RMS M－55
DUPLEX TV RECEPTACLE AND WALL PLATE
 AND WALL PLATE
Complete，convenient packa Complete，convenient package．
Use for 2 TV seta or TV and FM，
Neat，professional installation apper professional installation
appere．Fits standard outlot boz，Ivory only．Shus．Wt． $1 / 2 \mathrm{lb}$ ．

## 4－POSITION SWITCH AND PLATE

 T5－247－ 2 Contact Plug
for 300 Ohm Lead Net


Placed on Lop of TV fabinet the \＃ 700
Lite
Clock Lite Clock provides proper amount of




Srock No．

## MEW＂SKY．LOK＂mAST


 －Huollay thyimb molto loek methon automat bally at Boll ohaped bottome and surised tap fatertent Completoly prasceabicu－imply ald matimed
Coy plage．ith all puy ringa，slames and lard． wero ameamery tortrilati．


（T1830－40

Tnファ8es－

Cen
Ton

## ALL ANGLE BASE and ROOF MOUNT

 zUE2 $1 /$ ．All Angle Rase and Roof Monnt．Mont popular awivel bage monnt in use todas．Worke on any muriace－fat．olent，peak or wall．Reary to $2 \%$＂ 0.1 ．Complete with hardwareTe37．Len 3.05

MET 1.79

## ALPRODCO ALUMINUM TOWERS｜




AMPHENOL UHF－VHF TWIN LINE

（A） $214-056300 \mathrm{ohm}$ flot twin leod．Low loss 56 mil virgin polyethylene dielectric．\＃20 stronded（728） copper conductors．Withstonds weather．Shps．wt．， 2 lbs．per 100 f 214－056－50－ 50 н．Coll． $214.056-75-75$ H．Coil
$\qquad$
$\qquad$ Net 1.29 214－056－100－100 H．Coil $\qquad$ Net 1.77 214－056－Over 100 th．
ner 100 Het 2.16
2.16 （B）214－271 300 ohm oir spoced tubulor．Low loss an long leads－ideal for UHF．Shpg．wi．， 3 lbs．per 100 ft ． 214.271 －Minimum 100 H．．．．．．．．．．．．．．．．．．．．．．．．．．．Net 3.48 HF COAXIAL CABLE
Solid，flexible low－loss polyethylene，dielectric copper， woven shiold broid over the polyethylene ond o heory vinyl outer coverin．

| Am－ phenol No． | Type | Ohms Im－ ped． | Cop． Ft． Mmi | Wire Size | $\begin{aligned} & \text { Per } \\ & \text { Fe. } \end{aligned}$ | $\begin{aligned} & \text { Per } \\ & 100 \\ & \text { F中。 } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21.004 | RG／8U | 52 | 29 | $7 \times 21$ | ． 14 | 11.89 |
| 21．007 | RG／110 | 75 | 20 | 7×26 | ． 12 | 10.68 |
| 21.038 | RG／22U | 95 | 16 | No． 20 | ． 17 | 14.65 |
| 21．024 | RG／58U | 53.5 | 28 | No． 20 | ． 05 | 4.61 |
| 21.025 | RG／59U | 73 | 22 | No． 22 | ． 06 | 5.03 |

## POPULAR PRICED TV ACCESSORIES



Poge 142

## TV SPECIALS

Bl-FI 2-SET
COUPLER
PRINTED cIRCUIT bifilat colls

## Finest reception on all VHF and UHF channels. Highest audie and video signal transfer. improves watching-aduces ghosts. set interterence. Polystyrene cese liminates loses from Impedsince changes that occasionally occur when metal cases are ured. Simple to install. Operates 2 TV of FM sefs. Shpg. wi. 4 or. <br> TV SIGNAL <br> ATTENUATOR

Visolre ${ }^{2}$ Mall be used with with encestive sig. nal. Eliminetes poos binc., multiple im. picture bur, boets in ceused by signal averladenn. rroauces 1000 to 1 chenge in slanal reeching iet. Neduees most crassmodulation eflocts. Adjusteble for all signel Shpeg. wit oz.
TS-218-Net eech in lots of 2 Singly, eech

## GEE-LAR TV KNOBS



A popular series of TV Inobs to fit racuivers us. ing dual control. and tumers by Standard Coil Front Duel Contr ol Knots (Fig. A). Pated gold frinith inlay. Used with reap tnob lios and others $18 / 10^{\circ} 0.0$.
1202-Fits $1 /{ }^{\text {w }}$ Inurl shah WETEA. 26 C 1201 -fiti $\mathrm{K}_{4}$ - llotted shet1 MET EA. 29 c 1204-Fiti $202^{\prime \prime}$ flatted shoft NETEA. 296 Reor Dual Combral Kned (H4. B). For standard $145^{\circ}$ diameter roat terway shaft. 14 O.D.
 Cembinetloo Dual linab (Fty Cl. Dummy rype
control imob. For motehing on Cabinet, ith O.O. Fift $1 / 4$ - flatted thath. 1206................................................... 4te EA. Duel Temer ter Kaob (Hios. D). Tront inoth for fits $1 / 4$, hatled shap.
 Deol Tuar teer Meob (Fiv. E). Rear knob for
controls and tunors. $1.5 / 12$ O.D. Fitu \% reer controls and 120 m . 120 t. tuners. $1.5 / 12$ © 0.0
 Cmond Iadkator Plote (Five. F). Gold num Fita $\mathrm{K}^{\prime \prime}$ diamator reer flatted thaft. 1209.

MILLER HI PASS TV FILTER
 Reduce interference from industriol, cammercial ond medical equipment.
Also "Ham" signals betow 40 Mc . No practical ollenuation of IV sig. nols above 40 Mc . Simple installe. fion. Cannect to TV set ontenno termi nals. Size $11 / 2=17 / a \times 31 / 2$. Shpg.
$1 / 2 \mathrm{lb}$. MODEL 6168-300 Ohm line

PORTABLE TV TABLES PORTABLE

## TV

 TABLES
(A) Pertable TV table with adjustable too to accommodole practicelly ony full size TV sef. Con be moved oround on its awn large, freeralling costers. One minute assembly-iust insert casters and fighten bolis. Sturdy fubular steel construction. Delume, satin black finish. Shpg. Wi., 11 lbs
TL-44-Block Finish
Nel 3.29
TL45-Brass Finish.
Net 4.39
(B) Portable TV toble specially designed for the new, compoct porto. ble sets. Accommadates all sizes up to $14^{*}$. Designed for the proper viewing ongle. Other construction features similor to (A). Shpg.w., 11lbs TL-47-Block Finish. Net 3.10
TL-48-Brass Finish.
Not 4.19


BARKHAUSEN OSCILLATION ELIMINATOR
Remove those vertical block bors (Barkhousen Oscillation) from your TV screen with this Pertection B.O. Eliminatar Simply slip the B.O. Eliminator over the herizental sweep autput pube and odjust like on ion trap magnet until the interference disoppears.

## T5-124--Shpg. wi. 1/2

## JFD ANTENNA COUPLERS

Join any combination of VHF, or VHF.UHF antennas to use one transmission line. Stable circuits separate all channols ausomatically and assure almost $100 \%$ signal transfer. Highest isolation between separate inputs oliminates inter. action. Westherproof. Complete with mast clamp. Shpg. Wt. I Ib Stock No | T |  |
| :--- | :--- |
| T | 159 | IS 160

TS 161

Model Tarms To Couple Antenne
ACIO 6 VHF (2-6) and VHF(7-13) 2.06
AC20 6 VHF 2.13 ) and UHF(14-83) 2.20 VHF (2-6)-VMF 7 -13)


Controls inter-signol Duza, loss of dofinition and "Lound bars caused by excessive signal. 300 ahm load minimixes ghassh sousso by mismatch. Con be used by servicamon to simulate fringo ar ar
conditions in high signal strength aress. Mounts on cabinal ar chasis. Scrowdriver adiustment shaft. Supplied with mounting brecter and instrvefions

## Iac oj. 3.

MEISSNER TV-FM WAVE TRAPS


## R. L DRAKE TVI FHTERS Mi-PASS TYPES FOn RECEIVEINS

Improven TY reception by rejecting inw treguenc in teriertnce (befow 50 mal from mmeteur and whort
wave trampuitters. diatiemy, appliances, etc. Pro-
 than ud db down ti the lelevimion if frequencies hoes not reduce girength of Ty vignal. Shpe. wit T\&. 141-TV.300-50 MP. 300-0hm TV-300 MP -tor use nith 20 and to MC 1F's TE. 181 DELUXE T.V. SERVICE LITE Keep your honds free. Spring clomp with rubber covered ends offoches onywhere in T.V. fabitor uses standard 25 walt bulb. Complete with 6 ft . card ond plug. tess bulb. Shpe. wi.e $11 / 2$ lbs
MS 63 $\qquad$

## "3-PI" TVI FILTER

- 14 COMPONENTS-8 PRECISION CAPACI. TORS- $\rightarrow$ PRECISION COILS:



 gicked up at antenna. Printed circult design gives improved reltablily -low cost-licht welght precise unitormity. Precision engineered triple section trap. Easy to install. Complete whit lastructions. Shpg. TS.219 Not 1.80

Each 3.23 IV LINE VOLTAGE

MET 2.15

REGULATOR
A profective unll designed to prevent live voltage surges from Wameging the or radio rectivert. Whil raduce turgat as high as vents blown luses, burned out tubes, atc. Plugs into service outlet and provides outlet for

## CLAHOSTAT TVA - 200-300 WOHFI...NLT 1.76

 CLAROSTAT TVE - 300.375 Wefle....NTT 2.06ION TRAP MAGNETS FIXED TYPES


## 



Oouble megnet. Univarsal replacement for mo



## JFD

 INTERFERENCE ELIMINATOR
## 

 - hom - dlathermy industrial - ote. No - 年-ct on lignol strength. No ground needed. Maunts on bock of sel. For 300 ohm linee. Shpg. Wi.e $1 / 2 \mathrm{ib}$. T5-235 HP-50 … List 4.50 shmit

T5200



TUNER-KLEEN
Keep your Standard Coll Tuners permanencly clean. Simple Instalintion of cleannere. 2 to outer frame and 2 in place of ubused channel colls. Nylon wiper cloth is soaked in cleaner fuid, Grease and dirt thus erer channel selector rolated. TS-178_Not. 88


## CHAVETTE

BIG SAVINGS SCREW-EYE INSULATORS $3 / 2^{m}$ wood-scrow type with genuln in polyethylane unf-
versel inserts for $\mathrm{I} . \mathrm{V}$. line.


Weed the conjumction
With the tube hareess
and the arode haraess to feclitate earvicing. aombly to chasele. For say mand coil Aa



UNIVEMSAL TXVMsiow cond Parmite ventine of ple-
 lons Male and iemalo bahellit lectiong, With

FIAK $200 \%$ MOUNT Abheavy reure atoil pilat rot mount: iocilit manio no to $2^{\circ} \mathrm{ta}$ dian Hor. Nily aductabio con hationith oll poceceampero wir. shpocme.515
 singly, of d. .a.......... 1.43

## 2-SET COUPLER



Unees one menena for two ELS. Compact iloctronic
 On one ins allution. Eeaty
mrone.
RCA 240AI TV $\operatorname{set}$ COUPLR each oor

Operater
 blall-gelf-contalined wood ecrew. There's no seed to cut or mpliee
the liad because connectioni are automatically made when the screp capa are tightened. mea 24041 ..................Net 1.18

NEW -

## RATCHET

CHIMNEY MOUNT
Ideal for rapid, easy installation. No oye bolfs used. Ratchet pulls strapping fram both directions. Ideal in cold weather. Zinc and dichramate plated heary channel steel. Complate with all hordware and 2 - 12 ft . longths of strapping. Fer masts up to $1 \%$ dio. Shog. wh., 4 lbs.
TS-244 ....em............om...........Nel 2.32
 STEEL} STRAP KIT

Replacomont mit. Consists of $2 \mathbf{1 2}+1$. stainless steel straps, stalnless steel seak, friangular eyebolts, loctwashers heznuts. Puts an end to rust and corresion. Shpo. wh. 2 lbs.
STOCK Mo. TS-53, lote of 3, a.


ADUSTABL:
 curely/2 srige $\delta$. M mante from 1 . eletant gieel. Supplied with hard Frarn. Shpt. wh. 2 lba.
 permite unimited opacing be. tween brackela for manimum
support of maste
O.b
 learths of \%" with Ewo $12-12$ 3 lhe. and hardwars. Shp

## Not Feet Mo. Ts-AR.

## ,

TV TUBE 'BRITENER' 79 lutely no tooln or ecolderyag seeded for finatiling this handy inempenaive tube rejuvenator, You atructione. For mousnofic tubos and PAMALIE Cincuits only, Remews brightien contrant.

## 



TEST ADAPTER 1.03

Tent Adapter djee the trick. Juat roplace Aule with the Teus Adapter. Prealo. stl moket eun nertions ere lopside. instant reach of our icet pred Instant reach of sour teat prod.
 MS. 85

Not 1.03 5 \& 10 FT. MASTS

ALL STAINLESS STEEL CHIMNEY MOUNT Made entirely of stainless steell The
mount - straps - clips - rivets -nerews-nuln-every plece in itainfrom non corroalive. Will ruse moof replecinf w do fit once. Neve forget it Complete with $2-12 \mathrm{ft}$. stainlese T.t. $54 \mathrm{l}^{\mathrm{lbm}}$.

Lite 7.50 In lole of 3, EACH 3.

## CINLIN STANOOH

 T1.20-8乡 -... \& se. 10 for ts STEAP-TVP STAMDOF

One of the mont popular and
practical antenna mounts. Se-
Is loce of a


Quantity limised. Exceliont for TV antanna
To low of o
 on bokellte base. Double pote,
daubleihrow, $21 / 2^{\prime \prime}$. TS-100 -.24
INTERLOCK LINE CORD
Mrellock lint come-A Eeplectment covel for acA, Wilice. GE, a plut on anorl. it ins repplar epid. Tug the othere ond rvectiol rubber milere labectiorion oproved. A very or en the worthems.
Can be erected in minuten; with-Telos- Herticast. out unpecia coole or drilling.

## STAINLESS

## STAINLESS



## （1）BBillmesin Telewision Accessories Favorite of TV Buyers， <br> safo eary way to curry

## the Country

Over

SUPTIMAILS FOE TV LYAD－IMS Detretis tre TY lesd－tin Etandof in aylutor．seativ plereet bicti，mortar， mond．ind elen mast coocrets．Meld－ ed．low－hase diolectile plut has ual－ veral UPe＂Lroy－hole＂slot to catre ant twin－toed or conilel cabi．Mase tlons tosether and drive oupernal throwab felsh 348 loas．
Stock No．13－36． 10 for 33
＂PLOATIMO＂OUY RINO


## MAST OUY CLAMP

The easat cuy ciamp io practically a muat for oll television
 commodate marts aD to one and one－boll incbet is dis meter．ghpe．Wt． 4 is

Replacement for thousands of T．V．Sefs．Used to diminote stroys，hum．and sound bors，

 chassia．Smooth fubular hen dles．Poslitive lock on edge of chassis．Cannot slip off Holds until reloased．Ah practically all TV chasis． aquinafes com fingern－doments． It．Ts－221＿Net 1．91


3－WAY GUY WIRE CLAMP
Handy 3．way clemp for easy Wher tastoning of guy wires．Fits mests up to $2 \frac{1}{3}$ or－ teel Triple protected epainst cerr osion．
TSAP．
NET 29 en

STHL THRNPMCRES

Thke up caj－wire alsck．Koxproof calvanised
 13 1.18

TS－76

216



1 1
Stx etrande of an ber 20 h ht teroll atrencth galvenfiod teal tns problem．This to any gry mishes gmaltty rayin whe yoer yones cae bev．In 50 ， 100 01.
\％NATE GEONO LODS For ane where phoe enound if not available． Hear ateel pole for bead．




## ＂ORIP＂GROUNO CAMM

Malme vice－lir putp on pipe．Sharp polated



## UNIVERSAL

 FEED－THRU BUSHING

This now feed．thru Durhine fis all types of cestial or twin leed wirest Ineluding the infiold． ad or pubulor os well as rota． tor cable．Hes provision for tormineting open line．Fis walli up to $14^{\circ}$ thicl．Con be caslly cut to fit．Requirer \％ hole．Shpe．Wt．I Ib．
Stect Me．Ts－22．
Net，en．，．．．．．．．．．．．．．． 85
TWIN－LEAD FEETRTMAU WIII bring 300 ohm IIne thru woll or findow frame．Holds Ifne firmly with weather Hght ceol．＊＂long－easily cut for thinher walla．Shpg．Wt．I lb Stock Me．TS－23．

Not，・ー．．．．．．．．．．．．．．．．．．．．．．．．．．4S

JFD MEW PAL＊ImsuLaton stamoorf
－Pivot－Aetion－Lock－Tho＇Sorvicoman＇s Best Friend！ Cherer receptioe－tope tomilve omeryy lild Emey Prem motel stradef
Pro－essombled Mage loeps Insingetor on stoeden
evan whe wide epal
－Cem trees letci－locte la opernting powitesl
－Universal lissert tater oll typer heedial
 remevio ead replecian grominets．SImety dip heows

Acta as dependable ancnor for ruy Made of Envanised steel．Ea 5 \＆



Abebore guy Fire aecurety and per
 10 for．

## ＂CHEATER＂

 EXTENSIONA 6 ft．extension for RCA Philee G．E． Admiral and other Inlerlock rpe iefs． Handy for service lut and work bench． TS－107．．．NET 44e

## DRIV要 HINO <br> 

## NODO SCNEW STAMOOF

## Mact or Mraly Ma．Wire

 （an stamoerf
1.8914 － 14 Herost Ment landow HOT WALL STAmDOFF
Bites leto Any Bamary or Wer Materlal
 ＂MUT＂THAP－TYP量 STAMDOFF


 Wha stalmbereetion stral


At lest a feed－thru that passes rour TV signal without drilling beeaking or dig． ging and withoul signal loss．Jusi use adhesive supplied to attech unlts pane and one to each side of window pane and atfach your wiras．Quick． shy and effective．
Shpg Wt． 6 oz．
TS 155 per sel
FUSIBLE RESISTORS


Replocements for Motorolo，Grosley，Emer． son，Kaytheon．Philco，Halfmon，Hallieraft ers，Trulone，Seors，Montgomery Word， Sentinel．Avin ond mony others．
T3．253－ktit of 4． 5.6 Ohms Net
T5－254－Kit of 4． 7.5 Ohms .87
T3－255＿KIt of 4． 9.0 Ohms Eoch
T3．25－Km of 4． 22 Ohms Kit TS－226 Kit of 4 values

## HERE YOU ARE, SERVICEMEN! SNAP UP THESE SPECIALS ON TV ACCESSORIES

ACME TYPE T8394M VARIABLE VOLTAGE ADJUSTER Efficient 300 -wort con invaus duty, monvolly iormer. Adiusted by turning rotary tap switch Moy be used os sceo-uo ar step-down. Calibroled vall-meter indicates secandary valtage. mary rapped for 9 120 and 125 vaitr, at $50-80$ cyeles. Secandary aulout, 115 v . Nan-aging, sllican steel lami nallans ond thoroughiy lested impregnoted coils for low core loss. 8.1f. cord and plug. Size, 43/4" $\times 4$ " $x 5$
$\qquad$


## PICTURE TUBE test point ADAPTER <br> 

desi for telting measuremants af voltage resistance and videa from the bese of the picture tube Just inreadily accassible. Saves time and inereases servicing MS-43

NET 940

## TEST-POINT ADAPTERS



SOLA VOLTAGE
REGULATOR

Campletely autamatic aperation! No switcho - no manual adjustmanti-no danger of voltage surge. Ends flicker, fitters and distartion Tole Volf" will stabillze fluctuations of $30 \%$ more constantly delivering the reavired oltsoe to your rv receiver ${ }^{\text {the rezaired }}$ problem-iurt plug into. regular oultel
 ${ }_{3} 1 \mathrm{l}_{5}$

## AMODE EXTENSIOM


for cannecting picture tube while outride at long. for alasi tubes
spocr Ne . TS 46 . Lets of 3. Hs....... 79
simply, same as ebave, out for ${ }_{15}$ T-171

## G. C. COLOR

## TV CHEATER

Mode of high dieleck wurvsty rone. Protects from high voltage shock. Permits insertion of
for TV picture fubes. Sllver plated inap button. $112^{\circ}$ diam -ter rubber profecfed cap. STOP: STOCK No. TS-47,
Lots of 6. © singly, or. 26

5 COLA 7202.


MET 30.00

FILAMENT
RESISTOR
aplaces filamant resisfor it
r5.144
NET EA. 1.44


2 MEG. 2 WATT $1 \%$ H.F. RESISTOR Popular rep IS.145........................................ EA. 350

## MILLER ADJUSTABLE ION TRAP

 Adiustable between 32 and is gauss. Take the place of most single-magnet ion traps Thumb-screw adjustment permits selection of any strength within its range. Reduces servicoman's in ventory. Permits easy replacement where original value is unknown of incorrect.Miller 6295
Net .73

## G C ZIPT REJUVENATOR

 BURNS OFF PICTURE TUBE SHORTS

Eliminater expensive picture fube repairs. No eloborale equipment needed. Repairs grid and cathode thorts in two minutes - withoul - incteares cmmissian-decanto minotes cothodes-restores oper. ation of brigheness control. Shpg. $w+., 1 / 2 \mathrm{lb}$. 5.95 Not 3.50 TS-241 List 5.95 Not 3.50 H.V probe. Blocks grounding of TV set high voltoge supply.
TS-237 DEFLECTION AND INTERCHASSIS

$\qquad$ 4 DUNONT SERVICE KIT fiection astentions. Shigg. vallege 2 los.

## EMERSON SEAVICE XIT

Contains 5 units for defiection and anode artensions. Covert most models. SApe. wt. 2 lbs.

## COLOR TV HARNESS KIT

COLOR HARNESS KIT: Contains extensian harnesses necas sary to service most colar sels. Includes CRT, Hi-Voltage, de-TS-27
UNIVERSAL COLOR HARNESS KIT. Col. ........... 6.47 rensions to service all color sels, including RCA. necessary ex.
For quick easy servicing thate extension harnosees are cuzfom designed for popular sits.

| MAKE | TYPE | MODEL | $\begin{aligned} & \text { stock } \\ & \text { NO } \end{aligned}$ | UET |
| :---: | :---: | :---: | :---: | :---: |
| Enerson | Deatecton Elit | 120162 A . |  |  |
| Enerrion | Del. singie Leed | $\underset{1201}{1201}$ | T8. 137 | 1.32 |
|  |  | $120129{ }^{\circ}$ | Ts.162 | 3 |
| $\begin{aligned} & \text { E.arsonf } \\ & \text { Dumbont } \end{aligned}$ | Lefectuon Ext. | 120198D ${ }^{\circ}$ <br> halor 105 | TH.105 | 8 |
|  |  | 108. 108, <br> 184.185. 168.171. <br> 168. 371. |  |  |
| Dument |  | 100. 130 | T8.137 | 1.32 |
| Dumont | Ht-Voll To Chasale | haios. 16 | T8.168 | . 4 |
| Dumont | Hi-Volt To Chasal\| | HAlus. 108. | T8.164 |  |
| Oumant | Defoctuon Ext. | RA109, 13 |  |  |
|  |  | 130. 133 | Ts-189 | 32 |
| Phile | Sleakor Eit. AOC Puliso | 19+9-1931 | TN | 7 |
|  |  | serles | тs. | 64 |
|  | Treneruion Ext | 1949 | T8. 1 | . 32 |
| Pallee | intersha sis Ext. | 19\%2 | T8-139 | ${ }_{1}^{132}$ |
| Philise | intereha ois lizi. | 19:32-53. | TN.140 | 1.78 |
| Syivanit | Pantoction Eri. | 187 | TH. 163 |  |
| Sylvatia | inenertumi Eut | 187 | T3.166 | 88 |

UNIVERSAL EBY TV TESTING KIT


Mates posible testing wh with picfure tube olectrically connected in clicult, but of contact with high valtage terminals and tube breskage Consists of anode stension herness, polte ertension harness, fube soctet estension harness and sfurdy plastic corrying case. CRT EXTENSION if for both ELECTROSTATIC and MAG.
NET tuber.
TS-141. Sinpg. wt. 2 Ibe NET 3.53


## HARNESS

EXTENSION KITS
derloneo idocificality to popular orond wists.

## PHILCO SERVICE KIT

Complote tit of harnosses to sarvice any philco TV set from 194
 onode entonsiont. Stpe $w$, lbs. Canvert ony tube tolt or into CRT toiter tube from cabine Tosts any picturo tube for ihorts. ${ }^{\text {for}}$ " loarts. Shog W
$\qquad$ $48^{\prime \prime}$ loed. Shpg. W
116.
 iuner, convergence, hi-voltage, and interchassis extensians. TS-275.-Shpg. Wt. ? the COLOR CRTEXTENSION: 12 wires, for oll calor CRIs.
TS-276-Shpg. wh. 8 oss................................ Net 3.15 TS-276-Shpg. wf. 8 oas. TUNER EXTENSION:
TS-277-Shpa. wt 8 azi
Nel 1.19
CONVERGENCE EXTENSION: 12 wires, tor all colar sols.
TS-278-Shpg. Wł., ${ }^{8}$ ors.................................. 2.32 HI-VOLTAGE EXTENSION: TS.279—Shpg. wh., 8 azs.

## TV PICTURE TUBE SOCKETS

MOLDED: Now all molded dua-decal socket for standord CRTs. Complete with back plate, cantocts, hardware. Less leads. TS-270-Shpg. wt. 6 az. 18 LAMINATED: Duo.Decal TV socket with plostic caver, Pins 1 ,
2. 10,11 and 12 wired for easy replocement. $18^{\prime \prime}$ leads. TS.271-Shpg, wi. 8 oz

Ne1 .41 Some as above wired for electrastatic and magnetic pubes.
TS-272--Shpg. wf., 8 az......................................... 47 COLOR TUBE SOCKET: for new type multi gun colar CRT. Unwired camplate with back plate and contachs.
TS-273-Shpg. wt., of oz. ................................................ 2.06

## UNIVERSAL TV ONE JUMPER FOR ALL TV SETS

 JUMPER CORD Entends pawer from bock of TV sef-un necessary to move furniture to get to woll necessary to move furniture to get to woll olug. Turns off iv sel fram rear. Two handy outlets far saldering fron and Restequipment. Soves fime and effort. Shpg. equipment. Soves lime and effort. Shps
wt., 1 lb . TS. 243.

## Values in TV Parts \& accessories



## LITTELFUSE AND BUSS FUSES AND MOUNTS

## TYPE $3 A G$ STANDARD FUSES

| Littel | Amp: | $\begin{aligned} & \text { Per } \\ & \text { Pkg. } \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Per } \\ \mathbf{C} \\ \hline \end{gathered}$ | Littel. Fune : | Amps | Per PkI | Por |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 312.062 | 1/16 |  |  |  |  |  |  |
| 312.125 | 1/8 |  |  | 31201.5 | 11/2 | 25 | 3.92 |
| 312.150 | . 15 | 59 | 9.80 | 312002. |  |  |  |
| . 312.187 | 3/16 |  |  | 312003. | 3 | 22 | 3.44 |
| 312.250 | $1 / 4$ |  |  |  |  |  |  |
| 312.300 312.375 | $3 / 10$ | 39 | 6.37 | $312005$ | 5 | 29 | 4.90 |
| 312.500 | 1/2 |  |  | 312006. | 6 |  |  |
| 312.750 | 2 | . 39 | 6.37 | 312008. | 8 | 45 | 7.36 |


| TYPE 3AG SLOW RLOW FUSES <br> High time-lig to withstand neary surges, blown quickly on shorts. Enits through 5 anp are rated 12 i volts and are I'L anproved, above 5 amp rated 32 volt. Littelfuke 31300 serles. For Buss. specify MDL. S fuses mer pkg. 11/6" * "/4" diam. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Littel- | mas | ke | $\mathrm{c}$ | Littel $F_{\text {Us }}=$ | Amps |  | Per |
| 313.010 313.032 | 1/1019 | 1.07 | 17.64 | 313001. |  |  | 3.24 |
| a <br> 313.032 <br> 313.062 <br> 313.100 <br> 313.125 <br> 313.150 | (1/32$1 / 16$ <br> $1 / 10$ <br> $1 / 8$ <br> 1810 | 79 | 13.24 | 3131.25 <br> 31301.5 <br> 31301.6 <br> 313002. |  | . 73 | 12.26 |
| 313.25 <br> 313.150 <br> 313175 <br> 313.187 <br> 313.200 <br> 313.250 | $1 / 8 / 100$ <br> 171 <br> $3 / 16$ <br> $2 / 10$ <br> $1 / 4$ <br> 1 | 79 | 13.2 | 31302.5 313003. 31133.2 31300.2 313005. 313005. | $23 / 2$ 3 3 3 4 | 59 | 9.80 |
| $\begin{aligned} & 313.300 \\ & 313.375 \\ & 313.400 \\ & 313.400 \end{aligned}$ | $3 / 10$ $3 / 8$ $1 / 10$ $1 / 2$ | 79 | 13.24 | 313005. <br> 3136.25 <br> 313008. <br> 313010. <br> 3 | $61 \%$ 8 10 10 | 59 | 9.80 |
| $\begin{aligned} & 313.600 \\ & 313.700 \\ & 313.750 \\ & 313.800 \end{aligned}$ | A/10 $7 / 10$ $3 / 4$ $8 / 10$ | 79 | 13.24 | 313015. <br> 313020. <br> 313025. <br> 313030. | 10 20 25 30 |  |  |
| 32 VOLT AUTO FUSES <br> Siedium acting fuses desisned for auto use. Sizes to SAE spocificstions, fength arrording to current rating to kuard akainat over-fuaink. Littelfuse 30700 A series exrent 7 1/4 <br>  snedfy SFE. All $\%$ " diam. 5t ruses mer pha. |  |  |  |  |  |  |  |
| Lltat. | Amps | Per | Per | Cittel: | Amps | Por | $\begin{aligned} & \text { Per } \\ & \text { C } \end{aligned}$ |
| 307004 307006 30307.5 <br> 30307.5 | 1 7 7 7 | 16 .16 .15 | 2.69 2.69 2.45 2.45 | $\mathbf{3 0 7 0 1 4}$ <br> 307020 <br> 307030 | 14 20 30 | 14 14 .18 | 2.19 2.19 2.94 |
| FUSETRON TYPE T DUAL-ELEMENT FUSES |  |  |  |  |  |  |  |
| Contain both a theronal cutiout and fuve to withstand heasy startime supkt currents yet nipokyt on dankernus overioats or shurt efrcults. Fior lisiv. Four fuses per pkg. Nhug. |  |  |  |  |  |  |  |
|  |  |  |  | Buss | Ratin |  | Per PkT. |
| $\begin{aligned} & \mathbf{T} \cdot 20 \\ & \mathbf{T} \cdot 15 \end{aligned}$ | 20 |  | 27 | T. 25 T .30 | 30.7 |  | . 27 |

## TYPE 8AG INSTRUMENT FUSES

Ibesigncil for high-spred artion in nrotert delleate plectrical enulpment, dittelfuse 3 inimo series-liuss AGX series.





## 3AG SLOW BLOW PIGTAIL FUSES

Widely used in TV revelirers. 1hewigned to withstand heavy
 MחDV. All rated 125 Volt. UL aporoved thrmush 3.2 amp .



| $\begin{aligned} & 315.010 \\ & 315.032 \end{aligned}$ | $\begin{aligned} & 1 / 100 \\ & 1 /: 32 \end{aligned}$ | 1.33 | 22.05 | 315.750 <br> 315.800 | 3/4/10 | 99 | 16.66 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 315.062 | 1/16 |  |  | 315001. |  |  |  |
| 315.100 315 | 1/10 |  |  |  |  |  |  |
| 315.150 315.187 | 13/100 | 99 | 16.66 | 31501.5 | 1 1/2 | 96 | 15.68 |
| 315.200 | 2/10 |  |  | 31501.6 | $16 / 10$ |  |  |
| 315.250 | 1/4 |  |  | 315002. |  |  |  |
| 315.300 | 7/10 |  |  | 31502.5 |  |  |  |
| 315.375 | $3 / 8$ | . 99 | 16.66 | 315003. |  |  |  |
| 315.400 315 | 1/10 |  |  | 31503.2 | $32 / 10$ | . 79 | 13.24 |
| 315.500 | 1/2 |  |  | 315004. |  |  |  |





| Littel | Amps | Pke. | $c$ | LittelFuse : | Amps | Per | Per |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 332.032 | 123 |  |  | 3321.75 |  |  |  |
| 332.062 3325 | 1/16 | 63 | 1029 | 332002 332025 3 | \% | 27 | 4.31 |
| 3322.187 |  |  |  | 33202.5 <br> 33203 | ${ }^{21 / 2}$ |  |  |
| 332.250 | 1/4 |  |  |  |  |  |  |
| 332.300 | $3 / 10$ | 48 | 784 | ${ }_{3}^{33203.5}$ |  |  |  |
| 332.375 <br> 332.500 <br> 32.750 | $3 / 8$ $1 / 2$ |  |  | ${ }^{332005}$ | 5 | 35 | 5.88 |
| $\begin{array}{r} 332.500 \\ \mathbf{3 3 2 . 7 5 0} \\ \hline \end{array}$ | $\begin{aligned} & 1 / 2 \\ & 3 / 4 \\ & \hline \end{aligned}$ |  |  | ${ }_{332006}$ | 6 |  |  |
| 332001 | 1 |  |  |  |  |  |  |
| 3321.25 | $11 / 4$ | . 27 | 4.41 | 332008 |  |  |  |
| 33201.5 | $11 / 2$ |  |  | 332010 | 10 | 54 | 8.72 |



## 3AG STANDARD PIGTAIL FUSES

## Designon for use in $T V$ reccivers and other anplicatinns

 where ahsolute economy in wnare is ntcessars. Lolitelfuse31 sopog serics. 315000 series. For liuss, specify G.fV. Hited at 2:0V.
 Litel

| Littel. <br> Fivse <br> 318.052 | Amps | Plat. | $\begin{aligned} & \text { Per } \\ & \text { C } \end{aligned}$ | Littel. <br> Fuse = | Amps | $\begin{aligned} & \text { Per } \\ & \text { Pks. } \end{aligned}$ | Per $c$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 318.062 \\ & 318.125 \end{aligned}$ | $\begin{aligned} & 1 / 16 \\ & 1 / 8 \end{aligned}$ | 75 | 12.25 | $\begin{aligned} & 31801.3 \\ & 318002 . \\ & 318003 . \end{aligned}$ | $\begin{aligned} & 112 \\ & 2_{3}^{1 / 2} \end{aligned}$ | . 45 | 7.35 |
| 318.250 | 174 | . 59 | 9.80 |  |  |  |  |
| 318.375 318.500 | 3/4 |  |  | 31800 |  | . 48 | 7.84 |
| 318.750 | 3/4 |  |  | 318005. | 5 |  |  |
| 318001. | 1 | . 45 | 7.35 | 318006. | A |  |  |

LITTELFUSE MOUNTINGS AND EXTRACTOR POSTS


BUSS FUSE MOUNTINGS

## tobictitent methools for muuntigy fuses on equitmient.




SLOW BLOW LMITED CURRENT FUSES Fisart ry renlarement, Fouse matehed to fuseholder. Littel-
fuse sarless :Hanmo. Hor Huse, spedfy Tyne

 - U.L. APPROVED-NOT A FUSEA TRUE CIRCUIT BREAKER - DON'T REPLACE JUST RESET Lifetline circuit prntection-fits in stamilarid
ellson base fuse rrecentarle! Trins Insiantis ellson base fuse rreentarle! Trims Insiantis
on orerload. Never neels replacink just on overload. Never neenls replac ink-ojust
reset! Bulit in tine lup handles teminormary reset! Bullt in tine lug hamilles teminormaty
otarting lemds and Jine surges. llead frumit monstrurlion eltainates danker frum whow or sparks. No sperfal evpimonent-no spe-
rial wiring required! I'.Id apprated of course! Testerl to $12, \mathrm{non}$ on-on'" '3cle whinout failure! Available in
EL. 40 . Fig. 4 ....... Net eath 18 Lots of 4. each 1.13 CORD-END CIRCUIT BREAKER: for USE on hmine appllances. Washing machinex:
Ironers, infreps. nower tonls, froezers. TV

 Ruilt in lime log for starifing losal. Trips
instantly on sharts ltesels in accumis. fars ont appllance mord like a standard olurs. Ivaliable in $10-15-20$ - or 30 ainpe. Fis. $B$ EL-45-10 amp
EL-46-1.i amn
. Net. ea. 1.26
EL.47- $20 \mathrm{am} \mathrm{\prime}$
EL.48-30 amo $\qquad$ rats nf 4. ea. 1.13


1. SIngle surface outlet. Hromin bakellte. Wond mounting s.rek. 10 for .72

EAKELITE PLUG. sturdy prongs.
3. FRICTION TAPE-*" wideh.

EL.35 + Uz, each.
PLUG FUSES. UI, approved. is per boz. EL-18-11 amperes
EL-20-20 amperes
EL- 21 - 10 amperes
ifor of $\therefore$, ejther of utwo
5. GURRENT TAP. Rakelite, Sitralght neket with $\%$ plug outlets.
OUPLEX FLUSH RECEPTACLE

.


C
C=anmunimimase

7. 3. WAY SURFACE OUTLET. Brown. 13. CUBE TAP EXTENSION.

In Type terinjmals, wond srew. io for 1.26 8. CUBE TAP. Itrown. J wutiers. ShilnHIng welight ? ouncen
9. HANDLE PLUG. Or soft rublier. shinning welght 1 ounce. 10. MIDGET CORD CONNECTOR. Flat Ewo-pirce. Ulinderwriters listed. 10 for 1.71 I) INSULATED STAPLES.

EL-14 Parkare of 100.
10 parkares por................... 18
12. RUBBER CUBE TAP 3 outleh. Un-
hreakable on piece wift ruthirr ronstruction.
13. CUBE TAP EXTENSION. Trio tal. EL. 29 -Brown. .. Fa.. 41 ... 10 for 3.69 14. AC LINE CORD. 6 fL AC line cords. fine auality zlp cord with sturdy pluz.
15. CANOPY SWITCK, Rotary tyDe, com position ton. Very shallow. Wire leads. Rated 3 amp, at 125 F .
16. FUSEO PLUG Uses 310 fue to ert 16. FUSED PLUG. Uses 3AO fuse to erch Supplied luss fuses.
17. RUBBER CORD CONNECTOR, WIth pull handle for extenslun cords 14 "o dl

Emeter. ${ }^{1}$

# Values for Servicemen and Dealers 



SPECIAL STEEL CABINET (A)-An ideal all-steel cabinet for stocking and storing small parts. Three drowers contoin six partitions and ane drawer one parthion for larger parts. Beautiful blue hammertone finish. Sire $6^{\prime \prime}$ wide, $61 / 4^{\prime \prime}$ high, $8^{\prime \prime}$ deep. Shpg. Wh., 3 lbs.
MC-10
Not 1.95
STEEL MULTI-DRAWER (B)-Convenlent starage for small parts. Constructed with longue and slot designed to interlock with other units of top, bottom or side. May bo fitted around existing fixtures for economy of space. Handy pull and holder for cantents cerd. Twotono green finish, all itoel construction. Size: $23 \times$ $2 \mathrm{y} \times \mathrm{x}^{\mathrm{sm}}$. Wi., 10 oz .
MC. 11

Eo., 39c
MC. 13 -Dividers for above

## ARROW GUN TACKER KIT <br> - ONE SQueEzEAND YOU'VE NAILED ITI

Kit contoins everything you

meed for $100^{\prime}$ s of noiling jobs. One hand operationdouble leveroge for ease in hondiling. Shoots o stople wherever you'd dilve a noll. T-50 gun handles four wherover you different staple sixes, $1 / 4^{\prime \prime}, 1 / 3^{\prime \prime}, 1 / 3^{\prime \prime \prime}$ and $9 / 16^{\prime \prime}$. Indilferent stapie sixiso f - 50 gun, 5000 oss't. staplos and stople remover. cludes t-30 gun,
Shpg. wi., 5 lbs.
MD-296


## DREMEL

## MOTO-TOOL KIT

Designed far light grinding, pollishing, drilling, carving, sanding, cowing, engroving, routing, olc, Mandios es earily os a pencil. Does fine detail wark with pin. point accuracy. Ideal in shop industry, lab, hobby, model mok: ing, home wark hop, otc. Automotic chuck lack-oilloss bearinge-bakelite housing. Works in wood-metal -plostics-glots-leathers-atc. Includes steel cutters, -mery whoels, drum sander, mandrols, brushes, cut-oft whoels, pollshing whools, dressingstono, palishing ond sanding accesiorios, otc. All In itee case, lla-120V. AC/DC. Shpg. wt., 5 lbs.
MD-292
Net 16.86


DREMEL MOTO-SAW
lightning forl - makes 7200 strokes per minule and culs 1 lool a minute through wood up to $1 / 4^{\prime \prime}$ thickl The only olectrically driven hond He sow that saws the mos infricate potterns, cuts of any onglo ond works on assembled proiects. Automatle switch in the handlo. For 110 valis, $50 /$ ocrycles. AC Supplied complete with cord and plug and 3 blodes. Shfo. wh., 2 lbs.
HD-293
Not 5.37
HD-294-12 extra 8lodes ..............Not . 47

## "RUB-R-IZE" Liquid Rubber

- WATERPROOFS - REPARRS - INSULATES Shockproof tools-insulate wires and Terminal-weotherproofs ignitionpotches ewnings, canvas, linaleum, rgofs, laaders, hoses. Neturel liquid rubber. Extreme flexibility. Avallable in Red-Green-lack-Transporent. Sperify color.
MS-109-2 oz. bottle._-.....Not . 54
MS.76 - $1 / 2$ pt. Shpe. wh.,

MS-77-1 pt. Shpg. wi. $11 / 2 \mathrm{lb} \ldots \ldots \mathrm{Nat} 1.82$

TOOL AND UTILITY BOX (C)-141/2" long tool bex. Contllever tray with four comportments. Roam onough for soldering iron, pliers, screw drivers, wrenches, otc. Push-button catch with hosp for lock. Folding, recessed hondle. Baked onamel finish in glossy groen. $141 / 2^{\prime \prime}$ lang, $61 / 4^{\prime \prime}$ wide, $41 / 2^{\prime \prime}$ deep. Shpg. wh., 3 lbs. MC-12. .Nel 1.45

SUPER TOOL CHEST (D) - A steel chest built to lost. Removoble tote-away. Double lock seomed construction, reinforced corners, continuous hinge, stoel handle, tion, reinforced cornors, continuous hinge, stool hande, Steol groy outside finish. Size $16 \times 7 \times 7$. Shpg. wh., Steol
8 lbs.
MC-22


Mercis a real volue in a portoble coddy. Holdi up to 130 tubes. Unique break-away section ovailable. Has camportmont designed for carryIng instruments and lorgo pools and a 3 section compartment for maller tools, wite solder, etc. Wood cese with plastic coated fabric covering moasures $10^{\prime \prime} W \times 121 / 2^{\prime \prime}$ $\begin{array}{ll}H & 8 \\ 13 & 0\end{array}$ 13 lbs. Not 6.75
DREMEL JIG-SAW - POWERFUL DOTARY MOTOR
Outculs and autperforms heavior units selling for much more. Extro rugged, bulit for hearyduly use. Cuts wood up to $13 / 4^{n}$ thich-plastics-light metals. $15^{\prime \prime}$ throat-cuts to conter of $30^{\circ}$ sircle. Powerful, self contoined, rotary motor. Exelusive roching aetion. Table ilits to $45^{\circ}$. Sofe onough for roungsters. $8^{\prime \prime} \times 23^{\prime \prime} \times$ $91 / 2^{\prime \prime}$ overall. For 110.120 V 60 cy . AC only. UL opproved. Shpg. wi., 14 lbs.
HD- 295
Net 23.48
TRANSPARENT UTILITY BOXES


These oftractive, errstal-clear plastic boxer moke ideal storoge comportments for screws, nuts, bolts and hundreds of other smoll parts, Bullt-in portitions keep parts seporated of oll tImes. Tight, snug fit of hinged cover assures ports remoining in coried upside down

| Sterk No. | Dimenstans | Comport. | W\%. | Eoch |
| :---: | :---: | :---: | :---: | :---: |
| M5-51 | $7^{\prime \prime} \times 31 / 2^{\prime \prime} \times 1 \cdot 3 / 16^{\prime \prime}$ | 5 | 5 Oz . | . 41 |
| MS-52 | $81 / 4^{\prime \prime} \times 41 / 4^{\prime \prime} \times 11 / 4^{\prime \prime}$ | 6 | 708. | . 53 |
| MS.53 | 7"x $31 / 2^{\prime \prime} \times 1 \cdot 3 / 16^{\prime \prime}$ | 9 | 5 Oz | .41 |
| MS.54 | $81 / 41841 / 4{ }^{\prime \prime} \times 11 / 4 "$ | 12 | 7 Oz. | . 53 |
| MS-55 | $101 / 4^{\prime \prime} \times 6.4 \times 11 / 4^{\prime \prime}$ | 18 | 17 Oz. | 1.35 |



## MAGNA-MAG

6x mognifying glass with bultt in mognet. Aftaches to any forrous motal. Simplifies reading of vernier scoles, colipers, gages, rules, otc. A vest packet tool for mochinists, lay. outmen, draftsmen, Insportors, engl. neers. Saves tlme, reduces oyestrain, insuries oxcuracy. Defects surfoce flaws in dies, shoet metal, etc. Will flaws in dies, shoer metal, eic. Wil winhsta
MD-291.


GEEL STORAGE CAEINETS (E)-Efficiont, space soving cabinets. All steol fromes. Clear plastic draw. ors. Drawer stop prevents spilling. Dividers, supplied make up to 3 compartments per drawer. Moy be wall maunted. Drower size $51 / 4^{\prime \prime} \times 21 / 5^{\prime \prime} \times 11 / 4^{\prime \prime}$.
Stock No. Sine Shpg.
$\begin{array}{cccc}\text { No. } & \text { Drawers } & \text { H W D } & \text { W. } \\ \text { MC. } 14 & 16 & 71 / 0 \times 121 / 2 \times 0 & 8 \\ \text { MC. } 15 & 24 & 101 / 2 \times 121 / 2 \times 6 & 10\end{array}$
$\begin{array}{llll}\text { MC-15 } & 24 & 101 / 2 \times 121 / 2 \times 6 & 10 \\ \text { MC. } 16 & 32 & 131 / 4 \times 121 / 2 \times 6 & 13\end{array}$

| MC-17 | 48 | $201 / 4 \times 121 / 2 \times 6$ | 19 | 7.79 |
| :--- | :--- | :--- | :--- | :--- | :--- |

STAK-UP STORAGE CABINETS (F)-COnvoniont. logical small ports storage. Add units of you need them. Stackup as high as you chooro-take apart hom. Slockup as hoh olit ' 1 en'0 o prevent sillansily. Soo hru drowors with siders with oach drawer. Units slide together ing. 2 dividors with oach dos.
and lock. Shpg, wt. $11 / 2$ lbs.
MC-23-1 double and 2 single drawers......Not 1.15
MC. 24 - 4 single drawers

Not 1.15

## SOLDER-MATIC

## ATTACHMENT

Latest production line ond service tool.
Turns solder guns info automatic tools. Permils "rigger" solder feed gives yau an extro hand. Fits on to soldoring gun and feeds solder every time you pull the trigger. Speed all soldering aperations. Loss spool and solder. Shpg. wh., $1 / 4 \mathrm{ib}$.


MD-286_for Weller 8100 \& 8100K $\qquad$ Nol 4.95 MD-287-For Woller S-400 \& 0.40. $\qquad$ Net 4.95 HD-288 For Weller $8150 \mathrm{~A}, \mathrm{~S}-500 \&$ D-550. Net 4.95 MD-289-Spool of Resin $550 / 50$ Solder.........Nat .29 MD-290-Spool of Multicove $60 / 40$ Solder......Net . 29


Designed with the servicemen In mind. Center section has 6 sections. Three hinged swing-eut sections each has 6 sections. Three hinged swing-eut sections eech with ifs own buflon-down cover. One top section undirided for larger fiems, other lop sectlon divided
lengithwise. Made of heavy wood, with 4 metol braces lengithwise. Made of heavy wood, with 4 metol braces
of hinge cesners. Levar-action snap locks. Plostic at hinge cerners. Levar-action snap locks. Plestic
rarrying hondle. All hardware nitkol plated. Slze $161 / 4^{=L} \times 131 / 2 \mathrm{H} \times 81 / 4^{\prime \prime} \mathrm{W}$. Covered with fough wear resistont material. Shpe. wh., 10 lbs .
MLS


This now tool permits confinuous odding or subtracting of fractions, decimal cquivalents, or mixed fractions and decimals. Answers are shown Instontly. Only ono move Ing port-extreme simplicity of operation. Invaluable for the shop and lechnicol school-office-foctory-mochinlsts-designers-draffsmen-ongineers. Anyene whe works with frectional measurements. Made of sofin-finished aluminum--only ane moving part-num. bers and Mines otched and filled for years of trouble free service. Complete with plastic cese ond instruc. tree service. Complete
HD-297.-.
Not 2.65


## THOR HI-SPEED - HI-QUALITY DRILL

- IAMOUS moott 201 \% onilu - SPCCIALLY WOUND MI-TORQUE MOTON - JACOSS GEARED CNUCK WITM KEY - sAL THRUST EEARNN
pricesil 1500 RPM of full,lood - 2400 - avality at fomous Lof oyette duty, universal, series wound motor, $1 /$ " $^{*}$ capocity in steal - Moovy hardwood. Fully UL oppraved - including 8 ft . SJ cord and mo imooth emciont operation. gin. Self oligning ollest bearlings for THOR 20 íl ${ }^{4}$ List 19.95 Net 14.6

THOR HI-POWER $3 / 8^{\prime \prime}$ SPEED DRILL - heavr dutr - continuous operationi Pult 2.5 Ampst 2/: Jacois geared chucki installationi
More power for service work - preduction lines - meshonice - or /4" capocity in hordeoed. Highly polished cas aluminum houning boll thrust beorings - other beorings oillest ontiofriction bronze. 1000 hPM no lood speed - 650 RPM full lood apeed. Trlaeer iwitch Geored chuck toker shanks up $10 \%$. Universal series waund motor MOR 325...list 35.00

Net 26.25

## THOR BENCH SPEED GRINDER

34SD IPM NO LOAD SPEE - HUSKY $1 / 12$ HORSE POWER MOTOR

## THOR HEAVY DUTY $1 / 2^{\prime \prime}$ SPEED DRILL

- the standard for service - Construction - Garage - maintenancei - CAST-IN FRAME AIR COOLJNG AND LUERICATINGI



## - $1 / 2^{*}$ GEARED CMUCK WITH KEYI

The perfect combination of pewer - ivgeed construction aluminum housing and cose of hondling. Die cesp polished In iteal - i" in hardwood. Heory duty redial and ${ }^{\prime \prime}$ In iteal - brust boll bearing on twindle Meary duty redial ond and thrusp boll bearing on spindio - coll aligning bronze beor Ings olst where. 6 Tt. ${ }^{3}$ canductor $\$ 1$ card. UL approved, RPM full lood. Heovy duty, univertal, waries lood - 425 $13^{\prime \prime}$ overall lenath. Ute of $110.120^{\circ} \mathrm{AC} / \mathrm{DC}$. Sh motor. THOR $400-$ Lis1 39.50

## WEN SAW TABLE

- makes the win sos saw youn mosy veesatile rooil cut cinclest mitall scmoll sawi dovetall!
Precision feoturec not found on any aev roble neor this price. Sow any ongle - rip - cut perfect circles - wie os scrall sow - savare with perfect occurocy. Make dovetoit chinery. Toble is $5^{\prime \prime}, ~ i 5^{\circ} \mathrm{z} ~ 71 / \mathrm{m}^{\mathrm{N}}$, heory gouge iteel. Wen sos Sow snops and locks into place at once. Includes proo froctor, protroctor fonce, dircle cutting devies. Includer probloder. 14 pifch blode for wood - 8 pitch blode for loinfu - inilio blode for loather, rubber, pacer, ilc. - 32 olich high temper blade for botelite, formice, and. - 32 plich


## WEN ELECTRIC

## POWER SAW

Shpe. mef 12 Ibe


WEN STI

DELUXE 45 Pc. WORKSHOP KIT


NET 28.05

## FAIRCHILD $7^{\prime \prime \prime}$ PORTABLE POWER SAW


M0-260-7" Crosscup Blode Mo-262-7" Combinotion Blade

# $\Rightarrow$ LAFAYETTE Leaders 

SPECIAL PURCHASE $1 / 4^{\prime \prime}$ DRILL
FULL 2.5 AMPS-HEAVY DUTY

- ul approved - helcal cut cears - BALL THRUST bEARINGS


## - GEARED CHUCK AND KEY

A real heavy duty $1 / 4 \mathrm{in}$. drill-monufactures rated of a full 2.5 omps. Proferred ond used by professional mochonics far many vears. Buill for cantinuous production on wood or motol. Powerful. UL approved, universal motor. $1 /,^{\prime \prime}$ copacity in sleel. $1 / 4^{\prime \prime}$ in hardwood. Boll and self lubricating bronze beor ings throughoul. No lood speed 2400 RPM. Strong, lightwelght cost oluminum olloy housing. Fipecioliy dosigned geor choin for greatest torgue, Locking irigger switch. Backed by coloy
ottes fomous Money Bock Guorantee. 5 hps . wh., $51 / 2 \mathrm{lbs}$. othes fomous Monay Bock Guoranieo. Ships, Wi., 51/2 13.95
HD-266 ............................................................. 13.95

## WELLER POWER SANDER



- Peative Strelnd Leo Aetion Send wht - Lererglo Seding Area Foll 25 2q. bech - Powertul Hed Speet cod M. 25 2me - Pewertyl Hlpes Spert Cow Power.pectied reciprocaling type motor Power-pactied reciprocaling type motor in casy-grip cese only $1 \mathrm{f}^{\prime \prime}$ high with push-bwtion on-on fingertip control. No lorawe, buclling or tristing. Positive straightline ection. Tension. lock papar holdert. Rubber insulators between motor and housing minimizes noise. 2539 . In. Shpg. Wi, $31 / 2$ lbs.
Weus 700 anding aree. Complore with $h$. cord.

Net 10. . 9

## CHUCK KEY HOLDER

NEW MODEL 4100 VERSAMATIC


- with ranke stile bit holder
- TURNS $1 /{ }^{\prime \prime}$ " DRILL INTO HIGH POWER TOOS
- reverses-increases powerREDUCES SPEED
Seven to one speod reduction develaps Tremendous torquel Hand clutch control for eaty, insioni stop-stort octionl Look of these fobulous feafuresl Power screw driver-hond les lorgest screws-reverses to extraci themi Power drill popping headl Plenty of power for oversize drlllingi Perfect for concrete or any hind of mosonry drillingl low speed and high power for hole saw ottoch. drillingl Low speed and high power for hole saw ottoch-
mentsi A professional tool thot anyone con usel Cames complete with screwdriver bit-Phlllips bit- $1 / 4$ socket set adapler-wrench pin and instruction book. Shpg. wt., 5 lbs.
HD. 195
Net 11.25
\#4000P PROFESSIONAL VERSAMATIC
Heavy duty, prolensional model. Ahoches directly to $1 / 夕^{\prime \prime}$ $\times 20^{\prime \prime}$ ar $3 / 8^{\prime \prime} \times 24^{\prime \prime}$ spindle. May be seoted in chuck by means of adoplor furnished. Yonkee troe bit clip. In. cludes \#1, \#2, and \#3 Phillips type bits-medlum screwdriver bit-heavy screw driver bif-medium screw driver with finder- $1 / /^{\prime \prime}$ sq. and $1 /{ }^{\prime \prime}$ sq. drive adopter-
chuck odapter-wrench pin-thread cover. Shps. wi., chuck
6 lbs.
MD-251
.Nef 24.95


## SUPREME PUSH-PULL TAPPER

The answar to lopping problems for big or small shops Light-sofe-inexpensive. Use with any $1 / 4^{\prime \prime}$ or $3 / 8^{\prime \prime}$ drill. Push-and the top runs in smoothly. Pulltand it comes out cosily. 7:1 speed reduction for more thon adequate power.initont reversing. Includes cellets ta toke tops up ia $5 / 16^{\prime \prime}$ dio. Shpg. wi., 5 lbs.
HD-267 ................................................................ 29.9

## $1 / 2^{\prime \prime}$ CHUCK FOR VERSAMATIC

Geored chuch-5/64" to $1 / 2^{\prime \prime}$ copocity- $\# 33$ taper to

flt Suprowe Versomoric. Shpg. wh., $1 / 2 \mathrm{lb}$.
$\mathrm{MD}-268 \mathrm{Nat} .9 .95$

## BABCO RIGHT ANGLE DRIVE

 - halves or doubles drill speed Close covpledright ongle atforhment tor werking in confined spoces. 2 to 1 gear retio permits holving or doublling drill speed. Highirs holving or doubilng drill speed. High speed for drilling and sonding hole drilling-mosenry drilling, ote. Fits $1 / 4^{*}$ chuck op may be screwed directly to drill spindle. Includes $3 / 0-24$ mole ond femole odaplers-and $1 / 6$ plain shoft odapler. Shpg. wi., 1 16. HD-26
## SANDING AND POLISHING KIT



## - USE WITH ANY DRILL

Hondr Sonding and pollshing kit to use with drill or dril prons. Tokes the wark out of sanding ond polishing jabs. ldeal for remaving rust-paint-auta polishing, elc. Kit contains flexilble rub-
ber $5^{\prime \prime}$ backing disc, 7 assorted sonding ber $5^{\prime \prime}$ backing disc, 7 assorted sonding
discs, $\mathrm{o}^{\prime \prime}$ lambs woal pollishing bonnet. discs, $6^{\prime \prime}$ lambs
Shpg. w1., 1 l6. HD- 270


Keeps your geared chuck key right with your drill. No more fumbling or lost keys. Koy snaps freoly in ond out of holder. Always ready to use. Fin all drills and chuck keys. Quickly Instolled Shpa. wt., $1 / 2$ t6.
HD-271 29 Nor 1.20 RPENER DRILL ATTACHMENT Practical-officient-procision buli innle sharpener. Arroches to ony dill. Puts o perfect odge on ony knife. Shorpens both sides of blode of once Uses top quality Norton Alundum obro sive wheels. Ollite brass beorings never require lubricoting. Nickel plated steel thof. High impoct polystryene cosing. Shpg. wt., 1 lb
HD-272
5 PC. SCREW EXTRACTOR SET

## - FOR $1 / 0^{\prime \prime}$ TO $1 / 4$ " SCREWS

Five piece, chrome vanodium. screw extroctor sit. Removes broken ond mutilated screws-bolls-studs, even $1 / /^{\prime \prime}$ and $1 / /^{\prime \prime}$ pipe. Simply drill damaged screw.twist extroctor in-and
back screw out. Set consists of 5 exfroctors in bock screw out. Set consists of 5
wooden cose. 5 hpg . wt., 1 lb. MD-273

NOTCHING AND NIBBLING TOO

- TAKES

STOCK
UP 10
16 GAUGE


AND NIBBLING TOOL An ideal bench tool for lorge ar smol byist and handyman. Cuts perfoct burr free- $1^{\prime \prime} \times 1^{\prime \prime}$ natches in stock up 1016 guoge. $1^{\prime \prime} \times 3 / h^{2}$ nibbling die makes nibbling Intricote shopes simple. Die are essily interchonged.
HD-274 with $90^{\circ} 1^{\prime \prime} \times 1$ Natch Die _-................ 12.75 HD-275 with 1" $x$ \% 12.75

Nibbling Die
HD-276 Notch Die anly HD-277 Nibble Die only.5.95 HD-277 Nibble Die anly.... S.95
$18^{\prime \prime}$ EENDING AND FORMING BRAKE

- FOR EXPERIMENTERS-SERVICEMEN-SHOPS -
- CLEAN SMOOTH BENDS
- FORM5 UP TO $90^{\circ}$
- HANDLES UP TO $18^{\prime \prime}$ WIDTM IN UP 1016 GAUGE THICKNESS.
Unique design permin forming chasshs, boxes, covers, troys, etc. by means af 1 deep slafs in broke bar which allow carners to fold in. Provides flange edges up to $1^{\prime \prime}$ high. Eosy to adiust for thichness, occuracy, onglo of bend. Ruaged construction offers a life time of service. Shpg. wt. 20 lbs.
HD-232.
Not 15.95


## DOUBLE END BALL BEARING

 $=00^{6}-x^{6}=-\hat{0}=$MANDREL

Ideal for small shap or home. Equipped with hardened ball beorings and roces. Throeded $1 / \%^{\prime \prime} \times 20$ on eoch end. $11 / 2$ "pullay far " $y$ " belt drive. Bulld your own grinder, sander, buffor, lock shoft, saw, Afc. Shpe. wt. 2 lbs.
HD-240.

20-PIECE TAP AND DIE SET

## - accurate metal

## THREADING

- NATIONAL COARSE SIZES

Twenty of the mast ation needed taps and dies. Sizes populorly used in radio, hobby, home, shop dnd light industry. Contoins one top and one die in each of the following sizes; $6-32,8.3210$. $24,12-24,1 / 4-20,5 / 16-18,3 / 4-16$, $7 / 16-14$, and $1 / 2-13$. Includes die stock and odiustoble tap wrench. Entire set containad in o fitted metal case. Shpo. wh. 4 lbs

## 3 IN. BELT SANDER



WOOD-METAL-MASTIC - SANDS-DEEURRS-SNARPENS belt driven, bench model, medium duty sander. Self Iubricating "Oilite" beorings. Entire sanding surface adiustable through a $40^{\circ}$ orc. Compound angles up to $45^{\circ} \times 45^{\circ}$ cen be worked, Table can be removed to occamodate right or left hand dive. Standerd $3^{\prime \prime} \times 24^{\mu}$ belf sire. Reodlly re. placeable. Complete with protractor, $1 /{ }^{\prime \prime} \times 3^{\prime \prime \prime} \times 71 /{ }^{\prime \prime}$ steel ploten, 2 mochine pulley. $3^{\omega}$ x $24^{\circ}$ belt. Shps. wi., 10 Ibs. HD-27 .................. 17.95

## 4 TOOLS

IN 1
FOR industrials
EXPERIMENTERS
REPAIR SHOPS MODIL WORKERS SCHOOL SHOPS HOME WORK SHOPS.


An Ideal tool for plant, shop or hoale use. Used ertensively in frofustrial plants on amall jobs. Handites stock up To 1 Whido to 16 gauce. Punches closn, sharp. smoph,
 bar stort. Cleanly shears netale uD io 1 wide. 16 gauge. without distortion. Rivets easily with any type aolld of hollow riset. Bivels up to
of sher Shis. Wit 15 the.
MD- 233

## EXTRA PUNCH SETS

Net 1.45 MD. 235 Rquare 4 and $3 / 16^{\circ} \ldots \ldots . . . . . . . . . . . . . . . . . . . . .$.


HD-237 Oral- $4^{\prime \prime} \mathrm{z3} / 16^{\prime \prime}$ and 4 " $55 / 16^{\prime \prime} \ldots$ Net Net

## ELECTRIC HANDI-SPRAYER

Save time and moneyl 80 lb . noxzle presture gives prafessional results Sprays all types of points, onamels ond locquars. Any sproyable liquidl Ex-
clusive swivel nozit pormits sproying up, down, of sideways withoul lliting jar. Imstont spray contral-fingertip adjustment from mist to cone or stralght streaml High Impact plastic hausingall parts of stainless steal and bross. Complete, with 16 oz. Mason Jar and 8 f . cord. Shpg. wh., 4 lbs .
HD- 73 $\qquad$ .....Net, $\odot$.
Lots of 3, 0.5 .97



## (A) 8 PC. POWER BORING SET

Oesigned for longer life, faster cutting, smoother boring in wood, plostics, ploster and pressed board. Blades of high grade hordened tool steet. Ground to size for smooth, true hole. Foster boring.... no clogaing. . no burning. Infershangeoble cuiters with a ingiolo thank. Requiros lers power becouse they develop minimum friction. Fif any $1 / /^{\prime \prime}$ drill. Sizes in clude $1 / /^{\prime \prime}, 3 / 6^{\prime \prime}, 1 / 2^{\prime \prime}, 3 / 6^{\prime \prime}, 1 / 4^{\prime \prime}, 7 / 6^{\prime \prime}$ and 1 ". Shpg. HD-181.

Not 1.69

## (B) HOLE SAW-4 SIZES

Cuts $1^{\prime \prime}, 11 / 2^{\prime \prime}, 2^{\prime \prime}$ and $21 / 2^{\prime \prime}$ holes in ony $2 / 4^{\prime \prime}$ stock. Works with ony $1 / 4^{\prime \prime}$ drill or drill press. Consists of strong allor tool heod, 4 shatterprool blades. "SlugEjector" and $1 / 4^{\prime \prime}$ drili bil. Shpg. W1., $11 / 2^{*}$ Ibs. HD-224. Net 4.50 DELUXE HOLE-5AW-Some os obove but has 7 blodes. Cuts $1^{\prime \prime}, 114^{\prime \prime}, 11 / 2^{\prime \prime}, 11 / 4^{\prime \prime}, 2^{\prime \prime}, 21 / 4^{\prime \prime}$, and $21 / 3^{\prime \prime}$ holes.
HD-225.
Nel 5.95
(C) 29 PIECE DRILL SET

A superior grode of chrome vanodium twist dillts. Precision grourd, hordened, sharpened. Give long losting use under the most rugged conditions. Full ronge of sizes. $1 / 16$ th to $1 / 2^{\prime \prime}$ by $64 \mathrm{~h} s$. Convenient metal stand, eoch receptacle clearly marked. Shpg. $w t ., 4$ lbs.
HD- 214

## (D) HEDGE TRIMMER ATTACHMENT

Converts any $1 / 4$ " drill into on cosy handling hedge. trimerer. Stool and aluminum construction. Sickle type $10^{\prime \prime}$ cultizg blode. Simple cam action, $1 / 4$ " stroke. Lightwaight . . . easy hondling. Shgg, wi. 3 lbs.
HD. 97.

## (E) ARCO SAW WITH DADO-ARBOR

## - CUTS $2 \times 4$ 's IN ONE CUT

Revolutionary, new "Arco-Sow" with Adiustoble "Dado-Arbor", cuts ony groove up to $1 / 2^{\prime \prime}$ wide z 1 " deep on ONE CUII Arbor swivels sowblode to cul forge grooves with litfle power-no hoovy duty drill needed. "Dodo-Arbor" easily removed for straight ond angle cuts with precision Depth-Bevel-Rip Gages. Hos $5^{n \prime}$ Safecut blode. Fils any $1 / 4^{\prime \prime}$ drill in 1 minute. With instructions and factory guerantoe. Shpg. wt., 4 lbs.
MD-197........................................................ 9.75
MD-115-Safocut Blado..............-..................... 1.50
HD-116_Hycarbon Crosscut Blode.................... 1.50
HD-117-Hycarban Rip Blode 1.50
1.50

HD-118 - Hycorbon Combination Blade............ 1.50

## (F) ARCO JIG SAW

Cuts perfect circles ony size up to $20^{\prime \prime}$ diameter; rips occurote widths ony size up to $10^{\prime \prime}$ wide. An aspecialiy desiroble home workshop focl becouse of ifs versolll ity. Does wark of Jig, Koyhole, Coping, Rip, Grasseut. Bond and Hacksowl For intricate polterns, the Jig Sow is slmply guided over the culting line while the Automotic Air-Blower blows sowdust oway from blade Cuts plywood, plostics, wallboord, metols-oven lumber up to $2 \times 4$ 'si Storts Inside holes without boring. Has Right Angle Drive, strong Solety-Yoke and Worm Drive Clamp, Salf.lubricating Lifetime Bearings. Blades are casily chonged in secands with ordinary screwdriver. Complete with Circle.Cutter \& Rip Gose, Jig Saw Blade, Instructions and 90 .doy Foctory Guar. antee. Shpe. wf., 4 lbs.

## HD-196.

Net 8.25
Jigsaw

Net 8.25
Shpg. wt.
3 lbs.
Net 7.50
Reolocement Blodes-Pockoge of 6 Assid
Net 1.46
(G) 13 PC. TWIST DRILL SET Set of 13 high quality shrome vanodium twist drills. Sizes $1 / 16^{\prime \prime}$ to $1 / 4^{\prime \prime}$ by 64ths. Less index. Shpg. wt., ${ }^{6} \mathrm{Oz}$.
MD-114.................................................................. 98c As obove but complete with melal index. Shpg. wi., HD-j13.

Net 1.59

## (H) IMPROVED CIRCLE CUTTER

 Will cut holes from $11 / "^{\prime \prime}$ to $8^{\prime \prime}$. Accommodates cen.tering drill of any size pilof pinl Cutting bor hoids tering drill or any size pilof pinl Cutring bor holds
$3 / 16^{\prime \prime}$ high speed culfing bit. All ore Brond New and foctory packed cosy to odiust. Shpg. wh., I Ib. HD. 72

Net 1.79

## (1) 5 PC. DRILL-COUNTERSINK KIT

Does 4 operotions in onel Countersinks for scrows in
wood of metal-Drills shonk clecrance hole-Drills wood or metal-Drills shank clearance hole Drills occurate pilot halo-Drills to correct depth, prevents splitting. Do four complete operations in the lime it tokes to do one. Hole and countersink ore olways the proper size and depth. Fits all $1 / \mathrm{s}^{\prime \prime}$ chucks. Use in any electric drlll-drill press-or hond drill. Kit of \#8, $11 / 4^{\prime \prime} \times \# 10^{\times}$and $112^{*} \times \# 12^{x}$ Screw-Drills. Shpg. wt., $1 / 2$ lt.
HD. 93.
Net 2.32

## (d) HACKSAW ATTACHMENT

Fits ony $\mathrm{Y}_{4}$ " Electric Drill. Cuts ony wood, metal or plastic up to $1 / 4^{\prime \prime}$. There ore no geors ar bearings to weor ouft Sow blode is only exposed moving part. Folds to $1^{\prime \prime} \times 11_{2 " \prime}^{\prime \prime} \times 4^{\prime \prime}$-fits ony toal box. Uses standard hacksow blades. Handle covars and protects sow blade when not in use. Shps. wt., I lb.
HD- 60.
Net 3.72
(K) HI SPEED COPE SAW DRILL BIT DRILL - SAW - CUT - REAM
Four jobs with one bif. Uso with ony electric drill or drill press. Cuts circles, ovols, squores, etc. Withstands severe continuous use. Cuts woad, plastic, bokalite, steel, brass, capper, etc.
MD-74-All Puroose Bir.
HD-75-Wood Bit.

## (L) $1 / 2^{*}$ CHUCK FOR $1 /{ }^{\prime \prime}$ DRILLS

Converts $1 / /^{n}$ electric drill to $1 / 2^{n}$ copocity. Properly moshined to insure correci bolance. May also be used on stondard $1 / 2 \times 24$ motor orbar or shaff. Shpg. wt. 1 lb .
HD-203.
............................................ 1.29
(M) JACOBS TYPE DRILL CHUCK

Comporoble 10 Jocobs IB. Kay troe geared rooth chuck. Coposity $0.1 / 4^{\prime \prime}$, thread $1 / 0^{\prime \prime} \times 24^{\prime \prime}$. Ruggedly constructed. Polished finish. Used os stondard equio. ment on most electric drills. Made to rigid specifica fions. Compore our really low price. You'll find this some chuck selling for twice as mucht Shog. wt., I lb. HD-186

Nef 3.38

## (N) ARCO ANGLE-BUFFER

Convarts ony $1 / 4^{\prime \prime}$ electric drill into powerful, smooth running right ongle bulfer and sonder. Swivel action permits use of ony angle on alf types of surfaces. Flat-curved-or irregular shopes ore eosy to work. torge handle for odded sofety and ease of hondling. Includes $5^{\prime \prime}$ molded heod- $51 / 2^{\prime \prime}$ lambs wool polisher -ond sonding disc. Shpg wt., 2 lbs.
HD-133.
.Net 4.88

## (O) HIGH SPEED COUNTER SINK

Fast cufting-five filutes- $82^{\circ}$ ongle. Mode of fine grade hi-speed sfeel. For use in any machinoble mate rial such os metal, wood and plastic. Has five corefully ground flutes for culting on $82^{\circ}$ ongle to receive wood and mochine screw heods. Has $1 / 4$ " shank for use in any electric drill or drill press. Length overoll, 21/2"。
HD. 76
Net 1.10

## (P) DRILL MATE SHARPENER

Handy low cost drill sharpenep-shorpens drills from $1 / 16^{\prime \prime}$ to $1 / 4^{\prime \prime}$ size. Use it olso to sharpen chisels, knives, plane bils, scissors, wood bits, carving taols, etc. $1 / 4$ shoft fits ony alectric drill. Nylon bearing -permonently lubricoled. Drill holder is foctory pre-set-no ongle adiustments to make. Adiustable tool rest tilts to any angle. Grinding wheol is high grode, fine grit, oluminous oxldo slone. Shpg. wt., $3 / 4^{\circ \prime} \mathrm{lb}$, HD- 243.

Net 2.21

## (a) ADJUSTABLE COUNTERSINK-

## PILOT DRILL

Adiustoble drill for hand and power taols. Predrills - precision hale-countersinks ond counter bares in one simple operation. Stops outomotically of carrect depth. Fully odiustable thread depth, shank depth, countersink and seunter tore. Use in any electric drill or hand drilf. Cups in wood-plostic-fibre. Shog. or hand d
wf., 8 oz.
HD-206- 46
Net .74
HD. 207-世 8 ................................................................... 74
HD-208 \# 10 ....................................................... 74
MD-209 - 12 ............................................Net . 74
HD-210-Set of 3 \#8, \#10, \#12............Net 1.97

## (R) ADJUSTABLE HOLE SAW

Fifs any $1 / 4$ " lectric dilll or drill press. Drills any diameter hole from $11 /{ }^{\prime \prime}$ to $21 / 3^{\prime \prime}$. Moximum depths of cut 1 KN . Dial indicatar sets hole size without removal from chuck. Blades of linest culting steol. moval from chuck.
HD. 257
Nof 5.29

## LAFAYETTES LOW-COST HAND TOOLS

 and pollshod heads. Hanad cutters. Knurlad hondies. Average shpe wI., 8 ols.
MD-48 (A) $41 / 2^{\mu}$ Diggonal Cutters ............. 6900 HD-49 (A) $61 /{ }^{\prime \prime}$ "Diogonal Cutters.... HD-50 (8) $4^{\prime \prime 1 / 2}$ Stubby side Cutters .8900
$\begin{array}{ll}\text { HD-50 } & \text { (8) } 8^{\prime 1 / 2} \text { Stubby Side Cutters } \\ \text { HD } 51 & \text { (C) } 8^{\prime \prime} \text { Long Nos Side Cutters }\end{array}$ .6900
.950.
$\begin{array}{ll}\text { HD.51 } & \text { (C) } 8 \text { " Long Nose Side Cufters } \\ \text { MD. } 52 & \text { (D) } 81 / 2^{2} \text { Wgter Pump Type .. }\end{array}$ .7900
MD- 53 -Campleto Sot of above Pliers 3.65
MD. 54 (E) Rubber Insulated o" Linesman

MD-55 (E) Rubber Insuloted 8" IInesman
.99 a. Pllers
1.28 oo

Adjustable End Wrenches: (F) Drap farged stool. Hordened iown-Polishod nases.
HD-43 $41 / 2^{\prime \prime}$ Shpe. w1., $40 z$.
.450

$.51 \circ 0$
HD-193 10 Nhpg. wt., 10 oz
$.63{ }^{\circ 0} 0$
 polished jows. Red enameled handles. Standord pottern, Molished jows. Red enameled handles. Standord pattern.
$\qquad$
8...-

Tool Steel Reaswers: (M) (I) (d) Enlarges holes in metals, waod, plastici. Countersinks-romaves burrs tapers $1 / 4$ 10 $11 / 4^{\prime \prime}$. (1) $81 /$ shank, tapers $1 / 4$ to $21 / 4^{\prime \prime}$. MD- 201 (I) Shog. wi., 1/2 I6. ...................... 1.59 HD- 202 (J) Shpg. wi. 2 lbs..................Not 3.19

Pipe Wrenches: (G) Drop farged steel. Hardened and
MD-152 onshog. wl., I it.
(H)
$\begin{array}{lll}\text { MD-153 } & 8^{\prime \prime} \text { Shpg. Wt., } 1 \text { Ib. } \\ \text { MD-154 } & 10^{*} & \text { Shpo. wi., } 216 s . .\end{array}$ (H) $51 / 2^{\prime \prime}$ long, papers $1 / 2^{\prime \prime}$ to $3 / 16^{\prime \prime}$. (1) Bit shonk MD.62 (H) Shpg. wt., $1 / 2$ Ib. ....................Net . 69

(G)

1.80


Heavy Duty Hacksaw: (IX) Tubular frame. Adiusts for $8^{\prime \prime} \cdot 10^{\prime \prime} \cdot 12^{\prime \prime}$ blade. Contoured handle and thumb rest for firm grip and comfort. Chrame plated tubuler steol frome. HD-211 (X) Shog. WA. 2 lbs. ...................Net 1.35 HD- $21210^{\prime \prime}$ Blade 24 leoth per in. ......Dos. 59 MD-213 12" Blode 24 reeth per in. Dor. 59 Rotehet BH Brace (L) Reversable, semi.enclased ratchot brace. Chrame plated $1 / 2$ steel frame: 10 inch sweep. Hardwaad center grip. Steel reinforced hordwood heod. Boll bearings. Shpe. wi., 3 lbs. HD-279
.Nef 2.25
5 pe. Auger Elt Sef (M) Tapered savare shanks. Fully pelished, forged, heat ireated steel. Sizes $1 / 4,1 / 6,1 / 6$. 1/4. Handy plastic pouch. Shpg. wt., il ib.
HD-280
.Net 1.55
Autamatle Serewdriver (N) 3-way spiral roichet. Spring return. Fully nictrel plated. Rasewaod handle. 3 screwdriver bils. $18^{\prime \prime}$ long. Shag. Wf., $11 / 2 \mathrm{lbs}$. HD-2 21

## VERNIER SLIDING CALIPER

956


Shapp pointed proiections for accurate dividing, scribing, etc. Lach nut insures against errars caused by sliding gauge. Rule graduated in 16 th and 32 nds plus $5^{\prime \prime}$ depth gauge. Pre cision-made. Shpg. wt. 1 lb .
Nel .95


## PRECISION SCREWDRIVER SET

Five interchangeable blades insert quickly and firmly into chuck. slades are precision machined hardened steel in sizes 100 ", $000^{\prime \prime}, .070^{\prime \prime}, .055^{\prime \prime}$ and $.040^{\prime \prime}$. Hendle has wivel tap.' Parfect for repairing radias. appliances, cameras, electric razars, musical instruments, ate. Ereallent far kite and model bullders. Complete with base and transparent dust cover.
HD-42.
NET 1.17

## "MAGIC TIP" SLUG RETRIEVER

 -

New tuning slug retrlover for Stendard Coll funers. Fits new wlde slottod slugs. Fits desp woted puning units. Retriove last slugs without removing chossis. Holding mechonism is infornal removing chossis. Halding mechonism is intic. Alloy blede. Tonito hendie. Precision built to lost.
MD -4. $\mathrm{II}^{\prime \prime}$ overall..
MD-41. 15" averall............................................ 2.24

- SMOOTH TRIGGII RELEASE


## GRIPso <br> trigecrmatic VISE PIIERS <br> 7 PIECE JEWELERS

 SCREWDRIVER SET

Bh diement slice wrev
 To Irem No. ots Wo. g . All have ewnel heede-ars made of colnd bress and arv niclal plated Mardened uleol bladet For all fine Masoably and ropalir-heobyiscl-heherman-hunipri-eloan-belpe provens rust. No.1es.

Nist 1.49
io 10 , conpovar lameace
New 3-plece design multipllas hand power 10 times 4 position paraltel dawi ive non-alip erip on nuts, bolte


[^6]

Vise wlters lock on with one ton krip. Turnisuckle adjustment with roncealed threads. Heleakes Instantis with the


Net 2.07

HANDY WARDING FILE SET


First auolity Germon mode the set. Pertoct lior shod home - hobby work. Kit consist! of hat, holl round, frim hordwood handios. Siurdy plastic pectet coee included. Shpe. w.. $1 / 2$ ib. HD-2is

## SWISS PATTERN

## 12 NEEDLE FILES

Mondy set for the hobbyist. Used by iewelers, watchmakers, toolmakers, ilc arted flat aval, round, trlangular and edge files to fit every need. Shpo. Wi.
116.

## 5 PIECE COMBINATION WRENCH

 SET
### 2.18

New debign panel comblnation box and open end urench sut. Forked of special snalysis stecl--streajalined jaws -thin walled 15 degreo bor end-expertiy heat treated. Shog. Wh. 1 lb . MD-I勆.........................Not 2.18 $\mathrm{N} *+1.05$
,

## SOLDERING IRONS

## - fanOUS WELLER SOLDERING IRONS•



Now High Wartoge Guns - These latent model guns hove everthing! Inctressed valfoathervolight bolonce. Come patle coned Fith cord, pluy and one lip. $110-120$ volts
AC 40 cyclo.
PROFESSIONAL SOLDER GUNS

## STANDARD DUTY GUNS

Modet \$400. Single ho at type. 135 watie.
Shpt ji2.15. NET $\qquad$ 8.77

Lots IJ, EACH $\qquad$ 7.69

Model D440. Dual-heat rype. 100-150 wotts. Shog. ut lbs
woms. Shpg Not. 3 lbs
-am
10.73

## HEAVY-DUTY GUNS

MODEL S-500.
Snpg. wf. 3K lbo
9.75

Lots of 3. LACN $\qquad$ 9.75

MODEL B-550.
MODEL D-550. Duol
Woms. 5 hps . Wt. 3\% ib
l-hool
1 TYp 11.71

Lots of 3. RACH $\quad 10.53$

## REPLACEMENT TIPS

 No. 7135 . For lighe-duty models 5400 andD4io. P15. Of 22 modols WS-200, WD-250, No. 7250. For models WS-200, WD-250,
S .500 ond D 550 PIC. of 2 No. 7300. Chiset tip. For use onty in older models 5-10 and 0-207. Not interchongeable with ips used In gens livied above.
No. 6130 -Cutting Tip. Cuts plastic tile quichly. remorer hard putty. For model NS-200, WD.250. S-500, D550, and 8250 A
No. 6110 - Cuting tip. For models WS-100, WO.135, 5.400, D.440 and 8100 .

No. 6140-smoothing tip. For heat welling and mfnding plastic. For models WS-200 WO.250, 5-500, D-550 and B250.A ....34c No. 6120 - Smoothing tip. For Models Wo. 100 WD-135, 5.400 , $\mathbf{D}-440$ and 8100 3 34 c


## KESTER SOLDER AND FLUX

Uniform compound of $40 \%$ tin and $60 \%$ lead with evenly distributed and free-flowing flux.

$$
\text { Tin } 1 \mathrm{lb} .5 \mathrm{lb} \text {. }
$$

Rosin Core $3 / 32^{\prime \prime}$ Diom. $17 \begin{array}{llll} & 1.12 & 5.40\end{array}$ Rosin Core 1/16" Diam. $171.15 \quad 5.55$ Acid Core $1 / 8^{\prime \prime}$ Dism. . $17 \quad 1.12 \quad 5.40$ KESTER RESIN-FIVE SOLDER Very active rosin core flux. Non-corro sive ond non-conductive. Eosily solders zinc, Eross, nickel plate and ferrous metals.
1 lb. spool 3/32" Diom.
1b. spool 3/32" Diom
lb. spool $1 / 16^{\prime \prime}$ Diom
lb. spool $1 / 16^{\prime \prime}$ Diom$\begin{array}{r}1.12 \\ 5.40 \\ \hline\end{array}$

5 lb . spool 1/16" Diom

## KESTER PASTE FLUX

Non-Corrosive 2 oz Fi........ 12

## ERSIN MULTICORE SOLDER

Moximum flux oction melting point. Fast melting, non-corro sive, non-sficky, non-toxic. 5-core con-
struction insures constant flux. Has excellent cleansing action. $40 \%$ in, $60 \%$ lood. No. 16 gauge
lib. 80001
Ersin Multic
Ersin Multicore $60 / 40$ Solder $60 \%$ in $40 \%$ leod, \#16 gouge.
llb. Spool $\qquad$ Net 1.76
7 lb. Spool

WELLER 8100-K SOLDERING KIT


A complete soldering set. Weller soldering gun delivers over 100 watts and heats in seconds. Gun has trigger switeh control and dual spotlights to Illuminate work. Uses long life inerpensive replaceable lips. Kit elso includes soldering aid old soldered joints, and brush to linsure clean connections. Shpo. Wr. 4 lbs. WELLER $8100-$ K....List $7.95 \ldots .$. Not 5.83


Mers's everything you need tor hundieds of homocraft and hobby jobs. Ooes all the many shop-polus plonty of heat for sheet metal-pots-pant-cans-otc. Cut plastic tiles-repair plastic toys. Klp Includes 250 watt in. stant heat-dual upotite Wellar gun-ample supply of Kester solder-soldering thpamoothing fip-cupting fip-ilp interchange French-two instruction bookish-titurdy me 5 lbs. for conventont starage
WELER 1250-AK $\qquad$ Met 10.99

DRAKE DELUXE SOLDERING IRON 100 WaH

## $1.0 \rightarrow 0 . j=1020$

Fo: general radio work. Ouality nichrome
wire on amber mica. Nickel plated com
 Cup" stand. ORAKE MO. 325. EACH 3.82 TIP FOR A8OVE. …EACH .35

DRAKE SPECIAL IRON- 60 Watt


An excelient Iron for light work. Element Wound on porcelain tube. Complete with ORAKE NO 315 TIP FOR ABOVE. .EACH . 53

SPECIAL SOLDERING KIT


The "Misthy Mite"e soldering kit - Acoen
 dering instructions and dats. Shpg. wt. HO-198

## AMERICAN BEAUTY SOLDERING IROMS

## (A) <br> (A) <br>  <br> (B)

MODEL 3138- 100 Wate (A) Amoricas's mort famous tron for those who
want the best. Hoavily chrome plated and polished motal ports. Cooling baffle with
 Shpg. $\mathrm{wt}, 21 / 4 \mathrm{lbs}$
American beauty 3138
MODEL 3128-60 Wott (A)
Light duty model with $1 / 4$ tip. With core and stand. Shpg. $w$. It Ib .
AMERICAN BEAUTY 3128
No. 3738 Extra $1 / 4^{\prime \prime}$ TIP

## AMERICAN BEAUTY FEATHERWEIGHT (B)

## MODEL P- 10030 WaH

New 4 ounce pencil-iype tron foafures quick Interchonge of $1 / 9^{\prime \prime} .3 / 16^{\circ \prime}$ and $3 / 8^{\circ}$ "ip come with combinations-hat or coldi Ironi fis. card. Your chaice of $1 / 8^{\prime \prime}, 3 / 16^{\circ}$ $3 / 8^{\prime \prime}$ chisel tip.
P. 100 -Complete Soldering Iron

Net 3.23
TIP-ELEMENTS COMPLETE
P380-C
3/8N chisal fip-element.............Nat 1.71
P-310-0
3/8" diomond tip-element..........Not 1.71
TIP-INSERTS ONLY
P-418-C
$1 / 8^{\prime \prime}$ chisel (Packoge of 6)..........Net 54c -418-D
$1 / 8^{\circ}$ diomand (Pockage of 6) $\ldots . .$. Nel S4e P-416.C
$3 / 16^{\prime \prime}$ chisel (Poctroge of 6).......Net 64c P-416-D

\section*{LENK SOLDERING PENCIL

## 3010 PENEIL

## 3010 PENEIL

Model 251. Lightwoight, rugged, 25 wolt pen wiring lobs. Ideal for production line use designed for continuaus duty opplications Nickal plated cepper tip has high corrovion retistance. Miniature borrel of stointest sleg and tiny tip permit occest to ports-pached 4 az . Eisment of silver nichrome and mica on - bras care. Uis on $110-120$ volts AC.DC Shpg . Wi. 8.
Lenk 251-25 watts
Net 4.00
Lenk. $256-40$ wotts Net 4.00


An all purpose liquified petroleum torch. Does regular soldering-swe of filtings-milver soldering-remove fin ishes, paints and putty. Self sealing valve permits safe removal of torch head, Lights instontly-no priming, no waiting. Clean-sootless -odorless flame. More than $2200^{\circ} \mathrm{F}$. Shpg. wt. l1/2 Ibs.
LENK 295 LP
LENK 77 LP-SPECIAL! Two burnérsneedle point ond blost! Complete with two tanks of fuel. No extros to buyl Shpg. wf. . 3 lbs.
LENK 707 LP $\qquad$ ..NET 3.40
REPLACEMENT FUEL TANK-for all
Lenk LP Torches. Shpg. wh. I Ib.
LENK 77-1

UnGAR SOLOERIMG PENCILS


Lotest model. Check thase improvementien Cooler handle of molded plastic. Perfect bol. once. form fit cork grip. Spring action ival double safety. Extra.ferible cord. $7^{\prime \prime}$ overall longth
MODEL 776, Cord, Mendt Owly....e. 1.10
Lots of 10
REPLACEMENT TPS
New "Elkoloy Tiplets". Super versallity, greater conomyl You no longee hove to discord the heoting unit-it con be used with heoting unit. Standord eloment ond tip ore 20 wotts. "Estra hot- 37.5 wotts. Heal to $600^{\circ}$ in 60 seconds. Stenderd Tips


| - 331 Poncll |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| c | 332 | Onsel | 164 | 134 |
| A | 333 | Chisal |  |  |
| 0 | 535 | Mt. Unit | 98: | 78 |
| D | $1235{ }^{\circ}$ | Ht. Unit | 1.16 | 664 |
| New 776 Mandle and 536 Tip.. |  |  |  |  |
| Lots of 10 |  |  |  |  |
| New 776 Mondle and Hi Hoel 1236 Tip |  |  |  |  |
|  |  |  |  |  |

UNGAR SUPER MI-HEAT TIPS
$850^{\circ}$ and $1,000^{\circ}$ tip temperature-only $471 / 2$ watts! Especially engineered for Production and Heav Duty. Machined from Tellurium Copper with special pure silver and iron plating
Fig. Trpe Descrip. Ea. 10, Ea.

| E | 4033 | Chisel | 2.35 | 1.91 |
| :--- | :--- | :--- | ---: | ---: |
| D | 4035 | Heot Unit | 2.35 | 1.91 |
| F | 4036 | oyromid | 2.35 | 1.91 |
| E | 4039 | Heavy Chisel 2.35 | 1.91 |  |



One complete set for home crafesmon and hobbyists. Sat conteins sis inferchangeable tips; four for burning and embossing of
wood, plastic, leather, cort otc. and two wood, plastic, leather, cork, stc., and two for soldering. Five sheots of enbossing foil, abresive cloth, complete sof of instructions lilustrated cefalog of plaques and projects. Heating unil is UL approved end guaranteed for 10.000 hours, Snpg. Wt. Itb.
MODEL 217...........................EACH 2.06


Latest, handiest, multi-purpose saldering kit in the lumous Ungar line. A complete sot for servicemen, workshop, hebbrist, home handy-man-anyone who needs a soldering iran. Kh contains an eztre heavy duty soldeling unit
for podio. TV or electrical oppliance work. A for rodio. TV or electrical oppliance work. A
precislon unit for printed cireults, Instruments precision unit for prinfed circults, Instruments
ond minioture parts. A circuif lester for elec. ond minioture parts- A circulf lester for elecheavy duty handle for soldering units ond teit light. roll of solder, terminal cannectors. emery paper and insuleting tope. Soldering Units ore UL approved. Shpg. Wh. 2 lbs.
MODEL 507 - In lols of 6 , eoch WODEL 507 - In lols of 6, each....... 3.99
Singly, eoch

## WHAL

TRIG-R.Heat, Iransfarmerloss, Instant heal soldering gun. Thermastatic oction - with -ut thermostatl Wattage outamatically regulated. Extremely light - anty 8 or. $1 / 4$ " protinned tip. Maximum wolts 150 minimum watts 75. 9 inchos long; 6 ll . UL appraved card and plug. \$hpg. Wi. $11 / 2 \mathrm{lbs}$
238.7 .......... without light.........Net 4.87

238-LT.........with ligh
Net 5.25
Replacement tid and

## WALL PENCIL TYPE IRONS

## - ExCLUSIVE THERMOSTATIC BRAIN

Dullt to loke "production. Ifne pualsh. mont". Quich healing-thermoztolle oc. tion grevents tip burning. Draws heovi. eat current to heat - drope to idle current when tolien from werk. 187 how 1 oz . 147 hes renge of 125 to 40 wetts 1 oz . I4T hos renge of 125 to 40 woth,
weigh anty $11 / 20 z$. Shpe. wh., oz. weighs onl/ $11 / 2$ oz. Shpe. W., or.
14-T........1/" tр ...................Net 4.83
Replecement tip for 18-T......Net . 27
Replecement tio fer $14-$ T......Not . 34


Tempered stepl handy pasy to ure wire stripper. Pawl ram lock tets to wire
geuge. Designed to fit joup arlp-uses EEuge, Designed ta lif jour erlp-uses
minimum pressurc. sperlatiy ground culling mige. liutis and strips ni any polnt alang wire. For service or likht productian
MO-264.
SPYRALINE SOLDER DISPENSER

## $4=\sqrt{5}=0$

- $60 \%$ TIN - $40 \%$ LIAD 11 ft . of high quality, $1 / 10^{\circ \prime} 60 / 40$ octivated ronin core wolder in hondy disopliser. Contoiner hs non Infowmabieofrorda Insulation whon working out hot sircult. Eliminoter warle-pull out only
 of " loints. Shee. wi., $1 / 2 \mathrm{lb}$.
MD-222.......Sporlol, Fig. of 3. 1.32
Singly, Eoch


## MYTLON SOLDER DISPENSER

Why langle with Meywiro coots of rolder This uniame dipasoor laedi and retracte montiy by dimple thumb prasure on
control
hnurice
 Mo-12s Net Ple
solider rellll for above.
HO- 124 Net 49e

## HYTRON SOLDERING AID

[^7]K. MILLER WIRE STRIPPER
F AND CUTTER

Quici - Sherp - Handy!
A reatly good wire stripper and cuttor. Kor any ulat wire, stranded - solid. Adjueteble arm on han. dio for varylay wire sizas. Cuts and stripe at any point along vire. Made of nerdaned tool 1 tool fiady ground eutting odgos. For sorvicoman sion mplip ort. or produc. HR-1E: NET W. 73

## SELF OPENING STRIPPER:

Similar to above azcept hos buitt in apring dovice to hald cuttor opan. speods wark on production ine. Ner fing - loict to mold bleder in claced posiflon. shpg. M. 4 ors
HD-189 —— NET.
1.17

## AUTOMATIC PUNCH

Speedy, automatic, and adjubiable - a ainglerhand operoled punch givea ight just the lumpre of a screw. Conter punch has replace1.98 Conter punch has Net $1 .{ }^{-} 0$

NEW JIFFY TOOL RACK

Num handy ract for mortahoop-acrege zluchen. All



no.167.
WHITE-FACE STEEL TAPE






HD.74. 4
NET 45
 H0. $17{ }^{18}$
So h. (EDS: (B) Now 50 fle Ehtic NET 78


 HD-17

NET 2.45

## POWER SCREW DRIVER ATTACHMENT <br> 

RUN SCREWS AND BOLTS WITN M" DRILL
Whil drive wood screwz-machine screwsincluding $3 / 4 \sim$ dinmeter. Pre-lubrleated Encased in solld simminum body. Fits any K" or larger electric drill. Complete unit conalets of driver attachment - standard screw driver bit-Philips serew bit-allen wrench-complete illustrated Instructions. ND-138
WD-172 MEMt Duty Model Not 3. 75
ADJUSTABLE MACK SAW

## 696

Coinplete with B-Inch blade.
A ccomodates $8^{\circ}$ to $12^{\circ}$ blades. Blade car be laced in lour directions. Easy-grip composition handle, nickel-plated $\quad$ tock.
Mo $170-\infty-\infty-\infty$ HB- $21312^{\prime \prime}$ Blade, 24 teeth per in. Doz. 8

The ealy practical way to grip. end mold mall ports and pleces. 11\%" die cant lame open $10 \mathrm{k"}$. Mounted on cant lame open 10 , Mounted on dls. Halds work for drilling, morting. fling, cowing ote. Endlest uses in hop and handivork. shpo. Wt, I lb,
Mot Net 7 e
Pin Vise


Has standerd $1 / 4 "$ chuck with 3 hard oned jaws. Chuck opening from $0^{\prime \prime}$ to honde $4^{\text {th }}$ long. Holds small drills. reamers, screw bits, files, ofc. A"nat ural" for the hobbyist ond craftiman. Shpg. Wt. $1 / 2 \mathrm{lb}$.
HD-95
PLER GRP


Tough, nom-aldid insulation. Aright red fo ensy locestiay in wool haz. Molded ringe a ticns for applying.
H0.128.
Per Pair-Net 31 e


## Pin Vise

## 6 PIECE

SCREWDRIVER SET


The sis most often needed screwdrivers In one cet. Elertronleelly hordened and tempered alloy rool iteel bladen. Shock proof unbreakable amber plasile handlee. Includes stubby, cebinet, philipe HD-225 ............................... Net. 2 Ibs.

1.46

## PLI-RENCH

Super bower locking comblaation pllers wrench. rlamp and vise. Excluslve flimit Ing. wilf-allgning faw. Firlis ofijerts of any shape with full length of huth jaws.
liasy to use- furged - mowerful tonl Diasy to use-rurged - mowerful tonl. Bis-
 od teeth. Inlitulted uses as Dlae wronth -ifoo-press-super pliers -cte. Lenkth

## HD-126. <br> UNIVERSAL OI

## PRESS

- Converte Elec.


## Mend Drill To

## orlll Prose

Mere It e handy accemony hom Hicm ecth an drill stand and converts any Galmum leneth of treveli la $81 / 2=$. Oress. ell hoight Is $10 \mathrm{~h}^{\mathbf{m}}$. Siurdlly conitructed. Powertul spelng holds JFill in plece wher not in uov. SApg. Wt. ${ }^{\circ}$ Ibs. MO-124.

## FLEXIBLE PICKUP TOOL

Useful nexible pletup teol. Uetrectoble epring atest lows, Retrieven nuts-bolt -imoll oblects from "hord to reesh ploces. Handy for starting auts and plecews, Dosem of use in every shop-paroge-haust. 14 " leng. Shee - 8.

HD-230
Not .84
MO-231........24" long ...........Net 1.13

## TOOL POUCH



Clear visyl plastie tool pouch with onap clooure. $\theta^{\prime \prime}$ I $6^{\prime \prime}$ sige - to hald those fow mocts tools. Shps. Protects poct
Wo-sos. Shpe whi late of 10 . E. . 39

## COMBINATION SQUARE

Het many mev-in and nitre equerg cepth geupe, merting couge, lovel and ciliber. Greduated nus an isthe en ano bede. shpers. I Ib. MB-R2 Net fes

## ALL-PURPOSE

## hack saw

Fits tio erdinary heck saws eanno bo used. With $71 / 40$ teporing ND. ${ }^{\text {es }}$.
HD.AR-Extra olsa . 150

## SPINETTE SOGKET WAEMCH

## B SGREW DRIVER SET

A handy rool of a danop pricel Consisti of five sockets, sizes $1 / 4^{\prime \prime}, 5 / 16^{\prime \prime}$. $11 / 32^{\prime \prime}$. $3 / 9^{\prime \prime}$ and $7 / 16^{\prime \prime}$. All strung on o hezagon shoft which ends in a $1 / 4^{\prime \prime}$ serew driver. Hos shock proof tronsparent plasilic han. die. Shaft and sockets are bright MD-8 1

POCKET "PENCIL" MAGNET

## $\xrightarrow{\square}-$

GIVES YOU 10 INCM FINGERS! RETRIEVING TOOL

## NAIL STARTERI

Powarful Abice magnet contained in what The body wilh poctio clip. Fletible arten anoves chipes frow bilnd holes - pletre up nute, serews. wachers - separete sensll olurainuma brass and iteol parta - holde amall naitis io prement inashed angers. Carry in poetet juit lite pencill Bundreds of uees in thop or home.
HD-184


Lenk NO-RUST
A positive rust preventative A positive rust proventative
and notural lubricant. Lo and natural lubricant. Lt-bricatel-penofrates-preservesi Aerosol self-sprut reeches laecessible spois.
Preeserves filshes and re duces weer. In oee opereHon. Une on tools-quns-techle-chrom trim-loclis motors, eic. Ues No-Rust if shops-homes-Iarms-fec-porles-boefs Shpe. Wh. I
th.
MO-9
Net 1.00


# POPULAR LOW COST ACCESSORIES 

## WROUGHT IRON BLACK HAIRPIN LEGS TUBULAR TAPERED BRASS FINISH LEGS <br> - Set of 4 as low as 2.25 <br> Do It yourself. With these martly siyled "heir pin" logs you cen build modern benches, boolt casos, tablas, ete.-or mount them on your present TV set or other furniture. Sturdily consiructed of "y" rod with welded steel top alroedr dillied for insertion of screme. <br> ML-53 b" high Shpg. Wi. 3/2 lbl , Sot of 4.25 ML-54 $12^{\prime \prime}$ high 5 hpo. Wi. 5 lbs. Set of 4.29  ML. $5638^{\prime \prime}$ high Shpg. Wt. 8 lbs. Sot af 4.3 .59 <br> ML. $57 \mathrm{zt}^{-}$high Shpg. Wi. W/3 lbs. 50 t of 4 .. 3.89 <br> - EASILY ATTACHED <br> - FINE SATIN FINISH <br> Give o contemparary look to TV sets, radios, recard ployers, robles, chairs, bookcases, chests, etc. New heary duty bracket for straight or flared style. All steel rust-pesistant legs with locquered sotin brass electroplate finish. Aufomatic self leveling, self locking glide. <br> 

## ADJUSTABLE HARDWOOD LEGS



TABLES - BENCMES - DESKSI STRAIGHT OR FLARED STYLE! EASY to attachi
diometer envine hordwood. $11 / 2$ Eoch leg hot o brushed brass foper af the Hp. Sonded, reody to Nrish. Adjust to straight or hared ityle ofter ottoching ploforml Mokes ony IV set a conzolatiol Build your own htfi cobinetal set of four leps - complete with hordwore.

| ML-96 | $31 / 2$ | h | shog. wi., | $11 / 2$ | 2.55 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ML76 | $8{ }^{\prime \prime}$ | high | shpg. wi., | $1 \% / 4 \mathrm{lbs}$. | 2.70 |
| ML-99 | $8{ }^{\prime \prime}$ | high | shpe. wt., | $21 / 2 \mathrm{lbs}$. | 3.00 |
| ML. 77 | $12^{\prime \prime}$ | high | shpg. wt., | $21 / 2 \mathrm{lbs}$. | 3.15 |
| ML-102 | 14" | high | shpe. wt. | $31 / 4 \mathrm{lbs}$. | 3.45 |
| ML. 78 | 16" | high | shpg. wt., | $31 / 4 \mathrm{lbs}$. | 3.60 |
| ML-103 | 18" | high | shpg. wt., | 4 lbs. | 4.05 |
| ML79 | 22" | high | shpg. wi., | $41 / 6$ lbs. | 4.50 |
| ML-80 | 28" | high | sh | $41 / 2 \mathrm{lb}$ | 5.40 |

## SPECIAL NEST OF SAWS

Cata we ताMIV -

## मल


A "nafural" for repairmon, mechanics, craftimon, obbyists hame owners-aven housawivass pisto grip handie gives aucellent control. Three bledos supplledl One medium and one fine matal cutting and ane woodcutting. Cuts cast iron, nalis, bolfs, sheot motal, pipe, plastor boord, Ex, condult, hard and soth woods, oluminum, brask, cead plasilic, frozen foods, elc. Handle and three

## TORPEDO AND LINE LEVEL SET

 chrotue plated top Has threo level tals: horizimiat. verifical ulumb. and $40^{\circ}$ brecheely machined base. Runt uroolfan't warp. blne level is hez shaped for use as surface lerel; aluminum for IIght welaht-less than if oz. 2 buoks hold level securols 40.24i-siat uf: levels.

## 18 PC. HEX KEY WRENCH SET



- HANDLES 99\% OF HEX KEY NEEDS 1
Set consixte of 9 short arin wrenehes
 wrenches are of tine fuality woit steel. are made of tine fushity tuol steet. ed in istporket plastic roll up kli . Aunds kit fur Ehup, sarage. home workshop. Shpa. Wr. 11/s" lbs. HD- 242

Net 1.49

## HYDRAULIC PUMP OILER

- PERFECT OILER FOR 1001 USES LIGHTWEIGHT-HANDY-TRANSLUCENT TENITE A new shap-home affice occessery. Gives fine, pressurized stream that lubricates hord to get at places.
Seamless construction of durabte ten. Seomless construction of durabte ien-
ite. Finger tho plunger. Holds $\&$ ozt. af ail. Lubricates all types of machin. ary-hand ond power lools-eppll. ances-fixitures - toys - conveyances. Removable bose for easy filling. Drip proof-leak proaf design. Oulmodes the oid fashioned all con. Shop. wt., $1 / \mathrm{ib}$. HD- 265 ........Net ©.., 89



## AUTOMATIC PUSH DRILL

## $\square 2$ <br> For boring small holes in hard or sah wood and soll melals. Quick changing, positive grip chuck design. Five flufod drills stored in hollow handle. Dill sizes: $5 / 64^{\prime \prime}$, $3 / 32^{\prime \prime}, 1 / 8^{\prime \prime}, 5 / 32^{\prime \prime}$ and $3 / 16^{\prime \prime}$. Quick relurn spring ac tion. Shpg. wt. 1 it. <br> H0. 244. <br> Net 1.00

## RATCHET

## OFFSET SCREWDRIVERS

## Handy, |pockel-sized offsef screwdrivers with built in ratch

 of. The perfect answer to thase "knuckle busting" hard-poreach places. Drivers are $41 / 4^{\prime \prime}$ lang, with olther $1 / 4^{\prime \prime}$ and $5 / 16^{m}$ regular blade of \#1 and \#2 Phillips fype blades. Bright ploted finish-positive ratchet action. HO-245-Regulor blodes.................................................... 59 HP-246-Phillips Type. Net .59 HD-247-Sof of two...
## Not 1.05



## ROLL-A-BALL CASTERS

- PRECISION MADE STEEL BALH - ASV 70 INSTAMI

The simpiest anu uurewest urive on- caster Simply Lap into place. Eztra heary geuge steel. Nickel plated finish. Hundircts of uses in shop or home. On chalis-desk-tables-beds - benches-drawers-oinj-swirel top-racks anything you want to move and nuve easily! Quick--sureHormanen

Set of NET 38

## 5 PIECE

## OPEN END

## WRENCH SET



Streamilined panel bar wrench eet. The hest designed carbon steel wrench on the market. Ten difiterent opensant finiah. With hinged container. ghog. Wit. 1 ib. HD-162.

## KRAEUTER

## "INDUSTRIAL" PLIERS

## Shanhihns

A B C E E F G H I - ALL WITM HEAVILY INSULATED MANDLES Fine qually-hammer-forged from high grade tool steel Individually filted, lempered and adiusled. Fully pol. ished heads. Rust-resistant blue tempered handies. TYPE FIG. DESCRIPTION NET 4501.5CG A 4501-6e6 $5801 C 6$ 1661cG 1631C6 $1830 C E$
 2810 CG
4610

GREENLEE CHASSIS PUNCHES

## 8 <br>  <br> 5

## .

Cut holes in metols up to $1 / 8^{\prime \prime}$ thick with the turn of an ardinary wrench. Na sowing, reoming or flling.
Type 730. Round holes. Shpg. wt. 1.1/2 Ibs. ooch. Size Ee. She Ee, Size Ee. Size Eo. $\begin{array}{llllllll}1 / 2^{\prime \prime} & 2.16 & 7 / 8^{\prime \prime} & 2.16 & 1.1 / 8^{\prime \prime} & 2.47 & 1.1 / 4^{\prime \prime} & 2.47 \\ 5 / 8^{\prime \prime} & 2.16 & 11^{\prime \prime} & 2.34 & 1.5 / 32^{\prime \prime} & 2.47 & 1.3 / 8^{\prime \prime} & 2.83\end{array}$ $\begin{array}{llllllll}5 / 8^{\prime \prime} & 2.16 & 1^{\prime \prime} & 2.34 & 1.5 / 32^{\prime \prime} & 2.47 & 1.3 / 8^{\prime \prime} & 2.83 \\ 3 / 4^{\prime \prime} & 2.16 & 1.1 / 16^{\prime \prime} & 2.47 & 1.3 / 16^{\prime \prime} & 2.47 & 1.1 / 2^{\prime \prime} & 3.1 \varphi^{\prime \prime}\end{array}$ $2-1 / 4^{\prime \prime} 4.11$
Type 732, for Keyed Sockels. Shpg. wt. 1-1/2 Ibs. 00. Size Ee. Size Eq. Stre Eo. Size 害o. $15 / 163.731 .11 / 644.00 \quad 1.17 / 644.27 \quad 1.21 / 644.50$ $15 / 324.14$ for toggle swirches

Type 731, Squore hales. Shpg. wt. 2 Ibs.
$\begin{array}{llllll}\text { Siop } & \text { Fa. } & \text { Sto } & \text { Ee. } & \text { Stze } & \text { Es. } \\ 5 / 8^{\prime \prime} & 3.33 & 3 / 4^{\prime \prime} & 3.87 & 1^{\prime \prime} & 4.50\end{array}$

$5 / 8^{\omega}$ punches...................
K 3- Replacement screw for $3 / 4^{\prime \prime}$ and
Q13-Replocement screw for $j^{\prime \prime \prime}$ to
1-1/2" punches.

## AMP SHEARITE

 STRIPPER
## AND

 CUTTER

New model also crimps solderless terminals and connectars. Three toals in anel Cuts ond strips wire fram sizes 22 to 10 . Culs brass or steel machine screws withaut domaging threads: sizes $10-24,10-32,8-32,6-32$ and 4.40. Hos accurataly sized stripping notches, and preci. sion threoded cuiter holes plos stud size gauge stamped on tool. Hardened steet, shock-praof plastic handle. H0. 66
Lafayette BARGAIIS FOR SERVICEMEN


## SCREW DRIVERS－HEX NUT XCELITE－HIGH QUALITY TOOLS

First quality－rugred－skillfulty made－acrewdrisers and hes nut didrers．Forged of
Cbrome Faradjum electric furnace steel．Shock proor－break proof Xcelfie platic Chrome Faradjum electric purnace steel．Shock proor－break proof Xcelite plastic
handies．Winged end of shart prevents turning of blade in handle．Perfect burr－free handies．Winged end of shaft prevents turning of blade in handie．Perrect burr－iree sockets，deep enouzh to hold two nuts at once．Nut driver handies are color coded．
Arerage shpg．Wit．of screwdriver is 8 ozs，－of nut driver 8 oze．

## SCREWDRIVERS

ROUND BLADE－Dolished，fianged blades

| Type | 8haft Slxe | Overshl | Met |
| :---: | :---: | :---: | :---: |
| R144 | 4＂${ }^{\text {\％}}$＂ | $8^{\prime \prime}$ | 69 |
| R146 | $8^{\prime \prime} \times$ | 10＂ | 72 |
| R148 | $8{ }^{\prime \prime}$ 发 | 12＂ | ． 78 |
| R182 | 2＂$\times 1$ | 24＂ | ． 33 |
| R183 | 3＂ 5 |  | 27 |
| R184 | 4＂ $11 /$ | $81 /$ | 36 |
| R186 | $6^{* \prime}$ I 2 | 12 | ． 39 |
| R188 | $8{ }^{\prime \prime}$ \％ 4 | $10 \%$ | ． 48 |
| SET－SCREW TYPE－ 1 th pocket clld |  |  |  |
| $\begin{aligned} & R 1841 / 2 \\ & 8332]^{2} \end{aligned}$ |  | $0^{\prime \prime}$ | $\begin{array}{r} .27 \\ .27 \end{array}$ |
| SPUARE BLADE hearier duty |  |  |  |
| 8144 | $4^{\prime \prime} \mathrm{E}^{\prime \prime}{ }^{\prime \prime}$ | $8^{\prime \prime}$ | 75 |
| S146 | $6^{\prime \prime} \times$ | $10^{\prime \prime}$ | ． 78 |
| 5148 | $8^{\prime \prime}$＝ $1 \%^{\prime \prime}$ |  | 90 |
| 83164 | ＋＂ 5 3／16＂ | 7\％ | 63 |
| PHILLIPS SEREWDRIVERS－alloy steel |  |  |  |
| $\times 101$ | 3＂共1 pt | 63 |  |
| $\times 102$ | 1＂${ }^{\text {\＃}}$ \％Dt |  | 81 |
| X103 | $6^{\prime \prime}{ }^{\prime \prime}{ }^{\text {委 }} 3 \mathrm{Dt}$ |  | 1.08 |
| X108 | $6^{* *}{ }^{\text {\＃}} 1 \mathrm{dt}$ | $10^{\prime \prime}$ | ． 69 |
| STUABY SCREWDRIVER－square blade |  |  |  |
| S141 | 114＊ 24 ＂ | 3 5 ／ | 1 |
| SUPEREAMER－chrome Inish <br> Super hard chrome fintsh reamer fixed in man sheed bandie－reams \％＂ 10 \％＂． |  |  |  |
|  |  |  |  |
| Type \＃38．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．Net 1.41 Rearner blade－fita 99－1 and 99－2 handie in 09 PR and 99 JR etw．Reams 虏＂to \％＂ |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Typt 99－38．．．．．．．．．．．．．．．．．．Net 1.23 |  |  |  |
| Heary reamer blade．Fits 99－1 and 99－2 handie．Reams 3／＂to $1 / 2 \mathrm{~N}$ ． |  |  |  |
| Type 99.39 ．．．．．．．．．．．．．．．．．．．．．Net 1.56 |  |  |  |

## HEX NUT DRIVERS

|  | as Volum | Control Wrench |  |
| :---: | :---: | :---: | :---: |
| Trye \＃ | Nut Size | Length | Met |
| 6 | 3／16＂ | 6 ＂ | ． 66 |
| 7 | 1／32＊ | $6^{\prime \prime}$ | ． 66 |
| 8 | 1／4＊ | $6^{\circ \prime}$ | ． 66 |
| 9 | 9／32＂ | 8＂ | ． 86 |
| 10 | $5 / 16^{\prime \prime}$ | $8 \prime$ | ． 66 |
| 11 | 11／32＂ | $8{ }^{\prime \prime}$ | ． 6 |
| 12 | 3／8＂ | $8^{\prime \prime}$ | ． 66 |
| A8 | 1／4＂ | $9{ }^{*}$ | ． 75 |
| 410 | 5／16＂ | $9{ }^{\prime \prime}$ | ． 75 |
| A12 | 3／8＂ | $9{ }^{\prime \prime}$ | ． 78 |
| S8 | 1／4＂ | 3－1／4＂ | ． 4 |
| 810 | $5 / 16^{\prime \prime}$ | 3－1／4＂ | ． 54 |
| 812 | $3 / 8{ }^{\prime \prime}$ | 3－1／4＂ | ． 54 |


| HOLLOW Typo\＃ | SHAFT Nut Size | NUT Dish | Not |
| :---: | :---: | :---: | :---: |
| ${ }^{\text {Hssio }}$ |  |  | ． 81 |
| Hsio | 5／16\％ |  | 81 |
| Hsiz | 3／8＂ | ${ }_{8}^{6} 7 / 8^{*}$ | ${ }_{81}$ |
| H814 | 719＂ | ${ }^{6} 718{ }^{\prime \prime}$ | 93 |
| Hsi6 | ${ }_{9}^{1 / 20 \prime \prime \prime \prime}$ | \％${ }^{6} 7 / 8^{\prime \prime}$ | 96 |
| H 520 | 5／8＂ | ${ }^{6} 7 / 8^{\prime \prime}$ | 1.4 |

## Combination

Kir

Convenient drivers．Packed In a durable，zipperad case．Carry in Toal box－Boat－kit－Glave compartment．Contains single，pocket typo handie and iwo reversable blades．\＃1 and \＃2 Phillips， $3 / 16^{\prime \prime}$ and $1 / 4{ }^{\prime \prime}$ regular blades．Shpg．wi．，I Ib．
Type No．CK－2

# POPULAR SPECIALTIES AND ACCESSORIES 



Versatile flvorescent fixfure with clampan base. Ideal for foctary benches, tables and drofling boords. Two bolts clomp bose securely to any surface up io $3^{n}$ thick. Spring-controlled swivel jainis and double ofm oction perm you light in any desired position. Arm extends $36^{\prime \prime}$. Uses desired TB, 15 .W. lomps. For $110-125 \mathrm{~V}$., 60 iwo TB, 15. W. lamps. Fop $110-125 \mathrm{~V} ., 60$
crcles $A C$. Shpg. Wi., 10 lbs. Bronze cycles
FL. 10 -less lamps.................Net 14.66 In lats of 3, eo., Nel 13.68
TAP-A-LINE
HANDY 8 in 1 OUTLET


- IN RADIO AND TELEVISION SHOPS - IN THE KITCHEN
- IN THE HOME WORKSHOP
- ON THE FARM

Tap-A-line multi-plug is a hondy time ond nuisance saver. Avalds shifting of plugs-siringing extension cords. Mokes continuously evailoble up to 3 different oppliances of ane time. Easy to install or use unmounted. Grips plugs securely of oll times. A must far use in areas having o limited number of autlets. Roled of 1000 watts. Ivory colored taugh plostic- $12^{\prime \prime \prime}$ long by $1^{\prime \prime}$ square. Four $f \mathrm{f}$, heavy card and olug. Tap-A Line is sofe-convenient-hondy. Shpg Wt. $11 / 2$ lbs.
EL10
...Net 1.47
ELII
Net 2.40

## NITE-LAMP SAFE - PRACTICAL PLUGS IN ANY OUTLET <br> 

Newest night light-neot design-sturdy construction. Only $31 / 4^{\prime \prime}$ overoll. Plugs right inta outlet. Removable shode swiv ols ta direct Ifght. Uses $C 7$ white bulb cansumes 1 cent in current in 50 hours. All bokellie. On-off switch. UL oppraved. El-44 In tals of 3, .....each . 40
Singly, $. . . . . . . . . . .00 c h ~ . ~$ 5 Singly...

## 50 ft . TROUBLE LAMP



- 2 Side Oufler Tool All rubber sheath-all cop. per wirel Flip-Lok cage eliminotes removing from handle to. re-lamp. Uses any sfandord lamp. Heory rubber plug-push switch rugged rubber handle. Fifty feet of husky, rugged can. veniance. Light and power where you want II. A neressity in the shop-home-garage-car. Shpg. wi.. garage-cor. Shpg. wi EL-41

Net 1.80
 DESK LAMP

Portable Desk Madel. Hos oll the features of Model FL-10 except for the difference in the bose. This unit has a weighted base with pen and pencil grooves, for desks and tables where serew ela
not be used. Shps. wt., 23 lbs.

FL-11 -less lamps ...............Net 20.54
FL.201-T8-15 walts.ea. Net 72

## NEW BLONDE

PRECISION PRODUCTS
pin point oller - pape solder Pin Point Oiler: Puts a drop or a squirt af oil where you want it. The anty proctical instrument for precisian an inch in diameter. Made of stainless steel and butyrate. Filled with clear, steel and butyrate. Fired. With clear,
filled with oil or other liquids. Hypa ac tion prevents messy, harmful over oiling of precision equipment. Shpg. Wh.. 4 oz
HD-311 66
Tape Solder: Pure $40 / 00$ colder, im. pregnoted with rosin flur. Needs no pregnoted with Uasin math iran. Use with match, cigorette soldering iran. Use wh match, cigorewe lighter, candle, etc. Na waste- Not a solder around joint ond apply heot. Not a solder
substitute-but the most recent advance in solder application. Perfect for rodio TV, hame repoirs, habbies, elc. $28^{\prime \prime}$ pack age-enough for 100 connections. Shpg.


"MINI-TEST" VOLTMETER

- VESt pocket SIZE
- COMPLETEIY SELF.CONTAINED
A burn aut proof, miniapurized valtoge meter to check voltage from 65 V . to 800 $V$. Use on AC ar DC. Determine if valfoge is AC or DC - checks conlinuity-troces open lines-Checks voltage drop-irouble shaat electrical appliances-etc. Smallshat eletrical appliances-eic. Small-
 care. Only $1 \%$, $1 \%$ overall. "Clip-on"" test leads leave both hands Pree. Malded styrene case and knob Indispensable for checking electrical oppliances and identitying electricol cicuits Shpg. wt., $1 / 1$ tb. MS.343
NEW "FOREMAN" LAYOUT TOOL


## - DOES ANY WITM EASE <br> - SCRIBES

- LOCKS ON SCALE

ANY WHESE
Nat iust anather rule-but a multi purpase 10 foat layaut toal. Daes ony layout wark-marking-seribing-squaring out raomsscales plans-marks any material with hairline accuracy-ascepls knife blade for ripping sheetrack, etc.-marks radius up to 10 feet-circles up to 20 feet-locks in of any place on scole. 10 ft . $3 / 1 /{ }^{\prime \prime}$ white blade in. cludes scales for $\mathbf{3 2}$ nds. 16 ohs, inches, fool cludes scales for $\mathbf{i n c h}$, architects scales, tile toyout scale. outamatic lock, scribing pin. Takes all the guess wark out of figuring. A thousand uses
far any craftsmon. Shpg. wt., I lb. far any
HD. 310

## ADJUSTABLE <br> FLEXO LAMP

Flezo all purpose lomp. Designed to provide adjustment to any position or ongle and sturdily canstructed far a llfetime of service. No exposed wiring. Air Cooled Shade. Will stand up better under condifions of vibration. Moximum ertension 34". Lamp swivels afound of bose and af shode and swivels at eoch ioint far universal odiusiment to ony of cauntiess dil ferent pasitions. Shode $51 / 2^{\prime \prime}$ in diometer,
$6^{\prime \prime}$ deep. Swlich on-shade. Use standor $6^{\prime \prime}$ deep. Switch an-shade. Use standord incondescent bulb. Clamp removable for surfoce

Net 9.56

New! BURGESS "BEARCAT" LANTERN
Facusing feature permiss a brillant spreod of a spot beom, gaad far strong and comfortoble notshed handle, and foal-praaf silver cantoct thumb switch. Compact, ottroctive ond lightweight (anly 4 tbs, complete with bottery). Siurdy knurled knobs alfoch "BEARCAT" to battery in a matter of secands. Powered by 6 -volf TWI leakproof weather-proaf steel-clad battery. Shpg. wi., $51 / 2 \mathrm{ibs}$
Burgess TW9 Complete with Bottery. Extra Battery, Burgess TWI.
Powerful and versotile portoble hand lomp. Operates as a lamp. a flashing red beocon, or
both. The flashing beacon may be positioned up ar down. Seoled beam bulb keeps mirrared re. filetar dust fiee. i" $^{\prime \prime}$ chrome-ploted steel lamp. head. Chrame-ploted beccon orm fits snugly over handle. Beacan floshes 60 limes per min. Ute. Steel weotherproof case with hinged cover ${ }^{w f}{ }^{3} 3$ lbs. List 10.50 .

## ML.. 66 - Less

| ML- Not 6.98 |
| :--- |
| Burgess |

# BIG 



## KRYLON ACRYLIC SPRAYS

Pravides a durable coating for waod. metal, leather, paper etc. Dries in 3 chemical resistant. Won'i crock or peel. High dielectric Specify colar and number
16.2 oz.-Cleo
o.......
©. Net 1.27 16.2 az.-a $\qquad$ e. Nel

## TPPE NO.

## Oz. <br> COLOR

| 16.2 | 602 | COLOR |
| :---: | :---: | :---: |
| 1302 | 1300A | Clear |
| 1320 |  | Metal Primer |
| 1401 | 1401A | Aluminum |
| 1501 | 15014 | White |
| 1502 | 1502A | Flat White |
| 1601 | 16014 | Gloss Black |
| 1602 | 1602A | Flat Black |
| 1603 | 1603 A | Mach. Grey |
| 1604 | 1604A | 16. Grey |
| 1605 | 1605A | Dove Grey |
| 1701 | 17014 | Gold |
| 1801 | 18014 | Yellow |
| 1901 | 19014 | Regal 8lue |
| 1902 | 1902A | Baby 8lue |
| 2001 | 2001A | Hunter Green |
| 2101 | 21014 | Cherry Red |
| 2102 | 2102A | Baby Pink |
| 2201 | 2201A | Copper |
| 2301 |  | O. D. Mhati |
| 2401 |  | Int'1. Orange |

7001
7002

SPECIAL PRODUCTS

## 1324A Rust Release

HI GLOSS VARNISH SATIN VARNISM

NEW! SPRAY CAN HANDLE - CONVERTS ANY SPRAY CAN
SNAPS ON O SNAPS ON OR
IN SECONDS
ASSURES EVEN
APPLICATION


Assures prafessional results with ease of handling. Keeps hands clean-liminates fatigue. Moinfains even, aceurate soray application. Spray contoiners have a standard size head. Use this handle on paints, plastics. Iubricants, insecticides, househald sprays, any aerasal spray cantainer Instantly detochable. Shpg, wt., 1 it. HD-298.

NEW! METALTONE SPRAY - HAMMERTONE AND METALLESCEN


Spray finish pives a hammered
Spray finish gives o hammered metal loak to furnitune, appli
ances, glasswore, toys, leather ances, glasswer. tic in her paper, ceramics, etc. Use in war shop on tools, foal bozes, bins etc. In office on desks, files, mo-
chines, lamps, shelving. Perfect for redolng instrument cases baffles, firtures, cabinets. Avall able in 6 hammertone and 4 me tallescent finishes. Shpg. wi. $11 / 2 \mathrm{lbs}$.
HD.299-Hammertone Silver
HD-300-Hammertone Copper
HD. 301 - Hommertone Blue
HD-302-Hammertane Green HD-303-Hammertane Galden HD-304-Hammertone Charcoal

HD-305-Metallescent Red HD-306-Metallescent Blue HD. 307-Mefallercent Green HD.308-Motallescent Block

# WIRE - Belden - Alpha - Consolidated - WIRE 



## General Cement - Radio \& T.V. Hardware and Chemicals




FIG. 22-VENT HOLE PLUG FIG. 23 H33 SMAF-F.IN TRIMOUNTS Ass'T I H370-F ${ }^{20}$

|  | FIG. 24-SOLDER LUGS |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| No. ${ }^{\text {a }}$ | H106.F | 25 | 7445-6 | 1.57 |
| No. 8 B | H133-F | 30 | 7851.6 | 1.14 |
| Na. ${ }_{8}{ }^{\text {d }}$ | H134-F | 25 | 7442.6 | 1.49 |
| No. 10 D | H102-F | 25 | 1021-AG | 1.45 |

 ABST LARGE: 26-TENSION SPRINGS


FIG. 28-RUBER GROMMETS-


FIG. 29-RUBEER CHASSIS MOUNTS


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|  | - O. Eloctricol ond diecrion |  |
| 8" PROPORTIONAL DIVIDER | ranged for greatest ease in drowing. Includes eighteen circles from $1 / 16^{\prime \prime}$ to $1^{\prime \prime}$. Capocitors-circuit breakers_luses- $w$ witches-resistors -iectifiers_coils-etc. Highly occurate. Terrific time |  |
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 10) :ivill $B$ and DisinNTN Essentials

LETTERING GUIDE SET

 Mode of fronsporent plostic. Simple to use with either shorp pencil or ink. Eoch hos complete olphobet, all numbers commonly used signs. Most letters sor med wi, $1 / \mathbf{N}^{4,} 5 / 16^{\prime \prime}, 1 / 6^{\prime \prime}$ ond $1 / 2^{\prime \prime}$. Shpg. wt ., $1 / 2 \mathrm{lb}$. F-78-Comolete Set
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| :---: | :---: | :---: | :---: | :---: | :---: |
| No. | " | 69 c | F-82 | It. | 1.19 |
| F.80 | ¢180" | 856 |  | 1/2" |  |
| F-81 | 1/4" | 98 c |  | 1/2 | 65 | LETTERING PEN we with lettering

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3 oz.
F-95.


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 - Revolulionary prodion of oven doteoted



## STYRENE

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Cmtar
finger lifts. Double berel in cutout al. lows osr pichup. Sturdy cutout al.
Average shpe. Wi. 100 thich. SI2E 30/800


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Nel 1.15


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Mandiest device ever! Trentparant plastic. Trace any angle of greduations on arc give angle outer row give complemenidry engle. Mes four openings for drawing clicles $1 / 2^{\prime \prime}$ holen $1 /$ and $1 / 4$ " diem. Tapered divide ony line into equal pert by awinging angle. Useful for crass herehing erchitectura tairwar draminge, epeeds up lotter ipacing. No protrusions to tear tracing paper. Shpes Q.77 Not 1.98 10" SLIDE RULE

lominoted contrustio prectsion mode inatrument of ploatic equivalents settingstion. This rule hos decimal equivalents, icales. There ore A and o rule with both inch and motric roce side and log. in and longent on the bact on the Eech instructione lor use included with the bach of slide denfs or os cose. Excellent choice in vinyle. wt., $1 / 2 \mathrm{lb}$. Ufility inafrument lar the profersionol. Shas. 1.192

## 'DIAL-A-MATIC'ADDING MACHINE

SLIDE RULE
Made of crrstal clear plartic perspectiveight French eurves. 090 thick. Set general eppliete dimensional drawing for R. 5

No1 2.40


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Font-accurate-precision ongineered. Moving parts mode of Dupont Nylon. Just diot your numbers-reod your onsworsl Great for generol daily calcularkans or purse small busineslly gueronteod. With dioling stylus. Shpe =1.. $1 / 8 \mathrm{lb}$.
F-189.


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of 3 , eoch 1.35
Singly, oach 1.50
RADIO ELECTRONIC 35 SCALE $11 / 2^{\prime \prime} \times 8^{\prime \prime} \cdot 3$
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These drawing kits were especially designed for stu. dents of mechanical drawing and engineering. Perfect for professianal people needing inexpensive accurate instrumants for home or alfice use. Con sists of: $10^{\prime \prime}$ mooden T square. $6^{\prime \prime}$ fransparent $45^{\circ} 90^{\circ}$ triangle, 8 tramparent $30-60^{\circ}$ triangle, parent profractor with etched rule ond french curve cutouts, $51 / 4^{\circ}$ transparant franch eurve. Guaraniead it be worth many times our low price. Shpg. Wi. F.4

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of blact vinyl with cornment specifications. Made
shpeg. Wt with friction pads resistani metol parte
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PROTRACTOR MEAD
Adiwstablo protroetor marted to iso ofractor heod cleariy Traned to $150^{\circ}$ easily set and fastonedy Adopted matter. All plasic_-_light wiew of ogainit boord. Suling. Head hts snugity Fo9-18" long Sinpg. Wi. $1 / 2$ ib. inugly
F99 - $18^{\circ}$ long....
F-100_24

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## 3 IN. REFLECTING TELESCOPE

- ADJUSTABLE EQUATORIAL MOUNTING
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| -315 | F-316-As Abave, $41 / 2$ ", $50 \mathrm{X}-100 \mathrm{X}$.......Net 59.85 F.317-As Above, $6^{\prime \prime}$, 50 X -100X-200X Net 259.50


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- 39 - MORKING SCALE MODEL BAUSCN \& LOME REFLECTOR LENS
SEE THE MOON'S CRATERS JUPITER - SATURN
Working role model of the 200 inch Mp. Palamar
toloscopes. Souich and lomb orim. focut cefiecter lons -opticaily ground and oolithed, Rlgid design seurdy operating controle to better enable the young estronomer to study the Moon - Solurn -ul Jupitior - and oll the Eovderts of the night thy. Mare than e poy - an eccurate, power. spoce minded youngstery - suitoble for the omateur ostronomoer. Complefto kit including -2ay ${ }^{10} 3^{\circ}$ follow instructions and Illustrated "Stor Guide" Fully airemblod - Reodr to une Enoctly at described above but camoletely Notembled 2.39



## IMPORTED BINOCULARS

WITH COATED ACHROMATIC LENSES AND PRISMS

Lefayette has gane "all-out" to present these fine imported Zelss type binoculars at heretafore unheard of pricest Each of these erfremely precise optical instruMents have coated lenseg-clamped in (not just glued!) prisms-light woight alloy all motal bodies-woather proof. toar proof oufor caverings-maximum light transmission-minimum distortion. Made by leading optical manufacturors to our
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POWER-is the numbar of timas an Image is magnified through your binoculars, For axample 7X (1 pawer) means the object will appear 7 times larger (ar closer) man with ite natted eve. Ine secona number usea (1.e. the "so" in $12 x, 50$ ) is the diameter in millimaters of the obiective lens.
COATED LENSES-tend to reduce refioction and paw up to $50 \%$ mare light then uncoeted lenses.


## BINOCULAR MOUNTING CLAMP

Indispensoble accessory for migh powered Dinoculors. Fils all sizesbinoculars steady for lang range exlended period use. Satin black finish. Shpg. wt., $1 / 2 \mathrm{lb}$.
F. 187

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## 30X, 60MM SPOTTING SCOPE <br> 17.95 <br> A prismalic telencope using the same fine feotures as expensive binoculorsl field of riew is 85 feet of 1000 ydsl Both frant and rear aptics are coated. Migh relative brillionce due to greot 60 mm obiective lens. Exception ally small ond light - weighs only $11 / 2 \mathrm{lbs}$. including metal tripod! The perfect componion for shooting - hunt ing - viewing - noturallits - and hobbyists. Comes equipered with $111 / 2^{\prime \prime}$ tripod and mount and sippered leother carrying case for both scope and ripod. Shpg. wi., $21 / 3$ lbs. <br> F-149 <br> Not 17.95 <br> AUTO-BOAT COMPASS <br> - Cars-Bcats-Trucks-Tractors <br> - Illuminoted and Non-Illuminated <br>  <br> Mounti anywhere on cors-boots-truck-fractors-mator. cycles. Non-glore, universal mounting bracket. Most cosily compensated composs ovailable. Just o twist of the boltom or lop knob. Extremely occurate. Conitructed to withstond all driving shocks. Important to the dolly driver, hnvolvoble for boots and Hrociors. Lorge viewing window and houres for ease of reoding. Includes meunt ing occessories ond instructions. Iltuminated model in cludes boith 6 and 12 volt bulbs. Shps. Wi. 1 ib. <br> F-322 Non-illuminoted <br> F-323 Illuminated Model <br> Net 3.75 <br> Not 4.49

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## - Not - gadgetmber real in - Mesures Alstasces on ay eho map.

- Measures curved or Irregaler shepes.
Enctusive at Lafayaftal a map meanurer with builtin compasil For the motorist - camper - huntor boeting onthusiast. An indisponse. bte unit of equlpment. Jusf trece along route on mep and mulfiply miles-per inch lactor by reeding on diel. Also reads directiy in inches up to 14. Sulttain magnatic compest has cardinal and secondary points-full 3w merkings in Complete with leather shoath Shpg. Wt. oz.
$1-47$
POCKET GENERATOR FLASHLIGHT
- mo sarfienes - ive
- alwars ceaer to oplayil

The perfect pocket fashlight for home-car It or tht juit by aucessitre setivation of bright Ifght jubt by surcessive activation of geperdead. Balanced fiswheel generator for eose of operation. Only $2 \%^{\prime \prime}$ 天 $1^{\prime \prime}$ E $1 \%^{\prime \prime}$, ilp: esally Into pocket or purse. Never wears out. Ideal for campers-touriste-motor-
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Tell inside ond oulside tomperoture instontly - from the comfort of your room. Inside location - ideod for quick. eory reoding. Dual fuber single sole for
 ${ }_{48} 8^{-1}$ monern $^{2}$ bulb. Lorges scole numerol for eowe of bulb. Lorge scole numerol for
reading. No maving reading. No moving
worn. Shpg. W.
It
F-321
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$\overline{\underline{2}}$


## MARCHING

 COMPASS onive 2.45Mode in Germany by the leading European composs manufocturers. Indispensoble for campers, hikers, hunters, lourists, etc. Jewaled needle-luminous cordiing line and mirror for scele, 0.64 and 0.360 -sighting line and mirror for aceurate beorings-locking device-seting edge callbraled in mitlimetres - rugoed, ebony finish cose. Can also be used to meosure the width of on obiective. Complete with instructions.
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## POWER MAGNET

## - IFTS 50 TIMES ITS OWN WEIGHT

Mode of Alcemox-a material with 12 times the mognetic energy of fungston treel. Designed for most efficient performonce/weight rotio - will lift up to 50 limes its own weight. Morsesho shope with plated keeper. Ideal for such applications oi mognelle clutch, fifiling, work
 Distonce between poles is $7 / \mathrm{s}^{\mathrm{c}}$. Shpg. wi., $1 / 2 \mathrm{lb}$. F-55

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## POCKET MAGNET

An Alnico magnel useful for inspection of hordwore to cort steel from brass, os a retriever of small parts. Highly efficient. Size $1^{\prime \prime} \mathrm{A}^{\prime} 1 \%$ " $5 / 16^{\prime \prime} \mathrm{D}$. $1 / 6^{\prime \prime}$ berween poles. Shpo. wi. 3 oz. With ploted keeper.

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## LABORATORY SET

This set has been specially designed for schools, loboratories, and techniclons, for testlag and demonstroting tories, and technicions, for testing ond demonstroting the magnetic properties of parmonent magneth. Fine hard-
wood case confolnt o poir of bor mognots $2^{n} x^{1} 1 / 3^{\prime \prime}$ diam..

 with $5 / 16^{\prime \prime}$ ipacing between polot, ond a bridge mognet
$7 / 16^{\circ}$ high $\times 28 / 32^{\prime \prime} \times 5 / 16^{\prime \prime}$ deep with $14^{\prime \prime}$ ipoce beiween poles. Shps. wt., $11 / 2 \mathrm{lbs}$
F-58
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- miniature atom SMASHER
- PRODUCES 75,000 volis
- ABSOLUTELY

SAFE
In no sense of the word a tay er gadget. The ATO. MOTRON is a cienilic instrument copoble of produc. Ing 75,000 volts-makes sporks up to $2^{\prime \prime}$ long-yet if is absolutely sofe because the current is infinitesimal. The science teacher-science lover-or hobbyist can perform experiments to astound students-friendsfamily. Makas smake disoppear-defy grovity-furms fropellers at tistonce trantorme afomie eneroy into pight artificial liohtning amashas atomot light-mokes artificiol lighining-simashes aloms-dem onstrotes lonic spoce ship drive and many other ex periments. Constructed of the finest materials. Will do exactly-for instruction purpeses - what generators that cost 3 to 10 ilmes more will do. The perfect device to teach the secrets of afomic physics and electricity. Will hold an audience spallbound as it perfarms trick after amesing trick. Includes an experiment kit and illustrofed experiment manual. Manval explains the "haw and "why". You will invent many new experiments of your own. A fine research tool that will give years of beneficial service to the intitution or individual who awni one. Available In tit farm ar assembled. F. 324 Klt form-Shpg. Wt. 3 lbi. ..............Not 14.95 F. 325 Assembled-Shpg. Wi. 4 lbs. ........ Net 19.95

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- Counte 0.0000
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Registert 0 to 9999 . Highly polished chrominm ploted brass cese. Attoched finger ping and compoct shape for comfort in holding. Plunger operoled for mooth, eovy of tion. lorge, clearly read num erals. Knurled reset knob set register to zero in one furn Preclilon oceuracy for lob, school and industrial users

Invaluoble for inventory con tral-gate checking - trofic, efc. Smoll Slize, approximato ly $1-5 / 16^{\prime \prime} \times 13 /{ }^{\prime \prime}$. permiti conceoled operation. Shpg WI. $1 / 2 \mathrm{Ib}$.
F-4 8
Net 2.75

## 5 DIGIT COUNTER

## - INDUSTRIAL TYPE

## - 0-99999

Ruggedly mude - amallcceurato 0-99999 counter. Has flange drill-ed-rendy to mount Re-
nets to O sets to $0^{\circ}$ by turn ufte-
set knob on side. Case aet knob on side. Case Complete with Apring And metunting arm
Shps. Wi.. $1 / 2 \mathrm{lb}$.
F. 100
4.35

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- Warmith for up to 24 hrs.


## - With new-improved burner



Indispensible for ouldoor aclivities on cold days. For hunters - fishermen on cold days. For hunters - fishermen sports fans-skaters. skiers - gotfert. Use lighter huld. benzine. white gas as fuel. Sofe - practical. cold weother sports accessory. Can not burn - or splll on clothing. Ideal
for TV installation work in cold for TV Installation work in cold weather. Slim ottractive. pocket sive. $4^{4}$ I $21 / 2^{\prime \prime}$ \& $1 / 2^{\prime \prime}$. Heavily chrome ploted. Complete with veivel
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F-188


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 - PURNISHES ERIGKT, TVEN LIOHT Spociolly dosigned for microscoos lllumino. Hlon. Providee a bright, evenly Hg hited field of view. Controlled intenily, by mans of tocus. oble condenser lons. Lamp may be ralied orlowered to any deaired holaht on iss $4 \mathrm{~h}^{\prime \prime}$ lanchion. Inclination and slevetion loint pormit swinglng through $360^{\circ}$ in boith horizon. tal and verlical plone. Fully adushoble for transparant or opaque ipecimans, direct or
Indirect illuminotlon. invaluoble whore obIndiave Hg hi is noteriory. Operale on 110.120 volth ACIOC noceriary. Opersie on 110 . 120

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An ingenious, Inerpensive device to aid In centering-positioning-and shifting slide mounted subjecte. Designed to work with our F. 264 and F. 270 microscopes-or athers having no lerger steges. Made entiraly of pleted brass. Will accommodete slides up to $1^{\circ} \mathrm{z} 3^{\prime \prime}$. An Indispensable eccessory for the ceroful study of mounted miero-sublects. Q. 122

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reulde for beginneri and odvanced users of microscopes. How the microscepe werks. How to prepare and study culfures - iet up a micrascepic soe and eorden - orow micro organiom - perform aitro sureery. Profusely lllus troted with phasogropht ond drawings, Id chaptern of easy-forreod, highly
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Makes slide viewing a pleasure Versatile built in odoplor centers all slides for carrect magnification. Transparencies ore bribe liently illuminated and enlarged through a fine optically ground and polished lens. Electrically operoted-quipped with bulb, socket. on-off switch, 6 ft . cord and plug. All steel construction-finished in platinum grey enamel. Shoe. wi. 2 lbs. F. 26

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35 mm SLIDE FILE (G)
Portable all steal 35 mm slide file. Store $1502 \times 2$ gloss slides or $3002 \times 2$ cordboord slides. Includes index cord, and numbered strips for quick, easy identification. Metal handle and 2 nap catches. Finished in platinum gray oenomel. Shag. wit. 3 lbs F-161

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 - Regular $\$ 6.95$ Volvo Five section sturdy brass tripod. Extend to $45^{\prime \prime}$ - toloseopes down to $121 / 2^{\prime \prime}$. Weighs a scant 16 oz . Chrome trimmed head hos tension adjust screws for each leg. Fits all tripod sockets. Positive lock. ign action. A "must" to toke the "jiggle" out of those special shots. Shops. wt. 2 lbs. F-214TELE-VUE 35 mm VIEWER ( H ) - self Illuminating Accommodates all $2^{\prime \prime} \times 2^{\prime \prime}$ or Bantam slides. 200 ms in and out for "wide angle" or "telephoto" effect. Bolter operated pocket sized. Crown gloss lens optical symtom for clear-sharp - distortion free view. ing. Designed for easier handling. Extra 1 16. F-273

1(C)

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Sturdy brass construction - high polished chrome finish. Camera retaining screw rotates - makes fuming camera unneces. sary. Weighs only 4 oz . Handle is detach able for compactness. Twist of handle locks both pan and till. Pans $260^{\circ}$ tilts approx. $145^{\circ}$. Shpg. wt., 8 oz.


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F-160
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Fastest: Finest! Lowest Prices:

## - $1.1 / 2^{\prime \prime}$ f1.4 Telephoto <br> - $11 / 2^{\prime \prime}$ f1.9 Telephoto <br> - 13 mm f 1.2 normal lens <br> - $6.5 \mathrm{~mm} f 1.4$ wide angle <br> - $6.5 \mathrm{~mm} f 1.9$ wide angle <br> - Matched Sets

Lafayette - and only Lafayette - has these lenses af price never before porsibiel Now you can odd that distant scene those exciting close ups. Add unlimited versatility to your movie camera. The finest coated optics ore used throughout fully color corrected. Fit all 8 mm camera with standard D mount such os Kodok, Keystone, Revere, DeJur, Boles H8, otc. Satin chrome finish. Removable lens hoods. Accept standard filters. Individual lenses complete with leather cases. Sets or pocked in jewel type presentation in cose. Complete with ton caps.
$11 / 2^{\prime \prime}$ f1.4 Telephoto: Fastest ovailoble lens for 8 mm . Exceptional speed - extreme sharpness. Focuses $31 / 2 \mathrm{ft}$. to infinity. Click stops ft .4 to fl 6 . $3 x$ magnification. 5 element lens. Focusing mount. Shipping woight, 1 it
F-299 list 44.95
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Not 24.50
13 mm f1.2 Normed: Extremely high speed normal. Permits closeup of wide overture. Use under lighting
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F-302 List 38.95
Net 14.95
6.5 mm f1.9 Wide Angle: Covers $4 x$ oreo of normal lens. 8 element retrofocus formula. Fixed focus for universal focusing. Click slops 11.9 to $f 16$. Shag. Wi., I Ib
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F1.9 Matched Set: The "Best Buy" possible for the movie comer font both fI .9 Telephoto and fI .9 Wide Angle in deluge, jewel type presentation case. Shoe. wi., 2 lbs
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Exceptionally fine flash gun. Designed for use with twin-reflen cameron -dually useful with any synchronized comer. Extra sturdy bettor co se of chrome oloted brass. $51 / 1^{-}$heavily chromed reflector totes tither beyonet bose or serow bose without odoptors. Bulbs lect in firmly-iect surely. Mos intension socltet-lest switch $\rightarrow$ /off switch for conserving batteries. Entro heavy brocket and $3^{\prime \prime}$ E $3 \mathrm{y}^{\circ}$ plot form holds oil comoros firmly. Uses 2 "C" |t \| botterien B.C pock such as Mallory PX -10. Gun may be removed from bracket and hand hold for "bound e-flesh". Jaciudes detachable corl-mounting bracketrest bulb. Shpt. Wi.. $21 / 2 \mathrm{lbs}$
F-275

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Telephofo shofs - wide angle shops or extreme close ups. Eosy os 1-2-3 with the new Toron avzillary lenses. Eoch lens is hord coated for moximum light tronsmission. Prefocused and color corrected. No increase in exposure setting is necessery. Wide ongte ond telephoto lenses screw into lens mount. Bring your subject twice os close pensoble for panoromic shots. Close up lens til conslsts of $+1,+2$, ond +3 Proser pensoble for panoromic shots. Close up lon kif consists of +1 , +2 , ond +3 Proxar
lenses - ollows focussing down to $s y / z^{\prime \prime}$ for omozing close-up resulis. All Toron ouxiliory lenses or supplied in cowhide coses. Use with ony color or block ond whito fitm. The close Up lonses require an adopter ring for mounting on your comero, Shpg. wi. of each auxiliary lens approx. 6 ors.
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view finder. Shpg. Wf., $11 / 2$ lbs.
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F- 298
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- FOLOS LKE A FAN TO " 2 2"1
- EFFICIENT E-C OPEAATIONE

Brand hown mit - unique - poctef size - comprefely tolding diemeter molol refector hot pobbled finish Ension! $41 / 2$ hot ipots. C combination for tufefire and hi voltoge. Heary molded boffery cose with buill in renl lamp - bull -iester - eatension sochet. Stondard shoe with orencure odiust fis eccessory clips. Uses spondord bovonet bose
Hash bulbs. Novel. uselul erporvie avide built in on Hosh bulbs. Novel. useful erporvre evide built in on ceor of core. Complete
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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PF 1. | M | 12 | 49 | . 46 | . 44 | M2 |
| 5 m | F | 10 | 1.19 | 1.13 | 1.05 | SF |
|  | M | 8 | . 84 | . 78 | . 74 | Press 15 |
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Precision bulli-accureto-for all cemeros. Focus by superimposed Imoge in cloar brilliont finder. Dial meosures frem 2 feet to in. finity. Hos stondord "foot" to fit occessory thae on most comeras. Outside odiustment screw aliows resatting for continuous accuracy. Sheck proof, non-cor reding metal housing. Simple-to use single knob focusing. Only $21 / 2 \times 3 / 4 \times 3 / 4$ for pockef or gadget beg. With leather cose. Shpg. Wi. 12 oz
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Permifs use of ony lens occessory in some series. Fits oll stondord comeros. RANGE B - for lons mounts from 231030.5 mm - Series 5 occessories.

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Most effective polorizing screen and view combinotion. You see the emocl polorizetions needed for your pictures. Controls refections from surfoces such os glass, woter, wood, ic. Yields spectoculor sky fficts. Use for fode in-fode oul-lop dissolves. Threoded front ond bock for use with odditionol occessories. Supplled with pouch and completo instructions.
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## Safayette Lead Valuesin radio SETS <br> THE LAFAYETTE NOVELETTE The First Reolly New Idea in Pocket Radlos in Twenty Years.



- POCKET SIZE: The set meosures only $51 / 2^{\prime \prime} L \times 31 / 0^{\prime \prime} H \times 11 / 2^{\prime \prime} \mathrm{D}$.
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The Lafoyette Novelotte is the finest handiest little partable sot you can buy. Becouse the specker is in its own praperly baffed cose free from the space Jimitotions of selfcontained pookers, the fone quallty is superb. A $31 / 2 \mathrm{ft}$. extension card enables the speaker to be placed conveniently wherever desired so all con hear. When you want to listen "silently" withaut disturbing onyone else, you simply plugin the persanal earpiece in ploce of the speaker. It is therefore ideal for bath home use ar ta take with you on picnics, camping, of wherever you go. It slips right into your packet. The circull is very selective, sensitive, and powerful using 4 tubas with builtin antenno. the Noveletto comes camplete with tubes, speaker and earpiece. Less batfories. Shpg. wi. 3 lbs. FS-100 - LAFAYETTE NOVELETTE ......... (less batteries) .........................Not 17.95
Roqulres 1 - Burgess U30
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Net .10


## NEW "5 in 1 " ALL TRANSISTOR



IT'S A POWERFUL POCKET RADIO, HEARINO AID PRIVATE LISTENING RECEIVER, EABY-SITTER -INTERCOM ANO AMPLIFIER POR REMOTE RECEPTION.
A now tronsistarized miniature high power pocket partoble with good sensitivity and tons quallity. A singte, extra long life, low cest battery powers the unif far ing ald by a hip of a swisch and plug.in of carphone. The eorphone also converts the recelver to a sensitive personal radia for Individual listening. By plugging in a remate specker, the unit becomes an intercom boby sitter or sickreom colling device. The plug-in speoker sifter or sickream calling device. The plug-in speoker
can also be unlized for additional volume for radlo reception af ony remole point. Has built-in looplonno and ferrite luned if transformer. Genulne leather case and carrying hondle. Shpg. wt., i lb.
IN-458-Less Battery and Earphone ........ Net 36.30 M5-366-Sensitive Matching Eorphone.........Not 1.29 Burgess 2N6 or RCA VS305 Battery for Receiver Net
1.30


- MAKES ANY TV SET AN FM RECEIVER
- COMPLETELY TRANSISTORIZED
- SIMPLY INSTALLED BY ANYONE

The Regency Madel RC. 103 ToleVerter mokes ony TV sel on FM receiver of the nip of a switch, yet does not intorfere with normal IV reception. Ufilizes the IV audio system ond lorge spooker baffe to produce tane quality for superior to smoll toble model FM recoivers. Completely tronsistorized, its power source is 3 tiny pon.
light botterios with eurront drain so fow ( 300 HA) thot light botterios with curront drain so low ( $300 \mu \mathrm{~A}$ ) thot battery life oxpectancy oppraocher shelf life. Simply installed by onyone in 5 minutes-the only connections necessary ore to TV set antenna torminals and ontenna.
Meets FCC radiation requirements. Lorge cosy-ta-read dial and planetary drive make Ane tuning easy and razar sharp. Haused in attractive $41 / 2^{n} \times 0^{\prime \prime} \times 41 / 2^{\prime \prime}$ plastic cabinet. Shpg. wt., 5 tbs.
Regency © C -103-FM TELEVERTER.

## 4 TRANSISTOR PORTABLE SUPERHET RADIO

### 28.85

- 3 TUNED IF STAGES
- FULIY AUTOMATIC VOLUME CONTROL
- powerful alnico 5 Speaker
- ferrite loop antenna

A transistarized portable superhef utllizing 4 triede tronsisters plus diade and trouble.free printed circuitry. Full baodcost coverage 540.1620 KC with ferrite loop ontenna insuring high senslfivity. Output transformer coupled to Alnico 5 PM spooker with excellent tone qualliy and power. Scuff-proaf Toman case in simuleted cowhide. Slize $61 / 4^{\prime \prime W} \times 5^{\prime \prime} \mathrm{H} \times 21 / 4^{\prime \prime} \mathrm{D}$. Weight with battery less than 3 lbs. Shpg. wf., 4 Ibs.
IN-459-Less Botfery
Net 26.93
Burgess M6 Battery
Not 1.05


An all-transistor portable radia having hi-gain super. sensitive reception. A class B push-pull output stage supplles abundant power to the 4" Alnico speoker. The superhet circuit features of tronsistors and a diade, fully outomatic volume control, trouble-free printed circuit, and forrite loop antenna. Exceplianal sensitivity, ss. lectivily and interference rejection is ochleved by the 3 stages of if amplification. Welght with batteries less thon $31 / 2$ lbs. Scuff-proof Texan case in British Tan. Size $91 / 4^{\prime \prime W} \times 63 /{ }^{\prime \prime} H \times 31 / 4 " D$. Shpg. Wt., 5 lbs.
IN-684-Less Botiery
Net 32.50
Burgess D8 or RCA V5306 Baffery............Nef 1.16

## TABLE MODEL SUPERHET



Hondsome cempact table model distinguished far its unusual styling and performance, Latest AC-DC 5-fube superhet circult provides surprising sensitivity and se. lectivity, with built-in ontenno for strong reception ony. where. Complete broadcast band coverage fram 550 ta 1700 KC with excelient clear tane qualities on oll sta. tions. Civilion Defenso Conelrad freavencies clearly indiceted. Refreshingly styled in ottractively calored bokelite cobinet with ivary trim. For 110 volfs $A C$ or DC. Size $81 / 2^{\prime \prime} \times 51 / 4^{\prime \prime} \times 41 / 2^{\prime \prime}$. Shps. wi., 5 lbs.

IN-591

## deluxe clock radio



- SELF-Starting clock
- SWEEP SECOND HAND
18.95
- 5 TUBE SUPERHET CIRCUIt

An incomparable clock rodio value. Solf-storting clock has sweep-second hand. Turas radio on outomatically, also has buzzer which sounds if you doze off again. All clack knobs ore conveniently located on the front of the timer with Alarm set. Time set, and Radia "on-off" switches clearly indicatod. Oullet provided for furning on appliances of preset time. Superiar quality 5 tube superheteradyne recelver, brings in signals shorp and superheterodyne recelver brings in signols shorp and
cleaf. Beautifuliy styled in atiractive colars. Sizes $81 / 2$ cleaf. Beautifuliy styled in atiractive colars. Sizes $81 / 2 "$
$\left.\times 51 / \mathbf{s}^{n} \times 41 /\right)^{\prime \prime}$. For $110-120$ Yalt $50-60$ cycle $A C$ only. $x 51 / s^{\prime \prime} \times 41 / x^{\prime \prime}$.
Shog. who, 5 lbs.
IN-592
Net 19.95

## 4-SPEED PORTABLE PHONOGRAPH



With this portoble phonogroph rou can play any record up to $12^{\circ}$ size at $331 / 3$. 45 or 78 ram , or at the new "Talking sook" speed of $16-2 / 3 \mathrm{rpm}$. A single lever selects any speed. The lightweight pickup selects any speed. The lighiweight-pickes arm is equipped with o single all-purpose needle, for all recerds. A special hub, for
45 rpm records, is provided; the hub re. tracts below the furntoble level when other records ore ployed. Volume cantral with on-of switch. Fine quality Alnico is pm speoker. Attroctive 2 -fone leotherette-covered case. For 117 volts, 60 cps AC. Dimensions $12 \frac{1}{n^{\prime \prime}} \times 101 / 4^{\prime \prime} \times 51 / 4^{*}$. Shog. wi., 9 lbs.
PH-60

## DELUXE 4-SPEED AUTOMATIC CHANGER



- VM high fidelity intermix RECORD CHANGER
- turnover cartridge

This deluze 4 -speed pertoble phonogroph with VM automollc A-speed chonger will play of $16-2 / 3,33.1 / 3,45$ and 78 rpm speeds. Automotic shut-eff ofter last recard. Powerful omplifier uses 2 tubes selenium rectifier. Feotherwaight pickup feotures a dual reversible cortridge; woch side hos its own leng-ifie needle. Seporafe volume and tone controls. $6^{\prime \prime}$ and 4" Alnico 5 pm spookers provide wide ronge frequency cesponse with amoting "ifereo. phonic" effect, making you feel os if octuol orchestra or sololst are "present." Chonger styled in lvory and gold; quiet. smooth-eperating mechanism good for years of trouble-free operotion. Covered in Chorcool and silver Tutone leatherett. For 117 volts, 60 cps AC . Size $16^{\prime \prime}$ Tuione leatherette. For 117 volis,
$\times 8^{\prime \prime}=14 \%^{n}$. Shpg, wi., 20 lbs .
PH-64

## 4-SPEED PORTABLE WITH TURNOVER CARTRIDGE



Entremely campoct, light in woigh. Turn. over cortridge provides separate noedles for mienograove $\{33-1 / 3,45$ or $16-2 / 3$ rpm ) and for standord 78 rpm records. A single lever contral selects any speed. Pre. cision. heary-duty motor for constant speeds. Mos quality ou Alnico 5pm speoker, sepors. Mos quality valume and fone contrals. Reseparafe volume and fone contrals. Re-
rroctable 45 rpm spind buit in: olayer tractable to rpm spind buil in: ployer
toterd sires up to $12^{\prime \prime}$. An ezcel. totes all record sires up to $12^{\prime \prime}$. An ezcellent phonograph at on unusually law price. Covered in altroctive Green Cobro
ond lvery Tuione leatherette. For 117 and Ivery Tutone batherette. For 117 valts, $60 \mathrm{cps} A C$. Dimensions $16^{\prime \prime}$ I $61 / 4^{\prime \prime}$ " $12^{\prime \prime}$. Shos. wt., 1? Ibs.
PHe6 1

## NEWEST LAFAYETTE HIGH-FIDELITY "STAR"

## -

GE Reluctance Triple Play Cartridge
With 2
Sapphire styli


PORTABLE 45 RPM AUTOMATIC RECORD CHANGER


- plays a stack of 14-AS RPM RECORDS AUTOMATICALY
An attroctively styled partable phonograph for all types of 45 SPM records. Self-contained powertul amplifier and Alnico $V$ speoker. Aufamoticoliy chonges records plays of full stock of 14 for up to 2 hours of continuous music. Mas full range volume contral. Wood cose, with lock corner construction is covered in chercoal stripe lootherett with ivory frim Truly poriable anly $8 y^{\prime \prime}=103 \mu^{\circ}=7^{\prime \prime}$. Shpe wi., 9 lbs. M-42

Net 26.95

## DELUXE HI-FI PORTABLE CHANGER



- garrard changer - ge CARTRIDGE 2 SPEAKERS
- PUSH-PULL AMPLIFIE

This portable phonograph contains the world-fomous Colloro 4-spoed automotic record changer, mode in Englond. Powerful 4-pole motor, weighted furntable and feotherweight tone armi iom-proof, child-proof meshonism; outomotis muting swlich, and automatie intermixing of $10^{\circ}$ and $12^{N \prime}$ recards - are but a fow of the outstonding feotures. Equipped with the GE "tripleplay" high Adelitry cortridge with dual sopphire styli. Incarporates $06^{\prime \prime} \times 9^{7}$ Alnico 5 pm widerange speoker and $04^{\prime \prime}$ Alnico 5 pm high frequency spooker (fweeter) to provide o stortling "presence" ffect ond a response of 50 to 15,000 cps. Seperate bess and treble tone controlis, volume control, nepative foodbock - oll combine to provide an excellent high hidelity phonogroph. Covered In your cholce of Charcoal Cobra Grain with tvory Congn or Ginger Congo and tvary lootherette. For 117 volts, 60 cps AC. Sizes $20^{\prime \prime} \times 13^{\prime \prime} \times 9^{\prime \prime}$; Shpo. wr. 25 lbs.


Lafoyette's finest high.fidellty outomatic portable. Incorperates the world-fomous Garrerd automatic record changer, importod from England: Equipoed with GE "triple-ploy" mognetic cartridee with dual sepphire styll. The powerful push-pull omplifier tos 4 tubes plus selenium rectifier: seporat boss and treble tome controls; nium rectifier: seporate boss and treble tome controls; laudness central; and centour centrol. The combinotion of the last 2 controls provides extre boost of the extreme high and low ends of the audio soctrum ro compensate for the choracteristics of the human cor. 2 spookers, $8^{\prime \prime}$ ond 4" Alnice 5 pm for 50 to $15,000 \mathrm{cps}$ responce with minimum distortion. Caverod in rour shoice of Charceal Congo with Ivory trim or Brown ond Ivory leatherette. $\operatorname{Sise} 201 / \mathrm{c}^{\prime \prime}$. $131 / 2^{\prime \prime}$, $81 / 4^{\prime \prime}$. For 117 volis, 60 cpiAC . Shpes. wi., 25 lbs.
PH-6.5
Net 77.25

## Delure \#i-7i Consde Phonographs

## HIGH FIDELITY CONSOLETTE

- collaro 4-5peed record changer
- TWO $8^{\prime \prime}$ COAXIAL SPEAKERS - $50-15,000$ CYCLES ID.

This smortly styled consolotte is precision engineered for ocoustics that give high fidelity reproduction in a cobinet that tokes a minimum of spoce. The 5 woll push-pull printed circult amplifier feeds iwo heovy duty $8^{\prime \prime}$ cooxial speakers (eash speaker hos a built in high frequency tweeter). The Colloro 4-speed record chonger is equipped with o wide ronge high fidelity furnover cortridge with dual sopphire needles. Frequency response from $50-15,000$ cycles. Terminals are provided for the oddition of exlernal speakers, should such be desired. Refreshingly modern styling which lends dignity to ony decor. Beautiful cabinetry of auolity construction throughout, with lang delicotely topered legs hoving oltrostive bross ferrules. Fine furnifure finish. Dimensions ore $27^{\prime \prime} \mathrm{H}=22^{\prime \prime} \mathrm{W} \times 15^{\prime \prime} \mathrm{O}$. Shipping weigh:, 52 lbs.
PH.66-Mohogony
Net 99.50
PH.67-limed Ock Nel 99.50

## DELUXE HIGH FIDELITY CONSOLE

- 12 WATT AMPLIFIER 20-20,000 CYCLES
- JENSEN 12" COAXIAL SPEAKER
- collaro 4-speÉD Changer


## - GE CARTRIDGE

189.50

Superb siyling designed to blend with elther contemporory or troditional furniture, finished in genuine mohogony veneers. This hi-fi phono system hos a powerful push-pull 12 wolt omplifier with buill in preamplifier. The 4 -speed Colloro chonger is equipped with the GE vorioble reluctance triple play cortridge with dual sapphire needlos. The speaker is a Jensen Concert Master cooxiol specker consisting of o 12" woofer ond high frequency tweeter. Seporote boss ond Ireble controls, plus o special Munsen circuit that governs outomotic boss boost at low volume, ossures you of proper tonol balonce. Wide frequency ronge sovers $\mathbf{2 0 . 2 0 , 0 0 0}$ cysles. Printed circuit construction Insures trouble froe operotion. There is storage space for resords ond a recoptacle for odding external speakers, if dosired. Size $29^{\prime \prime} \mathrm{H}$ $\times 261 / 4^{\prime \prime} \mathrm{W} \times 15 \%{ }^{\prime \prime} \mathrm{D}$. Shipping weight 65 lbs
PH-68-Mohogony
Nat 139.50
PH.69-Blonde
Net 139.50

## FRENCH PROVINCIAL DELUXE CONSOLE

## - 15 WATT AMPLIFIER <br> - 20-20,000 CYCLES <br> - 2-12" JENSEN COAXIAL SPEAKERS

199.50

- COLLARO 4-SPEED RECORD CHANGER
- GE CARTRIDGE

A custom crolted outhentic French Provincial console that combines mognificent high lidelity perform. once with fine furniture styling. This grocefully propartioned cobinet is o mosterpiece of fine cobinetry ond oncloses o phono system thot consists of o 15 wott amplifier with built in preomp, iwo $12^{\prime \prime}$ densen Concert Moster high fidelity cooxiol speakers ond the fine Colloro $4-5 p e e d$ record chonger with GE triple ploy vorioble refuctonce cortridge with duol sopphire needles. Frequency response covers the entire oudible ronge from 20 to 20,000 cycles. There ore seporote extended ronge boss ond treble controls. Technicol feotures Include push-pull omplificolion with negolive feed-back circull ond boss boost, speciol Munsen circuit governing outomotic boss boost of low volume levels, and trouble.free printed circuit construction. Terminals ore provided for externol speokers if desired. Pilot light. efc. Dimen. sions ore $301 / 9^{\prime \prime} \mathrm{H} \times 271 / 3^{\prime N} \mathrm{~W} \times 181 / 2^{\prime \prime} \mathrm{D}$. Fincly finished in fruifwood. Shipping woight 80 lbs PM-70-List Price 289.95

Net 199.50

69.50


A fine hi-fi portoble instrument with outstonding record ploying features ond perform once to provide onterfoinment everywhere. Feotures o deluxe 4 -speed Webcor outo molic record chongor. A 3 -speaker system consisting of one 8 "cooxiol 11 woofer ond 1 iweeter) plus one extra high frequency tweeter ond crossover netwark ond 2 -wolt hi-fi omplifier provide unusuolly fine tone quolity with o frequency respanse of $50.15,000$ cycles. All-wood corrying sose hondsomely styled with ottroctive iwo-fone colar combinotion. Operates on 110.120 volts 60 cycle AC. Dimensions $151 / 3^{\prime \prime} \times 19 \% /{ }^{\prime \prime} \times 9 \%$ Shlpping welght, 28 lbs.
PH-71_-List Price 99.95
Net 69.50
Poge 178

DELUXE TABLE MODEL PHONOGRAPH

- 3-SPEAKER AUDIO SYSTEM
- SELECTEO HAROWOOD CABINET
- 4-SPEED WEBCOR RECORD CHANGER
- aUTOMATIC AMPLIFIER aND ChANGER ShuTOFF 1BoJ

As beoutiful to look of os to listen tol Embodies both syyle and performonce to provide excitingly realistic high fidelity. Employs o 4 -speed deluxe Webcor outomotis record chonger with outomotic shutoff ofter lost record. The 3 -speoker system inctudes 2 woofers, o high.frequency tweeter ond crossover notwork. The 5 wall hi-fi push-pull amplifier utilizes a negotive feedbock circuit ond has a frequency response of 50.15 .000 cycles. Superbly finished cobinet of selected hordwoods. $20^{\prime \prime}$ brass legs ore optional. Dimensions ore $191 / 4^{\prime \prime} \times 181 / 6^{\prime \prime} \times 11 / 4^{\prime \prime}$ Shipping weight, 40 lbs .
PH. 72-Mohogory
List Price 119.95
Net 89.50

PH. 74 -Set of $420^{\circ}$ Brass logs for obove
Net 5.60 <br> \title{
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Bass control

# Years Ahead Of Every-Dither Preamplifier Control Usitt 


[^0]:    Here is a new manual player for the audiophile who wants nolseless, "wow-free" and rumble free reproduction of recarded music at nominal cost. All the important features of professional transcriptian pleyers hove been incorporated in this precision furnlable, complete with lightweight pickup arm. With iwo plug in carlridge shells for all stondard high-fidelity cartridgos. Player is equipped with a heovy duty, 4 -pole, 3 -speed motor for 78,45 and $331 / 3 \mathrm{RPM}$ records. An exclusive magnetic brake cantralled by knob on the base plate, permits instantaneaus fine adjustment of eoch speed. Stroboscope disc Included with unit, checks speods. Extremely smooth and quiet operotion. No hum oven with the most sensitive cartidges, Speed selectar sofety switch protects mechonism by making if necessary to pass through on OFF posilion when switch switch propects mechanism by
    $10^{\prime \prime}$ diameter, heavy turntable is supplied whith a rubber troction mat for pastive grip af record Stylus pressure adjustment can be made easily and quickly with the conveniently located adiusi ing screw on the underside of the tone orm. Maunting plate is also equipped with pickup rest and ON.OFF swifch. Dimensions of mounting plate: $12.15 / 16^{\prime \prime}$ left to right, and $10 \%$ " front ta rear. Requires $23 / 4$ " clearance below motor board and $3^{\prime \prime}$ above. Supplied with AC line cord, two plug-in heads, output cable for connection to omplifier ond 45 RPM adapter. For 105.120 volts, $\delta 0$ cycle AC. Shpg. wi., 12 lbs . Less cartridga. (NOTE: Fop pratection in ship ping, tone orm is separale. Just fasten to mounting plote.)
    PK-160-Monual Player.
    Nel 25.95
    MODEL PK-162-WOOD BASE. Cut oul for PK. 160 Manual Player. Tap quality veneer
    ottracively finished in mahogany or blonde (sperify). Shpg. wi., 5 lbs...............Net 3.95
    MODEL PK-163-MOUNTING BOARD. Unfinished, cut out for PK. 160 player
    Strong, durable $\%$ " pumwood, ready for stain or paint. Shpg. wl., $1 \mathrm{lb} . .$.
    .95

[^1]:    1

[^2]:    ## PHILO PHON CARTRIDGES

    PHILCO ART 425-0011. Enact replacement for changers models M24, M24A, M25 and M26. With 2 Styli.
    Stock No. PK -94
    Net 6.30
    Philce port 425-00is. Exact replacement for changers models $M 20$ and M22. With 2 styli
    Stock No. PK -71
    Net 5.95

[^3]:    Page 90

[^4]:    Page 104

[^5]:    MODEL 990 HIGH VOLTAGE PROBE: Changeable fios, shockoroof, multidinsulatian, swive MOOEL 912 R.F. PROBE: RMS reodings thru 250 mc ; Far VTVM's, VOM's and Scapes MOOEL 912 R.F. PROBE: RMS reodings thru 250 mc ; FOr VIVMs, VOMs and Scapes MODEL 960 - 10 to 1 CAPACITY ATTENUATOR PROBE: Thru 100 mci less than 7 mmfo

[^6]:    No-23- mpt. wi. 1\% we.

[^7]:    Effortiosaly unwreps "machonically solld" joinm. Reems coldor from lug holes. Hes handle with stralght reamer tip.
    HD-36
    same al above with engled reamer tip.
    HD-177

[^8]:    UHF PRACTICES \& PRINCIPLES INo. 141). By Allon tryel. A clear discussion of UHF lechniques, circuits, transmitting and receiving equipment, practical applicotions, rest equipment, elc. Clath bound, $51 / 2 \times 81 / 2^{\prime \prime}, 400$ pgs. 285 il . lustrations.

