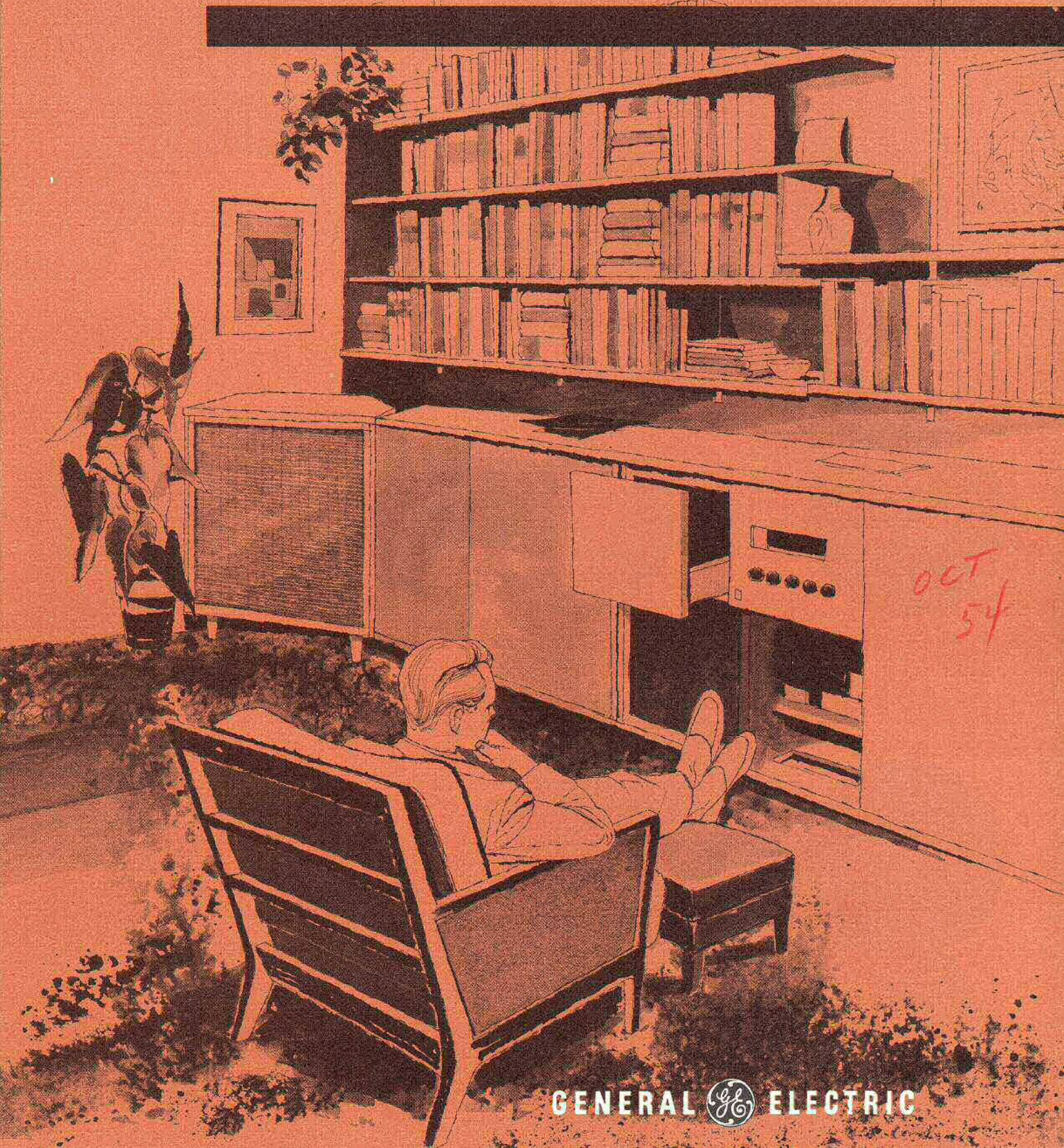


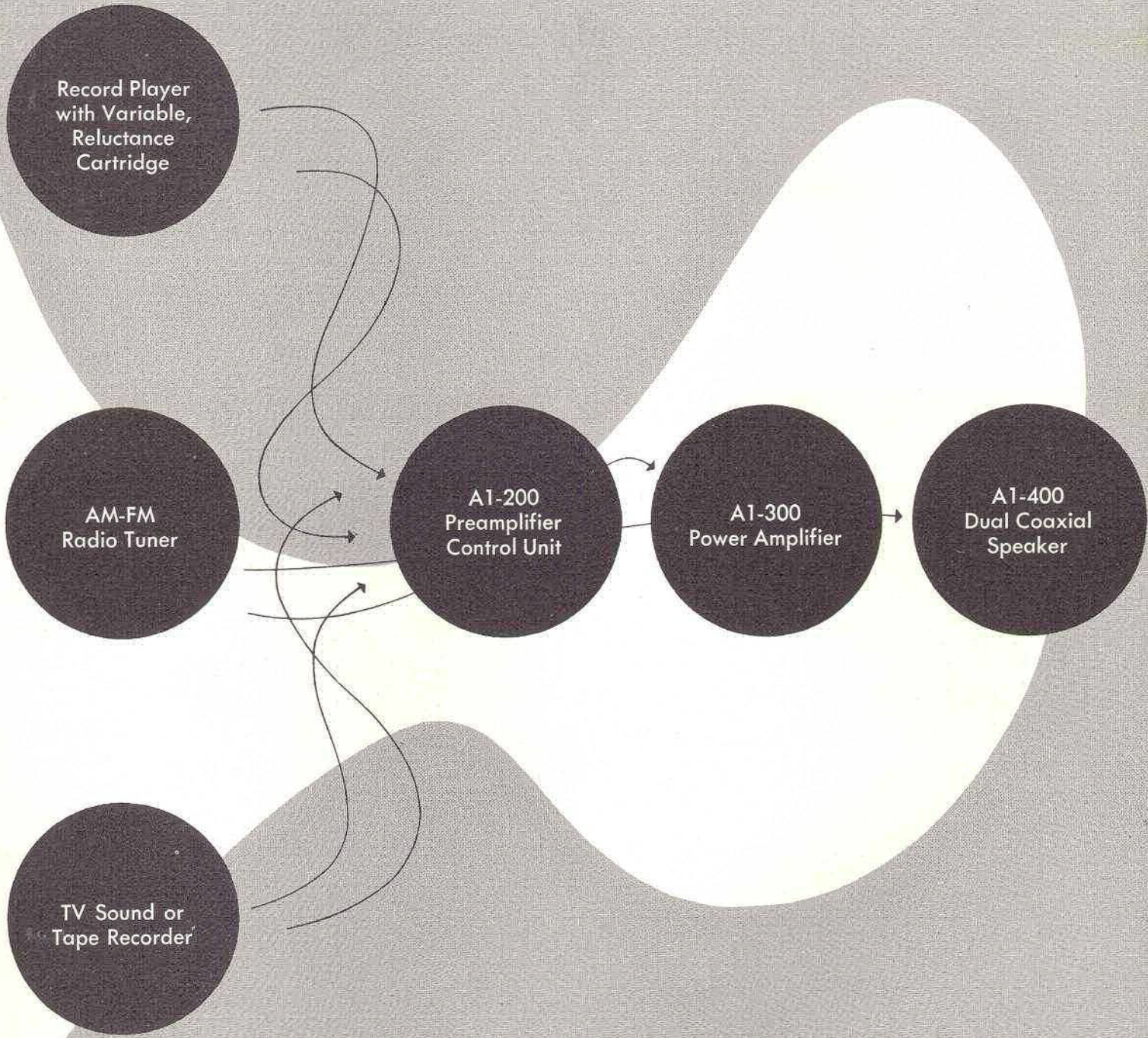


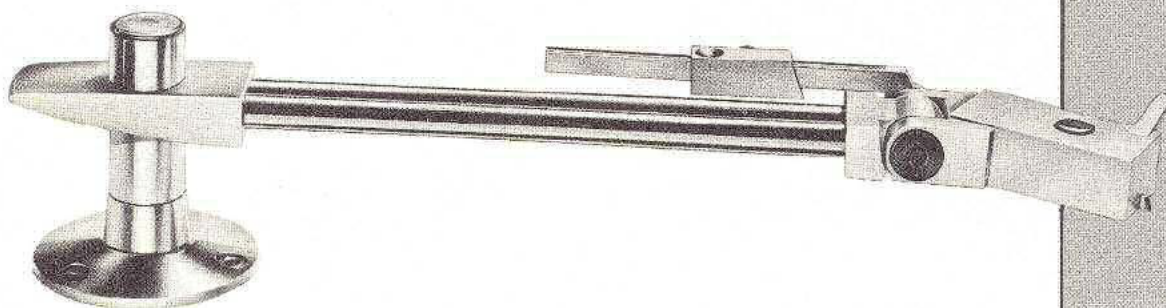
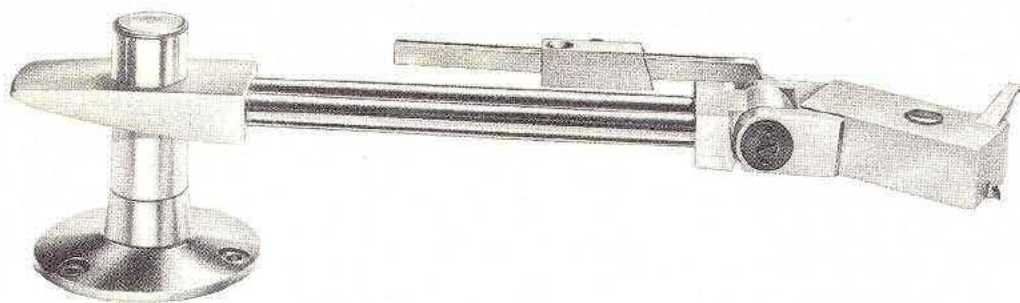
HIGH FIDELITY COMPONENTS



OCT
54

GENERAL  ELECTRIC

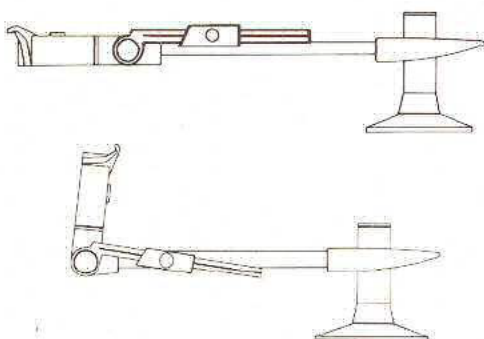




SPECIFICATIONS

The Model A1-500 tone arm is designed for use with records up to 12 inches in diameter. Model A1-501 is for use with records up to 16 inches in diameter and is designed for broadcast and professional use as well as for fine home music systems. Both arms are constructed of strong, lightweight aluminum for minimum lateral and vertical inertia.

The new General Electric "Baton" Tone Arms offer these outstanding features for the audio connoisseur:



1. Cartridge pressure quickly and accurately adjustable by means of sliding weight.
2. Stylus pressure shown directly in grams on a calibrated scale.
3. Cartridge head tilts upward 90° for easy stylus inspection.
4. Precision Ball Bearing System—Lateral and vertical bearings are assembled using precision ball races. Bearings are dust proof and lubricated for lifetime use.

5. Outstanding Tracking Ability—The exceptionally friction-free bearing system reduces to a minimum the amount of tone arm drag in tracking eccentric or warped records.
6. Spherical base mount permits perfect lateral balance.
7. No torsional resonances at all audible frequencies.
8. The cartridge head will accommodate all G-E Variable Reluctance Cartridges, including "Triple Play" models. Single cartridges mount on removable slides.
9. The height is adjustable up to 2 inches for various motor boards.

DIMENSIONS: Model A1-500 — 10 $\frac{7}{8}$ inches long. Model A1-501 — 14 $\frac{1}{8}$ inches long.

NOTE: TWO PLUG-IN CARTRIDGE SLIDES ARE SUPPLIED WITH MODEL A1-501 AND ONE SLIDE WITH MODEL A1-500. CARTRIDGE SLIDE KIT RKP-012 IS AVAILABLE FOR THOSE WHO WISH EXTRA SLIDES.

General Electric High Fidelity "Baton" Tone Arms

Custom Music Ensemble

Model A1-500
for records up to
12" diameter

Model A1-501
transcription arm
for records up to
16" diameter



Custom Music Ensemble

Model A1-200
high fidelity
preamplifier
control unit

Wood Cabinet

for A1-200
Unit



MODEL	FINISH
A1-210B	BLOND OAK
A1-210M	MAHOGANY
A1-210U	UNFINISHED CHERRY

SPECIFICATIONS

The General Electric A1-200 Preamplifier Control Unit is a completely self-contained, self powered unit for high fidelity home music systems. It combines the functions of an equalized preamplifier for variable reluctance cartridges, plus adjustable record compensation, program input selection, individual bass and treble tone controls, and loudness control.

It is a matching unit for the G-E Model A1-300 Power Amplifier, and also may be used with other makes of basic power amplifiers.

FUNCTIONS OF THE 4 FRONT PANEL CONTROLS

I. Selector Switch - Combines the functions of a record compensator control, (positions 1 - 5) and program selection (positions 6 & 7). The positions are as follows:

1. NOISY 78 - A scratch filter position for noisy 78 RPM records. Has moderately sharp cutoff at about 4,000 cycles.
2. EUROPEAN 78 - For 78 RPM English Decca, London and other European recordings.
3. AES - Conforms with the standard playback curve proposed by the Audio Engineering Society. This position is recommended for most types of records, including RCA Victor 33, 45 and 78 RPM.
4. FLAT - Maximum brilliance of reproduction is obtained in this position. When additional high frequency response is desired, the position may be used in conjunction with the desired setting of the "Treble" tone control.
5. LP - Recommended for Columbia LP, recent London FFRR, and other records using the Columbia LP characteristic. Records employing the Columbia LP "curve" have somewhat greater high frequency pre-emphasis, and more bass, particularly below 100 cps, than records using the AES "curve." Therefore, the LP position introduces the required amount of high and low frequency attenuation to maintain balanced reproduction.
6. RADIO - For FM-AM tuner. A "stripped" tuner having no tone control is recommended for use with the General Electric A1-200 unit.
7. AUXILIARY - For TV sound, tape recorder or crystal phono pickup.

II. Treble Control - Continuously variable • 15 db boost at 15,000 cycles • 16 db attenuation at 15,000 cycles.

III. Bass Control - Continuously variable • 13 db boost at 50 cycles • 15 db attenuation at 50 cycles.

IV. Loudness Control - Compensates for reduced sensitivity of ear at both ends of audio range for low listening levels.

NOTE: A switch permits selection of conventional volume control in place of loudness control. This is a slide switch located at the rear of the chassis.

INPUTS

- #1 for G-E variable reluctance pickups
- #2 FM-AM tuner
- #3 TV sound or tape recorder

3 TUBES PLUS RECTIFIER

- 1 - 6SC7,
- 1 - 12AX7, 1 - 12AU7.
- 1 - selenium rectifier

OUTPUT

- 2 volts nominal
- Output impedance 4,000 ohms
- Gain 46 db.

POWER SOURCE

- 105-120 volts, 50/60 cycles.

HARMONIC DISTORTION

Less than 1% (negligible)

OTHER FEATURES

- 2 AC power outlet receptacles
- AC on-off switch and pilot light
- 6-foot cord with plugs to connect signal to power amplifier



SPECIFICATIONS

This new 10-watt amplifier is designed as a high-quality basic "flat" high fidelity amplifier for home music systems. It is compact in size and has a luster plated chassis finish. A perforated metal cover with a blue lustre finish protects the chassis. Its narrow size enables it to be used in a convenient location.

DIMENSIONS: 12¼ inches long; 4½ inches wide; 5½ inches high.

APPLICATIONS

1. with Model A1-300 Preamplifier Control Unit.
2. with other preamplifier control units or FM-AM tuners having their own controls.
3. as a "booster" amplifier for driving additional speakers in all types of audio systems.
4. as a "monitor" amplifier for broadcast and recording studios.

CIRCUIT FEATURES—Two important circuit applications reduce distortion to a minimum.

1. 15 db inverse feed-back loop.
2. split-load triode phase inverter to drive two 6V6GT tubes in push-pull output stage.

TUBES—There are 4 tubes and one rectifier as follows:

1 — 12AX7, 1 — 6C4, 2 — 6V6GT, 1 — 5Y3GT rectifier.

POWER SOURCE— 105 to 120 volts, 60 cycle. AC. 70 watts input.

OTHER FEATURES

HIGH IMPEDANCE INPUT

INPUT SENSITIVITY

2 volts for 10 watts output, with provision for increasing sensitivity to 0.3 volts.

SPEAKER OUTPUTS

4, 8 and 16 ohms.

FREQUENCY RESPONSE

±2db, 30 — 15,000 cps.

HARMONIC CONTENT

less than 1% at 10 watts output at mid-frequencies.

INTERMODULATION CONTENT

less than 3% at 10 watts.

HUM AND NOISE LEVEL

—70db (below rated output).

Custom Music Ensemble

Model A1-300
10-watt
high fidelity
amplifier



Custom Music Ensemble

Model A1-400
high fidelity
12-inch
dual coaxial
speaker

SPECIFICATIONS

Coaxial Speaker Features

FREQUENCY RESPONSE — 40 to 15,000cps.
IMPEDANCE — 8 ohms
POWER RATING — 25 watts integrated program material
BUILT-IN CROSSOVER SYSTEM
CROSSOVER FREQUENCY 1800 CPS.
SMOOTH RESPONSE
REDUCED DISTORTION
WIDE DISPERSION OF HIGH FREQUENCIES
DIMENSIONS — 12 $\frac{3}{8}$ inches in diameter; 6 $\frac{1}{8}$ inches deep.

Tweeter Unit

Cone diameter — 2 $\frac{3}{4}$ inches
Alnico 5 ring magnet — 6.8 ozs.

Woofers Unit

Diameter — 12 inches
Free air cone resonance — 60 cps.
Edge treatment for smooth response and long life
Alnico 5 ring magnet — 14.5 ozs.

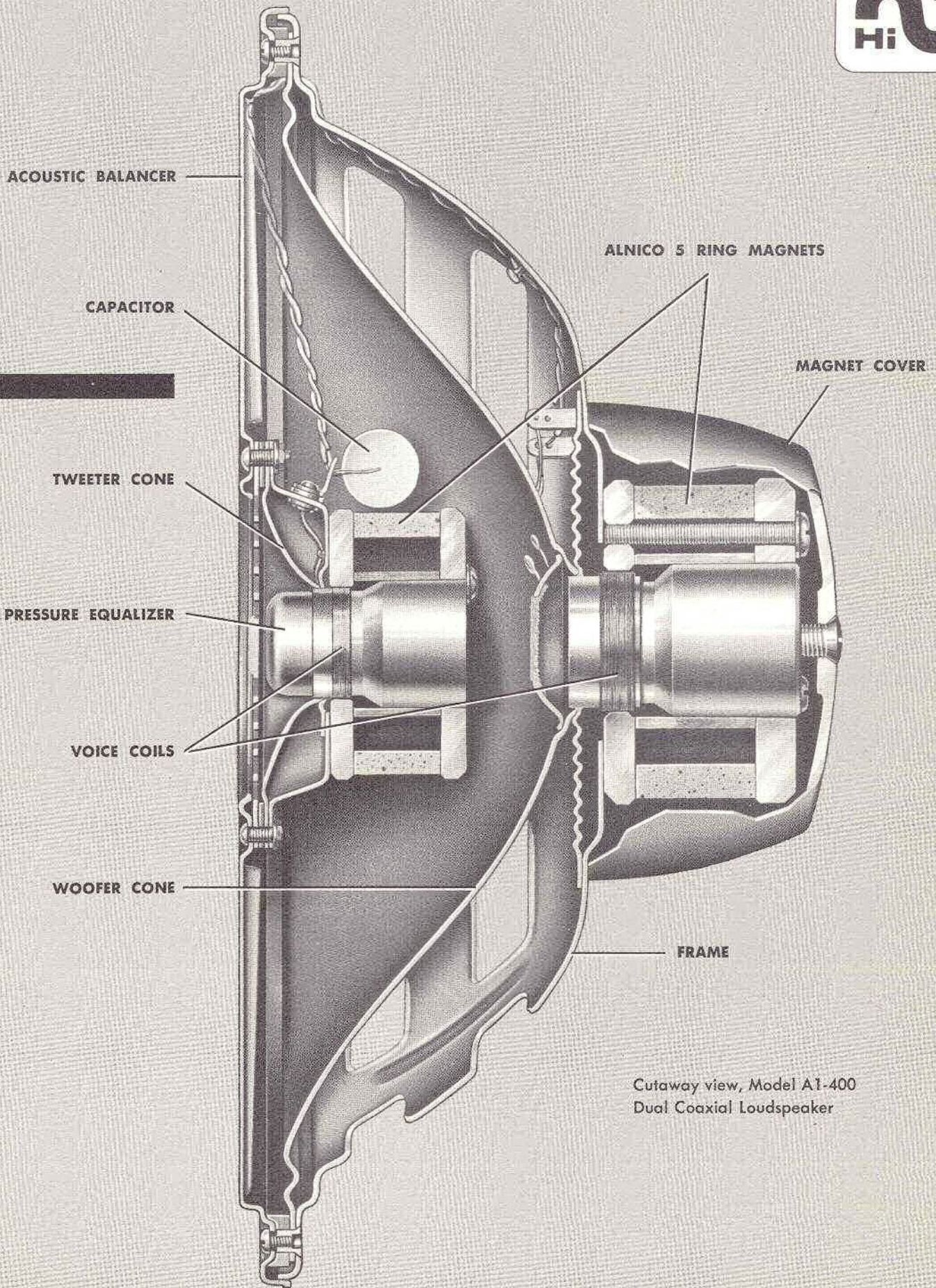
Model A1-400 is an exceptional wide angle dispersion loudspeaker for discriminating high fidelity enthusiasts and music lovers. A new concept of smooth, realistic reproduction is made possible by exclusive new General Electric developments in speaker design. Two outstanding features contribute to the startling performance of this new speaker.

ACOUSTIC BALANCER—The tweeter unit is mounted on a slotted baffle plate which serves as a tweeter baffle and reduces interference between the tweeter and woofer units. The slots are proportioned in such a way as to permit free woofer action, while contributing to the mechanical-electrical crossover system.

In addition, the slotted plate covers the entire front of the speaker. Its brown lacquer finish, with brass tweeter screen in the center, results in an unusually attractive appearance. The speaker may be "front mounted" on the speaker enclosure, thus enhancing the appearance of custom installations.

PRESSURE EQUALIZER—The pressure equalizer, located at the apex of the tweeter cone, does away with cavity effects. Transient and pressure response are improved, resulting in silken smooth performance of the tweeter, free from harsh peaks that so often add unnatural coloring to high frequency reproduction.

This speaker consists of two separate cone-type units coaxially assembled. The "woofer" unit handles frequencies up to the crossover point (1800cps.) and the "tweeter" unit takes over above this point.



Cutaway view, Model A1-400
Dual Coaxial Loudspeaker

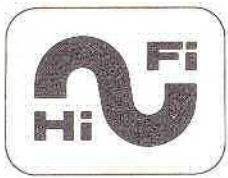


**Deluxe
12-inch
High Fidelity
Loudspeakers**

Models 1201-A
and 1203-A

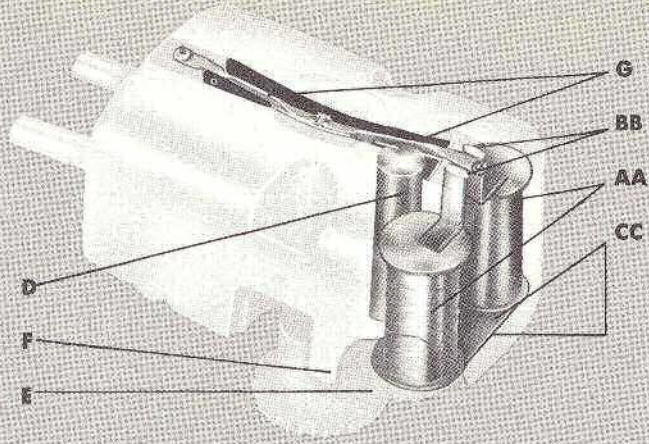
Designed by audio engineers and produced under exacting conditions of quality control, these excellent speakers meet the high standards of performance so essential to high fidelity. They will faithfully convert electrical energy from your record player, tape recorder or radio receiver into sound having all the emotional impact of the original. These speakers are ideal for use with the highest-quality FM-AM phonograph combinations, custom installations and professional equipment.

CATALOG NO.	1201-A	1203-A
MAGNET WEIGHT (Ozs.)	14.5	9.0
VC IMPEDANCE (Ohms)	8	8
VC DIAMETER (Inches)	1 $\frac{1}{4}$	1 $\frac{1}{4}$
MAXIMUM POWER (Watts)	25	25
CONE SIZE (Inches)	12	12
FREE AIR RESONANCE (Cycles)	65	65
RESPONSE (Cycles)	50 to 13,000	50 to 13,000

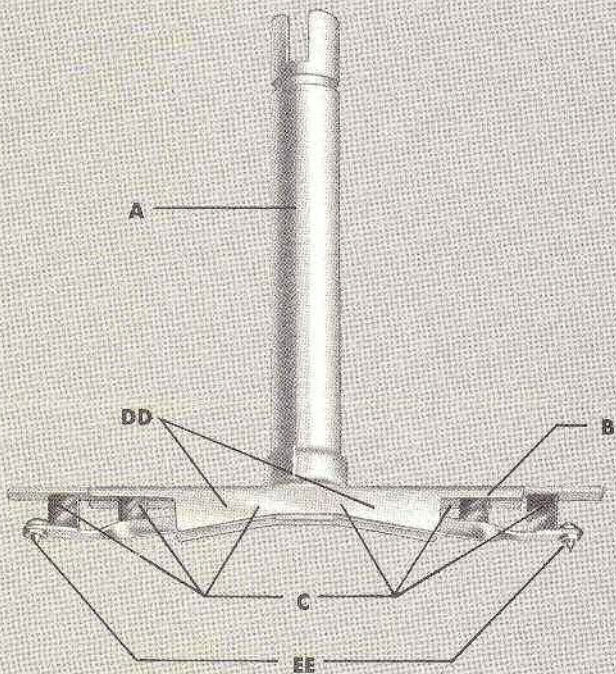


**Phono
Accessory
Equipment**

Cutaway views
cartridge and
stylus assembly



- AA** Copper wire coils wound on nylon spools
- BB** Laminations of high permeability alloy for ideal magnetic properties
- CC** Yokes of same alloy
- D** Alnico 5 magnet
- E** Sturdy-plastic base
- F** Mu-Metal case
- G** Dual stylus assembly

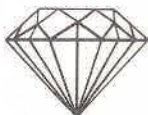


- A** Stylus pivot pin
- B** Bronze guide
- C** Six damping blocks
- DD** Gold-plated stylus cantilevers
- EE** Two styli



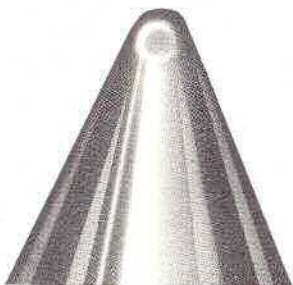
NEW STYLUS

why you should use a diamond



There are three excellent reasons why a diamond stylus is your best buy:

1. A diamond is kind to your records.
2. Maintains optimum performance.
3. Gives longer life to both record and stylus.



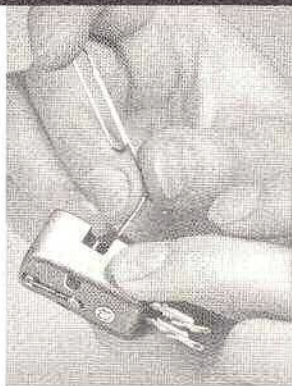
WORN STYLUS

All records, particularly the long-playing microgroove type, cause your stylus to wear. This eventually affects the life and performance of the record itself. Since the wearing stylus may escape detection for some time, the performance of the record may be seriously impaired.

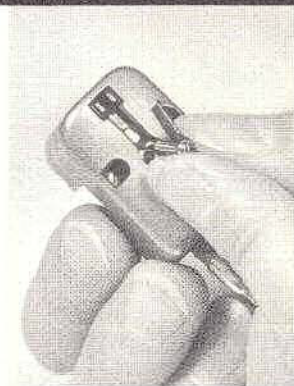
Tests conducted on diamond styli have run hundreds of hours with no audible distortion and only highlights on the styli to indicate visible wear.



1. Remove cartridge from tone arm.



2. Use paper clip or wire to force old stylus out of cartridge.



3. Insert new stylus into cartridge with fingers.

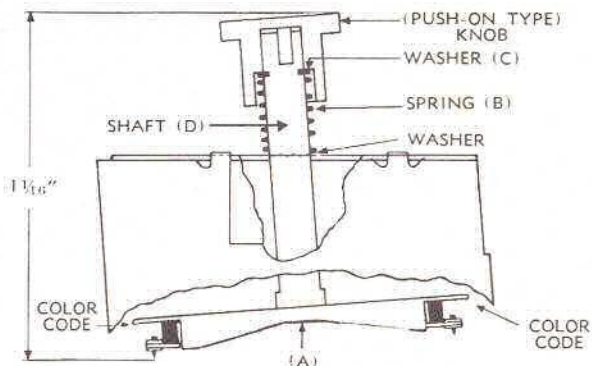


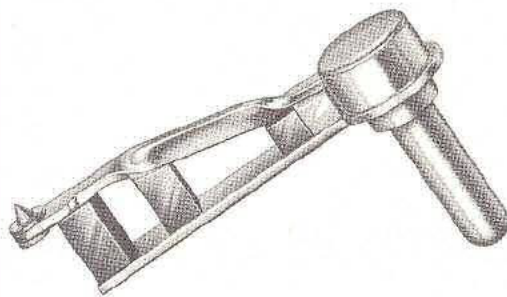
4. Center tip between guard posts. Press firmly into position with thumbnail.

replacing the single stylus

REPLACING THE DUAL STYLUS

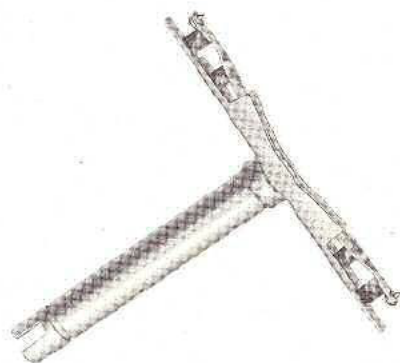
Insert dual stylus assembly into the cartridge and retain with finger-tip pressure applied only at lower shaft end ("A"). Assemble spring ("B") and depress until C-washer ("C") may be inserted in the slot on shaft ("D"). Do not replace the knob on the stylus shaft until the entire assembly has been placed in the tone arm.





Single Stylus

Every single and dual stylus in the General Electric line is designed to give vivid and faithful performance.



Dual Stylus

The increased number of damping blocks combined with the double twist "Baton" design afford a fidelity unexcelled by any other commercially available stylus. Harmonic distortion, needle talk and needle scratch are virtually eliminated. Stylus pressure is very low, only 6 to 8 grams for all types of records.

G-E Wide-range Styli

Smooth performance

CARTRIDGE AND STYLUS

SINGLE TYPES

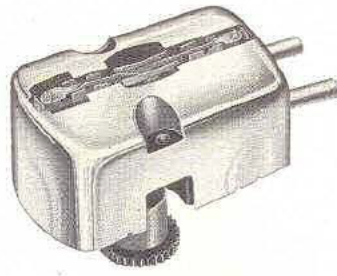
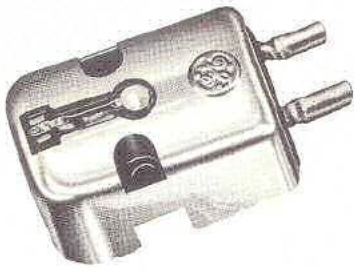
SINGLE CARTRIDGE WITH STYLUS			REPLACEMENT SINGLE STYLUS
Description	Application	Cat. No.	Cat. No.
WITH SAPPHIRE* * STYLUS			
1 mil tip radius	Microgroove 33/45 RPM	RPX-041	RPJ-005
3 mil tip radius	Standard 78 RPM	RPX-040	RPJ-001
WITH DIAMOND STYLUS			
1 mil tip radius	Microgroove 33/45 RPM	‡RPX-061	RPJ-004
3 mil tip radius	Standard 78 RPM	‡RPX-063	RPJ-003

‡Golden Treasure Models.

**Some sapphires are synthetic.

Special Single Styli for NAB Broadcast Transcriptions

RPJ-002 2.5 mil diamond
 RPJ-006 2.5 mil sapphire



4 single play cartridges are manufactured by General Electric in addition to 3 triple play cartridges for those who prefer the convenience of playing 33, 45 and 78 RPM records without changing the cartridge. Results from the triple play cartridges are equal in every way to the single units — there is absolutely no compromise in performance. The triple play design offers both increased convenience and a cost saving.

General Electric "Golden Treasure" cartridges are sold with *diamond* styli with the exception of Model RPX-052 which has a 1 mil diamond and 3 mil sapphire. In addition, the metal cases are *gold plated* for lasting beauty.

CHECK THESE FEATURES OF ALL G-E CARTRIDGES

- | | |
|--|---|
| LOW RECORD WEAR | Low mass of moving system helps to reduce record wear to a minimum. |
| WIDE RANGE PERFORMANCE | Smooth performance when equipped with genuine G-E wide-range styli. |
| EXTREMELY LOW DISTORTION | Distortion is negligible as shown by intermodulation distortion measurements. |
| QUIET OPERATION | Needle talk and needle scotch reduced to a minimum. |
| RETRACTABLE STYLUS | Stylus will retract if tone arm is dropped. |
| LOW PRESSURE STYLUS | Only 6 to 8 grams is required for all G-E cartridges when equipped with genuine G-E wide-range styli. |
| STABILITY AND DURABILITY | Virtually unaffected by normal changes of temperature and humidity. |
| ELECTRICAL SPECIFICATIONS — Single and Dual Types | |
| ELECTRICAL OUTPUT | Minimum open circuit voltage of 10 millivolts. |
| DC RESISTANCE | 340 ohms. |
| IMPEDANCE AT 1000 CYCLES | 3270 ohms. |
| INDUCTANCE | 520 millihenries. |

US SELECTOR CHARTS

DUAL "TRIPLE PLAY" TYPES

DUAL CARTRIDGE WITH STYLUS			REPLACEMENT DUAL STYLUS
Description	Application	Cat. No.	Cat. No.
WITH SAPPHIRE* * STYLUS			
dual 1 mil and 3 mil	33/45 and 78 RPM	RPX-050	RPJ-010
WITH DIAMOND STYLUS			
dual 1 mil and 3 mil	33/45 and 78 RPM	‡RPX-053	RPJ-012
WITH COMBINATION DIAMOND AND SAPPHIRE* * STYLUS			
1 mil diamond	33/45 and 78 RPM	‡RPX-052	RPJ-013
3 mil sapphire			

‡Golden Treasure Models.

*Some sapphires are synthetic.

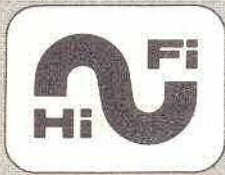
Spare knob kit RKP-009 contains plastic knobs, washers, and spring.

Special Dual Styli for NAB Broadcast Transcriptions

RPJ-007 1 mil and 2.5 mil sapphire

RPJ-001 1 mil and 2.5 mil diamond (Use 1 mil for microgroove and 2.5 mil for NAB Transcriptions)

G-E variable reluctance cartridges



*Discontinued
Apr. 55*

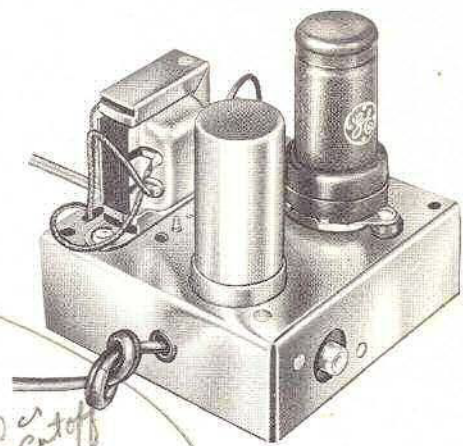


9.95

Model A1-900
Record Compensator

New Model

*A1-901
40-60-80 or cutoff
x 6 filters
HF*



Model UPX-003A
Preamp

Record Compensator

Model A1-900

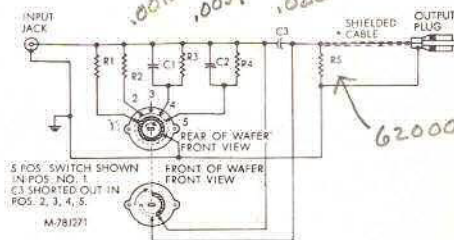
Self-Powered Preamp

Model UPX-003A

R₁ - 3900

The General Electric A1-900 Record Compensator is an adjustable high impedance passive network for use with standard type General Electric cartridges. The five settings include two scratch filter positions for noisy records. No circuit loss is introduced by the use of the compensator. It is designed for connection between the pickup cartridge and the preamplifier input. The shielded leads from tone arm to compensator and from compensator to preamplifier should be kept short to avoid loss of high frequencies and hum pickup.

RECORD COMPENSATOR



Some preamplifiers are equipped with a cartridge loading resistor at the input circuit, connected directly from the center terminal of the input jack to chassis. This resistor must be removed when using the compensator.

LP POSITION - intended basically for use with Columbia 33 $\frac{1}{3}$ RPM and modern Columbia 78RPM pressings.

AES POSITION - May be used to advantage with RCA 33, 45, and 78RPM recordings. It has somewhat greater bass (below 100cps) and treble response than the LP curve.

FLAT POSITION - For use when maximum brilliance is desired. May be used with records having low background noise and distortion.

GOOD (EARLY 78) - For old 78RPM records in good condition. Filters out record surface noise at all frequencies above 7,500cps.

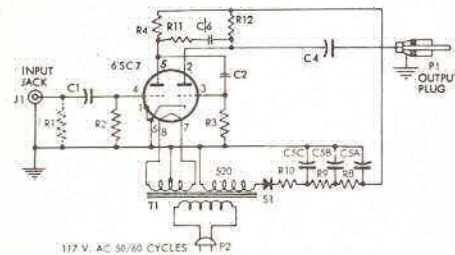
POOR (EARLY 78) - For old 78RPM records in poor condition. Effectively reduces record scratch by filtering out frequencies above 4,000cps.

MECHANICAL DATA - A long threaded $\frac{3}{8}$ " diameter bushing is provided for mounting on a panel up to $\frac{3}{4}$ " thick. The unit may be mounted in any position. Dimensions of case - 2 $\frac{1}{2}$ " long; 2" wide; 2" high. Weight - 6 ozs. Maximum depth required behind panel - 4".

SPECIFICATIONS

- GAIN**
35 db at 1,000 cycles
- POWER SUPPLY**
105-125 volts, 50-60 cps.
- TUBE**
1 type 6SC7
- CHASSIS DIMENSIONS**
3 $\frac{5}{8}$ x 3 $\frac{5}{8}$ x 1 $\frac{1}{4}$
- OVERALL HEIGHT**
3 $\frac{3}{4}$ " maximum
- WEIGHT**
1 $\frac{1}{4}$ pounds

SELF-POWERED PREAMPLIFIER



This preamplifier, operating directly from a 105-125 volt, 50-60 cycle AC power line, is completely self-contained and ready to operate when connected to a power source. An input jack for the G-E Variable Reluctance Cartridge is provided on one side of the chassis, and an output lead 14" long extends from the opposite side. The standard phonograph plug on the end of the output lead facilitates connection to an amplifier or receiver.

*x 3.5
49.95
cutoff*



DISTRICT MANAGERS

CLAYTON RYDER
General Electric Co.
963 Commonwealth Ave.
Boston, Mass.

VICTOR S. SYZDEK
General Electric Co.
410 Asylum St.
Hartford, Conn.

STEPHEN J. WELSH
General Electric Co.
570 Lexington Ave.
New York City

GORDON RAHMES
General Electric Co.
200 Main Ave.
Clifton, N. J.

CHARLES A. RICHARDSON
General Electric Co.
148 Clinton St.
Schenectady, New York

ROBERT P. FISHER
General Electric Co.
1405 Locust St.
Philadelphia, Pa.

JOHN C. McGRANAGHAN
General Electric Co.
4229 Lindell Blvd.
St. Louis, Mo.

DON REIK
General Electric Co.
777 14th St.
Washington, D. C.

WILLIAM B. EVERY
General Electric Co.
187 Spring St.
Atlanta, Ga.

A. C. BOURGET
General Electric Co.
187 Spring St.
Atlanta, Ga.

EDWARD T. CONNOLLY
General Electric Co.
710 Williamson Bldg.
Cleveland, Ohio

HENRY B. NELSON
General Electric Co.
215 West Third St.
Cincinnati, Ohio

ROBERT W. COLLINS
General Electric Co.
2511-13 Book Tower
Detroit, Michigan

J. HARRY CHRYSLER
General Electric Co.
3800 N. Milwaukee Ave.
Chicago, Illinois

GEORGE K. WILSON
General Electric Co.
3800 N. Milwaukee Ave.
Chicago, Illinois

CHARLES B. NAIRN
General Electric Co.
4029 Vernon Ave. South
Minneapolis, Minn.

DAVID WHALEN
General Electric Co.
106 West 14th St.
Kansas City, Mo.

WILLIAM F. TREVARROW
General Electric Co.
3200 Maple Ave.
Dallas, Texas

DAVID F. BOOTH
General Electric Co.
1100 E. Halcomb Blvd.
Houston 25, Texas

ROBERT GIANNINI
General Electric Co.
11840 W. Olympic Blvd.
Los Angeles, Calif.

L. M. ROBB
General Electric Co.
235 Montgomery St.
San Francisco, Calif.

THOMAS A. REESE
General Electric Co.
1146 Dexter Horton Bldg.
Seattle, Washington

For Further Information

see your
nearest

G-E distributor

or write to the
General Electric
sales representatives
listed on this page

You can put your confidence in—

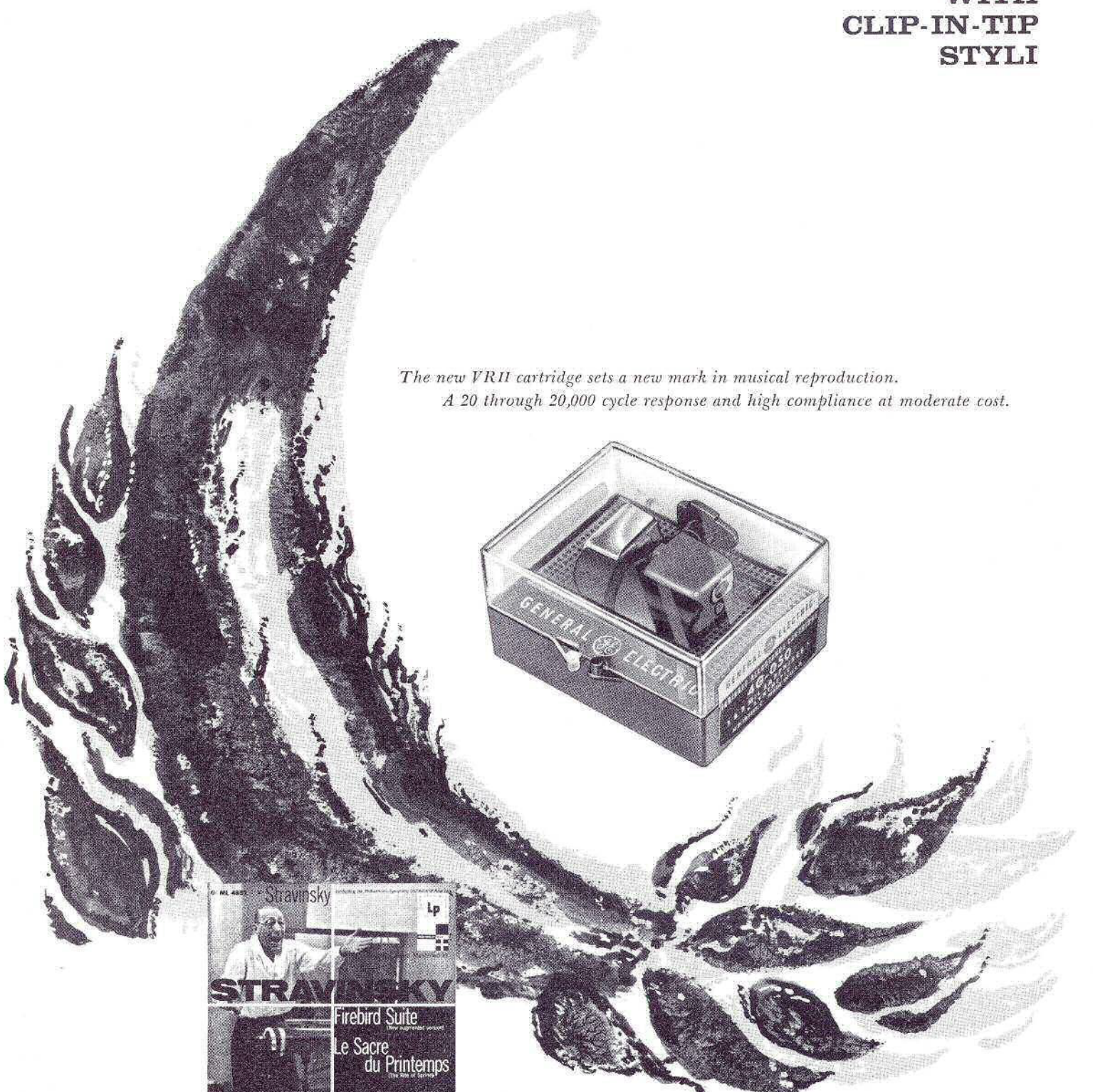
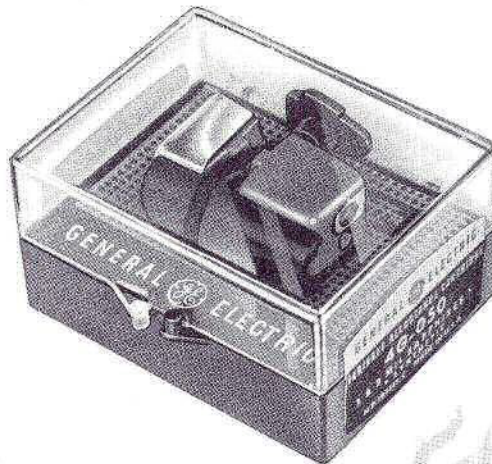
GENERAL  ELECTRIC

HIGH FIDELITY SECTION, RADIO AND TELEVISION DEPARTMENT ELECTRONICS PARK, SYRACUSE, N. Y.



**GENERAL ELECTRIC
VR11 CARTRIDGE
WITH
CLIP-IN-TIP
STYLI**

*The new VR11 cartridge sets a new mark in musical reproduction.
A 20 through 20,000 cycle response and high compliance at moderate cost.*



RECORD-COURTESY OF COLUMBIA

GENERAL  ELECTRIC

New VR II Cartridge for Full Brilliance in Sound Reproduction

*dramatic design
gives new heights
of performance
with these
exclusive features:*

FULL RANGE REPRODUCTION – the new improved design permits faithful reproduction from 20 through 20,000 cycles.

FOUR GRAM TRACKING FORCE – the sensitive compliance of the VR II has been increased to 1.7×10^{-6} cm per dyne permitting a tracking force of only 4 grams. This feature provides minimum record groove and stylus wear.

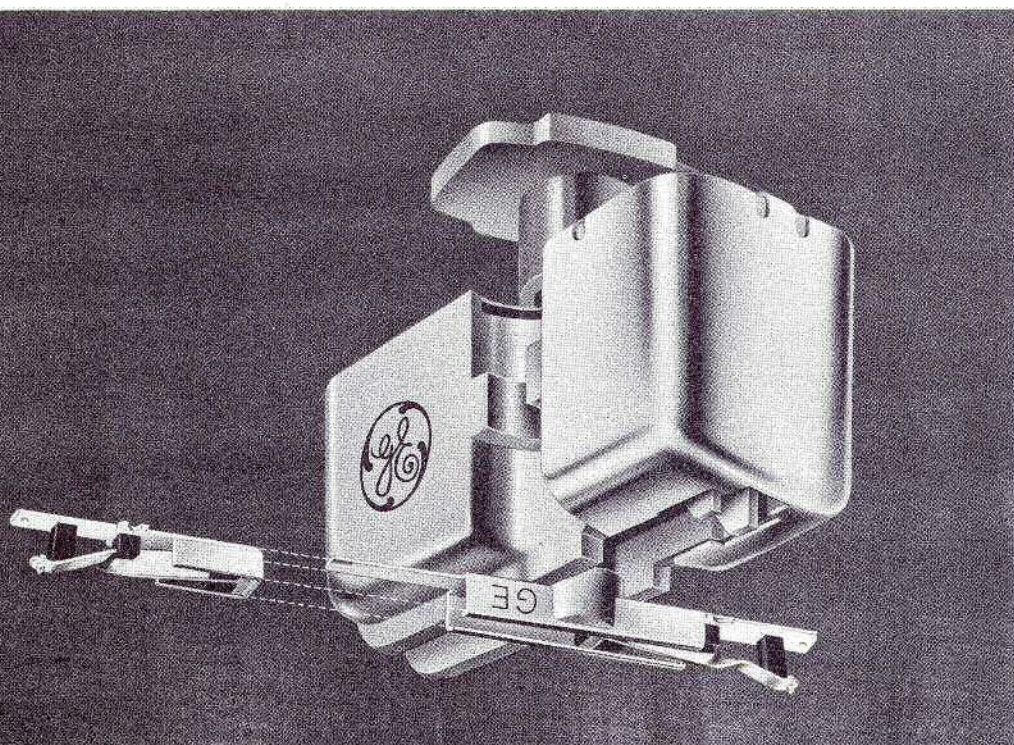
CLIP-IN-TIP STYLUS ASSEMBLY – with G-E Clip-in-tip stylus inserts, replacements can be made at home, instantly. This design means new economy and versatility, too. There is no need to discard an entire dual stylus assembly when only one tip is worn.

Single play cartridge inserts may be interchanged for LP or 78 rpm recordings.

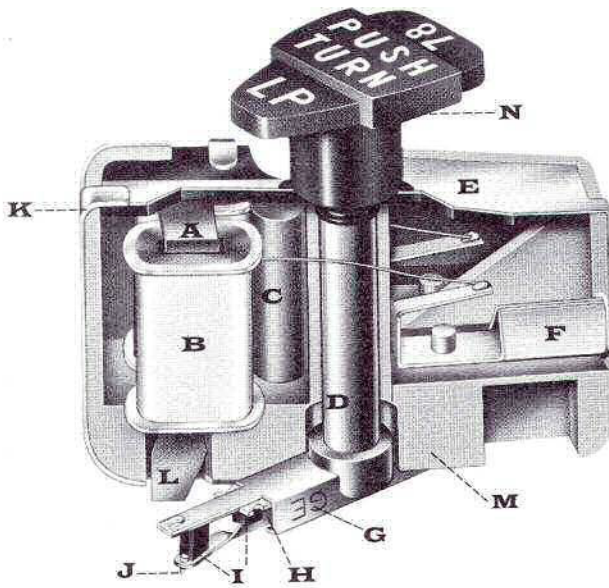
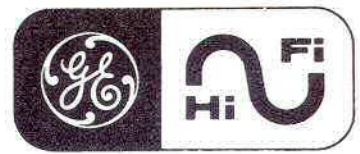
RUGGED LIGHTWEIGHT CARTRIDGE

the construction of the VR II provides a minimum weight unit that will withstand a lifetime of constant usage under the most adverse conditions.

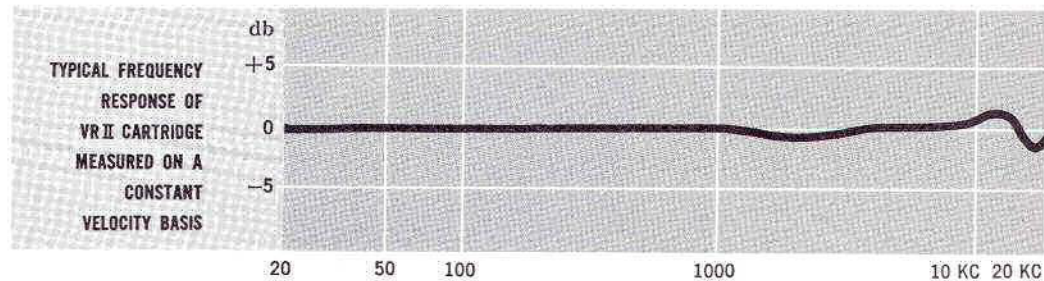
ELECTROSTATIC SHIELDING – prevents the pickup of electrostatic interferences and hum, as well as build-up of charges from the surface of the record.



GOLDEN TREASURE VR II CARTRIDGE WITH EXCLUSIVE CLIP-IN-TIP STYLUS



- A** Highly permeable laminations
- B** Hum-cancelling wound coils
- C** Alnico V Magnet
- D** Pivot Post
- E** Electrostatic Shield
- F** Plug-in Terminals
- G** "T"-Channel
- H** VR II Clip-In-Stylus
- I** Special G-E Damping Blocks
- J** Stylus Jewel
- K** Mu-Metal Electromagnetic Shield
- L** Magnetic Pole Pieces
- M** Plastic Body
- N** Triple Play Knob



SPECIFICATIONS

- FREQUENCY RANGE:** 20 through 20,000 cycles, see curve
- OUTPUT VOLTAGE:** 22 millivolts at 10 cm per sec. at 1000 cycles
- LATERAL COMPLIANCE:** 1.7×10^{-6} cm/dyne
- VERTICAL COMPLIANCE:** 0.5×10^{-6} cm/dyne
- INDUCTANCE:** 520 mh nominal
- RESISTANCE:** 600 ohms nominal

Maximum allowable range of shunt capacity:

Resistance Load	Maximum allowable shunt capacity
100K ohms	300 mmf.
47K ohms	400 mmf.
6.2K ohms	1000 mmf.

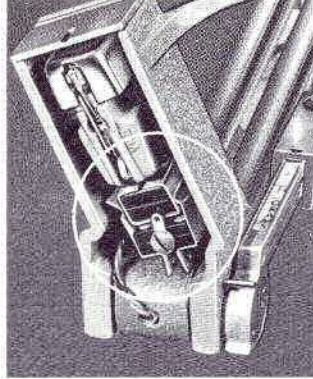
For optimum response, it is preferable not to exceed 50% of the maximum capacity indicated above.

RECOMMENDED TRACKING FORCE 4-8 GRAMS *

- 1 mil stylus, high quality tone arm 4 grams
- 3 mil stylus, high quality tone arm 6 grams

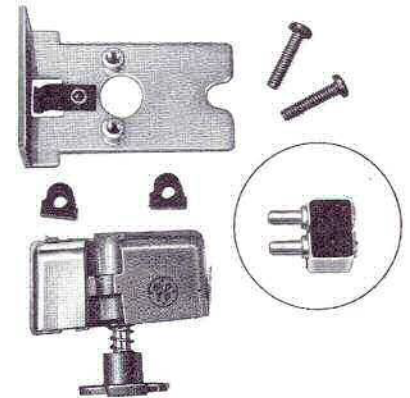
*Record changers, using dual 1 & 3 mil styli should be adjusted to 6-8 grams force. Most modern changers will track well at 6 grams; older changers may require up to 10 grams for good tracking.

WEIGHT:	8 grams	9.5 grams
MOUNTING DIMENSIONS:		
designed for mounting centers	.438" min.	.500" max.
WIDTH:	9/16"	9/16"
LENGTH, less lugs	1-5/32"	1-5/32"
with lugs	1-1/2"	1-1/2"



CONTACT ADAPTOR

G-E Model A1-504 Adaptor is required when mounting VR II in G-E A1-500 or A1-501 Tone Arms. Weight of VR II Cartridge plus 3.5 gram weight of adaptor equals weight of G-E RPX Series Cartridge.



VARIABLE RELUCTANCE II CARTRIDGES WITH NEW "CLIP-IN-TIP" STYLUS ASSEMBLIES

Catalog Number	Type	Stylus Type & Radius in Inches	Application	Color Code
4G-061	Single play	1 Mil Diamond	33 & 45 rpm	Black
4G-063	Single play	3 Mil Diamond	78 rpm	Violet
4G-053	Triple play	1 & 3 Mil Diamond	33, 45 & 78 rpm	Black-Violet
4G-052	Triple play	1 Mil Diamond 3 Mil Sapphire*	33, 45 & 78 rpm	Black-None

CLIP-IN-TIP REPLACEMENT STYLI FOR ALL VR II CARTRIDGES

Catalog Number	Stylus Type & Radius in Inches	Application	Color Code
4G-01D	1 Mil Diamond	Microgroove	Black
4G-02D	2.5 Mil Diamond	Transcriptions	Yellow
4G-03D	3 Mil Diamond	78 rpm	Violet

GOLDEN TREASURE VR II CARTRIDGES Single and triple-play cartridges with gold plated cases. Equipped with G-E CLIP-IN-TIP Stylus Assemblies.

TRIPLE-PLAY VR II CARTRIDGE Equipped with CLIP-IN-TIP Dual Stylus Assembly. Chromeplated case.

SINGLE-PLAY VR II CARTRIDGES Equipped with CLIP-IN-TIP Single Stylus Assembly. Chromeplated case.

4G-050	Triple play	1 & 3 Mil Sapphire*	33, 45 & 78 rpm	Red-None
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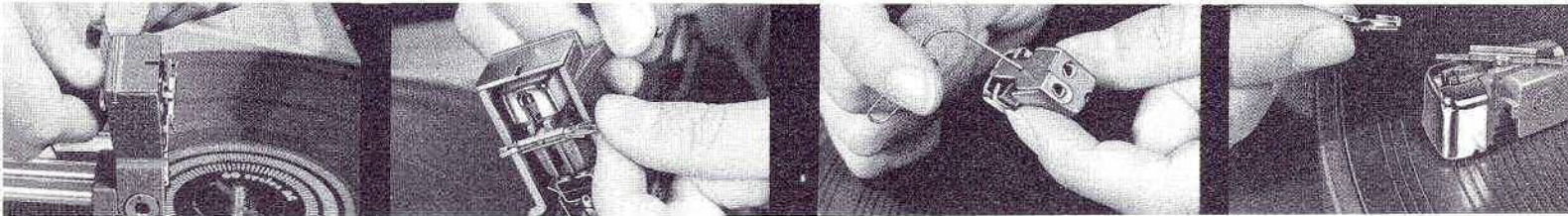
4G-041	Single play	1 Mil Sapphire*	33 & 45 rpm	Red
4G-040	Single play	3 Mil Sapphire*	78 rpm	None

4G-01S	1 Mil Sapphire*	Microgroove	Red
4G-02S	2.5 Mil Sapphire*	Transcriptions	White
4G-03S	3 Mil Sapphire*	78 rpm	None

*some sapphires are synthetic

The VR II CARTRIDGE is available in single and dual types and is interchangeable with any G-E Cartridge of the RPX series. VR II STYLI are individually replaceable, but are not interchangeable with previous G-E Styli.

INSTANT CLIP-IN-TIP STYLI REPLACEMENT



TRIPLE PLAY CARTRIDGES

Simply raise the tone arm to permit free rotation of the CLIP-IN-TIP Stylus. With G-E's new design, replacement is made without removing stylus assembly from cartridge.

The worn stylus insert slides out easily and you clip a new one in its place. That's all with a G-E CLIP-IN-TIP. No tools nor diagrams needed.

SINGLE PLAY CARTRIDGES

Cartridge may be removed from tone arm and stylus shaft raised with a paper clip.

Simply replace the insert with a new stylus. A CLIP-IN-TIP can be used in all G-E Dual and Single-play cartridges.

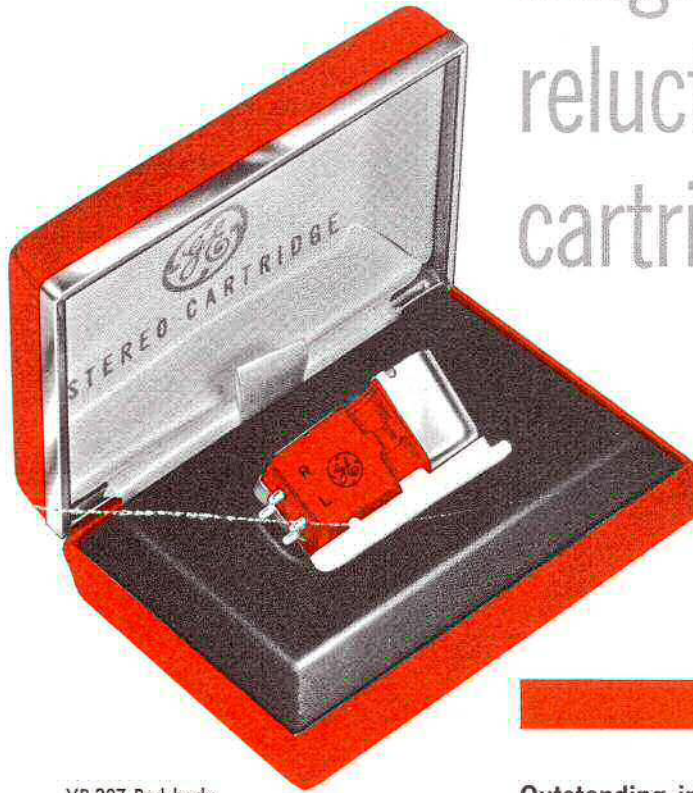
SPECIALTY ELECTRONIC COMPONENTS DEPT.
WEST GENESEE STREET • AUBURN • NEW YORK
in Canada, write:
CANADIAN GENERAL ELECTRIC CO.
189 DUFFERIN STREET • TORONTO, CANADA

Progress Is Our Most Important Product **GENERAL ELECTRIC**

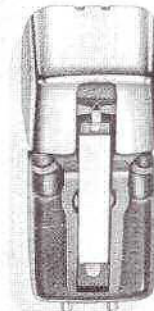
General Electric



VR-22 stereophonic magnetic variable reluctance high fidelity cartridges



VR-227 Red body
.7 mil diamond stylus



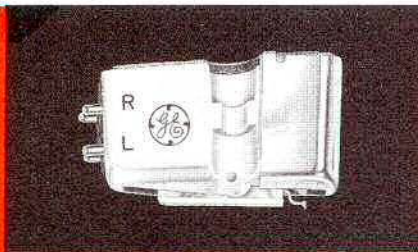
MODEL VR-225
(With .5 mil diamond stylus
for professional quality
tone arms) 16.61

MODEL VR-227
(With .7 mil diamond stylus,
for professional arms and
record-changers) 14.45

Outstanding in All Four Areas of Stereo Cartridge Performance...

- Full, Flat Frequency Response, 20 Through 20,000 Cycles \pm 3 db (Model VR-225)
- Unusually High and Consistent Channel Separation, Up to 28 db
- New Stylus Assembly for Optimum Compliance and Precision Tracking
- New Triple Shielding for Positive Hum Suppression

VR-225 White body, .5 mil diamond stylus



A masterpiece among stereo cartridges... combining new design and manufacturing techniques with proven magnetic variable reluctance excellence... to provide every audio feature for highest quality reproduction of full-range, full-dimension stereophonic recordings.

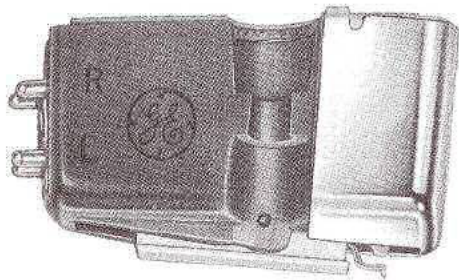
GENERAL  ELECTRIC



VR22 For Highest Quality Stereo Reproduction...

Full, Natural Response—Flat (± 3 db) from 20 through 20,000 cycles (for VR-227, 20 through 17,000 cycles) for complete and realistic reproduction of all the music the ear can hear.

Consistent, Highly-Effective Separation Between Channels—Up to 28 db, for most effective reproduction of each of the two record groove channels, and best stereo effect. High separation at full frequencies which contribute to the stereo effect.



New Stylus Assembly for Optimum Compliance—New damping block assembly enhances ability of the VR-22 to track record grooves precisely.

New Triple Shielding—Mu-metal shields on top and entire front of cartridge body, and around coil assembly, to minimize possible hum pickup.

Excellent Channel Balance—Channel output within one db at 1000 cycles; closely balanced over entire frequency range. Provides equal output from both stereo channels for equal sound volume from both speakers and fully integrated stereo reproduction.

Extremely Low Distortion—Lack of resonant peaks in the audio range, and an essentially linear flux field, effectively minimize both harmonic and intermodulation distortion. This further enhances true, accurate reproduction of the music as it was originally recorded.

High System Compatibility—Highly-flexible design of ground strap allows use of the VR-22 Cartridges with either a three-wire or four-wire stereo system. The cartridge shield also may be grounded individually with a separate wire.

Easily-Replaceable Stylus—Pushes out easily and quickly, for replacement at home without special tools. ... and ... **Excellent Monophonic Reproduction**—The VR-22 Cartridges are highly compatible with monophonic microgroove records, and play them with outstanding quality.

SPECIFICATIONS*

(Similar for the .5 mil diamond stylus Model VR-225 and the .7 mil diamond stylus Model VR-227, except as noted.)

Frequency Response: 20 through 20,000 cycles, ± 3 db (VR-225); 20 through 17,000 cycles (VR-227).

Output: Six millivolts, nominal, at stylus velocity of 5 cm/sec.

Separation Between Channels: Up to 28 db.

Channel Balance, at 1000 Cycles: One db or better.

Inductance: 420 millihenries, nominal.

Resistance: 1640 ohms per channel, nominal.

Load: 47K-100K ohms, 62K optimum.

Lateral Compliance: 4×10^{-6} cm/dyne (VR-225); 2.5×10^{-6} cm/dyne (VR-227), nominal.

Vertical Compliance: 2.5×10^{-6} cm/dyne (VR-225); 2×10^{-6} cm/dyne (VR-227), nominal.

Tracking Force: Two grams minimum under optimum conditions — three grams for average use — four grams maximum (VR-225). Five to seven grams with VR-227.

Dimensions: Width, .575 inch; height, .7 inch including stylus tip; length, 1.18 inches.

Mounting: For 7/16 inch or 1/2 inch mounting centers.

All measurements taken from R.C.A. Victor Stereophonic Test Record Number 12-5-71 and 12-5-73.

**VR-225 specifications are preliminary.*

Due to constant product refinement, all specifications are subject to change without notice.



Typical frequency response and separation between channels of Model VR-227. (Performance of VR-225 exceeds the characteristics of the VR-227.)

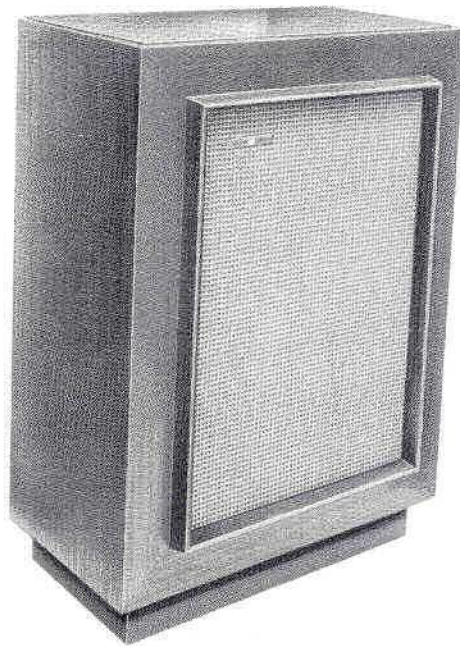
AUDIO COMPONENTS PRODUCTS SECTION
RADIO RECEIVER DEPARTMENT
WEST GENESEE STREET—AUBURN, N.Y.
in Canada, write:
CANADIAN GENERAL ELECTRIC CO.
189 DUFFERIN STREET—TORONTO, ONTARIO

*Deceator
428-4311*

Progress Is Our Most Important Product **GENERAL ELECTRIC**

Monitoring Speaker, Type FS-1-B
Studio Wall Speaker, Type FS-2-B
Housing for FS-1-B Speaker, Type FS-4-A
Cabinet for FS-2-B Speaker, Type FS-3-A

Section E211 Page 40
Broadcast Equipment Data Book
June 15, 1957
Supersedes E211 40, 8/1/55



FS-1-B Monitoring Speaker (FS-4-A Cabinet)

APPLICATION

The FS-1-B Monitoring Speaker is designed for critical high-quality monitoring of broadcast program material in AM-FM and TV broadcast studios. It is ideally suited for every application requiring a pleasing, wide range response coupled with an attractive appearance. The FS-1-B Monitoring Speaker will provide unexcelled reproduction of music and speech in clients' rooms, control rooms, and studios. Its range extends from 50 to 13,000 cps.

The FS-2-A Studio Wall Speaker is a low cost speaker and housing combination for general purpose use in studios, offices, and recording rooms of broadcast studios.

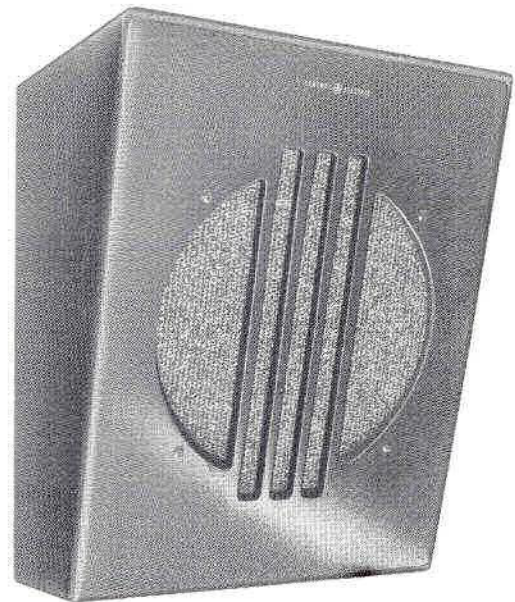
FEATURES

FS-1-B MONITORING SPEAKER

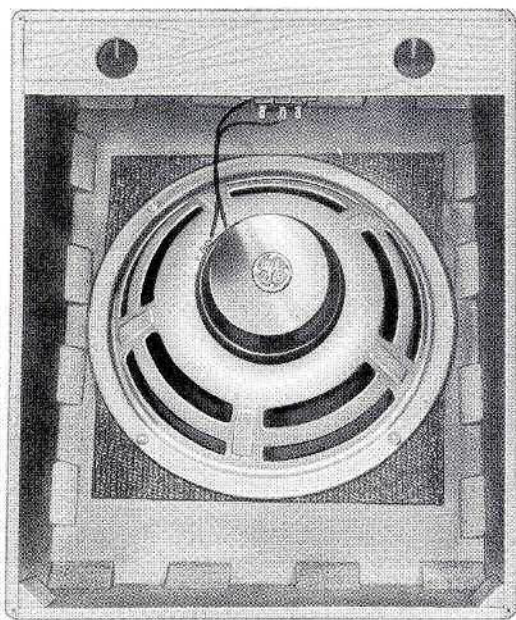
1. **Rich full bass.** Assured by use of ample cabinet volume and bass-reflex design.
2. **Wide range response.** Use of famous G-E speaker Type 1201A provides a uniform response, free from objectionable peaks, over the useful range of 50 to 13,000 cycles per second.
3. **High wattage capacity.** Non-warping aluminum foil base voice coil is unaffected by changes in moisture or temperature.
4. **Low driving power required.** Speaker is highly efficient.
5. **Contemporary styling of cabinet.** Carefully selected woods and contemporary cabinet styling complement the appearance of any studio.
6. **Line-to-voice-coil transformer included.**

FS-2-B STUDIO WALL SPEAKER

1. **Good sound distribution.** Cabinet front sloped for best sound distribution.
2. **Good frequency reproduction.** Uses General Electric 1201A speaker.



FS-2-B Studio Wall Speaker (FS-3-A Housing)



FS-2-B Studio Wall Speaker, rear, Showing Voice Coil Transformer

3. Attractively styled cabinet. Attractive walnut-finish wood used in cabinet construction.
4. Line-to-voice-coil transformer included.
5. Economical. Speaker and cabinet combination low in price.

DESCRIPTION

The FS-1-B Monitoring Speaker is composed of the FS-4-A Monitoring Speaker Cabinet, a 1201A Loudspeaker, and an FA-42-A Line-to-Voice-Coil Transformer.

The speaker used in the cabinet employs a curvilinear molded cone for efficient dispersion of its wide range reproduction. The heavy Alnico V permanent magnet provides a high sensitivity with reliable, quiet operation.

The interior surfaces of the cabinet are treated with special sound-absorptive material.

While the cabinet is designed for floor mounting, it may be readily wall mounted, if required.

The FS-2-B Studio Wall Speaker consists of an FS-3-A Wall Speaker Housing, a 1201A Speaker and an FA-42-A Line-to-Voice-Coil Transformer.

The cabinet is especially constructed and braced for wall mounting. Its sloping front panel assures good distribution of sound when the speaker is located out of the way at or near ceiling level. Its external walnut finish harmonizes pleasingly with other studio fixtures.

A line-to-voice-coil transformer, included with this model, will provide correct matching to several line impedances or parallel speaker operation.

MECHANICAL SPECIFICATIONS

Units: FS-1-B Monitoring Speaker including floor cabinet, speaker, and line-to-voice-coil transformer.

FS-2-B Studio Wall Speaker, including wall mounting cabinet, speaker, and line-to-voice-coil transformer.

FS-3-A Wall Speaker Housing only.

FS-4-A Monitoring Speaker Cabinet only.

Dimensions:	FS-1-B	FS-2-B
Speaker:	12"	12"
Cabinet:	Width: 25"	14 $\frac{3}{8}$ "
	Depth: 14 $\frac{1}{2}$ "	9 $\frac{3}{4}$ "
	Height: 26"	18"
Weight:	70 lbs approx.	10 lbs approx.

Mounting: FS-1-B. Floor mounting.

FS-2-B. Wall mounting with drilled holes to facilitate easy mounting or take-down.

Finish: Walnut.

Connections: FS-1-B and FS-2-B—solder terminals on transformer taps.

ELECTRICAL SPECIFICATIONS

Performance:

FS-1-B and FS-2-B: Frequency response: 50-13,000 cps.
Power Handling capacity: 25 watts, music and speech.

Field: Alnico V permanent magnet, 14.5 ounces.

Transformer Input Impedance: 600/1200/1800/2400 ohms.

ORDERING INFORMATION

When ordering, please specify:

FS-1-B Monitoring Speaker. (The type number includes one FS-4-A Cabinet, one 1201A speaker, one FA-42-A Line-to-Voice-Coil Transformer, and Installation and Operating Instructions.)

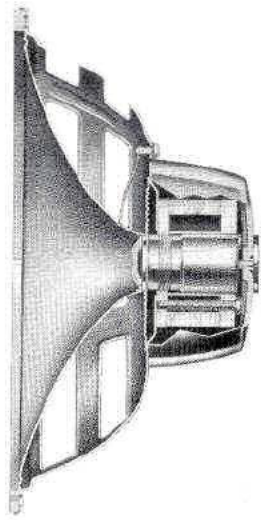
FS-2-B Studio Wall Speaker. (The Type number includes one FS-3-A Wall Housing, one 1201A speaker, one FA-42-A Line-to-Voice-Coil Transformer, and Installation and Operating Instructions.)

FS-3-A Wall Speaker Housing.

FS-4-A Monitoring Speaker Cabinet.

ACCESSORIES

FA-19-J Interconnecting Cable.



Cut-Away View, 1201A Speaker



G-E 1201A Speaker

APPLICATION

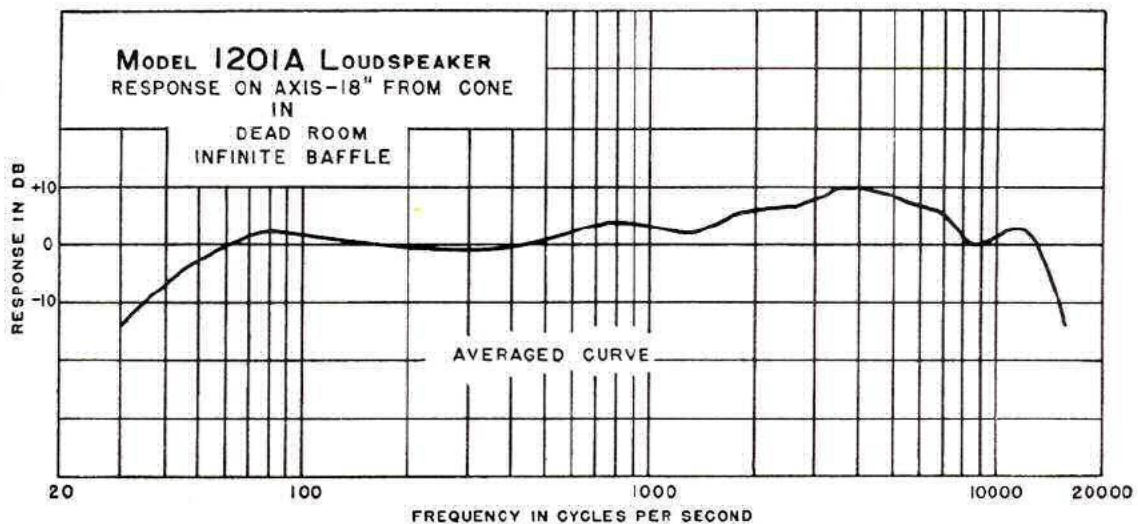
General Electric Loudspeakers are designed for critical high quality monitoring of broadcast program material in AM-FM and TV broadcast studios. They may be depended upon to provide excellent reproduction of music and speech in recording, control, and studio monitoring applications.

The Types 850, 1201A and 1203A Speakers are wide range speakers for use in broadcast control and studio monitoring.

FEATURES

1. High wattage handling capacity made possible by

- 2. use of non-warping aluminum foil base voice coils.
- 2. **Faithful reproduction** assured by molded, scientifically designed General Electric cones.
- 3. **High efficiency** due to liberal use of Alnico V magnet material.
- 4. **Rigidly constructed.** All-welded construction insures rigidity and provides optimum controlled flux density.
- 5. **Attractive appearance.** Lustrous finish is specially protected to preserve beauty and effectiveness.
- 6. **Wide range.** The 1201A and 1203A Speakers uniformly cover the frequency range from 50 to 13,000 cycles per second.



DESCRIPTION

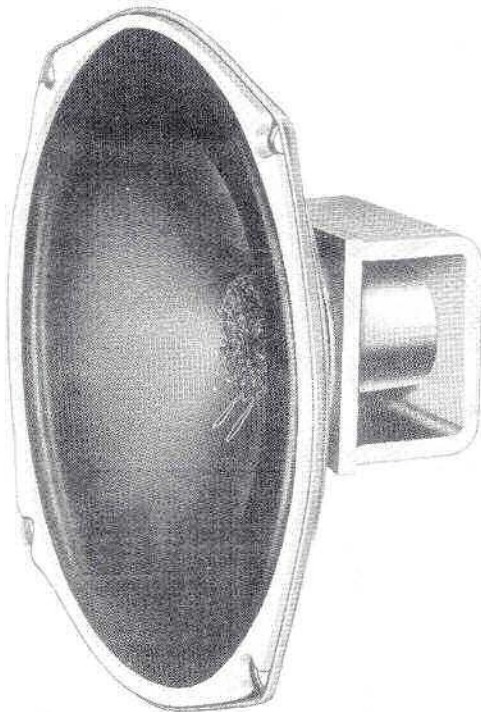
General Electric Loudspeakers are designed by audio engineers and produced under exacting conditions of quality control.

The Type 850 Speaker is a wide range unit, 8-in. in diameter with a 15-watt handling capacity.

The Type 1201A and 1203A Speakers are wide range units, 12" in diameter and with 25-watt handling capacities. They differ only in their Alnico V magnet weight; the 1201A having a 14.5-ounce magnet compared to a 9-ounce magnet in the 1203A, with a consequent increase in efficiency in the 1201A.

All speakers employ non-warping aluminum foil base voice coils with molded, scientifically designed circular cones. All-welded frame construction is employed to insure rigidity and controlled flux density. Alnico V magnet material is used for increased efficiency.

Due to careful design and quality control in manufacture, these speakers offer a uniform response, with freedom from objectionable peaks over their useful response ranges.



G-E 850 Speaker

MECHANICAL AND ELECTRICAL SPECIFICATIONS

Units: Wide Range Speakers: 850, 1201A, 1203A.

Mounting: All speakers are equipped with four mounting holes on the circumference of the frame designed to accept No. 8 machine screws.

Dimensions and Weights:

	Diameter Over-all Size	Mtg. Hole Centers	Depth Gasket to Yoke or Cover	Shipping Weight
850	7 $\frac{19}{32}$ "	7 $\frac{5}{8}$ "	3 $\frac{3}{4}$ "	2 lbs 10 oz
1201A	12 $\frac{7}{32}$ "	11 $\frac{9}{16}$ "	5 $\frac{7}{8}$ "	6 lbs 8 oz
1203A	12 $\frac{7}{32}$ "	11 $\frac{9}{16}$ "	5 $\frac{7}{8}$ "	5 lbs 2 oz

Type*	Size*	Alnico V Shape* Cone	Mag. Wt.	Power Rating	V.C. Diam.	V.C.	
						Imp. Ohms	Baffle Open.
** 850	8"	Round	6.8 oz.	15w	1"	8.0	6 $\frac{7}{8}$ "
**1201A	12"	Round	14.5 oz.	25w	1 $\frac{1}{4}$ "	8.0	10 $\frac{3}{4}$ "
**1203A	12"	Round	9.0 oz.	25w	1 $\frac{1}{4}$ "	8.0	10 $\frac{3}{4}$ "

* The General Electric Company manufactures a complete line of original and replacement speakers in a variety of shapes, sizes, and ratings not shown here. For information concerning these latter speakers, please consult your local General Electric distributor.

**Wide range speakers recommended for broadcast studio and monitoring applications.

Connections: 1201A, 850 and 1203A—Screw terminals.

ORDERING INFORMATION

When ordering, please specify:

Type....., Wide Range Speaker

ACCESSORIES

FS-4-A Monitoring Speaker Cabinet (for 12" speaker).

FS-3-A Wall Speaker Cabinet (for 12" speaker).

FA-42-A Line-to-Voice-Coil Transformer.

FA-19-J Interconnecting Cable.