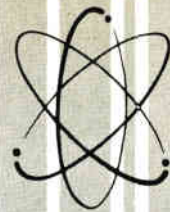




# Techni-talk

COMPLETE ELECTRONIC SERVICING INFORMATION  
radio • tv • hi-fi



Vol. 16, No. 1

Spring, 1964

## THE OSCILLOSCOPE — DETERMINING USABILITY — 2

In the last issue the high impedance probe was described. Information on its characteristics, how to build, and the amount of attenuation was included. In this issue a simple square wave generator and power supply for checking the probe and scope will be detailed. The unit can be built without a power supply using a TV receiver as a voltage source.

### Required Frequency Range

A precise method for determining the usability of the scope and probe is by using a square wave to determine their frequency characteristics. If the response of the oscilloscope is fairly linear in the frequency range between 60 cps and 15 kc, it will be usable for alignment and troubleshooting monochrome receivers.

As there are high frequency components contained in a square wave in the order of its tenth harmonic, for all practical purposes, it is only necessary to check the scope with square waves of 60 cps and 15 kc. By using these two frequencies the sine wave response of the scope can be determined for those frequencies from 60 cps to 600 cps and from 15 kc to 150 kc.



Fig. 3 Photograph of completely assembled unit including power supply

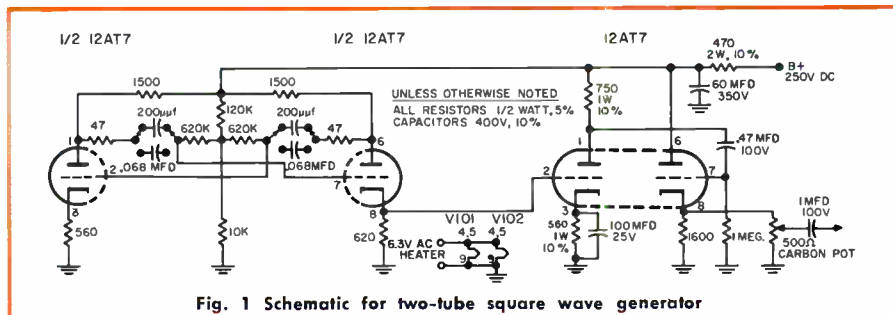


Fig. 1 Schematic for two-tube square wave generator

### Simple Square Wave Generator

The schematic for a two-tube square wave generator is shown in figure 1. The generator has been designed to provide the two frequencies required for use in observing the response of an oscilloscope and low-impedance probe. For making tests in the low-frequency area, a frequency was selected somewhat below 60 cycles in order to avoid any possibility of interference due to stray 60-cycle ripple. Using the components as shown in the schematic, the generator frequency is approximately 47 cycles when the switch is in the "low" position, when set to the "high" position the frequency is approximately 15 kc.

The filament and plate supply for this generator can be ob-

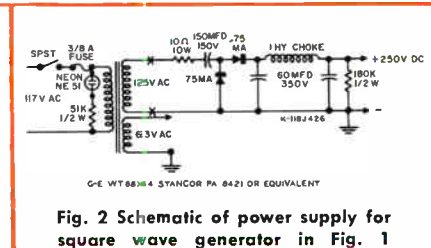


Fig. 2 Schematic of power supply for square wave generator in Fig. 1

tained from a television receiver provided certain precautions are taken. The receiver must not develop more than a 1. volt peak-to-peak ripple in the B+ supply circuit when operating under normal conditions. If this requirement is met, remove both vertical and horizontal output tubes from the receiver. The receiver B+ can then be connected to the "250 volt" input to the generator. The B+ supply to the generator must be held between 240 and 250 volts.

If the supply from the receiver is greater than these limits (measured at the generator input after a short (continued on page 7)

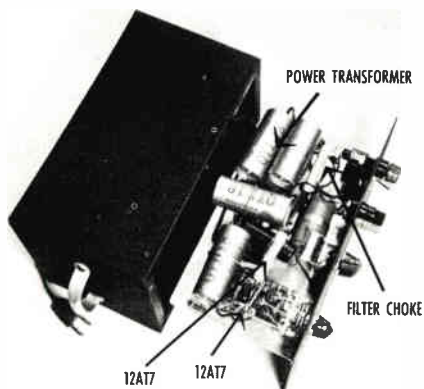


Fig. 4 Inside view showing parts placement. Arrows indicate location of transformer, choke and tubes mounted on top of chassis.

### SQUARE WAVE GENERATOR PARTS LIST (FIG. 1)

RESISTORS		CAPACITORS	
2 47 ohm 1/2 w, 5%	2 1500 ohm 1/2 w, 5%	2 200 mmf 400V	
1 470 ohm 2 w, 10%	1 1600 ohm 1/2 w, 5%	2 .068 mfd, 400V (G-E MAL 4568)	
1 560 ohm 1/2 w, 5%	1 10K ohm 1/2 w, 5%	1 .47 mfd, 400 V (G-E MAL 4P47)	
1 560 ohm 1 w, 10%	1 120K ohm 1/2 w, 5%	1 1 mfd, 100V (G-E MT1-2)	
1 620 ohm 1/2 w, 5%	2 620K ohm 1/2 w, 5%	1 60 mfd, 350V (G-E QT1-18)	
1 750 ohm 1 w, 10%	1 1 megohm 1/2 w, 5%	1 100 mfd, 25V (G-E QT1-20)	
POTENTIOMETER	TUBES	SWITCH	
1 500 ohm, carbon	2 12AT7	1 4 pole 2 position (Mallory No. 6242 or equivalent)	

### PARTS LIST FOR POWER SUPPLY (FIG. 2)

1 Power Transformer G-E WT88X14, Stancor PA-8421 or equiv. (Pri. 117 VAC — Secondary 125 VAC 50 MA; 6.3 VAC 2 AMP.)	1 150 MFD 150V Electrolytic (G-E QT1-25)
1 SPST Toggle Switch 1 10 ohm 10W Resistor	2 60 MFD 350V Electrolytic (G-E QT1-18)
2 Selenium Rectifiers, 75 MA.	1 1 hy. 50MA Filter Choke (Stancor C 2326 or equiv.)
THE FOLLOWING PARTS ARE OPTIONAL AND MAY BE OMITTED FROM POWER SUPPLY —	1 180K, 1/2 Watt Resistor
1 3/8 Amp 3AG Fuse	1 51K 1/2W Resistor (if not included in pilot socket)
1 Pilot Light Assembly	
1 Fuse Holder (Panel type)	1 NE 51 Pilot Light



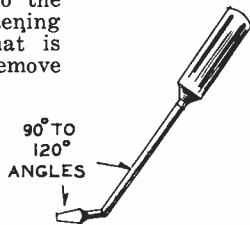


## BENCH NOTES

### CAPACITOR CAN REMOVER

Removing defective can type electrolytics from chassis, where the ground lug terminals are soldered to the chassis can be troublesome especially where there is the possibility of disturbing other circuit components.

After removing the wires from the terminals, a spade-like tool is used to pry the can from the top of the chassis thereby breaking the fastening lugs from the ring. Applying a soldering iron or gun to the broken fastening lugs is all that is necessary to remove them.



These tools are made from different size screw drivers by heating the shafts in a gas flame or torch. Angles between 90 and 120 degrees are used.

*J. F. Pyryt  
192 Norman Way  
Paramus, N. J.*

### SOLDERED SCREWS

When you run across a Phillips-head screw that has been "soldered in," use the standard, four-sided tip on a 100-watt iron as a Phillips screwdriver. When the solder is melted, the screw can be removed with no trouble.

*Otoe Goff  
Earl's TV Service  
310 E. Front  
North Platte, Nebr.*

### HEAT SINKS

I use three sizes of alligator clips for heat sinks, the ends filled with solder to the base of the teeth. This provides better conduction of heat. If too much heat is applied solder may melt to indicate more caution is needed.

Two or three inches of colored wire on end of clip will help keep track of heat sink.

*Ronald A. Sellers  
8115 Tippecanoe  
San Bernardino, Calif.*

### BAD ANTENNA TERMINALS

We had a TV in the shop with a real snowy picture. Since we do live in the fringe area a good signal is a must. The receiver was hooked up as usual and sure enough the set was also snowy in the shop. All of the tubes were checked. The tuner was checked over and to no avail. By closer checking the antenna terminals, the trouble was found. The owner had used liquid solder on the connections and one side of the line was a poor joint. The liquid solder was scraped off and a regular solder joint made. The picture was restored.

*Homer L. Davidson  
2821 5th Ave. S.  
Fort Dodge, Iowa*

### SERVICE HINTS

You are always removing defective capacitors from radio and TV receivers which are covered with wax. By keeping one of these on the bench you can always put it to good use. When you have a screw to replace which is in a hard to get place you just rub the head of the screw on the wax coating. The screw driver will then stick in the head of the screw until you get it into place.

In some of the older "series string" T.V. sets, which have some defect not requiring the picture tube, all you need is the chassis on the bench. Use an old 6SN7 tube with all the pins except pin 7 and pin 8 which are the filament pins removed. You can then insert pins 7 and 8 into the CRT socket pins 1 and 12. This completes the circuit and reduces the danger of breaking your test tube.

*Merle R. Crowley  
Drive In T.V.  
Wells, Maine*

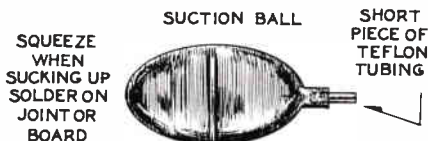
### DRILL HOLDER

Here is a suggestion for keeping drill bits handy but out of the way.

Use a styrofoam block which can be obtained at most hardware stores about 4 by 12 by 1 inch thick. Fasten it in an out of way place. Drill bits can be pushed into this block at any spot. We've used one of these blocks for over two years.

*Jim Brown  
Dealers Service  
2100 E. Conway Rd.  
Orlando, Fla.*

### SOLDER REMOVAL



While doing bench work I discovered a useful item to remove excess solder on printed circuit boards, and other small soldering joints.

The solder rubber suction ball is shown above. This is a very handy gadget when removing solder neatly and in a hurry. The suction ball can be purchased in hardware stores or five and ten.

*Joseph Zukauskas  
2227 Germantown Ave.  
Philadelphia 33, Pa.*

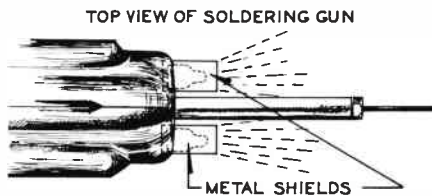
### REPLACEMENT FOR 19A3

Since I have been unable to locate an interchangeable American tube for the Japanese rectifier tube, 19A3, I have found that a type 35W4 will perform in six or eight tube receivers without wiring changes. It may be necessary to advance the volume control to compensate for lower heater voltage.

*Edwin J. Dunn  
77 West 181st Street  
Bronx 53, New York*



### SOLDERING GUN BULB PROTECTORS



It is most annoying to need light and not have it, due to a broken bulb in the soldering gun. I devised a method of protecting the bulbs by procuring a hollow brass tubing large enough in diameter to just fit over the bulb. Cut two pieces 1 in. in length and slip these over the bulbs. This will give near maximum protection and will not impair forward lighting. Other items such as tin or plastic tubing could be used — also pilot light shields.

*John J. Daugila  
4 Helen Avenue  
Freehold, N. J.*

### AUTO INSURANCE

Rather than trust spring supports for the hood of a car while working on fender mounted car antennas (where a falling hood can act like a guillotine on an arm) have a 2" by 2" by 4" piece of lumber handy. Carefully inserted between the opened hood and any recessed part of the motor, radiator or other motor sections, it will prevent untimely closing of the hood where arms or fingers could be seriously injured.

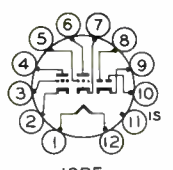
*Harry Kuhles  
"K" Radio Service  
37 E. Pleasant Ave.  
Maywood, N. J.*

### Note:

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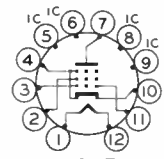


# COMPACTRONS

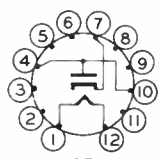


12BF  
6B10, 8B10

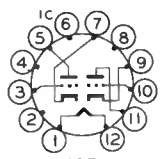
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1AD2	HV Diode	1J3 HV Rect.	12DQ
2AH2	HV Diode	3A3 HV Rect.	12DC
2AS2	HV Diode	2AH2 HV Rect.	12EW
3AT2	HV Diode	3A3 HV Rect.	12EX
4HA7	Dissimilar Double Triode	12AU7 (Pins 4, 9, 10) plus 12AX7	12FQ
6AF11	Dissimilar Dbl.-Tri. Pent.	Hi-Mu Tri. (Pins 5, 6, 8) plus 6CX8	12DP
6AG11	Duplex-Diode Twin Triode	12AT7 Twin Tri. plus 6BW8 Di. with Sep. Cath.	12DA
6AL11	Dissimilar Double Pentode	6DT6 (Pins 2, 3, 4, 6, 7) plus 6AQ5	12BU
6AR11	Twin Pentode	Two 6GM6 Pent.	12DM
6AS11	Dissimilar Dbl.-Tri. Pent.	Hi-Mu Tri. (Pins 5, 6, 8) plus 6CX8	12DP
6AV11	Triple Triode Diode	Three 12AU7 Tri.	12BY
6AX3	Duplex-Diode Twin Triode	6AX4-GTB Damp. Di. 12AX7 Twin Tri.-plus 6BW8 Di. with Sep. Cath.	12BL
6AY11	Duplex-Diode Twin Triode	12AU7 Twin Triode plus 6BW8 Diode	12DA
6B10	Tri-Twn. Pent. Dissimilar	6HS8 plus Medium Mu Tri. Med. Mu Tri. (Pins 3, 4, 7), High-Mu Tri. (Pins 5, 6, 8), plus Video Pent. Damp.—Max. Ratings: PIV=5000V. DC Output =200 ma.	12BF
6BA11	Dissimilar Dbl.-Tri. Pent.	6DT6 (Pins 2, 3, 5, 6, 7) plus Power Output Pent.	12ER
6BD11	Dissimilar Dbl.-Tri. Pent.	Two 6GH8 Triodes plus 6GH8 Pent.	12DP
6BE3	Diode	6W4-GT Damper	12BL
6BF11	Dissimilar Double Pentode	Three 12AX7 Triodes	12EZ
6BH11	Twin-Triode Pentode	12AT7 Triodes	12FP
6BJ3	Diode	6DN7 Vert. Osc. (Pins 9, 10, 11) and Amp.	12BL
6C10	Triple Triode	6EA7 Vert. Osc. (Pins 9, 10, 11) and Amp.	12BQ
6D10	Triple Triode	6DR7 Vert. Osc. (Pins 9, 10, 11) and Amp.	12BY
6FJ7	Dissimilar Double Triode	Dissimilar Double Triode	12BM
6FM7	Dissimilar Double Triode	Dissimilar Double Triode	12EJ
6FY7	Dissimilar Double Triode	Dissimilar Double Triode	12EO
6G11	Dissimilar Double Pentode	6DT6 (Pins 2, 3, 4, 6, 7) plus 6CU5	12BU
6GE5	Beam Pentode	6DQ6-B Hor. Defl. Amp.	12BJ
6GF5	Beam Pentode	6DQ6-B Hor. Defl. Amp.	12BJ
6GV5	Beam Pentode	6DQ6-B Hor. Defl. Amp.	12DR
6GY5	Beam Pentode	Hor. Defl. Amp.—Max. Ratings: Plate Dis.=18 W, DC Cath. Cur.=230 ma.	12DR
6HB5	Beam Pentode	6GY5 Hor. Defl. Amp.	12BJ
6HD5	Beam Pentode	Hor. Defl. Amp.—Max. Ratings: Plate Dis.=24 W, DC Cath. Cur.=280 ma.	12ES
6HE5	Beam Pentode	6E25 Vert. Defl. Amp.	12EY
6HF5	Beam Pentode	6DQ5 Hor. Defl. Amp.	12FB
6J10	Pentode-Gated Beam Disc.	6BN6 plus 6AL11 Power Out. Pent.	12BT
6J11	Twin Pentode	Two 6EW6 Pent.	12BW
6J28	Triode-Pentode	6SN7 Tri. plus 12R5 Pent.	12DZ
6K11	Three Section Triode	One 12AU7 (Pins 4, 9, 10) plus two 12AX7	12BY
6M11	Twin-Triode Pentode	Two 12AT7 plus 6EW6 Pent.	12CA
6Q11	Three Sect. Tri. Triode-Pentode	6K11 6AL11 Power Pent. plus one 12AX7	12BY
6T9	Triode-Pentode	6AL11	12FM
6T10	Dis. Dbl. Pent.	One 12AX7 (Pins 5, 6, 7) plus two 12AU7	12EZ
6U10	Three Section Triode	6AL11	12FE
8B10	Duplex-Diode Twin Triode	6B10	12BF
10AL11	Dis. Dbl. Pent.	6AL11	12BU
11AR11	Twin Pentode	6AR11	12DM
12AL11	Dis. Dbl. Pent.	6AL11	12BU
12AX3	Diode	6AX3	12BL
12BE3	Diode	6BE3	12BL
12BT3	Diode	6W4-GTA	12BL
12GE5	Beam Pentode	6GE5	12BJ
13J10	Pentode-Gated-Beam Disc.	6J10	12BT
15AF11	Dis. Dbl. Tri.	6AF11	12DP
15BD11	Dbl.-Tri. Pent.	6BD11	12DP
15FM7	Dis. Dbl. Tri.	6FM7	12EJ
15FY7	Dis. Dbl. Tri.	6FY7	12EO
16GY5	Beam Pentode	6GY5	12DR
17AX3	Diode	6AX3	12BL
17BE3	Diode	6BE3	12BL
17BF11	Dis. Dbl. Pent.	6BF11	12EZ
17GE5	Beam Pentode	6GE5	12BJ
17GV5	Beam Pentode	6GV5	12DR
17JZ8	Triode-Pentode	6JZ8	12DZ
21GY5	Beam Pentode	6GY5	12DR
21HB5	Beam Pentode	6HB5	12BJ
21HB5-A	Beam Pentode	6HB5	12BJ
21HJ5	Beam Pentode	6DQ5 with Ext. Conn. to Suppressor	12FL
22BW3	Diode	22DE4	12BL
23Z9	Dis. Dbl.-Tri. Pent.	6JZ8 plus Med.-Mu Tri. (Pins 7, 10, 11)	12FT
30AG11	Duplex-Diode Twin-Triode	6AG11	12DA
33GT7	Diode-Pentode	6GE5 plus 6AX3	12FC
33GY7	Diode-Pentode	6GE5 plus 6AX3	12FN
38HE7	Diode-Pentode	6HB5 plus 6BJ3	12FS
7984	Beam Pentode	6146	12EU
8156	Beam Pentode	R-F Power Amp.—21 W Output (1MS) at 175 Mc	12EU



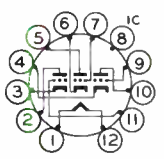
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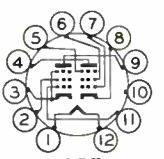
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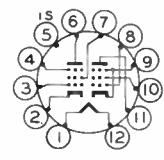
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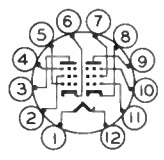
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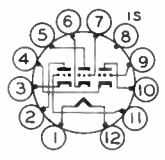
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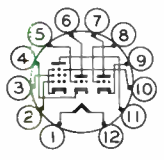
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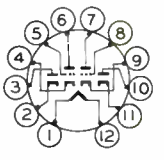
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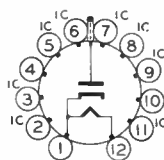
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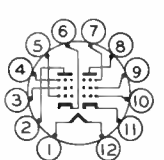
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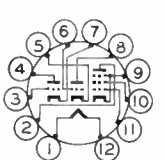
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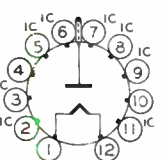
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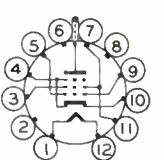
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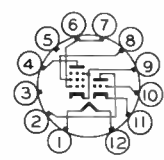
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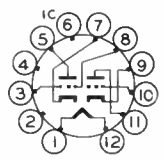
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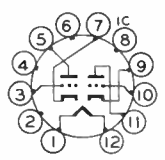
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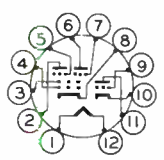
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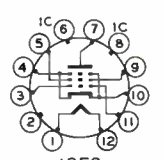
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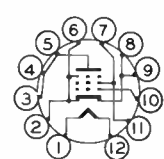
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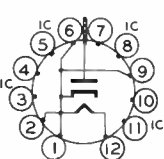
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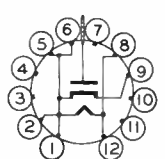
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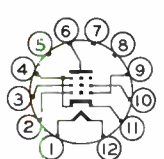
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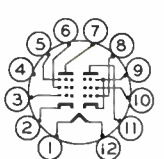
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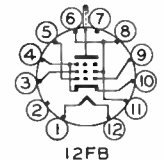
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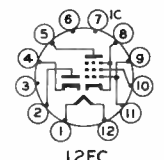
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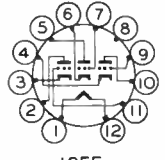
12EZ  
6BF11, 6T10, 17BF11



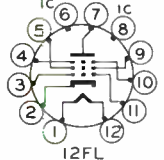
12FB  
6HF5



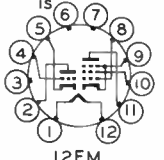
12FC  
33GT7



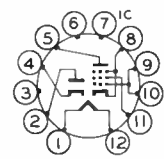
12FE  
6U10



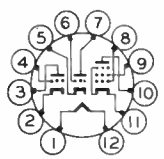
12FL  
21HJ5



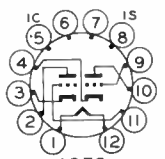
12FM  
6T9



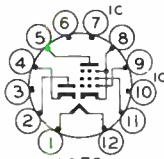
12FN  
33GY7



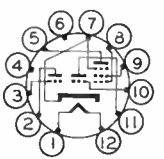
12FP  
6BH11



12FQ  
4HA7



12FS  
38HE7



12FT  
23Z9

# indoor signs



## ILLUMINATED SPECIAL MESSAGE SIGN

Here's a sign that dresses up the interior of your store—and does a special selling job for you in the bargain. A complete kit of letters is included, out of which you can make your own service messages to insert into the sign. Change the message

as often as you like. Numbers are also included to enable you to display special prices. Illuminated with two 30-watt lamps. Size—37" x 14". Colors—red-orange, black, grey, and white.

**ETR-1556, SPECIAL MESSAGE SIGN**

Cost.....\$27.50



## ILLUMINATED CLOCK

Wherever you put it, this attractive illuminated clock is a real eye-catcher. It not only tells the correct time—it also tells, quickly and effectively, an important part of your service story: the fact that you offer your customers famous G-E tubes and professional service. Delivered ready to hang on the wall or in the window. Also included are long-life illuminating bulbs. Size—16" diameter. Colors—red-orange, black, grey, and white.

**ETR-1291, ILLUMINATED CLOCK**

Cost.....\$14.95



## INSIDE/OUTSIDE THERMOMETER

It keeps them posted on the temperature—and it also keeps them posted on the fact that you're their TV-Radio Service Dealer. This year-round good-will builder works equally well inside or outside your shop. Sturdy construction with replaceable glass front. Size 12" diameter. Colors—red-orange, black, grey, and white.

**ETR-1568, THERMOMETER**

Cost.....\$5.95



## *window backdrop*

Colorful corrugated display material that's perfect for windows, counter fronts, walls, local exhibits. Packed two backdrops per carton. Each backdrop size—36" x 24". Colors—red-orange, black, grey, and white.

**ETR-1569, BACKDROP MATERIAL**  
Cost, per carton . . . . . \$2.00



### **GIANT TUBE CARTON**

These do an excellent display job... an excellent reminder job. Incorporate these giant tube cartons into your window displays to attract attention—use them on shelves or hang from ceiling as a mobile. Size—7½" x 17½". Colors—red-orange, black, grey, and white.  
**ETR-3288, GIANT TUBE CARTON**  
Cost.....\$ .35

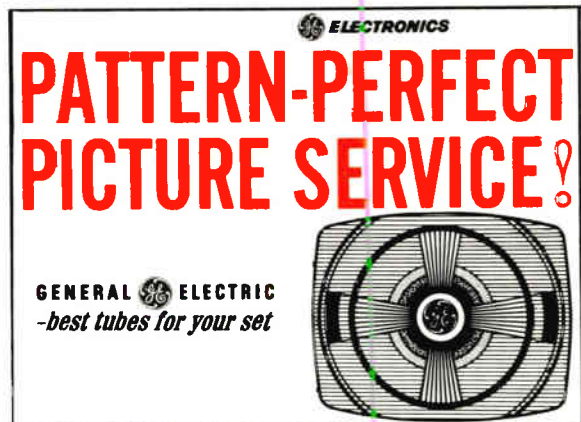
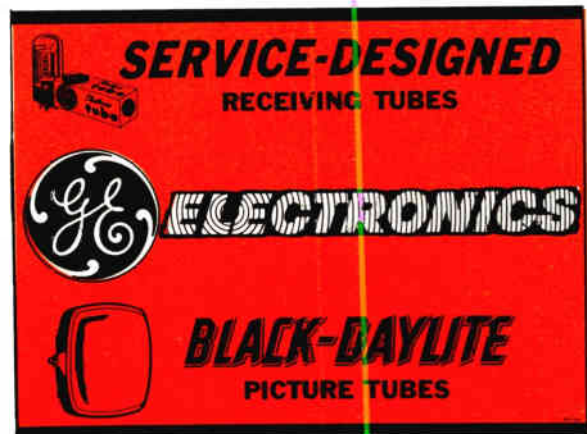


## *decals do an extra selling job!!*

Ideal service identification for your window, window-door. Message can be seen inside and outside your store. Colors—red-orange, royal blue and white. Size—16" x 12".

**ETR-3286, DEALER DECAL (2 side—front stick)**  
Cost.....\$0.35

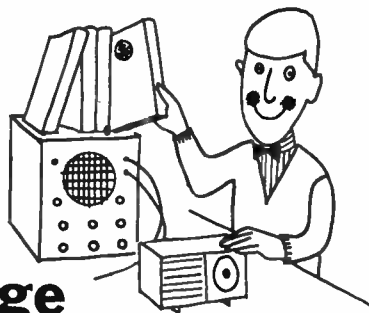
**ETR-3287, DEALER DECAL (1 side—back stick)**  
Can be applied to door, wall, etc.  
Cost.....\$0.25







## 1964 G-E radio/ portable phono subscription plans provide full coverage of service-information needs



**A** 1. **FACTORY SERVICE MANUALS**  
Keep completely current with service information on the latest models as they go into production. Manuals contain all necessary servicing data, such as schematics, phantom wiring diagrams, alignment procedures, disassembly instructions, electrical specifications, parts lists and prices.

2. **REPLACEMENT PARTS CATALOG**  
Each catalog brings you a full listing of all radio, phonograph, and intercom parts currently available from factory stock. You'll also receive all appropriate interchangeability information on out-of-stock parts.

**\$4.00** (ETR-3845)

**B** 3. **INCLUDES PLAN A**  
4. **RADIO SERVICE GUIDES**  
In two bound volumes, you have at your fingertips a wealth of information covering all G-E radios manufactured from 1946 to 1963.\* In addition to fully-detailed schematics and parts lists, special picture-guide sections are included, from which set-identification can be readily made where model numbers are unknown.

5. **FACTORY SERVICE BULLETINS**  
A series of product-information bulletins, published as set revisions and innovations are made on the factory production lines. You receive the information before your customers buy the products.

\* January-thru-December 1963 models not covered in Service Guides. Loose-leaf manuals available for this period at \$2.50 per set. (ETR-3847)

**\$7.50**  
(ETR-3846)



Use Order Coupon Below

### ORDER COUPON

Available from your local G-E tube distributor or can be ordered from our Chicago Warehouse

General Electric Company  
Department "B"  
3800 N. Milwaukee Ave.  
Chicago 41, Illinois

Enclosed is money order or check payable to General Electric Company for:

Quantity	Price
..... PLAN "A" for 1964, ETR-3845.....	\$ 4.00
..... PLAN "B" for 1964, ETR-3846.....	7.50
Subscription period for Plans A and B is one year from date of receipt.	
..... 1963 Service Manuals, ETR-3847.....	2.50
..... ETR-1291 Illuminated Clock .....	14.95
..... ETR-1556 Illuminated Special Message Sign.....	27.50
..... ETR-1568 Thermometer .....	5.95
..... ETR-3286 Dealer Decal .....	.35
..... ETR-3287 Dealer Decal .....	.25
..... ETR-3288 Giant Tube Carton.....	.35
..... ETR-3803 Tube and Parts Cabinet.....	11.75

NAME.....  
STREET ADDRESS.....  
CITY, ZONE NO. AND STATE.....

(Please Print)

### TRANSISTORIZED UHF TUNER- INTERMITTENT OPERATION

A few cases of dead or intermittent UHF tuners have been caused by an intermittent contact on the mixer diode.

If you should encounter this condition, it is only necessary to bend the mounting clips sufficiently to secure a firm contact to the diode.

### ALL MONOCHROME CHASSIS

The following procedure for alignment of any "Quadrature Grid" audio system should be followed for field touch up.

1. Use low input signal (tuned toward smear) for interstage touch up.

2. Use strong input signal (tuned to best pix) for quadrature coil and adjust for maximum undistorted audio.

### THE OSCILLOSCOPE — DETERMINING USABILITY — 2

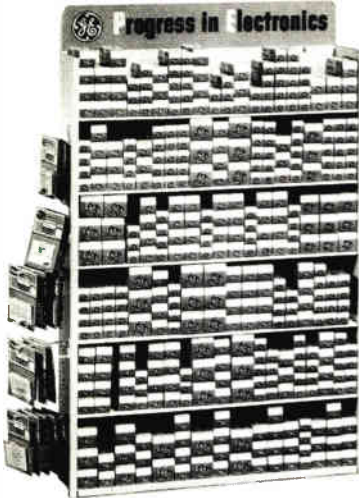
(continued from page 1)

warm-up period) a resistor of suitable size can be inserted between the receiver supply and the B+ terminal on the generator. The plate drain is approximately fifty milliamperes, therefore, the resistance of the additional resistor will be 1000 ohms for each 50-volt drop needed to reduce the receiver voltage to the required 250 volts. The wattage of this resistor can be computed by multiplying the voltage drop required times the generator current drain (.05 x voltage drop). For example, if a 50-volt drop is required (receiver supply 300 V when loaded by generator) a 1000-ohm 5-watt resistor will be necessary. (.05 x 50 = 2.5 watt plus safety factor.)

An inexpensive power supply designed to supply the square wave generator with the correct plate and filament voltages (at normal line voltage, 115-117 V AC) is illustrated in figure 2. Do not substitute other values for those shown as adequate filtering and voltage within the specified range is important.

A photograph of a completely assembled unit including the power supply is shown in Fig. 3. Fig. 4 is an inside view showing parts placement.

**NEW G-E TUBE AND PARTS CABINET**



Here is the answer to your tube and parts storage problem. Dress up your store with one or more for over-the-counter stock. Save time by having another at the bench to hold servicing supplies.

Six shelves provide over twelve feet of storage space. The pegboard hanger holes on each side give additional capacity for numerous items such as capacitors, semiconductors, tape, etc.

ETR-3803

- ★ **ATTRACTIVE — STURDY USEFUL**
- ★ **LARGER SIZE**  
39 3/4" H x 25" W x 6 1/2" D
- ★ **MORE SHELF SPACE**  
Each shelf holds as many as 115 miniatures or 72 GT tubes
- ★ **SLOTTED HOLES IN BACK**  
For mounting to wall
- ★ **EASY TO ASSEMBLE**  
Parts snap in place — no nuts or bolts.
- ★ **PEGBOARD HANGER HOLES ON SIDES**  
For standard fixtures (hangers not included)

Cabinets can be mounted side by side or stacked one above the other.

Ask your distributor for ETR-3803 or use handy order coupon on page 7. The price is only \$11.75. Shipped via prepaid parcel post.

**NEW G-E  
INFORMATION  
CENTER ETR-3779**

Look for the latest issue of **TECHNI-TALK** and any other important service dealer publications in the new G-E Electronics Information Center — at your distributors.



Vol. 16, No. 1

Spring, 1964

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Techni-talk on AM, FM, TV Servicing, published quarterly by **ELECTRONIC COMPONENTS DIVISION, GENERAL ELECTRIC COMPANY, OWENSBORO, KY.** In Canada: Canadian General Electric Co., Ltd., 189 Dufferin St., Toronto 3, Ontario. R. G. Kempton, Editor. Copyright 1964 by General Electric Company.



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