

## CONSOLE TYPE AMPLIFIERS

Heretofore employed primarily in custom installations, the fine amplifiers used in Collins 212A Console are now available for mounting in other equipment. Shown above and described on this and the following pages are:

- 6Q Dual Preamplifier
- 6N Program Amplifier
- 6S-2 Two-stage Isolation Amplifier
- 6V 10-Watt Monitor Amplifier
- 6W-2 2-Watt Monitor Amplifier
- 117P-1 Repeat Coil Unit
- 409T-2 Power Supply for 6N, 6S or 6W-2

The 409T-2 Power Supply is capable of operating two 6N Program Amplifiers, five 6S-2 Isolation Amplifiers, or two 6W-2 2-watt Monitor Amplifiers. Power for the 6Q Dual Preamplifiers may be obtained from a 409T-3 Power Supply, a standard rack mounting unit listed elsewhere. The 409U-1 or -2 Power Supply, as supplied with the 212A Console, is recommended for use with these amplifiers if a complete system is contemplated.

### 6Q-1 DUAL PREAMPLIFIER

The 6Q contains two preamplifiers on one chassis. These amplifiers usually work into a program amplifier, such as Collins 6N or 6R. An external power supply is needed.

- Input Impedance: 50 or 250 ohms.
- Input Level: Commercial microphone level.
- Output Impedance: 600 ohms.
- Gain: 47 db.

- Frequency Response:  $\pm 1$  db 30-15,000 cps.
- Distortion: Less than 1%.
- Noise: Better than -65 db.
- Tubes: 2-6AQ6, 2-6C4.
- Power Requirements: 140 volts d-c @ 8 ma.
- 6.3 volts a-c or d-c @ 0.6 amp.
- Dimensions:  $4\frac{3}{4}$ " h,  $4\frac{1}{2}$ " w,  $10\frac{1}{2}$ " d.
- Weight: 5 lbs., 2 oz.

### 6N-1 PROGRAM AMPLIFIER

The 6N-1 is a Program Amplifier meeting the strictest requirements of present day broadcasting—AM, FM or TV. Mounted on a console-type chassis, it requires an external power supply. A dual section, 100,000 ohm-per-section potentiometer is also required.

- Input Impedance: 600 ohms matching or 20,000 ohms bridging. 150 ohms available.
- Input Level: Not exceeding -10 dbm\*.
- Output Level: +30 dbm\*.
- Output Impedance: 600 ohms. 150 ohms available.
- Gain: 68 db matching. 53 db bridging.
- Frequency Response:  $\pm 1$  db 30-15,000 cps.
- Distortion: Less than 1% at +30 dbm\*.
- Noise: Better than -65 db.
- Tubes: 2-6AQ6, 2-6C4, 2-6F6.
- Power Requirements: 325 volts d-c @ 50 ma.
- 6.3 volts a-c or d-c @ 2 amp.
- Dimensions:  $5\frac{3}{4}$ " h, 6" w,  $10\frac{1}{2}$ " d.
- Weight: 4 lbs., 12 oz.

\*dbm: reference level 1 mw, 600 ohms.

**6S-2 ISOLATION AMPLIFIER**

The 6S-2 is a two-stage push-pull Isolation Amplifier. It may be used as a bridging amplifier for monitoring, as a distribution and isolation amplifier, as a program booster at studio or transmitter or as a program amplifier. An external power supply is required. The components are mounted on a console-type chassis, and are all easily accessible. A screwdriver-operated switch will vary the gain in four steps of 3 db per step.

Frequency Response: 30-15,000 cps  $\pm 1.0$  db.

Distortion: Less than 1% at any level up to +20 dbm\* output.

Noise: -65 db.

Overall Gain: +45 db line matching, +35 db bridging.

Input Level: -10 dbm\* max.

Output Level: -20 to +20 dbm\*.

Input Impedance: 600 ohms, or bridge with 20,000 ohms. 150 ohms available.

Output Impedance: 600 ohms, 150 ohms available.

Tube Complement: 2-6SN7.

Power Requirements: 6.3 volts @ 0.6 amp a-c or d-c. 100 to 250 volts d-c at 20 ma.

Dimensions: 5½" h, 4½" w, 10½" d.

Weight: 5 lbs., 4 oz.

**6V-2 MONITOR AMPLIFIER**

The 6V-2 is a 10-watt Monitor Amplifier mounted on a console-type chassis. A dual section (25,000 ohm-per-section) potentiometer is needed. This amplifier may be used on a 600 ohm circuit, matching, with 62 db gain, or as a bridging amplifier with approximately 52 db gain. An external power supply is needed.

Input Impedance: 600 ohms matching, or 20,000 ohms bridging.

Input Level: Not more than -10 dbm\*.

Output Impedance: 600 ohms balanced.

Gain: 62 db matching 600 ohms.

52 db bridging with 20,000 ohms.

Frequency Response:  $\pm 1$  db 30-15,000 cps.

Distortion: Less than 1% at +40 dbm (vu).

Noise: Better than -75 db.

Power Requirements: 325 volts d-c @ 150 ma.

6.3 volts a-c or d-c @ 2.7 amp.

Dimensions: 6½" h, 6" w, 10½" d.

Tube Complement: 6SN7, 6SL7, 2-6L6.

Weight: 7 lbs.

**6W-2 MONITOR AMPLIFIER**

The 6W is a 2-watt Amplifier mounted on a console-type chassis. It may be used to drive monitor speakers, or for any other applications requiring up to 2 watts. An external power supply is needed. A screwdriver-operated switch will vary the output level in four steps of approximately 3 db each.

Input Impedance: 600 ohms. 150 ohms available.

Input Level: Not over -10 dbm\*.

Output Impedance: 600 ohms. 150 ohms available.

Gain: 45 db, 600 ohms matching, 33 db at 20,000 ohm bridging.

Frequency Response: 30 to 15,000 cps  $\pm 1.5$  db.

Distortion: At +30 dbm, less than 1%.

Noise: Better than -70 db from +30 dbm\* output.

Power Requirements: 325 volts d-c @ 50 ma.

6.3 volts a-c or d-c @ 1.7 amp.

Dimensions: 5½" h, 4½" w, 10½" d.

Tube Complement: 6SL7, 2-6F6 or 2-1621.

Weight: 4 lbs., 12 oz.

\*dbm: reference level 1 mw, 600 ohms.



## 117P-1 REPEAT COIL UNIT

The 117P-1 consists of two coils mounted on a console-type chassis. The characteristics of the repeat coils are as follows:

Input Impedance: 600, 250 or 50 ohms balanced.  
150 ohms available.

Input Level: +25 dbm\* max.

Output Impedance: 600 ohms. 150 ohms available.

Distortion: Less than 0.2% at +25 dbm\*.

Frequency Response:  $\pm 0.4$  db 30-15,000 cps.

Dimensions:  $4\frac{1}{2}$ " h,  $4\frac{1}{2}$ " w,  $10\frac{1}{2}$ " d.

Weight: 1 lb., 14 oz.

\*dbm: reference level 1 mw, 600 ohms.

## 409T-2 POWER SUPPLY

A Power Supply mounted on a console-type chassis,  $4\frac{1}{2}$ " wide. Mounting holes are standard for mounting in Collins 212A Console. By changing two resistors supplied in a kit, any one of the voltages and currents listed below may be obtained.

325 volts d-c @ 50 ma.      250 volts d-c @ 75 ma.

300 volts d-c @ 100 ma.      250 volts d-c @ 100 ma.

250 volts d-c @ 50 ma.

Also 6.3 volts a-c @ 5 amp, CT.

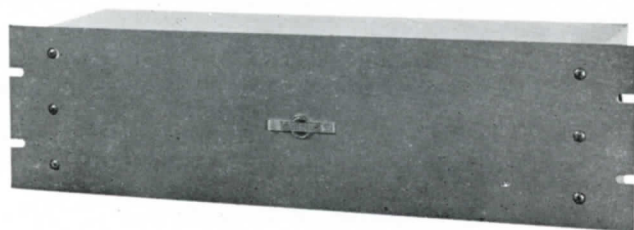
Tube: 5R4GY.

Output Connections: Solder-type terminals.

Input: 115 volts a-c, 50/60 cps.

Dimensions:  $8\frac{1}{2}$ " h,  $4\frac{1}{2}$ " w,  $10\frac{1}{2}$ " d.

Weight: 8 lbs., 4 oz.



409T-1 Power Supply

## 409T-1 POWER SUPPLY

A rugged, reliable power supply is a necessity for innumerable applications. The 409T-1 is a well engineered unit, with sturdy components and a very low hum level. Both plate supply and filament power are available, with a tapped primary for voltage adjustment. Collins 6P Preamplifiers and 6R Isolation Amplifiers may be mounted in the same rack with

the 409T-1 power supply, and fed directly from it.

Tubes: 2—6X5.

Plate Supply Voltage: 250 volts d-c @ 100 ma.

Filament Supply Voltage: 6.3 volts a-c @ 4.0 amp.

Dimensions: 19" w,  $5\frac{1}{4}$ " h,  $7\frac{1}{2}$ " d.

Weight:  $24\frac{1}{2}$  lbs.

Finish: Metallic gray panel, velvet gray dust cover.



409T-3 Power Supply

## 409T-3 POWER SUPPLY

The 409T-3 is a rack mounting Power Supply on a  $3\frac{1}{2}$ " panel. The power switch and pilot light are on the front panel. Connections to the unit are made to a covered terminal board at the rear. Any one of the output voltages and currents listed below is made available by changing two resistors supplied in a kit. Two plug-in high capacity electrolytic condensers of ample safety margin contribute to an extremely well filtered output. The filter input capacitor is an oil-filled paper unit.

Ripple Voltage: .005 volts at 250 volts d-c, 50 ma.

Output:

325 volts d-c @ 50 ma.      140 volts d-c @ 50 ma.

250 volts d-c @ 50 ma.      250 volts d-c @ 25 ma.

180 volts d-c @ 50 ma.      140 volts d-c @ 20 ma.

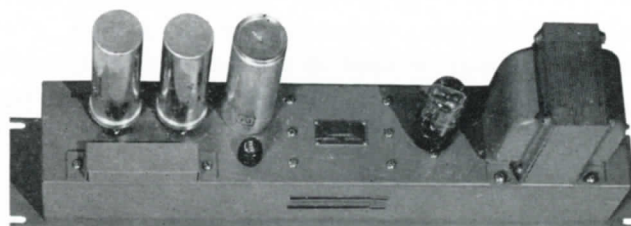
6.3 volts a-c @ 3 amp.

Tubes: 1—6X5.

Finish: Metallic gray.

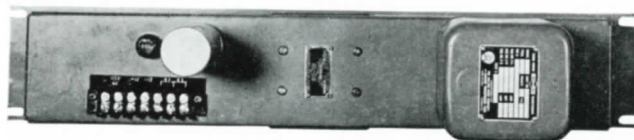
Weight: 11 lbs.

Input: 115 volts a-c, 50/60 cps.



409T-3 Power Supply (rear view)

## 414F-4 RELAY POWER SUPPLY



The 414F-4 Relay Power Supply is designed for use where a small number of relays are to be operated. This unit provides a source of 12 volts d-c at 1 ampere, and 12.6 volts a-c center tapped, at 3.5 amperes. Where low current drain is feasible for operating relays, the small size of the 414F-4 makes it especially desirable. The 12.6 volt a-c center tapped voltage is also useful for a filament supply or for operating pilot lamps.

Power Source: 115 volts a-c, 50/60 cps.

Output Voltage: 12 volts d-c @ 1 amp.

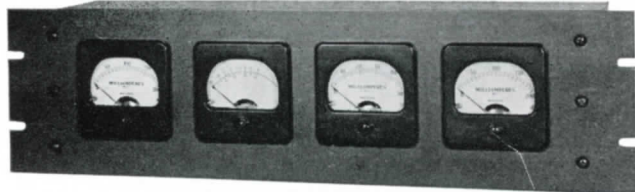
12.6 volts a-c CT @ 3.5 amps.

Dimensions: 19" w, 3½" h, 7" d.

Weight: 8¾ lbs.

Finish: Metallic gray.

## METER PANEL TYPE 82D-7



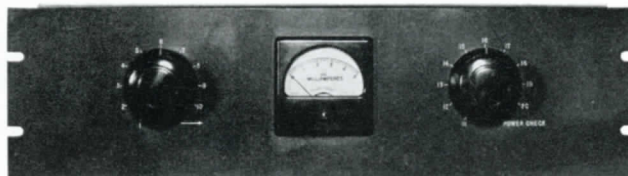
Meter panels have many applications in monitoring and measuring equipment. D-c and a-c voltages and currents can be continually metered by using this convenient rack mounting panel. The unit accommodates four meters of the Weston type 301 size (not supplied), and is equipped with a dust cover 7½" deep. Dzus fasteners are employed to hold the cover in place. The panel is made of aluminum, ⅜" thick. Meters are available to suit any requirements.

Dimensions: 19" w, 5¼" h, 5" d.

Finish: Metallic gray.

Weight: 6 lbs.

## 82T-1 METERING UNIT



The 82T-1 is a versatile unit for measuring currents of various rack mounting type amplifiers, such as the Collins 6X, 6P and 6R and the console mounting type amplifiers, such as 6Q, 6N, 6V, 6S and 6W. It is also adaptable for use with any circuit employing tapped cathode resistors of the proper multiplier values, or in circuits where the multiplier is in the plate circuit. The unit is wired to accommodate 10 plate metering circuits, and 10 cathode metering circuits. By adding jumpers on the terminal strip, the unit will operate for 20 cathode circuit measurements.

The basic meter movement is 1 ma full scale, and is calibrated 0 to 5. It will indicate currents of 0-5, 0-50, and 0-500 ma with a 25 ohm, 2.04 ohm or 0.22 ohm multiplier resistor.

In addition to the direct current measurements, a twenty-first position allows a check of the a-c voltage in the rack.

The dust cover protects switches and is held on by means of two snap fasteners.

Dimensions: 12" w, 5¼" h, 7½" d.

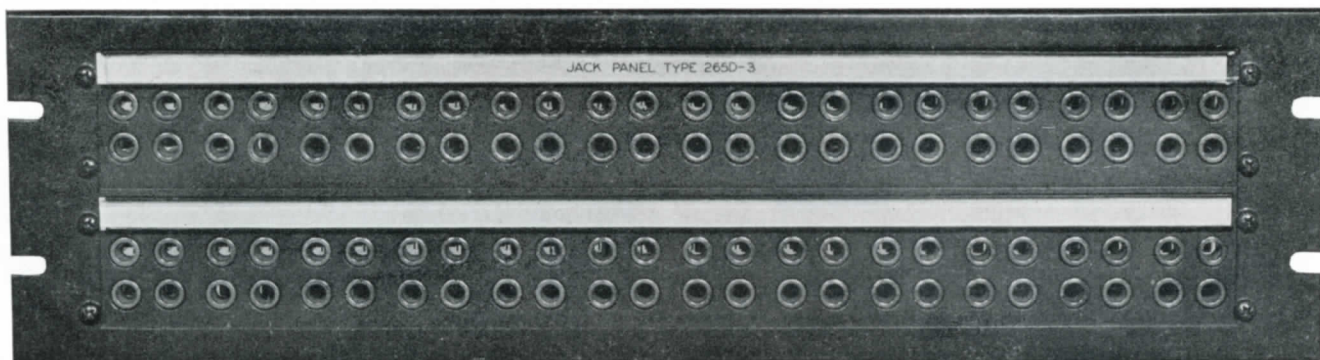
Weight: 10 lbs.

Finish: Metallic gray.

Current Range: 0-5, 50, 500 ma (with appropriate circuit).

A-c Metering: Indicates 120 volts center scale, and shows variations of 5 volts per 1 scale division from 80 to 130 volts. (Scale not calibrated for a-c volts).





## TYPE 265D JACK PANELS

Utmost flexibility is afforded a control room through the use of jack strips and associated patch cords. Connections can be made for test purposes or for terminating program lines and order wires. Lines, amplifiers, microphones, equalizers and other audio equipment can be speedily interchanged for maintenance or emergency operation. These jack panels mount in standard 19 inch racks. Regularly supplied with jack (break one, 2-circuit).

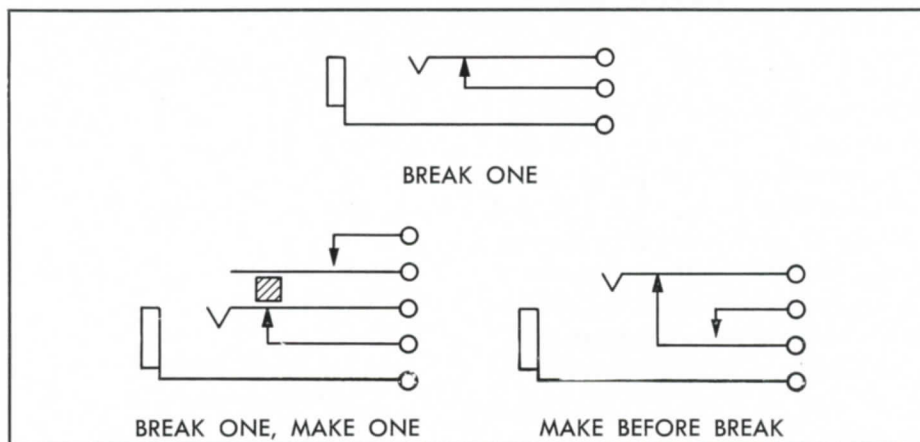
Type No.	Description	Height	Weight
265D-1	12 pr. jacks	1¾"	3¾ lbs.
265D-2	24 pr. jacks	3½"	6½ lbs.
265D-3	48 pr. jacks	5¼"	11½ lbs.
265D-4	72 pr. jacks	7"	17 lbs.
265D-5	96 pr. jacks	10½"	22½ lbs.
265D-6	120 pr. jacks	12¼"	28 lbs.

## PATCH CORDS

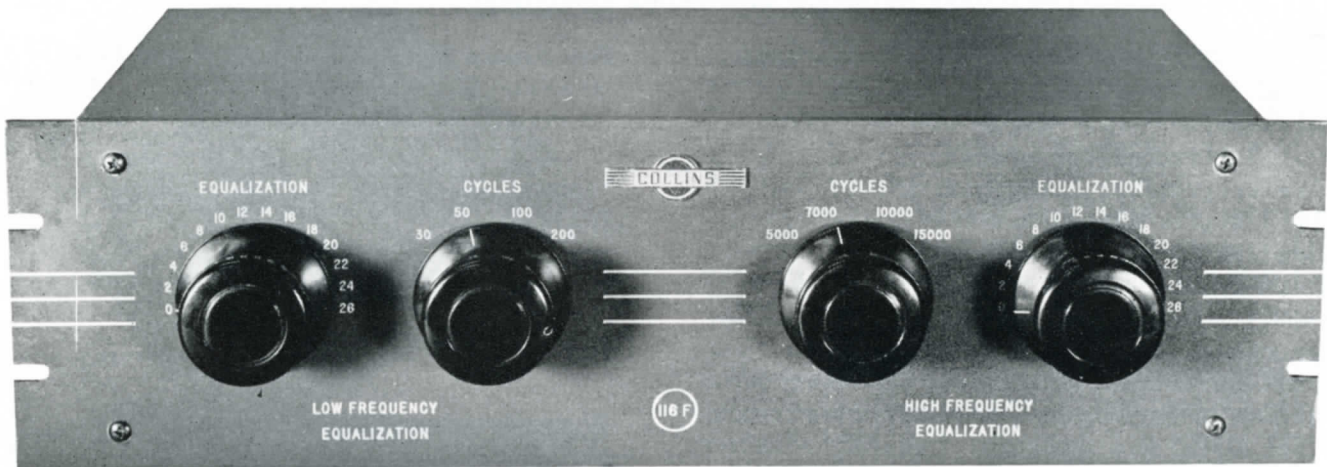
Patch cords for use with jack strips are available in lengths from 6 inches to 10 ft. The plugs are of the shielded type, with the sleeves tied together and grounded. The circuit is maintained through connections to the plug tips.



## LONG FRAME TWO-CIRCUIT JACKS



Jack Circuit Schematic



## PROGRAM EQUALIZERS

Collins Equalizers provide complete facilities for controlling the frequency response of program and communication circuits. The circuit gives simple, smooth control of equalization. As these units have an insertion loss of approximately 30 db, the Collins 6R Isolation Amplifier used in conjunction with the Equalizers will provide a means of bringing the level back to normal, plus a little gain if desired.

### 116F-1 EQUALIZER

Input and Output Impedance: 600 ohms, unbalanced.

Equalization Frequencies: 30, 50, 100 or 200 cps at low frequency. 5, 7, 10 or 15 kc at high frequency.

Maximum Boost: 26 db, in steps of 2 db each.

High and low frequency equalization independently adjustable.

Insertion Loss: 30 db at unequalized frequency.

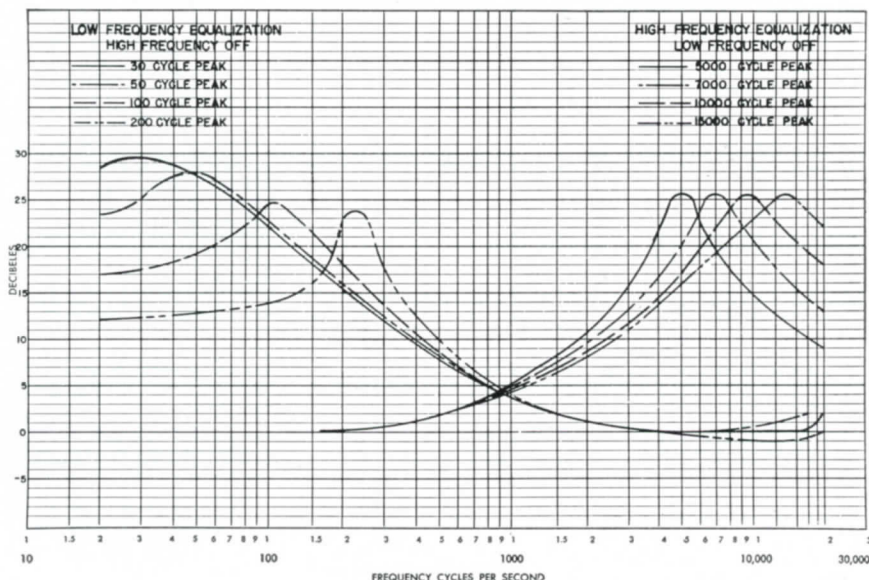
Frequency Range: 30-15,000 cps.

Dimensions: 19" w, 5¼" h, 7½" d.

Weight: 15 lbs.

Finish: Metallic gray.

116F-1 Performance Curves





## 116E-3 AND 116E-4 EQUALIZERS

The 116E-3 and -4 Equalizers are another application of the 116F-1 circuit with a variable insertion loss dependent upon the amount of equalization used. Especially suited for stations having a variety of remote programs coming from different lines, the 116E-3 and -4 offer equalization in the high frequency ranges only. A calibrated attenuator selects the amount of equalization at the required frequency which is selected by a panel switch. Such calibration reduces line equalization time to a single run to find the line characteristics, and adjustment of the equalizer to the conjugate frequency characteristic.

The 116E-3 is a single high frequency equalizer while the 116E-4 has two identical high frequency equalizers mounted on the same panel with separate input and output terminals. Both are supplied with a flat gray-finished dust cover.

### 116E-3 EQUALIZER



Input and Output Impedance: 600 ohms unbalanced.

Equalization Frequencies: 5, 7, 10 and 15 kc.

Maximum Boost: Approx. 30 db.

Insertion Loss: Approx. equal to amount of equalization used.

Frequency Range: 30 to 15,000 cps.

Dimensions: 19" w, 3½" h, 7¼" d.

Weight: 6 lbs., 7 oz.

Finish: Metallic gray panel; flat gray back.

### 116E-4 EQUALIZER



Input and Output Impedance: 600 ohms unbalanced.

Equalization Frequencies: 5, 7, 10 and 15 kc.

Maximum Boost: Approx. 30 db each channel.

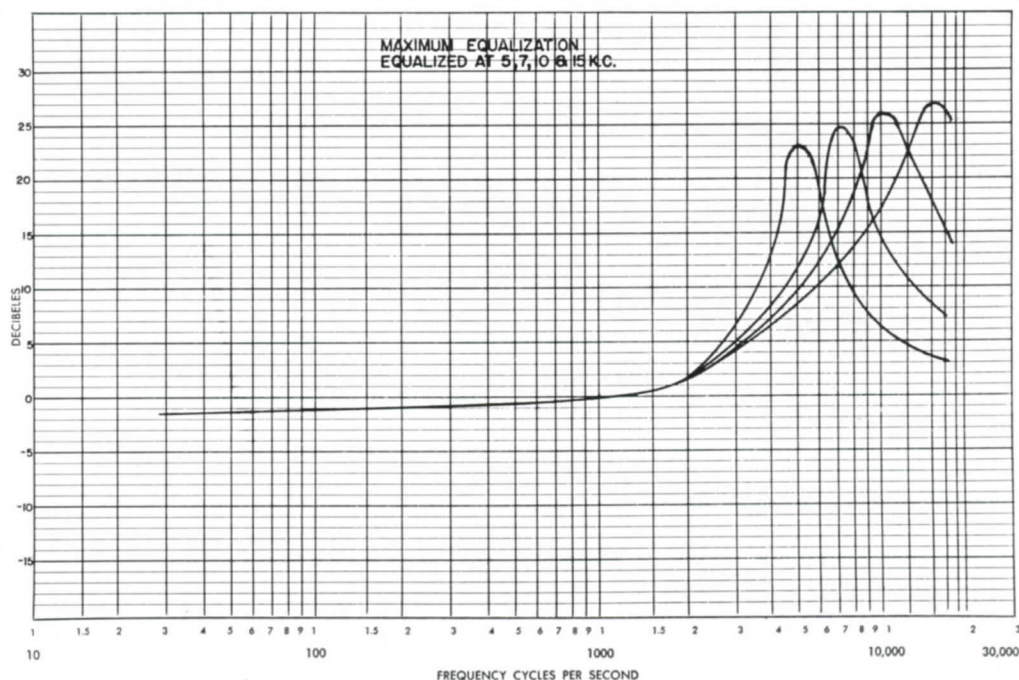
Insertion Loss: Approx. equal to amount of equalization used.

Frequency Range: 30 to 15,000 cps.

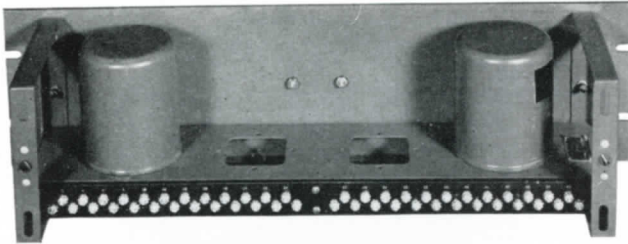
Dimensions: 19" w, 3½" h, 8¼" d.

Weight: 9 lbs., 7 oz.

Finish: Metallic gray.



## 117N-2 REPEAT COIL PANEL



The 117N-2 Repeat Coil Panel is a complete assembly including chassis, terminal board and dust cover, but less repeat coils. This unit will accommodate four Thordarson type repeat coils with an R-4 case. There are 50 terminals on the board for making connections to external equipment. The dust cover is held on by two convenient Dzus fasteners.

Dimensions: 5¼" h, 19" w, 5" d.

Weight: 7½ lbs. (less coils).

Finish: Metallic gray panel, velvet gray dust cover.

## REPEAT COILS — THORDARSON R-4 CASE

1. Line to Line	Primary	600 ohms
	Secondary	250 ohms
2. Line to Mult. Line		50 ohms, split
	Secondary	600 ohms, split
	Secondary 1	600 ohms
	Secondary 2	600 ohms
3. Line to Mult. Line		600 ohms
	Primary	600 ohms, split
	Secondary 1	600 ohms, split
	Secondary 2	600 ohms, split
4. Bridging		600 ohms, split
	Primary	20,000 ohms, split
	Secondary	600 ohms
		250 ohms
5. Line to Mult. Line		50 ohms, split
	Primary	600 ohms, split
	Secondary 1	250 ohms, split
	Secondary 2	50 ohms, split



## 268A-1/268B-1 ATTENUATOR PANELS

Separate gain control may be maintained over incoming and outgoing lines, auxiliary amplifiers and speakers by the use of the Collins 268A-1 and 268B-1 Attenuator Panels. The 268A-1 consists of two balanced ladder attenuators while the 268B-1 features two bridged-T type attenuators. Both attenuator types have 20 steps, 2 db attenuation per step, with infinite attenuation in the last step. Connec-

tions are conveniently brought out to a terminal strip on the rear. The front panel is attractively engraved to indicate decibels of attenuation.

Dimensions: 3½" h, 19" w, 4" d.

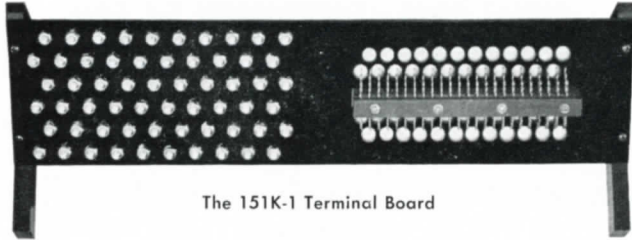
Input or Output Impedance: 600 ohms. Other impedances available.

Finish: Metallic gray.

Weight: 8 lbs., 14 oz.



## 151K TERMINAL BOARDS



The 151K-1 Terminal Board

### 151K TERMINAL BOARDS

151K-1 (above) is used in the base of rack mounting cabinets. It contains 96 telephone-type solder terminals for audio connections, and 60 heavy duty threaded stud-type terminals for power connections. Wt.: 2 lbs., 14 oz.

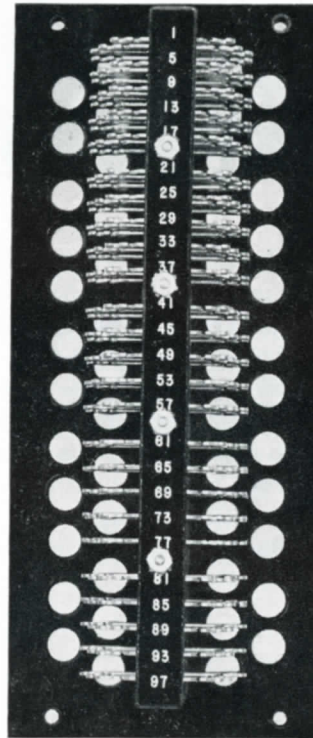
The 151K-5 is a terminal board consisting of 100 telephone-type terminals, 25 in a row, 4 rows deep, on a  $3\frac{1}{2}$ " x 8" bakelite board which has  $7\frac{1}{2}$ " x  $2\frac{1}{2}$ " mounting centers. Wt.: 1 lb.

The 151K-4 has four 151K-5's assembled on an inclined plane on an  $8\frac{3}{4}$ " x 19" panel, for standard rack mounting. The assembly is  $7\frac{1}{2}$ " deep. Wt.: 7 lbs.

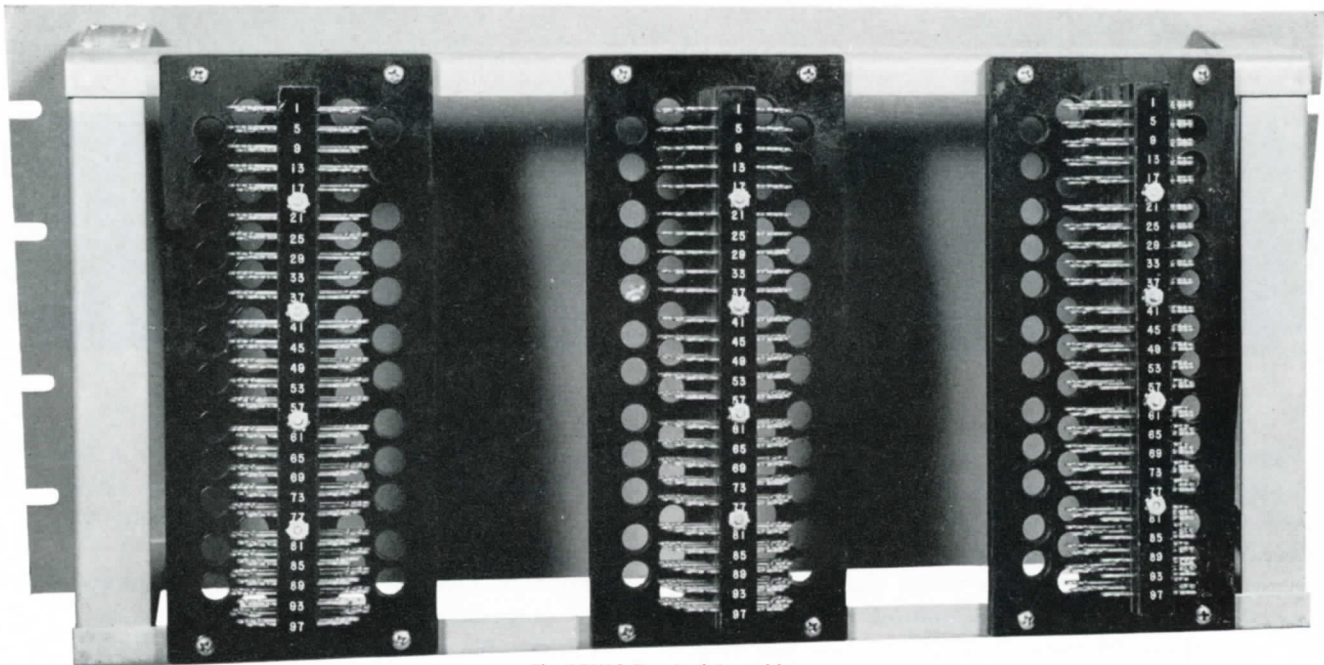
The 151K-3 is identical to the 151K-4 except it has only three 151K-5's assembled on a panel. Wt.: 8 lbs.

The 151K-6 is similar to the 151K-1 except that

144 telephone-type terminals are provided as well as the 60 heavy duty terminals. Wt.: 3 lbs.



151K-5 Terminal Assembly



The 151K-3 Terminal Assembly



209A-1



209A-2

## 209A WARNING LIGHT ASSEMBLIES

The 209A Studio Warning Lights are constructed of aluminum sheet metal with a divided light compartment. Each of the two light compartments contains two 7½ watt 110 volt a-c bulbs and sockets to provide illumination of the lettering.

The 209A-1 flush type is mounted with the light box recessed in the wall, using the light box as the junction box, or mounting it to a standard junction box recessed deeper into the wall. The cover plate mounts directly to the wall with four screws.

The 209A-2 external type is mounted with the light box directly over a standard junction box, which is recessed in the wall the usual depth. The cover plate mounts directly to the light box with two screws.

## SPECIFICATIONS:

**209A-1**—For mounting flush with the wall. Sign must be ordered separately.

Dimensions: 4⅝" h, 7⅜" w, 2" d.

Weight: 11 oz.

**209A-2**—For wall mounting. Sign must be ordered separately.

Dimensions: 4⅝" h, 9½" w, 2" d.

Weight: 15 oz.

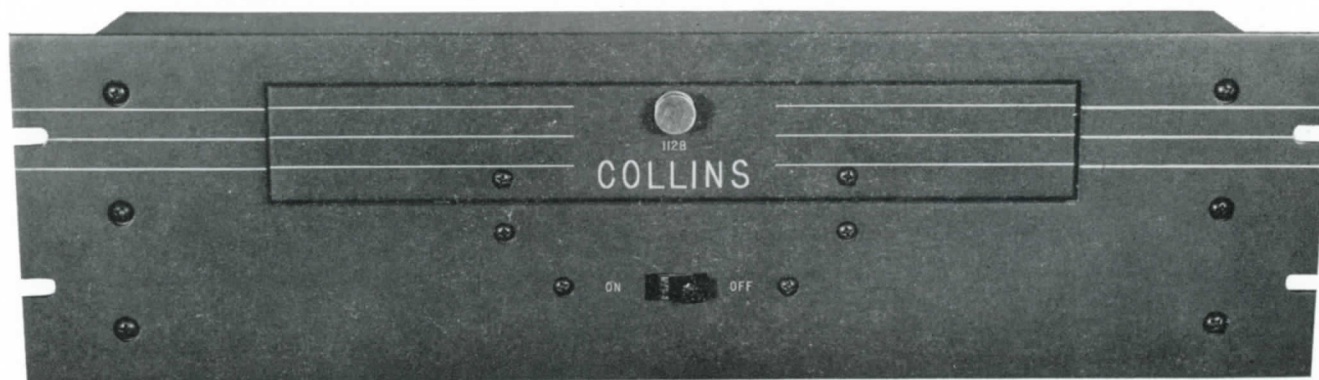
## SIGNS

The signs are made of boilable lucite with a black surface except for colored lettering.\* The weight of each sign is 2 oz. The four available signs are:

ON THE AIR	Red letters	STAND BY	Green letters
ON THE AIR	Red letters	AUDITION	Green letters
ON THE AIR	Red letters	REHEARSAL	Green letters
AM	Red letters	FM	Green letters

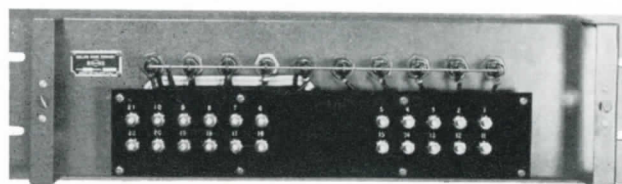
\*Special wording available at additional cost.





## 112B-1 SWITCH AND FUSE PANEL

The 112B-1 provides primary a-c control over 10 different circuits. A heavy-duty circuit breaker, operated by a snap action switch, carries the total a-c load, and each of the 10 circuits is individually fused. A terminal board and dust cover complete the unit. A door in the front panel furnishes convenient access to the fuses. The panel is 5¼" high, and mounts in a standard 19" rack. Metallic gray finish. Weight, 6½ pounds. Complete with set of extra circuit breaker heaters for operation at 3, 5 or 7 amperes. Furnished with 9 ampere link installed.



Rear View, Dust Cover Removed

Replacement links in 3, 5, 7 or 9 amps available.

## SHIELDED RADIO HOOKUP WIRE

**Two Conductor:** Two insulated conductors, twisted and covered by tinned copper braid.

**Each conductor:** No. 20AWG gauge, 3 amp capacity. Two solid colors, or solid color with tracers to distinguish one conductor from another.

**Shielding:** 96 strands No. 34AWG tinned copper wire braided in groups of 4 strands side by side.

### TYPES AVAILABLE

Solid conductor Fiber glass braid insulation  
Solid conductor Lacquered cotton braid insulation.

Same as above except cotton braid overall.

7 strands min. Fiber glass braid insulation.

7 strands min. Lacquered cotton braid insulation.

Same as above except cotton braid overall.

**Two Conductor:** Each conductor color coded, No. 16AWG (19 strands min.) 15 amp a-c, 1,000 volts rms. Lacquered cotton braid insulation.

**Shield:** 90 (min.) strands of No. 32 to No.

38AWG tinned copper wire with 5 (min.) strands running side by side.

**Overall diameter:** 0.32" max.

**Two Conductor:** Each conductor No. 12AWG (19 strands min.) 20 amp a-c, 1,000 volts rms.

Lacquered cotton braid insulation color coded.

**Shield:** 92 strands of No. 34AWG tinned copper wire with 4 strands side by side.

**Overall diameter:** 0.420" max.

**Microphone Cable (Rubber):** Two insulated conductors, twisted, covered by tinned copper shielding and encased in rubber. Diam. approx. 0.285".

**Each conductor:** 26 strands No. 34AWG tinned soft annealed wire twisted for flexibility. Equivalent to No. 20AWG gauge 3 amp 300 volts. Rubber covering 1/64", one white, one black.

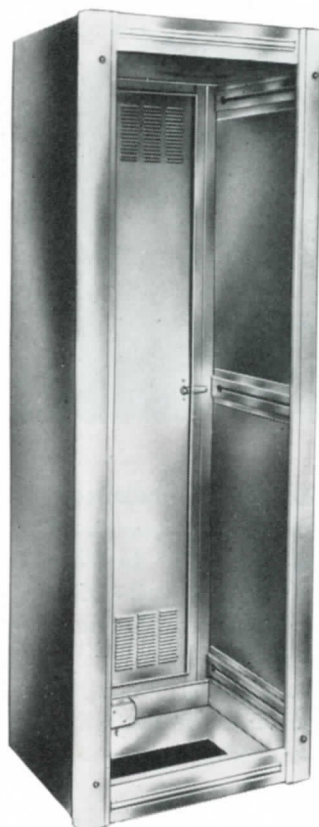
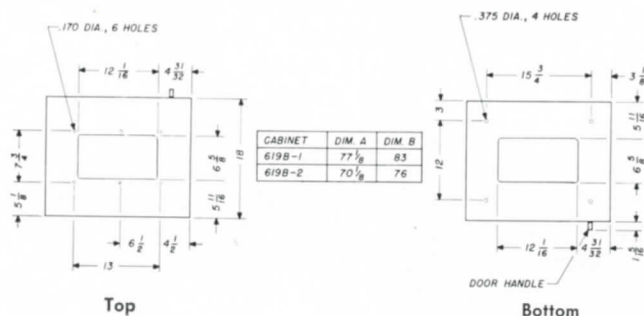
**Shield:** 96 strands of No. 34AWG tinned copper wire, braided with 4 strands running side by side.

**Jacket:** 3/64" black rubber.

## RACK CABINETS

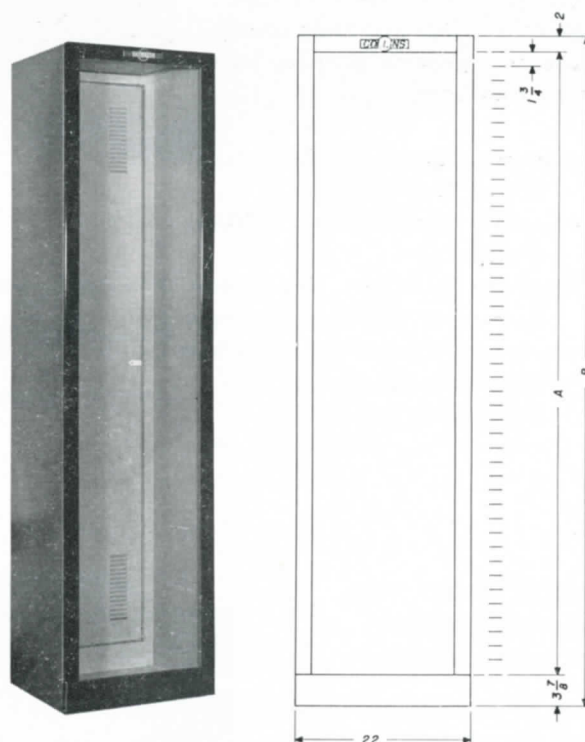
Type 619B cabinets are sturdily constructed of sheet metal, conveniently drilled to accommodate standard 19" panels of any height. A hinged full-length rear door provides immediate access to all units mounted in the cabinet. Adequate ventilation is obtained through properly distributed louvers in the door and through an opening in the top that is protected from dust by a baffle plate. The outside depth of the cabinet is 18 inches.

These cabinets are available in metallic gray finish.



Black lacquered style strips are furnished with each cabinet.

619B cabinets are furnished in two sizes, the 619B-1 with 77" panel mounting space, and the 619B-2 which has 70" panel mounting space. Overall heights are 83" and 76" respectively.



**PAR-METAL PX-7718 RACK CABINET**

The PX-7718 cabinet is 76½" high, 22" wide, and 18" deep, with 70" of panel space. The cabinet body is made of ¼" cold rolled steel, the top is made of ⅝" steel, and the bottom of ⅞" steel. A duplex receptacle and outlet box is provided in the back under the door. Black ripple enamel finish is standard, grey ripple or "Primer Coat" only are optional at the same price. Shipping weight is 190 lbs.

## BLANK PANELS

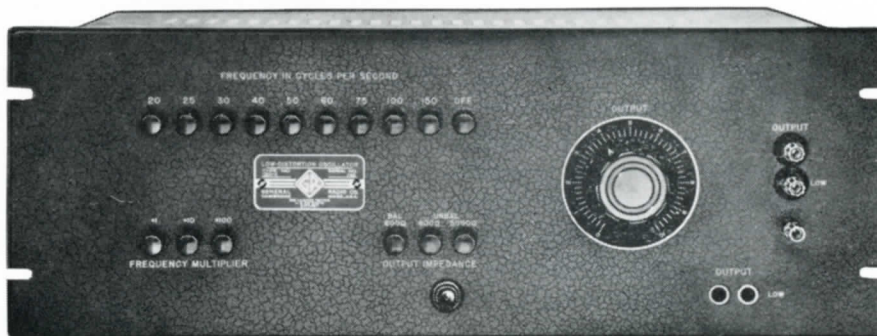
Useful for filling up unused space in racks and for making special equipment, blank panels have many applications. These panels are drilled to mount in standard 19" racks. The thickness is  $\frac{3}{16}$ ". Standard panels are aluminum, with metallic gray finish. Other metals and colors are available on special order.

Height	Weight
13 $\frac{1}{4}$ "	10 oz.
31 $\frac{1}{2}$ "	1 lb., 4 oz.
51 $\frac{1}{4}$ "	1 lb., 14 oz.
7"	2 lbs., 8 oz.
83 $\frac{3}{4}$ "	3 lbs., 2 oz.
101 $\frac{1}{2}$ "	3 lbs., 12 oz.
121 $\frac{1}{4}$ "	4 lbs., 6 oz.
14"	5 lbs.



## GENERAL RADIO 1301-A LOW DISTORTION OSCILLATOR

The 1301-A Oscillator is used as a tone source for distortion measurements and as a power source for bridge measurements at audio frequencies. It is also satisfactory for use as a general purpose laboratory oscillator.



1301-A

Frequency Range: 27 fixed frequencies between 20 and 15,000 cycles.

Frequency Calibration: Within  $\pm 1\frac{1}{2}\%$   $+0.1$  cycle.

Frequency Stability: Not greater than 0.02% per hour after 10 minutes of operation.

Output Impedances: 600 ohms balanced to ground.  
600 ohms unbalanced.  
5,000 ohms unbalanced.

Power Supply: 105-125 (or 210-250) volts, 25-60 cps (power consumption—45 watts).

Tubes: 1—6Y6G 1—6SQ7 1—6B4-G  
1—6SJ7-GT 1—NE-17 1—6SL7-GT  
1—6SK7-GT 1—6X5-GT 1—0D3

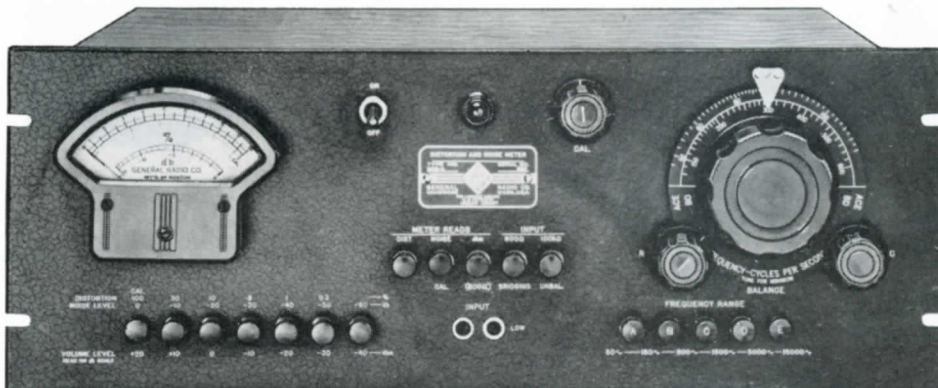
Accessories Supplied: Power cord, multipoint connector and spare fuses.

Dimensions: 19" x 7" panel, 12" deep.

Weight: 31½ lbs.

## GENERAL RADIO TYPE 1932-A DISTORTION AND NOISE METER

The 1932-A Distortion and Noise Meter measures distortion, noise and hum level in audio-frequency circuits. In conjunction with the 1931-A Modulation Monitor, it can be used to measure these quantities directly in the output of transmitters.



1932-A

Distortion Range: Full scale deflections for 0.3%, 1.0%, 3%, 10% or 30% distortion.

Noise Measurement Range: 90 db below reference calibration level, or 80 db below an AF signal of 0 dbm level at maximum sensitivity.

Audio-Frequency Range: 50-15,000 cycles (fundamental) for distortion measurements; 30-45,000 cycles for noise and hum measurements.

DBM Range: Power level range is from +20 to -60 dbm.

Residual Noise Level: Less than -80 db.

Input Impedance: 100,000 ohms unbalanced or 600 ohm bridging input.

Tubes: 4—6J5 1—6K6-GT/G 1—6X5GT  
1—6SN7-GT 1—6H6 2—0D3

Accessories Supplied: Line cord, cable for connecting to 1931-A, spare fuses.

Power Supply: 105-125 (or 210-250) volts, 50/60 cps. The line input power is 65 watts.

Dimensions: 19" x 7" panel, 12" deep.

Weight: 37¾ lbs.



## PRESTO 64-A TRANSCRIPTION TURNTABLE

The 64-A is a reliable, maintenance-free, directly gear-driven unit. The transmission is designed so that mechanical disturbances are reduced to 50 db below program level by a mechanical filter placed between the gear box and turntable. Two separate motors are employed, one for  $33\frac{1}{3}$  and the other for 78.26 rpm. Speed selection is accomplished by throwing a 3-position switch ("OFF,"  $33\frac{1}{3}$  or 78.26 rpm). Only one motor runs at a time. The 64-A includes the drive mechanism turntable and cabinet. (Reproducers are not included.)

Speed Accuracy: Zero deviation from  $33\frac{1}{3}$  and 78.26 rpm.

Power Requirements: 115 volt 60 cycles, 75 watts.

Motors: 1800 rpm synchronous.

Dimensions: Turntable in case 24" x 24" x 33".

Weight: 226 lbs. packed.



## PRESTO T-18/T-68 CHASSIS

The T-18/T-68 turntables are 3-speed units utilizing three interchangeable idler wheels mounted on the shift plate to prevent wobbling. To select speeds, the shift is moved laterally across the panel to engage the proper idler against the motor shaft. When the knob is in either of two "off" positions located between each of the speed positions, the idlers are

released from contact with the shaft to prevent flats on the rubber surface.

The T-68 is furnished with a rubber mat for cueing transcriptions and a separate 45 rpm adapter disc. Both the T-18 and T-68 are available with hysteresis synchronous motors for highest possible speed accuracy.

Panel Size: 8" x  $11\frac{3}{4}$ ".

Speeds:  $33\frac{1}{3}$ , 45, 78.26 rpm.

Speed Accuracy: 0.25% (instantaneous).

Turntable Diameter: T-18 is  $11\frac{7}{8}$ ", T-68 is  $15\frac{3}{4}$ ".

Turntable Weight: T-18 weighs  $4\frac{1}{4}$  lbs., T-68 weighs 7 lbs.

Noise: Better than 40 db (50 db with hysteresis motor).

Power Required: 115 volts 60 cycles, 40 watts.

Available Models:

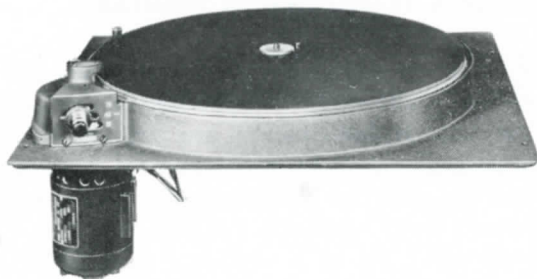
T-18 12" with 4 pole motor.

T-18H 12" with hysteresis motor.

T-68 16" with 4 pole motor.

T-68H 16" with hysteresis motor.





## PRESTO 10-B TRANSCRIPTION TURNTABLE

The 10-B consists of a chassis, 16" turntable, motor, and 3-speed drive mechanism—33 $\frac{1}{3}$ , 45 and 78 rpm.

Simplicity and easy maintenance are important 10-B features. The drive consists of a motor and pulley which directly contacts a rubber tire set into a groove around the rim of the turntable. The motor pulley has three different diameters, which can be brought into contact with the tire to select the required speed.

Mechanical Noise Ratio: 40 db below average program level.

Speed Regulation: Overall 0.5%, instantaneous 0.25%.

Power Required: 110 volts 60 cycle, 0.5 amp.

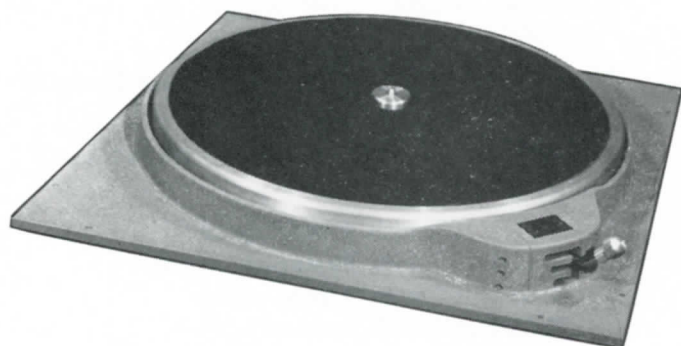
Dimensions: 20" x 18 $\frac{1}{2}$ " x 5".

Weight: 50 lbs.



## PRESTO CC-5 FLOOR MOUNTING CABINET

The CC-5 cabinet is for use in mounting the Presto 10-B Turntable chassis. The unit is 24 $\frac{1}{4}$ " x 25 $\frac{1}{4}$ " x 32" high and is made of 5-ply veneer wood.



## QRK-17B TRANSCRIPTION TURNTABLE

The 17B is a 3-speed professional turntable assembly. The table is 17", made of cast aluminum with a steel center pin, and is rim driven by a drive assembly requiring only one idler wheel. Speed change is accomplished by placing the shift lever in the desired speed channel. The QRK-17B can be used with almost any existing overhead cutting assembly or reproducer. The chassis is finished in gray crackle enamel.

Speed Accuracy: 0.4%.

Motor:  $\frac{1}{2}$ <sub>5</sub> H. P. Constant Speed.

Power Requirements: 115 volts, 60 cps.

Acceleration: 33 $\frac{1}{3}$ — $\frac{1}{8}$  turn, 45— $\frac{1}{4}$  turn, 78— $\frac{1}{2}$  turn.

Noise: Rumble is approximately 40 db under normal program level.

Dimensions: 19 $\frac{5}{8}$ " x 19 $\frac{5}{8}$ ".



## **REK-O-KUT B-16H TRANSCRIPTION TURNTABLE**

The B-16H offers the broadcaster finest performance at lowest cost. The turntable itself is precision lathe-turned, cast aluminum with an extra heavy rim for flywheel action. Turntable diameter is standardized at 15 $\frac{3}{4}$ " to allow a  $\frac{1}{8}$ " overhang for cueing. It is internally rim-driven by means of neoprene compound idlers. Rotates on a single-ball pivot which takes the entire thrust of the turntable shaft.

Speeds: 33 $\frac{1}{3}$ , 45 and 78 rpm.

Starting: From standing start to operating speed: at 78 rpm— $\frac{3}{4}$  turn, at 33 $\frac{1}{3}$  and 45 rpm— $\frac{1}{4}$  turn.

Motor: Self-lubricating hysteresis synchronous.

Noise Level: -50 db.

45 RPM Hub: Built-in, retractable.

Dimensions: 18 $\frac{3}{4}$ " x 20".

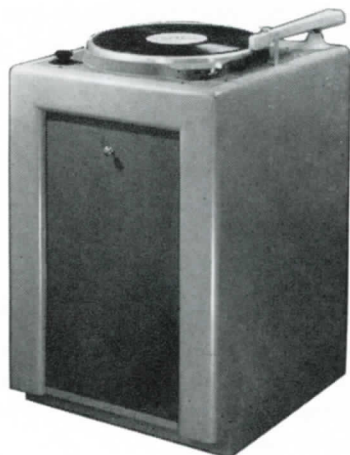
Finish: Wrinkle gray.

Weight: 30 lbs.



## **QRK FLOOR MOUNTING CABINET FOR 17B**

For mounting QRK-17B 3-speed transcription turntable.



## **REK-O-KUT C-7B CONSOLE CABINET**

Cabinet is designed to receive B-16H chassis without using screws or bolts. Floats on felt. Features two storage compartments with piano hinges and flush ring-latches. Built-in electrical outlets and adjustable leveling castors. Metallic-gray finish. Dimensions: 33" high, 22" wide, 20 $\frac{1}{2}$ " deep.





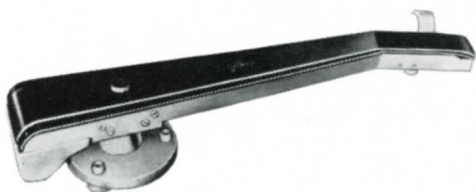
### GRAY 108C TONE ARM

The Gray 108C lightweight arm incorporates viscous damping to provide high tracking accuracy. For records up to 16" in diameter. Constructed of cast aluminum. Accommodates most magnetic cartridges including Pickering, GE and Fairchild.



### GRAY 106-SP PLAYBACK ARM

The 106-SP is designed to meet the rigid requirements of high compliance cartridges such as GE and Pickering. Precisely adjustable stylus pressure for finest reproduction of 33 $\frac{1}{3}$ , 45 and 78 rpm records. Natural resonance for below standard recording limits. Adjustable pivot height. Low vertical inertia. Quick cartridge change without tool or solder, comes with three cartridge slides.



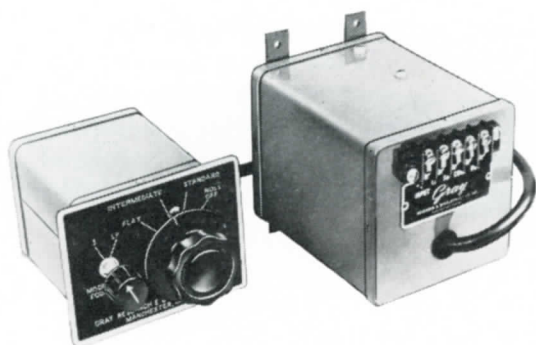
### GRAY 108-B TRANSCRIPTION ARM

The 108-B is a viscous-damped arm providing excellent tracking of records. It incorporates a slide-in cartridge permitting instant change from 78 rpm to micro-groove or 45 rpm records. The 108-B will accommodate all the most popular magnetic pick-up cartridges — Pickering, the new GE replaceable stylus (short body) and Fairchild.



### GRAY 103-LP PLAYBACK ARM

The 103-LP arm, with an angular contact ball pivot is recommended for 33 $\frac{1}{3}$ , 45 or conventional records. It has an adjustable counterweight, permitting accurate setting of precise stylus pressure for micro-groove records.



## GRAY 602C EQUALIZER

The 602C is normally used with standard microphone preamplifiers, thus making it unnecessary to purchase special audio input equipment when using magnetic cartridges. A convenient control permits instantaneous input switching from conventional records to micro-groove.

Output Impedance: 250 ohms balanced (150 or 50 ohms available).

Insertion Loss: 20 db.

Output Level: -67 VU at 4.7 em/sec.

Cable Length: 18".



SINGLE



DUAL

## GENERAL ELECTRIC VARIABLE RELUCTANCE CARTRIDGES

The General Electric RPX-145, RPX-146 and RPX-147 cartridges are designed for use with broadcast studio equipment as high quality reproducers of records and transcriptions.

The RPX-145 and RPX-146 cartridges employ a single clip-in stylus. The RPX-147, known as the "Triple-Play" cartridge, is furnished with two diamond clip-in styli mounted in its dual stylus assembly. The RPX-150 has two sapphire styli.

Replacement styli may be easily and quickly inserted in any of the cartridge mounting assemblies.

### Cartridges

RPX-145 Cartridge has a single 1-mil. diamond stylus.

RPX-146 Cartridge has a single 2.5 mil. diamond stylus.

RPX-147 Cartridge has a dual 1- and 2.5-mil. diamond styli.

RPX-150 Cartridge has a dual 1- and 2.5-mil. sapphire styli.

### Accessories

RPJ-01D Clip-in Tip Stylus with 1-mil. diamond tip.

RPJ-02D Clip-in Tip Stylus with 2.5-mil. diamond tip.

RPJ-03D Clip-in Tip Stylus with 3-mil. diamond tip.

RPJ-01S Clip-in Tip Stylus with 1-mil. sapphire tip.

RPJ-02S Clip-in Tip Stylus with 2.5 mil. sapphire tip.

RPJ-03S Clip-in Tip Stylus with 3-mil. sapphire stylus.

RPJ-007A Dual Stylus assembly, 1- and 2.5-mil. sapphire styli.

RPJ-011A Dual Stylus assembly, 1- and 2.5-mil. diamond stylus.



DUAL STYLUS



SINGLE STYLUS





## FAIRCHILD 281A TRANSCRIPTION ARM

The 281A arm is the logical choice to accompany the 220 cartridges, but will accommodate all standard magnetic cartridges. Stylus pressure is changed by thumb screw. No arm rest is required. It is designed for 16" records.



## FAIRCHILD 202 TURN-HEAD ARM

The 202 incorporates viscous damping, mounts up to three Fairchild Cartridges and fits all transcription turntables.

Arm Dimensions: Stylus to center of base  $11\frac{1}{8}$ ".

Overall length 16".

Height above record surface  $1\frac{7}{8}$ ".

Range of height adjustment  $\frac{3}{4}$ ".

Arm Mounting Dimensions: Center Pin of table to center of arm base  $10\frac{1}{16}$ ".

Arm Weight (Total): 17 oz.

Stylus Pressure: Adjustable. Spring tension set at factory for 15 grams standard, 6 grams micro-groove.



## FAIRCHILD TYPE 220 CARTRIDGE

The 220 cartridges are moving-coil types and available in three models.

Model 220A—for micro-groove (LP) records—1.0-mil. diamond stylus, 4-8 gram stylus force.

Model 220B—for commercial transcriptions using 2-5-mil. groove—2.5-mil. diamond stylus.

Model 220C—3.0-mil. diamond stylus for standard 78 rpm records.

## SPECIFICATIONS

Frequency Response:  $\pm 2$  db, 20-17,000 cps.

Size:  $1\frac{1}{8}$ " x  $\frac{3}{4}$ " x  $\frac{7}{16}$ ".

Weight: 12 grams.

Tracking Force: 4-8 grams recommended.

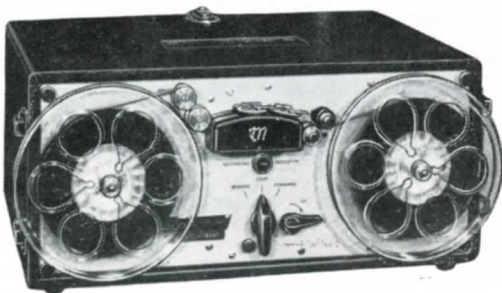


S36-B



P60-A

M81-C



PT63-A2HZ



PT63-J

## S36-B SINGLE UNIT RECORDER AND PREAMPLIFIERS

For studio and professional uses. Panel 7" x 19" for rack mounting in attractive portable carrying case. Record amplifier printed circuit. Two inputs: one high impedance microphone and one unbalanced bridge (available with LO-Z input). Playback amplifier output 600 ohms balanced or unbalanced: level plus 8 VU maximum. Frequency response 50 to 15,000 cycles. Tape speeds 7½" and 15" per second by capstan change. Hysteresis synchronous motor drive. Weight in case approximately 40 lbs. Uses 7-inch reels. Rewind 40 seconds. Illuminated VU meter. Wow and flutter .3%.

## P60-A RECORDER AND M81C AMPLIFIER

In portable carrying case. Tape speeds 7½" and 15" per second. Direct drive. Hysteresis synchronous drive motor. Reel size 10½" NAB. Push button controls deep slot loading. Automatic tape lifter for fast forward and rewind. Instantaneous start and stop. Fail-safe brakes and tape-break control. Frequency response 40 to 15,000 cycles. Signal-to-noise ratio 55 db at 3% THD full track. Wow and flutter .2% at 15" per second. Timing accuracy ±3 sec. in 30 minutes. Panel size 10½" x 19". Separate erase, record and playback heads allow simultaneous record and playback. Adjustable bias current. High speed cueing control.

## PT63-A2HZ BASIC RECORDER

In portable carrying case, two-speed motor and capstan change give speeds of 3¾", 7½" and 15" per second. Solenoid actuated pressure roller allows remote control. Separate erase, record and playback heads allow monitoring from the tape. High speed forward for fast cueing. Hysteresis synchronous motor. Full or half-track heads. Connector cables furnished with amplifier. Panel 17" x 7". Uses 7" reel.

## PT63-J

Has separate record and playback amplifiers, plus 10W audio and monitor speaker. Switch for equalization of 7½-15"/sec. Switch for record, playback, bias reading. Includes tubes, case and connector cables. 3" VU meter. Panel 19" x 7".





CONCERTONE, IN CASES

## BERLANT-CONCERTONE RECORDERS BERLANT RECORDERS

**BRX-1 Recorder** is a complete broadcast recorder consisting of separate matched amplifier and drive mechanism with two-speed direct-drive hysteresis synchronous motor. Features a two-channel input mixer (type MCM-2), Cannon connectors, tape motion regulator, single track erase and record heads, dual track playback to play both single and dual track tapes, less carrying case.

**BRX-2 Recorder** is the same as the BRX-1 except with three dual track heads.

**BRDBX-4 Recorder** is the same as the BRX-1, adapted for transmitting a delayed broadcast and simultaneously recording an incoming program.

**BAX-1 Recorder** is the same as the BRX-1 except that it is solenoid operated. RCU remote control unit extra. Single track erase and record heads, dual track playback.

**BAX-2 Recorder** is identical to the BAX-1 except with three dual track heads.

## BERLANT RECORDER ACCESSORIES

**CC-1 Carrying Case** for amplifier only.

**BRDC Carrying Case** for drive unit.

**BRAC Carrying Case** for MCM mixer and amplifier.

**RCU Remote Control Unit** with 25 ft. cable.

## CONCERTONE RECORDERS

**TWR-2 20/20 Recorder** is identical to the BRX series except the exterior finish is brown and a two-speed capacitor induction motor for direct drive, and shaded pole take-up and supply motors are used. 7½ and 15 IPS, complete with matched drive mechanism and amplifier, dual track heads, less cases.

**TWR-1 20/20 Recorder** is identical to the TWR-2 except with single track erase and record heads.

## CONCERTONE RECORDER ACCESSORIES

**TWAC Carrying Case** for 20/20 amplifier.

**TWDC Carrying Case** for 20/20 drive mechanism.

**TWDA Carrying Case** for 20/20 amplifier and drive.

## ACCESSORIES FOR BERLANT AND CONCERTONE RECORDERS

**MCM-2J Basic Mixer** fitted with two contact jacks.

**MCM-2C Mixer** fitted with Cannon XL connectors.

**T-3344 Input Transformer** for matching high impedance input to 50/250 ohm microphones.

**T-2560 Output Transformer** for matching cathode follower output to 600 ohm balanced line output.

NOTE: 50-cycle drive motors on Berlant recorders and Cannon connectors on Concertone recorders can be supplied at an additional charge.

Either Berlant or Concertone recorders with 3¾ and 7½ IPS speeds can be supplied at an additional charge.

## SPECIFICATIONS

Tape Speeds: BRX series—15 or 7.5"/sec. or 3¾ and 7½"/sec.

20/20 series—15 or 7.5"/sec.

Frequency Response:

±2 db from 40 to 15,000 cps at 15 IPS.

±4 db from 40 to 15,000 cps at 7.5 IPS.

±2 db from 50 to 5,000 cps at 3.75 IPS.

Signal-to-Noise Ratio: 55 db as measured by proposed NARTB standard (400 cps at 3% T. H. D.).

Total Harmonic Distortion:

BRX series—1% at zero VU.

20/20 series—2% at zero VU.

Timing Accuracy:

BRX series—better than 99.8%.

## Total Flutter and Wow:

- Less than 0.1% RMS at 15 IPS.
- Less than 0.2% RMS at 7.5 IPS.
- Less than 0.3% RMS at 3.75 IPS.

## Rewind and Fast Forward:

Less than 60 secs. for 2,500 feet.

From Stop to 15 IPS: 0.1 second.

Input Impedance: One megohm on high impedance microphone input. 50/250 ohms balanced or unbalanced with plug-in transformer No. T-3344. 200,000 ohms unbalanced bridging input.

Output Impedance: Cathode follower. 600 ohms balanced output with No. T-2560 transformer.

Output Level: 6 volts from cathode follower output zero dbm across 600 ohm line.

Dimensions: Drive mechanism—14" x 19" x 6½".  
Amplifier—5¼" x 19" x 6".

Weight: Drive mechanism—35 lbs.

Amplifier—10 lbs.

## Power Requirements:

- BRX series—160 watts—60 cps 115V.
- 20/20 series—220 watts—60 cps 115V.

## PENTRON "PACEMAKER" RECORDER

The model T-90 Pentron portable tape recorder features a single lever "Unimagic" control with three positions—Play-Record, Fast Forward and Fast Rewind. Two speakers with filter provide high fidelity reproduction. Automatic Index Counter instantly locates any selection on tape. Straight line slot loading of tape. Separate Record-Playback and Erase heads. Supplied with microphone.

## Frequency Response:

- 7½"/sec.—50 to 10,500 cycles.
- 3¾"/sec.—50 to 5,000 cycles.

Signal-to-Noise Ratio: 50 db.

## Speakers:

2 Alnico 5, one woofer-6", one tweeter-4".

Power Output: 5 watts.

Flutter: Less than 0.3% at 7½ IPS.

Record Level Indicator: Magic Eye.

Motor: Shaded four pole self-starting induction type, balanced.

Tubes: 1—58T9; 1—6SL7, 1—6E5, 1—6X5, 1—6V6.

Dimensions: 13" x 15" x 10".

Weight: 27 lbs.

Power Source: 105/120 volts a-c 60 cycle, 80 watts. 220-volt 50-cycle models, full width (single track) head models available.

## PRESTO SR-27 TAPE RECORDER

The SR-27 fits the gap between the high priced model and the small home recorder with its limited functions. It consists of the R-27 tape transport mechanism and the A-920B amplifier.

The R-27 utilizes three individual magnetic heads to record, erase and play back tape on 7" or 8" reels with the NARTB hub. Three motors are used for tape transport and fast-speed rewind. The capstan is driven by a hysteresis motor. A single lever sets the mechanism for record, playback or fast-speed operation, and the desired speed of 7½ or 15 inches/second is selected by moving the speed shift knob up or down.

The A-920B amplifier is furnished in a separate case with mike and playback pre-amps, power supply, and two speakers.

## R-27 Mechanism

Tape Speeds: 7½ and 15 IPS, fast forward and rewind.

Bias/Erase Frequency: 85 kc.

Oscillator Tube: 6Y6G.

Power Requirements: 115V 60 cps, 210 watts (50 cps available).

Size: 16" x 13" x 10".

Weight: 39 lbs.

## A-920B Amplifier

Microphone Input: 50 or 250 ohms.

Additional Input: High level mike or radio tuner.

Output: 10 watts at 15 ohms, 0 db line level at 500 ohms.

Monitor Output: For high impedance phones.

Tubes: 2—6J7, 3—6SL7GT, 2—6V6GT, 1—5Y3GT.

Speakers: 2—5" PM.

Power Requirements: 115 V, 50/60 cps, 110 watts.

Size: 20" x 9" x 8".

Weight: 38 lbs.

## Performance Data

Frequency Response: Uniform from 50-15,000 cps at 15"/sec.; 50-10,000 cps at 7½"/sec.

Signal-to-Noise Ratio: Better than 50 db.

Flutter: Not more than 0.15% RMS at 15 IPS, 0.25% RMS at 7½ IPS.

Timing Accuracy: .3% to .5%.



## RECORDING TAPE AUDIOTAPE

Type 1251 Plastic Base (1200 ft. on 7" reel) is the finest, professional quality tape obtainable with maximum fidelity, uniformity, frequency response and freedom from noise and distortion. Base material 1½-mil. acetate.

Type 1861 "LR" (Longer Recording) tape is made on 1-mil. Mylar, providing 50% more recording time per reel. Polyester film base material has excep-

tional strength and durability, plus longer storage life. 1800 feet on 7" plastic reel.

## SCOTCH BRAND

Type 111A-12 Plastic Base (100 ft. on 7" reel) is a high fidelity plastic tape for every recording need. Dry lubricated. Output variation within the reel at 1,000 cps is less than  $\pm\frac{1}{4}$  db and is less than  $\pm\frac{1}{2}$  db from reel to reel.



## GIBSON GIRL TAPE SPLICER-CUTTER

This splicer-cutter is used for magnetic recording tape and cuts two rounded indentations in the tape slice giving the splice a "Gibson girl" shape, leaving the edges of the tape free of adhesive. The unit can be removed from its base and mounted directly on any tape recorder. It comes complete with a roll of splicing tape and tape feed. (Type No. TS4-DLX).

## ALTEC-LANSING GB-800A MICROPHONE STAND

The GB-800A is a floor stand adjustable in height from 45" to 75". Base 12" in diameter, weight approximately 15 lbs. Equipped with a clutch which is locked and unlocked by a quarter turn with a positive, smooth action.

## ALTEC-LANSING GB-720A MICROPHONE STAND

The GB-720A floor stand is adjustable in height from 39" to 68". Base 12" in diameter, weight approximately 14 lbs.

## ALTEC-LANSING 23A DESK STAND

For use with Altec 633A, 639A and 639B microphones.

Base: 4½" x 6½" oval.

Finish: Aluminum gray lacquer.

Thread: ⅝" x 27.



GB-800A

GB-720A

23A



670A



660A/B



639A/B

## ALTEC-LANSING 670A CARDIOID MICROPHONE

The 670A utilizes a ribbon to provide continuously adjustable patterns to permit "tuning out" undesirable noises by shifting the null point.

Frequency Response: 30-15,000 cycles.

Power Output Level: -58 dbm (10 dynes/sq. cm.).

Impedance: Adjustable 30/50 or 150/250 ohms.

Dimensions: 7½" x 3⅜" x 2½".

Finish: Dull gray plastic.

Weight: 20 oz.

## ALTEC-LANSING 660A/B DYNAMIC MICROPHONE

The 660A/B Microphone is a rugged broadcast quality unit. Equipped with a swivel head with ⅝" x 27 stand thread allowing a 90° vertical tilt.

Frequency Response: 35-12,000 cycles.

Power Output Level: -57 dbm (10 dynes/cm²).

Impedance: 660A—30 ohms.

660B—30, 150, 20,000 ohms.

Dimensions: 4" long—1⅛" diameter.

Finish: Silver satin-die-cast aluminum.

Weight: 660A—11 oz.

660B—13 oz.

## ALTEC-LANSING 633A DYNAMIC MICROPHONE

The 633A is a non-directional mike or may be given directivity by using the 8B baffle. For non-directional use the microphone is mounted vertically on a stand or suspended by its cordage.

Impedance: Approximately 20 ohms. Works into 25 to 50 ohms.

Frequency Response: 40 to 10,000 cps.

Power Output Level: -59 dbm (1 mw 600 ohms) for a sound pressure of 10 dynes per square centimeter. (Produced at conversational level 3 feet from microphone.)

Accessories Available: 311A Plug Kit, 8B Baffle, 712A Adapter, 442A Jack, 9A Swivel Joint, 713A Adapter.



## ALTEC-LANSING 639A, 639B CARDIOID MICROPHONES

Each of these mikes is a combination of a dynamic moving coil type pressure element and an improved ribbon type velocity actuated element.

The 639A has three patterns selected by a screw-driver-operated switch. Yoke mounting, type 11A, available.

C—Cardioid D—Dynamic R—Ribbon

The 639B has three additional patterns which are variations of the cardioid.

Impedance: Approximately 40 ohms. Works into 25-50 ohms.

Frequency Response: Uniform 40 to 10,000 cps.

Power Output: -56 dbm (1 mw 600 ohms) for a sound pressure of 10 dynes per sq. centimeter. (Produced at conversational level 3 feet from microphone.)





44-BX

## RCA 44-BX

Output Impedance (tapped transformer): 50/250 ohms. Supplied connected for 250 ohms.

Effective Output Level: -55 db (referred to 1 milliwatt and a sound pressure of 10 dynes per sq. cm).

Response: 30-15,000 cycles "Music" connection. Low frequencies suppressed in "Voice" connection.

Finish: Polished black and chromium.

Supplied with 30 feet, two-conductor shielded cable. Less plug.  $\frac{1}{2}$ " pipe thread.



BK-1A

## BK-1A

Pressure-actuated microphone complete with 30 ft., 2-conductor shielded cable.

The high-fidelity BK-1A "Commentator" pressure microphone is designed for broadcast use in AM, FM and TV stations. Its construction makes it particularly well suited for remote pickups where, if used in the open air, the modern design practically eliminates the effect of air currents. The BK-1A features a smooth response and frequency range which make it suitable for reproducing both music and speech. Non-directional or semi-directional.

Output Impedance: 30/250 ohms (tapped transformer).

Effective Output Level: 52 db (referred to 1 milliwatt and sound pressure of 10 dyn per sq. cm).

Response: 60-10,000 cycles.

Finish: TV Gray and Chrome.

$\frac{1}{2}$ " pipe thread.



77-DX

## RCA 77-DX

This microphone has uni-directional, bi-directional, and non-directional characteristics, adjustable by means of a slotted shaft on the rear side of the wind-screen. Supplied with three-position "Voice-Music" switch for selection of best operating characteristics.

Output Impedance (tapped transformer): 50/250/600 ohms. Supplied connected for 250 ohms.

Effective Output Level: -59 db (referred to 1 milliwatt and a sound pressure of 10 dynes per sq. cm).

Response: 50 to 15,000 cycles. With variations selected by Voice-Music switch.

Supplied with 30-foot, two-conductor shielded cable, less plug.  $\frac{1}{2}$ " pipe thread.

Finish: Two-tone umber gray.

## MICROPHONE STAND, MI-4068-D

The MI-4068-D floor stand is for use with the BK-1A, SK-45 and the 77-D. The column and telescoping tube are finished in polished chrome and the base in dark umber gray wrinkle. It has a smooth-operating clamping and release device.

The stand as supplied may be used with any microphone having a  $\frac{5}{8}$ "-27 fixture thread.

Height of Stand: Adjustable from 34" to 62".

Microphone Mounting:  $\frac{5}{8}$ "-27 fixture thread.

Diameter of Lower Tube: 1".

Diameter of Base: 12".

Weight (unpacked): 14 lbs.



MI-4068-D

## DESK STAND, MI-11008

The MI-11008 desk stand was specifically designed for use with the type BK-1A "commentator" microphone. The BK-1A microphone fits into the center hole and is secured by a knurled thumb screw and a retaining washer. A rubber cushion around its perimeter prevents marring of any surface.

Weight, packed: 1½ lbs.

Finish: Dark, umber gray.



MI-11008

## ANNOUNCE STAND, TYPE 91-A

The 91-A is a simple but attractive desk stand for 44-BX Microphones. It is finished in TV gray and its base rests on three felt buttons. Height of the 44-BX center above desk is 8⅜". Base diameter, 7". Use only with Type 44-BX Microphone. Weight (unpacked): 3½ lbs.



91-A

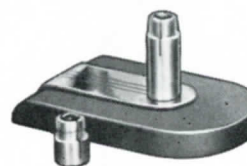
## DESK STAND, TYPE 91-B

The 91-B is a heavy-based desk stand designed especially for studio or announce use. It can accommodate Type 77-D, BK-1A, and BK-4A microphones. The 91-B is finished in umber gray with satin chrome trim. The base is felt-covered to prevent marring the surface on which it is placed. The stand is provided with alternate mounting extensions—one  $\frac{3}{4}$ " and one 1¾", the choice depending on the type microphone to be mounted.

Microphone Mounting:  $\frac{1}{2}$ " pipe thread.

Base Dimensions: 4½" x 6⅝" x ¾".

Weight: 4 lbs.



91-B





50D, 51D



57, 57A



U9S



211



999

## TURNER 50D-TV MICROPHONE

The Turner model 50 is an ultra wide-range high fidelity dynamic, finished in satin black with matching desk stand. Available with high impedance (Cannon XL-3 connector) or 50/200 ohm impedance (Cannon XL-4 connector). 20-foot cable supplied.

Frequency Response: 50 to 15,000 cps.

Output Level: 55 db below 1 volt/dyne/sq. cm at high impedance.

Polar Pattern: Essentially non-directional.

Mounting: Hinged coupler swings microphone in 60° arc. Standard 5/8"-27 thread.

Dimensions: 1 5/8" maximum diameter; 6 1/2" long (less cable connector).

Weight: 16 oz. (less cable).

## TURNER 51D-TV MICROPHONE

Similar to above, except frequency response of 60 to 13,000 cps and output level 57 db below 1 volt/dyne/sq. cm at high impedance.

## TURNER MODEL 57 DYNAMIC MICROPHONE

The Turner 57 is designed to meet TV and broadcast performance requirements. Matching stand with built-in shockmount available as an accessory. Black satin finish. The 57 has a built-in Cannon XL-4 connector, permitting selection of high or low impedance by making connection to proper pair of conductors. 20-foot cable furnished.

Frequency Response: 50 to 13,000 cps.

Output Level: 55 db below 1 volt/dyne/sq. cm.

Mounting: Standard 5/8"-27 thread.

Dimensions: 8 3/4" x 1 1/8".

Weight: 14 oz. (less cable).

## TURNER MODEL 57A DYNAMIC MICROPHONE

Same as above, except wired for quick selection of 50 or 200 ohm impedance.

## TURNER MODEL 211 DYNAMIC MICROPHONE

The Turner 211 is a high quality dynamic microphone. 20-foot cable furnished.

Frequency Response: 50 to 10,000 cps.

Output Level: -54 db at high impedance.

Mounting: 90° tilting head.

Impedance: 50, 200, 500 ohms or high impedance.

## TURNER MODEL U9S DYNAMIC MICROPHONE

The Turner U9S is not affected by heat, cold or humidity. Has adjustable saddle, 5/8"-27 thread mounting. 20-foot cable furnished.

Frequency Response: 80 to 9,000 cps.

Output Level: -52 db at high impedance.

Pattern: Semi- or non-directional operation.

## TURNER MODEL 999 DYNAMIC MICROPHONE

The Turner 999 is the same as the U9S but it is not furnished with multi-impedance switch. Specify 50, 200, 500 ohms or high impedance. 20-foot balanced line furnished.