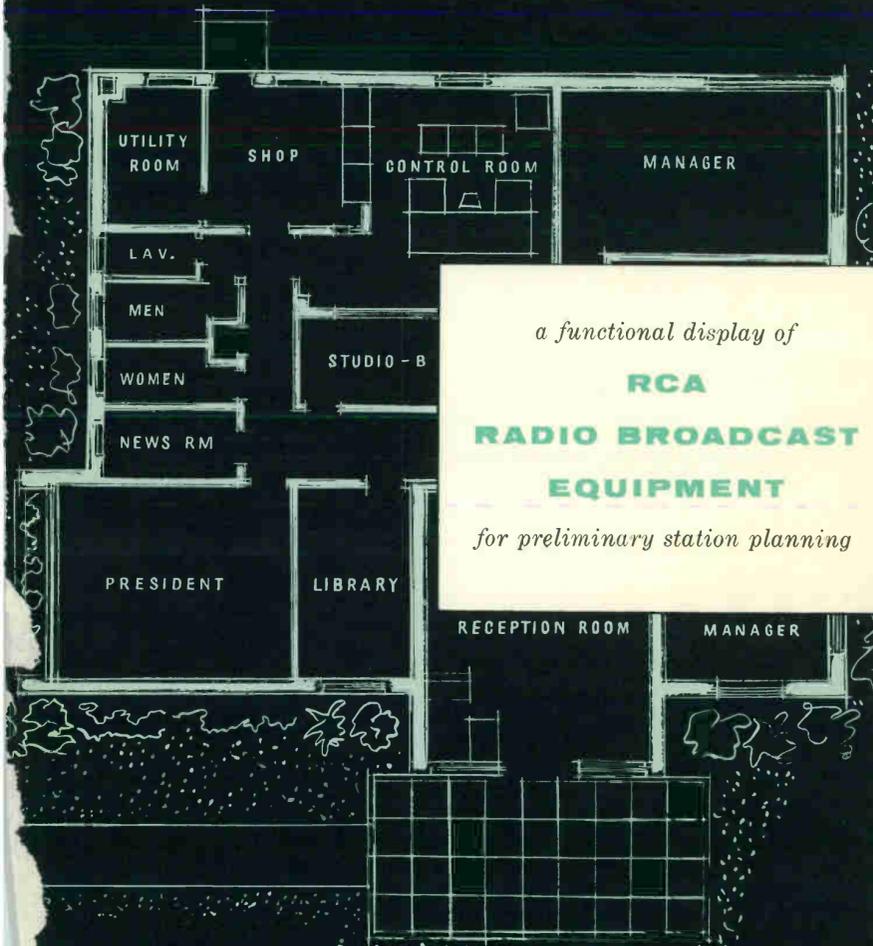




# RCA RADIO BROADCAST EQUIPMENT



a functional display of  
**RCA  
RADIO BROADCAST  
EQUIPMENT**  
for preliminary station planning



COMBINATION TRANSMITTER/STUDIO BUILDING



STUDIO CONTROL ROOM FACILITIES



TRANSMITTER LAYOUT

### A NOTE ABOUT THIS FOLDER AND ITS USEFULNESS IN STATION PLANNING

Almost every major item that goes into the assembly of a broadcast station, can be found on this "see-at-glance" pull-out spread. Above is a sketch of a typical studio and control room and a transmitter room, showing the functional simplicity of an RCA-equipped station.

The successive photos and descriptions represent RCA equipments with their system functions tied together by arrows. The path of signal is indicated from pick-up source to antenna radiation.

Four catalogs illustrated on the reverse cover provide minute details and equipment specifications, as well as typical plans, charts, graphs and curves for detailed planning. See your RCA representative, he will be pleased to help you plan.

### MICROPHONES



**POLYDIRECTIONAL MICROPHONE, 77-DX.** Famous for high-quality reproduction. Provides a choice of directional pick-up patterns... uni-directional, bi-directional, non-directional, three-position voice-frequency range, 60-10,000 cycles.

**THE "COMMENTATOR"—PRESSURE MICROPHONE, BK-1A.** For desk stand or floor stand use. Excellent as hand-carried mike. Adjustable ball-and-socket swivel permits movement in any direction. Frequency range, 60-10,000 cycles.

**PROGRAM VELOCITY MICROPHONE, SK-46.** For studio or control room announcing and announce booth. Light weight, small size attractive styling. High-quality sound reproduction, bi-directional. Frequency range, 50-10,000 cycles.

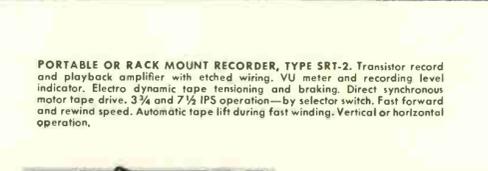
### TURNTABLES



**AUTOMATIC TURNTABLES, BQ-101 and BQ-102.** For automatic record programming BQ-101 provides fixed sequence operation... BQ-102 affords random selection. Both play sixty 45 rpm records (120 sides). 35 1/4" wide, 34 1/4" high, 2 1/2" deep.

**THREE-SPEED TRANSCRIPTION TURNTABLE, BQ-2A.** Superior performance for reproduction of 33 1/3, 45 or 78 rpm records up to 15" diameter. Meets all NAB's specifications. Heavy-duty hysteresis motor for dependability.

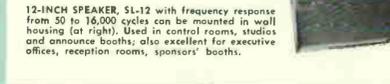
### TAPE RECORDERS



**PORTABLE OR RACK MOUNT RECORDER, TYPE SRT-2.** Transistor record and playback amplifier with etched wiring. VU meter and recording level indicator. Electro dynamic tape tensioning and braking. Direct synchronous motor tape drive. 3/4 and 7/8 IPS operation—by selector switch. Fast forward and rewind speed. Automatic tape lift during fast winding. Vertical or horizontal operation.

Frequency Response: Record and playback  $\pm 3$  db from 40 to 12,000 cps.  
Dimensions: Height, 10 1/2". Width, 19". Minimum depth required: 8 1/2" from front of panel.  
Weight: 35 lbs.

### SPEAKERS



**12-INCH SPEAKER, SL-12** with frequency response from 50 to 16,000 cycles can be mounted in wall housing (at right). Used in control rooms, studios and announce booths; also excellent for executive offices, reception rooms, sponsors' booths.

### CONSOLETTES



**THE "BLOCK-BUILDER" AUDIO CONSOLE, BC-5A.** Nine inputs—4 microphones, 2 turntables, 2 remote lines, 1 network or tape, 4 mixer positions. Built-in power supply. Easily expanded for dual channel use by "pairing."

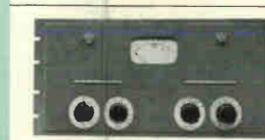


**THE "GENERAL-PURPOSE" AUDIO CONSOLE, BC-3B.** Thirteen inputs—4 microphones, 2 turntables, 2 remote lines, 1 network, 2 utility inputs which may be used for additional turntables, tape, or as required. Eight mixer positions. Built-in power supply. Easily expanded for dual channel use by pairing with BC-5A. Convenient script rack.



**THE "DUAL-CHANNEL" AUDIO CONSOLE, BC-6A.** Twenty-Two inputs—10 microphones, 2 turntables, 2 tape, 2 film, 3 remote lines, 1 network. Dual or single channel operation with "split-mixer" faders. Master fader controls both channels simultaneously. Ideal for binocular broadcasting. Nine mixer positions. Two built-in power supplies (one for each channel) for greater reliability. Two monitoring channels, one for program monitoring and talkback, one for cueing and feeding background to studios. Convenient script rack.

### LIMITING AMPLIFIER



**LIMITING AMPLIFIER, BA-6A.** Provides economical, high-quality operation in program input channels to transmitter. Automatically limits audio signal peaks, preventing overmodulation and overloading. Avoids distortion and adjacent channel interference. Provides more effective use of transmitter power.

### REMOTE CONTROL EQUIPMENT



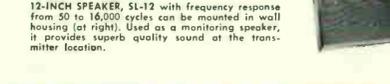
**CONTROL UNIT, 108-0D.** Located at control point.



**TRANSMITTER UNIT, 108-1D.** Located at transmitter.

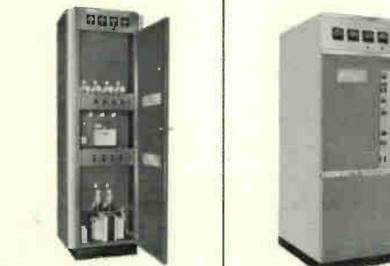
From any desired control point, RCA Remote Control Equipment provides facilities to perform FCC-required control functions and metering. Additional functions may be added as desired for further operational convenience.

### SPEAKERS



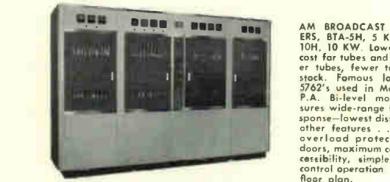
**12-INCH SPEAKER, SL-12** with frequency response from 50 to 16,000 cycles can be mounted in wall housing (at right). Used as a monitoring speaker, it provides superb quality sound at the transmitter location.

### TRANSMITTERS

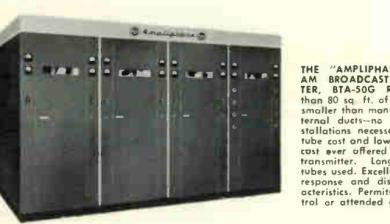


**AM BROADCAST TRANSMITTER, BTA-250M.** 250 Watts. An economical, small size, simple-to-operate transmitter. Fewer tubes (only 10). Fewer tube types (only 3 types to stock). Uses less power than a waffle iron. Quiet operation (no blowers). Suitable for control-room installation. Excellent fidelity—low distortion. Easy to install.

**AM BROADCAST TRANSMITTERS, BTA-500MX—500 Watts and BTA-1MX-1 KW.** Economical operation. Occupies only 6.2 sq. ft. of floor area. Fewer tubes (only 14 in the 500MX, 15 in the 1MX and only 4 types to stock). Bilateral modulation with wide-range frequency response—30 to 15,000 cps. Lowest distortion ever—less than 2% typical at 15,000 cps. Simple to install and operate.



**AM BROADCAST TRANSMITTERS, BTA-5H—5 KW and BTA-10H, 10 KW.** Lowest operating cost for tubes and power. Fewer tubes, fewer tube types to stock. Famous long-life RCA 762's used in Modulator and P.A. Bilateral modulation assures wide-range frequency response—lowest distortion. Many other features... split-cycle overload protection, sliding doors, maximum component accessibility, simple two-tuning-control operation. Space saving floor plan.



**THE "AMPLIPHASE" 50 KW AM BROADCAST TRANSMITTER, BTA-50G.** Requires less than 80 sq. ft. of floor space—smaller than many 5 KW's. Internal ducts—no air duct installations necessary. Half the tube cost and lowest operating cost ever offered in a 50 KW transmitter. Long life 5671 tubes used. Excellent frequency response and distortion characteristics. Permits remote-control or attended operation.

### MONITORING EQUIPMENT



**FREQUENCY MONITOR, BW-118.** Continuously and accurately indicates in cycles-per-second the magnitude and direction of any carrier signal departure from its proper frequency.



**MODULATION MONITOR, BW-66E.** Gives continuous direct reading indications of modulation percentage in carriers of transmitters operating in the range of 500 to 2500 kc. High and low impedance output provides for monitor and measuring equipment feed.

### ANTENNA TUNING UNITS



**CUSTOM-BUILT ANTENNA TUNING UNITS.** For all powers. Efficiently match broadcast antennas to either concentric or open wire transmission lines and also aid in suppressing carrier harmonics.

### TOWERS AND EQUIPMENT



SELF-SUPPORTING TOWER



GUYED TOWER

**RCA ASSISTS IN TOWER PLANNING**... provides the broadcast with today's most efficient AM radiators and associated equipment such as transmission line, tower lighting, etc. Both self-supporting and guyed structures can be supplied to fill any requirement.

### MISCELLANEOUS ITEMS

#### TRANSMISSION LINE

- 3/8" Soft Copper 72-ohm Steatite Coaxial Line and Fittings.
- 3/8" Soft Copper 72-ohm Steatite Coaxial Line and Fittings.
- 3/8" Hard Copper 72-ohm Steatite Coaxial Line and Fittings.
- 3/8" Hard Copper 51.5-ohm Steatite Coaxial Line and Fittings.
- 1 1/8" Hard Copper 72-ohm Steatite Coaxial Line and Fittings.
- 1 1/8" Hard Copper 51.5-ohm VHF Steatite Coaxial Line and Fittings.
- 3 1/8" Hard Copper 51.5-ohm VHF Steatite Coaxial Line and Fittings.
- 3 1/8" Hard Copper 51.5-ohm VHF Teflon Coaxial Line and Fittings.

#### Miscellaneous Transmission Line Installation Accessories

- Horizontal Anchor Assembly (Single)
- Horizontal Anchor (Dual)
- Horizontal Roller Assembly
- Lateral Brace
- Line Spreader
- Swivel Hangers
- Dehydrator Equipment

#### PHASING EQUIPMENT

- Cabinets for Phasing Equipment
- Line Terminating Units
- Phase Meters
- Remote Metering Kits
- Field Intensity Meters

#### STL (Studio Transmitter Link) EQUIPMENT

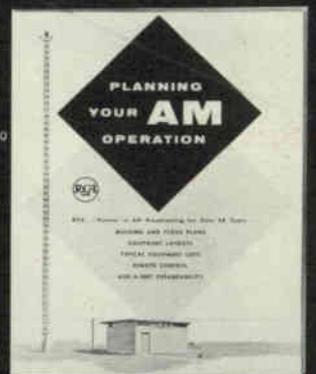
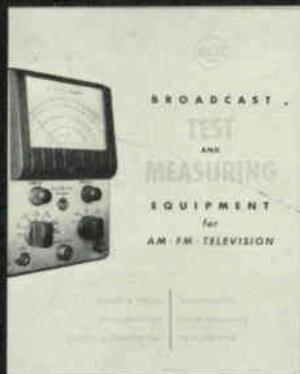
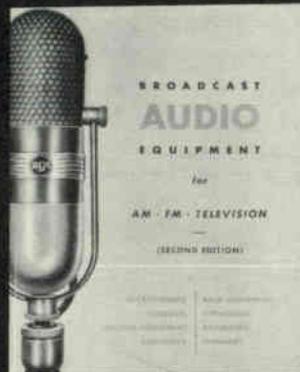
- Studio Transmitter Link
- Transmitter/Receiver Antenna (Set of two 6-ft. Mesh)
- Transmitter/Receiver Antenna (Set of two 4-ft. Mesh)
- Tube Complement of Transmitter/Receiver BTL-1B

#### INPUT AND MONITORING EQUIPMENT

#### UNIVERSAL TRANSMITTER CONTROL CONSOLE



*for complete  
detailed information  
on all RCA Broadcast  
equipment ask your  
RCA representative  
for these catalogs,  
or write to field offices,  
listed below—*



522-33 Forsyth Building  
Atlanta 3, Georgia  
Jackson 5-7703

2301 John Hancock Bldg.  
Boston 16, Massachusetts  
Hubbard 2-1700

Front & Cooper Streets  
Camden 2, New Jersey  
Woodlawn 3-8000

1186 Merchandise Mart Plaza  
Chicago 54, Illinois  
Delaware 7-0700

1600 Keith Bldg.  
Cleveland 15, Ohio  
Cherry 1-3450

1907-11 McKinney Avenue  
Dallas 1, Texas  
Riverside 1371

120 West Second Street  
Dayton 2, Ohio  
Hemlock 5585

1560 N. Vine Street  
Hollywood 28, California  
Hollywood 9-2154

340 Dierks Bldg.  
Kansas City 6, Missouri  
Harrison 1-8480

36 West 49th Street  
New York 20, New York  
Judson 6-3800

420 Taylor St.  
San Francisco 2, California  
Ordway 3-8027

2250 First Avenue, South  
Seattle, Washington  
Main 8350

1625 K Street, N.W.  
Washington 6, D. C.  
District 7-1260

*Broadcast and Television Equipment Department*

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