666 665 654 655C 650 646 635 300

ELECTRO-VOICE MODEL 666 SUPER CARDIOID MICROPHONE

Model 666 affords another octave of uniform HF response over that found in conventional broadcast cardioids. Permits close talking with no bass accentuation. Increases working distance over pressure microphones by factor of 1.7:1 due to reverberation reduction. Uses only one moving element with exclusive, rugged Acoustalloy diaphragm. Response range: Typical, 40-15,000 cps; output, –55 db. Impedance changed on internal terminal board. Wired for 50 ohms, taps at 150 and 250 ohms. Aluminum cast case finished in TV gray. Built-in Cannon UA-3 connector. Clamp-on stand mount included with 5/8″-27 thread and 1/2″ pipe thread adapter. 20-foot cable. Size 7 1/2″ long, 1 3/4″ maximum diameter. Net weight, 11 oz.

ELECTRO-VOICE MODEL 665 CARDIOID

Similar in design and function to the Model 666, but for less exacting applications. Uniform response 50-14,000 cps. Pressure-cast zinc case. Non-reflecting gray finish. Dia. 1 7/8″, length 7 3/16″. 18-foot cable. Net weight, 1 lb., 10 oz.

ELECTRO-VOICE MODEL 655C SLIM-TRIM TV DYNAMIC

Frequency response 40-20,000 cps. Output level –55 db. Acoustalloy diaphragm. Impedance 50, 150 and 250 ohms. Impedance easily changed at internal terminal board. Cannon UA-3 connector. Clamp-on stand mount included with 5/8″-27 thread and 1/2″ pipe thread adapter. Size, 10 1/2″ long without connector, 1″ diameter. 18-ft. cable. Net weight, 11 oz.

ELECTRO-VOICE MODEL 654 SLIM-TRIM BROADCAST DYNAMIC

Frequency response 50-16,000 cps. Output level –55 db. Recessed selector provides 50 or 250 ohms impedance. Pop-proof head. Acoustalloy diaphragm. TV gray enameled finish. Built-in Cannon XL-3 connector, 5/8″-27 thread. 18-foot cable. Size: 10″ long with stud, 1″ diameter. Net weight, 15 1/2 oz.

ELECTRO-VOICE MODEL 650 BROADCAST DYNAMIC

Uniform frequency response 40-15,000 cps. Output level –48 db. Dual-type external shock mount. Recessed impedance selector switch gives 50 or 250 ohms. Tiltable head. Pressure-cast case, with durable satin chrome finish. Acoustalloy diaphragm. Built-in Cannon XL-3 connector. 5/8″-27 stand coupler. 18-foot cable. Size, 2 1/4″ x 4 5/8″ x 5 1/4″ including stud. Shock mount is 1 1/2″ x 3 7/8″. Net weight, including shock mount, 3 lbs.

ELECTRO-VOICE MODEL 646 LAVALIER DYNAMIC

Neck cord and support clips supplied. Response uniform from 40 to 10,000 cps in flat position. Recessed screw in grille permits adjustment of high-frequency response to suit application. Output level –57 db. Choice of either 50, 150, 250 ohms impedance. Flat or rising response adjustment. Acoustalloy diaphragm. Omnidirectional pattern. Built-in cable connector. Gray enamel finish. 30-foot cable. Size 6 1/4″ long, 1 1/8″ diameter. Net wt., less cable, 7 oz.

ELECTRO-VOICE MODEL 635 BROADCAST DYNAMIC

Uniform response from 60-13,000 cps. Output level –55 db. 50-250 ohms impedance selector. Acoustalloy diaphragm. Head tilts through 90° arc. 5/8″-27 thread. Built-in Cannon XL-3 connector. Satin chrome finish. 18-ft. cable. Size 2″ x 6 1/4″. Net weight, 1 1/2 lbs.

ELECTRO-VOICE MODEL 300 DETACHABLE MICROPHONE CLAMP

Light weight adapter fits any cylindrical microphone with 1″ diameter. Provides positive means to mount on stand. Easily installed without tools with finger-operated clamp. Rubber insert prevents slippage on microphone. 1″ pipe thread or adapter for 5/8″-27 thread.

345

346

420

366

416

425

512

419

418

ELECTRO-VOICE MODEL 345 SHOCK MOUNT

Dual-type external shock mount prevents reproduction of external shocks and stand vibrations. Permits tilting microphone head. 5/8″-27 thread. Easily attached or removed. Satin chrome. Size 1½″ x 3⅞″. Net weight, 10 oz.

ELECTRO-VOICE MODEL 346 SHOCK MOUNT

Designed specifically for use with Model 666 microphone. Similar in every feature to Model 345 but constructed for 11-oz. microphone.

ELECTRO-VOICE MODEL 420 DESK STAND

Use with E-V 666, 655, 646, or microphone with 1″ diameter. Clamp attachment for mounting 1″ cylindrical microphones without tools. Heavy cast iron, gray finish. Net weight, 3 lbs.

ELECTRO-VOICE MODEL 366 SUSPENSION SHOCK MOUNT

Extremely light boom suspension shock mount designed for use with 666 microphone. Combined weight of 366 and 666 is 17 oz., thus solving many problems of boom operation. No tools required for installing microphone. Pigtail cable connection with UA-3 connectors provides cable loop, isolating boom shock noises. Made for any microphone with 1″ diameter (EV 666, 655, 646).

ELECTRO-VOICE MODEL 416 DESK STAND

For 646, 647 microphones. Black rubber. Size, 3⅛″ base dia., 1″ high. Net weight, 2 oz.

ELECTRO-VOICE MODEL 425 DeLUXE FLOOR STAND

Push-button. One-hand height control from 37″ to 66″. Locks on release. Shaft rotates freely. Locking-type adjustable legs permit placing flush against wall or table. Easy to set up or take apart. Folds compactly. Die-cast base. Three-leg spread 17″. Satin chrome. Net weight, 7½ lbs.

ELECTRO-VOICE MODEL 512 WIND SCREEN

Designed specifically for use with Model 666 microphone. Minimizes wind effect on boom operation or when used outdoors. Made of strong black bemberg. Net weight, 2 oz.

ELECTRO-VOICE MODEL 418 DESK STAND

Used with microphones using small-type stud such as Models 611, 623, 630, 635, 636, 911 and 950. Cast iron, gray finish.

ELECTRO-VOICE MODEL 419 DESK STAND

Similar to above but for use with microphones using large-type stud.

ATLAS CS-33 COLLAPSIBLE FLOOR STAND

For fixed or portable operation. Removable base legs. Can be collapsed to length of 22½".

Finish: Full Chrome.
Height Adjust: 26"-64".
Weight: 3 lbs.

ATLAS BC-1 BRACKET CLAMP

Can be used with a boom arm, goose neck, etc. Chrome tube 6" long. Clamp can be removed and top flange screwed or bolted into position. ⅝"-27 thread.

ATLAS GN-13 FLEXIBLE GOOSE NECK

Can be attached to any microphone stand or fixture. Ends have ⅝"-27 male and female threads. 13" long. Finished in polished chrome.

ATLAS BB-1 "BABY BOOM" ATTACHMENT

A versatile device that can be attached to any microphone stand. Can also be used with bracket clamp model BC-1. ⅝"-27 thread.

Boom Length: 32".
Finish: Chrome tube, gun metal castings.
Weight: 3½ lbs.

ATLAS BS-36/36W BOOM STANDS

The BS-36 features "safety air-lock cushion" built into the vertical section preventing slippage of the upright. A gyromatic swivel joint is provided at the microphone end of the boom. Model BS-36W is identical to the BS-36 except this mobile model is supplied with a DeLuxe base having ball bearing swivel castors of hard rubber composition. "Snap-On" hangers furnished to hold mike cable to boom section.

Boom Length: 62".
Vertical Adjust: 48" to 72".
Base Diameter: 17".
Finish: Chrome and gun metal shrivel.
Weight: 33 lbs.

FLEXO MIKESTER MODEL ONE

This arm will handle any mike up to 4 lbs. It can be instantly positioned, incorporates a patented enclosed spring-controlled swivelling device, swings out 36" in any direction when fully extended. Clamps or screws to any position. Clips hold cable in place. Weight 4¾ lbs. packed.

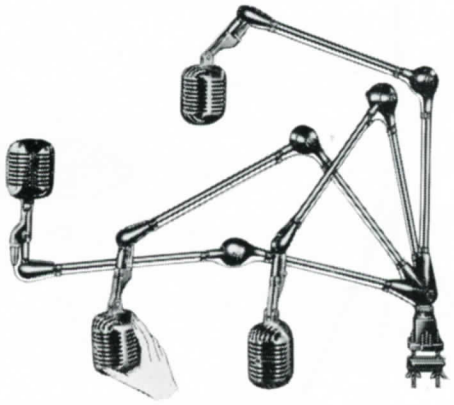
BC-1

CS-33

BS-36W

BS-36

BB-1



FLEXO MIKESTER

MS-25

MS-11C

ATLAS MS-25 FLOOR STAND

Features "Safety Air-Lock Cushion" to prevent slippage of telescoping section. Uses a large diameter, oversize telescoping tube (⅞" telescoping tube —1⅛" base tube). Terminated in ⅝"-27 thread.

Base Finish: Chrome and gray shrivel.
Tube Finish: Full Chrome.
Height Adjust: 37" to 66".
Base Diameter: 17".
Weight: 24 lbs.

ATLAS MS-11C FLOOR STAND

Features an extended length clutch body, inner lined with a wear-proof locking collet which grips without jamming, slipping or sudden dropping. Includes self leveling, shock absorbing base pads, plus three additional "anti-tip" points located between the base pads. Terminates in a ⅝"-27 thread.

Base Finish: Full Chrome.
Tube Finish: Full Chrome.
Height Adjust: 35" to 65".
Base Diameter: 10".
Weight: 12 lbs.

DS-7

CS-1

ATLAS DS-7 DESK STAND

The model DS-7 employs a full sized clutch mechanism and ⅝"-⅞" tube combination. The base casting is 6" in diameter, finished in gun metal shrivel. Base pads included to prevent damage to desk or table tops. All tubular sections finished in chrome.

Vertical Adjust: 8" to 13".
Weight: 3 lbs.

ATLAS CS-1 MICROPHONE STAND

This collapsible stand is excellent for portable and remote applications. Designed specifically for broadcast use. Collapsible length of 23".

Base Finish: Cadmium plated.
Tube Finish: Full chrome.
Height Adjust: 23" to 62".
Weight: 5 lbs.

TELECHRON STUDIO CLOCK

The Telechron 14162 "Commerce" commercial clock has a 12″ dial, rich brown case.

KAAR CONALERT

Designed expressly for CONELRAD Radio Alert. Built for 24-hour service, it gives automatic alarm with visual and aural warning; at time of Radio Alert, the speaker is connected, you hear Conelrad message and see red pilot lamp on panel. Provision is also made for external alarm. Available in either cabinet or rack mounting models.

ARGOS WALL BAFFLES

Argos now offers a completely new look in baffles. Entire front is inset, with plastic grille cloth covering panel. Units may be covered with any color of paint or enamel (not lacquer). Constructed of plywood and hardboard for improved acoustical properties with good resonant tone. Richly grained, plastic coated leatherette covering. Extra reinforcing blocks. Four 8-32 bolts already installed for mounting speakers. Available in following styles and sizes:

SCB

Corner Baffles: Corner location aims sound better, is less conspicuous. Base reflex.

CB-8A—Mahogany, for 8″ speaker, 12¼″ w x 14″ h x 6″d.

CB-12A—Mahogany, for 12″ speaker, 18″ w x 20¼″ h x 9″ d.

CB-8BA—Blonde, for 8″ speaker, 12¼″ w x 14″ h x 6″ d.

CB-12BA—Blonde, for 12″ speaker, 18″ w x 20¼″ h x 9″ d.

Slanting Corner Baffles: Aims sound down.

SCB-8 — Mahogany or blonde, for 8″ speaker, 15⅜″ w x 14″ h x 7¾″ d.

SCB-12—Mahogany or blonde, for 12″ speaker, 21″ w x 21¼″ h x 10½″ d.

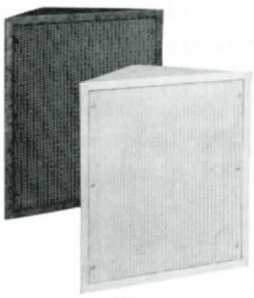
Wall Baffles:

WB-8A — Mahogany, for 8″ speakers, 9⅜″ w x 10½″ h x 6½″ d.

WB-12A—Mahogany, for 12″ speakers, 13¼″ w x 14¼″ h x 9″ d.

WB-8BA—Blonde, for 8″ speakers, 9⅜″ w x 10½″ h x 6½″ d.

WB-12BA—Blonde, for 12″ speakers, 13¼″ w x 14¼″ h x 9″ d.



CB

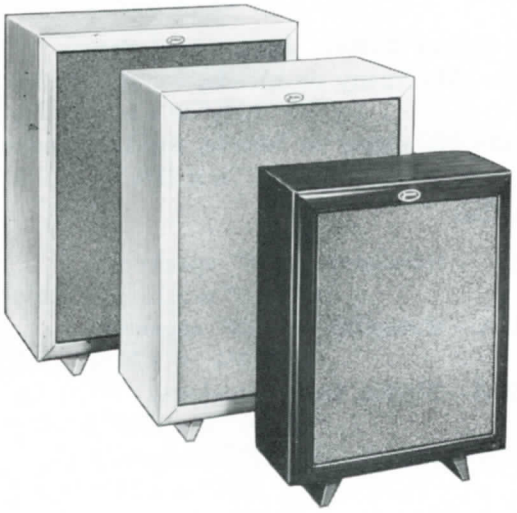
WB

P12-SX

P12-T

K-310A

K-210



JENSEN K-210 COAXIAL SPEAKER

High fidelity reproduction in a small unit. Built-in frequency-dividing system. Power rating, 12 watts. Impedance, 8 ohms. Baffle opening 10½″; OD, 12⅛″; depth, 6 5/16″.

JENSEN ST-901 HF BALANCE CONTROL

Flush satin brass cup escutcheons, appropriately marked, mounting in 1 1/16″ holes, and matching bar knobs. 25″ leads attached. For adjusting balance of H-F units. 16 ohms impedance.

JENSEN K-310A COAXIAL SPEAKER

A fine, low-cost, true two-way 15″ hi-fi speaker. Integral frequency division system. Power rating, 16 watts. Impedance 16 ohms. Baffle opening, 13¼″; OD, 15⅛″; depth, 8⅛″.

JENSEN P12-T LOUDSPEAKER

Gap Energy Level: 1.1 million ergs.
Outside Diameter: 12⅛″.
Depth: 6 1/16″.
Baffle Opening: 10½″.
Voice Coil Impedance: 3-4 ohms.
Power: 9 watts.

JENSEN P12-SX LOUDSPEAKER

The P12-SX direct-radiator loudspeaker is a PM speaker utilizing Alnico 5 magnets.
Gap Energy Level: 1.5 million ergs.
Outside Diameter: 12⅛″.
Depth: 6 1/16″.
Baffle Opening: 10½″.
Voice Coil: 6-8 ohms, 9 watts.

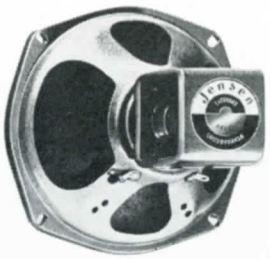
JENSEN TYPE C "BASE REFLEX" CABINETS

These Type C enclosures combine acoustically correct performance with attractive wood cabinetry at moderate cost. Models to fit 8″, 12″ or 15″ speakers, in choice of blonde or mahogany finishes. Two concealed cut-outs in Model C-151, one cut-out in C-121, for easy installation of flush H-F and Level Controls, or Jensen tweeters.
Model C-151 for 15″ speakers: 32″ x 28″ x 15″ deep.
Model C-121 for 12″ speakers: 29″ x 25″ x 13½″ deep.
Model C-81 for 8″ speakers: 23½″ x 20″ x 9″ deep.

JENSEN P8-SX LOUDSPEAKER

The P8-SX speaker is a PM speaker utilizing Alnico 5 magnets.

Gap Energy Level: 1.5 million ergs.
Outside Diameter: 8⅛″.
Depth: 3 13/16″.
Baffle Opening: 6¾″.
Voice Coil: 6-8 ohms, 7 watts.



P8-SX

JENSEN P8-T LOUDSPEAKER

Gap Energy Level: 1.1 million ergs.
Outside Diameter: 8⅛″.
Depth: 3⅝″.
Baffle Opening: 6¾″.
Voice Coil Impedance: 3-4 ohms.
Power: 7 watts.


P8-T

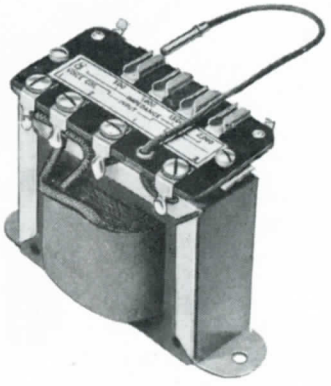
JENSEN IMPEDANCE MATCHING TRANSFORMERS

Jensen speakers are all of the moving coil type and as such are low impedance. The ZY series of transformers are selected where speakers must be matched to output tubes of amplifiers. They permit matching one or several speakers to such an amplifier.

ZY-2002 Transformer for use with P8-SX, P12-SX
Core Size: ¾″ x ¾″.
Power: 10 watts.
Primary: 500, 1,000, 1,500, 2,000 ohms.
Secondary: 6-8 ohms.
Mtg. Centers: 2 13/16″.

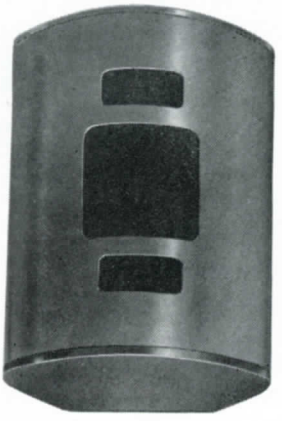
ZY-4002 Transformer for use with P8-T, P12-T.
Core Size: ⅝″ x ⅝″.
Power: 6.5 watts.
Primary: 500, 1,000, 1,500, 2,000 ohms.
Secondary: 3-4 ohms.
Mtg. Centers: 2⅜″.

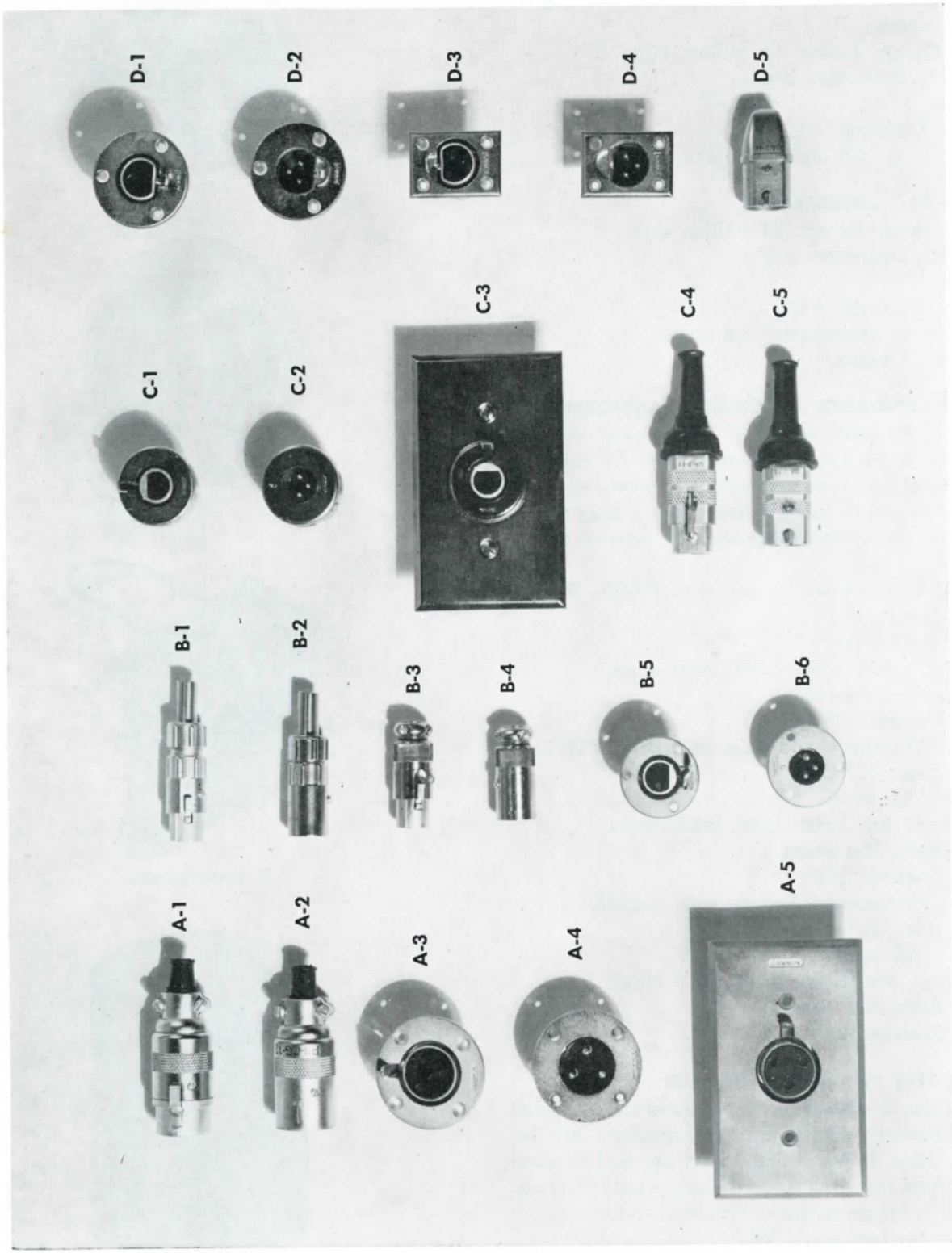
ZY-2003 Transformer for use with K-210A
Core Size: ⅞″ x ⅞″.
Power: 16 watts.
Primary: 500, 1,000, 1,500, 2,000 ohms.
Secondary: 6-8 ohms.
Mtg. Centers: 3⅛″.


ZY TRANSFORMERS

JENSEN TYPE "H" SECTOR CABINET

The Type H cabinet for 8″ speakers was designed for installations where multiple speakers are required. Bass Reflex design. They are built around a solid wood frame with wood composition covering. Finished in brown lacquer. Brackets and screws for mounting are furnished. Height 22¾″; width 17¾″; depth 8½″. Weight 14 lbs.


"H" CABINET


D-1
D-2
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C-1
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B-4
B-5
B-6
A-1
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A-3
A-4
A-5

AUDIO CONNECTORS

A-1	P3-CG-11S	Straight female cable type cord plug with latchlock.
A-2	P3-CG-12S	Straight male cable type cord plug.
A-3	P3-13	Flush mounting female panel receptacle with latchlock.
A-4	P3-14	Flush mounting male panel receptacle.
A-5	P3-35	Single gang female wall receptacle with latchlock.
---	P3-36	Single gang male wall receptacle.
---	P3-35-2G	Two gang female wall receptacle with latchlock.
---	P3-36-2G	Two gang male wall receptacle.
B-1	XL-3-11	Straight female cable type cord plug with latchlock cable spring.
B-2	XL-3-12	Straight male cable type cord plug with cable spring.
B-3	XL-3-11SC	Straight female cable type cord plug with latchlock cable clamp.
B-4	XL-3-12SC	Straight male cable type cord plug with cable clamp.
B-5	XL-3-13	Flush mounting female panel receptacle with latchlock.
B-6	XL-3-14	Flush mounting male panel receptacles.
C-1	XL-3-13N	Female panel mounting receptacle with lock nut.
C-2	XL-3-14N	Male panel mounting receptacle with lock nut.
C-3	XL-3-35	Single gang female wall receptacle with latchlock.
---	XL-3-36	Single gang male wall receptacle.
---	XL-3-35-2G	Two gang female wall receptacle with latchlock.
---	XL-3-36-2G	Two gang male wall receptacle.
C-4	UA-3-11	Straight female cable type cord plug with latchlock.
C-5	UA-3-12	Straight male cable type cord plug.
D-1	UA-3-13	Flush mounting female panel receptacle with latchlock.
D-2	UA-3-14	Flush mounting male panel receptacle with spring release.
D-3	UA-3-31	Female wall mounting receptacle.
D-4	UA-3-32	Male wall mounting receptacle.
D-5	UA-3-42	Mike or panel mounting male receptacle.

(Other Cannon, Hubbell, and Howard Jones Connectors available)

MODEL "A-1" BRUSH

For use where HIGH FIDELITY and extended frequency response are of paramount importance. (60 to 10,000 cps. Corrected for rising response below 200 cps). Especially suited to monitoring, sound measurement, audiometry, and similar exacting headphone applications. Sensitivity approx. 1.5 dynes/cm^2/volt at 1,000 cps. Impedance over 80,000 ohms at any frequency within audio range. Headset complete with 5-foot cord and headband.

MODEL "A" BRUSH

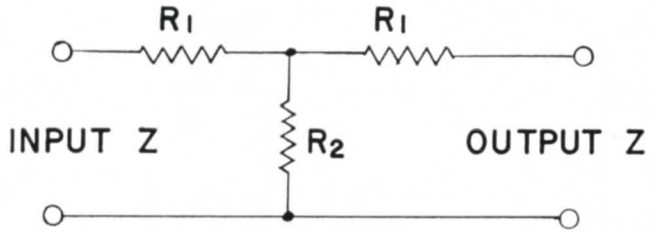
Designed for GENERAL PURPOSE applications including laboratory, studio and skilled amateur home use. The crystal drive element insures wide ranges, response 100 to 8,000 cps and high sensitivity. High impedance; ideal for multiple installations. Headset complete with 5-foot cord and adjustable headband.

TRIMM MODEL 156 is a 600 ohm magnetic headphone furnished with plug.

TRIMM MODEL 157 is a 17,000 ohm magnetic headphone furnished with plug.

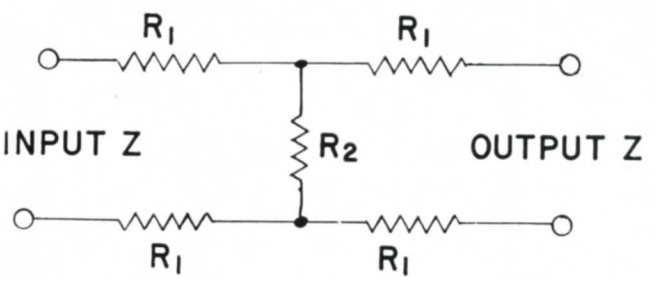
DECIMAL EQUIVALENTS OF FRACTIONS

1/32 ..... .03125	9/32 ..... .28125	17/32 ..... .53125	25/32 ..... .78125
1/16 ..... .0625	5/16 ..... .3125	9/16 ..... .5625	13/16 ..... .8125
3/32 ..... .09375	11/32 ..... .34375	19/32 ..... .59375	27/32 ..... .84375
1/8 ..... .125	3/8 ..... .375	5/8 ..... .625	7/8 ..... .875
5/32 ..... .15625	13/32 ..... .40625	21/32 ..... .65625	29/32 ..... .90625
3/16 ..... .1875	7/16 ..... .4375	11/16 ..... .6875	15/16 ..... .9375
7/32 ..... .21875	15/32 ..... .46875	23/32 ..... .71875	31/32 ..... .96875
1/4 ..... .25	1/2 5	3/4 ..... .75	1 ..... 1.0



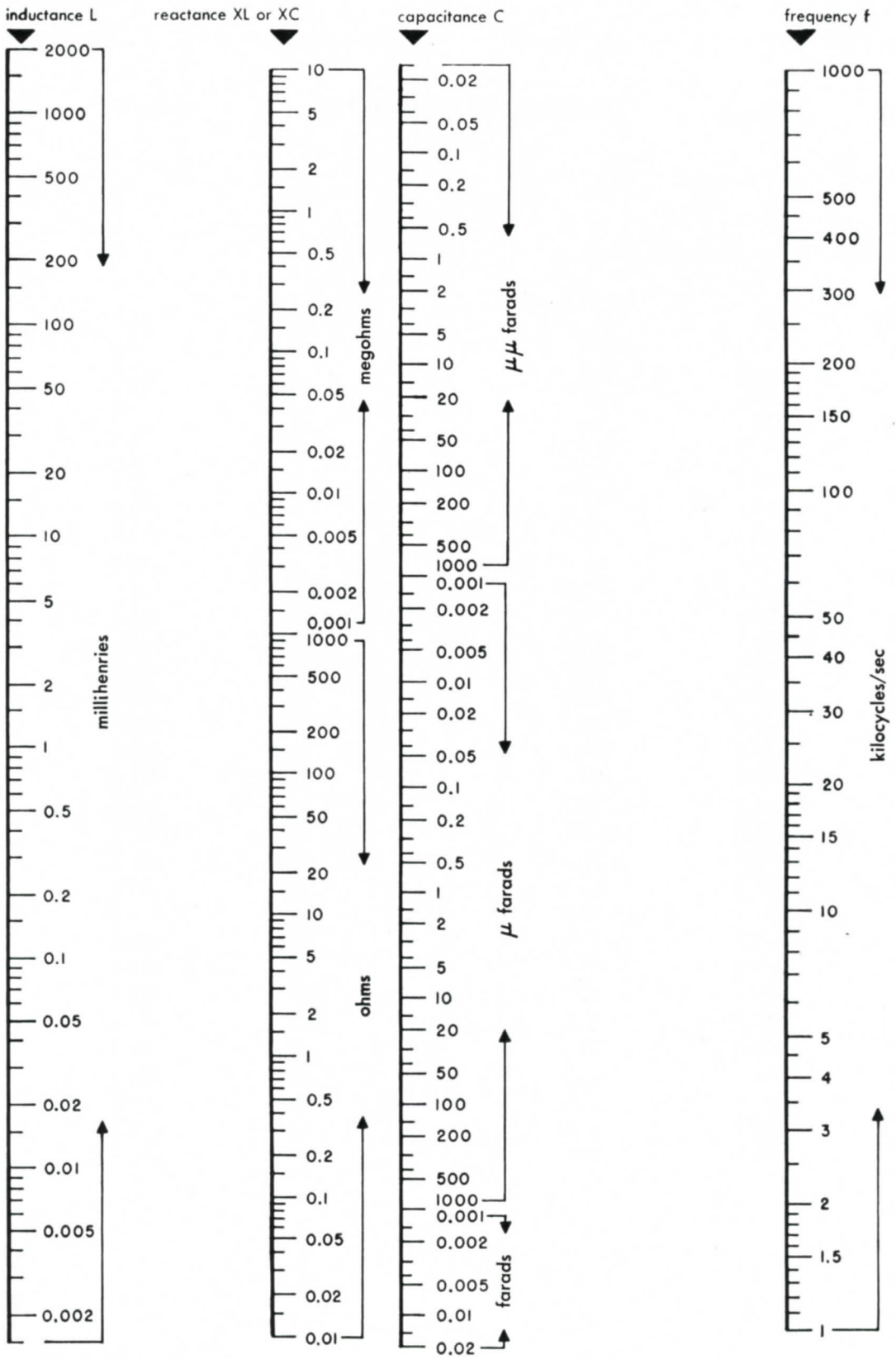
Input and Output Z = 600 Ohms

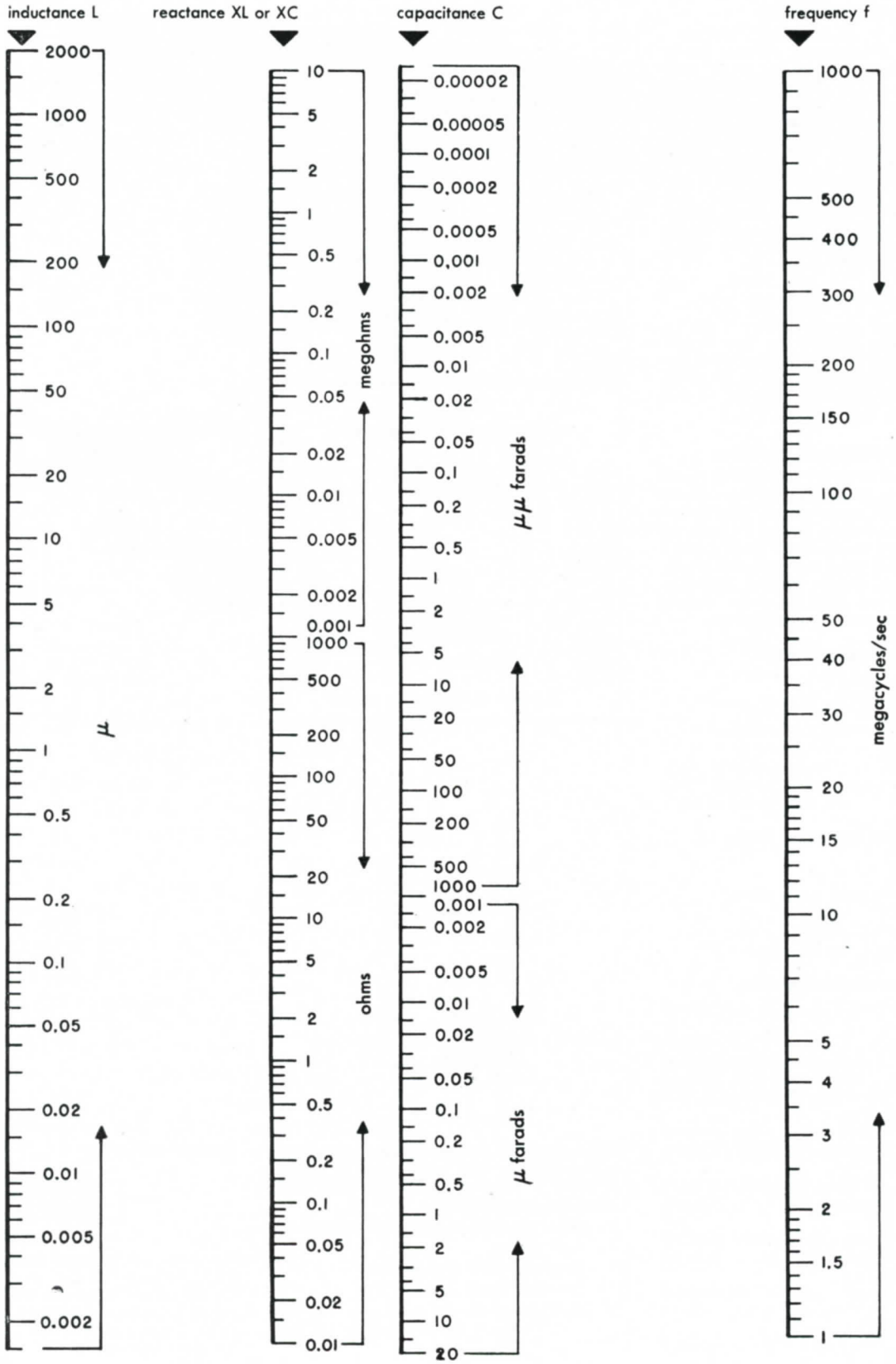
DB LOSS	R_1	R_2
0.5	17.2	10464
1	34.5	5208
2	68.8	2582
3	102.7	1703
4	135.8	1249
5	168.1	987.6
6	199.3	803.4
7	229.7	685.2
8	258.4	567.6
9	285.8	487.2
10	312.0	421.6
11	336.1	367.4
12	359.1	321.7
13	380.5	282.8
14	400.4	249.4
15	418.8	220.4
16	435.8	195.1
17	451.5	172.9
18	465.8	152.5
19	479.0	136.4
20	490.4	121.2
22	511.7	95.9
24	528.8	76.0
26	542.7	60.3
28	554.1	47.8
30	563.0	38.0
32	570.6	30.2
34	576.5	24.0
36	581.1	19.0
38	585.1	15.1
40	588.1	12.0



DB LOSS	R_1	R_2
0.5	8.6	10464
1	17.25	5208
2	34.4	2582
3	51.3	1703
4	67.9	1249
5	84.1	987.6
6	99.7	803.4
7	114.8	685.2
8	129.2	567.6
9	142.9	487.2
10	156.0	421.6
11	168.1	367.4
12	179.5	321.7
13	190.3	282.8
14	200.2	249.4
15	209.4	220.4
16	217.9	195.1
17	225.7	172.9
18	232.9	152.5
19	239.5	136.4
20	245.2	121.2
22	255.9	95.9
24	264.4	76.0
26	271.4	60.3
28	277.0	47.8
30	281.6	38.0
32	285.3	30.2
34	288.3	24.0
36	290.6	19.0
38	292.5	15.1
40	294.1	12.0

REACTANCE CHART




inductance L
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0.01
0.02
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μ farads
frequency f
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400
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200
150
100
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megacycles/sec

RESISTOR CAPACITOR COLOR CODE

FIXED CONDENSERS

The methods of marking "postage-stamp" mica condensers, molded paper condensers, and tubular ceramic condensers are shown in Fig. 2. Condensers made to American War Standards or Joint Army-Navy specifications are marked with the 6-dot code shown at the top. Practically all surplus condensers are in this category. The 3-dot RMA code is used for condensers having a rating of 500 volts and ±20% tolerance only; other ratings and tolerances are covered by the 6-dot RMA code.

CERAMIC CONDENSERS

Conventional markings for ceramic condensers are shown in the lower drawing of Fig. 2. The colors have the meanings indicated in Table 2. In practice, dots may be used instead of the *narrow* bands indicated in Fig. 2.

FIXED COMPOSITION RESISTORS

Composition resistors (including small wire-wound units molded in cases identical with the composition type) are color-coded as shown in Fig. 1. Colored bands are used on resistors having axial leads; on radial-lead resistors the colors are placed as shown in the drawing. When bands are used for color coding the body color has no significance.

I.F. TRANSFORMERS

Blue — plate lead.
Red — "B" + lead.
Green — grid (or diode) lead.
Black — grid (or diode) return.

NOTE: If the secondary of the i.f.t. is center-tapped, the second diode plate lead is green-and-black striped, and black is used for the center-tap lead.

LOUDSPEAKER VOICE COILS

Green — finish.
Black — start.

LOUDSPEAKER FIELD COILS

Black and Red — start.
Yellow and Red — finish.
Slate and Red — tap (if any).

POWER TRANSFORMERS

1) Primary Leads ..... *Black*
   If tapped:
   Common ..... Black
   Tap ... *Black and Yellow Striped*
   Finish ... *Black and Red Striped*
2) High-Voltage Plate Winding .... *Red*
   Center-Tap
   ..... *Red and Yellow Striped*
3) Rectifier Filament Winding .. *Yellow*
   Center-Tap
   ..... *Yellow and Blue Striped*
4) Filament Winding No. 1 ..... *Green*
   Center-Tap
   .... *Green and Yellow Striped*
5) Filament Winding No. 2 ..... *Brown*
   Center-Tap
   .... *Brown and Yellow Striped*
6) Filament Winding No. 3 ..... *Slate*
   Center-Tap
   ..... *Slate and Yellow Striped*

A.F. TRANSFORMERS

Blue — plate (finish) lead of primary.
Red — "B" + lead (this applies whether the primary is plain or center-tapped).
Brown — plate (start) lead on center-tapped primaries. (Blue may be used for this lead if polarity is not important.)
Green — grid (finish) lead to secondary.
Black—grid return (this applies whether the secondary is plain or center-tapped).
Yellow — grid (start) lead on center-tapped secondaries. (Green may be used for this lead if polarity is not important.

NOTE: These markings apply also to line-to-grid and tube-to-line transformers.

TABLE I

Resistor-Condenser Color Code

Color	Significant Figure	Decimal Multiplier	Tolerance (%)	Voltage Rating*
Orange	9	1,000,000,000	9*	2000
Black	0	1	–	—
Brown	1	10	1*	100
Red	2	100	2*	200
Orange	3	1000	3*	300
Yellow	4	10,000	4*	400
Green	5	100,000	5*	500
Blue	6	1,000,000	6*	600
Violet	7	10,000,000	7*	700
Gray	8	100,000,000	8*	800
White	9	1,000,000,000	9*	900
Gold	–	0.1	5	1000
Silver	–	0.01	10	2000
No color	–	—	20	500

*Applies to condensers only.

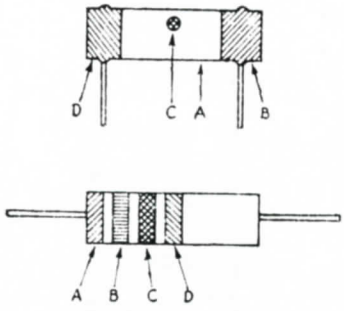


Fig. 1 — Color coding of fixed composition resistors. The color code is given in Table 1. The colored areas have the following significance:

A — First significant figure of resistance in ohms.
B — Second significant figure.
C — Decimal multiplier.
D — Resistance tolerance in per cent. If no color is shown, the tolerance is ±20%.

TABLE II

Color Code for Ceramic Condensers

Color	Significant Figure	Decimal Multiplier	Capacitance Tolerance: More than 10 μμfd. (in %)	Capacitance Tolerance: Less than 10 μμfd. (in μμfd.)	Temp. Coeff. p.p.m./deg. C.
Black	0	1	±20	2.0	0
Brown	1	10	± 1		— 30
Red	2	100	± 2		— 80
Orange	3	1000			—150
Yellow	4				—220
Green	5		± 5	0.5	—330
Blue	6				—470
Violet	7				—750
Gray	8	0.01		0.25	30
White	9	0.1	±10	1.0	500

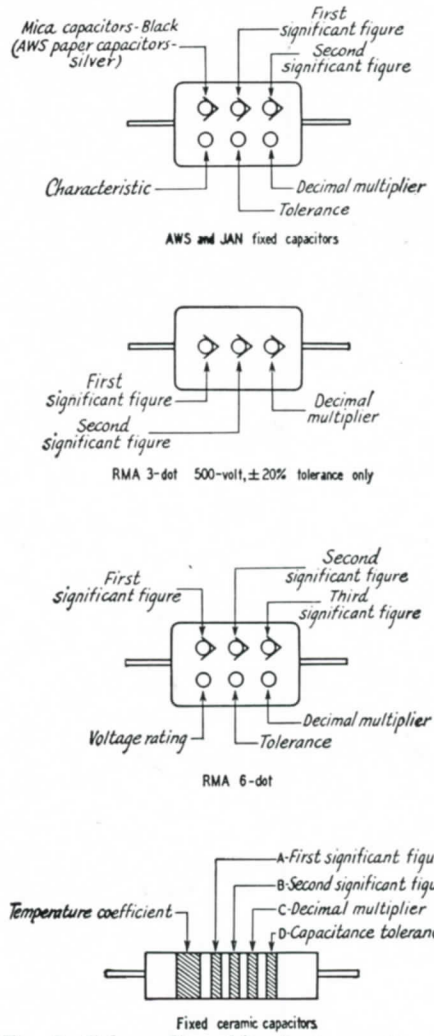


Fig. 2—Color coding of fixed mica, molded paper, and tubular ceramic condensers. The color code for mica and molded paper condensers is given in Table 1. Table 2 gives the color code for tubular ceramic condensers.

TELEPHONE CABLE COLOR CODE

Pair No.	Color	Mate	Pair No.	Color	Mate
1	Blue	White	26	Blue White	Red
2	Orange	White	27	Blue Orange	Red
3	Green	White	28	Blue Green	Red
4	Brown	White	29	Blue Brown	Red
5	Slate	White	30	Blue Slate	Red
6	Blue White	White	31	Orange White	Red
7	Blue Orange	White	32	Orange Green	Red
8	Blue Green	White	33	Orange Brown	Red
9	Blue Brown	White	34	Orange Slate	Red
10	Blue Slate	White	35	Green White	Red
11	Orange White	White	36	Green Brown	Red
12	Orange Green	White	37	Green Slate	Red
13	Orange Brown	White	38	Brown White	Red
14	Orange Slate	White	39	Brown Slate	Red
15	Green White	White	40	Slate White	Red
16	Green Brown	White	41	Blue	Black
17	Green Slate	White	42	Orange	Black
18	Brown White	White	43	Green	Black
19	Brown Slate	White	44	Brown	Black
20	Slate White	White	45	Slate	Black
21	Blue	Red	46	Blue White	Black
22	Orange	Red	47	Blue Orange	Black
23	Green	Red	48	Blue Green	Black
24	Brown	Red	49	Blue Brown	Black
25	Slate	Red	50	Blue Slate	Black

NOTE—The last pair in all cables is a Red with White mate, viz.

6-pair cable	6th pair	Red	White
11-pair cable	11th pair	Red	White
16-pair cable	16th pair	Red	White
26-pair cable	26th pair	Red	White
51-pair cable	51st pair	Red	White

DECIBELS

Power Ratio	Voltage or Current Ratio	—db+	Voltage or Current Ratio	Power Ratio	Power Ratio	Voltage or Current Ratio	—db+	Voltage or Current Ratio	Power Ratio	Power Ratio	Voltage or Current Ratio	—db+	Voltage or Current Ratio	Power Ratio
10^{-1}		10		10	.251	.501	6.0	2.00	3.98	.0501	.224	13.0	4.47	19.95
10^{-1}	10^{-1}	20	10	10^{1}	.246	.496	6.1	2.02	4.07	.0490	.221	13.1	4.52	20.42
10^{-1}		30		10^{1}	.240	.490	6.2	2.04	4.17	.0479	.219	13.2	4.57	20.89
10^{-1}	10^{-1}	40	10^{1}	10^{1}	.234	.484	6.3	2.07	4.27	.0468	.216	13.3	4.62	21.38
10^{-1}		50		10^{1}	.229	.479	6.4	2.09	4.37	.0457	.214	13.4	4.68	21.88
10^{-1}	10^{-1}	60	10^{1}	10^{1}	.224	.473	6.5	2.11	4.47	.0447	.211	13.5	4.73	22.39
10^{-7}		70		10^{7}	.219	.468	6.6	2.14	4.57	.0437	.209	13.6	4.79	22.91
10^{-1}	10^{-1}	80	10^{1}	10^{1}	.214	.462	6.7	2.16	4.68	.0427	.207	13.7	4.84	23.44
10^{-1}		90		10^{1}	.209	.457	6.8	2.19	4.79	.0417	.204	13.8	4.90	23.99
10^{-10}	10^{-1}	100	10^{1}	10^{10}	.204	.452	6.9	2.21	4 90	.0407	.202	13.9	4.96	24.55
1.000	1.000	0	1.00	1.00	.200	.447	7.0	2.24	5.01	.0398	.200	14.0	5.01	25.12
.977	.989	.1	1.01	1.02	.195	.442	7.1	2.27	5.13	.0389	.197	14.1	5.07	25.70
.955	.977	.2	1.02	1.05	.191	.437	7.2	2.29	5.25	.0380	.195	14.2	5.13	26.30
.933	.966	.3	1.04	1.07	.186	.432	7.3	2.32	5.37	.0372	.193	14.3	5.19	26.92
.912	.955	.4	1.05	1.10	.182	.427	7.4	2.34	5.50	.0363	.191	14.4	5.25	27.54
.891	.944	.5	1.06	1.12	.178	.422	7.5	2.37	5.62	.0355	.188	14.5	5.31	28.18
.871	.933	.6	1.07	1.15	.174	.417	7.6	2.40	5.75	.0347	.186	14.6	5.37	28.84
.851	.923	.7	1.08	1.18	.170	.412	7.7	2.43	5.80	.0339	.184	14.7	5.43	29.51
.832	.912	.8	1.10	1.20	.166	.407	7.8	2.46	6.03	.0331	.182	14.8	5.50	30.20
.813	.902	.9	1.11	1.23	.162	.403	7.9	2.48	6.17	.0324	.180	14.9	5.53	30.90
.794	.891	1.0	1.12	1.26	.159	.398	8.0	2.51	6.31	.0316	.178	15.0	5.62	31.62
.776	.881	1.1	1.14	1.29	.155	.394	8.1	2.54	6.46	.0309	.176	15.1	5.69	32.36
.759	.871	1.2	1.15	1.32	.151	.389	8.2	2.57	6.61	.0302	.174	15.2	5.75	33.11
.741	.861	1.3	1.16	1.35	.148	.385	8.3	2.60	6.76	.0295	.172	15.3	5.82	33.88
.724	.851	1.4	1.18	1.38	.145	.380	8.4	2.63	6.92	.0288	.170	15.4	5.89	34.67
.708	.841	1.5	1.19	1.41	.141	.376	8.5	2.66	7.08	.0282	.168	15.5	5.96	35.48
.692	.832	1.6	1.20	1.45	.138	.372	8.6	2.69	7.24	.0275	.166	15.6	6.03	36.31
.676	.822	1.7	1.22	1.48	.135	.367	8.7	2.72	7.41	.0269	.164	15.7	6.10	37.15
.661	.813	1.8	1.23	1.51	.132	.363	8.8	2.75	7.59	.0263	.162	15.8	6.17	38.02
.646	.804	1.9	1.25	1.55	.129	.359	8.9	2.79	7.76	.0257	.160	15.9	6.24	38.90
.631	.794	2.0	1.26	1.59	.126	.355	9.0	2.82	7.94	.0251	.159	16.0	6.31	39.81
.617	.785	2.1	1.27	1.62	.123	.351	9.1	2.85	8.13	.0246	.157	16.1	6.38	40.74
.603	.776	2.2	1.29	1.66	.120	.347	9.2	2.88	8.32	.0240	.155	16.2	6.46	41.69
.589	.767	2.3	1.30	1.70	.118	.343	9.3	2.92	8.51	.0234	.153	16.3	6.53	42.66
.575	.759	2.4	1.32	1.74	.115	.339	9.4	2.95	8.71	.0229	.151	16.4	6.61	43.65
.562	.750	2.5	1.33	1.78	.112	.335	9.5	2.99	8.91	.0224	.150	16.5	6.68	44.67
.550	.741	2.6	1.35	1.82	.110	.331	9.6	3.02	9.12	.0219	.148	16.6	6.76	45.71
.537	.733	2.7	1.37	1.86	.107	.327	9.7	3.06	9.33	.0214	.146	16.7	6.84	46.77
.525	.724	2.8	1.38	1.91	.105	.324	9.8	3.09	9.55	.0209	.145	16.8	6.92	47.86
.513	.716	2.9	1.40	1.95	.102	.320	9.9	3.13	9.77	.0204	.143	16.9	7.00	48.98
.501	.708	3.0	1.41	2.00	.1000	.316	10.0	3.16	10.00	.0200	.141	17.0	7.08	50.12
.490	.700	3.1	1.43	2.04	.0977	.313	10.1	3.20	10.23	.0195	.140	17.1	7.16	51.29
.479	.692	3.2	1.45	2.09	.0955	.309	10.2	3.24	10.47	.0191	.138	17.2	7.24	52.48
.468	.684	3.3	1.46	2.14	.0933	.306	10.3	3.27	10.72	.0186	.137	17.3	7.33	53.70
.457	.676	3.4	1.48	2.19	.0912	.302	10.4	3.31	10.96	.0182	.135	17.4	7.41	54.95
.447	.668	3.5	1.50	2.24	.0891	.299	10.5	3.35	11.22	.0178	.133	17.5	7.50	56.23
.437	.661	3.6	1.51	2.29	.0871	.295	10.6	3.39	11.48	.0174	.132	17.6	7.59	57.54
.427	.653	3.7	1.53	2.34	.0851	.292	10.7	3.43	11.75	.0170	.130	17.7	7.67	58.88
.417	.646	3.8	1.55	2.40	.0832	.288	10.8	3.47	12.02	.0166	.129	17.8	7.76	60.26
.407	.638	3.9	1.57	2.46	.0813	.285	10.9	3.51	12.30	.0162	.127	17.9	7.85	61.66
.398	.631	4.0	1.59	2.51	.0794	.282	11.0	3.55	12.59	.0159	.126	18.0	7.94	63.10
.389	.624	4.1	1.60	2.57	.0776	.279	11.1	3.59	12.88	.0155	.125	18.1	8.04	64.57
.380	.617	4.2	1.62	2.63	.0759	.275	11.2	3.63	13.18	.0151	.123	18.2	8.13	66.07
.372	.610	4.3	1.64	2.69	.0741	.272	11.3	3.67	13.49	.0148	.122	18.3	8.22	67.61
.363	.603	4.4	1.66	2.75	.0724	.269	11.4	3.72	13.80	.0145	.120	18.4	8.32	69.18
.355	.596	4.5	1.68	2.81	.0708	.266	11.5	3.76	14.13	.0141	.119	18.5	8.41	70.79
.347	.589	4.6	1.70	2.88	.0691	.263	11.6	3.80	14.45	.0138	.118	18.6	8.51	72.44
.339	.582	4.7	1.72	2.95	.0676	.260	11.7	3.85	14.79	.0135	.116	18.7	8.61	74.13
.331	.575	4.8	1.74	3.02	.0661	.257	11.8	3.89	15.14	.0132	.115	18.8	8.71	75.86
.324	.569	4.9	1.76	3.09	.0646	.254	11.9	3.94	15.49	.0129	.114	18.9	8.81	77.62
.316	.562	5.0	1.78	3.16	.0631	.251	12.0	3.98	15.85	.0126	.112	19.0	8.91	79.43
.309	.556	5.1	1.80	3.24	.0617	.248	12.1	4.03	16.22	.0123	.111	19.1	9.02	81.28
.302	.550	5.2	1.82	3.31	.0603	.246	12.2	4.07	16.60	.0120	.110	19.2	9.12	83.18
.295	.543	5.3	1.84	3.39	.0589	.243	12.3	4.12	16.98	.0118	.108	19.3	9.23	85.11
.288	.537	5.4	1.86	3.47	.0575	.240	12.4	4.17	17.38	.0115	.107	19.4	9.33	87.10
.282	.530	5.5	1.88	3.55	.0562	.237	12.5	4.22	17.78	.0112	.106	19.5	9.44	89.13
.275	.525	5.6	1.91	3.63	.0550	.234	12.6	4.27	18.20	.0110	.105	19.6	9.55	91.20
.269	.519	5.7	1.93	3.72	.0537	.232	12.7	4.32	18.62	.0107	.104	19.7	9.66	93.33
.263	.513	5.8	1.95	3.80	.0525	.229	12.8	4.37	19.05	.0105	.102	19.8	9.77	95.50
.257	.507	5.9	1.97	3.89	.0513	.227	12.9	4.42	19.50	.0102	.101	19.9	9.89	97.72
										.0100	.100	20.0	10.00	100.00

CONVERSION TABLE FOR UNITS OF LENGTH

MULTIPLY NUMBER OF → / BY ↘ / TO OBTAIN NUMBER OF ↓	ANGSTROMS	MICRONS	MILS	INCHES	FEET	MILES	MILLIMETERS	CENTIMETERS	KILOMETERS
ANGSTROMS	1	10^{4}	2.540×10^{5}	2.540×10^{8}	3.048×10^{9}	1.609×10^{13}	10^{7}	10^{8}	10^{13}
MICRONS	10^{-4}	1	2.540×10	2.540×10^{4}	3.048×10^{5}	1.609×10^{9}	10^{3}	10^{4}	10^{9}
MILS	3.937×10^{-6}	3.937×10^{-2}	1	10^{3}	1.2×10^{4}	6.336×10^{7}	3.937×10	3.937×10^{2}	3.937×10^{7}
INCHES	3.937×10^{-9}	3.937×10^{-5}	10^{-3}	1	12	6.336×10^{4}	3.937×10^{-2}	3.937×10^{-1}	3.937×10^{4}
FEET	3.281×10^{-10}	3.281×10^{-6}	8.333×10^{-5}	8.333×10^{-2}	1	5.280×10^{3}	3.281×10^{-3}	3.281×10^{-2}	3.281×10^{3}
MILES	6.214×10^{-14}	6.214×10^{-10}	1.578×10^{-8}	1.578×10^{-5}	1.894×10^{-4}	1	6.214×10^{-7}	6.214×10^{-6}	6.214×10^{-1}
MILLIMETERS	10^{-7}	10^{-3}	2.540×10^{-2}	2.540×10	3.048×10^{2}	1.609×10^{6}	1	10	10^{6}
CENTIMETERS	10^{-8}	10^{-4}	2.540×10^{-3}	2.540	3.048×10	1.609×10^{5}	0.1	1	10^{5}
KILOMETERS	10^{-13}	10^{-9}	2.540×10^{-8}	2.540×10^{-5}	3.048×10^{-4}	1.609	10^{-6}	10^{-5}	1

NOMOGRAPH for MICROPHONE DISTANCES in LIVENESS BROADCASTING

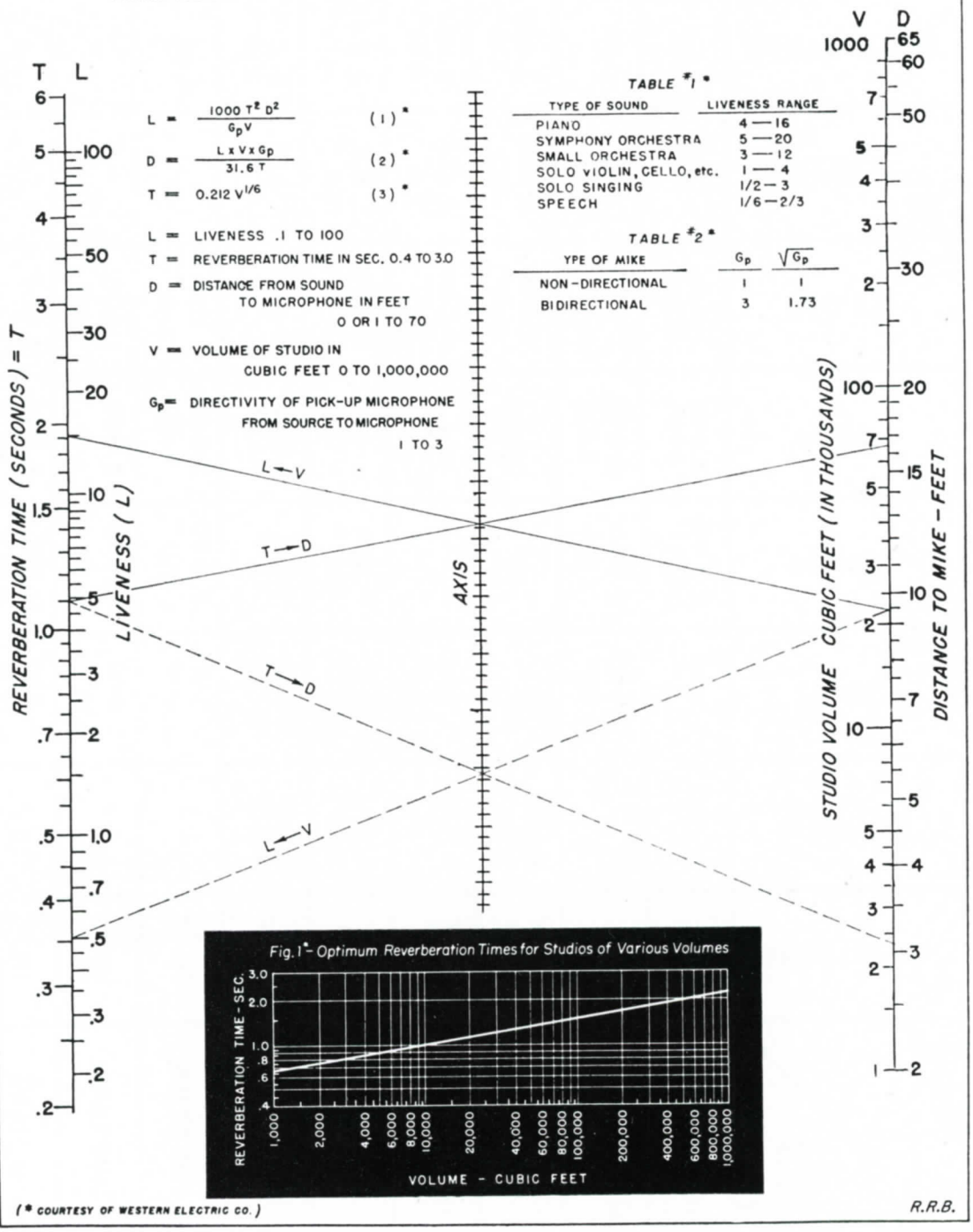


TABLE #1 *

TYPE OF SOUND	LIVENESS RANGE
PIANO	4 — 16
SYMPHONY ORCHESTRA	5 — 20
SMALL ORCHESTRA	3 — 12
SOLO VIOLIN, CELLO, etc.	1 — 4
SOLO SINGING	1/2 — 3
SPEECH	1/6 — 2/3

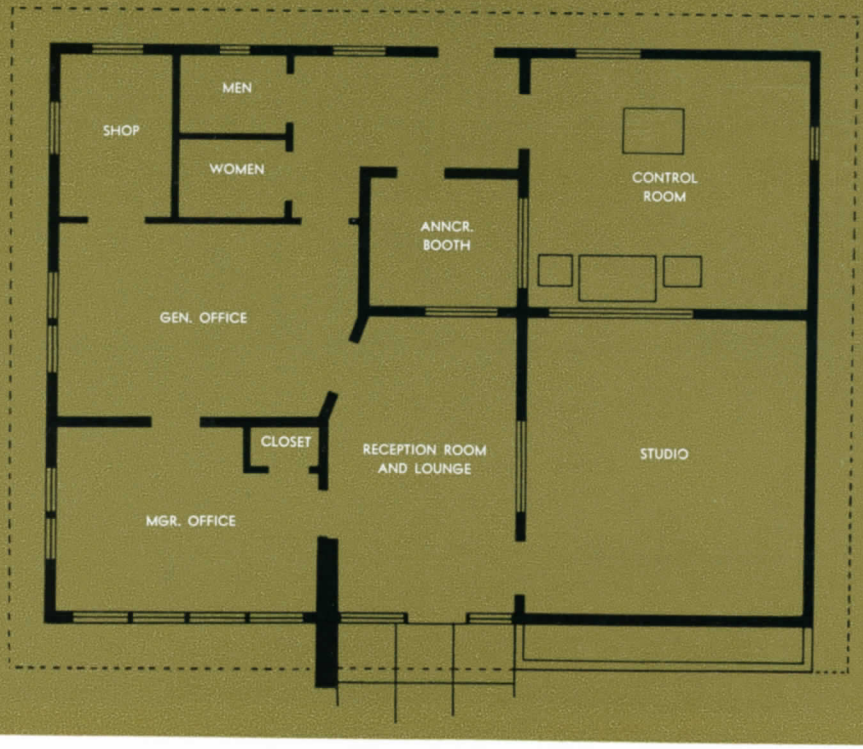
TABLE #2 *

TYPE OF MIKE	G_p	$\sqrt{G_p}$
NON-DIRECTIONAL	1	1
BIDIRECTIONAL	3	1.73

(* COURTESY OF WESTERN ELECTRIC CO.)

R.R.B.

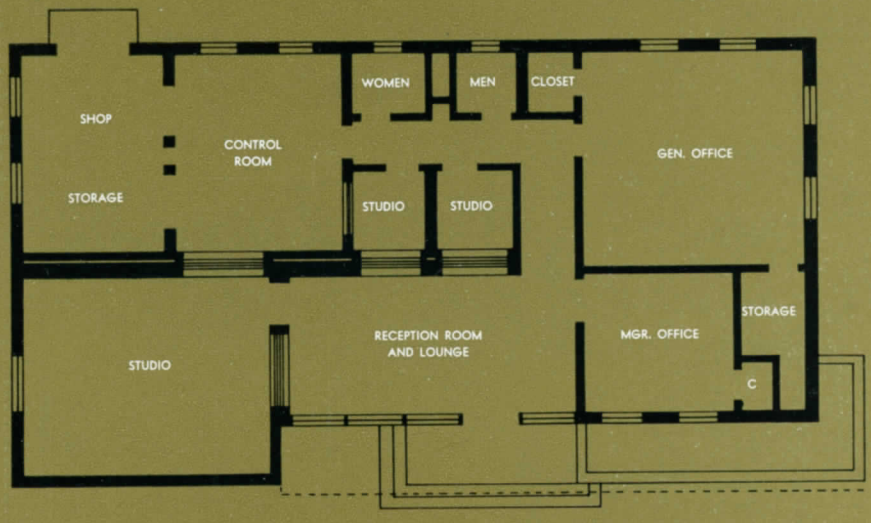

WCRC


MEN
SHOP
WOMEN
CONTROL ROOM
ANNCR. BOOTH
GEN. OFFICE
CLOSET
RECEPTION ROOM AND LOUNGE
STUDIO
MGR. OFFICE

250W-1 KW AM


K
M
S

250W-1 KW AM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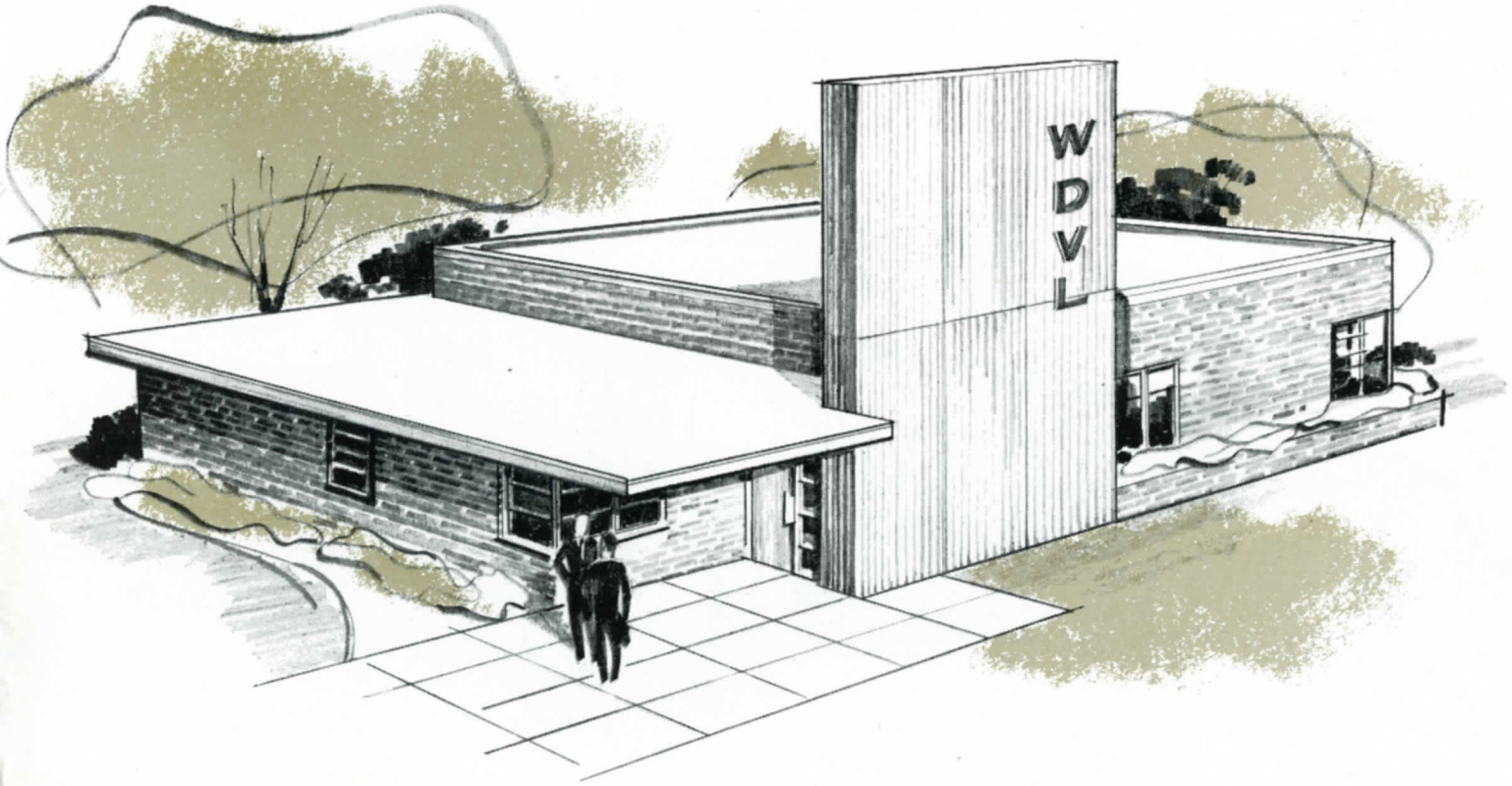
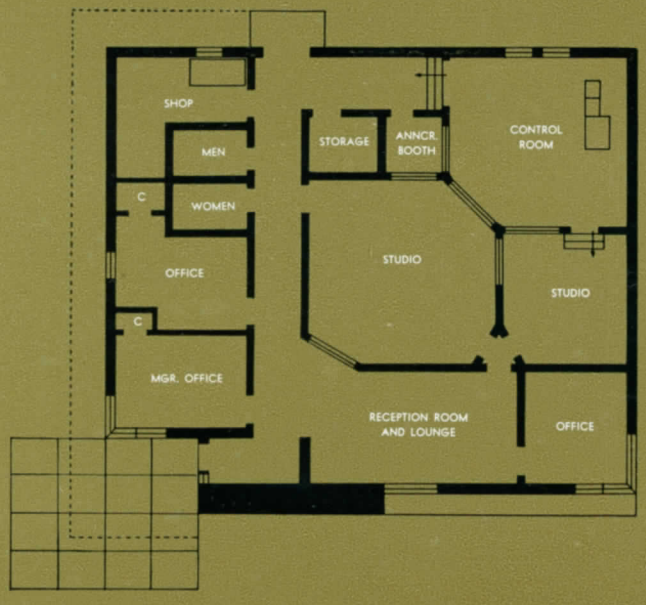
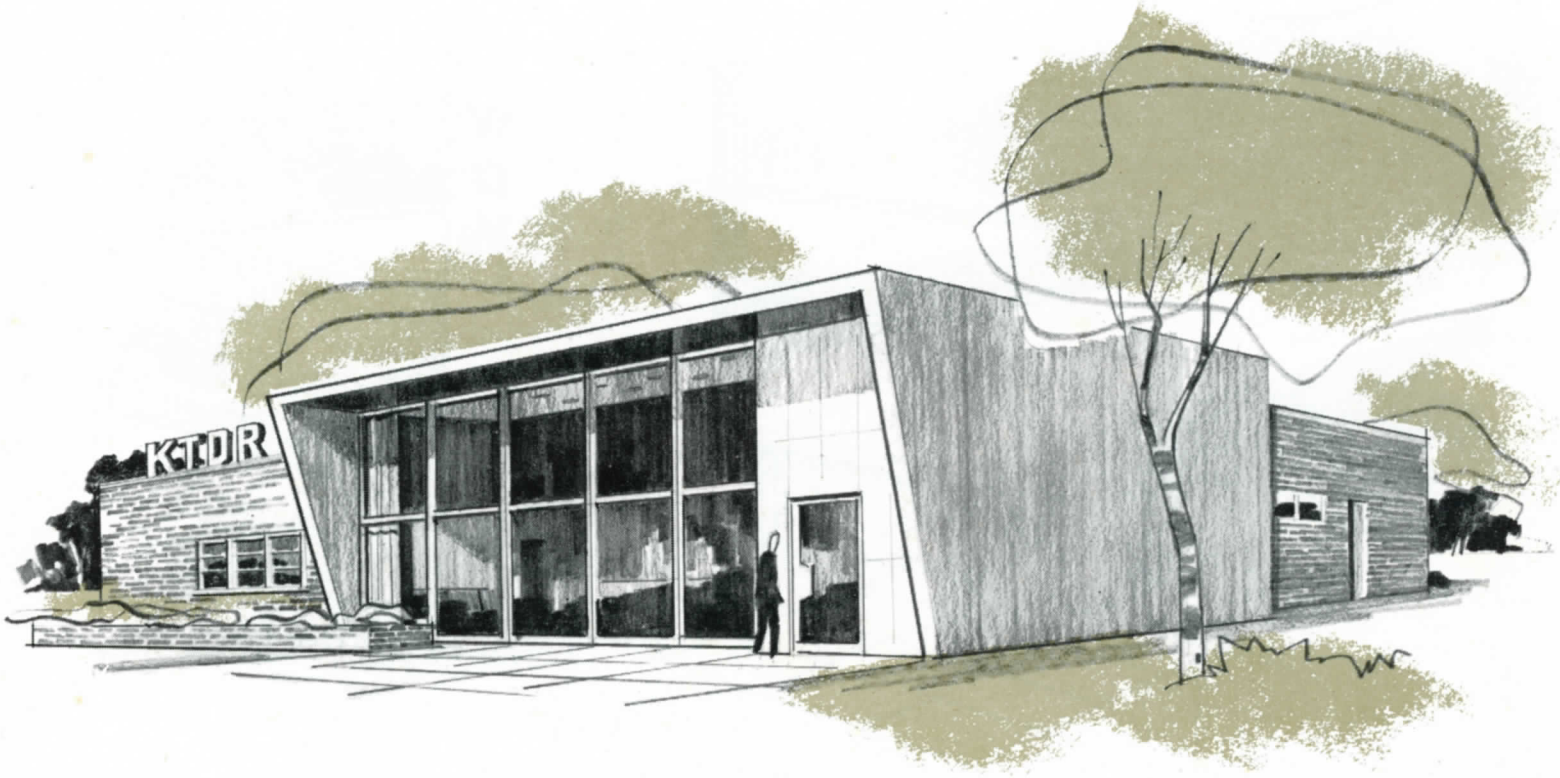
CLOSET
SHOP
CONTROL ROOM
GEN. OFFICE
STORAGE
STUDIO
STUDIO
STORAGE
RECEPTION ROOM AND LOUNGE
MGR. OFFICE
STUDIO
C


WDVL


SHOP
MEN
C
WOMEN
OFFICE
C
MGR. OFFICE
STORAGE
ANNCR. BOOTH
CONTROL ROOM
STUDIO
STUDIO
RECEPTION ROOM AND LOUNGE
OFFICE

250W-1 KW AM



5,000-10,000 WATT AM

COLLINS RADIO COMPANY

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1200 18th Street N.W., WASHINGTON, D. C.
1930 Hi-Line Drive, DALLAS 2, TEXAS
2700 W. Olive Avenue, BURBANK, CALIFORNIA
Dogwood Road, Fountain City, KNOXVILLE, TENNESSEE
222 West Pensacola Street, TALLAHASEE, FLORIDA
1318 4th Avenue, SEATTLE, WASHINGTON
4711 N.W. 36th Street, MIAMI SPRINGS, FLORIDA

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