



RCA INDUCTOR MICROPHONE

MODEL 50-A

Classification:
MICROPHONES AND
ACCESSORIES
Bulletin No. SP-1005

Type of operation - Pressure.
Frequency Range - 60 to 10,000 cycles.
Output level (10 dynes) - 67 db.
Impedance - 50 or 250 ohms.
Dimensions - 4" deep, 4" diameter.
Net weight (less cable) - 3 lbs.
Shipping Weight - 5 lbs.
Finish - Antique Bronze.
Code - CRAUI

THE INDUCTOR MICROPHONE is the result of continued research and development toward the production of a low priced microphone, the outstanding characteristics of which are: (a) high quality, (b) high sensitivity, (c) freedom from shock excitation troubles, (d) minimum response to wind effects, (e) compactness and (f) ruggedness.

THIS MICROPHONE is a pressure operated microphone of the moving conductor type. A single 0.010-inch aluminum conductor is rigidly coupled to a diaphragm and located between the poles of a permanent magnet with its length perpendicular to the magnetic lines of force. The ends of the conductor are connected to a transformer which matches the impedance of a 250 or 50 ohm line.

WITH AN INPUT SOUND PRESSURE of 10 dynes per square centimeter perpendicular to the plane of the diaphragm, the inductor microphone will deliver 800 microvolts across a 250-ohm load, which is equivalent to an output level of -67 db. as compared with a zero level of 12.5 milliwatts, or -64 db. as compared with a zero level of 6 milliwatts.

THE FREQUENCY RESPONSE of the microphone is uniform over its useful operating range from 60 to 10,000 cycles.

THE VARIATION of the frequency response characteristic with the direction of the incident sound is very similar to that of any other pressure operated microphone of comparable size, in that the response to the higher frequencies is attenuated as the angle between the direction of the incident sound and the plane of the diaphragm is decreased.

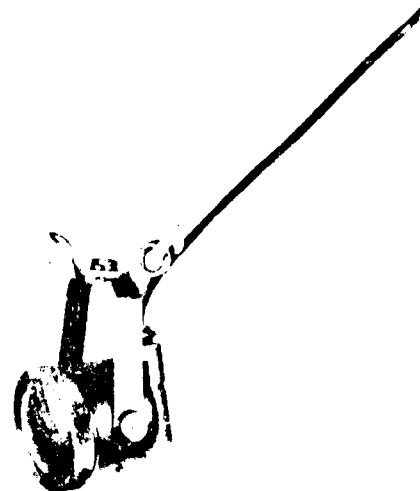
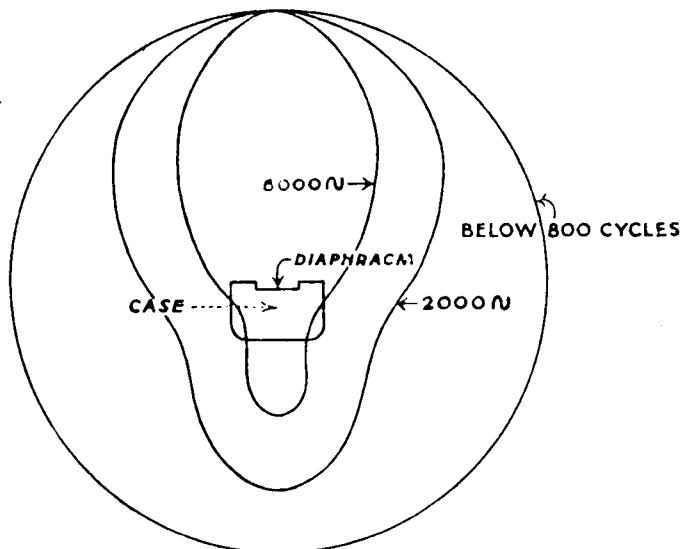
Commercial Sound Section

RCA MANUFACTURING COMPANY • INC
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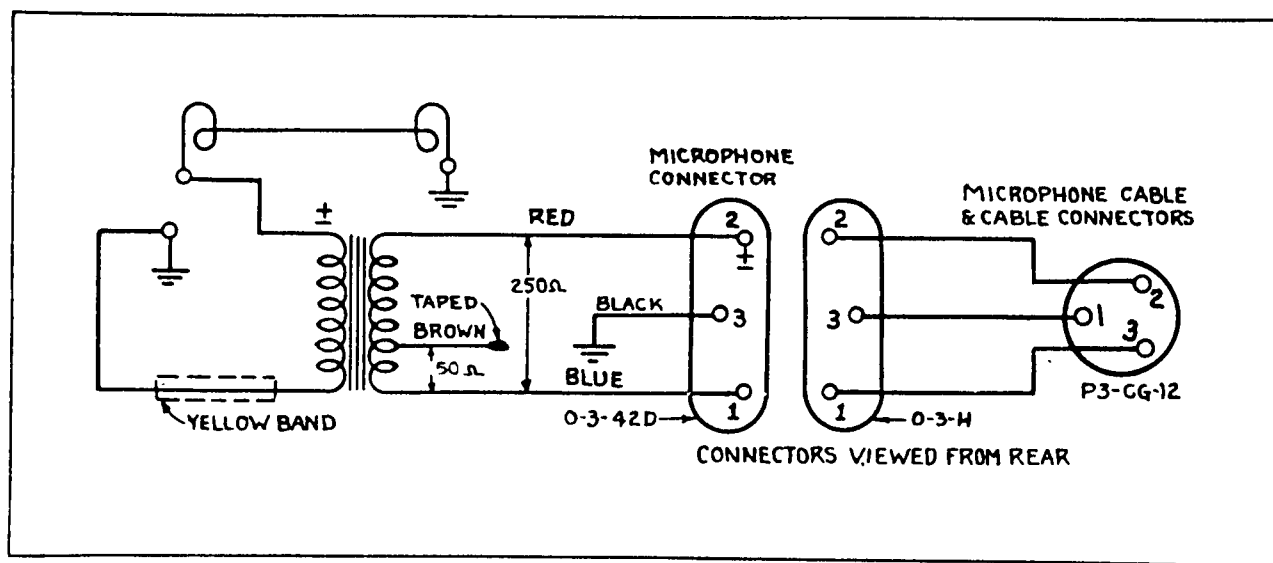


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HORIZONTAL DIRECTIVITY OF
DIAPHRAGM TYPE MICROPHONES



- Schematic Wiring Diagram of the Type 50-A Microphone and Connecting Cable (K-819800)

