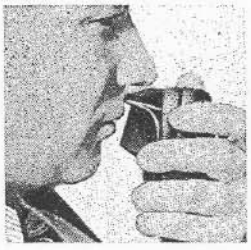
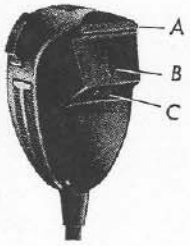
Electro-Voice Microphone MODEL 205-S

All Electro-Voice microphones are guaranteed to be free from defect in material or workmanship, for life.

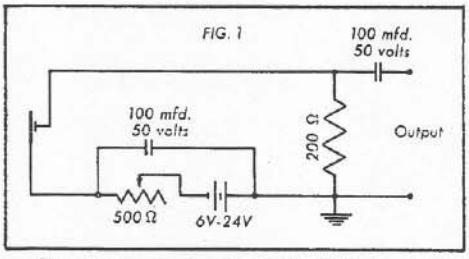
A single button, hand-held, carbon *DIFFERENTIAL microphone, designed for maximum intelligibility under extreme noise. Ambient noise is fed into dual apertures in correct phase relationship to provide almost complete cancellation. Speech with origin close to one of the apertures is fully reproduced. Articulation percentage is 97% under quiet conditions, and 88% under 115 db of ambient noise.

Can be used indoors or outdoors, for railroad, marine, aircraft, police, industrial call and paging systems — in fact, for all speech transmission in any noisy, dusty, wet or extreme hot or cold locations.





The 205-S is a Differential noise cancelling, hand-held microphone. The fact that it is noise-cancelling makes it very different from any other type microphone and therefore instructions as to its use must be followed very closely. It will be necessary, as shown in the photograph, to hold the microphone to the face so that the locator "A" will rest lightly against the upper lip. This brings the mouth in the correct location in regard to the grille for proper transmission. If this microphone is not held close to the lips, it will cancel the voice as well as the ambient noise. The slots "B" and "C" in the grille are apertures providing correct phase relationship through which entering ambient noise is cancelled. Therefore, when the microphone is held in the proper position, you are talking directly to one aperture which weighs the acoustic balance of the microphone and voice is transmitted without cancellation occuring.



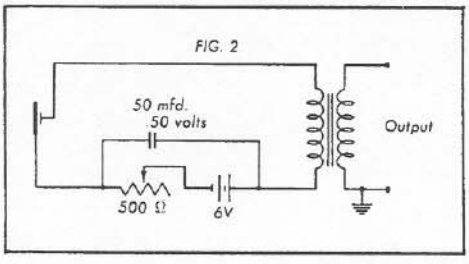
Resistance coupled Input

ADVANTAGES

No hum pick-up
No transformer distortion
Longer microphone life

DISADVANTAGES

25 db lower level
Requires at least one additional stage of amplification



Transformer coupled Input

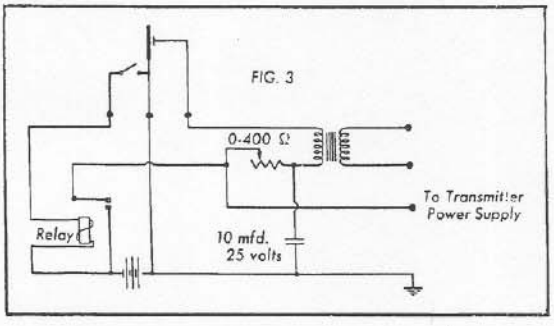
ADVANTAGES

25 db higher level
Requires less voltage amplification

DISADVANTAGES

Transformer must be carefully located for elimination of inductive pick-up
Shorter microphone life due to inductive surge when breaking switch contacts

*Patent Number 2,350,010



MICROPHONE RELAY CONTROL

Relays are conventionally used to control the primary current as applied to the transmitter. The microphone push-button is used as a "press-to-talk" control device.

This circuit utilizes only three microphone leads, one of which is worked against ground to actuate the relay. The closing of the relay contacts applies both microphone and transmitter power.

SPECIFICATIONS:

Output level rating:

Power: 27 db below 6 milliwatts for 10 dynes/cm² pressure.
Voltage: 10 db above .001 volt/dyne/cm², open circuit.
Voltage developed by normal speech (100 dynes/cm²): .32 volt.

Frequency response: Substantially flat from 100-4000 c.p.s.

97% articulation under quiet conditions; 88% under 115 db of ambient noise.

Weighs less than eight ounces.

Standard single button input is required.

10-50 milliamperes button current.

Molded, high impact phenolic housing. Minimum wall thickness, 5/32". Vinylite carbon retainer.

Temperature range is from—40 to 185 degrees F.

Standard circuit provides closing of button circuit and relay simultaneously.

Thermal noise is less than 1 millivolt with 50 milliamperes through button.

Capable of withstanding impact of more than 10,000 6-inch drops to hard surface.

Frequency response does not vary more than 5 db in any position.

5 ft. of two conductor and shielded cable, overall synthetic rubber jacketed.

Background noise is reduced 20 db or more, depending on distances from noise sources.

MAINTENANCE:

The model 205-S is designed to provide years of trouble-free operation in normal communication service. Life tests show that if the switch were to be pressed 200 times a day, 365 days a year, it would function efficiently for more than 15 years. It is the sliding contact type, self-cleaning and requires no lubrication.

The normal carbon resistance is from 80-100 ohms.

After the instrument has been in constant service for several years, the resistance may rise to between 400 and 500 ohms at which time it is suggested that it be returned to the factory for repacking. This will be done promptly at a nominal charge.

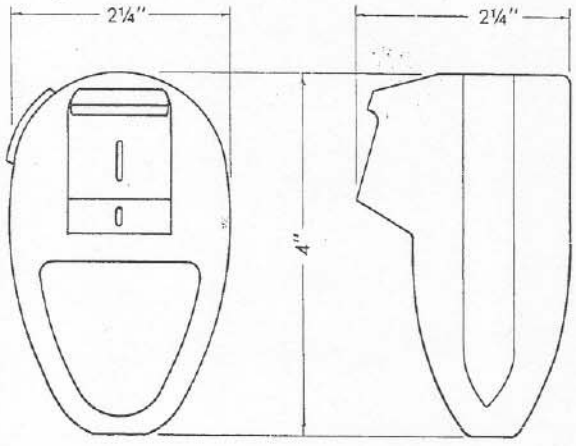
CAUTION:

In replacing cable, follow instructions carefully in order to prevent damage to switch parts which are held in place by the two halves of case.

Every effort has been made to supply the best and strongest available cable with the 205-S. However, in severe service, any cable may be cut or broken.

1. Remove seal from three large screws in rear.
2. Remove all three screws but hold halves securely in place by hand.
3. Place piece of adhesive tape, at least 6" long, diagonally across back.
4. Hold switch in depressed position and slowly slide front half of case to side away from switch. Place finger on exposed side of bar end.
5. Bring free end of tape around and over switch bar. Fasten securely at opposite side of case.
6. This exposes wire and terminals. Do not spread case more than necessary.
7. It is not advisable to remove switch bar from case.
8. In re-assembly take precaution to keep wires from interfering with switch bar operation.

MECHANICAL DIMENSIONS:



ELECTRO-VOICE CORPORATION South Bend 24, Indiana