

## CONTROLLED MAGNETIC MICROPHONE

**General:** The Model 510SLB is an integral assembly of a Controlled Magnetic Microphone (with a switch) and a desk stand. The microphone has a medium impedance cartridge (150 to 250 ohms), smooth response, and a semi-directional pickup characteristic.

The non-locking switch in the microphone is a single pole—single throw normally open switch. The switch is used to control the microphone circuit. In some applications the non-locking feature is not desired and may be converted to a locking switch in the following manner. Remove the two #4-40 oval head self-tapping screws at the rear of the microphone and remove the rear cover. Remove the two #5-40 oval head machine screws at the side of the microphone (beneath switch button) and remove the switch blade assembly. **DO NOT DISCONNECT SOLDERED LEADS.**

Remove switch button and reinsert into slot in switch blade so that the locking shoulder of the button is toward top of slot in switch blade. Insert switch button through hole in case and reassemble the switch blades to the microphone and replace back cover. All machine screws used in assembly must be securely tightened.

**Applications:** The Model 510SLB is especially recommended for mobile and fixed station use in Police, Fire, Utility, Forestry and Transportation services. The Model 510SLB is, also, very suitable for a public address, recording call systems, radio telephone, amateur use and similar applications.

The microphones are unusually rugged and are practically immune to severe moisture and temperature conditions.

**Installation:** In the 510SLB the microphone, switch, and cable are pre-assembled, but the base and adapters are separate. To assemble the microphone to base, use the following instructions:

1. Install stand adapter to the bottom of the microphone using the #8-32 machine screw.
2. Screw tapered extension into stand adapter attached to bottom of microphone.
3. Fasten tapered extension and small mounting plate to the base using the special attachment screw included. Use a large screwdriver or a coin to turn screw down tightly.
4. Insert cable through the hole in the small mounting plate on top of the base. Place cable in groove in the bottom rear of the base. Clamp cable to base by means of the clamping plate and two machine screws which are furnished.

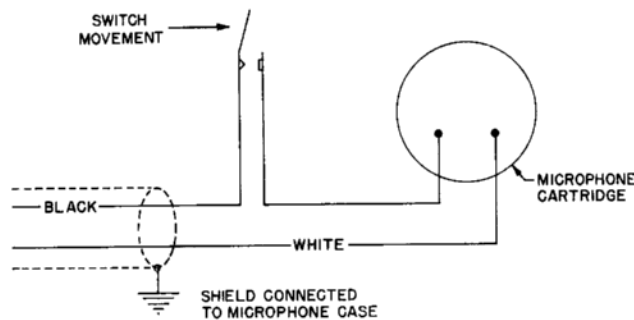


FIGURE A

**Connections:** Figure A shows the internal wiring of the Model 510SLB, as supplied. The Model 510SLB is a medium impedance unit and may be used with an amplifier or an input circuit having an impedance of 150 to 250 ohms. The microphone uses a two conductor shielded cable and a single pole, single throw, leaf type

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switch. The black and white conductors are connected with the switch to the microphone circuit; the shield is connected to the microphone case.

The shield, chassis or amplifier ground should be securely grounded to a water pipe or similar ground to prevent shock hazard during operation of the amplifying system.

**Operation:** No special precautions beyond ordinary care are necessary in the operation of the Model 510SLB. It will operate satisfactorily under ordinary conditions in hot and cold climates. To retain the full strength of the permanent magnet and to maintain alignment of structure, dropping or other severe mechanical shocks should be avoided.

### Specifications:

#### Voltage Sensitivity

Open Circuit Voltage .....—71.5 db \*

Loaded with 250 ohms.....—77.0 db \*

Power Level into 250 ohms .....—51.0 db \*\*

#### RETMA Microphone Rating $G_M$

(Sensitivity) .....—143.0 db \*\*\*

\* 0 db = 1 volt per microbar

\*\* 0 db = 1 milliwatt with 10 microbars

\*\*\* RETMA Standard SE-105 August 1949

Microbar = one dyne per square centimeter

Frequency Response: 100 to 7000 c.p.s.

Recommended Load Impedance: 150 to 250 ohms

Finish: Metallic Green and Chrome

Height 8 $\frac{7}{8}$ ". Length 7". Width 5".

**Guarantee:** Each microphone is guaranteed to be free from electrical and mechanical defects for a period of one year from date of shipment from the factory, provided all instructions are complied with fully. In case of damage, return the microphone to the factory for repairs. Our guarantee is voided if the microphone case is opened.