

**DYNAMIC HAND-HELD PAGING MICROPHONE**



**GENERAL**

The 507B microphone is a high quality, extremely reliable dynamic hand-held microphone with an extended low- and high-frequency response that particularly suits it for ham use, mobile FM transmission, and top-quality paging systems. The microphone has a highly intelligible, clear, crisp, natural voice response. It features professional design, small size, light weight, and modular construction, providing extreme dependability and exceptional ease of field service.

The modular construction of the 507B accounts for its tremendous ease of field serviceability. The cartridge, switch, and cable are of modular design which make them replaceable in a matter of minutes if replacement is ever necessary. The microphone wiring is channelled so that crimping or breaking of wires is no longer a concern.

The unit fits naturally and comfortably in the hand and is not affected by heat or humidity. Exclusive ARMO-DUR® case is light gray and charcoal, is immune to oil, grease, fumes, salt spray, sun, rust and corrosion—and is outstanding in its ability to withstand mechanical shocks and vibration. "Million-Cycle" leaf-type switch is double-pole, single-throw, designed to withstand severe operating conditions and constant usage. The TRIPLE-FLEX® cable provides 3 to 4 times the flex life of any previously available coiled cords—another Shure first.

**Microphone Features:**

- Extended low- and high-frequency response
- Highly intelligible voice response
- Unparalleled ruggedness and reliability
- Moving coil (dynamic) element
- ARMO-DUR® case
- "Million-Cycle" leaf-type switch controlling microphone and external relay or switching circuits
- Modular construction
- Exceptional ease of field service
- "Life-time" hang-up button and mounting bracket
- TRIPLE-FLEX® cable provides exceptionally long life

**APPLICATION**

The Model 507B microphone is highly recommended for all types of mobile communications; for hams; industrial and commercial paging; outdoor public address systems; and all applications where a rugged hand microphone is required. The Model 507B is a low impedance microphone and is recommended where long cable lengths are required.

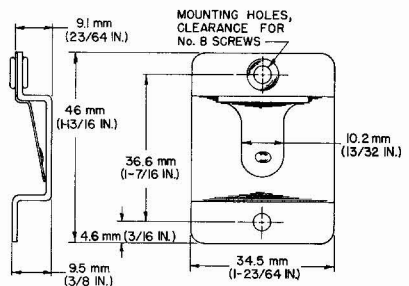
**INSTALLATION**

A mounting bracket for permanent installation is supplied with each microphone. The bracket has mounting holes with clearance for No. 6 or No. 8 screws. (see Figure 1).

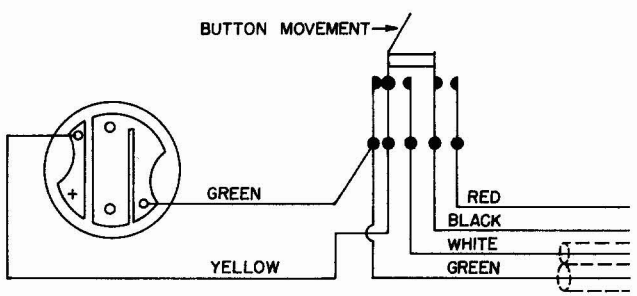
**CONNECTIONS**

The internal switch connections of Model 507B are shown in Figure 2. The 507B has a four-conductor coiled cord cable (two conductors shielded) and a double-pole, single-throw, leaf-type switch to control the microphone circuit and an external relay or switching circuit. The WHITE and GREEN leads are the "hot" conductors for balanced-line connection to the microphone circuit; the shield is connected to the microphone circuit ground. The RED and BLACK leads control the relay or switching circuit. The microphone circuit of the switch is normally open but may be easily modified for normally shorted operation.

The Model 507B is wired for balanced-line operation and is recommended for use where long cable lengths are required, or conditions where severe hum pickup may exist. The 507B microphone may be fed directly into a standard low-impedance amplifier, or a Shure A95 Series Line Matching Transformer may be used for



**MOUNTING BRACKET**  
**FIGURE 1**



**INTERNAL CONNECTIONS**  
**FIGURE 2**

coupling the Model 507B to the input of a high impedance amplifier. A two-conductor shielded cable may be used for extending only the microphone circuit. If both the microphone circuit and the remote circuit are to be extended, a four-conductor cable should be used having two shielded conductors for the microphone circuit.

The microphone circuit of the Model 507B is normally open when the microphone switch button is in the normal position. The microphone switch may be rewired to have a normally shorted microphone circuit. To modify the Model 507B for a normally shorted microphone circuit, proceed as follows:

1. Remove the three No. 6 Phillips self-threading screws from the back of the microphone case.
2. Separate the case front and back, and remove the microphone switch button.
3. Unsolder or clip the WHITE cable lead from upper (from bottom of microphone) switch solder lug (see Figure 2).
4. Solder the WHITE cable lead to the lower switch solder lug (containing the YELLOW lead to the microphone cartridge).
5. Place the microphone switch button in the normal position on the case front. Place the case back on the case front and firmly press the two sections together. Fasten the case back to the case front with the screws previously removed.

**OPERATION**

The Model 507B will operate very satisfactorily under all ordinary conditions of humidity, heat, and cold. Dropping the microphone or other severe mechanical shocks should be avoided.

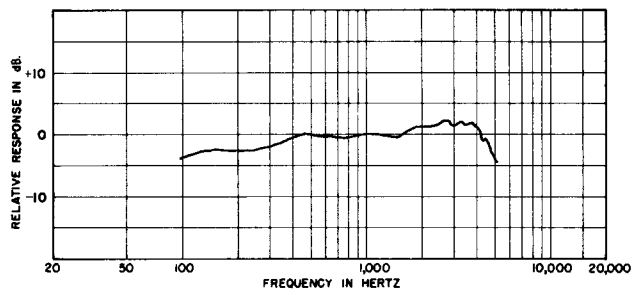
**SPECIFICATIONS**

**Type**

Dynamic

**Frequency Response**

100 to 5,000 Hz (see Figure 3)



TYPICAL FREQUENCY RESPONSE  
**FIGURE 3**

**Output Level (at 1,000 Hz)**

Open Circuit Voltage\* ..... -39.0 dB  
(11.2 mV)

Power Level\*\* ..... -58.0 dB

\*0 dB = 1 volt per 100 microbars

\*\*0 dB = 1 milliwatt per 10 microbars

**Impedance**

Microphone rating impedance is 150 ohms (200 ohms actual) for connection to microphone inputs rated at 19 to 300 ohms

**Switch**

Double-pole, single-throw, leaf-type

**Cable**

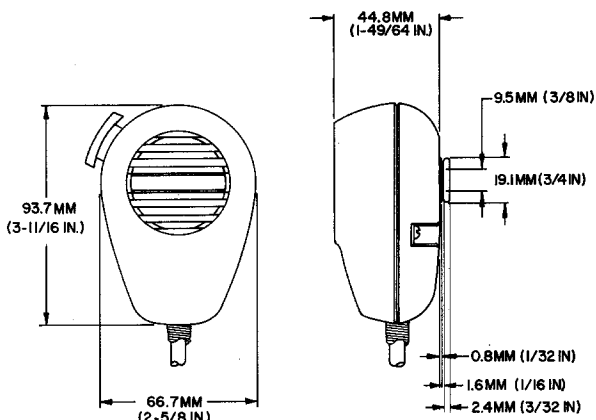
Attached, recoils to 0.3m (1 ft), extends to 1.8m (6 ft)

**Case**

Two-tone gray and charcoal ARMO-DUR®

**Dimensions**

See Figure 4



OVERALL DIMENSIONS  
**FIGURE 4**

**Net Weight**

312 grams (11 oz)

**Packaged Weight**

510 grams (18 oz)

**FURNISHED ACCESSORY**

Mounting Bracket .....RK6MB

**REPLACEMENT PARTS**

Cartridge .....R50  
Switch .....90A3507  
Cable .....70A4110

**GUARANTEE**

This Shure product is guaranteed in normal use to be free from electrical and mechanical defects for a period of one year from date of purchase. Please retain proof of purchase date. This guarantee includes all parts and labor. This guarantee is in lieu of any and all other guarantees or warranties, express or implied, and there shall be no recovery for any consequential or incidental damages.

**SHIPPING INSTRUCTIONS**

Carefully repack the unit and return it prepaid to:  
Shure Brothers Incorporated  
Attention: Service Department  
1501 West Shure Drive  
Arlington Heights, Illinois 60004

If outside the United States, return the unit to your dealer or Authorized Shure Service Center for repair. The unit will be returned to you prepaid.