

### NOISE-CANCELING HANDHELD DYNAMIC MICROPHONE



#### GENERAL

The Shure Model 577B SONOBAR® Microphone is a handheld dynamic microphone designed for communications and paging applications that require highly intelligible, low noise output. It can be used in all types of mobile communications, from amateur radio to helicopter news and traffic reports. It is also suitable for public address and paging systems in noisy areas such as factories, airport terminals, and restaurants.

The 577B represents a significant improvement over most microphones with anti-noise features. Shaped frequency response, directionality, and distant sound discrimination contribute to total noise reduction. The microphone operates on the pressure-gradient principle and has two sound entry ports spaced a small distance apart.

The modular design of the 577B greatly facilitates field servicing. The cartridge, switch, and cable can be replaced in a matter of minutes, if necessary.

The 577B is built to withstand mechanical shocks, vibration, high temperatures, and humidity. The exclusive ARMO-DUR® case is impervious to oil, grease, fumes, salt spray, sun, and corrosion. The "Million-Cycle" press-to-talk switch ensures years of reliable service.

A mounting bracket is supplied to provide convenient hang-up when the microphone is not in use.

#### Features

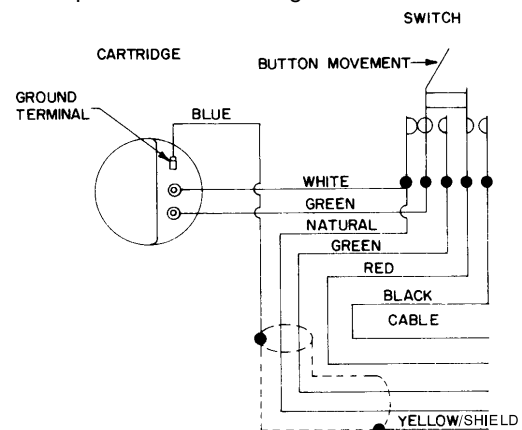
- Frequency response tailored for close-talk operation
- Extremely effective noise cancellation
- Dynamic microphone cartridge
- Modular design
- "Million-cycle" leaf-type press-to-talk switch
- TRIPLE-FLEX® cable provides three to four times the flex life of most coiled cords
- Rugged ARMO-DUR® case
- Built-in hang-up button and supplied mounting bracket

#### OPERATION

For optimum performance and maximum rejection of background noise, place your upper lip against the lip guard, approximately 25 mm (1 in.) from the grille. Hold down the push-to-talk button while talking normally.

#### INTERNAL CONNECTIONS

The 577B is a balanced-line, low-impedance dynamic microphone. It is designed for direct connection to low-impedance microphone inputs and/or installations where long cable lengths are needed. It includes a four-conductor (two conductors shielded) coiled-cord cable and a double-pole, single-throw, leaf-type switch. The NATURAL and GREEN leads are the "hot" audio conductors; the shield is connected to microphone circuit ground. The RED and BLACK leads control the switch circuit. The microphone circuit is open when the switch is open, but can be easily modified for normally shorted operation. Refer to Figure 1.



INTERNAL CONNECTIONS

FIGURE 1

TABLE 1. CABLE-TO-CONNECTOR WIRING

INPUT TYPE	WIRE COLOR	FUNCTION	XLR CONNECTOR	1/4 INCH PHONE PLUG
BALANCED	NATURAL	AUDIO +	PIN 2	TIP
	GREEN	AUDIO -	PIN 3	RING
	SHIELD	CHASSIS GROUND	PIN 1	SLEEVE
UNBALANCED	NATURAL	AUDIO	—	TIP
	GREEN	AUDIO GROUND	—	SLEEVE
	SHIELD	CHASSIS GROUND	—	SLEEVE

#### CIRCUIT MODIFICATION

To modify the microphone circuit for normally shorted operation, proceed as follows:

1. Remove the three No. 6 Phillips screws from the back of the microphone case.
2. Separate the front and back sections of the case, and remove the press-to-talk switch button.
3. Unsolder or clip the GREEN cable lead from the press-to-talk switch solder lug.
4. Solder the GREEN cable lead to the GREEN cartridge lead on the press-to-talk switch solder lug.
5. Place the press-to-talk switch button in the front section of the case, then join the case halves together and install the No. 6 Phillips screws removed in Step 1 above.

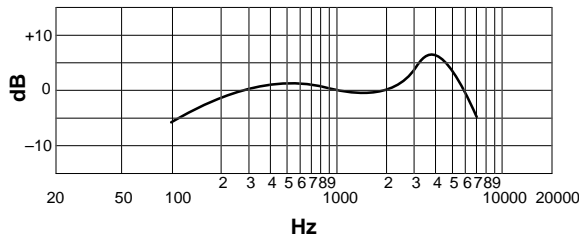
**SPECIFICATIONS**

**Type**

Dynamic, noise-canceling

**Frequency Response**

100 to 5,000 Hz (see Figure 2)



TYPICAL FREQUENCY RESPONSE  
**FIGURE 2**

**Impedance (at 1000 Hz)**

Rated at 150 Ω (175 Ω actual) for connection to microphone inputs rated at 19 to 300 Ω.

**Output Level (at 1,000 Hz, 5/16 in.)**

Open Circuit Voltage ..... -66.0 dBV/Pa (0.5 mV)  
0 dB = 1 volt per 1 Pascal/94 dB SPL

**Hum Sensitivity**

Equivalent to 32 dB SPL in 1 millioersted field

**Operating Temperature Range**

-40° to 74° C (-40° to 165° F)

**Switch Type**

Double-pole, single-throw, leaf-type, push-to-talk

**Cable**

Non-detachable. 1.8m (6 ft), neoprene-jacketed coil cord, four-conductor (two conductors shielded).

**Case**

Two-tone gray, high-impact ARMO-DUR®

**Dimensions**

See Figure 3

**Net Weight**

330 grams (11.6 oz)

**CERTIFICATION**

Eligible to bear CE Marking. Conforms to European EMC Directive 89/336/EEC. Meets applicable tests and performance criteria in European Standard EN55103 (1996) parts 1 and 2, for residential (E1) and light industrial (E2) environments.

**SUPPLIED ACCESSORY**

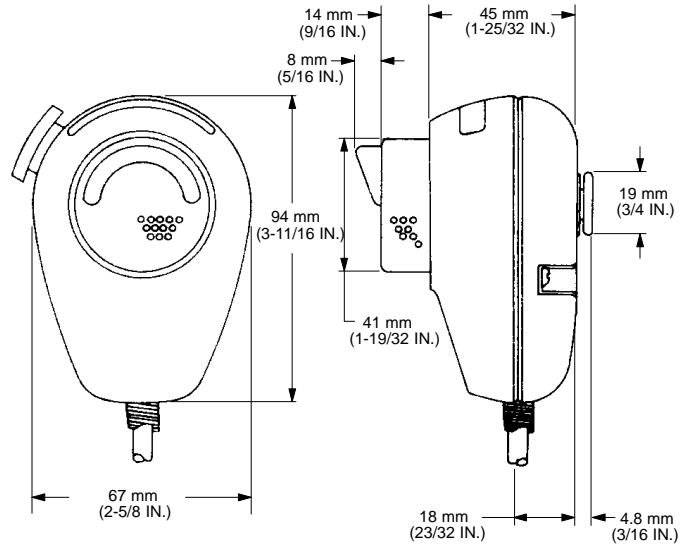
Mounting Bracket (3 per kit) ..... RK6MB

**REPLACEMENT PARTS**

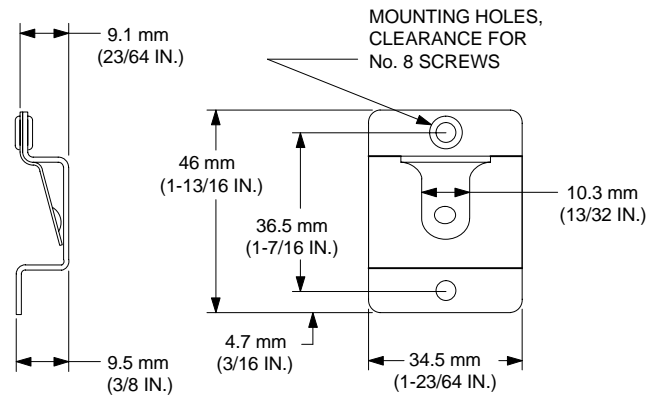
Cartridge ..... R98B  
Cable ..... C117  
Switch ..... RK338S

**SERVICE INFORMATION**

For additional service or parts information, please contact Shure's Service department at 1-800-516-2525. Outside the United States, please contact your authorized Shure Service Center.



MICROPHONE



MOUNTING BRACKET

OVERALL DIMENSIONS  
**FIGURE 3**



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