

UNIDIRECTIONAL DYNAMIC MICROPHONES

GENERAL

The Shure Models 515SBG and 515SB-G18 UNIDYNE® B Microphones are low-impedance units designed specifically for flexible gooseneck application. The microphones are moving coil units providing good reproduction of music and voice.

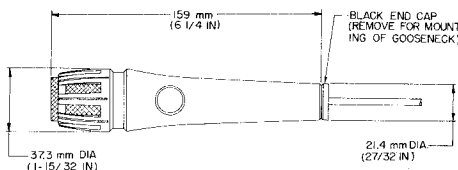
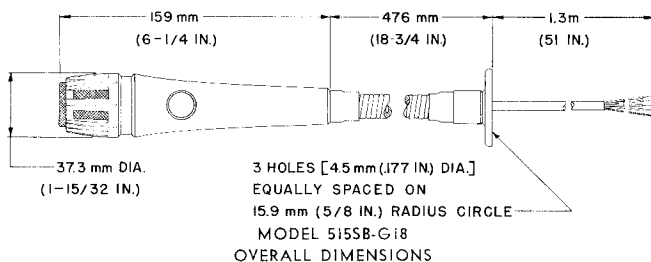
These microphones are particularly suitable for use in language lab systems, paging applications, and base station communications. They are highly recommended for talkback and cuing from professional control rooms in TV, film, and recording studios, and other uses demanding a customized installation with concealed cables.

Features:

- True cardioid pickup pattern: symmetrical about axis and uniform at all frequencies
- Response especially effective for announcing, narration, paging and music
- Cartridge shock-mounted for quiet operation
- Built-in, non-locking, push-to-talk switch controls both microphone circuit and relay or control circuit
- Dependability and ruggedness under all operating conditions
- A 457 mm (18 in.) flexible gooseneck and a convenient mounting flange supplied with the Model 515SB-G18

MOUNTING

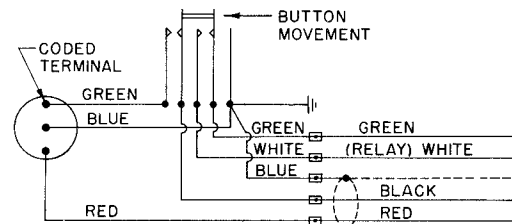
To mount the 515SBG microphone on a gooseneck having a $\frac{5}{8}$ "-27 thread, unscrew black end cap from microphone (see Figure 1-A), remove adjacent thin metal washer and one metal spacer from terminating end of cable. Slide the thin metal washer removed previously onto cable up into end of microphone. Slip gooseneck over cable and install into end of microphone.


FIGURE 1-A

FIGURE 1-B

MODEL 515SB-G18

CONNECTIONS

The microphones are low impedance for connection to microphone inputs rated at 19 to 300 ohms. The balanced line low-impedance connection is recommended where long cable lengths are required or under conditions of severe hum disturbance. The permissible cable length is practically unlimited, since neither response nor level is appreciably affected. With reference to Figure 2, BLACK and RED are the "hot" conductors for balanced line connections to a low-impedance amplifier, the shield is connected to the amplifier ground. For unbalanced low-impedance operation, the shield and RED lead should be connected together. The BLACK lead is then the "hot" lead. The GREEN and WHITE conductors are used to control an external relay or control circuit. It should be noted that hum susceptibility is increased in unbalanced low-impedance operation.



PHASING: POSITIVE PRESSURE ON DIAPHRAGM SHALL CAUSE A POSITIVE VOLTAGE ON THE RED CONDUCTOR

**INTERNAL CONNECTIONS
FIGURE 2**

Shure Model A95 Series Line Matching Transformers are available for use in those cases where a low-impedance microphone line is desirable but the associated amplifier has a high-impedance input. These transformers provide a proper impedance match between a 19-300 ohm microphone line and a high-impedance input, and are available with various input and output connectors.

Important: Shure microphone cables are selected after exhaustive tests to insure superior performance in microphones because of low capacities, superior shielding properties and unusually long life under severe use.

Cables with plastic insulation should not be subjected to excessive soldering-iron heat. Carefully clean and tin the conductors and the connections to which the conductors are to be soldered. The soldering operation can then be done with a minimum of heat, thereby avoiding any possibility of damage to the cable.

ARCHITECTS' SPECIFICATION

The microphone shall be the Shure Model 515SBG, 515SB-G18 or equivalent. The microphone shall be a moving coil (dynamic) microphone with a frequency response of 80 to 13,000 Hz. This unit shall have a cardioid polar characteristic. The cancellation at the sides shall be approximately 6 dB, and the cancellation at the rear shall be 15 to 20 dB. The microphone shall be low impedance with a rated impedance of 150 ohms for connection to microphone inputs rated at 19 to 300 ohms. The microphone output shall be -60 dB where 0 dB = 1 milliwatt with 10 microbars. The microphone shall be equipped with a built-in, non-locking, push-to-talk switch.

The Model 515SBG shall be suitable for mounting on a gooseneck having a 5/8"-27 thread. The microphone shall have a 1.8m (70 in.) four-conductor (two shielded) cable. The overall microphone dimensions shall be 159 mm (6-1/4 in.) in length and 37.3 mm (1-15/32 in.) in diameter.

The Model 515SB-G18 shall be mounted on a flexible gooseneck having a mounting flange. The microphone shall have a 1.3m (51 in.) four-conductor (two shielded) cable extending from the gooseneck. The overall dimensions shall be 635 mm (25 in.) in length and 37.3 mm (1-15/32 in.) in diameter.

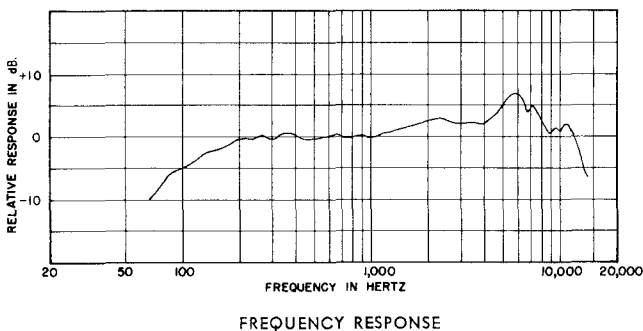
SPECIFICATIONS

Type

Dynamic

Frequency Response

80 to 13,000 Hz (See Figure 3)



FREQUENCY RESPONSE
FIGURE 3

Polar Pattern

Cardioid (unidirectional) pattern—Effective rejection of sound at the rear of the microphone is uniform at all frequencies, while front pickup characteristics are uniform about the axis. (See Figure 4)

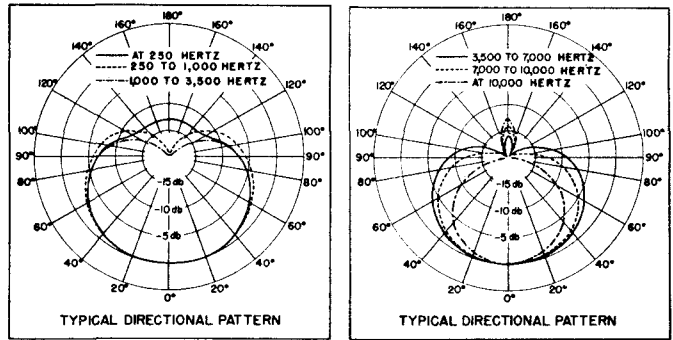


FIGURE 4

Microphone Impedance

170 ohms actual

Microphone Rating Impedance

150 ohms for connection to microphone inputs rated at 19 to 300 ohms

Output Level (at 1000 Hz)

Open Circuit Voltage -82 dB (.080 mV)
(0 dB = 1 volt per microbar)

Power Level -60 dB
(0 dB = 1 milliwatt with 10 microbars)

Switch

Built-in, leaf-type, non-locking, push-to-talk

Shock Mount

Internal rubber vibration-isolator

Cable

Highly durable cable with effective hum shielding, four conductors (two shielded), plastic-jacketed
Model 515SBG—1.8-meter (70 in.)
Model 515SB-G18—1.3 meters (51 in.)
from gooseneck

Case

Silver finish die casting with black ARMO-DUR® grille and stainless steel screen
Model 515SB-G18 has chrome-plated flexible arm and mounting flange

Dimensions

See Figure 1-A for Model 515SBG and Figure 1-B for Model 515SB-G18

Net Weight

Model 515SBG - 425 grams (15 ounces)
Model 515SB-G18 (with gooseneck) -
1.02 kilograms (2¼ pounds)

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.