SHURE®
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MICROPHONES AND ELECTRONIC COMPONENTS
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**DATA SHEET**

**MODEL 515BG UNIDYNE® B**

# UNIDIRECTIONAL DYNAMIC MICROPHONE

## GENERAL

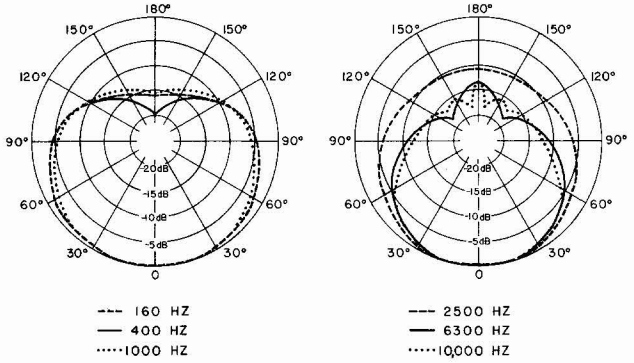
The Shure Model 515BG UNIDYNE® B Microphone is a low-impedance unit designed specifically for mounting on ⅝"-27 thread arm or gooseneck. The microphone is a moving coil unit providing good reproduction of music and voice.

This microphone is particularly suitable for use in language lab systems, paging applications, and base station communications. It is highly recommended for talk-back and cuing from professional control rooms in TV, film, and recording studios, and other uses demanding a customized installation with concealed cables.

**Microphone 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
- Dependability and ruggedness under all operating conditions
- A ⅝"-27 thread for mounting to a gooseneck

**MODEL 515BG MOUNTED ON GOOSENECK**




TYPICAL DIRECTIONAL PATTERNS

**FIGURE 2**

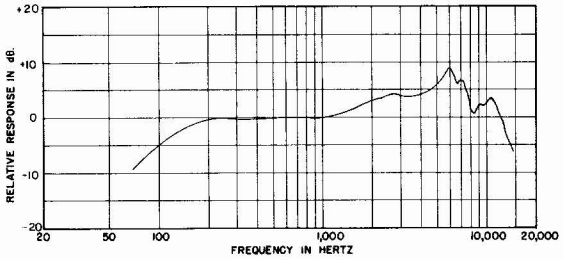
## SPECIFICATIONS

**Type**

Dynamic

**Frequency Response**

80 to 13,000 Hz (see Figure 1)




TYPICAL FREQUENCY RESPONSE

**FIGURE 1**

**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 2)

**Impedance**

Microphone rating impedance is 150 ohms (170 ohms actual) for connection to microphone inputs rated at 19 to 300 ohms.

**Output Level** (at 1000 Hz)

Open Circuit Voltage . . . . . −82.0 dB (.079 mV)
(0 dB = 1 volt per microbar)

Power Level . . . . . −60.5 dB
(0 dB = 1 milliwatt per 10 microbars)

**Shock Mount**

Internal rubber vibration-isolator

**Cable**

Highly durable attached cable with effective hum shielding. 1.8 meters (70 inches) two-conductor (shielded), plastic jacketed

**Case**

Silver finish die casting with black ARMO-DUR® grille and stainless steel screen

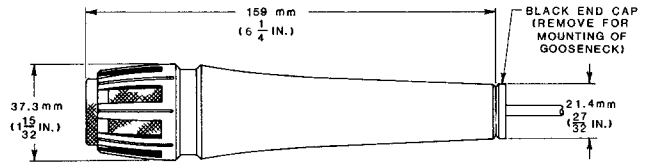

27A1494 (A1)

(OVER)

U.S. Patents 3,132,713 and 3,240,883
Printed in U.S.A.

**Dimensions**

See Figure 3




OVERALL DIMENSIONS

**FIGURE 3**

**Net Weight**

425 grams (15 oz)

**Packaged Weight**

624 grams (1 lb, 6 oz)

## MOUNTING

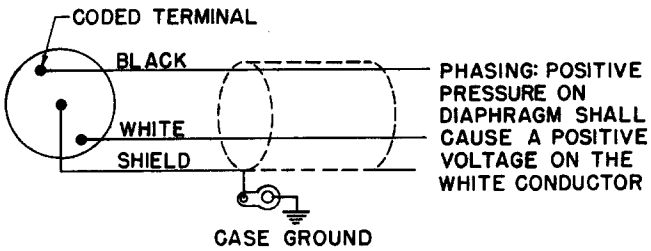
To mount the 515BG microphone on a gooseneck having a 5/8"-27 thread, unscrew black end cap from microphone (see Figure 3), remove adjacent thin metal washer and one metal spacer off terminating end of cable. Slide the thin metal washer removed previously onto cable up into end of microphone. Slip gooseneck over cable and install into end of microphone.

## CONNECTIONS

The microphone is low impedance for connection to microphone inputs rated at 19 to 300 ohms.

Low impedance is recommended where long cable lengths are required or under conditions of severe hum disturbance. Connect the black and white conductors to the microphone circuit (see Figure 4). The shield is connected to the metal parts of the microphone, and should be connected to the amplifier chassis or ground terminal. For unbalanced low-impedance operation, the shield and white lead should be connected together. The black lead is then the "hot" lead.

For use with a high-impedance amplifier, the Shure A95 Series of Line Matching Transformers are available for coupling the low-impedance line to the amplifier input.




INTERNAL CONNECTIONS

**FIGURE 4**

## PHASING

To test two microphones for proper phasing, connect them to an amplifier and talk or sing into them while holding them three or four inches apart. The sound from the speakers should be the same when talking into either microphone or directly between them if they are in phase with each other. If the sound drops drastically, or if a dead spot is found when talking between the two microphones, the microphones are out of phase. All microphones should be tested in this manner to insure that they are in phase with each other.

To change the phase of a low-impedance microphone at the equipment end of the cable, interchange the BLACK and WHITE cable leads where they are connected to the sound system. To change the phase in the microphone, the microphone cartridge leads must be interchanged (see Figure 4). This should be performed by your dealer, the Shure Factory Service Department, or other qualified service personnel.

## ARCHITECTS' SPECIFICATIONS

The microphone shall be the Shure Model 515BG or equivalent. The microphone shall be a moving coil (dynamic) microphone with a shaped 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 for connection to microphone inputs rated at 19 to 300 ohms. The microphone rating impedance shall be 150 ohms. The microphone output shall be −60.5 dB where 0 dB = 1 milliwatt per 10 microbars.

The Model 515BG shall be suitable for mounting on a gooseneck having a 5/8"-27 thread. The microphone shall have a 1.8m (70 in.) two-conductor shielded cable. The overall dimensions shall be 159 mm (6¼ in.) in length and 37.3 mm (1-15/32 in.) in diameter.

## OPTIONAL ACCESSORIES

Gooseneck ..... G12, G18
Line Matching Transformer ..... A95 Series

## REPLACEMENT PARTS

Cartridge ..... R15
Cable ..... 70A2045
Case Assembly ..... 32B635C
Screen Grille Assembly ..... RK54G

## 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.