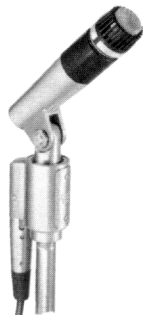


UNIDIRECTIONAL DYNAMIC MICROPHONE



The Model 546 UNIDYNE® III Microphone is a unidirectional dynamic microphone built to provide wide-range reproduction of music and voice.

The microphone is ideal for use by professional entertainers in high-quality theatre-stage sound systems, recording, cathedrals and churches, and other critical public address systems such as those used in political conventions and legislatures, hotels, stadiums, and public auditoriums.

The Model 546 features an exceptionally uniform and effective unidirectional pickup pattern. It provides an easy solution to feedback problems in reverberant locations, permits best utilization of space in small studios, facilitates orchestral placement, and provides practically complete exclusion of unwanted noises.

The built-in vibration-isolation shock mount prevents the pickup of mechanical vibrations.

Microphone Features:

- Unusually effective cardioid pickup pattern
- Cartridge and microphone body separately shock-mounted for quiet operation
- Convenient impedance selection switch
- Dependability under all operating conditions

Model 546 is dual impedance for connection to microphone inputs rated at 19 to 75 ohms or 75 to 300 ohms.

The microphone 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. For use with high impedance amplifiers, Shure A95 Series Line Matching Transformers are available for coupling the low impedance line to the amplifier input. The transformers permit coupling a low impedance line to the high impedance input.

IMPEDANCE CHANGE

Remove the two #2-56 screws at each end of the impedance switch cover plate. Using a small screwdriver, turn the switch to the desired impedance setting. (The switch is factory-set to "H", the 150-ohm position).

The center position of the switch (marked "O") is the Off position; "L" is the 38-ohm position. Replace the impedance switch cover plate after setting the impedance.

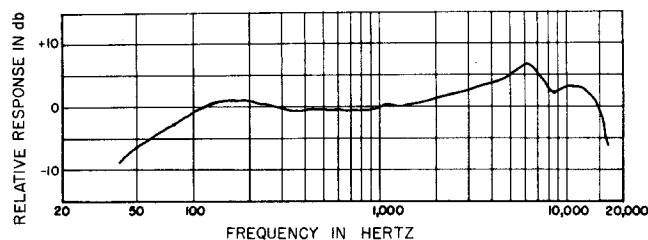
SPECIFICATIONS

Type

Dynamic

Frequency Response

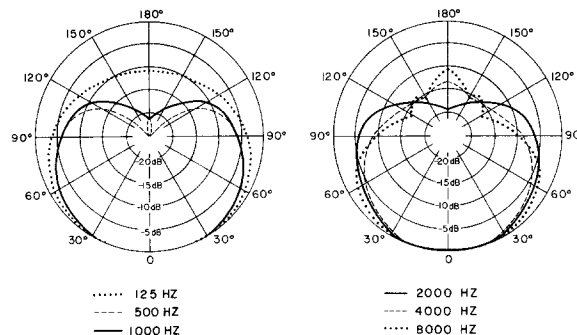
50 to 15,000 Hz. (See Figure 1)



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).



TYPICAL POLAR PATTERNS
FIGURE 2

Impedance

Dual. Microphone rating impedance is 38 ohms "L" (70 ohms actual) for connection to microphone inputs rated at 19 to 75 ohms, and 150 ohms "H" (300 ohms actual) for connection to microphone inputs rated at 75 to 300 ohms. Set for 150 ohms as supplied.

Output Level (at 1,000 Hz)

38-ohm "L" position

Open Circuit Voltage ... -82.0 dB* (0.08 mV)

Power Level -56.5 dB**

150-ohm "H" position

Open Circuit Voltage ... -75.5 dB* (0.17 mV)
Power Level -56.0 dB**

*0 dB = 1 volt per microbar

**0 dB = 1 milliwatt per 10 microbars

Impedance Switch

Impedance selection switch with center position Off.

Swivel

Positive action life-time swivel permits tilting of head through 180°

Shock Mount

Special vibration-isolation of rubber construction

Case

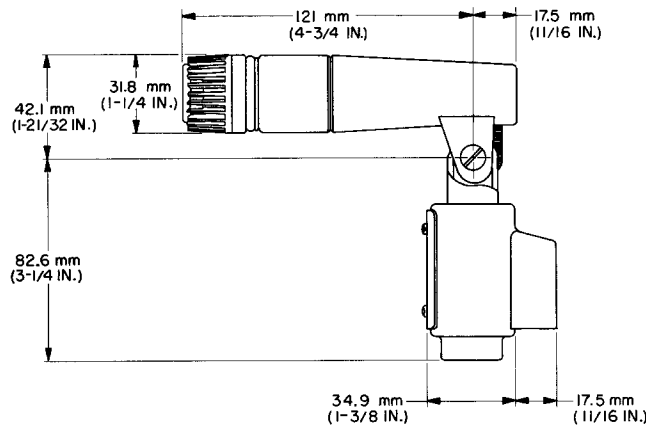
Chrome-plated die-casting and ARMO-DUR®

Cable

6.1m (20-foot) two conductor shielded equipped on microphone end with a professional three-socket audio connector designed to mate with Cannon XL series, Switchcraft A3 (Q.G.) series or equivalent connector

Dimensions

See Figure 3



OVERALL DIMENSIONS
FIGURE 3

Net Weight

510 grams (1 lb, 2 oz)

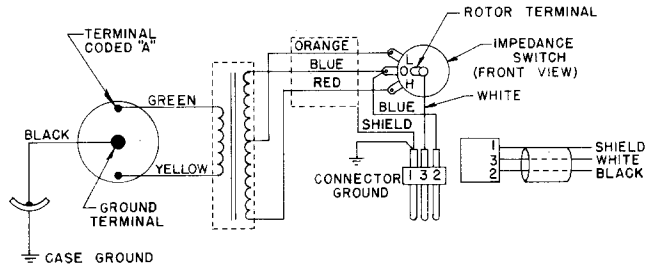
Packaged Weight

1.13 kg (2 lb, 8 oz)

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.



POSITIVE PRESSURE PRODUCES POSITIVE VOLTAGE AT PIN 2 WITH RESPECT TO PIN 3

INTERNAL CONNECTIONS
FIGURE 4

ARCHITECTS' SPECIFICATIONS

The microphone shall be a moving coil (dynamic) microphone with a frequency range of 50 to 15,000 Hz. The 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 equipped with an impedance switch: "L" position for microphone rating impedance of 38 ohms; and "H" position for microphone rating impedance of 150 ohms.

The microphone output shall be:

"L" (38 ohms): -56.5 dB
(0 dB = 1 milliwatt per 10 microbars)

"H" (150 ohms): -56.0 dB
(0 dB = 1 milliwatt per 10 microbars)

The microphone shall be provided with a swivel adjustable through 180°. The microphone shall be equipped with a vibration-isolation unit in combination with the stand connector. The microphone will mount on a stand having 5/8"-27 thread.

The overall dimensions shall be 124.7 mm (4-29/32") in height, 35 mm (1 3/8") in width, and 156 mm (6 1/8") in depth.

The microphone shall be a Shure Model 546 or equivalent.

OPTIONAL ACCESSORIES

- Line Matching Transformer A95 Series
- Vibration-Isolation Stand S39A
- Desk Stand S33B
- Quick Disconnect Isolation Unit A45
- Windscreen Assembly A2WS

REPLACEMENT COMPONENTS

- Dynamic Cartridge R46
- Cable C65
- Connector Assembly RK78SM
- Impedance Switch 90E1123

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.