

UNIDIRECTIONAL DYNAMIC MICROPHONE WITH BUILT-IN VIBRATION-ISOLATION SHOCK MOUNT

GENERAL

The Model 549 Unidyne IV Microphone is a rugged dynamic microphone built to provide wide range reproduction of music and voice. It has an exceptionally uniform and effective unidirectional pickup pattern.

The microphone is particularly suitable for high quality theater-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.

Microphone Features:

- Unusually effective cardioid pickup pattern eliminates feedback (annoying loudspeaker "squeals") and prevents echoing (boominess) that sometimes occurs in partially-filled halls. The microphone can be used closer to loudspeakers than usual without creating feedback problems
- Response especially effective for announcing, narration, vocal music, and instrumental groups
- Cartridge and microphone body separately shock mounted for quiet operation
- Convenient impedance selection
- An accessory switch adapter furnished to serve in applications where an On-Off switch is necessary at the microphone
- Positive action detent switch
- Dependability under all operating conditions

The Model 549 is dual impedance for connection to microphone inputs rated at 25 to 200 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. 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 25-200 ohm microphone line and a high-impedance input, and are available with various input and output connectors.

SWITCH ADAPTER INSTALLATION

Remove the impedance switch cover plate by removing the two 2-56 binding head machine screws at each end of the cover plate. Position the switch plate in place of the cover plate. (The key of the switch plate must be set into the slot of the impedance change switch in the microphone). Replace the two 2-56 binding head machine screws.

The center position on the switch plate marked "O" is the Off position; "H" is the 150 ohm position; "L" is the 38 ohm position. Most applications require use of only one impedance. In this case, insert the small 2-56 fillister head screw in the threaded hole below the impedance position NOT being used. This prevents the switch from accidentally being turned to the wrong impedance setting during use as On-Off switch.



ARCHITECTS' SPECIFICATIONS

The microphone shall be the Shure Model 549 or equivalent. The microphone shall be a moving coil (dynamic) type with a frequency response of 40 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 a dual-impedance unit with rated impedances of 38 ohms and 150 ohms for connection to microphone inputs rated at 25 to 200 ohms. Impedance change shall be by means of a three-position Impedance-Off switch for setting the microphone for 38 ohms ("L" position), 150 ohms ("H" position), or Off ("O" position).

The microphone output shall be:

38 ohms	-59.0 dB
150 ohms	-58.5 dB

(0 dB = 1 milliwatt with 10 microbars)

The microphone shall be equipped with a vibration-isolator in combination with a swivel adjustable through 180°. The microphone shall be suitable for mounting on a stand with a 5/8"-27 thread. The microphone connector is designed to mate with a professional three-pin female audio connector such as the Cannon XL series, Switchcraft A3 (Q.G.) series or equivalent connector.

The overall dimensions of the microphone shall be 129 mm (5-3/32 in.) in length, 39.7 mm (1-9/16 in.) in width, and 155 mm (6-7/64 in.) in depth.

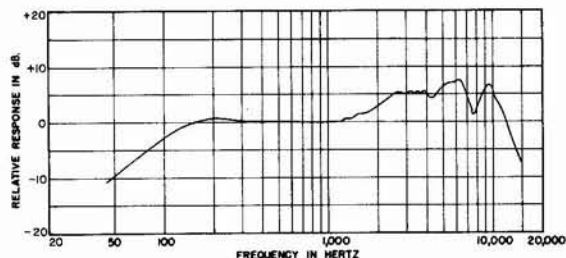
SPECIFICATIONS

Type

Dynamic

Frequency Response

40 to 15,000 Hz (see Figure 1)



TYPICAL FREQUENCY RESPONSE

FIGURE 1

Polar Pattern

Cardioid (unidirectional)—uniform with frequency, symmetrical about axis (see Figure 2)

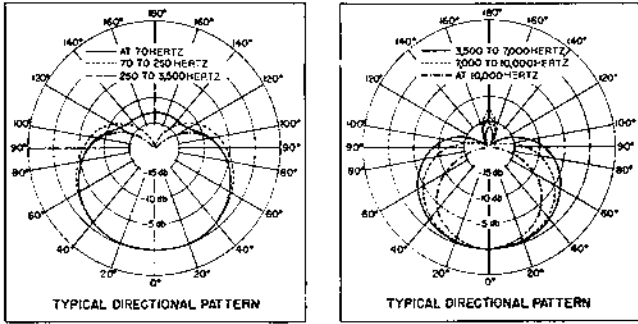


FIGURE 2

Impedance

Dual. Microphone rating impedance "L" is 38 ohms (80 ohms actual) and microphone rating impedance "H" is 150 ohms (340 ohms actual) for connection to microphone inputs rated at 25 to 200 ohms. Shipped with impedance switch at 150 ohms ("H" position)

Output Level (at 1,000 Hz)

	"L"	"H"
Open Circuit Voltage*	-84.0 dB (.063 mV)	-77.0 dB (.141 mV)
Power Level**	-59.0 dB	-58.5 dB

*0 dB = 1 volt per microbar
 **0 dB = 1 milliwatt with 10 microbars

Switch

Built-in slotted Impedance-Off switch. May be used with tamper-proof cover or with accessory knob supplied. (See section on Switch Adapter Installation.)

Cartridge Shock Mount

Internal rubber vibration-isolator

Microphone Connector

Three-pin professional audio connector (male) designed to mate with Cannon XL series, Switchcraft A3 (Q.G.) series, or equivalent connector

Swivel and Shock Mount Assembly

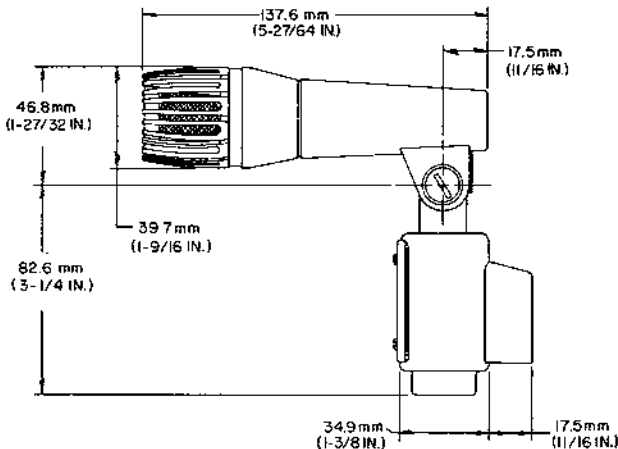
Positive action, permits tilting head through 180°, shock mounted with internal rubber vibration-isolator, suitable for mounting on stand with 3/8"-27 thread

Case

Satin-chrome plated die casting with stainless steel screen

Dimensions

See Figure 3



**OVERALL DIMENSIONS
 FIGURE 3**

Net Weight

539 grams (1 lb 3 oz)

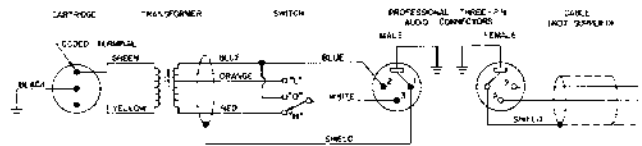
Packaged Weight

758 grams (1 lb 10 3/4 oz)

PHASING

To test two microphones and/or their cables for proper phasing, connect them to an amplifier and talk or sing into them while they are three to 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, either the microphones or their cables are out of phase. All cables and 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 cable, either use a Shure A15PR Phase Reverser or interchange the wires connected to pins 2 and 3 of the cable connector at one end of the cable only. To change the phase of a 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**

FURNISHED ACCESSORY

Switch Knob Assembly RK76S

OPTIONAL ACCESSORIES

Line Matching Transformer A95 Series
 Desk Stand S33B
 Vibration-Isolation Stand S39A
 Quick Disconnect Adapter A45
 Windscreen A61WS
 Cable (6.1m [20 ft] with connectors) C50CN
 Cable Connector (female) RK120P

REPLACEMENT PARTS

Cartridge R48
 Screen and Grille Assembly RK38G
 Switch Assembly 94A377
 Case Assembly RK77C
 Swivel and Shock Mount Assembly RK78SM
 Plug Element RK105P

GUARANTEE

This Shure product is guaranteed in normal use to be free from electrical and mechanical defects for a period of one year from the date of purchase. Please retain proof of purchase date. This guarantee includes all parts and labor.

SHIPPING INSTRUCTIONS

Carefully repack the unit and return it prepaid to the factory. 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.