



# SHURE

# PROFESSIONAL PRODUCTS DATA

222 HARTREY AVE., EVANSTON, IL. 60204 U.S.A. • AREA CODE 312/328-9000 • CABLE: SHUREMICRO

TECHNICAL DATA



SHURE

MODEL 300 • GRADIENT BIDIRECTIONAL MICROPHONE

**Model 300:** The Model 300 is an unusually compact and rugged ribbon microphone. It combines wide range response and a bidirectional (cosine) pickup pattern. The "300" is an excellent choice for broadcast or recording studio and for critical sound reinforcement applications in which its symmetrical front and rear pickup with greatly reduced side pickup is useful. Ideal for applications such as "across the table" interviews or dialogue; stages with loudspeakers directly to the side or overhead; and combined pickup of facing instrumental groups in recording studios. The bidirectional pattern provides the same control of overall surrounding noise and reverberation as an equivalent cardioid microphone.

The Model 300 Features:

- Warm, smooth sound from wide range front and rear response. Low frequency characteristic adjustable by means of a Response Selector Switch.
- Bidirectional polar pattern, effective over wide frequency range.
- Built-in shock mount for quiet operation.
- Convenient impedance selection.
- Rugged mechanical design and ingenious internal ribbon protection assure reliable operation under severe conditions of use.

## SPECIFICATIONS

### Type:

Ribbon

### Frequency Response:

40 to 15,000 Hz. (See Figure B)

### Polar Pattern:

Bidirectional. Equally sensitive at front and rear. Response at sides down 15 to 20 db from front and rear responses. (See Figure D)

### Microphone Rating Impedance:

Equipped with multi-impedance switch furnishing choice of three impedances—50 ohms "L"; 150 ohms "M"; High "H"

### Output Level:

1,000 Hz response

Model 300 50 ohms "L" position

Open circuit voltage .....— 87.5 db\* (0.43 mv)

Power level .....— 60.5 db\*\*

EIA Microphone Rating

Gm (sensitivity) .....—153.0 db\*\*\*

Model 300 150 ohms "M" position

Open circuit voltage .....— 79.5 db\* (.105 mv)

Power level .....— 59.0 db\*\*

EIA Microphone Rating

Gm (sensitivity) .....—151.0 db\*\*\*



Model 300 High Impedance "H" position

Open circuit voltage .....— 57.5 db\* (1.32 mv)

Loaded with 100,000 ohms.— 60.0 db\*\*

EIA Microphone Rating

Gm (sensitivity) .....—154.0 db\*\*\*

\* 0 db = 1 volt per microbar

\*\* 0 db = 1 milliwatt with 10 microbars

\*\*\* 0 db = EIA Standard SE-105, August 1949

### Case:

Die-cast zinc

### Finish:

Textured dark gray enamel

### Swivel:

Self-adjusting lifetime swivel permits tilting the head 45° forward and 90° backward so that the microphone can be aimed at the source of sound.

### Shock Mount:

Special live-rubber vibration-isolation unit.

### Connector:

Professional three-pin male audio connector on microphone designed to mate with Cannon XL series, Switchcraft A3 (Q.G.) series or equivalent connector on cable.

### Cable:

20 foot (6.1 m) 2-conductor shielded broadcast type.

### Stand Thread:

5/8" -27 thread

### Stand Couplers:

Adapters for 1/2" pipe thread or 5/8" -24 thread available upon request at no extra charge.

### Response Selector:

Two position switch to adjust low frequency characteristic for optimum performance, (See Figure B)

### Dimensions:

See Figure C

**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.

### ARCHITECT'S SPECIFICATIONS

The microphone shall be Shure Model 300 or equivalent. A moving-ribbon type microphone with a frequency range of 40 to 15,000 Hz, this unit shall have a bidirectional horizontal polar characteristic. The microphone shall be equipped with a three-position impedance change switch for selecting the microphone rating impedance to 50 ohms, 150 ohms, or 40,000 ohms. The microphone output shall be:

- 50 ohm impedance .....—60.5 db\*
- 150 ohm impedance .....—59.0 db\*
- High impedance .....—57.5 db\*\*
- \* (0 db = 1 milliwatt with 10 microbars)
- \*\* (0 db = 1 volt per microbar)

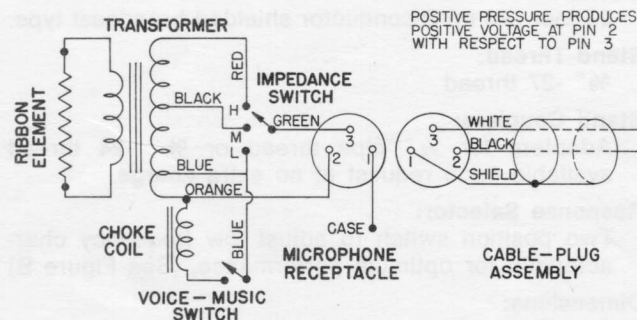
The microphone rating Gm (sensitivity) at 1,000 Hz. shall be within 3 db of the following levels:

- "L" Position of switch .....—153 db
- "M" Position of switch .....—151 db
- "H" Position of switch .....—154 db

EIA Standard SE-105 August 1949

The microphone shall be provided with a swivel adjustable from 45° forward and 90° backward. The microphone shall be equipped with a vibration-isolation unit in combination with the stand connector, and it shall have a detachable 20 foot (6.1 m) 2 conductor shielded cable equipped with a professional three-pin audio connector designed to mate with Cannon XL series, Switchcraft A3 (Q.G.) series, or equivalent connector.

The microphone will mount on a stand having 5/8" -27 thread. The overall dimensions shall be 9-7/32" (234.2 mm) ± 1/4" (6.4 mm) in height, 1-7/16" (36.5 mm) ± 1/8" (3.2 mm) in width, and 1-3/32" (27.8 mm) ± 1/8" (3.2 mm) in depth.

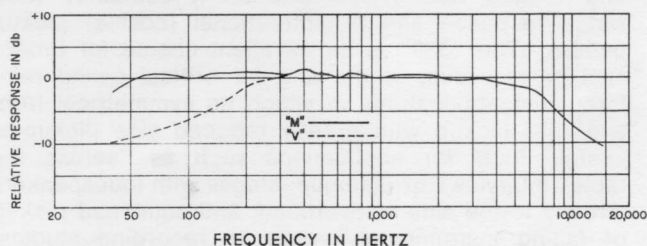


INTERNAL CONNECTIONS

FIGURE A

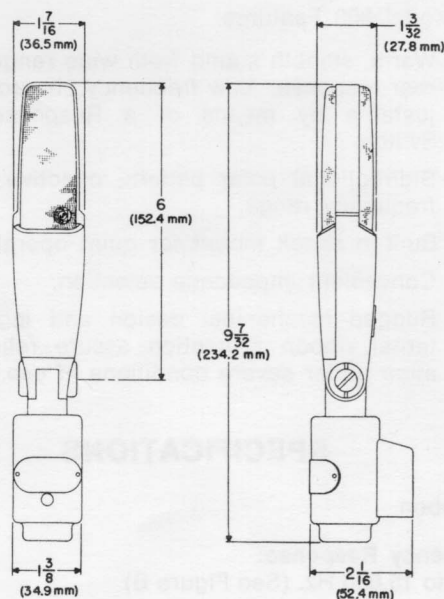
### REPLACEMENT PARTS

|                          |              |
|--------------------------|--------------|
| Cartridge .....          | Model R30    |
| Cable .....              | Model C50    |
| Case Assembly .....      | Model RK71C  |
| Connector Assembly ..... | Model RK68CA |
| ON-OFF Switch .....      | Model RK70S  |



FREQUENCY RESPONSE

FIGURE B



OVER-ALL DIMENSIONS

FIGURE C

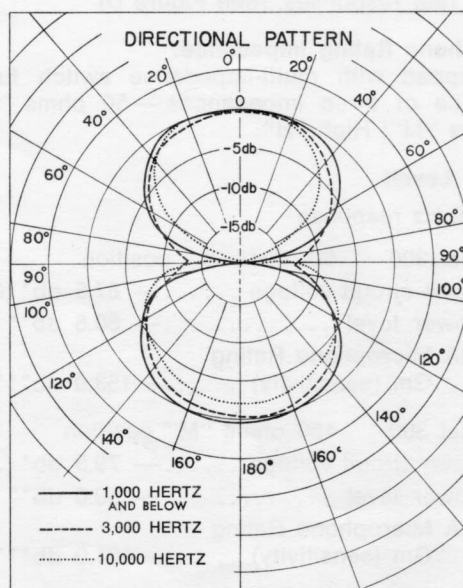


FIGURE D