

Model SM33

The Model SM33 is a compact and rugged unidirectional ribbon microphone combining wide range response and a Super-Cardioid directional pattern. This polar pattern is somewhat more directional than the conventional cardioid, providing excellent control of unwanted surrounding noise and reverberation. The performance characteristics are ideal for studio use in broadcasting and recording and for critical sound reinforcement applications.

The Model SM33 features:

- Unusually effective Super - Cardioid pickup characteristic minimizes effects of studio acoustics and background noise.
- Warm, smooth sound from wide frequency response range. Well suited to both voice and music.
- Low frequency response characteristic adjustable by means of a Response Selector Switch.
- Built-in shock mount for quiet operation.
- Rugged mechanical design and internal ribbon protection assure reliable operation under severe conditions of use.

SPECIFICATIONS

Type: Ribbon.

Frequency Response: 40 to 15,000 Hz. Low Frequency Response Selector. See Figure A.

Polar Pattern: Super-Cardioid (Unidirectional) Response. See Figure D.

Impedance: Dual. Choice of 30-50 ohms or 150-250 ohms. (Connected for 150-250 ohms when shipped). See paragraph on impedance changing.

Output Level: 1,000 Hz. response

Model SM33 30-50 ohms
 Open circuit voltage.....— 85.0 db* (0.056 mv)
 Power level.....— 57.5 db**
 EIA Microphone Rating
 Gm (sensitivity)....—150.5 db***

Model SM33 150-250 ohms
 Open circuit voltage...— 76.5 db* (0.149 mv)
 Power level.....— 58.0 db**
 EIA Microphone Rating
 Gm (sensitivity)— 148.0 db***

* 0 db = 1 volt per microbar

** 0 db = 1 milliwatt with 10 microbars

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

Connector: Equipped with professional three-pin female audio connector in microphone.†

† Designed to mate with Cannon XL series, Switchcraft A3 (Q.G.) series or equivalent connector.



Cable: 20 foot (6.1 m.) 2-conductor shielded broadcast type equipped on microphone end with professional three-pin female audio-connector.†

Case: Die-cast zinc.

Finish: Textured light and dark gray enamel.

Swivel: Self adjusting lifetime swivel permits tilting the head 45° forward and 70° backward.

Shock Mount: Special live rubber vibration-isolation unit.

Stand Thread: 5/8" -27 thread.

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

Dimensions: See Figure C.

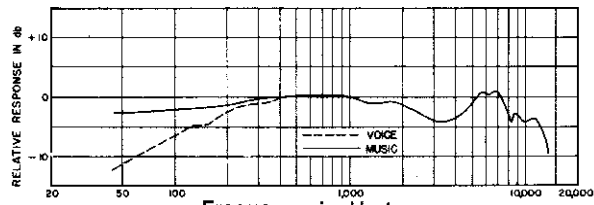
Net Weight less Cable: 1 pound 10 ounces (736 grams)

Shipping Weight: 3 1/4 Pounds (1474 grams)

Instructions for changing to 30-50 ohm impedance: See Figures B and C.

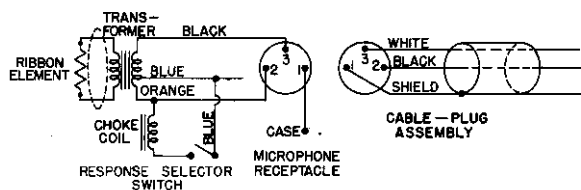
1. Remove the set screw (#2-56) at the receptacle end of the microphone.
2. Pull out the 3-prong insert from the receptacle.
3. Disconnect the BLACK lead from pin number 3.
4. Solder the BLUE lead to pin number 3.
5. Insulate end of the BLACK lead with tape.
6. Re-assemble insert into receptacle and tighten set screw.

Guarantee: Each microphone is guaranteed to be free from electrical and mechanical defects for a period of one year from date of shipment from factory, provided all instructions are complied with fully. In case of damage, return the microphone to the factory for repairs. Our guarantee is voided if the microphone case is opened.



FREQUENCY RESPONSE

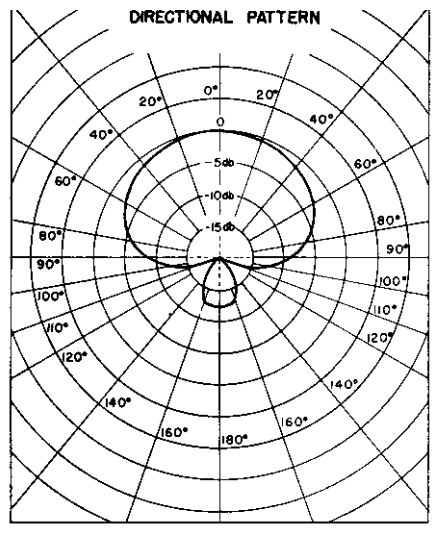
FIGURE A



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

INTERNAL CONNECTIONS

FIGURE B



POLAR PATTERN

FIGURE D

ARCHITECT'S SPECIFICATIONS

The microphone shall be Shure Model SM33 or equivalent. A moving ribbon type microphone with a frequency range of 40 to 15,000 Hz., this unit shall have a unidirectional horizontal polar characteristic. The microphone shall have impedances of 30-50 ohms and 150-250 ohms. The microphone output shall be:

- 30-50 ohms impedance-57.5 db
(0 db = 1 milliwatt with 10 microbars)
- 150-250 ohms-58.0 db
(0 db = 1 milliwatt with 10 microbars)

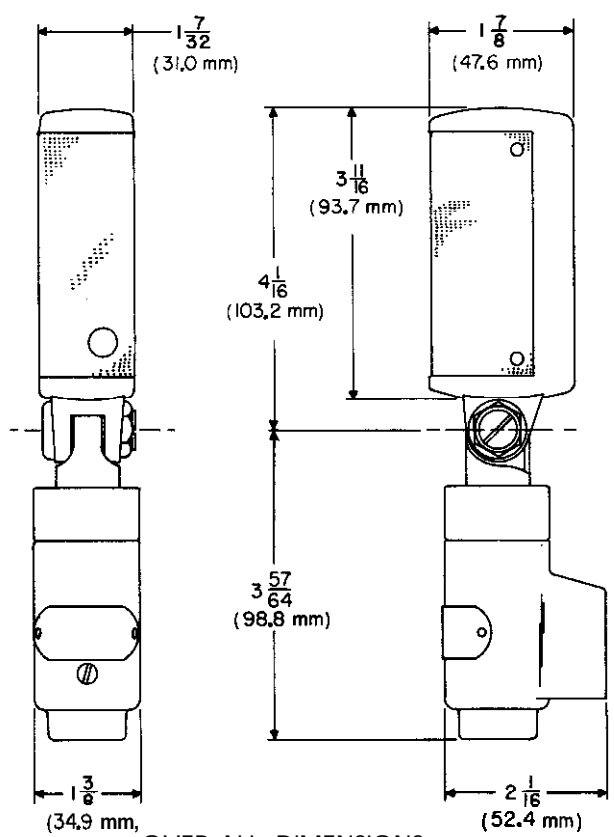
The microphone rating Gm (sensitivity) at 1,000 Hz. shall be within ± 3 db of the following levels:

- 30-50 ohms 150.5 db
- 150-250 ohms 148.0 db

EIA Standard SE-105, August, 1949

The microphone shall be provided with a swivel adjustable from 45° forward and 70° backward. The microphone shall be equipped with a vibration isolation unit in combination with the stand connector, and it shall have a detachable Cannon cable connector capable of connecting to a two-conductor shielded cable.

The microphone will mount on a stand having 5/8" -27 thread. The over-all dimensions shall be 7 61/64" (202.0 mm) in height, 13/8" (34.9 mm) in width, and 2 1/16" (52.4 mm) in depth.



OVER-ALL DIMENSIONS

FIGURE C