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MICROPHONES AND ELECTRONIC COMPONENTS

AREA CODE 312/866-2200 • CABLE: SHUREMICRO
TWX: 910-231-0048 TELEEX: 72-4381

DATA SHEET

MODELS 580SA and 580SB UNIDYNE® A

UNIDIRECTIONAL DYNAMIC MICROPHONES



GENERAL

The Model 580 Series UNIDYNE® A Microphones are moving coil dynamic units built to provide wide range reproduction of music and voice and featuring an excellent unidirectional microphone pickup pattern. These unidirectional microphones are ideal for quality public address, theater-stage sound systems, recording, and other sound reinforcement applications.

Microphone Features:

- Exceptional true cardioid pickup pattern: symmetrical about axis and uniform at all frequencies—providing highly effective suppression of feedback
- Uniform shaped response, particularly suitable for the professional entertainer
- A built-in On-Off switch with provisions for locking switch in its On position
- Versatility—for use in the hand or on a stand—for use indoors or outdoors
- Dependability under all operating conditions

The Model 580 Microphones are supplied with an adjustable swivel adapter which permits the microphone to be tilted through 90° from vertical to horizontal. This swivel also allows for "quick-disengage" for use as a hand microphone.

Model 580SA is high impedance for connection to high-impedance microphone inputs.

Model 580SB is low impedance for connection to microphone inputs rated at 19 to 300 ohms. The low-impedance 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 by long cables. 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 19 to 300 ohm microphone line and a high-impedance input and are available with various input and output connectors.

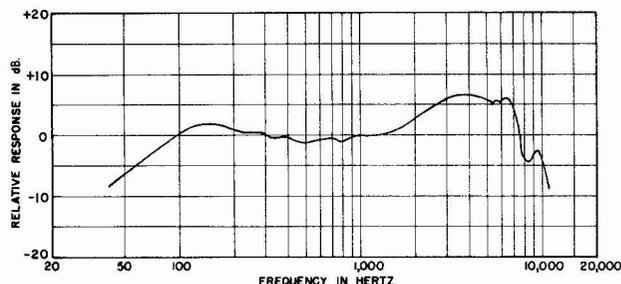
SPECIFICATIONS

Type

Dynamic

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27A325 (SK)

Frequency Response 50 to 13,000 Hz (see Figure 1)



TYPICAL FREQUENCY RESPONSE

FIGURE 1

Polar Pattern

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

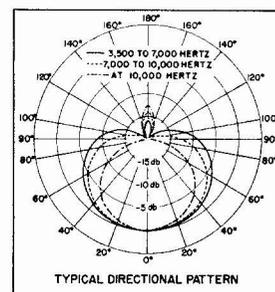
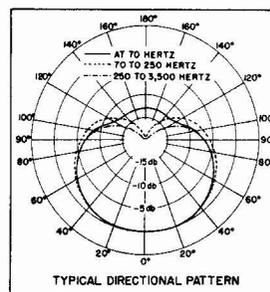


FIGURE 2

Impedance

Model 580SA: Microphone impedance is "High" for connection to high-impedance microphone inputs.

Model 580SB: Microphone rating impedance is 150 ohms (160 ohms actual) for connection to microphone inputs rated at 19 to 300 ohms.

Output Level (at 1,000 Hz)

	580SA	580SB
Open Circuit Voltage*	-57.5 dB (1.33 mV)	-80.0 dB (.100 mV)
Power Level**		-58.0 dB

*0 dB = 1 volt per microbar

**0 dB = 1 milliwatt per 10 microbars

Switch

Built-in On-Off switch with lockplate. To lock switch in On position, remove screw on lockplate and turn lockplate 180°. Reassemble and tighten screw.

Cartridge Shock Mount

Internal rubber vibration-isolator

Cable

Model 580SA: 4.6m (15 ft), nondetachable, single-conductor shielded

Model 580SB: 4.6m (15 ft), nondetachable, two-conductor shielded

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

Swivel Adapter

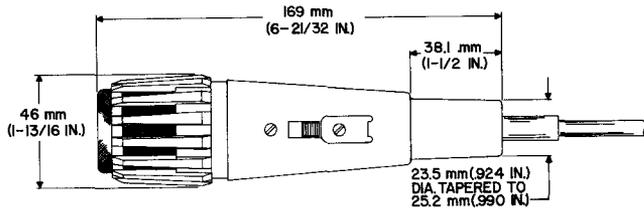
Positive action, adjustable through 90° from vertical to horizontal, permits easy removal for handheld use, suitable for mounting on stand with 5/8"-27 thread

Case

Chrome-plated die casting and ARMO-DUR® with stainless steel grille

Dimensions

See Figure 3



OVERALL DIMENSIONS
FIGURE 3

Net Weight

624 grams (1 lb, 6 oz)

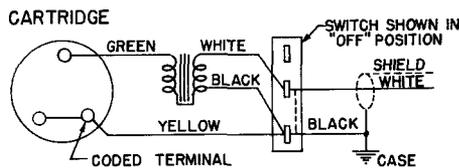
Packaged Weight

907 grams (2 lb)

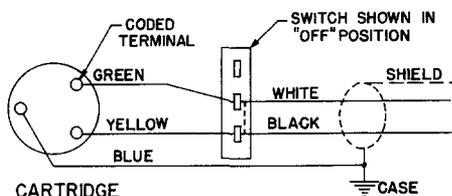
PHASING

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 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 ON CABLE SHIELD
MODEL 580SA INTERNAL CONNECTIONS



POSITIVE PRESSURE PRODUCES POSITIVE VOLTAGE ON BLACK CABLE LEAD
MODEL 580SB INTERNAL CONNECTIONS

FIGURE 4

FURNISHED ACCESSORY

Swivel AdapterA25B

OPTIONAL ACCESSORIES

WindscreenA61WS
Line Matching TransformerA95 Series
Desk StandS33B, S37A, S38B, S39A, S40A
Quick Disconnect AdapterA45
Dual MountA26M

REPLACEMENT PARTS

	580SA	580SB
Cartridge	R58	R58
Screen and Grille Assembly	RK51G	RK51G
On-Off Switch	RK48S	RK48S

ARCHITECTS' SPECIFICATIONS

The microphone shall be a moving coil (dynamic) type with a frequency response of 50 to 13,000 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.

Model 580SA shall be high impedance for connection to high-impedance microphone inputs.

Model 580SB shall be low impedance with a rated impedance of 150 ohms for connection to microphone inputs rated at 19 to 300 ohms.

The microphone output shall be:

Model 580SA -57.5 dB
(0 dB = 1 volt per microbar)

Model 580SB -58.0 dB
(0 dB = 1 milliwatt per 10 microbars)

The microphone shall be equipped with a built-in On-Off switch and a nondetachable 4.6m (15 ft) cable. The cable for Model 580SA shall be single-conductor shielded; the cable for Model 580SB shall be two-conductor shielded.

The microphone shall be provided with a swivel adapter, adjustable through 90° from vertical to horizontal, and suitable for mounting on a stand having a 5/8"-27 thread.

The overall dimensions of the microphone shall be 169 mm (6-21/32 in.) in length and 46 mm (1-13/16 in.) in diameter.

The microphone shall be the Shure Model 580SA, 580SB, or equivalent.

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.