



MODELS 586SA AND 586SB
UNIDIRECTIONAL DYNAMIC MICROPHONES



GENERAL

The Model 586 Series UNISPHERE® A Microphones are dynamic unidirectional (cardioid) microphones with a very effective filter that provides excellent protection from wind and "pop" (explosive breath sounds). They feature fine reproduction of music and voice, and are ideal for use with high quality sound systems and tape recorders.

The 586SA and 586SB unidirectional microphones are particularly suitable for use in theaters, night clubs, auditoriums, schools, churches, indoors or outdoors, and any place where omnidirectional microphones may not operate properly because of poor acoustics or where wind creates a problem, such as during outdoor receptions, inaugurations, or sporting events. These microphones will, in almost every instance, eliminate the annoying loudspeaker "squeal" caused by feedback. In addition, they will prevent echoing (boominess) that sometimes occurs in partially-filled halls. The 586 Series can also be used closer to loudspeakers than usual, without creating feedback problems.

Suppression of feedback, combined with their smooth sound, makes these microphones particularly good for use with orchestras, small groups, and singers.

Microphone features:

- Built-in wire mesh screen with special filter protection from wind and "pop" (explosive breath sounds). Enables singers and speakers to perform close to the microphone
- Effective cardioid (unidirectional) pickup pattern for reduced feedback and echo prevention. Permits use close to loudspeakers with minimal feedback problems
- Field-replaceable microphone cartridge — internally shock-mounted for low handling noise
- Built-in On-Off switch with On-position lock
- Adjustable swivel adapter permits precise aiming of microphone, and easy, silent removal for hand-held use

VARIATIONS

Model 586SA-C: High impedance, supplied with 6.1m (20 ft) cable with professional three-pin audio connector on microphone end and ¼-inch phone plug on equipment end.

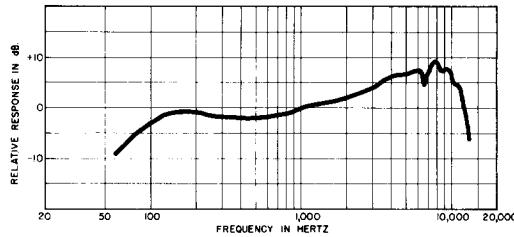
Model 586SB-CN: Low impedance, supplied with 6.1m (20 ft) cable with professional three-pin audio connectors on both ends.

Models 586SA-LC, 586SB-LC: Same as Models 586SA-C and 586SB-CN, except supplied without cables.

SPECIFICATIONS

Type
Dynamic

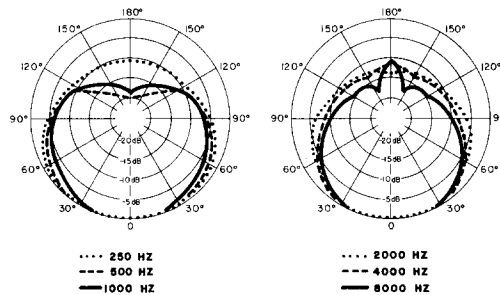
Frequency Response
50 to 13,000 Hz (see Figure 1)



TYPICAL FREQUENCY RESPONSE
FIGURE 1

Polar Pattern

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



TYPICAL POLAR PATTERNS
FIGURE 2

Impedance

Model 586SA — Microphone impedance is "High" for connection to high-impedance microphone inputs.

Model 586SB — Microphone rating impedance is 150 ohms (270 ohms actual) for connection to microphone inputs rated at 19 to 300 ohms.

SHURE
UNIDIRECTIONAL DYNAMIC MICROPHONES

Output Level (at 1,000 Hz)

	<u>586SA</u>	<u>586SB</u>
Open Circuit Voltage* . . .	-56.0 dB (1.6 mV)	-79.5 dB (0.11 mV)
Power Level**	-59.5 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

586SA-C: 6.1m (20 ft) one-conductor shielded with professional three-socket audio connector on microphone end and ¼-inch phone plug on equipment end

586SB-CN: 6.1m (20 ft) two-conductor shielded with professional three-socket and three-pin audio connectors

586SA-LC, 586SB-LC: Supplied without cables

Swivel Adapter

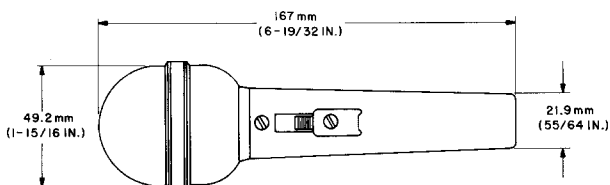
Positive action, adjustable through 90° from vertical to horizontal, permits easy removal for handheld use, suitable for mounting on stand with 5/8"-27 thread.

Case

Silver finish die casting with steel mesh grille

Dimensions

See Figure 3



OVERALL DIMENSIONS

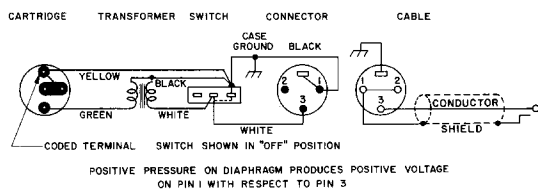
FIGURE 3

Net Weight (less cable)

354 grams (12½ oz)

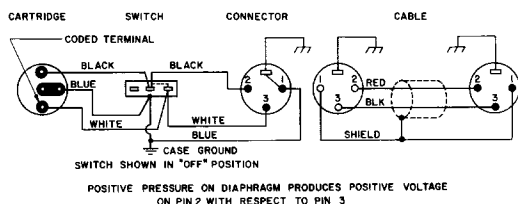
Packaged Weight

586SA-C: 709 grams (1 lb 9 oz)
 586SB-CN: 851 grams (1 lb 14 oz)
 586SA-LC, 586SB-LC: 510 grams (1 lb 2 oz)



586SA INTERNAL CONNECTIONS

FIGURE 4



586SB INTERNAL CONNECTIONS

FIGURE 5

APPLICATIONS

The Model 586SA is high impedance for connection to high-impedance microphone inputs.

The Model 586SB 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. 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.

PHASING

To test two microphones and/or their cables 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, either the microphones or their cables (low impedance only) 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 A15PRS Phase Reverser or interchange the wires connected to pins 2 and 3 of the connector. To change the phase of a microphone, the microphone cartridge leads must be interchanged (see Figures 4 and 5). This should be performed by your dealer, the Shure Factory Service Department, or other qualified service personnel.

FURNISHED ACCESSORY

Swivel Adapter A25B

OPTIONAL ACCESSORIES

Line Matching Transformer A95 Series
 Windscreen A58WS Series
 Desk Stand S37A, S39A

REPLACEMENT PARTS

	<u>586SA</u>	<u>586SB</u>
Screen and Grille	RK216G	RK216G
Cartridge	R115	R115
On-Off Switch	55C148	55C148
Case Assembly	90A3647	90A3648
Plug Element	RK40P	RK40P
Cable	C20A	C20H

Models 586SA-LC, 586SB-LC: Same as Models 586SA-C and 586SB-CN, except supplied without cables.

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, have it insured, and return it prepaid to:

Shure Brothers Incorporated
 Attention: Service Department
 222 Hartrey Avenue
 Evanston, Illinois 60204

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.