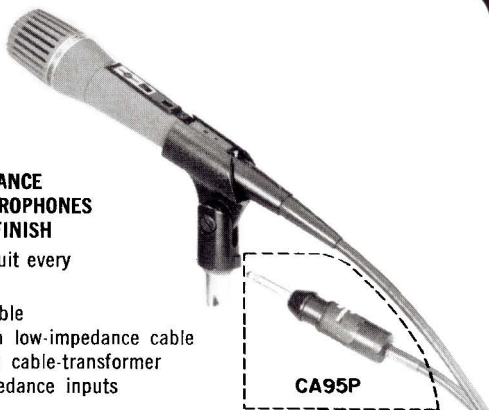


SHURE[®] PROFESSIONAL ENTERTAINER MICROPHONES

MODEL PE2 LOW-IMPEDANCE TONE-SHAPING MICROPHONES BROWN SUEDECOAT™ FINISH

Three configurations to suit every performer's needs:

- PE2—supplied less cable
- PE2-CN—supplied with low-impedance cable
- PE2-SP—supplied with cable-transformer for high-impedance inputs



For acoustic versatility, professional sound, thoughtful design, and handsome appearance, the PE2 Series Tone-Shaping Microphones have all the needed features.

- Frequency response from 50 to 15,000 Hz, splendid for voice or instrument pickup
- Unidirectional polar pattern
- Individually tailored response provided by tone-shaping switches: BASS Normal/Cut & TREBLE Flat/Boost
- On-Off switch
- All switches recessed to prevent unintended response changes or accidental switchoff
- Pop-filter grille minimizes wind and breath noise
- Attractive, durable SUEDECOAT™ finish, comfortable to hold, easy to clean
- Extremely rugged, all-metal case and grille, withstands a 6-foot drop to a hardwood floor and continues to perform to specifications

HOW TO CONTROL FEEDBACK

A performer's number one enemy in using a microphone is "feedback." This is a harsh hum, howl or squeal which occurs when the microphone picks up sound from the loudspeakers, re-amplifies and rebroadcasts it over and over again.

The key factor in the prevention of feedback is the position of the loudspeakers in relation to the microphone. Feedback occurs if the microphone picks up sound coming from the loudspeakers. Keep the loudspeakers as far to the sides as possible—so they do not point toward the microphone. Always keep the microphone pointed toward the performer and away from the loudspeakers. When stage monitor loudspeakers are used, make sure they are positioned in front of the performers and face the rear of the microphone.

If you are in a room with hard walls, floor, and ceiling, the sound from the loudspeakers may bounce back into the microphone and create feedback. Solve this problem by turning down the amplifier volume control and working closer to the microphone.

(Important Note: If you cannot solve the feedback problem with your microphone, a Shure Feedback Controller is suggested.)

MICROPHONE CHECK-LIST

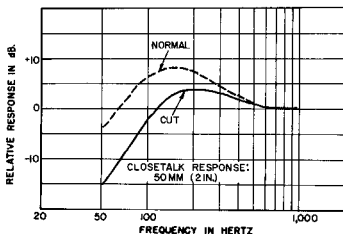
1. Check microphone impedance—is it correct for the amplifier input being used?
2. Check microphone cable connectors to microphone, mixer, and amplifier—are they tightly plugged in?
3. Check microphone, amplifier and/or mixer.
 - a. Are they turned on?
 - b. Are volume controls turned up?

IF THE MICROPHONE DOES NOT WORK

Check the above list. If the microphone still does not appear to be operating, have the microphone and cable checked by your Shure Professional Entertainer Products Dealer, or write Service Department, Shure Brothers, Inc.

USING THE TONE-SHAPING SWITCHES

The BASS Cut switch compensates for the increased low-frequency output (proximity effect) that occurs when the microphone is used close to the mouth. The graph below shows the output when the microphone is 50 mm (2 in.) from the mouth with the BASS switch in Normal and Cut positions.



Sometimes the bass rise due to proximity is desirable, and then the switch should be in the Normal position. For less bassy sound, move the switch to Cut.

It is usually preferable that instruments sound as natural as possible. For instrument pickup, therefore, the TREBLE switch is moved to Flat. For maximum intelligibility of vocals, however, a rise at mid to high frequencies is desirable. Therefore, for voice pickup, use the TREBLE switch in the Boost position.

These are all only suggestions. For best results, always experiment and listen. Then you will be sure to get the effects you want.

CLEANING

The SUEDECOAT™ case can be cleaned easily with a clean, lintless cloth *dampened* with alcohol or a mild soap solution.

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, they 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 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 Figure 2). This should be performed by your dealer, the Shure Factory Service Department, or other qualified service personnel.

IMPEDANCE

All the PE2 Microphones are low-impedance and can be used with virtually unlimited cable lengths without affecting either frequency response or output level.

For high-impedance microphone inputs, use the CA95P Cable-Transformer. It is supplied with the Model PE2-SP Microphone and has an integral impedance-matching transformer and standard quarter-inch phone plug located at the high-impedance end of the cable. Unlike high-impedance microphones whose cables must be limited to 7.6m (25 ft) or less, the PE2-SP can be used with long cable runs between the microphone and the CA95P.



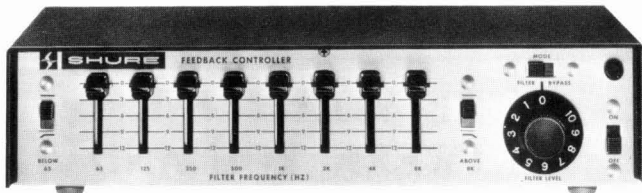
USING MORE THAN ONE MICROPHONE

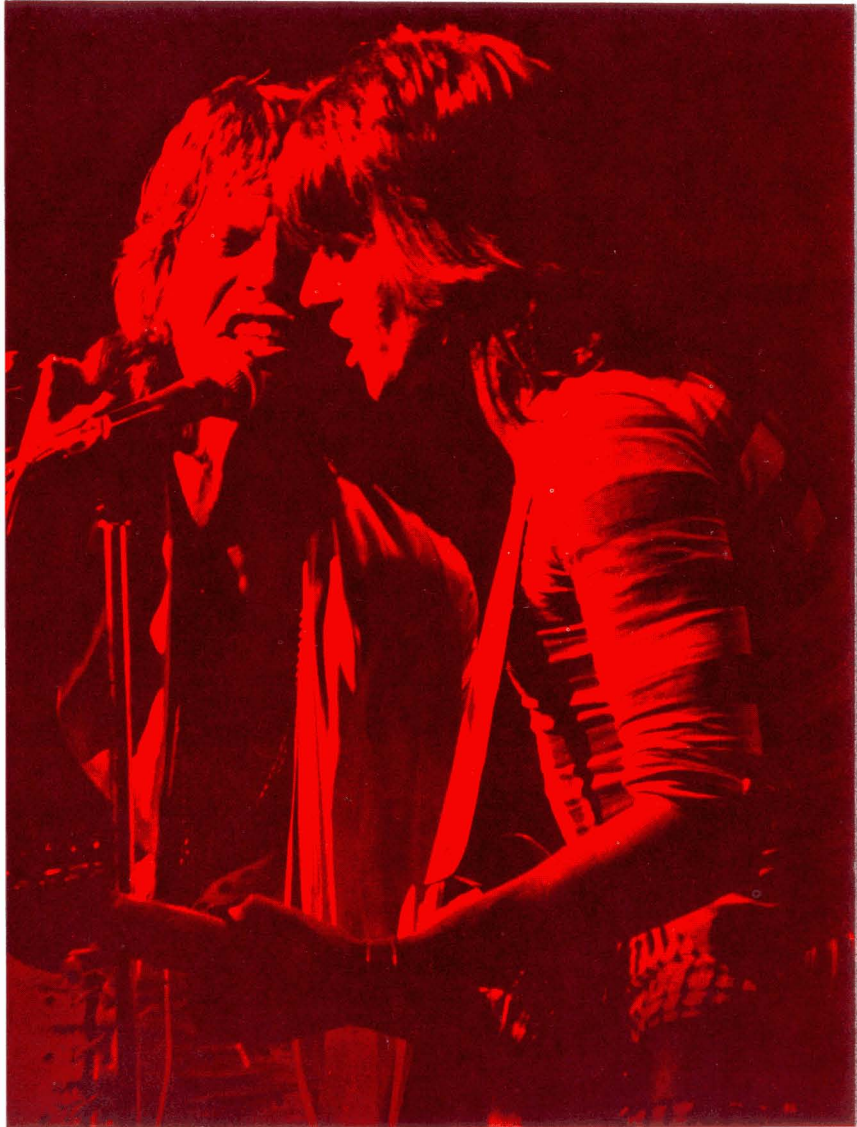
It is often desirable for a group to use a separate microphone for each individual performer. In this case, the following points should be remembered:

1. It is best if the microphones are individually controlled for volume through a separate Shure microphone mixer. *If this is not possible, it is desirable that each performer use the same type and model of microphone so that the group as a whole will be "balanced."*
2. Check the placement of the microphones with relation to loudspeakers (as previously mentioned) so that feedback is minimized.
3. As additional microphones are added the possibility of feedback increases. Turn off, or down, unused microphones to help solve this problem.

SHURE FEEDBACK CONTROLLER

Lets you "tune" your sound system to the acoustics of the room. The result is more overall sound power *without* feedback. Eight linear-motion filter controls are infinitely variable from 0 to 12 dB cut. Below 63 Hz and Above 8 kHz roll-off switches attenuate low and high frequencies. Can be installed between mixer or console and amplifier for total system control, or following each microphone as a single-channel preamplifier with feedback control.





**THE VITAL LINK
BETWEEN YOU AND
THE AUDIENCE**

SHURE PROFESSIONAL ENTERTAINER
MICROPHONES

MODEL PE2 SERIES SPECIFICATIONS

Type: Dynamic, Cardioid (Unidirectional)

Frequency Response: 50 to 15,000 Hz (see Figure 1)

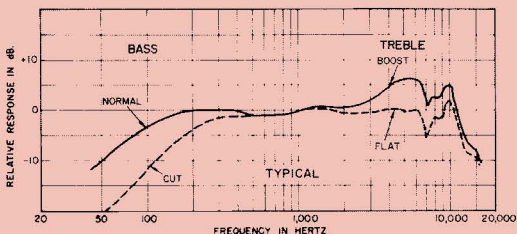


FIGURE 1

Impedance: **Microphone**—Low. Rating impedance is 150 ohms (270 ohms actual) for connection to microphone inputs rated at 75 to 300 ohms.

Model PE2-SP Cable-Transformer — Rating impedance is "High" for connection to high-impedance microphone inputs.

Output Level (at 1,000 Hz): **Microphone**—Open Circuit Voltage = -77.0 dB (0.14 mV; 0 dB = $1V/\mu\text{bar}$); Power Level = -57.5 dB (0 dB = $1mW/10 \mu\text{bar}$)

Model PE2-SP Cable-Transformer—Open Circuit Voltage = -54.5 dB (1.9 mV; 0 dB = $1V/\mu\text{bar}$)

Phasing: Positive pressure on diaphragm produces positive voltage on microphone Pin 2 (see Figure 2 and Page 4).

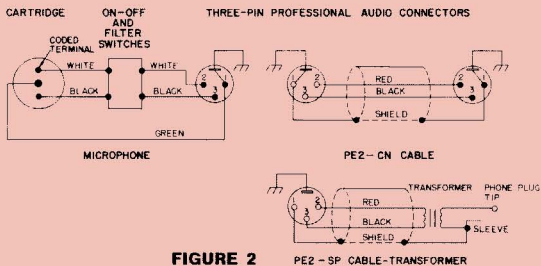


FIGURE 2

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.

MODEL PE2 SERIES SPECIFICATIONS (Continued)

- Switch:** Built-in recessed On-Off switch, and recessed Tone-Shaping switches: BASS-Normal/Cut & TREBLE-Flat/Boost (see Figure 1 and Page 3 for effects on response)
- Shock Mount:** Internal rubber vibration-isolator at cartridge
- Cable:** **PE2**—supplied less cable
PE2-CN—supplied with 7.6m (25 ft) two-conductor shielded low-impedance cable with three-socket and three-pin professional audio connectors
PE2-SP—supplied with CA95P Cable-Transformer: 7.6m (25 ft) two-conductor shielded low-impedance cable with three-socket microphone connector and integral high-impedance matching transformer terminated by standard quarter-inch phone plug
- 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:** Brown SUEDECOAT™ finished all-metal case and grille
- Net Weight**
(less cable): 298g (10.5 oz)
- Packaged Weight:** PE2—1 kg (2 lb, 3 oz)
PE2-CN—1.6 kg (3 lb, 8 oz)
PE2-SP—1.6 kg (3 lb, 9 oz)

FURNISHED ACCESSORY

Swivel Adapter: A25B

OPTIONAL ACCESSORIES

Desk Stand: S33B, S37A, S39A

Isolation Mount: A55M

Dual Mount: A26M

Colored Windscreens: A61WS Series

REPLACEMENT PARTS

Cartridge: R114

Grille: 90C1322

Low-Impedance Cable (PE2-CN): C100CN

High-Impedance Cable-Transformer (PE2-SP): CA95P

Plug Element: RK40P

AREA CODE 312/866-2200

CABLE SHUREMICRO

SOUND OF THE PROFESSIONALS®



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27A1653 (AF)

Printed in U.S.A.
U.S. Patents 3,132,713
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