

SHURE® PROFESSIONAL ENTERTAINER MICROPHONES



MODEL PE52

Vagabond™

**CLOSE-TALKING
MICROPHONE**

Slips out of swivel stand adapter
quickly and easily
for hand-held use.

Your new Shure Close-Talking Microphone is probably different from any other microphone you have ever used. Unlike most uni- and omnidirectional microphones, the PE52 is designed for extremely close operation at $\frac{1}{2}$ to $2\frac{1}{2}$ cm ($\frac{1}{4}$ to 1 in.) from the performer under conditions of very high sound levels. When properly used, the microphone will provide high-quality vocal sound while canceling distant sounds such as high-power musical instruments, stage monitor speakers, enthusiastic audiences, or other background noise. The result is clear, distinct vocal reproduction with minimal pickup of instruments, monitors or audience, *even when the performer cannot hear himself!*

Also, because the microphone is inherently directional and discriminates against unwanted sounds arriving from a distance in favor of sounds arriving from a near source, it helps control acoustic feedback (that very annoying loudspeaker screech or howl). In addition, the microphone has two special filters which provide protection against wind, blast and "pop" (explosive breath sounds). This means that despite the microphone's close working distance, these noises have virtually no effect on microphone performance.

*(See inside for information on how to use your
Shure Microphone most effectively.)*

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 factors in feedback prevention are loudspeaker position in relation to the microphone, and working distance from the microphone. Feedback occurs if the microphone picks up sound 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 and close to 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.

In a room with hard walls, floor, and ceiling, loudspeaker sound may bounce back into the microphone and create feedback. Solve this problem by turning down the amplifier volume control.

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

BASIC POINTS FOR PROFESSIONAL MICROPHONE TECHNIQUE

Proper microphone technique will add to the overall effectiveness with which you project yourself to your audience. Keep the following points in mind when using this microphone:

1. Maintain the proper distance of $\frac{1}{2}$ to $2\frac{1}{2}$ cm ($\frac{1}{4}$ to 1 in.) from the microphone. This close working distance allows the microphone to cancel distant sounds and provide superior output under noisy conditions. This microphone has a strong proximity effect, that is, maximum bass output is obtained when it is used close-talking (see Figure 1). For reduced bass response, hold the microphone a little farther away. For optimum noise rejection, do not work the microphone at distances greater than 5 cm (2 in.).
2. Don't needlessly change your distance from the microphone as this will affect both the level and bass output.
3. Remember that this is a close-talking, voice-range microphone. It should not be used for musical instrument miking or general microphone use.
4. Consider the microphone as an instrument and practice your technique to enhance your performance.

YOUR SHURE MICROPHONE IS BUILT TO LAST!

Your Shure Microphone is ruggedly built and should give you years of uninterrupted service; however, remember that it is a sensitive electronic instrument. Avoid dropping the unit, or subjecting it to unnecessarily rough treatment. Normal usage, of course, will not impair performance of the unit. Use the protective carrying case to prevent damage not only when traveling, but also when storing the microphone.

WINDSCREEN

The external foam windscreen of your microphone should be cleaned occasionally. Slide it up and over the grille, rinse it in clean water, squeeze the water out, and allow it to dry completely before replacing. Be sure to replace with tapered end at top.

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, check it on a spare cable. If 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.

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, one of them or its cable (low impedance only) is 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 Figure 2). This should be performed by your dealer, the Shure Factory Service Department, or other qualified service personnel.

IMPEDANCE

Your microphone as supplied is wired for high impedance for connection into high-impedance microphone inputs. To change microphone wiring for connection into low-impedance (rated at 19 to 300 ohms) microphone inputs, remove plug element, disconnect two-terminal impedance selection socket from rear of plug element, and reconnect two-terminal socket in reverse position so that pin 3 of plug element is inserted in socket terminal "L."



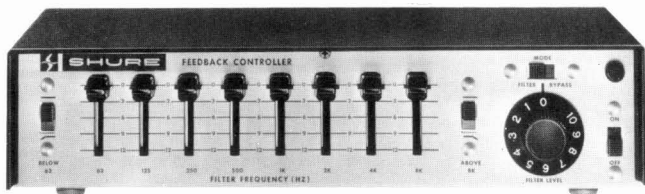
USING MORE THAN ONE MICROPHONE

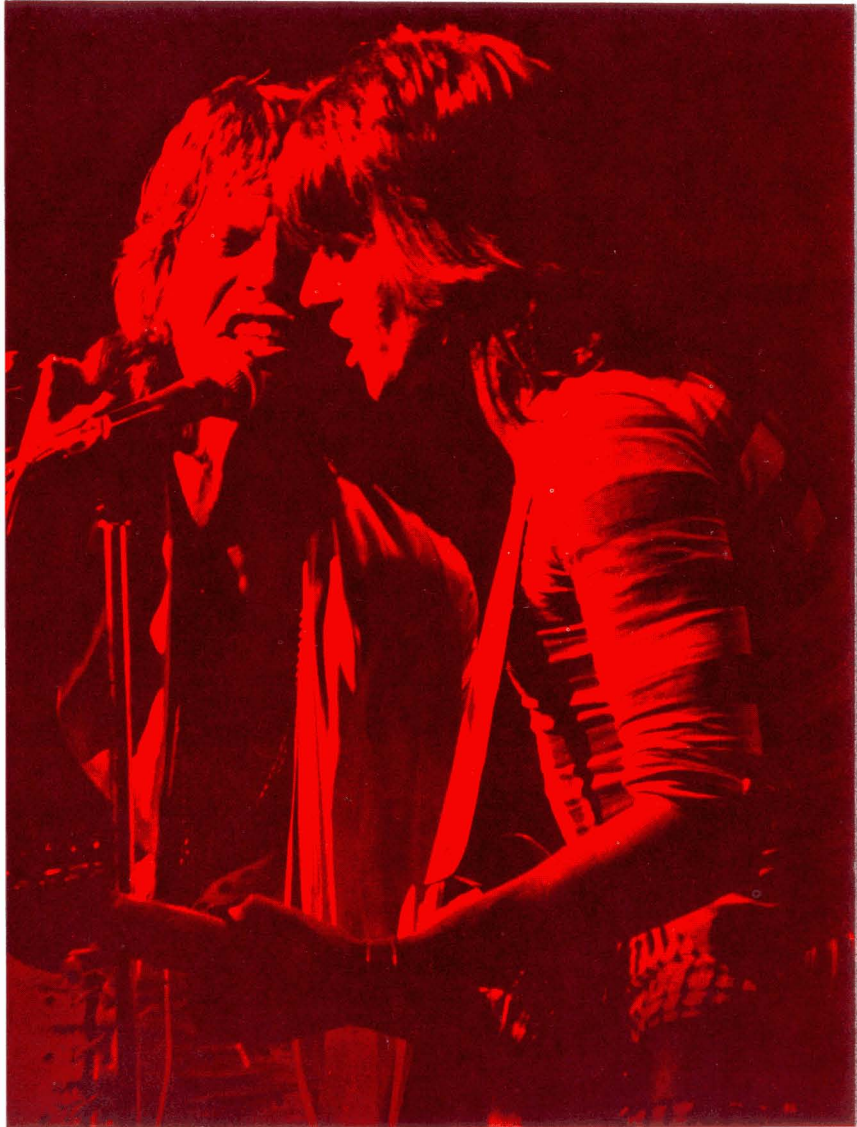
It is often desirable for a group to use a separate microphone for each individual performer. In this case, the following points should be remembered:

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 mentioned before) 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 pre-amplifier with feedback control.





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

SHURE PROFESSIONAL ENTERTAINER
MICROPHONES

MODEL PE52 SPECIFICATIONS

Type: Dynamic, Close-Talking (Differential)

Frequency Response: 100 to 8,000 Hz close-talked (see Figure 1)

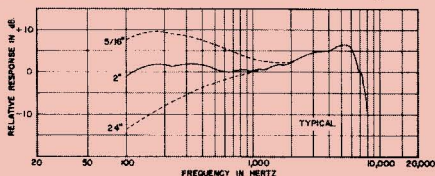


FIGURE 1

Impedance: Dual. High: Microphone impedance is "High" for connection to high-impedance microphone inputs.

Low: Microphone rating impedance is 150 ohms (170 ohms actual) for connection to microphone inputs rated at 19 to 300 ohms.

Wired for high impedance as supplied (see Page 4).

Output Level
(2 in., 1,000 Hz):

Open Circuit
Voltage:

-61 dB (.89 mV) (high impedance)
-81 dB (.09 mV) (low impedance)
(0 dB = 1 volt per microbar)

Power Level:

-59 dB (low impedance)
(0 dB = 1 milliwatt with 10 microbars)

Phasing:

High impedance: Positive pressure on diaphragm produces positive voltage on Pin 1 (see Figure 2).

Low impedance: Positive pressure on diaphragm produces positive voltage on Pin 2.

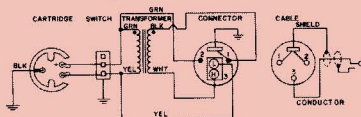


FIGURE 2

Case:

Silver-finish die casting

Switch:

Built-in On-Off switch with lockplate installed in unlocked position. To lock switch in On position, move to On position, loosen screw on lockplate and turn lockplate 180°. Retighten screw.

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 PE52 SPECIFICATIONS (Continued)

Connector:	Equipped with professional three-pin audio connector designed to mate with furnished cable or Cannon XL series, Switchcraft A3 (Q.G.) series or equivalent connectors.
Swivel Adapter:	Adjustable through 90° from vertical to horizontal, to fit 5/8"-27 stand thread.
Cable:	6.1m (20 ft), single conductor, shielded cable, equipped with professional three-socket audio connector on microphone end and 1/4 in. phone plug designed to mate with high-impedance amplifier inputs.
Net Weight:	355 grams (12½ oz) less cable
Packaged Weight:	1.26 kilograms (2 lb 12½ oz)

FURNISHED ACCESSORIES

Swivel Adapter:	Model A25B
Carrying Case:	90A1413

OPTIONAL ACCESSORIES

Desk Stand:	Models S33B, S37A, S39A, S40A
Disconnect Adapter:	Model A45
Line Transformer:	Model A95 Series

REPLACEMENT PARTS

Cartridge:	R92
Switch:	RK57S*
Grille Assembly:	RK180G
Plug Element:	RK169P*
Windscreen:	49A42A
Case Assembly:	RK181C
Cable:	Model C5-X

*Included in Case Assembly RK181C.

AREA CODE 312/866-2200

CABLE SHUREMICRO

SOUND OF THE PROFESSIONALS®



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