



## CONTROLLED MAGNETIC® BASE STATION CITIZENS BAND MICROPHONE

### GENERAL

The Model KCB4 is a pressure-operated CONTROLLED MAGNETIC microphone. It is specifically designed for Citizens Band radio communication applications and provides optimum performance from single-sideband transmitters as well as AM units. The response cuts off sharply below 300 and above 3,000 Hz, with a rising characteristic to 3,000 Hz. This special response characteristic results in optimum speech intelligibility and audio "punch" to cut through noise and interference with minimum "splatter."

Height adjustment for maximum ease of use, a momentary or locking press-to-talk transmit-receive switch for greatest comfort, and a convenient Press-to-Talk or VOX selector switch make the Model KCB4 the choice for unparalleled versatility.

The microphone is not affected by heat or humidity. Its exclusive ARMO-DUR® case is immune to oil, grease, fumes, salt spray, sun, rust, and corrosion—and is outstanding in its ability to resist mechanical shocks and vibration. The "Million-Cycle" leaf-type switch is designed to withstand rigorous operating conditions and constant use.

### Microphone Features:

- Response tailored for single-sideband transmission
- Switch for instantaneous selection of Press-to-Talk or VOX (voice-operated relay control) operation
- Finger-tip control bar (locking or non-locking action) to actuate microphone
- Long-life switch to satisfy severe requirements of communication systems
- Adjustable microphone height
- Sturdy, high impact ARMO-DUR base and microphone case
- Dependability—under all operating conditions

### PRESS-TO-TALK SWITCH OPERATION

The finger-tip control bar can be used as a locking or non-locking switch. To use as a nonlocking switch, simply depress the control bar and release after transmission. To use as a locking switch, depress the control bar and pull it forward. To unlock the switch, move the bar back and release.

### NORMAL-VOX OPERATION

Some Citizens Band transceivers are equipped with a VOX (voice-operated relay control). Model KCB4 has been designed to provide maximum flexibility for VOX (if the transceiver is so equipped) or Press-to-Talk operation. VOX or Press-to-Talk operation may be

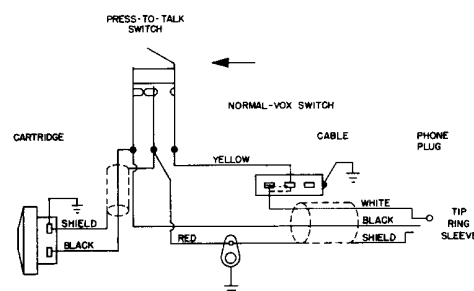


easily selected by the NORMAL-VOX slide switch on the bottom side of the microphone base near the cable entry.

For Press-to-Talk operation of the microphone, the NORMAL-VOX switch should be in the NORMAL position. For VOX operation, the NORMAL-VOX switch should be in the VOX position, and the Press-to-Talk switch must be locked in the On position. If the transceiver does not have VOX facilities, *do not* use the microphone with the NORMAL-VOX switch in the VOX position.

### CONNECTIONS

Model KCB4 is designed for use with transceivers having high-impedance inputs. The BLACK cable lead is the "hot" conductor for the microphone circuit; the WHITE cable lead controls an external relay circuit. The shield is common to both the microphone circuit and the external relay circuit. Phone plug connections are: WHITE lead to tip, BLACK lead to ring, and shield to sleeve. (See Figure 1 for internal wiring diagram of Model KCB4.)



INTERNAL CONNECTIONS  
**FIGURE 1**

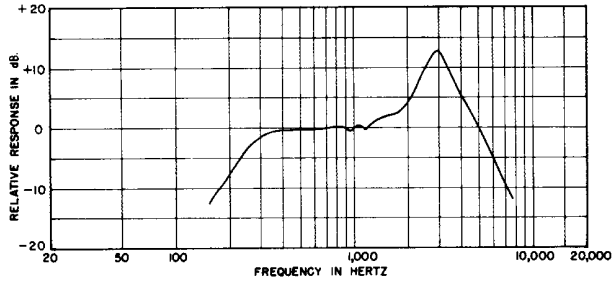
## SPECIFICATIONS

### Type

CONTROLLED MAGNETIC®

### Frequency Response

200 to 6,000 Hz (See Figure 2)



TYPICAL FREQUENCY RESPONSE  
FIGURE 2

### Polar Pattern

Omnidirectional

### Impedance (at 1,000 Hz)

Microphone impedance is "High" for connection to high-impedance microphone inputs

### Load Impedance Range

15 kilohms (minimum) to 100 kilohms

### Output Level (at 1,000 Hz)

Open Circuit Voltage ..... -53.0 dB\* (2.25 mV)  
Loaded with 100,000 ohms .. -54.0 dB  
\*0 dB = 1 volt per microbar

### Switches

Press-to-Talk switch—locking or non-locking operation to actuate microphone and an external relay or control circuit

NORMAL-VOX switch—single-pole double-throw slide switch in microphone base to provide either voice-operated relay control or Press-to-Talk microphone operation

### Cable

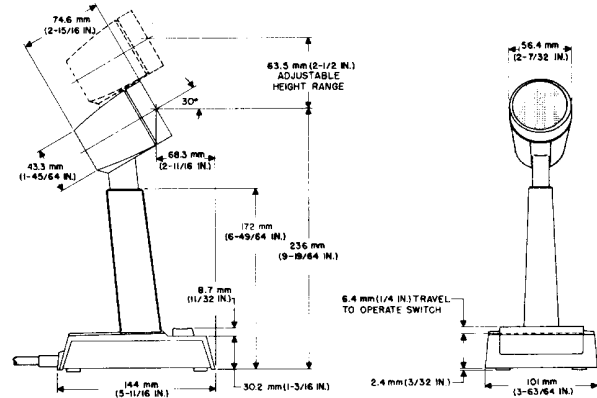
Non-detachable 2.1m (7 ft.), two-conductor shielded plastic-jacketed

### Case

Two-tone gray ARMO-DUR®

## Dimensions

See Figure 3



OVERALL DIMENSIONS  
FIGURE 3

## Net Weight

680 grams (1½ lb)

## Shipping Weight

964 grams (2¼ lb)

## REPLACEMENT PARTS

Cartridge .....	R5R
Cable .....	90A2593
Screen and Grille Assembly .....	RK135G
Press-to-Talk Switch .....	90A946

## FULL ONE YEAR WARRANTY

Shure Brothers Incorporated ("Shure"), 222 Hartrey Avenue, Evanston, Illinois 60204, warrants to the owner of this product that it will be free, in normal use, of any defects in workmanship and materials for a period of one year from date of purchase. You should retain proof of date of purchase. Shure is not liable for any consequential damages. If this Shure product has any defects as described above, carefully repack the unit and return it prepaid to the above address. If you are not in the United States, return the unit to your dealer or authorized Service Center for repair. The unit will be repaired or replaced and returned to you promptly, and if it cannot be repaired or replaced, you may elect to receive a refund.