

CONTROLLED MAGNETIC[®] COMMUNICATIONS MICROPHONES

GENERAL

The Shure 401 Series hand-held communications microphones are compact size, CONTROLLED MAGNETIC[®] units designed for clear, crisp, natural voice response of high intelligibility.

Microphone Features:

- Frequency response from 200 to 4,000 Hz especially suitable for voice communications use
- Small, light and compact case, fits comfortably and firmly in the palm of the hand
- Extremely sturdy, high impact, ARMO-DUR[®] case, lighter and stronger than die-cast metal, comfortable to the touch in hot or cold weather
- Heavy-duty, long-life, push-to-talk switch
- Durable rubber-jacketed coil cable
- Rugged and dependable under all operating conditions

APPLICATIONS

The 401 Series microphones are especially recommended for all types of outdoor-indoor communication activity: in mobile and fixed station use (as in police, fire, utility, forestry, and transportation services), and in commercial and industrial applications—including radiotelephone, amateur radio, and similar uses. The microphones are also suitable for indoor and outdoor public address.

The 401A is a high-impedance microphone with high output level, making it suitable for connection to high-impedance amplifier inputs when cable lengths of 15.2m (50 ft) or less are needed.

The 401B is a low-impedance microphone and is recommended when long cable lengths are required or under conditions where severe hum pickup may exist. The 401B can be connected directly to the input of a low-impedance amplifier, or a Shure A95 Series Line Matching Transformer can be used for connecting the 401B to the input of a high-impedance amplifier (additional connector required).

MOUNTING

A mounting bracket for permanent installation is supplied with each microphone. (See Figure 1)

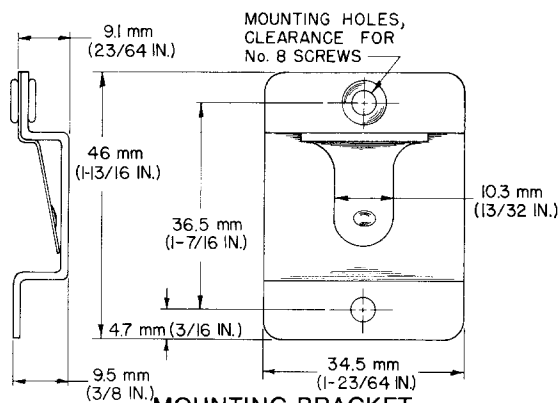
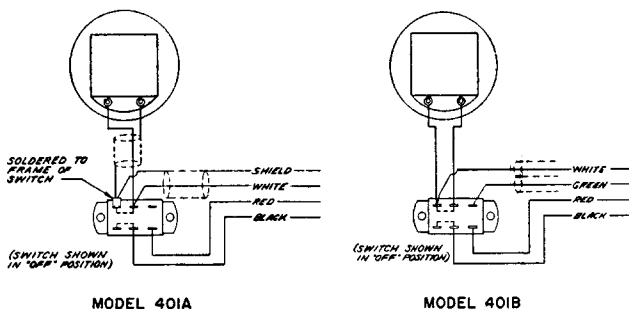


FIGURE 1



CONNECTIONS

The internal switch connections of the 401A and 401B are shown in Figure 2.



INTERNAL CONNECTIONS

FIGURE 2

The 401A is a high-impedance microphone with a three-conductor, coiled-cord cable (one conductor shielded), and a double-pole, double-throw switch to control the microphone circuit and an external relay or switching circuit. The WHITE lead is the "hot" conductor for connection to the microphone circuit ground. The RED and BLACK leads control the relay or switching circuit.

The 401B is a low-impedance microphone with a four-conductor, coiled-cord cable (two conductors shielded), and a double-pole double-throw switch to control the microphone circuit and an external relay or switching circuit. The GREEN and WHITE leads are the "hot" conductors for balanced-line connection to the microphone circuit; the shield is connected to the microphone circuit ground. The RED and BLACK leads control the relay or switching circuit.

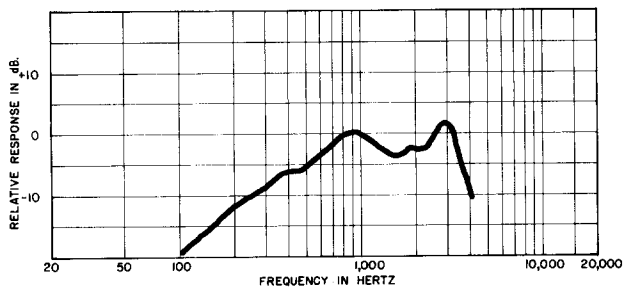
OPERATION

No special precautions beyond ordinary care are necessary in operation of 401 microphones. They will function very satisfactorily under all ordinary conditions of humidity, heat, and cold. Dropping the microphones or other severe mechanical shocks should be avoided.

SPECIFICATIONS

Type
CONTROLLED MAGNETIC®

Frequency Response
200 to 4,000 Hz (see Figure 3)



TYPICAL FREQUENCY RESPONSE
FIGURE 3

Impedance (at 1,000 Hz)
401A—Microphone impedance is "High"
401B—Microphone rating impedance is 150 ohms (200 ohms actual)

Load Impedance Range

	MINIMUM	RECOMMENDED
401A	15 kilohms	100 kilohms
401B	150 ohms	1,000 ohms

Output Level (at 1,000 Hz)

	401A	401B
Open Circuit Voltage*	-13.0 dB (224 mV)	-31.5 dB (26.6 mV)
Power Level**		-53.0 dB

*0 dB = 1 volt per 100 microbars
**0 dB = 1 milliwatt per 10 microbars

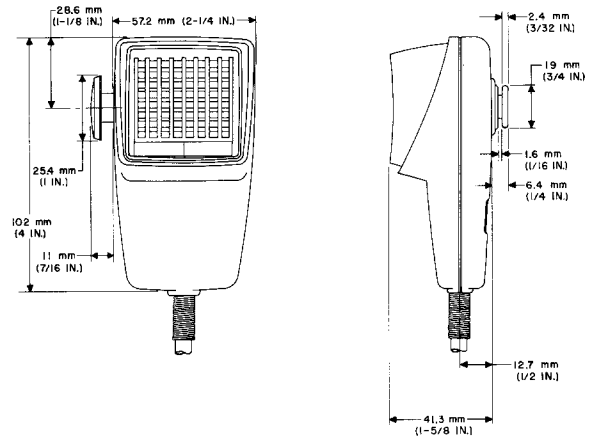
Switch
Built in, push-to-talk, double-pole double-throw, to control microphone circuit and relay circuit

Cable
401A—1.5m (5 ft) three-conductor, one conductor shielded, attached, coiled cable
401B—1.8m (6 ft) four-conductor, two conductors shielded, attached, coiled cable

Mounting Bracket
Supplied (see Figure 1)

Case
Blue, high-impact ARMO-DUR®

Dimensions
See Figure 4



OVERALL DIMENSIONS
FIGURE 4

Net Weight
340 grams (12 oz)

Packaged Weight
510 grams (1 lb, 2 oz)

FURNISHED ACCESSORY
Mounting Bracket (3 in replacement kit) RK6MB

OPTIONAL ACCESSORY
Line Matching Transformer A95 Series

REPLACEMENT PARTS

	401A	401B
Cartridge	R5D	R5E
Cable	70A436*	70A481
On-Off Switch	RK28H	RK28H
Switch Button	65A189A	65A189A

*44A115 Spring not included.