



Transistorized Dynamic Hand-Held Microphone

The Shure Model 527C is a dynamic hand-held communications microphone for use in a variety of mobile and fixed-station applications, including police, transportation, amateur radio and similar applications. The 527C offers extremely low sensitivity to hum pickup and low susceptibility to radio-frequency interference. A built-in solid state amplifier permits the use of up to 30 m (100 ft) of unshielded cable. The modular construction of the 527C allows the cartridge, switch, and cable to be replaced in a matter of minutes, if necessary. The 527C fits naturally and comfortably in the hand and is not adversely affected by heat or humidity. The ARMO-DUR® case is immune to oil, grease, fumes, salt spray, sun, rust and corrosion, and is outstanding in its ability to withstand mechanical shocks and vibration.

FEATURES

- Built-in amplifier
- Frequency response from 300 to 5,000 Hz, tailored for voice communications
- Low sensitivity to hum
- Low susceptibility to radio-frequency interference
- "Million-Cycle" leaf-type switch stands up under severe operating conditions and constant use
- High-impact ARMO-DUR® case—lighter and stronger than die-cast metal, comfortable to the touch in hot or cold weather
- Rugged and dependable under all operating conditions
- Long-life neoprene-jacketed coil cord

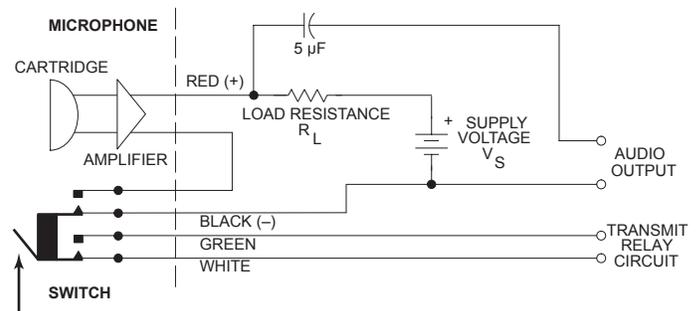
CONNECTIONS

A typical external operating circuit is shown in Figure 1. Circuit parameters such as supply voltage, load, current and sensitivity may be selected using the curves shown in Figures 3 and 4. If, for instance, the available supply voltage is 16 Vdc and a current drain of 4 mA is desired, a load resistance (R_L) of 2.2K Ω is necessary. With a supply voltage of 16 Vdc and a load resistance of 2.2K Ω , the relative sensitivity is approximately +8 dB, or -3 dB output level referenced to the specified output level of -11 dB with 10 Vdc and a 470 Ω load.

WIRE COLOR	FUNCTION
BLACK	AUDIO GROUND
RED	AUDIO
GREEN	RELAY CIRCUIT
WHITE	

CABLE-TO-CONNECTOR WIRING

TABLE 1



TYPICAL OPERATING CIRCUIT

FIGURE 1

CAUTION:

To avoid damage to the 527C, observe the following:

- Supply voltage (V) must be between 4 and 35 Vdc. Voltages exceeding 35 Vdc may substantially reduce the life of the microphone. Voltages below 4 Vdc are not sufficient for microphone amplifier operation (although no damage will occur).
- Do not exceed the maximum allowable current (dissipation limit) for the various combinations of supply voltages and load resistances.
- Maintain proper polarity for the red (+) and black (-) leads as shown in Figure 1.

SPECIFICATIONS

Type

Dynamic (with transistor preamplifier)

Frequency Response

300 to 5,000 Hz (see Figure 2)

Sensitivity (at 1,000 Hz)

Open Circuit Voltage..... -31 dBV/Pascal (28 mV)
(1 Pascal = 94 dB SPL)

Load Impedance Range

220 to 2,200 ohms (see Figures 3 and 4)

Maximum Signal (with 10 Vdc, 470Ω load)

135 dB SPL at 1,000 Hz produces +10 dBV (3.2 V) at 10% THD

DC Supply Voltage and Current

4 to 35 Vdc (see Figure 3)

Switch

Double-pole, single-throw, leaf-type

Cable

Non-detachable, 1.8 m (6 ft), 4-conductor, neoprene-jacketed coil cord

Case

Black high-impact ARMO-DUR®

Dimensions

See Figure 5

Net Weight

342 grams (12 oz)

Packaged Weight

483 grams (17 oz)

FURNISHED ACCESSORY

Mounting Bracket* RK6MB

*Three in replacement kit.

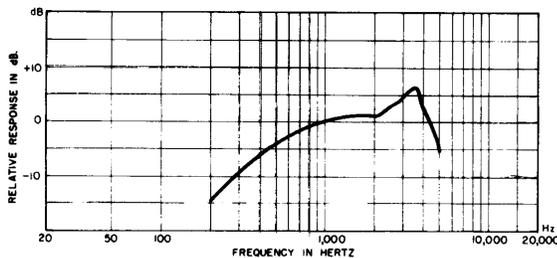
REPLACEMENT PARTS

Cartridge R132

Switch Assembly RK319C

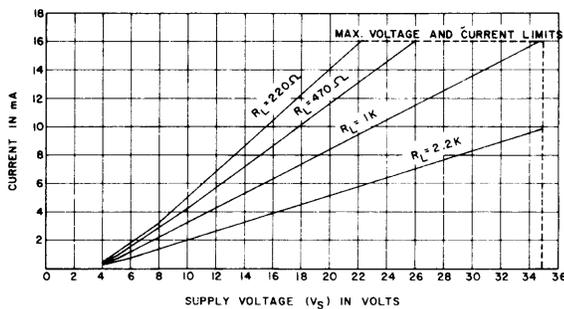
Cable C30C

For additional technical assistance, phone Shure at 1-847-600-8440. In Europe, phone 49-7131-72140.



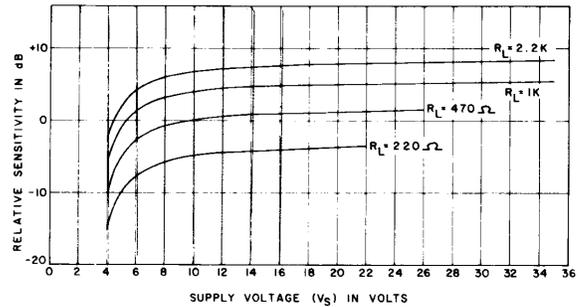
TYPICAL FREQUENCY RESPONSE

FIGURE 2



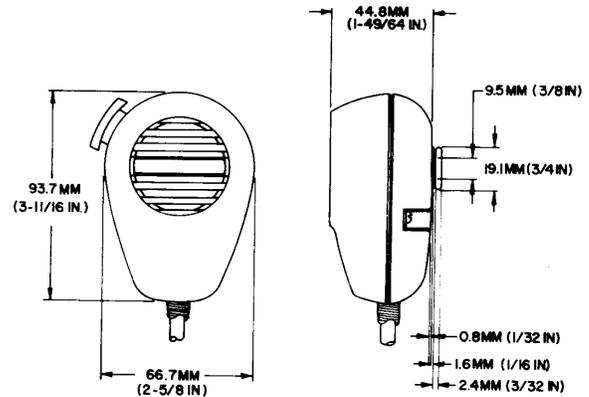
SUPPLY CURRENT AS A FUNCTION OF SUPPLY VOLTAGE AND LOAD RESISTANCE

FIGURE 3



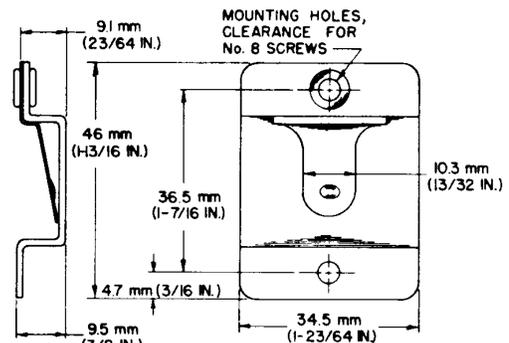
SENSITIVITY AS A FUNCTION OF SUPPLY VOLTAGE AND LOAD

FIGURE 4



OVERALL MICROPHONE DIMENSIONS

FIGURE 5



MOUNTING BRACKET DIMENSIONS

FIGURE 6



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