



INSTRUCTIONS

**COMPRESSOR/GRAPHIC EQUALIZER
DESK TOP MICROPHONE**

SM-10

INTRODUCTION

Thank you for purchasing an optional SM-10 desk top microphone for your ICOM transceiver. It was designed for base station use, and consists of an electret condenser microphone element with a compressor amplifier, plus tunable equalizer for maximum control of the audio characteristics of your transmitted signal. The SM-10 is highly sensitive and produces clear, crisp audio.

To fully enjoy the benefits of your high-performance transceiver with the SM-10, please read these instructions thoroughly prior to operation.

DESCRIPTION

■ GRAPHIC EQUALIZER AMPLIFIER INCLUDED

Since four individual equalizer amplifiers are installed in the SM-10, transmit audio can be adjusted for different applications. The higher frequencies may be accentuated when contacting remote DX stations to give your signal greater punch, or the lower frequencies may be emphasized to produce softer, more pleasant audio when engaged in casual conversations with local stations.

■ HIGH-QUALITY COMPRESSOR AMPLIFIER INCLUDED

Transmit output power is constant while using the compressor even if the voice level fluctuates over a wide range. In addition, the compression level may be set to one of three different values for maximum operating flexibility.

■ USES UNI-DIRECTIONAL MICROPHONE ELEMENT

Through use of a uni-directional microphone, a high audio-to-noise ratio is obtained which effectively suppresses background noise.

■ LEVEL METER AND OUTPUT LEVEL CONTROL INCLUDED

The output level can be monitored with the VU meter on the SM-10 top panel, and the output adjusted continuously with the OUTPUT LEVEL control.

■ UP/DOWN FUNCTION SWITCHES

Frequency shifts are easy with the convenient UP/DOWN switches.

SPECIFICATIONS

1. GENERAL

- Current drain (13.8V DC):
EQUALIZER ON Approx. 15mA
EQUALIZER OFF Approx. 8mA
- Dimensions:
230mm(W) × 110mm(D) × 30mm(H)
- Weight:
1.9kg

2. MICROPHONE CIRCUIT

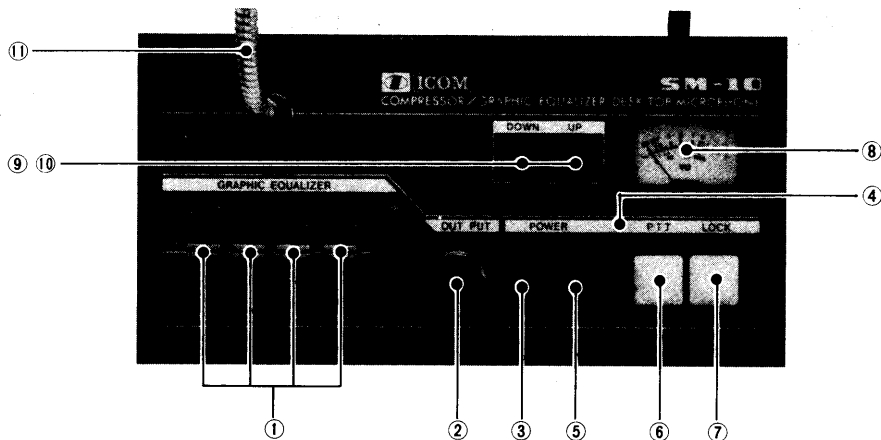
- Microphone:
Broadband electret condenser
- Number of semiconductors:
Transistors 13
Diodes 5
- Type of microphone:
Uni-directional
- Output impedance:
100Ω
- Output level:
0 ~ 30mV
- Compression level:
HIGH 45dB
MED 35dB
LOW 10dB

3. EQUALIZER CIRCUIT

- Number of semiconductors:
ICs 3
- Signal-to-noise ratio:
80dB
- Distortion:
0.05%
- Equalizer:
4 stages(±12dB)

NOTE: The SM-10 may be used with the following ICOM transceivers:

IC-761, IC-751/A, IC-745, IC-735, IC-575A,
IC-275A/E/H, IC-271A/E/H, IC-28A/E/H,
IC-27A/E/H, IC-375A, IC-38A, IC-37A,
IC-475A/E, IC-471A/E, IC-48A/E, IC-47A/E,
IC-45A/E, IC-1271A/E, IC-1200A/E, IC-120,
IC-3200A/E, IC-900A/E



CONTROL FUNCTIONS

① Graphic Equalizer Controls

The graphic equalizer consists of four stages with center frequencies of 250, 600, 1200 and 2400Hz. Adjust the controls in the positive(+) direction to emphasize your voice at the respective frequencies. For example, to increase the high frequency components of a bassy voice, move the 1200 and 2400Hz controls in the + direction.

② Output Level Control

Rotate this control clockwise to increase the output level. Adjust for the correct output (refer to item 8).

③ Compressor and Equalizer On/Off Switch

Slide the switch to COMP to apply power to the compressor circuit. Slide the switch to EQUALIZER ON to activate the GRAPHIC EQUALIZER controls.

④ Power Indicator

The red LED lights when the POWER switch is turned ON. In addition, the LED blinks in the transmit condition when the PTT or LOCK switches are depressed.

⑤ Compression Level Switch

Three different values of speech compression can be selected.

HIGH: The compressor amplifier gain is approximately 45dB. Select this position for soft voices or while speaking far away from the microphone. Note that background noise may also be picked up when using this higher gain position.

MED: The compressor amplifier gain is approximately 35dB. This is the normal operating position. Maintain a distance of about 10cm(4 inches) from the microphone while speaking.

LOW: The compressor amplifier gain is approximately 10dB. The compression action is only noticeable while speaking with a loud voice. Normal voice levels do not trigger the compressor.

⑥ PTT Switch

To transmit, push this switch and speak into the microphone. The red LED power indicator blinks while this switch is held down. Release the switch to return to the receive mode.

⑦ Lock Switch

Push this switch once to lock the transmitter in the transmit mode. The red LED power indicator blinks while in the transmit mode. Push the PTT switch to release the lock function and return to the receive mode.

⑧ Output Level Indicator

This meter monitors the output level from the SM-10. Adjust the OUTPUT LEVEL control for a 0dB meter reading on the top scale.

⑨ Up Switch

⑩ Down Switch

Each push increases or decreases the operating frequency. Holding the switch down causes the transceiver to step continuously through frequencies.

⑪ Microphone Element

The SM-10 uses a sensitive, uni-directional condenser microphone element to produce the clearest audio signal possible.

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