



POWER-MITE PMI & PM2

Instruction Sheet No. 6

TEN-TEC, Inc. HIGHWAY 411 EAST SEVIERVILLE, TENNESSEE 37862 (615) 453-7172

DESCRIPTION

The Power-Mite I and II contain all the necessary features for reception and transmission, either crystal or transceiver operation, in the 3.5-4.0 MHz and 7.0-7.3 MHz amateur bands.

MX-1 RECEIVER MODULE: The receiver module is a synchrodyne converter-detector. The received frequency is converted directly to audio. Undesired signals are eliminated.

AA-1 AUDIO MODULE: An IC audio amplifier provides the necessary gain to bring the detected signal to headphone level.

VO-1 VARIABLE OSCILLATOR MODULE: The oscillator-buffer, used with the receiver, can be connected to the transmitter for transceiver operation on either 80 or 40 meters.

TX-1 TRANSMITTER MODULE: The transmitter is a crystal oscillator-power amplifier running 2 watts input.

SPECIFICATIONS

Frequency range:	BAND	RANGE
	80	3.475-4.025
	40	6.975-7.325

Size: 4" high, 10-1/8" wide, 7-1/2" deep. Shipping weight: 4 lbs.
Finish: Baked enamel
Power: 12 volts 20 ma. on receive, 300 ma. on transmit
Semiconductor devices: 1-Dual gate MOSFET
1-Integrated circuit

INSTALLATION

UNPACKING

Open carton carefully to prevent damage. Remove packing material and equipment from the carton. Check all knobs, switches, etc. to see that they operate properly. Any claims for damage should be filed promptly with the transportation company.

EXTERNAL CONNECTIONS

ANTENNA: The transceiver is designed to operate into a 50 ohm unbalanced transmission line. Many of the popular beam and dipole antennas using 50-75 ohm transmission lines will give excellent results. Station antennas terminating in other than 50-75 ohms will require an impedance matching device similar to the model AC5 antenna tuner.

C A U T I O N

Do not subject the antenna to RF exceeding 10 volts. Excessive RF may be encountered in conjunction with high-power transmitters if the receiving antenna is not disconnected and/or shorted during transmitting.

OPERATION

Set the front panel controls	follows:
VOL -----	Mid rotation (12 o'clock)
REC -----	Mid rotation (12 o'clock)
80, 40 -----	80
ON-OFF -----	OFF
TRANS-RECV -----	RECV
80-40, 15 -----	80-40 (both switches)
OSC -----	2 o'clock
AMP -----	
XTAL-VFO -----	

FOR CRYSTAL OPERATION

For 80 Meter Operation

Connect a 12 volts 300 ma. DC source to the power socket on the rear of the transceiver. Attach headphones, key and antenna. Turn the power switch on, tune in a signal and peak the REC control for maximum sensitivity. Plug an 80 meter crystal in the socket. Place the TRANS-RECV switch in TRANS and close the key. Tune the OSC control for maximum deflection of the meter. Tune the AMP control for a dip in the meter. The OSC and AMP controls should be approximately at 2 o'clock for correct operation. It is possible to find a false dip in the final current toward 11

o'clock which would indicate the power amplifier is doubling to 40 meters. Listen to the signal with the receiver to insure correct operation and keying. The OSC control should be set toward

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