HAMTRONICS® KIT TO MODIFY TA51 & TA451 FOR 9600 BAUD DATA OPERATION WITH MO-96 MODEM

GENERAL INFORMATION.

This sheet provides information on modifications to the vhf and uhf transmitters for use with the MO-96 Packet Radio Networking Modem for 9600 baud fsk data transmission. It is intended to give specific information on parts changes and alignment details peculiar to these versions of the transmitter, and it should be used along with information in the regular manuals for the transmitter and receiver. General system information, interconnections, etc. are contained in the MO-96 manual along with information on construction and alignment of the M0-96 unit.

PARTS INCLUDED.

1 each:
1 uF electrolytic capacitor
MV2111 varicap diode
6.8K resistor
47K resistor

TA-451 TRANSMITTER MODIFICATIONS.

If you are building a kit, please mark the parts list with the following changes before beginning construction and use the attached parts location view in place of the one which comes with the kit. If you ordered a wired unit, these changes have already been made.

a. Remove C12, and C13 from the standard unit, and replace C12 with varicap diode MV2111, orienting with anode to ground. (If you have any trouble reading the diode symbol, use an ohmmeter to determine polarity.)

b. Solder one lead of a 47K resistor to one "hot" pad normally used by C13. Leave the other end free and trim it to about 1/4 inch to allow a wire to be soldered to it as a connection from the MO-96 or other source of data used to modulate the transmitter.

c. Change value of C60 (TA51) or C18 (TA451) to 1 uF. Observe polarity.

d. Remove R23 (TA51) or R17 (TA451) to break the normal audio path to the modulator.

e. Remove C21 (TA51) or C23 (TA451). It is not used.

f. If voice audio will not be used, set deviation pot fully counterclockwise. This is R20 (TA51) or R15 (TA451).

ALIGNMENT.

Refer to the manuals for the exciter and the MO-96 Modem for proper alignment procedures. It is important, if you align the units without connecting to the modem, that proper bias voltage must be applied to the varicap diode circuits in the exciter or off-frequency operation will result. For simple testing purposes, a +4Vdc bias can be connected until final frequency alignment is required.

