



TELEWAVE, INC.



DUAL ISOLATOR TUNING T-1060, T-1560, T-2260, T-3560, T-4560, T-7560, T-8660

Verify that the isolator is manufactured to operate in the desired frequency band. Ferrite isolators have a tuning range of about +/- 6 MHz from the original center frequency. The initial tuning should be done at the lowest power available to prevent damage to the transmitter or cavities during the tuning procedure. The transmitter must be turned off to prevent damage to the output stages whenever connections are changed.

Install the isolator in its permanent mounting position. Connect the cable from the transmitter directly to the isolator port A (Fig. 1). Remove the snap plugs from adjustment holes #1, #2, #3 and #4. Adjustment #5 & #6 are factory set and should not be changed. Connect a terminating wattmeter, or a wattmeter with a load attached, to the output port B. Tune adjustment #1, #2, #3, & #4 for a maximum reading.

Special Note - Models T-7560 and T-8660 do not have a hole #3. (Fig.3) This is not required above 700 MHz. Models in all bands may also have reversed connections for cable routing. (Fig. 4) Port numbers always have the same function, regardless of location.

Remove the wattmeter and the dummy load and connect the antenna to the isolator. Remove the supplied termination from port C and install the wattmeter and termination in its place. Now tune adjustment #2 & #3 for minimum reading on the wattmeter. Retune these adjustments several times to ensure a minimum reading. Remove the wattmeter and termination, and reconnect the original termination to port C. Next, remove the termination from port D and install the wattmeter & load in its place. Now tune adjustment #4 for minimum reading on the wattmeter.

Finally, tune the cavity* (Fig. 2) for a minimum reading through the wattmeter. This will establish the highest Q of the cavity and maximum power to the antenna. Adjustment #4 may be "touched up" at this time. Adjust for a minimum reading on the wattmeter. If the reading is high or the load becomes hot, problems may exist with the antenna or transmission line. Further testing should be done. When testing / tuning is complete, remove the wattmeter and reconnect the supplied termination to port D.

***When a cavity is under power, high RF currents and voltages exist on the internal surfaces. Tuning under full TX power may damage the cavity. If there are no other options, use the lowest power available with minimum tuning adjustments.**

FIGURE 1

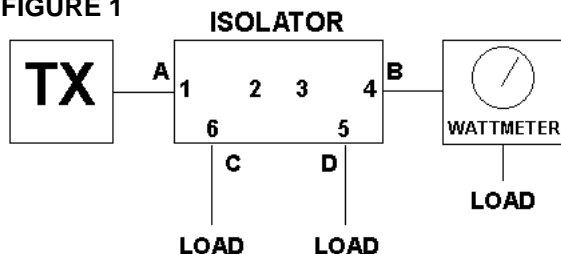


FIGURE 3

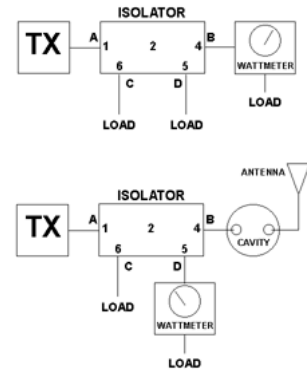


FIGURE 2

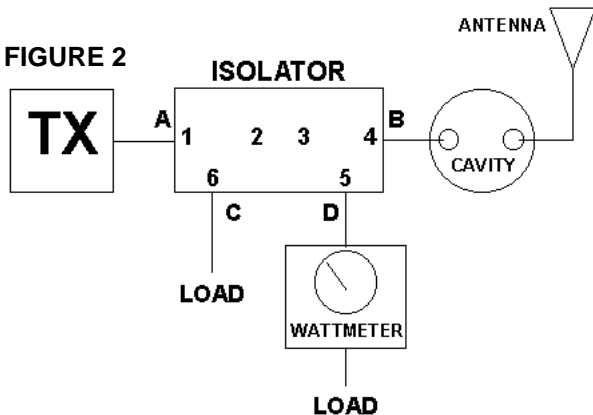
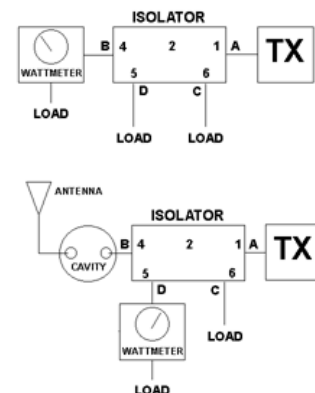


FIGURE 4



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