

CAUTION

READ THIS PROCEDURE BEFORE INSTALLING THIS UNIT IN A WORKING SYSTEM

Tuning Procedures for MA-7R011 & MA-7R021 Isolators

Initial tuning of this unit must be done at power levels of 10 watts or less. Severe damage can result to untuned units by the application of power in excess of this limit.

1. Tuning for Insertion Loss

Insert unit in system as shown in Fig. 2. Bring power up to 10 watts and using a tuning tool adjust in rotation, capacitors 1, 2, 3 and 4 for a maximum reading on watt meter. Start with capacitor 1 and work thru 4. Do not turn any one capacitor more than 2 revolutions each time thru the procedure, as a false indication may result if one capacitor is greatly mistuned in relation to the others. It may be necessary to repeat this procedure 2 or 3 times to obtain lowest possible insertion loss. The unit should now be tuned for insertion loss.

2. Tuning for Isolation

Insert unit in system as shown in Fig. 3. Bring power up to 10 watts. Remove screw-on Termination #1 and tune Capacitor 6 for a minimum reading on the watt meter. If available, using a 1 watt head in the meter after initial tuning allows for greater resolution in the adjustment. Replace screw-on Termination #1 and remove Termination #2. Adjust Capacitor #5 for minimum reading as before. The unit is now tuned for isolation.

3. Step 2 should tune isolator for adequate performance for most applications; however, if ultimate isolation performance is required, a final tuning using a power meter or receiver is in order. This step is performed only after Steps 1 and 2 are completed. Replace watt meter and antenna of Fig. 3 with power meter. Be sure range switch is on least sensitive scale and that there is at least a 10 db pad in front of the head. Bring power slowly up to 10 watts. Switch ranges on meter if required until a reading is observed. CAREFULLY adjust first capacitor 5 then 6 for minimum reading as observed by switching to more and more sensitive meter ranges. Unit is now tuned for maximum possible isolation.

