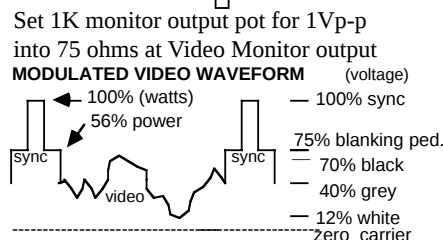
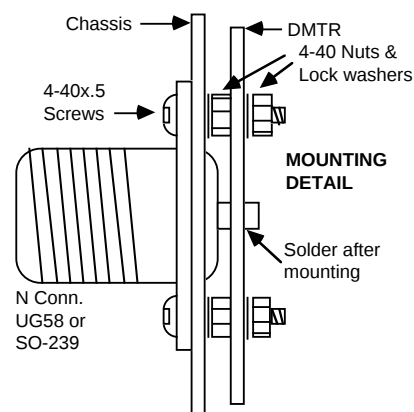


The DMTR module is designed for T/R switching ATV transceivers in the 70 cm band with RF levels in the range of 1 to 15 watts. The meter output reads relative power which aids in blanking pedestal set up when the video input is removed. A +12 to 14 Vdc 5A power relay switches the positive voltage between the downconverter in receive and the transmitter modules. The 3 relays are switched by grounding one side of the coils through a toggle or mic push to talk switch.

Refer to the board pictorial layout for interconnections. Prewire all the leads before mounting the board. The wires should enter from the component side and clipped close to the board after soldering. Check all + leads for shorts and only apply voltage, when ready, through a fuse (3 Amp for the 10 Watt basic module system using the PA5). The module mounts directly to a flange type N (UG58) (preferred) or UHF (SO-239) coax jack. Note the sketch for mounting. Drill and punch a 5/8" diameter hole for the selected RF jack in your chassis and then drill and debur the four .140" diameter holes for the 4-40x.5" screws. Fasten the jack on the chassis with the screws, internal tooth lockwashers, and nuts. Then fasten the DMTR board with more lockwashers and nuts. Solder the center pin of the jack to the board. Carefully connect the small RG174 50 ohm coax between the DMTR module solder pads, transmitter board, and downconverter board. The center conductor should not be out of the braid for more than 1/4". Fold back the braid on the insulation and solder directly to the ground plane.

TUNE UP: Connect a negative DC Volt meter to the TP output. Connect an antenna or dummy load that has no more than 10% reflected power. Key down time should not exceed 20 seconds per adjustment to protect the final and modulator. With no video plugged into the ATV transmitter, key it up and set the bias pedestal pot on the modulator for full output. Set the meter voltage range to read at least half scale. Carefully peak the variable cap, C. Once the cap is set you do not have to adjust it again. Reset the bias pedestal pot on the modulator for a reading that is 75% of maximum (voltage times .75). This will give the proper video to sync ratio (voltage) with the blanking pedestal at 60% of full sync tip power. Now adjust the 1K monitor pot for 1 volt peak to peak at the monitor output. The 4.5 MHz sound trap is preset and will reduce the sound subcarrier at the monitor output around 20DB. This is for those monitors that do not have an 3.58 MHz color bandpass filtering - results in the sound subcarrier capturing out the color processors.

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Plug in male type N cable connector -UG21 - before soldering center conductor to keep UG58 socket centered while heating.