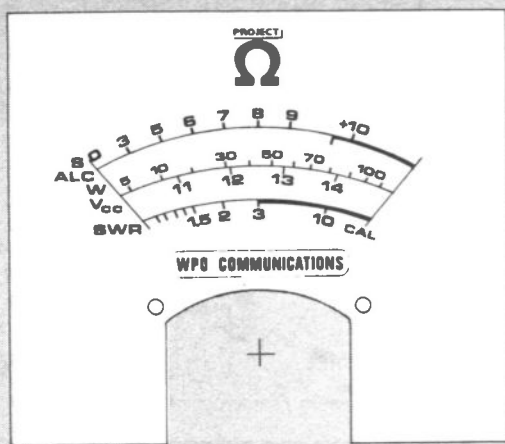


Fig. 2 The replacement scale for the front panel meter (actual size).



rear panel and connected up to the PA (or another source of power RF). It is mounted using a 6 BA bolt and nuts already in place from constructing the PA, and two further 6 BA 12mm long 6 BA bolt/nut combinations. The output from the low pass filters goes to the input of the accessory PCB — the lead being taken through the side of the internal screen via a grommet which is mounted in one of the holes originally intended for a feedthrough. The output from the PCB then goes back to the SO239 panel socket via another grommet in the remaining feedthrough hole.

For accurate setting up of the power metering function, you will require another power meter with known calibration and a 100W dummy load. The accuracy of the Omega metering circuit should be $\pm 15\%$, or better, after calibration — depending on the meter it is calibrated against.

It will assist working on the PCB if the various leads between the PCB and the PA compartment, are long enough to allow the rear panel to be laid flat on the bench. A temporary heavy earth lead should be connected between the rear panel and the main case chassis.

1. Connect the +ve terminal of the meter to pin C on the PCB, and the -ve terminal via RV1 front panel control (100k — CAL SWR) to earth — set this control to about $\frac{1}{2}$ travel. Apply power and run about 50W of RF into the dummy load on 28MHz. Carefully adjust TC1 for minimum reading on the meter, adjusting the front panel control as necessary for a measurable reading. Then reconnect the meter +ve to pin D, and set RV1 front panel control so that the meter

reads exactly FSD.

2. Without changing the RF power output, or adjusting any controls, change the coaxial input connection of the accessory PCB over to the output, and vice versa. Reapply power and adjust preset VR1 on the PCB so that the meter reads exactly FSD. This calibrates the SWR function. Replace the coaxial leads in their correct positions!

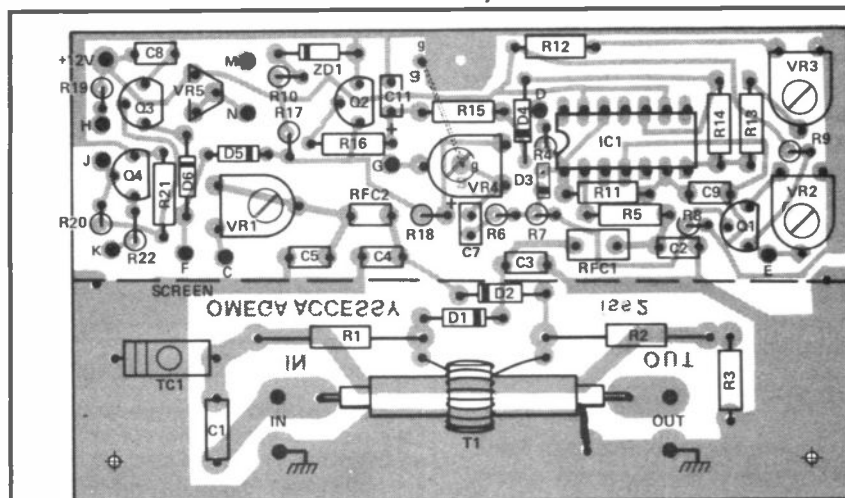
3. The power scale can be

calibrated if a suitable power meter is to hand. Set up on 14MHz and connect the meter +ve terminal to pin E, with -ve to earth. Using an RF power output that will give approximately mid-scale reading on the Omega power meter, and that will correspond with a calibration point on the external meter, set preset VR2 so that the meters agree.

4. The ALC function is set up as follows. Connect pin F to the slider of the drive control, pin G to the meter +ve, and meter -ve to earth. You will need to know which of the bands on your transceiver is the most inefficient ie which band requires most current to the PA for a given power output. Once you have established this, set the PA output for exactly 100W on this band, then adjust VR3 so that the ALC meter indication just starts to drop from FSD.

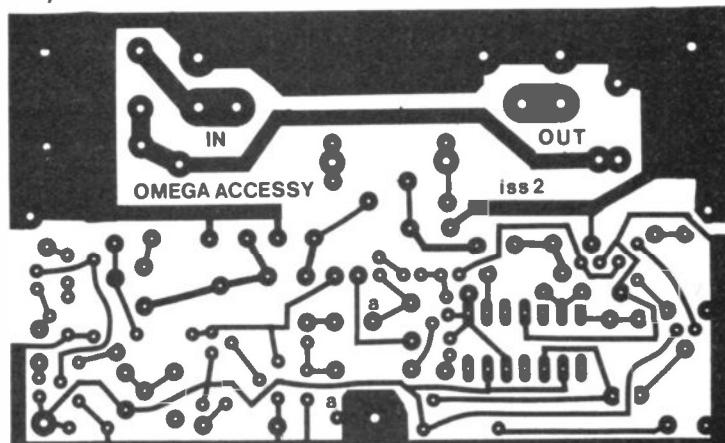
In use, never allow the ALC meter to drop past the indicated safety zone of $\frac{1}{4}$ FSD in any mode.

5. Thermal trip. The sensor mounts



Top: overlay diagram of the Omega accessory board.

NOTE: LINK g-g ON UNDERSIDE
C6 & C10 ARE MOUNTED ON UNDERSIDE



Bottom: Foil pattern, etched area shown in white.