

later mounting. The PCB sits on two 6BA half-nuts as spacers – use countersunk screws for mounting so that the heads are flush with the underside of the box.

The AF processor PCB is mounted under the lid – it will be necessary to use nuts as spacers so that the PCB just clears the raised edges on the lid underside. With both PCBs in place, screw in the various connectors and feed-throughs, and then wire up following the diagram. Leave the leads long enough to make it possible to lift up the lid later for access without breaking anything. Both

be some variation in gain from the PA across the whole 9 bands, carry out this adjustment on the band which requires most drive. Then, for the other bands, the drive control should be adjusted by whistling up the unit while monitoring the PA output via its metering circuit and adjusting the drive level for a reduction of about 5% of the reading on peaks. The audio processor will then take care of variations in speech level.

Without test oscillators, adjust the PA following a similar procedure, but setting the processor output level to the point where the monitor meter

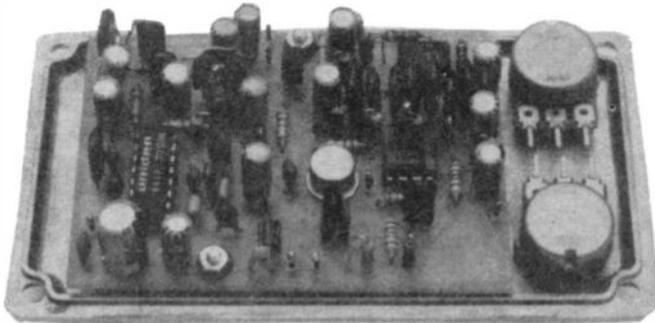
just reaches a maximum before limiting out.

### Mode Switch

The point has now come where we need to describe the switching necessary to change between various modes. This is achieved using 5 poles of 6 way switching with a RS miniature switch mechanism and wafers. Other switches can be used, but the front-to-back depth is critical when mounting in the intended cabinet. One spare wafer is left, which may be required at a later stage. All switching is of DC voltages only.

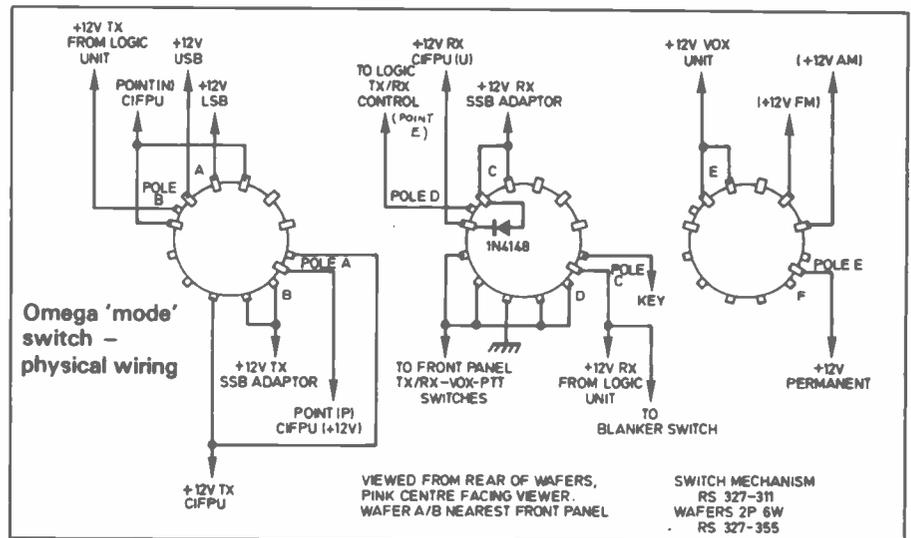
The switch allows selection of CW/USB/LSB/TUNE/FM and AM modes, which are the intended operation of OMEGA. If you have need for something else, such as RTTY, this can be selected by re-allocating one of these positions for the mode. For instance, if AM is not to be used, then an RTTY function can be achieved by wiring the AM position for either USB

AF PCB



the output level and set-limit presets are accessible by lifting the lid. The VOX delay pot +12V end is connected to the +12V VOX feed-through or to the 'Mode' Switch.

If it hasn't been done already, the operation of the unit should now be checked out in conjunction with the other modules. It should be possible to drive the PA to about 3 watts PEP on all bands. To set up the drive levels again requires a two-tone oscillator and scope for best results. The PA drive control should be adjusted for maximum, then adjust RV2 on the AF processor board for maximum undistorted output. As there is bound to



### Omega 'mode' – switch schematic

