

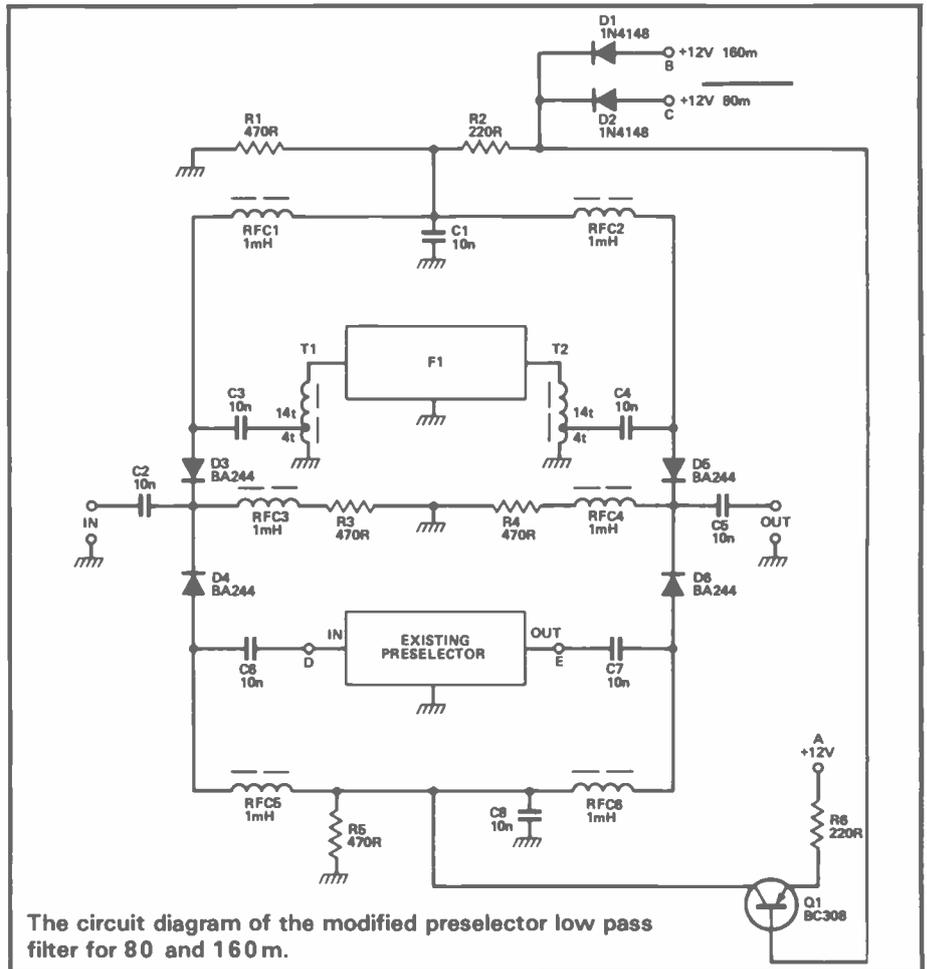
providing both these functions in one unit, including a both modes squelch circuit. It features its own IF strips and filters, and diode switching where diode switching is required.

We had originally intended producing an RF processor and VHF adaptors, but neither of these generated enough interest to warrant the considerable work involved in the preparation of the article or the supply of kits.

**Modification of the Audio:** a number of people have found the audio output to be lower than they would like. This can easily be remedied by changing R6 on the active filter unit to 15k.

**Noisy Keying:** problems involving noisy changeover that only occur when the QRP PA is connected in circuit, are almost certainly due to parasitic oscillation of the PA due to incorrect assembly. To check this, key the transceiver with the bias line disconnected from the QRP PA and no drive. If the clicks disappear but return when the bias is reconnected, then you have this problem.

**Newsletter:** please note that from now on, the Omega Newsletter will only be sent to active constructors of Omega who have built at least the CIFPU and VFO units. If you are on the mailing list but a non-



The circuit diagram of the modified preselector low pass filter for 80 and 160m.

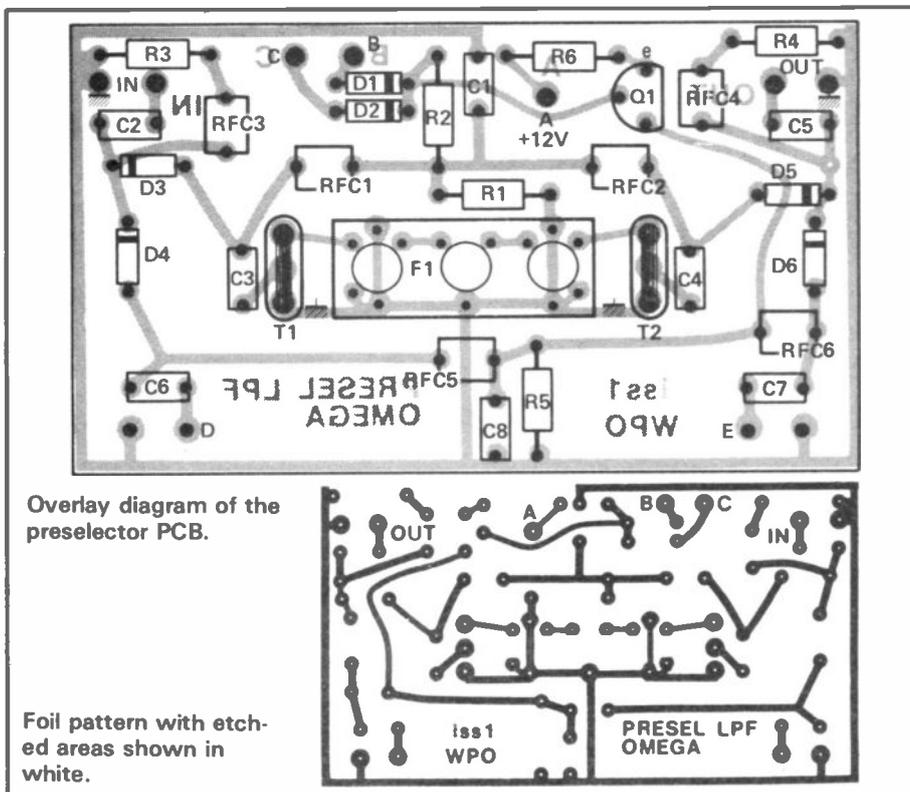
constructor and wish to remain on it, please inform WPO Communications as soon as possible by sending them two SAE's (13p stamp)

marked ML in the top left hand corner.

### Modifying The Preselector

As reported in earlier articles, the existing preselector module for Project Omega suffers from an increasing signal loss below 5MHz. While this is mostly not a problem on receive mode, it does mean that the QRP PA can be difficult to drive fully on 80 and, especially, 160m.

The easiest way to overcome this loss is to provide an additional single switched low pass filter network on these two bands, which replaces the existing preselector on 160 and 80m. Rather than devise a discrete circuit which would probably require some alignment, a pre-aligned network has been used from the Toko Video filter range which exhibits ideal characteristics for this application. It has a -3dB cut-off at 4.5MHz rapidly increasing to 63dB at 10MHz and requires no alignment. The new filter, together with the necessary diode switching is built on a small PCB, connected across the input/output terminals of the existing pre-



Overlay diagram of the preselector PCB.

Foil pattern with etched areas shown in white.