



Overlay diagram of low pass filter PCB.

trol from each pin on the PCB. The unit should be located fairly near the PA, and mounted using 6BA bolts, with 6BA nuts as spacers from the chassis or panel.

No alignment of the LPF network should be necessary. In practice, it is possible that with variation in core permeability and individual winding techniques, an excess of inductance may be created in some of the inductors. This can be recognised by the power starting to fall off near the top end of a band. If this occurs, remove one turn from each of the pair of inductors involved – this is more likely to be necessary on the low frequency bands than the high ones. When you are happy with the filter network, the cores and windings should be fixed in place using epoxy adhesive.

At high powers it is normal for both the relays and cores to get warm. The latter would be quite happy at much higher temperatures than will be experienced in this design.

This filter network can be used with other transmitters that lack such filtering, and make another complementary unit for

G3ZVC/G4CLF designs, together with the synthesised VFO and QRP PA units.

Kit of Parts

A complete kit of parts for this project is obtainable from WPO Communications (see their ad.) for £29.50 inc., and includes all the components given, including wire and a drilled, tinned printed circuit board. Boards alone are £6.50 inc.

COMPONENT LISTING

CAPACITORS (all silver mica, 350 VDC)

C1,2,5,6,8	1500pF
C3,4,17,18,19,20	150pF
C7,9,12	820pF
C10,13,15	470pF
C11,21,22,23,24	100pF
C14,16	220pF

SEMICONDUCTORS

D1 - D7	1N4148, 1N914
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INDUCTORS

L1 - L6

Wound on pair of Amidon T68-2 cores using 1.0mm enamelled Cu wire.

L1,2

16 turns (56cm)

L3,4

12 turns (42cm)

L5,6

8 turns (30cm)

L7 - L12

Wound on pair of Amidon T68-6 cores using 1.0mm enamelled Cu wire.

L7,8

6 turns (25cm)

L9,10

5 turns (22cm)

L11,12

4 turns (19cm)

MISCELLANEOUS

RLY1 - 6	Kam Ling Kuit-B 12V DC
20 off 1mm PCB connection pins.	