

NOTES AND CORRECTIONS TO THE DSB80

These notes cover all the errors that have come to light since the article was written plus a few modifications.

By Tony Bailey G3WPO

1. PCB — there is an error in the layout around the microphone amplifier which short circuits the diode. This had been present since the prototypes, and explains why the extra switch (TR6) was needed to prevent AF feedback when going from transmit to receive! As a result TR6 / R19/ R31 are no longer required. A small cut in the track is required — see drawing.
2. R8 has been decreased to 47R as the zener may not have sufficient reference current when using a J310. Also, R10 has been decreased to 15k to provide more CW drive and will give up to another watt of output.
3. The unmarked capacitor on the original layout plan adjacent to C39 is C40, and that to the left of TR5 is C27. Also on the circuit diagram, the capacitor marked "C39 10n" above TR4 is actually C40.

4. There are two C34s in the component list — delete the one in the 10n group.
5. The hole on the PCB for C39 is missing — instead connect one lead to the tap wire on T1, and the other lead direct to the top foil, using short leads.
6. It appears that the T68-2 cores have varying permeabilities amongst batches which result in the inductance of the coils being different to the prototypes. It may be necessary to remove some turns from the VFO coil (use 40 turns anyway rather than 41) if the frequency coverage is low (one turn at a time). Also, if the output filter starts to resonate with the trimmers completely unscrewed, first remove both C18 and C22 (330p) and try to resonate. If this then provides insufficient capacitance replace with 150p capacitors.

7. The +12V end of C17 does not have the top side of the PCB cleared around the lead. This should be cleared with a small drill.
 8. On Fig. 3 (PCB layout) the TX/RX switch is shown wrongly wired — points 'B' & 'E' should be on the same side of the switch, not 'B' & 'D' as shown.
 9. If the receiver exhibits a tendency to motorboat at low volume, change C30 to 220µ.
 10. When wiring into a case, keep leads away from the immediate vicinity of the VFO — RF may be introduced which can cause CW chirp, or FMing of the DSB signal. Also, we advise decoupling the power supply leads where they enter the cabinet, some samples have had a tendency for the PA to self oscillate with long power supply leads.
- The kit of parts (with all the above modifications incorporated) is still available from WPO Communications at £37.45 inclusive.

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