Fault Finding on a Microstim DBIII
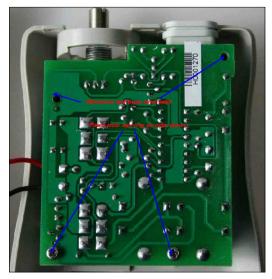
1. Remove the rear of the enclosure
2. Remove the 4 screws holding the pcn.

3.
4. Using long screws .Screw the test pcb on top of the circuit so the test prongs rest on the pcbUse Microstim test box
5. Using a DVM test for 9v on Batt in
6. Switch on 1HZ (i.e. continuous 1Hz) Test for approx 8.5v on D1 o/p
   If no output replace D1
7. With Oscilloscope set to   Vertical 1 v / div Horizontal 100us /div Ground to Batt -ve
8. Check Ref IN for 8.4 v approx Waveform should peak and then may drop slightly during pulse depending on condition of the battery returning to the original voltage at the start of each pulse. If it varies widely change the battery.
9. Test Ref out for 5v. Depending on age of battery it may drop slightly during pulse.
10. Check LED is Green and not going Amber or Red during the pulse.
11. Test Oisc Xtal for output
    No output replace Xtal
12. Test Sig to LED for output
    If no output change microprocessor
13. Test LED I/p for output
    If no output change TR3 (Q1)
14. Test Sig o/p for signal
    If no output change microprocessor
15. Test o/p to TX for signal Check TR1 & TR2 (Q2 Q3) or replace
16. With Oscilloscope set to   XXXXXXXXXXXXXXXX Test Audio feedback for signal
17. If no output change ZD3
18. Disconnect output load Audio should bleep.
19. Reconnect output load
20. LED Checks
21. With Oscilloscope set to   XXXXXXXXXXXXXXXX Ground to -ve battery
22. ZD1 waveform should be   v peak
23. ZD2 waveform should be   v peak