VM3COP40.60
Mixcheck LCD Change

Replacing LCD in a Mixcheck

Replacing an LCD in a Mixcheck is not easy and requires an experienced electronics engineer to accomplish it .
It is assumed that the fault has been traced to the lCD. I.e there is a voltage on pin 7

There are several pitfalls which can be avoided if the following proven method is used.

1. Remove the two knobs.
2. The oxygen Calibration knob is fixed to the shaft with a small screw
3. Remove the nuts and washers.
4. Remove the Zero and span potentiometers. These are joined to the PCB with trailing cables. Before removal check that the wires fixed to the pots have Araldite holding them otherwise they are likely to break the wire tags necessitating a replacement potentiometer. If there is no Araldite it is advisable to use it to anchor all six pins before starting
5. Remove the battery,oxygen sensor and Helium sensor cables by unplugging
6. Remove the four nuts holding the pcb in place .
7. Turn over and from the front remove the LCD bezels.
8. The LED is held in the holder and fixed to the PCB. This is a special LED with a battery low detection circuit built in. Some pressure may be required to remove the LRD from the holder taking care not to damage the LED in the process.
9. Remove the pcb from the enclosure.
10. Cut the LCD pins as close to the pcb as possible.
11. Using a hot iron and a solder removing tool remove the pin stumps. This should be done as quickly as possible as experience has revealed too much heat for too long will damage the pcb.
12. Add the new LCD again as quickly as possible, remembering to add the spacers.
13. Re-assemble.
14. ON some models there are two 2 pin molex connectors. The oxygen sensor always goes into the one nearest the sample block. If it is easy to fit it is in the wrong place.
15. Follow the calibration set up exactly.
16. In Dry air set the Helium zero to 00.2 +/1 a digit.
17. NB The zero adjusts the LCD readout ONLY in the positive direction . It stops at 00.0 and does not read -ve
18. Using 100% Helium set span to 100%. The span increases in an anticlockwise direction.
19. The unit should now be calibrated.

John. S. Lamb
5 July 2011