Changing DIVA Printed Circuit Boards

(Termination PCB stock No. 3378081 and Display PCB, stock no. 3378080) Installation and Maintenance Instructions

1.0 General safety information

Your attention is drawn to DIVA Flowmetering Systems Supplementary Safety Information sheet IM-P337-21, which must be read before attempting work on the unit.
The Printed Circuit Boards (PCBs) are sensitive to static electricity discharge – special handling precautions must be taken to prevent damage to the units:-
The PCBs must only be changed by competent persons, who must wear an anti-static wrist strap (see Figure 1 overleaf) fitted with a crocodile clip. After removing the DIVA cover the crocodile clip MUST be clipped to the DIVA electronics housing and remain attached until the replacement of the printed circuit boards is complete. Do not remove PCB's from the anti-static bag (silver or black) until the crocodile clip is attached to the DIVA housing.
PCBs must be fitted into the housing immediately after removal from the bag. Placing the printed circuits on any surface before fitting them into the DIVA may permanently damage the items.

2.0 Changing the DIVA Termination PCB spares set (3378081):

1. Disconnect power from the DIVA at source if possible. If not practical, extra care must be taken when removing the LOOP connections (Step 4), as they will be live.
2. Remove the end cover from the termination end of the DIVA housing.
3. Connect the crocodile clip to the housing.
4. Remove the LOOP '**+**' and the LOOP '**-**' connections, noting the colour of the wires for each terminal.
5. Carefully remove the central PCB retaining screw. **Caution:** this screw is not captive.
6. Pull the PCB forward slightly to allow removal of the ribbon cable connector – do not strain the ribbon cable.
7. Remove the Termination PCB.
8. Remove the new Termination PCB from the anti-static bag.
9. Fit the ribbon cable connector to the new PCB, ensuring that the ribbon cable connector is in the correct orientation. If necessary, use a screwdriver to help guide the connector home.
10. Align the PCB in the housing and fit the retaining screw.
11. Reconnect the LOOP wiring connections ensuring that the wires are connected to the correct terminals.
12. Unclip the crocodile clip from the DIVA electronics housing.
13. Reconnect the power to DIVA.
14. Remove the cover from the display end of the DIVA housing.
15. Check the display for correct operation.
16. Replace the covers.

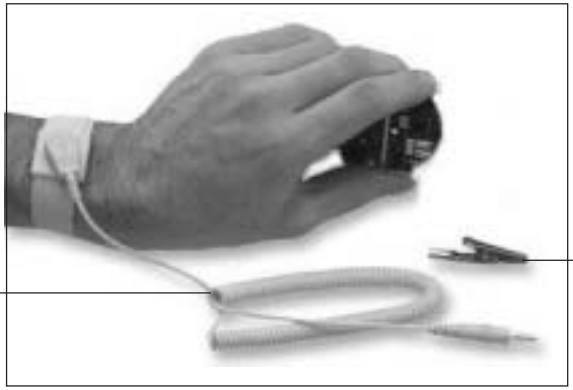

Fig. 1

3.0 Changing the DIVA display and analogue PCB spares set (3378080):

1. Disconnect power from the DIVA at source if possible. If not practical, extra care must be taken when removing the LOOP connections (Step 4), as they will be live.
2. Remove the end covers from both ends of the DIVA electronics housing.
3. Connect the crocodile clip to the housing.
4. Remove the LOOP '**+**' and the LOOP '**-**' connections from the Termination PCB, noting the colour of the wires for each terminal.
5. Ensure the crocodile clip is still attached to the electronics housing.
6. Remove the display PCB assembly fixing screws (2 off). **Caution:** these screws are not captive.
7. Note the orientation of both connectors. Ease the display PCB assembly slightly forward to disconnect the wiring connector and ribbon cable connector. **Do not** strain the wiring.
8. Remove the display PCB assembly as one unit. **Do not** attempt to separate the two PCBs.
9. Remove new PCB assembly from its anti-static bag. **Do not** attempt to separate the two PCBs.
10. Fit the wiring connector and ribbon cable connectors to the new PCB, ensuring that both cables are in the correct orientation.
11. Align the display PCB assembly and fit the two retaining screws.
12. Reconnect the LOOP connections to the Termination PCB, ensuring correct orientation.
13. Remove the crocodile clip from the DIVA electronics housing.
14. Reconnect the power to the DIVA.
15. Check the display for correct operation.
16. Refit both end covers.