

TRAINING

SUBJECT: SpO2 Fault Diagnosis

The following procedure is primarily for use by “Repair” personnel – this procedure is to be used in conjunction with other relevant, specific Operating Procedures (where applicable).

The equipment required is as follows:

D.V.M., Soldering Iron, Solder, Wire Stripper, Flush Cutter, Snipe Nosed Pliers, Helping Hands, 1 Set of Jewel Screwdrivers, Dremel tool, Clear Silicone, White Silicone, Superglue, Primer (loctite 770), Drying Rack.

Refer to the relevant Operating Procedure (or technical drawing) for the wiring diagram.

N.B. Due to the age and design of a probe it may be advisable to replace the components with compatible Viamed components in order to ensure that the probe will outlast any warranty.

Any parts to be reused should be cleaned thoroughly with isopropyl alcohol, or cleaned in the “Ultrasonic Cleaner”.

Section 1 – Repair Actions

1. Remove any damaged parts, and / or faulty components. If replacements are available, then use those to re-assemble the clip, with the existing good parts having been cleaned, using the process laid down in “Stage 4 – Clip Assembly – Section 1 – Stages 2 & 3”.
2. If there are no replacement parts available the clip will have to be completely re-built from new, as per the above mentioned stages. In this case, clean and retain the good component parts from the original clip, for re-use at a later time on other probes (store in Non-conforming area).
3. Where any component parts are overly dirty, and cannot be cleaned by the use of a toothbrush, then these must be cleaned in the “Ultrasonic Cleaner”.
4. At all relevant stages during repair of the probe, it will require testing as per “SpO2 Testing and Q.C. – Stage 4 – Section 3”. If it passes, then complete the assembly of the repair, fill in the appropriate sections on the paperwork, and forward it to Q.A. for full testing.
5. If it fails and requires further repair work, then proceed again as stated in the following sections.

Section 2 – Dismantling of Clip

1. With the cable cut off to the strain relief, remove the pads from the shells using a small jewel screwdriver (Fig 1.1). Remove the spring from around the pads (Fig 1.2). Remove the two side buttons and separate the shells (Fig 1.3 & 1.4). Thoroughly clean all parts that are to be re-used, with isopropyl alcohol.

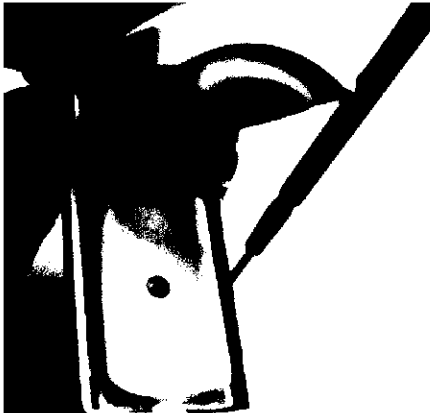


Fig 1.1

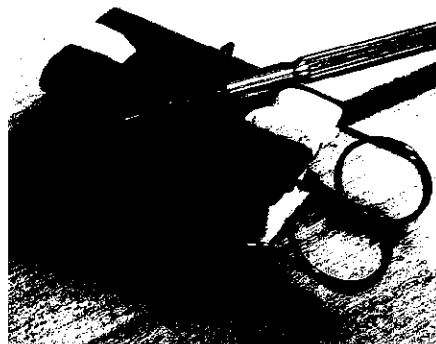


Fig 1.2

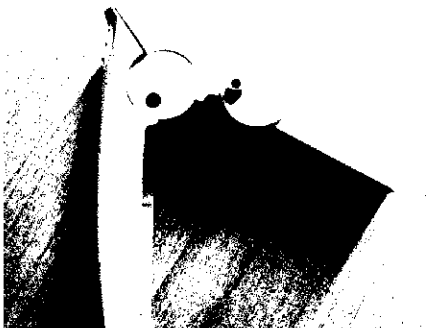


Fig 1.3

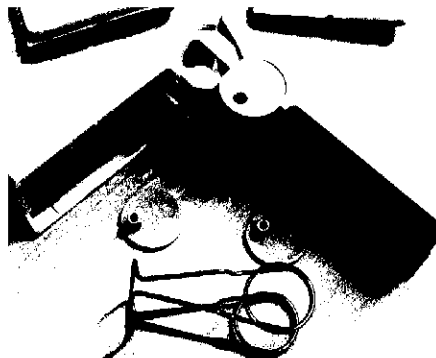


Fig1.4

2. Cut the Emitter and the Detector wires, approximately “1cm” from the pad housing (Fig 1.5). Then, using snipe nosed pliers, cut the components from within the silicone window (from the rear) - note that this should be done delicately so as not to damage the surface of the window. (Fig 1.6).

Fig 1.5

3. Clean excess silicone from components, using Isopropyl Alcohol, ensuring that the contacts are as clean as possible. De-solder the old wiring from components. Test the component using the “Test box” and external leads.

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| Section 3 – Repair of Connector |
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1. Remove any damaged component parts.

Connector:

- 1.

