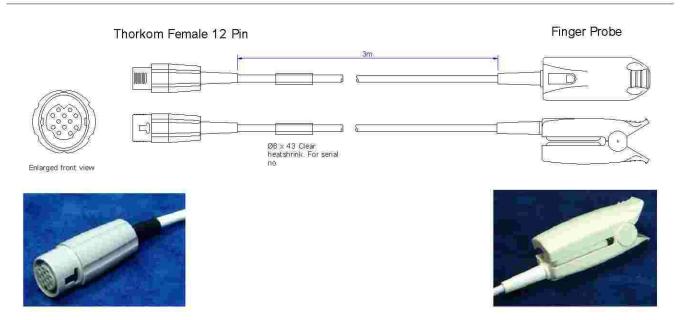


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Equipment required: Soldering iron (0060120), solder (0050012), Wire stripper (0060030), Flush Cutter (0060010), Snipe nose pliers (0060021), 'helping hand' (0060145), Heat gun (0060100).

Parts list: Kit and parts required.

Thorkom female 12-pin side				Finger Probe Side			
Qty	Description	Part No.	Qty	Description	Part No.		
1	Thorkon female 12-pin kit	0010781	1	Top Shell	0010110		
	Rear nut	Kit	2	Pad Support (White)	0010160		
	Strain relief	Kit	1	Top Pad (white)	0010130		
	Collett	Kit	1	Bottom Pad (white)	0010131		
	Pins	Kit	1	Bottom Shell	0010111		
	Pin housing	Kit	1	Spring	0010140		
1	Ø6 x 43mm Clear heat shrink	0032331	2	Button (White)	0010180		
1	Ø6 x 10mm heat shrink	0032321	1	Detector	0030900		
2	Ø1.6 x 17mm heat shrink	0032310	1	LED/ I.R.	0030952		
			31	-R1 18.7k Ω Resistor	0033014		

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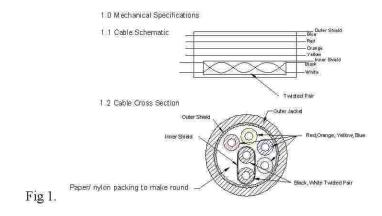
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	1		Strain Relief	0010150

ASSEMBLY OPERATIONS

- 1. Pre Heat soldering iron temperature to 240°c.
- 2. Collect all required parts and equipment listed above.
- 3. Cut a 3.1 metre length of special 6-core cable. (Details shown below).



Thorkom female 12-pin side:

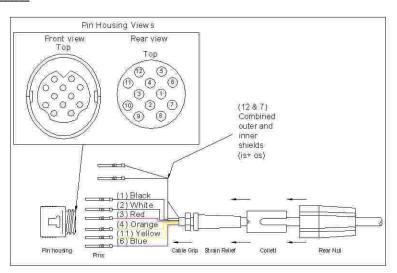


Fig 2.2

- 1. Feed Ø6 x 43mm Clear heat shrink, rear nut, collett, strain relief, cable grip, and Ø6 x 10mm heat shrink over the end of the cable.
- Strip 20mm off outer jacket of cable to reveal coloured wires, outer shield, and nylon/paper wire packing.
- 3. Cut all packing to the base and strip 20mm off inner jacket of wire to reveal black and white wires and the inner shield.



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- 4. Combine outer and inner shields together then split to form 2 wires, each containing inner and outer shield wire.
- 6. Trim ends of wires and shields to the same length.
- 7. Strip jacket of every wire 2mm to reveal copper core.
- 8. Place Ø1.6 x 17mm heat shrink over each twisted inner and outer shields to cover naked wire, and solder the ends to the rear of 2 separate pins.
- 9. Solder all remaining wires to the rear of separate pins and insert firmly into correct locations shown in fig 2.2.
- 10. Clamp cable grip approximately 2mm from the end of the outer jacket.
- 11. Place Ø6 x 10mm heat shrink over cable grip and beginning of wires and heat to shrink firmly
- 12. Push Strain relief up to the cable grip, collett over the strain relief, and screw the rear nut to the pin housing.

Finger Probe side:

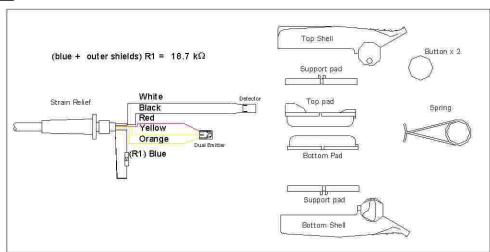


Fig 2.3

- 1. Apply loctite primer to the cable surface, and slide on the strain relief.
- 2. Apply a small amount of superglue on to the surface of the cable and push the strain relief over the glue to secure in place leaving approximately 80 mm of cable.
- 3. Strip outer jacket up to the strain relief and cut packing.
- 4. Cut red and yellow wires to 15 mm, strip jackets off 2mm and apply a small amount of solder to the ends.
- 5. Strip 10 mm off inner jacket and cut off inner shield.
- 6. Strip jackets 2mm and apply small amount of solder.
- 7. Solder wires to the detector, LED/I.R as shown in fig 2.3
- 8. Place the assembly on the drying rack, and apply a small amount of clear silicon to the front of the detector and LED/I.R and mount into the pads (Led/IR in the top pad and Detector in the bottom pad) allowing the sensors to be seen and central, and scrape excess silicon. Then place the drying rack in the drying cabinet and leave to dry overnight.



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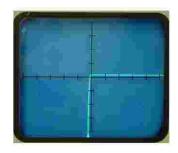
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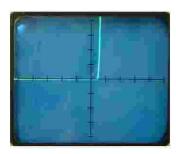
- 9. Superglue loose cable to the pads and fill the rears with white silicon.
- 10. Glue pads onto the pad supports (prime first).
- 11. Place spring around pads and into place.
- 12. Clip upper and lower shells (apply a little super glue) into place and glue caps onto the sides.

TESTING

- 1. Attach Thorkom female 12-pin side to a test lead and then to the test box connector marked 'B'.
- 2. Check display is showing correct characteristics as shown below. (At correct switch positions)







Pos 2. LED

Pos 3. IR

Pos 4. Detector

- 3. 'Play' with wire at connections to see if any change in the display (i.e. flickering etc).
- 4. If there is any movement of signal, the cable must be taken apart and all connections checked and re-soldered. Then tested again until results are satisfactory.
- 5. Check the cable is of correct quality standard. (See VM/COP/30.11 for details).
- 6. Attach Thorkom female 12-pin side to a Sensormedics Oxyshuttle monitor and the probe on to the finger to check SpO₂ level. (Ideal reading 95-100.)

Labelling

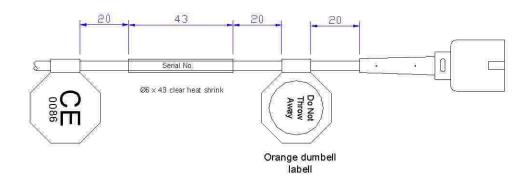
- 1. Labels: to be attached facing upwards as looking at the top of the probe.
 - 1 x CE Label
 - 1 x Viamed shell label on probe lower shell.
 - 1 x Serial no. Label
 - 1x Orange 'Do Not Throw Away' Label (correct one of two is dependant of country unit is being sold to).



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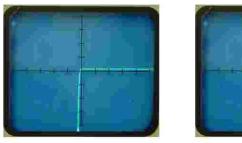
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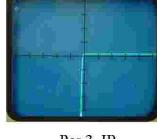
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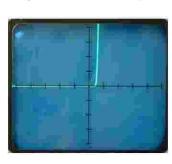


Quality Assurance (QA)

- 1. Attach Thorkom female 12-pin side to a test lead and then to the test box connector marked 'B'.
- 2. Check display is showing correct characteristics as shown below. (At correct switch positions)







Pos 2. LED

Pos 3. IR

Pos 4. Detector

- 3. 'Play' with wire at connections to see if any change in the display (i.e. flickering etc).
- 4. If there is any movement of signal, the cable must be taken apart and all connections checked and re-soldered. Then tested again until results are satisfactory.
- 5. Check the cable is of correct quality standard. (See VM/COP/30.11 for details).
- 6. Attach Thorkom female 12-pin side to a Sensormedics Oxyshuttle monitor and the probe on to the finger to check SpO₂ level. (Ideal reading 95-100.)
- 7. Fill and sign attached paperwork.
- 8. Test 10 % of batch on DL3000 simulator.
- 9. Log all results on compatibility sheet.

Packaging

- 1. Visually check all labels are attached properly
- 2. Using a twist tie (bunny clip) wrap the cable and place in a small blue Viamed plastic box, ensuring the cable is inserted in a neat and tidy presentable manor.
- 3. Place a serial number sticker (supplied with the batch) on the front face of the box.



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4. Place a packed and tested sticker (also containing initials of the individual who is packing) on the right hand side top left corner of the box. Do not close box.

Final QA

- 1. Final inspection. Visually ensure cable sit neatly within the box and is in a presentable state.
- 2. Boxes are ready to stock in stores.