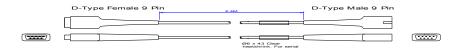


0019568-01 NELLCOR P956E8

VM3/COP/33.08

Date: 17-Dec-01 Revision date: 6-Nov-13 Issue: 3







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

<u>Parts list:</u> Kit and parts required. (Continued over page)

D-Type female 9-pin Side			D-Type male 9-pin Side		
Qty	Description	Part No.	Qty	Description	Part No.
1	D-type female 9-pin kit	0031220	1	D-Type male 9-pin kit	0031200
(1)	Outer Casing	kit	(1)	Outer Casing	kit
(1)	Cable grip	kit	(1)	Cable grip	kit
(1)	□ Pin Housing	kit	(1)	* Connector	kit
(9)	- Pins	kit	(9)	- Pins	kit
1	2.5m 6-core cable	0030513 (roll)	1	Ø6 x 43mm Clear heat shrink	0032331 (roll)
1	Ø1.6 x 17mm heat shrink	0032310 (roll)	1	Ø1.6 x 17mm heat shrink	0032310 (roll)
1	Ø6 x 10mm heat shrink	0032321 (roll)	1	Ø6 x 10mm heat shrink	0032321 (roll)

**ASSEMBLY OPERATIONS** 



0019568-01 NELLCOR P956E8

VM3/COP/33.08

Date: 17-Dec-01 Revision date: 6-Nov-13 Issue: 3

- 1. Pre Heat soldering iron temperature to 240°c.
- 2. Collect all required parts and equipment listed above.
- 3. Cut a 2.5 metre length of standard 6-core cable. Shown below.

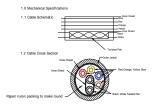


Fig 1.

### D-Type female 9-pin side:

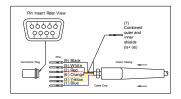


Fig 2.1

- 1. Feed outer casing, cable grip and  $\emptyset$ 6 x 10mm heat shrink (black) over end of cable.
- 2. Strip 20mm off outer jacket of wire to reveal coloured wires, outer shield, and nylon/paper wire packing.
- 3. Cut all packing to the base.
- 4. Strip 20mm off inner jacket to reveal black and white wires and the inner shield.
- 5. Twist outer and inner shields together.
- 6. Trim ends of wires and shields to the same length.
- 7. Strip jacket of every wire 2mm to reveal copper core.
- 8. Heat  $\emptyset$ 1.6 x 17mm heat shrink over twisted inner and outer shields to cover naked wire, and solder end to the rear of one pin.
- 9. Apply small amount of solder to ends of each wire and solder each of the 5 wires to the rear separate pins.
- 10. Clamp cable grip approximately 2mm from end of outer jacket.



0019568-01 NELLCOR P956E8

#### VM3/COP/33.08

Date: 17-Dec-01 Revision date: 6-Nov-13 Issue: 3

- 11. Place Ø6 x 10mm heat shrink over cable grip and beginning of wires and heat to shrink firmly over.
- 12. Push outer casing over cable grip and wires to fit around the pin housing.

#### D-Type male 9-pin side:

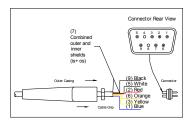


Fig 2.2

- 1. Feed outer casing, cable grip and  $\emptyset$ 6 x 10mm heat shrink (black) over end of cable.
- 2. Strip 20mm off outer jacket of wire to reveal coloured wires, outer shield, and nylon/paper wire packing.
- 3. Cut all packing to the base.
- 4. Strip 20mm off inner jacket to reveal black and white wires and the inner shield.
- 5. Twist outer and inner shields together.
- 6. Trim ends of wires and shields to the same length.
- 7. Strip jacket of every wire 2mm to reveal copper core.
- 8. Heat  $\emptyset$ 1.6 x 17mm heat shrink over twisted inner and outer shields to cover naked wire.
- 9. Apply small amount of solder to ends of each wire and shields.
- 10. Solder ends of every wire and shields to the correct positions on the rear of the connector.
- 11. Clamp cable grip approximately 2mm from end of outer jacket.
- 12. Place Ø6 x 10mm heat shrink over cable grip and beginning of wires and heat to shrink firmly over.
- 13. Push outer casing over cable grip and wires to fit around the pin housing.

#### **TESTING**

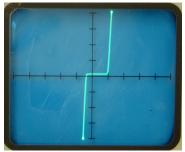
- 1. Attach male 9-pin side to the test box connector marked 'A'.
- 2. Attach female 9-pin side to a Nellcor finger probe.
- 3. Check display is showing correct characteristics as shown below. (At correct switch positions)



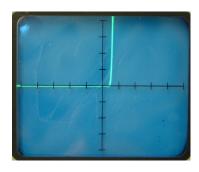
0019568-01 NELLCOR P956E8

VM3/COP/33.08

Date: 17-Dec-01 Revision date: 6-Nov-13 Issue: 3



NB: Gap to be at bottom of display Position 2. IR, LED.

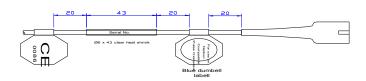


Position 4. Detector

- 4. If the gap is at the top of the screen then the LED is wired incorrectly.
- 5. 'Play' with wire at connections to see if any change in the display (i.e. flickering etc).
- 6. If there is any movement of signal, the extension wire must be taken apart and all connections checked and re-soldered. Then tested again until results are satisfactory.
- 7. Check the cable is of correct quality standard. (See VM/COP/30.11 for details).
- 8. Connect male 9 pin side to the Nellcor monitor and attach probe on finger to check SpO<sub>2</sub> 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 Serial no. Label
  - 1 x Blue Nellcor dumbbell Label



### Quality Assurance (QA)

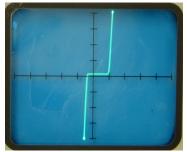
- 1. Attach male 9-pin side to the test box connector marked 'A'.
- 2. Attach female 9-pin side to a Nellcor finger probe.
- 3. Check display is showing correct characteristics as shown below. (At correct switch positions)



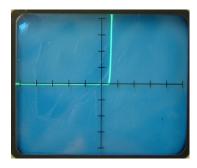
0019568-01 NELLCOR P956E8

VM3/COP/33.08

Date: 17-Dec-01 Revision date: 6-Nov-13 Issue: 3



NB: Gap to be at bottom of display Position 2. IR, LED.



Position 4. Detector

- 4. If the gap is at the top of the screen then the LED is wired incorrectly.
- 5. 'Play' with wire at connections to see if any change in the display (i.e. flickering etc).
- 6. If there is any movement of signal, the extension wire must be taken apart and all connections checked and re-soldered. Then tested again until results are satisfactory.
- 7. Check the cable is of correct quality standard. (See VM/COP/30.11 for details).
- 8. Connect male 9 pin side to the Nellcor monitor and attach probe on finger to check SpO<sub>2</sub> level. (Ideal reading 95-100.)
- 9. Fill and sign attached paperwork.
- 10. Test 10 % of batch on DL3000 simulator.
- 11. 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.
- 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.