Instruction Leaflet

SC Hot melt connector assembly

Components required

Item	**RS** stock no.
SC Hot melt connector	267-8071
SC Hot melt holders	267-8087
Multipurpose oven	201-1125
Hot melt SC crimp tool	267-8100
Hot melt cooling stand	267-8116
Hot melt polishing puck	267-8122
Hot melt polishing film	267-8144
Hot melt polishing pad	267-8138
Isopropyl alcohol (IPA)	567-890*

Cable stripping/cutting/scribe tools (RS catalogue Tools-cable/connector preparation section).

General

Warnings/recommendations

*Note: Carefully follow safety, health and disposal information see RS material safety sheet CP0010/1.

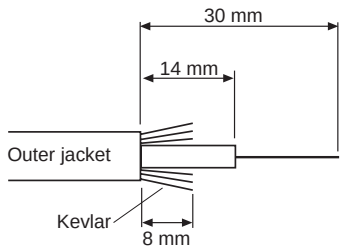
- Safety glasses should be worn when working with optical fibres. Use a safe receptacle for discarded fibres.
- Do not touch any part of the heating block of the oven during operation.
- All polishing should be done on the soft polishing pad as described in this instruction.

Oven/connector preparation

1. Connect the oven to the mains supply, switch on and set the temperature,to 250deg C. Allow the oven to heat up and reach temperature.
2. Ensure the cooling stand is assembled ready.
3. Remove the connector from its sealed pack and load the main body into the connector holder.
4. With the oven at set temperature load the holder with connector into one of the positions in the heating block.
5. Allow to heat for 2 minutes minimum, 5 minutes maximum.

Cable preparation and connector assembly

Figure 1



6. Using 2.5 or 3mm sheath dia. 125 micron fibre cable, slide the strain relief boot on, then the appropriate colour crimp ring (largest diameter facing towards the connector). Red ring for 2.5mm cable, black ring for 3mm cable. Strip and prepare as in Figure 1.

6a. Cut and remove outer jacket.

6b. Hold Kevlar strands to one side and remove buffer in 2 to 3 bites.

6c. Clean fibre with IPA.

6d. Cut the Kevlar to length and evenly distribute the strands around the buffer.

7. Slide the crimp ring up to within 13mm of the end of the cable jacket and hold the cable behind the crimp ring.
8. Remove the holder with connector from the oven and slowly guide the fibre into the connector until the buffer seats at the base of the ferrule. The Kevlar must flare around the back end of the connector.

Note: At this stage be careful not to touch the hot end of the holder.

Crimping

9. While holding the cable in place, slide the crimp ring over the Kevlar until the ring is seated with the back of the connector.
10. With the crimp tool ready, locate the cavity marked 0.19 on the tool and crimp the largest diameter section of the ring to the back of the connector, securing the Kevlar.
11. With the tool cavity marked 0.12 for 2.5mm cable or 0.137 for 3mm cable, crimp the smaller diameter section of the ring to the cable jacket. Be careful not to pinch the cable between the jaws.
12. Place the holder with connector onto the cooling stand and allow to cool for 3 to 4 minutes.

Scoring and polishing

13. When cool, remove the connector from the holder.
14. With a scribe tool score the fibre just above the adhesive bead.
15. Remove the excess fibre and dispose into a safe container.
16. Secure the strain relief onto the back of the connector. Align the flat of the boot with the flats on the connector. When fitted, there should be a small space (1.6mm) between the end of the boot and the back connector.
17. Place the polishing film (shiny side down) onto the polishing pad.
18. Fit the connector ferrule into the polishing puck and gently place onto the film.
19. Holding both the connector and the puck perform figure 8 movements, applying gentle pressure to the connector.
20. Inspect the ferrule end to see if all the adhesive has been removed. Continue polishing using fresh areas of the film until the ferrule end is clear.
21. Clean the ferrule with IPA and examine the fibre using a suitable view scope. Perform additional polishing as necessary and finally clean the ferrule completely with IPA.
22. Fit the outer housing by aligning the chamfers with the connector body, and snap into place. Ensure the connector dust cap is clear then fit over the ferrule for immediate protection and storage.

RS Components, PO Box 99, Corby, Northants, NN17 9RS
Telephone: 01536 201234
An Electrocomponents Company