ELE-3COP-355

Title – Termination of a Connector Adaptor Braid to an Overall Cable Braid using a Solder Sleeve.

Before starting work please read this document carefully and note the guidance given.

1 Purpose and Scope

This COP describes the procedure to be used when terminating a connector adaptor braid to an overall cable braid using a solder sleeve. The instructions in this document take preference over IPC/WHMA requirements, as do the drawing and any customer documentation.

2 Performance Objective

This code of practice is produced to support operators already trained in the installation of heat shrinkable and harnessing products. It identifies the procedure to be used when terminating a connector adaptor braid to an overall cable braid using a solder sleeve to obtain a 360° screen termination.

3 Materials and Equipment:

Solder sleeve. (Refer to Table 1)
RNF-100 Tubing.
Kester™ Soldering Flux (formula 1544)
22 SWG Tinned Copper Wire
Heat Gun CV1981 or equivalent. Other hot air guns may be used but these must be capable of delivering the temperatures required for installation of the solder sleeve. This also includes hot air guns with temperature displays.
Appropriate reflector. (Refer to Table 1)

Table 1

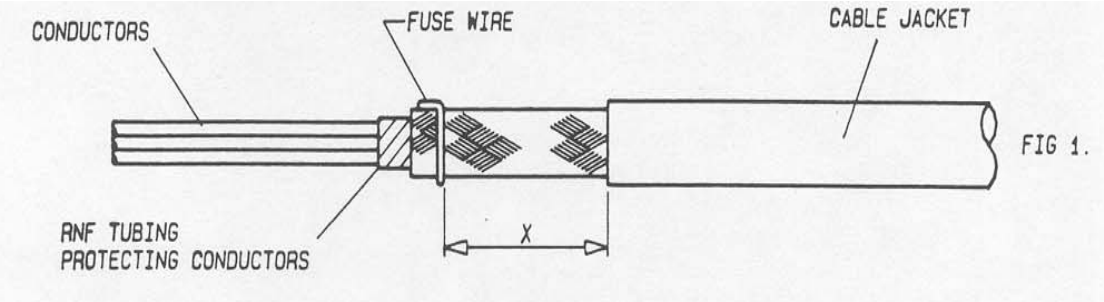
Solder Sleeve Part Number	Dimension X (Figure 1)	Reflector
B-053-70-04	20mm	PR25A
B-053-70-03	20mm	PR25A
B-053-70-02	20mm	PR25A
B-053-70-01	20mm	PR25D
B-053-70	20 – 25mm	PR34
B-051-00-01	20 – 25mm	PR34
B-051-01-01	20 – 25mm	PR34
B-051-02-01	20 – 25mm	PR34

4 Health and Safety

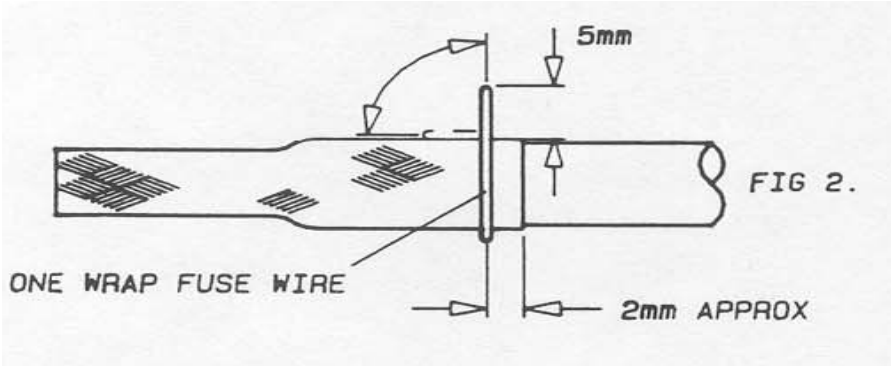
Adhere to local Codes and Regulations relating to Safe Working practices. For the U.K. adhere to requirements of the Health and Safety at Work Act 1974 and subsequent amendments.
When using Flux, avoid inhaling the fumes.
Do not smoke when using the Flux as it is highly inflammable.
Do not allow the Flux to come in contact with the skin. Should this happen, wash the affected area immediately with water

5 Procedure

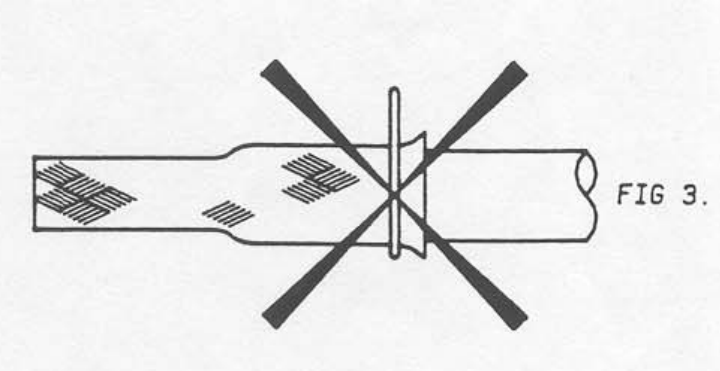
Prepare the cable as shown in Figure 1. See Table 1 for dimension X.



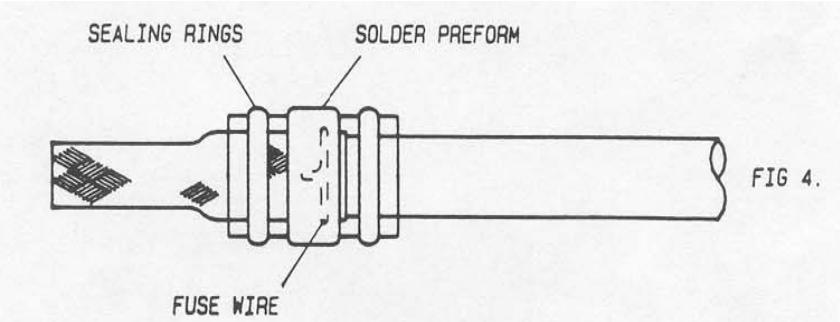
Overlap the Adaptor Shield over the cable shield by a minimum of 20mm and secure the end of the Adaptor Shield using 22 SWG tinned copper wire. See Figure 2.



Ensure shield end does not curl up. See Figure 3.



Tinned copper wire to be wrapped once around shield, then ends twisted to pull shield tight together. Trim ends to 5mm long and fold flat along length of cable.
It is Important Adaptor Shield remains flat against cable shield to prevent penetration of Solder Sleeve.
Apply a small amount of Flux to the area of overlapped shield.
Position the Solder Sleeve as shown in Figure 4.
Ensure that solder preform is positioned over shield and not cable jacket and that the end of the solder sleeve overlaps the cable jacket.



Always ensure that the air vent on the rear of the hot air gun is open and that it is dust free.
Always allow the hot air gun to stabilize at the required temperature and setting for two minutes before commencing calibration and installation.
Heat the Solder Sleeve using the correct heat gun and reflector slightly rotate either the heat gun or the cable until the solder ring completely disappears and wets the cable shield.
The recommended recovery temperature range using a CV1981 Heat gun and PR reflector as per Table 1 is 230°C to 250°C.

6 Inspection Requirements

No inspection of the joint should take place until it has completely cooled.
Check there is evidence of wetting at the joint i.e. the solder has flowed.
Check the solder sleeve overlaps the cable jacket.

There should be no scorching of the shield, solder sleeve, cable jacket or damage to the wires. Ensure no strands are protruding through the solder sleeve insulation.

7 Visual Standards

ACCEPTABLE

NOT ACCEPTABLE
Solder sleeve incorrectly positioned

NOT ACCEPTABLE
Insufficient solder flow

NOT ACCEPTABLE
Shield spike penetrating Insulation

Rev No	CR No	Date	Raised	Approved
3	CR06-DM-071	25/04/06	John Cronin	Ken Wallington
4	CR09-DM-018	20/02/09	Paul Newman	Neil Dorricott
5	Visual Identity	06/06/11	Paul Newman	Neil Dorricott