
ELE-3COP-301

Title – Service Looping Requirements.

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 providing strain relief for wire termination in 16 AWG through to 26 AWG wires. 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 providing strain relief for wire termination including the installation of 360° loops in 16 AWG through to 26 AWG wires. Wires may be formed to:

- Provide strain relief to the wire termination.
- Provide surplus length for repair purposes.

3 Materials and Equipment

Connector Termination
Looping tool as per Figure 1

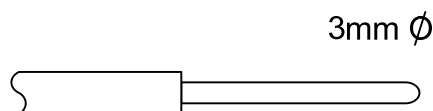


Figure 1

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.

5 Procedure – 360° Looping

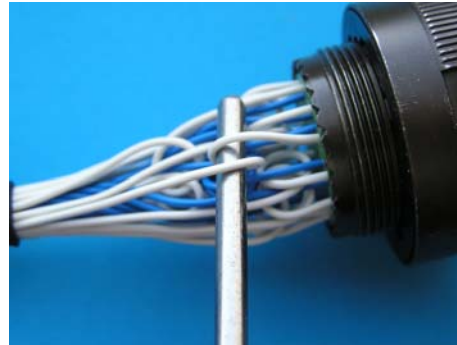
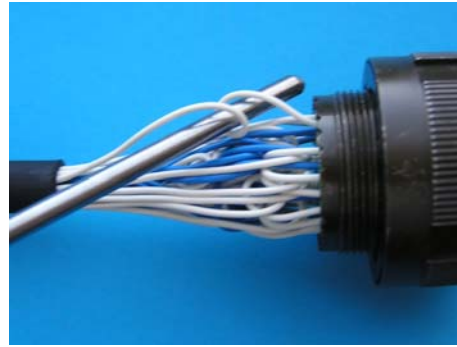
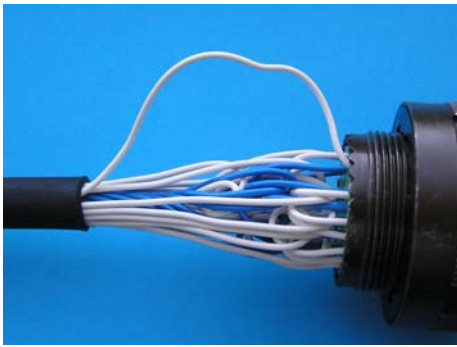
360° looping of wires is normally only considered for connectors with removable contacts. Each application should be reviewed for suitability of 360° looping dependant upon wire size and space restraints.

Crimp and insert contacts or solder the wires into the connector either singularly or two at a time. Using the looping tool form the wires into loops as shown in this procedure.

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On circular connectors it is recommended to start at the centre and work outwards if the numbering runs clockwise or anti clockwise. For rectangular or circular connector identified in rows, it is recommended to work row by row.



Loops must be staggered to minimize any increase in the cable diameter. When the looping is complete all loops should face inwards to give a neat appearance and to ensure that wires are not trapped or damaged by the adaptor or back fitting when assembled. Coaxial cables and wires insulated with Rayfoam™ should not be considered for looping unless terminated by a solder device and additional leads.

Strain Relief without 360° looping

When looping is not possible due to lack of space or is not specified, it is important that wire terminations are not left under strain. Achieve this by ensuring that the initial strip length is sufficient to allow the wires to be compressed slightly after the adaptor or back fitting has been assembled.



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Typical excess wire 2mm

Typical excess wire 6mm

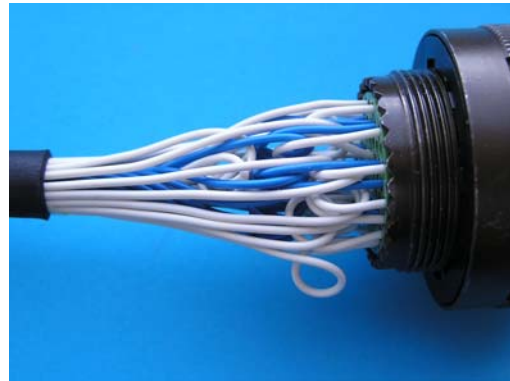
6 Inspection Requirements

Insulation should be free from damage or deformation.
Loops are facing inwards.
Ensure all wires are not put under strain.

7 Visual Standards



ACCEPTABLE



NOT ACCEPTABLE
Wire could be trapped between the adaptor and the connector.



NOT ACCEPTABLE
Insufficient strain relief on all wires



NOT ACCEPTABLE
Insufficient strain relief



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6	CR06-DM-071	06/04/06	John Cronin	Ken Wallington
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8	Visual Identity	06/06/11	Paul Newman	Neil Dorricott

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