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# ELE-3COP-551

## Title – Installation and Recovery of Heat Shrinkable Tubing.

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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 installing heat shrinkable tubing. 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 carrying out the installation and recovery of Heat Shrinkable tubing. The requirement of this procedure is to install and recover tubing without splitting, scorching or leaving spongy areas due to air entrapment. As a general guide always choose the largest size tubing which will recover over the substrate to be covered.

Always refer to the appropriate Product Datasheets for installation temperatures prior to installing the tubing.

### 3 Materials and Equipment:

Heat Shrinkable tubing. Refer to TE for product selection  
Substrate to be covered  
Heat gun CV1981 or Equivalent  
Select the relevant Reflector form Table 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.

DO NOT HANDLE HOT REFLECTORS without using heat resistant gloves.

A knife should never be used for cutting tubing as this can easily cause personal injury.

### 5 Procedure

Before installing heat shrinkable tubing with the exception of end tapes, ensure that any adhesive tapes along the length of the cableform have been removed.

Cut tubing clean and square to length. Allow for longitudinal shrinkage and extra for any assembly practices.

Feed the tubing over the section to be covered. In the case of multi-branched harnesses make sure the tubing is pushed right into the transition area.

Recover tubing using the correct heat gun, heat setting and reflector.

Always shrink from one end of the tubing and work slowly towards the unrecovered end ensuring the tubing fully recovers as you go.

On branched assemblies heat from the transition area and work to the end of the branch.

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### 6 Table of Reflectors

Reflector Part Number	Tubing Size Imperial (inches)	Tubing Size Metric (mm)
PR-12	1/4 to 1	6 to 25
PR-13	Up to 1/4	Up to 6
PR-21 (Double width)	Up to 1	Up to 25
PR-24	1 to 3	25 to 35
PR-24A	1-3/8 to 2-1/4	35 to 60

### 7 Inspection Requirements

Tubing shall be of even recovery.

Tubing shall be free of burns or scorch marks.

Tubing shall be free of cuts, nicks or blemishes.

Inspect to ensure that the tubing is fully recovered and that there is no air entrapment.

### 8 Visual Standards



ACCEPTABLE



NOT ACCEPTABLE  
Tubing scorched



NOT ACCEPTABLE  
Tubing Split



NOT ACCEPTABLE  
Air entrapment or tubing not fully recovered



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Rev No	CR No	Date	Raised	Approved
4	CR06-DM-071	02/05/06	John Cronin	Ken Wallington
5	CR09-DM-018	02/02/09	Paul Newman	Neil Dorricott
6	DMTEC	30/04/13	John Cronin	Neil Dorricott

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