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For BT people

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Cabling In Duct Manual

Introduction and Index

About this document ...

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Content approval

This is the Issue 11 of this document.
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Version History

Version No.	Date	Author	Comments
Issue 11	22-Feb-2021	Carl Morrell	Section 4 updated
Issue 10	08-Oct-2020	Carl Morrell	Change of author and approver
Issue 9	06-Dec-2015	ISIS co-ordinator .	Safety Helpdesk No. Change
Issue 8	03-Mar-2015	Document Manager T	Document migrated onto new platform with no content change
Issue 8	21-Oct-2014	ISIS co-ordinator .	Section 4, safety services number updated and HSC/COP/A002 link updated to SFY/HSH/C008 - Risk Assessment Policy. (AT352)
Issue 7	10-Apr-2007	Carl Morrell	Safety infortmation added in section 4
Issue 6	7-Feb-2007	Carl Morrell	Reference to EPT/UGP/E042 removed
Issue 5	17-Oct-2006	Carl Morrell	Reviewed
Issue 4	23-Sep-2003	Carl Morrell	Change of Author and Approver
Issue 3	24-Jul-2001	ND Adams	change of author and minor detail changes

Table of Content

1 *Introduction*

Issue 1 of Cabling in Duct Handbook has been revised. This second issue is produced as a manual containing a number of ISIS documents. Each ISIS document covers a specific area of work.

This set of ISIS documents is now titled the Cabling in Duct Manual and lays down the working practices to be used during underground cabling and associated operations. These operations must only be carried out by staff who have received the appropriate training.

Underground cable installation can only be carried out safely by being aware of, and following the procedures detailed within the Cabling in Duct Manual.

2 *Scope*

The Cabling in Duct Manual is designed as a reference document for use by Field Managers and their Work Team Members who install cables in BT's underground network. The manual is divided into separate ISIS documents appropriate to a specific area of cable installation. A brief summary of the contents of each ISIS is detailed in Section 4 of this document.

An Index to the Cabling in Duct Manual is detailed in Appendix A of this document.

3 *Issue Status*

When an individual ISIS document within the Cabling in Duct Manual is amended, it will be re-issued with a new issue number.

This index (including the Manual Contents detailed in Appendix A) will be updated and re-issued to reflect any changes to ISIS documents required in the Cabling in Duct Manual.

4 *General Safety Requirements*

It is a requirement of 'The management of Health & Safety at Work Regulations 1999' that work activities have a suitable and sufficient assessment of the risks associated with that activity. The whole of the worksite must be fully enclosed using barriers. The “worksite” to include any/ all tools, equipment. For instance box lids, lifters, pumps, blowers etc

The assessment of risks associated with cabling in duct are primarily stated in 'Generic Risk Assessment - External UG Cable Works In Duct' SFY/GRA/B001. This document refers to safety documentation relating to underground cabling activities.

In addition, the Cabling in Duct Manual contains references to risks related to specific tasks at appropriate places within the text.

Underground cable installation and cabling associated operations MUST only be carried out by staff who have received the appropriate training.

It is important that the local circumstances and the hazards arising are assessed for their impact on the generic risks and a suitable Risk Assessment is completed (see SFY/HSH/C008 - Risk Assessment Policy).

EPT/UGP/E031 details the Safety Precautions associated with all underground cabling operations.

People MUST NOT be in underground structures during winching operations or when cables or rigging are under tension.

Always check the condition of any anchorage points, ensure they are given a visual inspection for damage and corrosion prior to use.

Always establish effective communications before commencing any cabling operations.

Perform equipment checks at depot to ensure that all controls function correctly. If any defect likely to affect safety is found, the equipment must be withdrawn from service and the defect reported.

Always test to ensure that the emergency stop system fitted to cabling equipment (eg the winch) is functioning correctly before starting the cabling operation. Do not use the equipment (eg winch) if the emergency stop is malfunctioning.

Do not interfere with ropes under tension.

Always release the rope tension before attempting to free a jammed rope.

Do not take any cabling links, swivel connectors or Connectors CSM around the rope turning sheave or the winch capstan.

Always enclose the cabling rope, or draw-rope within the guides between the duct-mouth and the winch.

Always use the telescopic stay (against the frame of the joint box or manhole opening) to take up the reaction forces when cabling. Ensure that the underground structure opening is sound.

Stop the winch and release the tension before adding or removing turns of draw-rope from the winch capstan.

Always use guides between the duct-mouth and the winch capstan to prevent chaffing of the rope on the edge of the manhole or joint-box.

If in doubt about any safety issue, please contact your line manager or Safety Services 0800 181 4321, Option 3.

5 References

'Generic Risk Assessment - External UG Cable Works In Duct' - SFY/GRA/B001.

Cabling in Duct Manual - See index contained in EPT/UGP/E031.

6 Summary of Contents

The Cabling in Duct Manual consists of current issues (see Appendix A) of the ISIS documents detailed below. A brief summary describes the contents of each document.

Cabling in Duct Manual (EPT/UGP/E031)
Details the contents and structure of the manual

Winch Cabling Lightweight (EPT/UGP/E037)
Details the description and use of a portable, self reeling winch suitable for pulling in cabling rope and light cables into underground ducts.

Cable Drum Trailers (EPT/UGP/E040)
Provides a generic description of the current range of cable drum trailers and details their operation and use for transporting and installing underground cables.

Safety and Reference Documents (EPT/UGP/E031)
This ISIS covers the common safety requirements for the documents listed in the Index (EPT/UGP/E031).

Rodding Methods (EPT/UGP/E043)
This document details BT approved methods of rodding underground cable ducts. It also details methods of cleaning ducts, prior to installation of cables or sub-duct, and locating obstructions within a duct route.

Underground Cabling Ropes and Attachments (EPT/UGP/E044)
This document details BT approved underground cabling ropes, their properties and their suitability for use with different types of cabling winches. Methods of joining ropes and attachments to the current range of metallic and optical cables and Blown Fibre Tubing are also detailed.

Underground Cabling Guides and Rigging (EPT/UGP/E045)
Details the use of the current range of underground cabling guides and methods of rigging guides in underground structures.

Underground Cable Installation (EPT/UGP/E046)
This document describes the work practices to be used during underground cabling operations for the installation of metallic and optical fibre cables and

Blown Fibre Tubing. It also details the cable installation methods for OTIAN ® networks.

Cable Optical Fibre 200 - Installation & Recovery (EPT/UGP/E051)
This document descibes the work practices to be used during underground cabling operations for the installation of Cable Optical Fibre (COF) 200 series. This cable is installed using separate machinery utilising cable blowing techniques

7 *Associated ISIS Documents*

7.1 Mechanical Aids

The Cabling in Duct Manual should be read in conjunction with the relevant ISIS documents which detail descriptions and operating instructions for cabling and associated equipment.

Title	ISIS Reference
Commercial Vehicle Driver's Handbook	MTT/VHE/E001
Rodding and Light Cabling Unit	EPT/UGP/E032
Light Cabling and Jointing Unit	EPT/UGP/E033
Medium Cabling Unit	EPT/UGP/E034
Trailer Winch 2	EPT/UGP/E036

7.2 Supplementary Documentation

The documents detailed below contain ISIS practices for supplementary cabling operations:

Title	ISIS Reference
Installation Practices for Sub-duct Mono-bore	EPT/UGP/E041
Cable Recovery Handbook	EPT/UGP/E049
Installation of Sub duct Mono bore 5	EPT/UGP/E050

It should be noted that from time to time supplementary information may be issued in the form of External Engineering Memos. This information will be incorporated into future updates of the appropriate ISIS document except where the information is of a temporary nature.

8 *Change Requests*

Document Change Requests (DCR) should be carried out in accordance with ISIS QMS/GQU/A008.

Document Change Requests should be forwarded using Form DCR/GQU/003.

9 *Appendix A*

Cabling in Duct Manual - Index of Contents

Title	ISIS Reference	Issue
Cabling in Duct Manual - Introduction and Index	EPT/UGP/E031	2
Cabling in Duct Manual - Winch Cabling Lightweight	EPT/UGP/E037	1
Cabling in Duct Manual - Cable Drum Trailers	EPT/UGP/E040	1
Cabling in Duct Manual -Safety and Reference Documents	EPT/UGP/E031	1
Cabling in Duct Manual - Rodding Methods	EPT/UGP/E043	1
Cabling in Duct Manual - Underground Cabling Ropes and Attachments	EPT/UGP/E044	1
Cabling in Duct Manual - Underground Cabling Guides and Rigging	EPT/UGP/E045	1
Cabling in Duct Manual - Underground Cable Installation	EPT/UGP/E046	1
Cabling in Duct Manual - Cable Optical Fibre 200 Installation & Recovery	EPT/UGP/E051	1

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