



openreach

a BT Group business



Metal Theft Taskforce IDENTIFICATION BOOKLET

THE THEFT OF METAL IS A GROWING PROBLEM IN THE UK, DIRECTLY AFFECTING MULTIPLE INDUSTRY SECTORS (POWER, TRANSPORTATION, WATER AND COMMUNICATIONS).

The current cost of metal theft to the UK economy has recently been estimated by ACPO¹ at £770m p.a. This financial impact is dwarfed by the impact on society (inconvenience and potential impact on public health and safety) and commerce.

¹ACPO – ASSOCIATION OF CHIEF POLICE OFFICERS
Conductive Metal Theft Working Group – Metal Theft Problem Profile

Attacks on BT copper cable network have isolated entire communities and disrupted emergency service communications.

Openreach strictly controls the recovery and processing of its own waste cable and it should not be available on the open market. **All cable recovered by BT, or its contractors, is disposed of through Openreach's official channels and should not be offered directly to scrap metal dealers or recyclers.**

WE MARK – This document is designed to assist in the identification of Openreach owned cables and associated metal assets. It is only a guide and is by no means exhaustive. If in doubt, the Openreach Metal Theft Taskforce will be able to provide formal identification.

WE SEARCH – Openreach and BT Group are working closely with police forces across the UK, The British Metals Recycling Association, Crimestoppers and SmartWater to combat metal theft.

WE PROSECUTE – The BT Metal Theft Taskforce provides dedicated resource and investigates all incidents involving the theft or damage of cable from within our network and operational estate.

CONTACT DETAILS

BT Security Helpdesk (24 hours) – 0800 321 999

Openreach Network Integrity Unit – 0791 8082905

Operation EIGER email address – eiger@bt.com

SmartWater Control Room – 0800 0287317

or email controlroom@smartwater.com

Crimestoppers – 0800 555 111 www.crimestoppers-uk.org



THE LAW – SCRAP METAL DEALERS ACT 1964

The Scrap Metal Dealers Act 1964 Civic Government (Scotland) Act 1982, allows local authorities to regulate the scrap metal trade within their area. Scrap metal dealers registered with a local authority have a legal obligation to maintain books recording their dealings in relation to:

- All scrap metal received at their premises
- All scrap metal either processed at, or despatched from, their premises – unless holding an exemption under the Civic Government (Scotland) Act 1982.

All books must be bound and kept exclusively for this purpose. They must be retained for a period of two years after the final entry.

SCRAP METAL EITHER PROCESSED AT OR DESPATCHED FROM PREMISES

In relation to scrap metal either processed at, or despatched from premises, the book must accurately record:

- Description and weight
- Date and description of processing or date of despatch
- In the case of scrap metal despatched on sale or exchange, full name and address of person to whom sold, or with whom exchanged and the consideration (price, value or other property) for which sold or exchanged
- In the case of scrap metal processed or despatched other than on sale or exchange, the estimated value immediately before processing or despatch. All entries must be recorded immediately after the transaction.

IT IS A CRIMINAL OFFENCE TO FAIL TO COMPLY WITH THESE REQUIREMENTS

POWERS OF ENTRY AND INSPECTION

Under section 6 (1) of the Act, any constable shall have a right at all reasonable times:

- (a) To enter and inspect any place for the time being entered in a register under section 1 of this Act as a place which is occupied by a scrap metal dealer as a scrap metal store or as a place which is occupied by a scrap metal dealer wholly or partly for the purposes of his business.
- (b) To require the production of, and to inspect, any scrap metal kept at place and any book which the dealer is required by this Act to keep at that place, or, as the case may be, any receipt which the dealer is required to keep as mentioned in section 3(1)(b) of this Act, and to take copies of or extracts from such books or receipts.



STOLEN METALS INITIATIVES

Openreach cable and assets have been marked with a robust forensic liquid called **SMARTWATER**, a forensic coding system which is invisible to the naked eye but fluoresces yellow under ultra-violet (UV) light.



SmartWater contains a unique forensic code which links property to its owner, is almost impossible to completely remove and is capable of withstanding burning and bleaching. If attacked SmartWater may fragment onto cutting and processing equipment, providing a link back to a specific crime scene.

SmartWater can be applied to any item of value, including all non-ferrous metals and is **widely used within BT to protect cable and other assets at risk of theft – including within our underground cable network.**

SmartWater could be anywhere within our network and estate and is also widely used in specialist undercover operations.

Police forces throughout the UK are trained to look for SmartWater. Scrap metal dealers and metal recyclers are also working with the police and are scanning metals brought onto their premises with UV equipment. If they find any traces of SmartWater on metals then they will refuse to handle it and, where necessary, will inform the appropriate authorities.

CRIMESTOPPERS

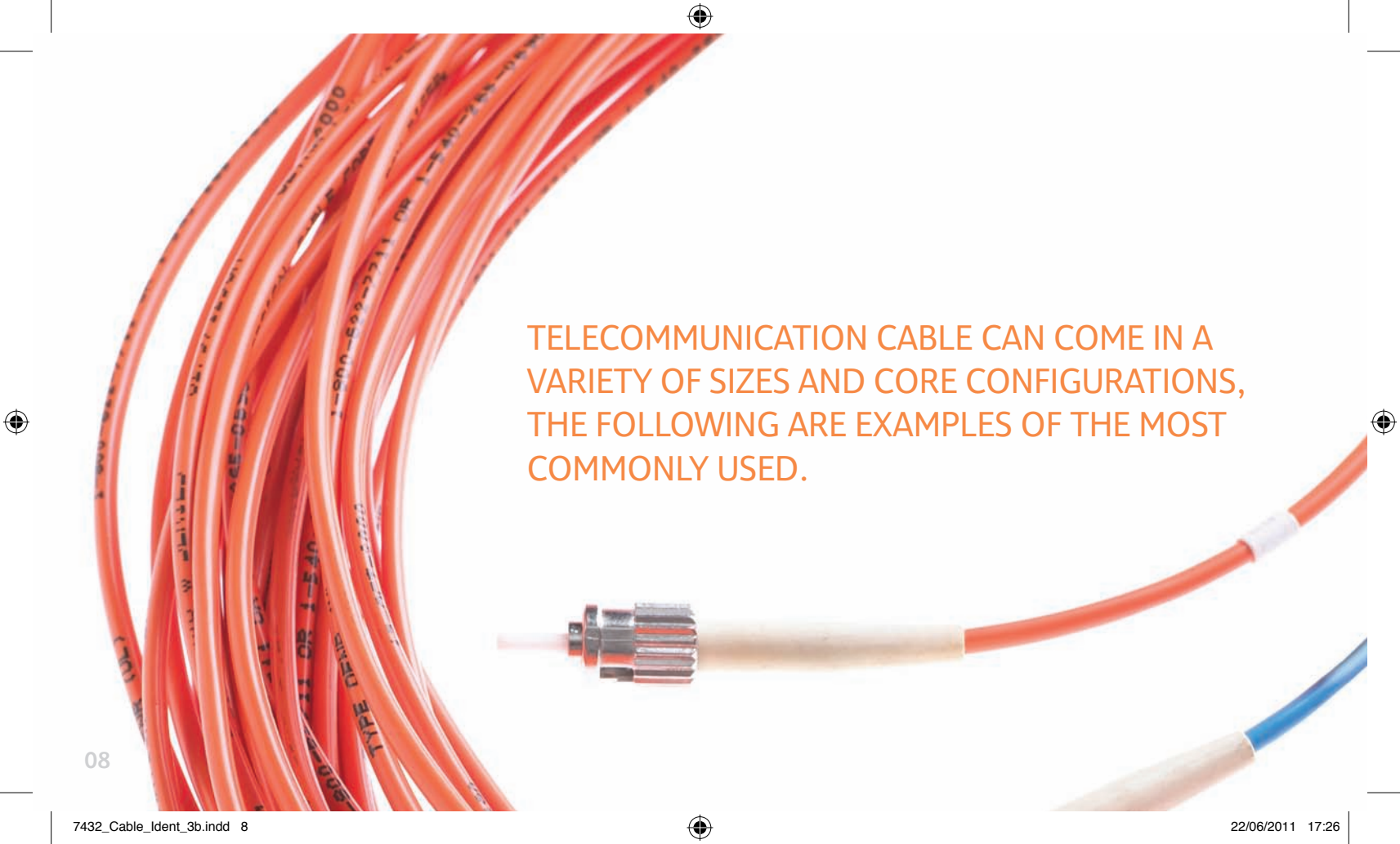
Crimestoppers is an independent charity helping to fight crime. It is not part of the police or government.

The charity believes that people and their communities have the right to live without crime and without the fear of crime.

Their mission is to provide a means to detect, reduce and prevent crime through the provision of information about crimes to law enforcement from anonymous sources.

Crimestoppers operates 0800 555 111 and www.crimestoppers-uk.org for people to pass on information about crimes anonymously. They will not take users' names or any personal details and information cannot be traced or recorded. As users remain anonymous, it also means they will not go to court or give a statement to police.

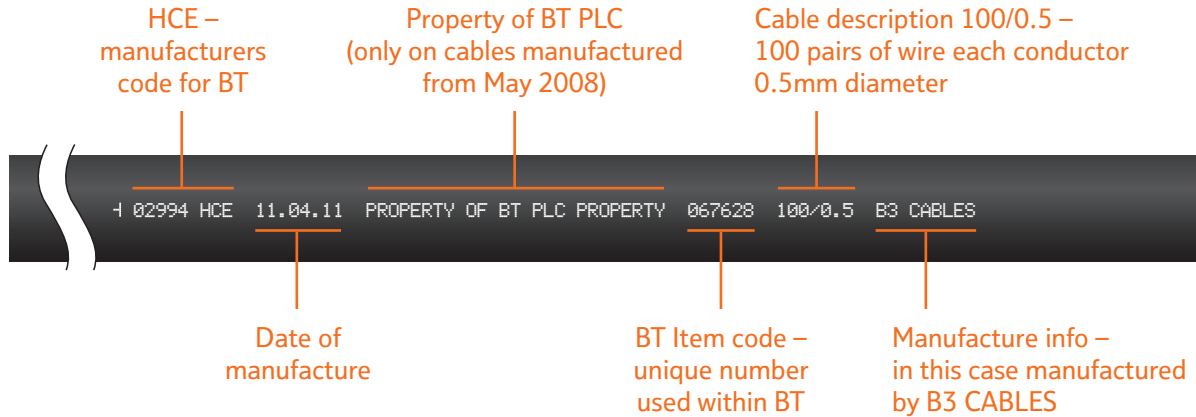


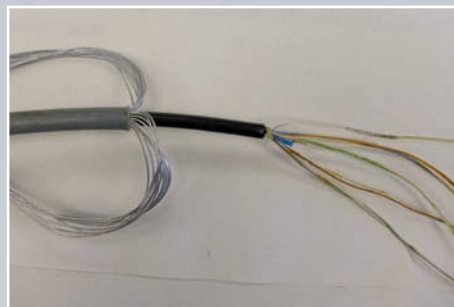


TELECOMMUNICATION CABLE CAN COME IN A VARIETY OF SIZES AND CORE CONFIGURATIONS, THE FOLLOWING ARE EXAMPLES OF THE MOST COMMONLY USED.

CURRENT CABLE MARKINGS

Some telecommunication cables used by BT have their own unique marking printed onto the outer sheathing. This is an example of a typical cable marking:





5 PAIR 0.5mm SWA TELECOM CABLE

Grease filled steel wire armoured telephone cable
5 pairs 0.5mm conductor
Outer sheath colour – light grey
Layer of galvanised steel wires
Inner sheath colour – black
Diameter – 10mm

This cable also comes in 10, 20, 50 and 100 pair sizes
with various core configurations.



300 PAIR 0.4MM PEUT TELECOM CABLE

Air core duct telephone cable

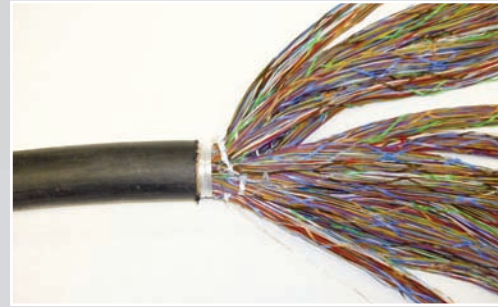
Aluminium moisture barrier adhering to the sheath

300 pair 0.4mm conductor

Sheath colour – black

Diameter – 23mm

This cable also comes in 50 – 4800 pair sizes with various core configurations.



800PR 0.5MM PEUT TELECOM CABLE

Air core duct telephone cable

Aluminium moisture barrier adhering to the sheath

800 pairs 0.5mm conductor

Sheath colour – black

Diameter – 46mm

This cable also comes in 50 – 4800 pair sizes with various core configurations.



1600PR 0.4MM PEUT TELECOM CABLE

Air core duct telephone cable

Aluminium moisture barrier adhering to the sheath

1600 pairs 0.4mm conductor

Sheath colour – black

Diameter – 51.5mm

This cable also comes in 50 – 4800 pair sizes with various core configurations.



20 PAIR 0.5MM PET TELECOM CABLE

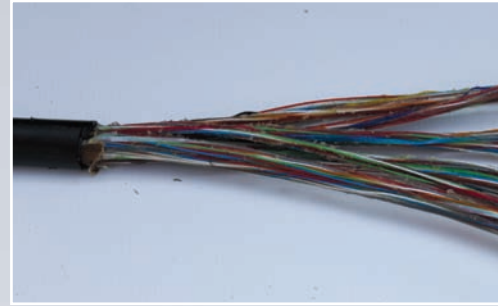
Grease filled duct multi-pair telephone cable

20 pairs 0.5mm conductor

Sheath colour – black

Diameter – 10mm

This cable also comes in 2 – 100 pair sizes with various core configurations.



100 PAIR 0.5MM PET TELECOM CABLE

Grease filled duct telephone cable

100 pairs 0.5mm conductor

Sheath colour – black

Diameter – 24mm

This cable also comes in 2 – 100 pair sizes with various core configurations.



50 PAIR 0.5MM AERIAL CABLE

Grease filled figure 8 aerial cable

50 pairs 0.5mm conductor

Steel support strand

Sheath colour – black

Diameter – 16mm

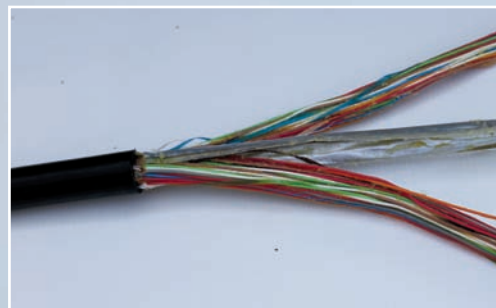
This cable also comes in 10 – 100 pair sizes with various core configurations.



100 PAIR 0.6MM AERIAL CABLE

Grease filled aerial cable
100 pairs 0.6mm conductor
Steel support strand
Sheath colour – black
Diameter – 30mm

This cable also comes in 10 – 100 pair sizes with various core configurations.



40 PAIR 0.6 TVS (PCM) CABLE

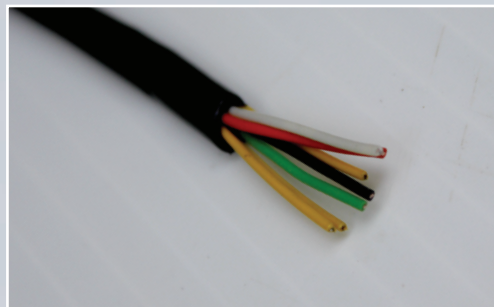
Grease filled duct telecom cable

40 pairs 0.6mm conductor

Transverse screen – this is a second foil barrier separating the inner core

Diameter – 20mm

This cable also comes in 20, 40 and 80 pair sizes all with 0.6mm conductors.



DROP WIRE NUMBER 10

2 pairs 0.5mm conductors
Aerial telecom cable
X3 steel support strand
Sheath colour – black
Diameter – 5mm

This cable also comes in 1, 2 and 4 pair sizes
with various core configurations.

LEGACY CABLE

LEAD-SHEATHED

Lead-sheathed cable was installed in the ground up until the late 1960s, but is still very common. It comprises of an outer layer of lead – sometimes wrapped in hessian and bitumen for protection, with a paper-wrapped copper core.

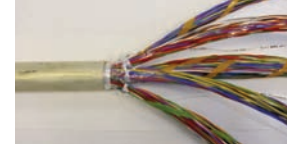
Lead cables come in a variety of sizes, from 1cm to nearly 10cm diameter. The inner core can also differ in its appearance – many trunk cables will have a number of thick coaxial tubes at the centre.



POLYTHENE-SHEATHED CABLE

After lead-sheathed cable was discontinued, BT introduced a polythene-sheathed cable. The outer core is made up of a translucent or white coloured polythene sheath, with an aluminium barrier between it and the core. The core is still paper-wrapped copper and is identical to that used in the previous lead cables. Again it comes in a variety of sizes and core configurations.

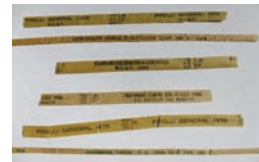
The pairs are insulated with either plastic or paper sheathing.



Coaxial cable was used to carry high grade circuits prior to fibre optics. This type of cable consists of copper coaxial tubes wrapped in a steel ribbon. Again, it comes in a variety of sizes and core configurations.



These are examples of manufacturers' ID labels found on legacy cable. ID labels are located between the sheathing and copper conductors.



INTERNAL CABLE (JUMPER WIRE)

This twin core cable is stored on small hand-held drums and used internally within telephone exchanges. Due to its size it does not have any marking along its length but is unique to BT. It is disposed of by BT within white marked plastic sacks.





FIBRE OPTICAL CABLE

The examples here are of fibre optical cables and tubing. This type of cable consists of plastic tubing which protects the glass conductors. This cable does not contain any metal but is used extensively within the telecommunications network.

BT CABLE DRUM LABELS

The following are typical labels which would be affixed to a cable drum owned by BT.

B3 Cable Solutions	
BT Logo	MAGNA PARK-Bracknell
Contract/Customer Ord No 8637W6-0026199	
BT Job No.1	
IBAO5RPN	
Item Code: 067569	Length: 1100m
Description: 400/0.43 CW1224 67569	
Packing Item: DAB09 HOME DRUM SIDE F	
Delivery Address: 12-02-2011	
STATION NUMBER	
FRANCE HOUSE	
ST MURIELS TFC (DP)	
DELANA WAY	
MURSLING	
SOUTHAMPTON	
SO14 0YU	
Special Instructions: 690 MOD / 836015	
IBAO400613MOOD	
Weight: 1440.900 (kg)	
Barcode	
STA1	
For quality issues - please go to the URL: http://www.bt.com/bt	
For product support please go to the URL: http://www.bt.com/bt	
For BT products please go to the URL: http://www.bt.com/bt	

B3 Cable Solutions	
BT Logo	MAGNA PARK-Bracknell
Contract/Customer Ord No VK5261785709	
BT Job No.1	
IAAAD7WJ -	
Item Code: 067628	Length: 500m
Description: 100/0.598T UNDM CW124-047	
Packing Item: KEEL02 reel type 2	
Delivery Address: 09-02-2011	
STATION NUMBER	
PAUL ANNETTE	
ST MURIELS TFC (DP)	
DELANA WAY	
MURSLING	
SOUTHAMPTON	
SO14 0YU	
Special Instructions:	
IBAO10055800D	
Weight: 373.000 (kg)	
Barcode	
STA1	
For quality issues - please go to the URL: http://www.bt.com/bt	
For product support please go to the URL: http://www.bt.com/bt	
For BT products please go to the URL: http://www.bt.com/bt	

PRYSMIAN	
DRAIN COLLECTION FREEPHONE 800 413227 Stock No. LC6185545	
DRINK WATER RESISTANT	
2400	
PRYSMIAN INFORMATION	
87013	

CABLE TRAILERS

Larger cable drums are transported by cable trailers. The following are examples of the type of trailers used by BT.



CABLE WINCH

Cable winches are used by Openreach and its contractors to install and remove cable from within the underground network. The following photographs are examples of the different types used by BT and contractors.



It is common practice for thieves to process the cable before selling it on by removing its outer sheathing. This is generally achieved by stripping the outer sheathing and burning the conductors to remove the insulation. The following photos are examples of the results of this practice.

Stolen cable can also be found cut into 1 to 2 metre length “sticks”.



FOR MORE INFORMATION PLEASE VISIT
WWW.OPENREACH.CO.UK/CABLEPROTECTION



www.openreach.co.uk



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