

openreach

ISIS practice
For Openreach people

AEI/AEC/B331

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Fibre Cleaning Process

About this document ...

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Content approval

This is the Issue 4 of this document.
The information contained in this document was approved on 29-Oct-2021
by Louis Cawston, Tools Innovation Professional

Version History

Version No.	Date	Author	Comments
Issue 4	29-Oct-2021	Will Gill	Change of author and approver
Issue 3	28-Oct-2020	Louis Cawston	Update to item codes
Issue 2	26-Aug-2020	Louis Cawston	Author/Approver update
Issue 1	22-Aug-2019	Louis Cawston	New Document

Table of Content

1 INTRODUCTION ----- 5

2 EXECUTIVE SUMMARY:----- 5

3 STATUS: ----- 5

4 SCOPE:----- 5

5 DETAIL: ----- 5

6 TRAINING: ----- 11

1 ***Introduction***

Quick Start Template for Access Engineering Communications (AECs)

- a) This template is to be completed by the Subject Matter Expert
 - b) The content will be used to create DRAFT and ISSUE versions of Access Engineering Communications (AECs). The template has been designed to align with the Component Launch Process (CLP).
 - c) The Documentation Technical Author (TA) will use this template to create the AEC.
 - d) It is important that all sections are completed. Technical diagrams can be supplied within this template or provided under separate cover to the TA.
 - e) If possible, construct all text using Arial 11
- Fibre cleaning products for use in all fibre activities

2 ***Executive Summary:***

This AEC is to advise of the importance of fibre cleaning, the new fibre cleaning products and mandatory practices that are to be carried out when working on any fibre task – this includes fibre build.

This applies to Openreach people and contractors engaged in the build and maintenance of the fibre network

3 ***Status:***

- Working Practice
- New Components
- Quality Standard

4 ***Scope:***

In scope; all engineering (Openreach and Contract) involved with Fibre tasks and associated activities in UK and NI

5 ***Detail:***

Contamination within the fibre network will have a severely negative impact on the services carried resulting in potential loss of service and reduction to the quality and reliability experienced by the end user. To mitigate against this we



need to ensure the fibre network is cleaned every time it is worked upon achieving the highest possible cleanliness and quality standards. It is now mandatory that each and every connection is cleaned using the new kit shown. There will be 2 separate kits available, The FND kit and the SD kit.

- The FND kit will include a 1.25mm Click Cleaner and an MPO Click cleaner, whereas the SD kit will not – this is because SD will not be working on these types of connectors so will not require the cleaning products associated with them

Remember - It is mandatory to use the items within this kit every time a fibre is connected/spliced. Defects will be issued upon a failed audit.

Specification of the Fibre Cleaning Kit

The fibre cleaning kits (top 2 shown) contain the whole range of kit required under one item code and contain either the 4 or 6 items alongside the bag dependent on the type of work you do. For replenishment or if just singular items are needed all items will be available for ordering separately.

Item Name	Item Code	Description	Picture
FND Fibre Cleaning Kit	101273	1.25 Click Cleaner 2.5mm Click Cleaner MPO Click Cleaner Cleaning Solution (x2) Cleaning Wipes 2.5mm CleanStixx	
SD Fibre Cleaning Kit	101271	2.5mm Click Cleaner Cleaning Solution (x2) Cleaning Wipes 2.5mm CleanStixx	

Orange Wet Cleaning Bag	100202	Replacement Cleaning Bag (empty)	
1.25mm Clean-Click Tool	100206	- Click Cleaner for LC/UPC/APC. - 750 Clicks per unit	
2.5mm CleanClicker OF Cleaner	100205	- Click Cleaner for SC/UPC/APC - 750 Clicks per unit	
MPO CleanClicker	100201	- Click Cleaner for MPO connectors. - 600 Clicks per unit	
Fibre Cleaning Fluid 196ml	105490	- Fibre Cleaning fluid - x1 196ml Bottle	
Cleanwipe Optical Grade Wipe	100204	- Box of 100 lint free optical grade wipes	
CleanStixx – 2.5mm Pack 10	100207	- Cleaning swab with 2.5mm end face for wet cleaning ferrule connectors	

Instruction Guide

Dry Cleaning - Click Cleaners

Connectors can be cleaned easily and effectively using the Click Clean tools provided in the kit. The method for cleaning is as follows:

- 1) Select appropriate click tool for the connector or port being cleaned



- 2) Remove end cap of tool and insert the tip of the tool into connector ferrule.
- 3) Gently push the handle toward the connector. Please note 2 clicks are required for a CBT. 1 click for all other connectors

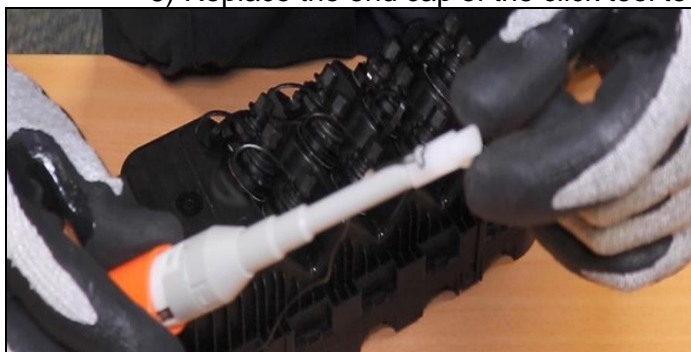


- 4) It is essential that both ends of a connection are cleaned – this will prevent contamination spreading from the surface of one connector to another (cross-contamination)

- 5) Repeat the process for the opposing Connector and connect.



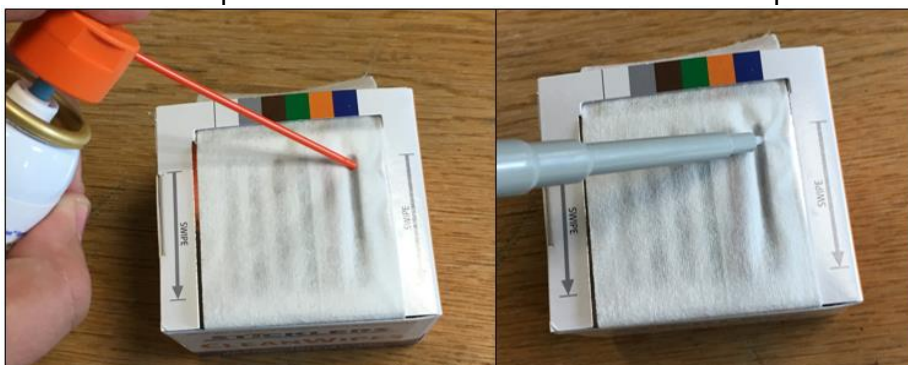
- 6) Replace the end cap of the click tool to prevent the entry of dust



Wet Cleaning

For a heavily contaminated connector, there are 3 ways to effectively clean shown below.

- 1) *Click Cleaner* - The click cleaner can be used for a wet to dry clean
 - Pump a small amount of the cleaning solution onto a wipe
 - Dip the end of the click cleaner onto the damp section of the wipe



- Proceed to clean connectors. Only 1 click is required for a wet to dry clean on all connectors including CBT's.

Note: Please Note: Never dip the end of a click cleaner directly into the fluid as this can over saturate the click tool.

- 2) *CleanStixx* - Ferrule type connectors can also be cleaned using the CleanStixx.

Owing to the larger tip surface area of this product and the fact it is always used 'wet', this is a very effective cleaning method. Although very effective it takes longer so should be used in heavily contaminated challenging situations only. Use as follows:

- Holding the Cleaning Solution container horizontally, with the small hole on the side of the cap facing up – carefully pump a small amount of cleaning solution into the well.
- Using the other hand, take a cleaning stick and dip the end into the well



- Insert the dampened cleaning stick into the ferrule and rotate 6 to 8 times



Please note that each cleaning stick must only be used once

3) *Cleaning Wipes* - Connectors can also be cleaned using the cleaning wipes. The box has a pre fitted grille which is used as a guide and will maximize the use of a single wipe. If there is no ferrule, this makes for a very easy process. Use as follows:

- Using the dispensing tube on the cleaning solution container, lightly dampen the fabric in the channel at one end only. This will enable a wet to dry clean.



- Starting at the damp end of the channel, lightly press the connector into the cleaning material and draw it slowly towards the end in one motion. Carry out this action 3 times using the same connector in a single channel.



Note: Please note: Each channel should only be used once per connector for a total of 6 cleans per sheet. Never apply the cleaning solution directly to the fibre surfaces

Splicing

The cleaning wipes and solution are used to remove excess primary coating after stripping and clean any contamination caused during the stripping process. Use as follows:

- Lift the top cap of the solution dispenser

- Using a cleaning wipe – push down on the top of the dispenser to release the solution
- Run the bare fibre through the cleaning solution until 'squeaky clean'



Please follow the links below to watch 3 short video's demonstrating the use of the kit

[Training Video 1 - Importance of Cleaning and Introduction to Kit](#)

[Training Video 2 - Connectorised Cleaning](#)

[Training Video 3 - Fusion Splicing](#)

6 ***Training:***

- Process to be included into new recruit and engineers undergoing retraining.
- Initial CBT's to be created showing above videos
- ISIS (EPT/COF/D515) to be updated.
- A mandatory flip book created for all engineers
- Using L&D system to track engineers compliance ensuring all who use kit have watched the training videos
- Quality Standards
 - Yes part of FPQ in progress checks for fibre ensuring Sticklers is being used by DL
 - Updating the One Fibre Network guide to include
- Accreditation:
 - Yes to be included into accreditation

- **Quality Checks and Independent Audit:**
Yes include in quality standards and any auditing with DL and contractors
Defects to be issued on Audits

- **Planning Policy:**

Planning Policy has been considered and changes are not required

- **Contract Impact:**

- **For information only**

- **Reference Documentation:**

EPT/COF/D515

EPT/COF/C009

1) E- Assistant:

Potential to be added as FYI

2) Quality:

Recommended for inclusion where appropriate

3) Accreditation Documents:

Potential for inclusion

4) FPQ:

Yes. Add to FPQ as part of checks

5) Supply Chain:

New Stores items have been added to EASC

Item Code	Description
101273	FND Fibre Cleaning Kit
101271	SD Fibre Cleaning Kit
100202	Orange Wet Cleaning Bag

100206	1.25mm Clean-Click Tool
100205	2.5mm Clean-Click Tool
100201	MPO CleanClicker
105490	Fibre Cleaning Fluid 196ml
100204	Cleanwipe Optical Grade Wipes
100207	Cleanstixx – 2.5mm Pack 10

6) Communications:

- AEC – Yes now please
- FEN – when available and in stock for al
- LOOP – some already issued

SME notes or instructions for Technical Author:

END OF DOCUMENT
