

BEST PRACTICE FOR CLEANING FTTA – AARC/ODC/RDC CONNECTORS



CONNECTOR CLEANING AND SOURCES OF CONTAMINATION

REASON FOR CLEANING CONNECTORS:

- Mating dirty connectors will cause scratching and pitting ruining termini end faces
- Cleaning both end of mated connector pair before mating will extend service life of assemblies and ensure reliability of signals

COMMON SOURCES OF CONTAMINATION:

- Wear debris generated from moving parts when mating connectors
- Electrostatic charge caused by contact friction from dry cleaning processes
- Cross contaminated alcohol that has been diluted from atmospheric moisture, lint from paper based wipes, and broken cellular structure of foam tipped sticks

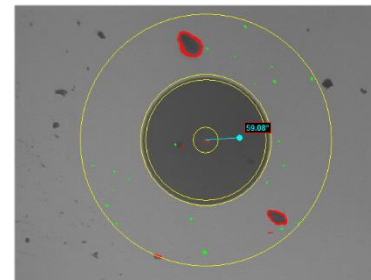
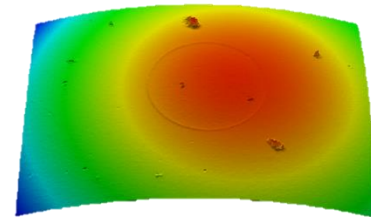


Image of dust contaminated end face courtesy of Promet Optics



CASE FOR USING STICKS AND CLEANING FLUID

1. CLEANING PERFORMANCE:

- The use of cleaning fluid breaks up heavy oils and residue contamination
- The strands in the cleaning tip create a capillary action which wicks up contamination from the end face



2. ELMINATION OF ELECTROSTATIC CHARGE EFFECT:

- The cleaning fluid becomes the dissipative medium that eliminates the electrostatic charge on the ferrule and connector housing
- Cleaning with a moisten cleaning stick does not create an electrostatic charge during the wiping process
- The cleaning stick's tip makes contact with the socket wall during the rotation process which dissipates the electrostatic charge
- Using the cleaning fluid will ensure compliance to IEC 8497-1 Sect 10



CASE FOR USING STICKS AND CLEANING FLUID

3. LARGEST EFFECTIVE CLEANING REGION:

- The cleaning stick's tip diameter is able to reach contamination that resides in the outer regions of the ferrule end face
- Removing contamination from end face periphery significantly reduces particle migration

LIMITATIONS OF ALL MECHANICAL CLEANERS:

- Dry wiping causes an electrostatic charge from the contact friction between the cleaner's cleaning strand flowing across the ferrule end face
- Wet-dry cleaning is ineffective because the cleaning strand wicks up on both sides of the cleaning strand requiring multiple engages
- The cleaning tip outer diameter is reduced to prevent contact with socket walls that would interfere with the cleaning strand flow
- The effective region is $< \varnothing 0.6\text{mm}$ for $\varnothing 1.25\text{mm}$ ferrule



RECOMMENDED STICKLERS PRODUCTS



MCC P/N: S12

NSN 6070-01-553-2267

9mm length cleaning tip for the
Ø1.25mm socket terminus



MCC P/N: P25

NSN 6070-01-553-2258

Recessed cleaning tip in handle
enable cleaning of the periphery
of Ø1.25mm pin terminus



MCC P/N: POC03M

NSN 6850-01-592-9391

Non flammable, non
aerosol precision cleaning
fluid in hermitically sealed
3oz air ship safe steel can



RECOMMENDED CLEANING PROCESS

SOCKET TERMINUS



APPLICABLE PRODUCTS:

- MCC P/N POC03M
Fiber Optic Splice & Connector Cleaner cleaning fluid
- MCC P/N S12
1.25mm CLEANSTIXX cleaning sticks



FOR BEST RESULTS:

- Moisten stick taking care not to over saturate
- Angle cleaning fluid can and gently engage pump
- Rotate stick in same direction 6X to 8X in same direction
- Use stick once to avoid accidental cross contamination



RECOMMENDED CLEANING PROCESS

PIN TERMINUS



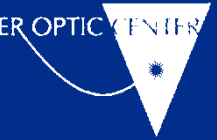
APPLICABLE PRODUCTS:

- MCC P/N POC03M
Fiber Optic Splice & Connector Cleaner cleaning fluid
- MCC P/N P25
Pin CLEANSTIXX cleaning sticks



FOR BEST RESULTS:

- Moisten stick taking care not to over saturate
- Angle cleaning fluid can and gently engage pump
- Rotate stick in same direction 6X to 8X in same direction
- Use stick once to avoid accidental cross contamination



For More Information Contact:

For further information contact:



Fiber Optic Center, Inc., 23 Centre Street, New Bedford, MA 02740
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Email: sales@focenter.com

Additional resources from the FOC team include:

- FOC technical solution content: <http://bit.ly/29WTvgn>
- Glossary, Acronyms, Military Specifications for Connectors: <http://bit.ly/2a2EFn8>
- Q&A Resource: email technical questions to AskFOC@focenter.com