

## Optical Connector cleaning procedure

Cleaning fiber optic connectors prior to installation is a critical factor that needs to be applied at all times. SYLEX's inspection and cleaning procedure is compliant with the IEC 61300-3-35 and IEC 62627-01 standards.

All fiber optic connectors must be inspected and cleaned before mating. Both sides of every fiber optic connection need to be inspected and if necessary cleaned before mating the pair. This should be done along with the sleeve interior cleaning before every connection, every time.

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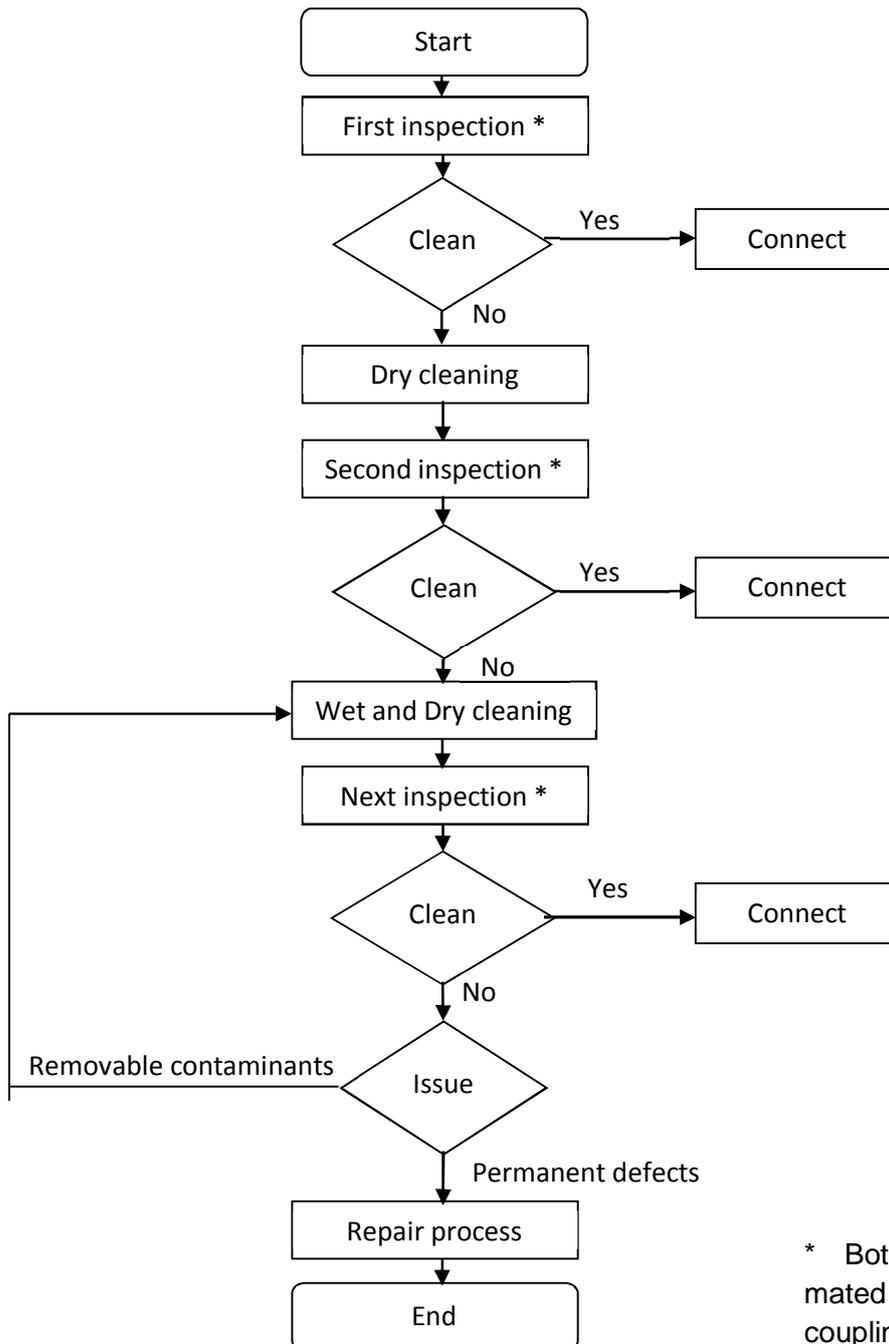
### 1. Introduction

- ▲ Clean, dry, filtered air such as that supplied by a high-quality aerosol duster
- ▲ At least 200x microscope for the Single fiber, MT, MPO/MTP and 4,5x microscope for the MXC/PRIZM MT and Prizm LT with the proper adapter for connector being inspected
- ▲ The proper connector cleaner from Table 1
- ▲ Specialized cleaning fluid

CONNECTOR CLEANERS		
Connector type	Connector dry cleaner	Bulkhead installed connector dry cleaner
Single fiber 1,25 mm	Reel Cleaner Lint-free wipes Pipe Cleaner	Stick Cleaner
Single fiber 2,5 mm	Reel Cleaner Lint-free wipes Pipe Cleaner	Stick Cleaner
Male Multifiber MT, MPO/MTP	Reel Cleaner MTP I.B.C.	MTP I.B.C.
Female Multifiber MT, MPO/MTP	Reel Cleaner MTP I.B.C.	MTP I.B.C.
Female MT-RJ	Reel Cleaner	Stick Cleaner
Male MT-RJ	Reel Cleaner	Stick Cleaner
MXC/PRIZM MT	MXC cleaning tool	MXC cleaning tool
PRIZM LT	PRIZM LT cleaning cassette	

**Table 1**

**2. Inspection and Cleaning process**



\* Both connectors to be mated together and their coupling adapter must be inspected.

### 3. Dry cleaning of connectors not installed in a mating adapter

#### Reel Cleaner

Select the reel cleaner for appropriate connector being cleaned from Table 1.

1. Grip the cleaner, depressing the green lever of the cassette. The metal shutter on top of the cassette will open, exposing fresh cleaning material. Fresh material is exposed each time the green lever is depressed.
2. Position the ferrule endface so that the fiber tips are in contact with the cleaning material. Wipe the ferrule endface along the cleaning material in the direction shown on the cleaner cassette.



3. Release the green lever of the cassette to cover the cleaning material.
4. Inspect the endface with a 200X microscope with the proper adapter for the connector being inspected installed. If contamination (oil, moisture, lint) is visible on any of the fiber tips, repeat the cleaning. Continue until all fiber tips are clean.

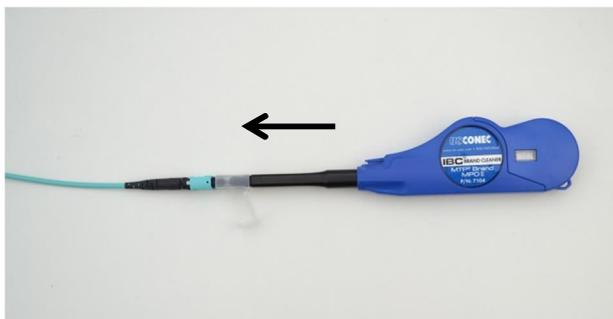
**NOTE:** Male MPO/MTP and MT-RJ OPTIPOP Reel Cleaners are designed to provide clearance for the connector guide pins, allowing the fiber tips to contact the cleaning material.

MTP I.B.C. Cleaner (MPO/MTP Connectors Only)

Use MTP I.B.C. for either male or female connectors.



1. Open the dust cap lid on the MTP I.B.C. cleaner.
2. Insert the MPO/MTP connector into the dust cap.



***NOTE:** The MTP I.B.C. cleaner dust cap simulates an MPO/MTP adapter. Insert the connector into the cap with the key of the connector matching the keyway of the cleaner.*

3. Push the cleaner towards the MPO/MTP adapter until the cleaner will click.
4. Remove the connector from the cleaner tip. Close the dust cap lid
5. Inspect the endface with a 200X microscope. If contamination (oil, moisture, lint, etc.) is visible on any of the fiber tips, repeat the cleaning. Continue until all fiber tips are clean.

Lint-free wipes (Single Fiber Connectors Only)

Lint-free wipes may be used on all single fiber connectors.

1. Wipe the ferrule tip along the cleaning material.
2. Inspect the ferrule tip with a 200X microscope. If contamination (oil, moisture, lint, etc.) is visible on the ferrule tip, repeat the cleaning. Continue until the ferrule tip is clean.



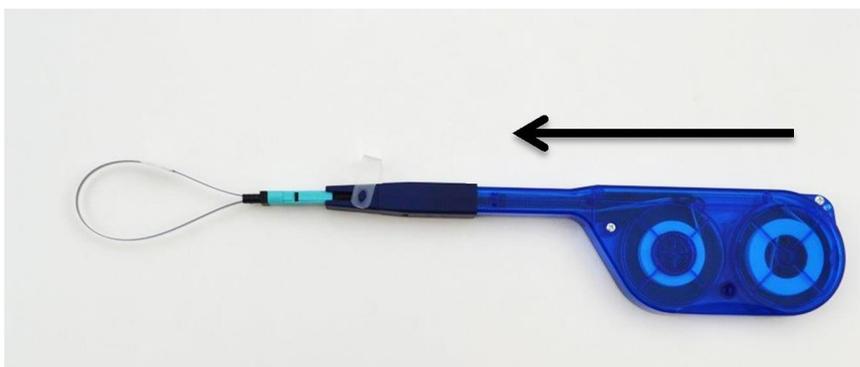
MXC™ cleaning tool

Cleaning of MXC plug:

1. Open transparent dust cover from extension (see picture below).



2. Remove dust cap from the MXC plug connector.
3. Insert the MXC plug connector into the extension of the cleaner and push the cleaner towards connector until the cleaner will click.



4. Remove connector from extension and put the dust cover back on cleaner extension.
5. Inspect the ferrule tip with a 4,5X microscope. If contamination (oil, moisture, lint, etc.) is visible on the ferrule tip, repeat the cleaning. Continue until the ferrule tip is clean.

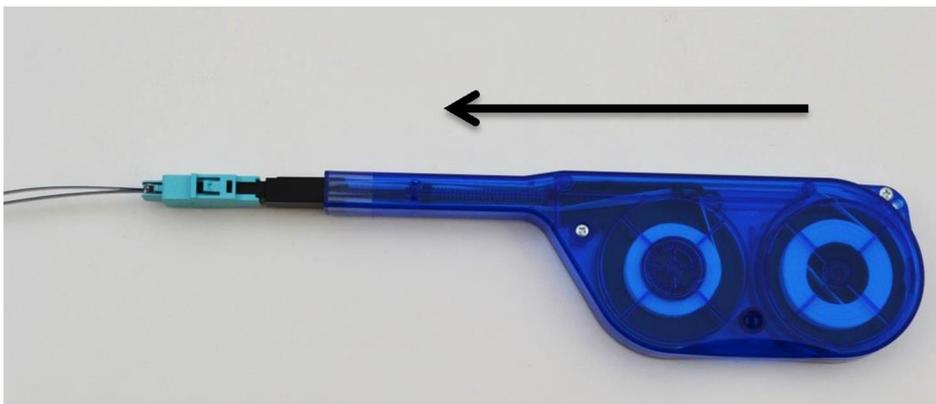
## Installation guide IG-FOI-000

Cleaning of MXC receptacle:

1. Remove extension from cleaning tool.
2. Open the dust cup from MXC receptacle connector.



3. Insert cleaner into the connector and push the cleaner towards it.



4. Remove cleaner from connector and put the extension back on cleaner.
5. Inspect the ferrule tip with a 4,5X microscope. If contamination (oil, moisture, lint, etc.) is visible on the ferrule tip, repeat the cleaning. Continue until the ferrule tip is clean.

### PRIZM LT cleaning cassette

Use the NEOCLEAN PZ cassette cleaner system designed specifically for the PRIZM LT connector.

1. Slide the dust cover on cleaner (see the picture below).



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2. Remove dust cap from Prizm LT connector.
3. Insert connector into the cleaner.



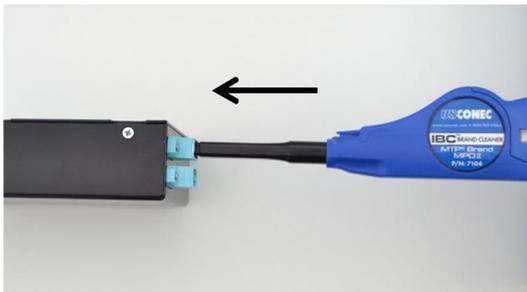
4. Push upper lever against cleaner.
5. Remove connector from cleaner and slide the dust cover back on previous position.
6. Inspect the ferrule tip with a 4,5X microscope. If contamination (oil, moisture, lint, etc.) is visible on the ferrule tip, repeat the cleaning. Continue until the ferrule tip is clean.

#### 4. Dry cleaning of connectors in a mating adapter or transceiver

##### MTP I.B.C. Cleaner (MPO/MTP Connectors Only)

Use MTP I.B.C. for either male or female MPO/MTP connectors.

1. Remove the external connector or dust cover (outside of the bulkhead, faceplate, or transceiver).
2. Remove the dust cap from the MTP I.B.C. cleaner.
3. Insert the cleaner into the adapter or transceiver.



**NOTE:** The MTP I.B.C. cleaner is keyed the same as a MPO/MTP connector. Insert the cleaner into the adapter or transceiver with the key of the cleaner matching the keyway of the adapter.

4. Push the cleaner towards the MPO/MTP adapter until the cleaner will click.
5. Remove the cleaner from the adapter or transceiver. Replace the dust cap onto the cleaner.
6. Inspect the ferrule tip with a 200X microscope. If contamination (oil, moisture, lint, etc.) is visible on the ferrule tip, repeat the cleaning. Continue until the ferrule tip is clean.
7. Clean the external connector according to procedure described above.
8. Reinstall the external connector into the bulkhead, faceplate or transceiver.

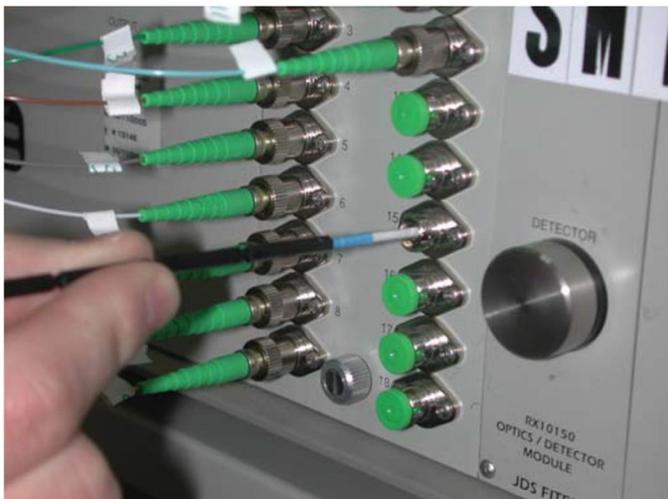
##### Stick Cleaner (Single Fiber Connectors Only)

Select the appropriate stick cleaner for the connector being cleaned from Table 1.

1. Remove the external connector (outside of the bulkhead, faceplate, or transceiver).

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2. Insert the proper OPTIPOP Stick Cleaner into the mating sleeve until it contacts the ferrule tip.
3. Twist the cleaner between your fingers so that the material rotates within the mating sleeve and across the ferrule tip.
4. Remove the cleaner from the mating sleeve.
5. Clean the external connector according to procedure described above.
6. Inspect the ferrule tip with a 200X microscope. If contamination (oil, moisture, lint, etc.) is visible on the ferrule tip, repeat the cleaning. Continue until the ferrule tip is clean.
7. Reinstall the external connector into the bulkhead, faceplate, or transceiver.



**NOTE:** OPTIPOP Stick Cleaners remove debris from the ferrule tip inside the adapter as well as the internal wall of the split sleeve

## 5. External surface dry cleaning

### Pipe cleaners (Single fiber ferrule sides)

Select the appropriate pipe cleaner for the connector being cleaned from Table 1

1. Insert the ferrule into the cloth end of the OPTIPOP Pipe Cleaner.
2. Twist the cleaner between your fingers so that the material rotates around the ferrule.
3. Remove the ferrule from the cleaner.
4. Inspect the ferrule tip with a 200X microscope. If contamination (oil, moisture, lint, etc.) is visible on the ferrule tip, repeat the cleaning. Continue until the ferrule tip is clean.

### Stick cleaners (Multifiber connector mating adapters)

Clean the adapters inner surfaces with a Stick Cleaner

1. Insert the cleaner into the adapter.
2. Rotate the cleaner so that the material is wiped across the inner surfaces.
3. Remove the cleaner from the adapter.
4. Blow the adapter with clean, dry, filtered air, such as that supplied by a high-quality aerosol duster.

***NOTE:** MTP and other multifiber connector mating adapters should be cleaned prior to use, regardless if new or previously used.*

## 6. Wet and Dry cleaning

Dry wipes/stick cleaners/tape in reel cleaner/tape in I.B.C. cleaner can be used together with a specialized solvent. Isopropyl alcohol (IPA) is the most widely known chemical used to clean fibers however a container of IPA left open to the air can easily become diluted and contaminated, which can lead to a residue being left behind on the endface.

Specialized chemicals have been developed and offer better evaporation rates, better ability to dissolve contaminant dissolution. They are also non-flammable and non-hazardous.

1. Clean the side + tip of the ferrule or sleeve by using a lightly moistened wipe/stick cleaner/tape in reel cleaner/tape in I.B.C. cleaner.
2. Dry any remaining residue using a dry wipe/stick cleaner/tape in reel cleaner/tape in I.B.C. cleaner.

SYLEX recommend using specialized cleaning fluid.



\* MXC, PRIZM MT, MTP and PRIZM LT is a registered trademark of US Conec, Ltd.