

Fiber Optic Cleaning Quick Reference Guide

Always clean fiber optic connectors and optical ports before connection and testing. Keeping fiber optic end-faces clean is extremely important and one of the most critical requirements for ensuring accurate measurements and operation. Damaged or contaminated end-faces have a direct impact on optical performance.



Clean end-face



Dirt / debris



Oil / finger print



Deep groove

Loose contaminants (dust, dirt, etc.) and oil contaminants (grease, finger prints, etc.) can be removed with proper cleaning while permanent defects (pits, chips, scratches, etc) require a connector replacement.

There are two types of fiber optic end-faces that need cleaning.

- End-faces on test jumpers, launch and receive cables, and connectors on the Fiber Under Test (FUT)
- End-faces and optical ports on fiber optic test equipment

IMPORTANT! Inspect optical connectors after cleaning to ensure cleaning was successful and to verify the end-face is not damaged (cracked, pitted).

CAUTION! Never view a live fiber. Laser radiation is harmful to eyes.

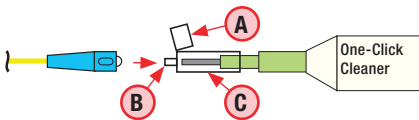
NOTE: Follow your company's approved cleaning procedures.

Free connectors on fiber optic cables

AFL recommends cleaning free connectors on fiber optic test cables using an AFL One-Click Cleaner or a Cletop cassette cleaner.

AFL One-Click method

- Flip open the protective dust cover cap **(A)**
- Slide the connector into alignment sleeve **(B)** of the One-Click Cleaner and gently press the body of the One-Click Cleaner until an audible “click” is heard
- Remove the One-Click Cleaner



Connectors in FUT and test ports

For cleaning connectors in FUT (fiber under test) and OTDR, OLS, and VFL test ports, AFL recommends using the AFL One-Click Cleaner or optical quality cleaning fluid such as the AFL FCC2 connector cleaning fluid and CCT molded cleaning tips. For cleaning OPM optical ports and adapter caps, use lint-free optical cleaning wipes such as AFL's FiberWipes and optical quality cleaning fluid such as the AFL FCC2 connector cleaning fluid (or IPA -Reagent Grade Isopropyl Alcohol 99% or better) and a can of filtered compressed air.

CAUTION! Before conducting the following procedures be sure to have your test equipment turned OFF.

Cleaning connectors in FUT and OTDR, OLS, and VFL ports without removing adapters

AFL One-Click method

- Remove the protective dust cover **(C)** from the tip of the One-Click Cleaner
- Insert the tip of the One-Click Cleaner into the optical port adapter and

gently press the body of the One-Click Cleaner until an audible “click” is heard

- Remove the One-Click Cleaner

AFL FCC2 fluid and CCT stick method

- Tilt a can of FCC2 back (30°), press the button on FCC2 to fill the well
- Dip a CCT stick into the well of the FCC2 to dampen the tip with cleaning fluid
- Place the damp tip over the ferrule to be cleaned. Rotate the tip clockwise 10 revolutions while applying varying pressure to create a gentle pumping action where the tip contacts the ferrule
- Discard the CCT stick after using both tips

Cleaning optical ports with adapters removed

Removing connector adapters for cleaning and inspection

To access the OTDR and OLS port

- Rotate the adapter base counterclockwise approximately four times
- Pull the adapter directly out away from adapter mount to expose the ferrule

To access the VFL Port

- Unscrew the adapter counterclockwise
- Pull the adapter straight out to expose the ferrule

To access the OPM port

- Unscrew the adapter cap from the adapter cap mount

Cleaning the exposed ferrule or the OPM port

Use lint-free optical cleaning wipes such as AFL FiberWipes and optical quality cleaning fluid such as AFL FCC2 connector cleaning fluid.

Note: If using isopropyl alcohol (IPA), be sure to use 99% pure IPA that has not been contaminated.

- Dampen a portion of the wipe with the cleaning fluid
- Gently wipe the exposed ferrule (OPM port) starting with the wet section of the wipe and pulling it to the dry section

Note: Starting with the wet cleaning and finishing in the dry improves cleaning action, reduces static buildup, and finishes with the end-face dry.

Cleaning the adapters

Method 1 - Using Cletop (ACT) adapter cleaning sticks

- Insert a Cletop adapter cleaning stick into the sleeve of the adapter and rotate 10 times
- Remove
- After cleaning the adapter, replace the adapter over the ferrule centering it onto the alignment pin
- Tighten the adapter base

Method 2 - Using a can of filtered compressed air

NOTE: DO NOT use canned air to clean connectors in adapters, exposed ferrule, or AFL Fusion Splicers!

- Holding can vertically, blow out any contaminants from the adapter
- After cleaning the adapter, replace the adapter over the ferrule centering it onto the alignment pin
- Tighten the adapter base

