

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.

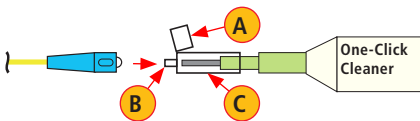
Note: Follow your company's approved cleaning procedures.

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 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

Remove 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