

The Combination Cleaning process (CCp™)

The Combination Cleaning process (CCp™) is a cleaning process developed by ITW Chemtronics® for fiber optic connector cleaning. Chemtronics called on its 52 years of precision cleaning experience and proven record of cleaning chemistry innovation to devise the best cleaning process currently available for fiber optic connector cleaning. The process combines both core competencies at Chemtronics — precision solvent blends and cleanroom wipes — and employs them in a ‘wet-to-dry’ cleaning technique. In one motion, the solvent breaks the soils’ bond to the surface and the wipe pulls the soil away from the [fiber optic connector](#). The procedure is reliable and repeatable for both highly skilled and inexperienced crafts persons. The cost per cleaning is reduced, encouraging cleaning of each connection to assure high quality transmissions for FTTH, Central Office, WAN/LAN Network, and OEM applications. CCp™ is a significant advancement in the method of cleaning all types of fiber optic connectors because it efficiently removes virtually all types of soils.

Many types and combinations of soils are present in each fiber optic network, such as dust, grit, fibers, fingerprints, buffer gel and lubricants. Individual methods exist for removing some of the soils, but no method existed for removing all of them reliably and repeatedly. Dry cleaning may be a moderately effective process if the soil is a light particle. However, dry cleaning a dusty connection in an environment where grit is present can scratch a connector end face. Wet cleaning provides a measure of cleaning safety to a dusty connection, but over-saturation causes solvent entrapment and contamination in the connector. As the excess solvent evaporates it can become trapped in the connection, and promote moisture condensation.

Using twist & turn or figure-8 cleaning motions can damage the connector by grinding any dust or grit that may be present into the end face, resulting in the need for field replacement or re-polishing. **The Combination Cleaning process (CCp™)** considers the best of both wet and dry cleaning, and creates a third process that is better than both. CCp™ was developed in response to technicians’ concerns regarding the previous dry and wet cleaning methods. These methods rarely worked well after one application, and would require multiple cleanings to get adequate results. CCp™ takes the best of established procedures and creates an entirely new cleaning process.

The Combination Cleaning process - Effective, Reliable, and, Cost-Efficient:

- 1.) Using the [QbE®](#), place one wiper on the FiberSafe™ Cleaning Platen.
- 2.) Spray a small amount of [Electro-Wash® PX Fiber Optic Cleaner](#) (about 1” in diameter) onto one corner of the wipe.
- 3.) Hold the end face at 90 Degrees. Adjust for an APC connection by slightly tilting the container and/or the end face. The angle is correct when no drag is felt on the end face.
- 4.) Draw the end face from the wet part to the dry part of the wipe three times. Use gentle pressure, just enough to ensure complete contact between the end face and the wipe.
- 5.) Test your work when possible. Make sure to use a new [wipe](#) for each application.

The reliability and repeatability of CCp™ provides assured cleaning in those instances when inspection isn’t practical. CCp™ should be implemented each and every time a [jumper](#) is disconnected from a console or an [OTDR](#), when power testing is conducted, or when there is a report of trouble in the line. Cleaning each connection is the base line for each subsequent test and measurement procedure, and will assure customer satisfaction for any connection from long haul to FTTH.