

Connector cleaning and mating procedure

All fiber optic connectors either inside an adapter or on a sensor's ends or patch cord ends are featuring a protective cap, a.k.a. "dust cap" protecting the end face of the connector from damage.

In order to minimize the damage of the fiber optic connector its recommend to clean the end face with appropriate tools always before mating them inside the fiber optic adapter (coupling). The steps below demonstrate the cleaning procedure of fiber optic connector using **FCS-01 One-click cleaner** and mating them into the fiber optic adapter.



Figure 1: FCS-01 One-click cleaner

The FCS-01 One-click cleaner can be used both:

- ▲ For cleaning the connector inside the adapter (like in the interrogator) and
- ▲ For a free end connector (like in the sensor's end or a patch cord).

To switch between these two modes adjust the protective dust cover cap located on the tip of the FCS-01 One-click cleaner.

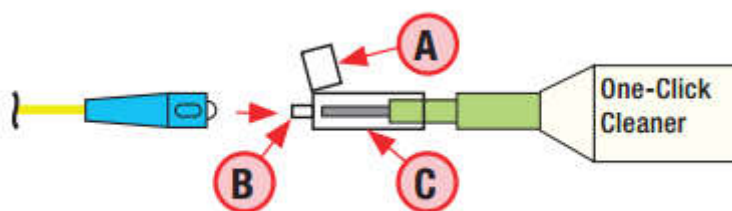


Figure 2: Adjusting the protective dust cover cap on the One-click cleaner

For the general usage of the FCS-01 One-click cleaner with fiber optic connectors, see instruction video at: <https://www.youtube.com/watch?v=Gqt1cVEpF7M>

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1. Cleaning the connector inside the adapter (i.e. in the interrogator)

In order to clean the fiber optic connector inside the adapter it is necessary to remove the protective cap from the adapter (typically a small white plastic screw-able cap).



Refer to Figure 2:

- ▲ 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.



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2. Cleaning the cable end connector (i.e. sensor's end or a patch cord)

In order to clean the fiber optic connector on a patch cord or sensor's end it is necessary to remove the protective cap from the connector (typically a very small green plastic slide-able cap).



Refer to Figure 2:

- ▲ 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.



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3. Mating of fiber optic connector into the adapter

There are situations where the fiber optic connectors need to be mated together via an adapter or to be mated (plugged) into an adapter on a front end of the device (like interrogator, switch, or splitter). Before each such mating, the connectors and adapters need to be cleaned as described in previous chapters.

Mating types:

- ▲ Two sensors together ... connector to connector via adapter
- ▲ Two patchcords together ... connector to connector via adapter
- ▲ Sensor with access cable (patchcord) together ... connector to connector via adapter
- ▲ Two cables with WCP-01 (Watertight connector protection) which can appear in any of abovementioned three configurations ... connector to connector via adapter
- ▲ Cable with device (i.e. interrogator, etc.) ... connector into the adapter

Once connectors are cleaned it is possible to mate them into an appropriate fiber optic adapter.

The guide below shows the mating of an FC/APC connector inside the S-line switch although this procedure applies to all above mentioned mating types.

Steps: Both the connector and the adapter have an align key which directs the connector into the only right direction. Rotate the connector in your fingers to find the alignment key, insert it into the optical port adapter following the key and screw the threaded body until it is completely screwed.



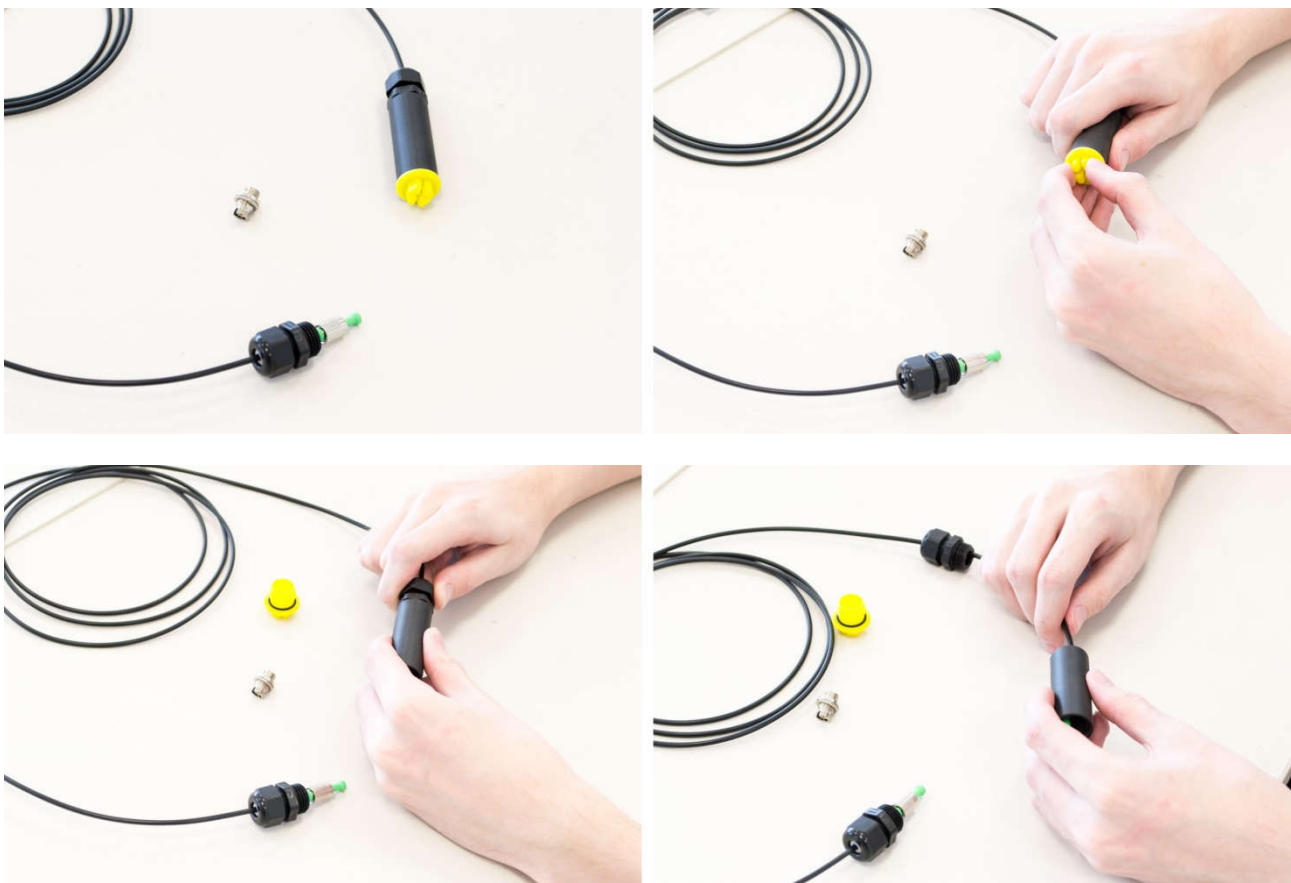
When removing the connector, always put on the dust cap on both connector and adapter.

4. Mating of two WCP-01 protected connectors together

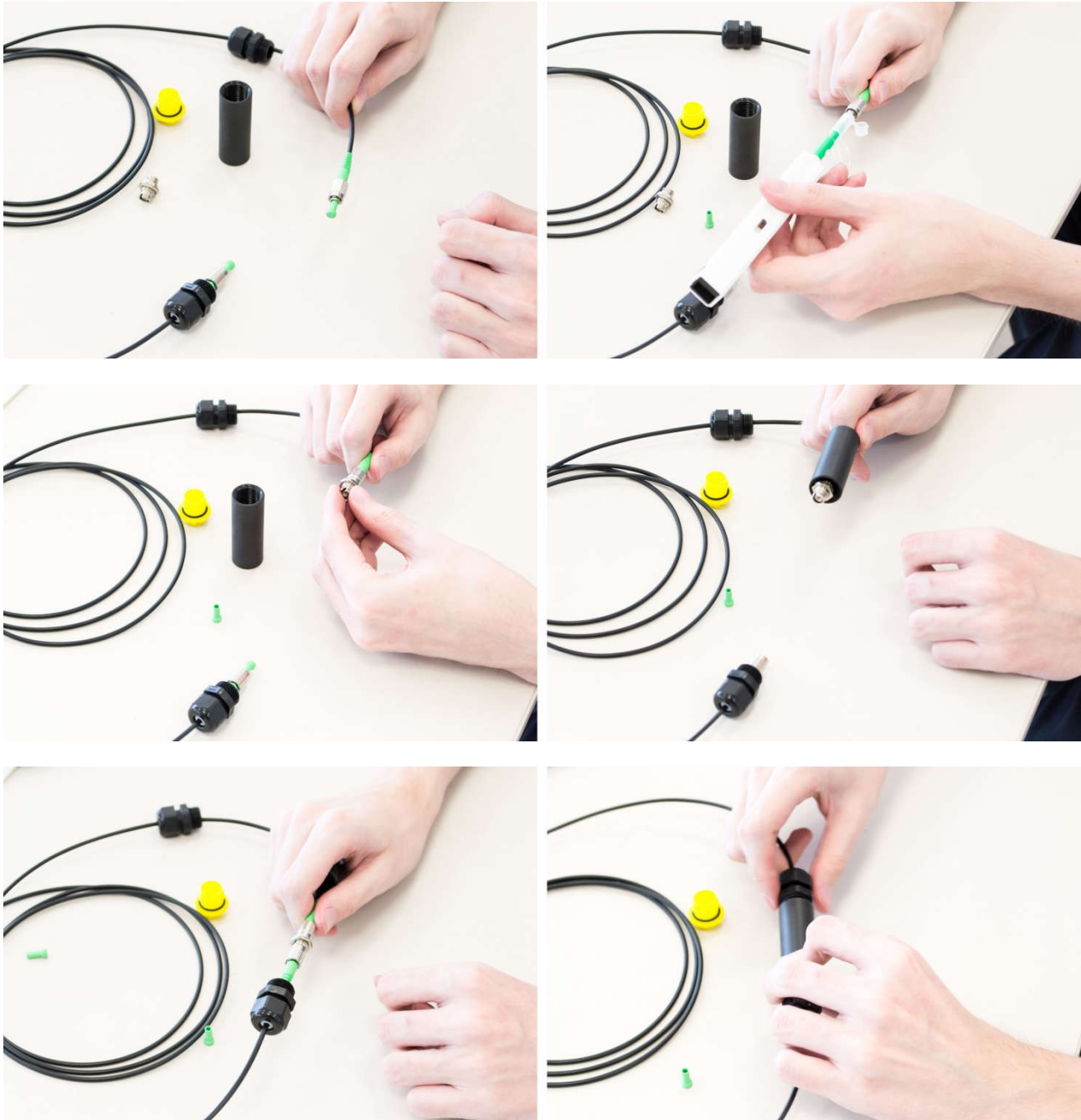
The **WCP-01 Watertight connector protection** is an optional item protecting the free end connectors or connector connections against dust and water during transportation and installation. The WCP-01 has to be ordered before manufacturing of sensors or access cables (patchcords), it cannot be mounted on the connector afterwards.

WCP-01 consists of three parts (fig. 1): cable gland, protective tube and a protective cap.

Steps: Remove the protective cap together with the protective tube from both cables. Untighten the cable gland on both cables and slide them slightly away from the connector. Clean first connector as described in the *Connector cleaning procedure* and mate it inside an adapter. Move the cable gland back in its original position covering partly the connector and tighten it around the cable next to the connector. Slide the protective tube over the second connector and screw it to the cable gland (this cable gland is still freely movable over the cable). Clean the second connector and mate it inside the adapter against the first connector, follow the steps in the *Connector cleaning procedure guide*. After the connectors are mated inside the adapter, slide the protective tube with the cable gland to the first connector and tighten the protective tube against the first gland and afterwards tighten the cable gland on the second connector.



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For more information contact our sales team at sales@sylex.sk

* Specifications are subject to change without notice