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Applications Engineering Notes

Document Title	Polarity and Gender Changeable MPO Preterm Installation Instructions
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1. **Document Purpose**

   This document describes CommScope's recommended procedures for polarity and gender changeable MPO preterms, which use MTP pro connectors**.**

2. **Saleable Reference Documents**

   1. 760242671 -- MTP PRO, FIELD TOOL
   2. 760242672 -- MTP PRO, 10 PACK, PIN EXCHANGE FEMALE
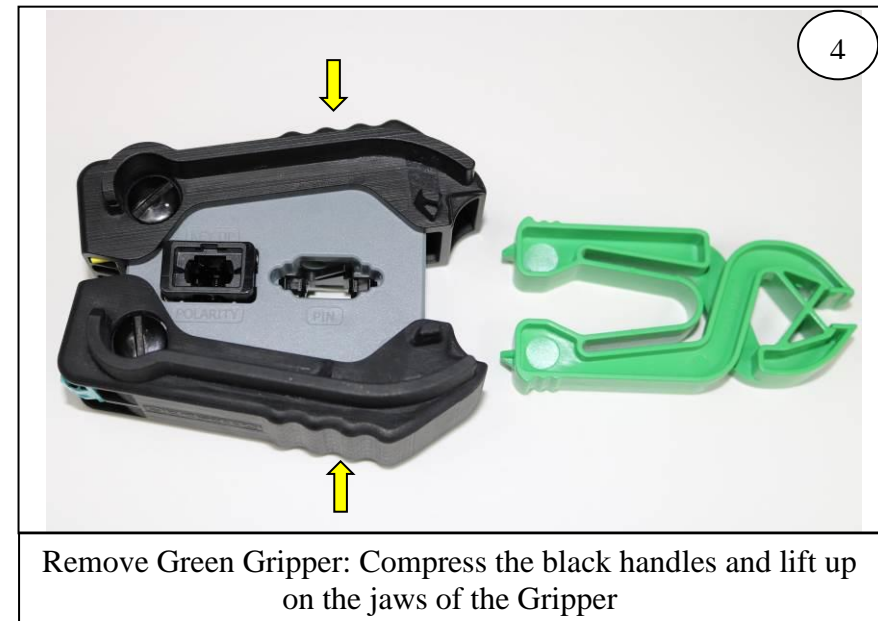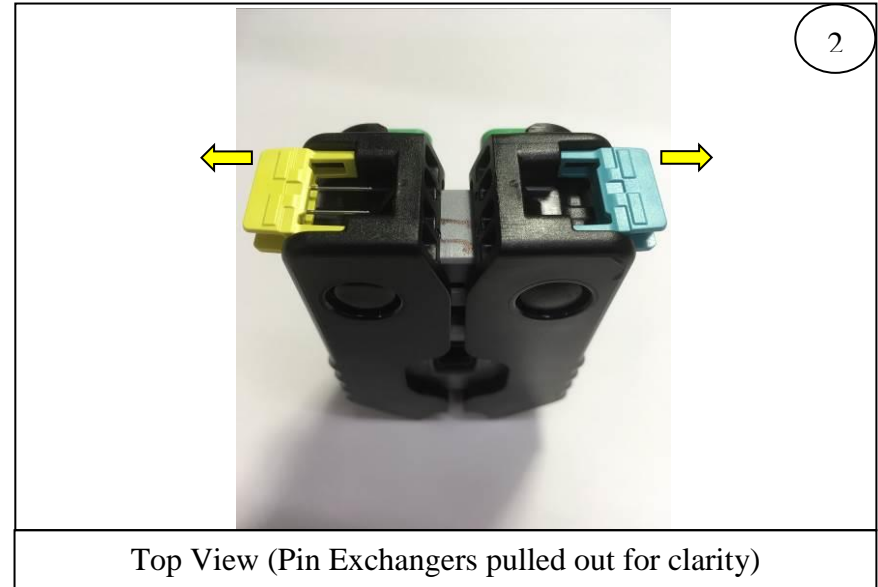   3. 760242673 -- MTP PRO, 10 PACK, PIN EXCHANGE MALE

3. **Precautions**
   1. Always keep a dust cap on unplugged fiber connectors.
   2. Never touch the end face of the fiber connectors.
   3. Good housekeeping is very important to prevent potential hazards to operators.
   4. Fiber optic cable is sensitive to excessive pulling, bending and crushing forces. Consult the cable specification sheet for the cable you are installing. Do not bend cable more sharply than the minimum recommended bend radius. Do not apply more pulling force to the cable than specified. Do not crush the cable or allow it to kink.
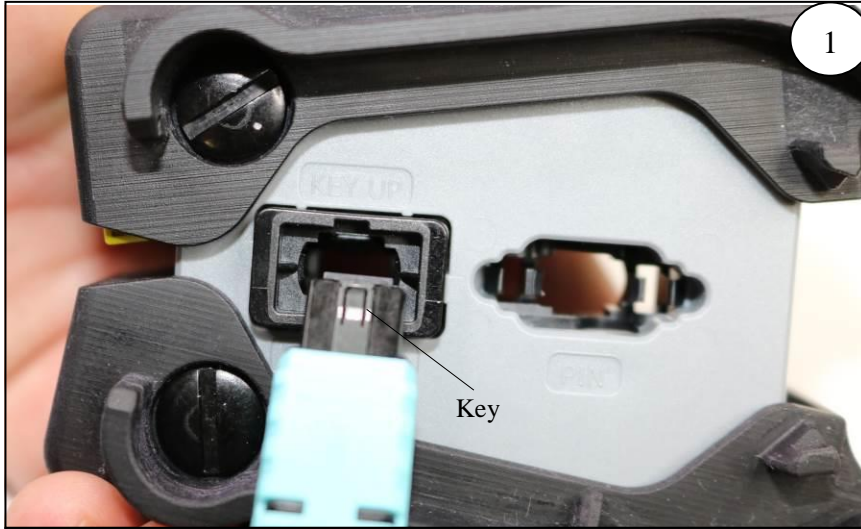
4. **Required Equipment and Materials**

   1. CommScope MTP Pro Field Tool (P/N 460159594)
   2. OPTIPOP R optical connector cleaner
   3. IBC brand cleaner where applicable

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TOOL OVERVIEW

①

Front View

②

Top View (Pin Exchangers pulled out for clarity)

③

Back View

④

Remove Green Gripper: Compress the black handles and lift up on the jaws of the Gripper
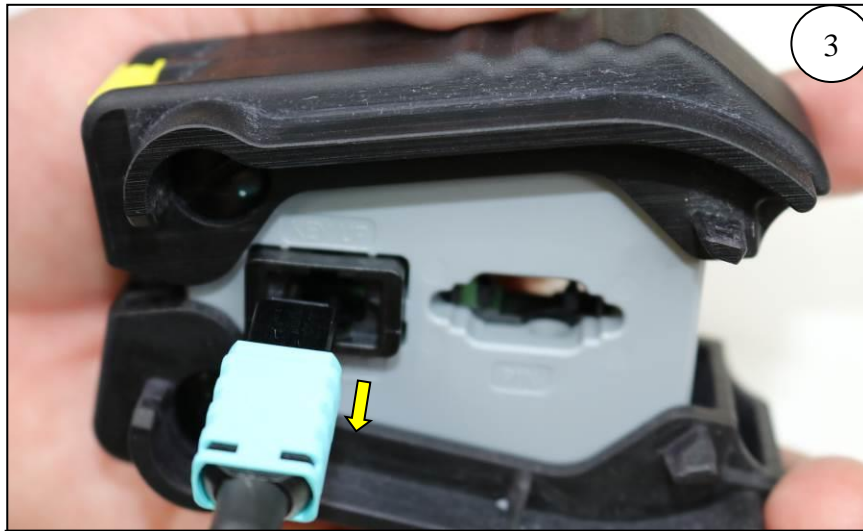
POLARITY CHANGE

Align key on connector with "KEY UP" on tool

Insert connector until an audible "CLICK"

Remove connector

Verify completion of Polarity Change

ALL PICTURES SHOWN ARE FOR ILLUSTRATION PURPOSES ONLY. ACTUAL PRODUCT MAY VARY DUE TO PRODUCT ENHANCEMENT.

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PIN REMOVAL

①

Insert connector until an audible "CLICK" (Back View)
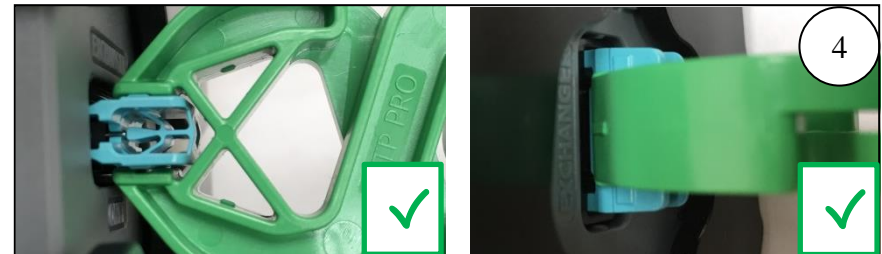

②

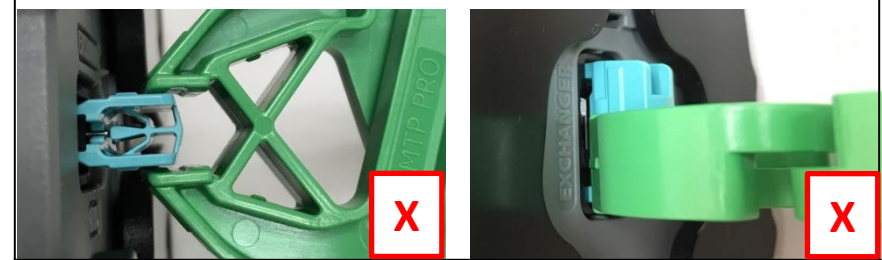Rectangular
Aligning Posts

Insert Pin Exchanger (Front View)

③

Slide the Gripper onto the Pin Exchanger from the side

④

Ensure the jaws of the Gripper fully capture and are centered on
the Pin Exchanger

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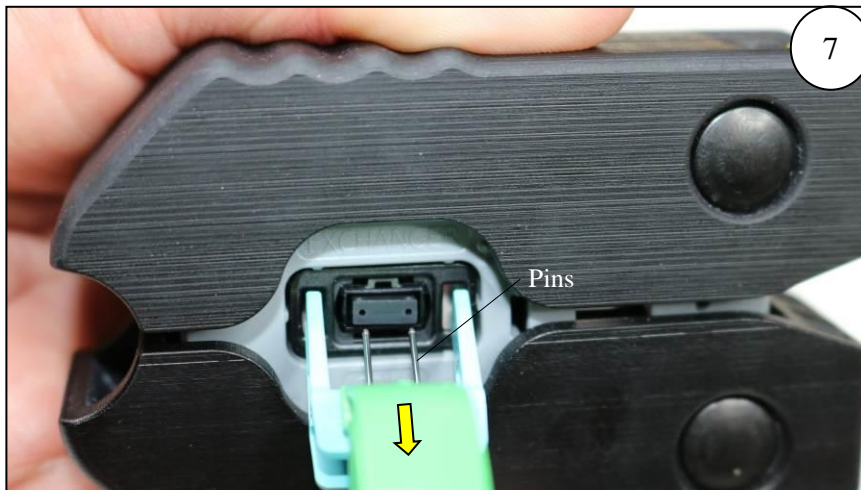
PIN REMOVAL (CONTINUED)
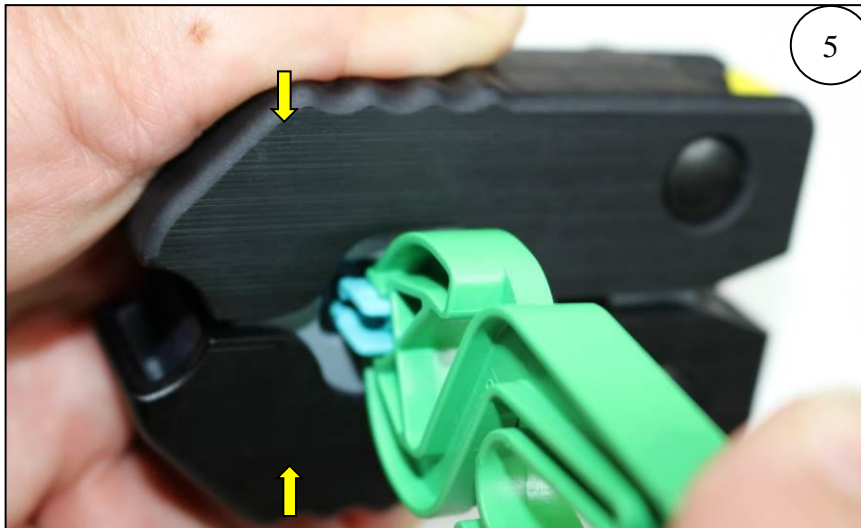
Compress the black handles

Compress the handles of the Gripper completely until the handles touch each other as shown in the yellow circle

Pull the Gripper straight out and verify removal of pins.
Remove connector.

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PIN INSERTION

①

Insert connector until an audible "CLICK" (Back View).
Warning: **DO NOT compress the black handles during Steps 1 – 4.**

②

Rectangular Aligning Posts

Align Pin Exchanger (Front View)

③

Insert Pin Exchanger until an audible "CLICK"

④

Remove the Pin Exchanger and verify insertion of pins.
Remove connector.

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Appendix A
Identifying Original Factory Settings

CommScope's MTP® PRO design is focused on simplicity and reliability to ensure a quick and effective way to identify original factory settings.

1. **Polarity**
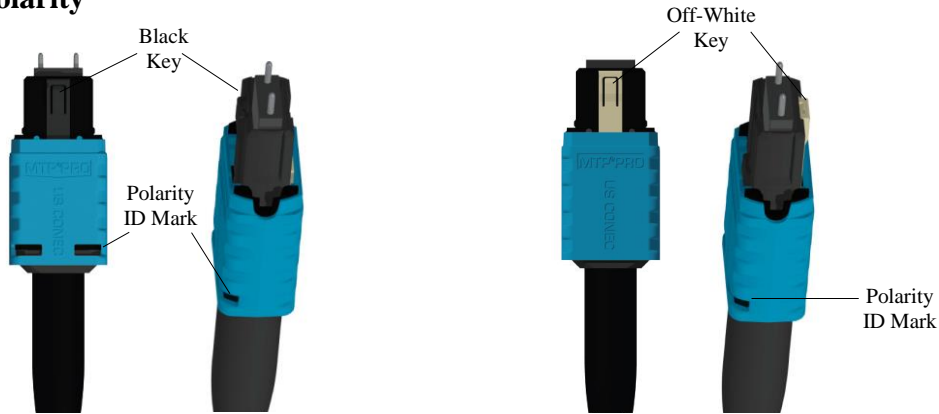
Factory Polarity Setting
Black Key Exposed

Polarity Has Been Changed
Off-White Key Exposed

2. **Pin ID Color Code**

Color	Description
Aqua	MM Elite from Factory
Black	Female from Factory

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