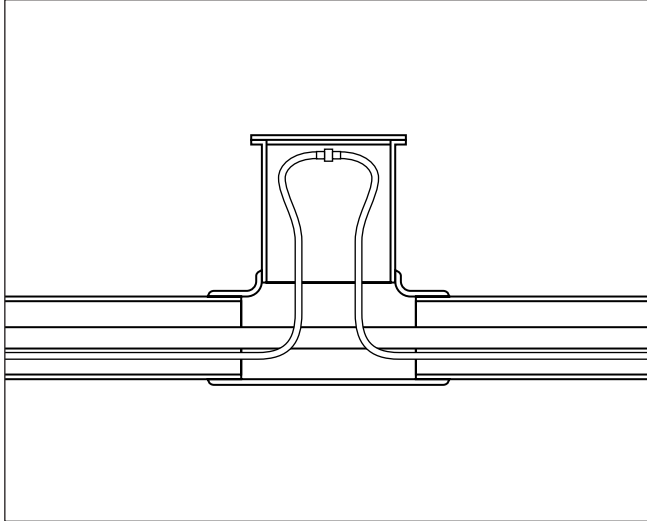


Field Installed Connectors for TraceTek® 3000 Bulk Cable

Installation Instructions



Description

This kit contains parts to field connect installed TT3000 Bulk Sensing Cable. The kit includes parts for 5 mated connections.

Tools Required

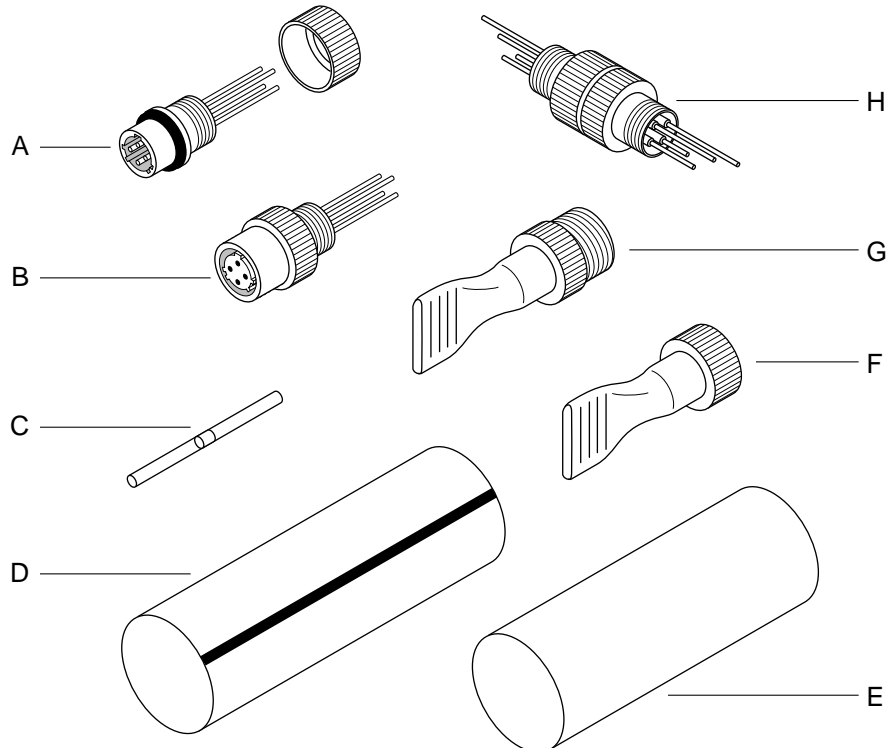
- Needle nose pliers
- Flameless heating tool (Ultratorch 200)
- High impedance ohm-meter (Fluke 87 or equivalent; meter must be capable of measuring to at least 20 megohm)
- Greenlee strippers (1917 or 1918)
- TT-CT-SCT (crimping tool)
- Masking tape

Notes

- Do not use an open flame heating tool.
- The pin connector should always be installed on the cable end pointed towards the alarm and locator module.
- Use with TT3000 Bulk Cable only. This kit is not compatible with other TraceTek Cables.

Kit Contents

Item	Qty	Description
A	5	TT-CK-MC-M pin connectors
B	5	TT-CK-MC-F socket connectors
C	45	SolderSleeve® splices (5 extra)
D	11	Striped heat-shrinkable tubing (2" x 3/4") (1 extra)
E	11	Heat-shrinkable tubing (2" x 3/4") (1 extra)
F	1	TT-MET-MC Pin end termination
G	1	TT-FET-MC Socket end termination
H	1	Pin and socket test tool



⚠ WARNING: Fire Hazard. Heat guns and flameless heating tools can cause fire or explosion in hazardous areas. Be sure there are no flammable materials or vapors in the area before using these tools. Follow all site safety guidelines when working in hazardous areas.

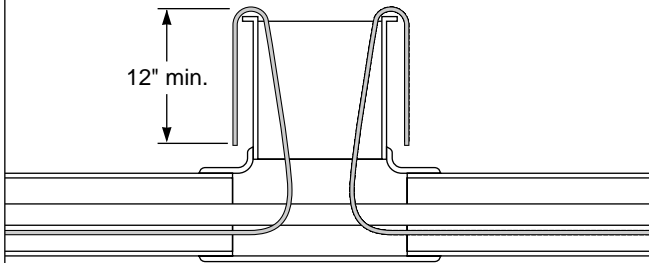
• Overheating heat-shrinkable tubing or solder sleeves will produce fumes that may cause irritation. Use adequate ventilation and avoid charring or burning. Consult MSDS RAY/3122 and RAY/5104 for further information.

• Component approvals and performance are based on the use of specified parts only.

**TT-3000-CK-MC-M/F Field Installed Connectors for TT3000 Bulk Cable
Installation Instructions**

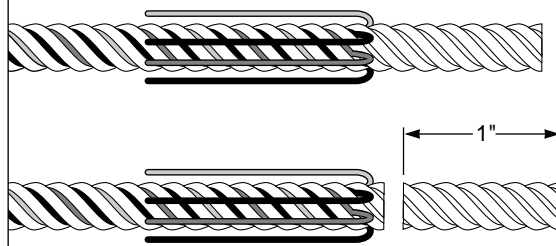
1 Prepare the cable ends:

12" min.



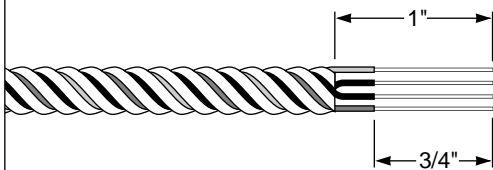
- Ensure sufficient sensing cable to make a service loop at the access point.

2



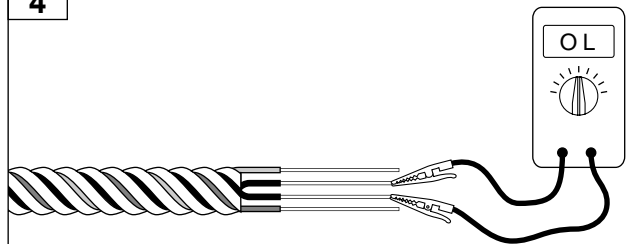
- Using the needle nose pliers, pull the four wires from their grooves exposing 1 1/8" of wireless core.
- Cut off 1" of the core without damaging the wires.

3



- Grasp the wire tips with the needle nose pliers.
- Pull the wires into their grooves and lightly tug to straighten without stretching.
- Cut the wires to leave 1" protruding from the cable end.
- Carefully strip 3/4" of insulation from each of the wires (use 26 awg slot).

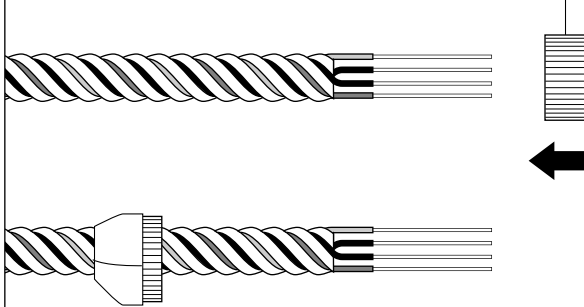
4



- Use the ohmmeter to measure the resistance between the black wires. The resistance must be greater than 20 megohm (meter may read: ∞, O.L., etc.).
- If the measurement is less than 20 megohm, the cable is wet or contaminated and must be removed, inspected and cleaned and/or dried.

5 Install the connectors:

Spinner ring



- Ensure that the wires are in their grooves and are straight.
- For the pin connector only, slip the spinner ring (small hole first) onto the cable and secure with tape to avoid losing it into the access point.

6



- Slide the SolderSleeve® splice onto each wire, flared end first. Slide it all the way to the cable end.
- The solder band must lie over bare conductor, not insulation.

Spinner ring is for pin connector only.

**TT-3000-CK-MC-M/F Field Installed Connectors for TT3000 Bulk Cable
Installation Instructions**

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**Socket Connector
(Part B)**

Yellow (large tab)

Black Black

Red

**Pin Connector
(Part A)**

Yellow (large keyway)

Black Black

Red

- Examine the mating end of the connectors. The large plastic tab (socket connector) or the large key way (pin connector) corresponds to the yellow wire. Once the yellow wire is aligned correctly, the other wires are aligned also.
- The wires must be in the order that they exit the cable end.
- Orient the connector and start all four pins into the solder sleeves.

8

SolderSleeve® ends must be inside the connector.

Solder bands must melt and flow onto the wires and pins.

- Push the connector all the way into the splices.
- Push the splice ends inside the back of the connector.
- Heat shrink the splices fully. Keep the heat source moving slowly to avoid charring.
- Make sure the solder bands have fully flowed onto the wires and pins.
- Remove heat and allow the assembly to cool before moving it.

9

Part F

Socket

Part G

Spinner

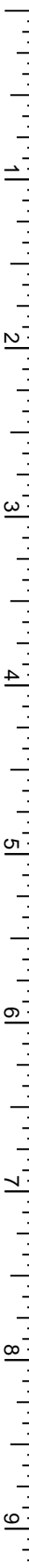
Pin

- For pin connectors, untape the spinner to attach to the end termination.
- For either connector type, screw on the mating end termination (part F or G).

10

- Slide a striped, heat-shrinkable tube over the assembly.
- Align the tube with the ribbed section of the connector.

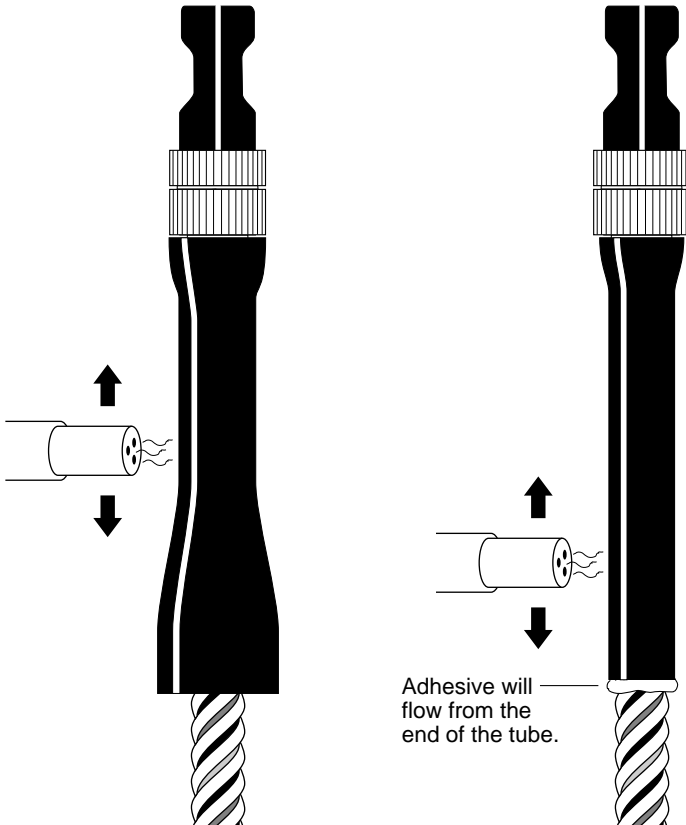
Part D



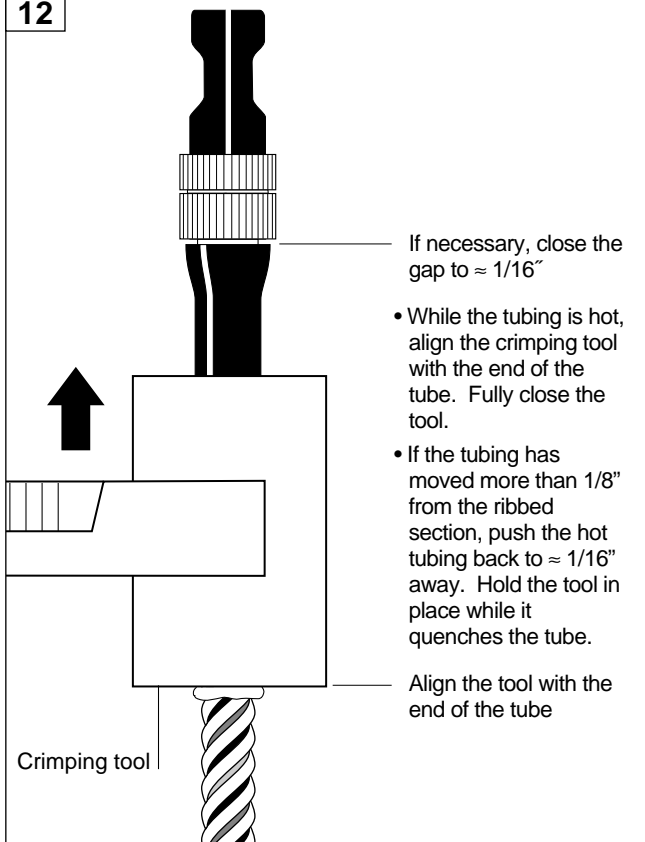
**TT-3000-CK-MC-M/F Field Installed Connectors for TT3000 Bulk Cable
Installation Instructions**

11

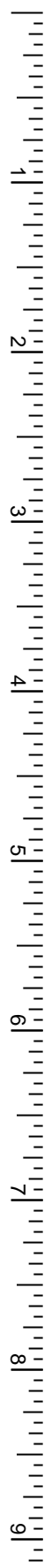
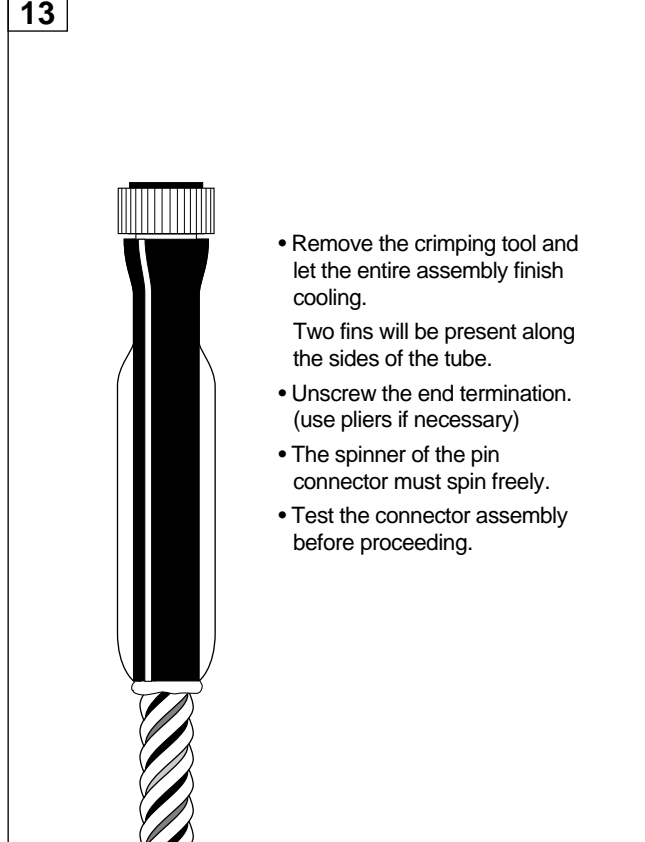
- Heat shrink the tubing starting at the connector end.
- Keep the heat source moving slowly to avoid charring.
- Continue heating after the tube surface is smooth to ensure that the internal adhesive flows freely.
 - Heat the tube uniformly until adhesive flows from the end to ensure a water resistant seal.
 - Remove heat and immediately proceed to step 12.



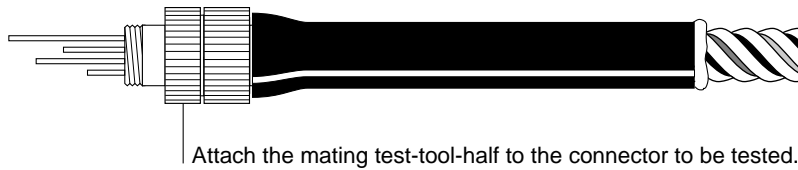
12



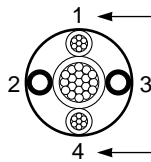
13



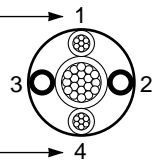
14 Test the connector assemblies:



Cable end opposite
socket connector



Cable end opposite
pin connector

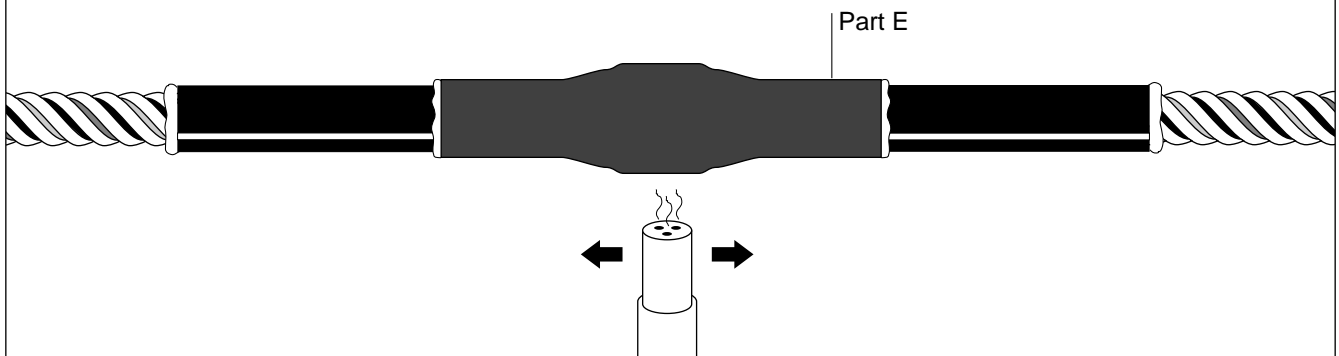


yellow

red

- Attach the mating test-tool-half to the connector to be tested.
- If both cable ends have connectors, attach a mating end termination at the opposite end. If there is no connector on the opposite cable end, prepare it according to steps 2 and 3. Then twist together wires 1 & 2 and wires 3 & 4.
- Use an ohmmeter to measure the resistance between the test tool pins.
- The resistance between the 2 longest pins or the 2 shortest pins should be $\approx 4 \times$ cable length (ft.) (i.e. A 100 ft. cable should measure $\approx 400\Omega$ between the two longest pins and $\approx 400\Omega$ between the two shortest pins.)
- The resistance between the 2 intermediate length pins should be greater than 20 megohm.
- If the assembly fails any of the resistance tests;
 - 1) Check that the 2 black wires are not touching at the opposite cable end.
 - 2) If necessary, cut off and discard the connector and install a new one.

15 Apply the environmental seal:



- Before mating the connector assemblies, slide the non-striped tube onto one of the cables. Connect the pin and socket connectors together firmly. Center the non-striped tube over the pin/socket connection. Heat shrink the tube over the connection, beginning in the center and shrinking towards the ends until the tube fully conforms to the shape of the connection and adhesive flows from each end of the tube.
- **Let the entire connector area cool before handling the cable.**

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