Boltrack™ Plug Cable Connector Field Installation Procedure

Assembly & IDC Termination

Amphenol Information Communications and Commercial Products

FCi Basics

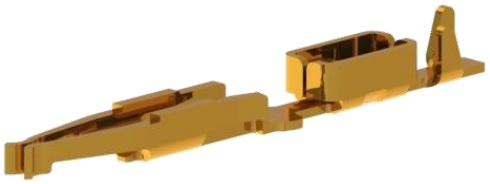
Amphenol ICC

BOLTRACK™ Plug Cable Connector

Field Installable Application & Design Highlights

FCi Basics

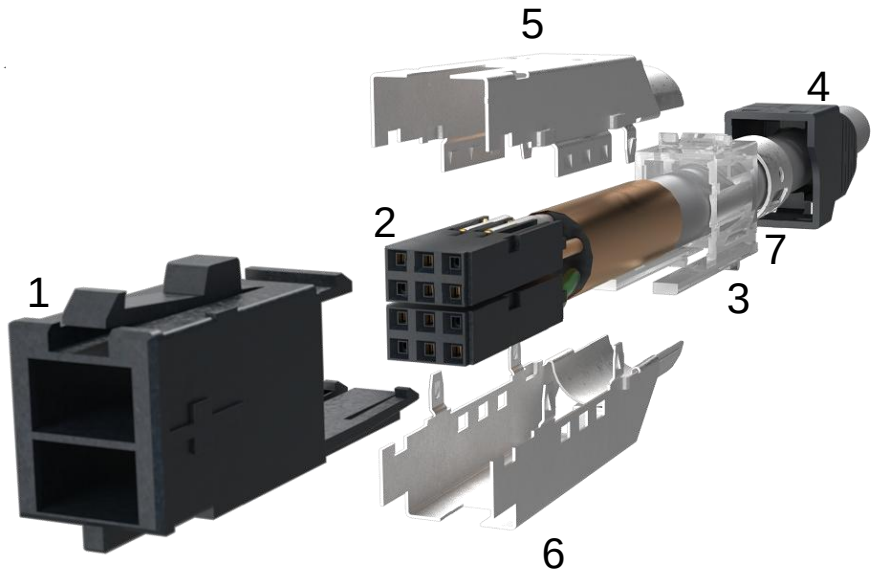
- Connector options and Part number
  - Field terminable plug kit P/N 10138200-101LF
  - Factory certified standard patch cord length also available
- Cable and IDC application
  - Size :- 24 ~26AWG stranded wire
  - Insulation wire outer dia max 1.00 mm
  - Wire Stripper: 10149379-001
  - Hand tool P/N 10149380-001
- Design highlights
  - Dual beam contacts and four point IDC for plug. Proven design for both telecom and Industrial applications
  - Adequate clearance and creepage distance between contact terminals inside the connector
  - Contacts placement staggered to optimise signal performance
  - Wrap around shield
  - LED display can be viewed from rear of the plug connector



BOLTRACK™ Plug Cable Connector

FCi Basics

- Overview



- Kit BOM
  - 1 - Front Housing 1 pc
  - 2 - Terminal block 2 pcs
  - 3 - Rear housing 1 pc
  - 4 - Grommet 1 pc
  - 5 - Top shield 1 pc
  - 6 - Bottom shield 1 pc
  - 7 - Spring Bush 1 pc

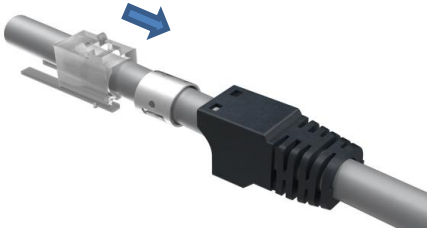
BOLTRACK™ Plug Cable Connector
Field assembly process (1/2)

FCi Basics

1 Insert Grommet into the cable

2 Insert Spring bushing into the cable

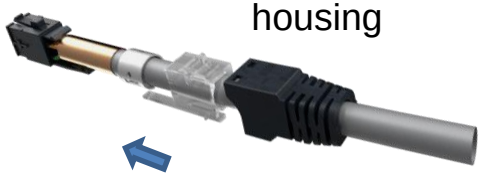
3 Insert rear housing into the cable



4 IDC process for 8 wires in terminal block

5 Insert front housing over the terminal block

6 Slide the rear housing towards the front housing



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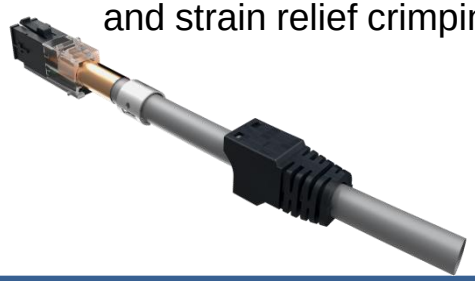
BOLTRACK™ Plug Cable Connector
Field assembly process (2/2)

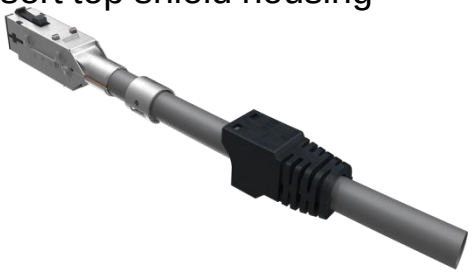
FCi Basics

7 Front & Rear housings lock with a click sound and strain relief crimping



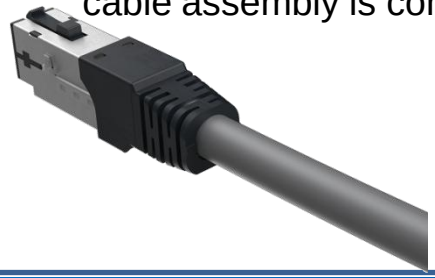
8 Insert bottom shield

9 Insert top shield housing



10 Slide Spring Bushing into place

11 Slide grommet into position. Plug cable assembly is complete



IDC Hand Tool Overview

Easy to use

FCi Basics

- Easily interchangeable crimp dies
- Enables crimping of all the terminals at a time
- Also enable the crimping of strain relief housing
- Guiding features in tool ensures correct placement of wires
- Contact terminal has multiple IDC points which ensures quality & reliability

Hand tool: 10149380-001

Wire Stripper: 10149379-001

IDC Termination Process

Cable Preparation

FCi Basics

fig: A

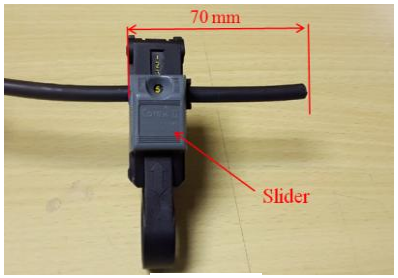


fig: B

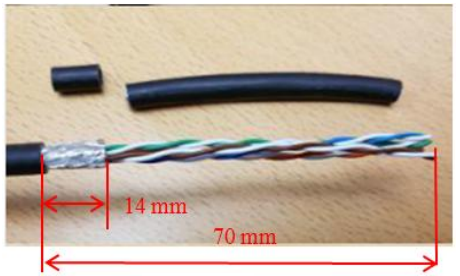


fig: B

Cable spec:
Cable diameter = 6.6mm Max
Conductor Size:
26 gauge wire with max insulation diameter of 1.0mm
24 gauge wire with max insulation diameter of 1.0mm

STEP 1: Strip cable according to the dimension shown in fig:C. Recommended Tool: Boltrack Cable Stripping Tool(PN: 10149379-001).

fig: D

STEP 3: Take insulation off. Plastic cover and fillers to be cut away. fold braid and foil tight backward over insulation.

STEP 2: Position slider according to the cable diameter and rotate until outer cable jacket is cut off. Open the tool . Make sure inner strand insulation is not damaged.

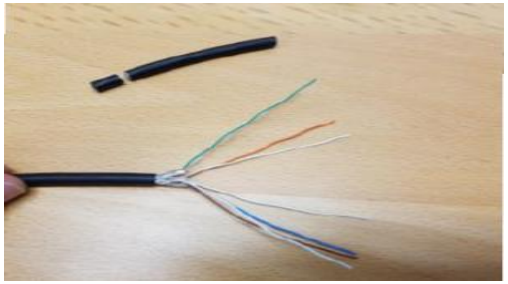


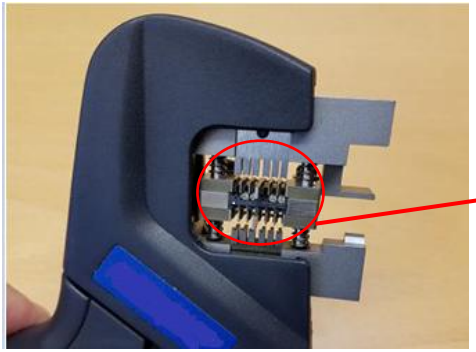
fig: E

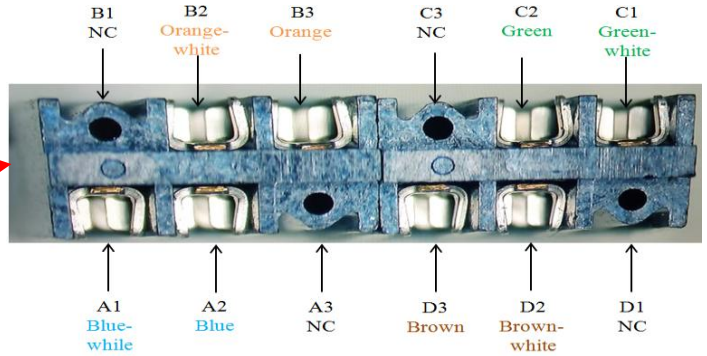
STEP 4: Straighten the strand as much as possible for better insertion in the die

IDC Termination Process

IDC Crimping

FCi Basics

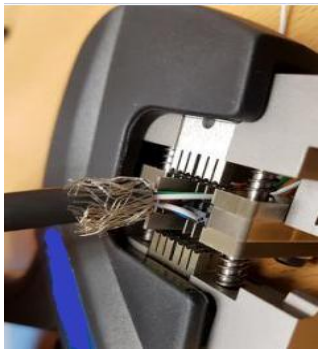




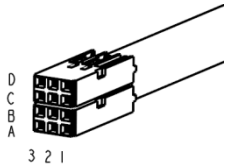
*NC-Not connected

STEP 1: Open Boltrack Portable Crimping Tool (PN: 10149380-001) and insert both terminal blocks to position them on the seating**.**

STEP 2: Place the straightened strands into correct slots as per above color code. The strands need to be drawn through the die set until insulation on cable come to the stop on the die set



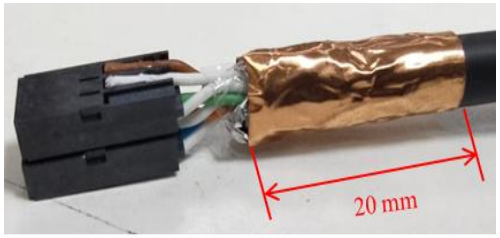
STEP 3: Make sure that the strands are within the cable guide frame and that no strand from the braid is within crimp zone. Hold the cable End/insulation against the cable stop and CRIMP



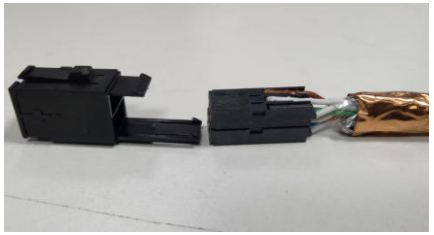
STEP 4: Take the crimped connector out. Remove cut strands out from the backside of the die set. Fold right terminal above left terminal and ensure Row D (Brown wire pair) at the top side and Row A (Blue wire pair) at bottom side as shown.

Strain Relief Crimping Process

FCi Basics



Step 1.A

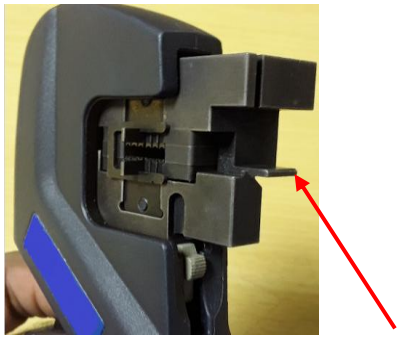


Step 1.B

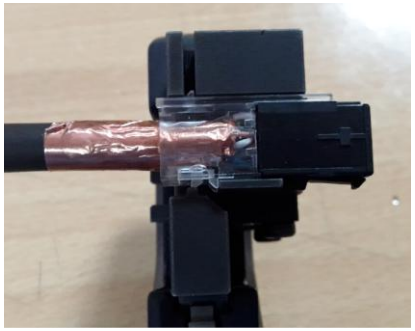
Step 2

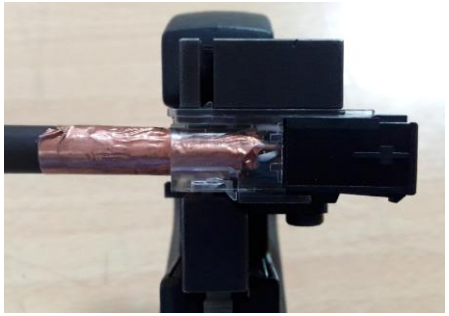
STEP 1: Attach copper tape as shown in Step 1.A and insert terminal assembly into black front housing and ensure the Row D (Brown wire pair) in the top side of housing/latch side, and Row A (Blue wire pair) at bottom side.

STEP 2: Put the transparent rear housing in position and lock



Strain relief crimp side





STEP 3: Place it into strain relief crimp side in Boltrack Portable Crimping Tool (PN: 10149380-001) and CRIMP.

Thank You