Installation Instructions for EIA Connectors

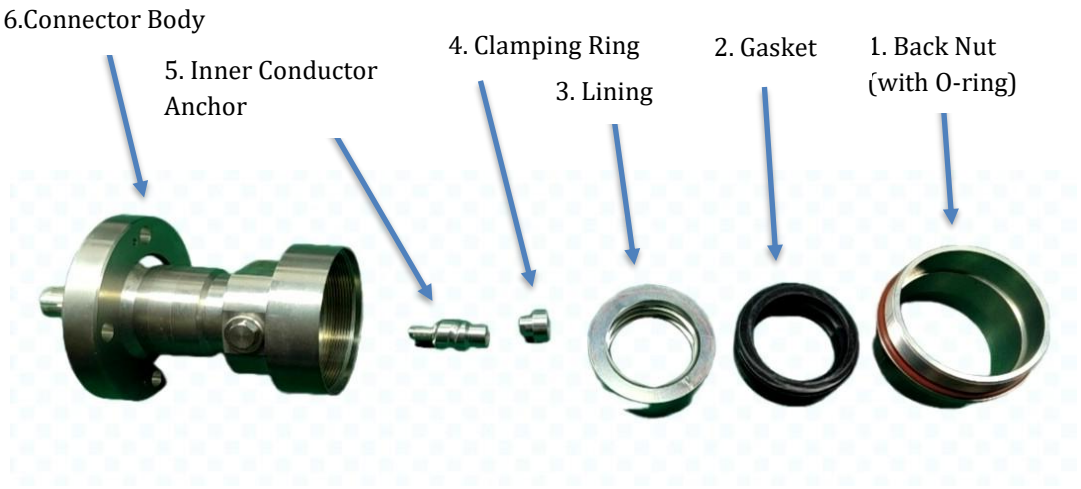
Connector Model: **158EIA-HCA158-C03KT** Matching Cable Models: **HCA158-50**

Disclaimer:
These instructions are intended for use by qualified and experienced personnel only. Please review them thoroughly before beginning any work. We disclaim any liability or responsibility for any consequences resulting from improper or unsafe installation practices. Additionally, please adhere to all applicable environmental regulations regarding assembly and waste disposal.

Tools and Materials

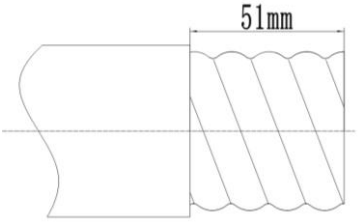
Measuring tape, Saw, Tubing cutter, Cable knife, Pointed-nose pliers, Ball hammer, Light metal scissors, Flat file, 3/8" (9mm) Wrench, 1-7/8" (48mm) Wrench, 2-3/8" (60mm) Wrench

Parts List (gasket grease, and a heat shrink tube are provided but not shown in the picture)

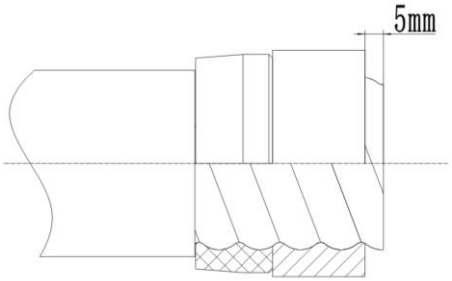


Installation Steps

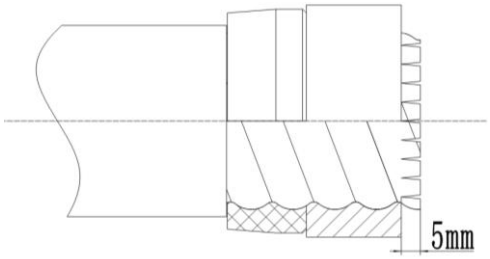
1. Clean cable end and saw it off. Ensure the saw is perpendicular to the cable axis during sawing and no metal particles get inside of the cable. Do not deform the cable.
2. After that, measure 51mm (2inch) from the end of the cable and peel off the cable jacket using a cable knife.



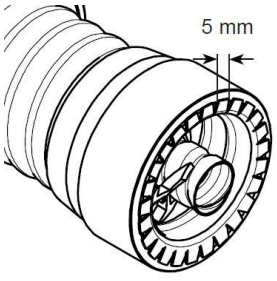
3. Slide the heat shrink boot onto the cable and out of the way. Install the back nut (part 1) with the flange facing the cable end. Then lubricate gasket (part 2) using supplied grease and screw it onto the out conductor up to the trimmed jacket. Screw the lining (part 3) onto the cable, ensuring the distance between the lining's front edge and the end face of the cable's outer conductor is 5mm (3/16inch)



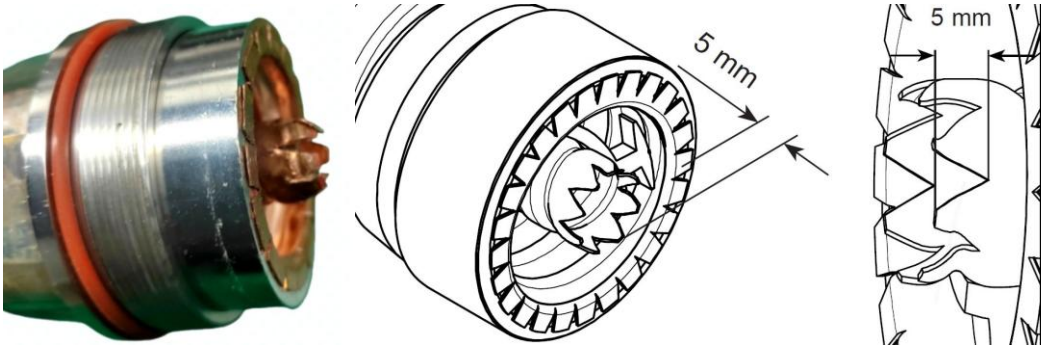
4. Cut slits in the protruding outer conductor along the axial direction until touching lining, spacing the slits approximately 5mm (3/16inch) apart.



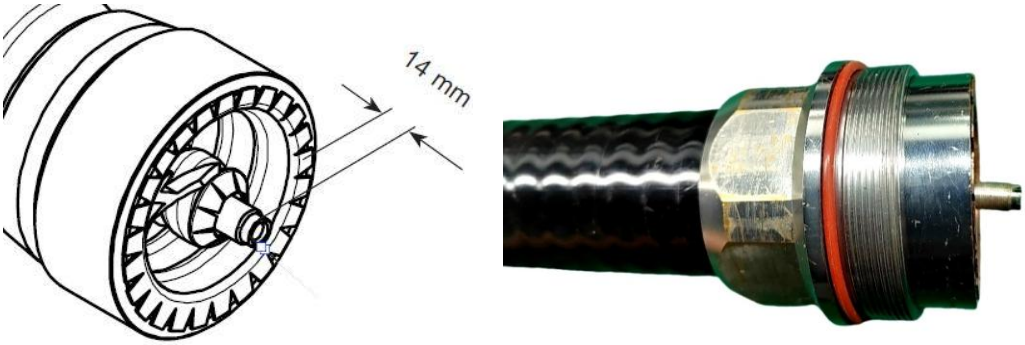
5. Bend the cut outer conductor with pointed-nose pliers and flatten it onto the lining using a ball hammer. Trim any excess outer conductor beyond the lining's diameter with light metal scissors and file the edges flat.



6. Cut out the inner conductor gap of the cable evenly to 5mm (3/16inch), making 8 notches as recommended.

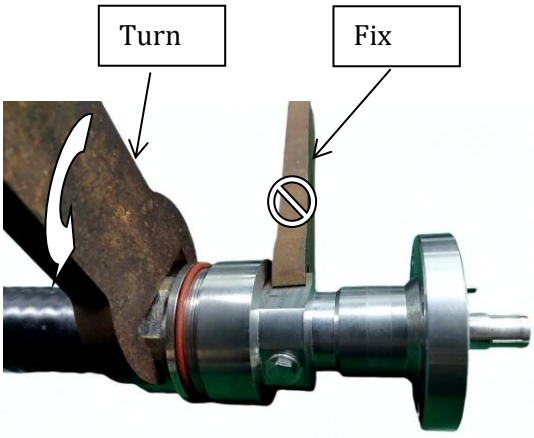


7. Screw the connector's inner conductor anchor (part 5) into the cable's inner conductor, ensuring a 14mm (9/16inch) clearance from the top of the inner anchor (part 5) to the flared outer conductor surface, as shown in the figure. Close the cut inner conductor of the cable, ensuring one tab is bended and stuck in the locking slot of the connector's inner conductor anchor (part 5) to secure it in place. Maintain the 14mm (9/16inch) clearance during this process.
   Overlapping tabs must be reworked. Remove protruding flaring edges by flat file.



8. Screw the clamping ring (part 4) onto the inner conductor anchor (part 5), tighten it using 3/8" wrench to approximately 8 N.m (6 ft-lbs).
   Apply a light film of gasket grease to the O-ring of the back nut (part 1).

9. Align the inner conductor pin on the connector body (part 6) with the inner conductor anchor (part 5) installed on the cable. Carefully slide the connector body (part 6) over the lining (part 3). Slide the back nut (part 1) forward and over the gasket (part 2) and the lining (part 3). Carefully thread the back nut (part 1) and connector body (part 6) together by turning the back nut (part 1).
   Hold the connector body (part 6) stationary and tighten the back nut (part 1) to approximately 60 N.m (44 ft-lbs) with two wrenches.
   It is correct that a small gap remains between the back nut (part 1) and the connector body (part 6) after tightening.



10. To complete the installation, slide the heat shrink boot into place over the back nut (part 1). Use a heat gun or apply a light flame to the boot until it shrinks smoothly forming a weatherproof seal.
    If a gas pass connector is needed, drill through the pre-drilled hole in the insulation of the connector body (part 6) before step 9.
    Plug in the RF coupling element if necessary.
    Remove the plug and use the 1/8 NPT gas inlet on the connector to get dry air and pressurize the cable.

    Note: Ensure all parts are properly aligned and tightened to avoid any issues during operation.