



MX8020-001 Cable Connector Kit Manual

Manual for Trimming the Cable and Connecting the Connector to an MX8031 Extension Cable



The Metrix MX8020-001 Cable Trimming and Connector Kit provides an easy way to reduce the length of an extension cable and maintain the electrical integrity of the MX8030/8031 or MX2030/2031 Proximity Probe System. This kit coupled with the Metrix Digital Proximity System software provides the means for plants, OEM's and packagers to clean up their cabinets and enclosures from the usual coils of cable associated with Proximity Probe Systems.

MX8020-001 Cable Connector Kit Manual

Parts Included

Quantity	Description
1	Hand Crimping Tool
1	Crimping Tool Die for Cable Connectors
1	Triaxial Cable Cutter (Black Cartridge)
1	Wire Cutter
1	Wire Stripper
10	MX8031 Cable Connectors
10	Shrink Tubing Segments

Parts not Included, but recommended for procedure

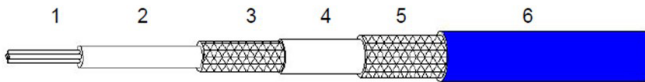
- Needle Nose Pliers
- Heat Gun (for the Shrink Tubing)
- Safety Glasses

Accessories not included

MX8020-002 Cable Connector Refill Kit

Quantity	Description
1	Cable Cutter Cartridge (Black)
20	MX8031 Cable Connectors
20	Shrink Tubing Segments

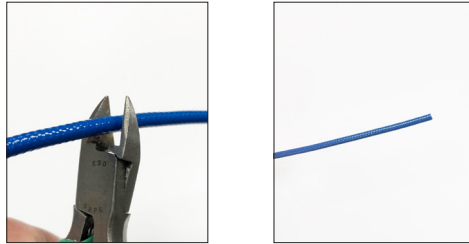
MX8030/8031 Triaxial Cable



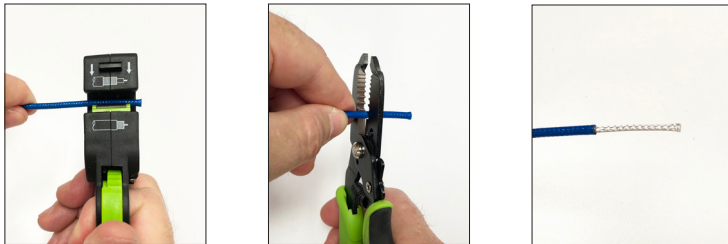
1. Center Conductor
2. Center Conductor Insulator
3. Coaxial Shield
4. Clear Coaxial Jacket
5. Triaxial Armor Shield
6. Outer Jacket

Procedure:

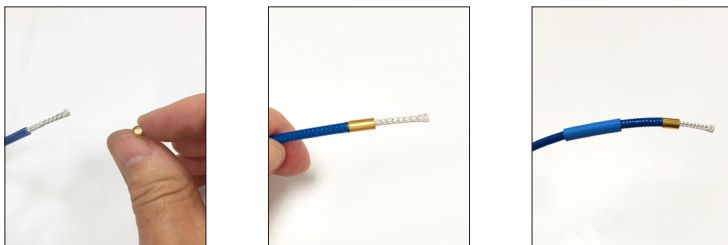
1. Cut the MX8031 Triaxial Cable to the desired length using an appropriate wire cutting tool.



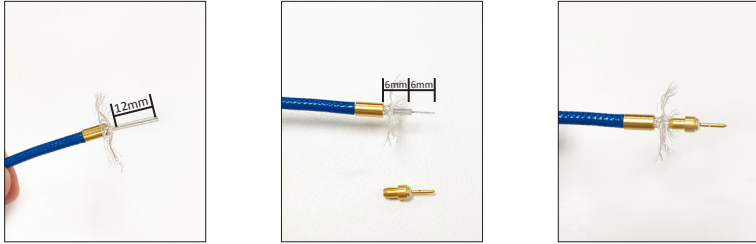
2. Use the Triaxial Cable Cutter with the Black Cartridge (1 active blade) to remove approximately 25mm (1.0") of the outer shield of the triaxial cable. This is the most difficult step of this process. The armor shield is very tough and rugged. Be careful with sharp edges and bare wires. With proper blade adjustment, rotate the cutter at least ten times for a clean cut. Use the wire strippers to remove the triaxial shield (10 AWG, 2.6mm). A proper cut may leave the clear coaxial jacket of the coaxial cable (clear plastic covering) intact. Adjust the blade and tension to obtain the desired depth of cut, you don't want to cut through the coaxial shield so you may have to remove the clear coaxial jacket with the wire stripping tool (14 AWG, 1.6mm).



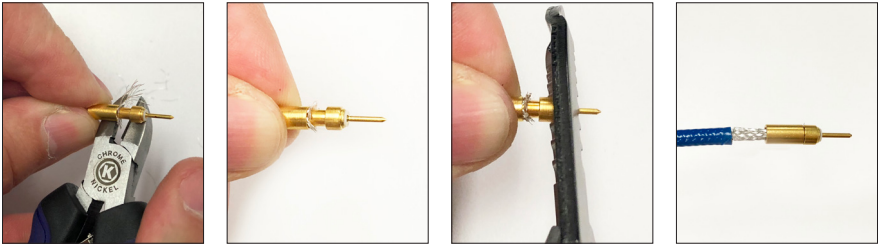
3. Remove the clear coaxial jacket without cutting into the coaxial shield using the wire stripping tool if necessary. Put the shield ferrule over the coaxial cable shield, with the thicker edge away from the cut (or trimmed) end. Move the ferrule down the coaxial cable so it meets the blue triaxial cable. Slide on the blue heat shrink tubing.



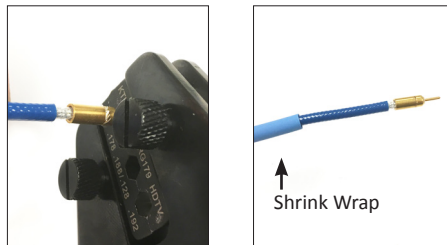
4. Pull back, and fan out, the wire coaxial shield to the ferrule to expose the center conductor insulator and conductor. Use the wire strippers to expose approximately 6mm (0.25") of the center conductor (22 AMG, 0.80mm). Gently twist the center conductor wire, then slide the center core pin onto the center conductor wire and insulator.



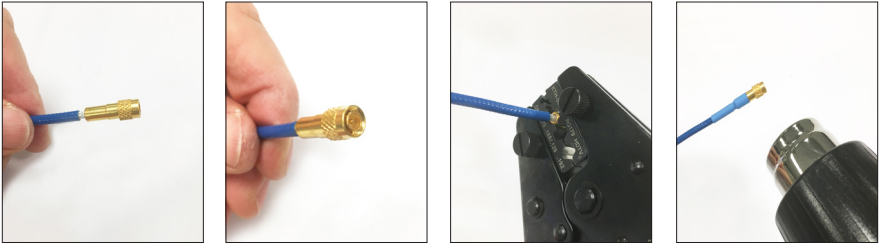
5. Push the shield onto the shield side of the center core pin. Slide the ferrule onto the center core pin to cover 30% of the back end of the center core pin. Trim off the shield to 30% engagement on the pin. This will allow the ferrule to slide up easier and still maintain shield engagement. Put the wire strippers in the locked position and use the strippers as a drift (stop) for the pin body. This will help you with counter force to slide the ferrule on. Do not let the center core pin slip while sliding on the ferrule. Do not let shield wire extrude beyond the ferrule, or it will make installing the connector difficult. Remove excess coaxial shield that will not fit under the ferrule. Note: The shield takes the cable load not the center pin conductor.



6. Crimp the center core pin, using the .041 hole, next to the connector insulation. Use the kit supplied die and crimping tool. Note: The crush is very light on the center pin conductor.



- Slide the connector onto the center core pin and ferrule. Be careful to ensure the center core pin comes through the connector. Crimp the connector, using the .178 hexagon hole, at the ridge line. Test the connection by pulling on the connector with approximately 8kg (20lbs) of force. Use the hot air gun to shrink the tubing onto the connection.



- Test the modified MX8031 extension cable. Ensure you have an open circuit between the center pin and the connector case. Ensure you have continuity between the cases at both ends of the cable. Ensure you have continuity between the pin at one end and center conductor at the other end. If any of these checks are not true you must do the connection over again.



- Ensure you program the Metrix DPS unit (MX2033 or MX2034) for the closest meter electrical length that you now have. Verify the system is linear. Perform calibration if necessary. For instructions on how to modify the Metrix DPS configuration, from the Factory Purchased configuration go to the below link.

<http://www.metrixvibration.com/tenants/metrix/documents/100545.pdf>

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