Application Note

Terminating Jacks and Plugs onto B840 Industrial Cable

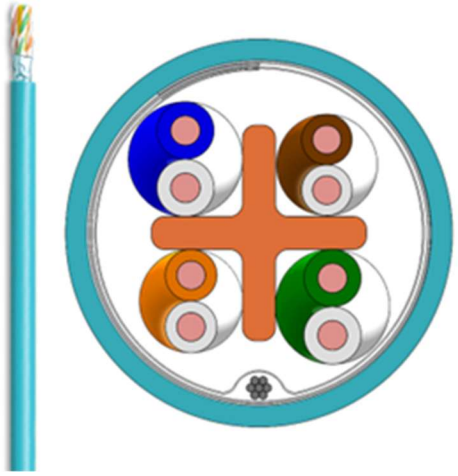
Application Note ID:
NS-AN26-0011

Date:
11/9/2026

Product Line:
B840 Industrial Cable

Part Numbers Affected:
11101314, 11104013

LANMARK B840 Industrial Cable is a Category 6 Shielded (F/UTP) cable. The core of the cable (22 AWG twisted pairs and center spline) has a polymer wrap, an overall foil shield (applied metal-side inward), and a stranded drain wire. The cable has a CMR and CMX Outdoor-rated jacket with an outer diameter of 0.370 inches. The size of this cable jacket requires special termination methodology when terminating shielded jacks or plugs onto the cable.



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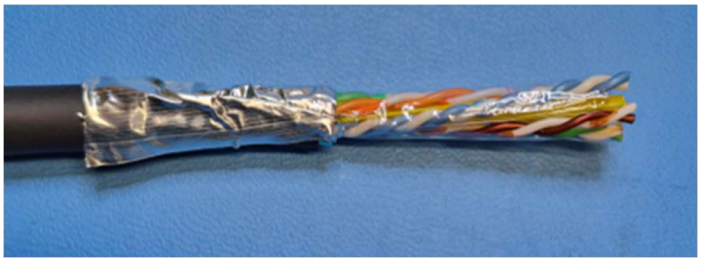
Terminating B840 Cable with a Category 6 Shielded Jack - Cable Preparation Steps



- Strip 2.75 inches of cable jacket
- Cut 2 inches of 7/16" heat shrink tubing
- Shrink the tubing down so that about 1" is over the cable jacket and 1" is over the foil





- Pull foil back over the heat shrink tubing metal side outward
- Twist drain wire strands together and pull back drain wire

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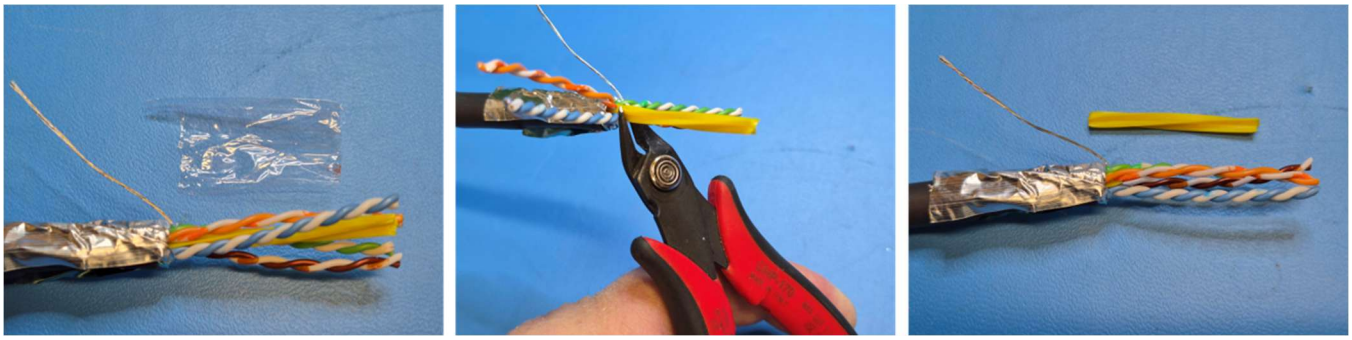
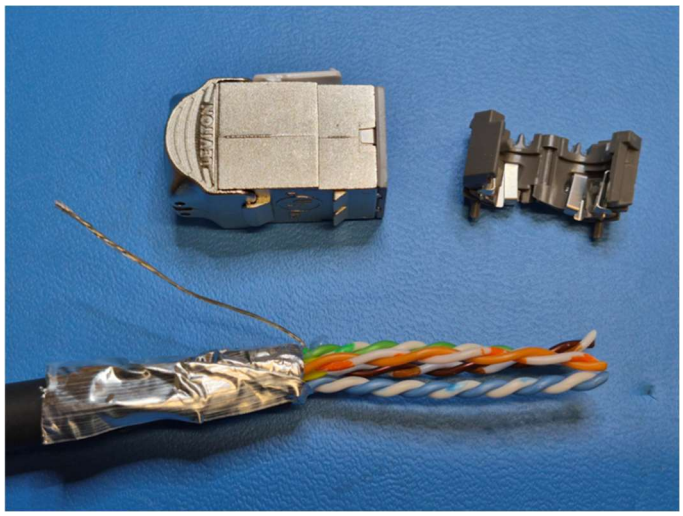


- Loosen polymer wrap, nip the edge of the polymer with flush cutters, then tear it away.
- Spread the pairs and cut away the cable center spline (pair separator) as close to the foil as possible – ensure no foil, drain wire or pair insulation damage.
- Straighten the pairs. Cable preparation is complete and ready for jack termination.

Terminating B840 Cable with a Category 6 Shielded Jack - Jack termination Steps



- Use part number 61SJK-Rx6 (x = jack color option)
- The 61SJK jack comes with a grey wire manager, which has spring contacts on the inside.
- The grey wire manager may be used, but an available black wire manager is a better option.

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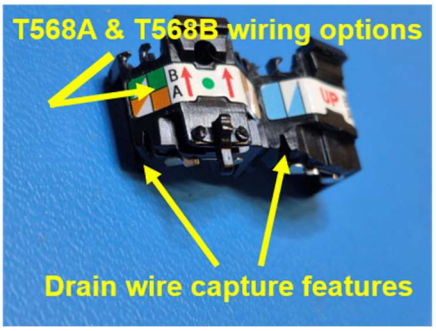
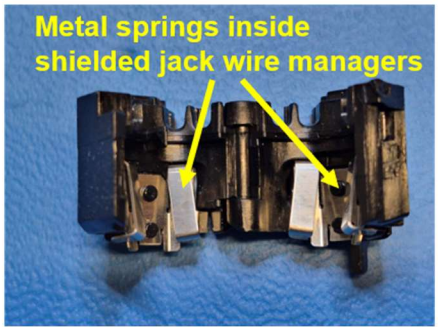
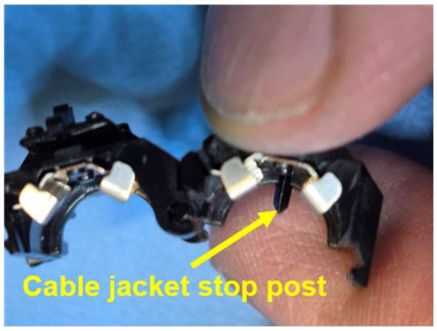
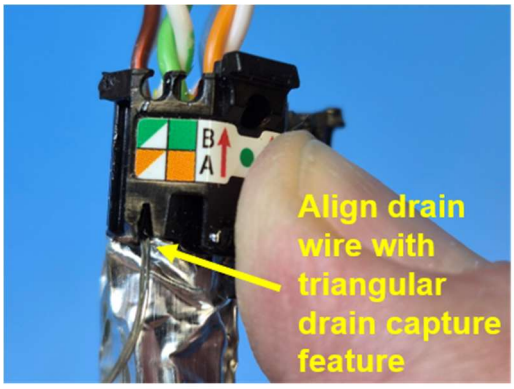
- A better choice for the wire manager for the B840 cable is the black wire manager (part number AXSJK-BEM). These must be ordered separately. The black wire manager is optimized for the 22 AWG insulated conductors found in the B840 cable.
- Several important features of the shielded wire manager are noted below:

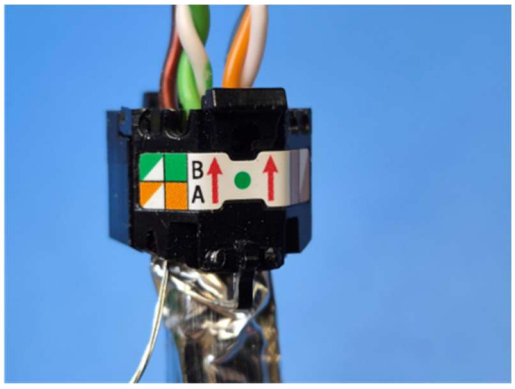






- Placing the wire manager onto the cable requires several simultaneous steps:
  - Align the drain wire with the drain wire capture features below either the blue pair on the wiring label, or below the green (T568B) pair on the wiring label
  - Align the wiring label to the pair color – green aligned with T568B green is shown below.
  - Position the cable jacket stop post so it rests at top edge of foil – this places the wire manager at the correct position on the cable.
- Next, close the wire manager around the cable, being careful that no foil or drain wire strands are caught in the wire manager latch.





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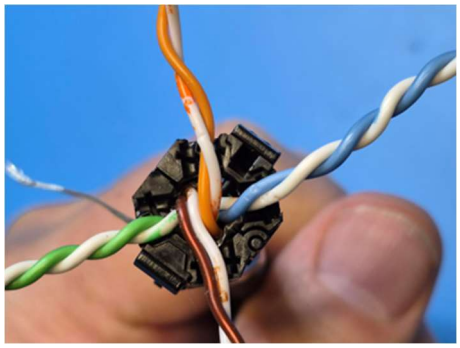
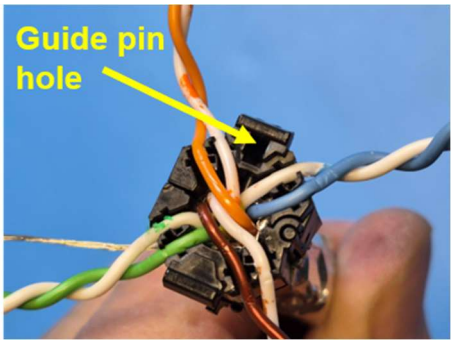
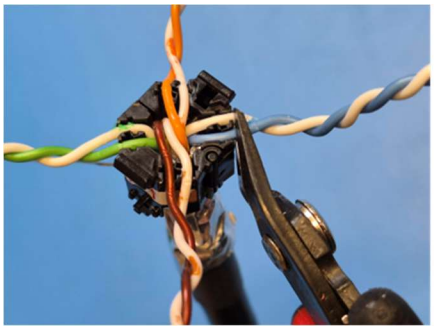
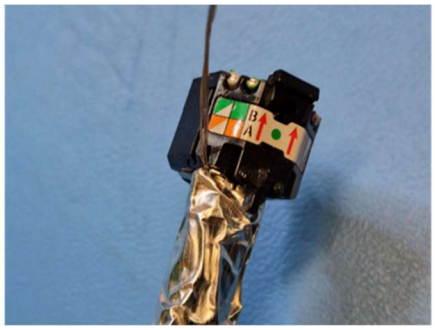




- Pull the twisted pairs to the correct quadrant of the wire manager per the wiring label.
  - T568B wiring pattern is shown above.
  - Note that one end of the cable will have an orange and brown pair crossover, as shown.
- Untwist the base of each pair and, following the pair polarity shown on the wiring label, pull each wire into the correct wire channel.
- IMPORTANT! Do a pair Polarity check!
  - If wired correctly, the white wire of each pair will be closest to the wire manager guide pin hole.







- Using a flush cutter, trim each pair flush with the sides of the wire manager.
  - IMPORTANT! A flush cutter must be used! Pairs must be completely flush.
  - Diagonal cutters ("dikes") or electrician's scissors ("snips") will not work!
- Pull drain wire up into drain wire capture – a sharp tug works best to seat it
- Using a flush cutter, trim drain wire tail flush with side of wire manager.

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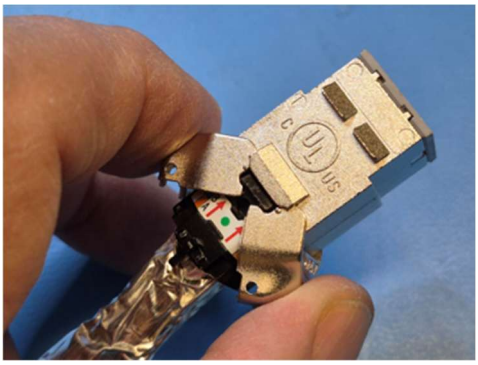
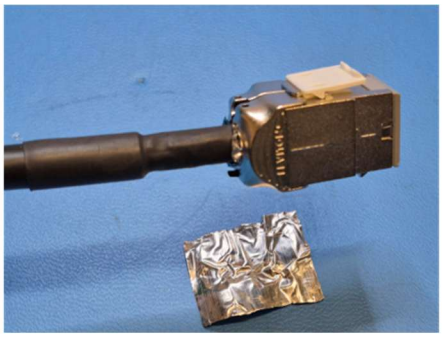
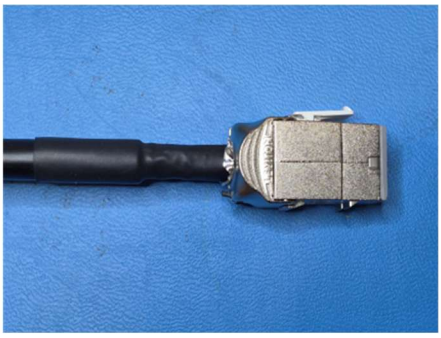




- Align Jack with wire manager.
- Use jack doors to close the jack and terminate all wires.
    - Close the jack doors with fingers. Tools should not be used.







- Nip edge of foil; and tear foil off.
- Jack termination is complete!

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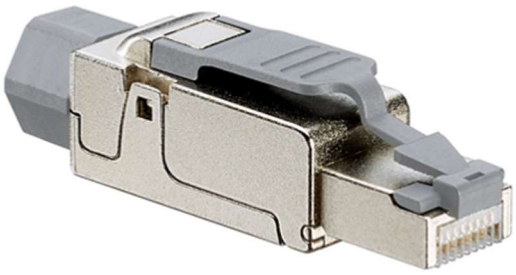
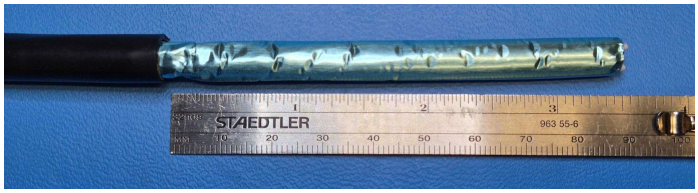
Terminating B840 Cable with a 6APLG Plug



- Use part number 6APLG-S6A
- This is a shielded Category 6A part which may be used for either Category 6 or Category 6A applications.
- This plug features tool free termination. Do NOT attempt to squeeze the wire managers with pliers.







- Strip 3.5 inches of cable jacket.
- Cut 2 inches of 7/16 inch heat shrink tubing.
- Shrink tubing down so about 1 inch is over cable jacket, and 1 inch is over foil.

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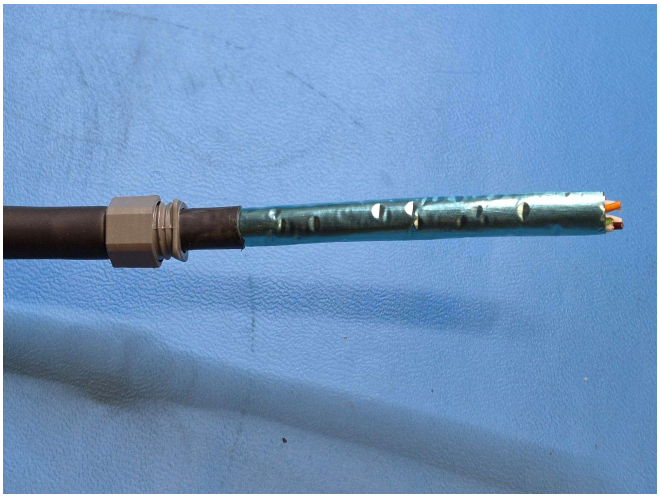
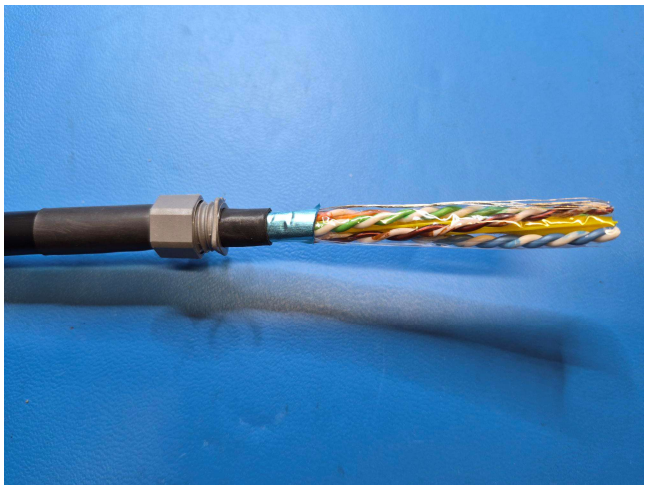


- Slide nut onto cable and over the heat shrink – note nut orientation.



- Nip edge of foil at ½-inch beyond the end of the heat shrink and tear off excess foil.

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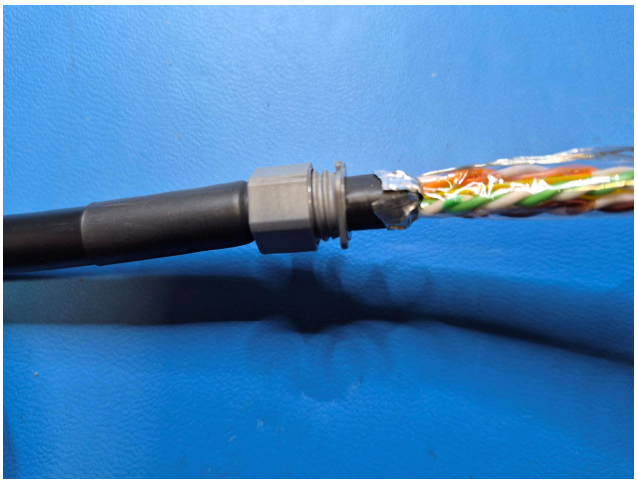
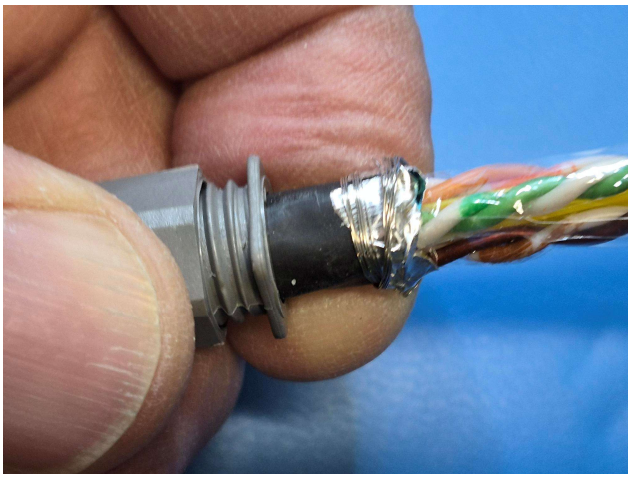
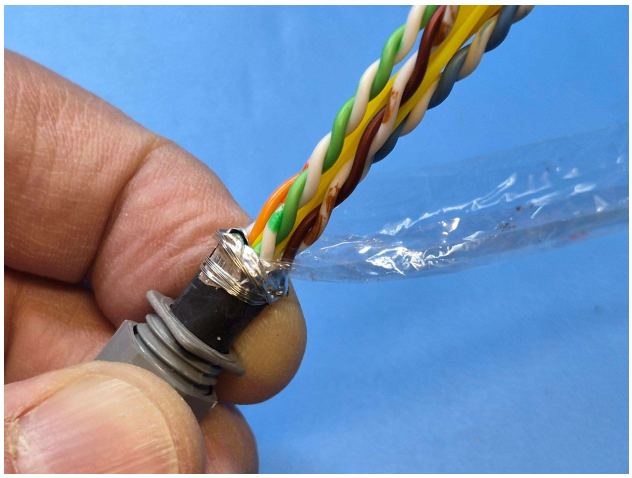
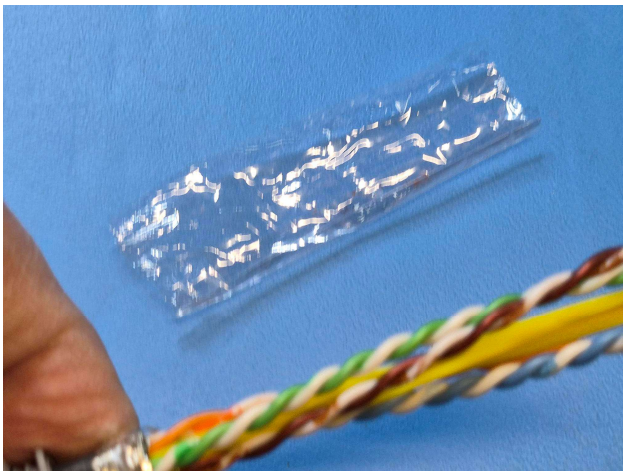




- Pull the foil back over the heat shrink – metal side outward.
- Wrap drain wire around the foil





- Loosen the polymer wrap. Nip the wrap and tear away.

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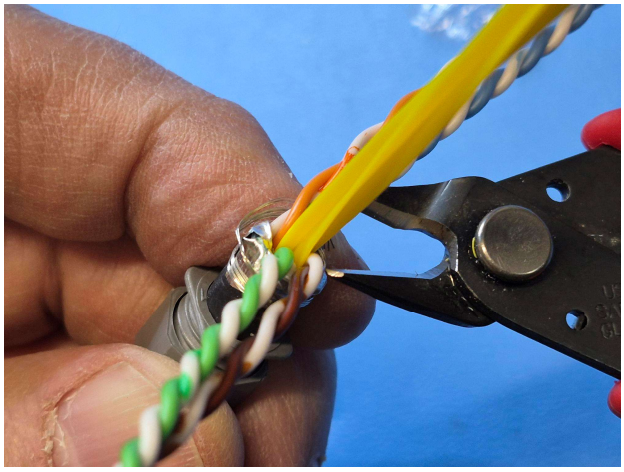
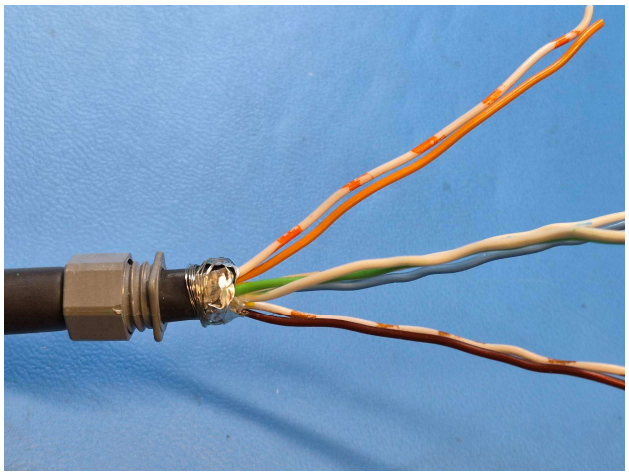
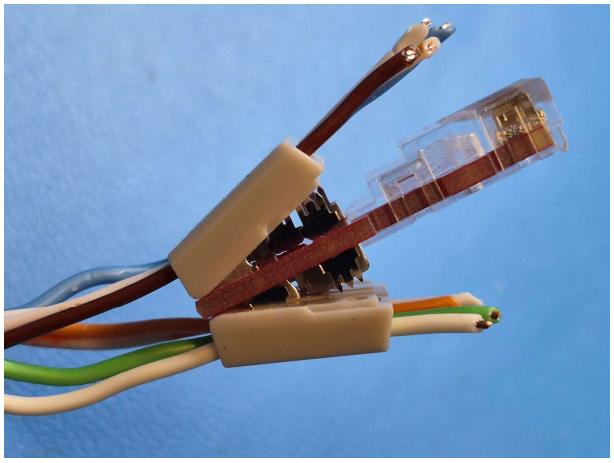




- Remove cable center spline. Ensure no pair insulation, foil, or drain wire damage.
- Untwist all four pairs.



- Lift the wire managers so that the wire through-holes completely clear the IDCs.
- Following T568A or T568B wiring label, begin feeding the wires into the wire manager.

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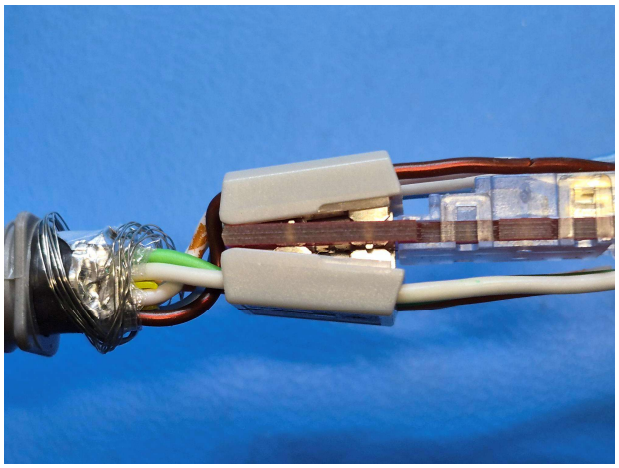
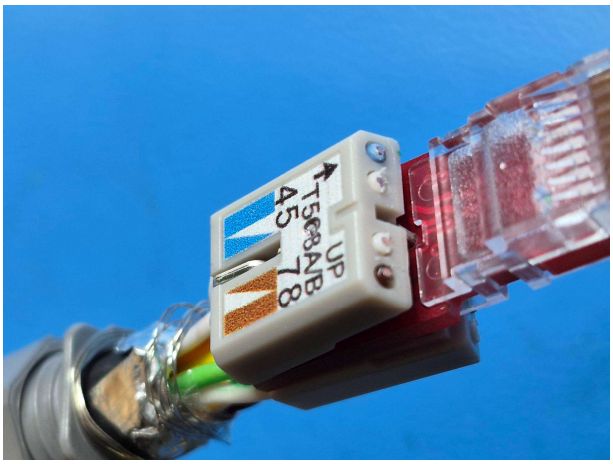
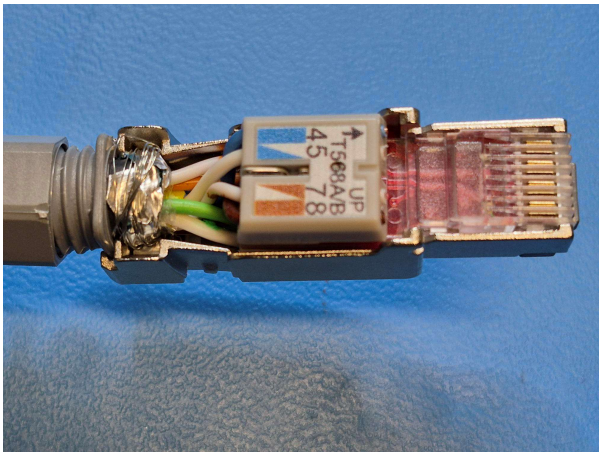




- Pull the wires into the wire manager as far as possible.
- Using fingers (not pliers!) squeeze the wire managers down onto the wires, …then
- Using a flush cutter, cut all wires flush to the faces of the wire managers.
- IMPORTANT! These two steps must be done in the proper order!



- Lay the wired plug into the plug housing and bring the strain relief nut forward into the slot at the rear of the housing.

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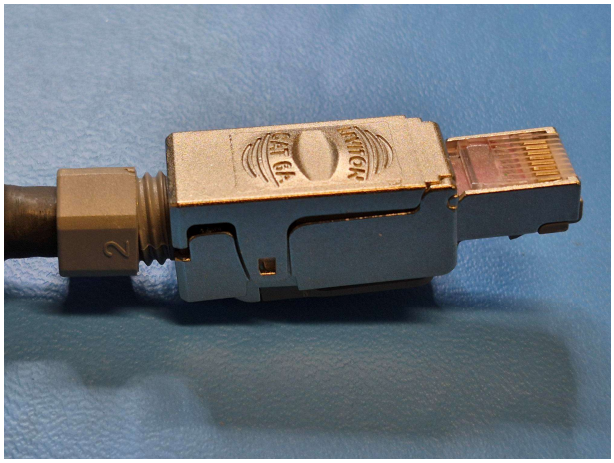
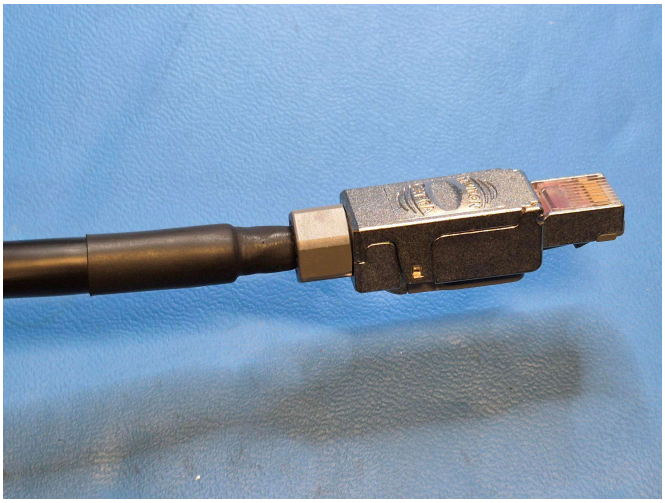




- Engage both pins of jack door and push down with fingers. Ensure both door pins remain engaged.
- Final closure may be accomplished by careful application of channel-lock pliers at the rear corners of the plug housing (the 22 AWG conductors require a little more force).



- Tighten the strain relief nut.
- Plug termination is complete!

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