

# ThinWire Ethernet COAXIAL CABLE CONNECTOR INSTALLATION CARD

#### IF YOU NEED HELP

Call the Ethernet Customer Support Center

Toll-free 1-800-525-7104

#### IMPORTANT

The following four-part procedure must be performed by service personnel who have completed training in the use of ThinWire cable stripper and BNC connector tools.

This four-part procedure consists of:

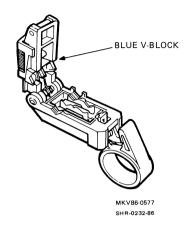
- A. Adjusting the stripper tool
- B. Stripping the cable
- C. Attaching the male BNC connector
- D. Checking the completed cable.

## A. ADJUST STRIPPER

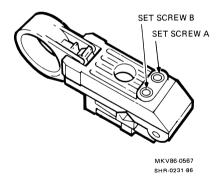
The ThinWire cable stripper contains two cutting blades that you must adjust to correctly cut the cable jacket and braid of the ThinWire cable. The following procedure describes the adjustment of the cable stripper blades.

NOTE: Use a scrap piece of ThinWire cable for the following adjustment procedure.

1. Check that the blue V-block (Amp 603997-2) is installed in the stripper.

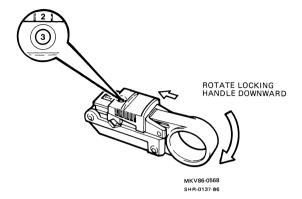


Using the stripper hex wrench (supplied), turn set screws A and B counterclockwise until you feel resistance. This retracts the blades.

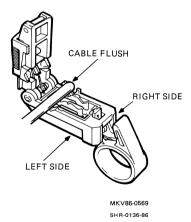


- 3. Turn set screw A 2-1/2 turns clockwise.
- 4. Turn set screw B 1-1/2 turns clockwise.

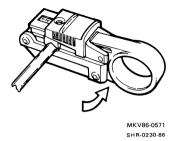
5. Push the slide to position 3.



- Open the stripper by rotating the locking handle downward.
- With the locking handle facing you, place the cable in the stripper from the left side with the end of the cable flush with the right side of the stripper.

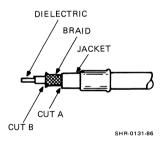


8. Close the stripper and rotate it five times around the cable.



9. Open the stripper and remove the cable.

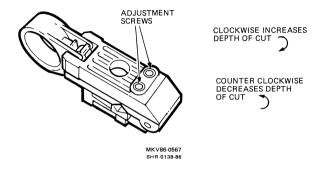
- 10. Remove the cut jacket and braid from the cable.
- 11. Check the practice cuts on the cable to make sure that:
  - Cut A cuts only the jacket, exposing the braid. This cut should not damage ANY braid strands.



 Cut B cuts the jacket, braid, and foil. This cut should not damage the dielectric beneath the foil. When stripping the cable to install a male connector, you must remove the foil.

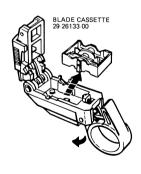
Even after you adjust the blade depth repeatedly, cut B may leave a few strands of the braid that you must remove with diagonal cutters.

12. Adjust the stripper blades as needed to produce the correct stripper cut. Turning the set screws clockwise extends the blades, increasing the depth of the cut. Turning the set screws counterclockwise retracts the blades, decreasing the depth of the cut.



NOTE: If repeated adjustment fails to produce correct cuts, replace the blade cassette. See step 13.

13. Install a new set of blades.



EACH CASSETTE CONTAINS 4 BLADES. CASSETTE CAN BE REVERSED EACH TIME A BLADE SET WEARS OUT. NUMBERS 1 TO 4 ARE PRINTED INSIDE CASSETTE TO DETERMINE USAGE.

TO CHANGE OR REVERSE CASSETTE, MOVE LOCKING HANDLE DOWN, THEN PUSH CASSETTE OUT OF STRIPPER BY INSERTING WRENCH THROUGH HOLE IN BOTTOM OF. TOOL

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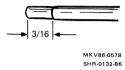
14. Discard the practice piece of ThinWire cable.

This completes the Adjust Stripper procedure.

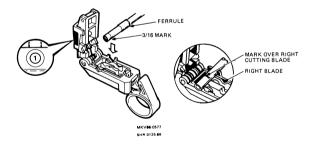
## **B. STRIP CABLE**

Prepare for male ThinWire BNC connector installation by stripping the cable as follows.\*

- Use the diagonal cutters to trim the end of the cable flush.
- 2. Mark the jacket of the cable 3/16 inch from the end of the cable. This is the center conductor length.



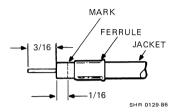
- 3. Place the ferrule on the cable.
- 4. Push the slide to position 1.
- Bring the cable in from the right side of the stripper and place the mark on the cable over the right blade.



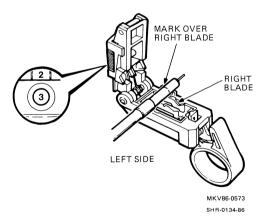
- Close the stripper and rotate it around the cable five times.
- 7. Open the stripper and remove the cable.

<sup>\*</sup> The cable strip dimensions are different for male and female (bulkhead) ThinWire connectors.

- 8. Remove the cut jacket, braid, and dielectric from the cable, exposing the center conductor.
- 9. Push the slide to position 3.
- Mark the jacket of the cable 1/16 inch from the end of the jacket (not the end of the exposed center conductor). This is the exposed dielectric length.



11. Bring the cable in from the left side of the stripper and place a mark on the cable over the right blade.



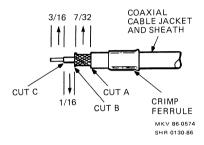
- 12. Close the stripper and rotate it five times around the cable
- 13. Open the stripper and remove the cable.
- 14. Remove the cut jacket and braid from the cable. If the stripper has not fully cut 1/16 inch off the cable, or if the cut has spiralled off the end of cable, return to step 1 and repeat the procedure.
- 15. Check the cable to make sure that:
  - The first stripper blade cuts only the jacket, exposing the braid. This blade should not cut ANY braid strands.
  - The second stripper blade cuts the jacket, braid, and foil. This blade should not cut the dielectric beneath the foil.
- 16. Remove the 1/16 inch strip of foil from the top of the dielectric to expose the dielectric.

NOTE: Removing the foil ensures that the center conductor (when installed) will not short to the foil.

17. Check the stripped cable.

Even after you adjust the blade depth repeatedly, cut C may leave a few strands of braid that you must remove with diagonal cutters.

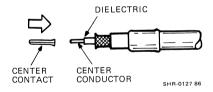
If cut A cuts any braid strands or cut B cuts the dielectric, return to step 1 and repeat the procedure. If the second attempt fails to produce properly stripped cable, the stripper is not correctly adjusted. Return to the Adjust Stripper procedure.



This completes the Strip Cable procedure.

# C. ATTACH MALE BNC CONNECTOR

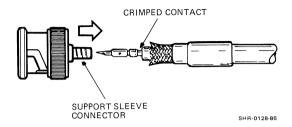
Slip the center contact onto the center conductor.
Make sure that the center contact butts against the
dielectric. Make sure that the foil does not touch the
center contact.



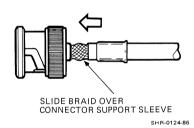
2. Crimp on the center contact using the crimping tool.

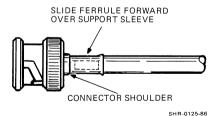
NOTE: The center contact should be firmly attached to the center conductor after crimping.

Insert the center contact through the center of the connector, slipping the support sleeve of the connector under the braid and over the dielectric and braid.

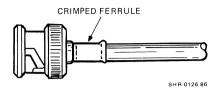


4. Slide the ferrule over the braid, ensuring contact with the connector shoulder.





Crimp the ferrule onto the cable using the crimping tool.



This completes the Attach Connector procedure.

## D. CHECK CABLE

Check the cable for continuity and shorts after connectors are attached to BOTH ends of the ThinWire cable.

- Install a 50 ohm terminator on one end of the ThinWire cable using a T-connector or barrel connector.
- 2. Check for cable continuity on the other end of the cable using an ohmmeter.
  - Connect the ohmmeter leads to the center pin of the connector and the connector body.
  - The ohmmeter reading MUST be 60 ohms or less, indicating continuity in both the shield and center conductor.
- 3. Remove the 50 ohm terminator.
- Check for open circuit (no connection) between the center conductor and the shield, using the ohmmeter.

- Connect the ohmmeter leads to the center pin and the connector body.
- The ohmmeter MUST read infinite ohms, indicating no shorts between the shield and center conductor.

This completes the Check Cable procedure.

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