Installation Procedure for B-023-XX

1. Installation Tool

1.1 Hot air generator: CV-1981 (1460W) setting position 9, temperature = 480°C with vent in open position. Recommended maximum temperature = 500°C.

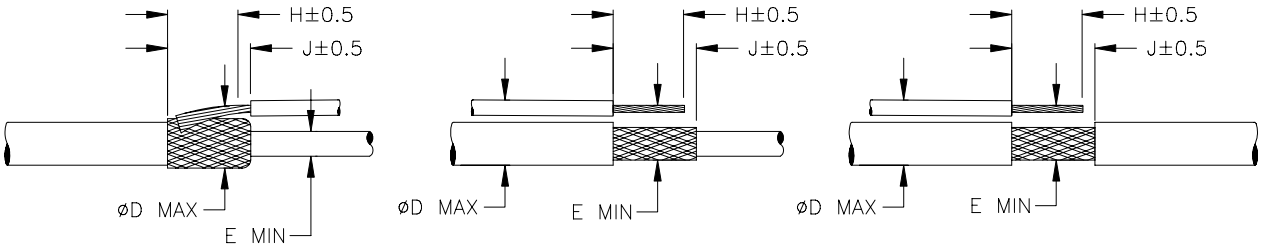
1.2 Reflector for: Use PR-13C for B-023-00/-01/-02/-03 Shield Terminators, PR-25D or PR-25 for B-023-04/-07 (PR13 for center stripped terminations)

1.3 Holding fixture: AD-1319

2. Cable and Stripping Dimensions

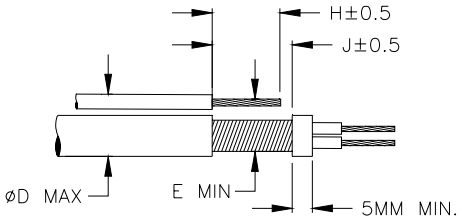
2.1 Shield Terminator selection:

Product Name	D MAX	E min.	J±0.50 (J±0.020)	H±0.50 (H±0.020)
B-023-00	4.30 (0.169)	3.00 (0.118)	9.00 (0.354)	5.00 (0.197)
B-023-01	5.50 (0.217)	3.60 (0.142)	12.00 (0.472)	11.00 (0.433)
B-023-02	7.00 (0.276)	4.50 (0.177)	12.00 (0.472)	11.00 (0.433)
B-023-03	10.50 (0.413	6.80 (0.268)	12.00 (0.472)	11.00 (0.433)
B-023-04	2.40 (0.094)	2.00 (0.079)	5.50 (0.217)	4.50 (0.177)
B-023-07	3.10 (0.122)	2.40 (0.094)	7.00 (0.276)	6.00 (0.236)



End stripped with fold back *End stripped* *Center stripped*

2.2 Spiral wrapped braids:
Under certain circumstances it may be more difficult to achieve consistent terminations with cables having spiral wrapped braids. In order to maintain the braid format, it is recommended to center strip the cable as detailed below.



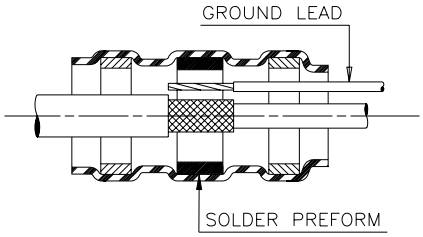
3. Assembly Components

WARNING

Follow installation instructions carefully. Use adequate ventilation and avoid charring or burning during installation. Charring or burning the product will produce fumes that may cause eye, skin, nose and throat irritation. Consult Material Safety Data Sheets **RAY5104** for further information.

3.1 Shield Terminator:

- Slide the selected shield terminator over the cable and ground lead assembly.
- Rotate the shield terminator as it slides over the ground lead to prevent catching on the strands.
- Center the solder pre-form over the stripped portion of the ground lead and shield as shown.



End Stripped cable

3.2 Additional notes for terminating Nickel-plated conductors and/or braids:

- When using this product for terminations to nickel conductors and /or braids, it is advisable to check the solderability of the conductor and/or braid.
- If lack of wetting is experienced it is recommended that a small drop of flux be applied to conductor and braid prior to positioning of the sleeve. A recommended flux is Kester 1544.

4. Tooling Calibration

- Install on Heating Tool recommended reflector (Paragraph 1).
- Fix a thermocouple centered on reflector where the Shield Terminator will be located during installation process

- Set Heating tool, and allow reflector area heat increase for at least 5 minutes, until thermocouple reading becomes stable.
- Adjust tool setting until specified temperature is reached.

5. Shield Terminator Heating

WARNING

The heating tool and the assembly become hot during the installation of the SolderSleeve. To prevent burns, allow tool and the assembly to cool down before handling.

- Without rotating the assembly, heat the center of the sleeve until the sleeve shrinks, the solder ring melts and flows into the strands of the ground lead and shield, and the meltable inserts melt and flow.
- The collapse of the solder ring does not indicate solder flow. Continue to apply heat until the solder flows into the strands.
- Allow the assembly to cool down before handling.

6. Inspection

6.1 Assembly:

- The stripped portion of the ground-lead conductor should be located directly over the stripped portion of the braid.
- The sleeve should completely cover the stripped portions of the ground lead and the braid.
- The sleeve must be recovered tightly onto the ground lead and the cable. If the sleeve has not recovered onto the assembly, the terminator is too large for the application.

6.2 Heating:

Insufficient Heat: The absence of the following criteria indicates that the heat applied to the assembly during installation was insufficient to produce an acceptable solder joint.

- Meltable inserts should have melted and flowed along the cable joint under the insulation sleeve.
- Solder pre-form must have melted and flowed along the ground lead/cable shield interface. There should be no evidence of the solder pre-form shape remaining.

6.3 Wetting:

Poor wetting is characterized by the lack of a solder coating on the cable shield or ground lead may be caused by either insufficient heat or the poor solderability of the cable shield or ground lead. Reheat the termination until good wetting is achieved. If wetting is still poor after reheating, it may be necessary to replace the cable or ground lead with one that is more solderable. Other possible corrective actions are to place one drop of liquid flux on the ground lead or shield prior to installing the terminator. The corrective action for poor solderability is the responsibility of the installing facility.

6.4 Overheating:

The absence of the following criteria indicates that the termination was heated longer than necessary or at a higher temperature than recommended values on Paragraph 1 to achieve a good solder joint on a solderable wire.

- The sleeve must remain sufficiently transparent to allow inspection of the solder joint.
- The sleeve must not show any sign of splitting or cracking.
- There shall be solder fillet at least 1/8 inch long, visible along at least one side of the ground lead.

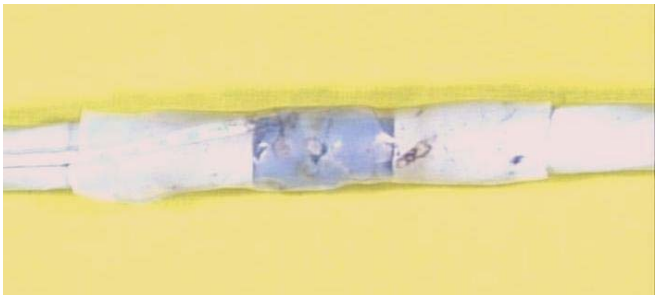
6.5 Damaged Assemblies:

Examine the insulation sleeve and the wire and cable insulation for damage.

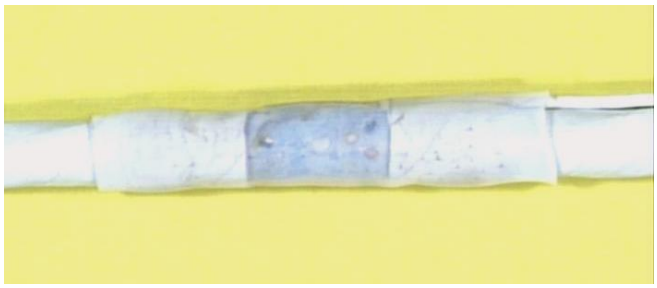
- The insulation sleeve must be intact with no shield or conductor strands poking through it.
- The cable and ground lead insulations must show no signs of mechanical or thermal damage (cuts, melting, or charring) outside of the insulation sleeve. Surface discoloration is a natural occurrence on some insulating materials and does not indicate thermal damage.

7. Acceptance Criteria

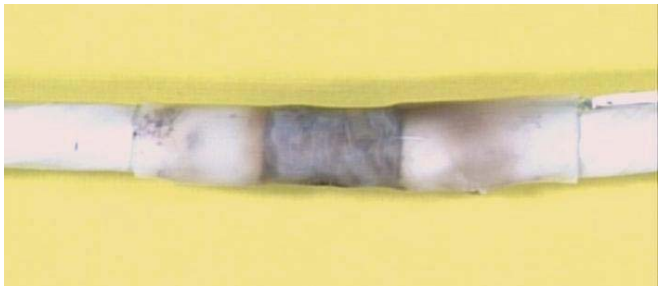
Insufficient Heat



Acceptable Termination



Overheated Shield Terminator



8. Shield Terminator Rework

If insulation tubing has been damaged during shield terminator installation (i.e. sleeve misaligned, over-heating, cracking, splitting due contact with reflector edges, etc), sealing sleeve must be replaced.

8.1 Removal of the Sealing Sleeve:

- Score sleeve using a sharp blade. It is not necessary to cut through the sleeve. Use care not to cut cable jacket or ground lead insulation.

- Reheat sleeve until it softens and then grasp it with a needle-nose pliers, on the side opposite of the scored line, and gentle pull the sleeve off the assembly. Set up heating tool as specified on paragraph 1. 5 to 10 seconds are required to soften tubing.

8.2 Re-insulation:

If the examination of the solder joint after the sleeve removal shows that the solder joint is acceptable, re-insulate the termination as follows;

- Select the same size of shield terminator.
- Remove solder pre-form by crushing the pre-form and allowing it to drop out of the sleeve.
- Center the sleeve over the solder joint and heat until it recovers onto the assembly.
- Use same tool/reflector to terminate sealing sleeve. Since solder pre-form has been terminated previously, a maximum temperature of 450°C is recommended.