

Electronics

Tyco Electronics Corporation 300 Constitutional Drive Menlo Park, CA. 94025 U.S.A.

Raychem

No: RCPS-B152

Rev: B

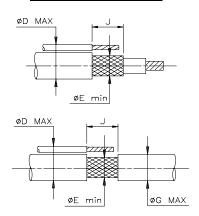
Date: April 11, 2002

Page 1 of 3

Unless otherwise specified dimensions are in millimeters. Inches dimensions are in between brackets.

Installation Procedure For Non-Eutectic Solder Alloy Product, B-152-Xx (-S) And B-152-Xx-W4yy-Z

1. Cable Preparation:

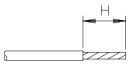


	Cable Dimensions			
Product Name	D MAX	E Min.	G MAX	J
B-152-03 (-S) (-W4YY-Z)	3.0	1.5	2.5	8.0 ± 0.5
B-152-05 (-S) (-W4YY-Z)	4.8	2.0	4.3	8.0 ± 0.5
B-152-06 (-S) (-W4YY-Z)	6.7	3.3	6.0	11.0 ± 1.0
B-152-07 (-S) (-W4YY-Z)	7.3	3.3	6.8	11.0 ± 1.0
B-152-09 (-S) (-W4YY-Z)	8.5	4.5	8.0	12.0 ± 1.0
B-152-11 (-S) (-W4YY-Z)	9.5	4.5	9.0	12.0 ± 1.0
B-152-13 (-S) (-W4YY-Z)	14.0	7.0	12.0	17.0 ± 1.0
B-152-17 (-S) (-W4YY-Z)	17.0	9.0	14.0	31.0 ± 2.0
B-150-23 (-S) (-W4YY-Z)	23.0	12.0	20.0	31.0 ± 2.0
B-152-33 (-S) (-W4YY-Z)	33.0	19.0	30.0	31.0 ± 2.0

2. Wire Preparation:

For B-152-XX (-S) only:

Strip the ground lead wire insulation as shown:



Product Name Η B-152-03 (-S) 8.0 ± 0.5 B-152-05 (-S) 8.0 ± 0.5 B-152-06 (-S) $10.0\pm\!1.0$ B-152-07 (-S) 10.0 ± 1.0 B-152-09 (-S) 11.0 ± 1.0 B-152-11 (-S) $11.0\pm\!1.0$ B-152-13 (-S) 16.0 ± 1.0 B-152-17 (-S) 29.0 ± 2.0 B-152-23 (-S) 29.0 ± 2.0 B-152-33 (-S) 29.0 ± 2.0

3. Application Equipment:

	Configurations			
Product Name	Reflector	CV-1981 Hot Air Gun	HL 1802E Hot Air Gun	
B-152-03 (-S) (-W4YY-Z)	PR25 or PR25 D			
B-152-05 (-S) (-W4YY-Z)	PR25 or PR25 D			
B-152-06 (-S) (-W4YY-Z)	PR25 or PR25 D	Temp: approx. 360°C	Temp: approx. 360°C	
B-152-07 (-S) (-W4YY-Z)	PR25 D	Air Vent: open	Air Flow: high	
B-152-09 (-S) (-W4YY-Z)	PR25 D			
B-152-11 (-S) (-W4YY-Z)	PR25 D			
B-152-13 (-S) (-W4YY-Z)	PR33			
B-152-17 (-S) (-W4YY-Z)	PR33	Temp: approx. 420°C	Temp: approx. 420°C	
B-150-23 (-S) (-W4YY-Z)	PR33	Air Vent: open	Air Flow: high	
B-152-33 (-S) (-W4YY-Z)	PR33			



Electronics

Tyco Electronics Corporation 300 Constitutional Drive Menlo Park, CA. 94025 U.S.A.

Raychem

No: **RCPS-B152**

Rev: B

Date: April 11, 2002

Page 2 of 3

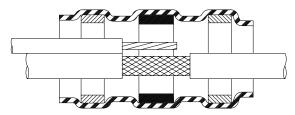
4. Assembly:

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 **RAY5103** for further information.

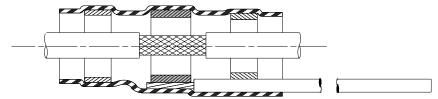
4-1. For B-152-XX (-S):

Position stripped portion of ground lead over the exposed cable braid. Slide the SolderSleeve device over the exposed braid. Center the stripped area of the cable between the inserts of the sleeve.



For B-152-XX-W4YY-Z:

Slide the SolderSleeve device over the exposed braid. Center the ground lead over the stripped area of the cable as shown:



4-2. Heating Procedure:

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.

Allow the hot air gun to reach its operating temperature. Place the assembly centrally in the appropriate reflector (see section 3) so the heat is concentrated on the solder preform. When heat is first applied, the tubing shrinks and the inserts melt and

flow. Continue heating until the solder melts, flows and forms a fillet between the ground lead and the cable braid. Allow the assembly to cool down before handling.

Caution: Due to the non-eutectic nature of the solder alloy, it is important that the assembly is not impacted, or shocked before the solder has completely re-solidified.

4-3. If it is necessary to bend the ground lead after the installation, the bend radius shall be a



Tyco Electronics Corporation 300 Constitutional Drive Menlo Park, CA. 94025 U.S.A.

Raychem

No: **RCPS-B152**

Rev: B

Date: April 11, 2002

Page 3 of 3

minimum bend radius of not less than the diameter over the wire insulation.

5. Inspection:

- 5-1. Inspection for proper assembly:
 - The free-end of the exposed ground lead conductor must not overlap the cable jacket.
 - The insulation sleeve must overlap the cable jacket so that there is no exposed braid.
- 5-2. Inspection for proper heating:
 - The solder preform must be completely melted.
 - Visible remnants of the original shape of the solder preform indicate an underheated termination.
 - A solder fillet must be visible between the ground lead and the braid.
 - Lack of solder fillet indicates an overheated termination.
 - The sleeve must be recovered onto the cable jacket.
 - An incompletely recovered sleeve indicates an underheated termination.
 - A discolored dark brown sleeve indicates an overheated termination.
- 5-3. Inspection for damage:
 - The sleeve must not be cut or split.
 - There must be no braid strands poking through the sleeve.
 - The cable jacket and the shield termination should not exhibit signs of mechanical damage or overheating such as cuts, melting, charring. Light discoloration of the sleeve, cable or ground lead insulation is normal and not a cause of rejection.

6. Repair:

- 6-1. Repair of underheated termination:
 - Reheat underheated termination to obtain proper solder flow (see section 4.2)
- 6-2. Repair of overheated termination.

Remove the shield termination as follows:

- Score the full length of the sleeve with a sharp blade. Be careful not to cut the cable or wire insulation.
- Using the same heating tool as for the installation, heat the shield termination to soften it, and strip it off with pliers or twizzers.
- Install a new shield termination in accordance with section 4.

All of the above information, including illustrations, is believed to be reliable. Users, however, should independently evaluate the suitability of each product for their application. Tyco Electronics makes no warranties as to the accuracy or completeness of the information, and disclaims any liability regarding its use. Tyco Electronics' only obligations are those in the Standard Terms and Conditions of Sale for this product, and in no case will Tyco Electronics be liable for any incidental, indirect, or consequential damages arising from the sale, resale, use or misuse of the product.