



## SERIES 77 Shrink Boots



# Heat Shrink Boot General Installation Guide

## METHODS FOR SHRINKING PARTS

These application guides are to support operators who have been trained in the installation of heat shrinkable products, the use of adhesives and product evaluation. Operators will have been made aware of all health and safety issues and is aware of the relevant SDS for heat shrink materials, specified adhesives and cleaning materials. Safety Data Sheets (SDS) are available at [www.glenair.com/html/compliance.htm](http://www.glenair.com/html/compliance.htm)

### WARNING:

*The use of heat shrinkable products entails the potential exposure of people to heat, solvents and gases. Every precaution is to be taken against harmful effects by the use of protective gloves, safety glasses and good ventilation. All local health and safety regulations should be adhered to and operators should follow designated safe working practices. The use of protective gloves and barrier creams are recommended when using solvents and adhesives. Repeated skin contact should be avoided and care should be taken to wear safety glasses when handling these materials. Attention should be taken to follow the recommendations of the relevant SDS sheets of the materials being used.*

## APPLICATION EQUIPMENT

### Heat Source

A suitable Leister or Steinel hot air gun is recommended. Other heat guns may be used but these must be able to deliver hot air at the temperatures recommended in these installation guides. Reflectors can assist in the process of recovering parts. Always ensure the air vent on the rear of the hot air gun is open and free of dust and or other materials. Always allow the hot air gun to reach the required temperature and to stabilize before starting to shrink parts. It is recommended that the Heat Gun is calibrated daily by the use of a thermocouple positioned 25mm from the end of the nozzle.

### WARNING:

*The surfaces of the nozzles and reflectors reach high temperatures and will cause burns if touched. Great care should be taken when handling these tools especially after use since they take a considerable time to cool.*

### Cleaning Materials

100 grit Emery Cloth is recommended for abrading surfaces to be adhered to. Isopropyl alcohol (IPA) is recommended for degreasing either as a liquid or an impregnated tissue. (Note safety issues on the use of solvents already documented in this guide.)

## PROCEDURE

The following general instructions are applicable to all Glenair heat shrink boots. Specific instructions for surface preparation, the use of adhesive and specific conditions for each molding material are given in the relevant sections following these general instructions.

### APPLICATION NOTE:

*When preheating of a connector or adapter is required because of size then care should be taken not to damage any insulation or plastic material on either the connector or the wire insulation. Heat should only be applied to metal areas. DO NOT PREHEAT COMPOSITE PARTS.*



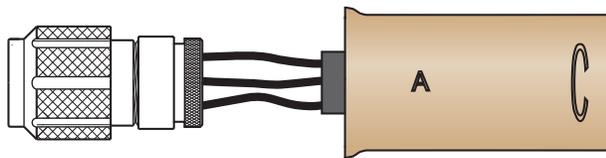
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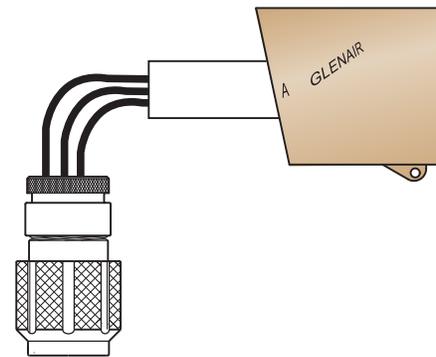
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### Step 1: Place Boot on Cable

Position the boot so that the lipped "A" end is toward the adapter and the "C" end is toward the cable .



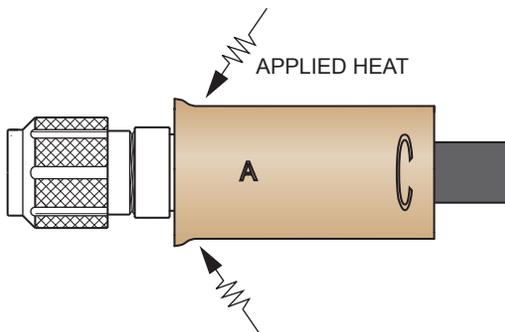
**Straight**



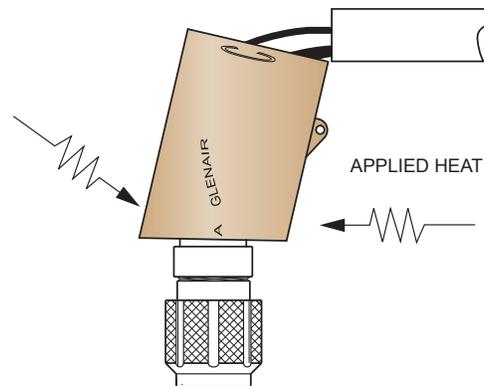
**Right Angle**

### Step 2: Apply Heat to Adapter End of Boot

Position the boot so that the lipped "A" end will recover into the groove of the adapter. Apply heat evenly around the boot at the adapter end. Ensure the boot is fully recovered and the lip fits into the groove of the adapter. This will take approximately 30 seconds for a size 04 or 05 boot, less for smaller parts and longer for larger boots.



**Straight**



**Right Angle**





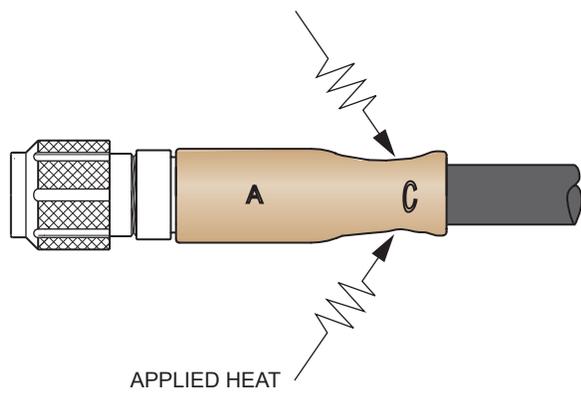
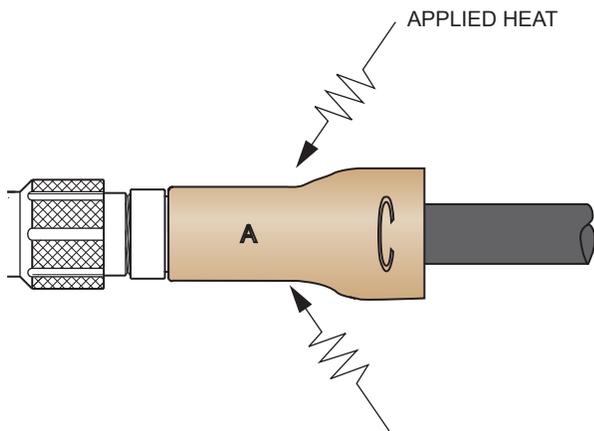
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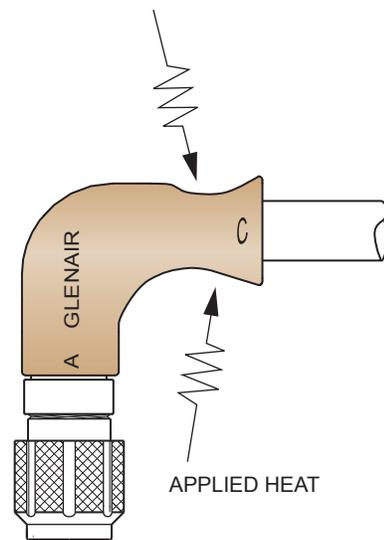
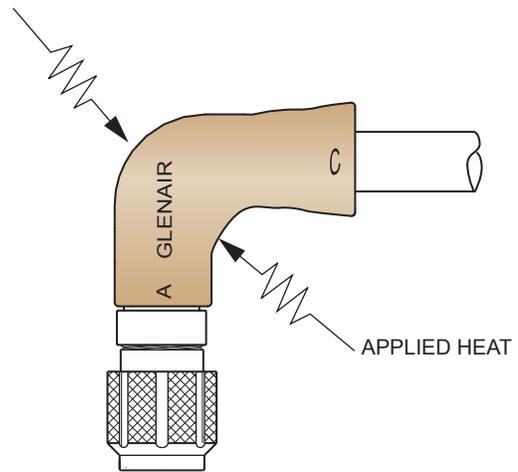
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### STEP 3: Continue Applying Heat Toward the "C" End of Boot

Continue to heat down the body of the boot towards the "C" end. Apply heat in brush-like strokes, ensuring the last part to recover is the "C" end. A feature of the Glenair boots is that, unlike other boots, they resist the tendency to fold over at the "C" end.



**Straight**



**Right Angle**

J



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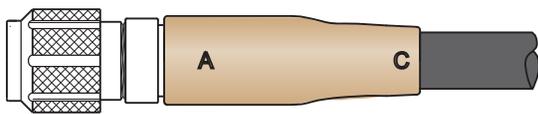
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#### STEP 4: After boot is fully recovered, apply further heat to "A" end

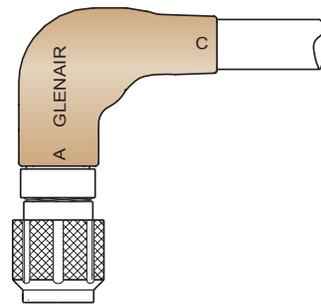
After the boot is fully recovered, apply additional heat to the "A" end to ensure adhesive melting and good adhesion. Typically this post heating will require 90-150 seconds depending on size. Refer to the specific instructions for each boot and adhesive type following this section. Care should be taken to avoid damaging the boot with excessive heat. Allow the parts to fully cool before handling.

#### CAUTION

*The recovered parts will remain hot for some time and will be capable of burning skin if touched. Molten adhesive may also cause burns and adhere to exposed skin.*



**Straight**



**Right Angle**

#### STEP 5: Inspection of Installed Heat shrink Boot

1. The boot should be free of blisters, scorch marks and essentially free from distortion.
2. Any excessive adhesive should be removed.
3. The boot lip should be seated into the adapter groove, and the boot should be properly oriented (straight or right angle).
4. A small fillet of adhesive should be visible between the boot and the cable jacket.