

# **HST INSTALLATION**

## **APPLICATION EQUIPMENT**

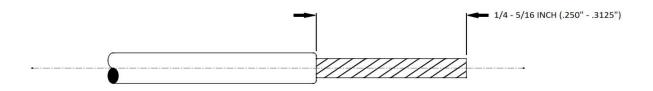
Convection (hot air) or infrared heating tools may be used.

The heating tool must be equipped with the appropriate reflector to circulate the heat around the HST device and to protect the surrounding components.

## **GROUND LEAD PREPARATION**

If the application does not require the use of a preinstalled ground lead on the HST device, a separate lead wire or braid must be prepared for termination.

- Cut the wire to the required length. (If using a braided ground strap, cut to length. Pre-tin the end(s) of the braid as directed in your work instructions.)
- Strip one end of the ground wire to remove 1/4 to 5/16 inch (.250" .3125") of insulation.
- Ensure all wire strands remain in their normal lay and that no strands are poking out of place.



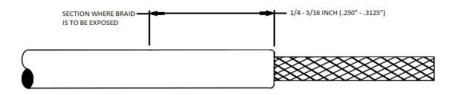
If required, pre-tin the stripped strands.

## **CABLE PREPARATION**

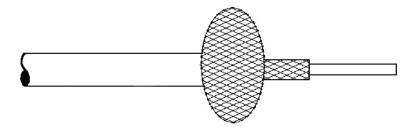
Check your work instruction for the required method of cable prep: End strip or Center strip. The use of thermal strippers will prevent scoring or cutting of the shield conductors. If using another method, use extreme care to avoid cutting or damaging the conductors.

#### **End Strip**

- Determine where the shield termination shall be located. (Distance from the end of the cable.)
- Score the cable insulation and remove as shown here:



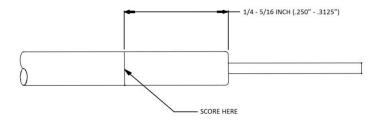
Bunch or bird-cage the braid as shown below.



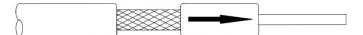
• Trim & remove the braid as close to the cable insulation as possible, without cutting into or damaging it.



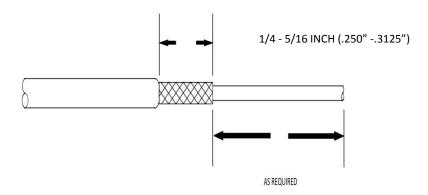
• Score the cable insulation 1/4 to 5/16 inch (.250" - .3125) from the end of the braid.



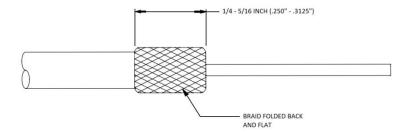
• Remove this section of the insulation by pulling it straight to the end of the cable.



• Ensure the braid strands have not been deformed and are flat against the conductors beneath.

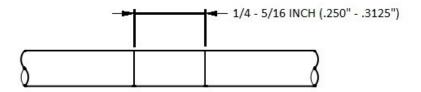


Note: Glenair HST shield terminations are designed for cables rated at 125°C or higher. In cases where the cable insulation is rated at 125°C or less, an alternate method is to use the normal end strip and then fold the shield back onto the outer cable insulation. By doing so, this will prevent any heat damage to the conductor insulations beneath the cable shield.

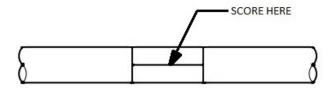


## **Center Strip**

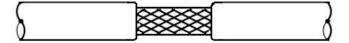
• Score the cable insulation around the cable in two places, spacing the scores 1/4 to 5/16 inch apart.



• Score the cable insulation horizontally between the cuts.



• Remove this section of the cable insulation.

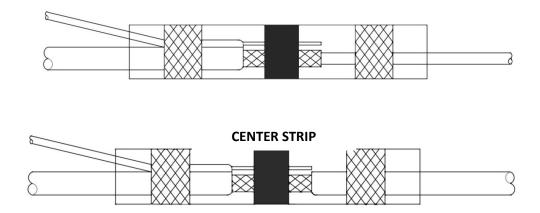


# **ASSEMBLY**

If using a separate ground lead wire or braid (not preinstalled in the HST device), align the stripped portion of the ground lead with the braid of the shield. All strands should be laying in their original lay with no strands poking out, folded back, or out of position.

Slide the appropriately sized HST device over the cable and ground lead assembly. Twisting or rotating the HST device as you move it into position will prevent any displacement of shield strands.

Position the HST so that the solder preform is centered over the exposed shield and stripped ground lead.



Note: Ground lead may be positioned as a front or rear entry. See work instructions for applicable positioning.

#### **HEATING**

If using a convection or hot air tool, allow it to warm up before use.

Hold the assembly in the reflector, centering the solder preform in the middle of the stream of air or at the focal point of the infrared heating tool.

Heat the assembly until the tubing shrinks, the sealing rings melt and the solder completely melts and flows and has wet the cable shield and ground lead.

- For HST with a colored thermal indicator, heat until the colored thermal indicator has turned colorless. There may be a slight residue of color remaining in the strands. This is not cause for rejection.
- For HST with bi-alloy solder, heat until the wide solder band <u>and</u> the thin outer indicator ring have melted, flowed and disappeared into the strands of the both cable shield and the ground lead.

## **INSPECTION**

- 1. Ensure the ground lead is correctly aligned with the exposed cable shield.
- 2. The HST device should completely cover the braid and ground lead. There should be no exposed metallic components outside of the Kynar sleeve.
- 3. The sealing rings shall have completely melted and flowed.
- 4. The solder preform shall have completely melted and flowed and display no visible evidence of its original shape. If applicable, the thermal indicator shall have transitioned from colored to colorless.
- 5. Check to see if there is proper wetting of the solder into the cable braid strands and ground lead. The solder should not be pooled in one area or obstructing you from seeing the stranding of the shield and lead. If so, reheat the assembly until the solder reflows.
  - Note: If the cable shield is oxidized or exhibits poor solder ability, add a drop of flux to the shield or lead prior to heating.
- 6. There shall be a solder fillet visible along the side of the ground lead. Min. fillet length 1/8"
- 7. There shall be no thermal damage to either the cable insulation, ground lead insulation or the HST sleeve itself. Slight discoloration is normal with certain cable insulations, however there should not be any melting, charring, cuts, etc. to the material.