

***tyco***

*Electronics*

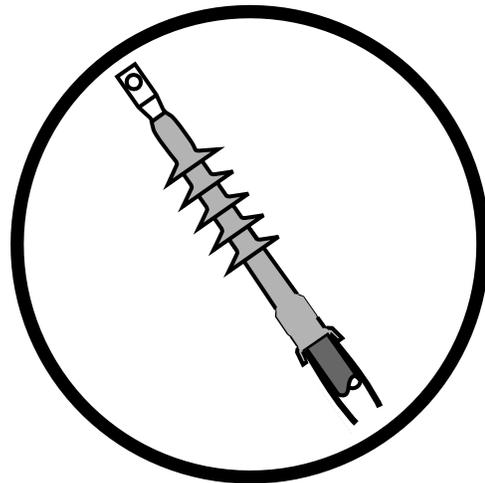
***Raychem***

Product Installation Instructions

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## **TFT-250E-SLC**

25kV Cold Applied Termination  
System for LC Shielded Power  
Cables



***Energy Division***

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Raychem  
Tyco Electronics-Energy  
8000 Purfoy Road  
Fuquay-Varina, NC 27526

PII-55087 Rev AD  
PCN 639059-000  
Effective Date: October 29, 2001

**Suggested Installation Equipment (not supplied with kit)**

**Kit Contents**

- 1 Installation Instruction
- 1 Silicone housing on holdout
- 1 Stress control patch
- 1 Roll spring
- 2 Solder blocked ground braids
- 2 Adhesive backed copper tape strips
- 1 Cloth tape
- 2 Sealant tape strips
- 1 Cleaning kit

**Suggested Installation Equipment (not supplied with kit)**

- Cable preparation tools
- Clean, lint-free cloths
- Non-conducting abrasive cloth, 120 grit or finer
- Electrician's tape
- Connector(s) and installation tools

**Safety Instructions**

**Warning:** When installing electrical power system accessories, failure to follow applicable personal safety requirements and written installation instructions could result in serious or fatal injuries.

*As Tyco Electronics has no control over field conditions which influence product installation, it is understood that the user must take this into account and apply his own experience and expertise when installing product.*

**Cleaning the Cable**

Use an approved solvent, such as the one supplied in the P63 Cable Prep Kit, to clean the cable. Be sure to follow the manufacturer's instructions. Failure to follow these instructions could lead to product failure.

Some newer solvents do not evaporate quickly and need to be removed with a clean, lint-free cloth. Failure to do so could change the electrical characteristics of the cable or leave a residue on the surface.

Please follow the manufacturer's instructions carefully.

**Installation Instructions**

**1. Select product.**

Check kit selection with cable diameter dimensions in table 1 opposite.

**Table 1**

Kit	Nominal Conductor Size	Min/max Insulation ODs*
TFT-251E-SLC	#1-3/0 AWG	0.64-1.09" (16-28mm)
TFT-252E-SLC	#1-500 kcmil	0.85-1.45" (22-37mm)
TFT-253E-SLC	250-750 kcmil	1.06-1.70" (27-43mm)
TFT-254E-SLC	750-1250 kcmil	1.49-2.20" (38-56mm)

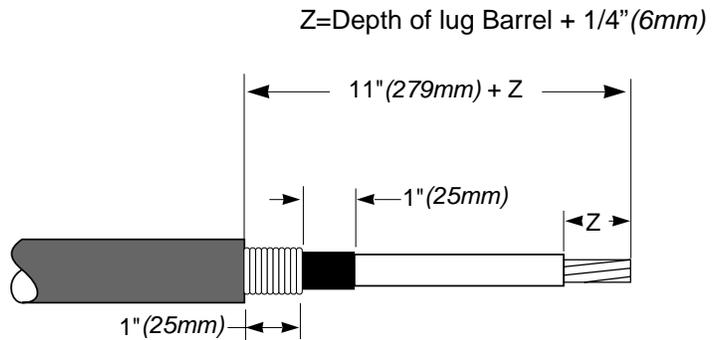
\*Insulation ODs and nominal conductor sizes are based on 100% compact and concentric stranded cable dimensions

## Installation Instructions

### 2. Prepare cables.

Prepare cables to the dimensions shown. When removing semi-con layer, be careful not to damage the cable insulation.

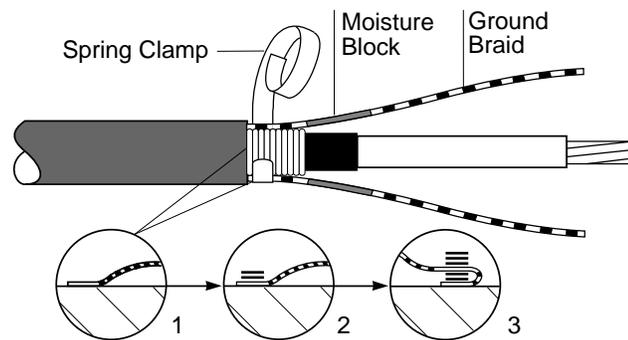
Remove the insulation to the dimension "Z" shown.



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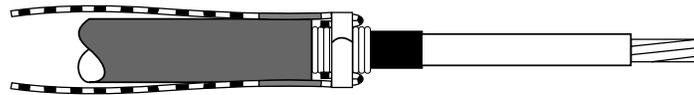
### 3. Install ground braid.

(1) Flare the moisture blocked ends of the ground braids and place them onto the LC shield butted up to the cable jacket. (2) Attach the braids to the shield by placing two wraps of the spring clamp over the braids.



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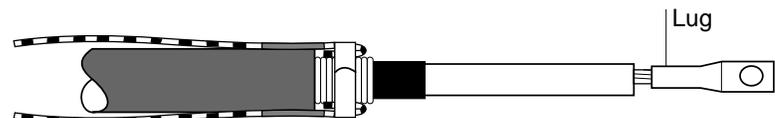
(3) Fold the braids back over the spring clamp wraps. Continue to wrap the remaining clamp over the braids. Tighten clamp by twisting it in the direction it is wrapped and secure with the copper foil tape provided.



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### 4. Make Lug Connection.

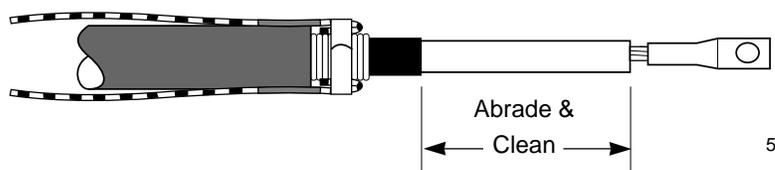
Crimp the connector using proper die and tool. Clean lug barrel of inhibitor and dirt and file off any sharp edges.



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### 5. Abrade and clean insulation.

Abrade and clean the surface of the primary insulation using the solvent supplied with the termination or any other approved solvent. Be sure to remove any conductive particles or contamination.



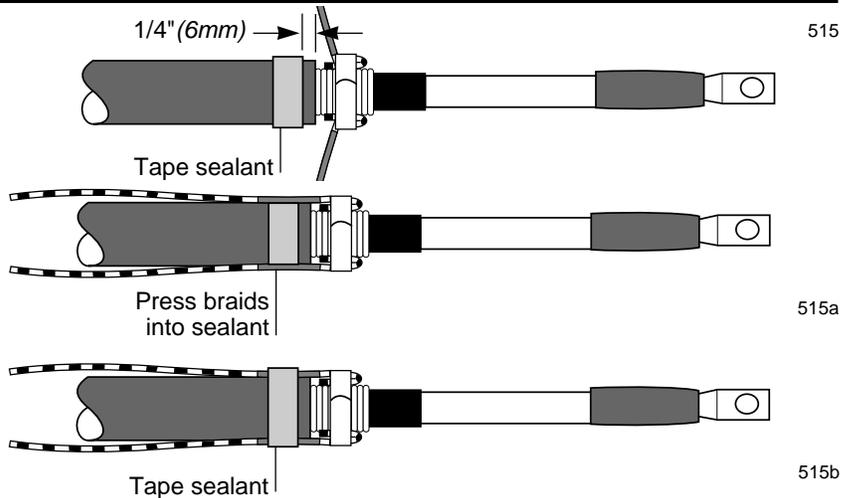
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**6. Install sealant.**

Solvent clean and abrade jacket. Using light tension, wrap one layer of sealant onto the cable jacket as shown.

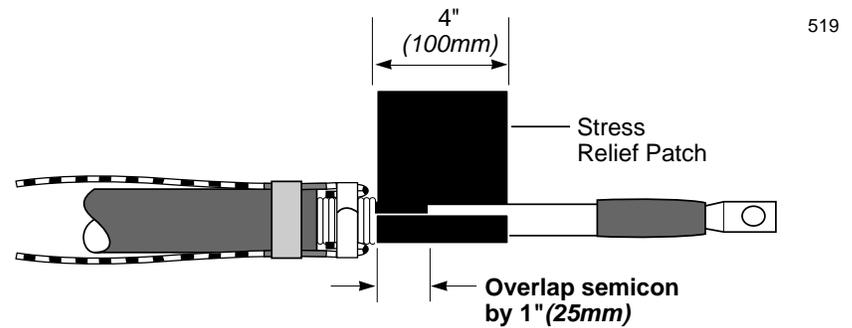
Press the solder-blocked portion of the braid into the sealant.

Wrap an additional layer of sealant over the braid solder block.



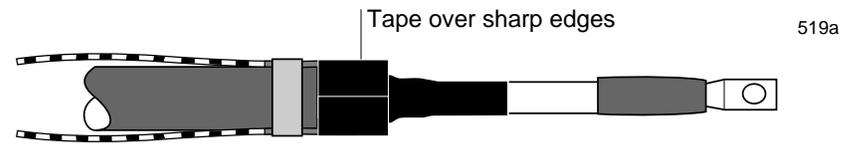
**7. Apply Stress Patch**

**Note:** The stress patch easily sticks to itself and loose particles. Remove backing paper from the patch. Using light tension, wrap the entire patch around the semi-con oriented as shown. Avoid wrinkles and creases.



**8. Tape over sharp edges.**

Using cloth tape provided, tape over all sharp edges of the ground clamp assembly and jacket cutback.

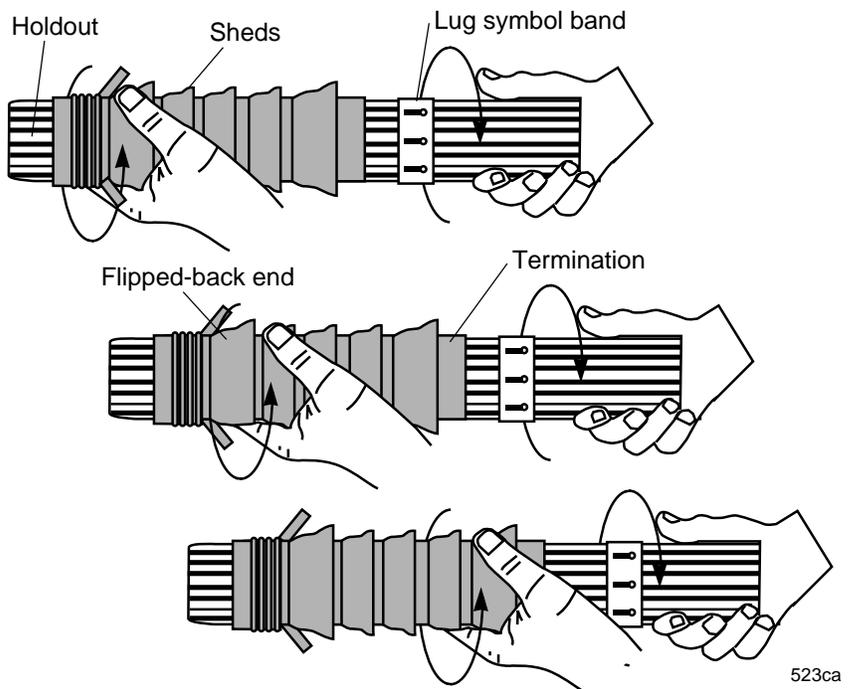


**9. Loosening Termination**

**This operation is vital to the simple installation of the product. Note that the sheds may be flipped backwards or forwards to ease the following operation and therefore may look different to that shown in the drawing. The orientation of the sheds is not important prior to fitting as they automatically align themselves after installation.**

Hold the termination in one hand and the holdout in the other. Gripping firmly, twist the termination and holdout in opposite directions. Repeat twisting the termination and holdout, moving the hand in short increments up the termination until the entire termination is felt to move on the holdout.

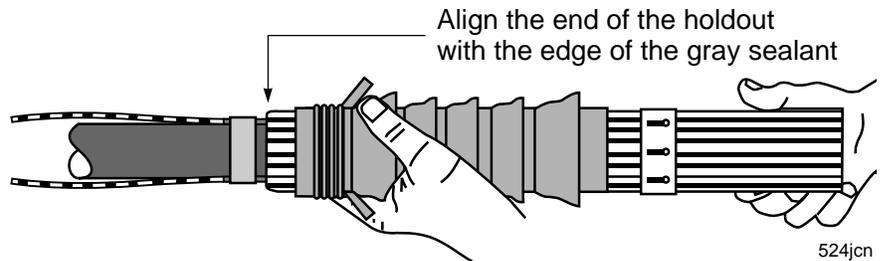
Take care not to slide the termination off the end of the holdout.



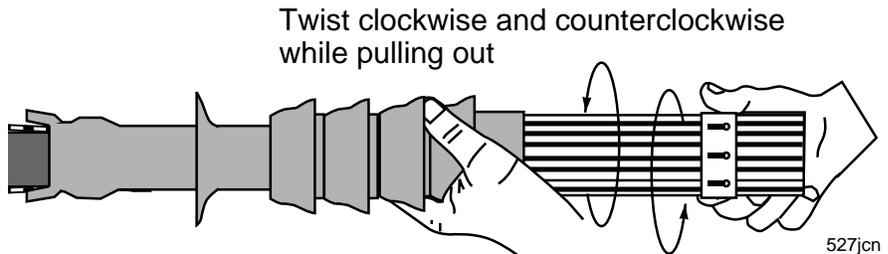
## Installation Instructions

### 10. Installing termination.

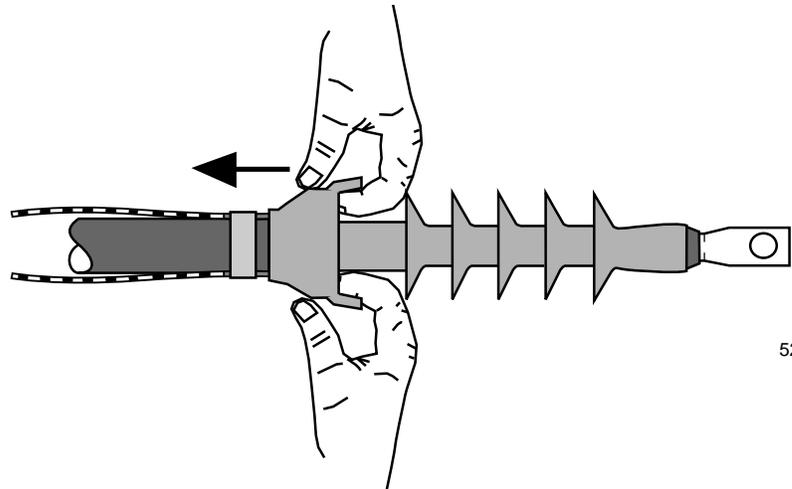
Position the holdout over the cable until it meets the jacket cutback. Twist the termination and slowly push it to the end of the holdout.



Slide the termination completely off the holdout using a twisting and pulling motion as shown.



Using the pull tabs, pull the flip-back portion away from the main termination, at the same time working the first two fingers of each hand between the flip-back and main termination. Pull the stretched out flip-back over the cable jacket and sealant.



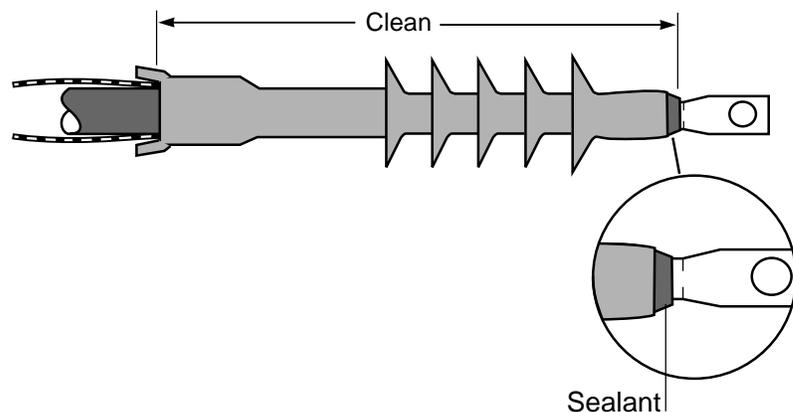
If after installation the termination is not correctly positioned, it is possible to gently slide it into place, so that the final assembly is positioned as shown in the drawing in step 11.

### 11. Complete termination.

Wipe over the surface of the termination to remove any dirt or grease.

**Note:** Be sure to position termination at lug end so that there is a bead of sealant exposed as shown.

**This completes the installation.**



The Information contained in these installation instructions is for use only by installers trained to make electrical power installations and is intended to describe the correct method of installation for this product. However, Tyco Electronics has no control over the field conditions which influence product installation. It is the user's responsibility to determine the suitability of the installation method in the user's field conditions. Tyco Electronics' only obligations are those in Tyco Electronics' standard Conditions of Sale for this product and in no case will Tyco Electronics be liable for any other incidental, indirect or consequential damages arising from the use or misuse of the products. Raychem is a trade mark of Tyco Electronics Corporation.