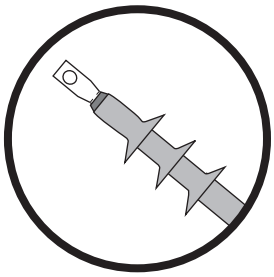
Tyco Electronics



TFT-150E

15kV Cold Applied Termination System for Jacketed, Unjacketed Concentric and Flat Strap Neutral Power Cables

ENERGY DIVISION

Kit Contents

1 Installation Instruction
1 Silicone housing on holdout
1 Stress control patch
Sealant tape strips

Suggested Installation Equipment (not supplied with kit)

- Cable preparation tools
- Tyco Electronics P63 cable preparation kit or cable manufacturer approved solvent
- Clean, lint-free cloths
- Non-conducting abrasive cloth, 120 grit or finer
- Electrician's tape
- Connector(s) and installation tools

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 volume resistivity of the substrate or leave a residue on the surface. Please follow the manufacturer's instructions carefully.

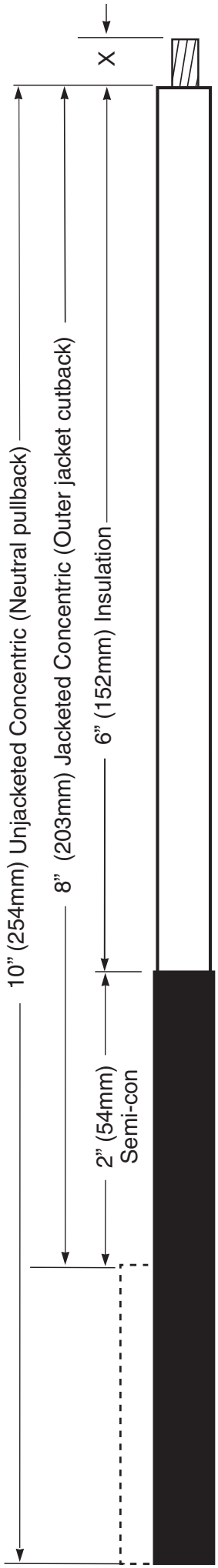
Safety Instructions

DANGER: *When installing electrical power system accessories, failure to follow applicable personal safety requirements and written installation instructions could result in fire or explosion and 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.

Customer Service

For 24 hour customer service, call 800-327-6996.



PII 55057
Revision AJ
PCN 346641-000
Effective Date: June 8, 2010

1. Select product.

Check kit selection with cable diameter dimensions in Table 1.

Table 1

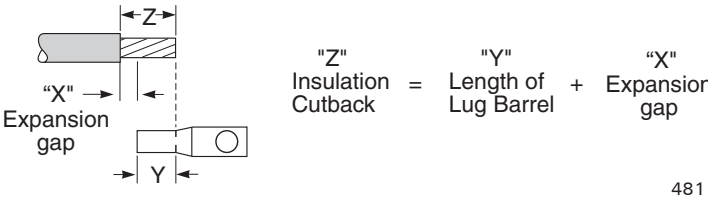
Kit	Nominal Conductor Size	Min/max Insulation ODs*
TFT-151E	#2-250 kcmil	0.64-1.09"*(16-28mm)*
TFT-152E	4/0-500 kcmil	0.85-1.45"*(22-37mm)*
TFT-153E	500-750 kcmil	1.06-1.70"*(27-43mm)*
TFT-154E	1000-1250 kcmil	1.49-2.20"*(38-56mm)*

*Insulation ODs and nominal conductor sizes are based on 100% and 133% compact and concentric stranded cable dimensions

2. Prepare cables

Select the correct type of cable and prepare the cables as shown.

Conductor Size	Expansion Gap "X" for AL Connector	Expansion Gap "X" for CU Connector
#2 - 250 kcmil	1/4" (6mm)	1/8" (3mm)
350 - 250 kcmil	1/2" (12mm)	1/4" (6mm)
1000 - 1250 kcmil	3/4" (19mm)	1/2" (12mm)



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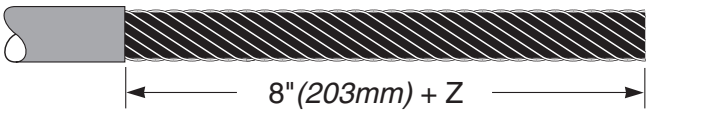
JACKETED CONCENTRIC NEUTRAL CABLE

Cut back jacket to dimension shown.



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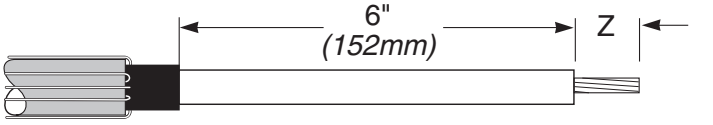
Without crossing, fold back neutral wires over the cable jacket cutback.
Note: It may help to use a wire binder or hose clamp to secure the wires.

Remove semi-con layer being careful not to damage the cable insulation.



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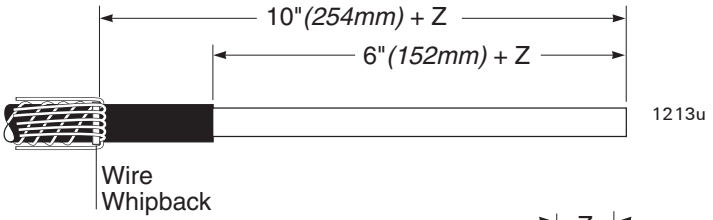
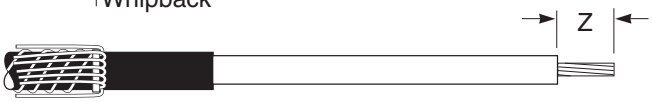
UNJACKETED CONCENTRIC NEUTRAL CABLE

Place a cable tie at wire pullback dimension shown and bend back concentric neutral wires without crossing. Remove semi-con layer being careful not to damage the cable insulation.



1213u

Remove the insulation to the dimension "Z" as shown:

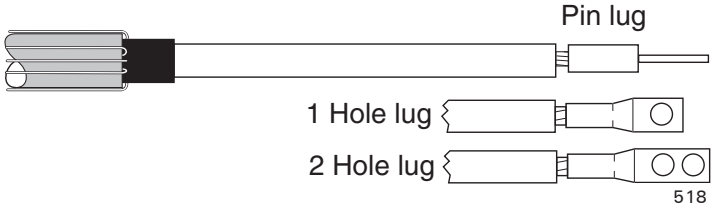


Z=Depth of lug's Barrel + "X" Expansion Gap

3. Make lug connection

Crimp the connector using proper die and tool. Clean lug barrel of inhibitor and dirt. Remove sharp edges of crimped lug barrel. Lug may be single hole , 2 hole, or Pin NEMA connectors.

Note: Pin connector illustration used in remainder of instructions.



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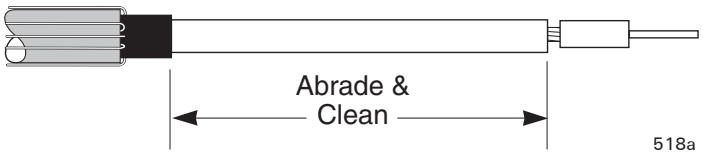
4. Abrade and clean insulation

Abrade and clean the surface of the primary insulation. Be sure to remove any conductive particles or contamination.



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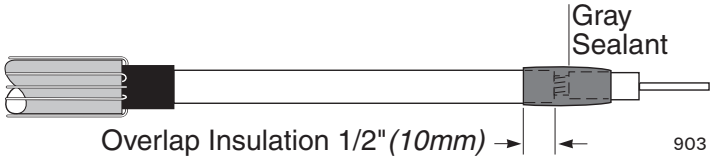
5. Install sealant

Build up the lug barrel diameter to that of cable insulation using tape sealant, then overlap tape sealant 1/2" *(13mm)* onto insulation to provide a smooth profile.



Jacketed concentric neutral cable and Flatstrap

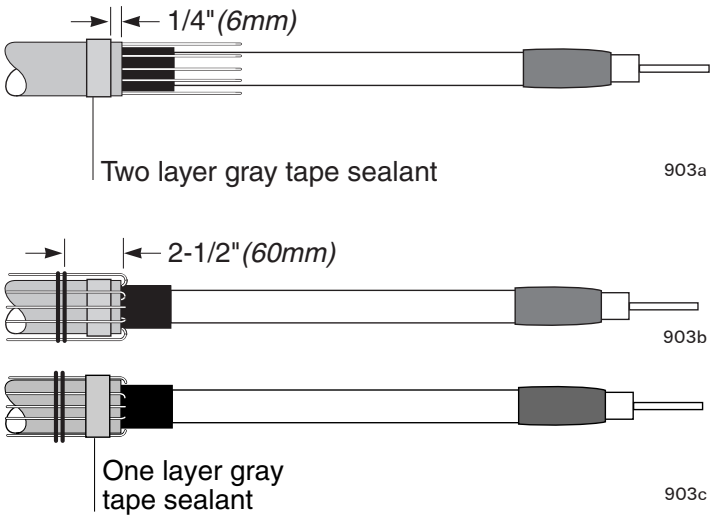
Solvent clean and abrade jacket.

Using light tension, wrap two layers of gray sealant onto jacket as shown.

Without crossing, fold back neutral wires over the cable jacket cutback and press into the sealant.

Note: Install a wire binder to secure the neutral wires or flat straps before braiding them for connection to ground.

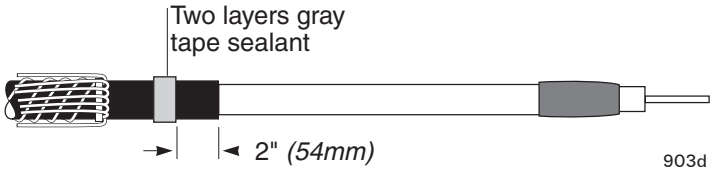
Wrap one layer of gray sealant over the wires and 1st layers of sealant.



Unjacketed concentric neutral cable

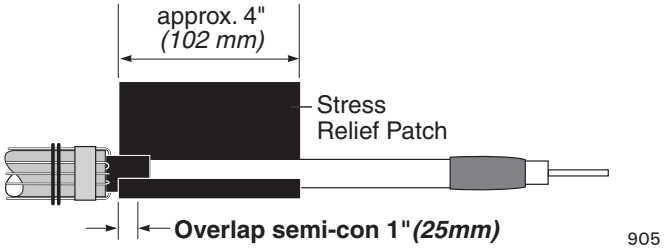
Clean semi-con.

Wrap two layers of gray sealant onto the semi-con layer as shown.



6. 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.



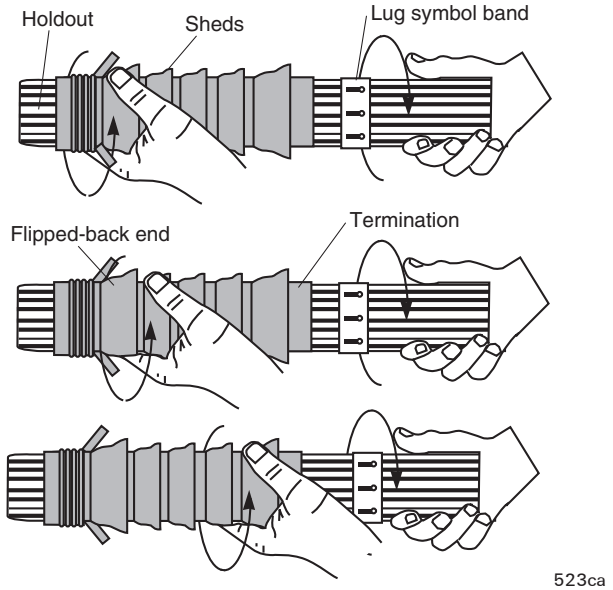
7. Loosening Termination

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.

Be careful not to rotate the termination unevenly resulting in a twist. Take care not to slide the termination off the end of the holdout.



8. Installing the termination

Choose the appropriate cable type Choice 1 or 2 and follow the directions given.

Choice 1

For Jacketed Concentric Neutral Cables, go below.

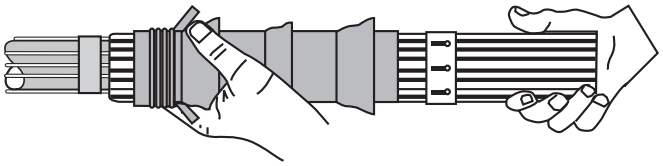
Choice 2

For Unjacketed Concentric Neutral Cables, go to Page 5.

Choice 1

Jacketed Concentric Neutral Cables

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.



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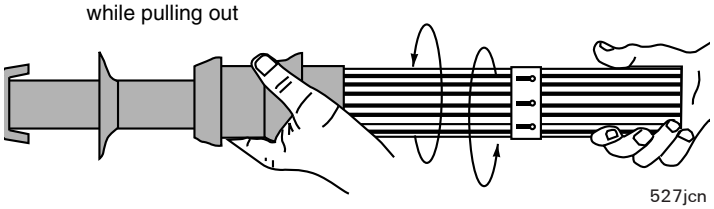
Slide the termination completely off the holdout using a twisting and pulling motion as shown.

Be careful not to rotate the termination unevenly resulting in a twist.



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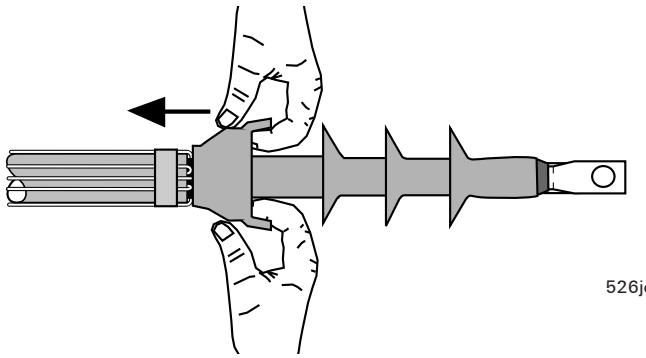
Using the pull tabs, pull the flip-back portion away from the main termination, at the same time working the first two fingers of each hand between the flip-back and main termination. Pull the stretched out flip-back over the cable jacket and sealant.

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 last drawing on this page.

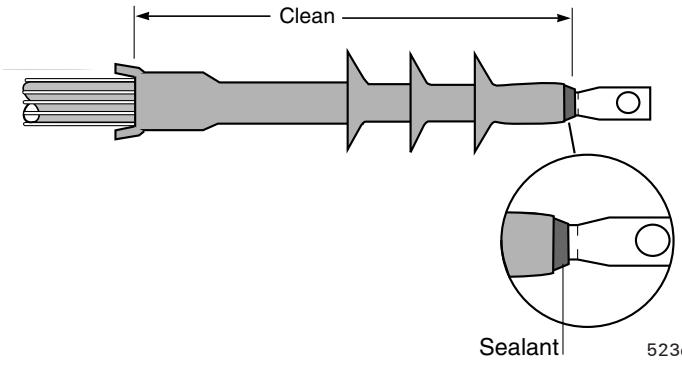


526jcn

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 for Jacketed Concentric Neutral cables.



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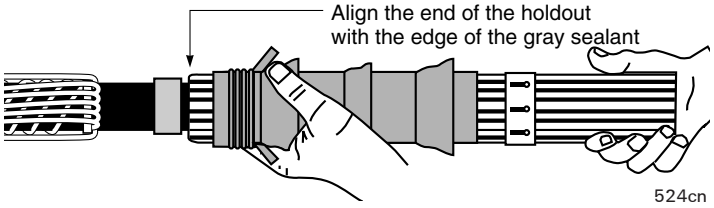
Choice 2

Unjacketed Concentric Neutral Cables

Position the holdout over the cable until it meets the edge of the gray sealant. Twist the termination and slowly push it to the end of the holdout.



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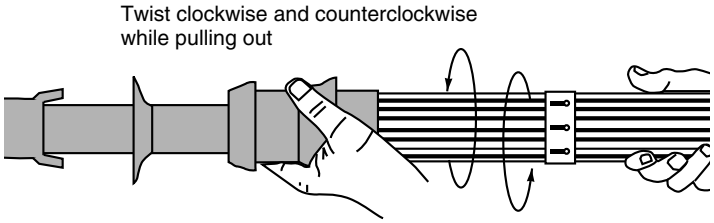

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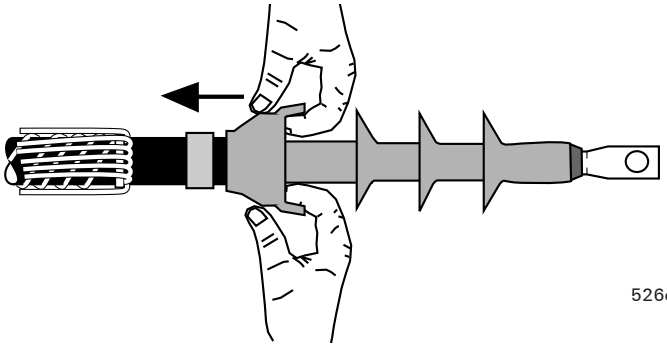
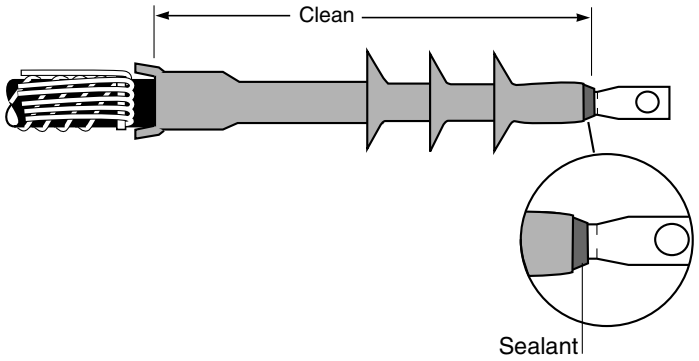

526cn

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 for Unjacketed Concentric Neutral cables.



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