

3M™ Cold Shrink QT-III Silicone Rubber Indoor Tubular Termination Kits With High-K Stress Relief

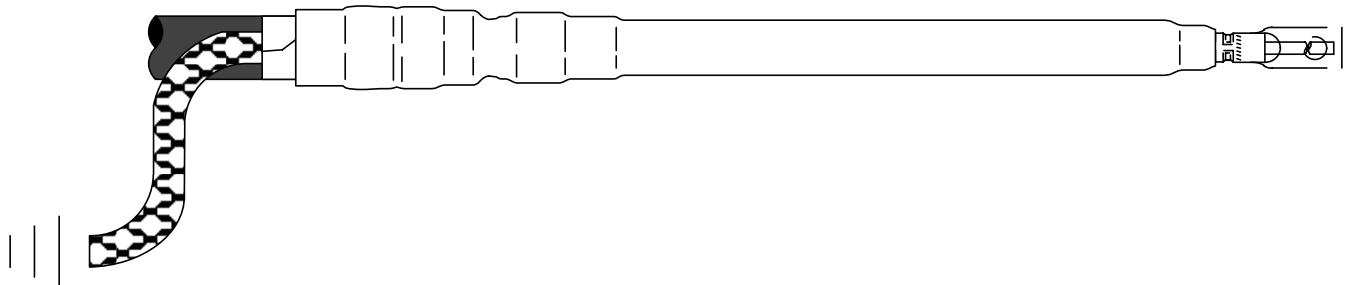
For Tape Shield, Wire Shield and UniShield® Cable

7693-T-150, 7695-T-150, 7696-T-150
Instructions

IEEE Std. No. 48
Class 1 Termination
25/28 kV Class
*35 kV Class
150 kV BIL

CAUTION

Working around energized systems may cause serious injury or death. Installation should be performed by personnel familiar with good safety practice in handling electrical equipment. De-energize and ground all electrical systems before installing product.



Kit Contents

- 3 Hi-K, Tracking Resistant, Silicone Rubber Terminations
- 3 Preformed Ground Braids
- 3 Constant Force Springs
- 3 3M™ EMI Copper Foil Shielding Tape 1181 Strips, 1/2" x 10"
- 6 Strips Scotch® Mastic Strip 2230 (black with white release liners, bagged)
- 1 3M™ Cable Cleaning Preparation Kit CC-2
- 1 Instruction Sheet

Note: Do not use knives to open plastic bags.

Kit Selection Table

NOTE: Final Determination Factor is cable insulation diameter.

| Kit Number | Primary Insulation O.D. Range | Jacket O.D. Range | Conductor Size Range (AWG & kcmil) | | | | |
|------------|-----------------------------------|-----------------------------------|------------------------------------|------------------|--|--|--|
| | | | 5 kV | 8 kV | 15 kV | 25/28 kV | *35 kV |
| 7693-T-150 | 0.72" - 1.29" (18,3 - 32,8 mm) | 1.04" - 1.60" (26,4 - 40,6 mm) | 300 - 500 — | 250 - 500 — | 2/0 - 300 (70 - 150 mm ²) | 2 - 4/0 (35 - 120 mm ²) | 2 - 2/0 (35 - 70 mm ²) |
| 7695-T-150 | 1.05" - 1.80" (26,7 - 45,7 mm) | 1.39" - 2.40" (35,3 - 61,0 mm) | 700 - 1500 — | 600 - 1250 — | 500 - 1000 (240 - 500 mm ²) | 250 - 800 (150 - 400 mm ²) | 3/0 - 600 (95 - 325 mm ²) |
| 7696-T-150 | 1.53" - 2.32" (38,9 - 58,9 mm) | 1.84" - 2.80" (46,7 - 71,1 mm) | 1750 - 2000 — | 1500 - 2000 — | 1250 - 2000 (625 - 1000 mm ²) | 900 - 1750 (500 - 800 mm ²) | 700 - 1500 (400 - 725 mm ²) |

*The 150 kV impulse level meets the impulse requirements for 35 kV class equipment where indoor terminations are used.

Table 1

Instructions for Tape Shielded Cable

1.0 Prepare Cable

- 1.1 Check to be sure cable size fits within kit range as shown in Table 1.
- 1.2 Prepare cable using dimensions shown in *Figure 1*. **BE SURE TO ALLOW FOR DEPTH OF TERMINAL LUG.** If necessary to prevent tape shield from unrolling, hold down edge with a single wrap of 3M™ EMI Copper Foil Shielding Tape 1181.

NOTE: Provide additional exposed conductor distance to account for growth during crimping of **ALUMINUM** lugs or connectors as follows:

| Aluminum Lug and Connector Growth Allowance | 2 - 350 1/4" (6 mm) | 400 - 650 1/2" (13 mm) | 750 - 1000 3/4" (19 mm) | 1250 - 2000 Field Determined |
|---|------------------------|---------------------------|----------------------------|---------------------------------|
|---|------------------------|---------------------------|----------------------------|---------------------------------|

NOTE: It is imperative to remove all remnants of the semi-con layer, even if the semi-con layer comes off as one layer. There should not be any remaining black areas, or particles, on the cable insulation layer.

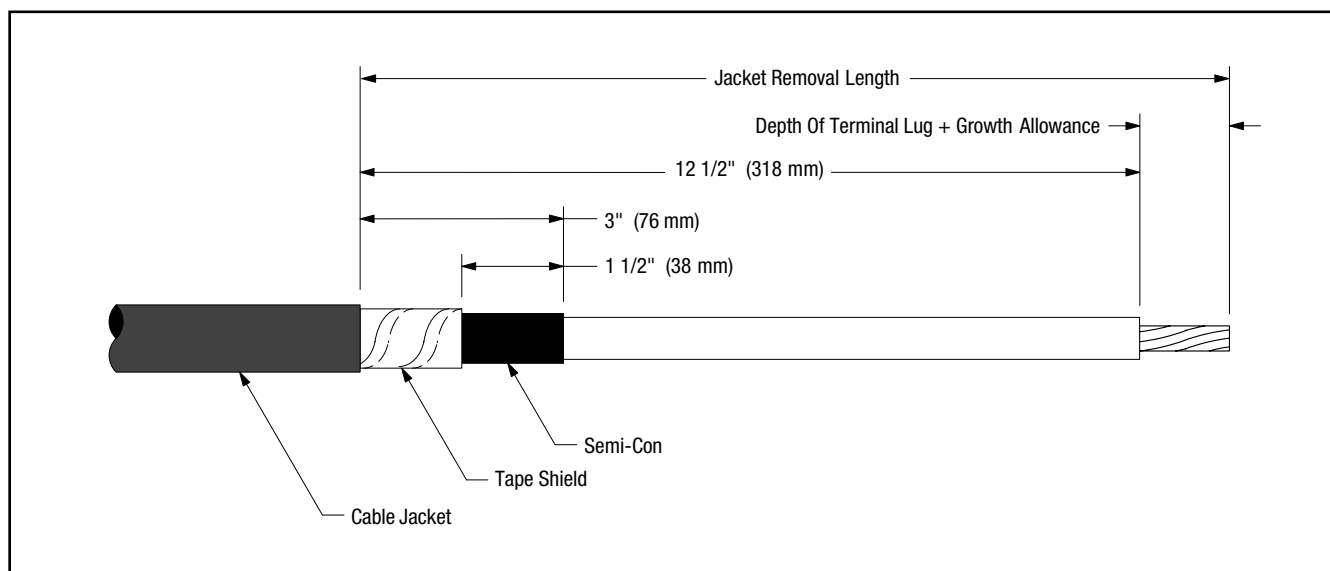


Figure 1

2.0 Install Ground Braid

- 2.1 Select a Scotch® Mastic Strip 2230 from kit and remove white release liners. Using light tension, apply a **SINGLE WRAP** of mastic around the cable jacket 1/4" (6 mm) from cut edge (*Figure 2*). Cut off excess.

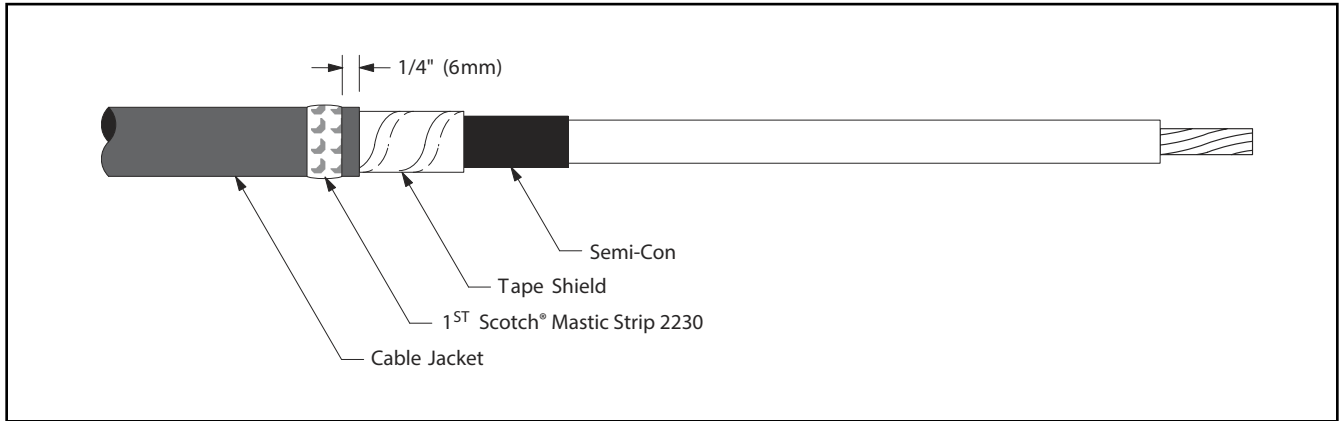


Figure 2

- 2.2 Position pre-formed ground braid with short tail over tape shield directly adjacent to cable jacket cut edge. PLEASE NOTE: The ground braid needs to make full contact with the metallic tape shield. Position long tail of ground braid, extending over cable jacket with solder block over mastic strip (*Figure 3*). Secure ground braid to cable jacket 4.5" (114 mm) from cable semi-con edge using vinyl tape (*Figure 3*).

NOTE: Position vinyl tape with care, it also serves as a marker for positioning the termination.

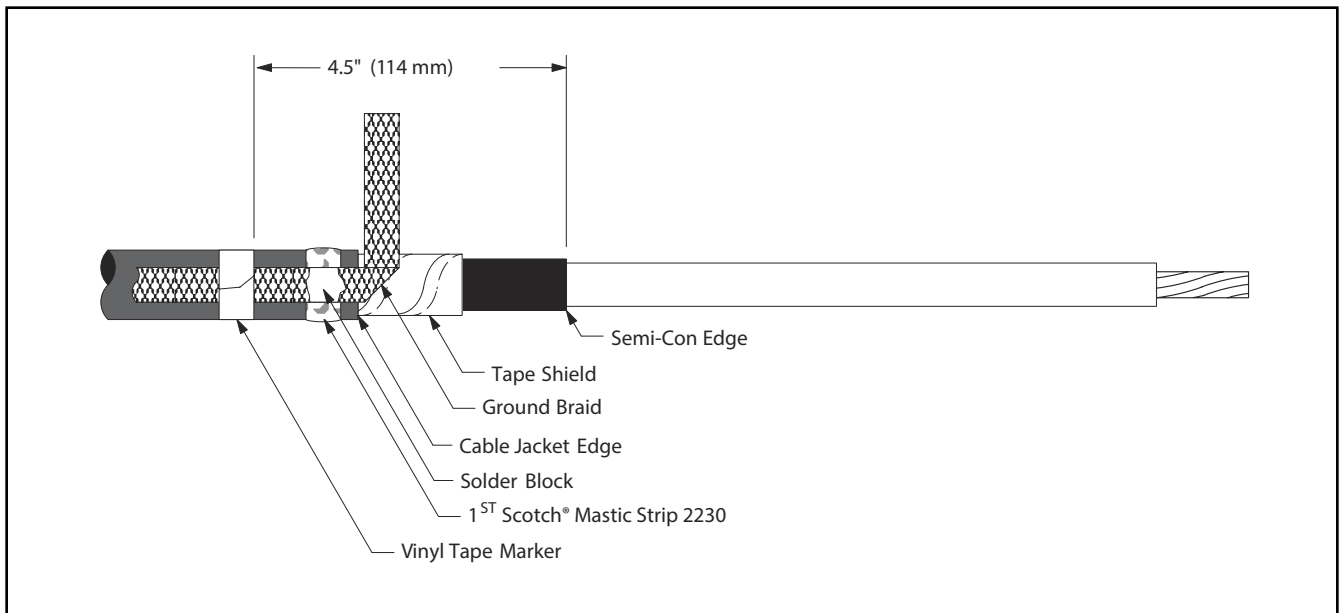


Figure 3

- 2.3 Wrap ground braid around cable tape shield one complete wrap, trim excess to prevent overlap and secure in place with constant force spring. Wrap spring in same direction as ground braid (*Figure 4*). Cinch (tighten) the spring after wrapping the final winding.
- 2.4 Select second Scotch® Mastic Strip 2230 from kit and remove white release liners. Apply a second **SINGLE WRAP** of mastic over solder block on ground braid and previously applied mastic (*Figure 4*). Cut off excess.

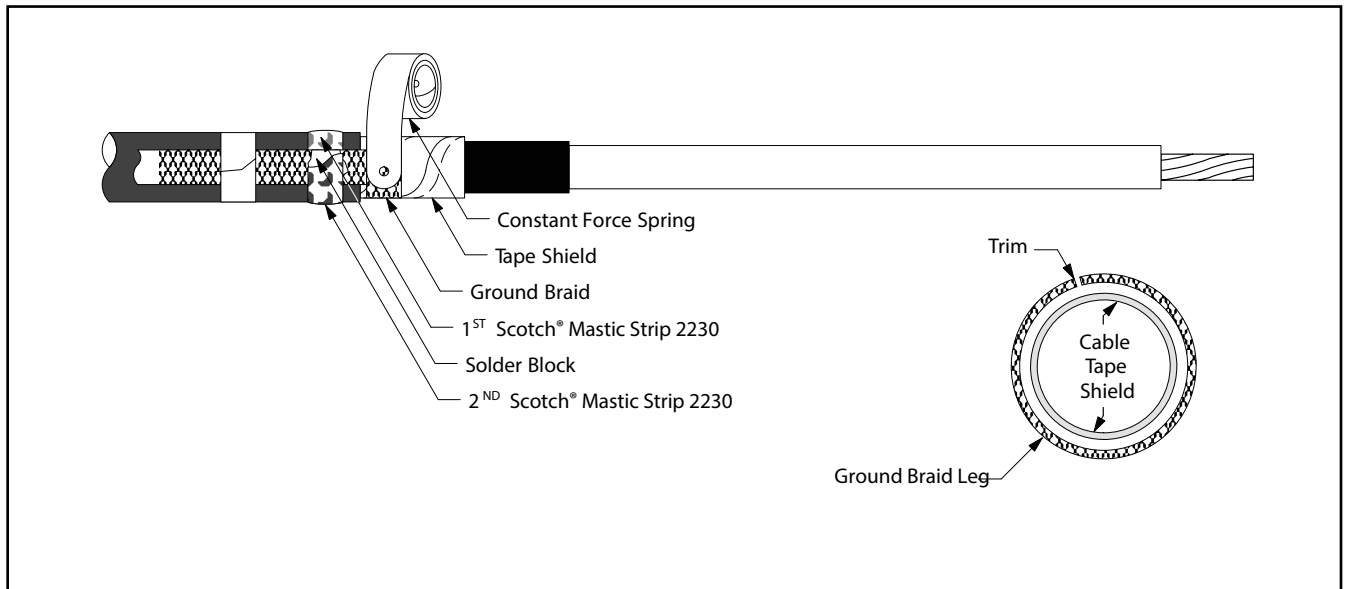


Figure 4

- 2.5 Wrap two highly stretched half-lapped layers of electrical grade vinyl tape around mastic seal, constant force spring and exposed tape shield (*Figure 5*).

NOTE: Take care not to cover exposed semi-con insulation shield. A minimum of 1" (25 mm) must be exposed.

SPECIAL NOTE FOR CLOTH OR PAPER SEMI-CON INSULATION SHIELD

In cables with cloth or paper semi-conductive shields it is recommended the shield be over wrapped with one half-lapped layer of highly stretched semi-conductive rubber tape such as Scotch® Electrical Semi-Conducting Tape 13.

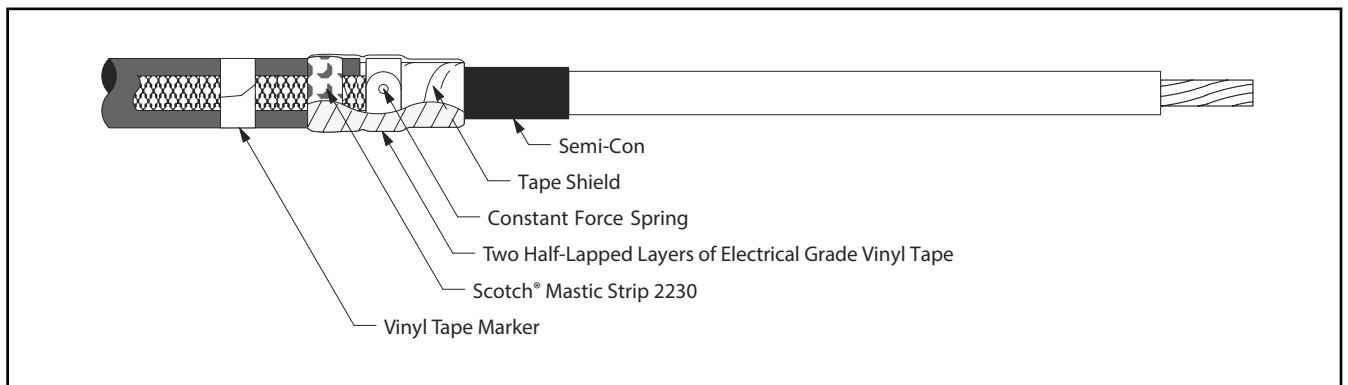


Figure 5

3.0 Install Lug or Connector

Important Packaging Notice

In order to make sure that you receive an undamaged termination, this 3M™ Cold Shrink QT-III Termination is packed with a RED SHIPPING CORE inside of the white core. Please remove the red shipping core BEFORE you install the termination. This shipping core can be recycled with other polypropylene waste.

- 3.1 Check to insure 3M™ Cold Shrink QT-III Silicone Rubber Termination assembly fits over the selected lug or connector. If lug or connector (*Figure 6*) will not fit through the termination core, clean the insulation (per Step 4.0) and slide termination on cable before installing lug or connector.

DO NOT REMOVE CORE AT THIS TIME.

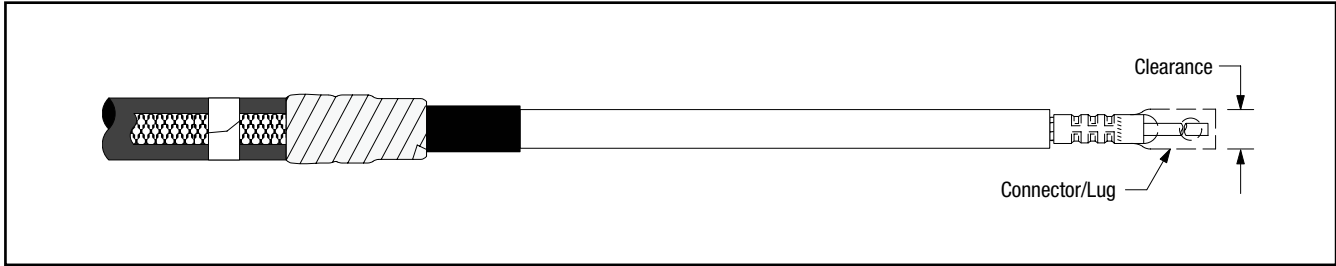


Figure 6

NOTE: Refer to pages 18 - 20 for 3M Connector and Lug crimping information.

NOTE: For Aluminum Conductors - Thoroughly wire brush conductor strands to remove aluminum oxide layer. Immediately insert conductor into lug or connector barrel as far as it will go.

- 3.2 Position connector or lug and crimp according to manufacturer's directions. Remove excess oxide inhibitor and sharp crimp flashings following crimping.

4.0 Clean Cable Insulation and Lug or Connector Barrel Using Standard Practice

- 4.1 Wipe the cable insulation with one of the solvent saturated pads from the 3M™ Cable Cleaning Preparation Kit CC-2. **DO NOT ALLOW SOLVENT TO TOUCH SEMI-CON INSULATION SHIELD!**
- 4.2 If abrasive must be used:
- Use on insulation only. **DO NOT USE ABRASIVE ON SEMI-CON INSULATION SHIELD!**
 - Use only aluminum oxide abrasive; grit 120 or finer, included in the 3M™ Cable Cleaning Preparation Kit CC-2.
 - Be careful not to reduce the cable insulation diameter below that allowed by the kit.

5.0 Install Termination

- 5.1 Slide the termination body onto the cable and remove core. Pull while unwinding, counter-clockwise, starting with the loose end (*Figure 7*). Make sure the termination body (not the core) is butted up to the edge of the vinyl tape marker previously applied (*Figure 7*).

NOTE: Once the termination body makes contact over the mastic seal area, there is no need to continue supporting the assembly. DO NOT PUSH OR PULL ON THE TERMINATION ASSEMBLY WHILE UNWINDING THE CORE.

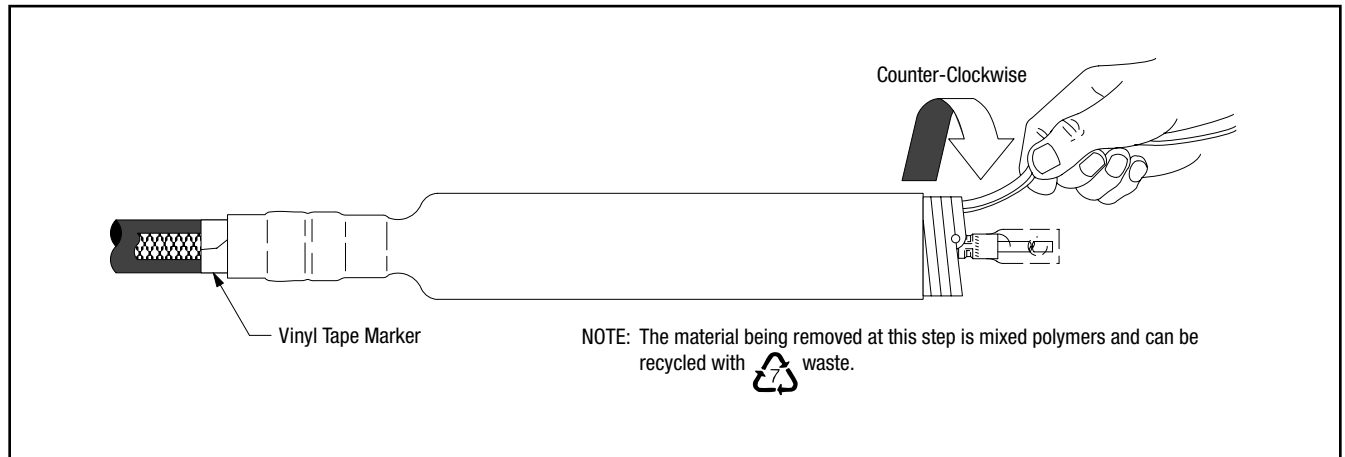
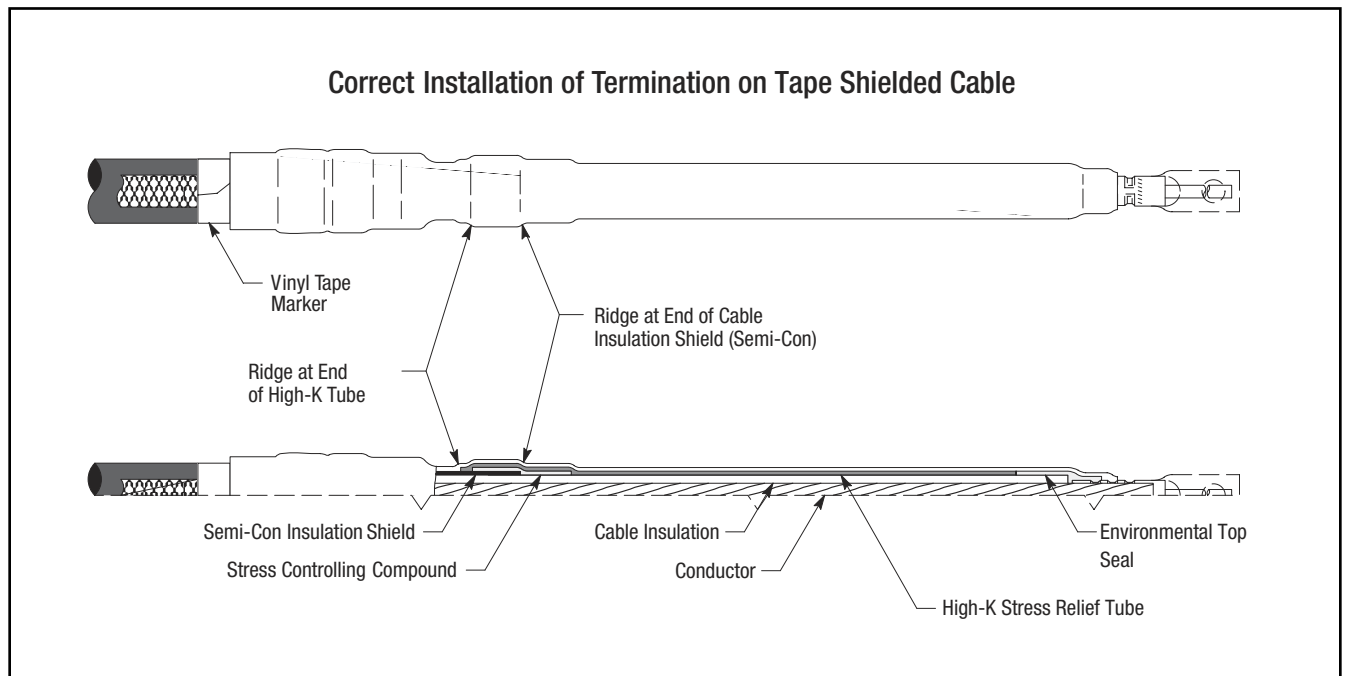


Figure 7

- 5.2 Connect ground braid to system ground according to standard practice.



Instructions for Wire Shielded Cable

6.0 Prepare Cable

- 6.1 Check to be sure cable size fits within kit range as shown in Table 1.
- 6.2 Prepare cable using dimensions shown in *Figure 8 and Figure 9*. **BE SURE TO ALLOW FOR DEPTH OF TERMINAL LUG.**

NOTE: Provide additional exposed conductor distance to account for growth during crimping of **ALUMINUM** lugs or connectors as follows:

| Aluminum Lug and Connector Growth Allowance | 2 - 350 1/4" (6 mm) | 400 - 650 1/2" (13 mm) | 750 - 1000 3/4" (19 mm) | 1250 - 2000 Field Determined |
|---|------------------------|---------------------------|----------------------------|---------------------------------|
|---|------------------------|---------------------------|----------------------------|---------------------------------|

NOTE: It is imperative to remove all remnants of the semi-con layer, even if the semi-con layer comes off as one layer. There should not be any remaining black areas, or particles, on the cable insulation layer.

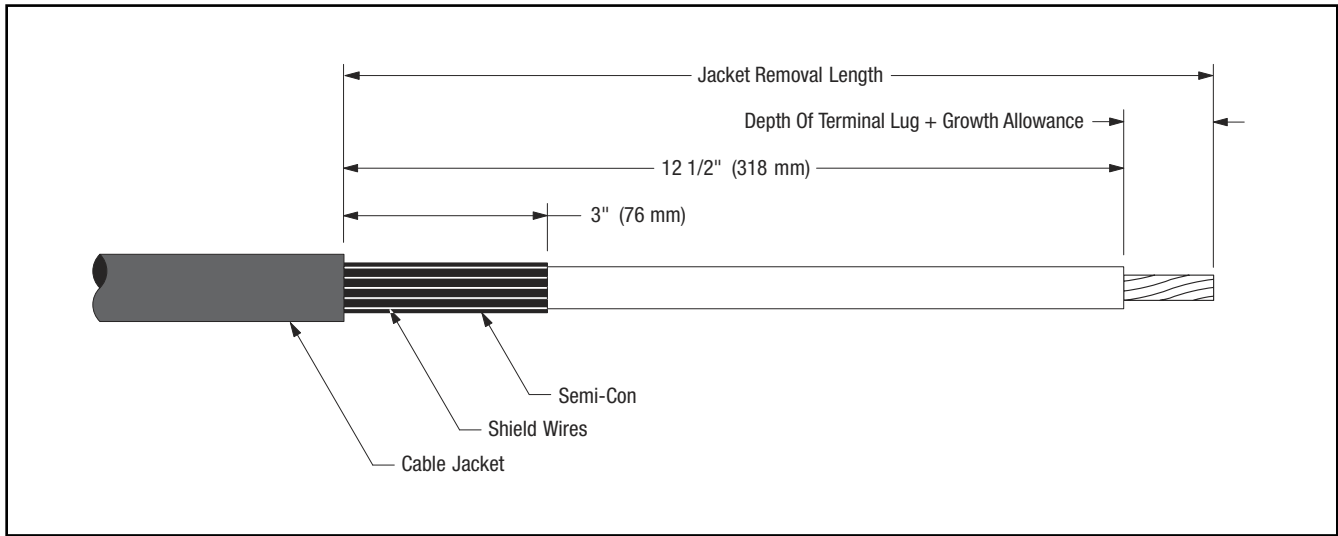


Figure 8

- 6.3 Bend leading 1 1/2" (38 mm) of exposed shield wires back upon themselves to jacket edge (*Figure 9*).

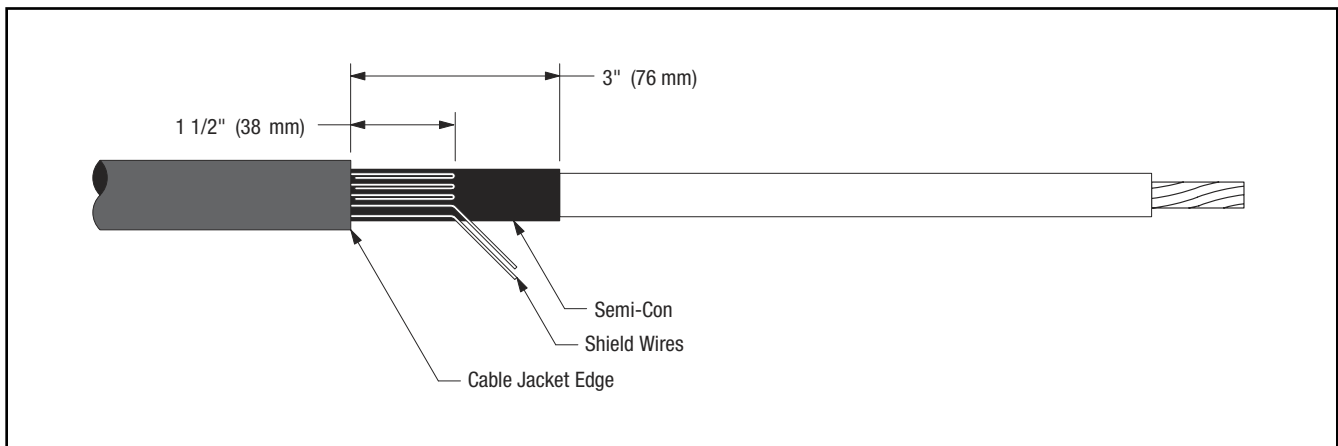


Figure 9

7.0 Install Ground Braid

- 7.1 Select a Scotch® Mastic Strip 2230 from kit and remove white release liners. Using light tension, apply a **SINGLE WRAP** of mastic around the cable jacket 1/4" (6 mm) from cut edge (*Figure 10*). Cut off excess.

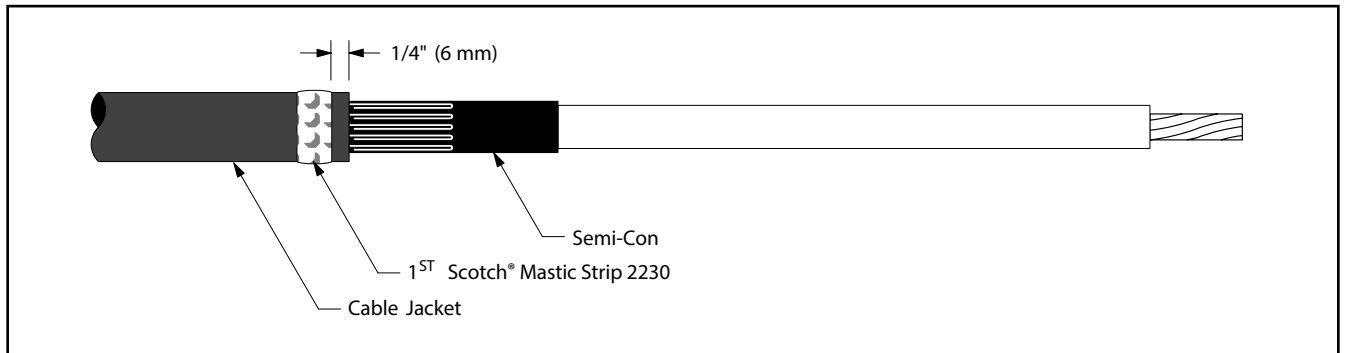


Figure 10

- 7.2 Position pre-formed ground braid with short tail over wire shield directly adjacent to cable jacket cut edge. Position long tail of ground braid, extending over cable jacket with solder block over mastic strip (*Figure 11*). Secure ground braid to cable jacket 4.5" (114 mm) from cable semi-con edge using vinyl tape (*Figure 11*).

NOTE: Position vinyl tape with care, it also serves as a marker for positioning the termination.

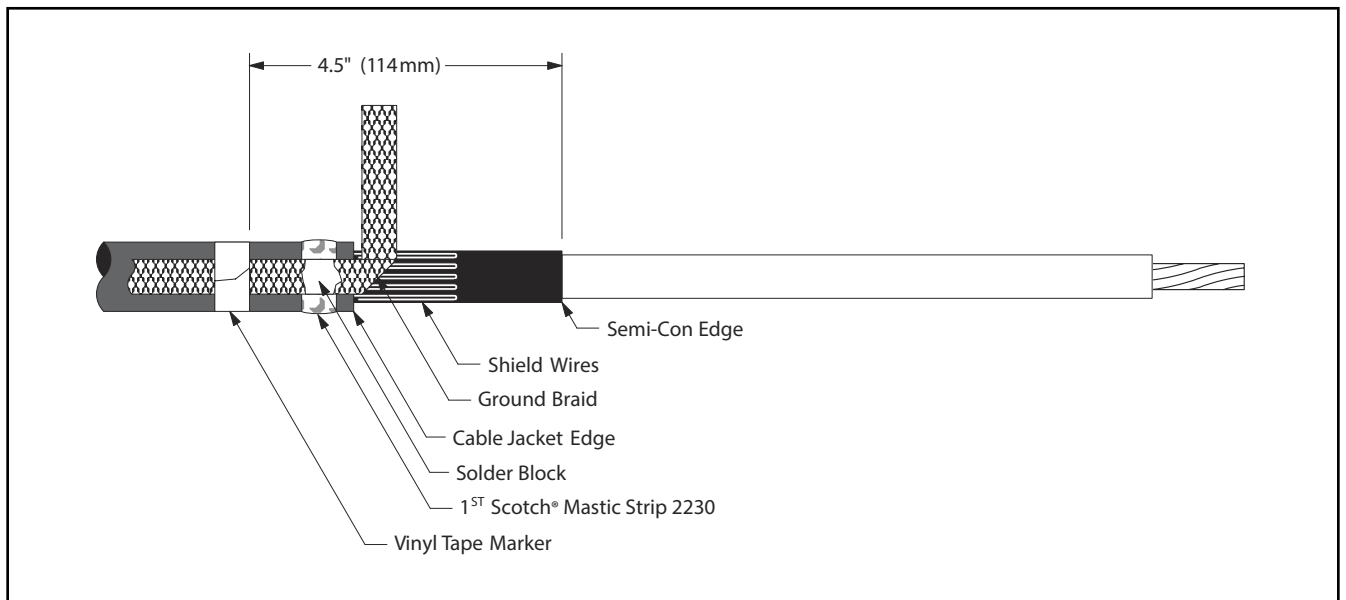


Figure 11

- 7.3 Wrap ground braid around cable shield wires one complete wrap, trim excess to prevent overlap and secure in place with constant force spring. Wrap spring in same direction as ground braid (*Figure 12*). Cinch (tighten) the spring after wrapping the final winding.
- 7.4 Select second Scotch® Mastic Strip 2230 from kit and remove white release liners. Apply a second **SINGLE WRAP** of mastic over solder block on ground braid and previously applied mastic (*Figure 12*). Cut off excess.

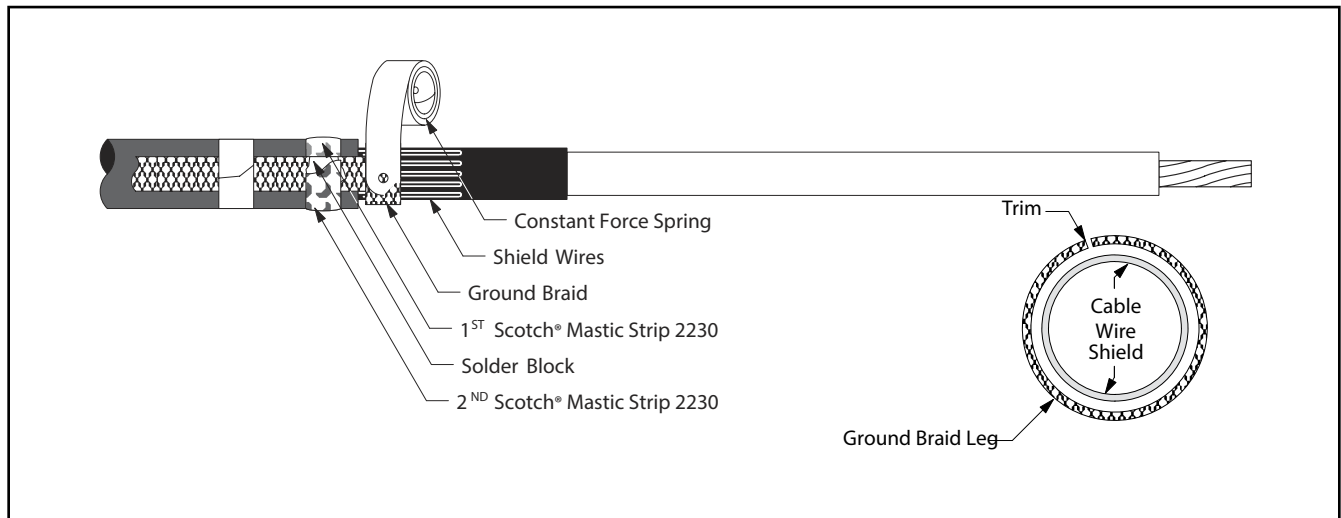


Figure 12

- 7.5 Wrap two highly stretched half-lapped layers of electrical grade vinyl tape around mastic seal, constant force spring and exposed shield wires (*Figure 13*).

NOTE: Take care not to cover exposed semi-con insulation shield. A minimum of 1" (25 mm) must be exposed.

SPECIAL NOTE FOR CLOTH OR PAPER SEMI-CON INSULATED SHIELD

In cables with cloth or paper semi-conductive shields, it is recommended the shield be over wrapped with one half-lapped layer of highly stretched semi-conductive rubber tape such as Scotch® Electrical Semi-Conducting Tape 13.

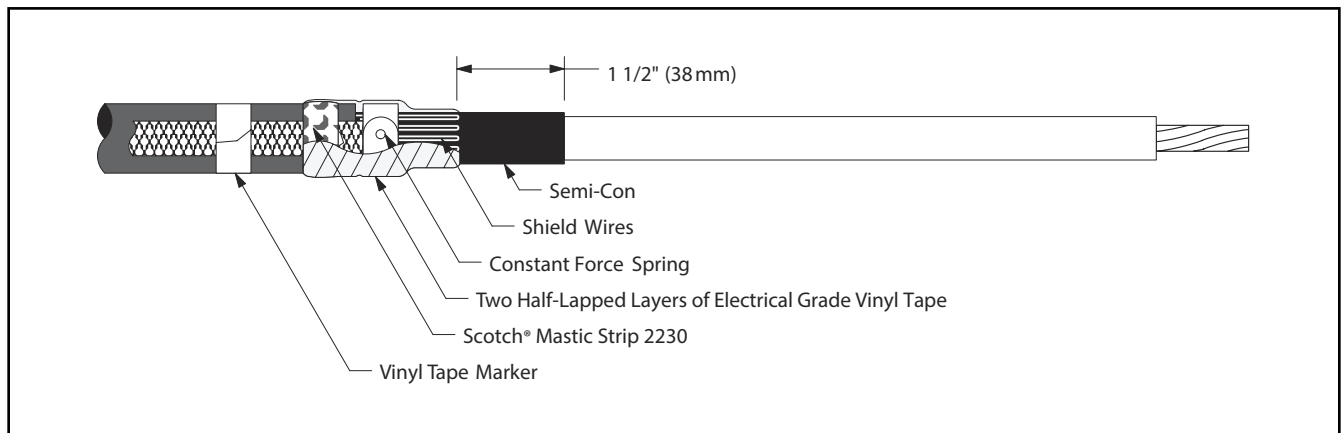


Figure 13

8.0 Install Lug or Connector

Important Packaging Notice

In order to make sure that you receive an undamaged termination, this 3M™ Cold Shrink QT-III Termination is packed with a RED SHIPPING CORE inside of the white core. Please remove the red shipping core BEFORE you install the termination. This shipping core can be recycled with other polypropylene waste.

- 8.1 Check to insure 3M™ Cold Shrink QT-III Silicone Rubber Termination assembly fits over the selected lug or connector. If lug or connector (Figure 14) will not fit through the termination core, clean the insulation (per Step 9.0) and slide termination on cable before installing lug or connector. **DO NOT REMOVE CORE AT THIS TIME.**

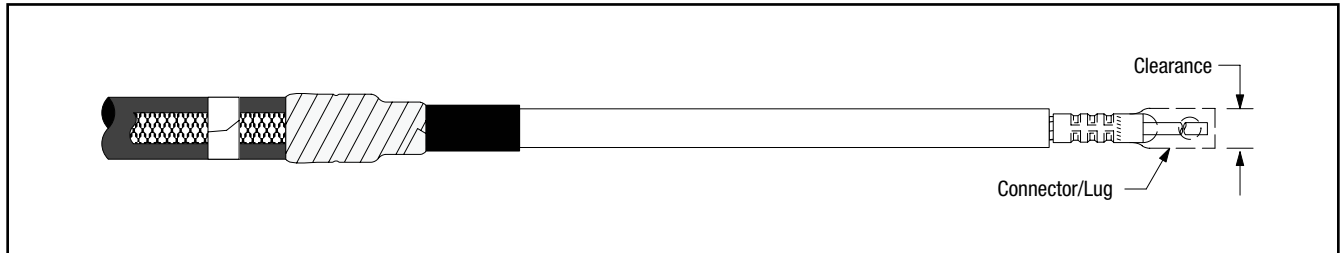


Figure 14

NOTE: Refer to pages 18 - 20 for 3M Connector and Lug crimping information.

NOTE: For Aluminum Conductors - Thoroughly wire brush conductor strands to remove aluminum oxide layer. Immediately insert conductor into lug or connector barrel as far as it will go.

- 8.2 Position connector or lug and crimp according to manufacturer's directions. Remove excess oxide inhibitor and sharp crimp flashings following crimping.

9.0 Clean Cable Insulation and Lug or Connector Barrel Using Standard Practice

- 9.1 Wipe the cable insulation with one of the solvent saturated pads from the 3M™ Cable Cleaning Preparation Kit CC-2. **DO NOT ALLOW SOLVENT TO TOUCH SEMI-CON INSULATION SHIELD!**
- 9.2 If abrasive must be used:
 - a. Use on insulation only. **DO NOT USE ABRASIVE ON SEMI-CON INSULATION SHIELD!**
 - b. Use only aluminum oxide abrasive; grit 120 or finer, included in the 3M™ Cable Cleaning Preparation Kit CC-2.
 - c. Be careful not to reduce the cable insulation diameter below that allowed by the kit.

10.0 Install Termination

- 10.1 Slide the termination body onto the cable and remove core. Pull while unwinding, counter-clockwise, starting with the loose end (Figure 15). Make sure the termination body (not the core) is butted up to the edge of the vinyl tape marker previously applied (Figure 15).

NOTE: Once the termination body makes contact over the mastic seal area, there is no need to continue supporting the assembly. **DO NOT PUSH OR PULL ON THE TERMINATION ASSEMBLY WHILE UNWINDING THE CORE.**

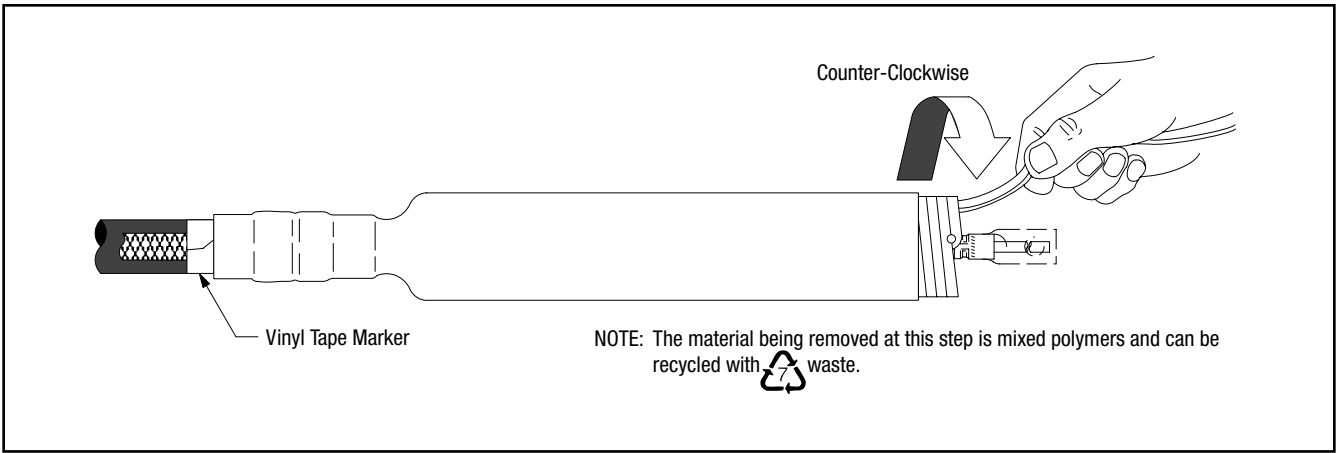
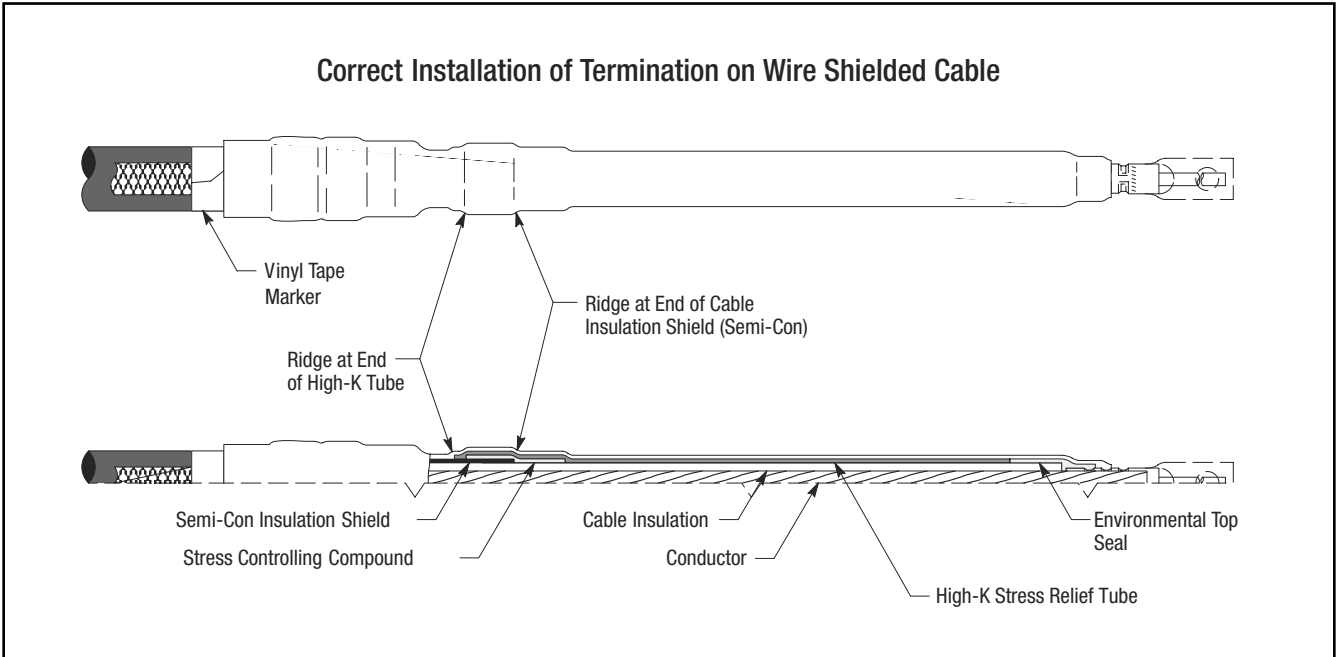


Figure 15

10.2 Connect ground braid to system ground according to standard practice.



Instructions for UniShield® Cable

11.0 Prepare Cable

11.1 Check to be sure cable size fits within kit range as shown in Table 1.

11.2 Prepare cable using dimensions shown in *Figure 16*. **BE SURE TO ALLOW FOR DEPTH OF TERMINAL LUG.**

NOTE: Provide additional exposed conductor distance to account for growth during crimping of **ALUMINUM** lugs or connectors as follows:

| Aluminum Lug and Connector Growth Allowance | 2 - 350 | 400 - 650 | 750 - 1000 | 1250 - 2000 |
|---|-------------|--------------|--------------|------------------|
| | 1/4" (6 mm) | 1/2" (13 mm) | 3/4" (19 mm) | Field Determined |

11.3 Install constant force spring as shown in *Figure 16*. Pull shield wires through semi-conductive jacket to leading edge of constant force spring (*Figure 16*).

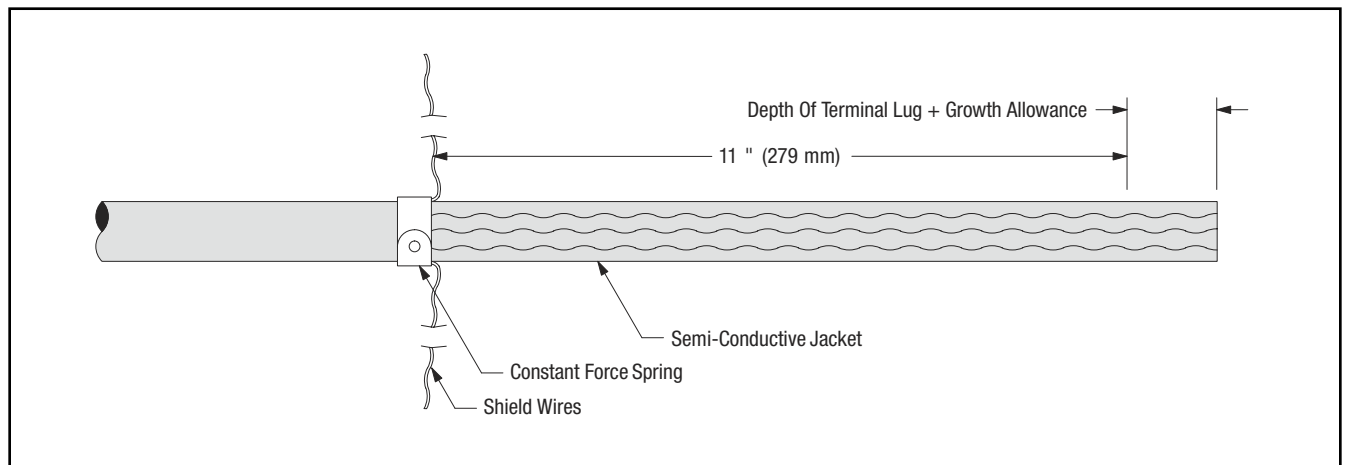


Figure 16

11.4 Remove constant force spring. Bend shield wires back upon cable jacket 1 1/2" (38 mm). Cut excess shield wire and discard (*Figure 17*).

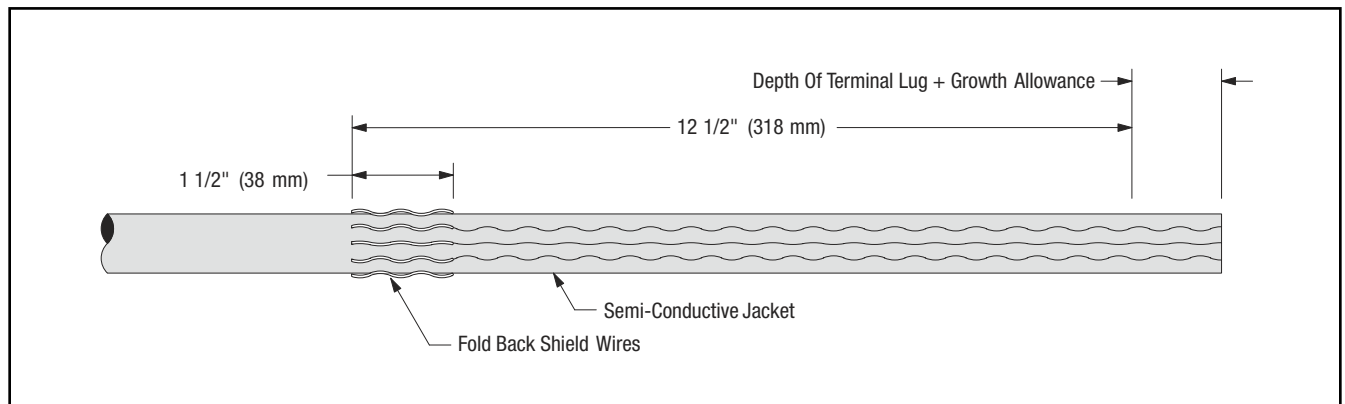


Figure 17

11.5 Remove semi-conductive jacket to dimension shown in Figure 18.

NOTE: To ease jacket removal, install constant force spring as shown in Figure 18 and ring cut 80% through jacket. Remove jacket sections by pulling against constant force spring. DO NOT BELL SEMI-CON JACKET. Remove constant force spring.

NOTE: It is imperative to remove all remnants of the semi-conductive jacket, even if the semi-conductive jacket comes off as one layer. There should not be any remaining black areas, or particles, on the cable insulation layer.

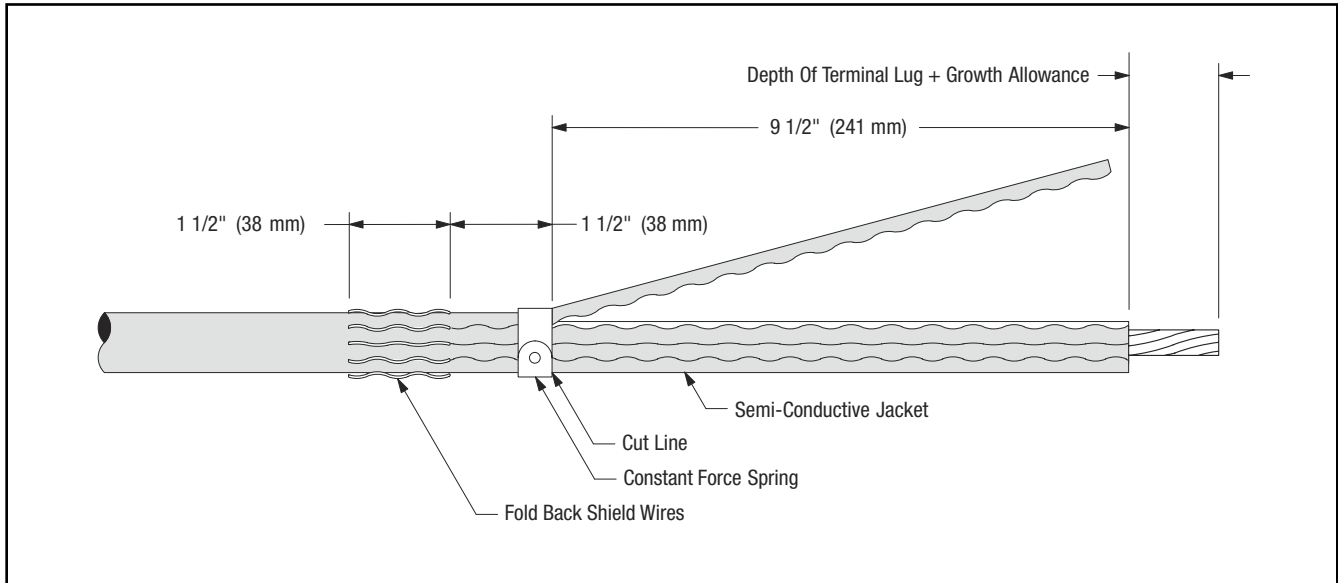


Figure 18

12.0 Install Ground Braid

12.1 Select a Scotch® Mastic Strip 2230 from kit and remove white release liners. Using light tension, apply a **SINGLE WRAP** of mastic around the cable jacket 1/4" (6 mm) from shield wires (Figure 19). Cut off excess.

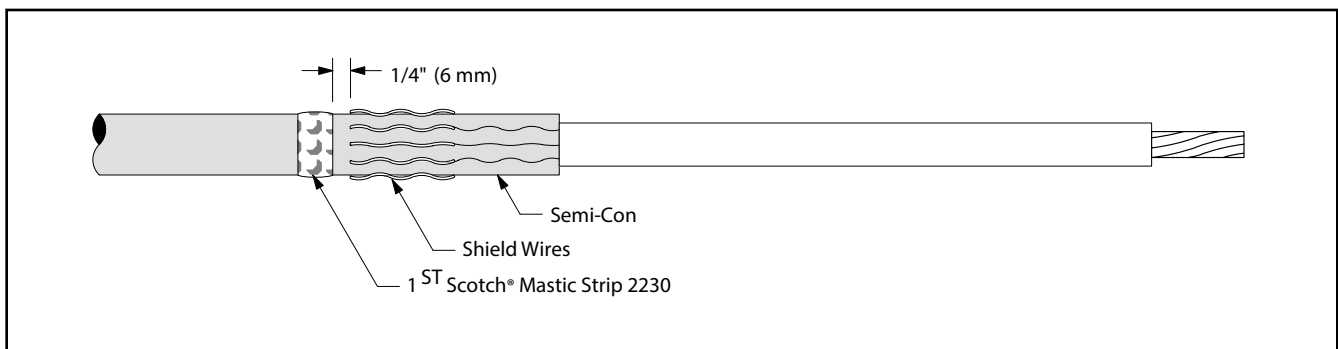


Figure 19

12.2 Position pre-formed ground braid with short tail directly over cut edge of folded back shield wires. Position long tail of ground braid, extending over cable jacket with solder block over mastic strip (Figure 20). Secure ground braid to cable semi-conductive jacket 4.5" (114 mm) from cable semi-con edge using vinyl tape (Figure 20).

NOTE: Position vinyl tape with care, it also serves as a marker for positioning the termination.

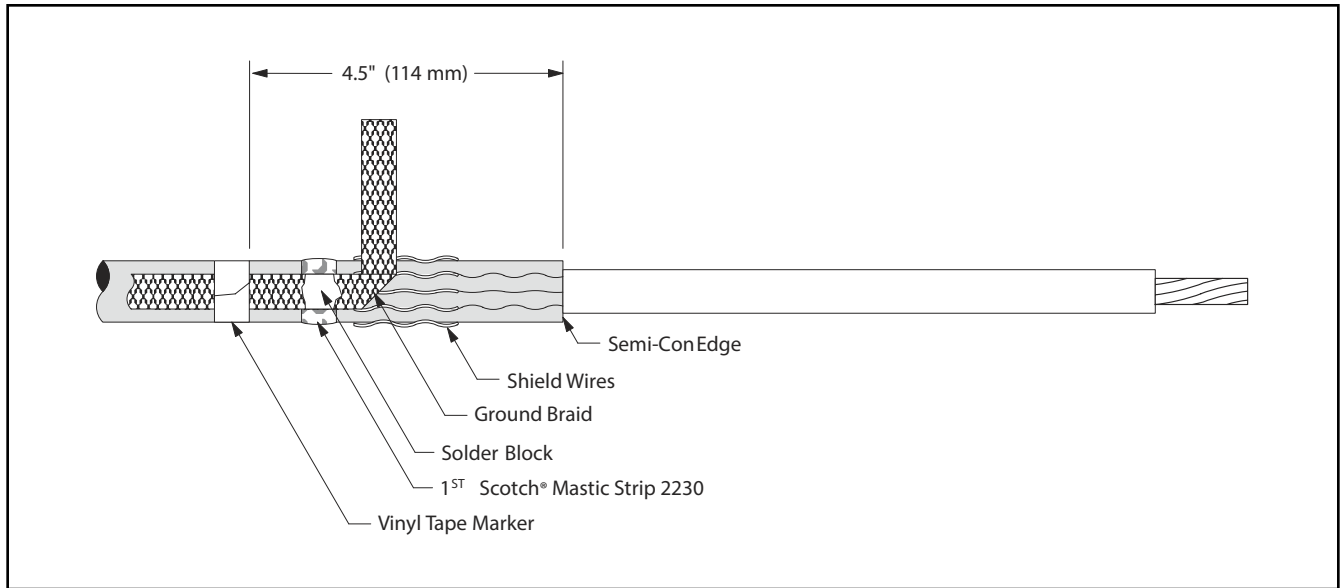


Figure 20

- 12.3 Wrap ground braid around cable shield wires one complete wrap, trim excess to prevent overlap and secure in place with constant force spring. Wrap spring in same direction as ground braid (*Figure 21*). Cinch (tighten) the spring after wrapping the final winding.
- 12.4 Select second Scotch® Mastic Strip 2230 from kit and remove white release liners. Apply a second **SINGLE WRAP** of mastic over solder block on ground braid and previously applied mastic (*Figure 21*). Cut off excess.

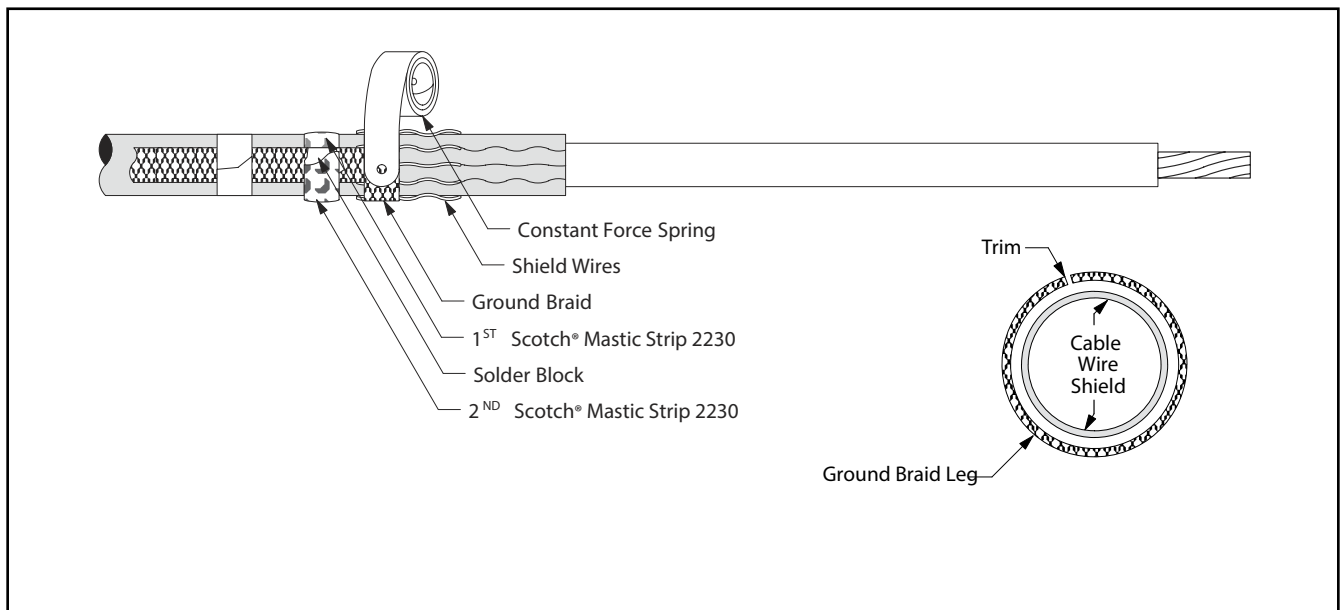


Figure 21

12.5 Wrap two highly stretched half-lapped layers of electrical grade vinyl tape around mastic seal, constant force spring and exposed shield wires (*Figure 22*).

NOTE: Take care not to cover exposed semi-con insulation shield. A minimum of 1" (25 mm) must be exposed.

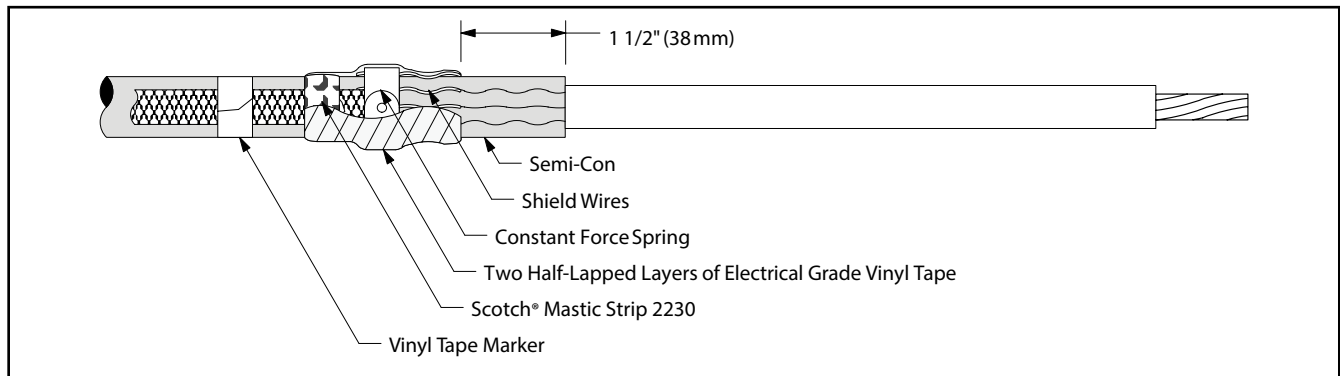


Figure 22

13.0 Install Lug or Connector

Important Packaging Notice

In order to make sure that you receive an undamaged termination, this 3M™ Cold Shrink QT-III Termination is packed with a RED SHIPPING CORE inside of the white core. Please remove the red shipping core BEFORE you install the termination. This shipping core can be recycled with other polypropylene waste.

13.1 Check to insure 3M™ Cold Shrink QT-III Silicone Rubber Termination assembly fits over the selected lug or connector. If lug or connector (*Figure 23*) will not fit through the termination core, clean the insulation (per Step 14.0) and slide termination on cable before installing lug or connector.

DO NOT REMOVE CORE AT THIS TIME.

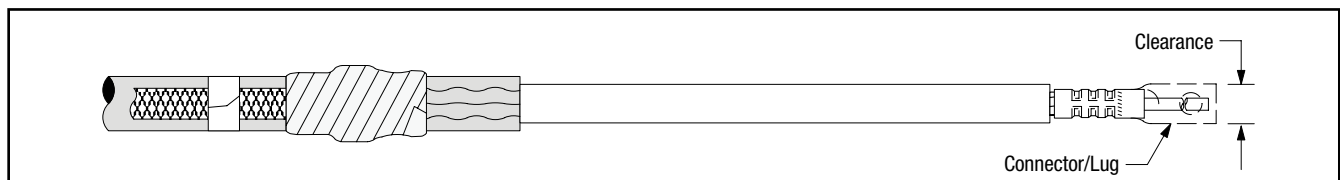


Figure 23

NOTE: Refer to pages 18 - 20 for 3M™ Connector and Lug crimping information.

NOTE: For Aluminum Conductors - Thoroughly wire brush conductor strands to remove aluminum oxide layer. Immediately insert conductor into lug or connector barrel as far as it will go.

13.2 Position connector or lug and crimp according to manufacturer's directions. Remove excess oxide inhibitor and sharp crimp flashings following crimping.

14.0 Clean Cable Insulation and Lug Barrel Using Standard Practice

14.1 Wipe the cable insulation with one of the solvent saturated pads from the 3M™ Cable Cleaning Preparation Kit CC-2. **DO NOT ALLOW SOLVENT TO TOUCH SEMI-CON INSULATION SHIELD!**

14.2 If abrasive must be used:

- Use on insulation only. **DO NOT USE ABRASIVE ON SEMI-CON INSULATION SHIELD!**
- Use only aluminum oxide abrasive; grit 120 or finer, included in the 3M™ Cable Cleaning Preparation Kit CC-2.
- Be careful not to reduce the cable insulation diameter below that allowed by the kit.

15.0 Install Termination

15.1 Slide the termination body onto the cable and remove core. Pull while unwinding, counter-clockwise, starting with the loose end (*Figure 24*). Make sure the termination body (not the core) is butted up to the edge of the vinyl tape marker previously applied (*Figure 24*).

NOTE: Once the termination body makes contact over the mastic seal area, there is no need to continue supporting the assembly. DO NOT PUSH OR PULL ON THE TERMINATION ASSEMBLY WHILE UNWINDING THE CORE.

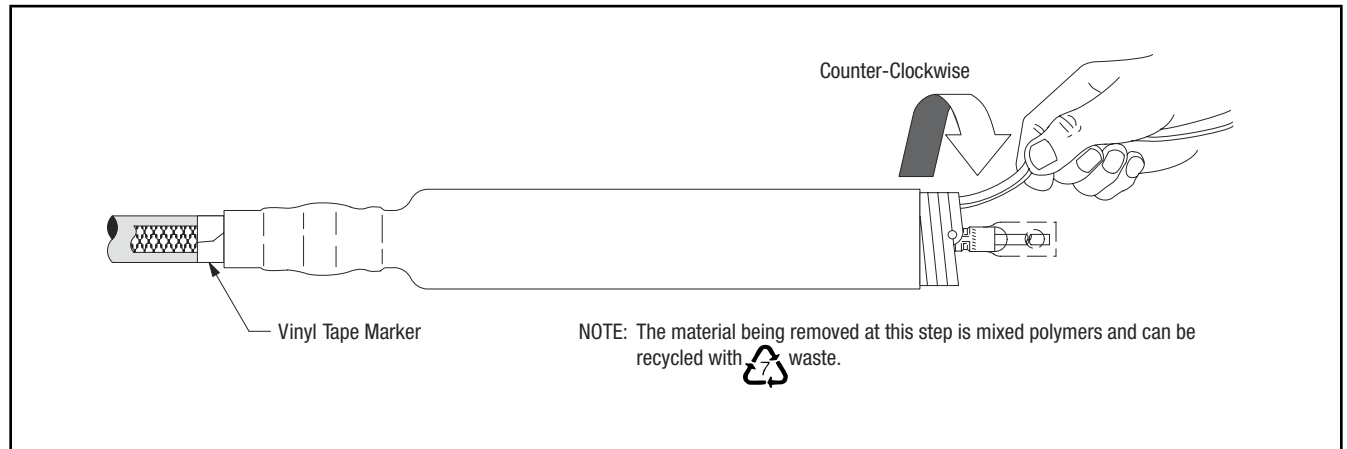
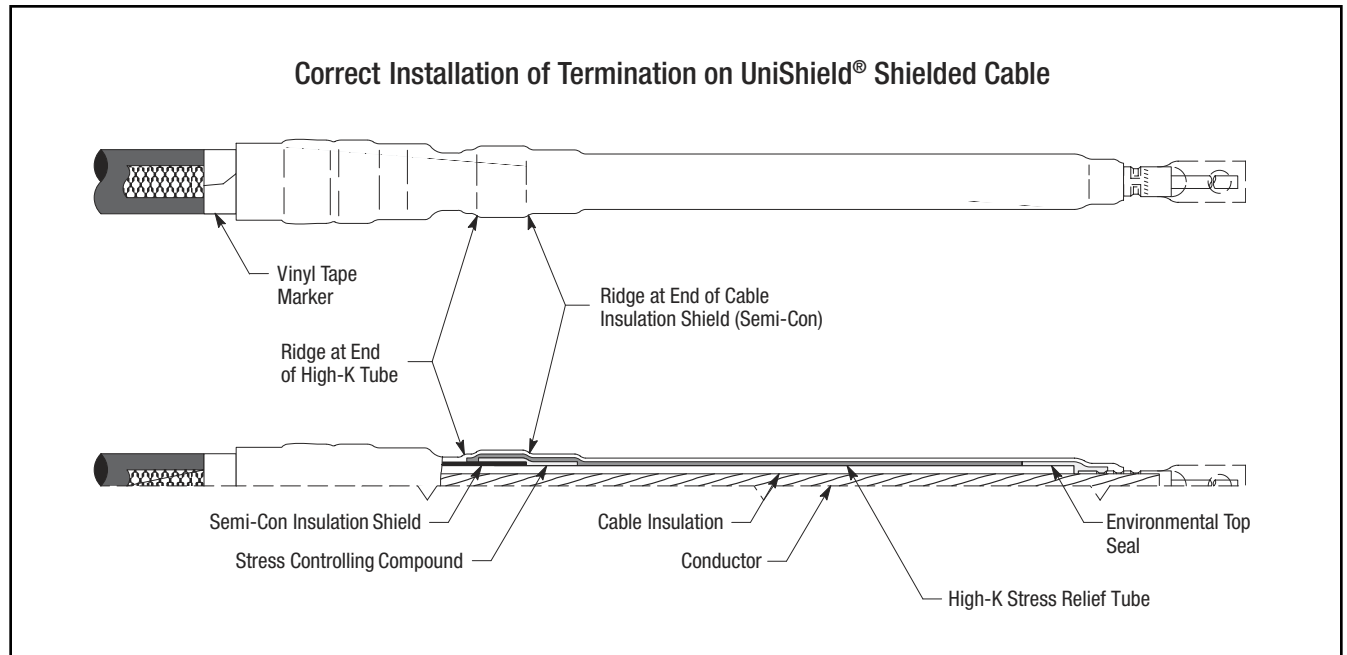


Figure 24

15.2 Connect ground braid to system ground according to standard practice.



Tooling Index

| Lug and Crimping Information for 3M™ Scotchlok™ Copper Lugs | | | | | | | | | | |
|---|--------------------|----------------------------------|--|----------------------------|--------------------|--------------------------------------|--|-------------------------------------|----------------------------|----------------------------|
| 30014 thru 30045 One hole | | | 31036 thru 31068 One hole-long barrel | | | | 31145 thru 31178 Two hole-long barrel | | | |
| Crimping Tool-Die Sets (Minimum Number Of Crimps) | | | | | | | | | | |
| Cable Size AWG/ kcmil | Stud Size (in.) | 3M™ Scotchlok™ Copper Lug Number | Burdny Corporation | | | | Thomas & Betts Corporation | | | Square D Co. Anderson Div. |
| | | | MD6 | MY29 | Y34A | Y35, Y39, Y45*, Y46* | TBM 5 | TBM 8 | TBM 15 | VC6-3, VC6-FT** |
| 6 | 10 1/4 5/16 | 30014 30015 30016 | - | 6AWG(1) | - | U5CRT(1) | Blue(1) | Blue(1) | - | (1) |
| 4 | 10 1/4 3/8 | 30018 30019 30021 | W161(1) | 4AWG(1) | A4CR(1) | U4CRT(1) | Grey(1) | Grey(1) | - | (1) |
| 2 | 1/4 5/16 3/8 | 30022 30023 30024 | W162(2) | 2AWG(1) | A2CR(1) | U2CRT(2) | Brown(1) | Brown(1) | 33(1) | (2) |
| 1 | 5/16 3/8 | 30027 30028 | - | 1AWG(1) | A1CR(1) | U1CRT(2) | Green(1) | Green(1) | 37(1) | (2) |
| 1/0 | 5/16 3/8 | 30031 30032 | W163(2) | 1/0(1) | A25R(1) | U25RT(1) | Pink(2) | Pink(2) | 42H(2) | (1) |
| 2/0 | 3/8 3/8 | 30036 31036 | W241(2) W241(3) | 2/0(1) 2/0(2) | A26R(1) A26R(2) | U26RT(2) U26RT(3) | Black(2) Black(3) | Black(2) Black(3) | 45(1) 45(2) | (1) (2) |
| 3/0 | 1/2 1/2 | 30041 31041 | W243(2) W243(3) | 3/0(1) 3/0(2) | A27R(1) A27R(2) | U27RT(2) U27RT(3) | Orange(2) Orange(3) | Orange(2) Orange(3) | 50(1) 50(2) | (2) (3) |
| 4/0 | 1/2 1/2 1/2 | 30045 31045 31145 | BG(3) BG(4) BG(4) | 4/0(1) 4/0(2) 4/0(2) | A28R(2) | U28RT(2) U28RT(3) U28RT(3) | Purple(2) Purple(3) Purple(3) | Purple(2) Purple(3) Purple(3) | 54H(2) 54H(3) 54H(3) | (2) (3) (3) |
| 250 | 1/2 1/2 | 31049 31149 | W166(4) | 250(2) | A29R(2) | U29RT(3) | Yellow(2) | Yellow(2) | 62(2) | (2) |
| 300 | 1/2 1/2 | 31053 31153 | - | - | A30R(2) | U30RT(3) | - | White(3) | 66(3) | (3) |
| 350 | 1/2 1/2 | 31056 31156 | - | - | A31R(2) | U31RT(3) | - | Red(4) | 71H(4) | - |
| 400 | 1/2 1/2 | 31060 31160 | - | - | A32R(2) | U32RT(3) | - | Blue(4) | 76H(4) | - |
| 500 | 1/2 5/8 1/2 | 31066 31067 31166 | - | - | A34R(2) | U34RT(3) | - | Brown(4) | 87H(4) | - |
| 600 | 1/2 1/2 | 31068 31168 | - | - | - | U36RT(3) | - | Green(4) | 94H(4) | - |
| 750 | 1/2 | 31172 | - | - | - | Y39, Y45, Y46 U39RT(5) | - | - | 106H(4) | - |
| 1000 | 1/2 | 31178 | - | - | - | Y45: S44RT(6) Y46: P44RT(6) | - | - | 125H(4) | - |

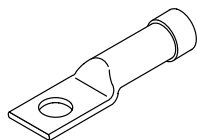
* Y45 and Y46 accept all Y35 dies ("U" series). For Y45 use PT6515 adapter. For Y46 use PUADP adapter.

** Anderson VC6-3 and VC6-FT require no die set.

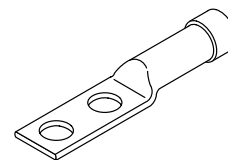
Tooling Index

Lug and Crimping Information for 3M™ Scotchlok™ Copper/Aluminum Lugs

40016 thru 40079
One hole



40132 thru 40178
Two hole



| Cable Size AWG/ kcmil | Stud Size (in.) | 3M™ Scotchlok™ Lug Number | Crimping Tool-Die Sets (Minimum Number Of Crimps) | | | | | | | | | | | | |
|--------------------------|-----------------|------------------------------|---|---------|----------|-------------------------|---------|----------------------------|----------|---------|---------|-------------------------------|--------|-------------------------|-------------------------|
| | | | Burdny Corporation | | | | | Thomas & Betts Corporation | | | | Square D Co. Anderson Div. | | ITT Blackburn Co. | Kearny Nat'l Div. |
| | | | MD6 | MY29 | Y34A | Y35, Y39, Y45*, Y46* | Y1000** | TBM 5 | TBM 8 | TBM 12 | TBM 15 | VC6-3** VC6-FT** | VC8C** | OD58 | TYPE 0 |
| 6 | 5/16 | 40016 | W161(1) | 6AWG(1) | A6CAB(1) | U6CABT(1) | (1) | Grey(1) | Grey(1) | - | 29(1) | (1) | - | BY19(3) | J(3) |
| 4 | 5/16 | 40020 | W162(3) | 4AWG(1) | A4CAB(1) | U4CABT(1) | (1) | Green(2) | Green(2) | - | 37(1) | (1) | - | BY53(3) | P(3) |
| 2 | 3/8 | 40024 | W163(3) | 2AWG(1) | A2CAB(1) | U2CABT(1) | (1) | Pink(2) | Pink(2) | - | 42H(2) | (1) | - | BY23(3) | 1/2(3) |
| | 1/2 | 40025 | W163(3) | 2AWG(1) | A2CAB(1) | U2CABT(1) | (1) | Pink(2) | Pink(2) | - | 42H(2) | (1) | - | BY23(3) | 1/2(3) |
| 1 | 3/8 | 40028 | W163(3) | 1AWG(1) | A1CAR(1) | U1CART(1) | (1) | Gold(2) | Gold(2) | - | 45(1) | (1) | - | BY23(3) | 1/2(3) |
| | 1/2 | 40029 | W163(3) | 1AWG(1) | A1CAR(1) | U1CART(1) | (1) | Gold(2) | Gold(2) | - | 45(1) | (1) | - | BY23(3) | 1/2(3) |
| 1/0 | 3/8 | 40032 | W241(3) | 1/0(1) | A25AR(1) | U25ART(1) | (1) | Tan(2) | Tan(2) | - | 50(1) | (1) | - | BY25(3) | 5/8-1(3) |
| | 1/2 | 40033 | W241(3) | 1/0(1) | A25AR(1) | U25ART(1) | (1) | Tan(2) | Tan(2) | - | 50(1) | (1) | - | BY25(3) | 5/8-1(3) |
| | 3/8 | 40132 | W241(3) | 1/0(1) | A25AR(1) | U25ART(1) | (1) | Tan(2) | Tan(2) | - | 50(1) | (1) | - | BY25(3) | 5/8-1(3) |
| 2/0 | 1/2 | 40037 | BG(4) | 2/0(1) | A26AR(2) | U26ART(2) | (1) | Olive(2) | Olive(2) | - | 54H(2) | (2) | - | BY31C(3) | 5/8-1(3) |
| | 1/2 | 40137 | BG(4) | 2/0(1) | A26AR(2) | U26ART(2) | (1) | Olive(2) | Olive(2) | - | 54H(2) | (2) | - | BY31C(3) | 5/8-1(3) |
| 3/0 | 1/2 | 40041 | W166(4) | 3/0(1) | A27AR(2) | U27ART(2) | (1) | Ruby(2) | Ruby(2) | - | 60(2) | (2) | - | - | 737(3) |
| | 1/2 | 40141 | W166(4) | 3/0(1) | A27AR(2) | U27ART(2) | (1) | Ruby(2) | Ruby(2) | - | 60(2) | (2) | - | - | 737(3) |
| 4/0 | 1/2 | 40045 | W660(4) | 4/0 (2) | A28AR(2) | U28ART(2) | (1) | - | White(4) | - | 66(4) | (2) | - | BY35C(4) | 840(4) |
| | 5/8 | 40046 | W660(4) | 4/0 (2) | A28AR(2) | U28ART(2) | (1) | - | White(4) | - | 66(4) | (2) | - | BY35C(4) | 840(4) |
| | 1/2 | 40145 | W660(4) | 4/0 (2) | A28AR(2) | U28ART(2) | (1) | - | White(4) | - | 66(4) | (2) | - | BY35C(4) | 840(4) |
| 250 | 1/2 | 40049 | W249(3) | - | A29AR(2) | U29ART(2) | (1) | - | - | 71H(4) | 71H(2) | (3) | - | - | - |
| | 5/8 | 40050 | W249(3) | - | A29AR(2) | U29ART(2) | (1) | - | - | 71H(4) | 71H(2) | (3) | - | - | - |
| | 1/2 | 40149 | W249(3) | - | A29AR(2) | U29ART(2) | (1) | - | - | 71H(4) | 71H(2) | (3) | - | - | - |
| 300 | 1/2 | 40053 | - | - | A30AR(2) | U30ART(2) | (1) | - | - | 76H(4) | 76H(2) | (3) | - | - | - |
| | 1/2 | 40153 | - | - | A30AR(2) | U30ART(2) | (1) | - | - | 76H(4) | 76H(2) | (3) | - | - | - |
| 350 | 1/2 | 40056 | - | - | - | U31ART(2) | (1) | - | - | 87H(4) | 87H(3) | (3) | - | - | - |
| | 5/8 | 40057 | - | - | - | U31ART(2) | (1) | - | - | 87H(4) | 87H(3) | (3) | - | - | - |
| | 1/2 | 40156 | - | - | - | U31ART(2) | (1) | - | - | 87H(4) | 87H(3) | (3) | - | - | - |
| 400 | 1/2 | 40160 | - | - | - | U32ART(4) | (1) | - | - | 94H(4) | 94H(4) | - | (2) | - | - |
| 500 | 5/8 | 40067 | - | - | - | U34ART(4) | (1) | - | - | 106H(4) | 106H(3) | - | (2) | - | - |
| | 1/2 | 40166 | - | - | - | U34ART(4) | (1) | - | - | 106H(4) | 106H(3) | - | (2) | - | - |
| 600 | 1/2 | 40170 | - | - | - | U36ART(4) | (1) | - | - | - | 115H(3) | - | (3) | - | - |
| 750 | 5/8 | 40073 | - | - | - | U39ART(4) | (1) | - | - | - | 125H(4) | - | (3) | - | - |
| | 1/2 | 40172 | - | - | - | U39ART(4) | (1) | - | - | - | 125H(4) | - | (3) | - | - |
| 1000 | 5/8 | 40079 | - | - | - | S44ART(4) | (1) | - | - | - | 140H(4) | - | (3) | - | - |
| | 1/2 | 40178 | - | - | - | S44ART(4) | (1) | - | - | - | 140H(4) | - | (3) | - | - |

* Y45 and Y46 accept all Y35 dies ("U" series). For Y45 use PT6515 adapter. For Y46 use PUADP adapter.

** Anderson VC6-3, VC6-FT, VC8C and Burdny Y1000 require no die set.

Tooling Index

Crimping Information for
3M™ Stem Connectors
Copper/Aluminum



| Conductor Size AWG & kcmil | | 3M™ Connector Number | Crimping Table For 3M™ Stem Type Connector | | | | |
|-------------------------------|--------------------|----------------------------|--|------------|--------------------------|-----------------|--------------------------|
| Stranded | Solid | | Recommended Crimping Tools | | | | |
| | | | Manufacturer | Mech. Tool | Die (Minimum No. Crimps) | Hydraulic | Die (Minimum No. Crimps) |
| 2, 1 4 1/0 | 1, 1/0 2 2/0 | SC0001 SC0002 SC0010 | Burndy | MD6 | BG(4), W243(4) | Y35, Y39, Y45* | U25ART(2), U243(2) |
| | | | Kearny | 0-51, 0-52 | 5/8-1 (4) | 12, 20, 40, Ton | 5/8-1(4) |
| | | | T & B | TBM 5 | Tan(2) | - | - |
| | | | T & B | TBM 8 | Olive(2) | TBM 15 | 50(2) |
| | | | Anderson | - | - | VC6 | (2) |
| 2/0 3/0 4/0 | 3/0 4/0 - | SC0020 SC0030 SC0040 | Burndy | MD6 | W669(0) 840(5) | Y35, Y39, Y45* | U28ART(2) |
| | | | Kearny | 0-51, 0-52 | 840(5) | WH-1, WH-2 | 840(2) |
| | | | T & B | TBM 8 | White(4) | TBM 15 | 66H(3) |
| | | | Anderson | - | - | VC6 | (2) |

* Y45 and Y46 accept all Y35 dies ("U" series). For Y45 use PT6515 adapter. For Y46 use PUADP adapter.

** Anderson VC6 is dieless and does not require a die set.

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