3M™ Splice Kit 5551-3/C-AC

5/8kV, 3-Conductor Splice Cable

For Splicing Shielded to Shielded Cable, or Shielded to Non-shielded Cable

Instructions

IEEE Std. No. 404
5kV Class, 75kV BIL
8kV Class, 95kV BIL

Kit Contents:

6 Copper Tape Strips
3 Scotch® Electrode Wraps 13
5 Rolls of Scotch® Rubber Mastic Tape 2228 (3-1" wide, 2-2" wide)
3 Cold Shrink Insulators
3 Rolls of Scotch® Electrical Semi-Conducting Tape 13
3 Rolls of Scotch® Linerless Rubber Splicing Tape 130C
3 Shielding Braid Sleeves
6 Small Constant Force Springs
1 Scotch® Electrical Grounding Braid 25
2 Large Constant Force Springs
1 Roll of Scotch® Vinyl Electrical Tape 33
1 3M™ Cleaning Kit CC-3 (3 cleaning pads)
1 Cold Shrink Jacket
2 15' Rolls of 3M™ Armorcast Structural Material 4560-15 (For Armored Cables)
1 Instruction Sheet

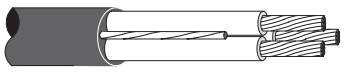
Components Needed: (not supplied in the standard kit)
Connectors (for primary conductors)
Ground Connectors (to connector ground wires)

Kit Selection Chart

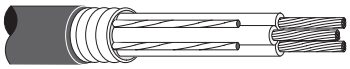
NOTE: Final Determination Factor is cable insulation diameter.

Kit Number	Primary Insulation O.D. Range	Conductor Size Range O.D.	
		Copper	Aluminum
5551-3/C-AC	0.37"–0.78" (9,4–19,8 mm)	6–4/0	6–3/0

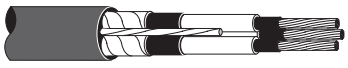
Table 1



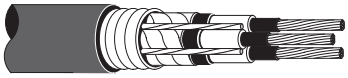
Three-Conductor Non-Armored, Nonshielded Cable



Three-Conductor Armored, Nonshielded Cable



Three-Conductor Non-Armored, Shielded Cable



Three-Conductor Armored, Shielded Cable

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5/8kV, 3-Conductor Splice Cable
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78-8126-5627-6-B

⚠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.

3M

1.0 Prepare Cables

1.1 Clean cable jackets by wiping with a clean, dry cloth for approximately 3 feet (1 meter) at each end.

1.2 Prepare cables using standard procedures, following the section below for each type of cable being used. Insulation removal distance is one-half the connector length.

Note: Copper tape strips are provided to secure the ends of the metallic shields.

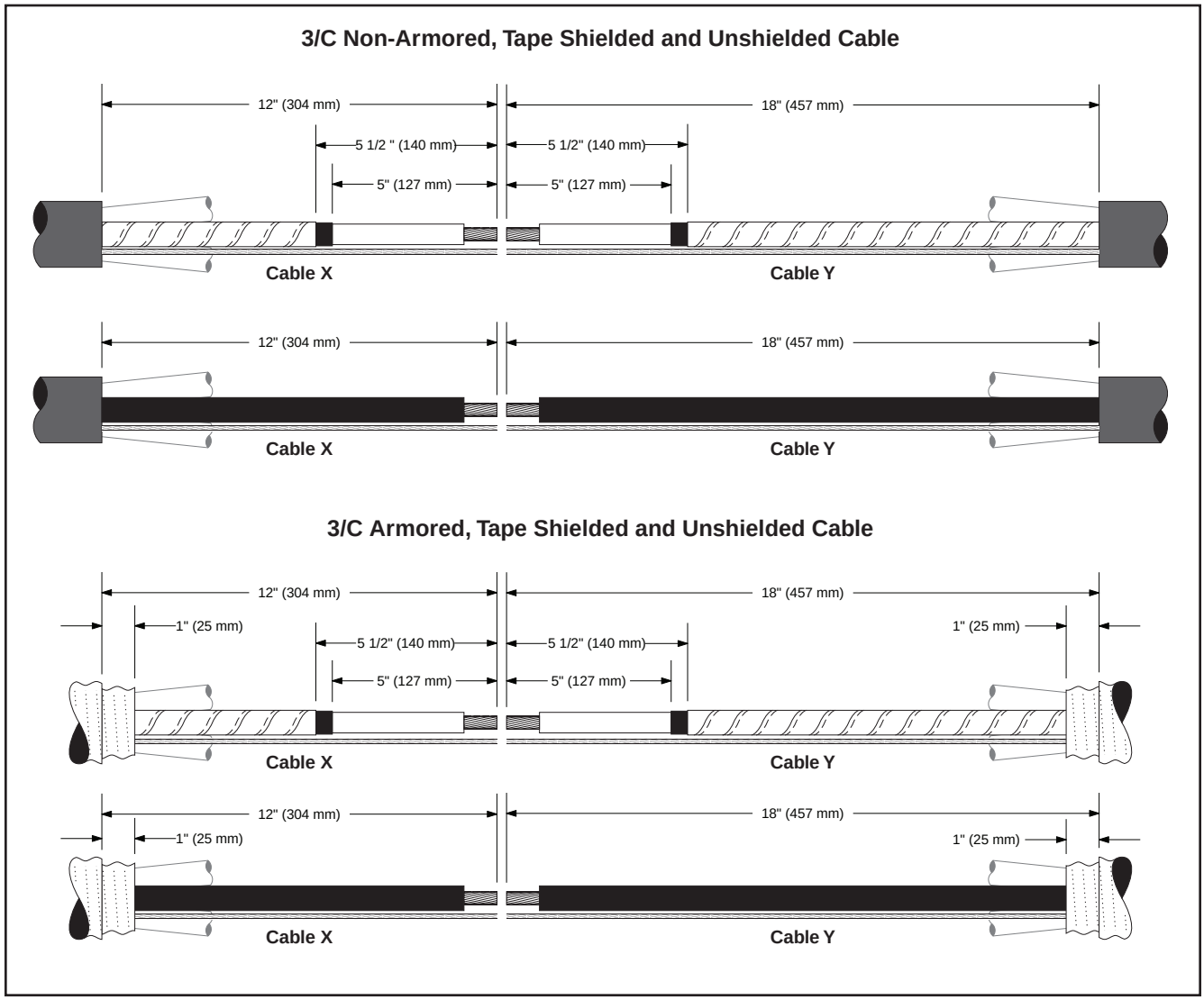

Figure 1

1.3 For Wire Shielded Cables:

a. Remove cable jacket/armor as shown in (*Figure 1*).

b. Wrap 2 full wraps Scotch® Electrical Semi-Conducting Tape 13 over ground wires 5 1/2" (140 mm) from cable end (*Figure 2*).

c. Cut off ground wires to a length of 1 1/2" (38 mm) and fold back onto cable (*Figure 2*). Secure the ends with copper tape, if needed.

d. Remove cable semi-con as shown in (*Figure 2*).

e. Remove cable insulation from cable ends for a distance of 1/2 connector length (*Figure 2*).

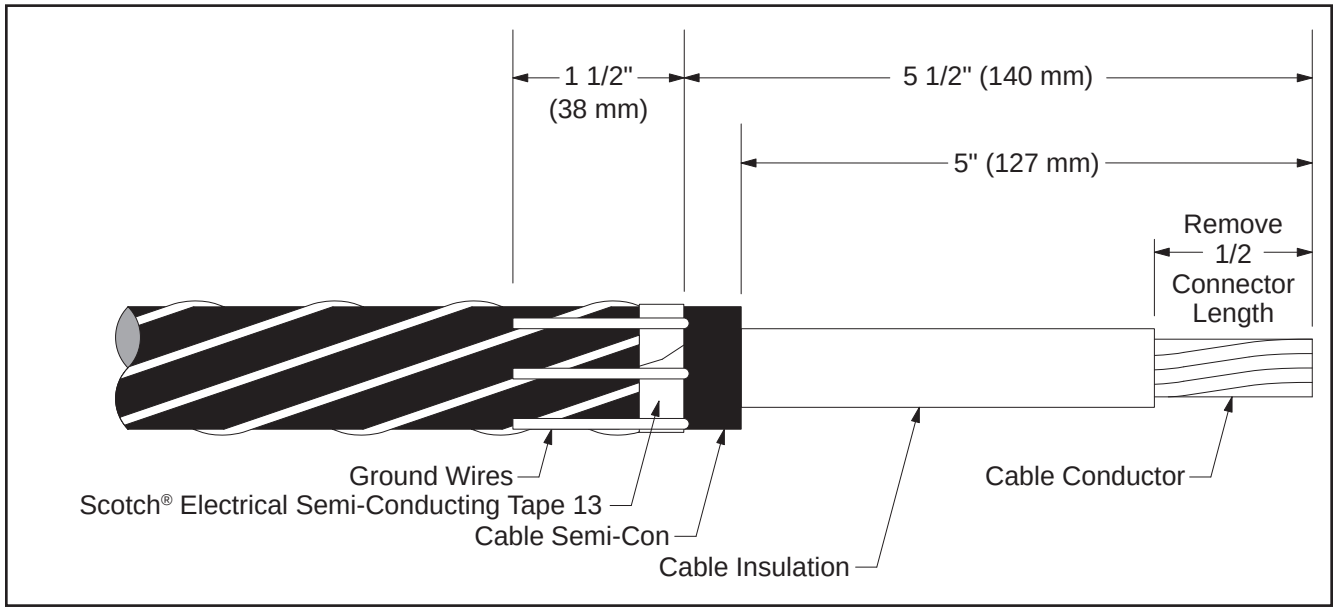

Figure 2

1.4 For UniShield® Cables

a. Remove cable jacket/armor as shown in (*Figure 1*).

b. Wrap a vinyl tape band around cable jacket at a point 5 1/2" (140 mm) from cable end and remove drain wires from semi-con jacket to the leading edge of applied vinyl tape band (*Figure 3*).

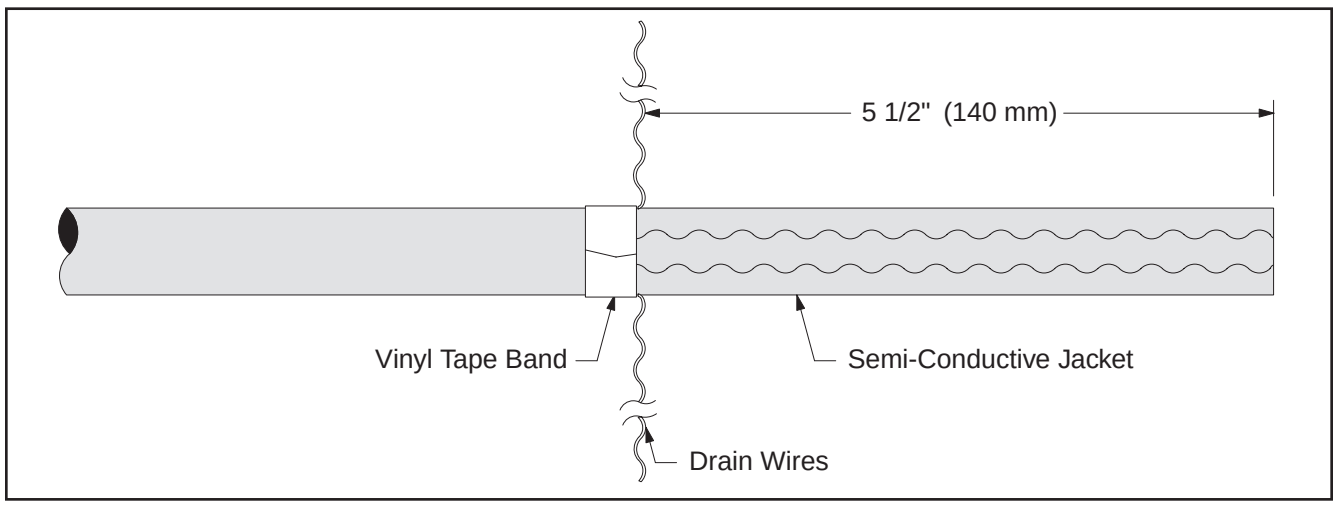

Figure 3

c. Cut off shield drain wires to a length of 1 1/2" (38 mm) and fold back onto cable (*Figure 4*).

d. Install hose clamp as shown in (*Figure 4*). On the side of the clamp closest to the cable end cur 80% through cable jacket.

e. Remove jacket by pulling against hose clamp. **Do not bell semi-con jacket** (*Figure 4*).
NOTE: Jacket may separate into two layers. Remove both layers of black semi-con jacket.

f. Remove hose clamp.

g. Remove cable insulation from cable ends for a distance of 1/2 connector length (*Figure 4*).

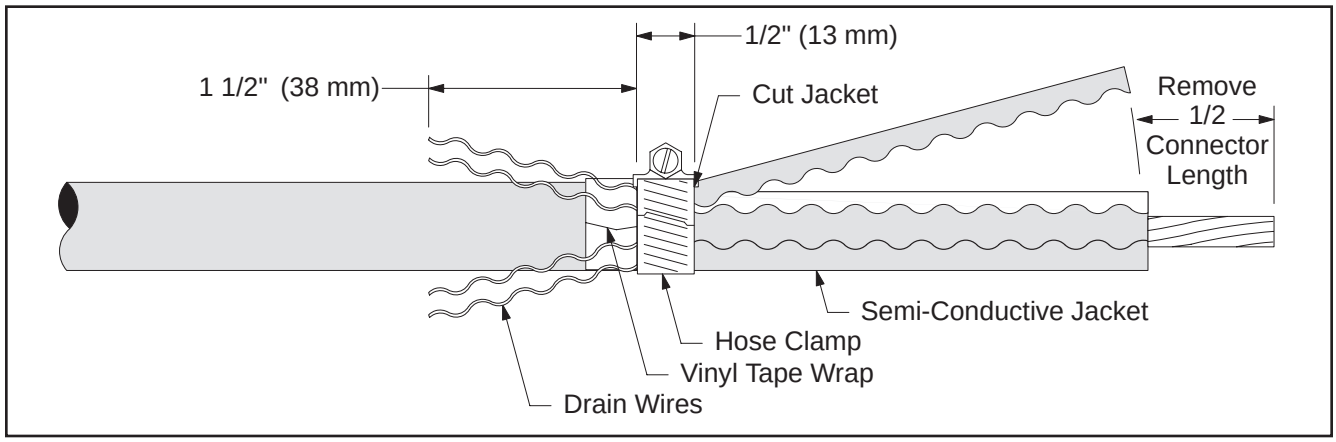

Figure 4

2.0 Splicing Shielded to Shielded Cable

2.1 Slide cold shrink insulation tubes onto Cable Y, one per conductor, loose core ends first, until the cable semi-con is visible (*Figure 5*).

NOTE: It may be necessary to unwind some of the excess core prior to putting on the cable. Do not unwind closer than 1/4" (6 mm) from insulation rubber.

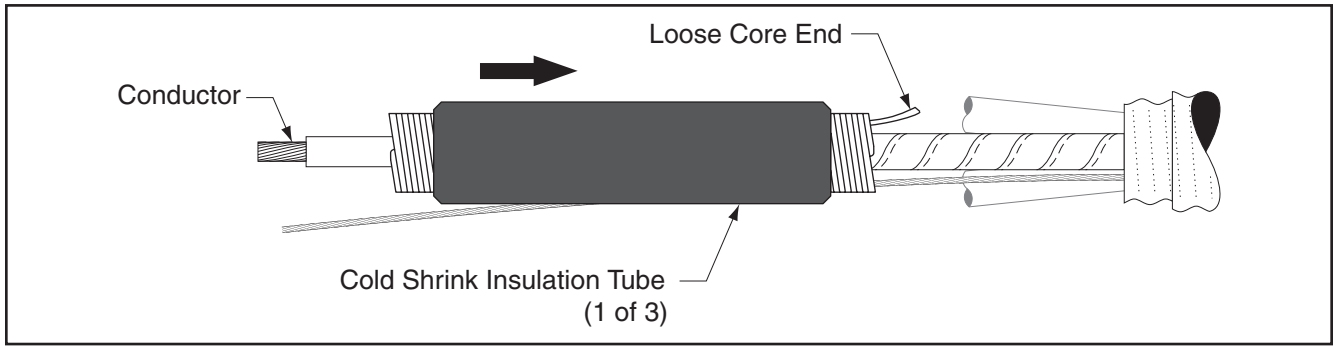

Figure 5