

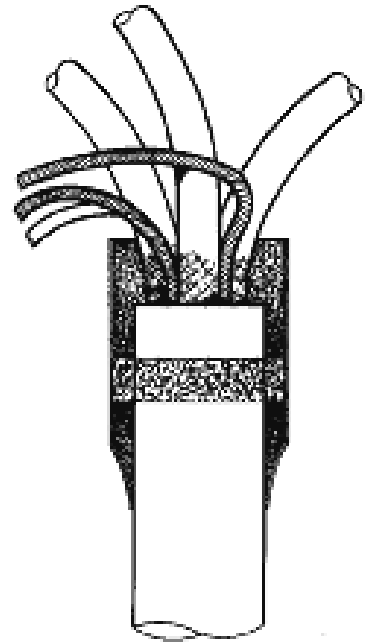
3M™ Sheath Seal Kits, 5831 and 5832

For multi-conductor cables with or without ground wires

Installation Instructions

1.0 Kit Contents:

5831	5832	
1	1	Mold Body
1	1	Mold Strap
1	1	Strap Support
1	1	Strip Spacer Web
1	2	Roll(s) Scotch® Linerless Rubber Splicing Tape 130C
1	1	Roll Scotch® Super 33+™ Vinyl Electrical Tape
1	1	Roll 3M™ Scotchfil™ Electrical Insulating Putty
1	2	Size "C" Bag, 3M™ Scotchcast™ Flame-Retardant Compound 2131
1	1	Strip 3M™ Three-M-Ite™ Elek-Tro-Cut™ Abrasive Cloth
1	1	3M™ Cable Cleaning Preparation Kit CC-2



Kit No.	Conductor Size Range (AWG)	Maximum Jacket (or Amor) O.D.
5831	2 – 3/0	2.60 in. (66,0 mm)
5832	4/0 – 500 kcmil	3.75 in. (95,3 mm)

DANGER: BEFORE ATTEMPTING ANY CABLE REPAIRS, MAKE SURE THAT THE PROPER CABLE IS DISCONNECTED, LOCKED OUT AND SUITABLY TAGGED.



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.

Technical Information:

For use on shielded and non-shielded multi-conductor Cables

Cable Size Range (copper & aluminum)

5831 - 2 to 3/0 AWG

5832 - 4/0 AWG to 500 kcmil

3M™

Sheath Seal Kits

For multi-conductor cables with or without ground wires

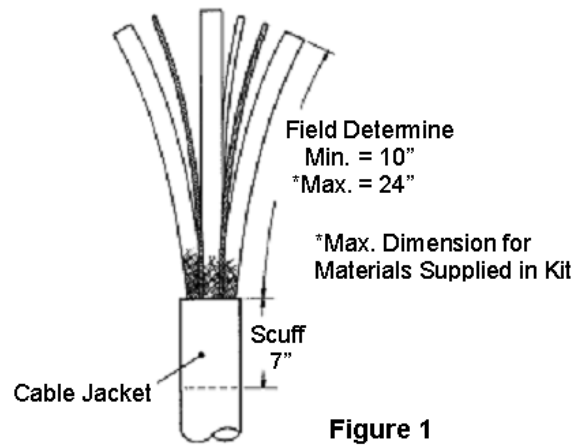
5831 and 5832

78-8126-9791-6

April, 2011

2.0 Prepare Cable

- 2.1 Remove cable jacket and/or armor; field determine removal length according to spacing requirements, etc. (Figure 1)
- 2.2 Remove cable fillers back to the cable jacket and/or armor.
- 2.3 Remove shield per instructions for terminating device.



- 2.4 Starting 1½" (38 mm) from cable jacket (or armor), apply two highly elongated half-lapped layers of Scotch® Linerless Rubber Splicing Tape 130C over the shielding, leaving the end of the shielding exposed for the distance as indicated in the instructions for the termination device. (Figure 2)

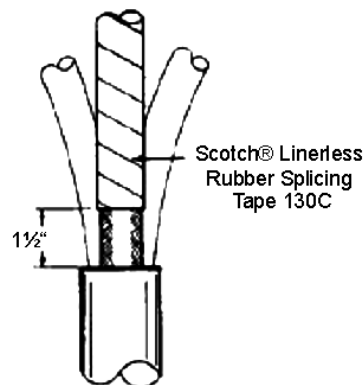


Figure 2

- 2.5 Apply a half-lapped layer of Scotch® Super 33+™ Vinyl Electrical Tape over previously applied Scotch® Tape 130C. (Figure 3)

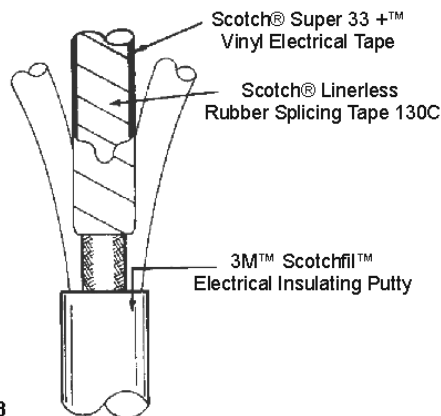


Figure 3

- 2.6 Install terminating device per manufacturer's recommendations.
- 2.7 If void spaces exist at the jacket or armor cut off, fill spaces with pieces of 3M™ Scotchfil™ Electrical Insulating Putty to prevent resin from running down cable with resin poured.

3.0 Install Cable Crotch Seal

- 3.1. THOROUGHLY scuff jacket or armor and end for 7" (180 mm). Clean dust from scuffed area. (Figure 1)
- 3.2. Untwist and open ropes of ground wires to within 2" (50 mm) of cable jacket end to allow for seal.
- 3.3. Scuff ground check wire insulation for a minimum distance of 2½" (64 mm) from cable jacket end.
- 3.4. Position spacer web collar 1½" (37 mm) from edge of cable jacket. (Figure 4)
- 3.5. Wrap spacer web 1 ¼ wraps and cut off. Split the ¼ overlap of spacer web and press into sides to hold in place. (Figure 4)

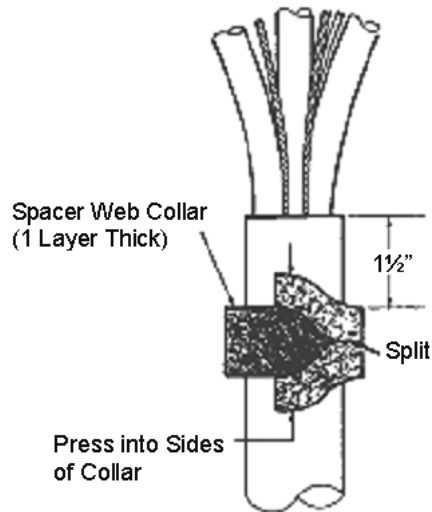


Figure 4

- 3.6. Seal vent slits on outside of mold with Scotch® Super 33+™ Vinyl Electrical Tape.
- 3.7. With cable straight, position mold over spacer web collar, extending 2½" (64 mm) beyond end of cable jacket. (Figure 5)

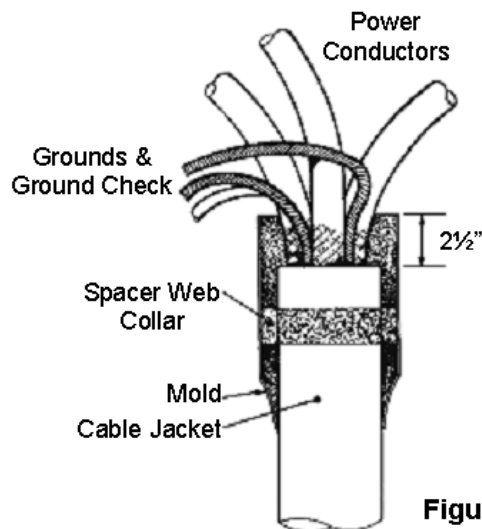


Figure 5

- 3.8. Wrap firmly around, tucking one edge under.

NOTE: Tucked edge must be straight to form a seal.

- 3.9 Position strap support on mold, locating it over the spacer web collar. Secure firmly with mold strap. (Figure 6)

NOTE: At this time, strap support and mold strap may be moved to adjust for a uniform cylindrical shape.

- 3.10 Bundle mold's notched edge evenly around cable, maintaining cable centering. Starting ½" (12 mm) on cable jacket, apply a half-lapped layer to Scotch® Linerless Rubber Splicing Tape 130C over the notches. (Figure 6)

NOTE: Apply Scotch® Tape 130C with tacky side up, with only enough tension to conform to mold.

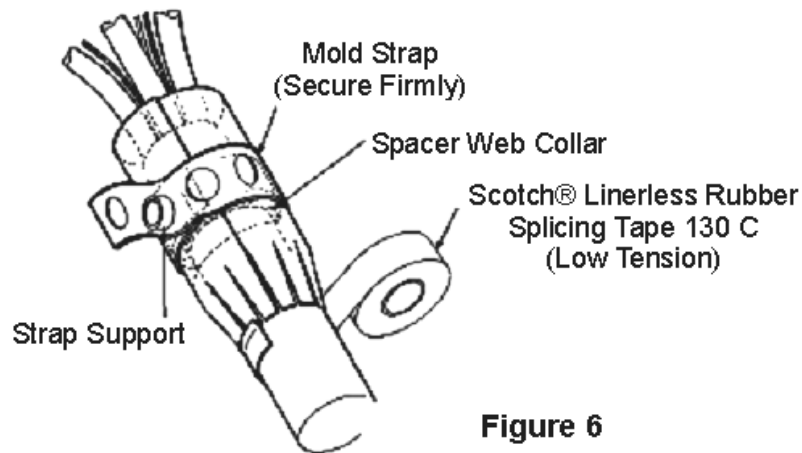


Figure 6

- 3.11 With cable end mounted vertically, arrange individual conductors and ground into final position. Allow a minimum clearance of ¼" (6 mm) from edge of mold body. (Figure 5)

4.0 Pour Compound

- 4.1 Premix BLACK side of 3M™ Scotchcast™ Flame-Retardant Compound 2131 by squeezing to a smooth consistency and uniform color.
- 4.2 Firmly grasp each flat side of the closed mixing pouch near the center barrier; at the same time pull sides of barrier apart and roll sides of thumbs through barrier. Break the barrier all the way across to the side seals. (Figure 7)

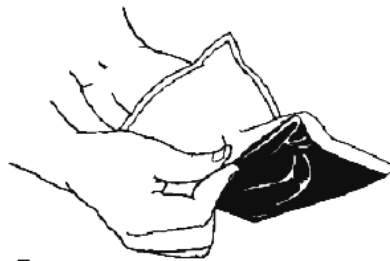


Figure 7

- 4.3 Alternately squeeze ends of pouch forcing compound rapidly back and forth, strip compound from corners of pouch between fingers. Mix until color is completely uniform – 30 to 40 VIGOROUS SQUEEZES. DO NOT EXCEED 1 MINUTE. (Figure 8)

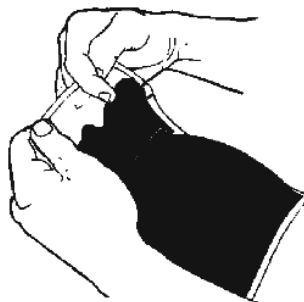


Figure 8

4.4 Clip off a corner of pouch and immediately pour into open top of mold. Fill mold to top edge.

4.5 Allow compound to cure.

NOTE: *Crotch seal may be de-molded when compound is no longer tacky.*

Typical Cure Time: 16 – 24 hrs. @ 70°F (21°C)
24 – 30 hrs. @ 50°F (10°C)
36 hrs. @ 32°F (0°C)

Typical De-mold Time: 1.5 hrs. @ 70°F (21°C)
4 hrs. @ 50°F (10°C)
6 – 8 hrs. @ 32°F (0°C)

NOTE: *Values are typical, not to be considered minimum or maximum. Always confirm based on tack and hardness of compound that resin is sufficiently cured.*

5.0 De-mold

5.1 Remove mold strap and funnel support.

5.2 Remove Scotch® Linerless Rubber Splicing Tape 130C and mold end.

5.2 Remove mold from cable crotch seal.

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