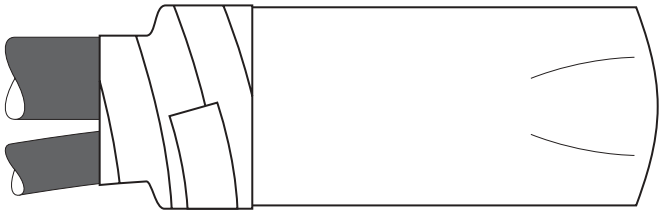
Motor Lead Pigtail Splice
for 1000 volts (or less) cables with one-hole lugs

Instructions

Kit Contents (kit contains 3 splices):

3 Lug Covers
3 Tubes Silicone Grease
3 Mastic Sealing Strips



Kit Selection Table

Kit Number	Cable Size Range AWG (mm^2)		Cable Insulation O.D. Range in. (mm)	Lug Cover* I.D. in. (mm)	Maximum Bolt Length in. (mm)
	Feeder	Motor Lead			
5300	**14 - 10** (2,5 - 4)	**16 -12** (1,5 - 2,5)	**0.12 - 0.21** (3 - 5)	**0.45** (11)	**3/8** (10)
5301	**10 - 4** (6 - 16)	**12 - 4** (4 - 16)	**0.17 - 0.36** (4 - 9)	**0.70** (18)	**1/2** (13)

* Lug cover I.D. - use when calculating kit sizing for a connection of more than two conductors (e.g. 3-way, 4-way, etc. Use of one-hole stacking lugs is recommended.)

Table 1

Technical Information:

For use on Non-Shielded Cables 1000 Volts (or less) with one-hole lugs.

Cable Size Range:

Feeder: 14 AWG-4 AWG
Motor Lead: 16 AWG-4 AWG

Copper Conductors

⚠ CAUTION

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

3M™ Motor Lead Pigtail Splice Kits
for 1000 Volts (or less)
5300, 5301

78-8126-0998-6-A

A. Prepare Cables According to Standard Procedures

1. Check to be sure cable sizes fit within the kit range as shown in Table 1.
2. Remove cable insulation for length recommended by terminal lug manufacturer; if no information is available, remove for depth of lug barrel.

Note: ***If a split bolt connector is used, refer to Table 2 below for maximum split bolt size for each kit.***

Kit No.	Max. Split Bolt Size
5300	10 AWG
5301	8 AWG

Table 2

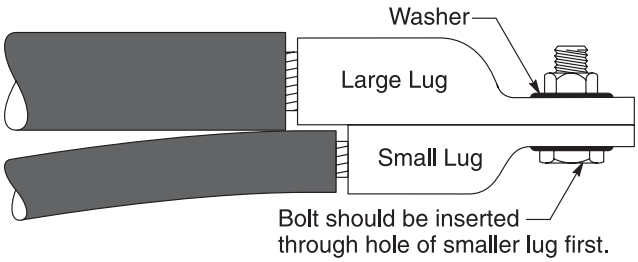


Figure 1

For Jacketed Feeder Cable Only:

If jacketed feeder cable is used, remove an additional 1/4" (6 mm) of jacket, leaving 1/4" (6 mm) of cable insulation exposed (Figure 2).

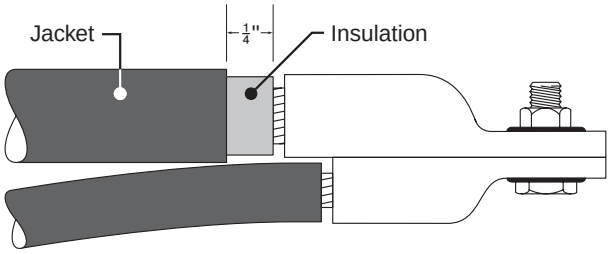


Figure 2

B. Install Lugs

1. Install and crimp lugs per manufacturer's direction. (See back page if 3M lugs are used.)
2. Clean insulation (or jacket as applicable) for approximately 6" (152 mm).
3. Bolt lugs together. See Table 1 for maximum bolt length, and Figure 1 for proper bolt/lug arrangement.

C. Installation

Note: ***If moisture resistance is not required, proceed to Step 4.***

1. To gauge mastic build up in next step, temporarily install lug cover over bolted lugs, leaving 1/2" (13 mm) of lug exposed.
2. Separate the cables and apply mastic strip around insulation and between them at a position just onto insulation (Figure 3). *For jacketed feeder cable, see note below.* Build thickness so the overall diameter is slightly larger than the observed inside diameter of the lug cover. Press cables together and be sure that no void exists between them.

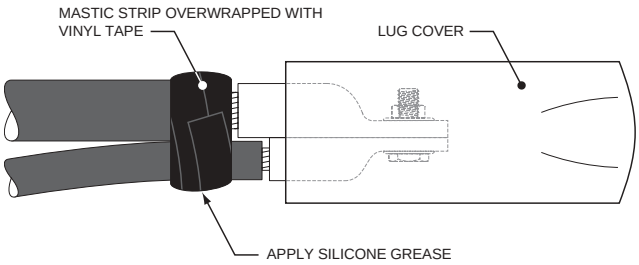


Figure 3

For Jacketed Feeder Cable Only:

For jacketed feeder cable, center mastic strip over cut-back edge of cable jacket, so that it seals onto both the cable jacket and insulation (Figure 4).

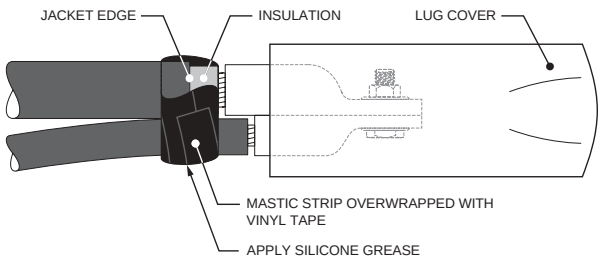


Figure 4

3. Overwrap the mastic with 1 or 2 wraps of vinyl tape.
4. Install lug cover.

Note: ***The kit contains a small tube of silicone grease. Use it to lightly lubricate the mastic-vinyl wrap. This will aid in installing the lug cover (Figure 3 or 4, as applicable).***

5. Overwrap the end of the lug cover and onto the cables with 1 or 2 wraps of vinyl tape (Figure 5).

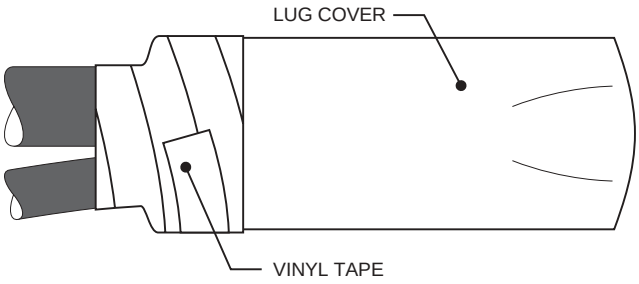
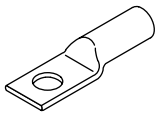


Figure 5

Lug and Crimping Information for Scotchlok™ Copper Lugs

30014 thru 30021
One hole



5.0 Copper Lugs

Cable Size	Stud Size	Scotchlok™ Copper Lug Number	CRIMPING TOOL-DIE SETS (NO. OF CRIMPS)							
			Burndy 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 ¼ 5/16	30014 30015 30016	—	6 AWG(1)	—	U5CRT(1)	Blue(1)	Blue(1)	—	Universal(1)
4	10 ¼ 3/8	30018 30019 30021	W161(1)	4 AWG(1)	A4CR(1)	U4CRT(1)	Grey(1)	Grey(1)	—	Universal(1)

*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.

Appendix A

Splice Removal

1. Remove Vinyl Tape from end of Lug Cover. (Avoid use of knife or other sharp tools that could damage cables.)
2. Slide Lug Cover off of lugged or split-bolt connection.
3. If splice was sealed for moisture resistance: Remove Mastic and Vinyl Tape Seal from cables. (CAUTION: Be careful not to damage cables.)
4. Remove nut and bolt (or split-bolt) to separate the motor lead from the feeder cable(s).

Appendix B

Splice Reusability

1. First inspect the removed Lug Cover for damage or wear. Replace it with a new splice if evidence of damage or wear is found.
2. Obtain material to replace the non-reusable splice components.
3. Re-Install the splice according to the standard kit instructions.

Reusable Component

- Lug Cover

Replacement Components

These are standard 3M products, available from 3M Electrical Products Division.

- Scotch-Seal™ 2230 Mastic Strip (UPC 054007-41813), 5/8" x 6", 40/case
- 3M™ SIL-5cc Silicone Grease (UPC 054007-41814), 5 cc Tube
- Scotch®, Super 33+ Vinyl Electrical Tape (UPC 054007-06132), 3/4" x 66'
- 3M™ Pin-Lug Cover, 2” Lg. (78-8041-7208-4, special order)

3M

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