

# Splices

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3M™ Splice Solutions are designed to help you reduce the time, labor and cost involved in a variety of electrical cable splicing applications. The 3M product line covers splicing needs from 0-600V (1000V) to 46 kV applications, and promote dependable performance, stability and long life with every splice you make.

With 3M, you can choose the right splice to fit your specific needs. 3M incorporates field-proven technologies providing reliable, durable splicing products.

## Cold Shrink Splices

3M cold shrink splicing products are designed using 3M's unique cold shrink delivery system. Products are supplied pre-stretched on a removable core for efficiency and ease of installation. The removable core unwinds after positioning the splice, allowing the product to shrink into position and form a moisture resistant seal. The live-memory action of the specially formulated material ensures a permanent, durable environmental seal and insulation.

All 3M medium voltage (15-46 kV) QS-III kits meet the requirements of IEEE-404, and each splice is factory tested on power cable to ensure long-term reliability and quality. 3M QS-III splices can be used for direct burial applications, as well as in manholes, vaults, cable trays, and junction boxes. All 3M cold shrink products require no special tools, flame or training to install.

## Molded Rubber Splices

3M Molded Rubber QS and QS-II kits are molded from specially formulated, peroxide cured, EPDM rubber to provide a reliable medium voltage inline splice with a life expectancy equal to the cable.

All 3M medium voltage (15-35 kV) QS Series meet the requirements of IEEE-404, and each splice is factory tested.

## PILC Splices

3M cold shrink splice kits for Paper Insulated Lead Covered (PILC) cable use 3M patented oil stop technology. Kits install without soldering or lead wiping. 3M cold shrink PILC splices allow quick installation time without the need of open flame or heat. Single conductor splice kits rated 1000V and 15 kV allow inline splicing of PILC to PILC or PILC to Poly/EPR insulated cable. Three conductor cable splice kits rated 15 kV are designed to transition splice three conductor PILC to three single conductor poly/EPR insulated cables. All splices are jacketed and can be fully submersed. Modular splice kits are available for single conductor PILC equipment connections and tap splicing.

## Resin Splices

3M Resin Splicing Kits are used in a variety of applications where conditions require the unique properties of 3M resins. The splicing kits have a high degree of mechanical strength for physical protection of connections and provide moisture-resistant insulation in above ground or direct burial applications.

## Tape Splices

When you want the versatility of tape, Scotch® Cable Splicing Kits are the answer for almost any application, regardless of cable type or size. Scotch® splicing tape is designed for extra-long shelf life, so there's less chance of being caught without the supplies you need for emergencies. Tape products are available to splice cables from 600V to 69 kV.

## 3M™ SPLICES MEET WORLDWIDE STANDARDS

- ANSI—American National Standards Institute
- UL—Underwriters Laboratories
- JCAA—Japan Power Cable Authority
- IEEE—Institute of Electrical and Electronics Engineer
- CSA—Canadian Standards Association
- VDE—Verband Deutscher Elektrotechniker
- Cenelec—European Standard

# Glossary of Splicing Terms

### Splice

A splice may be considered as two or more conductors joined with a suitable connector—reinsulated, reshielded and rejacketed with compatible materials—applied over a properly prepared surface. A splice may also be referred to as a cable joint.

### High Voltage Cable Types

Of the nearly limitless variety of cables in use today, seven of the most common are:

- Tape shielded (or ribbon shielded)
- Drain wire shielded
- General Cable UniShield® Cable
- Longitudinally Corrugated (LC)
- Concentric Neutral (CN)
- Jacketed Concentric Neutral (JCN)
- Paper Insulated Lead Covered (PILC)

See page 314 for illustrations.

### Insulation

A layer consisting of many different variations such as extruded solid dielectric, or laminar (oil paper or varnish cambric). Its function is to contain the voltage within the cable system. The most common solid dielectric insulations in use today are:

- Cross-Linked Polyethylene (XLP)
- Ethylene Propylene Rubber (EPR)

## CHOOSING THE RIGHT SPLICES

Questions to ask yourself before ordering a splicing product

What Is Voltage Rating?      1 kV \_\_\_ 5 kV \_\_\_ 8 kV \_\_\_ 15 kV \_\_\_ 25/28 kV \_\_\_ 35 kV \_\_\_ 46 kV \_\_\_ Other \_\_\_

What Is Insulation Level?      100% \_\_\_ 133% \_\_\_

What Is Conductor Size?      \_\_\_\_\_ AWG/kcmil

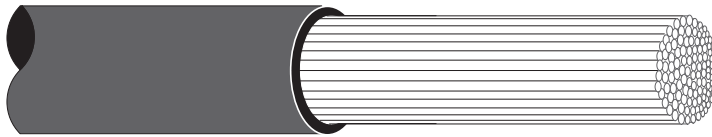
What Type of Metallic Shielding?      (tape, drain wire, UniShield®, LC Shielded, Jacketed Concentric Neutral, other) \_\_\_\_\_  
None \_\_\_\_\_

What Is Conductor Material?      Copper (Cu) \_\_\_\_\_ Aluminum (Al/Cu) \_\_\_\_\_

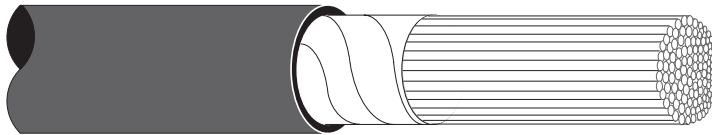
# Cable Types for Splicing



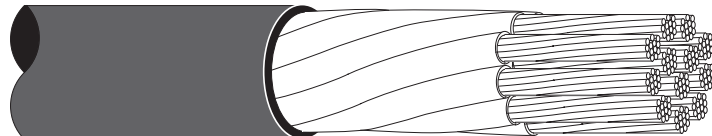
Single Conductor Cable



Multiple Conductor Unshielded Signal and Control Cable



Multiple Conductor Shielded Signal and Control Cable



Multiple Conductor, to 1000 Volt, Cable

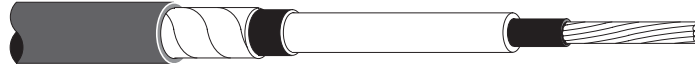


Non Shielded (Dry) Cable

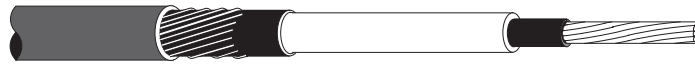


Non Shielded (Wet or Dry) Cable

# Cable Types for Splicing



Tape Shielded Cable



Wire Shielded Cable



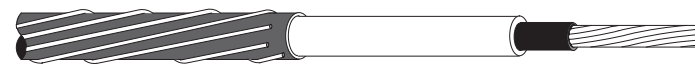
UniShield® Cable



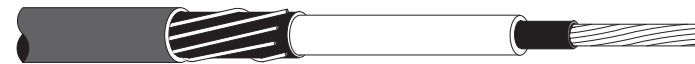
Longitudinally Corrugated (LC) Shielded Cable



EP-Lead or XLP-Lead Cable



Concentric Neutral (CN) Cable

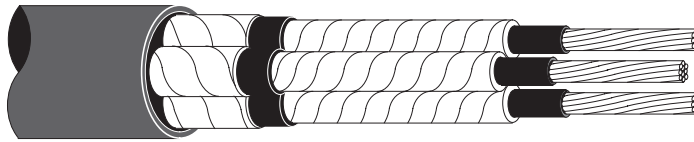


Jacketed Concentric Neutral (JCN) Cable

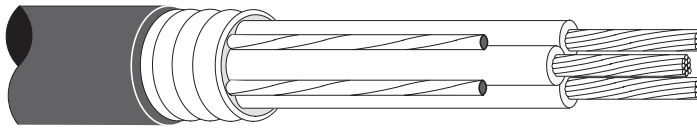


Paper Insulated Lead Covered (PILC) Cable

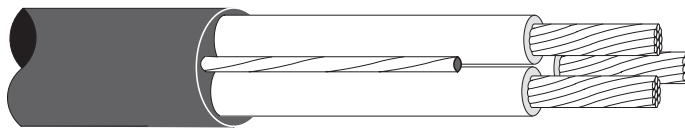
# Cable Types for Splicing



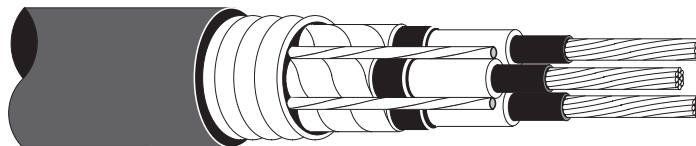
Three-Conductor Paper Insulated Lead Covered (PILC) Cable



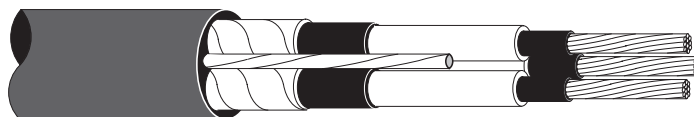
Three-Conductor Armored, Non Shielded Cable



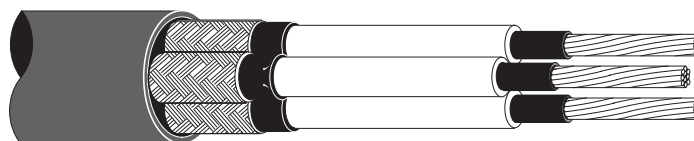
Three-Conductor Non-Armored, Non Shielded Cable



Three-Conductor Armored, Shielded Cable



Three-Conductor Non-Armored, Shielded Cable

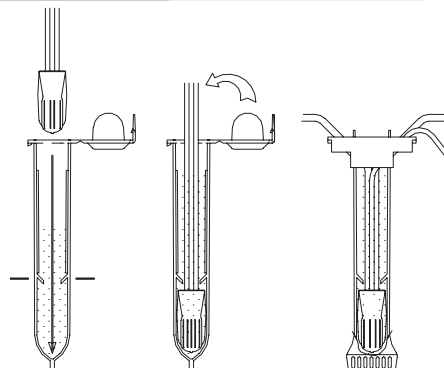


Three-Conductor Portable Cable Type SHD-GC

# Low Voltage Splices 0-600V DBR and DBY Series

## 3M™ Direct Bury Products

These 3M underground electrical wire connectors are designed to splice and effectively moisture-seal two or more conductors for remote-control circuits in irrigation and landscape lighting systems. DBY-6 and DBR-6 are UL Listed and CSA Certified for 600V direct bury and submersion applications. UL File No. E102356 and CSA File No. LR91920. Each kit makes two splices.



## Specification Information for 3M Direct Bury Products

Product Number	Description and Kit Contents	Wire Range (AWG)	Volts	Temperature Range	UL File No. E102356 and CSA File No. LR91920
DBR	(2) Tubes (2) 3M Scotchlok™ R Connectors	5#16 thru 3#10 (5,0 thru 16,0 mm <sup>2</sup> )	30	32°-120°F (0°-49°C)	N/A
DBR-6	(2) Tubes (2) Scotchlok R Connectors	5#16 thru 3#10 (5,0 thru 16,0 mm <sup>2</sup> )	600	32°-120°F (0°-49°C)	CE UL SR
DBY	(2) Tubes (2) Scotchlok Y Connectors	2-5#18 thru 2#12 (2,0 thru 7,5 mm <sup>2</sup> )	30	32°-120°F (0°-49°C)	N/A
DBY-6	(2) Tubes (2) Scotchlok Y Connectors	2-5#18 thru 2#12 (2,0 thru 7,5 mm <sup>2</sup> )	600	32°-120°F (0°-49°C)	CE UL SR
3570-G	Connector sealing pack containing 3M Scotchcast™ epoxy resin	Accommodates 3M 0/B+, R/Y+, Scotchlok Y, R, G, B and 3M 212, 312, 512	600	32°-220°F (0°-105°C)	N/A

## 3M™ Direct Bury Low Voltage Splices DBR and DBY Selection

Product Number	UPC (054007-)	Inner Unit Pack	Case Qty.
DBR	09964	Kit- 2 Tubes and 2 Scotchlok R Connectors	25 kits
	49696	100 tubes and 100 connectors	100 each
DBR-6	69756	Kit- 2 Tubes and 2 Scotchlok R Connectors	25 kits
	49697	100 tubes and 100 connectors	100 each
DBY	09053	Kit- 2 Tubes and 2 Scotchlok Y Connectors	25 kits
	49698	100 tubes and 100 connectors	100 each
DBY-6	69757	Kit- 2 Tubes and 2 Scotchlok Y Connectors	25 kits
	49699	100 tubes and 100 connectors	100 each
3570-G	53241*	10/box	100 each

\*UPC Prefix 051128-

# Low Voltage Splices 0-600V (1000V rated) Cold Shrink Splices (0-1000V)

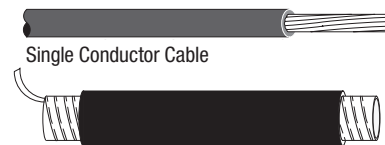
## 3M™ Splice Kits 8420 and 8430 Series

Cold shrink splicing products are designed using 3M's unique cold shrink delivery system. Products are supplied prestretched on a removable core for efficiency and ease of installation. Removal of the core (unwinding) after positioning the splice allows the product to shrink into position forming a moisture-tight seal. The live memory action of the specially formulated material promotes a permanent, durable environmental seal and insulation.

The 8420 meets requirements of ANSI C119-1 and Western Underground Guide 2.14 for secondary splices rated up to 1 kV.

## 3M™ Cold Shrink Silicone Insulators 8440 Series

3M Cold Shrink Silicone Insulators 8440 Series are insulating sleeves made from a specially formulated high-temperature silicone rubber with an operating temperature range from -67°F (-55°C) to 500°F (260°C).



## 3M™ Low Voltage Splices 8420 and 8430 Series Selection (0-600V)

Product Series	UPC (054007-)	Typical Conductor Size	Minimum Cable Diameter for Seal	Maximum** Diameter Insulator Covers	Maximum Connector Length	Relaxed Tube Length	Inner Unit Pack	Case Qty.
Single Conductor Cable See above for cable type illustration.								
8423-6	42146	6-4 AWG (14-16 mm <sup>2</sup> )	0.31" (7,8 mm)	0.56" (4,3 mm)	2" (51 mm)	6" (152 mm)	1/bag	10
8424-8*	42390	10-1/0 AWG (6-16 mm <sup>2</sup> )	0.10" (2,5 mm)	0.82" (20,9 mm)	3" (76 mm)	8" (203 mm)	1/bag	10
8425-8	42391	2-1/0 AWG (35-50 mm <sup>2</sup> )	0.40" (10,1 mm)	0.82" (20,9 mm)	3" (76 mm)	8" (203 mm)	1/bag	10
8426-9	34457	2/0 AWG-250 kcmil (70-125 mm <sup>2</sup> )	0.55" (13,9 mm)	1.18" (30,1 mm)	5" (127 mm)	9" (229 mm)	1/bag	10
8426-9M***	43436	2-4/0 AWG (30-90 mm <sup>2</sup> )	0.40" (10,1 mm)	1.18" (30,1 mm)	5" (127 mm)	9" (229 mm)	1/bag	10
8426-11	34458	2/0 AWG-250 kcmil (70-125 mm <sup>2</sup> )	0.55" (13,9 mm)	1.18" (30,1 mm)	7" (178 mm)	11" (279 mm)	1/bag	10
8427-6†	09915	—	0.69" (17,5 mm)	1.38" (35,1 mm)	2" (51 mm)	6" (152 mm)	1/bag	10
8427-12	34459	250-400 kcmil (125-200 mm <sup>2</sup> )	0.69" (17,5 mm)	1.38" (35,1 mm)	8" (203 mm)	12" (305 mm)	1/bag	10
8427-16	34460	250-400 kcmil (125-200 mm <sup>2</sup> )	0.69" (17,5 mm)	1.38" (35,1 mm)	12" (305 mm)	16" (406 mm)	1/bag	10
8428-6†	09916	—	0.95" (24,1 mm)	1.94" (49,2 mm)	2" (51 mm)	6" (152 mm)	1/bag	10
8428-12	09056	500-800 kcmil (300-400 mm <sup>2</sup> )	0.95" (24,1 mm)	1.94" (49,2 mm)	8" (203 mm)	12" (305 mm)	1/bag	10
8428-18	34461	500-800 kcmil (300-400 mm <sup>2</sup> )	0.95" (24,1 mm)	1.94" (49,2 mm)	14" (356 mm)	18" (457 mm)	1/bag	10
8429-6†	09917	—	1.27" (32,2 mm)	2.67" (67,8 mm)	2" (51 mm)	6" (152 mm)	1/bag	10
8429-9	09931	900-1000 kcmil (500 mm <sup>2</sup> )	1.27" (32,2 mm)	2.67" (67,8 mm)	5" (127 mm)	9" (229 mm)	1/bag	10
8429-12	42389	900-1000 kcmil (500 mm <sup>2</sup> )	1.27" (32,2 mm)	2.67" (67,8 mm)	8" (203 mm)	12" (305 mm)	1/bag	10
8429-15	44198	900-1000 kcmil (500 mm <sup>2</sup> )	1.27" (32,2 mm)	2.67" (67,8 mm)	11" (279 mm)	15" (381 mm)	1/bag	10
8429-18	34462	900-1000 kcmil (500 mm <sup>2</sup> )	1.27" (32,2 mm)	2.67" (67,8 mm)	14" (356 mm)	18" (457 mm)	1/bag	10
8430-9	42147	1250-2000 kcmil	1.68" (42,6 mm)	3.69" (93,7 mm)	5" (127 mm)	9" (229 mm)	1/bag	10
8430-18	42388	1250-2000 kcmil	1.68" (42,6 mm)	3.69" (93,7 mm)	14" (356 mm)	18" (457 mm)	1/bag	10

\*Kit contains adapters. \*\*Cable or connector diameter. \*\*\*Mastic pads included for cable O.D. build-up.

† These sizes are listed for availability only and are not designed to be used as primary insulation. These tubes are for conduit sealing and breakouts. Important: Use insulation jacket or connector O.D. for final ordering criteria. Note: Additional sizes are available, consult your 3M sales representative.



## 3M™ Low Voltage Splices 8440 Series Selection (0-600V)

Product Series	UPC (054007-)	Typical Conductor Size	Minimum Cable Diameter for Seal	Maximum* Diameter Insulator Covers	Relaxed Tube Length	Inner Unit Pack	Case Qty.
Single Conductor Cable See page 314 for cable type illustration.							
8443-2	09485	6-2 AWG (14-30 mm <sup>2</sup> )	0.27" (7 mm)	0.56" (14 mm)	2.0" (51 mm)	1/bag	12
8443-6.5	09482	6-2 AWG (14-30 mm <sup>2</sup> )	0.27" (7 mm)	0.56" (14 mm)	6.5" (165 mm)	1/bag	12
8445-2.5	09486	2-1/0 AWG (35-50 mm <sup>2</sup> )	0.35" (9 mm)	0.72" (18 mm)	2.5" (64 mm)	1/bag	12
8445-7.5	09483	2-1/0 AWG (35-50 mm <sup>2</sup> )	0.35" (9 mm)	0.72" (18 mm)	7.5" (191 mm)	1/bag	12
8447-3.2	09487	1/0-3/0 AWG (60-80 mm <sup>2</sup> )	0.48" (12 mm)	0.95" (24 mm)	3.2" (81 mm)	1/bag	12
8447-8	09484	1/0-3/0 AWG (60-80 mm <sup>2</sup> )	0.48" (12 mm)	0.95" (24 mm)	8.0" (203 mm)	1/bag	12

\*Cable or connector diameter.  
Note: Additional sizes are available, consult your 3M sales representative.

## PRODUCT REFERRAL GENERATOR

Cold Shrink End Caps..... pg. 401

### 3M™ Cold Shrink Low Voltage Connector Insulator QSLV-M Series

The 3M Cold Shrink Connector Insulator QSLV-M Series provides quick, consistent installation and impact resistance for direct bury secondary low-voltage applications. The unique 3-core design and factory-installed ring of sealing mastic inside each end of the tube protects the connection and increases the range-taking capability of the QSLV-M insulator.



The QSLV-M insulator meets requirements for ANSI C119.1.

### 3M Cold Shrink Low Voltage Connector Insulator QSLV-M Series Selection

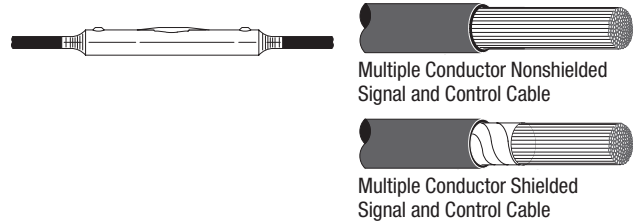
Product Series	UPC 051128-	Cable Size Range		Cable Insulation O.D. Range in. (mm)	Max. Connector O.D. in. (mm)	Max. Connector Length in. (mm)
		Aluminum	Copper			
QSLV-M 8-2/0	57268	8-2/0	8-3/0	0.20-0.75" (5-19 mm)	0.687" (17 mm)	2.5" (63 mm)
QSLV-M 2-500	57269	2-500	2-1000	0.40-1.60" (10-41 mm)	1.500" (38 mm)	4.25" (108 mm)

# 3M™ Resin Signal and Control Cable Splices 0-600V (1000V rated)

## 3M™ Scotchcast™ Inline Splice Kits 72-N Series

3M Scotchcast Kits 72-N Series splice shielded or nonshielded plastic- and rubber-jacketed, signal and control cables rated up to 1 kV.

**Connectors are not included, order separately.** See page 108-110 in the “Insulated Butt Connectors” section for connector ordering information. Each kit makes one splice.



## 3M™ Scotchcast™ 72-N Series Selection (Based on Cable O.D. Size)

Product Series	UPC (054007-)	Molded Body Length	Cable O.D. Range	Inner Pack	Case Qty.
Multiple Conductor Nonshielded Signal and Control Cable, Multiple Conductor Shielded Signal and Control Cable See above for cable type illustrations.					
72-N1*	10623	7-1/8" (18,1 cm)	0.25-0.625" (6-16 mm)	1	10
72-N2	10625	10-7/16" (26,8 cm)	0.500-1.00" (13-25 mm)	1	10
72-N3	10627	15-7/16" (39,2 cm)	0.625-1.50" (16-38 mm)	1	10
72-N4	10629	15-5/8" (39,7 cm)	1.00-2.00" (25-51 mm)	—	1
72-N5	10631	20-5/16" (51,6 cm)	1.25-2.25" (32-57 mm)	—	1
72-N6	10633	25" (63,5 cm)	1.25-3.25" (32-83 mm)	—	1

\* Nonshielded cable only.

## 3M Scotchcast 72-N Series Selection (Based on Conductor/Connector Bundle)

Kit No.	Scotchlok™ Insulated Butt Connectors											
	MV18BC 22-18 AWG				MV14BC 16-14 AWG				MV10BC 12-10 AWG			
	Shielded Cables**		Unshielded Cables**		Shielded Cables**		Unshielded Cables**		Shielded Cables**		Unshielded Cables**	
No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs	
72-N1*	—	—	6	3	—	—	4	2	—	—	3	—
72-N2	18	9	32	16	12	6	19	9	8	4	13	6
72-N3	42	21	75	37	24	12	45	22	14	7	27	13
72-N4	74	37	160	80	50	25	90	45	40	20	60	30
72-N5	140	70	200	100	120	60	160	80	100	50	100	50
72-N6	360	180	400	200	220	110	250	125	180	90	200	100

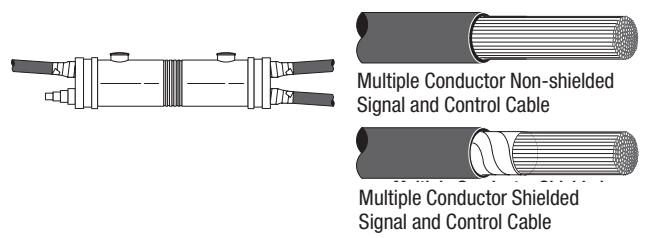
\*Nonshielded cable only.

\*\*Figures based on IMSA cable specifications.

# 3M™ Resin Signal and Control Cable Splices 0-600V (1000V rated)

## 3M™ Scotchcast™ Reenterable Inline and Tap Splice Kits 78-R Series

3M Scotchcast 78-R Series Kits make inline or tap splices on shielded or nonshielded, plastic- and rubber-jacketed, signal and control cable rated up to 1 kV. **Connectors are not included, order separately.** Refer to the “Terminals, IDCs and Wire Connectors” section for ordering information. Each kit makes one splice.



## 3M™ Scotchcast™ 78-R Series Splice Selection

Product Series	UPC (051128-)	Kit Size		Cable O.D. Range		Case Qty.
		I.D. x L	Run	Tap		
Multiple Conductor Nonshielded Signal and Control Cable, Multiple Conductor Shielded Signal and Control Cable See above for cable type illustrations.						
78-R1	55115	2 x 12" (5,1 x 30,5 cm)	0.25-1.00" (6-25 mm)	0.25-1.00" (6-25 mm)	1	
78-R2	55116	2 x 24" (5,1 x 61,0 cm)	0.25-1.00" (6-25 mm)	0.25-1.00" (6-25 mm)	1	
78-R3	55117	3 x 24" (7,6 x 61,0 cm)	0.50-1.50" (13-38 mm)	0.50-1.00" (13-25 mm)	1	
78-R4	55118	4 x 24" (10,2 x 61,0 cm)	0.50-2.00" (13-51 mm)	0.50-1.75" (13-44 mm)	1	
78-R5	55119	5 x 26" (12,7 x 66,0 cm)	1.00-2.50" (25-64 mm)	1.00-2.50" (25-64 mm)	1	

## 3M™ Scotchcast™ 78-R Series Connector Selection

Scotchlok™ Connectors																		
Kit No.	Insulated Butt Connectors						Pigtail Connectors						Tap Connectors					
	MV18BC 22-18 AWG		MV14BC 16-14 AWG		MV10BC 12-10 AWG		"Y" 18-12 AWG		"R" 14-10 AWG		557 22-18 AWG		558 22-18 AWG		560 18-14 AWG		562 12-10 AWG	
	No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs	No Cond.	No Pairs
78-R1	40	20	26	13	16	8	8	4	5	2	15	7	10	5	8	4	6	3
78-R2	66	33	45	22	26	13	20	10	10	5	30	15	20	10	16	8	12	6
78-R3	160	80	110	55	70	35	50	25	28	14	80	40	50	25	40	20	36	18
78-R4	300	150	180	90	110	55	84	42	60	30	142	71	100	50	80	40	68	34
78-R5	550	275	320	160	200	100	174	87	120	60	260	130	200	100	160	80	130	65

Note: Above figures based on IMSA cable specifications.

## Components for Use After Re-entering

Product Number	Product Description	UPC 051128-	Case Qty.
7820	Spacer Web, two 3" x 20' rolls/box (76 mm x 6,1m)	02415*	1
2123-C	Scotchcast Reenterable Compound Size C 12.3 oz. (350g), 23.7 cu. in. (338,3 cu. cm.)	55120	10
2123-D	Scotchcast Reenterable Compound Size D 21.2 oz. (600g), 40.6 cu. in. (665,3 cu. cm.)	55121	10

\*UPC prefix 054007-

Strengthens  
connections  
and cuts  
costs



# 3M™ Resin Splices 0-600V (1000V rated)

## 3M™ Scotchcast™ Multi-Mold Resin Splice Kit 85-14CP-Cathodic Protection

The 3M Scotchcast Multi-Mold Resin Splice Kit 85-14CP is rated for cables up to 1 kV to insulate odd-shaped and odd-sized splices. The 85-14CP is specifically designed for use in cathodic protection with a rigid epoxy resin, 3M™ Scotchcast 4. Each kit makes one splice.



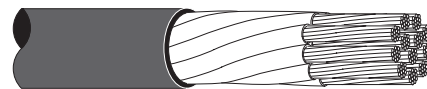
Single Conductor Cable

## 3M™ Scotchcast™ Multi-Mold Resin Splice Kit 85 Series

The 3M Scotchcast Multi-Mold Resin Splice Kit 85 Series are used to electrically insulate odd-sized and odd-shaped splices on cables rated through 1 kV. These flexible plastic molds are easily formed around splices. Within 30 minutes after the resin has been poured, the splice is ready for service—above ground or buried. Each kit makes one splice.



Single Conductor Cable

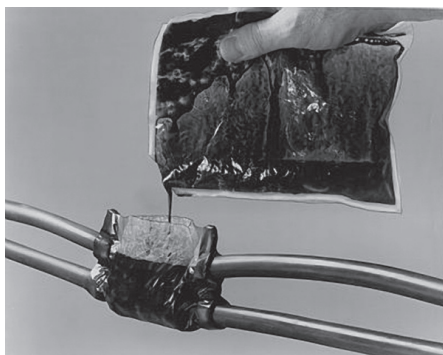


Multiple Conductor Cable

## 3M™ Scotchcast™ 85 Series Selection

Product Series	UPC (054007-)	Maximum Conductor Size Split Bolt	Compression, H or C tap	Inner Pack	Case Qty.
Single Conductor Cable See above for cable type illustrations.					
85-14CP	31927	2/0 AWG stranded	4/0 AWG stranded	1/box	10
Single Conductor Cable, Multiple Conductor, to 1000 Volt, Cable See above for cable type illustrations.					
85-10	11846	8 AWG stranded	4 AWG stranded	1/box	10
85-12	11847	1 AWG stranded	2/0 AWG stranded	1/box	10
85-14	11848	2/0 AWG stranded	4/0 AWG stranded	1/box	10
85-16	02403	750 kcmil stranded* 250 kcmil (run) 2/0 AWG stranded (tap)	500 kcmil (run) 4/0 AWG stranded (tap)	1/box	10

\*Inline compression connector.



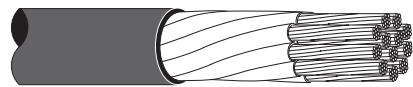
# 3M™ Resin Splices 0-600V (1000V Rated)

## 3M™ Scotchcast™ Wye Resin Splice Kit 90-B1

3M Scotchcast Wye Resin Splice Kit 90-B1 is designed to insulate and moisture-seal wye splices made with the split-bolt type connectors on cables rated through 1 kV. Each kit makes one splice.



Single Conductor Cable



Multiple Conductor Cable



## 3M™ Scotchcast™ Splice 90-B1 Selection

Product Series	UPC (054007-)	Cable O.D. Range		Maximum Connector		Inner Pack	Case Qty.
		Run	Tap	Split Bolt	Crimped		
Single Conductor Cable, Multiple Conductor, to 1000 Volt, Cable See above for cable type illustrations.							
90-B1	25115	0.500-0.812" (13-21 mm)	0.375" max. (10 mm)	1/0 AWG	2/0 AWG	1/box	10

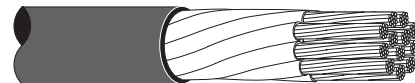
## 3M™ Scotchcast™ Flexible Power Cable Tap Splice Kit 82-BF1

3M Scotchcast Flexible Power Cable Tap Splice Kit 82-BF1 is for use on unshielded portable power cables and cords. 82-BF1 can be used on single conductor or multiple conductor cables using a compression “C” tap connector. 3M molds 82-BF1 are removable and reusable. The 82-BF1 is a permanent splice as assigned by the Mine Safety and

Health Administration (P-142-5 MSHA). **Connectors are not included, order separately.** See page 147 in the “Lugs & Connectors” section for ordering information. Each kit makes one splice.



Single Conductor Cable



Multiple Conductor Cable

## 3M™ Scotchcast™ Tap Splice Kit 82-BF1 Selection

Product Series	UPC (054007-)	Conductor Size	Cable O.D. Range	Inner Pack	Case Qty.
Single Conductor Cable, Multiple Conductor, to 1000 Volt, Cable See above for cable type illustrations.					
82-BF1	08309	Up to 1/0 AWG (50 mm <sup>2</sup> )	0.25-0.80" (6,4-20,3 mm)	1/box	10

# Resin



## 3M™ Scotchcast™ Electrical Insulating Resin 4

3M Scotchcast Electrical Insulating Resin 4 is a two-part epoxy insulating and encapsulating resin packaged in five sizes. Use 3M Scotchcast Resin 4 to splice solid dielectric and oil-filled cables up to 8 kV. Flash point: 300°F (149°C) or higher.



## 3M™ Scotchcast™ Electrical Insulating and Sealing Compound 2104

3M Scotchcast Electrical Insulating and Sealing Compound 2104 is a two-part, low-viscosity polyurethane for permanent splice protection. This resin is included in the multi-mold splicing kits.



## 3M™ Scotchcast™ Reenterable Electrical Insulating and Sealing Compound 2123

Shield electrical connections against water damage with 3M Scotchcast Reenterable Electrical Insulating and Sealing Compound 2123, the most effective moisture protection available. Unique mix-in-the-bag preparation of this polybutadiene resin makes the resin easy to prepare and apply. The visible, re-enterable moisture seal is a

reliable barrier against the constant exposure to water in certain applications. Often used for potting flush mounted junction boxes.



## 3M™ Scotchcast™ Flame Retardant Compound 2130

3M Scotchcast Flame Retardant Compound 2130 is a flexible, permanent, urethane resin used for jacket repair or splicing portable cables. It is flame retardant.



## 3M™ Scotchcast™ Wet-Niche Potting Compound 2135

3M Scotchcast Wet-Niche Potting Compound 2135 is the first “listed” product that meets NEC requirements to allow the use of rigid nonmetallic conduit in the installation of wet-niche underwater lighting fixtures. 2135 provides protection against corrosion and possible deteriorating effects of pool water by reliably encapsulating the 8 AWG ground connection in a wet-niche shell. The wet-niche forming shell is a corrosion-resistant metal housing for underwater fixtures in permanently installed pools. **Article 680-20(b)(1) National Electrical Code. UL Listed 2L02.**

Scotchcast 2135 potting compound is packaged in an easy-mix 1.8-oz. Unipak container. This thixotropic resin will not sag or drip. The encapsulated connection gels in minutes and can be submerged within four hours. Each kit contains enough material to complete one fixture.

# Specifications and Ordering Information for 3M™ Scotchcast™ Resins

Product Number	UPC (054007-)	Size/Type of Package	Inner Unit Pack	Case Qty.
<b>3M Scotchcast Electrical Insulating Resin 4</b>				
4-A	43165	A/3.2 oz. (90 g), 4.8 cu. in. (78,6 cu. cm)	–	10 cont.
4-B	43166	B/7.4 oz. (209 g), 11.2 cu. in. (183,5 cu. cm)	–	10 cont.
4-C	43167	C/14.7 oz. (418 g), 22.3 cu. in. (365,4 cu. cm)	–	10 cont.
4-D	04206	D/22.2 oz. (630 g), 33.6 cu. in. (550,6 cu. cm)	–	10 cont.
4-E	04207	E/10.4 oz. (294 g), 15.7 cu. in. (257,2 cu. cm)	–	10 cont.
<b>3M Scotchcast Electrical Insulating and Sealing Compound 2104</b>				
2104-A	31189	A/3.46 oz. (98 g), 5.7 cu. in. (93,4 cu. cm)	–	10 each
2104-B	31382	B/7.4 oz. (210 g), 12.6 cu. in. (206,4 cu. cm)	–	10 cont.
2104-C	31383	C/14.82 oz. (420 g), 25.4 cu. in. (416,2 cu. cm)	–	10 cont.
2104-D	11849	D/23.8 oz. (675 g), 40.8 cu. in. (668,5 cu. cm)	–	10 each
<b>3M Scotchcast Reenterable Electrical Insulating and Sealing Compound 2123</b>				
2123-C	55120*	C/12.3 oz. (350 g), 23.7 cu. in. (338,3 cu. cm)	1/box	10 each
2123-D	55121*	D/21.2 oz. (600 g), 40.6 cu. in. (665,3 cu. cm)	1/box	10 each
<b>3M Scotchcast Flame Retardant Compound 2130</b>				
2130-B	31401	B/7.6 oz. (216 g), 10.7 cu. in. (175,3 cu. cm)	1/box	10 each
2130-C	31402	C/21.7 oz. (616 g), 30.5 cu. in. (499,8 cu. cm)	1/box	10 each
2130 Part A	50237	A/5 gal. (18,93 L)	–	1 pail
2130 Part B	50238	B/5 gal. (18,93 L)	–	1 pail
<b>3M Scotchcast Wet-Niche Potting Compound 2135</b>				
2135	69798	F/1.83 oz. (52,5 g), 3.3 cu. in. (54,0 cu. cm)	1/box	10 each
<b>3M Scotchcast Cable Repair Compound 2135M</b>				
2135M	50433	F/6.9 oz. (195 g), 12.25 cu. in. (31,12 cu. cm)	–	10 each
*UPC prefix 051128-				



# 5/8 kV, 15 kV and 25 kV Resin Pressure System

The 3M™ Resin Pressure System is comprised of several components used for constructing splices or splice jackets on medium voltage power cables for harsh environments. 3M™ Scotchcast™ Electrical Insulating Resin 4 is a key component of the system, which can be used as the primary insulation for shielded and non-shielded splices rated up to 8 kV. The system is also available as a resin-jacketed tape-

splice (TapeCast™) rated up to 25 kV. The resin is a two-part epoxy, packaged in a special Unipak container that provides the exact mixing ratio for making a strong, dependable and long-lasting splice or splice jacket. The versatile resin system accommodates a variety of splice configurations and cables.

## 3M™ Resin™ Pressure System Components

Voltage Class	Number of Conductors	Shielding	Insulation Material	Splice Configuration
5 and 8 kV	1/C, multi/C and transitions from multi-to single conductor	Non-shielded, Tape Shielded, Wire Shielded, UniShield®, LC, CN and JCN	Solid Dielectric (EPR, XLPE, etc.), PILC and transitions from PILC to Solid Dielectric	Inline, Wye and Tee Resin Splice
15 kV	1/C, multi/C and transitions from multi-to single conductor	Tape Shielded, Wire Shielded, UniShield®, LC, CN and JCN	Solid Dielectric (EPR, XLPE, etc.), PILC and transitions from PILC to Solid Dielectric	Inline and Tee TapeCast™ Splice
25 kV	1/C, multi/C and transitions from multi-to single conductor	Tape Shielded, Wire Shielded, UniShield®, LC, CN and JCN	Solid Dielectric (EPR, XLPE, etc.), PILC and transitions from PILC to Solid Dielectric	Inline and Tee TapeCast™ Splice

These Resin and 3M™ TapeCast Splices will also work on sector shaped conductors.

A resin pressure system splice is suitable for submerged locations (e.g., manholes and vaults), underground direct burial, and aerial applications. Detailed instructions containing bill-of-materials are available by contacting the 3M Electrical Products Division's Energy Helpline

at (512) 984-5000. All parts are ordered separately. See "Insulating and Splicing Tapes," "Cable Accessory Products" and "Cable Accessory Products—Preparation and Cleaning" for ordering information on other parts for TapeCast Systems. Contact your local 3M representative for further details.

## 3M Resin Pressure System Components

Product	UPC (054007-)	Description	Case Qty.
4-B	43166	Scotchcast Electrical Insulating Resin 4 (7.4 oz./209 gm)	10
4-C	43167	Scotchcast Electrical Insulating Resin 4 (14.7 oz./418 gm)	10
E-4	25701	Scotchcast Resin-Pressure Gun (reusable tool)	1
P-1B*	11857	Scotchcast Injection Fitting	5
P-5B*	11858	Scotchcast Nozzle	5
P-3	25735	Scotchcast Spacer Tape	50
P-4	25743	Scotchcast Restricting Tape	50

\* Ordered by the box; each box contains 10 fittings or nozzles

# Heat Shrink Splices 0-600V

## 3M™ Splice Kit UF



3M Splice Kit UF is designed to provide a reliable, moisture proof electrical connection for Type U.F.-B underground feeder cable rated for 600 volts ranging from #14/3 without ground wire up to #8/3 with ground wire.

The 3M Splice Kit UF consists of a connector-insulation assembly and a heat shrink tube. The connector assembly contains four cylindrical set screw connectors separated by a piece of vinyl insulation. The heat shrink tube is a heavy-wall, adhesive-lined tube.

Underground Feeder (UF)-B cables are flat, and typically have three solid conductors without ground or two solid conductors with a ground. They range in size from 8 AWG to 14 AWG. The most common UF cable size is 10-14 AWG.

The 3M UF Splice Kit is offered in two versions: UF1 Standard Kit includes a 1.8" length terminal connector and an 8" length of heavy-wall, adhesive-lined heat shrink tube. UF2 Stretcher Kit has an 11.7" terminal connector and a 20" length of heavy-wall, adhesive-lined heat shrink tube.

The Standard Kit is used in most of the applications. The Stretcher Kit is used in situations where a 7-10" section of the cable has been damaged or destroyed. It eliminates two connectors and a short piece of cable during repair.

## Ordering Information for 3M UF Splice Kits

Product Number	UPC (054007-)	Description	Inner Unit Pack	Case Qty.
UF1	42920	UF Splice Kit-Standard 1.8" connector/8" heat shrink tube	—	6 kits/cs.
UF2	42921	UF Splice Kit-Stretcher 11.7" connector/ 20" heat shrink tube	—	6 kits/cs.

## Ordering Information for 600V Inline Splice Kits, for Flat Cable USEB90

Product Number	UPC (051141-)	Description	Case Qty.
USEB90-2	03449	Conductor Size #2 AWG	5 kits/cs.
USEB90-1/0	03448	Conductor Size 1/0 AWG	5 kits/cs.
USEB90-2/0	03450	Conductor Size 2/0 AWG	5 kits/cs.
USEB90-4/0	03451	Conductor Size 4/0 AWG	5 kits/cs.
9CK-FCM-1 • uses Scotchcast Resin	64031*	Conductor Size 1/0-4/0 AWG Mould length 14" (355 mm) Cable Type USEB-90	1 kit/cs.
9CK-FCM-2 • uses Scotchcast Resin	64032*	Conductor Size #2-1/0 AWG Mould length 10.25" (260 mm) Cable Type USEB-90	1 kit/cs.

\* UPC prefix 054007-  
For USEB90, these products are only available in Canada.

# 3M™ Airport Lighting Connector Sealing Kit IAL-3

3M Airport Lighting Connector Sealing Kit IAL-3 is designed especially to meet the high demands on airport lighting connections. It meets specifications for sealing FAA Specification L-823 connectors. Each kit includes a 16-inch heat shrinkable sleeve, cleaning pad and instructions.

## Specification and Ordering Information for 3M Airport Lighting Connector Sealing Kit IAL-3

Product Number	UPC (054007-)	Expanded/Recovered I.D.	Inner Unit Pack	Case Qty.
IAL-3	08862	1.38/0.38" (34/10 mm)	1/bag	30

# 1 kV to 5 kV Non-Shielded Resin Splices

## 3M™ Scotchcast™ Inline Resin Splice Kit 82-A Series



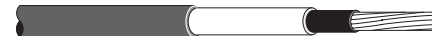
Use the 3M Scotchcast Inline Resin Kit 82-A Series to insulate and seal single conductor, unshielded cable splices through 5 kV and multiple conductor cables through 1 kV.

The 82-A series is UL Listed 486D,

File Number E102356. Connector is not included, order separately. Each kit makes one splice.



Nonshielded Dry Cable



Nonshielded Wet or Dry Cable



Single Conductor Portable Cable



Multiple Conductor Portable Cable

## 3M Scotchcast Inline Resin Kit 82-A Series Selection

Product Series	UPC (054007-)	Maximum Cable O.D.	Maximum Connector O.D.	Conductor Size*	Inner Pack	Case Qty.
Non-Shielded Dry Cable, 5 kV, Nonshielded Wet or Dry Cable, 5 kV, Single Conductor Cable to 1000 Volt, Multiple Conductor, to 1000 Volt, Cable See above for cable type illustrations.						
82-A	25016	0.750" (19 mm)	0.406" (10 mm)	10-2 AWG (6-30 mm <sup>2</sup> )	1/box	10
82-A1	25024	0.625" (16 mm)	0.406" (10 mm)	Up to 2 AWG (30 mm <sup>2</sup> )	1/box	10
82-A2	25032	1.000" (25 mm)	0.625" (16 mm)	2-3/0 AWG (35-80 mm <sup>2</sup> )	1/box	10
82-A3	25040	1.563" (40 mm)	1.000" (25 mm)	3/0-400 kcmil** (95-200 mm <sup>2</sup> )	1/box	10

\* Important: Use insulation jacket or connector O.D. for final ordering criteria.

\*\* 500 kcmil when using a Scotchlok 10014 copper compression connector.

## 3M™ Scotchcast™ Wye Resin Splice Kit 82-B1

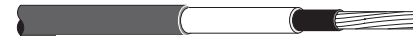


3M Scotchcast Wye Resin Splice Kit 82-B1 is designed to insulate and seal wye splices for compression tap connectors (e.g., C-tap or H-tap) rated for cables up to 5 kV.

Use on nonshielded cables through 5 kV and on multiple conductor cables through 1 kV. Each kit makes one splice.



Nonshielded Dry Cable



Nonshielded Wet or Dry Cable



Single Conductor Portable Cable



Multiple Conductor Portable Cable

## 3M Scotchcast Wye Resin Splice Kit 82-B1 Selection

Product Series	UPC (054007-)	Voltage Rating	Maximum Connector		Cable O.D.	Inner Pack	Case Qty.
			Split Bolt	Crimped			
Non-Shielded Dry Cable, Nonshielded Wet or Dry Cable, Single Conductor Cable, Multiple Conductor to 1000 Volt Cable. See above for cable type illustrations.							
82-B1	25057	5 kV Single Conductor 1 kV Multiple Conductor	4 AWG	2 AWG	0.250-0.625" (6-16 mm)	1/box	10

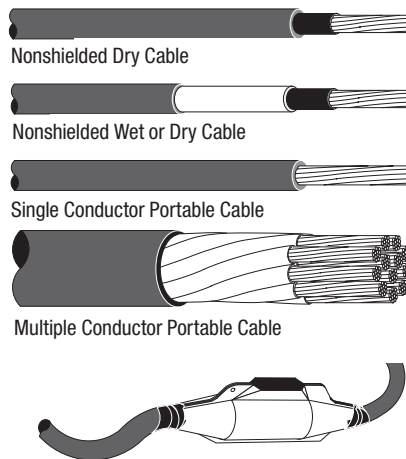
# 1/C, 5 kV, Non-Shielded Resin Splices & Multi/C, 1kV, Non-Shielded Resin Splices

## 3M™ Scotchcast™ Inline Splice Kit for Flexible Power Cable 82-F1 and 82-F2

3M Scotchcast Kits 82-F1 and 82-F2 are for use on unshielded, portable power cables. The kits are rated up to 5 kV for single conductor and up to 1 kV for multiple conductors. The kits are designed to be used with inline compression connectors.

The Scotchcast kits 82-F series are permanent splices as assigned by the Mine Safety and Health Administration (P-142-5 MSHA).

Connectors are not included, order separately.



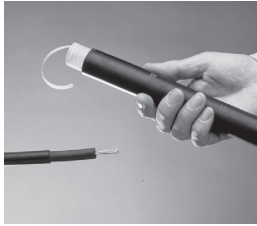
## 3M™ Scotchcast™ Kit 82-F1 and 82-F2 Inline Selection

Product Series	UPC (054007-)	Cable O.D. Range	Voltage Rating	Conductor Size	Number of Conductors	Maximum Conductor O.D.	Inner Pack	Case Qty.
Non-Shielded Dry Cable, Nonshielded Wet or Dry Cable, Portable Single Conductor Cable, Portable Multiple Conductor to 1000 Volt Cable. See above for cable type illustrations.								
82-F1	08307	0.25-0.80" (6-20 mm)	5 kV 1 kV (600/2000)*	6-1/0 AWG** (16-50 mm <sup>2</sup> )	1 multi	0.62" (18 mm) 0.90" (23 mm)	1/box	10
82-F2	08308	0.80-1.20" (20-30 mm)	5 kV 1 kV (600/2000)*	2/0-4/0 AWG** (70-95 mm <sup>2</sup> )	1 multi	0.82" (21 mm) 1.30" (33 mm)	1/box	10

\* Mine portable cable rating  
\*\*Base selection on cable O.D. range.

# 1/C, 5/8 kV, Non-Shielded Cold Shrink Splices

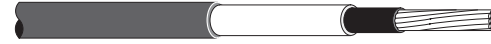
## 3M™ 5/8 kV Inline Splice Kit 5740 Series



3M 5/8 kV Inline Splice Kit Series are used for single conductor, non-shielded 5/8 kV cables. Each kit is a cold shrink design and contains enough material to insulate three (3) splices.



Nonshielded (Dry) Cable



Nonshielded (Wet or Dry) Cable

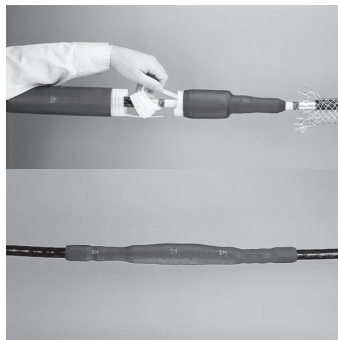
## 3M 5/8 kV Inline Splice Kit 5740 Series Selection

Product Series	UPC (054007-)	Conductor Size		Maximum Connector Length (Copper or Aluminum)	Typical Splice Length	Insulation/Jacket O.D. Range	Cable Case Qty.
		Copper	Aluminum				
Non-Shielded Dry Cable, Nonshielded Wet or Dry Cable See above for cable type illustrations.							
5741	49491	8-4 AWG (10-25 mm <sup>2</sup> )		2.5" (64 mm)	10" (254 mm)	0.38-0.70" (9,7-17,8 mm)	1
5742	49492	2 AWG-300 kcmil (35-150 mm <sup>2</sup> )		4.5" (108 mm)	12" (305 mm)	0.63-1.20" (16,0-30,5 mm)	1
5743	49493	350-1000 kcmil (185-500 mm <sup>2</sup> )	350-750 kcmil (185-400 mm <sup>2</sup> )	6.25" (159 mm)	15" (381 mm)	0.90-2.10" (22,9-53,3 mm)	1

Note: Be sure to order the correct size connector to complete the splice, see page 341

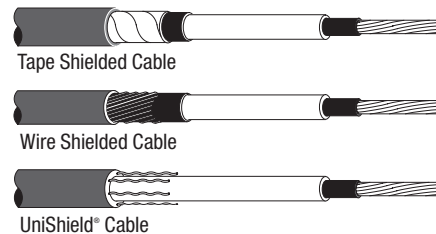
# 1/C, 5/8 kV, Shielded-Tape, Wire, and UniShield® Cold Shrink Splices

## 3M™ Splice Kits 5550 Series



3M Splice Kit 5550 Series are for splicing 5 kV and 8 kV shielded, solid dielectric, power cables. Each kit contains all the materials (except connectors and optional ground strap) required to construct three (3) single

conductor splices on Tape Shield, Wire Shield or UniShield® cables. Note: The kit can also be used to splice a shielded to a nonshielded 5-8 kV cable. Meets requirements of IEEE 404. Each kit makes three splices.



## 3M Splice Kit 5550 Series Selection

Product Series	UPC (054007-)	Conductor Size		Maximum Connector Length		Typical Splice Length	Optional Ground Strap Kit No.	Cable Case Qty.
		Copper	Aluminum	Copper	Aluminum			
Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable See above for cable type illustrations.								
5551	09089	6-4/0 AWG (14-100 mm <sup>2</sup> )	6-3/0 AWG (14-80 mm <sup>2</sup> )	3.3" (84 mm)	2.7" (69 mm)	19" (483 mm)	GS-1	1
5552	09090	4/0 AWG-500 kcmil (120-250 mm <sup>2</sup> )	4/0 AWG-400 kcmil (120-200 mm <sup>2</sup> )	4.3" (109 mm)	3.7" (94 mm)	21" (533 mm)	GS-2	1
5553	09091	500-1000 kcmil (300-500 mm <sup>2</sup> )	500-1000 kcmil (300-500 mm <sup>2</sup> )	6.3" (160 mm)	5.3" (135 mm)	23" (584 mm)	GS-3	1

## 5 kV Inline Splice Kits, 1/C or Multiple Conductor Non-Shielded Cable

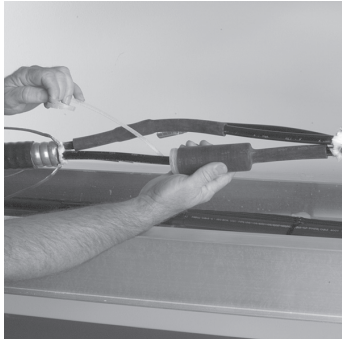
### Ordering Information for 9CK-300 Series

Product Number	UPC (054007-)	Description	Jacket Diam. Range	Inner Unit Pack
9CK-300	64860	Conductor Size Single #2-500 MCM Multiple #6-1/0 Mold length 15.75" (400 mm)	1-1.95" (25-49.5 mm)	1 kit/cs.
9CK-302	64861	Conductor Size Single #3-1250 MCM Multiple #8-4/0 Mold length 20.5" (520 mm)	0.94-2.25" (24-57 mm)	1 kit/cs.

For the 9CK-300 Series, these products are only available in Canada.

# 3/C, 600V and 1 kV, Non-Shielded Cold Shrink

## 3M™ Splices for Three-Conductor Armor Power Cable (Teck 90) 5730 Series



3M™ Low Voltage Cold Shrink Splicing Kits are applicable for indoor and outdoor installations, including direct burial, aerial and submersible applications. The 5730 series accommodates a full range of cable

sizes from 14 AWG-750 kcmil. The overall jacket diameter ranges from 0.62 to 4.00" (16 to 102 mm).

## 3M™ Low Voltage Inline Splice Kits 5730-5731

For use with 3/C or 4/C Armor Power Cable CSA Certified for 600V or less.\*

\* NRTL=CSA approved for use in the United States

## 3M™ Low Voltage Inline Splice Kits 5732-5735

For use with 3/C Armor Power Cable (Teck 90) up to 1000V.

Note: Armorcast™ 4560 (armor jacketing) is not included with these splices and must be ordered separately.

## 3M Low Voltage Inline Splice Kits 5730-5731 Series Selection

Kit Number	Cable Sizes (AWG)	Overall Jacket Diameter	UPC (054007-)	Amount of Armorcast Required*
5730	14-10	0.62-1.0" (16-25 mm)	43171	1 roll
5731	8-4	0.95-1.4" (24-36 mm)	43172	1 roll

Note: Connectors are not included in the kit. Use only CSA Certified compression connectors. Vinyl or nylon butt connectors are preferable.

\*Amount of Armorcast needed based on two half lapped layers.

Order the 15 ft. rolls.

## 3M Low Voltage Inline Splice Kits 5732-5735 Series Selection

Kit Number	Cable Sizes (AWG or kcmil)	Overall Jacket Diameter	UPC (054007-)	Amount of Armorcast Required*
5732	2-1/0	0.95-2.4" (24-61 mm)	43173	1 roll
5733	2/0-250	1.15-3.3" (29-84 mm)	43174	2 rolls
5734	250-500	1.55-4.0" (39-102 mm)	43175	2 rolls
5735	500-750	1.55-4.0" (39-102 mm)	43176	3 rolls

Note: Connectors are not included in the kit. Use only CSA Certified compression connectors.

\*Amount of Armorcast needed based on two half lapped layers.

Order the 15 ft. rolls.

## 3M™ Armorcast Structural Material 4560

The 3M Armorcast Structural Material 4560 creates maintenance free mechanical protection for power cable splices. Armorcast structural material is a flexible fiberglass knit fabric strip that has been saturated with black urethane resin syrup. It is rolled and packed dry in a sealed foil envelope.

## 3M Armorcast Structural Material 4560 Selection

Product Number	UPC (051138-)	Roll Size	Case Qty.
4560-5	57719	5'	5 rolls
4560-10	57717	10'	5 rolls
4560-15	57718	15'	5 rolls



# 1/C & 3/C, 5/8 kV, Non-Shielded Armored or Non-Armored Armorcast/Cold Shrink Splices

## 3M™ Three-Conductor Inline Splicing Kits TS Series

3M Three-Conductor Inline Splicing Kits TS Series are designed for nonshielded armored and non-armored solid dielectric cables rated up to 8 kV. Connectors are not included, order separately. See page 147 in the “Lugs

& Connectors” section for ordering information. **Meets requirements of IEEE 404.** Each kit makes one splice.



One-Conductor Unshielded, Stranded



Three-Conductor Unshielded, Stranded

## 3M™ Splice Kits TS-5/8 kV Series Selection (Stranded Conductor) Unshielded

1C Splice Kit	UPC (051141-)	3C Splice Kit	UPC (051141-)	Size AWG or kcmil
TS-5kVU-1C-8-4	045276	TS-5kVU-3C-8-4	045818	8-4
TS-5kVU-1C-3-300	045269	TS-5kVU-3C-3-300	045795	3-300
TS-5kVU-	045283	TS-5kVU-3C-350-1000*	045801	350-1000

\*Cu only for 1000 Mem.

**These products are only available in Canada.**

# 1/C & 3/C, 5/8 kV, Shielded Armored or Non-Armored Armorcast/Cold Shrink Splices

## 3M™ Armored/Aarmorcast/Non-Armored Cable Splices TS Series

The 3M Three-Conductor Inline Splicing Kits TS-Series are designed for splicing shielded armored and non-armored cables, 5 kV and 8 kV. Connectors are not included, order separately. See page 147 in the “Lugs & Connectors” section for ordering information. **Meets requirements of IEEE 404.** Each kit makes one splice.



One-Conductor, Shielded, Stranded



Three-Conductor, Shielded, Stranded

## 3M™ Splice Kits TS-5/8 kV Series Selection (Stranded Conductor) Shielded

1C Splice Kit	UPC (051141-)	3C Splice Kit	UPC (051141-)	Size AWG or kcmil
TS-5kV-1C-6-3/0	045320	—	—	6-2
TS-5kV-1C-6-3/0	045320	TS-5kV-3C-2-3/0	04602	2-310
TS-5kV-1C-4/0-400	045375	TS-5kV-3C-4/0-500	04578	4/0-400
TS-5kV-1C-500-1000	045382	TS-5kV-3C-4/0-500*	—	500
TS-5kV-1C-500-1000	045382	TS-5kV-3C-600-750†	04612	750
TS-5kV-1C-500-1000	045382	—	—	2000

\*Cu only.

† Resin Rejacketing.

**These products are only available in Canada.**

# 1/C & 3/C, 15 kV and 25/28 kV Shielded Armored & Non-Armored Armorcast/Cold Shrink Splices

Designed for splicing shielded (Tape or Wire Shielded and UniShield®) armored or non-armored cables 15 kV and 25/28 kV. The completed splices are designed for use in cable tray, as well as weather-exposed and direct burial locations. The TS Series splices use Armorcast™ and Cold Shrink technology. Connectors not included, order separately. See page 147 for ordering connectors. Each kit makes one splice. **Splices meet the requirements of IEEE 404.**



One-Conductor, Shielded, Stranded



Three-Conductor, Shielded, Stranded

## 3M™ Cold Shrink Splice TS-15 kV Series Selection (Stranded Conductor) Shielded

1C Splice Kit	UPC (051141-)	3C Splice Kit	UPC (051141-)	Size AWG or kcmil
TS-15kV-1C-2-4/0	049380	TS-15kV-3C-2-4/0	045771	2-4/0
TS-15kV-1C-4/0-500	045443	TS-15kV-3C-4/0-500	045481	4/0-500
TS-15kV-1C-500-1000	045337	TS-15kV-3C-350-750	045467	500-750
TS-15kV-1C-500-1000	045337	—	—	1000

These products are only available in Canada.

## 3M™ Cold Shrink Splice TS-25/28 kV Series Selection (Stranded Conductor) Shielded

1C Splice Kit	UPC (051141-)	3C Splice Kit	UPC (051141-)	Size AWG or kcmil
TS-25kV-1C-1-250	046044	TS-25kV-3C-1-250	046044	1-250
TS-25kV-1C-250-750	046235	TS-25kV-3C-250-750	045450	250-750
TS-25kV-1C-500-1000	045498	TS-25kV-3C-500-1000	045498	500-1000

These products are only available in Canada.

# 1/C, 15 kV and 25/28 kV JCN/CN, and Power Shielded Repair Splices

## 3M™ Cold Shrink QS-III Cable Repair Splices

The 3M Cold Shrink Quick Splice III Cable Repair Splice is a 15 kV and 25/28 kV class inline splice designed to serve as a cable repair for distribution/feeder class power cables. It is designed to replace up to 10 inches (254 mm) of damaged cable, thus eliminating the need to splice in a new section of cable with two separate splices.

The 3M Cold Shrink splice body is a one-piece molded design made of specially formulated silicone rubber, while the cold shrink jacketing is made from EPDM rubber for physical protection. Each splice manufactured is factory tested to ensure reliability.



The splice can be used with 3M copper (Cu) or aluminum (Al/Cu) inline compression (crimp type) connectors, and can be used for size transitions within the listed kit size range. They are designed to exceed minimum industry test standards, and have a BIL rating of 200 kV (equal to a 35 kV voltage class). 5457AR and 5457ARS QS-III splices meet or exceed the 25/28 kV Voltage Class rating requirements of ANSI/IEEE Std. 404-1993.

## 3M Cold Shrink QS-III Cable Repair Splices

Kit Number	Cable Type	Cable Insulation O.D. Range	Conductor Size Range 15 kV	Conductor Size Range 25/28 kV
5457ARS-WG 5457ARS	Concentric Jacketed Concentric	0.972-1.48" (25-38 mm)	250-500	3/0-350
5457AR-WG 5457AR	Concentric Jacketed Concentric	1.05-1.68" (27-43 mm)	500-1000	350-750
5525ARS	Tape Shield Wire Shield LC Shield	0.972-1.48" (25-38 mm)	250-500	3/0-350
5525AR	Tape Shield Wire Shield LC Shield	1.05-1.68" (27-43 mm)	500-1000	350-750

Note: 3M Repair Connectors are required with these splice kits. 3M Repair Connectors are 15" in length. They are designed for standard, compact, and compressed conductors. Connectors can be designed specially for any application. Special order connectors require 6-8 week lead times. Transition connectors are also available. Please consult your local 3M sales representative.

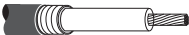


**These QS-III repair splices are only available in Canada.**

# 600 V and 1 kV, Non-Shielded Splices

## 3M™ Splices for 1C, 3C and 4C, Armored or Non-Armored Cable TS Series

3M™ Low Voltage Tape Splicing Kits are applicable for indoor and outdoor installations, including direct burial, aerial and submersible applications. The TS series accommodates a full range of cable sizes.

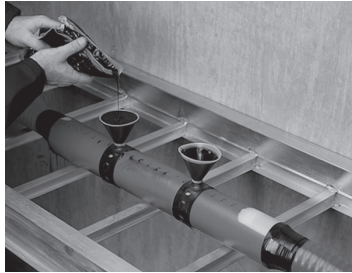
### Ordering Information Splice Kit 1 kV

Size AWG kcmil	1C Splice Kit	3C Splice Kit	4C Splice Kit
			
14	TS	TS	TS
12	TS	TS	TS
10	TS	TS	TS
8	TS	TS	TS
6	TS	TS	TS
4	TS	TS	TS
3	TS	TS	TS
2	TS	TS	TS
1	TS	TS	TS
1/0	TS	TS	TS
2/0	TS	TS	TS
3/0	TS	TS	TS
4/0	TS	TS	TS
250	TS	TS1	TS1
300	TS	TS1	TS1
350	TS	TS1	TS1
400	TS	TS1	TS1
500	TS	TS1	TS1
600	TS	TS1	TS1
750	TS	TS1	TS1
1000	TS	TS1	TS1

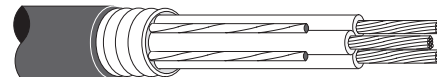
These are only available in Canada.

# 3/C, 5 kV, Non-Shielded Armored or Non-Armored Resin/Cold Shrink Splices

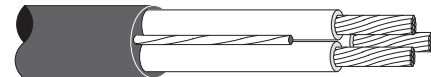
## 3M™ Three-Conductor Inline Splicing Kit 5750 Series



3M Three-Conductor Inline Splicing Kit 5750 Series are designed for non-shielded armored and non-armored solid dielectric cables rated up to 5 kV.



Three-Conductor Armored, Nonshielded Cable



Three-Conductor Non-Armored, Nonshielded Cable

Connectors are not included, order separately. See page 147 in the “Lugs & Connectors” section for ordering information. **Meets requirements of IEEE 404.** Each kit makes one 3/C splice.

## 3M™ Splices 5750 Series Selection

Product Series	UPC (054007-)	Conductor Size (Copper or Aluminum)		Typical Splice Length	Case Qty.
		1 kV or Less	5 kV		
5751	08310	6-1 AWG (14-38 mm <sup>2</sup> )	6-4 AWG (14-16 mm <sup>2</sup> )	19" (483 mm)	1
5752	08311	1/0-4/0 AWG (60-100 mm <sup>2</sup> )	2-4/0 AWG (35-100 mm <sup>2</sup> )	28" (711 mm)	1
5753	08312	250-750 AWG (150-325 mm <sup>2</sup> )	250-500 kcmil aluminum (150-250 mm <sup>2</sup> ) 250-750 kcmil copper only (150-325 mm <sup>2</sup> )	42" (1067 mm)	1

# 3/C, 5/8 kV, Shielded to Shielded or Non-Shielded, Armored or Non-Armored Armorcast/Cold Shrink Splice

3M Splice Kit 5551-3C-AC is for splicing 3/C, 5 kV and 8 kV shielded, armored and non-armored cables. Connectors are not included. Kits include Armorcast structural material to reconstitute the cable's armor. **Meets the requirements of IEEE 404.** Each kit makes one 3/C splice.



Three-Conductor Armored, Shielded Cable



Three-Conductor Non-Armored, Shielded Cable

## 3M™ Splice Kit 5551-3C-AC Series Selection

Product Series	UPC (051128-)	Conductor Size (Copper or Aluminum)	Maximum Conductor Length (Copper or Aluminum)	Typical Splice Length	Case Qty.
Tape Shielded Cable, Wire Shielded Cable, Unshielded* Cable Copper Aluminum					
5551-3C-AC	54317	6-3/0 AWG (14-80 mm)	2.7" (69 mm)	34" (864 mm)	1

# 3/C, 5/8 kV, Shielded Armored or Non-Armored Resin/Cold Shrink Splices

## 3M™ Three-Conductor Inline Splicing Kit 5760 Series



3M Three-Conductor Inline Splicing Kit 5760 Series are designed for splicing shielded armored and non-armored cables,

5 kV and 8 kV. Connectors are not included, order separately. See page 147 in the "Lugs & Connectors" section for ordering information. **Meets the requirements of IEEE 404.** Each kit makes one 3/C splice.

## 3M™ Splices 5760 Series Selection

Product Series	UPC (054007-)	Insulation O.D. Range	Conductor Size (Copper or Aluminum)	Maximum Connector O.D.	Maximum Connector Length	Typical Splice Length	Case Qty.
5761	12260	0.65-1.00" (17-25 mm)	2/0 AWG-350 kcmil (120-250 mm <sup>2</sup> )	0.90" (23 mm)	2.75" (70 mm)	29" (737 mm)	1
5762	12262	0.93-1.94" (24-49 mm)	500-1000 kcmil (300-500 mm <sup>2</sup> )	1.40" (36 mm)	5.00" (127 mm)	44" (1118 mm)	1

# 3/C, 5/8 kV, Shielded to Shielded Armored or Non-Armored Cold Shrink Splice

The 3M™ Cold Shrink QS-III Splicing Series 57XX-MT are the three-conductor inline splice kits designed to join armored or non-armored, shielded power cables. Kits are available in 5/8 kV class. Kits include Armorcast Structural material to reconstitute the cable armor. Meets the requirements of IEEE 404. Each kit makes one 3/C splice. Use the MT-C or MT-E Trifurcating Accessory Kits when splicing 3/C to 3-1/C.

## 3M™ Cold Shrink QS-III Three-Conductor Cable Splices 5775A-MT, 5776A-MT and 5777A-MT Selection

Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
<b>5/8 kV</b>					
5775A-MT	53493	0.64-1.01" (16,3-25,7 mm)	3/0-250 (95-125 mm <sup>2</sup> )	None	1
5776A-MT	44112*	0.84-1.38" (21,3-35,1 mm)	350-500 (185-240 mm <sup>2</sup> )	None	1
5777A-MT	44289*	1.04-1.70" (26,4-43,2 mm)	750-1000 (325-500 mm <sup>2</sup> )	None	1

\*UPC prefix 054007-

## 3M™ Cold Shrink 5700A-MT Trifurcating Accessory Kit (3-Conductor to 3 Single Conductors)

Product Series	UPC (051128-)	Conductor Size	Single Connector Jacket O.D. Range	Case Qty.
MT-C	55208	Single conductor	0.62-1.13" (15,7-28,7 mm)	1
MT-E	54138	Single conductor	1.13-1.80" (28,7-45,7 mm)	1

## Selection Table

3M™ Splice 57XXA-MT	5/8 kV (90/140 mil)	Appropriate MT Transition Kit
*Typical Conductor Size Range – AWG/kcmil		
5775A-MT	3/0-250	MT-C
5776A-MT	350	MT-C
5776A-MT	500	MT-E
5777A-MT	—	MT-E

MT-C Kit the Single Conductor Cable Jacket O.D. Range is 0.62"-1.13" (15, 7-28,7 mm)

MT-E Kit the Single Conductor Cable Jacket O.D. Range is 1.13"-1.80" (28, 7-5,7 mm)

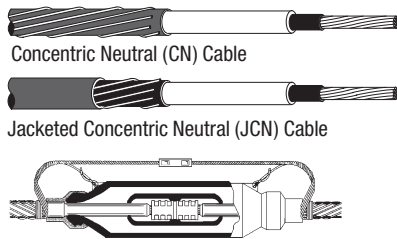
\*Typical Conductor Size Range is based on typical cable jacket outside diameter (O.D.). Ranges shown at the bottom of the table are the final determining factor as to whether this transition kit will work with the cable being used.

# 15 kV Splices

## 1/C JCN/CN Molded Rubber Splices

3M™ Molded Rubber Splice QS and QS-II kits are inline splices made from specially formulated, peroxide-cured, EPDM rubbers to ensure a stable seal and a splice that will last the life of the cable. The continuous current rating of each splice is equal to the current rating of the cable it is sized to. Each molded rubber splice is tested at the factory on power cable to ensure long-term reliability. Each molded rubber splice meets the requirements of IEEE 404.

### 3M™ Inline QS Splice Kits 5400 Series

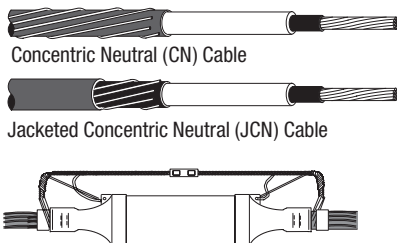


QS Kits 5400 Series are inline splices designed for use on 15 kV CN or JCN cable.

To use the splice kit, select the appropriate size CI Series compression connector. The connectors can be used on stranded, aluminum or copper conductors sized from 2/0 to 750 kcmil (70 to 300 mm<sup>2</sup>).

Meets the requirements of IEEE Standard 404. See page 345 for 3M CI Connectors. Each kit makes one splice.

### 3M™ QS-II Splice Kits 5411, 5411A and 5412

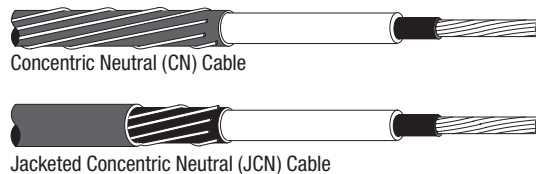


QS-II kits 5411, 5411A and 5412 are one-piece inline splices designed for use on 15 kV rated CN and JCN cable.

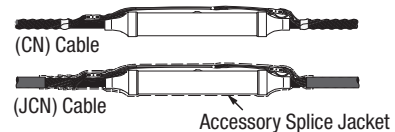
Meets the requirements of IEEE Standard 404. Splice can be ordered with the special CI-Series connector packed in the kit or the kit and connector can be ordered as separate items. See pages 345 and 346 for 3M connectors.



### 3M™ QS-II Cable Repair Splice Kit 5411R and 5412R



QS-II Cable Repair Kit 5411R is a specially elongated molded rubber splice designed to



repair damaged cable. It can be used on 15 kV copper or aluminum, CN or JCN cables. It is designed to replace up to 6" (152 mm) of damaged cable, thus eliminating the need to splice in a new section of cable with two separate splices.

Meets the requirements of IEEE Standard 404. The 5411R/5412R can be ordered with the special CIR-Series connector packed in the kit or the kit and connector can be ordered as separate items. See page 345 for 3M connectors. Each kit makes one splice repair.



### 3M™ Rubber Splices 5400, 5411, 5411A and 5412 Series Selection

Product Series	UPC (054007-)	Splice Jacket† Needed for JCN Cables	Conductor Size Cu or Al		Insulation O.D. Range	Primary Specified Connector	Case Qty.
			Stranded	Solid			
5403	11818	SJ-2A or HSJ-2A	2/0-4/0 AWG (70-100 mm²)	—	0.795-0.940" (20-24 mm)	CI Series	1
5404	11826	SJ-2A or HSJ-2A	2/0-4/0 AWG (70-100 mm²)	—	0.920-1.080" (23-27 mm)	CI Series	1
5405	11834	SJ-2A or HSJ-2A	250-350 kcmil (125-180 mm²)	—	0.920-1.080" (23-27 mm)	CI Series	1
5406	11842	SJ-2A or HSJ-2A	250 kcmil (220 mil) 350 kcmil	—	1.060-1.210" (27-31 mm)	CI Series	1
5406-CI-350*	41907	SJ-2A or HSJ-2A	350 kcmil	—	1.060-1.210" (27-31 mm)	CI-350	1
5407	25602	SJ-3A or HSJ-3A	500 kcmil	—	1.120-1.320" (28-34 mm)	CI Series	1
5408	25610	SJ-3A or HSJ-3A	750 kcmil	—	1.320-1.520" (34-39 mm)	CI Series	1
5408-CI-750*	02314	SJ-3A or HSJ-3A	750 kcmil	—	1.320-1.520" (34-39 mm)	CI-750	1
5409	11859	SJ-3A or HSJ-3A	750 kcmil	—	1.490-1.660" (38-40 mm)	CI Series	1
5409-CI-750*	30209	SJ-3A or HSJ-3A	750 kcmil	—	1.490-1.660" (38-40 mm)	CI-750	1
5411	11852	SJ-1A or HSJ-1A	4-2/0 AWG 2/0 (175 mil)	2-1/0 AWG	0.637-0.90" (16-23 mm)	CI Series, CI-T Series, or 20006	1
5411-CI-1/0*	11855	SJ-1A or HSJ-1A	1/0 AWG	—	0.637-0.90" (16-23 mm)	CI-1/0	1
5411-CI-2*	08005	SJ-1A or HSJ-1A	2 AWG	1 AWG	0.637-0.90" (16-23 mm)	CI-2	1
5411-CI-21*	11853	SJ-1A or HSJ-1A	2,1 AWG	1,1/0 AWG	0.637-0.90" (16-23 mm)	CI-21	1
5411-CI-22*	11854	SJ-1A or HSJ-1A	4 AWG (220 mil)	2 AWG	0.637-0.90" (16-23 mm)	CI-22	1
5411-20006*	11861	SJ-1A or HSJ-1A	2/0 AWG (175 mil)	—	0.637-0.90" (16-23 mm)	20006	1
5411A	09937	SJ-1A or HSJ-1A	1 AWG (220 mil) 1/0 AWG (220 mil) 2/0 AWG (175 mil)	1/0 AWG (220 mil)	0.775-0.90" (19,7-23 mm)	CI Series or 20006	1
5411A-CI-1*	09938	SJ-1A or HSJ-1A	1 AWG (220 mil)	1/0 AWG (220 mil)	0.775-0.90" (19,7-23 mm)	CI-1	1
5411A-CI-1/0*	09939	SJ-1A or HSJ-1A	1/0 AWG (220 mil)	—	0.775-0.90" (19,7-23 mm)	CI-1/0	1
5411A-20006*	09940	SJ-1A or HSJ-1A	2/0 AWG (175 mil)	—	0.775-0.90" (19,7-23 mm)	20006	1
5412	11862	SJ-1A or HSJ-1A	2/0 AWG (220 mil) 3/0-4/0 AWG 250 kcmil (175 mil)	—	0.840-1.050" (21-27 mm)	CI Series	1

† To order splice jackets see page 329.

\*Kit includes the connector specified.

Note: Cable sizes shown above are for standard insulation thickness. Final determining factor is cable insulation O.D.

Important: Use the primary insulation O.D. range as the final ordering criteria. The above cable sizes include 175 and 220 mil insulations.

Note: Based on cable conductor size, the splices are designed for use on either 200 Amp distribution circuits or 600 Amp feeder circuits.

## 3M™ Rubber Splices 5400, 5411, 5411A and 5412 Series Selection

Product Series	UPC (054007-)	Splice Jacket† Needed for JCN Cables	Conductor Size Cu or Al		Insulation O.D. Range	Primary Specified Connector	Case Qty.
			Stranded	Solid			
5412-CI-2/0*	11865	SJ-1A or HSJ-1A	2/0 AWG (220 mil)	—	0.840-1.050" (21-27 mm)	CI-2/0	1
5412-CI-3/0*	11863	SJ-1A or HSJ-1A	3/0 AWG	—	0.840-1.050" (21-27 mm)	CI-3/0	1
5412-CI-4/0*	11864	SJ-1A or HSJ-1A	4/0 AWG	—	0.840-1.050" (21-27 mm)	CI-4/0	1

† To order splice jackets see page 329.

\*Kit includes the connector specified.

Note: Cable sizes shown above are for standard insulation thickness. Final determining factor is cable insulation O.D.

Important: Use the primary insulation O.D. range as the final ordering criteria. The above cable sizes include 175 and 220 mil insulations.

Note: Based on cable conductor size, the splices are designed for use on either 200 Amp distribution circuits or 600 Amp feeder circuits.

## 3M™ Cable Repair Splice 5411R and 5412R Selection

Product Series	UPC (054007-)	Splice Jacket† Needed for JCN Cables	Conductor Size Cu or Al		Insulation O.D. Range	Specified Connector	Case Qty.
			Stranded	Solid			
Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable							
5411R	09352	SJ-1A + 8428-12** or HSJ-1A	4 AWG (220 mil only) 2-1/0 AWG	2-1/0 AWG	0.637-0.900" (16-31 mm)	CIR Series	1
5411R-CIR-2	55097††	SJ-2A + 8428-12** or HSJ-1A	2 AWG	—	0.637-0.900" (16-31 mm)	CIR-2	1
5411R-CIR-1/0*	09355	SJ-1A + 8428-12** or HSJ-1A	1/0 AWG	—	0.637-0.900" (16-31 mm)	CIR-1/0	1
5411R-CIR-21*	09354	SJ-1A + 8428-12** or HSJ-1A	2-1 AWG	1-1/0 AWG	0.637-0.900" (16-31 mm)	CIR-21	1
5411R-CIR-22*	09353	SJ-1A + 8428-12** or HSJ-1A	4 AWG (220 mil only)	2 AWG	0.637-0.900" (16-31 mm)	CIR-22	1
5412R-CIR-3/0*	43501	SJ-2A or HSJ-2A	3/0 AWG	—	0.870-1.055" (22-27 mm)	CIR-3/0	1
5412R-CIR-4/0*	50101	SJ-2A or HSJ-2A	4/0 AWG	—	0.870-1.055" (22-27 mm)	CIR-4/0	1

\* Kit includes the connector specified

\*\* 8428-12 is used with the SJ kits only.

† To order Splice Jackets see page 384.

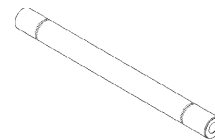
†† UPC prefix 051128-

Note: Cable sizes shown above are for standard insulation thickness. Final determining factor is cable insulation O.D.

## PRODUCT REFERRAL GENERATOR

### Splice Jacketing

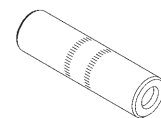
- SJ Series..... pg. 387
- HSJ Series..... pg. 387



## Specifications and Ordering Information for 3M™ CIR Series Repair Connectors for 3M™ Rubber Splices 5411R and 5412R Series

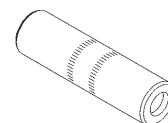
Product Number	UPC Connector (054007-)	Conductor Size Cu or Al		Connector O.D.	Splice Body	Case Qty.
		Stranded	Solid			
CIR-2	11966	2 AWG	—	0.64" (16 mm)	5411R	10
CIR-21	09357	2-1 AWG	1-1/0 AWG	0.64" (16 mm)	5411R	10
CIR-22	09356	4 AWG (220 mil only)	2 AWG	0.64" (16 mm)	5411R	10
CIR-1/0	09358	1/0 AWG	—	0.64" (16 mm)	5411R	10
CIR-2/0	41964	2/0 AWG (220 mil only)	—	0.91" (23 mm)	5412R	10
CIR-3/0	41965	3/0 AWG	—	0.91" (23 mm)	5412R	10
CIR-4/0	50228	4/0 AWG	—	0.91" (23 mm)	5412R	10

## Specifications and Ordering Information for 3M™ Connectors CI Series for 3M™ Rubber Splices 5400 and 5500 Series

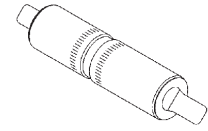


Product Number	UPC (054007-)	Conductor Size Cu or Al	Connector O.D.	Case Qty.
CI-2/0	11875	2/0 AWG	0.910" (23 mm)	10
CI-3/0	11883	3/0 AWG	0.910" (23 mm)	10
CI-4/0	11891	4/0 AWG	0.910" (23 mm)	10
CI-250	11909	250 kcmil	1.125" (29 mm)	10
CI-350	11925	350 kcmil	1.125" (29 mm)	10
CI-450	11933	500 kcmil compact	1.312" (33 mm)	10
CI-500	25644	500 kcmil	1.312" (33 mm)	10
CI-650	11941	750 kcmil compact	1.590" (40 mm)	10
CI-750	25651	750 kcmil	1.590" (40 mm)	10

## Specifications and Ordering Information for Connectors for 3M™ Rubber Splices 5411, 5412 and 5500 Series

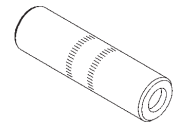


Product Number	UPC (054007-)	Conductor Size Cu or Al		Connector O.D.	Case Qty.
		Stranded	Solid		
20006	13285	2/0 AWG	—	0.687" (17 mm)	10
20009	13319	250 kcmil	—	0.906" (23 mm)	3
CI-1/0	11867	1/0 AWG	—	0.640" (16 mm)	10
CI-2	11651	2 AWG	1 AWG	0.640" (16 mm)	10
CI-2/0	11875	2/0 AWG	—	0.910" (23 mm)	10
CI-21	11856	2, 1 AWG	1, 1/0 AWG	0.640" (16 mm)	10
CI-22	25636	4 AWG	2 AWG	0.640" (16 mm)	10
CI-3/0	11883	3/0 AWG	—	0.910" (23 mm)	10
CI-4/0	11891	4/0 AWG	—	0.910" (23 mm)	10



## Specifications and Ordering Information for 3M™ CI-T Series Transition Connectors for 3M™ Rubber Splices 5411 and 5500 Series

Product Number	UPC (054007-)	Conductor Size Cu or Al (AWG) From Cable A to Cable B				Connector O.D.	Case Qty.
		Str.	Solid	Str.	Solid		
CI-T-1	11958	4	2	1	1/0	0.640" (16 mm)	10
CI-T-2	11966	2	1	1	1/0	0.640" (16 mm)	10
CI-T-3	11974	4	2	1/0	—	0.640" (16 mm)	10
CI-T-4	11982	2	1	1/0	—	0.640" (16 mm)	10
CI-T-5	11990	2	1	4	2	0.640" (16 mm)	10
CI-T-9	44533	1	1/0	1/0	—	0.640" (16 mm)	10



## Specifications and Ordering Information for Connectors for 3M™ Rubber Splices 5411A Series

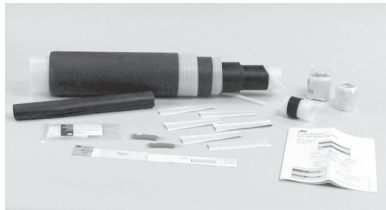
Product Number	UPC (054007-)	Conductor Size Cu or Al		Connector O.D.	Case Qty.
		Stranded	Solid		
CI-1/0	11867	1/0 AWG	—	0.640" (16 mm)	10
CI-1	25628	2, 1 AWG	1, 1/0 AWG	0.640" (16 mm)	10
20006	13285	2/0 AWG	—	0.687" (17 mm)	10

Lab tested.  
Field proven.



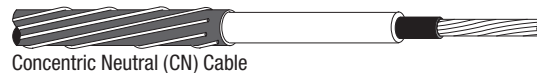
# 1/C, 15 kV, JCN/CN Cold Shrink Splices

## 3M™ QS-III Cold Shrink Inline Cable Splices 5415A, 5416A, 5417A and 5418A



The QS-III Cold Shrink Cable Splices 5415A, 5416A, 5417A and 5418A are inline splices for joining

Jacketed Concentric Neutral (JCN) or Concentric Neutral (CN) cables. It is a cold shrink design sized to fit UL Type MV-90 cables with copper or aluminum conductor sizes ranging from 2 AWG to 1000 kcmil. The cold shrink splice body is a one-piece molded design made of specially formulated silicone rubbers, while the jacketing is made



Concentric Neutral (CN) Cable



Jacketed Concentric Neutral (JCN) Cable

of EPDM rubber for its special physical properties. Each splice is high-voltage production tested to ensure reliability. Kits can be ordered with connectors packed in the kit, or the kit and connectors can be ordered as separate items. See page 147 to order 3M connectors. Each kit makes one splice. 3M 2000T-Series Reducer Connectors are available for conductor size transitions. Contact your 3M representative for appropriate selection. **Meets the requirements of IEEE 404.**

## 1/C, 15 kV, JCN and Power Shielded Cold Shrink Branch Splice

### 3M™ Cold Shrink Branch Cable Splice QS2001B

The 3M Cold Shrink Cable Splice QS2001B is designed to connect extruded dielectric power cables rated to 15 kV. The base kit handles main and run cable ranges from 350 kcmil to 500 kcmil (an adapter kit can be used for cable ranges 2 AWG to 250 kcmil). The kit is supplied with an innovative shear-bolt connector eliminating the need for special tooling. The adapter kit is ordered separately allowing smaller cross-sectional coverage. **Meets the requirements of IEEE 404.** Each kit will make one splice.



### PRODUCT REFERRAL GENERATOR

Connecting..... pg. 150

## 3M COLD SHRINK INLINE CABLE SPLICES QS-III AND QS2001B

FEATURES	BENEFITS
Silicone body provides excellent electrical performance and superior low temperature handling	No heat, flames or special installation tools required. Fast recovery in cold temperatures
One piece splice body design	Minimal training required
Wide cable range	Allow transitioning of different size cables
Field proven technology	Easy, straightforward installation
Splice bodies are 100% factory tested	Field reliability

### 3M™ Cold Shrink QS-III Inline Cable Splices 5415A, 5416A, 5417A and 5418A Selection

Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable					
<b>15 kV CN and JCN cables</b>					
5415A	53470	0.64-1.01" (16,3-25,7 mm)	2-4/0 AWG (35-95 mm <sup>2</sup> )	None	1
5415A-2-AL	53471	0.64-1.01" (16,3-25,7 mm)	2 AWG	20003	1
5415A-2-CU	53472	0.64-1.01" (16,3-25,7 mm)	2 AWG	10003	1
5415A-1-AL	53473	0.64-1.01" (16,3-25,7 mm)	1 AWG	20004	1
5415A-1-CU	53474	0.64-1.01" (16,3-25,7 mm)	1 AWG	10004	1
5415A-1/0-AL	53475	0.64-1.01" (16,3-25,7 mm)	1/0 AWG	20005	1
5415A-1/0-CU	53476	0.64-1.01" (16,3-25,7 mm)	1/0 AWG	10005	1
5415A-2/0-AL	53477	0.64-1.01" (16,3-25,7 mm)	2/0 AWG	20006	1
5415A-2/0-CU	53478	0.64-1.01" (16,3-25,7 mm)	2/0 AWG	10006	1
5415A-3/0-AL	53747	0.64-1.01" (16,3-25,7 mm)	3/0 AWG	20007	1
5415A-3/0-CU	53748	0.64-1.01" (16,3-25,7 mm)	3/0 AWG	10007	1
5415A-4/0-AL	53749	0.64-1.01" (16,3-25,7 mm)	4/0 AWG	20008	1
5415A-4/0-CU	53750	0.64-1.01" (16,3-25,7 mm)	4/0 AWG	10008	1
5416A	44092**	0.84-1.38" (21,3-35,1 mm)	4/0 AWG-350 kcmil (95-185 mm <sup>2</sup> )	None	1
5416A-4/0-AL	44093**	0.84-1.38" (21,3-35,1 mm)	4/0 AWG	20008	1
5416A-4/0-CU	44094**	0.84-1.38" (21,3-35,1 mm)	4/0 AWG	10008	1
5416A-250-AL	44096**	0.84-1.38" (21,3-35,1 mm)	250 kcmil	20009	1
5416A-250-CU	44097**	0.84-1.38" (21,3-35,1 mm)	250 kcmil	10009	1
5416A-350-AL	44098**	0.84-1.38" (21,3-35,1 mm)	350 kcmil	20011	1
5416A-350-CU	44099**	0.84-1.38" (21,3-35,1 mm)	350 kcmil	10011	1
5417A	42124**	1.04-1.70" (26,4-43,2 mm)	350-750 kcmil (185-325 mm <sup>2</sup> )	None	1
5417A-350-AL	42125**	1.04-1.70" (26,4-43,2 mm)	350 kcmil	20011	1
5417A-350-CU	44234**	1.04-1.70" (26,4-43,2 mm)	350 kcmil	10011	1
5417A-500-AL	42126**	1.04-1.70" (26,4-43,2 mm)	500 kcmil	20014	1
5417A-500-CU	44235**	1.04-1.70" (26,4-43,2 mm)	500 kcmil	10014	1
5417A-750-AL	04587**	1.04-1.70" (26,4-43,2 mm)	750 kcmil	20019	1
5417A-750-CU	04588**	1.04-1.70" (26,4-43,2 mm)	750 kcmil	10019	1

## 3M™ Cold Shrink QS-III Inline Cable Splices 5415A, 5416A, 5417A and 5418A Selection

Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
5417A-WG*	44090**	1.04-1.70" (26,4-43,2 mm)	350-750 kcmil (185-325 mm <sup>2</sup> )	None	1
5418A	42128**	1.08-1.70" (27,4-43,2 mm)	500-1000 kcmil (240-500 mm <sup>2</sup> )	None	1
5418A-500-AL	44403**	1.08-1.70" (27,4-43,2 mm)	500 kcmil	20014	1
5418A-500-CU	44404**	1.08-1.70" (27,4-43,2 mm)	500 kcmil	10014	1
5418A-750-AL	42129**	1.08-1.70" (27,4-43,2 mm)	750 kcmil	20019	1
5418A-750-CU	44236**	1.08-1.70" (27,4-43,2 mm)	750 kcmil	10019	1
5418A-1000-AL	42130**	1.08-1.70" (27,4-43,2 mm)	1000 kcmil	20024	1
5418A-1000-CU	44237**	1.08-1.70" (27,4-43,2 mm)	1000 kcmil	10024	1
5418A-WG*	44091**	1.08-1.70" (27,4-43,2 mm)	500-1000 kcmil (240-500 mm <sup>2</sup> )	None	1

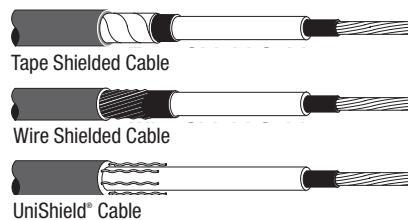
\*5417A-WG and 5418A-WG are partially jacketed splices containing built-in bleeder wires. Additional end user materials are required to convert to full jacketing.  
 \*\*UPC prefix 054007-

## 1/C, 15 kV, Power Shielded Molded Rubber Splices

### 3M™ Molded Rubber Cable Splices 5500 Series

The QS-II Kits 5500 Series are inline splices designed for use on 15 kV copper or aluminum Tape Shielded, Wire Shielded and UniShield® cable from 2 AWG to 750 kcmil. The continuous current rating of each splice is equal to the current rating of the cable it is sized to accommodate. **Meets requirements of IEEE Standard 404.** Each kit makes one splice.

A special 3M CI-Series Connector is necessary to complete the splice. Order the connector separately or as part of the kit. See pages 359-360 for reference to CI connectors.



### 3M™ QS-II Rubber Splices 5500 Series Selection

Product Series	UPC (054007-)	Conductor Size Cu or Al		Primary Insulation O.D. Range	Specified Connector	Case Qty.
		Stranded	Solid			
Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable See above for cable type illustrations.						
5501	12293	4-1/0 AWG 2/0 (175 mil)	2-1/0 AWG	0.637-0.900" (16-23 mm)	CI-Series	1
5501-CI-21*	09628	2-1 AWG	1-1/0 AWG	0.637-0.900" (16-23 mm)	CI-21	1
5501-CI-1/0*	09629	1/0 AWG	—	0.637-0.900" (16-23 mm)	CI-1/0	1
5501-20006*	09630	2/0 AWG (175 mil)	—	0.637-0.900" (16-23 mm)	20006	1

## 3M™ QS-II Rubber Splices 5500 Series Selection

Product Series	UPC (054007-)	Conductor Size Cu or Al		Primary Insulation O.D. Range	Specified Connector	Case Qty.
		Stranded	Solid			
5502	12294	2/0 AWG (220 mil) 3/0-4/0 AWG 250 kcmil (175 mil)	4/0 AWG	0.840-1.050" (21-27 mm)	CI Series or 20009	1
5502-CI-2/0*	09631	2/0 AWG (220 mil)	—	0.840-1.050" (21-27 mm)	CI-2/0	1
5502-CI-3/0*	09632	3/0 AWG	4/0 AWG	0.840-1.050" (21-27 mm)	CI-3/0	1
5502-CI-4/0*	09633	4/0 AWG	—	0.840-1.050" (21-27 mm)	CI-4/0	1
5502-20009*	09634	250 kcmil (175 mil)	—	0.840-1.050" (21-27 mm)	20009	1
5503	12295	250 kcmil (350 kcmil)	—	1.060-1.210" (27-31 mm)	CI Series	1
5503-CI-250*	09635	250 kcmil (220 mil)	—	1.060-1.210" (27-31 mm)	CI-250	1
5503-CI-350*	09636	350 kcmil	—	1.060-1.210" (27-31 mm)	CI-350	1
5504	12296	500 kcmil	—	1.120-1.320" (28-34 mm)	CI Series	1
5504-CI-500*	09637	500 kcmil	—	1.120-1.320" (28-34 mm)	CI-500	1
5505	12297	750 kcmil	—	1.320-1.520" (34-39 mm)	CI Series	1
5505-CI-750*	09638	750 kcmil	—	1.320-1.520" (34-39 mm)	CI-750	1

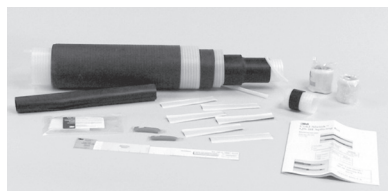
\*Kit includes the connector specified.

Note: Cable sizes shown above are for standard insulation thickness. Final determining factor is cable insulation O.D.

## 1/C, 15 kV, Power Shielded Cold Shrink Splices

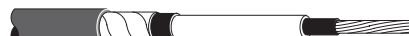
### 3M™ Cold Shrink QS-III Cable Splices 5513A, 5514A, 5515A and 5516A Series

The 3M Cold Shrink QS-III Splicing Kits 5513A, 5514A, 5515A and 5516A Series are inline splices for joining 15 kV Tape, Wire, LC and UniShield® power cables. It is a cold shrink design. Kits can be ordered with connectors



packed in the kit or the kit and connector can be ordered as separate items. See page 147 to order

3M connectors. Each kit makes one splice. 3M 2000T-Series Reducer Connectors are available for conductor size transitions. Contact 3M Representative for appropriate selection. **Meets requirements of IEEE 404.**



Tape Shielded Cable



Wire Shielded Cable



UniShield® Cable



Longitudinally Corrugated (LC) Shielded Cable



## 3M™ Cold Shrink QS-III Cable Splices 5513A, 5514A, 5515A and 5516A Series Selection

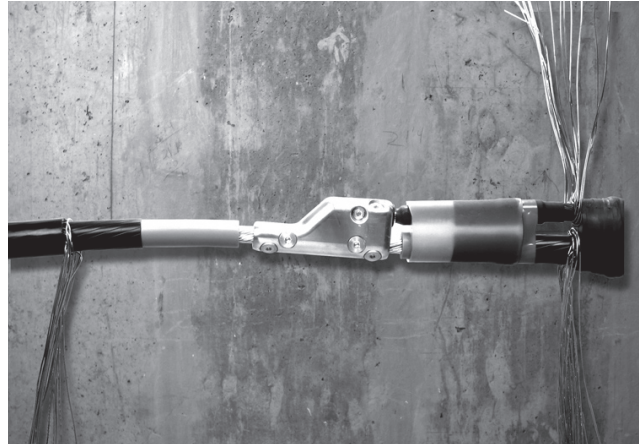
Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, Longitudinally Corrugated (LC) Shielded Cable					
<b>15 kV LC, Wire, Tape and UniShield® cables</b>					
5513A	53480	0.64-1.01" (16,3-25,7 mm)	2-4/0 AWG (35-95 mm²)	None	1
5513A-2-AL	53481	0.64-1.01" (16,3-25,7 mm)	2 AWG	20003	1
5513A-2-CU	53482	0.64-1.01" (16,3-25,7 mm)	2 AWG	10003	1
5513A-1-AL	53483	0.64-1.01" (16,3-25,7 mm)	1 AWG	20004	1
5513A-1-CU	53484	0.64-1.01" (16,3-25,7 mm)	1 AWG	10004	1
5513A-1/0-AL	53485	0.64-1.01" (16,3-25,7 mm)	1/0 AWG	20005	1
5513A-1/0-CU	53486	0.64-1.01" (16,3-25,7 mm)	1/0 AWG	10005	1
5513A-2/0-AL	53487	0.64-1.01" (16,3-25,7 mm)	2/0 AWG	20006	1
5513A-2/0-CU	53488	0.64-1.01" (16,3-25,7 mm)	2/0 AWG	10006	1
5513A-3/0-AL	53489	0.64-1.01" (16,3-25,7 mm)	3/0 AWG	20007	1
5513A-3/0-CU	53490	0.64-1.01" (16,3-25,7 mm)	3/0 AWG	10007	1
5513A-4/0-AL	53491	0.64-1.01" (16,3-25,7 mm)	4/0 AWG	20008	1
5513A-4/0-CU	53492	0.64-1.01" (16,3-25,7 mm)	4/0 AWG	10008	1
5514A	44101*	0.84-1.38" (21,3-35,1 mm)	4/0 AWG-500 kcmil (95-240 mm²)	None	1
5514A-4/0-AL	44102*	0.84-1.38" (21,3-35,1 mm)	4/0 AWG	20008	1
5514A-4/0-CU	44103*	0.84-1.38" (21,3-35,1 mm)	4/0 AWG	10008	1
5514A-250-AL	44104*	0.84-1.38" (21,3-35,1 mm)	250 kcmil	20009	1
5514A-250-CU	44105*	0.84-1.38" (21,3-35,1 mm)	250 kcmil	10009	1
5514A-350-AL	44106*	0.84-1.38" (21,3-35,1 mm)	350 kcmil	20011	1
5514A-350-CU	44107*	0.84-1.38" (21,3-35,1 mm)	350 kcmil	10011	1
5514A-500-AL	44407*	0.84-1.38" (21,3-35,1 mm)	500 kcmil	20014	1
5514A-500-CU	44408*	0.84-1.38" (21,3-35,1 mm)	500 kcmil	10014	1
5515A	42134*	1.04-1.70" (26,4-43,2 mm)	350-750 kcmil (185-325 mm²)	None	1
5515A-350-AL	42135*	1.04-1.70" (26,4-43,2 mm)	350 kcmil	20011	1
5515A-350-CU	42898*	1.04-1.70" (26,4-43,2 mm)	350 kcmil	10011	1
5515A-500-AL	42899*	1.04-1.70" (26,4-43,2 mm)	500 kcmil	20014	1
5515A-500-CU	42136*	1.04-1.70" (26,4-43,2 mm)	500 kcmil	10014	1
5515A-750-AL	42900*	1.04-1.70" (26,4-43,2 mm)	750 kcmil	20019	1
5515A-750-CU	42137*	1.04-1.70" (26,4-43,2 mm)	750 kcmil	10019	1
5516A	42139	1.08-1.70" (27,4-43,2 mm)	500-1000 kcmil (240-500 mm²)	None	1
5516A-500-AL	44405	1.08-1.70" (27,4-43,2 mm)	500 kcmil	20014	1
5516A-500-CU	44406	1.08-1.70" (27,4-43,2 mm)	500 kcmil	10014	1
5516A-750-AL	43254	1.08-1.70" (27,4-43,2 mm)	750 kcmil	20019	1
5516A-750-CU	43255	1.08-1.70" (27,4-43,2 mm)	750 kcmil	10019	1
5516A-1000-AL	42901	1.08-1.70" (27,4-43,2 mm)	1000 kcmil	20024	1
5516A-1000-CU	42106	1.08-1.70" (27,4-43,2 mm)	1000 kcmil	10024	1

\*UPC prefix 054007-

## 3M™ Branch Splice QS 2001B

The QS 2001B molded rubber splice kit is designed to connect extruded dielectric power cables rated 15 kV. The basic kits handle the main and branch cable range from 350-500 kcmil (for cable between 2-250 kcmil use the adapter).

These kits utilize the QS 2000 Cold Shrink technology and consist of a multi-layer silicone rubber splice and stress control body, each expanded on a removable, supporting polymeric core.



## 3M™ Branch Splice QS 2001B and 3M™ Branch Adapter QS 2000 BA Selection — 15kV

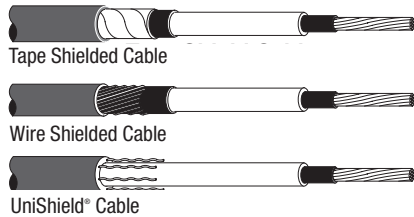
Kit Number	UPC (051128-)	Conductor Size Range	Primary Insulation O.D. Range	Case Qty.
QS 2001B	55254	350-500 kcmil (185-240 mm <sup>2</sup> )	1.00-1.35" (25,4-34,3 mm)	1
QS 2000BA*	55255	2 AWG-250 kcmil (35-150 mm <sup>2</sup> )	0.64-1.00" (16,3-25,4 mm)	1

\*Order one adapter kit for each cable end (3 maximum/splice) below 350 kcmil (185 mm<sup>2</sup>) conductor size.

# 1/C, 5-15 kV, Power Shielded Tape Splices

## Scotch® Tape Splice Kits 5700 Series

Scotch brand tape kits handle inline and tee splices on Tape Shielded, Wire Shielded or UniShield® cables with Cu or Al conductors. Kits are rated 5 through 15 kV, and each kit makes three splices. Use the selector chart to determine the proper kit needed. See “Lugs & Connectors” section, page 147, for ordering information. 3M does not offer tee connectors.



## Scotch Tape Splice Kits 5700 Series Selection

Product Number	UPC (054007-)	Inline Splices								Tee Splices*				Case Qty.	
		5 and 8 kV		15 kV 100% 175mil		15 kV 133% 220 mil		5 and 8 kV		15 kV 100% 175 mil		15 kV 133% 220 mil			
		Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al		
5717	12030	4-250 (22-125)	4-4/0 (2-100)	4-2 (22-30)	—	4	—	—	—	—	—	—	—	—	1
5718	12048	300-500 (180-250)	250 (150)	1-4/0 (50-100)	4-2/0 (22-60)	2-1/0 (35-60)	—	4-2/0 (22-60)	4-1/0 (22-50)	—	—	—	—	1	
5719	12055	550-1000 (300-500)	300-500 (180-250)	250-500 (180-250)	3/0-250 (95-125)	2/0-350 (70-180)	4-3/0 (22-80)	3/0-350 (95-180)	2/0-4/0 (70-100)	4-1 (22-38)	—	—	—	1	
5720	12063	—	500-1000 (300-500)	550-1000 (300-500)	300-750 (180-325)	400-750 (240-325)	4/0-500 (120-250)	400-750 (240-325)	250-500 (125-250)	1/0-350 (60-180)	4-4/0 (22-100)	4-250 (22-125)	4-3/0 (22-80)	1	

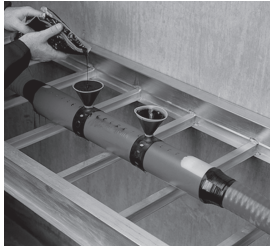
Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable  
See above for cable type illustrations.

\*3M does not offer tee compression connectors.

Note: Larger-numbered kits may be used in place of smaller-numbered kits (with excess materials left over).

# 3/C, 15 kV, Shielded Armored or Non-Armored Resin/Cold Shrink Splices

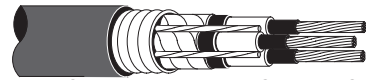
## 3M™ Cold Shrink Cable Splices 5760 and 5700A-MT



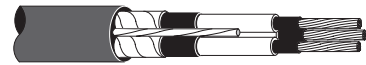
Designed for splicing shielded (Tape or Wire Shielded and UniShield®) armored or non-armored cables, 15 kV. The completed splices are designed for use in cable tray, as well as weather-exposed and direct

burial locations. The 5760 Series splices use resin and Cold Shrink technology, while the 5700A-MT is a cold shrink

only splice kit. Connectors not included, order separately. See page 147 for ordering connectors. Each kit makes one 3/C splice. 3M 2000T-Series Reducer Connectors are available for conductor size transitions. Contact your 3M representative for appropriate selection. **Meets the requirements of IEEE 404.**



Three-Conductor Armored, Shielded Cable



Three-Conductor Non-Armored, Shielded Cable

## 3M Cold Shrink Splices 5760 Selection—15 kV

Product Series	UPC (054007-)	Insulation O.D. Range	Conductor Size		Maximum Connector O.D.	Maximum Connector Length	Typical Splice Length	Case Qty.
			Copper	Aluminum				
5761	12260	0.65-1.00" (17-25 mm)	2-3/0 AWG (35-80 mm <sup>2</sup> )	2-3/0 AWG (35-80 mm <sup>2</sup> )	0.90" (23 mm)	2.75" (70 mm)	29" (737 mm)	1
5762	12262	0.93-1.94" (24-49 mm)	4/0 AWG-750 kcmil (120-325 mm <sup>2</sup> )	4/0 AWG-500 kcmil (120-250 mm <sup>2</sup> )	1.40" (36 mm)	5.00" (127 mm)	44" (1118 mm)	1

## 3/C, 15 kV Shielded to Shielded Armored or Non-Armored Cold Shrink Splices

The Cold Shrink QS-III Splicing Series 57XXA-MT are three-conductor inline splice kits designed to join armored or non-armored, shielded power cables. Kits are available in 5/8 kV, 15 kV, 25 kV and 35 kV class. Kits include Armorcast structural material to reconstitute the cable's armor. Use the MT-C or MT-E Trifurcating Accessory Kit to transition from 3/C cable to 3-1/C cables. **Meets the requirements of IEEE 404.** Each kit will make one splice.

### 3M™ Cold Shrink QS-III Three-Conductor Cable Splices 5775A-MT, 5776A-MT and 5777A-MT Selection

Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
<b>15 kV 3-Core cables</b>					
5775A-MT	53493	0.64-1.01" (16,3-25,7 mm)	2-4/0 AWG (35-95 mm <sup>2</sup> )	None	1
5776A-MT	44112*	0.84-1.38" (21,3-35,1 mm)	4/0 AWG-500 kcmil (95-240 mm <sup>2</sup> )	None	1
5777A-MT	44289*	1.04-1.70" (26,4-43,2 mm)	350-750 kcmil (185-325 mm <sup>2</sup> )	None	1

\*UPC prefix 054007-

## 3M™ Cold Shrink 5700A-MT Trifurcating Accessory Kit

### 3M™ Cold Shrink 5700A-MT Trifurcating Accessory Kit (3-Conductor to 3 Single Conductors)

Product Series	UPC (051128-)	Conductor Size	Single Conductor Jacket O.D. Range	Case Qty.
MT-C	55208	Single Conductor	0.62-1.13" (15,7-28,7 mm)	1
MT-E	54138	Single Conductor	1.13-1.80" (28,7-45,7 mm)	1

### Selection Table

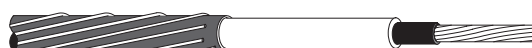
3M™ Splice 57XXA-MT	15 kV (175/220 mil)	Appropriate MT Transition Kit
Typical Conductor Size Range – AWG/kcmil		
5775A-MT	2-4/0	MT-C
5776A-MT	4/0-250	MT-C
5776A-MT	350-500	MT-E
MT-C Kit the Single Conductor Cable Jacket O.D. range is 0.62"-1.13" (15,7-28,7 mm).		
MT-E Kit the Single Conductor Cable Jacket O.D. range is 1.13"-1.80" (28,7-45,7 mm).		

# 25/28 kV Splices 1/C JCN/CN Molded Rubber Splices

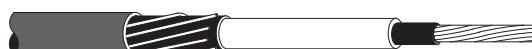
## 3M™ Cable Splices Kits QS 5420 and 5450 Series

3M Cable Splice Kits QS 5420 Series are inline splices designed for use on 25 kV CN or JCN cable. The 3M QS 5450 Series kits are one-piece inline splices designed for use on 25 kV CN and JCN Cable. The 3M QS-II Kit 5451A is a one-piece inline splice for use on 25/28 kV CN and JCN Cable.

The continuous current rating of each splice is equal to the current rating of the cable it is sized to accommodate. Meets requirements of IEEE Standard 404 for cable joints. Jacketing kit is needed for JCN Cable. See pages 359-360 to order CI, CI-840, CI-A series connectors. See next page for 5450 series selection. Each kit makes one splice.



Concentric Neutral (CN) Cable



Jacketed Concentric Neutral (JCN) Cable

## 3M™ Rubber Splices 5420 Series Selection

Product Series	UPC (054007-)	Insulation O.D. Range	Conductor Size* Cu or Al	Specified Connector	Case Qty.
Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable See above for cable type illustrations.					
5420	15819	0.795-0.940" (20-24 mm)	2-1/0 AWG (35-50 mm <sup>2</sup> )	CI and CI-A Series	1
5420-CI-22A	15820	0.795-0.940" (20-24 mm)	2 AWG Solid	CI-22A	1
5421	15827	0.920-1.080" (23-27 mm)	1/0-3/0 AWG (60-80 mm <sup>2</sup> )	CI and CI-A Series	1
5422	15835	1.060-1.210" (27-31 mm)	3/0-4/0 AWG (95-100 mm <sup>2</sup> )	CI and CI-A Series	1
5423	15843	1.120-1.320" (28-34 mm)	250-350 kcmil (125-180 mm <sup>2</sup> )	CI and CI-A Series	1
5423-CI-350	08384	1.120-1.320" (28-34 mm)	350 kcmil	CI-350	1
5424	15850	1.320-1.520" (34-39 mm)	500 kcmil	CI and CI-A Series	1
5425	09240	1.390-1.590" (35-40 mm)	750 kcmil Compact	CI and CI-A Series	1
5426	09239	1.550-1.710" (39-43 mm)	750 kcmil compressed and concentric	CI and CI-A Series	1
5426-CI-750	09177	1.550-1.710" (39-43 mm)	750 kcmil	CI-750	1

\*Use the primary insulation O.D. range for final ordering criteria.

Note: If connector is desired packed with any of the kits shown above, add the connector number after the splice number (example: 5420-CI-22A).

See page ? for connector ordering information. Jacketing kit is needed for JCN Cable. See page 384.

### 3M™ Cable Splice 5450 Series Selection

Product Series	UPC (054007-)	Insulation O.D. Range	Conductor Size* Cu or Al	Specified Connector	Case Qty.
Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable					
5451	09127	0.83-1.04" (21-26 mm)	2-2/0 AWG (60 mm <sup>2</sup> )	CI, CI-840, and CI-A Series	1
5451-CI-1/0-840	09155	0.83-1.04" (21-26 mm)	1/0 AWG	CI-1/0-840	1
5451-CI-1/0A	09153	0.83-1.04" (21-26 mm)	1/0 AWG	CI-1/0A	1
5451-CI-1A	09935	0.83-1.04" (21-26 mm)	1 AWG	CI-1A	1
5451-CI-2A	09152	0.83-1.04" (21-26 mm)	2 AWG	CI-2A	1
5451-CI-21-840	09154	0.83-1.04" (21-26 mm)	2 or 1 AWG	CI-21-840	1
5452	09128	1.00-1.15" (25-29 mm)	3/0-4/0 AWG (95 mm <sup>2</sup> )	CI, CI-840, and CI-A Series	1

\*Use the primary insulation O.D. range for final ordering criteria.

Note: If connector is desired packed with any of the kits shown above, add the connector number after the splice number (example: 5450-CI-22A).

See page ? for connector ordering information. Jacketing kit is needed for JCN Cable. See page 384.

### 3M™ Cable Splice 5451A Series Selection—For Thick Wall (Insulation) Cable

Product Series	UPC (054007-)	Insulation O.D. Range	Conductor		Cable Insulation Thickness	Specified Connector	Case Qty.
			Stranded	Solid			
Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable							
5451A	49527	0.905-1.055" (23,0-26,8 mm)	2 AWG	1 AWG	295 mils	CI-2A or CI-21-840	1
			1 AWG	1/0 AWG	280 mils	CI-1A or CI-21-840	1
			1/0 AWG	—	295 mils	CI-1/0A or CI-1/0-840	1
			2/0 AWG	—	260 mils		
					280 mils		
5451A-CI-1A	49529	0.905-1.055" (23,0-26,8 mm)	1 AWG	1/0 AWG	280 mils 295 mils	CI-1A	1
5451A-CI-1/0A	49530	0.905-1.055" (23,0-26,8 mm)	1/0 AWG	—	260 mils 280 mils 295 mils	CI-1/0A	1
5451A-CI-21-840	49532	0.905-1.055" (23,0-26,8 mm)	2 or 1 AWG	1 or 1/0 AWG	295 mils	CI-21-840	1
5451A-CI-1/0-840	49528	0.905-1.055" (23,0-26,8 mm)	1/0 AWG	—	260 mils 280 mils 295 mils	CI-1/0-840	1
5451A-CI-2/0	49531	0.905-1.055" (23,0-26,8 mm)	2/0 AWG	—	260 mils 280 mils	CI-2/0	1

Jacketing kit is needed for JCN Cable. See page 384.

Note: CI-A series connectors are sized for 5/8 crimping die; CI-2/0 and CI-840 series connectors are sized for 840 crimping die.

Final determining factor is cable insulation diameter.

## PRODUCT REFERRAL GENERATOR

### Connecting

- CI Series Connectors .....pg. 359-360
- CI-840 .....pg. 359-360
- CI-A Series Connectors .....pg. 359-360

For more information on Connecting see pg. 147

# 3M™ QS-II Cable Repair Splices Kit 5451R

QS-II Cable Repair Kit 5451R is a specially elongated molded rubber splice designed to repair damaged cable. It can be used on 25/28 kV copper or aluminum, CN or JCN cables. It is designed to replace up to 6" (152 mm) of damaged cable, eliminating the need to splice in a new section of cable with two separate splices.

Meets rating requirements of IEEE Standard 404.  
Jacketing kit is needed for JCN Cable. See page 387.  
Each kit makes one splice repair.



Concentric Neutral (CN) Cable



Jacketed Concentric Neutral (JCN) Cable



## 3M QS-II Cable Repair Splice 5451R Selection

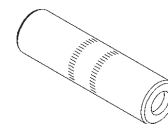
Product Series	UPC (054007-)	Cable Insulation O.D. Range	Conductor		Cable Insulation Thickness	3M Connector Product Number	Case Qty.
			Stranded	Solid			
Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable See above for cable type illustrations.							
5451R-CIR-21A	49479	0.870-1.055" (22,1-26,8 mm)	2 or 1 AWG	1 or 1/0 AWG	260 mils 280 mils 295 mils	CIR-21A	1
5451R-CIR-21-840	49478	0.870-1.055" (22,1-26,8 mm)	2 or 1 AWG	1 or 1/0 AWG	260 mils 280 mils 295 mils	CIR-21-840	1
5451R-CIR-1/0A	49476	0.870-1.055" (22,1-26,8 mm)	1/0 AWG	—	260 mils 280 mils 295 mils	CIR-1/0A	1
5451R-CIR-1/0-840	49477	0.870-1.055" (22,1-26,8 mm)	1/0 AWG	—	260 mils 280 mils 295 mils	CIR-1/0-840	1

Jacketing kit is needed for JCN Cable. See page 387.

Note: CIR-A series connectors are sized for 5/8 crimping die; CIR-840 series connectors are sized for 840 crimping die.

Final determining factor is cable insulation diameter.

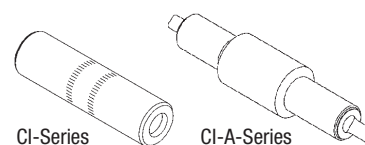




## Specifications and Ordering Information for 3M™ CI and CI-A Series Connectors for 5420 Series

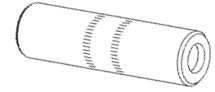
Product Number	UPC (054007-)	Conductor Size Cu or Al		Connector O.D.	Case Qty.
		Stranded	Solid		
CI-22A	15868	—	2 AWG	0.910" (23 mm)	10
CI-2A	00721	2 AWG	1 AWG	0.910" (23 mm)	10
CI-1A	00722	2-1 AWG	1-1/0 AWG	0.910" (23 mm)	10
CI-1/0A	14176	1/0 AWG	—	0.910" (23 mm)	10
CI-2/0	11875	2/0 AWG	—	0.910" (23 mm)	10
CI-3/0	11883	3/0 AWG	—	0.910" (22 mm)	10
CI-4/0	11891	4/0 AWG	—	0.910" (22 mm)	10
CI-250	11909	250 kcmil	—	1.125" (29 mm)	10
CI-350	11925	350 kcmil	—	1.125" (29 mm)	10
CI-450	11933	500 kcmil compact	—	1.312" (33 mm)	10
CI-500	25644	500 kcmil	—	1.312" (33 mm)	10
CI-650	11941	750 kcmil compact	—	1.590" (43 mm)	10
CI-750	25651	750 kcmil compressed and concentric	—	1.590" (43 mm)	10

## Specifications and Ordering Information for 3M™ CI Series Connectors 5450 Series



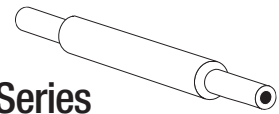
Product Number	UPC (054007-)	Conductor Size Cu or Al		Connector O.D.	Case Qty.
		Stranded	Solid		
CI-22A	15868	—	2 AWG	0.910" (23 mm)	10
CI-2A	00721	2 AWG	1 AWG	0.910" (23 mm)	10
CI-1A	00722	2-1 AWG	1-1/0 AWG	0.910" (23 mm)	10
CI-21-840	09136	2-1 AWG	1-1/0 AWG	0.910" (23 mm)	10
CI-1/0A	14176	1/0 AWG	—	0.910" (23 mm)	10
CI-1/0-840	09137	1/0 AWG	—	0.910" (23 mm)	10
CI-2/0	11875	2/0 AWG	—	0.910" (23 mm)	10
CI-3/0	11883	3/0 AWG	—	0.910" (23 mm)	10
CI-4/0	11891	4/0 AWG	—	0.910" (23 mm)	10

## Specifications and Ordering Information for 3M™ CI and CI-A Series Connectors for 5451A



Product Number	UPC (054007-)	Conductor Size Cu or Al		Connector O.D.	Splice Body	Case Qty.
		Stranded	Solid			
CI-21-840	09136	2-1 AWG	1-1/0 AWG	0.910" (23 mm)	5451A	10
CI-1A	00722	1 AWG	1/0 AWG	0.910" (23 mm)	5451A	10
CI-1/0A	14176	1/0 AWG	—	0.910" (23 mm)	5451A	10
CI-1/0-840	09137	1/0 AWG	—	0.910" (23 mm)	5451A	10
CI-2/0	11875	2/0 AWG	—	0.910" (23 mm)	5451A	10

## Specifications and Ordering Information for 3M™ CIR Series Repair Connectors for 3M™ Rubber Splices 5451R Series



Product Number	UPC (054007-)	Conductor Size Cu or Al		Connector O.D.	Splice Body	Case Qty.
		Stranded	Solid			
CIR-21A	50227	2-1 AWG	1-1/0 AWG	0.910" (23 mm)	5451R	10
CIR-1/0A	50226	1/0 AWG	—	0.910" (23 mm)	5451R	10

No special  
tools  
required



# 1/C, 25/28 kV, JCN/CN Cold Shrink Splices

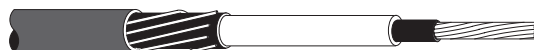
## 3M™ Cold Shrink QS-III Cable Splices 5456A, 5457A and 5458A

3M Cold Shrink QS-III Series Splicing Kits 5456A, 5457A and 5458A are inline splices for joining 25/28 kV Jacketed Concentric Neutral (JCN) or Concentric Neutral (CN) power cables. It is a cold shrink design. The cold shrink splice body is a one-piece molded design made of specially formulated silicone rubbers, while the jacketing is made of EPDM rubber for its special physical properties. Each splice is high-voltage production tested to ensure reliability.

Kits can be ordered with connectors packed in the kit or the kit and connector can be ordered as separate items. See page 147 to order 3M connectors. Each kit makes one splice. 3M Reducer Connectors 2000T-Series are available for conductor size transitions. Contact your 3M representative for appropriate selection. **Meets requirements of IEEE 404.**



Concentric Neutral (CN) Cable



Jacketed Concentric Neutral (JCN) Cable

## 3M™ Cold Shrink QS-III 5456A, 5457A and 5458A Series Selection

Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable — See above for cable type illustrations.					
<b>25/28 kV CN and JCN cables</b>					
5456A	53793	0.84-1.36" (21,3-34,5 mm)	1 AWG-250 kcmil (50-120 mm <sup>2</sup> )	None	1
5456A-1-AL	53794	0.84-1.36" (21,3-34,5 mm)	1 AWG	20004	1
5456A-1-CU	53795	0.84-1.36" (21,3-34,5 mm)	1 AWG	10004	1
5456A-1/0-AL	53796	0.84-1.36" (21,3-34,5 mm)	1/0 AWG	20005	1
5456A-1/0-CU	53797	0.84-1.36" (21,3-34,5 mm)	1/0 AWG	10005	1
5456A-2/0-AL	53798	0.84-1.36" (21,3-34,5 mm)	2/0 AWG	20006	1
5456A-2/0-CU	53799	0.84-1.36" (21,3-34,5 mm)	2/0 AWG	10006	1
5456A-3/0-AL	53800	0.84-1.36" (21,3-34,5 mm)	3/0 AWG	20007	1
5456A-3/0-CU	53801	0.84-1.36" (21,3-34,5 mm)	3/0 AWG	10007	1
5456A-4/0-AL	53802	0.84-1.36" (21,3-34,5 mm)	4/0 AWG	20008	1
5456A-4/0-CU	53803	0.84-1.36" (21,3-34,5 mm)	4/0 AWG	10008	1
5456A-250-AL	53935	0.84-1.36" (21,3-34,5 mm)	250 kcmil	20009	1
5456A-250-CU	53936	0.84-1.36" (21,3-34,5 mm)	250 kcmil	10009	1
5456A-WG*	53804	0.84-1.36" (21,3-34,5 mm)	1 AWG-250 kcmil (50-120 mm <sup>2</sup> )	None	1
5457A	42149**	1.07-1.70" (27,2-43,2 mm)	250-500 kcmil (120-240 mm <sup>2</sup> )	None	1
5457A-250-AL	53836	1.07-1.70" (27,2-43,2 mm)	250 kcmil	20009	1
5457A-250-CU	53837	1.07-1.70" (27,2-43,2 mm)	250 kcmil	10009	1
5457A-350-AL	42132**	1.07-1.70" (27,2-43,2 mm)	350 kcmil	20011	1
5457A-350-CU	44238**	1.07-1.70" (27,2-43,2 mm)	350 kcmil	10011	1
5457A-500-AL	42133**	1.07-1.70" (27,2-43,2 mm)	500 kcmil	20014	1
5457A-500-CU	44239**	1.07-1.70" (27,2-43,2 mm)	500 kcmil	10014	1
5457A-WG*	43416**	1.07-1.70" (27,2-43,2 mm)	250-500 kcmil (120-240 mm <sup>2</sup> )	None	1
5458A	42908**	1.24-2.07" (31,5-52,6 mm)	500-1000 kcmil (240-500 mm <sup>2</sup> )	None	1
5458A-500-AL	04593**	1.24-2.07" (31,5-52,6 mm)	500 kcmil	20014	1

\*5456A-WG, 5457A-WG and 5458A-WG are partially jacketed splices containing built-in bleeder wires. Additional end user materials are required to convert to full jacketing.

\*\*UPC prefix 054007-

## 3M™ Cold Shrink QS-III 5456A, 5457A and 5458A Series Selection

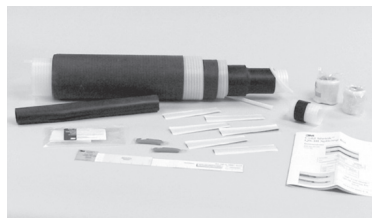
Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
5458A-500-CU	04594**	1.24-2.07" (31,5-52,6 mm)	500 kcmil	10014	1
5458A-750-AL	42909**	1.24-2.07" (31,5-52,6 mm)	750 kcmil	20019	1
5458A-750-CU	44240**	1.24-2.07" (31,5-52,6 mm)	750 kcmil	10019	1
5458A-1000-AL	42910**	1.24-2.07" (31,5-52,6 mm)	1000 kcmil	20024	1
5458A-1000-CU	44241**	1.24-2.07" (31,5-52,6 mm)	1000 kcmil	10024	1
5458A-WG*	43417**	1.24-2.07" (31,5-52,6 mm)	500-1000 kcmil (240-500 mm <sup>2</sup> )	None	1

\*5456A-WG, 5457A-WG and 5458A-WG are partially jacketed splices containing built-in bleeder wires. Additional end user materials are required to convert to full jacketing.

\*\*UPC prefix 054007-

## 1/C, 25/28 kV, Power Shielded Cold Shrink Splices

### 3M™ Cold Shrink QS-III Cable Splices 5524A, 5525A and 5526A

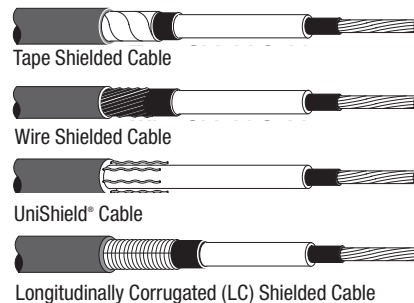


3M Cold Shrink QS-III Splicing Kits 5524A, 5525A and 5526A are inline splices for joining 25/28 kV Tape, Wire,

LC, and UniShield® power cables. It is a cold shrink design. The cold shrink splice body is a one-piece molded design made of specially formulated silicone rubbers, while the jacketing is made of EPDM rubber for its special physical properties. Each splice is high-voltage production tested to ensure reliability. Kits can be ordered with connectors

packed in the kit, or the kit and connector can be ordered as separate items. See page 147 to order 3M connectors. Each kit makes one splice. 3M 2000T-Series. Reducer Connectors are available for conductor size transitions. Contact your 3M representative for appropriate selection.

**Meets requirements of IEEE 404.**



### 3M™ Cold Shrink QS-III 5524A, 5525A and 5526A Selection

Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
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Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, Longitudinally Corrugated (LC) Shielded Cable  
See above for cable type illustrations.

#### 25/28 kV LC, Wire, Tape and UniShield® cables

5524A	53922	0.84-1.36" (21,3-34,5 mm)	1 AWG-250 kcmil (50-120 mm <sup>2</sup> )	None	1
5524A-1-AL	53923	0.84-1.36" (21,3-34,5 mm)	1 AWG	20004	1
5524A-1-CU	53924	0.84-1.36" (21,3-34,5 mm)	1 AWG	10004	1
5524A-1/0-AL	53925	0.84-1.36" (21,3-34,5 mm)	1/0 AWG	20005	1
5524A-1/0-CU	53926	0.84-1.36" (21,3-34,5 mm)	1/0 AWG	10005	1
5524A-2/0-AL	53927	0.84-1.36" (21,3-34,5 mm)	2/0 AWG	20006	1

### 3M™ Cold Shrink QS-III 5524A, 5525A and 5526A Selection

Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
5524A-2/0-CU	53928	0.84-1.36" (21,3-34,5 mm)	2/0 AWG	10006	1
5524A-3/0-AL	53929	0.84-1.36" (21,3-34,5 mm)	3/0 AWG	20007	1
5524A-3/0-CU	53930	0.84-1.36" (21,3-34,5 mm)	3/0 AWG	10007	1
5524A-4/0-AL	53931	0.84-1.36" (21,3-34,5 mm)	4/0 AWG	20008	1
5524A-4/0-CU	53932	0.84-1.36" (21,3-34,5 mm)	4/0 AWG	10008	1
5524A-250-AL	53933	0.84-1.36" (21,3-34,5 mm)	250 kcmil	20009	1
5524A-250-CU	53934	0.84-1.36" (21,3-34,5 mm)	250 kcmil	10009	1
5525A	42138*	1.07-1.70" (27,2-43,2 mm)	250-750 kcmil (120-325 mm <sup>2</sup> )	None	1
5525A-250-AL	53845	1.07-1.70" (27,2-43,2 mm)	250 kcmil	20009	1
5525A-250-CU	53846	1.07-1.70" (27,2-43,2 mm)	250 kcmil	10009	1
5525A-350-AL	42140*	1.07-1.70" (27,2-43,2 mm)	350 kcmil	20011	1
5525A-350-CU	42902*	1.07-1.70" (27,2-43,2 mm)	350 kcmil	10011	1
5525A-500-AL	42141*	1.07-1.70" (27,2-43,2 mm)	500 kcmil	20014	1
5525A-500-CU	42903*	1.07-1.70" (27,2-43,2 mm)	500 kcmil	10014	1
5525A-750-AL	42904*	1.07-1.70" (27,2-43,2 mm)	750 kcmil	20019	1
5525A-750-CU	42127*	1.07-1.70" (27,2-43,2 mm)	750 kcmil	10019	1
5526A	42905*	1.24-2.07" (31,5-52,6 mm)	500-1000 kcmil (240-500 mm <sup>2</sup> )	None	1
5526A-500-AL	04597*	1.24-2.07" (31,5-52,6 mm)	500 kcmil	20014	1
5526A-500-CU	04598*	1.24-2.07" (31,5-52,6 mm)	500 kcmil	10014	1
5526A-750-AL	04595*	1.24-2.07" (31,5-52,6 mm)	750 kcmil	20019	1
5526A-750-CU	04596*	1.24-2.07" (31,5-52,6 mm)	750 kcmil	10019	1
5526A-1000-AL	42906*	1.24-2.07" (31,5-52,6 mm)	1000 kcmil	20024	1
5526A-1000-CU	42907*	1.24-2.07" (31,5-52,6 mm)	1000 kcmil	10024	1
*UPC prefix 054007-					

# 3/C, 25/28 kV Shielded Armored or Non-Armored Cold Shrink Splices

## 3/C, 25/28 kV Shielded to Shielded Armored or Non-Armored Cold Shrink Splices

The Cold Shrink QS-III Splicing Series 57XXA-MT are three-conductor inline splice kits designed to join armored or non-armored, shielded power cables. Kits are available in 5/8 kV, 15 kV, 25 kV and 35 kV class. Kits include Armormcast structural material to reconstitute the cable's armor. Use the MT-C or MT-E Trifurcating Accessory Kit to transition from 3/C cable to 3-1/C cables. **Meets the requirements of IEEE 404.** Each kit makes one splice.

## 3M™ Cold Shrink QS-III 3-Conductor Cable Splices 5786A-MT, 5787A-MT and 5788A-MT Selection

Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, Longitudinally Corrugated (LC) Shielded Cable					
<b>25/28 kV 3-Core Cables</b>					
5786A-MT	53937	0.84-1.36" (21,3-34,5 mm)	1 AWG-250 kcmil (50-120 mm <sup>2</sup> )	None	1
5787A-MT	43421*	1.07-1.70" (27,2-43,2 mm)	250-750 kcmil (120-325 mm <sup>2</sup> )	None	1
5788A-MT	43422*	1.24-2.07" (31,5-52,6 mm)	500-1000 kcmil (240-500 mm <sup>2</sup> )	None	1
*UPC prefix 054007-					

## 3M™ Cold Shrink 5700A-MT Trifurcating Accessory Kit (3-Conductor to 3 Single Conductors)

Product Series	UPC (051128-)	Conductor Size	Single Conductor Jacket O.D. Range	Case Qty.
MT-C	55208	Single Conductor	0.62-1.13" (15,7-28,7 mm)	1
MT-E	54138	Single Conductor	1.13-1.80" (28,7-45,7 mm)	1

## Selection Table

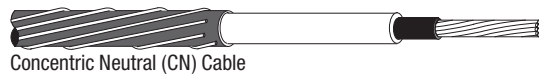
3M™ Splice 57XXA-MT	25/28 kV (260/280 mil)	Appropriate MT Transition Kit
Typical Conductor Size Range – AWG/kcmil*		
5786A-MT	1- 2/0	MT-C
5786A-MT	3/0-250	MT-E
5787A-MT	250-500	MT-E
5788A-MT	500	MT-E
MT-C Kit the Single Conductor Cable Jacket O.D. range is 0.62"-1.13" (15,7-28,7 mm).		
MT-E Kit the Single Conductor Cable Jacket O.D. range is 1.13"-1.80" (28,7-45,7 mm).		
*Typical conductor size range is based on typical cable jacket outside diameter (O.D.). Ranges shown at the bottom of the table are the final determining factor as to whether this transition kit will work with the cables being used.		

# 35 kV Splices 1/C, JCN/CN Molded Rubber Splices

## 3M™ Molded Rubber Splices 5432, 5433 and 5461

3M Molded Rubber Splices Kits QS 5432, 5433 and 5461 are inline splices designed for use on 35 kV CN or JCN cable. Meets requirements of IEEE Standard 404. The continuous current rating of each splice is equal to the current rating of the cable it is sized to accommodate.

For copper or aluminum conductor cable, select the correct splice with connector, from the table below. To order connector separately see page 147. Each kit makes one splice.



Concentric Neutral (CN) Cable



Jacketed Concentric Neutral (JCN) Cable

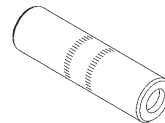
## 3M Splices 5432, 5433 and 5461 Series Selection

Product Series	UPC (054007-)	Primary Insulation O.D. Range	Conductor Size* Cu or Al	Case Qty.
Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable See above for cable type illustrations.				
5432	02338	1.060-1.210" (27-31 mm)	2 Str.-1/0 Str. AWG	1
5432-CI-1A	08357	1.060-1.210" (27-31 mm)	1 Str.-1/0 Sol. AWG	1
5432-CI-1/0A	31222	1.060-1.210" (27-31 mm)	1/0 Str. AWG	1
5433	02339	1.120-1.320" (28-34 mm)	3/0-4/0 AWG	1
5433-CI-3/0B	49485	1.120-1.320" (28-34 mm)	3/0 AWG	1
5433-CI-4/0B	49486	1.120-1.320" (28-34 mm)	4/0 AWG	1
5461	09129	1.00-1.15" (25-29 mm)	1-1/0 AWG	1
5461-CI-1/0-840	09157	1.00-1.15" (25-29 mm)	1/0 AWG	1
5461-CI-1/0A	09156	1.00-1.15" (25-29 mm)	1/0 AWG	1

Jacketing kit is needed for JCN Cable. See page 384.

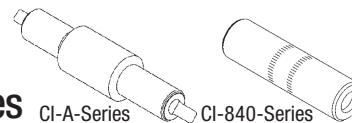
\*Important: On all QS kits use the primary insulation O.D. range for final ordering criteria.

## Specifications and Ordering Information for 3M™ CI and CI-A Series Connectors for 3M™ Rubber Splices 5432 and 5433 Series



Product Number	UPC (054007-)	Conductor Size Cu or Al		Connector O.D.	Case Qty.
		Stranded	Solid		
CI-1/0A	14176	1/0 AWG	—	0.91" (23 mm)	10
CI-1A	00722	2-1 AWG	1-1/0 AWG	0.91" (23 mm)	10
CI-3/0B	—	3/0 AWG	3/0 AWG	—	10
CI-4/0B	—	4/0 AWG	40 AWG	—	10

## Specifications and Ordering Information for 3M™ CI-A and CI-840 Series Connectors for 3M™ Rubber Splices 5461 Series



Product Number	UPC (054007-)	Conductor Size Cu or Al		Case Qty.
		Stranded	Solid	
CI-1/0A	14176	1/0 AWG	—	10
CI-1/0-840	09137	1/0 AWG	—	10
CI-1A	00722	2-1 AWG	1-1/0 AWG	10
CI-2A	00721	2 AWG	1 AWG	10

## 1/C, 35 kV, JCN/CN Cold Shrink Splices

### 3M™ Cold Shrink QS-III Cable Splices 5467A and 5468A



3M Cold Shrink QS-III Splicing Kits 5467A and 5468A Series are inline splices for joining 35 kV

Jacketed Concentric Neutral (JCN) or Concentric Neutral (CN) power cables. It is a cold shrink design. The cold shrink splice body is a one-piece molded design made of specially formulated silicone rubbers, while the jacketing

is made of EPDM rubber for its special physical properties. Each splice is high-voltage production tested to ensure reliability. Kits can be ordered with connectors packed in the kit or the kit and connector can be ordered as separate items. See page 147 to order 3M connectors. Each kit makes one splice. 3M 2000T-Series Reducer Connectors are available for conductor size transitions. Contact your 3M representative for appropriate selection. **Meets requirements of IEEE 404.**



Concentric Neutral (CN) Cable



Jacketed Concentric Neutral (JCN) Cable



## 3M™ Cold Shrink QS-III 5467A and 5468A Series Selection

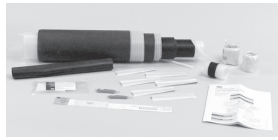
Product Series	UPC (054007-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable					
<b>35 kV CN and JCN cables</b>					
5467A	43051	1.07-1.70" (27,2-43,2 mm)	1/0 AWG-350 kcmil (60-185 mm <sup>2</sup> )	None	1
5467A-1/0-AL	43052	1.07-1.70" (27,2-43,2 mm)	1/0 AWG	20005	1
5467A-1/0-CU	43057	1.07-1.70" (27,2-43,2 mm)	1/0 AWG	10005	1
5467A-2/0-AL	43053	1.07-1.70" (27,2-43,2 mm)	2/0 AWG	20006	1
5467A-2/0-CU	43058	1.07-1.70" (27,2-43,2 mm)	2/0 AWG	10006	1
5467A-3/0-AL	43054	1.07-1.70" (27,2-43,2 mm)	3/0 AWG	20007	1
5467A-3/0-CU	43059	1.07-1.70" (27,2-43,2 mm)	3/0 AWG	10007	1
5467A-4/0-AL	43055	1.07-1.70" (27,2-43,2 mm)	4/0 AWG	20008	1
5467A-4/0-CU	43060	1.07-1.70" (27,2-43,2 mm)	4/0 AWG	10008	1
5467A-250-AL	43056	1.07-1.70" (27,2-43,2 mm)	250 kcmil	20009	1
5467A-250-CU	43061	1.07-1.70" (27,2-43,2 mm)	250 kcmil	10009	1
5467A-350-AL	04589	1.07-1.70" (27,2-43,2 mm)	350 kcmil	20011	1
5467A-350-CU	04590	1.07-1.70" (27,2-43,2 mm)	350 kcmil	10011	1
5467A-WG*	53883**	1.07-1.70" (27,2-43,2 mm)	1/0 AWG-350 kcmil (60-185 mm <sup>2</sup> )	None	1
5468A	43062	1.24-2.07" (31,5-52,6 mm)	350-1000 kcmil (185-500 mm <sup>2</sup> )	None	1
5468A-350-AL	43063	1.24-2.07" (31,5-52,6 mm)	350 kcmil	20011	1
5468A-350-CU	43067	1.24-2.07" (31,5-52,6 mm)	350 kcmil	10011	1
5468A-500-AL	43064	1.24-2.07" (31,5-52,6 mm)	500 kcmil	20014	1
5468A-500-CU	43068	1.24-2.07" (31,5-52,6 mm)	500 kcmil	10014	1
5468A-750-AL	43065	1.24-2.07" (31,5-52,6 mm)	750 kcmil	20019	1
5468A-750-CU	43069	1.24-2.07" (31,5-52,6 mm)	750 kcmil	10019	1
5468A-1000-AL	43066	1.24-2.07" (31,5-52,6 mm)	1000 kcmil	20024	1
5468A-1000-CU	43070	1.24-2.07" (31,5-52,6 mm)	1000 kcmil	10024	1
5468A-WG*	53909**	1.24-2.07" (31,5-52,6 mm)	350-1000 kcmil (185-500 mm <sup>2</sup> )	None	1

\*5467A-WG and 5468A-WG are partially jacketed splices containing built-in bleeder wires. Additional end user materials are required to convert to full jacketing.

\*\*UPC prefix 051128-

# 1/C, 35 kV, Power Shielded Cold Shrink Splices

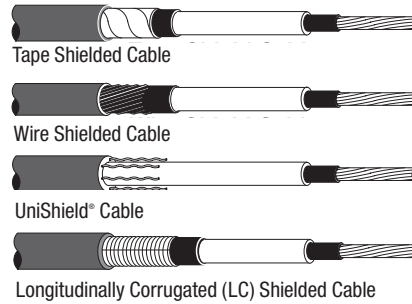
## 3M™ Cold Shrink QS-III Cable Splices 5535A and 5536A



3M Cold Shrink QS-III Splicing Kits 5535A and 5536A Series are inline splices for joining 35 kV Tape, Wire, LC,

and UniShield® power cables. The cold shrink splice body is a one-piece molded design made of specially formulated silicone rubbers, while the jacketing is made of EPDM rubber for its special physical properties. Each splice is high-voltage production tested to ensure reliability. Kits can be ordered with connectors packed in the kit, or the kit

and connector can be ordered as separate items. See page 147 to order 3M connectors. Each kit makes one splice. 3M 2000T-Series Reducer Connectors are available for conductor size transitions. Contact your 3M representative for appropriate selection. **Meets requirements of IEEE 404.**



## 3M™ Cold Shrink QS-III Cable Splices 5535A and 5536A Series Selection

Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, Longitudinally Corrugated (LC) Shielded Cable					
<b>35 kV LC, wire, tape and UniShield® cables</b>					
5535A	43071	1.07-1.70" (27,2-43,2 mm)	1/0 AWG-350 kcmil (60-185 mm <sup>2</sup> )	None	1
5535A-1/0-AL	43072	1.07-1.70" (27,2-43,2 mm)	1/0 AWG	20005	1
5535A-1/0-CU	43077	1.07-1.70" (27,2-43,2 mm)	1/0 AWG	10005	1
5535A-2/0-AL	43073	1.07-1.70" (27,2-43,2 mm)	2/0 AWG	20006	1
5535A-2/0-CU	43078	1.07-1.70" (27,2-43,2 mm)	2/0 AWG	10006	1
5535A-3/0-AL	43074	1.07-1.70" (27,2-43,2 mm)	3/0 AWG	20007	1
5535A-3/0-CU	43079	1.07-1.70" (27,2-43,2 mm)	3/0 AWG	10007	1
5535A-4/0-AL	43075	1.07-1.70" (27,2-43,2 mm)	4/0 AWG	20008	1
5535A-4/0-CU	43080	1.07-1.70" (27,2-43,2 mm)	4/0 AWG	10008	1
5535A-250-AL	43076	1.07-1.70" (27,2-43,2 mm)	250 kcmil	20009	1
5535A-250-CU	43081	1.07-1.70" (27,2-43,2 mm)	250 kcmil	10009	1
5535A-350-AL	04591	1.07-1.70" (27,2-43,2 mm)	350 kcmil	20011	1
5535A-350-CU	04592	1.07-1.70" (27,2-43,2 mm)	350 kcmil	10011	1
5536A	43082	1.24-2.07" (31,5-52,6 mm)	350-1000 kcmil (185-500 mm <sup>2</sup> )	None	1
5536A-350-AL	43083	1.24-2.07" (31,5-52,6 mm)	350 kcmil	20011	1
5536A-350-CU	43087	1.24-2.07" (31,5-52,6 mm)	350 kcmil	10011	1
5536A-500-AL	43084	1.24-2.07" (31,5-52,6 mm)	500 kcmil	20014	1
5536A-500-CU	43088	1.24-2.07" (31,5-52,6 mm)	500 kcmil	10014	1
5536A-750-AL	43085	1.24-2.07" (31,5-52,6 mm)	750 kcmil	20019	1
5536A-750-CU	43089	1.24-2.07" (31,5-52,6 mm)	750 kcmil	10019	1
5536A-1000-AL	43086	1.24-2.07" (31,5-52,6 mm)	1000 kcmil	20024	1
5536A-1000-CU	43090	1.24-2.07" (31,5-52,6 mm)	1000 kcmil	10024	1

# 1/C, 35 kV, JCN Cold Shrink Shield-Break Splices

## 3M™ Cold Shrink QS-III Cable Splices 5467A-XB and 5468A-XB



3M Cold Shrink-Break QS-III Splicing Kits 5467A-XB and 5468A-XB Series are inline splices designed for providing a shield-break in the joining

of 35 kV Jacketed Concentric Neutral (JCN) power cables. It is a cold shrink design containing a built-in shield-break

of the splice insulation shield. The shield-break allows the splice to be used for shield-break and cross-bounding installations. Each splice is high-voltage production tested to ensure reliability. See page 147 to order 3M connectors. Each kit makes one shield-break splice. 3M Reducer Connectors 2000T-Series are available for conductor size transitions. Contact 3M your representative for appropriate selection. **Meets the requirements of IEEE 404.**



Jacketed Concentric Neutral (JCN) Cable

## 3M™ Cold Shrink QS-III Series 5467A-XB and 5468A-XB Selection

Product Series	UPC (051128-)	Cable Insulation O.D. Range	Conductor Size	Connector	Case Qty.
Jacketed Concentric Neutral (JCN) Cable. See above for cable type illustrations.					
<b>35 kV JCN cables</b>					
5467A-XB	54939	1.07-1.70" (27,2-43,2 mm)	1/0 AWG-350 kcmil (60-185 mm <sup>2</sup> )	None	1
5468A-XB	54940	1.24-2.07" (31,5-52,6 mm)	350-1000 kcmil (185-500 mm <sup>2</sup> )	None	1

# 3/C, 35 kV, Shielded Armored or Non-Armored Cold Shrink Splices

The 3M Cold Shrink QS-III Splicing Series 57XXA-MT are three-conductor inline splice kits designed to join armored or non-armored, shielded power cables. Kits are available in 5/8 kV, 15 kV, 25 kV and 35 kV class. Kits include

Armorcast structural material to reconstitute the cable's armor. Use the MT-C or MT-E Trifurcating Accessory Kit to transition from 3/C cable to 3-1/C cables. **Meets the requirements of IEEE 404.** Each kit makes one splice.

## 3M™ Cold Shrink QS-III Three-Conductor Cable Splices 5797A-MT and 5798A-MT Selection

Product Series	UPC (054007-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
Three Conductor Armored, Shielded Cable, Three Conductor Non-Armored, Shielded Cable					
<b>35 kV 3-Conductor Cables</b>					
5797A-MT	43419	1.07-1.70" (27,2-43,2 mm)	1/0 AWG-350 kcmil (60-185 mm <sup>2</sup> )	None	1
5798A-MT	43420	1.24-2.07" (31,5-52,6 mm)	350-1000 kcmil (185-500 mm <sup>2</sup> )	None	1

## 3M™ Cold Shrink 5700A-MT Trifurcating Accessory Kit (3-Conductor to 3 Single Conductors)

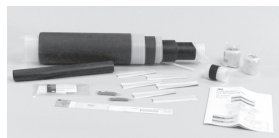
Product Series	UPC (051128-)	Conductor Size	Single Conductor Jacket O.D. Range	Case Qty.
MT-C	55208	Single Conductor	0.62-1.13" (15,7-28,7 mm)	1
MT-E	54138	Single Conductor	1.13-1.80" (28,7-45,7 mm)	1

### Selection Table

3M™ Splice 57XXA-MT	35 kV (345 mil)	Appropriate MT Transition Kit
*Typical Conductor Size Range – AWG/kcmil		
5797A-MT	1/0- 350	MT-E
5798A-MT	350	MT-E
MT-C Kit the Single Conductor Cable Jacket O.D. range is 0.62"-1.13" (15,7-28,7 mm).		
MT-E Kit the Single Conductor Cable Jacket O.D. range is 1.13"-1.80" (28,7-45,7 mm).		
*Typical conductor size range is based on typical cable jacket outside diameter (O.D.). Ranges shown at the bottom of the table are the final determining factor as to whether this transition kit will work with the cables being used.		

## 1/C, 46 kV, Power Shielded Cold Shrink Splices

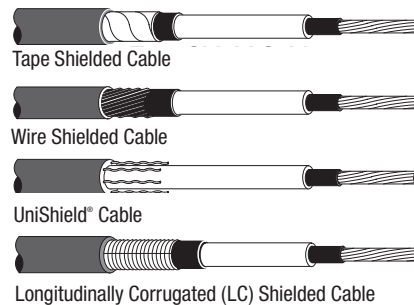
### 3M™ Cold Shrink QS-III Cable Splice 5545A



3M Cold Shrink QS-III Splicing Kits 5545A is an inline splice for joining 46 kV Tape, Wire, LC, and UniShield®

power cables. The cold shrink splice body is a one-piece molded design made of specially formulated silicone rubbers, while the jacketing is made of EPDM rubber for its special physical properties. Each splice is high-voltage production tested to ensure reliability. Kits can be ordered with connectors packed in the kit, or the kit and connector

can be ordered as separate items. See page 147 to order 3M connectors. Each kit makes one splice. 3M 2000T-Series Reducer Connectors are available for conductor size transitions. Contact your 3M representative for appropriate selection. **Meets requirements of IEEE 404.**



### 3M Cold Shrink QS-III Splice 5545A

Product Series	UPC (051128-)	Primary Insulation O.D. Range	Conductor Size	Connector	Case Qty.
Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, Longitudinally Corrugated (LC) Shielded Cable					
<b>46 kV LC, Wire, Tape and UniShield® Cables</b>					
5545A	55089	1.24-2.07" (31,5-52,6 mm)	4/0-1000 kcmil (120-500 mm)	None	1

\*4/0 AWG and 250 kcmil cable may be used with aluminum connectors ONLY—do not use 4/0 AWG or 250 kcmil copper connectors.

# PILC Splices and Accessories

## 1/C Low Voltage Splices 0-600V (1000V Rated)

### 3M™ Cable Splices CS500Pb Series 1000V

3M Cold Shrink CS500Pb Series splice kits are a series of kits rated 1000 volts for splicing Paper Insulated Lead Covered (PILC) cable. The splice kits can be used to connect PILC to PILC or used to connect PILC to

Poly/EPR cables. The splice kits also meet the requirement of ANSI Standard C119.1. 3M Scotchlok™ 2000T series copper connectors are provided with these kits. Each kit makes one splice.



Single Conductor PILC Cable

### CS500PB SERIES

FEATURES	BENEFITS
Simple safe installation	No tools or special training needed
Water resistant	Meets the water seal requirements of ANSI C119.1
No torches or heat required	Quick installation using tube on removable core technology
Connectors are provided	Copper oil stop connectors meet requirements of ANSI C119.4
Proven oil stop performance	Withstand internal oil pressures exceeding 100 PSI and vacuum to 18 inches Mercury

### 3M™ Cold Shrink Splice Kits Selection CS500Pb Series

Product Series	UPC (054007-)	Secondary Cable Conductor Size	PILC Cable Lead O.D. Range	Poly/EPR Cable Insulation O.D. Range	Case Qty.
Single Conductor PILC Cable See above for cable type illustration.					
CS503Pb-1/0	44157	1/0 AWG	0.63-1.03" (16,0-26,1 mm)	0.34-1.03" (8,6-26,1 mm)	1
CS506Pb-250	44161	250 kcmil	0.92-1.40" (23,3-35,5 mm)	0.56-1.40" (14,2-35,5 mm)	1
CS506Pb-350	44163	350 kcmil	0.92-1.40" (23,3-35,5 mm)	0.56-1.40" (14,2-35,5 mm)	1
CS508Pb-500	44169	500 kcmil	1.00-1.62" (25,4-41,1 mm)	0.73-1.73" (18,5-43,9 mm)	1

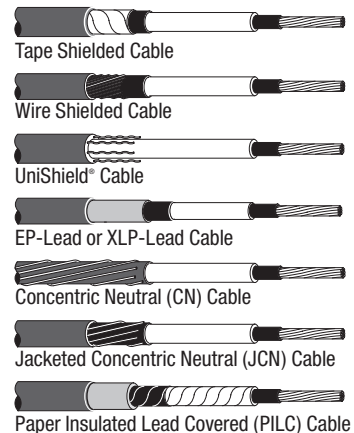
# 1/C PILC and PILC Transition, 15 kV Cold Shrink Splices

## 3M™ Cold Shrink Splice Kit QS-2000T 1/C PILC to 1/C Poly/EPR or 1/C PILC to 1/C PILC Cable Splices



The 3M Cold Shrink Splice Kit QS2000T allows you to splice either single-conductor PILC cable to single-conductor PILC cable, or single-conductor PILC cable to single-conductor Poly/EPR cable. Because of the design of the splice, size transitions can also be accommodated rather easily. The 3M QS-2000T kits meet the requirements of IEEE 404.

Use 3M™ Scotchlok™ Connectors 2000T Series with these splice kits. See page 147 to order connectors. Each kit makes one single conductor splice.



## 3M™ Cold Shrink Splices QS-2000T Series Selection

Product Series	UPC (054007-)	PILC Cable Insulation O.D. Range	PILC Cable Size	Poly/EPR Cable Size	Poly/EPR Insulation O.D. Range	Connector Requirements O.D. Max. Connector Length		
						Aluminum	Copper	
Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, EP-Lead or XLP-Lead Cable, Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable, Paper Insulated Lead Covered (PILC) Cable See above for cable type illustrations.								
QS-2011T	50546	0.56-0.88" (14,2-22,4 mm)	4-3/0 AWG (25-70 mm <sup>2</sup> )	1-4/0 AWG (50-95 mm <sup>2</sup> )	0.70-1.07" (17,8-27,2 mm)	0.70-1.07" (17,8-27,2 mm)	5.0" (127 mm)	5.5" (140 mm)
QS-2012T	50547	0.74-1.17" (18,8-29,7 mm)	3/0 AWG-350 kcmil (95-185 mm <sup>2</sup> )	4/0 AWG-500 kcmil (120-240 mm <sup>2</sup> )	0.88-1.36" (22,0-34,6 mm)	0.88-1.36" (22,0-34,6 mm)	5.2" (132 mm)	5.5" (140 mm)
QS-2013T	50555	0.98-1.56" (24,9-39,6 mm)	400-1000 kcmil (200-500 mm <sup>2</sup> )	500-1000 kcmil (240-500 mm <sup>2</sup> )	1.12-1.70" (28,4-43,2 mm)	1.12-1.70" (28,4-43,2 mm)	6.5" (165 mm)	7.5" (190 mm)

### QS-2000T Ordering Examples

Example 1: You need a 15 KV-3 AWG CU PILC spliced to a 15 KV-1/0 AWG AI EPR.

Order: QS-2000T-3 – 1/0.

Example 2: You need a 15 KV-500 kcmil CU PILC spliced to a 15 KV-500 kcmil Cu XLP.

Order: QS-2000T – 500.

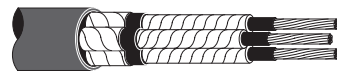
# 3/C to 1/C, 15 kV Cold Shrink PILC Transition Splices

## 3M™ Cold Shrink Splice Kit QS-2000-3T and QS-2000-3T-WS 3/C PILC to 1/C Poly/EPR Cable Trifurcating Splices

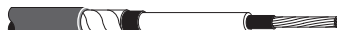


3M Cold Shrink Splice Kit QS-2000-3T and QS-2000-3T-WS Trifurcating Transition Splices are rated 15 kV. They are specially designed splice kits for connecting three conductor Paper Insulated

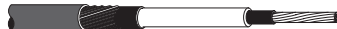
Lead Covered (PILC) cable to three single conductor Poly/EPR insulated cables. Splices meet the requirements of IEEE Standard 404. Use 3M Scotchlok™ 2000T Series connectors with these kits. See page 162. Each kit makes one three conductor to three single conductors splice.



Three Conductor Paper Insulated Lead Covered (PILC) Cable



Tape Shielded Cable



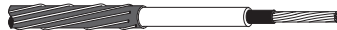
Wire Shielded Cable



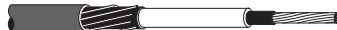
UniShield® Cable



EP-Lead or XLP-Lead Cable



Concentric Neutral (CN) Cable



Jacketed Concentric Neutral (JCN) Cable



Paper Insulated Lead Covered (PILC) Cable

## 3M Cold Shrink Splices QS-2000-3T and QS-2000-3T-WS Series Selection

Product Series	UPC (054007-)	PILC Cable Size	Poly/EPR Cable Size	Poly/EPR Insulation O.D. Range	Connector Requirements O.D. Max. Connector Length		
					Aluminum	Copper	
Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, EP-Lead or XLP-Lead Cable, Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable See above for cable type illustrations.							
QS-2011-3T	42021	4-3/0 AWG (25-70 mm <sup>2</sup> )	1-4/0 AWG (50-95 mm <sup>2</sup> )	0.70-1.07" (17,8-27,2 mm)	0.70-1.07" (17,8-27,2 mm)	5.0" (127 mm)	5.5" (140 mm)
QS-2012-3T	42022	3/0 AWG-250 kcmil (95-120 mm <sup>2</sup> )	4/0 AWG-500 kcmil (120-240 mm <sup>2</sup> )	0.88-1.36" (22,0-34,6 mm)	0.88-1.36" (22,0-34,6 mm)	5.2" (132 mm)	5.5" (140 mm)
QS-2012/13-3T	44202	350-500 kcmil (195-240 mm <sup>2</sup> )	250-500 kcmil (120-240 mm <sup>2</sup> )	0.91-1.36" (23,0-34,6 mm)	0.91-1.36" (28,0-42,0 mm)	5.2" (132 mm)	5.5" (140 mm)
QS-2013-3T	42023	400-800 kcmil (200-400 mm <sup>2</sup> )	500-1000 kcmil (240-500 mm <sup>2</sup> )	1.12-1.70" (28,4-43,2 mm)	1.12-1.70" (28,4-43,2 mm)	6.5" (165 mm)	7.5" (190 mm)
QS-2011-3T-WS*	43248	4-3/0 AWG (25-95 mm <sup>2</sup> )	1-4/0 AWG (35-95 mm <sup>2</sup> )	0.70-1.07" (17,8-27,2 mm)	0.70-1.07" (17,8-27,2 mm)	5.0" (127 mm)	5.5" (140 mm)
QS-2012-3T-WS*	04211	3/0 AWG-250 kcmil (95-120 mm <sup>2</sup> )	4/0 AWG-500 kcmil (120-240 mm <sup>2</sup> )	0.88-1.36" (22,0-34,6 mm)	0.88-1.36" (22,0-34,6 mm)	5.2" (132 mm)	5.5" (140 mm)
QS-2012/13-3T-WS*	04644	350-500 kcmil (195-240 mm <sup>2</sup> )	250-500 kcmil (120-240 mm <sup>2</sup> )	0.91-1.36" (23,0-34,6 mm)	0.91-1.36" (23,0-34,6 mm)	5.2" (132 mm)	5.5" (140 mm)
QS-2013-3T-WS*	04212	400-800 kcmil (200-400 mm <sup>2</sup> )	500-1000 kcmil (240-500 mm <sup>2</sup> )	1.12-1.70" (28,4-43,2 mm)	1.12-1.70" (28,4-43,2 mm)	6.5" (165 mm)	7.5" (190 mm)

\*QS-2000-3T-WS uses wrap-around heat shrink.

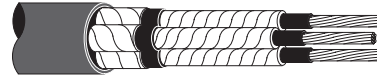
# 3/C, 15 kV Cold Shrink PILC Transition Splices

## 3M™ Cold Shrink Splice Kit QS-2013-3T-3C 3/C PILC to 3/C Poly/EPR Cable Splice

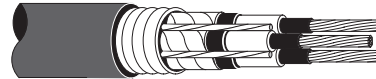


The 3M Cold Shrink QS-2013-3T-3C Splice Kit is rated 15 kV. It is specially designed for connecting three conductor shielded or belted Paper Insulated Lead Covered (PILC) cable to three conductor

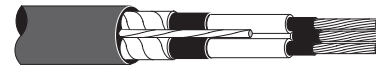
shielded Poly/EPR insulated cables. The splice meets the requirements of IEEE Standard 404. Use 3M Scotchlok™ 2000T Series connectors with this kit. See page 162. Each kit makes one three conductor to three conductor splice.



Three-Conductor Paper Insulated Lead Covered (PILC) Cable



Three-Conductor Armored, Shielded Cable



Three-Conductor Non-Armored, Shielded Cable

## 3M™ Cold Shrink Splice QS-2013-3T-3C Series

Product Series	UPC (054007-)	PILC Cable Size	Poly/EPR Cable Size	Poly/EPR Insulation O.D. Range	Connector Requirements O.D. Max. Connector Length		
					Aluminum	Copper	
Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, EP-Lead or XLP-Lead Cable, Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable See above for cable type illustrations.							
QS-2013-3T-3C	43247	400-800 kcmil (200-400 mm <sup>2</sup> )	500-750 kcmil (240-325 mm <sup>2</sup> )	1.12-1.70" (28,4-43,2 mm)	1.12-1.70" (28,4-43,2 mm)	6.5" (165 mm)	7.5" (190 mm)

## 3M™ Cold Shrink 5110-OS Series 15-25/28 kV Cable Accessory Oil Stops

3M Cold Shrink 5110-OS series kits are designed for use on PILC (Paper Insulated Lead Covered) cable with 200 Amp elbows and 600 Amp modular splices (separable connectors) that meet the requirements of IEEE Standard 386. There are four kits in the series that seal the oil inside the PILC cable, provide an accessory ground lead and environmentally seal the accessory end and cable jacket. These kits can be used on PILC cables sized 4 AWG to 1000 kcmil rated 15 kV and 2 AWG to 800 kcmil rated

Kit contents:

Each kit contains sufficient quantities of the following materials to seal and ground one cable end.

- Cold Shrink Oil Stop Tube
- Cold Shrink Jacket Tube
- White Restricting Tape
- Scotch® 130C Rubber Tape
- Scotch® 13 Semi-Conducting Tape
- Ground Lead with Accessory Bleed Wire
- Mastic Seal Strips
- Instruction for 200 Amp Accessory
- Instruction for 600 Amp Accessory

## 3M™ Cold Shrink 5110-OS Series Selection

Kit Number	UPC (054007-)	Minimum Insulation Diameter* in. (mm)	Maximum Lead Diameter in. (mm)	Conductor Size Range	
				15 kV	25/28 kV
5110-OS	43404	0.58" (14,7 mm)	1.10" (27,9 mm)	4-3/0 AWG	—
5111-OS	43405	0.72" (18,3 mm)	1.30" (33,0 mm)	4/0 AWG-300 kcmil	2-1/0 AWG
5112-OS	43406	0.92" (23,4 mm)	1.60" (40,6 mm)	350-600 kcmil	2/0 AWG-300 kcmil
5113-OS	43407	1.10" (27,9 mm)	2.00" (50,8 mm)	750-1000 kcmil	350-800 kcmil

\*Over paper insulation.



# Connectors

## 3M™ Scotchlok™ Reducer Series Oil Stop Connectors 2000T CU/AL



3M Scotchlok Reducer Series Connectors 2000T are aluminum inline sleeves that are applicable for both aluminum and copper conductors. When used with sector shaped conductors, a rounding die

is recommended to round-out the sector shape. The reducer series connectors 2000T Series are designed for use with 3M™ Splice Kits CS500 Series, 2000T Series, 2000-3T Series and 5700 Series splice kits. These connectors have a solid center oil stop and meet the requirements of ANSI Standard C-119.4.

### 3M Scotchlok Reducer Series 2000T CU/AL Selection

Product Number	UPC (054007-)	O.D. (in.)	Length (in.)	Case Qty.
2000T 2-1/0 CU/AL	42226	0.640"	4.740"	9 connectors
2000T 1/0-2/0 CU/AL	42228	0.910"	4.700"	3 connectors
2000T 2/0-4/0 CU/AL	42229	0.910"	4.700"	3 connectors
2000T 4/0-350 CU/AL	42231	1.125"	4.700"	3 connectors
2000T 250-350 CU/AL	42232	1.125"	4.690"	3 connectors
2000T 350-500 CU/AL	42234	1.320"	4.700"	3 connectors
2000T 500-750 CU/AL	42236	1.600"	6.250"	3 connectors
2000T 500-1000 CU/AL	42238	1.625"	6.250"	3 connectors
2000T 750-1000 CU/AL	42243	1.625"	6.250"	3 connectors

## 3M™ Scotchlok™ Oil Stop Connectors 2000T CU

3M Scotchlok Connectors 2000T series are copper inline connectors for use with copper conductor cables. They are for connecting copper cables only. They are designed with a solid center oil stop for use with CS500 Series splice kits, 3M Scotchlok 2000T Series, 3M Scotchlok 2000-3T Series and 5700 Series splice kits. They can be used on concentric, compressed and compact stranded conductors. When used with sector shaped conductors, a rounding die is recommended to round-out the sector shape. These connectors meet ANSI Standard C-119.4.

### 3M Scotchlok 2000T CU Series Selection

Product Number	UPC (054007-)	O.D. (in.)	Length (in.)	Case Qty.
2000T-2 CU	42247	0.700"	5.320"	9 connectors
2000T-1/0 CU	42249	0.700"	5.320"	3 connectors
2000T-2/0 CU	42250	0.700"	5.320"	3 connectors
2000T-4/0 CU	42252	0.880"	5.250"	3 connectors
2000T -250 CU	42253	0.880"	5.250"	3 connectors
2000T-350 CU	42255	0.875"	5.250"	3 connectors
2000T-400 CU	42256	1.125"	6.900"	3 connectors
2000T-500 CU	42258	1.125"	6.900"	3 connectors
2000T-750 CU	42263	1.299"	6.900"	3 connectors
2000T-1000 CU	42265	1.500"	6.900"	3 connectors

