

**3M** Science.  
Applied to Life.™

Communication Markets Division

3M™ Scotchlok™ Connectors

# Built tough for long-term connections





# Durable, insulated connections on the first crimp.

Over 50 years ago, 3M introduced the industry's original insulation displacement connector—the 3M™ Scotchlok™ Connector UR. Today, with increased demand for high-speed and high-bandwidth networks, the complete series of 3M connectors and tools has evolved again. We've leveraged new technologies while building on the original successful design, shape, color-coded cap concepts and element configuration. With the Scotchlok series of tools and connectors from 3M, service providers can meet the demand for enhanced customer services such as high speed internet, video-on-demand and video conferencing. 3M™ Scotchlok™ Connectors additionally offer full wire-range capability, increased port size to accommodate up to 2.08 mm (0.082 in.) insulation sizes, and solvent resistant plastic construction.

As new technologies migrate into the local loop, the importance of reliable connections in the embedded plant has increased exponentially. Each connection is a potential point of failure in high-bandwidth applications which could require additional time and expense for a technician to repair. That is where the full line of 3M™ Scotchlok™ Connectors really makes a difference.



# 3M™ Scotchlok™ Butt Connectors

Scotchlok butt connectors employ a specially designed, wire insulation displacement contact to make a reliable electrical connection to each wire. A “live-spring” joint is made by driving the wire down into the “U” contact connector. This simple process displaces the insulation and grasps all conductors with a firm, resilient pressure, all in one motion. No stripping of wire insulation required. Scotchlok butt connectors include a factory-installed sealant to protect against corrosion and seal out moisture. They are also available in a dry/flame retardant version for central office and vault. A variety of sizes and wire combinations are available to accommodate almost any need.

## 3M™ Scotchlok™ Butt Connector UR

The Scotchlok UR connector accepts two or three solid copper conductors for butt splicing. The connector is filled with a sealant to provide moisture resistance.



## 3M™ Scotchlok™ Butt Connector UY

The small size of the Scotchlok UY connector reduces the splicing bundle O.D. to a minimum. The connector's two ports accept two solid copper conductors. The connector is filled with a sealant to provide moisture resistance.



## 3M™ Scotchlok™ Butt Connector UR2/UR2-D

The Scotchlok UR2/UR2-D, solvent resistant connectors, accept two or three solid copper conductors that can be of different wire gauges, for butt splicing. The UR2 connectors are filled with a sealant to provide moisture resistance. The Scotchlok UR2-D connector is a dry version.



## 3M™ Scotchlok™ Butt Connector UY2/UY2-D

The small size of the Scotchlok UY2/UY2-D, solvent resistant connectors, reduce the splicing bundle O.D. to a minimum. Their two ports accept two solid copper conductors that can be of different wire gauges. The connector is filled with a sealant to provide moisture resistance. In addition, the Scotchlok UY2 connector is available in a dry version, Scotchlok UY2-D connector.



## 3M™ Scotchlok™ Butt Connector UAL

The Scotchlok UAL connector is a sealed, moisture-resistant two- or three-wire connector. Outside ports accept solid-copper, aluminum, or a combination of both.



### **3M™ Scotchlok™ Butt Connector UP2**

The Scotchlok UP2 connector is a dry, flame-retardant two-wire UL-Listed connector for use on paper, pulp or PIC cable where moisture resistance is not needed. UL recognized component.

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### **3M™ Scotchlok™ Clearing Cap UCC**

Each moisture-resistant Scotchlok UCC clearing cap isolates a full cable pair. The conductors are held rigidly in place with a plastic blade. The Scotchlok UCC accepts two-wire combinations.

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### **3M™ Scotchlok™ Butt Connector UP3**

The Scotchlok UP3 connector is a dry, flame-retardant two- or three-wire connector for paper, pulp or PIC cable where moisture resistance is not needed. UL recognized component.

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### **3M™ Scotchlok™ Self-Stripping Dropwire Connector 557TG2**

Use the Scotchlok 557TG2 aerial dropwire connector to electrically connect two solid copper conductors, insulate the connection and provide moisture protection.



# 3M™ Scotchlok™ Tap Connectors

Scotchlok tap connectors are real time savers. They enable the user to tap into another wire without interrupting service. A U-shaped element inside each connector displaces insulation material and makes contact with the copper conductor. Scotchlok tap connectors also include factory-installed sealant to protect against corrosion and seal out moisture. They are also available in a dry version for central office and vault. Scotchlok tap connectors are fast to install, easy to work with and available in a wide range of common wire gauges. Tap connectors allow direct tapping into existing solid copper conductors without interrupting service. The pre-crimp feature helps hold the wires in place until the connector is crimped and the splice is complete.

## 3M™ Scotchlok™ Tap Connector UB2A/UB2A-D

The Scotchlok UB2A/UB2A-D connectors have a pre-crimp feature that gives the craftsperson a time-saving edge. By positioning the connector on the conductor and pre-crimping, the conductor is prevented from slipping out of the connector before the crimp is completed. A factory sealant protects against corrosion and seals out moisture. In ready-access closures, these connectors help eliminate cutting cable pairs, opening circuits, and piecing out wires. The Scotchlok UB2A-D connector is a dry version of the Scotchlok UB2A connector.



# 3M™ Scotchlok™ Inline Connectors

Scotchlok inline connectors are a safe and simple way to make a secure connection. These full-pair, sealed, moisture resistant connectors are designed to accommodate a wide range of wire ranges.

## 3M™ Scotchlok™ Inline Connector U1B

The Scotchlok U1B connector is a sealed moisture-resistant four-wire (1 full pair) inline connector for larger gauge solid copper. AWG 19-16 solid copper conductors.



## 3M™ Scotchlok™ Inline Connector U1R

The Scotchlok U1R connector is a sealed moisture-resistant four-wire (1 full pair) inline connector for larger gauge solid copper. AWG 24-19 solid copper conductors.



## 3M™ Scotchlok™ Inline Connector UDW2

A sealed moisture-resistant, four-wire (1 full pair) inline aerial dropwire connector for copper or copper-coated steel conductors. This inline connector is for midspan splices where strain relief is provided. Tape over-wrap is not required.



# 3M™ Scotchlok™ Tools

To complement our line of efficient, reliable 3M™ Scotchlok Connectors, 3M™ Scotchlok™ Crimping Tools are built to do the job right, and do it fast. All Scotchlok tools are engineered to fit comfortably in hand while providing high mechanical advantage for less operator fatigue. From automatic cartridges to adjustable jaws, there's a tool designed to meet your specific application needs.

## 3M™ Scotchlok™ Cartridge Tool E-9C with Case and Gauge

With an automatic cartridge feed, 7-to-1 mechanical advantage and ratchet action, the Scotchlok E-9C tool allows the craftsperson to complete a crimp with one hand, freeing the other hand for wire handling. The tool is designed for cartridges with Scotchlok butt connectors.



## 3M™ Scotchlok™ Crimping Tool E-9BM

This heavy-duty tool is capable of crimping all Scotchlok connectors. Its parallel closing action and adjustable jaws provide a 10-to-1 mechanical advantage, allowing it to handle all wire gauges.



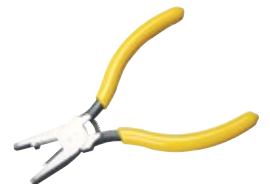
## 3M™ Scotchlok™ Crimping Tool E-9E

A completely parallel closing action and a 4-to-1 mechanical advantage make the lightweight Scotchlok E-9E crimping tool a versatile addition to any craftsperson's pouch. With these features, the Scotchlok E-9E tool will crimp all Scotchlok butt and tap connectors in all wire gauges.



## 3M™ Scotchlok™ Crimping Tool E-9Y

The Scotchlok E-9Y tool has stepped jaws and a long nose and side wire cutter which provide crimping action for two- or three-conductor splicing. The Scotchlok E-9Y tool is not recommended for 19 gauge (0.9 mm) and larger conductors.



## 3M™ Scotchlok™ Crimping Tool E-9J

The Scotchlok E-9J tool is a lightweight, handheld tool featuring a single-stroke, parallel crimping action with a work-saving 10-to-1 mechanical advantage over applied hand force. For use with Scotchlok butt and tap connectors.





### 3M™ Scotchlok™ Connectors and Tools Specification Chart










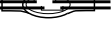


Connector	Type Connector	Special Features	Maximum Insulation O.D.		PIC-unfilled and PIC-filled		Pulp or paper	
			Metric (mm)	Inches	AWG	Metric (mm)	AWG	Metric (mm)
<b>UR2</b> 		Gel-filled Polypropylene Cat. 5	2.08	0.082	26-19	0.4-0.9	N/A	N/A
<b>UR2-D</b> 		Dry Polypropylene	2.08	0.082	26-19	0.4-0.9	26-19	0.4-0.9
<b>UR</b> 		Gel-filled Polycarbonate Cat. 5	1.52	0.060	26-19	0.4-0.9	N/A	N/A
<b>UY2</b> 		Gel-filled Polypropylene Cat. 5	2.08	0.082	26-19	0.4-0.9	N/A	N/A
<b>UY2-D</b> 		Dry Polypropylene	2.08	0.082	26-19	0.4-0.9	26-19	0.4-0.9
<b>UY</b> 		Gel-filled Polycarbonate Cat. 5	1.52	0.060	26-22	0.4-0.7	N/A	N/A
<b>*557-TG2</b> 		Gel-filled Polypropylene	3.0	0.12	22-16	0.6-1.3	N/A	N/A
<b>UP2</b> 		Dry Polycarbonate Flame Retardant UL recognized component	1.52	0.060	26-22	0.4-0.7	26-22	0.4-0.7
<b>UP3</b> 		Dry Polycarbonate Flame Retardant UL recognized component	1.52	0.060	26-19	0.4-0.9	26-19	0.4-0.9
<b>UAL</b> 		Gel-filled For Aluminum Polycarbonate	Outside Ports: 2.08 Middle Port: 1.88	Outside Ports: 0.082 Middle Port: 0.074	20-17 AL 24-19 CU	0.8-1.2 AL 0.5-0.9 CU	N/A	N/A

Butt Splicing

\*557-TG2 connectors can only be used with 3M™ Scotchlok™ Crimp Tool E-9BM or E-9J.



## 3M™ Scotchlok™ Connectors and Tools Specification Chart

Connector	Type Connector	Special Features	Maximum Insulation O.D.		PIC-unfilled and PIC-filled		Pulp or paper		
			Metric (mm)	Inches	AWG	Metric (mm)	AWG	Metric (mm)	
<b>UB2A</b> 		Gel-filled Polypropylene Cat. 5	2.08	0.082	26-19	0.4-0.9	N/A	N/A	Tap Splicing
<b>UB2A-D</b> 		Dry Polypropylene	2.08	0.082	26-19	0.4-0.9	26-19	0.4-0.9	
<b>*UDW2</b> 		Full Pair Drop Pair Polycarbonate	4.4	0.175	19-16	0.9-1.3	N/A	N/A	Inline Splicing
<b>*U1B</b> 		Gel-filled Full Pair Polycarbonate	3.18	0.125	19-16	0.9-1.3	N/A	N/A	
<b>*U1R</b> 		Gel-filled Full Pair Polycarbonate	3.18	0.125	24-19	0.5-0.9	N/A	N/A	
<b>UCC</b> 		Gel-filled Polycarbonate	1.52	0.060	26-22	0.4-0.7	N/A	N/A	Clear/Cap Only

To reduce fatigue, use tool within each group with highest mechanical advantage, indicated in ( ).



**E-9BM**  
(10:1)



**E-9C**  
(7:1)



**E-9E**  
(4:1)



**E-9Y\*\***  
(3:1)



**E-9J**  
(10:1)

\*Inline and drop wire connectors can only be used with 3M™ Scotchlok™ Crimp Tool E-9BM.

\*\*Not recommended for 19 gauge (0.9 mm) conductor and larger.

### 3M™ Scotchlok™ Connectors Ordering Information

Product Number	Product Description	3M ID	Package Quantity	Min Order	Packaging Specifications
UR2 (BX)	26-19 AWG Butt Connector, 2 or 3 conductor,	80-6113-2759-6	1,000	1,000	100 per box, 10 boxes per case
UR2 (CART)	26-19 AWG AWG Butt Connector, 2 or 3 conductor	80-6113-2760-4	1,000	1,000	10 boxes of 10 cartridges with 10 connectors each
UR2-JAR500	26-19 AWG AWG Butt Connector, 2 or 3 conductor	80-6113-2765-3	5,000	5,000	500 per jar, 10 jars per case
UR2-D (CART)	19-26 AWG AWG Butt Connector (dry), 2 or 3 conductor	80-6105-7824-9	1,000	1,000	10 boxes of 10 cartridges with 10 connectors each
UR2-D-JAR500	26-19 AWG Butt Connector (dry), 2 or 3 conductor	80-6113-2540-0	5,000	5,000	500 per jar, 10 jars per case
UR (BX)	26-19 AWG Butt Connector, 2 or 3 conductor	80-6113-2788-5	1,000	1,000	100 per box, 10 boxes per case
UY2 (BULK)	26-19 AWG Butt Connector, 2 conductor, bulk packaging	80-6113-2782-8	5,000	5,000	1000 per box, 5 boxes per case
UY2 (BX)	26-19 AWG 2 Wire Butt Connector, 2 conductor	80-6113-2679-6	1,000	1,000	100 per box, 10 boxes per case
UY2 (CART)	26-19 AWG Butt Connector, 2 conductor	80-6113-2783-6	1,200	1,200	10 boxes of 10 cartridges with 12 connectors each
UY2-JAR500	26-19 AWG Butt Connector, 2 conductor	80-6113-2786-9	5,000	5,000	500 per jar, 10 jars per case
UY2-D (CART)	19-26 AWG Butt Connector (dry), 2 conductor	80-6105-7827-2	1,200	1,200	10 boxes of 10 cartridges with 12 connectors each
UY2-D-JAR500	26-19 AWG Butt Connector (dry), 2 conductor	80-6113-2539-2	5,000	5,000	500 per jar, 10 jars per case
UY (BX)	26-22 AWG Butt Connector, 2 conductor	80-6113-2772-9	1,000	1,000	100 per box, 10 boxes per case
UY (CART)	26-22 AWG AWG Butt Connector, 2 conductor	80-6113-2781-0	1,600	1,600	10 boxes of 10 cartridges with 16 connectors each
557-TG2	Self stripping dropwire butt connector	80-6113-2207-6	5,000	5,000	500 per bag, 10 bags per box
UP2 (BULK)	Connector, 2 conductor, bulk packaging	80-6101-1333-6	5,000	5,000	1000 per box, 5 boxes per case
UP3 (BULK)	Connector, 2 or 3 conductor, bulk packaging	80-6101-1332-8	5,000	5,000	1000 per box, 5 boxes per case
UP2 (CART)	22-26 AWG Butt Connector (dry), 2 conductor	80-6100-9672-1	1,600	1,600	10 boxes of 10 cartridges with 16 connectors each
UP3 (CART)	19-26 AWG Butt Connector (dry), 2 or 3 conductor	80-6100-9675-4	1,000	1,000	10 boxes of 10 cartridges with 10 connectors each
UAL (BX)	24-17 AWG Butt Connector, 2 or 3 conductor	80-6113-2746-3	1,000	1,000	100 per box, 10 boxes per case
UB2A (BX)	26-19 AWG Bridge Connector, 2 conductor	80-6113-2747-1	1,000	1,000	100 per box, 10 boxes per case
UB2A-JAR500	26-19 AWG Bridge Connector, 2 conductor	80-6113-2751-3	5,000	5,000	500 per jar, 10 jars per case

### 3M™ Scotchlok™ Connectors Ordering Information (cont.)

Product Number	Product Description	3M ID	Package Quantity	Min Order	Packaging Specifications
UB2A-D (BX)	19-26 AWG Bridge Connector, 2 conductor	80-6107-6089-6	1,000	1,000	100 per box, 10 boxes per case
UDW2	Drop Inline Wire Connector, 4 bags per case	80-6113-1650-8	100	100	25 per bag, 4 bags per case
U1B (BX)	16-19 AWG Full Pair Inline Connector	FQ-1000-5752-7	1,000	1,000	100 per box, 10 boxes per case
U1R (BX)	19-24 AWG Full Pair Inline Connector	FQ-1000-5753-5	1,000	1,000	100 per box, 10 boxes per case
UCC (CART)	26-22 AWG Clear and Cap Connector, 2 conductor	80-6113-2753-9	1,600	1,600	10 boxes of 10 cartridges with 16 connectors each
UCC-JAR500	26-22 AWG Clear and Cap Connector, 2 conductor	80-6113-2754-7	5,000	5,000	500 per jar, 10 jars per case

More options may be available. Contact your sales representative for more information.

### 3M™ Scotchlok™ Connector Tools Ordering Information

Product Number	Product Description	3M ID	Package Quantity	Min Order
E-9BM	Crimp tool, compatible with all connectors	80-6111-4129-4	6	6
E9C	Cartridge tool with case (without window), compatible with butt connectors except 557TG, UDW2, U1R, U1B and bridge connectors	80-6101-3112-2	1	1
E-9E	Crimping tool, compatible with all butt and tap connectors except 557TG, UDW2, U1R, U1B	80-6100-6452-1	10	10
E-9Y*	Step jaws tool, compatible with all connectors except 557TG, UDW2, U1R, U1B	80-6091-0004-7	10	10
E-9J	Crimping tool, compatible with all butt and tap connectors except UDW2, U1R, U1B	80-6113-1406-5	10	10

\*Not recommended for 19 AWG and larger.

All products contained herein are RoHS compliant. "RoHS 2011/65/EU" means that the product or part does not contain any of the substances in excess of the maximum concentration values ("MCVs") in EU RoHS Directive 2011/65/EU. The MCVs are by weight in homogeneous materials. This information represents 3M's knowledge and belief, which may be based in whole or in part on information provided by third party suppliers to 3M.

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## **Warranty Statement**

3M™ Scotchlok™ Connectors and Tools are engineered to work together to achieve consistently superior performance in the field. Tools from other manufacturers may not meet the tight quality balance of 3M tools and can damage the crimping and performance of a 3M connector. Therefore, the published 3M warranty does not extend to any 3M connectors crimped in tools not made by 3M. The warranty on 3M Scotchlok splicing tools can also be voided if used on non-3M connectors.

## **Important Notice**

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

## **Warranty; Limited Remedy; Limited Liability**

This product will be free from defects in material and manufacture for a period of one year from the time of purchase. If this product is defective, your exclusive remedy shall be, at 3M's option, to replace the 3M product or refund the purchase price. Except where prohibited by law, 3M will not be liable for any direct, indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.



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