

**3M**

**Scotchlok™**

Connectors and Tools



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Proven Solutions For Today's Applications

**3M** *Innovation*



## **A New Series of Tools and Connectors from 3M.**

Over 45 years ago, 3M introduced the industry's original insulation displacement connector—the 3M™ Scotchlok™ UR Connector. 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 new 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. Series 2 connectors additionally offer full wire range capability, increased port size to accommodate up to 2.08 mm (0.082") insulation sizes, double elements in all products and solvent resistant plastic construction.

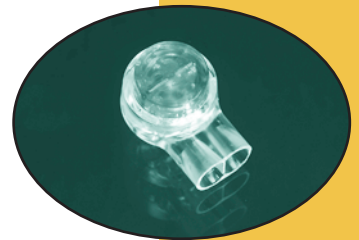
As new technologies migrate into the local loop, the importance of reliable connections in the embedded plant has increased exponentially. Each connection is a potential point of failure in high-bandwidth applications which could require additional time and expense for a technician to repair. That is 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 version for central office and vault. A variety of sizes and wire combinations are available to accommodate any need.

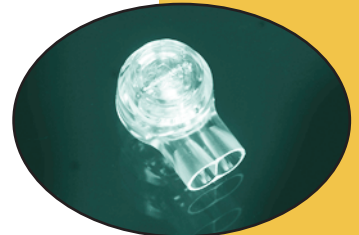
## 3M™ SCOTCHLOK™ BUTT CONNECTOR UR

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



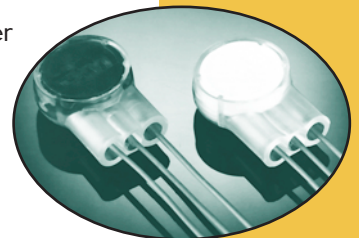
## 3M™ SCOTCHLOK™ BUTT CONNECTOR UY

The small size of the 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 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 UR2-D connector is a dry version.



## 3M™ SCOTCHLOK™ BUTT CONNECTOR UY2/UY2-D

The small size of the 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 UY2 connector is available in a dry version, UY2-D connector.

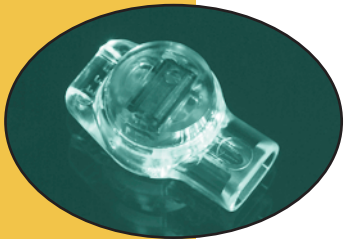


## 3M™ SCOTCHLOK™ BUTT CONNECTOR UAL

The 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 UYF (OUS ONLY)**

The UYF connector employs a specially designed insulation displacement contact which makes an electrical connection to each wire. The connector is filled with a sealant to provide moisture resistance. The small size of the UYF connector reduces the splicing bundle O.D. to a minimum.



### **3M™ SCOTCHLOK™ UP2 BUTT CONNECTOR**

The 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.



### **3M™ SCOTCHLOK™ UCC CLEARING CAP**

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



### **3M™ SCOTCHLOK™ TRIM-OUT CONNECTOR 211**

The 211 trim-out connector is a moisture-resistant, self-stripping insulation displacement connector with a built-in cut-off blade and a test port. Wires are positioned in the connector from the sides, allowing the 211 connector to be used without interrupting service. The 211 connector, may also be used for standard two-wire butt type splicing operations.



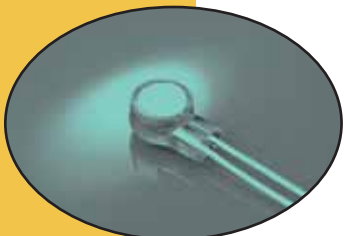
### **3M™ SCOTCHLOK™ UP3 BUTT CONNECTOR**

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



### **3M™ SCOTCHLOK™ SELF-STRIPPING DROPWIRE CONNECTOR 557TG**

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



### **3M™ SCOTCHLOK™ UPC CLEARING CAP**

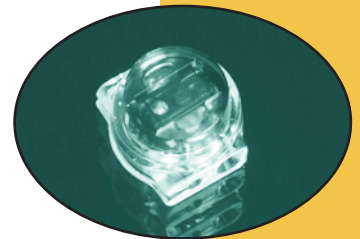
A UL-listed dry, flame-retardant version of the UCC clearing cap making it suitable for use in buildings.

# 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. The pre-crimp feature helps hold the wires in place until the connector is crimped and the splice is complete.

## 3M™ SCOTCHLOK™ TAP CONNECTOR UG

The UG connector is a sealed two-wire connector for solid copper, air core, or filled cable. The connector is filled with a sealant to provide moisture resistance.



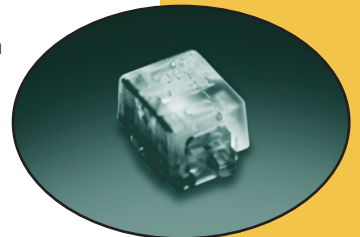
## 3M™ SCOTCHLOK™ UPB TAP CONNECTOR

The UPB connector is a dry, flame-retardant two-wire UL-Listed connector with a pre-crimp feature for use on pulp, paper or PIC cable where moisture resistance is not needed.



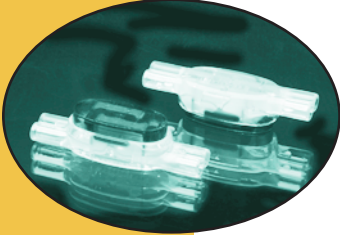
## 3M™ SCOTCHLOK™ UB2A/UB2A-D TAP CONNECTOR

The UB2A/UBA-D connectors have a pre-crimp feature that gives the craftsman 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. The UB2A/UB2A-D connectors permit tapping directly onto an existing conductor without interrupting service. In ready access closures, these connectors eliminate cutting cable pairs, opening circuits, and piecing out wires. The UB2A-D connector is a dry version of the UB2A.



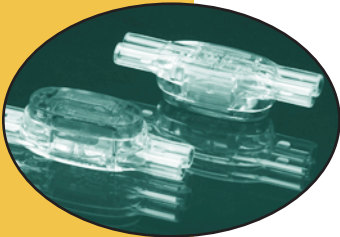
# 3M™ Scotchlok™ Inline Connectors

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 in copper or copper-coated steel conductors.



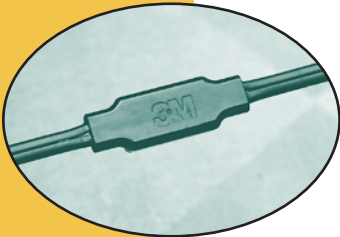
## **3M™ SCOTCHLOK™ INLINE CONNECTOR U1B**

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



## **3M™ SCOTCHLOK™ INLINE CONNECTOR U1R**

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



## **3M™ SCOTCHLOK™ INLINE CONNECTOR UDW2**

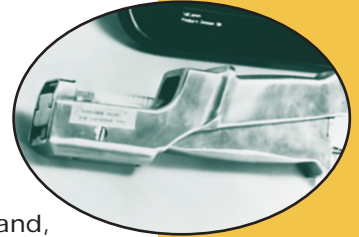
A sealed moisture-resistant, four-wire (1 full pair) inline aerial dropwire connector for copper or copper-coated steel conductors, the inline connector is for mid-span splices where strain-relief is provided. Tape over-wrap is not required.

# 3M™ Scotchlok™ Tools

To complement our line of efficient, reliable 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.

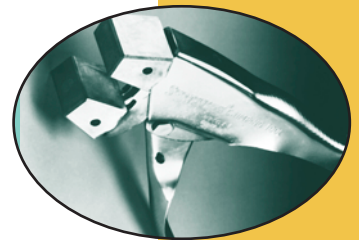
## 3M™ SCOTCHLOK™ CARTRIDGE TOOL WITH CASE AND GAUGE E-9C

With an automatic cartridge feed, 7-to-1 mechanical advantage and ratchet action, the E-9C tool allows the craftsman 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.



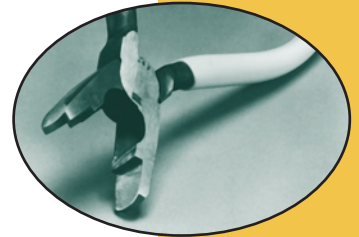
## 3M™ SCOTCHLOK™ CRIMPING TOOL E-9E

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



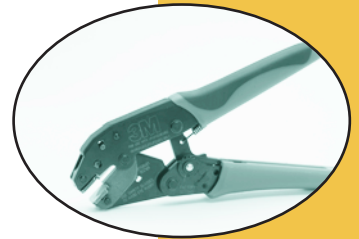
## 3M™ SCOTCHLOK™ CRIMPING TOOL E-9Y

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



## 3M™ SCOTCHLOK™ CRIMPING TOOL E-9R

This tool features parallel crimping and a 10-to-1 mechanical advantage. Its ratchet-release and integrated wire cutter save time by not having to change tools. The E-9R tool is compatible with all Scotchlok connectors (except inline and drop connectors) across the entire range of applicable wire sizes.



## 3M™ SCOTCHLOK™ CRIMPING TOOL E-9J

The 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.



## 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 RUS and UL Listed Polypropylene	2.08	0.082	19-26	0.9-0.4	N/A	N/A
<b>UR2-D</b> 		Dry Polypropylene	2.08	0.082	19-26	0.9-0.4	19-26	0.9-0.4
<b>UR</b> 		Gel-filled RUS and UL Listed Polycarbonate	1.52	0.060	19-26	0.9-0.4	N/A	N/A
<b>UY2</b> 		Gel-filled RUS and UL Listed Polypropylene	2.08	0.082	19-26	0.9-0.4	N/A	N/A
<b>UY2-D</b> 		Dry Polypropylene	2.08	0.082	19-26	0.9-0.4	19-26	0.9-0.4
<b>UY</b> 		Gel-filled UL Listed Polycarbonate	1.52	0.060	22-26	0.7-0.4	N/A	N/A
<b>*557TG</b> 		Gel-filled Flame Retardant Polypropylene	3.0	0.12	16-22	1.3-0.6	N/A	N/A
<b>UYF</b> 		Gel-filled UL Listed Polycarbonate	1.52	0.060	20-26	0.8-0.4	N/A	N/A
<b>UP2</b> 		Dry Flame Retardant RUS and UL Listed Polycarbonate	1.52	0.060	22-26	0.7-0.4	22-26	0.7-0.4
<b>UP3</b> 		Dry Flame Retardant RUS and UL Listed Polycarbonate	1.52	0.060	19-26	0.9-0.4	19-26	0.9-0.4
<b>UAL</b> 		Gel-filled For Aluminum Polycarbonate	2.08	0.082	17-20 AL 19-24 CU	1.2-0.8 AL 0.9-0.5 CU	N/A	N/A
<b>211</b> 		Gel-filled RUS and UL Listed Polypropylene	2.08	0.082	19-26	0.9-0.4	N/A	N/A

\*Inline and drop wire connectors can only be used with E-9BM.



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 RUS and UL Listed Polypropylene	2.08	0.082	19-26	0.9-0.4	N/A	N/A
<b>UB2A-D</b> 		Gel-filled RUS Listed Polypropylene	2.08	0.082	19-26	0.9-0.4	N/A	N/A
<b>UG</b> 		Gel-filled RUS Listed Polycarbonate	Butt 1.54 Tap 1.12	0.051 0.044	19-26 22-26	0.9-0.4 0.7-0.4	N/A	N/A
<b>UPB</b> 		Dry UL Listed Flame Retardant Polycarbonate	1.27	0.050	22-26	0.7-0.4	22-26	0.7-0.4
<b>*UDW2</b> 		Full Pair Drop Pair Polycarbonate	4.4	0.175	16-19	1.3-0.9	N/A	N/A
<b>*U1B</b> 		Gel-filled Full Pair Polycarbonate	3.18	0.125	16-19	1.3-0.9	N/A	N/A
<b>*U1R</b> 		Gel-filled Full Pair Polycarbonate	3.18	0.125	19-24	0.9-0.5	N/A	N/A
<b>UCC</b> 		Gel-filled RUS and UL Listed Polycarbonate	1.52	0.060	22-26	0.7-0.4	N/A	N/A
<b>UPC</b> 		UL Listed Flame Retardant Polycarbonate	1.52	0.060	22-26	0.7-0.4	22-26	0.7-0.4
To reduce fatigue, use tool within each group with highest mechanical advantage, indicated in ( ).		<div>       </div> <div>           E-9BM (10:1)      E-9C (7:1)      E-9E (4:1)      E-9Y** (3:1)      E-9R (10:1)      E-9J (10:1)         </div>						

\*Inline and drop wire connectors can only be used with E-9BM.

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

Tap Splicing

Inline Splicing

Clear/Cap Only

# ORDERING INFORMATION

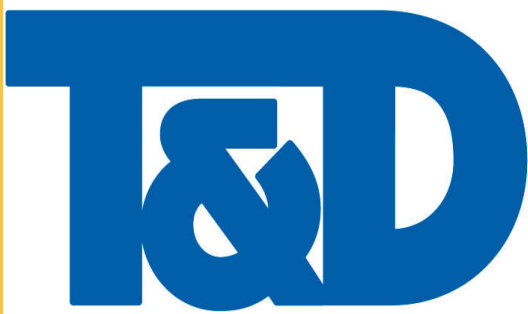
Connector	Box Packaging Weight kg (lbs.) Minimum Order UPC Code	Bulk Packaging Weight kg (lbs.) Minimum Order UPC Code	Cartridge Packaging Weight kg (lbs.) Minimum Order UPC Code			
UR2	100/box, 1000/cs. 1.36 (3) Min. Order: 1000 connectors 05400768538	500/box, 5000/cs. 6.7 (15.2) Min. Order: 5000 connectors 05400756390	10/cart, 100/pak., 1000/cs. 2.09 (4.6) Min. Order: 1000 connectors 05400768541			
UR2-D	N/A N/A N/A N/A	500/box, 5000/cs. 6.7 (15.2) Min. Order: 5000 connectors 05400733277	10/cart, 100/pak., 1000/cs. 2.09 (4.6) Min. Order: 1000 connectors 05400727816			
UR	100/box, 1000/cs. 1.36 (3) Min. Order: 1000 connectors 05400768537	500/box, 5000/cs. 6.7 (15.2) Min. Order: 5000 connectors 05400768535	10/cart, 100/pak., 1000/cs. 2.09 (4.6) Min. Order: 1000 connectors 05400768534			
UY2	100/box, 1000/cs. 0.9 (1.3) Min. Order: 1000 connectors 05400714911	1000/box, 5000/cs. 2.8 (6.1) Min. Order: 5000 connectors 05400733278	12/cart, 120/pak., 1200/cs. 1.4 (3.5) Min. Order: 1200 connectors 05400727817			
UY2-D	N/A N/A N/A N/A	1000/box, 5000/cs. 2.8 (6.1) Min. Order: 5000 connectors 05113857359	12/cart, 120/pak., 1200/cs. 1.4 (3.5) Min. Order: 1200 connectors 05400771478			
UY	100/box, 1000/cs. 0.9 (1.3) Min. Order: 1000 connectors 05400714911	1000/box, 5000/cs. 2.8 (6.1) Min. Order: 5000 connectors 05400733278	16/cart, 160/pak., 1600/cs. 1.4 (3.5) Min. Order: 1600 connectors 05400727817			
557TG	N/A N/A N/A N/A	500/bag, 5000/box 9.09 (20) Min. Order: 5000 connectors 05113857359	N/A N/A N/A N/A			
UYF	500/box, 2500/cs. 2.15 (4.75) Min. Order: 2500 connectors 05111518516	N/A N/A N/A N/A	N/A N/A N/A N/A			
UP2	N/A N/A N/A N/A	1000/box, 5000/cs. 2.4 (5.4) Min. Order: 5000 connectors 05400733420	16/cart, 160/pak., 1600/cs. 1.4 (3.2) Min. Order: 1600 connectors 05400732698			
UP3	N/A N/A N/A N/A	1000/box, 5000/cs. 7.1 (13.3) Min. Order: 5000 connectors 05400733419	10/cart, 100/pak., 1000/cs. 2.0 (4.4) Min. Order: 1000 connectors 05400732700			
UAL	100/box, 1000/cs. 1.4 (3.1) Min. Order: 1000 connectors 05111519163	N/A N/A N/A N/A	10/cart, 100/pak., 1000/cs. 2.1 (4.7) Min. Order: 1000 connectors 05400727828			
TOOLS	E-9BM CRIMPING TOOL	E-9C CARTRIDGE TOOL	E-9R CRIMPING TOOL	E-9E CRIMPING TOOL	E-9Y CRIMPING TOOL*	E-9J CRIMPING TOOL
Packaging kg (lbs.)/cs.	4.3 (9.5)	1/cs., 0.91 (2)	1/bag,10/cs.,2.59 (5.7)	1/bag,10/cs.,2.7 (6)	1/bag,10/cs.,1.53 (3.3)	1/bag,10/cs., 4.1 (9.02)
Minimum Order	10 each	1 each	10 each	10 each	10 each	10 each
UP Code	054007-33482	054007-34211	051138-87649	054007-10577	054007-15625	051115-19004-9

Connector	Box Packaging Weight kg (lbs.) Minimum Order UPC Code	Bulk Packaging Weight kg (lbs.) Minimum Order UPC Code	Cartridge Packaging Weight kg (lbs.) Minimum Order UPC Code
211	100/box, 1000/cs. 1.2 (2.6) Min. Order: 1000 connectors 05400734079	N/A N/A N/A N/A	N/A N/A N/A N/A
UB2A	100/box, 1000/cs. 1.2 (2.6) Min. Order: 1000 connectors 05400792693	500/box, 5000/cs. 5.9 (12.9) Min. Order: 5000 connectors 05400792696	N/A N/A N/A N/A
UB2A-D	100/box, 1000/cs. 1.2 (2.6) Min. Order: 1000 connectors 05400792694	500/box, 5000/cs. 5.9 (12.9) Min. Order: 5000 connectors 05400757279	N/A N/A N/A N/A
UG	100/box, 1000/cs. 1.1 (2.5) Min. Order: 1000 connectors 05400756391	1000/box, 5000/cs. 5.2 (11.6) Min. Order: 5000 connectors 05400733280	N/A N/A N/A N/A
UPB	100/box, 1000/cs. 0.6 (1.4) Min. Order: 1000 connectors 05400734173	1000/box, 5000/cs. 3.0 (6.6) Min. Order: 5000 connectors 05400733416	N/A N/A N/A N/A
UDW2	25/bag, 100/box N/A Min. Order: 1000 connectors 05113811505	N/A N/A N/A N/A	N/A N/A N/A N/A
U1B	100/box, 1000/cs. 7.3 (16.0) Min. Order: 5000 connectors 05400771340	N/A N/A N/A N/A	N/A N/A N/A N/A
U1R	100/box, 1000/cs. 7.4 (16.2) Min. Order: 2500 connectors 05400756388	N/A N/A N/A N/A	N/A N/A N/A N/A
UCC	N/A N/A N/A N/A	1000/box, 5000/cs. 2.6 (5.2) Min. Order: 5000 connectors 05400733417	16/cart, 160/pak., 1600/cs. 1.6 (3.5) Min. Order: 1600 connectors 05400731734
UPC	N/A N/A N/A N/A	1000/box, 5000/cs. 2.3 (5.0) Min. Order: 5000 connectors 05400733419	16/cart, 160/pak., 1600/cs. 1.5 (3.0) Min. Order: 1600 connectors 05400733721

\* Not recommended for 19 AWG and larger.

To order, call 800/426 8688. For more information, please contact your local 3M representative.

The full-service 3M repair facility can help you with any spare part needs. Contact the 3M repair center at 800/426 8688, or online at [www.3MRepair.com](http://www.3MRepair.com).



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## Important Notice

### 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 tolerances of 3M tools and may 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.**

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 12 months from the date of purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. **Except where prohibited by law, 3M will not be liable for any loss or damage arising from this 3M product, whether direct, indirect, special, incidental or consequential regardless of the legal theory asserted.**



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**3M Telecommunications**

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