



**3M** Science.  
Applied to Life.™

Communication Markets Division

**3M™ 710 Splicing System**

**Modular  
solutions  
for copper  
splicing**



# A simple system for reliable splicing

## A history of strong copper networks

The reliability of a copper distributed network depends greatly upon the reliability of the individual splices that hold it together. Each point is a critical junction where electrical impulses pass through splice connectors as voice and data signals connect sender with receiver.

For more than 40 years, 3M™ 710 Modular Splice Connectors have been used on a worldwide basis to help improve splicing productivity and help increase the efficiency of copper conductor cable. Modular in design, the 3M 710 system electrically joins multiple pairs of copper conductor cable concurrently, with modules capable of splicing 25 pairs at a time. The 3M 710 system consists of a complete complement of tools, supplies and replacement parts.

## Fast and reliable insulation displacement technology

3M™ 710 Modules contain an IDC (insulation displacement connection) device. Electrical connections are made by metallic contact elements that displace the insulation, creating a contact point between the conductor and the contact element. This design provides a gas-tight connection. Strain relief is achieved through unique design features. Plastic sheath retention grip points known as “bat wings” and “cathedral windows,” maintain retention on the conductor insulation.

## Straight, half-tap and bridge splicing

Several splice module configurations allow multiple options when designing a communications system. Straight connectors permit the joining of conductors when making a straight splice. Half-tap modules permit the joining of two cables but can also be used for rearranging and transferring cables without interruption of service, while bridge modules are used in conjunction with either straight or half-tap connectors.

## Splicing range of 26 to 22 AWG

Twenty-five pairs of PIC, PVC, pulp or paper insulated copper conductors are quickly and easily spliced at one time. 3M 710 Connectors may be used to splice conductors ranging in size between 26 to 22 AWG (0.4 mm to 0.65 mm).

## Manufactured from flame-retardant plastic

Flame-retardant engineering-grade plastic is used in the manufacture of all connectors. 3M 710 connectors may be used in the outside plant for aerial, underground or buried applications or for making connections in central-office mainframe distribution systems\* in an approved enclosure.

## Available either dry or filled

Dry connectors are universal in application and may be used with PIC, PVC, pulp or paper insulated conductors. For maximum moisture protection, filled connectors are used with either PIC or PVC insulated conductors.

## A waterproof sealant

Each 3M 710 filled connector contains its own moisture-resistant compound that is pressed outward when the module body and index strip or cap are pressed together. The preloaded compound is designed to fill all voids, when properly installed, to virtually eliminate air or moisture pockets that could surround the contacts and/or conductors. It's an excellent design that affords a high degree of integrity for moisture protection as well as maximizing the space constraints that may be confronted by the installer.

## Easy modular splice maintenance

Each module cap may be reopened without loss of customer service while one pair may be removed and replaced with another without others being disturbed (the index strip cannot be opened).

## A minimum amount of metal component parts

Contact elements are the only metal components within 3M 710 module bodies. The metal, utilized for contact element fabrication, is resistant to various forms of localized corrosion, stress corrosion cracking and pitting.

## Applications

- Aerial closures
- Underground/vault closures
- Direct buried closures
- Encapsulated closures
- Building distribution systems\*
- Central office/main frame distribution\*

\* In a UL1863 Compliant Enclosure



# Allowing for multiple options

## 3M™ 710 Modular Connectors



3M™ 710 Straight Connectors  
3M710-SC1-25

### Straight Connectors

Used for making a straight or through splice. A full plastic “skirt” protects cut conductor ends from moisture attack.



3M™ 710 Straight/Half-Tap Connectors  
3M710-SD1-25

### Straight/Half-Tap Connectors

Permit the joining of two cables (straight splice) or one cable to through cable conductors without interruption of service (half-tap splice).

One connector therefore does the job of two, reducing your connector inventory requirements.



3M™ 710 Bridge Connectors  
3M710-BD1-25

### Bridge Connectors

Exposed contact elements are accepted by either a straight or half-tap module for bridging applications.

# 3M™ 710 Modular Connectors

Product Number	Description	Gauge mm (in.)	Pkg (lbs.)	Min. Order	UPC 051138-
<b>25-Pair Straight-only 3M 710 Modular Splice Connectors</b>					
<i>Straight-only splice connectors permit the joining of conductors, 25 pairs at a time, in a communication distribution system.</i>					
3M710-SC1-25	Splice module, full skirt body, standard index strip, cap - encap.	26-24 gauge, 0.40/0.51 (0.016/0.020)	384 each (34.36)	384 each	78470
3M710-SCL-25	Splice module, full skirt body, 22 ga. index strip, cap - encap.	24-22 gauge 0.51/0.65 (0.020/0.026)	384 each (35.35)	384 each	78472
<b>25-Pair Straight/Half-Tap 3M 710 Modular Splice Connectors</b>					
<i>Straight/half-tap splice connectors permit the joining of two cables, 25 pairs at a time. They may also be used for rearranging and transferring cable without interrupting service.</i>					
3M710-SD1-25	Splice module, half-tap body, standard index strip, cap - dry	26-24 gauge, 0.40/0.51 (0.016/0.020)	384 each (31.57)	384 each	78475
3M710-SDL-25	Splice module, half-tap body, 22 ga. index strip, cap - dry	24-22 gauge, 0.51/0.65 (0.020/0.026)	384 each (30.88)	384 each	77092
3M710-TC1-25	Splice module, half-tap body, standard index strip, cap - encap.	26-24 gauge, 0.40/0.51 (0.016/0.020)	384 each (35.36)	384 each	78478
3M710-TCL-25	Splice module, half-tap body, 22 ga. index strip, cap - encap.	24-22 gauge, 0.51/0.65 (0.020/0.026)	384 each (34.09)	384 each	78480
<b>25-Pair 3M 710 Bridge Splice Connectors</b>					
<i>Bridge connectors are used in conjunction with either straight-only connectors or straight/half-tap connectors to permit pluggable 3-way splices, 25 pairs at a time.</i>					
3M710-BC1-25	Bridge module, bridge body, solid cap - encap.	26-22 gauge, 0.40/0.65 (0.016/0.026)	384 each (40.00)	384 each	78452
3M710-BD1-25	Bridge module, bridge body, solid cap - dry	26-22 gauge, 0.40/0.65 (0.016/0.026)	384 each (40.00)	384 each	78456
<b>25-Pair 3M 710 Caps</b>					
<i>Caps are used as a replacement item for the 3M 25-pair modular splicing system 710.</i>					
3M710-CC1-25	Cap - encap., gray	26-22 gauge, 0.40/0.65 (0.016/0.026)	100 each (23.60)	100 each	78461
3M710-CD1-25	Cap - dry, gray	26-22 gauge, 0.40/0.65 (0.016/0.026)	100 each (23.60)	100 each	77602
<b>25-Pair 3M 710 Index Strips</b>					
<i>Index strips are used as a replacement item for the 3M 25-pair modular splicing system.</i>					
3M710-ID1-25	Gray index strip, standard, color-coded	26-24 gauge, 0.40/0.51 (0.016/0.020)	100 each (25.95)	100 each	78467
3M710-IDL-25	Blue index strip, 22 ga., color-coded	24-22 gauge, 0.51/0.65 (0.020/0.026)	100 each (25.95)	100 each	77073
<b>25-Pair 3M 710 Filler Strips</b>					
<i>Filler strips are used with dry 3M 710 models in an encapsulated splice to give additional protection to the 3M Splice Module 710 by covering and sealing the bridge module port section of the module.</i>					
3M710-FS-25	Filler strip	N/A	800 each (41.9)	800 each	78465

# 3M™ 710 25-Pair Splicing Tool Kit 710

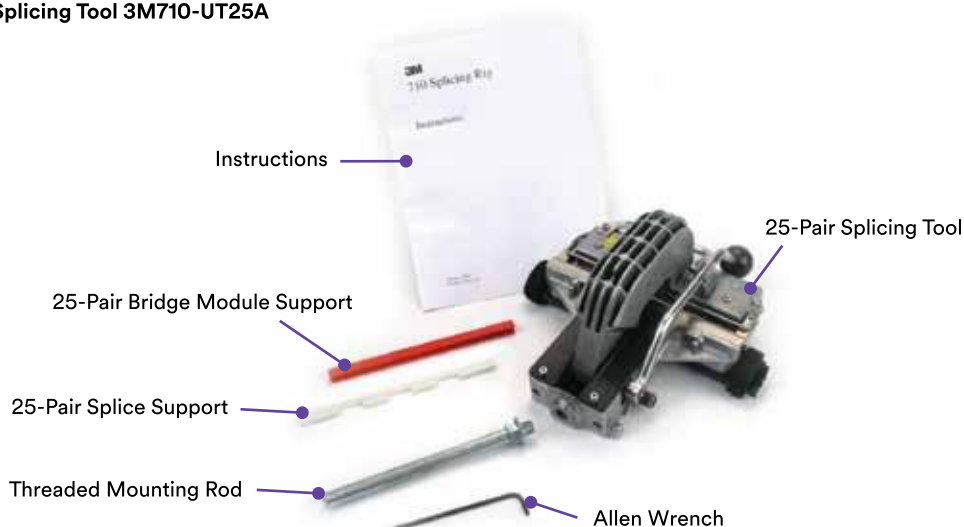
3M 710 Splicing Modules have been used worldwide for more than 40 years to create high quality splices in copper conductor cable. The 3M 710 system includes splicing modules as well as several tools, supplies and replacement parts to create a complete solution for your copper connections.

## 3M™ 710 Splicing Tool Kit 3M710-UTK25A



## 3M™ 710 25-Pair Splicing Tool

### 3M™ Splicing Tool 3M710-UT25A



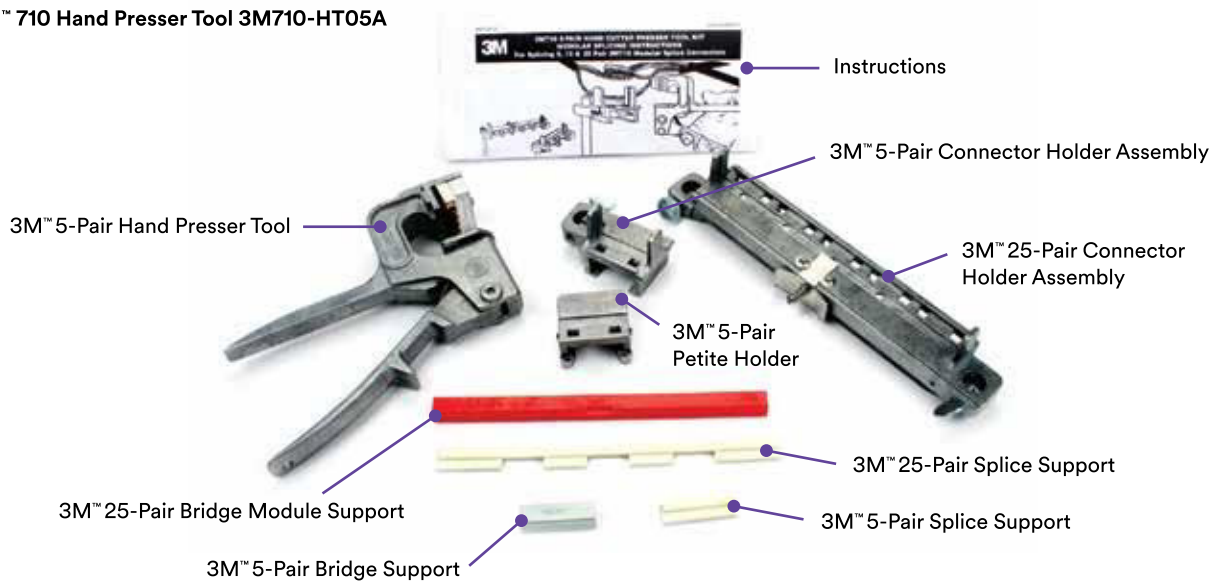
# 3M™ 710 5-Pair Hand Presser Kit

3M™ 710 Hand Presser Kit 3M710-HTK05A



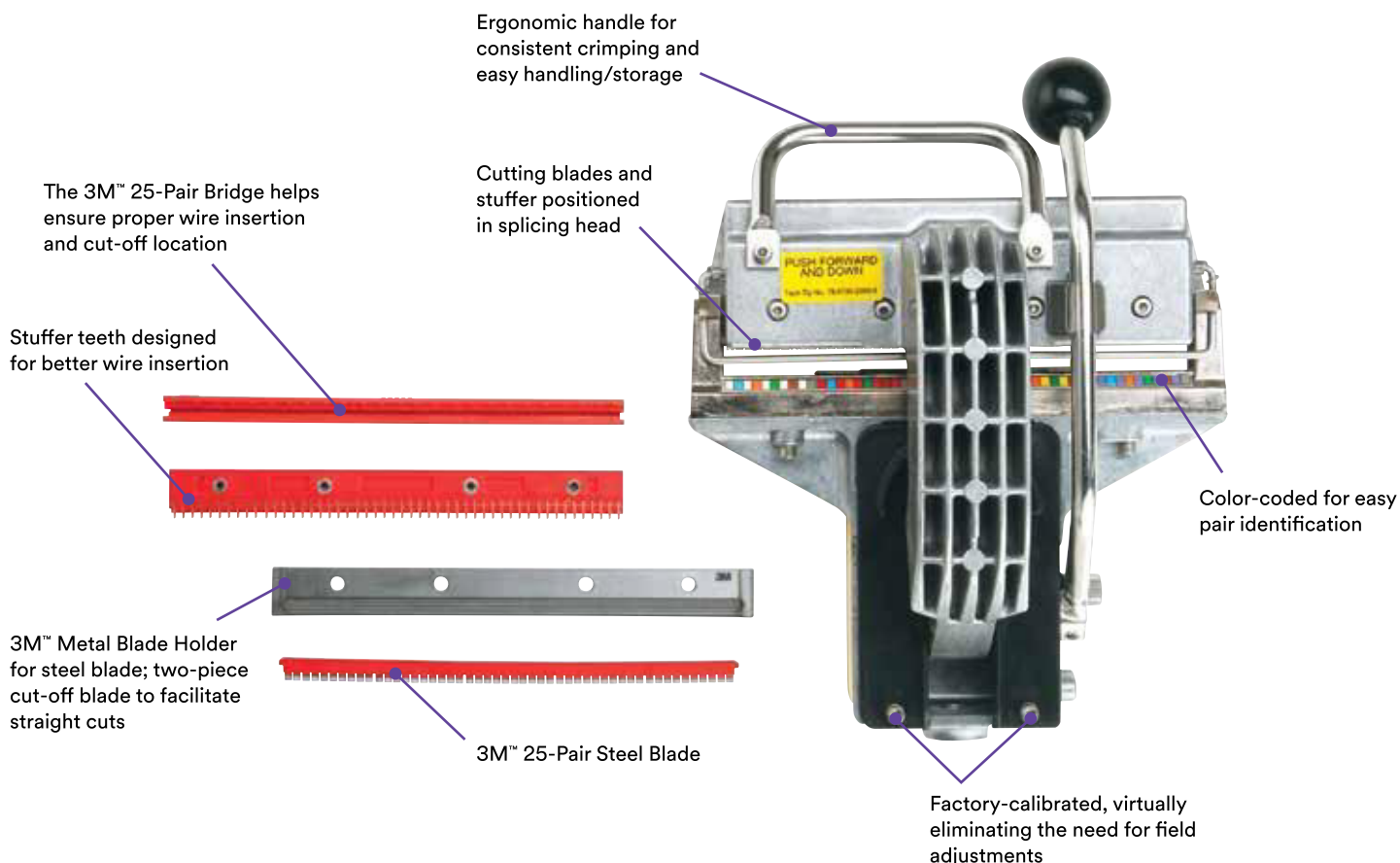
## 3M™ 710 5-Pair Hand Presser Tool

3M™ 710 Hand Presser Tool 3M710-HT05A



# 3M™ 710 25-Pair Splicing Rig

When it comes to copper cable, good splices are absolutely critical to reliable connections—especially with the unprecedented demand that DSL and other advanced technologies exert on networks today. That is why the secure, high-integrity splice that the 3M 710 splicing rig offers is so important. It's a factory-calibrated, low-maintenance tool that makes it fast and easy to create a good splice virtually every time.









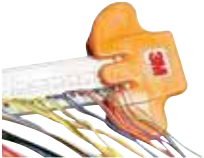


## 3M Splicing Rig Features








Feature	Advantage	Benefit
Bridge module support	Optimally locates the bridge module	Helps ensure proper wire insertion and cut-off location
Red stuffer assembly	Improved stuffer tooth design	More consistent wire insertion
Ergonomic handle	Easier to push forward and down when crimping	High-quality crimp
Two-piece blade design with separate blade holder	Helps prevent blade flex to provide a more consistent cut-off location	High-quality splice
Conductor group holder	Keeps binder groups organized during splicing	Less time spent keeping cables in order
Color coding	Easy pair identification at a glance	Increased productivity
Aluminum die-cast components	Lightweight	Efficient handling



## 3M™ 710 Splicing Tools and Accessories

	<b>3M™ 5-Pair Maintenance Kit</b> 3M710-HMK05A 80-6110-3642-9	Contents include: test leads, 25 and 5-pair bridge support, 25 and 5-pair splice support, one 5-pair spare blade, allen wrench, assorted hardware (2 thumb screws, one washer, two plungers, two springs, one socket screw), plastic case and blade replacement instruction sheet.
	<b>3M™ Metal Blade Holder</b> 3M710-AP105-25-SH 80-6111-4910-7	Protective metal 25-pair blade holder for steel blade.
	<b>3M™ 25-Pair Steel Blade</b> 3M710-AP105-25-S 80-6111-4704-4	25-pair steel blade fits into 3M710-AP105-25-SH metal blade holder.
	<b>3M™ Tripod Kit</b> 3M710-TPK10 80-6110-4847-3	A one-piece telescoping tripod used for floor supporting splicing tools.
	<b>3M™ Group Holder Kit</b> 3M710-GHK 80-6111-5609-4	Group holder kit.
	<b>3M™ Bridge to Splice Tool</b> 3M710-BSP 80-6113-1250-7	For insertion and pressing of 3M™ 710 Bridge Connector modules into half-tap or straight splice connector modules.
	<b>3M™ 25-Pair Maintenance Kit</b> 3M710-UMK25A 80-6110-3669-2	Contents include: 25-pair bridge support, 25-pair splice support, one 25-pair spare blade, error tester, lubricant, allen wrench, cleaning brush, hardware kit (2 thumb screws, 10 lock washers, 1 set screw, 2 socket head screws 12 mm, 10 socket head screws 18 mm), plastic case and blade replacement instruction sheet.
	<b>3M™ Test Leads</b> 3M710-AP120 80-6110-3630-4	For testing one conductor pair at a time through bridge access ports on all 3M 710 modules.
	<b>3M™ Conductor Wire Cut-off Tool</b> 3M710-CCT10 80-6111-7325-5	For cutting off through-conductor wires that will no longer be used after half-tapping. All wires are cut individually in a single operation to virtually eliminate the possibility of shorting and interrupting service.

## 3M™ 710 Splicing Tools and Accessories

	<b>3M™ Insertion Cutting</b> Tool 3M710-ICT-10 80-6110-3000-0	For cutting and terminating one conductor pair at a time in a 3M 710 connector module. This facilitates rearrangement of the modular splice when space is limited or for individual pair maintenance.
	<b>3M™ Cap Removal Tool</b> 3M710-CRT10 80-6110-3639-5	For removal of caps from connector modules to rearrange pairs or perform maintenance wire work.
	<b>3M™ Bridge Removal Tool</b> 3M710-BRT10A 80-6110-4778-0	For removing bridge connectors from the connector module.
	<b>3M™ Half-Tap Cover</b> 3M710-HTC-25 80-6110-4794-7	Used to cover and seal the removed half-tap cable pairs following the cutting operation with the conductor wire cut-off tool.
	<b>3M™ "L" Mounting Rods with Support Clamp</b> 3M710-AP100 80-6110-3615-5	"L" mounting rods with support clamp.
	<b>3M™ Tool Mounting Kit</b> 3M710-TMK10-A 80-6110-4837-4	A multi-piece set designed to mount and support all splicing tools on splicer boxes, pedestals or racking.
	<b>3M™ Base</b> 3M710-TMK10-A1 80-6110-4838-2	Base

## 3M™ 710 Splicing Tools and Accessories

	<b>3M™ Tool Clamp</b> 3M710-TMK10-A2 80-6110-4839-0	Tool Clamp
	<b>3M™ Swivel Bar</b> 3M710-TMK10-A3 80-6110-4840-8	Swivel Bar
	<b>3M™ Tube Clamp</b> 3M710-TMK10-A4 80-6110-4841-6	Tube Clamp
	<b>3M™ Vise Clamp</b> 3M710-TMK10-A5 80-6110-4842-4	Vise Clamp
	<b>3M™ Swivel Knob</b> 3M710-TMK10-A6 80-6110-4843-2	Swivel Knob
	<b>3M™ Tube/Tool Clamp</b> 3M710-TMK10-A7 80-6110-4844-0	Tube/Tool Clamp
	<b>3M™ 90° Mount</b> 3M710-TMK10-A8 80-6110-4845-7	90° Mount
	<b>3M™ Plastic Case</b> 3M710-TMK10-A9	Plastic Case

3M is a trademark of 3M Company.

**Special Warranty Statement:**

3M™ 710 Splicing Rigs, Tools and Modules are engineered to work together to achieve consistently excellent performance in the field. Modules from other manufacturers may not meet the tight quality tolerances of 3M modules and may damage the calibration and performance of a 3M rig or tool. Therefore, the published 3M warranty does not extend to any 3M modules spliced in rigs or tools not made by 3M. The warranty on 3M 710 splicing rigs and tools can also be voided if used on non-3M modules.

**Important Notice**

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.

**Warranty; Limited Remedy; Limited Liability.**

This product will be free from defects in material and manufacture for a period of 12 months from the time 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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