

3M

710 Splicing Rig

Instructions

Table of Contents

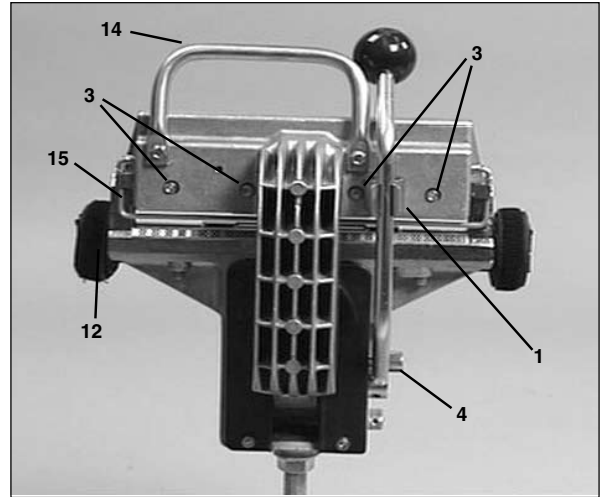
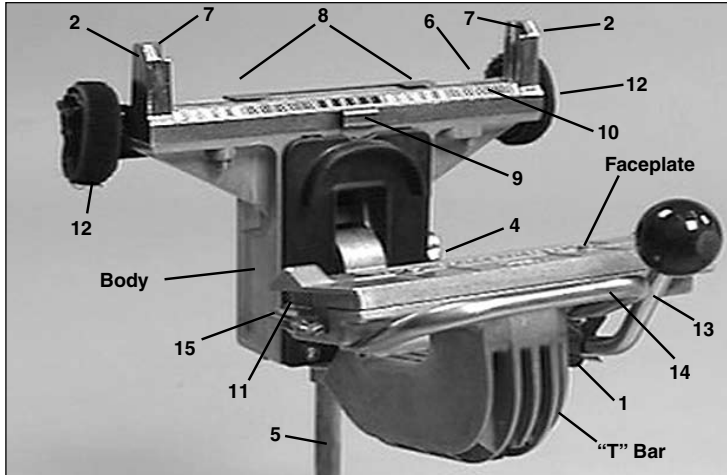
1.0	General Statement.....	4
2.0	3M™ 710-UTK25A Splicing Rig and Field Maintenance Kit.....	4
3.0	Straight Splicing using the 3M™ 710 25-pair modules	6
4.0	Half-Tap Splicing with 3M™ 710 25-pair modules	9
5.0	Bridge Splicing with 3M™ 710 25-pair modules using the Red Bridge Module Support	10
6.0	Crimping Bridge/Splice Module Combinations with the Bridge to 3M™ 710-BSP Splice Presser	12
7.0	Bottomless Splicing with 3M™ 710 25-pair modules using the Gray Bottomless Splice Module Support.....	13
8.0	3M™ 710 Splicing Rig Blade Assembly Replacement.....	15
9.0	3M™ 710 Splicing Rig Tools and Accessories	18

1.0 General Statement

The following Instructions show how to use the 3M™ 710 Splicing Rig for all splicing applications, including blade replacement and optional accessories.

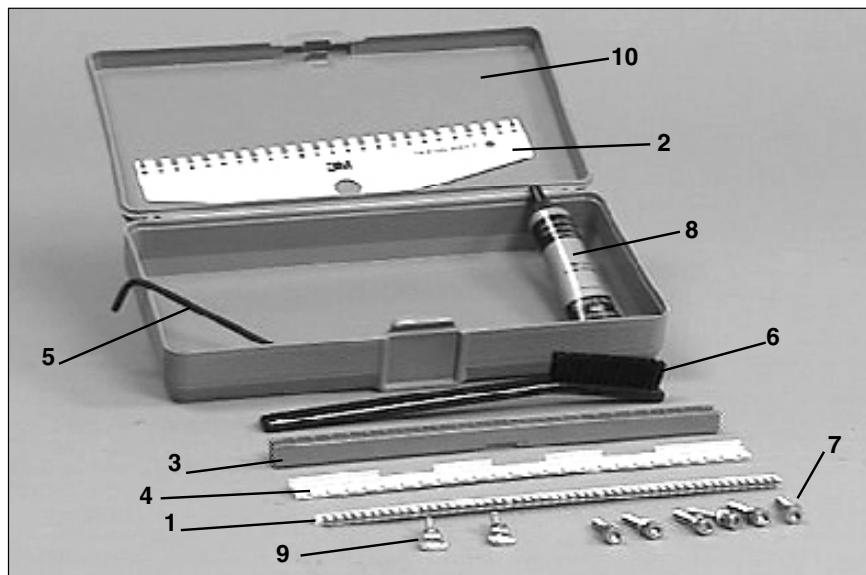
2.0 3M 710-UTK25A Splicing Rig and Field Maintenance Kit

3M 710-UTK25A Splicing Rig Parts



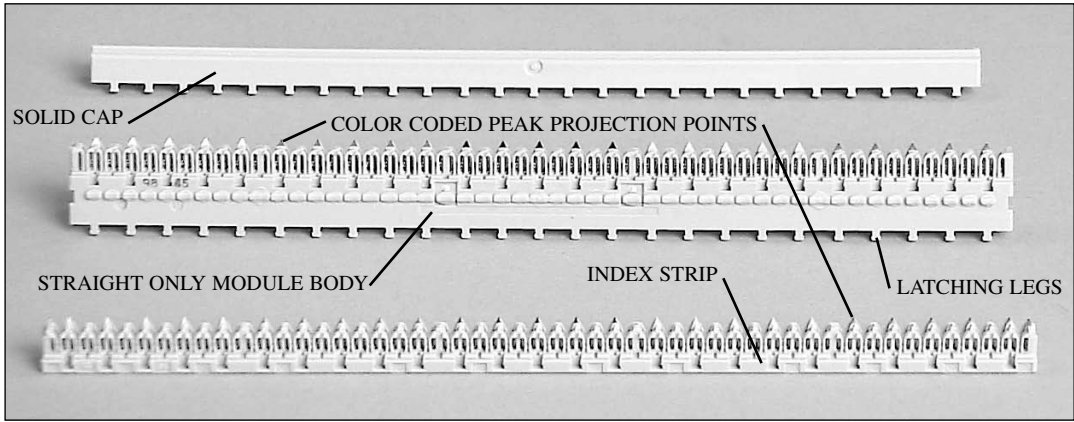
- | | |
|---|----------------------------------|
| 1. Handle Retaining Clip | 8. Module “L” Clip |
| 2. Vertical Side Posts | 9. “L” Clip Release Knob |
| 3. Blade Retaining Screws (4 on the handle side, 2 on the faceplate side) | 10. Color Code Guide |
| 4. “T” Bar Locking Knob | 11. Cutter Blade Holder Assembly |
| 5. Splicing Rig Support Rod | 12. Conductor Group Holder |
| 6. Module Assembly Channel | 13. Handle |
| 7. Module Guides | 14. Carrying/Operational Handle |
| | 15. Blade Guard |

3M710-UMK25A Field Maintenance Kit (included with the 3M710-UTK25A Splicing Rig)

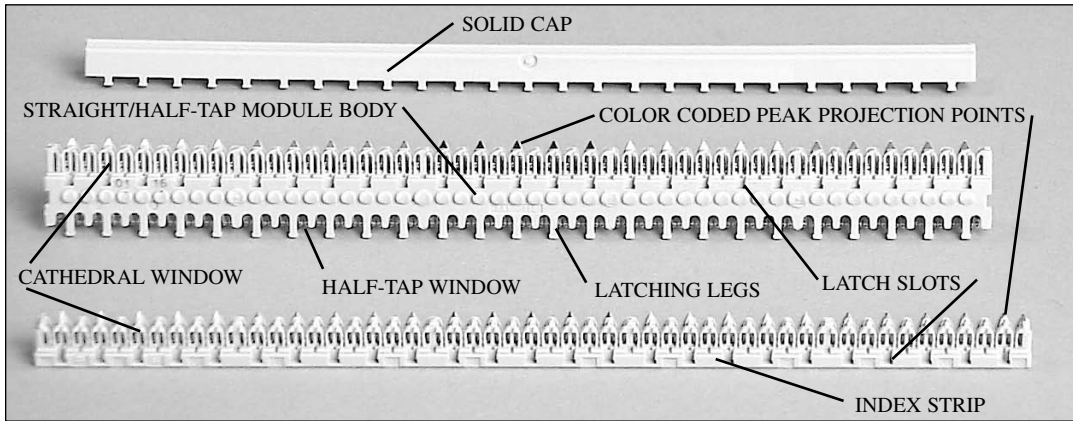


- | | | |
|------------------------------|--|---------------------------|
| 1. Cutter Blade | 4. Gray Bottomless Splice Module Support | 7. Hex Screws and Washers |
| 2. Error Tester Tool | 5. 3mm Hex Wrench | 8. Lubricating Grease |
| 3. Red Bridge Module Support | 6. Cleaning Brush | 9. Thumb Screws |
| | | 10. Kit Carrying Case |

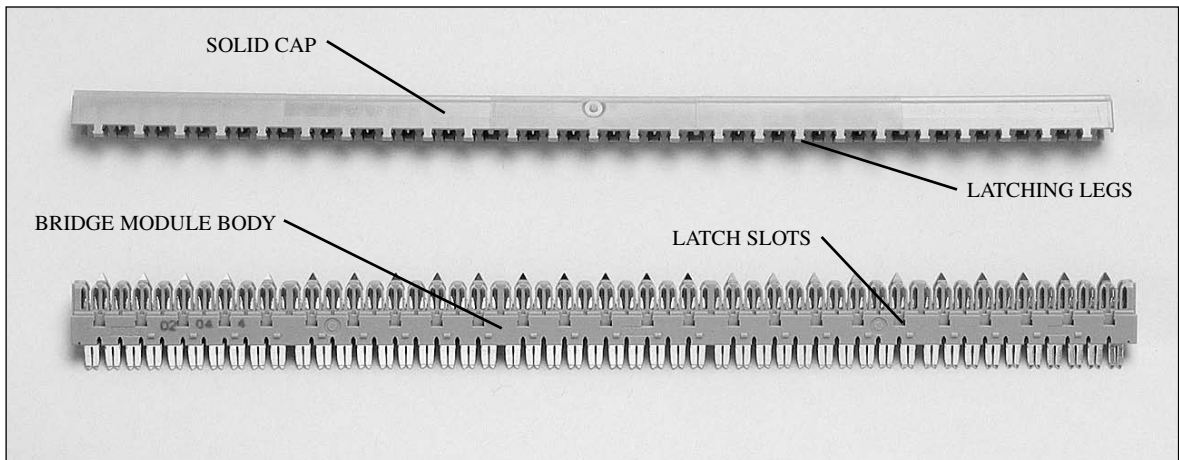
3M™ 710 STRAIGHT SPLICE MODULE



3M™ 710 STRAIGHT/HALF-TAP SPLICE MODULE

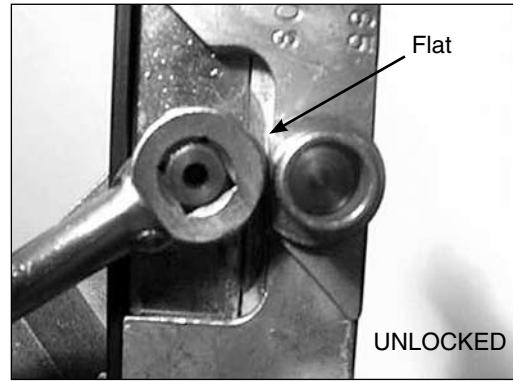


3M™ 710 BRIDGE SPLICE MODULE

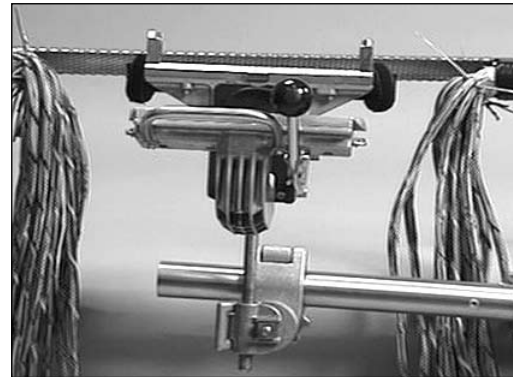


3.0 Straight Splicing using the 3M™ 710 25-pair Modules

- 3.1 Hold the handle to disengage the locked “T” bar by turning the locking knob until the flat section releases the “T” bar. Pull the “T” bar up and place into the open position.



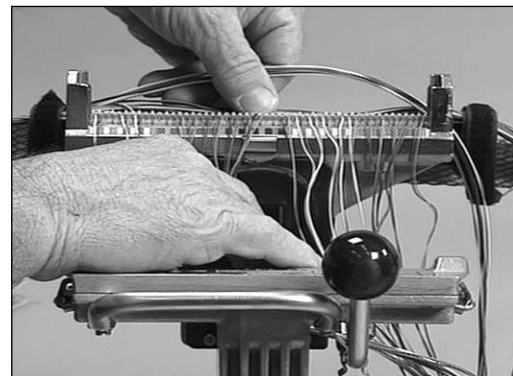
- 3.2 Set up the splicing rig on a support system with the conductor group holders 1 1/2" (38mm) above the cable group to be spliced.



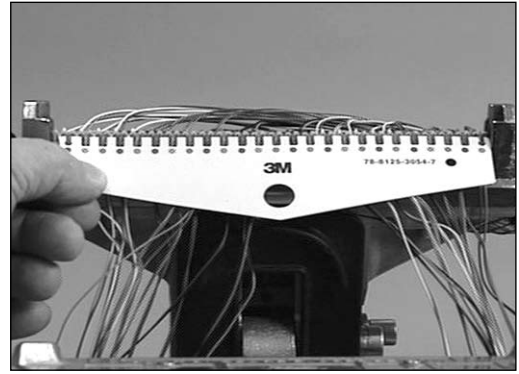
- 3.3 Insert an index strip into the vertical side posts with the cathedral windows facing the color code guide. Push the “L” clip knob in to seat the index strip into the channel and locate it under the “L” clips.



- 3.4 Secure a 25-pair group with the conductor group holder. Dress the pairs into the index strip over the colored peaks with the conductor ends exiting towards the color code guide. **Do not pull the conductors tight to the back of the connector.**



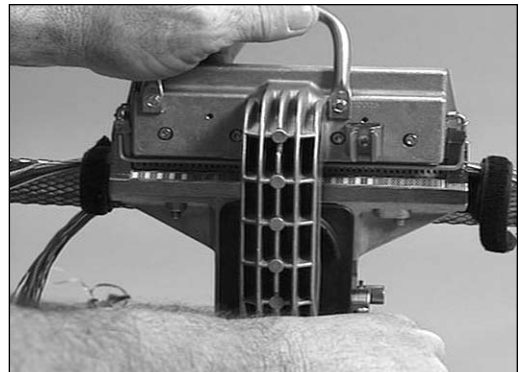
- 3.5 Position the error tester tool over the index strip, left for tips (A), right for rings (B). Correct any errors if found.



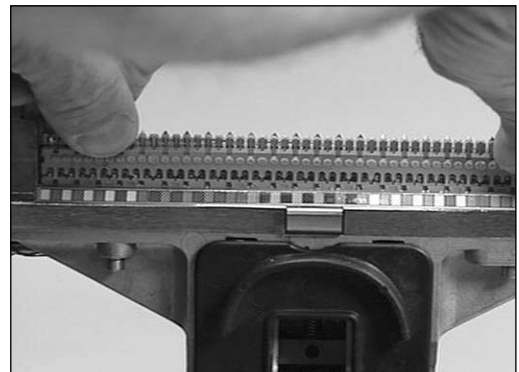
- 3.6 Spread the conductors around the “T” bar. Pull the “T” bar up above the index strip between the vertical side posts.



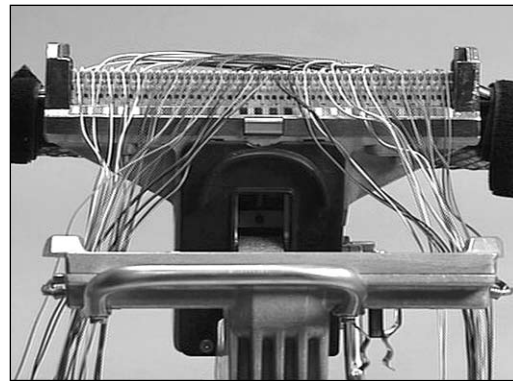
- 3.7 Push the “T” bar forward and down until contact is made with the conductors. Pull the handle down to the stop, seating and cutting the conductors in the index strip. Remove the excess conductors. Engage the handle into the retaining clip, pull the “T” bar up, and place into the open position.



- 3.8 Insert module body over the index strip with the cathedral windows of the module body facing the color code guide. Use finger pressure to push down on the body to pre-engage it with the index strip. Pull the “T” bar above the module body. Push it forward and down until contact is made with the body, pull the handle down to the stop, seating the body to the index strip. Engage the handle into the retaining clip, pull the “T” bar up, and place into the open position.



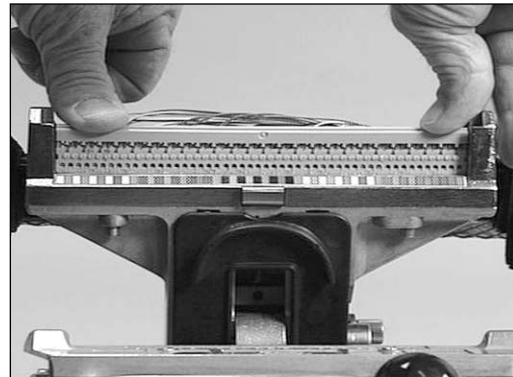
3.9 Wrap the group to be spliced with the other group holder. Dress the pairs into the module body over the colored peaks with the conductor ends exiting towards the color code guide. **Do not pull the conductors tight to the back of the connector.** Use the error tester tool to check for correct conductor placement.



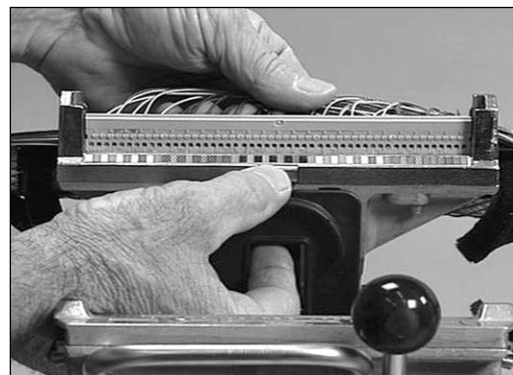
3.10 Spread the conductors around the “T” bar without disturbing them in the module body. Pull the “T” bar up above the module body. Push the “T” bar forward and down until contact is made with the conductors. Pull the handle down to the stop, seating and cutting the conductors in the module body. Remove the excess conductors. Engage the handle into the retaining clip, pull the “T” bar up, and place into the open position.



3.11 Place a cap on the module body. Use finger pressure to push down the cap to pre-engage it to the module body. The cap latches should face the color code guide. Pull the “T” bar up above the cap. Push the “T” bar forward and down until contact is made with the cap. Pull the handle down to the stop, seating the cap into the module body. Engage the handle into the retaining clip, pull the “T” bar up, and place into the open position.



3.12 Push in the “L” clip to release the module and remove from the splicing rig. The 25-pair straight splice module is complete.



4.0 Half-Tap Splicing with 3M™ 710 25-pair Modules

- 4.1 Open the “through” cable with additional slack for half tapping as follows or follow your company procedure:

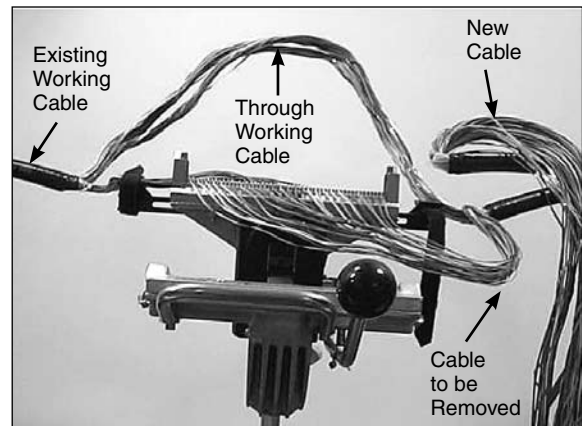
Less than 900 pair = 5" (127 mm)

900–1800 pair = 5–7" (127–178 mm)

1800 pair & above = 7–9" (178–230 mm)

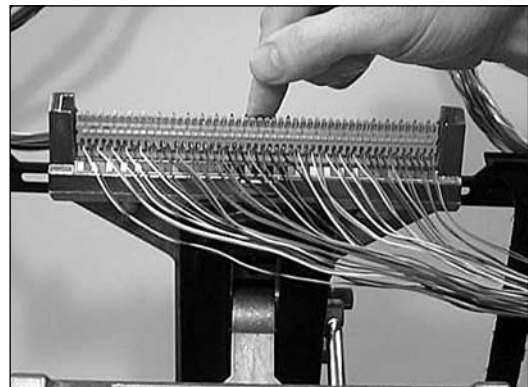


- 4.2 Insert an index strip into the vertical side posts with the cathedral windows facing the color code guide. Push the “L” clip knob in to seat the index strip into the channel and locate it under the “L” clips. Select a “through” group to be half-tapped. Wrap the group to be spliced with the conductor group holder and dress the pairs into the index strip over the colored peaks according to the color code guide. **Do not pull the conductors tight to the back of the connector.** Use the error tester tool to check for correct conductor placement.

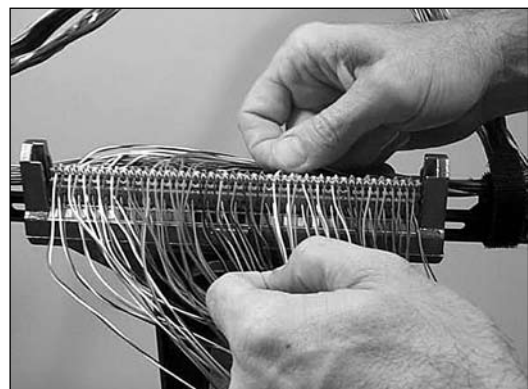


Note: *The cable to be removed must exit the index strip towards the color code guide. DO NOT CUT AND SEAT THE CONDUCTORS with the “T” bar.*

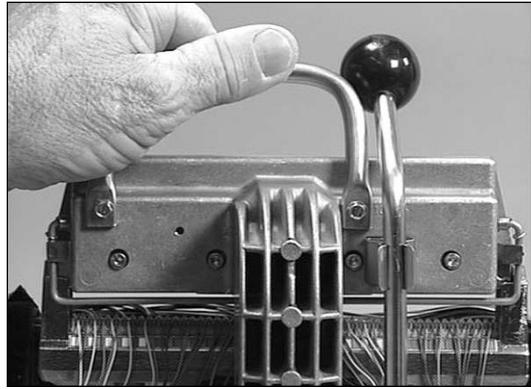
- 4.3 Place a straight/half-tap module body with the cathedral windows facing out towards the color code guide on top of the index strip. Use finger pressure to push down on the body and pre-engage it with the index strip. Pull the “T” bar above the module body. Push it forward and down until contact is made with the body, pull the handle down to the stop, seating the body to the index strip. Engage the handle into the retaining clip, pull the “T” bar up, and place into the open position.



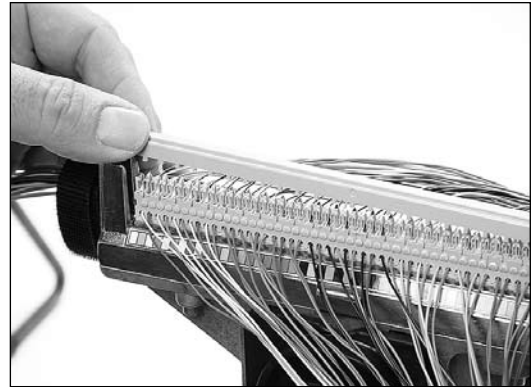
- 4.4 Wrap the group to be spliced with the other group holder. Dress the pairs over the colored peaks with the conductor ends exiting towards the color code guide. **Do not pull the conductors tight to the back of the connector.** Use the error tester tool to check for correct conductor placement.



- 4.5 Spread the conductors around the “T” bar without disturbing them in the module body. Pull the “T” bar up above the module body. Push the “T” bar forward and down until contact is made with the conductors. Pull the handle down to the stop, seating and cutting the conductors in the module body. Remove the excess conductors. Engage the handle into the retaining clip, pull the “T” bar up, and place into the open position.

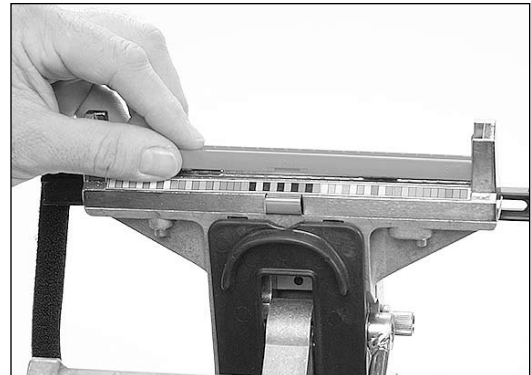


- 4.6 Place a cap on the module body. Use finger pressure to push down the cap to pre-engage it to the module body. The cap latches should face the color code guide. Pull the “T” bar up above the cap. Push the “T” bar forward and down until contact is made with the cap. Pull the handle down to the stop, seating the cap into the module body. Engage the handle into the retaining clip, pull the “T” bar up, and place into the open position. Push in the “L” clip to release the module and remove from the splicing rig. The 25-pair half-tap splice module is complete.

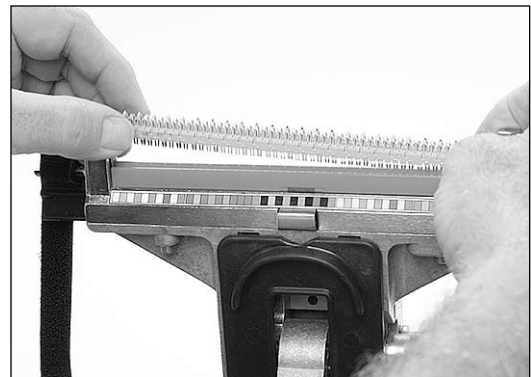


5.0 Bridge Splicing with 3M™ 710 25-pair Modules using the Red Bridge Module Support

- 5.1 Place a red bridge module support into the splicing rig with the word FRONT facing the color code guide. Push the “L” clip in to secure the bridge module support.



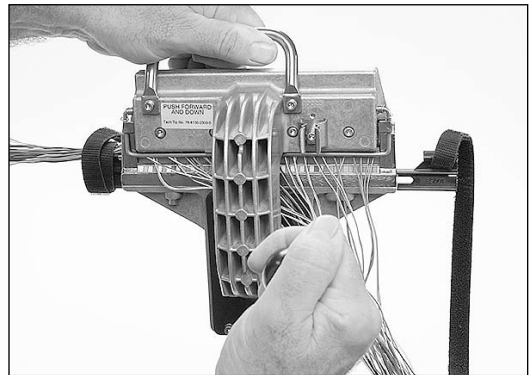
- 5.2 Place a bridge module into the bridge module support with the cathedral windows facing the color code guide.



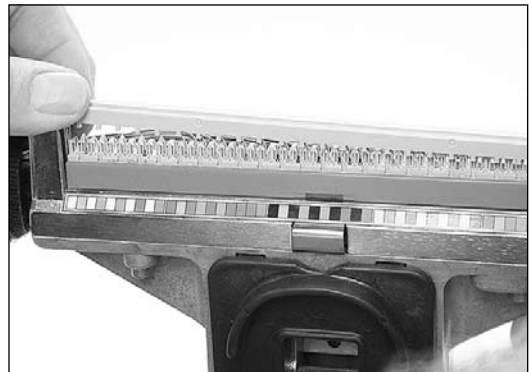
- 5.3 Wrap the group to be spliced with the conductor group holder. Dress the pairs over the colored peaks with the conductor ends exiting towards the color code guide. **Do not pull the conductors tight to the back of the connector.** Use the error tester tool to check for correct conductor placement.



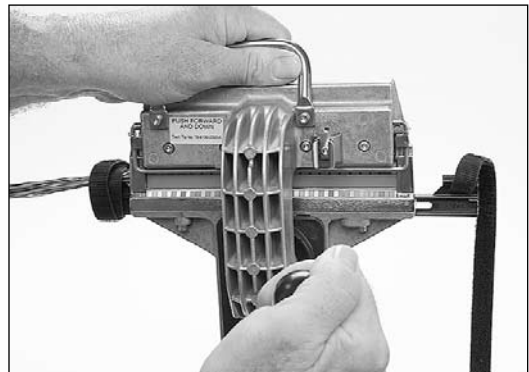
- 5.4 Push the “T” bar forward and down until contact is made with the conductors. Pull the handle down to the stop, seating and cutting the conductors in the bridge module. Remove the excess conductors. Engage the handle into the retaining clip, pull the “T” bar up, and place into the open position.



- 5.5 Place a cap on the module body. Use finger pressure to push down the cap to pre-engage it to the module body. The cap latches should face the color code guide.

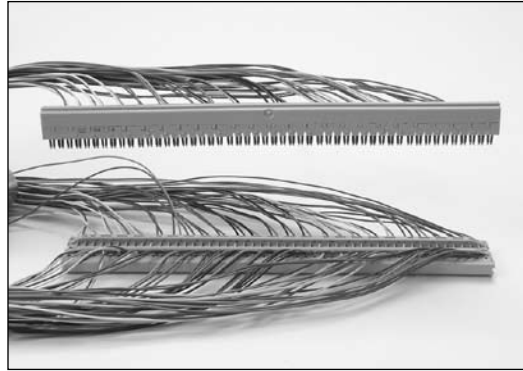


- 5.6 Pull the “T” bar up above the cap. Push the “T” bar forward and down until contact is made with the cap. Pull the handle down to the stop, seating the cap into the bridge module body. Engage the handle into the retaining clip, pull the “T” bar up, and place into the open position. The 25-pair bridge splice module is complete.



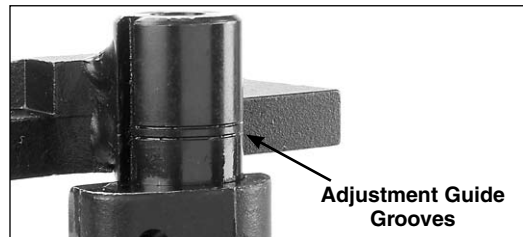
6.0 Crimping Bridge/Splice Module Combinations with the Bridge Module to 3M 710-BSP Splice Presser

- 6.1 Properly position the two modules or the cap/module combination to be pressed together, and pre-crimp them as much as can easily be done by hand.



- 6.2 Preset rough open jaw height by using the height adjustment nut and the adjustment guide grooves.

Top groove: Bridge pressing
Bottom groove: Cap pressing



Note: Make final adjustment using the height adjustment nut as required.



- 6.3 When pressing a 710 bridge module onto a 710 splice or half-tap module, insert the module combination between the jaws of the 3M 710-BSP Presser, cap first, with the 710 splice or half-tap module flush against the lower jaw of the tool. Insert the module combination until the cap rests firmly against the back wall of the lower jaw.



- 6.4 Crimp the module combination together by squeezing the handles of the 710 bridge module to 3M 710-BSP Splice Presser together until the factory-set torque handle “clicks,” indicating a complete crimp. This must be done three times, first in the center of the module combination, and then sequentially once on each end.

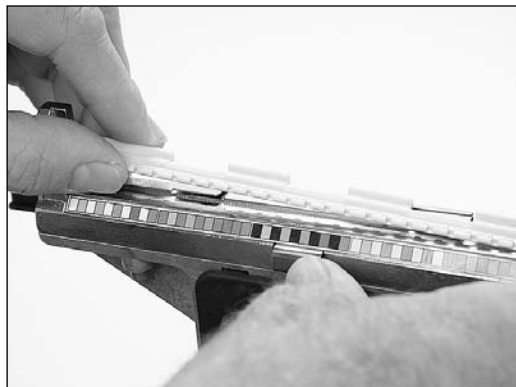
Note: If you don't hear or feel the factory set torque handle click while squeezing the handles, the crimp may not be complete. Reduce the height of the presser jaws by turning the height adjustment nut and repeat the crimping sequence.

- 6.5 Check visually to confirm complete pressing of the bridge module onto the splice or half-tap module. If necessary, complete the assembly using additional crimps.

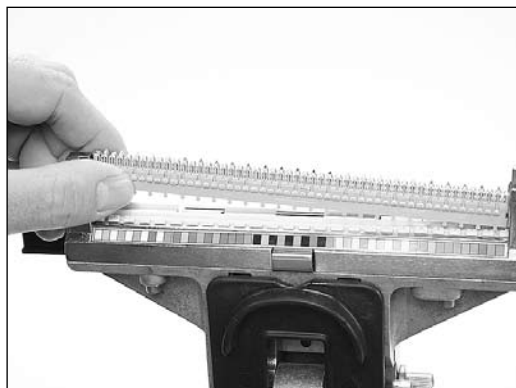


7.0 Bottomless Splicing with 3M™ 710 25-pair Modules using the Gray Bottomless Splice Module Support

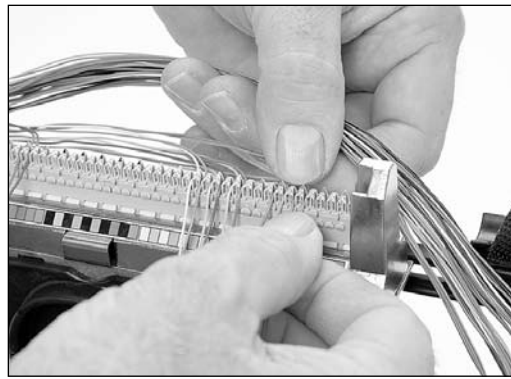
- 7.1 Place a gray bottomless splice module support into the splicing rig. The large gaps go to the side opposite the color code guide. Push in the “L” clip knob to secure the bottomless module support.



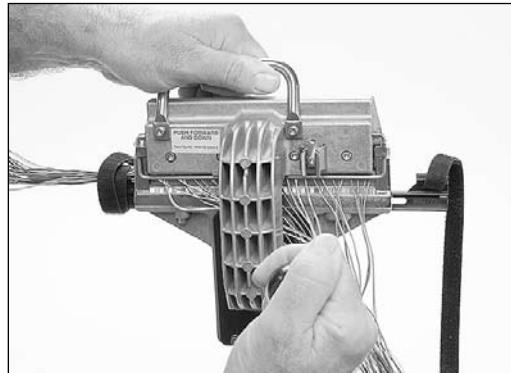
- 7.2 Place a straight or straight/half-tap module body into the bottomless support. The module latches fit into the cuts and face the color code guide.



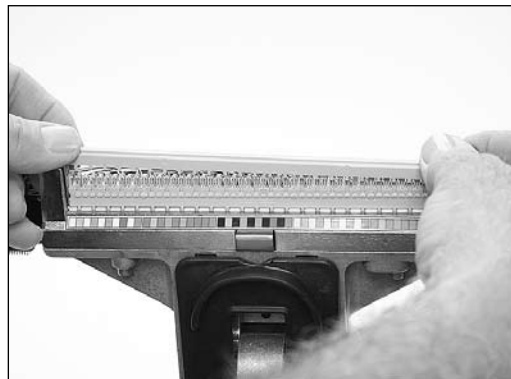
- 7.3 Wrap the group to be spliced with the conductor group holder. Dress the pairs over the colored peaks with the conductor ends exiting towards the color code guide. **Do not pull the conductors tight to the back of the connector.** Use the error tester tool to check for correct conductor placement.



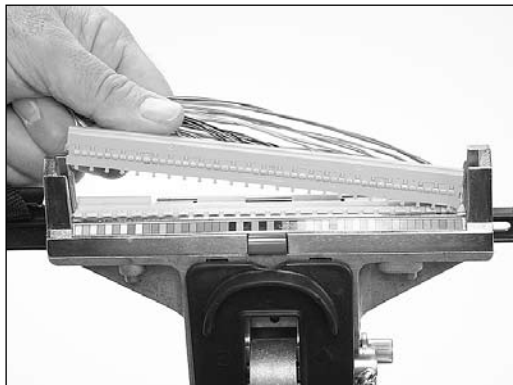
- 7.4 Spread the conductors around the “T” bar without disturbing them in the module body. Pull the “T” bar up above the module body. Push the “T” bar forward and down until contact is made with the conductors. Pull the handle down to the stop, seating and cutting the excess conductors in the module body. Remove the excess conductors. Engage the handle into the retaining clip, pull the “T” bar up, and place into the open position.



- 7.5 Place a cap on the module body. Use finger pressure to push down the cap to pre-engage it to the module body. The cap latches should face the color code guide. Pull the “T” bar up above the cap. Push the “T” bar forward and down until contact is made with the cap. Pull the handle down to the stop, seating the cap into the module body. Engage the handle into the retaining clip, pull the “T” bar up, and place into the open position.



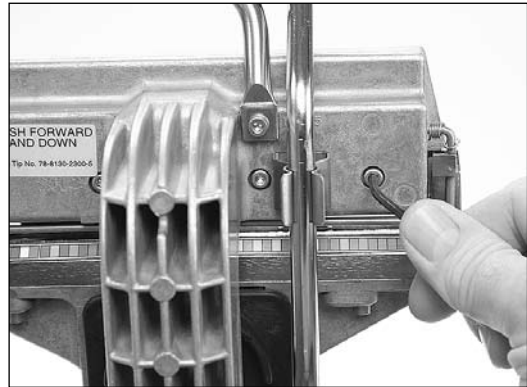
- 7.6 Remove the bottomless module from the splicing rig. The 25-pair bottomless module is complete.



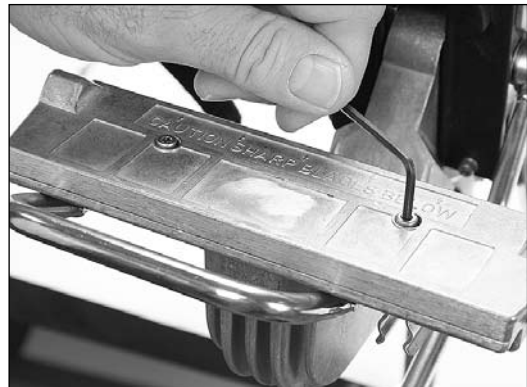
8.0 3M™ 710 Splicing Rig Blade Assembly Replacement

⚠ **CAUTION:** Use extreme care when handling old or new blades as even used blades are very sharp.

8.1 With the “T” bar in the up position, use the 3mm hex wrench to remove the four (4) screws on the handle side of the splicing rig head.



8.2 Open the “T” bar and use the 3mm hex wrench to loosen (but do not remove) the two (2) screws on the faceplate of the splicing rig head.



8.3 Using the middle fingers of both hands, push and hold the blade guard down. Keeping fingers away from the blade tips, slide the blade assembly forward by using thumbs to push metal ends of the blade assembly forward.

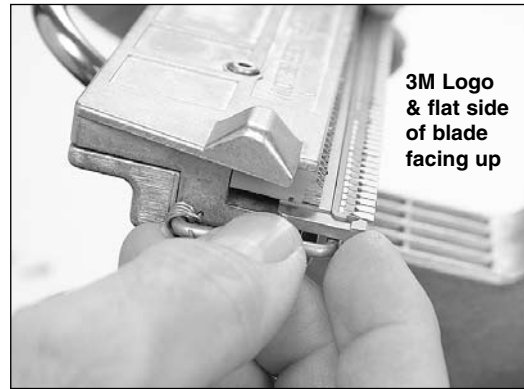


8.4 Place the new cutter blade into the pocket of the metal blade holder tool so the flat sides of the individual blades are flush with the surface of the metal blade holder tool.

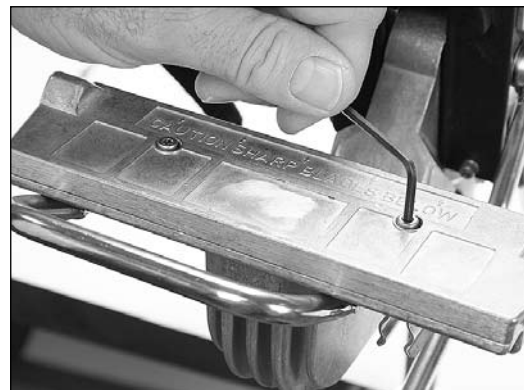
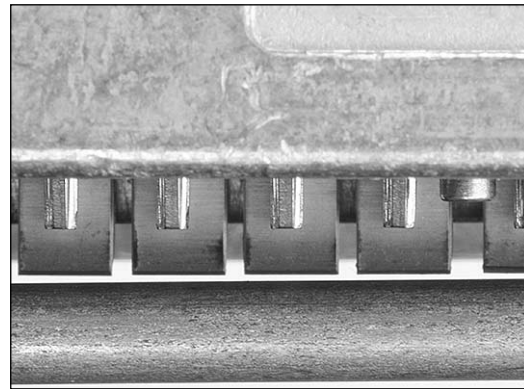


8.5 Hold back the blade guard and use finger pressure on the metal ends of the new blade assembly to insert it behind the stuffer teeth into the blade slot of the “T” bar.*

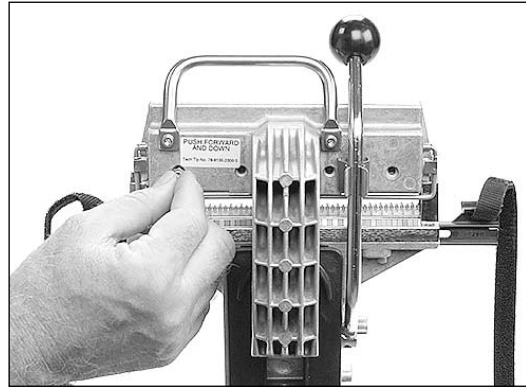
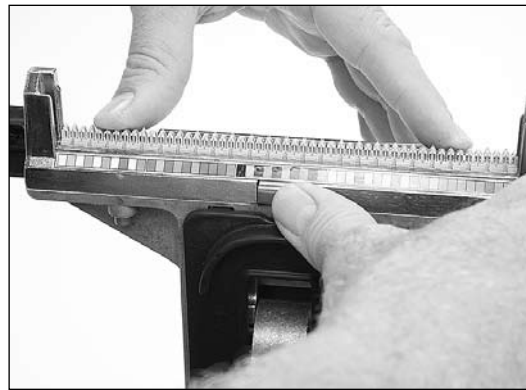
**Note: For proper operation you must ensure the blade guard moves freely on both sides of the blade assembly.*



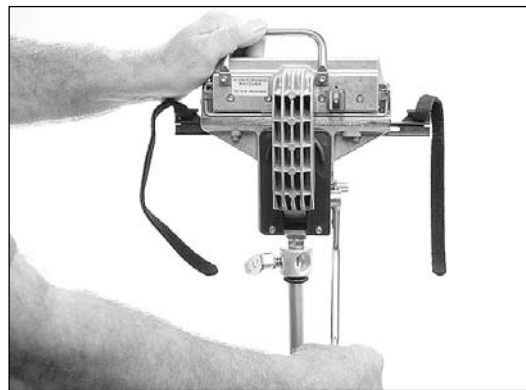
8.6 Looking at the center of the “T” bar faceplate, align the tips of the red stuffer with the mid-point of the individual blade tips of the cutter blade. Use the 3mm hex wrench to **lightly-tighten** the two (2) screws on the faceplate.



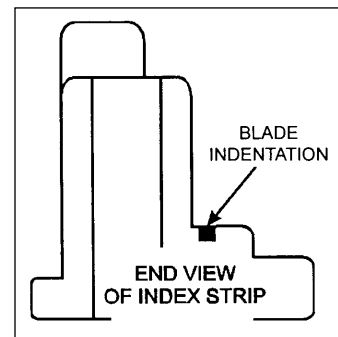
8.7 Install an index strip into the splicing rig and pull the “T” bar to the upright position. Use the 3mm hex wrench to insert and **lightly-tighten** the four (4) screws on the handle side of the “T” bar to secure the blade assembly and stuffer.



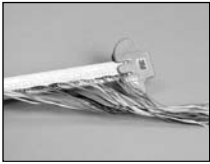
8.8 Pull the handle down to stop and up to release three (3) times to seat the blade assembly and stuffer. While the “T” bar is in the fully engaged down position, use the 3mm hex wrench to **securely tighten** all six (6) screws.



8.9 Engage the handle into the retaining clip, pull the “T” bar up, and place into the open position. Examine the index strip. Slight knife cuts of uniform depth should be visible on the cutting ledge, but not contacting the cathedral windows. If cut is not positioned correctly repeat steps 8.1–8.9.



9.0 3M™ 710 Splicing Rig Tools and Accessories



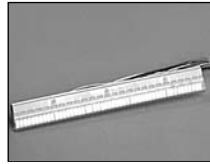
3M™ 710-CCT10
Conductor Wire Cut-
off-Tool



3M™ 710-UTK25A
25-pair Splicing Rig



3M™ 710-BRT10A
Bridge-Removal Tool



3M™ 710-MCG-25
Bridge Module Cover



3M™ 710-AP105-25S
Cutter Blade



3M™ 710-HTK05A 5-pair
Hand Presser Tool Kit



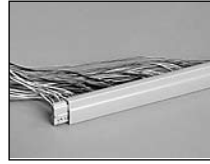
3M™ 710-ICT-10
Insertion Cutting Tool



3M™ 710-CRT10
Cap Removal Tool



3M™ 710-TPK10
Tripod Tool Mount Kit



3M™ 710-HTC-25
Half-Tap Cover



3M™ 710-UMK25A
Maintenance Kit



3M™ 710-TMK10-A
Tool Mounting Kit



3M™ 710-GHK Group Holder Kit
(P/N 78-8125-3055-4
available from 3M Telecom Service
and Repair Center
1.800.426.8688, select Option 2)



3M™ 710-BSP Tool
Bridge-to-Splice Presser

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Communication Markets Division
3M Telecommunications

6801 River Place Blvd.
Austin, TX 78726-9000
www.3MTelecommunications.com

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