3M710 UniPresser for 25-Pair Modular Splicing

Instructions

April 2001
78-8125-3042-2-B

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3M™ 3M710-UT25A Uni-Presser Parts and Nomenclature

(for Splicing 3M710 25 Pair Connectors)

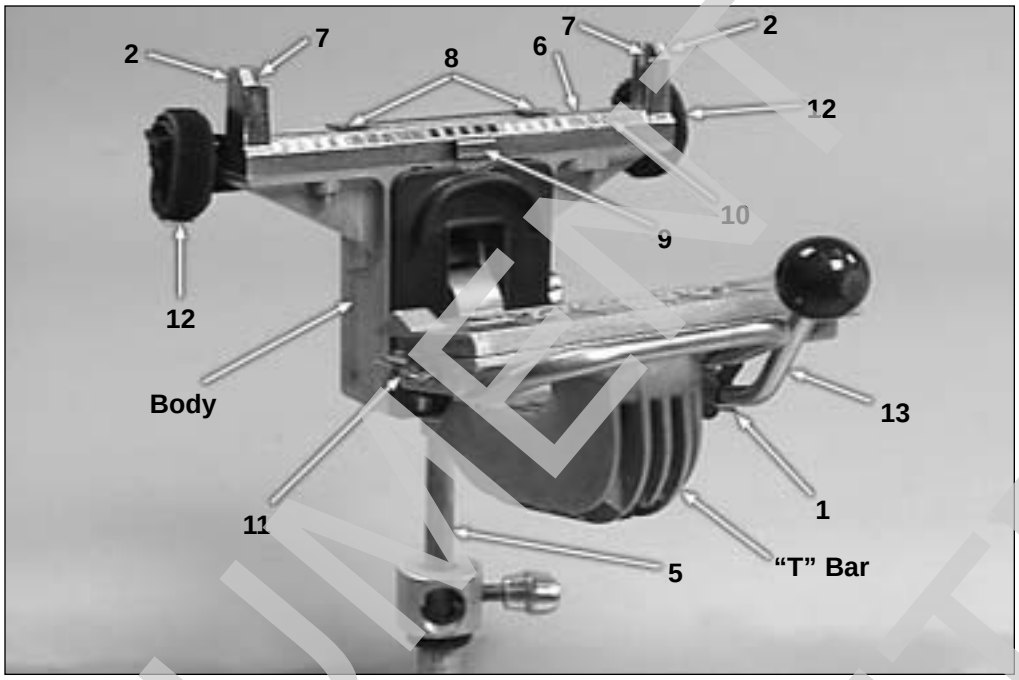


Figure 1

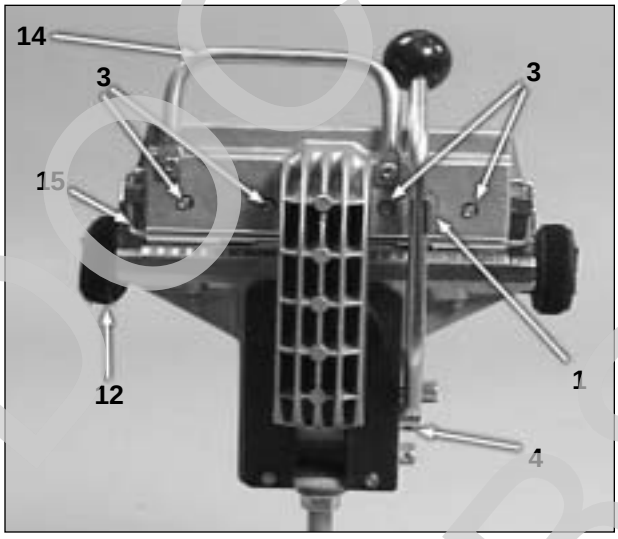


Figure 2

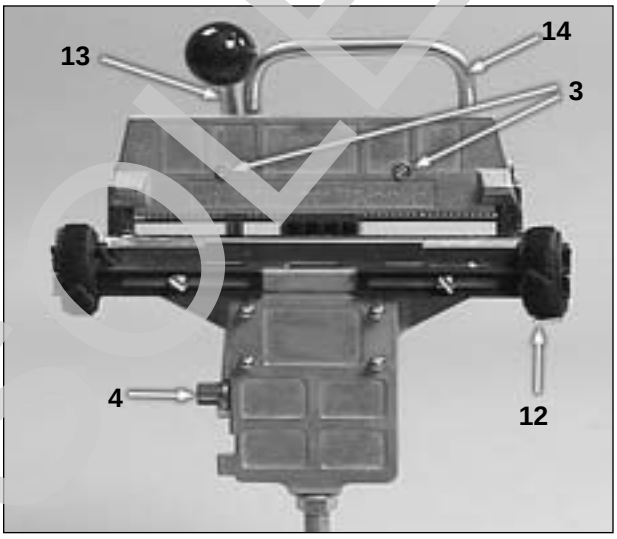


Figure 3

Component Parts

1. Handle Retaining Clip (fig. 1 & 2)
2. Vertical Side Posts (fig. 1)
3. Blade Retaining Screws (fig. 2 & 3)
4. "T" Bar Locking Knob (fig. 2 & 3)
5. Uni-Presser Support Rod (fig. 1)
6. Module Assembly Channel (fig. 1)
7. Module Guides (fig. 1)
8. "L" Clip Module (fig. 1)
9. "L" Clip Release Knob (fig. 1)
10. Color Code Guide (fig. 1)
11. Cutter Blade Holder Assembly (fig. 1)
12. Conductor Group Holder (fig. 1, 2 & 3)
13. Handle (fig. 1 & 3)
14. Carrying/Operational Handle (fig. 2 & 3)
15. Blade Guard

3M™ 3M710-UMK25A Field Maintenance Kit

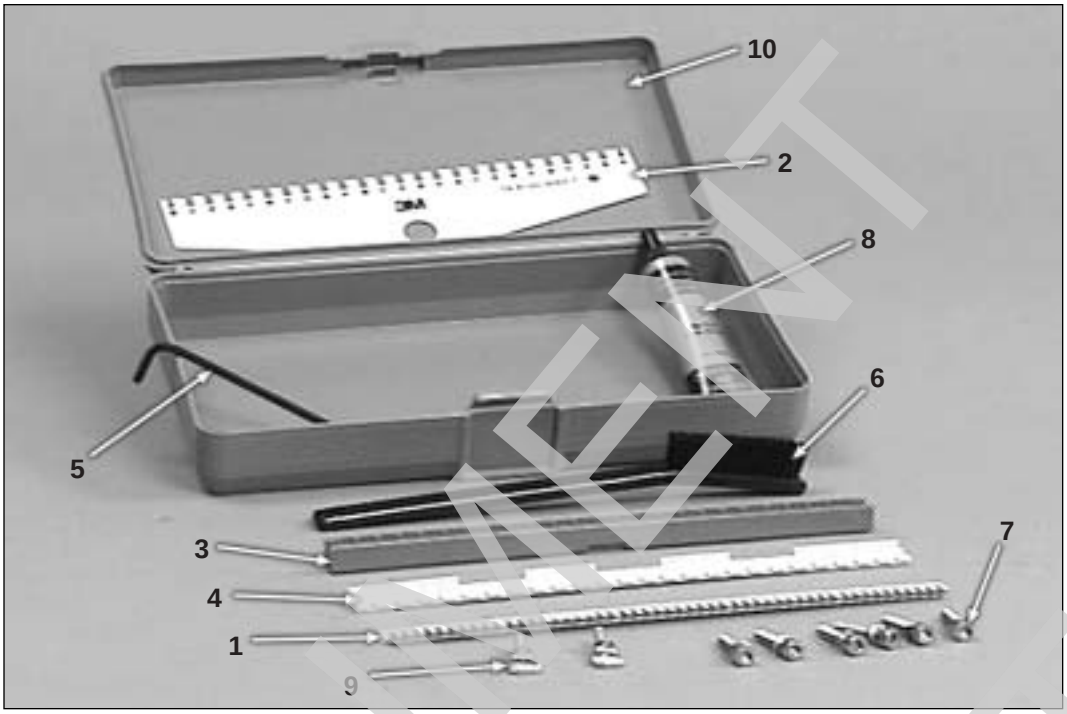


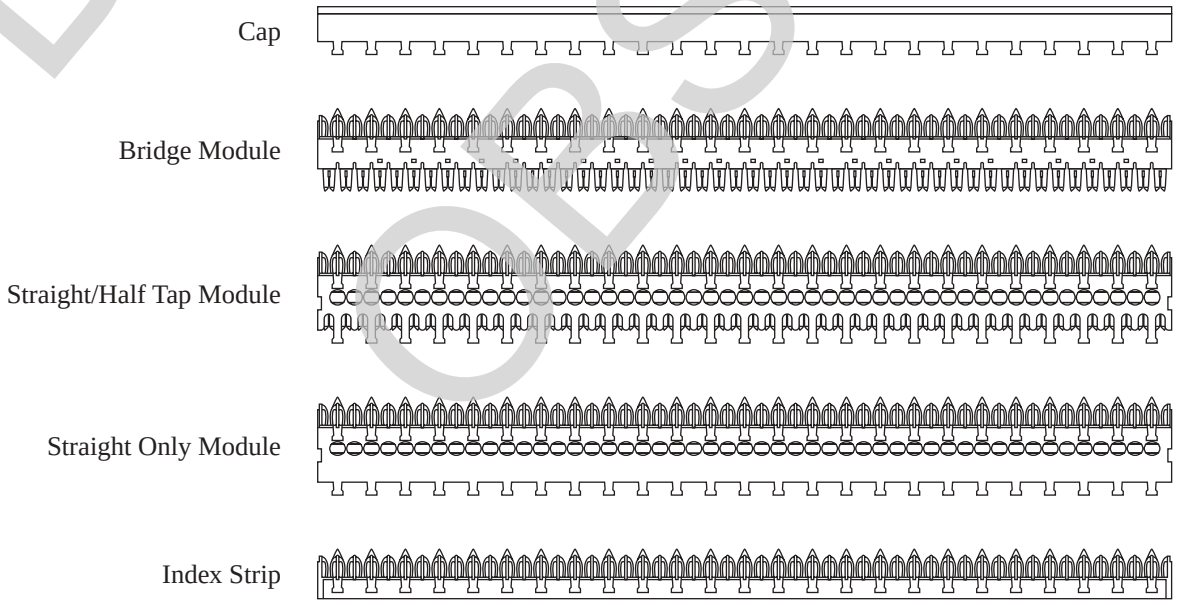
Figure 4

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

Note: Half-Tap Cover, Conductor Wire Cutoff Tool and Bridge Splice Presser Tool are shown in basic splicing techniques but are not included in kit.

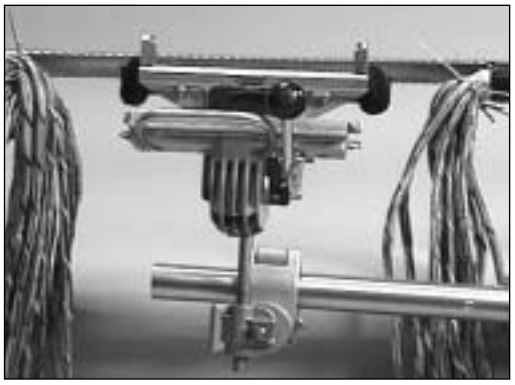
3M™ 3M710-Unipresser Tool 25 A Operational and Maintenance Instructions

Parts and Materials - 3M710 Modules used with the 3M710-UT25A

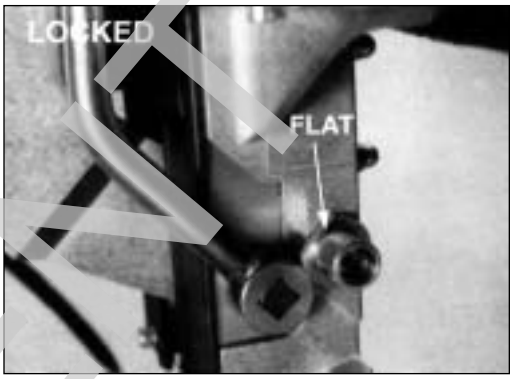


Straight Splice

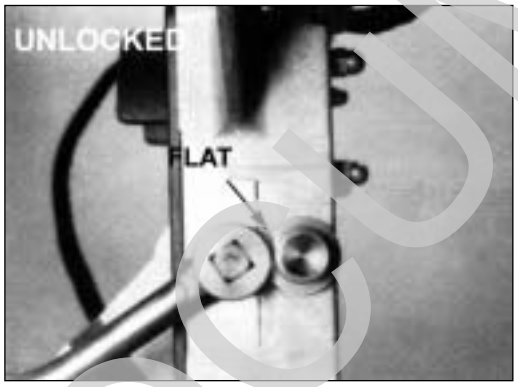
Basic Technique for Straight Splicing 3M™ 3M710 25-Pair Modules



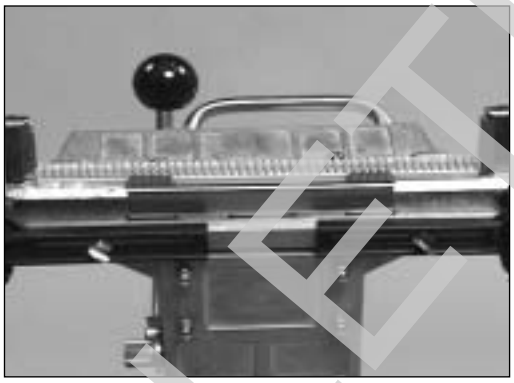
1. Set group holders (fig. 1 #12) 38mm (1 1/2") above the position of the cable units to be spliced.



2. To disengage the "T" bar from the locked position, turn the locking knob until the flat section releases the "T" bar. (fig. 2 & 3 #4)

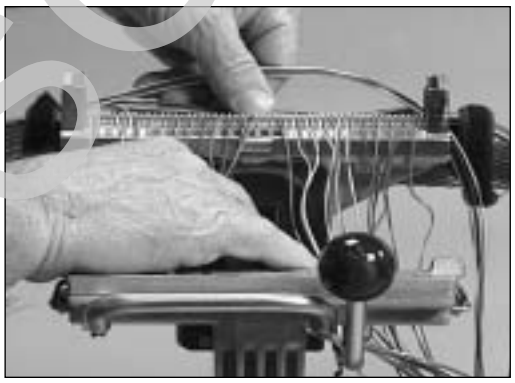


3. The "T" bar is now clear of the module assembly area allowing module construction.



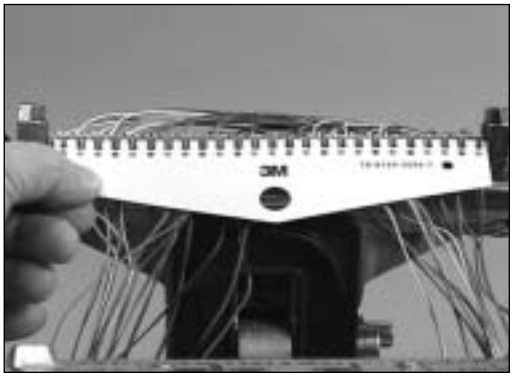
4. Insert an index strip between the vertical side posts. (fig. 1 #2) The index strip cathedral windows and latch locks should face the operator/front.

5. Push the "L" clip knob inward to allow the index strip to seat along the module assembly channel and locate under the spring loaded "L" clips (fig. 1 # 8 & 9)

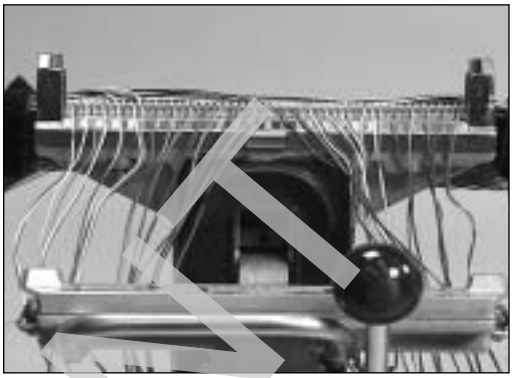


6. Secure the 25-pair group through the conductor group holder. (fig. 1 #12) and dress individual pairs into the cathedral windows of the index strip. Each pair is divided by a colored peak projection. To assist correct assembly, a color code guide (fig. 1 #10) is located on the operator side of the tool.

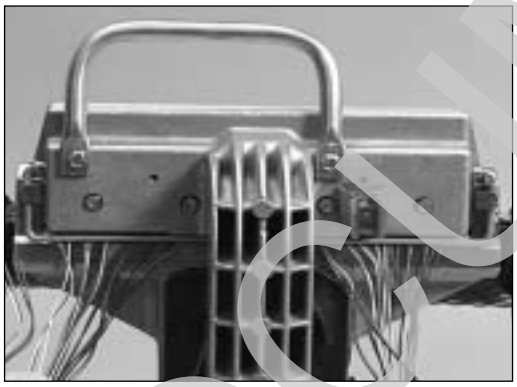
Note: The conductors must lay through the index strip straight and must not be pulled tight.



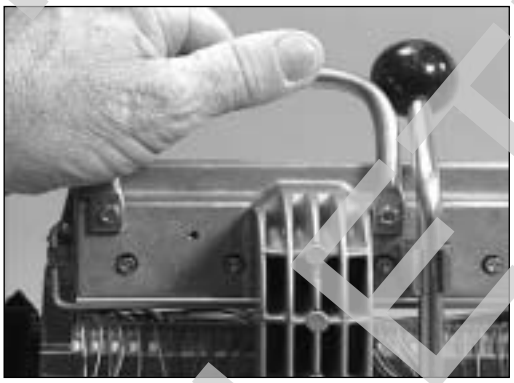
7. Check for wire color code dressing errors with the error tester (fig. 4 #2). With tester to the left, between the vertical posts all tip conductors are visible. With the tester to the right, all ring conductors are visible. Any errors can be detected and corrected.



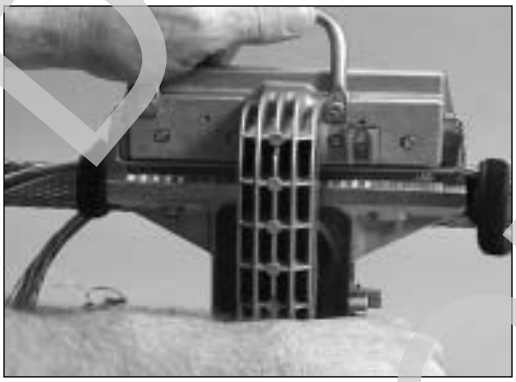
8. Spread the conductors evenly to each side of the "T" bar without pulling or distributing the conductors position in the index strip.



9. Position the "T" bar upright above the index strip between the vertical side posts. (fig. 1 #2)

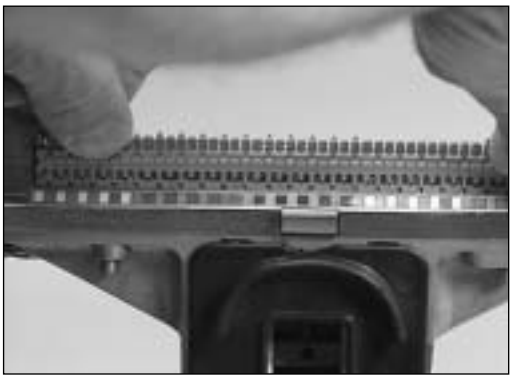


10. Apply downward pressure to the "T" bar until contact with the index strip is made.

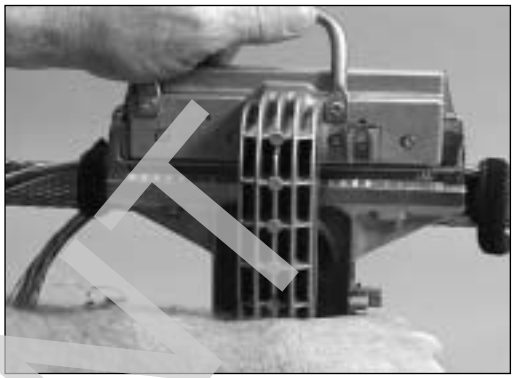


11. With the "T" bar in contact with the index strip, push the "T" bar forward and downward, then pull the handle all the way down until it hits the stop position. This action firmly seats the conductors on the index strip while the blade cuts the excess conductors. Remove the surplus conductors with the handle in the down position.

12. With the conductors seated and cut, return the handle to the upright and engage it firmly within the handle retaining clip. (fig. 2 #1) Position the "T" bar clear of the module assembly area.



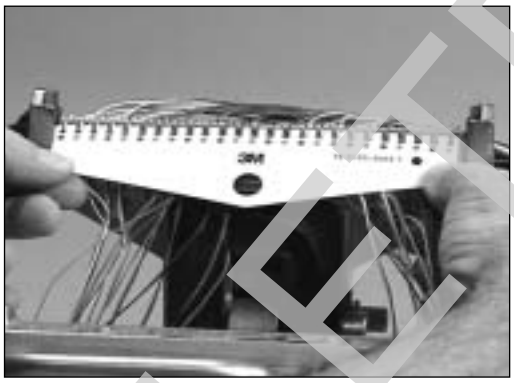
13. Insert a module body between the vertical side posts above the index strip. Push down on the module body to lightly engage the index strip. Ensure the cathedral windows and latches face the operator/front.



14. Position the “T” bar upright above the module body between the vertical side posts. Apply downward pressure to the “T” bar until contact with the module body is made. Pull the handle all the way down until it hits the stop to seat and lock the body into the index strip.

15. Secure the 25 pair group through the second conductor group holder and dress individual pairs into the cathedral windows of the module body.

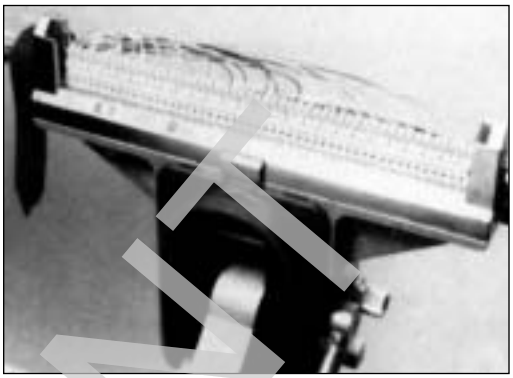
Note: The conductors must lay through the module body straight and must not be pulled tight.



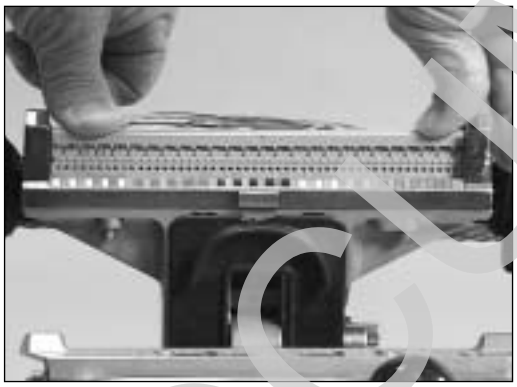
16. Check for color code dressing errors with the error tester. (fig. 4 #2) With the error tester to the left, between the vertical posts all tip conductors are visible. With the tester to the right all ring conductors are visible. Any errors can be detected and corrected.

17. Spread the conductors evenly to each side of the “T” bar without pulling or disturbing the conductors position in the module body. Position the “T” bar in an upright position above the module body between the vertical side posts. Apply forward and downward pressure to the “T” bar until contact with the body is made.

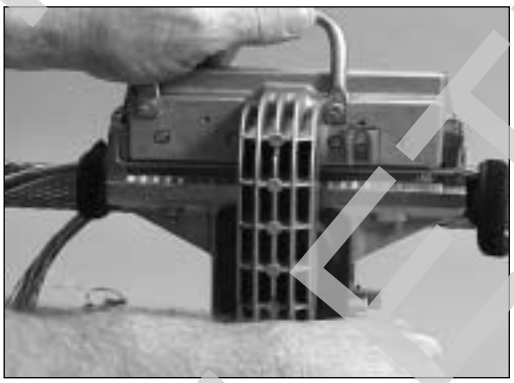
18. With the “T” bar in contact with the module body, pull the handle all the way down until it hits the stop position. This action firmly seats the conductors in the module body while the blade cuts the excess conductors. Remove the surplus conductors with the handle in the down position.



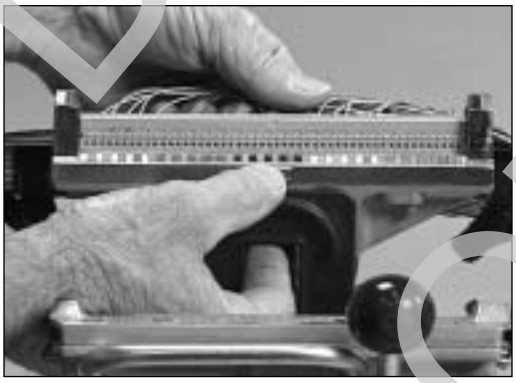
19. With the conductors seated and cut, return the handle to the upright and engage it firm within the handle retaining clip. (fig. 2 #1). Position the “T” bar clear of the module assembly area.



20. Insert a cap between the vertical side posts above the module body. (fig. 1 #2). Push down on the cap to lightly engage the module body. Ensure the cap latches face the operator/front.



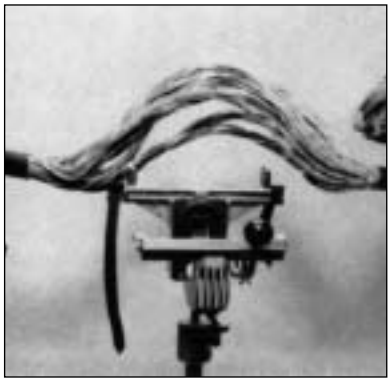
21. Position the “T” bar upright above the cap between the vertical side posts. Apply downward pressure to the “T” bar until contact is made with the cap. Pull the handle all the way down until it hits the stop to seat and lock the cap onto the module body.



22. Return the handle to the upright position and engage it firmly within the handle retaining clip. Return the “T” bar clear of the module assembly area. Push the “L” clip to release the module. (fig. 1 #9) The 25 pair straight splice is now complete.

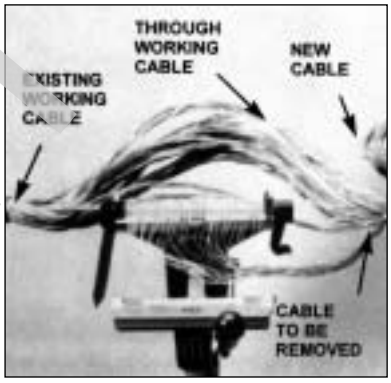
Half-Tap Splicing

Basic Technique for Half-Tap Splicing 3M™ 3M710 25-Pair Modules



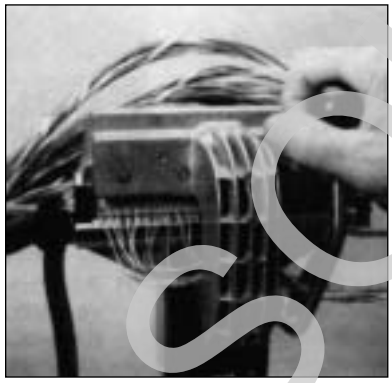
23. Prepare the sheath opening, allowing additional slack to the "through" cable pairs as follows:
Less than 900 pair cables = 127mm (5mm)
900 - 1800 pair = 127 - 178 mm (5-7")
1800 and above = 178 - 230mm (7-9")

24. Fit an index strip to the Unipresser. Select a "trough" group to be half-tapped and dress the pairs into the index strip. The cable side to be removed must exit the index strip towards the operator and "T" bar. **The conductors must lay through the index strip straight and must not be pulled tight.**

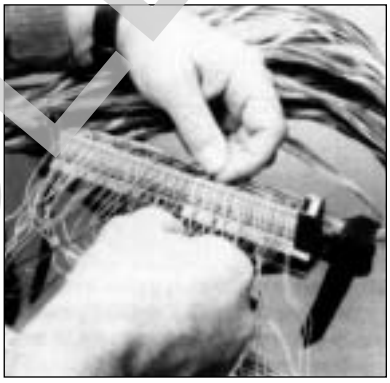


25. Check for wire dressing errors with an error tester. (fig. 4 #2) DO NOT CUT AND SEAT THE CONDUCTORS.

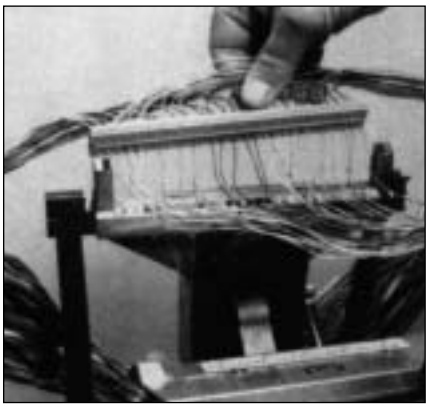
26. With the cathedral windows facing the operator/front, position a straight/half-tap module body on top of the index strip and engage the two with finger pressure. Ensure the "trough" cable pairs exit the module neatly and do not restrict movement of the "T" bar.



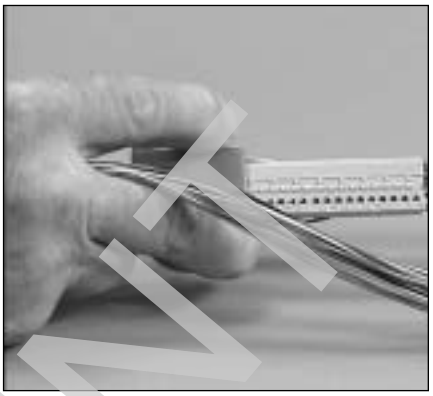
27. Operate the "T" bar handle to seat and lock th body to the index strip. At the same time, the module contacts connect across the "trough" cable conductors.



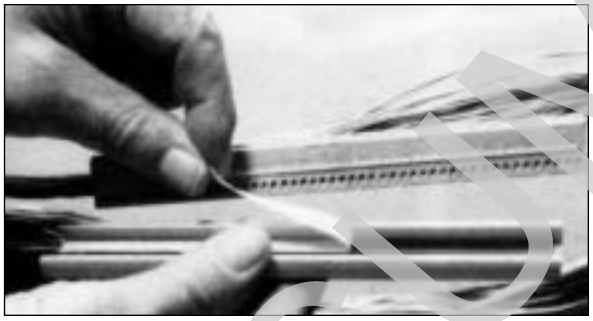
28. Dress the new cable pairs into the module;e body and **repeat steps 16 through 22.**



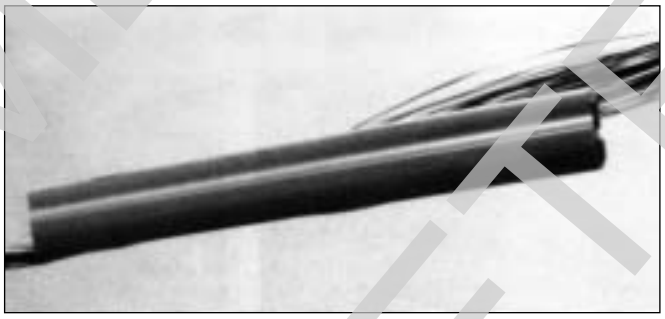
29. To remove the module, push the “L” clip (fig. 1 #9) in and lift clear of Uni-Presser. The half tapped module is now complete.



30. Use a conductor wire cut off tool to remove the old cable. Position the tool on the connector to cut against the wire lay. A no break cable transfer has been completed.



31. After the old conductors have been removed, fit a half-tap cover. Remove the plastic protection from the strip of sticky tape inside cover. This sticky tape is positioned against the removed conductor ends as the cover is snapped onto the module.



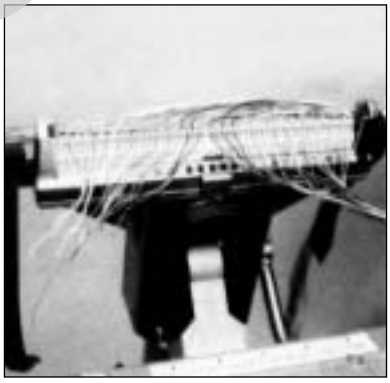
32. 3M710 25-pair connector module with half-tap cover in position

Bridge Splicing

Basic Technique for Bridge Splicing 3M™ 3M710 25-Pair Modules

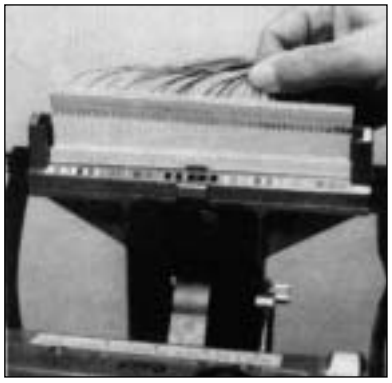
33. Position a 3M710 red bridge module support (fig.4 #3) between the vertical side posts (fig. 1 #2) with the word FRONT facing the operator/”T” bar. Push the “L” clip button inward, (fig. 1 #9 and release to secure the support in position.

34. Position a bridge module into the red bridge module support. Hand seat the module firmly with the peak colors matching the color code check strip (fig.1 #10) and cathedral windows facing forward/front.



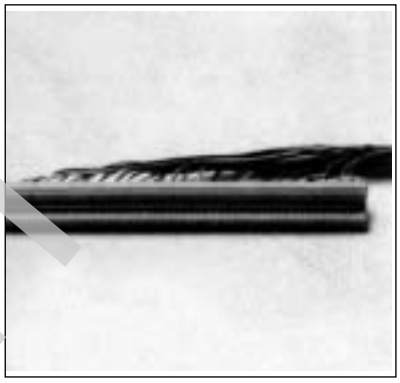
35. Dress the conductors into the bridge module in color code sequence. **Repeat steps 16 through 22.**

3M™ Bridge Module Splice Installation



36. Remove the bridge module from the red bridge support with gentle upwards pressure. The bridge module is now complete.

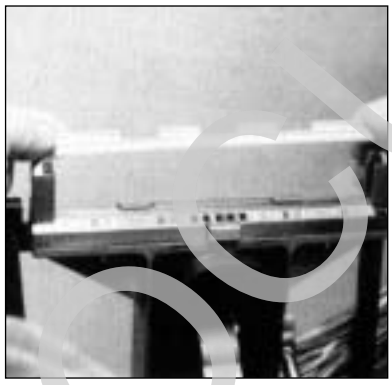
37. Carefully insert the bridge module into the through cable connector at the rear bridge entry ports. Use a Bridge Splice Presser Tool along the length of the module to securely seat the bridge and contacts.



38. The latches of the bridge module should face the cap of the “trough module”.

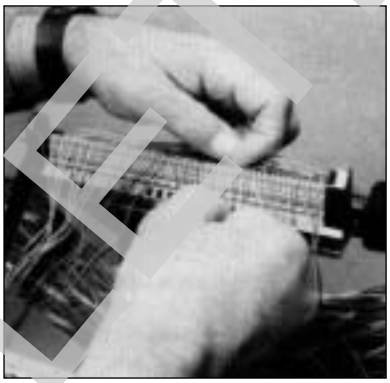
Bottomless Splicing

Basic Technique for Bottomless Splicing 3M™ 3M710 25-Pair Modules

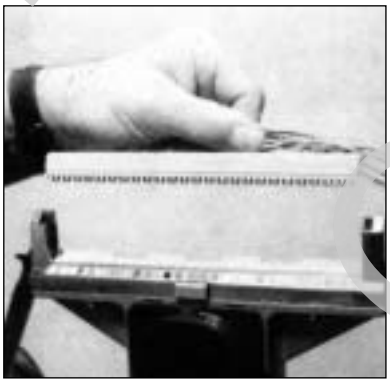


39. Position a 3M710 bottomless splice module support (fig. 4 #4) between the vertical side posts. (fig. 1 #2). The large gaps go to the rear and accommodate the “L” clips. (fig 1 #8). Push the “L” clip button (fig. 1 #9) to tightly seat the module support.

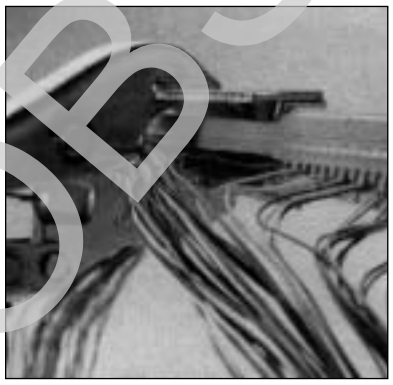
40. Position a straight/half-tap module body onto the bottomless support between the side posts. Hand seat the module only. The latches fit into the cuts and face the operator.



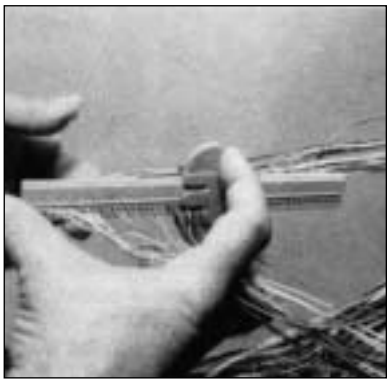
41. Dress the conductors into the module in color code sequence. **Repeat steps 16 through 22.**



42. Remove the bottomless splice from the bottomless support module. The bottomless splice is now complete.



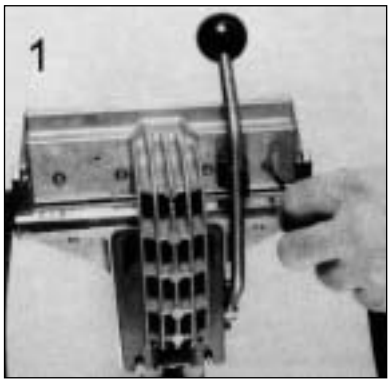
43. With a bridge splice presser seat the module onto an index strip with the wires seated “through” for a half-tap.



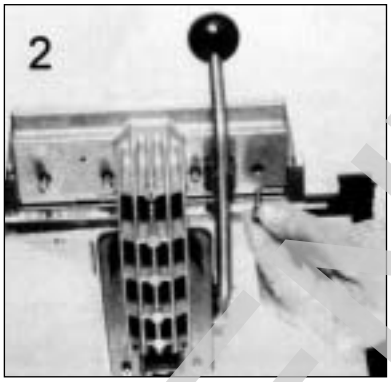
44. Use a conductor wire cut-off tool to remove the old cable parts.

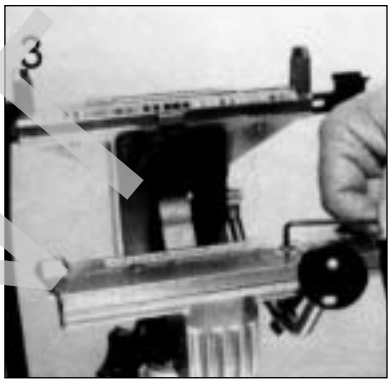
3M™ Uni-Presser Blade Replacement

Old Blade Removal

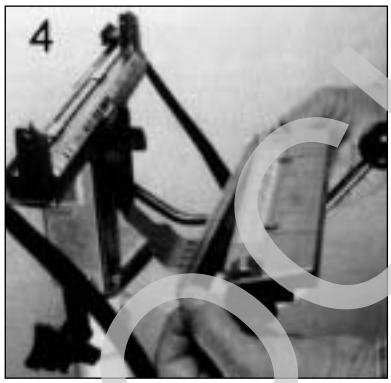


With the “T” bar in the “Up” position, use the hex nut wrench (fig. 4 #5) to remove the four (4) screws (fig. 2 #3) at the rear of the uni-presser head.



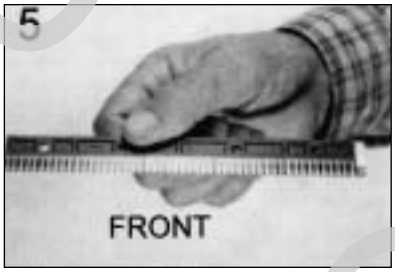


With the”T” bar in the open position loosen two (2) screws (fig.3 #3) on the front cover of the unipresser head. (DO NOT REMOVE THE SCREWS.)

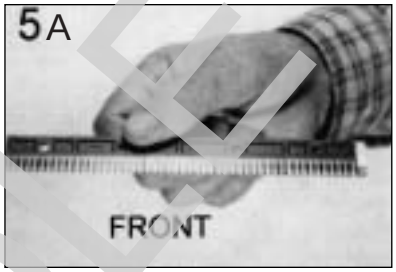


Apply thumb pressure and remove old blade assembly. (fig. 1 #11)

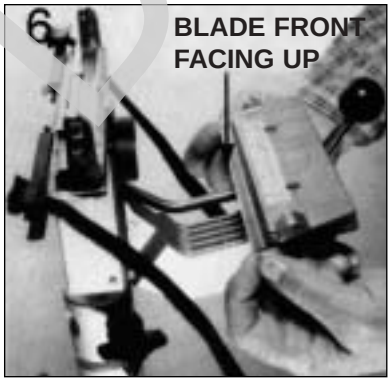
New Blade Replacement



Blade and holder is a one piece unit.

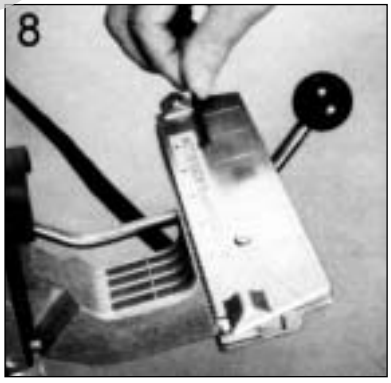


(fig. 4 #1)



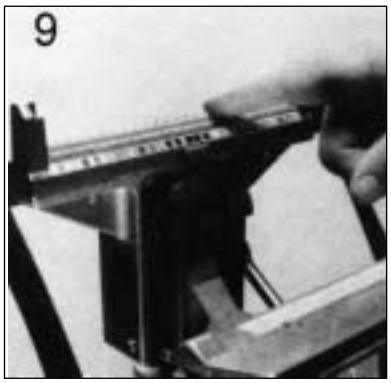
While holding back the blade guard (fig. 2 #15) use finger pressure on the metal ends and insert the new unit into the “T” bar. **Caution: Sharp blades - do not touch the cutting blades.** (fig. 1#11)

Starting at the center of the “T” bar, line up the new matching one (1) blade to one (1) stuffer.

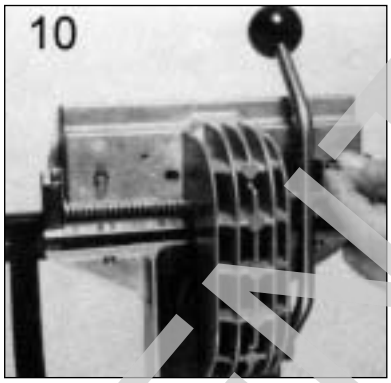


With the :”T” bar in the open position, tighten the two (2) screws (fig. 3 #3) on the front cover enough to secure the blade unit inside the head.

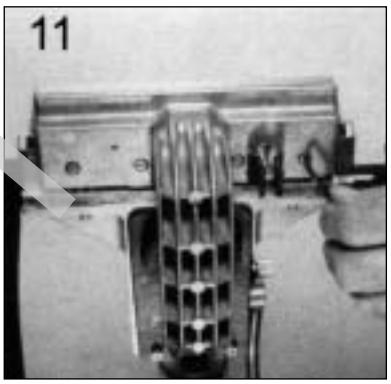
New Blade Adjustment



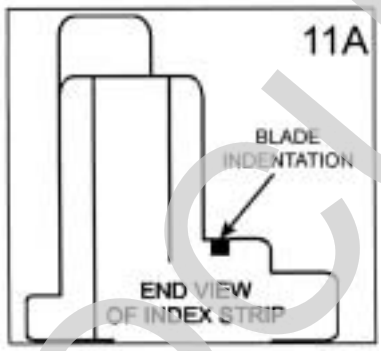
Install an index strip for blade adjustment.



With the "T" bar in the up position finger tighten the two (2) outside screws (fig. 2 #3) at the rear of the head.

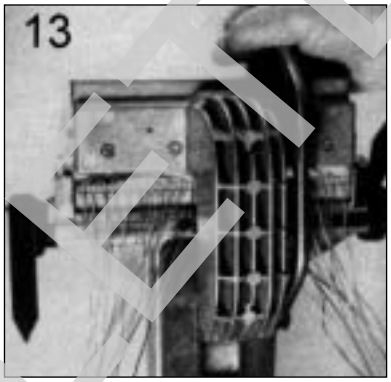


Engage the index strip by positioning the handle in the down position. Tighten all four (4) screws (fig. 2 #3) with the allen wrench.



Indication of correct blade cutting position.

Ensure all the screws - two (2) at the front (fig. 3 #3) and four (4) at the rear (fig. 2 #3) of the "T" bar - are securely fastened.



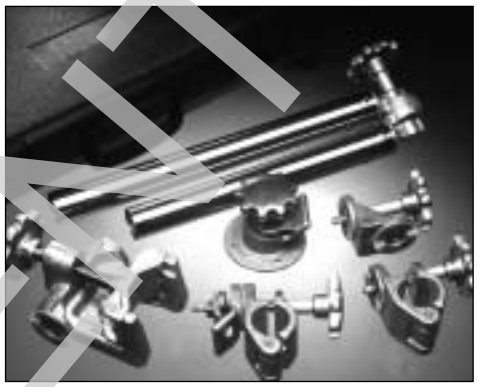
Final Test: Cut and press wire pairs into the index strip and module body to verify successful new blade installation.

3M™ Tools and Accessories

3M™ 710 5-pair Hand Presser
3M710-HTK05A
(80611036536)

- May be used to splice 20/26 AWG (0.8 - 0.32 mm) copper conductor cable
- Virtually maintenance free
- Reliable, few moving parts
- Lightweight and compact
- Completely hand operated
- Wide variety of holders available to splice 5, 10, 20 or 25-pair 710 splice modules, five pairs at a time
- May be used to splice straight, half-tap and bridge connectors
- Completely portable, excellent for splicing in areas where space and tool function is critical such as in aerial splicing or small footway boxes

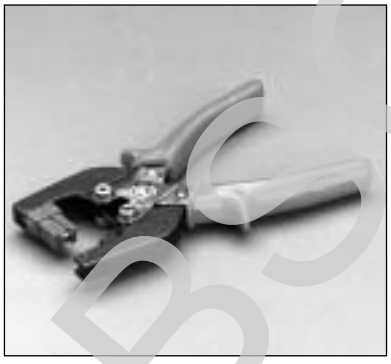
Mounting Hardware
3M710-TMK10A
(80611048374)



Tool Mounting Kit

- A multi-piece designed to mount and support all splicing tools on splicers boxes, pedestals or racking

3M™ 710 Uni-Presser 25-Pair Cutter Presser Tool
3M710-UTK25A
(80611036783)



3M™ Insertion Cutting Tool
3M710-ICT-10
(80611030000)

- For cutting and terminating one conductor pair at a time in a 710 connector module

3M™ Bridge to Splicer Presser
3M710-BSP10L
(80611036387)

- For insertion and pressing of 710 bridge connector modules into half-tap or straight splice connector modules

3M™ Bridge Removal Tool
3M710 BRT10A
(80611047780)

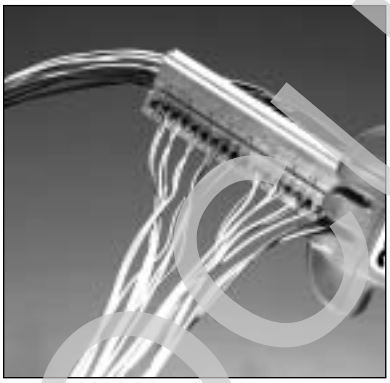
- For removing bridge connectors from the connector module

3M™ Half Tap Cover
3M710-HTC-25
(80611047947)

- Used to cover and seal the removed half-tap cable pairs following the cutting operation with the conductor wire cut-off tool

3M™ Cap Removal Tool
3M710-CRT10
(80611036395)

- For removal of caps from connector modules to rearrange pairs or perform maintenance wire work



3M™ Conductor Wire Cut-off Tool
3M710-CCT10
(80611047848)

- For cutting off through-conductor wires that will no longer be used after half-tapping

3M™ Test Leads
3M710-CRT10
(80611036304)

- For testing one conductor pair at a time through bridge access ports on all 710 modules

3M™ Tripod
3M710 TPK 10
(80611048473)

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.

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