# 710 CONNECTOR SYSTEM
# GENERAL SPLICING INFORMATION

CONTENTS



## 1. GENERAL

### 1.1 Scope of Section

1.1.1 The purpose of this section is to provide instruction for using the 710 Modular Splicing System to splice switchboard cables and multiconductor cables having common external shields (ABAM or ABMM type cable). The 710 is capable of splicing 50 conductors of one cable to 50 conductors of another cable in one unit. Mixed gauges, 22 through 26, are authorized in the same module.

A. The splicing connector consists of an index strip, connector module and cap. It is used for straight splicing (Figure 4).

B. The bridge connector consists of a bridge module and cap. It is used in conjunction with a splicing connector to permit a 3-way splice (Figure 4).

C. The half-tap connector consists of an index strip, half-tap connector module and cap. The half-tap connector permits joining one cable to through conductors in nonworking cable or working cable without interruption of service.

1.1.2 The 710 Connector Components (Figure 4)

A. Index Strip - holds the pairs from the first or through cable. It has color coded peaked projections used to separate the tip and ring conductors. Wire grippers hold the conductors in the index strip and are also used for orientation of the index strip for placing in the tool.

B. Connector Module - contains the double-ended slotted beam contact element for splicing through insulation to contact the metallic conductors. The top of the module is similar to the index strip and holds the pairs from the second cable.

C. Bridge Module - top of the bridge module is the same as the connector module except the slotted beams are exposed in the bottom portion of the connector.

D. The Cap provides the final wire retension when pressed onto the connector bridge and half-tap module.

### 1.2 Associated Information

1.2.1 Refer to Section 370 of this handbook for methods of splicing individual wires with the KS-21256 Solder Sleeves* and the 700-type connectors.

1.2.2 Refer to Handbook 8, Section 400, for instructions on butting and stripping switchboard cable.

1.2.3 ED-94964-10 provides additional information on the 710 Connector and its Central Office applications.

1.2.4 Refer to 900 series sections of Handbook 9 for information on testing.

### 1.3 Precautions

1.3.1 Before splicing into an existing cable stub or otherwise, the functions and colors of the leads should be verified physically to insure that when mating existing cable with new cable electrical continuity will be attained with the proper circuit function.

1.3.2 Reused equipment may have different assignments because of changed terminations, broken leads, different vintage of cable, substituted cable, added wire, etc... Do no rely on connecting documents for existing cable terminated in the past.

1.3.3 When the color assignment of each cable is the same or after matching the two cables per the above, the wires should be fanned into the 710 Connectors in consecutive

color code sequence wherever possible.

1.3.4 Precautions to be taken against personal injury, equipment damage, and service interruptions are covered in Handbook 0; and they shall be observed at all times as they apply to operations being performed.

1.3.5 Precautions to be followed during the assembly of the 710 Connector are covered in the individual application paragraphs.

1.4 Arrangement of Tools

1.4.1 Prior to starting operations covered by this section, the tools and other items required should be arranged at the work location so as to minimize fatigue and inconvenience when handling.

1.5 Verification

1.5.1 Items for general verification are covered in Paragraph 5 of this section. Additional items related to specific applications are listed at the end of their respective paragraphs.

1.6 Authorizations and Approvals

1.6.1 The 710 Connector system is approved for splicing the following types of cables:

| Type | Gauge |
|---|---|
| CL | 22, 24 |
| M | 22, 24 |
| A | 22, 24 |
| 800A | 26 |
| R | 22, 24 |

1.6.2 Other types of shielded cable (coaxial or types with individually shielded pairs and other gauges of wire) are not covered by this method.

1.6.3 Splicing, recabling, etc., may be done only if authorized in Operating Company or Western Electric specifications, by other instructions from the Equipment Engineering Organization, or by Operating Company letter applying to the particular cables involved.

2. INSTALLATION EQUIPMENT

2.1 Tools

2.1.1 558 Tool Set

2.1.1.1 The 558 Tool Set is composed of the R-5001 Cutter-Presser and the 710A Tool Mount.

2.1.1.1.1 The R-5001 is composed of the Cutter-Presser (Figure 1), a carrying case, instruction sheet, plastic accessory kit, error-tector, "E" Module Support, "F" Module Support, "C" Knife Assembly, brush and hex wrench set (Figure 2).

2.1.1.1.2 The 710A Tool Mount is composed of various parts to facilitate mounting of the R-5001 Cutter-Presser (Figure 3).

2.1.2 The R-4519, R-4612, and R-4707 may still be used, but they have been rated Manufacture Discontinued and superceded by the new tooling associated with the 558 Tool Set.

2.1.3 Additional tools that may be required include the following:

| | |
|---|---|
| R-4477 | Heat Shrink Gun |
| R-2984 | Tool Supporting Column |
| R-2986 | Column Top Support |
| ITE-5717 | Cable Locator |
| AT-8810 | "G" Long Nose Pliers |
| AT-8764 | "D" Insertion-Cutting Tool |
| 840A | Half-Tap Cut-Off Tool |
| AT-8948 | "L" Connector-Presser |
| AT-8927 | "C" Bridge Removal Tool |
| | 710 Forming Board |

2.2 Supplies

2.2.1 The 710-SD1-25 Connector can be used for both straight and half-tap splices. It can splice 50 conductors of one cable to 50 conductors of another cable in one unit.

2.2.2 The 710-BD1-25 Bridge (Figure 5) is used to attach an additional leg to the 710-SD1-25 or the 710-SD-25 Connector. It will terminate up to 50 conductors and should be supplied on the job.

2.2.3 Additional supplies required to complete the operations are as follows:

| | |
|---|---|
| R-2916 | Twine |
| R-3428 | 3/4" Wide Gray Plastic Tape |
| KS-21256 | Heat Shrinkable Solder Sleeves* |
| KS-21766 | Heat Shrink Tubing |
| 710-B1 | Insulating Cover |
| 701-2AR | Wire Connector (Butt) |
| 702-2AR | Wire Connector (Half-Tap) |

3. REQUIREMENTS AND METHODS

3.1 710 Connector Configurations

3.1.1 The 710 Connectors can be assembled into the various configurations shown in Figure 6. The methods necessary to assemble the configurations are indicated (by paragraph) with the figures.

3.2 Preparation of Cable

3.2.1 Switchboard and ABAM (or ABMM) cable in non-grounded applications shall be butted and stripped in accordance with Handbook 8, Sections 400, 410, and 411.

3.2.2 In Toll applications, where interrupted shield grounds are mandatory, ABAM (or ABMM) cable shall be prepared with the strict assurance that the aluminum shield shall not be cut until the ground is extended to by-pass the stripped portions of the cable. For the method of preparation which assures ground continuity, consult the job specifications and

drawings which indicate the standard drawing which contains the applicable instructions (i.e., ED-97279-10).

3.2.3 For recommended stripped lengths of cables, the following lengths should be used:

| Stub Cables: | Either Straight or Half-Tap Splice Applications |
|---|---|
| 1 Connector | 15 inches |
| 2 Connectors | 24 inches |
| 3 Connectors | 33 inches |
| 4 Connectors | 42 inches |
| 5 Connectors | 51 inches |
| 6 Connectors | 64 inches |

| Continuous Cable: | Half-Tap Splice |
|---|---|
| 1 Connector | 21 inches |
| 2 Connectors | 30 inches |
| 3 Connectors | 38 inches |
| 4 Connectors | 46 inches |
| 5 Connectors | 57 inches |
| 6 Connectors | 70 inches |

3.2.3.1 The extra 6 inches of slack is needed to manipulate the cable. In some special applications, a minimum of 3 inches can be used.

3.3 Splicing Rig Setup

3.3.1 Using the 710A Tool Mount, the R-5001 Cutter-Presser can be mounted as shown in Figures 7 and 8.

3.3.2 Mount the R-5001 so that the head of the Cutter-Presser is 4" from the butt of cable A. Leads from cable B should be long enough to extend at least 4" beyond the splicing head as shown in Figure 9.

3.3.3 After each module is completed, move the splicing head away from the butt of cable A, (as indicated by the arrow in Figure 9), a distance of approximately 8" for each connector.

3.3.4 The connectors should be placed in a line down one side of the cable, or two connectors can be placed across from each other and secured in that position by twine or plastic tape (Figure 10).

3.3.5 A forming board can be made to assist in securing the cable in place and insuring the correct distance between connectors. The forming board should be made according to Figure 11.

3.3.6 The forming board should be located and secured to the cable rack or other cables using R-2916 Twine or equivalent as shown in Figures 12 and 13.

3.3.7 If the forming board is not used, secure the cable being spliced to an available anchor point, other cables, or framework.

4. MAINTENANCE

4.1 Replacement of Knife Blade

4.1.1 When the knife blade becomes worn, uneven cutting of wires will be evident. If the blade is worn or the teeth are broken, replace with a new blade.

4.1.1.1 Loosen, but do not remove the 4 allen screws on the back side of the T-Bar (Figure 14).

4.1.1.2 Bring the T-Bar back to its down position and remove the screws (Figure 15).

4.1.1.3 Slide the old blade and support out of the side of the T-Bar (Figure 16).

4.1.1.4 Remove the old blade from the support and replace it with a new blade (Figure 17).

4.1.1.5 Slide the new blade and holder back into the T-Bar.

4.1.1.6 Insert the 4 allen screws into the T-Bar and hand tighten.

4.1.1.7 Insert an index strip into the tool.

4.1.1.8 Raise the T-Bar into position over the index strip and push down on the handle to seat the blade against the index strip.

4.1.1.9 Tighten the 4 allen screws snugly, but do not over tighten.

4.1.1.10 Raise the T-Bar and rotate to its original position; check to insure that a slight cut appears all the way across the index strip.

4.2 Cleaning

4.2.1 Bits of copper or insulation can interface with satisfactory operation of the tool itself.

4.2.2 Open the T-Bar and use the brush supplied with the tool to loosen debris from the base and end posts (Figure 18).

4.2.3 The knife blade and insertion teeth should be brushed in a very thorough manner to remove all debris from this area (Figure 19).

5. APPLICATIONS

5.1 Dead Ending Cables

5.1.1 General

5.1.1.1 Scope of Application

5.1.1.1.1 Dead end terminations can be made on cables that have been disconnected and are expected to be reused at a later date. A number of the other configurations can then be used with them (see Figure

20). A 710-SD1-25 Connector is used for this application.

5.1.1.2 Precautions

5.1.1.2.1 Precautions to be followed during the assembly of the 710 Connector are found throughout at appropriate points.

5.1.2 Requirements and Methods

5.1.2.1 Assembling The Connector

5.1.2.1.1 Positioning The Index Strip

A. Place the index strip into the connector holder of the splicing head (Figure 21).

B. Depress the "L" spring button with thumb, push index strip to bottom of holder, and release button. The "L" spring should now hold the index strip securely (Figure 22).

5.1.2.1.2 Fanning Wires Into Index Strip

A. As an aid in future arrangements, fan the wires into the index strip in consecutive order where possible. When fanning paired tip and ring wires, place the tip wire to the left and the ring wire to the right.

B. Fan the wires into the index strip and seat them into the wire arches. They should be snapped into the notches about half way down the arches (see Figure 23). Leave about 1/2" of wire slack behind the index strip.

C. After the wires have been fanned into the index strips, check for tip and ring reversals, two wires in one slot, open positions, and other wiring errors.

D. All spare wires in the cable should be spliced as far as possible.

5.1.2.1.3 Cutting Wires From Index Strip

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CAUTION: KEEP FINGERS AWAY FROM BLADE OF T-BARS.

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A. Pivot the T-Bar up until it snaps into position over the index strip (Figure 24).

B. Push down on the T-Bar head and rotate handle to cut and seat wires in index strip (Figure 25).

NOTE: With fabric-insulated wire, it may be necessary to separate them from the index strip with a slight twist.

C. Raise the T-Bar by rotating the handle to the up position and lifting the T-Bar head (Figure 26).

D. Pivot the T-Bar to its down position.

E. All wires should be cut and seated into the index strip (Figure 27).

5.1.2.1.4 Positioning The Connector Body

A. Place a connector body into the connector holder on top of the index strip, facing the same direction as the index strip, and wire arches toward the front (Figure 28).

NOTE: The connector body should be positioned over the index strip and parallel to it using both hands so that the metal contacts will not be damaged. Failure to do this may result in opens, shorts, or crosses.

5.1.2.1.5 Seating The Connector Body

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CAUTION: KEEP FINGERS AWAY FROM BLADE OF T-BAR.

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A. Pivot the T-Bar up until it snaps into position over the connector body (Figure 29).

B. Push down on the T-Bar head and rotate handle to latch connector body to index strip (Figure 30).

C. Raise the T-Bar by rotating the handle to the up position and lifting the T-Bar head.

D. Pivot the T-Bar to its down position.

E. The connector body and the index strip should be latched together (Figure 31).

5.1.2.1.6 Positioning The Cap

A. Place the cap in the connector holder of the splicing head so that the flat side with latches is facing forward toward the T-Bar (Figure 32).

5.1.2.1.7 Seating The Cap

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CAUTION: KEEP FINGERS AWAY FROM BLADE OF T-BAR.

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5.3.2.1.2 When the connectors are placed in a horizontal or vertical cable rack or where the connectors will be pressed into adjacent cables, the stripped length of the splice shall be covered with KS-21766 Heat Shrink Tubing. To determine the correct length of tubing, add 6" to the sheath opening.

5.3.2.1.3 Slip the tubing either cable A or cable B before the splicing operations begins.

5.3.2.2 Assembling The Connector

5.3.2.2.1 Positioning the Index Strip

A. Place the index strip into the connector holder of the cutter-presser and secure in the "L" spring. The wire arches and the notched base should be facing the color code strip (Figure 22).

5.3.2.2.2 Fanning Wires into Index Strip

A. As an aid in future arrangements, fan the wires into the index strip in consecutive order where possible. When fanning paired tip and ring wires, place the tip wire to the left and the ring wire to the right.

B. Fan the wires into the index strip and seat them into the wire arches. They should be snapped into the notches about half way down the arches (Figure 23). Leave about 1/2" of wire slack behind the index strip.

C. After all the wires have been fanned into the index strip, check for tip and ring reversals, two wires in one slot, open positions, and other wiring errors.

D. All spare wires in the cable should be spliced as far as possible.

5.3.2.2.3 Cutting Wires From Index Strip

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CAUTION: KEEP FINGERS AWAY FROM BLADE OF T-BAR.

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A. Pivot the T-bar up until it snaps into position over the index strip (Figure 24).

B. Push T-Bar head down and rotate handle to cut and seat wires in index strip (Figure 25).

NOTE: With fabric insulated wire, it may be necessary to separate them from the index strip with a slight twist.

C. Raise the T-Bar by rotating the handle to the up position and lifting the T-Bar head.

D. Pivot the T-Bar to its down position.

E. All wires should be cut and seated into the index strip (Figure 27).

5.3.2.2.4 Positioning The Connector Body

A. Place a connector body into the connector holder on top of the index strip, facing the same direction as the index strip and wire arches toward the front (Figure 28).

NOTE: The connector body should be positioned over the index strip and parallel to it using both hands so that the metal contacts will not be damaged. Failure to do this may result in opens, shorts, or crosses.

5.3.2.2.5 Seating The Connector Body

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CAUTION: KEEP FINGERS AWAY FROM BLADE OF T-BAR.

---

A. Pivot the T-Bar up until it snaps into position over the connector body.

B. Push down on the T-Bar head and rotate handle to latch connector body to the index strip.

C. Raise the T-Bar by rotating the handle to the up position and lifting the T-Bar head.

D. Pivot the T-Bar to its down position.

E. The connector body and the index strip should be latched together.

5.3.2.2.6 Fanning Wires In Connector Body

A. Take the wires from the second cable and fan them into the connector body in the same manner and color code sequence as the first cable (Figure 48).

B. After all the wires have been fanned into the index strip, check for tip and ring reversals, two wires in one slot, open positions, and other winning

errors.

C. All spare wires in the cable should be spliced as far as possible.

5.3.2.2.7 Cutting Wires From Connector Body

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CAUTION: KEEP FINGERS AWAY FROM BLADE IN T-BAR.

---

A. Pivot the T-Bar up until it snaps into position over the connector body.

B. Push down on T-Bar head and rotate handle to cut and seat wires in connector body.

NOTE: With fabric insulated wire, it may be necessary to separate them from the connector body with a slight twist.

C. Raise the T-Bar by rotating the handle to the up position and lifting the T-Bar head.

D. Pivot the T-Bar to its down position.

E. All wires should be cut and seated into the connector body (Figure 49).

5.3.2.2.8 Positioning and Seating The Cap

A. Place the cap in the connector holder of the splicing head so that the flat side with latches is facing forward (Figure 50).

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CAUTION: KEEP FINGERS AWAY FROM BLADE OF T-BAR.

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B. Pivot T-Bar up until it snaps into position over the cap.

C. Push down on the T-Bar head and rotate the handle to seat the cap.

D. Raise the T-Bar and pivot to the down position.

E. The cap should be fully latched to the connector body and index strip.

5.3.2.2.9 Completing The Splice

A. Remove the completed module by depressing the "L" spring button and lifting the module out of the holder.

B. If additional modules are necessary, move the cutter-presser 8" further away from the butt of the cable and repeat Paragraphs 5.3.2.2.1 through 5.3.2.2.9.

5.3.2.3 Protection

A. If the connectors are not in a tight form after the splice is complete, use R-2916 Twine to form the connectors and wires. If the connectors are back-to-back, they must be secured in place with plastic tape or twine.

B. Cut a 7" long strip of KS-21766 Adhesive Tape, 10-1/2" if the cable is less than 1/2" in diameter. Remove the adhesive tape from the backing.

C. Wrap the strip of adhesive tape upon itself, 1/2" away from the cable butt on the sheathing (Figure 51). Do not stretch the adhesive.

D. Repeat Steps B and C for the other cable.

E. Slide the heat shrink tubing previously placed in Paragraph 5.3.2.1.3 so that it overlaps the rolled adhesive at each end.

F. Use the R-4477 Heat Gun or approved equivalent to shrink the tubing for the last 2" of each end (Figure 52). Do not shrink the entire length of the tubing.

## 5.4 Half-Tap "Y" or "T" Splice

### 5.4.1 General

5.4.1.1 Scope of Application

5.4.1.1.1 The Half-Tap "Y" or "T" splice, as shown in Figure 53, is made when a stub cable, B, is to be spliced to a continuous cable, A.

5.4.1.1.2 In most applications (relocations, rearrangements, and reterminations), the continuous cable will be live and connected at both ends.

5.4.1.2 Precautions

5.4.1.2.1 Precautions to be followed during the assembly at the 710 Connector are found throughout at appropriate points.

5.4.2 Requirements and Methods

5.4.2.1 Preliminary Operations

5.4.2.1.1 Cable B should be run in the same direction, if possible, as the part of the continuous cable that it will replace.

5.4.2.1.2 The correct length of heat shrink tubing should be cut and slipped over cable B prior to beginning the splicing operation. The proper length of heat shrink tubing is 6 more than the sheath opening of the splice. The sheath opening is measured from the butt of Cable B to the butt of Cable A opposite Cable B, after the slack has been pulled in (see Figure 54).

5.4.2.2 Assembling The Connector

5.4.2.2.1 Method No. 1

5.4.2.2.1.1 Positioning The Index Strip

A. Place the Index Strip into the connector holder of the Cutter-Presser and secure in the "L" spring. The wire arches and the notched base should be facing the color code strip (Figure 22).

5.4.2.2.1.2 Fanning Wires into Index Strip

A. As an aid in future arrangements, fan the wires into the Index Strip in consecutive order where possible. When fanning paired tip and ring wires, place the tip wire to the left and the ring wire to the right.

NOTE: The side to be removed at a later time should enter the front of the Index Strip.

B. Fan the wires into the Index Strip and seat them in the wire arches. They should be snapped into the notches about half way down the arches (Figure 41).

C. After all wires have been fanned into the Index Strip, check for tip and ring reversals, two wires in one slot, open slots, and other wiring errors.

D. All spare wires in the cable should be spliced as far as possible.

5.4.2.2.1.3 Positioning The Connector Body

A. Place a Connector Body into the Connector holder on top of the Index Strip, facing the same direction as the Index Strip, with archer toward the front (see Figure 42).

NOTE: The Connector Body should be positioned over the Index Strip and parallel to it using both hands. Failure to do this may result in opens, shorts, or crosses.

5.4.2.2.1.4 Seating The Connector Body

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CAUTION: KEEP FINGERS AWAY FROM BLADE OF T-BAR.

---

A. Pivot the T-Bar up until it snaps into position over the Connector Body and push down on the T-Bar (Figure 43).

B. Rotate the handle to latch Connector Body to Index Strip.

C. Raise the T-Bar by rotating the handle to the up position and lifting the T-Bar head.

D. Pivot the T-Bar to its down position.

E. The Connector Body and the Index Strip should be latched together.

5.4.2.2.1.5 Fanning Wires in Connector Body

A. Take the wires from the stub cable and fan them into the Connector Body in the same manner and color code sequence (Figure 55).

B. After all the wires have been fanned into the Connector Body, check for tip and ring reversals, two wires in one slot, open positions, and other wiring errors.

C. All spare wires in the cable should be spliced as far as possible.

5.4.2.2.1.6 Cutting Wires From Connector Body

---

CAUTION: KEEP FINGERS AWAY FROM BLADE IN T-BAR.

---

A. Pivot the T-Bar up until it snaps into position over the Connector Body.

B. Push down on the T-Bar head an rotate handle to cut and seat wires in Connector Body.

NOTE: With fabric-insulated wire, it may be necessary to separate them from the Connector Body with a slight twist.

C. Raise the T-Bar by rotating the handle to the up position and lifting the T-Bar head.

D. Pivot the T-Bar to its down position.

E. All wires should be cut and seated into the Connector Body (Figure 56).

5.4.2.2.1.7 Positioning and Seating The Cap

A. Place the cap into the connector holder of the splicing head so that the flat side with latches in facing forward (Figure 57).

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CAUTION: KEEP FINGERS AWAY FROM BLADE OF T-BAR.

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B. Pivot T-Bar up until it snaps into position over the cap.

C. Push down on the T-Bar head and rotate the handle to seat the cap.

D. Raise the T-Bar and pivot to the down position.

E. The cap should be fully latched to the Connector Body and Index Strip.

5.4.2.2.2 Method 2

5.4.2.2.2.1 Positioning F Module Support

A. Place the F Module Support into the connector holder with the cut out slot toward the "L" spring (Figure 58).

5.4.2.2.2.2 Positioning The Connector Body

A. Place the Connector Body into the connector holder on top of the F Module Support (Figure 59).

5.4.2.2.2.3 Fanning Wires into Connector Body

A. Fan wires into Connector Body in consecutive order where possible. When fanning paired tip and ring wires, place the tip wire to the left and the ring wire to the right (Figure 60).

B. Check for tip and ring reversals, two wires in one slot, open positions, and other wiring errors.

C. All spare wires in the cable should be spliced as far as possible.

5.4.2.2.2.4 Cutting Wires in Connector Body

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CAUTION: KEEP FINGERS AWAY FRC4 BLADE IN T-BAR.

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A. Pivot the T-Bar up until it snaps into position over the Connector Body.

B. Push down on the T-Bar head and rotate handle to cut and seat wires in the Connector Body (Figure 61).

NOTE: With fabric-insulated wire, it may be necessary to separate them from the Connector Body with a slight twist.

C. Raise the T-Bar by rotating the handle to the up position and lifting the T-Bar head.

D. Pivot the T-Bar to its down position.

E. All wires should be cut and seated into the Connector Body.

5.4.2.2.2.5 Positioning and Seating the Cap

A. Place the cap in the connector holder of the splicing head so that the flat side with latches is facing forward.

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CAUTION: KEEP FINGERS AWAY FROM BLADE OF T-BAR.

---

B. Pivot the T-Bar up until it snaps into position over the cap.

C. Push down on the T-Bar head and rotate the handle to seat the cap.

D. Raise the T-Bar and pivot to the down position.

E. The cap should be fully latched into the Connector Body (Figure 62).

5.4.2.2.2.6 Preterminated Connector Body

A. Remove the preterminated Connector Body from the Cutter-Presser. Remove the F Module Support from the Cutter-Presser.

5.4.2.2.2.7 Thru or Continuous Cable

A. Position an Index Strip into the connector holder.

B. Fan the wires into the Index Strip in consecutive order where possible. When fanning paired tip and ring wires, place the tip wire to the left and the ring wire to the right (Figure 41).

NOTE: The side to be removed should enter the front of the Index Strip.

C. After all the wires have been fanned into the Index Strip, check for wiring errors.

5.4.2.2.2.8 Preterminated Connector Body

A. Position the preterminated Connector Body into the connector holder above the Index Strip and facing the same direction (Figure 63).

NOTE: The preterminated Connector Body should be positioned over the Index Strip and parallel to it using both hands so that the metal contacts will not be damaged. Failure to do this may result in opens, shorts, or crosses.

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CAUTION: KEEP FINGERS AWAY FROM BLADE OF T-BAR.

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B. Pivot the T-Bar up until it snaps into position over the Connector Body and push down on the T-Bar head. Rotate the handle to latch the preterminated Connector Body to the Index Strip.

C. Raise the T-Bar by rotating the handle to the up position and lifting the T-Bar head. Pivot the T-Bar to its down position.

D. The preterminated Connector Body and Index Strip should be latched.

5.4.2.2.2.9 Completing The Splice

A. Remove the completed module by depressing the "L" spring button and lifting the module out of the connector holder.

5.4.2.3 Protection

5.4.2.3.1 Prior To Cutout

A. If the connectors are not in a tight form after the splice is complete, use R-2916 Twine to form the connectors and wires. If the connectors are back-to-back, they must be secured in place with plastic tape of twine.

B. When the connectors are placed in a horizontal or vertical cable rack or where the connectors will be pressed into adjacent cables, the stripped length of the splice shall be covered with KS-21766 Heat Shrink Tubing.

C. Cut a length of tubing 6" longer than the sheath opening. (In some cases, two pieces of tubing may be needed.)

D. Slit the tubing along its length and fold around the completed splice.

E. Half-lap gray plastic tape on top of the tubing to hold it in place and protect the splice.

5.4.2.3.2 After Cutout

A. After that part of the continuous cable to be removed has been cut out, cut a 7" long strip of KS-21766 Adhesive Tape, 10-1/2" if the cable is less than 1/2" in diameter. Remove the adhesive tape from the backing.

B. Wrap the adhesive tape upon itself, 1/2" from the cable butt, on the sheath. Do not stretch the adhesive.

C. Repeat Steps A and B for the other side of the splice (Figure 64).

D. Slide the previously prepared (Paragraph 5.4.2.1.2) heat shrink tubing over the splice (Figure 65).

E. Assure that the tubing is centered over the splice and overlaps the rolled adhesive on each end.

F. Use the R-4477 Heat Gun, or approved equivalent, to shrink the tubing for the last 2" of each end. Do not shrink the tubing over the connectors (Figure 66).

## 5.5 Straight Splice With Bridge and Multiple Appearance Splice

5.5.1 General

5.5.1.1 Scope of Application

5.5.1.1.1 Both the straight splice with Bridge (Figure 67) and the Multiple Appearance Splice (Figure 68) have the same basic assembly. The straight splice with bridge is obtained by adding a 710-BD1-25 Bridge Module to a previously prepared

straight splice. The Multiple Appearance Splice is obtained by adding the same Bridge Module to a previously prepared Half-Tap "Y" or "T" splice.

5.5.1.2 Precautions

A. Precautions to be followed during the assembly of the splice are found throughout at appropriate points.

5.5.2 Requirements And Methods

5.5.2.1 Assembling The Connector

5.5.2.1.1 Method 1 - Preterminating Bridge Module

A. Position the E Module Support in the connector holder of the Cutter-Presser (Figure 69).

B. Place a 710 BD1-25 Bridge Module in the connector holder on top of the E Module Support. Press firmly into the support assuring that the exposed contacts are not bent or broken (Figure 70).

C. Fan wires into the bridge module in consecutive order where possible. When fanning paired tip and ring wires, place the tip wire to the left and the ring wire to the right (Figure 71).

D. Check for tip and ring reversals, two wires in one slot, open positions, and other wiring errors.

E. All spare wires in the cable should be spliced as far as possible.

---

CAUTION: KEEP FINGERS AWAY FROM BALD IN T-BAR.

---

F. Pivot the T-Bar up until it snaps into position over the Bridge Module.

G. Push down on the T-Bar head and rotate handle to cut and seat wires in Bridge Module (Figure 72).

NOTE: With fabric insulated wires, it may be necessary to separate them from the Bridge with a slight twist.

H. Raise the T-Bar by rotating the handle to the up position and lifting the T-Bar head.

I. Pivot the T-Bar to its down position.

J. All wires should be cut and seated into the Bridge.

K. Place a Cap in the connector holder of the splicing head so that the flat side with latches is facing forward (Figure 73).

---

CAUTION: KEEP FINGERS AWAY FROM BLADE OF T-BAR.

---

L. Pivot T-Bar up until it snaps into position over the cap.

M. Push down on the T-Bar head and rotate the handle to seat the cap.

N. Raise the T-Bar and pivot to the down position.

O. The Cap should be fully latched into the Bridge.

P. Remove the preterminated Bridge Module from the Cutter-Presser. Remove the E Module Support.

Q. Position the previously made straight splice module or Half-Tap "Y" or "T" splice module into the connector holder of the Cutter-Presser with the cap forward and the bridge rails up.

R. Position the just completed Bridge Module into the connector holder of the Cutter-Presser with the exposed metal contacts going into the slots between the bridge rails (Figure 74).

NOTE: The Bridge Module should be positioned over the Splice Module and parallel to it using both hands so that the metal contacts will not be damaged. Failure to do this may result in opens, shorts, or crosses.

---

CAUTION: KEEP FINGERS AWAY FROM BLADE OR T-BAR.

---

S. Pivot T-Bar up until it snaps into position over the Bridge Module.

T. Push down on the T-Bar head and rotate the handle to seat the Bridge Module.

U. Raise the T-Bar and pivot to the down position.

V. The Bridge Module should be fully seated into the Connector Module (Figure 75).

W. Remove the completed assembly from the Cutter Presser.

5.5.2.1.2 Method 2 - Making Bridge At Time of Splice

A. Rotate the just completed, Straight Splice Module or the Half-Tap "Y" or "T" Splice Module and place into connector holder of Cutter-Presser with cap forward and bridge rails up (Figure 76).

B. Position a Bridge into the connector holder of the Cutter-Presser with the exposed contacts going into the slots between the bridge rails.

NOTE: The Bridge should be positioned over the Splice Module and parallel to it using both hands so that the metal contacts will not be damaged. Failure to do so may result in opens, shorts, or crosses.

C. Fan wires into Bridge in consecutive order where possible. When fanning paired tip and ring wires, place the tip wire to the left and the ring wire to the right.

D. Check for tip and ring reversals, two wires in one slot, open positions, and other wiring errors.

E. All spare wires in the cable should be spliced as far as possible.

---

CAUTION: KEEP FINGERS AWAY FROM BLADE OF T-BAR.

---

F. Pivot the T-Bar up until it snaps into position over the Bridge.

G. Push down on the T-Bar head and rotate handle to cut and seat wires in the Bridge.

NOTE: With fabric-insulated wires, it may be necessary to separate them from the Bridge with a slight twist.

H. Raise the T-Bar by rotating the handle to the up position and lifting the T-Bar head.

I. Pivot the T-Bar to its down position.

J. All wires should be cut and seated into the Bridge.

K. Place a Cap in the connector holder of the Cutter-Presser so that the flat side with latches is facing forward.

---

CAUTION: KEEP FINGERS AWAY FROM BLADE OF T-BAR.

---

L. Pivot T-Bar up until it snaps into position over the cap.

M. Push down on the T-Bar head and rotate the handle to seat the cap.

N. Raise the T-Bar and pivot to the down position.

O. The cap should be fully latched to the Bridge (Figure 77).

P. Remove the completed Multiple Appearance Splice or Straight Splice with Bridge from the Cutter-Presser.

5.5.2.2 Protection

A. If the connectors are not in a tight form after the splice is complete, use R-2916 Twine to form the connectors and wires. If the connectors are back-to-back, they must be secured in place with plastic tape or twine.

B. When the connectors are placed in a horizontal or vertical cable rack or where the connectors will be pressed into adjacent cables, the stripped length of the splice shall be covered with KS-21766 Heat Shrink Tubing.

C. Cut a length of tubing 6" longer than the sheath opening (in some cases 2 pieces of tuning may be needed). (See Figure 78.)

D. Slit the tubing along its length and fold around the completed splice.

E. Half-lap gray plastic tape on top of the tubing to hold it in place and protect the splice.

5.5.2.3 Inserting Bridge Module into Through-Cable Connector

A. Clear the through cable pairs from bridge area of the through cable splice connector.

B. Carefully insert the bridge module into the designated through-cable connector. This should assure that date stamp on connector module and bridge module are on same end (Figure 79).

NOTE: Do not force the bridge module into through-cable connector. If resistance is felt, remove the module and check the contacts. If contacts are bent or broken, replace module.

C. With the D insertion-cutting tool or L connector presser, seat the bridge module, working across the module from one end to the other, pressing in about six places (Figure 80).

5.5.2.4 Removing Cap from Connector Module

A. Using Lineman's pliers, remove caps from connector module. Install a new cap on the connector module and seat using the L connector presser (Figure 81).

5.5.2.5 Removing Old Bridge

A. When all 25 pairs of a cable count have been transferred, remove the old bridge using the C bridge removal tool (Figure 82).

5.5.2.6 Cutting Half-Tap Wires

A. Using close-cutting pliers or the 840A tool, start at one end of the connector and cut connectors from the front side of the half-tap module. With close cutting pliers, cut one conductor at a time being sure never to touch two conductors together with pliers. This would interrupt service (Figure 83).

NOTE: If you are left handed, cut from right to left; if right handed, cut from left to right to reduce chance of shorting out the conductors.

When using the 840A Tool and Cutting 26-Gauge Conductors, pull the tool opposite the direction of conductor (against the grain) (Figure 84).

6. VERIFICATION

| | VERIFICATION ITEMS AND BRIEF STATEMENT OF REQUIREMENTS | REF. |
|---|---|---|
| 6.1 | Precautions | |
| 6.1.1 | Before splicing into existing cable | 1.3.1 |
| 6.1.2 | Reused equipment | 1.3.2 |
| 6.1.3 | Color assignment | 1.3.3 |
| 6.1.4 | Personal injury, equipment damage, and service interruptions | 1.3.4 |
| 6.2 | Authorizations and Approvals | |

| | VERIFICATION ITEMS AND BRIEF STATEMENT OF REQUIREMENTS | REF. |
|---|---|---|
| 6.2.1 | Authorized cable types | 1.6.1 |
| 6.2.2 | Authorization required | 1.6.3 |
| 6.3 | Preparation of Cable | |
| 6.3.1 | Stripped lengths of cables | 3.2.3 |
| 6.4 | Cutter-Presser setup | |
| 6.4.1 | Location of connectors | 3.3.2<br>3.3.3<br>3.3.4 |
| 6.5 | Requirements and Methods | |
| 6.5.1 | Index Strip correctly positioned | 5.1.2.1.1 B |
| 6.5.2 | Wires checked | 5.1.2.1.2 C |
| 6.5.3 | Spares spliced | 5.1.2.1.2 D |
| 6.5.4 | Wires cut and seated | 5.1.2.1.3 E |
| 6.5.5 | Connector Body correctly positioned | 5.1.2.1.4 |
| 6.5.6 | Connector Body and Index Strip latched together | 5.1.2.1.5 E |
| 6.5.7 | Cap correctly positioned | 5.1.2.1.6 |
| 6.5.8 | Cap, Connector Body, and Index Strip latched together | 5.1.2.1.7 E |
| 6.5.9 | Tool set up for additional modules (if necessary) | 5.1.2.1.8 B |
| 6.5.10 | Connectors in tight form | 5.1.2.2 A |
| 6.5.11 | Correct length of heat shrink tubing | 5.1.2.2 C |
| 6.5.12 | Correct length of adhesive | 5.1.2.2 D |
| 6.5.13 | Adhesive wrapped around cable sheath | 5.1.2.2 E |
| 6.5.14 | Heat shrink shrunk over cable sheath only | 5.1.2.2 G |
| 6.5.15 | Heat shrink folded and taped on loose end | 5.1.2.2 H |
| 6.5.16 | Index Strip correctly positioned | 5.2.2.1.1 |
| 6.5.17 | Wires fanned in Index Strip with side to be removed entering front of module | 5.2.2.1.2 B |
| 6.5.18 | Wires checked | 5.2.2.1.2 C |
| 6.5.19 | Spare wires spliced | 5.2.2.1.2 D |
| 6.5.20 | Connector Body correctly positioned parallel to Index Strip | 5.2.2.1.3 |
| 6.5.21 | Connector Body latched to Index Strip | 5.2.2.1.4 E |
| 6.5.22 | Cap correctly positioned | 5.2.2.1.5 |
| 6.5.23 | Cap latched to Connector Body and Index Strip | 5.2.2.1.6 D |
| 6.5.24 | Tool set up for additional modules (if necessary) | 5.2.2.1.7 B |
| 6.5.25 | Connectors in tight form | 5.2.2.2 A |
| 6.5.26 | Correct length of heat shrink tubing | 5.2.2.2 C |
| 6.5.27 | Correct length of adhesive | 5.2.2.2 D |

| | VERIFICATION ITEMS AND BRIEF STATEMENT OF REQUIREMENTS | REF. |
|---|---|---|
| 6.5.28 | Adhesive properly placed on cable sheath | 5.2.2.2 E<br>5.2.2.2 F |
| 6.5.29 | Heat shrink folded around completed modules | 5.2.2.2 G |
| 6.5.30 | Gray plastic tape half-lapped over heat shrink tubing | 5.2.2.2 H |
| 6.5.31 | Correct length of Heat Shrink Tubing | 5.3.2.1.2 |
| 6.5.32 | Heat Shrink Tubing placed over either cable | 5.3.2.1.3 |
| 6.5.33 | Index strip properly positioned | 5.3.2.2.1 |
| 6.5.34 | Wires checked | 5.3.2.2.2 C |
| 6.5.35 | Spare wires spliced | 5.3.2.2.2 D |
| 6.5.36 | Wires cut and seated in Index Strip | 5.3.2.2.3 E |
| 6.5.37 | Connector Body correctly positioned parallel to Index Strip | 5.3.2.2.4 |
| 6.5.38 | Connector Body latched to Index Strip | 5.3.2.2.5 E |
| 6.5.39 | Wires checked | 5.3.2.2.6 B |
| 6.5.40 | Spares spliced | 5.3.2.2.6 C |
| 6.5.41 | Wires cut and seated in Connector Body | 5.3.2.2.7 E |
| 6.5.42 | Cap correctly positioned | 5.3.2.2.8 A |
| 6.5.43 | Cap latched to Connector Body and Index Strip | 5.3.2.2.8 E |
| 6.5.44 | Tool set up for additional modules (if necessary) | 5.3.2.2.9 B |
| 6.5.45 | Connectors in tight form | 5.3.2.3 A |
| 6.5.46 | Correct length of adhesive | 5.3.2.3 B |
| 6.5.47 | Adhesive correctly wrapped on cable sheath | 5.3.2.3 C |
| 6.5.48 | Tubing shrunk on ends only | 5.3.2.3 F |
| 6.5.49 | Correct length of Heat Shrink Tubing | 5.4.2.1.2 |
| 6.5.50 | Tubing placed over Stub Cable prior to splicing | 5.4.2.1.2 |
| 6.5.51 | Method 1 | |
| 6.5.51.1 | Index Strip correctly positioned | 5.4.2.2.1.1 |
| 6.5.51.2 | Side to be removed entering front of Index Strip | 5.4.2.2.1.2 A |
| 6.5.51.3 | Wires checked | 5.4.2.2.1.2 C |
| 6.5.51.4 | Spare wires spliced | 5.4.2.2.1.2. D |
| 6.5.51.5 | Connector Body correctly positioned | 5.4.2.2.1.3 |
| 6.5.51.6 | Connector Body latched to Index Strip | 5.4.2.2.1.4 E |
| 6.5.51.7 | Wires checked | 5.4.2.2.1.5 B |
| 6.5.51.8 | Spare wires spliced | 5.4.2.2.1.5 C |
| 6.5.51.9 | Wires seated and cut in Connector Bay | 5.4.2.2.1.6 E |
| 6.5.51.10 | Cap properly positioned | 5.4.2.2.1.7 A |

| | VERIFICATION ITEMS AND BRIEF STATEMENT OF REQUIREMENTS | REF. |
|---|---|---|
| 6.5.51.11 | Cap latched to Connector Body and Index Strip | 5.4.2.2.1.7 E |
| 6.5.52 | Method 2 | |
| 6.5.52.1 | F Module Support properly positioned | 5.4.2.2.2.1 |
| 6.5.52.2 | Connector Body correctly positioned | 5.4.2.2.2.2 |
| 6.5.52.3 | Wires checked | 5.4.2.2.2.3 B |
| 6.5.52.4 | Spare wires spliced | 5.4.2.2.2.3 C |
| 6.5.52.5 | Wires cut and seated in Connector Body | 5.4.2.2.2.4 E |
| 6.5.52.6 | Cap properly positioned | 5.4.2.2.2.5 A |
| 6.5.52.7 | Cap latched to Connector Body | 5.4.2.2.2.5 E |
| 6.5.52.8 | Index Strip properly positioned | 5.4.2.2.2.7 A |
| 6.5.52.9 | Side to be removed entering front of Index Strip | 5.4.2.2.2.7 B |
| 6.5.52.10 | Wires checked | 5.4.2.2.2.7 C |
| 6.5.52.11 | Preterminated Connector Body correctly positioned over Index Strip | 5.4.2.2.2.8 A |
| 6.5.52.12 | Preterminated Connector Body latched to Index Strip | 5.4.2.2.2.8 D |
| 6.5.53 | Protection | |
| 6.5.53.1 | Connectors in tight form | 5.4.2.3.1 A |
| 6.5.53.2 | Prior to cut | |
| 6.5.53.3 | Correct length of Heat Shrink Tubing | 5.4.2.3.1 C |
| 6.5.53.4 | Heat Shrink Tubing folded around splice | 5.4.2.3.1 D |
| 6.5.53.5 | Gray plastic tape half-lapped over tubing | 5.4.2.3.1 E |
| 6.5.53.6 | After cut | |
| 6.5.53.7 | Correct length of adhesive | 5.4.2.3.2 A |
| 6.5.53.8 | Adhesive properly wrapped on cable sheaths | 5.4.2.3.2 B&C |
| 6.5.53.9 | Tubing shrunk on ends only | 5.4.2.3.2 F |
| 6.5.54 | Method 1 | |
| 6.5.54.1 | E Module Support positioned in Cutter-Presser | 5.5.2.1.1 A |
| 6.5.54.2 | Bridge placed into E Module Support | 5.5.2.1.1 B |
| 6.5.54.3 | Wires checked | 5.5.2.1.1 D |
| 6.5.54.4 | Spares spliced | 5.5.2.1.1 E |
| 6.5.54.5 | Wires cut and seated into Bridge | 5.5.2.1.1 J |
| 6.5.54.6 | Cap positioned in Cutter-Presser | 5.5.2.1.1 K |
| 6.5.54.7 | Cap latched to Bridge | 5.5.2.1.1 O |
| 6.5.54.8 | Previously made straight splice or Half-Tap "Y" or "T" Splice Module properly placed in Cutter-Presser | 5.5.2.1.1 Q |
| 6.5.54.9 | Preterminated Bridge Module properly placed in Cutter-Presser | 5.5.2.1.1 R |
| 6.5.54.10 | Bridge seated into splice module | 5.5.2.1.1 V |

| | VERIFICATION ITEMS AND BRIEF STATEMENT OF REQUIREMENTS | REF. |
|---|---|---|
| 6.5.55 | Method 2 | |
| 6.5.55.1 | Previously made straight splice or Half-Tap "Y" or "T" Splice Module properly placed in Cutter-Presser | 5.5.2.1.2 A |
| 6.5.55.2 | Bridge Module properly placed in Cutter-Presser | 5.5.2.1.2 B |
| 6.5.55.3 | Wires checked | 5.5.2.1.2 D |
| 6.5.55.4 | Spares spliced | 5.5.2.1.2 E |
| 6.5.55.5 | Wires cut and seated into Bridge | 5.5.2.1.2 J |
| 6.5.55.6 | Cap positioned in Cutter-Presser | 5.5.2.1.2 K |
| 6.5.55.7 | Cap latched to Bridge | 5.5.2.1.2 O |
| 6.5.56 | Connectors in tight form | 5.5.2.2 A |
| 6.5.57 | Correct length of Heat Shrink Tubing | 5.5.2.2 C |
| 6.5.58 | Tubing folded around splice | 5.5.2.2 D |
| 6.5.59 | Gray plastic tape half-lapped over tubing | 5.5.2.2 E |
| 6.5.60 | Inserting bridge module into through-cable connector | 5.5.2.3 |
| 6.5.60.1 | Clearing through cable pairs | 5.5.2.3 A |
| 6.5.60.2 | Inserting bridge module into connector | 5.5.2.3 B |
| 6.5.60.3 | Seat the bridge module | 5.5.2.3 C |
| 6.5.61 | Remove cap from connector module | 5.5.2.4 |
| 6.5.62 | Remove old bridge | 5.5.2.5 |
| 6.5.63 | Cutting half-tap wires | 5.5.2.6 |

* Denotes Western Electric Trademark

Development Engineering Manager
Loop Transmission Apparatus

Attachment:
Figures

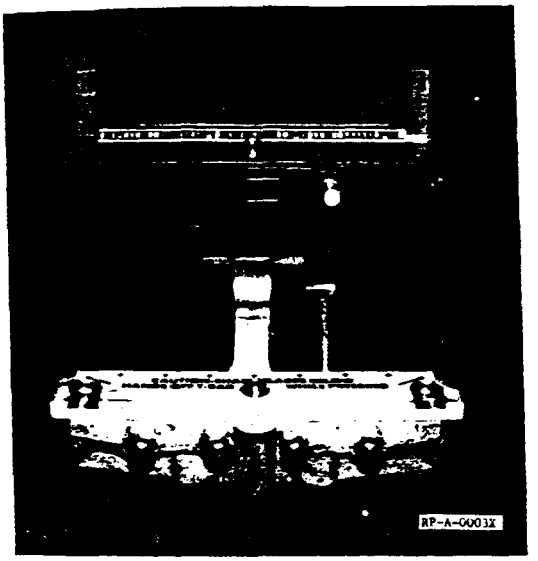



FIG. 1 R-5001 CUTTER-PRESSER
(PAR. 2.1.1.1.1)

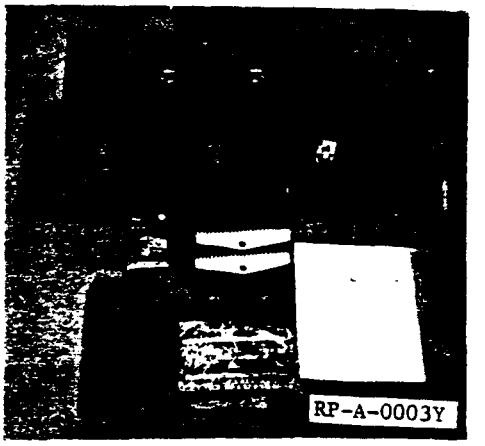



FIG. 2 R-5001 COMPONENTS
(PAR. 2.1.1.1.1)

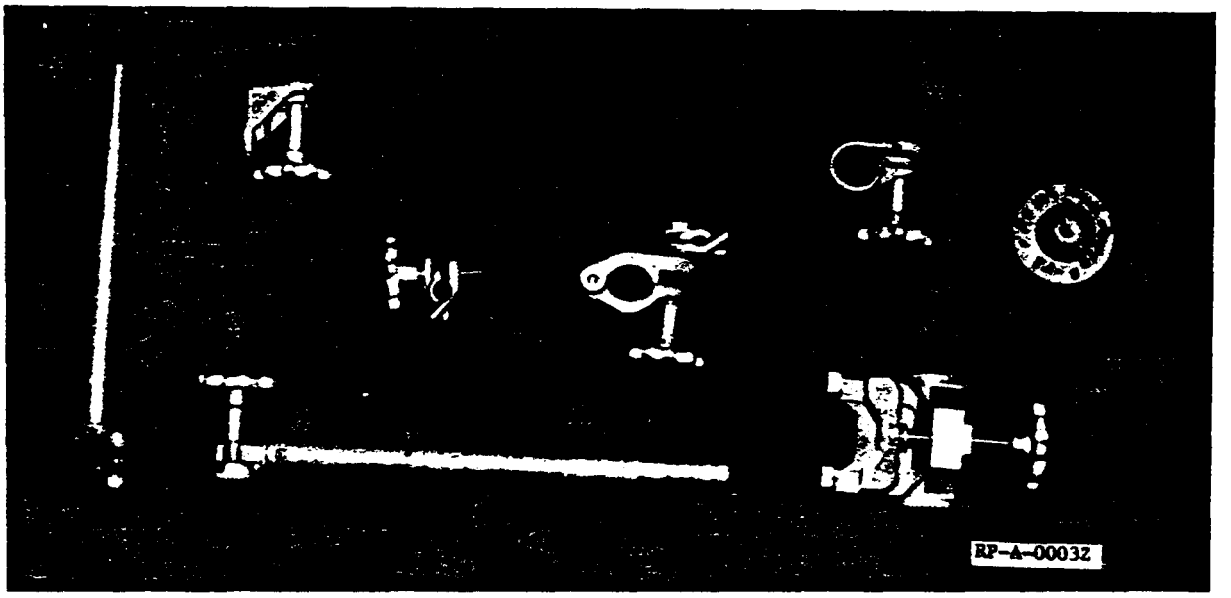



FIG. 3 710A TOOL MOUNT COMPONENTS
(PAR. 2.1.1.1.2)

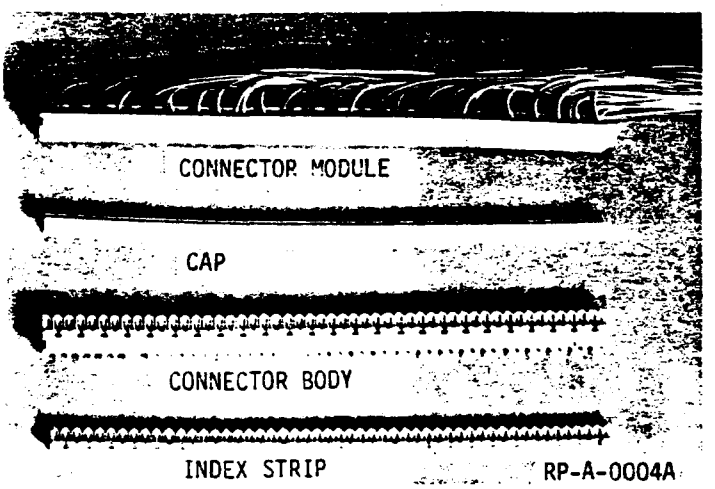



FIG. 4 710-SD1-25 CONNECTOR (PAR. 2.2.1)

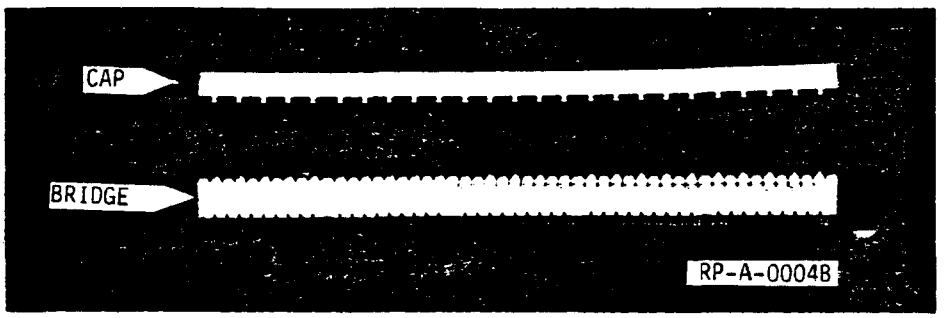



FIG. 5 710-BD1-25 BRIDGE MODULE
(PAR. 2.2.2)

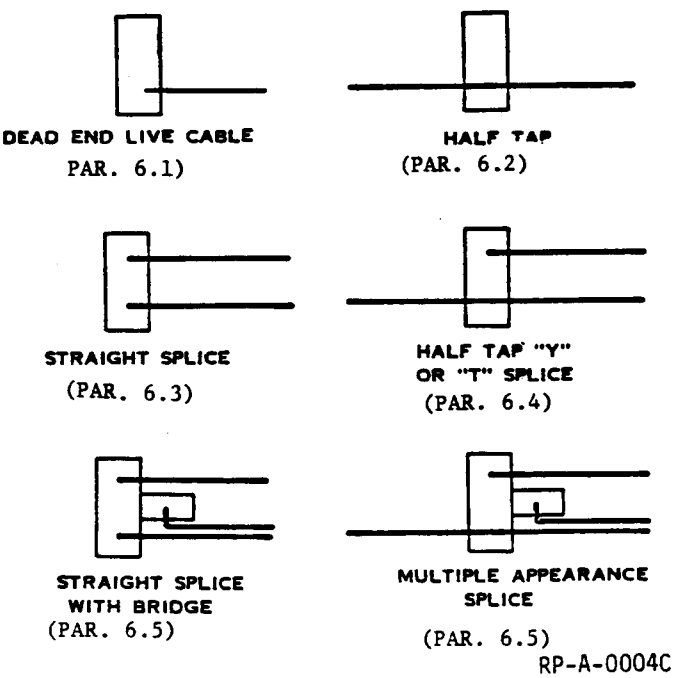



FIG. 6 710 CONNECTOR CONFIGURATIONS
(PAR. 3.1.1)


FIG. 7 710A TOOL MOUNT ATTACHED TO LADDER (PAR. 3.3.1)

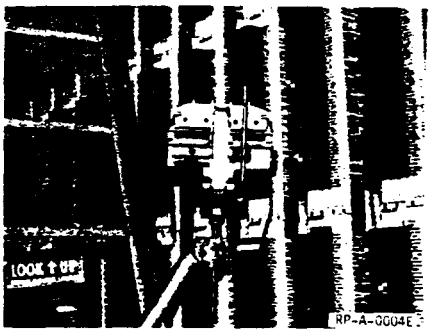



FIG. 8 R-5001 ATTACHED TO 710A TOOL MOUNT (PAR. 3.3.1)

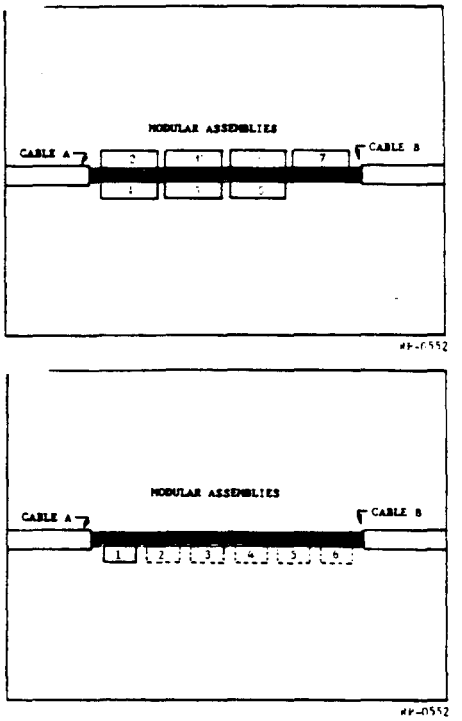



FIG. 10 ARRANGEMENT OF 710 MODULAR CONNECTORS (PAR. 3.3.4)

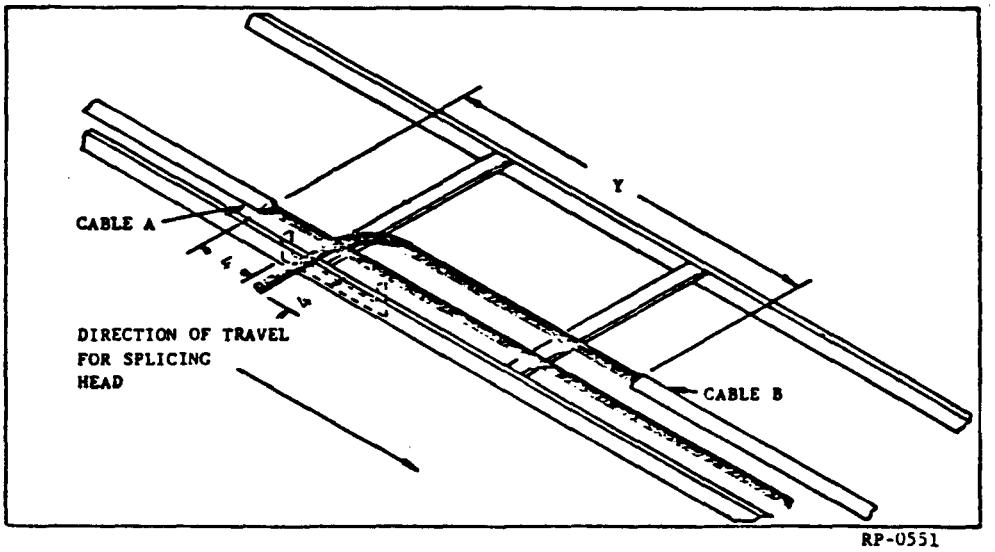



FIG. 9 POSITIONING OF SPLICING HEAD WITH RESPECT TO CABLE BUTTS (PARS. 3.3.2 and 3.3.3)

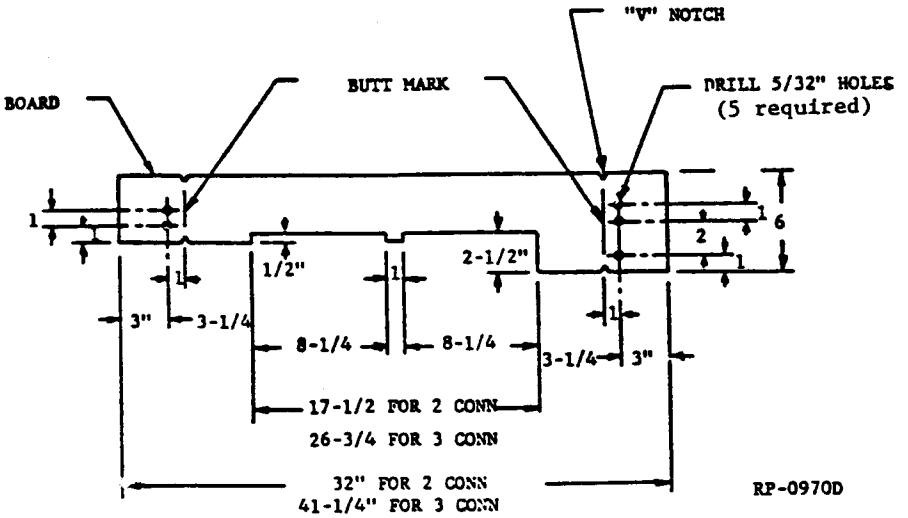



FIG. 11 FORMING BOARD
(PAR. 3.3.5)

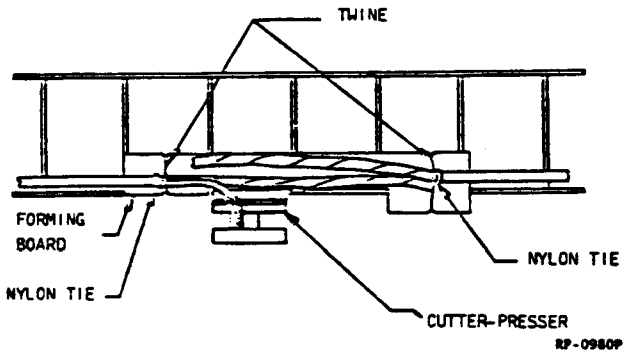



FIG. 12 FORMING BOARD WITH CUTTER-PRESSER AND CABLES IN PLACE FOR STRAIGHT SPLICE

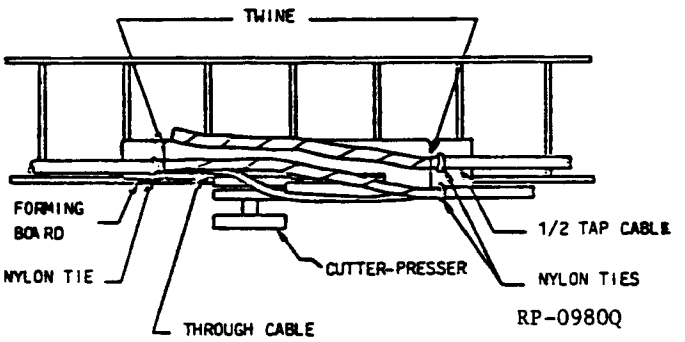



FIG. 13 FORMING BOARD WITH CUTTER-PRESSOR AND CABLES IN PLACE FOR 1/2 TAP SPLICE (PAR. 3.3.6)

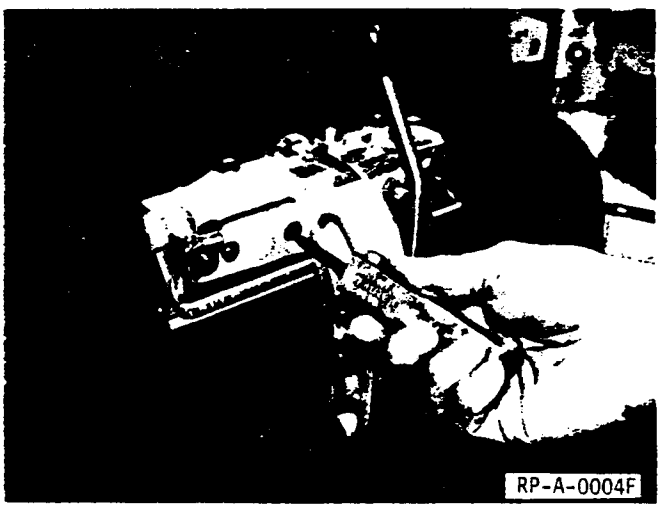



FIG. 14 ALLEN SCREWS LOOSENED
(PAR. 4.1.1)

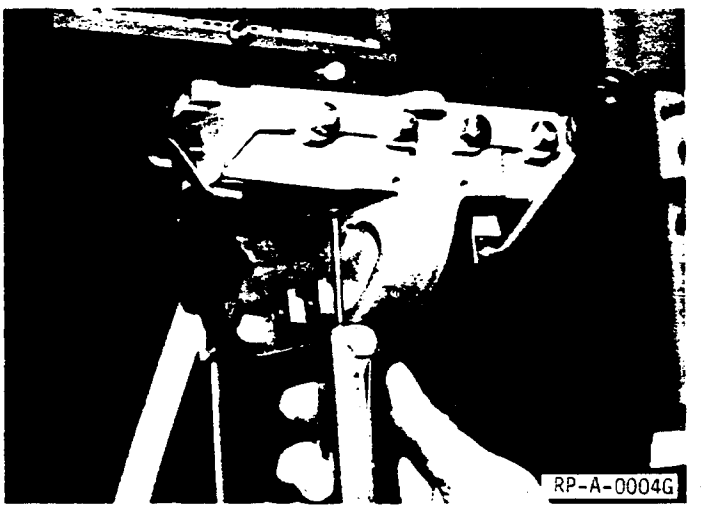



FIG. 15 ALLEN SCREWS REMOVED
(PAR. 4.1.2)

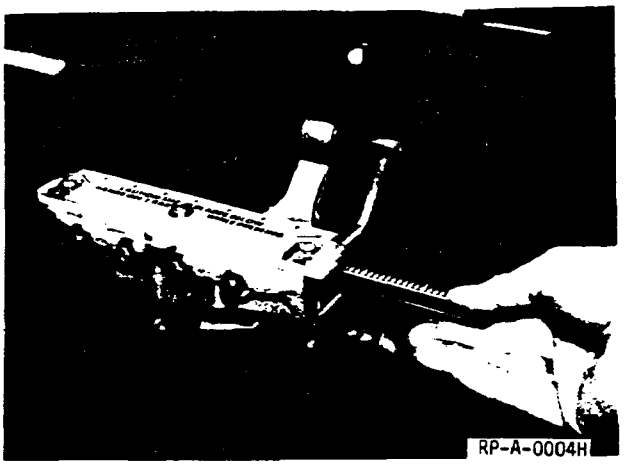



FIG. 16 BLADE AND SUPPORT REMOVED FROM T-BAR (PAR. 4.1.3)

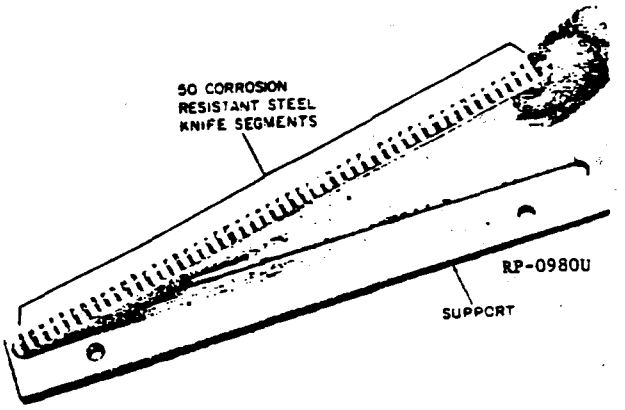



FIG. 17 REMOVING BLADE FROM SUPPORT (PAR. 4.1.4)

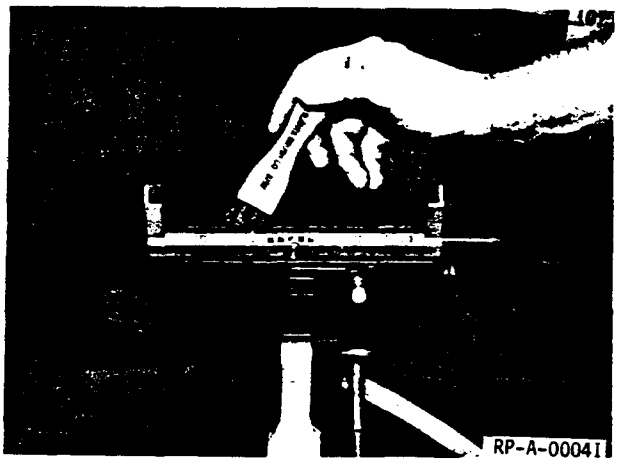



FIG. 18 BRUSH DEBRIS FROM THE BASE OF THE TOOL (PAR. 4.2.2)

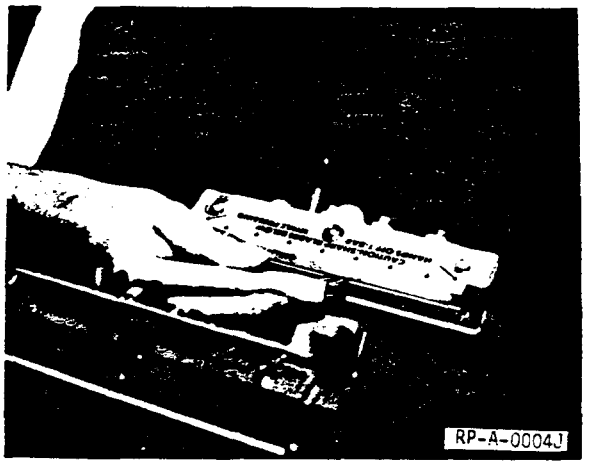



FIG. 19 BRUSH CUTTING BLADE AND INSERTION TEETH TO REMOVE ALL DEBRIS (PAR. 4.2.3)

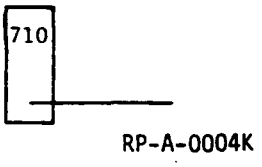



FIG. 20 DEAD ENDING CABLE (PAR. 5.1.1.1)

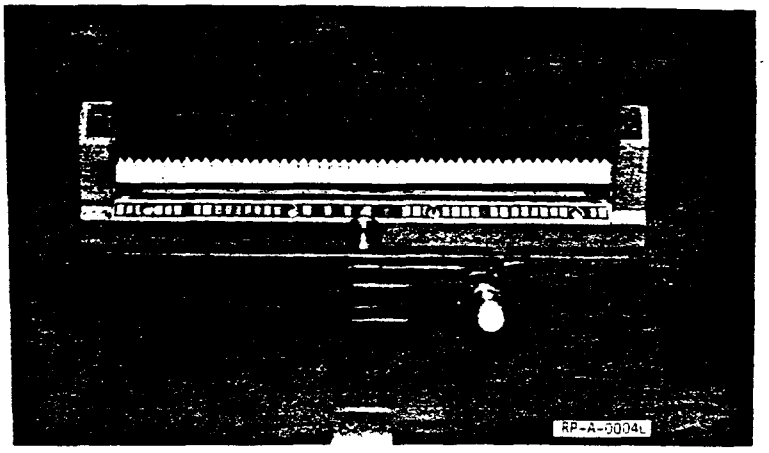



FIG. 21 INDEX STRIP POSITIONED IN CONNECTOR HOLDER (PAR. 5.1.2.1.1A)

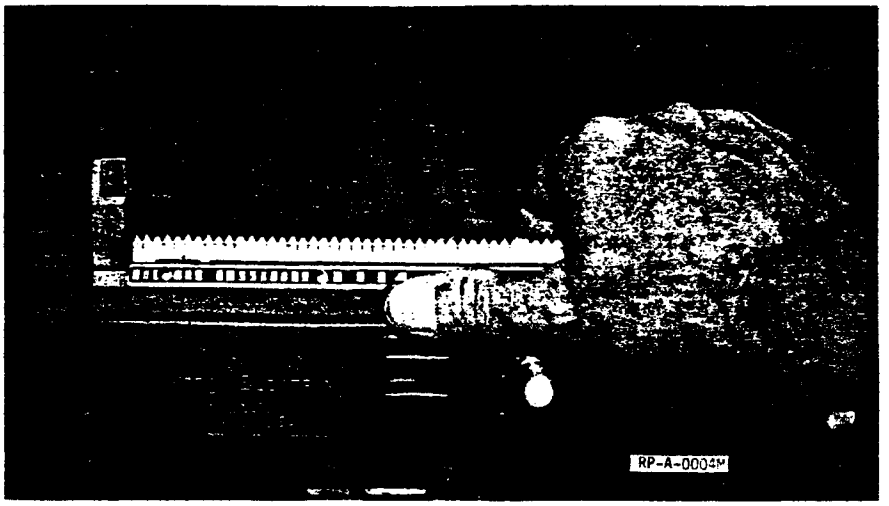



FIG. 22 DEPRESSING "L" SPRING BUTTON WITH THUMB
(PAR. 5.1.2.1.1B)

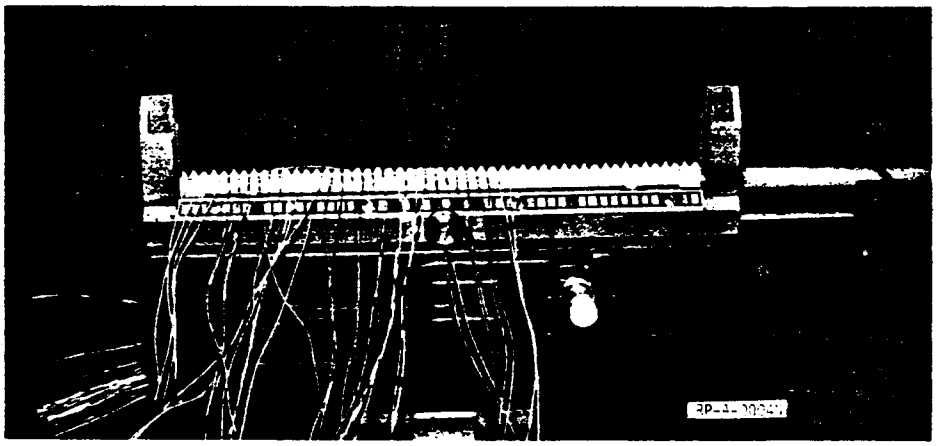


FIG. 23 WIRES FANNED INTO INDEX STRIP
(PAR. 5.1.2.1.2B)

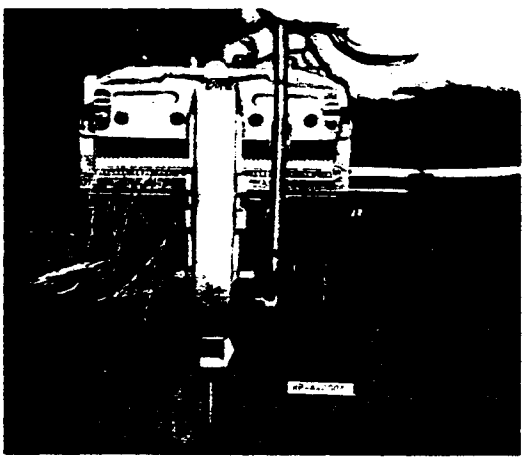


FIG. 24 T-BAR POSITIONED OVER INDEX STRIP
(PAR. 5.1.2.1.3A)

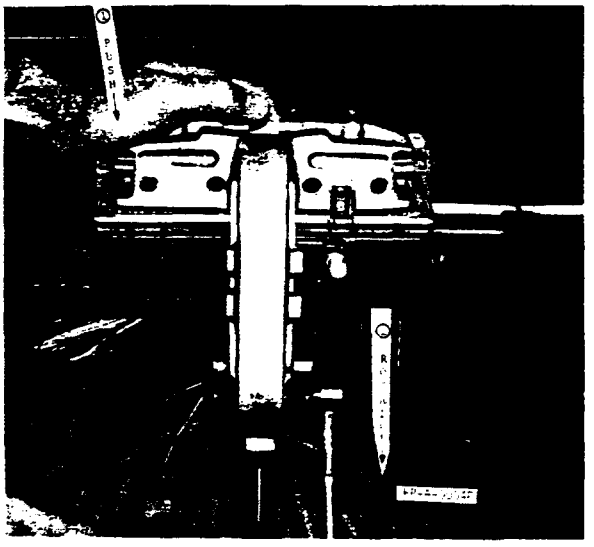



FIG. 25 CUTTING AND SEATING WIRES IN INDEX STRIP (PAR. 5.1.2.1.3B)

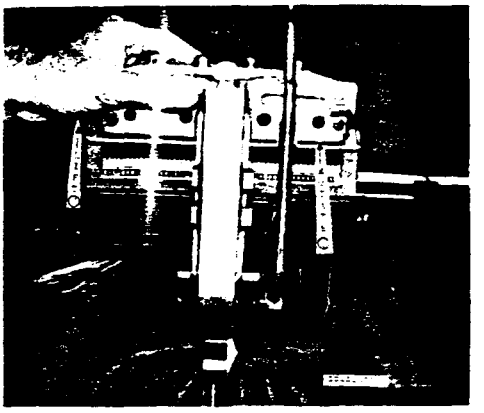


FIG. 26 T-BAR RAISED (PAR. 5.1.2.1.3C)

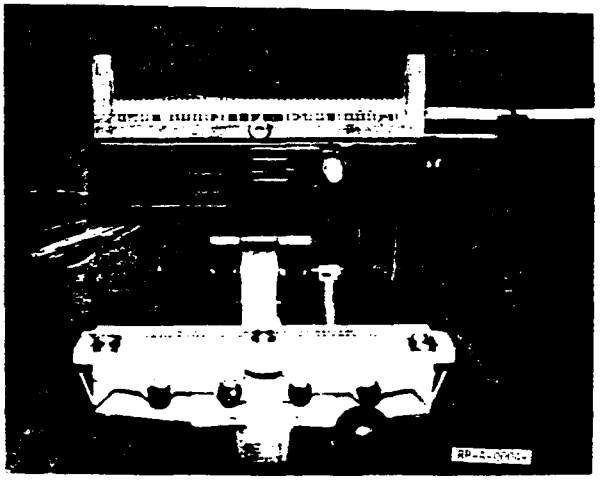


FIG. 27 WIRES CUT AND SEATED IN INDEX STRIP (PAR. 5.1.2.1.3E)

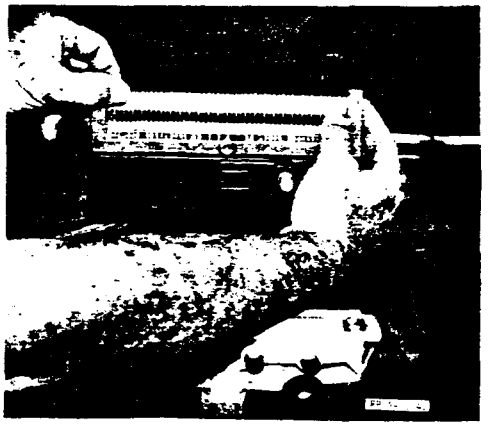


FIG. 28 POSITIONING CONNECTOR BODY (PAR. 5.1.2.1.4)

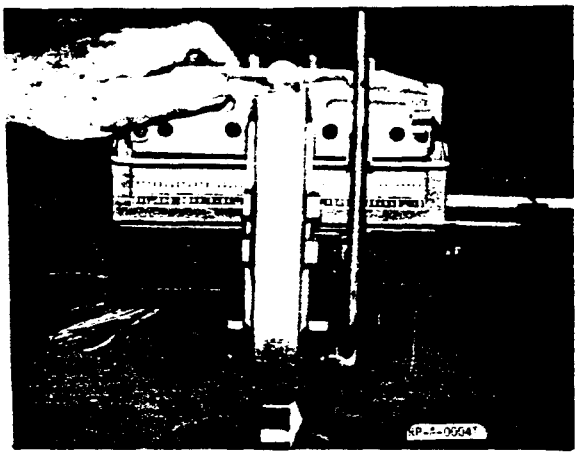


FIG. 29 T-BAR IN POSITION OVER CONNECTOR BODY (PAR. 5.1.2.1.5A)

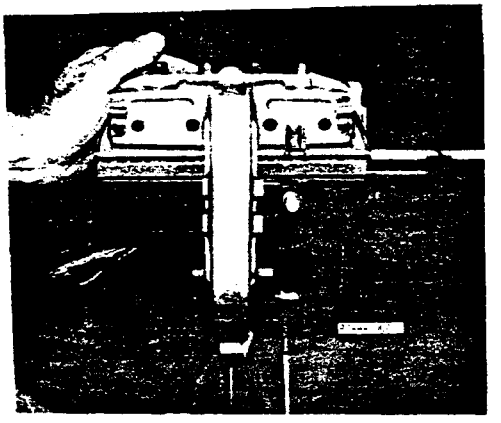


FIG. 30 LATCHING CONNECTOR BODY TO INDEX STRIP (PAR. 5.1.2.1.5B)

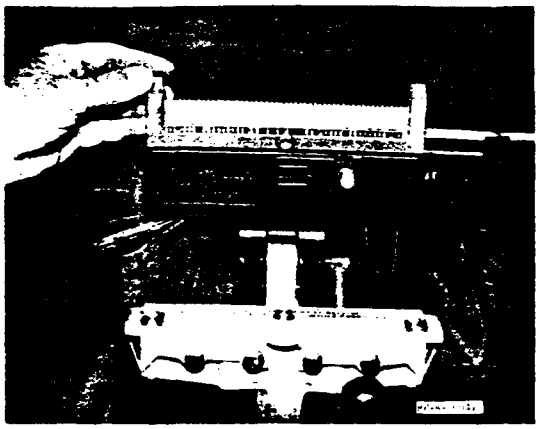


FIG. 31 CONNECTOR BODY AND INDEX STRIP LATCHED ( PAR. 5.1.2.1.5E)

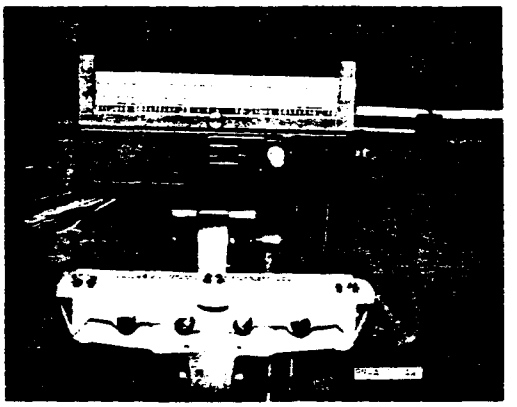


FIG. 32 CAP POSITIONED (PAR. 5.1.2.1.6)

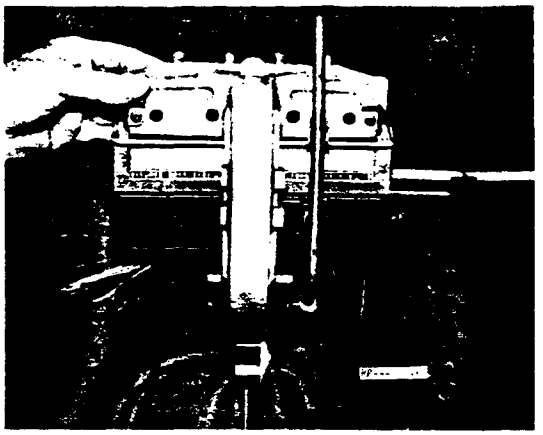


FIG. 33 T-BAR POSITIONED OVER CAP (PAR. 5.1.2.1.7A)

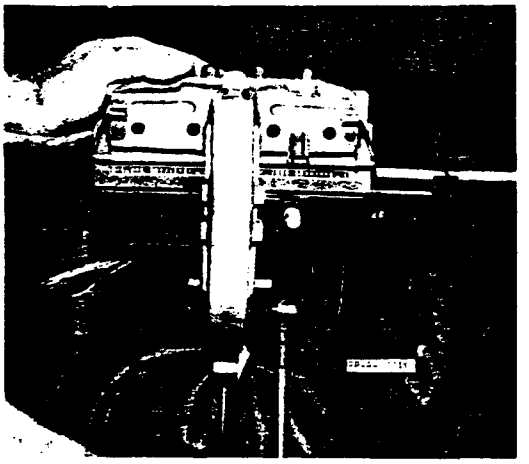


FIG. 34 SEATING CAP (PAR. 5.1.2.1.7B)

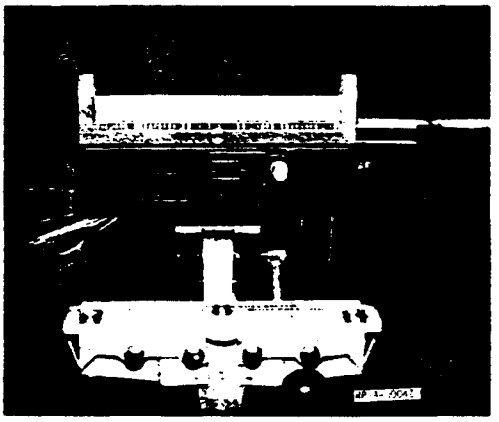
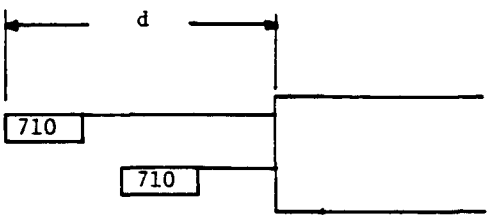


FIG. 35 CAP SEATED TO CONNECTOR BODY AND INDEX STRIP (PAR. 5.1.2.1.7E)




length of tubing = d & 8"

RP-A-0005A

FIG. 36 LENGTH OF HEAT SHRINK TUBING (PAR. 5.1.2.2C)

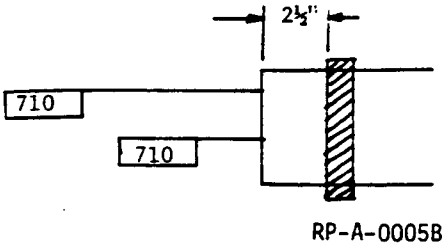



FIG. 37 ADHESIVE WRAPPED ON CABLE SHEATH (PAR. 5.1.2.2E)

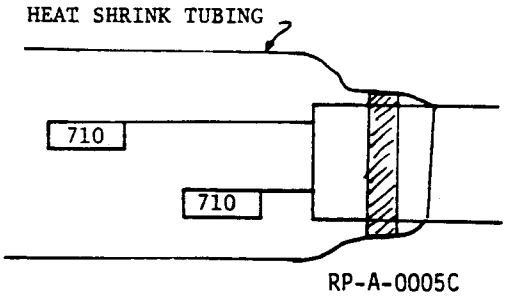



FIG. 38 TUBING SHRUNK ONLY OVER ADHESIVE AND SHEATH (PAR. 5.1.2.2G)

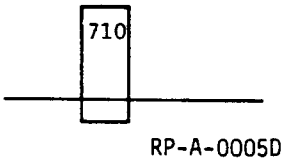



FIG. 39 HALF-TAP (PAR. 5.2.1.1.1)

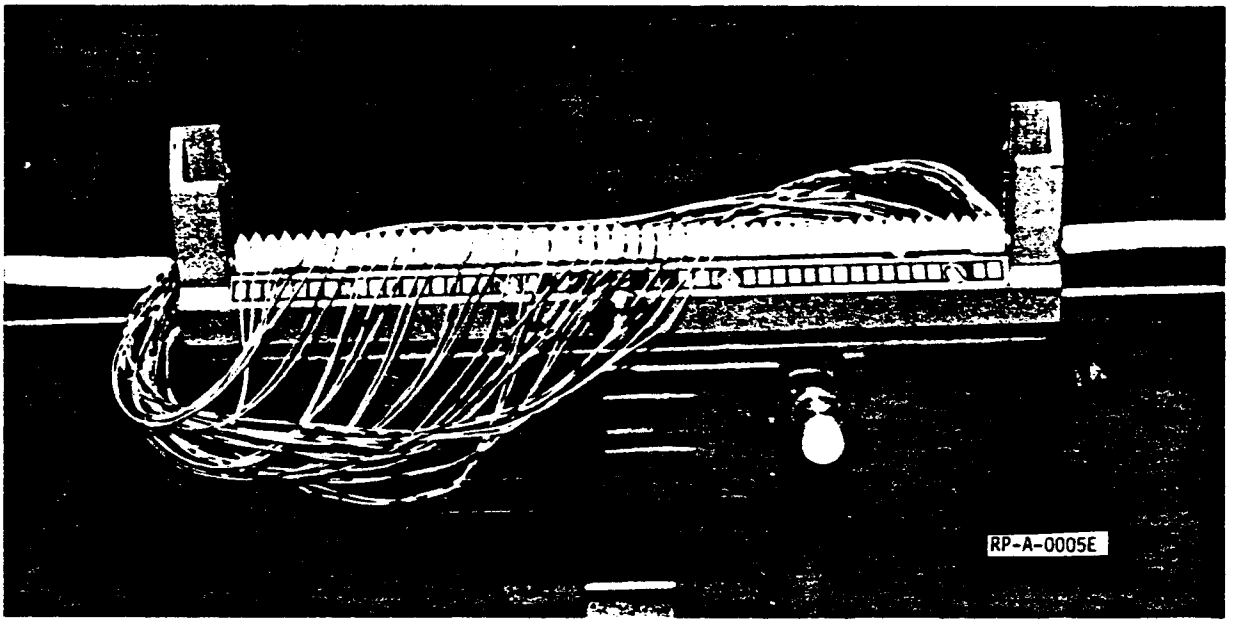



FIG. 40 WIRES FANNED IN INDEX STRIP (PAR. 5.2.2.1.2B)

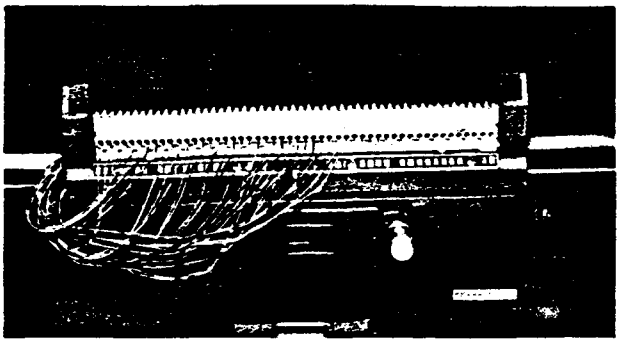


FIG. 41 CONNECTOR BODY POSITIONED IN CONNECTOR HOLDER (PAR. 5.2.2.1.3)

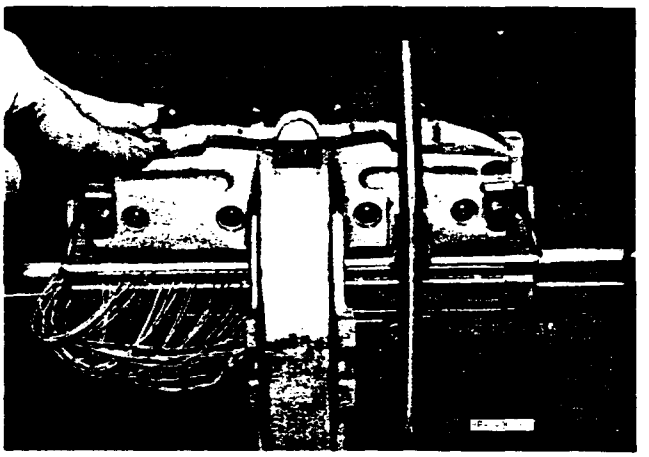


FIG. 42 T-BAR POSITIONED OVER CONNECTOR BODY (PAR. 5.2.2.1.4A)

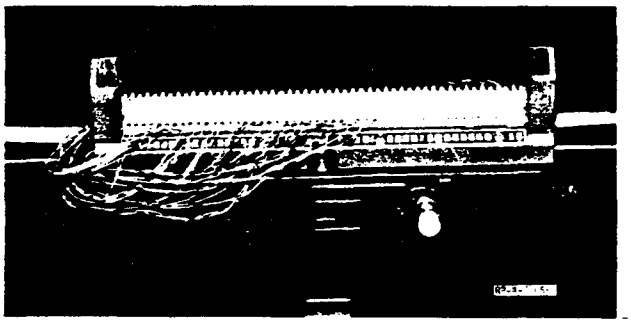


FIG. 43 CONNECTOR BODY AND INDEX STRIP LATCHED (PAR. 5.2.2.1.4E)

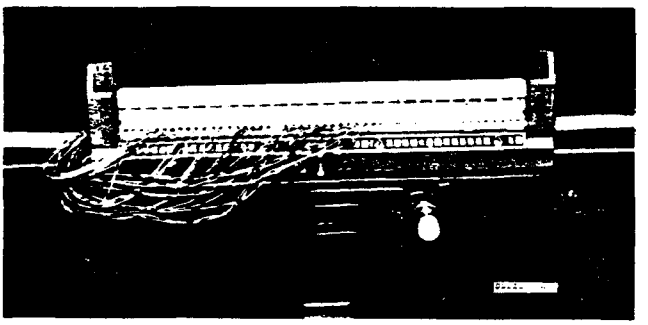


FIG. 44 CAP POSITIONED IN CONNECTOR HOLDER (PAR. 5.2.2.1.5)

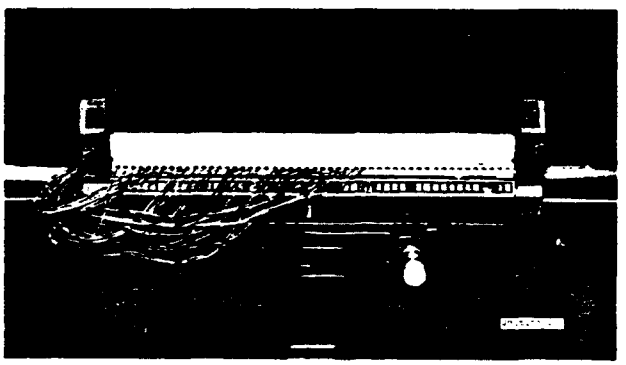


FIG. 45 CAP SEATED TO CONNECTOR BODY AND INDEX STRIP (PAR. 5.2.2.1.6D)

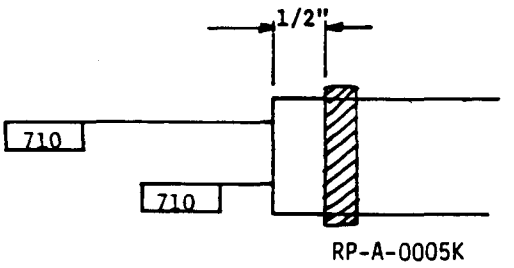



FIG. 46 ADHESIVE TAPE APPLIED TO CABLE SHEATH (PAR. 5.2.2.2E)

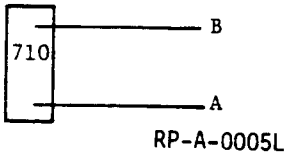



FIG. 47 STRAIGHT SPLICE (PAR. 5.3.1.1.1)

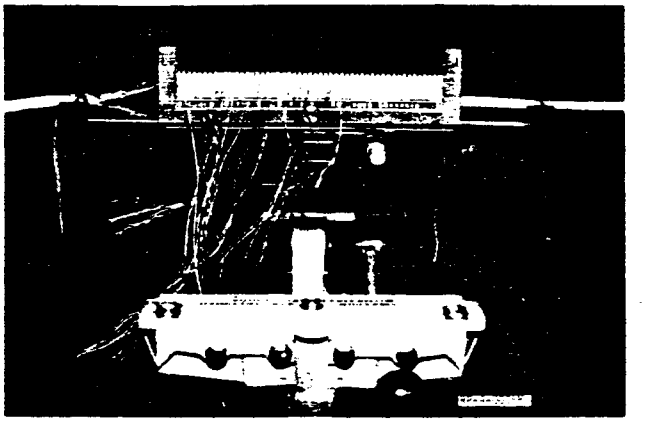


FIG. 48 WIRES FROM SECOND CABLE FANNED INTO CONNECTOR BODY (PAR. 5.3.2.2.6A)

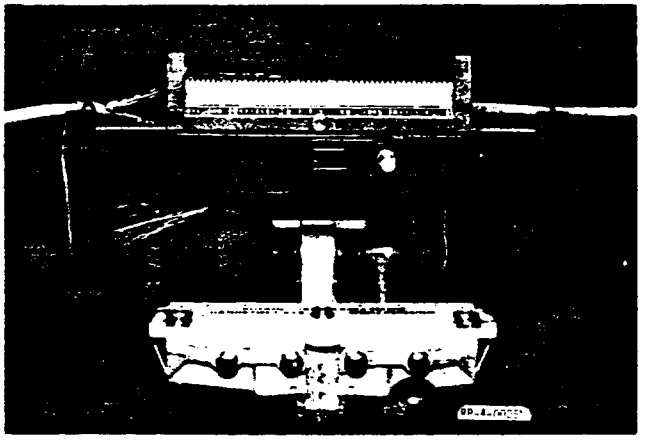


FIG. 49 WIRES CUT AND SEATED IN CONNECTOR BODY (PAR. 5.3.2.2.7E)

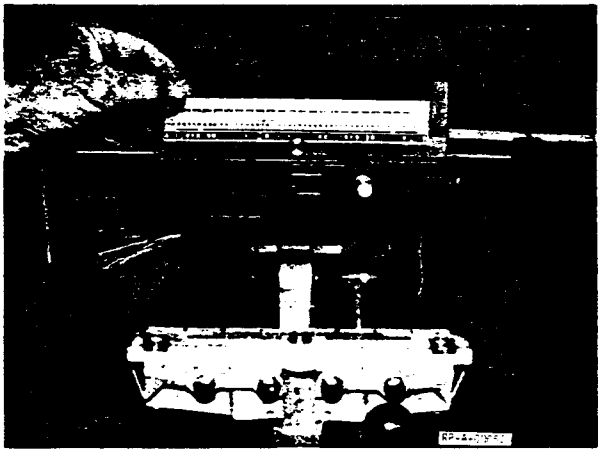


FIG. 50 CAP CORRECTLY POSITIONED (PAR 5.3.2.2.8A)

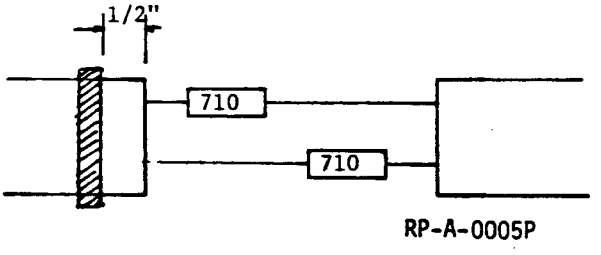



FIG. 51 ADHESIVE TAPE APPLIED TO SHEATH (PAR. 5.3.2.3C)

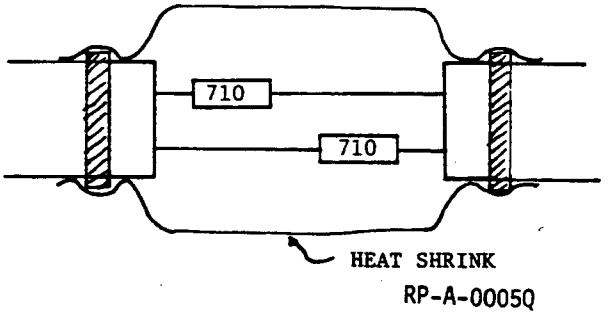



FIG. 52 TUBING SHRUNK ONLY OVER THE ENDS (PAR. 5. 3.2.3.F)

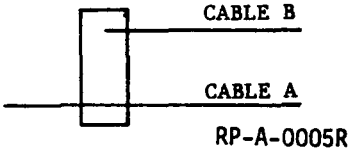



FIG. 53 HALF-TAP "Y" OR "T" SPLICE (PAR. 5.4.1.1.1)

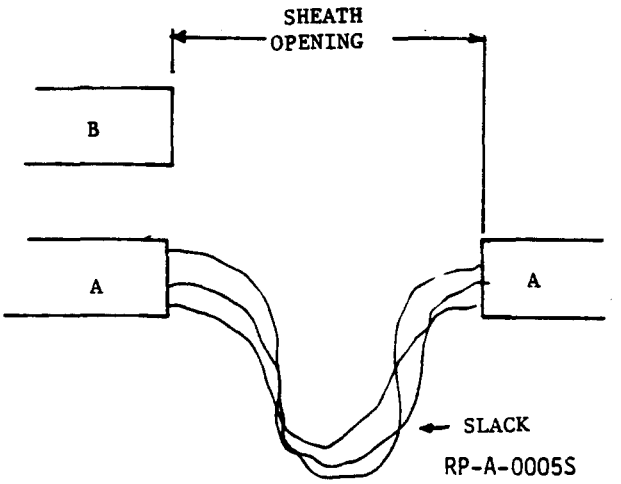



FIG. 54 LENGTH OF HEAT SHRINK IS SHEATH OPENING + 6" (PAR. 5.4.2.1.2)

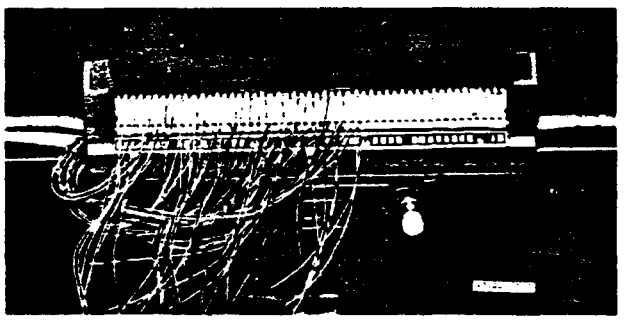


FIG. 55 WIRES FANNED INTO CONNECTOR BODY (PAR. 5.4.2.2.1.5A)

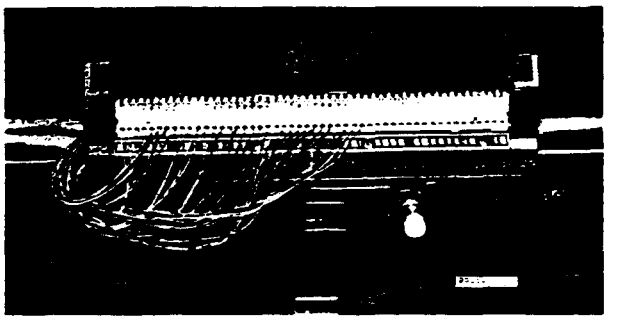


FIG. 56 STUB CABLE CUT AND SEATED INTO CONNECTOR BODY (PAR. 5.4.2.2.1.6E)

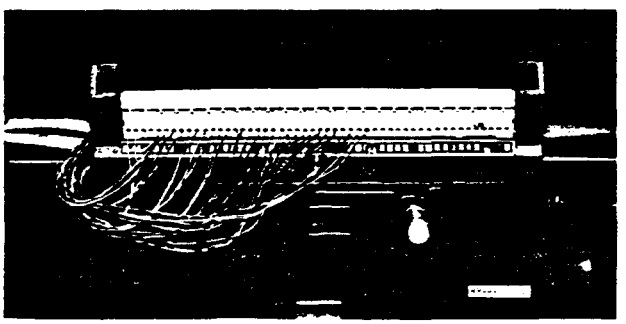


FIG. 57 CAP POSITIONED (PAR. 5.4.2.2.1.7A)

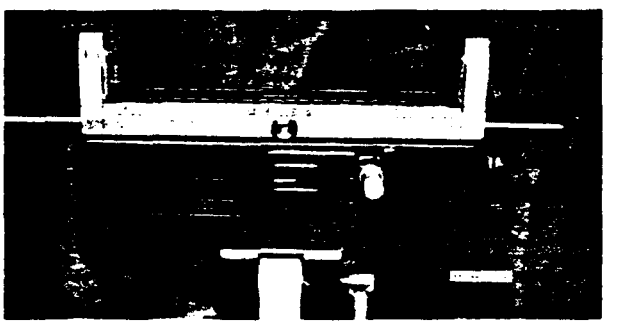


FIG. 58 F MODULE SUPPORT POSITIONED IN CUTTER-PRESSER (PAR. 5.4.2.2.2.1)

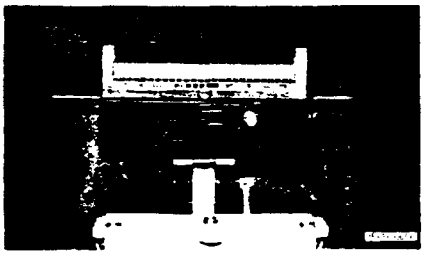


FIG. 59 CONNECTOR BODY POSITIONED IN F MODULE SUPPORT (PAR. 5.4.2.2.2.2)

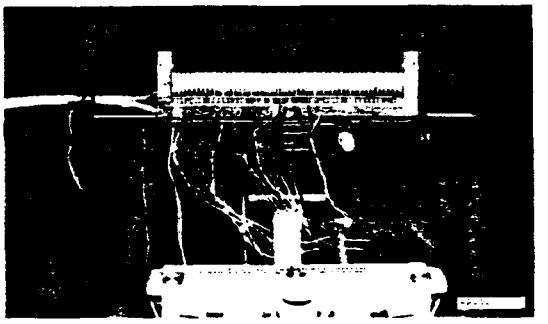


FIG. 60 WIRES FROM STUB CABLE FANNED INTO CONNECTOR BODY (PAR. 5.4.2.2.2.3A)

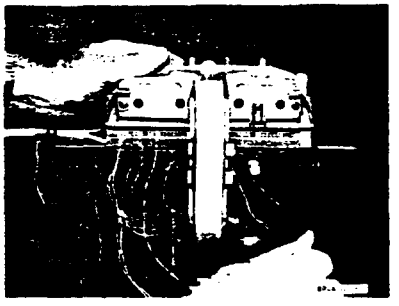


FIG. 61 WIRES CUT AND SEATED IN CONNECTOR BODY (PAR. 5.4.2.2.2.4B)

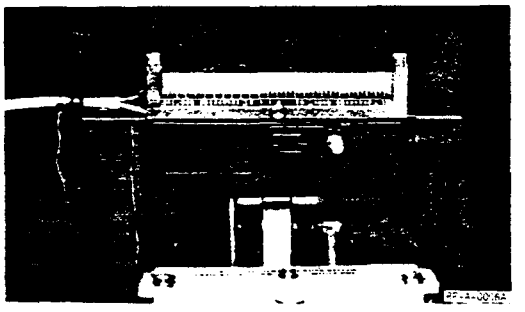


FIG. 62 CAP LATCHED TO CONNECTOR BODY (PAR. 5.4.2.2.2.5E)

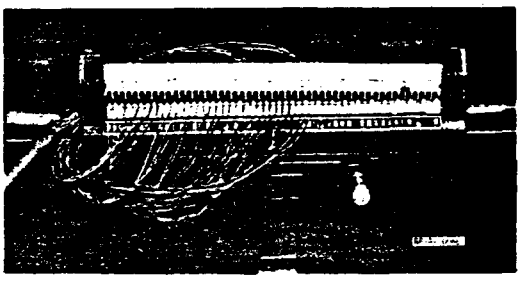


FIG. 63 PRETERMINATED STUB CABLE POSITIONED OVER INDEX STRIP IN CUTTER-PRESSER (PAR. 5.4.2.2.2.8A)

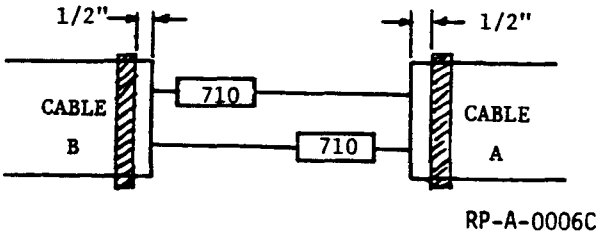



FIG. 64 ADHESIVE TAPE APPLIED TO CABLE SHEATHS (PAR. 5.4.2.3.2C)

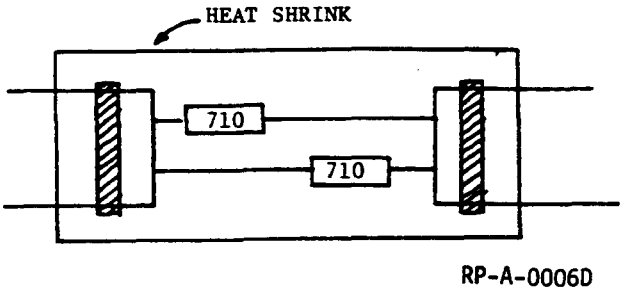



FIG. 65 HEAT SHRINK TUBING CENTERED OVER SPLICE (PAR. 5.4.2.3.2D)

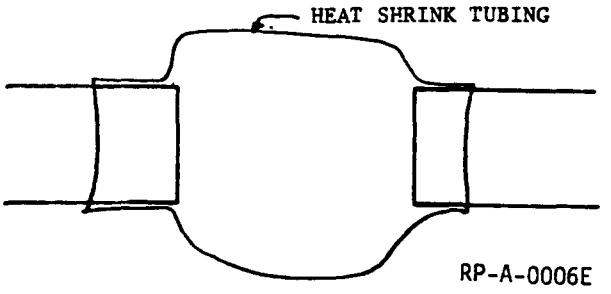



FIG. 66 TUBING SHRUNK ON ENDS ONLY (PAR. 5.4.2.3.2F)

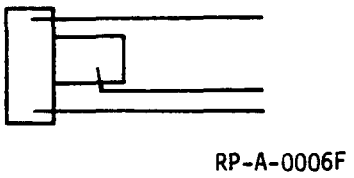



FIG. 67 STRAIGHT SPLICE WITH BRIDGE (PAR. 5.5.1.1.1)

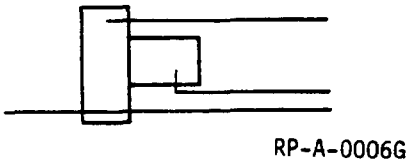



FIG. 68 MULTIPLE APPEARANCE SPLICE (PAR. 5.5.1.1.1)

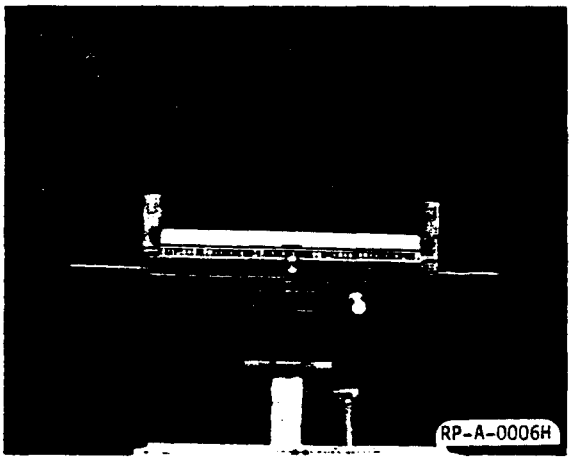



FIG. 69 E MODULE SUPPORT POSITIONED IN CUTTER-PRESSER (PAR. 5.5.2.1.1A)

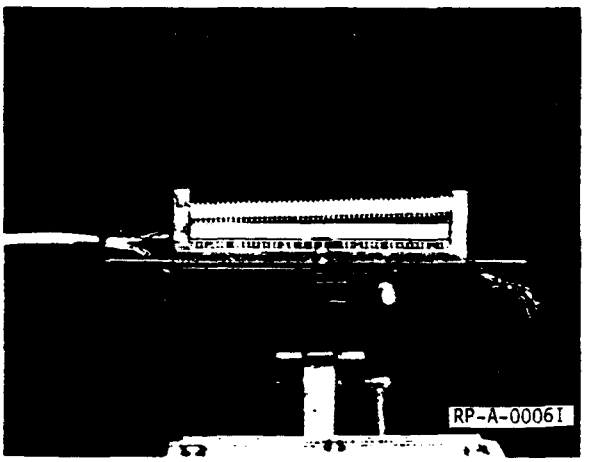



FIG. 70 BRIDGE MODULE POSITIONED OVER E MODULE SUPPORT IN CUTTER-PRESSER (PAR. 5.5.2.1.1B)

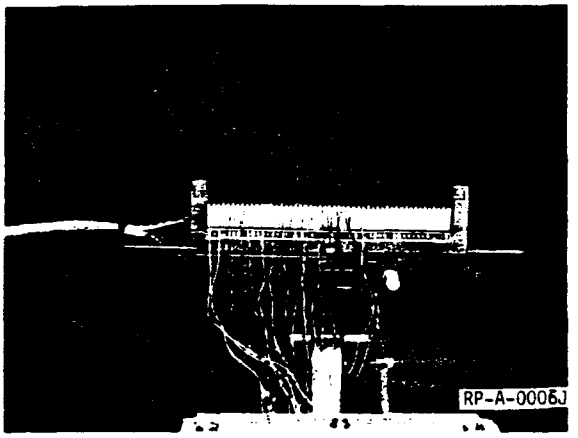



FIG. 71 WIRES FANNED INTO BRIDGE MODULE (PAR. 5.5.2.1.1C)

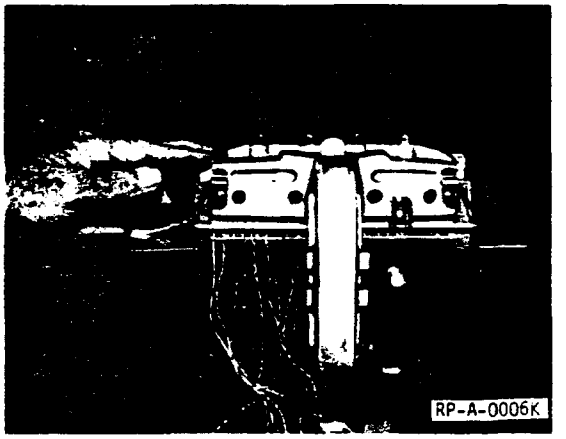



FIG. 72 WIRES BEING CUT AND SEATED INTO BRIDGE MODULE (PAR. 5.5.2.1.1G)

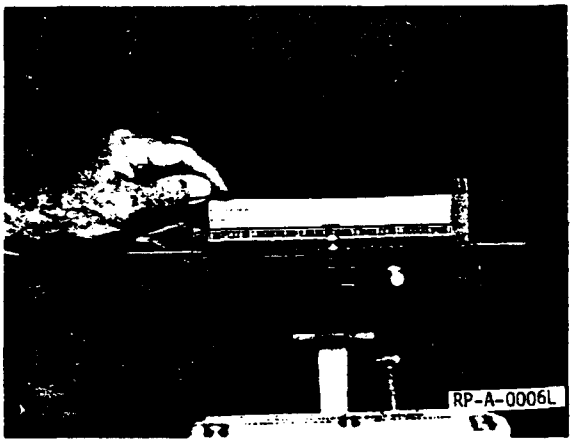



FIG. 73 CAP POSITIONED OVER THE BRIDGE (PAR. 5.5.2.1.1K)

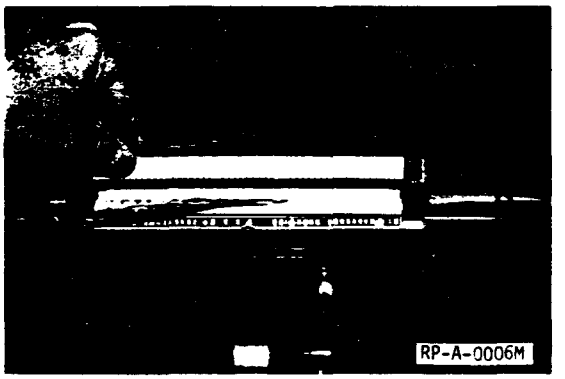



FIG. 74 PRETERMINATED BRIDGE MODULE POSITIONED OVER BRIDGE RAILS (PAR. 5.5.2.1.1R)

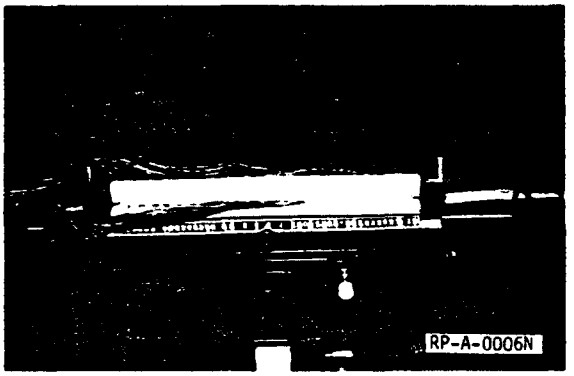



FIG. 75 PRETERMINATED BRIDGE MODULE SEATED INTO THE CONNECTOR MODULE (PAR. 5.5.2.1.1V)

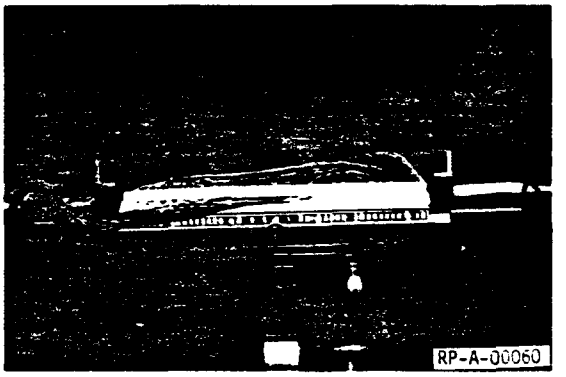



FIG. 76 SPLICE MODULE ROTATED IN CUTTER-PRESSER WITH BRIDGE RAILS UP (PAR. 5.5.2.1.2A)

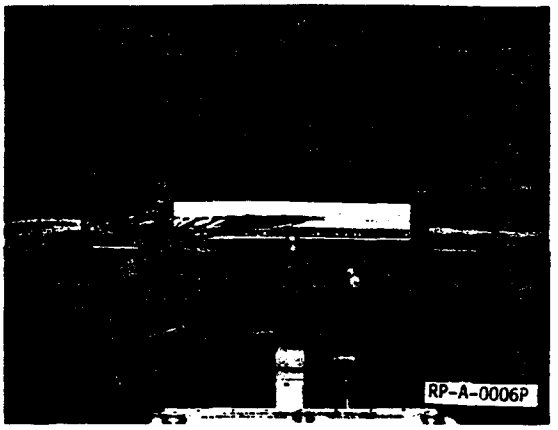



FIG. 77 CAP LATCHED TO BRIDGE (PAR. 5.5.2.1.20)

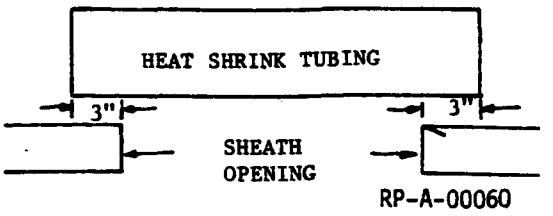



FIG. 78 LENGTH OF HEAT SHRINK TUBING (PAR. 5.5.2.2.C)

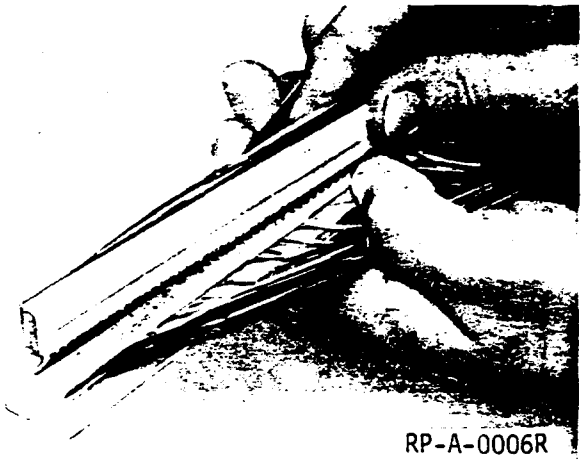



FIG. 79 INSERTING THE BRIDGE MODULE (PAR. 5.5.2.3B)

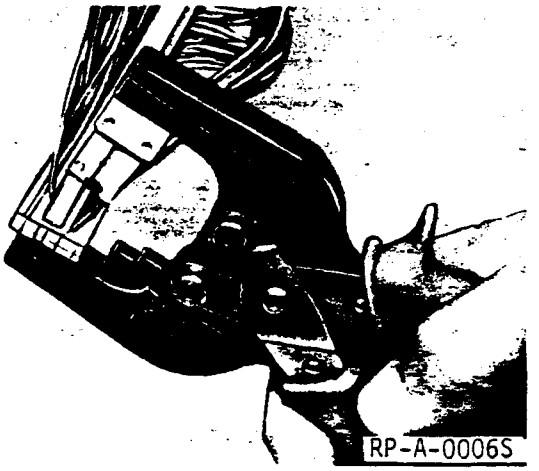



FIG. 80 SEATING THE BRIDGE MODULE (PAR. 5.5.2.3C)

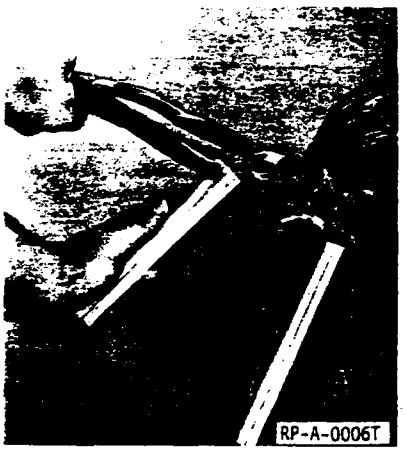



FIG. 81 REMOVE CAP FROM CONNECTOR MODULE (PAR. 5.5.2.4)


FIG. 82 REMOVING OLD BRIDGE (PAR. 5.5.2.5)

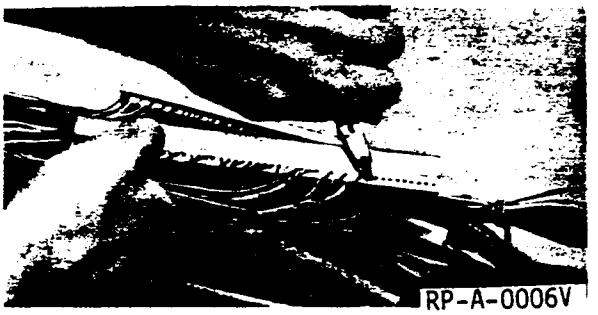



FIG. 83 CUTTING HALF-TAP WIRES WITH PLIERS (PAR. 5.5.2.6)


FIG. 84 CUTTING HALF-TAP WIRES WITH 840A TOOL (PAR. 5.5.2.6)