

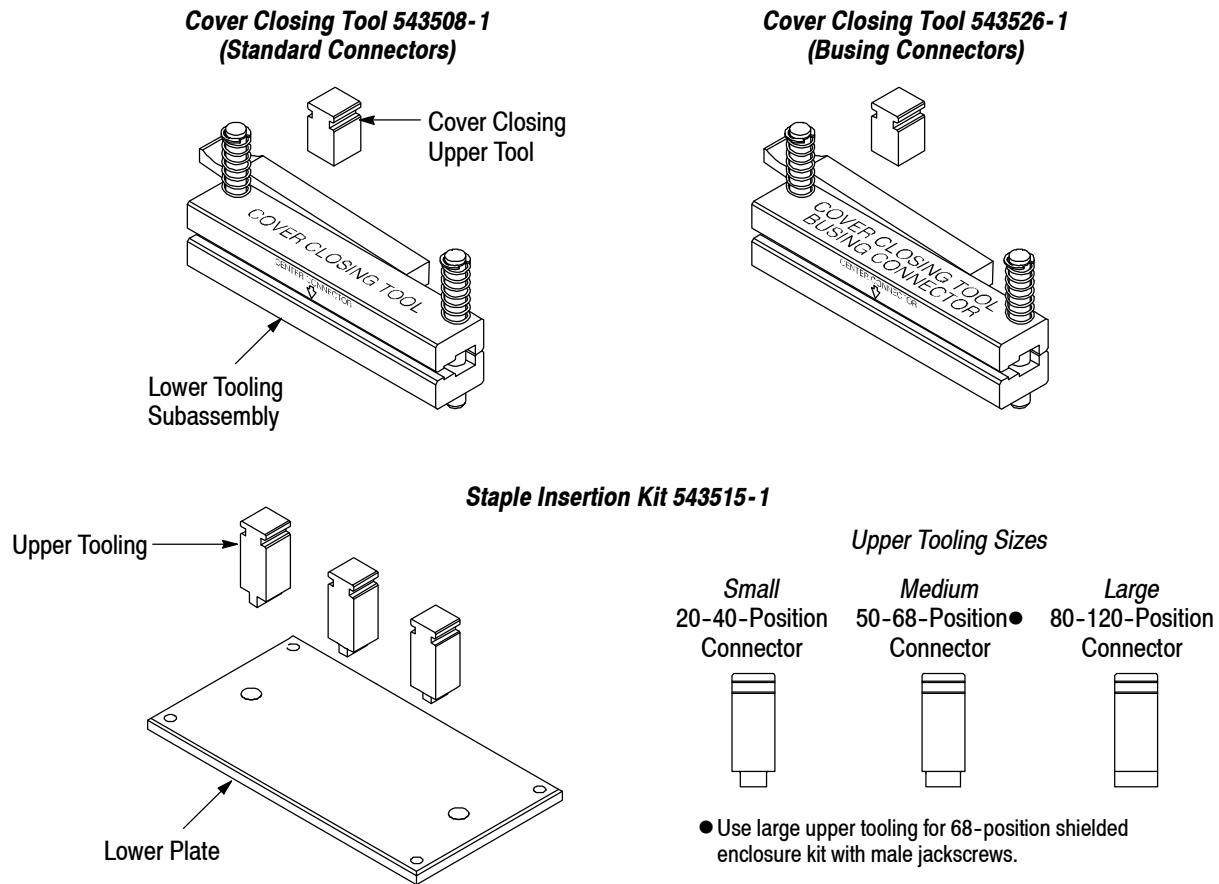


Figure 1

## 1. INTRODUCTION

Cover Closing Tooling Kits 543508-1 and 543526-1 and Staple Insertion Kit 543515-1 are used to terminate AMPLIMITE .050 Series standard plug (reference part number 749621-2) and receptacle (reference part number 749699-4) connectors and busing connectors (reference part number 319361-1) onto a variety of cable types (shielded, round, and jacketed cable, flat ribbon cable, laminated and round-to-flat wire with multiple wire or twisted pair conductors). The standard connector is available in 20 to 120 positions. The busing connector is available in 50 and 68 positions.

### NOTE



For preparation and assembly requirements, refer to Application Specification 114-40029 for the standard connectors and 114-40041 for the busing connectors.

The kits are designed to be used with Manual Miniature Applicator Frame Assembly 91295-1 (408-9817).

### NOTE



Dimensions in this instruction sheet are in metric units [with U.S. customary units in brackets]. Figures are not drawn to scale.

Reasons for reissue of this instruction sheet are provided in Section 5, REVISION SUMMARY.

## 2. DESCRIPTION

Each kit consists of the parts shown in Figure 1. The staple insertion kit includes a small, medium, and large upper tooling.

Two termination covers assist in locating the wires over the insulation displacement contacts of the connector. A metal strain relief staple, which is pressed over the cable and into a corresponding slot in the cable exit of the lower backshell, provides strain relief for the cable as well as grounding continuity for the cable braid to the metal backshell or shields.

### 3. SETUP

#### 3.1. Cover Closing Kit

Set the *shut height* of the manual miniature applicator frame to 47.63 mm [1.875 in.] according to 408-9817, then proceed as follows:

1. Push the cover closing upper tool into the ram tooling adapter. See Figure 2.

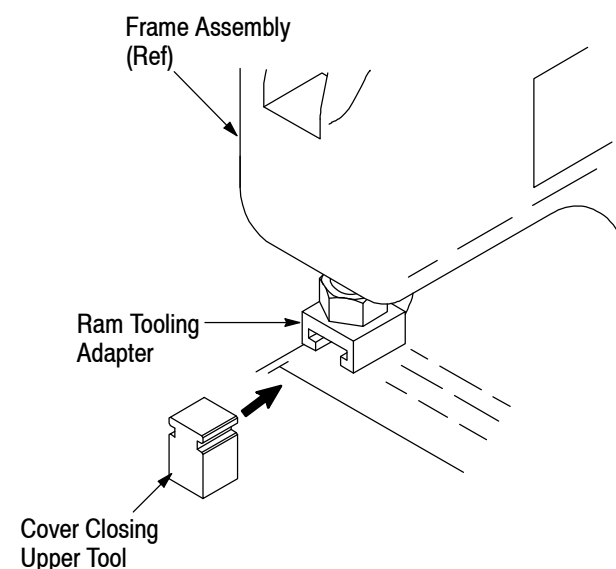


Figure 2

2. Locate the lower tooling subassembly by inserting the pins into the machined base plate. Make sure that the inscription "CENTER CONNECTOR" is facing front. Refer to Figures 1 and 3.

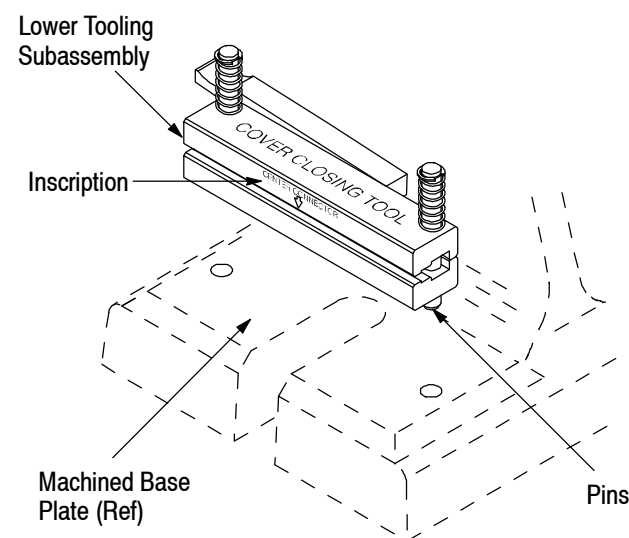


Figure 3

3. Assemble the standard cover or termination covers (with wires) onto the connector assembly and close it partially by hand.

#### NOTE



*If using round-to-flat wire or flat ribbon cable, insert the cable between the cover and contacts and pre-close the covers by hand, clamping the cable in place.*

4. Depress the finger lever (see Figure 4, Detail A) and insert the connector assembly (centered) into the lower tooling assembly between the upper and lower bars (see Figure 4, Detail B). The connector is properly located if the upper and lower termination covers rest on the surfaces indicated in Figure 4, Detail C.

5. Grasp the applicator handle and pull down with a steady firm pressure; the upper tool will touch the upper bar of the lower tooling subassembly. With added firm pressure, the downward movement of the handle is completed when the ratchet releases and the handle is able to return to its original position.

#### 3.2. Staple Insertion Kit

After the closing covers have been seated and the backshell components have been assembled, apply the strain relief staple to the connector assembly as follows:

1. Refer to Figure 5 for the recommended staple insertion depth. For most cables, this depth will be sufficient to provide adequate strain relief. Some smaller diameter cables may require the staple to be inserted deeper in order to obtain the required strain relief. Inserting the staple too deeply will cause breakage of the cable conductors. Not inserting the staple deeply enough will result in inadequate strain relief for the cable.
2. Select the proper upper tooling based on the staple size. See Figure 1.
3. Push the selected upper tool into the ram tooling adapter similar to Figure 2.
4. Locate the lower plate of the staple inserter kit by inserting the pins into the machined base plate similar to Figure 3.
5. Place the connector assembly on the lower plate as shown in Figure 6.
6. Align the strain relief staple into the backshell slot with your fingers.

#### CAUTION



*It is extremely important to ensure that all conductors extending from the strain relief area to the connector assembly are positioned within the sides of the lower backshell. Any conductors extending over the sides of the lower backshell will be pinched, and consequently shorted, when the upper backshell is assembled to the lower backshell.*

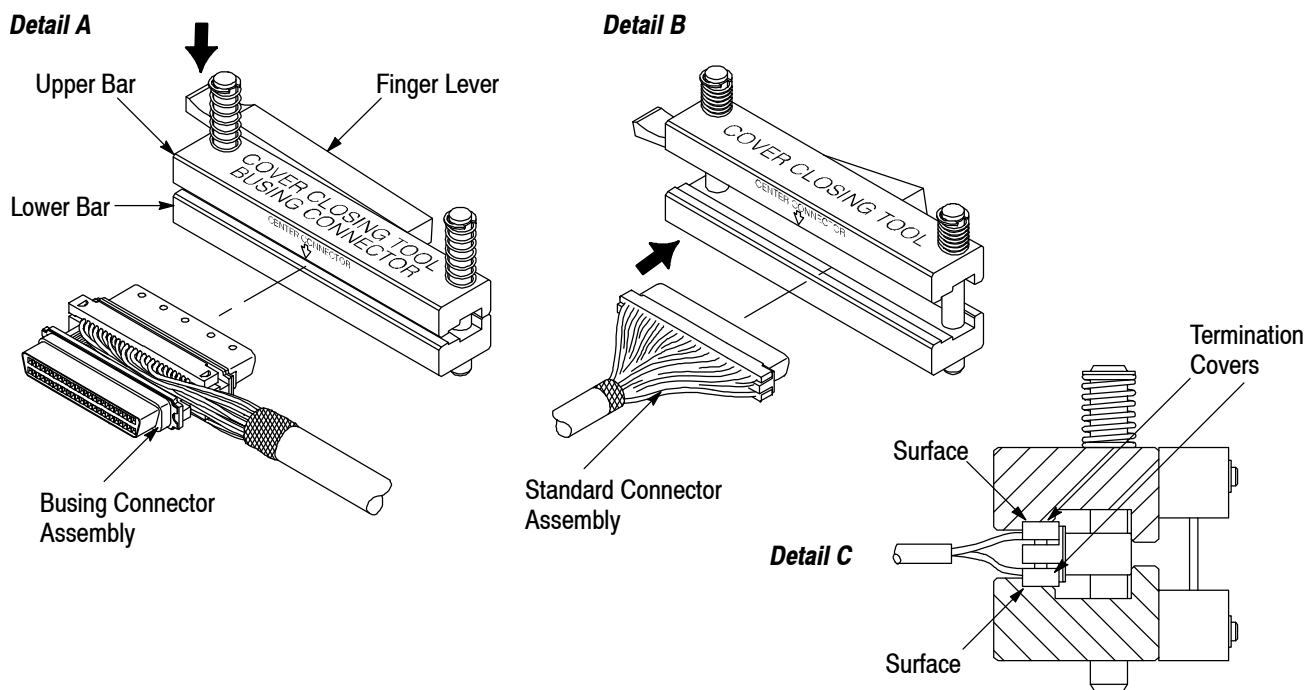


Figure 4

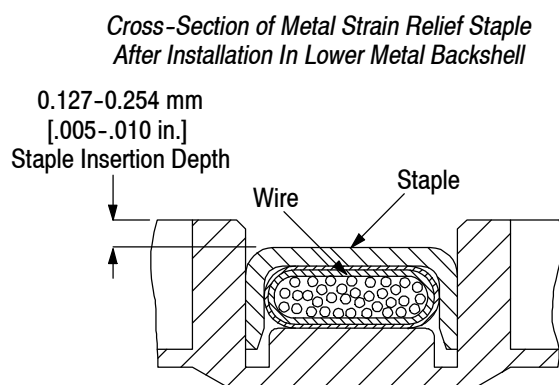


Figure 5

7. Check the staple by grasping the cable behind the staple and by *gently* moving the cable around. Note whether the wires within the backshell remain stationary. If the wires within the backshell move, it will be necessary to press the staple deeper.

#### 4. REPLACEMENT

Order replacement kits through your representative, or call 1-800-526-5142, or send a facsimile of your purchase order to 717-986-7605, or write to:

CUSTOMER SERVICE (038-035)  
TYCO ELECTRONICS CORPORATION  
PO BOX 3608  
HARRISBURG PA 17105-3608

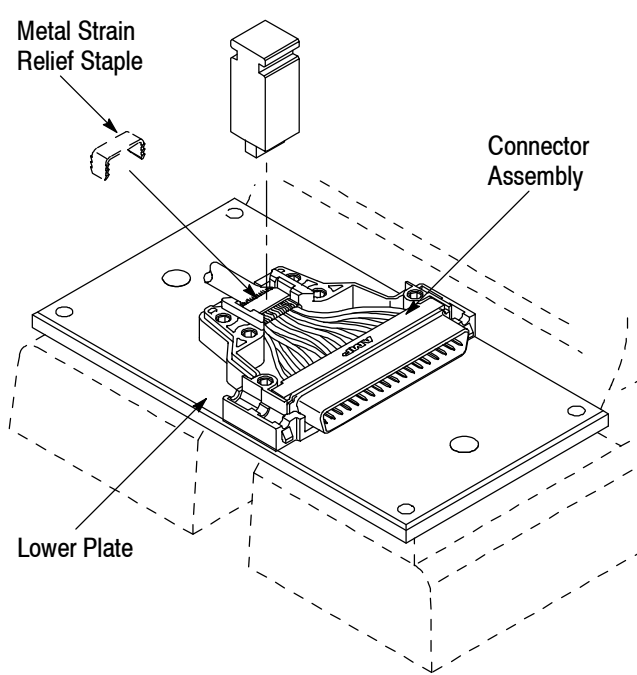


Figure 6

#### 5. REVISION SUMMARY

Revisions to this instruction sheet include:

- Revised document to match document part number revision