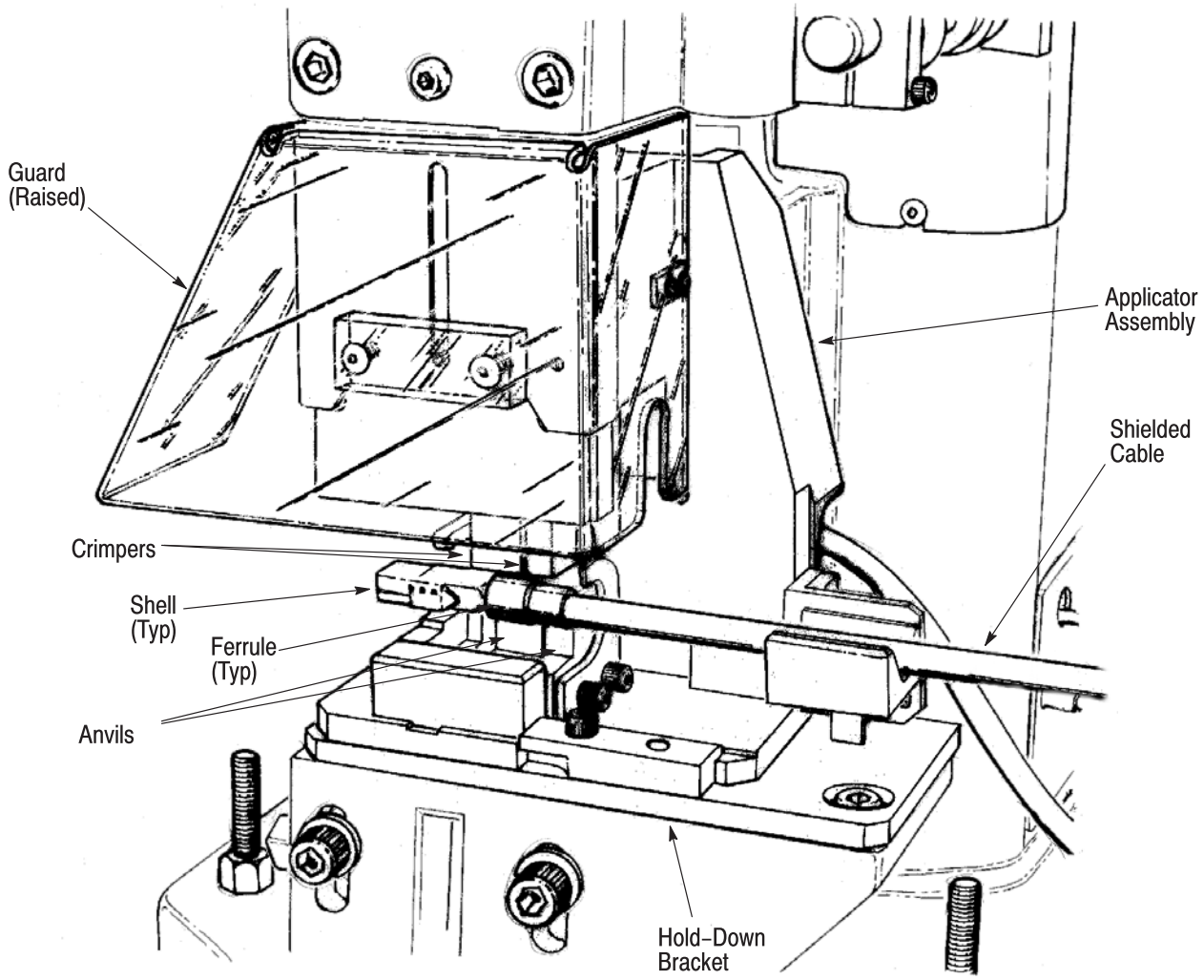

Figure 1

1. INTRODUCTION

These instructions cover applicators that crimp a large variety of straight and right–hand shells onto shielded cables with the use of ferrules as shown in Figure 1.

The applicators are shipped with a die assembly (kit) installed for a particular product as specified by the customer. The applicators can be easily converted to crimp a different ferrule by replacing the die assembly (kit) with another as specified on the applicable parts list (log) supplied with the die assembly, and by following the procedures contained in these instructions.

These applicators are used in modified Model “K” AMP–O–LECTRIC* Terminating Machine 565435–5 as used for miniature quick–change applicators. This instruction sheet, the parts list and assembly drawing packaged with the applicator, and the Customer Manual (409–5128) supplied with the machine, provide all information necessary to operate and maintain the applicator and the machine in which it is installed.

2. DESCRIPTION

Major components of the applicator are identified in Figure 2. For the applicator to be used in the machine, the machine electrical system must be modified by installing an electrical cord that has a connector that will mate with the switch connector on the applicator. For machine operation, the guard must be pulled down to actuate the switch “closed” to complete the machine–footswitch circuit. For normal operation of the machine with the applicator removed, a jumper connector (supplied with the applicator) is used to complete the machine circuit.

Prior to inserting the cable into the applicator for crimping, the ferrule is placed over the end of the jacketed cable, and the outer jacket and braid are stripped back from the end of the conductors to the required length. The braid is then folded back over the outer jacket, and the connector is terminated with the cable conductors. The two shell halves are then placed over the terminated connector, the braid is folded back over the shell cable outlet, and the ferrule is pulled back over the braid. Refer to the applicable Application Specification (114–xxxx) and die assembly parts list (log) for crimp and strip length information.

The prepared cable is placed in the applicator with the ferrule positioned on the anvils and against the ferrule stop. The shell is positioned on the shell support and between the shell locators. The cable is secured on the cable support by the cable retainer spring. The guard is then pulled down to actuate the switch so that the machine can be cycled by depressing the foot switch.

Upon completion of the machine cycle, the guard is raised and the cable assembly is removed from the applicator.

3. APPLICATOR INSTALLATION AND REMOVAL

Before attempting to install or remove the applicator, MAKE SURE that the electrical power to the machine is OFF and the electrical plug is disconnected.

3.1. Installation

1. If the electrical cord with the connector to mate with the applicator was not previously installed on the machine, install the cord as follows:

   a. Open the machine flywheel cover to gain access to the machine wiring. Refer to the wiring diagram in Customer Manual 409–5128.

   b. Remove a knockout in the harness adapter plate on the right side of the machine frame, then insert the terminated end of the electrical cord through the plate and secure the cord with the provided strain relief.

   c. Remove the red wire that runs from the footswitch to the red terminal block, and insert it into a blank terminal block (violet or brown).

   d. Insert the terminal on the white wire of the electrical cord into the same terminal block (violet or brown) with the red wire from the footswitch, and insert the terminal on the black wire into the red terminal block from which the red footswitch wire was removed.

2. If the electrical cord was previously installed, remove the jumper plug from the connector on the machine (if applicable).

3. Place the applicator on the machine base plate, and slide it back into position while engaging the applicator ram post with the machine ram.

4. Secure the applicator to the machine base plate with the hold–down bracket, as shown in Figure 1.

5. Connect the switch connector to the mating connector on the machine.

3.2. Removal

1. Disconnect the switch connector from the machine connector.

2. Remove the hold–down bracket securing the applicator to the machine base plate.

3. Slide the applicator forward to disengage the applicator ram post from the machine ram, then remove the applicator.

4. If the machine is to be used for another purpose, connect the jumper plug (supplied with the applicator) to the connector on the machine.

4. ADJUSTMENTS

4.1. Crimp Height Adjustment

There is no adjustment in the applicator that can be made to correct the crimp height. If the crimp height for a particular ferrule is not as specified, make sure the correct anvils and crimpers are installed, and that the shut–height of the machine has not been changed. If the correct tooling is installed and the machine shut–height is unchanged, repair the crimp height as described in Section 5.

4.2. Shell Locators Adjustment (Figure 2)

The left and right shell locators hold the shell in the center of the shell support while the ferrule is being crimped. If adjustments of either or both locators is necessary, loosen the screw securing each to the support housing and move the locators in or out as required, then tighten the screws.

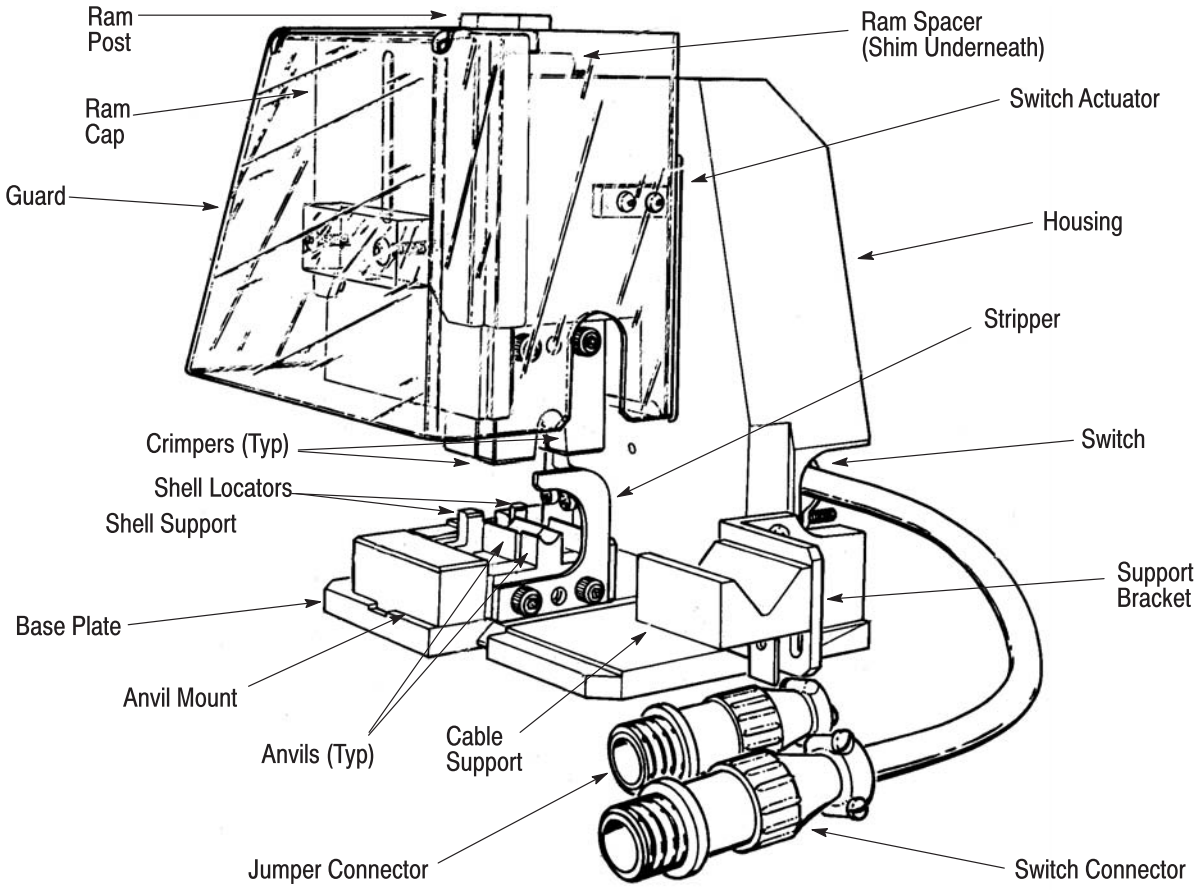

Figure 2

5. REPAIR AND REPLACEMENT

The following procedures cover the applicator parts that most often require repair or replacement because of wear or damage. Items that are indicated on the parts list as recommended spares are the customer's responsibility to stock and replace.

DANGER

Before attempting to make any repairs or replace parts, MAKE SURE that the electrical power to the machine is OFF.

5.1. Crimpers Replacement (Figure 2)

1. Hand–cycle the machine, as described in Customer Manual 409–5128, to partly lower the ram. It is not necessary to remove the applicator from the machine.

2. Raise the applicator guard to gain access.

3. Remove the two screws that secure the crimpers to the applicator ram, and remove the crimpers.

4. Install the replacement crimpers in the reverse order of removal, but do not tighten the screws. Refer to the parts list on the die assembly drawing for correct part numbers of the crimpers for the ferrule to be crimped.

5. If the crimpers are being changed to crimp a different ferrule, also replace the anvils as described in Paragraph 5.2, If not, continue with Step 6.

6. Place a piece of heavy paper over the anvils, then continue to hand–cycle the machine to fully bottom the ram. This will center the crimpers over the anvils.

7. Tighten the two screws to secure the crimpers to the ram.

8. Continue to hand–cycle the machine to return the ram to the fully–raised position, then close the flywheel cover.

5.2. Anvil and Ferrule Stop Replacement (Figure 2)

1. Raise the applicator guard to gain access. It is not necessary to remove the applicator from the machine.

NOTE

When performing the next step, BE CAREFUL to not lose the two springs in the back and under the ferrule stop.

2. Remove the two screws securing the two anvils to the anvil mount. Remove the anvils, ferrule stop, and two springs.

3. Install the replacement anvils and ferrule stop in the reverse order of removal. MAKE SURE that the two springs are properly located when installing the ferrule stop.

4. Loosen the two screws that secure the crimpers to the ram, and perform Steps 6 through 8 of Paragraph 5.1.

5.3. Shell Support Replacement (Figure 2)

1. Raise the applicator guard to gain access.

NOTE

When performing the next step, BE CAREFUL to not lose the spring under the shell support.

2. Remove the two screws securing the support retainer to the support housing. Remove the retainer, support, and spring.

3. Install the replacement shell support in the reverse order of removal. MAKE SURE that the spring is properly located when installing the shell support.

5.4. Crimp Height Repair (Figure 2)

Under the ram spacer on the ram post is a laminated washer that may break or compress, causing the applicator to produce a different crimp height than specified. To correct this problem, perform the following procedure:

1. Subtract the specified crimp height from the average crimp height being produced by the applicator. This dimension will be the thickness of the washer(s) (part no. 690125–1) to be ADDED under the ram spacer.

2. Remove the applicator from the machine as described in Section 3.

3. Remove the crimpers from the applicator ram by removing the two screws, then pull upward on the ram to remove it from the housing.

4. Loosen the setscrew in the side of the ram securing the ram post, then turn the assembly upside–down and secure the ram post in a vise.

5. Unscrew the ram from the ram post, leaving the ram spacer on the ram post.

6. Measure the thickness of the old laminated washer, after remove from the ram post, using a micrometer. ADD this thickness to the thickness determined in Step 1. The total is the thickness required for the new washer.

7. Install the new washer on the ram post, then install the ram. Tighten the ram until snug, then tighten the setscrew to secure the ram post.

8. Remove the ram assembly from the vise and install in the housing.

9. Lubricate the ram as described in Section 6.

10. Install the crimpers on the applicator ram with two screws, but do not tighten the screws.

11. Install the applicator in the machine as described in Section 3.

12. Perform Steps 6 through 8 on Paragraph 5.1 to align the crimpers and anvils.

13. Make some test crimps under power, and measure the crimp heights. If the crimp heights are within specified tolerances, the applicator may be placed into service. If not, repeat this procedure and change the thickness of the laminated washer (Step 6) as necessary.

6. CLEANING AND LUBRICATION

1. Remove the applicator from the machine as described in Section 3.

DANGER

STOP

Compressed air used for cleaning must be reduced to less than 30 psi, and effective chip guarding and personal protective equipment (including eye protection) must be used.

2. Using a clean, dry cloth (or an appropriate type air hose), remove all evidence of dirt and other foreign matter. If desired, the entire applicator may be immersed in a suitable commercial solvent (one that will not affect paint or plastic) to flush out dirt, chips, etc; then dried with an air hose.

3. Lubricate the applicator as described in Paragraph 6.2.

7. PREPARING APPLICATOR FOR STORAGE

1. Remove the applicator from the machine as described in Section 3.

2. Clean and lubricate the applicator as described in Section 6.

3. Bottom the applicator ram and place the applicator in a clean, dry area.

8. REVISION SUMMARY

Since the last release, the format for this document was updated to meet corporate requirements.