

DIE HOLDER ASSEMBLY	CONNECTOR
58449-1	AMPLIMITE*
58449-2†	Shielded Data Link (SDL)
58449-3	AMPLIMITE and SDL

†Obsolete

Figure 1

1. INTRODUCTION

Die Holder Assemblies 58449-1, -2, and -3 are designed to be used with 2700-lb Pneumatic Power Unit 312522-3 to crimp the ferrules of the connectors listed in Figure 1 onto round shielded cable.

Refer to Instruction Sheets 408-9072 (SDL connectors) and 408-9010 (AMPLIMITE connectors) for connector assembly and die assembly selection, and Customer Manual 409-5843 for operating procedure of the pneumatic power unit.



NOTE

All numerical values in this instruction sheet are in metric units [with U.S. customary units in brackets]. Dimensions are in millimeters [and inches]. Figures are not drawn to scale.

Read these instructions and any referenced documents thoroughly before using the die holder assembly.

Reasons for reissue of this instruction sheet are provided in Section 8, REVISION SUMMARY.

2. DESCRIPTION (See Figure 1)

Each die holder assembly consists of two subassemblies: an upper die holder and a lower die holder. A clear plastic guard assembly (not shown) is also provided to protect the operator from possible injury during the crimping operation.

The upper die holder subassembly consists of a die holder, a die holding plate, and a ram adapter. The upper plate is spaced from the ram of the power unit by the ram adapter. The ram adapter is mounted to the ram of the power unit with four socket head cap screws (included with the die holder assembly).

The lower die holder subassembly consists of a die holder, a die holding plate with a guide block, a connector support bracket, and a cable clamp spring.

The subassembly has a slide base which mates with the base plate of the power unit.

3. INSTALLATION OF DIE HOLDER ASSEMBLY



DANGER

Avoid personal injury. Air supply to the pneumatic power unit must be turned OFF before starting installation procedure.

Select the appropriate die holder assembly and proceed as follows:

3.1. Lower Die Holder Subassembly (See Figure 2)

1. Loosen the screw securing the tool stop to the base plate of the power unit.
2. Install the lower die holder subassembly onto the base plate of the power unit, making sure that the handle is positioned toward the left side of the power unit.
3. Tighten the screw securing the tool stop to the base plate.

3.2. Upper Die Holder Subassembly (See Figure 2)

1. Mount the ram adapter to the mounting surface of the ram, making sure that the guide pins are positioned away from the front of the power unit.
2. Secure the ram adapter to the ram with the four socket head cap screws provided with the die holder assembly.



NOTE

The socket head cap screws must be loose enough to allow the tooling to move on the ram when the upper die holder is engaged with the lower die holder.

3. Slide the lower die holder subassembly under the ram until the subassembly is against the tool stop of the base plate.



NOTE

The pins of the upper die holding plate must be aligned with the locating holes of the guide block.

4. Lower the ram to engage the upper die holder subassembly with the lower die holder subassembly.

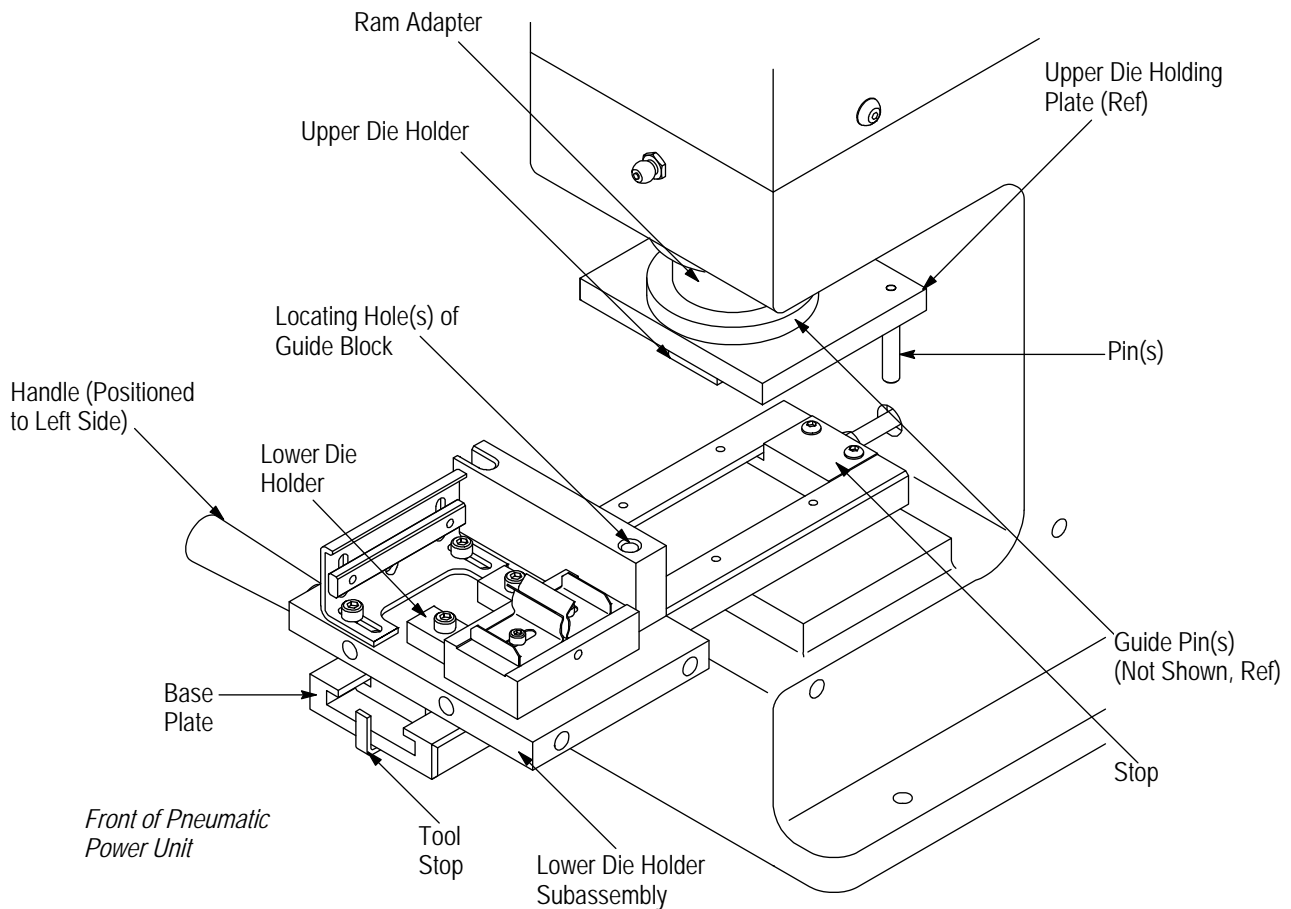


Figure 2

5. Secure the ram adapter to the ram by tightening the four socket head cap screws (installed in Step 2).

6. Connect the air supply to raise the ram.



NOTE

If the locating holes in the guide block do not line up with the pins in the upper die holder subassembly, loosen the screws securing the lower subassembly to the base plate of the power unit. Re-adjust the tooling so that the locating holes and pins are properly aligned; then re-tighten the screws to secure the lower subassembly to the base plate of the power unit. Make sure the lower subassembly is against the stop before securing the screws.

4. DIE ASSEMBLY INSTALLATION AND REMOVAL (See Figure 3)

4.1. Installation

Select the appropriate die assembly referenced on the instruction sheet for the connector, then proceed as follows:



DANGER

Make certain that the air supply to the power unit is turned OFF before installing the die assembly.

1. Slide the lower die holding plate out from under the ram.

Lower Die Holder Subassembly

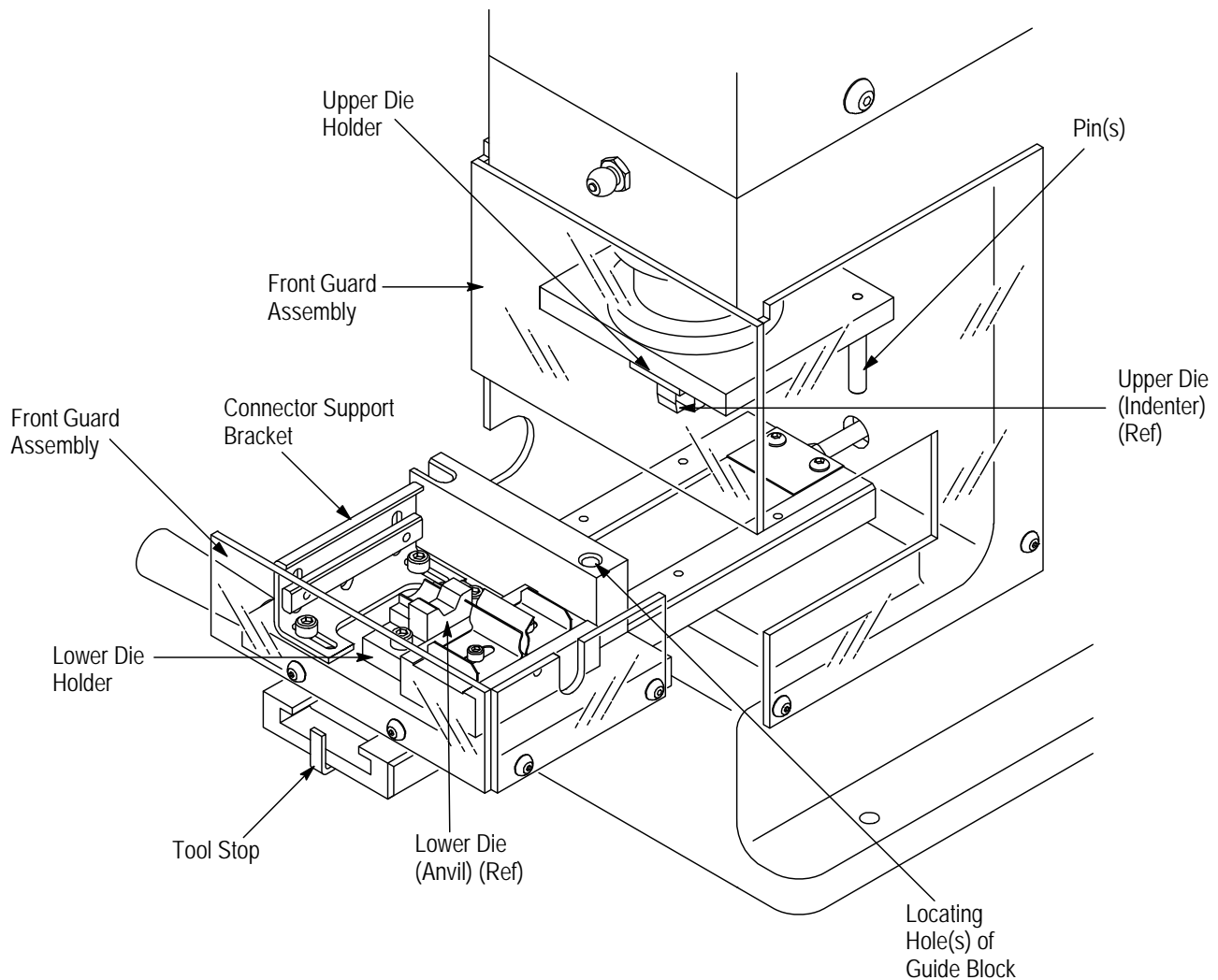


Figure 3

2. Install the upper die (indenter) into the upper die holder and secure it with the cap screw provided with the die assembly.



NOTE

This screw can be accessed using the .19-in. diameter hole on the left side of the fixed guard.

3. Install the lower die (anvil) into the lower die holder and partially secure it with the cap screw provided with the die assembly.



NOTE

The cap screw can be accessed using the slot on the left side of the connector support bracket.

4. Slide the lower subassembly under the ram and against the stop on the base plate.



NOTE

The pins in the upper plate should be aligned with the locating holes in the guide block. Refer to Figure 1.

5. Lower the ram to engage the upper die holder subassembly with the lower die holder subassembly. Tighten the lower die assembly cap screw.

6. Install the plastic guard assembly onto power unit using the six button head cap screws provided with the die holder assembly.



DANGER

DO NOT operate the power unit unless the guard assembly is properly installed.

7. Connect the air supply to raise the ram.

8. After the ram has reached its uppermost position, the power unit will re-cycle. The power unit is ready to operate when the cycle is complete.

4.2. Removal

1. DISCONNECT the power unit from the air supply.

2. Using a hex wrench, remove the cap screw from each die; then lift the die assembly out from the die holding plates.

3. Re-install the cap screws into each die component and mate and place the die assembly in a suitable container. Store it in a clean dry area.

5. TOOLING ADJUSTMENTS AND CONVERSIONS (Refer To Figure 1)

The following adjustments may be required if the connector or cable sizes change.

5.1. Cable Clamp Springs

The cable clamp springs can be adjusted for various cable diameters. Loosen the cap screw and re-position the cable clamp springs.

5.2. Connector Support Bracket

The connector support bracket can be adjusted for

various connector sizes. Loosen the screws which secure the bracket to the lower plate. Slide the bracket to the appropriate position; then secure the screws.

5.3. Lower Connector Support

The lower connector support can be adjusted for various connector heights. Loosen the screw which secures the connector support to the bracket; then re-adjust the support.

5.4. Die Holder Assembly Conversion (For Assembly 58449-3 Only) (See Figure 4)

1. Remove the upper and lower die holders used for the AMPLIMITE connector.

2. Install the lower die holder used for the SDL connector onto the lower tooling assembly; locate it against the clamping block and align it with the tapped hole using the alignment gage. Secure the die holder to the lower tooling assembly.

3. Assemble the locator to the upper die holder used for the SDL connector using two 8-32 screws.

4. Assemble the upper die holder to the upper tooling assembly. Align the upper die holder with the lower die holder using the alignment gage. Secure the upper die holder to the upper tooling assembly.

5. Remove the alignment gage, and install the appropriate die assembly used for the SDL connector as described in Section 4, DIE ASSEMBLY INSTALLATION AND REMOVAL.

6. CRIMPING PROCEDURE

1. Slide the lower die holder out from under the ram of power unit.

2. With the ferrule properly positioned on the connector (cable assembly), position the ferrule in the "target area" of the die assembly. Allow the front of the connector shell to rest in the slot of the connector support bracket of the die holder subassembly.

3. Position the cable into the cable clamp springs.

4. Slide the lower die holder subassembly back against the stop. The lower die holder should be aligned with the upper die holder.



NOTE

The ram will automatically lower when lower die holder is positioned against stop.

5. After the ram has retracted to the upright position, slide the lower die holder subassembly out from under the ram and remove the crimped connector assembly. Check the crimp height of the connector assembly to ensure that the dimensions conform to the termination requirements.



NOTE

Various cable jacket insulation diameters may affect the crimp height dimension. If different cable manufacturers are used, check the crimp height after each termination.

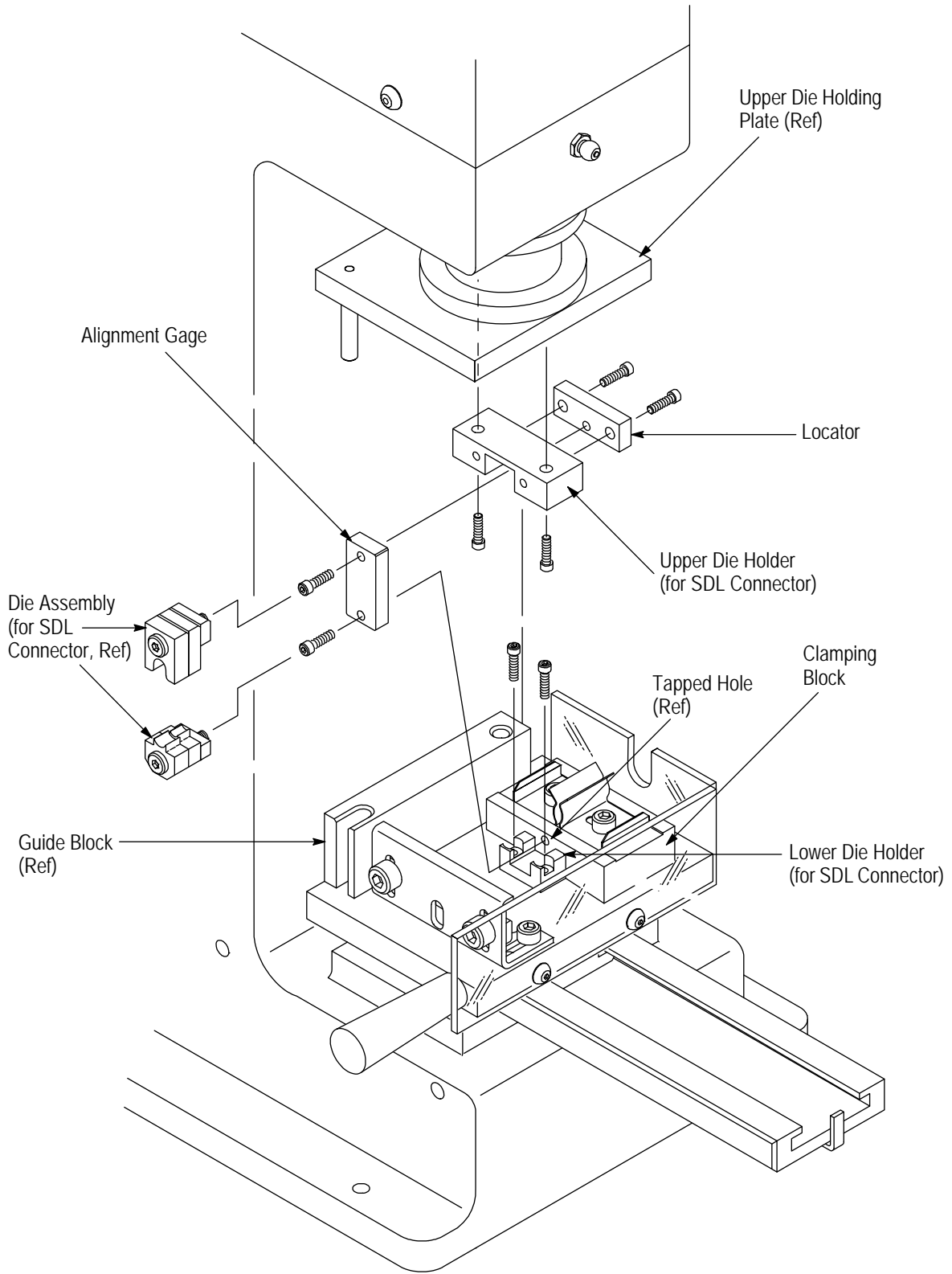


Figure 4

7. MAINTENANCE AND INSPECTION

It is recommended that a maintenance and inspection program be performed periodically to ensure dependable and uniform terminations. Frequency of inspection should be adjusted to suit your requirements through experience.

Frequency of inspection is dependent upon:

1. The care, amount of use, and handling of the die holder assemblies.
2. The degree of operator skill.
3. The presence of abnormal amounts of dust and dirt.
4. Your own established standards.

7.1. Daily Maintenance

For optimum tool performance and minimum downtime, it is recommended that the following steps of daily maintenance be performed.

1. Remove dust, moisture, and other contaminants with a clean brush, or a soft, lint-free cloth. **DO NOT** use objects that could damage the die holder assembly or dies.
2. Make sure upper and lower die holder subassemblies, cable clamp springs, and guide block are in place and properly secured.
3. When the die holder assembly is not in use, store it in a clean, dry area.

7.2. Periodic Inspection

Regular inspections should be performed by quality control personnel. A record of scheduled inspections should remain with the die holder assembly and/or be supplied to personnel responsible for the tooling. These inspections should be performed in the following sequence:

1. Remove all lubrication and accumulated film with a suitable commercial degreaser that will not affect paint or plastic material.

2. Make sure all die holding screws and assembly components are in place. If replacements are necessary, refer to Section 8, REPLACEMENT AND REPAIR.

3. Inspect the crimp area of the dies for flattened, chipped, cracked, worn, or broken areas. If damage is evident, refer to Section 8, REPLACEMENT AND REPAIR.

8. REPLACEMENT AND REPAIR (See Figure 5)

Customer-replaceable parts are listed in Figure 5.

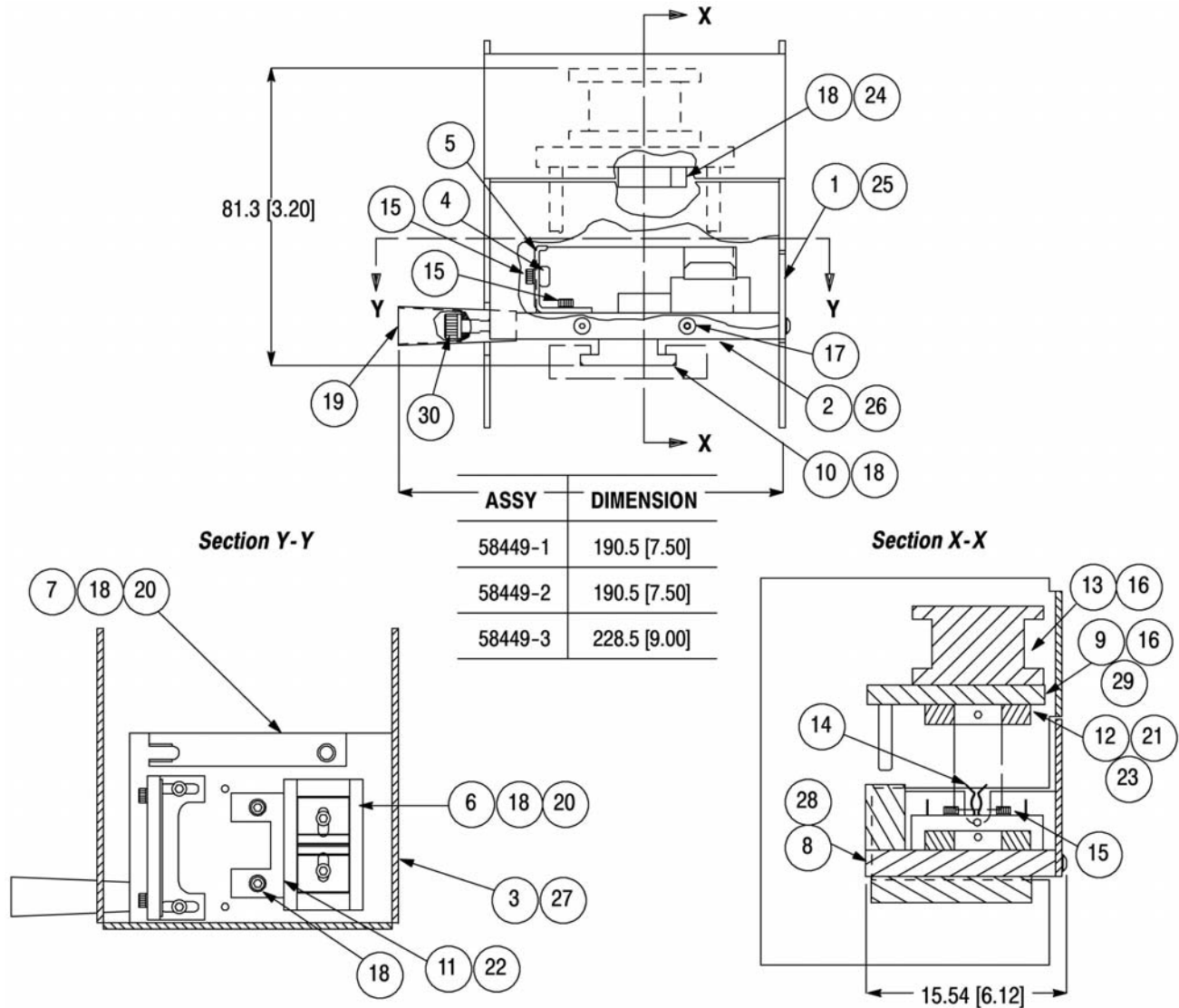
A complete inventory should be stocked and controlled to prevent lost time when replacement of parts is necessary. Parts other than those listed should be replaced by TE Connectivity to ensure quality and reliability. Order replacement parts through your representative, or call 1-800-526-5142, or send 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

For customer repair service, call 1-800-526-5136.

9. REVISION SUMMARY

- Updated document to corporate requirements
- Made indication that 58449-2 is obsolete in table in Figure 1
- New company logo



REPLACEMENT PARTS

ITEM	PART NO.	DESCRIPTION	QTY PER ASSEMBLY		
			58449-1	58449-2	58449-3
1	314679-1	GUARD, Right	1	1	---
2	314680-1	GUARD, Front	1	1	---
3	314681-1	GUARD, Fixed	1	1	---
4	314682-1	SUPPORT, Lower	1	1	1
5	314683-1	BRACKET, Support	1	1	1
6	314684-1	BLOCK, Clamping	1	1	1
7	314685-1	BLOCK, Guide	1	1	1
8	314686-1	PLATE, Lower	1	1	---
9	314687-1	PLATE, Upper	1	1	---
10	543154-1	SLIDE, Base	1	1	1

Figure 5 (Cont'd)

REPLACEMENT PARTS

ITEM	PART NO.	DESCRIPTION	QTY PER ASSEMBLY		
			58449-1	58449-2	58449-3
11	313185-1	DIE HOLDER	1	---	1
12	313185-2	DIE HOLDER	1	---	1
13	313186-1	RAM ADAPTER	1	1	1
14	543156-1	SPRING, Cable Clamp	2	2	2
15	2-21000-5-	SCREW, Shoulder Head Cap, 8-32.25 in.	6	6	6
16	2-21000-0-	SCREW, Shoulder Head Cap, 6-32.50 in.	8	8	8
17	2-21002-1-	SCREW, Button Head Cap, 8-32.38 in.	10	10	10
18	2-21000-8-	SCREW, Shoulder Head Cap, 8-32.62 in.	8	10	10
19	027962-1	HANDLE, Tapered	1	1	1
20	021055-5	WASHER, Plain, 8	4	4	4
21	2-21000-7	SCREW, Shoulder Head Cap, 8-32.50 in.	2	2	2
22	314690-1	LOWER DIE HOLDER	---	1	1
23	314689-1	UPPER DIE HOLDER	---	1	1
24	314688-1	LOCATOR	---	1	1
25	854866-1	GUARD, Right	---	1	1
26	314680-2	GUARD, Front	---	---	1
27	314692-1	GUARD, Fixed	---	---	1
28	854885-1	PLATE, Lower	---	---	1
29	854884-1	PLATE, Upper	---	---	1
30	021001-5	SCREW, Shoulder Head Cap, 1/4-20.875 in.	1	1	1
Not Shown	854923-1	GAGE, Alignment	---	---	1
Not Shown	854923-2	GAGE, Alignment	---	---	1

Figure 5 (End)