

**Manual Press with Micro-D Backshell Crimp Tool Kit
25 Circuit
Instruction Manual
Order No. 62202-0000
For Micro-D Backshell Assembly 83424-9014**

- Description
- Operation
- Maintenance

WARNING

- NEVER USE THIS PRESS WITHOUT SAFETY DEVICES THAT ARE INTENDED TO PREVENT HANDS FROM REMAINING IN THE CRIMPING AREA.**
- NEVER OPERATE, SERVICE, OR ADJUST THIS PRESS OR INSTALL CRIMP DIES WITHOUT PROPER INSTRUCTION AND WITHOUT FIRST READING AND UNDERSTANDING THE INSTRUCTIONS IN THIS MANUAL.**
- CAUTION MOLEX CRIMP SPECIFICATIONS ARE VALID ONLY WHEN USED WITH MOLEX TERMINALS AND TOOLING.**

WORK SAFELY AT ALL TIMES

**For Service, Contact Your
Local Molex Sales Office**

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Table of Contents

SECTION

- 1 General Description
- 2 Installation
- 3 Setup - Operation
- 4 Maintenance and Troubleshooting
- 5 Parts List, Assembly Drawings

Section 1

General Description

- 1.1. Description
- 1.2. Features
- 1.3. Technical Specifications
- 1.4. Delivery Check
- 1.5. Tools

General Description

Depth 267mm (10.50")
 Unpacked weight 23.2kg (50.5 lbs)

1.1 Description

The 62202-0000 is the Complete Manual Press and with the Tool Kit Assembly. The 62202-0100 Tool Kit is used in the Molex Standard Assembly Press Order No. 11-31-6356 (AM60026-50). They are designed to crimp a Micro-D Backshell Kit (Order No. 83424-9014) onto a contact and terminal assembly. The contacts are first crimped to the cable's conductors using a Molex hand tool (Order No. 63820-7800) or a Fine-Adjust Applicator (Order No. 63800-7800). The contacts are then inserted into the insulator subassembly. This assembly is then placed into the Backshell subassembly then placed into the die in the press. The press is manually operated to close the Backshell and crimp it to the cable.

1.2 Features

- Press and tooling is easily portable.
- Modular tooling is quickly installed into the Molex Standard Assembly Press 11-31-6356 (AM60026-50).
- Easily setup for left or right hand operation.
- Manually operated, no shop air or electricity required.
- Full cycle ratchet assures complete crimp.

1.3 Technical Specifications

Dimensions	Press with tooling
Height	533mm (21.00")
Width	152mm (6.00")

Production Rate

300 terminations per hour maximum, depending on operator skill and wire length.

1.4 Delivery Check

The following items are included in this package :

<u>Decription:</u>	<u>Quantity</u>
Molex Standard Assembly Press 11-31-6356 (AM60026-50)	1
Tooling Kit 62202-0100	1
Instruction Manual 62202-0000	1

1.5 Tools

The following tools are recommended for setup and adjustments to the this tool.

- ✓ Metric hex wrench set
- ✓ Small standard screwdriver
- ✓ Adjustable wrench
- ✓ Needle nose pliers
- ✓ Crimp micrometer
- ✓ Eye loupe (10x)
- ✓ Wire stripper/cutter
- ✓ English hex wrench set for some non-metric tools.

Section 2

Installation

- 2.1. Instalation
- 2.2. Set-Up
- 2.3. Operation

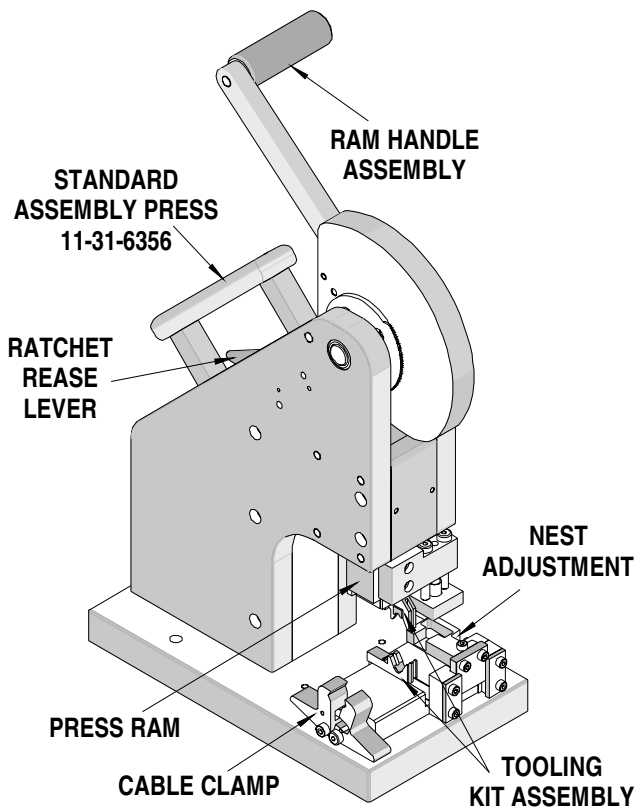


Figure 2-1

2.1 Installation

CAUTION: Never put hands or loose clothing near the moving parts of this press.

The Molex Standard Assembly Press 11-31-6356 (AM60026-50) comes with the Tool Kit already installed. See Figure 2-1. If the 62202-0100 Tooling Kit is not installed in the Press, follow the steps below:

1. Loosen the (2) M4 X 16 long BHCS on the Upper Guide Block attached to the front of the Tooling Holder.
2. Slide the upper tooling assembly up into the press ram as far as it will go.

NOTE: Lowering the press ram slightly may assist in installing the upper tooling.

3. Push the latch on the back of the tooling holder backwards (away from the operator) about 3.0mm (1/8"). The upper tooling will now slide up onto the press ram an additional 4.0mm.

CAUTION: Pushing the lever back too far can damage the return spring.

4. Release the latch.
5. Tighten the (2) M4 X 16 BHCS in the Upper Guide Block. The upper tooling is now securely in place on the press. See Figure 2-2.

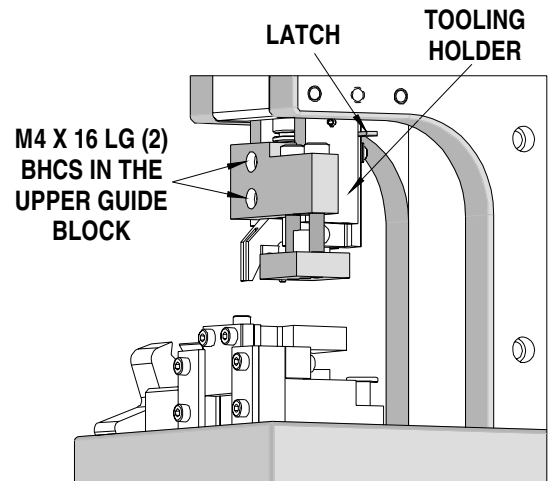


Figure 2-2

6. Mount the lower tooling assembly on the press base plate by sliding it under the two (2) spring loaded screws on the press base. Do not tighten the screws at this time. See Figure 2-1.
7. Slowly lower the upper tooling by using the press handle.
8. Move the lower tooling assembly into position as the upper and lower tooling come together. When the upper and lower tooling are aligned and completely together, and the ram is in the fully down position, tighten the two spring loaded screws.
9. Return the ram to the upper position.
10. To secure the press, use a bench capable of supporting at least 150 pounds, with adequate lighting for easy operation. There are two (2) holes for 5/16" screws provided in the press base for fastening the press to the workbench.

Warning: Once the press ram handle has started to descend, it cannot be returned to the up position until the full stroke of the press has been completed. In case of a jam or some other problem, should the press ram ever need to be returned to the up

position, before completing the full stroke, pull up on the ratchet release lever and raise the press ram handle. The ratchet release lever is located on the upper left side of the press frame. See Figure 2-3.

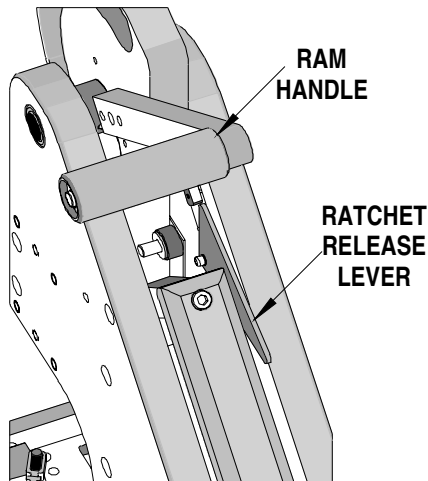


Figure 2-3

2.2 Set Up

Ram Stroke Adjustment

1. Loosen the #8-32 set screw in the Ram which locks the Ram Adjusting Screw into place. See Figure 2-4.

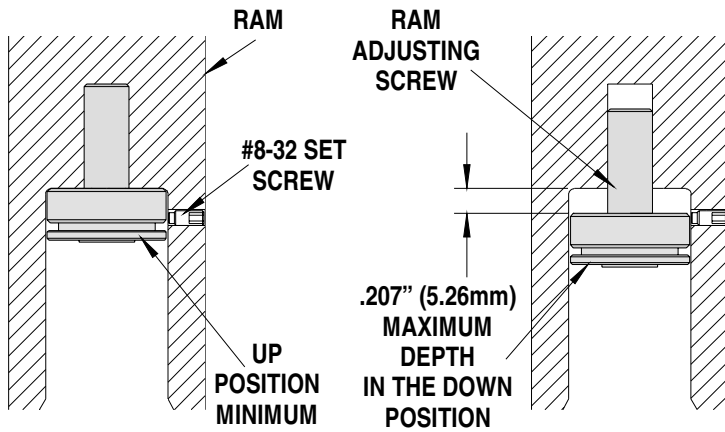


Figure 2-4

2. Loosen the (2) M4 X 16 long BHCS on the Upper Guide Block attached to the front of the Tooling Holder.
3. There is an indicator engraved on the ram just above the Ram Adjusting Screw. Turn the Ram Adjusting Screw clockwise (CW) toward the "+" sign to increase the ram stroke. To decrease the stroke, turn the Ram Adjusting Screw counterclockwise (CCW) toward the "-" sign.

Stroke adjustment controls the shut height of the connector assembly. See Figure 2-5.

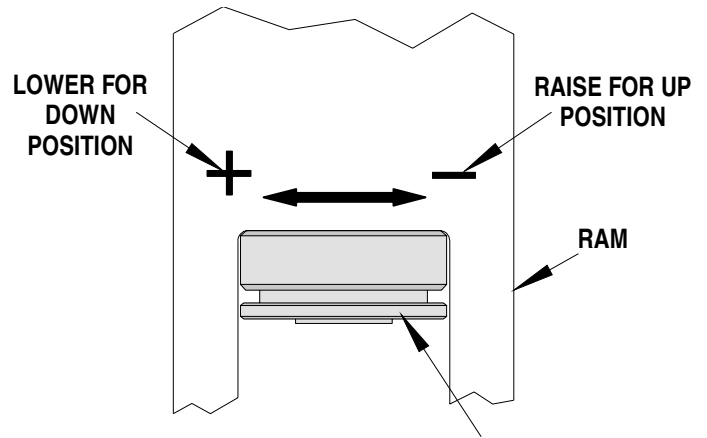


Figure 2-5

RAM ADJUSTING

4. The stroke should be set when the press ram is in the down position and the crimp die surfaces "A" & "B" (See Figure 2.6) should be just touching. A gap between these surfaces will result in a larger crimp diameter and therefore lower pullout retention. See Product Specifications, PS-83421-9000 for related information.
5. Once the correct stroke is set, tighten the #8-32 set screw.
6. Tighten the (2) M4 X 16 long BHCS on the Upper Guide Block.

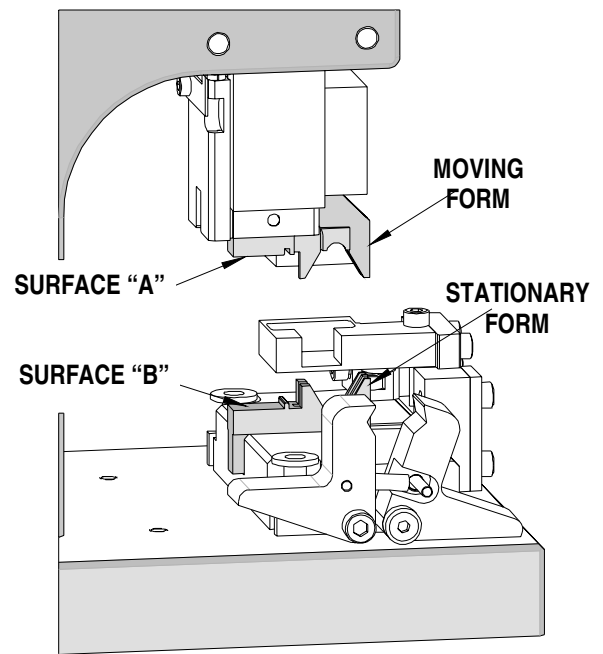


Figure 2-6

Nest Adjustment Stop

The Nest Adjustment assembly can be adjusted to insure the crimp tines are in the proper position in the crimp die forms. See Figure 2-7.

1. Loosen the M4 x 16 long BHCS that holds the Nest Adjustment assembly in place.
2. Move the Nest Adjustment assembly to the desired position.
3. When the Nest Adjustment assembly in the correct position, tighten the M4 x 16 long BHSC.

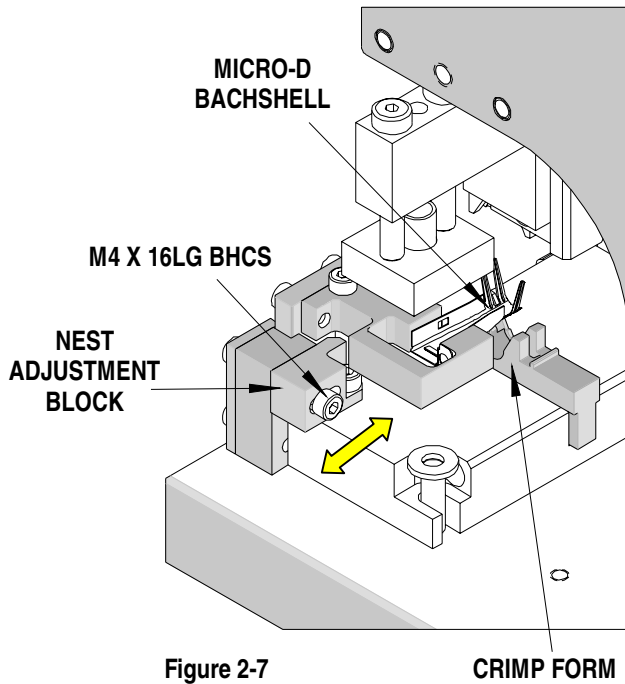


Figure 2-7

CRIMP FORM

2.3 Operation

Cable Preparation

Before the Micro-D Backshell can be crimped onto the cable and insulator assembly the cable must be prepared as follows:

Step 1

1. Slide the rubber boot over the cable jacket.
2. Slide a crimp ring over the cable jacket.
3. Braided shield folds back over crimp ring.
4. Trim the cable jacket and braided shield to the dimensions shown in Figure 2-8.
5. See the Engineering Drawing E-83421-001 for preparation of conductors stripping for crimping of terminals.

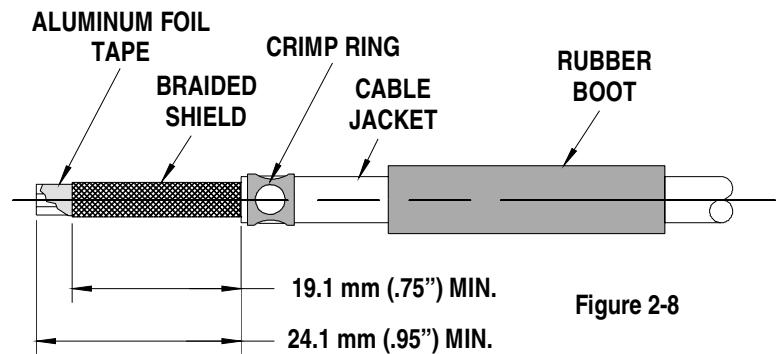


Figure 2-8

Step 2

1. Slide the crimp ring up to the end of the cable jacket.
2. Fold the braid back over the crimp ring, distribute evenly, and place adhesive tape 360° around it.
3. Trim the aluminum foil and the fillers back to the braided shield.
4. Strip the inner and outer insulation of the conductors to dimensions shown in Figure 2-9.
5. Crimp the contacts as shown and load into insulator.
6. Load the insulator into the Backshell Sub-Assembly and crimp. See Drawing No. E-83421-002 for additional information.

Note: Be sure to orientate the hole of crimp ring to mate with the dimple in the Backshell to retain cable.

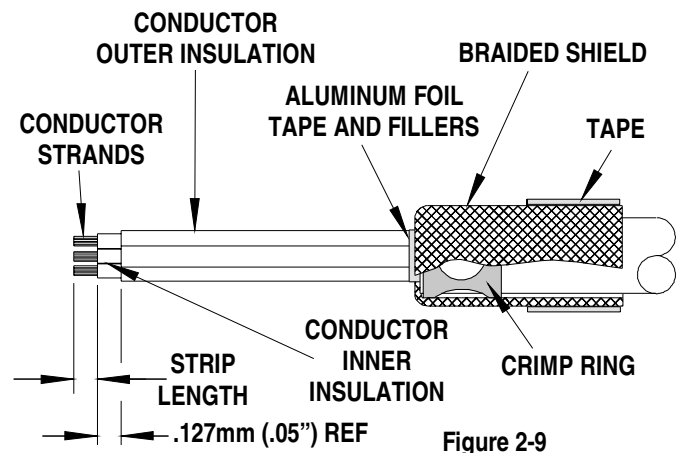
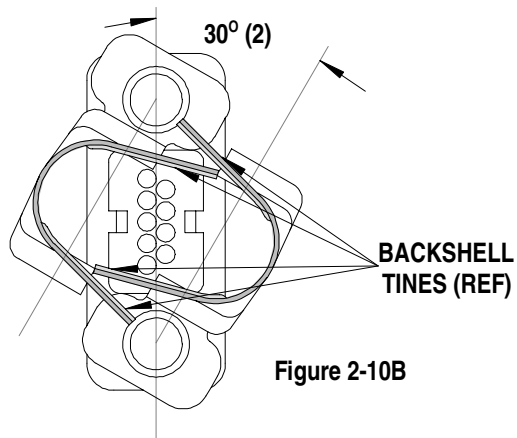
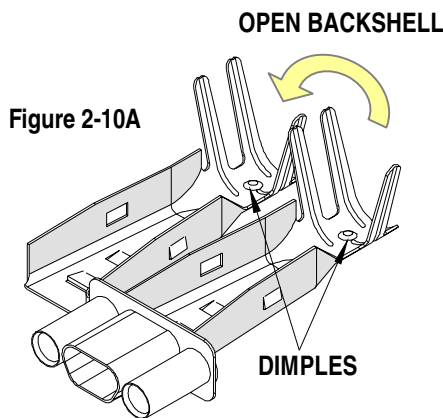


Figure 2-9

Press Operation

1. Open the Backshell Sub-Assembly by pivoting one half as shown in Figure 2-10A.

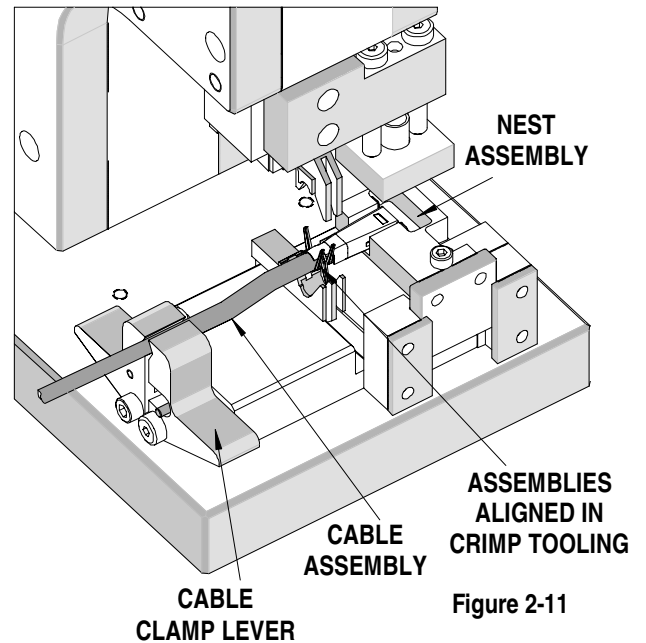
2. Install the completed insulator and cable assembly into the Backshell. Make sure the holes in the crimp ring will be aligned with the dimples in the Backshell.
3. Fold the Backshell halves closed making sure the holes and dimples align. In order to prevent the crimp tines from tangling and becoming bent or damaged, it is necessary to rotate the both halves of the Backshell Sub-Assembly approximately 30° to allow simultaneous closing without tine interference. After closing it is recommended that the tines be closed by hand to parallel for easier crimping. See Figure 2-10B.



CAUTION: Make sure the cable assembly is pushed all the way forward into the front shell so that it is retained by the Backshell after crimping.

4. With the press ram in the up position, place the cable assembly and Backshell Sub-Assembly into the lower crimp tooling making sure it is pushed up to the Nest Adjustment stop. See Figure 2-11.

5. Press down on the lever on the front half of the cable clamp and place the cable in the groove provided in the clamp.
6. Release the front clamp.
7. Manually cycle the press by pulling the press lever forward and down. This crimps the Backshell tines.



Warning: Once the press ram handle has started to descend, it cannot be returned to the up position until the full stroke of the press has been completed. In case of a jam or some other problem, should the press ram ever need to be returned to the up position, before completing the full stroke, pull up on the ratchet release lever and raise the press ram handle. The ratchet release lever is located on the upper left side of the press frame. See Figure 2-3.

8. Raise the press ram.
9. Hold the cable clamp open and remove the crimped cable and Backshell assembly.

Section 3

Maintenance

- 3.1. Cleaning
- 3.2. Lubrication
- 3.3. Perishable Parts
- 3.4. Spare Parts
- 3.5. Troubleshooting

3.1 Cleaning

For efficient operation, the Micro-D Backshell crimping tool should be cleaned daily. Use a soft bristle brush to remove debris from critical areas such as the crimp tooling. For best results, remove the crimp forms from the press. Brush and then use a clean cloth to wipe off the upper and lower tooling mounting areas. Before reinstalling tooling, wipe all sides of the forms with a clean cloth.

See Chart 3.1 for recommended Preventive Maintenance Schedule.

NOTE: Using compressed air to clean tooling is *not* recommended. Chips can wedge in the tooling and/or fly at an operator.

3.2 Lubrication

1. Grease the ram including the up and down stroke feed arm.
2. Oil all moving parts of the press.
3. Lubricate with multipurpose synthetic lubricant with Teflon or an equivalent. Molex ships its presses pre-greased with Permatex multi-purpose synthetic grease with Teflon No. 82329. A SAE 30WT non-detergent oil or light spindle oil or 3-n-1 oil should be used on pivot points.

WARNING: Never use penetrants such as WD40 for any lubrication on the machine.

4. Lubricate all points shown in Figures 3-1 with the specified oil and grease (or equivalent).

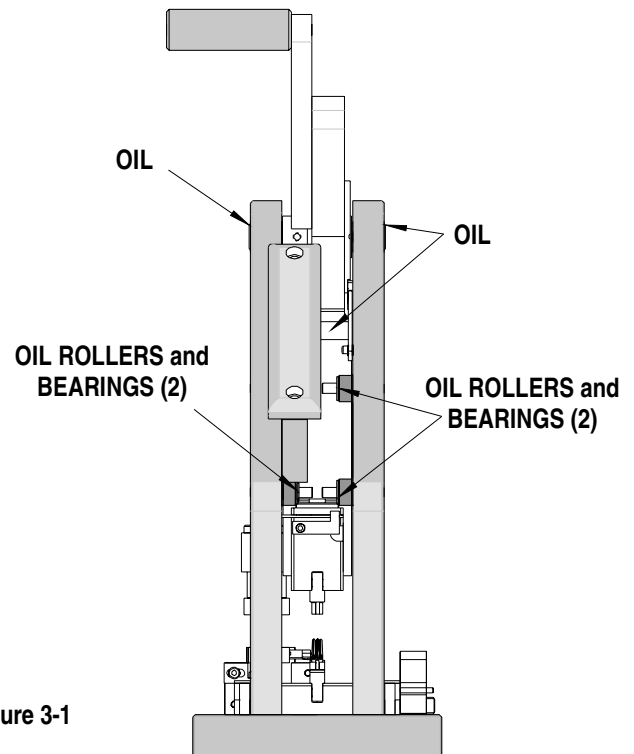
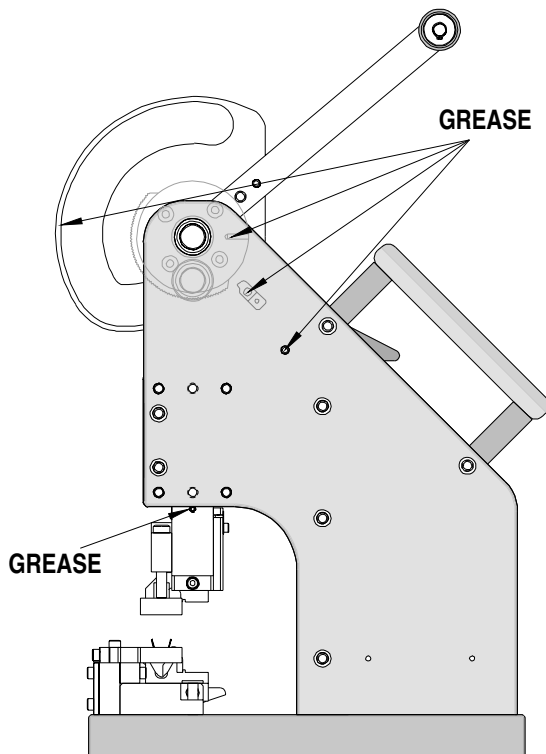


Figure 3-1

An example of a maintenance chart is shown below. Copy and use this chart to track the maintenance of your Press or use this as a template to create you own schedule or use your company’s standard chart, if applicable.

Preventive Maintenance Chart

Daily: Clean. See Section 3.1.

As Required: Lubricate. See Section 3.2.

CHECK SHEET MONTH _____ YEAR _____

Week	Daily Clean	Days of the Week							Solution
		MON	TUE	WED	THU	FRI	SAT	SUN	
1									
2									
3									
4									
Cleaning Reapply greasing Reapply oil	Yes								Soft Brush Industrial Degreaser
Inspect all tooling for wear	Yes								Replace if signs of wear.

Schedule should be adjusted up or down depending on usage. Molex recommends that a log of preventive maintenance be kept with the press.

3.3 Perishable Parts

Customers are responsible for maintaining the Complete Manual Press and with the Tool Kit Assembly. Perishable parts are those parts that come in contact with the product and will wear out over time. Molex recommends that all customers keep at least one set of the perishable tool kit in stock at all times. This will reduce the amount of production down time. **For the proper perishable tool kit information, refer to the Crimp Tooling Specification Sheet supplied with the Press.**

3.4 Spare Parts

Customers are responsible for maintaining the Complete Manual Press and with the Tool Kit Assembly. Spare parts are available. Moving and functioning parts can be damaged or wear out over time and will require replacement. Molex recommends that the customer keep some or all of them in stock to reduce production down time. These parts are identified in the Parts List. See Section 4.

3.5. Troubleshooting

Symptom	Cause	Solution
Backshell not crimping correctly	Ram stroke not set correctly	See Ram Stroke Adjustment See Set-Up. Section 2.2
Press lever will not release.	Press ram stroke set too long. (Ram comes down too far).	See Ram Stroke Adjustment See Set-Up. Section 2.2

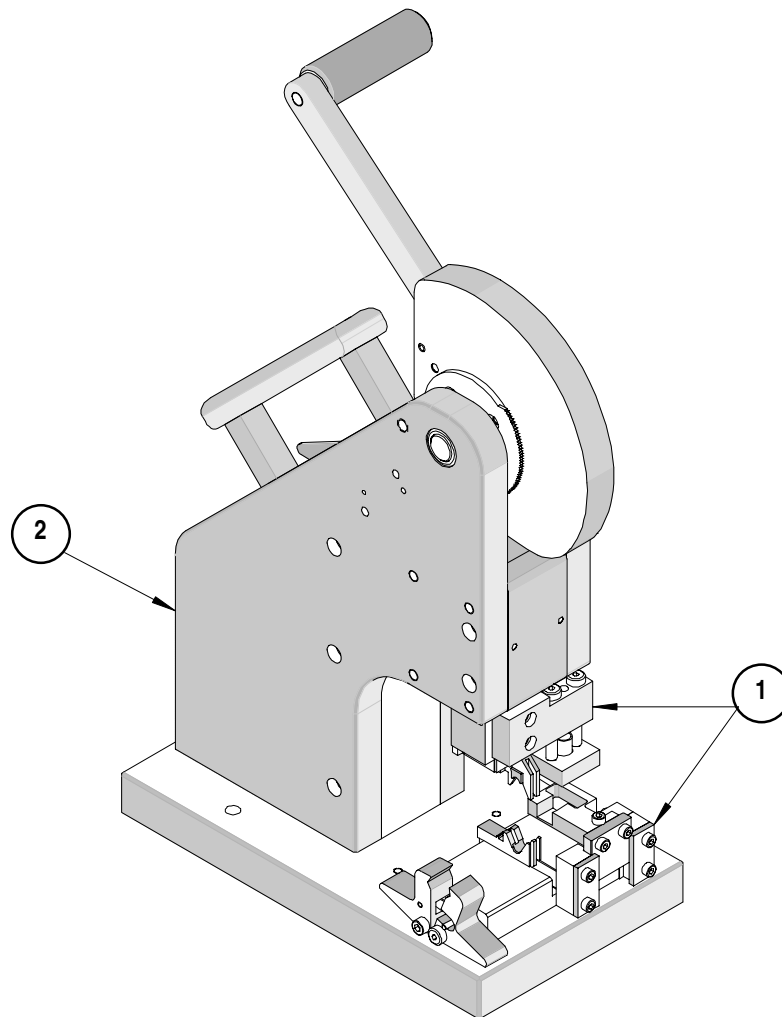
Section 4

- 4.1 Parts List
- 4.2 Assembly Drawings

4.1 Parts List

Micro-D Backshell Press and Crimp Tool Assembly 62202-0000				
Item	Order No.	Engineering No.	Description	Quantity
1	62202-0100	62202-0100	Micro-D Press Backshell Crimp Tool Kit (25 Circuit)	1
2	11-31-6356	AM60026-50	Molex Standard Manual Press	1

4.2 Assembly



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