

# Pneumatic Applicator Frame Assembly 91112-2

## SAFETY PRECAUTIONS — AVOID INJURY — READ THIS FIRST!

Safeguards are designed into this application equipment to protect operators and maintenance personnel from most hazards during equipment operation. However, certain safety precautions must be taken by the operator and repair personnel to avoid personal injury, as well as damage to the equipment. For best results, application equipment must be operated in a dry, dust-free environment. Do not operate equipment in a gaseous or hazardous environment.

Carefully observe the following safety precautions before and during operation of the equipment:



Always wear approved eye protection while operating equipment.



Always wear appropriate ear protection while using equipment.



Moving parts can crush and cut. Always keep guard(s) in place during normal operation.



Do not operate the machine if the guards are removed.



Always disconnect the air and lockout the machine when not in use, when performing maintenance on the machine, or when clearing a jammed machine.



Always turn off the main power switch and disconnect the electrical cord from the power source when performing repair or maintenance on the equipment.



Never insert hands into installed equipment. Never wear loose clothing or jewelry that may catch in moving parts of the equipment.



Never alter, modify, or misuse the equipment.



Never use the machine for other than what it is designed, which is crimping specific product. Do not use the machine for crushing any items. Inappropriate use of the machine could result in personal injury or damage to the machine.

## SUPPORT CENTER

## CALL TOLL FREE 1-800-522-6752 (CONTINENTAL UNITED STATES AND PUERTO RICO ONLY)

The **Support Center** offers a means of providing technical assistance when required. In addition, Field Service Specialists are available to provide assistance in the adjustment or repair of the application equipment when problems arise which your maintenance personnel are unable to correct.

#### INFORMATION REQUIRED WHEN CONTACTING THE SUPPORT CENTER

When calling the Support Center regarding service to equipment, it is suggested that a person familiar with the device be present with a copy of the manual (and drawings) to receive instructions. Many difficulties can be avoided in this manner.

When calling the Support Center, be ready with the following information:

- 1. Customer name
- 2. Customer address
- 3. Person to contact (name, title, telephone number, and extension)
- 4. Person calling
- 5. Equipment number (and serial number if applicable)
- 6. Product part number (and serial number if applicable)
- 7. Urgency of request
- 8. Nature of problem
- Description of inoperative component(s)
- 10. Additional information/comments that may be helpful



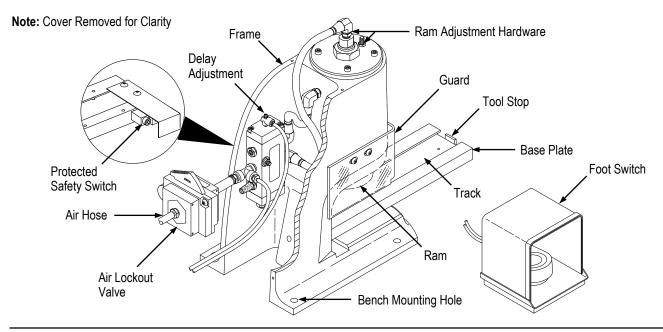


Figure 1



#### NOTE

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

Reasons for re-issue of this instruction sheet are provided in Section 9, REVISION SUMMARY.

## 1. DESCRIPTION

The applicator frame assembly consists of a bench-mountable frame, ram, guard, foot switch, protected safety switch, air hose, and base plate and operates with a noise level of less than 92 dBA. See Figure 1.

The ram holds the upper tooling and the base plate supports the lower tooling. The foot switch initiates the termination cycle. The protected safety switch must be activated to allow the foot switch to operate. The ram height is adjustable to accommodate various connectors and tooling.



## **DANGER**

To avoid personal injury, this frame assembly should **only** be operated by trained personnel.



#### DANGER

There is risk of whipping if a hose is not properly installed or becomes detached.



#### DANGER

Stored gas or fluid may be a hazard.

## 2. SET UP

- Locate the frame assembly in a well-lit area with convenient and adequate air and power supplies.
   Figure 2 illustrates a typical plan showing the convenience of handling materials afforded by the proper setup.
- 2. Secure the frame assembly to a work bench with four 1/4-in. diameter bolts or lag screws to ensure stability during operation. The air supply must provide and maintain pressure of 550 to 620 kPa [80 to 90 psi] to the applicator frame assembly.



#### NOTE

The air line should be equipped with a filter that has an element with a maximum rating of 20 microns.

3. Blow air through the air hose to remove any foreign particles before attaching supply hose to the back of the frame assembly.

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#### Materials Location Plan View

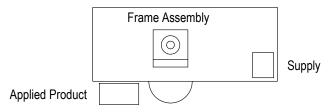


Figure 2

4. Install air line filter, air pressure regulator, and lubricator (supplied by the customer) between the air supply and hose as shown in Figure 3. The assembly must be as close as possible to the frame assembly. Fill the air line lubricator with a good grade line lubricant (as recommended by the filter manufacturer). When the frame assembly is not in use, the air supply should be turned off.



## **DANGER**

It is recommended to use quick-disconnect fittings to connect the frame assembly to the air supply. If not using quick-disconnect fittings, provide others means to easily disconnect the frame assembly from the air supply or a pneumatic lock-out on the air line that bleeds air after it is turned off.

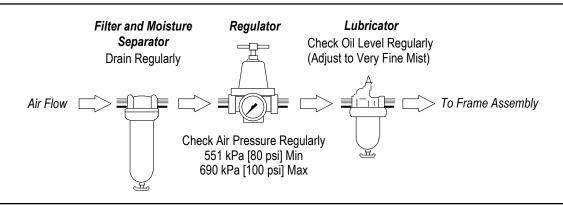


Figure 3

## 3. INSTALLING TOOLING ASSEMBLY

The tooling assembly consists of upper tooling and lower tooling. Refer to the instructions packaged with the tooling assembly for a description of components and specific orientation of tooling in the frame assembly. Proceed as follows:

- 1. Disconnect the air supply by shifting the air lockout valve. Apply a lock or tag to this valve per applicable workplace safety procedures. Remove the guard.
- 2. Secure the appropriate upper tooling to the ram with the two socket head screws (included with the tooling assembly).
- 3. Remove the tool stop from the base plate.
- 4. Slide the lower tooling into the tracks on the base plate.
- 5. Re-install the tool stop onto the base plate.
- 6. Re-install the guard and reconnect the air supply by unlocking and shifting the air lockout valve.

#### 4. OPERATION

- 1. Before attempting termination of any connectors, set the ram height as described in Paragraph 5.1.
- 2. Set up the lower tooling, and install the connector and cable according to the instructions packaged with the tooling assembly.

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- 3. Slide the lower tooling to the rear of its travel in the base plate. This will activate the protected safety switch and will allow operation of the foot switch.
- 4. Press the foot switch to initiate the cycle. The foot switch may be released immediately with the applicator frame assembly cycle time adjustable for proper termination as described in Paragraph 5.2.
- 5. When the ram has moved to the top of its motion, slide the lower tooling forward, and remove the terminated connector.

## 5. ADJUSTMENTS

## 5.1. Ram Height Adjustment



#### DANGER

To avoid personal injury, keep hands away from the ram if the guard is removed and the air is connected.

After installing the tooling assembly, a ram height adjustment may be required. Refer to Figure 4, and proceed as follows:

- 1. Connect the air supply (ram will rise). Slide the lower tooling, without a connector loaded into it, into the applicator frame applicator and actuate the foot switch (ram will descend). With the ram fully down, disconnect the air with the air lockout valve as described in step 1 of Section 3.
- Measure the distance between the bottom surface of the upper tooling and the corresponding surface
  of the lower tooling inserts. Determine the closed height dimension required according to the
  application specification for the connector being used and the instruction sheet for the tooling
  assembly being used.
- 3. If adjustment is required, record the dimension and direction (up or down) that the ram must be moved.
- 4. Turn the down-travel threaded stud locknut *counter-clockwise* several turns. Rotate the stud *clockwise* to lower the ram or *counter-clockwise* to raise the ram (one full turn of the stud equals 1.57 [.062] of ram height movement). The air line fitting should swivel to allow adjustment without removing the air line.
- 5. After the closed height adjustment is made, tighten the threaded stud locknut.
- 6. Repeat steps 1 and 2. If further adjustment is required, repeat steps 3 through 5. Continue making adjustments until the proper height dimension is attained.
- 7. If the instruction sheet for the tooling assembly specifies an open height setting for the frame assembly, adjust the up-travel threaded stud (see Figure 2) *clockwise* to lower the ram open height and *counter-clockwise* to raise the ram open height (one full turn of the stud equals 1.27 [.050] of ram height movement). Disconnect the air supply as described in step 1 of Section 3 while measuring and adjusting the ram height. Re-connect the air after each adjustment to make sure that the ram is in the full up position, then disconnect the air again for measurement.
- 8. After completing the ram height adjustment, slide the lower tooling away from the ram, and tighten both locknuts.

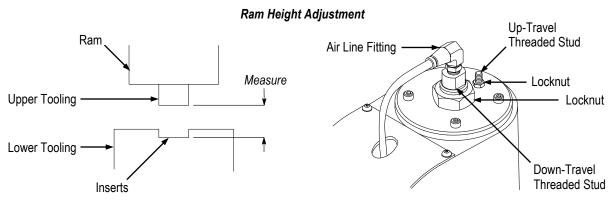


Figure 4

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9. After the proper height adjustments are reached, replace all applicable guards and covers in their original positions with the proper attachment hardware.

## 5.2. Unit Cycle Time Adjustment

- 1. Remove the controls cover by removing the four retaining screws.
- 2. Set the ram bottoming time by turning the slotted adjustment screw at the top of the ram control valve, *clockwise* to increase bottoming time and *counter-clockwise* to decrease bottoming time. Check the operation time by pressing and releasing the foot switch.



#### NOTE

If the foot switch is held down, the ram will remain down until the time the foot switch is released plus the adjustable delay time. If desired, the unit cycle time may be controlled directly by the foot switch—ram down when the foot switch is depressed, ram up when the foot switch is released—by turning the slotted adjustment screw **counterclockwise** to the limit of its travel. The operator is responsible for ensuring adequate cycle time for proper termination.

3. Re-install the controls cover.

## 6. INSPECTION, PREVENTIVE MAINTENANCE, AND STORAGE

## 6.1. Inspection

The frame assembly should be inspected with the information provided in Figure 5. Inspect it immediately upon arrival at your facility to ensure that it has not been damaged during handling.

Preventive maintenance of the frame assembly is limited to periodic cleaning, inspection, and lubrication. Depending on the amount of use, a regular maintenance program should be established and maintained, which will greatly reduce downtime for repairs and replacement of parts. When performing preventive maintenance, remove the cover to gain access to the frame assembly.



#### DANGER

When performing preventive maintenance, **make sure** that the air supply is turned off.

Perform the following inspection daily or prior to each time the frame assembly is to be used.

- 1. Check to ensure that all components of the frame assembly are secure, and look for evidence of worn or broken parts.
- 2. Inspect the pneumatic system for loose connectors or leakage in the air lines. Repair and/or replace components as necessary.
- 3. Check the air supply system and follow the manufacturer's instructions for maintenance and care of the air supply filter/regulator/lubricator.

## 6.2. Cleaning

Prior to operation, or on a daily basis, perform the following:

- 1. Use a clean, dry cloth to wipe the entire frame assembly. Remove evidence of dust and contaminants.
- 2. Use a solvent or similar cleaning fluid to remove evidence of oil or grease from areas not requiring lubrication, particularly in the "target area".
- 3. Use an approved-type air hose or vacuum to remove any chips or metal particles that may be in the frame assembly.



#### **DANGER**

To avoid personal injury, compressed air used for cleaning must be reduced to less than 207 kPa [30 psi] and effective chip guarding (including eye protection) must be worn.

## 6.3. Lubrication

Because the bearing is an oil-less type bearing, no lubrication is necessary. However, the air supply should be lubricated as recommended by the manufacturer and described in Section 2.

The fluid level in the lubricator should be checked daily.

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#### **CAUTION**

Do not allow any lubricants to enter the "target area". If this should happen, thoroughly clean the area immediately.

## 6.4. Storage

If the frame assembly is not used, it must be stored by taking the following precautions:

- 1. Store the frame assembly indoors.
- 2. Grease unpainted parts.
- 3. Protect this frame assembly from knocks or stresses.
- 4. Protect the frame assembly from high levels of humidity and from big temperature changes.
- 5. Prevent the frame assembly from coming into contact with corrosive substances.

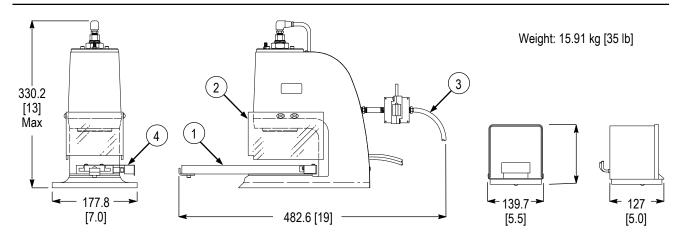
## 7. DECOMMISSIONING

The user must make sure that waste produced during operation is correctly disposed in compliance with the regulations in force in the country where the frame assembly is used. Disposal of lubricants and parts removed must be carried out in compliance with the standards in force in the country where the frame assembly is used.

## 8. REPLACEMENT AND REPAIR

Customer-replaceable parts are listed in Figure 5. Parts other than those listed should be replaced by TE Connectivity to ensure quality and reliability. For customer repair service or to order replacement parts, call 1-800-522-6752, or fax your purchase order to 717-986-7605, or write to:

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



ITEM	PART NUMBER	DESCRIPTION	QTY PER ASSEMBLY
1	126328-4	SUBASSEMBLY, Base Plate	1
2	126424-1	KIT, Guard	1
3	38111	HOSE, Air	1
4	1583207-2	COVER, Switch	1

Figure 5

## 9. REVISION SUMMARY

Revisions to this instruction sheet include:

Updated document to corporate requirements

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## **Mouser Electronics**

**Authorized Distributor** 

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