customer manual

ORIGINAL INSTRUCTIONS

TOOLING ASSISTANCE CENTER
1-800-722-1111

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LOC B

SAFETY PRECAUTIONS AVOID INJURY

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 appropriate ear protection.
- ALWAYS wear approved eye protection when operating powered equipment.
- ALWAYS keep guard(s) in place during normal operation.
- ALWAYS insert power plug into a properly grounded receptacle to avoid electrical shock.
- ALWAYS turn off the main power switch and disconnect electrical cord from the power source when performing maintenance on the equipment.
- NEVER wear loose clothing or jewelry that may catch in moving parts of the application equipment.
- NEVER insert hands into installed application equipment.
- NEVER alter, modify, or misuse the application equipment.
- NEVER enter the electrical enclosure immediately after turning off the machine power switch and disconnecting the electrical cord from the power source. High residual voltages may be present in the electrical enclosure. Read the warning label on the electrical enclosure lid before entering the enclosure.,

TOOLING ASSISTANCE CENTER

CALL TOLL FREE 1-800-722-1111 (CONTINENTAL UNITED STATES AND PUERTO RICO ONLY)

The **Tooling Assistance Center** offers a means of providing technical assistance when required.

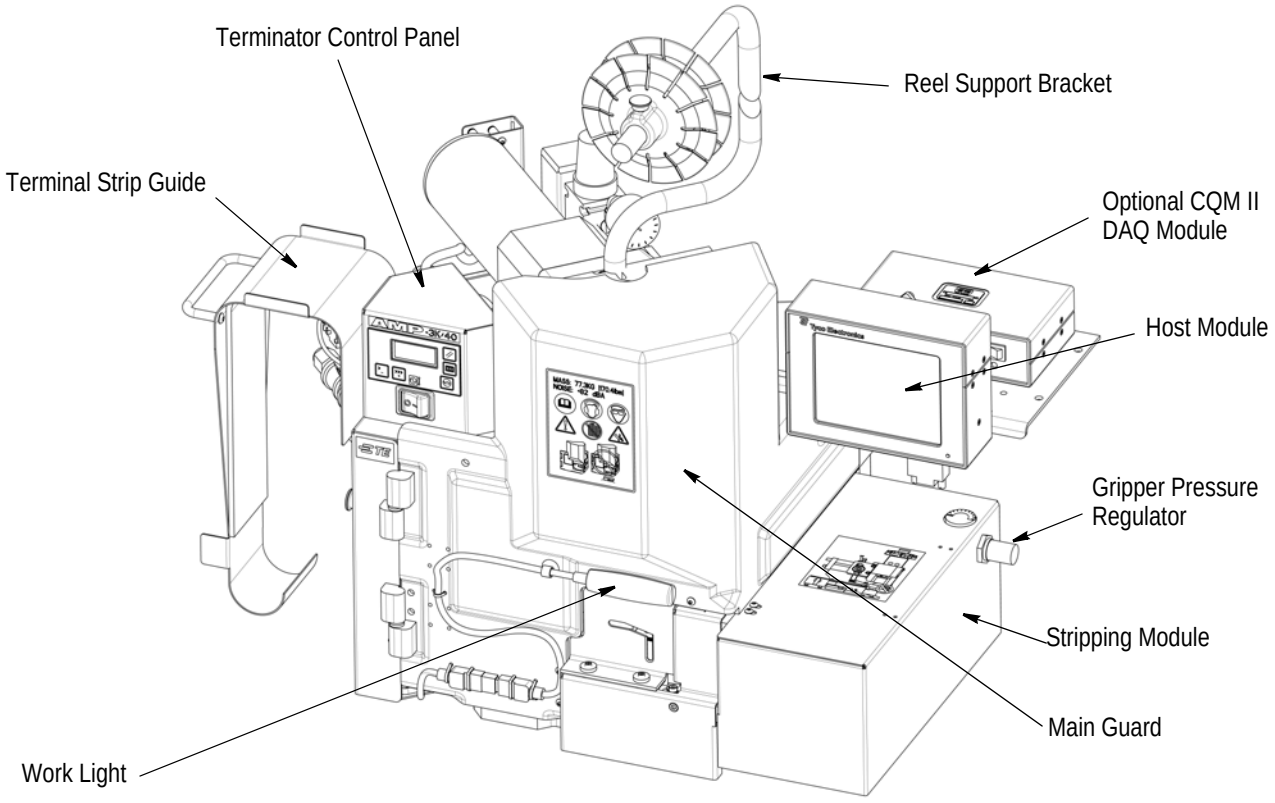
In addition, Field Service Specialists are available to provide assistance in the adjustment or repair of the application equipment when problems arise which your maintenance personnel are unable to correct.

INFORMATION REQUIRED WHEN CONTACTING THE TOOLING ASSISTANCE CENTER

When calling the Tooling Assistance 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 Tooling Assistance 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
9. Description of inoperative component(s)
10. Additional information/comments that may be helpful



TERMINATOR	TE PART NUMBER
AMP 3K/40 CE Terminator with Stripping Module	2161600-1
AMP 3K/40 CE Terminator with Stripping Module and CQM II	2161600-2
AMP 5K/40 CE Terminator with Stripping Module	2161700-1
AMP 5K/40 CE Terminator with Stripping Module and CQM II	2161700-2

Figure 1

1. INTRODUCTION

This manual contains information on the operation, adjustments and preventive maintenance of stripping modules used on AMP 3K/40 CE terminators 2161600-[ ] and on the AMP 5K/40 CE terminators 2161700-[ ]. Refer to Figure 1.

For information concerning the AMP 3K/40 CE terminators and AMP 5K/40 CE terminators , refer to 409-10204 and any documentation included with the terminator.

Most side-feed and end-feed heavy-duty mini applicators and light-duty mini applicators can be run with the stripping module. Slight modifications may be required to run these applicators; most modifications involve removing the wire stop. Refer to Paragraph 4.2, Applicator Setup and Installation.

Refer to the applicator instruction sheet and documentation included with the applicators for operation, adjustment, and preventive maintenance of the applicators.

NOTE

The "start sensor" is also referred to as the "wire sensor."

When reading this manual, pay particular attention to DANGER, CAUTION, NOTE statements.

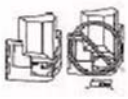
Denotes an imminent hazard which may result in moderate or severe injury.

Denotes a condition which may result in product or equipment damage.

Highlights special or important information.

Always wear approved eye protection while operating the equipment.

Always wear approved hearing protection while using the equipment.



Use caution working with this equipment..

Main electric ON/OFF switch.

Do NOT operate the equipmentt if the guard is removed.

Lift point for the equipment.

Read and understand the entire manual before using the equipment.

Moving parts can crush and cut. Do not operate the equipment without guards in place.

2. DESCRIPTION

The Stripping Module is a pneumatically driven, microprocessor controlled, in-line stripping module designed to be used to provide wire stripping capability to the AMP 3K/40 CE terminator and AMP 5K/40 CE terminator Machines. The stripping modules accept a wide range of wire insulation types.

It is assembled with metric hardware.

NOTE

Measurements are in metric units [followed by U.S. customary units in brackets]. Some commercial items may contain non-metric hardware.

Figure 2 contains specifications and requirements for the stripping module.

Wire Range Base Module:	0.03mm - 2.0mm (32-14 AWG)
Maximum Insulation	5.08mm (.200 In.)
Cable Breakout:	Greater than 29mm (1.14 In.)
Strip Length:	2.54mm - 10.16mm (.100 In. - .400 In.)
Gripping Jaw Pressure:	Variable air pressure
Noise:	Less than 82dBa Typical at Operator Position with Standard Mechanical Feed Applicator
Weight:	4.55 Kilograms [10 lb.]
Height:	127mm [5 In.]
Electrical:	+24VDC (Supplied by the Terminator)
Air:	620-760 KPA [90-100 psi], 2.83 liters/sec (6 scfm)
Physical Environment (Temperature):	4.45 C to 605 C [405 F to 1045 F]
Altitude:	Not Applicable
Relative Humidity:	Less than 95% (non-condensing)
Transportation and Storage:	Store in a clean, dry environment after coating all surfaces lightly with a rust preventing oil.

Figure 2

2.1. Functional Description

The stripping module is a mechanism which will prepare discrete wire by stripping the insulation from the conductor for preparation of a crimp onto a terminal.

The machine consist of three functional areas.

The ***transfer sub-assembly*** consists of the side transfer block, applicator latches, and the transfer air cylinder. This sub-assembly provides a means of sliding the mechanism to the side so that the terminal may be applied to the wire. See Figure 3.

The ***gripper sub-assembly*** consists of the upper and lower grip jaws, the gripper mounting block, the left and right gibs, the jaw drive block, and the gripper air cylinder. The gripper sub-assembly provides a means of holding the wire during the wire stripping and terminal application process. The gripper mechanism is "tonked" during the machine cycle to place the stripped wire in the terminal wire barrel. See Figure 3.

The ***stripping sub-assembly*** consists of the U-block, the main block, the gibs, the blade drive block, the blade adjust block, the inner and outer strip blades, the start sensor block, start sensor arm, the start sensor, the start sensor air cylinder, the strip cam, and the strip air cylinder. This sub-assembly drives the inner strip blade to cut through the wire insulation. It also moves part of the mechanism away from the operator to pull the insulation slug off the wire. The mechanism also contains the wire start sensor to begin the cycle. See Figure 3.

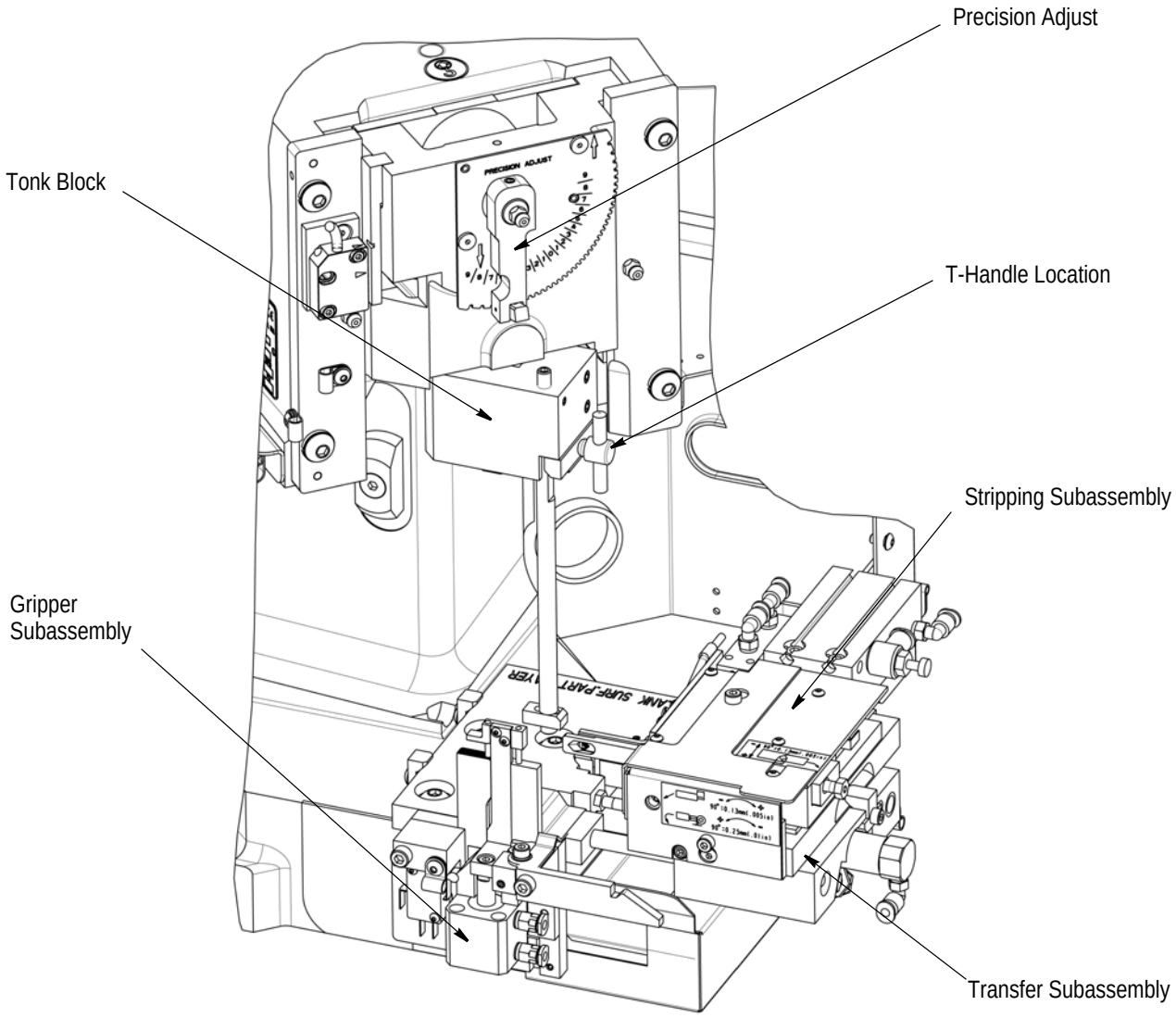


Figure 3 (Cont'd)

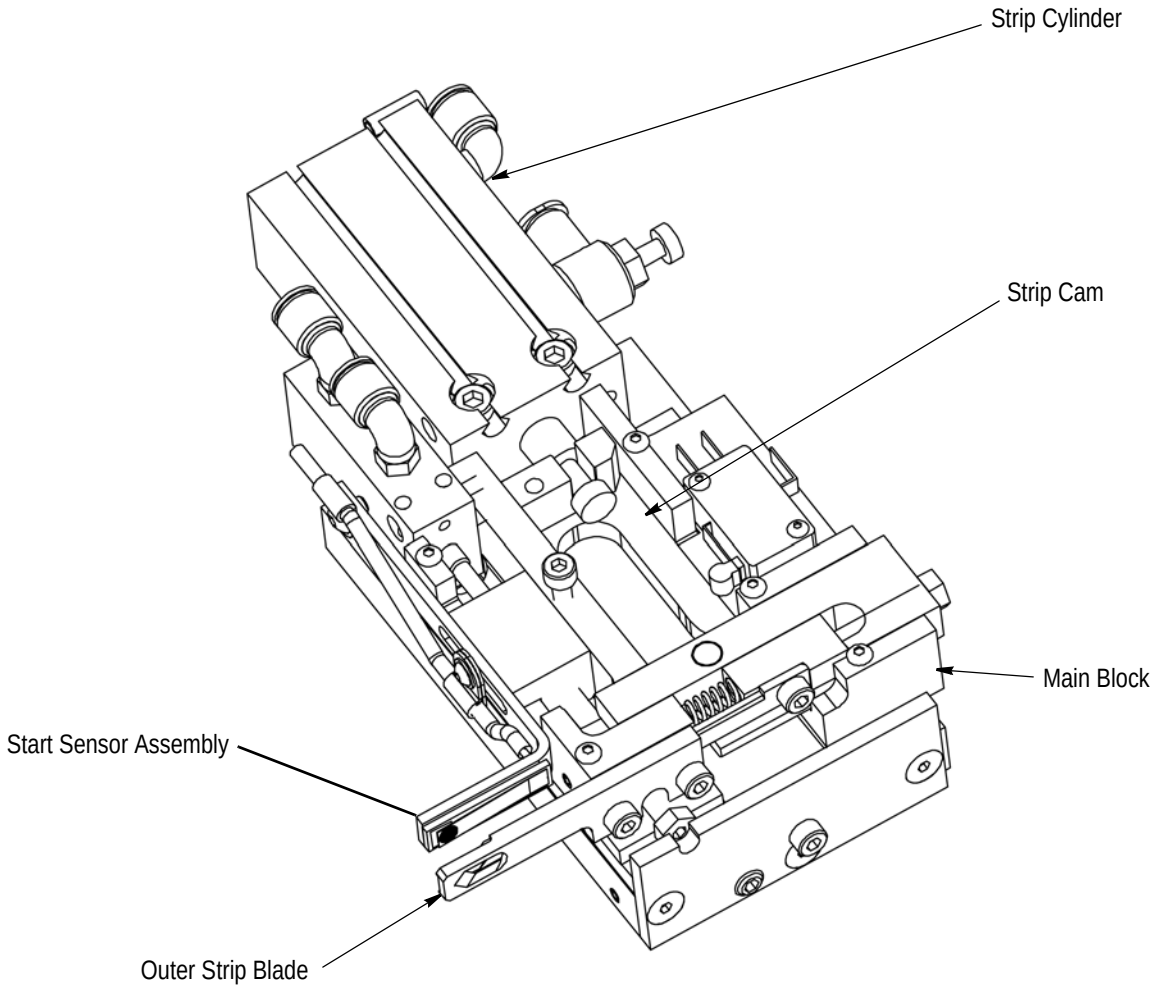


Figure 3 (End)

2.2. Electrical Description

The stripping module components consist of the host module, electrically controlled pneumatic valves, and various switches and sensors. The host module operates on +24VDC power which is supplied by the terminator. The terminator main power switch applies power to the terminator and to the host module. The main power switch / circuit breaker is located on the front of the terminator operator control panel.

The host module is mounted to a bracket on the right side of the machine. See Figure 1. The host module has an LCD touch screen and provides operating screens for setup and operation of the stripping module. Refer to Section 4 for a description of stripping module screens and controls.

2.3. Machine Guard

A combination of guards is installed to provide protection for the operator while maintaining proper visibility of the work area. The main guard (Figure 1) swings open to the left and the hinged guard (Figure 1 and Figure 4) swings open to the right to allow easy access for applicator installation and setup. ***Safety interlocks on the guards prevent the machine from cycling if the guard doors are open during production operation.***

2.4. Description of Operation

The strip and crimp cycle of operation is as follows:

1. The cycle may be started automatically (with "Wire Sensor" selected as the starting means), or with the foot switch. In automatic operation ("Wire Sensor" selected as the starting means), the operator places a wire through the grip jaws and strip blades to depress the wire sensor, which automatically starts the cycle. If the foot switch was selected as the starting means, the operator depresses the foot switch to activate the cycle.
2. The gripper jaws then close on the wire while the strip blades close to cut through the insulation. The stripping mechanism pulls the blades away from the operator to remove the insulation slug.
3. The stripping unit shifts to the "right side position" to remove the stripping blades from the applicator.
4. The terminator cycles to crimp a terminal onto the wire.
5. After completing the crimp, the grippers open to release the crimped wire and the stripping blades retract.
6. The wire sensor arm then retracts so that the air blast can blow the insulation slug into the scrap bin.
7. The stripping unit then transfers back to the start position.

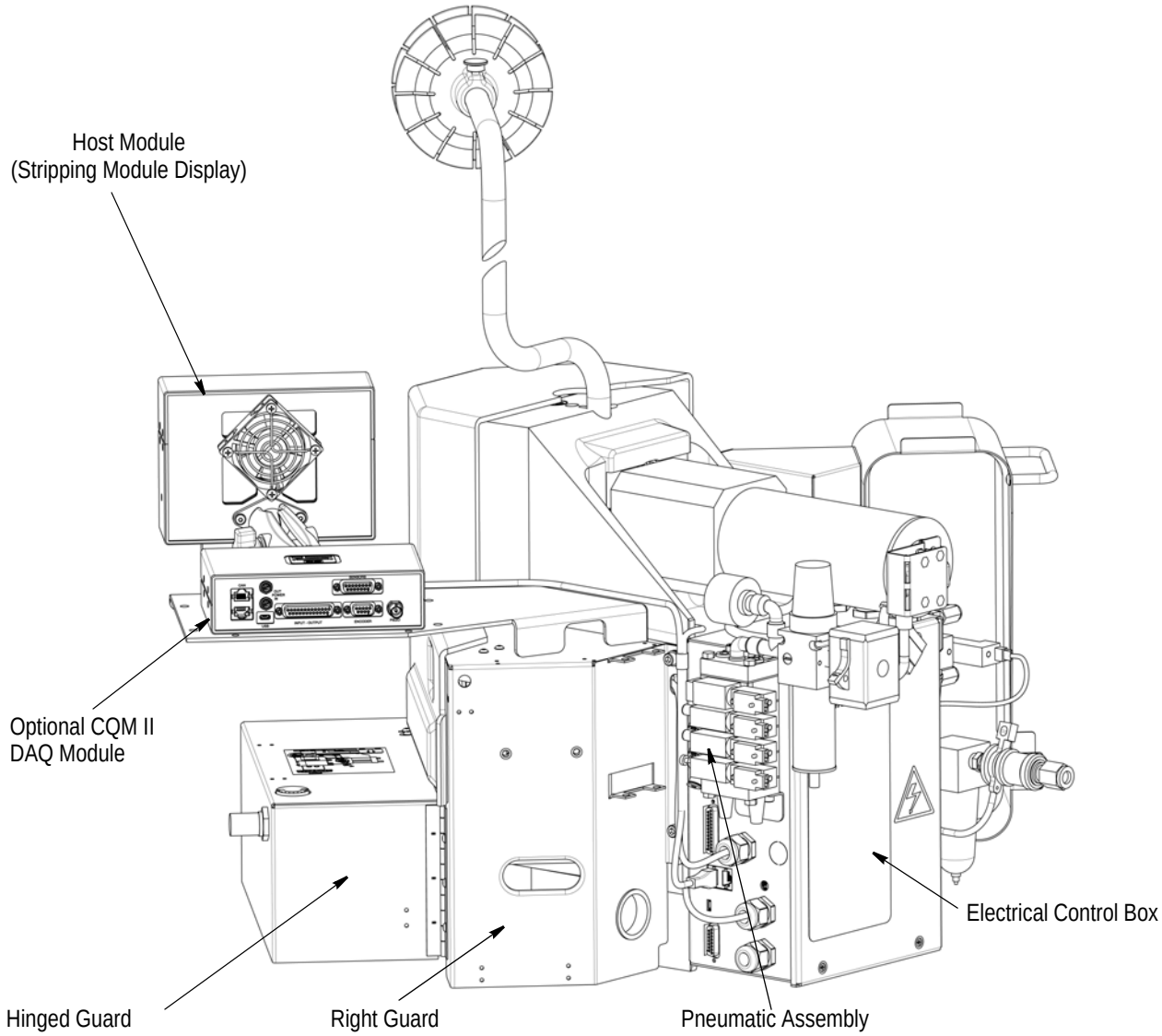


Figure 4

3. RECEIVING INSPECTION AND INSTALLATION

3.1. Receiving Inspection

The Stripping Module is thoroughly inspected during and after assembly. A final series of inspections is made to insure the proper machine functioning before packaging and shipping.

To protect against damage that may have occurred during shipment, remove the machine from the packaging and carefully inspect the machine for damage. If damage is evident, file a claim against the carrier and immediately notify TE.

To avoid personal injury, be sure to turn "off" and disconnect power to the machine.

3.2. Installation of Terminator and Stripping Module

Remove all mounting bolts securing the terminator to the shipping pallet. Install lift ring on top of the machine.

Lift point for the equipment. Place the lift ring in the supplied hole. Lift ring (M12 X 20 eye bolt) is customer supplied.

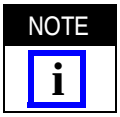
Install the lift ring carefully. A 19.05-mm [.75-in.] thread length engagement is required for the lift ring to support the machine.

Attach a suitable hoist to the lift ring, lift the machine, and place it in the selected operating location.

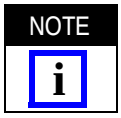
Insert the reel support post into the appropriate hole on top of the machine until the roll pin engages a groove in the machine frame.

Attach the terminal strip guide included with the machine with the two thumbscrews supplied. Mount the guide on the left guard for side-feed applicators. Mount the guide on the right guard for end-feed applicators, then proceed as follows:

1. Connect the power cord to a suitable electrical supply.



The machine will automatically detect the supply voltage and adjust the controller accordingly.



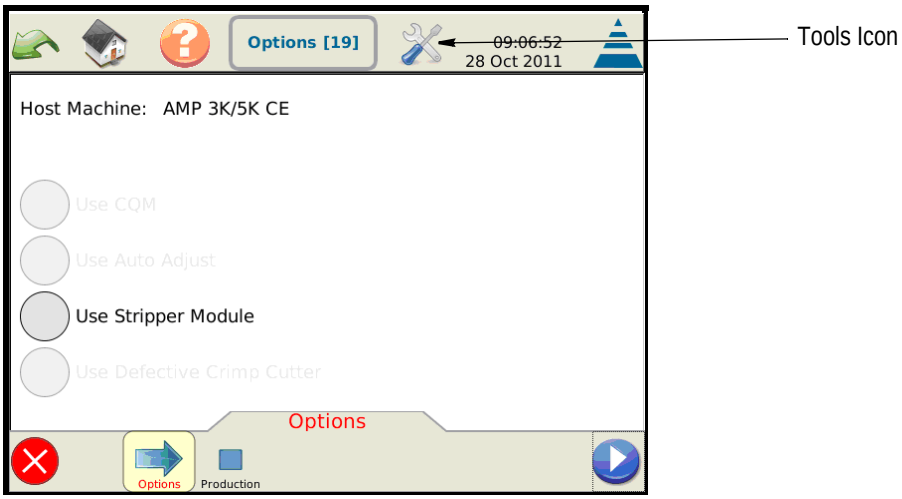
Models exported to Europe will be installed by TE Service Representatives. These representatives will verify that the electrical and pneumatic connections are correct. Both pneumatic and electrical connections must be installed in a way that provides a lockable isolation switch for hard-wired or direct piped machines. This is necessary to interrupt power to the machine for setup or maintenance.

2. Connect the pneumatic assembly to a suitable air supply.

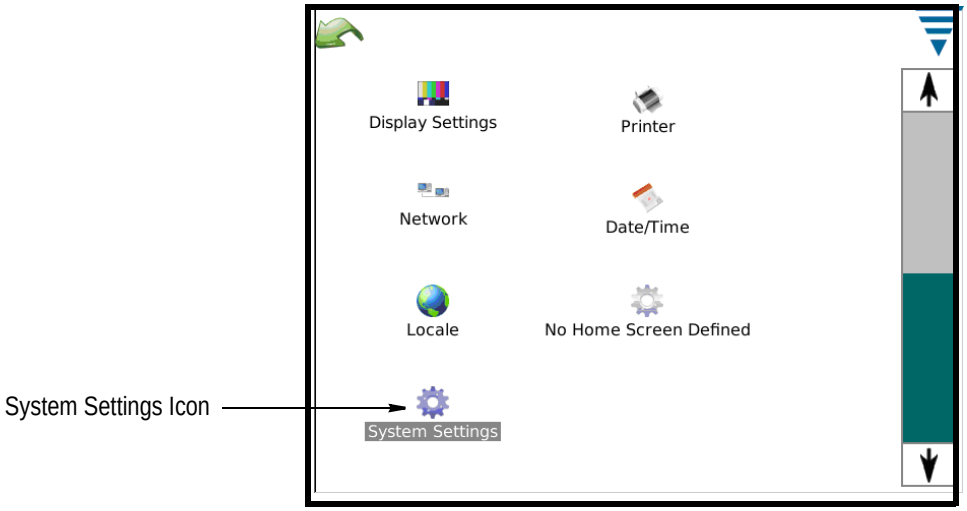
3. Apply AC power to the machine by turning on the main power switch. The host module will proceed through a start-up process.

4. The host module is used on a variety of different pieces of equipment. *It is necessary to configure the host module for the equipment being used.*

a. Press the tools icon at the top of the screen.



b. Scroll down and touch the System Settings icon.

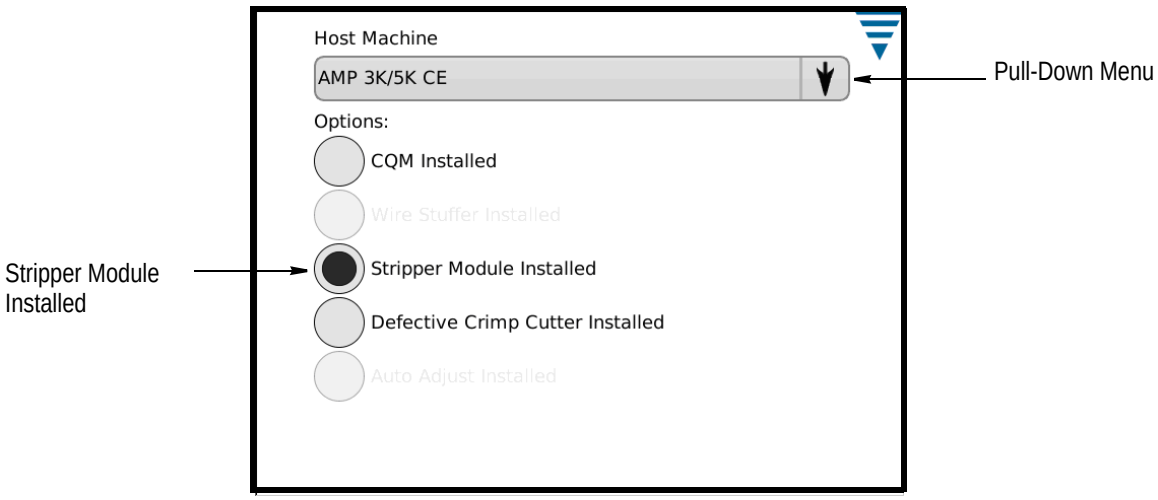


c. Select the terminator marked “AMP 3K/5K CE” from the host machine pull-down menu.

d. Then select the Stripper Module button as shown below.

NOTE

*Currently, the stripper module can **only** be used with this version of the machine.*



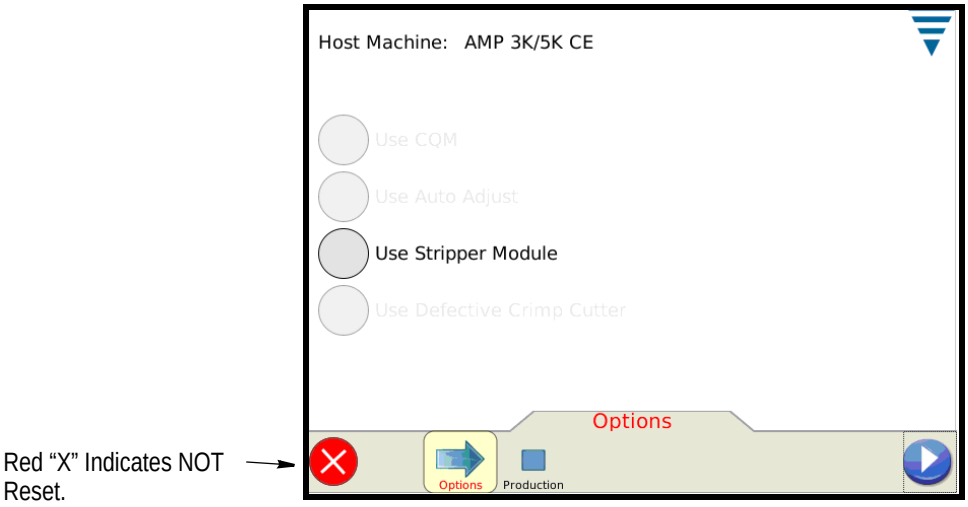
This completes configuration of the host module for the AMP 3K/40 CE terminator or AMP 5K/40 CE terminator stripping module.

After configuring the host module, proceed as follows:

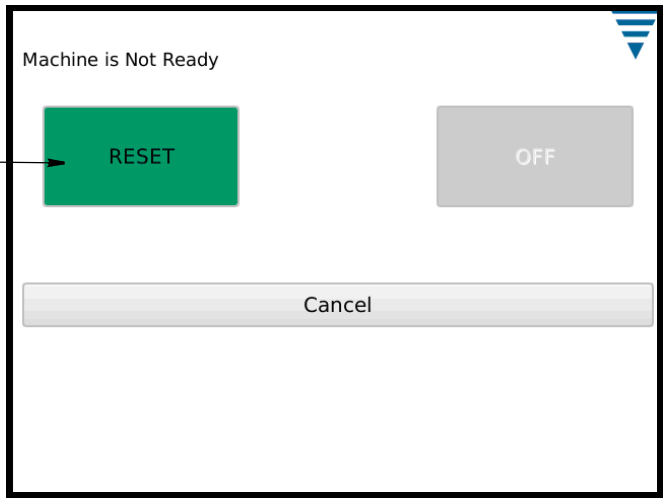
1. Remove the applicator.
2. Manually return the terminator ram to the top of its travel (TDC).
3. If it hasn't been done already, connect air and turn "on" the main air shut-off valve.
4. Close all guards.
5. Reset the stripping module. Resetting the stripping module brings up the air to the stripping module and causes the mechanisms to move to their home position.

NOTE

The stripping module is not reset if a red "X" is displayed as shown in the bottom left corner of the screen or if there is an exclamation point displayed there indicating the system is in "Error mode".



To reset the stripping module touch the red "X" or exclamation point and press the reset button when displayed.

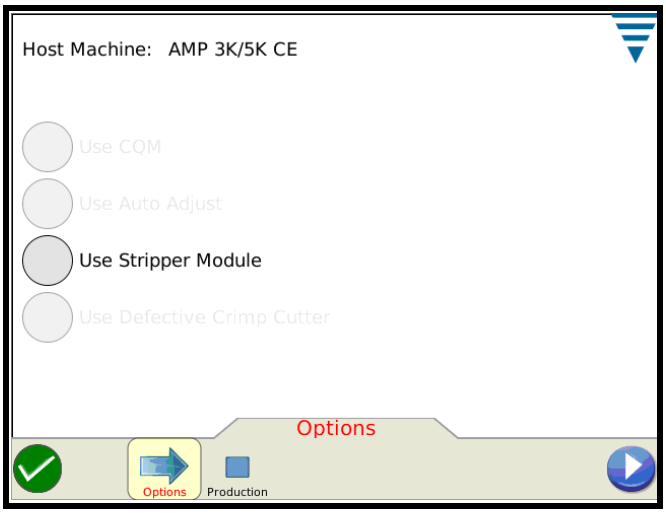


Reset Button

NOTE

This screen will only be displayed for a few seconds if the user does not press one of the buttons shown.

A green check will indicate that the stripping module has been reset.



Green Check Indicates Stripping Module Has Been Reset.

NOTE

The user can go back into the Reset Screen at anytime by touching the icon in the lower left corner. If the system is already reset an "Off" button will be active and can be used to remove air from the stripping module.

6. Check for proper functioning of the machine by operating the stripping module in step mode. Refer to Paragraph 4.1.

3.3. Considerations Affecting Placement of Bench Machines

The location of the machine in relation to the operator's position is extremely important in terms of both safety and maximum efficiency. Studies have repeatedly shown that operator fatigue will be reduced, and greater efficiency achieved, if: (1) the bench is of appropriate height, preferably with sound-deadening rubber mounts; (2) the machine is properly located on the bench with ample work areas on both sides to facilitate work flow; (3) the operator uses a swivel chair with padded seat and back rest which are independently adjustable; and (4) the foot switch, on machines so equipped, is placed on a rubber mat to maintain its movability, while preventing it from sliding unintentionally. Figure 6 illustrates proper machine location and operator position.

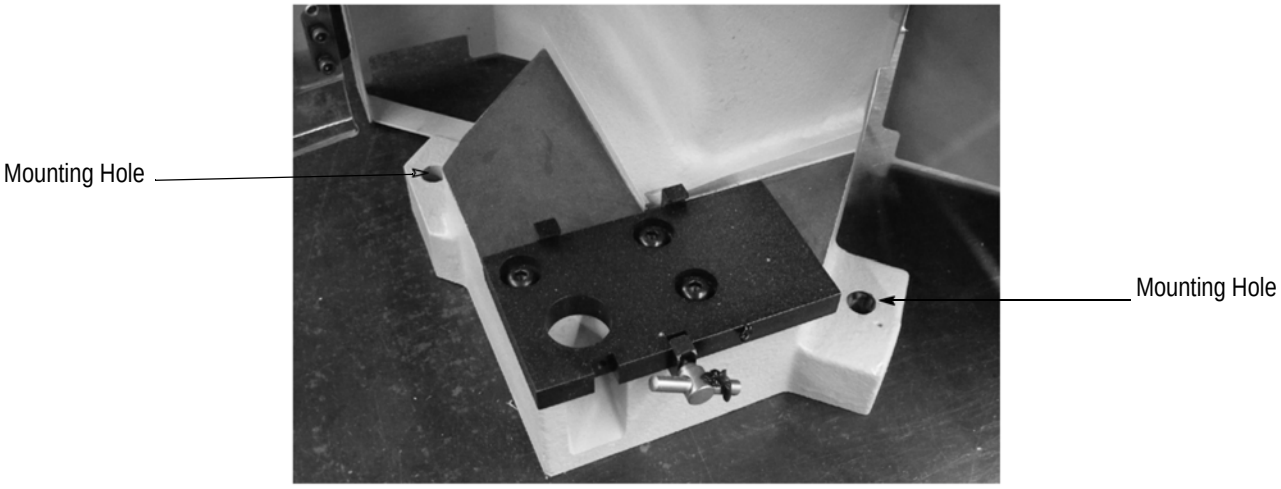


Figure 5

Figure 7illustrates:

A. Bench

The bench to be used should be of sturdy construction, preferably with rubber mounts to minimize noise. A height of 762.0mm to 812.8mm [30 in. to 32 in.] is the most suitable for operator comfort and convenience. This height allows the operator to rest both feet on the floor, thereby providing for the shifting of weight and leg position.

B. Machine Mounting and Location on Bench

The machine should be located near the front of the bench with the "target area" (tooling area where the product is applied) not more than 152.4mm to 203.2mm [6 in. to 8 in.] from the front edge, or a minimum of 50.8mm [2 inches} from the front edge, as shown in Figure 5. This location will eliminate unnecessary operator motion and help to avoid back strain and fatigue.

Orientation of the machine should be such that the "target area" is facing the front of the bench and is parallel to the front edge. (Access to the back of the machine MUST also be provided.)

Machines should be securely bolted to the bench. Machines should not extend beyond the front of the bench.

Figure 6

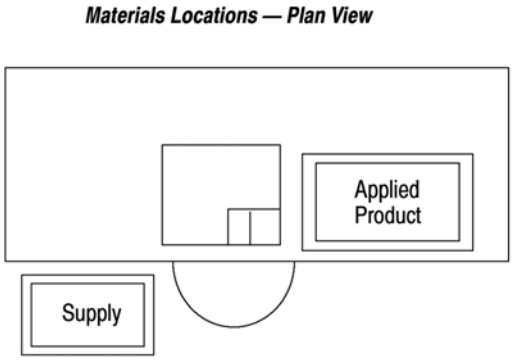


Figure 7

C. Operator's Chair

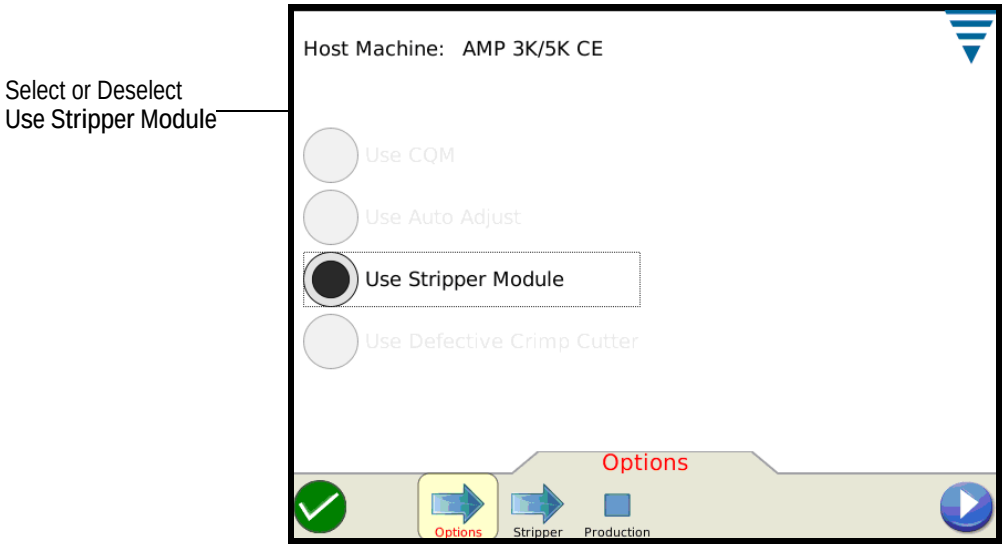
The operator's chair should swivel, and should have independent seat height and back rest adjustments. The seat and back rest should be padded, and the back rest should be large enough to provide support both above and below the waist line.

In use, the chair should be far enough under the bench so that the operator's back is straight and is supported by the back rest.

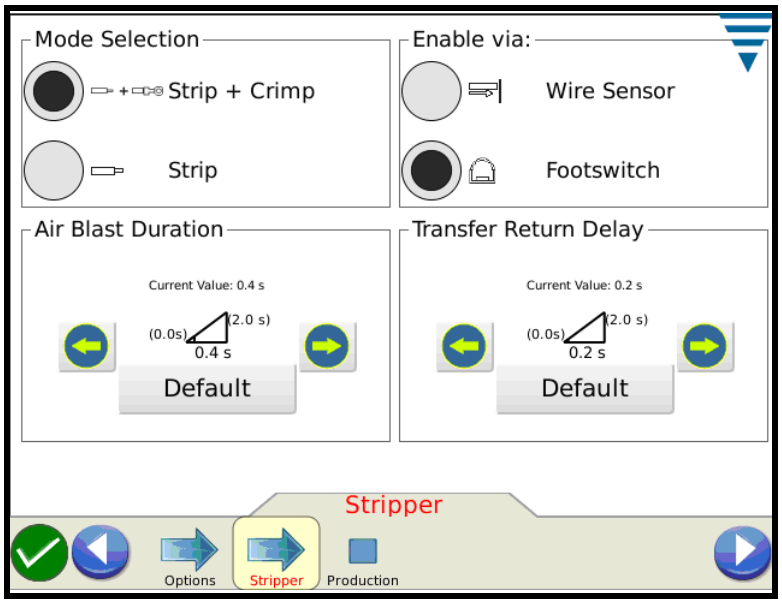
4. OPERATION

4.1. Host Module Controls

To operate with the stripping module, the options screen must have **Use Stripper Module** selected. To operate without the stripping module (crimp only operation), *deselect* the radio button marked **Use Stripper Module**.,



On the stripper screen (Figure 8) the operator can select how the stripping operation is to be performed.



DEFINITION	ACTION
Mode Selection:	Allows the user to select the strip option or strip and crimp option
Enable Via:	Allows the user to select whether the wire sensor or footswitch is used to cycle the system.
Air Blast Duration:	Allows the user to increase or decrease the duration that the air blast is applied. Longer air blast durations may be necessary to remove stripped debris from the tooling. The default value is .4.
Transfer Return Delay:	Allows the user to increase or decrease the delay time to allow for easier removal of the completed crimps from the tooling after each cycle. The default is .2.

Figure 8

The Production screen is where the user is able to cycle the system in full cycle or step mode. See Figure 9.

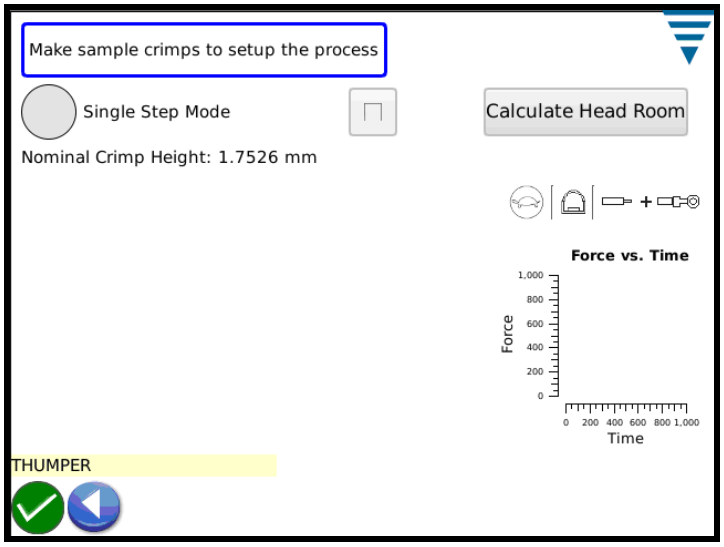


Figure 9

To operate the machine in step mode the radio button "Single Step Mode" must be selected. Once in single step mode each touch of the step button will perform a single step until the cycle has been completed. See Figure 10.

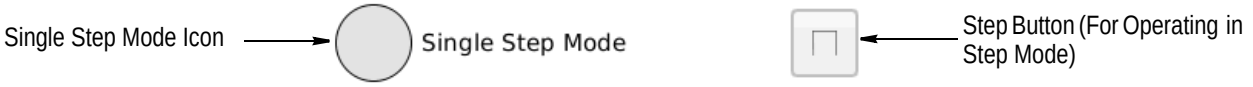


Figure 10

NOTE

In this mode, neither the "wire sensor" nor the footswitch are used.

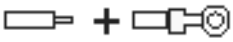
NOTE

The "Calculate Head Room" Button, Force vs Time Graph, Nominal Crimp Height, and the Part Number display are only displayed on this screen ***if the stripping module is used in conjunction with the CQM II option.***

In addition, several icons may be displayed on the right-hand side of the screen to indicate the current operational status of the machine. These icons are (Figure 11):

The "jog" icon indicates that the terminators Jog buttons are operational and jogging of the terminator is allowed.

The footswitch icon indicates that footswitch was selected to be used to cycle the system.



This icon indicates that the machine was set up for strip and crimp mode.

Figure 11

4.2. Applicator Setup and Installation

A. Side-Feed/End-Feed Applicator Preparation

Prepare side-feed applicators for use with the stripping module by removing the applicator wire stop. Prepare end-feed applicators for use by removing the applicator wire stop and moving the track-mounted "hold down" back as far as possible.

Install the applicator onto the terminator (Paragraph 4.2,C). Adjust the wire brush and strip length and check for any interferences. If interference with the track-mounted "hold down" exists, remove the track-mounted "hold down."

B. Terminal Sticking Elimination/Prevention

Certain types of terminals are more likely to stick in the crimpers than other types. In many types of application equipment, the wire stop acts as a terminal stripper. When using the stripping module, however, the wire stops must be removed.

Besides removing the applicator wire stop, the following methods may be used to eliminate/prevent terminal sticking:

- Use a terminal lubricator.
- Use a spring-loaded, ram-mounted wire depressor mounted between the crimper and the wire barrel crimper.
- Use a ram-mounted terminal "hold-down" commonly found on end-feed applicators.

C. Applicator Installation/Removal

It may be necessary to install the applicator from either the left side or the right side of the gripper mechanism, depending on the applicator and type of product being run. Instructions for installing the applicator from the left side and the right side are listed below.

To remove the applicator, disconnect power to the machine and remove in reverse order of installation.

Left-Side Installation

To avoid personal injury, be sure to disconnect power to the module and the terminator before installing or removing the applicator

1. Slide the stripping module and movable part of the transfer assembly to the right side position.
2. Remove the tonk from the ram post adapter.
3. Loosen the screw holding the scrap deflector and rotate the scrap deflector toward the front of the machine.
4. Loosen the applicator latch on the machine base plate and push it out of the way.
5. From the left side of the gripper assembly, tilt the applicator and place it in position on the base plate.
6. Slide the applicator ram into the ram post of the terminator.
7. Place the left (applicator) latch on the terminator into the slots on the applicator base plate.
8. Lift the right (applicator) latch and tighten against the applicator base plate.
9. Rotate the scrap deflector back against the applicator base plate and tighten the hold down screws
10. Install the tonk into the ram post adapter.
11. Manually cycle the terminator and stripping module to verify fit, clearance, and proper operation.

Right-Side Installation

To avoid personal injury, be sure to disconnect power to the module and the terminator before installing or removing the applicator.

1. Remove the upper portion of the strip assembly by loosening the locking latch on the right side of the transfer assembly.
2. Lift the strip assembly off the transfer assembly and set it on a work bench.
3. Remove the tonk from the ram post adapter.
4. Loosen the screw holding the scrap deflector and rotate the scrap deflector toward the front of the machine.
5. Loosen the (applicator) latch on the machine base plate and push it down out of the way.
6. From the right side, place the applicator on the base plate.
7. Slide the applicator ram into the ram post of the terminator.
8. Place the left (applicator) latch on the terminator base plate into the slots on the (applicator) base plate.
9. Lift the right (applicator) latch and tighten it against the applicator base plate.
10. Rotate the scrap deflector back against the applicator base and tighten the hold down screws.
11. Place the upper portion of strip assembly back on the transfer assembly.
12. Partially tighten the locking latch.
13. Push the upper portion of the strip assembly toward the rear of the machine until the wire brush adjustment screw bottoms on the rear stop.
14. Install the tonk into the ram post adapter.
15. Manually cycle the terminator and stripping module to verify fit, clearance, and proper operation.

4.3. Stripping Module Removal

The stripping module may need to be removed when changing applicators (refer to Paragraph 4.2,C for applicator installation procedures).

To avoid personal injury, be sure to disconnect power to the module and the terminator before installing or removing the stripping module.

1. Loosen the cap screw located at the right side of the module.
2. "Back off" the clamp on the right side of the module.
3. Slide the module to the right and lift "up," to removing the module from the mounting base.

5. PREVENTIVE MAINTENANCE

Preventive maintenance will keep the stripping module in good working order and ensure maximum reliability and service from all of its components.

To avoid personal injury, electrical and pneumatic power must be DISCONNECTED at the source prior to maintenance.

5.1. Cleaning

Clean any debris from the stripping module daily.

Compressed air used for cleaning must be reduced to less than 207kPa [30 psi], and effective chip guarding and personal protective equipment (including eye protection) must be used.

If an air-feed assembly is installed, check and replace the air filter element if necessary.

Wipe off the guards with a clean soft cloth.

DO NOT USE ANY SOLVENT TO CLEAN THE GUARDS. Solvent could damage the guards.

Remove the stripping assembly and proceed as follows:

a. Thoroughly clean both the stripping assembly and the area in and around the base plate.

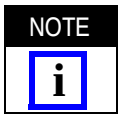
b. Inspect the stripping assembly for damaged parts, clean the assembly and remove all insulation scrap and wire strands.

c. Remove all insulation scrap and wire strands from the gripper assembly.

d. Re-install the stripping assembly.

5.2. Lubrication

Lubricate all sliding surfaces with a general purpose grease at least every 250,000 cycles.



Apply grease to groove in the bottom of the strip cam.

Apply light weight oil to the surfaces of the strip blades.

Do NOT get oil on the cutting surfaces of the blades, or sticking of the insulation slug may occur.

Use a grease gun to apply grease to the transfer assembly through the grease fitting at least every million cycles.

NOTE

It is necessary to remove the Tooling-In Position Switch to gain access to the grease fitting.

5.3. Terminator Preventive Maintenance

For preventive maintenance procedures for the terminator, refer to customer manual 409-10204.

When performing the monthly mandatory safety checks in the terminator manual, be sure the stripper module is disabled during the tests. For example, when the guards are opened, or the magnetically operated switch actuator is removed, power to the stripper module main air valve is removed, disabling it's operation.

6. DIAGNOSTICS

The easiest way to verify correct operation of the stripping module is by manually operating the unit in “Single Step Mode” as described in Paragraph 4.1.

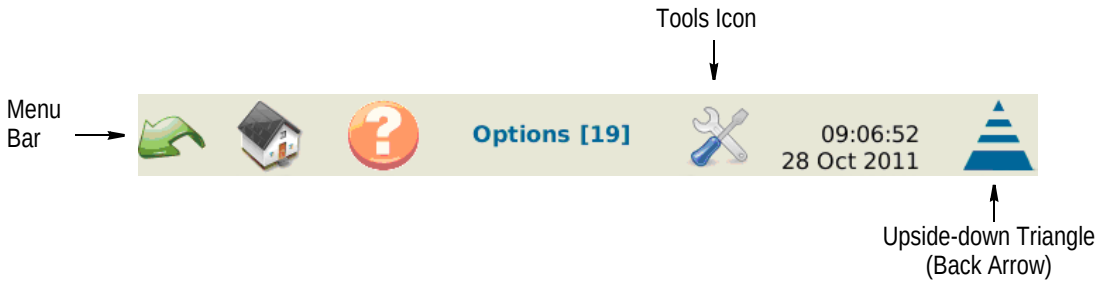
If further diagnostic troubleshooting is necessary the user can go to “Diagnostics Mode”.

CAUTION

Diagnostics mode should only be attempted by someone thoroughly knowledgeable with the equipment. In “Diagnostics Mode” outputs can be turned on or off directly by the user. It is possible for the user to damage tooling by directly turning on outputs that cause tooling to collide.

To enter the Diagnostics Mode, proceed as follows:

1. Touch the “Tools” icon on the menu bar. (it may be necessary to touch the upside-down triangle (back arrow) in the upper right corner of the screen to bring up the menu bar). See below.



2. Scroll down and touch the “Diagnostics” icon as shown in Figure 12.

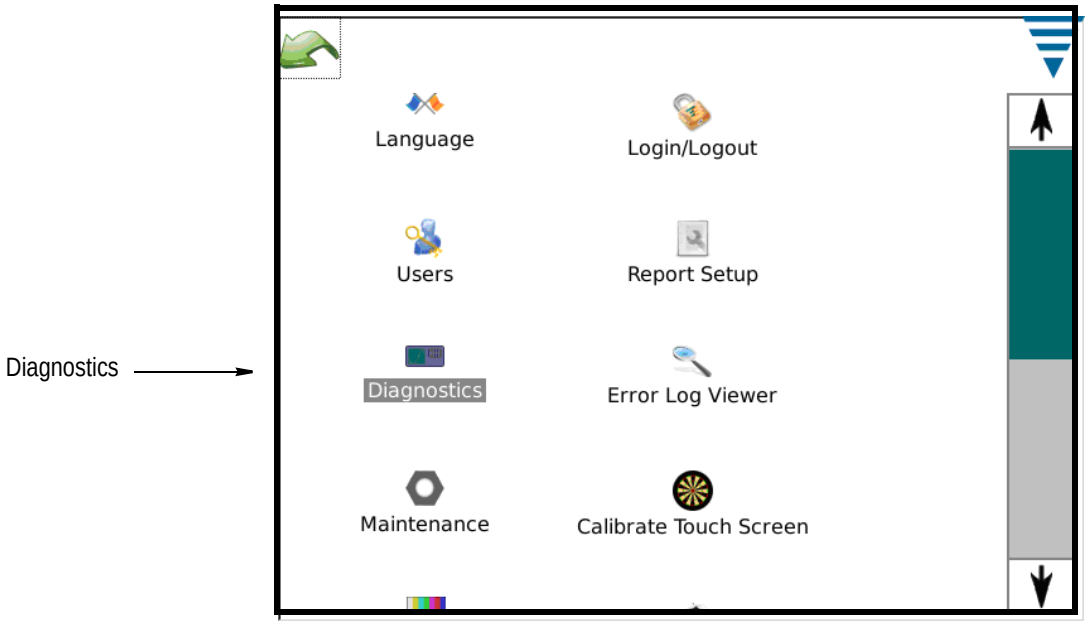


Figure 12

3. Touch the tab marked “AMP 3K/5K CE diagnostics tab”. See Figure 13

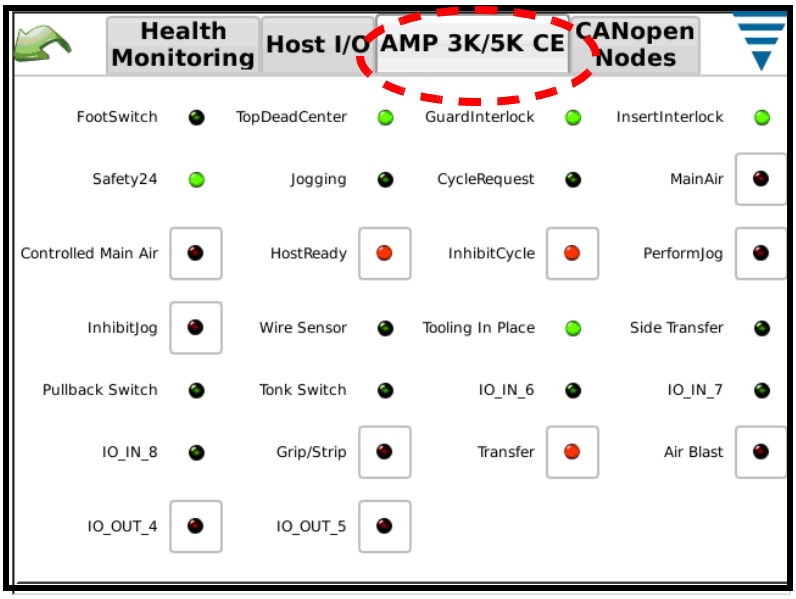


Figure 13

The Stripping Module I/O can be viewed and changed (outputs).

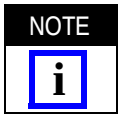
CAUTION

The user should be completely familiar with all stripping module mechanisms before attempting to change any outputs, otherwise diagnostics mode is not recommended and the user should instead go to “Single Step” operation on the “Production Screen”

Stripping Module I/O Consists of the Following:
Grip/Strip output
Transfer output
Air Blast output
Pullback switch input
Tonk Switch input
Tooling in place input,
Side Transfer input
Footswitch input
Wire Sensor input
Guard Interlock input

7. MECHANICAL ADJUSTMENTS

Most of the mechanical adjustments are made with adjustment screws containing (NYLON) locks. A 3mm wrench is required to make most adjustments.



If the adjustment screws become loose, the NYLON locks can be tightened by turning the back-up setscrew clockwise.

To avoid personal injury, be sure to disconnect power to the stripping module and terminator before making any adjustments.

7.1. Strip Blade Closure Adjustment (Figure 14)

The strip blades must be adjusted to a depth that will permit the cutting and stripping of the insulation slug from the conductor wires. This adjustment is made by turning the setscrew clockwise to strip a smaller wire and counterclockwise to strip a larger wire.

1. Turn power to the stripping module OFF.
2. Open the main guard.
3. Move the stripping assembly to the right side of the transfer assembly.
4. Loosen the scrap cover retaining screw.
5. Slide the scrap cover forward and lift the cover off.
6. Insert a striped wire into the opening of the blade assembly.
7. Insert aa 3mm hex wrench through the slot that was hidden by the scrap cover and into the hole in the strip cam.
8. Pull the cam assembly forward using a 3mm hex wrench. (Blades should be in the "closed" position.)
9. Using the strip depth adjustment screw, adjust the blade closure until the blades drag on the conductor of the wire, then rotate the adjustment screw 1/4-turn counterclockwise. Rotate the adjustment screw clockwise to close the blades for smaller wire and counterclockwise to increase the blade opening for larger wire.
10. Remove the hex wrench and install the scrap cover.

7.2. Strip Length Adjustment (Figure 14)

The wire strip length may vary between applicators and various terminals.

This adjustment is made with the adjustment screw located at the front of the stripping module. Turn the adjustment screw clockwise to increase the strip length or counterclockwise to decrease the strip length.

7.3. Wire Brush Adjustment (Figure 14)

1. Remove the pneumatic power by opening the machine guard to access the stripping module.
2. Slightly loosen the applicator latch located on the transfer assembly (Figure 15).
3. Turn the wire brush adjustment screw clockwise to decrease the wire brush or counterclockwise to increase the wire brush.
4. Push the strip mechanism toward the rear of the machine until the adjustment screw hits the rear stop.
5. Tighten the applicator latch.

If the applicator latch is not fully tightened, the top portion of the strip subassembly may move, causing variations in the wire brush.

7.4. Gripper Adjustment

A. Jaw Height Adjustment

The jaw height adjustment is required to align the center of the wire to be stripped with the center of "V"-shaped opening in the outer strip blade.

1. Open the machine guard to remove the pneumatic power and access the stripping module.
2. Place a wire onto the lower jaw (Figure 15) and insert the wire through the opening in the strip blades.
3. Center the wire in the center of the "V" opening in the outer blade by turning the jaw-height adjustment screw located on the top of the right gib of the grip sub-assembly. Turning the adjustment screw clockwise will lower the jaw. Turning the adjustment screw counterclockwise will raise the gripper jaw.

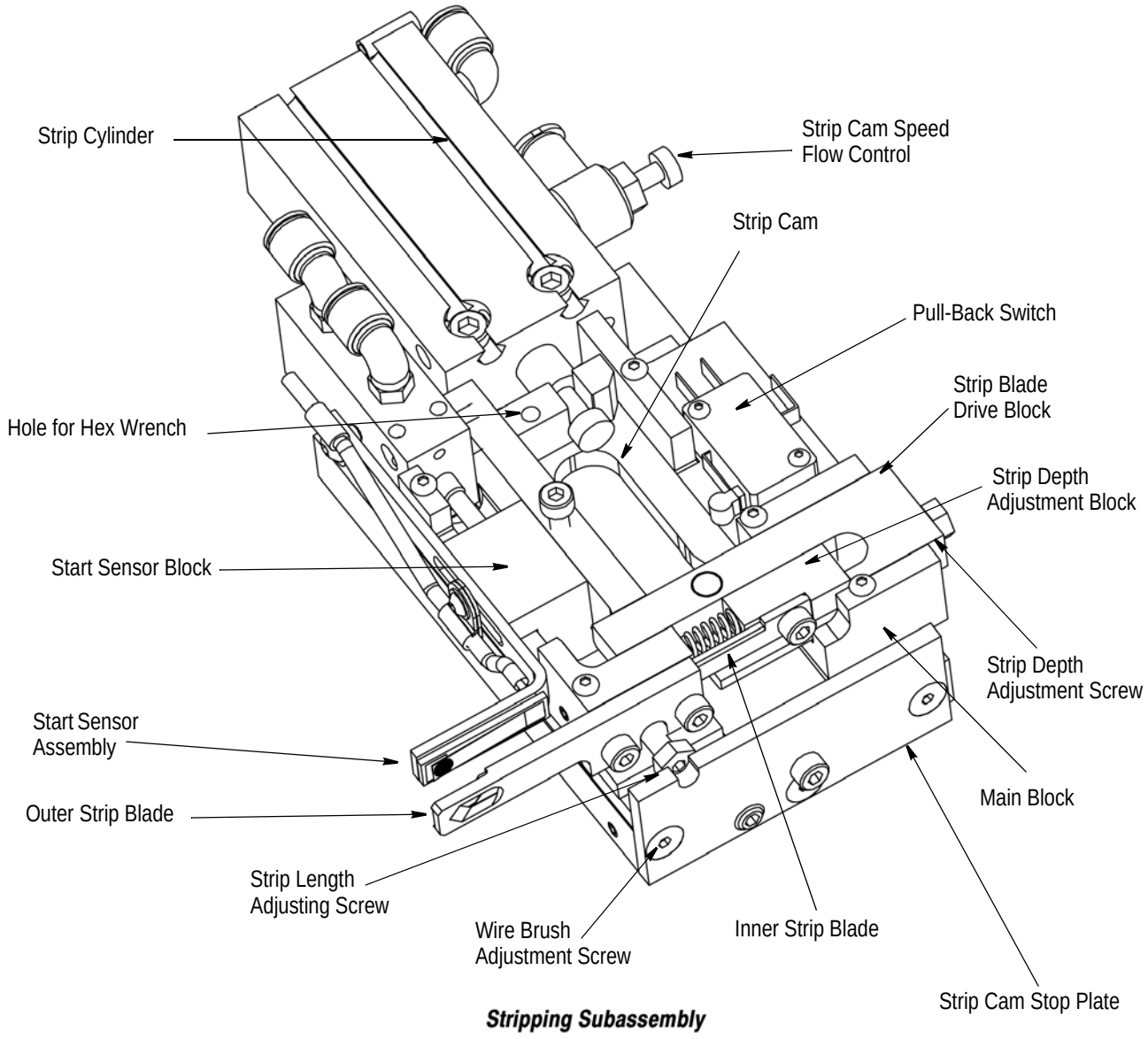
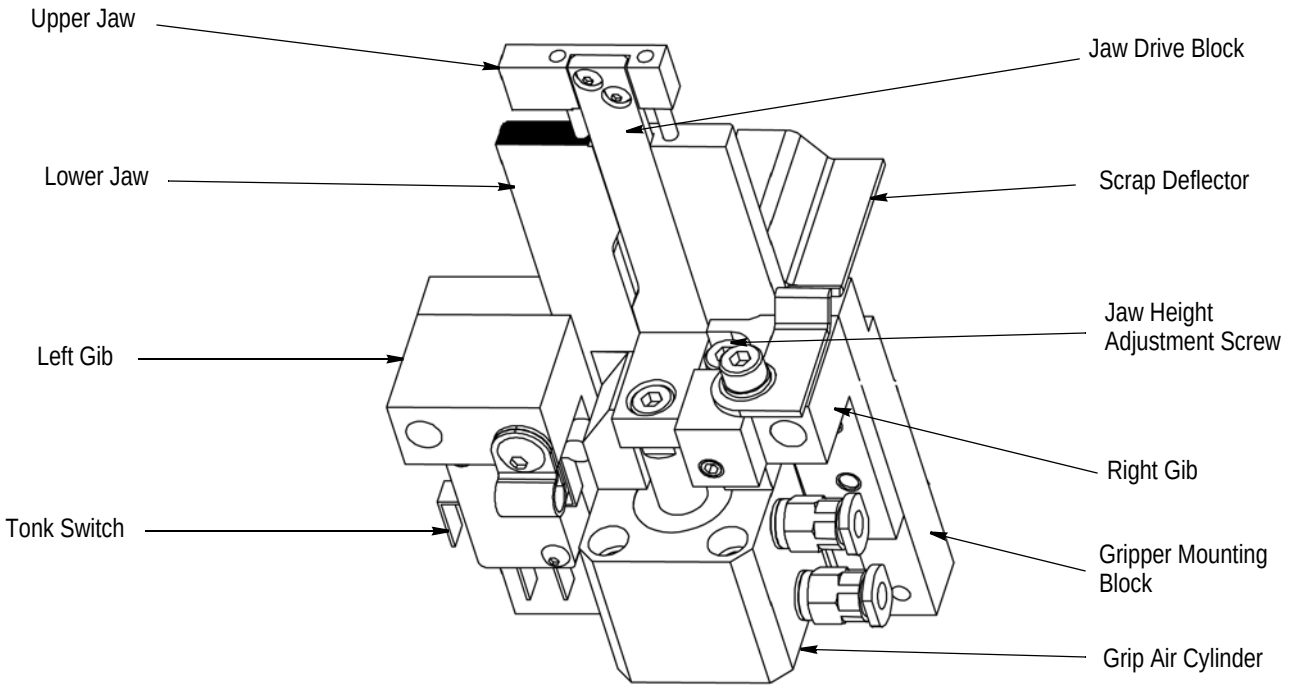
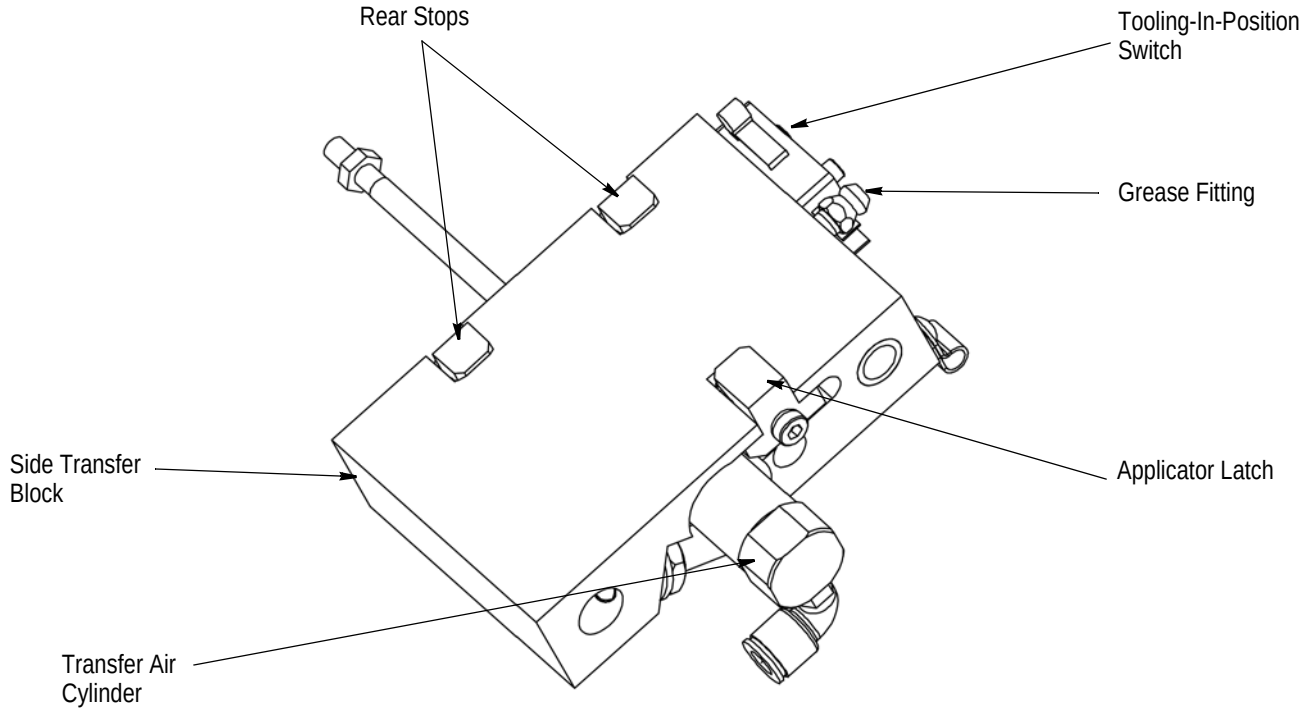

Strip Cylinder
Strip Cam Speed
Flow Control
Strip Cam
Pull-Back Switch
Strip Blade
Drive Block
Hole for Hex Wrench
Strip Depth
Adjustment Block
Start Sensor Block
Strip Depth
Adjustment Screw
Start Sensor
Assembly
Main Block
Outer Strip Blade
Strip Length
Adjusting Screw
Wire Brush
Adjustment Screw
Inner Strip Blade
Strip Cam Stop Plate
Stripping Subassembly

Figure 14



Gripper Subassembly



Transfer Subassembly

Figure 15

B. Gripper Pressure Adjustment

The gripper pressure adjustment may be necessary to prevent damage to the wire insulation.

To see the pressure level on the gage, enter the step mode while in strip and crimp mode or strip only mode. Perform the first step by pressing the step button. This will close the grip jaw and the pressure will be displayed on the gage next to the gripper pressure regulator (Figure 1).

- *Increase* the pressure by pulling the lock knob away from the machine and turning the knob clockwise. Push the lock knob back toward the machine after adjustment.
- *Decrease* the pressure by pulling the lock knob away from the machine and turning the knob counterclockwise. Push the lock knob back toward the machine after adjustment.

If the pressure is set too low, the wire may be pulled through the grip jaws during the pull back motion causing wire damage. If this occurs, increase the gripper pressure until the insulation is pulled off the wire properly.

7.5. Tonk Adjustment

The tonk adjustment is required to make sure that the wire is level between the terminal and gripper jaws during the crimping operation.

1. Open the main guard to remove the pneumatic power and to access the stripping module.
2. Push the transfer sub-assembly (Figure 15) along with the stripping subassembly (Figure 14) to the right-side position.
3. Insert a pre-stripped wire through the griper jaws into the approximate location required for wire striping.
4. Manually close the upper gripper jaw onto the wire.
5. Remove the protective cover from the motor on the terminator. Then use a hex wrench to lower the machine ram until it is at it's lowest point.
6. Make sure the wire is sitting in the terminal crimp barrel.
7. If the wire is not in the correct position, loosen the T-handle on the tonk block (Figure 3) and turn the tonk adjustment screw clockwise to lower the wire; turn the adjustment screw counterclockwise to raise the wire.
8. Tighten the T-handle on the tonk block.
9. Return the terminator ram to the top position and re-install the power cord at the rear of the terminator motor.

7.6. Strip Cam Speed Adjustment (Figure 14)

The strip cam speed may need to be adjusted (slowed) if the gripper pressure is lowered enough to slow the grip cylinder.

Adjust the strip cylinder speed by turning the flow control knob on the side of the strip air cylinder. Turn the knob clockwise to slow the cylinder speed; turn the knob counterclockwise to increase the cylinder speed.

7.7. Start Sensor Gap Adjustment

If the wire sensor lever gap becomes too small, the wire sensor may not operate properly. An error message will occur indicating a stuck wire sensor

Using the et screw on the back side of the start sensor assembly, adjust the start sensor lever gap to achieve a .25mm [.010 in.] gap between the printed circuit board and the lever. See Figure 16.

Turn the set screw clockwise to increase the gap; counterclockwise to decrease the gap.

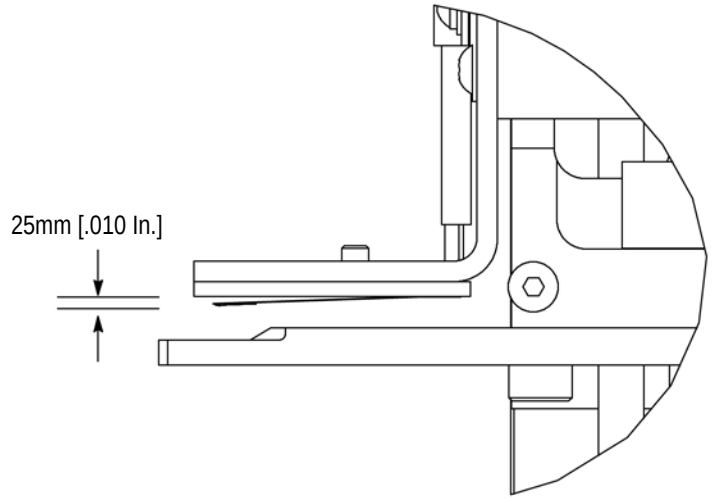


Figure 16

8. ELECTRICAL ASSEMBLY

Refer to the electrical assembly drawings shipped with the machine.

9. PARTS REPLACEMENT AND REPAIR

9.1. Strip Blade Replacement (Figure 17)

DANGER

STOP

To avoid personal injury, be sure to disconnect power to the stripping module and terminator before replacing strip blades.

1. Open the main guard to remove pneumatic power and to access the stripping module.
2. Loosen the screws securing the scrap covers. Then slide the scrap covers off.
3. Remove the outer blade by removing the two screws securing the blade to the main block.
4. Remove the inner blade by removing the single screw securing the blade to the blade adjustment block.
5. Install new blades (replacement is in reverse order of removal).
6. Check the strip depth after removing/replacing the blades. Adjustment may be required.

9.2. Start Sensor Assembly Replacement (Figure 17)

DANGER

STOP

To avoid personal injury, be sure to disconnect power to the stripping module and terminator before replacing the start sensor.

1. Open the main guard to remove pneumatic power and to access the stripping module.
2. Remove the cable clamp from the rear of the strip cylinder.
3. Remove the three screws securing the start sensor assembly to the start sensor block.
4. Install the new start sensor assembly onto the start sensor block by installing the two outer screws into the block and loosely tightening them.
5. Turn the strip length screw (Figure 14) clockwise until the main block is 10.16 [.400] from the strip cam stop plate. See Figure 18.

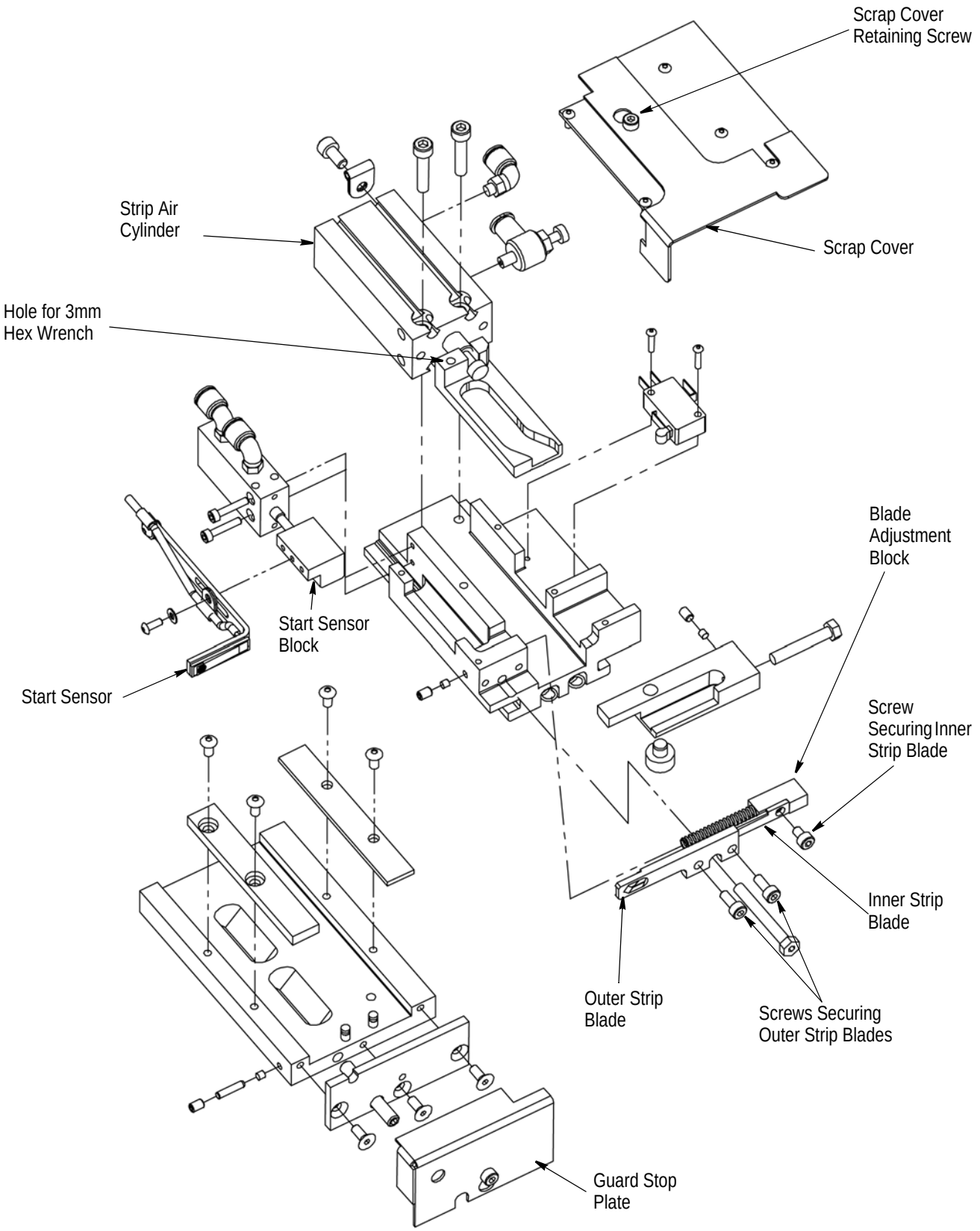

Scrap Cover
Retaining Screw
Strip Air
Cylinder
Scrap Cover
Hole for 3mm
Hex Wrench
Blade
Adjustment
Block
Start Sensor
Block
Start Sensor
Screw
Securing Inner
Strip Blade
Inner Strip
Blade
Outer Strip
Blade
Screws Securing
Outer Strip Blades
Guard Stop
Plate

Figure 17

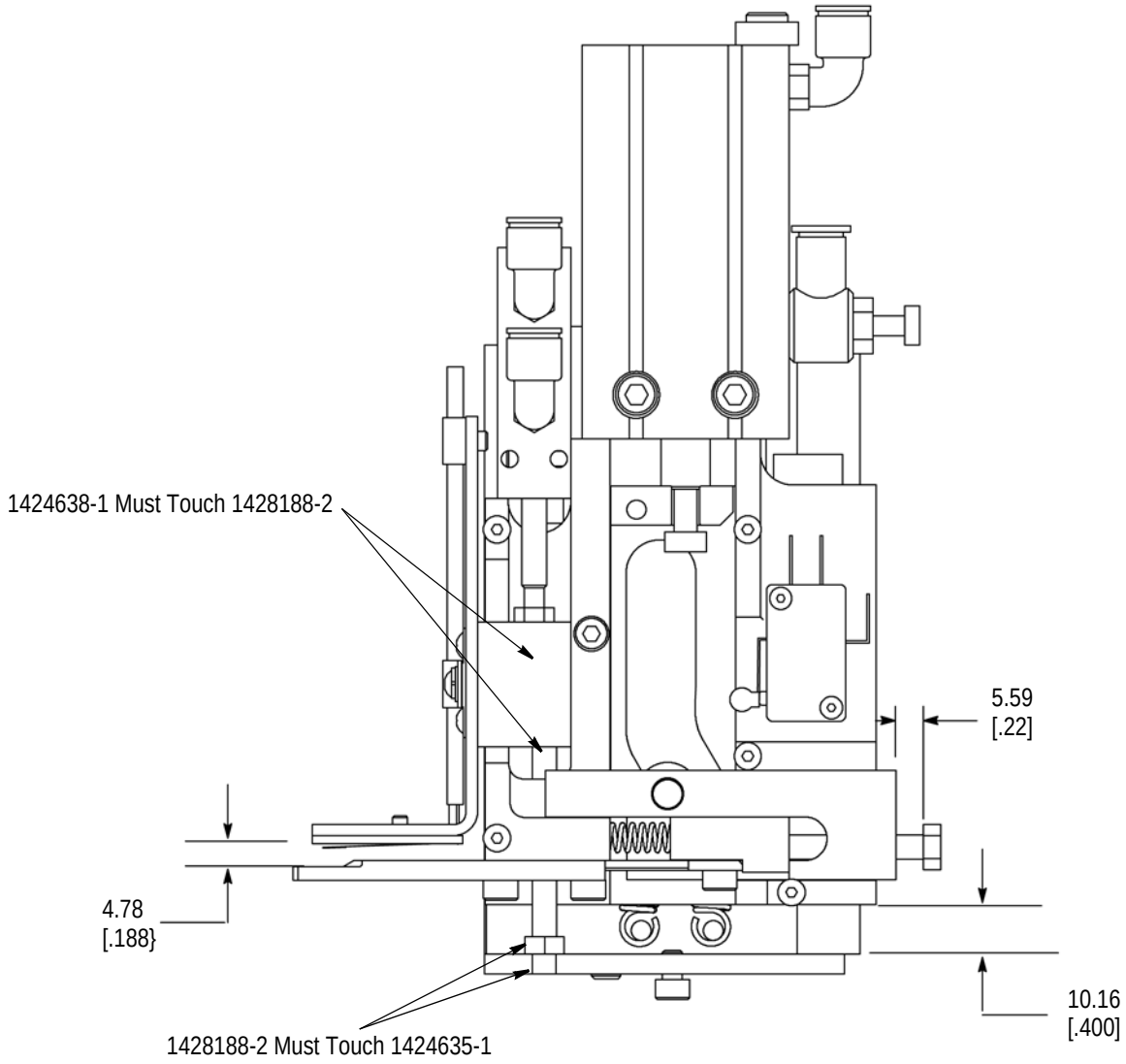


Figure 18

6. Adjust the start sensor arm so that the lever is 4.78 [.188] from the back of cutting surface of the outer strip cam.

NOTE

When adjusting the outer strip arm, be sure that the start sensor block is pushed forward against the strip length adjustment screw.

7. Adjust the height of the start sensor so that the lever is centered in the opening of the outer strip blade.

8. Fully tighten two screws securing the start sensor assembly to the start sensor block.

9. Install the middle screw through the wire clamp and start sensor arm and into the start sensor block. Fully tighten the middle screw.

10. Install the wire clamp onto the strip air cylinder with the new start sensor assembly wire passing through the clamp.

NOTE

Be sure that a loop of wire exists between the wire clamp on the back of the strip air cylinder and the start sensor arm when the arm is located all the way forward.

9.3. Recommended Spare Parts

- Auto Sensor
- Stripping Blades - Front Blade, Rear Blade

See drawing and documentation package to identify parts. 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

10. TROUBLESHOOTING

Contact the Tooling Assistance Center at 1-800-722-1111.

11. DISPOSAL

Contact TE Connectivity for disposal.

12. ROHS INFORMATION

Information on the presence and location of any substances subject to RoHS (Restriction on Hazardous Substances) can be found at the following website:

http://www.tycoelectronics.com/customersupport/rohssupportcenter/

Click on "Find Compliance Status" and enter equipment part number.

13. REVISION SUMMARY

This document supersedes 409-127000. New release of 409-32021.