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Designers and Manufacturers of Pressure Sensitive Labeling Equipment and Custom Product Handling

3600 PRINTER APPLICATOR MAINTENANCE & SERVICE MANUAL

(REVISION 3600-2b5.x)

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(STANDARD 3600)

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INTRODUCTION

The 3600-PA printer applicator is a high-speed labeler used to thermally print and apply pressure sensitive labels to moving products. A thermal transfer printer is integrated into an applicator to form a self-contained unit that will print variable data onto a label. The printer/applicator can be mounted in almost any position adjacent to product flow to apply labels to top, sides or bottom of products as they pass by.

Labels are supplied on rolls that consist of a liner on which the labels are held with adhesive. The labels may be preprinted with the variable information added by the printer or blank labels with the printer printing the entire label.

The applicator can work in two different modes:

Normal Tamp Blow
Inverted Tamp Blow

In the Normal Tamp Blow mode, the label is printed, dispensed out onto the label pad and held there by vacuum. When the product detect sensor is made, the label and label pad are moved toward the product using a pneumatic slide. When the slide is extended, an air blast will blow the label off the pad and onto the product.

In the Inverted Tamp Blow mode, the label is printed, dispensed onto the label pad and the slide extends. The applicator will wait in this position until the product sensor is made. The label is then blown off the pad onto the product.

For safe and trouble free operation, the instructions in this manual must be followed carefully during the set-up, operation, media changes, cleaning and maintenance. Also the specified environmental conditions must be maintained.

Electrical Supply: 108-132 Volts, 5 Amps, 50-60 Hertz, Single phase

A three-meter long, three wire cable with 1.00mm conductors rated at 10 amperes (in accordance with CENELEC HD-21) is provided for the electrical connection to the IEC 320 receptacle of the applicator. The end of the power cord is terminated with a NEMA 5-15 plug.

Air Supply: Clean and dry compressed air must be provided at pressures 90 to 100 P.S.I. with a minimum flow rate of 4 S.C.F.M.

Environment: Operating temperature range is 40 to 95°F (5 to 35°C). Operating humidity range is 20 to 85% RH, non-condensing.

Note: The model 3600-PA is not intended to be operated in an environment where flammable or explosive gases are present. The model 3600-PA MUST not be used in direct contact with food products.

READ THE INSTRUCTIONS CAREFULLY AND COMPLETELY. This manual includes all of the information that you'll need to set up the applicator under normal operating conditions. The instructions include important safety precautions, which must not be ignored.

READ THE INSTRUCTIONS IN ORDER. The instructions are written as numbered steps that will take you safely and efficiently through the setup process. Any steps performed out of sequence may result in a hazard and the applicator may not operate properly.

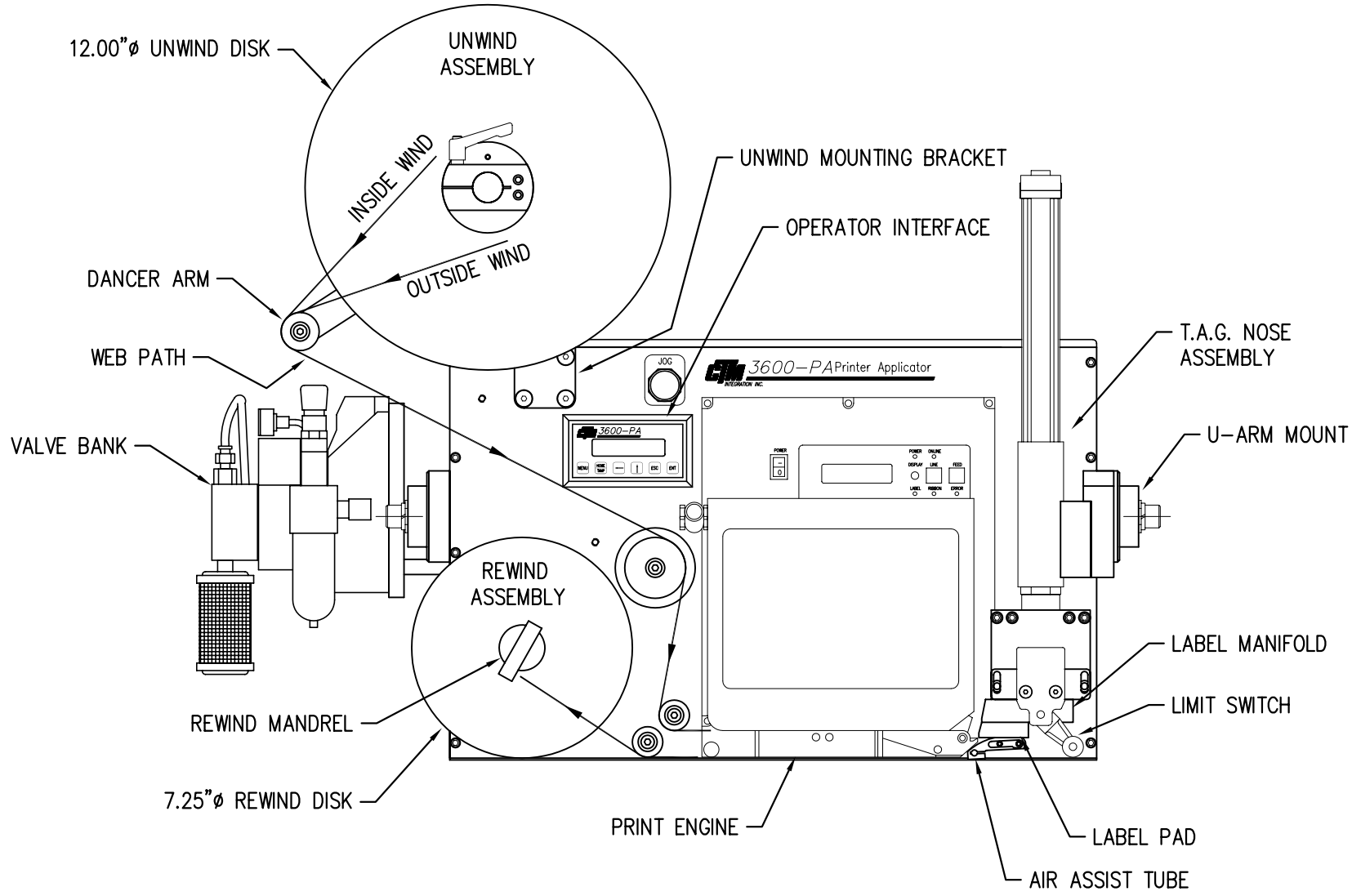
WORK CAREFULLY. Although setting up the applicator is not difficult, it does take time. Do not rush through the process. Careful work will produce good results.

IF SOMETHING DOES NOT WORK PROPERLY TRY SETTING UP AGAIN. Although applicator malfunction is possible, most problems happen because the applicator was not setup correctly. If the applicator doesn't operate correctly, back-up and start over.

FOLLOW ALL SAFETY INSTRUCTIONS. The 3600-PA has been provided with a number of safety features. Observe all safety warning and under no circumstances attempt to remove or defeat safeguards or operate the machine in a manner contrary to the instructions.

WEB PATH DIAGRAM

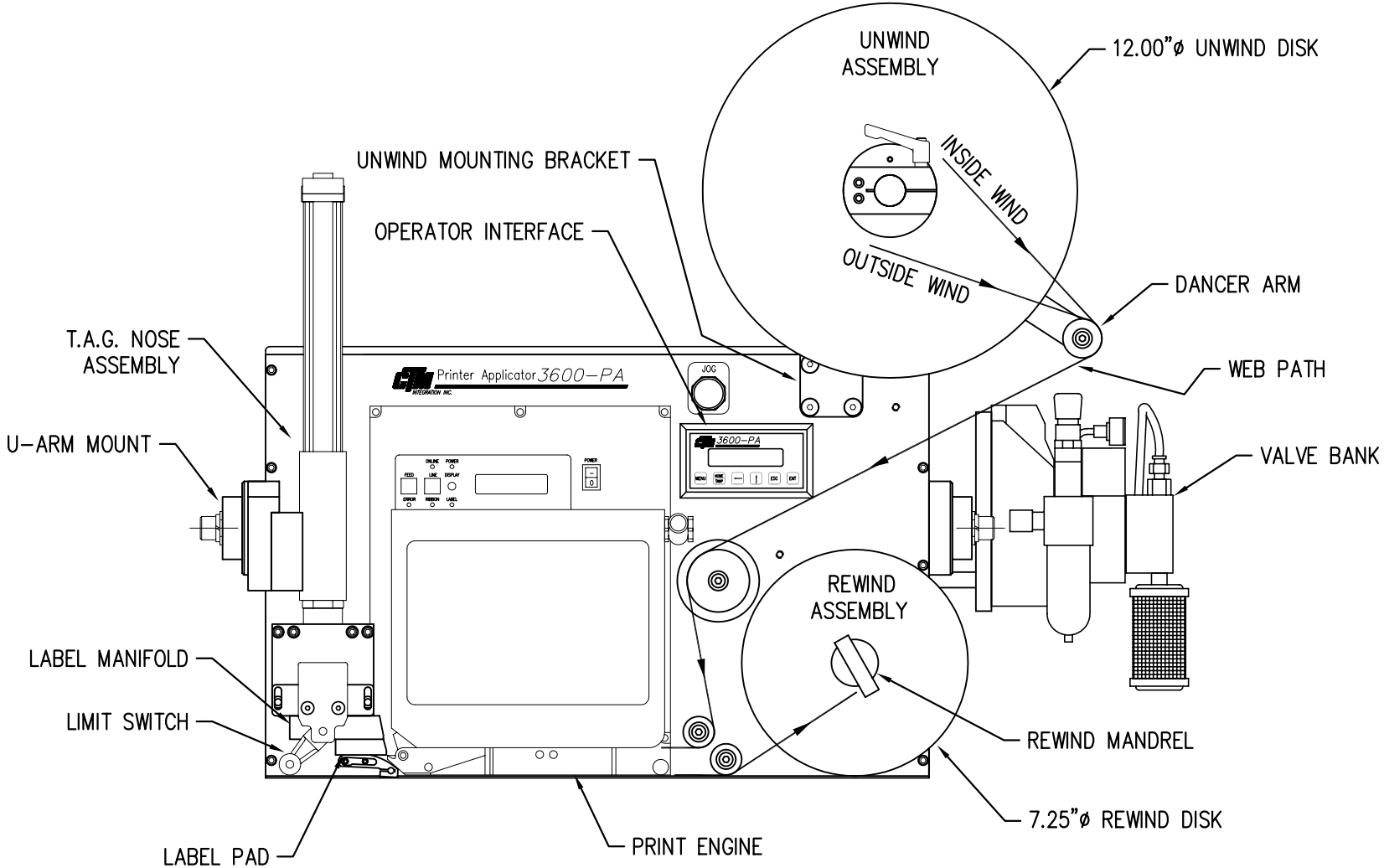
3600–PA SERIES R.H. TOUCH & GO TAMP APPLICATOR
PARALLEL / PERPENDICULAR FLOW – WITH 12" UNWIND



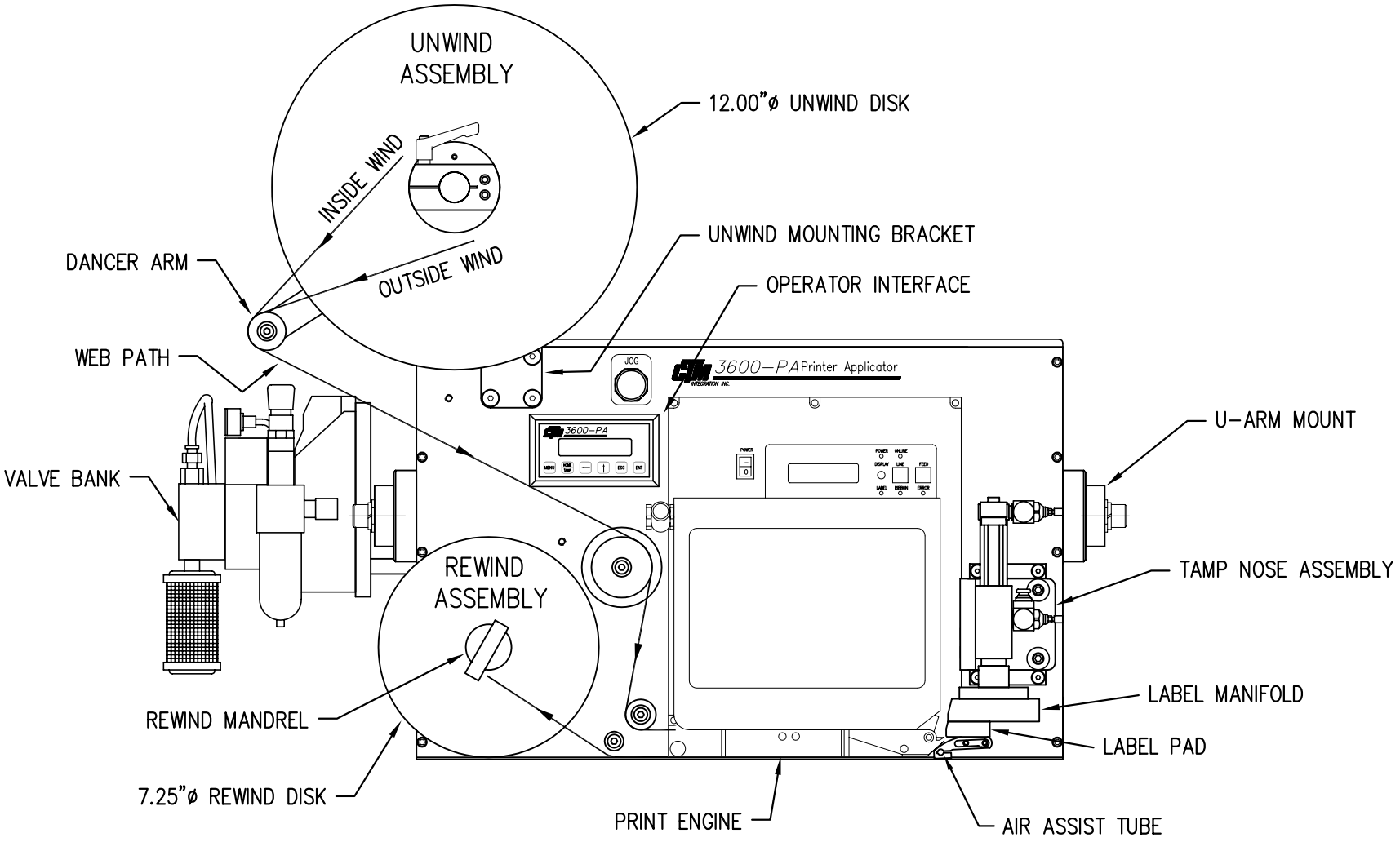
WEB PATH DIAGRAM

3600–PA SERIES L.H. TOUCH & GO TAMP APPLICATOR

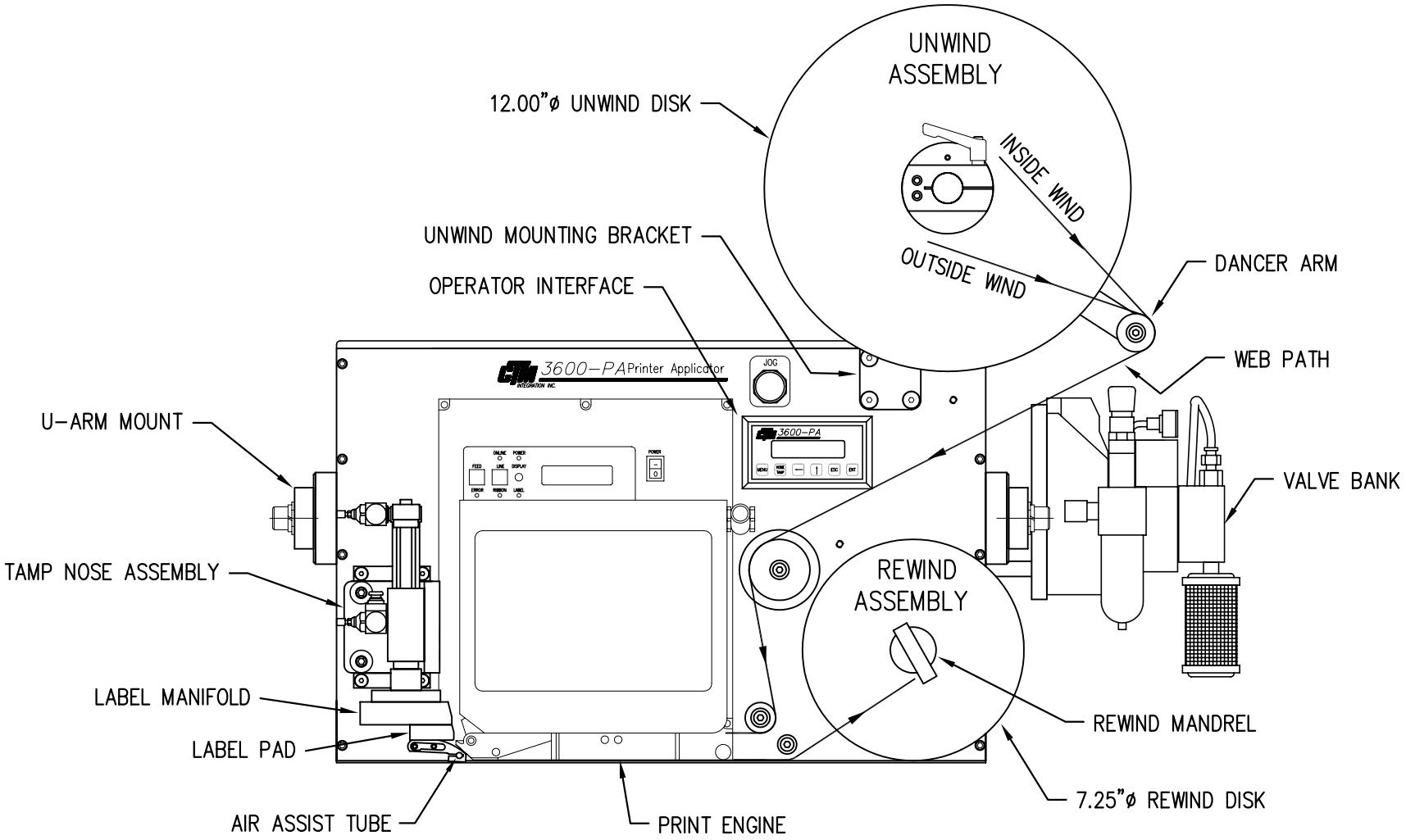
PARALLEL / PERPENDICULAR FLOW – WITH 12" UNWIND



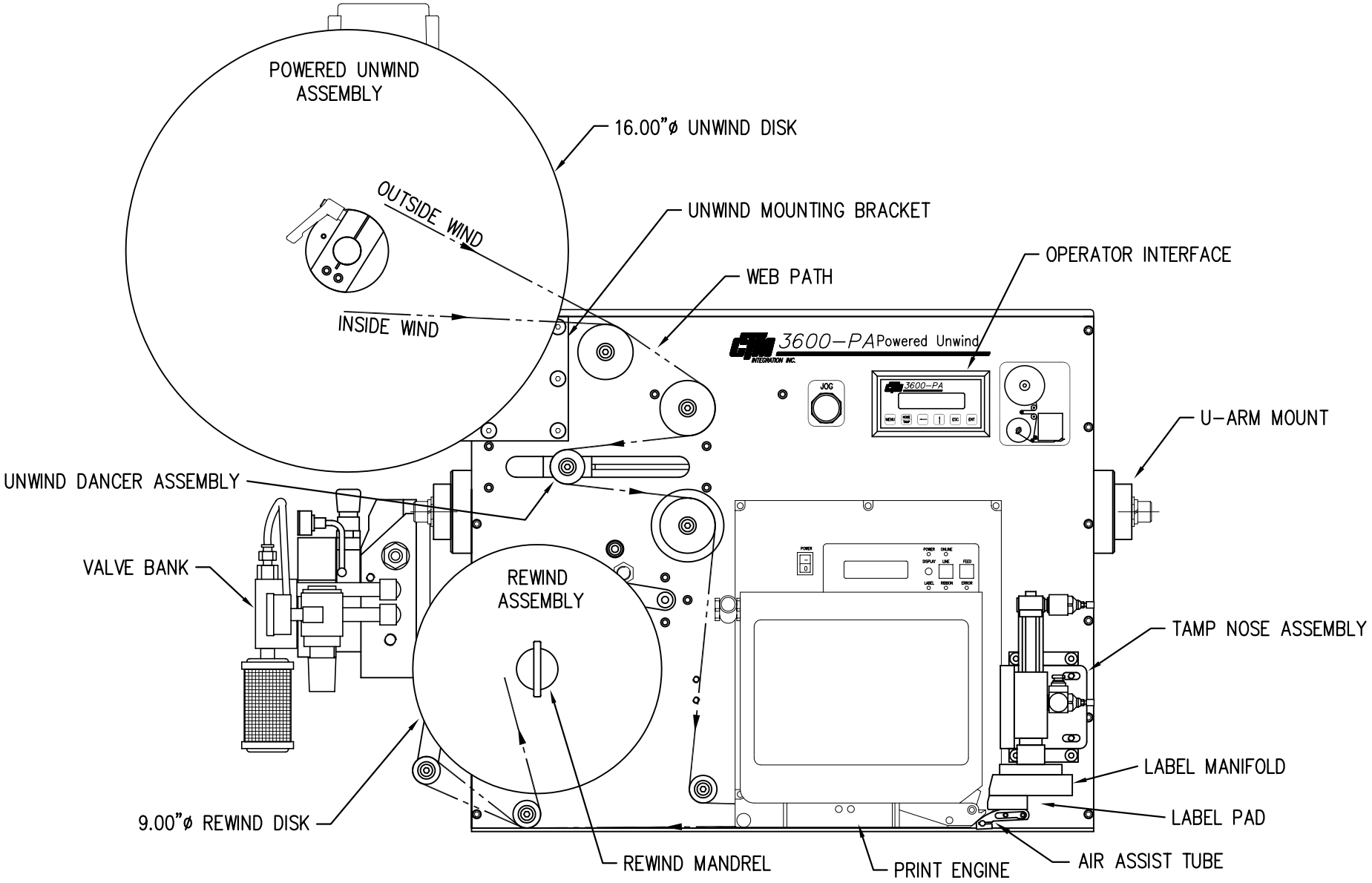
WEB PATH DIAGRAM
3600–PA SERIES R.H. STANDARD TAMP APPLICATOR WITH 12" UNWIND



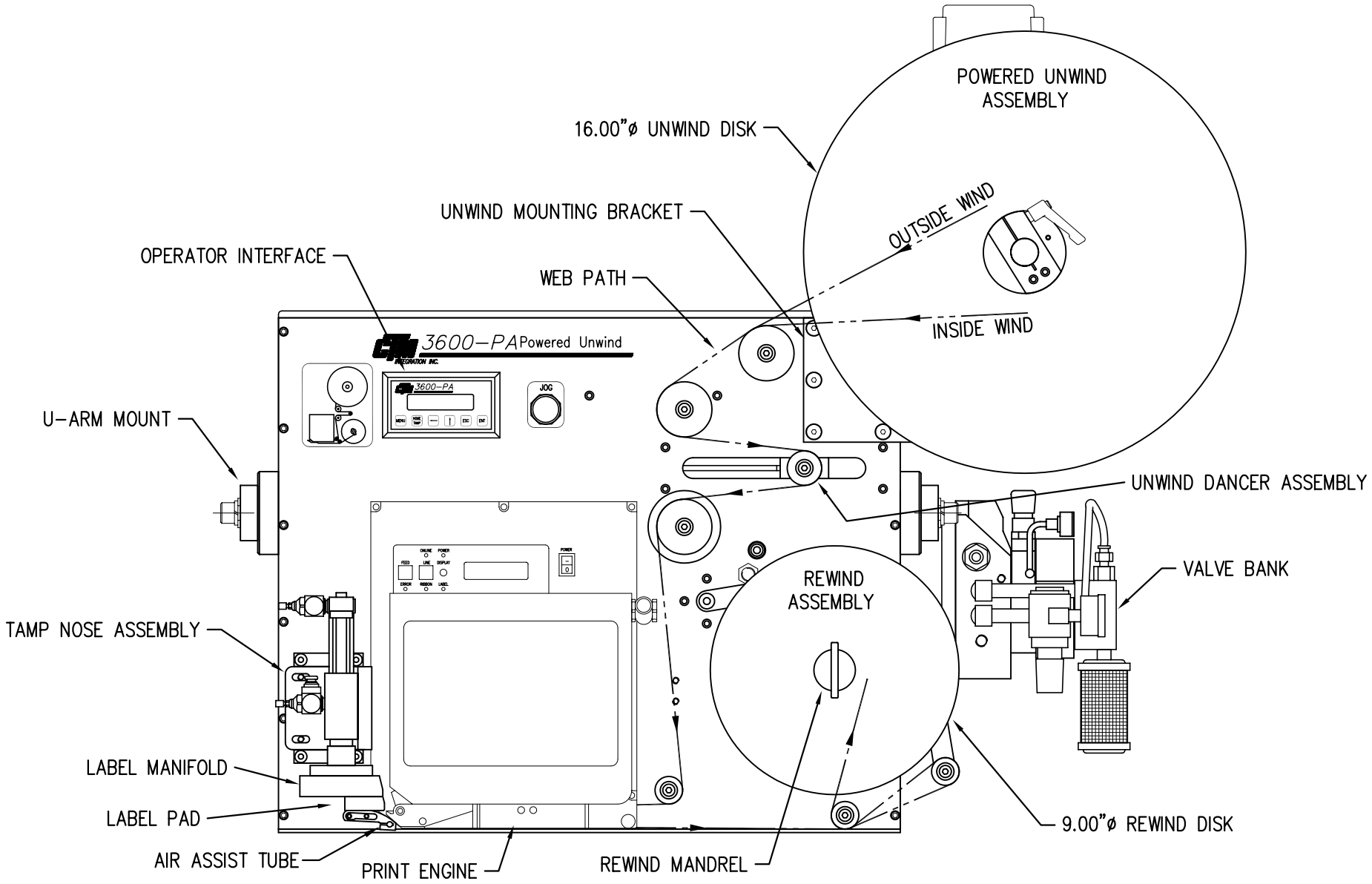
WEB PATH DIAGRAM
3600–PA SERIES L.H. STANDARD TAMP APPLICATOR WITH 12" UNWIND



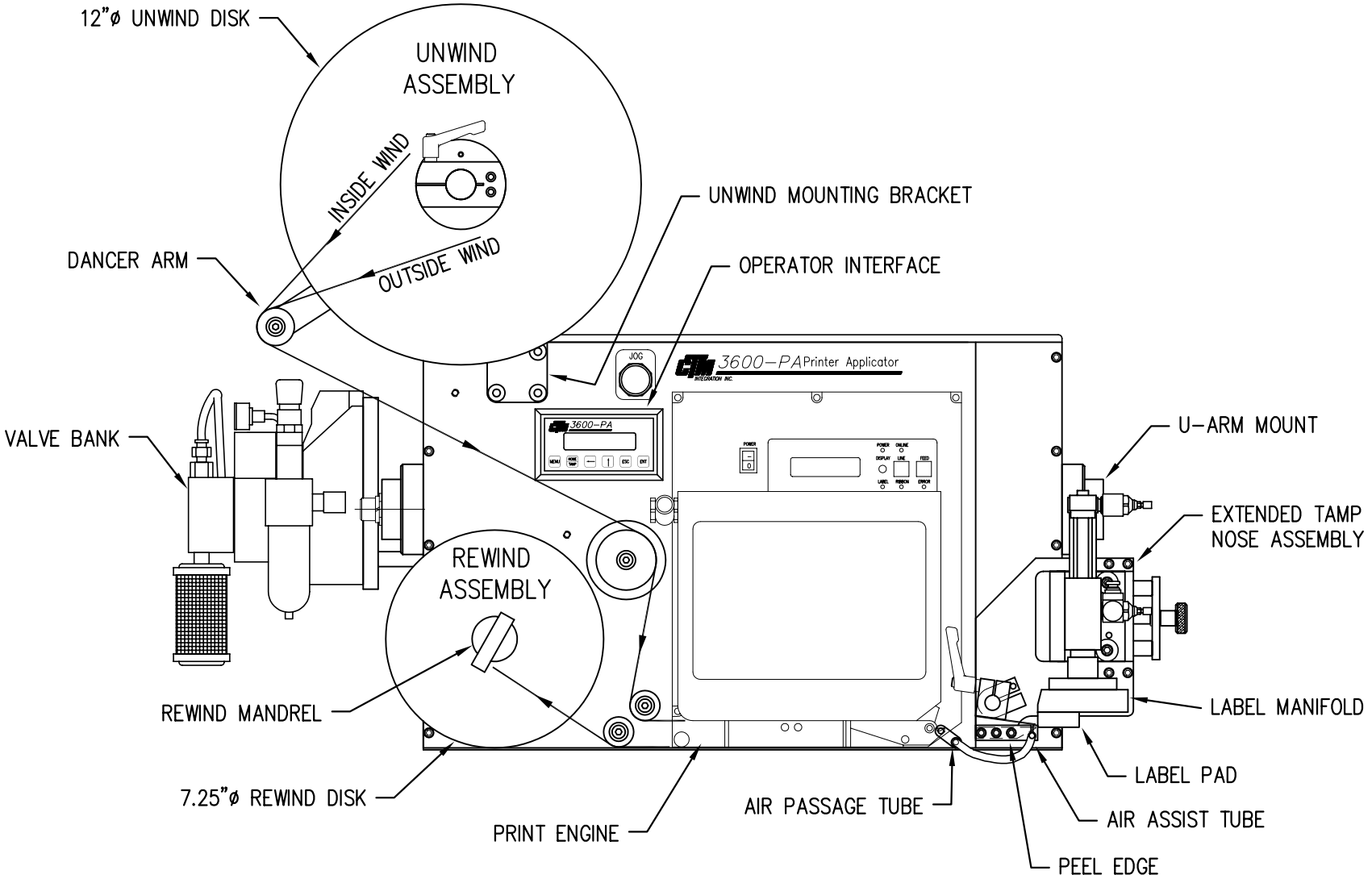
WEB PATH DIAGRAM
3600–PA SERIES R.H. STANDARD TAMP APPLICATOR
WITH 16" POWERED UNWIND



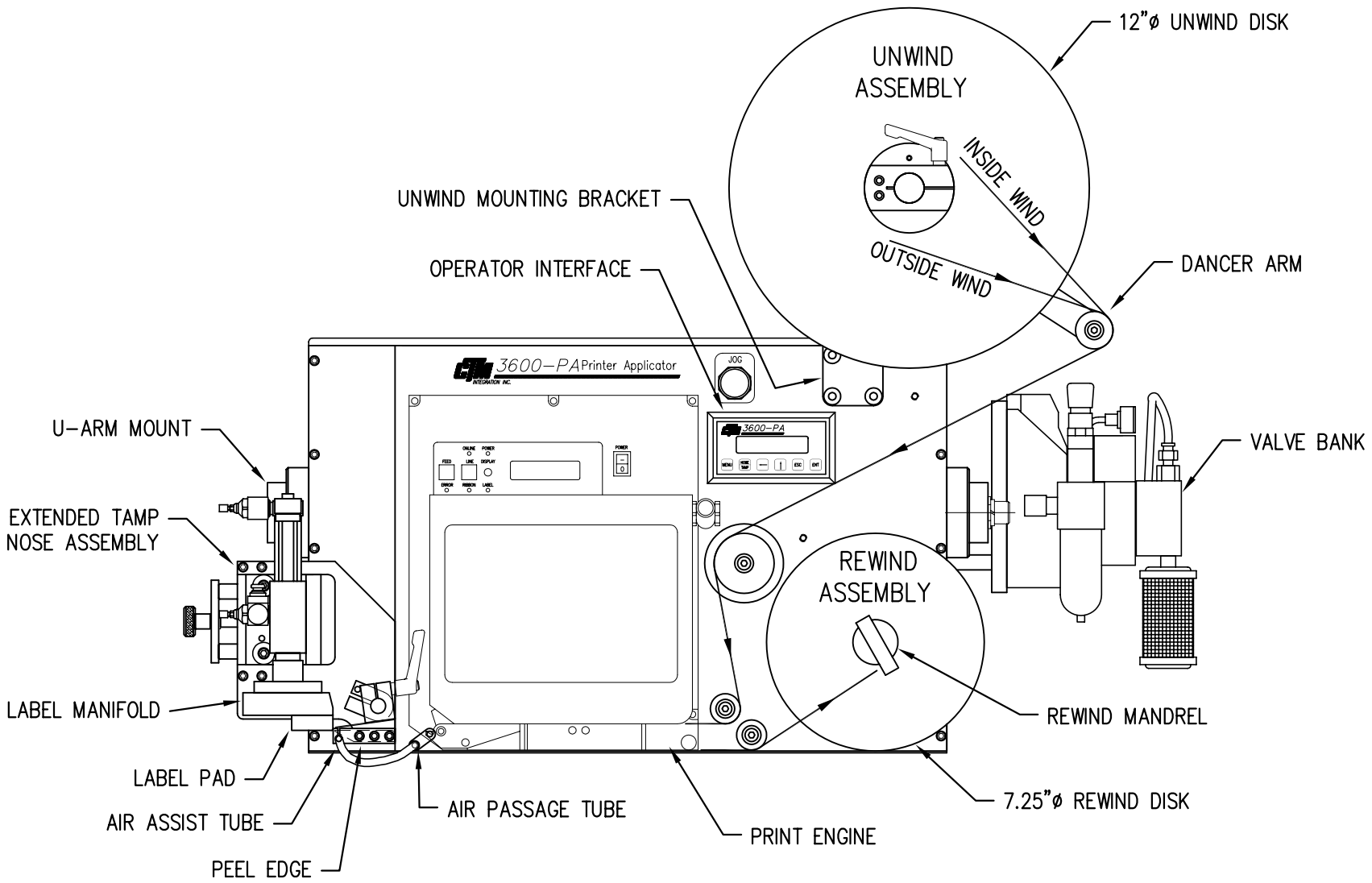
WEB PATH DIAGRAM
3600–PA SERIES L.H. STANDARD TAMP APPLICATOR
WITH 16" POWERED UNWIND



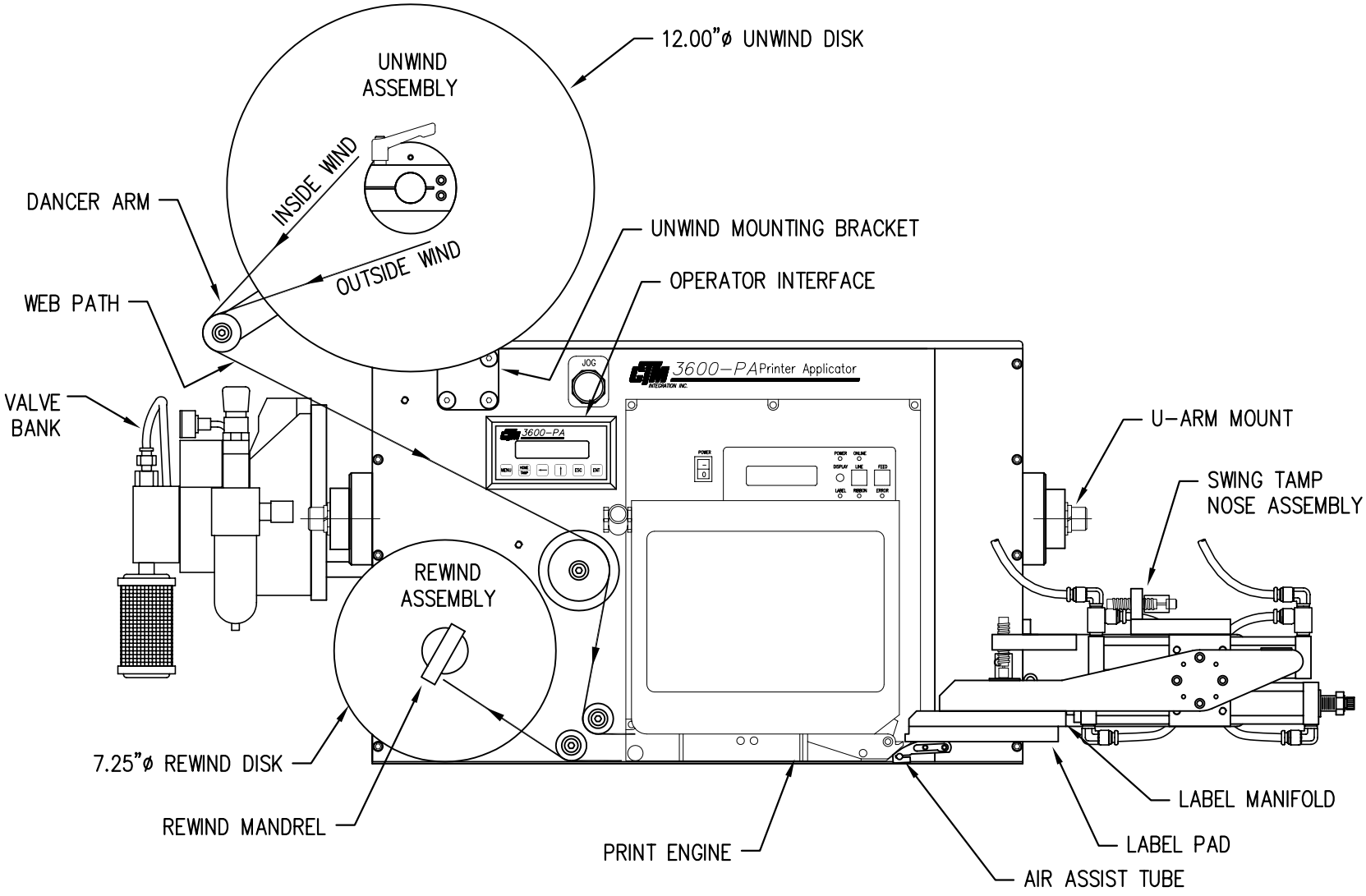
WEB PATH DIAGRAM
3600–PA SERIES R.H. EXTENDED TAMP APPLICATOR WITH 12" UNWIND



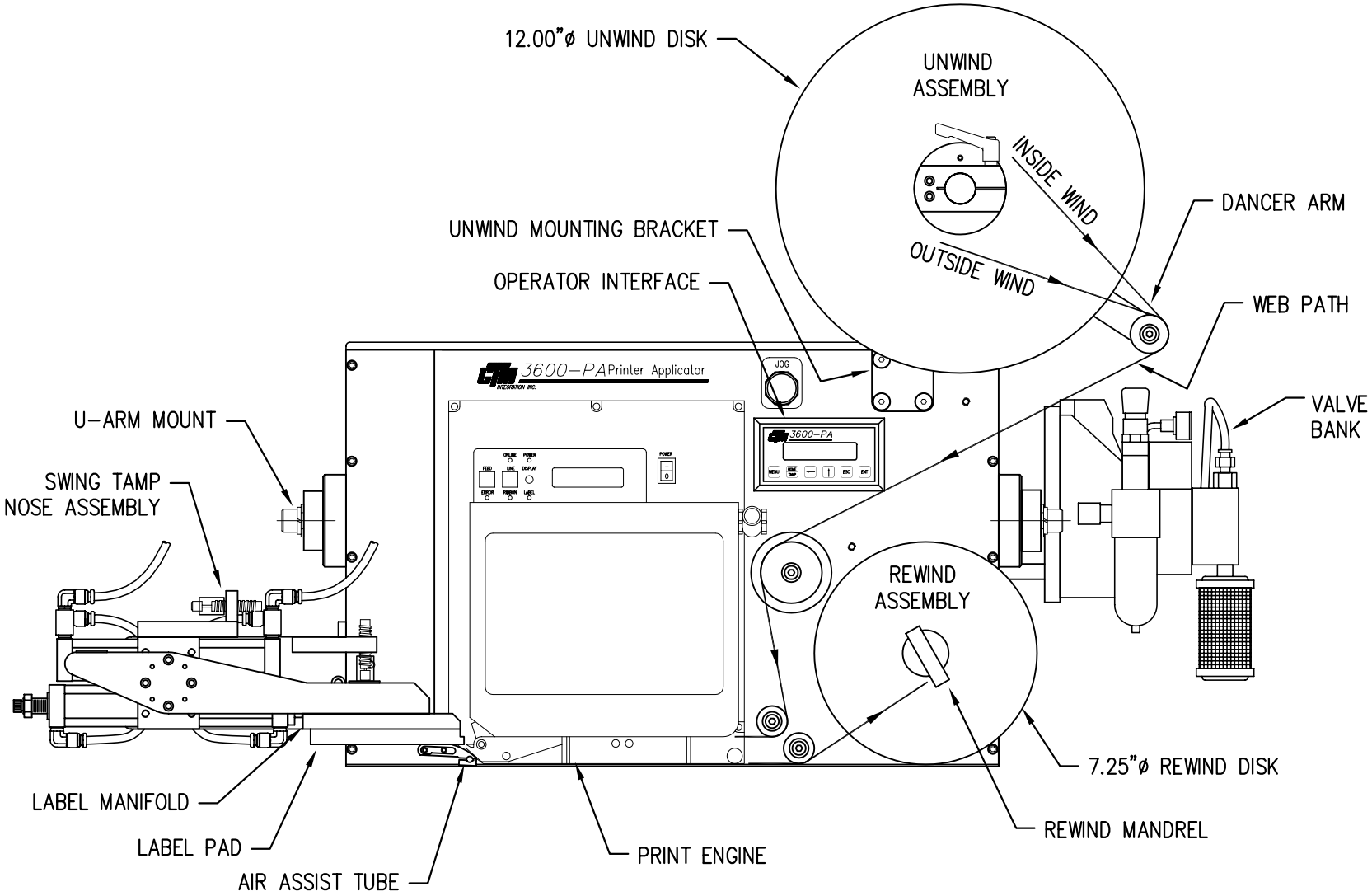
WEB PATH DIAGRAM
3600-PA SERIES L.H. EXTENDED TAMP APPLICATOR WITH 12" UNWIND



WEB PATH DIAGRAM
3600–PA SERIES R.H. SWING TAMP APPLICATOR WITH 12" UNWIND



WEB PATH DIAGRAM
3600–PA SERIES L.H. SWING TAMP APPLICATOR
WITH 12" UNWIND



MACHINE TERMS

Adhesive Strings: Label adhesive that attaches to the label and liner while the label is dispensing onto the label pad. They can cause the label position on the label pad to become inconsistent.

Air Assist Tube: A small diameter tube with small hole in it mounted under the peel edge. The purpose is to direct a stream of air to help the label onto the label pad.

Air Assist: The stream of air from the Air Assist Tube.

Air Blast: A blast of compressed air that moves the label from the label pad to the product. The duration of the blast is controlled by the Air Blast time accessible through the applicator display.

Air Filter: A device on the inlet of the air supply that removes debris from the air supply.

Critical Alarm: An alarm that will stop the applicator from applying labels. Critical alarms include end of web, out of labels (from printer) and no ribbon (from printer).

Cycle Time: The amount of time it takes for the applicator to print and apply a label to a product, starting from the product detect signal.

Dancer Arm: The function of the dancer arm is to release the brake on the unwind when labels are being printed and to stop the unwind mandrel when printing stops.

Detector Lockout: Time span after the applicator starts the labeling sequence that will cause the applicator to ignore any additional product signals. This is useful if a product triggers the product detect sensor more than once.

Extended Air Assist: The air assist is always on while the label is being printed (dispensed). Extended air assist allows the air assist to stay on longer to aid in putting the label on the pad.

Extended Peel Edge: An applicator nose assembly that adds a peel edge that moves with label flow. This will enable the back feed option to be turned off to the printer so higher labeling rates can be obtained.

Inverted Tamp Blow (ITB): A mode of operation in which the tamp pad is in the extended position waiting for the product detect signal to start the labeling sequence.

Label Feed: The moving of the label stock through the machine.

Label Liner: The backing material that supports the labels before dispensing.

Label Manifold: The aluminum block mounted under the tamp slide. The label pad is mounted to it. Vacuum and the air blast are channeled through it to the pad.

Label Pad: Mounted under the manifold and is usually made from white delrin. This part supports the label before application.

Label Placement: The time from when the product sensor is made to when the labeling sequence starts.

Label Sensor: The sensor that detects the leading or trailing edge of the label.

Label Size: The width and length (or feed) of a label. Length equals the distance from the leading edge of the label to its trailing edge. Width is the distance across the label.

Leading Edge: Refers to the signal sent from a sensor when the first edge of a product or label is detected.

LED: Light Emitting Diode

Normal Tamp Blow: A mode of operation where a label is dispensed onto the label pad and the applicator waits for the product detect sensor to turn on before starting the labeling sequence.

Parity: A data bit that provides a means of checking for errors in the data stream.

Peel Edge: A machined part just before the label pad used to transfer the label onto the pad as the liner is pulled around the part.

Rewind: This is the rotating mandrel that takes up the liner after the labels have been removed.

Static Stack: When labels are applied to a stationary target on top of each other to check repeatability of the applicator.

Tamp/Swing Extend Time: The time allowed for the tamp slide to fully extend.

Tamp/Swing Retract Time: The time allowed for the tamp slide to return from it's extended position to it's retracted position.

Trailing Edge: Refers to the signal sent from a sensor when the last edge of a product or a label is detected.

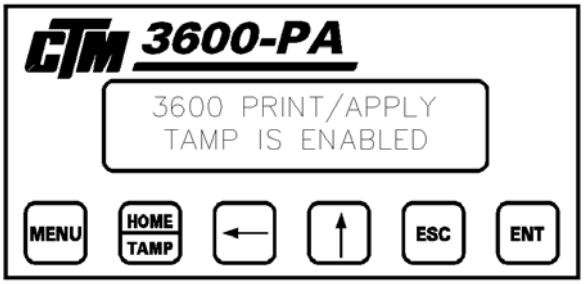
Unwind: The rotating mandrel where the roll of labels is placed to be printed and applied.

Valve Bank: The typical valve bank for a tamp has three valves in it. Each valve has a built in regulator and gauge. The assembly is made to be bolted on either side of the applicator.

Warning Alarm: This alarm serves as a warning that the applicator is low on labels or ribbon.

Web Path: The path the label liner follows leading from the unwind, through the printer and ends at the rewind.

APPLICATOR DISPLAY PANEL



On power-up, the display will scroll the software version screen for 30 seconds. This will allow time for all of the different types of printers to go through their diagnostics. The applicator can be switched from Normal Tamp mode to Inverted Tamp Mode through the display. See the applicator setup section on how to do this.

The following is a list of the keys on the display and what they do:

Menu:
This key will allow the operator to scroll through the following sub-menus:

- **Label Rate** - Displays the rate in which labels have been applied per minute. After 61 seconds passes by with no apply signal 0 labels/min is displayed.

- **Label Placement** - Time from when the product detect sensor turns on until the labeling sequence starts. Aid for putting the label in the right position on the product.

- **Tamp Extend Time** - Time allowed for the tamp slide to extend before continuing with the labeling sequence.

- **Tamp Retract Time** - Time allowed for the tamp slide to return to receive a label from the extended position.

- **Air Blast Time** - Time the air blast valve will stay on.

- **Extended Air Assist** - The air assist is on as long as the applicator is printing a label. Extended air assist is the time after the printing stops until the assist turns off. This can be useful in placing a label on the label pad.

- **Detector Lockout** - Used when receiving more than one product detect signal from a product. The detector lockout timer starts with the product detect and will ignore other signals until the timer has timed out.

- **Product Counter Access Screen** - Pressing the Home key while within the Detector Lockout screen will access this screen. Pressing Ent will reset the counter. When cycling power to the applicator the count will be reset to zero.

Home/Tamp:
When scrolling through sub-menus, pressing "Home" will return you to the Home Page (main menu). If you're at the main menu and tamp is enabled, press the "Home" key to extend the tamp slide (nothing will happen if in ITB mode). With the tamp extended, the print head on the printer can be opened. This function is also useful for setting the height of the applicator.

Arrow Keys:
Menus that have a numeric input (i.e. Label Placement menu) use the arrow keys to change values. On the main menu, the arrow keys "↑" "← " are used to toggle the tamp enable/disable functions. See "Changing Variable Fields" in this section.

Esc:
Escape key stops the editing procedure and returns the value to original.

Ent:
Enter key is used to confirm a change or to clear current values so new values can be entered.

Changing Variable Fields
After the power-up procedure, the display will be at the Home Page (main menu). This menu will have two lines. The first shows the type of applicator and the second will tell whether the tamp is enabled or not. When disabled, the tamp will not move. This is helpful when setting up the applicator (getting the tamp pad in the right position). Also, when the tamp is disabled the product detect input does not work, only the "Jog" button works. This can be used to stop the applicator from applying labels when in production. To disable tamp, press "Ent". The "Tamp Is Enabled" line should start to flash. Use the arrow keys to toggle the line so it says "Tamp Is Disabled". Press "Ent" when the line matches what the applicator is to do.

Note: Short cuts to enable and disable the tamp are as follows:
Pressing "←" will disable tamp.
Pressing "↑" will enable tamp.
To change numeric data, go to the menu to be changed (i.e. Label Placement) using the "menu" key. Press "Ent" and the timer data will set itself to zero and start to flash. Only the right most column will be changed using the "↑" key. Pressing the"←" will move the character just changed to the left. When you have the value you want, Press "Ent" to set it as current. If a mistake is made, press "Ent" to start again; this will clear the data and let you start over. Note: If the "Ent" key is not pressed after data entry or data is not entered, the timer will default to the previous setting after 10 seconds.

Note: Entering more than 32 seconds for any time based setting will produce unsatisfactory results during label printing and application.

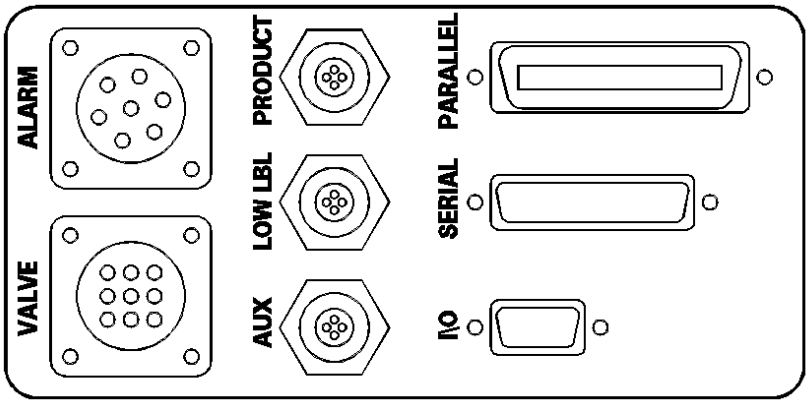
Example: Set Label Placement to "0.115" (115 ms)
-Press "Menu" until the Label Placement menu is displayed.
-Press "Ent" to clear timer data (flashing zero).
-Press "↑" until "1" is displayed in the right column.
-Press "←" one time so the "1" will move to the left by one position.
-Press "↑" until "1" is displayed in the right column.
-Press "←" one time so the "11" will move to the left by one position.
-Press "↑" until "5" is displayed in the right column.
-Press "Ent" when the value matches the desired value. If not, press "Esc" and start over.

Note: Each pressing of the "↑"arrow key will increase the time value by 1 millisecond (ms).

Alarm Screens
The operator interface will display alarm screens for the following alarms:

- **Low Label** - signal from sensor mounted on the unwind of the applicator.
- **Low Ribbon** - signal from the printer.
- **No Label/Ribbon** - signal from the printer.
- **End of Web** - signal from sensor looking for the end of the label stock.
- **Too Many Reprints** - signal from the Label Reprint counter triggered when more labels have been pulled off the pad than the preset amount.

REAR PANEL



Connector Descriptions

VALVE: Valve bank connection. Valve banks come with a short cable and a plug.

ALARM: Alarm light connection . Will drive up to a three stack light stack.
(one light for printer ready, one light for warning, and one for critical alarms)

PRODUCT: Product detect sensor connection.

LOW LBL: Low label sensor connection.

AUX: Used for End of Web sensor connection or custom applications.

PARALLEL: Wired to the parallel port of the printer for data transfer.

ETHERNET: In place of parallel port. Used to transfer data to ethernet equipped print engines.

SERIAL: Wired to the serial port of the printer for data transfer.

I/O: This connector can be used for integrators to monitor applicator alarms and functions. See the next page for a list of pre-wired functions.

I/O Port Functions

The following is a list of the pre-wired functions of the I/O port. If other functions are needed (i.e. tamp home switch), they can easily be added. All outputs are NPN (sinking) with 80 ma load. Inputs are also for sinking devices.

- **Pin #1** (DC Power): 0 VDC
- **Pin #2** (DC Power): 24 VDC at 200ma
- **Pin #3** (System Ready): If there is no critical alarms, the tamp is enabled, inhibit input off, and the printer is online, the ready output is on.
- **Pin #4** (Warning Alarm): This output will turn on when the applicator receives a low label or low ribbon signal. The signal will stay low until the alarm is reset.
- **Pin #5** (Critical Alarm): This output will turn on when the applicator receives a no labels or no ribbon signal from the printer or if the end of web sensor is made. The signal will stay low until the alarm is reset.
- **Pin #6** (Reissue): This is not an input for customer use. Please consult the factory before attempting any integration.
- **Pin #7** (Tamp Home): The output turns on when ever the tamp home switch is made or the tamp retract timer times out.
    - **Note:** Tamp home switch is an option and is purchased separately
- **Pin #8** (Label on Pad): After a label has finished printing, the controller will look at the output of a vacuum switch to see if the label is on the pad. If so, the output turns on.
    - **Note:** Vacuum switch is an option and is purchased separately
- **Pin #9** (Air Blow Valve): This output is on when the air blow valve is on.
- **Pin #10** (Air Assist Valve): This output is on when the air assist valve is on.
- **Pin #11** (Product Detect): Taking this input low will start the labeling sequence of the applicator.
- **Pin #12** (Inhibit): This input will stop the applicator from applying labels.
- **Pin #13** (External Print): When the external print option is turned on, the printer will not print a label until this input goes low. This input is for custom applications.

APPLICATOR SETUP

When an applicator is shipped, it may be necessary to for some disassembly The following section will show different assemblies to aid in putting the applicator back together so it can be set up.

Unwind Assembly
The unwind assembly mounts to the applicator by fastening the unwind mounting plates(2) to the unwind and to the applicator face in alternate positions to suit various orientation and clearance requirements (refer to drawing # ASS-238-0123, MP-238-0236). The two plates are held together using four flat head screws; one end fastens to the unwind bearing block with three (3) flat head screws, and the other end fastens to the applicator face with four (4) screws. The mounting plates can be configured so the unwind can be positioned in different locations to aid in certain applications.

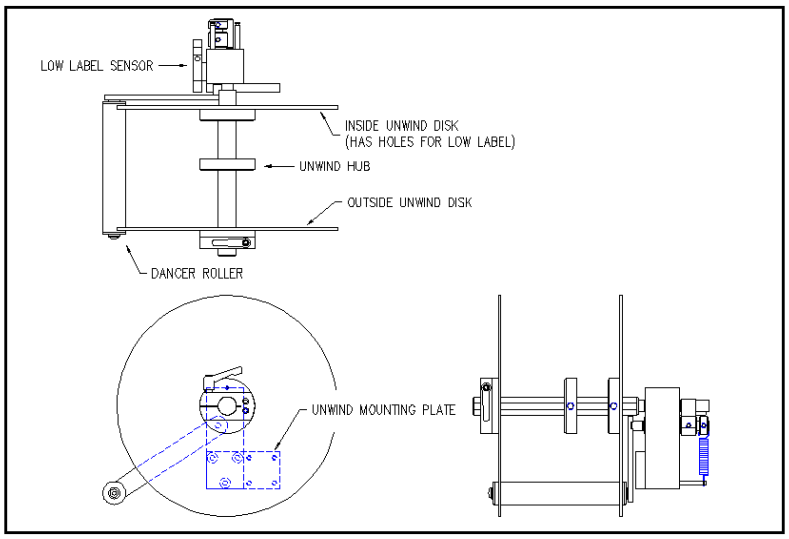


Figure 1 (unwind assembly)

Unwind disks
The unwind disks include a Lexan disk and hub screwed together. The inboard assembly will have two holes in the disk for the low label sensor. The outboard assembly will have a solid disk and hub assembly that includes a ratchet handle for locking it in place. Place the inboard assembly so that the inside face of the disk is approximately 7/8” from the applicator face. This should match the web path of the printer. When fastening the disk assembly to the unwind shaft, make sure the set screw is engaging against the flat of the shaft. Position the loose hub just short of the label width. This hub is for supporting the outboard end of the roll of labels. The outboard disk assembly will slide onto the shaft against the roll of labels and will lock in place by tightening down the ratchet handle.

Air Filter Installation

When the applicator is shipped, the air filter is off. The filter is sent with two 2" nipples and an elbow. The attitude of the machine will determine how the filter should be plumbed. Note: In all cases it is important to have the filter bowl pointing down.

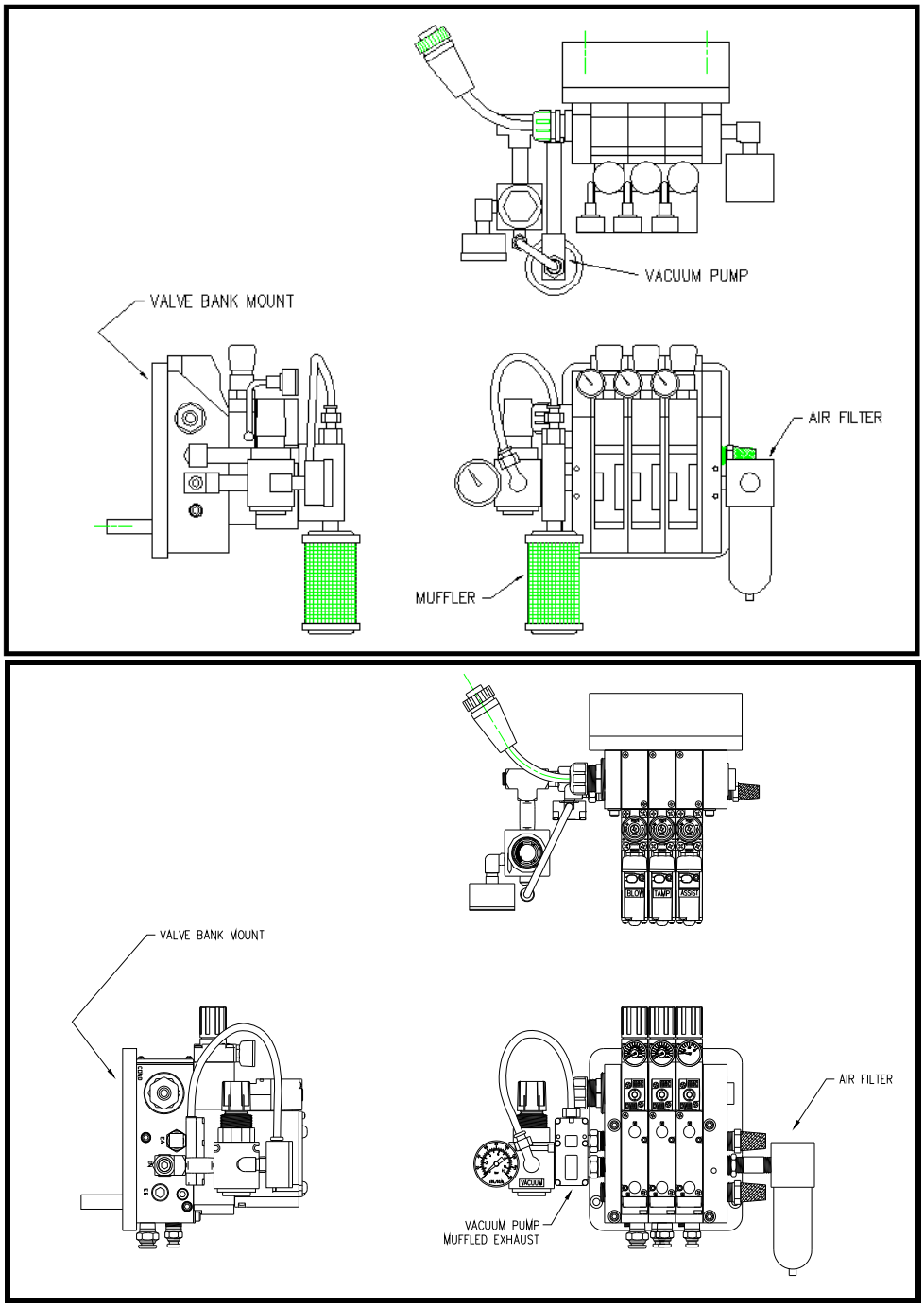


Figure 2 Valve Banks

Valve Bank

Figure 2 shows two types of valve bank assemblies. At the bottom is a Mac Type Valve assembly which CTM started using in the Spring of 2007. If the valve bank was removed and needs to be re-mounted, decide on which side of the applicator the valves should be mounted. Normally, the valves are mounted on the opposite side from the applicator nose. In a nose up application, it may be best to position the valves on the same side as the applicator nose. Mount the valve bank by putting two ¼ shcs. through the two clearance holes on the side of the labeler housing. The bolts then screw into the valve bank mounting plate. Run the air lines into the manifold below the valve bank or directly into the applicator nose if the valves are mounted on the side as the applicator nose.

Standard Tamp Assembly

Although it is unlikely that this will be removed for shipping, it will, however, have to be adjusted. The assembly is held onto the faceplate by two ¼ shcs. marked as in/out adjustment in figure 3. These same two bolts will allow the label pad to be moved closer to the printer peel edge. To raise or lower the label pad, loosen two ¼ shcs. in the slide body (marked as up/down adjustment in figure 3). The label pad and manifold can be moved side to side using the four #10 shcs. in the manifold. The position will change slightly between the Sato and Zebra printers.

Run the air line from the "A" port of the tamp valve to the top cylinder port, and the "B" port of the valve to the bottom cylinder port. The label manifold is plumbed to the "A" port of the air blast valve. The "A" port of the air assist valve is connected to the assist tube inside the machine.

Note: If the valve bank is mounted opposite the applicator nose, it will be plumbed into the manifold on the side of the machine.

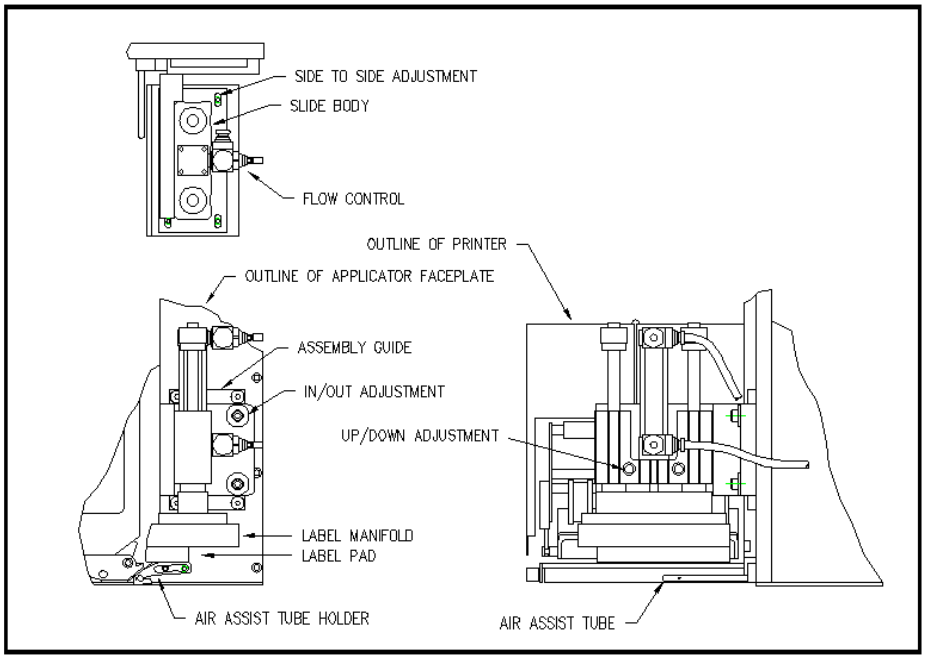


Figure 3 (standard tamp assembly)

Extended Peel Edge Assembly

This nose assembly is used when it is desired to disable the backfeed option on the applicator to gain more labels per minute. With the backfeed off, the leading edge of labels will stop in different places with different length labels. To overcome this, the print engine is set to stop the label with the label leading edge under the print line of the printhead, and the tamp assembly is adjusted to where the label stops at the extended peel edge for proper dispensing.

Note: With this type of arrangement, there will always be one or more labels between the printhead and the extended peel edge.

The extended peel edge assembly is mounted on the label feed side of the applicator using four ¼ shcs. and two 3/16 dowel pins. There are also two ¼ shcs. used to mount the two guide rods to the side of the machine. To move the label pad closer to the peel edge, loosen the two 1/4 shcs. marked as tamp in/out adjustment in Figure 4. When the label pad is in position, re-tighten the screws. To raise or lower the label pad to the peel edge, loosen the two ¼ shcs. in the slide body (marked as up/down in Figure 4). The label pad can be moved side to side using the four #10 shcs. in the manifold. To move the whole assembly in or out so the peel edge lines up with the leading edge of the label, loosen the clamping screws on the guide rods and turn the assembly adjustment knob. Tighten all screws when finished.

The plumbing will be the same as the standard tamp assembly except for the air assist. Instead of it plumbing into the air assist tube, it will plumb into a straight tube at the same place. This tube will transfer air through the faceplate and across the printer between the web path going to the pad and the return path of the liner. This tube is held with same holder that was used to hold the assist tube on the standard tamp except it's mounted on the inside of the machine. From the end of the pass through tube to the air assist tube, a ¼' air line is attached.

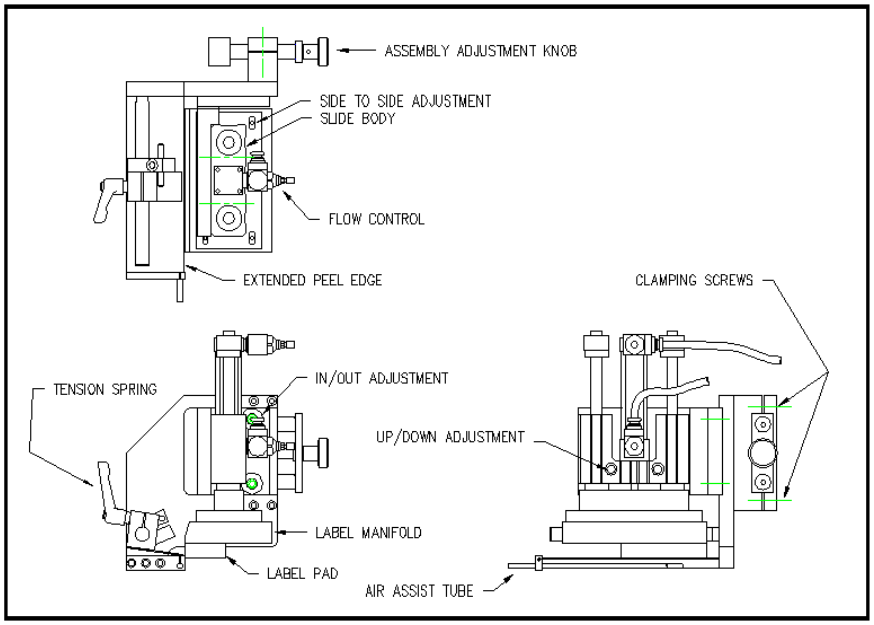


Figure 4 (extended peel edge assembly)

Swing Tamp Assembly

This assembly is used to apply labels on the leading or trailing edge of products. The assembly is held on to the sideframe by four ¼ shcs. marked as side to side adjustment in Figure 5. These same four bolts will allow the assembly to move across web path to line the label to the pad. To raise or lower the label pad, turn the retract position adjustment screw on the rotary actuator. Moving the label pad closer to the peel edge is done by loosening the in/out adjustment screws in Figure 5. These also hold the actuator to the mounting bracket.

When plumbing the actuator, air that enters on a side on the top rack must also enter the lower rack on the opposite end. The “A” port on the tamp valve needs to connect to the top rack port farthest away from the applicator body and the lower rack port closest to the body. The “B” port will provide air to the other two actuator ports. The air blast and air assist valves plumb the same as the standard tamp.

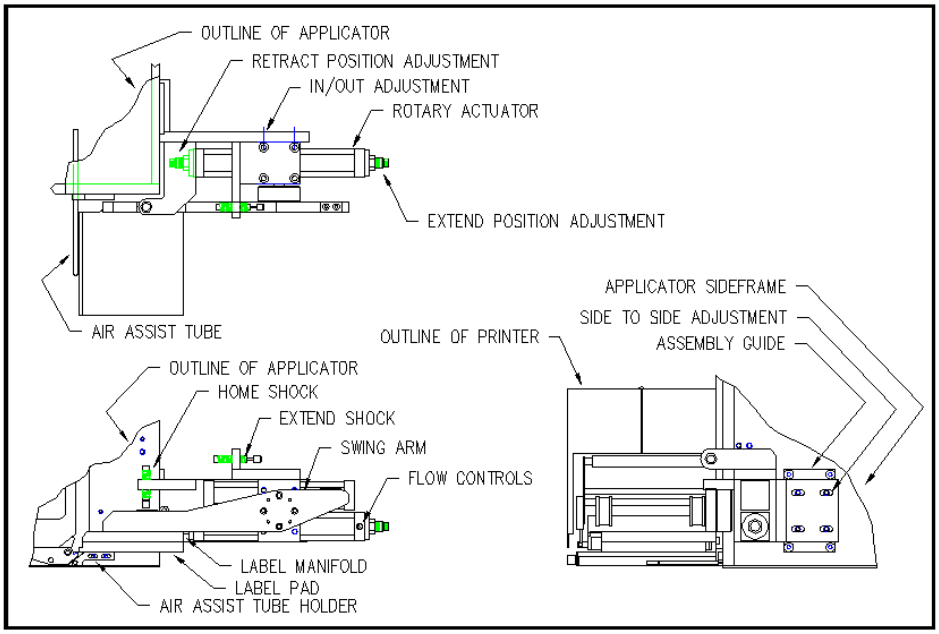


Figure 5 (swing tamp assembly)

Ribbon Loading

1- At the main menu, press the "Home/Tamp" key (refer to the applicator display section). This will extend the tamp slide so the pad and manifold will not be in the way of opening the print-head. If using the extended peel edge, disabling the tamp is acceptable.
2- Open the printer cover.
3- Refer to the printer manual for ribbon loading instructions.

Label Loading

1- At the main menu, press the "Home/Tamp" key (refer to the applicator display section). This will extend the tamp slide so the pad and manifold will not be in the way of opening the print-head. If using the extended peel edge, disabling tamp is acceptable. Loosen the ratchet handle that locks the outer unwind disk in place and remove disk.
2- Load a roll of labels onto the hubs on the unwind shaft. Make sure the labels are against the inner disk and are right side up.
3- Remove the first three feet of labels from the liner.
4- Thread the label stock around the dancer and guide rollers into the printer. Refer to Figure 6 for the web path from the unwind to the printer. Refer to the printer manual as to how to thread the printer. Make sure the liner passes between the peel edge and the air assist tube.

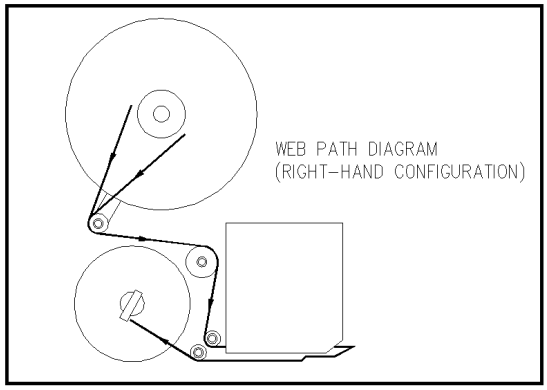


Figure 6 (web path)

5- Remove the rewind pin and wrap the liner over the rewind mandrel. Replace the rewind pin and rotate the rewind mandrel to take the slack out between the rewind and printer.
6- Make sure the labels track straight from the unwind into the printer. Adjust the inner unwind hub if necessary.
7- Bring the guide collars within 1/64" of the liner.
8- Make sure the print head and any other latches are closed within the printer. Close the printer cover.

Applicator Nose Setup

1- Disable tamp (refer to Display Panel section). This way adjustments can be made without the fear of the tamp actuating and injuring someone. Also load label formats into the printer.

2- The label stop must be properly set for the applicator to work successfully. This is done through the printer and will be referred to as "Offset", "Top of Form", "Pitch Offset", or other terms dependant on the printer model.

   a) With printing information in the buffer and the tamp disabled, press "jog" to dispense a label.

   b) If the label stop is correct, the label should feed off the liner. If the next label out is flagged past the peel edge, the label stop must be decreased. If the label doesn't dispense completely off, then increase label stop. Refer to printer manual as to how to change label stop

3- Tamp height needs to be set so a label feeds out in contact with the label pad. If the pad is too high, the label will not land consistently on the pad and the trailing edge of the label could come into contact with the peel bar of the printer when the tamp slide extends. If the label pad is too low, the label will dispense into the back of the pad and jam.

4- The inboard edge of the label pad must match the inboard side of the label. Refer to the side to side adjustments to move the pad.

5- Position the air assist tube so the hole or holes are centered on the label and pointing approximately ¼"in from the label pad. The air pressure should be set at 20-30 P.S.I. Press "Jog" to dispense a label. If the label doesn't feed out against the label pad and the vacuum doesn't capture it, try increasing the air pressure. Continue until the vacuum captures the label.

   Warning: There are other factors that can keep the label from staying on label pad. You may need more vacuum, increased or decreased label dive, or the air assist tube may need to be rotated.

6- Air pressure for the tamp slide should start at 40 P.S.I., for the air blast at 30-40 P.S.I., and for the vacuum pump at 20-40 P.S.I.

7- Air blast time is set through the display and should be set long enough to apply a label firmly to the product. Setting the time too high will result in less labels/min. Start at .03 seconds.

Tamp Setup

Go to the display and enable the tamp. Press the "Jog" button and observe the tamp action. The tamp slide should move smoothly. If the action is fast and slams into it's stops, adjust the flow controls so the action slows. To slow down the extend, turn the bottom flow control (standard tamp) clockwise. The retract flow control is on top. By turning counter-clockwise, the slide will move faster.

Note: The flow controls on the swing tamp are integrated into the rotary actuator (reference Figure 5).

Tamp extend and retract times are changed through the applicator display. Refer to the display panel section as to where these menus are. Tamp extend time needs to be set so the slide fully extends before the air blast turns on. If the blow off occurs too soon, the label application will not be accurate. If the time is too long, it adds to cycle time and will slow label rate. Tamp return time is the time allowed for the slide to return home before printing another label. If this time is too short, the label will dispense into the back of the label pad. If too long it will add to the cycle time of the machine.

Note: If tamp switches are added, the tamp extend and retract times should be left high and the switches will over-ride time values.

Changing Tamp Modes

The applicator can work in two different modes:

Normal Tamp Blow
Inverted Tamp Blow (ITB)

See the "Configuration Menus" section on how to select tamp mode.

Label Static Test

It's important to know if the applicator can repeat putting labels in the same place over and over. Without knowing this, when label placement problems occur on the line, you won't know whether the machine is not repeating or the problem lies with the product.

To test repeatability, position the applicator so when the tamp is extended the label pad is approximately 1/8" away from the product. Jog several labels onto the product. If the label stack is within the tolerances you have to work with go on to the "Product Setup" section. If not go through the following suggestions to help find the problem.

1- Make sure the labels are consistently stopping in the same place on the label pad. If this is OK go to step 7; if not, go to step 2.

2- Check label stop. One label should be completely dispensed off the liner while the next label should be 1/32" away from the peel edge. If this varies more than 1/32" with each cycle, refer to the printer manual to correct. When this is corrected, go back and try the static test again. If this was OK, go to step 3.

3- Make sure the label pad surface is clean. If clean, go to step 4 and if not, clean and try static test again.

4- Make sure the vacuum is set right. If the label flutters when feeding across the pad then the vacuum is too high. If the label falls off or moves after the label has left the liner, then it's not high enough. If the label feed looks smooth go to the next step.

5- Work with the air pressure and the position of the air assist tube until the label feeds more consistent onto the pad. Re-try the static test. If the results are still not good enough, go to step 6 but if they-re OK, go to 7.

6- Make sure you are working with good label stock. Try another roll of labels and see if you get the same results.

7- Check the distance from the label pad to the product. If the distance is too large, the labels may float too much. Try lowering the machine so the label pad just clears the product (within 1/8").

8- Is the label pad made for the label you're using? Look to see if the labels are laying down flat and stacking well. If the hole pattern does not match the label, results will be uncertain.

Configuration Menus
The Configuration Menu can be entered two different ways. One way is to power the applicator off, press the jog switch and power the applicator back on, releasing the jog switch a couple of seconds after power on. The second way is to go to the main menu, disable the tamp, take the printer offline, hold the jog key in and press "Home/Tamp". The menu that comes up on the display will be the start of a series of menus that gives the operator access to turn different options on or off. The following is a list of the menus and their function.

Tamp Mode
The applicator can work in two different modes:

Normal Tamp Blow
Inverted Tamp Blow (ITB)

In the Normal Tamp Blow mode, the label is printed, dispensed out onto the label pad and held there by vacuum. When the product detect sensor is made, the label and label pad is moved toward the product using a pneumatic slide. When the slide is extended, an air blast will blow the label off the pad and onto the product. In the Inverted Tamp Blow mode, the label is printed, dispensed onto the label pad and the slide extends. The applicator will wait in this position until the product sensor is made. The label is then blown off the pad onto the product. The ITB mode should be more accurate.

To change from one mode to the other, press "ENT" and the last word on the second line should start to flash. Use the arrow keys to toggle between 'Normal" and "ITB". When you get what you want, press "ENT". Press "MENU" to go to the "Printer Type" screen.

Printer Type
The 3600-PA will support both Sato and Zebra printers. There are some slight differences between the printers on how they handle the recovery from a fault condition. The Zebra printer will dispense a group labels after a critical fault whether it gets a print start signal or not. This may cause the labels to dispense into the manifold if the product detect is turned on at the wrong time or if you're running in ITB mode. The Sato will wait for a print start before it dispenses it's labels after a critical fault. Using a Sato printer and setting the "Printer Type" to Sato will allow the online button on the printer to pause the applicator from applying labels. The Zebra option will cause a label to feed after going off pause.

To change from one mode to the other, press "ENT" and the last word on the second line should start to flash. Use the arrow keys to toggle between 'Sato" and "Zebra". When you get what you want, press "ENT". Press "MENU" to go to the "External Print" screen.

External Print
This is an option that will inhibit the printing of a label until the external print input is turned on.

To turn this option on, press "ENT" and the last word on the second line should start to flash. Use the arrow keys to toggle between 'On" and "Off". When you get what you want, press "ENT". Press "MENU" to go to the "Label on Pad" screen.

Note: You cannot have both the External Print Option and the Label Reprint Option on at the same time. If you turn one on, the other will automatically be turned off.

Label on Pad
With this option on, the controller will look for an input from a vacuum switch after the air assist shuts off and the label on pad filter times out. If the vacuum switch is on then that means there is a label on the pad and the label on pad output turns on. The output will stay on until the air blast valve turns on. If the label falls off the pad anytime between when it first turned on and the air blast valve, the output will turn off. An integrator will be able to monitor the air assist valve, air blast valve and the label on pad output and determine if a label has been removed from the pad.

Note: Vacuum switch is an option and is purchased separately

Vacuum Switch Setup CTM # PE-SW1074

Set-up of threshold value:
With the back cover removed, labels sent down to printer and a label on the pad, take the printer "offline" or on "pause". Make note of the "value" on the pressure switch's main "L.E.D. display. For example, we will say the value is –2.0. Next, remove the label from the label pad. Make note of the pressure switch's main display "L.E.D." value – example: -0.5. Add these two values together: -2.0 + -.5 = -2.5, then divide by 2 = -1.2. This value (-1.2) is your "threshold value. Enter this value in the sub display by the "up and down" arrow keys.

Note: If the vacuum pressure is increased or decreased, you may have to adjust the "threshold" value per above example

Vacuum-Off Option
This option is used to turn the vacuum to the label pad on and off to save air and to keep particles from entering the pad when there is no label available. When the option is on, the vacuum will turn on when the air assist is on and turns off at the beginning of the air blast. To turn this option on, press "ENT" and the last word on the second line should start to flash. Use the arrow keys to toggle between 'On" and "Off". When you get what you want, press "ENT". Press "MENU" to go to the next screen.

Note: The applicators are pre-wired and logic is provided for this option but there is still some hardware items needed to make this option work (i.e. valve bank). Please consult your distributor for the necessary items when installing this option in the field.

Tamp Enabled/Disabled on Power-up
This option lets the operator chose whether the tamp is enabled or disabled on power-up. To turn this option on, press "ENT" and the first line will begin to flash. Use the arrow keys to toggle between "Tamp is Disabled" or "Tamp is Enabled". When you get what you want, press "ENT".

Disable Tamp on Pause
This option will disable the tamp when the printer goes offline or into pause. To turn this option on, press "ENT" and the last word on the second line should start to flash. Use the arrow keys to toggle between 'On" and "Off". When you get what you want, press "ENT". Press "MENU" to go to the next screen.

Rewind Delay On and Delay Off Timers
Timers were added to change how soon the rewind motor will turn on after the printer starts to print and how long it will run after the printing is finished. In some cases where label stop varies, this can help control it. These values should only be changed after consulting with the factory. The rewind delay on timer controls when the rewind motor will turn on compared to when the print engine starts to print a label. Putting a delay will cause the motor to wait that amount of time before turning on. On narrow labels where label stop can be a problem, this will keep the rewind motor from putting tension on the web until the backfeed is finished or until you're sure the labels are moving forward through the printer. The delay off time will determine how long the rewind motor stays on after the printer is finished printing. This timer can be decreased to keep the pull on the web to the minimum.

Note: Factory default values are:
Delay On: 0 seconds
Delay Off: 1 second

To change timer variables, see the "Changing Variable Fields" of the "Applicator Display" section.

Tamp Home Option
With software version 2b5.4 a Tamp Home Option was added in the configuration menu to determine the Tamp Home output by the Tamp Retract Time or Tamp Home switch. When the Tamp Home Option is selected as "Tamp Retract Time" the next label will print /feed out onto the pad when the Tamp Retract time has timed out or the Tamp Home sensor input is made, whichever happens first. If the Tamp Home option is selected as "Tamp Home Sensor" the label will not feed/print out onto the pad until the Tamp Home Sensor is made.

Tamp Extend Option
With software version 2b5.6R a Tamp Extend Option was added in the configuration menu. An option was added to invert the Tamp Extend Input. This is used in TAG noses with dual proximity switches wired in series. When the TAG unit extends and crashes into the irregular product surface, the TAG box pivots to one side or the other. This breaks the circuit of one or the other proximity switches and gives the open contact input to retract the tamp cylinder.

The default setting is Standard Sensor Input. This is abbreviated in the display as StdSensor Input. The other choice is Inverted Sensor Input. This is abbreviated in the display as InvSensor Input.

Printer Applicators with the internal proximity sensor type TAG noses previously required a custom program.

Label Reissue Option

Label Reissue is a separate option than Label Reprint. This screen comes up right after the rewind off delay screen in the configuration menu. When the Label Reissue option is turned on it allows the applicator to reprint the last label format sent to the printer until another label format is received. To use this option with a Zebra printer the operator must enable the Reprint option in the Zebra menu. When using the Zebra printer, the Label Reissue option will continue to Reissue the original format sent to the printer until this format is manually cancelled with label software and a new format is sent down. To use this option with an M8400 series Sato printer the operator must turn DSW 3-8 on. If using the S8400 series Sato print engines the operator has to enable External Reprint in the Advanced Mode settings of the print engine. When using the Sato printer, the Label Reissue option will print the last format sent until a new format is received.

Label Reprint Option

With this option is turned on and a vacuum switch installed, the applicator will dispense another label when the label is removed from the label pad. This option is useful when an extra label is needed on line but you do not want to actuate the applicator to replace the label you took from the label pad. You simply pull the label off the pad and another label is printed and dispensed. The "Number of Reprints" screen will appear after the Label Reprint screen only if Label Reprint was turned on. Here the number of reprints can be preset up to 99 labels.

Note: You cannot have both the Label Reprint Option and the Label on Pad Option on at the same time. If you turn one on, the other will automatically be turned off. Label Reprint is not available while the applicator is set to ITB (Inverted Tamp)

PRODUCT SETUP

The applicator should be setup and have successfully passed the static test before going on in this section. If you have skipped the applicator setup section and have trouble with the application here, it will leave you with more areas to troubleshoot to fix the problem.

Applicator Attitudes
The applicator can be positioned in a number of positions. Below applicators are shown in different attitudes with the proper name under it.

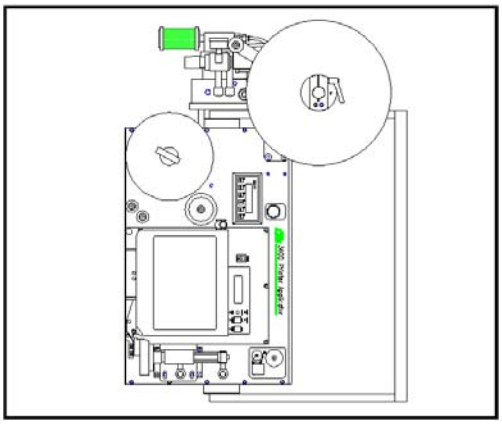


Figure 7 (nose down)

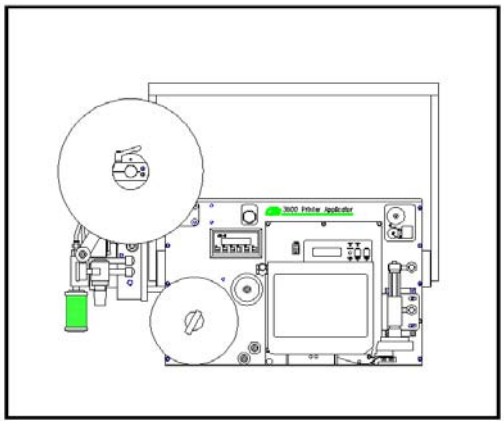


Figure 8 (upright and above)

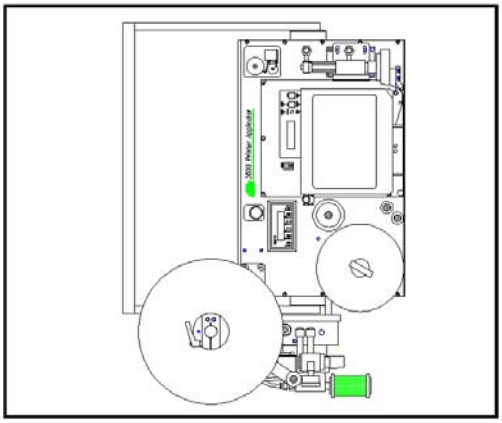


Figure 9 (nose up)

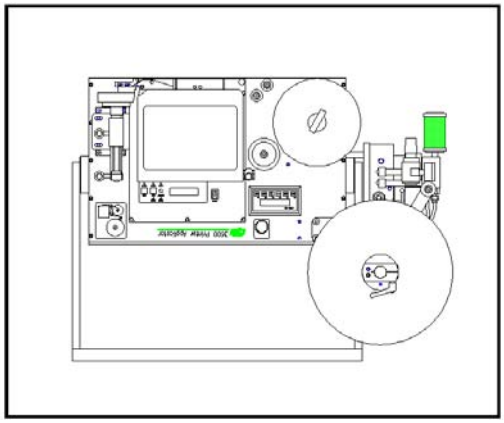


Figure 10 (bottom up)

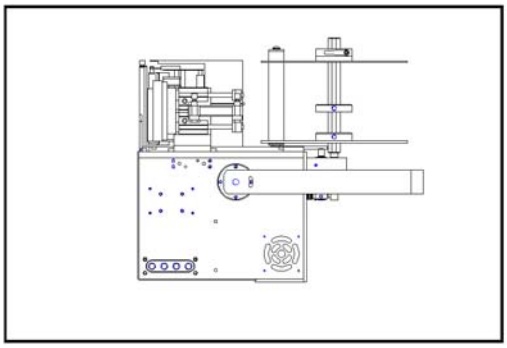


Figure 11 (reels up)

Positioning the Applicator
The product must be presented to the applicator in a consistent manner. Label accuracy cannot be maintained if the surface being labeled changes speed or distance relative to the label pad.

Note: The following directions are for conventional tamps and do not include swing tamps.

Extend the tamp slide by pressing "Home/Tamp" key on the display. Move a product in front of the applicator on the same path as it will run down the line. Move the applicator so the label pad is within 1/8" from the product. Also make sure nothing is in the way of the moving parts.

Move the product and applicator so the label pad is over the application point. Now position the product detect sensor slightly upstream of the leading edge of the product. Now go to the product sensor setup that matches your sensor and follow directions.

Standard Product Sensor Setup (Banner SM312LV --- 4"- 15' range)

1- Plug the sensor into the back of the machine.
2- Turn the power on and disable the tamp.
3- Remove the back cover of the sensor and set the light/dark switch to DO by turning the switch counter-clockwise.
4- Make sure the sensor is pointing at the reflector (tape). When the LED indicator is flashing at the fastest rate, the two are at the best alignment.

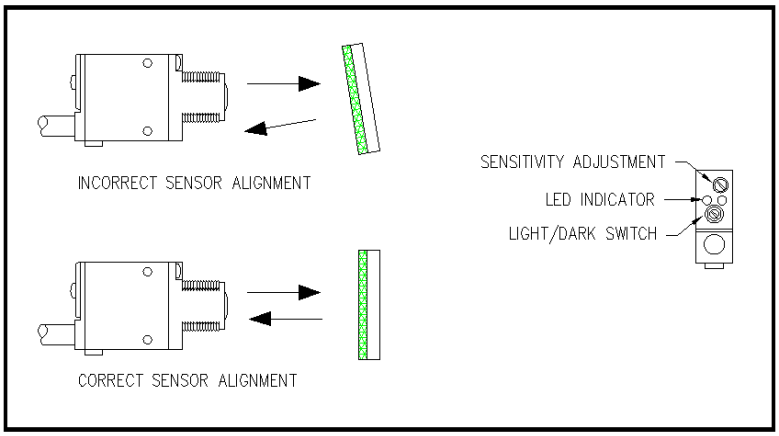


Figure 12 (standard product detect)

5- Place a product between the sensor and the reflector. The LED indicator should go out.
   a) On translucent products, the sensitivity may have to be turned back so not to burn through.
6- Replace back cover of sensor.

Optional Product Sensor Setup (Banner S18SN6FF50)
This sensor is a 18mm barrel type with a 50mm far limit cut-off. This means it will see objects that are less than 2" away and ignore the rest. There is nothing to adjust on the sensor except the physical position.

Sensor wiring determines whether the product detect will be setup for leading or trailing edge. The #2 terminal in the product detect plug at the end of the sensor cable is for the output of the sensor. The black wire is for leading edge and the white wire for trailing edge.

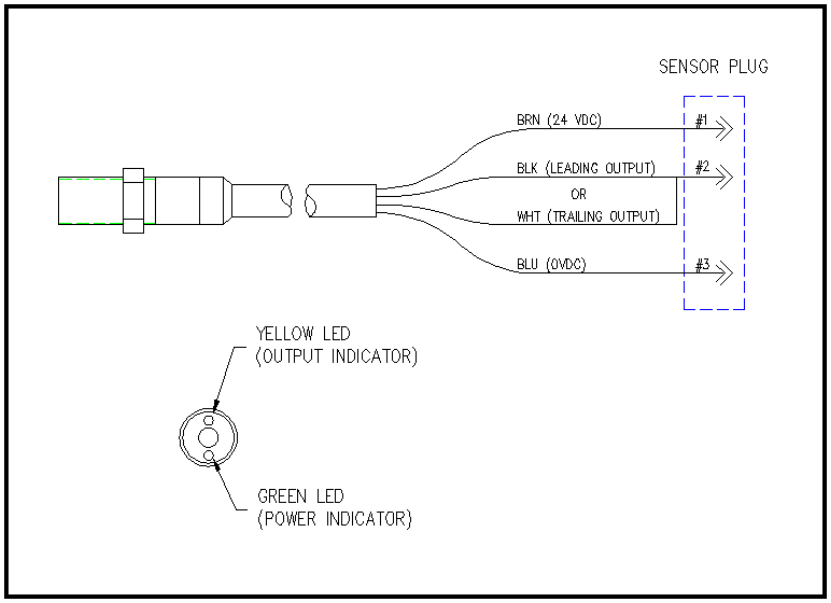


Figure 13 (optional product detect)

Label Placement
Moving the label to the correct position to flow is best accomplished by moving the product detect. For fine adjustments or to adjust while the line is running, the operator can change the label placement value in the display. The higher the value the farther back the label will be placed. The lower the value, the label will move forward. See the "Applicator Display" for more details.

Note: The higher the label placement values, the slower the label rate.

APPLICATOR ALARMS

The 3600-PA is equipped with 3 signals, System Ready, Warning, and Critical, wired to the alarm and I/O ports.

System Ready Output
If the applicator is not in a critical alarm state, the tamp is enabled, printer online, and the inhibit input is not on, then the system ready output is on.

Warning Alarm Output
The warning alarm will activate on the following conditions: Low Label and Low Ribbon. The low label signal comes from a photoelectric sensor mounted on the side of the unwind bearing block. This sensor can be adjusted to turn on at different roll diameters. The low ribbon signal comes from the printer (Consult the printer manual). On a warning alarm the applicator will continue to apply labels.

Critical Alarm Output
The critical alarm includes: Out of Labels, Out of Ribbon, and End of Web. Label and ribbon alarms come from the printer and you should consult the printer manual as to how the signals are set. The end of web signal comes from a sensor mounted to look for the label supply to end before entering the printer. On a critical alarm, the applicator will stop applying labels.

To reset the alarms, the display will instruct the operator to press the "ENT" key. Before clearing the alarm, make sure the problem has been corrected. If out of labels, replace with new label roll on the unwind; if out of ribbon, replace with new roll of ribbon. If the problem is not corrected before pressing "ENT", the alarm will come back on again.

Warning: False alarms may occur if the printer is off while the applicator is on!

Alarm Light
The triple light stack consists of green, amber and red lights. The green light indicates the system ready output is on. The amber light is for warning alarms and the red for critical alarms. The alarm signals are a steady on output. The display will indicate the type of alarm.

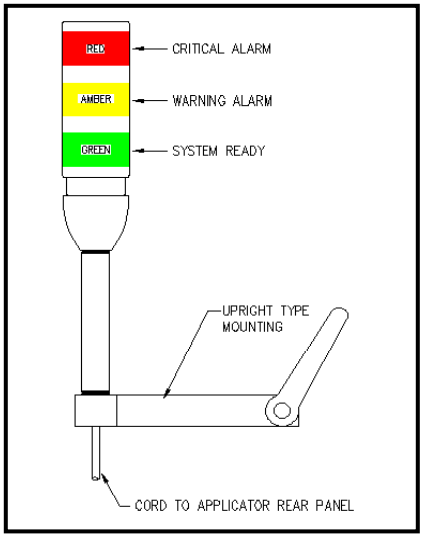


Figure 14 (alarm lights)

Alarms and the I/O Port

The alarm signals from the applicator can be monitored through the I/O port. This is helpful if the applicator is being integrated into a packaging line and the system plc needs these signals as inputs. Check the rear panel section for an explanation of the I/O pins.

Adjusting the Low Label Sensor Mount

1- Plug the sensor into the back of the machine.
2- Turn the power on and disable the tamp.
3- Remove the back cover of the sensor and set the light/dark switch to DO by turning the switch counter-clockwise.
4- Look at the red dot shining from the sensor to the unwind disk. The red dot shows what the diameter of the roll will be when the alarm turns on. To turn the alarm on sooner, move the sensor up so that it is farther away from the core. To turn the alarm on later, move the sensor down closer to the core.

Note: The sensing range on the sensor is only 7/8". Try to stay close to this distance away from the inside disk to the end of the sensor.

5- Replace back cover of sensor.

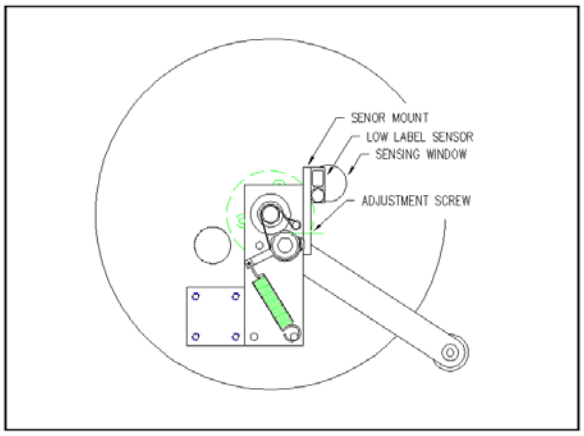


Figure 15 (unwind/low label)

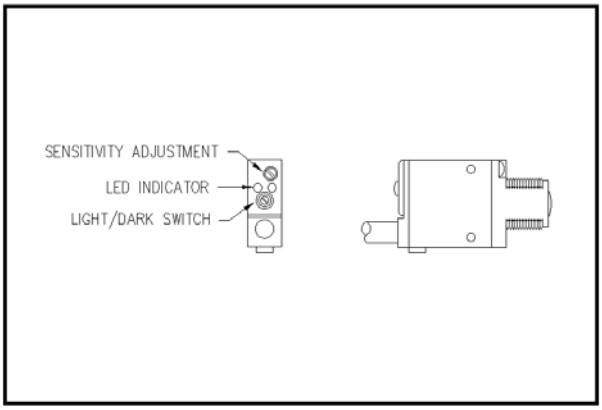


Figure 16 (low label sensor adjustment)

MAINTENANCE

CAUTION: DISCONNECT AIR AND POWER TO THE APPLICATOR BEFORE PERFORMING THE FOLLOWING PROCEDURES. INJURY FROM MOVING PARTS AND/OR ELECTRICAL SHOCK MAY OCCUR.

General Maintenance

Daily Maintenance

1- Clean the print head and platen roller each time you change ribbon. Refer to the printer manual for the correct procedure and additional daily checks.

2- Examine the air filter for water or oil collection. Drain if necessary.

3- Examine the tamp pad and the rollers used to guide the web for adhesive build up. Clean if needed with alcohol or similar solvent.

4- Look for loose screws, rollers, etc.

Weekly Maintenance

1- Clean peeler bar, rollers, and tamp pad.

2- Examine machine for air leaks.

3- Wipe down the outside of the applicator and product detect lens.

4- On extended peel edge noses, check the uhmw tape on the peel edge for wear or nicks. Replace if needed.

Semi-Annual

1- Replace filters.

2- Check vacuum pump for an accumulation of debris. Replace if necessary.

3- Examine pulleys, belts and rewind clutch for wear.

Dancer Arm Adjustment

CAUTION: DISCONNECT AIR AND POWER TO THE APPLICATOR BEFORE PERFORMING THE FOLLOWING PROCEDURES. INJURY FROM MOVING PARTS AND/OR ELECTRICAL SHOCK MAY OCCUR.

The figure below shows the layout of the unwind brake band. It's important that the brake stops the unwind from turning but if it's too tight the printer will have a hard time pulling the web off when the label roll nears the end.

Note: Even if the unwind brake is adjusted properly, it will be of little value if the core of the label roll slips on the unwind hubs. Making sure the unwind disks are tight against the roll of labels will help.

1- Hold the dancer arm in the position it should be when the brake is on. Loosen the collar that the brake band is anchored to, rotate it so the band is tight and tighten back down. Make sure the brake band is wound in the right direction.
2- Loosen the collar with the spring anchor and tighten so the dancer arm is held up with enough tension to stop the unwind from turning. It should not be so tight as to create too much pull off force when the printer is running. This may cause the printer motor to stall or cause print registration problems.
3- Check the performance of the unwind with a full roll of labels and a small diameter roll. Make adjustments as necessary.

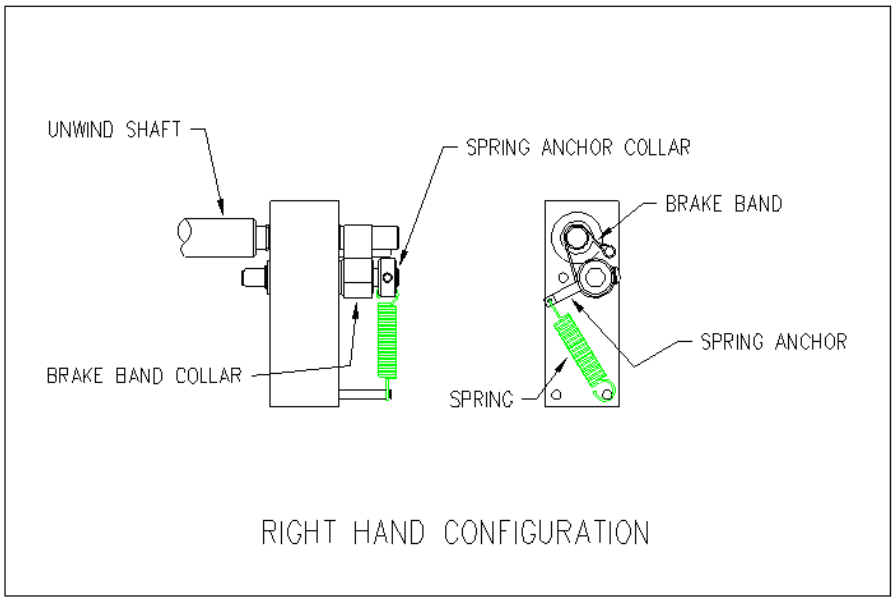


Figure 17 (adjusting brake band)

Rewind Clutch Adjustment

CAUTION: DISCONNECT AIR AND POWER TO THE APPLICATOR BEFORE PERFORMING THE FOLLOWING PROCEDURES. INJURY FROM MOVING PARTS AND/OR ELECTRICAL SHOCK MAY OCCUR.

The rewind is used to take-up the liner leaving the printer (after the labels have been dispensed). It's important to set the rewind tension so the liner is taken up even at the end of a roll when the rewind is full. Also, the tension should not be too high so the labels are being pulled through the print head. This will cause poor print quality and label stop will not be consistent.

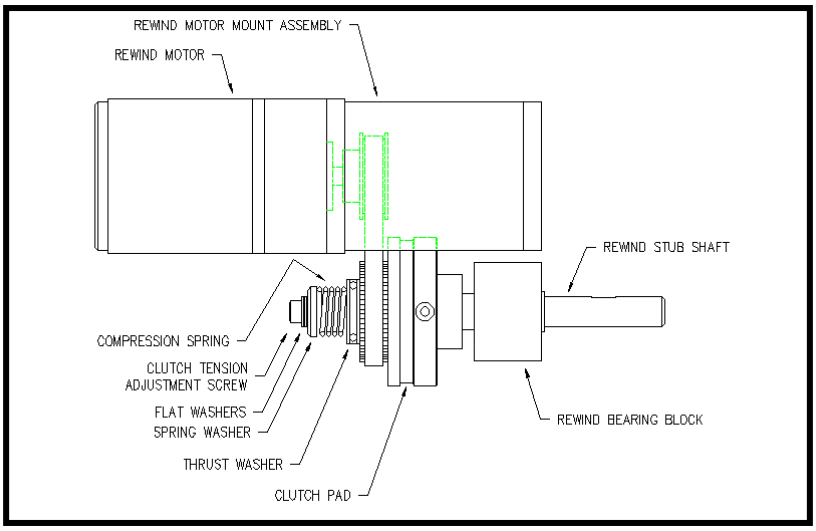


Figure 18 (rewind/clutch assembly)

1- Remove power and air to the machine.

2- Remove the lower stainless cover.

3- CAREFULLY remove the tension adjustment screw and all washers (NOTE: the spring is under compression load). Keep track of how many flat washers are on the outboard and inboard sides of the "spring washer".

4- If the rewind tension was too tight, move one or two of the flat washers from the outboard side of the "spring washer" to the inboard side (nested inside the compression spring). This will relieve the pressure on the clutch pad.
If the tension was too loose, move one or two flat washers from inside the compression spring to the outboard side of the "spring washer". This will increase pressure on the clutch pad.

5- Carefully re-apply the power and air to the machine and test. Re-adjust if necessary.

6- Remove power and air and replace the cover on the machine if everything tests OK.

Changing Clutch Pads

1- Remove power and air to the machine.

2- Remove the stainless cover on the back of the machine.

3- Carefully remove the tension adjustment screw, flat washers, spring washer, spring and thrush washer. NOTE: Keep track of how many flat washers are on the outboard and inboard sides of the “spring washer” to maintain the same pressure on the clutch pad when re-assembled.

4- Work the belt off the pulley/pressure plate and slip off the pressure plate.

5- Replace the clutch pad.

6- Re-assemble and adjust the tension for the new clutch pad.

Belt Tension

1- Remove power and air to the machine.

2- Remove the stainless cover on the back of the applicator.

3- Proper Tension: 1/4”- 3/8 ” Belt Deflection.

4- Loosen the two ¼” socket head cap screws that bolt through the side of the rewind motor mount assembly to the faceplate of the applicator.

5- Push the rewind motor assembly up and re-tighten the two ¼” socket head cap screws.

6- Replace stainless cover.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Nothing works.	Power cord is loose, defective or not plugged in.	Inspect the cord to find the problem.
	A.C. line fuse blown.	Find the cause of the electrical short and correct.
Power switch on, printer is on, no display.	PLC is off.	Check power supply.
	Cables are not plugged in on PLC or display.	Make sure cables are plugged in.
Power switch on, display is lit and working; printer not on.	Printer turned off.	Turn the printer on.
	Power cord going to the printer is disconnected.	Inside the applicator, plug the printer power cord in.
Label liner breaking.	Labels are not threaded correctly.	Re-thread labels.
	Unwind/rewind disks or guide collar not aligned with printer.	Adjust disks and collars so the labels flow through the printer.
	Adhesive build-up.	Clean as necessary.
	Label jammed in printer.	Clear jam.
	Bad roll of labels.	Replace label roll.
Labels are not consistently stopping on label pad.	Vacuum pump not working.	Clean or replace pump.
	Too little or too much vacuum.	Adjust vacuum pressure.
	Air assist too high or too low.	Adjust air pressure.
	Tamp pad not positioned correctly to the peel edge.	Check with the applicator setup section on how to position the label pad.
	Air assist tube not positioned correctly.	Adjust the position of the air assist tube.
	Adhesive build-up on the pad.	Clean label pad.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Labels are consistent on the label pad, but not on product.	Product is not consistently presented to the applicator.	Make sure product speed is consistent. Make sure the product is the same distance from the label pad every time.
	Air blast is too high or too low.	Adjust the air pressure.
	Product detect sensitivity or position.	Move and adjust the product detect sensor so it is repeatable.
	Labels are blown off before tamp is fully extended.	Enter a higher value for the tamp extend time.
	Label pad does not match the label.	Install the right label pad.
Valves do not turn on.	Air pressure is too low.	Turn air pressure above 20 psi and try again. The air assist valve is different and can operate at a lower pressure.
	Valve bank plug is not connected to the applicator.	Connect the valve bank plug.
	Valve spool is stuck.	Consult factory for the procedure to remove spool.
	Bad solenoid.	Replace solenoid.
	Dwell times to short.	Increase dwell times through the applicator display.
Tamp valve turns on but the slide does not extend.	Air pressure is too low.	Increase air pressure.
	Flow controls are closed too much.	Open flow controls.
	Slide guide rods are bent.	Replace slide.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Machine will not cycle.	No label formats in print buffer.	Send label format. Check printer manual for parameters.
	No product detect signal.	Verify that that the product detect sensor works. Replace if necessary.
	Printer I/O cable not plugged in.	Reconnect cable.
	Printer fault.	Correct the printer problem.
	The tamp is disabled	Enable tamp (see Appl. Setup)
Label application rate is too fast for the applicator to keep up.	Printer is taking too long to process data or to print label.	Check software and compiling time; increase print speed.
	Excessive dwell times for air blast, tamp extend/retract, or air assist.	Go through the setup procedure for proper setting.
	The label print and apply cycle may be too long for the product rate.	Slow product rate.
Applicator cycles at random.	Loose or vibrating product detect sensor.	Check and correct.
	Product detector alignment is marginal.	Refer to product setup on how to set sensor.
	Loose wiring connections.	Check cables and wiring harnesses inside applicator.
	R.F. interference.	Isolate and correct.
No label feed.	Printer is not configured correctly.	Refer to printer manual.
	No label data in print buffer.	Send label data to printer.
	No external print signal sent.	Investigate and correct.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Compressed print on labels.	Applicator unwind brake is too tight creating too much pull through the printer.	Loosen unwind tension.
	Worn or damaged platen roller.	Replace the printer platen roller.
Printing registration is early.	Applicator unwind is not properly tensioned.	Adjust unwind tension.
Elongated print on labels.	Rewind has too much tension on it.	Re-adjust slip clutch.
Printing registration is late.	Rewind tension is too tight, not allowing a complete back feed.	Re-adjust slip clutch.
Poor print quality		Refer to printer manual.
Labels print continuously without being applied.	Printer configuration is wrong.	Check printer settings.
	Print end signal was not received from printer.	Call factory for help.
	Lost 24 vdc power supply.	
Alarm messages will not clear.	Printer turned off. The problem was not fixed before telling the applicator to reset.	Turn printer on. Correct the problem at the source of the alarm signal.

PRINTER SETTINGS

Sato Printers: M-8485SE/M-8490SE/M-8459SE/M-8460SE

Note: Pin 9 has to be defined in the service mode. It should be set to "Mode 2". Resetting the printer to factory default values will change this to "Mode 1" and the applicator will malfunction.

These printers use dipswitches to setup the operating parameters. The dipswitch settings are read on power up. Therefore any changes in the switch settings will not take effect until the printer is shut off and powered back on.

There are two dipswitches (DSW2 and DSW3) located inside the cover. These switches are used to set:
-Thermal transfer or direct thermal
-Label sensor enable/disable
-Head check mode
-Hex dump mode
-Single job or multi-job receive buffer
-Operation mode

A third dipswitch is located on the RS232 serial adapter card (back of the printer). This is used to setup the serial communications.

If the switches are down, they are off. Factory settings are that all switches are off.

Parallel port is always on regardless of switch settings.

Note: The older "S" version of this printer (M-8485S) also has three dipswitches. All three switches are mounted inside the cover. DSW1 has some differences with the "SE" model. Checking with the appropriate manual will clarify the differences.

RS232 Transmit/Receive Switches

Data Bit Selection: This switch sets the printer to receive either 7 or 8 bit data for each byte transmitted.

DSW1-1	SETTING
Off	8 data bits
On	7 data bits

Parity Selection: These switches select the type of parity used for error detection.

DSW1-2	DSW1-3	SETTING
Off	Off	Disabled
Off	On	Even
On	Off	Odd
On	On	None

Stop Bit Selection: Selects the number of stop bits to end each byte transmission.

DSW1-4	SETTING
Off	1 Stop Bit
On	2 Stop Bit

Baud Rate Selection: Selects the data rate (bps) for the RS232 port.

DSW1-5	DSW1-6	SETTING
Off	Off	9600
Off	On	19200
On	Off	38400
On	On	57600

Protocol Selection: Selects the flow control and status reporting protocols. See Interface Specification section in the printer manual for more details.

DSW1-7	DSW1-8	SETTING
Off	Off	Rdy/Bsy
Off	On	Xon/Xoff
On	Off	Bi-Com
On	On	Bi-com 4

Printer Set-Up Switches

Print Mode Selection: Selects between direct thermal printing on thermally sensitive paper and thermal transfer printing using a ribbon. This switch is not used on the M-8459.

DSW2-1	SETTING
Off	Therm Xfr
On	Direct Thrm

Note: It is recommended that this be set to "Off".

Sensor Type Selection: Selects between the use of a label gap or a reflective Eye-Mark detector.

DSW2-2	SETTING
Off	Gap
On	Eye-Mark

Note: It is recommended that this be set to "Off".

Head Check Selection: When selected, the printer will check for head elements that are electrically malfunctioning.

DSW2-3	SETTING
Off	Disabled
On	Enabled

Hex Dump Selection: Selects hex dump mode (refer to printer manual).

DSW2-4	SETTING
Off	Disabled
On	Enabled

Receive Buffer Selection: Selects the operating mode of the receive buffer.

DSW2-5	SETTING
Off	Single Job
On	Multi Job

Protocol Code Selection: Selects the command codes used for protocol control.

DSW2-7	SETTING
Off	Standard
On	Non-Std

M8400 Emulation Mode: For emulating special M8400S series software commands. Should be used only if problems are encountered when using existing M8400S software.

DSW2-8	SETTING
Off	Disable
On	Enable

Backfeed Selection: Backfeed is used to correctly position the label for application and then retract the next label to the proper print position. This operation can be performed immediately after a label is printed and used, or immediately prior to printing of the next label.

DSW3-1	SETTING
Off	Before
On	After

Note: It is recommended that this dipswitch be left off for applicator.

Label Sensor Selection: Enables or disables the label sensor. If the sensor is enabled, it will detect the edge of the label and position it automatically. If it is disabled, the positioning must be under software control using line feed commands.

DSW3-3	SETTING
Off	Sensor Used
On	Not Used

Note: It is necessary to leave this switch off for the applicator to work.

Backfeed Selection: When backfeed is enabled, the printer will position the last printed label for dispensing and retract it before printing the next label. The amount of backfeed offset is adjustable. See printer manual for details.

DSW3-4	SETTING
Off	Enable
On	Disable

Note: When using the extended peel edge assembly, the backfeed option should be disabled. In most other applications, it should be left on. Backfeed will slow label rate.

External Signal Interface Switches

External Print Signal Selection: Allows an external device to initiate a label print for synchronization with the applicator.

DSW3-5	SETTING
Off	Enable
On	Disable

Note: It is necessary to leave this switch off for the applicator to work.

External Signal Type Selection: Both the polarity and signal type (level or pulse) of the external print signal synchronizing signal can be selected.

DSW3-6	DSW3-7	SETTING
Off	Off	Type 4
Off	On	Type 3
On	Off	Type 2
On	On	Type1

Note: Use Type 4 for use with the applicator.

Repeat via External Signal: Allows the applicator to reprint the current label in the print buffer.

DSW3-8	SETTING
Off	Enable
On	Disable

Note: This has become a standard option called “Reissue” with Software Revision 2b5.0.

Sato Printers: S-8400 Series

Advanced Mode

Printer Type → Dispenser → Back Feed Motion → Before / None / After

Print Method → Transfer / Direct

External Signal → Enable
External Signal → Type 4

Service Mode

Ext. 9 Pin Select – Mode 2

ZEBRA PAX & ZE 500 PRINTER SETTINGS

Below is a list of the printer parameters that affect the printer/applicator interface. They will be marked as required or recommended. The ones marked as required must be set as shown. The recommended parameters are for convenience of setup but will not stop the applicator portion from working.

There are other parameters that may need to be set that are not discussed in the chart below. Refer to the printer manual for the total list.

PARAMETER	**SETTING**
Print Mode	Applicator (required)
Media Type	Non-continuous (required)
Sensor Type	Web (required)
Applicator Port	Mode 2 (required)
Start Print Signal	Pulse Mode (required)
Ribbon Low Output	Active High

DATAMAX "A" CLASS MARK II PRINTER SETTINGS

PARAMETER	**SETTING**
GPIO Device	Applicator 2 (required)
Error on Pause	APP 2 (required)

There are other parameters that may need to be set that are not discussed in the chart below. Refer to the printer manual for the total list.

3600 PRINTER APPLICATOR SPARE PARTS LIST
When ordering parts, present Serial Number of 3600

3600P/A SERIES CORE UNIT SPARE PARTS LIST		
RECOMMENDED TOOL		
Part Number	**Recommended Qty**	**Description**
PE-TE6000	1	WIRING TOOL
RECOMMENDED SPARE PARTS LIST		
Part Number	**Recommended Qty**	**Description**
ASS-238-0124L **or**	1	LH 24VDC POWER SUPPLY ASSEMBLY
ASS-238-0124R	1	RH 24VDC POWER SUPPLY ASSEMBLY
PE-FU2090	1	6.3 AMP FUSE
EXTENDED SPARE PARTS LIST		
Part Number	**Recommended Qty**	**Description**
ASS-200-0427	1	SM312LV PRODUCT DETECT W/CONNECTOR
PE-RT1000	1	1"W X 6"L REFLECTIVE TAPE
ASS-IN1055	1	3600 OPER INTERFACE DISPLAY **(Program specific)**
MP-PLC1046	1	PLC **(Program specific)**
PE-RE1015	1	MOTOR RELAY

3600 PRINTER APPLICATOR SPARE PARTS LIST
When ordering parts, present Serial Number of 3600

NON-POWERED UNWIND ASSEMBLY

WEAR ITEMS (12" UNWIND)

Part Number	Recommended Qty	Description
ASS-238-0180L or R	1	UNWIND BLOCK ASSY
PM-BB1030	1	UNWIND BRAKE BAND
PM-FASP30434	1	DANCER ARM UNWIND SPRING

POWERED UNWIND ASSEMBLY

RECOMMENDED SPARE PARTS (16" POWERED UNWIND)

Part Number	Recommended Qty	Description
PM-FASP30434	1	DANCER ARM SPRING (REWIND)
PE-SE10108	2	PROXIMITY SWITCH W/ QUICK DISCONNECT
PM-AC1428	1	DANCER SPRING LOADED CYLINDER
PM-BE1305	4	LINEAR BEARING
PE-MC1109	1	MOTOR DRIVE CONTROLLER
PE-PO1030	1	5K SPEED POTENTIONMETER
PE-SI1050	1	ISOLATOR BOARD

REWIND ASSEMBLY

WEAR ITEMS

Part Number	Recommended Qty	Description
PM-BELT1015	1	REWIND BELT
MP-238-0274	1	3" CLUTCH PAD

3600 PRINTER APPLICATOR SPARE PARTS LIST
When ordering parts, present Serial Number of 3600

TAMP SPARE PARTS LIST		
RECOMMENDED SPARE PARTS (STANDARD TAMP)		
Part Number	**Recommended Qty**	**Description**
MP-211-X217-X	1	AIR ASSIST TUBE ****JOB SPECIFIC** (SEE DWGS)**
RECOMMENDED SPARE PARTS (EXTENDED PEEL BAR)		
Part Number	**Recommended Qty**	**Description**
PM-T1010	1	PEEL EDGE TAPE (6" WIDE x 4" LONG)
MP-211-X217-X	1	AIR ASSIST TUBE ****JOB SPECIFIC** (SEE DWGS)**
PM-BEBF0985	1	PEEL EDGE ADJUSTMENT BUSHING
ASS-238-0143	1	ADJUSTMENT KNOB ASSEMBLY
EXTENDED SPARE PARTS (STANDARD & EXTENDED PEEL BAR)		
Part Number	**Recommended Qty**	**Description**
ASS-238-0129M	1	TAMP 3 STATION VALVE BANK ASSEMBLY
PM-VA2395M	1	5.4 WATT DC SOLENOID
PM-VA2396M	1	60 PSI AIR ASSIST REGULATOR
PM-VA2397M	1	120 PSI TAMP/BLOW REGULATOR
SLIDE ASSEMBLIES (STANDARD & EXTENDED PEEL BAR)		
Part Number	**Recommended Qty**	**Description**
ASS-214-0108-1	1	1" SLIDE ASSEMBLY
ASS-214-0108-2	1	2" SLIDE ASSEMBLY
ASS-214-0108-3	1	3" SLIDE ASSEMBLY
ASS-214-0108-4	1	4" SLIDE ASSEMBLY
ASS-214-0108-6	1	6" SLIDE ASSEMBLY
ASS-214-0108-8	1	8" SLIDE ASSEMBLY
ASS-214-0108-10	1	10" SLIDE ASSEMBLY
ASS-214-0108-12	1	12" SLIDE ASSEMBLY

3600 PRINTER APPLICATOR SPARE PARTS LIST
When ordering parts, present Serial Number of 3600

SWING AWAY TAMP SPARE PARTS LIST		
RECOMMENDED SPARE PARTS		
Part Number	**Recommended Qty**	**Description**
PM-INS1010	1	THREADED INSERT
PM-FANU30375	1	CAPTURE WASHER
PM-LL1002	1	LOCK LEVER
EXTENDED SPARE PARTS		
Part Number	**Recommended Qty**	**Description**
MP-238-0338	1	SS HEAVY WASHER
PM-BEBT1008	2	THRUST WASHER
PM-BEBF1070	2	FLANGE BUSHING
PM-FASB10045	2	SHOULDER BOLT
MP-238-0335	1	LOCATOR BLOCK

3600 PRINTER APPLICATOR SPARE PARTS LIST
When ordering parts, present Serial Number of 3600

SWING TAMP SPARE PARTS LIST		
RECOMMENDED SPARE PARTS (ROTARY SWING TAMP)		
Part Number	**Recommended Qty**	**Description**
PM-SA0990	1	SHOCK ABSORBER (HOME)
PM-SA1000	1	SHOCK ABSORBER (EXTEND)
RECOMMENDED SPARE PARTS (ROTARY SWING TAMP/CORNER WRAP)		
Part Number	**Recommended Qty**	**Description**
PM-SA0990	1	SHOCK ABSORBER (HOME)
PM-SA1000	1	SHOCK ABSORBER (EXTEND)
ROTARY ACTUATOR		
Part Number	**Recommended Qty**	**Description**
PM-AC1250	1	STANDARD DUTY ROTARY ACTUATOR **NOTE** CONTACT SALES DEPARTMENT FOR HEAVY DUTY ROTARY ACTUATOR

3600 PRINTER APPLICATOR SPARE PARTS LIST
When ordering parts, present Serial Number of 3600

DUAL ACTION TAMP (DAT) SPARE PARTS LIST

RECOMMENDED SPARE PARTS (DUAL ACTION TAMP)

Part Number	Recommended Qty	Description
PM-SA0950	2	SHOCK ABSORBER
PM-SA0990	1	SHOCK ABSORBER (HOME)
PM-SA1000	1	SHOCK ABSORBER (EXTEND)
PM-BELT1039	1	TIMING BELT (NOT REQ'D FOR INLINE DAT)

SLIDE ASSEMBLIES

Part Number	Recommended Qty	Description
PM-AC1237 **or**	1	3" SLIDE ASSEMBLY
PM-AC1239 **or**	1	6" SLIDE ASSEMBLY
PM-AC1241	1	8" SLIDE ASSEMBLY

ROTARY ACTUATOR

Part Number	Recommended Qty	Description
PM-AC1248	1	ROTARY ACTUATOR

3600 PRINTER APPLICATOR SPARE PARTS LIST
When ordering parts, present Serial Number of 3600

3600P/A OPTIONS SPARE PARTS LIST

OPTIONS: RECOMMENDED SPARE PARTS (LOW LABEL, WEB BREAK ALARMS)

Part Number	Recommended Qty	Description
PE-LI1088	1	RED,YELLOW,GREEN LED ALARM LIGHT (BANNER)
ASS-200-0422	1	LOW LABEL SENSOR (w/o BRACKET)
ASS-200-0423	1	END OF WEB SENSOR (w/o BRACKET)

OPTIONS: RECOMMENDED SPARE PARTS (TAMP HOME SENSOR)

Part Number	Recommended Qty	Description
ASS-238-0433	1	TAMP HOME SENSOR (w/o BRACKET)

**** CYLINDER MUST BE DESIGNATED WITH AN "E"****

OPTIONS: RECOMMENDED SPARE PARTS (TOUCH-AND-GO (TAG) - PHOTOEYE)

Part Number	Recommended Qty	Description
PE-SE0985	1	SM312W-QD SENSOR **** JOB SPECIFIC ****

OPTIONS: RECOMMENDED SPARE PARTS (TOUCH-AND-GO (TAG) - MECHANICAL)

Part Number	Recommended Qty	Description
PE-SW1110 **or**	1	OMRON LIMIT SWITCH (ARM STYLE)
PE-SW1105 **or**	1	OMRON LIMIT SWITCH (BUTTON ROLLER STYLE)
PE-SW1100	1	OMRON LIMIT SWITCH (BUTTON STYLE)

OPTIONS: RECOMMENDED SPARE PARTS (VACUUM OFF OPTION)

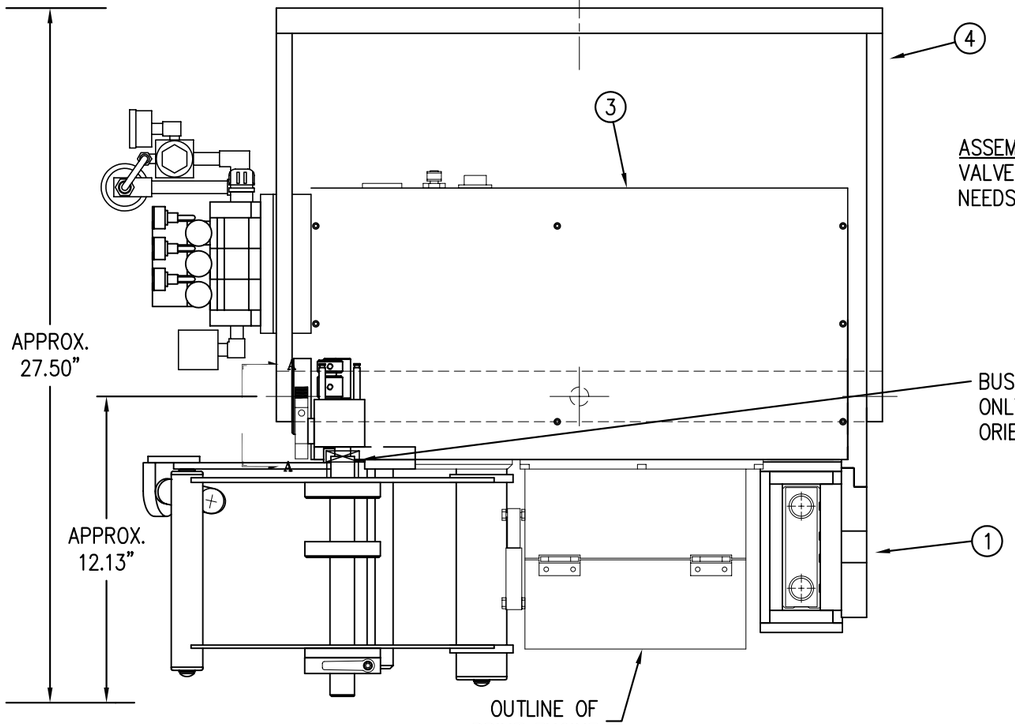
Part Number	Recommended Qty	Description
ASS-200-0459	1	VACUUM SWITCH ASSEMBLY

OPTIONS: RECOMMENDED SPARE PARTS (QUICK DISCONNECT PAD & MANIFOLD)

Part Number	Recommended Qty	Description
PM-FASSBP11000	4	BALL PLUNGERS
MP-238-0270	1	QUICK CHANGE SLIDE TRANSITION PLATE

3600 PRINTER APPLICATOR SPARE PARTS LIST
When ordering parts, present Serial Number of 3600

SPARE PARTS LIST FOR RETIRED ASSEMBLIES		
OPTIONS: RECOMMENDED SPARE PARTS (AC INCANDESCENT ALARM LIGHT - ALLEN BRADLEY)		
Part Number	**Recommended Qty**	**Description**
PE-LI2070	1	LAMP (ALARM LIGHT)
PE-RE1001	1	RELAY (ALARM LIGHT)



ASSEMBLY NOTE:
VALVE BANK TO APPLICATOR CABLE NEEDS TO BE SHORTENED AT ASSY.

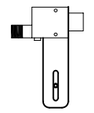
BUSHING & LOCK COLLAR
ONLY USED FOR REELS UP
ORIENTATION

BILL OF MATERIAL				SOLD
ASSEMBLY		CTM-238-0112XR/L-X		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
1	1	T.A.G. TAMP MODULE	MOD-238-0112R/L	S
2	1	12" UNWIND MODULE	MOD-238-0122R/L	S
	1	12" UNWIND MODULE w/ALUM. DISKS	MOD-238-0122AR/L	S
3	1	HOUSING ASSEMBLY/CORE UNIT	ASS-238-0123R/L	.
4	1	U-ARM MOUNT	WAS-238-0130	.
5	1	STD REWIND DISK ASSEMBLY	ASS-238-0144-12	S
	1	FILM REWIND DISK ASSEMBLY	ASS-200-2137	S
	1	PRODUCT DETECT SENSOR	ASS-200-0427	S

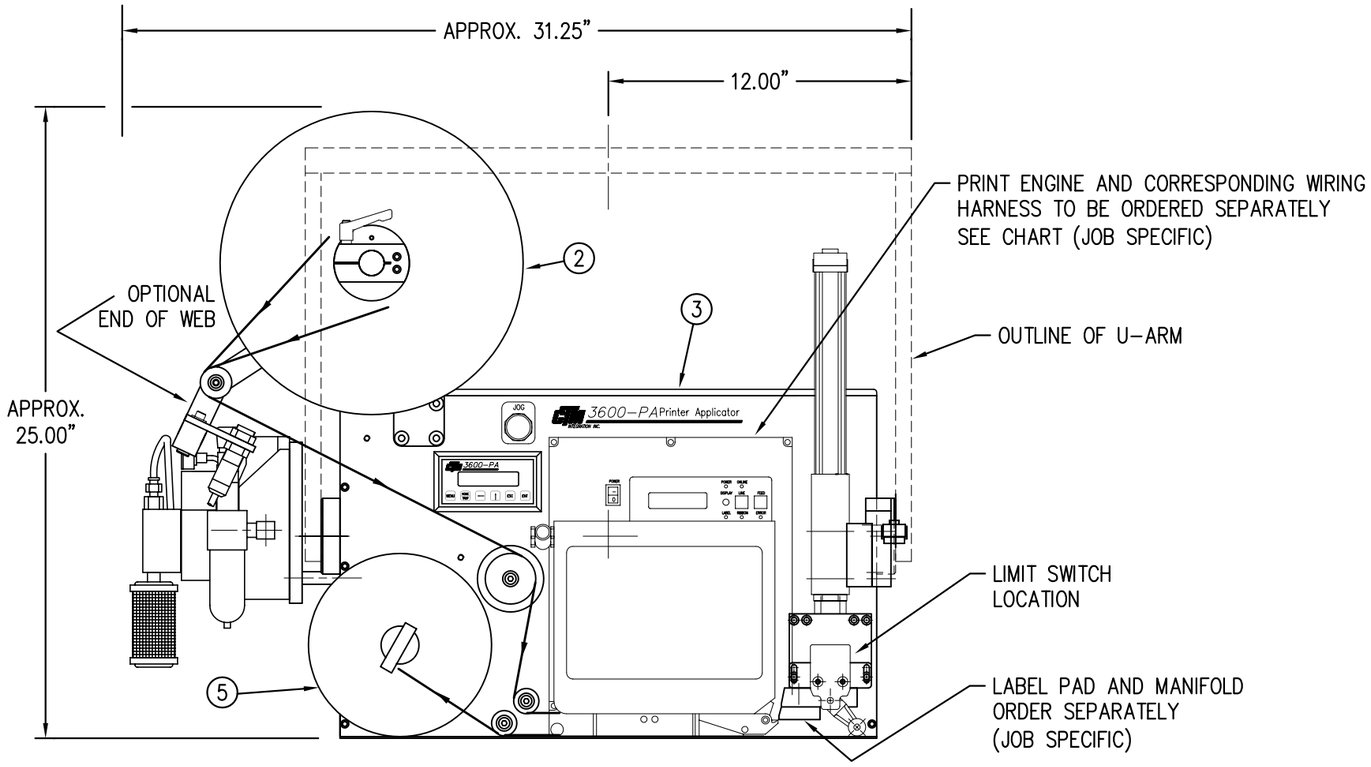
CTM-238-0112XR/L-X	
STD. REWIND	-0112R/L-S
FILM REWIND	-0112R/L-F
REELS UP STD. REWIND	-0112AR/L-S
REELS UP FILM REWIND	-0112AR/L-F

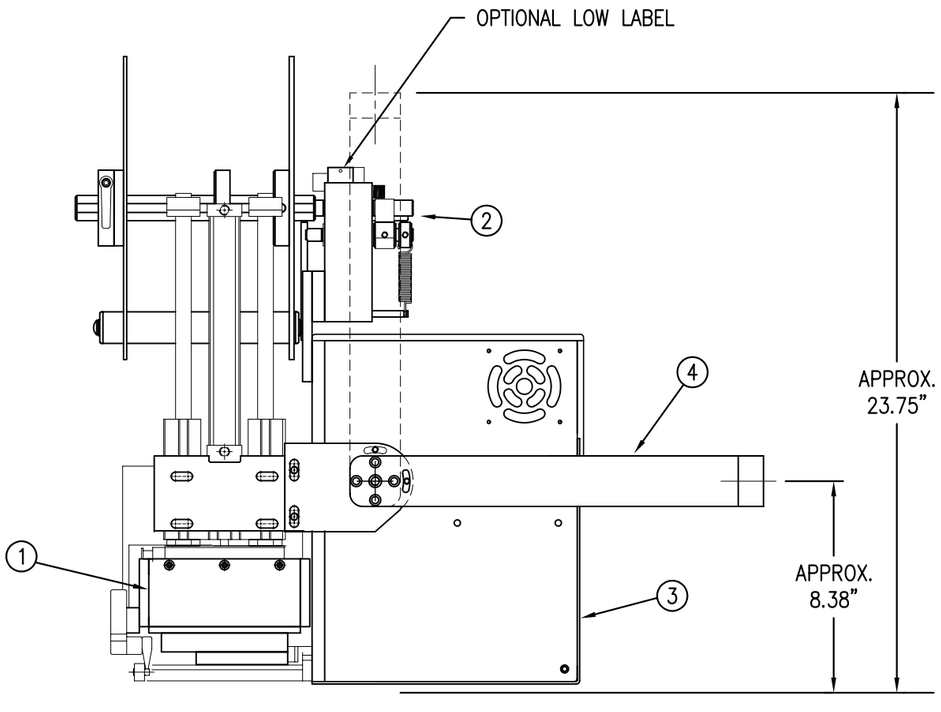
APPLICATOR TO PRINT ENGINE INTERFACE HARNESSES: (ORDER W/ PRINT ENGINE)	
PAX	PE-238-0418
SATO SE	PE-238-0420
SATO S	PE-238-0417

OBSOLETE



SECTION A-A
LOW LABEL SENSOR
(ORDER AS AN OPTION)





TITLE: SERIES 3600 PRINTER APPLICATOR: STANDARD TAMP

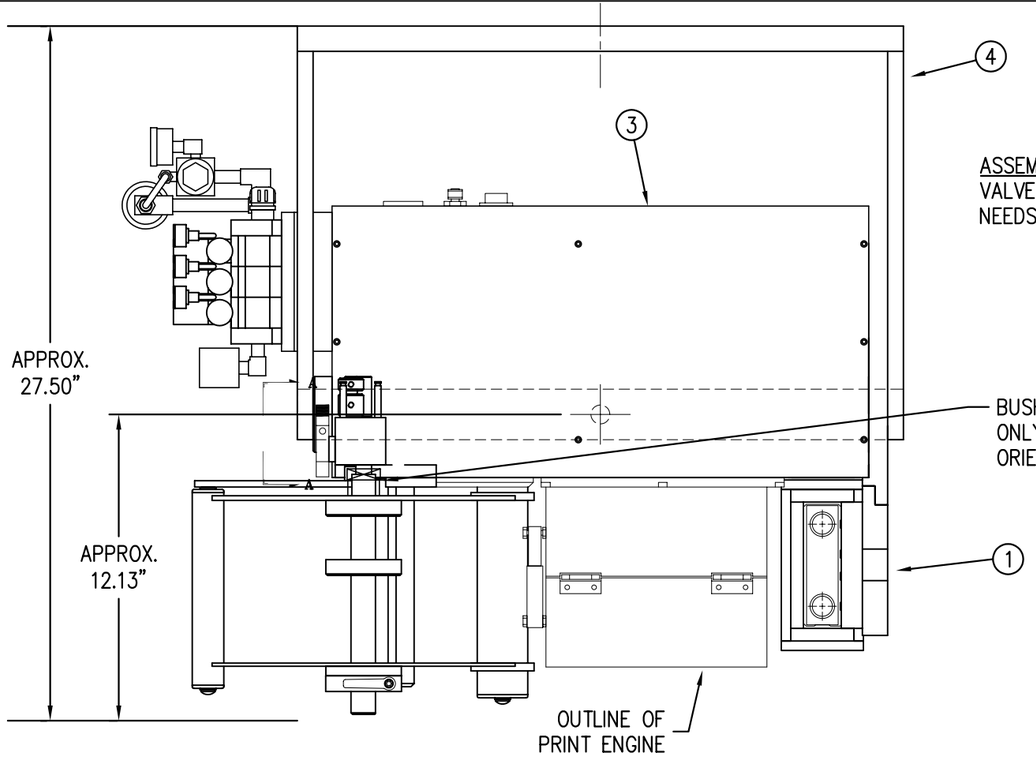
PART: 12" UNWIND T.A.G TAMP CTM ASSEMBLY~IN-LINE FLOW

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:
0	NEW DRAWING	12/5/03	JAM

Scale:	Date:	DRAWN BY:
1=6	12/8/03	BOB S.

Dept. Code 70

F:\Engineering\Standard Parts\System Components: 238\CTM-238-0112XRL-X



ASSEMBLY NOTE:
VALVE BANK TO APPLICATOR CABLE NEEDS TO BE SHORTENED AT ASSY.

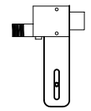
BUSHING & LOCK COLLAR ONLY USED FOR REELS UP ORIENTATION

BILL OF MATERIAL				SOLD	
ASSEMBLY		CTM-238-0113XR/L-12X		S	
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER		
1	1	T.A.G. TAMP MODULE	MOD-238-0113R/L	S	
2	1	12" UNWIND MODULE	MOD-238-0122R/L	S	STANDARD
	1	12" UNWIND MODULE w/ALUM. DISK	MOD-238-0122AR/L	S	REELS UP
3	1	HOUSING ASSEMBLY/CORE UNIT	ASS-238-0123R/L	.	
4	1	U-ARM MOUNT	WAS-238-0130	.	
5	1	STD REWIND DISK ASSEMBLY	ASS-238-0144-12	S	
	1	FILM REWIND DISK ASSEMBLY	ASS-200-2137	S	
	1	PRODUCT DETECT SENSOR	ASS-200-0427	S	

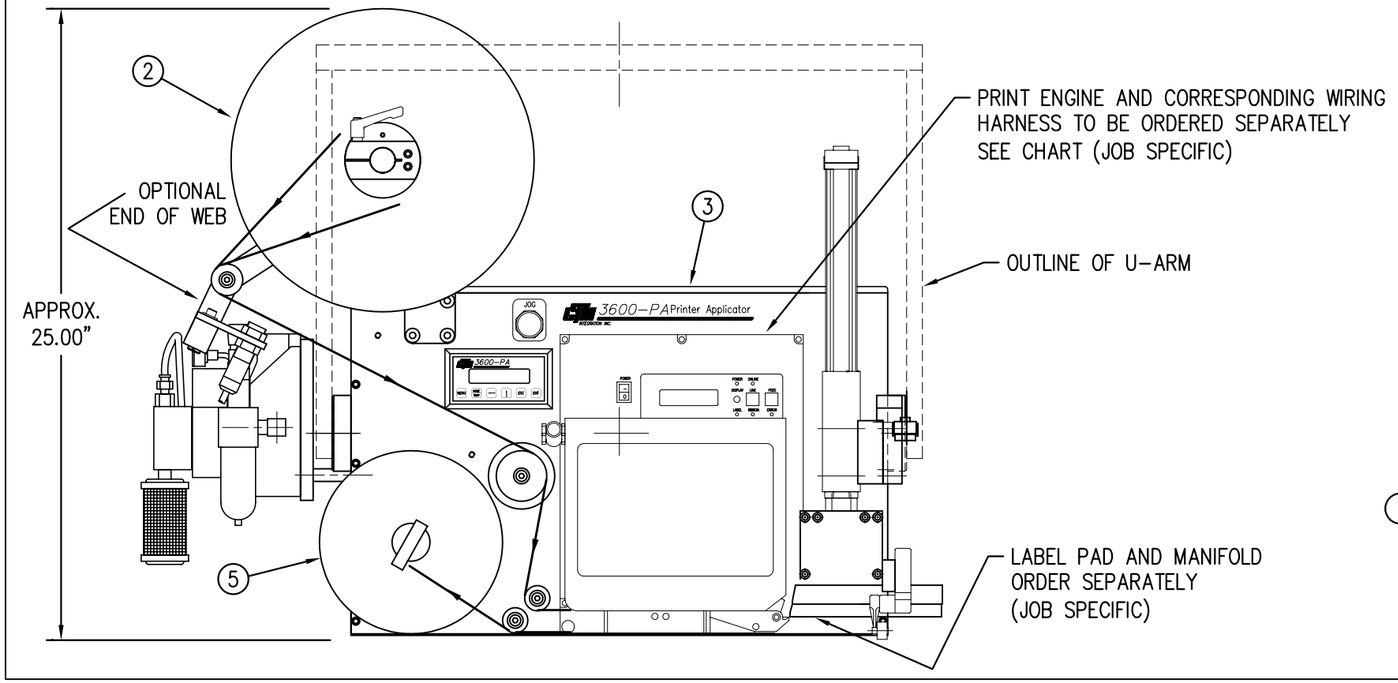
CTM-238-0113XR/L-12X	
STD. REWIND	-0113R/L-12S
FILM REWIND	-0113R/L-12F
REELS UP STD. REWIND	-0113AR/L-12S
REELS UP FILM REWIND	-0113AR/L-12F

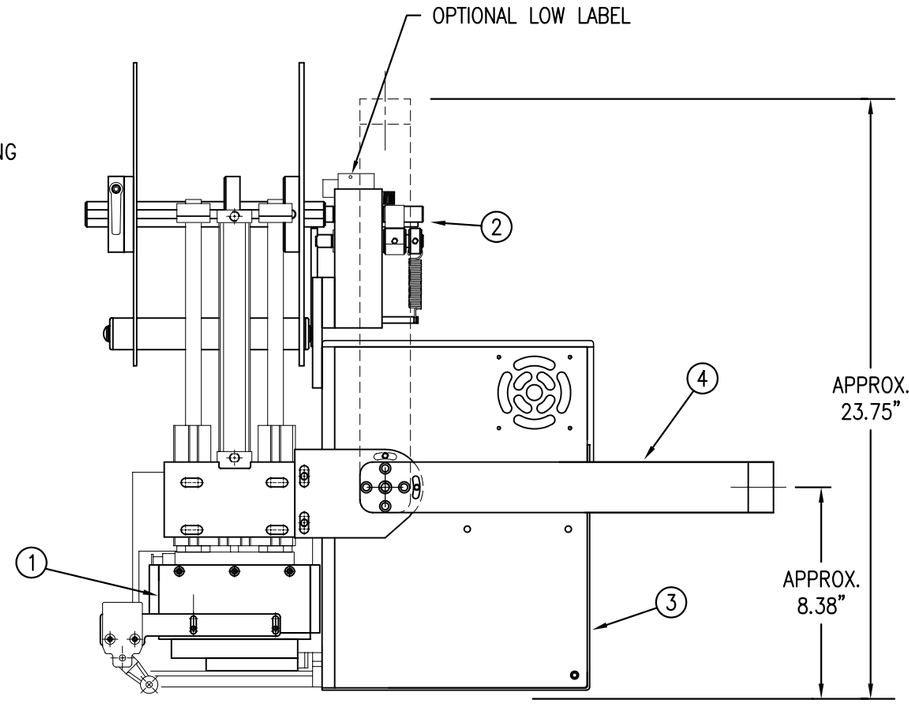
APPLICATOR TO PRINT ENGINE INTERFACE HARNESSES: (ORDER W/ PRINT ENGINE)	
PAX	PE-238-0418
SATO SE	PE-238-0420
SATO S	PE-238-0417

OBSOLETE



SECTION A-A
LOW LABEL SENSOR
(ORDER AS AN OPTION)





TITLE: SERIES 3600 PRINTER APPLICATOR: STANDARD TAMP

PART: 12" UNWIND T.A.G. TAMP CTM ASSEMBLY~PERPENDICULAR FLOW

Dept. Code 70

F:\Engineering\Standard Parts\System Components: 238\CTM-238-0113XRL-12X

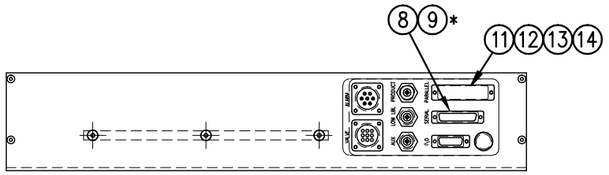
REV.	REV. DESCRIPTION	REV. DATE	REV. BY:
0	NEW DRAWING	12/5/03	JAM

Scale: 1=6 | Date: 12/8/03 | DRAWN BY: BOB S.

BILL OF MATERIAL

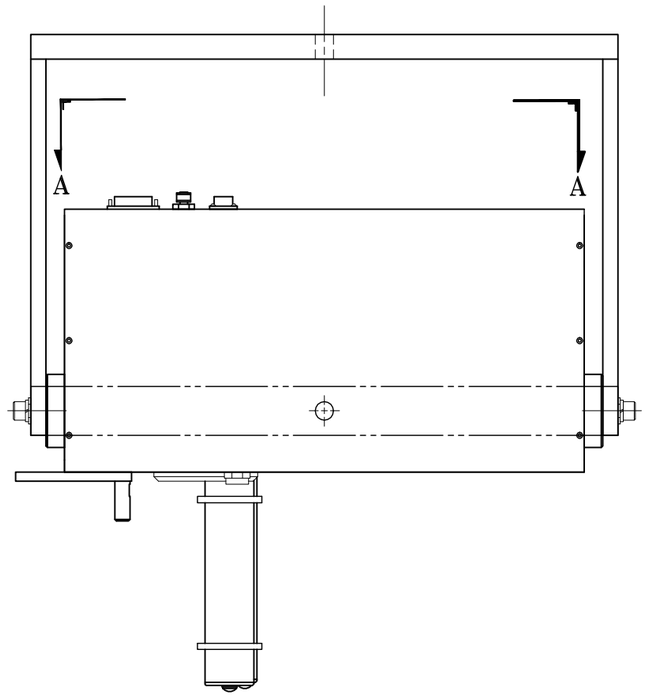
CTM-238-0123R/L-X

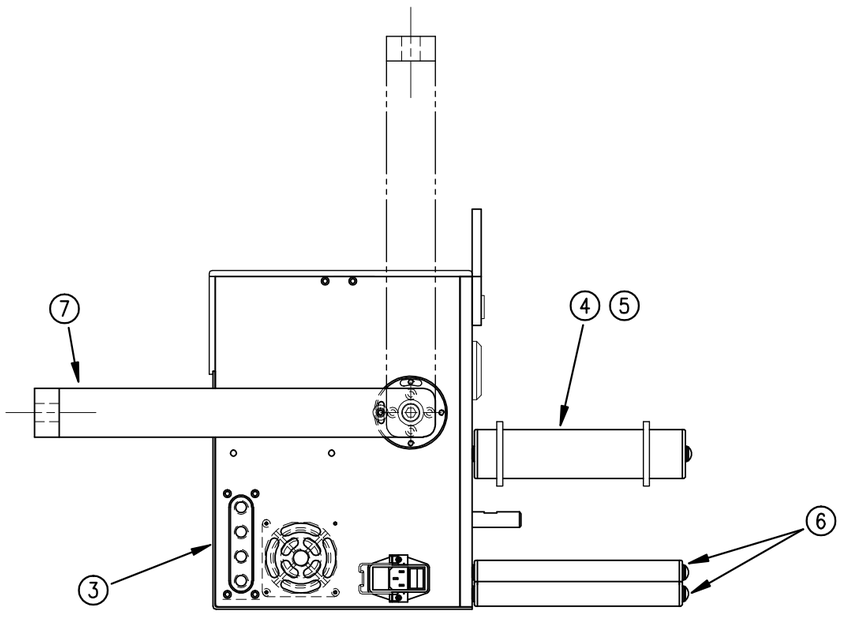
ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION	
①	1	SAS-238-0123R/L	STANDARD APPLICATOR HOUSING (SHELF ASS'Y)	
②	1	MP-238-0221	TOP COVER	
③	1	MP-238-0228	STAINLESS STEEL HOUSING COVER	
④	1	ASS-238-0135	2" DIA. DANCER ROLLER	
⑤	2	MP-238-0247	GUIDE COLLAR	
⑥	2	ASS-238-0134	1" DIA. ROLLER	
⑦	1	WAS-238-0130	U-ARM WELDMENT	
⑧	1	PE-238-0405	SERIAL PRINTER PORT	SERIAL
	0			PARALLEL
	0			ETHERNET
⑨	0	MP-238-0277	SERIAL PORT BLANK	SERIAL
	1			PARALLEL
	1			ETHERNET
⑩	0	PE-CA2500	PARALLEL CABLE	SERIAL
	1			PARALLEL
	0			ETHERNET
⑪	0	PE-CC1070	PARALLEL PORT CLIP KIT	SERIAL
	1			PARALLEL
	0			ETHERNET
⑫	0	PE-PA1040	FLAT RIBBON CLIP	SERIAL
	1			PARALLEL
	0			ETHERNET
⑬	1	MP-238-0276	PARALLEL PORT BLANK	SERIAL
	0			PARALLEL
	0			ETHERNET
⑭	0	ASS-238-0460	PARALLEL TO ETHERNET ADAPTER ASSEMBLY	SERIAL
	0			PARALLEL
	1			ETHERNET
	4	PM-FAFH50110	FHCS, #6-32 x 1/2" Lg.	
	3	PM-FAFH50220	FHCS, #10-32 x 3/4" Lg.	

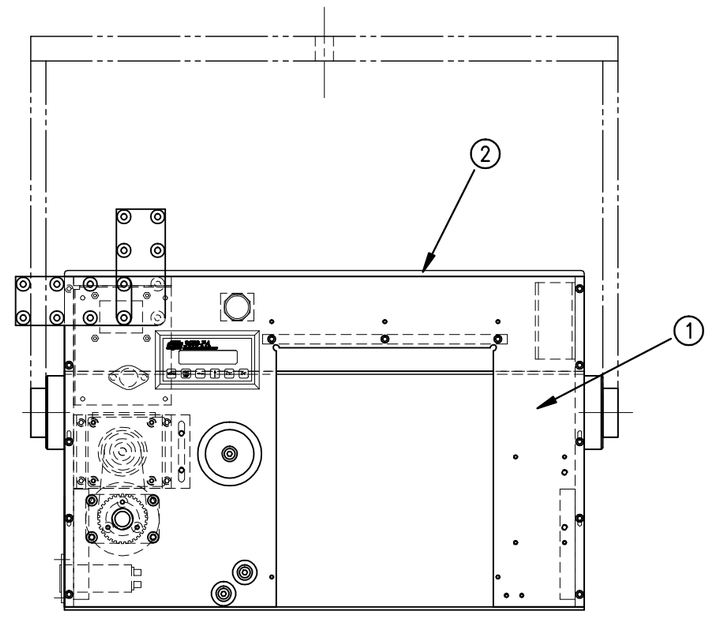


SECTION A-A
ELECTRIC FACEPLATE

RH & LH ASSEMBLIES AVAILABLE
-RH ASSEMBLY SHOWN-







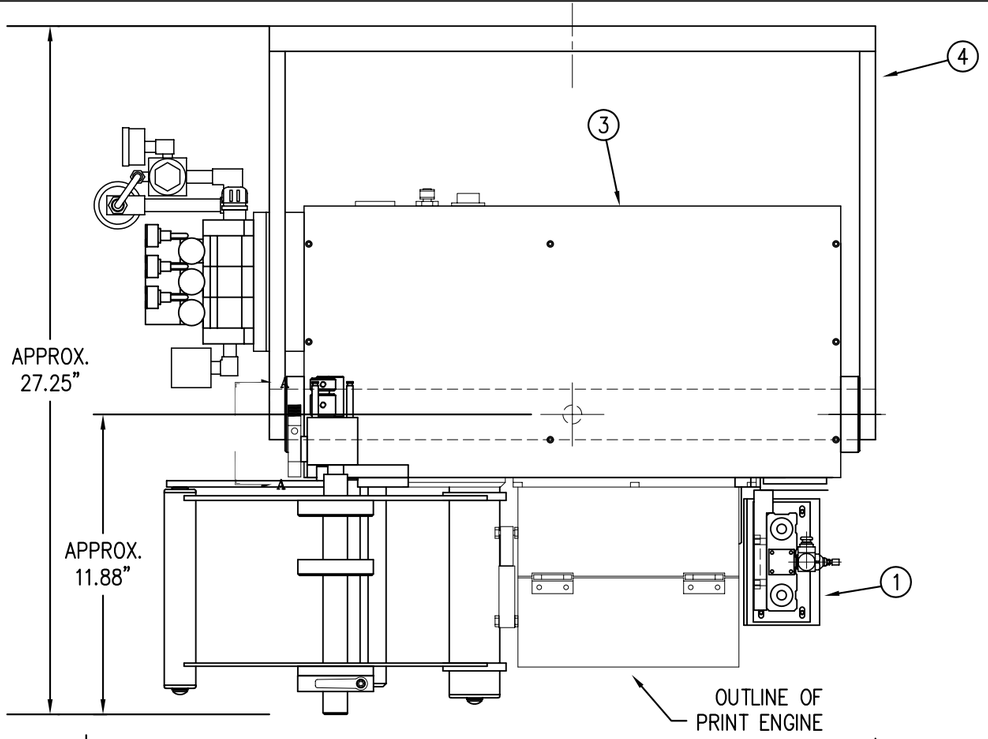
CTM-238-0123R/L-X

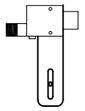
SERIAL	-S
PARALLEL	-P
ETHERNET	-E

APPLICATOR SERIES: 3600
APPLICATOR WIDTH(S): 7.5"
GROUP: CORE UNIT

TITLE: 3600P/A CORE UNIT w/ PROGRAM
Dept. Code 70
DRAWN BY: Tracy Rhodes
Date: 08/24/11
Scale: 1=6
F:\Engineering\Standard Parts\Applicator\3600\3600\CTM-238-0123RL-X

REV. BY: xxx
REV. DATE –
REV. DESCRIPTION –
REV. 0





SECTION A–A
LOW LABEL SENSOR
(ORDER AS AN OPTION)

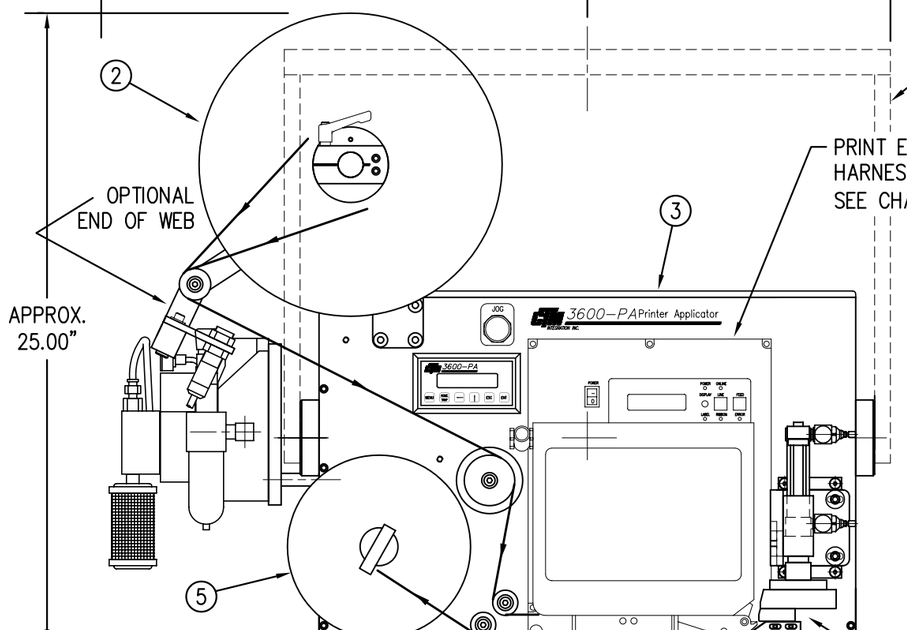
BILL OF MATERIAL				SOLD	
ASSEMBLY		CTM–238–0124XR/L–12X		S	
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER		
1	1	STANDARD TAMP MODULE	MOD–238–0124R/L	S	
2	1	12" UNWIND MODULE	MOD–238–0122R/L	S	STANDARD
	1	12" UNWIND MODULE w/ ALUM. DISKS	MOD–238–0122AR/L	S	REELS UP
3	1	HOUSING ASSEMBLY/CORE UNIT	ASS–238–0123R/L	.	
4	1	U–ARM MOUNT	WAS–238–0130	.	
5	1	STD REWIND DISK ASSEMBLY	ASS–238–0144–12	S	
	1	FILM REWIND DISK ASSEMBLY	ASS–200–2137	S	
	1	PRODUCT DETECT SENSOR	ASS–200–0427	S	

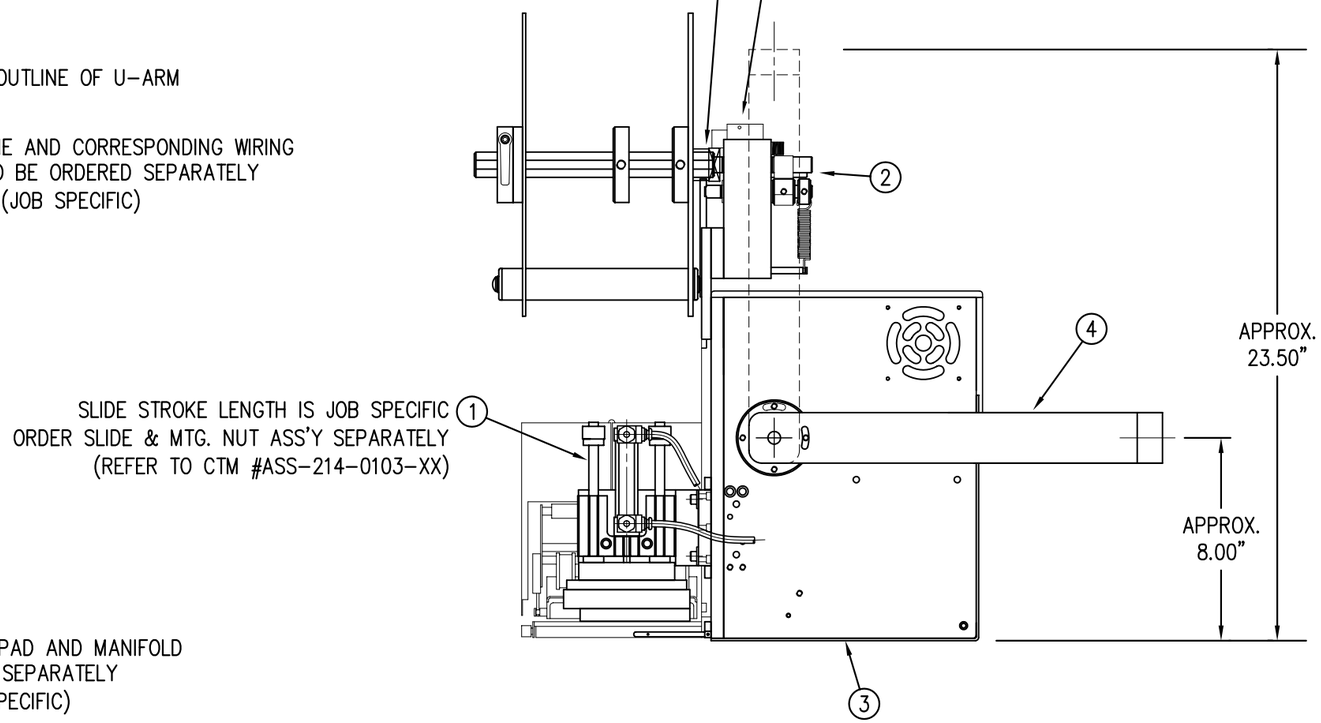
CTM–238–0124XR/L–12X	
STD. REWIND	–0124R/L–12S
FILM REWIND	–0124R/L–12F
REELS UP STD. REWIND	–0124AR/L–12S
REELS UP FILM REWIND	–0124AR/L–12F

ASSEMBLY NOTE:
VALVE BANK TO APPLICATOR CABLE
NEEDS TO BE SHORTENED AT ASSY.

OBSOLETE →

APPLICATOR TO PRINT ENGINE INTERFACE HARNESSES: (ORDER W/ PRINT ENGINE)	
PAX	PE–238–0418
SATO SE	PE–238–0420
SATO S	PE–238–0417





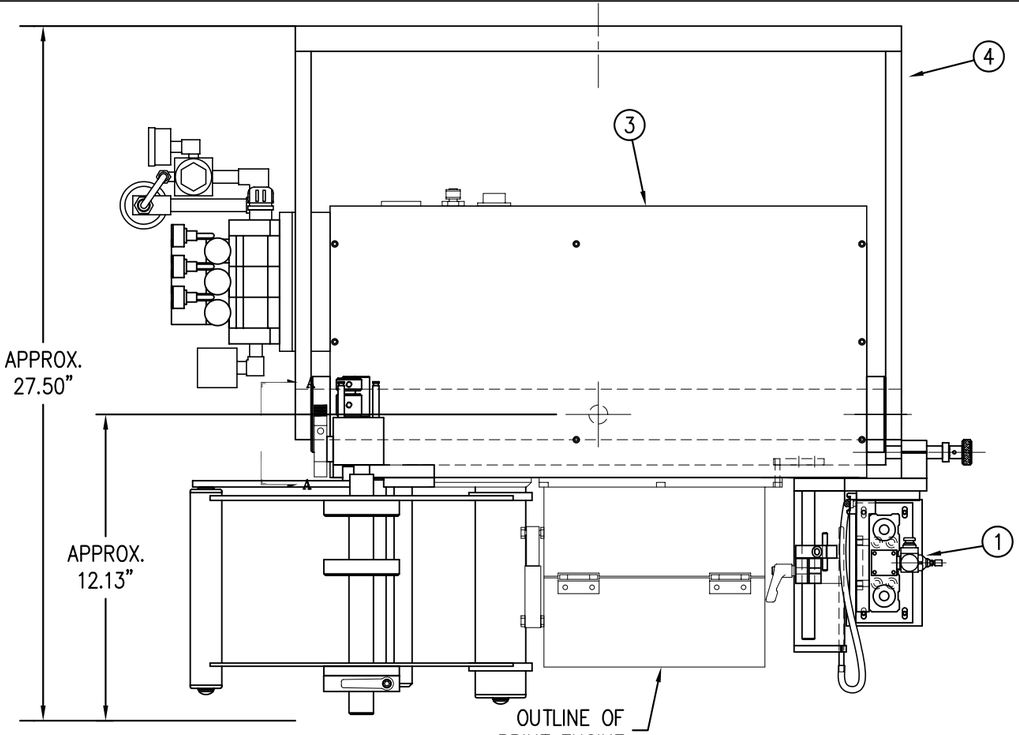
TITLE: SERIES 3600 PRINTER APPLICATOR: STANDARD TAMP

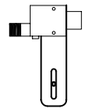
PART: 12" UNWIND STD. TAMP CTM ASSEMBLY

Dept. Code 70

Scale: 1=6 | Date: 12/8/03 | DRAWN BY: JENNIFER MCBRIDE | F:\Engineering\Standard Parts\System Components: 238\CTM–238–0124XRL–12X

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:
O	NEW DRAWING	12/5/03	JAM





SECTION A–A
LOW LABEL SENSOR
(ORDER AS AN OPTION)

BILL OF MATERIAL				SOLD	
ASSEMBLY		CTM–238–X125XR/L–12X		S	
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER		
1	1	EXTENDED TAMP MODULE	MOD–238–X125R/L	S	
2	1	12" UNWIND MODULE	MOD–238–0122R/L	S	STANDARD
	1	12" UNWIND MODULE w/ ALUM. DISK	MOD–238–0122AR/L	S	REELS UP
3	1	HOUSING ASSEMBLY/CORE UNIT	ASS–238–0123R/L	.	
4	1	U–ARM MOUNT	WAS–238–0130	.	
5	1	STD REWIND DISK ASSEMBLY	ASS–238–0144–12	S	
	1	FILM REWIND DISK ASSEMBLY	ASS–200–2137	S	
	1	PRODUCT DETECT SENSOR	ASS–200–0427	S	
	1	1/4–20 x 3/4" Lg. NYLON TIP SET SCREW	PM–FASS48058NT	S	
	1	1/4–20 JAM NUT	.	S	

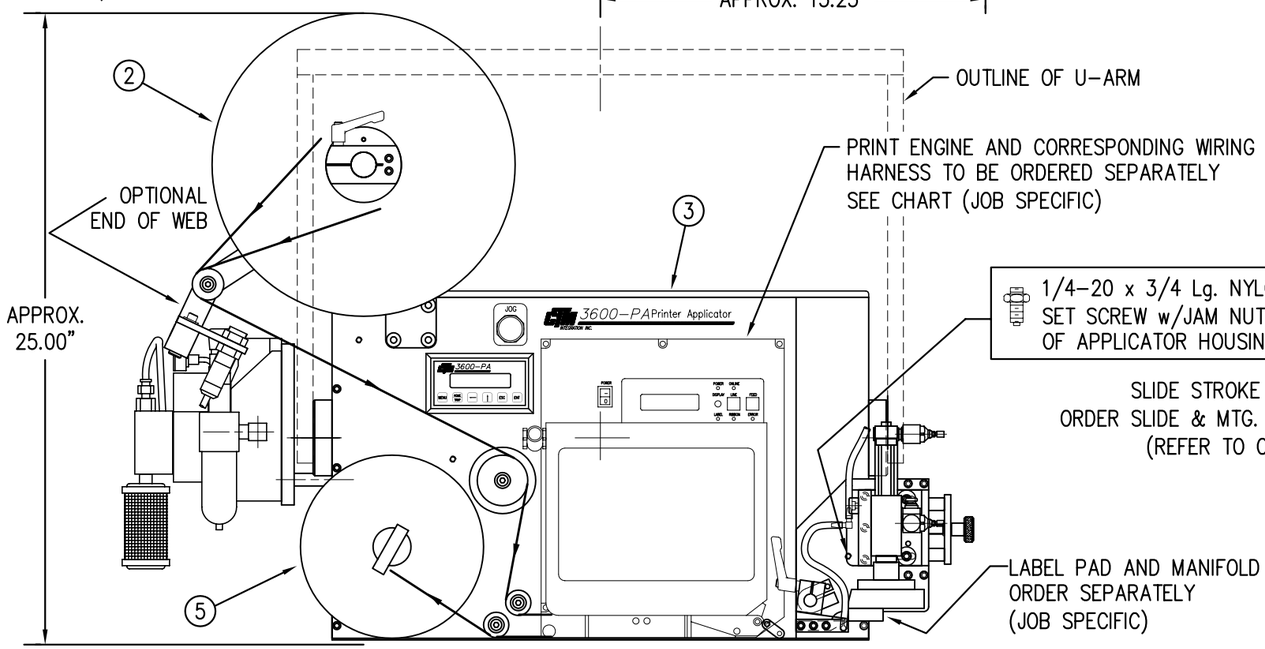
CTM–238–X125XR/L–12X	
5" WIDE STD. REWIND	–0125R/L–12S
5" WIDE FILM REWIND	–0125R/L–12F
5" WIDE; REELS UP STD. REWIND	–0125AR/L–12S
5" WIDE; REELS UP FILM REWIND	–0125AR/L–12F
7.5" WIDE STD. REWIND	–2125R/L–12S
7.5" WIDE FILM REWIND	–2125R/L–12F
7.5"WIDE; REELS UP STD. REWIND	–2125AR/L–12S
7.5" WIDE; REELS UP FILM REWIND	–2125AR/L–12F

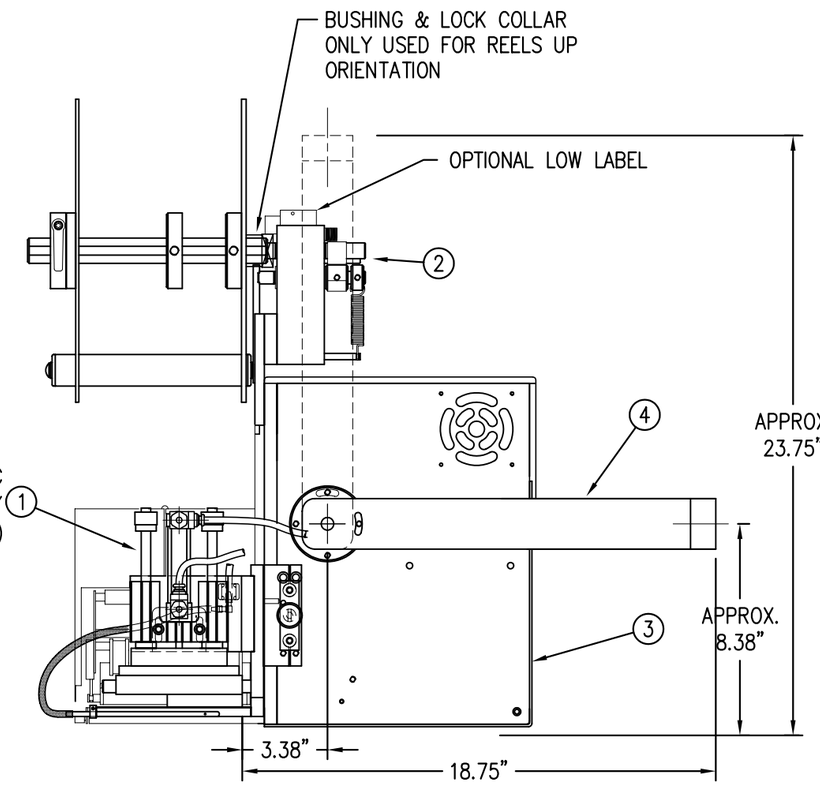
NOTE: USE 7.5" WIDE WITH THE FOLLOWING PRINT ENGINES:
–ZEBRA PAX 170 SERIES –SATO 8460

ASSEMBLY NOTE:
VALVE BANK TO APPLICATOR CABLE
NEEDS TO BE SHORTENED AT ASSY.

OBSOLETE →

APPLICATOR TO PRINT ENGINE INTERFACE HARNESSES: (ORDER W/ PRINT ENGINE)	
PAX	PE–238–0418
SATO SE	PE–238–0420
SATO S	PE–238–0417



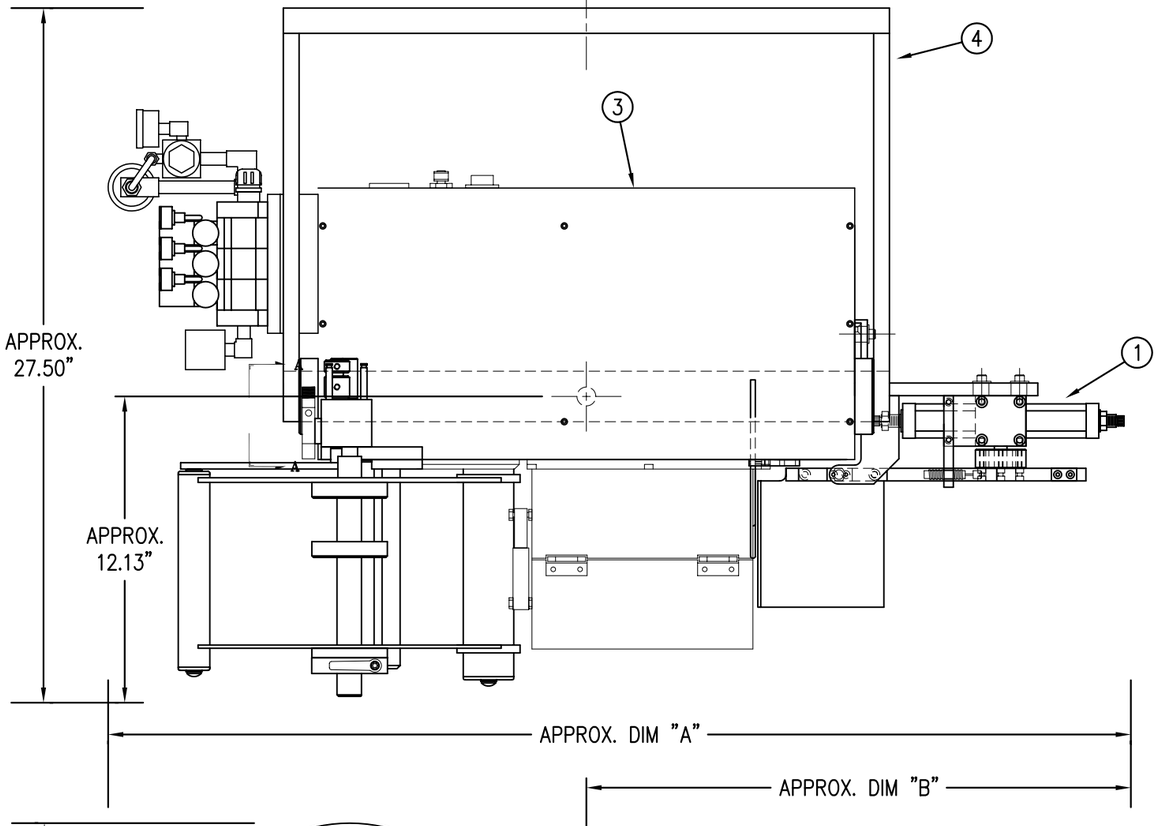


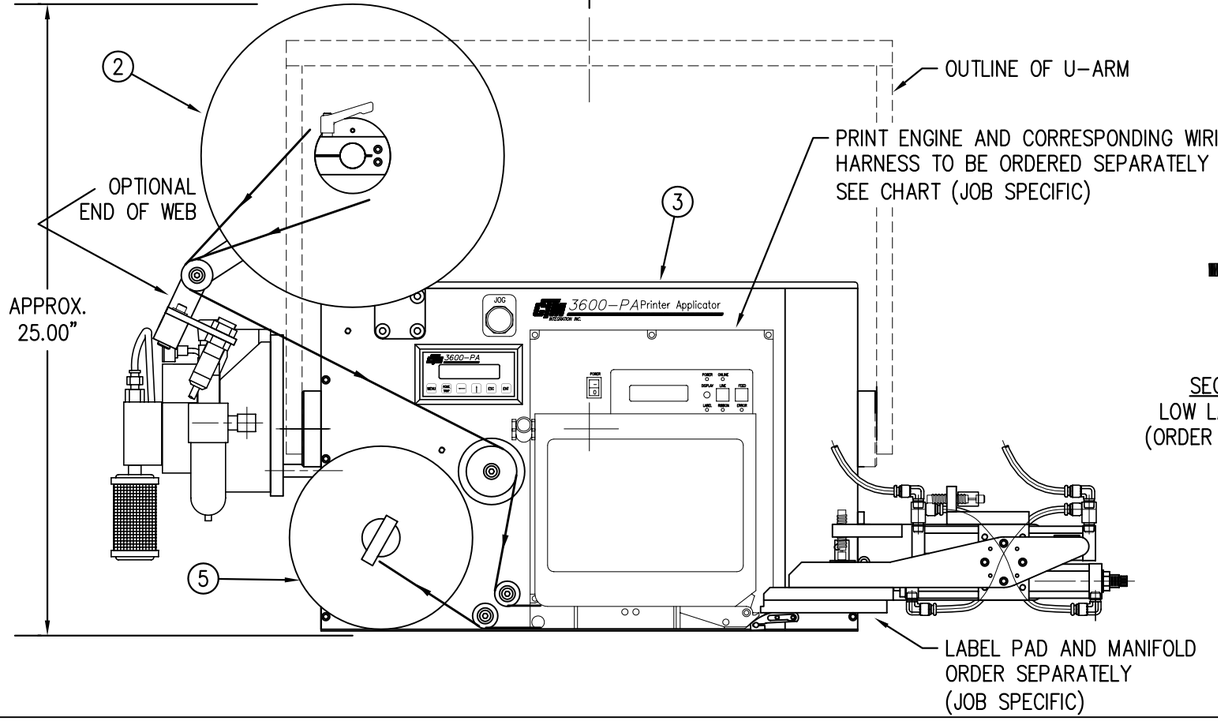
TITLE: SERIES 3600 PRINTER APPLICATOR: STANDARD TAMP
PART: 12" UNWIND EXT. TAMP CTM ASSEMBLY

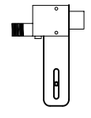
REV.	REV. DESCRIPTION	REV. DATE	REV. BY:
4	NEW AIR ASSIST MTG. ASS'Y (MAKES REV. 1 OBSOLETE)	02/27/06	TDR

Scale: 1=6 | Date: 12/8/03 | DRAWN BY: BOB S. | Dept. Code 70

F:\Engineering\Standard Parts\System Components: 238\CTM–238–X125XRL–12X







SECTION A-A
LOW LABEL SENSOR
(ORDER AS AN OPTION)

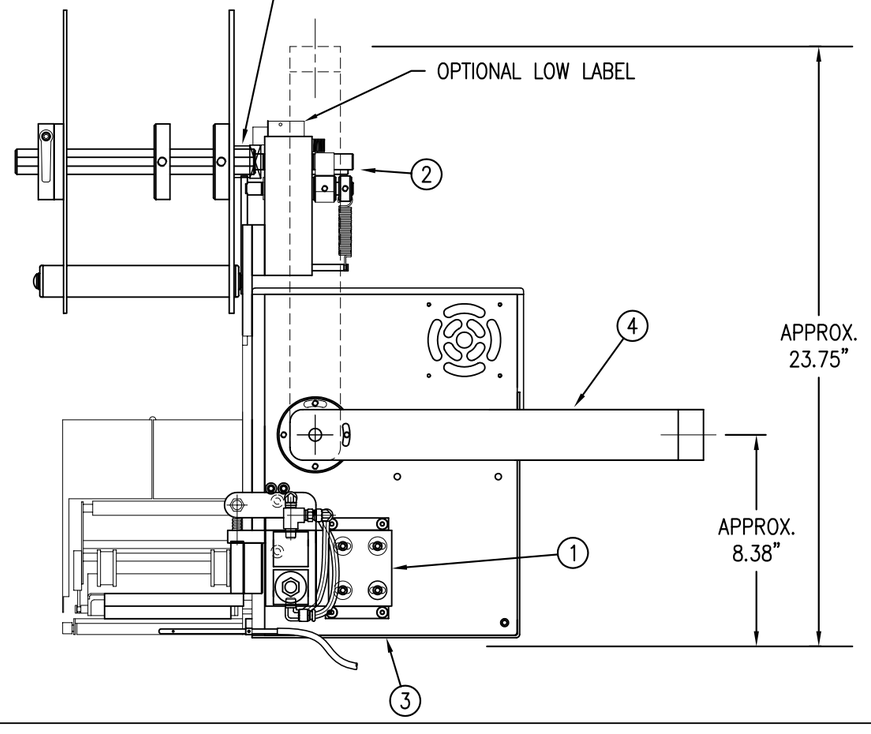
BILL OF MATERIAL				SOLD	
ASSEMBLY		CTM-238-0126XR/L-X-X		S	
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER		
1	1	SWING TAMP MODULE	MOD-238-0126R/L-X	S	
2	1	12" UNWIND MODULE	MOD-238-0122R/L	S	STANDARD
	1	12" UNWIND MODULE w/ALUM. DISK	MOD-238-0122AR/L	S	REELS UP
3	1	HOUSING ASSEMBLY/CORE UNIT	ASS-238-0123R/L	.	
4	1	U-ARM MOUNT	WAS-238-0130	.	
5	1	STD REWIND DISK ASSEMBLY	ASS-238-0144-12	S	
	1	FILM REWIND DISK ASSEMBLY	ASS-200-2137	S	
	1	PRODUCT DETECT SENSOR	ASS-200-0427	S	

ASSEMBLY NOTE:
VALVE BANK TO APPLICATOR CABLE NEEDS TO BE SHORTENED AT ASSY.

PART NO.	DIM "A"	DIM "B"
CTM-238-0126R/L-12X	40.50	21.50
CTM-238-0126R/L-2-12X	42.50	23.50
CTM-238-0126R/L-4-12X	44.50	25.50

BUSHING & LOCK COLLAR ONLY USED FOR REELS UP ORIENTATION

APPLICATOR TO PRINT ENGINE INTERFACE HARNESSES: (ORDER W/ PRINT ENGINE)	
PAX	PE-238-0418
SATO SE	PE-238-0420
OBSOLETE → SATO S	PE-238-0417



CTM-238-0126R/L-X-X	
STD. REWIND W/ STD. SWING ARM	-0126R/L-S
FILM REWIND W/ STD. SWING ARM	-0126R/L-F
STD. REWIND W/ 2" OVERSIZE SWING ARM	-0126R/L-2-S
FILM REWIND W/ 2" OVERSIZE SWING ARM	-0126R/L-2-F
STD. REWIND W/ 4" OVERSIZE SWING ARM	-0126R/L-4-S
FILM REWIND W/ 4" OVERSIZE SWING ARM	-0126R/L-4-F
REELS UP: STD. REWIND W/ STD. SWING ARM	-0126AR/L-S
REELS UP: FILM REWIND W/ STD. SWING ARM	-0126AR/L-F
REELS UP: STD. REWIND W/ 2" OVERSIZE SWING ARM	-0126AR/L-2-S
REELS UP: FILM REWIND W/ 2" OVERSIZE SWING ARM	-0126AR/L-2-F
REELS UP: STD. REWIND W/ 4" OVERSIZE SWING ARM	-0126AR/L-4-S
REELS UP: FILM REWIND W/ 4" OVERSIZE SWING ARM	-0126AR/L-4-F

TITLE: SERIES 3600 PRINTER APPLICATOR: STANDARD TAMP

PART: 12" UNWIND SWING TAMP CTM ASSEMBLY

Dept. Code 70

F:\Engineering\Standard Parts\System Components: 238\CTM-238-0126RL-X-X

DRAWN BY: BOB S.

Date: 12/8/03

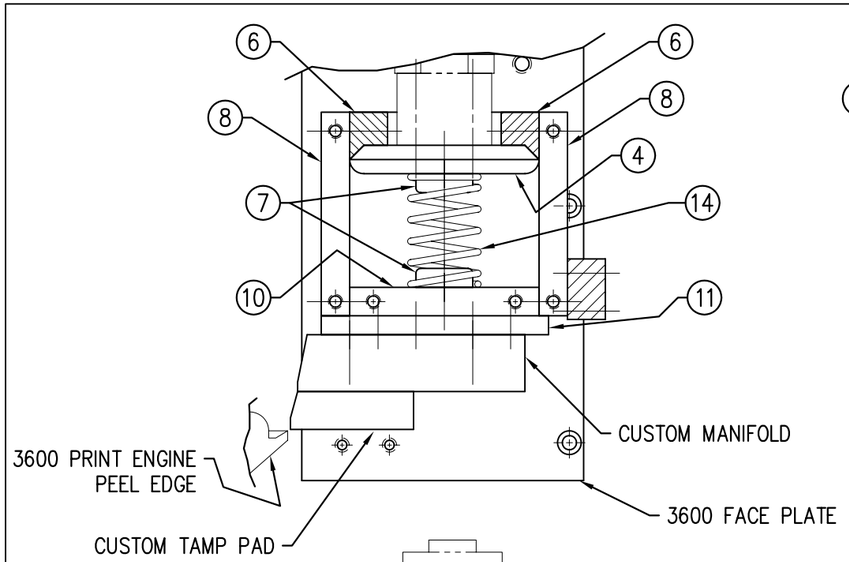
Scale: 1=6

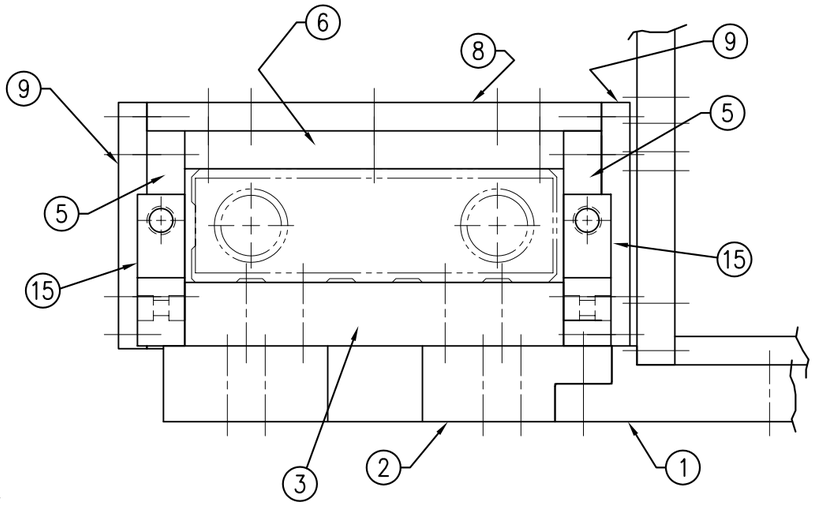
REV. BY: JAM

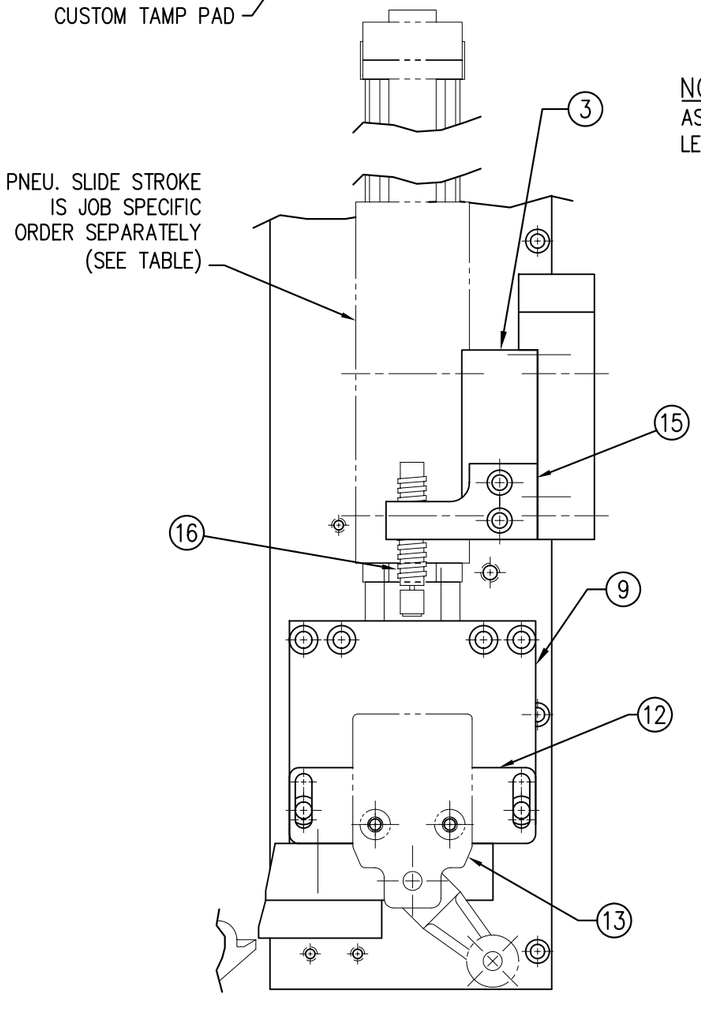
REV. DATE 12/5/03

REV. DESCRIPTION NEW DRAWING

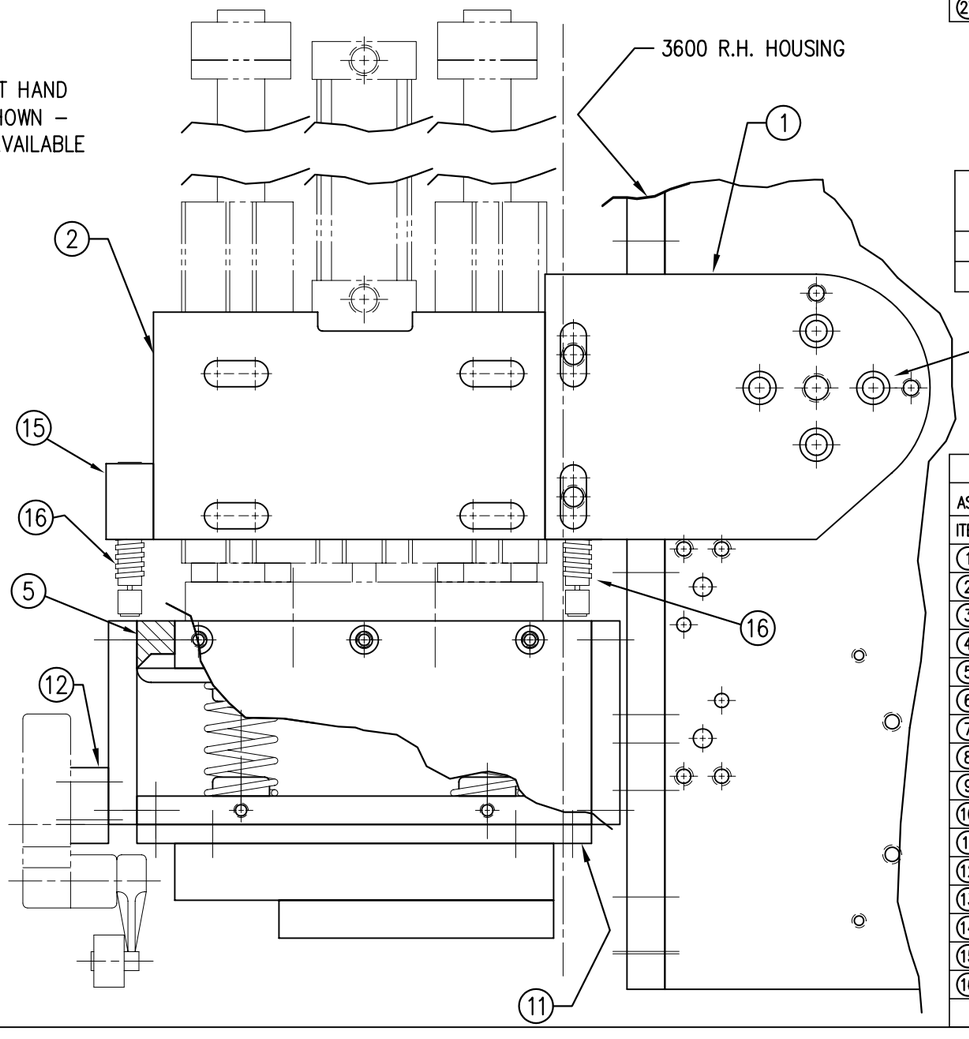
REV. O







NOTE: RIGHT HAND ASSEMBLY SHOWN – LEFT HAND AVAILABLE



MOD-238-0112R/L

ASS-238-0112R/L

BILL OF MATERIAL				SOLD
ASSEMBLY		MOD-238-0112R/L		.
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
	1	TOUCH & GO ASSEMBLY	ASS-238-0112R/L	S
17	1	3-STATION TAMP VALVE BANK	ASS-238-0129	S
18	1	VALVE MOUNTING PLATE	MP-214-0206	.
19	1	VALVE FASTENING PLATE	MP-238-0238	.
20	1	VALVE NUT PLATE	MP-238-0239	.
21	3	1/4 O.D. TUBING x 5 FT. LONG	PM-PT1070	.
22	2	FITTING, 1/4 NPT TO 3/8 TUBE	PM-PF1020	.
23	3	FITTING, 1/4 NPT TO 1/4 TUBE	PM-PF1010	.
24	1	FTG, 1/4 NPT TO 1/4 TUBE 90° SWIVEL	PM-PF1035	.
25	1	1/4 NPT x 2" LG. PIPE NIPPLE	PM-PF1145	.
26	1	1/4 NPT FEMALE 90° ELBOW	PM-PF1175	.
27	1	1/4 NPT PLUG	PM-PF1162	.

MOD ALSO INCLUDES
ITEMS (17) THRU (27)
WHICH ARE NOT SHOWN

SLIDE DESCRIPTION	PHD PART NO.	CTM PART NO.
PHD Pneu. SLIDE, 8" STROKE	SED23-8-E-BR-AE	PM-AC1305
PHD Pneu. SLIDE, 12" STROKE	SED23-12-E-BR-AE	PM-AC1315

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0112R/L		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
1	1	NOSE MOUNTING BASE PLATE	MP-238-0280R/L	.
2	1	NOSE MOUNTING ADJUSTMENT PLATE	MP-238-0281R/L	.
3	1	NOSE MOUNTING CYL. ADAPTER PLATE	MP-238-0282	.
4	1	TAMP BOX RETURN PLATE	MP-238-0283	.
5	2	TAMP BOX TOP CAP SIDE BAR	MP-238-0284	.
6	2	TAMP BOX TOP CAP END BAR	MP-238-0285	.
7	4	TAMP BOX SPRING PUCK	MP-238-0286	.
8	2	TAMP BOX SIDE PLATE	MP-238-0287	.
9	2	TAMP BOX END PLATE	MP-238-0288	.
10	1	TAMP BOX BASE PLATE	MP-238-0289	.
11	1	MANIFOLD ADAPTER PLATE	MP-238-0290	.
12	1	TAMP BOX SENSOR MOUNT, PARALLEL	MP-238-0291	.
13	1	LIMIT SWITCH, LEVER	PE-SW1110	.
14	2	COMPRESSION SPRING	PM-FASP30530	.
15	2	SHOCK MOUNTING PLATE	MP-238-0294	.
16	2	SHOCK ABSORBER	PM-SA1000	.
	4	SHCS, 1/4-20 x 7/8 LONG	NONE	.

PART: TOUCH AND GO (TAG) ASSEMBLY, IN-LINE FLOW

TITLE: 3600 SERIES APPLICATOR

Dept. Code 70

Scale: 1=2

Date: 02/03/03

DRAWN BY: Jeffery Mendenhall

F:\Engineering\Standard Parts\Applicator\3600 238\MOD-238-0112RL

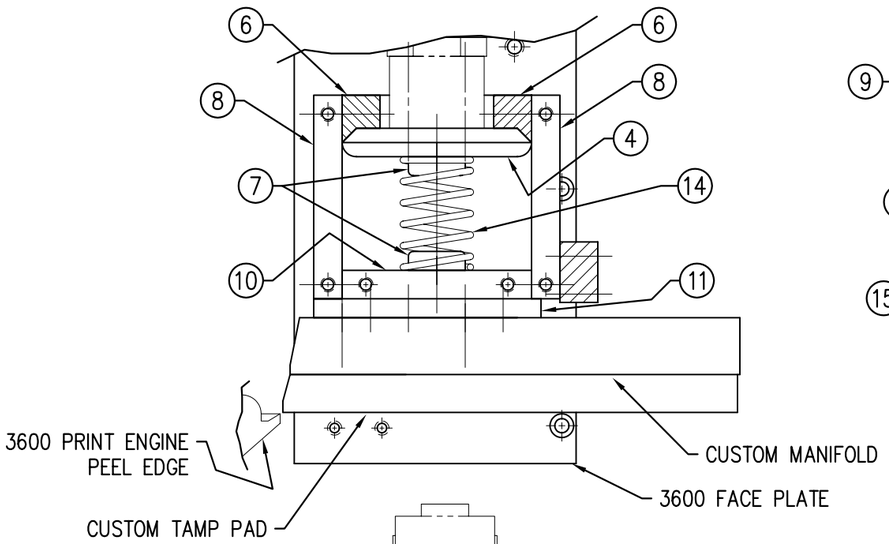
REV. | REV. DESCRIPTION | REV. BY: | REV. DATE
4 | ADDED SHOCK ABSORBERS & MTG. BRACKETS | TDR | 07/25/05

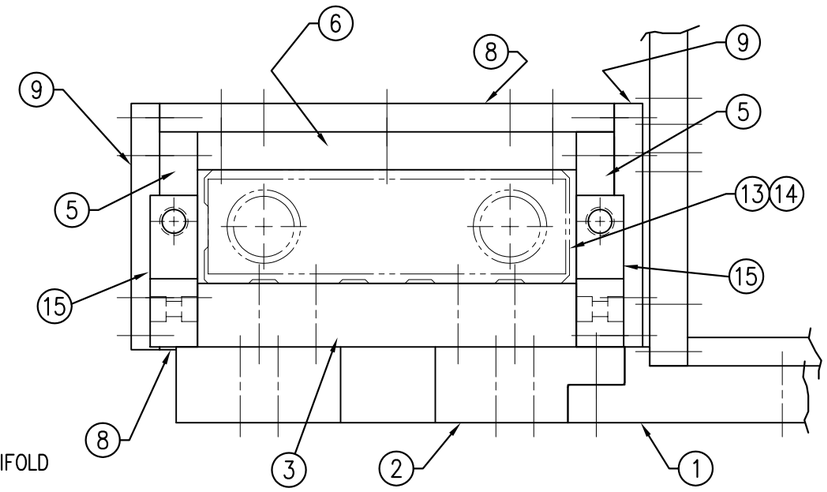
MOD-238-0113R/L

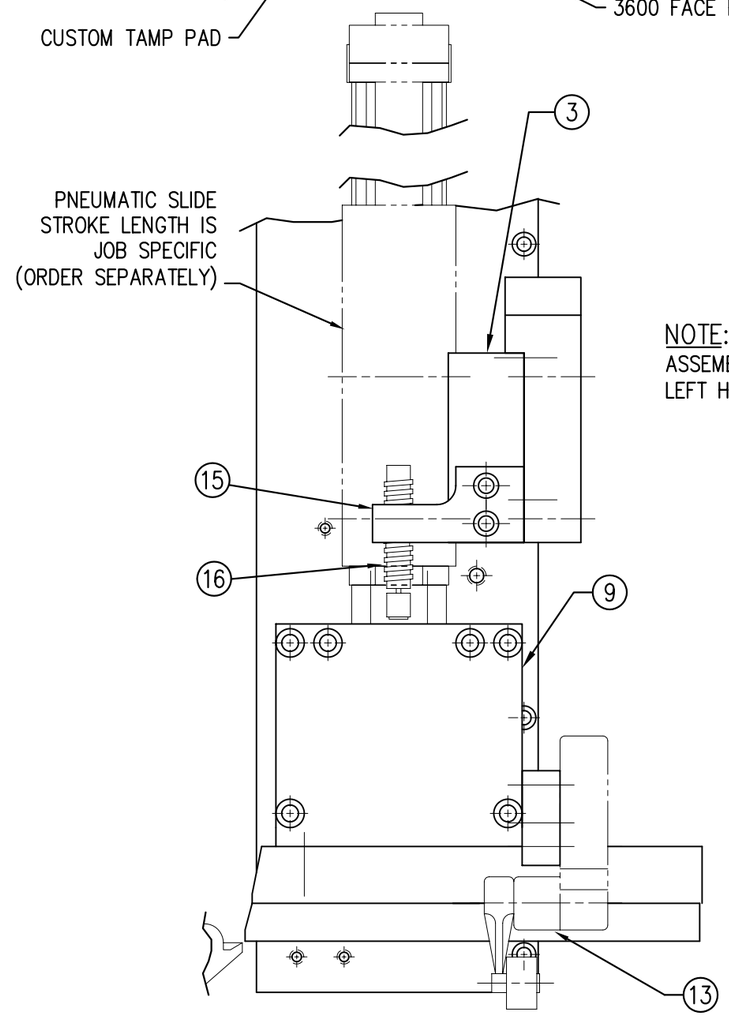
ASS-238-0113R/L

BILL OF MATERIAL				SOLD
ASSEMBLY		MOD-238-0113R/L		.
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
	1	TOUCH & GO ASSEMBLY	ASS-238-0113R/L	S
(17)	1	3-STATION TAMP VALVE BANK	ASS-238-0129	S
(18)	1	VALVE MOUNTING PLATE	MP-214-0206	.
(19)	1	VALVE FASTENING PLATE	MP-238-0238	.
(20)	1	VALVE NUT PLATE	MP-238-0239	.
(21)	3	1/4 O.D. TUBING x 5 FT. LONG	PM-PT1070	.
(22)	2	FITTING, 1/4 NPT TO 3/8 TUBE	PM-PF1020	.
(23)	3	FITTING, 1/4 NPT TO 1/4 TUBE	PM-PF1010	.
(24)	1	FTG, 1/4 NPT TO 1/4 TUBE 90° SWIVEL	PM-PF1035	.
(25)	1	1/4 NPT x 2" LG. PIPE NIPPLE	PM-PF1145	.
(26)	1	1/4 NPT FEMALE 90° ELBOW	PM-PF1175	.
(27)	1	1/4 NPT PLUG	PM-PF1162	.

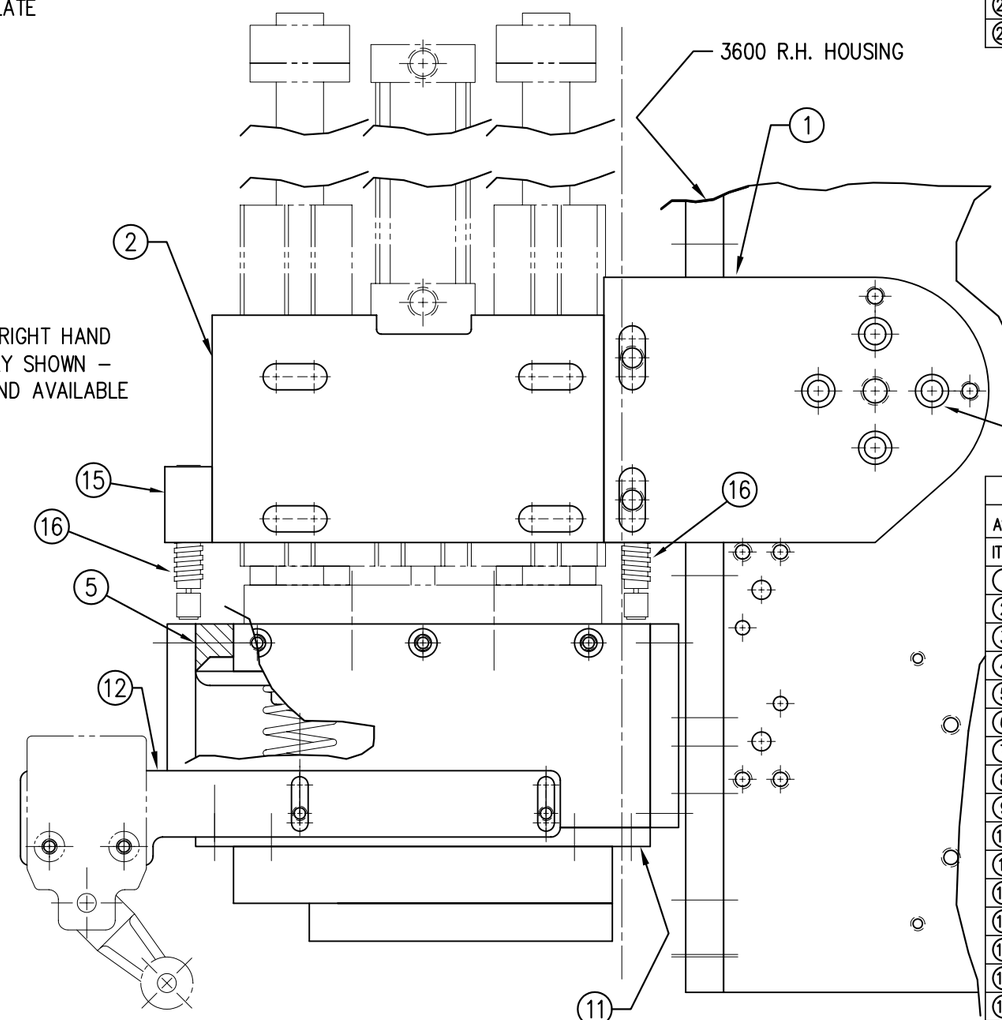
MOD ALSO INCLUDES
ITEMS (17) THRU (27)
WHICH ARE NOT SHOWN







NOTE: RIGHT HAND ASSEMBLY SHOWN – LEFT HAND AVAILABLE



SLIDE DESCRIPTION	PHD PART NO.	CTM PART NO.
PHD Pneu. SLIDE, 8" STROKE	SED23-8-E-BR-AE	PM-AC1305
PHD Pneu. SLIDE, 12" STROKE	SED23-12-E-BR-AE	PM-AC1315

MOUNTING FASTENERS
1/4-20 x 7/8 LG. SHCS
(4) PLACES

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0113R/L		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
(1)	1	NOSE MOUNTING BASE PLATE	MP-238-0280R/L	.
(2)	1	NOSE MOUNTING ADJUSTMENT PLATE	MP-238-0281R/L	.
(3)	1	NOSE MOUNTING CYL. ADAPTER PLATE	MP-238-0282	.
(4)	1	TAMP BOX RETURN PLATE	MP-238-0283	.
(5)	2	TAMP BOX TOP CAP SIDE BAR	MP-238-0284	.
(6)	2	TAMP BOX TOP CAP END BAR	MP-238-0285	.
(7)	4	TAMP BOX SPRING PUCK	MP-238-0286	.
(8)	2	TAMP BOX SIDE PLATE	MP-238-0287	.
(9)	2	TAMP BOX END PLATE	MP-238-0288	.
(10)	1	TAMP BOX BASE PLATE	MP-238-0289	.
(11)	1	MANIFOLD ADAPTER PLATE	MP-238-0290	.
(12)	1	TAMP BOX SENSOR MOUNT, PERPENDICULAR	MP-238-0292	.
(13)	1	LIMIT SWITCH, LEVER	PE-SW1110	.
(14)	2	COMPRESSION SPRING	PM-FASP30530	.
(15)	2	SHOCK MOUNTING PLATE	MP-238-0294	.
(16)	2	SHOCK ABSORBER	PM-SA1000	.
	4	SHCS, 1/4-20 x 7/8 LONG	NONE	.

Dept. Code 70

TITLE: 3600 SERIES APPLICATOR ~ PERPENDICULAR FLOW
PART: TOUCH AND GO (TAG) ASSEMBLY

Scale: 1=4 | Date: 02/03/03 | DRAWN BY: Jeffery Mendenhall | F:\Engineering\Standard Parts\Applicator\3600 238\MOD-238-0113RL

REV. | REV. DESCRIPTION | REV. DATE | REV. BY:
4 | ADDED SHOCK ABSORBERS & MTG. BRACKETS | 07/25/05 | TDR

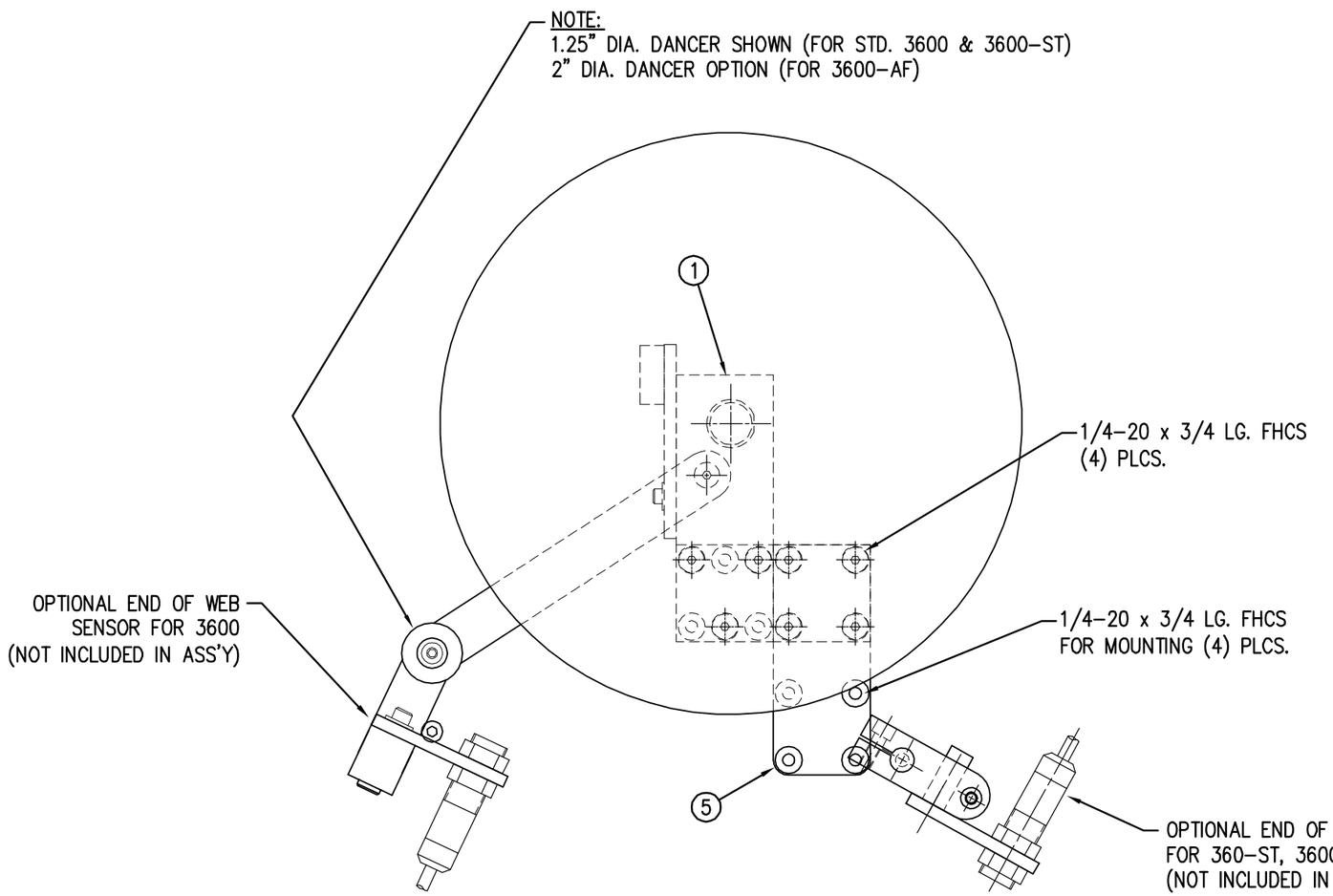
BILL OF MATERIAL

MOD-238-0122XR/L-X

ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION	
①	1	SAS-238-0122R/L	UNWIND SHELF ASS'Y w/ 1.25" DIA. DANCER	3600 & 3600-ST
	1	SAS-238-0122R/L-2	UNWIND SHELF ASS'Y w/ 2" DIA. DANCER	3600-AF
②	1	ASS-200-0132	12" INSIDE UNWIND DISK ASS'Y	STD.
	1	ASS-200-0132A	12" ALUMINUM INSIDE UNWIND DISK ASS'Y	REELS UP
③	1	ASS-200-0133	OUTSIDE UNWIND DISK ASS'Y	
④	1	MP-200-0267CS	CORE SUPPORT	
⑤	1	MP-238-0236	MOUNTING PLATE	
⑥	1	PM-C01015	5/8" I.D. STAINLESS STEEL LOCK COLLAR	REELS UP ONLY
⑦	1	PM-BU1475	1" I.D. x 5/8" LG. BRONZE BUSHING	
	4	PM-FAFH50619	FHCS, 1/4"-20 UNC x 3/4" Lg. S.S.	

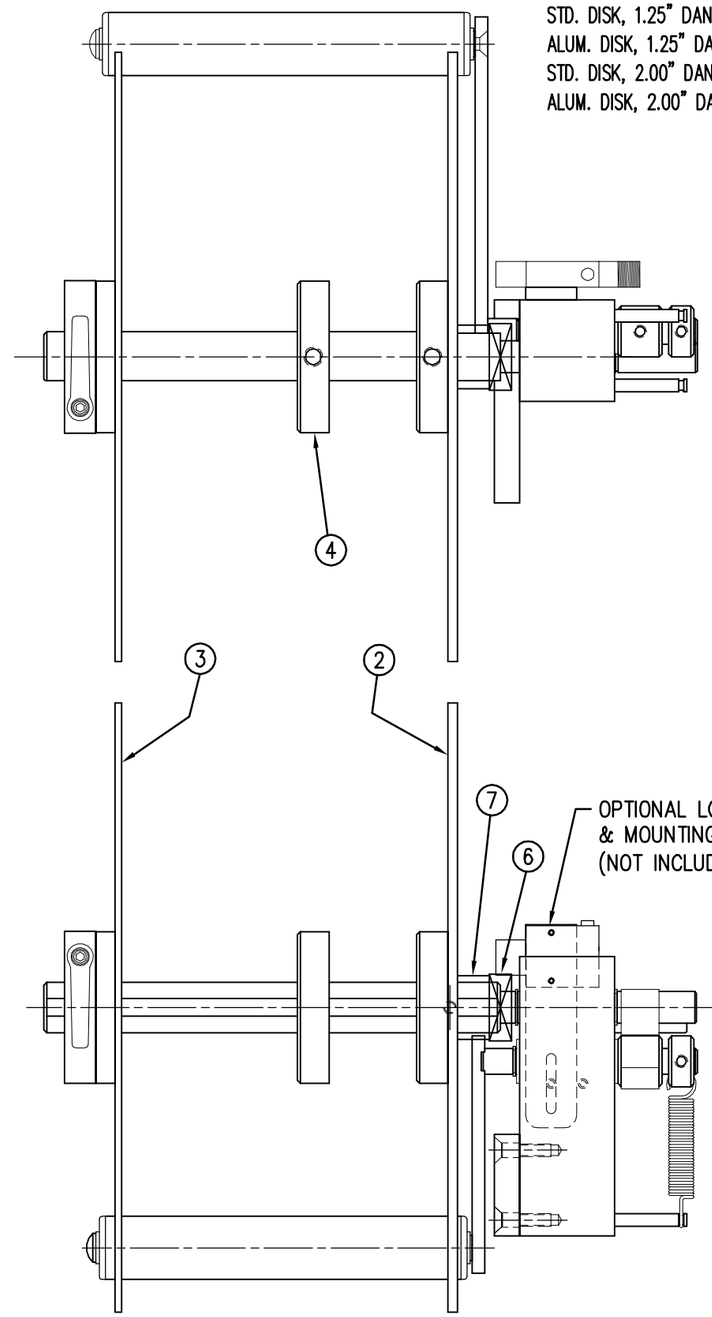
RH & LH ASSEMBLIES AVAILABLE
-RH ASSEMBLY SHOWN-

NOTE:
1.25" DIA. DANCER SHOWN (FOR STD. 3600 & 3600-ST)
2" DIA. DANCER OPTION (FOR 3600-AF)



MOD-238-0122XR/L-X

STD. DISK, 1.25" DANCER	-0122R/L
ALUM. DISK, 1.25" DANCER	-0122AR/L
STD. DISK, 2.00" DANCER	-0122R/L-2
ALUM. DISK, 2.00" DANCER	-0122AR/L-2



APPLICATOR SERIES: 3600	APPLICATOR WIDTH(S): N/A	GROUP: UNWIND ASSEMBLY	TITLE: 12" UNWIND ASSEMBLY w/ UNWIND DISK MODULES	Scale: 1=3	Date: 12/09/13	DRAWN BY: T. KELLY
REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Dept. Code 70	F:\Engineering\Standard Parts\Applicator\3600-AF\3600-AF\MOD-238-0122XRL	
5	ADD EOW OPTION FOR 360-ST, 3600-ST & 3600-AF	02/06/14	TK			

BILL OF MATERIAL

SAS-238-0122R/L-X

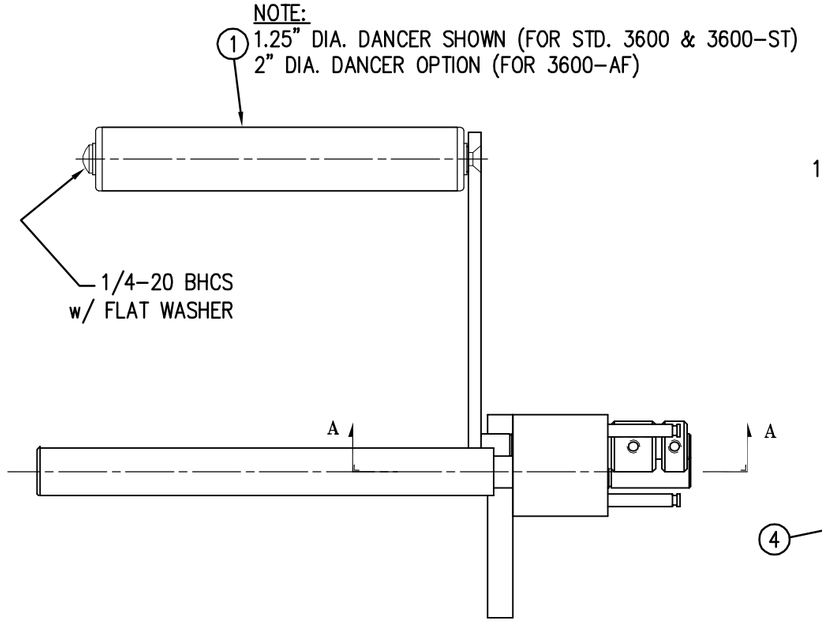
ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION	
①	1	ASS-238-0137	1.25" DIA. DANCER ROLL	OMIT (3600 & 3600-ST)
	1	ASS-200-0131	2" DIA. DANCER ROLL	-2 (3600-AF)
②	1	ASS-238-0180	UNWIND BLOCK ASSEMBLY	
③	1	MP-238-0210	MOUNT ARM	
④	1	MP-238-0218	DANCER ARM	
⑤	1	MP-238-0219	UNWIND HUB SHAFT	
⑥	1	MP-238-0212	UNWIND STUD SHAFT	
⑦	2	PM-FASR1010	5/8" DIA. SNAP RING	
⑧	1	MP-238-0217	DANCER ARM SHAFT	
⑨	1	PM-FASR1005	1/2" DIA. SNAP RING	
⑩	1	MP-238-0215	INNER COLLAR	
⑪	1	MP-238-0216	OUTER HUB	
⑫	1	MP-238-0213	UNWIND BELT PIN	
⑬	1	MP-238-0214	UNWIND SPRING PIN	
⑭	1	PM-FASP30434	TENSION SPRING	
⑮	1	PM-FASP30500	SPRING ANCHOR	
⑯	1	PM-BB1030	BELT	

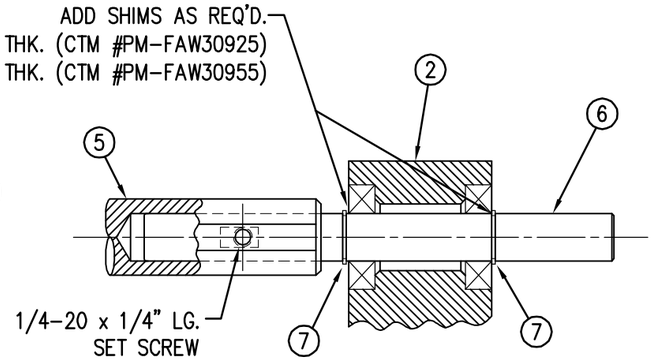
SAS-238-0122R/L-X

1.25" DIA. DANCER	-0122R/L
2.00" DIA. DANCER	-0122R/L-2

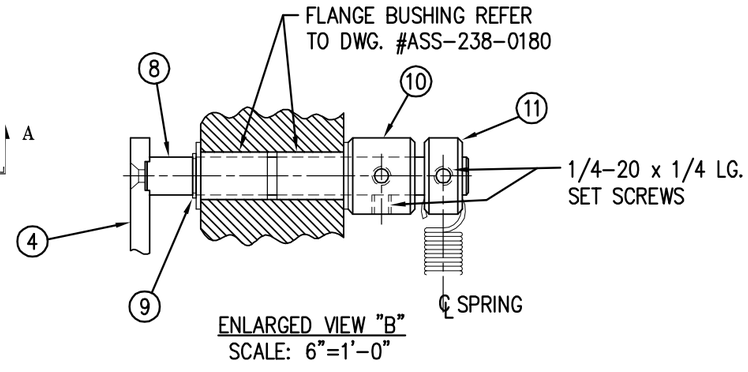
RH & LH ASSEMBLIES AVAILABLE
-RH ASSEMBLY SHOWN-

NOTE:
① 1.25" DIA. DANCER SHOWN (FOR STD. 3600 & 3600-ST)
2" DIA. DANCER OPTION (FOR 3600-AF)

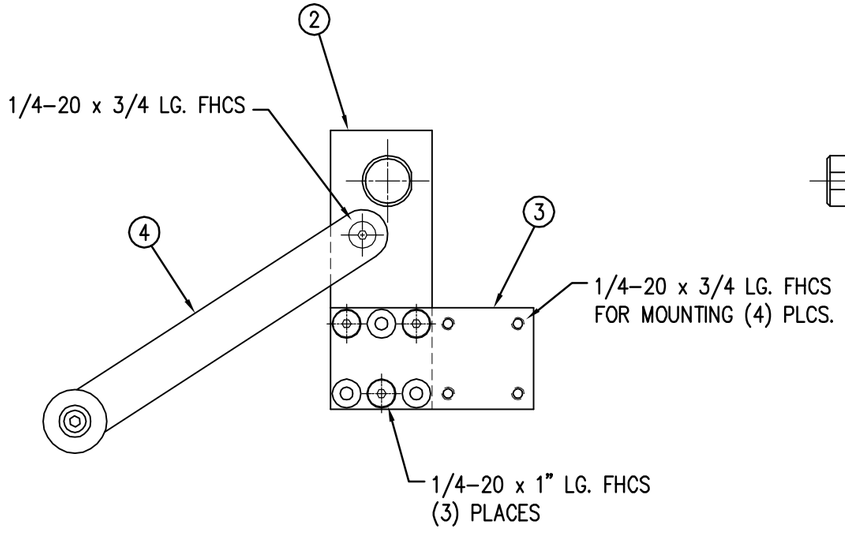


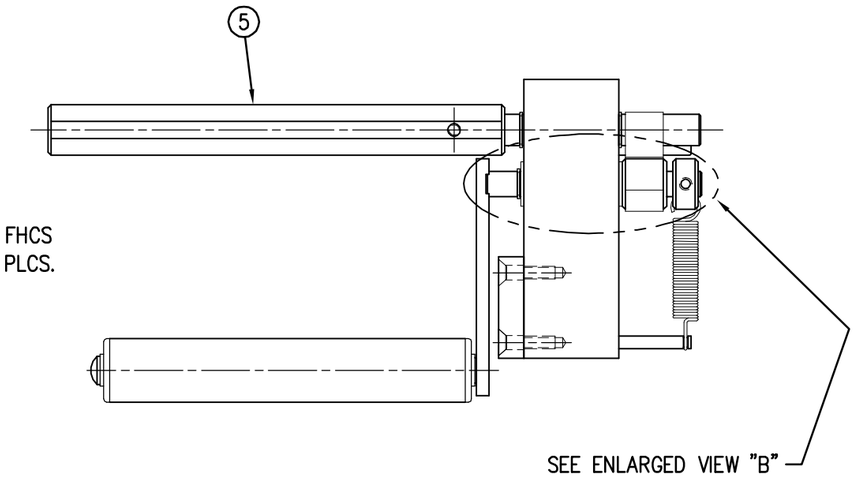


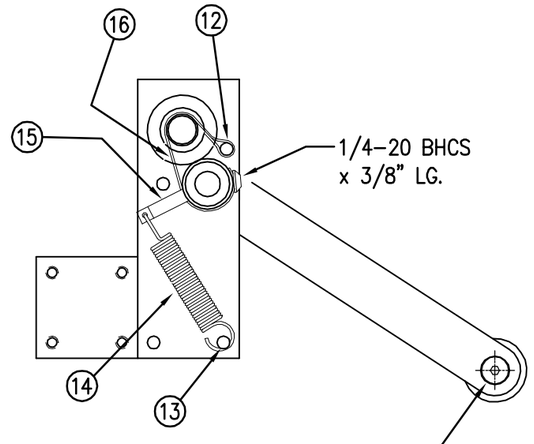
ENLARGED SECTIONAL VIEW "A-A"
SCALE: 6"=1'-0"



ENLARGED VIEW "B"
SCALE: 6"=1'-0"







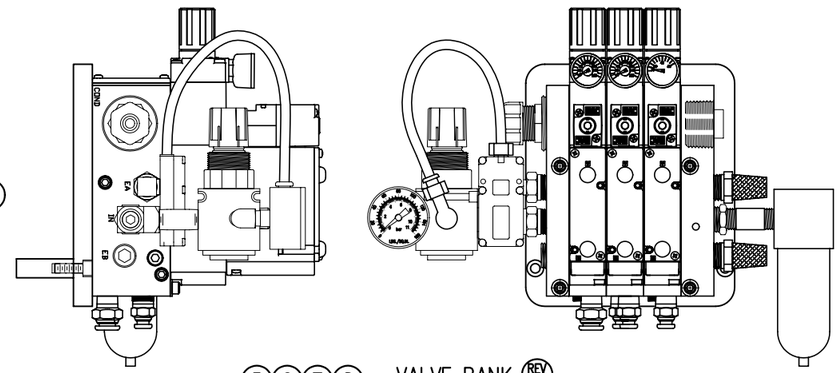
APPLICATOR SERIES: 3600
APPLICATOR WIDTH(S): 7.5"
GROUP: UNWIND
TITLE:

REV.	REV. DESCRIPTION	REV. BY:	REV. DATE
1	ADD DANCER ROLL TABULATION FOR AUTO FOLD, UPDATED TITLEBLOCK	TK	12/10/13

Scale: 1=3
Date: 12/09/13
DRAWN BY: T. KELLY
F:\Engineering\Standard Parts\Applicator\3600\3600\SAS-238-0122RL-X
Dept. Code 70

BILL OF MATERIAL				SOLD
ASSEMBLY		MOD-238-0124R/L		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	2	TAMP GUIDE	MP-238-0241	.
②	1	AIR ASSIST TUBE HOLDER	MP-238-0242	.
③	1	AIR ASSIST TUBE	MP-211-0217-7	.
④	1	AIR ASSIST TUBING x 15" Lg.	PM-AH1000	S
⑤	1	3 STATION VALVE BANK ASSEMBLY (TAMP)	ASS-238-0129M	S
⑥	1	VALVE MOUNTING PLATE	MP-214-0206	.
⑦	1	VALVE FASTENING PLATE	MP-238-0238	.
⑧	1	VALVE NUT PLATE	MP-238-0239	.
⑨	1	1/4" O.D. SMC TUBING x 60" Lg. (CUT TO SUIT)	PM-PT1070	S
⑩	1	3/8" O.D. SMC TUBING x 33" Lg. (CUT TO SUIT)	PM-PT1080	S
⑪	2	FITTING, 1/4 NPT TO 3/8 TUBE	PM-PF1020	.
⑫	3	FITTING, 1/4 NPT TO 1/4 TUBE	PM-PF1010	.
⑬	2	FTG, 1/4 NPT TO 1/4 TUBE 90° SWIVEL	PM-PF1035	.
⑭	1	1/4 PIPE NIPPLE	PM-PF1145	.
⑮	1	1/4 NPT FEMALE 90° ELBOW	PM-PF1175	.
⑯	1	1/4 NPT PLUG	PM-PF1162	.
	4	FHCS, #10-32 x 1/2" LG.	NONE	.

MOD ALSO INCLUDES
ITEMS ⑨ THRU ⑯
WHICH ARE NOT SHOWN

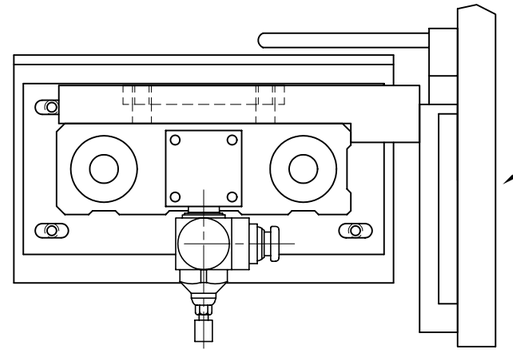


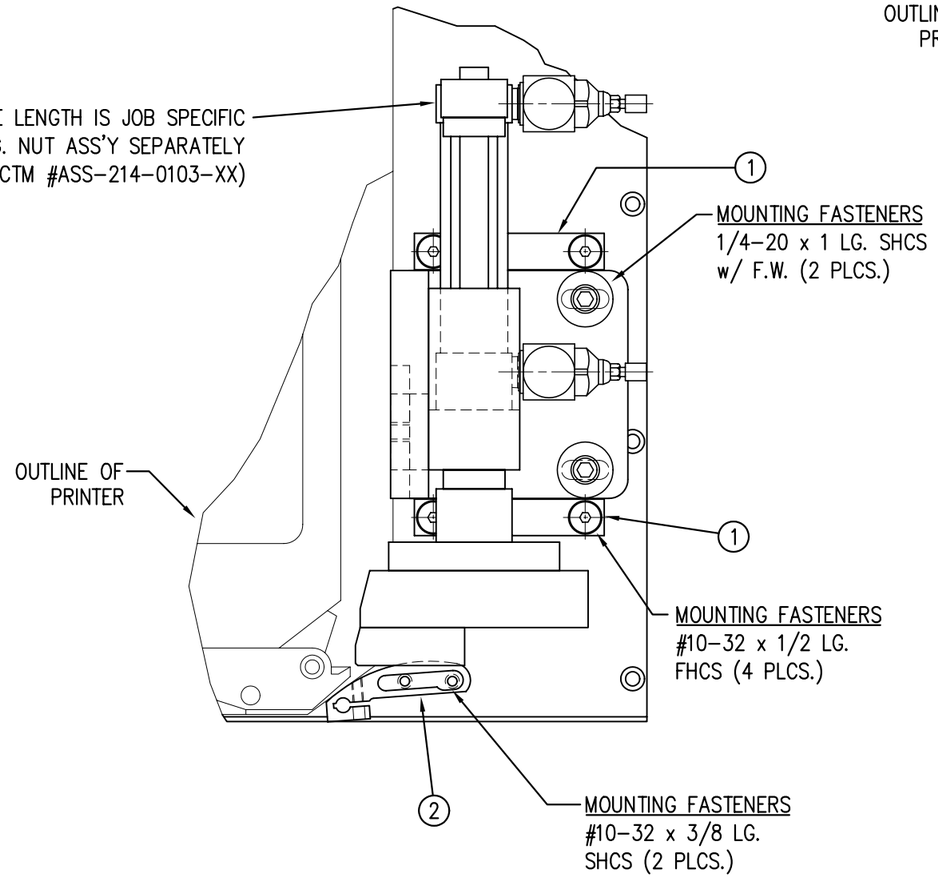
REV 4

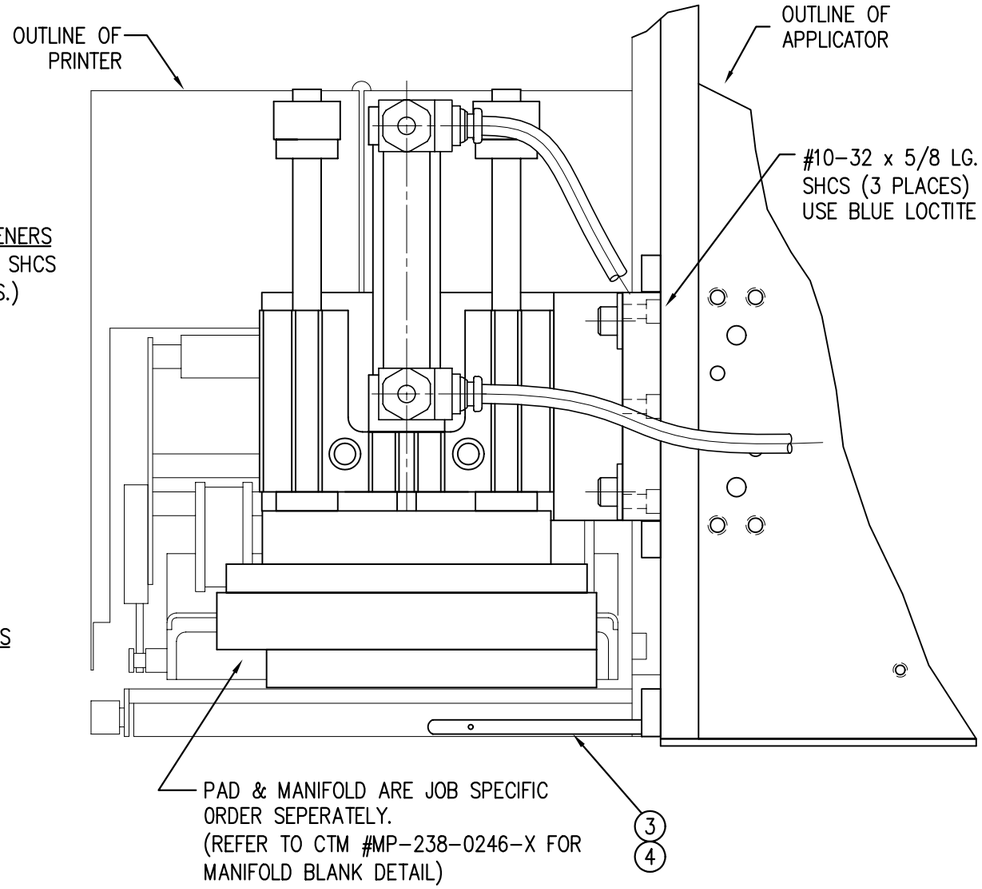
⑤⑥⑦⑧ VALVE BANK REV 4
(SCALE: 3"=1'-0")

RH & LH ASSEMBLIES AVAILABLE
-RH ASSEMBLY SHOWN-

MOD-238-0124R/L







TITLE: 3600-PA SERIES APPLICATOR: TAMP ASSEMBLY

PART: STANDARD TAMP ASSEMBLY

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:
4	VALVE BANK ASSEMBLY CHANGED FROM AS-238-0129 TO ASS-238-0129M	05-16-08	ES	1=2

Date: 04/03/00 | DRAWN BY: BOB S. | Dept. Code 70

F:\Engineering\Standard Parts\Applicator\3600 238\MOD-238-0124RL

BILL OF MATERIAL

ASSEMBLY		MOD-238-X125RL		SOLD
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
	1	EXTENDED TAMP ASSEMBLY	ASS-238-X125RL	S
20	1	3600-PA TAMP MAC VALVE BANK	ASS-238-0129M	S
21	1	VALVE MOUNTING PLATE	MP-214-0206	.
22	1	VALVE FASTENING PLATE	MP-238-0238	.
23	1	VALVE NUT PLATE	MP-238-0239	.
24	1	1/4" O.D. SMC TUBING x 60" Lg. (CUT TO SUIT)	PM-PT1070	S
25	1	3/8" O.D. SMC TUBING x 33" Lg. (CUT TO SUIT)	PM-PT1080	S
26	1	AIR ASSIST TUBING x 15" Lg.	PM-AH1000	S
27	2	FITTING, 1/4 NPT TO 3/8 TUBE	PM-PF1020	.
28	3	FITTING, 1/4 NPT TO 1/4 TUBE	PM-PF1010	.
29	1	FTG, 1/4 NPT TO 1/4 TUBE 90° SWIVEL	PM-PF1035	.
30	1	1/4 PIPE NIPPLE	PM-PF1145	.
31	1	1/4 NPT FEMALE 90° ELBOW	PM-PF1175	.
32	1	1/4 NPT PLUG	PM-PF1162	.

RH & LH ASSEMBLIES AVAILABLE
– RH ASSEMBLY SHOWN –

MOUNTING FASTENERS
1/4-20 x 3/4 SHCS
(4 PLACES)
USE THREADED INSERT (18)
FOR ONE FASTENER

(REV 9) (19) LOCATIONS FOR RH ASS'Y (AS SHOWN)
USE OPPOSITE HOLES FOR LH ASSEMBLY

PROJECTED END VIEW

1/4-20 x 1 SHCS w/ F.W.
(2 PLCS.)

HOUSING OUTLINE

(13) ADD FIBER WASHER AS
REQUIRED (0.015 THK.)
PM-FAW30940 (2 PLCS.)

PARTIAL SECTION "A-A"

NOTE: USE 7.5" WIDE WITH THE FOLLOWING PRINT ENGINES:
-ZEBRA PAX 170 SERIES -SATO 8460

#10-32 x 3/4 LG.
SHCS (3 PLCS.)

1/4-20 x 3/4 Lg.
NYLON TIPPED
SET SCREW w/
JAM NUT (REV 5)

SLIDE STROKE LENGTH IS JOB SPECIFIC
ORDER SLIDE & MTG. NUT ASS'Y. SEPARATELY
(REFER TO CTM #ASS-214-0103-XX OR
#ASS-214-0103-XXQ FOR QUICK CHANGE)

#10-32 x 5/8 LG.
SHCS (3 PLCS.)
FAR SIDE

#10-32 x 5/8 LG.
SHCS (4 PLCS.)
USE BLUE LOCTITE

#6-32 x 3/8 LG.
SHCS (1 PLC.)

1/4-20 x 3/4 LG.
SHCS (2 PLCS.)

1/4-20 x 1/2 LG.
FHCS (2 PLCS.)

1/4-20 x 3/4 LG.
FHCS (1 PLC.)
USE BLUE LOCTITE

1/4-20 x 1 LG.
SHCS w/ F.W. & L.W.
(2 PLACES)

#10-32 x 1/2" LG.
LSHCS (3 PLCS.)

PAD & MANIFOLD ARE JOB SPECIFIC~ORDER SEPARATELY
(REFER TO CTM #MP-238-0246-X FOR MANIFOLD BLANK DETAIL)

BILL OF MATERIAL

ASS-238-X125R/L

ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION	
(1)	1	MP-238-0260R/L	EXTENDED PEEL EDGE ASSEMBLY MOUNT PLATE	
(2)	1	MP-211-X208	5"/7.5" WIDE PEEL EDGE	
(3)	1	PM-211-X206	5"/7.5" WIDE PEEL EDGE	
(4)	1	ASS-211-0105-1	SPRING BLOCK ASSEMBLY	5 WIDE
	2	ASS-211-0105-1	SPRING BLOCK ASSEMBLY	7.5 WIDE
(5)	1	ASS-211-0110	SPRING BLOCK STOP COLLAR ASSEMBLY	5 WIDE
	2	ASS-211-0110	SPRING BLOCK STOP COLLAR ASSEMBLY	7.5 WIDE
(6)	1	MP-238-0252R/L	EXT. P.E. AIR ASSIST TUBE HOLDER	
(7)	1	ASS-211-0217-5	AIR ASSIST TUBE	5 WIDE
	1	ASS-211-0217-7	AIR ASSIST TUBE	7.5 WIDE
(8)	1	ASS-238-0143	EXT. TAMP ADJUSTMENT ASSEMBLY	
(9)	1	PM-BEBF0985	FLG. BUSHING, 1/4" ID x 3/8" OD x 1/2" Lg.	
(10)	1	MP-238-0253	EXT. PEEL EDGE MOUNT BLOCK	
(11)	2	MP-238-0256	EXT. PEEL EDGE MOUNTING ROD	
(12)	1	MP-238-0257	EXT. PEEL EDGE SLIDE BLOCK	
(13)	2	PM-FAW30940	1/4 ID x 1/2 OD GRAY FIBER WASHER (REV 6)	
(14)	1	PE-PA1083	BOLT ON MOUNT – BLACK	
(15)	1	PM-FT2050	5/32 to 5/32 PLASTIC ELBOW	
(16)	1	PE-PA1075	4" BLACK WIRE TIE	
(17)	1	PM-AH1000	AIR ASSIST TUBING x 9" Lg.	
(18)	1	PM-INS1010	THREAD INSERT, 1/4-20 INTERNAL/3/8-24 EXT. (REV 8)	
(19)	2	PM-FADP0930	3/16" DIA. x 1/2" Lg. DOWEL (REV 6) (REV 8)	
B1	4	PM-FASH430078	S.S. SHCS, 1/4-20 x 3/4" Lg.	

MOD-238-X125R/L	
ASS-238-X125R/L	
5" WIDE	-0125R/L
7.5" WIDE	-2125R/L

TITLE: 3600-PA SERIES APPLICATOR: TAMP ASSEMBLY
PART: EXTENDED TAMP ASSEMBLY FOR STD. P.E. & WIDE P.E.

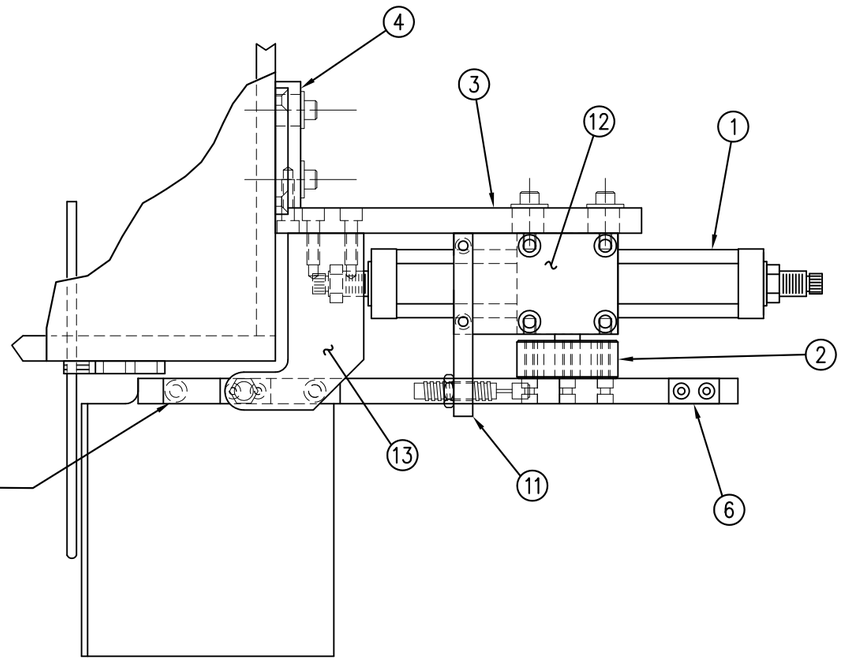
Dept. Code	Scale:	Date:	DRAWN BY:	REV. BY:	REV. DATE	REV.	REV. DESCRIPTION
70	1=2	04/04/00	BOB S.	TDR	09/18/14	9	CHANGED DOWEL PIN LOCATION TO SHOW RH

F:\Engineering\Standard Parts\Applicator\3600\238\MOD-238-X125RL

BILL OF MATERIAL				SOLD
ASSEMBLY		MOD-238-0126R/L-X		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
	1	SWING TAMP ASSEMBLY	ASS-238-0126R/L-X	S
(19)	1	AIR ASSIST TUBE HOLDER	MP-238-0242	.
(20)	1	AIR ASSIST TUBE (5" OR 7" LG.)	MP-211-0217-X	.
(21)	1	AIR ASSIST TUBING x 15" Lg.	PM-AH1000	S
(22)	1	TAMP VALVE BANK	ASS-238-0129M	. (REV 3)
(23)	1	VALVE MOUNTING PLATE	MP-214-0206	.
(24)	1	VALVE FASTENING PLATE	MP-238-0238	.
(25)	1	VALVE NUT PLATE	MP-238-0239	.
(26)	1	1/4 O.D. SMC TUBING x 60" Lg. (CUT TO SUIT)	PM-PT1070	S
(27)	1	3/8" O.D. SMC TUBING x 33" Lg. (CUT TO SUIT)	PM-PT1080	S
(28)	3	FITTING, 1/4 NPT TO 1/4 TUBE	PM-PF1010	.
(29)	2	FITTING, 1/4 NPT TO 3/8 TUBE	PM-PF1020	.
(30)	1	FTG, 1/4 NPT TO 1/4 TUBE 90° SWIVEL	PM-PF1035	.
(31)	1	1/4 PIPE NIPPLE	PM-PF1145	.
(32)	1	1/4 NPT MALE 90° ELBOW	PM-PF1175	.
(33)	1	1/4 NPT PLUG	PM-FT1200	.

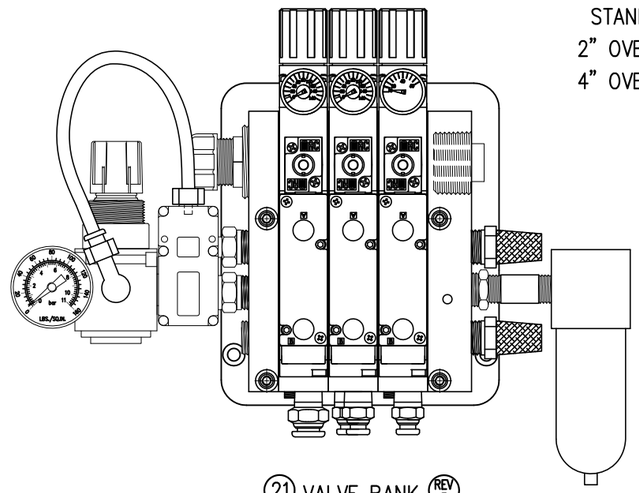
MOD ALSO INCLUDES
ITEMS (21) THRU (33)
WHICH ARE NOT SHOWN

RH & LH ASSEMBLIES AVAILABLE
–RH ASSEMBLY SHOWN–



1/4–20 SHCS x 3/4 LG.
(2 PLACES FOR MTG. MANIFOLD)
NOT INCLUDED IN ASSEMBLY

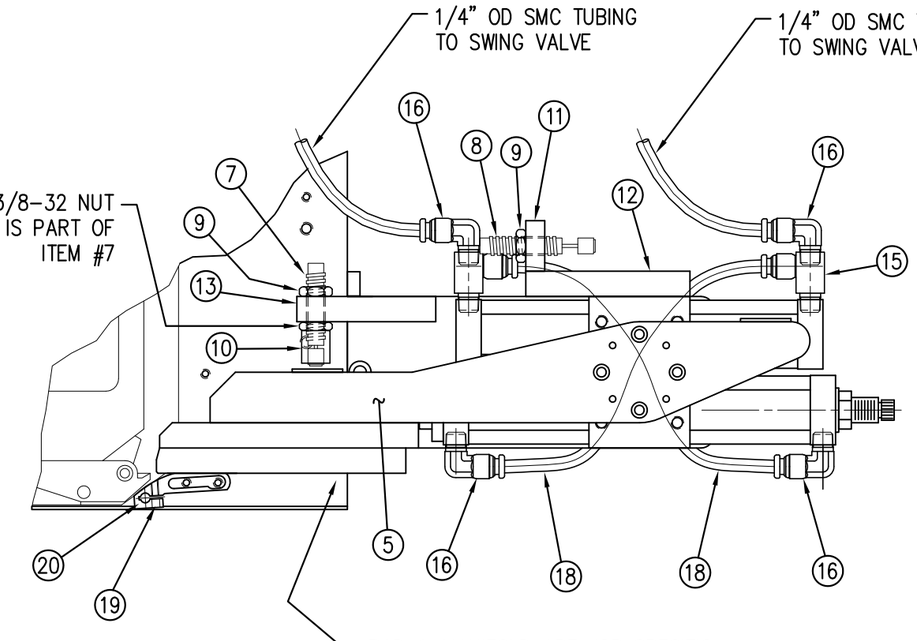
FOR MANIFOLD BLANKS, REFER TO
CTM DWG. #MP-238-0268R or
CTM DWG. #MP-238-0268L

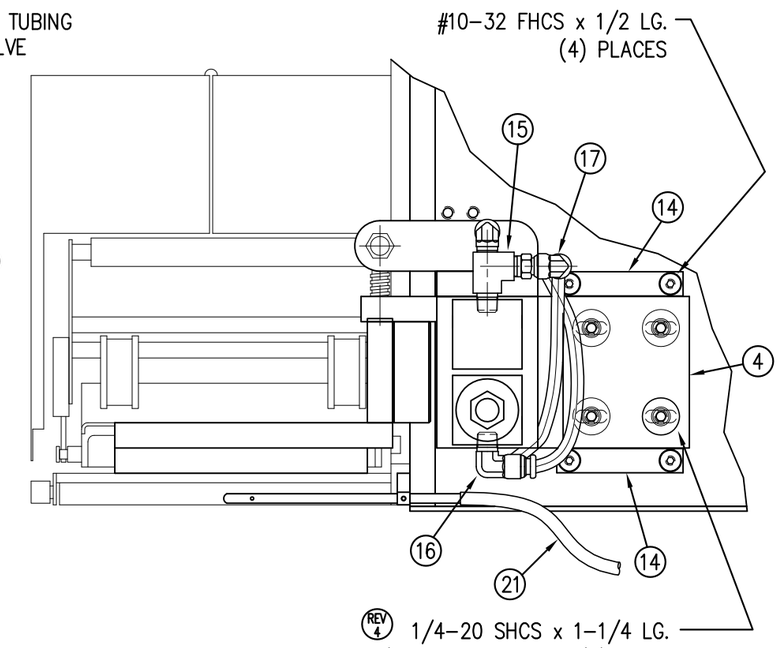


(21) VALVE BANK (REV 3)

MOD-238-0126R/L-X	
ASS-238-0126R/L-X	
STANDARD	-0
2" OVERSIZE	-2
4" OVERSIZE	-4

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0126R/L-X		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
(1)	1	ROTARY ACTUATOR	PM-AC1250	S
(2)	1	ROTARY ACTUATOR HUB	MP-214-0211	.
(3)	1	ACTUATOR MOUNT (STD, 2 & 4 O.S.)	MP-238-0267-X	.
(4)	1	ASSEMBLY MOUNT PLATE	MP-238-0266	.
(5)	1	SWING ARM (STD, 2 & 4 O.S.)	MP-214-0217-X	.
(6)	2	SHOCK STRIKE PLATE	PM-214-0210	.
(7)	1	SHOCK ABSORBER–LIGHT DUTY	PM-SA0990	.
(8)	1	SHOCK ABSORBER–HEAVY DUTY	PM-SA1000	.
(9)	2	LOCK NUT (FOR LIGHT DUTY SHOCK)	MP-214-0242	.
(10)	1	STOP COLLAR	PM-CO1040	.
(11)	1	EXTEND SHOCK MOUNT	MP-214-0214	.
(12)	1	EXTEND SHOCK/ACTUATOR TRANSITION PLATE	MP-214-0215	.
(13)	1	HOME SHOCK MOUNT	MP-238-0265	.
(14)	2	TAMP GUIDE	MP-238-0241	.
(15)	2	1/8 NPT STREET TEE: (1) MALE, (2) FEMALE	PM-PF1205	.
(16)	4	90 MALE ELBOW; 1/8 NPT to 1/4 TUBE	PM-PF1050	.
(17)	2	90 EL. SWIVEL; 1/8NPT to 1/4 TUBE	PM-PF1030	.
(18)	2	1/4" DIA. TUBING x 8" LG.	PM-PT1070	
	4	SHCS, 1/4–20 x 7/8" LG.	NONE	.
	4	FLAT WASHER, 1/4 NOM.	NONE	.





(REV 4) 1/4–20 SHCS x 1–1/4 LG.
w/ HARD F.W. & L.W. (4) PLCS.

TITLE: 3600–PA SERIES APPLICATOR: TAMP ASSEMBLY
PART: STANDARD/ 2" OVERSIZE / 4" OVERSIZE SWING TAMP

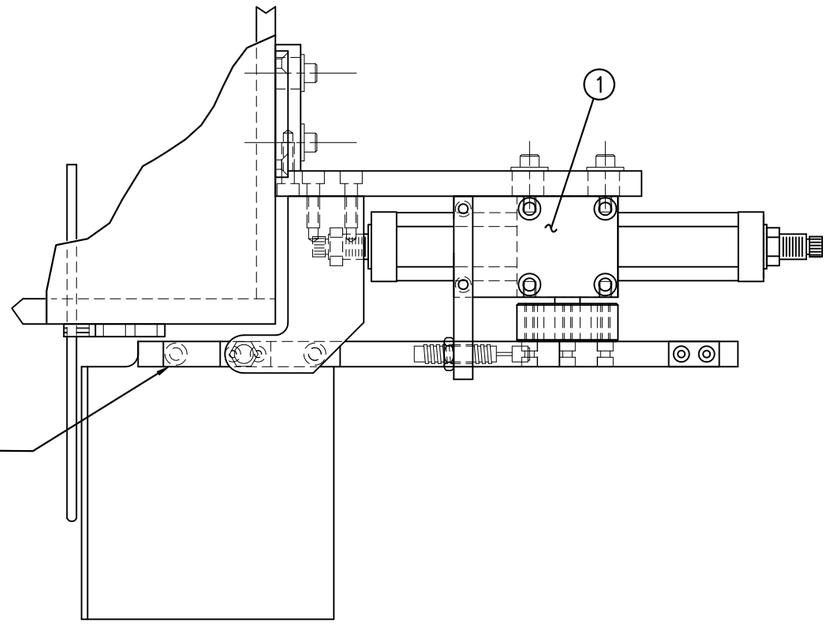
REV.	REV. DESCRIPTION	REV. BY:	REV. DATE	Scale:	Date:	DRAWN BY:	Dept. Code
4	SHCS was 7/8" LONG	TDR	07/13/10	1=3	04/04/00	BOB S.	70

F:\Engineering\Standard Parts\Applicator\3600 238\MOD-238-0126RL-X

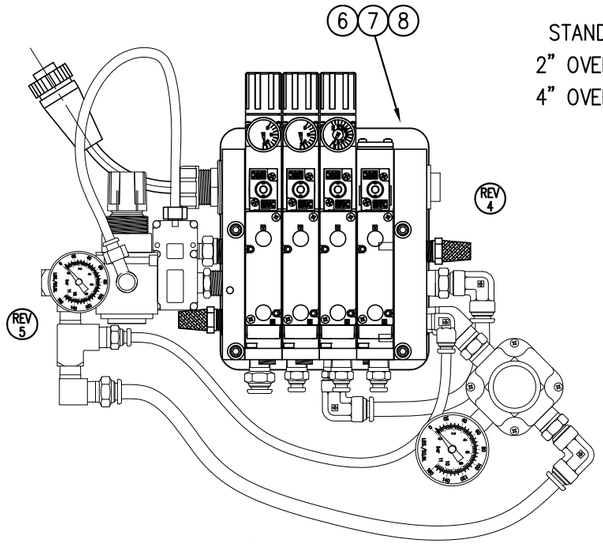
BILL OF MATERIAL				SOLD
ASSEMBLY		MOD-238-0127R/L-X		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	SWING TAMP ASSEMBLY	ASS-238-0126R/L-X	S
②	1	AIR ASSIST TUBE HOLDER	MP-238-0242	.
③	1	AIR ASSIST TUBE (5" OR 7" LG.)	MP-211-0217-X	.
④	1	AIR ASSIST TUBING x 15" Lg.	PM-AH1000	S
⑤	1	CORNER WRAP SWING TAMP VALVE BANK	ASS-214-0111RM/LM	.
⑥	1	VALVE MOUNTING PLATE	MP-214-0206E	.
⑦	1	VALVE FASTENING PLATE	MP-238-0238	.
⑧	1	VALVE NUT PLATE	MP-238-0239	.
⑨	1	1/4 O.D. SMC TUBING x 60" Lg. (CUT TO SUIT)	PM-PT1070	S
⑩	1	3/8" O.D. SMC TUBING x 33" Lg. (CUT TO SUIT)	PM-PT1080	S
⑪	3	FITTING, 1/4 NPT TO 1/4 TUBE	PM-PF1010	.
⑫	2	FITTING, 1/4 NPT TO 3/8 TUBE	PM-PF1020	.
⑬	2	FTG, 1/4 NPT TO 1/4 TUBE 90° SWIVEL	PM-PF1035	.
⑭	1	1/4 PIPE NIPPLE x 2 Lg.	PM-PF1145	.
⑮	1	1/4 NPT MALE 90° ELBOW	PM-PF1175	.
⑯	1	1/4 NPT PLUG	PM-FT1200	.

MOD ALSO INCLUDES
ITEMS ⑨ THRU ⑯
WHICH ARE NOT SHOWN

REV 4



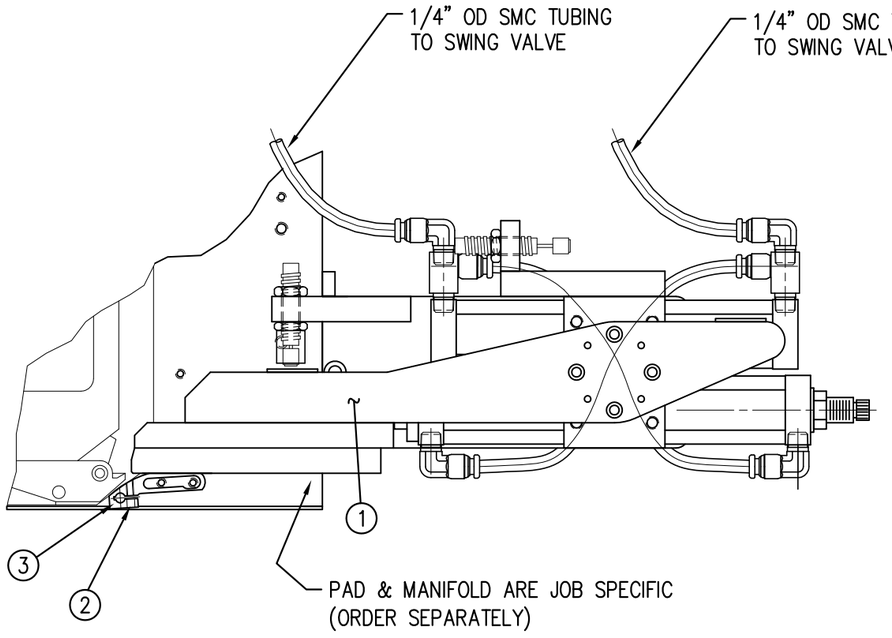
RH & LH ASSEMBLIES AVAILABLE
–RH ASSEMBLY SHOWN–

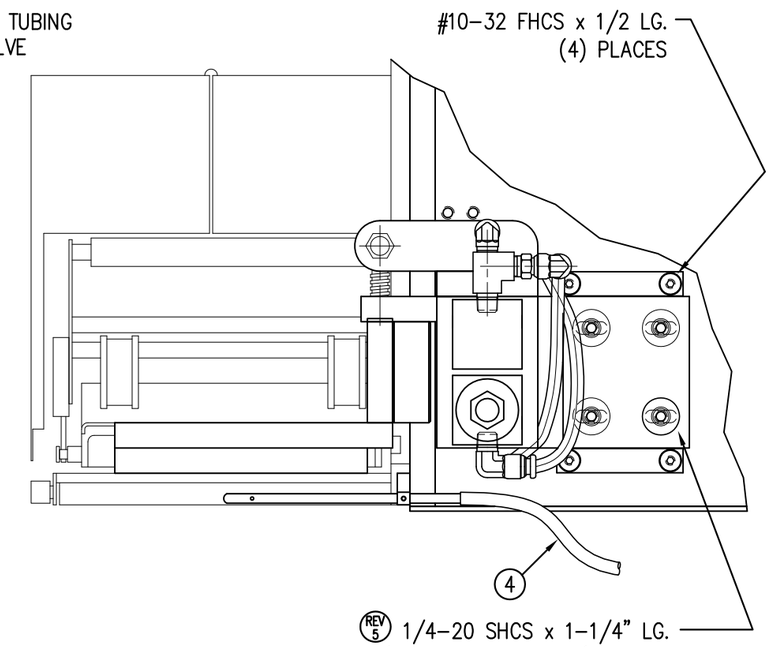


⑤ VALVE BANK
(NOT TO SCALE)

MOD-238-0127R/L-X

STANDARD	-0
2" OVERSIZE	-2
4" OVERSIZE	-4





FOR MANIFOLD BLANKS, REFER TO
CTM DWG. #MP-238-0268R or
CTM DWG. #MP-238-0268L

TITLE: 3600-PA SERIES APPLICATOR: TAMP ASSEMBLY for HI/LO PRESSURE CORNER WRAP

PART: STANDARD/ 2" OVERSIZE / 4" OVERSIZE CORNER WRAP

Dept. Code 70

Scale: 1=3 | Date: 05/24/06 | DRAWN BY: Tracy Rhodes | F:\Engineering\Standard Parts\Applicator\3600 238\MOD-238-0127RL-X

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:
5	1/4-20 SHCS was 7/8" Lg. & ROTATED REG. GAUGE 180 DEG	06/26/08	TDR

BILL OF MATERIAL				SOLD
ASSEMBLY		MOD-238-0160R/L-X		.
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
	1	90 DEG DAT SWING TAMP ASSEMBLY	ASS-238-0160R/L-X	S
(33)	1	3-STATION TAMP MAC VALVE BANK	ASS-238-0129M	S
(34)	1	VALVE MOUNTING PLATE	MP-214-0206	.
(35)	1	VALVE FASTENING PLATE	MP-238-0238	.
(36)	1	VALVE NUT PLATE	MP-238-0239	.
(37)	3	1/4 O.D. TUBING x 5 FT. LONG	PM-PT1070	.
(38)	2	FITTING, 1/4 NPT TO 3/8 TUBE	PM-PF1020	.
(39)	3	FITTING, 3/8 NPT TO 1/4 TUBE	PM-PF1060	.
(40)	1	FTG, 1/4 NPT TO 1/4 TUBE 90° SWIVEL	PM-PF1035	.
(41)	1	1/4 NPT x 2" LG. PIPE NIPPLE	PM-PF1145	.
(42)	1	1/4 NPT FEMALE 90° ELBOW	PM-PF1175	.
(43)	1	1/4 NPT PLUG	PM-PF1175	.

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0160R/L-X		S
(1)	1	SWING ARM PIVOT ASSEMBLY	ASS-238-0141	.
(2)	1	ASSEMBLY MOUNTING ARM	MP-238-0301R/L-X	.
(3)	1	SLIDE TRANSITION PLATE	MP-238-0302R/L	.
(4)	1	SWING HOME SHOCK MOUNT	MP-238-0303	.
(5)	1	ROTARY ACTUATOR MOUNT PLATE	MP-238-0304R/L	.
(6)	1	ROTARY MOUNT NUT PLATE	PM-238-0305	.
(7)	1	ROTARY ACTUATOR NUT PLATE	PM-238-0306	.
(8)	1	SLIDE NOSE NUT PLATE	PM-238-0307	.
(9)	1	SLIDE BODY NUT PLATE	PM-238-0308	.
(10)	1	SWING ARM	MP-238-0312R/L-X	.
(11)	1	SWING ARM AIR MANIFOLD	MP-238-0313	.
(12)	1	SLIDE DUMMY BLOCK	MP-238-0324	.
(13)	1	GUARD SUPPORT	MP-238-0316	.
(14)	1	ROTARY ACTUATOR PULLEY	MP-238-0318	.
(15)	1	SWING ASSEMBLY DRIVE GUARD	PM-238-0319R/L	.
(16)	2	SHOCK STRIKE PLATES	MP-214-0210	.
(17)	1	MC25H SWING EXTEND SHOCK	PM-SA1000	S
(18)	1	MC25L SWING HOME SHOCK	PM-SA0990	S
(19)	1	ROTARY ACTUATOR	PM-AC1248	S
(20)	1	SHOCK STOP COLLAR	PM-CO1040	.
(21)	2	1/8 NPT BRANCH TEE	PM-PF1203	.
(22)	4	1/4 TUBE X 1/8 NPT STRT	PM-PF1005	.
(23)	2	1/4 TUBE X 1/8 NPT ELBOW	PM-PF1050	.
(24)	2	90* STRT ELBOW 1/8 NPT x 1/8 NPT	PM-PF1180	
(25)	1	SWING ARM TIMING BELT	PM-BELT1039	S
(26)	2	LOCK NUT FOR MC25L SHOCK	MP-214-0242	.
(27)	2	3/8 TUBE X 1/4 NPT MALE CONN.	PM-PF1020	.
(28)	2	1/4" OD SMC TUBING x 7" Lg.	PM-PT1070	S
(29)	1	AIR ASSIST TUBE	MP-211-X217-X	
(30)	1	AIR ASSIST TUBE HOLDER	MP-238-0242	
(31)	1	AIR ASSIST TUBE x 15" Lg.	PM-AH1000	.
32	1	THREADED INSERT, 1/4-20 INT x 3/8-24 EXT	PM-INS1010	. (REV 5)
	4	SHCS, 1/4-20 x 7/8 Lg.	NONE	.
	1	SHCS, #4-40 x 3/8 Lg.	NONE	.

MOD ALSO INCLUDES
ITEMS (33) THRU (43)
WHICH ARE NOT SHOWN

MOUNTING FASTENERS
1/4-20 x 7/8 LG. SHCS
(4) PLCS.

RH & LH ASSEMBLIES AVAILABLE
-RH ASSEMBLY SHOWN-

(15) BELT GUARD NOT SHOWN

1/4-20 X 1 1/4" LG. SHCS
W/ FLAT WASHER (2) PLCS.

1/4-20 X 1 1/2" LG SHCS
W/ FW & LW (4) PLCS.

3/8" SMC TUBING

10-32 X 1 1/4" LG. SHCS
(2) PLCS.

1/4-20 X 7/8" LG. SHCS
W/ FLAT WA & LOCK WA
(4) PLCS.

1/4" SMC TUBING
TO SWING VALVE

(2 PLCS.)

(4 PLCS.)

3/8" SMC TUBING
TO AIR BLAST VALVE

#10-32 x 3/8 SHCS
(2) PLCS.

MOUNTING FASTENER
#10-32 x 3/8 LG. SHCS
(2) PLACES

PAD & MANIFOLD ARE
JOB SPECIFIC
(ORDER SEPARATELY)

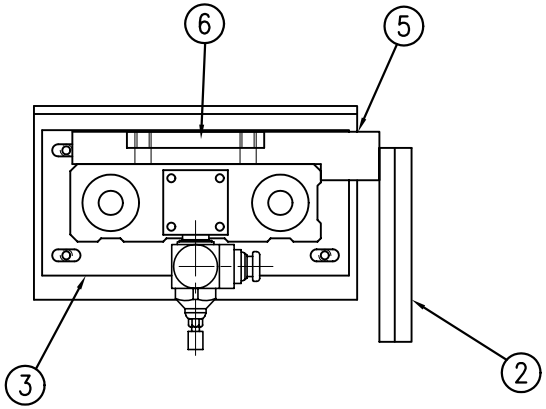
3/8-16 X 1" LG. LHCS
(2) PLCS.
(REV 3)

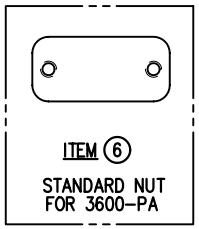
1/4-20 X 1 1/4 SHCS
W/ FW & LW (4) PLCS.

10/32 X 3/8" LG. SHCS
(2) PLCS.

MOD-238-0160R/L-X
ASS-238-0160R/L-X

TITLE: 3600 SERIES APPLICATOR
PART: PERPENDICULAR SWING TAMP
Dept. Code 70
F:\Engineering\Standard Parts\System Components: 238\MOD-238-0160RL-X
Scale: 1=3
Date: 10/14/04
DRAWN BY: DKM
REV. BY: TDR
REV. DATE 09/30/11
REV. 6
REV. DESCRIPTION
UPDATED BALLOON CALLOUTS

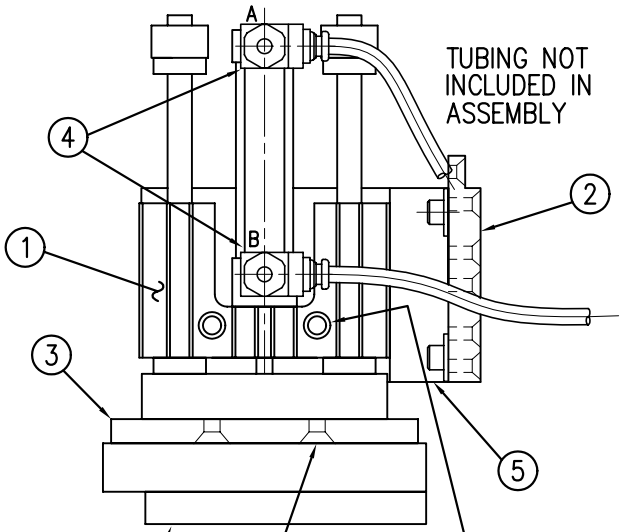




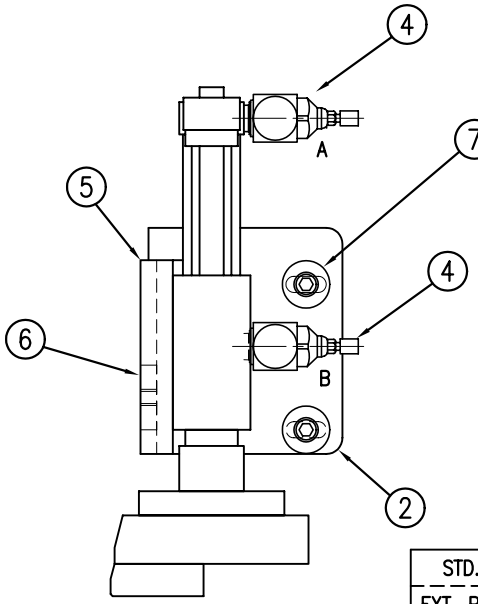
RH & LH MOUNTING AVAILABLE
(BOTH HANDS USE SAME PARTS)
-RH MOUNTING SHOWN-

NOTE:
USE HEAVY DUTY SLIDE
FOR 8",10" & 12" STROKES
SEE SHEET 2

ASS-214-0103R/L-XX	
1" STROKE	-0103R/L-1N
2" STROKE	-0103R/L-2N
3" STROKE	-0103R/L-3N
4" STROKE	-0103R/L-4N
6" STROKE	-0103R/L-6N
EXT PE: 1" STROKE	-0103R/L-1E
EXT PE: 2" STROKE	-0103R/L-2E
EXT PE: 3" STROKE	-0103R/L-3E
EXT PE: 4" STROKE	-0103R/L-4E
EXT PE: 6" STROKE	-0103R/L-6E



TUBING NOT
INCLUDED IN
ASSEMBLY



(2) 1/4-20 x 1-3/8 Lg. SHCS, SS
w/ HIGH COLLAR LOCK WASHER
(INCLUDED WITH STANDARD SLIDE)

(4) 1/4-20 x 3/4 LG. FSHCS

ORDER SEPARATELY
PAD & MANIFOLD (JOB SPECIFIC)
FOR MANIFOLD BLANKS SEE
MP-238-0246-X

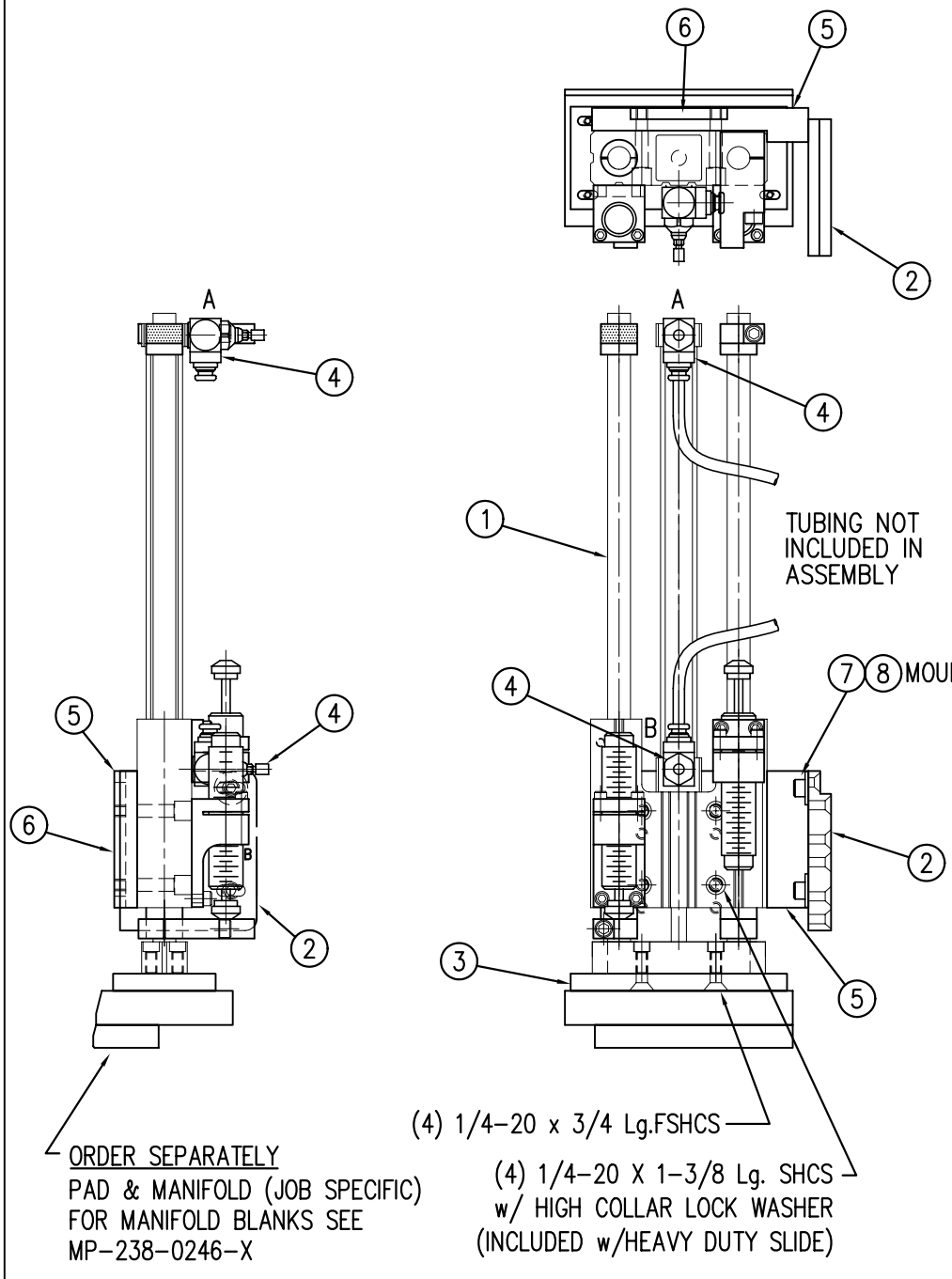
3600-PA BILL OF MATERIAL					SOLD
	ASSEMBLY		ASS-214-0103R/L-XX		S
	ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
	1	1	TAMP SLIDE ("X" STROKE LENGTH)	ASS-214-0108-X	S
STD.	2	1	SLIDE MOUNT ANGLE PLATE	MP-238-0244R/L	.
EXT. P.E.		1	SLIDE MOUNT ANGLE PLATE FOR EXT. P.E.	MP-238-0255R/L	.
	3	1	SLIDE TO MANIFOLD TRANSITION PLATE	MP-238-0245	.
	4	2	FLOW CONTROL	PM-PF2060	S
STD.	5	1	SLIDE MOUNT PLATE	MP-238-0243	.
EXT. P.E.		1	SLIDE MOUNT PLATE FOR EXT. P.E.	MP-238-0254	.
	6	1	SLIDE NUT FOR STANDARD CYLINDER	MP-238-0240	.
STD.	7	2	SHCS, 1/4-20 x 1-1/4 Lg. SS	PM-FASH40330	
	8	2	1/4 HEAVY FLAT WASHER	PM-FAW30297	
	9	2	1/4 LOCK WASHER	PM-FAW30690	
EXT. P.E.	7	2	SHCS, 1/4-20 x 1 Lg. SS	PM-FASH40320	
	8	2	1/4 FLAT WASHER	PM-FAW30275	
	9	2	1/4 LOCK WASHER	PM-FAW30690	

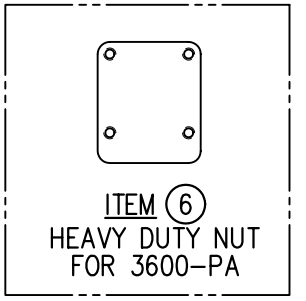
TITLE: 3600-PA SERIES APPLICATOR: TAMP ASSEMBLY (SHEET 1 of 2)	PART: STANDARD SLIDE ASSEMBLY FOR 3600-PA APPLICATOR	Dept. Code 70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\360
7	ADDED MTG. FASTENERS FOR EXT. PEEL EDGE	07/25/06	TDR	1=3	02/21/98	BOB S.	214\ASS-214-0103RL-XXs1

RH & LH MOUNTING AVAILABLE
(BOTH HANDS USE SAME PARTS)
–RH MOUNTING SHOWN–

ASS-214-0103R/L-XX	
8" STROKE	–0103R/L–8N
(REV 4) 10" STROKE	–0103R/L–10N
12" STROKE	–0103R/L–12N
EXT PE: 8" STROKE	–0103R/L–8E
(REV 4) EXT PE: 10" STROKE	–0103R/L–10E
EXT PE: 12" STROKE	–0103R/L–12E





NOTE:
USE STANDARD DUTY SLIDE
FOR 1", 2", 3", 4"& 6" STROKES
(SEE SHEET 1)

ORDER SEPARATELY
PAD & MANIFOLD (JOB SPECIFIC)
FOR MANIFOLD BLANKS SEE
MP–238–0246–X

3600–PA BILL OF MATERIAL

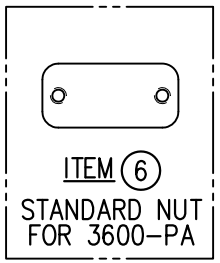
	ASSEMBLY	ASS–214–0103R/L–XX		SOLD
	ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
	1	1	TAMP SLIDE ("X" STROKE LENGTH)	ASS–214–0108–X	S
STD.	2	1	SLIDE MOUNT ANGLE PLATE	MP–238–0244R/L	.
EXT. P.E.		1	SLIDE MOUNT ANGLE PLATE FOR EXT. P.E.	MP–238–0255R/L	.
	3	1	SLIDE TO MANIFOLD TRANSITION PLATE	MP–238–0245	.
	4	2	FLOW CONTROL	PM–PF2060	S
STD.	5	1	SLIDE MOUNT PLATE	MP–238–0243	.
EXT. P.E.		1	SLIDE MOUNT PLATE FOR EXT. P.E.	MP–238–0254	.
	6	1	SLIDE NUT FOR HEAVY DUTY CYLINDER	MP–238–0240E	.
STD.	7	2	SHCS, 1/4–20 x 1–1/4 Lg. SS	PM–FASH40330	
	8	2	1/4 HEAVY FLAT WASHER	PM–FAW30297	
	9	2	1/4 LOCK WASHER	PM–FAW30690	
EXT. P.E.	7	2	SHCS, 1/4–20 x 1 Lg. SS	PM–FASH40320	
	8	2	1/4 FLAT WASHER	PM–FAW30275	
	9	2	1/4 LOCK WASHER	PM–FAW30690	

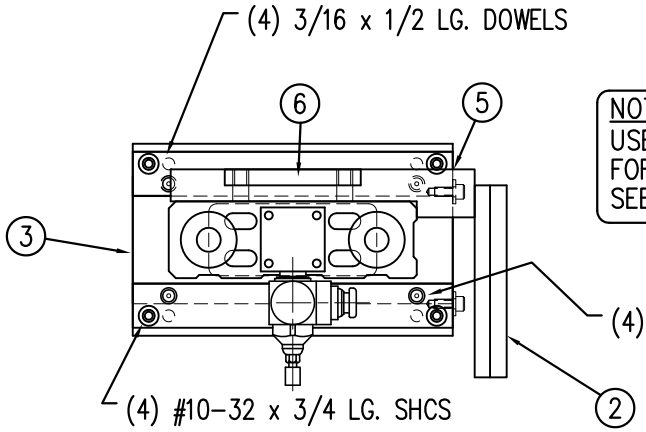
TITLE: 3600–PA SERIES APPLICATOR: TAMP ASSEMBLY (SHEET 2 of 2)	PART: HEAVY DUTY SLIDE ASSEMBLY FOR 3600–PA APPLICATOR	Dept. Code 70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\360
3	MOVED ITEM #5 TO TOP HOLES ON ITEM #2	04/09/07	TDR	1=4	02/21/98	BOB S.	214\ASS–214–0103RL–XXs2

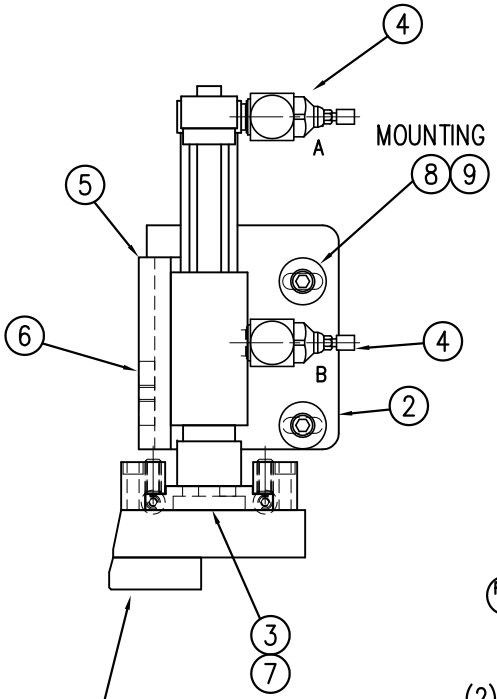
RH & LH MOUNTING AVAILABLE
-RH MOUNTING SHOWN-

ASS-214-0103R/L-XXQ	
1" STROKE	-0103R/L-1NQ
2" STROKE	-0103R/L-2NQ
3" STROKE	-0103R/L-3NQ
4" STROKE	-0103R/L-4NQ
6" STROKE	-0103R/L-6NQ
EXT PE: 1" STROKE	-0103R/L-1EQ
EXT PE: 2" STROKE	-0103R/L-2EQ
EXT PE: 3" STROKE	-0103R/L-3EQ
EXT PE: 4" STROKE	-0103R/L-4EQ
EXT PE: 6" STROKE	-0103R/L-6EQ

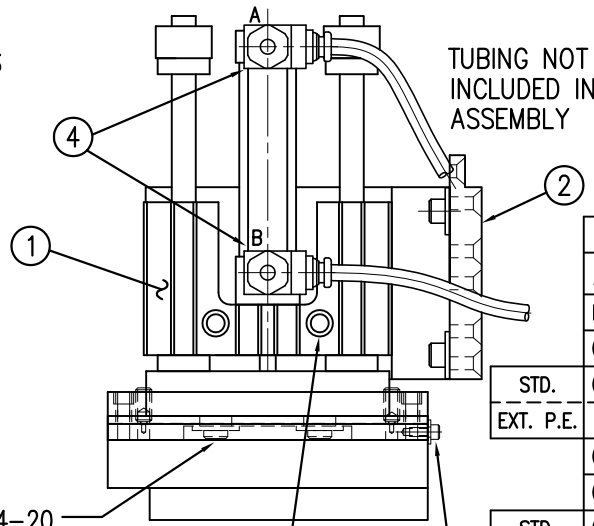




NOTE:
USE HEAVY DUTY SLIDE
FOR 8", 10" & 12" STROKES
SEE SHEET 2



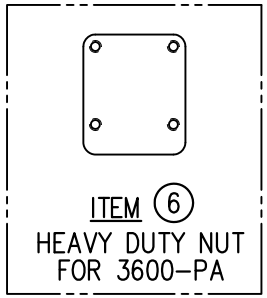
ORDER SEPARATELY
PAD & MANIFOLD (JOB SPECIFIC)
& CLAMPS & BALL PLUNGERS
(ASS-214-0119)



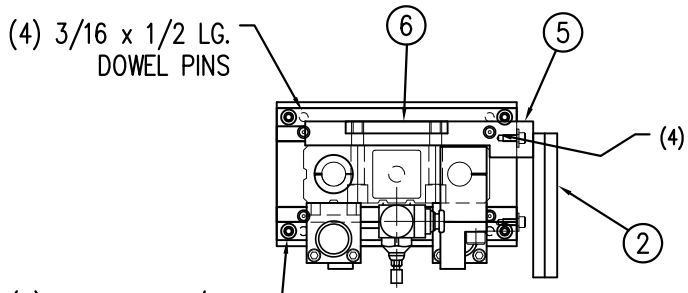
3600-PA BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-214-0103R/L-XNQ, -XEQ		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
(1)	1	TAMP SLIDE ("X" STROKE LENGTH)	ASS-214-0108-X	S
STD. (2)	1	SLIDE MOUNT ANGLE PLATE	MP-238-0244R/L	.
EXT. P.E.	1	SLIDE MOUNT ANGLE PLATE FOR EXT. P.E.	MP-238-0255R/L	.
(3)	1	SLIDE TO MANIFOLD TRANSITION PLATE	MP-238-0270	.
(4)	2	FLOW CONTROL	PM-PF2060	S
STD. (5)	1	SLIDE MOUNT PLATE	MP-238-0243	.
EXT. P.E.	1	SLIDE MOUNT PLATE FOR EXT. P.E.	MP-238-0254	.
(6)	1	SLIDE NUT FOR STANDARD CYLINDER	MP-238-0240	.
(7)	1	QUICK CHANGE NUT PLATE	PM-238-0271	.
STD. (8)	2	SHCS, 1/4-20 x 1-1/4 Lg. SS	PM-FASH40330	
STD. (9)	2	1/4 HEAVY FLAT WASHER	PM-FAW30297	
STD. (10)	2	1/4 LOCK WASHER	PM-FAW30690	
EXT. P.E. (8)	2	SHCS, 1/4-20 x 1 Lg. SS	PM-FASH40320	
EXT. P.E. (9)	2	1/4 FLAT WASHER	PM-FAW30275	
EXT. P.E. (10)	2	1/4 LOCK WASHER	PM-FAW30690	

TITLE: 3600-PA SERIES APPLICATOR: TAMP ASSEMBLY (SHEET 1 of 2)	PART: STANDARD SLIDE ASS'Y FOR 3600-PA APPLICATOR w/QUICK CHANGE PAD	Dept. Code 70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\360
11	SHOWED #6-32 SHCS (QC STOPS) IN CORRECT LOCATION	03/23/10	TDR	1=3	02/21/98	BOB S.	214\ASS-214-0103RL-XXQs1



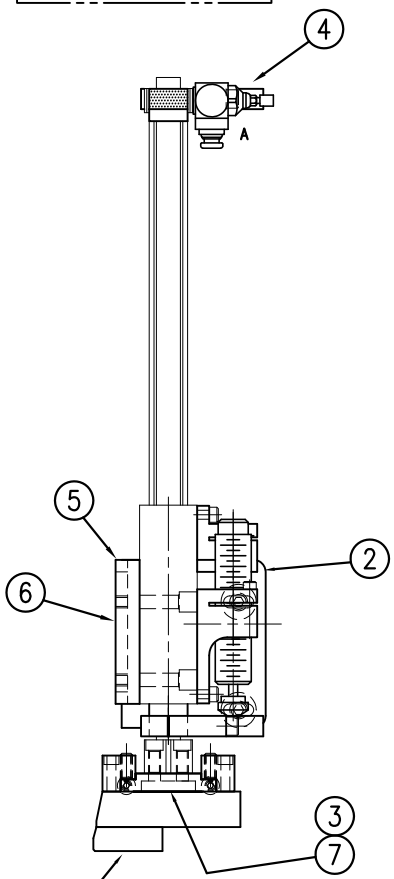
ITEM (6)
HEAVY DUTY NUT
FOR 3600-PA



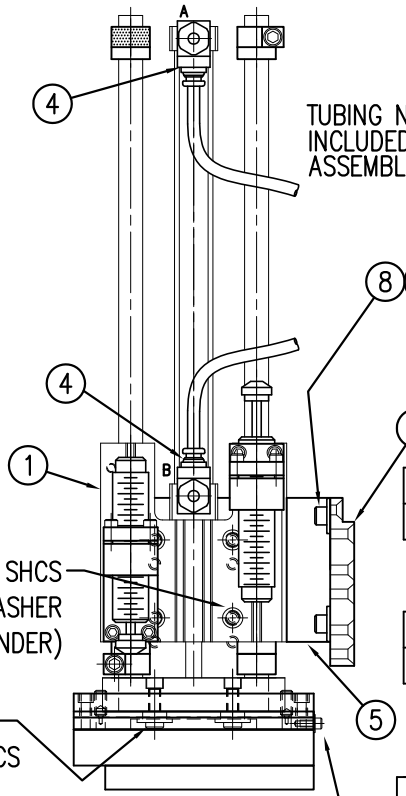
RH & LH MOUNTING AVAILABLE
-RH MOUNTING SHOWN-

ASS-214-0103R/L-XXQ	
8" STROKE	-0103R/L-8NQ
10" STROKE	-0103R/L-10NQ
12" STROKE	-0103R/L-12NQ
EXT PE: 8" STROKE	-0103R/L-8EQ
EXT PE: 10" STROKE	-0103R/L-10EQ
EXT PE: 12" STROKE	-0103R/L-12EQ

NOTE:
USE STANDARD SLIDE
FOR 1", 2", 3", 4"& 6" STROKES
(SEE SHEET 1)



ORDER SEPARATELY
PAD & MANIFOLD (JOB SPECIFIC)
& CLAMPS & BALL PLUNGERS
(ASS-214-0119)

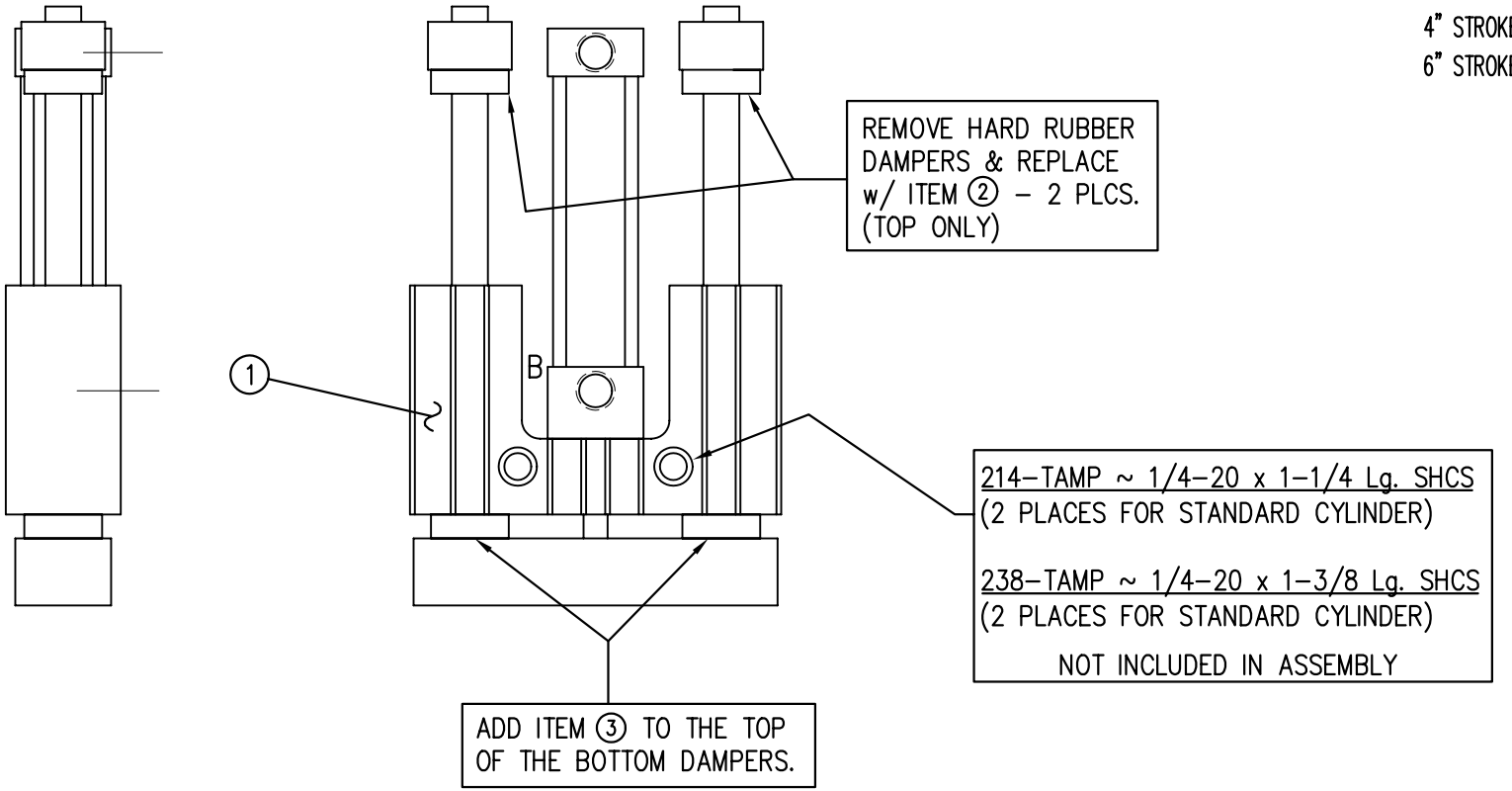


3600-PA BILL OF MATERIAL					SOLD
ASSEMBLY		ASS-214-0103R/L-XNQ, XEQ			S
	ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
	(1)	1	TAMP SLIDE ("X" STROKE LENGTH)	ASS-214-0108-X	S
STD.	(2)	1	SLIDE MOUNT ANGLE PLATE	MP-238-0244R/L	.
EXT. P.E.		1	SLIDE MOUNT ANGLE PLATE FOR EXT. P.E.	MP-238-0255R/L	.
	(3)	1	SLIDE TO MANIFOLD TRANSITION PLATE	MP-238-0270	.
	(4)	2	FLOW CONTROL	PM-PF2060	S
STD.	(5)	1	SLIDE MOUNT PLATE	MP-238-0243	.
EXT. P.E.		1	SLIDE MOUNT PLATE FOR EXT. P.E.	MP-238-0254	.
	(6)	1	SLIDE NUT FOR HEAVY DUTY CYLINDER	MP-238-0240E	.
	(7)	1	QUICK CHANGE NUT PLATE	PM-238-0271	.
STD.	(8)	2	SHCS, 1/4-20 x 1-1/4 Lg. SS	PM-FASH40330	
	(9)	2	1/4 HEAVY FLAT WASHER	PM-FAW30297	
	(10)	2	1/4 LOCK WASHER	PM-FAW30690	
EXT. P.E.	(8)	2	SHCS, 1/4-20 x 1 Lg. SS	PM-FASH40320	
	(9)	2	1/4 FLAT WASHER	PM-FAW30275	
	(10)	2	1/4 LOCK WASHER	PM-FAW30690	

TITLE:	PART:	Dept. Code
3600-PA SERIES APPLICATOR: TAMP ASSEMBLY (SHEET 2 of 2)	HEAVY DUTY SLIDE ASS'Y FOR 3600-PA APPLICATOR w/QUICK CHANGE PAD	70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\360
6	SHOWED #6-32 SHCS (QC STOPS) IN CORRECT LOCATION	03/23/10	TDR	1=4	02/21/98	BOB S.	214\ASS-214-0103RL-XXQs2

ASS-214-0108-X	
1" STROKE	-0108-1
2" STROKE	-0108-2
3" STROKE	-0108-3
4" STROKE	-0108-4
6" STROKE	-0108-6



BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-214-0108-1,-2,-3,-4,-6		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	TAMP SLIDE ("X" STROKE LENGTH)	PM-AC2000-X	S
②	2	3/8" I.D. RUBBER GROMMIT	PE-C02018	S
③	4	O-RING (BUNA-N)	PM-OR1021	S

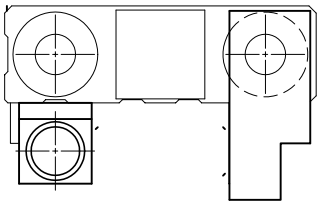
NOTE: FOR HEAVY DUTY SLIDE
REFER TO SHEET 2

TITLE:	PART:	Dept. Code
360/3600-PA SERIES APPLICATOR: TAMP ASSEMBLY (Sht. 1 of 2)	STANDARD TAMP SLIDE (FOR 360 & 3600-PA STD & EXT. TAMP)	70

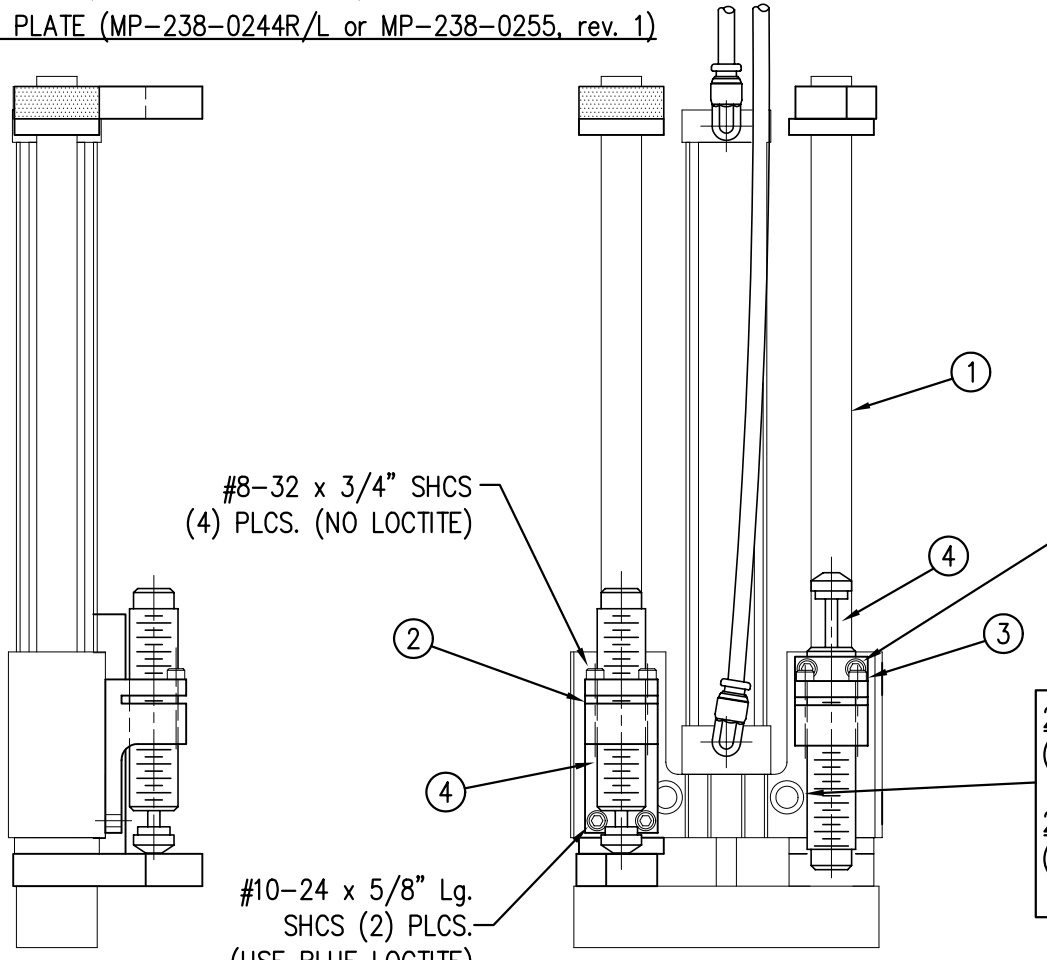
REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\360
2	ADDED SHT. 2 FOR HEAVY DUTY SLIDE W/SHOCKS	02/07/05	TDR	1=2	02/21/98	BOB S.	214\ASS-214-0108-Xs1

BILL OF MATERIAL				SOLD
ASSEMBLY	ASS-214-0108-8, -10, -12			S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
1	1	TAMP SLIDE ("X" STROKE LENGTH)	PM-AC2010-X	S
2	1	SHOCK ABSORBER MTG BRACKET-HOME	MP-238-0314	.
3	1	SHOCK ABSORBER MTG BRKT-EXTENDED	MP-238-0315	.
4	2	SLIDE SHOCK ABSORBER	PM-SA0950	S

ASS-214-0108-X	
8" STROKE	-0108-8
10" STROKE	-0108-10
12" STROKE	-0108-12



NOTE: SLIDE WITH SHOCK ABSORBERS TO BE USED IN CONJUCTION WITH
360 SERIES: MOUNTING PLATE (MP-214-0204, rev. 1)
3600 SERIES: MOUNTING PLATE (MP-238-0244R/L or MP-238-0255, rev. 1)



214-TAMP ~ 1/4-20 x 1-1/4 Lg. SHCS
(4 PLACES FOR HEAVY DUTY CYLINDER)

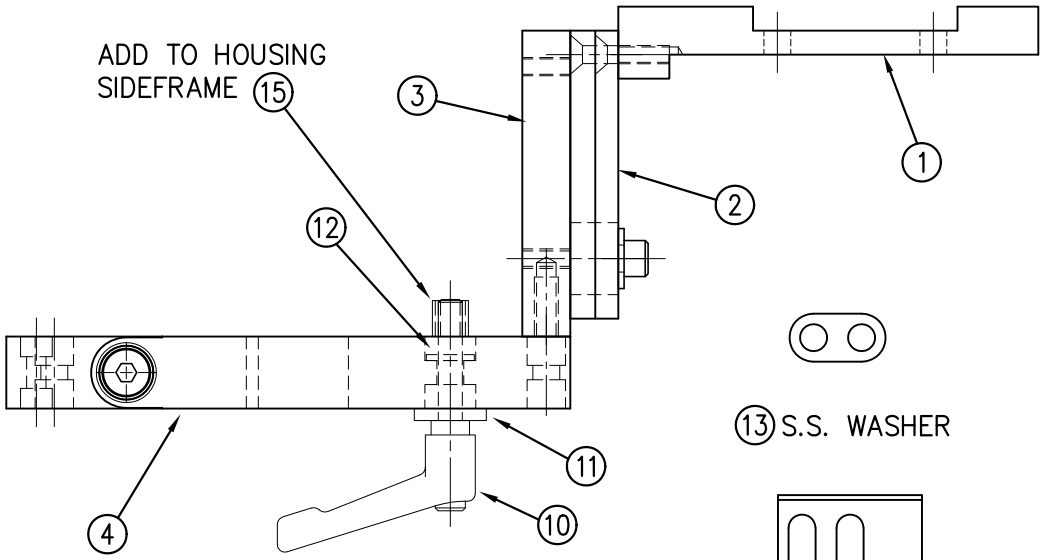
238-TAMP ~ 1/4-20 x 1-3/8 Lg. SHCS
(4 PLACES FOR HEAVY DUTY CYLINDER)
NOT INCLUDED IN ASSEMBLY

NOTE: FOR STANDARD SLIDE
REFER TO SHEET 1

TITLE: 360/3600-PA SERIES APPLICATOR: TAMP ASSEMBLY (Sht. 2 of 2)	PART: HEAVY DUTY TAMP SLIDE (FOR 360 & 3600-PA STD & EXT. TAMP)	Dept. Code 70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\360
2	ADDED FASTENER CALLOUTS	10/28/05	TDR	1=3	02/21/98	BOB S.	214\ASS-214-0108-Xs2

ASS-238-0114L



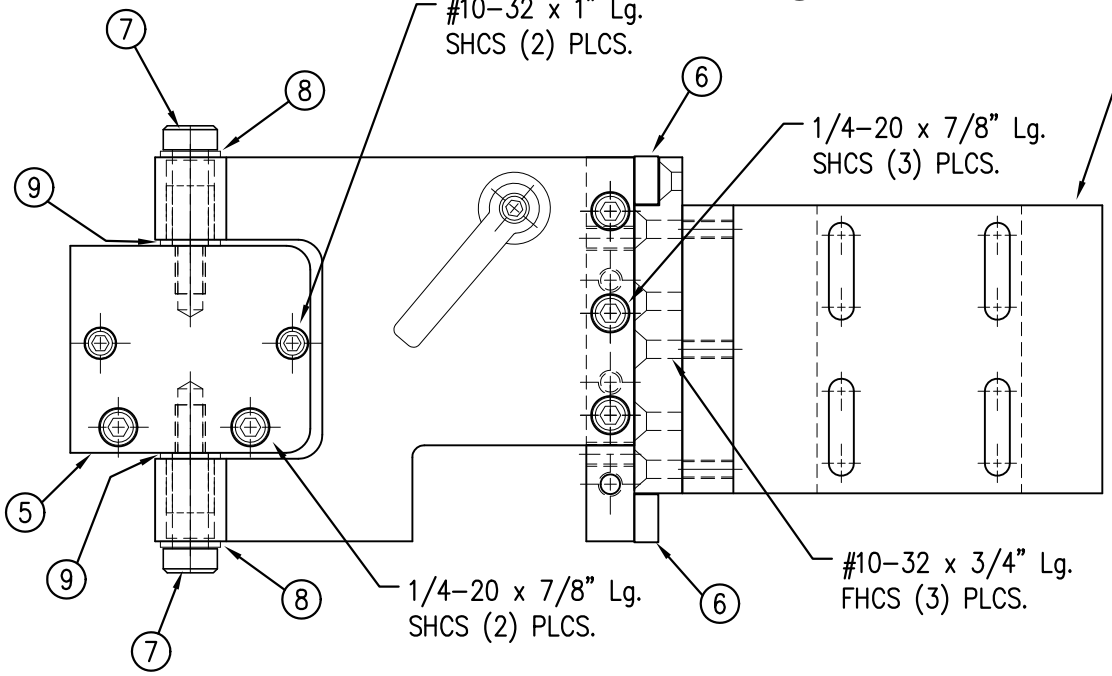
13 S.S. WASHER

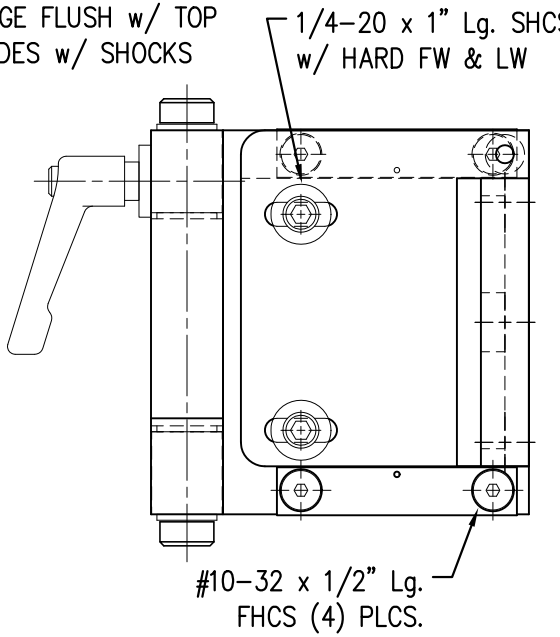
14 LOCATOR BLOCK

BILL OF MATERIAL

ASS-238-0114L

ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
①	1	MP-238-0336	TAMP CYLINDER MOUNTING PLATE
②	1	MP-238-0244L	SLIDE MOUNT ANGLE PLATE - LH
③	1	MP-238-0332	CYLINDER MOUNT SUPPORT PLATE
④	1	MP-238-0334	TAMP SLIDE PIVOT ARM
⑤	1	MP-238-0333	TAMP SLIDE PIVOT MOUNT
⑥	2	MP-238-0241	TAMP GUIDE
⑦	2	PM-FASB10045	SHOULDER BOLT
⑧	2	PM-BEBF1070	FLANGE BUSHING
⑨	2	PM-BEBT1008	THRUST WASHER
⑩	1	PM-LL1002	LOCK LEVER
⑪	1	MP-238-0338	SS HEAVY WASHER
⑫	1	PM-FANU30375	CAPTURE WASHER
⑬	1	PM-238-0337	SS WASHER
⑭	1	MP-238-0335	LOCATOR BLOCK
⑮	1	PM-INS1010	THREADED INSERT, 1/4-20 INT x 3/8-24 EXT





APPLICATOR SERIES:	APPLICATOR WIDTH(S):	GROUP:	TITLE:	Dept. Code
3600	7.5"	TAMP NOSE	SWING-AWAY TAMP SLIDE - LH	70

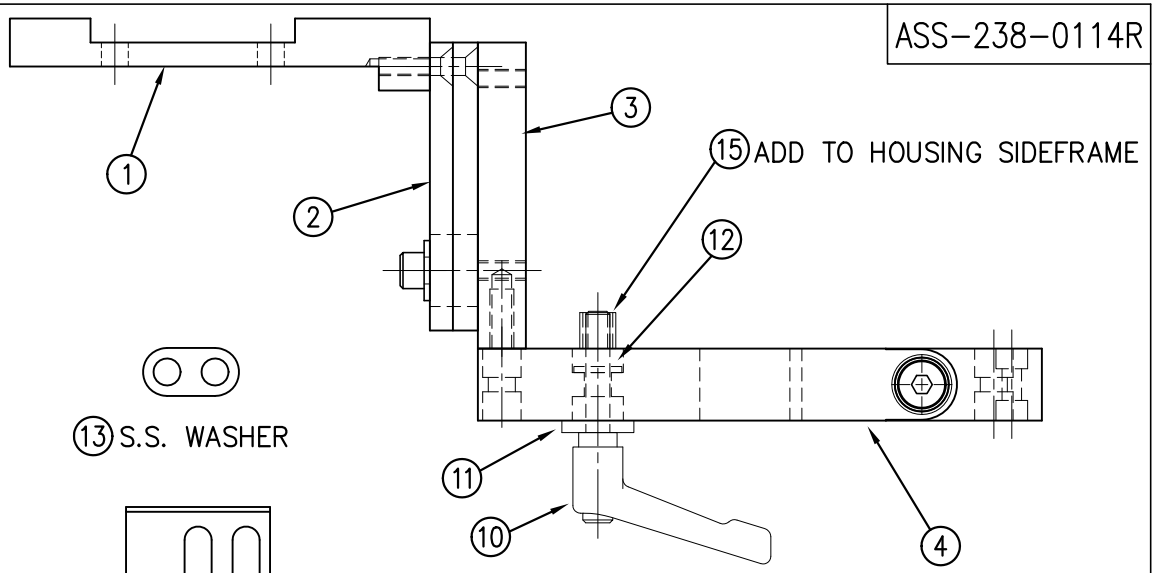
REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\
0	-	-	xxx	1=3	05/17/10	Tracy Rhodes	3600\ASS-238-0114L

BILL OF MATERIAL

ASS-238-0114R

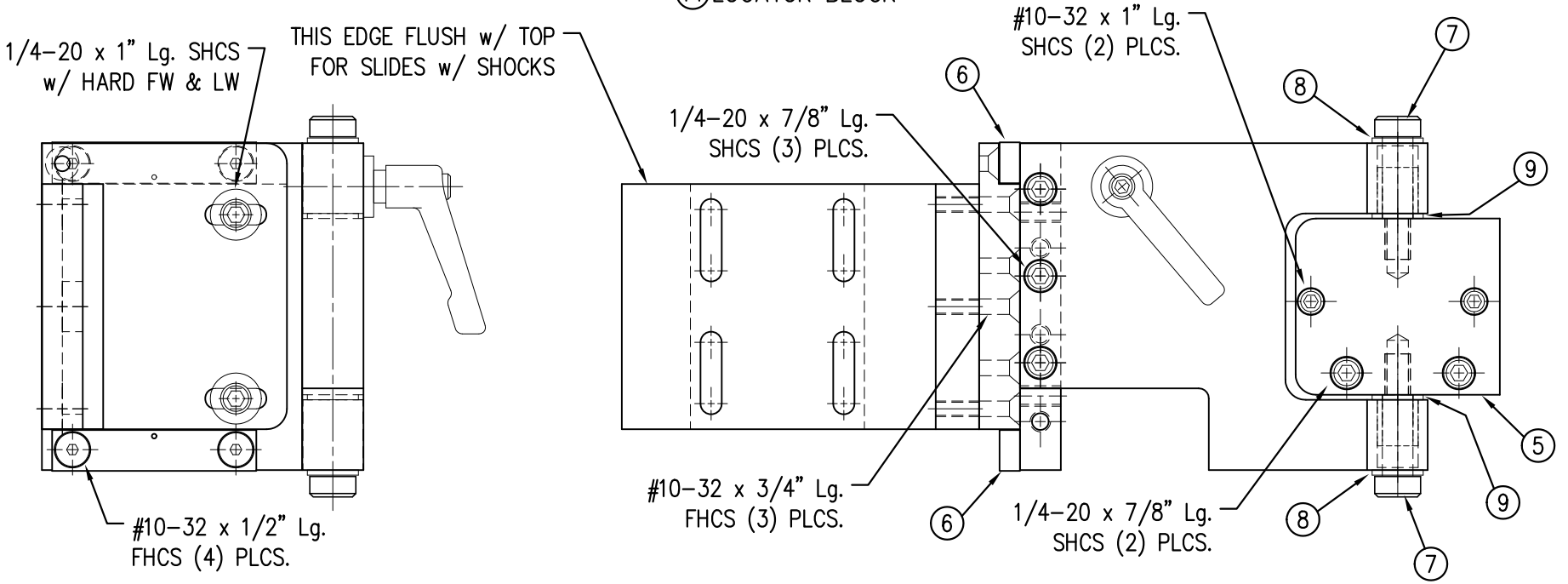
ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
①	1	MP-238-0336	TAMP CYLINDER MOUNTING PLATE
②	1	MP-238-0244R	SLIDE MOUNT ANGLE PLATE - RH
③	1	MP-238-0332	CYLINDER MOUNT SUPPORT PLATE
④	1	MP-238-0334	TAMP SLIDE PIVOT ARM
⑤	1	MP-238-0333	TAMP SLIDE PIVOT MOUNT
⑥	2	MP-238-0241	TAMP GUIDE
⑦	2	PM-FASB10045	SHOULDER BOLT
⑧	2	PM-BEBF1070	FLANGE BUSHING
⑨	2	PM-BEBT1008	THRUST WASHER
⑩	1	PM-LL1002	LOCK LEVER
⑪	1	MP-238-0338	SS HEAVY WASHER
⑫	1	PM-FANU30375	CAPTURE WASHER
⑬	1	PM-238-0337	SS WASHER
⑭	1	MP-238-0335	LOCATOR BLOCK
⑮	1	PM-INS1010	THREADED INSERT, 1/4-20 INT x 3/8-24 EXT

ASS-238-0114R



⑬ S.S. WASHER

⑭ LOCATOR BLOCK

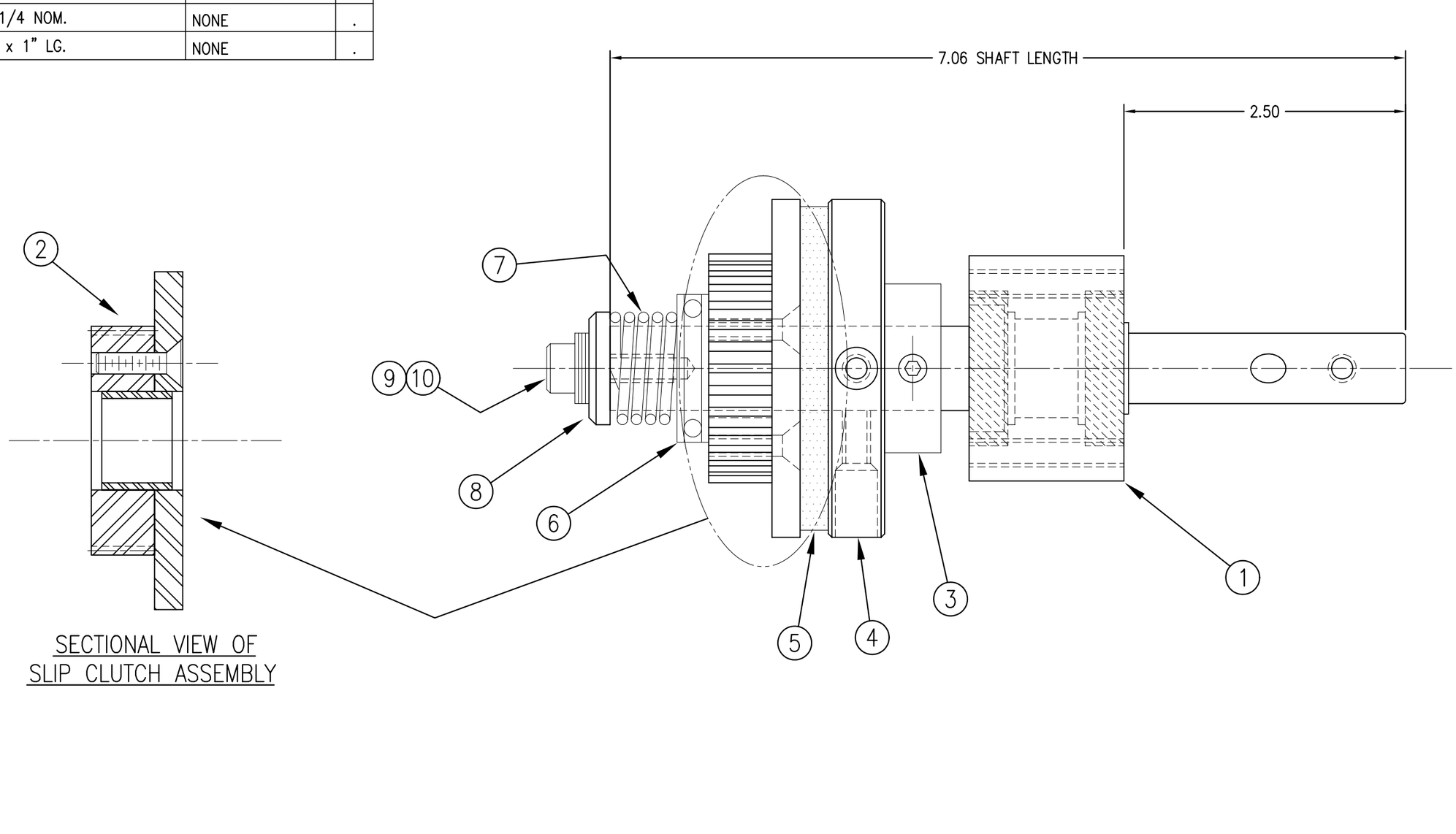


APPLICATOR SERIES:	APPLICATOR WIDTH(S):	GROUP:	TITLE:	Dept. Code
3600	7.5"	TAMP NOSE	SWING-AWAY TAMP SLIDE - RH	70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\
0	-	-	xxx	1=3	05/17/10	Tracy Rhodes	3600\ASS-238-0114R

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0120C		.
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
1	1	REWIND BRG. BLOCK w/SHAFT	ASS-238-0121	S
2	1	SLIP CLUTCH ASSEMBLY	ASS-200-0143	S
3	1	LOCK COLLAR	PM-C01020	.
4	1	SLIP CLUTCH	MP-238-0202	.
5	1	CLUTCH PAD	MP-238-0274	S
6	1	THRUST BEARING	PM-BE1232	S
7	1	COMPRESSION SPRING (MEDIUM DUTY)	PM-FASP30540	S
8	1	CLUTCH SPRING KEEPER	MP-200-0229	.
9	10	FLAT WASHER, 1/4 NOM.	NONE	.
10	1	SHCS, 1/4-20 x 1" LG.	NONE	.

REV 1 REV 2



SECTIONAL VIEW OF
SLIP CLUTCH ASSEMBLY

ASS-238-0120C

TITLE: 3600-PA SERIES APPLICATOR: REWIND: SHELF ASSEMBLY

PART: REWIND CLUTCH ASSEMBLY

Dept. Code 70

F:\Engineering\Standard Parts\Applicator\3600 2-238-0120C

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:
2	FIXED SHAFT TO SHOW PIVOT & TAPPED HOLE ON 2.50" LG. END	12/20/06	TDP

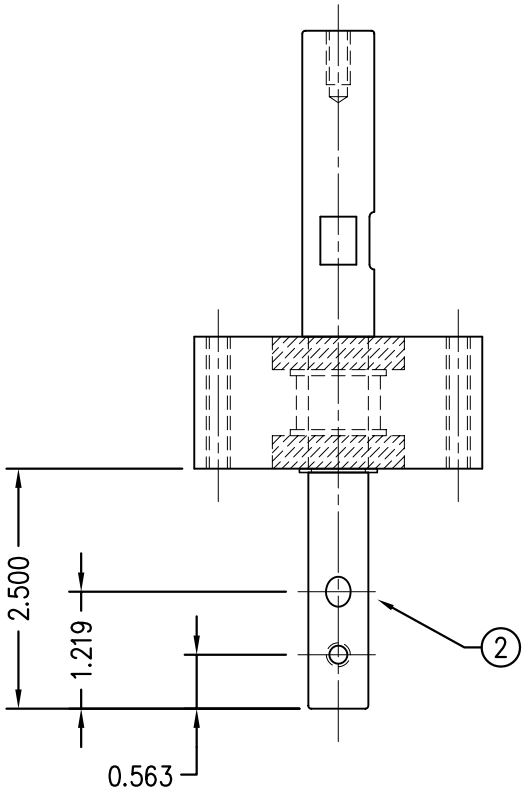
Scale: 1-1

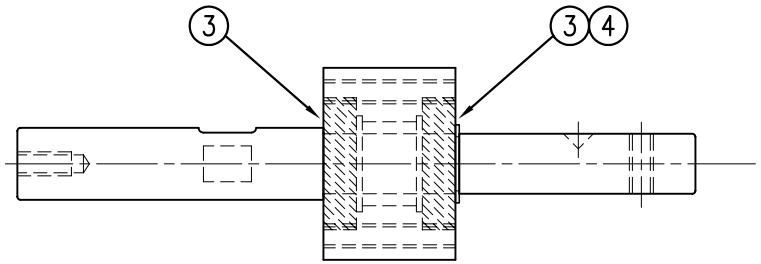
Date: 03/04/00

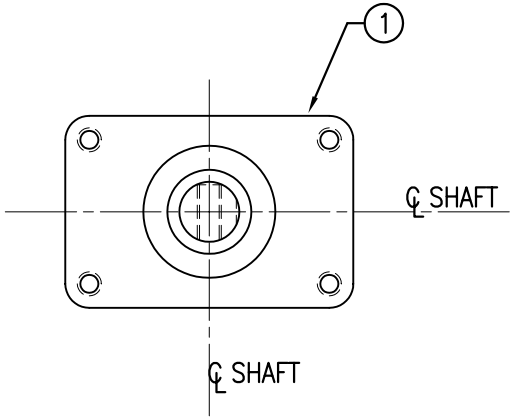
DRAWN BY: BOB S

ASS-238-0121

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0121		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	REWIND BEARING BLOCK	MP-200-0216	.
②	1	REWIND SHAFT	MP-238-0205	.
③	2	#R10 BALL BEARING	PM-BE1260	.
④	1	SNAP RING	PM-FASR1010	.
	4	FHCS, 1/4"-20 UNC x 3/4" LG.	NONE	.







TITLE: 3600-PA SERIES APPLICATOR: REWIND ASSEMBLY	PART: REWIND BEARING BLOCK w/SHAFT	Dept. Code 70

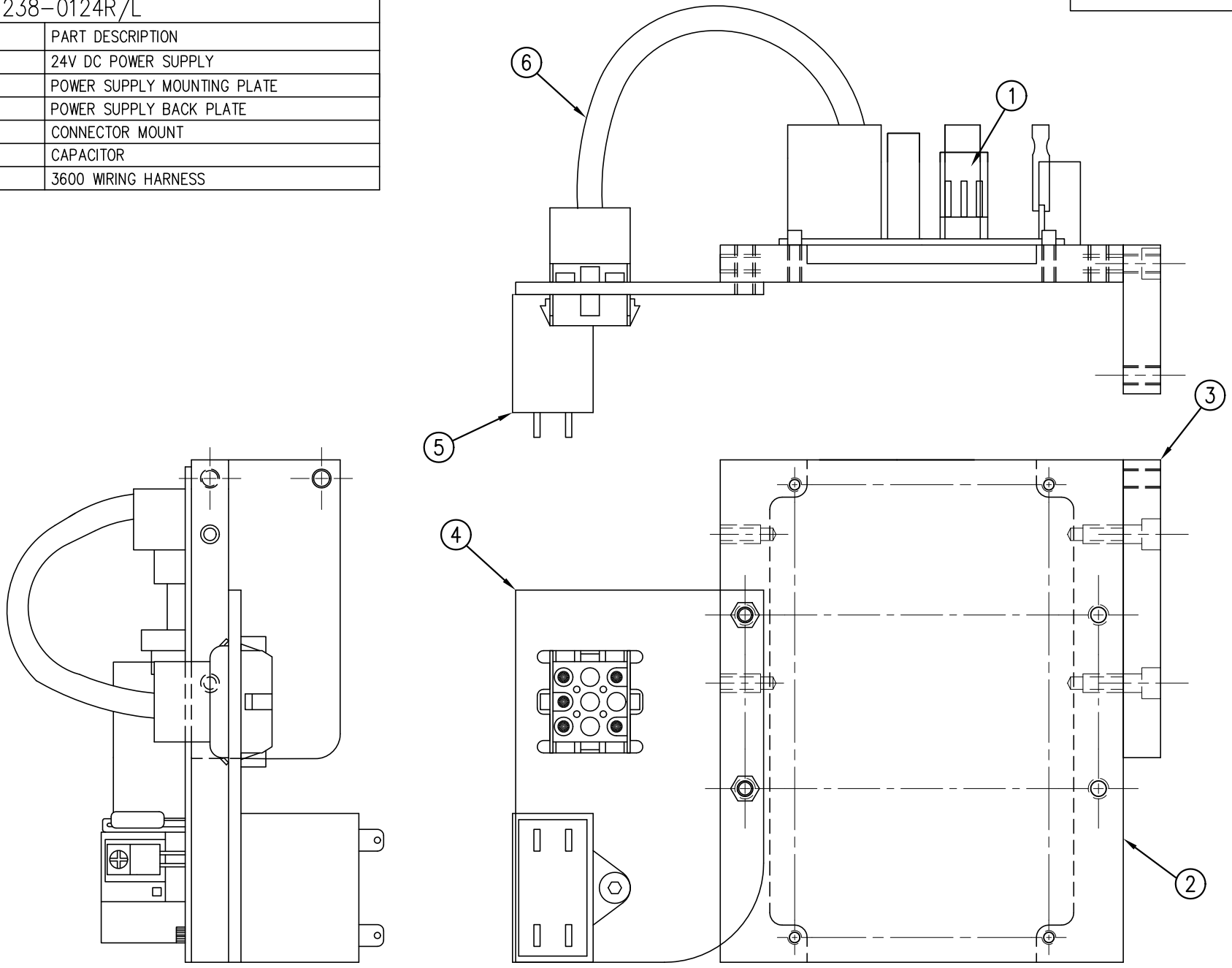
REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\3600 238\ASS-238-0121
0	ADDED SHAFT TO DWG. AND UPDATED TITLEBLOCK	11/19/03	TDR	1=2	03/29/00	BOB S.	

ASS-238-0124R/L

BILL OF MATERIAL

ASS-238-0124R/L

ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
①	1	MP-PS1024	24V DC POWER SUPPLY
②	1	MP-200a-0269	POWER SUPPLY MOUNTING PLATE
③	1	MP-200a-0270	POWER SUPPLY BACK PLATE
④	1	MP-238-0237	CONNECTOR MOUNT
⑤	1	PE-CAP1025	CAPACITOR
⑥	1	PE-238-0415	3600 WIRING HARNESS



APPLICATOR SERIES:	APPLICATOR WIDTH(S):	GROUP:	TITLE:	Dept. Code
3600		CORE UNIT: ELECTRICAL	24 VDC POWER SUPPLY ASSEMBLY DETAIL	70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\ENGINEERING\STANDARD-PARTS\APPLICATOR\3600
				1=1.5	1-4-13	DLM	ASS-238-0124R/L

BILL OF MATERIAL

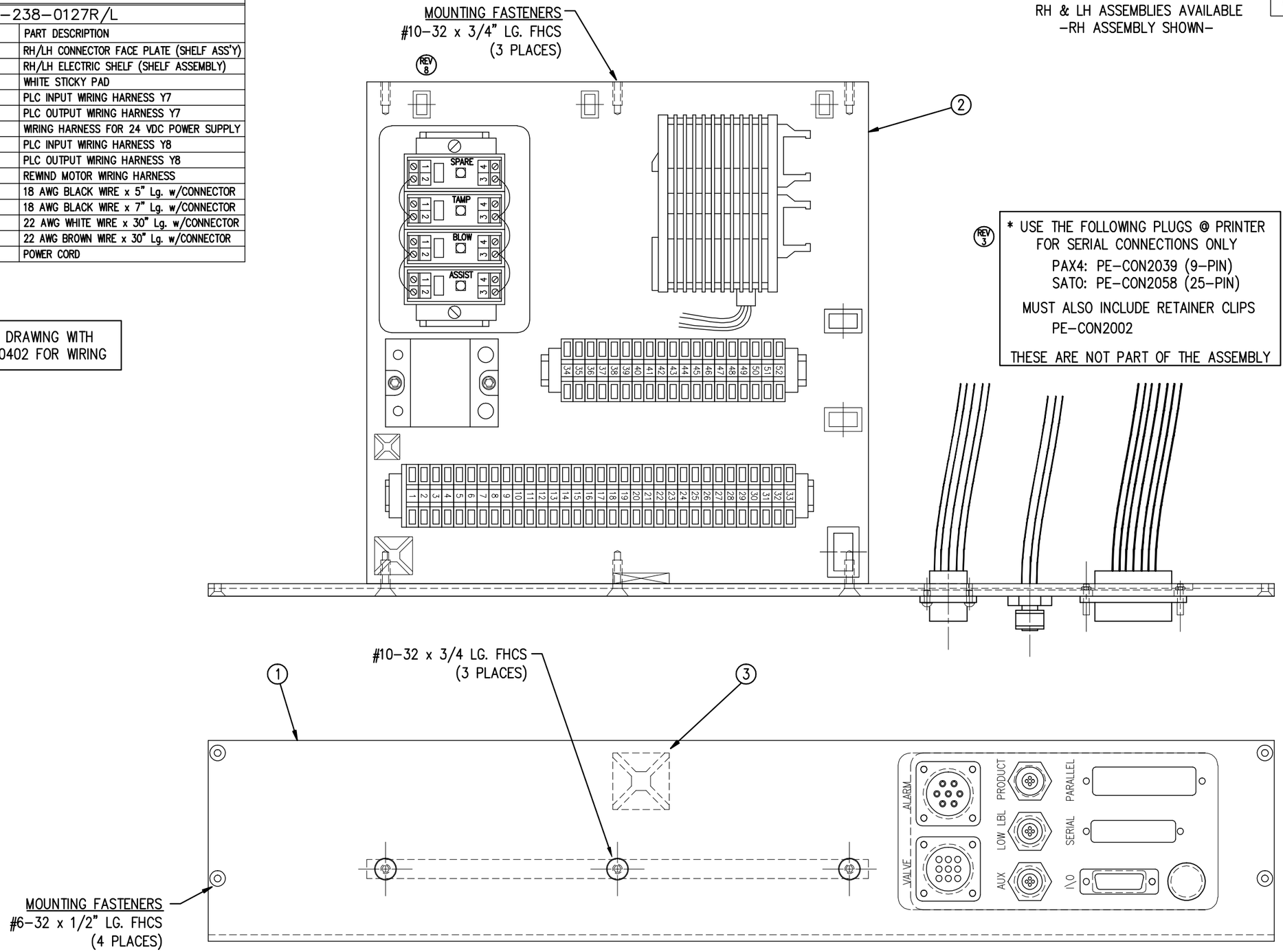
ASS-238-0127R/L

ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
①	1	SAS-238-0127aR/L	RH/LH CONNECTOR FACE PLATE (SHELF ASS'Y)
②	1	SAS-238-0127bR/L	RH/LH ELECTRIC SHELF (SHELF ASSEMBLY)
③	1	PE-PA1080	WHITE STICKY PAD
	1	PE-238-0407	PLC INPUT WIRING HARNESS Y7
	1	PE-238-0408	PLC OUTPUT WIRING HARNESS Y7
	1	PE-238-0414	WIRING HARNESS FOR 24 VDC POWER SUPPLY
	1	PE-238-0421	PLC INPUT WIRING HARNESS Y8
	1	PE-238-0422	PLC OUTPUT WIRING HARNESS Y8
	1	PE-238-0429	REWIND MOTOR WIRING HARNESS
	1	PE-W110703CN	18 AWG BLACK WIRE x 5" Lg. w/CONNECTOR
	1	PE-W110704CN	18 AWG BLACK WIRE x 7" Lg. w/CONNECTOR
	1	PE-W103102CN	22 AWG WHITE WIRE x 30" Lg. w/CONNECTOR
	1	PE-W103711CN	22 AWG BROWN WIRE x 30" Lg. w/CONNECTOR
	1	ASS-C01025	POWER CORD

WORK THIS DRAWING WITH
ASS-238-0402 FOR WIRING

ASS-238-0127R/L

RH & LH ASSEMBLIES AVAILABLE
-RH ASSEMBLY SHOWN-



APPLICATOR SERIES: 3600	APPLICATOR WIDTH(S): 7.5"	GROUP: HOUSING	TITLE: ELECTRIC SHELF ASSEMBLY
REV. 8	REV. DESCRIPTION: REVISED ADHESIVE CABLE CLAMP LOCATIONS	REV. DATE: 09/15/14	REV. BY: DLM
Scale: 1=2	Date: 04/01/00	DRAWN BY: BOB S.	Dept. Code: 90

F:\Engineering\Standard Parts\Applicator\3600\HOUSING\ASS-238-0127RL

BILL OF MATERIAL

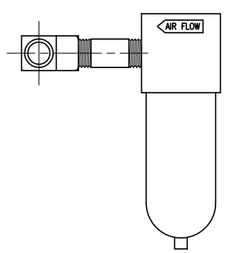
ASS–238–0129M

ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
①	1	ASS–200–0452M	VALVE CABLE
②	1	PM–REG1500	REGULATOR
③	1	PM–VA2384	0–160 PSI PRESSURE GUAGE
④	2	PM–PF1180	NPT 90° STREET ELBOW 1/8" FEMALE TO 1/8" MALE
⑤	1	PM–PUMP1010	VACUUM PUMP, 55 PSI FEED PRESSURE, MUFFLED EXHAUST
⑥	1	PM–VA2355M	3 STATION MAC VALVE BANK
⑦	1	PE–CO2000	CORD GRIP
⑧	2	PM–MU1027	3/8" NPT MALE BRONZE EXHAUST MUFFLER
⑨	3	PM–FT1200	1/4" NPT SOCKET HEAD PLUG
⑩	1	PM–PF1200	TEE 1/4" NPT FEMALE 3 ENDS
⑪	1	PM–PF1143	NIPPLE, 1/4" NPT X 1 1/2" LG.
⑫	1	PM–PF1220	ADAPTOR, 3/8" NPT FEMALE TO 1/4" NPT MALE
⑬	1	PM–PF1157	REDUCER, 3/8" NPT TO 1/8" NPT
⑭	1	PM–PF1159	FITTING, 3/8" NPT MALE BOTH ENDS
⑮	1	PE–EN9125	1 1/4" BLACK PLASTIC THREADED PLUG
⑯	1	PE–COND1084	STEEL REDUCER
⑰	1	PM–PF1110	BUSHING, 1/4" NPT FEMALE TO 3/8" NPT MALE
⑱	3	PM–PF1010	FITTING, 1/4" TUBE w/ 1/4" NPT STRT
⑲	1	PM–PF1020	FITTING, 3/8" TUBE w/ 1/4" NPT STRT
⑳	1	PM–PF1167	3/8" NPT SOCKET HEAD PLUG
㉑	10.5"	PM–PT1070	1/4" OD TUBING
㉒	1	ASS–214–0106	AIR FILTER
㉓	1	PM–PF1055	90° ELBOW 1/4" TUBE TO 1/4" NPT MALE
㉔	1	PM–PF1185	90° STREET ELBOW, 1/4 NPT MALE/FEMALE
	4	PM–FASH429088	#10–32 x 2–1/2" Lg. SS SHCS
	4	PM–FAW30265	#10 SS FLAT WASHER

* MOUNTING PLATES NOT INCLUDED IN ASSEMBLY

VALVE BANK SPARE PARTS:

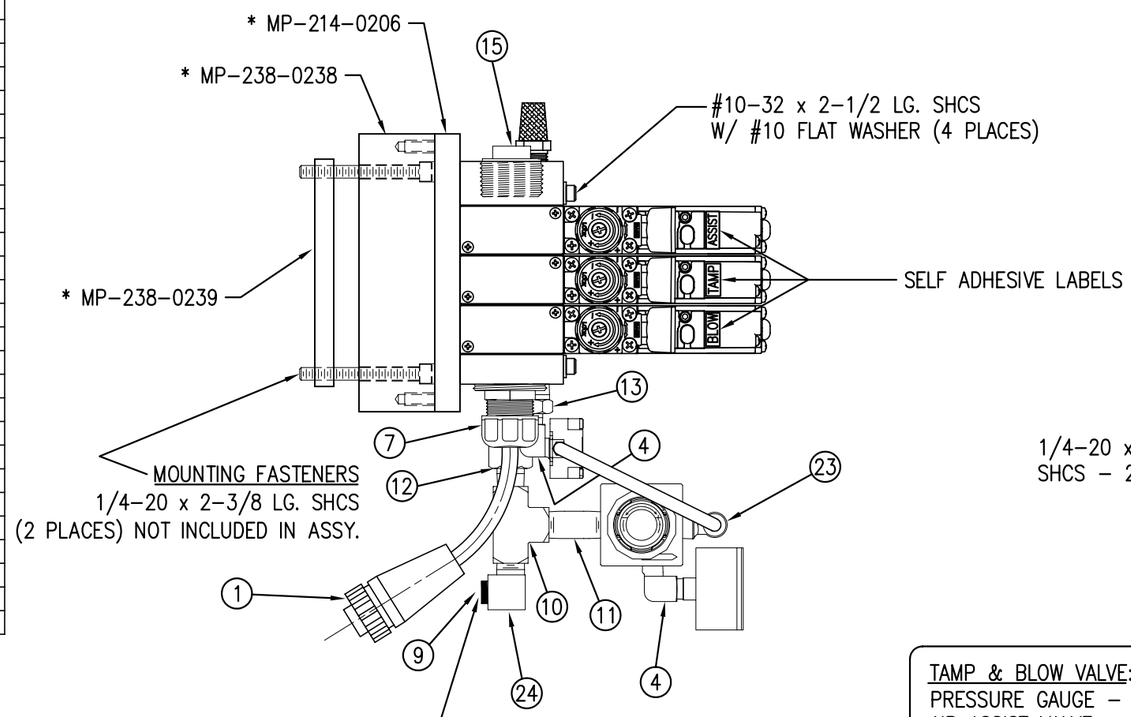
SOLENOID: #PM–VA2395M
AIR ASSIST REGULATOR W/GUAGE: #PM–VA2396M
BLOW/TAMP/IMPRINTER REGULATORS W/GUAGE: #PM–VA2397M
AIR ASSIST REGULATOR GUAGE: #PM–VA2382M
BLOW/TAMP/IMPRINTER REGULATOR GUAGES: #PM–VA2380M

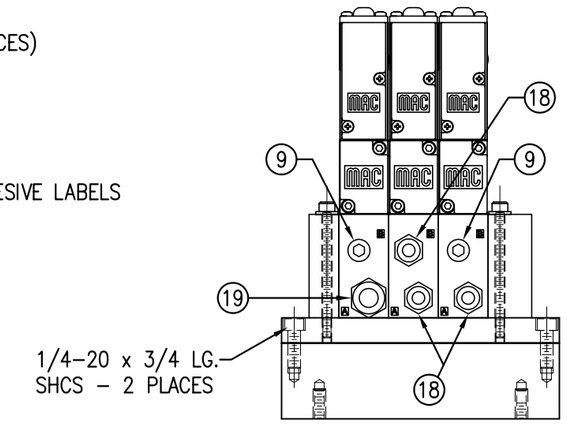


㉒ AIR FILTER
SHIP LOOSE
–CUSTOMER TO INSTALL –

NOTE: AIR SUPPLY ALWAYS ENTERS FROM BACK OF APPLICATOR – CHANGE PIPING TO SUIT

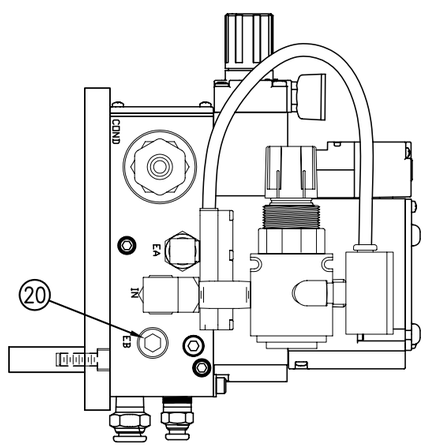
ASS–238–0129M

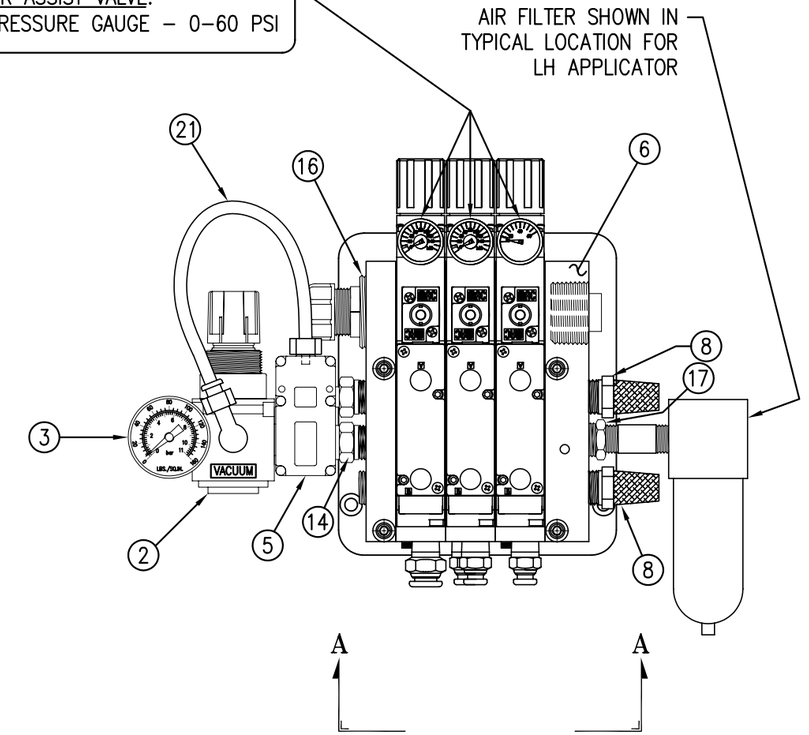




END VIEW "A"
(VALVE BANK & MTG. ONLY)

TAMP & BLOW VALVE:
PRESSURE GAUGE – 0–160 PSI
AIR ASSIST VALVE:
PRESSURE GAUGE – 0–60 PSI





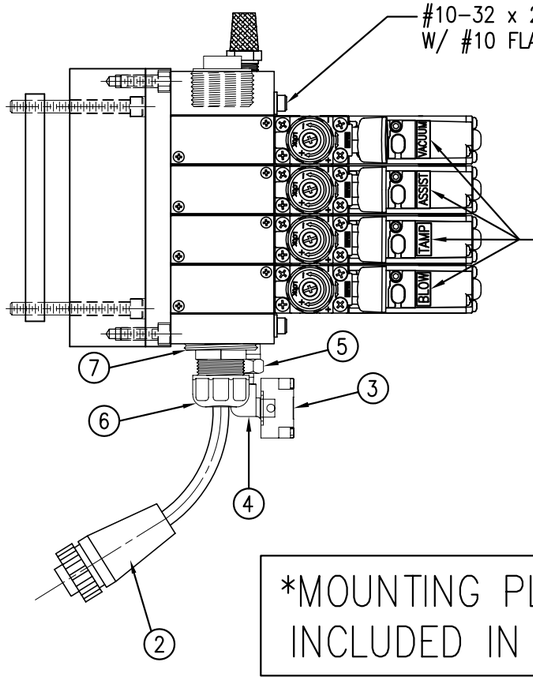
TITLE: 3 STATION VALVE BANK ASSEMBLY (TAMP)
Dept. Code 70
APPLICATOR SERIES: 3600
APPLICATOR WIDTH(S): 5"/7.5"/10"
GROUP: VALVE BANKS
DRAWN BY: E. SANOR
Date: 04/10/07
Scale: 1=3
F:\Engineering\Standard Parts\Applicator\3600\3600\ASS–238–0129M
REV. BY: TDR
REV. DATE 05/15/09
REV. DESCRIPTION ADDED ITEM #24
REV. 1

ASS-238-0130M

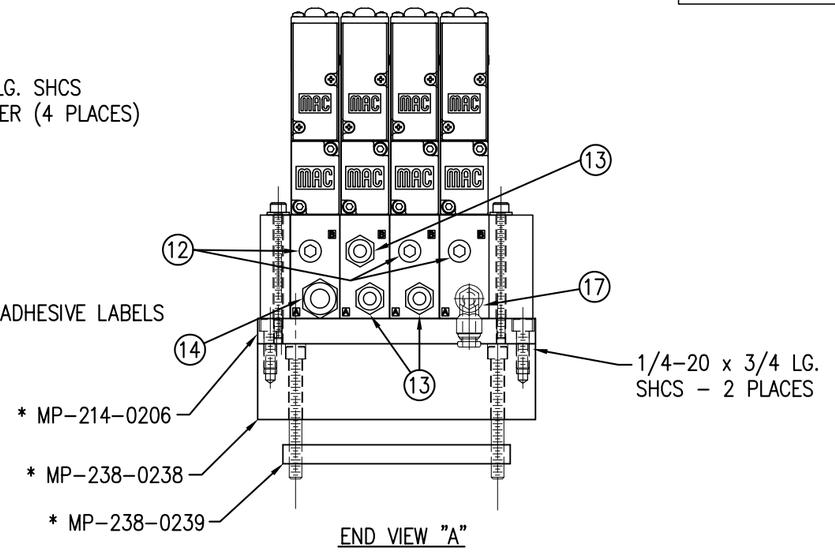
BILL OF MATERIAL

ASS-238-0130M

ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
①	1	PM-VA2361M	4 STATION MAC VALVE BANK
②	1	ASS-200-0452M	VALVE CABLE
③	1	PM-PUMP1010	VACUUM PUMP, 55 PSI FEED PRESSURE, MUFFLED EXHAUST
④	1	PM-PF1180	NPT 90° STREET ELBOW 1/8" FEMALE TO 1/8" MALE
⑤	1	PM-PF1157	REDUCER, 3/8" NPT TO 1/8" NPT
⑥	1	PE-CO2000	CORD GRIP
⑦	1	PE-COND1084	STEEL REDUCER
⑧	1	PE-EN9125	1 1/4" BLACK PLASTIC THREADED PLUG
⑨	2	PM-MU1027	3/8" NPT MALE BRONZE EXHAUST MUFFLER
⑩	1	PM-PF1110	BUSHING, 1/4" NPT FEMALE TO 3/8" NPT MALE
⑪	2	PM-PF1167	3/8" NPT SOCKET HEAD PLUG
⑫	3	PM-FT1200	1/4" NPT SOCKET HEAD PLUG
⑬	3	PM-PF1010	FITTING, 1/4" TUBE w/ 1/4" NPT STRT
⑭	1	PM-PF1020	FITTING, 3/8" TUBE w/ 1/4" NPT STRT
⑮	9"	PM-PT1070	1/4" OD TUBING
⑯	1	PM-FIL1010	AIR FILTER
⑰	1	PM-PF1055	FITTING, 1/4" TUBE w/ 1/4" NPT, 90°
◯	4	PM-FASH429088	10-32 X 2 1/2" LG. SS SHCS
◯	4	PM-FAW30265	#10 SS FLAT WASHER



*MOUNTING PLATES NOT INCLUDED IN ASSEMBLY

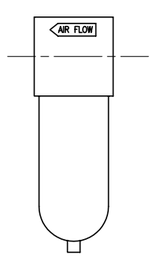


END VIEW "A"

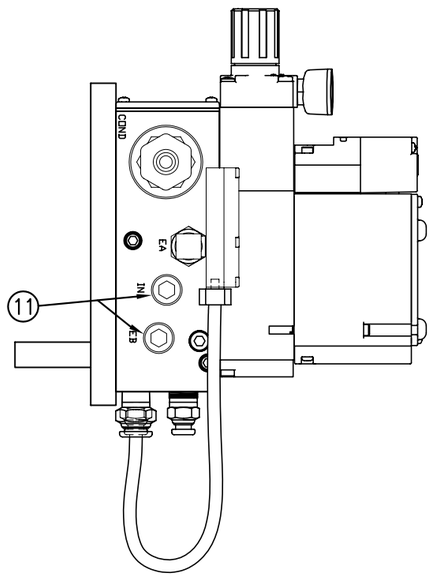
VALVE BANK SPARE PARTS:

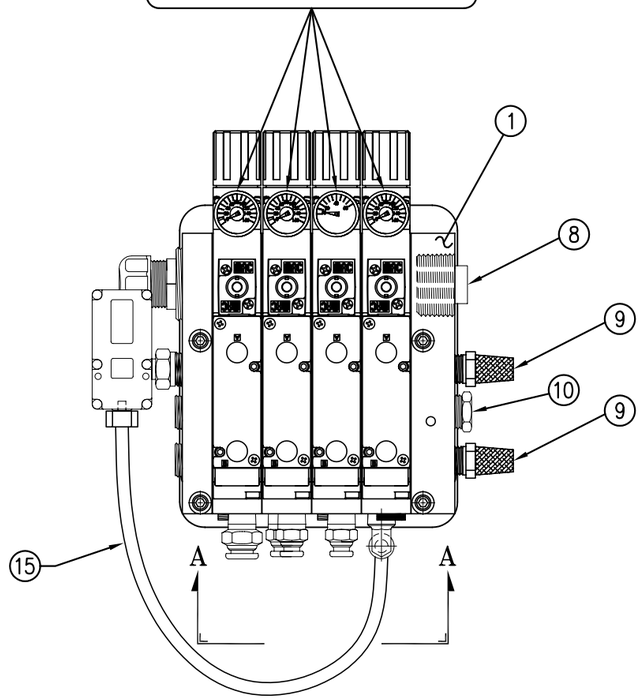
SOLENOID: #PM-VA2395M
AIR ASSIST REGULATOR W/GUAGE: #PM-VA2396M
BLOW/TAMP/IMPRINTER REGULATORS W/GUAGE: #PM-VA2397M
AIR ASSIST REGULATOR GUAGE: #PM-VA2382M
BLOW/TAMP/IMPRINTER REGULATOR GUAGES: #PM-VA2380M

TAMP, IMPRINT & BLOW VALVE:
PRESSURE GAUGE - 0-160 PSI
AIR ASSIST VALVE:
PRESSURE GAUGE - 0-60 PSI



⑯ AIR FILTER





APPLICATOR SERIES: 3600	APPLICATOR WIDTH(S): 5"/7.5"/10"	GROUP: VALVE BANKS	REV. DATE 01/04/08	REV. BY: TDR	REV. DESCRIPTION ITEM #17 WAS STRAIGHT TUBE FITTING
					REV. 1

TITLE: TAMP: VALVE BANK ASSEMBLY w/ VACUUM OFF OPTION

Dept. Code 70

DRAWN BY: E. SANOR

Date: 04/09/07

Scale: 1=3

REV. BY: TDR

F:\Engineering\Standard Parts\Applicator\360\3600\ASS-238-0130M

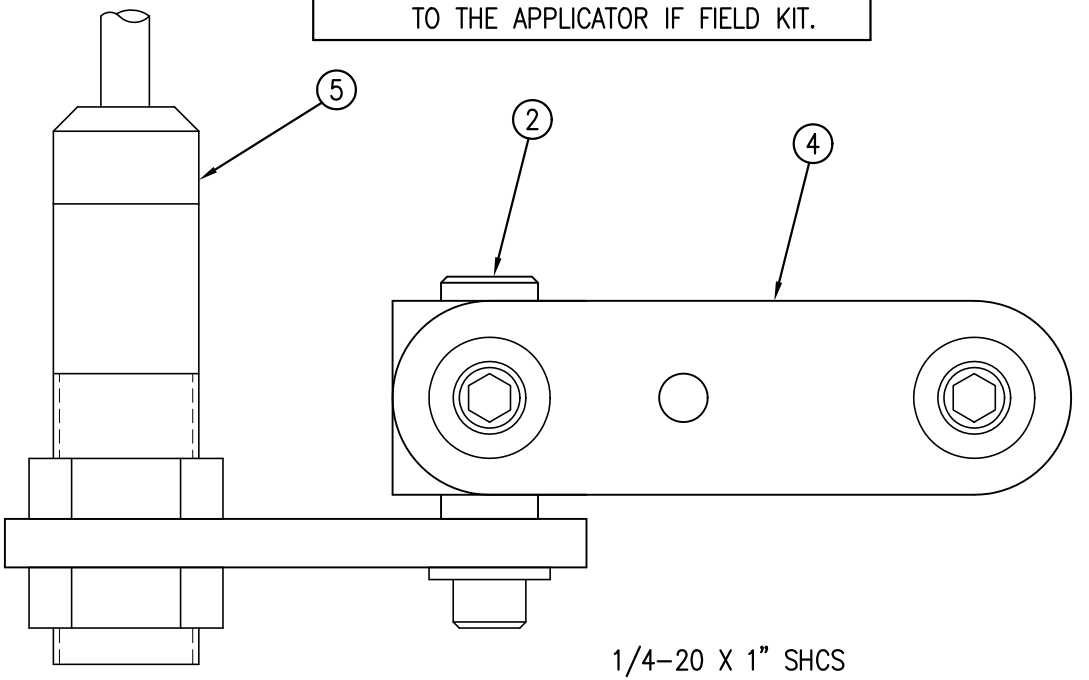
ASS-238-0132

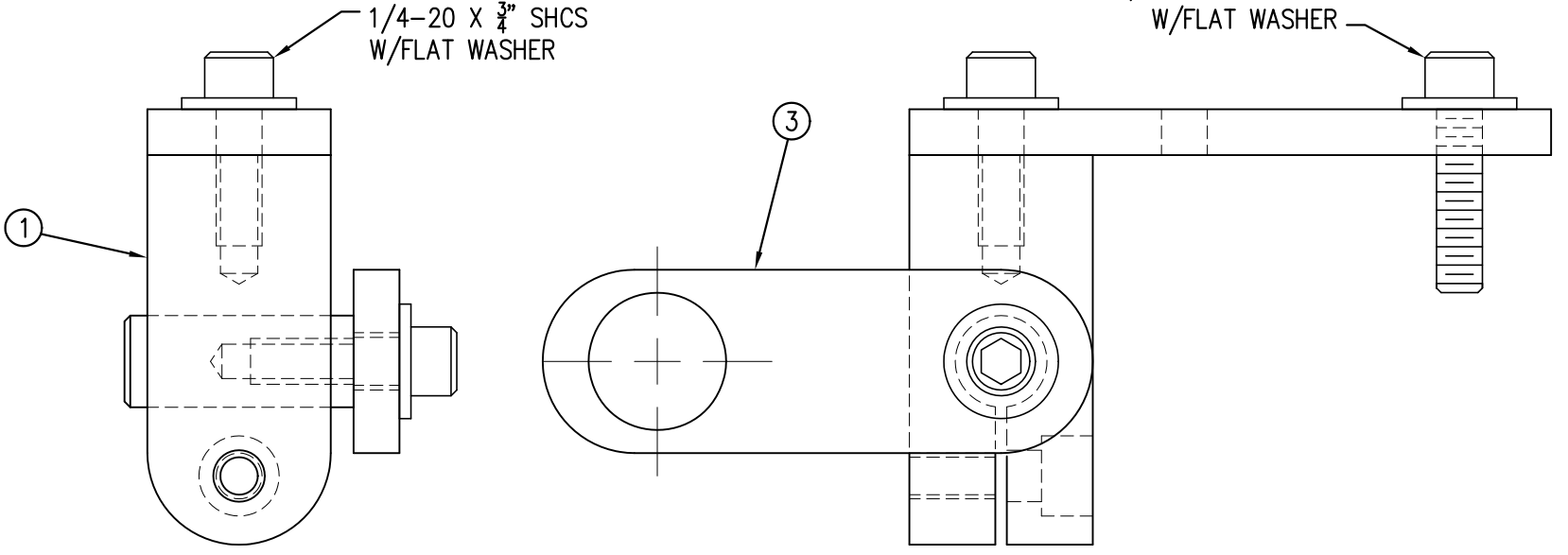
BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0132		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
1	1	END OF WEB - CLAMP BLOCK	MP-238-0278	.
2	1	END OF WEB - MOUNTING SHAFT	MP-238-0279	.
3	1	SENSOR MOUNTING FOR 18mm SENSOR	MP-200-3303	.
4	1	TENSION SUPPORT BRACKET	MP-200-0256	.
5	1	END OF WEB SENSOR ASSEMBLY	ASS-200-0423	S

NOTE: SEND FASTENERS TO BOLT ASSEMBLY TO THE APPLICATOR IF FIELD KIT.

(REV 5) NOTE: DUE TO THIS ASSEMBLY'S MULTIPLE USES, REFER TO THE STANDARD PRINTER APPLICATOR HOUSING SCHEMATICS LISTED BELOW FOR THE PROPER END OF WEB CONNECTOR WIRING.

ASS-238-0402 FOR 3600 STANDARD
ASS-218-0402 FOR 1800
ASS-238-0403 FOR 3600 DAT
ASS-238CE-0401 FOR 3600CE STANDARD



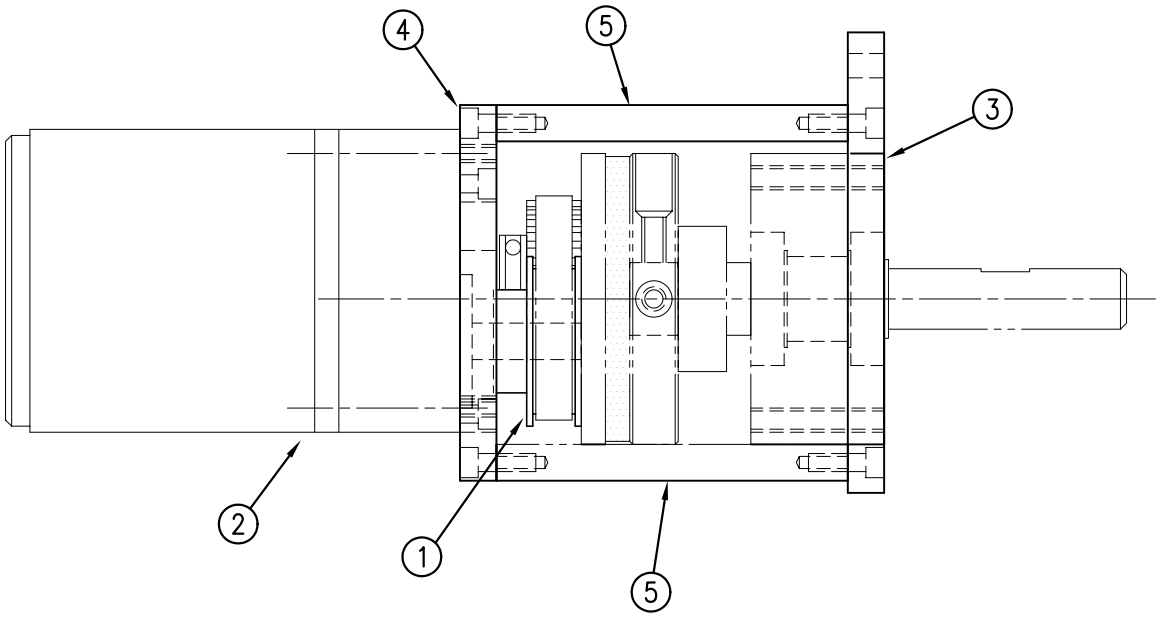


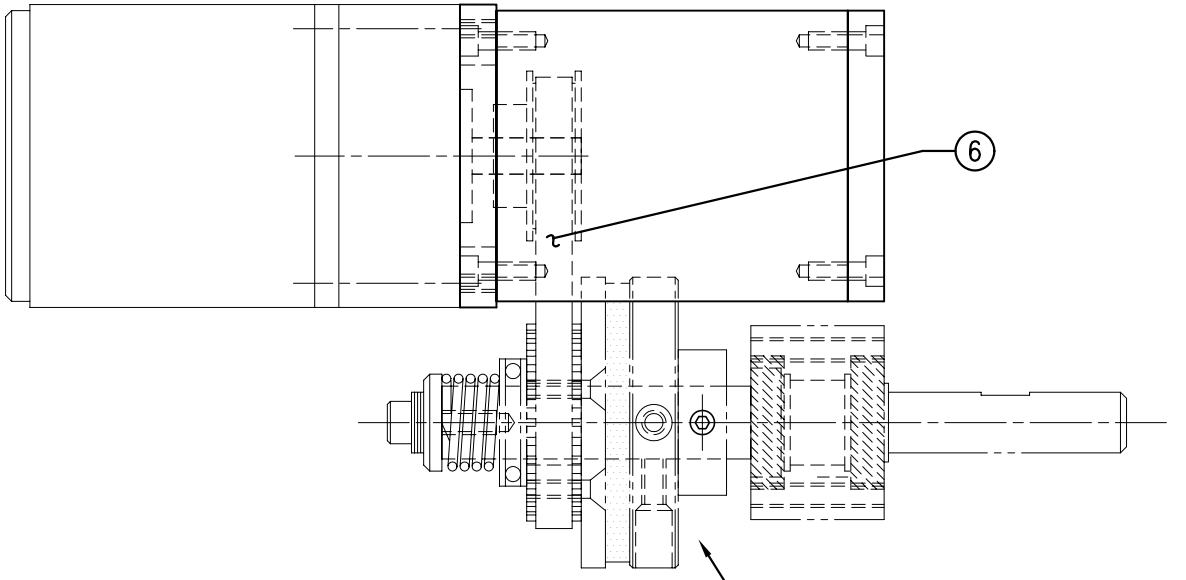
TITLE: 3600-PA SERIES APPLICATOR: UNWIND	PART: END OF WEB SENSOR w/ MOUNTING BRACKET	Dept. Code 70

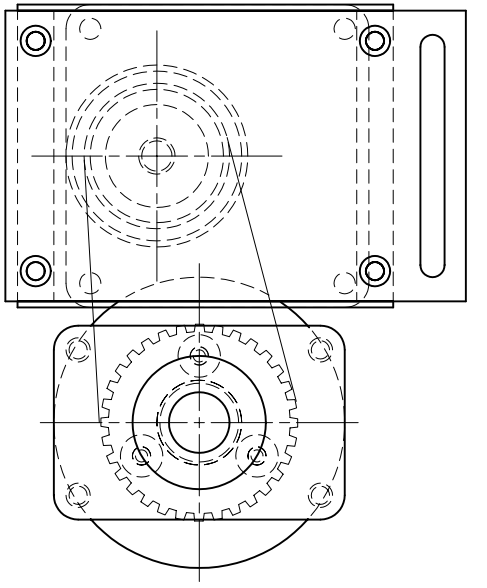
REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\3600 238\ASS-238-0132
5	REMOVED END OF WEB WIRING DIAGRAM, ADDED SCHEMATICS NOTE	04/01/2011	ES	1=1	06/04/01	BOB S.	

ASS-238-0133

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0133		.
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	MOTOR PULLEY	MP-238-0273	S
②	1	REWIND MOTOR	ASS-238-0428	S
③	1	MOUNT PLATE	MP-238-0201	.
④	1	REWIND MOTOR MOUNT PLATE	MP-238-0272	.
⑤	2	MOTOR SIDEFRAME	MP-238-0204	.
⑥	1	REWIND BELT	PM-BELT1015	S







REFER TO DWG. ASS-238-0120C
FOR REWIND CLUTCH ASSEMBLY

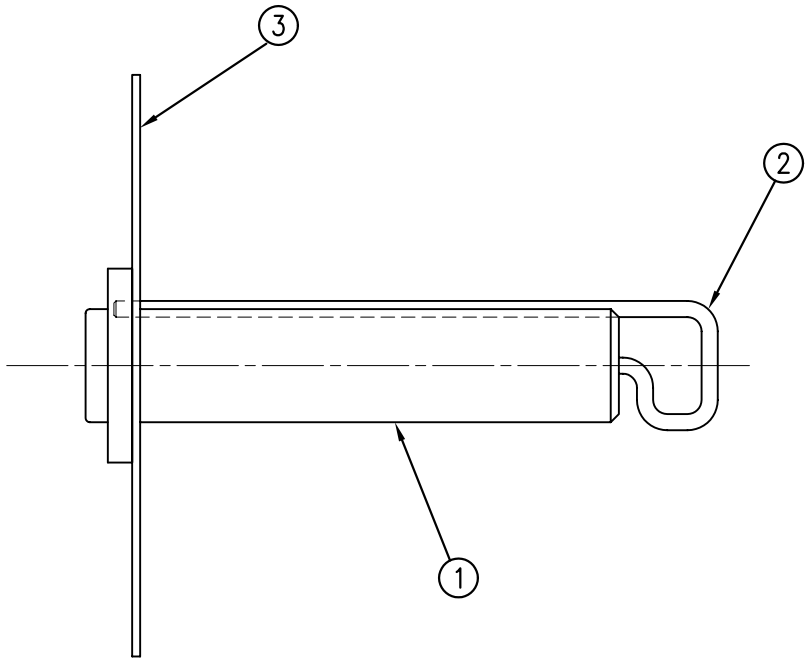
TITLE: 3600-PA SERIES APPLICATOR: REWIND ASSEMBLY	PART: REWIND MOTOR & PULLEY ASSEMBLY (FOR VH1425A-GV MOTOR)	Dept. Code 70

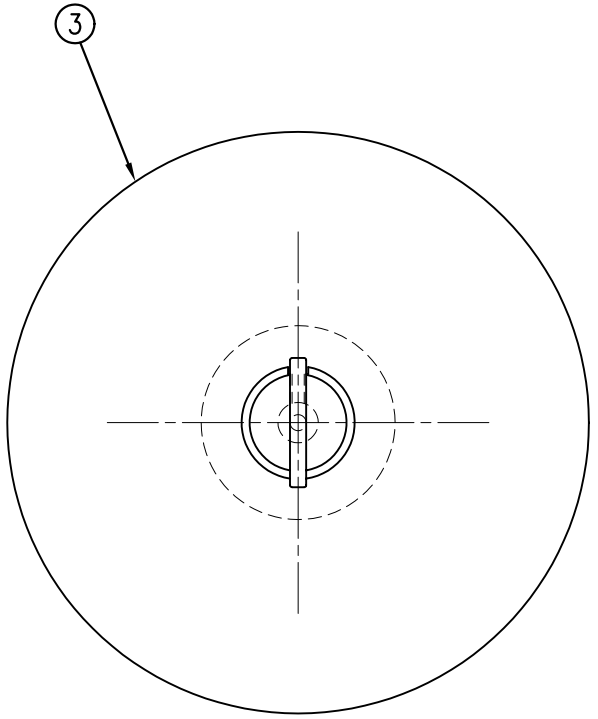
REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\3600 238\ASS-238-0133
1	ADDED TIMING BELT TO B.O.M.	02/16/05	TDR	1=2	03/29/00	BOB S.	

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0144-X		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	REWIND SPINDLE	MP-238-0206	.
②	1	REWIND PIN	PF-238-0207	.
③	1	REWIND DISK ASS'Y (FOR 12" UNWIND)	ASS-200-0127	S
	1	REWIND DISK ASS'Y (FOR 16" UNWIND)	ASS-200-3158-16	S

ASS-238-0144-X

FOR 12" UNWIND	-0144-12
FOR 16" UNWIND	-0144-16

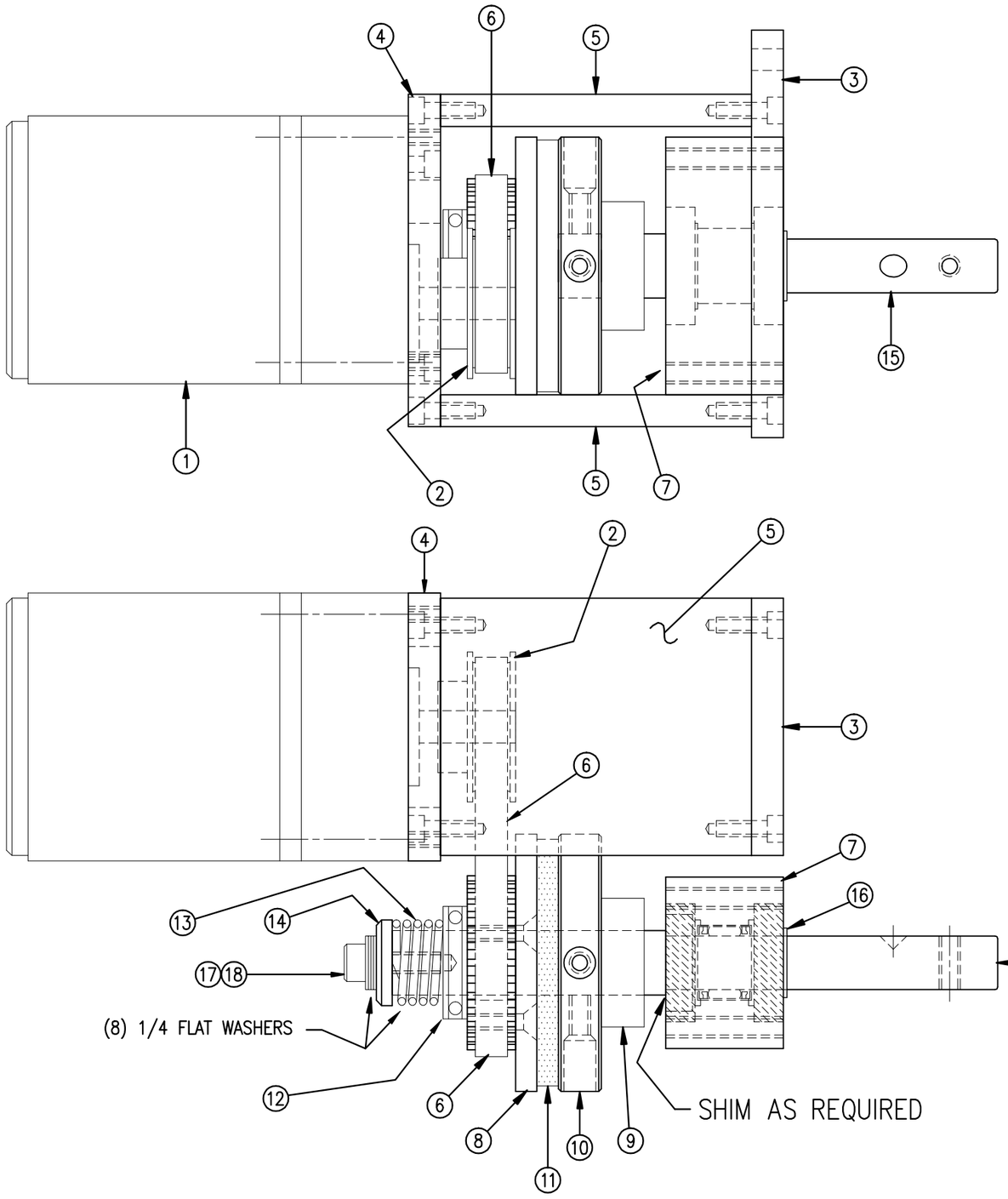




TITLE: 3600-PA SERIES APPLICATOR: REWIND ASSEMBLY	PART: STANDARD REWIND SPINDLE (FOR 12" & 16" UNWIND)	Dept. Code 70

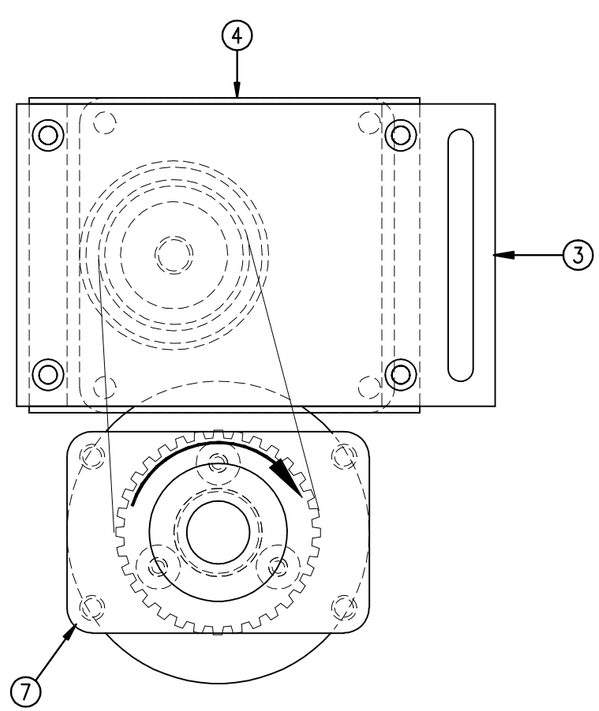
REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\3600
0	NEW ASSEMBLY	01/14/04	TDR	1=1	01/14/04	TDR	238\ASS-238-0144-X

ASS-238-0163R/L



BILL OF MATERIAL			
ASS-238-0133			
ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
①	1	ASS-238-0428	REWIND MOTOR
②	1	PM-238-0273	MOTOR PULLEY
③	1	MP-238-0201	MOUNT PLATE
④	1	MP-238-0272	REWIND MOTOR MOUNT PLATE
⑤	2	MP-238-0204	MOTOR SIDE FRAME
⑥	1	PM-BELT1015	REWIND BELT

BILL OF MATERIAL			
ASS-238-0163R/L			
ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
1-6	1	ASS-238-0133	REWIND MOTOR & PULLEY ASSEMBLY
⑦	1	ASS-200-0139	REWIND BEARING BLOCK ASSEMBLY
⑧	1	ASS-200-0143	SLIP CLUTCH ASSEMBLY
⑨	1	PM-C01020	LOCK COLLAR
⑩	1	MP-238-0202	SLIP CLUTCH
⑪	1	PM-CL1010	LEATHER CLUTCH PAD
⑫	1	PM-BE1232	THRUST BEARING
⑬	1	PM-FASP30431	COMPRESSION SPRING (HEAVY DUTY)
⑭	1	MP-200-0229	CLUTCH SPRING KEEPER
⑮	1	MP-238-0205	REWIND SHAFT
⑯	1	PM-FASR1010	SNAP RING
⑰	8	PM-FAW30275	FLAT WASHER, 1/4 NOM.
⑱	1	PM-FASH430080	SHCS, 1/4-20 x 1" LG.



TITLE: 3600-PA POWERED UNWIND APPLICATOR

PART: REWIND MOTOR ASSEMBLY

Dept. Code 70

F:\Engineering\Standard Parts\Applicator\3600 238\ASS-238-0163RL

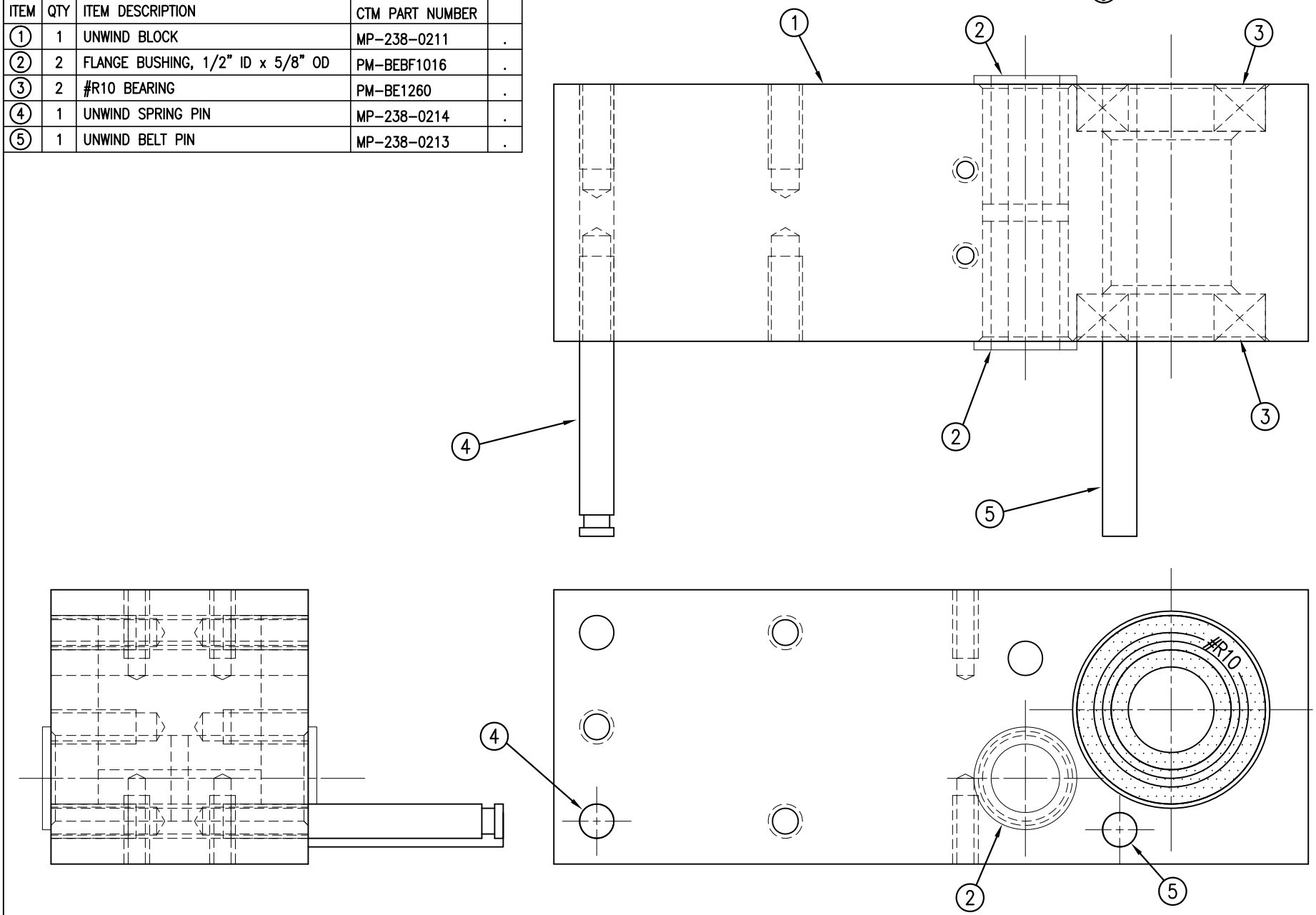
Scale: 1=1.5 | Date: 09-09-03 | DRAWN BY: DKM

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:
4	BILL OF MATERIALS CONDENSED & NOTE REMOVED	08/25/2014	ES

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0180R/L		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	UNWIND BLOCK	MP-238-0211	.
②	2	FLANGE BUSHING, 1/2" ID x 5/8" OD	PM-BEBF1016	.
③	2	#R10 BEARING	PM-BE1260	.
④	1	UNWIND SPRING PIN	MP-238-0214	.
⑤	1	UNWIND BELT PIN	MP-238-0213	.

RH & LH ASSEMBLIES AVAILABLE
RH ASSEMBLY SHOWN (REV 3)

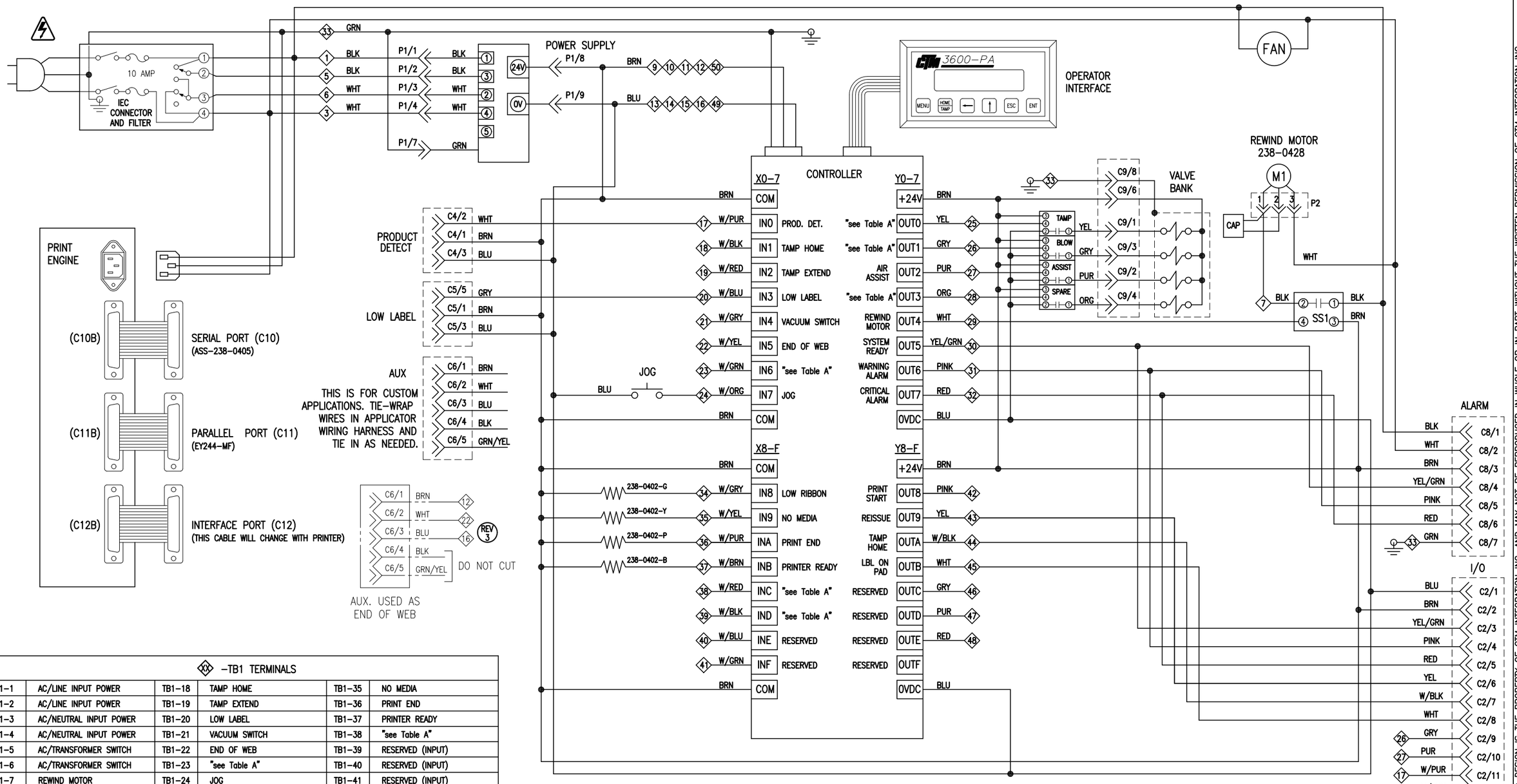
ASS-238-0180R/L



TITLE: 3600-PA SERIES APPLICATOR: UNWIND ASSEMBLY	PART: RH / LH UNWIND BLOCK ASSEMBLY	Dept. Code 70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\3600 238\ASS-238-0180RL
3	CHANGED NOTE to "RH" ASSEMBLY SHOWN	07/13/10	TDR	1=1	04/11/00	DKM	

ASS-238-0402



XX -TB1 TERMINALS

TB1-1	AC/LINE INPUT POWER	TB1-18	TAMP HOME	TB1-35	NO MEDIA
TB1-2	AC/LINE INPUT POWER	TB1-19	TAMP EXTEND	TB1-36	PRINT END
TB1-3	AC/NEUTRAL INPUT POWER	TB1-20	LOW LABEL	TB1-37	PRINTER READY
TB1-4	AC/NEUTRAL INPUT POWER	TB1-21	VACUUM SWITCH	TB1-38	"see Table A"
TB1-5	AC/TRANSFORMER SWITCH	TB1-22	END OF WEB	TB1-39	RESERVED (INPUT)
TB1-6	AC/TRANSFORMER SWITCH	TB1-23	"see Table A"	TB1-40	RESERVED (INPUT)
TB1-7	REWIND MOTOR	TB1-24	JOG	TB1-41	RESERVED (INPUT)
TB1-8		TB1-25	"see Table A"	TB1-42	PRINT START
TB1-9	24 VDC	TB1-26	"see Table A"	TB1-43	REPEAT
TB1-10	24 VDC	TB1-27	AIR ASSIST VALVE	TB1-44	TAMP HOME
TB1-11	24 VDC	TB1-28	"see Table A"	TB1-45	LABEL ON PAD
TB1-12	24 VDC	TB1-29	REWIND START	TB1-46	RESERVED (OUTPUT)
TB1-13	0 VDC	TB1-30	READY OUTPUT	TB1-47	RESERVED (OUTPUT)
TB1-14	0 VDC	TB1-31	WARNING ALARM	TB1-48	RESERVED (OUTPUT)
TB1-15	0 VDC	TB1-32	CRITICAL ALARM	TB1-49	0 VDC
TB1-16	0 VDC	TB1-33	GROUND	TB1-50	24 VDC
TB1-17	PRODUCT DETECT	TB1-34	LOW RIBBON		

TABLE A -TB1 OPTIONS

	STANDARD	HI/LO PRESSURE
TB1-23	INHIBIT	INHIBIT/EXTERNAL PRINT START
TB1-25	TAMP VALVE	HP TAMP VALVE
TB1-26	BLOW VALVE	VACUUM/BLOW VALVE
TB1-28	SPARE VALVE	LP TAMP VALVE
TB1-38	EXTERNAL PRINT START	SWING BACK

PART: HOUSING SCHEMATIC w/ ORIENTAL MOTOR FOR STD. & HI/LO PRESSURE

Dept. Code 70

F:\Engineering\Standard Parts\Applicator\3600 238\ASS-238-0402

Scale: 1=2 | Date: 05/22/06 | DRAWN BY: BOB S.

REV. BY: ES | REV. DATE 04/01/2011

TITLE: 3600-PA SERIES APPLICATOR: ELECTRICAL

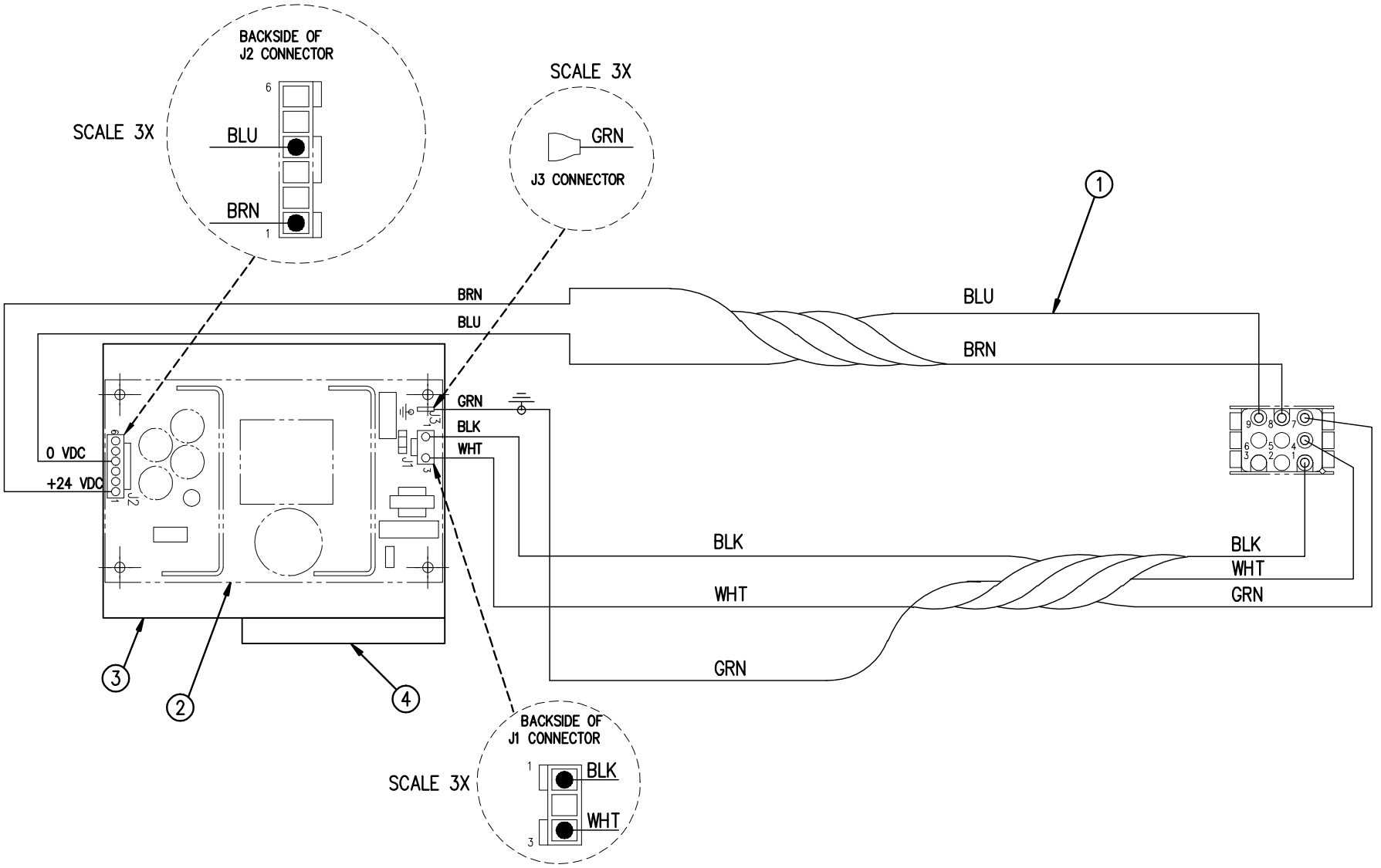
REV. 3 | REV. DESCRIPTION: ADDED END OF WEB CONNECTOR DIAGRAM

BILL OF MATERIAL

ASS-238-0415

ITEM	QTY	CTM PART NUMBER	DESCRIPTION
①	1	PE-238-0415	24 VDC POWER SUPPLY HARNESS
②	1	MP-PS1024	24 VDC POWER SUPPLY
③	1	MP-200A-0269	POWER SUPPLY MOUNTING PLATE
④	1	MP-200A-0270	POWER SUPPLY BACK PLATE

ASS-238-0415



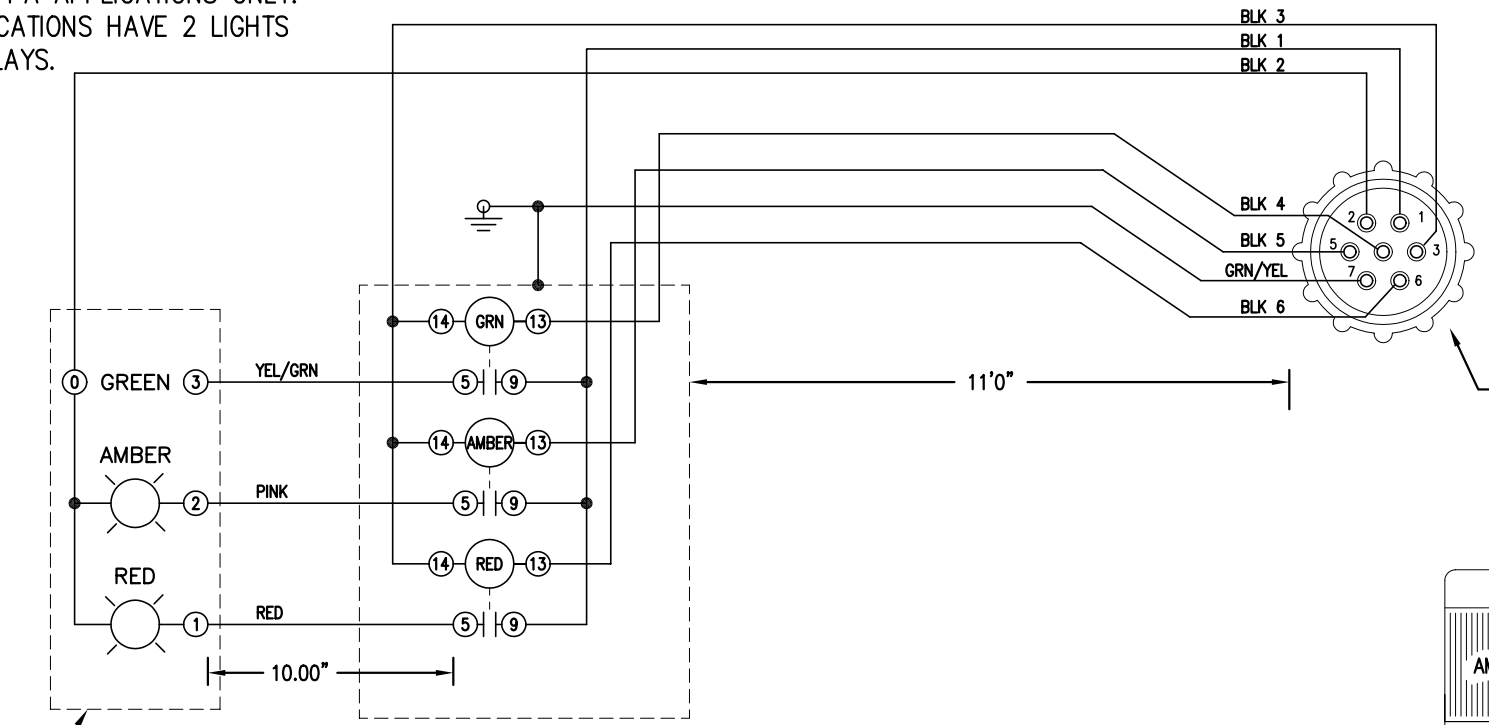
TITLE:	PART:	Dept. Code
3600 SERIES APPLICATOR: ELECTRICAL	24 VDC POWER SUPPLY/ WIRING DIAGRAM	70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\3600
				1=2	03/06/13	DLM	ASS-238-0415

ASS-238-0423

NOTE: GREEN LIGHT & RELAY SHOWN
FOR 3600-PA APPLICATIONS ONLY.
360 APPLICATIONS HAVE 2 LIGHTS
AND 2 RELAYS.

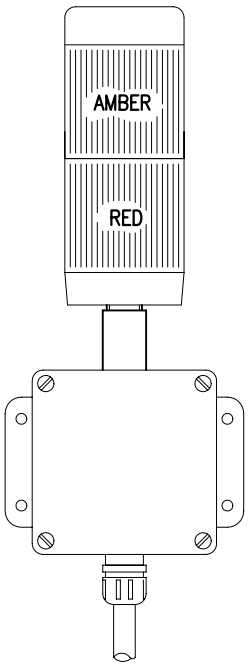
VIEW PRINT



PE-238-0423
(WIRING HARNESS)

PE-LI2001 (LIGHT STACK BASE)
PE-LI2058 (RED LIGHT)
PE-LI2059 (AMBER LIGHT)

PE-EN9000
(ENCLOSURE)



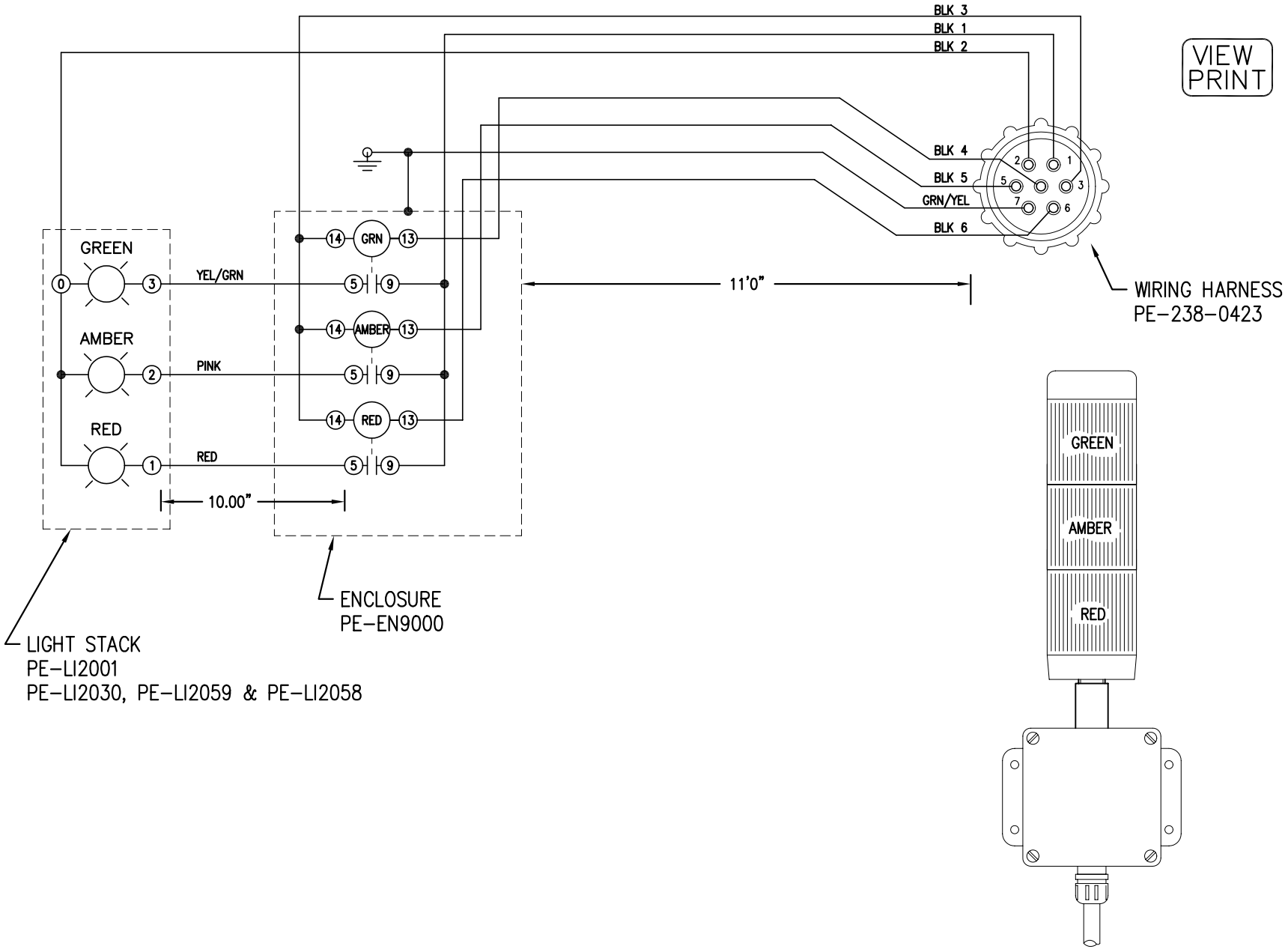
NOTE:
THIS CABLE IS USED IN 360 SERIES APPLICATIONS FOR SPLITTING OF THE ALARMS.
(PROGRAM VERSION 360-2c.10.0 OR HIGHER)
(CONFIGURATION MENU- SELECT CRITICAL TO D010)

REFERENCE DRAWINGS:
3600-PA SERIES: ASS-238-4105-XX

TITLE: 3600-PA/360a SERIES APPLICATOR: ELECTRICAL	PART: DOUBLE LIGHT STACK WIRING DIAGRAM	Dept. Code 70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\System Components:
2	REMOVED SPLITTING OF ALARMS ON SINGLE LT FOR 360	05/28/08	BMW	1=2	2/7/01	BOB S.	238\ASS-238-0423

ASS-238-0424



TITLE: 3600-PA/360a SERIES APPLICATOR: ELECTRICAL	PART: TRIPLE LIGHT STACK WIRING DIAGRAM	Dept. Code 70

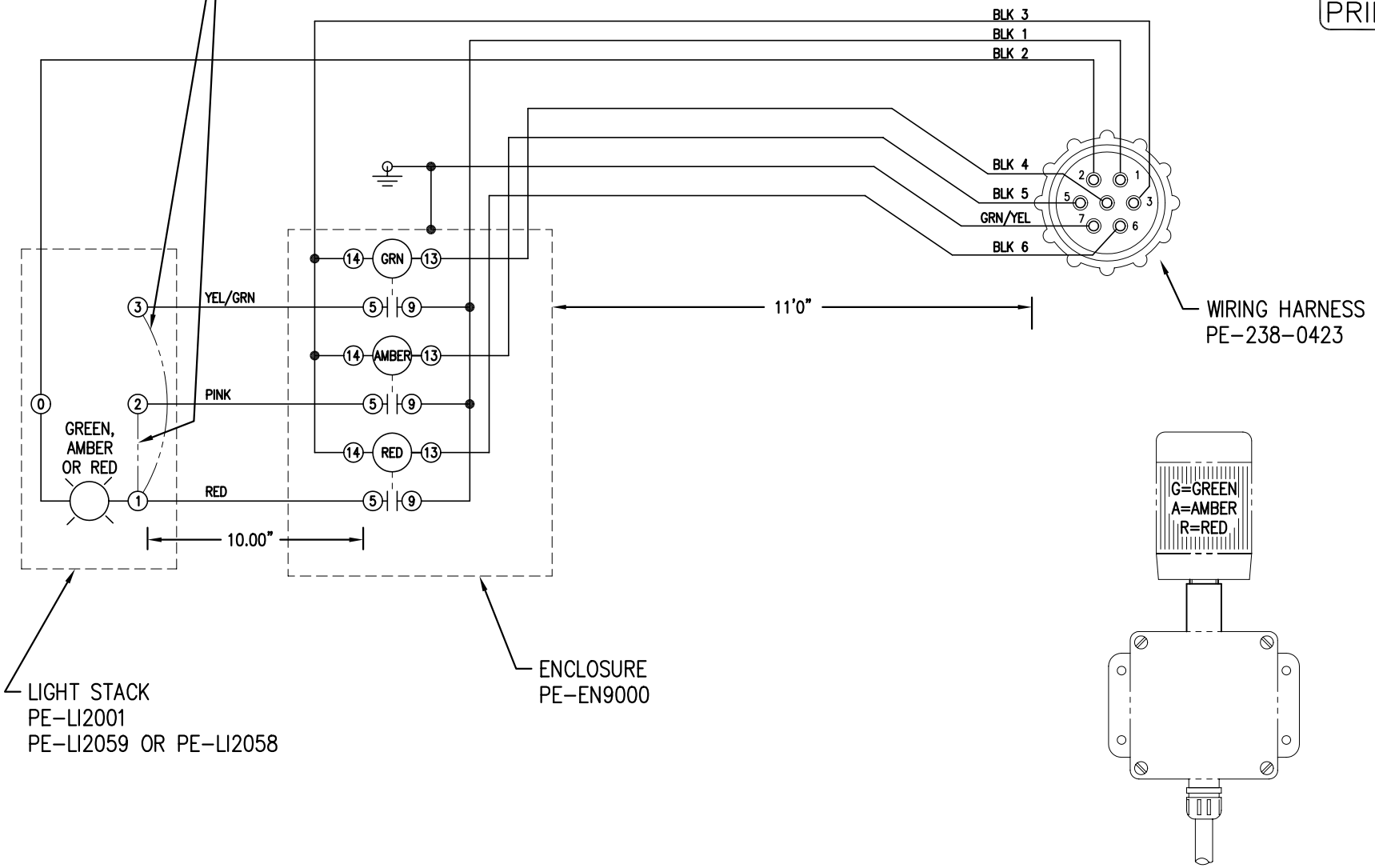
REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\System Components:
0	UPDATED TITLEBLOCK	12/4/03	JAM	1=2	2/7/01	BOB S.	238\ASS-238-0424

ASS-238-0426-X

RED	-0426-R
AMBER	-0426-A
GREEN	-0426-G

VIEW PRINT

RED – NO JUMPER NEEDED
AMBER – ADD JUMPER FROM TERMINALS 1 TO 2
GREEN – ADD JUMPER FROM TERMINALS 1 TO 3



TITLE:	PART:	Dept. Code
3600-PA/360a SERIES APPLICATOR: ELECTRICAL	SINGLE LIGHT STACK WIRING DIAGRAM FOR READY, WARNING, & CRITICAL SIGNALS	70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\System Components:
2	ADDED SINGLE GRN LT OPTION & REMOVED SPLITTING OF ALARMS ON SINGLE LT	05/20/08	BMW	1=2	3/19/01	BOB S.	238\ASS-238-0426-X

BILL OF MATERIAL			
ASS-238-0431-Q			
ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
①	1	PE-SE0980	BANNER SENSOR, PHOTO EYE TAMP RETURN
◯	1	PE-CA2080	WEB BREAK PLUG
◯	1	MP-CON1025A	AUX. CONNECTOR HARNESS

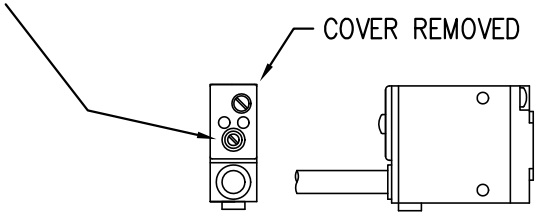
BILL OF MATERIAL			
ASS-238-0431-T			
ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
◯	1	PE-CO2019	GROMMET
①	1	PE-SE0980	BANNER SENSOR, PHOTO EYE TAMP RETURN

ASS-238-0431-X

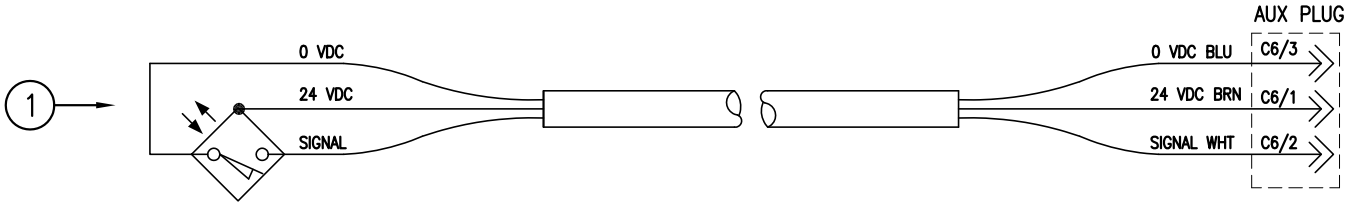
QUICK DISCONNECT -Q

DIRECT TO TERMINAL STRIP -T

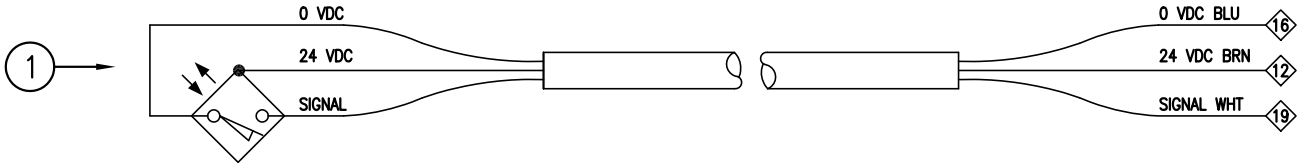
(REV 2) NOTE: TURN WHITE POTENTIOMETER ON SENSOR FULLY CW TO OPERATE PROPERLY



ASS-238-0431-Q: TO USE THIS, ITEM 2 MUST BE INSTALLED (MP-CON1025A) IN THE CONNECTOR FACEPLATE AND PROPERLY WIRED TO THE TERMINAL STRIP. REFER TO THE HOUSING SCHEMATIC ASS-238CE-0401 FOR AUX PORT WIRING INFO.



ASS-238-0431-T: THE SENSOR CABLE WILL ENTER THE HOUSING THROUGH ONE OF THE (4) ACCESS HOLES. USE PE-CO2019 GROMMET IN HOLE.



TITLE: 3600-PA SERIES APPLICATOR: ELECTRICAL	PART: TAMP RETURN SENSOR (PHOTO-ELECTRIC) WIRING	Dept. Code 70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\3600
2	ADDED OPERATION NOTE	08/17/2011	ES	1=2	07/11/01	BOB S.	238\ASS-238-0431-X

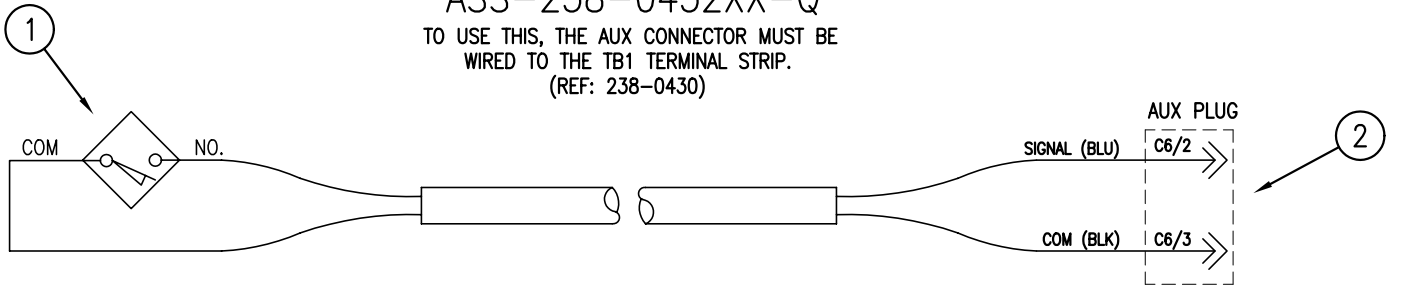
BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0432XX-Q		.
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	LIMIT SWITCH with PIN PLUNGER	PE-SW1100	.
	1	LIMIT SWITCH with ROLLER PLUNGER	PE-SW1105	.
	1	LIMIT SWITCH with ROLLER LEVER	PE-SW1110	.
②	1	WEB BREAK PLUG	PE-CA2080	.

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0432XX-T		.
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	LIMIT SWITCH with PIN PLUNGER	PE-SW1100	.
	1	LIMIT SWITCH with ROLLER PLUNGER	PE-SW1105	.
	1	LIMIT SWITCH with ROLLER LEVER	PE-SW1110	.
2	1	GROMMET	PE-C02019	.
③	1	22 AWG BLUE WIRE x 24" Lg.	PE-W1036	.
④	1	22 AWG BLACK WIRE x 24" Lg.	PE-W1032	.

ASS-238-0432XX-X	
QUICK DISCONNECT PIN PLUNGER	-0432-PP-Q
QUICK DISCONNECT ROLLER PLUNGER	-0432-RP-Q
QUICK DISCONNECT ROLLER LEVER	-0432-RL-Q
DIRECT TO TERMINAL STRIP PIN PLUNGER	-0432-PP-T
DIRECT TO TERMINAL STRIP ROLLER PLUNGER	-0432-RP-T
DIRECT TO TERMINAL STRIP ROLLER LEVER	-0432-RL-T

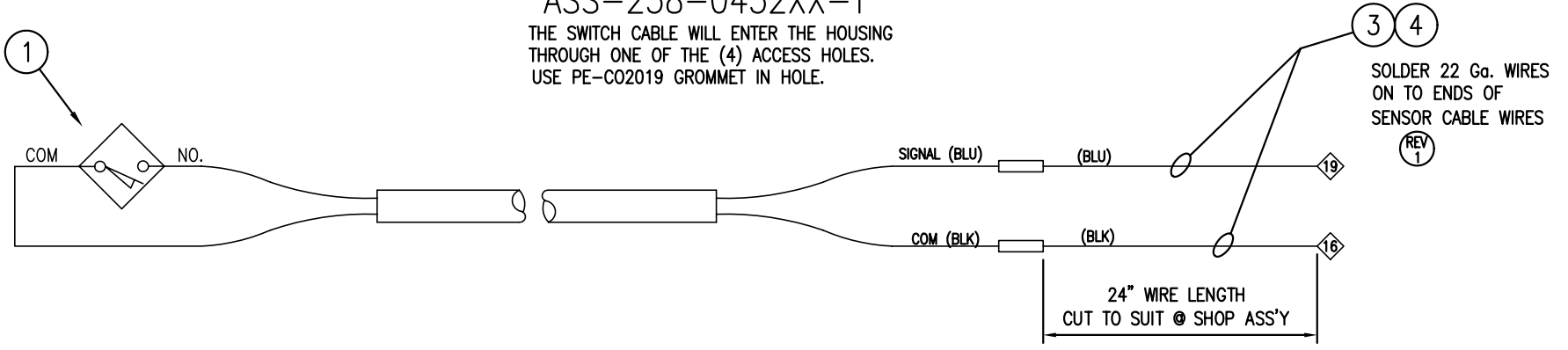
ASS-238-0432XX-Q

TO USE THIS, THE AUX CONNECTOR MUST BE WIRED TO THE TB1 TERMINAL STRIP. (REF: 238-0430)



ASS-238-0432XX-T

THE SWITCH CABLE WILL ENTER THE HOUSING THROUGH ONE OF THE (4) ACCESS HOLES. USE PE-C02019 GROMMET IN HOLE.



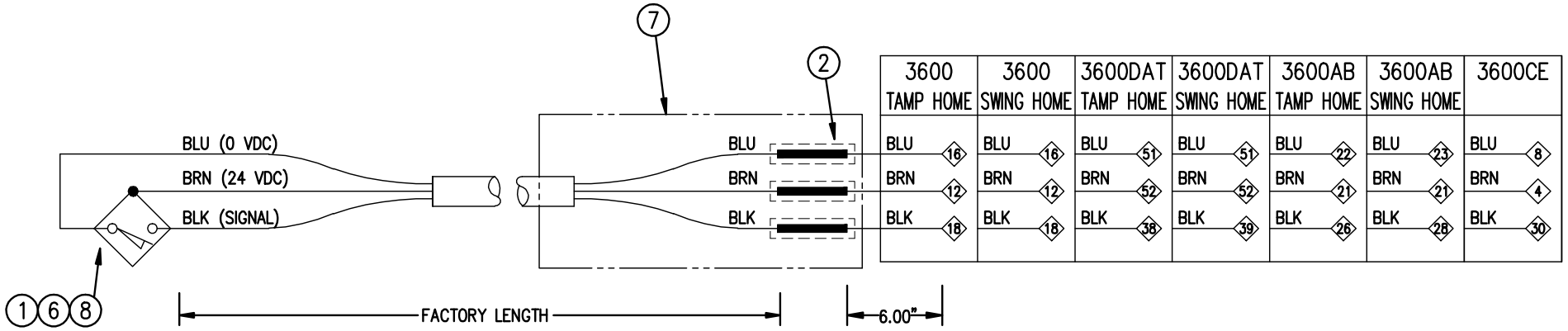
TITLE: 3600-PA SERIES APPLICATOR: ELECTRICAL	PART: TAMP RETURN SENSOR (MECHANICAL) WIRING	Dept. Code 70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\3600
2	FIXED TYPO	08/31/06	TDR	1=2	07/11/01	BOB S.	238\ASS-238-0432XX-X

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0433		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	HOME PROX	PE-SE1035	S
②	3	1/8" ø SHRINK TUBE x 3/4" LONG	PE-ST1005	.
③	1	22 AWG (BROWN) WIRE x 6" LONG	PE-W1037	.
④	1	22 AWG (BLACK) WIRE x 6" LONG	PE-W1032	.
⑤	1	22 AWG (BLUE) WIRE x 6" LONG	PE-W1036	.
⑥	1	GROMMET	PE-C02019	.
⑦	1	3/16" DIA. x 2" Lg. SHRINK TUBE	PE-ST1010	.

ASS-238-0433-X

SENSOR ONLY	-0433
SENSOR w/MTG. BKT. FOR 3/4" CYL.	-0433-A
SENSOR w/MTG. BKT. FOR 1" CYL.	-0433-B
SENSOR w/MTG. BKT. FOR 1 1/8" CYL.	-0433-C
SENSOR w/MTG. BKT. FOR 1 3/8" CYL.	-0433-D



3600 TAMP HOME	3600 SWING HOME	3600DAT TAMP HOME	3600DAT SWING HOME	3600AB TAMP HOME	3600AB SWING HOME	3600CE
BLU 16	BLU 16	BLU 51	BLU 51	BLU 22	BLU 23	BLU 8
BRN 12	BRN 12	BRN 52	BRN 52	BRN 21	BRN 21	BRN 4
BLK 18	BLK 18	BLK 38	BLK 39	BLK 26	BLK 28	BLK 30

NOTE: LENGTHS FOR DAT 3600 TO BE DETERMINED AT ASSEMBLY

ASS-238-0433: THE SENSOR CABLE WILL ENTER THE HOUSING THROUGH ONE OF THE (3) ACCESS HOLES. USE PE-C02019 GROMMET IN HOLE.

BILL OF MATERIAL				SOLD	
ASSEMBLY		ASS-238-0433-A, -B, -C, -D		S	
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER		
	1	SENSOR	ASS-238-0433	S	
⑧	1	MOUNTING BRACKET (FOR 3/4" CYL.)	PE-SE1036	.	-A
	1	MOUNTING BRACKET (FOR 1" CYL.)	PE-SE1037	.	-B
	1	MOUNTING BRACKET (FOR 1 1/8" CYL.)	PE-SE1038	.	-C
	1	MOUNTING BRACKET (FOR 1 3/8" CYL.)	PE-AC1482	.	-D

WIRE PREPARATION NOTES:

1) STRIP EACH OF THE THREE WIRES BACK 3/8".
2) SOLDER WIRE EXTENSIONS TO THE CABLE WIRES, MATCHING WIRE EXTENSION COLOR WITH SAME COLOR CABLE WIRE.
3) APPLY ONE PIECE OF 1/8"ø x 3/4" LONG SHRINK TUBE OVER TOP OF EACH OF THE SOLDERED CONNECTIONS AS SHOWN.
4) APPLY ONE PIECE OF 3/16"ø x 2" LONG SHRINK TUBE OVER TOP OF 3 WIRES ABOVE.

TITLE: 3600-PA SERIES APPLICATOR: ELECTRICAL	PART: TAMP/SWING HOME SENSOR (CYLINDER MOUNT)	Dept. Code 70

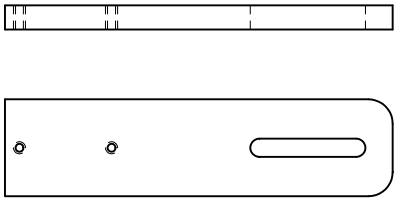
REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\3600
4	ADDED TABULATION FOR CE, AB, AND SWING TAMP	6/11/15	JWS		12-18-03	DKM	238\ASS-238-0433-X

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0455-B		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	LOW LABEL SENSOR w/ CABLE	PE-SE1009	.
②	1	LOW LABEL PLUG	PE-CA2010	.
③	1	LOW LABEL SENSOR MTG. BLOCK	MP-238-0209	.
	2	BHCS, #4-40 x 5/8" LG.	.	.

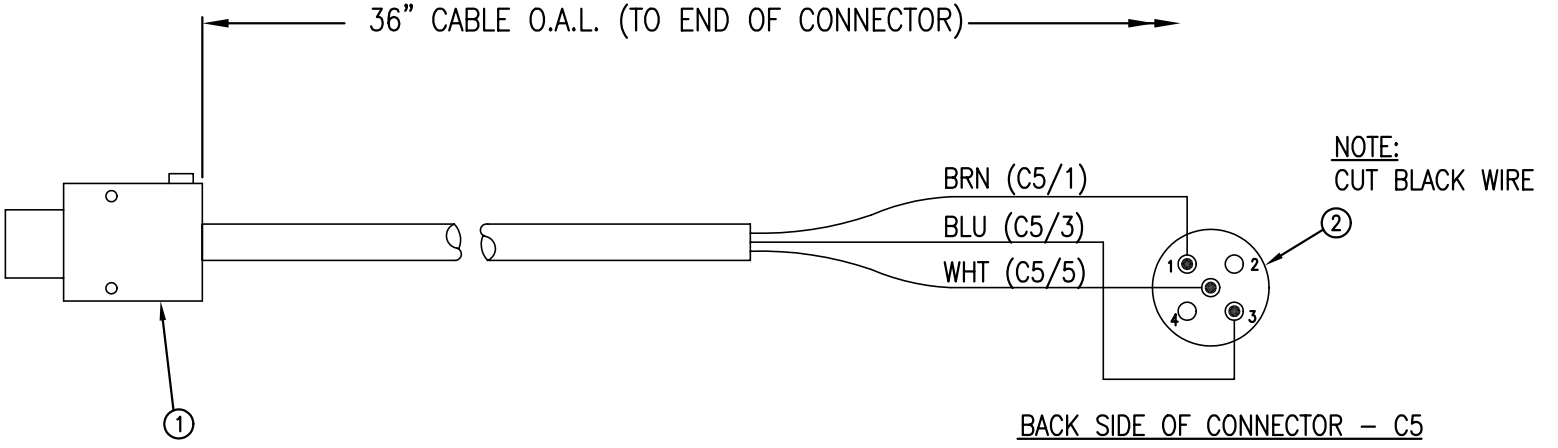
ASS-238-0455-B

USE ASSEMBLY ASS-200-0422
FOR SENSOR w/o BRACKET

SENSOR INFORMATION	
MODE	CONVERGENT
SENSING RANGE (FOCUS)	16mm ±1.3mm (0.65" ±0.05")
CABLE LENGTH (FACTORY)	2m (6.5 ft)



③ MOUNTING BRACKET



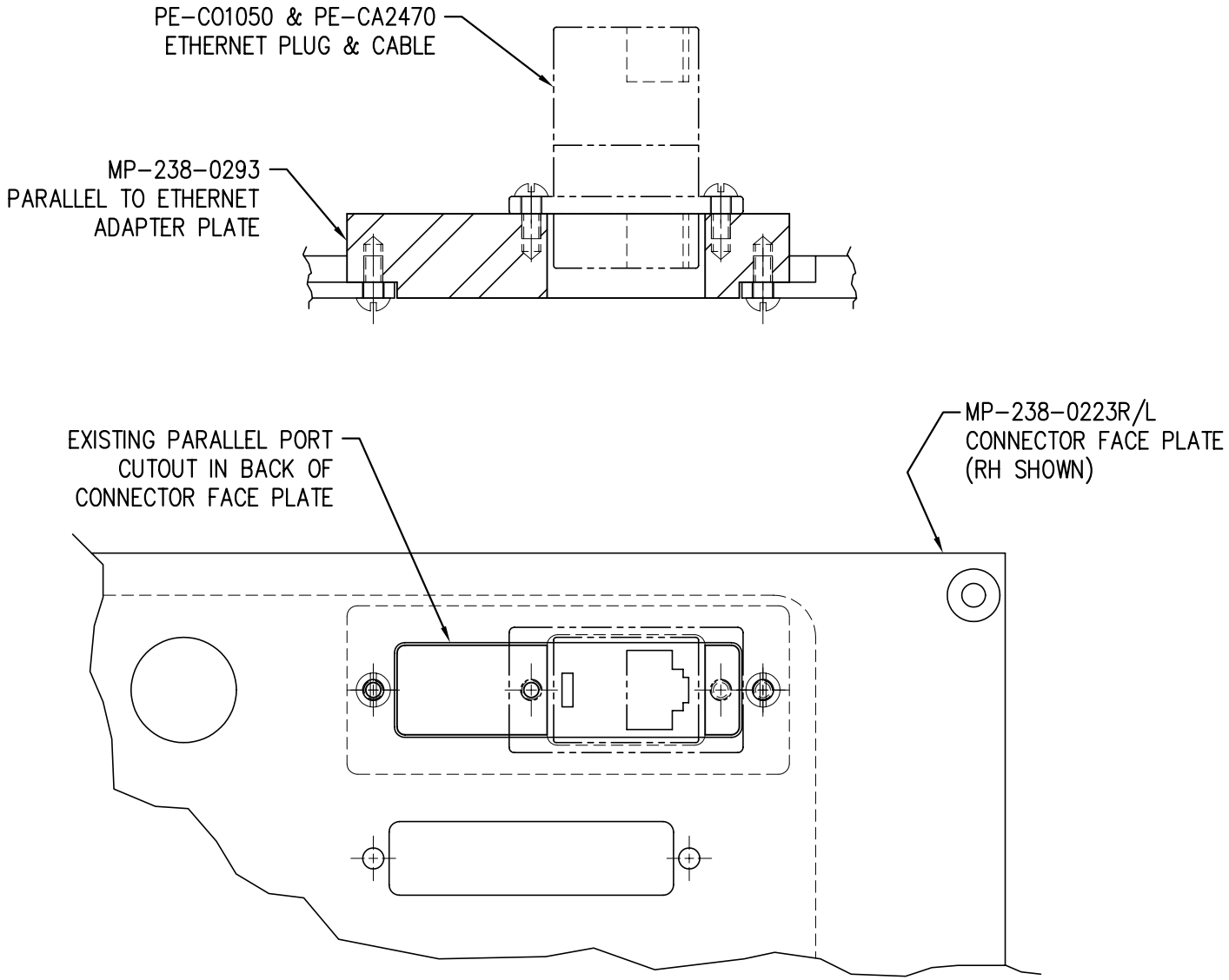
BACK SIDE OF CONNECTOR – C5
–LOW LABEL PORT @ APPLICATOR HOUSING–

NOTE: TURN "WHITE" POTENTIOMETER
FULLY CCW FOR DARK TO OPERATE

TITLE: 3600-PA SERIES APPLICATOR: ELECTRICAL	PART: LOW LABEL SENSOR & MOUNTING BRACKET	Dept. Code 70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\3600 238\ASS-238-0455-B
0	NEW RELEASE	01/21/04	TDR	1=2	01/21/04	TDR	

ASS-238-0460



REAR VIEW OF 3600 PA

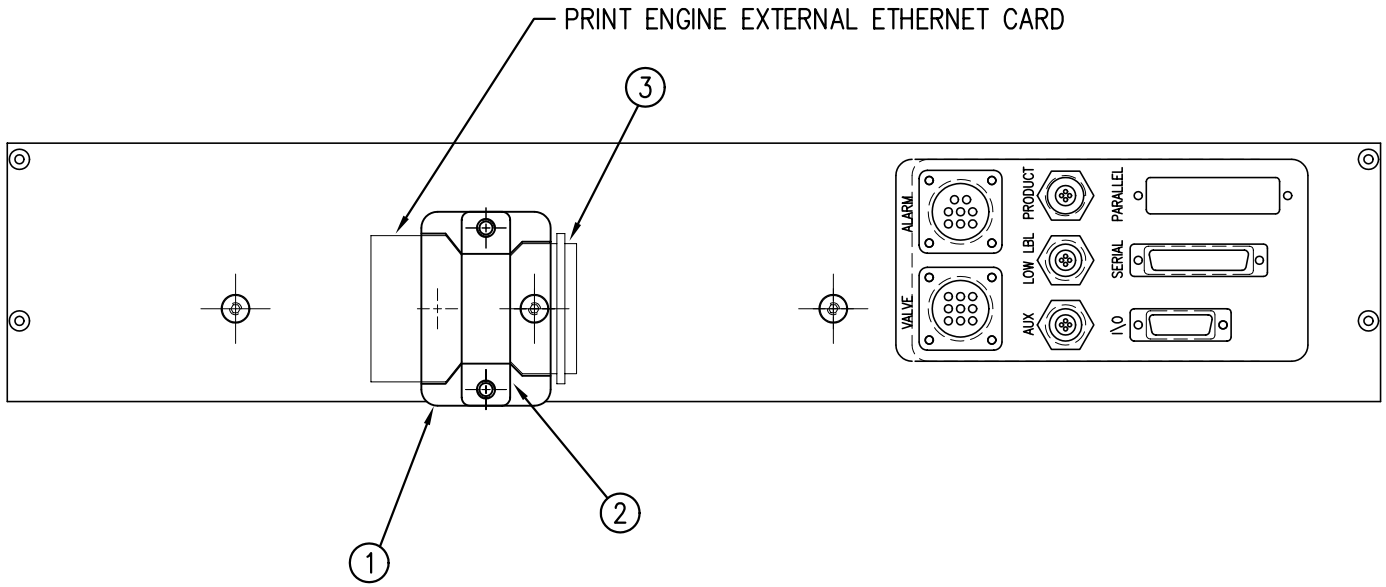
TITLE: 3600 SERIES APPLICATOR: ELECTRICAL	PART: PARALLEL TO ETHERNET ADAPTER ASS'Y	Dept. Code 70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\3600 238\ASS-238-0460
0	NEW DRAWING	10-3-03	TK	1=1	10-3-03	T. KELLY	

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0461		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
1	1	EXTERNAL ETHERNET CARD MTG. PLATE	MP-238-0370	.
2	1	EXTERNAL ETHERNET CLAMP PLATE	MP-238-0371	.
3	1	DEXT36MF C36 M/F EXTENSION	PE-CA2220	.

ASS-238-0461

NOTE:
ELECTIC SHELF FACEPLATE MTG. SHOWN.
ALTERNATE MTG WITHIN REACH OF CABLE



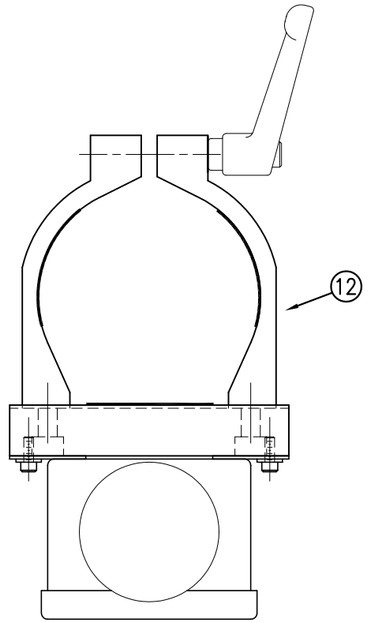
TITLE: 3600 SERIES APPLICATOR: ELECTRICAL	PART: EXTERNAL ETHERNET ASSEMBLY	Dept. Code 70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\3600 238\ASS-238-0461
0	NEW RELEASE	07/13/04	TDR	1=3	04/18/04	J. Greeneisen	

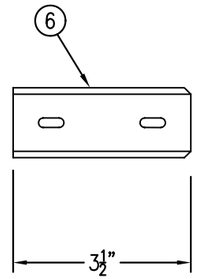
BILL OF MATERIAL

ASSEMBLY		ASS-238-4105-XX		SOLD S	
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER		
①	1	LABELER TO LIGHT STACK CABLE	PE-238-0423	.	
②	1	ALARM LIGHT ENCLOSURE ASS'Y.	ASS-200-4221	.	
③	1	LIGHT STACK BASE	PE-LI2001	.	
④	1	RELAY	PE-RE1001	.	FOR SINGLE STACK
	2	RELAY	PE-RE1001	.	FOR DOUBLE STACK
	3	RELAY	PE-RE1001	.	FOR TRIPLE STACK
⑤	3	RELAY SOCKET	PE-RE1050	.	
⑥	1	DIN RAIL	CP-200-0289	.	
⑦	1	1/2 FITTING SEAL	PE-COND1150	.	
⑧	1	CORD GRIP	PE-CO2005	.	
⑨	1	1/2" CLOSED NIPPLE	PE-COND1167	.	
⑩	2	1/2" LOCKNUT	PE-COND1005	.	
⑪	1	GREEN LIGHT	PE-LI2030	.	CHOOSE LIGHT COLOR/ COMBINATION
	1	RED LIGHT	PE-LI2058	.	
	1	AMBER LIGHT	PE-LI2059	.	
	1	DOUBLE LIGHT (AMBER & RED)	PE-LI2059	.	
			PE-LI2058	.	
	1	TRIPLE LIGHT (GREEN, AMBER, & RED)	PE-LI2030	.	
			PE-LI2059	.	
			PE-LI2058	.	
⑫	1	ALARM LIGHT MOUNTING ASSEMBLY	ASS-200-4106	.	ASSY w/MTG. BRACKET
	1	22 AWG WHT/RED WIRE x 10" Lg. STRIP B.E.	PE-W104101B	.	

FOR WIRING
SINGLE LIGHT STACK – USE ASS-238-0426-X
DOUBLE LIGHT STACK – USE ASS-238-0423
TRIPLE LIGHT STACK – USE ASS-238-0424

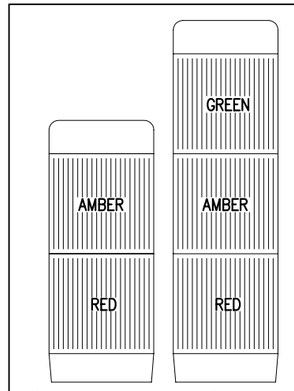


NOTE: (REQUIRES CUSTOM ORDER) DOUBLE LIGHT STACK CAN BE USED ON 360 SERIES TO SPLIT WARNING & CRITICAL ALARMS. USE ASS-238-0423 FOR WIRING INFO.

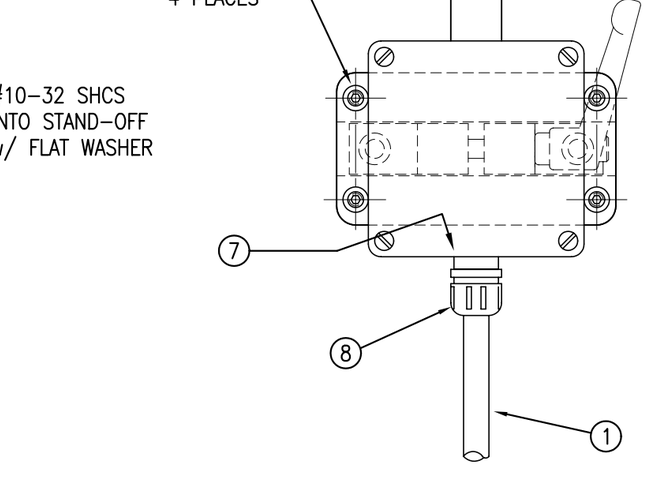


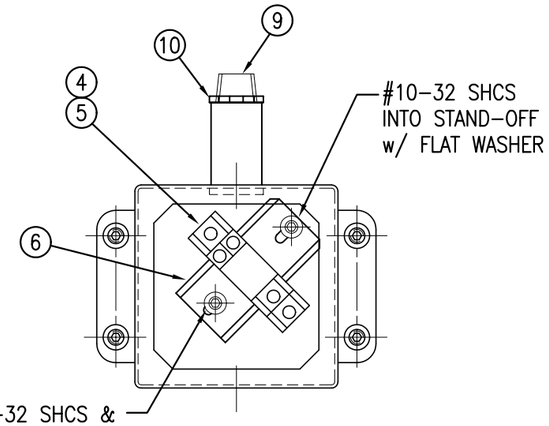
DIN RAIL DETAIL

ASS-238-4105-XX	
GREEN LIGHT	-4105-G
GREEN LIGHT w/BRACKET	-4105-GB
RED LIGHT	-4105-R
RED LIGHT w/BRACKET	-4105-RB
AMBER LIGHT	-4105-A
AMBER LIGHT w/BRACKET	-4105-AB
DOUBLE LIGHT	-4105-D
DOUBLE LIGHT w/BRACKET	-4105-DB
TRIPLE LIGHT	-4105-T
TRIPLE LIGHT w/BRACKET	-4105-TB

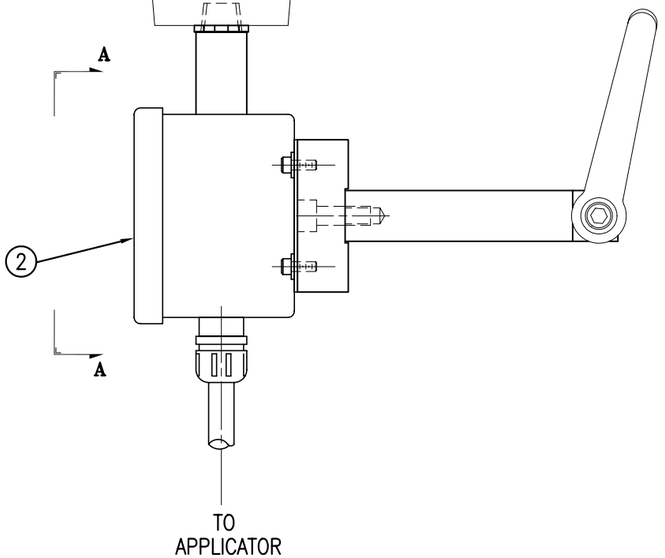


CONFIGURATION FOR DOUBLE AND TRIPLE LIGHT STACKS – NOT DRAWN TO SCALE.





END VIEW "A"
(WITH COVER REMOVED)



TO APPLICATOR

TITLE: 3600-PA/360a SERIES: HOUSING

PART: ALARM LIGHT STACK ENCLOSURE ASSEMBLY

Dept. Code 70

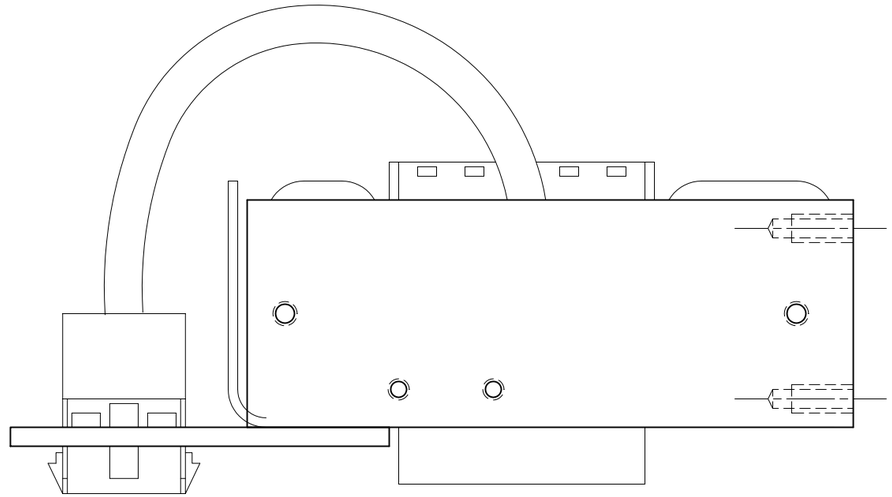
Scale: 1=3 | Date: 12/3/03 | DRAWN BY: JENNIFER MCBRIDE | REV. BY: TDR

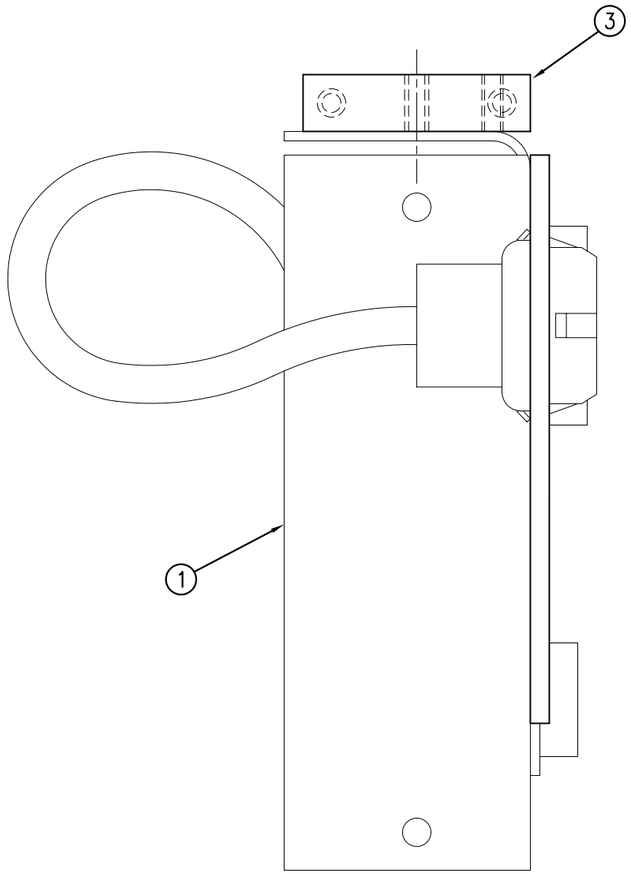
F:\Engineering\Standard Parts\Applicator\360 238\ASS-238-4105-XX

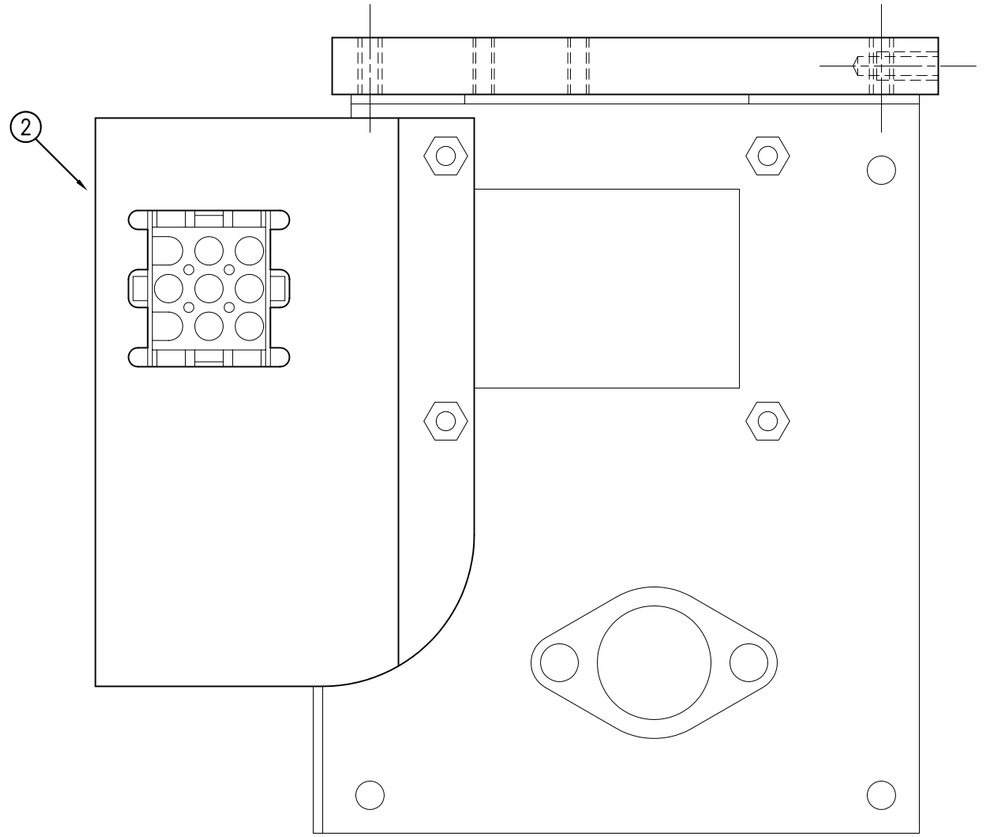
REV.	REV. DESCRIPTION	REV. DATE
2	ADDED SINGLE GRN LT OPTION & REMOVED SPLITTING OF ALARMS ON SINGLE LT	05/20/08

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0128R/L		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	POWER SUPPLY ASSEMBLY	ASS-238-0413	.
②	1	CONNECTOR MOUNT	MP-238-0237	.
③	1	POWER SUPPLY MOUNT	MP-200-0269	.
	1	8 RED RING CONNECTOR	PE-WC1004	.

ASS-238-0128R/L







TITLE: 3600 SERIES PRINTER APPLICATOR

PART: 24 VDC POWER SUPPLY ASSEMBLY DETAIL

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:
1	REMOVED CAPACITOR AND CREATED SHELF ASS'Y. DWG.	02/05/04	JAM

Scale:	Date:	DRAWN BY:
1=1	10/6/00	BOB S.

Dept. Code 70

F:\Engineering\Standard Parts\System Components: 238\ASS-238-0128RL

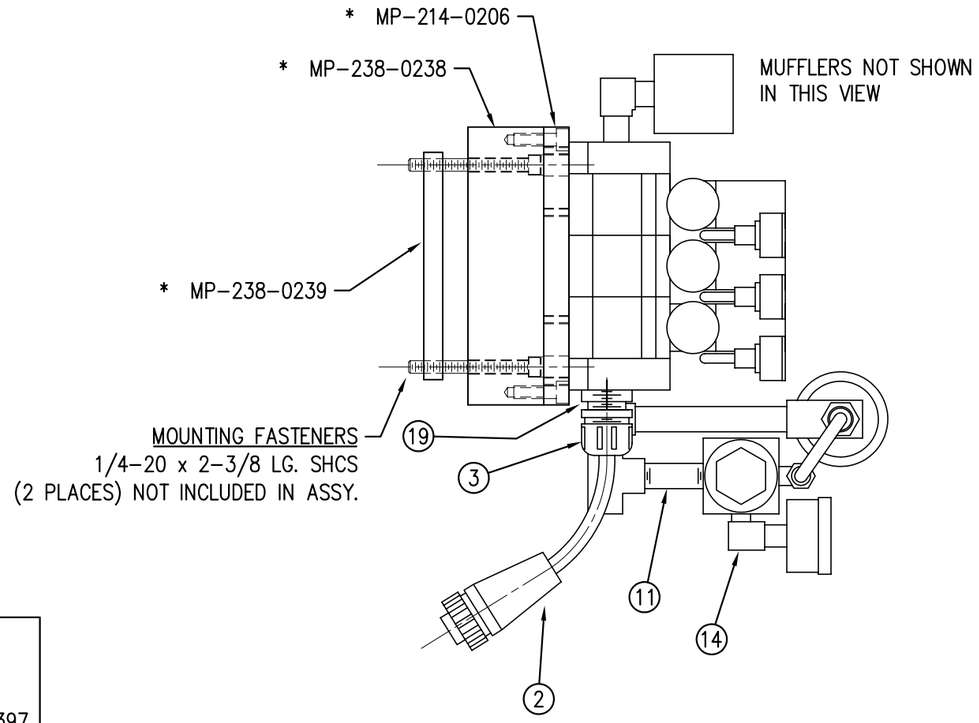
ASS-238-0129

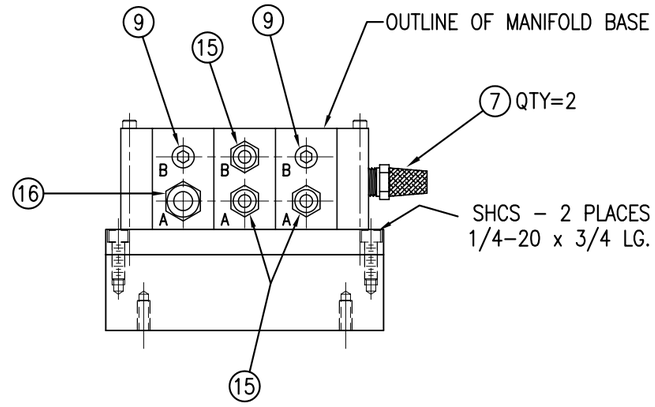
BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0129		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	VALVE BANK	PM-VA2355	.
②	1	VALVE CABLE	ASS-200-0405	.
③	1	CORD GRIP	PE-CO2000	.
④	1	REGULATOR/GAUGE	PM-REG1500	.
⑤	1	VACUUM PUMP	PM-PUMP1000	.
⑥	1	EXHAUST MUFFLER	PM-MU1021	.
⑦	2	1/4" BRONZE EXHAUST MUFFLER	PM-MU1025	.
⑧	1	3/4" NPT PLUG	PM-EN9110	.
⑨	4	1/4" NPT PLUG	PM-FT1200	.
⑩	1	1/4" x 3-1/2" LG. NIPPLE	PM-PF1141	.
⑪	2	1/4" x 1-1/2" LG. NIPPLE	PM-PF1143	.
⑫	1	1/4" TEE	PM-PF1200	.
⑬	1	1/4" STREET ELBOW	PM-PF1185	.
⑭	1	1/8" STREET ELBOW	PM-PF1180	.
⑮	3	FITTING, 1/4" TUBE w/ 1/4" NPT STRT	PM-PF1010	.
⑯	1	FITTING, 3/8" TUBE w/ 1/4" NPT STRT	PM-PF1020	.
⑰	1	FITTING, 1/4" TUBE w/ 1/8" NPT STRT	PM-PF1005	.
⑱	1	FITTING, 1/4" TUBE w/1/4" NPT ELBOW	PM-PF1055	.
⑲	1	BUSHING, NPT 3/4" MALE to 1/2" FEMALE	PE-COND1080	.
⑳	1	1/4" O.D. POLYURETHANE TUBING (CUT TO 7" LENGTH)	PM-PT1070	.
㉑	1	AIR FILTER	ASS-214-0106	.

VALVE BANK SPARE PARTS:

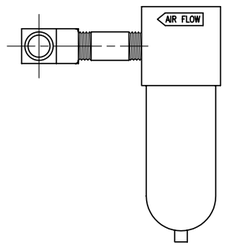
SOLENOID: #PM-VA2395
AIR ASSIST REGULATOR: #PM-VA2396
BLOW/TAMP/ROTARY ACTUATOR REGULATORS: #PM-VA2397

* MOUNTING PLATES NOT INCLUDED IN ASSEMBLY

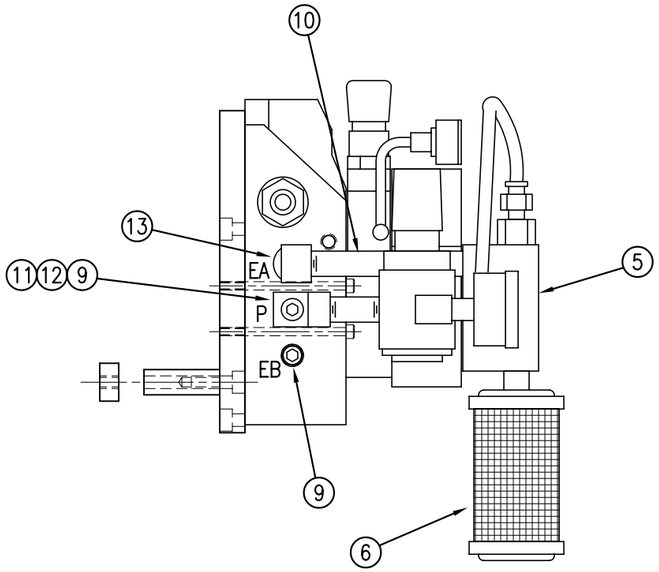


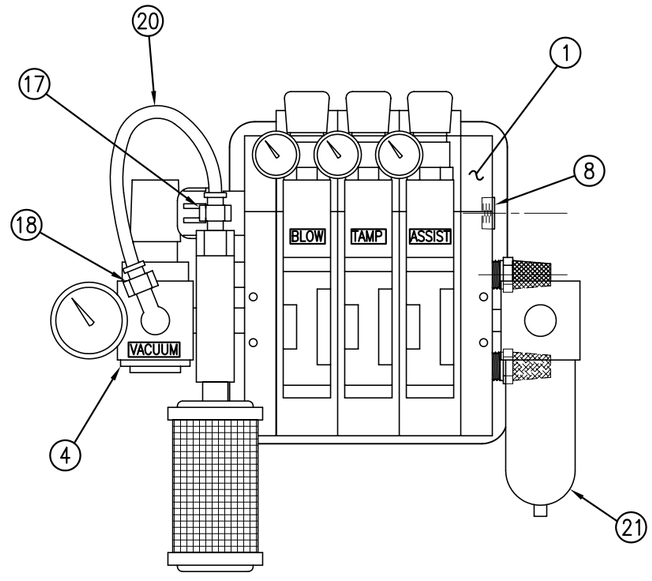


END VIEW "A"
(VALVE BANK & MTG. ONLY)



㉑ AIR FILTER





TITLE: 3600-PA SERIES APPLICATOR: TAMP ASSEMBLY

PART: VALVE BANK

Dept. Code 70

F:\Engineering\Standard Parts\Applicator\3600 238\ASS-238-0129

DRAWN BY: BOB S.

Date: 02/03/01

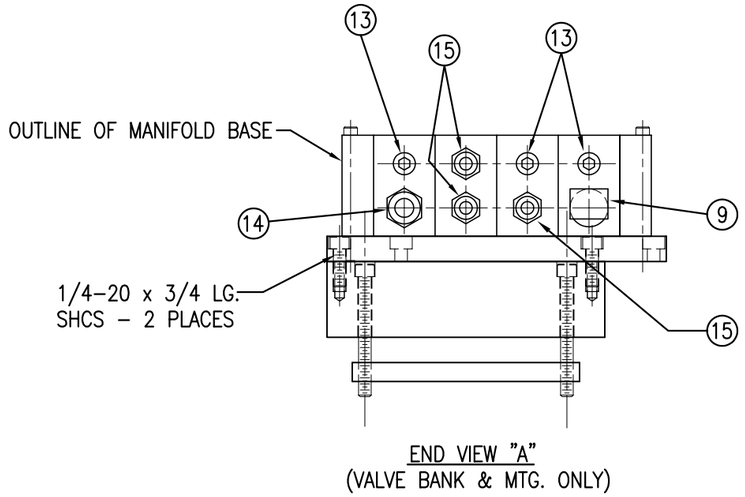
Scale: 1=3

REV. BY: TDR

REV. DATE 02/16/05

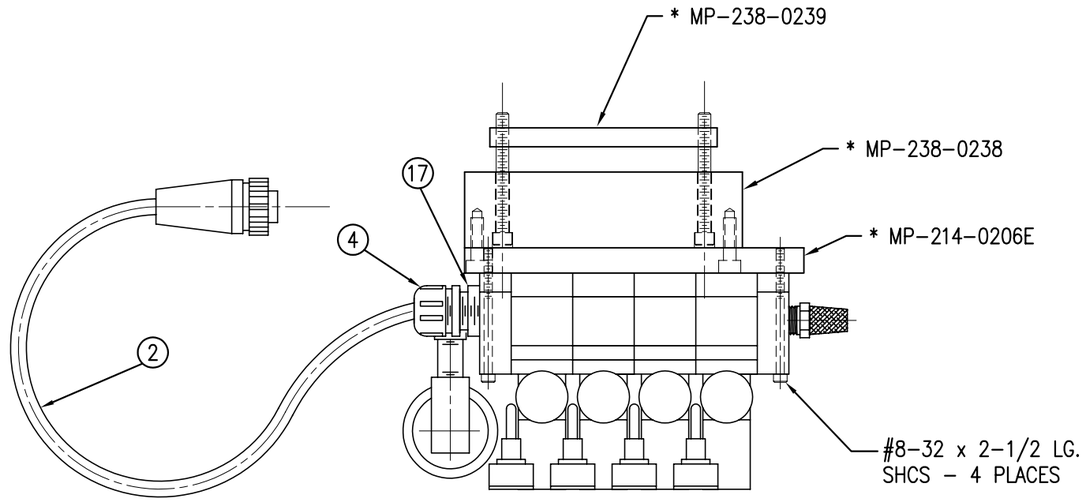
REV.	REV. DESCRIPTION
1	ADDED SPARE PARTS NOTE

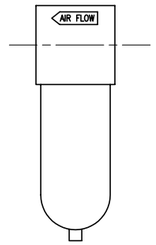
ASS-238-0130



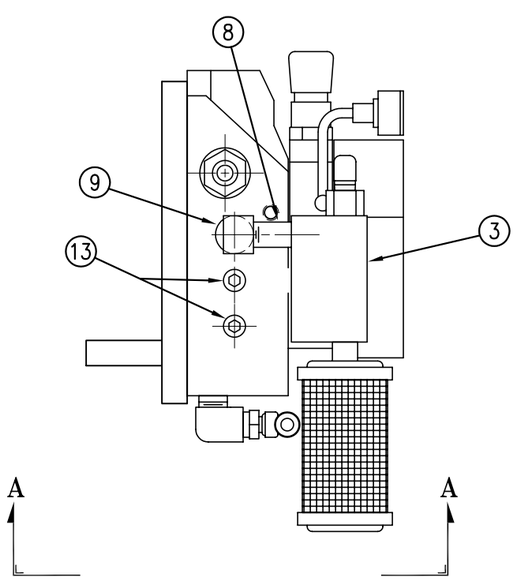
END VIEW "A"
(VALVE BANK & MTG. ONLY)

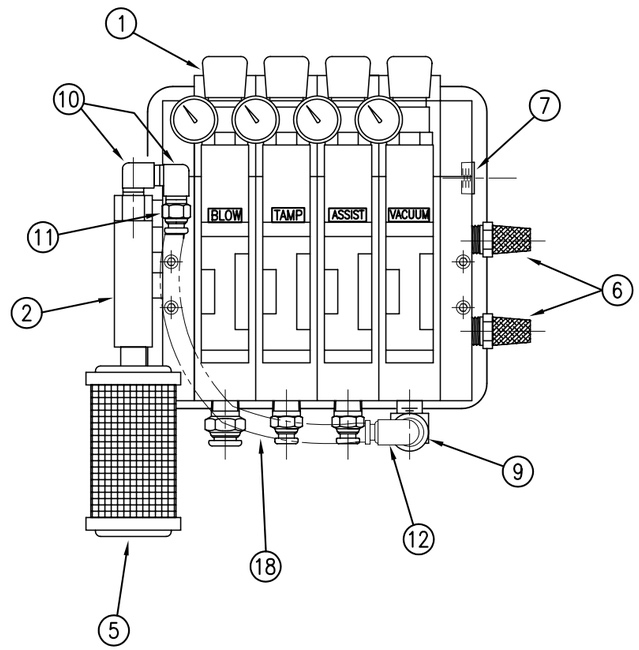
* MOUNTING PLATES NOT INCLUDED IN ASSEMBLY





⑯ AIR FILTER





BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0130		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	VALVE BANK	PM-VA2361	.
②	1	VALVE CABLE	PE-200-0405	.
③	1	VACUUM PUMP	PM-PUMP1000	.
④	1	CORD GRIP	PE-CO2000	.
⑤	1	EXHAUST MUFFLER	PM-MU1021	.
⑥	2	1/4" BRONZE EXHAUST MUFFLER	PM-MU1025	.
⑦	1	3/4" NPT PLUG	PE-EN9110	.
⑧	1	1/4" NPT BRASS NIPPLE w/ 9/16 HEX	PM-PF1153	. (REV 2)
⑨	2	1/4" STREET ELBOW	PM-PF1185	.
⑩	2	1/8" STREET ELBOW	PM-PF1180	.
⑪	1	FITTING, 3/8" TUBE w/ 1/8" NPT STRT	PM-PF1015	.
⑫	1	FITTING, 3/8" TUBE w/ 1/4" NPT 90° SWVL	PM-PF1045	.
⑬	5	1/4" NPT PLUG	PM-FT1200	.
⑭	1	FITTING, 3/8" TUBE w/ 1/4" NPT STRT	PM-PF1020	.
⑮	3	FITTING, 1/4" TUBE w/ 1/4" NPT STRT	PM-PF1010	.
⑯	1	AIR FILTER	PM-FIL1010	.
⑰	1	BUSHING, NPT 3/4" MALE to 1/2" FEMALE	PE-COND1080	.
⑱	1	3/8" O.D. POLYURETHANE TUBING (CUT TO 8.25" LENGTH)	PM-PT1080	.
19	2	1/4"-20 UNC x 7/8" LG. SHCS	NONE	.

VALVE BANK SPARE PARTS:

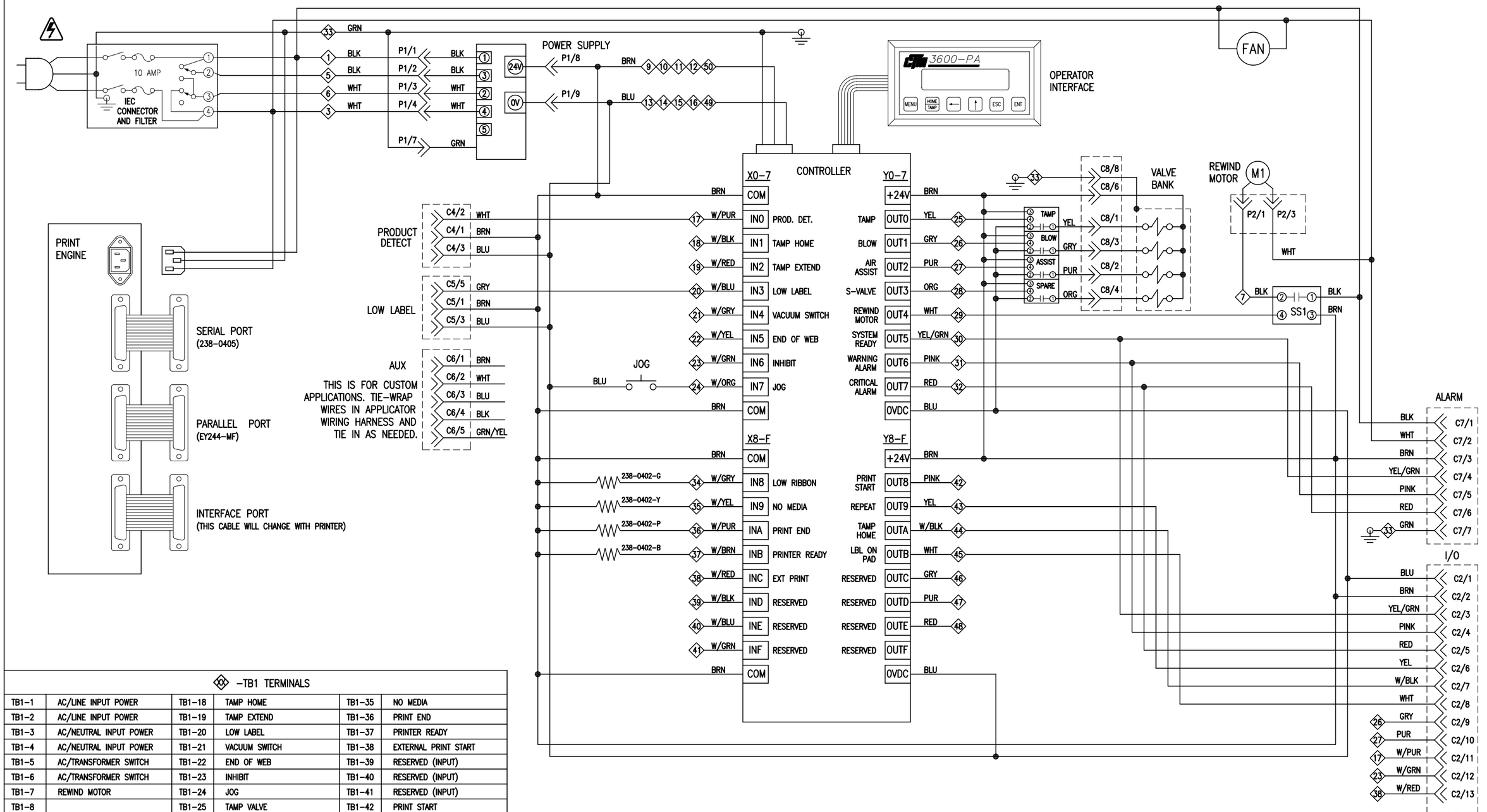
SOLENOID: #PM-VA2395
AIR ASSIST REGULATOR: #PM-VA2396
BLOW/TAMP/IMPRINTER REGULATORS: #PM-VA2397

TITLE: 3600 SERIES APPLICATOR: TAMP ASSEMBLY
PART: TAMP: VALVE BANK ASSEMBLY w/ VACUUM OFF OPTION

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\360
3	DWG. No. WAS ASS-214-0111	03/27/06	TDR	1=3	10/15/01	BOB S.	238\ASS-238-0130

Dept. Code 70

ASS-238-0401



-TB1 TERMINALS

TB1-1	AC/LINE INPUT POWER	TB1-18	TAMP HOME	TB1-35	NO MEDIA
TB1-2	AC/LINE INPUT POWER	TB1-19	TAMP EXTEND	TB1-36	PRINT END
TB1-3	AC/NEUTRAL INPUT POWER	TB1-20	LOW LABEL	TB1-37	PRINTER READY
TB1-4	AC/NEUTRAL INPUT POWER	TB1-21	VACUUM SWITCH	TB1-38	EXTERNAL PRINT START
TB1-5	AC/TRANSFORMER SWITCH	TB1-22	END OF WEB	TB1-39	RESERVED (INPUT)
TB1-6	AC/TRANSFORMER SWITCH	TB1-23	INHIBIT	TB1-40	RESERVED (INPUT)
TB1-7	REWIND MOTOR	TB1-24	JOG	TB1-41	RESERVED (INPUT)
TB1-8		TB1-25	TAMP VALVE	TB1-42	PRINT START
TB1-9	24 VDC	TB1-26	BLOW VALVE	TB1-43	REPEAT
TB1-10	24 VDC	TB1-27	AIR ASSIST VALVE	TB1-44	TAMP HOME
TB1-11	24 VDC	TB1-28	SPARE VALVE	TB1-45	LABEL ON PAD
TB1-12	24 VDC	TB1-29	REWIND START	TB1-46	RESERVED (OUTPUT)
TB1-13	0 VDC	TB1-30	READY OUTPUT	TB1-47	RESERVED (OUTPUT)
TB1-14	0 VDC	TB1-31	WARNING ALARM	TB1-48	RESERVED (OUTPUT)
TB1-15	0 VDC	TB1-32	CRITICAL ALARM	TB1-49	0 VDC
TB1-16	0 VDC	TB1-33	GROUND	TB1-50	24 VDC
TB1-17	PRODUCT DETECT	TB1-34	LOW RIBBON		

TITLE: 3600-PA SERIES APPLICATOR: ELECTRICAL

PART: HOUSING SCHEMATIC PRIOR TO ORIENTAL MOTOR

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\3600 238\ASS-238-0401	Dept. Code 70
0	-	-	XXX	1=2	01/20/01	BOB S.		

1318 QUAKER CIRCLE P.O. BOX 589 SALEM, OHIO 44460

PHONE: 330-332-1800
FAX: 330-332-2144

www.ctmlabelingsystems.com

Designers and Manufacturers of Pressure Sensitive Labeling Equipment and Custom Product Handling

3600 DUAL ACTION TAMP PRINTER APPLICATOR MAINTENANCE & SERVICE MANUAL

(REVISION 3600-dat-2b5.x)

TABLE OF CONTENTS
(DUAL ACTION TAMP)

The following section for dual action tamp applicators will discuss items that pertain only to this applicator type. Items not covered here will be covered in the standard 3600 section of this manual.

INTRODUCTION

The 3600 dual action tamp printer applicator is a high speed labeler used to thermally print and apply pressure sensitive labels to the leading edge and side of moving products. A thermal transfer printer is integrated into the applicator to form a self-contained unit that will print variable data onto a label.

Labels are supplied on rolls that consist of a liner on which the labels are held with adhesive. The labels may be preprinted with the variable information added by the printer or blank labels with the printer printing the entire label.

The applicator is designed to be mounted in a nose-down attitude 90 degrees of product flow. A label is printed, dispensed out onto the label pad and held there by vacuum. When the product detect sensor is made, the label and label pad swing out in front of the moving product using a rotary actuator. When the rotary actuator is fully extended, the label is blow off the pad onto the leading edge of the product. The label pad rotates back home to receive a second label. After the second label placement time/distance has been satisfied, the label pad tamps toward the side of the product using a pneumatic slide. The label is blown off when the slide is fully extended and then returns home to repeat the cycle for the next product. Exceptions to this sequence can be addressed through a custom applicator.

The applicator can work in two different modes:

Normal Tamp Blow
Inverted Tamp Blow

In the Normal Tamp Blow mode, the label is printed, dispensed out onto the label pad and held there by vacuum. When the product detect sensor is made, the label and label pad are moved toward the product using a pneumatic slide and/or rotary actuator. When the slide or swing arm is extended, an air blast will blow the label off the pad and onto the product.

In the Inverted Tamp mode, the label is printed, dispensed onto the label pad and the slide or swing arm extends. The applicator will wait in this position until the product sensor is made. The label is then blown off the pad onto the product. See the DAT applicator setup section for details.

For safe and trouble free operation, the instructions in this manual must be followed carefully during the set-up, operation, media changes, cleaning and maintenance. Also the specified environmental conditions must be maintained.

Electrical Supply: 108-132 Volts, 5 Amps, 50-60 Hertz, Single phase

A three meter long, three wire cable with 1.00mm conductors rated at 10 amperes (in accordance with CENELEC HD-21) is provided for the electrical connection to the IEC 320 receptacle of the applicator. The end of the power cord is terminated with a NEMA 5-15 plug.

Air Supply: Clean and dry compressed air must be provided at pressures 90 to 100 P.S.I. with a minimum flow rate of 4 S.C.F.M.

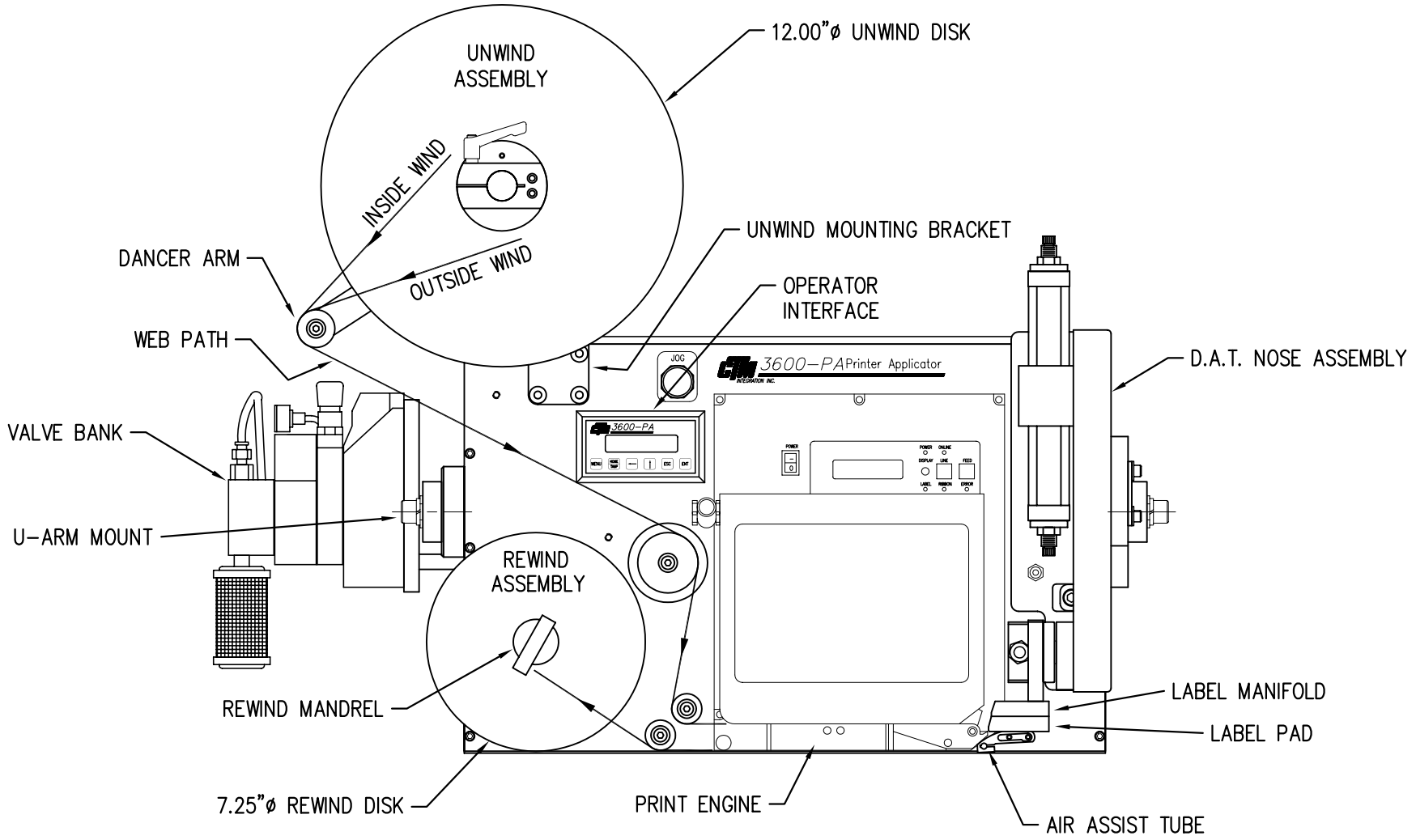
Environment: Operating temperature range is 40 to 95°F (5 to 35°C). Operating humidity range is 20 to 85% RH, non-condensing.

Note: The model 3600-PA is not intended to be operated in an environment where flammable or explosive gases are present. The model 3600-PA MUST not be used in direct contact with food products.

The following section for dual action tamp applicators will discuss items that pertain only to this applicator type. Items not covered here will be covered in the standard 3600 section of this manual.

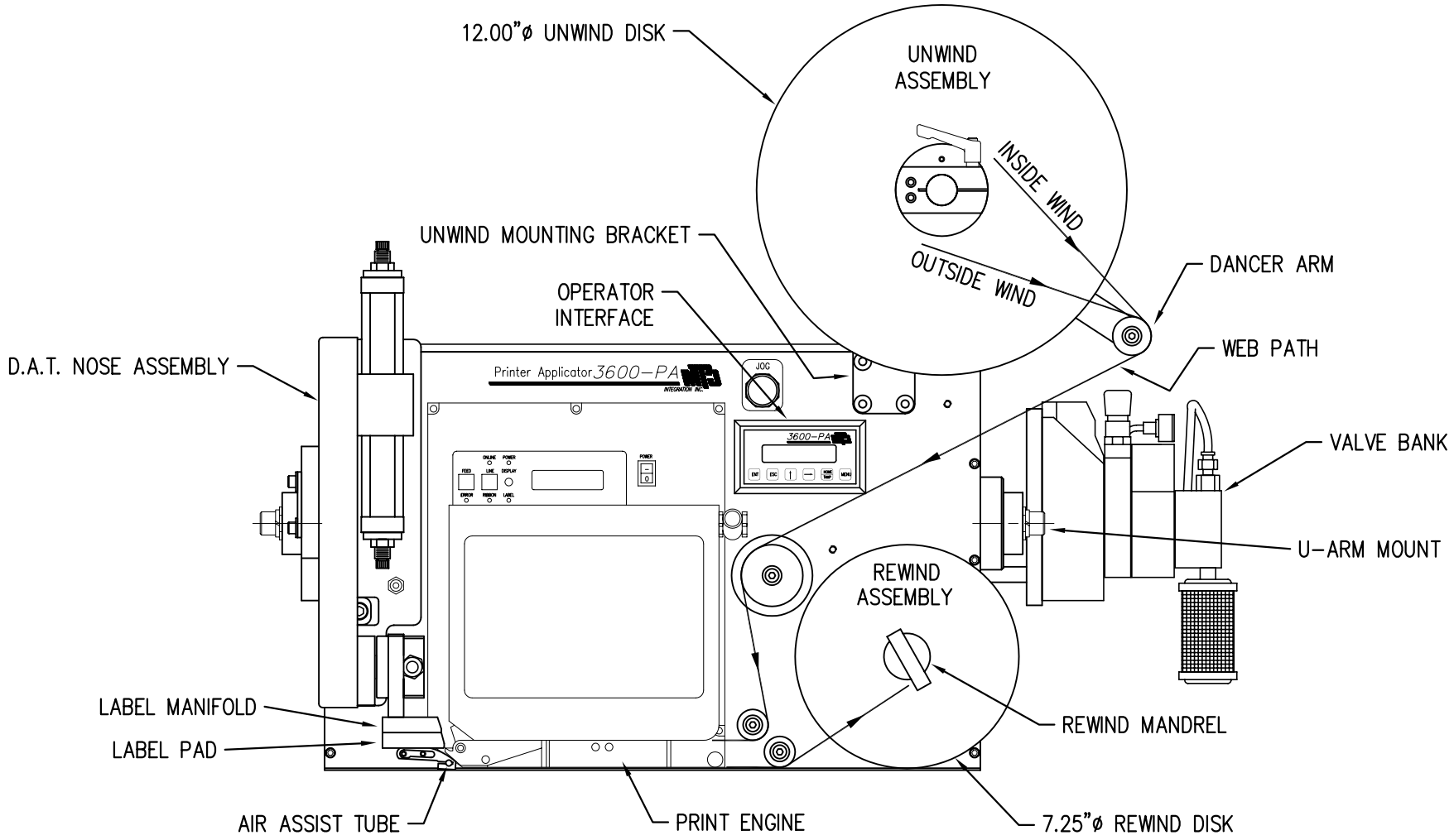
WEB PATH DIAGRAM

3600–PA SERIES R.H. DUAL ACTION TAMP APPLICATOR
PERPENDICULAR FLOW – WITH 12" UNWIND



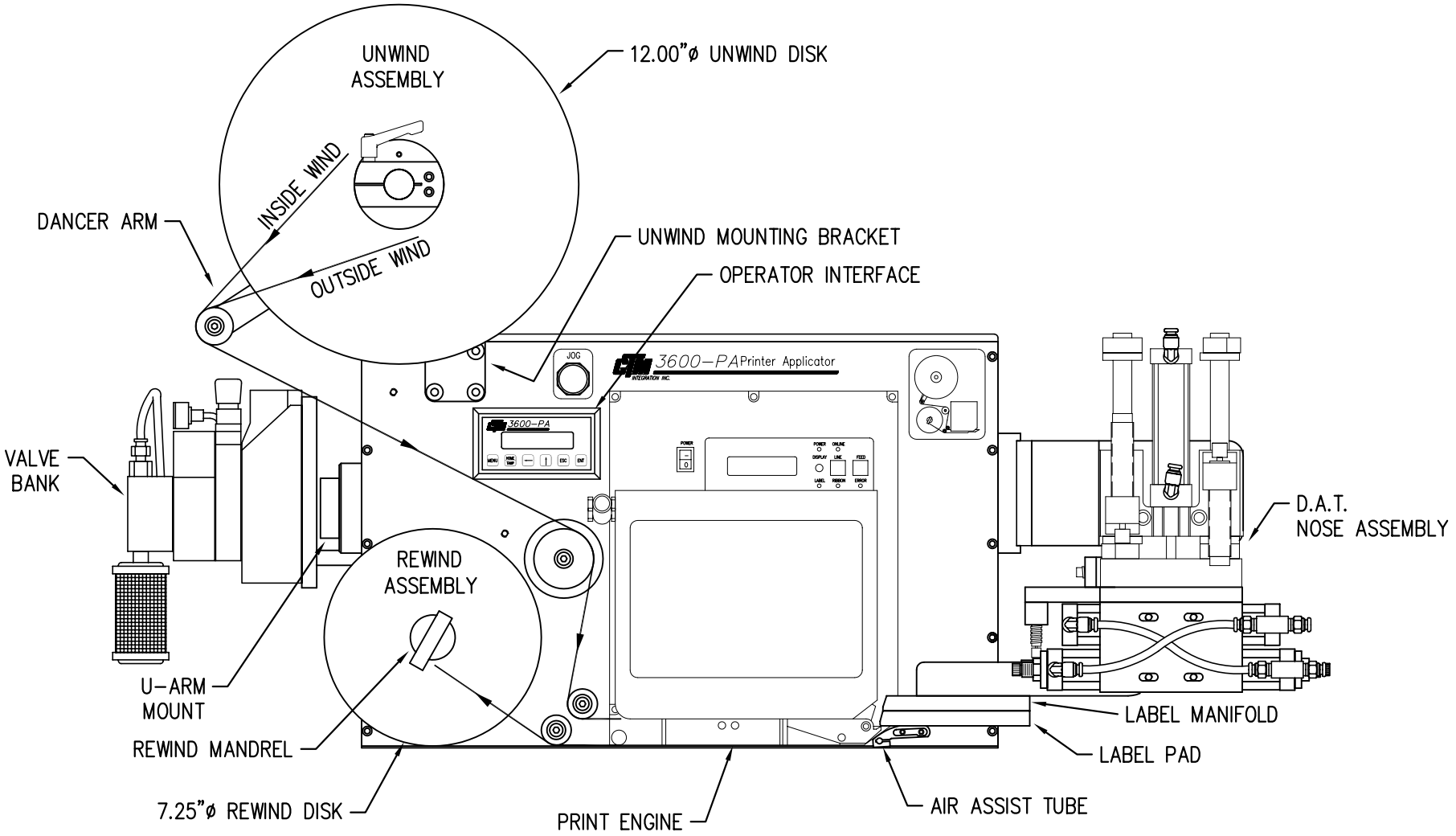
WEB PATH DIAGRAM

3600–PA SERIES L.H. DUAL ACTION TAMP APPLICATOR
PERPENDICULAR FLOW – WITH 12" UNWIND



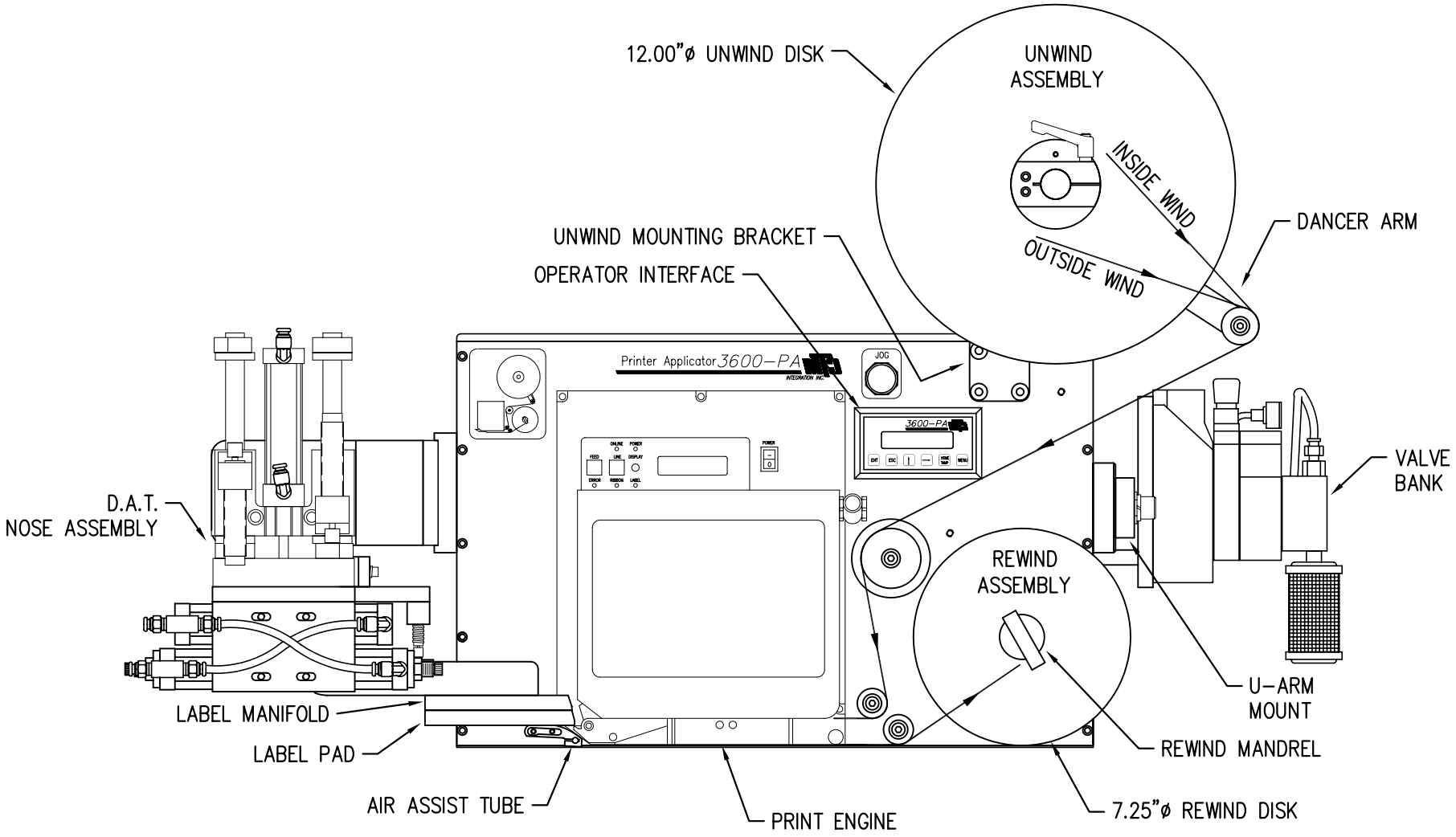
WEB PATH DIAGRAM

3600–PA SERIES R.H. DUAL ACTION TAMP APPLICATOR
PARALLEL / IN–LINE FLOW – WITH 12" UNWIND

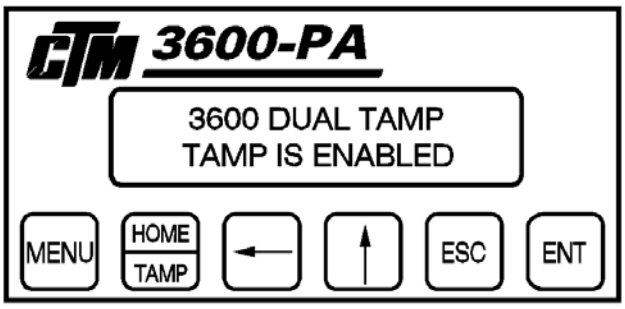


WEB PATH DIAGRAM

3600-PA SERIES L.H. DUAL ACTION TAMP APPLICATOR
PARALLEL / IN-LINE FLOW - WITH 12" UNWIND



APPLICATOR DISPLAY



On power-up, the display will scroll the software version screen for 10-40 seconds depending on printer type. This will allow time for the printer to go through its diagnostics. After the software screen, the main menu will come up. From here you can toggle the applicator so it will respond to the product detect signal and apply labels or ignore the product detect signal (tamp enabled or tamp disabled). To enable the tamp, press the "↑" key and to disable, press the "← " key at the main menu. The second line of the display will read either "Tamp is Enabled" or "Tamp is Disabled" depending on the state of the applicator.

The following is a list of the keys on the display and what they do:

> **Note:** When the encoder option is on, label placement values are in inches.

Menu:
This key will allow the operator to scroll through the following sub-menus:

- **Label Rate** - This will display the rate in which labels are being applied on a per minute basis. When the DAT applicator is in Dual Tamp Mode the label rate will update every apply cycle even though two labels are being applied.

- **Swing Label Placement** - This is the time or distance from when the product detect sensor turns on until the swing valve turns on.

- **Side Label Placement** - This is the time or distance from when the product detect sensor turns on until the tamp valve turns on.

- **Air Blast Time** - This is how long the air blast valve will stay on.

- **Swing Extend Time** - This is the time allowed for the rotary actuator to swing the label pad out in front of the product.

- **Swing Retract Time** - This is the time allowed for the label pad to swing back home from the extended position to receive a label.

- **Side Extend Time** - This is the time allowed for the tamp slide to extend before continuing with the labeling sequence.

- **Side Retract Time** - This is the time allowed for the tamp slide to return to receive a label from the extended position.

- **Extended Air Assist** - The air assist is on as long as the applicator is printing a label. The extended air assist is the time after the printing stops until the assist turns off. This can be useful in placing a label on the label pad.

- **Detector Lockout** - This is used if you're getting more than one product detect signal from a product. The detector lockout timer starts with the product detect and will ignore other signals until the timer has timed out. This screen will not be present in the main menu if Invert Mode is selected in the configuration menu due to the Product Clearance Time feature.

- **Product Clearance Time** - This is used only when in Invert Mode for the swing arm to stay clear of the recently labeled product before it extends back out to label the next product. This timer will start as soon as the product detect signal is made.

- **Product Counter Access Screen** – In Normal Tamp Apply, pressing the Home key while within the Detector Lockout screen will access this screen. Pressing Ent. will reset the counter. In Inverted Apply, pressing the Home key while within the Product Clearance Time screen will access this screen. When cycling power to the applicator the count will be reset to zero.

Home/Tamp:
When scrolling through sub-menus, pressing "Home" will take you back to the main menu. If you're at the main menu and tamp is enabled, press the "Home/Tamp" key to extend the tamp slide. This will be helpful @ setup of the clearing with label jams.

Arrow Keys:
Menus that have a numeric input (i.e. Label Placement menu) use the arrow keys to change values. On the main menu, the arrow keys ("↑" "← ") are used to toggle the tamp enable/disable functions. See "Changing Variable Fields" in this section.

Esc:
This key will stop the editing procedure and put the values back where they were.

Ent:
Enter key is used to confirm a change or to clear current values so new values can be entered.

Printer type, mode of operation and different options can be turned on through the display. See the configuration menus in the applicator setup section on how to do this.

Changing Variable Fields
Variable fields will come in two forms. It may be words such as "On", "Off", "Tamp Disabled, etc. or numbers that represent a value of something. If its a word that needs changed to alter the way the applicator functions, press "Ent" at the screen you what to change. The variable will start to flash. Press "↑" to toggle the variable field and press "Ent" when the function you want is displayed.

Note: Entering more than 32 seconds for any time based setting will produce unsatisfactory results during label printing and application.

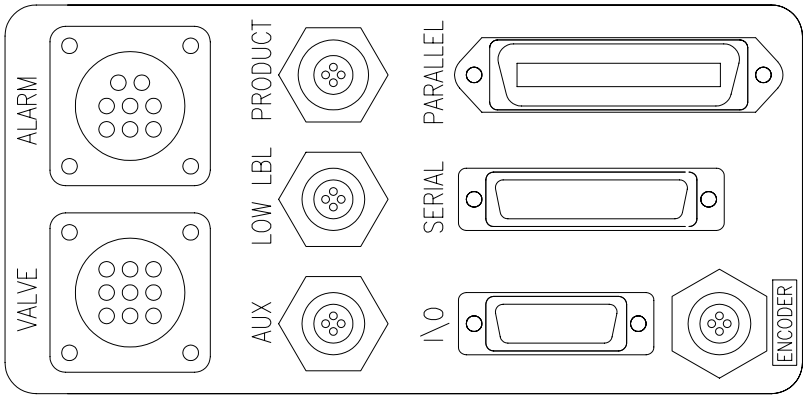
Changing Variable Fields

To change numeric data, go to the menu to be changed (i.e. Label Placement) using the "Menu" key. Press "Ent" and the timer data will set itself to zero and start to flash. Only the right most column will be changed using the "↑" key. Pressing the"←" will move the character just changed to the left. When you have the value you want, Press "Ent" to set it as current. If a mistake is made, press "Ent" to start again. This will clear the data and let you start over. If the "Ent" key is not pressed after data entry or data is not entered, the timer will default to the previous setting after 10 seconds.

Note: If you only need to change the numeric data by a few milliseconds or thousandths of an inch, use only the arrow keys. Every time an arrow key is pressed, the value will be increased or decreased by one unit.

Example: Set Label Placement to "0.115" (115 ms)
-Press "Menu" until the Label Placement menu is displayed.
-Press "Ent" to clear timer data (flashing zero).
-Press "↑" until "1" is displayed in the right column.
-Press "←" one time so the "1" will move to the left by one position.
-Press "↑" until "1" is displayed in the right column.
-Press "←" one time so the "11" will move to the left by one position.
-Press "↑" until "5" is displayed in the right column.
-Press "Ent" when the value matches the desired value. If not, press "Esc" and start over.

REAR PANEL



VALVE: Valve bank connection. Valve banks come with a short cable and a plug.

ALARM: Alarm light connection . Will drive up to a three stack light stack.
(one light for printer ready, one light for warning, and one for critical alarms)

PRODUCT: Product detect sensor connection.

LOW LBL: Low label sensor connection.

AUX: Used for custom applications.

PARALLEL: Wired to the parallel port of the printer for data transfer.

ETHERNET: In place of parallel port. Used to transfer data to ethernet equipped print engines.

SERIAL: Wired to the serial port of the printer for data transfer.

I/O: This connector can be used for integrators to monitor applicator alarms and functions. See the next page for a list of pre-wired functions.

ENCODER: Wired to the plc for encoder use. See b5-8 for more information on this option.

I/O Port Functions

The following is a list of the pre-wired functions of the I/O port. If other functions are needed (i.e. end of web), they can easily be added. All outputs are NPN (sinking) with 80 ma load. Inputs are also for sinking devices.

- **Pin #1** (DC Power): 0 VDC
- **Pin #2** (DC Power): 24 VDC at 200ma
- **Pin #3** (System Ready): If there is no critical alarms, the tamp is enabled, inhibit input off and the printer is online, the ready output is on.
- **Pin #4** (Warning Alarm): This output will turn on when the applicator receives a low label or low ribbon signal. It will also come on for a label rate too fast alarm. The signal will stay low until the alarm is reset.
- **Pin #5** (Critical Alarm): This output will turn on when the applicator receives a no labels or no ribbon signal from the printer or if the end of web sensor is made. The signal will stay low until the alarm is reset.
- **Pin #6** (Reissue Label): This is not an input for customer use. Please consult the factory before attempting any integration.
- **Pin #7** (Tamp Home): The output turns on after the applicator has finished it's labeling cycle. This means if the applicator is set to dual action tamp, the output will not turn on until the end of the second label application.
- **Pin #8** (Reserved): For future use.
- **Pin #9** (Air Blow Valve): This output is on when the air blow valve is on.
- **Pin #10** (Air Assist Valve): This output is on when the air assist valve is on.
- **Pin #11** (Product Detect): Taking this input low will start the labeling sequence of the applicator.
- **Pin #12** (Inhibit/External Print): When the input is configured as an inhibit, the applicator apply cycle will not actuate when the input is on. When the input is configured as external print, the printer will not print a label until the input is turned on.
- **Pin #13** (Remote tamp action): When the tamp action is set to "Remote" and this pin is pulled to 0 vdc, the applicator will swing only.
- **Pin #14** (Remote tamp action): When the tamp action is set to "Remote" and this pin is pulled to 0 vdc, the applicator will side apply only.

DUAL ACTION SETUP

When an applicator is shipped, it may be necessary to disassemble some of the applicator. The following section will show different assemblies to aid in putting the applicator back together so it can be set up.

Note: Unwind assembly and ribbon/label loading are covered in the standard 3600 section.

Air Filter Installation

When the applicator is shipped, the air filter is off. The filter is sent with two 2" nipples and an elbow. The attitude of the valve bank will determine how the filter should be plumbed. Note: In all cases it is important to have the filter bowl pointing down. The filter should enter the valve bank on the opposite side as the vacuum regulator.

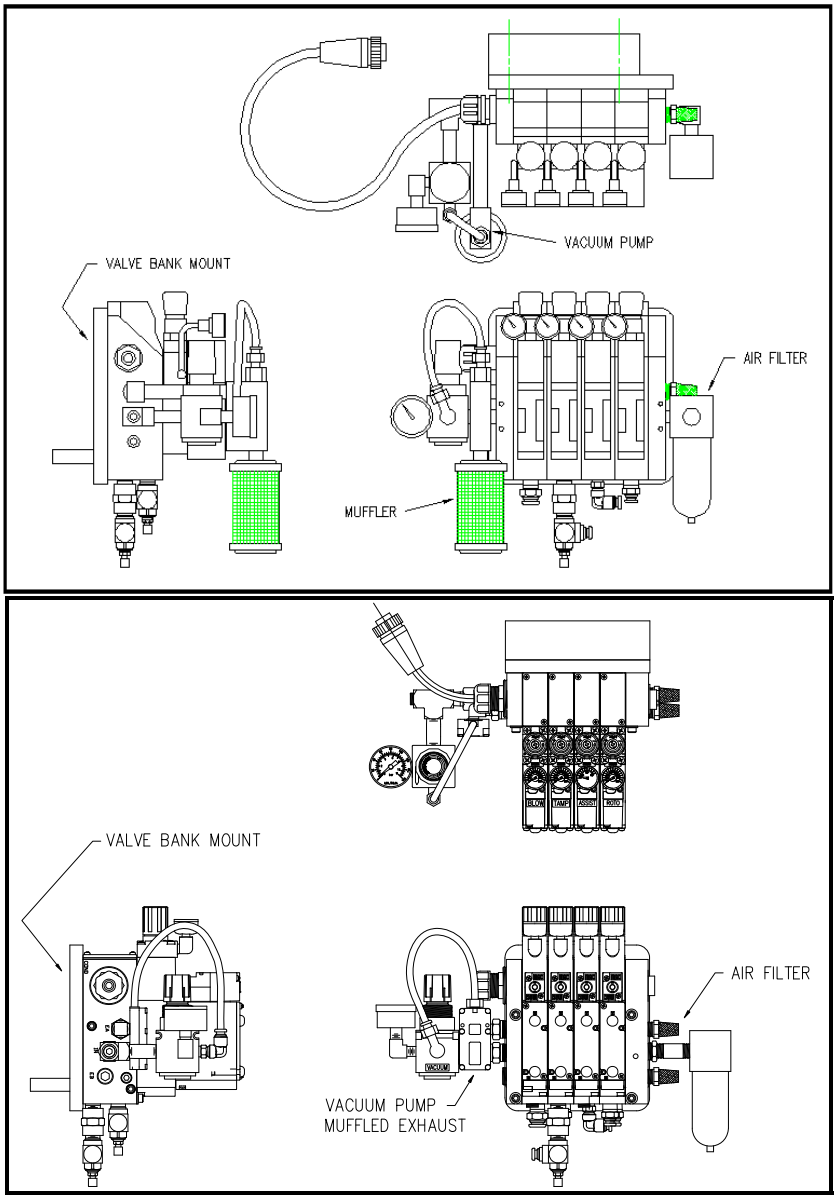


Figure 19 (valve bank)

Applicator Nose Installation

Depending on the length of the swing arm, some applicator noses will be too big to leave on the applicator for shipping. The following instructions will help in re-installing the applicator nose. If the dual action tamp assembly is removed from the applicator in shipping, the mounting arm will still be installed. Remove the applicator and mount on a stand in a nose down attitude. This faceplate is used for mounting the valve bank. The mounting arm that supports the dual action tamp is bolted to the side or what is now the bottom of the applicator and extends out in front of where the label comes out of the printer. There is a ¼" recess in the plate with four ¼" slots. This is where the slide of the dual action tamp is mounted. Take the tamp assembly and set it (slide body) in the recess and used the four ¼" shcs. and the stainless nut plate to secure it in position. These same screws will be later be used for the up and down adjustment of the label pad to the peel edge.

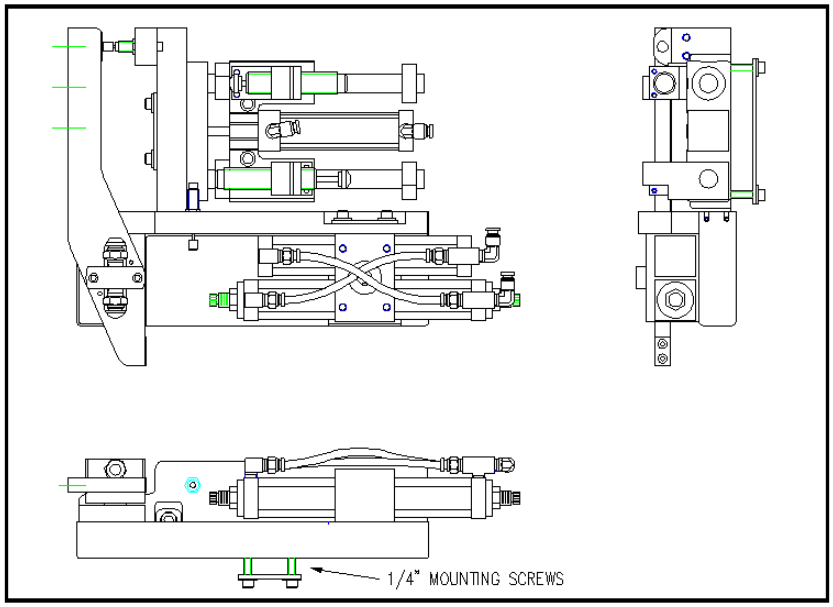


Figure 20 (dual action tamp assembly)

With everything in place, reconnect the air lines. The air lines should be marked as to where they go. Make sure when routing the lines that they do not hit or rub anything when the assembly actuates. Pay special attention to the 3/8 air blast/vacuum line going to the manifold.

General Setup Procedures

1- Disable tamp (refer to Display Panel section). This way adjustments can be made without the fear of the tamp actuating and injuring someone. Also load label formats into the printer.
2- The label stop must be properly set for the applicator to work successfully. This is done through the printer and will be referred to as "Offset", "Top of Form", "Pitch Offset", or other terms dependant on the printer model.
    a) With printing information in the buffer and the tamp disabled, press "jog" to dispense a label.
    b) If the label stop is correct, the label should feed off the liner. If the next label out is flagged past the peel edge, the label stop must be decreased. If the label doesn't dispense completely off, then increase label stop. Refer to printer manual as to how to change label stop
3- Tamp height needs to be set so a label feeds out in contact with the label pad. If the pad is too high, the label will not land consistently on the pad and the trailing edge of the label could come into contact with the peel bar of the printer when the tamp slide extends. If the label pad is too low, the label will dispense into the back of the pad and jam.
4- The inboard edge of the label pad must match the inboard side of the label. Refer to the side to side adjustments in the next section to move the pad.
5- Position the air assist tube so the hole or holes are centered on the label and pointing approximately ¼"in from the label pad. The air pressure should be set at 20-30 P.S.I. Press "Jog" to dispense a label. If the label doesn't feed out against the label pad and the vacuum doesn't capture it, try increasing the air pressure. Continue until the vacuum captures the label.

    Warning: There are other factors that can keep the label from staying on label pad. You may need more vacuum, increased or decreased label dive, or the air assist tube may need to be rotated. This will take patience here but will pay big rewards later.

6- Air pressure for the tamp slide and rotary actuator should start at 40 P.S.I., for the air blast at 30-40 P.S.I., and for the vacuum pump at 20-40 P.S.I.
7- Air blast time is set through the display and should be set long enough to apply a label firmly to the product. Setting the time too high will result in less labels/min. Start at .03 seconds. The same air blast time applies to both the swing and tamp sequences.

Dual Action Tamp Setup
(refer to figure 21 for the location of the adjustments.)

The tamp should still be disabled from the general setup section. Remove the stainless belt cover on the tamp assembly. Loosen the four ¼" shcs. of adjustment "A" and slide the rotary actuator forward to loosen the belt and remove the belt. You may have to remove the slide extend stop in order to get to all the screws. Now you have access to up and down adjustment of the pad ("E" adjustment). Loosen the two 3/8" low shcs. Swing the label pad in front of the peel edge of the printer and move the assembly away from or closer to the peel edge. There should be about 0.030 clearance between the pad and the peel edge. Re-tighten the bolts when the adjustment is finished. Put air to the valve bank and replace the belt with the swing arm fully retracted. Move the rotary actuator to tighten the belt and secure the screws at the "A" adjustment. With the swing arm in the home position, make sure the pad is parallel with the peel edge. To rotate the label pad parallel, loosen the lock nut on the "D" adjustment (the one closest to the label pad) and turn the set screw in or out. When there is air to the actuator you should see the swing arm rotate. When the pad is parallel, tighten the lock nut. Adjust the swing extend position later. To adjust how high the pad is in relation to the peel edge, loosen the four ¼ shcs. at the "C" adjustment. Move the assembly up or down so the label pad is about the thickness of a label higher than the peel edge. Retighten the screws. Feed several labels out of the printer and watch how they land on the label pad. If the label pad needs moved in or out loosen the screws at adjustment "B" and move the pad. Retighten when the edge of the label matches the label pad.

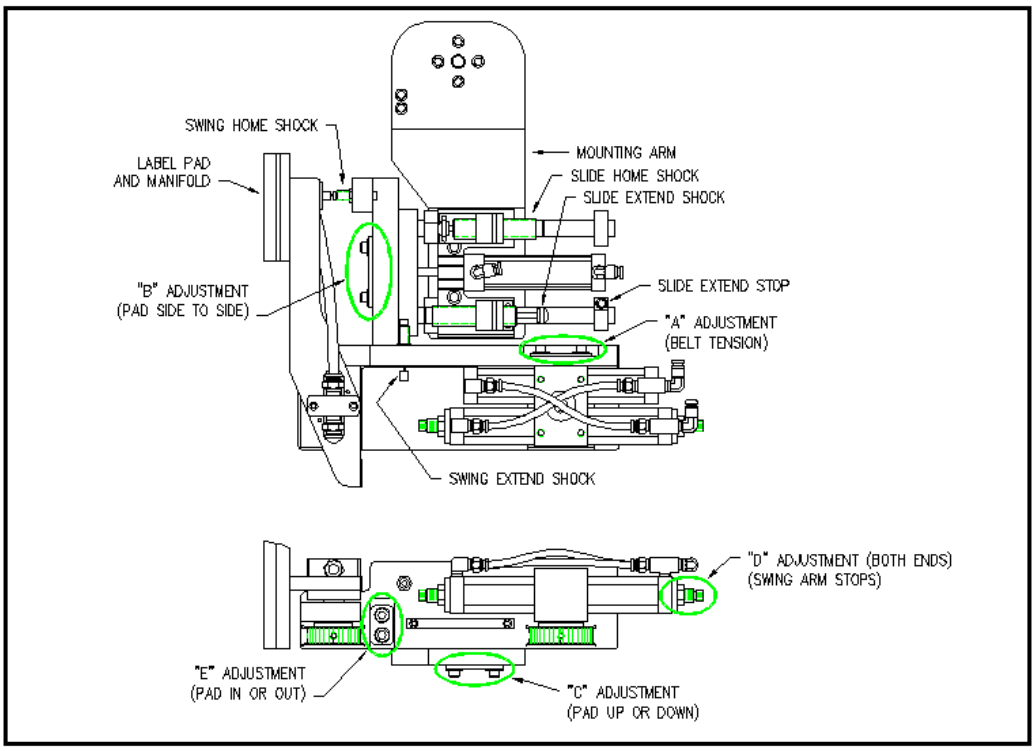


Figure 21 (dual action tamp adjustments)

Dual Action Tamp Shock Absorbers and Flow Controls

Both the linear and rotary actuators have shock absorbers on them and need to be adjusted. Set both swing shock absorbers so they are engaged by 1/8". Press the manual override on the rotary actuator valve and watch the movement of the swing arm. The arm should hit the shock and stop without bouncing. If it bounces too much and moving the shocks in or out doesn't help, slow the actuator down by adjusting the flow controls. The flow controls are integrated into the actuator and are located on each end of the longer cylinders. Turning the screws in with a small screwdriver will slow the speed at which the arm rotates and turning them out will speed it up.

Warning: The shocks on the swing arm are not made to bottom out and doing so will reduce the life of the shock.

The slide shock absorbers are larger with longer strokes so when moving higher loads the stop will be smoother. The shocks should not be adjusted so they bottom out but instead there should be at least an 1/8" more travel available when the slide stop hits the body of the slide. To adjust the shocks, loosen the clamping screws on the shock mounts and screw the shock in or out. When in position, re-tighten the clamp so the shock will stay in position. The flow controls for the slide are mounted on the valve bank. Screwing the knobs in will slow the speed of the slide and turning the knobs out will speed it up.

Note: The slide extend stop will have to be adjusted but this adjustment is discussed in the "Product Setup" section under "Positioning the Applicator",

Extend and Retract Times

It's important to make sure these timers are setup correctly. Power the applicator up and load label formats into the printer. Initiate a product detect input on the applicator and watch when the label is blown off on both the swing and tamp cycle. The swing arm and the slide should be fully extended. If not, increase the extend times. If the retract times are too short, a label will be fed out into the manifold and not onto the label pad. Increase the retract times if necessary. It's better to have these times a little on the high side but they will affect the labeling rate. The higher the times, the fewer products per minute you can label.

Note: In program versions previous to 3600-DAT-2b5.0 it was possible to activate the linear and rotary actuators by pressing the Jog switch. For safety reasons this was changed in the newer program versions.

Note: In program version 3600-DAT-2b5.0 and later, the tamp has to be disabled in order to Jog a label onto the pad.

Label Static Test

It's important to know if the applicator can repeat putting labels in the same place over and over. Without knowing this, when label placement problems occur on the line, you won't know whether the machine is not repeating or the problem lies with the product.

To test repeatability, configure the applicator for single/side tamp action and position the applicator so when the tamp is extended the label pad is approximately 1/8" away from the product. Jog several labels onto the product. If the label stack is within the tolerances you have to work with go on to the "Product Setup" section. If not go through the following suggestions to help find the problem.

1- Make sure the labels are consistently stopping in the same place on the label pad. If this is OK go to step 7; if not, go to step 2.

2- Check label stop. One label should be completely dispensed off the liner while the next label should be 1/32" away from the peel edge. If this varies more than 1/32" with each cycle, refer to the printer manual to correct. When this is corrected, go back and try the static test again. If this was OK, go to step 3.

3- Make sure the label pad surface is clean. If clean, go to step 4 and if not, clean and try static test again.

4- Make sure the vacuum is set right. If the label flutters when feeding across the pad then the vacuum is too high. If the label falls off or moves after the label has left the liner, then it's not high enough. If the label feed looks smooth go to the next step.

5- Work with the air pressure and the position of the air assist tube until the label feeds more consistent onto the pad. Re-try the static test. If the results are still not good enough, go to step 6 but if they-re OK, go to 7.

6- Make sure you are working with good label stock. Try another roll of labels and see if you get the same results.

7- Check the distance from the label pad to the product. If the distance is too large, the labels may float too much. Try lowering the machine so the label pad just clears the product (within 1/8").

8- Is the label pad made for the label you're using? Look to see if the labels are laying down flat and stacking well. If the hole pattern does not match the label, results will be uncertain.

Configuration Menus
The Configuration Menu can be entered two different ways. One way is to power the applicator off, press the jog switch and power the applicator back on, releasing the jog switch a couple of seconds after power on. The second way is to go to the main menu, disable the tamp, take the printer offline, hold the jog key in and press "Home/Tamp". The menu that comes up on the display will be the start of a series of menus that gives the operator access to turn different options on or off. The following is a list of the menus and their function.

Printer Type
The 3600-PA will support both Sato and Zebra printers. There are some slight differences between the printers on how they handle the recovery from a fault condition. The Zebra printer will dispense a group labels after a critical fault whether it gets a print start signal or not. This may cause the labels to dispense into the manifold if the product detect is turned on at the wrong time. If using a Zebra printer, you may want to turn on the option that will disable the tamp when the printer goes into pause. The startup time is different with either printer and depending on the printer type will depend on how long the software screen is displayed on power up. To change from one type to the other, press "ENT" and the last word on the second line should start to flash. Use the arrow keys to toggle between 'Sato" and "Zebra". When you get what you want, press "ENT". Press "MENU" to go to the next screen.

Tamp Action Setup
This menu will let you chose from setting the applicator tamp type up from the display or from digital inputs from an external controller. When it is set to remote, the applicator will look at inputs 4 and F and decide how apply the label. The following are the configurations:
Both 4 and F are off –Dual Action Tamp
Input 4 is on and F is off –Swing Tamp
Input 4 is off and F is on –Side Tamp
If it is configured as "Thru Display", the inputs will be ignored by the program. Press "ENT" and use the arrow keys to change how you want it set.

Note: The Remote Action Setup is not compatible with any Inverted Apply Actions.

Apply Action
This menu will allow the operator to choose between "Normal Action" or "Invert Action". Selecting normal action will leave the application sequences they way they were before software version 3600-DAT-2b5.0. Selecting invert action will allow the applicator to do one of the above sequences. This screen will appear right after where you chose whether the tamp action is determined through the display or remotely through inputs. Whether you chose invert or normal operation, you still will be able to setup the applicator to apply two labels or a single label using either the tamp or swing actions.

Note: The Inverted Apply Action is not compatible with Trailing Edge Apply.

Tamp Action (This menu will only appear if the previous menu is set to "Thru Display") The applicator can work in two different modes:

Dual Action Tamp
Single Action Tamp

With the applicator set for dual action tamp, the labeling sequence is a product detect signal is received, the applicator waits label placement and the swing arm rotates to put a label on the leading edge of the product. The label pad rotates home and feeds out a second label. After the second label placement the slide extends to put a label on the side of the same product. If the applicator were set to single action, you would get to choose whether the action was going to be swing or side only. This choice is done in the configuration menu.

To change from one mode to the other, press "ENT" and the second line should start to flash. Use the arrow keys to toggle between "Dual Action Tamp" and "Single Action Tamp". When you get what you want, press "ENT". Press "MENU" to go to the next screen.

Swing or Tamp
If you picked single tamp action in the previous menu this menu would appear. It is here that you choose which type of single action you what: swing or side. Choosing swing will allow only the swing to actuate and will enable the applicator to only apply labels to the leading edge of the product. Choosing side will allow only the linear slide to actuate and will enable the applicator to only apply side labels. To change from one mode to the other, press "ENT" and the second line should start to flash. Use the arrow keys to toggle between "Swing Tamp" and "Side Tamp". When you get what you want, press "ENT". Press "MENU" to go to the next screen.

Lead or Trail Apply
This menu appears if the applicator is configured for dual action tamp or remote tamp. This setting determines which actuator will fire first. If set to "lead", the swing arm will apply the first label to the front of a box, then the tamp applies a label to the side. If the applicator is set to trail, the tamp slide will apply the side label then the swing tamp will apply a label to the trailing end of the product.

Note: If the applicator is set to single tamp action, this screen will be skipped.

Note: The Trailing Edge Apply is not compatible with Inverted Apply Action.

Encoder Option
The dual action tamp applicators will support an encoder. The encoder port is pre-wired to the plc so an encoder can be plugged in at any time. With the encoder option on, label placement values change to inches instead of seconds.

Note: The encoder option is used to determine if the product stopped moving in between the leading and side labeling sequence. The is no compensation like on the 360 applicators adjust label placement with a change of conveyor speed.

To turn the option on, press "Ent" and the second line should start to flash. Use the arrow keys to toggle between "Encoder is On" and "Encoder is Off". When you get what you want, press "ENT". Press "MENU" to go to the next screen.

Note: When the Encoder option is on the Double Product Detect option will be disabled.

Pulse Length
This menu only will appear if the encoder option is on. This is where you put in how far the product travels for every pulse of the encoder. To figure the pulse length use the following formula:

(Distance Product Moves/Rev)/(Encoder Resolution)= Pulse Length

Example: An encoder with a 50 pulse/rev resolution has a wheel attached to it that has a 12 inch Circumference. This assembly is then put on a conveyor top. Therefore with one revolution of the encoder the product will travel 12 inches.

12 inches/50 pulses = 0.240 Pulse Length

Follow the direction in “Applicator Display”/ “Changing Variable Fields” section on how to change the value.

Note: If a zero is entered for pulse length, a warning screen will appear telling the operator “Value too Small”. Pressing “ENT” will bring the operator back to the Pulse Length menu to put in a good number.

Encoder Rate
This screen will only appear if the encoder option is turned on. There is no variable data to change, it is used only to determine if the pulse length is correct or to make sure the encoder is turning the right way. To check the pulse length, you can use a tach on the conveyor and see if it matches the encoder rate screen. If not, press ”Tamp/Home” and the pulse length menu will come up. Increasing the pulse length will increase the encoder rate. Decreasing the pulse length will lower the encoder rate. If the encoder rate is zero when the encoder is turning, the encoder may be turning the wrong direction. You can physically turn the encoder around or you can reverse the white and black wires on TB1-17 and TB1-18.

Input 6 Configuration
This allows the operator to configure input 6 as an inhibit or as an external print input. When the input is configured as an inhibit, the applicator apply cycle will not actuate when the input is on. When the input is configured as external print, the printer will not print a label until the input is turned on. To turn this option on, press “ENT” and the second line should start to flash. Use the arrow keys to toggle between "External Print” and “Inhibit”. When you get what you want, press “ENT”. Press “MENU” to go to the next screen.

Tamp is Disabled/Enabled on Power Up
On power up, the tamp is disabled. This means the applicator will ignore the product detect signals and the operator has to enable the tamp so the applicator will work. This option will enable the applicator to power up ready to apply labels. To turn the option on, press “Ent” and the first line should start to flash. Use the arrow keys to toggle between “Tamp is Disabled” and “Tamp is Enabled”. When you get what you want, press “ENT”. Press “MENU” to go to the next screen.

Disable Tamp on Pause
Turning this option on will cause the applicator to disable it tamp every time the printer goes into pause. This may be helpful when using a Zebra printer. To turn the option on or off, press “ENT” and the last word on the second line should start to flash. Use the arrow keys to toggle between ‘Off” and “On”. When you get what you want, press “ENT”. Press “MENU” to go to the next screen.

Rewind Delay On and Delay Off Menus
Timers can be adjusted to change how soon the rewind motor will turn on after the printer starts to print and how long it will run after the printing is finished. In some cases where label stop varies, this can help control it. This should only be changed after consulting with the factory. The rewind delay on timer controls when the rewind motor will turn on compared to when the print engine starts to print a label. Putting a delay will cause the motor to wait that amount of time before turning on. On narrow labels where label stop can be a problem, this will keep the rewind motor from putting tension on the web until the backfeed is finished or until you're sure the labels are moving forward through the printer. The delay off time will determine how long the rewind motor stays on after the printer is finished printing. This timer can be decreased to keep the pull on the web to the minimum.

Note: Factory default values are:
Delay On: 0 seconds
Delay Off: 1 second

Follow the direction in "Applicator Display"/ "Changing Variable Fields" section on how to change the value.

Disable Label Rate Alarm
The operator can now turn the "Label Rate" alarm off if it seems more of a nuisance than help. Even though it is important to know when the second label placement is not accurate because the product was faster than the ability of the applicator to keep up, for some customers, they don't want to see the alarm. Please note the change in sequence of the label rate warning under "Misc. Notes" since this may be better than turning the alarm off.

Double Product Detect Signal
This option was added so the customer could use the falling edge signal of the product detect sensor to trigger the first label of a dual action tamp sequence and the rising edge signal to trigger the second label. The sequence is as follows (leading/dual tamp is used for the example):

With the product detect sensor set so when a product is in front of it, the output is on, the applicator tamp enabled and label formats in the printer, a product moves down the conveyor. When the product detect sensor turns on, the swing placement timer starts. At the end of the timer, the label on the pad is applied to the leading edge of the product. When the label pad returns home and a label is dispensed out onto the pad, the applicator will wait for the trailing edge of the product to go past the product detect sensor. When this happens, the side label placement starts timing down and when complete, the applicator will apply a label to the side of the product. If a label is not on the pad before the second label placement is finished, a label rate warning will occur (if alarm is turned on). To correct, lower the tamp or swing cycle times, speed the printer up or slow the product down.

Note: The Double Product Detect Option will not function if the Encoder Option is ON.

Remote Alarm Reset
With this option on, input "E" on the PLC acts as a remote alarm reset. When this input is pulled to 0 vdc and the option is on, all alarms will be reset and the operator interface will go to the main menu.

Note: You cannot have both this option and the reprint option on at the same time since they share the same input. In other words if you were using a vacuum switch you must remove the switch input wire from terminal 40 for the remote alarm reset option to function properly.

Label Reissue Option
Label Reissue is a separate option than Label Reprint. This screen comes up right after the rewind off delay screen in the configuration menu. When the Label Reissue option is turned on it allows the applicator to reprint the last label format sent to the printer until another label format is received. To use this option with a Zebra printer the operator must enable the Reprint option in the Zebra menu. When using the Zebra printer, the Label Reissue option will continue to Reissue the original format sent to the printer until this format is manually cancelled with label software and a new format is sent down. To use this option with an M8400 series Sato printer the operator must turn DSW 3-8 on. If using the S8400 series Sato print engines the operator has to enable External Reprint in the Advanced Mode settings of the print engine. When using the Sato printer, the Label Reissue option will print the last format sent until a new format is received.

Label Reprint Option
With this option is turned on and a vacuum switch installed, the applicator will dispense another label when the label is removed from the label pad. This option is useful when an extra label is needed on line but you do not want to actuate the applicator to replace the label you took from the label pad. You simply pull the label off the pad and another label is printed and dispensed. The "Number of Reprints" screen will appear after the Label Reprint screen only if Label Reprint was turned on. Here the number of reprints can be preset up to 99 labels.

> **Note:** You cannot have both this option and the remote alarm reset option on at the same time, since they share the same input. In other words if you were using a remote alarm reset switch or other device hardwired to the terminal strip you must remove that input wire from terminal 40 for the label reprint option to function properly.

Misc. Notes
There was also a modification on how the label rate warning works when enabled. It will turn the amber light on and show a message on the display when the products are moving too fast for the applicator to keep up. If at anytime the rate slows to where the applicator starts keeping up, the alarm will automatically turn off and the display will go back to the main menu. This will serve as a tool as to what are the circumstances that cause the alarm to occur (i.e. products moving too fast).

All the new options are located in the configuration menus after the rewind menus. Consult the manual as how to change the state of the options.

PRODUCT SETUP

The applicator should be setup and have successfully passed the static test before going on in this section. If you have skipped the applicator setup section and have trouble with the application here, it will leave you with more areas to troubleshoot to fix the problem.

Applicator Attitudes
The applicator can be positioned in other positions but the standard configuration from the factory is nose down. Any other attitudes should be discussed with the factory before ordering.

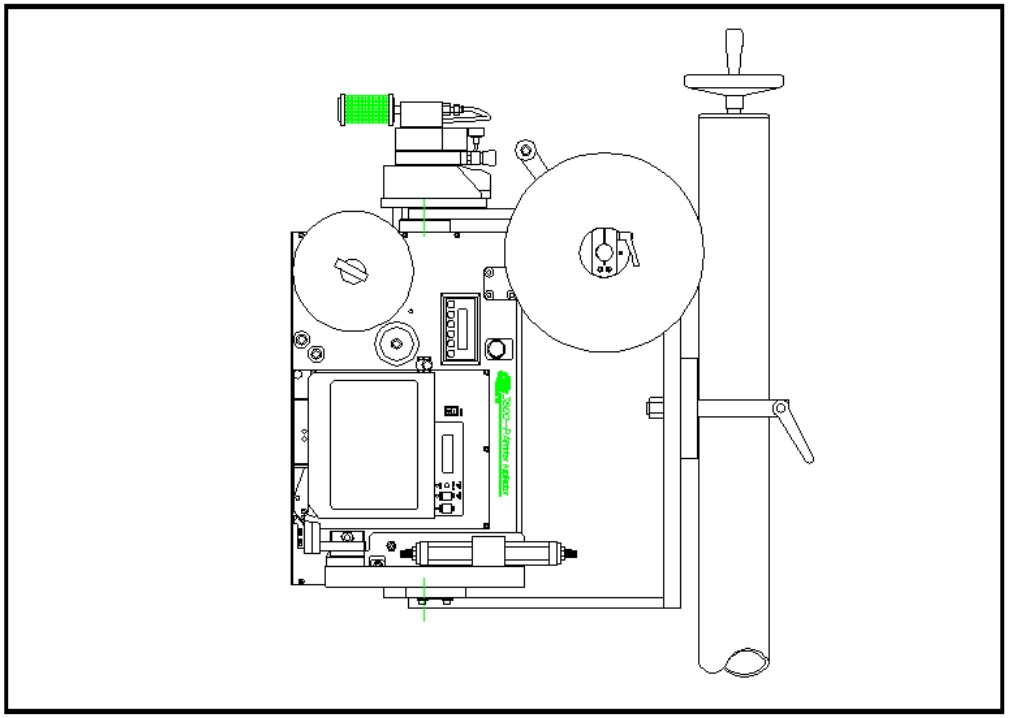


Figure 22 (nose down)

Positioning the Applicator

The product must be presented to the applicator in a consistent manner. Label accuracy cannot be maintained if the surface being labeled changes speed or distance relative to the label pad.

Note: The following directions are for dual action tamp. The single tamp actions are not discussed but you should be able to be interpret their setup from the following instructions.

With the air and power off to the applicator, rotate the swing arm to the extended position. Make sure the slide is fully retracted. Push the product down the conveyor within the guides and stop in front of the label pad. Move the applicator in or out and up or down to position the pad where the label should go. Now retract the swing arm and move the product in front of the applicator. Move the slide forward, making sure the swing arm is retracted, and stop when there is about 1/8" between the product and the label pad. Here you may need to move the slide extend stop (see figure 5). Loosen the clamping screw and slide the stop against the slide body. Some minor changes may have to be done when you start applying labels but this will get you close.

Standard Product Sensor Setup (Banner SM312LV --- 4"- 15' range)

1- Plug the sensor into the back of the machine.
2- Turn the power on and disable the tamp.
3- Remove the back cover of the sensor and set the light/dark switch to DO by turning the switch counter-clockwise.
4- Make sure the sensor is pointing at the reflector (tape). When the LED indicator is flashing at the fastest rate, the two are at the best alignment.

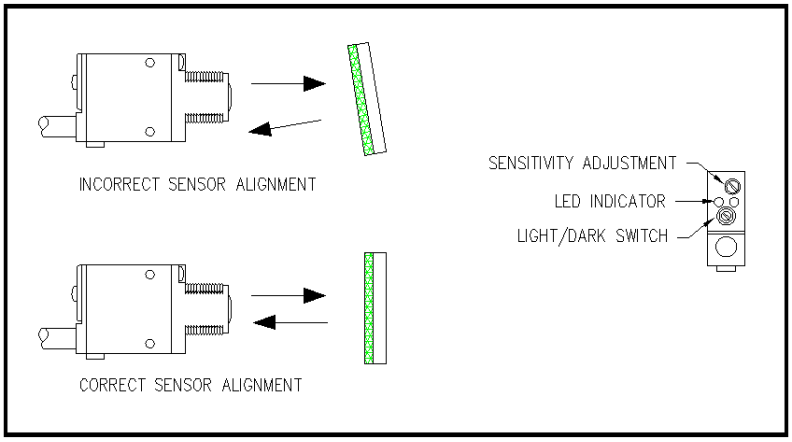


Figure 23 (standard product detect)

5- Place a product between the sensor and the reflector. The LED indicator should go out.
   a) On translucent products, the sensitivity may have to be turned back so not to burn through.
6- Replace back cover of sensor.

Optional Product Sensor Setup (Banner S18SN6FF50)
This sensor is an 18mm barrel type with a 50mm far limit cut-off. This means it will see objects that are less than 2" away and ignore the rest. There is nothing to adjust on the sensor except the physical position.

Sensor wiring determines whether the product detect will be setup for leading or trailing edge. The #2 terminal in the product detect plug at the end of the sensor cable is for the output of the sensor. The black wire is for leading edge and the white wire for trailing edge.

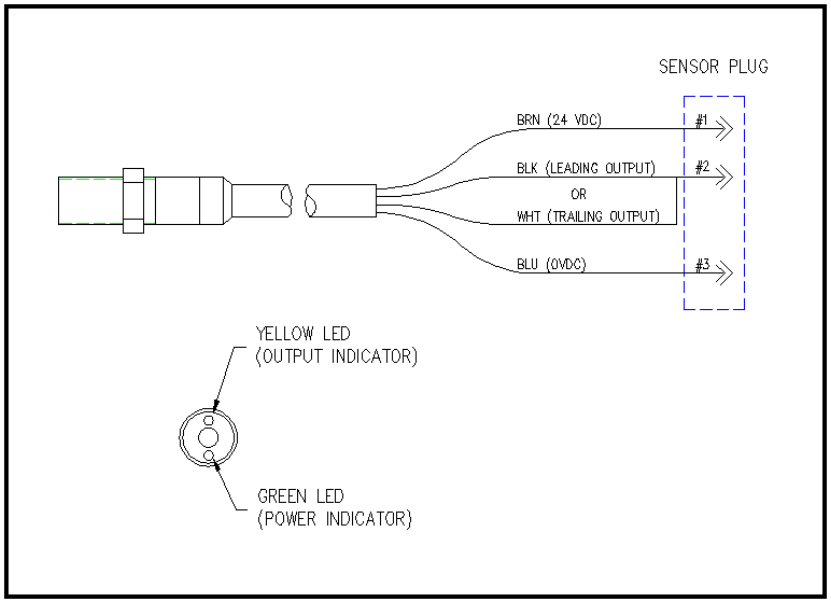
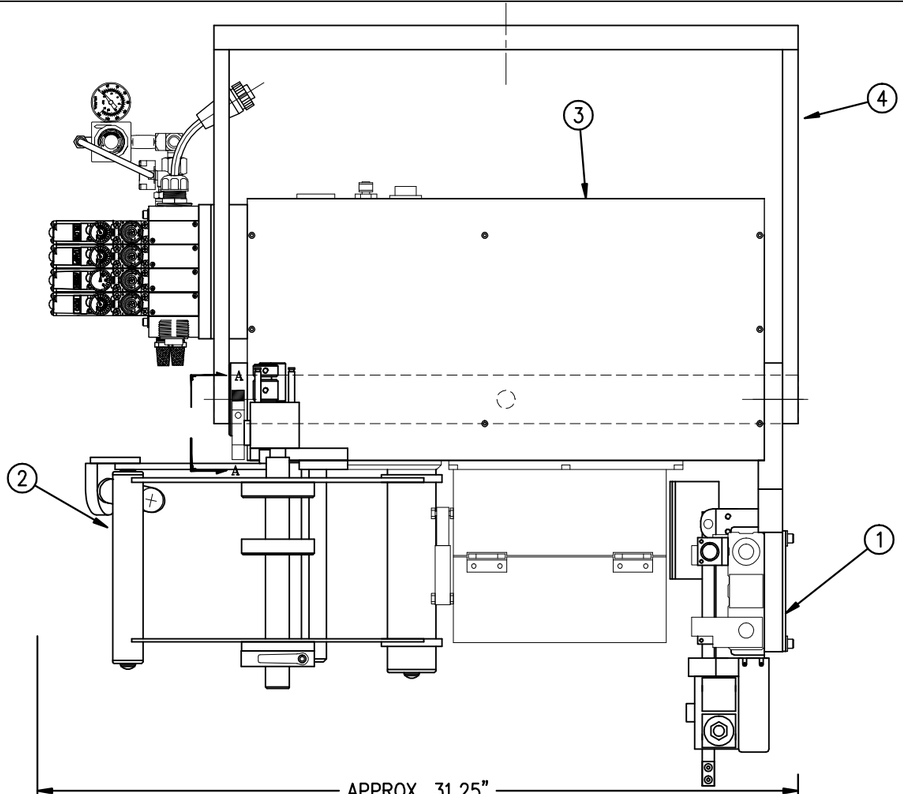


Figure 24 (optional product detect)

Product Detect Sensor Position
Before going through this section. Make sure the extend and retract times properly set up.

Power the applicator up, turn the air on and send label formats to the printer. Position the product detect sensor about 6 inches upstream of the extended swing arm. Set the #1 label placement to 0.000 and turn the conveyor on. Put a product on and watch when the label is blown off the label pad. If the product hit the label pad before it retracted, move the product detect up stream more. If it retracted too soon, move the sensor downstream. Ideally the label will be blown onto the front of the product and retract without ever touching the product.

Now look at the position of the label on the side of the product. If it's be applied too late, decrease the #2 label placement. If it's been applied too early, increase the label placement. If the #2 label placement is too low compare to the cycle time of the first half of the labeling sequence, a warning will be displayed saying "Label Rate Warning". If you can't increase label placement or reduce the time of the first half of the labeling sequence, then slow down the product.



BILL OF MATERIAL				SOLD
ASSEMBLY		CTM-238-0140R/L-X-X		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
1	1	DAT MODULE	MOD-238-0140R/L-X	S
2	1	12" UNWIND MODULE	MOD-238-0122R/L	S
3	1	DAT HOUSING ASSEMBLY/CORE UNIT	ASS-238-0150R/L	.
4	1	U-ARM MOUNT	WAS-238-0143	.
5	1	STD REWIND DISK ASSEMBLY	ASS-238-0144-12	S
	1	FILM REWIND DISK ASSEMBLY	ASS-200-2137	S
	1	PRODUCT DETECT SENSOR	ASS-200-0427	S

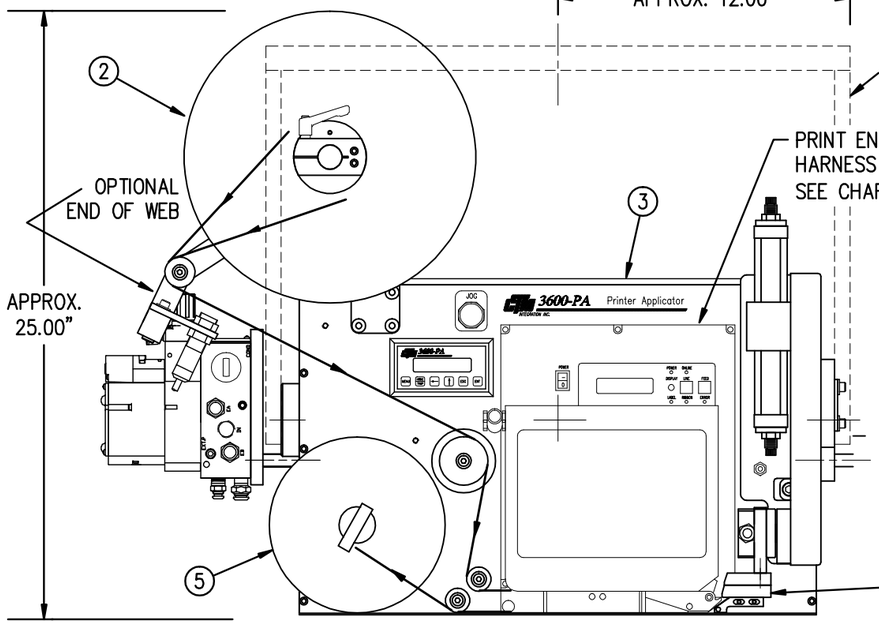
ASSEMBLY NOTE:
VALVE BANK TO APPLICATOR CABLE NEEDS TO BE SHORTENED AT ASSY.

PART NO.	DIM "A"	DIM "B"
CTM-238-0126R/L-12X	31.25	15.88
CTM-238-0126R/L-2-12X	33.25	17.88
CTM-238-0126R/L-4-12X	35.25	19.88

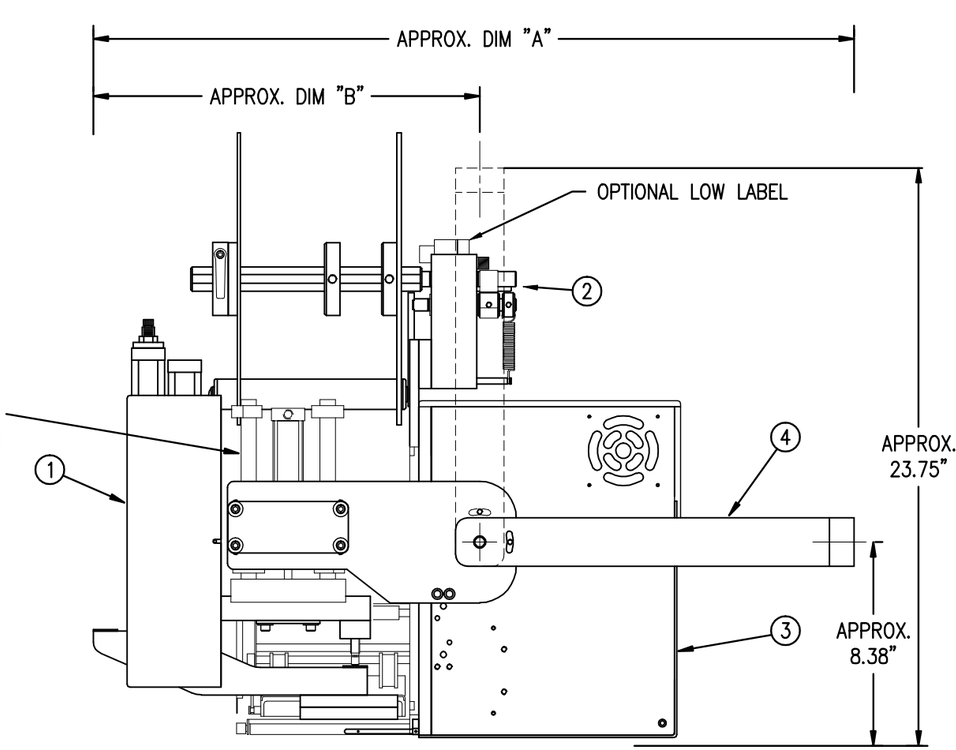
CTM-238-0140R/L-X-X	
STD. REWIND W/ STD. SWING ARM	-0140R/L-S
FILM REWIND W/ STD. SWING ARM	-0140R/L-F
STD. REWIND W/ 2" OVERSIZE SWING ARM	-0140R/L-2-S
FILM REWIND W/ 2" OVERSIZE SWING ARM	-0140R/L-2-F
STD. REWIND W/ 4" OVERSIZE SWING ARM	-0140R/L-4-S
FILM REWIND W/ 4" OVERSIZE SWING ARM	-0140R/L-4-F

APPLICATOR TO PRINT ENGINE INTERFACE HARNESSES: (ORDER W/ PRINT ENGINE)	
PAX	PE-238-0418
SATO SE	PE-238-0420
OBSOLETE → SATO S	PE-238-0417

SECTION A-A
LOW LABEL SENSOR
(ORDER AS AN OPTION)



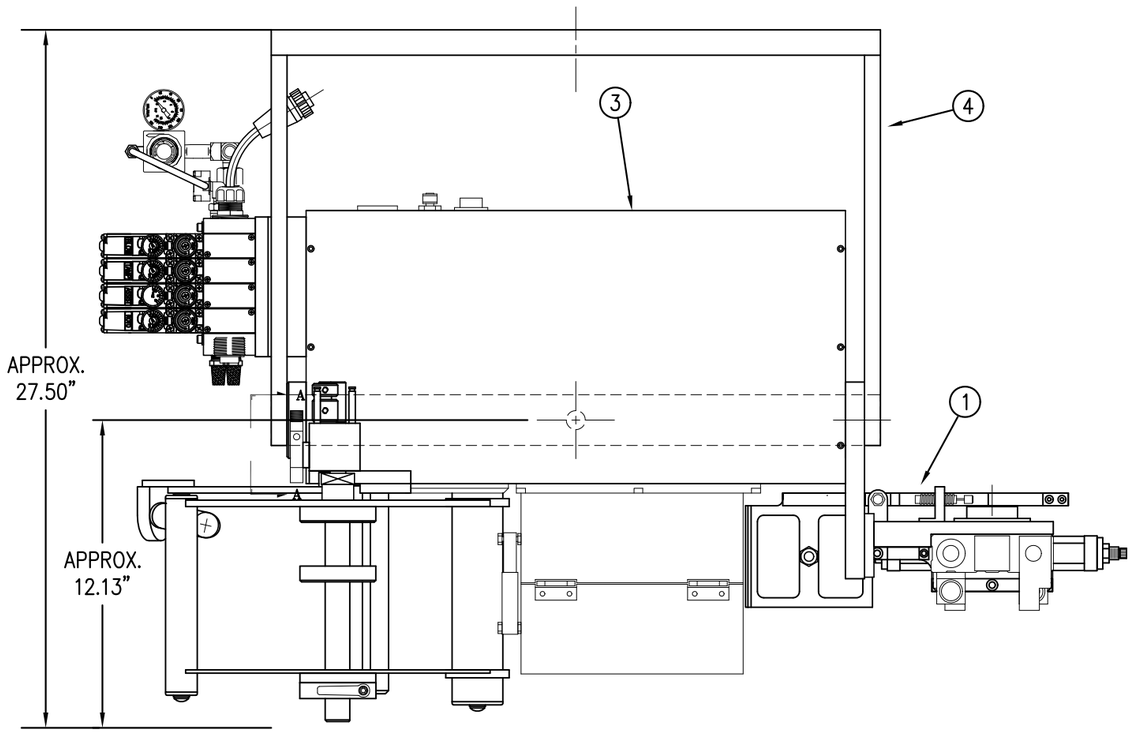
SLIDE STROKE LENGTH IS JOB SPECIFIC
(ORDER SLIDE SEPARATELY)
3" STROKE: PM-AC1237
6" STROKE: PM-AC1239
8" STROKE: PM-AC1241



TITLE: SERIES 3600 PRINTER APPLICATOR: DAT
PART: PERPENDICULAR DAT CTM ASSEMBLY

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	Dept. Code
2	UPDATED DWG FOR MAC VALVE BANK	03/03/11	TDR	1=6	06/26/03	DKM	70

F:\Engineering\Standard Parts\System Components:
238\CTM-238-0140RL-X-X



BILL OF MATERIAL				SOLD
ASSEMBLY		CTM-238-0145R/L-X-X		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
1	1	DAT REELS-UP MODULE	MOD-238-0145R/L-X	S
2	1	12" UNWIND MOD W/ ALUM DISK	MOD-238-0122AR/L	S
3	1	DAT HOUSING ASSEMBLY/CORE UNIT	ASS-238-0150R/L	.
4	1	U-ARM MOUNT	WAS-238-0130	.
5	1	STD REWIND DISK ASSEMBLY	ASS-238-0144-12	S
	1	FILM REWIND DISK ASSEMBLY	ASS-200-2137	S
	1	PRODUCT DETECT SENSOR	ASS-200-0427	S

ASSEMBLY NOTE:
VALVE BANK TO APPLICATOR CABLE NEEDS TO BE SHORTENED AT ASSY.

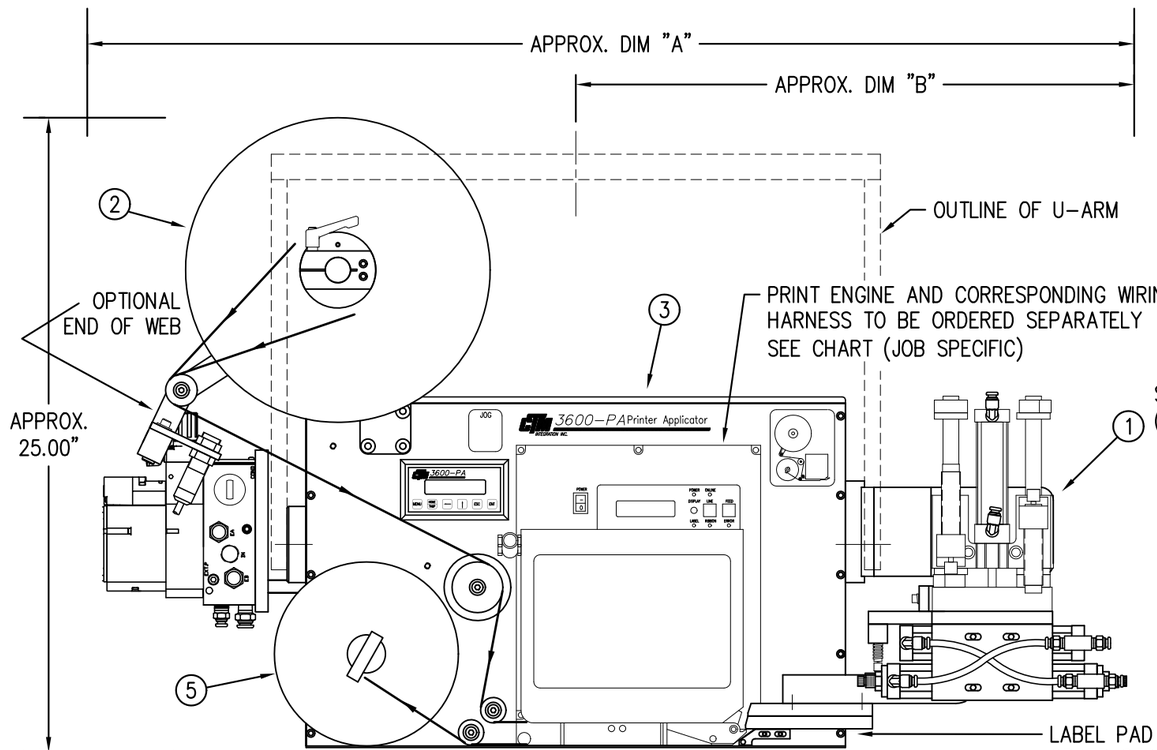
PART NO.	DIM "A"	DIM "B"
CTM-238-0126R/L-12X	41.25	22.00
CTM-238-0126R/L-2-12X	43.25	24.00
CTM-238-0126R/L-4-12X	45.25	26.00

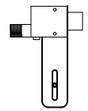
USE THIS SETUP FOR REELS UP ORIENTATION

CTM-238-0145R/L-X-X	
STD. REWIND W/ STD. SWING ARM	-0145R/L-S
FILM REWIND W/ STD. SWING ARM	-0145R/L-F
STD. REWIND W/ 2" OVERSIZE SWING ARM	-0145R/L-2-S
FILM REWIND W/ 2" OVERSIZE SWING ARM	-0145R/L-2-F
STD. REWIND W/ 4" OVERSIZE SWING ARM	-0145R/L-4-S
FILM REWIND W/ 4" OVERSIZE SWING ARM	-0145R/L-4-F

APPLICATOR TO PRINT ENGINE INTERFACE HARNESSES: (ORDER W/ PRINT ENGINE)	
PAX	PE-238-0418
SATO SE	PE-238-0420
SATO S	PE-238-0417

OBSOLETE





SECTION A-A
LOW LABEL SENSOR
(ORDER AS AN OPTION)

SLIDE STROKE LENGTH IS JOB SPECIFIC
(ORDER SLIDE SEPARATELY)
3" STROKE: PM-AC1237
6" STROKE: PM-AC1239
8" STROKE: PM-AC1241

TITLE: SERIES 3600 PRINTER APPLICATOR: DAT REELS-UP
PART: IN-LINE DAT ASSEMBLY

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:
2	MODIFIED SWG. ARM, MANIFOLD, & SLIDE MTG. PLATE	01/18/06	TDR	1=6	06/26/03	DKM

Dept. Code 70

F:\Engineering\Standard Parts\System Components:
238\CTM-238-0145RL-X-X

BILL OF MATERIAL
MOD-238-0140R/L-X

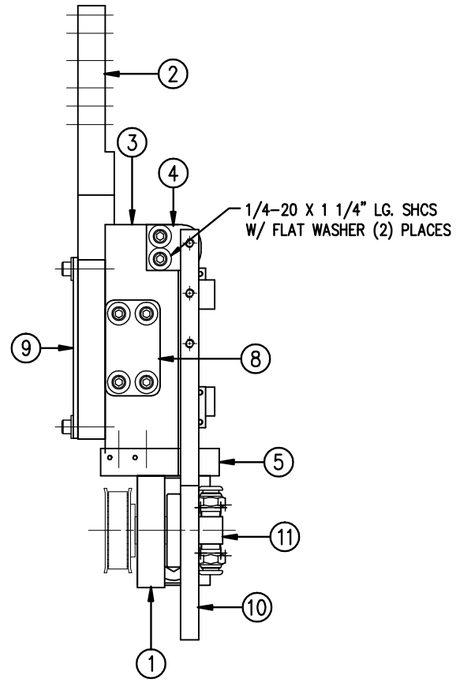
ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
	1	ASS-238-0140R/L-X	PERPENDICULAR DAT ASSEMBLY
㉚	1	PM-INS1010	THREADED INSERT, 1/4"-20 INT X 3/8"-24 EXT
㉛	1	MP-211-X217-X	AIR ASSIST TUBE - COATED
㉜	1	MP-238-0242	AIR ASSIST TUBE HOLDER
㉝	1	PM-AH1000	AIR ASSIST TUBING X 15" LONG
㉞	1	ASS-238-0142M	DAT 4-STATION VALVE BANK ASSEMBLY
㉟	1	MP-214-0206	VALVE MOUNTING PLATE
㊱	1	MP-238-0238	VALVE FASTENING PLATE
㊲	1	MP-238-0239	VALVE NUT PLATE
㊳	169"	PM-PT1070	1/4" SMC TUBING (CUT TO SUIT)
㊴	68"	PM-PT1080	3/8" SMC TUBING (CUT TO SUIT)
㊵	4	PM-PF1030	FTG, 1/4 TUBE X 1/8 NPT 90° MALE EL SW
㊶	1	PM-PF1045	FTG, 3/8 TUBE X 1/4 NPT 90° MALE EL SW
㊷	4	PM-PF1005	FTG, 1/4 TUBE X 1/8 NPT STRT
㊸	1	PM-PF1060	FTG, 3/8 TUBE X 1/4 NPT 90° MALE EL

LABEL SIZE SPECIFIC
ORDER SEPARATELY

MOD ALSO INCLUDES
ITEMS ㊵ THRU ㊸
WHICH ARE NOT SHOWN.

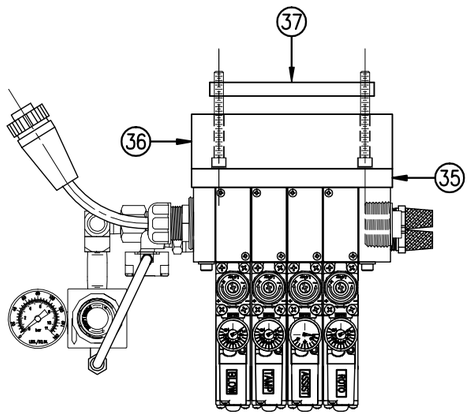
BILL OF MATERIAL
ASS-238-0140R/L-X

ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
	1	SAS-238-0140R/L	PERPENDICULAR DAT SHELF ASSEMBLY
②	1	MP-238-0301R/L-X	ASSEMBLY MOUNTING ARM
⑩	1	MP-238-0312R/L-X	DAT SWING ARM
⑪	1	MP-238-0313	SWING ARM AIR MANIFOLD
⑯	1	PM-238-0319R/L	SWING ASSEMBLY DRIVE GUARD (NOT SHOWN)
⑰	2	PM-214-0210	SHOCK STRIKE PLATES
㉙	2	PM-PF1020	3/8" TUBE X 1/4" NPT MALE CONN.



BILL OF MATERIAL
SAS-238-0140R/L

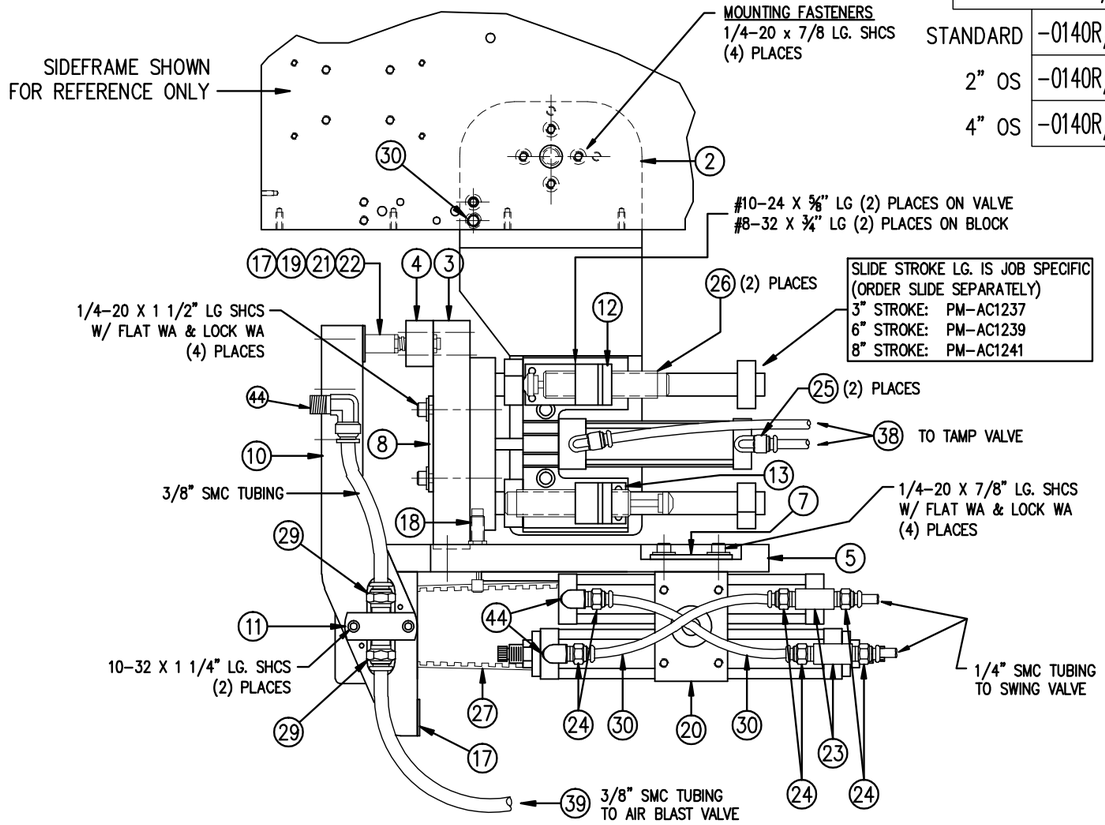
ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
①	1	ASS-238-0141	SWING ARM PIVOT ASSEMBLY
③	1	MP-238-0302R/L	SLIDE TRANSITION PLATE
④	1	MP-238-0303	SWING HOME SHOCK MOUNT
⑤	1	MP-238-0304R/L	ROTARY ACTUATOR MOUNT PLATE
⑥	1	PM-238-0305	ROTARY MOUNT NUT PLATE
⑦	1	PM-238-0306	ROTARY ACTUATOR NUT PLATE
⑧	1	PM-238-0307	SLIDE NOSE NUT PLATE
⑨	1	PM-238-0308	SLIDE BODY NUT PLATE
⑫	1	MP-238-0314	SLIDE HOME SHOCK MOUNT
⑬	1	MP-238-0315	SLIDE EXTEND SHOCK MOUNT
⑭	1	MP-238-0316	GUARD SUPPORT
⑮	1	MP-238-0318	ROTARY ACTUATOR PULLEY
⑱	1	PM-SA1000	MC25H SWING EXTEND SHOCK
⑲	1	PM-SA0990	MC25L SWING HOME SHOCK
⑳	1	PM-AC1248	ROTARY ACTUATOR
㉑	1	PM-CO1040	SHOCK STOP COLLAR
㉒	1	MP-214-0242	LOCK NUT FOR MC25L SHOCK
㉓	2	PM-PF1203	1/8" NPT BRANCH TEE
㉔	6	PM-PF1005	FITTING, 1/4" TUBE to 1/8" MALE NPTF
㉕	2	PM-PF1050	1/4" TUBE X 1/8" NPT ELBOW
㉖	2	PM-SA0950	SLIDE SHOCK ABSORBER
㉗	1	PM-BELT1039	SWING ARM TIMING BELT
㉘	2	PM-PT1070	1/4" OD SMC TUBING X 7" LG.
㊹	2	PM-PF1180	90deg. STREET ELBOW, 1/8" NPT female to 1/8" NPT male

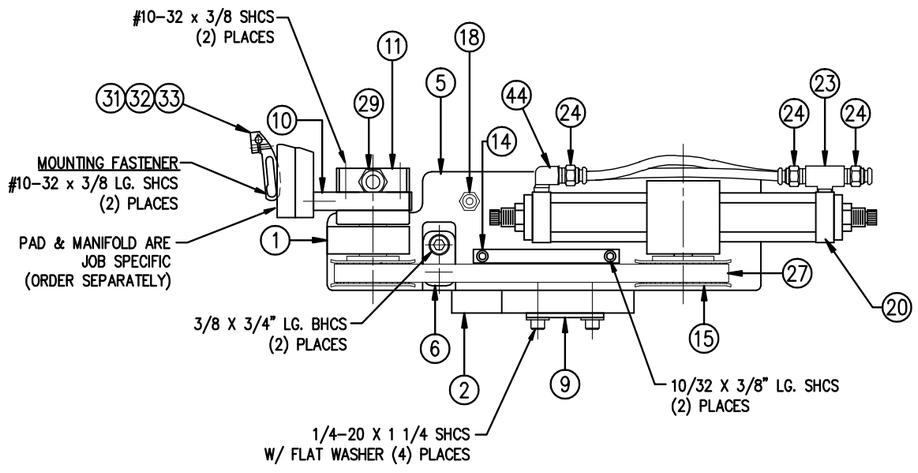


㉞ VALVE BANK ASSEMBLY

RH & LH ASSEMBLIES AVAILABLE
-RH ASSEMBLY SHOWN-

⑯ BELT GUARD NOT SHOWN





	MOD-238-0140R/L-X
	ASS-238-0140R/L-X
	SAS-238-0140R/L
STANDARD	-0140R/L-0
2" OS	-0140R/L-2
4" OS	-0140R/L-4

APPLICATOR SERIES:	3600
APPLICATOR WIDTH(S):	5"/7.5"
GROUP:	DUAL ACTION TAMP
TITLE:	PERPENDICULAR DAT SHELF ASSEMBLY, ASSEMBLY & MODULE LEVELS
Dept. Code	70
F:\Engineering\Standard Parts\Applicator\3600\	3600\MOD-238-0140R/L-X
Scale:	1=4
Date:	10/18/2014
DRAWN BY:	ES
REV. BY:	ES
REV. DATE	10/18/2014
REV.	O
REV. DESCRIPTION	NEW DRAWING FOR SAS, ASS & MOD LEVELS

MOD-238-0145R/L-X

BILL OF MATERIAL
MOD-238-0145R/L-X

ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
	1	ASS-238-0145R/L-X	IN-LINE DAT ASSEMBLY
(28)	1	MP-211-X217-X	AIR ASSIST TUBE - COATED
(29)	1	MP-238-0242	AIR ASSIST TUBE HOLDER
(30)	1	PM-AH1000	AIR ASSIST TUBING X 15" LONG
(31)	1	ASS-238-0142M	DAT 4-STATION VALVE BANK ASSEMBLY
(32)	1	MP-214-0206	VALVE MOUNTING PLATE
(33)	1	MP-238-0238	VALVE FASTENING PLATE
(34)	1	MP-238-0239	VALVE NUT PLATE
(35)	169"	PM-PT1070	1/4" SMC TUBING (CUT TO SUIT)
(36)	68"	PM-PT1080	3/8" SMC TUBING (CUT TO SUIT)
(37)	4	PM-PF1030	FTG, 1/4 TUBE X 1/8 NPT 90° MALE EL SW
(38)	1	PM-PF1045	FTG, 3/8 TUBE X 1/4 NPT 90° MALE EL SW
(39)	4	PM-PF1005	FTG, 1/4 TUBE X 1/8 NPT STRT
(40)	1	PM-PF1060	FTG, 3/8 TUBE X 1/4 NPT 90° MALE EL

MOD ALSO INCLUDES ITEMS (37) THRU (40) WHICH ARE NOT SHOWN.

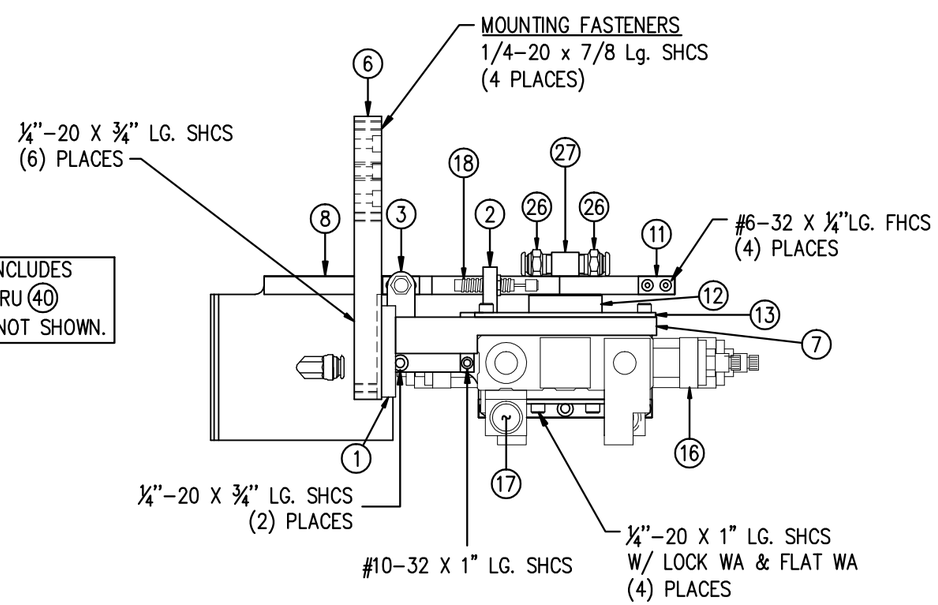
BILL OF MATERIAL
ASS-238-0145R/L-X

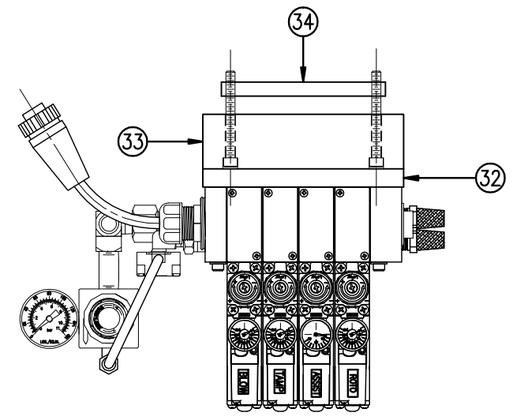
ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
	1	SAS-238-0145R/L-X	IN-LINE DAT SHELF ASSEMBLY
(1)	1	MP-238-0325	SLIDE MOUNT ANGLE PLATE
(6)	1	MP-238-0330R/L	DAT MOUNTING ARM
(7)	1	MP-238-0331-X	DAT SLIDE MOUNT PLATE
(8)	1	MP-238-0312R/L-X	DAT SWING ARM
(11)	2	PM-214-0210	SHOCK STRIKE PLATE
(26)	2	PM-PF1020	3/8" TUBE X 1/4" NPT MALE CONN.
(27)	1	MP-238-0313	DAT SWING ARM AIR MANIFOLD

RH INLINE DAT'S USE A LEFT HAND SWING ARM AND THE LH INLINE DAT'S USE A RIGHT HAND SWING ARM

BILL OF MATERIAL
SAS-238-0145R/L

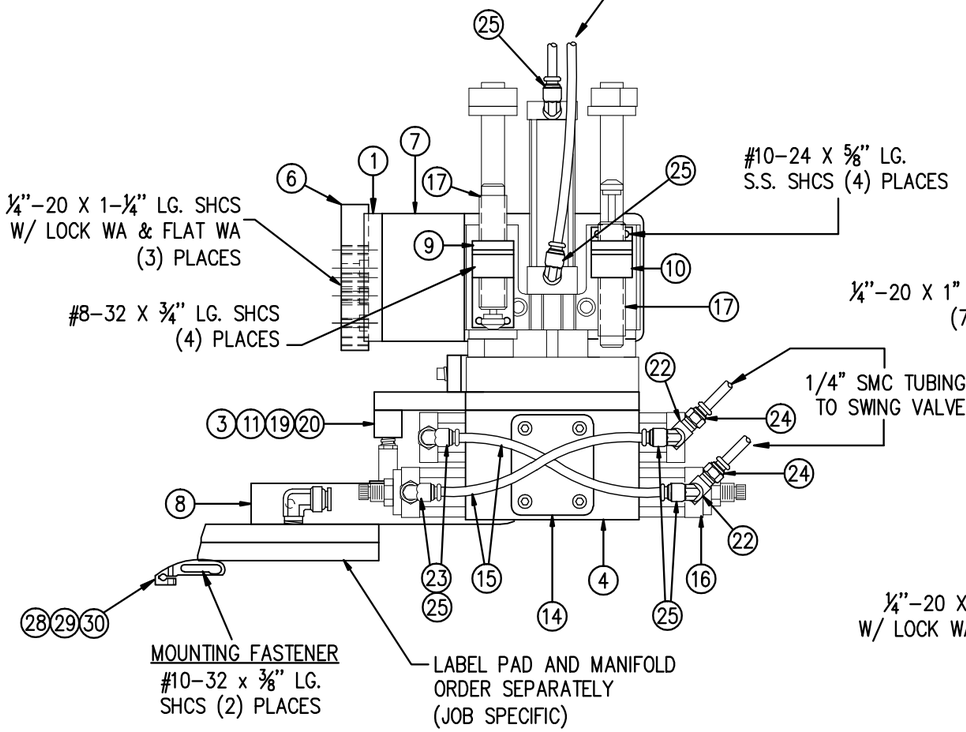
ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
(2)	1	MP-238-0326R/L	SWING TAMP EXTEND SHOCK MOUNT
(3)	1	MP-238-0327	SWING TAMP HOME SHOCK MOUNT
(4)	1	MP-238-0328	DAT ROTARY ACTUATOR MOUNT PLATE
(5)	1	MP-238-0329R/L	SLIDE TO ROTARY TRANSITION PLATE
(9)	1	MP-238-0314	SLIDE HOME SHOCK MOUNT
(10)	1	MP-238-0315	SLIDE EXTEND SHOCK MOUNT
(12)	1	MP-214-0211	ROTARY ACTUATOR HUB
(13)	1	PM-238-0308	DAT SLIDE BODY NUT PLATE
(14)	1	PM-238-0332	ROTARY ACTUATOR NUT PLATE
(15)	2	PM-PT1070	1/4" SMC TUBING CUT TO 8" LG.
(16)	1	PM-AC1248	ROTARY ACTUATOR
(17)	2	PM-SA0950	SLIDE SHOCK ABSORBER
(18)	1	PM-SA1000	MC25H SWING EXTEND SHOCK
(19)	1	PM-SA0990	MC25L SWING HOME SHOCK
(20)	1	PM-C01040	SHOCK STOP COLLAR
(21)	2	MP-214-0242	LOCKNUT FOR MC25L SHOCK
(22)	2	PM-PF1205	STREET TEE, 1/8" NPT male to 1/8" NPT female 2-ends
(23)	2	PM-PF1216	1/8 NPT FEMALE to 1/8 NPT MALE ADAPTER
(24)	2	PM-PF1005	1/4" TUBE X 1/8" NPT STRAIGHT FITTING
(25)	6	PM-PF1050	1/4" TUBE X 1/8" NPT ELBOW

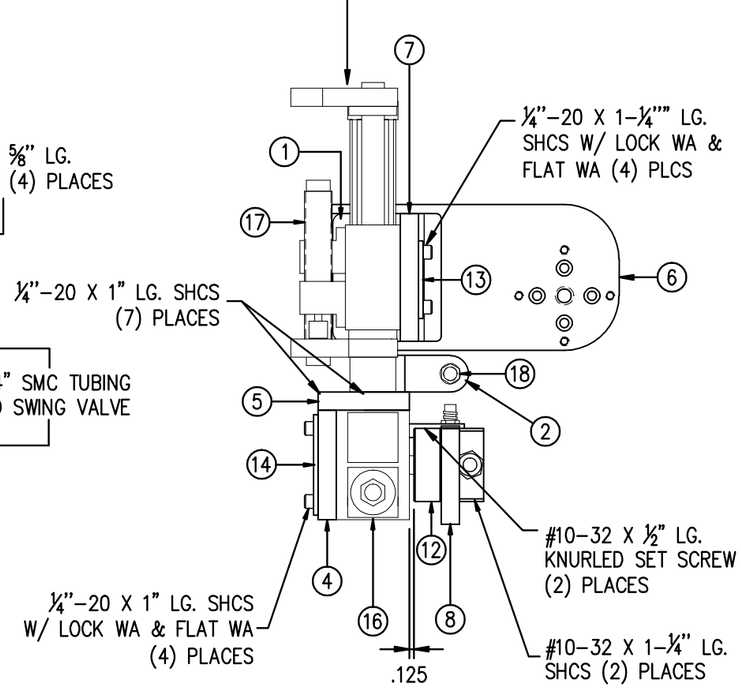




(31) VALVE BANK ASSEMBLY

SLIDE STROKE LG. IS JOB SPECIFIC
(ORDER SLIDE SEPARATELY)
3" STROKE: PM-AC1237
6" STROKE: PM-AC1239
8" STROKE: PM-AC1241





TITLE: INLINE DAT SHELF ASSEMBLY, ASSEMBLY & MODULE LEVELS

Dept. Code 70

F:\Engineering\Standard Parts\Applicator\3600\3600\MOD-238-0145R/L-X

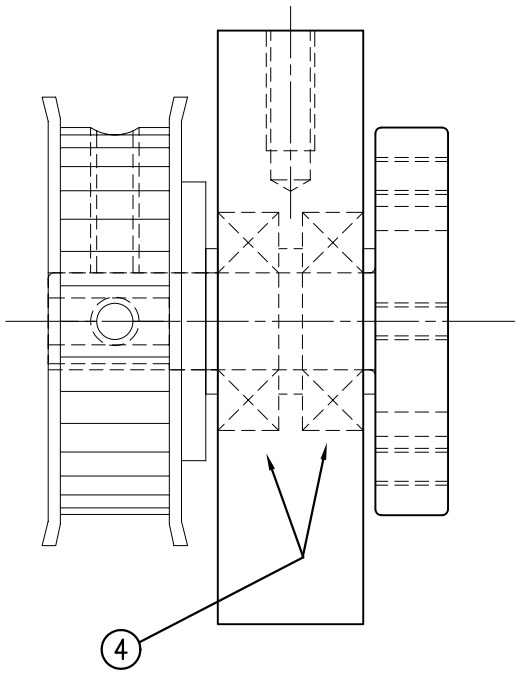
REV. BY: KSM | Scale: 1=4 | Date: 01/02/2015 | DRAWN BY: ES

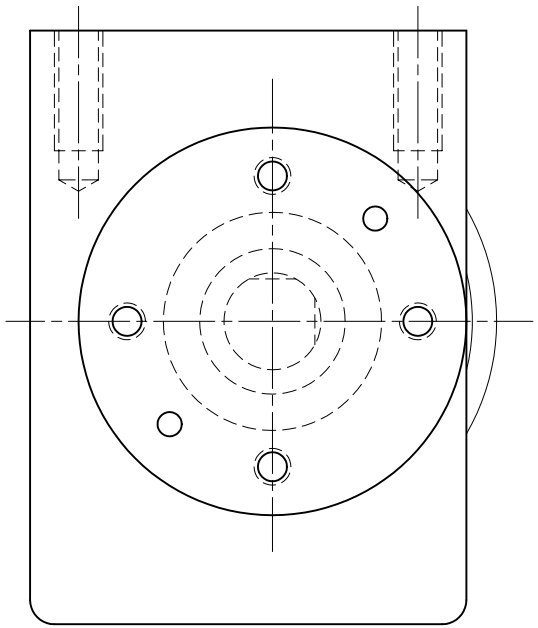
THIS DRAWING AND DESIGN IS THE PROPERTY OF CTM INTEGRATION INC. AND MAY NOT BE REPRODUCED

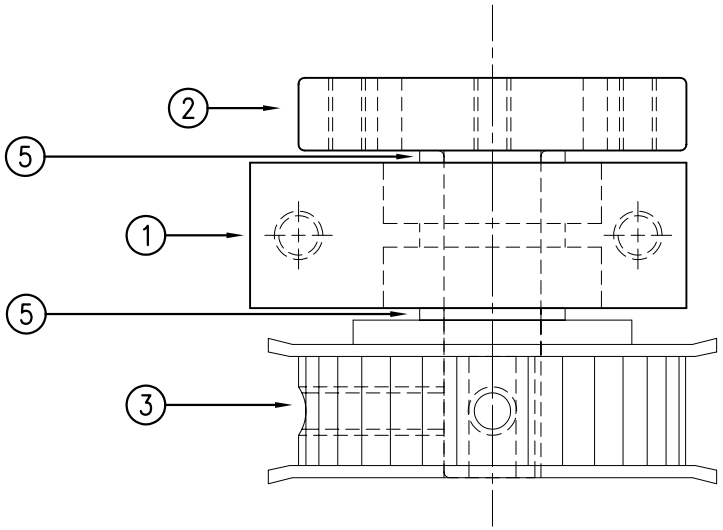
APPLICATOR SERIES: 3600 | APPLICATOR WIDTH(S): 5"/7.5" | GROUP: DUAL ACTION TAMP

REV. | REV. DESCRIPTION | REV. DATE
1 | REPLACED PM-PF1030 with PM-PF1050 & PM-PF1216 | 7/13/2015

ASS-238-0141







BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0141		.
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
1	1	DAT SWING ARM BEARING BLOCK	MP-238-0309	.
2	1	DAT SWING ARM PIVOT SHAFT	MP-238-0311	.
3	1	DAT SWING ARM PULLEY	MP-238-0317	.
4	2	#R8 BALL BEARING	PM-BE1250	S
5	2	1/2" ID BRONZE THRUST WASHER	PM-BEBT1016	.

TITLE: 3600-PA SERIES APPLICATOR: DAT ASSEMBLY	PART: SWING ARM PIVOT ASSEMBLY	Dept. Code 70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\3600 238\ASS-238-0141
0	–	–	XXX	1=1	11/30/01	BOB S.	

BILL OF MATERIAL

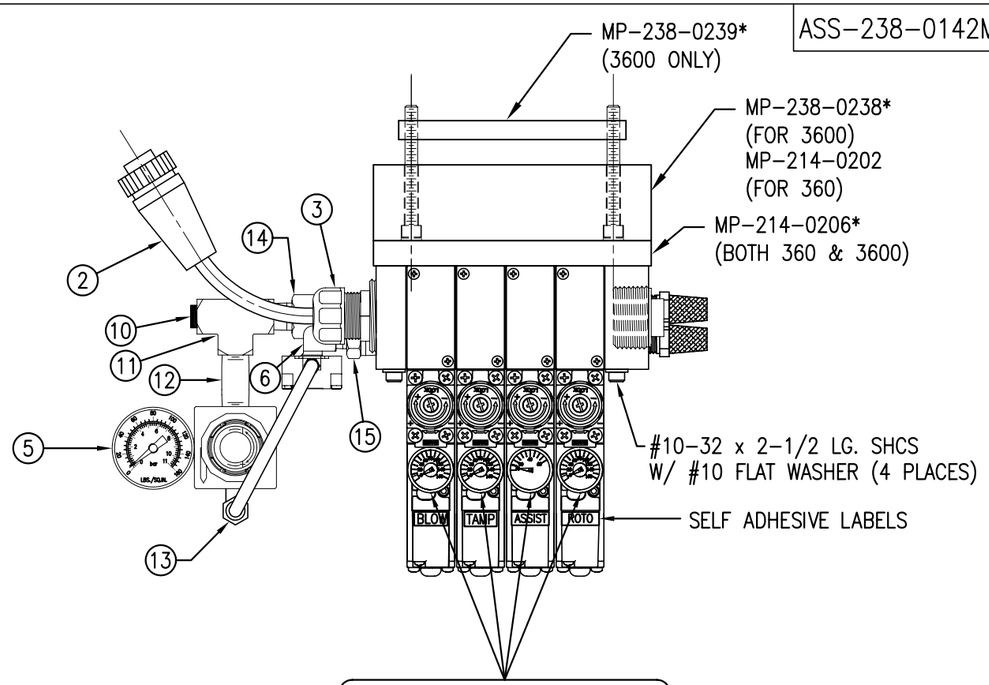
ASS–238–0142M

ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
①	1	PM–VA2361M	4 STATION MAC VALVE BANK
②	1	PE–200–0405	VALVE CABLE
③	1	PE–CO2000	CORD GRIP
④	1	PM–REG1500	REGULATOR
⑤	1	PM–VA2384	0–160 PSI PRESSURE GUAGE
⑥	5	PM–PF1180	NPT 90° STREET ELBOW 1/8" FEMALE TO 1/8" MALE
⑦	1	PM–PUMP1010	VACUUM PUMP, 55 PSI FEED PRESSURE, MUFFLED EXHAUST
⑧	2	PM–MU1027	3/8" NPT MALE BRONZE EXHAUST MUFFLER
⑨	1	PM–PF1110	BUSHING, 1/4" NPT FEMALE TO 3/8" NPT MALE
⑩	3	PM–FT1200	1/4" NPT SOCKET HEAD PLUG
⑪	1	PM–PF1200	TEE 1/4" NPT FEMALE 3 ENDS
⑫	1	PM–PF1143	NIPPLE, 1/4" NPT X 1 1/2" LG.
⑬	1	PM–PF1055	FTG, 1/4 TUBE to 1/4 NPT 90° ELBOW
⑭	1	PM–PF1220	ADAPTOR, 3/8" NPT FEMALE TO 1/4" NPT MALE
⑮	1	PM–PF1157	REDUCER, 3/8" NPT TO 1/8" NPT
⑯	1	PM–PF1159	FITTING, 3/8" NPT MALE BOTH ENDS
⑰	1	PE–EN9125	1 1/4" BLACK PLASTIC THREADED PLUG
⑱	1	PE–COND1084	STEEL REDUCER
⑲	1	PM–PF1167	3/8" NPT SOCKET HEAD PLUG
⑳	2	PM–PF1010	FITTING, 1/4" TUBE w/ 1/4" NPT STRT
㉑	1	PM–PF1020	FITTING, 3/8" TUBE w/ 1/4" NPT STRT
㉒	10.5"	PM–PT1070	1/4" OD TUBING
㉓	1	PM–PF1085	FTG, 1/4 NPT COUPLING
㉔	2	PM–PF2070	FLOW CONTROL, 1/4 TUBE x 1/4 NPT
㉕	1	PM–PF1035	FTG, 1/4 TUBE to 1/4 NPT 90° SWVL.
㉖	1	PM–PF1120	1/8 NPT CLOSE NIPPLE (3/4" Lg.)
㉗	1	PM–PF1170	FTG, 1/8 NPT to 1/8 NPT 90° FEMALE ELB.
◯	4	PM–FASH429088	10–32 X 2 1/2" LG. SS SHCS
◯	4	PM–FAW30265	#10 SS FLAT WASHER

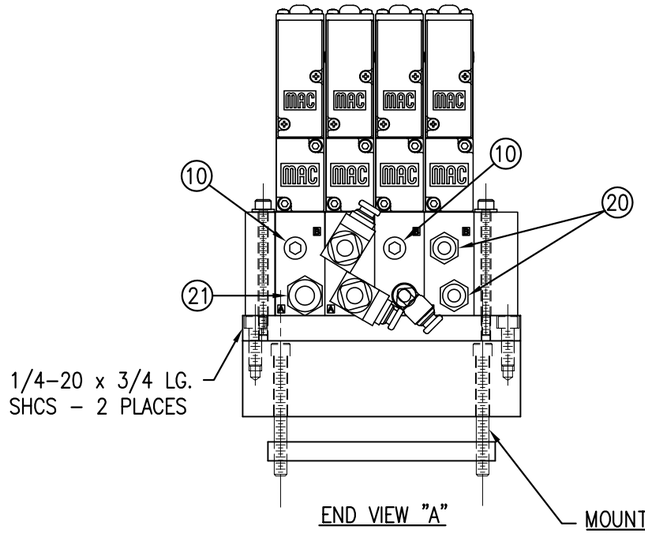
* MOUNTING PLATES NOT INCLUDED IN ASSEMBLY

VALVE BANK SPARE PARTS:

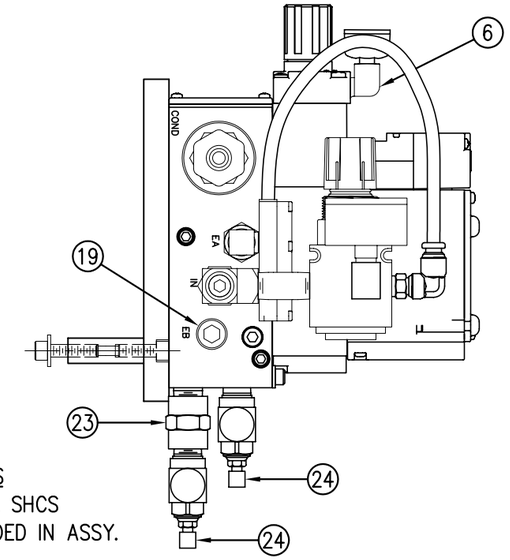
SOLENOID: #PM–VA2395M
AIR ASSIST REGULATOR W/GUAGE: #PM–VA2396M
BLOW/TAMP/IMPRINTER REGULATORS W/GUAGE: #PM–VA2397M
AIR ASSIST REGULATOR GUAGE: #PM–VA2382M
BLOW/TAMP/IMPRINTER REGULATOR GUAGES: #PM–VA2380M



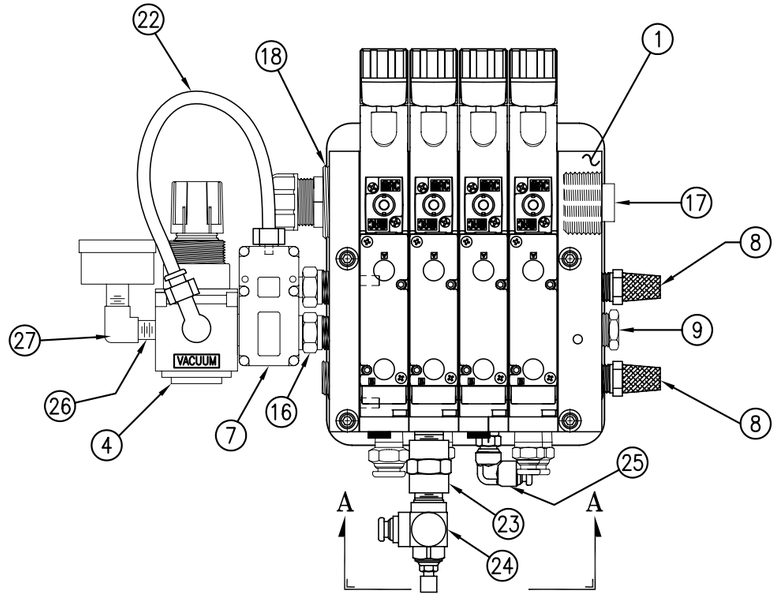
TAMP, IMPRINT & BLOW VALVE:
PRESSURE GAUGE – 0–160 PSI
AIR ASSIST VALVE:
PRESSURE GAUGE – 0–60 PSI



END VIEW "A"



MOUNTING FASTENERS
1/4–20 x 2–1/4 LG. SHCS
(2 PLCS) NOT INCLUDED IN ASSY.



FLOW CONTROL (N.S.)
NOT SHOWN FOR CLARITY

ASS–238–0142M

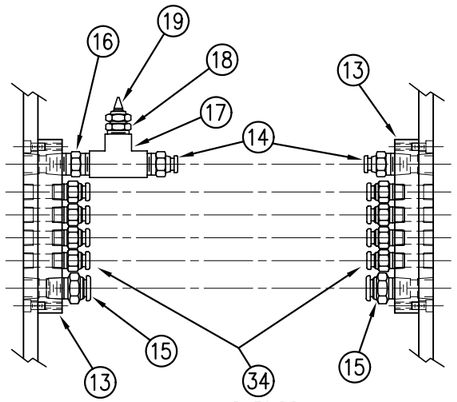
TITLE: DAT 4–STATION VALVE BANK ASSEMBLY
Dept. Code 70
DRAWN BY: E. SANOR
Date: 04/09/07
Scale: 1=3
REV. BY: XXX
F:\Engineering\Standard Parts\Applicator\360\3600\ASS–238–0142M

APPLICATOR SERIES: 360/3600
APPLICATOR WIDTH(S): 5"/7.5"/10"
GROUP: VALVE BANKS

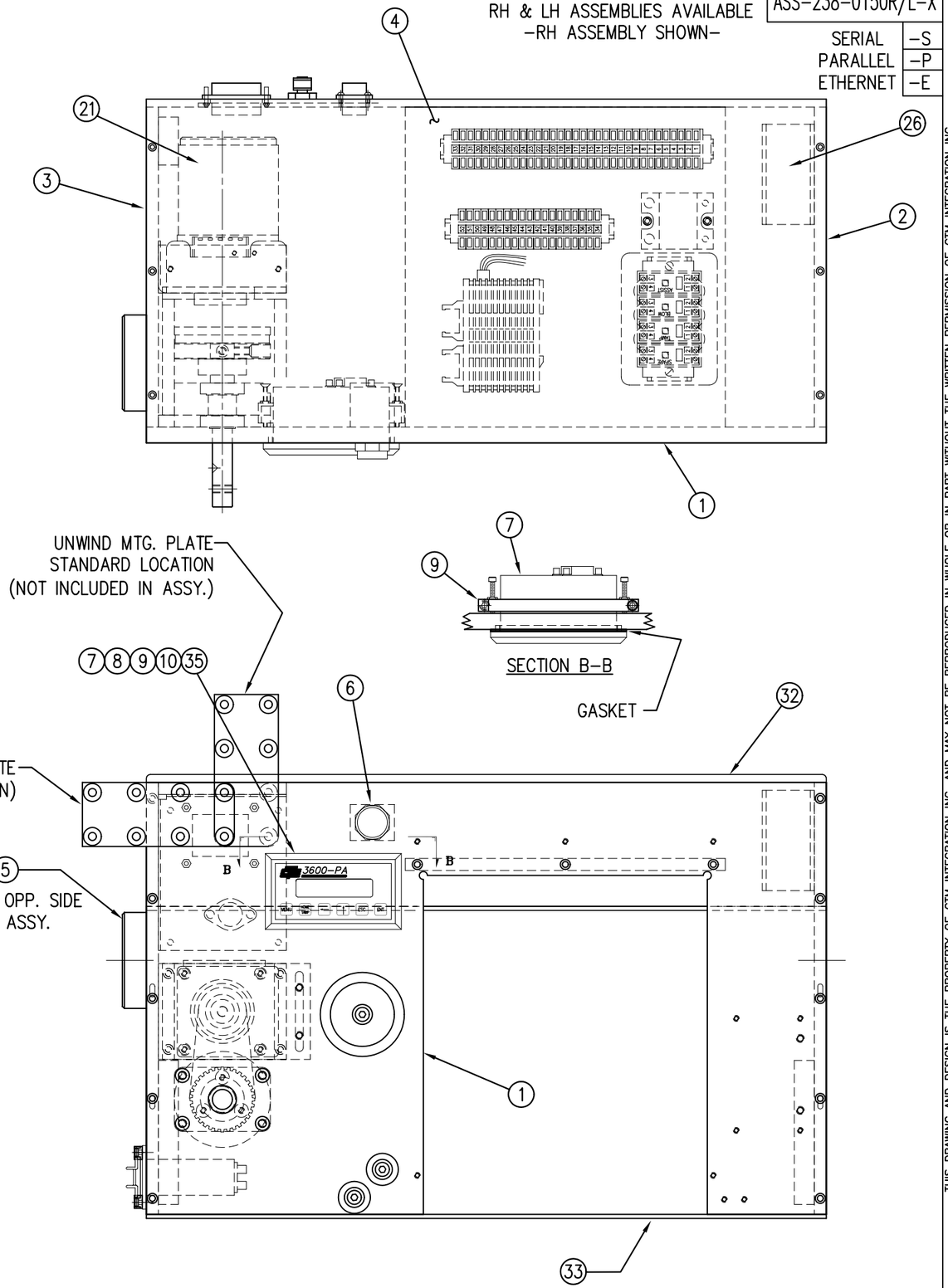
REV.	REV. DESCRIPTION	REV. DATE
0	–	–

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0150R/L-X		.
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	HOUSING FACEPLATE	MP-238-0226R/L	.
②	1	NOSE SIDE HOUSING SIDEFRAME	MP-238-0224R/L	.
③	1	UNWIND SIDE HOUSING SIDEFRAME	MP-238-0225R/L	.
④	1	ELECTRIC SHELF ASSEMBLY SERIAL / PARALLEL / ETHERNET	ASS-238-0127R/L-DAT-X	.
⑤	1	U-ARM/APPLICATOR PIVOT MOUNT	MP-200-0273	.
⑥	1	PUSH BUTTON ASSEMBLY	ASS-SW2010	S
⑦	1	3600 OPERATOR INTERFACE	PE-IN1055	S
⑧	1	3600 DISPLAY LABEL (OVERLAY)	PE-DMC1200	.
⑨	2	DISPLAY CLAMP MOUNT	MP-238-0248	
⑩	1	DISPLAY TO PLC CABLE	PE-238-0425	.
⑪	3	1/2" HOLE PLUG	PE-EN9055	.
⑫	1	AC POWER HARNESS & FILTER ASSEMBLY INCLUDES 2 FUSES (PE-FU2090)	ASS-238-0412	S
⑬	2	AIR MANIFOLD (6-HOLES)	MP-200-0249	.
⑭	2	FITTING, 1/4 NPT TO 1/4 TUBE	PM-PF1010	.
⑮	2	FITTING, 1/4 NPT TO 3/8 TUBE	PM-PF1020	.
⑯	1	FITTING, 1/4 NPT w 9/16 HEX. BRASS NIPPLE	PM-PF1153	.
⑰	1	TEE FITTING, 1/4 NPT (FEMALE)	PM-PF1200	.
⑱	1	FITTING, 1/4 NPT TO 1/8 NPT RED. BUSH.	PM-PF1105	.
⑲	1	HOSE BARB, 1/8 NPT MALE x 1/4 TUBE	PM-FT1105	.
⑳	1	REWIND CLUTCH ASSEMBLY	ASS-238-0120C	S
㉑	1	REWIND MOTOR & PULLEY ASSY.	ASS-238-0133	S
㉒	1	24VDC POWER SUPPLY ASSEMBLY	ASS-238-0128R/L	S
㉓	1	WIRING HARNESS FOR 24VDC POWER SUPPLY	PE-238-0414	.
㉔	1	REWIND MOTOR WIRING HARNESS	PE-238-0429	.
㉕	1	CAPACITOR COVER	PE-CON9070	S
㉖	1	AXIAL FAN	PE-FAN1103	S
㉗	1	FAN FILTER KIT INCLUDES REPLACEMENT FILTER (PE-FI1050)	PE-FAN1130	S
㉘	1	16-3 10 FT. POWER CORD	PE-CO1020	S

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0150R/L-X		.
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
㉙	1	2" DIA. DANCER ROLLER	ASS-238-0135	.
㉚	2	GUIDE COLAR	MP-238-0247	.
㉛	2	1" DIA. ROLLER	ASS-238-0134	.
㉜	1	TOP COVER	MP-238-0221	.
㉝	1	STAINLESS STL. HOUSING COVER	MP-238-0228	.
㉞	8	FITTING, 1/8 NPT TO 1/4 TUBE	PM-PF1005	.
㉟	1	FLANGE GASKET	PM-GA1000	.
㊱	1	POWER CORD CLIP ASSEMBLY	ASS-200-0148	S
	5	1/4 DIA. TUBING (CUT TO SUIT)	PM-PT1070	.
	1	3/8 DIA. TUBING (CUT TO SUIT)	PM-PT1080	.



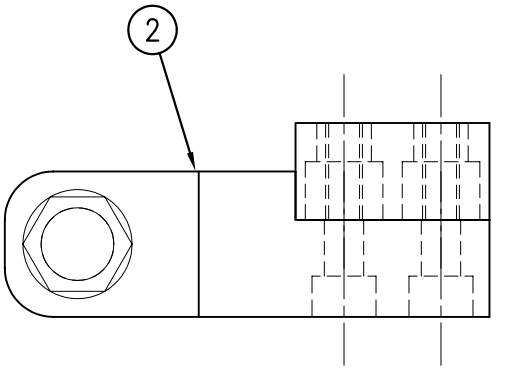
SECTION A-A

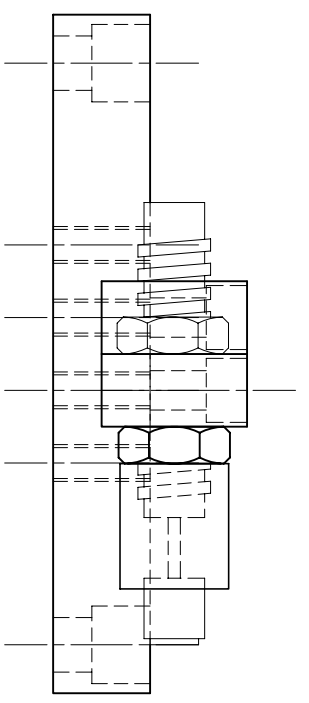


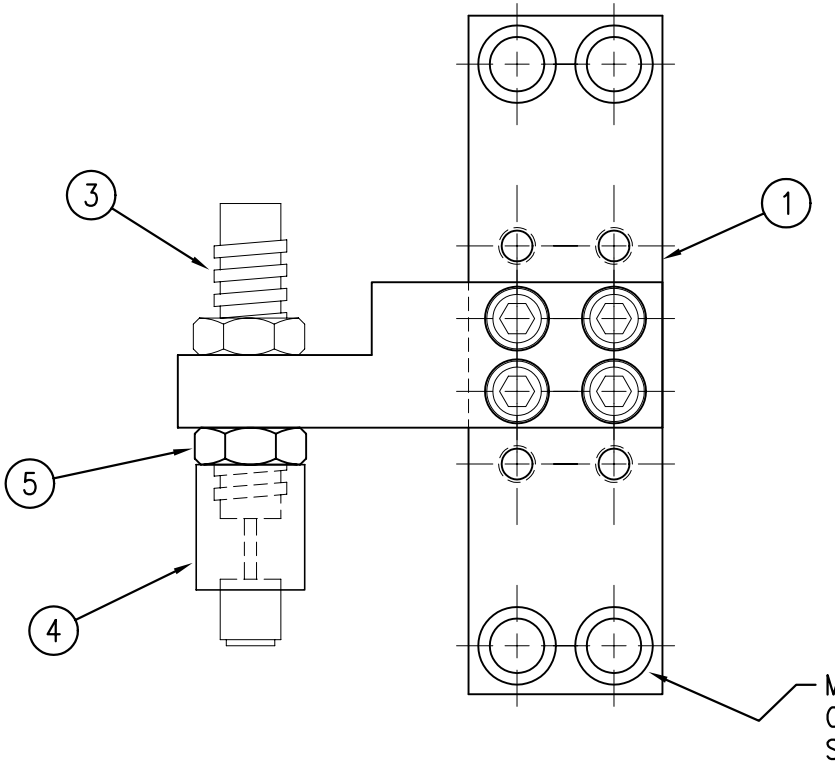
TITLE: 3600-PA SERIES APPLICATOR: HOUSING ASSEMBLY
PART: DAT APPLICATOR HOUSING (SERIAL/PARALLEL/ETHERNET)
Dept. Code 70
F:\Engineering\Standard Parts\Applicator\3600 ASS-238-0150R/L-X
DRAWN BY: BOB S
Date: 04/01/00
Scale: 1=1
REV. DATE 12/20/06
REV. BY: TDP
REV. DESCRIPTION UPDATED REWIND SHAFT
REV. Z

ASS-238-0166

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0166		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
1	1	DAT (IN-LINE) SHOCK MOUNTING PLATE	MP-238-0296	.
2	1	DAT (IN-LINE) SHOCK MOUNT	MP-238-0297	.
3	1	LIGHT DUTY SHOCK ABSORBER	PM-SA0990	.
4	1	STOP COLLAR	PM-C01040	.
5	2	NUT FOR SHOCK ABSORBER	MP-214-0242	.





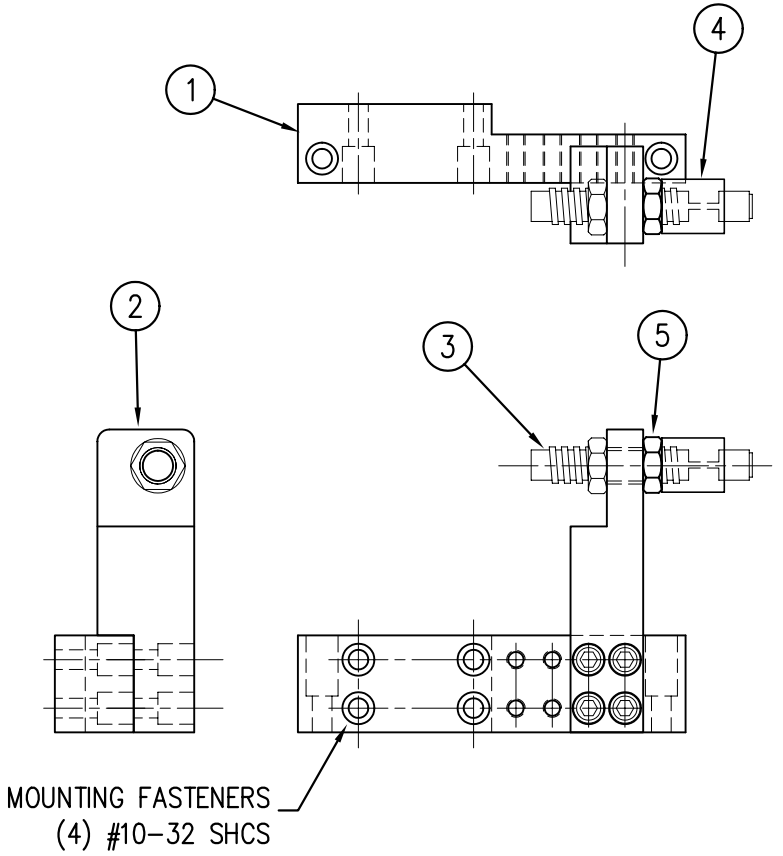


TITLE:	PART:	Dept. Code
3600-PA SERIES APPLICATOR: HOUSING	OPTIONAL SHOCK ASSEMBLY FOR 3600-PA IN-LINE DAT	70

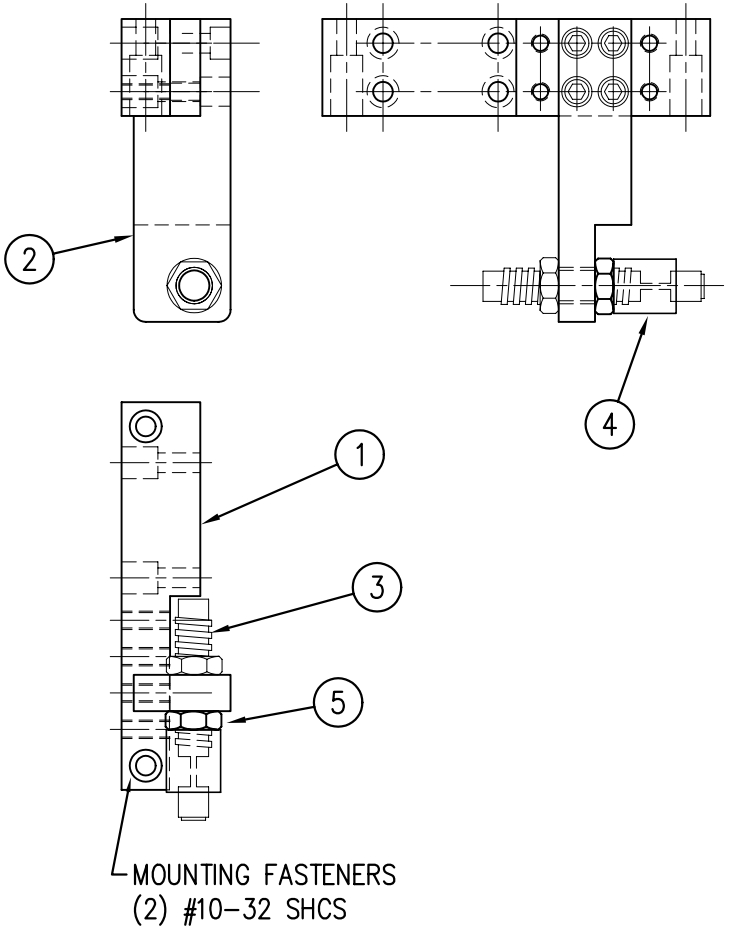
REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\3600 238\ASS-238-0166
0	–	–	XXX	1=1	7/20/06	TDR/JLG	

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0167		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
1	1	DAT (IN-LINE) SHOCK MOUNTING PLATE	MP-238-0298	.
2	1	DAT (IN-LINE) SHOCK MOUNT	MP-238-0299	.
3	1	LIGHT DUTY SHOCK ABSORBER	PM-SA0990	.
4	1	STOP COLLAR	PM-C01040	.
5	2	NUT FOR SHOCK ABSORBER	MP-214-0242	.

ASS-238-0167



LAYOUT FOR 360 IN-LINE DAT

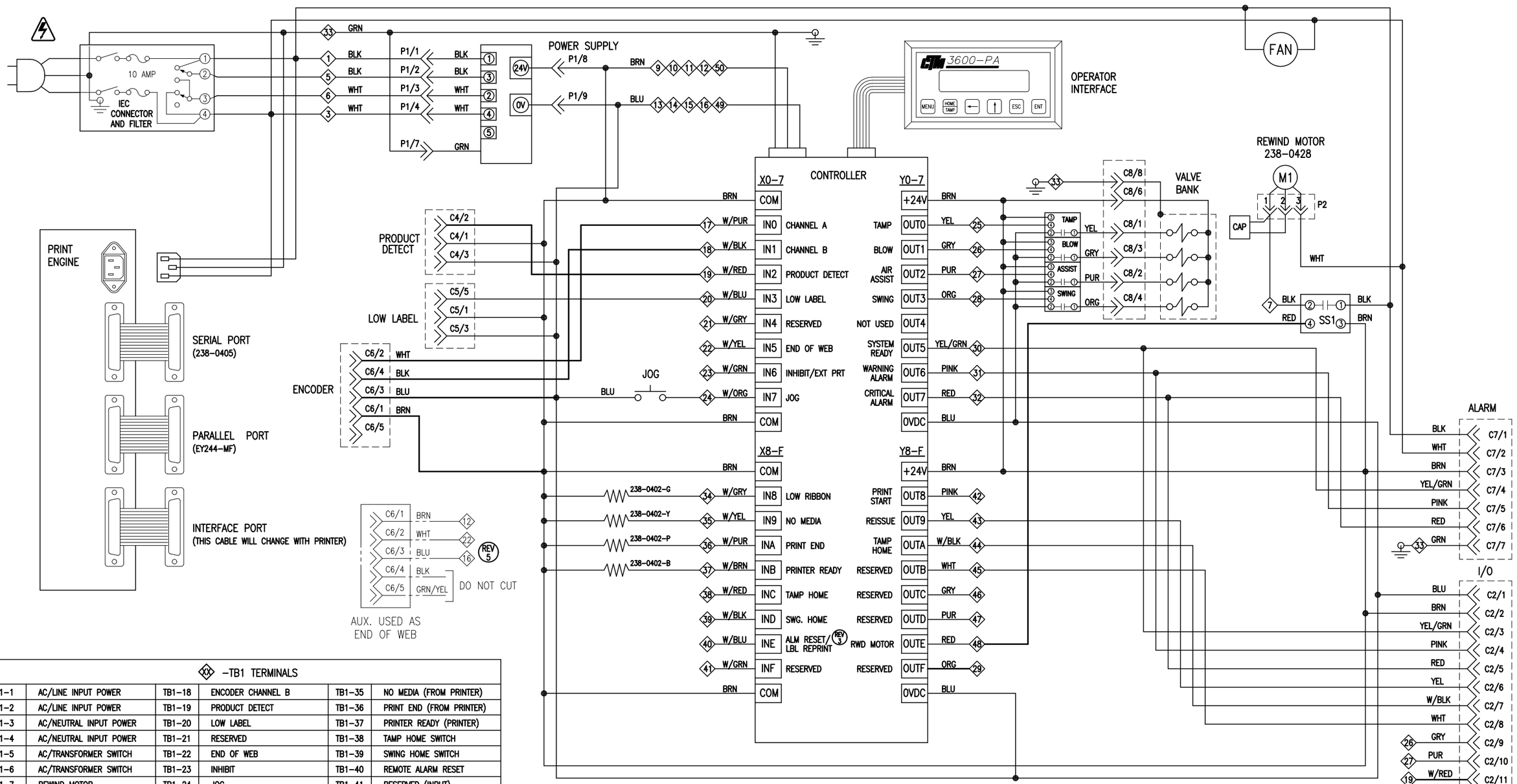


LAYOUT FOR 360 & 3600-PA PERPENDICULAR DAT

TITLE: 3600-PA SERIES APPLICATOR: HOUSING	PART: OPTIONAL SHOCK ASSY for 360/3600 PER. DAT & 360 IN-LINE DAT	Dept. Code 70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\3600 238\ASS-238-0167
1	UPDATED ASSEMBLIES	08/14/06	TDR	1=2	7/31/06	TDR	

ASS-238-0403



-TB1 TERMINALS

TB1-1	AC/LINE INPUT POWER	TB1-18	ENCODER CHANNEL B	TB1-35	NO MEDIA (FROM PRINTER)
TB1-2	AC/LINE INPUT POWER	TB1-19	PRODUCT DETECT	TB1-36	PRINT END (FROM PRINTER)
TB1-3	AC/NEUTRAL INPUT POWER	TB1-20	LOW LABEL	TB1-37	PRINTER READY (PRINTER)
TB1-4	AC/NEUTRAL INPUT POWER	TB1-21	RESERVED	TB1-38	TAMP HOME SWITCH
TB1-5	AC/TRANSFORMER SWITCH	TB1-22	END OF WEB	TB1-39	SWING HOME SWITCH
TB1-6	AC/TRANSFORMER SWITCH	TB1-23	INHIBIT	TB1-40	REMOTE ALARM RESET
TB1-7	REWIND MOTOR	TB1-24	JOG	TB1-41	RESERVED (INPUT)
TB1-8		TB1-25	TAMP VALVE	TB1-42	PRINT START (TO PRINTER)
TB1-9	24 VDC	TB1-26	BLOW VALVE	TB1-43	REPEAT
TB1-10	24 VDC	TB1-27	AIR ASSIST VALVE	TB1-44	TAMP HOME
TB1-11	24 VDC	TB1-28	SWING VALVE	TB1-45	RESERVED (OUTPUT)
TB1-12	24 VDC	TB1-29	RESERVED (OUTPUT)	TB1-46	RESERVED (OUTPUT)
TB1-13	0 VDC	TB1-30	READY OUTPUT	TB1-47	RESERVED (OUTPUT)
TB1-14	0 VDC	TB1-31	WARNING ALARM	TB1-48	RESERVED (OUTPUT)
TB1-15	0 VDC	TB1-32	CRITICAL ALARM	TB1-49	0 VDC
TB1-16	0 VDC	TB1-33	GROUND	TB1-50	24 VDC
TB1-17	ENCODER CHANNEL A	TB1-34	LOW RIBBON		

PART: DAT HOUSING SCHEMATIC

Dept. Code 70

F:\Engineering\Standard Parts\System Components: 3600 ASS-238-0403

DRAWN BY: BOB S. | Date: 12/15/01 | Scale: 1=2 | REV. BY: ES | REV. DATE 04/01/2011

TITLE: 3600-PA SERIES APPLICATOR: ELECTRICAL

REV. 5 | REV. DESCRIPTION: ADDED END OF WEB CONNECTOR DIAGRAM

ASS-238-0462

BILL OF MATERIAL

ASS-238-0462

ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
①	1	PE-SW1074	VACUUM SWITCH
②	1	PM-PF1180	1/8 NPT 90° STREET ELBOW
③	1	PM-PF1095	1/4" NPT to 1/8" NPT FEMALE COUPLING
④	1	PM-PF1202	1/4" NPT MALE to (2) 1/4" NPT FEMALE TEE
⑤	1	PM-PF1020	3/8" TUBE to 1/4 NPT MALE CONNECTOR
⑥	1	PM-PF1141	1/4" NPT PIPE NIPPLE x 3-1/2" LG.
⑦	3	PE-ST1000	3/32" ø SHRINK TUBE x 3/4" Lg.
⑧	1	PE-ST1010	3/16" ø SHRINK TUBE x 1" Lg.
9	1	PE-W1036	22 AWG (BLUE) WIRE x 10" LONG
10	1	PE-W1037	22 AWG (BROWN) WIRE x 10" LONG
11	1	PE-W1032	22 AWG (BLACK) WIRE x 10" LONG

REV 3

NOTE: THIS SWITCH HAS THE FOLLOWING USES:

FOR STANDARD 3600: 1) LABEL REPRINT 2) LABEL ON PAD

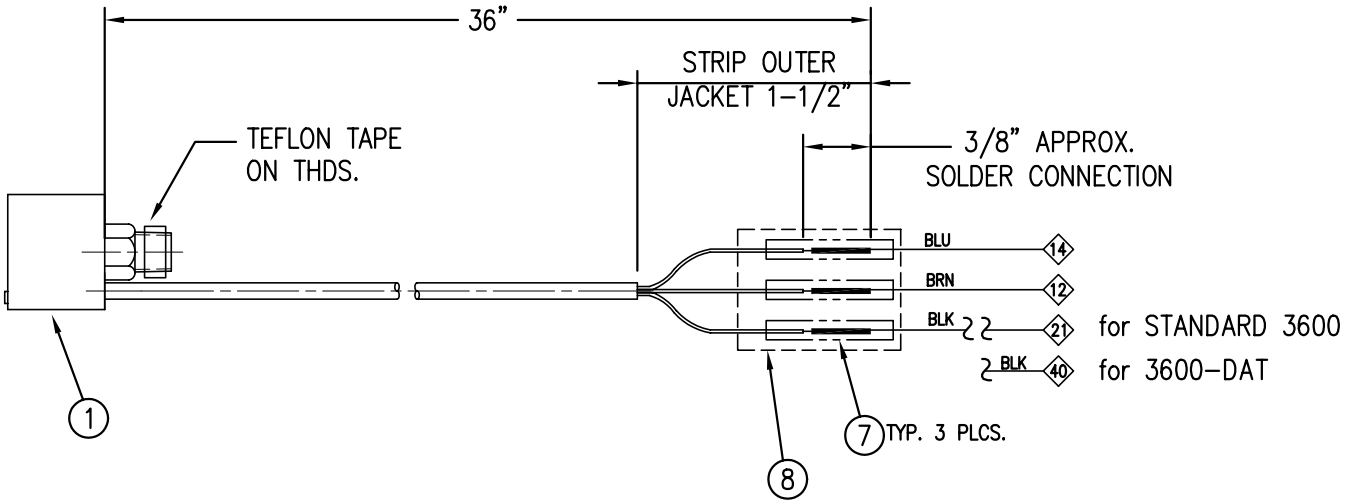
FOR 3600-DAT: 1) LABEL REPRINT

REMOTE ALARM RESET CANNOT BE USED WITH LABEL REPRINT OPTION ON DAT

ASSEMBLY NOTES:

1) STRIP CABLE OUTER JACKET BACK 1-1/2" TO EXPOSE THREE WIRES.
2) STRIP EACH OF THE THREE WIRES BACK 3/8".
3) SOLDER WIRE EXTENSIONS TO THE CABLE WIRES; MATCHING WIRE EXTENSION COLOR WITH SAME COLOR CABLE WIRE.
4) APPLY ONE PIECE OF 3/32"ø x 3/4" LONG SHRINK TUBE OVER TOP OF EACH OF THE SOLDERED CONNECTIONS AS SHOWN.
5) APPLY ONE PIECE OF 3/16"ø x 1" LONG SHRINK TUBE OVER ALL THREE WIRES COVERING SHRINK TUBE APPLIED IN STEP 4.

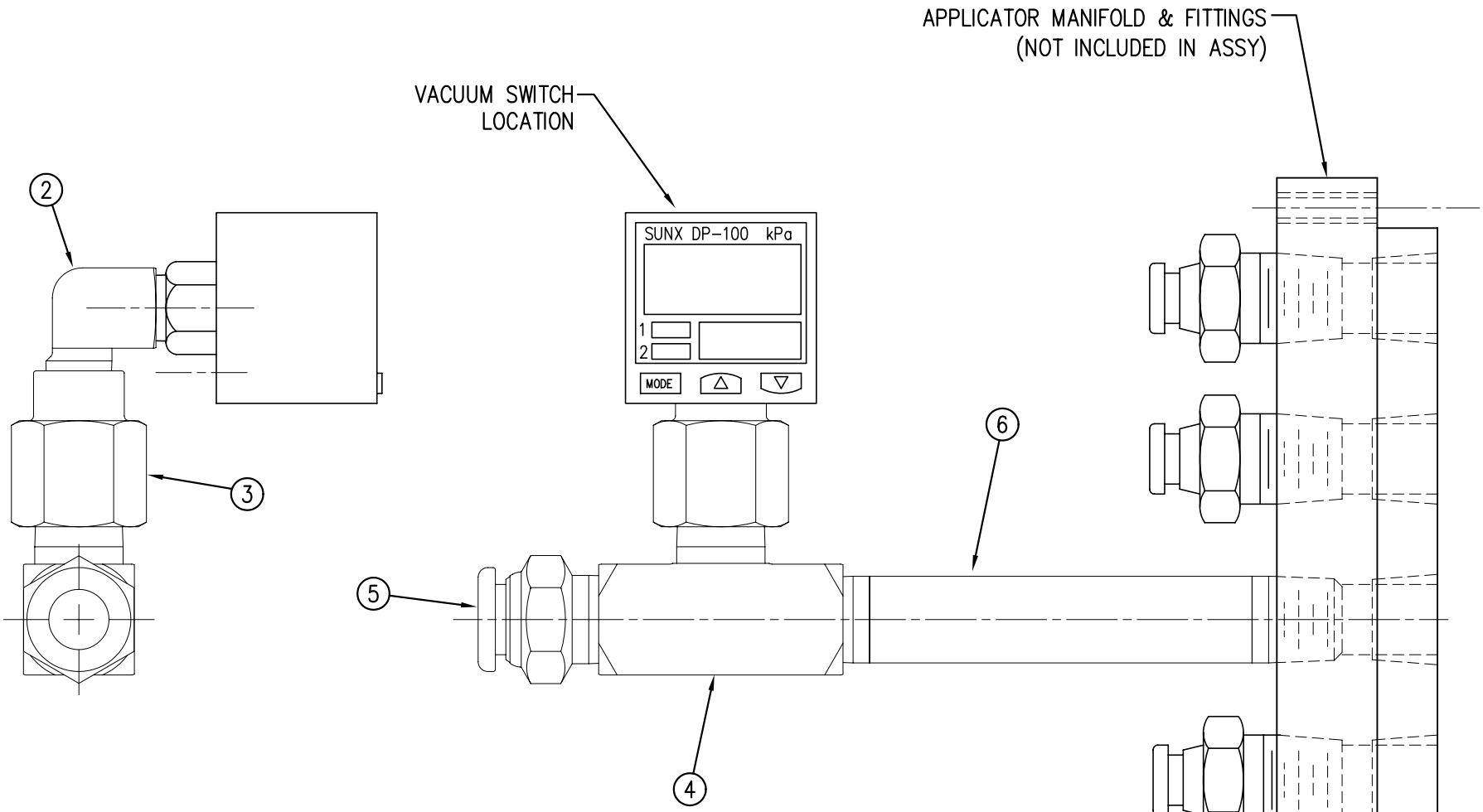
SEE ASS-238-0462 (Sheet 2)
FOR ADDITIONAL PIPING REQUIRED



TITLE:	PART:	Dept. Code
3600 SERIES APPLICATOR: ELECTRICAL (Sheet 1 of 2)	VACUUM SWITCH ASSEMBLY FOR 3600 & 3600-DAT	70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\System Components:
3	VACUUM SWITCH WAS PE-SW5000	10/12/07	TDR	1=2	05/20/05	J. Greeneisen	238\ASS-238-0462s1

ASS-238-0462



TITLE: 3600 SERIES APPLICATOR: ELECTRICAL (Sheet 2 of 2)	PART: VACUUM SWITCH ADDITIONAL PIPING FOR 3600 & 3600-DAT	Dept. Code 70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\System Components:
3	NEW VAC SWITCH & PIPING	10/12/07	TDR	1=1	01/31/06	TDR/JLG	238\ASS-238-0462s2

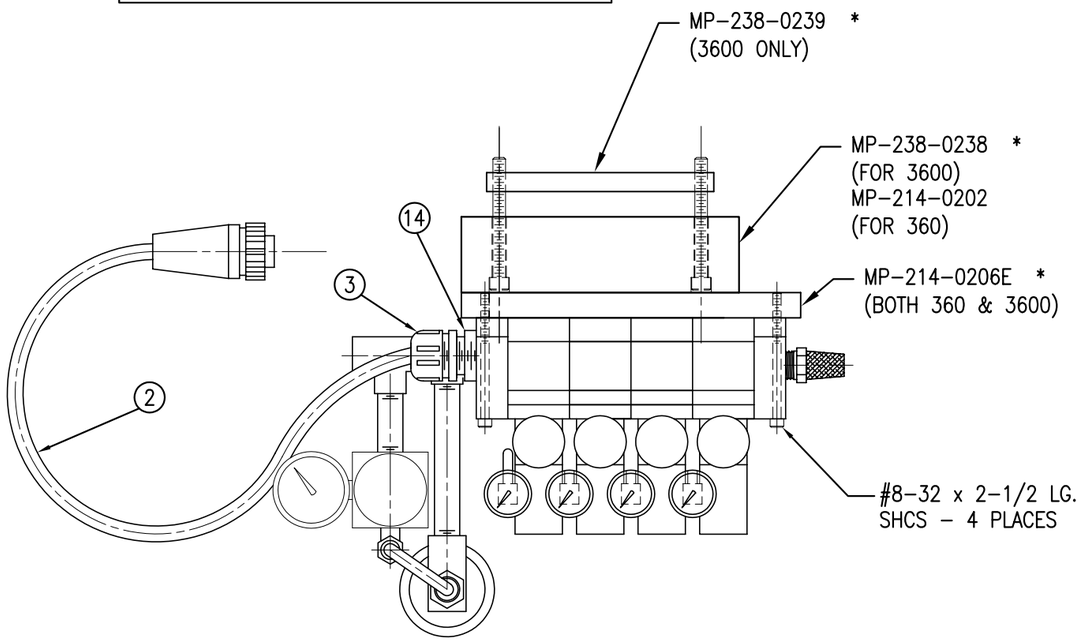
BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0142		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	4 STATION VALVE BANK	PM-VA2361	S
②	1	VALVE CABLE	PE-200-0405	.
③	1	CORD GRIP	PE-C02000	.
④	1	REGULATOR / GAUGE	PM-REG1500	.
⑤	1	VACUUM PUMP	PM-PUMP1000	.
⑥	1	EXHAUST MUFFLER	PM-MU1021	.
⑦	2	1/4" BRONZE EXHAUST MUFFLER	PM-MU1025	.
⑧	1	3/4" NPT PLUG	PM-EN9110	.
⑨	4	1/4" NPT PLUG	PM-FT1200	.
⑩	1	1/4" NPT STREET ELBOW	PM-PF1185	.
⑪	4	STREET ELBOW, #10-32 THREAD	PM-PF2050	.
⑫	2	PIPE NIPPLE, 1/4" NPT x 1-1/2" Lg.	PM-PF1143	.
⑬	1	PIPE NIPPLE, 1/4" NPT x 3-1/2" Lg.	PM-PF1141	.
⑭	1	BUSHING, 3/4" NPT to 1/2" NPT	PE-COND1080	.
⑮	1	1/4" NPT TEE, FEMALE 3-ENDS	PM-PF1200	.
⑯	2	FTG, 1/4 TUBE to 1/4 NPT STRAIGHT	PM-PF1010	.
⑰	1	FTG, 3/8 TUBE to 1/4 NPT STRAIGHT	PM-PF1020	.
⑱	1	FTG, 1/4 TUBE to 1/8 NPT STRAIGHT	PM-PF1005	.
⑲	1	FTG, 1/4 TUBE to 1/4 NPT 90° ELBOW	PM-PF1055	.
⑳	1	1/4" O.D. POLYURETHANE TUBING (CUT TO 7" LENGTH)	PM-PT1070	.
㉑	2	FLOW CONTROL, 1/4 TUBE x 1/4 NPT	PM-PF2070	.
㉒	1	FTG, 1/4 NPT COUPLING	PM-PF1085	.
㉓	1	1/4 NPT CLOSE NIPPLE	PM-PF1125	.
㉔	1	FTG, 1/4 TUBE to 1/4 NPT 90° SWVL.	PM-PF1035	.
㉕	1	1/8 NPT CLOSE NIPPLE (3/4" Lg.)	PM-PF1120	.
㉖	1	FTG, 1/8 NPT to 1/8 NPT 90° FEMALE ELB.	PM-PF1170	.

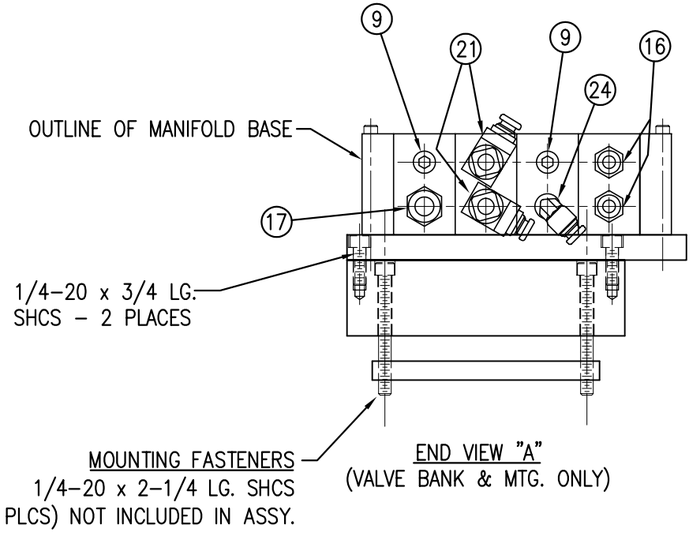
ASSEMBLY NOTE:
TURN GAUGES TO 90°, ADD FLOW CONTROLS @ VALVE BANK, PUT 90° SWIVEL ELBOW @ ASSIST ON VALVE BANK

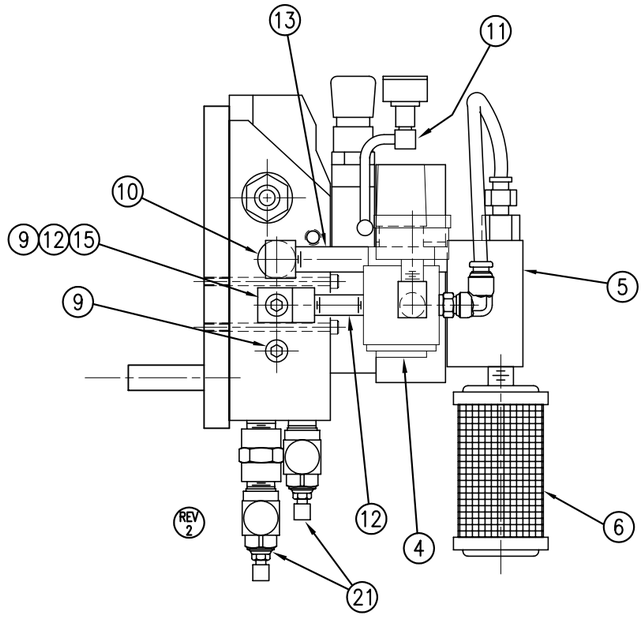
VALVE BANK SPARE PARTS:
SOLENOID: #PM-VA2395
AIR ASSIST REGULATOR: #PM-VA2396
BLOW/TAMP/ROTARY ACTUATOR REGULATORS: #PM-VA2397

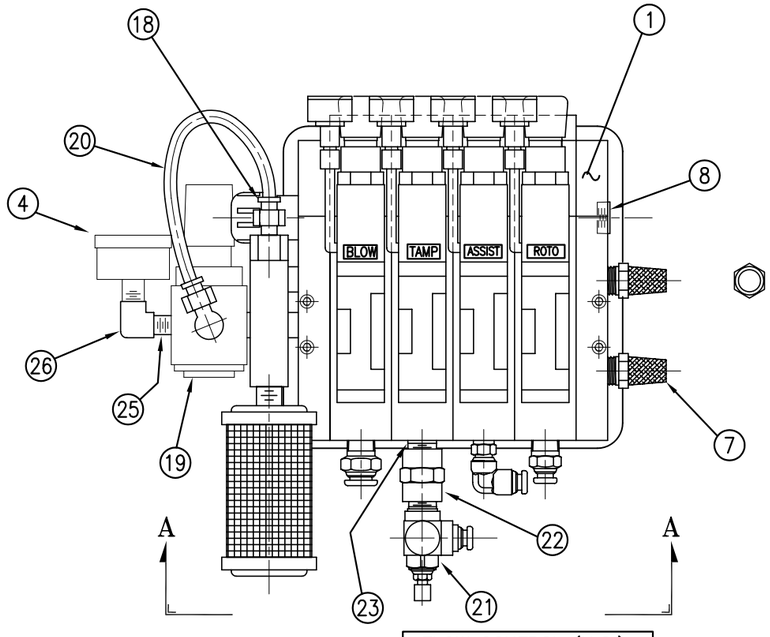
ASS-238-0142

* MOUNTING PLATES NOT INCLUDED IN ASSEMBLY









FLOW CONTROL (N.S.)
NOT SHOWN FOR CLARITY

TITLE: 360/3600-PA SERIES APPLICATOR: DAT
PART: 4-STATION VALVE BANK ASSEMBLY
Dept. Code 70
Scale: 1=3
Date: 01/08/02
DRAWN BY: BOB S.
F:\Engineering\Standard Parts\Applicator\3600 238\ASS-238-0142

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:
4	ADDED #25 & #26, #11 WAS 1/8 NPT STR. EL.; ROT. GAUGES 90°	12/08/05	TDR

1318 QUAKER CIRCLE P.O. BOX 589 SALEM, OHIO 44460

PHONE: 330-332-1800
FAX: 330-332-2144

www.ctmlabelingsystems.com

Designers and Manufacturers of Pressure Sensitive Labeling Equipment and Custom Product Handling

3600 CORNER WRAP PRINTER APPLICATOR MAINTENANCE & SERVICE MANUAL

(REVISION 3600-cnr-2b5.x)

TABLE OF CONTENTS

(Corner Wrap)

The following section for corner wrap applicators will discuss items that pertain only to this applicator type. Items not covered here will be covered in the standard 3600 section of this manual.

INTRODUCTION

The 3600 Corner Wrap printer applicator is a high speed labeler used to thermally print and apply pressure sensitive labels to the leading edge and side of moving products. A thermal transfer printer is integrated into the applicator to form a self-contained unit that will print variable data onto a label.

Labels are supplied on rolls that consist of a liner on which the labels are held with adhesive. The labels may be preprinted with the variable information added by the printer or blank labels with the printer printing the entire label.

The applicator is designed to be mounted in a reels up attitude 90 degrees to the product flow. A label is printed, dispensed out onto the label pad and held there by vacuum. When the product detect sensor is made, the label and label pad swing out in front of the moving product using a rotary actuator. When the rotary actuator is fully extended, the label is either blown off the pad onto the leading edge of the product or the product contacts the label as the vacuum is turned off. There are two apply sequences depending on whether the vacuum off option is used. These are explained further in the next section. In either case when the rotary actuator is fully extended a low pressure valve turns on to give the swing arm a spring loaded condition. As the product moves on the conveyor this swing arm will follow the shape of the product essentially wrapping the label around the corner. Exceptions to this sequence can be addressed through a custom applicator.

For safe and trouble free operation, the instructions in this manual must be followed carefully during the set-up, operation, media changes, cleaning and maintenance. Also the specified environmental conditions must be maintained.

Electrical Supply: 108-132 Volts, 5 Amps, 50-60 Hertz, Single phase

A three meter long, three wire cable with 1.00mm conductors rated at 10 amperes (in accordance with CENELEC HD-21) is provided for the electrical connection to the IEC 320 receptacle of the applicator. The end of the power cord is terminated with a NEMA 5-15 plug.

Air Supply: Clean and dry compressed air must be provided at pressures 90 to 100 P.S.I. with a minimum flow rate of 4 S.C.F.M.

Environment: Operating temperature range is 40 to 95°F (5 to 35°C). Operating humidity range is 20 to 85% RH, non-condensing.

Note: The model 3600-PA is not intended to be operated in an environment where flammable or explosive gases are present. The model 3600-PA MUST not be used in direct contact with food products.

The following section for corner wrap applicators will discuss items that pertain only to this applicator type. Items not covered here will be covered in the standard 3600 section of this manual.

CORNER WRAP SETUP

Corner Wrap Setup
Position the applicator so the product will contact the extended label pad such that the label will wipe around the corner in the proper vertical and horizontal position. The "product detect" sensor, **which should always be set to leading edge detection**, will have to be positioned so the applicator will have enough time to swing out in front of the product. After the extend time, the tamp/swing pressure will be reduced so it will take less force to collapse the swing arm. This will help lighter products push through the swing arm. To reduce the pressure on the arm in this position, adjust the precision regulator that is mounted on the valve bank and is plumbed into the "low pressure swing" valve. The swing arm will stay extended to fold the label around the product until the "swing back" sensor sees the product. This sensor should be positioned so the swing arm stays in contact to the product until the label is finished being applied.

Standard Corner Wrap Apply Sequence
If the customer wants to use the standard apply sequence, the ASS-214-0111RM or ASS-214-0111LM valve bank assembly is required. The applicator is waiting with a label on the pad and label formats in the print buffer. When the product triggers the product detect sensor, the swing arm extends out into the product flow. At the same time, the "tamp extend" timer will start. At the end of the "tamp extend" timer, the tamp air pressure will lower to what was set on the precision regulator. This will cause the swing arm to act like it is spring-loaded. At same time the pressure is dropped to the swing arm, the vacuum is turned off to the pad and remains off during the apply cycle. This reduces the amount of "label drag" during the apply cycle. There could be a slight air blast to aid in getting the label onto the product, if required. The air blast pressure is factory set to 0 psi. When the product activates the "swing back" sensor, the air blast (if enabled) stops, vacuum resumes to the label pad, the valve switches to high pressure, and the swing arm returns to the home position. At the end of the tamp retract timer if formats are in the print buffer another label is printed and fed out onto the pad. The sequence is now ready to be repeated.

Vacuum Off Option: The vacuum off option is dependant upon the valve bank piping / configuration. If the customer wants to use the vacuum off option ASS-214-0112RM or ASS-214-0112LM valve bank assembly is required. The following section will explain the "vacuum off" apply sequence.

Vacuum Off Apply Sequence
The Vacuum Off option can be useful in conserving air between label applications if only one format is sent to the printer for each product being labeled because the vacuum will remain off until the next label is printed and fed out onto the pad. This option also keeps dirt particles from entering the pad, which over time will affect labeling performance. The applicator is waiting with a label on the tamp pad and label formats in the print buffer. When the product triggers the "product detect" sensor, the swing arm will extend out into the product flow. At the same time, the "tamp extend" timer will start. At the end of the "tamp extend" timer, the swing air pressure will lower to what was set on the precision regulator. This will cause the swing arm to act like it is spring-loaded. As the pressure is dropped to the swing arm, the vacuum is turned off to the pad. The product will travel into the label pad splitting the label so half will be applied to the front of the product and the rest is wiped down the side. When the product activates the "swing back" sensor, the valve switches to high pressure, the tamp retract timer starts and the label pad returns home. If there are formats in the print buffer at the end of the tamp retract timer the vacuum to the label pad will turn back on as another label is printed and fed out onto the pad. The sequence is now ready to be repeated.

APPLY SEQUENCE

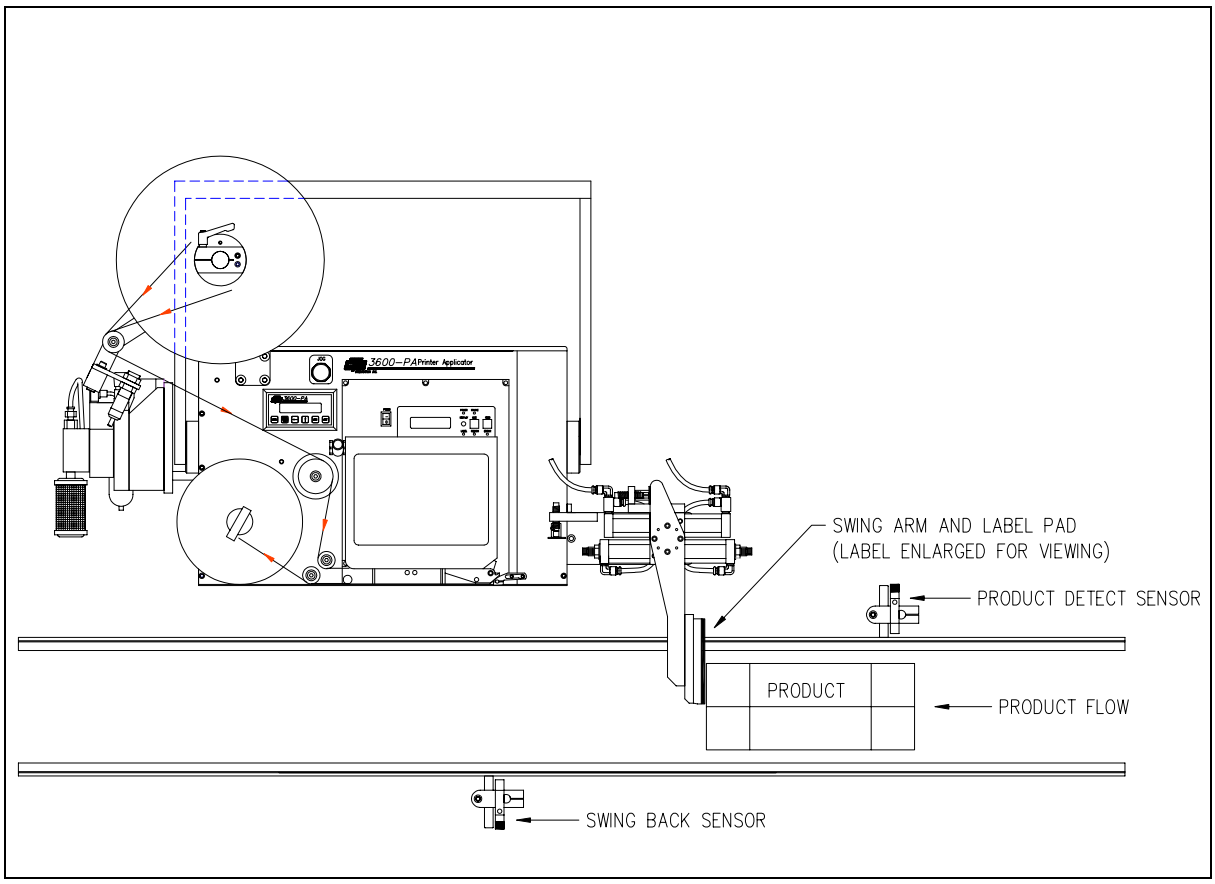


Figure 25

In the above figure the product has passed by the product detect sensor causing the swing arm to extend. As the swing arm extends, the adjustable “Tamp Extend” timer will start. At the end of this time a low pressure valve turns on giving the swing arm a spring loaded characteristic which will allow the swing arm to give way as the product passes by during label application and typically the vacuum to the pad is turned off. This timing is critical so the label will not fall off the label pad before the product touches it.

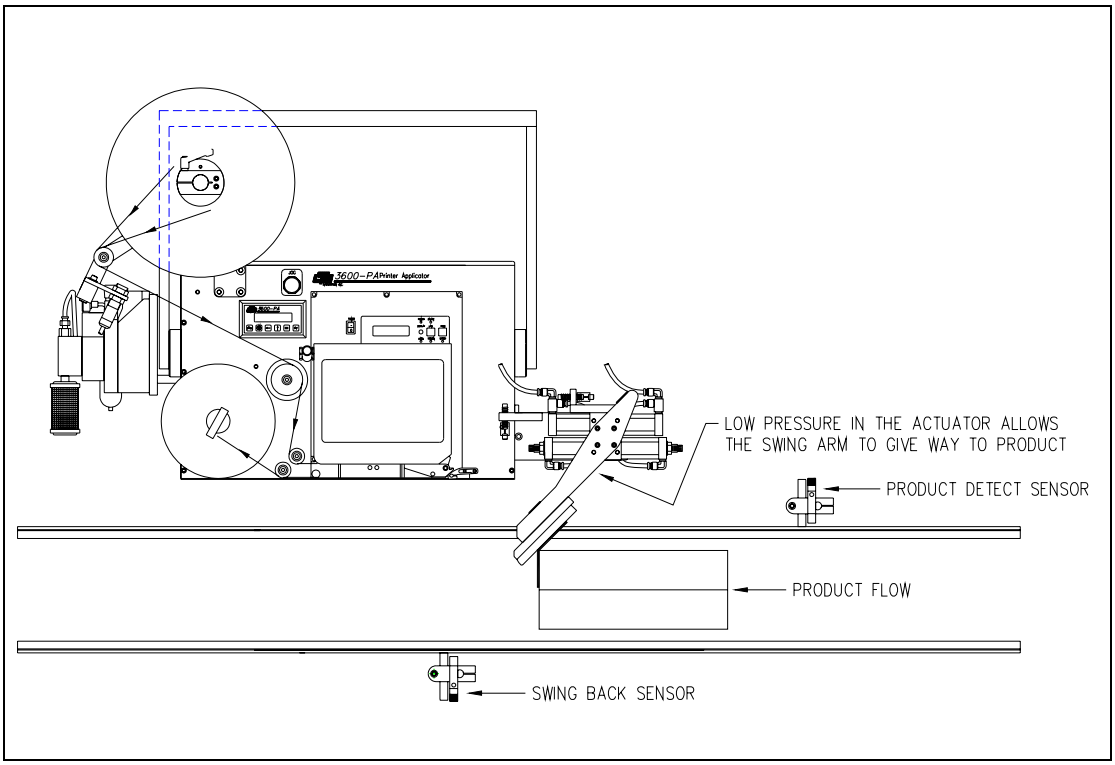


Figure 26

The figure above shows the apply sequence at the halfway point. The product has contacted the label pad firmly seating half of the label to the leading edge.
The swing arm is in a low pressure state and starts to give way to the moving product.
The swing arm and label pad follow the contour of the product as it pulls the label from the pad and wipes it onto the moving product.

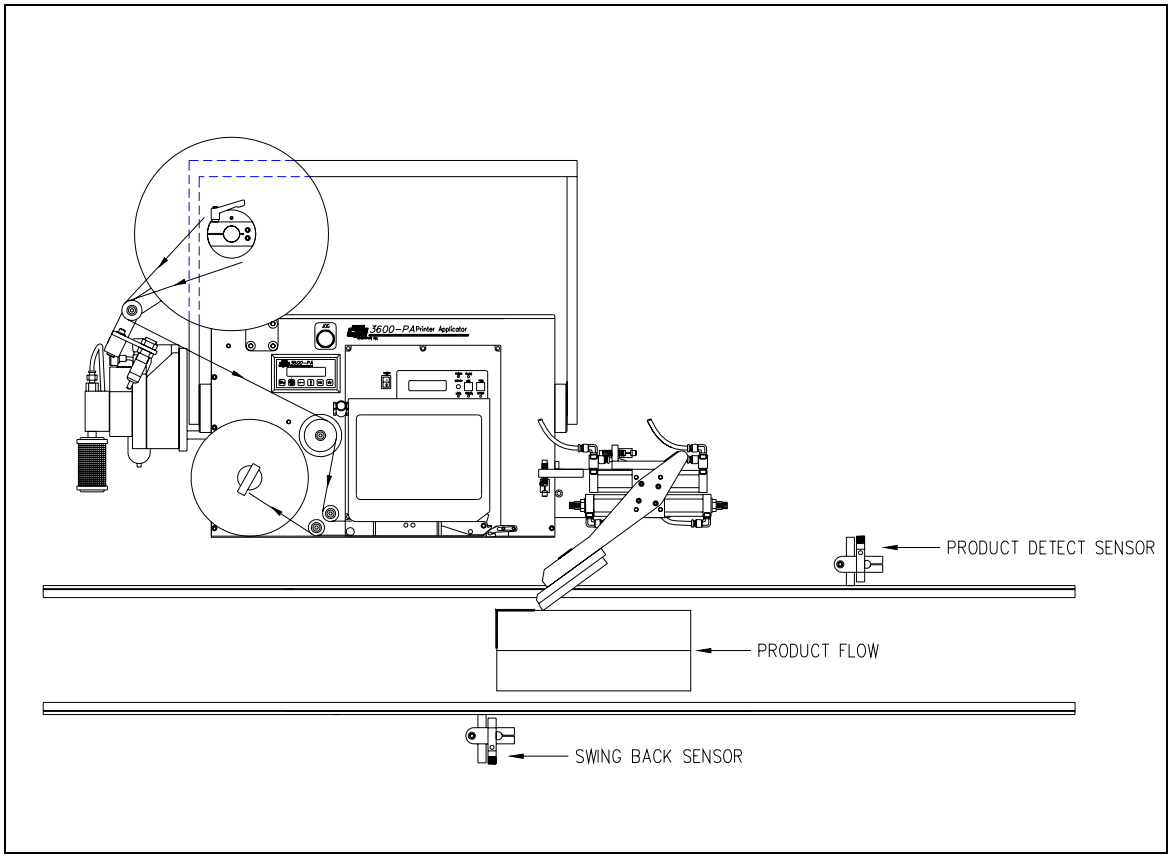
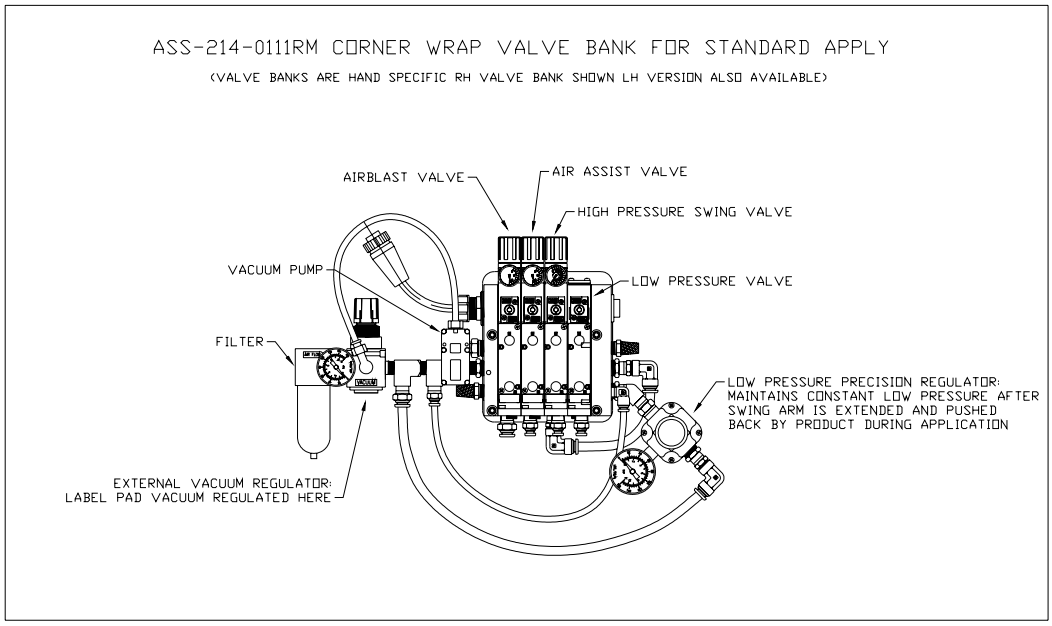


Figure 27

In the figure above the other half of the label has been applied to the side of the product. When the product passes in front of the swing back sensor the low pressure valve will turn off and the swing arm will retract. At the same time an adjustable “Tamp Retract” timer will start. After the arm reaches the home position and the tamp retract time is over, another label will be dispensed onto the label pad and the applicator will be ready for the next product.


ASS-214-0111RM CORNER WRAP VALVE BANK FOR STANDARD APPLY
(VALVE BANKS ARE HAND SPECIFIC RH VALVE BANK SHOWN LH VERSION ALSO AVAILABLE)
AIRBLAST VALVE
AIR ASSIST VALVE
HIGH PRESSURE SWING VALVE
VACUUM PUMP
LOW PRESSURE VALVE
FILTER
LOW PRESSURE PRECISION REGULATOR:
MAINTAINS CONSTANT LOW PRESSURE AFTER
SWING ARM IS EXTENDED AND PUSHED
BACK BY PRODUCT DURING APPLICATION
EXTERNAL VACUUM REGULATOR:
LABEL PAD VACUUM REGULATED HERE

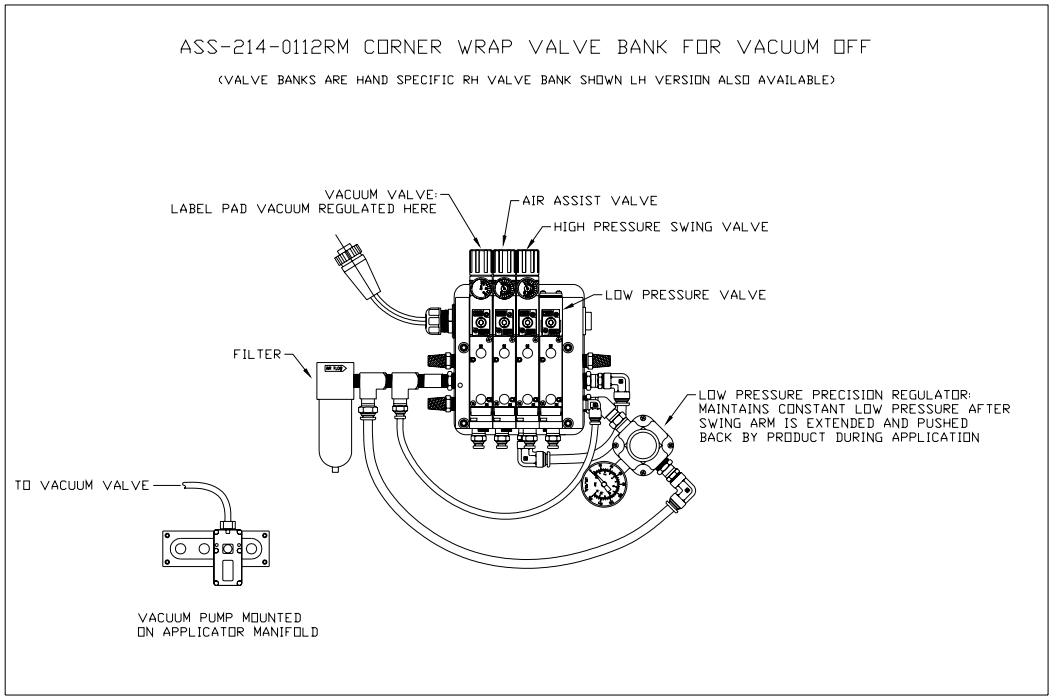
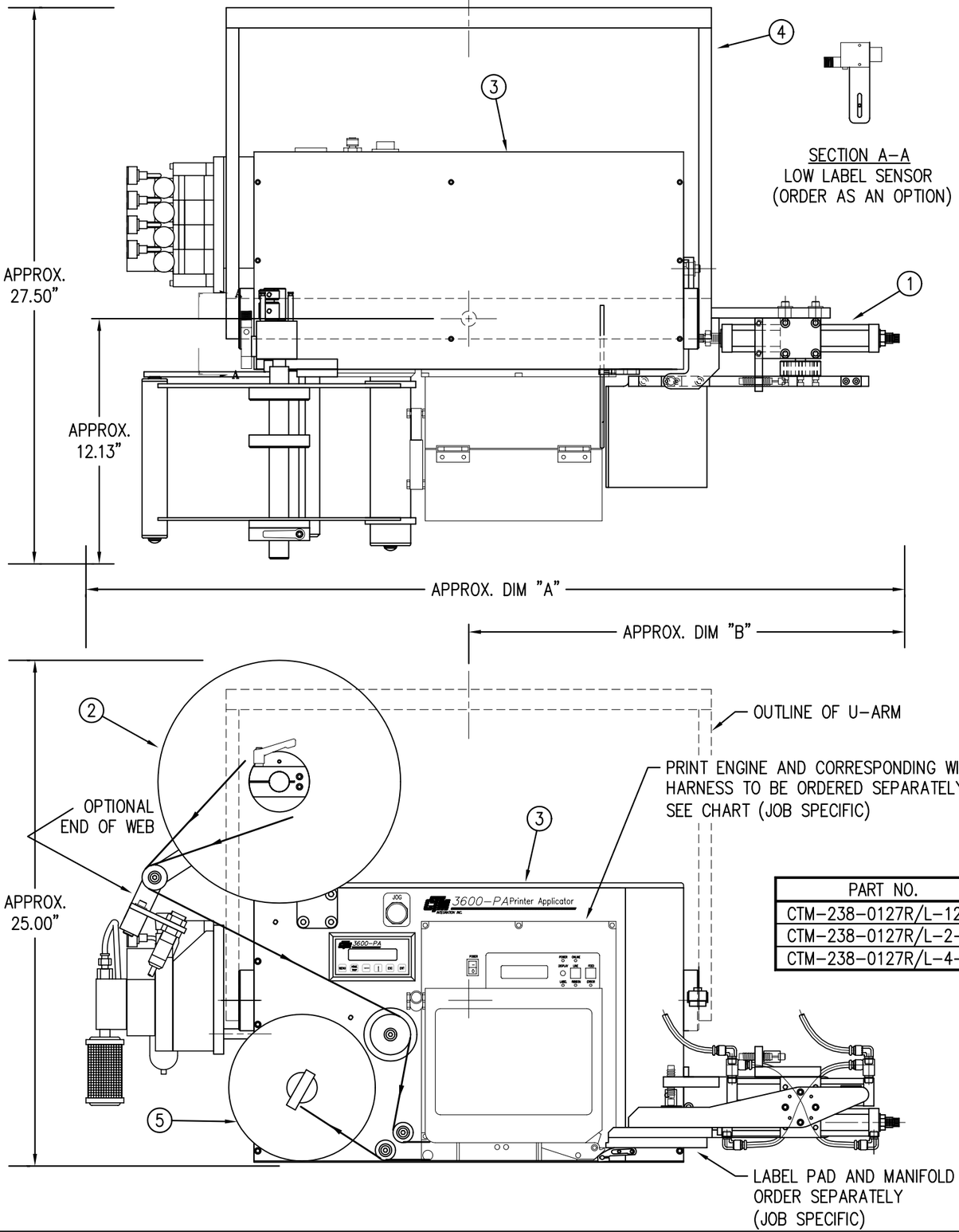

ASS-214-0112RM CORNER WRAP VALVE BANK FOR VACUUM OFF
(VALVE BANKS ARE HAND SPECIFIC RH VALVE BANK SHOWN LH VERSION ALSO AVAILABLE)
VACUUM VALVE:
LABEL PAD VACUUM REGULATED HERE
AIR ASSIST VALVE
HIGH PRESSURE SWING VALVE
LOW PRESSURE VALVE
FILTER
LOW PRESSURE PRECISION REGULATOR:
MAINTAINS CONSTANT LOW PRESSURE AFTER
SWING ARM IS EXTENDED AND PUSHED
BACK BY PRODUCT DURING APPLICATION
TO VACUUM VALVE
VACUUM PUMP MOUNTED
ON APPLICATOR MANIFOLD

Figure 28



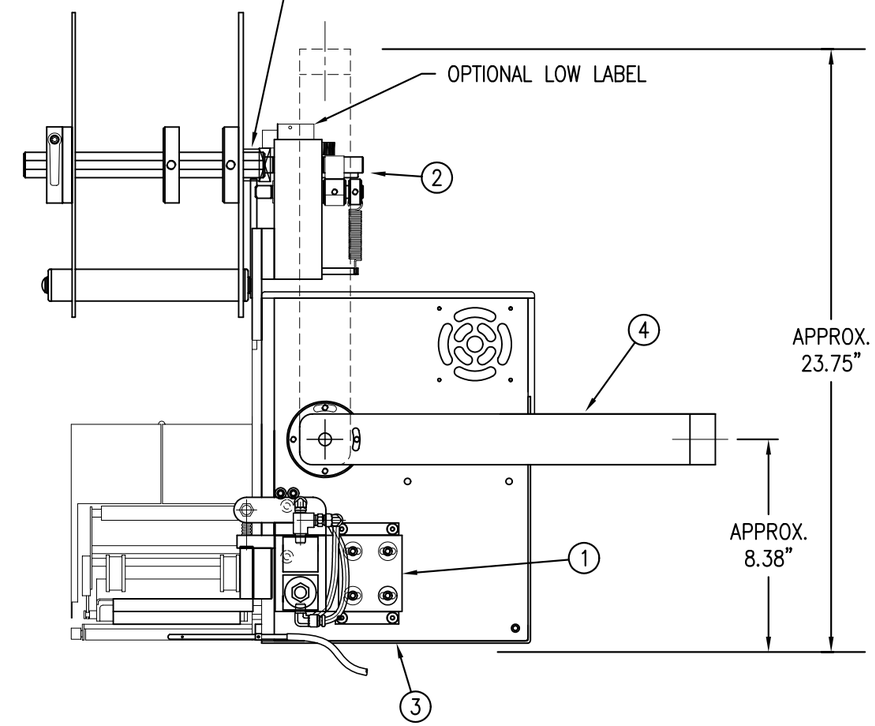
BILL OF MATERIAL				SOLD	
ASSEMBLY		CTM–238–0127XR/L–X–X		S	
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER		
1	1	SWING TAMP MODULE for HI/LOW PRESSURE	MOD–238–0127R/L–X	S	
2	1	12" UNWIND MODULE	MOD–238–0122R/L	S	STANDARD
	1	12" UNWIND MODULE w/ALUM. DISK	MOD–238–0122AR/L	S	REELS UP
3	1	HOUSING ASSEMBLY/CORE UNIT	ASS–238–0123R/L	.	
4	1	U–ARM MOUNT	WAS–238–0130	.	
5	1	STD REWIND DISK ASSEMBLY	ASS–238–0144–12	S	
	1	FILM REWIND DISK ASSEMBLY	ASS–200–2137	S	
	1	PRODUCT DETECT SENSOR	ASS–200–0427	S	
	1	SWING RETRACT SENSOR & CABLE FOR HI/LO PRESSURE	ASS–200–0485	S	

CHANGES TO STANDARD SWING TAMP TO MAKE HI/LOW:

1. NEED 2nd PRODUCT DETECT SENSOR TO TRIGGER SWING BACK (USE I/O PORT)
2. USE PROGRAM 36002b2.4CNR or higher

ASSEMBLY NOTE:
VALVE BANK TO APPLICATOR CABLE
NEEDS TO BE SHORTENED AT ASSY.

PART NO.	DIM "A"	DIM "B"
CTM–238–0127R/L–12X	40.50	21.50
CTM–238–0127R/L–2–12X	42.50	23.50
CTM–238–0127R/L–4–12X	44.50	25.50



APPLICATOR TO PRINT ENGINE INTERFACE HARNESSES: (ORDER W/ PRINT ENGINE)	
PAX	PE–238–0418
SATO SE	PE–238–0420
OBSOLETE → SATO S	PE–238–0417

CTM–238–0127R/L–X–X	
STD. REWIND W/ STD. SWING ARM	–0127R/L–S
FILM REWIND W/ STD. SWING ARM	–0127R/L–F
STD. REWIND W/ 2" OVERSIZE SWING ARM	–0127R/L–2–S
FILM REWIND W/ 2" OVERSIZE SWING ARM	–0127R/L–2–F
STD. REWIND W/ 4" OVERSIZE SWING ARM	–0127R/L–4–S
FILM REWIND W/ 4" OVERSIZE SWING ARM	–0127R/L–4–F
REELS UP: STD. REWIND W/ STD. SWING ARM	–0127AR/L–S
REELS UP: FILM REWIND W/ STD. SWING ARM	–0127AR/L–F
REELS UP: STD. REWIND W/ 2" OVERSIZE SWING ARM	–0127AR/L–2–S
REELS UP: FILM REWIND W/ 2" OVERSIZE SWING ARM	–0127AR/L–2–F
REELS UP: STD. REWIND W/ 4" OVERSIZE SWING ARM	–0127AR/L–4–S
REELS UP: FILM REWIND W/ 4" OVERSIZE SWING ARM	–0127AR/L–4–F

PART: 12" UNWIND SWING TAMP FOR HI/LO PRESSURE CORNER WRAP

Dept. Code 70

F:\Engineering\Standard Parts\System Components: 238\CTM–238–0127RL–X–X

TITLE: SERIES 3600 PRINTER APPLICATOR: STANDARD TAMP

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:
0	–	–	XXX

Scale: 1=6

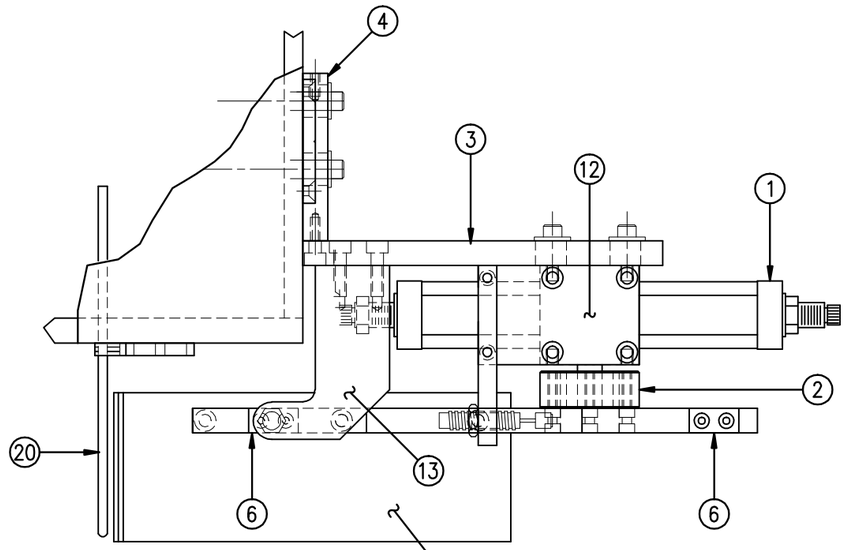
Date: 05/25/06

DRAWN BY: Tracy Rhodes

BILL OF MATERIAL				SOLD
ASSEMBLY		MOD-238-0127R/L-X		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
	1	SWING TAMP ASSEMBLY	ASS-238-0126R/L-X	S
(19)	1	AIR ASSIST TUBE HOLDER	MP-238-0242	.
(20)	1	AIR ASSIST TUBE (5" OR 7" LG.)	MP-211-0217-X	.
(21)	1	AIR ASSIST TUBING x 15" Lg.	PM-AH1000	S
(22)	1	CORNER WRAP SWING TAMP VALVE BANK	ASS-214-0111RM/LM	.
(23)	1	VALVE MOUNTING PLATE	MP-214-0206	.
(24)	1	VALVE FASTENING PLATE	MP-238-0238	.
(25)	1	VALVE NUT PLATE	MP-238-0239	.
(26)	1	1/4 O.D. SMC TUBING x 60" Lg. (CUT TO SUIT)	PM-PT1070	S
(27)	1	3/8" O.D. SMC TUBING x 33" Lg. (CUT TO SUIT)	PM-PT1080	S
(28)	3	FITTING, 1/4 NPT TO 1/4 TUBE	PM-PF1010	.
(29)	2	FITTING, 1/4 NPT TO 3/8 TUBE	PM-PF1020	.
(30)	1	FTG, 1/4 NPT TO 1/4 TUBE 90° SWIVEL	PM-PF1035	.
(31)	1	1/4 PIPE NIPPLE	PM-PF1145	.
(32)	1	1/4 NPT MALE 90° ELBOW	PM-PF1175	.
(33)	1	1/4 NPT PLUG	PM-FT1200	.

MOD ALSO INCLUDES
ITEMS (21) THRU (33)
WHICH ARE NOT SHOWN

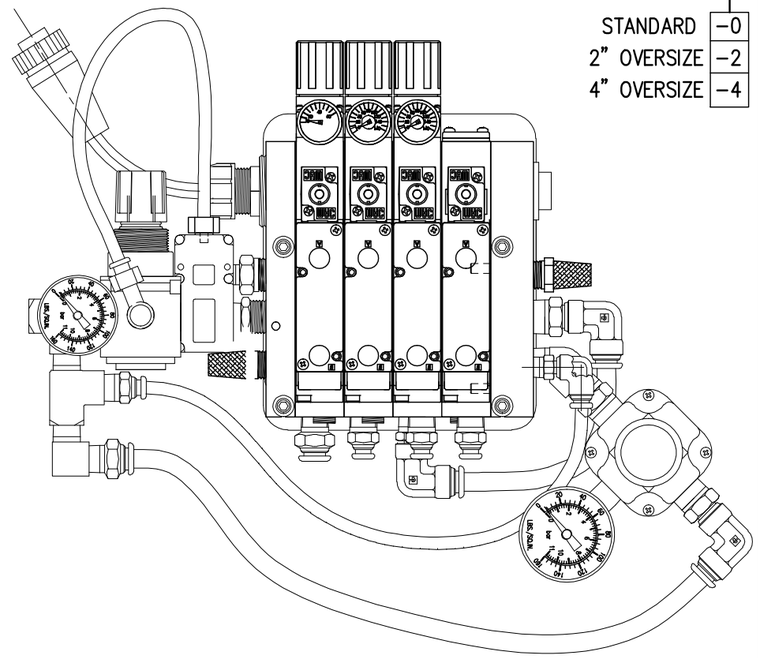
RH & LH ASSEMBLIES AVAILABLE
-RH ASSEMBLY SHOWN-



LOW PROFILE SWING TAMP
PAD & MANIFOLD ASSEMBLY
ORDERED SEPARATELY

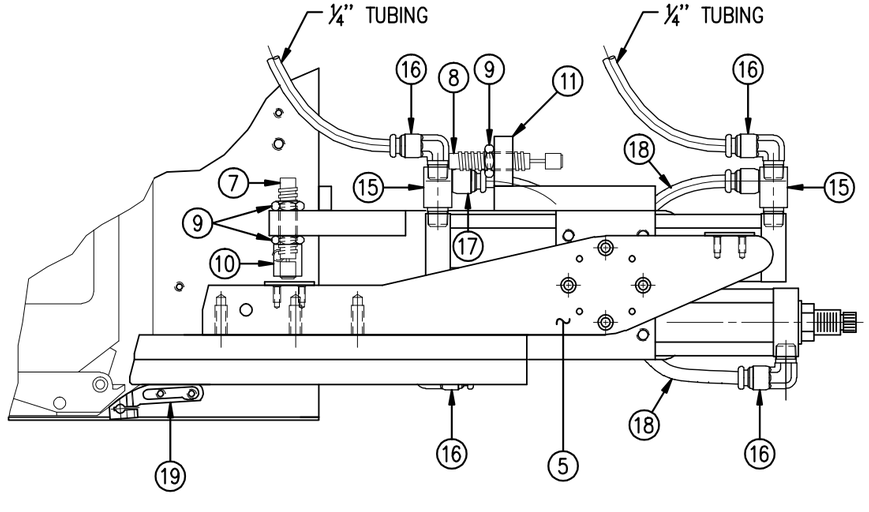
MOD-238-0127RL-X

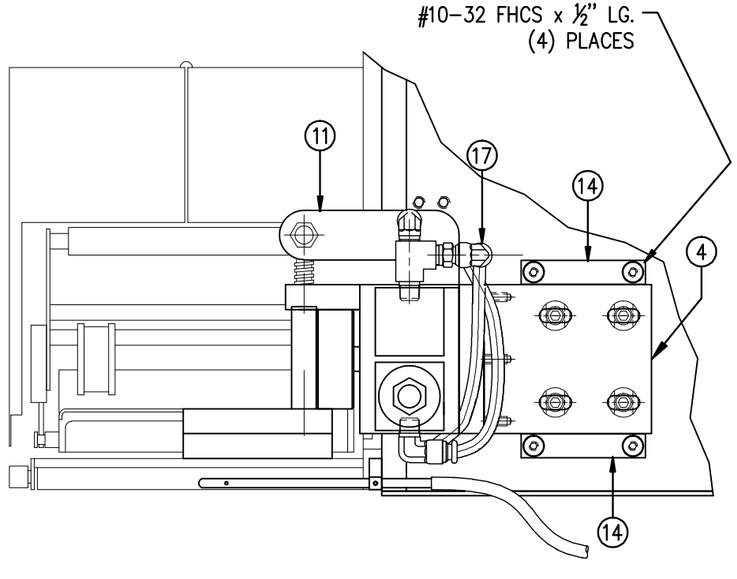
STANDARD	-0
2" OVERSIZE	-2
4" OVERSIZE	-4



(22) VALVE BANK ASS-214-0111RM

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0126R/L-X		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
(1)	1	ROTARY ACTUATOR	PM-AC1250	S
(2)	1	ROTARY ACTUATOR HUB	MP-214-0211	.
(3)	1	ACTUATOR MOUNT (STD, 2 & 4 O.S.)	MP-238-0267-X	.
(4)	1	ASSEMBLY MOUNT PLATE "LOW PROFILE" REVISION 4	MP-238-0266	.
(5)	1	SWING ARM (STD, 2 & 4 O.S.)	MP-214-0217-X	.
(6)	2	SHOCK STRIKE PLATE	PM-214-0210	.
(7)	1	SHOCK ABSORBER-LIGHT DUTY	PM-SA0990	.
(8)	1	SHOCK ABSORBER-HEAVY DUTY	PM-SA1000	.
(9)	3	LOCK NUT (FOR LIGHT DUTY SHOCK)	MP-214-0242	.
(10)	1	STOP COLLAR	PM-C01040	.
(11)	1	EXTEND SHOCK MOUNT	MP-214-0214	.
(12)	1	EXTEND SHOCK/ACTUATOR TRANSITION PLATE	MP-214-0215	.
(13)	1	HOME SHOCK MOUNT	MP-238-0265	.
(14)	2	TAMP GUIDE	MP-238-0241	.
(15)	2	1/8 NPT STREET TEE: (1) MALE, (2) FEMALE	PM-PF1205	.
(16)	4	90 MALE ELBOW; 1/8 NPT to 1/4 TUBE	PM-PF1050	.
(17)	2	90 EL. SWIVEL; 1/8NPT to 1/4 TUBE	PM-PF1030	.
(18)	2	1/4" DIA. TUBING x 8" LG.	PM-PT1070	
	4	SHCS, 1/4-20 x 7/8" LG.	NONE	.
	4	FLAT WASHER, 1/4 NOM.	NONE	.



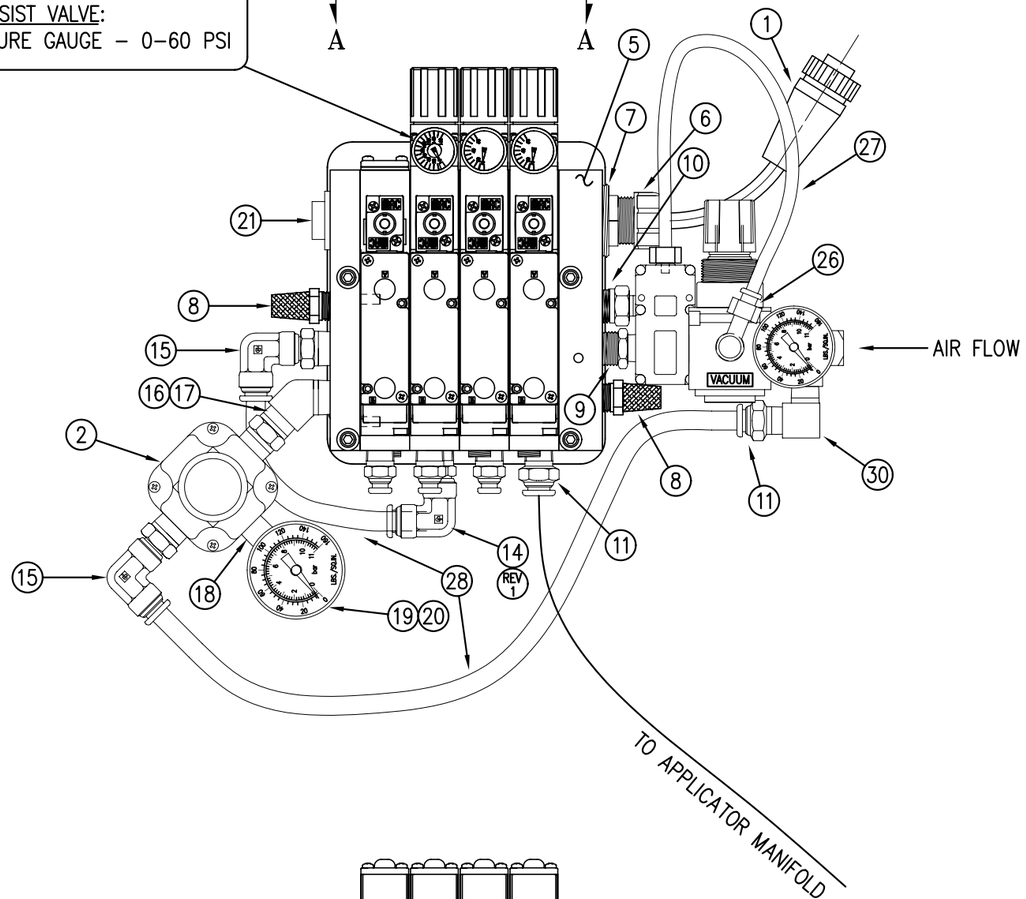


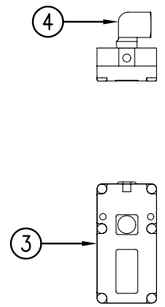
TITLE: 3600-PA SERIES APPLICATOR: MODULE for HI/LO PRESSURE CORNER WRAP
Dept. Code 70
APPLICATOR SERIES: 3600
APPLICATOR WIDTH(S): 7.50"
GROUP: CORNER WRAP (LOW PROFILE AS OF 06/24/2014)
Scale: 1=3
Date: 02/11/2014
DRAWN BY: ES
REV. BY: TK
F:\Engineering\Standard Parts\Applicator\3600\238\MOD-238-0127RL-X

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:
2	OFFICIAL RELEASE OF NEW STD. LOW PROFILE	06/23/14	ES
1	MODULE REDRAWN FOR NEW STANDARD LOW PROFILE AND	02/11/2014	

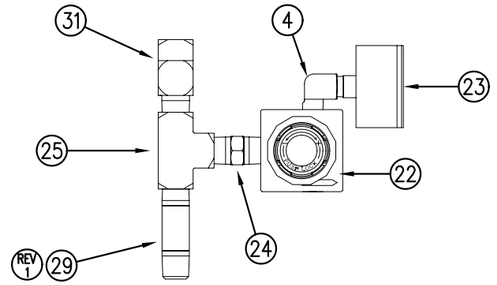
ASS-214-0111LM

TAMP, IMPRINT & BLOW VALVE:
PRESSURE GAUGE – 0–160 PSI
AIR ASSIST VALVE:
PRESSURE GAUGE – 0–60 PSI

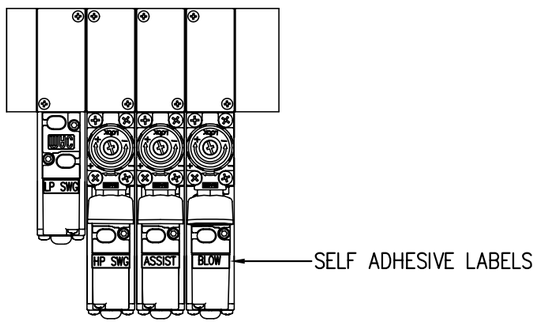




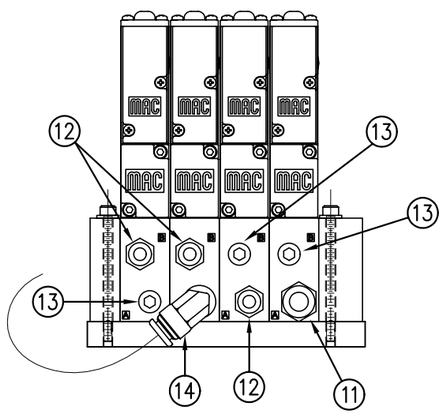
VAC PUMP AND FITTING



REGULATOR AND FITTINGS



END VIEW "A"
(VALVE BANK ONLY)



WORK THIS WITH DRAWING ASS-200-0518L

MOUNTING PLATES NOT INCLUDED IN ASSEMBLY
MP-214-0206, MP-238-0238 & MP-238-0239

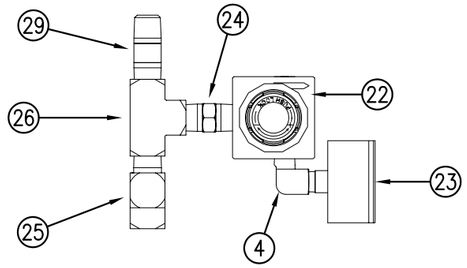
BILL OF MATERIAL
ASS-214-0111LM

ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
1	1	PE-200-0405	VALVE CABLE
2	1	PM-REG1535	PRECISION REGULATOR
3	1	PM-PUMP1010	VACUUM PUMP, 55 PSI FEED PRESSURE, MUFFLED EXHAUST
4	2	PM-PF1180	NPT 90° STREET ELBOW 1/8" FEMALE TO 1/8" MALE
5	1	PM-VA2330M	VALVE BANK
6	1	PE-CO2000	CORD GRIP
7	1	PE-COND1084	STEEL REDUCER
8	2	PM-MU1027	3/8" NPT MALE BRONZE EXHAUST MUFFLER
9	1	PM-PF1110	BUSHING, 1/4" NPT FEMALE TO 3/8" NPT MALE
10	1	PM-PF1157	REDUCER, 3/8" NPT TO 1/8" NPT
11	2	PM-PF1020	FITTING, 3/8" TUBE w/ 1/4" NPT STRT
12	3	PM-PF1010	FITTING, 1/4" TUBE w/ 1/4" NPT STRT
13	3	PM-FT1200	1/4" NPT SOCKET HEAD PLUG
REV 1 14	1	PM-PF1045	1/4" NPT to 3/8" TUBE 90° ELBOW
15	2	PM-PF1046	3/8" TUBE to 3/8" NPT SWIVEL, 90°
16	1	PM-PF1118	45° STREET ELBOW, NPT 3/8" MALE to 3/8" FEMALE
17	1	PM-PF1159	3/8" to 3/8" HEX. NIPPLE
18	1	PM-PF1125	1/4" NPT X 7/8" LG. NIPPLE
19	1	PM-PF1175	90° ELBOW 1/4" NPT FEMALE TO 1/4" NPT FEMALE
20	1	PM-VA2383	GAUGE FOR PM-REG1535
21	1	PE-EN9125	1 1/4" BLACK PLASTIC THREADED PLUG
22	1	PM-REG1500	WATTS REGULATOR
23	1	PM-VA2384	0–160 PSI PRESSURE GUAGE
24	1	PM-PF1153	1/4" x 1–1/2" LG. HEX NIPPLE
25	1	PM-PF1200	STREET TEE 1/4" FEMALE–3 ENDS
26	1	PM-PF1055	FITTING, 1/4" TUBE to 1/4" NPT ELBOW
27	12"	PM-PT1070	1/4" OD TUBING
28	24"	PM-PT1080	3/8" O.D. POLYURETHANE TUBING (CUT TO SUIT)
REV 1 29	1	PM-PF1145	1/4" NPT X 2.00" LG. NIPPLE
30	1	PM-PF1185	90° ELBOW NPT 1/4" FEMALE TO 1/4" MALE
31	1	PM-PF1210	STREET TEE 1/4" MALE TO 1/4" FEMALE–2 ENDS
◯	4	PM-FASH429088	10–32 X 2 1/2" LG. SS SHCS
◯	4	PM-FAW30265	#10 SS FLAT WASHER

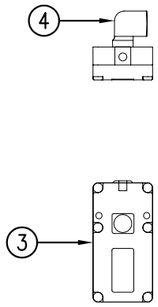
THIS DRAWING AND DESIGN IS THE PROPERTY OF CTM INTEGRATION INC. AND MAY NOT BE REPRODUCED

TITLE: L.H. HI/LO PRESSURE CORNER WRAP VALVE BANK ASSY FOR STANDARD APPLY
Dept. Code 70
Scale: 1=3
Date: 03-05-08
DRAWN BY: E. SANOR
F:\Engineering\Standard Parts\Applicator\360\360\ASS-214-0111LM
REV. BY: ES
REV. DATE 12-18-08
REV. DESCRIPTION FITTING CHANGES
REV. 1
APPLICATOR SERIES: 360 / 3600
APPLICATOR WIDTH(S): N/A
GROUP: 360 / 3600 CORNER WRAP VALVE BANKS

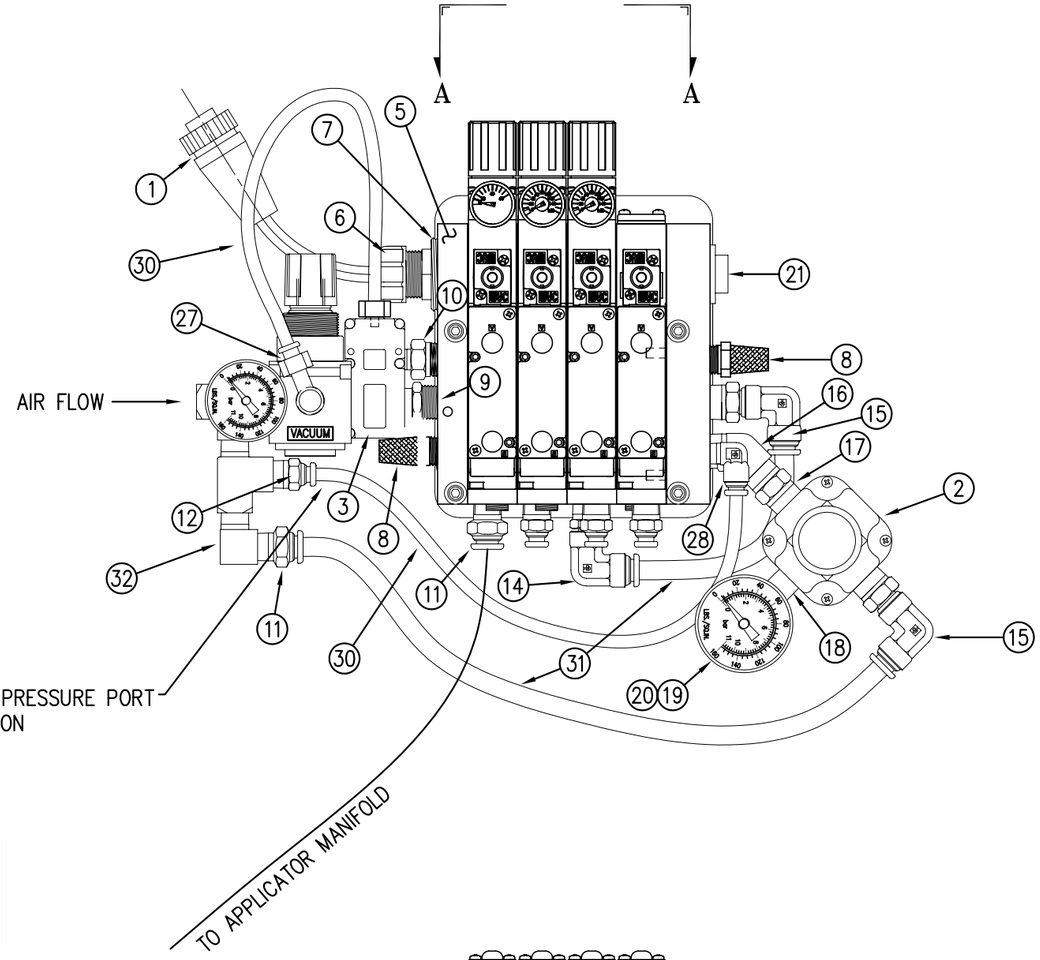
ASS-214-0111RM



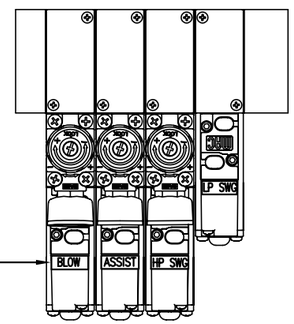
REGULATOR AND FITTINGS



VAC PUMP AND FITTING

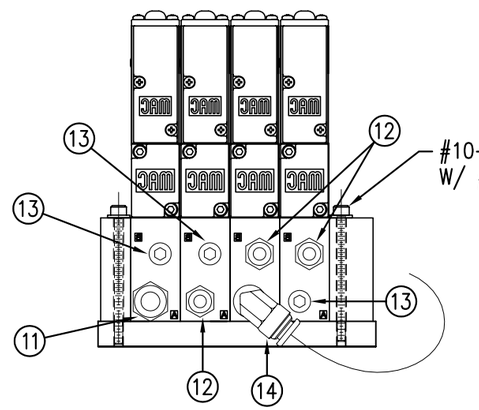


***AIR SUPPLIED TO OTHER SIDE DUE TO BLOCKING DISCS IN PRESSURE PORT
SEE ASS-200-0518RM & PM-VA2332M FOR MORE INFORMATION



(REV 1) SELF ADHESIVE LABELS

END VIEW "A"
(VALVE BANK ONLY)



#10-32 x 2-1/2 LG. SHCS
W/ #10 FLAT WASHER (4 PLACES)

MOUNTING PLATES NOT INCLUDED IN ASSEMBLY
MP-214-0206, MP-238-0238 & MP-238-0239

WORK THIS WITH DRAWING ASS-200-0518RM

BILL OF MATERIAL

ASS-214-0111RM

ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
①	1	PE-200-0405	VALVE CABLE
②	1	PM-REG1535	PRECISION REGULATOR
③	1	PM-PUMP1010	VACUUM PUMP, 55 PSI FEED PRESSURE, MUFFLED EXHAUST
④	2	PM-PF1180	NPT 90° STREET ELBOW 1/8" FEMALE TO 1/8" MALE
⑤	1	PM-VA2332M	VALVE BANK
⑥	1	PE-CO2000	CORD GRIP
⑦	1	PE-COND1084	STEEL REDUCER
⑧	2	PM-MU1027	3/8" NPT MALE BRONZE EXHAUST MUFFLER
⑨	1	PM-PF1110	BUSHING, 1/4" NPT FEMALE TO 3/8" NPT MALE
⑩	1	PM-PF1157	REDUCER, 3/8" NPT TO 1/8" NPT
⑪	2	PM-PF1020	FITTING, 3/8" TUBE w/ 1/4" NPT STRT
⑫	4	PM-PF1010	FITTING, 1/4" TUBE w/ 1/4" NPT STRT
⑬	3	PM-FT1200	1/4" NPT SOCKET HEAD PLUG
⑭	1	PM-PF1060	1/4" NPT to 3/8" TUBE 90° ELBOW
⑮	2	PM-PF1046	3/8" TUBE to 3/8" NPT SWIVEL, 90°
⑯	1	PM-PF1118	45° STREET ELBOW, NPT 3/8" MALE to 3/8" FEMALE
⑰	1	PM-PF1159	3/8" to 3/8" HEX. NIPPLE
⑱	1	PM-PF1125	1/4" NPT X 7/8" LG. NIPPLE
⑲	1	PM-PF1175	90° ELBOW 1/4" NPT FEMALE TO 1/4" NPT FEMALE
⑳	1	PM-VA2383	GAUGE FOR PM-REG1535
㉑	1	PE-EN9125	1 1/4" BLACK PLASTIC THREADED PLUG
㉒	1	PM-REG1500	WATTS REGULATOR
㉓	1	PM-VA2384	0-160 PSI PRESSURE GUAGE
㉔	1	PM-PF1153	1/4" x 1-1/2" LG. HEX NIPPLE
㉕	1	PM-PF1210	STREET TEE 1/4" MALE TO 1/4" FEMALE-2 ENDS
㉖	1	PM-PF1200	STREET TEE 1/4" FEMALE-3 ENDS
㉗	1	PM-PF1055	FITTING, 1/4" TUBE to 1/4" NPT ELBOW
㉘	1	PM-PF1050	90° ELBOW 1/4" TUBE TO 1/8" MALE NPTF
㉙	1	PM-PF1143	1/4" NPT X 1 1/2" LG. NIPPLE
㉚	10.5"	PM-PT1070	1/4" OD TUBING
㉛	14"	PM-PT1080	3/8" O.D. POLYURETHANE TUBING (CUT TO SUIT)
㉜	1	PM-PF1185	90° ELBOW NPT 1/4" FEMALE TO 1/4" MALE
◯	4	PM-FASH429088	10-32 X 2 1/2" LG. SS SHCS
◯	4	PM-FAW30265	#10 SS FLAT WASHER

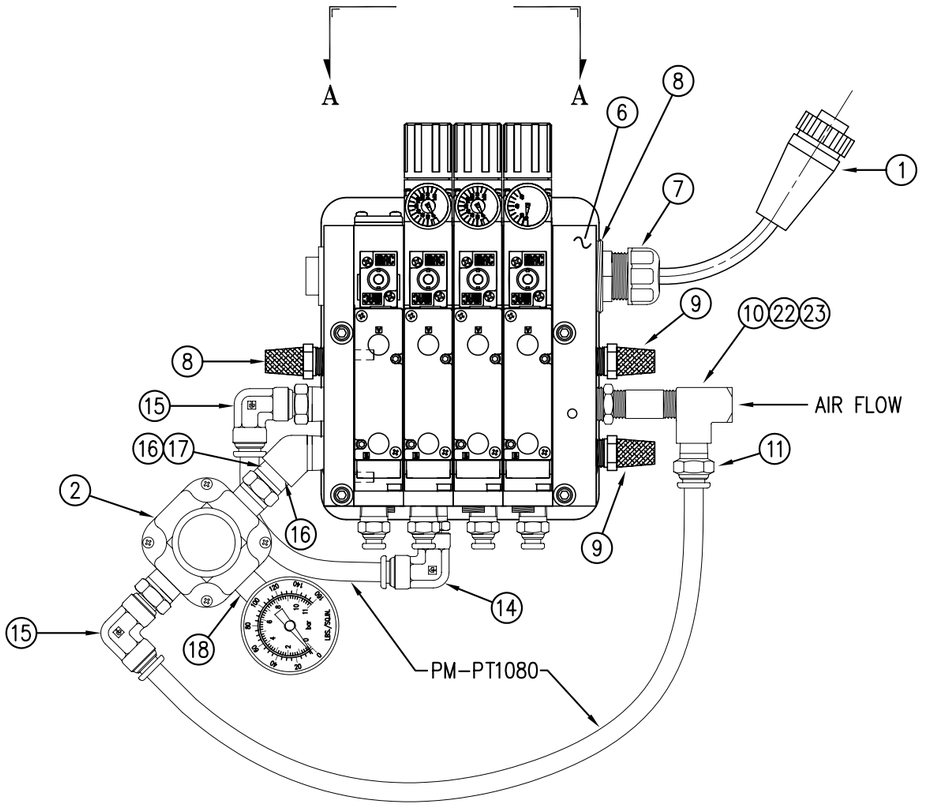
APPLICATOR SERIES: 360 / 3600	APPLICATOR WIDTH(S): N/A	GROUP: 360 / 3600 CORNER WRAP VALVE BANKS	REV. DATE 06/26/08	REV. BY: TDR	
REV. 2	REV. DESCRIPTION ROTATED REGULATOR GAUGE 180 DEG.				

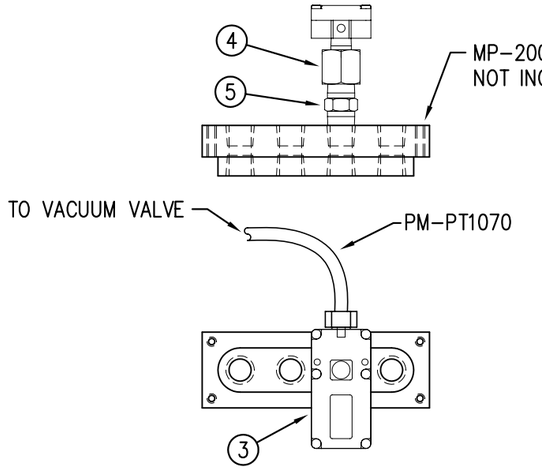
TITLE: R.H. HI/LO PRESSURE CORNER WRAP VALVE BANK ASSY. FOR STANDARD APPLY

Scale: 1=3	Date: 03-05-08	DRAWN BY: E. SANOR	F:\Engineering\Standard Parts\Applicator\3600\ 360 \ASS-214-0111RM

Dept. Code 70

ASS-214-0112LM



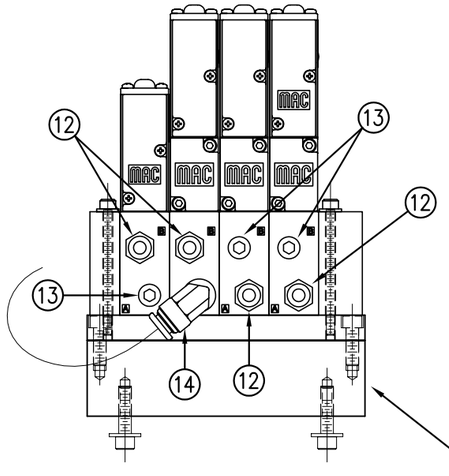


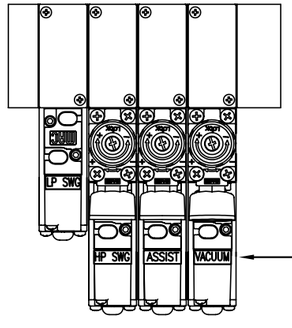
VAC PUMP AND FITTINGS
MOUNTED ON APPLICATOR

MOUNTING PLATES NOT INCLUDED IN ASSEMBLY
FOR 360: MP-214-0206 & MP-214-0202
FOR 3600: MP-214-0206 & MP-238-0238
& MP-238-0239

VALVE BANK SPARE PARTS:

SOLENOID: #PM-VA2395M
VACUUM REGULATOR W/GUAGE: #PM-VA2396M
BLOW/TAMP/ASSIST REGULATORS W/GUAGE: #PM-VA2397M
VACUUM REGULATOR GUAGE: #PM-VA2382M
BLOW/TAMP/ASSIST REGULATOR GUAGES: #PM-VA2380M





END VIEW "A"
(VALVE BANK ONLY)

WORK THIS WITH DRAWING ASS-200-0518LM

BILL OF MATERIAL

ASS-214-0112LM

ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
①	1	PE-200-0405	VALVE CABLE
②	1	PM-REG1535	PRECISION REGULATOR
③	1	PM-PUMP1010	VACUUM PUMP, 55 PSI FEED PRESSURE, MUFFLED EXHAUST
④	1	PM-PF1217	FITTING ADAPTOR 1/4" FEMALE TO 1/8" MALE
⑤	1	PM-PF1153	FITTING, HEX NIPPLE 1/4" NPT w/ 9/16" HEX
⑥	1	PM-VA2332M	VALVE BANK
⑦	1	PE-CO2000	CORD GRIP
⑧	1	PE-COND1084	STEEL REDUCER
⑨	3	PM-MU1027	3/8" NPT MALE BRONZE EXHAUST MUFFLER
⑩	1	PM-PF1110	BUSHING, 1/4" NPT FEMALE TO 3/8" NPT MALE
⑪	1	PM-PF1020	FITTING, 3/8" TUBE w/ 1/4" NPT STRT
⑫	4	PM-PF1010	FITTING, 1/4" TUBE w/ 1/4" NPT STRT
⑬	3	PM-FT1200	1/4" NPT SOCKET HEAD PLUG
⑭	1	PM-PF1060	1/4" NPT to 3/8" TUBE 90° ELBOW
⑮	2	PM-PF1046	3/8" TUBE to 3/8" NPT SWIVEL, 90°
⑯	1	PM-PF1118	45° STREET ELBOW, NPT 3/8" MALE to 3/8" FEMALE
⑰	1	PM-PF1159	3/8" to 3/8" HEX. NIPPLE
⑱	1	PM-PF1125	1/4" NPT X 7/8" LG. NIPPLE
⑲	1	PM-PF1175	90° ELBOW 1/4" NPT FEMALE TO 1/4" NPT FEMALE
⑳	1	PM-VA2383	GAUGE FOR PM-REG1535
㉑	1	PE-EN9125	1 1/4" BLACK PLASTIC THREADED PLUG
㉒	1	PM-PF1143	1/4" x 1-1/2" LG. NIPPLE
㉓	1	PM-PF1210	STREET TEE 1/4" MALE TO 1/4" FEMALE-2 ENDS
◯	6"	PM-PT1070	1/4" OD TUBING
◯	24"	PM-PT1080	3/8" O.D. POLYURETHANE TUBING (CUT TO SUIT)
◯	4	PM-FASH429088	10-32 X 2 1/2" LG. SS SHCS
◯	4	PM-FAW30265	#10 SS FLAT WASHER

REV 1 ⑩
REV 1 ⑮
REV 1 ⑯
REV 1 ⑰

TITLE: L.H. SWING TAMP: HI/LO PRESSURE CORNER WRAP FOR VACUUM OFF OPTION

Dept. Code 70

REV. BY: ES | Scale: 1=3 | Date: 08/03/07 | DRAWN BY: E. SANOR | F:\Engineering\Standard Parts\Applicator\360\360\ASS-214-0112LM

APPLICATOR SERIES: 360/3600

THIS DRAWING AND DESIGN IS THE PROPERTY OF CTM INTEGRATION INC. AND MAY NOT BE REPRODUCED

APPLICATOR WIDTH(S): 5"/7.5"/10"

GROUP: VALVE BANKS

REV. DESCRIPTION

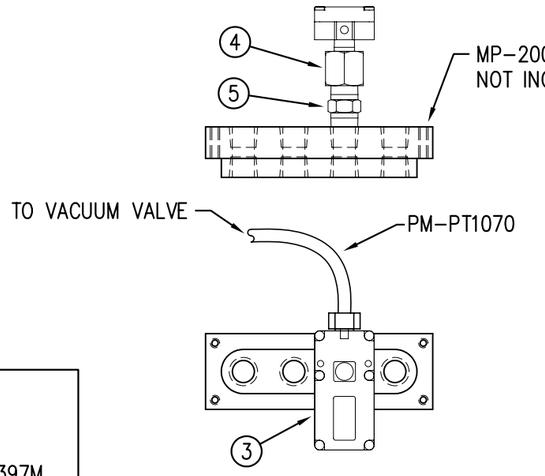
REV. DATE

REV. | REV. DESCRIPTION | REV. DATE
1 | FITTINGS REDUCED & 1/4" NPT FITTINGS REPLACED WITH 3/8" NPT FITTINGS SEE REVISION BLOCKS | 03-26-08

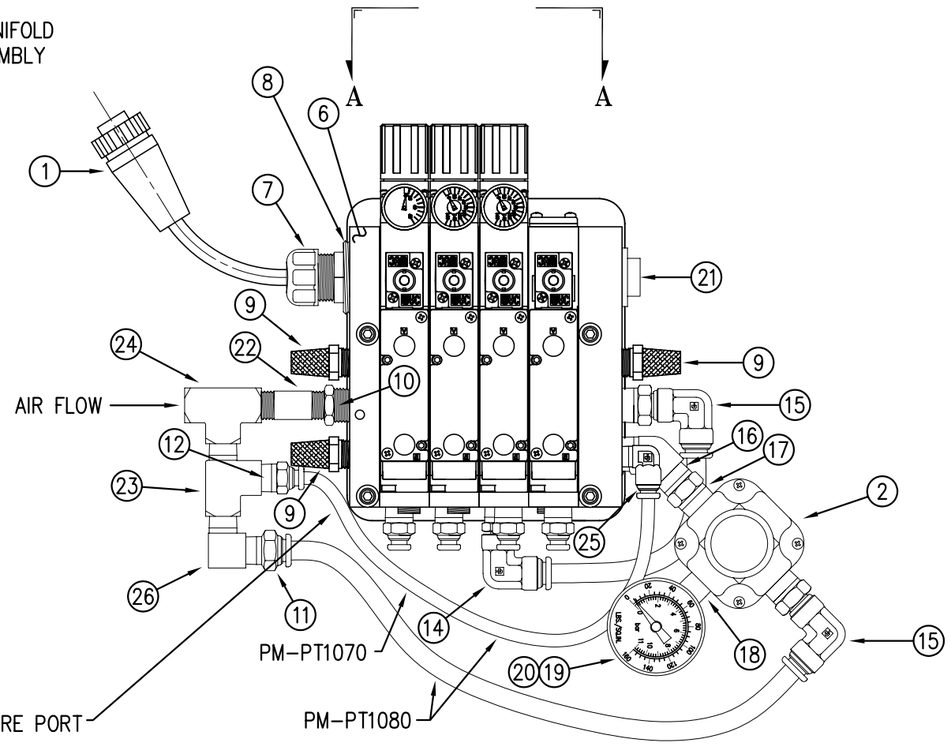
ASS-214-0112RM

MOUNTING PLATES NOT INCLUDED IN ASSEMBLY
FOR 360: MP-214-0206 & MP-214-0202
FOR 3600: MP-214-0206 & MP-238-0238 & MP-238-0239

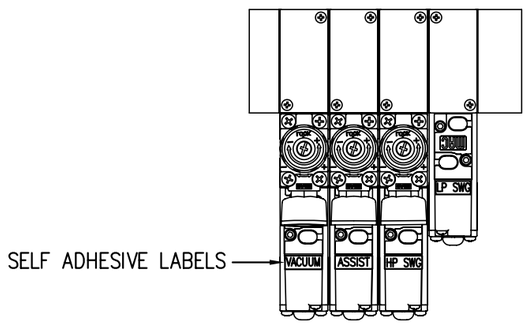
VALVE BANK SPARE PARTS:
SOLENOID: #PM-VA2395M
VACUUM REGULATOR W/GUAGE: #PM-VA2396M
BLOW/TAMP/ASSIST REGULATORS W/GUAGE: #PM-VA2397M
VACUUM REGULATOR GUAGE: #PM-VA2382M
BLOW/TAMP/ASSIST REGULATOR GUAGES: #PM-VA2380M



VAC PUMP AND FITTINGS
MOUNTED ON APPLICATOR

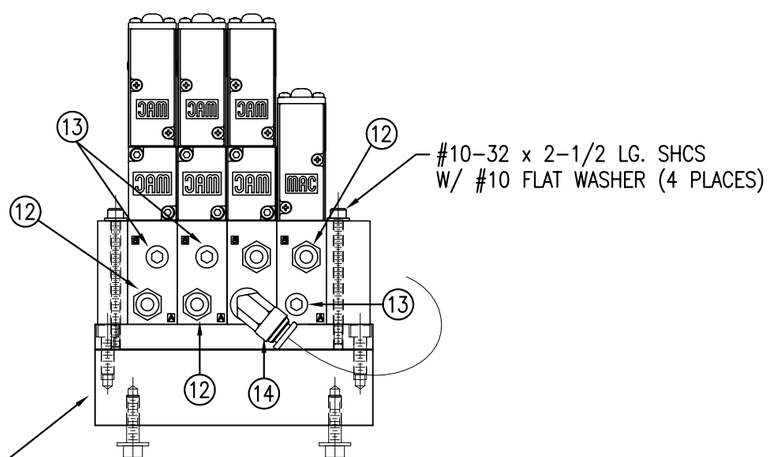


***AIR SUPPLIED TO OTHER SIDE DUE TO BLOCKING DISCS IN PRESSURE PORT
SEE ASS-200-0518RM & PM-VA2332M FOR MORE INFORMATION



SELF ADHESIVE LABELS

END VIEW "A"
(VALVE BANK ONLY)



WORK THIS WITH DRAWING ASS-200-0518RM

BILL OF MATERIAL

ASS-214-0112RM

ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION	
①	1	PE-200-0405	VALVE CABLE	
②	1	PM-REG1535	PRECISION REGULATOR	
③	1	PM-PUMP1010	VACUUM PUMP, 55 PSI FEED PRESSURE, MUFFLED EXHAUST	
④	1	PM-PF1217	FITTING ADAPTOR 1/4" FEMALE TO 1/8" MALE	
⑤	1	PM-PF1153	FITTING, HEX NIPPLE 1/4" NPT w/ 9/16" HEX	
⑥	1	PM-VA2332M	VALVE BANK	
⑦	1	PE-C02000	CORD GRIP	
⑧	1	PE-COND1084	STEEL REDUCER	
⑨	3	PM-MU1027	3/8" NPT MALE BRONZE EXHAUST MUFFLER	
⑩	1	PM-PF1110	BUSHING, 1/4" NPT FEMALE TO 3/8" NPT MALE	REV 1
⑪	1	PM-PF1020	FITTING, 3/8" TUBE w/ 1/4" NPT STRT	
⑫	5	PM-PF1010	FITTING, 1/4" TUBE w/ 1/4" NPT STRT	
⑬	3	PM-FT1200	1/4" NPT SOCKET HEAD PLUG	
⑭	1	PM-PF1060	1/4" NPT to 3/8" TUBE 90° ELBOW	
⑮	2	PM-PF1046	3/8" TUBE to 3/8" NPT SWIVEL, 90°	REV 1
⑯	1	PM-PF1118	45° STREET ELBOW, NPT 3/8" MALE to 3/8" FEMALE	REV 1
⑰	1	PM-PF1159	3/8" to 3/8" HEX. NIPPLE	REV 1
⑱	1	PM-PF1125	1/4" NPT X 7/8" LG. NIPPLE	
⑲	1	PM-PF1175	90° ELBOW 1/4" NPT FEMALE TO 1/4" NPT FEMALE	
⑳	1	PM-VA2383	GAUGE FOR PM-REG1535	
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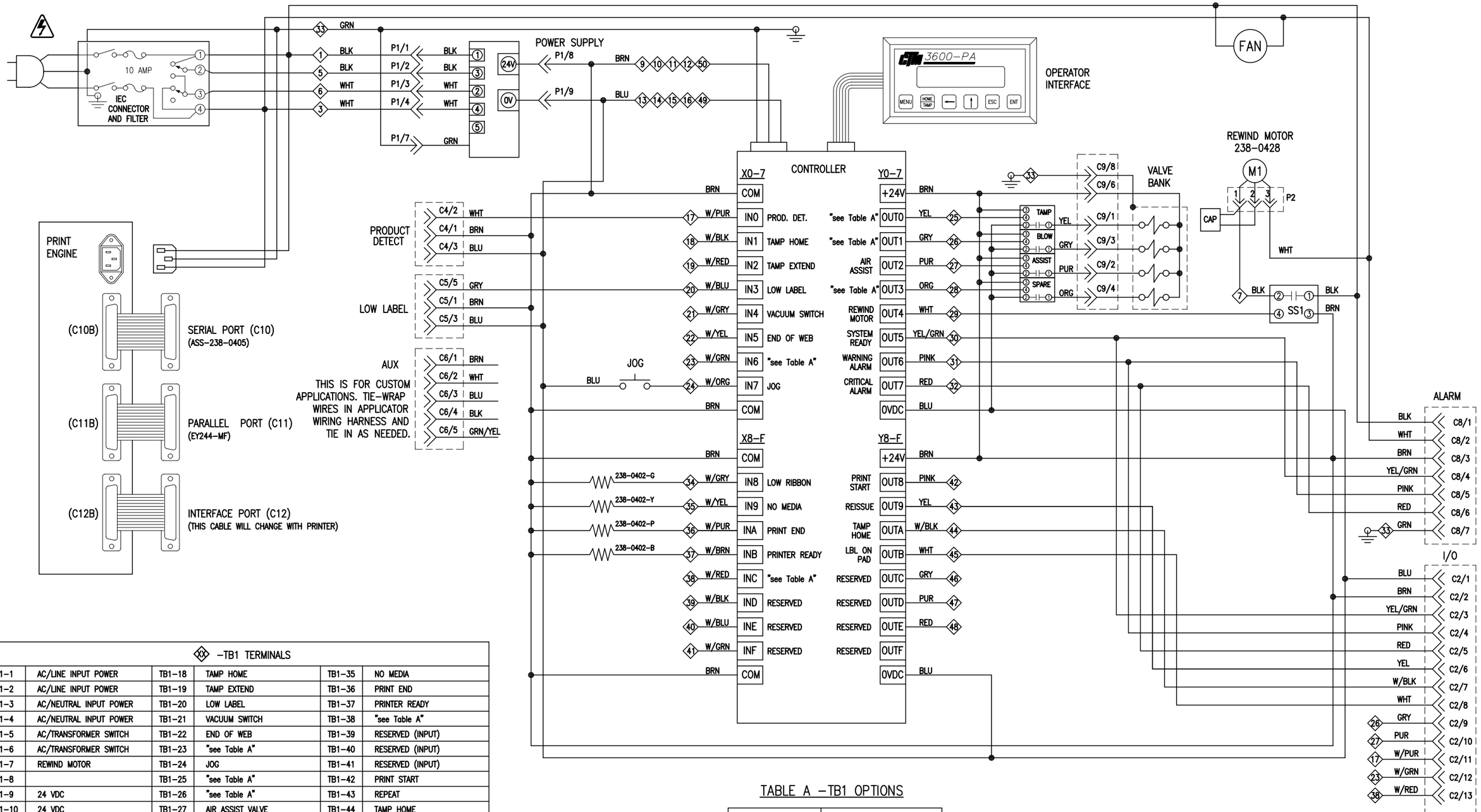
㉒	1	PM-PF1143	1/4" x 1-1/2" LG. NIPPLE	
㉓	1	PM-PF1210	STREET TEE 1/4" MALE TO 1/4" FEMALE-2 ENDS	
㉔	1	PM-PF1200	STREET TEE 1/4" FEMALE-3 ENDS	
㉕	1	PM-PF1050	90° ELBOW 1/4" TUBE TO 1/8" MALE NPTF	
㉖	1	PM-PF1185	90° ELBOW NPT 1/4" FEMALE TO 1/4" MALE	
◯	18"	PM-PT1070	1/4" OD TUBING	
◯	24"	PM-PT1080	3/8" O.D. POLYURETHANE TUBING (CUT TO SUIT)	
◯	4	PM-FASH429088	10-32 X 2 1/2" LG. SS SHCS	
◯	4	PM-FAW30265	#10 SS FLAT WASHER	

TITLE: R.H. SWING TAMP: HI/LO PRESSURE CORNER WRAP FOR VACUUM OFF OPTION
Dept. Code 70
APPLICATOR SERIES: 360/3600
APPLICATOR WIDTH(S): 5"7.5"10"
GROUP: VALVE BANKS
Scale: 1=3
Date: 08/03/07
DRAWN BY: E. SANOR
F:\Engineering\Standard Parts\Applicator\360\360\ASS-214-0112RM
REV. BY: ES
REV. DATE 03-26-08
REV. DESCRIPTION FITTINGS REDUCED & 1/4" NPT FITTINGS REPLACED WITH 3/8" NPT FITTINGS SEE REVISION BLOCKS
REV. 1

ASS-238-0402



◇X –TB1 TERMINALS

TB1-1	AC/LINE INPUT POWER	TB1-18	TAMP HOME	TB1-35	NO MEDIA
TB1-2	AC/LINE INPUT POWER	TB1-19	TAMP EXTEND	TB1-36	PRINT END
TB1-3	AC/NEUTRAL INPUT POWER	TB1-20	LOW LABEL	TB1-37	PRINTER READY
TB1-4	AC/NEUTRAL INPUT POWER	TB1-21	VACUUM SWITCH	TB1-38	"see Table A"
TB1-5	AC/TRANSFORMER SWITCH	TB1-22	END OF WEB	TB1-39	RESERVED (INPUT)
TB1-6	AC/TRANSFORMER SWITCH	TB1-23	"see Table A"	TB1-40	RESERVED (INPUT)
TB1-7	REWIND MOTOR	TB1-24	JOG	TB1-41	RESERVED (INPUT)
TB1-8		TB1-25	"see Table A"	TB1-42	PRINT START
TB1-9	24 VDC	TB1-26	"see Table A"	TB1-43	REPEAT
TB1-10	24 VDC	TB1-27	AIR ASSIST VALVE	TB1-44	TAMP HOME
TB1-11	24 VDC	TB1-28	"see Table A"	TB1-45	LABEL ON PAD
TB1-12	24 VDC	TB1-29	REWIND START	TB1-46	RESERVED (OUTPUT)
TB1-13	0 VDC	TB1-30	READY OUTPUT	TB1-47	RESERVED (OUTPUT)
TB1-14	0 VDC	TB1-31	WARNING ALARM	TB1-48	RESERVED (OUTPUT)
TB1-15	0 VDC	TB1-32	CRITICAL ALARM	TB1-49	0 VDC
TB1-16	0 VDC	TB1-33	GROUND	TB1-50	24 VDC
TB1-17	PRODUCT DETECT	TB1-34	LOW RIBBON		

TABLE A –TB1 OPTIONS

	STANDARD	HI/LO PRESSURE
TB1-23	INHIBIT	INHIBIT/EXTERNAL PRINT START
TB1-25	TAMP VALVE	HP TAMP VALVE
TB1-26	BLOW VALVE	VACUUM/BLOW VALVE
TB1-28	SPARE VALVE	LP TAMP VALVE
TB1-38	EXTERNAL PRINT START	SWING BACK

TITLE: 3600-PA SERIES APPLICATOR: ELECTRICAL

PART: HOUSING SCHEMATIC w/ ORIENTAL MOTOR FOR STD. & HI/LO PRESSURE

Dept. Code 70

F:\Engineering\Standard Parts\Applicator\3600 238\ASS-238-0402

DRAWN BY: BOB S.

Date: 05/22/06

Scale: 1=2

REV. BY: ES

REV. DATE 08-30-07

REV. 2

REV. DESCRIPTION CHANGED Y9 OUTPUT VERBAGE TO "REISSUE" TO MATCH DISPLAY

1318 QUAKER CIRCLE P.O. BOX 589 SALEM, OHIO 44460

PHONE: 330-332-1800
FAX: 330-332-2144

www.ctmlabelingsystems.com

Designers and Manufacturers of Pressure Sensitive Labeling Equipment and Custom Product Handling

3600 POWERED UNWIND PRINTER APPLICATOR MAINTENANCE & SERVICE MANUAL

(REVISION 3600-1a2.1pw)

TABLE OF CONTENTS

(Powered Unwind)

The following section for powered unwind type applicators will discuss items that pertain only to this applicator type. Items not covered here will be covered in the standard 3600 section of this manual.

INTRODUCTION

The 3600-PA Powered Unwind printer applicator is a high-speed labeler used to thermally print and apply pressure sensitive labels to moving products. This applicator is designed to handle larger diameter label rolls than the standard 3600. A thermal transfer printer is integrated into the applicator to form a self-contained unit that will print variable data onto a label. The printer applicator can be mounted in almost any position adjacent to product flow to apply labels to top, sides or bottom of products as they pass by. Labels are supplied on rolls that consist of a liner on which the labels are held with adhesive. The labels may be preprinted with the variable information added by the printer or blank labels with the printer printing the entire label.

The applicator can work in two different modes:

Normal Tamp Blow
Inverted Tamp Blow

In the Normal Tamp Blow mode, the label is printed, dispensed out onto the label pad and held there by vacuum. When the product detect sensor is made, the label and label pad are moved toward the product using a pneumatic slide. When the slide is extended, an air blast will blow the label off the pad and onto the product.

In the Inverted Tamp Blow mode, the label is printed, dispensed onto the label pad and the slide extends. The applicator will wait in this position until the product sensor is made. The label is then blown off the pad onto the product.

For safe and trouble free operation, the instructions in this manual must be followed carefully during the set-up, operation, media changes, cleaning and maintenance. Also the specified environmental conditions must be maintained.

Electrical Supply: 108-132 Volts, 5 Amps, 50-60 Hertz, Single phase

A three meter long, three wire cable with 1.00mm conductors rated at 10 amperes (in accordance with CENELEC HD-21) is provided for the electrical connection to the IEC 320 receptacle of the applicator. The end of the power cord is terminated with a NEMA 5-15 plug.

Air Supply: Clean and dry compressed air must be provided at pressures 90 to 100 P.S.I. with a minimum flow rate of 4 S.C.F.M.

Environment: Operating temperature range is 40 to 95°F (5 to 35°C). Operating humidity range is 20 to 85% RH, non-condensing.

Note: The model 3600-PA is not intended to be operated in an environment where flammable or explosive gases are present. The model 3600-PA MUST not be used in direct contact with food products.

The following section for powered unwind type applicators will discuss items that pertain only to this applicator type. Items not covered here will be covered in the standard 3600 section of this manual.

WEB PATH & LABEL INSTALLATION

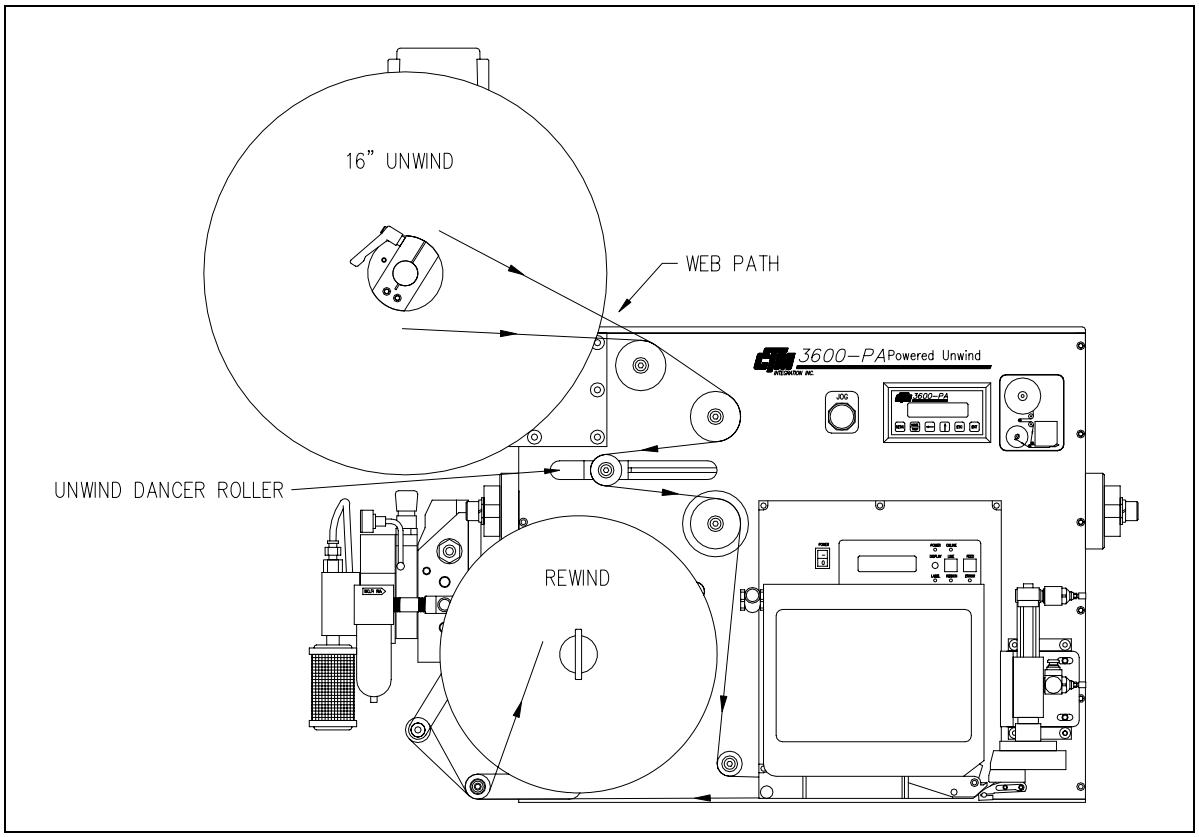


Figure 28 Powered Unwind Web Path

Installation of Labels

When installing a new roll of labels, remove the outside unwind disk and install a new roll on the unwind mandrel. Move the unwind dancer roller toward the printer to unroll some labels off the roll of labels. Remove enough labels off the liner so there is only liner going through the print engine to the rewind mandrel. Thread the liner through the machine using the above diagram as a guide. Refer to the printer manual for the web path through the print section. Make sure the liner loops around the rewind dancer as shown above or the rewind will not work properly. When the labels are installed on the applicator, close up the printer and clear any printer fault.

POWERED UNWIND SETUP

Sequence of Operation of the Powered Unwind/Rewind
When the applicator applies a label, the printer will print a replacement label and feed it onto the label pad. During the printing process, label stock is pulled into the printer causing the unwind dancer to move toward the print engine. When the “unwind on” prox turns on, the motor will unwind stock until the dancer turns the “unwind off” prox on. At this point the motor stops and waits for the printer to use up the supply loop. The same time the printer is taking labels from the unwind, its giving the rewind more stock. The more excess stock on the rewind side will cause the rewind dancer to rise. When the “rewind on” prox turns on and the printer is dispensing a label, the rewind motor will turn on and will continue running until either the prox turns off or the printer quits printing.

Setting the Unwind Up
The unwind assembly consists of the unwind motor and everything attached to it and the dancer assembly. The dancer assembly is mounted inside the housing just to one side of the print engine. The dancer assembly has three proximity switches. The “on” prox (prox closest to the print engine) should be set so when the unwind motor turns on. It has enough room to ramp up to speed before the printer pulls the roller to the end of the slot. This was set at 1.31” from the top of the slot closest to the printer at the factory. The “off” prox should be set far enough apart so both prox switches are not on at the same time. This spacing is factory set at 2”. The third prox is for the End of Web critical alarm. This switch will turn on when the tension is lost on the unwind dancer arm. This is either from the label roll running out or the web breaking. The prox switches should be moved in the mounting bracket so the face of the prox is 0.06”from the slide block. If positioned too far away, the prox will not turn on. The drive for the unwind motor is mounted on the electrical shelf and access to the drive can be obtained by removing the top cover plate on the applicator housing. The following is a list of settings that were in place when the applicator left the factory. Some settings may have to be changed in the field as needed.

Jumper Settings
J1-115v
J2-1.7A
J3-A90
J4-15V
J5-TRQ
J6-RTS

Trimpot Settings (0%=Fully CCW; 100%=Fully CW)
DB-25%
RESP-10%
IR-10%
RCL-100%
FCL-100%
MAX-100%
FACC-0%
RACC-0%

Note: Please consult the factory before making changes to these settings.

Setting the Unwind Up (continued) pg. 2
The “unwind torque” potentiometer is used to send more current to the motor, which will result in power and stiffness to the motor (not speed). This was set at 10.0 at the factory and is mounted on the electrical shelf with the drive. A lower setting will cause the unwind motor to start and stop smother and slower. It will be necessary to run with it at “10” to handle a longer label at higher speeds.

Note: The unwind motor will turn on anytime the “on” prox is made with a maximum duration of 5 seconds.

Setting the Rewind Up
Unlike the unwind, the rewind only has one prox switch to turn the rewind motor on and off. The switch is not moveable and because of the dancer position and the thickness of the nuts, in and out adjustments are not necessary.
Dancer arm tension must be set before starting and before setting it, remove AC power and the stainless cover to the machine. To get the right tension on the dancer arm, put the applicator in the attitude that it will be applying labels. Without any liner around the dancer, tighten the spring on the backside of the faceplate so the dancer is just held against the stop. If the tension is too tight, the dancer may not move when the rewind diameter gets too big. To tighten the spring, loosen the setscrew on the lock collar that supports the spring anchor and rotate. When the right tension is achieved, re-tighten the setscrew. It will be important to observe the rewind from the beginning of a roll to the end to get the right tension setting.
The rewind motor is the same setup as a standard 3600-PA except it has a heavier clutch spring installed. This spring was set to the max torque at the factory, which means all the washers were positioned outside. If properly setup, the dancer arm will move up when the printer turns on. When the prox turns on, the rewind motor will also turn on causing the dancer arm to pull down. When the prox turns off, the rewind motor will turn off. If the printer is still printing, the dancer will rise up and the process starts over.

Note: -The rewind will only turn on if the printer is running and the prox turns on.
-A printer fault or opening the printer door will turn the rewind motor off.
-Follow web path drawing to insure the dancer arm will move.

BILL OF MATERIAL				SOLD
ASSEMBLY		CTM-238-0124R/L-XX-16PS		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
1	1	POWERED UNWIND HOUSING	CTM-238-0155R/L-XX	.
2	1	POWERED UNWIND	MOD-238-0156R/L	S
3	1	STANDARD TAMP MODULE	MOD-238-0124R/L	S
4	1	STANDARD 3600-PA REWIND SPINDLE	ASS-238-0144-16PU	S

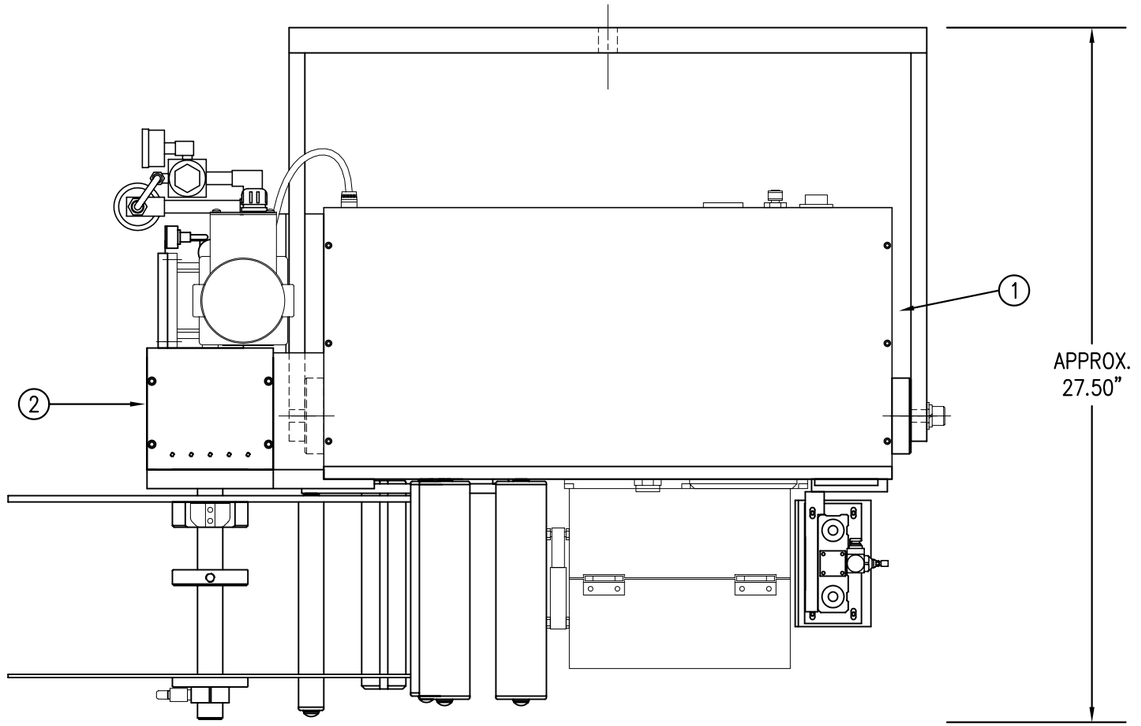
ORDER THE FOLLOWING SEPARATELY:

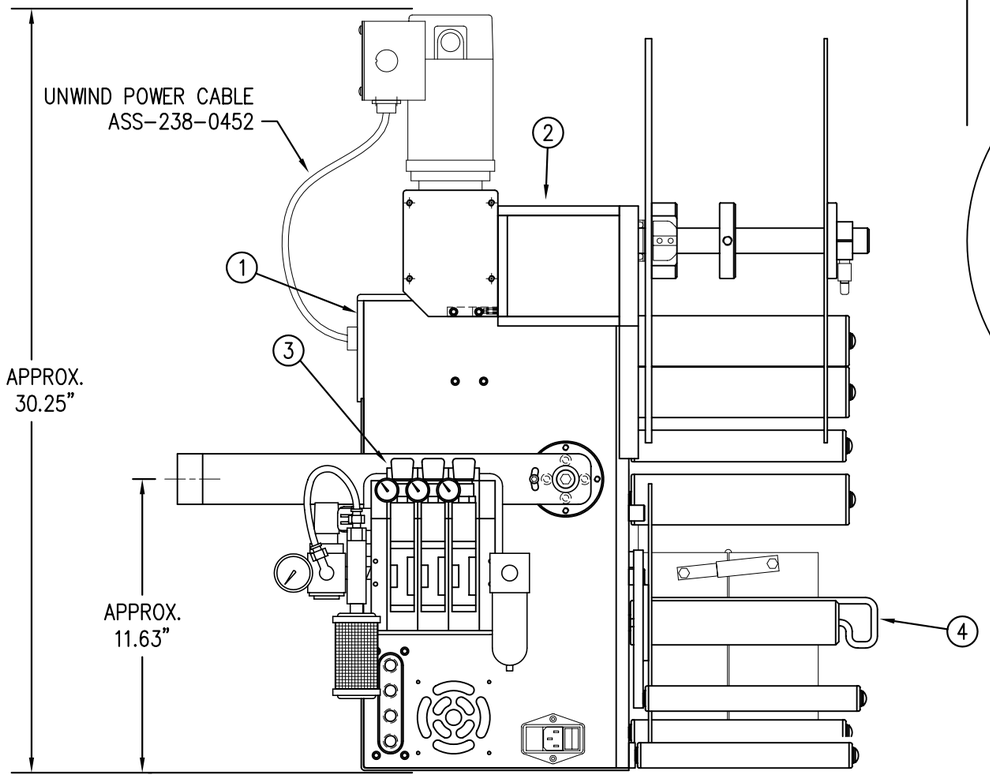
PRINT ENGINE

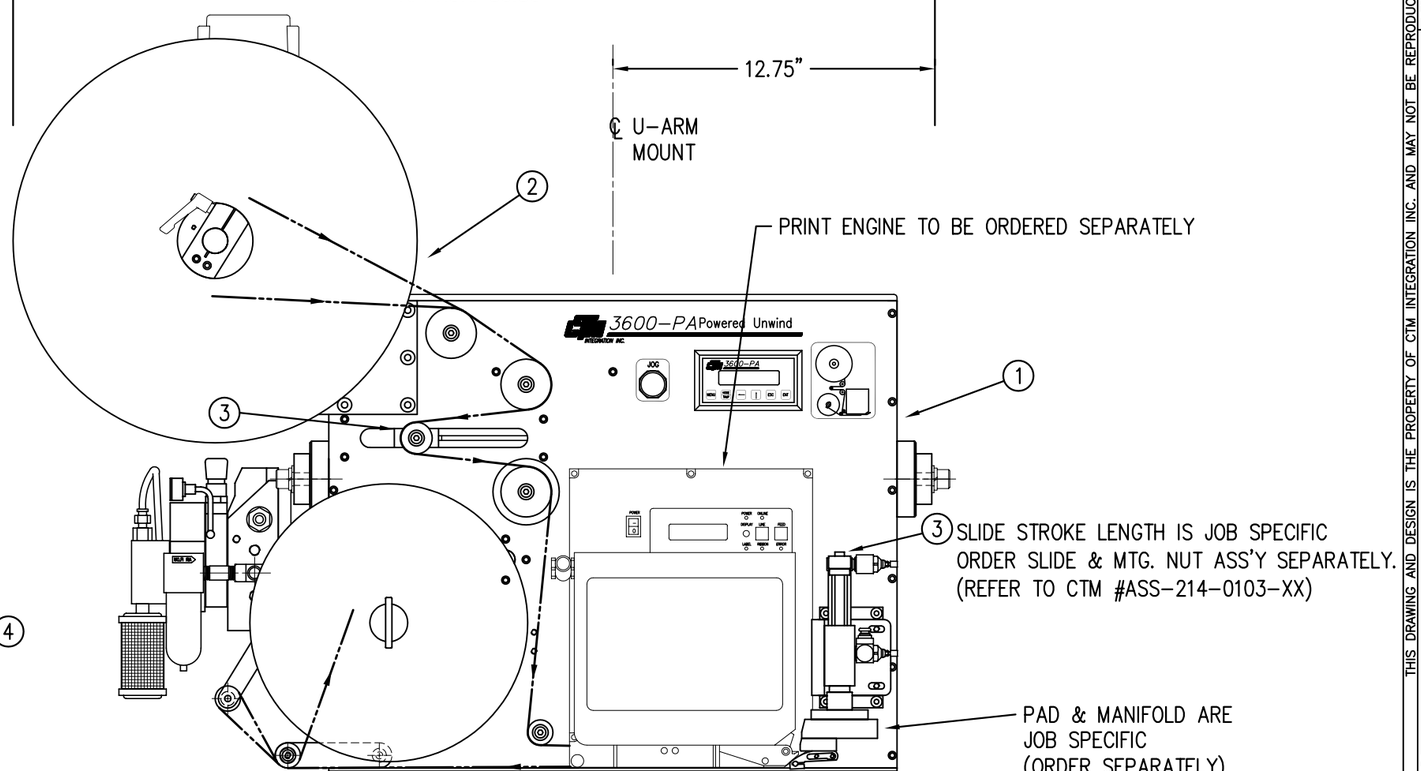
PRODUCT DETECT SENSOR

TAMP SLIDE ASSEMBLY (ASS-214-0103-XX)

CTM-238-0124R/L-XX-16PS	
SERIAL	-0124R/L-XS-16PS
PARALLEL	-0124R/L-XP-16PS
ETHERNET	-0124R/L-XE-16PS
SATO	-0124R/L-SX-16PS
ZEBRA	-0124R/L-ZX-16PS







TITLE: 3600-PA POWERED UNWIND APPLICATOR

PART: POWERED UNWIND W/ STANDARD TAMP

Dept. Code 70

F:\Engineering\Standard Parts\Applicator\3600 238\CTM-238-0124RL-XX-16PS

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:
3	ITEM #5 WAS ASS-200-0144-16	06/01/07	TDR

Scale: 1=6

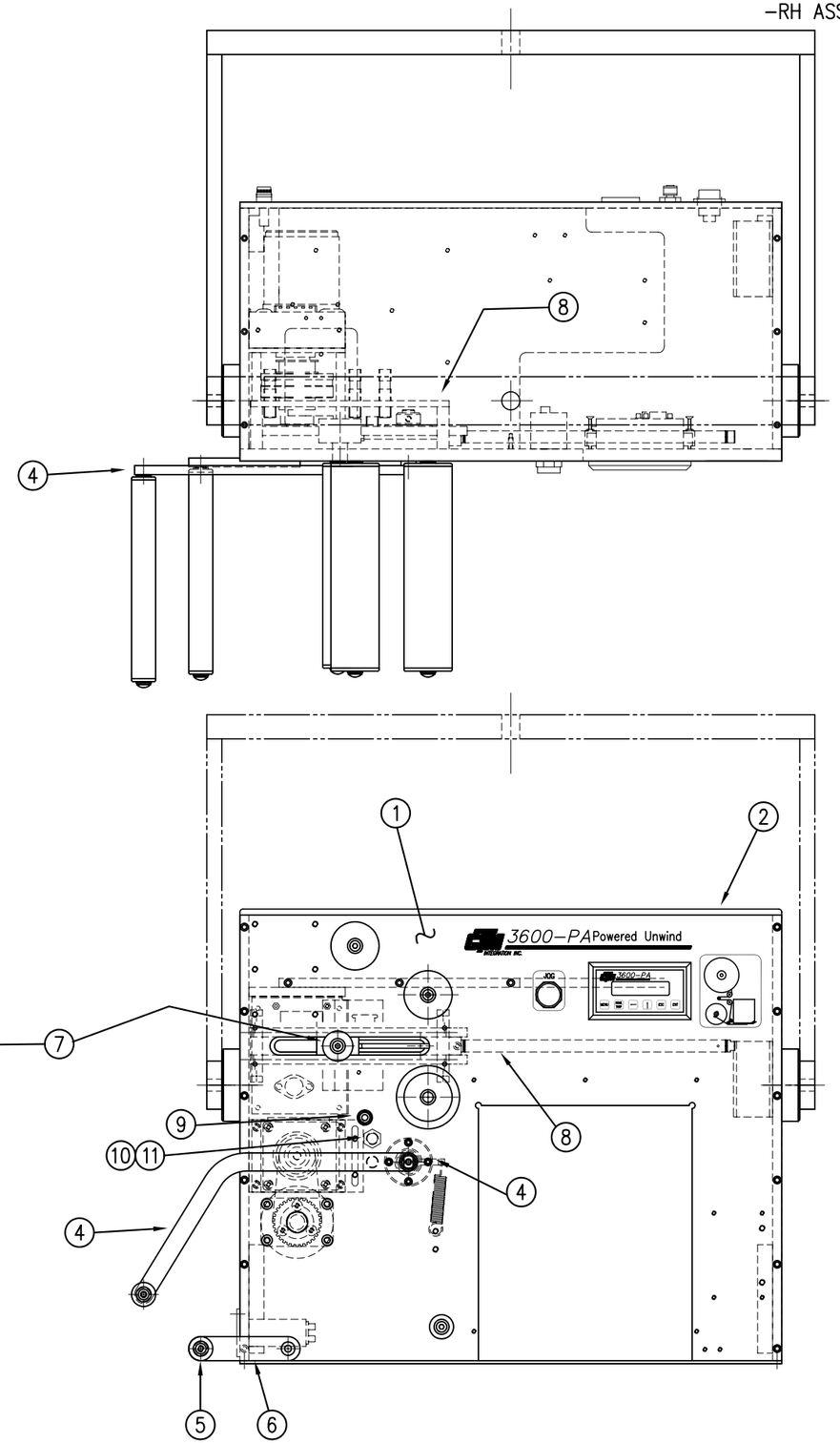
Date: 09-09-03

DRAWN BY: DKM

BILL OF MATERIAL				SOLD
ASSEMBLY		CTM-238-0155R/L-XX		.
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	P.U. SHELF ASSY CORE UNIT	SAS-238-0155R/L-X	.
②	1	TOP COVER	MP-238-0346	.
③	1	STAINLESS GUARD	MP-238-0345	.
④	1	REWIND DANCER ARM	ASS-238-0161R/L	.
⑤	1	1" ROLLER ASSEMBLY	ASS-238-0134	.
⑥	1	ROLLER MOUNTING PLATE	MP-238-0375	.
⑦	1	1.25" ROLLER ASSEMBLY	ASS-238-0164	.
⑧	1	UNWIND DANCER ASSEMBLY	ASS-238-0157	.
⑨	1	REWIND DANCER ARM STOP	MP-238-0359	.
⑩	1	PROXIMITY SWITCH	PE-SE10108	.
⑪	1	RIGHT ANGLE BANNER QD 15' CABLE	PE-SE3055	.
⑫	1	U-ARM FOR POWERED UNWIND	WAS-238-0160	.
13	1	POWER CORD FOR APPLICATOR	PE-C01020	.
14	1	POWER CORD FOR PRINT ENGINE	PE-C01025	.
15	1	APPLICATOR TO ZEBRA P.E. INTERFACE	PE-238-0418	.
	1	APPLICATOR TO SATO P.E. INTERFACE	PE-238-0420	.
16	1	SERIAL PORT CONNECTOR FOR ZEBRA	PE-CON2039	. SERIAL ONLY
	1	SERIAL PORT CONNECTOR FOR SATO	PE-CON2058	.

RH & LH ASSEMBLIES AVAILABLE
-RH ASSEMBLY SHOWN-

CTM-238-0155R/L-XX	
SERIAL	-0155R/L-XS
PARALLEL	-0155R/L-XP
ETHERNET	-0155R/L-XE
SATO	-0155R/L-SX
ZEBRA	-0155R/L-ZX



PART: HOUSING ASSEMBLY

Dept. Code 70

TITLE: 3600-PA POWERED UNWIND APPLICATOR

Scale:	Date:	DRAWN BY:
1=6	09-03-03	BKW

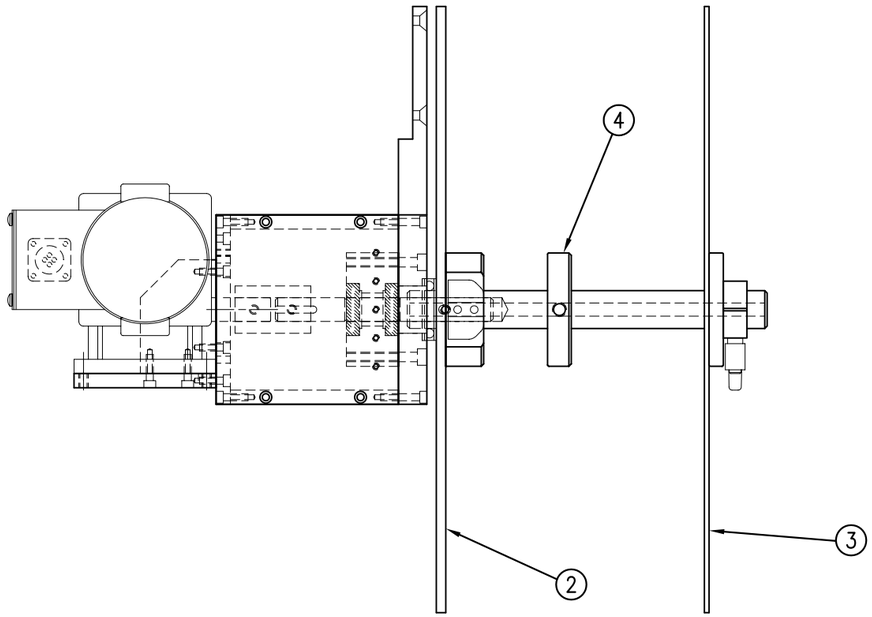
F:\Engineering\Standard Parts\Applicator\3600-dwg\Powered Unwind\CTM-238-0155RL-XX

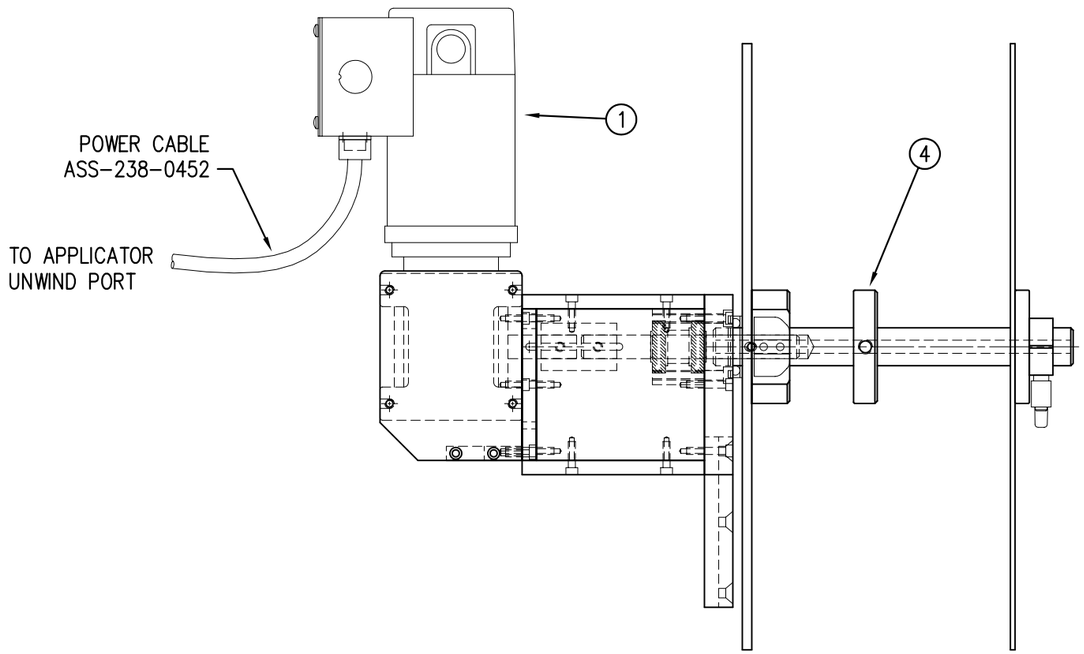
REV.	REV. DESCRIPTION	REV. DATE	REV. BY:
7	CHANGED DRAWING NUMBER FROM ASS TO CTM	07/03/07	TDR

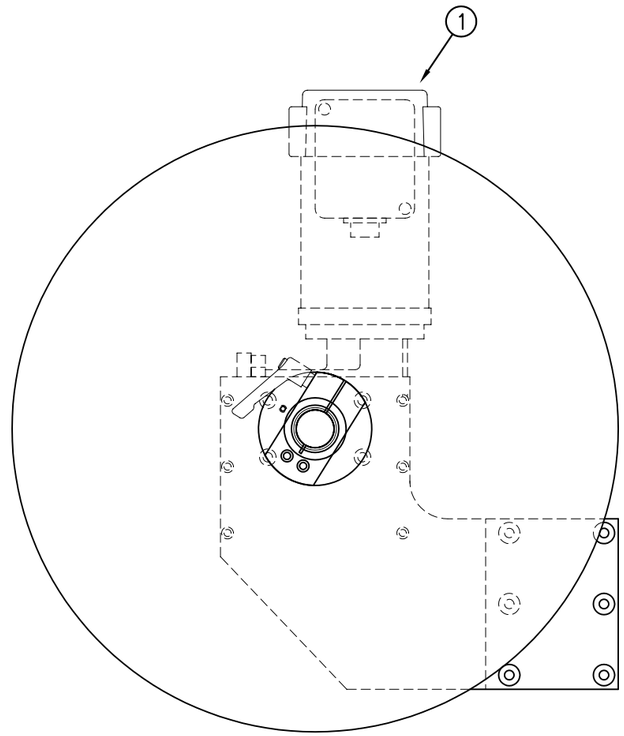
BILL OF MATERIAL				SOLD
ASSEMBLY		MOD-238-0156R/L		.
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	POWERED UNWIND ASSEMBLY INCLUDES POWER CABLE (ASS-238-0452)	ASS-238-0156R/L	.
②	1	16" INSIDE UNWIND DISK ASSEMBLY	ASS-238-0162	.
③	1	16" OUTSIDE UNWIND DISK ASSEMBLY	ASS-200-3133	.
④	1	UNWIND SUPPORT SPACER	MP-200-0267CS	.

MOD-238-0156R/L

RH & LH ASSEMBLIES AVAILABLE
-RH ASSEMBLY SHOWN-







TITLE: 3600-PA POWERED UNWIND APPLICATOR

PART: POWERED UNWIND MODULE

Dept. Code 70

Scale: 1=4 | Date: 09-09-03 | DRAWN BY: DKM | F:\Engineering\Standard Parts\Applicator\3600 238\MOD-238-0156RL

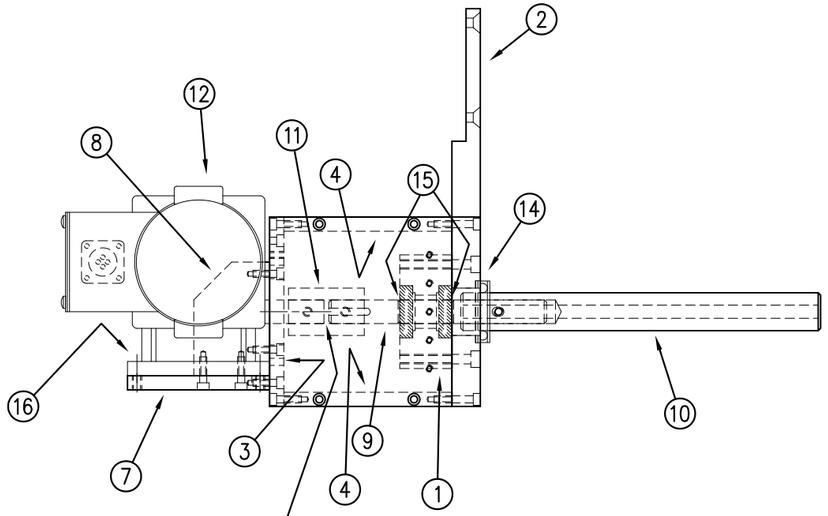
REV.	REV. DESCRIPTION	REV. DATE	REV. BY:
1	ADDED NOTE ABOUT POWER CABLE	02/16/05	TDR

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0156R/L		.
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	UNWIND BEARING BLOCK ASSEMBLY	SAS-238-0121	. (REV 5)
②	1	UNWIND MOUNTING PLATE	MP-238-0347R/L	.
③	1	MOTOR MOUNT BACK PLATE	MP-238-0348	.
④	2	MOTOR MOUNT SIDE PLATE	MP-238-0349	.
⑤	1	MOTOR MOUNT TOP PLATE	MP-238-0350	.
⑥	1	MOTOR MOUNT BOTTOM PLATE	MP-238-0351	.
⑦	1	GEARMOTOR MOUNT	MP-238-0363R/L	.
⑧	1	MOTOR MOUNT GUSSET	MP-238-0364	.
⑨	1	UNWIND STUB SHAFT	MP-238-0365	.
⑩	1	UNWIND SHAFT	MP-238-0219	.
⑪	1	5/8 ID COUPLING	PM-CPL1140	.
⑫	1	MOTOR CONNECTOR ASSY FOR P.U.	ASS-238-0453R/L	. (REV 4)
⑬	1	POWERED UNWIND POWER CABLE	ASS-238-0452	. (REV 1)
⑭	1	1" THRUST BEARING	PE-BE1233	.
⑮	2	5/8" DIA. SNAP RING	PM-FASR1010	.
⑯	1	1/8 NPT FEMALE TO 1/8 NPT MALE 90° STREET ELBOW	PM-PF1180	.
⑰	1	1/8" VENT PLUG	PM-FT1520	.
⑱	1	3/16" x 3/16" x 2" Lg. KEY	PM-FAKS30508	.

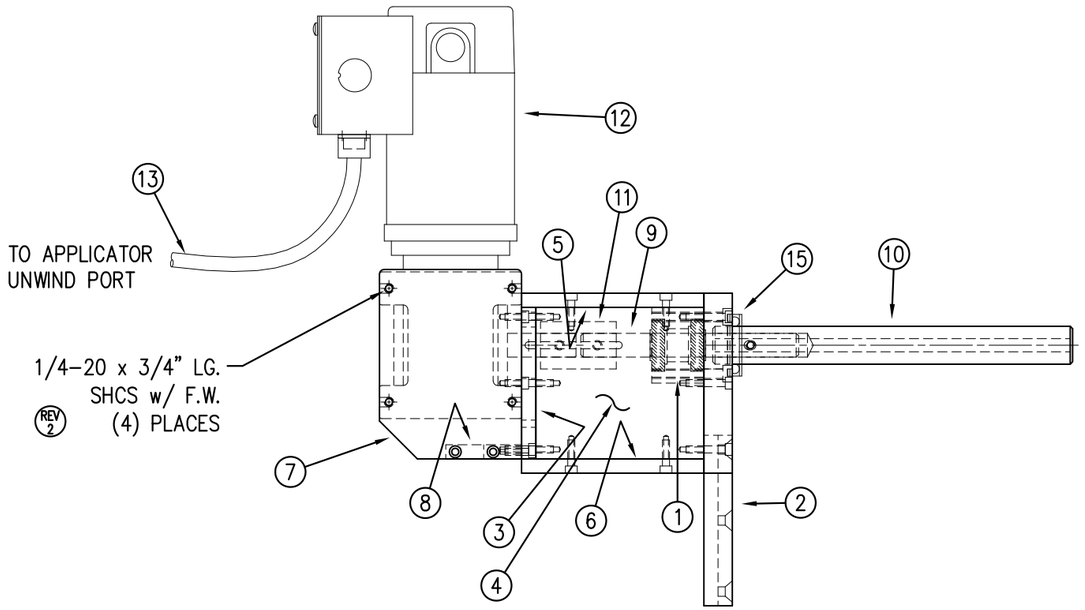
NOTE: ITEMS ⑯ & ⑰ REPLACE BREATHER ON MOTOR.

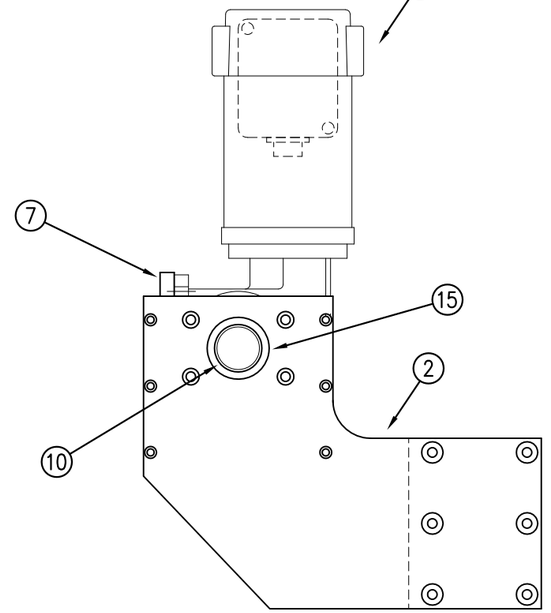
RH & LH ASSEMBLIES AVAILABLE
-RH ASSEMBLY SHOWN-

ASS-238-0156R/L



** NOTE: USE 242 LOCTITE @ KEYWAY SET SCREWS





PART: POWERED UNWIND ASSEMBLY

Dept. Code 70

F:\Engineering\Standard Parts\Applicator\3600 238\ASS-238-0156RL

Scale: 1=4 | Date: 09-09-03 | DRAWN BY: DKM

REV. BY: TDR | REV. DATE 01/31/11

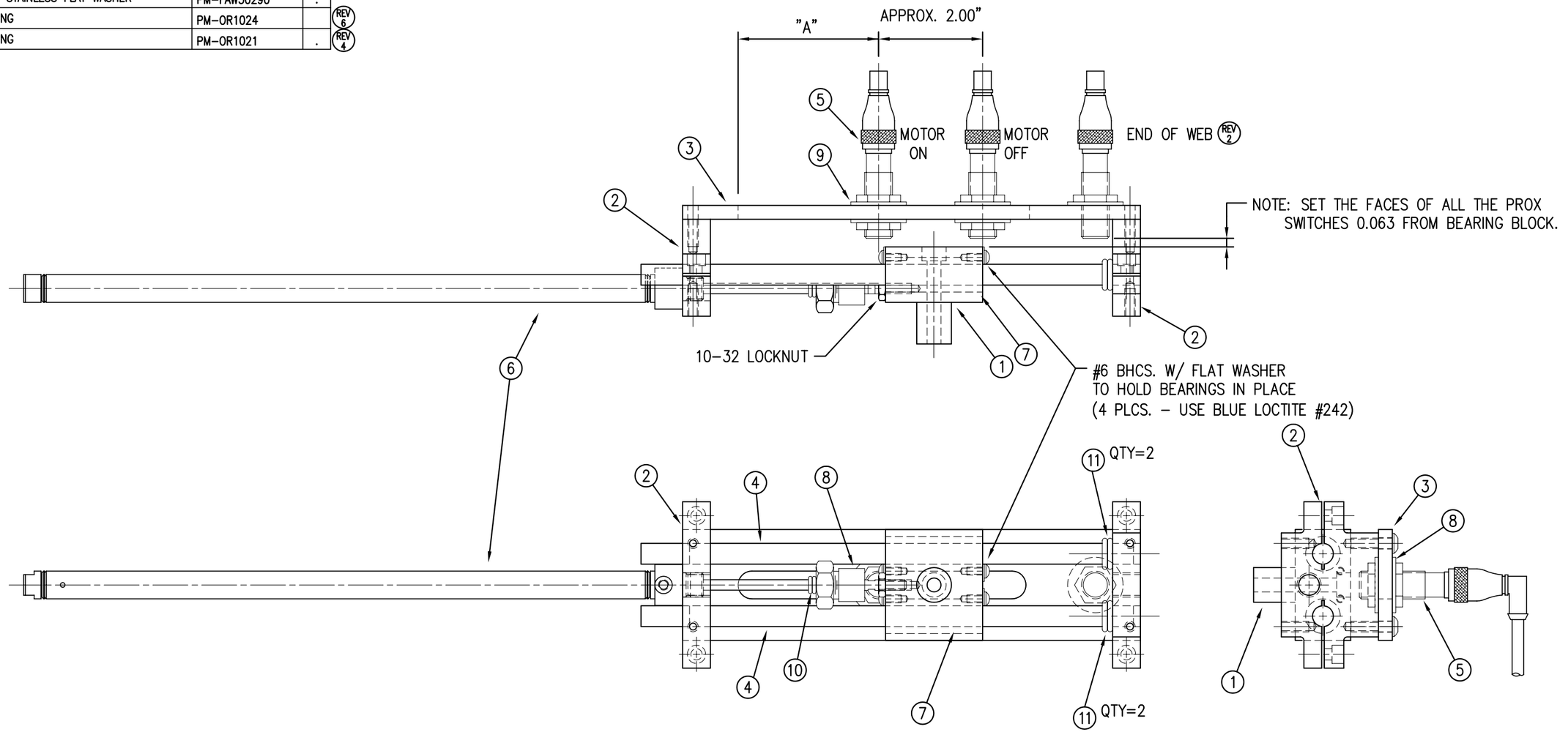
TITLE: 3600-PA POWERED UNWIND APPLICATOR

REV. 5 | REV. DESCRIPTION ITEM #1 WAS ASS-238-0121

ASS-238-0157

BILL OF MATERIAL				SOLD	
ASSEMBLY		ASS-238-0157		.	
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER		
1	1	BEARING BLOCK FOR UNWIND DANCER	MP-238-0354	.	
2	2	UNWIND DANCER ASSEMBLY END PLATE	MP-238-0372	.	REV 1
3	1	DANCER ASSEMBLY PROX. MOUNT	MP-238-0356	.	
4	2	DANCER ASSEMBLY GUIDE ROD	PM-S1060	.	REV 1
5	1	PROXIMITY SWITCH w/CABLE	ASS-238-0454	S	REV 5
6	1	DANCER SPRING LOADED CYLINDER	PM-AC1428	.	
7	4	LINEAR BEARING	PM-BE1305	.	
8	1	ALIGNMENT COUPLER	PM-AC1017	.	REV 6
9	5	1/2" STAINLESS FLAT WASHER	PM-FAW30290	.	
10	2	O-RING	PM-OR1024		REV 6
11	4	O-RING	PM-OR1021	.	REV 4

NOTE: THE "A" DIMENSION FROM THE FACTORY IS SET AT 2-9/16" FROM THE TOP OF THE SLOT RADIUS. THIS CAN BE MOVED TO CHANGE THE START AND STOP POSITIONS.



PART: UNWIND DANCER ASSEMBLY

Dept. Code 70

Scale: 1=2 | Date: 09-09-03 | DRAWN BY: BKW

F:\Engineering\Standard Parts\Applicator\3600-dwg\Powered Unwind\ASS-238-0157

TITLE: 3600-PA POWERED UNWIND APPLICATOR

REV. | REV. DESCRIPTION | REV. DATE | REV. BY:
6 | ADDED NEW ITEM #8 & ITEM #10 | 07/31/07 | TDR

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0158R/L-S		.
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	UNWIND MOTOR CONNECTOR/HARNESS	ASS-238-0451	.
②	1	CONNECTOR REAR PLATE	MP-238-0344R/L	.
③	1	PRODUCT DETECT CONNECTOR	MP-CON1019	.
④	1	LOW LABEL CONNECTOR	MP-CON1020	.
⑤	1	AUX CONNECTOR	MP-CON1025A	.
⑥	1	VALVE CONNECTOR / HARNESS	ASS-238-0409-PU	.
⑦	1	ALARM CONNECTOR / HARNESS	ASS-238-0410-PU	.
⑧	1	I/O CONNECTOR / HARNESS	PE-238-0411	.
⑨	1	FUSEHOLDER	PE-FU5005	.
⑩	1	5 amp FUSE	PE-FU2070	.
⑪	1	SERIAL CONNECTOR / HARNESS	PE-238-0405	.
⑫	1	PARALLEL PORT BLANK	MP-238-0276	.
⑬	4	NUT, SCREW, WASHERS ASSEMBLY	PE-SO1028	.
⑭	2	FAST ON RECEPTACLE	PE-REC2050	.
⑮	12"	18 Ga. BLACK WIRE	PE-W2000	.
⑯	24"	18 Ga. RED WIRE	PE-W2000	.
⑰	1	DANGER HAZARD VOLTAGE LABEL	PM-WL1055	.

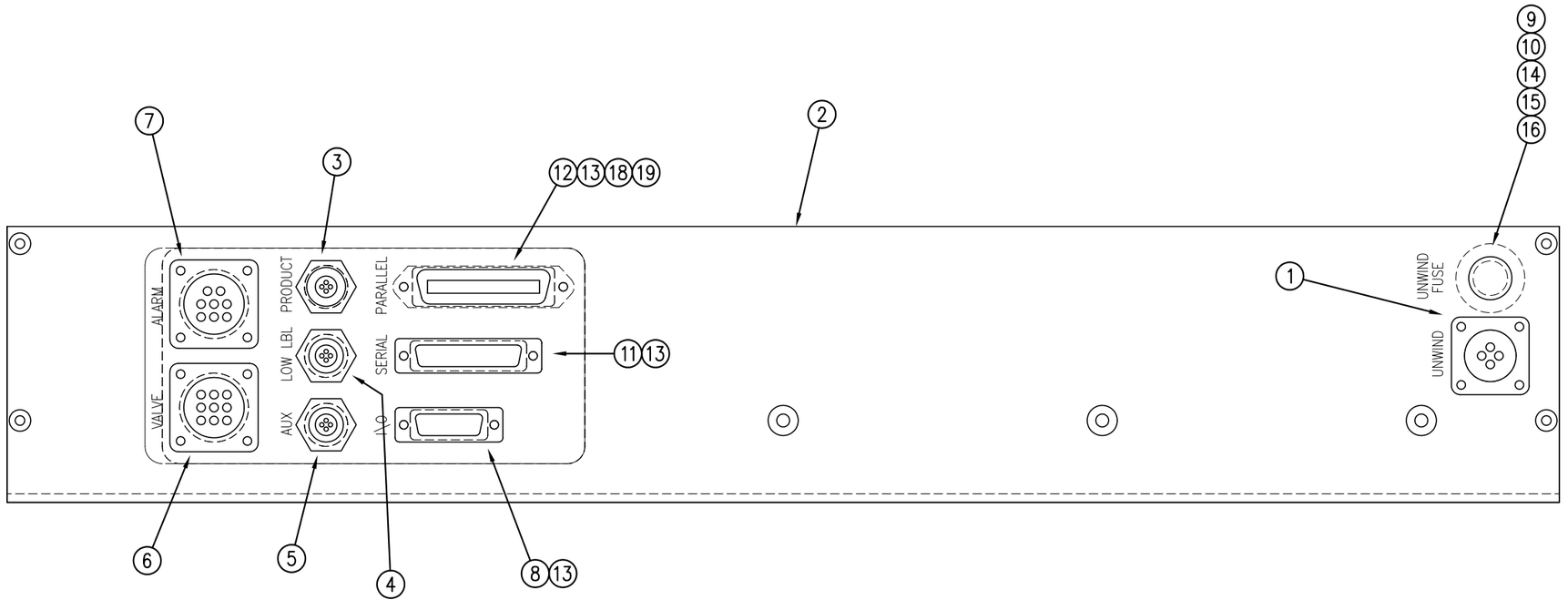
REQUIRES ADDITIONAL CONNECTOR FOR SERIAL HARNESS
FOR PAX4: PE-CON2039
FOR SATO: PE-CON2058

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0158R/L-P		.
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	UNWIND MOTOR CONNECTOR/HARNESS	ASS-238-0451	.
②	1	CONNECTOR REAR PLATE	MP-238-0344R/L	.
③	1	PRODUCT DETECT CONNECTOR	MP-CON1019	.
④	1	LOW LABEL CONNECTOR	MP-CON1020	.
⑤	1	AUX CONNECTOR	MP-CON1025A	.
⑥	1	VALVE CONNECTOR / HARNESS	ASS-238-0409-PU	.
⑦	1	ALARM CONNECTOR / HARNESS	ASS-238-0410-PU	.
⑧	1	I/O CONNECTOR / HARNESS	PE-238-0411	.
⑨	1	FUSEHOLDER	PE-FU5005	.
⑩	1	5 amp FUSE	PE-FU2070	.
⑪	1	SERIAL PORT BLANK	MP-238-0277	.
⑫	1	PARALLEL CABLE	PE-CA2500	.
⑬	4	NUT, SCREW, WASHERS ASSEMBLY	PE-SO1028	.
⑭	2	FAST ON RECEPTACLE	PE-REC2050	.
⑮	12"	18 Ga. BLACK WIRE	PE-W2000	.
⑯	24"	18 Ga. RED WIRE	PE-W2000	.
⑰	1	DANGER HAZARD VOLTAGE LABEL	PM-WL1055	.
⑱	1	PARALLEL PORT CLIP KIT	PE-CC1070	.
⑲	1	FLAT RIBBON CLIP	PE-PA1040	.

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0158R/L-E		.
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	UNWIND MOTOR CONNECTOR/HARNESS	ASS-238-0451	.
②	1	CONNECTOR REAR PLATE	MP-238-0344R/L	.
③	1	PRODUCT DETECT CONNECTOR	MP-CON1019	.
④	1	LOW LABEL CONNECTOR	MP-CON1020	.
⑤	1	AUX CONNECTOR	MP-CON1025A	.
⑥	1	VALVE CONNECTOR / HARNESS	ASS-238-0409-PU	.
⑦	1	ALARM CONNECTOR / HARNESS	ASS-238-0410-PU	.
⑧	1	I/O CONNECTOR / HARNESS	PE-238-0411	.
⑨	1	FUSEHOLDER	PE-FU5005	.
⑩	1	5 amp FUSE	PE-FU2070	.
⑪	1	SERIAL PORT BLANK	MP-238-0277	.
⑫	1	PARALLEL TO ETHERNET ADAPTER ASSY.	ASS-238-0460	.
⑬	4	NUT, SCREW, WASHERS ASSEMBLY	PE-SO1028	.
⑭	2	FAST ON RECEPTACLE	PE-REC2050	.
⑮	12"	18 Ga. BLACK WIRE	PE-W2000	.
⑯	24"	18 Ga. RED WIRE	PE-W2000	.
⑰	1	DANGER HAZARD VOLTAGE LABEL	PM-WL1055	.

RH & LH ASSEMBLIES AVAILABLE
–RH ASSEMBLY SHOWN–

ASS-238-0158R/L-X	
SERIAL	–S
PARALLEL	–P
ETHERNET	–E



TITLE: 3600–PA POWERED UNWIND APPLICATOR

PART: SERIAL/PARALLEL/ETHERNET CONNECTOR PLATE ASSEMBLY

Dept. Code 70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:
1	ITEM'S #6 & #7 WERE "PE's" NOT "ASS'S" & ADDED #13–#18	07/02/07	TDR

Scale: 1=2

Date: 09-09-03

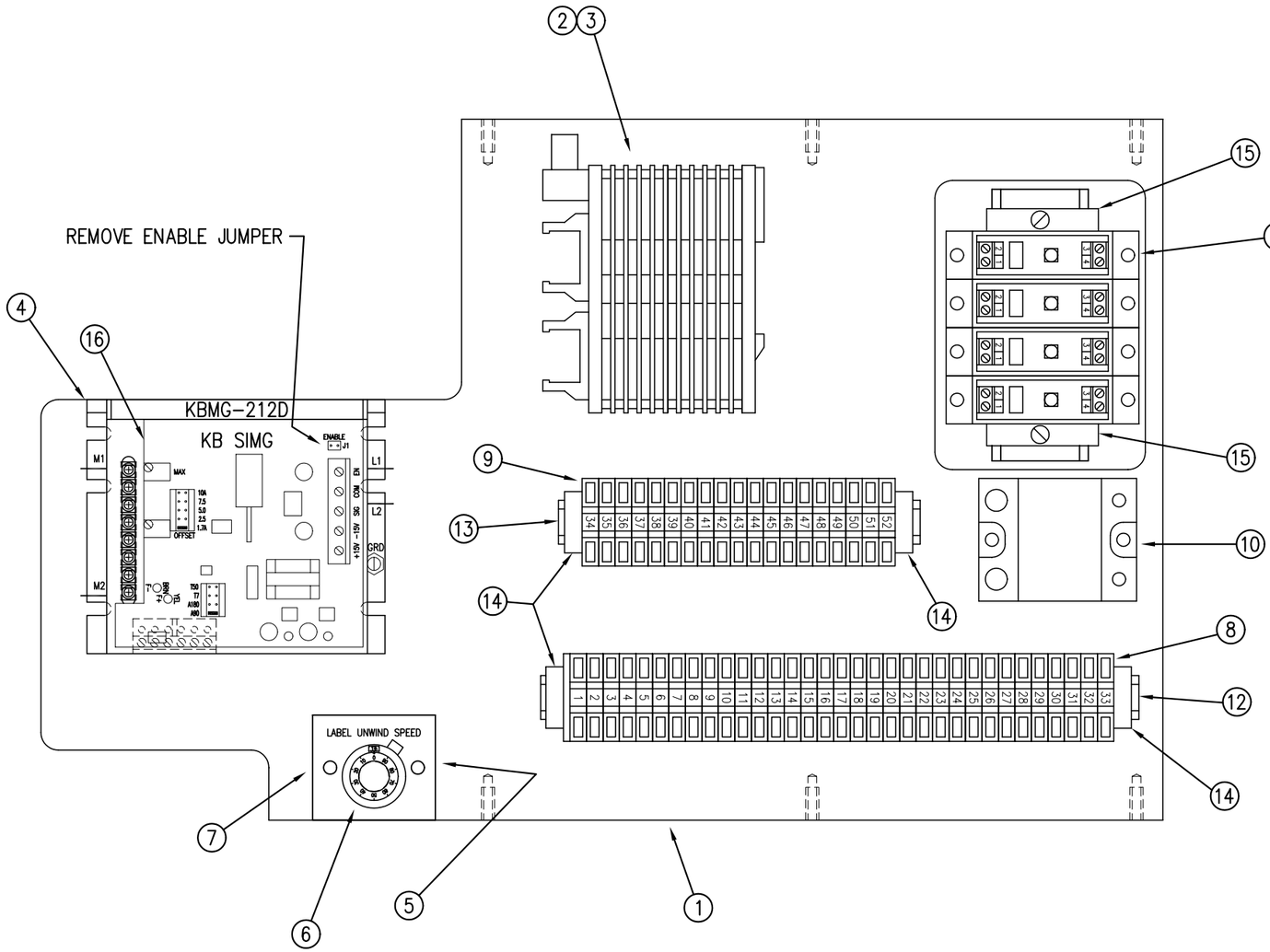
DRAWN BY: DKM

F:\Engineering\Standard Parts\Applicator\3600 238\ASS-238-0158RL-X

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0159R/L		.
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	ELECTRICAL SHELF	MP-238-0360R/L	.
②	1	PLC CONTROLLER	PE-PLC1015	.
③	1	PLC MOUNTING PLATE	PE-CL1016	.
④	1	REGEN DRIVE	PE-MC1109	.
⑤	1	5K POTENTIOMETER	PE-PO1030	.
⑥	1	POTENTIOMETER DIAL	PE-PO2010	.
⑦	1	POTENTIOMETER MOUNTING BRACKET	MP-PO1000	.
⑧	1	TERMINAL BLOCK ASSY (#1-#33)	ASS-TE4133	.
⑨	1	TERMINAL BLOCK ASSY (#34-#52)	ASS-TE4152	.
⑩	1	REWIND MOTOR RELAY	PE-RE1015	.
⑪	1	VALVE RELAY	ASS-238-0419R/L	.
⑫	1	DIN MOUNTING RAIL	CP-238-0231	.
⑬	1	DIN MOUNTING RAIL	CP-238-0366	.
⑭	4	END STOP	PE-TE4020	.
⑮	2	RELAY CLIP	PE-RE1053	.
⑯	1	SIGNAL ISOLATION BOARD	PE-SI1050	.

RH & LH ASSEMBLIES AVAILABLE
-RH ASSEMBLY SHOWN-

ASS-238-0159R/L



TITLE: 3600-PA POWERED UNWIND APPLICATOR

PART: ELECTRICAL SHELF ARRANGEMENT

Dept. Code 70

F:\Engineering\Standard Parts\Applicator\3600 238\ASS-238-0159RL

Scale: 1=2 | Date: 09-09-03 | DRAWN BY: DKM

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:
3	ADDED NOTE & CHANGED POT. LABEL	07/18/08	TDR

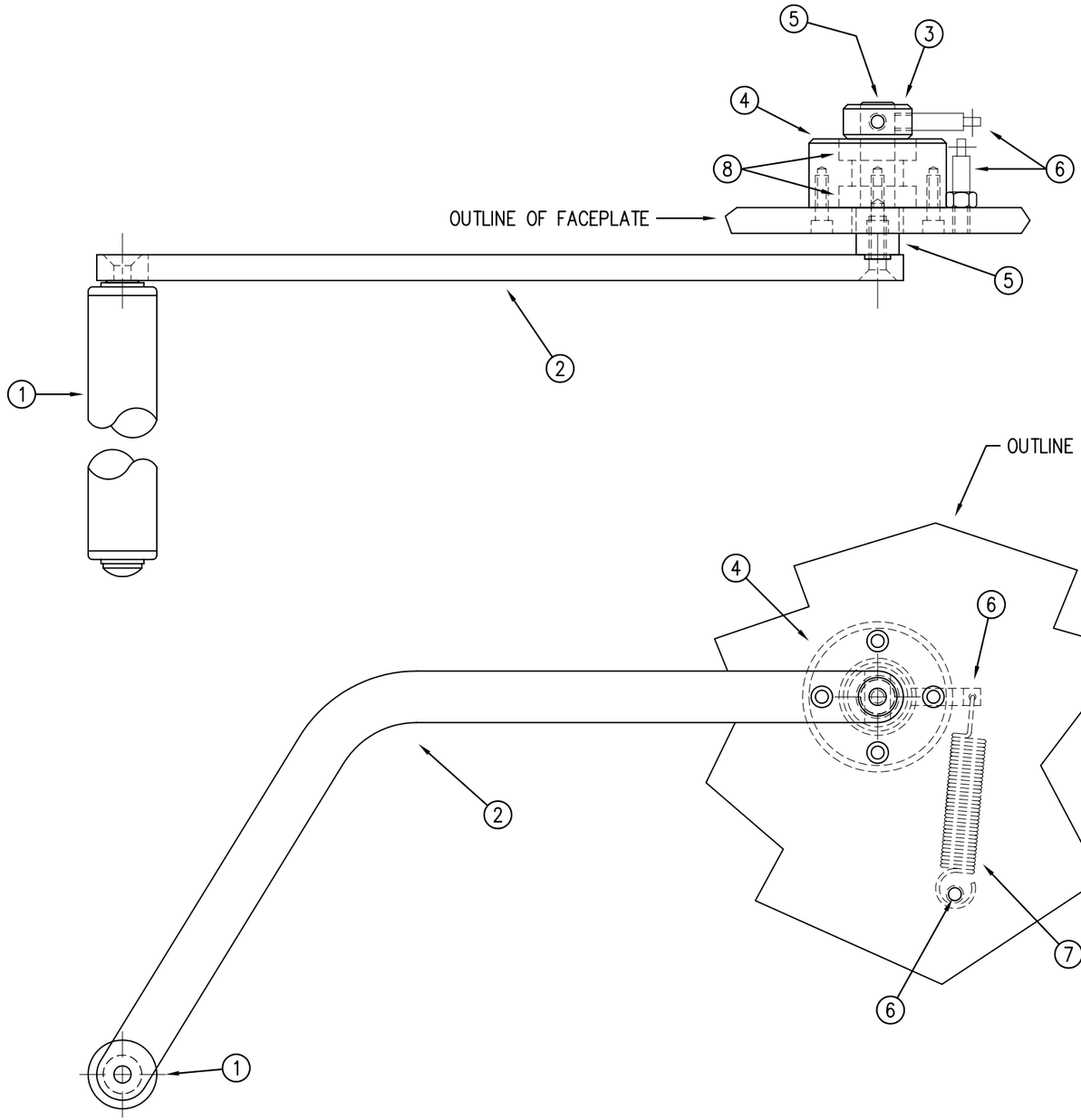
BILL OF MATERIAL

ASS-238-0161R/L

ITEM	QTY	CTM PART NUMBER	PART DESCRIPTION
①	1	ASS-238-0134	1" ROLLER ASSEMBLY
②	1	MP-238-0358	REWIND DANCER ARM
③	1	MP-238-0216	TENSION HUB
④	1	MP-200-3306	BEARING BLOCK
⑤	1	MP-200-3308	DANCER SHAFT
⑥	2	PM-FASP30500	SPRING ANCHOR
⑦	1	PM-FASP30480	DANCER SPRING
⑧	2	PM-BE1250	#R8 BALL BEARING

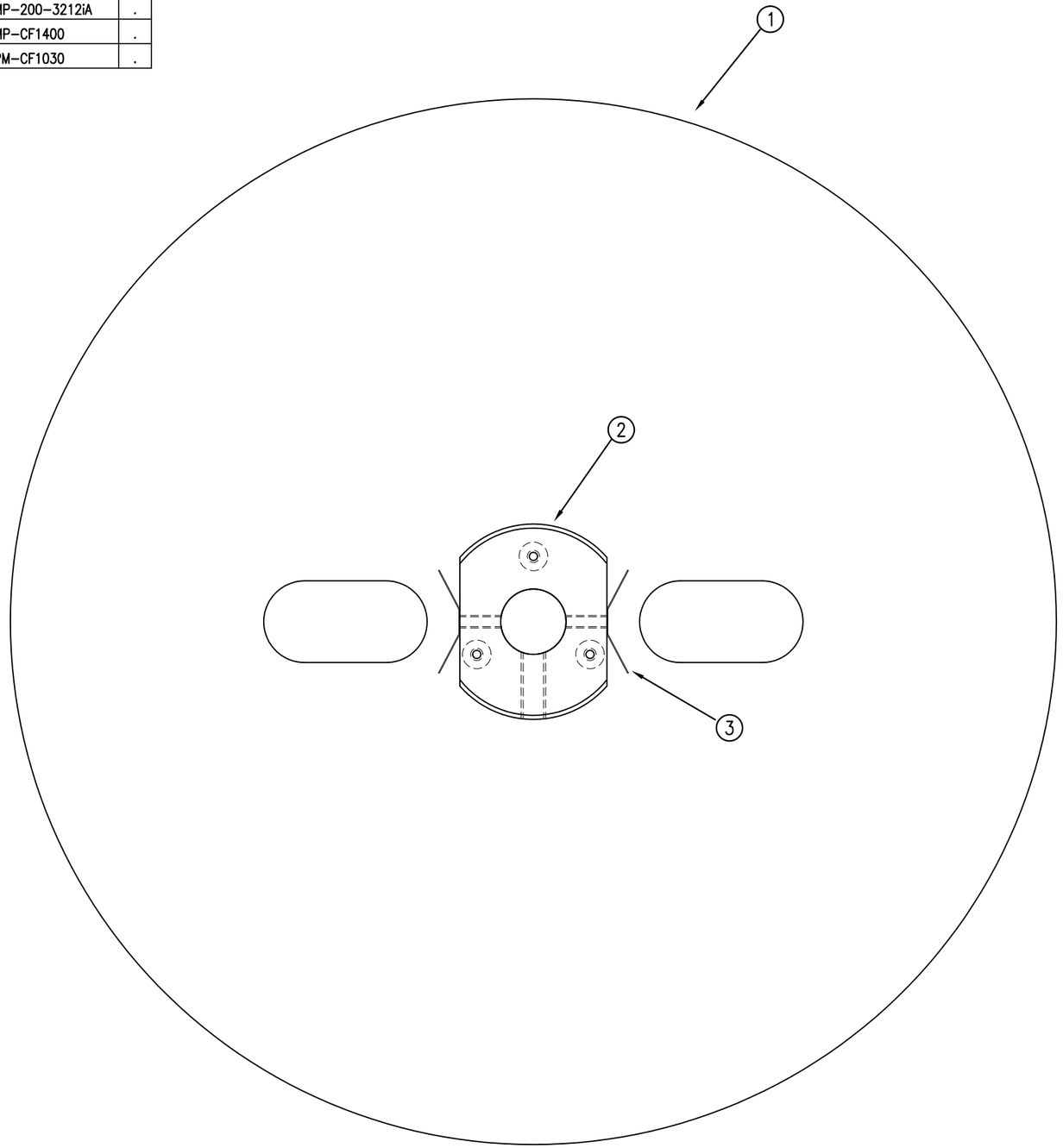
RH & LH ASSEMBLIES AVAILABLE
-RH ASSEMBLY SHOWN-

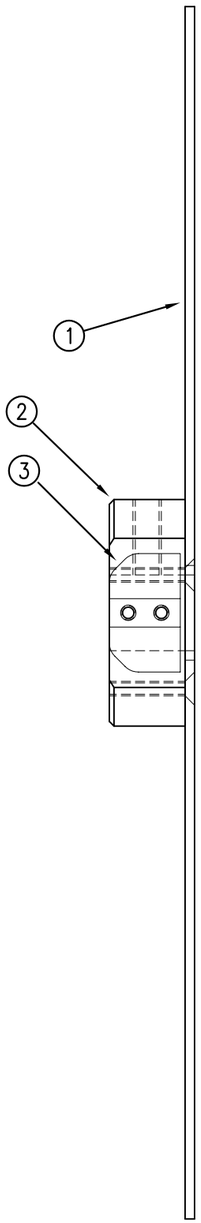
ASS-238-0161R/L



APPLICATOR SERIES: 3600 SERIES	APPLICATOR WIDTH(S): 7.5" WIDTH	GROUP: POWERED UNWIND	REV. DATE 05/11/07	REV. BY: TDR	TITLE: REWIND DANCER ARM ASSEMBLY
REV: 1	REV. DESCRIPTION DANCER ARM (ITEM #2) DESIGN CHANGED				Scale: 1=2
				DRAWN BY: DKM	Date: 09/09/03
				F:\Engineering\Standard Parts\Applicator\3600 UNWIND\ASS-238-0161RL	Dept. Code 70

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-238-0162		.
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	16" ALUM. UNWIND DISK – INSIDE	MP-200-3212iA	.
②	1	INSIDE UNWIND DISK HUB	MP-CF1400	.
③	2	UNWIND ARBOR SPRING CLIP	PM-CF1030	.





ASS-238-0162

TITLE: 3600-PA POWERED UNWIND APPLICATOR

PART: INSIDE UNWIND DISK ASSEMBLY

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:
0	UPDATED TITLEBLOCK	01/14/04	TDR

Scale: 1=2

Date: 09-09-03

DRAWN BY: BKD

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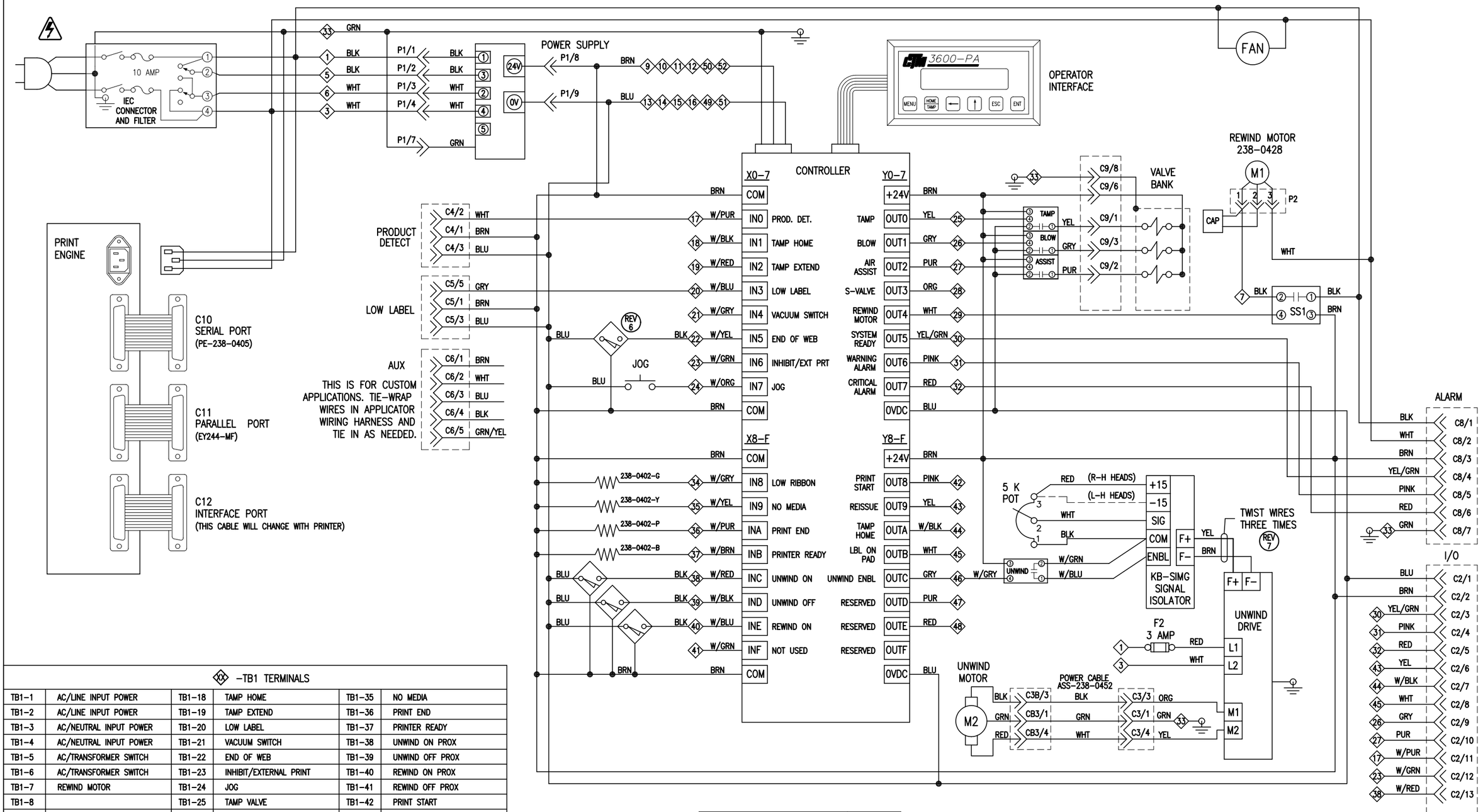
Dept. Code 70

ASS-238-0450



XX -TB1 TERMINALS

TB1-1	AC/LINE INPUT POWER	TB1-18	TAMP HOME	TB1-35	NO MEDIA		
TB1-2	AC/LINE INPUT POWER	TB1-19	TAMP EXTEND	TB1-36	PRINT END		
TB1-3	AC/NEUTRAL INPUT POWER	TB1-20	LOW LABEL	TB1-37	PRINTER READY		
TB1-4	AC/NEUTRAL INPUT POWER	TB1-21	VACUUM SWITCH	TB1-38	UNWIND ON PROX		
TB1-5	AC/TRANSFORMER SWITCH	TB1-22	END OF WEB	TB1-39	UNWIND OFF PROX		
TB1-6	AC/TRANSFORMER SWITCH	TB1-23	INHIBIT/EXTERNAL PRINT	TB1-40	REWIND ON PROX		
TB1-7	REWIND MOTOR	TB1-24	JOG	TB1-41	REWIND OFF PROX		
TB1-8		TB1-25	TAMP VALVE	TB1-42	PRINT START		
TB1-9	24 VDC	TB1-26	BLOW VALVE	TB1-43	REPEAT		
TB1-10	24 VDC	TB1-27	AIR ASSIST VALVE	TB1-44	TAMP HOME		
TB1-11	24 VDC	TB1-28	SPARE VALVE	TB1-45	LABEL ON PAD		
TB1-12	24 VDC	TB1-29	REWIND START	TB1-46	UNWIND ENABLE		
TB1-13	0 VDC	TB1-30	READY OUTPUT	TB1-47	RESERVED (OUTPUT)		
TB1-14	0 VDC	TB1-31	WARNING ALARM	TB1-48	RESERVED (OUTPUT)		
TB1-15	0 VDC	TB1-32	CRITICAL ALARM	TB1-49	0 VDC	TB1-51	0 VDC
TB1-16	0 VDC	TB1-33	GROUND	TB1-50	24 VDC	TB1-52	24 VDC
TB1-17	PRODUCT DETECT	TB1-34	LOW RIBBON				

UNWIND DRIVE SETTINGS		SIGNAL ISOLATOR
JUMPERS	POT. SETTINGS	JUMPER
J1A-115VAC (REV 4)	DB-25%	J1-REMOVE
J1B-115VAC	RESP-10%	
J2-1.7 A	IR-10%	
J3-A90	RCL-100%	
J4-15V	FCL-100%	
J5-TRQ	MAX-100%	
J6-RTS	LACC-0%	
	RACC-0%	
SPEED POT-100%		

TITLE: 3600-PA SERIES APPLICATOR: ELECTRICAL

PART: POWERED UNWIND SCHEMATIC

Dept. Code 70

F:\Engineering\Standard Parts\Applicator\3600 238\ASS-238-0450

DRAWN BY: DKM

Date: 02/28/03

Scale: 1=2

REV. BY: BMW

REV. DATE 04/30/09

REV. 7

REV. DESCRIPTION: ADDED SIMC CONNECTOR NOTE TO TWIST WIRES

BILL OF MATERIAL				SOLD
ASSEMBLY	ASS-238-0454			.
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
1	4	TURCK PROX. QD SWITCH	PE-SE10108	.
2	4	4-PIN 90° BANNER QD SENSOR CABLE	PE-SE3055	.

ASS-238-0454

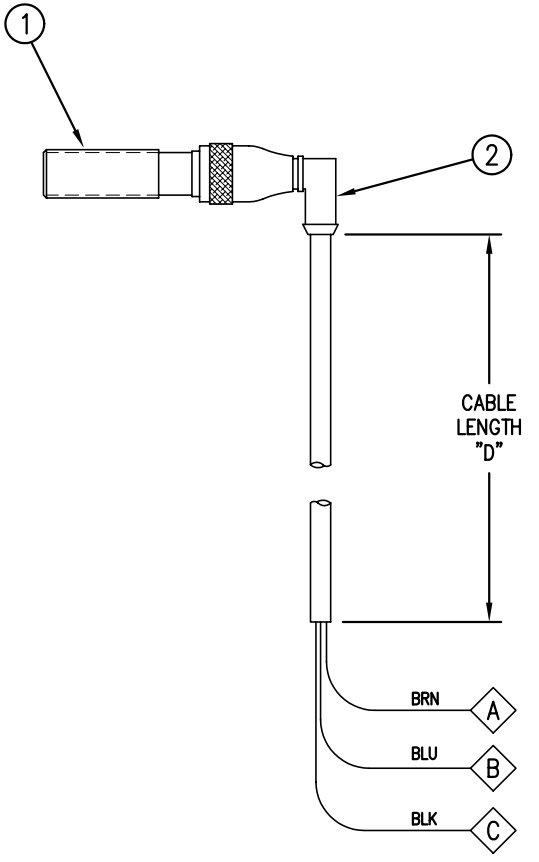
CABLE MODIFICATION INSTRUCTIONS:

END OF WEB: (SINGLE PROX. SWITCH)
CUT CABLE TO 30" LENGTH
STRIP JACKET BACK APPROX. 2"
CUT 22 Ga. BRN/BLU/BLK WIRES TO 6" LENGTH
SOLDER 22 Ga. WIRES TO SAME COLOR CABLE WIRES
SHRINK TUBE OVER SOLDERED WIRES AS NECESSARY

UNWIND ON/OFF: (TWO PROX. SWITCH)
CUT CABLE TO 22" LENGTH ON BOTH PROX. SWITCHES
STRIP JACKET BACK APPROX. 2"
CUT 22 Ga. BRN/BLU/BLK WIRES TO 16" LENGTH
SOLDER 22 Ga. WIRES TO SAME COLOR CABLE WIRES
SHRINK TUBE OVER SOLDERED WIRES AS NECESSARY

REWIND ON: (ONE PROX. SWITCH)
CUT CABLE TO 28" LENGTH ON PROX. SWITCH
STRIP JACKET BACK APPROX. 2"
CUT 22 Ga. BRN/BLU/BLK WIRES TO 16" LENGTH
SOLDER 22 Ga. WIRES TO SAME COLOR CABLE WIRES
SHRINK TUBE OVER SOLDERED WIRES AS NECESSARY

SENSOR FUNCTION	TERMINAL "A"	TERMINAL "B"	TERMINAL "C"	CABLE LG. "D"
END OF WEB	12	16	22	30
UNWIND ON	51	52	38	22
UNWIND OFF	51	52	39	22
REWIND ON	51	52	40	28



CHECK ASS-238-0157 FOR MOUNTING

TITLE: 3600-PA SERIES APPLICATOR: ELECTRICAL	PART: POWERED UNWIND: EOW/UNWIND/REWIND SENSOR WIRING	Dept. Code 70

REV.	REV. DESCRIPTION	REV. DATE	REV. BY:	Scale:	Date:	DRAWN BY:	F:\Engineering\Standard Parts\Applicator\3600 238\ASS-238-0454
4	FIXED CABLE MOD. INSTRUCTIONS CORRESPONDING WITH REV 3	10/06/05	TDR	1=2	09/09/03	DKM	