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**DESIGNERS AND MANUFACTURERS OF PRESSURE  
SENSITIVE LABELING EQUIPMENT AND CUSTOM  
PRODUCT HANDLING**

# **360 SERIES LABEL APPLICATOR**

## **MAINTENANCE**

### **&**

## **SERVICE MANUAL**

REVISION 360-2c.10.1

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# INTRODUCTION

The CTM Integration 360 Series Modular Labeling System is a high-speed applicator used to apply pressure sensitive labels to moving products on a production line. It is essentially a self-contained module that may be mounted in almost any position to apply labels to the top, bottom, or sides of packages as they pass by on a production line.

The CTM Integration 360 Series Modular Labeling System is unique in that the main module can be adapted to three different types of applicators: Air Blow, Merge, or Tamp by changing the nose assembly. The symmetrical design of the applicator allows labels to be dispensed to the right or left side of the machine. The applicator type and configuration (either left or right -handed) will depend on the type of product to be labeled and the arrangement of the production line.

If your application needs change in the future, a different nose assembly may be purchased but the main module would remain the same. There is no need to purchase a completely new applicator. The CTM Integration 360 Series Modular Labeling System can be easily changed over to a different nose by simply removing the existing nose from the module and replacing it with a different nose.

You can also change the configuration (right-hand or left-hand) by simply moving the applicator nose from one side of the machine to the other. All the parts are interchangeable. Everything you need is already included with each applicator nose to make the change using your existing module.

The labels should be supplied on a liner web with a minimum label gap of 1/8". The applicator will accept and dispense labels from rolls up to 20" O.D. In a typical setup, the applicator detects the leading edge of a package and applies a label with placement accuracy typically within +/- 1/32 inch.

For safe trouble free operation of the applicator, carefully follow the instructions in this manual during setup, operation, label roll changes, cleaning, and maintenance. The applicator is designed to operate under the following environmental conditions:

**ELECTRICAL SUPPLY:** 108 - 132 Volts, 5 Amps, 50 - 60 Hertz, Single Phase

A three-meter long, three wire cable with 16 AWG (1.00mm<sup>2</sup>) 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 NEMA5-15 plug.

**ENVIRONMENT:** Operating temperature: 40 – 104 degrees F  
Humidity: 20 - 95% RH, non-condensing

**NOTE: THE 360 SERIES MLS IS NOT INTENDED TO BE OPERATED IN AN ENVIRONMENT WHERE FLAMMABLE OR EXPLOSIVE GASSES ARE PRESENT. THE 360 SERIES MLS IS NOT TO BE USED IN DIRECT CONTACT WITH FOOD PRODUCTS.**

READ THE INSTRUCTIONS CAREFULLY AND COMPLETELY. This manual includes all of the information needed to setup the applicator under normal operating conditions. The instructions include important safety precautions that 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 IT UP AGAIN.** Although an applicator malfunction is possible, most problems happen because the applicator is not setup correctly. If the applicator doesn't operate correctly, back up and start over.

**FOLLOW ALL SAFETY INSTRUCTIONS.** The CTM 360 Series MLS applicator has been provided with a number of safety features. Observe all safety warnings and under no circumstances attempt to remove or defeat safeguards or operate the machine in a manner contrary to the instructions.

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## **DEFINITION OF MACHINE TERMS**

### **AIR BLAST JETS:**

The flexible air blast jets press-fit into the inside face of the vacuum grid and can be re-arranged to provide an air stream pattern that transfers labels of various sizes and shapes to the product. The air jets are connected via a manifold to the output of the “Air Blast” solenoid valve located in the valve bank. The filter regulator assembly mounted upstream of the valve controls the air pressure to this solenoid valve. The duration of the air blast is controlled by the “Air Blast Time” function. Refer to the setup procedures for instructions.

**NOTE:** Any unused air jet tubes should be inserted into the storage block at the rear of the blow box.

### **AIR ASSIST TUBE:**

The air assist tube is a small stainless steel tube mounted on the underside of the peel edge. It helps to separate the label from the liner as it is being dispensed onto the blow box or tamp label pad for application.

### **APPLICATOR BLOW BOX NOSE:**

The blow box applicator nose is used for dispensing labels via the air blow application. The blow box creates a vacuum to hold the label to the vacuum grid until it is dispensed onto the product. The nose assembly is easily converted from left-hand to right-hand and vice versa using the same parts. Also, the blow box nose assembly can be interchanged with the merge or tamp applicator nose assembly.

### **APPLICATOR MERGE NOSE:**

The merge applicator nose is used for dispensing labels via the wipe on/merge application. A label is dispensed from the peel edge and the brush wipes the label onto the product as it is traveling past the applicator. The merge applicator nose is easily converted from left-hand to right-hand and vice versa using the same parts. Also, the merge nose assembly can be interchanged with the air blow or tamp nose assembly.

### **APPLICATOR TAMP NOSE:**

The tamp applicator nose is used for dispensing labels via the air blast/tamping application. A label is dispensed from the peel edge onto the label pad. The air cylinder extends the tamp assembly to the product and the label is applied with an air blast. The tamp extend and retract times are configured during applicator setup. The tamp applicator nose is easily converted from left-hand to right-hand and vice versa using the same parts. Also, the tamp nose assembly can be interchanged with the air blow or merge nose assembly.

### **BLOW BOX / VACUUM GRID:**

The blow box/vacuum grid is the cube shaped assembly located next to the peel edge on a blow box applicator. Two axial fans mounted above the grid create the vacuum needed to hold the label in place prior to application.

### **DANCER ARM:**

The dancer arm is attached to the unwind block assembly with a shoulder bolt and a bushing. It appears immediately after the unwind mandrel in the web path. The dancer arm has a roller at one end that rides against the label liner and is interconnected to the mandrel tension disk with a spring. The dancer arm maintains tension on the liner loop as it operates the brake on the unwind mandrel when labels are being dispensed. The spring tension should be large enough to properly tension the web but still allow proper operation of the brake. Do not over tension the dancer arm.

### **DRIVE ROLLER:**

The drive roller is coupled to a stepper motor that provides the motive force for advancing the label liner. The drive roller in conjunction with the spring loaded nip roller pull the label liner around the peel edge to dispense a label onto the product, tamp pad, or blow box grid.

### **LABEL MANIFOLD:**

The label manifold is the mounting block that attaches the label pad to the bottom of the tamp cylinder on the applicator nose. The label manifold is a custom part that is manufactured exactly to the label size being applied. If at any time the label size changes, a new label manifold must be purchased along with the label pad.

### **LABEL PAD:**

The label pad is a white delrin material mounted onto the label manifold at the bottom of the tamp cylinder of the tamp applicator nose. The label pad is a custom part that is manufactured exactly to the label size being applied. If at any time the label size changes, a new label pad must be purchased.

### **LABEL TENSION BRUSH ASSEMBLY:**

This is an adjustable brush to help create tension on the label liner. The brush can be released while threading the label liner.

### **NIP ROLLER:**

The spring-loaded nip roller provides positive pressure to the label liner that passes between the drive and nip roller assemblies. These rollers ensure that the liner does not slip during the label dispense cycle. The tension on the rollers may be released by turning the knob located on the top of the nip roller assembly.

**PEEL EDGE:**

The peel edge is the beveled plate located at the end of the applicator nose. When the label liner is pulled around the peel edge, the label separates from the liner and is transferred to the vacuum grid, tamp pad, or product depending on the applicator type.

**PEEL EDGE LABEL TENSION SPRING:**

This tension spring is attached to the bottom of the spring block assembly. It is used to keep the label liner flat on the peel edge surface and assist in controlling the dispensing of the label onto the vacuum grid, tamp pad, or product. The tension is adjustable to accommodate varying label thickness and release properties.

**REWIND MANDREL / SLIP CLUTCH:**

The rewind mandrel is provided to store the label liner after labels have been removed. It is equipped with a slip clutch and is driven by the stepper motor. The pressure exerted by the slip clutch is adjustable.

**UNWIND ASSEMBLY:**

The roll of labels is placed on the unwind assembly for dispensing onto the product. The unwind block is used to mount the unwind assembly to the main module. The unwind assembly can be removed and remounted on the opposite side of the module for easy conversion from a right-hand to a left-hand applicator or vice versa.

**UNWIND ROLL MANDREL:**

The unwind roll mandrel is equipped with an adjustable spring tension disk, a brake, and a quick-change outer disc. The unwind roll mandrel and the dancer arm maintain proper web tension and prevent excessive run-out of the label liner as labels are processed through the machine.

**VALVE BANK:**

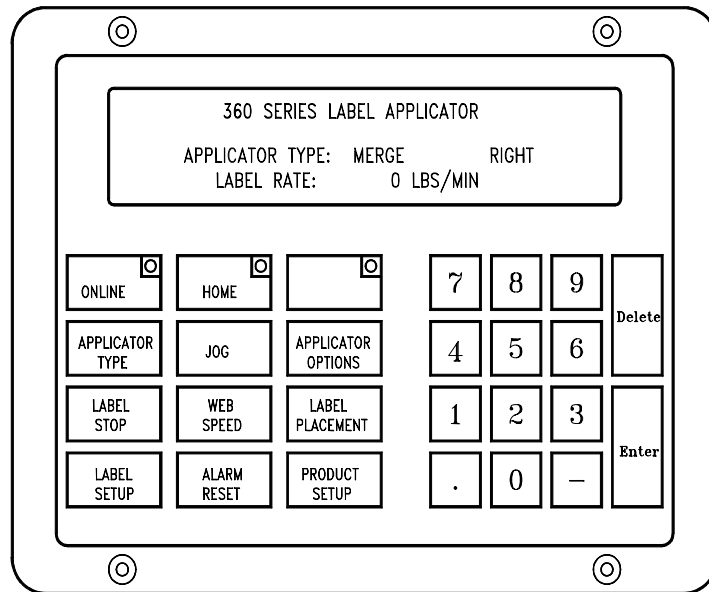
The valve bank will consist of single valve for a merge applicator with an imprinter, two valves for a blow box applicator, or three valves for a tamp applicator. The valve bank has built in regulators and gauges and plugs into the valve connector on the rear panel.

**WEB PATH:**

The web path is the path the label liner follows from the unwind assembly through the various rollers to the applicator nose.

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## DISPLAY PANEL



### MAIN MENU:

The main menu or home page screen displays the applicator type, whether it is in a left or right-handed configuration, and the label rate.

### ONLINE:

The ONLINE function indicates whether or not the applicator is active. When the online LED is on, the applicator can be jogged or cycled from the product detect signal. When the LED is off, the applicator is disabled and power is removed from the drive roll motor.

### APPLICATOR TYPE:

The applicator type function allows the operator to choose the type of label applicator (air blow, merge or tamp) and whether it will be in a left-hand or right-hand configuration. The tamp applicator has an additional menu that allows you to select between normal or inverted tamp application modes.

**NOTE: 1) Password protected. The password is 1800. Going back to the home screen will disable the last password entry.**

**2) You must be OFFLINE to change applicator type.**

## **LABEL STOP:**

The label stop key lets you enter the label stop distance value. The label stop value is the distance from the label edge to the label sensor. If the entered value is incorrect, an out-of-range message is displayed and the label stop menu is re-displayed so that a different value may be entered. Allowed values are between 0.03" and (label length – 0.06"). The label stop value may be changed while the applicator is running.

**Note: After software version 360-2b.25 anything less than .06" comes with a warning that label stop may vary with speed.**

## **LABEL SETUP:**

The label setup menu will change depending on the type of applicator selected. The following is a list of possible setups:

**AUTO SETUP:** The auto setup function will automatically set the label sensitivity, label length, and label stop for most labels. Also, the short feed distance will be calculated if the Leading Edge Apply option is enabled prior to running auto setup. On labels with low contrast between light and dark areas, the label sensitivity may not setup correctly. Therefore, the label length and label stop will not be correct. In these instances, the operator will have to manually setup the label parameters.

**MANUAL SETUP:** The manual setup function provides additional flexibility in those cases where the label contrast is low or the particular label properties show that a choice between leading or trailing edge detection would improve application performance. The terms leading and trailing edge detection refer to which edge of the label that the label sensor responds to and should not be confused with the Leading Edge Apply option.

**LABEL LENGTH:** The label length is defined as the width of the label plus the width of the gap between labels. Stated another way, it is the distance from the leading edge of one label to the leading edge of the next label. Since each application cycle moves the label length distance, it is important to enter the exact label length value. Allowed values are between 0.375-20".

**AIR BLAST:** The air blast time is the interval of time that the air blast valve is turned on. Allowed values are .010 - 1 second.

**EXTENDED AIR ASSIST:** The extended air assist time is the interval of time after the label feed until the air assist is turned off. It is used in blow box and tamp applicators to help hold the label in place on the vacuum pad prior to being blown onto the product. Allow values are .001 - 1 second.

**TAMP EXTEND:** The tamp extend time is the interval of time allotted for the tamp slide to extend. After the timer has timed out the air blast will occur and the slide will return home. To keep your labeling speeds up, this value should be as low as possible. Allowed values are between .001 - 5 seconds.

**TAMP RETRACT:** The tamp retract time is the interval of time allotted for the tamp slide to return home before feeding another label. If this value is too small, a label will feed into the pad or manifold. Allowed values are between .001 - 5 seconds. **Note: If you're using a tamp applicator you can disable or enable the tamp slide action by pressing zero (0).**

**LABEL PROFILE:** The label profile option is used to merge a label onto a curved surface. The dispense speed of the applicator is changed between two speeds depending on the position of the product surface relative to the peel edge.

**LEADING EDGE APPLY:** The leading edge apply option is used to merge a label onto two or three panels of a product. An example might include the leading, top, and bottom panels of a CD case. The applicator is initially setup so that the label is flagged out in front of the product but is still supported on the liner. When the product reaches the peel edge, the flagged out portion of the label is applied to the bottom edge of the product. The applicator then moves the “Short Feed Distance” at web speed to dispense enough label material for the remaining panels of the product. The applicator then waits for the “Product Clearance” time or distance to allow the product to pass by the peel edge before moving the next label to the flagged out position at slew speed.

## **HOME:**

The home key will take you back to the home screen from any other screen except ones requiring numerical entry. Here it will indicate what type of applicator has been selected (air blow, merge, or tamp) and whether it is in the right-hand or left-hand configuration.

## **JOG:**

If the applicator is online, the jog key will allow you to dispense one label at a time as long as the product detect input is not active. When using the display jog key, motion begins immediately and the applicator will not wait for the label placement value or perform any of the special applicator options such as profiling or multi-label. The jog key is particularly useful when adjustments are made to label length or label stop values in the **label setup** procedure. If the jog key is pressed for three seconds, the applicator will continuously apply labels. The jog function on the power switch simulates a product detect signal and will perform exactly the same applicator steps that a valid product detect signal would initiate.

## **WEB SPEED:**

The web speed key allows you to enter the web speed value. If the entered value is incorrect, an out-of-range message is displayed and the web speed menu is re-displayed so that a different value may be entered. Allowed values are between 100 and 1500  $\text{"/min}$  or 100 and 2100  $\text{"/min}$  depending on whether it is a normal or high-speed applicator. The web speed value may be changed while the applicator is running.

## **ALARM RESET:**

When a fault occurs (i.e. low label, tight loop, no labels found, web break, or offline critical) an alarm message will appear on the display indicating the problem. If the applicator is equipped with a light stack, the light will be on solid for warning alarms and flash for critical alarms. Both conditions will remain on until the problem is corrected and “ALARM RESET” is pressed.

## **LABEL FORMATS:**

The label formats key allows the operator to view, save, load, or delete up to 10 label setups. If a certain size label is used over and over, the label parameters may be saved and reloaded for use at a later date. The label formats menu is password protected to prevent inadvertent loss of data. **The password is 1800.**

**APPLICATOR OPTIONS:**

The applicator option menu will let you view and choose which options you'll be using in a particular application. **For example:** If you have a loose loop configuration, simply select the loose loop option and press the HOME key to take you back to the main menu.

**Option choices:** Loose Loop                      Low Label                      Multiple Label  
                          Imprinter                      Web Break                      Missing Label  
                          Crossover                      Tamp Switch                      Skip Counter

**OPTION INCOMPATIBILITY**

In some instances, applicator options are incompatible with one another because they are functionally different. In other cases they share hardware or software resources. When the operator attempts to enable an option, the applicator will disable some options automatically or will prompt the user to disable another option before proceeding. The following table illustrates what options are incompatible with others:

<b>Active Option or Mode</b>	<b>Disabled Option(s) or Mode(s)</b>
Crossover	Leading Edge Loose Loop Skip Counter
Imprinter	Loose Loop
Label Profiling	Multi-Label
Leading Edge	Crossover Missing Label Multi-Label Label Profiling Skip Counter
Loose Loop	Crossover Imprinter
Missing Label	Leading Edge Apply Multi-Label
Multi-Label	Label Profiling Leading Edge Apply Missing Label
Powered Rewind	Imprinter Loose Loop
Skip Counter	Crossover
Tamp Switch	Web Break
Web Break	Tamp Switch

**NOTE: The different options are covered in detail in the setup section.**



**NOTE: If you press the applicator options key, the first screen shows all of the available options and which ones are currently active. Selecting a particular option for the first time requires a password. The password is 1800. Subsequent selections do not require a password as long as you remain within an option menu. Going back to the home screen will disable the last password entry.**

### **LABEL PLACEMENT:**

The label placement key lets you enter a label placement value. Label placement is the time or distance from the product detect sensor to where the label is dispensed onto the product. If the value you've entered is out-of-range, a message will let you know so that you can re-enter a different value. The allowed values depend on whether or not the encoder option is on or not. In either case, the appropriate limits are shown on the last line of the label placement display screen. The label placement value may be changed while the applicator is running.

### **PRODUCT SETUP:**

The product setup key provides access to the detector lockout and encoder setup submenus. Also, the current status of the product detect sensor, web speed (if equipped with an encoder), and label counter values are displayed. The user may reset the label counter by selecting that option from the display.

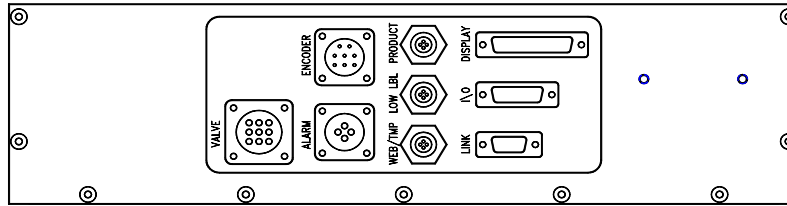
**DETECTOR LOCKOUT:** The detector lockout function is used when more than one product detect signal is generated per product. The timer starts at the beginning of a labeling sequence and the applicator will ignore product detect signals until this timer has timed out. Therefore, if you set this timer to a value equal to the time it takes the product to pass by the labeler, it will only see the first product detect signal. Allowed values are between .001 - 20 seconds.

**ENCODER SETUP:** Please refer to the **ENCODER SETUP** section of this manual.

**NOTE: This area is password protected. The password is 1800. Going back to the home screen will disable the last password entry.**



## REAR PANEL



## CONNECTORS

**VALVE:** When using a Tamp, Blow Box, or a Merge applicator with an imprinter, a valve bank is mounted to the side of the machine. This plug is used to power the valves.

**ENCODER:** The encoder is connected to this plug. The encoder is enabled through the product setup menu.

**ALARM:** This connector is for an alarm light. Alarm output conditions include:

No Labels Found  
Web Break  
Tight Loop at Printer  
Offline Critical  
Low Label

**PRODUCT:** This is where the product detect sensor is connected.

### LOW

**LABEL:** When the low label option is used, the sensor is connected here.

**WEB/TMP:** This is a dual-purpose connector. Either a web break sensor or a tamp return switch can be connected here (but not both). Enable either option via the applicator options menu.

**DISPLAY:** This port is for connecting the display to the applicator.

**I/O:** This port is for loose loop, alarm signals to a PLC, and imprinter control. Only one option is available at a time; all are enabled via the applicator options menu.

**LINK:** The link port is used to interconnect two labeling heads in “ZERO DOWNTIME” applications. See CROSSOVER in the SETUP section for more information.

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**360 SERIES**

**SETUP**

**PROCEDURES**

**!!CAUTION!! DISCONNECT THE AIR AND POWER FROM THE MACHINE BEFORE YOU THREAD LABELS OR YOU MAY BE CAUGHT BETWEEN THE DRIVE AND NIP ROLLERS IF THE MACHINE CYCLES UNEXPECTEDLY!**

## **JOB SETUP**

**NOTE:** When reading through this section of manual, refer to the web path diagram section.

### **THREADING LABELS**

1. With the power off remove the outer unwind disk.
2. Make sure the inside of the inner disk is at least 1 1/4" away from the faceplate of the applicator.
3. Slide a roll of labels over the unwind hubs and push against the inner disk. Make sure the labels will be face up as they unwind. Replace the outer disk and lock in place.
4. Remove approx. 3 ft of labels from the liner on the leading part of the roll of labels.
5. Thread labels through the machine referring to the web path diagram section that applies to your configuration.
  - a. When going between the nip and drive rollers, turn the knob on top of the nip assembly to spread the two rollers.
  - b. If the applicator is a blow box or tamp, make sure the web goes between the peel edge and the air assist tube.
6. Remove rewind pin, lay the label liner over the pin slot and replace pin.
7. Align guide collars with the unwind assembly.
8. Lower the nip roller so that it comes into contact with the drive roller.
9. Make sure the label tension brush is against the roller. This keeps the web tight between this point and the peel edge.
10. Re-locate the spring block assembly so that it is in the center of the label and is applying slight pressure to the top of the labels. This aids in the dispensing of labels off of the peel edge.

## LABEL SENSOR SETUP

The label sensor is a “U”-shaped optical sensor that is connected to the sensor electronics with fiber optic cable. To insure proper operation of the label sensor, there should be no sharp bends in the fiber optic cable from the sensor to the applicator housing. The two sensor forks contain a light emitter and a receiver. For best accuracy, both surfaces should be kept free of contaminants and the light emitter should be in the lower fork. The web must be positioned inside the forks of the sensor so that the sensor can see the label surface. The contrast inside the label should be fairly uniform to avoid false edge detects. If the liner appears within the label, move the sensor in or out to avoid this area on the label. The label sensor has two detection modes available for instances where the entire leading or trailing edge of the label is similar in contrast to the label gap. The terms leading and trailing edge refer to the first and second label edges that the sensor encounters as the label moves past the sensor. Select the edge option that gives the most reliable performance for your particular label. The applicator comes from the factory set for leading edge detection.

## AUTO SETUP

In auto setup, the applicator will automatically set the label sensitivity, label length, and label stop values. Also, it will calculate the “short feed distance” if the Leading Edge Apply option is enabled prior to running auto setup. The following steps summarize the auto setup sequence:

1. With the applicator offline, select “1” from the LABEL SETUP menu.
2. The display will show the two edge detection modes discussed in the paragraph above. Select “1” for label LEADING EDGE or “2” for label TRAILING EDGE detection. If your selection is different than the current sensor configuration, the applicator will display a message that it is re-configuring the sensor. This process takes approximately 8 seconds to complete. If you want to bypass this section, press “ENTER”.
3. The applicator will instruct you to move the web so that the label gap is under the sensor. Manually turn the drive roller to advance the web to the label gap position and press “LABEL SETUP”. The applicator will dispense 10” of label while dynamically setting the label sensitivity. If you want to bypass this section, press “ENTER”.
4. If the LEADING EDGE APPLY option is off, go to step 6. Enter the number of labels between the label sensor and the peel edge. Make sure to include any labels that are partially hanging over the peel edge or any directly under the label sensor in this number.
5. The applicator will instruct you to move the label leading edge to the peel edge and press “LABEL SETUP”. Three labels are dispensed while the applicator is calculating the peel edge to label sensor distance and the “Short Feed Distance” values.
6. The applicator will instruct you to move the web to the desired label stop position and press “LABEL SETUP”. Three labels are dispensed while the applicator is calculating the label length and label stop values. If you want to bypass this section, press “ENTER”.

**Note:** If the controller calculates a label stop value that is less than 0.03” or greater than (label length – 0.06”), the controller will select the value closest to these limits and a warning

**message is displayed indicating that the label stop may need adjusting. The operator may override the controller's value using the "LABEL STOP" menu.**

## **MANUAL SETUP**

The manual setup function is provided for those instances where auto setup does not work. The following steps summarize the manual setup sequence:

1. With the applicator offline, select "2" from the LABEL SETUP menu.
2. The display will show the two edge detection modes discussed in the paragraph above. Select "1" for label LEADING EDGE or "2" for label TRAILING EDGE detection. Pressing "ENTER" at this point will bypass the following steps and take you back to the "LABEL SETUP" menu.
3. If LEADING EDGE DETECT was selected, the applicator will instruct the operator to place the label and liner under the sensor and press "LABEL SETUP" to continue.

If TRAILING EDGE DETECT was selected, the applicator will instruct the operator to place the liner only under the sensor and press "LABEL SETUP" to continue.

The sensor measures the label sensitivity at this position and uses this value for the "ON" condition.

4. If LEADING EDGE DETECT was selected, the applicator will instruct the operator to place the liner only under the sensor and press "LABEL SETUP" to continue.

If TRAILING EDGE DETECT was selected, the applicator will instruct the operator to place the label and liner under the sensor and press "LABEL SETUP" to continue.

The sensor measures the label sensitivity at this position and uses this value for the "OFF" condition.

5. The display will show whether the sensor is looking at the gap or the label in the current position. If the web is manually adjusted by turning the hand wheel, the display status will change as the web moves past the label sensor. Pressing "ENTER" will take you to the LABEL LENGTH menu.
6. The display will show the current label length setting. If it is incorrect, enter a new label length. If the value shown is correct, pressing "ENTER" will take you back to the LABEL SETUP menu. **For additional help, see the LABEL LENGTH explanation shown below.**
7. If the label length value was changed in step 6, the applicator will dispense a label and advance to the "LABEL STOP" menu. The operator may accept or modify the current label stop value as needed and return to the LABEL SETUP menu by pressing "ENTER". **For additional help, see the LABEL STOP explanation shown below.**

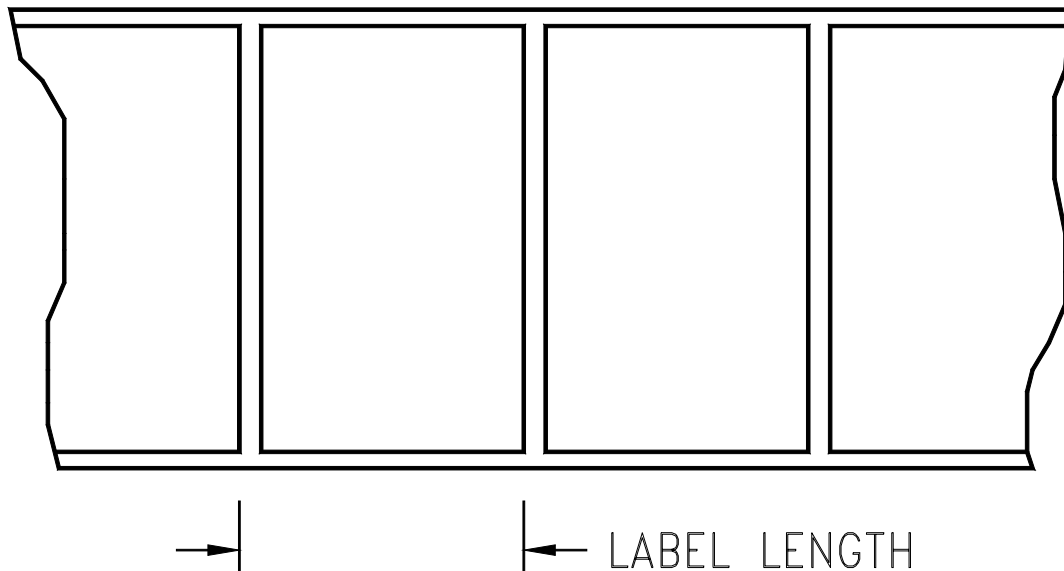


## LABEL LENGTH SETUP

1. Measure the distance from the leading edge of one label to the leading edge of the next. This will be the “label length” value.
2. From the LABEL SETUP menu press “3” to adjust the “LABEL LENGTH” value.
3. Enter the length and press “ENTER”. If the value is less than 0.375” or more than 20”, the display will show an out-of-range message for 2 seconds then switch back to the label length menu. If the value shown is correct, pressing “ENTER” will take you back to the LABEL SETUP menu.
4. If the label length value was changed in step 3, the applicator will dispense a label and advance to the “LABEL STOP” menu. The operator may accept or modify the current label stop value as needed and return to the LABEL SETUP menu by pressing “ENTER”.
5. Press “HOME” to go to the main menu.

**NOTE: It’s important to set the label length to exactly what it is (don’t guess). If there is a missing label on the liner, the web will feed the label length distance. This is important because of the label sensor’s position relative to the peel edge.**

After 3\* missing labels in a row, a “no labels found” message will appear on the display. If a light stack is connected to the applicator, it will flash at a steady rate. Correct the problem and press “ALARM RESET” to clear the alarm. \* **After software version 360-2b.25, the number of missing labels before a “no labels found” alarm is user adjustable in the SPECIAL OPTIONS menu.**



## LABEL STOP

1. The label stop value is the distance from the label edge to the label sensor. Allowed values are between 0.03” and (label length – 0.06”).

**NOTE: After software version 360-2b.25 any value less than .06 comes with a warning that says the label stop can move when the web speed changes.**

2. Press the “LABEL STOP” key. Enter a new value and press “ENTER”. If the value is out-of-range, the display will show an out-of-range message for 2 seconds and then switch back to the label stop menu.
3. A valid label stop entry will send you back to the main menu.
4. With the applicator online, press “JOG”. If the label stop is not where you want it, go back into the “LABEL STOP” menu and enter a new value.

**NOTE: This adjustment can be made while the machine is running.**

## LABEL FORMATS

This option will let the operator view, save, load or delete up to 10 label setups. If a certain size label is used over and over, you can save the label format and reload it at a later date. Parameters that are saved are:

APPLICATOR TYPE	ENCODER ON/OFF	EXTENDED AIR ASSIST
LABEL LENGTH	RATE COMPENSATION	ACCELERATION
LABEL STOP	TAMP EXTEND TIME	DECELERATION
LABEL PLACEMENT	TAMP RETRACT TIME	LABEL ADVANCE TIME
WEB SPEED	AIR BLAST TIME	

Press the “LABEL FORMAT” key and enter “**1800**” for the password. The display will show the following options:

- 1) VIEW LABEL FORMAT
- 2) LOAD LABEL FORMAT
- 3) SAVE LABEL FORMAT
- 4) DELETE LABEL FORMAT

**Warning: The applicator must be offline to enter this menu!**

### View Format

This option will allow the operator to view the individual format parameters. Pick “1” at the label format menu and select the format number you want to see. Pressing “ENTER” will take you back to the label setup menu

## LABEL FORMATS (cont.)

### Load Format

This option will allow the operator to load the values of a previously stored format in to the system as current values. Pick “2” at the label format menu and select the number of the format you want to load. If you want to exit without loading any format, press “ENTER”. Continue to press “ENTER” to exit to the label setup menu. **Warning: Once you pick a format, it will change the current parameters to what was in the format. There will be no warning!**

### Save Format

This option will allow the operator to save the current parameters to a format with a four-digit name. Pick “3” at the label format menu and enter up to four digits for the format name. When finished, press “ENTER”. If you do not want to save a format, press “ENTER” before you type in a format name. By typing in the same number as an existing format, the variables saved in that format will be over-written. Continue to press “ENTER” to exit to the label setup menu.

### Delete Format

This option will allow the operator to delete a format from the list. Pick “4” at the label format menu and select the number of the format you want to delete. If you want to exit this section without deleting anything, then press “ENTER” before pressing any numbers. Continue to press “ENTER” to exit to the label setup menu. **Warning: Once a format number has been selected, it will be deleted. There is no warning!**

## WEB SPEED

Web speed is the velocity of the label web in inches per minute. In a merge application the web speed should be set at the velocity of the product. In tamp or blow box applications the web speed will vary depending on the label size and product rate. Some labels will have to be run at a slower speed so that it will properly feed out onto the label pad/grid.

1. Press the “WEB SPEED” key and enter a value between 100” and 1500” per min. for normal speed applicators or between 100” and 2100” per min. for high-speed applicators. Press “ENTER” to return the main menu. If the value is out-of-range, the display will show an out-of-range message for 2 seconds then switch back to the web speed menu.

**NOTE: This adjustment can be made while the machine is running.**

## SLEW SPEED

The slew speed value allows the applicator to speed-up the label dispense cycle in certain time critical applications. The slew speed menu will automatically appear after the web speed menu when the **missing label** and **leading edge apply** options are **ON**. The default value is set at 1200 “/min.

1. Enter a value between 100” and 1500” per min. for normal speed applicators or between 100” and 2100” per min. for high-speed applicators. Press “ENTER” to return the main menu. If the value is out-of-range, the display will show an out-of-range message for 2 seconds then switch back to the slew speed menu. **Note: In order to improve performance, the slew speed setting must be larger than the current web speed or encoder rate value.**

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## MERGE APPLICATOR SETUP

The merge applicator is used to apply labels to products moving on a conveyor. A label is feed onto the surface of the product at the same speed that the product is moving.

1. On the display, under “APPLICATOR TYPE” select “MERGE” applicator. Also, indicate whether it is in a right-hand or left-hand configuration using the “RT/LT HAND” selection.
2. Go through the general label setup procedure.
3. Position the peel edge so it’s between 1/8” and 1/2” away from the product at approximately 20 degrees to the product surface.
4. Adjust the applicator brush so that it will lightly touch the product. It should be angled so that the label is supported as it is fed out. **NOTE: The applicator brush is used to aide in the tacking of the label to the product. It is not made to be a wipedown.**
5. Label stop can be set so that the label is flagged past the peel edge but must miss the passing product.
6. Web speed should be set to match the speed of the product.
7. Go to the product setup section of this manual to finish setup.

## MERGE LABEL PROFILING

Profiling is used to aide in labeling products that have a concave or convex surface. If the surface of the product is convex, the labeler will dispense a label at web speed during the “rise area” distance. When this distance has been traveled, the web speed changes to (web speed) x (web ratio) during the “flat area” distance. After traveling the combined rise plus flat distance, the labeler returns to web speed for the remainder of the move. The reason for this action is that convex products start out farther away from the peel edge than it will be by mid-product. The label is dispensed at normal speed at the beginning of the product. As the product surface moves closer, the label must slow down so that the labels do not wrinkle. As the product surface moves away, the label speeds-up.

On concave products the label is dispensed at web speed initially. As the surface of the product moves away, the label is dispensed faster to force the label into the product. The label dispense speed is slowed as the product surface moves closer to the peel edge.

- NOTE:**
- 1) Label profiling is a function of the merge applicator only.
  - 2) Label profiling is enabled when the “web ratio” is set to something different than “1”.
  - 3) Max. speed for the labeler is 1500 ”/min. for normal speed applicators or 2100 ”/min for high speed applicators. The machine will not exceed this speed even if the web ratio is set to a number higher than “1”.

**ENTERING LABEL PROFILING VALUES**

1. Press “LABEL SETUP” then select “LABEL PROFILING”.
2. The label profiling menu shows the following three items:  

Profile Rise Area  
Profile Flat Area  
Web Ratio
3. Press “1) PROFILE RISE AREA”. This is the distance the label travels before changing to the mid-product labeling speed. Enter a value between 0.5 and 20. A valid entry will send you back to the label profiling menu.
4. Press “2) PROFILE FLAT AREA”. This is the distance the label travels while at the mid-product labeling speed. Enter a value between .001 and 20. A valid entry will send you back to the label profiling menu.
5. Press “3) WEB RATIO”. The web ratio is a multiplier applied to the web speed value to either slow or speed-up the applicator during the profile flat area. This number will vary depending on product shape and is usually determined by trial and error. Enter a value between .5 and 1.5. A valid entry will send you back to the label profiling menu.

**NOTE: Label profiling is disabled when using the multi –label option.**

PROFILING SUMMARY

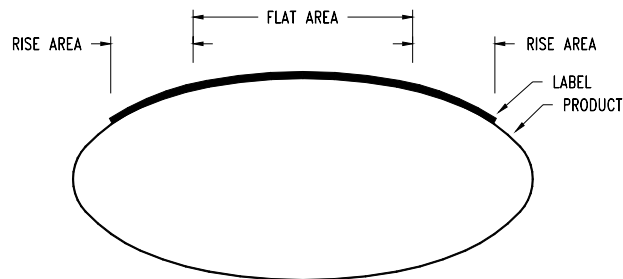
Condition	Product Shape
WEB RATIO < 1.0	Convex
WEB RATIO = 1.0	Flat Surface
WEB RATIO > 1.0	Concave

Web Ratio Setting	Speed during 0” to rise distance	Speed during rise to flat distance	Speed during flat to label length distance
< 1.0	web speed	(web speed) (web ratio)	web speed
= 1.0	web speed	web speed	web speed
> 1.0	web speed	(web speed) (web ratio)	web speed

## ESTIMATING RISE AREA AND FLAT AREA

This process will give you a starting point for profile variables. Some experimentation is necessary for best results. The example shown is for a convex or oval product.

1. Apply a label by hand to the product. Measure the rise area by looking at the beginning of the label to where it starts to flatten out. Also measure the length of the flat area. Use the diagram below as an example.



2. Use these numbers when inputting values to the display.
3. When using this type of product, web ratio is set less than "1". This will slow web speed during the flat area.

## RISE AREA AND FLAT AREA FINAL ADJUSTMENT

The system will work best with the smallest rise area value and the largest flat area value that properly applies the label. Use the instructions below to find these values.

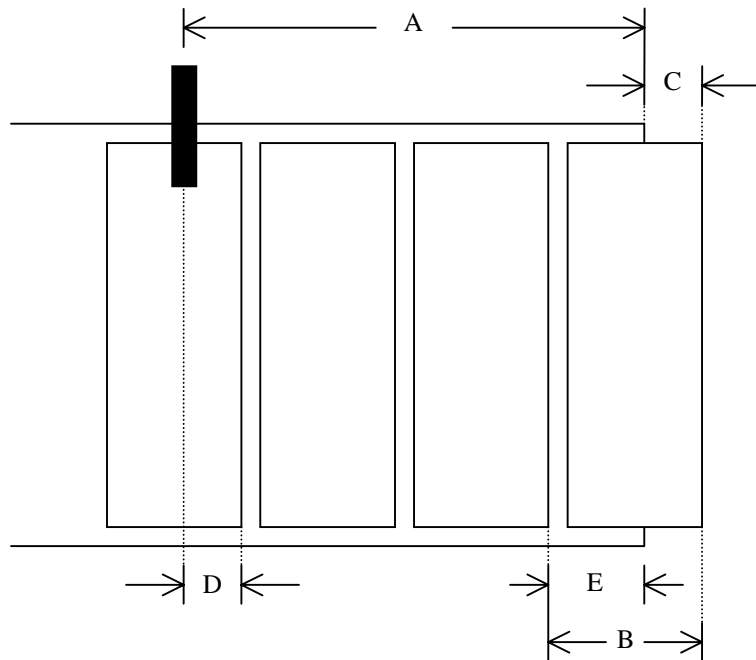
1. With the applicator online, send several products down the conveyor and observe the labels that are applied.
2. If the leading edges of the labels were all applied at the same position on the products, go on to step #3.  
  
If the leading edges of the labels were placed at various positions on the products, the Rise Area Length is too short.  
  
Slightly increase the Rise Area Length and run some more products. Repeat until the leading edge label placement is consistent.
3. If the leading edges of the label were applied at the required position on the product, go on to step #4.  
  
If the leading edge of the label is applied at the incorrect position, adjust the “LABEL PLACEMENT”, or re-position the product detector. Run some more products. Repeat until the leading edge of the label is applied at the required position on the product.
4. If there are no wrinkles or bubbles in the first half of the applied labels, go on to step #5.  
  
If a wrinkle or bubbles appear from the top to the bottom of the first half of the label, the rise area is too long.  
  
Slightly decrease the rise area and run some more products. Repeat until the wrinkle in the first half of the label is removed.
5. If there is no wrinkle in the center of the label, go on to step #7.  
  
If a wrinkle appears from the top to the bottom at the center of the label, either the Web Ratio is too high, or the Flat Area is too short.  
  
The Web Ratio will be adjusted first. Before adjusting, note the Web Ratio setting. Slightly decrease the Web Ratio and run some more products. Repeat until the wrinkle is removed. Go on to step #7.
6. Increase the Flat Area slightly and run some more products. Repeat until the wrinkle is removed.
7. If the labels are applied wrinkle free from lead edge to trail edge, go on to step #8.  
  
If small horizontal wrinkles appear on the trailing edge on the label, the Flat Area is too long.  
  
Slightly decrease the Flat Area and run some more products. Repeat until wrinkles are eliminated.
8. When the Web Ratio, Rise Area and the Flat Area are established, the setup is complete.



## MERGE LEADING EDGE APPLY

The leading edge apply option is used to merge a label onto two or three panels of a product. An example might include the leading, top, and bottom panels of a CD case. The applicator is initially setup so that the label is flagged out in front of the product but is still supported on the liner. When a product detect signal is received, the applicator will wait for the label placement time or distance depending on whether the encoder is off or on. At label placement, the applicator will feed the “Short Feed Distance” at web speed or encoder speed. This will place the next label at the peel edge. The applicator will wait for the “Product Clearance” time or distance to allow the product to pass by the peel edge before moving the next label to the flagged out position at slow speed. The figure below illustrates a hypothetical setup with four labels between the peel edge and the label sensor along with the measurement definitions:

- A: label sensor to peel edge distance
- B: label length
- C: label flag distance
- D': label stop distance with C = 0 (not shown)
- D: label stop distance
- E: short feed distance
- N: # of labels between sensor and peel edge



The AUTO SETUP feature will calculate all of the dimensions shown above if the Leading Edge Apply option is enabled prior to running auto setup. The operator may override these settings by measuring values B through E above and entering them via the display. **Note: The Leading Edge Apply option will work in a time based system but performance is better if an encoder is purchased.**

**CONFIGURING LEADING EDGE APPLY WITH AUTO SETUP**

1. Make sure the applicator is powered and offline.
2. Press “LABEL SETUP” and select “5) LEADING EDGE APPLY”
3. Select “1) LEADING EDGE OPTION IS: ON” from the leading edge submenu.
4. Select “3) PRODUCT CLEARANCE TIME / DISTANCE” and enter the time or distance after the label is dispensed to when the product clears the peel edge. The distance in an encoder system should be approximately the length of the product that the label is applied to.
5. Press “ENTER” to return to the label setup menu.
6. Select “AUTO SETUP” and follow the on screen prompts (see: AUTO SETUP in GENERAL SETUP PROCEDURES).
7. Select “WEB SPEED” and enter the product conveyor speed. The “Slew Speed” menu will automatically come up after web speed.
8. Enter a “SLEW SPEED” value and press “ENTER” to return to the home menu. Slew speed is the web speed used to move the label to the flagged position in preparation for the next product.

**CONFIGURING LEADING EDGE APPLY MANUALLY**

1. Make sure the applicator is powered and offline.
2. Using the hand wheel, position the label in the flagged out position.
3. Press “LABEL STOP” and enter the distance measured for dimension D shown above. **Note: If the label sensor is set for trailing edge detection, add the label gap distance to dimension D.**
4. Press “LABEL SETUP” and select “3) LABEL LENGTH”. Enter the length measured for dimension B shown above.
5. Press “5) LEADING EDGE APPLY” to gain access to the Leading Edge submenu.
6. Select “1) LEADING EDGE OPTION IS: ON” from the leading edge submenu.
7. Select “2) SHORT FEED DISTANCE” and enter the distance measured for dimension E above.
8. Select “3) PRODUCT CLEARANCE TIME / DISTANCE” and enter the time or distance after the label is dispensed to when the product clears the peel edge. The distance in an encoder system should be approximately the length of the product that the label is applied to.
9. Select “WEB SPEED” and enter the product conveyor speed. The “Slew Speed” menu will automatically come up after web speed.
10. Enter a “SLEW SPEED” value and press “ENTER” to return to the home menu. Slew speed is the web speed used to move the label to the flagged position in preparation for the next product.

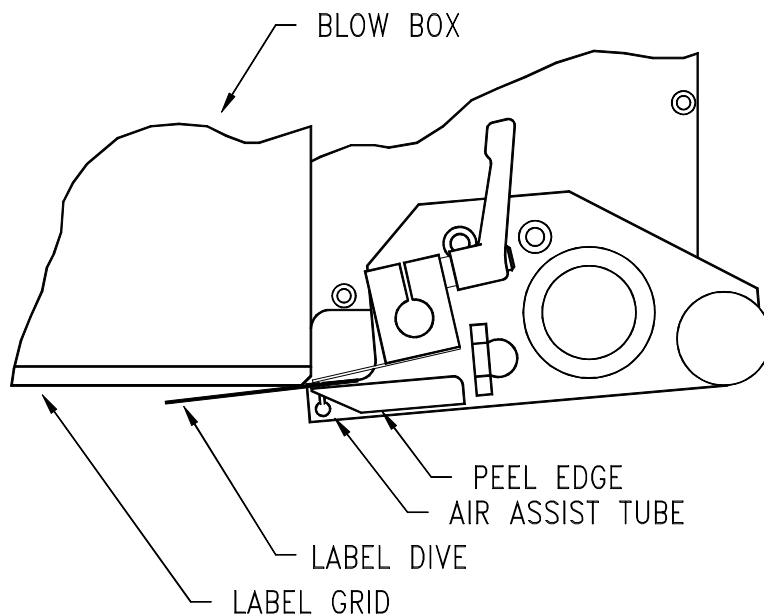
## AIR BLOW APPLICATOR SETUP

The air blow applicator is a versatile labeler in the sense that many different label sizes can be used without buying a new pad or manifold. Products can also be labeled at a stand still without contact. The blow box consists of two axial fans mounted in the top of the assembly that produce the vacuum needed to hold the label. Inside the blow box are eighteen flexible tubes that provide the air blast to apply the label. These tubes may be arranged in a variety of ways to apply many shapes and sizes of labels.

1. On the display, under applicator type select “BLOW BOX” applicator. Also, indicate whether it is in a right-hand or left-hand configuration using the “RT/LT HAND” selection.
2. Place the applicator as close to the product as you can without hitting it.
3. Go through “general setup” procedure (i.e. label sensor, setup, web speed, etc.)

## AIR BLOW LABEL STOP

1. With the applicator online, jog a couple of labels.
2. Label stop position should be 1/32” from the peel edge tip.
3. If needed, change the label stop value. (Refer to Label Stop setup in the general job setup)



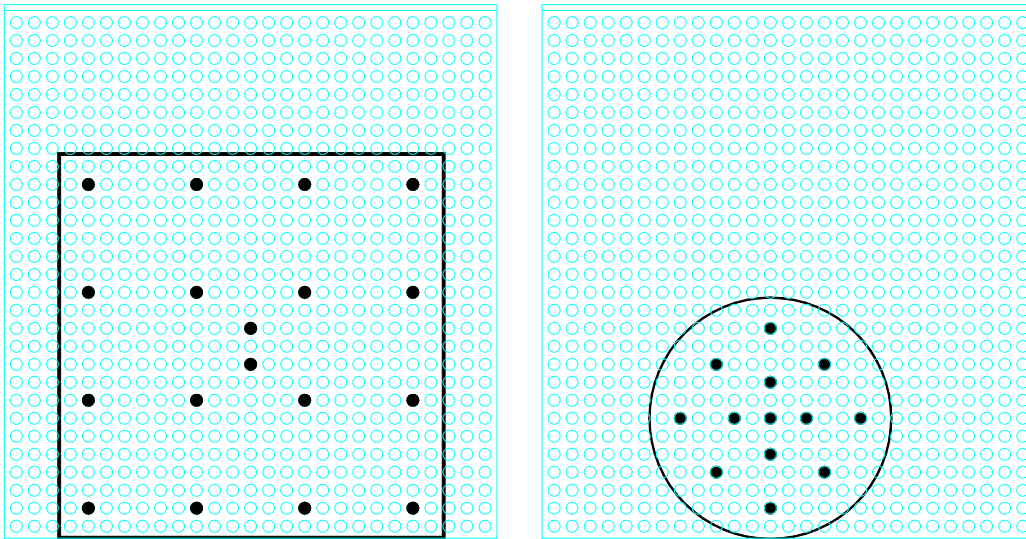
## AIR BLOW PEEL EDGE ALIGNMENT

1. Turn power on to the applicator and make sure it's offline.
2. Advance the web using the drive roller and notice how the label feeds onto the grid. A normal paper label should deflect 5-10 degrees to the bottom surface of the label grid. A stiffer label should feed straight onto the grid.
3. To adjust the peel edge, loosen the two 1/4 S.H.C.S. screws on the peel edge faceplate and move the assembly to a position close to the grid. Allow enough room for the label and liner to pass between the peel edge and the grid.
4. Repeat step #2 to check label angle. Re-adjust if needed.

**Note: The top of the peel edge should be slightly higher than the bottom surface of the label grid. If a label on the grid will slide back onto the peel edge, the peel edge is too low.**

## AIR BLOW GRID SETUP

1. With the power on and the applicator online, jog a label onto the grid and tape it in place.
2. Turn the power off and remove the blow box cover. Arrange the air jet tubes in a symmetrical pattern with most of the tubes in the center of the label. Insert any unused tubes in the storage block. **WARNING: Make sure the air jet tubes are not in the axial fan.**
3. The blow box is equipped with two fans and a switch. With the switch in LOW position, only one fan will run. With the switch in the HIGH position, both fans will run. Select the appropriate switch position to insure that enough vacuum is generated to hold the label in place.



## AIR BLOW AIR ASSIST

The air assist tube blows a stream of air onto the label to force it up against the blow box grid during the label feed. The air assist starts to blow when the web starts to move and stops when the label is on the grid. The extended air assist time allows the air assist to blow after the label feed to help stabilize the label.

1. Adjust the air assist tube so it's blowing into the center of the label. Ensure that the label feeds out against the grid properly.
2. The regulator for the air assist is on the valve bank and should be set between 10 and 15 PSI. This is a typical setting but it may be changed as needed.
3. If a longer air assist is needed to help position the label, press "LABEL SETUP" on the display. Pick "EXTENDED AIR ASSIST" and enter a value between .001-1 second.
4. A valid air assist entry will send you back to the label setup menu.
5. Press "HOME" to return to the main menu.

## AIR BLOW AIR BLAST

The air blast transfers the label from the grid to the product and is a function of time and air pressure. The air blast pressure is regulated by the filter/regulator assembly located upstream of the valve.

1. The regulator for the air blast should be set between 40-50 PSI. This is the typical setting but it may be changed as needed.
2. If the air blast time needs changed, press "LABEL SETUP" on the display. Pick "AIR BLAST" and enter a value between .010-1 second.
3. A valid air blast entry will send you back to the label setup menu.
4. Press "HOME" to return to the main menu.

## TAMP APPLICATOR SETUP

The tamp applicator consists of a tamp slide, label manifold, and a label pad. The label is fed out onto the label pad and is tamped within 1/8" of the labeling surface. The label is then blown off by an air blast. The tamp applicator has higher placement accuracy and is less dependent on product movement.

**NOTE: Before proceeding, make sure you've selected tamp under "APPLICATOR TYPE" on the display. Choose one of the following two types of tamping action.**

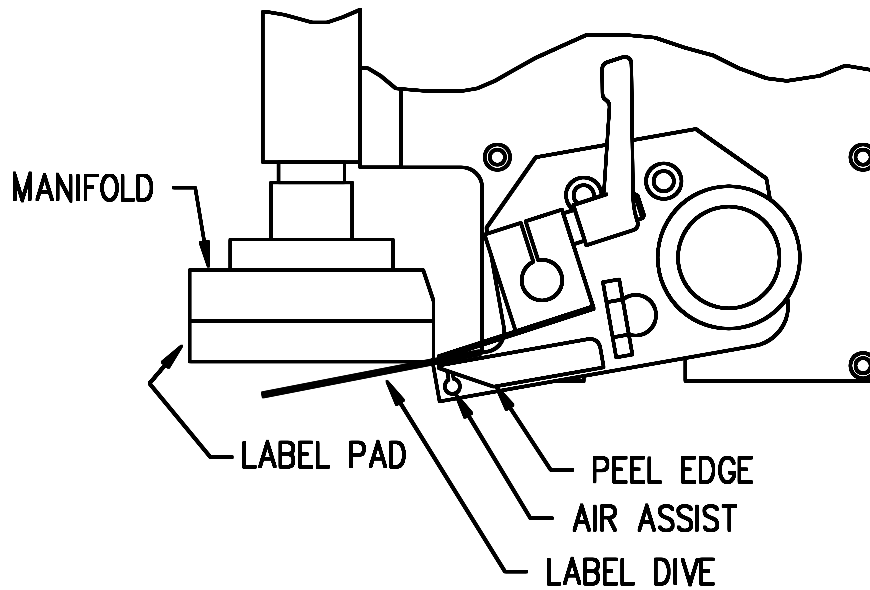
**NORMAL TAMP:** A label feeds out onto the label pad and the labeler will wait for a product detect signal to tamp and apply the label. After applying the label, the tamp pad returns home to receive another label.

**ITB TAMP:** A label feeds out onto the label pad and tamps. The tamp will wait for a product detect signal before applying the label and returning home to receive another label.

1. With the tamp slide extended make sure the label pad is approx. 1/8" from the product.
2. Go through "general setup" procedure (i.e. label sensor, web speed, etc.)

## TAMP PEEL EDGE ALIGNMENT

1. Turn the power on, move the tamp assembly up and make sure the applicator is offline.
2. Advance the web using the drive roller. Stop when half of the label is off the peel edge tip. The label should be at an angle between 5 and 15 degrees from the label pad surface. The stiffer the label, the flatter the angle.
3. To adjust the peel edge, loosen the two 1/4 S.H.C.S. screws on the peel edge faceplate and move the assembly close to the tamp pad. Allow some clearance distance between the peel edge and tamp assembly.
4. Repeat step #2 to check label angle. Re-adjust if needed.
5. If OK go to label stop.



### TAMP LABEL STOP

1. With the applicator online, jog a couple of labels.
2. Label stop position should be 1/32" from the peel edge tip.
3. If needed change the label stop value. (Refer to label stop setup in the general job setup)

### TAMP VACUUM

The tamp vacuum is generated by a vacuum venturi located on the applicator. This vacuum is used to hold the label on the label pad until the air blast releases it. Too much or too little vacuum can affect label placement on the pad. The amount of vacuum may be changed by adjusting the air pressure to the vacuum regulator feeding the venturi. A setting of 30-40 PSI is typical but it may be changed as needed.

**WARNING: It is important to match label size with the label pad size so that no holes are uncovered when the label is on the pad. This may result in losing vacuum.**

## **TAMP AIR ASSIST**

The air assist tube blows a stream of air onto the label to force it up against the tamp pad during the label feed. The air assist starts to blow when the web starts to move and stops when the label is on the pad. The extended air assist time allows the air assist to blow after the label feed to help stabilize the label.

1. Adjust the air assist tube so it's blowing in the center of label. Ensure that the label feeds out against the label pad.
2. The regulator for the air assist is on the valve bank and should be set between 10 and 15 PSI. This is a typical setting but it may be changed as needed.
3. If a longer air assist is needed to help position the label, press "LABEL SETUP" on the display. Pick "EXTENDED AIR ASSIST" and enter a value between .001-1 second.
4. A valid air assist entry will send you back to the label setup menu.
5. Press "HOME" to return to the main menu.

## **TAMP AIR BLAST**

The air blast transfers the label from the label pad to the product and is a function of time and air pressure.

1. The regulator for the air blast is on the valve bank and should be set between 40-50 PSI. This is the typical setting but it may be changed if needed.
2. To change the air blast time, press "LABEL SETUP" on the display. Pick "AIR BLAST" and enter a value between .010-1 second.
3. A valid air blast entry will send you back to the label setup menu.
4. Press "HOME" to return to the main menu.



## **TAMP SLIDE**

The tamp slide is used to move the label pad and manifold toward the product. The speed at which it travels is a function of air pressure and airflow. The valve and regulator for the tamp assembly is part of the valve bank mounted to the side of the applicator. Typically, the air pressure should be set between 40 and 50 PSI but it may be changed as necessary. Two adjustment knobs are provided on the air cylinder to adjust the tamp extend and retract times. Turning the knobs clockwise will slow the movement of the cylinder. Turning the knobs counter-clockwise will speed up the cylinder.

The tamp extend and retract times must be setup by the operator since they are dependent on the setting of the adjustment knobs. Both timers are in the “LABEL SETUP” section of the display.

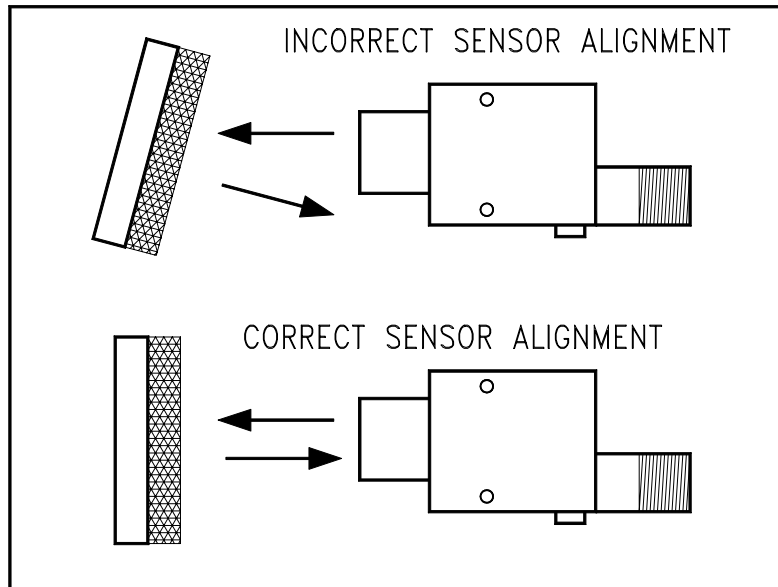
- EXTEND TIME:**
1. The tamp extend time is the time necessary to fully extend the tamp slide assembly. After the tamp extend time expires, an air blast forces the label off of the label pad onto the product. In order to keep cycle times to a minimum, set the extend time so that the air blast occurs when the slide reaches the fully extended position.
  2. To change the extend time press “LABEL SETUP” on the display. Pick “TAMP EXTEND” and enter a value between .001-5 seconds.
  3. A valid tamp extend entry will send you back to the label setup menu.
  4. Press “HOME” to return to the main menu.

- RETRACT TIME:**
1. The tamp retract time is the time necessary to fully retract the tamp slide assembly. At the end of the “tamp retract” time a label will be fed out onto the pad. Too small of a value will cause a label to feed out before the label pad is in the home position. Too high of a value will cause long cycle times.
  2. To change the retract time, press “LABEL SETUP” on the display. Pick “TAMP RETRACT” and enter a value between .001-5 seconds.
  3. A valid tamp retract entry will send you back to the label setup menu.
  4. Press “HOME” to return to the main menu.

**NOTE: If tamp switches are used, it is only necessary to set both tamp extend & retract times to a value higher than the time required. The tamp switches will override any excess time.**

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## PRODUCT SENSOR



The factory product sensor is a reflective type. Other types can be used but the following setup procedure is for a reflective sensor.

1. Make sure the sensor is plugged into the applicator.
2. Turn the power on and leave the applicator offline.
3. Set the sensor to DO (dark operation) by gently turning the output select screw completely counter-clockwise.
4. Make sure the sensor is aligned with the reflector. When the red LED on the back of the sensor is flashing at its fastest rate, the two are in the best alignment.
5. Place a product between the sensor and the reflector. The LED should go out.
  - a). On translucent products, the sensor may fail to detect a product if the sensor gain is set too high. In these cases, reduce the sensor gain by turning the gain pot counter-clockwise to avoid “burning thru” the product.
6. Go to the “PRODUCT SETUP” portion on the display.

## PRODUCT SETUP

1. Make sure the power is on and the applicator is offline.
2. Press “PRODUCT SETUP” on the display.
3. The product setup screen will show the status of the detector lockout function, whether the encoder is on or off and its speed, the label counter value, and whether the product sensor is detecting a product or not. **Note: If you are set for light operate “LO” on the product sensor, the product detect indicator will say “YES” when there is no product in between the sensor and reflector.**
4. There are three submenus associated with this screen:

**DET LOCKOUT ON/OFF:** The product detector lockout function is used if more than one product detect signal is generated per product. When the first product detect signal is received, a timer is started and all other product detect signals are ignored until this time expires. **Warning: this works only when the product sensor is set for dark operate “DO”.**

- a) To add detector lockout, select “DET LOCKOUT” and enter a value between .001-20 seconds.
- b) A valid detector lockout entry will send you back to the product setup menu.

**ENCODER SETUP:** SEE THE ENCODER SETUP SECTION OF THIS MANUAL

**LABEL COUNTER:** The label counter is a user resettable counter that keeps track of the number of labels applied by the applicator since it was last reset. With this feature, the number of labels per hour, per shift, etc. may be monitored.

- a) To reset the label counter, select “LABEL COUNTER” from the product setup menu.
- b) Select “YES” to reset the counter or “NO” to go back to the product setup menu.

## LABEL PLACEMENT (also known as Label Delay)

When a product detect signal is received, the product must travel the “label placement” time or distance before the applicator will dispense a label. Label placement gives you the ability to adjust where the label is applied on the product.

**More label placement = label moves back on the product**  
**Less label placement = label moves forward on the product**

1. To change label placement, press “LABEL PLACEMENT” on the display. Enter a value between .001 and 20 seconds and press “ENTER”.
2. A valid label placement value will send you back to the main menu.

## **LABEL PLACEMENT** (cont'd)

- NOTE:**
- 1) The applicator will be slower and less accurate for larger label placement values. Keep this value to a minimum by moving the product sensor closer to the peel edge.**
  - 2) If the encoder option is on, the label placement value is in inches. If the encoder is off, the label placement value is in seconds.**
  - 3) This adjustment can be made while the machine is running.**

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## ENCODER OPTION

The encoder option is useful when the product velocity varies during the application cycle. An example of such an application is forms on a forms table. With the encoder installed and enabled, the labeler adjusts the label dispense speed to insure accurate label placement on the product.

The applicator has a differential quadrature incremental encoder interface with times four interpolation built into the controller board. The encoder connector located on the rear panel has +5V and ground to power the sensor and the A and B channel interface. The encoder wiring diagram and pin-out information appear in the Drawings section in this manual and should be consulted for user supplied encoders. Factory encoders generate 500 pulses per revolution.

**NOTES: Label placement units with the encoder option on is in inches; not seconds.**

**The encoder option will not be accurate with the tamp applicator set to normal tamp.**

**It's important to make sure that the applicator is setup properly so labels are dispensed consistently.**

**If product speeds are too fast causing the compensated label placement to lag behind the current label placement, a warning will be given to raise the label placement value.**

## ENCODER MOUNTING

The method of coupling the encoder to the conveying system is an important consideration because errors or stress can be introduced to the system. If the encoder is coupled to a drive shaft, motor, etc., a flexible coupling should be used to compensate for any misalignment between the shaft and the encoder. This compensation is required because the smallest misalignment can result in high radial loads that may induce premature bearing failure. If the encoder is connected to the machine using belts and pulleys, be careful not to over tighten the belts.

An optional mounting kit may be purchased which has a rubber-coated wheel on the encoder shaft. The kit comes with a mounting plate and a spring loaded pivot plate to hold the wheel against the conveyor surface. The encoder is wired assuming that the encoder shaft rotates clockwise as you face the encoder. If counter-clockwise rotation is necessary, reverse the A+ & A- wires going to the control board at connector J5.

**WARNING: Change wires with the power disconnected from the machine.**

## ENCODER SETUP

1. Select “ENCODER SETUP” at the product setup menu.

**NOTE: This area is password protected. The password is 1800. Going back to the home screen will disable the last password entry.**

2. Turn the encoder on by pressing “1”.

**NOTE: If the encoder was already enabled, you would turn off the encoder by pressing “1”.**

3. Select “PULSE LENGTH” and enter the distance the product travels per pulse of the encoder. The pulse length may be calculated using the following formula:

$$\text{Pulse Length} = (\text{Distance Product Moves} / \text{Rev}) / ((\text{Encoder Pulses} / \text{Rev}) \times 4)$$

**EXAMPLE:** An encoder is mounted to a conveyor drive pulley and the circumference of that pulley is 18.75”. Therefore, with one revolution of the encoder, the product on the conveyor will travel 18.75”. The encoder is a factory encoder that generates 500 pulses per revolution.

$$\text{Pulse length} = 18.75'' / (500 \times 4)$$

$$\text{Pulse length} = 18.75'' / 2000$$

$$\text{Pulse length} = 0.009375 \text{ "/pulse}$$

Enter the pulse length value and press “ENTER”. Allowed values are between .00001 and 1.

A valid pulse length entry will send you back to the encoder menu.

4. Select “Velocity Filter Time” on the display. Enter a filter value between 0.006 and 0.1 and press “ENTER”.

The velocity filter value is proportional to the number of past encoder pulse rates used in computing the average encoder velocity. The average encoder velocity is multiplied by the pulse length setting to obtain the product velocity. The applicator’s ability to track changes in product velocity is proportional to the velocity filter setting. Larger filter values will slow down the applicator response time but will result in more consistent label placement. Small filter settings may lead to inconsistent label placement. A good overall filter value is 0.03.

$$\text{Velocity Filter} = (0.002)(\# \text{ of past encoder rates: } N)$$

$$\text{Avg. Encoder Rate (t)} = (ER(t-1) + ER(t-2) + \dots + ER(t-N)) / N$$

$$\text{Product Velocity} = (\text{Avg. Encoder Rate})(\text{Pulse Length})$$

A valid filter number will take you back to the encoder setup menu.



## ENCODER SETUP (cont.)

5. Rate Compensation for Air Blow and ITB Tamp Applicators:

When selecting a value for rate compensation, start at 0.025. Apply labels to the product at a slower speed. Then run the product at production speeds or faster. If the labels are applied in the same place, the compensation is correct. If labels move back the faster you go, **INCREASE RATE COMPENSATION**. If the labels move forward, **DECREASE RATE COMPENSATION**. Whenever the rate compensation value is adjusted, re-run the product at slower and faster speeds to make sure that the labels are applied in the same position.

To change values, select “COMPENSATION” from the encoder setup menu and enter a value between .001 and 1. A valid rate compensation entry will send you back to the encoder setup menu.

**NOTE: The web speed of the applicator will not follow the speed of the encoder.**

6. Rate Compensation for Merge Applicators:

When selecting a value for rate compensation, start at 0.007. Apply labels to the product at a slower speed. Then run the product at production speeds or faster. If the labels are applied in the same place, the compensation is correct. If labels move back the faster you go, **INCREASE RATE COMPENSATION**. If the labels move forward, **DECREASE RATE COMPENSATION**. Whenever the rate compensation value is adjusted, re-run the product at slower and faster speeds to make sure that the labels are applied in the same position.

To change values, pick “COMPENSATION” from the encoder setup menu and enter a value between .001 and 1. A valid rate compensation entry will send you back to the encoder setup menu.

**NOTE: The web speed of the applicator will follow the speed of the encoder.**

7. Press “HOME” to return to the main menu.

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## CROSSOVER OPTION

The crossover option allows for “zero downtime” operation by interconnecting two applicators with identical setup configurations. Both applicators are placed on the conveyor system one upstream of the other. The upstream applicator is the “Primary” labeler while the downstream applicator is the “Secondary” labeler. When the “Primary” applicator encounters a critical alarm condition, the “Secondary” labeler is activated and continues to apply labels to the product. Possible critical alarm conditions include: no labels found, web break, and primary offline.

The crossover sequence operates in the following manner. With the applicators powered and setup, they are brought online with no products in between the primary and secondary heads. The primary head will begin labeling. At the same time, it will send its product detect signal to the secondary labeler. A counter in the secondary labeler will count up for each primary product detect signal while it will count down for each secondary product detect signal. Initially, the secondary will not generate any product detects because no products are in between the two heads. When the first labeled product reaches the secondary applicator, the counter will decrement with each secondary product detect but the secondary labeler will not apply a label. At this point, the secondary knows how many products are in between the heads. When an alarm condition occurs in the primary labeler, it is taken offline and the secondary labeler is enabled. When the first unlabeled product reaches the secondary applicator, it will start applying labels incrementing the counter for each product passing the primary and decrementing for each product passing the secondary. It will continue in this fashion until the primary applicator’s alarm condition is cleared and “ALARM RESET” is pressed. When the primary applicator is brought back online, the secondary will continue to label the products in between the heads but it will become disabled once the first labeled product from the primary labeler reaches the secondary applicator.

## CROSSOVER SETUP

1. Configure the label sensor, label length, label stop, label placement, and encoder (see General Setup Procedure) with the crossover option off.
2. Make sure that the crossover cable is connected to both applicators.
3. Make sure that CRTL TO: ANLG is selected in the primary applicator’s special options menu (see special options section). Also, if an offline condition in the primary labeler is to trigger an alarm, select OFFLINE CRTL: ON.
4. From the “APPLICATOR OPTIONS” menu, enable the desired alarm conditions (i.e.: web break, no labels found is always enabled).
5. From the “APPLICATOR OPTIONS” menu, select “3) X-OVER”.
6. Select “1) CROSSOVER: ON” to enable the crossover option.
7. Select “2” to toggle between “PRIMARY LABELER” and “SECONDARY LABELER”. The primary labeler serves as the main or upstream applicator. The secondary labeler is the backup or downstream applicator.
8. Press “ENTER” to return to the applicator options menu and “HOME” to return to the main menu
9. Bring both applicators “ONLINE” with no products between the heads.

## CROSSOVER MONITORING

If the applicator is a secondary labeler, the crossover sub-menu will have a MONITOR SECONDARY SETUP selection. This menu is provided to aid the operator in setting up the crossover network and is particularly helpful if the secondary applicator is not labeling or is double labeling products. If this is selected, a screen will show the status of the following items:

- PRODUCTS BETWEEN HEADS: xx
- PRODUCTS BEFORE LABEL: xx
- SECONDARY INHIBIT INPUT: ON/OFF

The products between heads value indicates how many products are between the primary and secondary applicators while the products before label value indicates how many of these products are already labeled. The secondary inhibit status indicates whether the secondary labeler is enabled or not. If the inhibit input is ON, the secondary applicator is not labeling. If the inhibit input is OFF, the secondary applicator is labeling.

## CROSSOVER PRECAUTIONS !

The crossover option insures that all products on a conveyor system are labeled by providing a redundant system that will be activated if the primary applicator encounters an alarm. The following precautions should be observed for reliable operation of the crossover network:

- Both the primary and secondary applicators should be of the same type and have identical setups including the label sensors which should be set to detect the same edge on the label.
- Make sure the product detect sensors are properly configured so that multiple product detect signals are not sent to the applicators. Multiple product detects will cause the crossover counters to be wrong. When setting-up the system, it is a good idea to monitor the “Products Between Heads” counter. When there are no products between the heads, this counter should be zero. If at any instance of time the “Products Between Heads” counter doesn’t match what the operator physically counts between the applicators, multiple product detects are being generated.
- Make sure that both applicators are brought online before the primary applicator labels the first product. Going online synchronizes the two applicators.
- Do not take products off the conveyor system that are between the heads. This will cause the crossover counters to be wrong.
- When the primary applicator enters into an alarm condition, allow the secondary applicator to begin labeling before bringing the primary applicator back online. Failure to observe this precaution will result in double labeled or skipped products. Generally this will not be a problem since it will take some time to correct the problem, press alarm reset, and bring the primary applicator back online.
- If either applicator is powered down, the other applicator will not receive product detect signals. Disconnect the crossover cable between the applicators when performing service on one of the applicators or when crossover is not being used.

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## LOOSE LOOP SETUP

The loose loop option allows labels to be printed and applied from one system by tying a thermal printer into the web path of the applicator. As the labels exit the printer, they go around a dancer arm to maintain web tension. Three proximity switches monitor the dancer arm position. The lower switch turns the printer off while the upper two turn the printer on. If the upper switch is active, the applicator enters a “Tight Loop” alarm condition. The applicator is taken offline<sup>5</sup> and will not apply labels until the dancer arm returns to the lower position. This keeps the applicator from pulling label stock through a faulted printer.

1. Select “APPLICATOR OPTIONS” key from the display.
2. Select “LS-LOOP” to enable the loose loop option. **This option is password protected. The password is 1800.**

**NOTE:**

- 1) **Due to the number of the different applications, the factory should be consulted on the mechanical layout of the loose loop.**
- 2) **The loose loop option is not available when a powered rewind is used or when the print output is used for alarms.**
- 3) **The loose loop option will turn off the crossover and imprinter options if they are on.**
- 4) **This is a factory installed option.**
- 5) **Starting with software version 2c.10.3, the applicator remains online but is inhibited.**

## IMPRINTER SETUP

The imprinter option allows a hot stamp printer to be installed into the web path of the applicator. It is useful in instances where one line printing or date coding is required. The option is enabled and the dwell time or stamp interval is setup in the imprinter submenu.

1. Select “APPLICATOR OPTIONS” key from the display.
2. Select “2) IMPRINT” to gain access to the imprinter submenu. **This option is password protected. The password is 1800.**
3. Select “1) IMPRINTER IS ON” from the imprinter submenu.
4. Select “2) IMPRINTER DWELL TIME” and enter a time between 0.001 and 1 seconds. A valid entry will return you back to the imprinter submenu.
5. Press “ENTER” to return to the main menu.
6. The print placement on the label may be adjusted by sliding the registration roller forward or backward in the slot on the mounting bracket (see imprinter web path diagram).

**NOTE:**

- 1) **The imprinter option is not available when a powered rewind is used or when the print output is used for alarms.**
- 2) **This is a factory installed option.**

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## LABEL OPTIONS

This section will discuss options that control how the applicator dispenses a label or handles a missing label on the liner web. These options appear in the “APPLICATOR OPTIONS” menu and are password protected. **The password is 1800.**

**MULTIPLE LABEL:** The multiple label option allows more than one label to be applied to a product from one product detect signal.

**MISSING LABEL:** The missing label option monitors all labels between the peel edge and the label sensor. If a label is missing, the applicator will advance another label to the peel edge to insure that all products are labeled.

**SKIP COUNTER:** The skip counter option allows the applicator to label every  $x^{\text{th}}$  product and skip the rest.

## MULTIPLE LABEL SETUP

The applicator has the ability to apply multiple labels per product detect signal. The number of labels per product detect signal and the center-to-center distance between the labels is configured in the multiple label submenu.

1. Press the “APPLICATOR OPTIONS” key and select “7) MULTI-LBL” to enter the multiple label submenu.
2. Select “1) MULTI-LABEL FUNCTION: ON” to enable the option. Pressing “1” repeatedly will toggle the multi-label function on and off.
3. Select “2) NUMBER OF LABELS PER PRODUCT” and enter the number of labels to be applied to each product. A valid entry between 1 and 99 will take you back to the multiple label submenu.
4. Select “3) LABEL CNTR-TO-CNTR DISTANCE” and enter the center-to-center distance between the labels. The minimum center-to-center distance is either equal to label length or the time it takes to travel label length at the current web speed depending on whether the encoder is on or off. A valid entry will take you back to the multiple label submenu.
5. Press “ENTER” to return to the main menu.

- NOTE:**
- 1) If the encoder is turned on, the units are in inches. Otherwise, they are in seconds.
  - 2) If the label center-to-center distance is too small, a message will appear on the display warning you that the applicator cannot keep up. The applicator will continue labeling but label placement will not be accurate.
  - 3) Label profiling, leading edge apply, and missing label options are disabled when multiple label is on.
  - 4) After software version 360-2c.10.1 the skip counter option and the display jog function will work correctly with the multiple label option.



## MISSING LABEL

The applicator has the ability to track missing labels between the peel edge and the label sensor. When a missing label is detected on the label liner, the applicator will feed a new label to the peel edge at slew speed.

1. Press the “APPLICATOR OPTIONS” key and select “8) MISS LBL” to enter the missing label submenu.
2. Select “1) MISSING LABEL: ON” to enable the option. Pressing “1” repeatedly will toggle the missing label function on and off.
3. Select “2) NUMBER OF LABELS TO PEEL EDGE”. Enter the number of labels between the peel edge and the label sensor including any labels partially hanging over the peel edge and any under the label sensor. A valid entry between 1 and 10 will take you back to the missing label submenu.
4. Press “ENTER” to return to the main menu.

- NOTE:**
- 1) When label length is changed, the missing label option is turned off. This insures the operator will change the number of labels to the peel edge if necessary.
  - 2) If the applicator goes offline, either manually or because of a critical fault, with missing labels between the peel edge and the label sensor, a warning will come up on the screen. This message will inform the operator that the applicator will not track the missing labels when it is brought back online.
  - 3) The second label feed occurs as soon as the blank section reaches the peel edge.
  - 4) Multiple label and leading edge apply options are disabled when using missing label.

## **SKIP COUNTER**

The applicator has the ability to skip products on the conveyor system. The skip counter submenu displays the CURRENT PRODUCT COUNT: the number of products remaining before a label will be applied, SKIP COUNTER: ON/OFF, and the LABEL EVERY “x” PRODUCTS value: the desired product labeling interval.

1. Press the “APPLICATOR OPTIONS” key and select “9) SKIP CNT” to enter the skip counter submenu.
2. Select “1) SKIP COUNTER: ON” to enable the option. Pressing “1” repeatedly will toggle the skip counter function on and off.
3. Select “2) LABEL EVERY “x” PRODUCTS:” and enter a number between 1 and 10,000. A valid entry will take you back to the skip counter menu.

**EXAMPLE:** If you want to label every sixth product, enter “6” above.

4. Press “ENTER” to return to the main menu.

**NOTE:** The second line of the skip counter menu will display the current product count. When this value reaches zero, a product will be labeled and the current label count is reloaded with the label every “x” products value.

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## CONFIGURATION MENU

Pressing “9” within the first five seconds of power-up will bring up the factory configuration menu. This screen is hidden from normal use and serves as a place for options that are not normally adjusted. The following two entries appear in this screen:

- 1) RESET TO FACTORY DEFAULTS
- 2) SPECIAL OPTIONS

(PRESS “ENTER” FOR MAIN MENU)

### 1) RESET TO FACTORY DEFAULTS

The reset to factory defaults selection is useful when someone has setup something in the applicator causing it not to run and you don’t know what it is. Resetting to factory defaults will bring all the settings to something that works and adjustments can be made from there. Pressing “1” from the configuration menu will bring up a confirmation screen:

- ARE YOU SURE YOU WANT TO  
RESET TO FACTORY DEFAULTS?
- 1) YES
  - 2) NO

Selecting “1” from the confirmation screen will restore all variables to factory settings and reset the label sensor to its factory defaults. Therefore, an auto or manual label setup should be performed before attempting to dispense labels. **All label formats will be lost and the applicator will be configured as a right-hand merge.** If “2” is selected, the applicator will return to the configuration menu without making any changes.

### 2) SPECIAL OPTIONS

The special option menus contain configuration options that are normally adjusted at the factory by experienced personnel. Therefore, care should be exercised when changing any of these options. Selecting “2” from the factory default menu will bring up the first of two special options menus. **NOTE: This section is password protected. The password is 5115.** The items shown in **bold** type are factory default settings. Each of these options will be discussed in the following sections.

#### Special Options Menu (page 1)

- |                                               |                                       |
|-----------------------------------------------|---------------------------------------|
| 1) <b>PRINT/PWR REWIND/CRTCL ALRM TO DO10</b> | 4) <b>NORMAL/HIGH SPEED</b>           |
| 2) <b>OFFLINE CRTCL: OFF/ON</b>               | 5) <b>CRITICAL TO: ALRM/ANLG/DO10</b> |
| 3) NO LBLs FOUND CNT                          | 6) NEXT PAGE                          |

#### Special Options Menu (page 2)

- |                     |                       |
|---------------------|-----------------------|
| 1) ACCEL/DECEL MENU | 4) RESET LABEL SENSOR |
| 2) I/O DIAGNOSTICS  | 5) RESERVED           |
| 3) DEBOUNCE DELAY   | 6) PREVIOUS PAGE      |

### **1) PRINT/PWR REWIND/CRTCL ALRM TO DO10** (pg. 1)

Selecting “1” from the special options menu configures the source that drives digital output 10 (DO10). The display in 1) will toggle between PRINT TO DO10 and PWR REWIND TO DO10 each time “1” is pressed. Although the software drivers are supplied with the applicator, the hardware for a loose loop printer, an imprinter, or a powered rewind is an option that must be purchased separately.

If 1) PRINT TO DO10 is selected (factory default), printer information is directed to DO10. This would include output to a loose loop printer or an imprinter if either of these options are installed and enabled in the “applicator options” menu.

If 1) PWR REWIND TO DO10 is selected, DO10 is used to drive a powered rewind system. A powered rewind is recommended when web speeds are greater than 1500 “/min.

When CRITICAL TO: DO10 is selected at option “5” in the special options menu, CRTCL ALRM TO DO10 is automatically displayed in 1) and pressing “1” will not change any options. This insures that if critical alarms are being sent to DO10, the user can’t inadvertently turn off an alarm by pressing “1”. Normally, the critical alarm to DO10 selection will not appear in this entry. It is provided to insure backward compatibility with older software versions 360-2b.xx (see CRITICAL TO: DO10 explanation below).

### **2) OFFLINE CRTL: ON/OFF** (pg. 1)

The OFFLINE CRTL: ON/OFF entry allows the user to configure whether or not an “offline” condition is a critical alarm. When this option is ON and the applicator is taken “offline”, a critical alarm will occur. The display will toggle between on and off each time “2” is pressed.

### **3) NO LBLS FOUND CNT** (pg. 1)

The NO LBLS FOUND CNT selection allows the user to configure the number of consecutive missing labels that must appear on the liner web before a “NO LABELS FOUND” alarm occurs. In previous software versions, it was fixed at 3. The user may now enter any integer number between 1 and 10.

### **4) NORMAL/HIGH SPEED** (pg. 1)

The NORMAL/HIGH SPEED entry allows the user to select between either a “normal speed” or a “high speed” applicator each time “4” is pressed.

If NORMAL SPEED is selected (factory default), the applicator will operate at web speeds up to 1500 “/min (25 “/sec).

If HIGH SPEED is selected, the applicator will operate at web speeds up to 2100 “/min (35 “/sec). Choose this setting only if web speeds greater than 1500 “/min will be encountered in your application. The powered rewind option is recommended when operating at these speeds due to web handling issues.

## 5) CRITICAL TO: ALRM/ANLG/DO10 (pg. 1)

The CRITICAL TO: ALRM/ANLG/DO10 selection allows the user to direct critical alarms to specific applicator outputs. The program cycles through ALRM, ANLG, and DO10 each time “5” is pressed. The following critical alarms are supported: no labels found, web break, tight loop at printer<sup>1</sup>, and applicator offline. <sup>1</sup>Starting with software version 2c.10.3, tight loop at printer is no longer a critical alarm.

If CRITICAL TO: ALRM is selected (factory default), critical alarms are directed to the alarm output (DO11). A light stack is typically connected to this output and would flash at a 1 Hz., 50% duty cycle rate when a critical alarm occurs. The light stack is on steady for a warning alarm. **Note: Previously, a hardware module in the light stack controlled the flash rate. It is now implemented in software. If you plan on upgrading to the 360-2c.10.x software and have a system manufactured before 5/1/03, check with the factory to see if your light stack is compatible.**

If CRITICAL TO: ANLG is selected, critical alarms are directed to the analog output (AO22). This setting is used when two applicators are interconnected in a crossover configuration (see the applicator options crossover explanation for more details). **Note: The analog output does not have all of the protection circuitry that a standard digital I/O circuit would have. This output is not for general purpose use!**

If CRITICAL TO: DO10 is selected, critical alarms are directed to the print output (DO10) and the loose loop printer, imprinter, and powered rewind options are not available. Also, the standard light stack will no longer flash when a critical alarm occurs but it will be on solid when a warning alarm such as low label occurs. The critical to DO10 option is provided to insure backward compatibility with older software versions (360-2b.xx). **Note: Some system level wiring changes may be necessary to insure proper operation of critical alarms when CRITICAL TO: DO10 is selected. Contact the factory for information about your system if you plan to upgrade to version 2c.10.x and use the CRITICAL TO: DO10 option.**

## 1) ACCEL / DECEL (pg. 2)

Selecting ACCEL/DECEL will bring up a series of submenus that change the drive motor acceleration, deceleration, and current limit values. On a blow box applicator, a “pre-dispense” menu appears that allows the applicator to start dispensing a label before the air blast time expires which increases the label rate.

The larger the acceleration and deceleration values the faster the applicator will start and stop. This will increase label rates but web handling may become erratic. The maximum acceleration and deceleration rates that can be achieved depend on the available motor torque. The inertia of the label roll and the system components, friction, and dancer arm spring tension are all factors in determining how much torque is required to operate at a given acceleration/deceleration rate and web speed setting.

Higher torque requirements increase the motor current and temperature. Both of these parameters are monitored by the applicator to insure reliable performance. The “NORMAL” motor current limit value is set to 80% of the maximum motor current rating at the factory. The “HIGH” setting increases the current limit to 100% and should be used only if the motor needs more power. Check for mechanical problems before switching to the high setting. If you are going to alter any of these settings, verify system performance and accuracy with a new roll of labels while operating at the highest anticipated web speed.

**WARNING:** The factory default values should work in most cases and should not be changed. please consult factory before making changes.

## **2) I/O DIAGNOSTICS** (pg. 2)

The I/O DIAGNOSTICS menu provides a means to check devices connected to the applicator. From here, the operator can manually turn on valve outputs; monitor inputs such as: product detect, web break, and low label; and verify the operation of the analog input and output.

## **3) DEBOUNCE DELAY** (pg. 2)

The DEBOUNCE DELAY value helps eliminate false product detect signals that are electrical in nature. This feature is provided to eliminate the possibility that the applicator will ‘start-up’ on its own in the presence of high levels of EMI/RFI interference. When the product detect signal becomes active, the applicator waits the “debounce delay” time and checks to see if the product detect signal is still active. If it is, the applicator will start the drive motor and dispense a label. If the product detect signal is not active, the applicator assumes that the original signal was a ‘glitch’ and will abort the label application cycle. The default debounce setting is 0.001 seconds but the operator may enter any value between 0.001 and 0.050 seconds if noise is a problem.

## **4) RESET LABEL SENSOR** (pg. 2)

If RESET LABEL SENSOR is selected, the label sensor will be reset to its factory default values. There is no warning or confirmation screen and the previous settings are permanently deleted so make sure this is what you want before proceeding. If “4” is pressed, the display will show a series of stars as the sensor reconfigures its settings. When the process is complete, the applicator will return to the configuration menu. **Note: Before attempting to dispense labels, the operator should perform either a manual or auto setup procedure to select the edge detection mode and set the label sensitivity.**

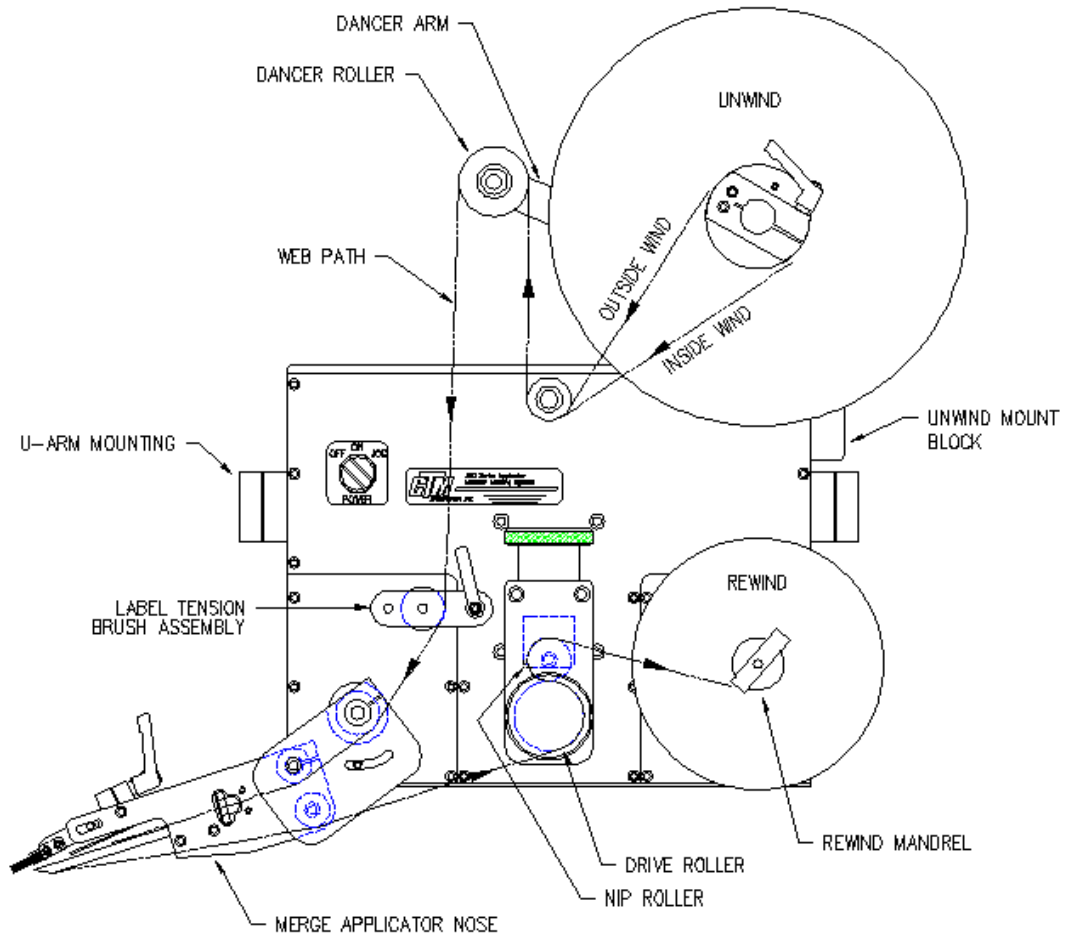
## **5) RESERVED** (pg. 2)

This entry is reserved for future use.



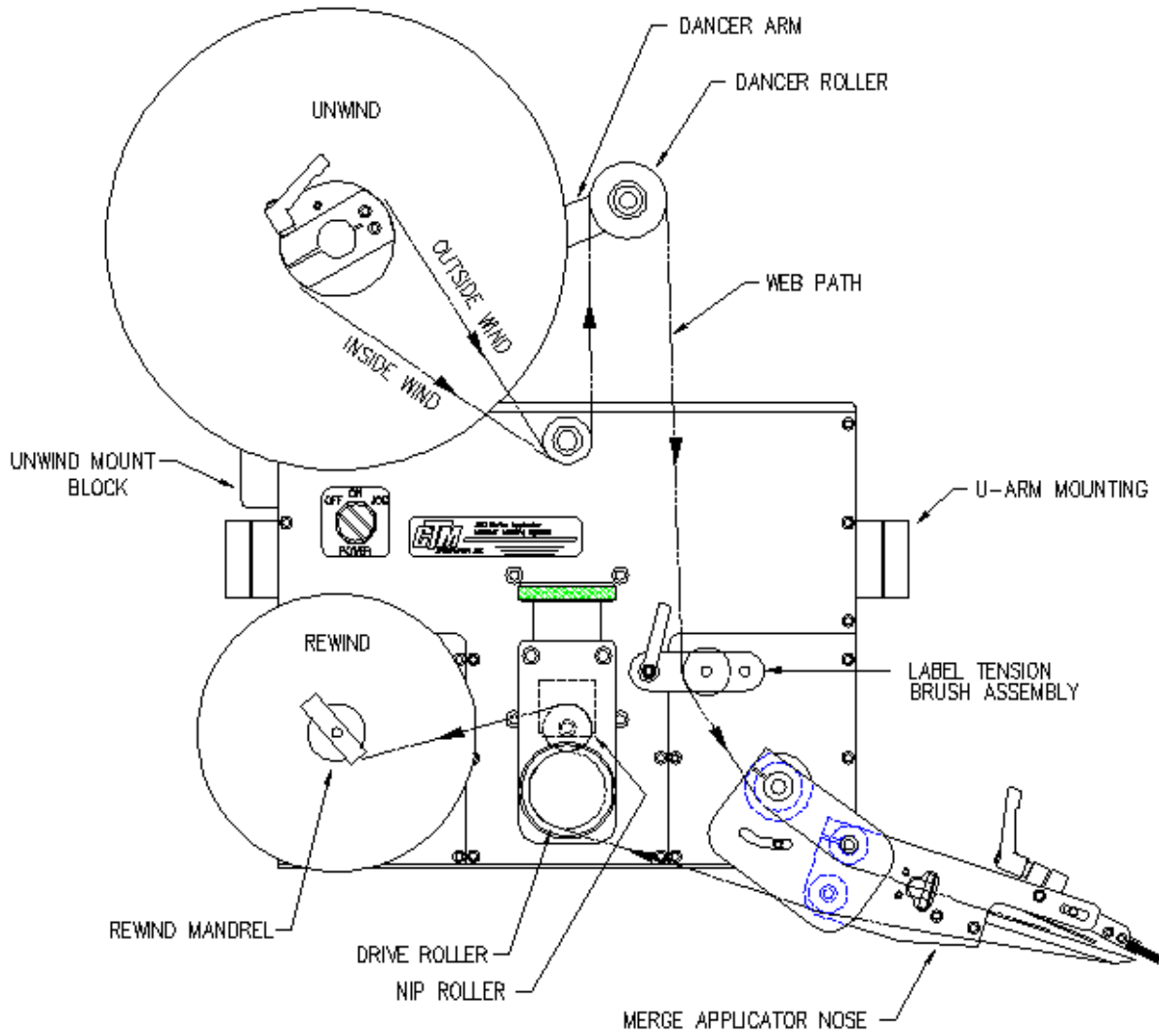
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# 360 SERIES LEFT HAND MERGE



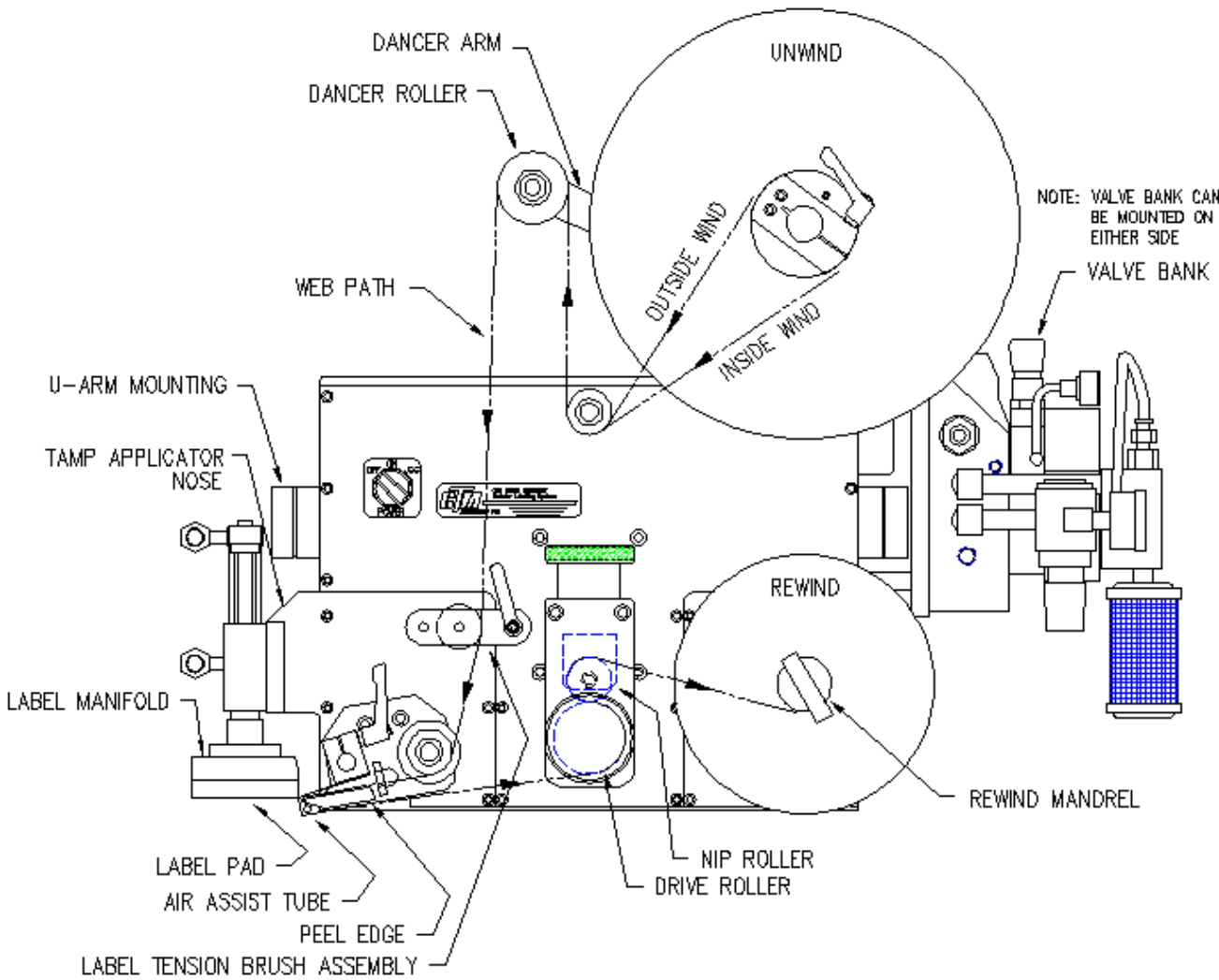
Web Path Diagram and Machine Parts

# 360 SERIES RIGHT HAND MERGE



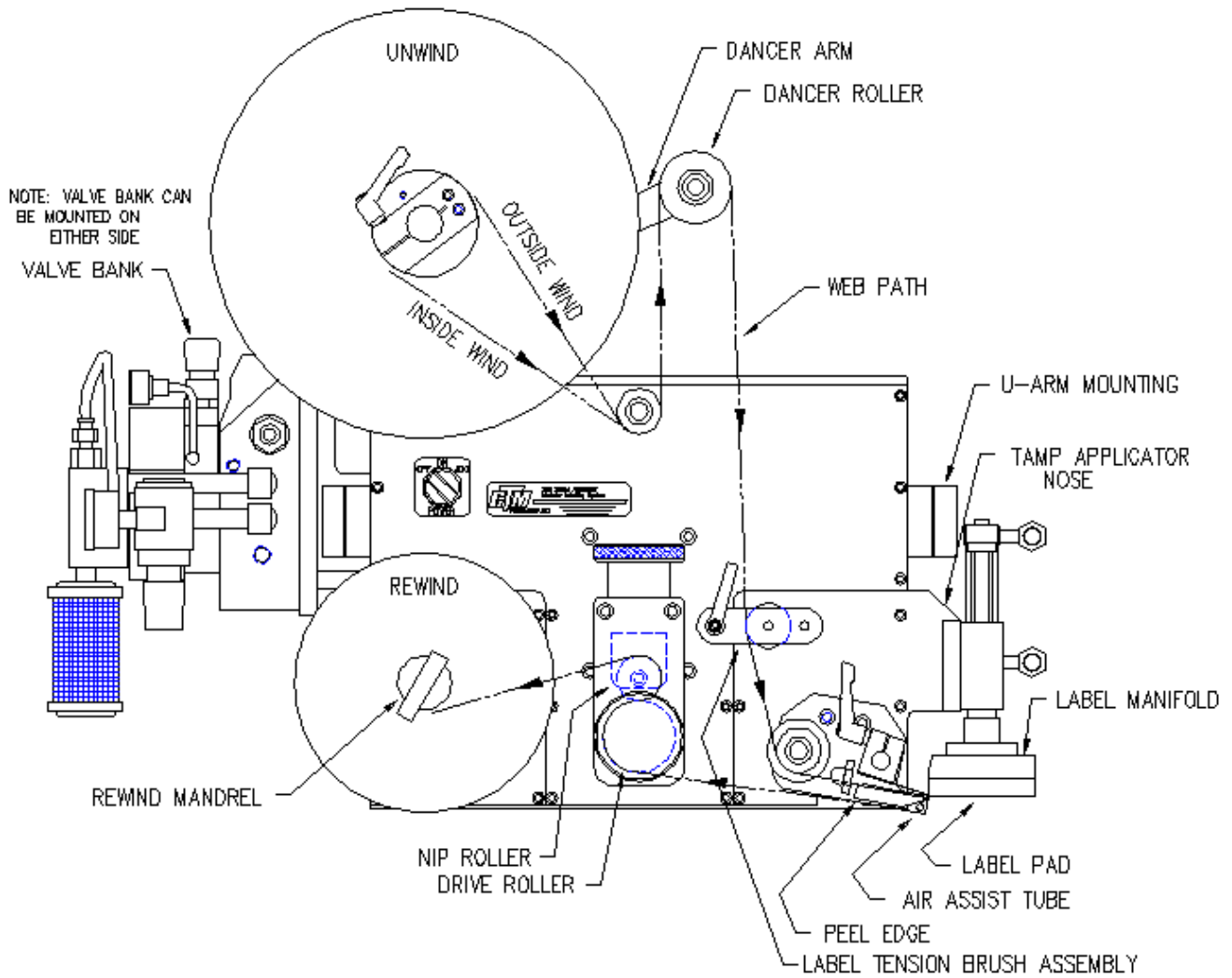
Web Path Diagram and Machine Parts

# 360 SERIES LEFT HAND TAMP



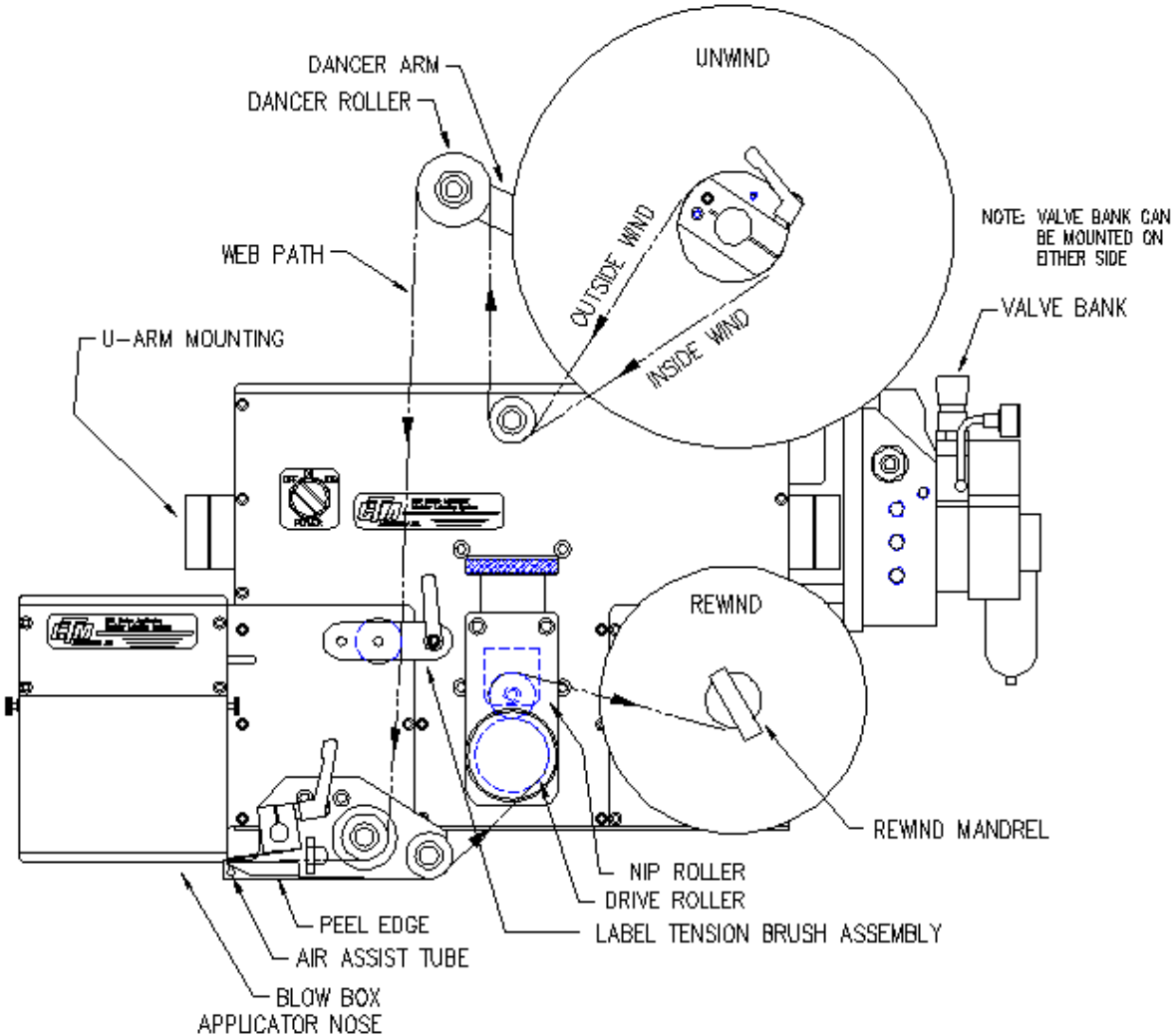
Web Path Diagram and Machine Parts

# 360 SERIES RIGHT HAND TAMP



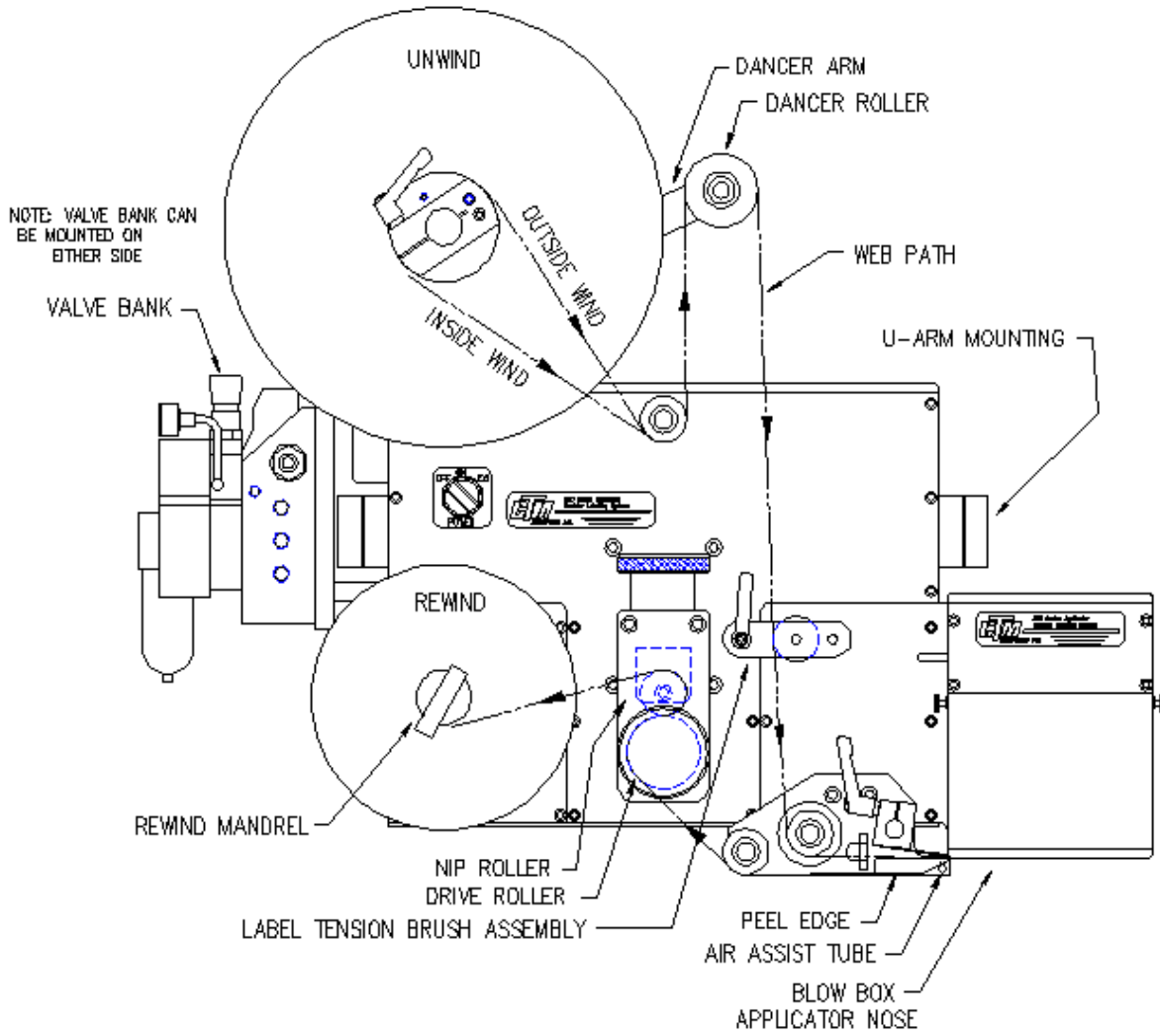
Web Path Diagram and Machine Parts

# 360 SERIES LEFT HAND AIR BLOW



Web Path Diagram and Machine Parts

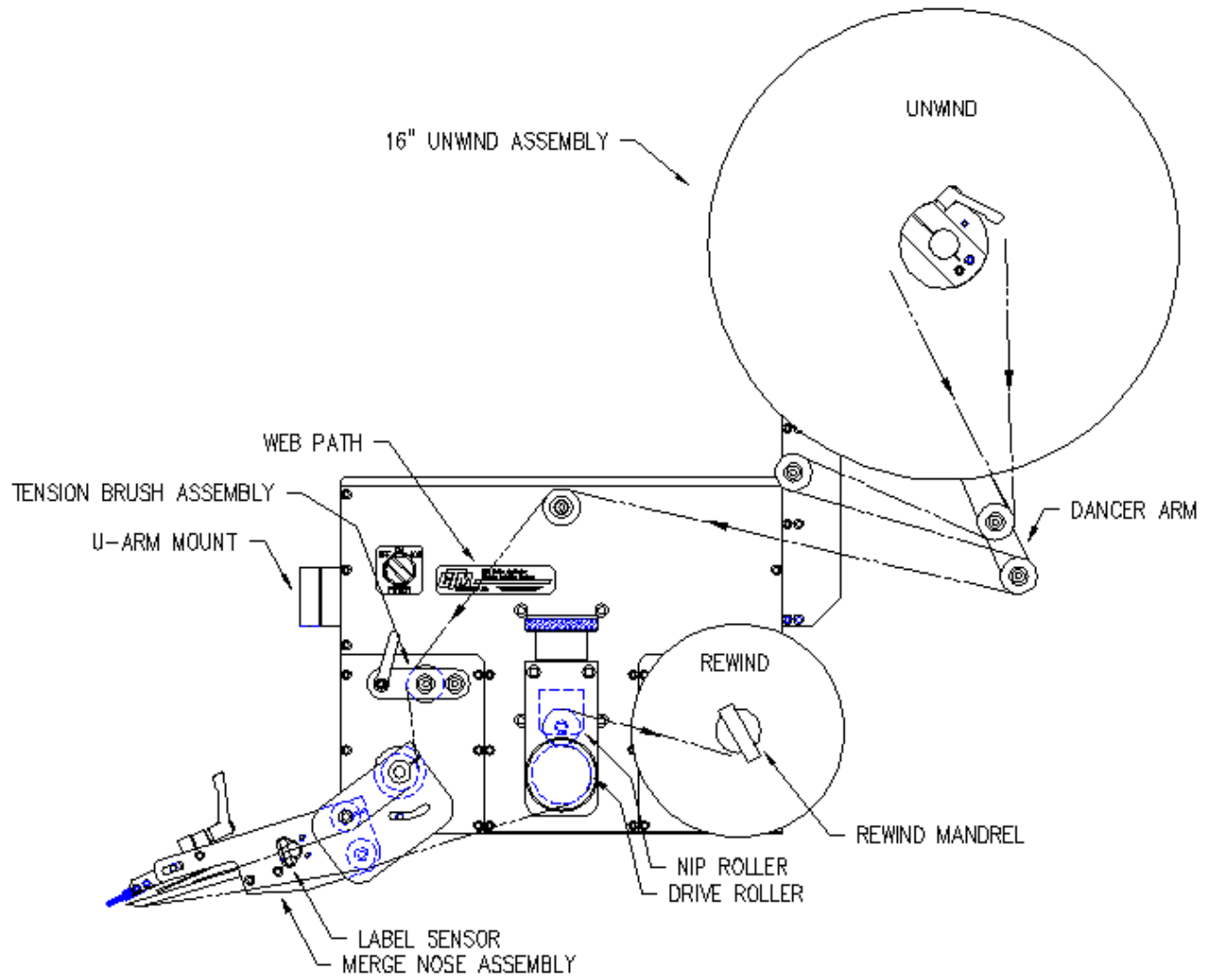
# 360 SERIES RIGHT HAND AIR BLOW



Web Path Diagram and Machine Parts

# 360 SERIES LEFT HAND MERGE

(With 16" Unwind)

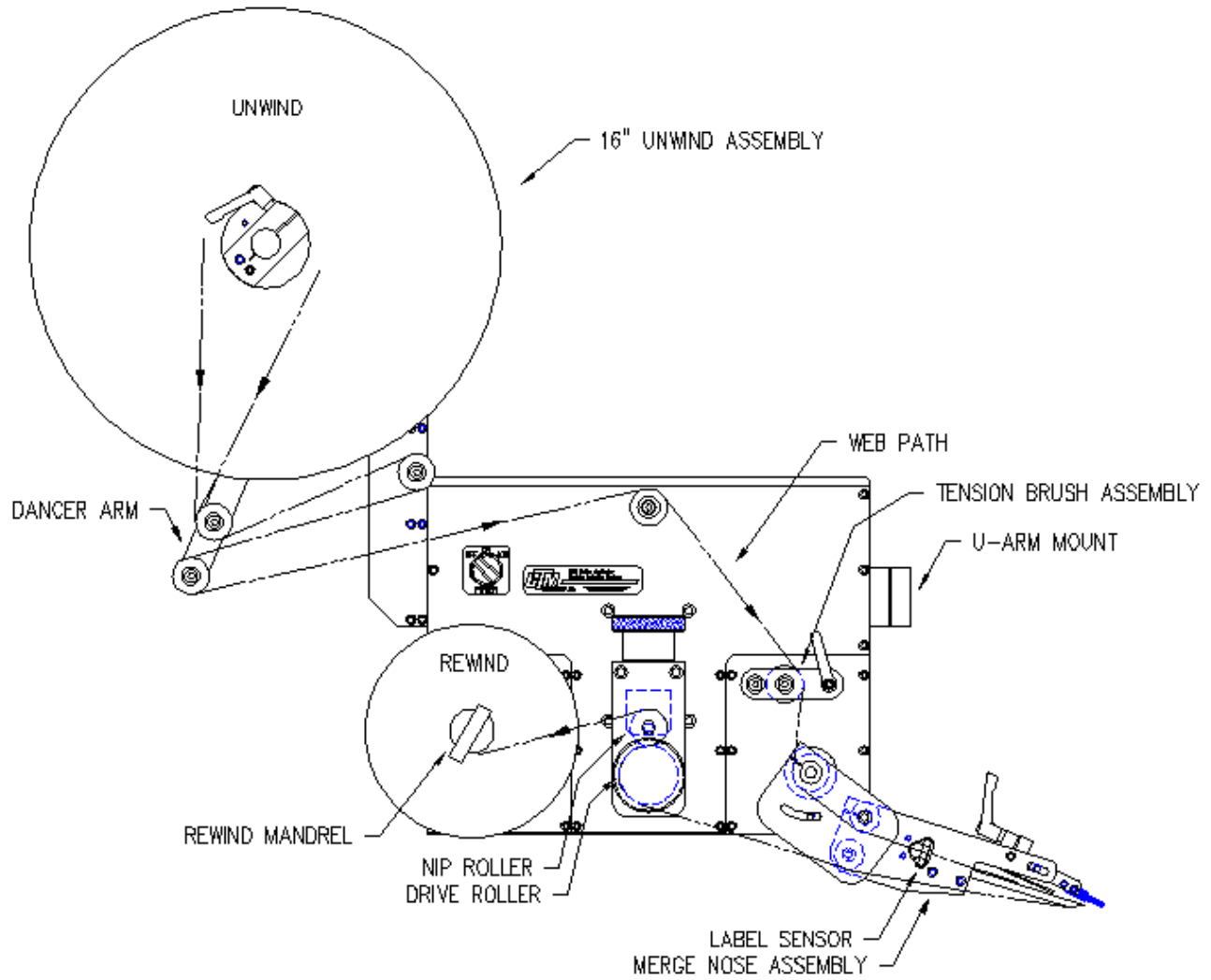


Web Path Diagram and Machine Parts



# 360 SERIES RIGHT HAND MERGE

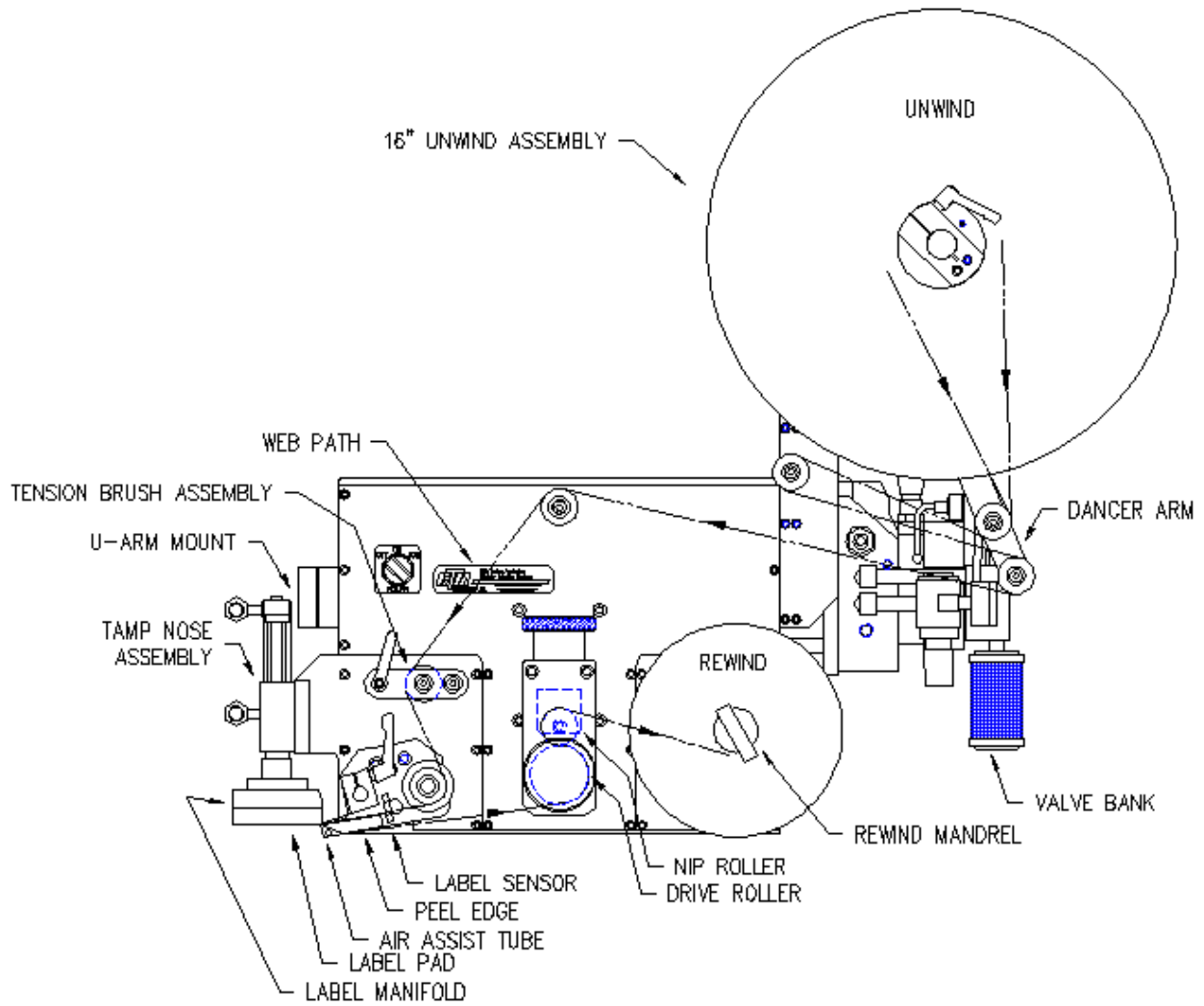
(With 16" Unwind)



Web Path Diagram and Machine Parts

# 360 SERIES LEFT HAND TAMP

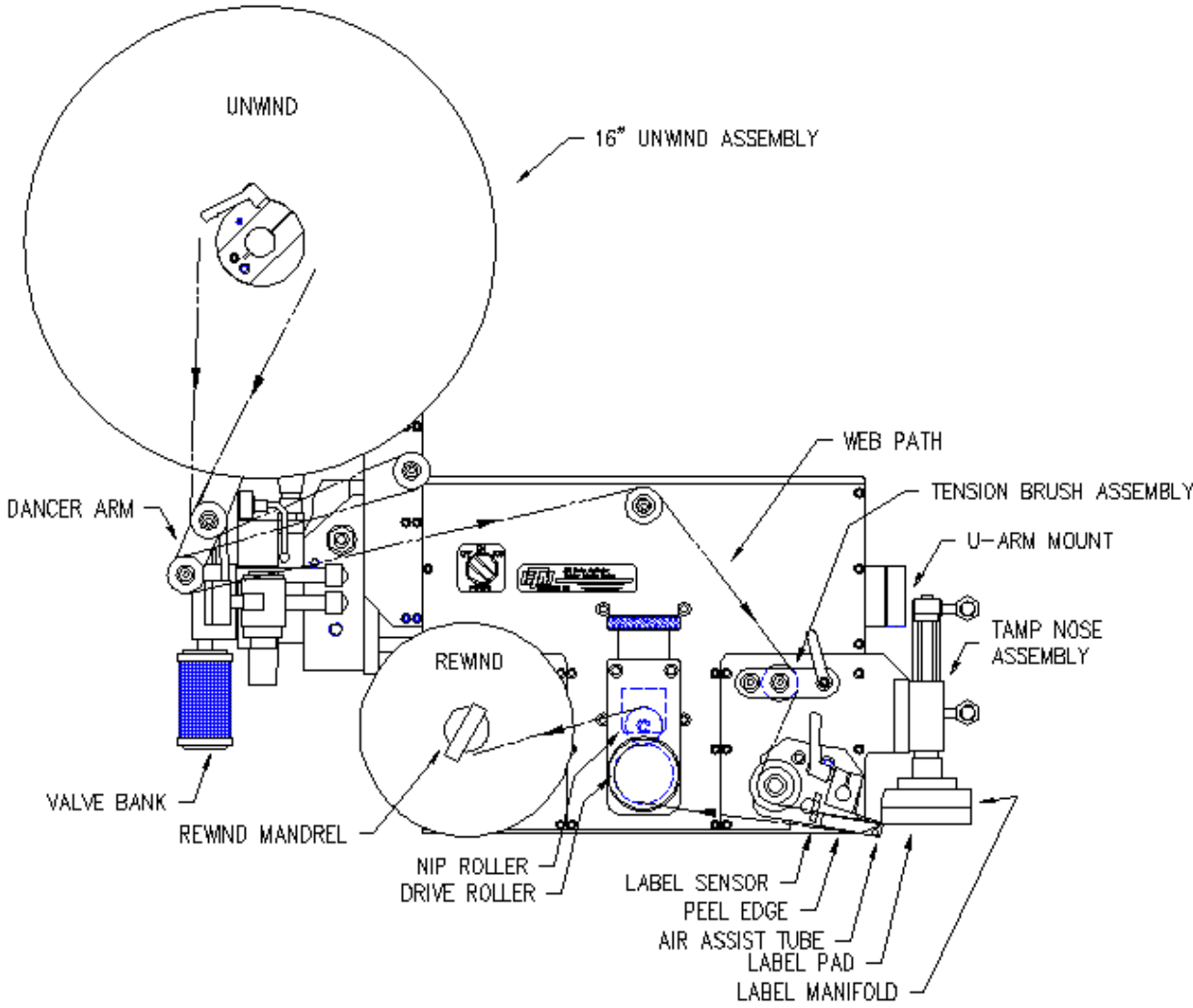
(With 16" Unwind)



Web Path Diagram and Machine Parts

# 360 SERIES RIGHT HAND TAMP

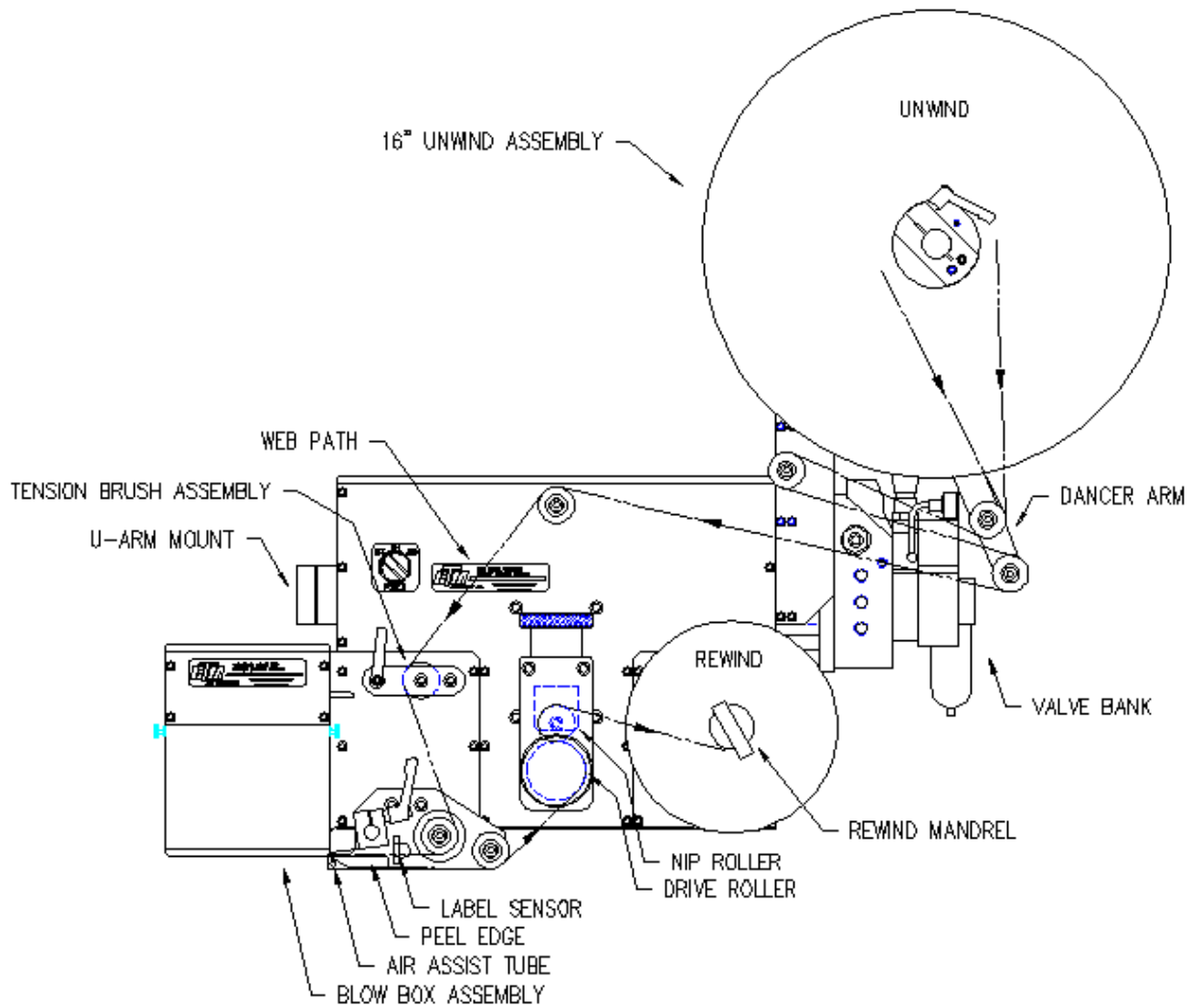
(With 16" Unwind)



Web Path Diagram and Machine Parts

# 360 SERIES LEFT HAND AIR BLOW

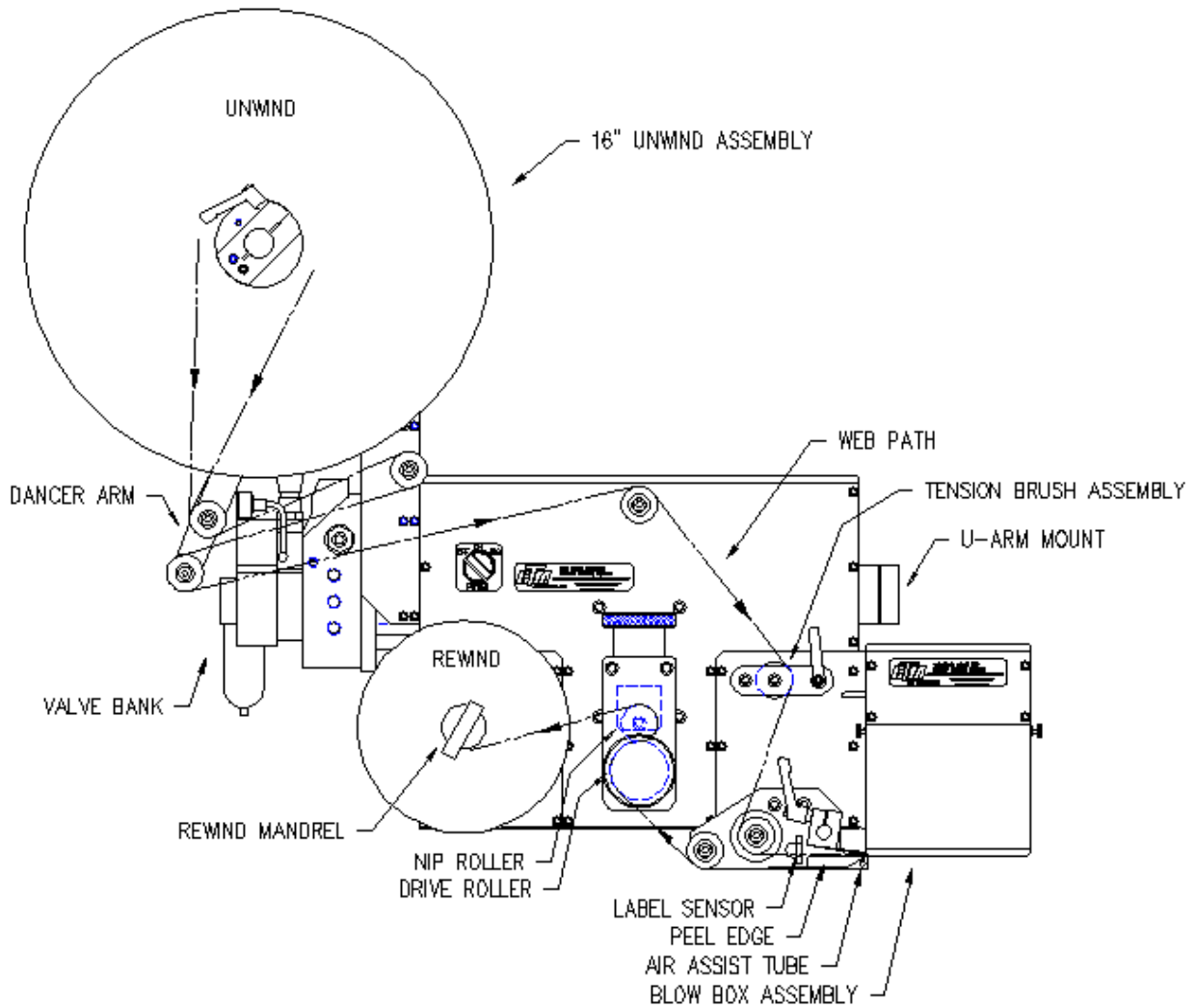
(With 16" Unwind)



Web Path Diagram and Machine Parts

# 360 SERIES RIGHT HAND AIR BLOW

(With 16" Unwind)



Web Path Diagram and Machine Parts

**360 SERIES**

**GENERAL**

**MAINTENANCE**

**PROCEDURES**

**!!CAUTION!! DISCONNECT THE AIR AND POWER FROM THE MACHINE BEFORE DOING THE FOLLOWING PROCEDURES. FAILURE TO FOLLOW THIS PRECAUTION COULD RESULT IN INJURIES FROM MOVING PARTS OR ELECTRICAL SHOCK.**

## MAINTENANCE

**NOTE: Since all three types of applicator are covered in this section, some items discussed will not pertain to your application.**

### DAILY MAINTENANCE

1. Examine the peel edge, vacuum grid, label pad and rollers for excessive adhesive build-up. If necessary, clean these surfaces with alcohol or similar solvent.
2. Examine air filter for water or oil collection. Drain if necessary.
3. Examine for loose screws, rollers, etc.

### WEEKLY MAINTENANCE

1. Clean rollers, vacuum grid, label pad, and peel edge of adhesive build-up and dust.
2. Examine air lines and connections to make sure there are no leaks.
3. Examine for loose screws, rollers, etc.
4. Examine teflon tape on peel edges. Replace if needed.

### MONTHLY MAINTENANCE

1. Examine dancer arm tension and unwind brake O-ring.
2. Examine drive and rewind belts for wear and to make sure they are properly adjusted.
3. Examine rollers for free rotation and play.
4. Examine rewind slip clutch disk for wear.
5. Replace air inlet filter.
6. Examine teflon tape on peel edges. Replace if needed.

## SEMI-ANNUAL MAINTENANCE

1. Replace air filter and clean collection bowl.
2. Clean inside and outside of machine using an industrial vacuum cleaner.

**NOTE: Do not use compressed air to blow dust off of the electrical section of the applicator.**

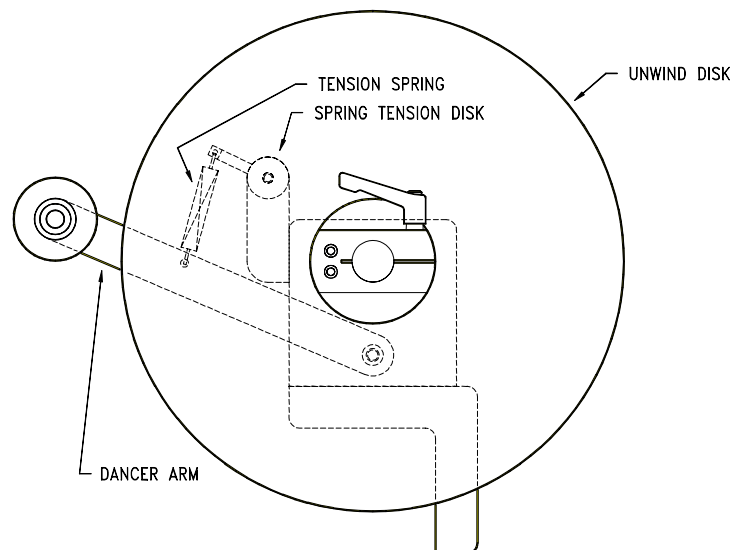
3. Replace slip clutch disk. Clean both friction surfaces.
4. Check roller clutch on the rewind shaft for correct operation.
5. Examine pulleys for wear.
6. Perform the monthly maintenance section.

## DANCER ARM ADJUSTMENT

The dancer arm maintains tension on the label liner and operates the brake on the unwind mandrel when labels are dispensed. The spring holding the dancer arm should be adjusted so that there is enough braking force to keep the unwind mandrel from continuing to roll after a label feed yet still release the applicator when it is cycled.

1. Loosen the screw going to the spring tension disk.
2. Rotate disk to proper spring tension.
3. Re-tighten screw.

**!!CAUTION!! PERFORM THE FOLLOWING PROCEDURES WITH MACHINE OFFLINE SO INJURIES FROM UNWANTED MOVEMENT OF THE APPLICATOR CAN BE AVOIDED.**





**!!WARNING!! DISCONNECT THE POWER AND AIR TO MACHINE BEFORE DOING THE FOLLOWING PROCEDURES. INJURIES COULD OCCUR FROM MOVING PARTS OR ELECTRICAL SHOCK.**

## **REWIND SLIP CLUTCH ADJUSTMENT**

**More or less tension may be needed on the rewind if the liner is being wound too loose or tight. Different conditions will warrant this adjustment:**

1. Change in label width or length.
2. Applicator attitude.
3. Web speed changes.
4. Motor acceleration or deceleration value changes.

**Use the following procedure to adjust the rewind tension or replace the slip clutch disk:**

1. Remove all AC power and air to the machine.
2. Remove lower stainless cover.
3. Use 3/16" Allen wrench to remove the screw at the end of the drive roller shaft.
4. Remove the washers, spring keeper, and spring from the drive roller shaft.
5. If you're replacing the slip clutch disk, remove the thrust bearing and walk the rewind belt off of the slip clutch pulley. Slide the pulley for the rewind off the drive roller shaft. Clean friction surfaces, replace clutch part, and replace assembly.
6. If **more** rewind tension is needed, **remove** one shim washer from the inboard side of the spring keeper and re-install on the outboard side of the keeper. If **less** tension is needed, **remove** one shim washer from the outboard side of the spring keeper and re-install on the inboard side of the spring keeper.
7. Replace and tighten the screw on the end of the drive roller .
8. Replace the lower stainless cover and tighten the mounting screws.
9. Re-connect AC power and air to machine.
10. Test machine and observe the rewind from beginning to end of a roll of labels.
11. Re-adjust if necessary.

**!!WARNING!! DISCONNECT THE POWER AND AIR TO MACHINE BEFORE DOING THE FOLLOWING PROCEDURES. INJURIES COULD OCCUR FROM MOVING PARTS OR ELECTRICAL SHOCK.**

## **DRIVE BELT ADJUSTMENT**

1. Remove all AC power and air to the machine.
2. Remove the lower stainless cover.
3. Remove the air lines interconnecting the two sides of the applicator to gain access to the drive belt.
4. Remove both splice plates that are mounted on either side of the motor. Use a 5/32" Allen wrench to remove the 12 screws holding the splice plates. There are enough remaining screws to keep rewind and applicator plates in place.
5. Loosen the four (4) screws on the side of the motor mounting plate using a 5/32" Allen wrench.
6. Push the motor mount assembly upward and re-tighten mounting screws.
7. Disengage nip roller and turn the drive roller. Make sure there is no severe catching as you turn the roller.
8. Check belt tension. With light finger pressure on one side of the belt, adjust the tension so that the belt deflects approximately 1/16" to 1/8".

**NOTE: Do not over tighten the belts. This may result in shortened motor life. If belts are too loose, label stop may become erratic.**

9. Replace the two splice plates.
10. Replace the air lines interconnecting the two sides of the applicator.
11. Replace the stainless cover and tighten the mounting screws.
12. Re-connect the AC power and air.

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**TROUBLESHOOTING**

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
<b>WITH THE POWER SWITCH ON, NO COOLING FAN; NO DISPLAY</b>	POWER CORD DEFECTIVE OR UNPLUGGED	INSPECT AND CORRECT
	AC FUSE BLOWN	DETERMINE CAUSE AND REPLACE FUSE
<b>WITH THE POWER SWITCH ON, COOLING FAN ON; NO DISPLAY</b>	DISPLAY CABLE NOT PLUGGED IN TO THE BACK OF THE APPLICATOR	RECONNECT CABLE
	DISPLAY PORT SETTINGS INCORRECT	LOCATE SW1 NEAR THE AIR FILTER MAKE SURE SWITCHES 1 & 6 ARE UP
	LOSS OF 12 VDC	CALL A FACTORY REPRESENTATIVE
	DEFECTIVE CABLE	REPLACE CABLE
	DEFECTIVE DISPLAY BOARD	REPLACE DISPLAY BOARD
<b>LABEL LINER BREAKING</b>	LABELS ARE THREADED INCORRECTLY	SEE THREADING DIAGRAM
	BAD ROLL OF LABELS	REPLACE LABEL ROLL
	SIDE NICKS IN LINER; HEAVY DIE CUT ON LINER	REPLACE LABEL ROLL
	ROLLER COLLARS ARE STRESSING THE LABEL STOCK	CHECK TO MAKE SURE GUIDE COLLARS LINE UP WITH UNWIND
		SHOULD HAVE 1/64" CLEARANCE BETWEEN LABEL STOCK AND COLLAR
	ADHESIVE BUILD-UP ON PEEL EDGE	CLEAN PEEL EDGE SURFACE
PEEL BAR TENSION SPRING TOO TIGHT	RELEASE SPRING TENSION	

**TROUBLESHOOTING**

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
<b>LABEL DOES NOT ADVANCE AND DISPLAY IS WORKING</b>	NIP ROLLER NOT ENGAGED AGAINST DRIVE ROLLER	INSPECT AND CORRECT
	DRIVE BELT IS BROKEN	REPLACE BELT
	LOST KEY IN DRIVE PULLEY	FOLLOW PROCEDURE FOR SLIP CLUTCH ADJUSTMENT. WHEN YOU GET TO STEP #6 AND HAVE REMOVED THE PULLEY GOING TO THE REWIND, GO AHEAD AND REMOVE THE DRIVE PULLEY. REPLACE KEY AND PUT BACK TOGETHER
<b>LABEL DOES ADVANCE BUT DOES NOT STOP IN THE SAME PLACE EVERY TIME OR DOES NOT STOP IN THE RIGHT PLACE</b>	LABEL SENSOR NEEDS SET UP	REFER TO LABEL SENSOR SETUP IN THE GENERAL SETUP PROCEDURES SECTION
	LABEL SENSOR NOT LOOKING AT A LABEL	MOVE LABEL SENSOR OVER THE LABEL PATH
	LABEL SENSOR OR FIBER CABLE IS DAMAGED	REPLACE LABEL SENSOR
	NIP ROLLER NOT ENGAGED AGAINST DRIVE ROLLER	INSPECT AND CORRECT
	LABEL LENGTH SET WRONG	REFER TO LABEL LENGTH SETUP IN THE GENERAL SETUP PROCEDURES SECTION
	LABEL STOP SET WRONG	REFER TO LABEL STOP SETUP IN THE GENERAL SETUP PROCEDURES SECTION

**TROUBLESHOOTING**

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
<b>LABEL LINER NOT WINDING UP</b>	REWIND SLIP CLUTCH NEEDS TENSIONING OR REPLACED	SEE SLIP CLUTCH ADJUSTMENT IN THE MAINTENANCE SECTION
	ONE-WAY CLUTCH BEARING NOT WORKING	REPLACE REWIND SHAFT ASSEMBLY
	BROKEN BELT	REPLACE BELT
<b>LABELS ARE NOT HELD ON LABEL GRID OR LABEL PAD</b>	<b><u>AIR BLOW</u></b> VACUUM FAN NOT WORKING	CHECK FOR BLOWN FUSE
		OBSTRUCTION IN FAN
		REPLACE FANS
	<b><u>TAMP</u></b> NOT ENOUGH VACUUM ON PAD	INSPECT FOR CLOGGED OR DEFECTIVE VENTURI
		VENTURI EXHAUST IS BLOCKED
		NEEDS MORE AIR PRESSURE
	<b><u>BOTH AIR BLOW &amp; TAMP</u></b> PEEL EDGE OUT OF ADJUSTMENT	REFER TO PEEL EDGE ALIGNMENT IN THE LABELER SET UP SECTION

**TROUBLESHOOTING**

PROBLEM	POSSIBLE CAUSE	SOLUTION
<b>LABEL PLACEMENT ON GRID OR LABEL PAD NOT CONSISTENT</b>	<b><u>AIR BLOW</u></b> IMPROPER VACUUM	YOU MAY HAVE TO MASK OFF THE HOLES NOT USED BY THE LABEL ON THE INSIDE OF THE VACUUM BOX
		YOU CAN ADD MORE VACUUM BY TURNING THE VAC SWITCH TO HIGH
	<b><u>TAMP</u></b> IMPROPER VACUUM	ADJUST AIR PRESSURE
	<b><u>BOTH</u></b> ADHESIVE STRINGS ON LABEL AND LINER	REPLACE LABEL ROLL
	<b><u>BOTH</u></b> PEEL EDGE OUT OF ADJUSTMENT	REFER TO PEEL EDGE ALIGNMENT IN THE LABELER SET UP SECTION
	<b><u>BOTH</u></b> INCORRECT EXTENDED AIR ASSIST TIME	EXAMINE AND CORRECT
	<b><u>BOTH</u></b> AIR ASSIST TUBE NOT ALIGNED PROPERLY	REFER TO AIR ASSIST SET UP IN THE LABELER SET UP SECTION
<b>LABEL FAILS TO LEAVE THE LABEL GRID OR LABEL PAD</b>	<b><u>AIR BLOW</u></b> TOO MUCH VACUUM	SWITCH TO LOW ON VAC SWITCH
		REMOVE MASKING
	<b><u>BOTH</u></b> NO AIR BLAST	AIR BLAST TIME TOO SMALL
		IF BAD VALVE; REPLACE
	<b><u>AIR BLOW</u></b> INCORRECT AIR JET PATTERN	INSPECT AND CORRECT

**FAULT CODE REGISTER**

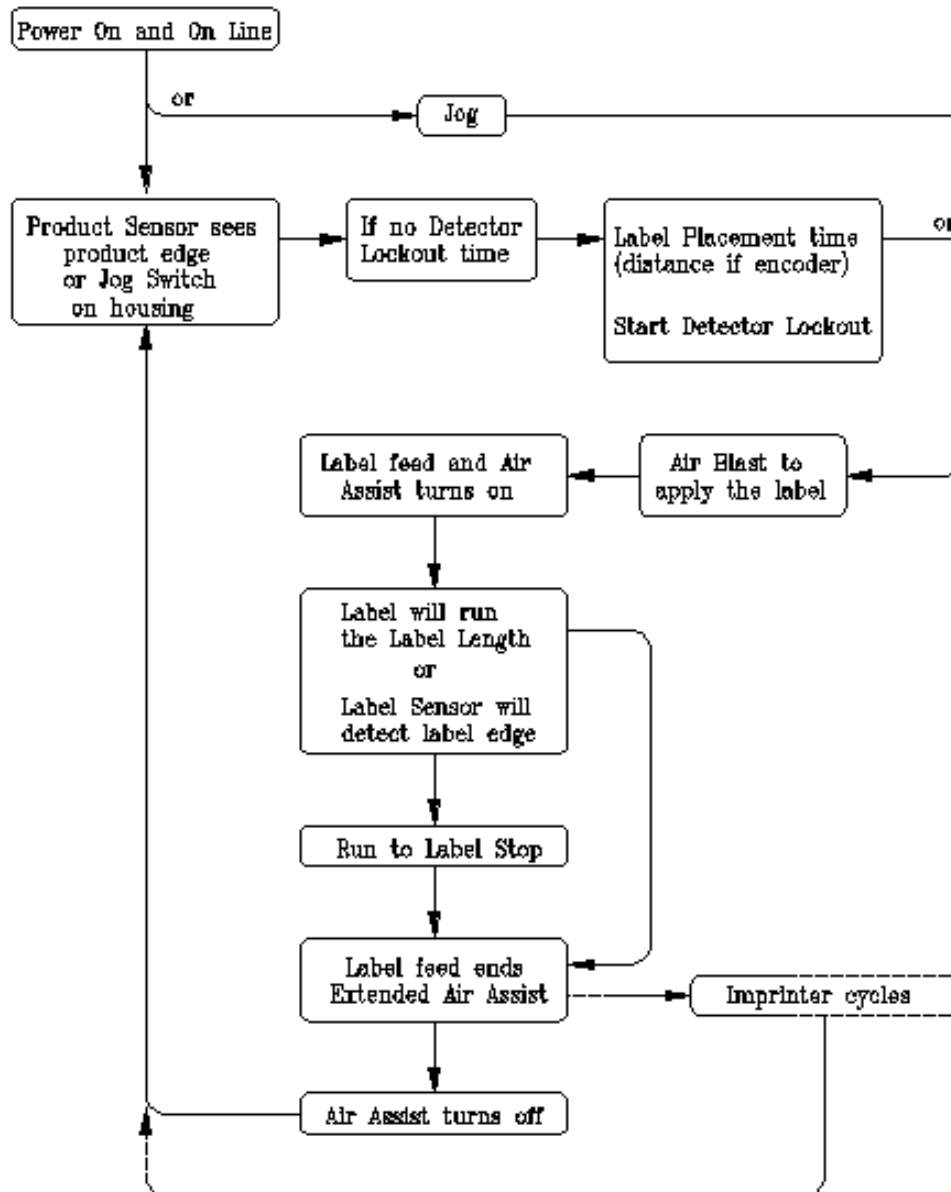
Following a fault condition, the controller runs a section of code to determine the cause of the fault. The display will show a fault type message, its corresponding fault code value, and the fault code register value. If a fault occurs, record these three values and contact the factory for assistance. The display will only show the first error condition encountered but the fault code register value encodes the status of all fault conditions. The controller will also check the SRAM memory for corrupt variables and allow the operator to restore factory default settings if a problem is detected. The controller memory is verified at power-up and during fault conditions. The controller continuously monitors the following conditions:

Fault Code	Fault Type
0	POWER FAILURE
1	RESERVED
2	SOFTWARE FAULT
3	LOST ENABLE
4	DIGITAL OUTPUT FAULT
5	INVALID COMMAND IN STRING
6	TRANSMIT BUFFER OVERFLOW
7	RESOURCE NOT AVAILABLE
8	INVALID VARIABLE POINTER
9	MATHEMATICAL OVERFLOW
10	MATHEMATICAL DATA ERROR
11	VALUE OUT OF RANGE
12	STRING TOO LONG
13	NONEXISTANT LABEL
14	GOSUB STACK UNDERFLOW
15	GOSUB STACK OVERFLOW
16	INVALID MOTION
17	RESERVED
18	RESERVED
19	NETWORK POWER FAILURE
20	DUPLICATE NETWORK ADDRESS
21	EXCESSIVE FOLLOWING ERROR
22	EXCESSIVE COMMAND INCREMENT
23	POSITION REGISTER OVERFLOW
24	RESERVED
25	MOTOR POWER OVERVOLTAGE
26	MOTOR POWER CLAMP DC/UV
27	MOTOR POWER CLAMP OC/DC
28	MOTOR OVER-CURRENT FAULT
29	RESERVED
30	CONTROLLER OVER TEMPERATURE
31	NETWORK COMMUNICATION ERROR

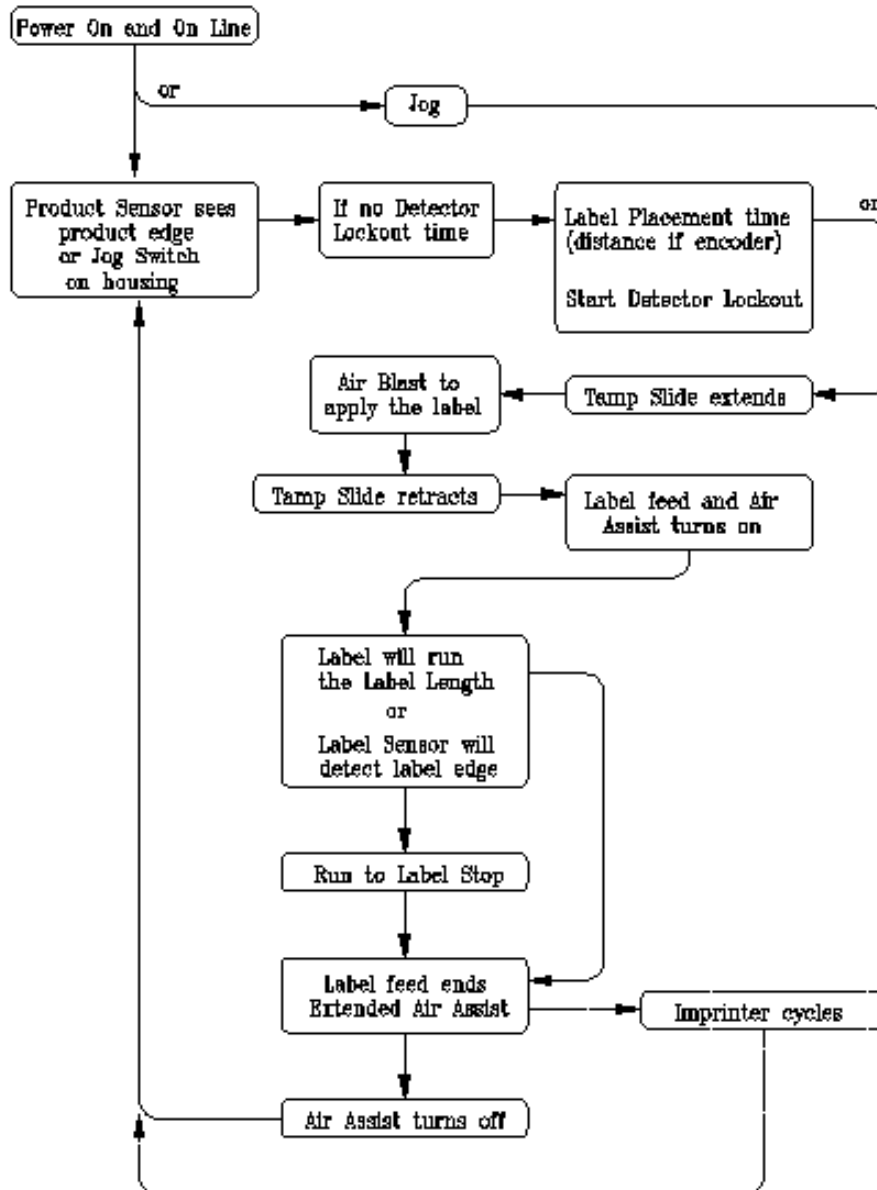


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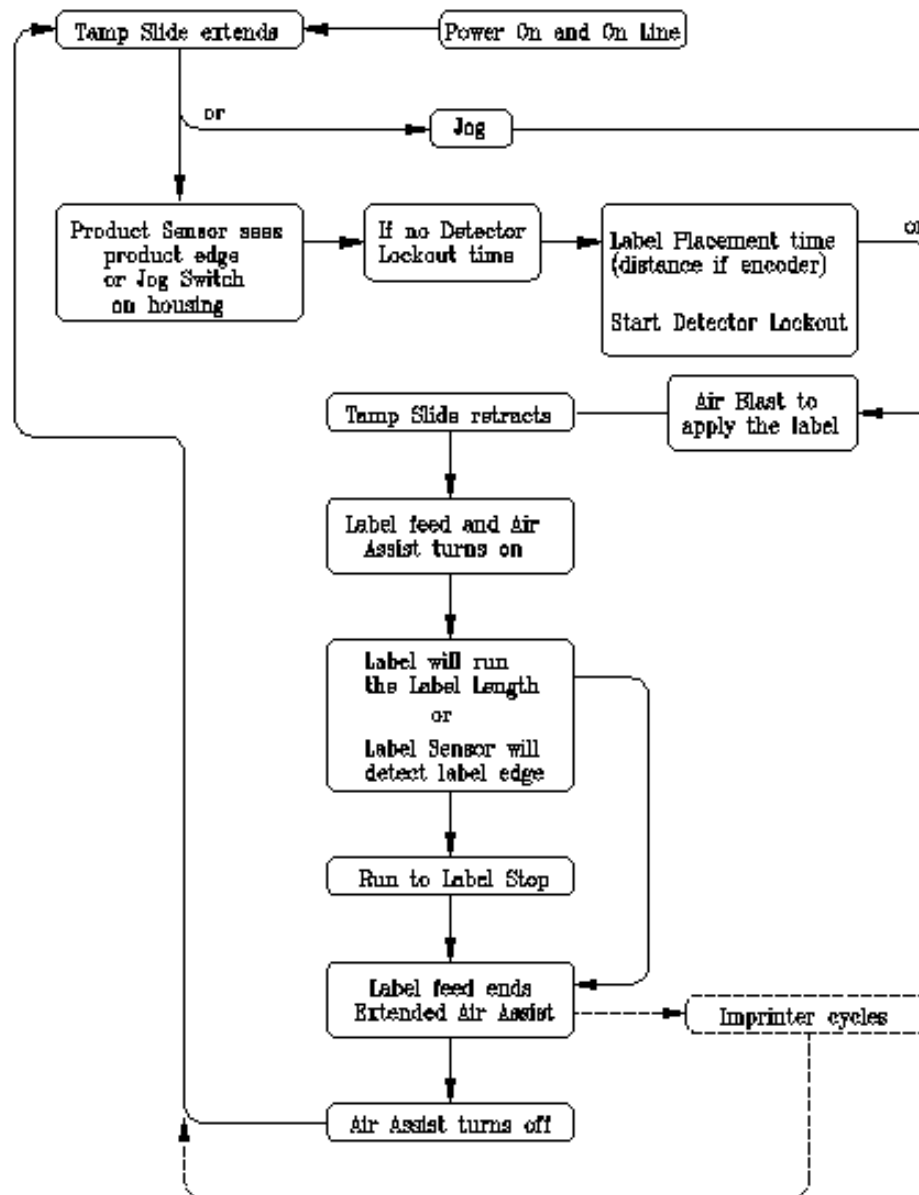
# AIR BLOW SEQUENCE OF OPERATION



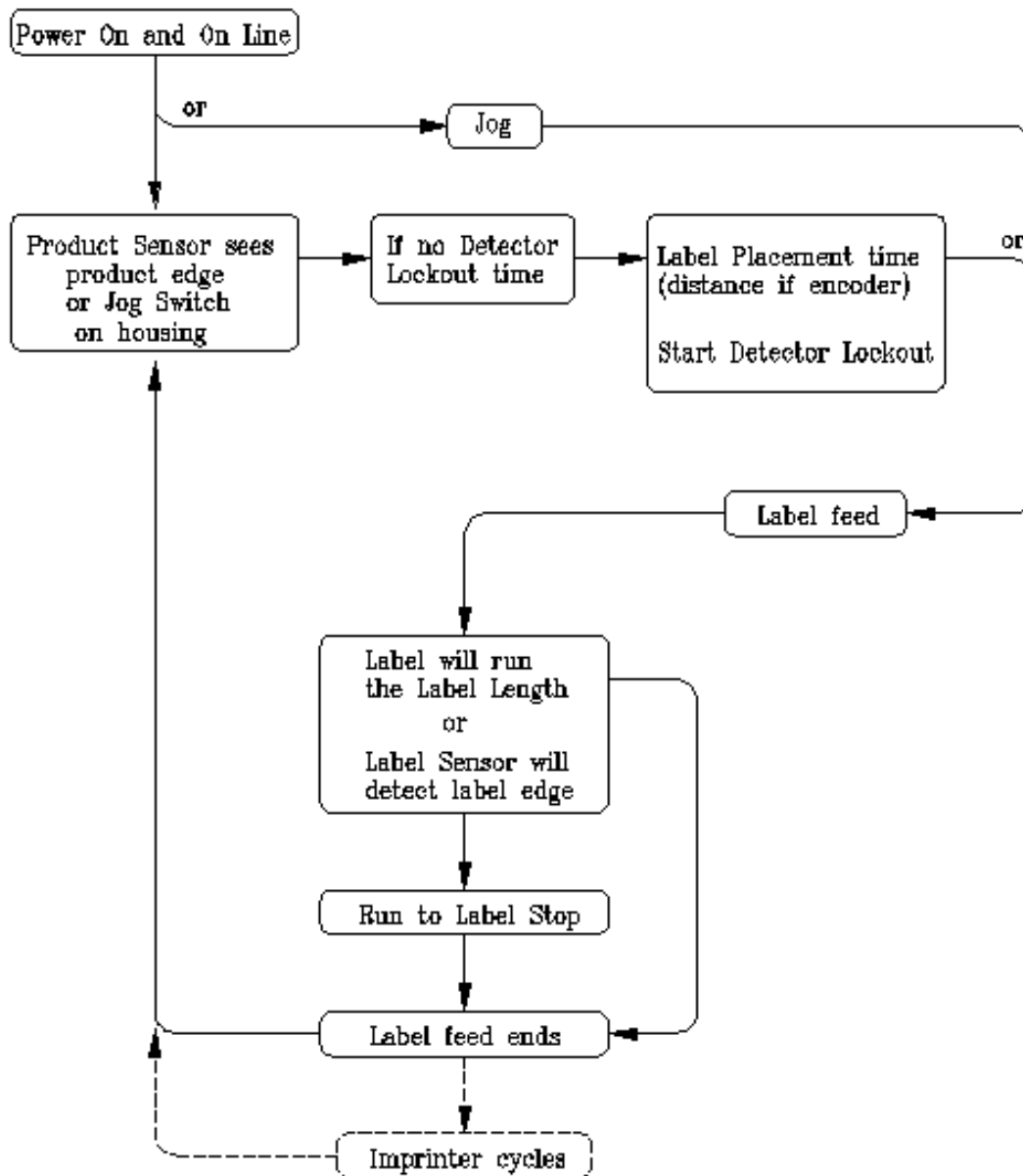
# TAMP SEQUENCE OF OPERATION



# ITB TAMP SEQUENCE OF OPERATION



# MERGE SEQUENCE OF OPERATION



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## **ACCESSORIES**

### **ELECTRONIC CROSSOVER:**

The Electronic Crossover accessory is an electronic interface between two labeling heads positioned in series that will monitor labeling head fault conditions and switch to a secondary applicator to prevent interruption of production flow. Includes control with all interface cabling.

### **IMPRINTER:**

The Imprinter accessory is a Hot Stamp Imprinter device mounted on special bracketry attached to the labeling head.

### **LOOSE LOOP:**

The Loose Loop accessory is designed to integrate a labeling head with a Thermal / Thermal Transfer printer in “Loose Loop” fashion. This option includes electrical modifications to the printer, sensor array to monitor loop condition, and all mounting hardware (including yard arm) to support the labeling head and printer from a vertical upright.

### **LOW LABEL DETECTION:**

The Low Label Detection accessory is a sensor that generates a signal when the unwind is low on labels. The applicator will display an alarm screen and activate the strobe light (if purchased) to inform the operator that the unwind is about to run out of labels.

### **TAMP SWITCH:**

The Tamp Switch accessory uses two sensors to control the tamp slide assembly when labeling products with differing heights. When the tamp home switch is activated, the applicator dispenses a label onto the tamp pad. The tamp extend switch senses the product, a label is applied, and the tamp returns to the home position.

### **WEB BREAK DETECTION:**

The Web Break Detection accessory is a sensor that generates a signal when there is a break in the web. The applicator will display an alarm screen and flash the strobe light (if purchased) to inform the operator that the label web is broken.

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**360 SERIES**

**RECOMMENDED**

**SPARE**

**PARTS**

360 AIR BLOW APPLICATOR

PART NO.	QTY	DESCRIPTION
ASS-200-0410	1	24VDC POWER SUPPLY
ASS-200-0427	1	SM312LV PRODUCT DETECT W/CONNECTOR
ASS-211-0103	1	AIR TUBE MANIFOLD ASSY
MP-200-0235	1	NIP ROLLER LIFT CAM
MP-200-0242	1	DRIVE ROLL W/COATING
ASS-215-0110	1	5" TENSION BRUSH ASSEMBLY
PE-CO1020	1	214-3508 16/3 X 10' POWER CORD (BELDEN)
PE-DR1010	1	IMC-78005773 MOTOR CONTROLLER
PE-FI1050	1	REPLACEMENT AIR FILTER
PE-FU2070	1	845-4180 FUSE (LITTELFUSE)
PE-IN1040	1	OIP-73005774 DISPLAY DRIVER
PE-IN1041	1	OIP-51505775 DISPLAY MEMBRANE OVERLAY
PE-MO1060	1	MTR-35005685 STEPPER MOTOR
PE-RT1000-6	1	REFLECTIVE TAPE (1" WIDE x 6" LONG)
PE-SE3080	1	PDIS46UM12 BANNER LABEL FIBER OPTIC
PM-BE1230	1	EW-5/8 LIFT THRUST WASHER
PM-BE1232	1	EW-3/4 REWIND CLUTCH THRUST WASHER
ASS-200-0134	1	UNWIND BEARING BLOCK ASSEMBLY
ASS-200-0128R	1	REWIND BEARING BLOCK ASSEMBLY W/ SHAFT
ASS-200-0128L	1	REWIND BEARING BLOCK ASSEMBLY W/ SHAFT
PM-BE1270	2	R12FF BEARING
PM-BEBF1015	1	FF-520-10 DANCER ARM BUSHING
PM-BEBT1008	2	FF-604 DANCER ARM SPACER
PM-BELT1018	1	140XLO37 NIP TO MOTOR BELT
PM-BELT1023	1	180XLO37 NIP TO REWIND BELT
PM-CL1010	1	3" LEATHER CLUTCH PAD
ASS-211-0109	1	AIR FILTER REGULATOR ASSEMBLY
PM-T1010	1	UHMW PEEL EDGE TAPE (6" WIDE x 4" LONG)
PM-VA2356	1	VALVE BANK
ASS-200-0143	1	SLIP CLUTCH ASSEMBLY
ASS-200-0130	1	5" NIP ROLLER ASSEMBLY WITH SHAFT
ASS-200-0135	1	TENSION ROLLER ASSEMBLY WITH SHAFT
ASS-200-0131	1	DANCER ROLLER ASSEMBLY WITH SHAFT
PM-FASP30437	1	TENSION SPRING
PM-OR1007	1	O-RING
MP-211-017-7	1	AIR ASSIST TUBE **THIS IS JOB SPECIFIC**

360 MERGE APPLICATOR

PART NO.	QTY	DESCRIPTION
ASS-200-0410	1	24VDC POWER SUPPLY
ASS-200-0427	1	SM312LV PRODUCT DETECT W/CONNECTOR
MP-200-0235	1	NIP ROLLER LIFT CAM
MP-200-0242	1	DRIVE ROLL W/COATING
ASS-215-0110	1	5" TENSION BRUSH ASSEMBLY
PE-CO1020	1	214-3508 16/3 X 10' POWER CORD (BELDEN)
PE-DR1010	1	IMC-78005773 MOTOR CONTROLLER
PE-FI1050	1	REPLACEMENT FILTER
PE-FU2070	1	845-4180 FUSE (LITTELFUSE)
PE-IN1040	1	OIP-73005774 DISPLAY DRIVER
PE-IN1041	1	OIP-51505775 DISPLAY MEMBRANE OVERLAY
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PE-RT1000	1	REFLECTIVE TAPE (1" WIDE x 6" LONG)
PE-SE3080	1	PDIS46UM12 BANNER LABEL FIBER OPTIC
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PM-BE1232	1	EW-3/4 REWIND CLUTCH THRUST WASHER
ASS-200-0134	1	UNWIND BEARING BLOCK ASSEMBLY
ASS-200-0128R	1	REWIND BEARING BLOCK ASSEMBLY W/ SHAFT
ASS-200-0128L	1	REWIND BEARING BLOCK ASSEMBLY W/ SHAFT
PM-BE1270	2	R12FF BEARING
PM-BEBF1015	1	FF-520-10 DANCER ARM BUSHING
PM-BEBT1008	2	FF-604 DANCER ARM SPACER
PM-BELT1018	1	140XLO37 NIP TO MOTOR BELT
PM-BELT1023	1	180XLO37 NIP TO REWIND BELT
PM-CL1010	1	3" LEATHER CLUTCH PAD
PM-T1010	1	UHMW PEEL EDGE TAPE (6" WIDE x 4" LONG)
ASS-200-0143	1	SLIP CLUTCH ASSEMBLY
ASS-200-0130	1	5" NIP ROLLER ASSEMBLY WITH SHAFT
ASS-200-0135	1	TENSION ROLLER ASSEMBLY WITH SHAFT
ASS-200-0131	1	DANCER ROLLER ASSEMBLY WITH SHAFT
PM-FASP30437	1	TENSION SPRING
PM-OR1007	1	O-RING

360 TAMP APPLICATOR

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PE-MO1060	1	MTR-35005685 STEPPER MOTOR
PE-RT1000	1	REFLECTIVE TAPE (1" WIDE x 6" LONG)
PE-SE3080	1	PDIS46UM12 BANNER LABEL FIBER OPTIC
PM-BE1230	1	EW-5/8 LIFT THRUST WASHER
PE-TE6000	1	ENTRELEC WIRING TOOL
PM-BE1232	1	EW-3/4 REWIND CLUTCH THRUST WASHER
ASS-200-0134	1	UNWIND BEARING BLOCK ASSEMBLY
ASS-200-0128R	1	REWIND BEARING BLOCK ASSEMBLY W/ SHAFT
ASS-200-0128L	1	REWIND BEARING BLOCK ASSEMBLY W/ SHAFT
PM-BE1270	2	R12FF BEARING
PM-BEBF1015	1	FF-520-10 DANCER ARM BUSHING
PM-BEBT1008	2	FF-604 DANCER ARM SPACER
PM-BELT1018	1	140XLO37 NIP TO MOTOR BELT
PM-BELT1023	1	180XLO37 NIP TO REWIND BELT
PM-CL1010	1	3" LEATHER CLUTCH PAD
PM-FIL1010	1	WATTS FILTER
PM-T1010	1	UHMW PEEL EDGE TAPE (6" WIDE x 4" LONG)
ASS-200-0143	1	SLIP CLUTCH ASSEMBLY
ASS-200-0130	1	5" NIP ROLLER ASSEMBLY WITH SHAFT
ASS-200-0135	1	TENSION ROLLER ASSEMBLY WITH SHAFT
ASS-200-0131	1	DANCER ROLLER ASSEMBLY WITH SHAFT
PM-FASP30437	1	TENSION SPRING
PM-OR1007	1	O-RING
PM-VA2395	1	400m DC SOLENOID
PM-VA2396	1	300J AIR ASSIST REGULATOR
PM-VA 2397	1	700J TAMP/BLOW REGULATOR
MP-211-017-7	1	AIR ASSIST TUBE **THIS IS JOB SPECIFIC**

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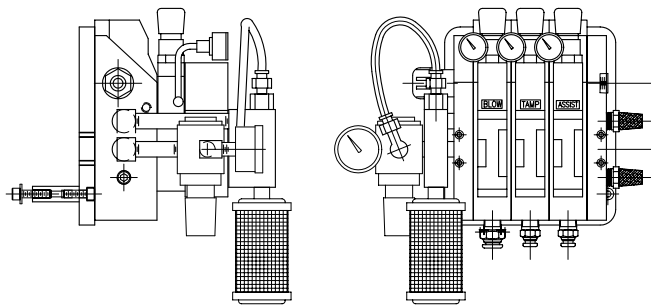
**360 SERIES APPLICATOR  
ELECTRICAL AND MECHANICAL  
DRAWINGS**

BILL OF MATERIAL				SOLD
ASSEMBLY	MOD-214-X101R/L			S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
	1	TAMP ASSEMBLY w/ TRANSITION PLATE	ASS-214-X101R/L	S
⑤	1	TAMP VALVE BANK ASSEMBLY	ASS-214-0105	S

NOTE: SENSOR NOT INCLUDED IN ASSEMBLY OR MODULE

THE FOLLOWING SENSOR OPTIONS ARE AVAILABLE AND MUST BE ORDERED IN ADDITION TO ASS-214-X101R/L OR MOD-214-X101R/L

- 1.) SENSOR (STD. MTG. ROD) ~ #ASS-211-0108
- 2.) SENSOR (EXTENDED REACH) ~ #ASS-211-0107



⑤ VALVE BANK ASSEMBLY  
SCALE: 2"=1'-0"

BILL OF MATERIAL				SOLD
ASSEMBLY	ASS-214-X101R/L			S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	TAMP SLIDE w/ MOUNT PLATE	ASS-214-0103R/L-X	S
②	1	TAMP TRANSITION PLATE	MP-214-0207	.
③	1	5/7.5 TENSION BRUSH ASSEMBLY	ASS-200-X126R/L	S
④	1	5/7.5 TAMP PEEL EDGE ASSEMBLY	ASS-214-X102R/L	S
	6	SHCS, #10-32 x 5/8" LG.	NONE	.

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TITLE: 360 SERIES APPLICATOR: TAMP ASSEMBLY			PART: TAMP ASSEMBLY w/ TRANSITION PLATE			Dept. Code 70	
REV. 0	REV. DESCRIPTION NEW TITLEBLOCK	REV. DATE 04/08/03	REV. BY: TDR	Scale: 1=3	Date: 06/14/97	DRAWN BY: BOB S.	F:\Engineering\Standard Parts\Appliator\360 214\MOD-214-X101RL

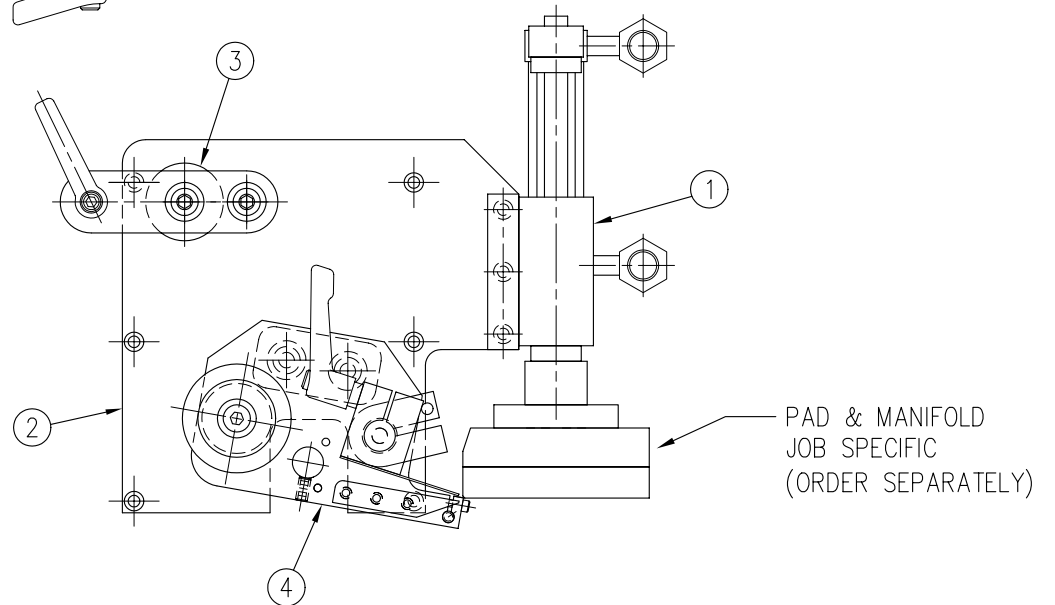
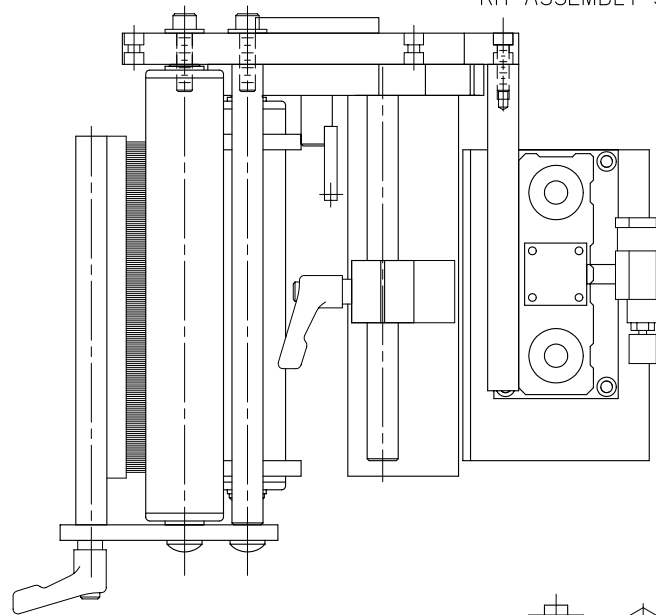
RH & LH ASSEMBLIES AVAILABLE  
-RH ASSEMBLY SHOWN-

MOD-214-X101R/L

ASS-214-X101R/L

5" WIDE -0101R/L

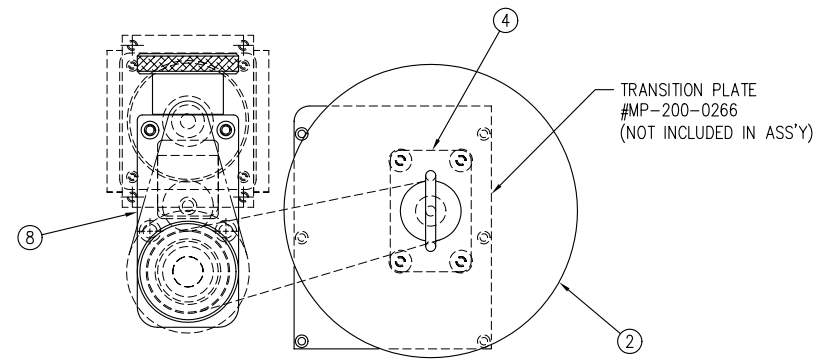
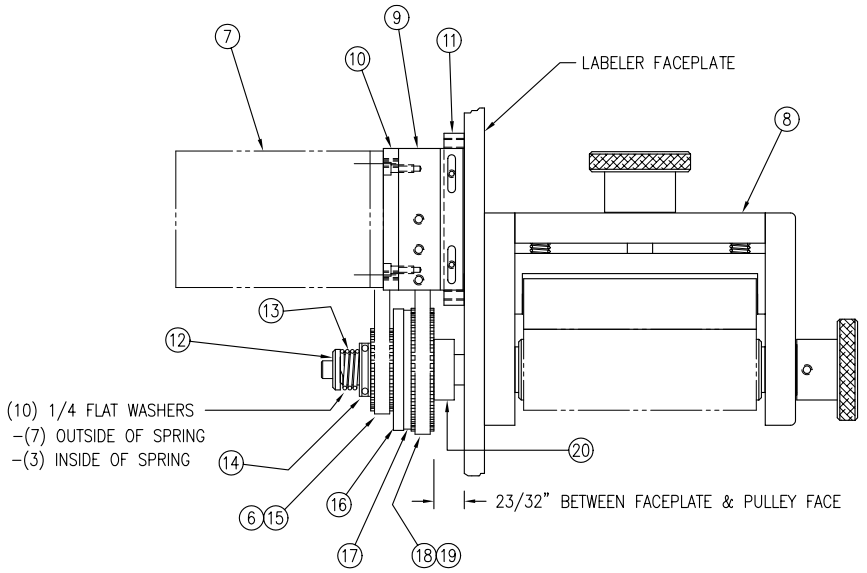
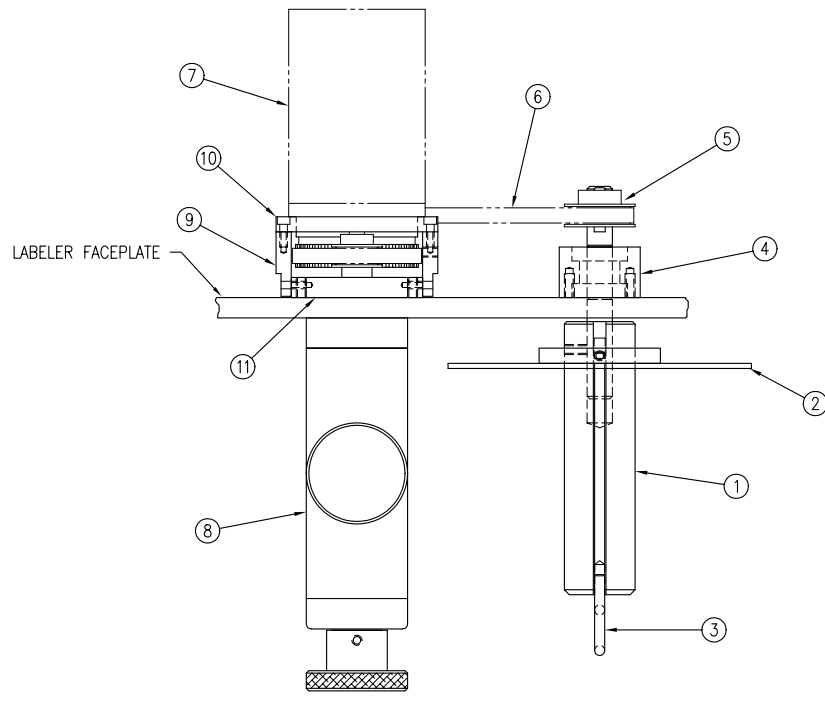
7.5" WIDE -2101R/L



BILL OF MATERIAL				SOLD
ASSEMBLY ASS-200-0120				.
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	REWIND SPINDLE	MP-200-0215	S
②	1	REWIND DISK & HUB ASSEMBLY	ASS-200-0127	S
③	1	REWIND PIN	PM-200-0272	S
④	1	LH REWIND BRG BLOCK ASSEMBLY	ASS-200-0128L	S
⑤	1	REWIND PULLEY	MP-200-0231	.
⑥	1	TIMING BELT	PM-BELT1023	S
⑦	1	STEPPER MOTOR	PE-M01060	S
⑧	1	NIP ROLLER DRIVE ASSEMBLY	ASS-200-0129	S
⑨	2	MOTOR MOUNT SIDEFRAME	MP-200-0217	.
⑩	1	MOTOR MOUNT FACEPLATE	MP-200-0218	.
⑪	1	MOTOR MOUNT MOUNTING PLATE	MP-200-0219	.
⑫	1	REWIND SPRING RETAINER	MP-200-0229	.
⑬	1	COMPRESSION SPRING	PM-FASP30431	S
⑭	1	THRUST WASHER	PM-BE1232	.
⑮	1	NIP CLUTCH PULLEY	MP-200-0234	.
⑯	1	SLIP CLUTCH DISK HUB	MP-200-0270	.
⑰	1	CLUTCH PAD	PM-CL1010	S
⑱	1	NIP DRIVE PULLEY	MP-200-0233	.
⑲	1	TIMING BELT	PM-BELT1017	S
⑳	1	LOCK COLLAR	PM-C01020	.

REV 1

ASS-200-0120



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TITLE: 360 SERIES APPLICATOR: HOUSING/REWIND ASSEMBLIES/VIAL LABELER

REV. DATE: 02/20/03

REV. BY: IDK

SCALE: 1=3

DATE: 06/02/98

DRAWN BY: BOB S.

PART: LABEL NIP/REWIND ASSEMBLY

APPLICATOR: 360

DEPT. CODE: 70

F. ENGINEERING: Standard Parts Application 360

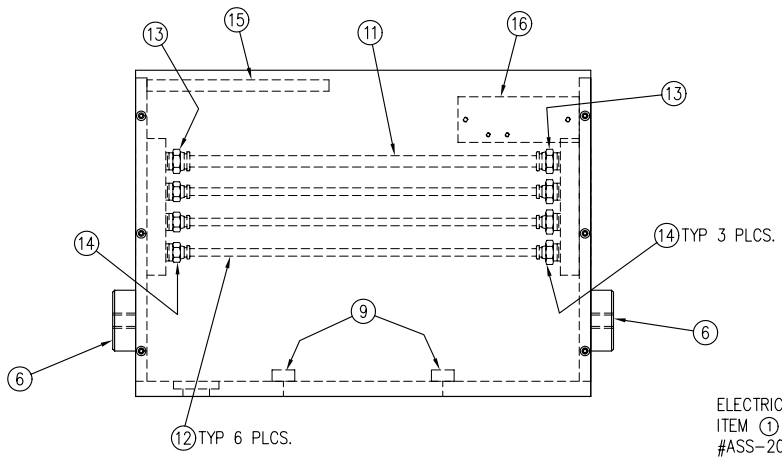
200 ASS-200-0120



BILL OF MATERIAL			SOLD	
ASSEMBLY	ASS-200-0122R/L		.	
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	T-PLATE	MP-200-0260	.
②	1	HOUSING RIGHT SIDE FRAME	MP-200-0258	.
③	1	HOUSING LEFT SIDE FRAME	MP-200-0259	.
④	1	ELECTRICAL TOP COVER	MP-200-0248	.
⑤	1	HOUSING COVER ASSEMBLY	ASS-200-0141	.
⑥	2	U-ARM MOUNT	MP-200-0273	.
⑦	1	PLUG	PE-EN9055	.
⑧	1	LABEL SENSOR ACCESS COVER	MP-200-0246	.
⑨	2	TIE PLATE	MP-200-0251	.
⑩	2	AIR MANIFOLD CONNECTOR	MP-200-0250	.
⑪	1	3/8" O.D. TUBING (CUT TO 12 3/4")	PM-PT1080	.
⑫	3	1/4" O.D. TUBING (CUT TO 12 5/8")	PM-PT1070	.
⑬	2	FITTING, 3/8" TUBE to 1/4" NPT STR.	PM-PF1020	.
⑭	6	FITTING, 1/4" TUBE to 1/4" NPT STR.	PM-PF1010	.
⑮	1	FAN MOUNTING PLATE	MP-200-0257	.
⑯	1	POWER SUPPLY MOUNTING PLATE	MP-200-0269	.

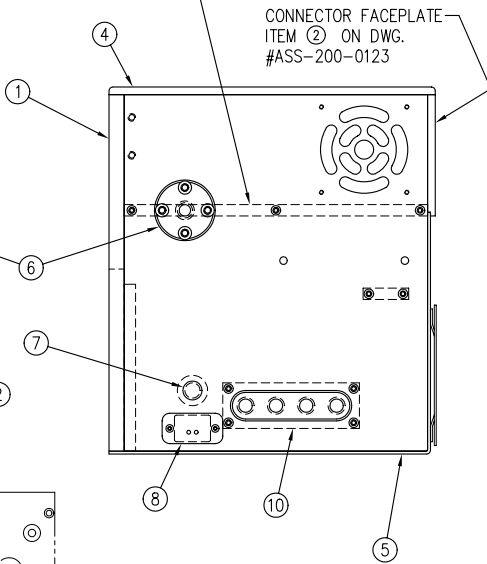
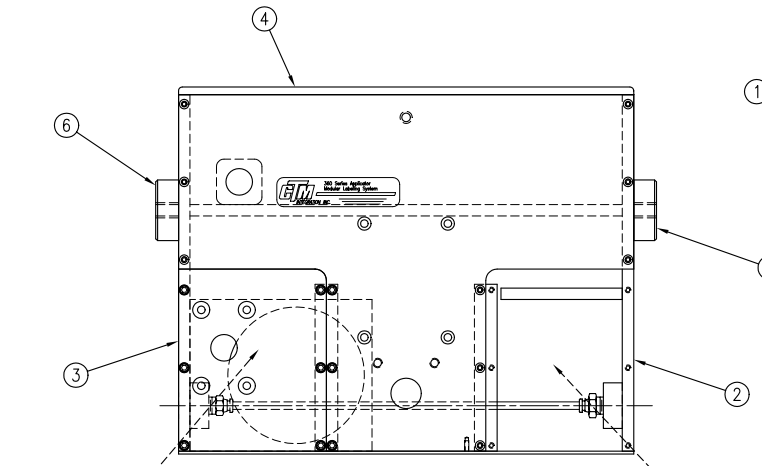
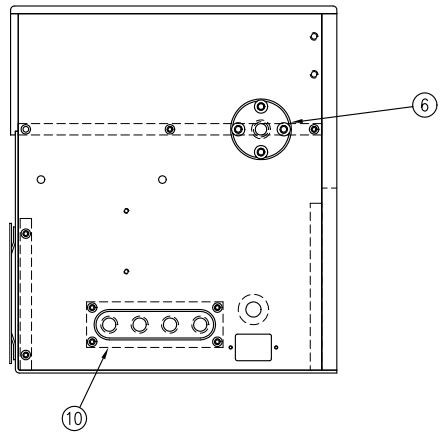
ASS-200-0122R/L

NOTE: AVAILABLE IN RH & LH ORIENTATIONS  
- RIGHT HAND ASSEMBLY SHOWN -



ELECTRIC SHELF  
ITEM ① ON DWG.  
#ASS-200-0123

CONNECTOR FACEPLATE  
ITEM ② ON DWG.  
#ASS-200-0123



NOTE: ITEMS ⑦ & ⑧ ARE LOCATED  
ON OPPOSITE SIDE OF HOUSING  
FOR LH ASSEMBLY.

REWIND TRANSITION PLATE~CTM PART #MP-200-0266  
ORIENTATION & LOCATION FOR RH APPLICATOR  
(NOT INCLUDED IN ASSEMBLY)

REWIND TRANSITION PLATE~CTM PART #MP-200-0266  
ORIENTATION & LOCATION FOR LH APPLICATOR  
(NOT INCLUDED IN ASSEMBLY)

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 TITLE: 360 SERIES APPLICATOR: HOUSING ASSEMBLY  
 REV. DESCRIPTION: 2. NEW TITLEBLOCK; ADDED TUBING & FITTINGS  
 REV. DATE: 02/17/03  
 REV. BY: TDR  
 SCALE: 1=4  
 DATE: 06/19/97  
 DRAWN BY: BOB S.  
 PART: APPLICATOR HOUSING ASSEMBLY  
 F:\Engineering\Standard Parts\Applcator\360  
 200\ASS-200-0122R/L  
 Dept. Code: 70

BILL OF MATERIAL				SOLD
ASSEMBLY	ASS-200-0123			.
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	ELECTRIC SHELF	MP-200-0245	.
②	1	CONNECTOR FACE PLATE	MP-200-0244	.
③	1	CONTROL DRIVE BOARD	PE-DR1010	S
④	1	DISPLAY WIRE HARNESS	ASS-200-0416	S
⑤	1	I/O WIRE HARNESS ASSEMBLY	PE-200-0419	S
⑥	1	LINK WIRE HARNESS ASS'Y (SEE NOTE)	ASS-200-0470	S
⑦	1	PRODUCT DETECT CONN. HARN. ASS'Y.	MP-CON1019	S
⑧	1	LOW LABEL DETECT HARN. ASS'Y.	MP-CON1020	S
⑨	1	WEB BREAK CONN. HARN. ASS'Y.	MP-CON1025	S
⑩	1	ENCODER WIRE HARNESS ASSEMBLY	PE-200-0418	S
⑪	1	VALVE WIRE HARNESS ASSEMBLY	ASS-200-0458	S
⑫	1	ALARM WIRE HARNESS ASSEMBLY	ASS-200-0421	S
⑬	1	MCR RELAY	PE-RE1010	S
⑭	1	TERMINAL BLOCK ASSEMBLY	ASS-200-0468	.

**NOTES:**

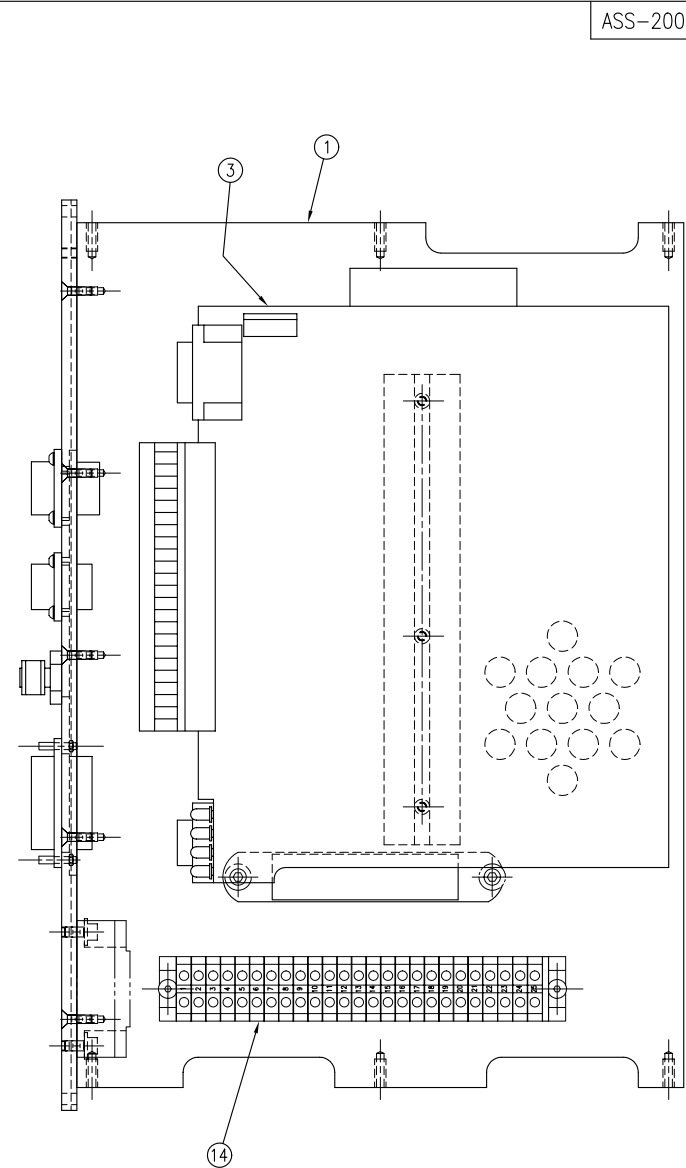
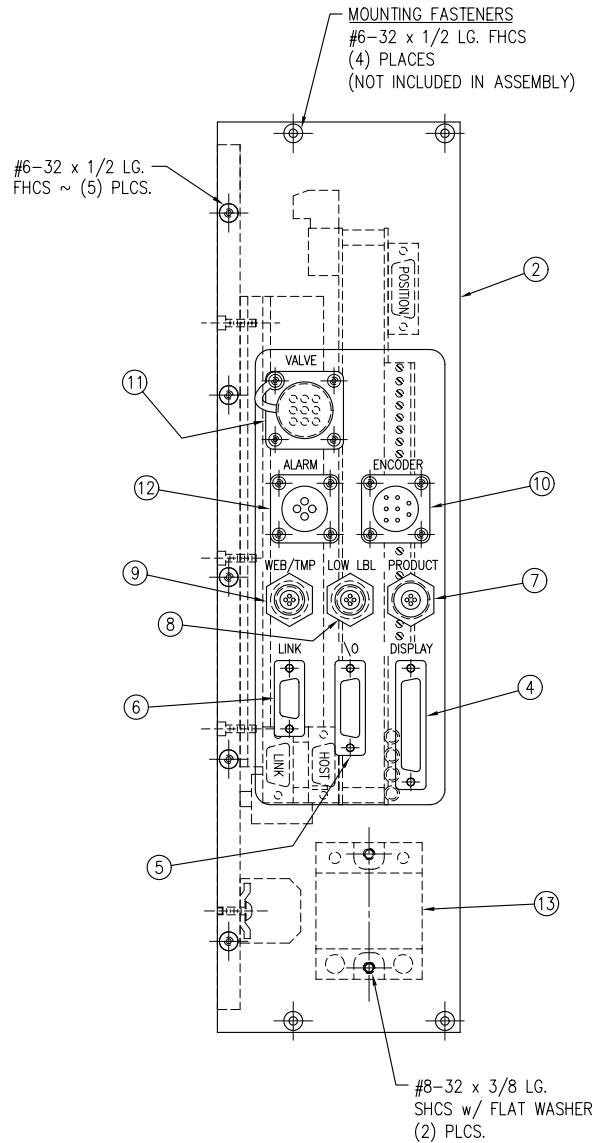
(1) POWERED REWIND USES DIFFERENT ALARM HARNESS. PLEASE REFER TO CTM DWG. ASS-200-0123PR FOR POWERED REWIND ASSEMBLY.

(2) BEFORE SOFTWARE VERSION 360-2c.10.0 USE LINK HARNESS #ASS-200-0417

AFTER SOFTWARE VERSION 360-2c.10.0 USE LINK HARNESS #ASS-200-0470

**SHOP REFERENCE DRAWINGS:**

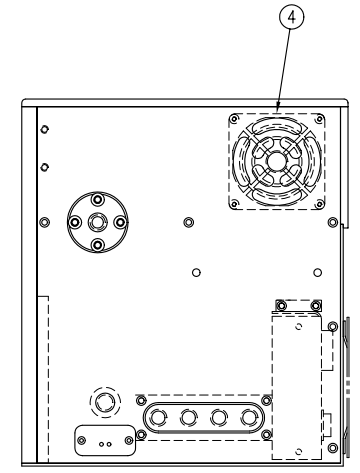
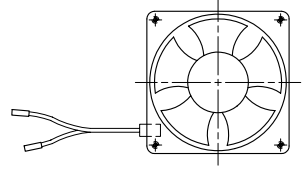
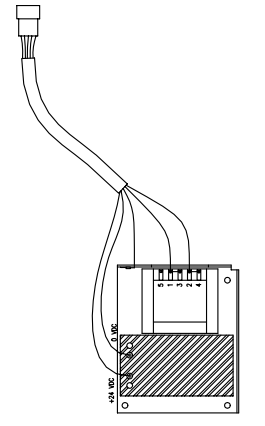
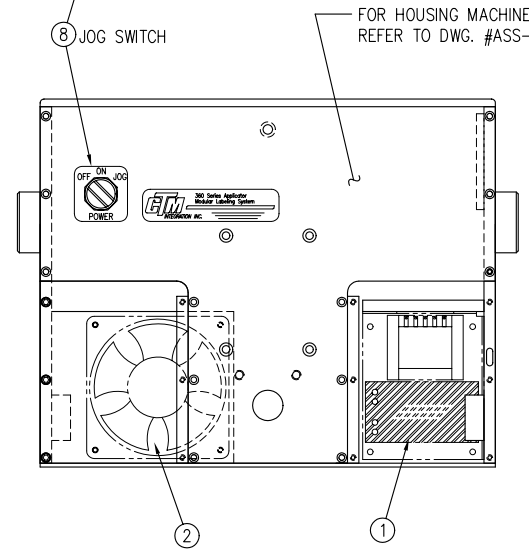
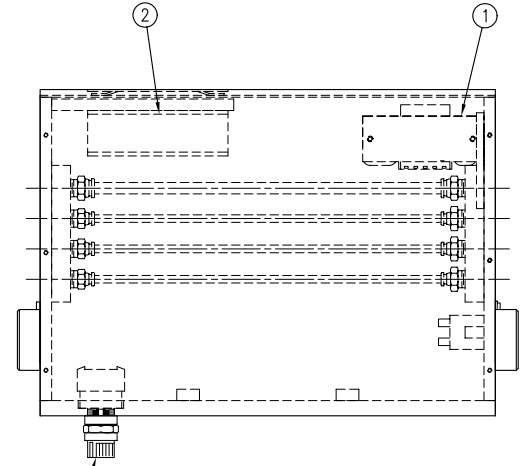
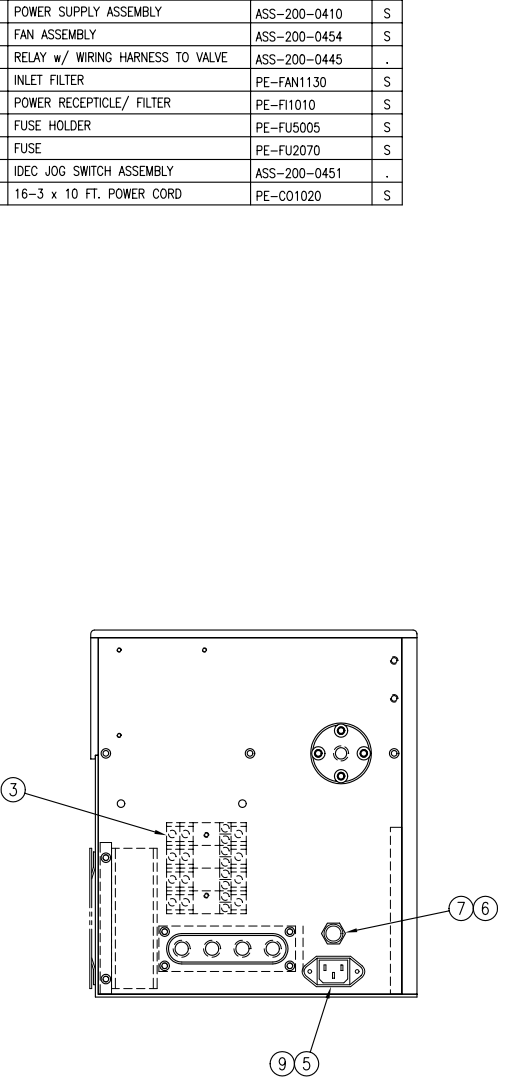
SAS-200-0123a  
SAS-200-0123b



ASS-200-0123

BILL OF MATERIAL				SOLD
ASSEMBLY				
ASSEMBLY	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
		ASS-200-0124		.
①	1	POWER SUPPLY ASSEMBLY	ASS-200-0410	S
②	1	FAN ASSEMBLY	ASS-200-0454	S
③	1	RELAY w/ WIRING HARNESS TO VALVE	ASS-200-0445	.
④	1	INLET FILTER	PE-FAN1130	S
⑤	1	POWER RECEPTACLE/ FILTER	PE-FI1010	S
⑥	1	FUSE HOLDER	PE-FU5005	S
⑦	1	FUSE	PE-FU2070	S
⑧	1	IDEC JOG SWITCH ASSEMBLY	ASS-200-0451	.
⑨	1	16-3 x 10 FT. POWER CORD	PE-C01020	S

ASS-200-0124



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TITLE: 360 SERIES APPLICATOR: HOUSING ASSEMBLY

REV. | REV. DATE | REV. BY | REV. DATE | DATE | SCALE | DRAWN BY | CHECKED BY |

O | NEW | TITLE/BLOCK | 02/24/03 | TDR | 02/14/98 | BOB S. | F:\Engineering\Standard Parts Application\360 200\ASS-200-0124

Part: APPLICATOR HOUSING COMPONENT LAYOUT

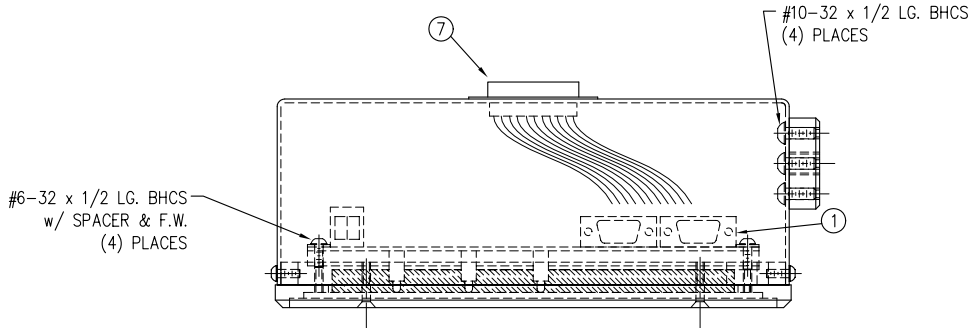
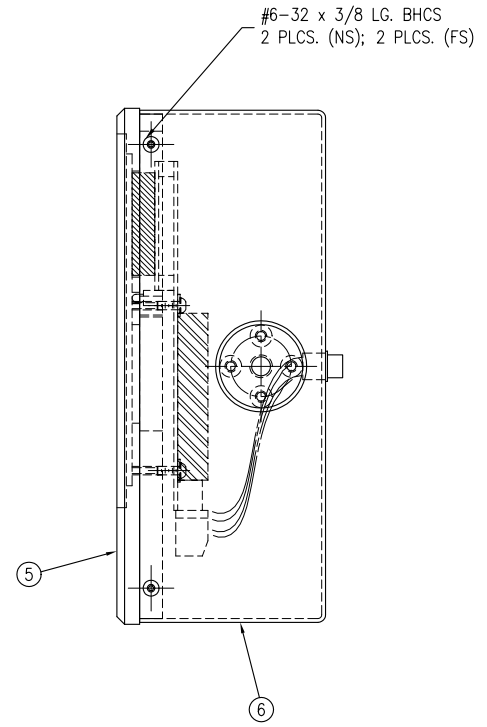
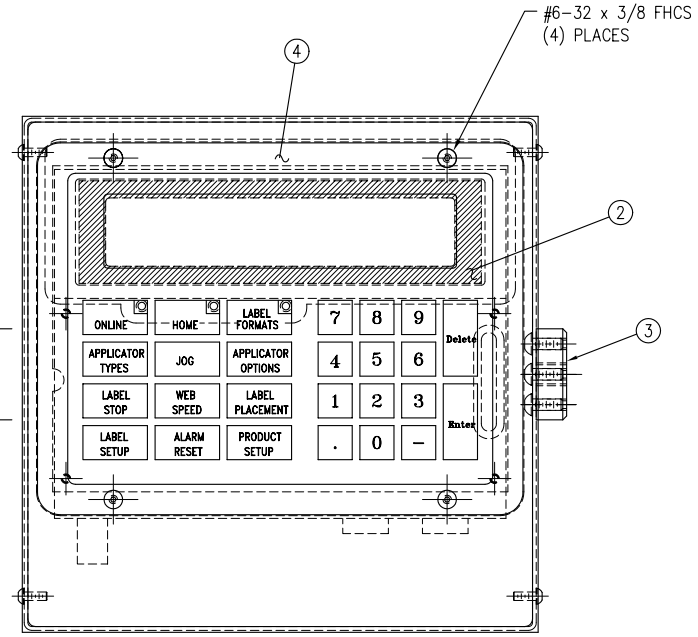
Dept. Code: 70

BILL OF MATERIAL				SOLD
ASSEMBLY	ASS-200-0125			S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	DRIVER DISPLAY BOARD	PE-IN1040	.
②	1	DISPLAY OVERLAY	PE-IN1041	S
③	1	DISPLAY MOUNTING DISK	MP-200-0262	.
④	1	DISPLAY BEZEL	MP-200-0263	.
⑤	1	DISPLAY FRONT PLATE	MP-200-0265	.
⑥	1	DISPLAY BACK COVER	PM-200-0264	.
⑦	1	DISPLAY WIRE HARNESS ASSEMBLY	PE-200-0420	.
	1	SHCS, 3/8"-16 x 1" LG.	NONE	.
	1	FLAT WASHER, 3/8" NOM.	NONE	.

ASS-200-0125

MOUNTING BRACKET NOT INCLUDED IN ASSEMBLY:  
 STANDARD UPRIGHT MOUNT ~ #ASS-200-0138  
 OPTIONAL U-ARM MOUNT ~ #ASS-200-0146

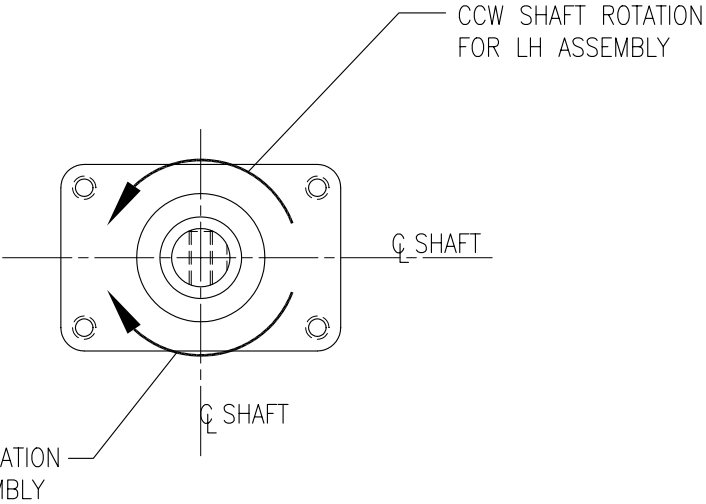
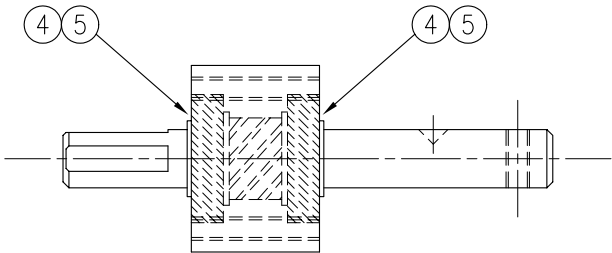
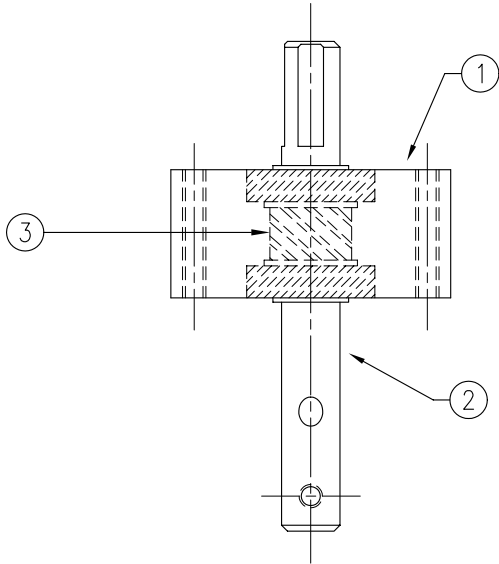
DISPLAY ASSEMBLY CAN ALSO BE MOUNTED FROM THIS SIDE BY REMOVING (4) #6-32 x 3/8 BHCS & THEN ROTATING DISPLAY COVER (ITEM ⑥) WITH ATTACHED ITEM ③ & ⑦ 180 DEGREES. THEN SECURE BACK COVER TO DISPLAY FRONT PLATE USING #6 BHCS REMOVED PREVIOUSLY.



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 TITLE: 360 SERIES APPLICATOR: HOUSING ASSEMBLY  
 REV. DESCRIPTION: O - UPDATED TITLEBLOCK  
 REV. DATE: 02/27/03  
 REV. BY: IDR  
 DRAWN BY: BOB S.  
 DATE: 06/20/97  
 SCALE: 1=2  
 PART: DISPLAY UNIT ASSEMBLY  
 Dept. Code: 70  
 F:\Engineering\Standard Parts Application\360\200\ASS-200-0125

ASS-200-0128R/L

BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-200-0128R/L		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	REWIND BEARING BLOCK	MP-200-0216	.
②	1	REWIND SHAFT	MP-200-0220	.
③	1	ROLLER CLUTCH	PM-BE1410	.
④	2	#R10 BALL BEARING	PM-BE1260	.
⑤	2	SNAP RING	PM-FASR1010	.
	4	FHCS, 1/4"-20 UNC x 3/4" LG.	NONE	.

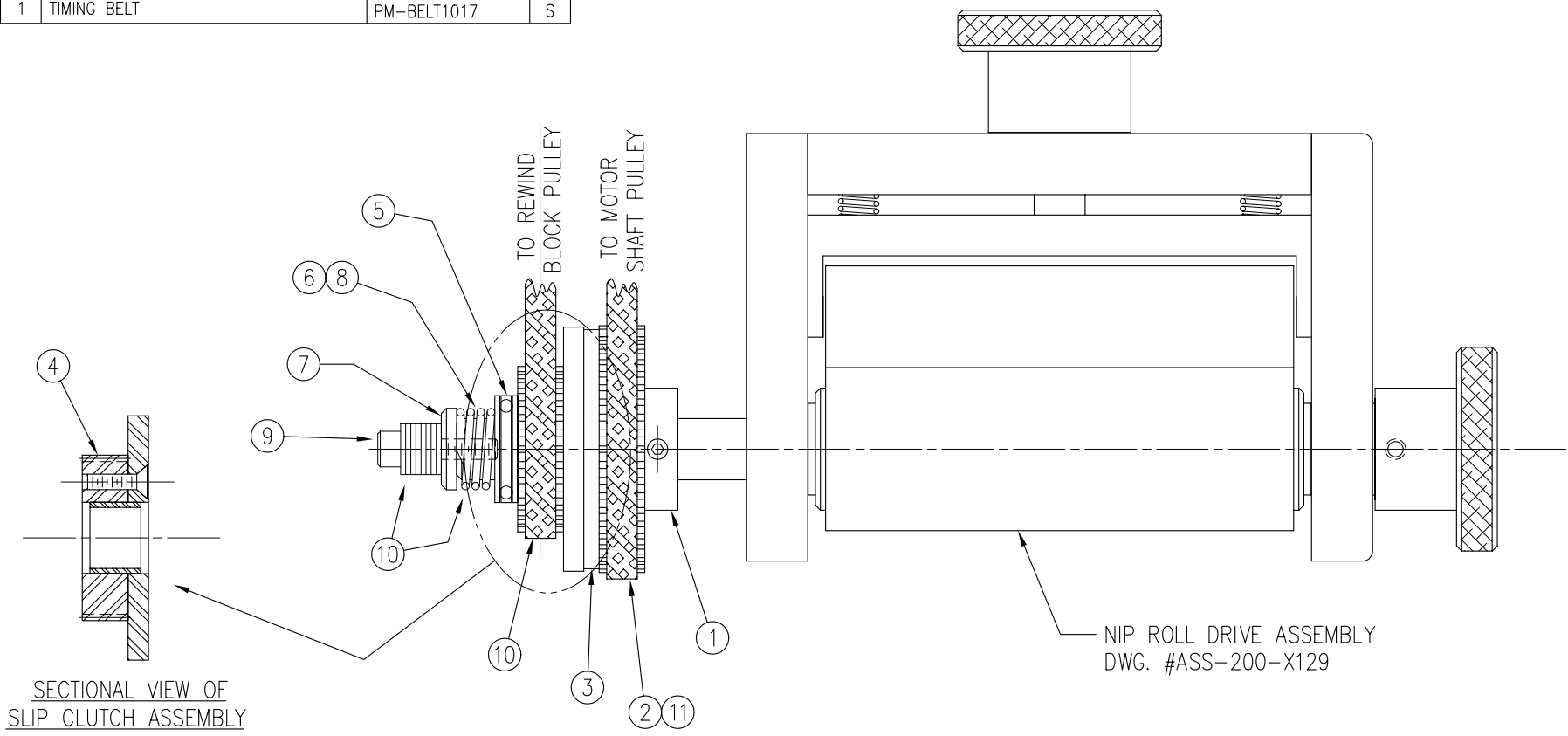


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TITLE: 360 SERIES APPLICATOR: REWIND ASSEMBLY		PART: REWIND BEARING BLOCK ASSEMBLY			Dept. Code 70	
REV. 0	REV. DESCRIPTION NEW TITLEBLOCK	REV. DATE 02/05/03	REV. BY: TDR	Scale: 1=2	Date: 02/21/98	DRAWN BY: BOB S.
					F:\Engineering\Standard Parts\Applicator\360 200\ASS-200-0128RL	

ASS-200-0142

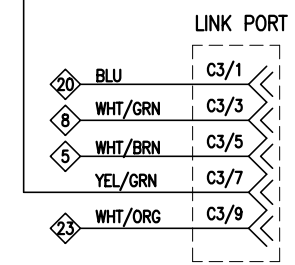
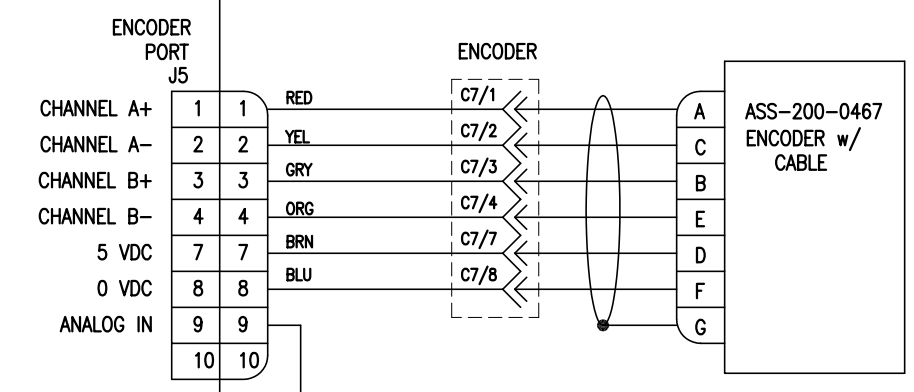
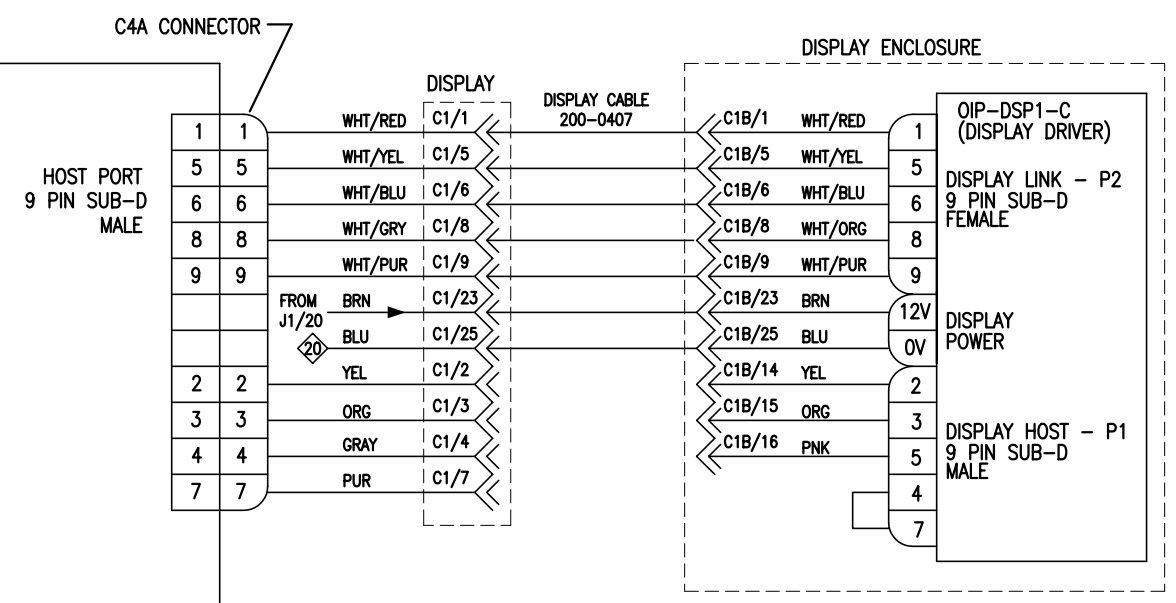
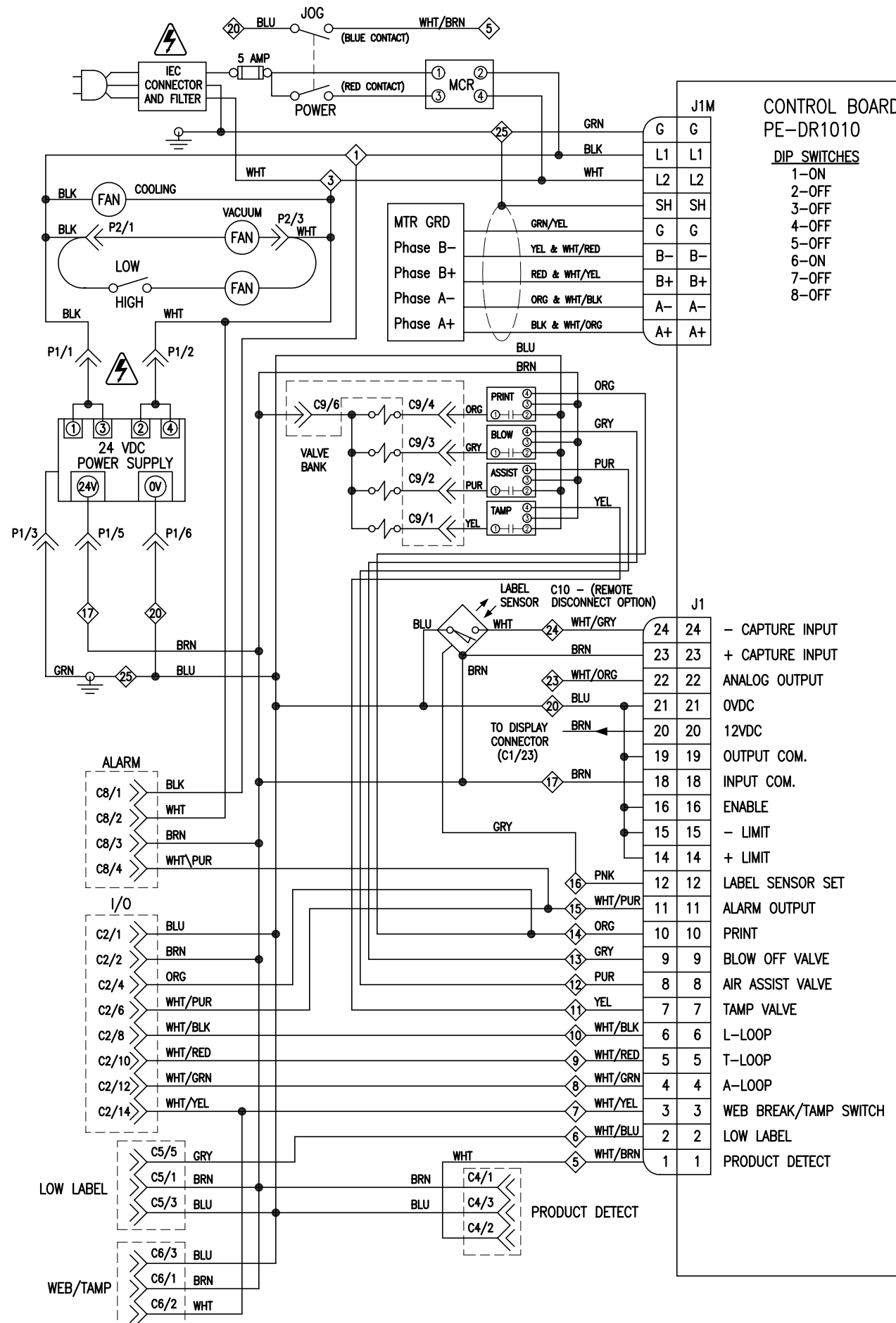
BILL OF MATERIAL			SOLD	
ASS-200-0142			.	
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	LOCK COLLAR	PM-CO1020	.
②	1	DRIVE PULLEY	MP-200-0233	.
③	1	LEATHER CLUTCH PAD	PM-CL1010	S
④	1	SLIP CLUTCH ASSEMBLY	ASS-200-0143	S
⑤	1	THRUST BEARING	PM-BE1232	S
⑥	1	COMPRESSION SPRING	PM-FASP30540	S
⑦	1	CLUTCH SPRING KEEPER	MP-200-0229	.
⑧	10	FLAT WASHER, 1/4" NOM.	NONE	.
⑨	1	SHCS, 1/4"-20 x 1" LG.	NONE	.
⑩	1	TIMING BELT	PM-BELT1023	S
⑪	1	TIMING BELT	PM-BELT1017	S



NIP ROLL DRIVE ASSEMBLY  
DWG. #ASS-200-X129

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TITLE: 360 SERIES APPLICATOR: HOUSING ASSEMBLY		PART: NIP DRIVE w/ REWIND & MOTOR PULLEYS			Dept. Code 70	
REV. 0	REV. DESCRIPTION NEW DRAWING; WAS PART OF DWG #200-0120	REV. DATE 03/10/03	REV. BY: TDR	Scale: 1=2	Date: 06/02/98	DRAWN BY: BOB S.
					F:\Engineering\Standard Parts\Applicator\360 200\ASS-200-0142	



⊠ -TB1 TERMINALS

TB1-1	AC/LINE INPUT POWER	TB1-14	LOOSE LOOP/IMPRINTER
TB1-2	AC/LINE INPUT POWER	TB1-15	ALARM OUTPUT
TB1-3	AC/NEUTRAL INPUT POWER	TB1-16	LABEL SENSOR SETUP OUTPUT
TB1-4	AC/NEUTRAL INPUT POWER	TB1-17	+24 VDC
TB1-5	PRODUCT DETECT INPUT	TB1-18	+24 VDC
TB1-6	LOW LABEL INPUT	TB1-19	+24 VDC
TB1-7	WEB BREAK OR TAMP EXT./HOME	TB1-20	0 VDC
TB1-8	ALARM LOOP PROX	TB1-21	0VDC
TB1-9	TIGHT LOOP PROX	TB1-22	0VDC
TB1-10	LOOSE LOOP PROX	TB1-23	ANALOG OUTPUT
TB1-11	TAMP VALVE	TB1-24	LABEL DETECT INPUT
TB1-12	AIR ASSIST VALVE	TB1-25	GROUND
TB1-13	VACUUM VALVE		

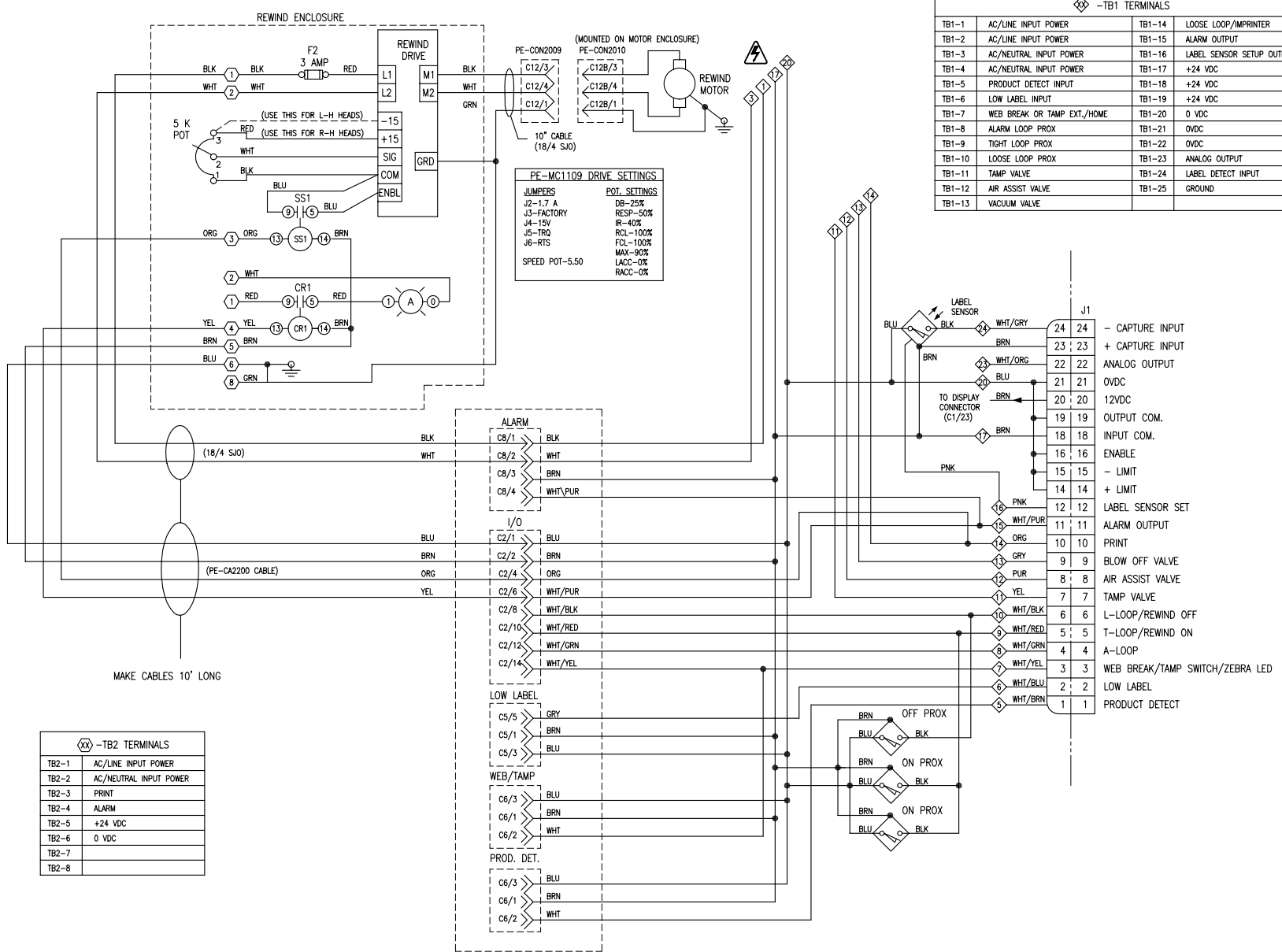
◇ -TB1 TERMINALS

TB1-1	AC/LINE INPUT POWER	TB1-14	LOOSE LOOP/WPRINTER
TB1-2	AC/NEUTRAL INPUT POWER	TB1-15	ALARM OUTPUT
TB1-3	AC/NEUTRAL INPUT POWER	TB1-16	LABEL SENSOR SETUP OUTPUT
TB1-4	AC/NEUTRAL INPUT POWER	TB1-17	+24 VDC
TB1-5	PRODUCT DETECT INPUT	TB1-18	+24 VDC
TB1-6	LOW LABEL INPUT	TB1-19	+24 VDC
TB1-7	WEB BREAK OR TAMP EXT./HOME	TB1-20	0 VDC
TB1-8	ALARM LOOP PROX	TB1-21	OVDC
TB1-9	TIGHT LOOP PROX	TB1-22	OVDC
TB1-10	LOOSE LOOP PROX	TB1-23	ANALOG OUTPUT
TB1-11	TAMP VALVE	TB1-24	LABEL DETECT INPUT
TB1-12	AIR ASSIST VALVE	TB1-25	GROUND
TB1-13	VACUUM VALVE		

PE-MC1109 DRIVE SETTINGS

JUMPERS	POT. SETTINGS
J2-1.7 A	DB-25%
J3-FACTORY	RESP-50%
J4-15V	IR-40%
J5-TRQ	RCL-100%
J6-RTS	FCL-100%
	MAX-90%
	LACC-0%
	RACC-0%

SPEED POT-5.50



⊗ -TB2 TERMINALS

TB2-1	AC/LINE INPUT POWER
TB2-2	AC/NEUTRAL INPUT POWER
TB2-3	PRINT
TB2-4	ALARM
TB2-5	+24 VDC
TB2-6	0 VDC
TB2-7	
TB2-8	

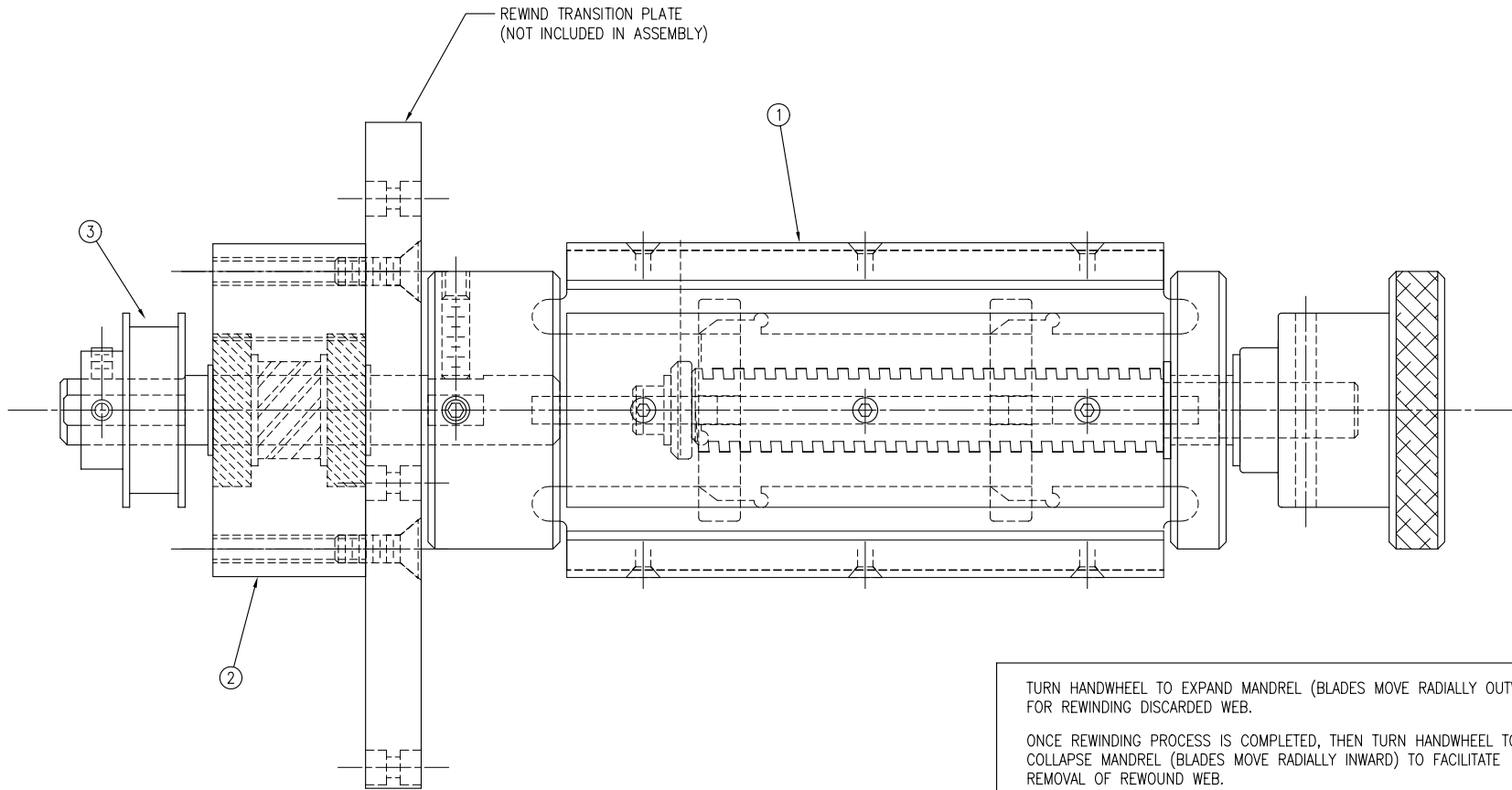


BILL OF MATERIAL				SOLD
ASSEMBLY	ASS-200-3130-X			S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	5/7.5 REWIND COLLAPSIBLE MANDREL	ASS-200-3131-X	S
②	1	COLLAPSIBLE REWIND BRG. BLOCK ASS'Y.	ASS-200-3166R/L	S
③	1	REWIND PULLEY	MP-200-0231	.

ASS-200-3130-X

-3130-5

-3130-7



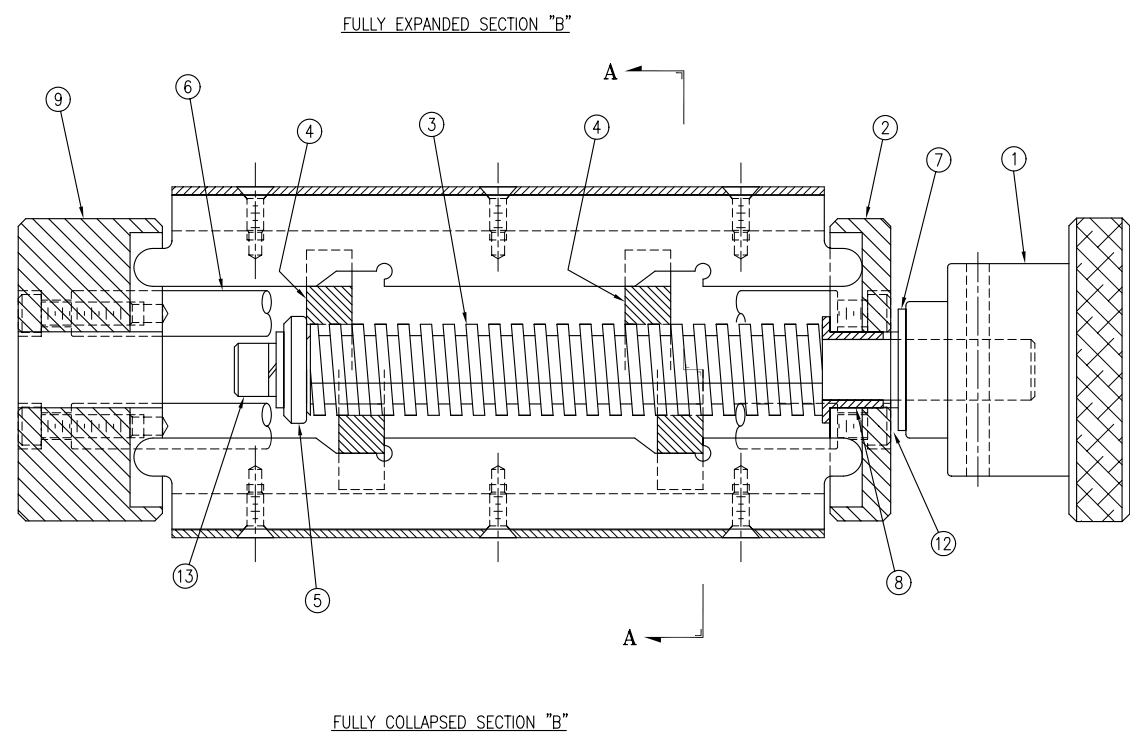
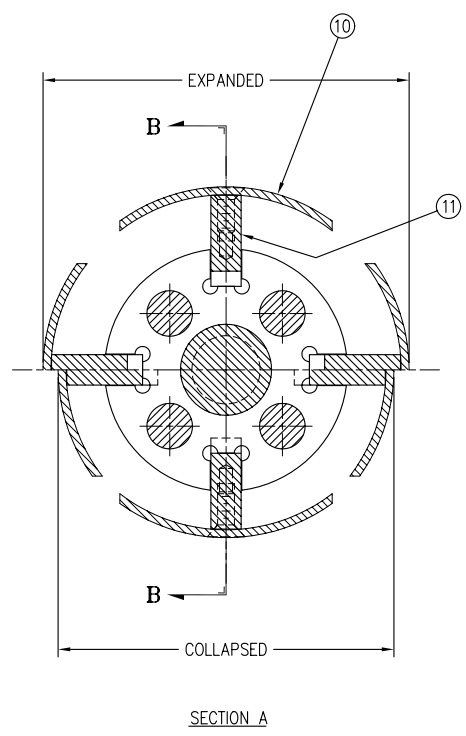
TURN HANDWHEEL TO EXPAND MANDREL (BLADES MOVE RADIALLY OUTWARD) FOR REWINDING DISCARDED WEB.

ONCE REWINDING PROCESS IS COMPLETED, THEN TURN HANDWHEEL TO COLLAPSE MANDREL (BLADES MOVE RADIALLY INWARD) TO FACILITATE REMOVAL OF REWOUND WEB.

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 TITLE: 360 SERIES APPLICATOR: REWIND ASSEMBLY  
 REV. | REV. DATE | REV. BY | ID# | Scale: 1=1 | Date: 11/06/01 | DRAWN BY: BOB S. | F:\Engineering\Standard Parts\Applcator\360  
 O | NEW DRAWING | 200\ASS-200-3130-X  
 PART: COLLAPSIBLE REWIND MANDREL ASSEMBLY  
 Dept. Code 70

ASS-200-3131-5

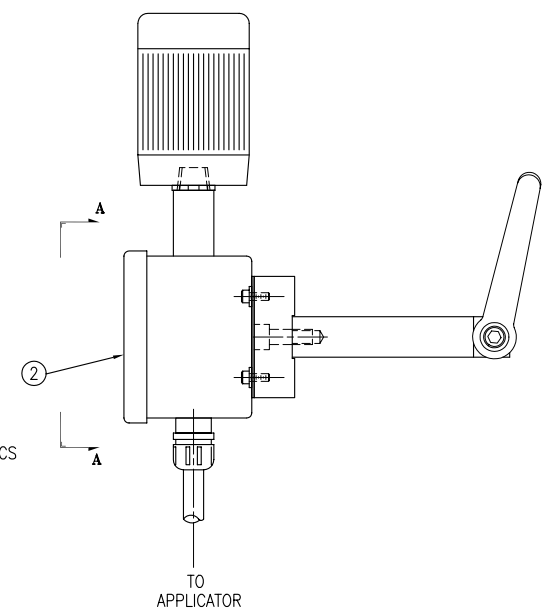
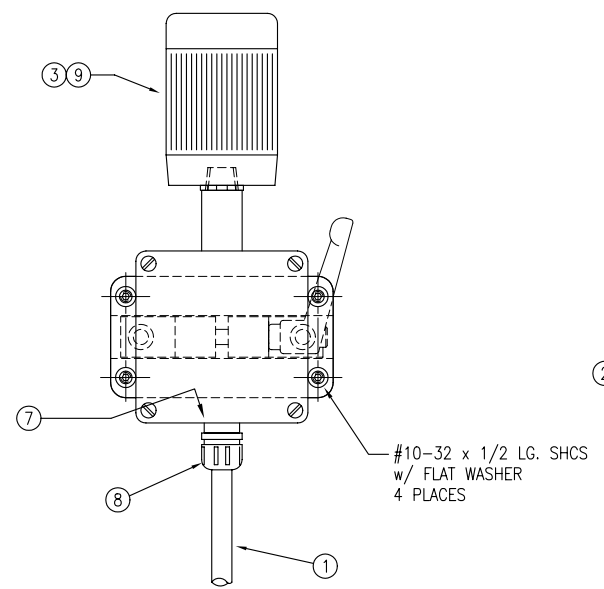
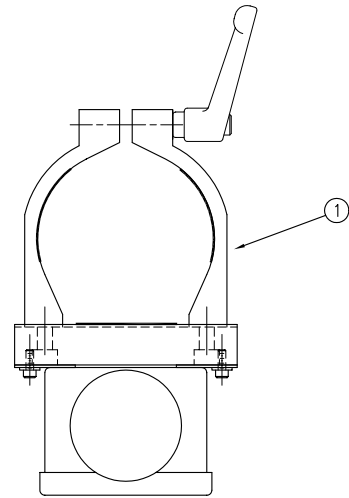
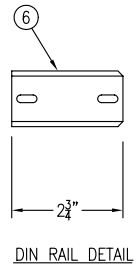
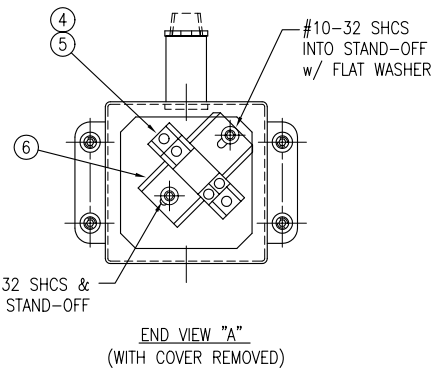
BILL OF MATERIAL				SOLD
ASSEMBLY	ASS-200-3131-5			S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	HANDWHEEL	MP-200-3337	.
②	1	OUTSIDE SUPPORT HUB	MP-200-3326	.
③	1	DRIVE SCREW	MP-200-3329	.
④	2	BLADE SUPPORT	MP-200-3325	S
⑤	1	STOP WASHER	MP-200-3331	.
⑥	4	GUIDE ROD	MP-200-3330	.
⑦	1	WASHER	PM-BEBT1018	.
⑧	1	BRONZE BUSHING	PM-BEBF1017	.
⑨	1	INSIDE SUPPORT HUB	MP-200-3327	.
⑩	4	5" REWIND BLADE	MP-200-3336	.
⑪	4	5" REWIND BLADE SUPPORT	MP-200-3328	.
⑫	1	FIBER WASHER	PM-FAW30920	.
⑬	1	1/4-20 SHCS w/ F.W. & L.W.	NONE	.



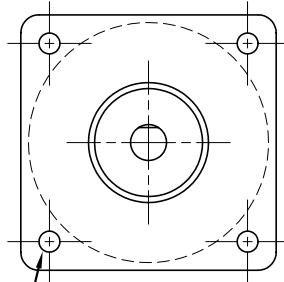
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 TITLE: 360 SERIES APPLICATOR: REWIND ASSEMBLY  
 REV. 1 REV. DESCRIPTION: O. NEW TITLEBLOCK  
 REV. DATE: 03/19/03  
 REV. BY: IDK  
 SCALE: 1=1  
 DATE: 11/06/01  
 DRAWN BY: BOB S.  
 F. Engineering Standard Parts Application 360  
 200 ASS-200-3131-5  
 Dept. Code: 70

BILL OF MATERIAL				SOLD
ASSEMBLY	ASS-200-4105-XX			S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	LABELER TO LIGHT STACK CABLE	ASS-200-0409	.
②	1	ALARM LIGHT ENCLOSURE ASS'Y.	ASS-200-4221	.
③	1	LIGHT STACK BASE	PE-LI2001	.
④	1	RELAY	.PE-RE1001	.
⑤	1	RELAY SOCKET	PE-RE1050	.
⑥	1	DIN RAIL	PE-TE1031	.
⑦	1	1/2 FITTING SEAL	PE-COND1150	.
⑧	1	CORD GRIP	PE-CO2005	.
⑨	1	RED LIGHT	PE-LI2058	CHOOSE LIGHT COLOR
	1	AMBER LIGHT	PE-LI2059	.
⑩	1	ALARM LIGHT MOUNTING ASSEMBLY	ASS-200-4106	ASSY w/MTG. BRACKET

ASS-200-4105-XX	
RED LIGHT	-4105-R
RED LIGHT w/BRACKET	-4105-RB
AMBER LIGHT	-4105-A
AMBER LIGHT w/BRACKET	-4105-AB

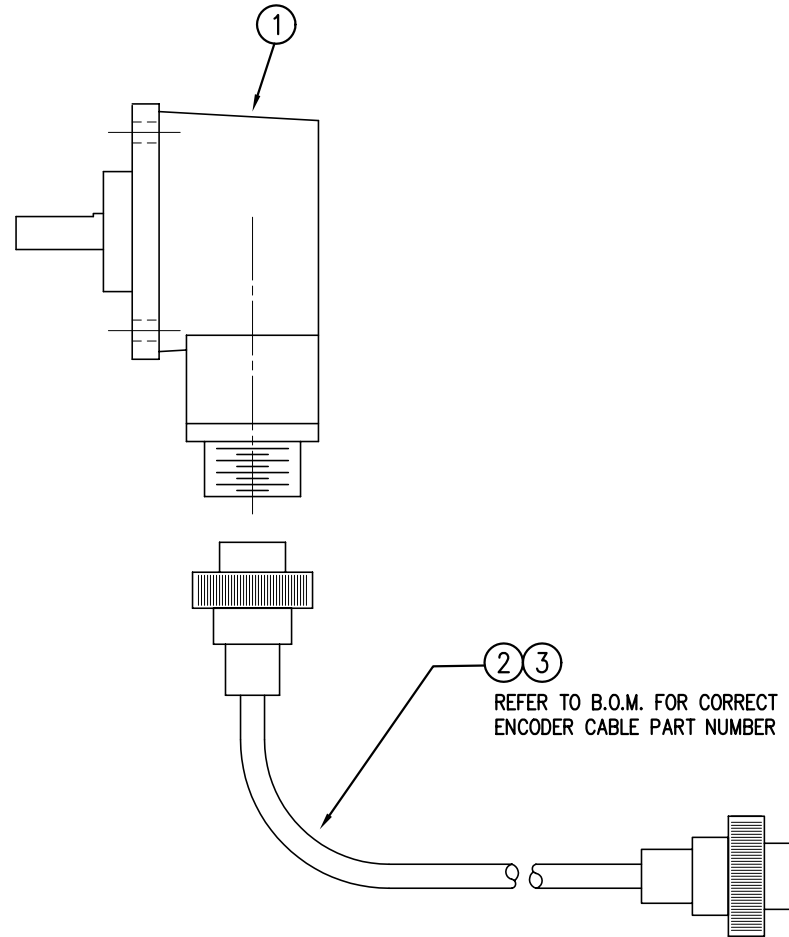


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 TITLE: 360 SERIES APPLICATOR: HOUSING  
 REV. DATE: XXX  
 REV. BY: IDR  
 SCALE: 1=3  
 DATE: 11/19/01  
 DRAWN BY: F. Engineering  
 Standard Parts Application 360  
 200VASS-200-4105-XX  
 BOB S.  
 Dept. Code: 70



HOLES FOR #10-32 x 1/2 LONG PHILLIPS PAN HEAD w/ LOCK WASHER (4 PLACES) (PROVIDED BY ENCODER/BRACKET MANUFACTURER)

SEE ASS-200-0467



**BILL OF MATERIAL**

ITEM NO.	QTY.	DESCRIPTION	CTM PART NUMBER
①	1	PULSE ENCODER	PE-GE2100
②	SEE TABLE	ENCODER CABLE - SINGLE	PE-200-0406-X
③	SEE TABLE	ENCODER CABLE - DOUBLE	PE-200-0429-X

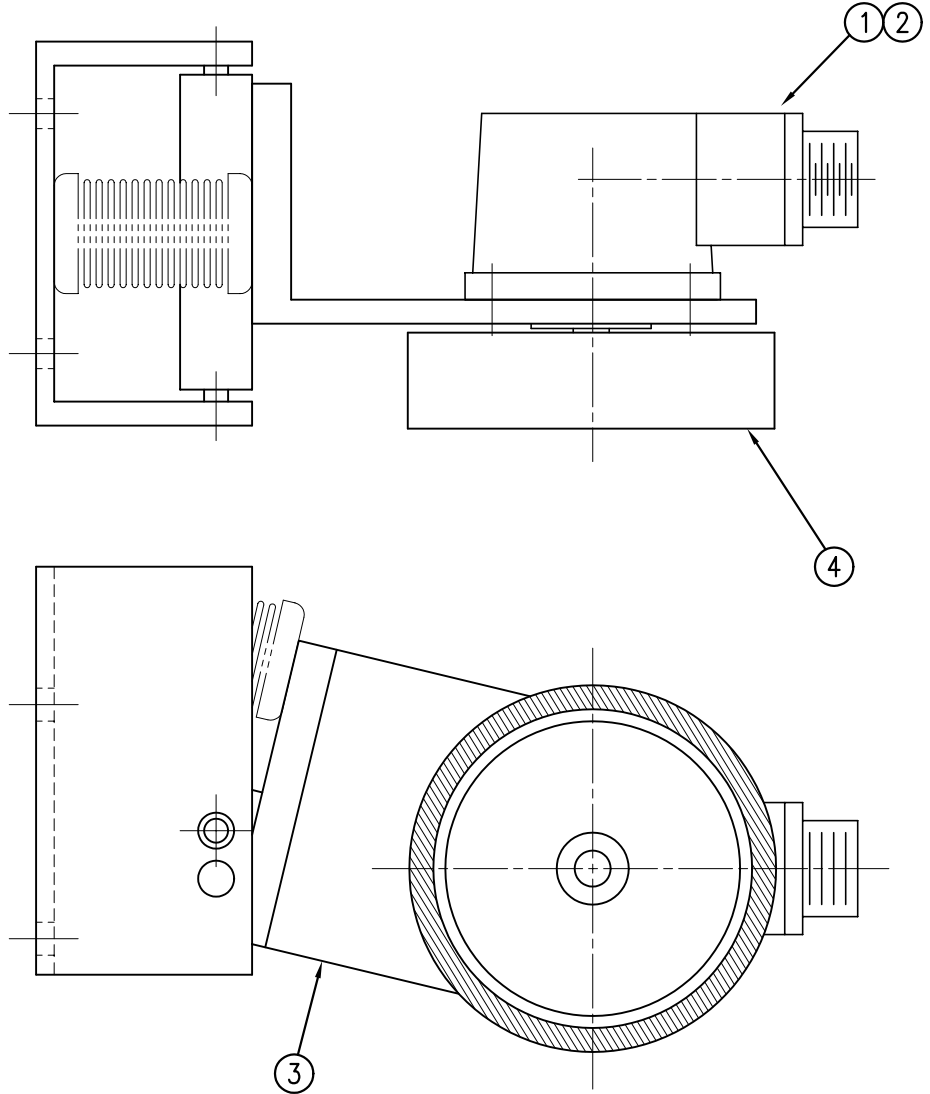
**TYPE OF ENCODER CABLE**

CTM NUMBER	DESCRIPTION	ITEM QTY.	
		②	③
ASS-200-4115-A	ENCODER w/ SINGLE CABLE	1	0
ASS-200-4115-B	ENCODER w/ SPLITTER CABLE	0	1

TITLE: 360 SERIES APPLICATOR STANDARD ASSEMBLIES		PART: ASSEMBLY DETAIL FOR ENCODER AND CABLE		QTY: N/A	MAT'L: N/A	FINISH: N/A	TOLERANCES UNLESS NOTED OTHERWISE		INITIALS		
SCALE:	DATE: 11-19-01	PART NO: ASS-200-4115-X	FILE DIR: \360-DWG\ASSEMBLY	DRWN BY: BOB S.	REV NO: 1	THIS DRAWING AND DESIGN IS THE PROPERTY OF CTM INTEGRATION INC. AND MAY NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT THE PERMISSION OF CTM INTEGRATION INC.			WORK CENTER		
									0.000 / ±0.003 0.00 / ±0.01 0.0 / ±0.1	ALL ANGLES ±0.25° REMOVE ALL BURRS AND BREAK ALL SHARP EDGES	TIME

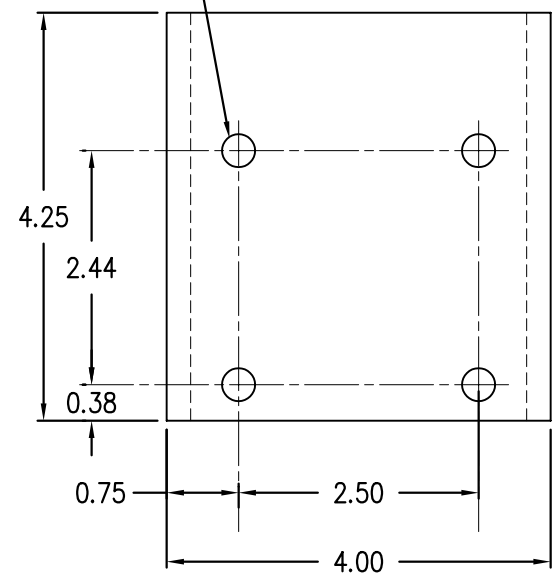
ASS-200-4116-X

BILL OF MATERIAL			
ITEM NO.	QTY.	DESCRIPTION	CTM PART NUMBER
①	SEE TABLE	ENCODER w/SINGLE CABLE	ASS-200-4115-A
②	SEE TABLE	ENCODER w/SPLITTER CABLE	ASS-200-4115-B
③	1	ENCODER MOUNT	PE-GE2001
④	1	ENCODER WHEEL	PE-MW1000



TYPE OF ENCODER & CABLE ASS'Y			
CTM NUMBER	DESCRIPTION	ITEM QTY.	
		①	②
ASS-200-4116-A	ENCODER MTG. (w/ SINGLE CABLE)	1	0
ASS-200-4116-B	ENCODER MTG. (w/ SPLITTER CABLE)	0	1

11/32 DIA. THRU HOLES  
4 PLACES FOR MTG. SCREWS  
(TO BE PROVIDED BY CUSTOMER)



TITLE: 360 SERIES APPLICATOR STANDARD ASSEMBLIES		PART: ASSEMBLY FOR ENCODER, MOUNT AND CABLE		QTY: N/A	MAT'L: N/A	FINISH: N/A	TOLERANCES UNLESS NOTED OTHERWISE		INITIALS			
SCALE:		DATE: 11-19-01	PART NO: ASS-200-4116-X	DRWN BY: BOB S.	REV NO: 1	THIS DRAWING AND DESIGN IS THE PROPERTY OF CTM INTEGRATION INC. AND MAY NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT THE PERMISSION OF CTM INTEGRATION INC.			0.000 / ±0.003 0.00 / ±0.01 0.0 / ±0.1	ALL ANGLES ±0.25° REMOVE ALL BURRS AND BREAK ALL SHARP EDGES	WORK CENTER	
FILE DIR: 360-DWG\ASSEMBLY									TIME			

ASS-200-X126L

5" WIDE -0126L

7.5" WIDE -2126L

10" WIDE -5126L

Dept. Code  
70

F. Engineering Standard Parts Application 360  
200 VASS-200-X126L

PART: TENSION BRUSH LH ASSEMBLY  
DRAWN BY: BOB S.

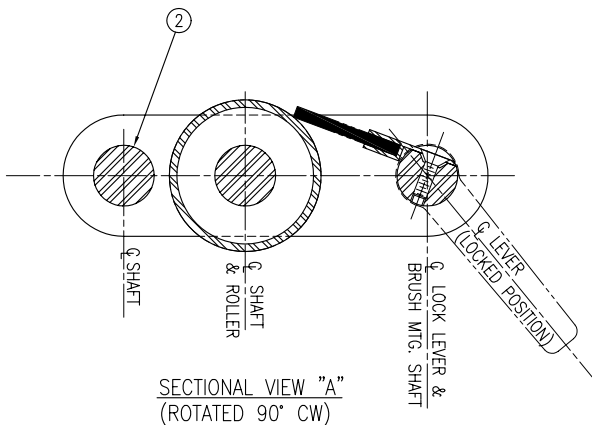
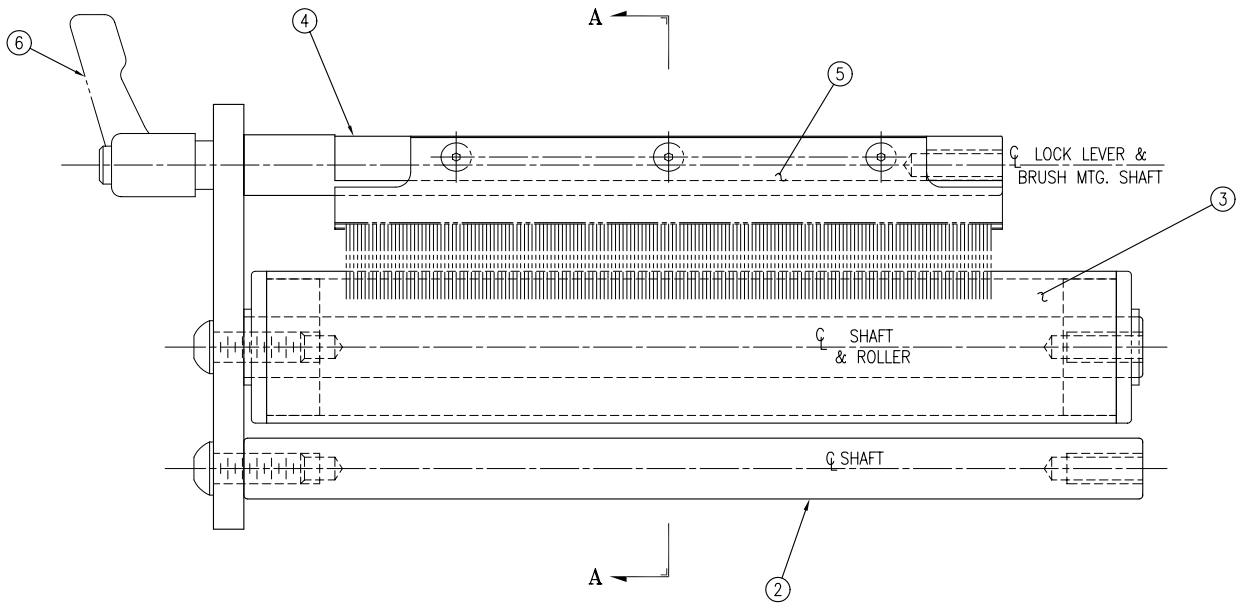
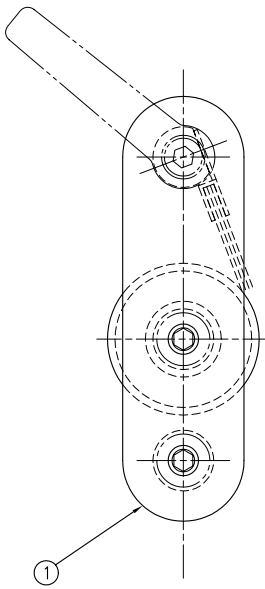
Date: 06/02/98  
Scale: 1=1

REV. DATE  
02/04/03

REV. BY: IDR

REV. DESCRIPTION  
O - UPDATED TITLEBLOCK

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TITLE: 360 SERIES APPLICATOR: HOUSING ASSEMBLY



SECTIONAL VIEW "A"  
(ROTATED 90° CW)

BILL OF MATERIAL

ASSEMBLY	ASS-200-X126L		SOLD	
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	TENSION BRUSH ROLL MOUNTING BRKT.	MP-200-0256	.
②	1	5/7.5/10 TENSION ROLLER SHAFT	MP-200-X254	.
③	1	5/7.5/10 TENSION ROLL ASS'Y w/SHAFT	ASS-200-X135	S
④	1	5/7.5/10 TENSION BRUSH MTG SHAFT	MP-200-X253	.
⑤	1	5/7.5/10 TENSION BRUSH ASSEMBLY	ASS-215-X110	S
⑥	1	LOCK LEVER	PM-LL0850	.
2		SHCS, 1/4"-20 UNC x 1" LG.	NONE	.
2		FLAT WASHER, 1/4" NOM.	NONE	.
2		LHCS, 1/4"-20 UNC x 3/4" LG.	NONE	.

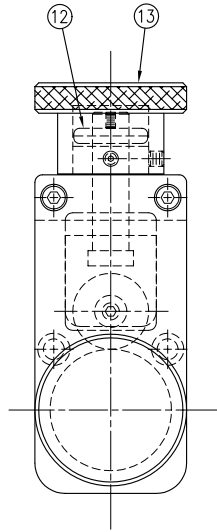
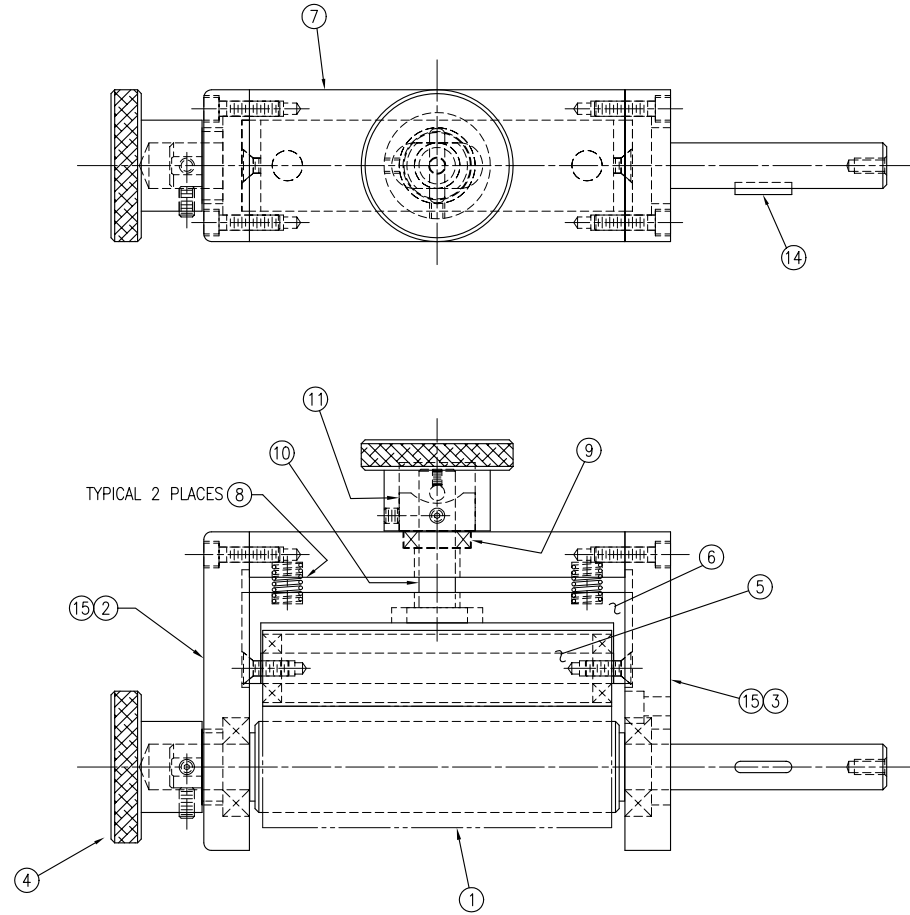
BILL OF MATERIAL				SOLD
ASSEMBLY				S
ASS-200-X129				
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	5/7.5/10 DRIVE ROLL	PM-200-X243	S
②	1	OUTSIDE DRIVE ROLL SUPPORT	MP-200-0236	.
③	1	INSIDE DRIVE ROLL SUPPORT	MP-200-0237	.
④	1	DRIVE ROLL KNOB	MP-200-0223	.
⑤	1	5/7.5/10 NIP ROLL ASSEMBLY w/SHAFT	ASS-200-X130	S
⑥	1	5/7.5/10 NIP ROLL YOKE	MP-200-X240	.
⑦	1	5/7.5/10 NIP ROLL TOP SUPPORT	MP-200-X239	.
⑧	2	COMPRESSION SPRING	PM-FASP30428	.
⑨	1	THRUST BEARING	PM-BE1230	.
⑩	1	LIFT ROD	MP-200-0214	.
⑪	1	LIFT CAM	MP-200-0235	.
⑫	1	LIFT ROD PIN	MP-200-0213	.
⑬	1	NIP ROLL KNOB	MP-200-0224	.
⑭	1	KEY	PM-FAKS30520	.
⑮	2	BALL BEARINGS	PM-BE1270	.
	2	SHCS, 5/16"-18 x 1" LG.	NONE	.

ASS-200-X129

5" WIDE -0129

7.5" WIDE -2129

10" WIDE -5129



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TITLE: 360 SERIES APPLICATOR: HOUSING ASSEMBLY

REV. DATE: 02/04/03

REV. BY: IDK

SCALE: 1=2

DATE: 02/21/98

DRAWN BY: BOB S.

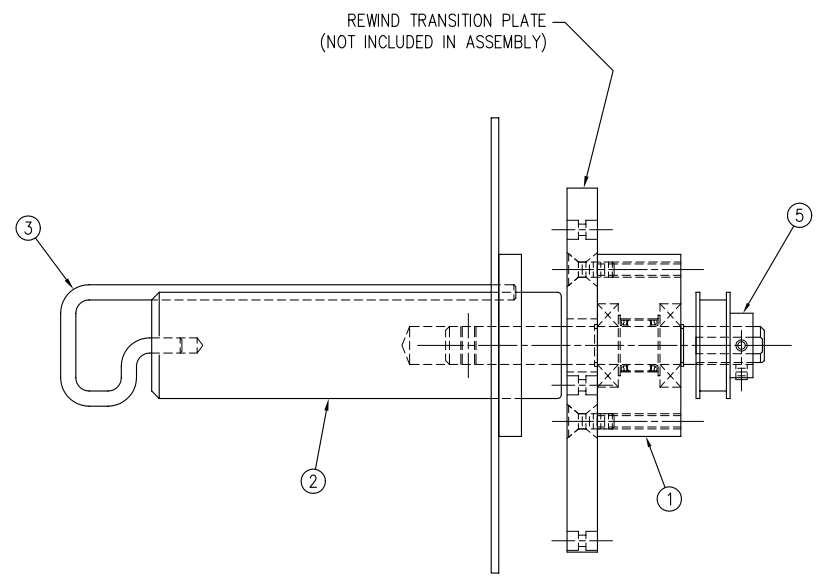
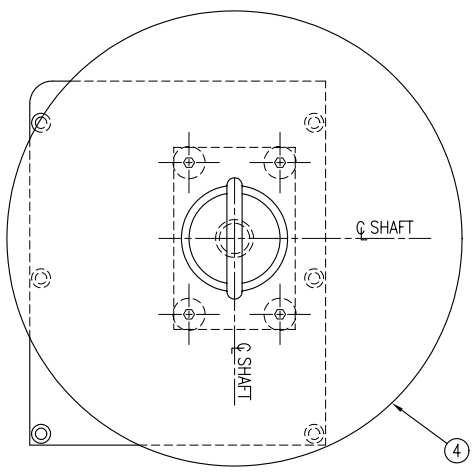
PART: 5/7.5/10" NIP DRIVE ROLL ASSEMBLY

Dept. Code: 70

F:\Engineering\Standard Parts\360

200\ASS-200-X129

BILL OF MATERIAL				SOLD
ASSEMBLY	ASS-200-X140R/L			S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	REWIND BEARING BLOCK ASSEMBLY	ASS-200-0128R/L	S
②	1	5/7.5/10 REWIND SPINDLE	MP-200-X215	S
③	1	5/7.5/10 REWIND PIN	PM-200-X272	S
④	1	REWIND DISK & HUB ASSEMBLY	ASS-200-0127	S
⑤	1	REWIND PULLEY	MP-200-0231	.



ASS-200-X140R/L	
5" WIDE	-0140R/L
7.5" WIDE	-2140R/L
10" WIDE	-5140R/L

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TITLE: 360 SERIES APPLICATOR: REWIND ASSEMBLY

REV. DESCRIPTION: O. NEW TITLEBLOCK

REV. DATE: 03/19/03

REV. BY: TDR

SCALE: 1=2

DATE: 07/18/02

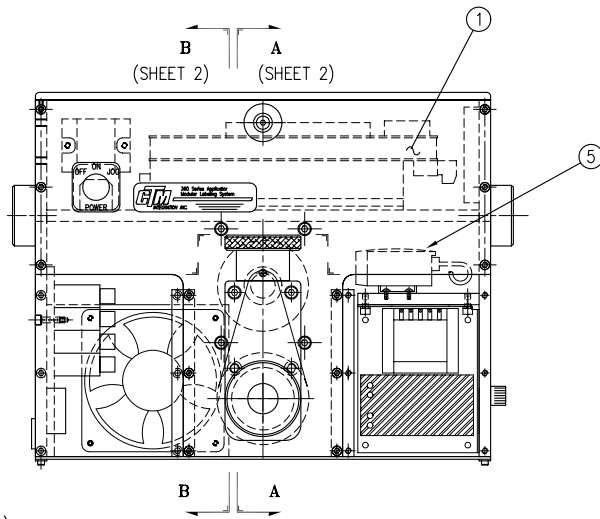
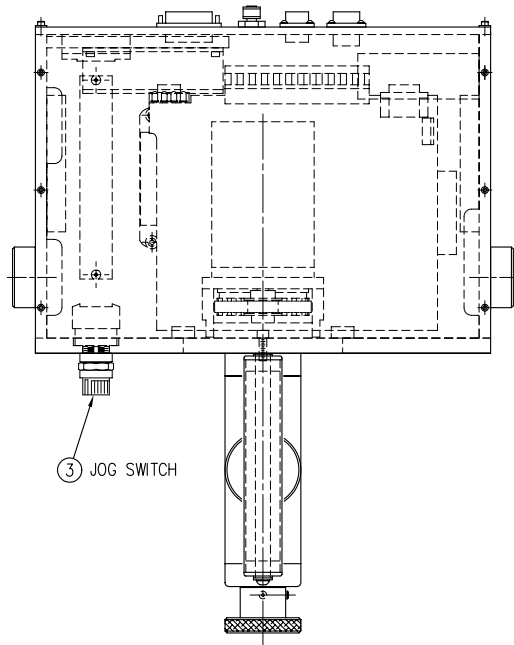
DRAWN BY: TDR

PART: REWIND BEARING BLOCK w/ MANDREL & PULLEY

Dept. Code: 70

F:\Engineering\Standard Parts\Appliator\360\200\ASS-200-X140R/L

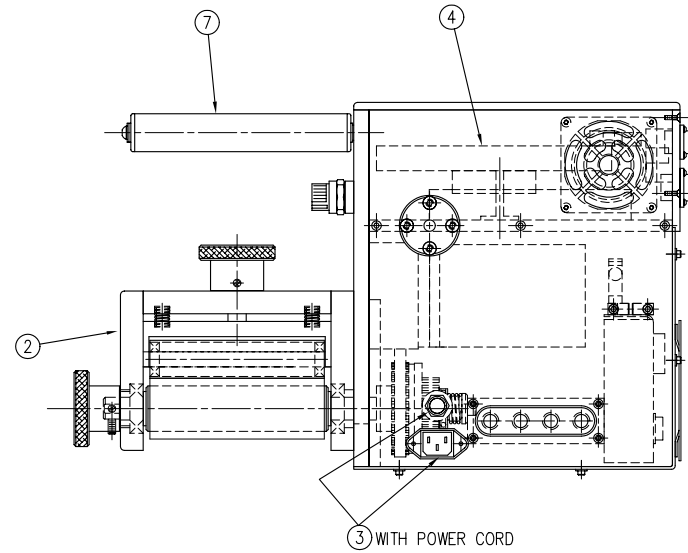




BILL OF MATERIAL			SOLD	
ASS-200-X150R/L			S	
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	APPLICATOR HOUSING ASSEMBLY	ASS-200-0122R/L	.
②	1	NIP DRIVE ASSEMBLY	ASS-200-X129	S
③	1	HOUSING COMPONENTS LAYOUT	ASS-200-0124	.
④	1	ELECTRIC SHELF ASSEMBLY	ASS-200-0123	.
⑤	1	BANNER LABEL SENSOR	ASS-200-0450	S
⑥	1	STEPPER MOTOR ASSEMBLY	ASS-200-0453	.
⑦	1	5/7.5/10 TENSION ROLLER ASS'Y	ASS-200-X135	S
⑧	1	NIP/REWIND DRIVE ASSEMBLY	ASS-200-0142	.

ASS-200-X150R/L	
5" WIDE	-0150R/L
7.5" WIDE	-2150R/L
10" WIDE	-5150R/L

NOTE: AVAILABLE IN RH & LH ORIENTATIONS  
 - LEFT HAND ASSEMBLY SHOWN -  
 (SEE DWG #ASS-200-0122R/L FOR DIFFERENCES)



SHOP REFERENCE DRAWINGS:  
 SAS-200-X150R/L (SHEETS 1 THRU 4)

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 TITLE: 360 SERIES APPLICATOR: HOUSING ASSEMBLY  
 REV. 1 REV. DESCRIPTION: 1 - UPDATED TITLEBLOCK  
 REV. DATE: 02/24/03  
 REV. BY: IDR  
 Scale: 1=4  
 Date: 02/14/98  
 DRAWN BY: BOB S.  
 F:\Engineering\Standard Parts\Applcator\360  
 200\ASS-200-X150S1  
 Dept. Code: 70  
 PART: CORE UNIT for STD. REWIND (Sht 1 of 2)

ASS-200-X150R/L

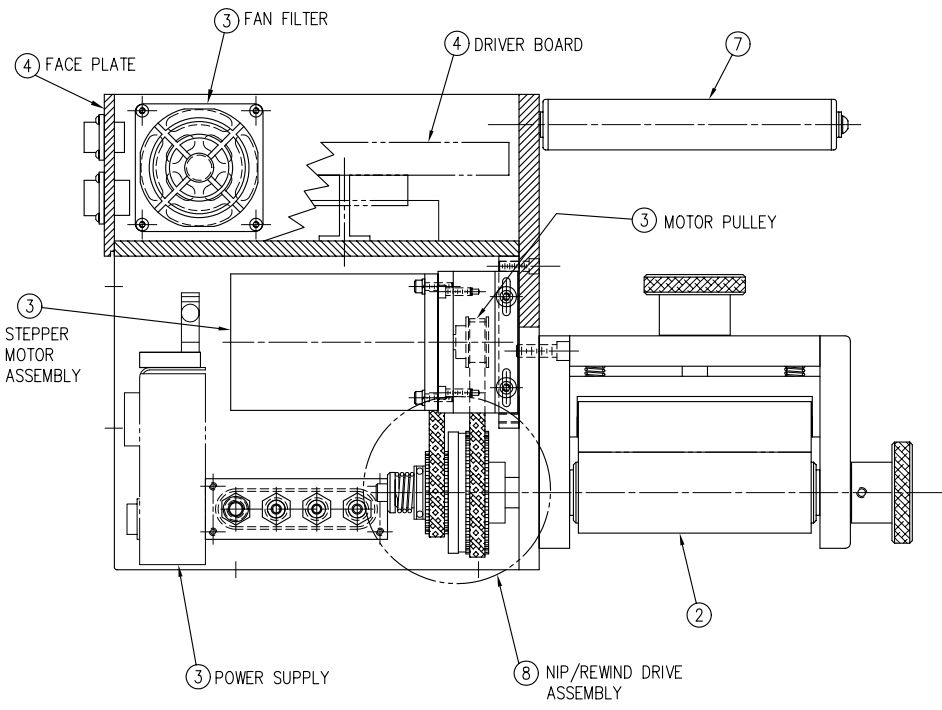
5" WIDE -0150R/L

7.5" WIDE -2150R/L

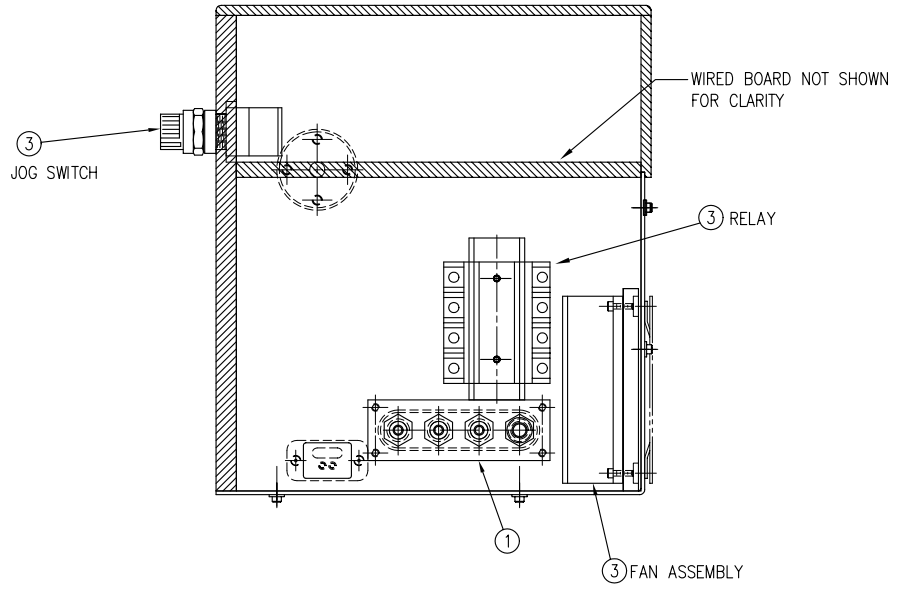
10" WIDE -5150R/L

Dept. Code 70  
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 200\ASS-200-X150S2  
 TITLE: 360 SERIES APPLICATOR: HOUSING ASSEMBLY  
 REV. DESCRIPTION 1 - UPDATED TITLEBLOCK  
 REV. DATE 02/15/03  
 REV. BY IDR  
 PART: CORE UNIT for STD. REWIND (Sht 2 of 2)  
 Scale: 1=3  
 Date: 02/14/98  
 DRAWN BY BOB S.

NOTE: AVAILABLE IN RH & LH ORIENTATIONS  
 - LEFT HAND ASSEMBLY SHOWN -  
 (SEE DWG #ASS-200-0122R/L FOR DIFFERENCES)



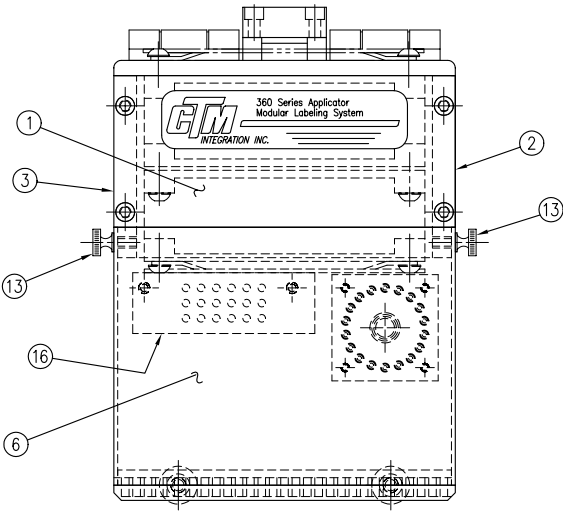
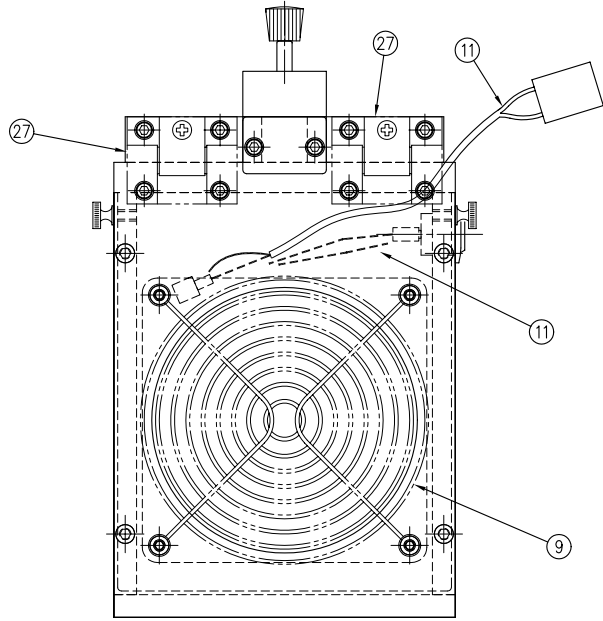
SECTION "A-A"  
 (FROM SHEET 1)



SECTION "B-B"  
 (FROM SHEET 1)

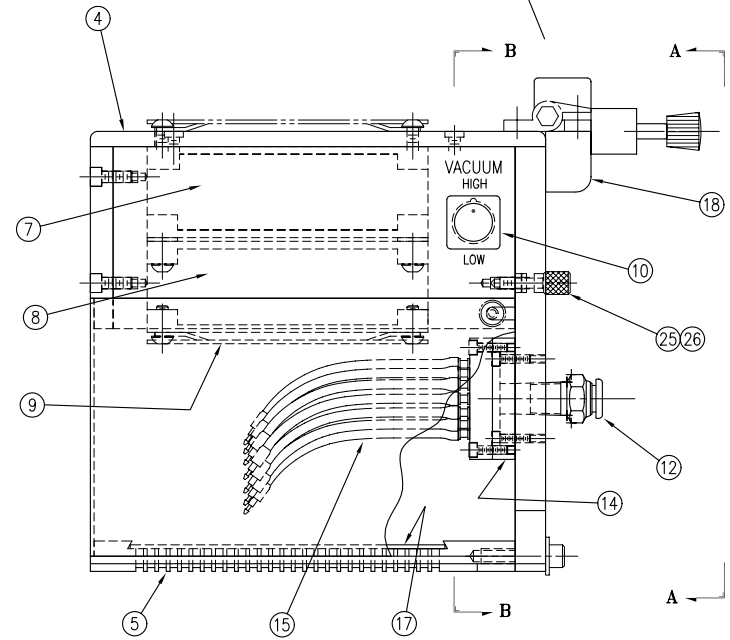
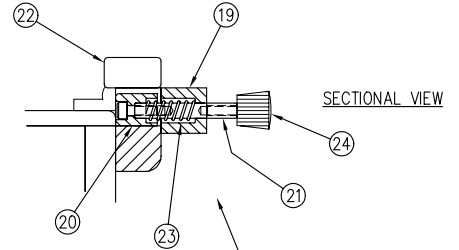
FOR BILL OF MATERIAL REFER TO DWG. #ASS-200-X150R/L (SHEET 1)

SHOP REFERENCE DRAWINGS:  
 SAS-200-X150R/L (SHEETS 1 THRU 4)



BILL OF MATERIAL				SOLD
ASSEMBLY ASS-200-0104				
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	FAN BOX FRONT	MP-211-0203	.
②	1	FAN BOX SIDE (SILK SCREEN)	MP-211-0202B	.
③	1	FAN BOX SIDE	MP-211-0202A	.
④	1	FAN BOX TOP	MP-211-0213	.
⑤	1	BLOW BOX GRID	MP-211-0214	.
⑥	1	BLOW BOX ACCESS DOOR	PM-211-0211	.
⑦	1	BLOW BOX TOP FAN	MP-211-0218	.
⑧	1	BLOW BOX BOTTOM FAN	MP-211-0219	.
⑨	2	FAN HOUSING GUARD	PE-FAN1080	.
⑩	1	HI/LO AIR BLOW SWITCH	PE-SW3000	.
⑪	1	BLOW BOX FAN WIRING HARNESS	ASS-200-0413	.
⑫	1	PRESTOLOK BRASS FITTING (1/4 NPT MALE - 3/8 TUBE FEMALE)	PM-PF1020	.
⑬	2	BRASS THUMB SCREWS	PM-TS1010	.
⑭	1	AIR BLOW TUBE MANIFOLD SUB-BASE	MP-211-0220	.
⑮	1	AIR BLOW TUBE MANIFOLD ASS'Y.	ASS-211-0103	.
⑯	1	AIR BLOW AIR TUBE HOLDER	MP-211-0222	.
⑰	1	BLOW BOX GRID COVER	MP-211-0227	.
⑱	1	HINGE BRACKET	MP-211-0240	.

BILL OF MATERIAL				SOLD
ASSEMBLY ASS-200-0104 (continued)				
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
⑲	1	SPRING PIN BRACKET	MP-211-0241	.
⑳	1	STOP BLOCK	MP-211-0242	.
㉑	1	SPRING PIN	MP-211-0243	.
㉒	1	STOP BLOCK	MP-211-0244	.
㉓	1	COMPRESSION SPRING	PM-FASP30430	S
㉔	1	PLASTIC KNOB	PM-HK1070	.
㉕	2	CAPTIVE SCREW	PM-TS1050	.
㉖	2	SPLIT WASHER	PM-FAW30615	.
㉗	2	ADJUSTABLE FRICTION HINGE	PM-HI1030	.



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 TITLE: 360 SERIES APPLICATOR: AIR BLOW BOX  
 REV. DESCRIPTION: O. NEW TITLEBLOCK; ADDED HINGED BRACKET  
 REV. DATE: 03/20/03  
 REV. BY: TDR  
 PART: HINGED AIR BLOW BOX  
 DRAWN BY: BOB S.  
 Date: 02/21/98  
 Scale: 1=2  
 Dept. Code: 70  
 F:\Engineering\Standard Parts\Applcator\360\211\ASS-211-0104

BILL OF MATERIAL

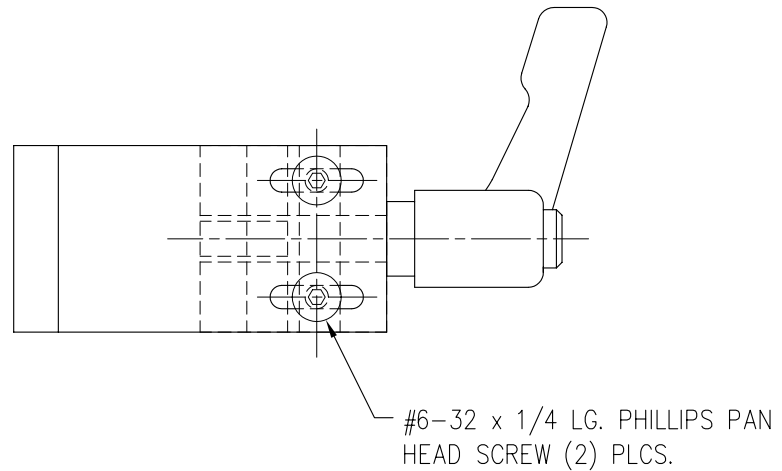
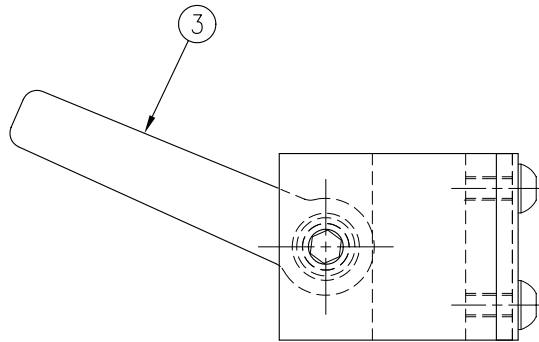
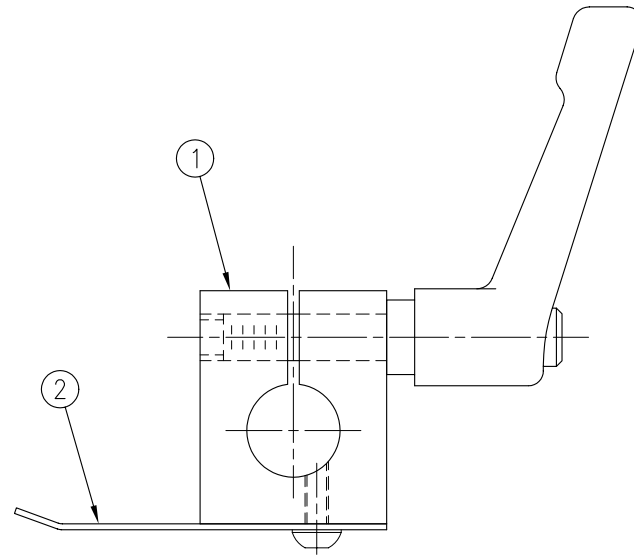
SOLD

ASS-211-0105

ASSEMBLY		ASS-211-0105		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	SPRING BLOCK	MP-211-0201	.
②	1	1" WIDE WEB TENSION SPRING (see note)	MP-211-0216	.
③	1	LOCK LEVER	PM-LL0902	.

NOTE:

1" WIDE WEB TENSION SPRING PROVIDED WITH THIS ASSEMBLY.  
2", 3" & 4" WIDTHS ARE AVAILABLE AS AN OPTION & SHOULD BE ORDERED SEPARATELY



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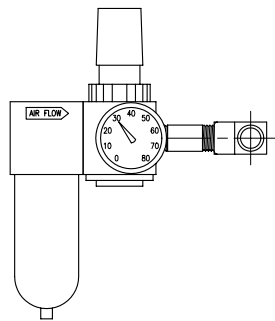
TITLE: 360/3600 SERIES APPLICATOR: TAMP/BLOW/MERGE/RVB ASSEMBLY

PART: SPRING BLOCK ASSEMBLY

Dept. Code  
70

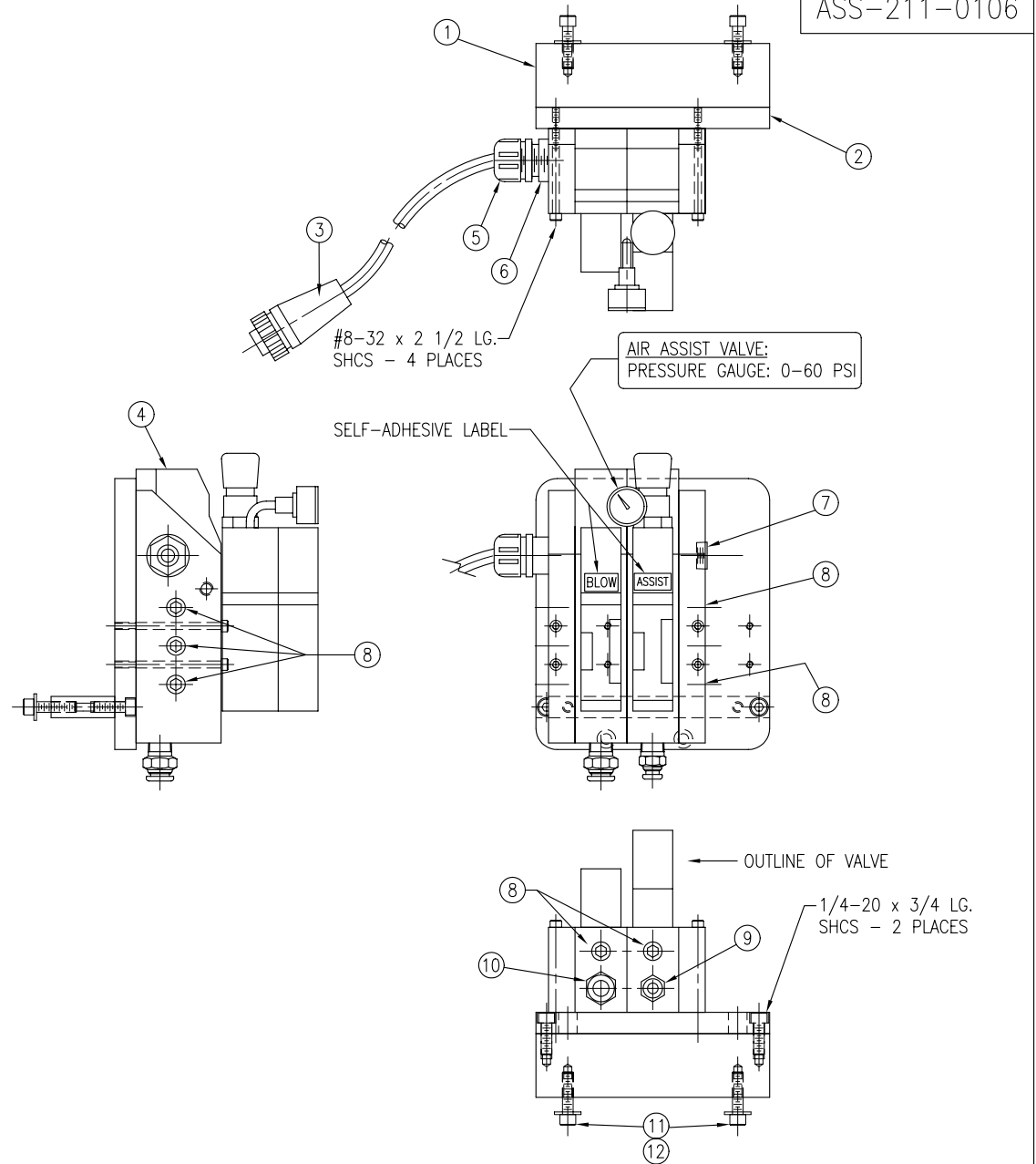
REV. 0	REV. DESCRIPTION UPDATED TITLEBLOCK	REV. DATE 02/04/03	REV. BY: TDR	Scale: 1=1	Date: 02/21/98	DRAWN BY: BOB S.	F:\Engineering\Standard Parts\Appliator\360 211\ASS-211-0105
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BILL OF MATERIAL				SOLD
ASSEMBLY	ASS-211-0106			S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	VALVE FASTENING PLATE	MP-214-0202	.
②	1	VALVE MOUNTING PLATE	MP-214-0206	.
③	1	VALVE CABLE	ASS-200-0405	.
④	1	VALVE BANK	PM-VA2356	.
⑤	1	CORD GRIP	PE-CO2000	.
⑥	1	BUSHING, 3/4" NPT TO 1/2" NPT	PE-COND1080	.
⑦	1	3/4" NPT PLUG	PM-EN9110	.
⑧	7	1/4" NPT PLUG	PM-FT1200	.
⑨	1	FITTING, 1/4" TUBE w/ 1/4" NPT STRT	PM-PF1010	.
⑩	1	FITTING, 3/8" TUBE w/ 1/4" NPT STRT	PM-PF1020	.
⑪	2	SHCS, 1/4"-20 UNC x 7/8" LG.	NONE	.
⑫	2	FLAT WASHER, 1/4" NOM. (STAINLESS)	NONE	.
⑬	1	FILTER/REGULATOR ASSEMBLY	ASS-200-0109	S



⑬ FILTER/REGULATOR

FOR PNEUMATIC SCHEMATIC REFER TO:  
#ASS-200-0511



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TITLE: 360 SERIES APPLICATOR: AIR BLOW BOX

PART: PNEUMATIC VALVE BANK ASSEMBLY

Dept. Code  
70

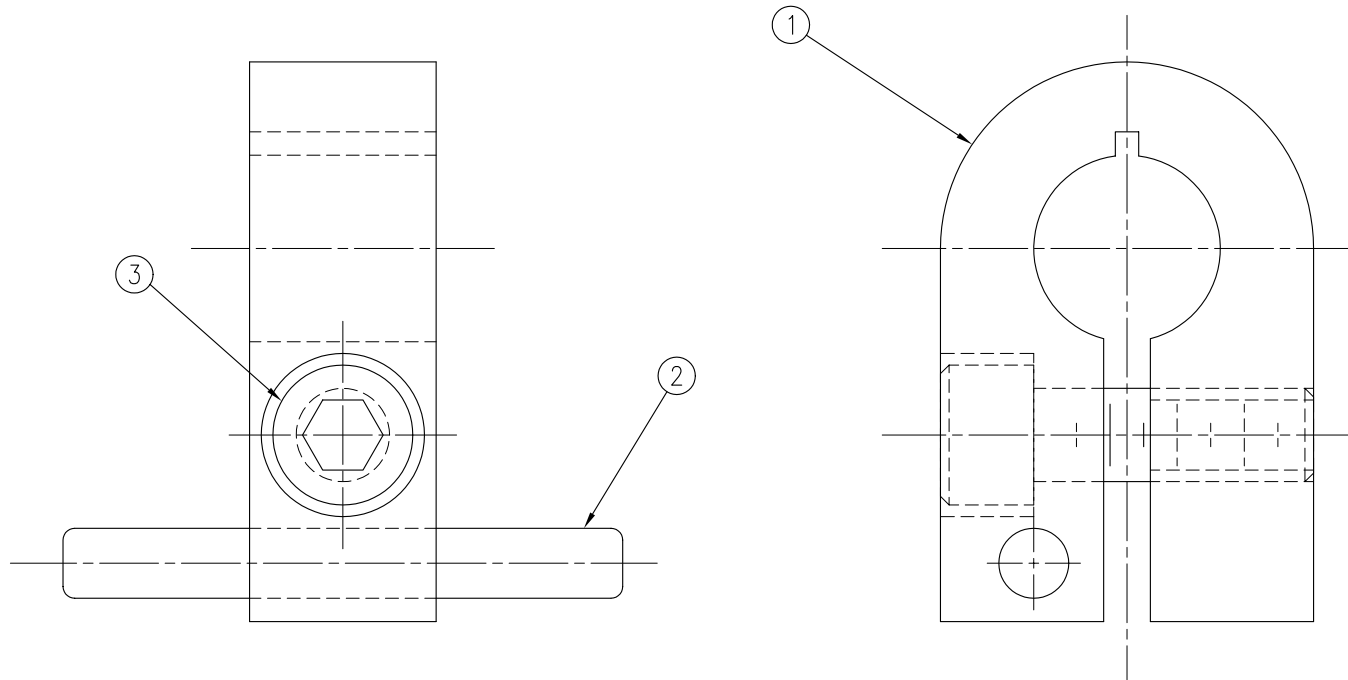
REV. 0	REV. DESCRIPTION NEW TITLEBLOCK	REV. DATE 04/11/03	REV. BY: TDR	Scale: 1=4	Date: 06/02/98	DRAWN BY: BOB S.	F:\Engineering\Standard Parts\Applicator\360 211\ASS-211-0106
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BILL OF MATERIAL

SOLD

ASS-211-0110

ASSEMBLY		ASS-211-0110		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	SPRING BLOCK STOP COLLAR	MP-211-0223	.
②	1	DOWEL PIN	MP-211-0224	.
③	1	SHCS, 1/4"-20 UNC x 3/4" LG.	NONE	.



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TITLE: 360/3600 SERIES APPLICATOR: TAMP/BLOW/MERGE/RVB

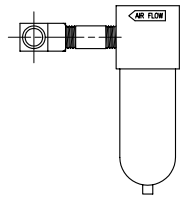
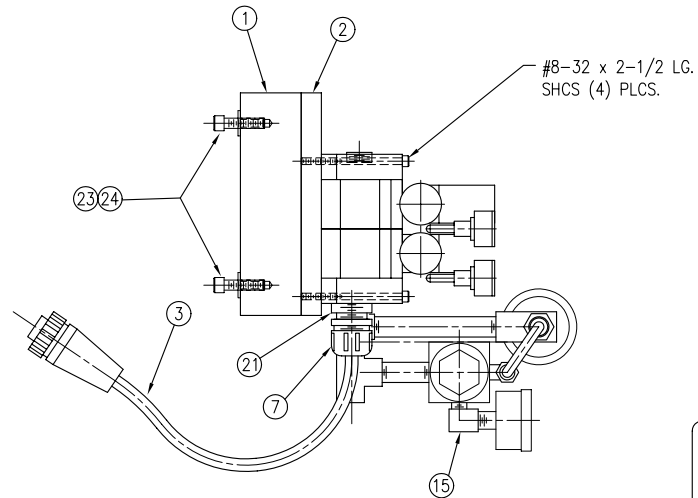
PART: SPRING BLOCK STOP COLLAR ASSEMBLY

Dept. Code  
70

REV. 0	REV. DESCRIPTION NEW RELEASE	REV. DATE 02/06/03	REV. BY: TDR	Scale: 2=1	Date: 02/18/02	DRAWN BY: TDR	F:\Engineering\Standard Parts\Applicator\360 211\ASS-211-0110
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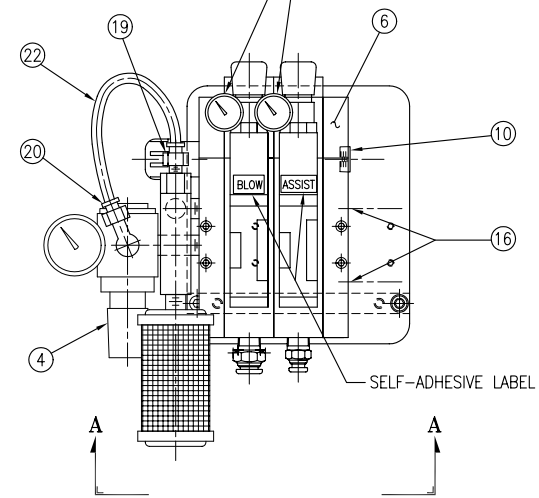
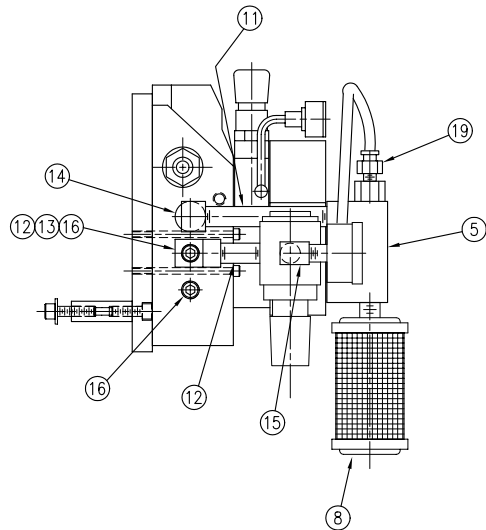
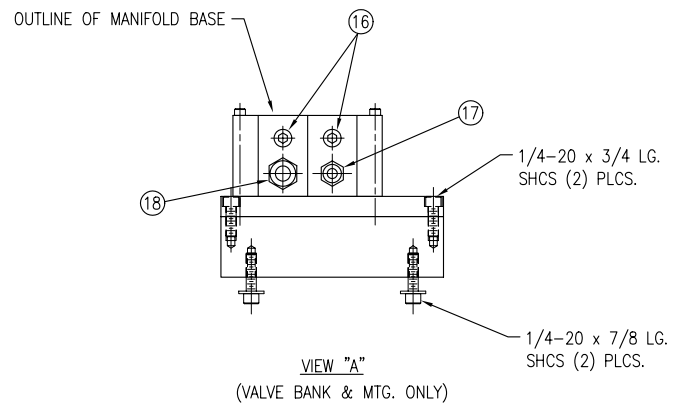
BILL OF MATERIAL				SOLD
ASSEMBLY ASS-211-0112				S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	VALVE FASTENING PLATE	MP-214-0202	.
②	1	VALVE MOUNTING PLATE	MP-214-0206	.
③	1	VALVE CABLE	ASS-200-0405	.
④	1	REGULATOR w/ GAUGE	PM-REG1500	.
⑤	1	VACUUM PUMP	PM-PUMP1000	.
⑥	1	VALVE BANK	PM-VA2358	.
⑦	1	CORD GRIP	PE-CO2000	.
⑧	1	EXHAUST MUFFLER	PM-MU1021	.
⑨	1	AIR FILTER	ASS-214-0106	S
⑩	1	3/4" NPT PLUG	PM-EN9110	.
⑪	1	1/4" x 3-1/2" NIPPLE	PM-PF1141	.
⑫	2	1/4" x 1-1/2" NIPPLE	PM-PF1143	.
⑬	1	1/4" TEE	PM-PF1200	.
⑭	1	1/4" STREET ELBOW	PM-PF1185	.
⑮	1	1/8" STREET ELBOW	PM-PF1180	.
⑯	5	1/4" NPT PLUG	PM-F11200	.
⑰	2	FITTING, 1/4" TUBE to 1/4" NPT STRT	PM-PF1010	.
⑱	1	FITTING, 3/8" TUBE to 1/4" NPT STRT	PM-PF1020	.
⑲	1	FITTING, 1/4" TUBE to 1/8" NPT STRT	PM-PF1005	.
⑳	1	FITTING, 1/4" TUBE to 1/4" NPT ELBOW	PM-PF1055	.
㉑	1	BUSHING, NPT 3/4" MALE to 1/2" FEMALE	PE-COND1080	.
㉒	1	1/4" O.D. POLYURETHANE TUBING (CUT TO 7" LENGTH)	PM-PT1070	.
㉓	2	SHCS, 1/4"-20 UNC x 7/8" LG.	NONE	.
㉔	2	FLAT WASHER, 1/4" NOM. (STAINLESS)	NONE	.

ASS-211-0112



⑨ AIR FILTER

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



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 TITLE: 360 SERIES APPLICATOR: RVB  
 REV. DESCRIPTION: O. NEW TITLE/BLOCK  
 REV. DATE: 04/11/03  
 REV. BY: IDR  
 DRAWN BY: BOB S.  
 Date: 09/01/99  
 Scale: 1=3  
 PART: PNEUMATIC VALVE BANK ASSEMBLY  
 Dept. Code: 70  
 F. Engineering/Standard Parts Application/360  
 Z11/ASS-211-0112

BILL OF MATERIAL			SOLD
ASSEMBLY	ASS-211-3101R/L-X		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER
①	1	CLEAR LABEL PEEL EDGE MTG. PLATE	MP-211-3301
②	2	5/7.5 IDLER ROLLER ASSEMBLY	ASS-211-X120
③	2	GUIDE COLLAR	MP-211-0210
④	1	5/7.5 SPRING BLOCK MTG SHAFT	MP-211-X206
⑤	1	SPRING BLOCK ASSEMBLY	ASS-211-0105
⑥	1	SPRING BLOCK STOP COLLAR ASSEMBLY	ASS-211-0110
⑦	1	5/7.5 CLEAR LABEL PEEL EDGE	MP-214-3302R/L-X
⑧	1	6" WIDE UHMW TAPE (CUT TO SUIT)	PM-T1010
⑨	1	CLEAR LABEL NUT	MP-214-3301
⑩	1	PEEL EDGE TIE NUT	MP-211-0207
⑪	1	5/7.5 AIR ASSIST TUBE	MP-200-X217-X
⑫	2	1/4" NYLON LOOP CLAMP	PE-CC1015
	2	SHCS, 1/4-20 x 1" LG.	NONE

NOTE: CLEAR LABEL SENSOR NOT INCLUDED IN ASSEMBLY  
 THE FOLLOWING SENSOR OPTIONS ARE AVAILABLE AND  
 MUST BE ORDERED IN ADDITION TO ASS-211-3102R/L

- 1.) CLEAR LABEL SENSOR (#LRD2100) ~ #PE-SE2000
- 2.) CLEAR LABEL SENSOR (#LRD6110) ~ #PE-SE2050

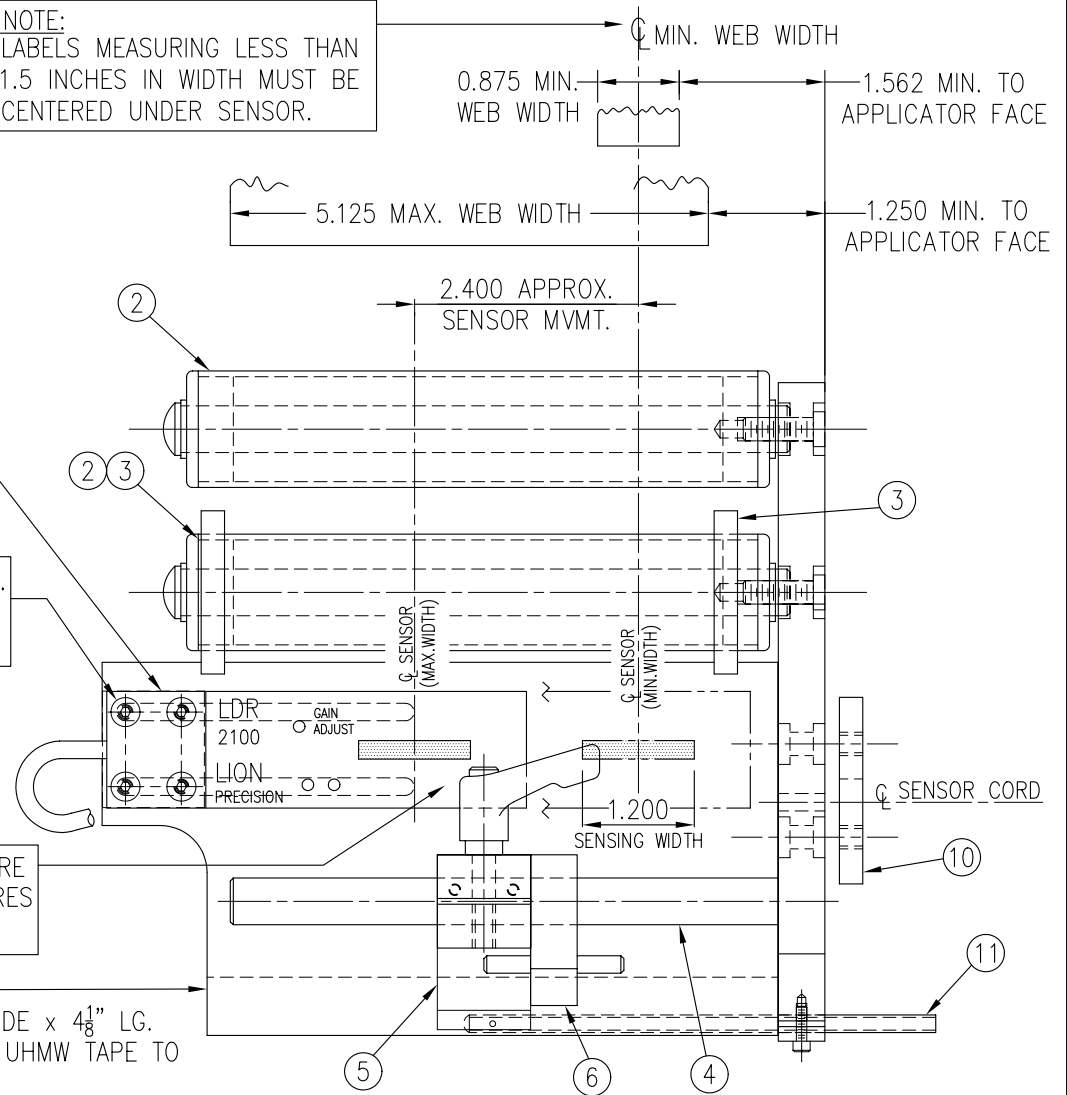
ASS-211-3102R/L-X

-3102R/L-5

-3102R/L-7

RH & LH ASSEMBLIES AVAILABLE  
 -RH ASSEMBLY SHOWN-

NOTE:  
 LABELS MEASURING LESS THAN  
 1.5 INCHES IN WIDTH MUST BE  
 CENTERED UNDER SENSOR.



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TITLE: 360 SERIES APPLICATOR: AIR BLOW BOX/ RVB/ TAMP SNORKLE

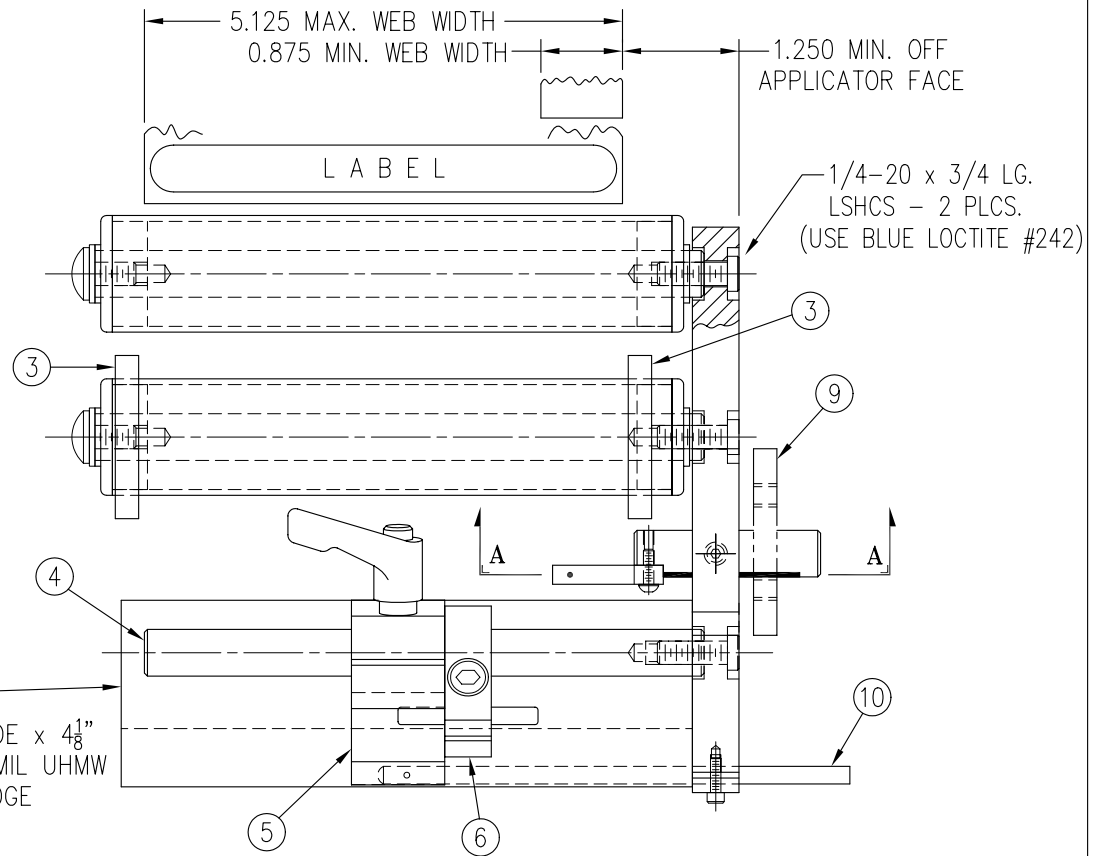
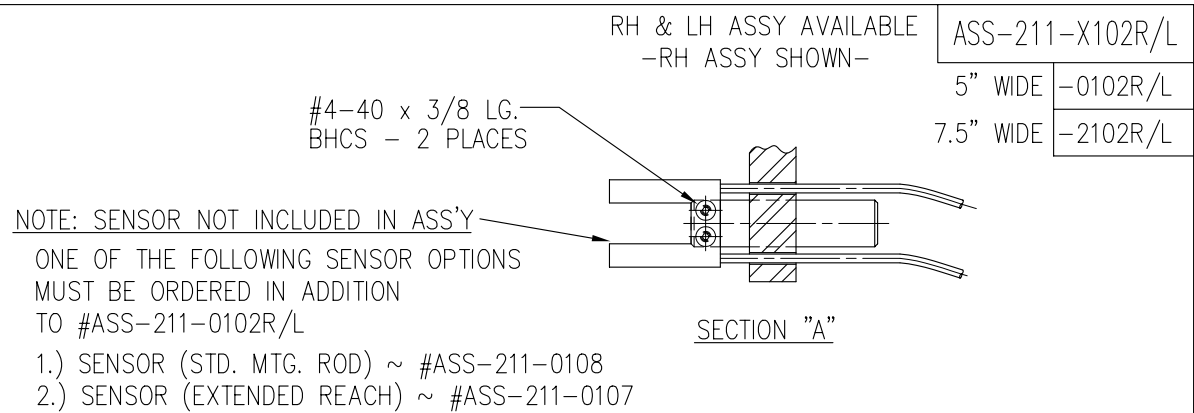
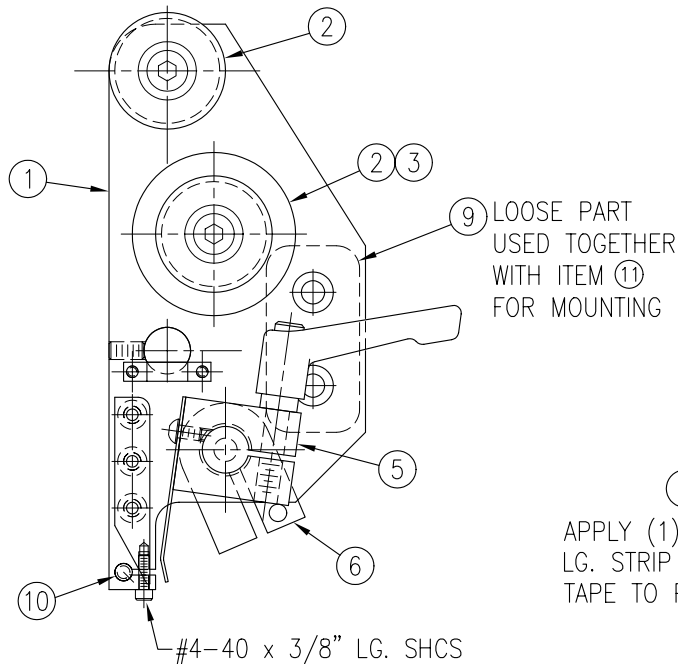
PART: 5/7.5 WIDE PEEL EDGE ASSEMBLY

Dept. Code  
70

REV. 0	REV. DESCRIPTION UPDATED DWG. NUMBER SYSTEM; REPLACES #211-3101	REV. DATE 02/06/03	REV. BY: TDR	Scale: 1=2	Date: 09/15/98	DRAWN BY: BOB S.	F:\Engineering\Standard Parts\Appliator\360 211\ASS-211-3102RL-X
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BILL OF MATERIAL			SOLD
ASSEMBLY	ASS-211-X102R/L		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER
①	1	PEEL EDGE MOUNTING PLATE	MP-211-0212 .
②	2	5/7.5 TAMP/BLOW IDLER ROLL ASS'Y.	ASS-211-X120 S
③	2	GUIDE COLLAR	MP-211-0210 S
④	1	SPRING BLOCK MOUNTING SHAFT	MP-211-0206 .
⑤	1	SPRING BLOCK ASSEMBLY	ASS-211-0105 S
⑥	1	SPRING BLOCK STOP COLLAR ASS'Y.	ASS-211-0110 S
⑦	1	5/7.5 WIDE BLOW/TAMP PEEL EDGE	MP-211-X208 S
⑧	1	6" WIDE UHMW TAPE (CUT TO SUIT)	PM-T1010 S
⑨	1	PEEL EDGE TIE NUT	MP-211-0207 .
⑩	1	5/7.5 AIR ASSIST TUBE	MP-211-X217-X S
	2	SHCS, 1/4"-20 UNC x 1" LG.	NONE .

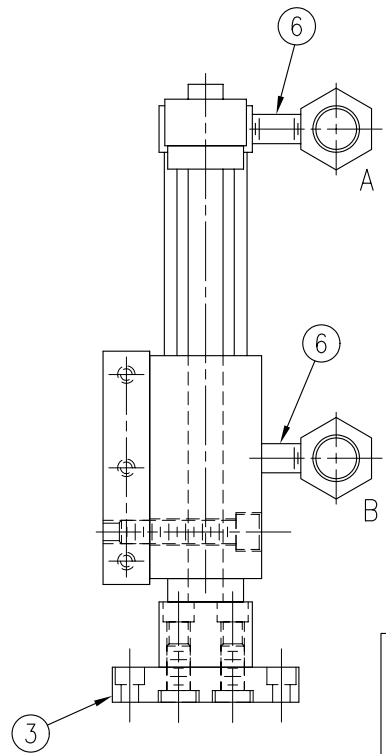


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TITLE: 360 SERIES APPLICATOR: AIR BLOW BOX/ RVB/TAMP SNORKLES		REV. DATE: 02/04/03	REV. BY: TDR	Scale: 1=2	Date: 06/23/97	DRAWN BY: BOB S.	
REV. 0	REV. DESCRIPTION: UPDATED TITLEBLOCK			F:\Engineering\Standard Parts\Appliator\360		211\ASS-211-X102RL	

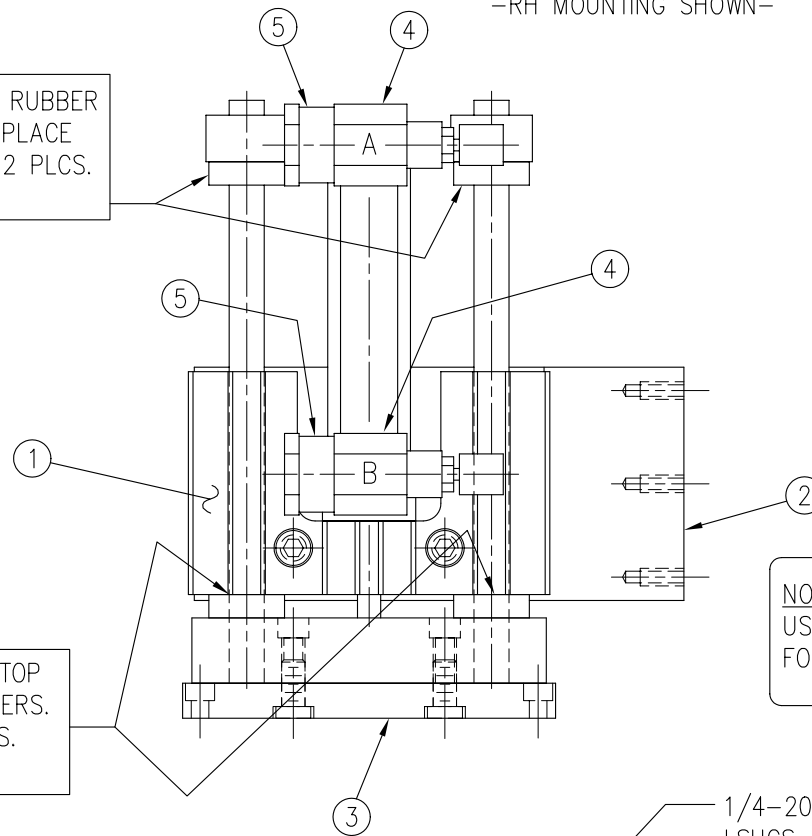
RH & LH MOUNTING AVAILABLE  
-RH MOUNTING SHOWN-

ASS-214-0103R/L-X

1" STROKE	-0103R/L-1
2" STROKE	-0103R/L-2
3" STROKE	-0103R/L-3
4" STROKE	-0103R/L-4
6" STROKE	-0103R/L-6
8" STROKE	-0103R/L-8
12" STROKE	-0103R/L-12



REPLACE HARD RUBBER DAMPERS & REPLACE w/ ITEM ⑦ - 2 PLCS. (TOP ONLY)

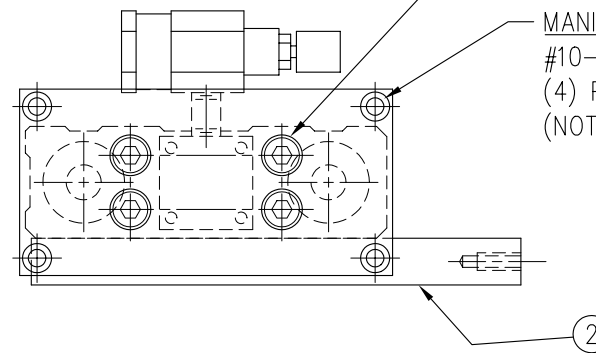


ADD ITEM ⑧ TO THE TOP OF THE BOTTOM DAMPERS. (2) O-RINGS, (2) PLCS. (4) TOTAL

NOTE:  
USE HEAVY DUTY SLIDE FOR 8" & 12" STROKES

1/4-20 x 1/2 LG. LSHCS - 4 PLACES

MANIFOLD MOUNTING FASTENERS #10-32 x 1/2 LG. SHCS (4) PLACES (NOT INCLUDED IN ASS'Y)



BILL OF MATERIAL				SOLD
ASSEMBLY ASS-214-0103R/L-X				S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	TAMP SLIDE ("X" STROKE LENGTH)	PM-AC2000-X	S
②	1	SLIDE MOUNT PLATE	MP-214-0204	.
③	1	TAMP MANIFOLD TRANSITION PLATE	MP-214-0203	.
④	2	FLOW CONTROL w/ KNOB FILTER	PM-VA1600	S
⑤	2	FITTING, 1/8" NPT to 1/4" TUBE	PM-PF1005	.
⑥	2	1/8" x 1" LG. BRASS HEX. NIPPLE	PM-PF1152	.
⑦	2	TAMP DAMPER (RUBBER GROMMIT)	PE-C02018	S
⑧	4	O-RING (BUNA-N)	PM-OR1021	S
	3	SHCS, #10-32 x 3/4" LG.	NONE	.

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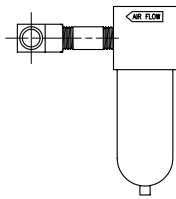
TITLE: 360 SERIES APPLICATOR: TAMP ASSEMBLY

PART: SLIDE ASSEMBLY

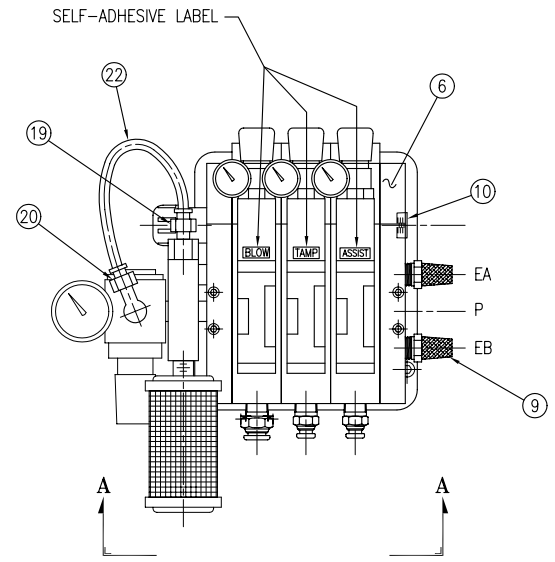
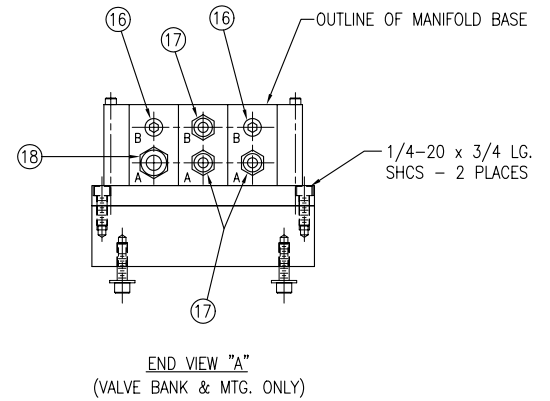
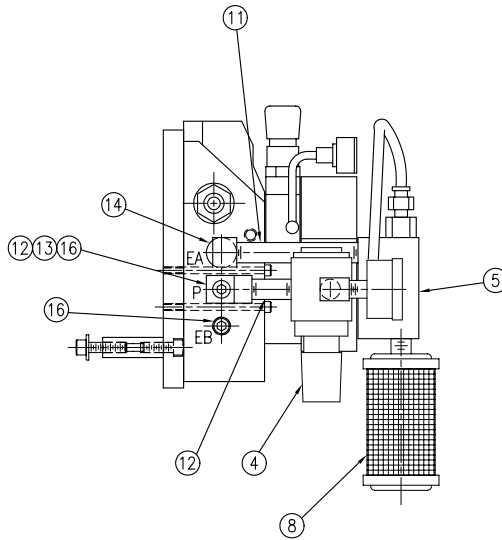
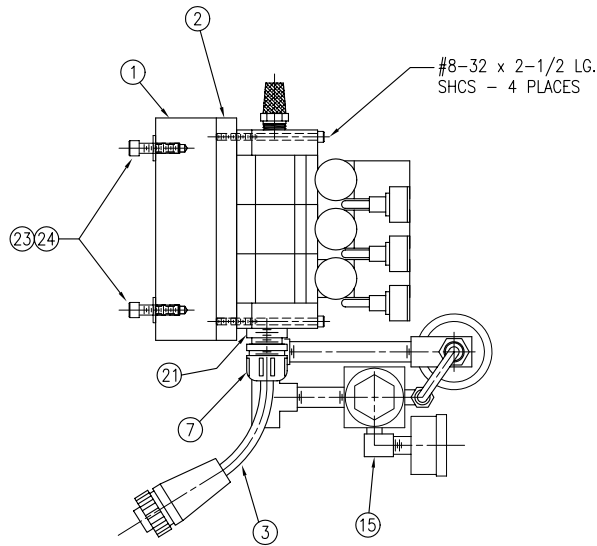
Dept. Code  
70

REV. 0	REV. DESCRIPTION UPDATED TITLEBLOCK	REV. DATE 02/06/03	REV. BY: TDR	Scale: 1=2	Date: 02/21/98	DRAWN BY: BOB S.	F:\Engineering\Standard Parts\Applicator\360 214\ASS-214-0103RL-X
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BILL OF MATERIAL				SOLD
ASSEMBLY ASS-214-0105				S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	VALVE FASTENING MOUNTING PLATE	MP-214-0202	.
②	1	VALVE MOUNTING PLATE	MP-214-0206	.
③	1	VALVE CABLE	ASS-200-0405	.
④	1	REGULATOR/GAUGE	PM-REG1500	.
⑤	1	VACUUM PUMP	PM-PUMP1000	.
⑥	1	VALVE BANK	PM-VA2355	.
⑦	1	CORD GRIP	PE-CO2000	.
⑧	1	EXHAUST MUFFLER	PM-MU1021	.
⑨	2	1/4" BRONZE EXHAUST MUFFLER	PM-MU1025	.
⑩	1	3/4" NPT PLUG	PM-EN9110	.
⑪	1	1/4" x 3-1/2" LG. NIPPLE	PM-PF1141	.
⑫	2	1/4" x 1/2" LG. NIPPLE	PM-PF1143	.
⑬	1	1/4" TEE	PM-PF1200	.
⑭	1	1/4" STREET ELBOW	PM-PF1185	.
⑮	1	1/8" STREET ELBOW	PM-PF1180	.
⑯	4	1/4" NPT PLUG	PM-F11200	.
⑰	3	FITTING, 1/4" TUBE w/ 1/4" NPT STRT	PM-PF1010	.
⑱	1	FITTING, 3/8" TUBE w/ 1/4" NPT STRT	PM-PF1020	.
⑲	1	FITTING, 1/4" TUBE w/ 1/8" NPT STRT	PM-PF1005	.
⑳	1	FITTING, 1/4" TUBE w/1/4" NPT ELBOW	PM-PF1055	.
㉑	1	BUSHING, NPT 3/4" MALE to 1/2" FEMALE	PE-COND1080	.
㉒	1	1/4" O.D. POLYURETHANE TUBING (CUT TO 7" LENGTH)	PM-PT1070	.
㉓	2	1/4"-20 UNC x 7/8" LG. SHCS	NONE	.
㉔	2	1/4" FLAT WASHER	NONE	.
㉕	1	AIR FILTER	ASS-214-0106	.



⑲ AIR FILTER



ASS-214-0105

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 TITLE: 360 SERIES APPLICATOR: TAMP ASSEMBLY  
 REV. DESCRIPTION: 2. NEW TITLEBLOCK; ADDED VALVE ASSY FOR MODULE  
 REV. DATE: 04/28/03  
 REV. BY: TDR  
 DRAWN BY: BOB S.  
 Date: 06/02/98  
 Scale: 1=3  
 PART: 3 STATION VALVE BANK ASSEMBLY  
 Dept. Code: 70  
 F:\Engineering\Standard Parts\Applcator\360\214 VASS-214-0105

BILL OF MATERIAL			SOLD
ASSEMBLY	ASS-214-3102R/L-X		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER
①	1	PEEL EDGE MOUNTING PLATE	MP-214-3304
②	1	5/7.5 TAMP/BLOW IDLER ROLLER ASS'Y.	ASS-211-X120
③	2	GUIDE COLLAR	MP-211-0210
④	1	SPRING BLOCK MOUNTING SHAFT	MP-211-0206
⑤	1	SPRING BLOCK ASSEMBLY	ASS-211-0105
	2	SPRING BLOCK ASSEMBLY	ASS-211-0105
⑥	1	SPRING BLOCK STOP COLLAR ASS'Y.	ASS-211-0110
	2	SPRING BLOCK STOP COLLAR ASS'Y.	ASS-211-0110
⑦	1	5/7.5 CLEAR LABEL RH PEEL EDGE	MP-214-3303
⑧	1	6" WIDE UHMW TAPE (CUT TO SUIT)	PM-T1010
	1	8" WIDE UHMW TAPE (CUT TO SUIT)	PM-T1015
⑨	1	CLEAR LABEL NUT	MP-214-3301
⑩	1	PEEL EDGE TIE NUT	MP-211-0207
⑪	1	5/7.5 AIR ASSIST TUBE	MP-211-X217
⑫	2	1/4" NYLON LOOP CLAMP	PE-CC1015
	2	SHCS, 1/4"-20 UNC x 1" LG.	NONE
	4	BHCS, #8-32 UNC x 1-1/4" LG.	NONE

← FOR 5" WIDE  
← FOR 7.5" WIDE  
← FOR 5" WIDE  
← FOR 7.5" WIDE  
← FOR 5" WIDE  
← FOR 7.5" WIDE

NOTE: SENSOR NOT INCLUDED IN ASSEMBLY

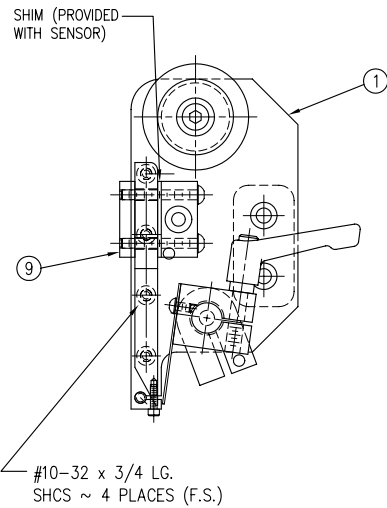
ONE OF THE FOLLOWING SENSOR OPTIONS MUST BE ORDERED IN ADDITION TO ASS-214-3102R/L-X.

- 1.) CLEAR LABEL SENSOR (#LRD2100) ~ #PE-SE2000
- 2.) CLEAR LABEL SENSOR (#LRD6110) ~ #PE-SE2050

RH & LH ASSEMBLIES AVAILABLE  
-RH ASSEMBLY SHOWN-

ASS-214-3102R/L-X
5" WIDE -3102R/L-5
7.5" WIDE -3102R/L-7

REFER TO CTM  
#ASS-211-3102R/L-10  
FOR 10" WIDTH

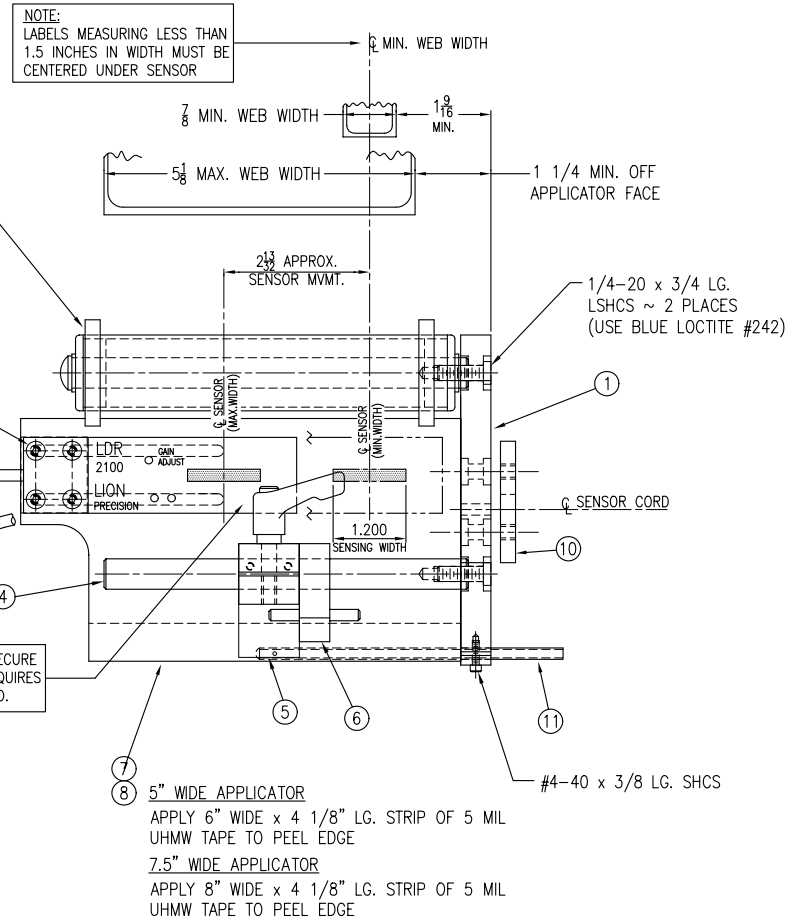


USING TAPPED HOLES:  
#8-32 x 7/8 LG.  
BHCS - 4 PLACES

USING SLOTTED HOLES:  
#8-32 x 1-1/4 LG.  
BHCS - 4 PLACES  
SHIP LOOSE

USE ITEM ⑫ TO SECURE SENSOR CORD w/ ONE OF THE ABOVE FASTENERS.

NOTE: USE ITEM ⑫ TO SECURE SENSOR CORD. CLAMP REQUIRES (1) M4x10 BHCS THIS END.



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TITLE: 360 SERIES APPLICATOR: TAMP ASSEMBLY: CLEAR LABEL

REV. DATE: 05/19/03

REV. BY: TDR

SCALE: 1=2

DATE: XX/XX/XX

DRAWN BY: BOB S.

F:\Engineering\Standard Parts\Appliator\360\214 VASS-214-3102R-L-X

Dept. Code: 70

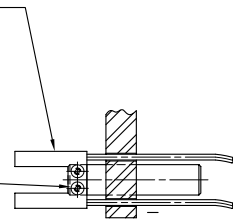
BILL OF MATERIAL				SOLD
ASSEMBLY	ASS-214-X102R/L			S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	PEEL EDGE MOUNTING PLATE	MP-214-0205	.
②	1	5/7.5 TAMP/ BLOW IDLER ROLLER ASSY.	ASS-211-X120	S
③	2	GUIDE COLLAR	MP-211-0210	S
④	1	5/7.5 SPRING BLOCK MOUNTING SHAFT	MP-211-X206	.
⑤	1	SPRING BLOCK ASSEMBLY	ASS-211-0105	S ← FOR 5" WIDE
	2	SPRING BLOCK ASSEMBLY	ASS-211-0105	S ← FOR 7.5" WIDE
⑥	1	SPRING BLOCK STOP COLLAR	ASS-211-0110	S ← FOR 5" WIDE
	2	SPRING BLOCK STOP COLLAR	ASS-211-0110	S ← FOR 7.5" WIDE
⑦	1	5/7.5 TAMP/BLOW PEEL EDGE	MP-211-X208	.
⑧	1	6" WIDE UHMW TAPE (CUT TO SUIT)	PM-T1010	S ← FOR 5" WIDE
	1	8" WIDE UHMW TAPE (CUT TO SUIT)	PM-T1015	S ← FOR 7.5" WIDE
⑨	1	PEEL EDGE TIE NUT	MP-211-0207	.
⑩	1	5/7.5 AIR ASSIST TUBE	MP-211-X217-X	.
	2	SHCS, 1/4"-20 x 1" LG.	NONE	.

NOTE: SENSOR NOT INCLUDED IN ASSY

ONE OF THE FOLLOWING SENSOR OPTIONS MUST BE ORDERED IN ADDITION TO ASS-214-X102R/L

- 1.) SENSOR ASSY. w/STD. MOUNTING ROD ~ #ASS-211-0108
- 2.) SENSOR ASSY. w/EXT. REACH MTG. ROD ~ #ASS-211-0107

#4-40 x 3/8 LG.  
2 PLACES

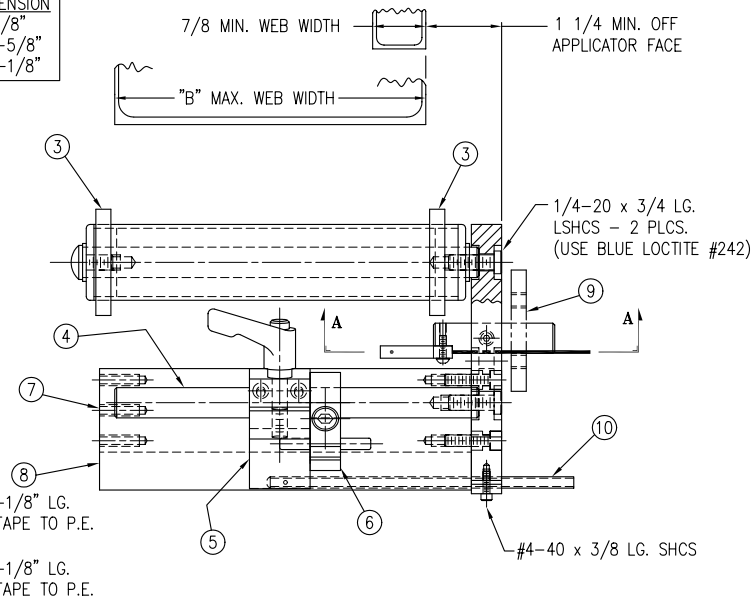
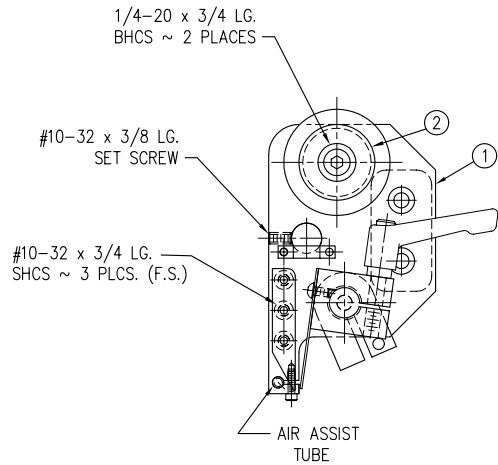


RH & LH ASSEMBLIES AVAILABLE  
-RH ASSEMBLY SHOWN-

ASS-214-X102R/L	5" WIDE	-0102R/L
	7.5" WIDE	-2102R/L

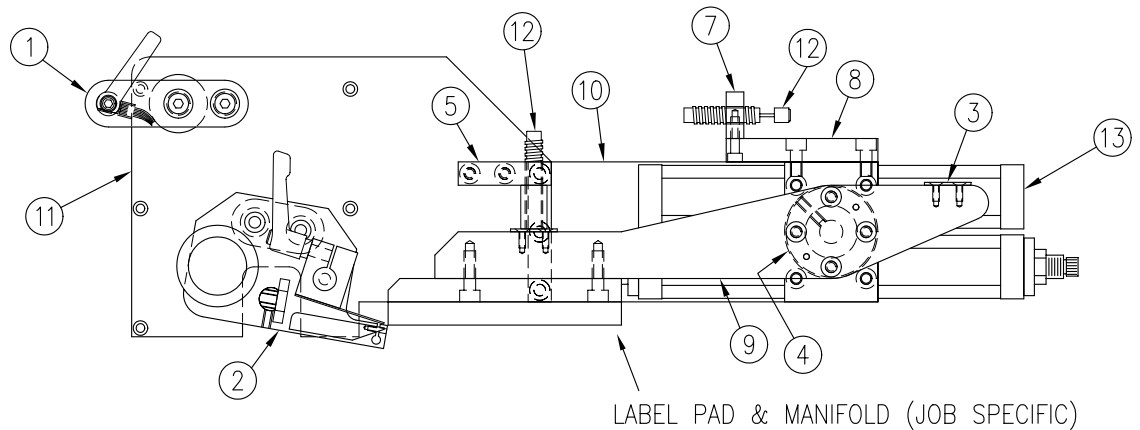
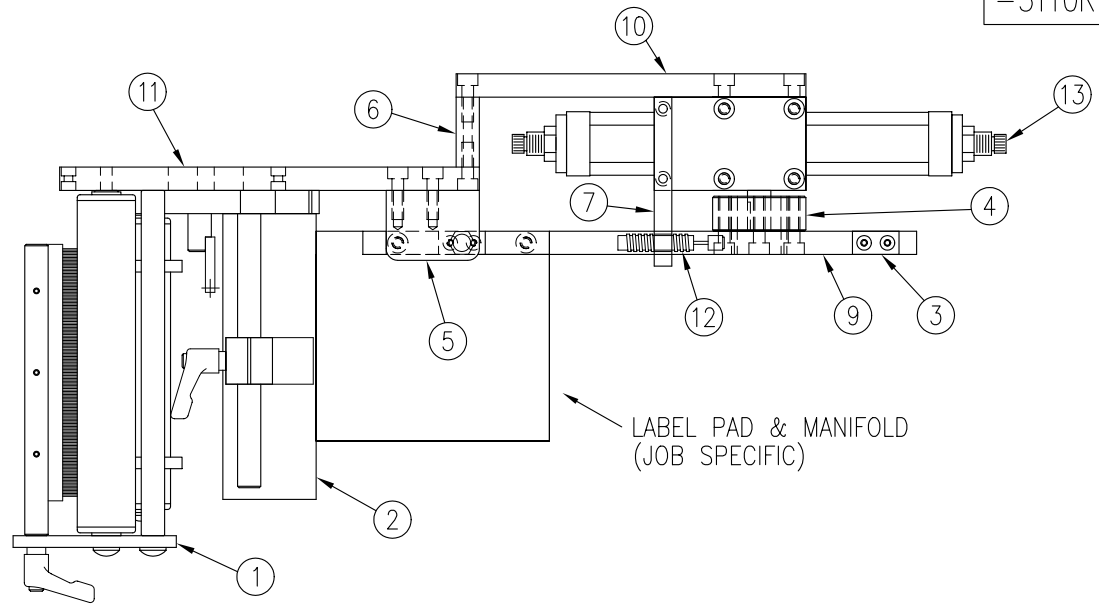
REFER TO CTM DWG.  
#ASS-214-5102R/L  
FOR 10" WIDTH

LABEL MAX. "B" DIMENSION  
5" WIDE: "B" = 5-1/8"  
7.5" WIDE: "B" = 7-5/8"  
10" WIDE: "B" = 10-1/8"



BILL OF MATERIAL				SOLD
ASSEMBLY	SWING TAMP ASSEMBLY			S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	5" WIDE TENSION BRUSH ASSEMBLY	ASS-200-0126R/L	S
②	1	5"W. TAMP PEEL EDGE ASSY W/ SENSOR	ASS-214-0102R/LX	.
③	1	SHOCK STRIKE PLATE	MP-214-0210	.
④	1	ROTARY ACTUATOR HUB DETAIL	MP-214-0211	.
⑤	1	HOME SHOCK MOUNT	MP-214-0212	.
⑥	1	OFFSET BLOCK	MP-214-0213	.
⑦	1	EXTEND SHOCK MOUNT	MP-214-0214	.
⑧	1	EXTEND SHOCK/ACTUATOR TRANS. PLATE	MP-214-0215	.
⑨	1	SWING ARM	MP-214-0217-X	.
⑩	1	ROTARY ACTUATOR MOUNTING PLATE	MP-214-0218-X	.
⑪	1	TRANSITION PLATE	MP-214-0219	.
⑫	2	SHOCK ABSORBER	PM-SA0995	.
⑬	1	90° ROTARY ACTUATOR	PM-AC1250	S

ASS-214-X110R/L  
-0110R/L  
-2110R/L  
-5110R/L



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TITLE: 360 SERIES APPLICATOR

PART: SWING TAMP ASSEMBLY

Dept. Code  
70

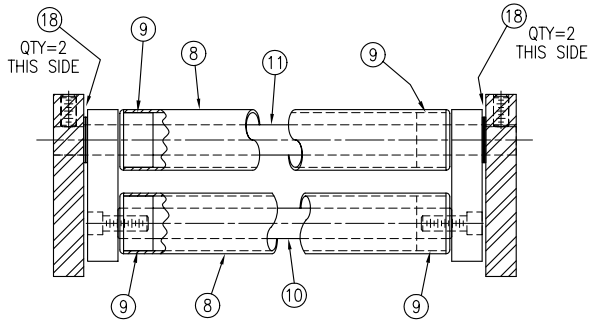
REV. 0	REV. DESCRIPTION UPDATED TITLEBLOCK	REV. DATE 4/22/03	REV. BY: JAM	Scale: 1=3	Date: 11/4/99	DRAWN BY: BOB S.	F:\Engineering\Standard Parts\Applicator\360 214\ASS-214-X110RL
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BILL OF MATERIAL			SOLD	
ASSEMBLY	ASS-215-3102R/L-X		.	
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	5/7.5/10 PRIMARY ROLLER	MP-215-X211	.
②	2	ROLL CAP	MP-215-0215	.
③	1	PRIMARY ROLLER SHAFT	MP-215-0209	.
④	2	GUIDE COLLAR	MP-211-0210	S
⑤	1	BRONZE WASHER	PM-BEBT1028	.
⑥	2	MERGE PRIMARY SIDE FRAME (1 AS DETAILED - 1 OPPOSITE HAND)	MP-215-0221	.
⑦	2	SECONDARY SIDE FRAME (1 AS DETAILED - 1 OPPOSITE HAND)	MP-215-3303	.
⑧	2	5/7.5/10 SECONDARY ROLLER	MP-215-X210	.
⑨	2	ROLL CAP	PM-ROL1990	.
⑩	1	5/7.5/10 SECONDARY ROLLER SHAFT	MP-215-X207	.
⑪	1	SECONDARY PIVOT PIN	MP-215-0225	.
⑫	2	BRUSH MOUNT EXTENSION PLATE (1 AS DETAILED - 1 OPPOSITE HAND)	MP-215-0220	.
⑬	1	MERGE PEEL EDGE	MP-215-0214	S
⑭	1	PEEL EDGE SUPPORT	MP-215-0204	.
⑮	1	SPRING BLOCK MOUNTING ROD	MP-215-0222	.
⑯	1	SPRING BLOCK	ASS-211-0105	S ← FOR 5" WIDE
⑯	2	SPRING BLOCK	ASS-211-0105	S ← FOR 7.5" & 10" WIDE
⑰	1	SPRING BLOCK STOP COLLAR	ASS-211-0110	S ← FOR 5" WIDE
⑰	2	SPRING BLOCK STOP COLLAR	ASS-211-0110	S ← FOR 7.5" & 10" WIDE
⑱	4	FIBER WASHER 3/4" O.D. x 1/2" I.D. x .03" THICK	PM-FAW30920	.
⑲	1	MERGE NOSE BRUSH ASSEMBLY	ASS-215-X107	S
⑳	1	CLEAR LABEL SENSOR MOUNT	MP-215-3302	.

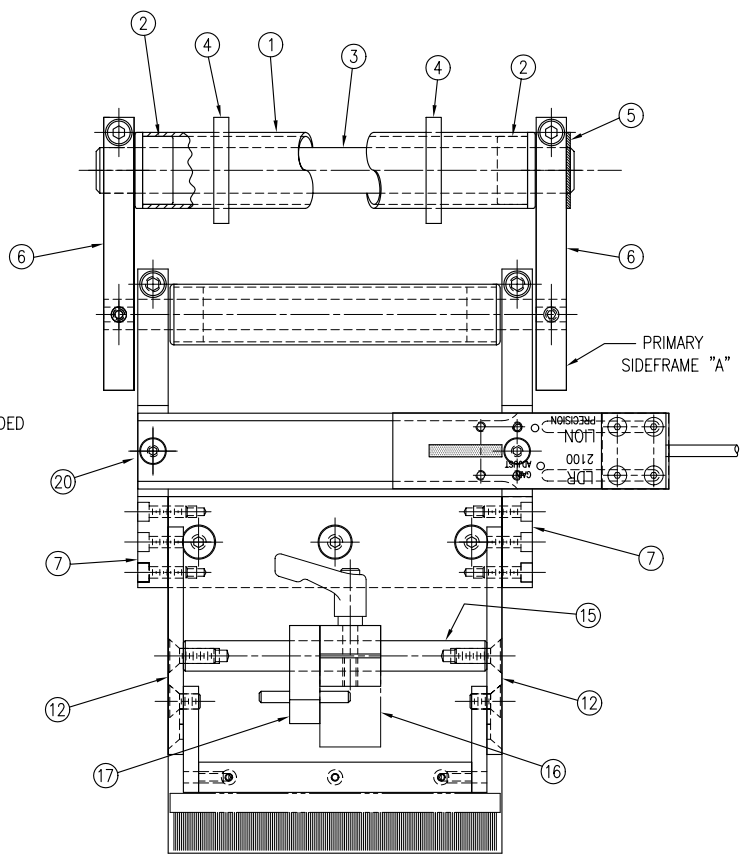
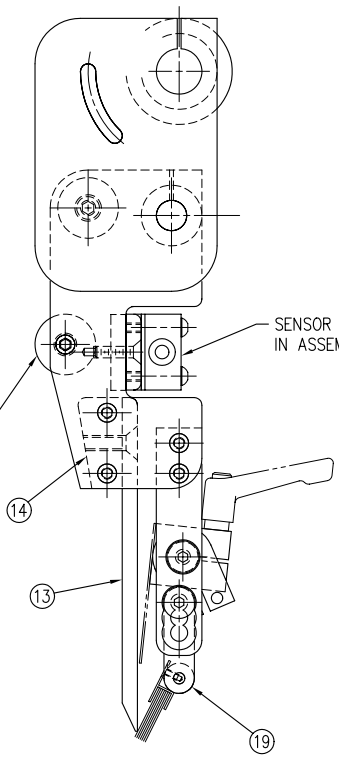
NOTE: CLEAR LABEL SENSOR NOT INCLUDED IN ASSEMBLY  
 THE FOLLOWING SENSOR OPTIONS ARE AVAILABLE AND MUST  
 BE ORDERED IN ADDITION TO ASS-215-3102R/L-X  
 1.) CLEAR LABEL SENSOR (#LRD2100) ~ #PE-SE2000  
 2.) CLEAR LABEL SENSOR (#LRD6110) ~ #PE-SE2050

RH & LH ASSEMBLIES AVAILABLE  
 -RH ASSEMBLY SHOWN-  
 ASS-215-3102R/L-X  
 5" WIDE -3102R/L-5  
 7.5" WIDE -3102R/L-7  
 10" WIDE -3102R/L-10

ADDITIONAL (1) ROLLER (MP-215-X210);  
 (2) ROLLER CAPS (PM-ROL1990);  
 AND (1) ROLLER SHAFT (MP-215-X207)  
 USED FOR DOUBLE FEED~NOT INCLUDED IN ASS'Y.



SECTION "A" - ROTATED 90° CW  
 (SHOWING SECONDARY MERGE ROLLERS)



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 TITLE: 360 SERIES APPLICATOR: MERGE ASSEMBLY  
 REV. 1 REV. DESCRIPTION: O. NEW TITLE/BLOCK  
 REV. DATE: 04/01/03  
 REV. BY: TDR  
 Scale: 1=2  
 Date: 02/11/00  
 DRAWN BY: BOB S.  
 F:\Engineering\Standard Parts\Applcator\360  
 215\ASS-215-3102R-L-X  
 Part: 5/7.5/10 CLEAR LABEL NOSE ASSEMBLY  
 Dept. Code: 70

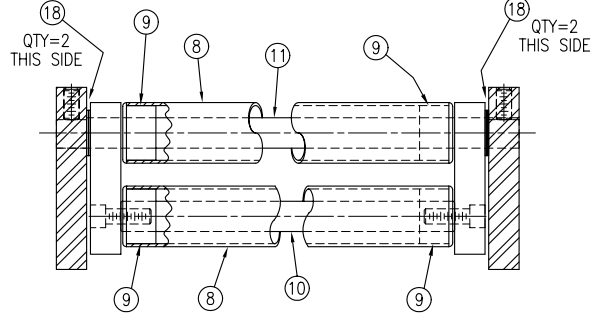
BILL OF MATERIAL			SOLD	
ASSEMBLY	ASS-215-X106		.	
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	5/7.5/10 PRIMARY ROLLER	MP-215-X211	.
②	2	ROLL CAP	MP-215-0215	.
③	1	PRIMARY ROLLER SHAFT	MP-215-0209	.
④	2	GUIDE COLLAR	MP-211-0210	S
⑤	1	BRONZE WASHER	PM-BEBT1028	.
⑥	2	MERGE PRIMARY SIDE FRAME (1 AS DETAILED - 1 OPPOSITE HAND)	MP-215-0221	.
⑦	2	SECONDARY SIDE FRAME (1 AS DETAILED - 1 OPPOSITE HAND)	MP-215-0226	.
⑧	2	5/7.5/10 SECONDARY ROLLER	MP-215-X210	.
⑨	2	ROLL CAP	PM-ROL1990	.
⑩	1	5/7.5/10 SECONDARY ROLLER SHAFT	MP-215-X207	.
⑪	1	SECONDARY PIVOT PIN	MP-215-0225	.
⑫	2	BRUSH MOUNT EXTENSION PLATE (1 AS DETAILED - 1 OPPOSITE HAND)	MP-215-0220	.
⑬	1	MERGE PEEL EDGE	MP-215-0214	S
⑭	1	PEEL EDGE SUPPORT	MP-215-0204	.
⑮	1	SPRING BLOCK MOUNTING ROD	MP-215-0222	.
⑯	1	SPRING BLOCK	ASS-211-0105	S
⑰	2	SPRING BLOCK	ASS-211-0105	S
⑱	1	SPRING BLOCK STOP COLLAR	ASS-211-0110	S
⑲	2	SPRING BLOCK STOP COLLAR	ASS-211-0110	S
⑳	4	FIBER WASHER 3/4" O.D. x 1/2" I.D. x .03" THICK	PM-FAW30920	.
㉑	1	MERGE NOSE BRUSH ASSEMBLY	ASS-215-X107	S
㉒	1	SENSOR MOUNT	MP-215-0201	.

NOTE: SENSOR NOT INCLUDED IN ASSEMBLY  
 THE FOLLOWING SENSOR OPTIONS ARE AVAILABLE AND  
 MUST BE ORDERED IN ADDITION TO ASS-215-X106  
 1.) SENSOR (STD. MTG. ROD) ~ #ASS-211-0108  
 2.) SENSOR (EXTENDED REACH) ~ #ASS-211-0107

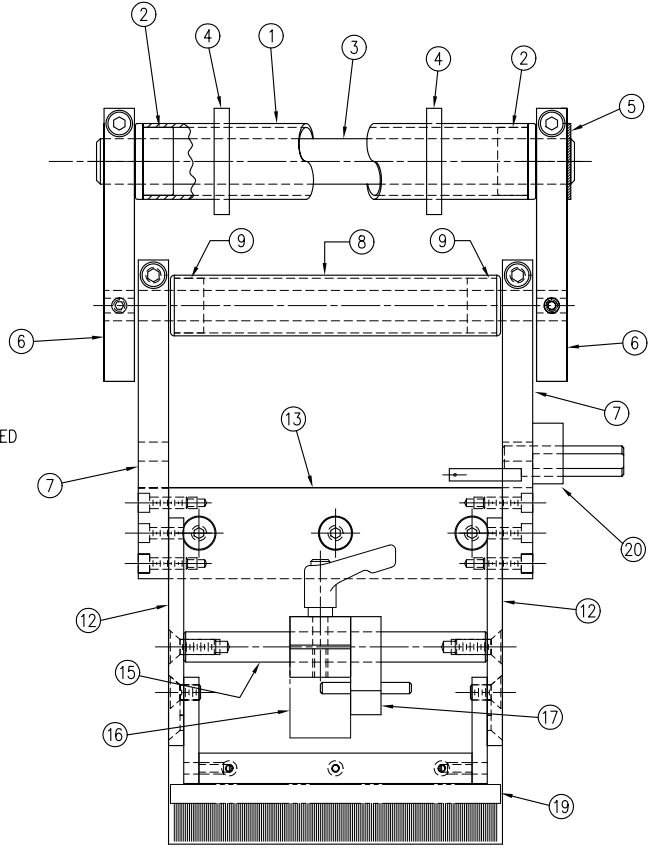
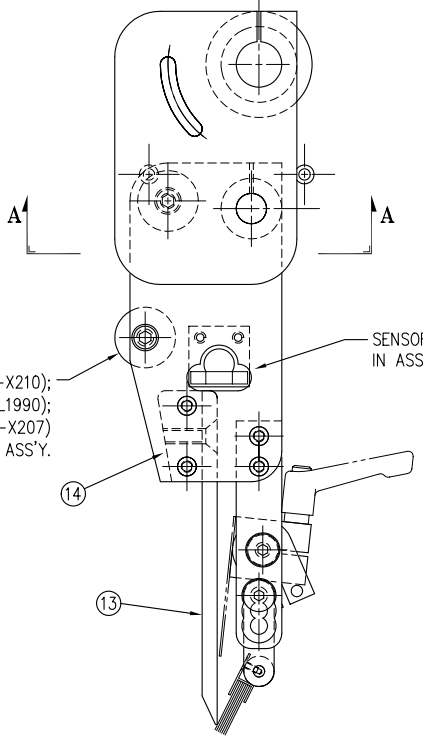
ASS-215-X106	
5" WIDE	-0106
7.5" WIDE	-2106
10" WIDE	-5106

← FOR 5" WIDE
← FOR 7.5" & 10" WIDE
← FOR 5" WIDE
← FOR 7.5" & 10" WIDE

ADDITIONAL (1) ROLLER (MP-215-X210);  
 (2) ROLLER CAPS (PM-ROL1990);  
 AND (1) ROLLER SHAFT (MP-215-X207)  
 USED FOR DOUBLE FEED~NOT INCLUDED IN ASS'Y.



SECTION "A" - ROTATED 90° CCW  
 (SHOWING SECONDARY MERGE ROLLERS)



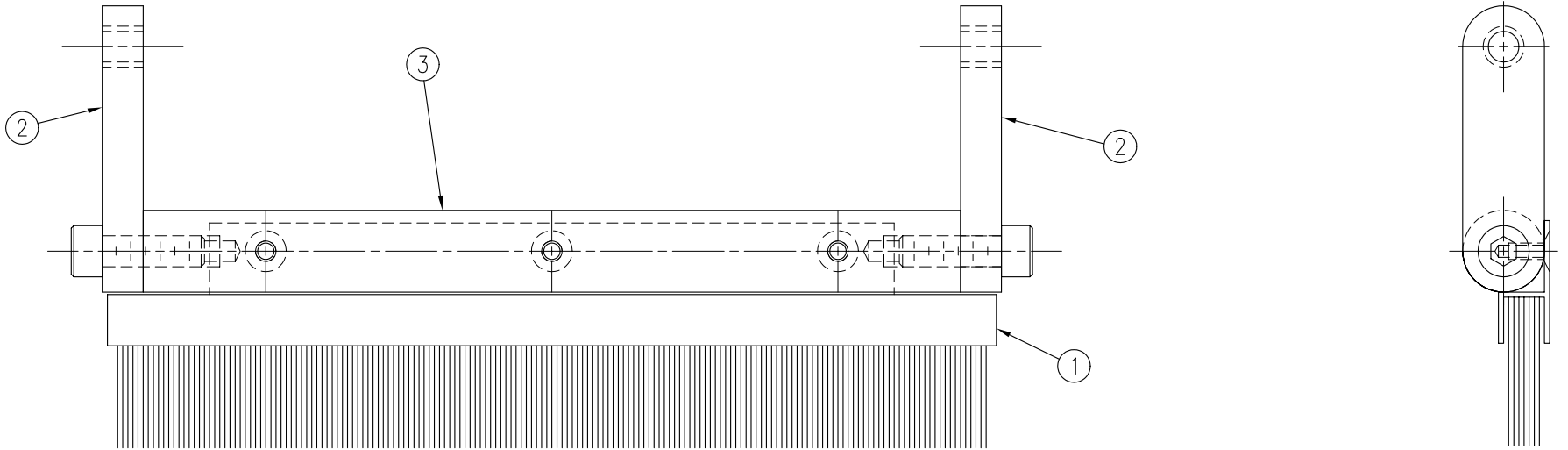
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 TITLE: 360 SERIES APPLICATOR: MERGE ASSEMBLY  
 REV. 1 REV. DESCRIPTION: O. NEW TITLEBLOCK  
 REV. 2 DATE: 03/28/03  
 REV. 3 BY: TDR  
 REV. 4 DATE: 02/11/00  
 REV. 5 BY: BOB S.  
 PART: 5/7.5/10 NOSE ASSEMBLY  
 DRAWN BY: F. Engineering  
 Standard Parts Application 360  
 200 ASS-215-X106  
 Dept. Code 70



BILL OF MATERIAL				SOLD
ASSEMBLY		ASS-215-X107		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	5/7.5/10 TENSION BRUSH ASS'Y	ASS-215-X110	S
②	2	BRUSH SUPPORT ARM	MP-215-0218	.
③	1	BRUSH HOLDER	MP-215-0223	.
	2	FHCS, 1/4-20 x 1/2" LG.	NONE	.

ASS-215-X107

5" WIDE	-0107
7.5" WIDE	-2107
10" WIDE	-5107



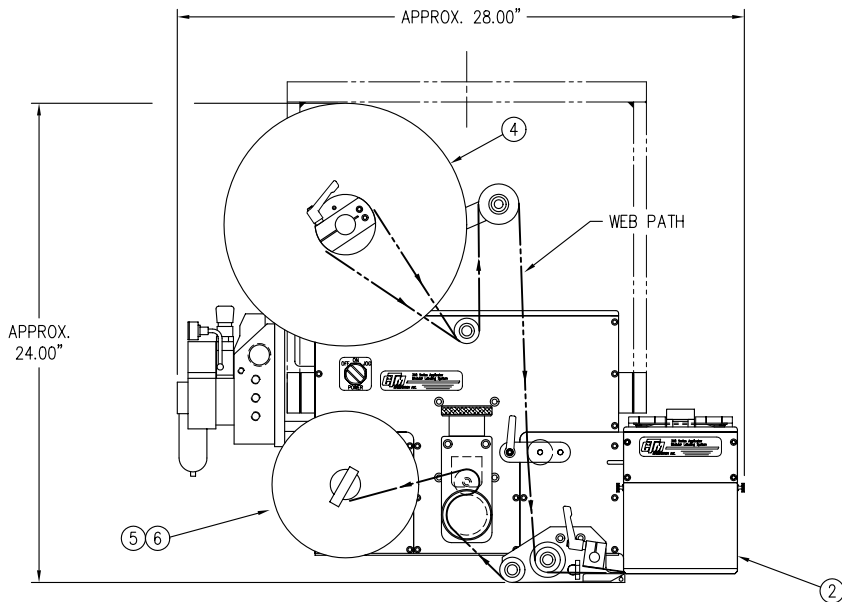
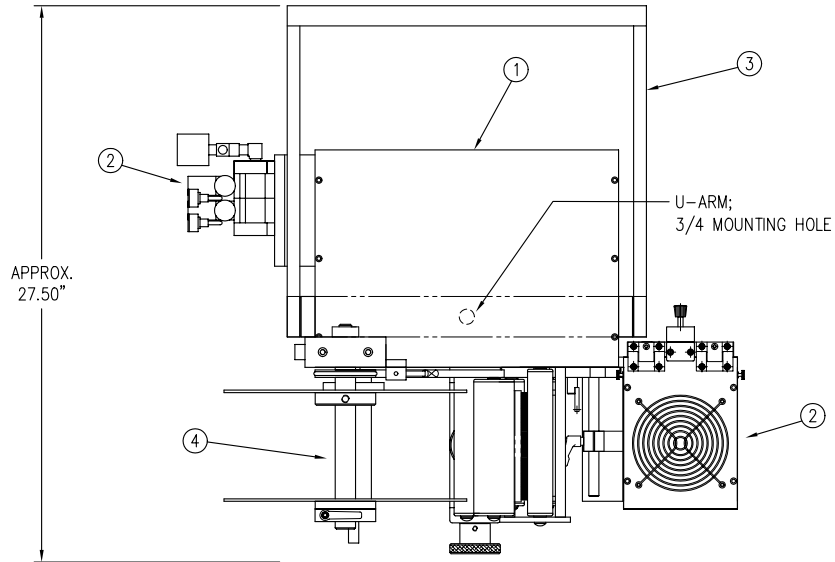
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TITLE: 360 SERIES APPLICATOR: MERGE ASSEMBLY

PART: 5/7.5/10 NOSE BRUSH ASSEMBLY

Dept. Code  
70

REV. 0	REV. DESCRIPTION UPDATED TITLEBLOCK	REV. DATE 02/06/03	REV. BY: TDR	Scale: 1=1	Date: 02/11/00	DRAWN BY: BOB S.	F:\Engineering\Standard Parts\Applicator\360 215\ASS-215-X107
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BILL OF MATERIAL			SOLD
CTM-211-0101RL-12X			S
ASSEMBLY	ITEM	ITEM DESCRIPTION	CTM PART NUMBER
	①	5" WIDE; CORE UNIT	ASS-200-0150R/L
	②	5" WIDE; AIR BLOW BOX NOSE MODULE	MOD-211-0101R/L
	③	U-ARM ASSEMBLY	WAS-200-0247
	④	5" WIDE; 12" UNWIND w/ DISKS MOD.	MOD-200-0121R/L
⑤	1	STD REWIND BLOCK & SHAFT (SHOWN)	ASS-200-0145R/L
	1	COLLAPSIBLE REWIND BLK & SHAFT	ASS-200-3167R/L
⑥	1	STANDARD MANDREL (SHOWN)	ASS-200-0147
	1	FILM REWIND MANDREL	ASS-200-0137
	1	COLLAPSIBLE MANDREL	ASS-200-3131-5

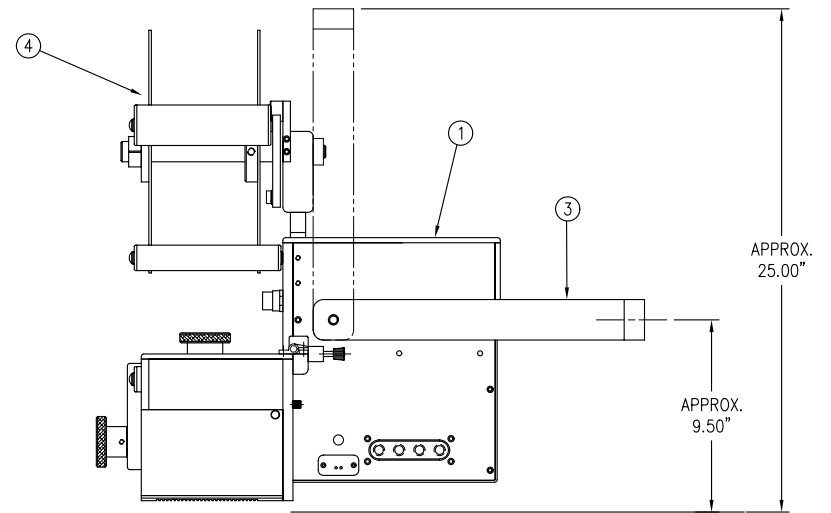
← STD & FILM REWIND
← COLLAPSIBLE RWD
← STANDARD RWD
← FILM REWIND
← COLLAPSIBLE RWD

NOTE: SENSOR NOT INCLUDED:  
THE FOLLOWING SENSOR OPTIONS ARE AVAILABLE AND MUST BE ORDERED IN ADDITION TO #CTM-211-0101R/L-12X

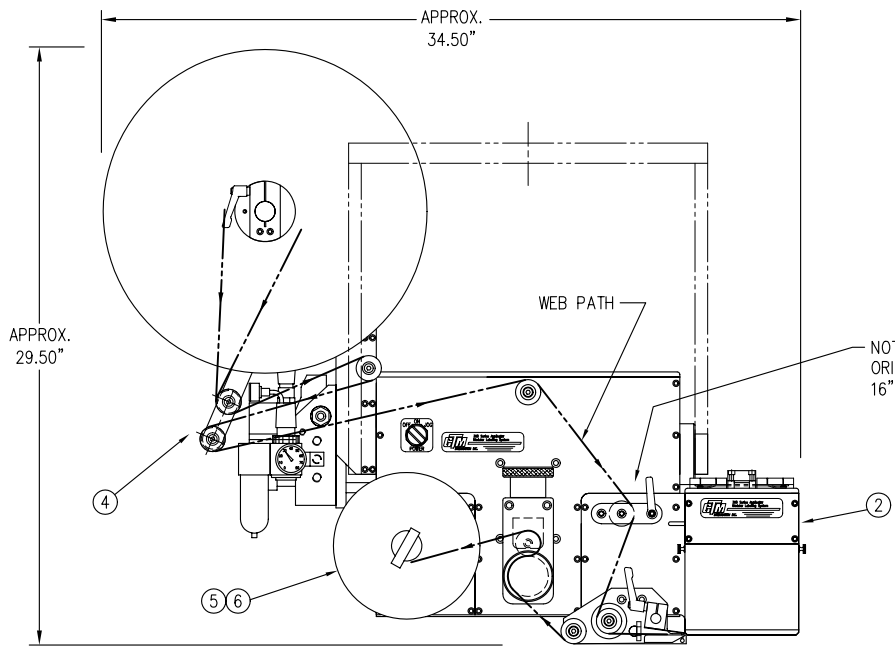
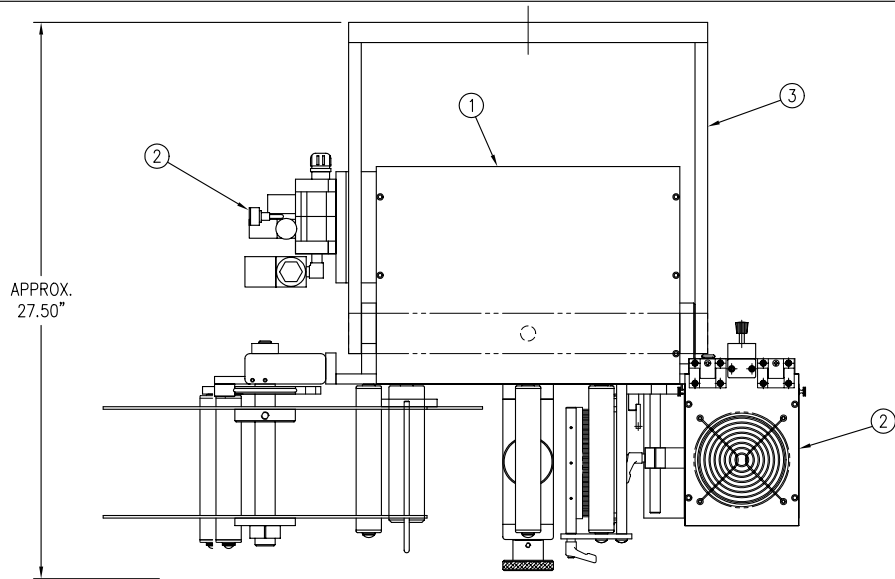
- 1.) SENSOR (STD. MTG. ROD) ~ #ASS-211-0108
- 2.) SENSOR (EXTENDED REACH) ~ #ASS-211-0107

CTM-211-0101R/L-12X	
STANDARD REWIND	-0101R/L-12S
COLLAPSIBLE REWIND	-0101R/L-12C
FILM REWIND	-0101R/L-12F

RH & LH ASSEMBLIES AVAILABLE  
-RH ASSEMBLY SHOWN-



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 TITLE: 360 SERIES APPLICATOR: AIR BLOW BOX  
 REV. DESCRIPTION: O DRAWING NO. WAS 200-0105 & 200-0624  
 REV. DATE: 06/13/03  
 REV. BY: TDK  
 PART: 5" WIDE AIR BLOW w/ 12" UNWIND ASSEMBLY  
 DRAWN BY: F:\Engineering\Standard Parts Applicator\360  
 Z11\CTM-211-0101RL-12X  
 BOB S.  
 Date: 06/24/97  
 Scale: 1=6  
 Dept. Code: 70



BILL OF MATERIAL			SOLD
CTM-211-0101RL-16X			S
ASSEMBLY	ITEM	DESCRIPTION	CTM PART NUMBER
	①	5" WIDE; CORE UNIT	ASS-200-0150R/L
	②	5" WIDE; AIR BLOW NOSE MODULE	MOD-211-0101R/L
	③	U-ARM ASSEMBLY	WAS-200-0247
	④	5" WIDE; 16" UNWIND w/ DISKS MOD.	MOD-200-3121R/L-5
	⑤	STD REWIND BLOCK & SHAFT (SHOWN)	ASS-200-0145R/L
	⑥	COLLAPSIBLE REWIND BLK & SHAFT	ASS-200-3167R/L
		STANDARD MANDREL (SHOWN)	ASS-200-0147
		FILM REWIND MANDREL	ASS-200-0137
		COLLAPSIBLE MANDREL	ASS-200-3131-5

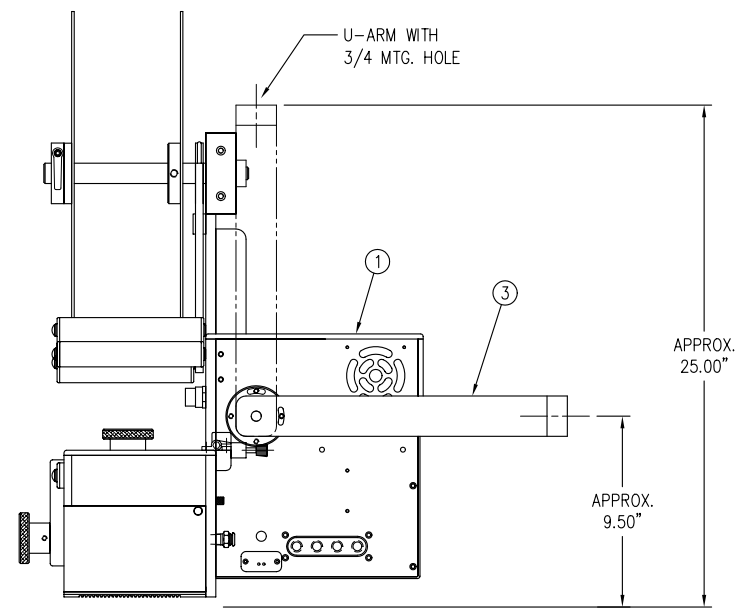
ASSEMBLY	ITEM	DESCRIPTION	CTM PART NUMBER	SOLD
		STD & FILM REWIND		S
		COLLAPSIBLE RWD		S
		STANDARD RWD		S
		FILM REWIND		S
		COLLAPSIBLE RWD		S

**NOTE: SENSOR NOT INCLUDED:**  
 THE FOLLOWING SENSOR OPTIONS ARE AVAILABLE AND MUST BE ORDERED IN ADDITION TO #CTM-211-0101R/L-16X

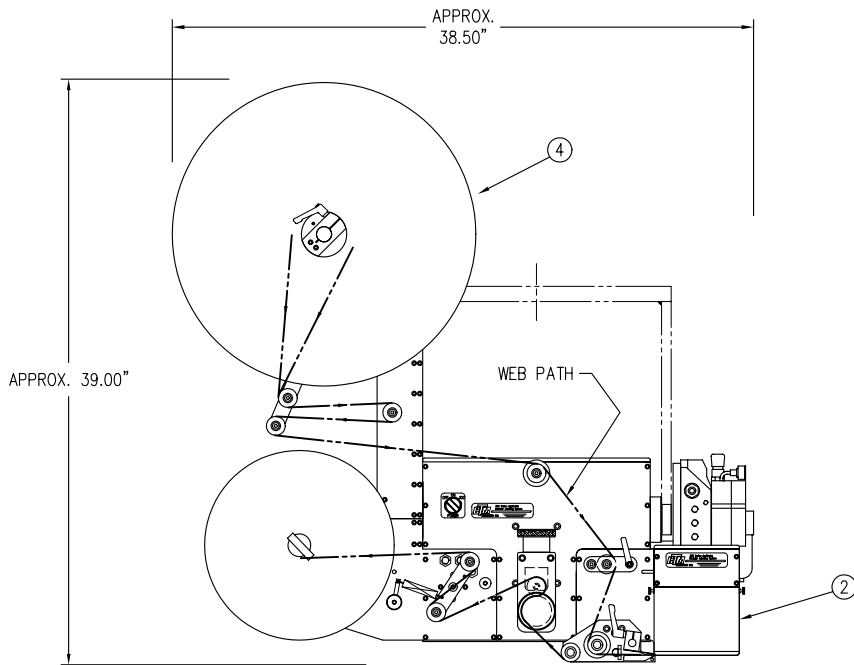
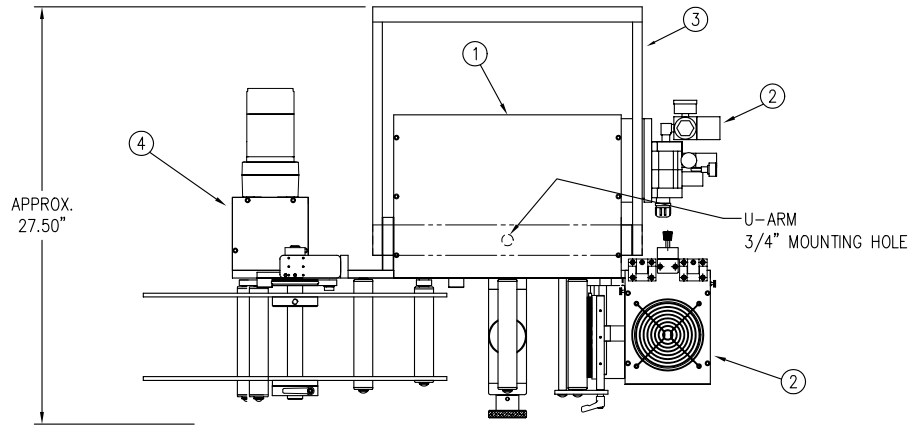
- 1.) SENSOR (STD. MTG. ROD) ~ #ASS-211-0108
- 2.) SENSOR (EXTENDED REACH) ~ #ASS-211-0107

CTM-211-0101R/L-16X	
STANDARD REWIND	-0101R/L-16S
COLLAPSIBLE REWIND	-0101R/L-16C
FILM REWIND	-0101R/L-16F

RH & LH ASSEMBLIES AVAILABLE  
 -RH ASSEMBLY SHOWN-



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 TITLE: 360 SERIES APPLICATOR: AIR BLOW BOX  
 REV. DESCRIPTION: O. WAS DWG. NO. 200-0631  
 REV. DATE: 06/13/03  
 REV. BY: IDK  
 DRAWN BY: F. Engineering/Standard Parts Application/360  
 PART: 3" WIDE AIR BLOW w/ 16" UNWIND ASSEMBLY  
 Dept. Code: 70  
 BOB S.

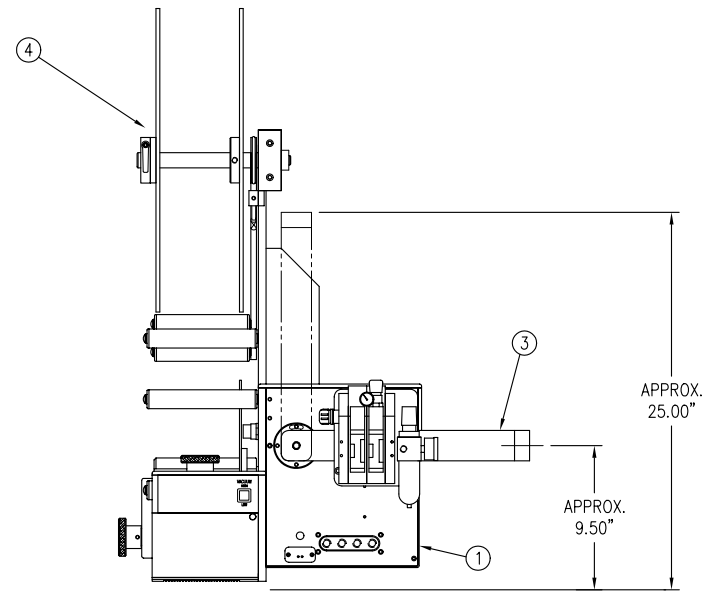


BILL OF MATERIAL			SOLD
CTM-211-0101R/L-20PS			S
ASSEMBLY	QTY	ITEM DESCRIPTION	CTM PART NUMBER
①	1	5" WIDE; CORE UNIT	ASS-200-0150R/L
②	1	5" WIDE; AIR BLOW BOX NOSE MODULE	MOD-211-0101R/L
③	1	U-ARM ASSEMBLY	WAS-200-0247
④	1	5" WIDE; 20" UNWIND w/ P.R. ASSY	MOD-200-3154R/L-5

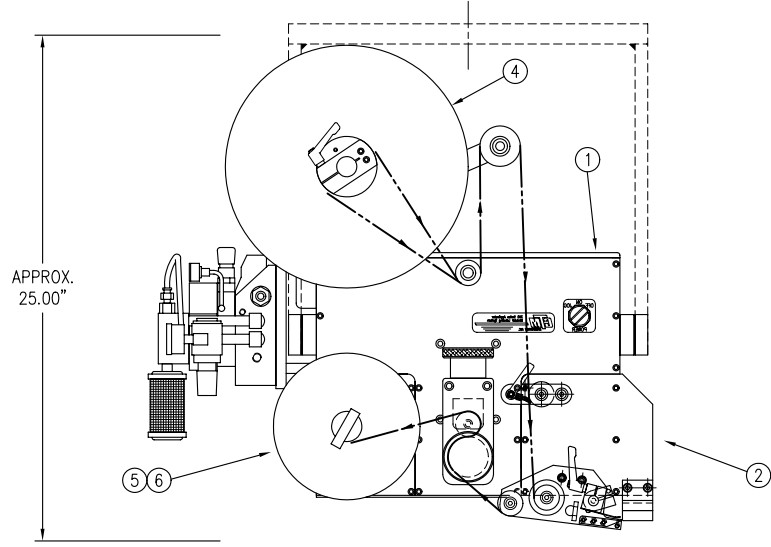
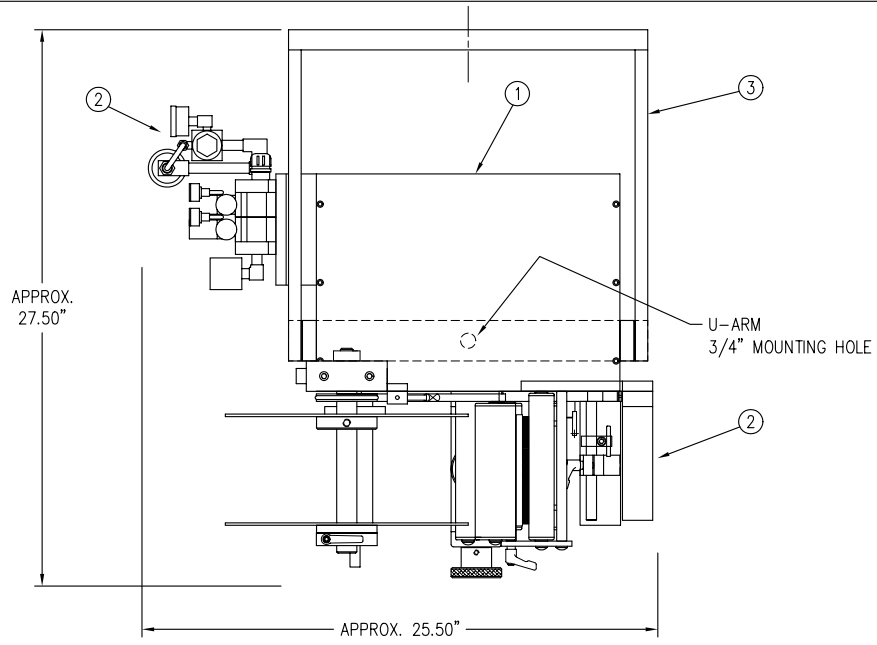
NOTE: SENSOR NOT INCLUDED:  
 THE FOLLOWING SENSOR OPTIONS ARE AVAILABLE AND MUST BE ORDERED IN ADDITION TO #CTM-211-0101R/L-20PS  
 1.) SENSOR (STD. M.TG. ROD) ~ #ASS-211-0108  
 2.) SENSOR (EXTENDED REACH) ~ #ASS-211-0107

CTM-211-0101R/L-20PS

RH & LH ASSEMBLIES AVAILABLE  
 -RH ASSEMBLY SHOWN-



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 TITLE: 360 SERIES APPLICATOR: AIR BLOW  
 REV. DESCRIPTION: O  
 DRAWING NO.: WAS 200-0105 & 200-3153  
 REV. DATE: 06/13/03  
 REV. BY: IDK  
 Scale: 1=6  
 Date: 06/24/97  
 DRAWN BY: BOB S.  
 F:\Engineering\Standard Parts\Applcator\360  
 Z:\CTM-211-0101R-L-20PS  
 Part: 3" WIDE AIR BLOW w/ 20" UNWIND & POWERED REWIND  
 Dept. Code: 70



BILL OF MATERIAL				SOLD	
CTM-211-0111RL-12X				S	
ASSEMBLY	QTY	ITEM DESCRIPTION	CTM PART NUMBER		
①	1	5" WIDE; CORE UNIT	ASS-200-0150R/L	.	
②	1	5" WIDE; RVB NOSE MODULE	MOD-211-0111R/L	S	
③	1	U-ARM ASSEMBLY	WAS-200-0247	.	
④	1	5" WIDE; 12" UNWIND ASSY	MOD-200-0121R/L	S	
⑤	1	STD REWIND BLOCK & SHAFT (SHOWN)	ASS-200-0145R/L	S	← STD & FILM REWIND
	1	COLLAPSIBLE REWIND BLK & SHAFT	ASS-200-3167R/L	S	← COLLAPSIBLE RWD
⑥	1	STANDARD MANDREL (SHOWN)	ASS-200-0147	S	← STANDARD RWD
	1	FILM REWIND MANDREL	ASS-200-0137	S	← FILM REWIND
	1	COLLAPSIBLE MANDREL	ASS-200-3131-5	S	← COLLAPSIBLE RWD

**NOTE:**  
 PAD & MANIFOLD ARE JOB SPECIFIC. CUSTOMER TO ORDER SEPARATELY.  
 (FOR MANIFOLD BLANKS REFER TO DWG. #MP-211-0238-X)

MANIFOLD TEMPLATES AVAILABLE FOR 2", 3", 4" AND 5" WIDE LABELS.  
 OTHER SIZES ARE CUSTOM.

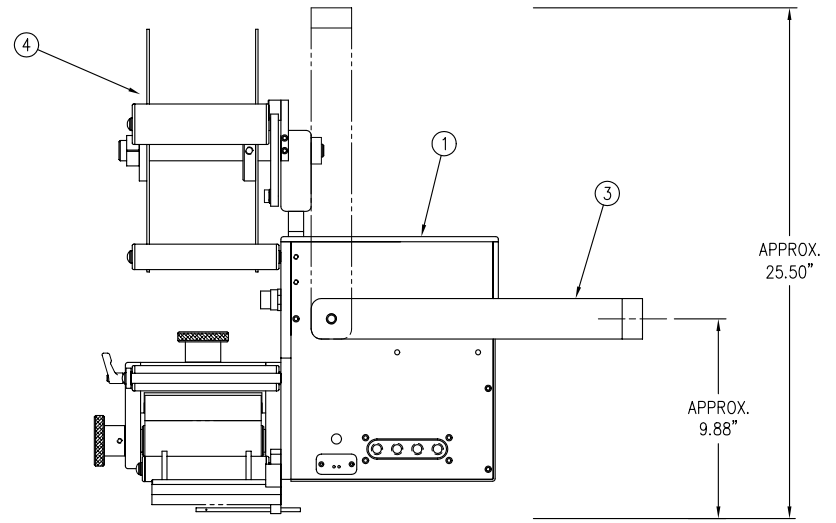
**NOTE: SENSOR NOT INCLUDED:**  
 THE FOLLOWING SENSOR OPTIONS ARE AVAILABLE AND MUST BE ORDERED IN ADDITION TO #CTM-211-0111R/L-12X

- 1.) SENSOR (STD. MTG. ROD) ~ #ASS-211-0108
- 2.) SENSOR (EXTENDED REACH) ~ #ASS-211-0107

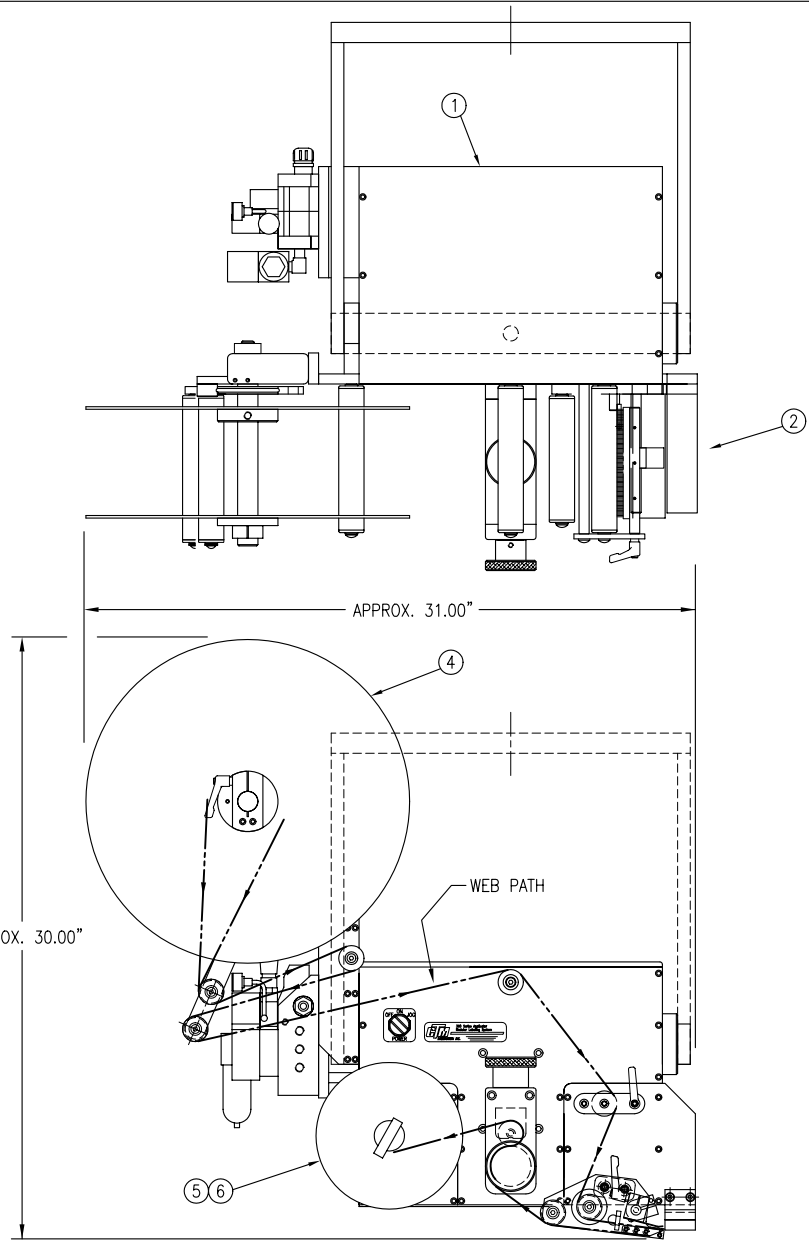
CTM-211-0111R/L-12X

STANDARD REWIND	-0111RL-12S
COLLAPSIBLE REWIND	-0111RL-12C
FILM REWIND	-0111RL-12F

RH & LH ASSEMBLIES AVAILABLE  
 -RH ASSEMBLY SHOWN-



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 TITLE: 360 SERIES APPLICATOR: RVB  
 REV. DESCRIPTION: O DRAWING NO. WAS 200-0108 & 200-0626  
 REV. DATE: 06/13/03  
 REV. BY: TDR  
 PART: 5" WIDE RVB w/ 12" UNWIND  
 DRAWN BY: BOB S.  
 Date: 06/24/97  
 Scale: 1=6  
 Dept. Code: 70  
 F:\Engineering\Standard Parts Application\360\211\CTM-211-0111RL-12X



BILL OF MATERIAL			SOLD
ASSEMBLY	CTM-211-0111RL-16X		S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER
①	1	5" WIDE; CORE UNIT	ASS-200-0150R/L
②	1	5" WIDE; RVB NOSE MODULE	MOD-211-0111R/L
③	1	U-ARM ASSEMBLY	WAS-200-0247
④	1	5" WIDE; 16" UNWIND ASSY	MOD-200-3121R/L-5
⑤	1	STD REWIND BLOCK & SHAFT (SHOWN)	ASS-200-0145R/L
	1	COLLAPSIBLE REWIND BLK & SHAFT	ASS-200-3167R/L
	1	STANDARD MANDREL (SHOWN)	ASS-200-0147
⑥	1	FILM REWIND MANDREL	ASS-200-0137
	1	COLLAPSIBLE MANDREL	ASS-200-3131-5

CTM-211-0111R/L-16X

STANDARD REWIND -0111R/L-16S  
 COLLAPSIBLE REWIND -0111R/L-16C  
 FILM REWIND -0111R/L-16F

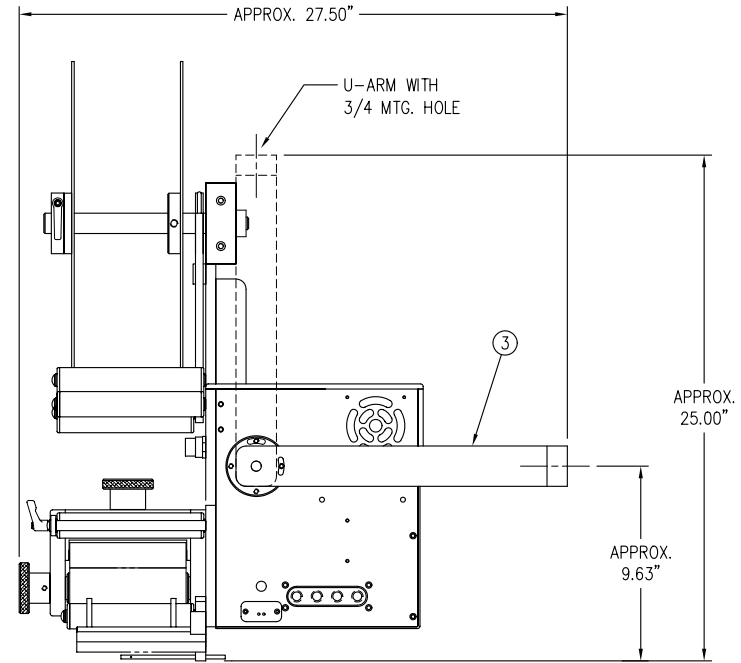
RH & LH ASSEMBLIES AVAILABLE  
 -RH ASSEMBLY SHOWN-

**NOTE:**  
 PAD & MANIFOLD ARE JOB SPECIFIC. CUSTOMER TO ORDER SEPARATELY.  
 (FOR MANIFOLD BLANKS REFER TO DWG. #MP-211-0238-X)

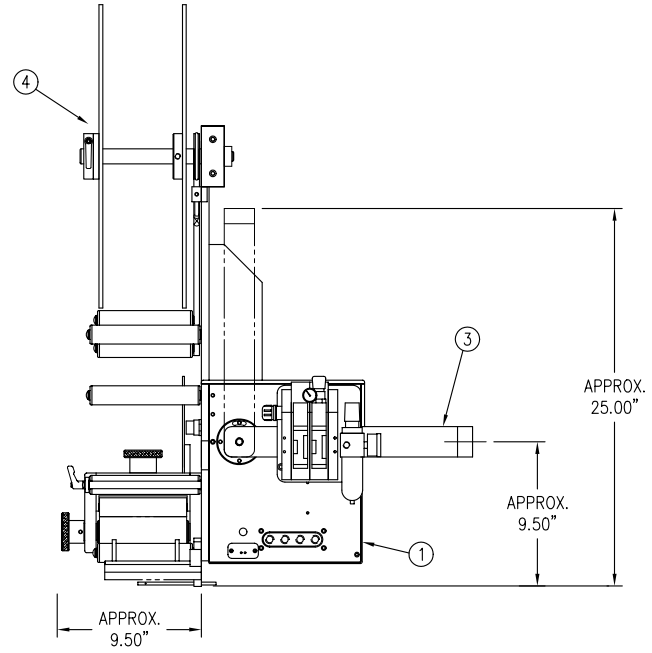
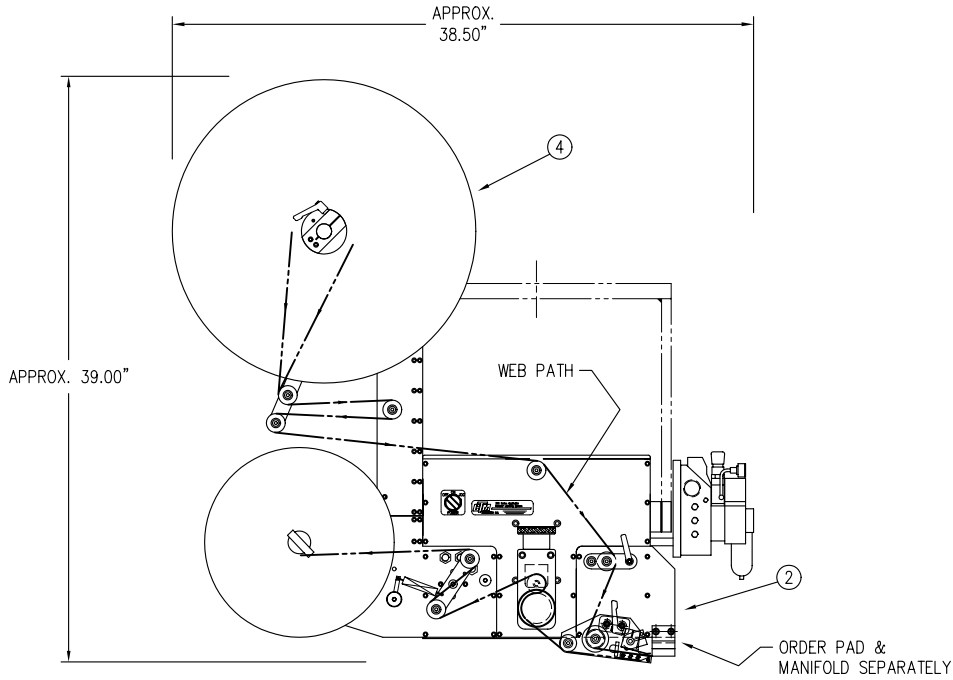
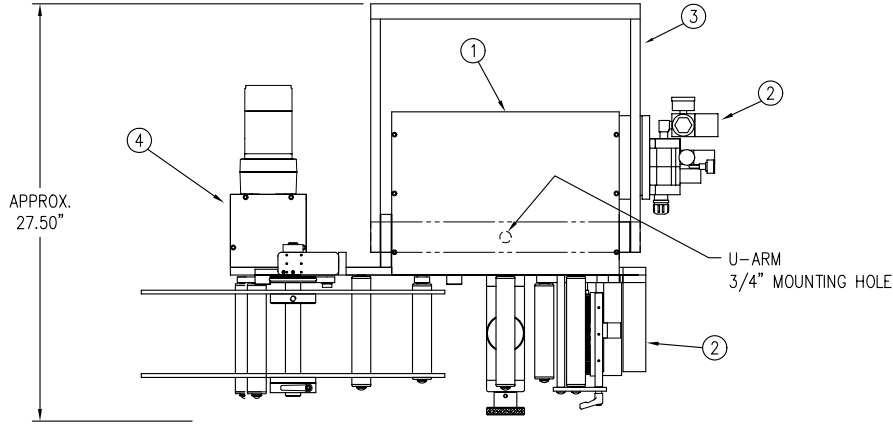
MANIFOLD TEMPLATES AVAILABLE FOR 2", 3", 4" AND 5" WIDE LABELS.  
 OTHER SIZES ARE CUSTOM.

**NOTE:** SENSOR NOT INCLUDED IN ASSEMBLY OR MODULE  
 THE FOLLOWING SENSOR OPTIONS ARE AVAILABLE AND MUST BE  
 ORDERED IN ADDITION TO #CTM-211-0111R/L-16X

- 1.) SENSOR (STD. MTG. ROD) ~ #ASS-211-0108
- 2.) SENSOR (EXTENDED REACH) ~ #ASS-211-0107



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 TITLE: 360 SERIES APPLICATOR: RVB ASSEMBLY  
 REV. 1 REV. DESCRIPTION: O WAS DWG. NO. 200-0631  
 REV. DATE: 06/13/03  
 REV. BY: IDK  
 DRAWN BY: BOB S.  
 DATE: 09/01/99  
 SCALE: 1=6  
 PART: 3" WIDE RVB w/ 16" UNWIND  
 Dept. Code: 70  
 F:\Engineering\Standard Parts Applicator\360\211\CTM-211-0111RL-16X



BILL OF MATERIAL				SOLD
ASSEMBLY CTM-211-0111R/L-20PS				S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	5" WIDE; CORE UNIT	ASS-200-0150R/L	.
②	1	5" WIDE; AIR BLOW BOX NOSE MODULE	MOD-211-0101R/L	S
③	1	U-ARM ASSEMBLY	WAS-200-0247	.
④	1	5" WIDE; 20" UNWIND w/ P.R. ASSY	MOD-200-3154R/L-5	.

**NOTE:**  
 PAD & MANIFOLD ARE JOB SPECIFIC. CUSTOMER TO ORDER SEPARATELY.  
 (FOR MANIFOLD BLANKS REFER TO DWG. #MP-211-0238-X)  
 MANIFOLD TEMPLATES AVAILABLE FOR 2", 3", 4" AND 5" WIDE LABELS.  
 OTHER SIZES ARE CUSTOM.

**NOTE: SENSOR NOT INCLUDED IN ASSEMBLY OR MODULE**  
 THE FOLLOWING SENSOR OPTIONS ARE AVAILABLE AND MUST BE ORDERED IN ADDITION TO #CTM-211-0111R/L-20PS

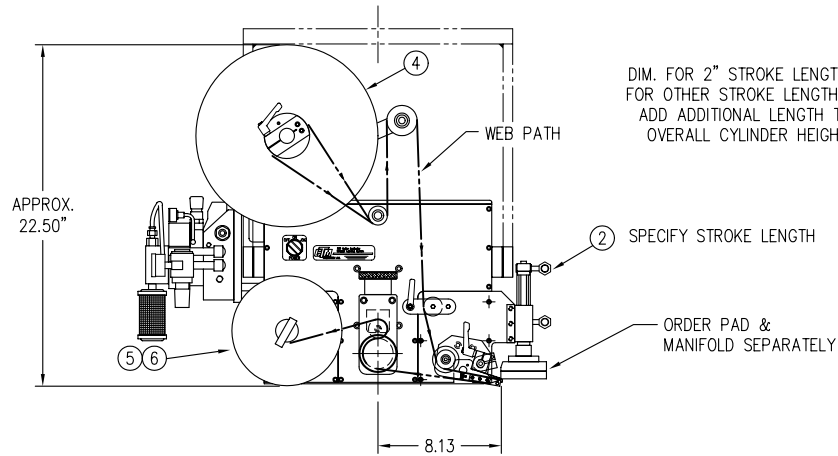
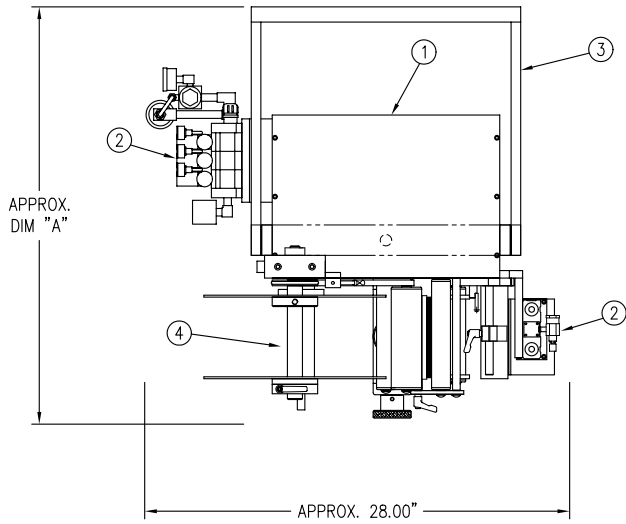
- 1.) SENSOR (STD. MTC. ROD) ~ #ASS-211-0108
- 2.) SENSOR (EXTENDED REACH) ~ #ASS-211-0107

CTM-211-0111R/L-20PS

RH & LH ASSEMBLIES AVAILABLE  
 -RH ASSEMBLY SHOWN-

THIS DRAWING AND DESIGN IS THE PROPERTY OF CTM INTEGRATION INC. AND MAY NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT THE WRITTEN PERMISSION OF CTM INTEGRATION INC.  
 TITLE: 360 SERIES APPLICATOR: RVB ASSEMBLY  
 REV. DESCRIPTION: O DRAWING NO. WAS 200-0105 & 200-3153  
 REV. DATE: 06/13/03  
 REV. BY: IDR  
 PART: 5" WIDE: RVB w/ 20" UNWIND & POWERED REWIND  
 DRAWN BY: F:\Engineering\Standard Parts\Appliator\360  
 DATE: 06/24/97  
 BOB S.  
 Dept. Code: 70  
 211CTM-211-0111R/L-20PS

PART NO.	DIM "A"
CTM-214-0101R/L-12X	27.50
CTM-214-2101R/L-12X	30.00
CTM-214-5101R/L-12X	32.50



BILL OF MATERIAL			SOLD		
CTM-214-X101RL-12X			S		
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER		
①	1	5/7.5/10 WIDE; CORE UNIT	ASS-200-X150R/L	.	
②	1	5/7.5/10 TAMP NOSE MODULE SPECIFY STROKE LENGTH	MOD-214-X101R/L	S	
③	1	U-ARM ASSEMBLY	WAS-200-0247	.	
④	1	5/7.5/10 WIDE; 12" UNWIND w/ DISKS MOD.	MOD-200-X121R/L	S	
⑤	1	STD REWIND BLOCK & SHAFT (SHOWN)	ASS-200-0145R/L	S	← STD & FILM REWIND
	1	COLLAPSIBLE REWIND BLK & SHAFT	ASS-200-3167R/L	S	← COLLAPSIBLE RWD
⑥	1	STANDARD MANDREL (SHOWN)	ASS-200-X147	S	← STANDARD RWD
	1	FILM REWIND MANDREL	ASS-200-X137	S	← FILM REWIND
	1	COLLAPSIBLE MANDREL	ASS-200-3131-X	S	← COLLAPSIBLE RWD

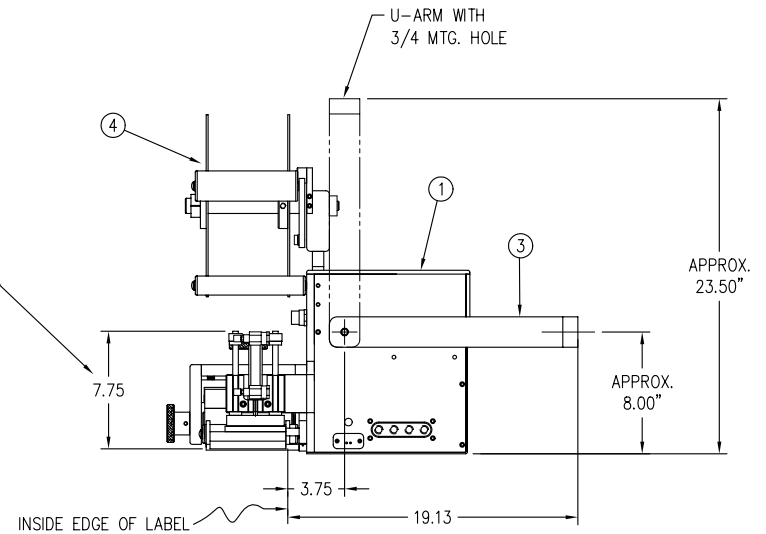
NOTE: SENSOR NOT INCLUDED:  
THE FOLLOWING SENSOR OPTIONS ARE AVAILABLE AND MUST BE ORDERED IN ADDITION TO #CTM-211-0101R/L-12X

- 1.) SENSOR (STD. MTG. ROD) ~ #ASS-211-0108
- 2.) SENSOR (EXTENDED REACH) ~ #ASS-211-0107

CTM-214-X101R/L-12X	
5" WIDE	-0101R/L-12 X
7.5" WIDE	-2101R/L-12 X
10" WIDE	-5101R/L-12 X

STANDARD REWIND S  
COLLAPSIBLE REWIND C  
FILM REWIND F

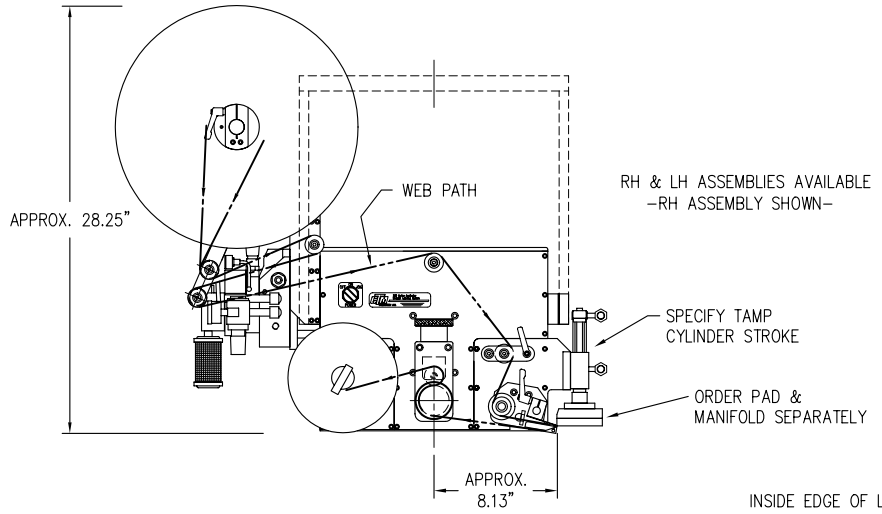
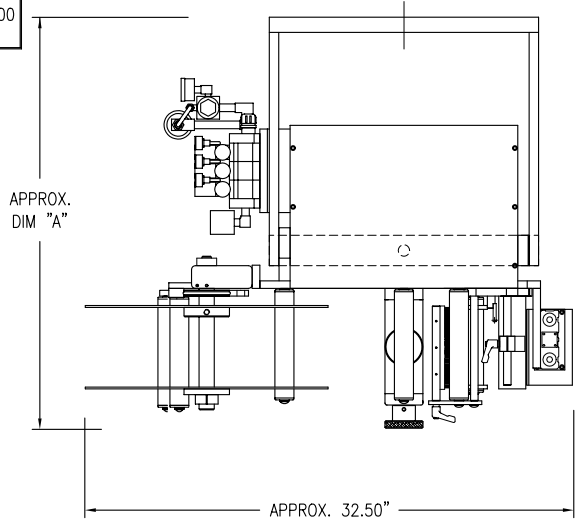
RH & LH ASSEMBLY AVAILABLE  
-RH ASSEMBLY SHOWN-



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 TITLE: 360 SERIES APPLICATOR: TAMP ASSEMBLY  
 REV. BY: IDK  
 REV. DATE: 07/16/03  
 DRAWN BY: F. Engineering  
 DATE: 11/19/98  
 SCALE: 1=8  
 BOB S.  
 DEPT. CODE: 70  
 PART: 3" / 7.5" / 10" WIDE: TAMP w/ 12" UNWIND ASSEMBLY  
 DRAWING NO.: WAS 200-0623



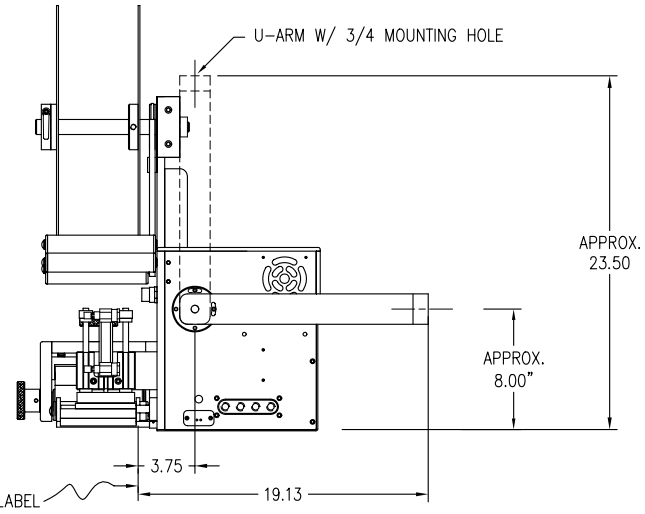
PART NO.	DIM "A"
CTM-214-0101R/L-16S	27.50
CTM-214-0101R/L-16C	
CTM-214-0101R/L-16F	
CTM-214-2101R/L-16S	30.00
CTM-214-2101R/L-16C	
CTM-214-2101R/L-16F	



BILL OF MATERIAL				SOLD
ASSEMBLY	CTM-214-X101RL-16X			S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	5/7.5 WIDE; CORE UNIT	ASS-200-X150R/L	.
②	1	5/7.5 WIDE; TAMP NOSE MODULE	MOD-214-X101R/L	S
③	1	U-ARM ASSEMBLY	WAS-200-0247	.
④	1	5/7.5 WIDE; 16" UNWIND ASSY	ASS-200-3121R/L-X	.
⑤	1	STD REWIND BLOCK & SHAFT (SHOWN)	ASS-200-0145R/L	S ← STD & FILM REWIND
	1	COLLAPSIBLE REWIND BLK & SHAFT	ASS-200-3167R/L	S ← COLLAPSIBLE RWD
⑥	1	STANDARD MANDREL (SHOWN)	ASS-200-X147	S ← STANDARD RWD
	1	FILM REWIND MANDREL	ASS-200-X137	S ← FILM REWIND
	1	COLLAPSIBLE MANDREL	ASS-200-3131-X	S ← COLLAPSIBLE RWD

**NOTE: SENSOR NOT INCLUDED:**  
 THE FOLLOWING SENSOR OPTIONS ARE AVAILABLE AND MUST BE ORDERED IN ADDITION TO #CTM-214-X101R/L-16X

- 1.) SENSOR (STD. MTG. ROD) ~ #ASS-211-0108
- 2.) SENSOR (EXTENDED REACH) ~ #ASS-211-0107



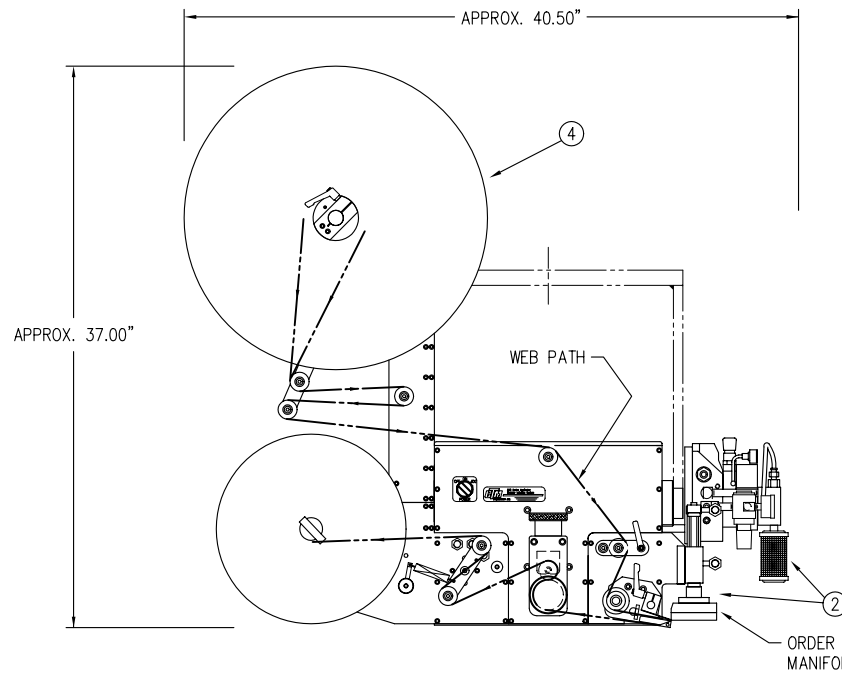
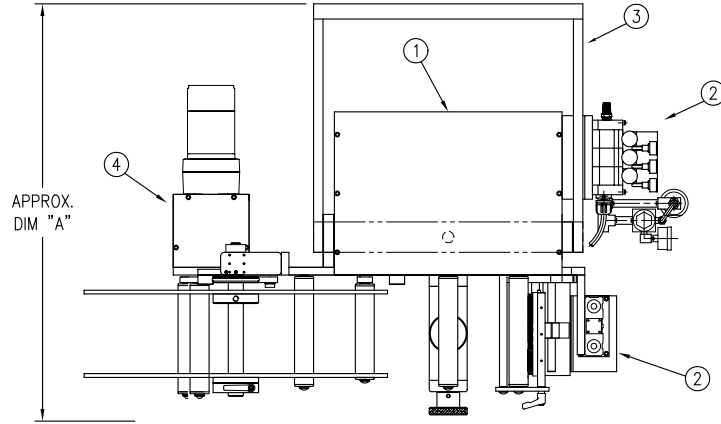
CTM-214-X101R/L-16X		
5" WIDE	-0101RL-16	X
7.5" WIDE	-0101RL-16	X

STANDARD REWIND	S
COLLAPSIBLE REWIND	C
FILM REWIND	F

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 TITLE: 360 SERIES APPLICATOR: TAMP ASSEMBLY  
 REV. DESCRIPTION: O DWG. NO. WAS 200-0630  
 REV. DATE: 06/27/03  
 REV. BY: TDR  
 DRAWN BY: BOB S.  
 DATE: 08/30/99  
 SCALE: 1=8  
 PART: 5/7.5/10 WIDE TAMP w/ 16" UNWIND ASSEMBLY  
 Dept. Code: 70  
 F:\Engineering\Standard Parts\Applcator\360\214\CTM-214-X101RL-16X

PART NO.	DIM "A"
CTM-214-0101R/L-20PS	27.50
CTM-214-2101R/L-20PS	30.00

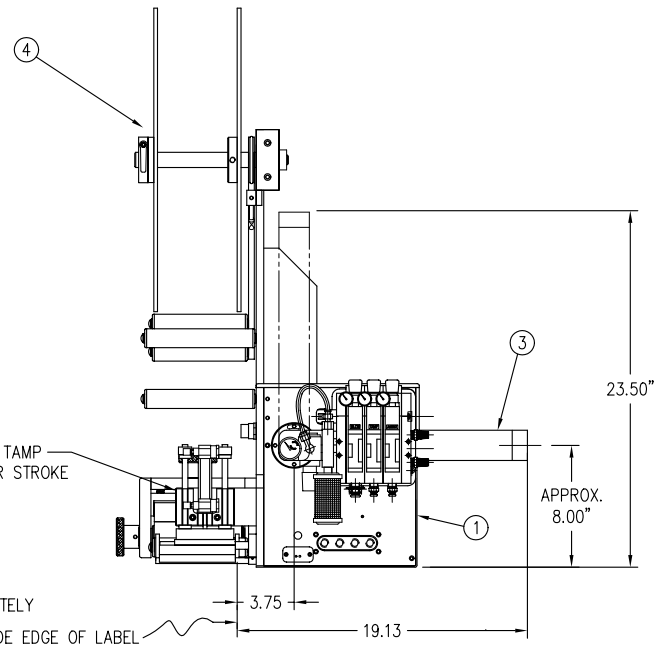


BILL OF MATERIAL				SOLD
CTM-214-X101R/L-20PS				S
ASSEMBLY	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	5/7.5 WIDE; CORE UNIT	ASS-200-X150R/L	.
②	1	5/7.5 WIDE; TAMP NOSE MODULE SPECIFY STROKE LENGTH	MOD-214-X101R/L	S
③	1	U-ARM ASSEMBLY	WAS-200-0247	.
④	1	5/7.5 WIDE; 20" UNWIND w/ P.R. ASSY	MOD-200-3154R/L-X	.

NOTE: SENSOR NOT INCLUDED:  
THE FOLLOWING SENSOR OPTIONS ARE AVAILABLE AND MUST BE ORDERED IN ADDITION TO #CTM-214-X101R/L-20PS  
1.) SENSOR (STD. MTG. ROD) ~ #ASS-211-0108  
2.) SENSOR (EXTENDED REACH) ~ #ASS-211-0107

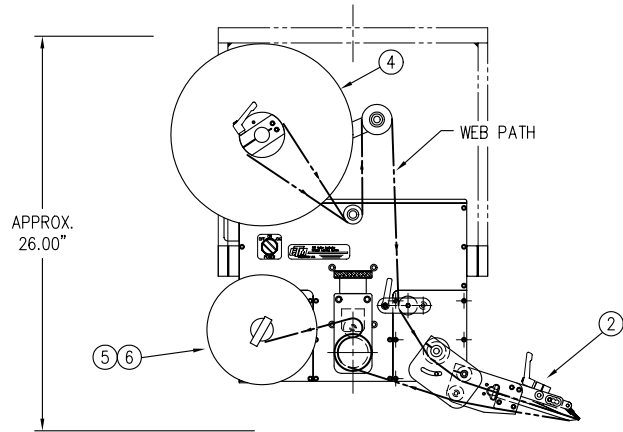
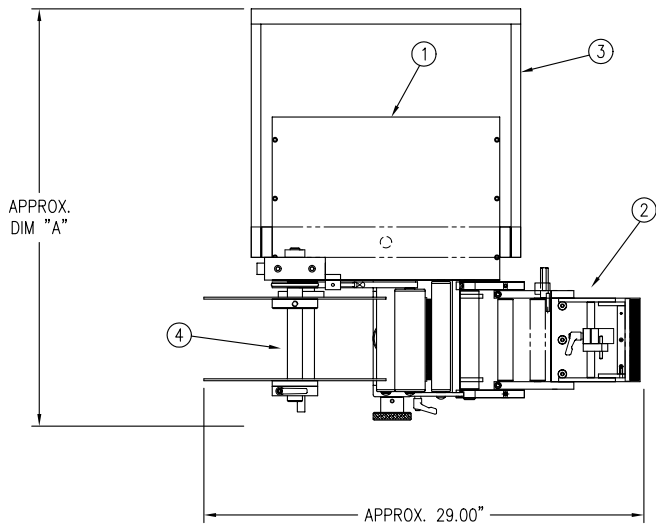
CTM-214-X101R/L-20PS	
5" WIDE	-0101R/L-20PS
7.5" WIDE	-2101R/L-20PS

RH & LH ASSEMBLIES AVAILABLE  
-RH ASSEMBLY SHOWN-



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 TITLE: 360 SERIES APPLICATOR: TAMP ASSEMBLY  
 REV. DATE: 06/13/03  
 REV. BY: IDK  
 Scale: 1=6  
 Date: 11/19/98  
 DRAWN BY: BOB S.  
 F:\Engineering\Standard Parts\Applcator\360  
 214\CTM-214-X101R-20PS  
 Part. Code: 70  
 Dept. Code: 360

PART NO.	DIM "A"
CTM-215-0105R/L-12X	27.50
CTM-215-2105R/L-12X	30.00
CTM-215-5105R/L-12X	32.50



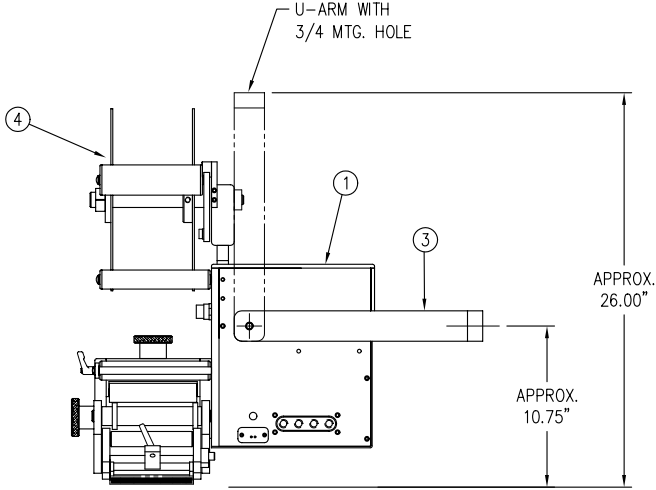
BILL OF MATERIAL			SOLD		
ASSEMBLY			S		
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER		
①	1	5/7.5/10 WIDE; CORE UNIT	ASS-200-X150R/L	.	
②	1	5/7.5/10 MERGE NOSE MODULE	MOD-214-X101R/L	S	
③	1	U-ARM ASSEMBLY	WAS-200-0247	.	
④	1	5/7.5/10 WIDE; 12" UNWIND w/ DISKS MOD.	MOD-200-X121R/L	S	
⑤	1	STD REWIND BLOCK & SHAFT (SHOWN)	ASS-200-0145R/L	S	← STD & FILM REWIND
	1	COLLAPSIBLE REWIND BLK & SHAFT	ASS-200-3167R/L	S	← COLLAPSIBLE RWD
⑥	1	STANDARD MANDREL (SHOWN)	ASS-200-X147	S	← STANDARD RWD
	1	FILM REWIND MANDREL	ASS-200-X137	S	← FILM REWIND
	1	COLLAPSIBLE MANDREL	ASS-200-3131-X	S	← COLLAPSIBLE RWD

NOTE: SENSOR NOT INCLUDED:  
 THE FOLLOWING SENSOR OPTIONS ARE AVAILABLE AND MUST BE ORDERED IN ADDITION TO #CTM-215-0105R/L-12X  
 1.) SENSOR (STD. MTG. ROD) ~ #ASS-211-0108  
 2.) SENSOR (EXTENDED REACH) ~ #ASS-211-0107

CTM-215-X105R/L-12X	
5" WIDE	-0105R/L-12 X
7.5" WIDE	-2105R/L-12 X
10" WIDE	-5105R/L-12 X

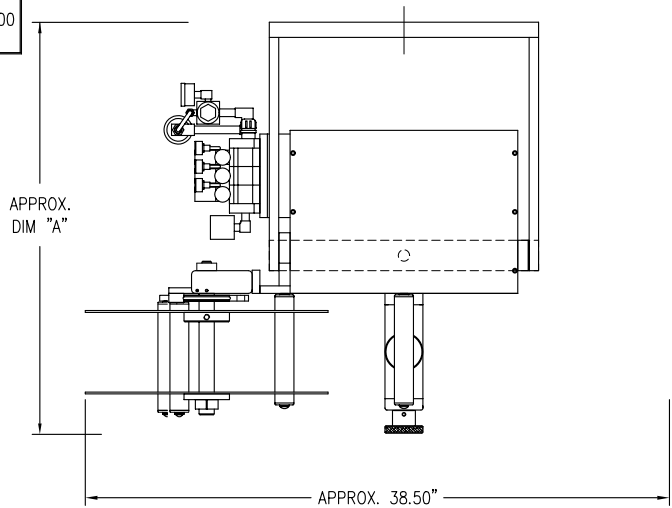
STANDARD REWIND S  
 COLLAPSIBLE REWIND C  
 FILM REWIND F

RH & LH ASSEMBLY AVAILABLE  
 -RH ASSEMBLY SHOWN-



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 TITLE: 360 SERIES APPLICATOR: MERGE ASSEMBLY  
 REV. DESCRIPTION: O DRAWING NO. WAS 200-0623  
 REV. DATE: 07/16/03  
 REV. BY: TDR  
 PART: 3" 7.5" 10" WIDE; MERGE w/12" UNWIND ASSEMBLY  
 DRAWN BY: F. Engineering (Standard Parts Applicator 360)  
 BOB S.  
 Date: 02/22/99  
 Scale: 1=8  
 Dept. Code: 70

PART NO.	DIM "A"
CTM-214-0101R/L-16S	27.50
CTM-214-0101R/L-16C	
CTM-214-0101R/L-16F	
CTM-214-2101R/L-16S	30.00
CTM-214-2101R/L-16C	
CTM-214-2101R/L-16F	



BILL OF MATERIAL				SOLD	
ASSEMBLY				CTM-214-X101RL-16X	S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER		
①	1	5/7.5 WIDE; CORE UNIT	ASS-200-X150R/L	.	
②	1	5/7.5 WIDE; TAMP NOSE MODULE	MOD-214-X101R/L	S	
③	1	U-ARM ASSEMBLY	WAS-200-0247	.	
④	1	5/7.5 WIDE; 16" UNWIND ASSY	ASS-200-3121R/L-X	.	
⑤	1	STD REWIND BLOCK & SHAFT (SHOWN)	ASS-200-0145R/L	S	← STD & FILM REWIND
	1	COLLAPSIBLE REWIND BLK & SHAFT	ASS-200-3167R/L	S	← COLLAPSIBLE RWD
⑥	1	STANDARD MANDREL (SHOWN)	ASS-200-X147	S	← STANDARD RWD
	1	FILM REWIND MANDREL	ASS-200-X137	S	← FILM REWIND
	1	COLLAPSIBLE MANDREL	ASS-200-3131-X	S	← COLLAPSIBLE RWD

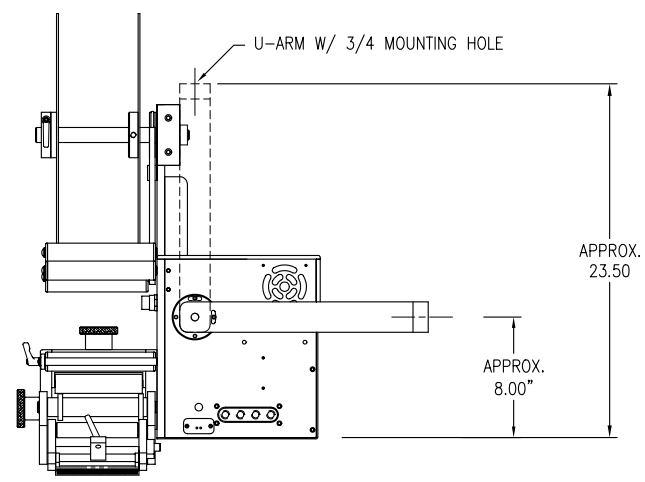
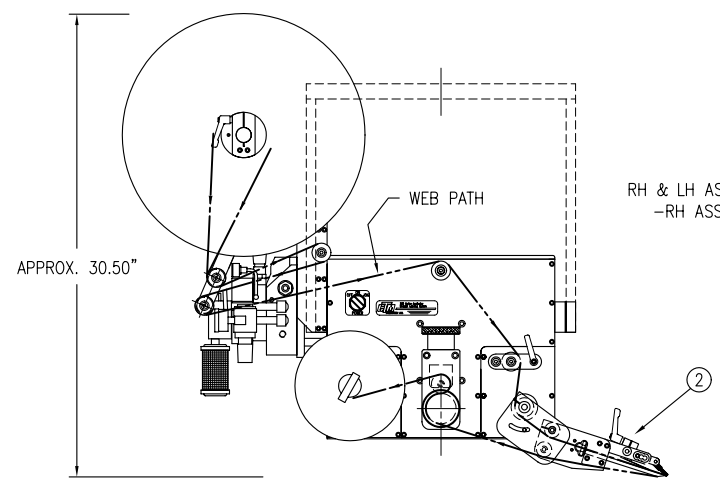
CTM-215-X105R/L-16X		
5" WIDE	-0101RL-16	X
7.5" WIDE	-0101RL-16	X

STANDARD REWIND	S
COLLAPSIBLE REWIND	C
FILM REWIND	F

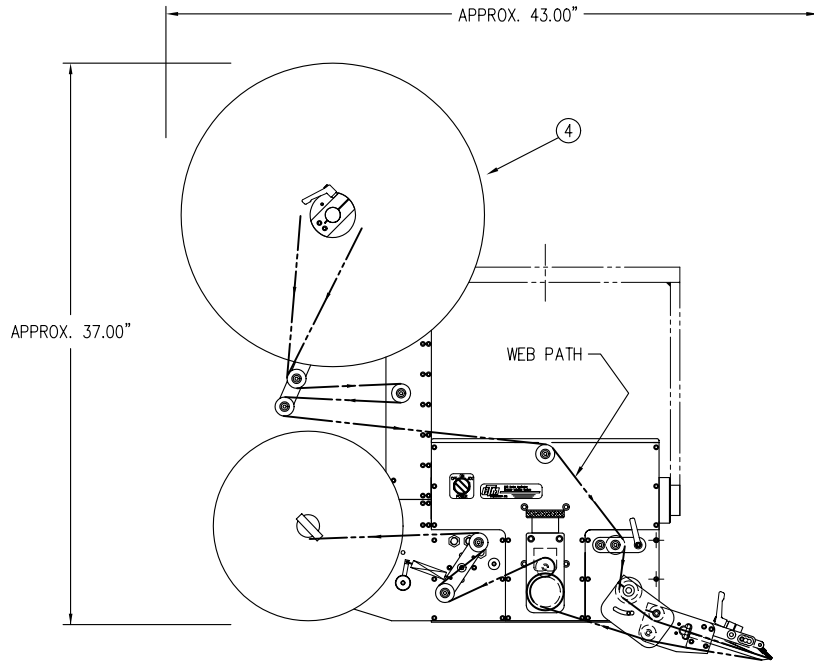
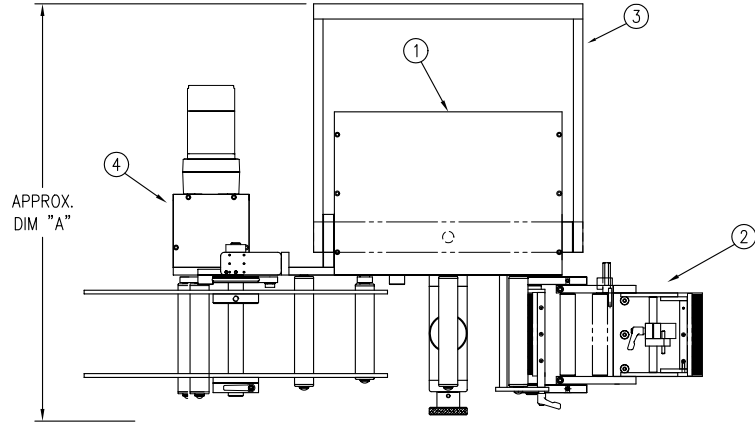
**NOTE: SENSOR NOT INCLUDED:**  
 THE FOLLOWING SENSOR OPTIONS ARE AVAILABLE AND MUST BE ORDERED IN ADDITION TO #CTM-214-X101R/L-16X

- 1.) SENSOR (STD. MTG. ROD) ~ #ASS-211-0108
- 2.) SENSOR (EXTENDED REACH) ~ #ASS-211-0107



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 TITLE: 360 SERIES APPLICATOR: MERGE ASSEMBLY  
 REV. DESCRIPTION: O DWG. NO. WAS 200-0632  
 REV. DATE: 06/27/03  
 REV. BY: TDR  
 PART: 5/7.5/10 WIDE: MERGE w/ 16" UNWIND ASSEMBLY  
 Scale: 1=8  
 Date: 08/30/99  
 DRAWN BY: BOB S.  
 F:\Engineering\Standard Parts Applicator\360  
 215.X105R/L-16X  
 Dept. Code: 70

PART NO.	DIM "A"
CTM-215-0105R/L-20PS	27.50
CTM-215-2105R/L-20PS	30.00

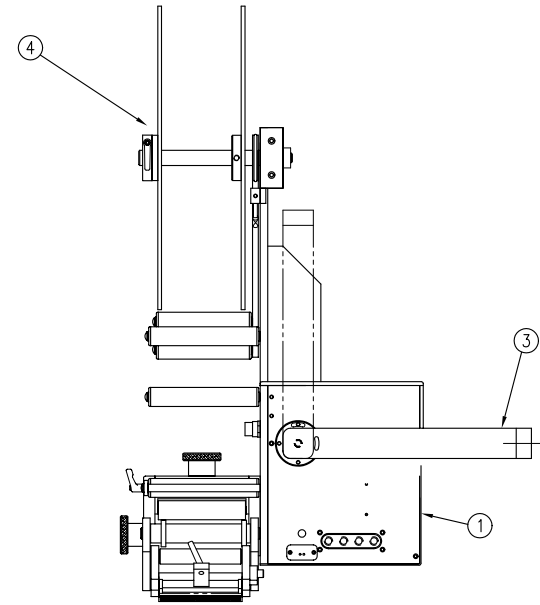


BILL OF MATERIAL			
CTM-214-X101R/L-20PS			SOLD
ASSEMBLY			S
①	1	5/7.5 WIDE; CORE UNIT	ASS-200-X150R/L .
②	1	5/7.5 WIDE; TAMP NOSE MODULE SPECIFY STROKE LENGTH	MOD-214-X101R/L S
③	1	U-ARM ASSEMBLY	WAS-200-0247 .
④	1	5/7.5 WIDE; 20" UNWIND w/ P.R. ASSY	MOD-200-3154R/L-X .

NOTE: SENSOR NOT INCLUDED:  
THE FOLLOWING SENSOR OPTIONS ARE AVAILABLE AND MUST BE ORDERED IN ADDITION TO #CTM-214-X101R/L-20PS  
1.) SENSOR (STD. MTG. ROD) ~ #ASS-211-0108  
2.) SENSOR (EXTENDED REACH) ~ #ASS-211-0107

CTM-215-X105R/L-20PS	
5" WIDE	-0105R/L-20PS
7.5" WIDE	-2105R/L-20PS

RH & LH ASSEMBLIES AVAILABLE  
-RH ASSEMBLY SHOWN-



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 TITLE: 360 SERIES APPLICATOR: MERGE ASSEMBLY  
 REV. 0 DRAWING NO. WAS 200-3151  
 REV. DATE 06/13/03  
 REV. BY TDR  
 PART: 5/7.5 WIDE MERGE w/ 20" UNWIND & POWERED REWIND  
 DRAWN BY: F:\Engineering\Standard Parts\Appliator\360  
 Date: 02/22/99  
 Scale: 1=6  
 BOB S.  
 Dept. Code 70

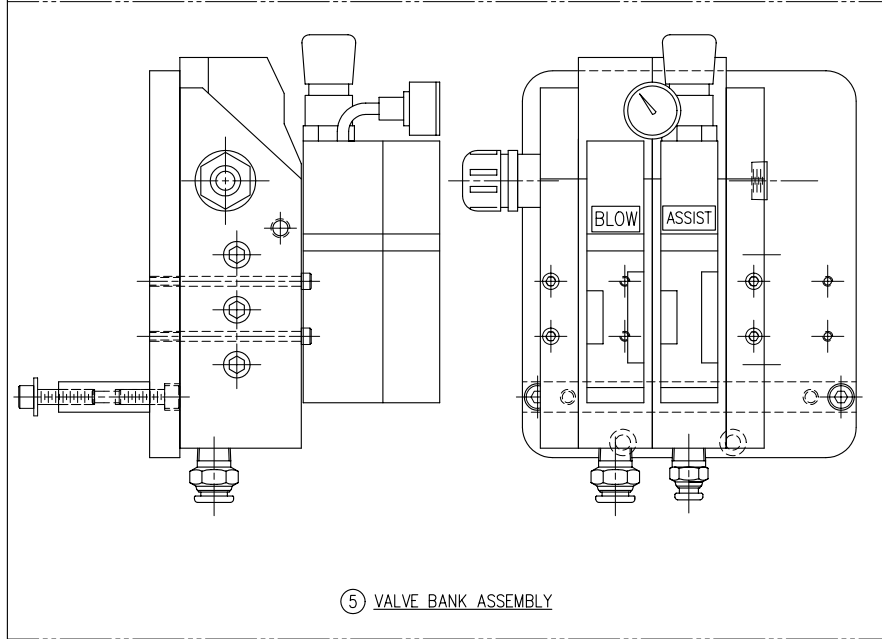
BILL OF MATERIAL				SOLD
ASSEMBLY	MOD-200-0101R/L			S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
1	1	AIR BLOW BOX w/TRANSITION PLATE	ASS-200-0101R/L	S
⑤	1	AIR BLOW VALVE BANK ASSEMBLY	ASS-211-0106	S

RH & LH ASSEMBLIES AVAILABLE  
-RH ASSEMBLY SHOWN-

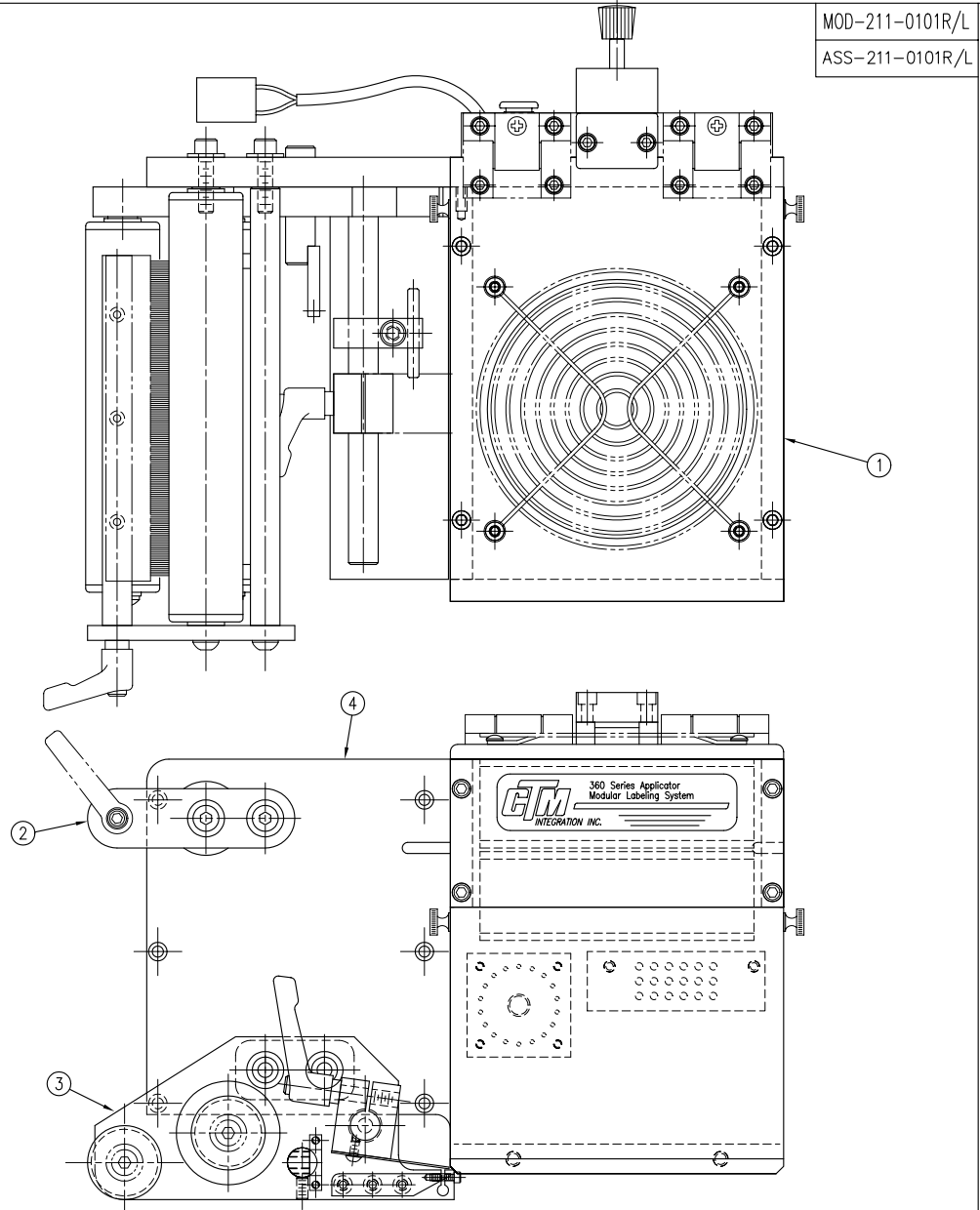
NOTE: SENSOR NOT INCLUDED IN ASSEMBLY OR MODULE

THE FOLLOWING SENSOR OPTIONS ARE AVAILABLE AND MUST BE ORDERED IN ADDITION TO ASS-211-0101R/L OR MOD-211-0101R/L

- 1.) SENSOR (STD. MTG. ROD) ~ #ASS-211-108
- 2.) SENSOR (EXTENDED REACH) ~ #ASS-211-107



BILL OF MATERIAL				SOLD
ASSEMBLY	ASS-200-0101R/L			S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	VACUUM BOX ASSEMBLY	ASS-200-0104	.
②	1	5" WIDE TENSION BRUSH ASSEMBLY	ASS-200-0126R/L	S
③	1	AIR BLOW PEEL EDGE ASSEMBLY	ASS-211-0102R/L	S
④	1	AIR BLOW BOX TRANSITION PLATE	MP-211-0215	.
6		SHCS, #10-32 x 5/8" LG.	NONE	.



MOD-211-0101R/L  
ASS-211-0101R/L

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TITLE: 360 SERIES APPLICATOR: AIR BLOW BOX

REV. DESCRIPTION: O ADDED HINGED BRACKET; UPDATED TITLE/LOCK

REV. DATE: 02/04/03

REV. BY: IDK

Scale: 1=2

Date: 06/23/97

DRAWN BY: BOB S.

F:\Engineering\Standard Parts Applicator\360

211\MOD-211-0101R

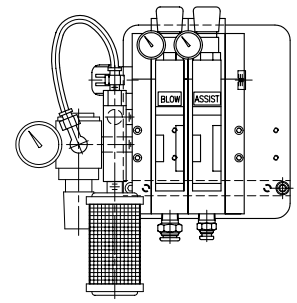
Dept. Code: 70

BILL OF MATERIAL				SOLD
ASSEMBLY	MOD-211-0111R/L			S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
	1	RVB w/ TRANSITION PLATE	ASS-211-0111R/L	S
⑤	1	RVB VALVE BANK ASSEMBLY	ASS-211-0112	S

**NOTE:**  
 PAD & MANIFOLD ARE JOB SPECIFIC. CUSTOMER TO ORDER SEPARATELY.  
 (FOR MANIFOLD BLANKS REFER TO DWG. #MP-211-0238-X)  
 MANIFOLD TEMPLATES AVAILABLE FOR 2", 3", 4" AND 5" WIDE LABELS.  
 OTHER SIZES ARE CUSTOM.

**NOTE: SENSOR NOT INCLUDED IN ASSEMBLY OR MODULE**  
 THE FOLLOWING SENSOR OPTIONS ARE AVAILABLE AND MUST BE ORDERED IN ADDITION TO #ASS-211-0111R/L OR #MOD-211-0111R/L

- 1.) SENSOR (STD. MTG. ROD) ~ #ASS-211-0108
- 2.) SENSOR (EXTENDED REACH) ~ #ASS-211-0107

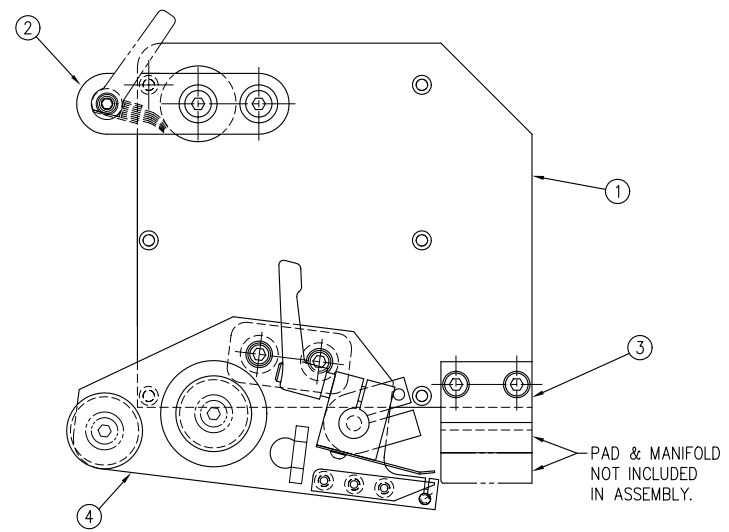
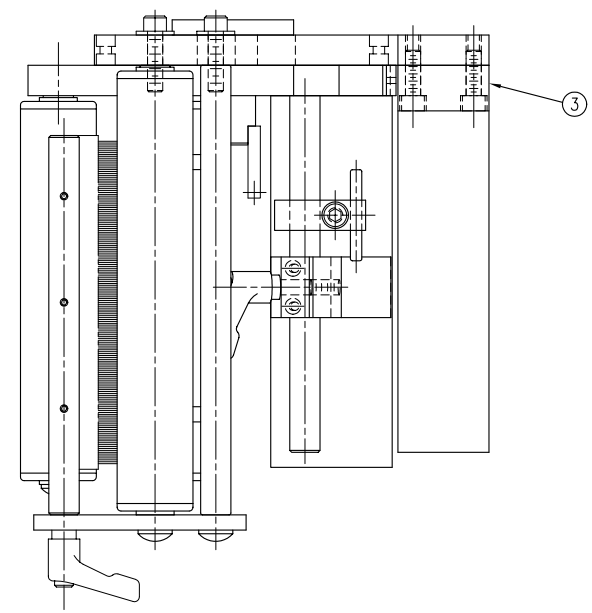


⑤ VALVE BANK ASSEMBLY  
 SCALE: 3"=1'-0"

BILL OF MATERIAL				SOLD
ASSEMBLY	ASS-211-0111R/L			S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	RVB TRANSITION PLATE	MP-211-0235	-
②	1	5" TENSION BRUSH ASSEMBLY	ASS-200-0126R/L	-
③	1	MANIFOLD MOUNT PLATE	MP-211-0237	-
④	1	5" WIDE AIR BLOW PEEL EDGE	ASS-211-0102R/L	S
6		SHCS, #10-32 x 5/8" LG.	NONE	-

RH & LH ASSEMBLIES AVAILABLE  
 -RH ASSEMBLY SHOWN-

MOD-211-0111R/L  
 ASS-211-0111R/L



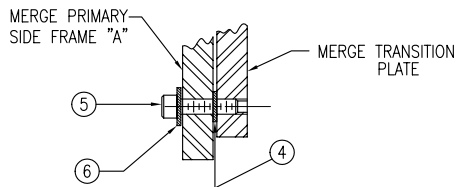
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 Dept. Code: 70  
 PART: 5" WIDE RVB NOSE ASSEMBLY  
 REV. BY: IDK  
 REV. DATE: 04/21/03  
 TITLE: 360 SERIES APPLICATOR: RVB  
 O. NEW TITLEBLOCK; ADDED VALVE BANK FOR MODULE  
 F. Engineering (Standard Parts Applicator) 360  
 Z11/MOD-211-0111R/L  
 Date: 09/01/99  
 Scale: 1=2  
 DRAWN BY: BOB S.

BILL OF MATERIAL				SOLD
ASSEMBLY	MOD-215-X105R/L			S
ITEM	QTY	ITEM DESCRIPTION	CTM PART NUMBER	
①	1	MERGE TRANSITION PLATE	MP-215-0212	.
②	1	5/7.5/10 TENSION BRUSH ASSEMBLY	ASS-200-X126R/L	S
③	1	5/7.5/10 MERGE NOSE ASSEMBLY	ASS-200-X106	.
④	1	BRONZE SPACER WASHER	PM-BEBT1000	.
⑤	1	SHCS, #1/4-20 x 1" LG.	.	.
⑥	1	FLAT WASHER, 1/4 NOM. STAINLESS STL.	.	.
	6	SHCS, #10-32 x 5/8" LG.	NONE	.

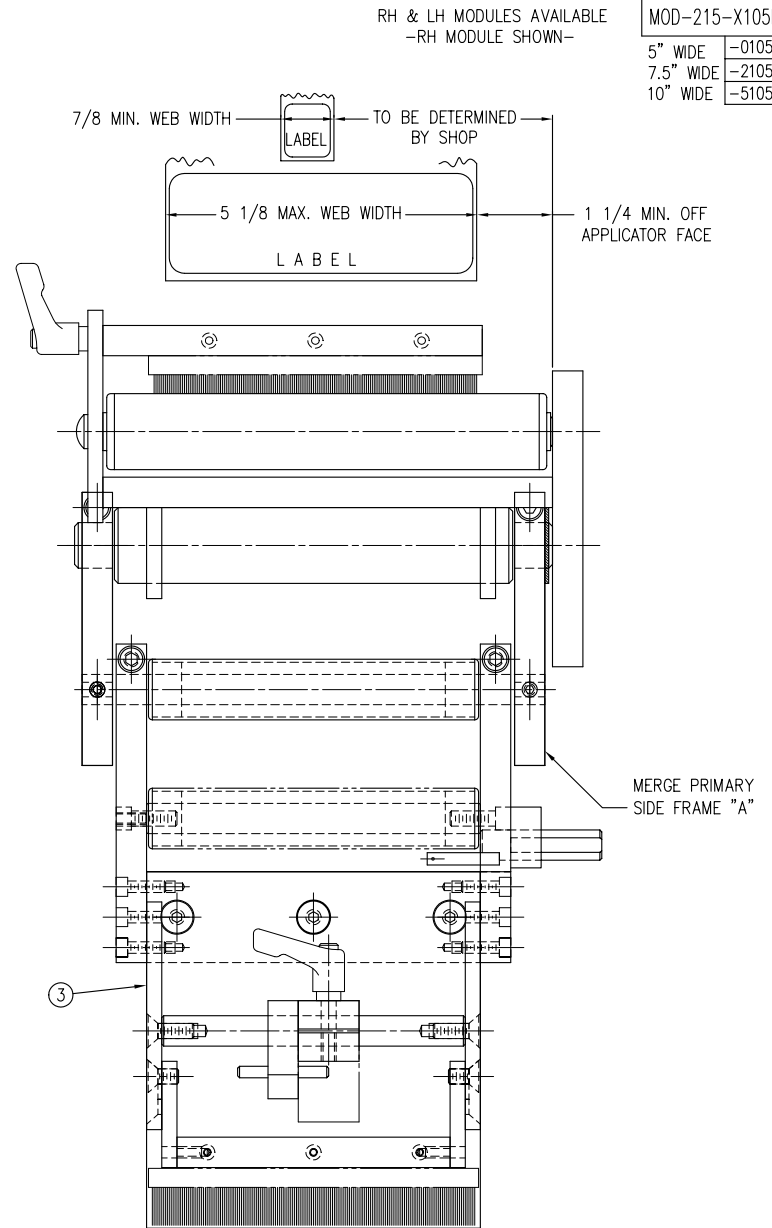
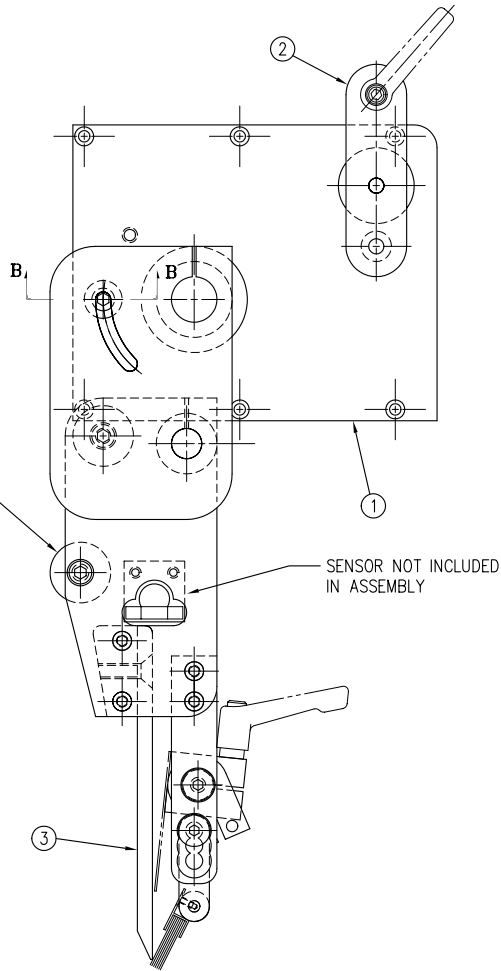
NOTE: SENSOR NOT INCLUDED IN ASSEMBLY  
 THE FOLLOWING SENSOR OPTIONS ARE AVAILABLE AND  
 MUST BE ORDERED IN ADDITION TO MOD-215-X105R/L

- 1.) SENSOR (STD. MTG. ROD) ~ #ASS-211-0108
- 2.) SENSOR (EXTENDED REACH) ~ #ASS-211-0107

ADDITIONAL (1) ROLLER (MP-215-X210);  
 (2) ROLLER CAPS (PM-ROL1990);  
 AND (1) ROLLER SHAFT (MP-215-X207)  
 USED FOR DOUBLE FEED~NOT INCLUDED IN ASS'Y.



SECTION "B" ROTATED 90° CCW  
 (THRU PRIMARY SIDEFRAME "A")



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Dept. Code 70

REV. DATE 03/28/03

REV. BY IDK

Scale 1=2

Date: 02/11/00

DRAWN BY: F. Engineering

Standard Parts Applicator 360

200\MOD-215-X105R

Bob S.

TITLE: 360 SERIES APPLICATOR: MERGE ASSEMBLY

PART: STANDARD NOSE ASSEMBLY WITH TRANSITION PLATE

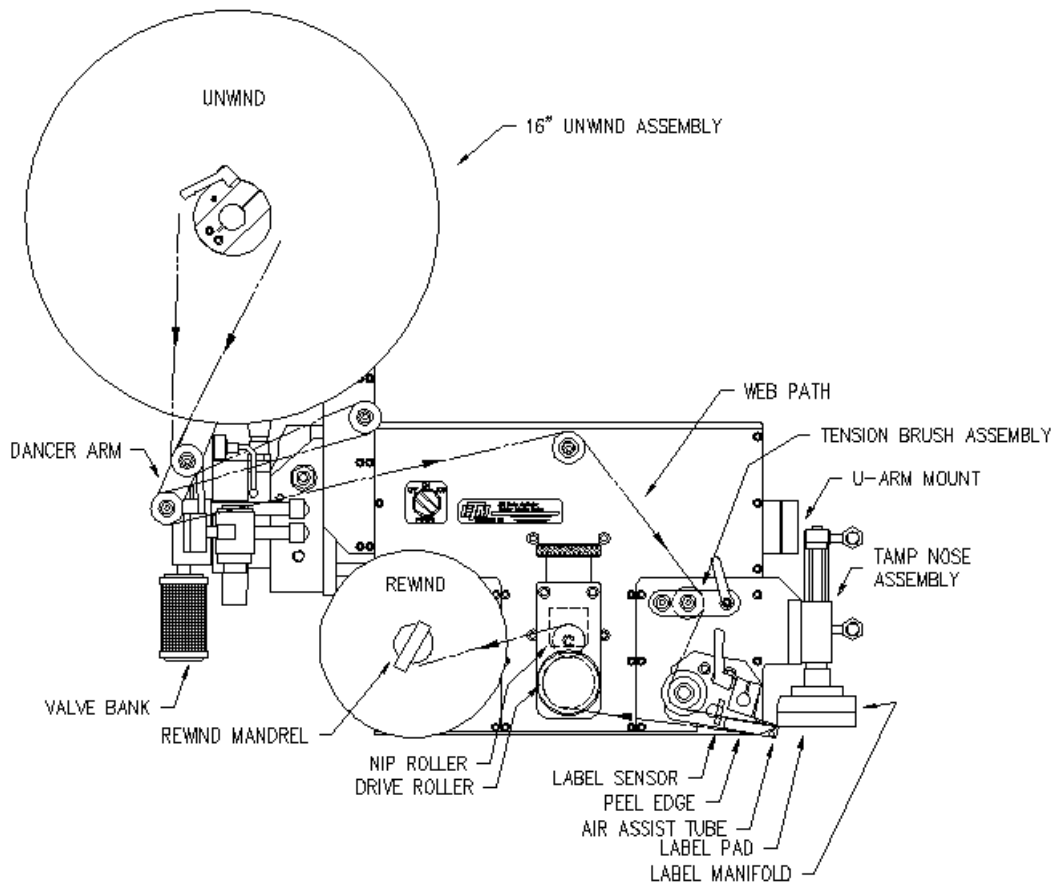


## CHANGING TO OPPOSITE HAND DISPENSE

When performing an applicator changeover, the nose assembly, unwind assembly, rewind, and wiring are first changed to the opposite hand dispense. Then each component assembly is remounted on the opposite side of the applicator. The symmetry of the applicator main module and the individual parts facilitate the changeover process but it can be confusing if care is not exercised. The explanation and diagrams to follow will hopefully guide you through this process.

### APPLICATOR CHANGEOVER

- 1) Remove the nose assembly (See: **NOSE ASSEMBLY REMOVAL**).
- 2) Change the applicator nose assembly to the opposite hand dispense (See: **NOSE ASSEMBLY CHANGEOVER**).
- 3) Remove the rewind assembly from the applicator (See: **REWIND REMOVAL**).
- 4) Change the rewind assembly to the opposite hand dispense (See: **REWIND CHANGEOVER**).
- 5) Change the wiring to the opposite side of the applicator (See: **WIRING CHANGEOVER**).
- 6) Change the unwind assembly to the opposite hand dispense.
- 7) If the applicator is a Tamp or Air Blow, move the valve assembly to the opposite side of the machine.
- 8) Install the rewind assembly on the opposite side of the machine (See: **REWIND INSTALLATION**).
- 9) Install the nose assembly on the opposite side of the machine (See: **NOSE ASSEMBLY INSTALLATION**).

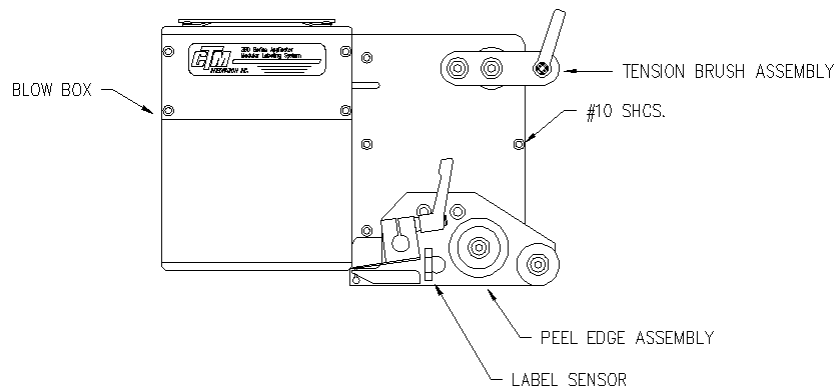


## NOSE ASSEMBLY REMOVAL AND INSTALLATION INSTRUCTIONS

**NOTE: DISCONNECT THE POWER CORD AND AIR SUPPLY FROM THE MACHINE BEFORE ATTEMPTING ANY OF THE FOLLOWING PROCEDURES. FAILURE TO FOLLOW THIS PRECAUTION COULD RESULT IN INJURIES FROM MOVING PARTS OR ELECTRICAL SHOCK!**

### BLOW BOX NOSE ASSEMBLY REMOVAL

- 1) Remove the stainless steel cover from the bottom of the applicator.
- 2) Remove the air tubes interconnecting the two sides of the applicator.
- 3) Disconnect the fiber optic cables from the label sensor mounted on top of the power supply. Open the top cover on the sensor and slide the cinching mechanism located on the right side of the sensor housing upward. Gently remove the two fiber cables from the sensor.
- 4) Cut the tie wraps securing the fibers to the adhesive mounting pads and gently pull the fiber optic cable out of the wiring clamps and through the holes in the fiber optic mounting plate.
- 5) Unplug the blow box fan connector located on the underside of the electronic shelf.
- 6) Disconnect the hoses for the air assist tube and the air blast manifold at the applicator housing.
- 7) Remove the peel edge assembly to gain access to the #10 mounting screws.
- 8) Remove the six #10 mounting screws holding the nose assembly to the housing.



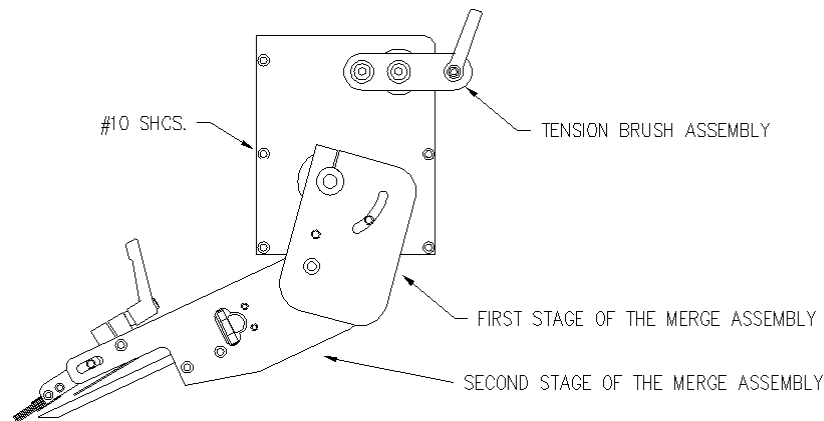
### BLOW BOX NOSE ASSEMBLY INSTALLATION

- 1) Make sure that the peel edge assembly is removed from the blow box nose assembly.
- 2) Install the blow box nose assembly using the six #10 mounting screws making sure that the fan harness is tucked inside the applicator housing.
- 3) Plug the blow box fan harness into its connector on the underside of the electronic shelf.
- 4) Install the peel edge assembly using the two 1/4" screws and the peel edge nut.
- 5) Make sure the label sensor is installed in the peel edge with the optical fibers running through the two holes in the peel edge side frame. Run the optical fibers through the two holes in the mounting plate.
- 6) Re-connect the fiber optic cable to the label sensor located on top of the power supply. Open the top cover on the sensor and slide the cinching mechanism located on the right side of the sensor housing upward. Plug the emitter fiber (from the lower fork in the label sensor) into the out going arrow connection on the sensor housing and the detector (from the upper fork in the sensor) to the incoming arrow connection. Slide the cinching mechanism downward and close the top cover on the sensor.
- 7) Neatly tie wrap any excess fiber optic cable to the adhesive pads located near the fiber mounting plate.  
**Note: The excess fiber should be formed into a loop greater than 3" in diameter to avoid kinking the fiber.**
- 8) Install the air tubes interconnecting the two sides of the applicator.
- 9) Replace the stainless steel housing cover.

**NOTE: DISCONNECT THE POWER CORD AND AIR SUPPLY FROM THE MACHINE BEFORE ATTEMPTING ANY OF THE FOLLOWING PROCEDURES. FAILURE TO FOLLOW THIS PRECAUTION COULD RESULT IN INJURIES FROM MOVING PARTS OR ELECTRICAL SHOCK!**

**MERGE NOSE ASSEMBLY REMOVAL**

- 1) Remove the stainless steel cover on the bottom of the applicator.
- 2) Remove the air tubes interconnecting the two sides of the applicator.
- 3) Disconnect the fiber optic cables from the label sensor mounted on top of the power supply. Open the top cover on the sensor and slide the cinching mechanism located on the right side of the sensor housing upward. Gently remove the two fiber cables from the sensor.
- 4) Cut the tie wraps securing the fibers to the adhesive mounting pads and gently pull the fiber optic cable out of the wiring clamps and through the holes in the mounting plate.
- 5) Remove the fiber optic mounting plate from the side of the applicator housing.
- 6) Rotate the first stage of the merge nose downward to gain access to the #10 mounting screws.
- 7) Remove the six #10 mounting screws holding the nose assembly to the housing.



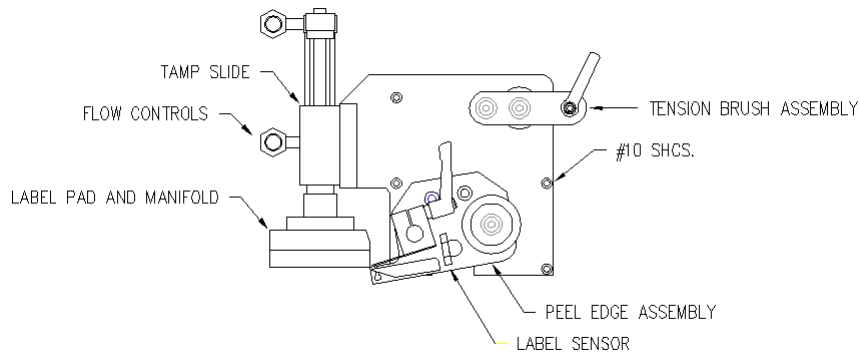
**MERGE NOSE ASSEMBLY INSTALLATION**

- 1) Rotate the first stage of the merge nose downward to gain access to the #10 mounting screws.
- 2) Install the merge nose assembly using the six #10 mounting screws.
- 3) Re-position the first stage of the merge nose.
- 4) Make sure the label sensor is installed in the peel edge. Run the optical fibers through the two holes in the mounting plate on the applicator housing.
- 5) Re-connect the fiber optic cable to the label sensor located on top of the power supply. Open the top cover on the sensor and slide the cinching mechanism located on the right side of the sensor housing upward. Plug the emitter fiber (from the lower fork in the label sensor) into the out going arrow connection on the sensor housing and the detector (from the upper fork in the sensor) to the incoming arrow connection. Slide the cinching mechanism downward and close the top cover on the sensor housing.
- 6) Neatly tie wrap any excess fiber optic cable to the adhesive pads located near the fiber mounting plate.  
**Note: The excess fiber should be formed into a loop greater than 3” in diameter to avoid kinking the fiber.**
- 7) Install the air tubes interconnecting the two sides of the applicator.
- 8) Replace the stainless steel housing cover.

**NOTE: DISCONNECT THE POWER CORD AND AIR SUPPLY FROM THE MACHINE BEFORE ATTEMPTING ANY OF THE FOLLOWING PROCEDURES. FAILURE TO FOLLOW THIS PRECAUTION COULD RESULT IN INJURIES FROM MOVING PARTS OR ELECTRICAL SHOCK!**

**TAMP NOSE ASSEMBLY REMOVAL**

- 1) Remove the stainless steel cover from the bottom of the applicator.
- 2) Remove the air tubes interconnecting the two sides of the applicator.
- 3) Disconnect the fiber optic cables from the label sensor mounted on top of the power supply. Open the top cover on the sensor and slide the cinching mechanism located on the right side of the sensor housing upward. Gently remove the two fiber cables from the sensor.
- 4) Cut the tie wraps securing the fibers to the adhesive mounting pads. Pull the fiber optic cable out of the wiring clamps.
- 5) Disconnect the hoses for the tamp cylinder, air assist tube, and air blast at the applicator housing.
- 6) Remove the peel edge assembly to gain access to the #10 mounting screws.
- 7) Remove the six #10 mounting screws holding the nose assembly to the housing.



**TAMP NOSE ASSEMBLY INSTALLATION**

- 1) Make sure that the peel edge assembly is removed from the tamp nose assembly.
- 2) Install the tamp nose assembly using the six #10 mounting screws.
- 3) Install the peel edge assembly using the two 1/4" screws and the peel edge nut.
- 4) Make sure the label sensor is installed in the peel edge. Run the optical fibers through the two holes in the mounting plate.
- 5) Re-connect the fiber optic cable to the label sensor located on top of the power supply. Open the top cover on the sensor and slide the cinching mechanism located on the right side of the sensor housing upward. Plug the emitter fiber (from the lower fork in the label sensor) into the out going arrow connection on the sensor housing and the detector (from the upper fork in the sensor) to the incoming arrow connection. Slide the cinching mechanism downward and close the top cover on the sensor housing.
- 6) Neatly tie wrap any excess fiber optic cable to the adhesive pads located near the fiber mounting plate.  
**Note: The excess fiber should be formed into a loop greater than 3" in diameter to avoid kinking the fiber.**
- 7) Install the air tubes interconnecting the two sides of the applicator.
- 8) Replace the stainless steel housing cover.

## NOSE ASSEMBLY CHANGEOVER

When changing the nose assembly to the opposite hand dispense, all parts are first transferred to the opposite side of the mounting plate. Then the entire nose assembly is rotated 180 degrees and remounted to the opposite side of the applicator.

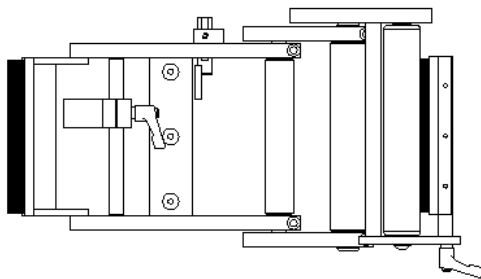
- 1) Remove the peel edge assembly from the nose assembly mounting plate. On a merge applicator, note the position of the bronze washers between the mounting plate and the peel edge assembly.
- 2) Change the applicator peel edge assembly to the opposite hand dispense (See: “**APPLICATOR**” **PEEL EDGE CHANGEOVER**).
- 3) Re-mount the peel edge assembly to the opposite side of the nose assembly mounting plate. On a merge applicator, re-install the bronze washers between the peel edge assembly and the mounting plate.
- 4) If the applicator is an air blow, change the blow box grid/fan to the opposite hand dispense (See: **BLOW BOX GRID/FAN ASSEMBLY CHANGEOVER**).
- 4) If the applicator is a tamp, change the tamp assembly to the opposite hand dispense (See: **TAMP ASSEMBLY CHANGEOVER**).
- 5) Remove the tension brush assembly and reassemble on the opposite side of the nose mounting plate.

## MERGE PEEL EDGE CHANGEOVER

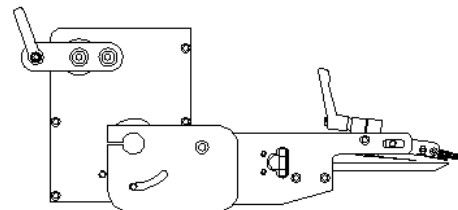
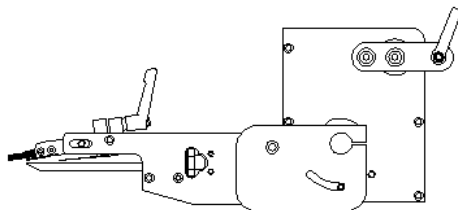
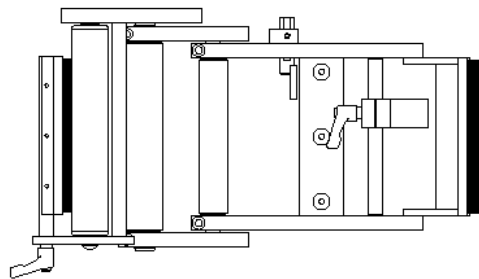
- 1) Remove the label sensor from the peel edge and remount on the opposite side rail. The open end of the U-shaped sensor should face towards the inside.

### MERGE APPLICATOR NOSE

LEFT HAND CONFIGURATION



RIGHT HAND CONFIGURATION



**BLOW BOX PEEL EDGE CHANGEOVER**

- 1) Remove the label sensor from the peel edge assembly and remount on the opposite side making sure that the fiber cables are threaded through from the opposite side. The open end of the U-shaped sensor should face towards the inside.
- 2) Remove the guide rollers and remount to the opposite side of the peel edge mounting plate.
- 3) Remove the peel edge and remount to the opposite side of the mounting plate using the tapped holes on the other end of the peel edge. Make sure the beveled edge is down and facing the same direction as it was originally.
- 4) Remove the label tension spring mounting bar and remount on the opposite side. The tension spring and the adjustment stop must be reversed on the mounting bar as well.
- 5) Remove the air assist tube and insert through the opposite side of the mounting plate and re-attach.

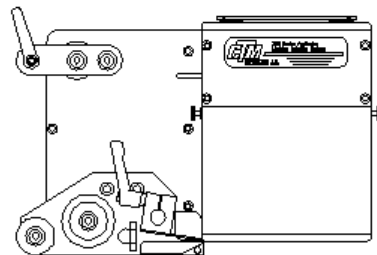
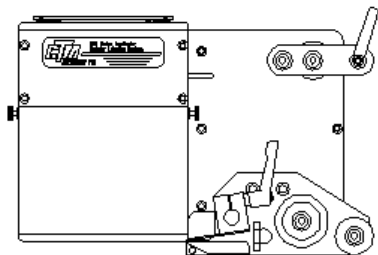
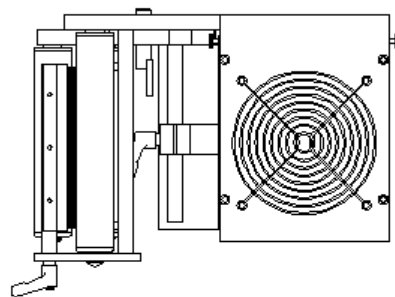
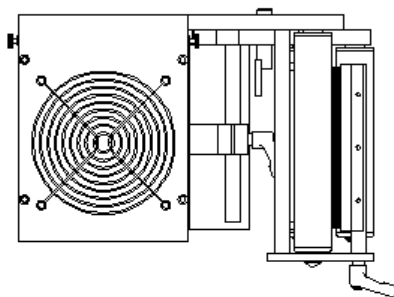
**BLOW BOX GRID/FAN ASSEMBLY CHANGEOVER**

- 1) Remove the air blast fitting from the back of the nose assembly mounting plate and set aside.
- 2) Loosen the two knurled knobs on the back of the fan box and lock it in the upright position.
- 3) Remove the air blast manifold, label grid, and the air jet storage block. Remount on the opposite side of the nose assembly mounting plate.
- 4) Pull the fan wiring harness through the slotted opening in the nose mounting plate.
- 5) Remove the four screws holding the fan box hinge to the mounting plate and remount the fan box on the opposite side of the nose mounting plate.
- 6) Push the fan wiring harness through the slotted opening from the opposite side.
- 7) Re-install the air blast fitting in the nose assembly mounting plate.

BLOW BOX APPLICATOR NOSE

LEFT HAND CONFIGURATION

RIGHT HAND CONFIGURATION



**TAMP PEEL EDGE CHANGEOVER**

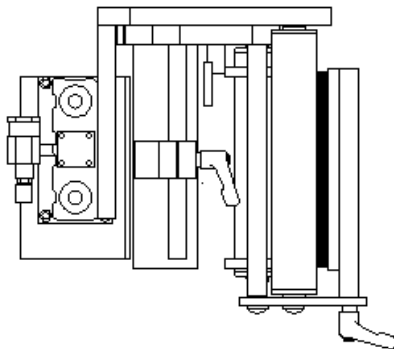
- 1) Remove the label sensor from the peel edge assembly and remount on the opposite side making sure that the fiber cables are threaded through the holes from the opposite side. The open end of the U-shaped sensor should face towards the inside.
- 2) Remove the guide rollers and remount to the opposite side of the peel edge mounting plate.
- 3) Remove the peel edge and remount to the opposite side of the mounting plate using the tapped holes on the other end of the peel edge. Make sure the beveled edge is down and facing the same direction as it was originally.
- 4) Remove the label tension spring mounting bar and remount on the opposite side. The tension spring and the adjustment stop must be reversed on the mounting bar as well.
- 5) Remove the air assist tube and insert through the opposite side of the mounting plate and re-attach.

**TAMP ASSEMBLY CHANGEOVER**

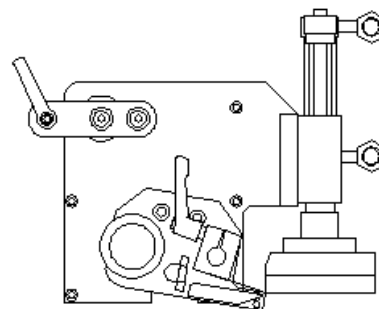
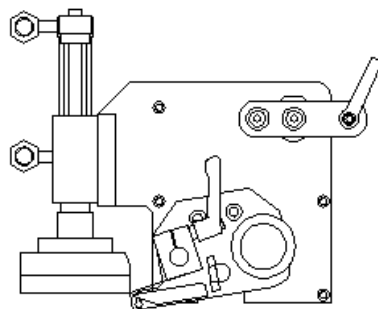
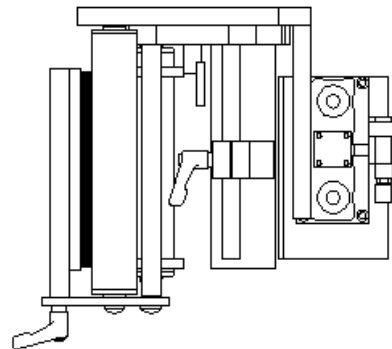
- 1) Disconnect the air hoses for the tamp assembly at the applicator housing.
- 2) Remove the tamp assembly mounting plate from the nose assembly mounting plate.
- 3) Remove the two screws holding the tamp air cylinder to its mounting plate.
- 4) Mount the tamp air cylinder to the opposite side of the tamp assembly mounting plate.
- 5) Re-attach the tamp assembly mounting plate to the opposite side of the nose assembly mounting plate.

TAMP APPLICATOR NOSE

LEFT HAND CONFIGURATION



RIGHT HAND CONFIGURATION



**REWIND REMOVAL**

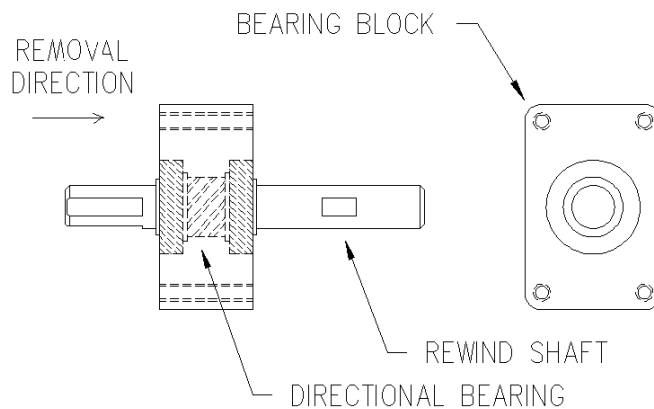
- 1) Remove the belt connecting the rewind clutch to the motor.
- 2) Remove the rewind mandrel from its drive shaft.
- 3) Remove the six #10 screws that hold the rewind mounting plate to the housing.

**REWIND INSTALLATION**

- 1) Attach the rewind mounting plate to the housing using the six #10 screws.
- 2) Install the rewind mandrel on the mandrel drive shaft.
- 3) Install the belt connecting the rewind clutch to the motor.

**REWIND CHANGEOVER**

- 1) Remove the bearing block that is mounted to the rewind transition plate.
- 2) Remove the pulley from the shaft making sure to note its position relative to the end of the shaft.
- 3) Remove the snap ring from the pulley side of the assembly and push the rewind shaft out through the mandrel side. **Note: The shaft diameter on the mandrel side is larger than it is on the pulley side. Do not attempt to force the shaft out through the pulley side!**
- 4) Re-install the shaft in the opposite side of the bearing block and replace the snap ring. **Note: The shaft can only rotate in one direction due to a directional bearing in the bearing block.**
- 5) Install the pulley on the shaft in the same position as it was previously.
- 6) Re-mount bearing block to the opposite side of the transition plate.



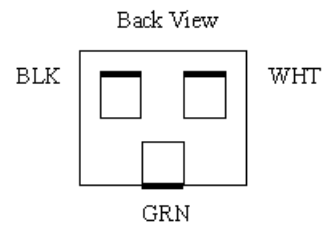
**WIRING CHANGEOVER**

- 1) Remove the tie wraps holding the AC power wiring and the label sensor fiber optic cable to the adhesive pads near the wiring entry points.
- 2) Remove the faston terminal connections at the fuse holder and the AC power entry module.
- 3) Cut the tie-wraps securing the blow box fan connector to the adhesive mounting pad and move the connector to the opposite side of the machine. Secure the connector in place with the open end towards the side frame.
- 4) Move wiring to the opposite side of the applicator and neatly tie wrap in place.
- 5) Swap the AC power entry module and the fuse holder with the fiber optic plate and the fuse holder plug.
- 6) Re-connect the terminals for the fuse holder and the AC power entry module (see drawing on the next page).

**Note: All wiring comes from the factory long enough to be wired either left or right hand.**



Power Entry Module Wiring



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