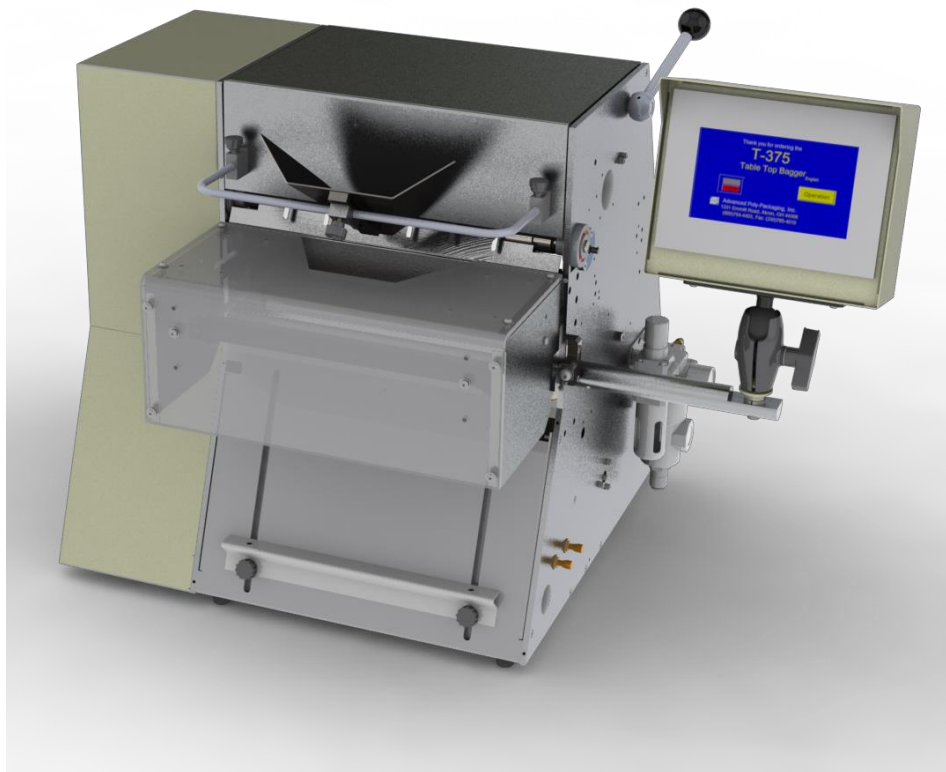


T-300 / T-375

Table Top Bagger™

Operation Guide, Version 3
Setup, Operation and Parts Manual



 **Advanced
Poly-Packaging, Inc.**

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Acknowledgments

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Chapter 1: Introduction

Welcome

Overview

Special Features

System Integration

Available Options

Using This Manual

Warranty Registration

1.1 Welcome

Now that you have decided to upgrade your packaging facilities with the T-300 Table Top Bagger or the T-375 Table Top Bagger from Advanced Poly Packaging, Inc., we thank you for selecting our equipment, materials and service. Where labor reduction and fast changeover are important, the T-300/T-375 uses Advanced Poly-Bags (pre-opened bags on rolls), manufactured by Advanced Poly-Packaging, Inc. The T-300/T-375 can package various industrial, medical, molded and food products. With bag sizes that range from 2" x 3" to 11" x 16" and mil thickness from 1 mil to 4 mil, we hope the T-300 / T-375 will meet all of your bagging needs.

1.2 Overview

The T-300/T-375 Table Top Bagger is designed to lower your packaging costs with high speeds, versatility, reliability and simplicity.

High Speeds: Indexes, opens, seals and tears off a bag at high speeds. Actual packaging speed depends on bag size, equipment options, product characteristics and loading method.

Reliability: Crafted from the highest quality components and materials to withstand the most rigorous manufacturing environment, sturdy mounts and rugged frame guarantee long life and usefulness with minimal maintenance.

Simplicity: A user-friendly, menu-driven touch screen program allows operators to set up the bag, options and auxiliary equipment, save the settings in memory, and recall those settings for repeat runs.

1.3 Special Features

The T-300/T-375 is equipped with the following standard features:

T-375 Next Bag Out Printer: The T-375 is equipped with the APPI patented method of printing the next bag out in the bagging sequence. This feature prevents the mislabeling of pharmaceuticals, prescriptions and other item cost items. Next bag out printing also allows the part number or other printing information to be changed for every bag without waste. *NOTE: This feature does not apply to the T-300.*

Energy Conservation and Component Saver: To extend its life and conserve energy in your plant, the T-300/T-375 is programmed to sequentially shut components down when not in use for extended periods. Electric current to the heater bar will discontinue and place the T-300/T-375 in Stop mode during a preset period of nonuse. Air flow can also be shut off to preserve compressed air. Finally, a screen saver is provided to extend the life of the touch screen.

Pass Code Protection: As an option, setting screens can be protected from alteration by unauthorized individuals. Once turned on, this function acts as a "screen save" feature. A timer causes the pass code screen to be displayed after a preset period of nonuse. Factory settings are protected by a Level 1 pass code and should only be accessed by authorized maintenance personnel.

Predetermining Counter: Preset the T-300/T-375 to stop after a predetermined number of bags have been packaged. Set the quantity of finished bags to complete a work order or fill a shipping container. Once the work order is complete or the container is full, the T-300/T-375 stops to alert the operator to begin the next work order or to push aside the box to begin filling another. Pressing the **Reset** button on the screen resets the counter and starts the bagging operation with minimum delay.

Totalizing Counter: Reset this counter at the beginning of each shift or day to record packaging production over a period of time.

Maintenance Counter/Chart: Periodically check this counter (total machine cycles) to determine preventive maintenance / component inspection intervals for inspection / maintenance criteria and intervals.

Continuous Strip Option: Leave bags connected in an "endless" strip or a predetermined number of strips of sealed bags.

Twin Seal Option: Change the sequence of operation to place a second seal on each bag, parallel to the first, to improve the integrity of the bag.

Communications Port: Allows for auxiliary communications.

Anti-Jam Device: During the loading and sealing operation, this device will detect obstructions and automatically reverse the pressure bar and discontinue the cycle operation if a blockage occurs.

Auxiliary Automatic Operation: Integrates automatically to vibratory counters, scales and other infeed equipment.

1.4 System Integration

The T-300/T-375 is specifically designed for hand-loading. However, limited automatic operations may be available.

1.5 Available Options

Although the T-300/T-375 is equipped with many "built-in" options, various auxiliary options and equipment can easily be added for special purpose packaging. The following options may be purchased from Advanced Poly-Packaging, Inc:

AF-10 Accumulating Funnel: A special purpose funnel that collects and holds product until it is ready to be dropped. A funnel to help contain the product can also be inserted.

Bag Deflator: Quickly mounts to the sealer bar, squeezing the air from the bag while sealing.

BO-20 Bag Open Sensor: Detects whether or not a bag is blown open in order to validate that the bag is ready to receive product.

BO-30 Bag Opening Device: This device enters the bag with one or more "fingers" and pulls the bag open to a stop.

CF-10 Counting Funnel: This funnel counts parts as they pass through the funnel for automatic cycle operation. A variety of optical frame or single beam sensors are available depending on the product.

Compartment Seal Option: Seals the bag twice to create two separate compartments within the same bag.

E-Stop: This option can be used to stop the cycle operation of the T-300/T-375 and possibly other auxiliary infeed or outfeed equipment purchased with the T-300/T-375.

FS-10 Flat Seal Assembly: Helps decrease / eliminate wrinkles in the seal by pulling the sides of the bag. Increases bag integrity.

Funnels: The T-300/T-375 comes with a universal adjustable funnel, but various size funnels can be purchased. APPI provides free product evaluations to determine proper funnel sizes and configurations.

LC-10 Light Safety Curtain: If funnels are removed, APPI highly recommends the addition of this option to prevent injuries. This option, when activated, prevents inputs to valves that cause the seal bar to activate. Additionally, the stepper motor stops when blocked.

LS-10 Load / Support Shelf: Provides support for heavier packages when dropped into bag. Sizes: 10", 15" or 20" long.

PB-20 Dual Optical Palm Buttons: This option decreases the possibility of injury to hands and fingers. The operator must touch two optical buttons simultaneously to actuate seal bar.

TS-10 Trim Seal Assembly: Trims excess film from the bag above the seal to enhance the appearance of the package. Great for retail products.

Twin-Seal™: Seal the bag a second time, 3/8" from the first seal, for additional bag integrity.

NOTE: Other options may have been added since the date this list was printed. Please call APPI for additional or custom options pricing.

1.6 Using This Manual

This manual will function as one manual for both the T-300 and the T-375. Some sections of this manual will only apply to the T-375. Some sections of this manual will only apply to the T-300. These sections will be properly noted. If you have purchased the T-375, your bagger includes a printer.

The following manual conventions are frequently used to assist in understanding important information, to alert the operator of potentially dangerous or damaging practices and to describe the normal functions of the T-300/T-375 Table-Top Bagger.

- Text Normal text
- *Italics* Used for emphasis
- **Boldface** Used to identify heading names and touch screen buttons.
- **CAUTION:** Warning messages. To avoid physical harm, damage to equipment or damage to the product, be sure to read these messages carefully.
- **NOTE:** Identifies important information.

1.7 Warranty Registration

This section must be completed and returned to Advanced Poly-Packaging, Inc. to register the T-300/T-375 for Warranty Protection.

Serial Number:

(Serial Number located on the back panel)

Company Name and Address	Contact Name(s) / Title(s) / Phone Number
_____	_____
_____	_____
_____	_____

Please fax or mail this page to:

Service Manager
Advanced Poly-Packaging, Inc.
1331 Emmitt Road
Akron, OH 44306
USA

Fax # (USA) 330-785-4010

Or email the information above to: sales@advancedpoly.com

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Chapter 2: Getting Started

Summary

Safety, Risks

Installation Procedures

Air and Power Requirements

Minor Adjustments

Air and Power Hookup

Main Power

Bag Threading

Ribbon Threading

Cycle Operation

Increasing Tension

Note on Adjustments

2.1 Chapter Summary

This chapter describes procedures to receive and set up the T-300/T-375, including uncrating instructions, environmental, air and power requirements, and assembly instructions. Additionally, this chapter describes risks and required safety precautions, how to turn on the T-300/T-375 and how to properly thread bags through the machine.

2.2 Safety, Risks

Many safety features have been included in the mechanical, electronic and pneumatic systems of this machine. Despite these safety precautions, operators may receive lacerations, minor burns, or crushed or broken bone injuries if they come in contact with any moving components. Improper use, improper adjustment and neglect of preventative maintenance may result in serious personal injury. No special personal protective equipment is required to operate the equipment, but eye protection, gloves or other protection should be worn, depending on the characteristics of the product being packaged and the method of loading the product.

Please carefully read the following precautions to operate the equipment properly and avoid injury:

- **CAUTION:** Initial setup of the machine must be performed by specialized personnel. Qualified service engineers should uncrate the equipment, assemble the equipment (if required), test and connect power sources, test the equipment for proper operation and otherwise set up the equipment for use.
- **CAUTION:** Do not attempt to adjust the height without assistance and without supporting the weight of the machine. Attempting to make a height adjustment without assistance could cause the machine to drop suddenly, causing severe injury. APPI offers several optional accessories that can reduce the risk of injury during height adjustments. These accessories include carts, motorized height adjustment components and stabilizing bars.
- **CAUTION:** Ensure that all height adjustments allow for sufficient movement of the operator. Improper height adjustments could negatively affect operator movement, causing strain, added stress, discomfort and fatigue.
- **CAUTION:** To avoid injury, do not operate the equipment if funnels, guards, covers or other access panels have been removed. If any of these safety measures have been removed or modified or if any openings have been increased, the operator will have access to moving components and extreme temperatures that can cause crush, cut or burn injuries to hands or fingers.
- **CAUTION:** To avoid injury, do not reach under the equipment, guards or elsewhere under the machine. Do not place hands or fingers in the seal area or near the seal bar, heater bar, load shelf or other moving components.
- **CAUTION:** Do not remove or loosen fasteners on the frame. If loosened, the equipment may drop suddenly, causing injury or damage to the machine.
- **CAUTION:** Be careful when opening the seal frame as it may drop suddenly, causing injury or damage to the equipment.
- **CAUTION:** To avoid injury, avoid coming in contact with pinch points including rollers, automatic funnel doors or other moving components.
- **CAUTION:** To avoid injury, avoid contact with roller "fingers" as they may be sharp.

- **CAUTION:** Exercise care when adjusting or relocating the touch screen. Movement of the touch screen could cause unexpected movement of the machine and injury to the operator.
- **CAUTION:** If control or air pressure settings are set too high, higher noise levels may result from increased part on part contact or part on machinery contact. Limit these settings and add guards or covers to reduce airborne noise.
- **CAUTION:** Exercise extreme care when clearing jams, replacing materials, changing controls or mechanical settings, and cleaning internal parts. Be sure to de-energize energy sources prior to removing guarding. Failure to do so may result in unexpected movement or flying objects, which could cause crush, cut or eye injuries.
- **CAUTION:** Maintenance must be performed by specialized personnel. Qualified service engineers must remove guards or covers to gain access to electrical or mechanical areas.
- **CAUTION:** Maintenance must be performed regularly to ensure that the machine is operating properly and to protect against injury. Routine maintenance includes: periodic inspections, the replacement of worn or damaged components, the tightening of loose bolts or components, and regular cleaning and adjustments. Contact APPI and/or service centers for service support if there is not sufficient maintenance staff at your facility to perform regular maintenance.

2.3 Installation Procedures

The T-300/T-375 is transported as a single unit in a custom carton designed to protect the machine during shipment. It is shipped completely assembled.

Unpacking: After removing the stretch wrapping, remove the carton from the skid, open the top and cut all four corners using a safety knife. Then, transport the T-300/T-375 to the operating location using a cart.

CAUTION: Do not attempt to lift the T-300/T-375 from the carton without first cutting all sides open. To prevent injury, do not attempt to lift the machine without assistance.

Operating Environment/Location: The T-300/T-375 should be placed in an area free of excessive heat, moisture, dirt and dust. Operating room temperature should range from 50 to 100° Fahrenheit (10 to 37.7° Celsius). Choose an operating location considering traffic flow, availability of bag supplies and supply of product to and from the bagger.

2.4 Air and Power Requirements

Power Requirements: Provision must be made for 110 VAC, 60 Hz line current with ground (220V/50 HZ may have been supplied based on electrical requirements). The full load current for the T-300/T-375 is 10 Amps.

CAUTION: A qualified electrician should ensure that the T-300 /T-375 power outlet is properly grounded, voltages are as required and amperage capacity is sufficient.

NOTE: APPI recommends a dedicated 20 Amp circuit for the T-300/T-375.

Air Requirements: At least 2 CFM free air is required, regulated to 60 PSI (4.13 Bar). Air should be dry and oil-free.

NOTE: Running the T-300/T-375 at a higher PSI setting than 80 PSI (5.52 Bar) will cause excessive wear and may cause damage to components on the machine or parts being packaged. The anti-jam function may also be adversely affected.

2.5 Assembly / Minor Adjustments

The T-300/T-375 may require some minor adjustments to the funnel or chute. Two knobs, located on either side of the chute U bracket, can be loosened and pushed in or out to allow for chute angle adjustment. The chute should be positioned approximately 1/2" from the top of the bag when the bag stops in the loading position. Adjust as required and tighten the knobs.

CAUTION: The seal bar should not come in contact with the funnel during sealing. Raise the funnel to avoid contact. To avoid injury, do not operate the T-300/T-375 without a funnel, guard or covers properly positioned.

CAUTION: APPI offers a variety of funnels and chutes. You may need to add guarding to prevent operators from reaching in, around or under the guard or funnels.

CAUTION: To avoid injury, do not reach underneath guards while the machine is plugged in.

2.6 Air and Power Hookup

This section describes how to hook up air and power to the T-300/T-375.

NOTE: A qualified electrician should ensure power outlets are the required 110 VAC and properly grounded before hooking up the power.

The air supply should be fed to the T-300/T-375 with 3/8" ID flexible tubing. This tubing affixes to the coupler adapter (quick disconnect not provided). Connect the air to the regulator by holding the regulator firmly in one hand and pushing the air line connector on the male regulator connector. After connecting air, the regulator should be adjusted so the gauge reads 60 PSI (4.13 BAR). Insert the T-300/T-375 power cord into a 110VAC, 60Hz, grounded power outlet.

2.7 Main Power

The main power switch is located on the side cover of the machine. To turn the T-300/T-375 on, turn the switch clockwise from its vertical OFF position to its horizontal ON position. The green Power light on the touch screen will illuminate and the Introduction screen will be displayed. The Introduction screen will only appear for a few seconds until automatically changing to the Bagger Operation screen or Main Menu.

2.8 Bag Threading

Remove the top cover of the machine, unlatch and raise the upper roller assembly. Then, remove the roll shaft from the rear of the machine. Loosen one of the knobs located on the chuck that secures the roll into position. Mount the roll of bags, center the roll onto the bag roll shaft and secure the bag roll into position with the chuck. Make sure the roll is going in proper direction, with the loose web of bags falling over the rear of the roll. Thread web under the idler roll and then over the steel driven roller.

The bag web should be centered under the air nozzle. Lower the upper roller assembly, lock the rollers into position using the handle, and replace the top cover.

Threading diagrams based on the possible configurations of the bagger and the options ordered are provided at the end of this chapter. See Figures 2-1 and 2-2.

CAUTION: Roller "fingers" may be sharp. To avoid injury when reaching into the T-300/T-375, ensure that you do not come in contact with the roller "fingers."

NOTE: The roller guides are for fine adjustments only, after proper tracking has been achieved. If not tracking properly, the web of bags may "ride" up the side of the guides causing the bags to fold over.

2.9 T-375 Ribbon Threading

Remove the top cover of the machine and lower the entire printer mechanism by opening the latch. Remove the empty spool from the enhance ribbon take-up and replace with new ribbon so that the ribbon pays off in the clockwise direction. Thread the ribbon under the metal sensor bracket, making sure it stays over the metal block. Continue threading the ribbon over the print head and then over the upper center metal roller. Thread the ribbon under the static brush then onto the ribbon take-up spindle. The ribbon has two sides: a shiny side (Mylar) and a ribbon side (matte finish). The matte finish side should be in contact with the bag if threaded properly. Replace the print head assembly by lifting it close to the print roller. Center the print head over the bag and latch the locking mechanism. Turn the upper take-up ribbon spool to advance the ribbon to ensure that both the ribbon take-up spool and ribbon payoff spool turn freely without the ribbon breaking prematurely. See Figure 2-3.

2.10 Cycle Operation

If all prior installation procedures have been performed properly, the T-300/T-375 should be in its operating location with air and power connected. All guards, funnels and covers should be securely fastened and in position.

Locate the foot switch (if you are running the machine with a foot switch) and plug the foot switch into the rear foot switch connector. Press the foot switch to index one bag through the "nip" rollers. One bag should index, blow open and stop between the pressure bar and the heater bar. You may also use the guard switch or simply press the **MC (Manual Cycle)** button on the touch screen to cycle the machine.

If the T-300/T-375 is not up to temperature, the machine will not cycle unless the **RUN / SETUP** button is toggled to the **SETUP** position.

If the web of bags breaks prematurely, further adjustments will be required. See Chapter 4 for troubleshooting. If one bag indexed through the machine, press the foot switch a few times more. Each previously indexed bag should detach completely from the web of bags. If the bag is not indexing and/or stopping or not tearing off properly, see Chapter 4 for settings adjustments and troubleshooting.

NOTE: The web of bags may track right or left for a few feet until "settled" on the web path. The roll of bags or the roller guide may require readjustments or realignment after the first few feet of bags are indexed.

NOTE: If bags were delivered with the T-300/T-375 or the size of the bags were known to APPI, the T-300/T-375 may be ready to run. Therefore, few changes to bag settings may be required.

2.11 Increasing Tension

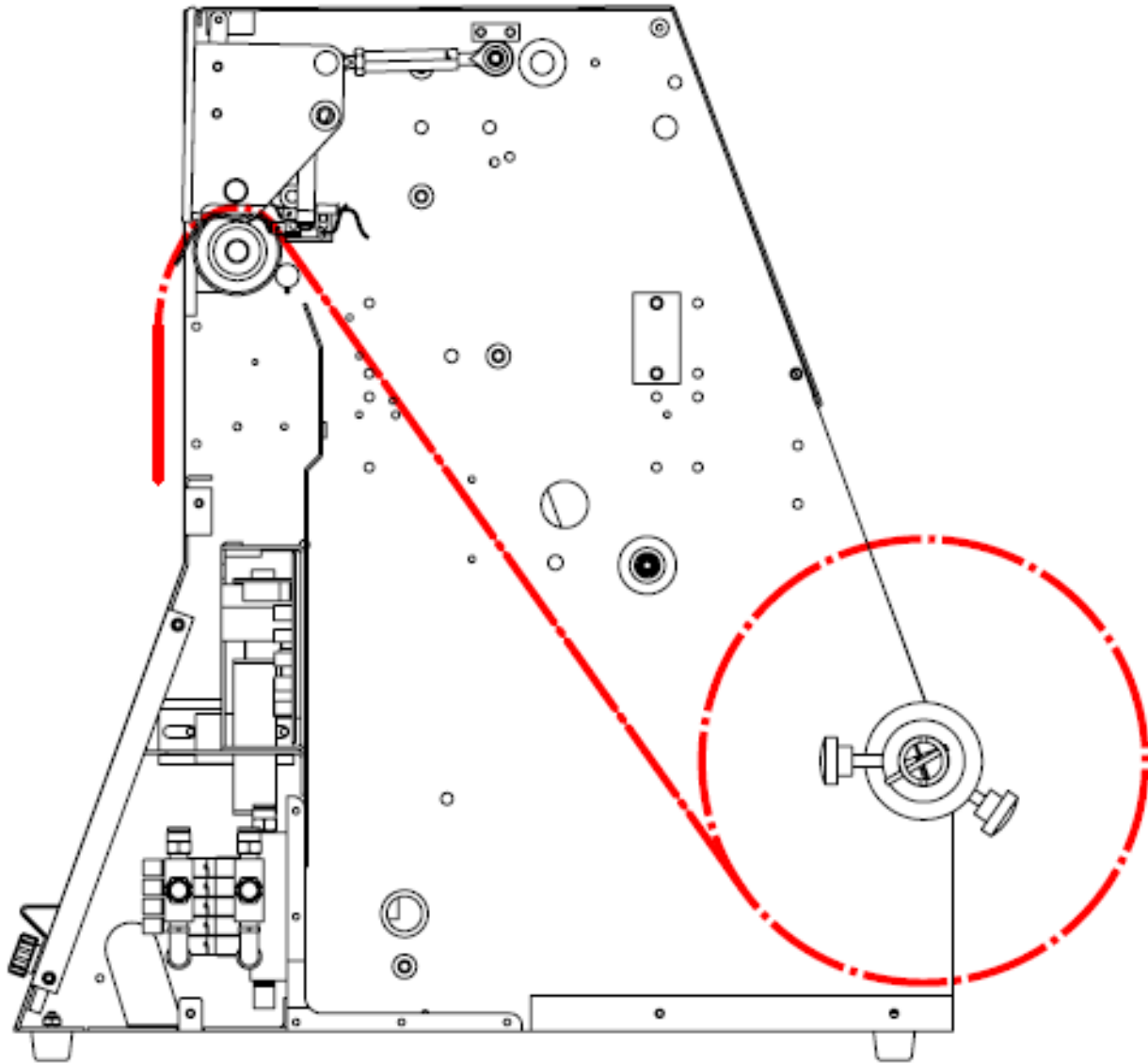
To improve bag alignment, increased web tension may be required. You can increase tension by loosening one of the chucks that hold the roll in position on the shaft and pressing it inwards, toward the center of the roll of bags. Then, tighten while pressing inward. This increases drag on the roll of bags, increasing web tension. Also, if the bags pay off too much when the web advances, increasing drag will prevent bags from paying off excess film.

2.12 Note on Adjustments

Upon receipt, it is not unusual for the T-300/T-375 to be out of alignment due to shipping and excessive handling. Unless physically damaged, the bagger will function properly after minor adjustments are accomplished. Read Chapter 4 for information on adjustments of the T-300/T-375.

T-300 Bag Threading Diagram

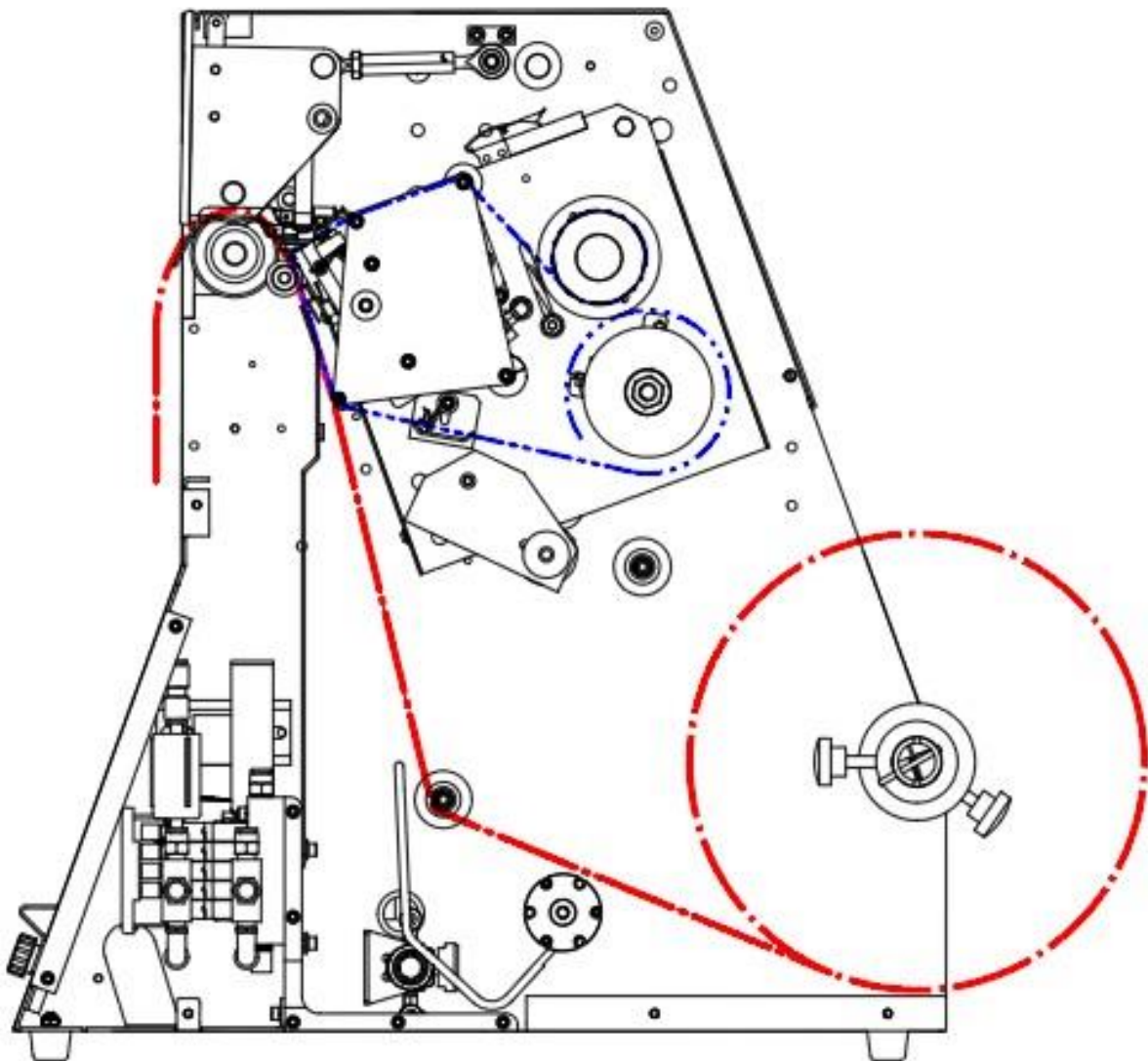
Figure 2-1



T-375 Bag Threading Diagram

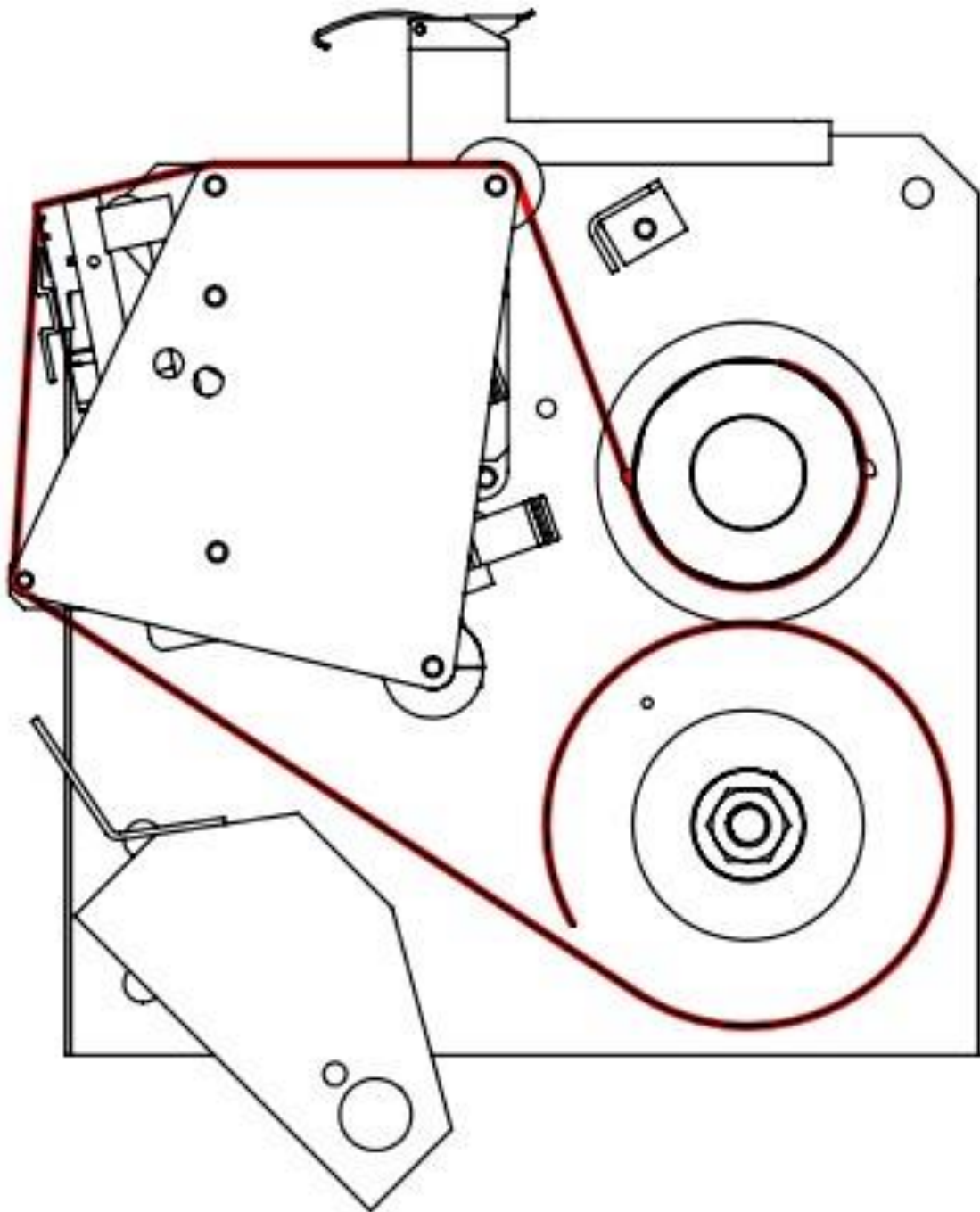
Figure 2-2

--- BAG PATH
--- PRINTER RIBBON



T-375 Ribbon Threading Diagram

Figure 2-3



Chapter 3: Touch Screen Operation

Summary

Identification

Specifications

Overview

Introduction Screen

Operation Screen

Main Menu

Settings

Options

3.1 Chapter Summary

This section describes the identification, operation and adjustments of the touch screen program.

3.2 Touch Screen Identification

1. IOP Cable to touch screen / PLC Program Port
2. PLC Wiring / Power
3. Battery Cover / Battery Location
4. DIP Switch Setting

CAUTION: Do not attempt to reprogram the PLC or touch screen. Doing so may cause an unsafe operating condition. Doing so will also void the warranty. Additionally, do not change the DIP switch settings.

3.3 Touch Screen Specifications / Features

Screen, Resolution	7", 800 x 480 pixels, 65,536 TFT Colors
Features	Real time clock, recipes, USB
LCD	65,536 colors, TFT
Memory	11.6 MB
Communication	RS232C
Touch Key Resolution	Free, Analog
Languages	English, Spanish, French, German, Italian, Japanese, Chinese, Korean
Dimension	215 x 156 x 42 mm
Back Light	White LEDs (No maintenance)
Power Supply	24V DC, 0.2A
Protection (Front)	IP65
Conforming	CE, UL, cUL

3.4 Touch Screen Program Overview

The touch screen program is a user-friendly, menu-driven setup and operation program. Pop-up windows are incorporated for quick and easy settings adjustment. Each time a setting is changed, the settings are saved so that if power is lost, the “job” will be recalled automatically without the need for reprogramming. A general color scheme is used to identify functions:

- **Blue:** Background color used for text information. No “buttons” or functions are blue.
- **Green:** Used for buttons that change settings or mode of operation. For example, pressing a green button may display a pop-up window or turn a function on / off.
- **Red:** Indicates that a function is off or stopped or that an error has occurred. For example, pressing a red button may turn a function on.
- **Yellow:** Used for menu buttons. Pressing a menu button displays another screen and allows for movement throughout the entire program

3.5 Introduction Screen

When the T-300/T-375 is turned on, the Introduction screen is displayed. The Introduction screen is a welcome screen, and it contains a button that will take the operator to the Operation screen. See Figure 3-1. When turned on, the machine will be in Stop mode.



Figure 3-1

3.6 T-375 Operation Screen

If you purchased the T-375 Table Top Bagger, the T-375 Operation screen will be displayed when the **Operation** button is pressed. See Figure 3-2.

The T-375 Operation screen is provided to function with the pass code function of the machine and is initially accessed from the Introduction screen. If the pass code function is enabled, the touch screen will default to the Operation screen after a preset amount of time has elapsed. This function prevents unauthorized operators from making setting changes that could affect the operation or performance of the unit. Since no settings are displayed on the Operation screen, the operator cannot change settings unless a pass code is enabled.

When the pass code function is active, the operator must enter the Level 2 pass code to access the Main Menu. Without this pass code, the operator will be restricted to the Operation screen. If the LED on the **Main Menu** button is green, access to the Main Menu is granted. If the LED is red, access to the Main Menu is denied, unless the pass code is entered.

NOTE: Contact APPI Technical Support if the pass code is unknown. APPI will describe how to gain access to the Password Setup Screen to view and change the codes. For more information on the pass code function, refer to the Password Setup section 3.42 in this chapter.

The Operation screen features several LEDs that indicate the status of the printer and illuminate and change during various stages of operation:

- **Power OFF:** This indicator can display “Power Off,” “Self Test,” “Ready,” and “No Ribbon” during various stages of operation. When Power Off is displayed, the printer is disabled. Self Test is displayed when the printer is performing a test. Ready is displayed after self-testing or during startup if an error does not exist. “No Ribbon” is displayed when the printer runs out of ribbon.
- **No Label / Labels:** Indicates whether or not a label has been downloaded.
- **Reprint LEDs:** Indicate whether or not the Reprint function (when the printer is continuously printing a preset amount of labels) is on, off or buffering.

Printer ON / OFF: Press button to turn label printer on or off.

The **Clear Labels** button can clear the downloaded label format or the label format that is recalled from stored memory.

Label Qty: Displays the number of labels printed for that job.

Preset Count: Displays the number of cycle operations left before the bagger will stop automatically. The Preset Count counts down from a preset number and stops the machine when the preset number of cycles is reached. To adjust the Preset Count, press the right box and enter a number using the numeric keypad. The left box will then count down from that preset number.

Total Count: Displays the total number of cycle operations. To adjust the Total Count, press the right box and set it to zero. The left box will then count up and the machine will operate continuously. If the operator enters a number other than zero into the right box, the Total Count will function just like the Preset Count and the left box will count down from that preset number.

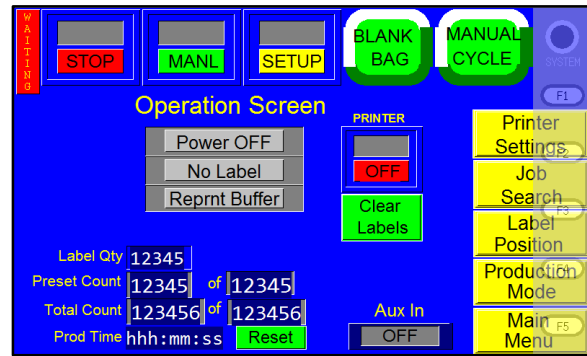


Figure 3-2

Production Time: Displays the amount of time the machine has been turned on and operating. Press the **Reset** button to set this time to zero.

Press the **Manual Cycle** button to cycle the T-375. Press the **Blank Bag** button to index the next bag without printing a label.

3.7 T-300 Operation Screen

If you purchased the T-300, the T-300 Operation screen will be displayed when the **Operation** button is pressed. If the pass code function is enabled, access to the Main Menu and the rest of the touch screen program will require the input of a pass code. This prevents unauthorized operators from making setting changes that could affect the operation or performance of the unit. See Figure 3-3.

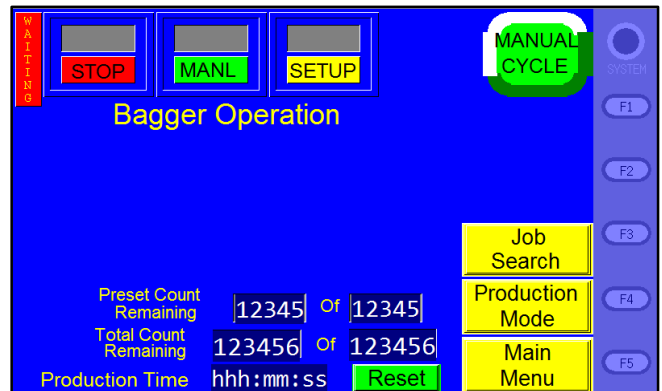


Figure 3-3

Preset Count Remaining: Displays the number of cycle operations left before the bagger will stop automatically. The Preset Count counts down from a preset number and stops the machine when the preset number of cycles is reached. To adjust the Preset Count, press the right box and enter a number using the numeric keypad. The left box will then count down from that preset number.

Total Count Remaining: Displays the total number of cycle operations. To adjust the Total Count, press the right box and set it to zero. The left box will then count up and the machine will operate continuously. If the operator enters a number other than zero into the right box, the Total Count will function just like the Preset Count and the left box will count down from that preset number.

Production Time: Displays the amount of time the machine has been turned on and operating. Press the **Reset** button to set this time to zero.

Job Search: Press to access the Job Search Screen. See section 0 for complete description.

Production Mode: Press to access the Production Mode Screen. See section 0 for complete description.

3.8 Main Menu

For both the T-300 and the T-375, the Main Menu is initially accessed from the Operation screen. The Main Menu screen allows the operator to quickly navigate to other areas in the program. The yellow buttons located in the center of the Main Menu screen are menu command buttons. Pressing a menu command button changes the screen currently displayed on the touch screen. Press the corresponding menu command button to access another screen. Menu buttons appear throughout the touch screen program and are normally located on the right side of the screen. See Figure 3-4.

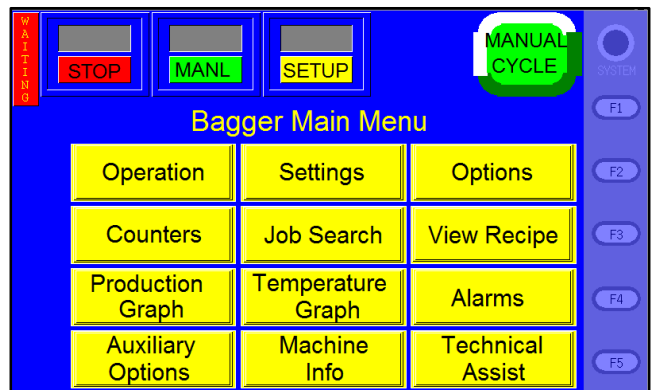


Figure 3-4

Mode toggle buttons are located at the top of many screens:

- **START / STOP:** This button controls the operation mode, the mode that allows the equipment to cycle. Toggle this button to **START** to begin operation. Toggle this button to **STOP** to stop operation.
- **MANL / AUTO:** This button can be toggled to enter the machine into either Automatic or Manual mode. Automatic mode allows the machine to cycle automatically. Manual mode requires the operator to press the **Manual Cycle** button or foot switch to cycle the machine.

- **RUN / SETUP:** This button can be used to deactivate functions and allow cycling when the heater bar is not up to temperature. Toggle this button to SETUP to stop counters, production timers and auxiliary signals so the equipment can be operated independently. Toggle this button to RUN to allow continuous operation.

Ready / Waiting LED: Displays “Ready” when the temperature of the heater bar is within the range of acceptance. If “Ready” is displayed in the top left corner of the screen, the bagger is ready for full operation. “Waiting” is displayed when the bagger is not at temperature. If “Waiting” is displayed, operation will be paused, unless the bagger is in Setup mode.

3.9 Bagger Settings Screen

The Bag Settings screen allows the operator to access, view, and adjust the basic machine settings. Bag size, thickness and product characteristics affect these settings. See Figure 3-5. Once set, the operator may save the bagger settings, along with the options settings and auxiliary settings, for later recall. This screen also displays the current, last and average bag length.

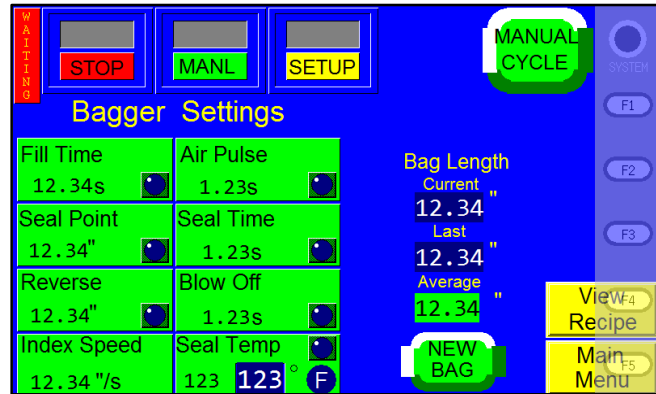


Figure 3-5

All settings will be entered numerically on a keypad. To adjust any value, press the green button of the setting you would like to change and then enter the value on the numeric keypad, followed by the **ENT** button. If a setting is entered incorrectly, press the **CLR** button and enter the correct value. After changing a setting, test cycle the bagger several times to ensure the setting adjustment produces the desired results.

Most entries and adjustments of machine operation settings will occur on the Settings screen. When a new bag size or thickness is introduced, the T-300/T-375 must be set up to properly run the bags.

The **New Bag** button starts an internal program that calculates average bag length. This information is required so that if a perforation is not detected, the bag will still stop in the correct seal position. Press the **New Bag** button if bags are not consistently stopping at the correct seal point or after switching bag size. To manually adjust the average bag length, press the green numeric button under Average, enter a value on the numeric keypad and press the **ENT** button.

NOTE: A Feed Error message will be displayed if the perforation is not detected within the accepted bag length range. Once a Feed Error occurs, the bagger will restart to calculate bag length.

Bag Length displays: The current, previous and average bag lengths are displayed on the Settings screen to assist with troubleshooting if the seal point becomes inconsistent and erratic. These values should be close to the actual bag length. Once the average bag length is calculated, the bag will index to this position even if the perforation is not detected.

Fill Time: In Automatic mode, Fill Time is the amount of time in seconds, the operator has to load the bag before seal operation begins. In this paced operation, increasing the Fill Time decreases the cycles per minute and allows more time for loading product. In Manual mode, Fill Time will delay the operation from starting until this preset amount of time has passed. To start operation immediately without any delay, set Fill Time to zero.

CAUTION: To avoid physical harm, **DO NOT** operate the equipment in Automatic mode if the funnel, guards or covers are removed. Funnels should not be removed unless a Light Curtain, Palm Buttons or other approved safety device is installed. Guards should never be removed when the machine is operating.

Air Pulse: The amount of time, in seconds, that a burst of air will initially blow the bag open. Wider bags and heavier gauge bags require a longer burst of air to initially open the bag. Narrow and thinner gauge bags require less air to initially open the bag. Additionally, to increase the volume of air from the air pulse tubes, turn the Air Pulse valve counterclockwise. Turn the valve clockwise to decrease the volume of air. The flow control valves are located on the right lower side of the seal frame assembly.

NOTE: The volume of air set should be the minimum amount and duration required to consistently open the bag.

Seal Time: The amount of time, in seconds, the pressure (rubber) bar will remain touching the surface of the bag for proper sealing. Sometimes referred to as “dwell time,” Seal Time is one of three critical components to obtain a strong seal (other critical factors include Seal Temperature and Seal Pressure). A typical value is 0.5 seconds for 2 or 3 mil film.

Seal Point: The distance, in inches, between the seal point position and the top perforation. The proper positioning of the seal on the bag varies due to bag size and product characteristics. Wider bags generally require greater sealing area than narrower bags. Additionally, bags packaged with bulky products require greater sealing area than bags packaged with thinner products. A typical Seal Point setting for a mid-size bag (5 x 7") would be 0.7". A typical setting for a large bag would be 1.5".

Seal Temperature: The temperature on the heater bar must reach the set temperature before full operation can begin. When the T-300/T-375 is on, the heater bar element receives electrical current. The PLC pulses electrical current to the element until the temperature setting is reached. An amber indicator lamp illuminates on the Bagger Settings screen while the element is receiving current. The longer the light is illuminating, and the longer the "pulse" of current, the further away the machine is from the temperature setting.

If the temperature of the heater bar is not within a preset range around the preset Seal Temperature, “Waiting” will be displayed on the top left screen. If “Waiting” is displayed on the top left corner of the screen, the bagger can only be operated in Setup mode. When the heater bar is up to temperature, “Ready” will be displayed on the top left of the screen. If “Ready” is displayed in the top left corner of the screen, the bagger is ready for full operation.

NOTE: After making adjustments, test the seal strength prior to beginning production. It is normal for the Seal Temperature indicator light to illuminate (pulse) during operation. As the actual temperature approaches the set temperature, the pulses will grow shorter and shorter. From a "cold" start, it takes approximately four minutes for the machine to reach the set temperature.

NOTE ON SEAL QUALITY:

Quality seals are achieved by making adjustments to Seal Time, Seal Temperature and Seal Point and by having the proper seal pressure. As an additional seal function, an adjustment of the Cool Time setting may also be required for heavy or bulky products. If too hot, the seal may separate when the pressure bar releases the bag after sealing. Cool Time is considered a factory setting and can be adjusted on the Bagger Factory Settings screen.

If, after making necessary adjustments, the seal quality remains insufficient, additional options may be purchased to enhance seal appearance, integrity or strength. See Chapter 1 for a description of available options such as the FS-10 Flat Seal Assembly, TS-10 Trim Seal Assembly, BF-10 Bag Deflator and LS-10 Load Shelf. Wider seal bars are also available to increase the consistency of seals.

NOTE: Ensure regulator pressure is set to 60 PSI (4.13 BAR).

Index Speed: The speed, in inches per second, at which the bag will feed/index into position. For shorter bags, the speed can be significantly decreased (to 10"/sec, for example). For longer bags, the setting can be increased to the maximum setting of 25" per second. A typical setting is between 15 and 25"/sec.

Reverse: The distance, in inches, the rollers will reverse the bag to separate it at the perforation. The reverse action occurs while the pressure bar is gripping the bag to separate the bag being loaded from the bag above. For wider bags, the reverse distance may need to be increased. A typical setting is between 0.5" and 1".

NOTE: On the T-375, Reverse changes the print location on the bag. Refer to the T-375 Printer Settings section of this chapter and Chapter 4 for more information about print location settings. The Reverse speed may be changed in the Technical Assistance / Factory Settings screen.

Blow Off: The amount of time, in seconds, the air blower removes bags from the PTFE anti-stick sealing sheets. A blow off tube is provided to decrease the possibility of bags sticking to the PTFE anti-stick sealing sheets. Increase the blow off time if bags are not falling from the machine. Typically, the blow off time is set to 0.15 to 0.25 seconds.

3.10 Options Menu

Several options can be added to the T-300/T-375 at the factory and then set up and adjusted from the Options screen. If options were not installed at the factory, then N/A (Not Available) will be displayed to the left of each option button. Otherwise, the button will display ON or OFF, See Figure 3-6 and 3-7.

NOTE: If options are added in the field, a pass code is required to enable use of the option. Contact APPI for pass codes. Options that have been purchased separately must be installed by specialized maintenance personnel.

To determine if a specific option has been activated, press the **Options** button from the Main Menu. The Options screen will be displayed. Press the button of the option you wish to view (i.e. Load Shelf, Trim Seal). If an information screen is shown with an **Activate Option** button at the bottom of the screen, then the option has not been activated yet. Contact APPI Technical Support for information on how to activate the option. If the option has been activated, a settings or operation screen will be displayed after the option button is pressed.

NOTE: If the option was purchased with the machine, the option will be activated at the factory. Otherwise, contact APPI Service Department for instructions on how to enable options.

The following sections describe the settings for optional equipment. If your T-300/T-375 is not equipped with these options, please disregard these sections. Most of the listed options are not standard and must be purchased separately. Setting changes require testing prior to beginning production.

NOTE: Due to the specialized nature of some options or if your machine has custom programming, settings descriptions may not be included in this manual. Please contact APPI for special instructions.

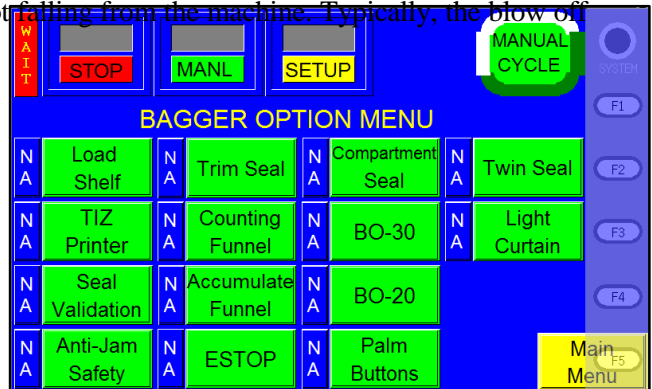


Figure 3-6

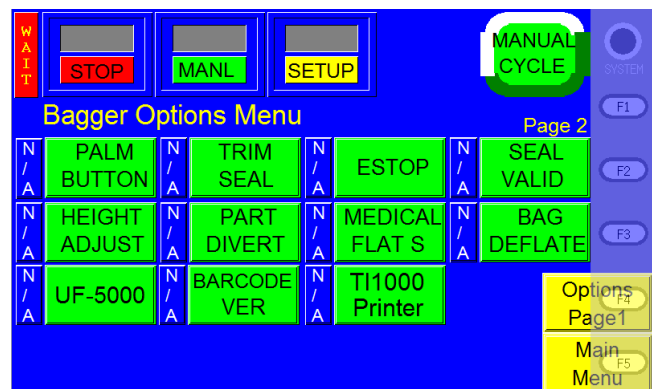


Figure 3-7

3.11 LS-10 Load Shelf

This option is used to support bagged product. It prevents the bag from prematurely tearing off at the perforation once product is inserted in the bag. The Load Shelf allows bagged product to drop onto the shelf, relieving pressure on the bottom of the bag. See Figure 3-8.

The Load Shelf Setup screen allows the operator to control and adjust the Load Shelf and its settings. See Figure 3-9.

ON / OFF button: Press to turn the Load Shelf on and off.

Tapper ON / OFF button: Press to toggle the vibratory tapper on and off. The tapper vibrates the Load Shelf and settles product in the bottom of bag.

Shelf Down Time: The length of time the shelf is in the down position. To adjust this setting, press the **Shelf Down** button, enter a value into the numeric keypad and press the **ENT** button. Increase the time for longer bags.

Vibration Rate: The bottom of the load shelf has a vibrating function that shakes the bag so that the product settles to the bottom. To set number of vibrations per second, simply touch the **Vibration Rate** button and enter the value into the numeric keypad and touch **Enter**. A typical setting is 1 vibration per second.



Figure 3-8

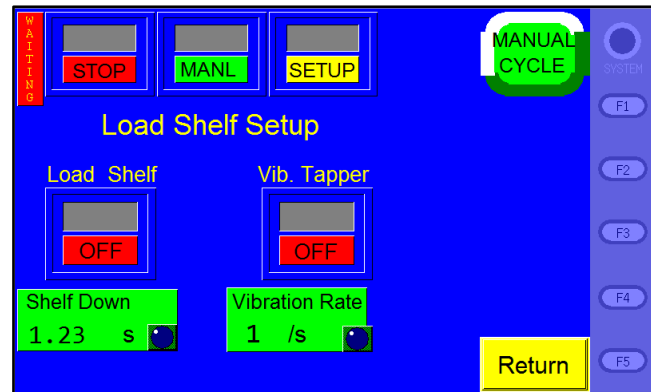


Figure 3-9



Figure 3-10

3.12 CS-10 Compartment Seal

This option seals the bag a second time to create two separate compartments within the same bag. This option is useful for separating different parts or protecting against damage caused from part contact. See Figure 3-10. Both seal points can be adjusted by the operator to increase or decrease the size of each compartment. See Figure 3-11.

Fill Time: The amount of time, in seconds, auxiliary infeed equipment or an operator has to load product into the bag before seal operation begins.

To adjust this setting, press the **Fill Time** button, enter

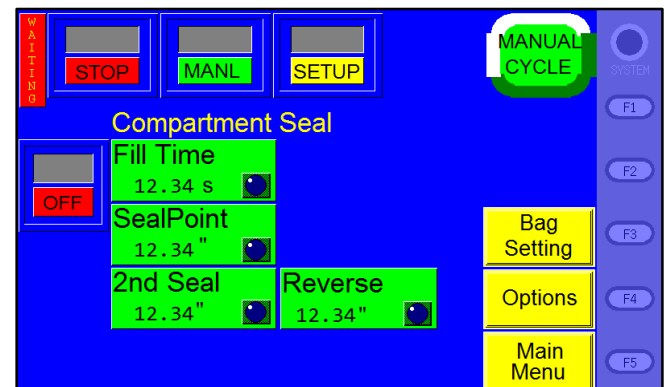


Figure 3-11

a value on the numeric keypad and then press the **ENT** button.

Seal Point: The position of the first seal, in inches, measured from the top perforation of the bag. To set the first seal point, press the **Seal Point** button, enter the value on the numeric keypad, and press the **ENT** button.

2nd Seal: The position of the second seal, in inches, measured from the top perforation of the bag. To set the second seal point, press the **2nd Seal** button, enter the value on the numeric keypad, and press the **ENT** button.

Reverse: The distance, in inches, the rollers will reverse the bag into the T-300/T-375, while the pressure bar grips the bag, in order to break the perforation between bags. To adjust this setting, press the **Reverse** button, enter a value into the numeric keypad and press the **ENT** button.

Set the first seal point by pressing the **SealPoint** button and entering a value on the numeric keypad. Adjust the first seal point until the desired location is achieved. Then, turn the Compartment Seal option on by toggling the **ON / OFF** button to **ON**. Adjust the second seal point by pressing the **2nd Seal** button and entering a value on the numeric keypad. Adjust the value of the second seal point until the desired position is achieved. Both seal points can be adjusted by the operator to increase or decrease the size of each compartment. However, the larger object should be placed into the bag first.

3.13 FS-10 Flat Seal

This easy-to-attach option is used to decrease or eliminate wrinkles or folds in the bag when it is sealed. Fingers enter the bag immediately before sealing to pull the front and back layer of bag together causing the seal area to be flat. This option is ideal for retail products, bulky products, air-tight packages and products that require a high integrity bag. See Figure 3-12.

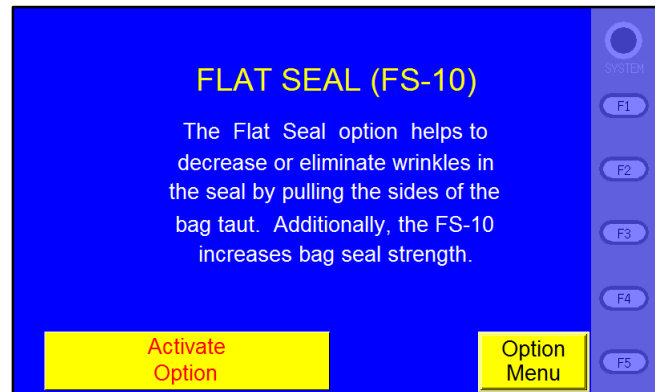


Figure 3-12

On the Flat Seal Setup screen, toggle the **SETUP / AUTO** button to **SETUP**. See Figure 3-13.

SETUP mode allows the operator to easily make mechanical adjustments to the fingers along the front plate slots on the T-300/T-375. Once the mechanical adjustment is complete, change the toggle buttons to **ON** and **AUTO** for normal operation of the Flat Seal assembly. In Automatic mode, the fingers will automatically extend into the bag immediately before the pressure bar seals the bag.

NOTE: Valve # X indicates the Valve Station number assigned to this option. Valve #0 indicates that no valve is assigned to this option. The option will not operate unless a Valve Station number greater than zero is assigned.

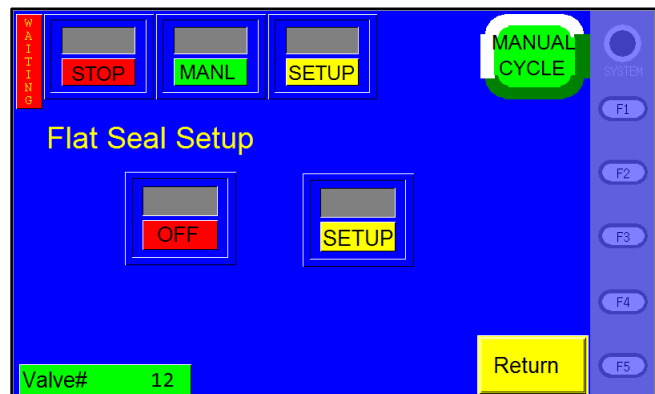


Figure 3-13

3.14 TS-10 Trim Seal

The Trim Seal option removes excess film from the bag above the seal to enhance the appearance of packaged products. The Trim Seal option is ideal for retail products. See Figures 3-14 and 3-15.

NOTE: To properly “trim off” excess film, the bag length may have to be increased to provide the required finished bag size. We recommend trimming at least 1.5" of film from the bag.



Figure 3-14

Seal Time: The amount of time, in seconds, the pressure (rubber) bar will remain

touching the surface of the bag for proper sealing. To adjust this setting, press the **Seal Time** button, enter a value on the numeric keypad and then press the **ENT** button.

Cool Time: The amount of time, in seconds, the pressure bar is released to ensure the seal is cool enough to be torn off after the pressure bar and heater bar have come in contact with the bag. To adjust this setting, press the **Cool Time** button, enter a value on the numeric keypad and then press the **ENT** button.

Seal Temperature: The temperature the heater bar must reach before operation can begin. To adjust this setting, press the **Seal Temp** button, enter a value on the numeric keypad and then press the **ENT** button.

Trim Delay: The amount of time, in seconds, before the trimming assembly activates after the bag is sealed. To adjust this setting, press the **Trim Delay** button, enter a value on the numeric keypad and then press the **ENT** button.

Trim Time: The amount of time, in seconds, the trimming assembly removes excess film from the bag. To adjust this setting, press the **Trim Time** button, enter a value on the numeric keypad and then press the **ENT** button.

Blow Off: The amount of time, in seconds, that the blow off tube will release a burst of air to remove sealed bags from the machine. To adjust this setting, press the **Blow Off** button, enter a value on the numeric keypad and then press the **ENT** button.

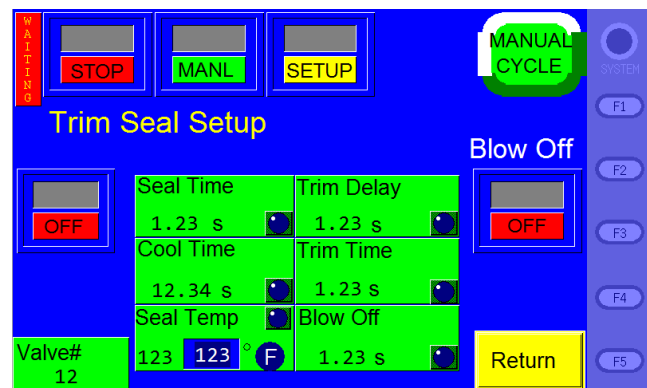


Figure 3-15

Press the **ON / OFF** toggle button to enable and disable the operation of the Trim Seal option. Adjust the settings featured on this screen until bags are trimming consistently.

NOTE: Operating the TS-10 option may cause production to decrease due to the additional time required for sealing and trimming. The normal trimming function increases maintenance required on the PTFE anti-stick sealing sheets, heater bar and cylinders.

NOTE: Valve # X indicates the Valve Station number assigned to this option. Valve #0 indicates that no valve is assigned to this option. The option will not operate unless a Valve Station number greater than zero is assigned.

3.15 TW-10 Twin Seal

Special programming is available to seal the bag twice, to increase the integrity of the bag. See Figure 3-16. The Twin Seal setting can be adjusted on the Bagger Factory Settings screen. To turn on the Twin Seal option, press the **Twin Seal** menu option and toggle the option ON. The second seal should be very close to the first.

NOTE: The Seal Point value on the Bagger Settings Screen may need decreased to allow space for two seals on the same bag.

NOTE: Weight of the product, special load shelves or other options, funneling and bag size will affect the operation of this option. Contact APPI Sales Support for more information.

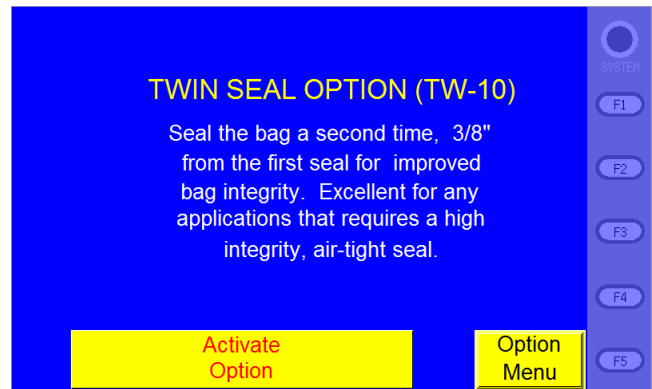


Figure 3-16

3.16 ES-10 E-Stop

This option can be used to stop the cycle operation of the T-300 / T-375 and possibly other auxiliary infeed or outfeed equipment. The E-Stop is useful for full systems that will run in an automatic operation. Multiple E-Stop buttons may be equipped. See Figure 3-17. One or more Estop buttons may be equipped.

If depressed, the Estop button will cut power to the drive motors, turn off air pressure or otherwise halt

moving components within the system. However, due to the wide range of equipment options, E-stops may function differently from one system to another depending on the components and safety requirements requested. When the Estop is pressed, a message screen will be displayed.



Figure 3-17

3.17 LC-10 Light Curtain

This option is used as a safety device to avoid personal injury by ensuring that fingers or hands are not in the seal area during the cycle operation of the T-300 /T-375. This option disables air power when the active area is obstructed.

To enable the Light Curtain option, press the button labeled **Press to Enable**. Once enabled, you will not be able to disable the option without knowing the correct pass code. See Figure 3-18.

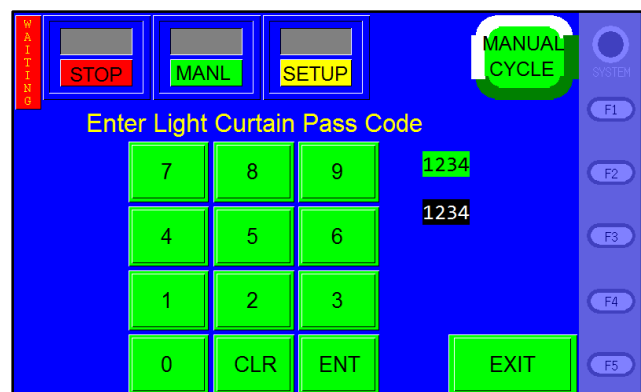


Figure 3-18

As an additional safety function, Automatic cycle mode is disabled when the Light Curtain option is activated. However, the foot switch input is not disabled when the Light Curtain option is turned on, so if the foot switch is pressed, the machine will cycle.

See Figure 3-19 for the following descriptions:

Mode SAFE / AUTO button: This button allows the operator to control how operation begins when the Light Curtain option is enabled. When this button is toggled to AUTO, the Light Curtain option can be used as a means of initiating the cycle operation of the bagger automatically after the Light Curtain sensing area is cleared. When this button is toggled to SAFE, cycle operation must be initiated manually using a foot switch or the **Manual Cycle** button.

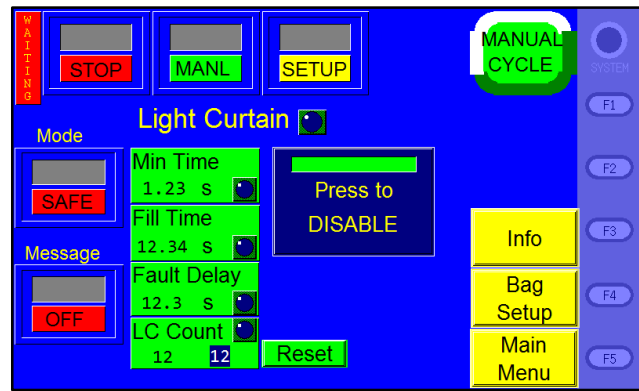


Figure 3-19

Message ON / OFF button: If this button is toggled to ON, a message is displayed every time the Light Curtain area is blocked. The message tells operators to check for an obstruction. See Figure 3-20. Remove the obstruction to continue operation. If this button is toggled to OFF, a message will not be displayed when the Light Curtain area is blocked.

Min Time: In Automatic mode, Min Time is the amount of time, in seconds, the Light Curtain must be blocked for before the T-300 / T-375 can automatically cycle. To set Min Time, press the **Min Time** button, enter a value using the numeric keypad and then press the **ENT** button.

Fill Time: In Automatic mode, Fill Time is the amount of time, in seconds, before the machine cycles after the detection area is clear. For example, if the mode is set to Automatic and the Fill Time is set to one second, the machine will cycle only after the operator has removed his or her hands and after one second has elapsed. To set Fill Time, press the **Fill Time** button, enter a value using the numeric keypad and then press the **ENT** button.

Fault Delay: The amount of time, in seconds, the Light Curtain can be blocked before a warning message is displayed and machine operation is stopped. For operation to continue after a blockage occurs, the Light Curtain must either be unblocked or deactivated. To set Fault Delay, press the **Fault Delay** button, enter a value using the numeric keypad and then press the **ENT**

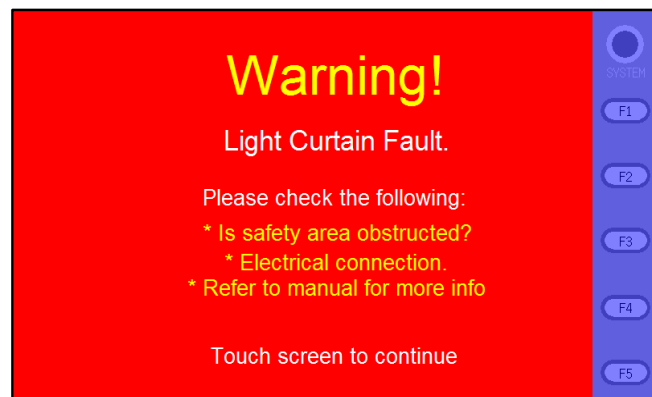


Figure 3-20

button.

To enable the Light Curtain option, press the **Press to Enable** button. Once enabled, the Light Curtain cannot be disabled without entering the correct pass code.

If a funnel or chute needs to be added that causes the Light Curtain area to be permanently blocked, and this funnel or chute also prevents the operator from reaching into the seal area, the Light Curtain can be deactivated. To deactivate the Light Curtain, press the **Press to Disable** button on the Light Curtain settings screen. A keypad will be displayed. See Figure 3-18. The special deactivation pass code must be entered on the keypad in order to disable this option. Contact the APPI Service Department for the pass code.

CAUTION: To avoid personal injury, do not attempt to disable the Light Curtain option unless a funnel is added that physically blocks the path to the heater bar.

CAUTION: To avoid injury, do not operate the T-300/T-375 when funnels are removed. APPI recommends either the Palm Buttons or Light Curtain options to safeguard operators.

CAUTION: Do not attempt to reach under the guards for any reason. This may defeat the safety feature of the LC-10 Light Curtain option. The Light Curtain only deactivates the motor and seal/pressure bar when enabled and when the light curtain beam is broken from above the seal bar. Reaching underneath will place your hands or fingers in the seal area.

3.18 PB-20 Palm Button

The Palm Button option can be used to cycle the machine instead of a foot switch. Two buttons, positioned on opposite sides on the machine must be *pressed* simultaneously to cycle the bagger. If both buttons are not pressed at the same time, or if one of the buttons is held while the other button is pressed, the machine will not cycle. As an additional safety function, the Automatic cycle mode is disabled when the Palm Button option is turned ON. The foot switch input is also disabled when the Palm Button option is turned ON. See Figure 3-21.



Figure 3-21

3.19 AF-10 Accumulating Funnel

This special purpose funnel has several functions:

- 1) To accumulate a product before dropping the full contents of the Accumulator into the bag
- 2) To contain a product while the equipment is sealing
- 3) To insert the funnel into the bag and keep the product away from the sealing portion of the bag
- 4) To physically open the bag with a gate that enters into the bag while the product exits the funnel. See Figure 3-22.

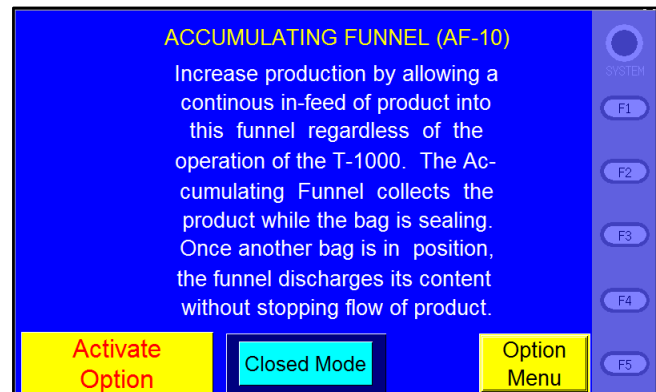


Figure 3-22

The funnel can be operated in two modes, "Open Accumulator" mode and "Closed Accumulator" mode.

To switch between the two, toggle the **Open Mode / Closed Mode** button on the Activate screen.

In an Open Accumulator mode, the door is closed only during the sealing operation. The door opens when the bag is in position and will remain open until the bag has been filled. The door will then close only until the next bag is in position. See Figure 3-23.

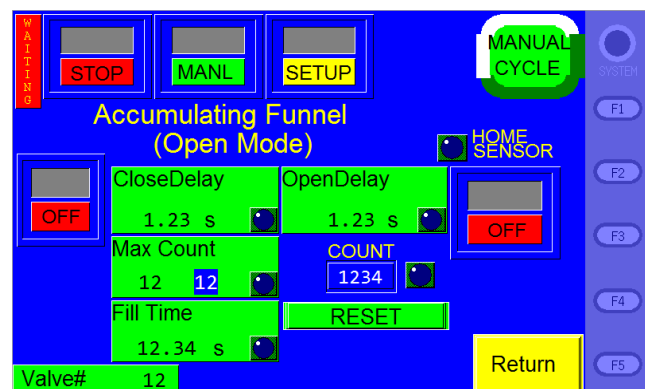


Figure 3-23

- **ON / OFF button:** Press to enable/disable the funnel.
- **CloseDelay:** The amount of time, in seconds, before the funnel door closes after parts have settled in the bag.
- **Max Count:** Press the **Max Count** button to adjust the maximum number of parts that can be in the accumulator. Adjusting this number will help avoid overfilling. To disable this function, set the Max Count to zero.
- **OpenDelay:** The amount of time, in seconds, before the funnel door opens after the preset amount of parts have settled in the accumulator.

- **Fill Time:** The amount of time, in seconds, before the bagger begins to seal the bag after the accumulating funnel door has closed.

Home Sensor: The T-300 / T-375 is equipped with a sensor that monitors the position of the accumulator door. If the sensor does not detect movement from the door during the appropriate times in the operation sequence, the home sensor LED will illuminate and an error message will be displayed. To turn the home sensor off and prevent the display of an error message, toggle the **Home Sensor** button to OFF. To activate the home sensor, toggle the button to ON.

Count: Displays the amount of parts in the accumulator. When the preset count is reached, the Count LED will illuminate.

In the Closed Accumulator mode the door remains closed until the full batch is in the funnel. Then the funnel door will open until all product drops from the funnel. See Figure 3-24.

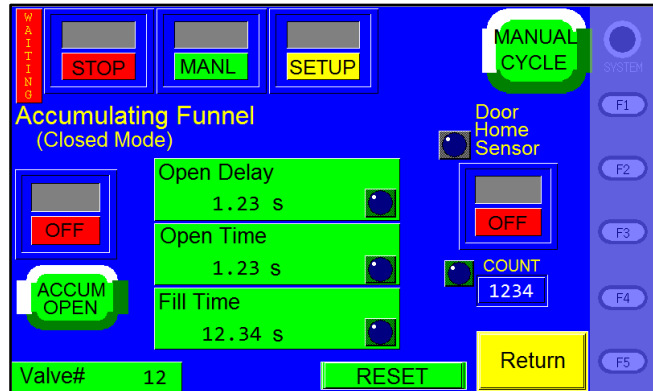


Figure 3-24

Settings are provided to delay opening or maintain the opening until product has passed through.

- **ON / OFF button:** Press to enable and disable funnel.
- **Open Delay:** The amount of time, in seconds, before the funnel door opens after the preset amount of parts have settled in the accumulator and the bag has blown open.
- **Open Time:** The amount of time, in seconds, the accumulator remains open to allow parts to completely exit the funnel.
- **Fill Time:** The amount of time, in seconds, before the bagger begins to seal the bag after the accumulating funnel door has closed.

Accum Open: To manually open the accumulator to drop product into a bag, press the **Accum Open** button.

Door Home Sensor: This button functions exactly like the **Home Sensor** toggle button on the Accumulating Funnel (Open Mode) screen.

3.20 CF-10 Counting Funnel

This photo optic, preset counting option is useful to automatically cycle the bagger when a preset number of parts have fallen through the funnel.

Photo optic eyes may vary depending on the product, so parts should be sent to APPI for testing to determine the correct components. Parts must have separation to be counted accurately through the eye. If two parts fall at the same time, they may be counted as one. Contact APPI Sales Support for additional options, programming or operations for automatic infeed equipment. Refer to Figure 3-25 for the following descriptions.

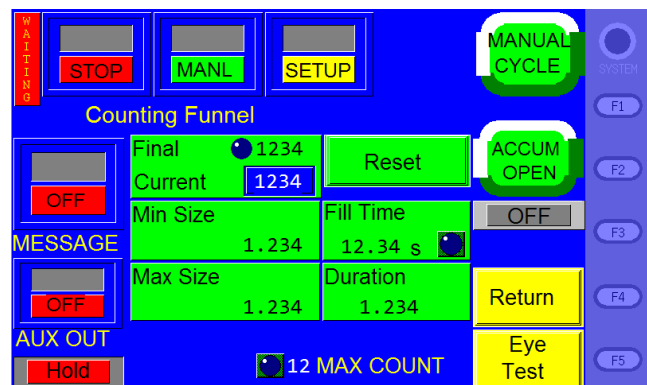


Figure 3-25

Final / Current: Final displays the total, preset count. Current displays the count the machine is processing. Press the green **Final / Current** button, enter a value on the numeric keypad and press the **ENT** button to adjust the final count. The Final LED will illuminate when the final count is reached.

ON / OFF button: Press to turn the Counting Funnel on and off. Press the **Reset** button to reset the count to the preset value.

Min Size: This setting affects how parts are counted and is used to filter scrap. Min Size can either be manually set by the operator or automatically set after an eye test is performed. If manually set, Min Size should be set to reflect the minimum size that can be counted as one part. For example, if the Min Size is set to 0.4, a part measured at 0.3 would not be counted, while a part measured at 0.5 would be counted as one part (assuming 0.5 falls below the Max Size setting). If automatically calculated, Min Size is 80% of the Min measurement. To adjust Min Size manually, press the green **Min Size** button on the Counting Funnel screen, enter a value on the numeric keypad and press the **ENT** button.

Max Size: This setting affects how parts are counted and is used to count connected parts or parts falling through the eye together as two parts. Max Size can either be manually set by the operator or automatically set after an eye test is performed. If manually set, Max Size should be set to reflect the maximum size that can be counted as one part. For example, if the Max Size is set to 0.8, a part measured at 0.6 would be counted as one part (assuming 0.6 is above the Min Size setting), while a part measured at 0.9 would be counted as two parts. If automatically calculated, Min Size is 160% of the Max measurement. To adjust Max Size manually, press the **Max Size** button, enter a value on the numeric keypad and press the **ENT** button. To adjust Max Size manually, press the green **Max Size** button on the Counting Funnel screen, enter a value on the numeric keypad and press the **ENT** button.

NOTE: If Min Size is set too close to the actual minimum test value, some parts may not be counted, causing overcounts. If Max Size is set too close to actual maximum test value, one part may be counted as two, causing undercounts.

Duration: The length of the time (time out time) the eye does not take a measurement while reading a part. Press the **Duration** button, enter a value on the numeric keypad, and press the **ENT** button to adjust the value.

Message ON / OFF button: If this function is turned on, a message will be displayed when the final count is reached. This message will inform the operator to stop loading until the bagger is ready to receive the next batch. See Figure 3-26.

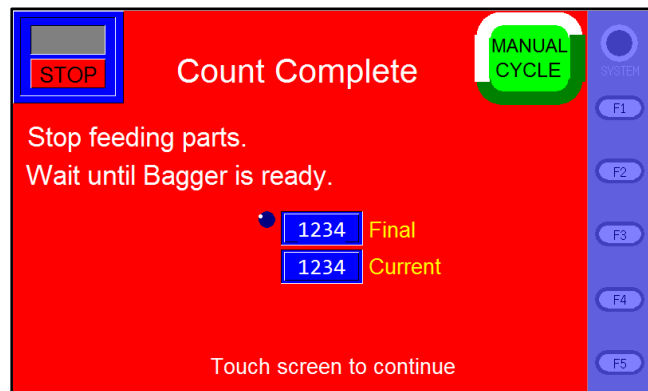


Figure 3-26

Aux Out: The **Aux Out** button will display either READY or HOLD (or OFF if there is no auxiliary equipment). When Aux Out displays READY, the bagger is ready to drop bagged parts. When Aux Out displays HOLD, the bagger is still cycling.

Max Count LED: Max Count is the maximum number of parts that can be in the funnel. When this maximum number has been reached, this indicator light will illuminate.

To manually open the accumulator and drop product into a bag, press the **Accum Open** button. Press the **Reset** button on the Eye Test screen to reset the sample values.

Parts Length Test (Eye Test): To ensure the accuracy of the count, an eye test must be performed. Press the yellow **Eye Test** button on the Counting Funnel screen to display the Eye Test screen and perform an eye test.

To start the Parts length test (Eye Test), turn the Counting Funnel option ON, go to the Parts Length Test Screen and press the **Reset** button. Toggle the **Start / Stop** button to Stop then drop parts (samples) individually through the photo sensor / funnel. The Min and Max values will change as you drop parts through the eye. If parts will be fed automatically, parts should pass through the eye as they would if feeding automatically. See Figure 3-27.

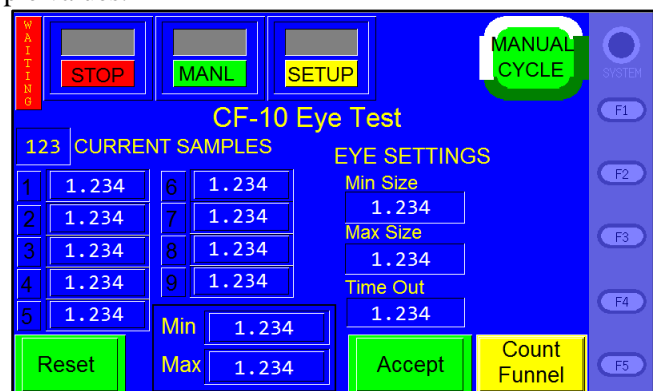


Figure 3-27

NOTE: While the Eye Test screen only displays the last nine part readings, there is no limit to the number of parts that can be used and tested during an eye test.

Min Size: The Smallest size recorded during a test.

Max Size: The largest size recorded during a test.

Time Out: This setting is automatically calculated based on the “sample” parts values and the eye test results. Time Out displays the period of time the eye does not take a measurement while reading a part. These settings will be set automatically based on the “sample” parts values. Settings can be fine-tuned by manually entering the settings.

Press the **Accept** button if the Min / Max values do not change after dropping many sample parts. If the Min / Max values continue to change, continue dropping samples until the values do not change. Once the values remain consistent, press the **Accept** button and return to the Counting Funnel screen. Test the settings by dropping one part at a time, ensuring that each count is a value of one. If not counting correctly, return to the Eye Test screen or change the Min / Max Size settings manually. If the eye is

blocked for an extended period of time (parts jam), the machine will stop and a message will be displayed.

3.21 DF-20 Part Diverter (Diverting Funnel)

This feature is used to count bags and divert them from the bagger for further packaging operations. See Figure 3-28.

Final / Current: Final displays the total, preset count. Current displays the count the machine is processing. Press the green **Final / Current** button, enter a value on the numeric keypad and press the **ENT** button to adjust the final count. The Final LED will illuminate when the final count is reached. Press the **Reset** button to reset the Final Count.

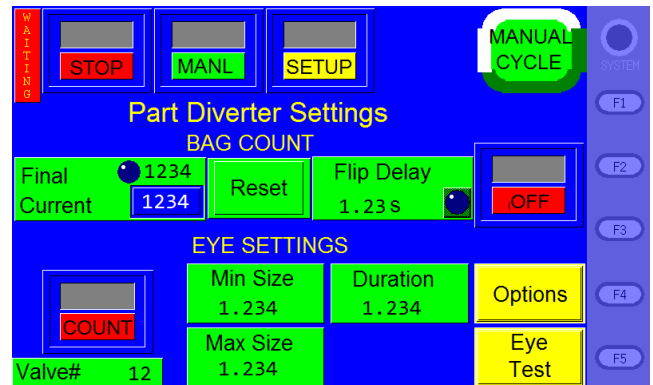


Figure 3-28

Flip Delay: The amount of time, in seconds, before the part diverter will flip after receiving a signal from the sensor.

Min Size: This setting affects how parts are counted and is used to filter scrap. Min Size can either be manually set by the operator or automatically set after an eye test is performed. If manually set, Min Size should be set to reflect the minimum size that can be counted as one part. For example, if the Min Size is set to 0.4, a part measured at 0.3 would not be counted, while a part measured at 0.5 would be counted as one part (assuming 0.5 falls below the Max Size setting). If automatically calculated, Min Size is 80% of the Min measurement. To adjust Min Size manually, press the **Min Size** button, enter a value on the numeric keypad and press the **ENT** button.

Max Size: This setting affects how parts are counted and is used to count connected parts or parts falling through the eye together as two parts. Max Size can either be manually set by the operator or automatically set after an eye test is performed. If manually set, Max Size should be set to reflect the maximum size that can be counted as one part. For example, if the Max Size is set to 0.8, a part measured at 0.6 would be counted as one part (assuming 0.6 is above the Min Size setting), while a part measured at 0.9 would be counted as two parts. If automatically calculated, Max Size is 160% of the max measurement. To adjust Max Size manually, press the **Max Size** button, enter a value on the numeric keypad and press the **ENT** button.

NOTE: If Min Size is set too close to the actual minimum test value, some parts may not be counted, causing overcounts. If Max Size is set too close to actual maximum test value, one part may be counted as two, causing undercounts.

Duration: The length of the time (time out time) the eye does not take a measurement while reading a part. Press the **Duration** button, enter a value on the numeric keypad, and press the **ENT** button to adjust the value.

Eye / Count toggle button: When toggled to COUNT, the diverter flips to divert bags after a preset quantity have been cycled. When toggled to EYE, the diverter flips and diverts every bag.

To ensure the accuracy of the count, an eye test must be performed. Press the **Eye Test** button to display the DF-20 Eye Test screen and perform an eye test.

Parts Length Test (Eye Test): With the Part Diverter option turned on, press the **Reset** button on the Eye Test screen, See Figure 3-29. Toggle the **START / STOP** toggle button to STOP. Then, drop parts (samples) individually through the photo sensor / funnel. The Min and Max values at the bottom of the screen will change as parts are dropped through the eye. If parts will be fed automatically, parts should pass through the eye as they would if feeding automatically.

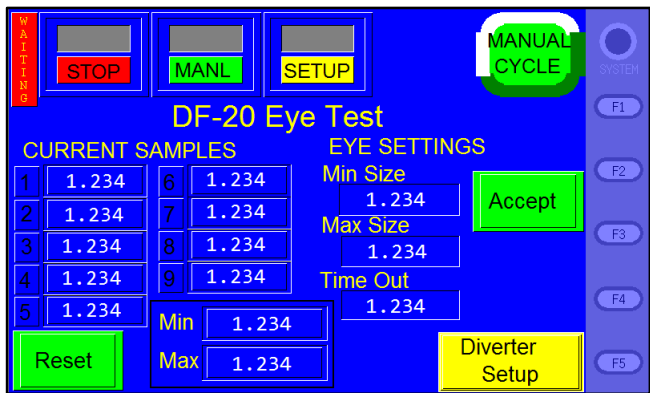


Figure 3-29

NOTE: While the Eye Test screen only displays the last nine part readings, there is no limit to the number of parts that can be used during an eye test.

Min: The smallest size recorded during a test.

Max: The largest size recorded during a test.

Time Out: This setting is automatically calculated based on the “sample” parts values and the eye test results. Time Out displays the period of time the eye does not take a measurement while reading a part. Press the **Accept** button if the Min / Max values do not change after dropping many sample parts. If the Min / Max values continue to change, continue dropping samples until the values do not change. Once the values remain consistent, press the **Accept** button and return to the Counting Funnel screen.

Test the settings by dropping one part at a time, ensuring that each count is a value of one. If not counting correctly, return to the Eye Test screen or change the Min / Max settings manually. If the eye is blocked for an extended period of time (parts jam), the machine will stop and a message will be displayed.

NOTE: Valve # X indicates the Valve Station number assigned to this option. Valve #0 indicates that no valve is assigned to this option. The option will not operate unless a Valve Station number greater than zero is assigned.

3.22 IF-10 Insert Funnel

The Insert Funnel is a special funnel that enters the bag so product does not contaminate the seal area or so the air can be shut off to facilitate proper loading. See Figure 3-30. The funnel enters the bag and remains in the bag until signaled with a foot switch or until signaled automatically by auxiliary equipment.

NOTE: A sensor input is required to confirm that the funnel is in the bag, prior to providing an auxiliary output. If the sensor does not detect the

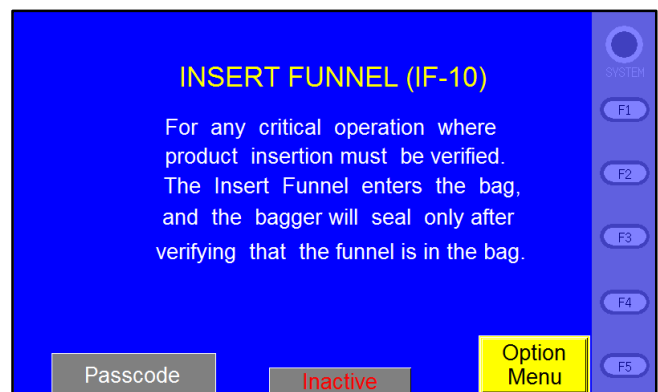


Figure 3-30

presence of the bag around the funnel, no signal output will be provided and the system will be halted.

3.23 BO-20 Bag Open Detector

This photo optic, closed contact sensor detects the opening or presence of bag material. See Figure 3-31. This option will detect whether or not a bag is blown open or whether or not a funnel is inserted into the bag for validation that the bag is ready to receive product. The Bag Open Detector is valuable for an automatic operation to decrease the chance of product falling on the floor. To turn this option on, toggle the **ON / OFF** button to ON. See Figure 3-32.

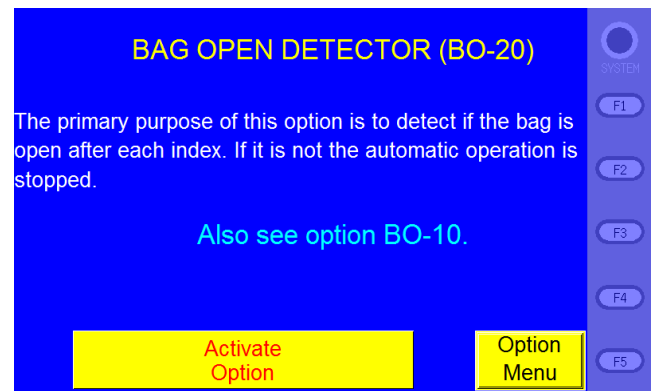


Figure 3-31

The Bag Open Detector screen features two LEDs:

- **Blocked:** Illuminates when the sensor detects a blockage.
- **Latched:** Illuminates to indicate the sensor detected the bagger is latched.

Detect Time: The time allotted for the sensor to detect the bag before stopping the machine.

Min Time: The minimum amount of time, in seconds, the sensor has to detect the bag. A message will be displayed if the bag fails to open.

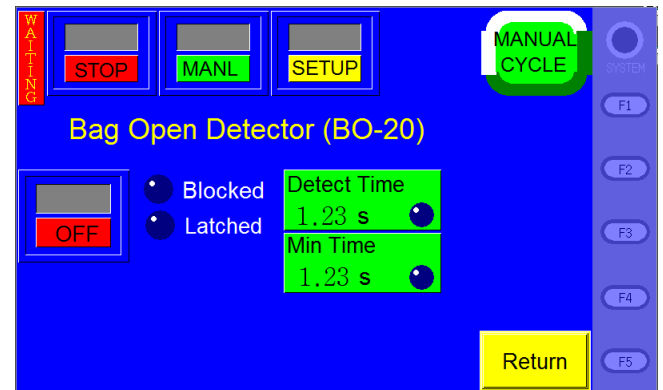


Figure 3-32

3.24 BO-30 Bag Opening Device

This optional device enters the bag with one or more “fingers” and then pulls the bag open to a stop. The stop holds the bag open during loading and also validates that there is bag material present in the “gripper.” Air can also be shut off at this point. See Figure 3-33.

There are several settings on the Bag Opener screen that alter operation: (Figure 3-34)

- **Down Delay:** The delay time, in seconds, before the fingers will attempt to enter the bag after the bag is initially blown open.
- **Close Delay:** The amount of time, in seconds, after the fingers have entered the bag before the fingers will pull the bag to the gripper point.
- **Ready Delay:** The amount of time, in seconds, it takes the fingers to cycle before the machine looks for an error.
- **Fill Time:** The amount of time, in seconds, auxiliary infeed equipment or an operator has to load product into the bag before seal operation begins.

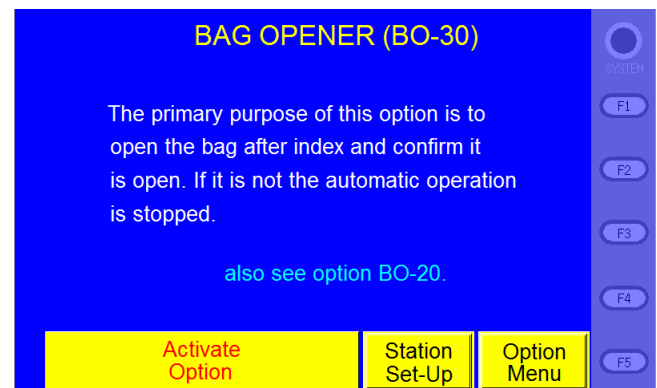


Figure 3-33

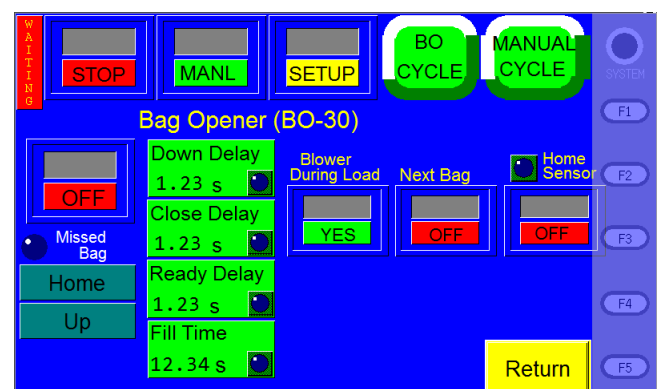


Figure 3-34

NOTE: It is very important that Ready Delay is set correctly, as the entire operation of the machine is affected by this setting. If Ready Delay is too short, the machine could drop the product before it confirms the bag opening. The bag will not be ready and an error will occur. If Ready Delay is too long, the machine will cycle slower and there will be a loss of production.

The **Next Bag** toggle button can be turned ON to automatically reject an empty bag and continue operation after failed attempts to open the bag. If this option is OFF and an error occurs, an error message will be displayed and the machine will not continue to another bag.

Blower During Loading: When this button is toggled to YES, air will be blown into the bag while the product is dropped. When this button is toggled to NO, the air will shut off after the bag is grabbed by the bag opener fingers.

Home Sensor: The T-300 / T-375 is equipped with a sensor that monitors the position of the bag opener fingers. If the sensor does not detect movement from the fingers during the appropriate times in the operation sequence, the home sensor LED will illuminate and an error message will be displayed. To turn the home sensor off and prevent the display of an error message, toggle the **Home Sensor** button to OFF. To activate the home sensor, toggle the button to ON.

Home / Away and **Up / Down** display the operation of the fingers. When the fingers are withdrawn, Home and Down are displayed. When the fingers are out and the product is in the bag, Away and Up are displayed.

Missed Bag LED: Indicates a Bag Opener Error. If the Next Bag option is on, the machine will move on to another bag and continue operation if this error occurs. If the Next Bag option is off, an error message will be displayed if this error occurs and operation will stop.

The **BO Cycle** button allows the operator to test cycle the Bag Opening Device alone, without initiating other equipment or the T-300 / T-375 seal operation.

3.25 BF-10 Bag Deflator

To press the air from the bag, a pneumatic bag deflator can be fitted. Several timers are provided to change the sequence of operation.

Toggle the option ON and adjust the Seal Delay settings to cause the bag deflator to cycle prior to the seal bar. See Figure 3-35.

Fill Time: The amount of time, in seconds, before the bagger begins to seal the bag after the accumulating funnel door has closed.

Seal Delay: The amount of time, in seconds, before the seal operation begins after the air is turned off. This delay setting allows air to escape the bag. To change this setting, press the **Seal Delay** button, enter a value on the numeric keypad and press the **ENT** button.

Seal Time: The amount of time, in seconds, the pressure (rubber) bar will remain touching the surface of the bag for proper sealing. To adjust this setting, press the **Seal Time** button, enter a value on the numeric keypad and then press the **ENT** button.

Cool Time: The amount of time, in seconds, the pressure bar is released to ensure the seal is cool enough to be torn off after the pressure bar and heater bar have come in contact with the bag. To adjust this setting, press the **Cool Time** button, enter a value on the numeric keypad and then press the **ENT** button.

IndexDelay: The amount of time, in seconds, the previous bag has to exit the seal area after it is released and the next bag is fed into place. This delay prevents the next bag from feeding and prevents the seal bar from coming into contact with the previous bag and causing a bag jam. To change this setting, press the **Index Delay** button, enter a value on the numeric keypad and press the **ENT** button.

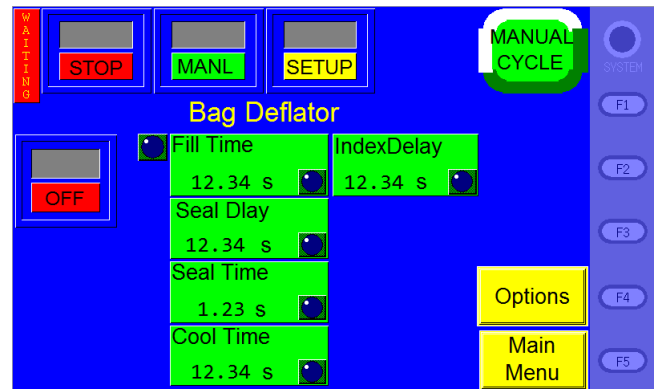


Figure 3-35

3.26 MV-20 Seal Validation

Seal validation is provided by adding additional components to detect failures or out of range condition for components that affect seal quality. See Figure 3-36.

To cause a good seal and to confirm that each component required to obtain the seal is in range, three validations have been added to the T-300 and T-375 Tabletop Baggers: (See Figure 3-37)

- **Seal Temperature:** A secondary controller was added with an alarm output that alerts the operator when the temperature falls out of the set range in the temperature controller.
- **Seal Time:** Sensors were added to the seal bar to measure how long the seal bar is engaged to validate that the heater bar is extended within an acceptable time compared to the set Seal Time.
- **Seal Pressure:** A pressure sensor was added with an alarm output that alerts the operator when the pressure falls out of the set range.

Range: The range of variation from the Seal Time set point. The Seal Time must be set within this range for the machine to operate properly. To adjust the Seal Time range, press the **Range** button, enter a value on the numeric keypad and press **ENT**.

Typically, medical companies require seal validation as a secondary means to detect out of range conditions or to stop the operation when the condition exists. A message will be displayed if any of the three validation components are out of range. See Figure 3-38.

The pressure sensor may also be added to the T-300 / T375 to validate only pressure, without adding the other two components. For application requiring this validation only, the bagger will not operate unless the sensor provides an output indicating that the pressure is above a minimum allowable setting.

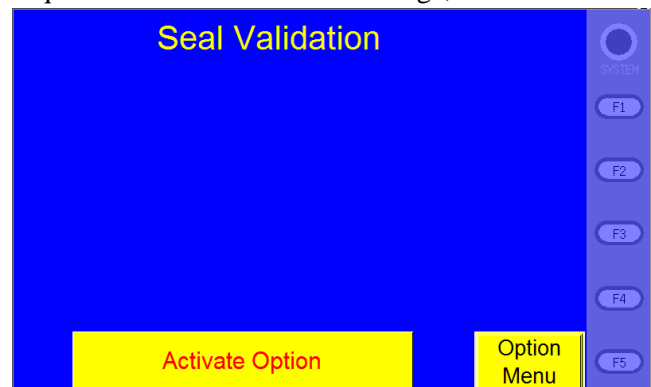


Figure 3-36

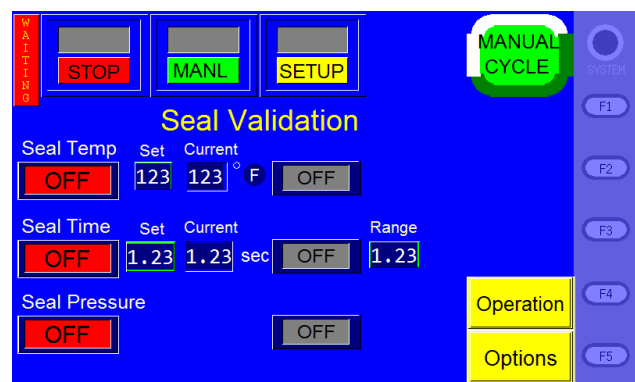


Figure 3-37



Figure 3-38

3.27 Medical Flat Seal

This holds the same function as the FS-10 Flat Seal as described in section 3.18 but adheres to medical specifications. See Figure 3-39.

On / Off turns the feature on or off.

In / Up changes to **Out / Down** depending on the position of the fingers.

Fill Time: The amount of time, in seconds, before the bagger begins to seal the bag after the accumulating funnel door has closed.

Seal Delay: The amount of time, in seconds, before the seal operation begins after the air is turned off. This delay setting allows air to escape the bag. To change this setting, press the **Seal Delay** button, enter a value on the numeric keypad and press the **ENT** button.

FSEAL CYCLE: Cycles the flat seal fingers.

Cancel: Pressing **Cancel** will reset the cycle.

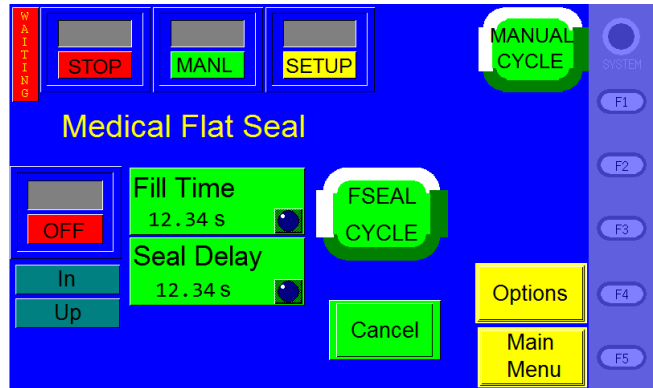


Figure 3-39

3.28 BV-10 Bar Code Verifier

This option is purchased to validate that a barcode is present and readable. See Figure 3-40.

Press the <ON> toggle button. For each barcode successfully read, the status box will provide a GOOD message. If a NO READ occurs, a message will be displayed.

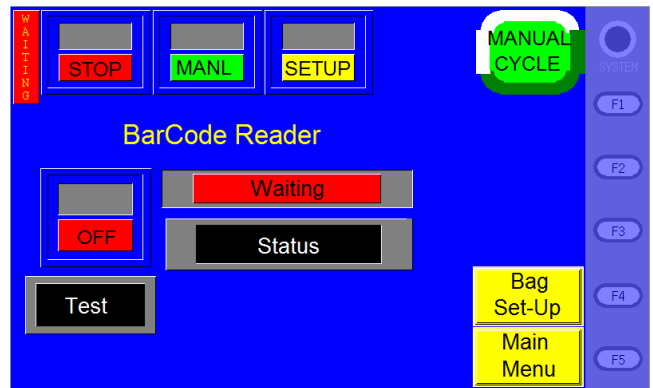


Figure 3-40

3.29 T-375 Printer Setup Screen

The Printer Setup screen provides access to all functions pertaining to the print location. To access the Printer Setup screen, press the **Printer** button from the Options screen or from the Main Menu, see Figure 3-41.

NOTE: It is highly recommended that all bag settings are adjusted from the Bagger Settings screen first while the printer is off. Bags should be feeding, blowing open, sealing and separating properly before attempting to print on the bag.

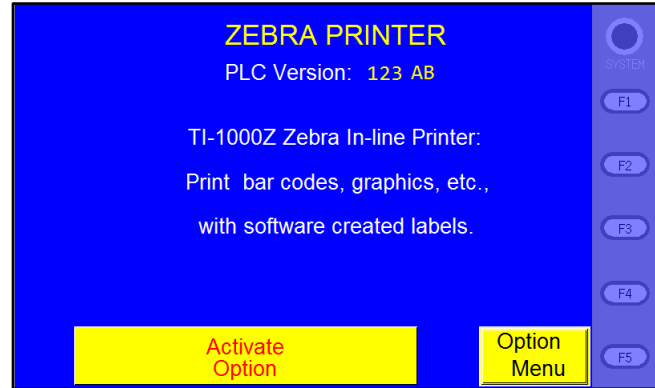


Figure 3-41

ON / OFF button: The printer **ON / OFF** button must be toggled to ON for the printer to operate. Additionally, power to the printer must be turned on (The printer power switch is located on the rear panel, next to the main power button). When power is first turned on, it will take approximately 20 seconds for the printer to become active as it powers up through its diagnostics.

The Printer Setup screen allows for adjustment of settings that affect print quality (Index Speed and Darkness) and settings that affect print location (Reverse and Print Offset). See Figure 3-42. *NOTE: Print position is achieved by trial and error. However, some tips are described in this section to achieve the best results.*

Print Offset: This delay causes the print to be raised on the bag. However, if the Print Offset is too long, the printing may not occur in time when the bag is feeding into the loading position. Use the charts in 4.15 Suggested Printer Settings to set the bag length initially, then adjust the Print Offset to achieve the desired print location.

Darkness: Darkness can be set between 1 and 30. Darkness settings can be set in the label software, but can also be overridden by adjusting the Darkness setting on the Printer Setup screen. Increase the Darkness setting to improve print quality. A typical setting is 20.

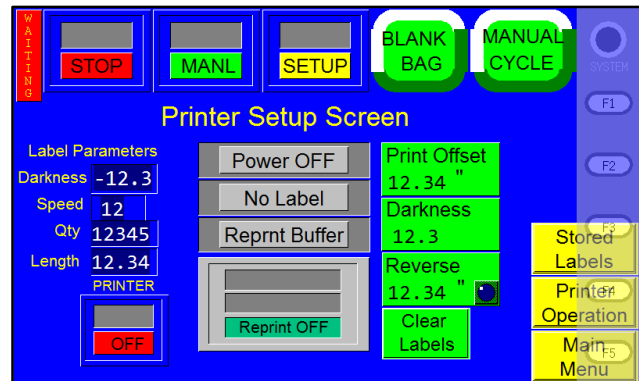


Figure 3-42

Reverse: The distance, in inches, the bagger will reverse to separate the bags at the perforation. The higher the reverse setting, the lower on the bag the print will start, down to the minimum distance required to prevent the bag from slipping out of the index roller. With smaller bags, Reverse must be set to the maximum distance required to print the next bag out. If not printing the next bag out, Reverse should be set to the minimum distance required to separate the bags. If Reverse is adjusted, the Print Offset setting may also require adjustment to properly position the print.

NOTE: In addition to the settings described above, print head pressure and print head alignment affect print quality. If, after adjusting print speed and darkness, the print quality does not improve, check to see if the operating pressure is a minimum of 60 PSI (4.13 BAR).

NOTE: APPI resells several software packages, including Labelview, Zebra Design Pro and Bartender. If you are using other software, APPI may not be familiar with the specific settings available in your software. Refer to your software manual for print speed and darkness settings.

The Printer Setup screen features several rectangular indicators that display the printer's status:

- **Power OFF:** Indicates that the printer is off. This box will also display "Self Test" when the printer is first turned on, "Ready" during startup if an error does not exist and "No Ribbon" when the printer runs out of ribbon.
- **No Label / Labels:** Indicates whether or not a label has been downloaded.
- **Reprint Buffer:** Indicates that the printer is preparing to print a preset amount of the same label.
- **Printing:** Illuminates when the printer is printing.
- **Error:** Illuminates when an error occurs.
- **Reprint ON / OFF:** Indicates whether the Reprint function is on or off. If Reprint is on, the printer is continuously printing a preset amount of the same label. If Reprint is off, the printer is not continuously printing labels.

The **Clear Labels** button deletes the last batch of downloaded labels. If you have more than one batch of labels queued up or label batches are stored in the Windows Print Buffer on your computer, you may need to press this button more than once.

The Printer Setup screen also displays the label parameters set in the label software: Darkness, Print Speed, Quantity and Length.

- **Print Speed:** Print speed is automatically set based on the print speed in the label format. APPI recommends that the print speed be set to 6-8 inches per second. The print speed is set in your label software or via ZPL commands and cannot be set on the T-375. To improve print quality, reduce the print speed in your label software.
- **Quantity:** The amount of labels remaining to be printed. Label quantity is set within the label software.
- **Length:** The length of the label set in the label software.

There are three modes in which the printer can queue labels, Overwrite, Reprint On and Reprint Off. The Reprint On mode allows a label to be printed over and over again until the label is cleared and another is selected. The Reprint Off mode allows for a certain number of labels to be printed before the printer stops. Overwrite mode allows for the label to be changed without having to clear the previous label. Toggle between modes by pressing the Mode Box in the bottom center of the Printer Setup screen.

Reprint On: When the printer is in the Reprint On mode, the label that is selected will print until the label is cleared and a new label is selected. In this mode, you can either download a label from your PC/Software, or recall a label from Stored Labels screen. If downloading a label, you need only download a quantity of 1 label. In the Reprint mode, you should not download more than 1 copy (Quantity 1) since clearing the labels using the Clear label button may not clear all labels downloaded.

If using the Stored Label function, there is no quantity to select. Recalling a Stored Label automatically causes the Reprint function to turn ON. Additionally, downloading a different stored label automatically causes the previously stored label to be cleared.

To clear a downloaded label, touch **Clear Labels**. A "No Label" message should appear in the LED message screen in the middle of the screen. If the labels do not clear, press the Clear Label button again. If there are queued labels, or you have downloaded a high quantity of labels, you may need to clear the buffer in your PC/Printer settings, or power off the printer using the ON/OFF button on the rear panel of the printer.

Reprint Off: In the Reprint Off mode, the printer will pause and display a “Printer Waiting” message, after the downloaded quantity of labels have been printed.

Note: The label quantity is strictly a function of the PC Software. If using Labelview, Bartender or other Label software, the quantity can be selected during the download process.

Overwrite: The Overwrite mode is similar to the Reprint mode, but if another label is downloaded, the previous label is automatically cleared. The new label is then accepted and the Reprint mode is automatically turned ON. This Overwrite function is useful in eliminating the step of clearing the label.

Note: Operators should be very careful when using the Overwrite function to avoid mislabeling. For instance, if using a wireless system, or when printing over an ethernet connection where the PC is at another location or by another operator, the operator at the machine may not know that the label was changed.

In Overwrite mode, the label downloaded will immediately start printing, without the need to clear the previous label. To turn ON this mode, toggle the Mode Box to **Overwrite** and select a label from the label software on a separate computer.

Note: If using Labelview or other PC label software, all parameters must be properly set to achieve the functionality above. Each software will have different parameters which will affect how the printer functions, which may cause issues with printing.

Refer to Chapter 4 for more information regarding adjustment of printer settings.

3.30 Label Position Screen

The Label Position screen allows the operator to view and adjust settings that affect the label position. See Figure 3-43. This screen is accessed by pressing the **Label Position** button on the NBO Printer Operation screen.

Seal Point: The position of the seal, in inches, measured from the top perforation of the bag. To change this setting, press the **Seal Point** button, enter a value on the numeric keypad and press the **ENT** button.

Reverse: The distance, in inches, the rollers will reverse the bag into the bagger, while the pressure bar grips the bag, in order to break the perforation between bags. To adjust this setting, press the **Reverse** button, enter a value on the numeric keypad and then press the **ENT** button.

Print Offset: This setting causes the nip rollers to compress first, thus delaying the print head from lowering. This will ensure that the film is captured and ready to start feeding before the print head starts to lower. A standard setting is 0.1 to 0.3 seconds. Increasing this delay time will cause loss of production. To change this setting, press the **Print Offset** button, enter a value into the numeric keypad and press the **ENT** button.

The Label Position screen provides detailed information for two methods of printing: first bag printing and second bag printing. Second bag printing allows a larger area of the bag to be printed. The blue box in the center of the screen displays several label settings for the first and second bag that affect the label position and are automatically calculated based on the label length. These settings include:

- **Max Label:** The maximum, acceptable length of the label.

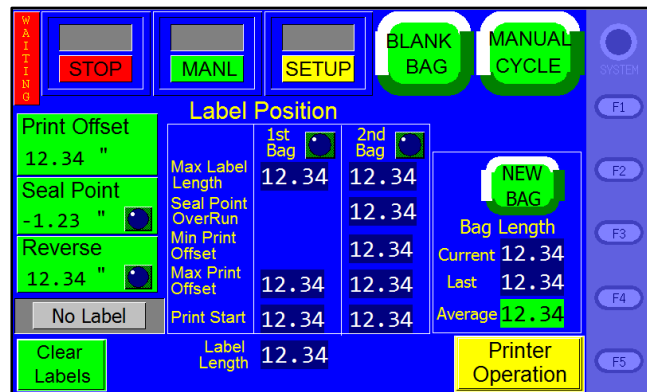


Figure 3-43

- **Seal Point Overrun:** The amount of bag beyond the seal point that is printed. The bag will reverse to the seal point once the machine has finished printing.
- **Min Print Offset:** The minimum amount the print can be raised on the bag.
- **Max Print Offset:** The maximum amount the print can be raised on the bag.
- **Print Start:** The location where the printer begins printing.

The LEDs at the top of the 1st Bag and 2nd Bag column indicate whether or not the settings for that method of printing are acceptable. If one LED is green, the settings for that method of printing are acceptable. If one LED is Red, the settings for that method of printing exceeded the acceptable parameters. If both LEDs are green, the settings for both methods are acceptable. If both LEDs are red, the print will likely cross over from the first bag onto the second bag, printing a portion on both bags.

Press the **New Bag** button after switching bag size to count the bags and start an internal program that calculates average bag length. The perforation is used for registration. If a perforation is not detected, the bag will stop in the correct seal position, based on the average bag length measurement. A Feed Error message will be displayed if the perforation is not detected within the accepted bag length range.

Press the **Manual Cycle** button to cycle the T-300 / T-375. Press the **Blank Bag** button to index the next bag without printing a label.

3.31 T-375 Printer Status Screen

The Printer Status screen is used to troubleshoot the T-375 printer. See Figure 3-44. This screen contains additional printer settings and should only be accessed by qualified technicians.

The printer sends a status message when powered on and after each print. If an Error LED on the Printer Setup screen is displayed, the actual error message will be displayed on the Printer Status screen. The status can also be reset by pressing the **Clear Status** button and recalled by pressing the **Read Status** button.

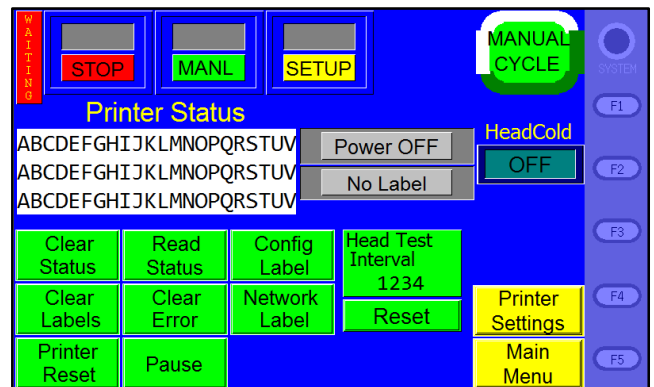


Figure 3-44

Config Label: Press this button to print the parameters for the printer.

The **Clear Labels** button deletes the last batch of downloaded labels. If you have more than one batch of labels queued up or label batches are stored in the Windows Print Buffer on your computer, you may need to press this button more than once.

Clear Error: When an error occurs it will be displayed in the Printer Status bar. To clear the message and the error, press the **Clear Error** button.

Network Label: Press this button to print the network configuration, including the current IP address.

Printer Reset: Press this button to clear labels and start a self test.

Pause: Pressing the **Pause** button puts the printer in pause.

Head Test Interval: The number of labels that are printed between tests. To disable this function, set the interval to zero. Press the **HeadTest Reset** button to set the Head Test Interval to zero.

The **Head Cold ON / OFF** toggle button allows the operator to turn the Head Cold Warning feature on and off. If the Head Cold Warning feature is on, the machine will automatically stop if the print head gets too cold.

3.32 Counters Screen

The T-300/T-375 is equipped with three internal counters as a standard feature. To access the counter screen, press the **Counters** button from the Main Menu. See Figure 3-45.

Continuous Strip Counter: This counter allows bags to be sealed in a continuous strip without separating them at the perforation. If this counter is set to a value of 10, for example, the bagger will produce a strip of 10 connected bags. The bagger will then reverse to separate the eleventh bag. To enter a value for this counter, press the

green button under the count and enter a value using the numeric keypad. Then press the **ENT** button. To reset this counter, press the **Reset** button. To disable the option, set the value to zero.

NOTE: If the bags should always remain in a continuous strip and never separate, set the Continuous Strip counter to a very large number or change the Reverse setting to zero on the Bagger Settings screen.

Preset Counter: This counter stops production after a preset number of cycle operations. When the preset count has been reached, a message screen will be displayed and operation will cease. To enter a value for this counter, press the green button under the count and enter a value using the numeric keypad. Then press the **ENT** button. To reset this counter, press the **Reset** button. To disable the option, set the value to zero.

Total Counter: To track production, use the Total Counter to count the total number of machine cycles. Press the **Reset** button to reset the counter to zero.

To set a value for these counters, press the green button below the counter you wish to change, enter a value on the displayed keypad and press the **ENT** button.

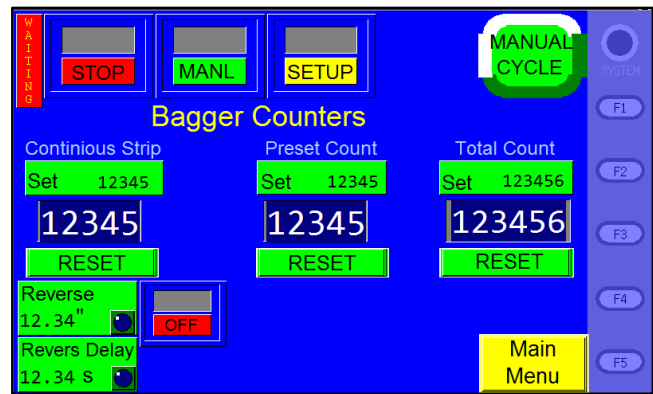


Figure 3-45

3.33 Changing between Internal Memory and External Memory

There are two options to save recipes, Internally to the PLC or Externally to a USB (not included). To change from one to the other, go to the **Main Menu** touch **Technical Assist** and enter the Level 1 Pass Code. Touch the **Bagger Factory** button to access the Bagger Factory screen. From there touch the **Perf Registration** button located along the right hand side of the screen, See Figure 3-46. Once in the Perf Registration screen, locate the **Job Save toggle button** along the bottom of the screen. If the toggle button reads “**PLC**” the machine will save all jobs internally on the PLC. If the button reads “**USB**” all jobs will be saved externally to a USB memory stick. Press the button to toggle between the two. Once you have made your selection exit back to the **Main Menu** by pressing the **Tech Assist** button and press **Exit** when the numeric keypad is accessed.

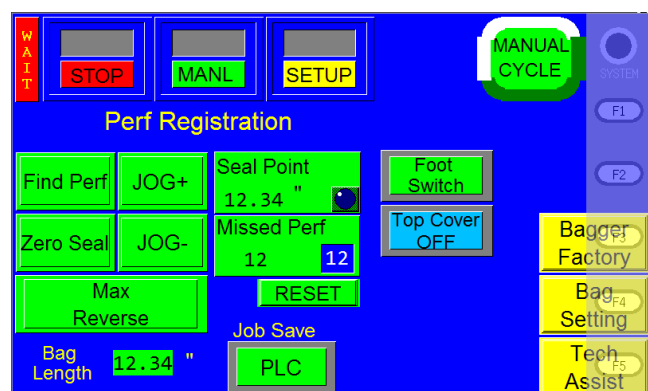


Figure 3-46

Note: There must be a USB Flash Drive / Memory Stick inserted into the machine for the External Memory function to operate. If there is no memory stick inserted, ensure the Job Save is in PLC mode in order to save job recipes.

There are benefits to using either memory option. The PLC Internal option allows the user to save up to 24 jobs to the PLC without any extra hardware required. The USB External option allows the user to save an unlimited number of jobs to the USB memory stick. A file will be automatically created on the memory stick that contains Recipes, Alarm data, and Production data from the machine. These files can be viewed when the memory stick is inserted into a PC. Please refer to “Files on the Memory Stick” for more information.

Note: Remove the back cover of the touch screen housing to locate the USB port and insert a memory stick (not included).

Note: These instructions are for saving bagger settings only. Labels are saved using printer software (such as Labelview).

3.34 Internal Memory (PLC)

Saving a job to Internal Memory: Select **PLC** in the Perf Registration screen (as described above) and exit to the **Main Menu**. Go to **Settings** and set the specifications for your job. Once the job is set, touch **Job Save** on the right side of the screen to access the **Bagger Job Save** screen, see Figure 3-47. Select the designation under PN where you would like to save the job (#1-24), which will access a green numeric key pad. Enter a numeric name for your job and touch **Ent**. A warning screen will ask if you would like to overwrite the job. The PN of the current job at that location will be displayed in a box to the side. This box will display “0” if it is not being used. Select **Yes** to overwrite and continue. Your job is now saved to the Internal Memory on the PLC.

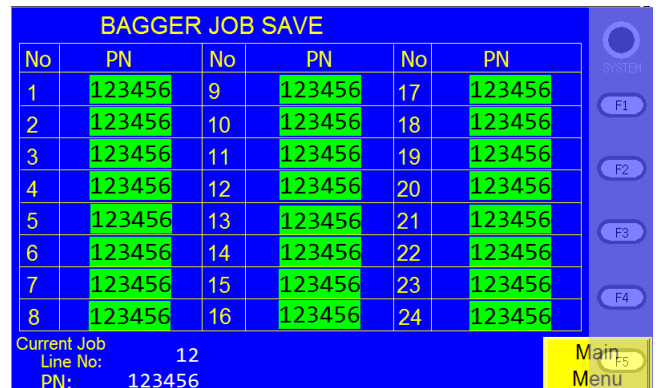


Figure 3-47

To recall a job from Internal Memory: Touch **Job Search** on the **Main Menu** to access the **Touch to Recall** screen, see Figure 3-48. The jobs that are saved to the PLC will be displayed in this table. Touch the job you would like to recall. This will take you to the **Job Load** screen that displays the settings for this job, see Figure 3-49. Ensure this is the correct job and touch **Load**. This will take you to the **Bagger Settings** screen with all the settings loaded and ready to start the job.

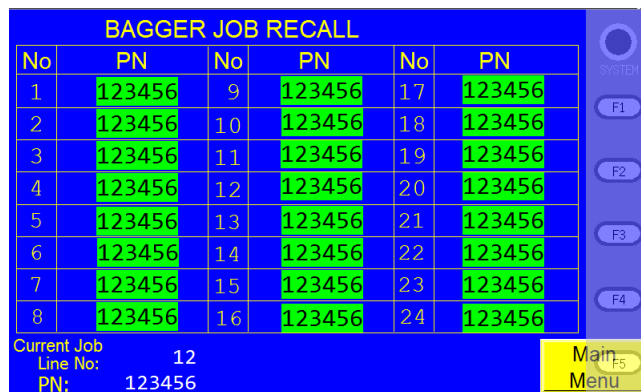


Figure 3-48



Figure 3-49

3.35 External Memory (USB)

To save a job to the External Memory: Select **USB** in the Perf Registration screen (as described in Section Changing between Internal Memory and External Memory 3.33) and exit to **Main Menu**. Go to **Settings** and set the specifications for your job. Once the job is set, touch **Job Save** which will take you to the Job Save screen, see Figure 3-50. Press the box that reads “**Part**” which will access a keypad. In the USB Mode, Jobs can be saved by either numbers or letters. Enter the name or number you wish to save the job as and press enter. To enter a note press the box that says **Note**, and enter the information using the keypad that is displayed. Touch **Enter** to continue or **Exit** to cancel. Touching the **QTY** box will access a green numeric keypad where the operator can enter the number of products that will go into each bag. For instance, if three items go into the bag before it is sealed, the number 3 can be entered into that field. When all the information is setup touch **Save** to save to the External memory stick.

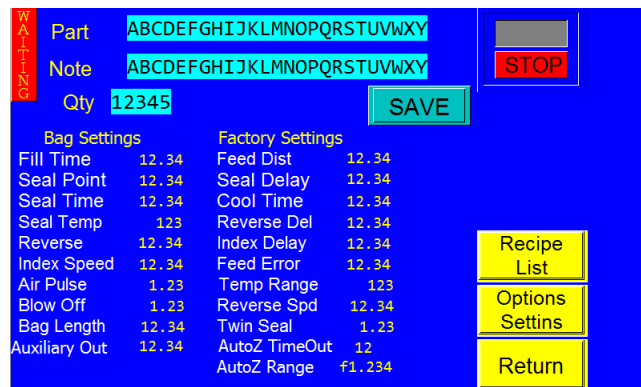


Figure 3-50

*Note: In the Job Save screen there is a **Recipe List** button and an **Options Settings** button. When the **Recipe List** button is pressed, the recipe list screen will be accessed. A record “REC0000” will be displayed. This is the file created by the program which records all the activity on the bagger and where the recipe information is stored. This information can only be viewed when the USB is plugged into a PC. To recall a job you must type in the name of the job and hit enter in the **Job Load** screen. When the **Options Settings** button is pressed all the information for that recipe is displayed. The **Part**, **Note**, and **QTY** information can all be changed in this screen. If you do chose to change the information on this screen, go back to the **Job Save** screen and press **Save** to ensure your changes are saved.*

To recall a job from External Memory: Press **Job Search** from the **Main Menu** to access the Job Search screen, see Figure 3-52. From there either scan (if you have a bar code reader option) or enter the job name using the keypad, (accessed by pressing the area under the heading “Current Scan”) and press **Search**. This will access a screen listing all of the Bag and Factory Settings for this job, see Figure 3-51. Press **Load**. This will take you to the Printer Operation Screen with all the settings loaded and ready to start the job.

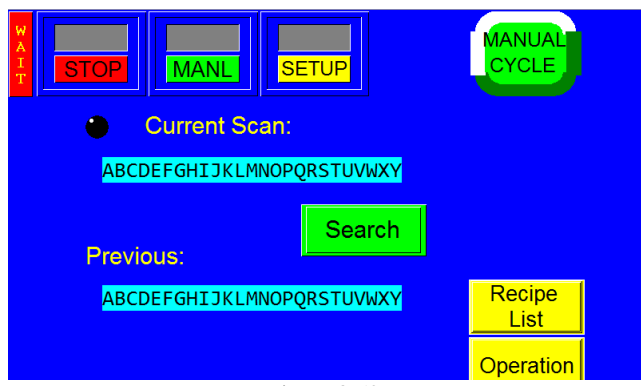


Figure 3-52

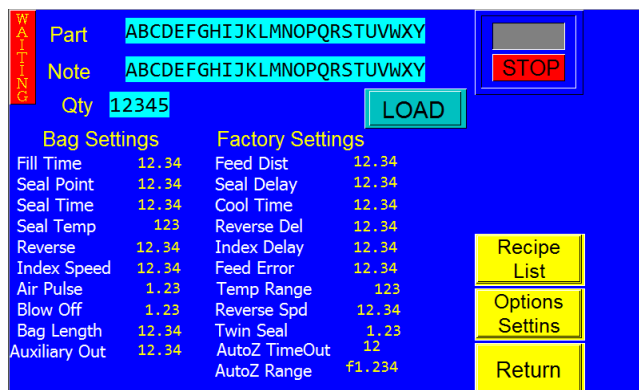
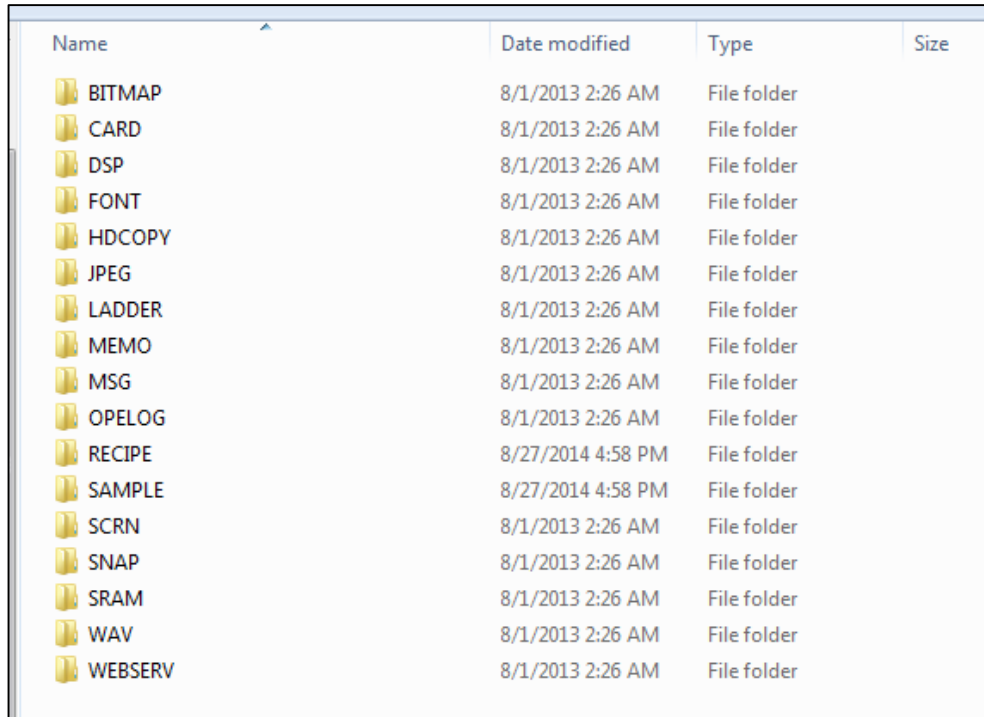


Figure 3-51

3.36 Files on the Memory Stick

The memory stick contains several types of data from the machine, including Recipe Management, Alarm Data and Production Data. To access this information, plug in the memory stick from the bagger to your PC and open the DAT0000 folder. There will be a list of folders that have been set up by the touch screen program, (see Figure 3-53). The two folders that contain the Recipe Data and Production Data are called **Recipe** and **Sample**.

Inside DAT000 Folder:



Name	Date modified	Type	Size
BITMAP	8/1/2013 2:26 AM	File folder	
CARD	8/1/2013 2:26 AM	File folder	
DSP	8/1/2013 2:26 AM	File folder	
FONT	8/1/2013 2:26 AM	File folder	
HDCOPY	8/1/2013 2:26 AM	File folder	
JPEG	8/1/2013 2:26 AM	File folder	
LADDER	8/1/2013 2:26 AM	File folder	
MEMO	8/1/2013 2:26 AM	File folder	
MSG	8/1/2013 2:26 AM	File folder	
OPELOG	8/1/2013 2:26 AM	File folder	
RECIPE	8/27/2014 4:58 PM	File folder	
SAMPLE	8/27/2014 4:58 PM	File folder	
SCRN	8/1/2013 2:26 AM	File folder	
SNAP	8/1/2013 2:26 AM	File folder	
SRAM	8/1/2013 2:26 AM	File folder	
WAV	8/1/2013 2:26 AM	File folder	
WEBSERV	8/1/2013 2:26 AM	File folder	

Figure 3-53

BITMAP, CARD, DISP, FONT, HDCOPY, JPEG, LADDER, MEMO, MSG, OPELOG, SCRN, SNAP, SRAM, WAV, and WEBSERV are folders used by the touch screen software and will appear empty on the PC. Do not store any information in these files as it will alter the program and will not function when the memory stick is re-inserted in the touch screen.

RECIPE—contains REC0000.CSV which is a list of all the jobs / recipes saved to the USB memory stick. To access this information click on **Recipe** and then on **REC0000**, this will open an Excel file containing all the information pertaining to each job as it was saved on the bagger. This file must be saved (copied) to the PC without the original file changed. Once the file has been saved as a different name than the original, then the operator can use the file and save it as a MS Excel file for full use of the MS Excel formulas. On the spreadsheet, each row is a separate job / recipe that has been saved in the USB mode on the bagger, and the columns list all the specifications as it was set on the bagger. Information for each of the jobs starts at column “C” and goes all the way through column “DU”. Some of the common settings are in column C-QTY, AF-Blow-off, AG-Seal Point, AH-Reverse, AI-Seal Temp, AJ-Index Speed, AK-Fill Time, AL-Seal Time, AM-Air Pulse, AN Bag Length, AS-Feed Distance, AT-Seal Delay, AU-Cool Time, AV Reverse Delay, AW-Temp Range, AY-Aux Out.

Note: The program does not save headings for the information being recorded. Also, the data logged is specific to each job; more data is acquired the longer the machine is run. It is recommended that you record each setting for your initial job. This information will be used the first time the spreadsheet is viewed by matching / updating the data to improve your records.

Note: DO NOT change the data in the memory stick. However, you can copy the files and past them into a folder on your PC and then use MS Excel to manipulate the data.

Note: If you are going to change anything on this file, remember to “Save As” a different name to keep the original intact.

SAMPLE—contains .BIN files and .CSV files. Use the .CSV files to view the spreadsheet for each file that contains a different kind of data. The files are: Cycle Log – SMP0003.CSV; Production Time Log – SMP0004.CSV; Event Logs – SMP0005.CSV, SMP0006.CSV and SMP0007.CSV (see below for full description of files). This data can be used to provide information about the machine, including number of

parts per month. However, these files must be saved (copied) to a PC without the original file changed. Then, the files can be used and saved as MS Excel files for full use of the MS Excel formulas.

Note: There are .BIN files and .CSV files in the Sample folder. DO NOT try to open or change the program used to run the .BIN files. This is the file the touch screen uses to read the information and if it is changed the program will no longer recognize the file. Use the files that have been saved as .CSV.
Note: If you wish to change the data listed in the spreadsheet, "Save As" a different name then make your changes, keeping the original intact.

Note: Some files may not be used depending on the options of the machine. For instance, if your machine does not have a scale, you will not have any information recorded in the SMP0003.CSV file.

SMP0003.CSV Cycle Log – records every Scale production cycle. (See Figure 3-54) The data recorded in each column is as follows:

- A). Date & Time—Records when the occurrence happened
- B). Production#--the number assigned to the production run.
- C). Part#--the number to identify each part.
- D). Part weight—the weight of the part
- E). Target quantity—records the quantity that is to go in the bag.
- F). Actual quantity—records the actual quantity that is in the bag.
- G). FULL/PARTIAL mode—records if the kit is in Full or Partial mode.

Note: There is a Backup Period every day at midnight. A new backup file with full day data is created; old data is then cleared from the buffer to start the new day.

	A	B	C	D	E	F	G
1	No.003						
2	14/ 7/25 10:19:14		44	0	22	6	FULL
3	14/ 7/25 10:21:16		55	0	22	6	FULL
4	14/ 7/25 10:21:28		55	0	22	6	FULL
5	14/ 7/25 11:13:58		55	0	22	6	FULL
6	14/ 7/25 11:14:17		55	0	22	6	FULL
7	14/ 7/25 11:29:06		55	0	22	6	PARTIAL
8	14/ 7/25 11:36:22		55	0	22	6	PARTIAL
9	14/ 7/25 11:41:22	PROD NO	55	0	22	6	PARTIAL
10	14/ 7/25 11:46:30	PROD NO	55	0	22	6	PARTIAL
11	14/ 7/25 11:51:49	PROD NO	55	108475.2	22	6	PARTIAL
12	14/ 7/25 11:52:39	PROD NO	55	108475.2	22	6	PARTIAL
13	14/ 7/25 11:55:11	PROD NO	55	108475.2	22	6	PARTIAL
14	14/ 7/25 12:04:45	PROD NO	12345	108475.2	22	6	PARTIAL
15	14/ 7/25 12:06:17	PROD NO	55	108475.2	22	6	PARTIAL
16	14/ 7/25 12:06:39	PROD NO	55	108012.1	22	6	PARTIAL

Figure 3-54

SMP0004.CSV Production Time Log – records the length of time the machine has been in production and gives details on the length of time the machine has been in the modes listed below. (See Figure 3-55) The data recorded in each column is as follows:

- A). Date & Time—records the date and time the mode was switched.
- B). Power On time—the length of time the power has been turned on.
- C). Auxiliary mode time—the length of time the machine has been in Aux Mode.
- D). Auto mode time—the length of time the machine has been in Auto Mode.
- E). Manual mode time—the length of time the machine has been in Manual Mode.
- F). Stop time—the length of time the machine has been in Stop Mode.
- G). Setup time—the length of time the machine has been in Setup Mode.
- H). Power On total cycles—the number of cycles made since the machine has been powered on.
- I). Auxiliary mode cycles—the number of cycles made since the machine has been in Auxiliary Mode.
- J). Auto cycles—the number of cycles made since the machine has been in Auto Mode.
- K). Manual cycles—the number of cycles made since the machine has been in Manual Mode.
- L). Setup cycles—the number of cycles made since the machine has been in Setup Mode.

Note: There is a Backup Period every day at midnight when a new production record is added to the list and saved to the .CSV file. Previous records are not erased. Cycle count and timing start over from Zero every day.

	A	B	C	D	E	F	G	H	I	J	K	L
1	No.004											
2	13/ 9/ 6 14:20:30	14645	0	0	1252	12049	1344	0	0	0	0	0
3	13/ 9/ 6 14:20:35	14650	0	0	1252	12049	1349	0	0	0	0	0
4	13/ 9/ 6 14:20:46	14661	0	0	1258	12049	1354	0	0	0	0	0
5	13/ 9/ 6 14:20:49	14664	0	0	1261	12049	1354	0	0	0	0	0
6	13/ 9/ 6 15:01:52	2449	0	0	0	2449	0	0	0	0	0	0
7	13/ 9/ 6 15:01:55	2453	0	0	0	2453	0	0	0	0	0	0
8	13/ 9/ 6 15:08:04	2822	0	0	0	2822	0	0	0	0	0	0
9	13/ 9/ 6 15:08:07	2825	0	0	0	2825	0	0	0	0	0	0
10	13/ 9/ 6 15:08:10	2828	0	0	0	2828	0	0	0	0	0	0

Figure 3-55

SMP0005.CSV, SMP0006.CSV and SPM0007.CSV Event Logs record every Bagger fault event during operation, (See Figure 3-56). The data recorded in each column is as follows:

- A). Fault description—the name of the error that has occurred.
- B). Occurrence time—the initial time the occurrence happened.
- C). Clear time—the time the error was acknowledged / reset. *Note: Dashes (---) or asterisks (***) in a field on the spreadsheet indicate no data was recorded for that error.*

Note: There is a Backup Period on 1st of the month at midnight a new backup file with the event list is created. Then old data is cleared from the buffer to start new month.

	A	B	C
1	No.005		
2	Frame open	14/ 7/29 13:55:16	-----
3	Waiting for label	14/ 7/29 13:56:47	14/ 7/29 13:57:01
4	Frame open	14/ 7/29 14:33:38	-----
5	Frame open	14/ 7/29 14:43:38	-----
6	Frame open	14/ 7/29 14:46:27	-----
7	Frame open	14/ 7/29 14:51:00	-----
8	Frame open	14/ 7/29 14:55:01	-----
9	Frame open	14/ 7/29 15:03:28	-----
10	Frame open	14/ 7/29 15:17:12	-----

Figure 3-56

Manual Backup: Data is recorded and saved automatically as described above. It can also be done manually using buttons on Log screens: 'Write' - overwrite (save) the same file; 'Backup' - create new file (save as); 'Record' - add a new record; 'Reset' - clear buffer.

3.37 Bagger Production Mode

Operation Time, Stop Time and Setup Time can all be viewed on the Bagger Production mode time, see Figure 3-57.

Toggle between **Start/Stop** to start or stop the counters.

Operation tracks the amount of time the machine has been in Operation Mode.

Stop tracks the amount of time the machine has been in Stop Mode.

Setup tracks the amount of time the machine has been in Setup Mode.

Press **Reset** to reset the counters back to zero.

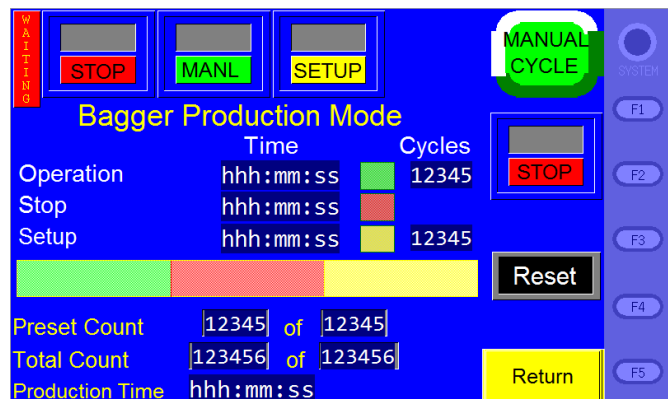


Figure 3-57

The bar in the middle of the screen displays the percentage of completeness for the Preset Count. As the cycles progress the percentage bar increases. When the preset count is reached the bar will display as full.

Preset Count: Displays the number of cycle operations left before the bagger will stop automatically. The Preset Count counts down from a preset number and stops the machine when the preset number of cycles is reached. To adjust the Preset Count, press the right box and enter a number using the numeric keypad. The left box will then count down from that preset number.

Total Count: Displays the total number of cycle operations. To adjust the Total Count, press the right box and set it to zero. The left box will then count up and the machine will operate continuously. If the operator enters a number other than zero into the right box, the Total Count will function just like the Preset Count and the left box will count down from that preset number.

Production Time: Displays the amount of time the machine has been turned on and operating. Press the **Reset** button to set this time to zero.

Return takes you back to the Bagger Operation Screen.

3.38 Auxiliary Options Screen

The T-300/T-375 touch screen program is preprogrammed to accept most infeed equipment signals so that two or more pieces of equipment can “talk” to each other. Occasionally, reprogramming will be necessary to interface auxiliary (infeed) equipment that is not manufacturer by APPI. Additional cabling may be required to transfer the signals between the bagger any existing equipment. See Figure 3-58.

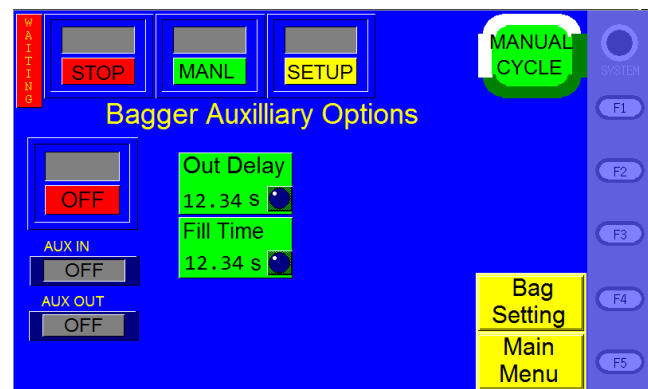


Figure 3-58

Once the equipment is connected and both systems are running independently, turn the auxiliary signal on by toggling the **ON / OFF** toggle button to ON.

Aux Out: Displays the status of the bagger’s communication to the auxiliary equipment. When Aux Out displays **READY**, the bagger is ready to drop bagged product to the auxiliary equipment. When Aux Out displays **HOLD**, the bagger is still cycling. If Aux Out displays **OFF**, no auxiliary equipment is present.

Aux In: Displays the status of the infeed auxiliary equipment’s communication to the bagger. When Aux In displays **READY**, the auxiliary equipment is ready to receive product. When Aux In displays **HOLD**, the auxiliary equipment is still cycling. Aux In displays **OFF** when no auxiliary equipment is present.

Output Delay: This setting controls the delay time between the cycling of the auxiliary infeed equipment (i.e. scale, counter, conveyor, other bagger) and the cycling of the bagger. Output Delay is the amount of time, in seconds, before the bagger seals the bag after the auxiliary infeed equipment has cycled and signaled to the bagger to seal. To adjust the delay timer, press the **Out Delay** button and enter the value, in seconds, on the numeric keypad and press the **ENT** button.

When Auxiliary setup procedures are complete, ensure the **ON / OFF** toggle button on the Auxiliary Operation screen is toggled to ON and then toggle the T-300/T-375 from **MANL** to **AUTO**. This will place the T-300/T-375 in Automatic/Auxiliary mode.

3.39 Production Graph

APPI provides a simple graph to chart production throughout the day, see Figure 3-59. To access this graph, press the **Production Graph** button on the Main Menu.

The Production Graph screen also displays the amount of bags indexed per minute and the production time. Press the **Reset** button once to reset the production time and twice to reset the graph.

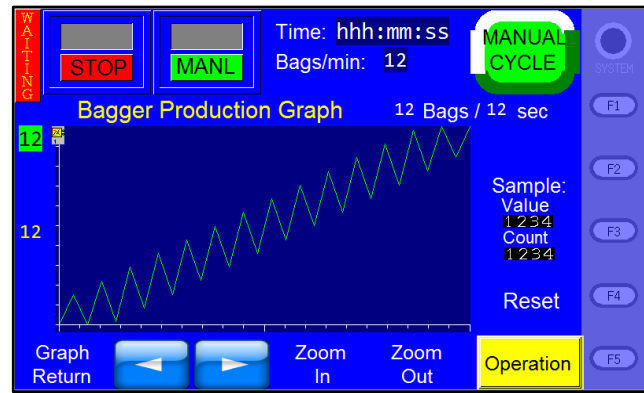


Figure 3-59

3.40 Temperature Graph

APPI provides a temperature graph to display the operating temperature during production. This information isolates the problem if bags are found to have weak seals by allowing the operator to review previous operating temperatures. See Figure 3-60.

Press the **Reset** button once to reset the graph. Press the **Detail Graph** button to display the Detail Temperature Graph and view the most current temperature readings. See Figure 3-61.

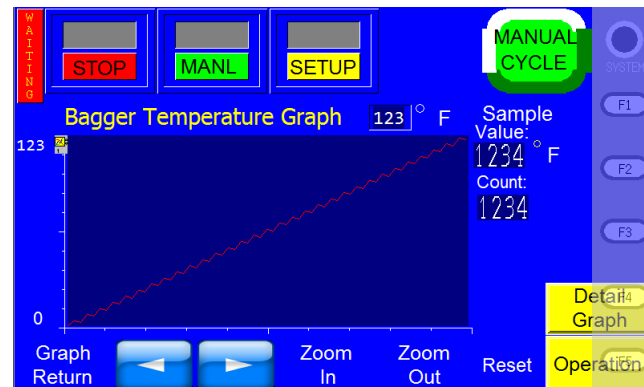


Figure 3-60

3.41 Technical Assistance

The Technical Assistance screen provides manufacturer information, factory settings adjustments, functions testing and troubleshooting. It also displays the program version for the PLC controller and the touch screen. See Figure 3-62.

The screen is protected from access with a Level 1 pass code. The pass code is set by default (from the factory) to 1001. This code can and should be changed when the system is put into operation.

The technical assistance sections of the touch screen program are provided for troubleshooting and advanced setup and should only be accessed by specialized personnel.

NOTE: Before accessing the Technical Assistance screen, a Level 1 pass code must be entered.

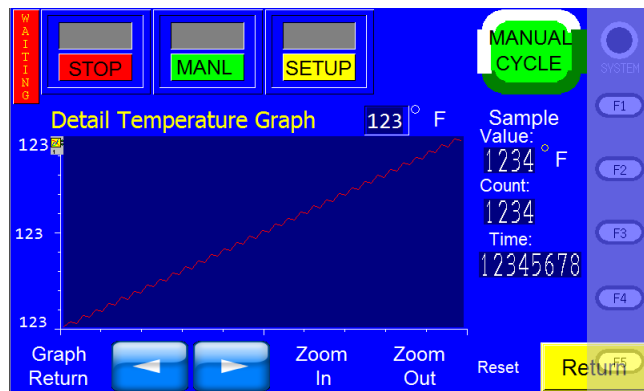


Figure 3-61



Figure 3-62

3.42 Bagger Password Setup

APPI has included a pass code function in all touch screen equipment to prevent unauthorized operators from changing settings. See Figure 3-63 and Figure 3-64.

There are two pass code levels, described as follows:

1. **Level 1:** This is the highest level pass code. It prevents operators from accessing the Technical Assistance functions of the machine. The default pass code, when shipped from the factory, is 1001. To change this code, press the **Level1 PW** button on the Password Setup Screen, enter a new code on the numeric keypad, and press the **ENT** button. See Figure 3-65.
2. **Level 2:** This level pass code, when the pass code function is enabled, prevents the operator from accessing settings screens that affect the operation of the equipment. To change this code, press the **Level2 PW** button on the Password Setup Screen, enter a new code on the numeric keypad, and press the **ENT** button.

Pass codes prevent unauthorized individuals from tampering with settings. When equipment is shipped, APPI uses the following factory set pass codes that should be changed prior to putting the T-300/T-375 into operation:

1. **Level 1 pass code:** 1001
2. **Level 2 pass code:** 1002

To enable the pass code function, press the **Tech Assist** button from the Main Menu. Type in the Level 1 pass code (1001 by default from APPI).

Press **Bagger PassW** to display the Bagger Password Setup screen. Then toggle the **ON / OFF** button to ON to activate the pass code function. If the pass codes are changed, ensure that these codes are written down.

Once the pass code function is enabled, the operator will have a programmed amount of time (TimeOut time) to make changes. Once this time has elapsed, the Operation screen will automatically be displayed. Timeout time can be changed by pressing the **TimeOut** button on the Password Setup screen, entering a value in the numeric keypad and pressing the **ENT** button.

To change the pass codes, press the **Level1 PW** button or the **Level2 PW** button, enter a new code on the numeric keypad and press the **ENT** button.

If the pass codes are misplaced or forgotten, contact the APPI Service Department for assistance. APPI will provide a “factory code” so that the current pass codes can be displayed.

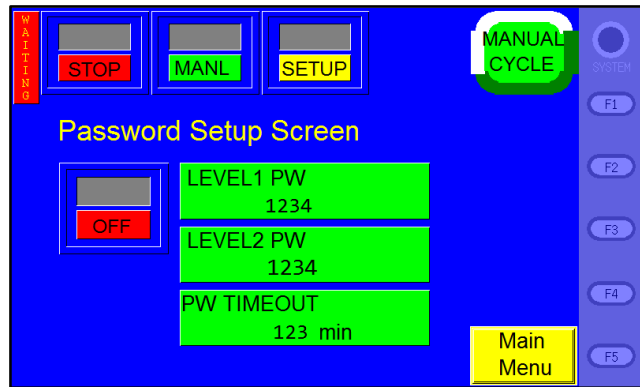


Figure 3-63

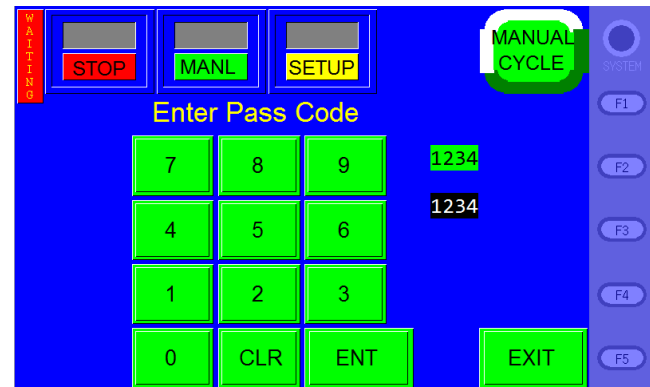


Figure 3-64

3.43 Options Enable Screen

The Options Enable Screen is used at the factory to “enable” options for use by the operator. It is accessed by pressing the **Option PassCode** button on the Technical Assistance screen. See Figure 3-65. This screen should only be accessed by qualified technicians or by the factory.

A status box is located to the left of each option to indicate if the option is available to the operator, see Figure 3-66. If the status box displays ON, the option has been activated. If the status box displays OFF or N/A, the option has not been activated. A password is required to enable inactive options. To obtain the password, the option must first be purchased from Advanced Poly-Packaging, Inc. Contact the APPI Service Department for more information regarding available options for the T-300/T-375 and for instructions on how to activate options.

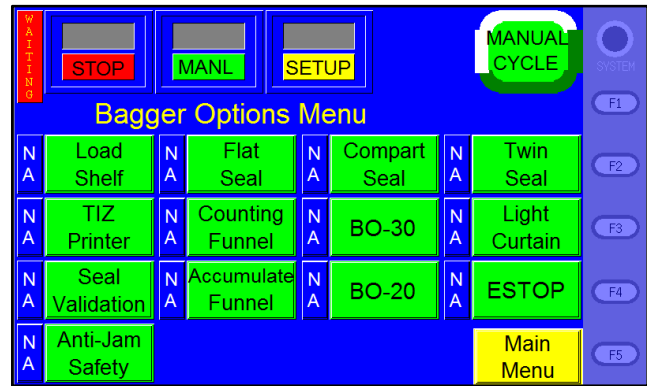


Figure 3-65

3.44 PLC Info

The PLC I/O screens are provided for maintenance personnel to determine the status of the PLC and to review the mode of outputs and inputs. PLC I/O screens are also used to assist APPI service technicians as they work with maintenance personnel to troubleshoot the T-300/T-375 in the field. See Figure 3-66 and Figure 3-67.

To determine the function of each input and output, press the LED to display a brief description. The PLC I/O screen also provides the run Hours and Cycles counters. The Hours counter displays the amount of time the machine has been on. The Cycles counter displays the current number of complete cycles. These counters cannot be reset by the operator.

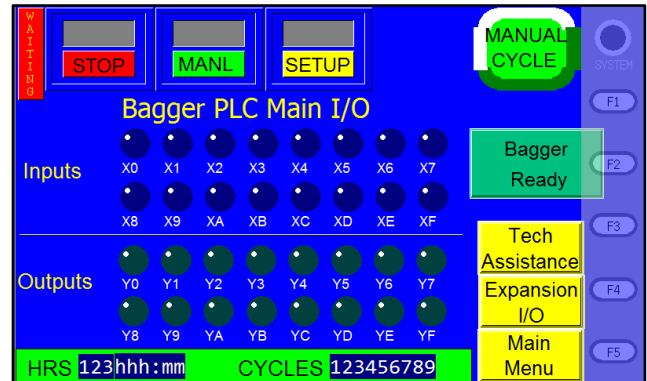


Figure 3-66

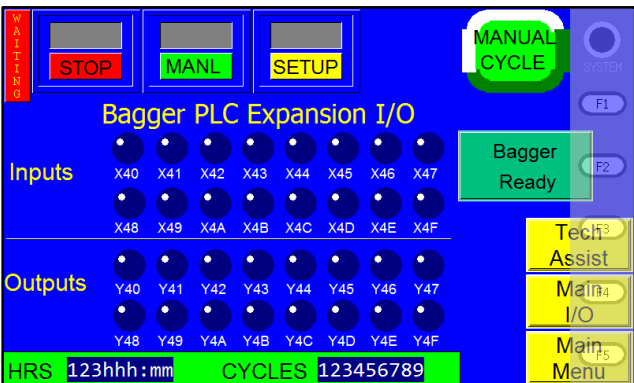


Figure 3-67

3.45 Bagger Factory Settings

This screen contains additional bagger settings that should only be set by qualified technicians or by the factory. See Figure 3-68.

Heat Off: The amount of time, in minutes, the machine can remain inactive before the heater bar will automatically turn off. The machine will remain on even if the heat is off. To adjust this setting, press the **Heat Off** button on the Bagger Factory Settings screen, enter a value on the numeric keypad, and press the **ENT** button.

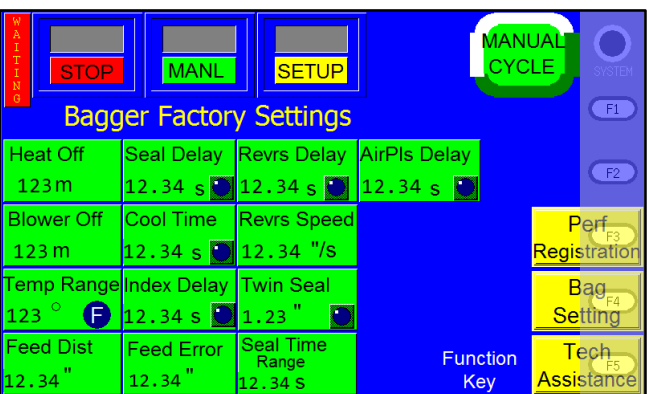


Figure 3-68

Blower OFF: To preserve compressed air, the blower (air knife) will turn off after this preset amount of time has passed. The value is set in minutes and fractions of a minute. For instance, a setting of 5.1 would

turn the air off if the machine is not in use for a period of five minutes and six seconds. A typical value is between three and five minutes.

TempRange: The temperature range above and below the Seal Temperature set point the heater bar must reach for the T-300/T-375 to operate fully. For example, if the Seal Temperature is set to 360°F and the Temp Range is set to 10°F, the temperature would be within the acceptable range if the heater bar temperature was between 350°F and 370°F. If the temperature is within the acceptable range, the bagger will display “Ready” and the T-300/T-375 can begin normal operation. If the temperature is out of this range, the bagger will display “Waiting” and the T-300/T-375 will only be able to cycle in Setup mode. To change this setting, press the **Temp Range** button, enter a value on the numeric keypad and press the **ENT** button. A suggested setting for Temperature Range is 20°F.

Feed Dist: The bag length distance, in inches, the perforation sensor does not look for a perforation in the bag when the machine is indexing the bag. To change this setting, press the **Feed Dist** button, enter a value on the numeric keypad and press the **ENT** button.

Seal Delay: The amount of time, in seconds, before the seal operation begins after the air is turned off. This delay setting allows air to escape the bag. To change this setting, press the **Seal Delay** button, enter a value on the numeric keypad and press the **ENT** button.

Cool Time: The amount of time, in seconds, the pressure bar is released to ensure the seal is cool enough to be torn off after the pressure bar and heater bar have come in contact with the bag. To adjust this setting, press the **Cool Time** button, enter a value on the numeric keypad and then press the **ENT** button.

IndexDelay: The amount of time, in seconds, the previous bag has to exit the seal area after it is released and the next bag is fed into place. This delay prevents the next bag from feeding and prevents the seal bar from coming into contact with the previous bag and causing a bag jam. To change this setting, press the **Index Delay** button, enter a value on the numeric keypad and press the **ENT** button.

Feed Error: The amount of acceptable variation, in inches, from the set bag length. For example, if the bag length is 15" and the Feed Error is set to 3", bags with 12-18" lengths would be accepted, but bags with a length of 19" would cause operation to stop and an error message would be displayed. To change this setting, press the **Feed Error** button, enter a value on the numeric keypad and press the **ENT** button.

Reverse Delay: The amount of time, in seconds, after the bag has been filled and sealed before the bag is reversed. To change this setting, press the **Rev. Delay** button, enter a value on the numeric keypad and press the **ENT** button.

Reverse Speed: The speed, in inches per second, at which the bagger reverses to separate the bag at the perforation. To change this setting, press the **Reverse Speed** button, enter a value on the numeric keypad and press the **ENT** button.

Twin Seal: The pressure bar seals for the first time then reverses and seals the bag a second time, below the first seal. Press the green button to access the numeric keypad and set the distance between Twin Seals. A typical distance is ¼".

Seal Time Range: Used for Medical Seal Validation, the bagger can be set to seal within a certain range of time before an error screen appears. For example: set the range to be 1 second +/- 1/4second allows the bagger a window of ¾ seconds to 1 ¼ seconds to be sealed before an error message is displayed. Press the green **Seal Time Range** button to access the numeric keypad and enter the desired time range. Press **Enter** if value is correct or **Clear** to clear the value and reenter a new value.

Air Pulse Delay: The amount of time, in seconds, before the air pulse initiates to blow the bag open after the perforation is detected. This setting prevents short bags from jumping over the seal bar. To change this setting, press the **AirPls Delay** button, enter a value on the numeric keypad and press the **ENT** button.

3.46 Perf Registration

The Perf Registration screen allows the operator to set up the perforation. See Figure 3-69.

To determine if the seal point is registered, set the Seal Point setting to the lowest possible setting. Then press the **Manual Cycle** button or press the foot switch. The bag should move so that the perforation is approximately 1/8" from the center of the heater bar. If the bag perforation is not approximately 1/8" from the perforation, perform the following procedure carefully. If these steps are performed out of order, the bagger will not function properly. Follow these steps to set up the perforation:

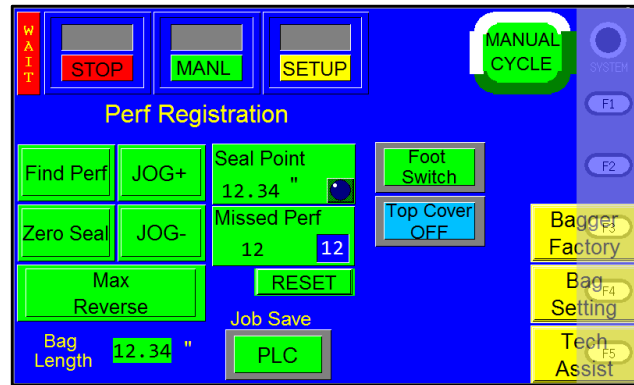


Figure 3-69

1. Press the **Perf Registr** button on the Bagger Factory Settings screen. The Bag Registration screen will be displayed.
2. Press the **Find Perf** button. The bagger will advance until the perforation sensor finds the perforation, and then the bag will stop.
3. Hold the **JOG+** button until the perforation moves down to the middle of the PTFE anti-stick sealing sheets sheet area at the heater bar.
4. Release the **JOG+** button.
5. Push the **Zero Seal** button once.
6. Hold the **JOG-** button until the perforation moves up to just in front of the nip rollers.
7. Push the **Max Reverse** button once.

NOTE: If these steps are performed incorrectly, repeat from Step 1.

When complete, test the Seal Point setting by entering 0.1" and pressing the **Manual Cycle** button. The bag should feed so that the perforation is approximately 1/8" from the center of the heater bar.

Since the procedure set the maximum reverse value as well, enter 6" in the Max Reverse setting. If equipped with a standard frame bagger, this setting will be approximately 1.8" when the Seal Point setting is 0.1". On a drop frame machine, the maximum setting will be approximately 2.7" when the Seal Point setting is 0.1". Press the **Manual Cycle** button and ensure that the bag does not reverse too far, to drop inside the machine. After successfully performing the above steps, the Perf Registration screen is ready for bag indexing.

Foot Switch / Guard: This button allows the operator to select whether manual operation will be initiated by a foot switch or by a guard. When Footswitch is selected, the operator must press the footswitch to initiate operation. When Guard is selected, the operator must push down on the Lexan guard to initiate operation.

Top Cover OFF / ON: Press this button to enable and disable the Top Cover feature. If the Top Cover button is toggled to ON, operation will stop and an error message will be displayed if the top cover is open. If the Top Cover button is toggled to OFF, operation will not stop if the top cover is opened.

Miss Perf: The maximum number of perforations the sensor can miss before operation stops and an error message is displayed. To adjust this setting, press the **Miss Perf** button, enter the desired value on the numeric keypad and press the **ENT** button.

3.47 APPI Factory

The APPI Factory screen displays the printer type (if the bagger is operating with a printer), the service center that should be contacted if a problem arises, the date, the number of machine cycles and the serial number. See Figure 3-70. It also provides access to more technical assistance screens, such as the Language Selection screen. This screen should only be accessed by qualified technicians.

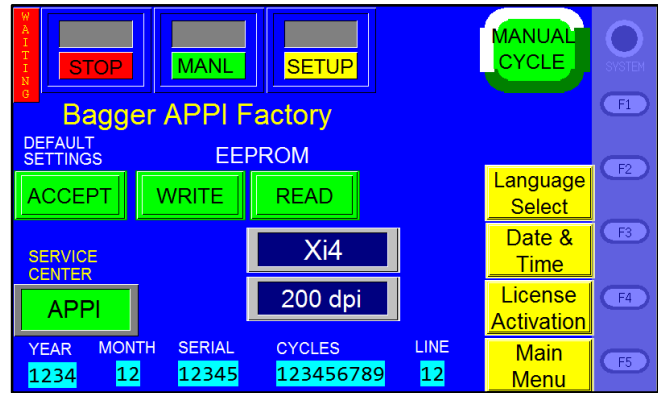


Figure 3-70

Accept: Pressing the **Accept** button will default all the settings back to the original factory settings.

EEPROM: Pressing the **Write** button allows the operator to write machine data to the PLC EEPROM. Pressing the **Read** button retrieves all written data.

3.48 Language Select

Pressing the **Language Select** button displays the Language Selection screen. See Figure 3-71. This screen should only be accessed by qualified technicians. The language the machine is set to display will appear in the top right corner. To change the operating language of the touch screen program, press the **Language** button you would like your machine to run.

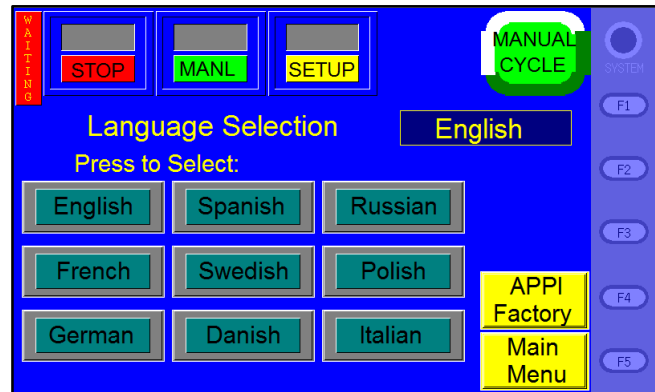


Figure 3-71

3.49 Date & Time

To adjust this setting, press the **Date** or **Time** button you wish to set, enter the desired value on the numeric keypad and press the **ENT** button. See Figure 3-72.

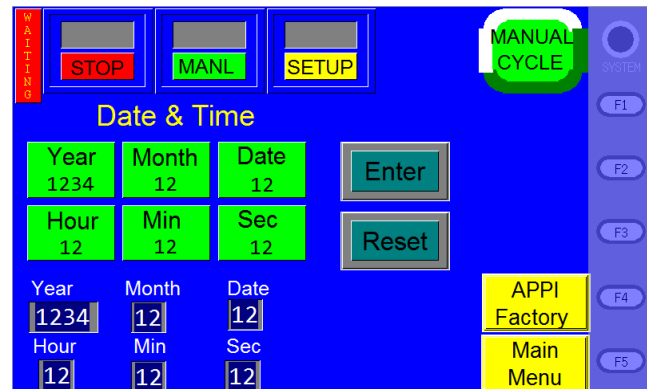


Figure 3-72

3.50 License Activation

The License activation screen features several LEDs that indicate the status of the license and trial period and illuminate and change during various stages of operation. This screen should only be accessed by a qualified technician.

As shown in Figure 3-73, the License portion of the screen will display “Inactive” in grey if the License has not been activated yet, “In Progress” in green if the trial is in progress, and “Expired” in

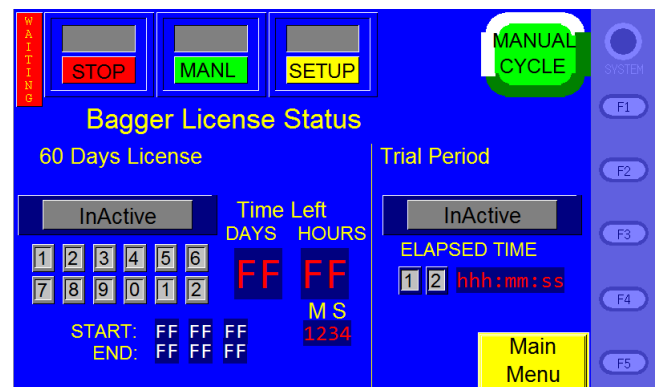


Figure 3-73

red if the License has expired.

The **Time Left** will be displayed in days, hours, minutes and seconds.

Start: Displays when the license period has begun.

End: Displays when the License period will end.

The Trial Period will read either “Inactive” in grey, “1st 40 hour” in green to indicate the first 40 hours of the trial period, “2nd 40 hour” in yellow to indicate the second 40 hour trial, “Expired” in red when the trial is over, and “Used” in light blue to indicate that the trial has been used.

Elapsed Time displays the amount of time that has passed since the machine has been activated.

3.51 Warning and Message Screens

Normal operating messages and fault messages will be displayed automatically to alert the operator of situations on the machine. Some messages describe errors or the status of equipment and some provide instructions for operators to follow to bring the bagger back online. To reset a message screen, clear the condition first (if required) and then touch the screen. See Figure 3-74 through Figure 3-77 for examples of messages that indicate the status of the machine.

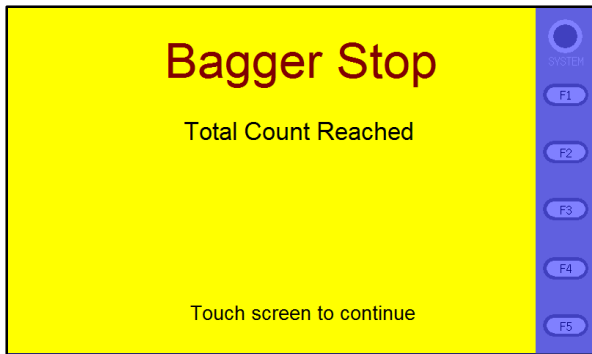


Figure 3-75

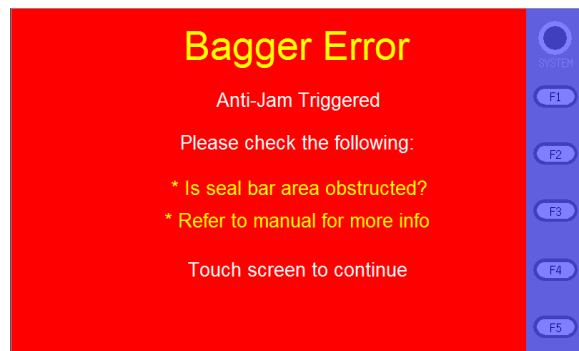


Figure 3-74

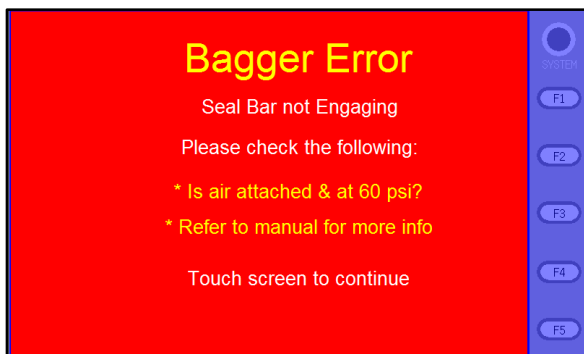


Figure 3-77



Figure 3-76

Chapter 4: Adjustments, Maintenance and Troubleshooting

Machine Adjustments

Tracking and Alignment Adjustments

Compression Nip Roller Adjustment

Idler Roller Guides

Heater Bar Adjustments

Pressure Bar Alignment/Cylinders Speed Adjustment

Suggested Printer Settings

Rubber Strip Replacement

PTFE Spool Advancement

PTFE Sheet Replacement

Description of Anti-Jam Circuit

Anti-Jam Adjustments / Testing

Replace Thermocouple Wire

Print Head Replacement

Scheduled Maintenance

Preventative Maintenance

Spare Parts Kits

Troubleshooting

Pneumatic Drawings

Electrical Drawings

4.1 Machine Adjustments

Periodically, the T-300/T-375 will require readjustment or realignment of components to ensure proper operation. Adjustments may be required after transportation, excessive handling or due to normal wear and tear.

CAUTION: Machine adjustments, electrical troubleshooting and component replacement should be performed by qualified maintenance technicians, familiar with safety practices including but not limited to equipment lock-out/tag-out, voltages and pneumatics. If you are not familiar with the equipment or have not received training on the T-300/T-375, consult with APPI technical support before attempting adjustments or repairs.

4.2 Tracking and Alignment Adjustments

Bags that are not tracking properly can cause product to spill out of the chute or funnel onto the floor. Tracking problems can also cause the thermally printed information to be out of the proper location. To avoid spillage or printing problems, machine adjustments to correct the tracking and alignment of the web of bags may be required.

However, before considering adjustment, check that there is sufficient tension on the web of bags. When feeding or stopping, the bag roll should not spin freely or feed excess film. The web of bags should not come in contact with the bottom plate inside the machine. To increase web tension, loosen the knob that holds the roll and chucks in position, push the roll to the right, into the plastic core plug on the bag roll and tighten the knob. When pressing the left chuck to the right, the right chuck must not move. See Figure 4-1.

Unwind the bags by hand and check the tension. Then, cycle the machine several times to ensure that the bags do not break prematurely (too much tension), or does not spin freely (too little tension). For narrower or shorter bags, proper tension is more critical.

4.3 Compression (Nip) Roller Adjustment

The drive roll compression is the force that exists between the two feed rolls (rubber covered grooved roll and grooved steel roll). Too little drive roll compression will prevent the bags from *tearing off* after each sealing operation. Too much drive roll compression will cause extra wear on the drive roll and the motor.

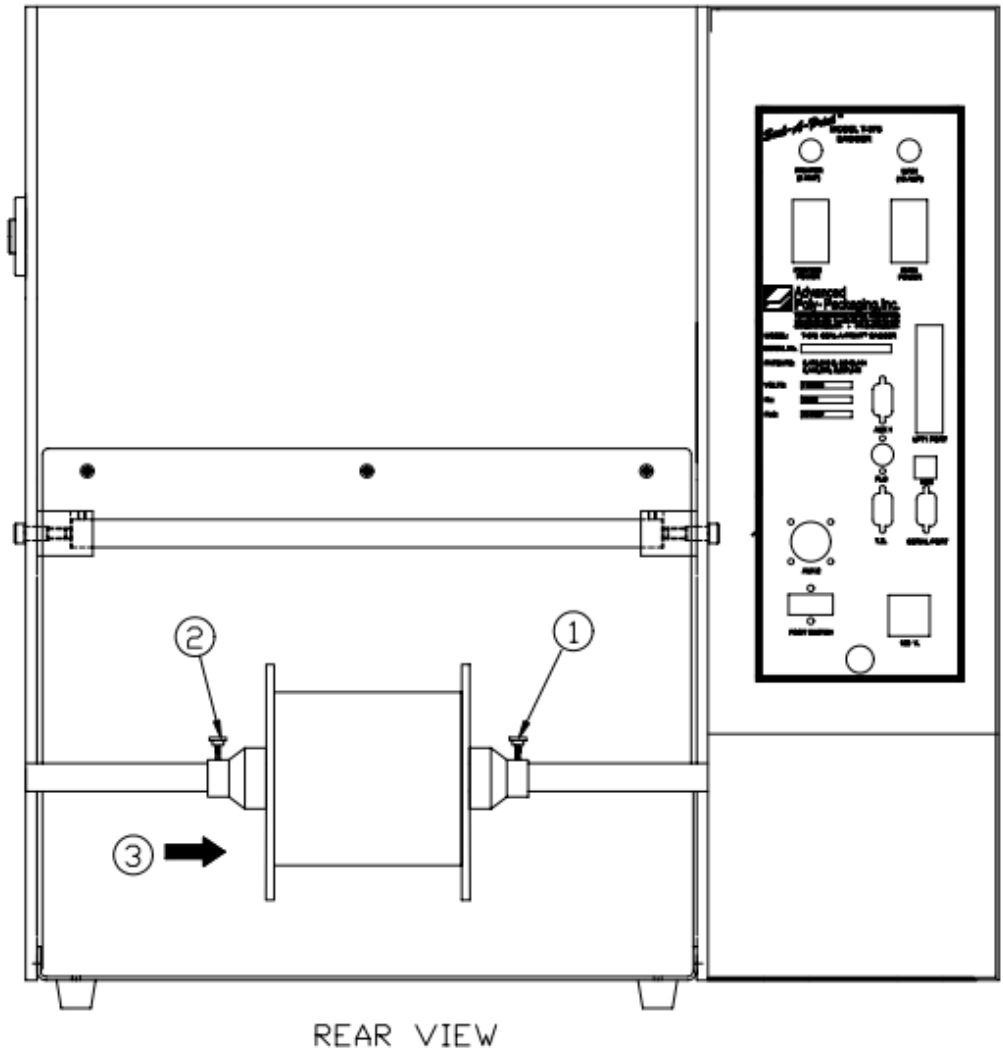
Turn the power switch to the OFF position and unplug the power cord. Remove the top cover. The compression adjustment is located on the latch assembly. See Figure 4-2.

Compression adjustment is a three step process. First, the upper and lower rollers are adjusted to make the lower roller parallel to the upper roller. Then, the upper roller is adjusted (lowered) for proper compression. Finally, the stop bolts are checked to ensure that the latch mechanism is not overextending.

Step 1: Parallel adjustment

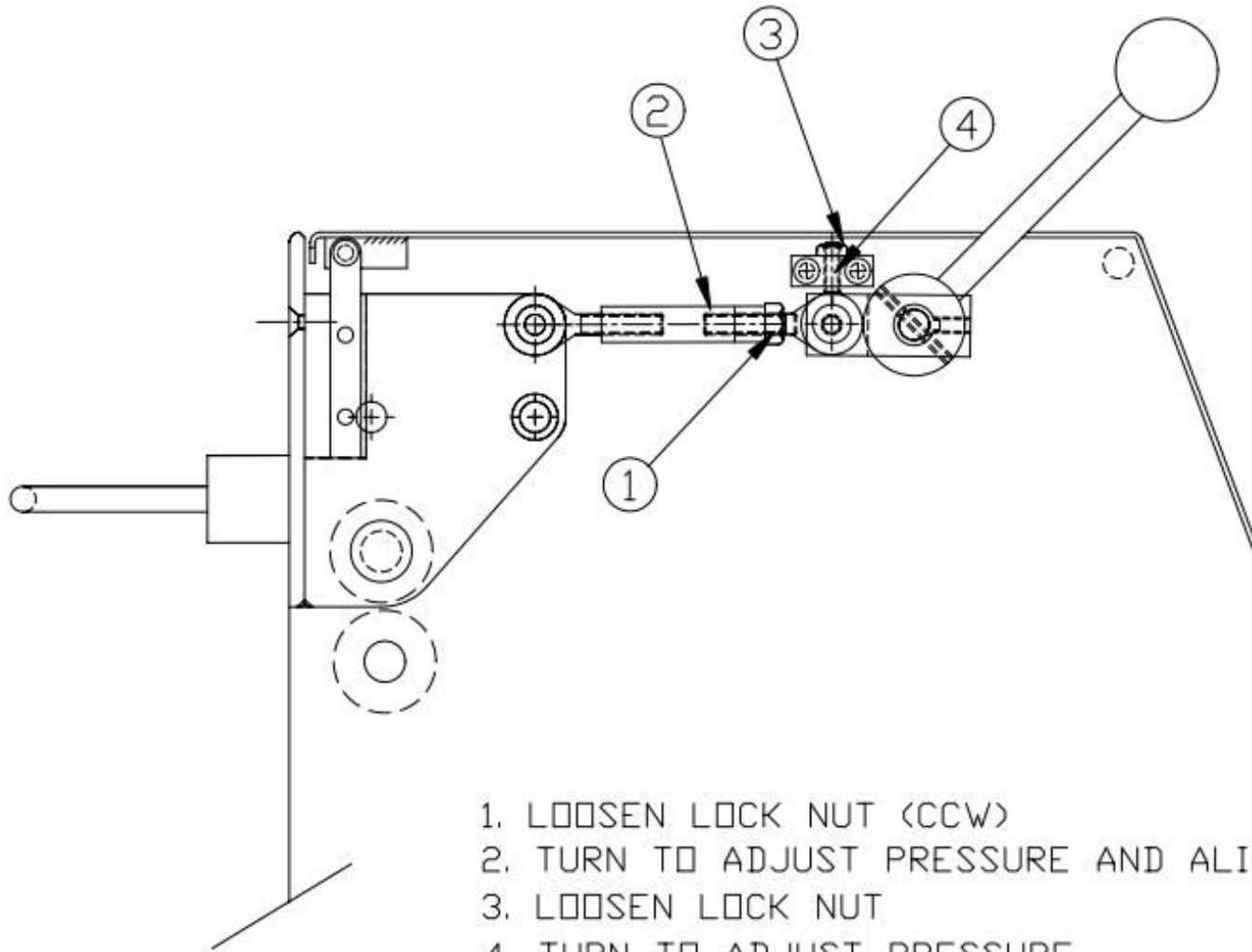
On both the left panel and right panel, loosen the two locking bolts on the upper block of the compression tension assembly. Loosen the nut on the adjustment screw. With the inner frame locked in the UP position, lower the lower roller by turning the adjustment screws counterclockwise until the lower roller is parallel to the upper roller and there is a 1/16" gap between the rollers. Turn the adjustment screw clockwise alternatively, keeping the lower roller parallel with the upper roller until the rollers come in contact across the width of the rollers. Slightly lower the inner frame and raise again to ensure that when raised again, the rollers touch simultaneously. Then "snug" the upper block bolts and recheck the alignment.

WEB ADJUSTMENT



1. TIGHTEN TO LOCK INTO POSITION
2. LOOSEN KNOB
3. PRESS ROLL CHUCK TO THE RIGHT TO INCREASE WEB TENSION

NIP ROLL ADJUSTMENT



NOTE: A light source (lamp) positioned to the rear of the T-300/T-375 illuminating the gap of the rollers will assist in determining whether the upper and lower roller are parallel.

Step 2: Compression adjustment

With the rollers slightly touching and parallel, turn each adjustment coupler approximately half a turn clockwise. Then test the compression by putting a bag between the rollers. Attempt to pull the bag between the rollers. If the bag pulls out easily, turn the compression adjustment coupler another half a turn clockwise. Continue this adjustment until the bag is slightly difficult to pull out of the rollers. Turning the coupler equally on both sides keeps the rollers parallel. Raise and lower the upper roller assembly to ensure that it latches properly without requiring pressure.

CAUTION: Over-tightening of the compression adjustment screws may cause damage to the rubber roller or the motor.

When you are satisfied with the compression, slightly raise the upper roller assembly and slowly lower it until it almost touches the upper roller. If the gap is consistent across the width of the rollers and it appears parallel, lock the inner frame upward and re-tighten the two locking bolts that hold the coupler in position.

Step 3: Stop bolt adjustment

If the compression is sufficient when lowering the upper roller assembly, but the compression is lost due to over extending, the latch mechanism stop screws must be adjusted. Loosen the locking nuts that hold the stop bolts into position. Then, turn the stop bolts half a turn each. Lower the roller assembly and check the compression when the coupler is against the stop bolts.

When the rollers and latch mechanism have been properly adjusted, the upper latch assembly will lower and lock into position when the latch handle is pressed all the way downward. Additionally, the compression will be sufficient for the bag to separate, but not too tight to cause the motor to stall or “chatter.”

4.4 Idler Roller Guides

Two plastic web guides are located on the rear idler roller. These guides are used for *fine* adjustment of tracking. Once the web is tracking within +/- 1/8" left to right, the plastic web guides can be used to further assist in tracking. Hold the upper roller in place while turning and sliding the plastic guides close to the bags without touching the bags.

NOTE: If the bags are not tracking properly, the plastic guides could cause the bag web to turn or fold over. If this occurs, slide the guides further away from the web and make adjustments to correct tracking issues.

4.5 Heater Bar Adjustment

The pressure bar, when actuated by the seal cylinder, is forced against the front gripper plate. The pressure must be great enough to grip the bag so that the bag does not move when the rollers reverse. If the bag slips through the pressure bar and gripper plate, the bag may not separate or seal properly.

Check for free movement of the spring-loaded gripper plate. Turn the machine off. When the heat has dissipated from the heater bar, press inward on the front gripper plate with sufficient force to move the gripper plate inward on both sides. Then, press in on one side only, one side at a time, and ensure that the gripper plate springs back outward when released. If the gripper plate does not spring back, adjustments are required.

With power turned off and air removed, remove four screws holding the face / gripper plate to the front plate. Pull the assembly out carefully so as not to disconnect or damage wiring. Disconnect the thermocouple wire at the connector and the heater connectors and pull out the assembly.

Inspect the springs for breaks or damage and replace as required. Inspect for debris and clean as required. Press the gripper plate inward evenly, first on one end and then the other, searching for the specific location causing the binding. Two blocks slide in a housing. Ensure that the blocks are not binding in the housing. If this is where the binding is occurring, loosen the screws and reposition the block. Then tighten and test for free movement. Clean all components and reassemble.

With the assembly completely reassembled and mounted in the machine, attach air and power and turn on the unit.

4.6 Pressure Bar Alignment / Cylinders Speed Adjustment

The pressure bar must come in evenly, so as to contact the gripper plate at the same time all the way across. If one side of the pressure bar contacts the gripper plate prematurely, the anti-jam may activate, the bag may not be sealed or excessive wear or machine damage could occur.

Check for free movement of the pressure bar: Turn the power to the OFF position and unplug the power cord. Remove the air line from the regulator and remove the top cover. Once the air is removed, the pressure bar can freely be pushed toward the front plate. If the pressure bar binds, adjustments will be required. Binding may be caused by: 1) cylinder rods not being parallel to each other, 2) failing seal cylinders or 3) bent seal cylinder rods.

To test for parallelism, with the power off and air removed, loosen the screws holding the pressure bar onto the seal cylinder rods. With the screws loose, press in the pressure bar and check for binding. If the cylinders do not bind with the screws loose, then the cylinders were most likely not parallel. Tighten the screws while the pressure bar is touching the gripper plate. Then pull the pressure bar back out, checking for binding. If there is no further binding, attach air and power on the unit and test cycle by pressing the foot switch or guard switch. If binding still occurs, then the cylinders themselves must be aligned to make them parallel to each other. This is accomplished by placing shimming material between the cylinder mounting brackets and the side walls. Contact APPI Technical Support before proceeding.

To test for failing or bent seal cylinders, with power off and air removed, remove the pressure bar entirely. Then, push each cylinder rod inward individually. If the cylinder rod binds when not attached to the pressure bar, then the cylinder must be replaced.

If the cylinders are not binding, check for proper pressure bar movement inward and outward. Watch the operation of the pressure bar for several cycles to ensure that the pressure bar contacts the gripper plate at the same time all the way across. If one side of the pressure bar contacts the gripper plate prematurely, the seal cylinder speed must be adjusted.

Two "speed controls" operate the speed of each cylinder's in and out motion that brings the pressure bar against the front plate (gripper plate). Increasing the speed of the pressure will increase production. But, if the pressure bar moves in or out too fast causing the pressure bar to "bang," excessive wear will occur.

Pressure Bar IN Speed Adjustment:

The adjustment knob to the rear of the unit controls the speed of the pressure bar INWARD (towards the front plate). To decrease the speed of the pressure bar INWARD, turn the knob counterclockwise. To decrease the speed of the pressure bar INWARD, turn the knob counterclockwise.

Pressure Bar OUT Speed Adjustment:

The adjustment knob toward the front of the unit controls the speed of the pressure bar OUTWARD (away from the front plate). To increase the speed of the pressure bar OUTWARD, turn the knob clockwise. To decrease the speed of the pressure bar OUTWARD, turn the knob clockwise.

Adjust the speed of the pressure bar so that it moves in and out rapidly, in a fluid manner, without "banging" when moving in or out.

4.7 Rubber Strip Replacement

Through normal use, the rubber strip will wear, causing seal quality problems. The rubber will also wear prematurely if contacting the product during the seal operation.

When the wear affects the seal quality or causes the bags not to separate in the gripper mechanism, replace the rubber strip by following these procedures:

1. Remove air from the unit, turn the T-300/T-375 power OFF and unplug the power cord.
2. Remove the worn rubber pad by pulling from the end corner of the rubber strip. Once started, the rubber will easily slide out from the metal pressure strip housing.
3. Clean out the metal slot with alcohol and a cloth or brush.
4. Slide the new extruded rubber strip into the metal housing slot starting at one end and continuing to work the rubber along the length of the slot. When in position, the rubber strip should be loose in the slot.

CAUTION: Metal housing for rubber strip has sharp corners and sharp edges. When rubber is removed, carefully clean slot with a thick cloth, avoiding contact with your fingers or hands.

If bags stick to the new rubber, PTFE Anti-Stick tape can be added to the center of the rubber strip.

4.8 PTFE Anti-Stick Spool Advancement

PTFE anti-stick sealing sheets will wear with continued use and prematurely tear if contacting the product when sealing. If the PTFE anti-stick sealing sheets wears or tears and affects the seals, the PTFE anti-stick sealing sheets can be advanced to bring new PTFE anti-stick sealing sheets to the seal area.

To advance the PTFE anti-stick sealing sheets, insert a small flathead (common) screwdriver into the bottom 1/4" hole located on the right side panel of the unit. When you feel the screwdriver enter into the slot of the PTFE rod, turn the screwdriver counterclockwise to advance new PTFE Anti-Stick Sheet into position. See Figure 4-3.

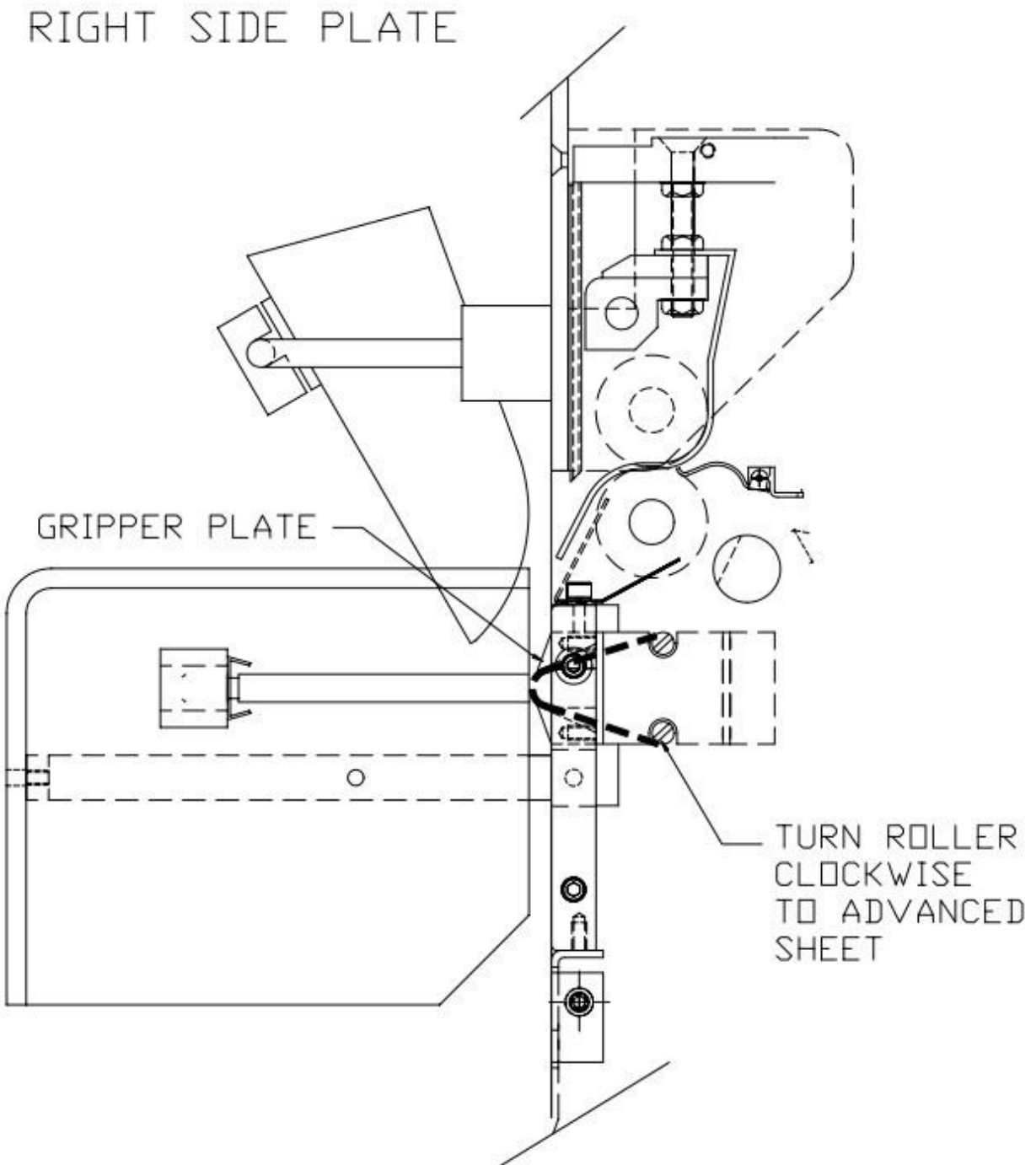
After turning new PTFE anti-stick sealing sheet into position, turn the rod clockwise slightly so that there is very little tension on the PTFE anti-stick sealing sheet.

NOTE: If the PTFE anti-stick sealing sheet is too tight (too much tension), it may tear during the seal operation.

4.9 PTFE Anti-Stick Sealing Sheet Replacement

When the PTFE anti-stick sealing sheet has been exhausted, it will become loose from the upper PTFE anti-stick rod and will require replacement. To replace the PTFE anti-stick sheet, follow these procedures:

1. Remove air from the unit, turn the machine off and unplug the power cord.
2. Remove the top cover and lift the funnel assembly upward.
3. Remove four screws from the guard assembly and remove the Lexan guard.
4. Allow the sealer mechanism to cool for at least 30 minutes.
5. Pull one side (right or left side) of the seal assembly out from the front plate. Since the seal assembly is tight, some maneuvering may be required to remove the assembly from the machine. To avoid damage to components or wiring, do not force the assembly.
6. Disconnect all wire connectors and remove the complete assembly.
7. Remove gripper plate from heater bar assembly.
8. Unwind and remove PTFE anti-stick sheet from upper and lower PTFE anti-stick rods.
9. Peel backing off of one side of new PTFE anti-stick sheet.
10. Attach new PTFE anti-stick sheet to the top PTFE anti-stick rod.
11. Roll new PTFE anti-stick sheet on to the top rod.
12. Attach to the bottom PTFE anti-stick rod.
13. Reverse steps 1-8 for reassembly.



4.10 Heater Cartridge Replacement

Since the heater element is a normal wear item, it will require replacement when burned out. Heater element and heater bar life span may be increased by timely adjustment of PTFE anti-stick sheet. If the heater bar does not come to temperature fully or does not heat whatsoever, the entire heater bar must be replaced. Follow these procedures to replace the element:

1. Remove air from the unit, turn the machine off and unplug the power cord.
2. Remove four screws from the guard assembly and remove the Lexan guard.
3. Allow the sealer mechanism to cool for at least 30 minutes.
4. Remove the two screws located on the left and right side of the seal bar which hold the seal assembly.
5. Pull one side (right or left side) of the seal assembly out from the front plate. Since the seal assembly is tight, some maneuvering may be required to remove the assembly from the machine. To avoid damage to components or wiring, do not force the assembly.
6. Disconnect all wire connectors and remove the complete assembly.
7. Remove gripper plate from heater bar assembly.
8. Unwind and remove PTFE anti-stick sheet from upper and lower rods.
9. Remove screws that hold the support bar cap on both sides.
10. Remove screws from the brace assembly on each side.
11. Pull seal bar away from brace.
12. Cut braided wires so that old heater bar can be removed.
13. Insert new crimp pins into new Molex connectors.
14. Reverse steps 1-11 for reassembly
15. Reconnect the wire connectors and install the heater bar, ensuring that the full PTFE anti-stick rod is positioned at the top. Secure the seal assembly with two screws and mount guard.

4.11 Description of Anti-Jam Circuit

The anti-jam mechanism decreases the possibility of damage to the T-300/T-375 if product or other objects are in the seal area. The operation of the anti-jam circuit should be tested prior to production on a daily basis.

Although the anti-jam unit may prevent or decrease the opportunity for injuries during the sealing or heating operation, the anti-jam is not designed as a safety device. If not adjusted properly, damage may result from obstructions in the seal area or personal injury may occur if fingers or hands are in the seal area when sealing.

If properly adjusted, a jam is detected when 1) the rubber pressure strip does not contact the PTFE anti-stick sheet at one or both sides of the gripper plate or 2) the gripper plate is pressed prior to the rubber pressure strip contacting the gripper plate.

4.12 Anti-Jam Adjustments / Testing

The anti-jam mechanism consists of 1) two cylinder magnetic switches that detect the cylinder position and 2) two photo sensors that detect the spring-loaded gripper plate. If the anti-jam circuit is not functioning properly, follow these procedures to test and/or adjust the anti-jam components:

Test 1: With air applied and the power on, position an object over 1/4" in thickness on the far left side of the seal bar with the object in contact with the gripper plate, but not pressing in the gripper plate. Then press the foot switch. If the pressure bar retracts, the anti-jam circuit is working properly.

If the pressure bar does not retract when an obstruction of at least 1/4" in thickness is present anywhere in the seal area, follow these procedures to adjust and test the circuit:

1. Remove air from the unit, turn the T-300/T-375 power off and unplug the power cord.
2. Remove the top (stainless) cover and side (painted) cover.

3. Locate the two magnetic sensors that are clamped on the end of each seal bar cylinder.

4. Reach under the Lexan guard and manually push the pressure bar inward until rubber strip slightly *touches* the gripper plate evenly across the pressure bar but does not press in the springs.
5. Turn the power on and press the **Tech Assist** button, then the **PLC Info** button on the touch screen to display the Inputs/Outputs. Locate the X2 and X4 input LEDs on the touch screen.
6. By manually pulling out and pushing in the pressure bar, keeping it parallel to the PTFE anti-stick sheet, the X2 and X4 input LEDs should illuminate at the same time, before the spring loaded gripper plate moves. It is important that the input LEDs illuminate at the same time and that when they do, the pressure bar rubber is close to the gripper plate.
7. To adjust the sensitivity of the sensors, loosen the retaining claim by turning the screw located on the black magnetic sensor, positioned at the end of the cylinders. Then, slide the sensor along the cylinder to achieve the correct input results.
8. Test the circuit by manually pushing in the pressure bar. Again, the magnetic cylinder sensors is in the proper position if the X2 and X4 input LEDs illuminate at the same time and if they illuminate when the pressure bar rubber is near the gripper plate.
9. Turn of the power OFF, replace all covers, apply air and power and test cycle the machine, further testing the anti-jam circuit.

Test 2: With air applied and the power on, position a stiff object of at least 1/4" in thickness on the far left side of the seal bar. Then, push the spring loaded gripper plate with the object so that it moves inward. While pressing in the spring-loaded gripper plate, the X7 input LED should light up, and the screen should display the "Please check left heat bar sensor" message. Repeat the same test for right side sensor. Look for the X6 input LED and the "Please check right side heat bar sensor" message.

If pushing the gripper plate in on either side fails to light its respective input, follow the following procedure:

1. Remove air from the unit, turn the machine off, unplug the power cord and wait until the heater bar is fully cooled down.
2. Remove the top (stainless) cover and side (painted) cover.
3. Locate and inspect the two photo sensor boards and ensure that the two rectangular black and white photo components are flat and parallel to each other. If not, carefully reposition the sensors.
4. Turn the power on and locate the two photo sensor printed circuit boards. You should notice that a threaded rod extends through the photo eyes. The threaded rods move inward and outward with the movement of the spring loaded gripper plate. Additionally, when the threaded rod enters the photo sensor, the X7 (left sensor input) and the X6 (right sensor input) illuminate on the PLC.
5. Turn the power on and test the X7 and X6 input LEDs by pressing inward on the spring-loaded gripper plate. You will notice that the touch screen displays a message for both the left and right photo sensors.
6. When the spring-loaded gripper plate is not pressed (home position), the X6 and X7 input LEDs should be off and the touch screen should display a normal operation. However, when the spring-loaded gripper plate is pressed slightly inward, the input LEDs should illuminate and a warning message should be displayed. You will notice that the warning message is displayed when the rod passes through the photo sensors.
7. To adjust the sensitivity of the spring loaded "U" channel, loosen the nut on the left rod. With the spring loaded gripper plate in the Home position, turn the threaded rod with a flat head screwdriver so the spring-loaded gripper plate, when slightly pressed, causes the X7 input LED to come on.

4.13 Replace Thermocouple Wire

A thermocouple wire, brazed to a ring terminal and secured to the bottom of the heater bar, detects the amount of heat the heater bar is emitting. The thermocouple wire is considered a normal wear item and will infrequently fail, requiring replacement.

The thermocouple should be replaced when excessive fluctuations occur or incorrect temperature is displayed in the Bag Settings screen. The thermocouple should also be replaced when a visual inspection

reveals frayed insulation or broken wire. If the above conditions are met, the thermocouple is bad and the current to the heater bar has been turned OFF.

To replace the thermocouple wire, turn the machine off, unplug the power cord and disconnect the air line. Remove the front plate and PTFE anti-stick assembly. Remove the screws which hold the ring terminal and the jacketed wire clamp. Disconnect the connector and remove the wire. Reverse these steps to replace the wire.

CAUTION: To avoid stretching or breaking the wire during heater cylinder extension, ensure that the wire is looped and free to bend during heater bar movement.

Replace the PTFE anti-stick assembly and front plate.

4.14 Print Head Replacement

Print head instructions will be included with each print head. Otherwise, contact APPI tech support for further instructions.

4.15 Suggested Printer Settings

It is highly recommended that all bag settings are adjusted first on the Bagger Settings screen while the printer is off. The bag should be feeding, blowing open, sealing and separating properly before attempting to print on the bag.

NOTE: Changes in seal point affect the resting position of the bag, which affects the print position. It is recommended that the Seal Point setting is adjusted before positioning the print.

Printing on Smaller Bags (3" - 7" in length): For smaller bags, the ability to print next bag out may be limited by the amount of print length required. For example, on a 3" long bag, you may only be able to print 1/2" length if printing next bag out. This is caused by the location of the print head in relationship to the bottom of the bag, when the bag has reversed the maximum distance into the machine. However, if you print one bag back on the 3" long bag, you will be able to print more of the bag length.

For smaller bags, it is recommended that less than half of the bag length be printed.

Recommended Print Location: It is recommended that the print is positioned as low as possible on the bag and as close as possible to the manufactured bottom seal. It is in this area that the two layers of bag material are the most stable, causing the best print quality. The area closer to the opening of the bag is the least stable. Additionally, there may be wrinkles near the open end of the bag that may affect print quality.

The following charts offer some suggested settings based on the bag length. Refer to Chart 1 if your machine has a standard frame. Refer to Chart 2 if your machine has a drop frame.

NOTE: These settings were calculated with a standard T-375 without the DR-10 Driven Print Roller Option.

CHART 1: T-375 STANDARD FRAME MODEL

Setup No.	Bag Length	NBO Y/N	Max Print Length	Bag Seal Point	Print Speed in/sec	Reverse	Print Offset	Comment
1	3"	N	1"	0.5"	4	0.5"	0.07	Print is centered
2	4"	Y	1.25"	0.5"	4	2.1"	0.00	Print is 2.5" from bottom
3	4"	N	1.5"	0.5"	4	.5"	0.20	Print is centered
4	5"	Y	2.5"	0.5"	5	2.1"	0.00	Print is centered
5	5"	N	2"	0.5"	5	.5"	0.30	Print is centered
6	6"	Y	3"	0.5"	6	2.1"	0.00	Print is centered
7	6"	N	2"	0.5"	6	.5"	0.45	Print is centered
8	7"	Y	3.5"	0.5"	7	1.7"	0.00	Print is centered
9	7"	N	2.5"	0.5"	7	0.5	0.45	Print is 1.5" from bottom
10	8"	Y	4"	0.5"	7	1.2"	0.00	Print is centered
11	9"	Y	4"	0.7"	7	.7"	0.00	Print is centered
12	10"	Y	4"	0.7"	7	1.5"	0.20	Print is centered

NOTE: Due to mechanical tolerances, setting your machine to the above settings may achieve different results.

Increasing the Bag Seal Point will cause the maximum reverse to decrease and print to move closer to the bottom of the bag. Increasing the Print Offset will move the print higher on the bag.

NOTE: Print speed is set in the label software.

CHART 2: T-375 DROP FRAME MODEL

Setup No.	Bag Length	NBO Y/N	Max Print Length	Bag Seal Point	Print Speed in/sec	Reverse	Print Offset	Comment
13	5"	Y	2.5"	0.7	5	4"	0.00	Print 2" from bottom
14	5"	N	2.5"	0.7	5	.7"	0.25	Print is centered
15	6"	Y	3"	0.7	6	4"	0.00	Print 2" from bottom
16	6"	N	2.5"	0.7	6	.7"	0.45	Print 1.5" from bott.
17	7"	Y	3.5"	0.7	6	4"	0.00	Print is centered
18	7"	N	3.5"	0.7	6	.7"	0.50	Print 1" from bottom
19	8"	Y	3.5"	0.7	6	4"	0.10	Print is centered
20	9"	Y	3.5"	0.7	6	3"	0.00	Print is centered
21	10"	Y	3.5"	0.7	6	2"	0.00	Print is centered

NOTE: 5" is the minimum bag length recommended to run on a Drop Frame configured T-300 or T-375.

4.16 Preventive Maintenance & Scheduled Maintenance

To extend the life of the T-300/T-375 qualified maintenance personnel must perform all required maintenance tasks. Failure to perform scheduled and preventive maintenance may cause excessive wear to components and will void the warranty. For the purpose of this manual, preventive maintenance (PM) tasks are considered periodic tasks which should be performed on a daily, weekly or monthly basis.

Scheduled maintenance tasks are performed when the T-300/T-375 Maintenance Chart Number changes to a higher number. Scheduled maintenance tasks (CHART items) are performed dependent upon the number of machine cycles and therefore are not considered "periodic" tasks.

Legend for Preventive Maintenance Checklist

M	Monthly
W	Weekly
D	Daily

4.17 T-300 / T-375 Preventative Maintenance Checklist

Item	Description	Period
Filter / Air regulator	Drain water from filter	D
Air Regulator	Adjust pressure to 60 PSI	D
Anti-Jam Device	Check operation, adjust as needed (Chapter 4.10)	D
Drive Rollers	Clean with alcohol	D
Performance Sensor	Clean sensor assembly with alcohol	D
Platen Print Roller	Inspect for nicks or cuts, clean with alcohol	D
Print Head	Clean with alcohol (also after each ribbon change)	D
Micro Filter / Venturi	Inspect for contamination of filter, replace as needed, Inspect for blockage / air restriction	W
Wiring / Connectors	Inspect for loose wiring / connectors, tighten as needed	M
Air Lines / Valves / Cylinders	Inspect for loose air lines, listen for leaks, tighten or replace poly tubing as needed	M
Compartments / Covers	Remove all covers, clean and blow out compartments with compressed air to remove dust and dirt	M
Compression (Driven Rollers)	Inspect to ensure parallel w/ each other (bag tracking)	M
Drive Belt	Inspect for wear / fraying, replace if needed	M
Drive Belt Print Head Assembly	Inspect for wear, looseness, tighten as required	M

CAUTION: Unplug power cord and disconnect air line prior to removing guards, funnels or covers. Preventive Maintenance must be performed by qualified maintenance personnel.

4.18 Scheduled Maintenance Chart

Perform every 500,000 cycles

Item	Description	1	2	3	4	5	6	7	8	9	10
Drive belt (Left Panel)	Adjust / Inspect for wear, replace when necessary										
Heater Element & Wiring	Inspect for fraying, cuts, loose connections										
Pressure Bar Rubber Strip	Clean, inspect for wear, replace if required										
Guide Rollers	Inspect for free movement										
Roller Bearings	Inspect for free movement										
Perf Sensor & Spring	Inspect for wear, replace if required										
Rubber Drive Roll	Inspect for cuts, unevenness										
Steel Upper Roll	Clean with alcohol, inspect for burs										
Printed Circuit Boards / Wiring	Blow off with clean, dry air, inspect for loose wires, connectors										
Seal Cylinders	Listen for air leakage, replace or repair as required										
Air Blower Filter	Inspect for contamination, replace as necessary										
Air Lines & Connectors	Inspect for wear, cuts, leakage, replace if required										
Print Platen Roller	Inspect for free movement, inspect for wear, replace roller or bearings as required										
Print Head Belt	Inspect for tightness and wear, tighten or replace as required										
	INITIALS										

4.19 Spare Parts Kits

This section provides a list of common wear items that may require occasional replacement for the T-300 and T-375.

A. TO-T14-SP10 T-300 Spare Parts Kit

ITEM	ITEM NO.	DESCRIPTION
1	TP-T8MA00130	PTFE Anti-Stick Sheet, T-200/T-275
2	TP-300500-1	PTFE Anti-Stick Sheet Roll
3	TP-T8MA00140	Seal Bar Rubber Strip
4	TP-207043	Fuse, 10A 250V AGC10 Fast Acting
5	TP-217117	Cartridge, Heater 400W/120V
6	TP-221416	Thermal-Couple Wire w/ Connector
7	TP-404268	Tubing, 1/4" Dia. Blue (20M Roll)
8	TP-406181	Filter, 4 Micron (Air Knife)
9	TP-503101	Drive Belt (Clutch Track)
10	TP-402255	Valve, SY3120-5MNZ-N7
11	TP-401285	Gasket for SY3120 Valve
12	TP-108164	Spring, Seal Bar Compress. T-300
13	TP-112300	Bumper, Tumber tapered 7/8" x 5/8"
14	TA-T1MC00124-1	High Voltage Sensor Tang Only
15	TP-T1MC00124-3	High Voltage Sensor Mount
16	TP-106214	Cotter Pin 3/64 x 3/4 SS
17	TP-108118	Torsion Spring, .025 wire .1890
18	TP-403014	Cylinder, NCMZ1-G2K02-0400
19	TP-214111	Battery for FP Sigma

B. SP-10 T-375 Spare Parts Kit (Lev.1)

NOTE: BOM Ref. No. TO-T15-SP10 (TO-T15-SP10-1 FOR 220V (UK) Machines)

ITEM	ITEM NO	DESCRIPTION
1	TP-T8MA00130	PTFE Anti-Stick Sheet, T-200/T-275
2	TP-300500-1	PTFE Anti-Stick Sheet Roll
3	TP-T8MA00140	Seal Bar Rubber Strip
4	TP-207043	Fuse, 10A 250V AGC10 Fast Acting
5	TP-217117	Cartridge, Heater 400W/120V
6	TP-208355	Crimp Terminal, Male
7	TP-212356	2 Pin .125" Power Connector
8	TP-213004	Braided Fiberglass Sleeving
9	TP-221416	Thermal-Couple Wire w/ Connector
10	TP-404268	Tubing, 1/4" Dia. Blue (20M Roll)
11	TP-406181	Filter, 4 Micron (Air Knife)
12	TP-503101	Drive Belt (Clutch Track)
13	TP-402255	Valve, SY3120-5MNZ-N7
14	TP-401285	Gasket for SY3120 Valve
15	TP-108164	Spring, Seal Bar Compress. T-300
16	TP-112300	Bumper, Rubber Tapered 7/8" x 5/8"
17	TA-T1MC00124-1	High Voltage Sensor, Tang Only
18	TP-T1MC00124-3	Mount, High Voltage Sensor
19	TP-106214	Cotter Pin 3/64 x 3/4 SS
20	TP-108118	Torsion Spring, .025 wire .1890
21	TP-403014	Cylinder, NCMZ1-G2K02-0400
22	TP-503113	Timing Belt, Synchro-Link .08" Pitch
23	TP-214111	Battery for FP Sigma

4.20 Troubleshooting Guide and Checklist

The items included in this section cover the common causes of trouble that an operator might encounter during the operation of the T-300 / T-375. When operating difficulties occur, the best procedure is to observe what is happening, identify the causes and effect the correction. Make only one adjustment at a time, checking the results of each adjustment. If an adjustment does not help or escalates the problem(s), return the settings back to the former position.

CAUTION: These tests and repairs should be performed only by qualified mechanics or electricians and at their own risk.

NOTE: When troubleshooting a T-300 / T-375 functioning within a system (i.e. with conveyors, scales, feeders, counters, etc.), always isolate the equipment and operate each machine individually.

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Touch Screen does not display	<ol style="list-style-type: none"> 1. Screen saver is active 2. Power off 3. Loose connection 4. Fuse blown 5. Cable shorted / failed 	<ol style="list-style-type: none"> 1. Touch the screen 2. Plug in power cord / turn on 3. Tighten connections 4. Replace fuse(s) 5. Replace cable
No main power light	<ol style="list-style-type: none"> 1. Blown fuse 2. Bulb out 	<ol style="list-style-type: none"> 1. Replace fuse 2. Replace bulb
Pressure bar does not move when foot switch is operated	<ol style="list-style-type: none"> 1. Heat not up to temperature 2. Disconnected air line 3. Disconnected foot switch 4. Power off 5. Option enabled preventing foot switch operation. 6. Foot switch defective 	<ol style="list-style-type: none"> 1. Toggle to setup mode, attempt to cycle. Wait for temperature to increase. 2. Connect air line 3. Connect foot switch to rear panel 4. Turn on power 5. Turn off options 6. Replace foot switch
Pressure bar moves inward but retracts before sealing	<ol style="list-style-type: none"> 1. Antijam sensors improperly adjusted 2. Cylinder speed mismatch 3. Insufficient air pressure 4. Broken contact on antijam circuit 	<ol style="list-style-type: none"> 1. Adjust antijam 2. Adjust speed controls on seal cylinders 3. Increase air pressure 4. Check continuity across antijam circuit
Pressure bar presses against front plate but does not seal bag	<ol style="list-style-type: none"> 1. Seal time too low 2. Heat (temp.) too low 3. Heater cartridge bad 4. Insufficient air pressure 5. PTFE Anti-Stick Sheet folded 	<ol style="list-style-type: none"> 1. Increase seal time setting 2. Increase temperature setting 3. Replace heater cartridge 4. Increase air pressure 5. Inspect or replace PTFE Anti-Stick Sheet
Bag sticks to Anti-Stick Sheet or pressure (rubber) bar	<ol style="list-style-type: none"> 1. Seal temp. too high 2. Seal time too high 3. Anti-Stick Sheet in poor condition 4. Rubber is dirty / contaminated 5. No Anti-Stick Sheet on rubber 	<ol style="list-style-type: none"> 1. Decrease temp in bag setup screen 2. Decrease seal time in bag setup screen 3. Turn / replace Anti-Stick Sheet 4. Clean / replace pressure bar rubber 5. Add Anti-Stick Sheet tape to rubber
Bag does not tear off completely	<ol style="list-style-type: none"> 1. Bag slipping through rollers 2. Compression pressure insufficient 3. Drive roller not reversing 4. Bag did not index properly 5. Seal rubber dirty / worn 	<ol style="list-style-type: none"> 1. Clean upper and lower rollers with alcohol to remove slip and dirt build-up 2. Adjust roller compression 3. Check tear off cylinder 4. Index another bag for test 5. Clean / replace rubber

Two bags index from rollers	<ol style="list-style-type: none"> 1. Bag is folded over 2. Perf sensor dirty / damaged 3. Perf sensitivity out of adjustment 4. Ungrounded perf sensor circuit 5. Seal point value too high 6. Feed distance too high 7. Zero perf function incorrectly set 	<ol style="list-style-type: none"> 1. Straighten bag, thread bags again 2. Clean / replace perf sensor 3. Adjust pot on High Voltage PCB 4. Attach grounding rod to roller 5. Change seal point setting 6. Set value to zero 7. Reset Zero Perf.
Bag does not completely index	<ol style="list-style-type: none"> 1. Perf is sensing hole in bag (vent) 2. Seal position setting too low 3. Zero perf function incorrectly set 	<ol style="list-style-type: none"> 1. Reposition bag left or right 2. Increase seal position setting 3. Reset Zero Perf.
First bag after threading indexing multiple bags	<ol style="list-style-type: none"> 1. Thread bags at proper seal position 2. Perf Sensor not sensing bag 3. Dirty / damaged sensor 4. Pot on High Voltage PCB out of adjustment 	<ol style="list-style-type: none"> 1. Pull bags through pinch rollers to proper seal point, then cycle machine again. 2 & 3. Clean / replace sensor 4. Adjust Pot
Bags web breaking prematurely in machine	<ol style="list-style-type: none"> 1. Improper web tension 2. Index speed too high 3. Improper threading / web contact 4. Bag roll side-plates bent inward 	<ol style="list-style-type: none"> 1. Adjust tension 2. Reduce speed setting 3. Rethread / remove obstructions 4. Repair / remove side-plates

4.21 Pneumatic Drawings

Pneumatic drawings are provided to assist in troubleshooting the T-300 / T-375 Tabletop Baggers. See figure 4-3 for the T-300 pneumatic drawing and Figure 4-4 for the T-375 pneumatic drawing.

A. T-300 PNE

Figure 4-3

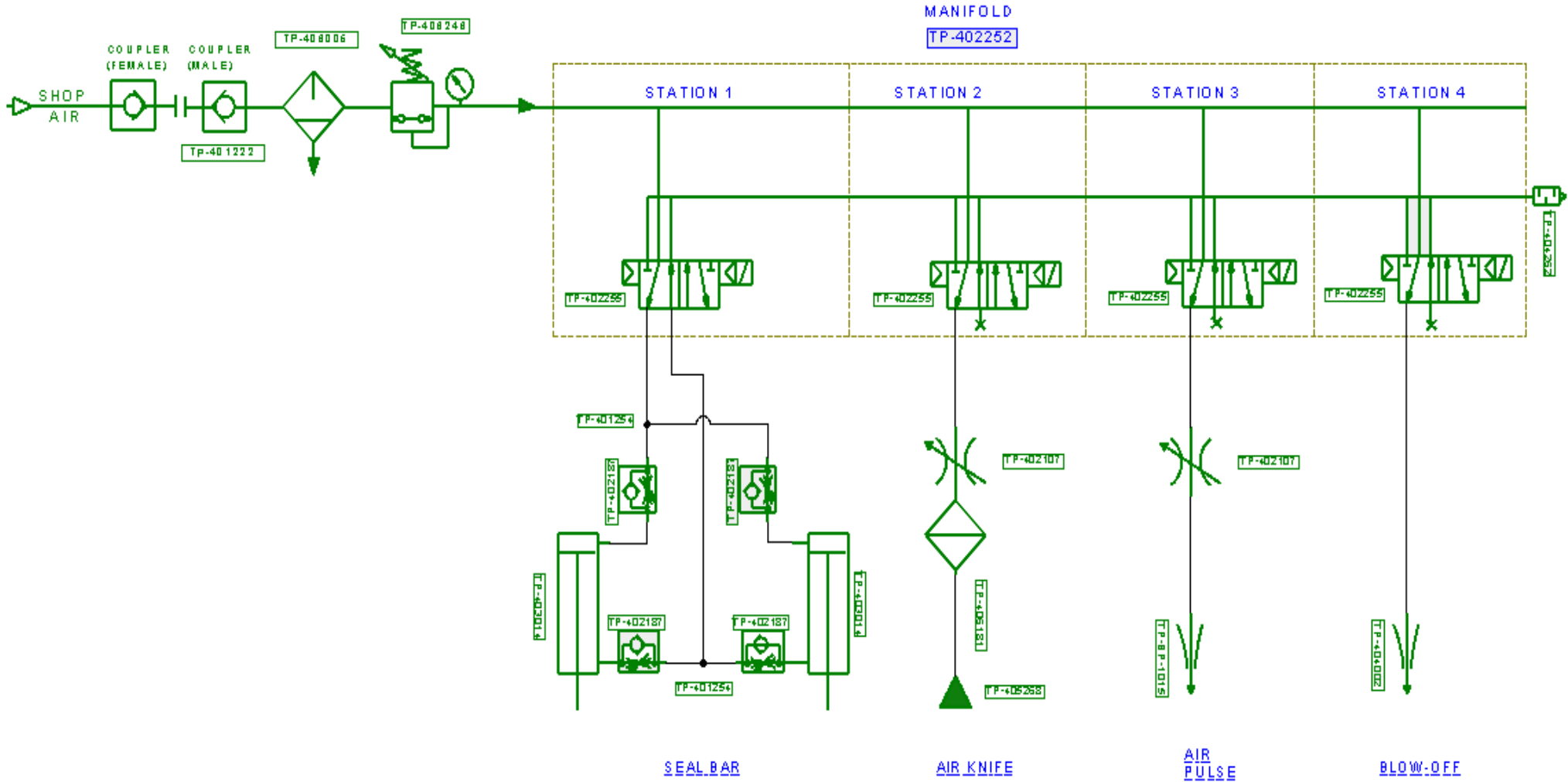
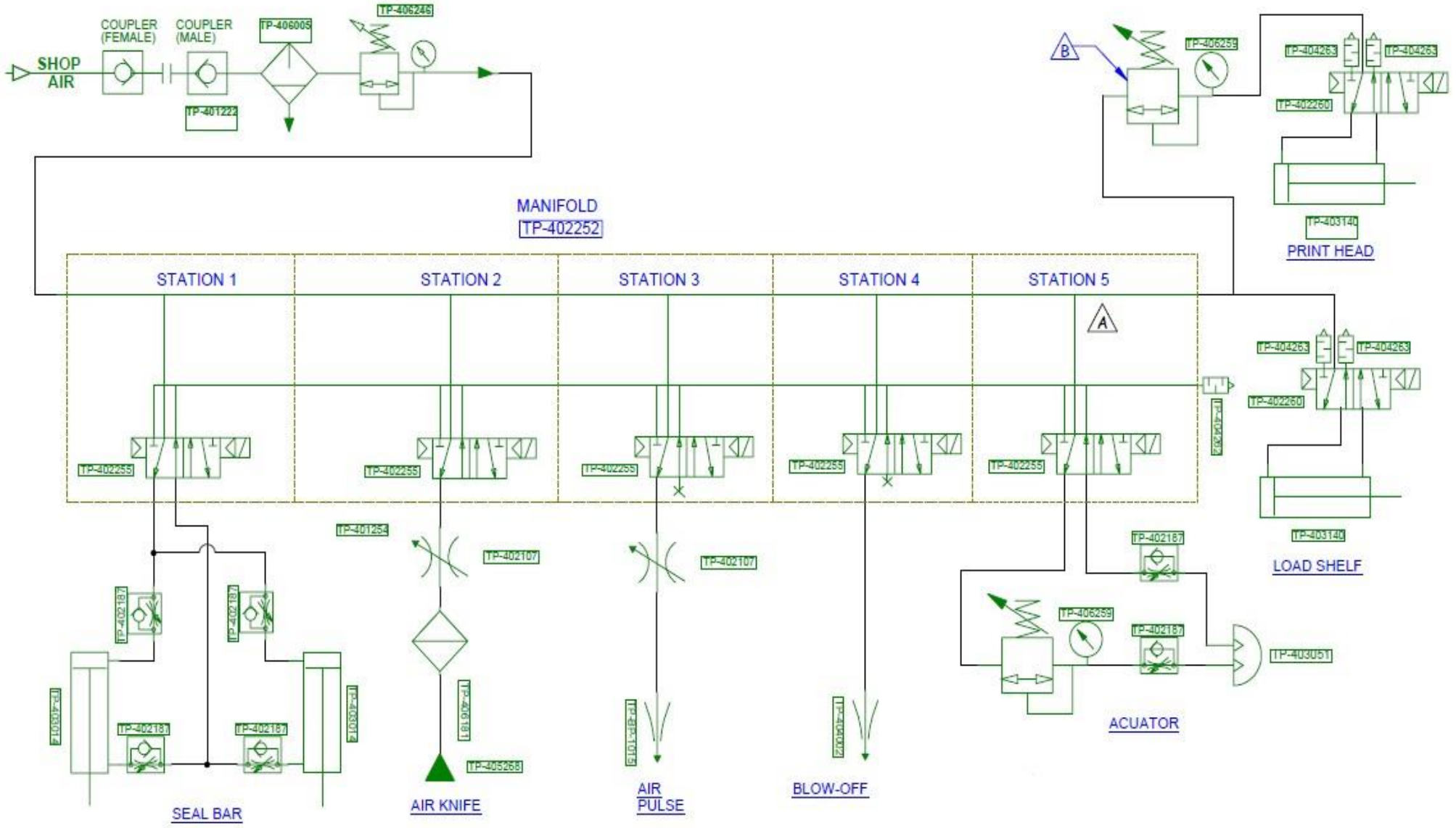


Figure 4-4



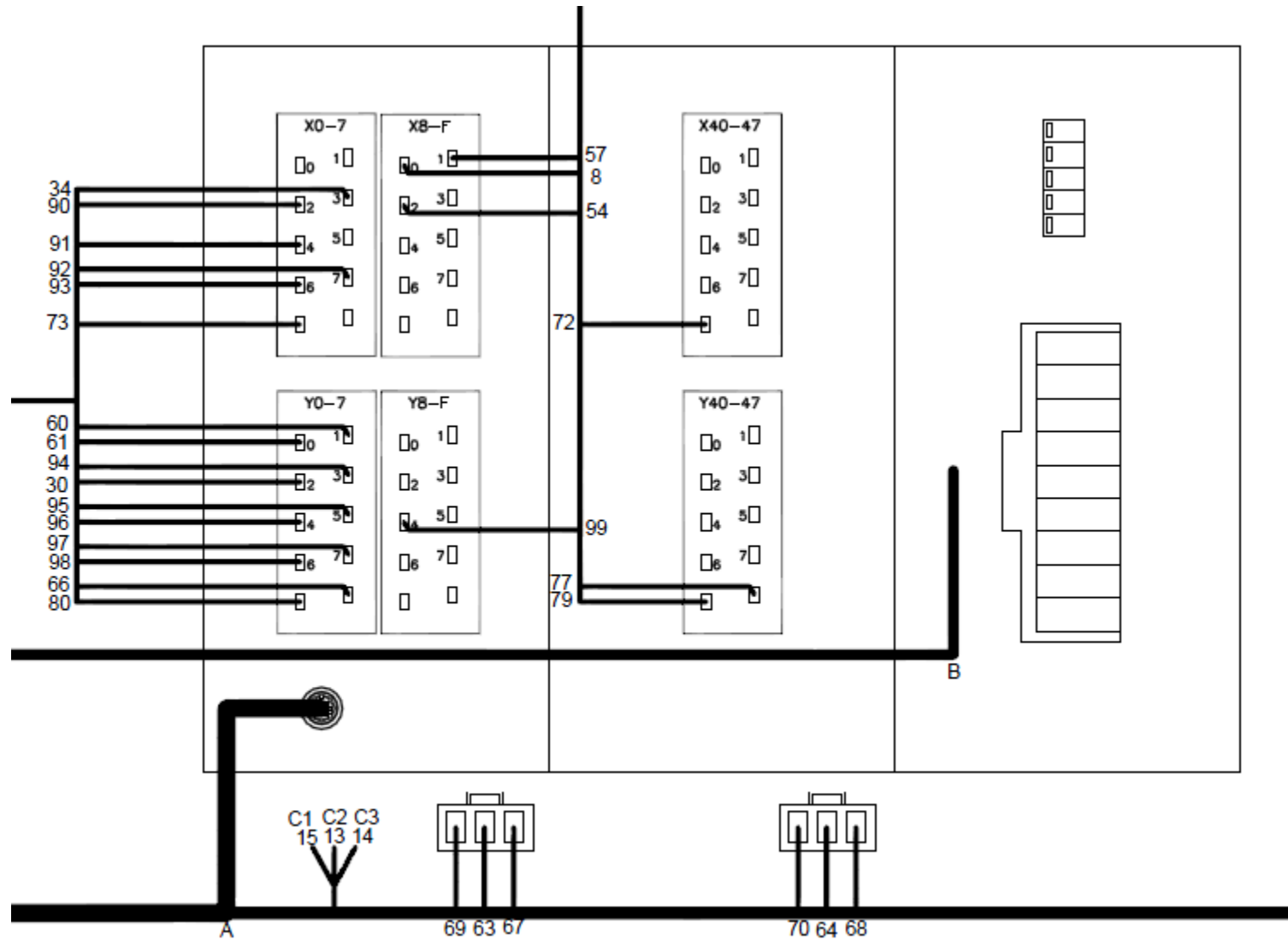
4.22 Electrical Drawings

Electrical drawings are provided below for Troubleshooting purposes.

- A. T-300 PLC Wiring, See Figure 4-5.
- B. T-300 Power Bar Wiring, See Figure 4-6.
- C. T-300 System Wiring, See Figure 4-7.
- D. T-375 PLC Wiring, See Figure 4-8.
- E. T-375 Power Bar Wiring, See Figure 4-9.
- F. T-375 System Wiring, See Figure 4-10.

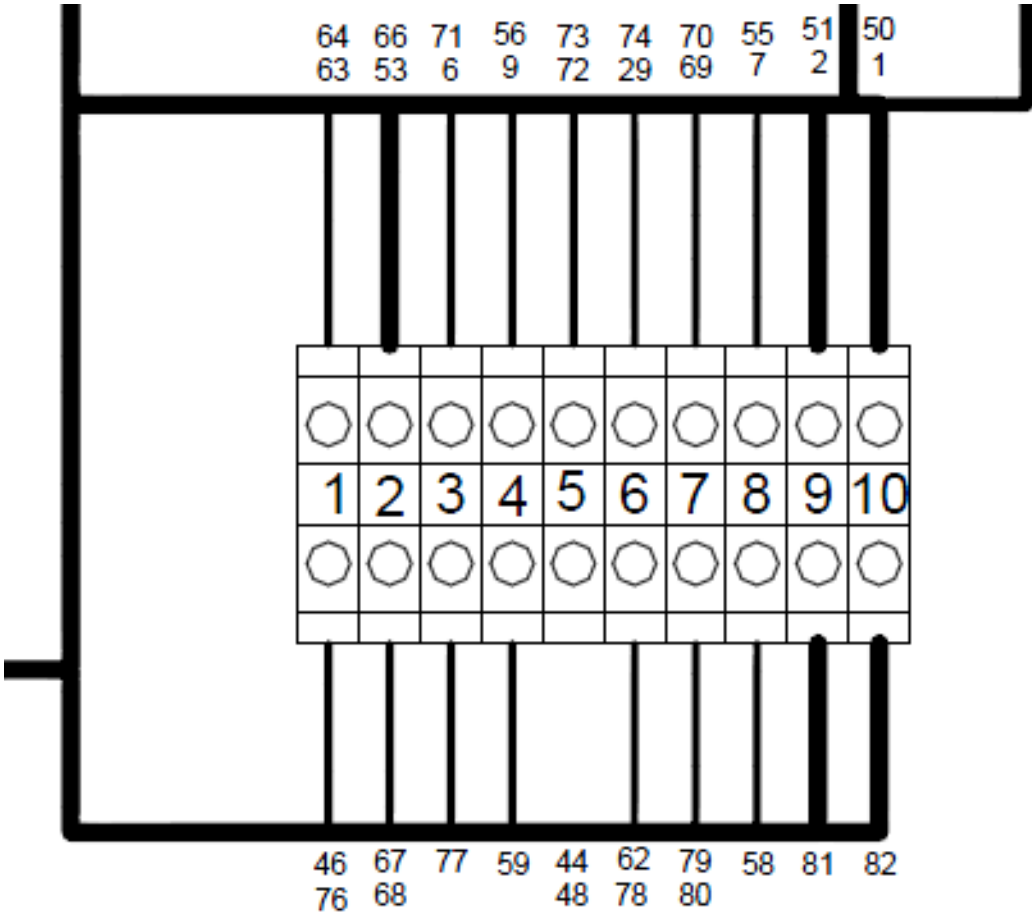
A. T-300 PLC Wiring

Figure 4-5



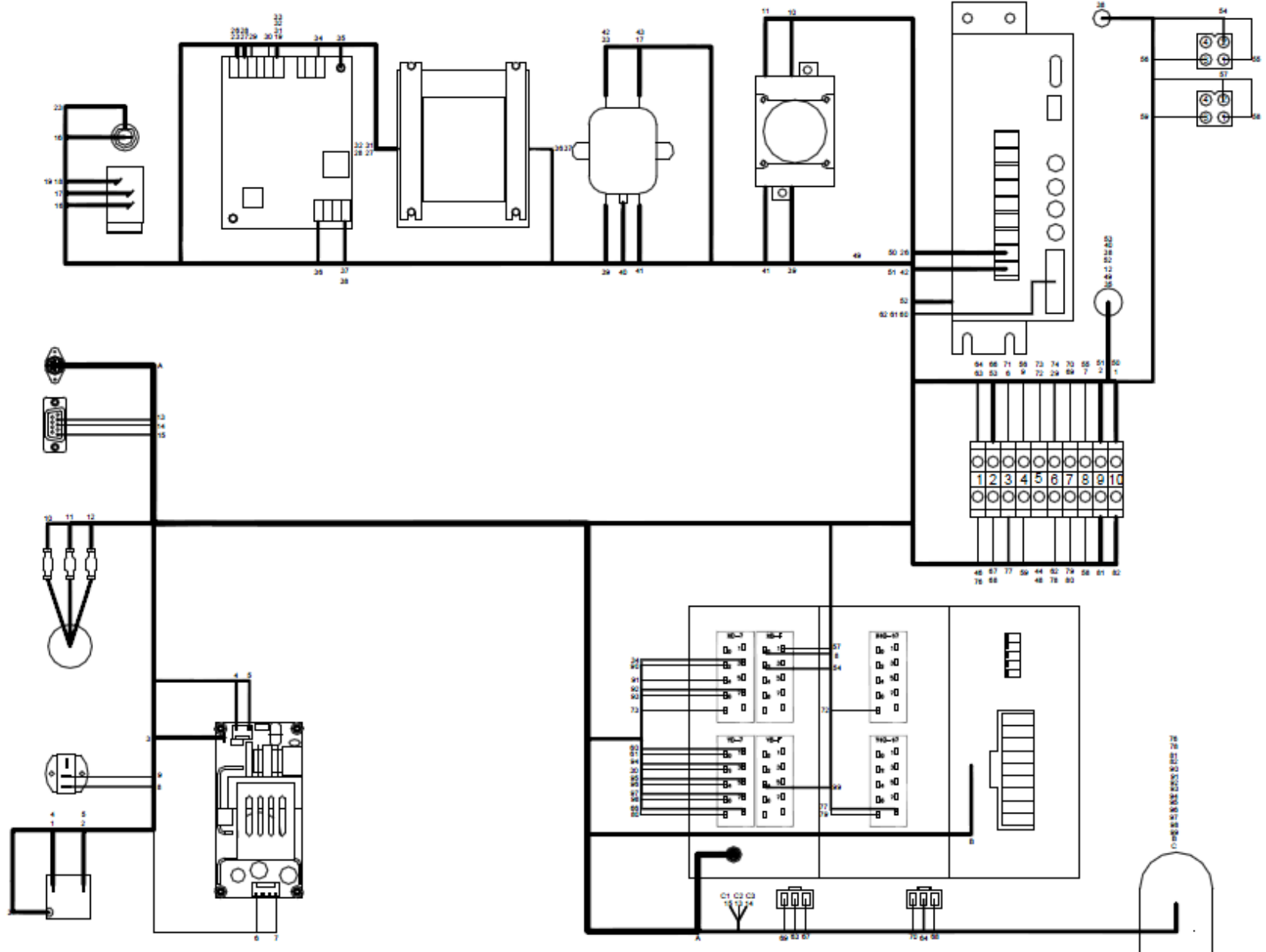
B. T-300 Power Bar Wiring

Figure 4-6



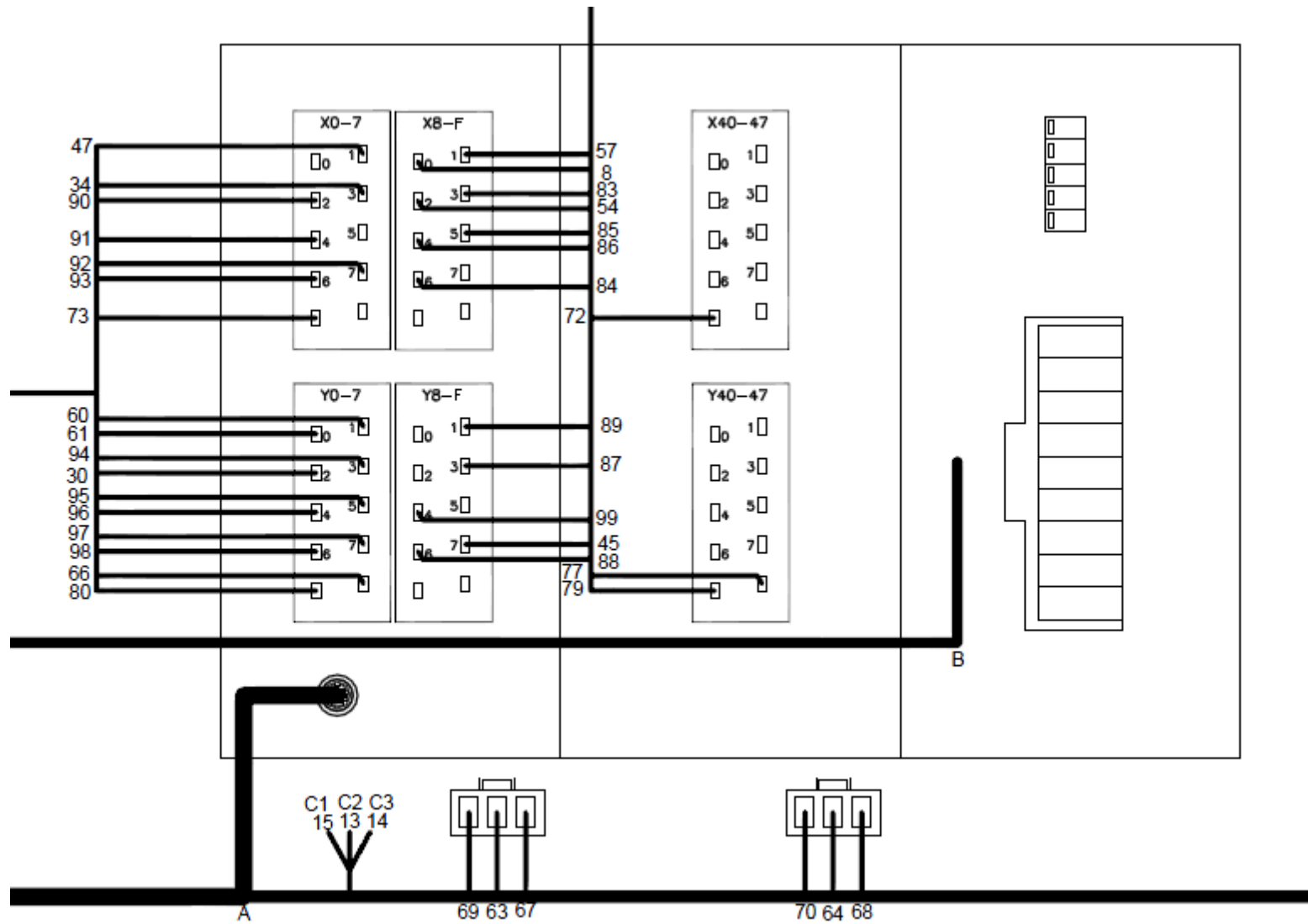
C. T-300 System Wiring

Figure 4-7



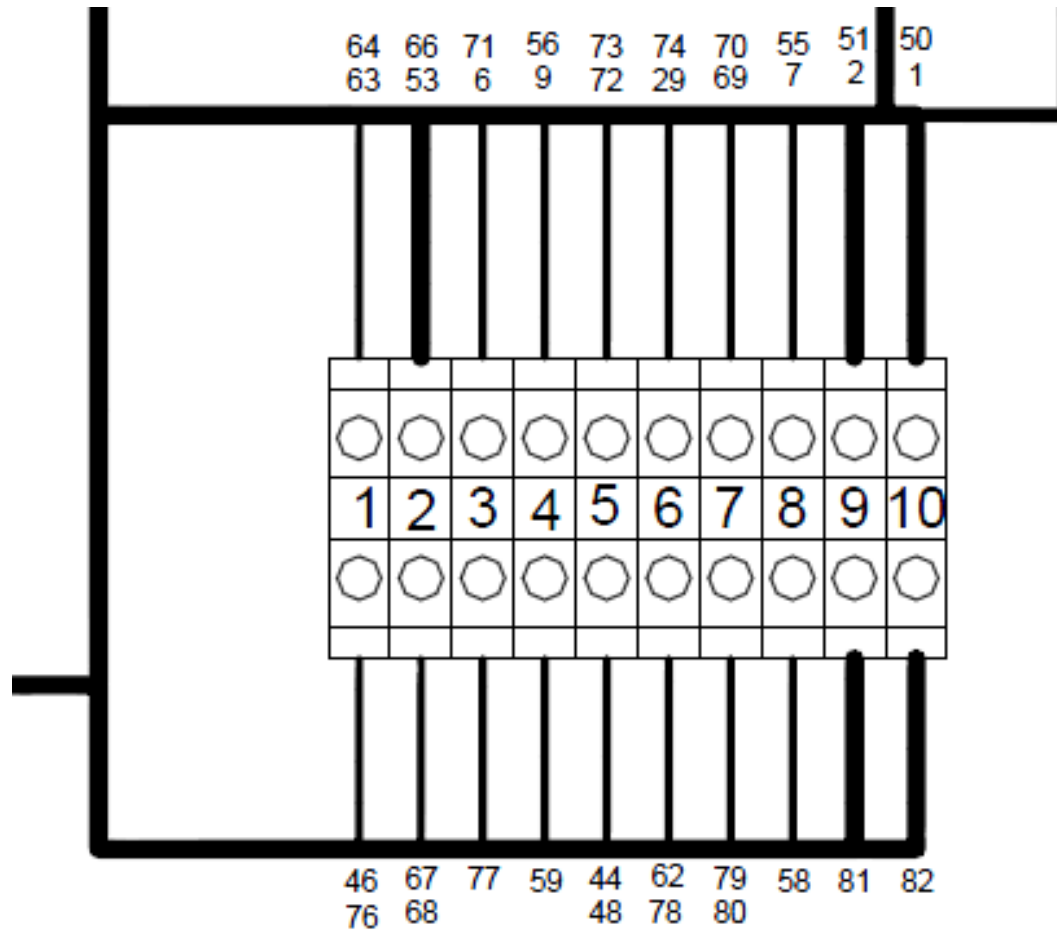
D. T-375 PLC Wiring

Figure 4-8



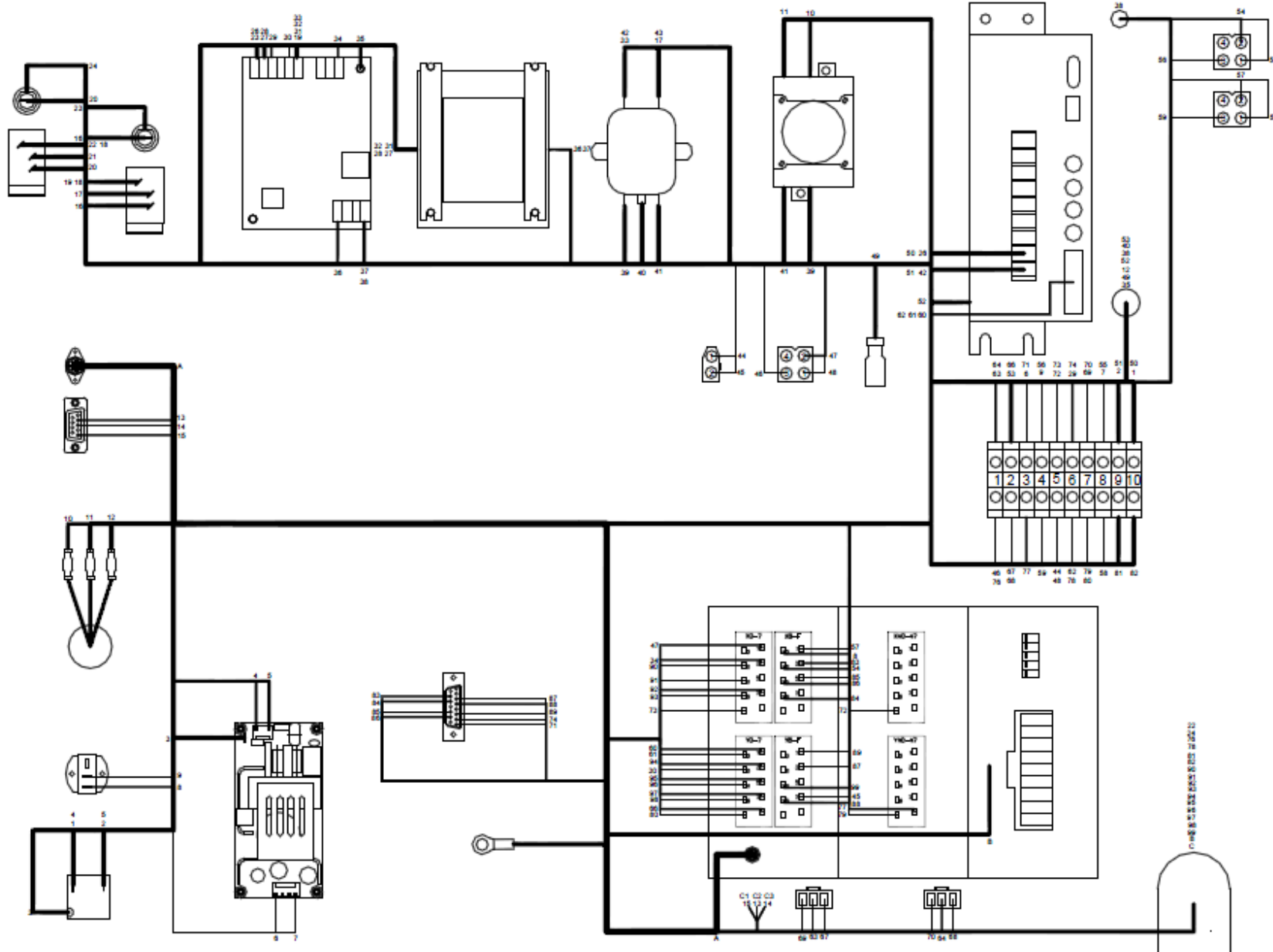
E. T-375 Power Bar Wiring

Figure 4-9



F. T-375 System Wiring

Figure 4-10



4.23 T-375 Point to Point

A Point-to-Point wiring tab drawing is provided to assist in troubleshooting the T-375. The Point-to-Point provides locations of all connection points and routings of wiring.

Wire No.	Wire Color	Wire Length	Wire Size	From	To
1	Black	23.25"	16 AWG	Power Outlet Hot	Power Bar 10
2	White	23.5"	16 AWG	Power Outlet Neutral	Power Bar 9
3	Green	5.5"	16 AWG	Power Outlet Ground	Power Supply Ground
4	Black	7.5"	18 AWG	Power Outlet Hot	Power Supply Hot
5	White	7.5"	18 AWG	Power Outlet Hot	Power Supply Neutral
6	Blue	24"	18 AWG	Power Supply 0V	Power Bar Top 3
7	Brown	24.25"	18 AWG	Power Supply 24V	Power Bar Top 8
8	White/Black	23"	22 AWG	Foot Switch Bottom	PLC X-8
9	Blue	24"	22 AWG	Foot Switch Middle	Power Bar Top 4
10	White	35"	16 AWG	Neutral In	Lock Out Tag Out Top
11	Black	35"	18 AWG	Hot In	Lock Out Tag Out Top
12	Green	24.25"	16 AWG	Ground In	10-32" Ground Bolt
13	Red	24"	22 AWG	DB9	PLC Com Plug
14	White	24"	22 AWG	DB9	PLC Com Plug
15	Blue	24"	22 AWG	DB9	PLC Com Plug
16	Black	3.75"	16 AWG	Main Power Switch Bottom	Main Power Fuse Center
17	Black	4.5"	16 AWG	Main Power Switch Middle	Corcom Load
18	White	4.5"	16 AWG	Main Power Switch Top	Printer Power Switch Top
19	White	52.5"	16 AWG	Main Power Switch Top	High Voltabe board 6 pin - Pin 6
20	Black	3.75"	16 AWG	Printer Power Switch Bottom	Printer Power Fuse Center
21	Black	6.5"	16 AWG	Printer Power Switch Center	Corcom Load
22	White	52.5"	16 AWG	Printer Power Switch Top	Out Through Hole
23	Black	10.5"	16 AWG	Main Power Fuse Top	High Voltabe board 6 pin - Pin 1
24	Black	54.5"	16 AWG	Printer Power Fuse Top	Out Through Hole
26	Black	8.5"	18 AWG	High Voltage Board 6 Pin - Pin 1	Motor Driver Line
27	Black/White	8.5"	18 AWG	Transformer	High Voltage Board 6 Pin - Pin 2
28	Black	8.5"	18 AWG	Transformer	High Voltage Board 6 Pin - Pin 2
29	Brown	27.5"	22 AWG	High Voltage Board 6 Pin - Pin 3	Power Bar Top 6
30	Red	33"	22 AWG	High Voltage Board 6 Pin - Pin 5	PLC Y-2
31	White/Black	52.5"	16 AWG	Transformer	High Voltage Board 6 Pin - Pin 6
32	White	52.5"	16 AWG	Transformer	High Voltage Board 6 Pin - Pin 6
33	White	52.5"	16 AWG	High Voltage Board 6 pin - Pin 6	Corcom Load
34	White/Orange	33"	22 AWG	High Voltage Board 3 Pin - Pin 3	PLC X-3
35	Green	33"	18 AWG	High Voltage Board Ground Bolt	10-32" Ground Bolt
36	Red	8"	18 AWG	Transformer	High Voltage Board 4 Pin - Pin 1
37	Red	8"	18 AWG	Transformer	High Voltage Board 4 Pin - Pin 4
38	Green	32"	18 AWG	High Voltage Board 4 Pin - Pin 4	6-32" Ground Bolt
39	White	22"	16 AWG	Corcom Line	Lock Out Tag Out Bottom
40	Green	28"	16 AWG	Corcom Ground	10-32" Ground Bolt
41	Black	38"	18 AWG	Corcom Line	Lock Out Tag Out Bottom
42	White	15"	16 AWG	Corcom Load	Motor Driver Neuttral
43	Black	14"	16 AWG	Corcom Load	Motor Driver Line
44	Brown	11"	22 AWG	Printer Valve Pin 1	Power Bar 5 Bottom
45	Orange	19"	22 AWG	Printer Valve Pin 2	PLC Y-F
46	Blue	13"	13 AWG	Bag out Disconnect Pin 3	Power Bar 1 Bottom
47	Black	17.5"	22 AWG	Bag out Disconnect Pin 2	PLC X-1
48	Brown	13"	22 AWG	Bag out Disconnect Pin 1	Power Bar 5 Bottom
49	Green	16"	18 AWG	Ground Out to Printer	10-32" Ground Bolt
50	Black	15"	16 AWG	Motor Driver Line	Power Bar 10 Top
51	White	15"	16 AWG	Motor Driver Neutral	Power Bar 9 Top

Wire No.	Wire Color	Wire Length	Wire Size	From	To
52	Green	12"	16 AWG	Motor Driver Ground	10-32" Ground Bolt
53	Green	7.5"	16 AWG	Power Bar 2 Top	10-32" Ground Bolt
54	Black	25.5"	22 AWG	Frame Open Disconnect Pin 2	PLC X-A
55	Brown	15.5"	22 AWG	Frame Open Disconnect Pin 1	Power Bar 8 Top
56	Blue	16.5"	22 AWG	Frame Open Disconnect Pin 3	Power Bar 4 Top
57	Black	25.5"	22 AWG	Cycle Trigger Disconnect Pin 2	PLC X-9
58	Brown	15.5"	22 AWG	Cycle Trigger Disconnect Pin 1	Power Bar 8 Bottom
59	Blue	16.5"	22 AWG	Cycle Trigger Disconnect Pin 3	Power Bar 4 Bottom
60	Pink	22"	22 AWG	Motor Driver Signal Plug	PLC Y-1
61	Grey	22"	22 AWG	Motor Driver Signal Plug	PLC Y-0
62	Red	17.5"	22 AWG	Motor Driver Signal Plug	Power Bar 6 Bottom
63	Blue	16"	22 AWG	PLC Power Plug	Power Bar 1 Top
64	Blue	17"	22 AWG	Analog Card Power Plug	Power Bar 1 Top
66	Blue	13.75"	22 AWG	Power Bar 2 Top	Y0-7 0V
67	Green	16"	22 AWG	PLC Power Plug	Power Bar 2 Bottom
68	Green	17"	22 AWG	Analog Card Power Plug	Power Bar 2 Bottom
69	Brown	21"	22 AWG	PLC Power Plug	Power Bar 7 Top
70	Brown	20"	22 AWG	Analog Card Power Plug	Power Bar 7 Top
71	Blue	12"	22 AWG	Applicator Board Plug	Power Bar 3 Top
72	Brown	20"	22 AWG	Power Bar 5 Top	PLC X40-47 24V
73	Brown	15"	22 AWG	Power Bar 5 Top	PLC X0-7 24V
74	Brown	14.5"	22 AWG	Applicator Board Plug	Power Bar 6 Top
76	Blue	40"	18 AWG	Power Bar 1 Bottom	Out Through Hole
77	Blue	16.5"	22 AWG	Power Bar 3 Bottom	Y40-47 0V
78	Brown	40.5"	18 AWG	Power Bar 6 Bottom	Out Through Hole
79	Brown	18"	22 AWG	Power Bar 7 Bottom	PLC Y40-47 24V
80	Brown	15.5"	22 AWG	Power Bar 7 Bottom	PLC Y0-7 24V
81	White	40"	16 AWG	Power Bar 9 Bottom	Out Through Hole
82	Black	40"	16 AWG	Power Bar 10 Bottom	Out Through Hole
83	Violet	10.25"	22 AWG	Applicator Board Plug	PLC XB
84	White	10.25"	22 AWG	Applicator Board Plug	PLC XE
85	Green	10.25"	22 AWG	Applicator Board Plug	PLC XD
86	Black	10.25"	22 AWG	Applicator Board Plug	PLC XC
87	White/Yellow	10"	22 AWG	Applicator Board Plug	PLC YB
88	White/Grey	10"	22 AWG	Applicator Board Plug	PLC YE
89	Grey	10"	22 AWG	Applicator Board Plug	PLC Y9
90	White/Red	38"	22 AWG	PLC X2	Out Through Hole
91	White/Red	38"	22 AWG	PLC X4	Out Through Hole
92	White	38"	22 AWG	PLC X7	Out Through Hole
93	White	38"	22 AWG	PLC X6	Out Through Hole
94	Orange	36"	22 AWG	PLC Y3	Out Through Hole
95	Green	38.75"	22 AWG	PLC Y5	Out Through Hole
96	Yellow	38.75"	22 AWG	PLC Y4	Out Through Hole
97	Black	38.75"	22 AWG	PLC Y7	Out Through Hole
98	Violet	38.75"	22 AWG	PLC Y6	Out Through Hole
99	White/Blue	40"	22 AWG	PLC YC	Out Through Hole
A	<>	45.5"	<>	Back Panel	PLC Com Plug
B	<>	45.5"	<>	PLC Analog Card	Out Through Hole
C	<>	5'	<>	PLC Com Plug	Out Through Hole

Chapter 5: Parts and Drawings

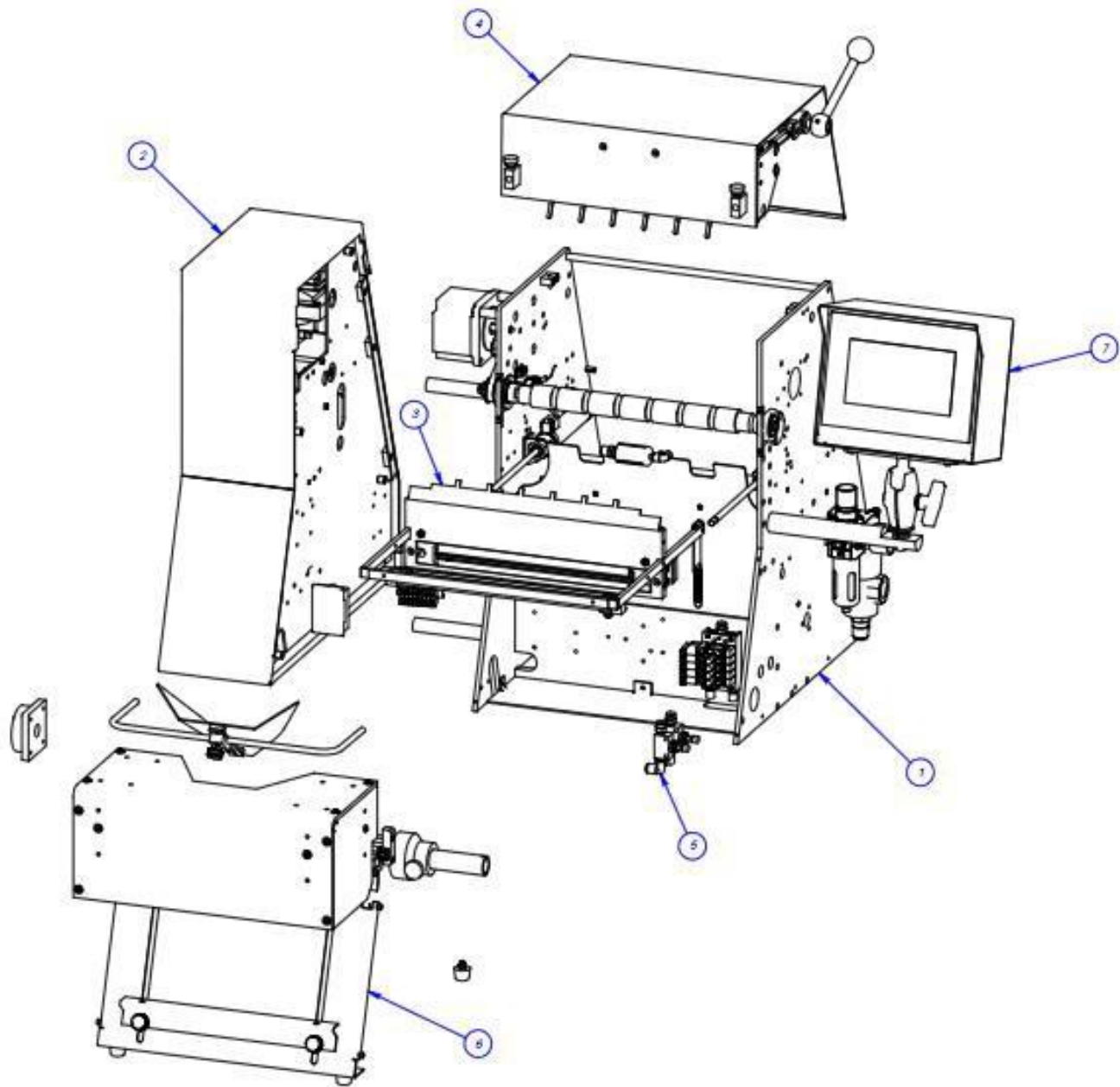
T-300 System Layout
T-300 / T-375 Main Frame Assembly
T-300 Electronics Assembly
T-300 / T-375 Seal Bar Assembly
T-300 / T-375 Vertical Support Assembly
T-300 / T-375 Top Cover Latch Assembly
T-300 / T-375 Pneumatics Assembly
T-300 / T-375 Completion Assembly
T-300 / T-375 IOP Touch Screen Assembly
T-375 System Layout
T-375 Electronics Assembly
T-375 Printer Power Supply Assembly
T-375 Printer Assembly
T-375 Zebra Printer
T-375 Zebra Printer with Oriental Motor
BB-10 Bag Blow-Off Option
BF-10 Bag Deflator Option

5.1. T-300 System Layout

PN: T-T300

ITEM NO.	PART NO.	DESCRIPTION	PAGE NO.
1	TA-T14-4000	MAIN FRAME ASSEMBLY	71
2	TA-T14-1000	ELECTRONINCS ASSEMBLY	74
3	TA-T14-2000	SEAL BAR ASSEMBLY	76
4	TA-T14-5000	TOP COVER LATCH ASSEMBLY	79
5	TA-T14-6000	PNEUMATICS ASSEMBLY	81
6	TA-T14-7000	COMPLETION ASSEMBLY	82
7	TA-T14-7500	IOP (TOUCH SCREEN)	84

Note: Item 3 could be either a Drop Frame Assembly (shown) or a Standard Frame Assembly Depending on the option chosen.



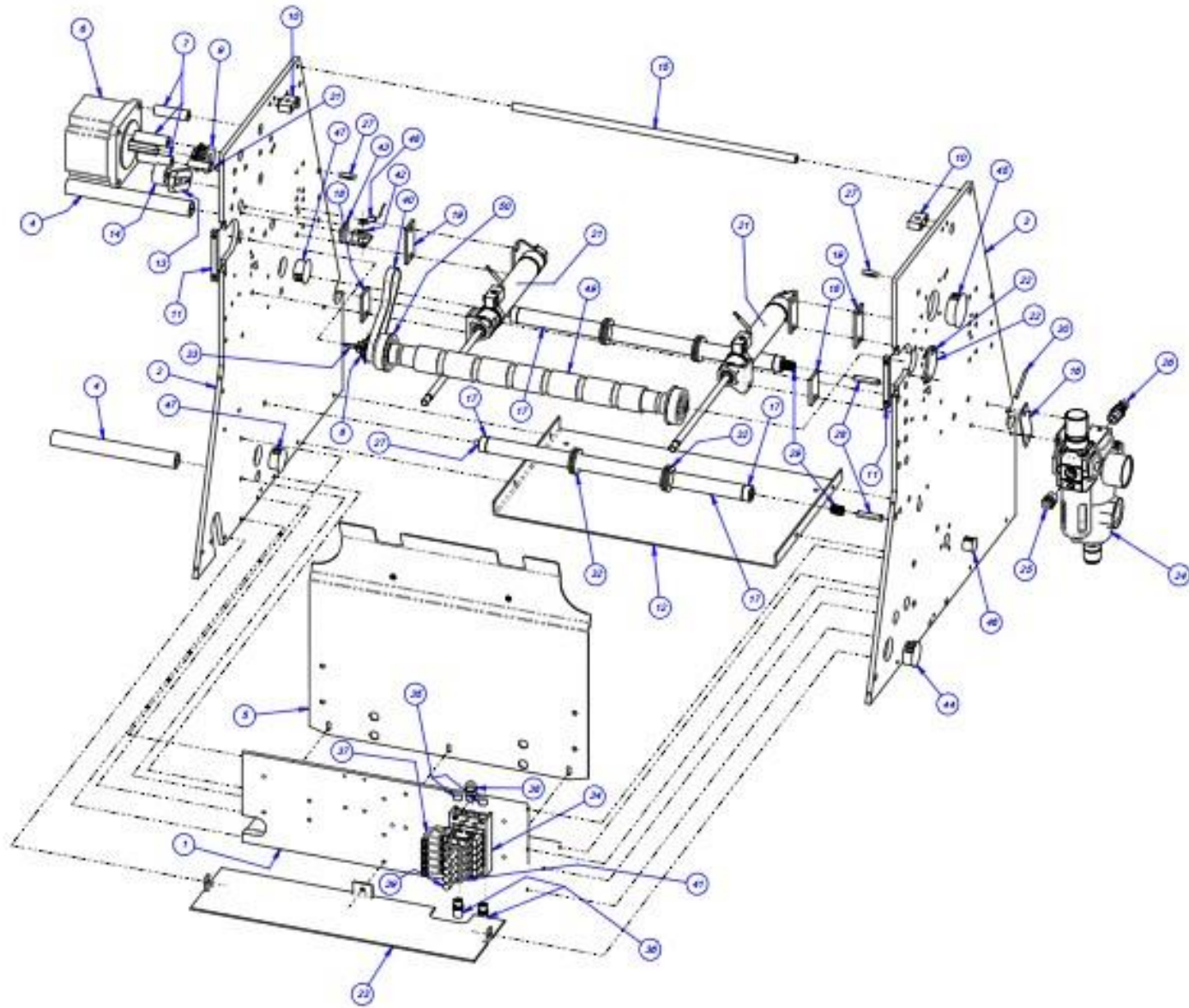
5.2. T-300 / T-375 Main Frame Assembly

PN: TA-T14-4000

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	TP-T14M1093	ANGLE BRACE
2	1	TP-T14M1003	LEFT SIDE PLATE
3	1	TP- T14M1004	RIGHT SIDE PLATE
4	2	TP-T14M1048	STANDOFF LEFT COVER
5	1	TP-T14M1070	INSIDE COVER
6	1	TP-501165	STEPPER MOTOR (T-375)
7	3	TP-T14M1043	STANDOFF MOTOR
8	1	TP-T14M1007	ROLL PULLEY
9	1	TP- T41027	MOTOR PULLEY
10	2	TP-T14M8047	STOP BLOCK
11	2	TP-T8MA00176	BEARING KEEPER
12	1	TP-T14M1025	FLOOR PAN
13	1	TP- T100091	BELT TENSIONER
14	1	TP- 504132	McGILL CAM FOLLOWER, 5/16 BORE, 1" O.D., 5/8" WIDE
15	1	TP-T14M1091	CROSS BRACE
16	1	TP-T8MA00132	ROLLER STOP
17	2	TP-T14M1037	DANCER ROLL
18	2	TP-T14M1096	SPACER CYLINDER MOUNT
19	2	TP-T14M1094	SPACER CYLINDER MOUNT
20	1	TP-403014	PNEUMATIC CYLINDER
21	1	TP-403014	PNEUMATIC CYLINDER
22	1	TP-T14M1108	BLANK CAP
23	1	TP-T14M1109	FRONT FLOOR PAN
24	1	TP-406260-1	FILTER/DRYER/REGULATOR ASSEM.
25	1	TP-401292	STRAIGHT CONNECTOR 1/4" TUBE
26	1	TP-401222	QUICK CONNECT NIPPLE
27	4	TP-106129	SPRING PIN
28	2	TP-106106	SPRING PIN
29	2	TP-108160	SPRING
30	1	TP-106126	SPRING PIN
31	1	TP-108220	SPRING PLUNGER
ITEM NO.	QTY.	PART NO.	DESCRIPTION
32	4	TP-111010	SPRING CLOSURE COLLAR
33	1	TP-308397	KEYSTOCK

34	1	TP-402252	5 STATION MANIFOLD
35	2	TP-401134	HEX PLUG
36	2	TP-404262	MUFFLER
37	5	TP-402255	VALVE
38	1	TP-401258	STRAIGHT CONNECTOR, 1/4" TUBE x 1/8 NPT
39	4	TP-401278	PLUG, 1/4" TUBE
40	1	TP-503101	DRIVE BELT
41	10	TP-401284	VALVE SCREWS
42	1	TA-T100124-1	GROUNDING SENSOR ASSM
43	1	TP-T14M4014	SENSOR MOUNT
44	1	TP-111250	THICK DOME PLUG 1.125"
45	1	TP-111251	THICK DOME PLUG 1.500"
46	1	TP-111248	THICK DOME PLUG .625"
47	2	TP-111249	THICK DOME PLUG 1"
48	1	TP-208342	WIRE TERMINAL
49	1	TP-T14M1062	STEEL DRIVEN ROLLER
50	2	TP-504114	BEARING

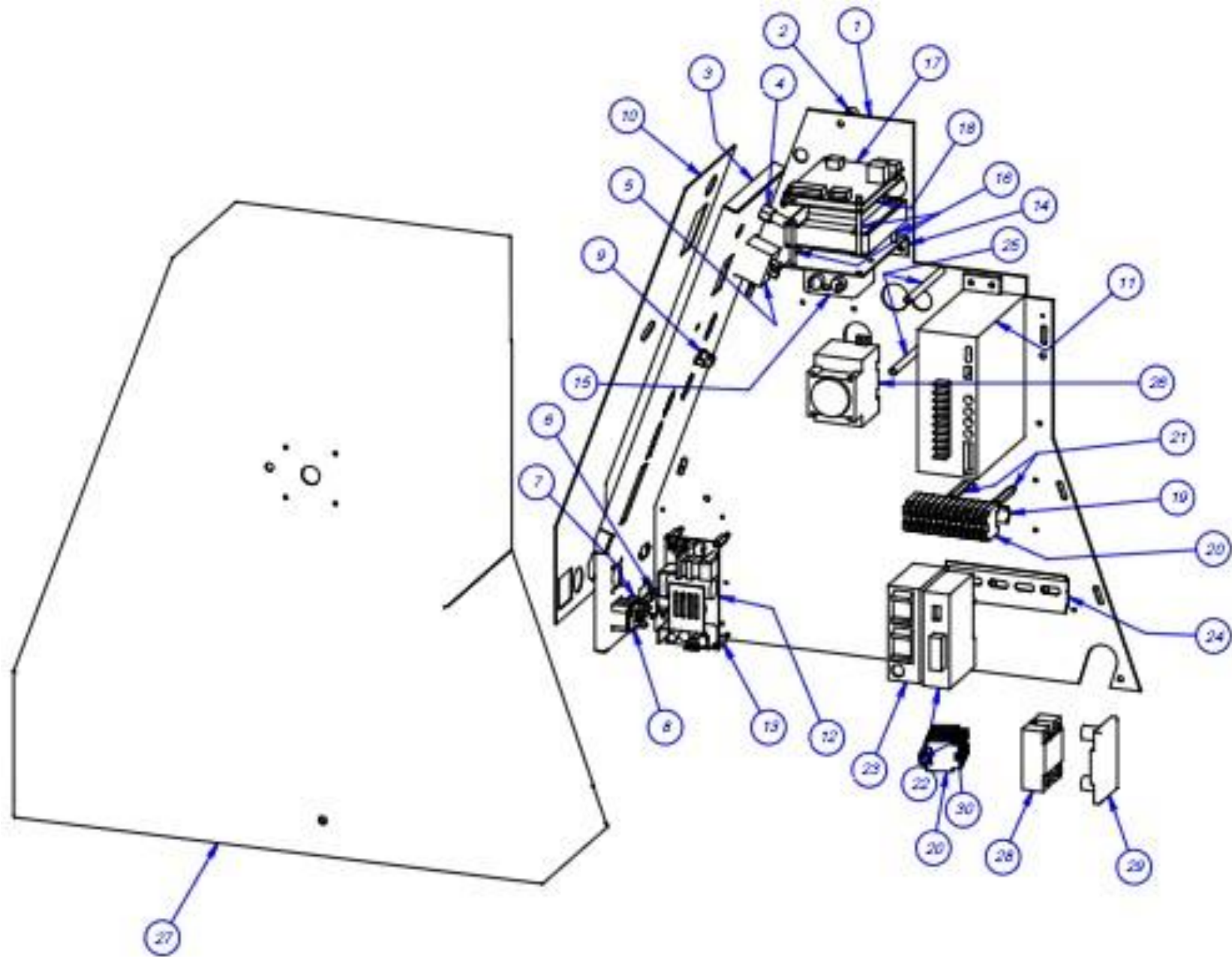
Note: This assembly is used on both the T-300 and T-375 table top baggers. Part numbers TP-14M1108 (blank cap) TP-111248 (thick dome plug .625) and TP-111249 (thick dome plug 1") qty 2 are not needed on the T-375 models because of the addition of a printer.



5.3. T-300 Electronics Assembly

PN: TA-T14-1000

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	TP-T14M1046	ELECTRICAL PANEL
2	4	TP-107177	BUSHING
3	1	TP-T14M1009	REAR CONTROL PANEL
4	1	TP-207216	FUSE HOLDER
5	1	TP-215384	POWER SWITCH
6	1	TP-212242	3 PIN SOCKET W/ANGLE BRACKET
7	1	TP-112240	POWER CORD STRAIN RELIEF
8	1	TP-212410	AC OUTLET
9	1	TP-212160	5 POS MINI DIM
10	1	TP-T14M2009	MYLAR OVERLAY
11	1	TP-501169-1	5 PHASE DRIVER
12	1	TP- 213361	24VDC POWER SUPPLY, GNT60-24G, CONDOR
13	4	TP-214273	STANDOFF, NYLON, 1/2", #4-40
14	1	TP-T14M1028	TRANSFORMER MOUNT
15	1	TP-205108	EMI FILTER, CORCOM
16	1	TP-211386	TRANSFORMER
17	1	TP-T1ME00301	HIGH VOLTAGE BOARD
18	1	HP-58243A1	HEAT SHIELD
19	1	TP-218021	DIN RAIL
20	21	TP- 208142	LARGE TERMINAL BLOCK
21	2	TP- 214285	STANDOFF 1-1/2" LONG 6-32
22	1	TP-220508	PLC ANALOG MODULE
23	1	TP-220511	PLC, FPG-C32T2H GRAY
24	1	TP-218020	DIN RAIL
25	2	TP-T15M8050	STANDOFF
26	1	TP-215005	SWITCH
27	1	TP-T14M1010	SIDE COVER - LEFT
28	1	TP-215000	SOLID STATE RELAY
29	1	TP-215000A	COVER
30	1	TP-218021	DIN RAIL

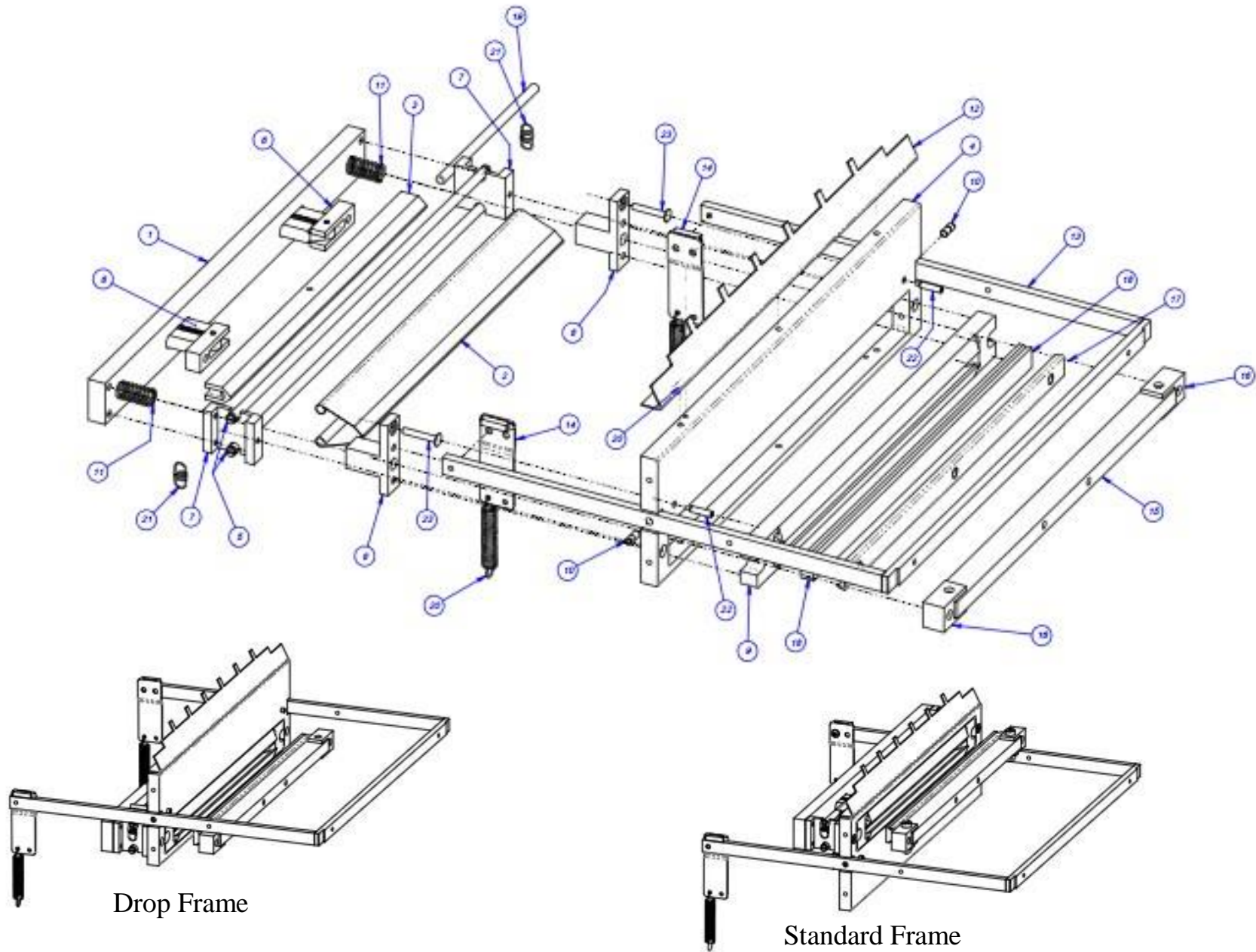


5.4. T-300 / T-375 Seal Bar Assembly

PN: TA-T14-2000

ITEM NO.	QTY.	PART NO.	Description
1	1	TP-T14M2023	BRACE
2	1	TP-T8MA00130	PTFE ANTI-STICK SHEET
3	1	TP-T8MA00202	SEAL BAR
4	1	TP-T14M1075	FRONT PLATE (UPPER)
5	2	TP-T14M2005	ROD - PTFE ANTI-STICK
6	2	TA-T14-2100	VERTICAL SUPPORT ASSEMBLY
7	2	TP-T14M2025	BRACKET
8	2	TP-T14M2026	SPRING SOCKET
9	1	TP-T14M2027	GRIPPER PLATE
10	2	TP-T14M2035	PIVOT PIN
11	2	TP-108166	SPRING
12	1	TP-T8MA00178	EXIT PLATE
13	1	TP-T14M2033	LEXAN GUARD BRACKET
14	2	TP-T14M2034	FLAG
15	1	TP-T8MA00110	RUBBER STRIP HOLDER
16	2	TP-T14M2028	PIVOT BLOCK
17	1	TP-T8MA00109	RUBBER STRIP HOLDER
18	1	TP-T8MA00140	RUBBER STRIP
19	2	TP-217117	HEATER CARTRIDGE
20	2	TP-108089	EXTENSION SPRING
21	2	TP-108153	EXTENSION SPRING
22	2	TP-108223	SPRING PLUNGER
23	2	TP-T14M2036	ANTI-JAM CONTACT SCREW

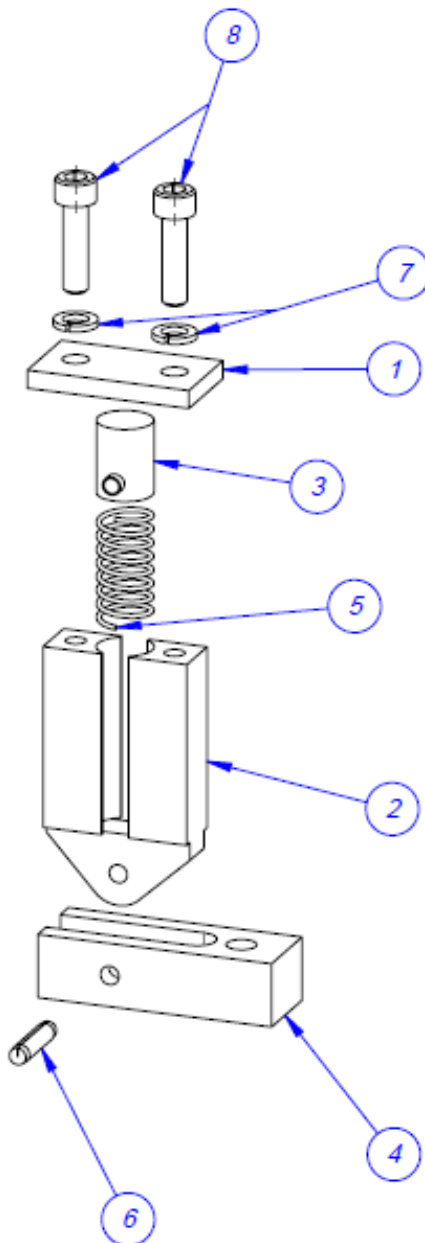
Note: Standard Frame models and Drop Frame models have all the same parts; the upper Front Plate (#4) TP-T14M1075 is flipped depending on the type of frame.



5.5. T-300 / T-375 Vertical Support Subassembly

PN: TA-T14-2100

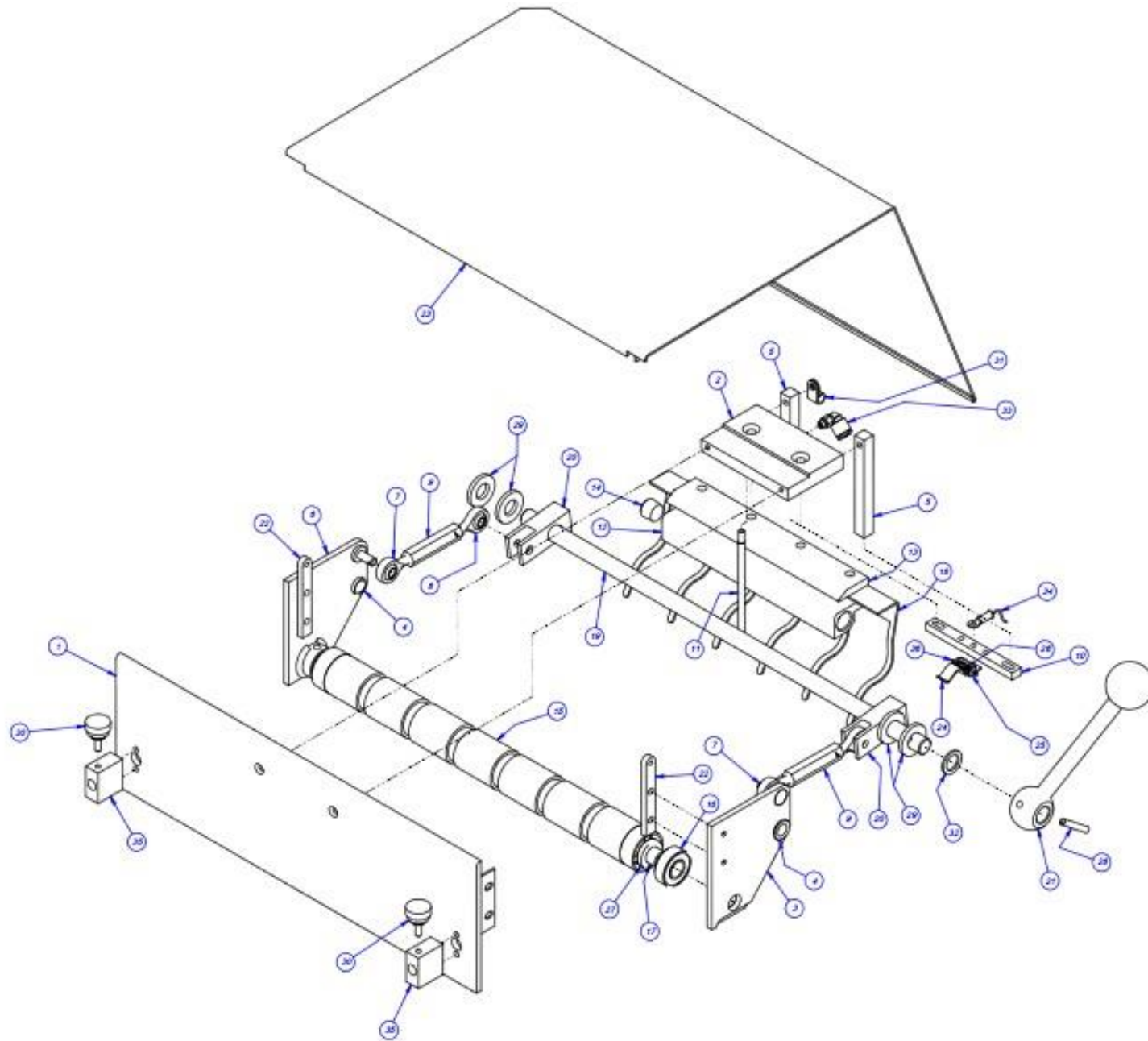
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	TP-T14M2017	SUPPORT BAR CLAMP
2	1	TP-T14M2024	VERTICAL SUPPORT BAR
3	1	TP-T14M2016	SPRING RETAINER
4	1	TP-T14M2018	PIVOT BLOCK
5	1	TP-108164	COMPRESSION SPRING
6	1	TP-106115	PIVOT BLOCK PIN
7	2	TP-102153	WASHER, #8 LOCK
8	2	TP-103016	SCREW, SHCS 8-32 x 5/8



5.6. T-300 / T-375 Top Cover Latch Assembly

PN: TA-T14-5000

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	TP-T14M1015	FRONT PLATE (A)
2	1	TP-BP-1013-S14	MOUNTING BAR
3	1	TP-T14M1016-1	SIDE PLATE - BACK UP ROLL - RIGHT
4	2	TP-107170	FLANGE BEARING
5	2	TP-T14M1102	SENSOR MTG BAR
6	1	TP-T14M1016-2	SIDE PLATE - BACK UP ROLL - LEFT
7	2	TP-504098	THREADED BALL JOINT
8	2	TP-504099	BALL JOINT ROD END
9	2	TP-T14M2031	LATCH ADJUSTER
10	1	TP-T1MC00083	INSULATOR (HIGH VOLTAGE SENSOR)
11	1	TP-BP-1015-S14	AIR NOZZLE
12	1	TP-405268-1	AIR KNIFE BODY
13	1	TP-405268-2	AIR KNIFE BAR
14	1	TP-405268-3	HEX SOCKET PLUG
15	1	TP- T14M1005	RUBBER BACK-UP ROLL
16	2	TP-504107	BEARING, 1/2 ID x 1.25 OD, .38" WIDE
17	1	TP- T14M1008	SHAFT STEEL BACK UP
18	1	TP-T14M1011	FINGER PLATE
19	1	TP-T14M2032	LATCH PIVOT SHAFT
20	2	TP-T14M2029	LATCH CONTROL ARM
21	1	TP-109223	HANDLE, 1/2" BORE x 4-1/8" LONG (TABLE TOP LATCH ASSEMBLY)
22	2	TP-T14M8046	COVER ARM
23	1	TP-T14M1065	TOP COVER
24	1	TP-T1MC00124-1	HIGH VOLTAGE TANG
25	1	TP-T1MC00124-3	HV SENSOR MOUNT
26	1	TP-108118	TORSION SPRING
27	2	TP-107339	THRUST WASHER
28	1	TP-106154	SPRING PIN
29	4	TP-102146	WASHER
30	2	TP-109213	THREADED KNOB, #10-32 X 7/16 STUD
31	1	TP-214373	1/4" CABLE CLAMP
32	1	TP-107340	THRUST BEARING
33	1	TP-401277	ELBOW
34	1	TP-208342	WIRE TERMINAL
35	2	TP-T8MA00138	ROD MOUNTS
36	1	TP-106214	COTTER PIN

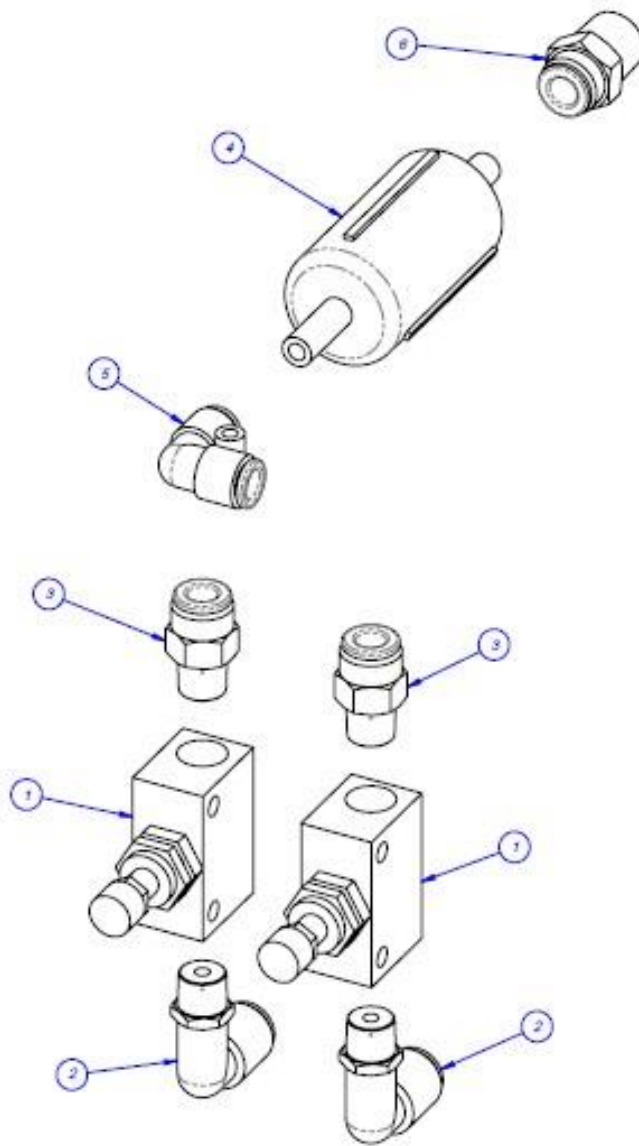


T-300 / T-375 TOP COVER LATCH ASSEMBLY
PN: TA-T14-5000

5.7. T-300 / T-375 Pneumatics Assembly

PN: TA-T14-6000

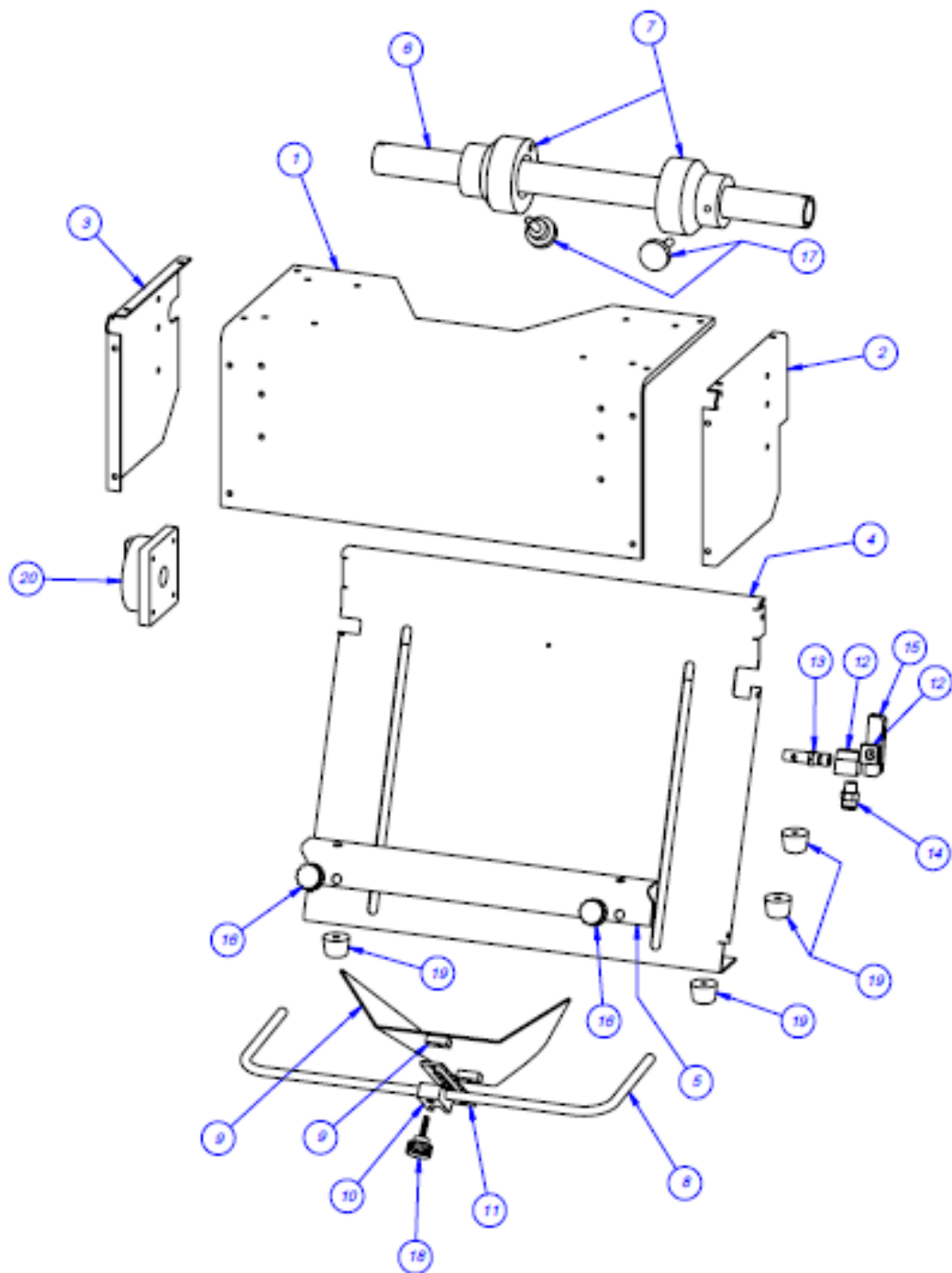
ITEM NO.	QTY.	PART NO.	Description
1	2	TP-402107	FLOW CONTROL VALVE
2	2	TP-401257	ELBOW, 1/4" TUBE x 1/4 NPT
3	2	TP-401258	STRAIGHT CONNECTOR, 1/4" TUBE x 1/8 NPT
4	1	TP- 406181	MICRON FILTER
5	1	TP-401291	1/4" x 1/4" ELBOW
6	1	TP-401292	STRAIGHT CONNECTOR 1/4" TUBE



5.8. T-300 T-375 Completion Assembly

PN: TA-T14-7000

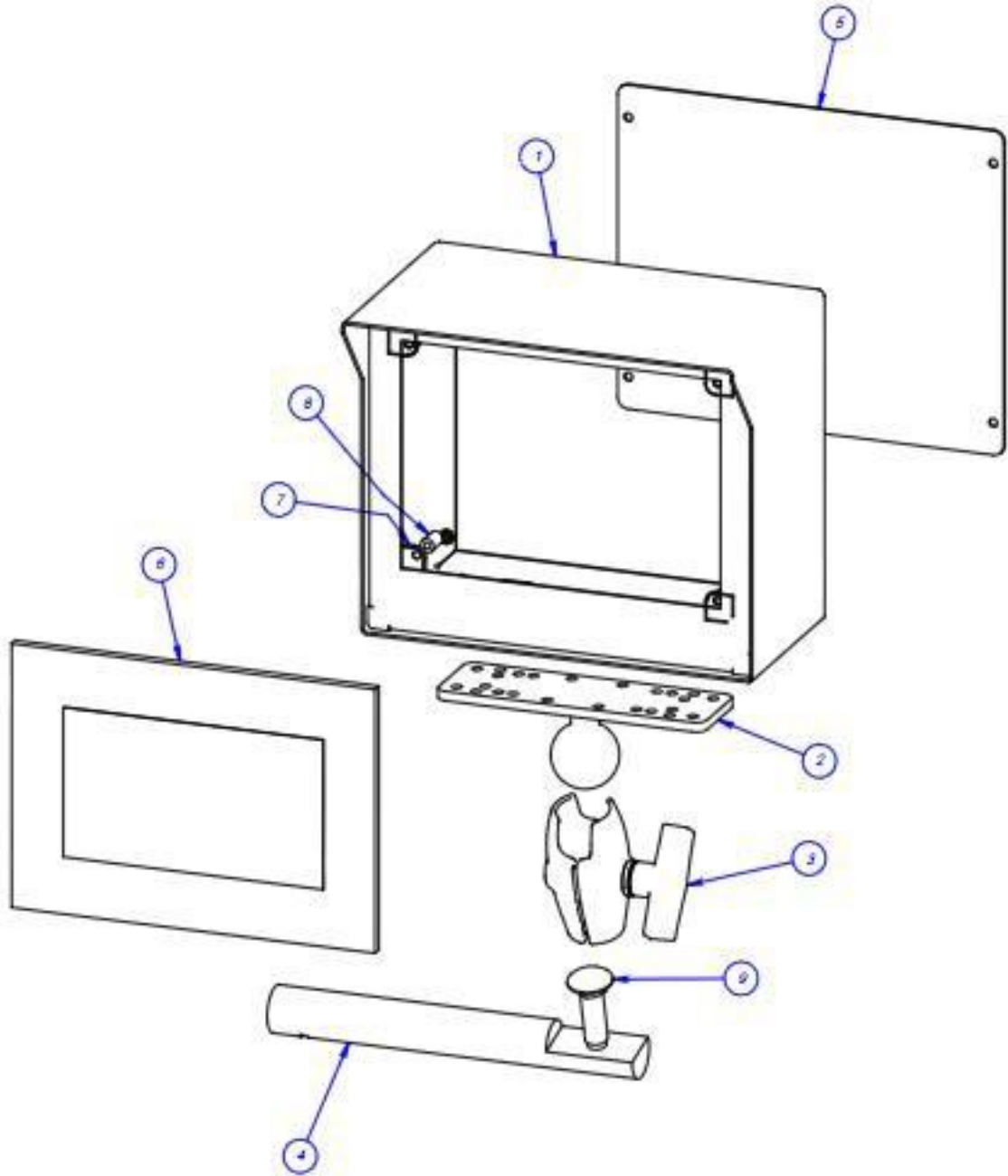
ITEM NO.	QTY.	PART NO.	Description
1	1	TP-T14M1092	LEXAN GUARD
2	1	TP-T14M1089	LEXAN GUARD SIDE - RIGHT
3	1	TP-T14M1090	LEXAN GUARD SIDE - LEFT
4	1	TP-T14M1076	FRONT PLATE (LOWER)
5	1	TP-T8MA00126	LOAD SHELF
6	1	TP-T8MA00127	BAG ROLL SHAFT
7	2	TP- T1MA00049	FILM TENSION HUB
8	1	TP-T8MA00136	FUNNEL MOUNT
9	1	TP-T8MA00141	FUNNEL
10	1	TP-T8MA00142	FUNNEL MOUNT
11	1	TP-T8MA00143	ADJUSTING BAR
12	1	TP-TS10-106	TRIM SEAL BLOW-OFF
13	1	TP- 404002	NOZZLE, SAFETY BLOW GUN
14	1	TP- 401258	STRAIGHT CONNECTION, 1/4" TUBE x 1/8" NPT
15	1	TP-T14M-BB10-1	BLOW-OFF BLOCK
16	2	TP-109152	KNOB
17	2	TP-109212	1/4-20 x 1.00" THREADED KNOB
18	1	TP-109215	FLUTED GRIP KNOB, #8-32 THEAD
19	4	TP-112300	RUBBER TAPERED BUMPER
20	1	TP-215004	ALLEN BRADLEY LOTO KNOB



5.9. T-300 / T-375 IOP Touch Screen

PN: TA-T14-7500

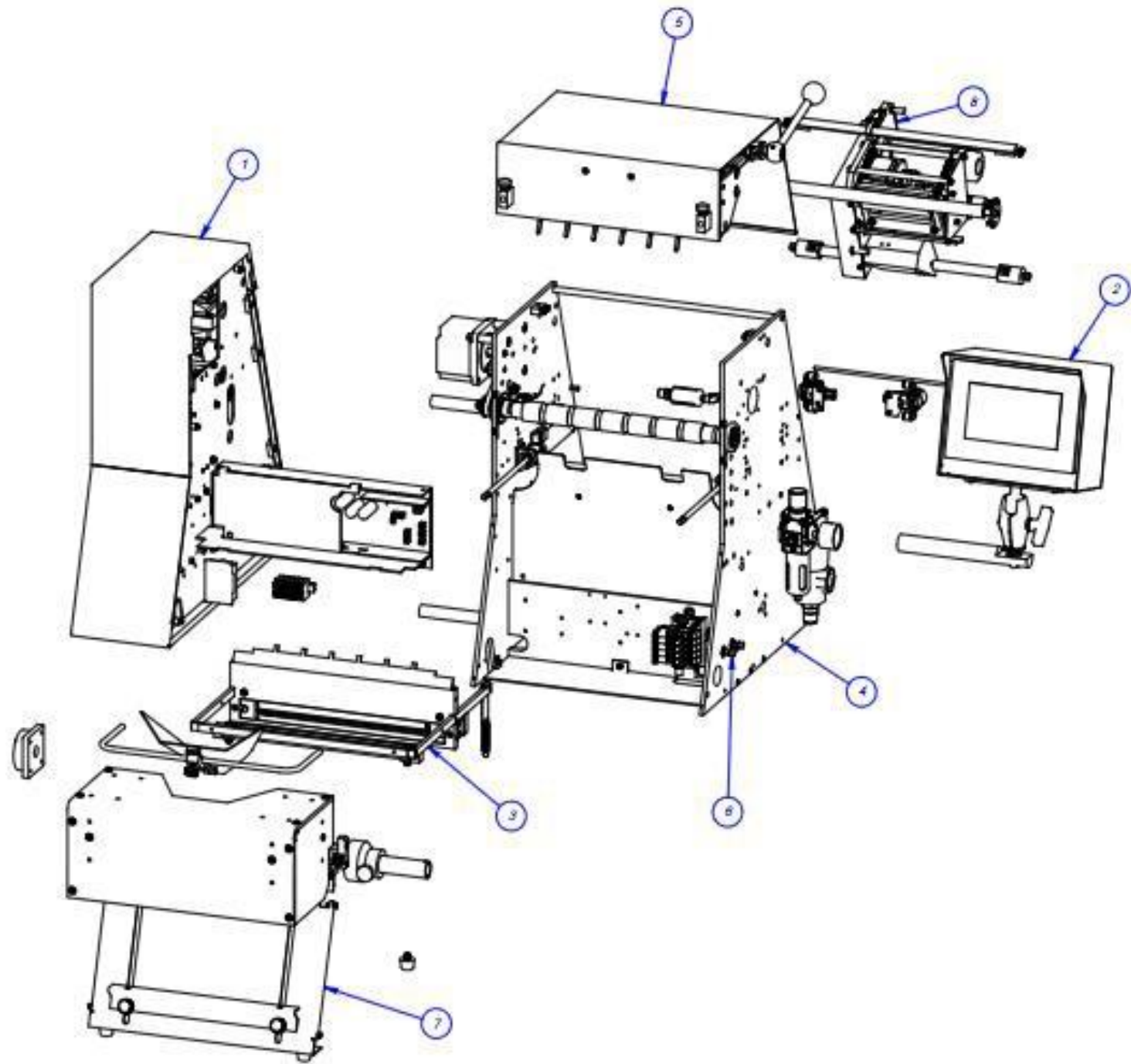
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	TP-T1MD00040	TOUCH SCREEN HOUSING
2	1	TP-111131	BALL GRIP POSITIONING ARM
3	1	TP-111125-2	SOCKET ARM
4	1	TP-T14M00109	MOUNTING BAR
5	1	TP-T1MD00040-1	BACK COVER
6	1	TP-220363	TOUCH SCREEN
7	4	PART OF TP-220363	SCREEN CLIP
8	4	PART OF TP-220363	SCREEN STUD
9	1	TP-IOPBOLT-S	MODIFIED BOLT



5.10. T-375 System Layout

PN: T-T375

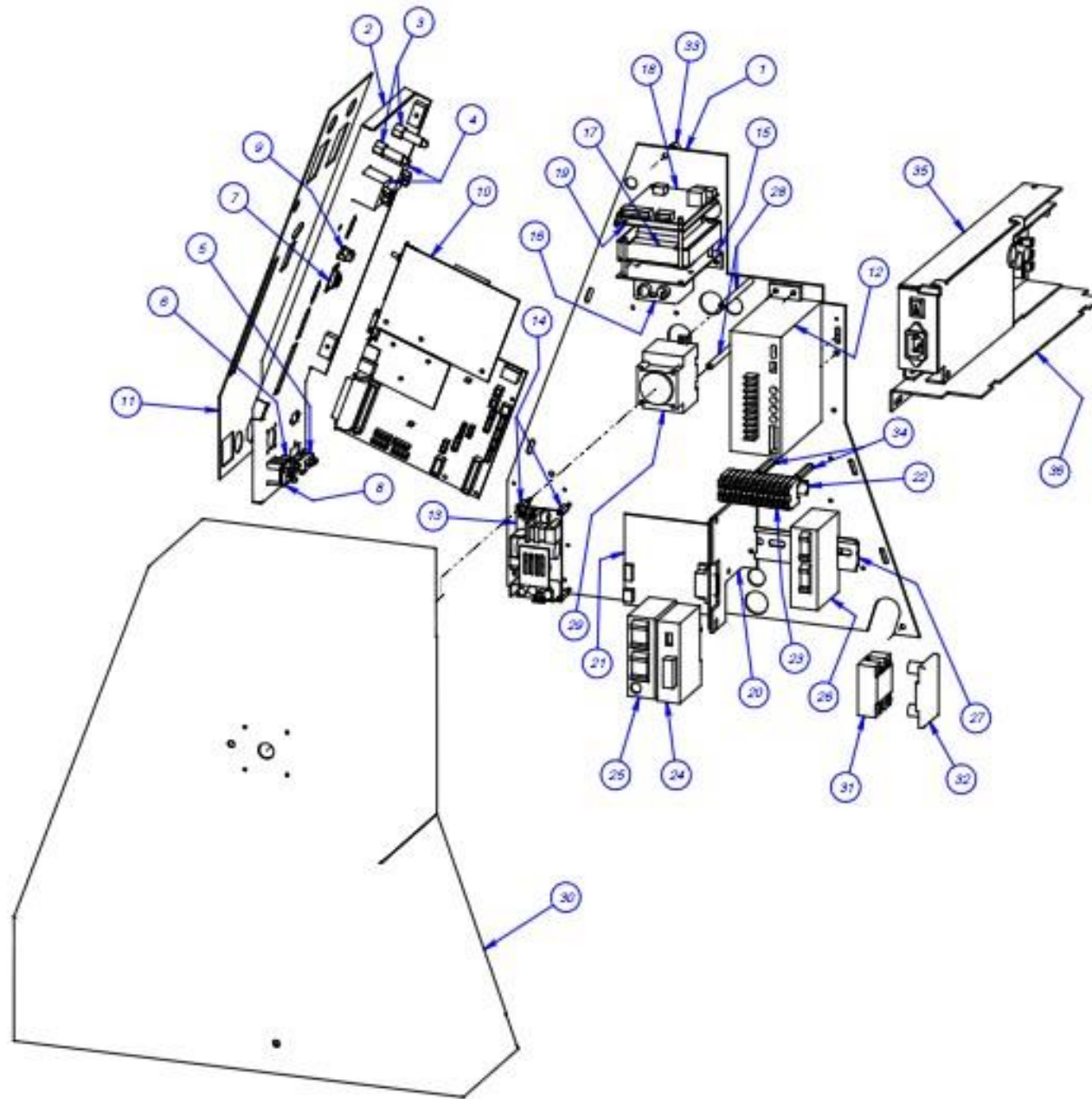
ITEM NO.	PART NO.	DESCRIPTION	Page No.
1	TA-T14-1000	ELECTRONINCS ASSEMBLY	88
2	TA-T14-7500	IOP (TOUCH SCREEN)	84
3	TA-T14-2000	SEAL BAR ASSEMBLY	76
4	TA-T14-4000	MAIN FRAME ASSEMBLY	71
5	TA-T14-5000	TOP COVER LATCH ASSEMBLY	79
6	TA-T14-6000	PNEUMATICS ASSEMBLY	81
7	TA-T14-7000	COMPLETION ASSEMBLY	82
8	TA-T15-8010	T-375 PRINTER ASSEMBLY	91-97



5.11. T-375 Electronics Assembly

PN: TA-T14-1000(375)

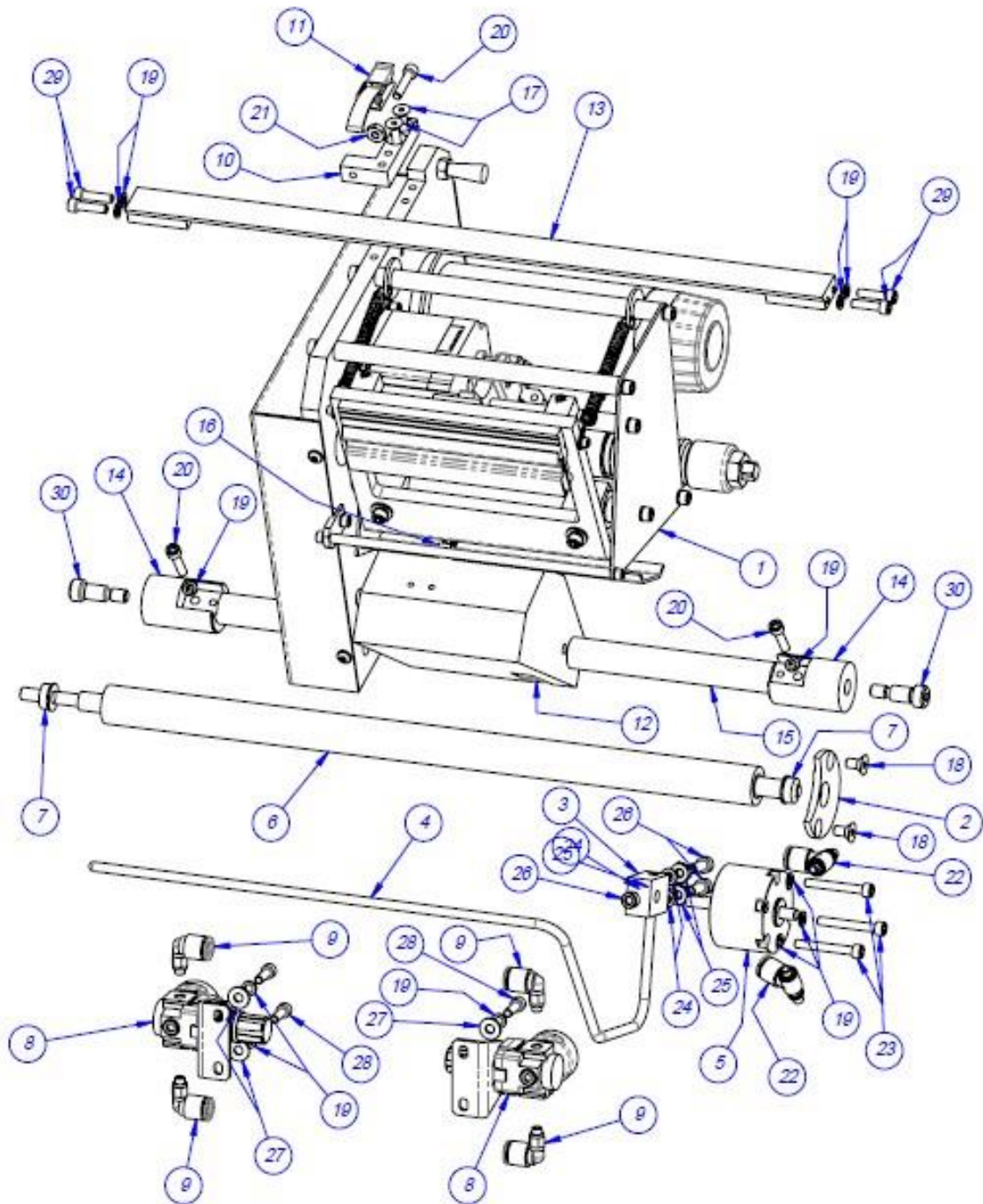
ITEM NO.	QTY.	PART NO.	Description
1	1	TP-T14M1046	ELECTRICAL PANEL
2	1	TP-T14M1009	REAR CONTROL PANEL
3	2	TP-207216	FUSE HOLDER
4	2	TP-215384	POWER SWITCH
5	1	TP-212242	3 PIN SOCKET W/ANGLE BRACKET
6	1	TP-112240	POWER CORD STRAIN RELIEF
7	1	TP-212247	CONNECTOR, MULTIPOLE RECTANGULAR
8	1	TP-212410	AC OUTLET
9	1	TP-212160	5 POS MINI DIM
10	1	V-Z-113-8K1-00070	LOGIC BOARD
11	1	TP-T14M1021	MYLAR OVERLAY
12	1	TP-501169-1	5 PHASE DRIVER
13	1	TP- 213361	24VDC POWER SUPPLY, GNT60-24G, CONDOR
14	4	TP-214273	STANDOFF, NYLON, 1/2", #4-40
15	1	TP-T14M1028	TRANSFORMER MOUNT
16	1	TP-205108	EMI FILTER, CORCOM
17	1	TP-211386	TRANSFORMER
18	1	TP-T1ME00301	HIGH VOLTAGE BOARD
19	1	HP-58243A1	HEAT SHIELD
20	1	TP- T15M1055	ANGLE BRACKET (LONG)
21	1	VP-Z-57389M	APPLICATOR INTERFACE BOARD
22	1	TP-218021	DIN RAIL
23	13	TP- 208142	LARGE TERMINAL BLOCK
24	1	TP-220508	PLC ANALOG MODULE
25	1	TP-220511	PLC, FPG-C32T2H GRAY
26	1	TP-220514	PLC, FPO-E32T-A EXPANSION I/O
27	1	TP-218020	DIN RAIL
28	2	TP-T15M8050	STAND OFF
29	1	TP-215005	SWITCH
30	1	TP-T14M1010	SIDE COVER - LEFT
31	1	TP-215000	SOLID STATE RELAY
32	1	TP-215000A	COVER
33	4	TP-107177	BUSHING
34	2	TP- 214285	STANDOFF 1-1/2" LONG 6x32"
35	1	VP-Z-1058301	ZEBRA POWER SUPPLY (REV A)
36	1	TP-T15M1001	POWER SUPPLY MOUNT



5.12. T-375 Printer Assembly

PN: TA-T15-8010

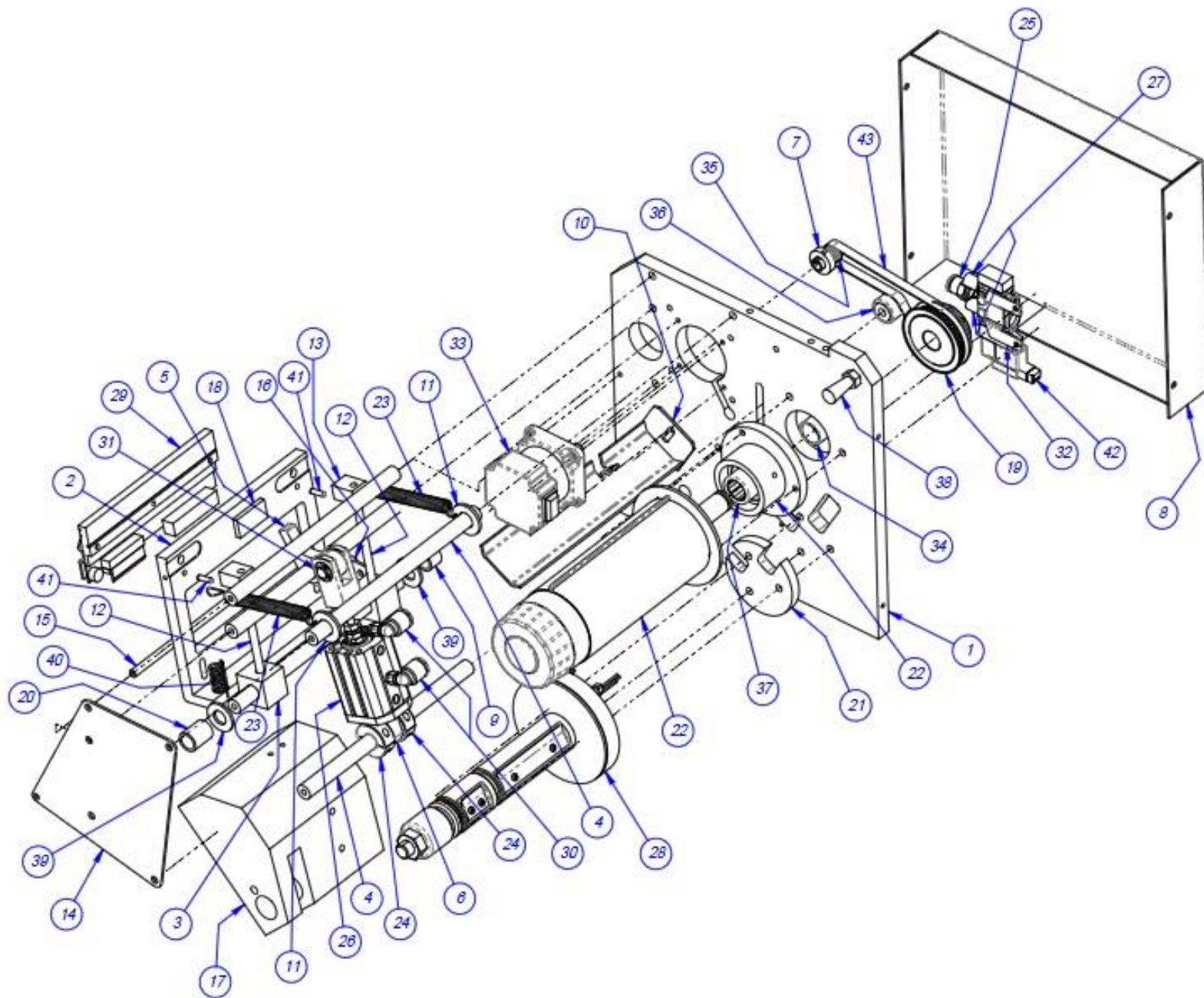
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	TP- T15M1108	BEARING CAP
2	1	TP-T15M1073	PIVOT BLOCK
3	1	TP-T15M1074	BAG TAKE-UP
4	1	TP-403051	ROTARY ACTUATOR
5	1	TP-T14M1097	PRINT ROLL
6	2	TP-504097	PRECISION FLANGED BALL BEARING
7	2	TP-406259	MINIREG-BRACKET - GAUGE
8	4	TP-401277	ELBOW
9	1	VP-Z-P1006134	ZEBRA RIBBON OUT SENSOR
10	1	TP-T15M0037	STOP BAR
11	1	TP-T15M8105	BLADE DRAW LATCH
12	1	TP-T15M3026	LOCK COLLAR
13	1	TP-T14M1014	LATCH BAR
14	2	TP- T14M1035	GUIDE ROD HOLDER
15	1	TA-T15-8000-Z	T-375 ZEBRA PRINTER
16	1	TP-T14M1034	GUIDE ROD
17	2	TP-402186	FLOW CONTROL, #10-32



5.13. T-375 Zebra Printer Assembly

PN: TA-T15-8000

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	TP-T15M-8001	PRINTER SIDE PLATE
2	1	TP- T15M8002	MOUNTING PLATE PRINT HEAD
3	2	TP- T15M8003	ADJUSTMENT BLOCK
4	5	TP-T15M8004	SUPPORT ROD
5	1	TP- T15M8005	CAM - PRINthead
6	1	TP-T15M8006	CYLINDER MOUNT
7	1	TP- T15M8007	BELT TENSIONER
8	1	TP-T15M8008	BELT GUARD
9	1	TP-T15M8010	LOCATING SPACER
10	1	TP-T15M-8011	SENSOR BRACKET
11	2	TP-T15M8012	SPRING MOUNT
12	2	TP-T15M8013	ADJUSTMENT ROD
13	2	TP-T15M8014	ADJUSTMENT ROD BLOCK
14	1	TP-T15M8030	END PLATE
15	1	TP-T15M-8031	ROLLER SHAFT
16	1	TP-T15M8032	SHAFT MOUNT
17	1	TP-T15M0036	PIVOT BLOCK
18	1	TP- T15M8038	WEAR SURFACE
19	1	TP-T15M8042	RIBBON TAKE-UP PULLEY
20	1	TP-T15M8043	LOCATING SPACER
21	1	TP- T15M8044	SUPPLY SPOOL SPACER
22	1	TP-T15M8051	RIBBON TAKE-UP SPINDLE
23	2	TP-108127	SPRING
24	2	TP-111107	6435K33 COLLAR CLAMP
25	1	TP-401265	AIR FITTING
26	1	TP-403140	AIR CYLINDER
27	2	TP-404263	MUFFLER
28	1	VP-Z-P1006058	Xi4 RIBBON SUPPLY SPINDLE MAINTENANCE KIT
29	1	VP-Z-P1004230	PRINT HEAD
30	2	TP-401277	ELBOW
31	1	TP-404148	CLEVIS
32	1	TP-402175	BRACKET
33	1	VP-Z-46198M	200 DPI ZEBRA MOTOR
34	1	TP-109225	FINGER KNOB
35	1	TP- 504138	CAM FOLLOWER
36	1	TP- 504175	CLUTCH BEARING
37	1	TP-107116	SLEEVE BUSHING
38	2	TP-102119	NYLON WASHER
39	2	TP- 108099	COMPRESSION SPRING, .040 GAUGE, .359 OD.
40	2	TP-106304	10MM DOWEL PIN
41	1	TP-402260	PNEUMATIC VALVE
42	1	TP- 503113	BELT

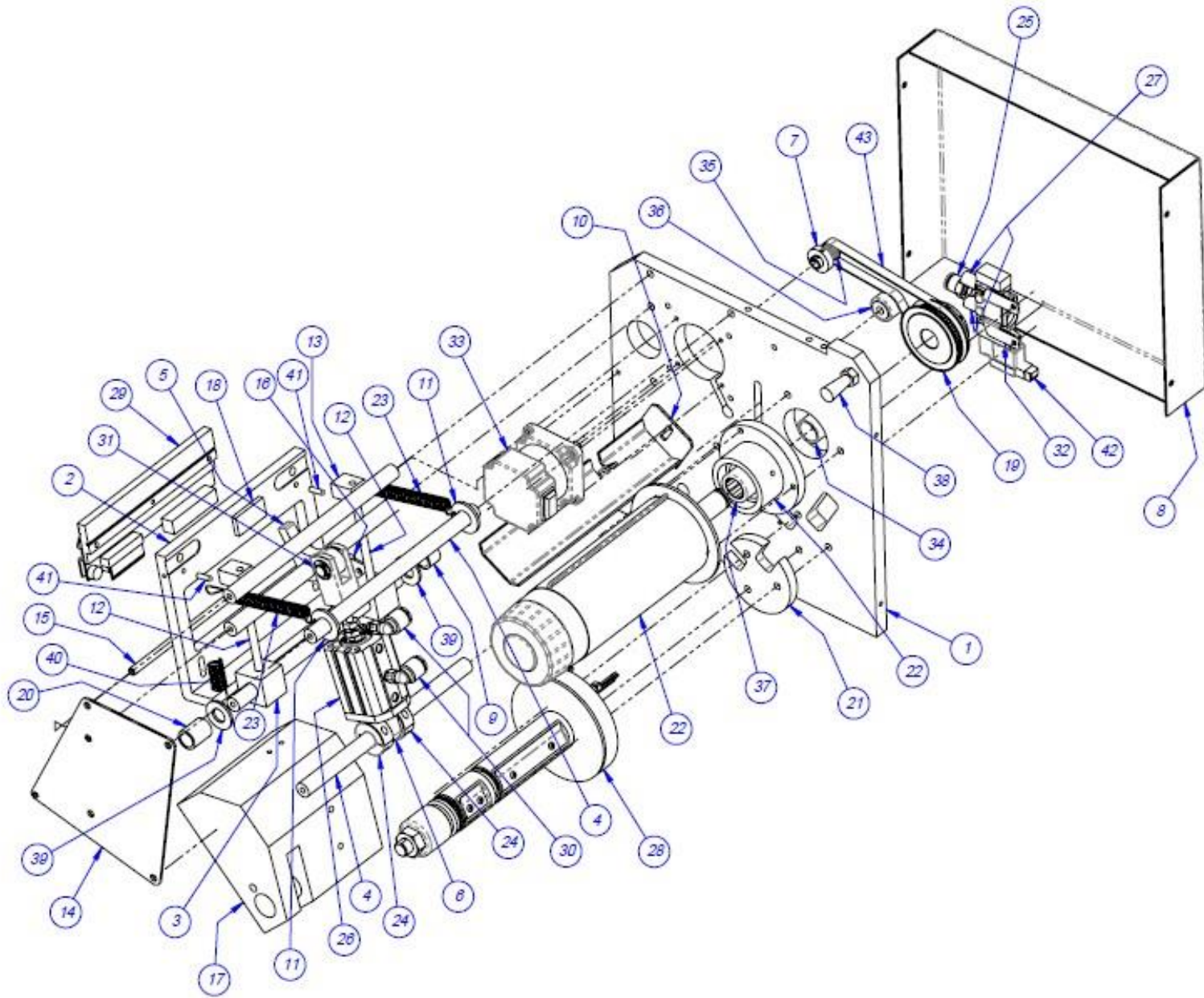


5.14. T-375 Zebra Printer

PN: TA-T15-8000-O

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	TP-T15M-8001	PRINTER SIDE PLATE
2	1	TP- T15M8002	MOUNTING PLATE PRINT HEAD
3	2	TP- T15M8003	ADJUSTMENT BLOCK
4	5	TP-T15M8004	SUPPORT ROD
5	1	TP- T15M8005	CAM-PRINT HEAD
6	1	TP-T15M8006	CYLINDER MOUNT
7	1	TP- T14M1107	COLLAR
8	1	TP-T15M8008	BELT GUARD
9	1	TP-T15M8010	LOCATING SPACER
10	1	TP-T15M-8011	SENSOR BRACKET
11	2	TP-T15M8012	SPRING MOUNT
12	2	TP-T15M8013	ADJUSTMENT ROD
13	2	TP-T15M8014	ADJUSTMENT ROD BLOCK
14	1	TP-T15M8030	END PLATE
15	1	TP-T15M-8031	ROLLER SHAFT
16	1	TP-T15M8032	SHAFT MOUNT
17	1	TP-T15M0036	PIVOT BLOCK
18	1	TP- T15M8038	WEAR SURFACE
19	1	TP-T15M8042	RIBBON TAKE-UP PULLEY
20	1	TP-T15M8043	LOCATING SPACER
21	1	TP- T15M8044	SUPPLY SPOOL SPACER
22	1	TP-T15M8051	RIBBON TAKE-UP SPINDLE
23	2	TP-108127	SPRING
24	2	TP-111107	6435K33 COLLAR CLAMP
25	1	TP-401265	AIR FITTING
26	1	TP-403140	AIR CYLINDER
27	2	TP-404263	MUFFLER
28	1	VP-Z-P1006058	Xi4 RIBBON SUPPLY SPINDLE MAINTENANCE KIT
29	1	VP-Z-P1004230	PRINT HEAD
30	2	TP-401277	ELBOW
31	1	TP-404148	CLEVIS
32	1	TP-402175	BRACKET
33	1	TP-501155	DC MOTOR - PRINTER
34	1	TP-107116	SLEEVE BUSHING
35	1	TP- T14M1100	PRINTER RIBBON MOTOR PULLEY
36	1	TP- 504138	CAM FOLLOWER
37	1	TP- 504175	CLUTCH BEARING
38	1	TP-109225	FINGER KNOB
39	2	TP-102119	NYLON WASHER
40	2	TP- 108099	COMPRESSION SPRING, .040 GUAGE, .359 OD.
41	2	TP-106304	10mm DOWEL PIN
42	1	TP-402260	PNEUMATIC VALVE
43	1	TP-503187	BELT

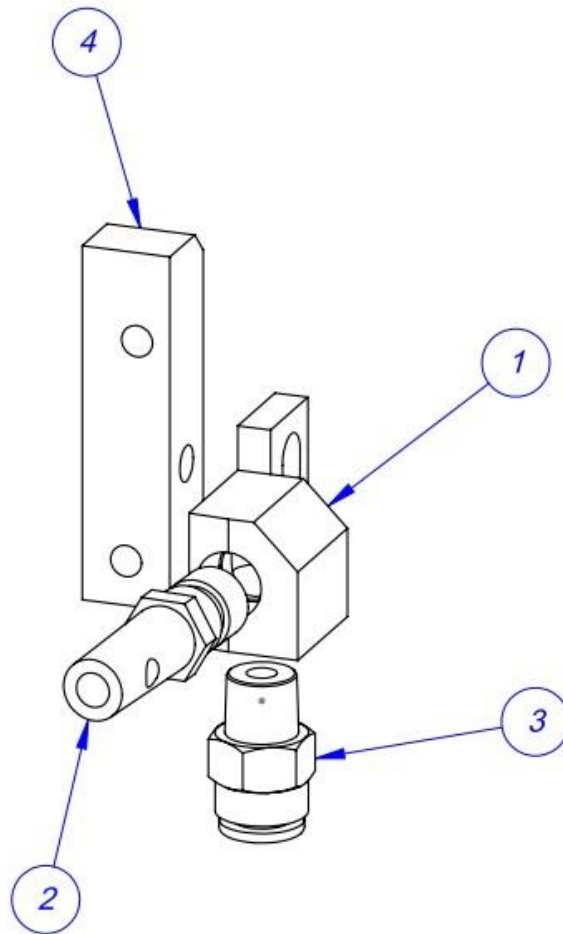
*Note: The TA-T15-8000-O is only used when the T-375 has a driven print roller.
Please contact APPI for more information.*



5.15. Bag Blow-Off Option for T-300 / T-375

TO-T14-BB10

ITEM NO.	QTY.	PART NO	DESCRIPTION
1	1	TP-TS10-106	TRIM SEAL BLOW-OFF
2	1	TP- 404002	NOZZLE, SAFETY BLOW GUN
3	1	TP-401258	MALE CONNECTOR
4	1	TP-T14M-BB10-1	BLOW-OFF BLOCK



5.16. Bag Deflator Option for T-300 / T-375
TO-T14-BF10-2

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	TP-T8MA00215	DEFLATOR PLATE
2	1	HP-35027A1-375	FOAM SPONGE
3	1	TP-BF10-157	PLATE CLAMP

