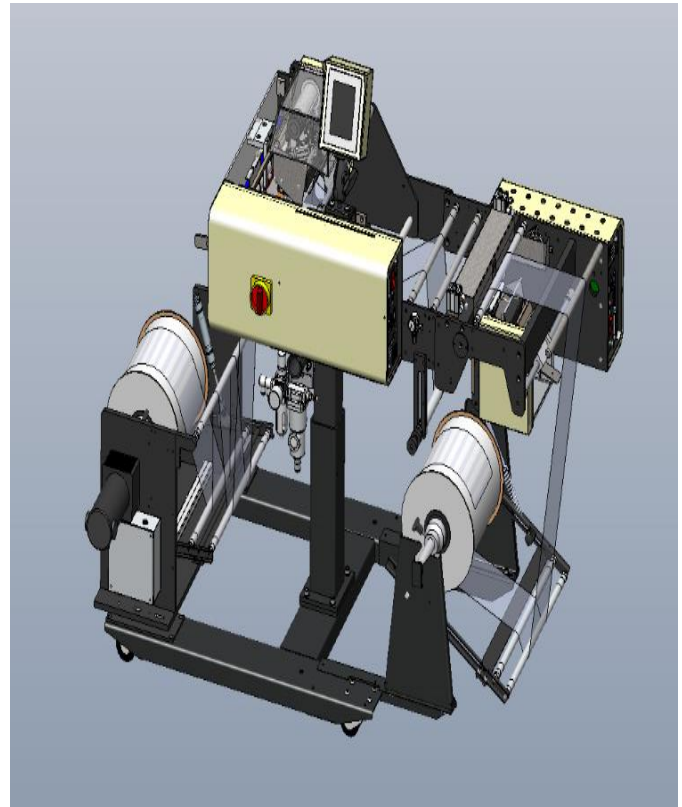# Roll-A-Print

(Models RAP-1400, 2800)

Thermal Transfer Print Station

Operation Guide, Version 1A

Setup, Operation and Parts Manual

Advanced Poly-Packaging, Inc.

1331 Emmitt Road • Akron, OH 44306 • 1-800-754-4403 • fax 330-785-4010 • www.advancedpoly.com

Acknowledgments

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Limited Warranty and Disclaimer

Warranty period is 12 months or 1,000,000 cycles whichever comes first. The warranty commences on the date of delivery of the equipment to the Purchaser.   Print head warranty period is 90 days (wear item).   APPI warrants to the Purchaser that the equipment is free from defects in workmanship or material under normal use and service. During the warranty period, APPI agrees to repair or replace, at its sole option, without charge to Purchaser, any defective component part of the equipment. To obtain service, Purchaser must return the equipment or component to APPI or an authorized APPI distributor or service representative in an adequate container for shipping. Any shipping charges, insurance, or other fees must be paid by Purchaser and all risk for the equipment shall remain with Purchaser until such time as APPI takes receipt of the equipment. Upon receipt, APPI, the authorized distributor or service representative will promptly repair or replace the defective component and then return the equipment or component to Purchaser, shipping charges, insurance, and additional fees prepaid. APPI may use reconditioned or like new parts or units, at its sole option, when repairing any component or equipment. Repaired products shall carry the same amount of outstanding warranty as from original purchase. Any claim under the warranty must include a dated proof of delivery. In any event, APPI's liability for defective components or equipment is limited to repairing or replacing the components. This warranty is contingent upon proper use of the equipment by Purchaser and does not cover: expendable component part such as Print Heads, thermocouple wire, heater cartridge, rollers, bushings, and the like; or if damage is due to accident, unusual physical, electrical or electromechanical stress, neglect, misuse, failure of electric power, water damage (from airlines), improper environmental conditions, transportation, tampering with or altering of the equipment, packaging of corrosive or contaminating products or other products damaging to components, and equipment or components not owned or in the possession of original Purchaser.   APPI will not be liable for loss of production, profits, lost savings, special, incidental, consequential, indirect, or other similar damages arising from breach of warranty, breach of contract, negligence, or their legal action even if APPI or its agent has been advised of the possibility of such damages or for any claim brought against the Purchaser by another party. This warranty allocates risks of equipment failure between Purchaser and APPI. APPI's pricing reflects this allocation of risk and the limitations of liability contained in this warranty. The warranty set forth above is in lieu of all other express warranties, whether oral or written.   The agents, employees, distributors, and dealers of APPI are not authorized to make modifications to this warranty, or additional warranties binding on APPI. Accordingly, additional statements such as dealer advertising or presentations, whether oral or written, do not constitute warranties by APPI and should not be relied upon. Warranty on equipment is considered void when outstanding balances become delinquent (over 30 days late - 60 days after ship date). Equipment Integration to other Equipment: APPI assumes no responsibility for the integration of its products to other products or within a system unless APPI performs the integration, testing and provides the results of the tests to the purchaser in writing. Furthermore, APPI assumes no responsibility for bag sizing whether suggested or recommended.

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Chapter 1: Introduction

Welcome
Overview
Special Features
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Warranty Registration

1.1   Welcome

Now that you've decided to upgrade your packaging facilities with the Roll-a-Print Thermal Transfer Print Station, we thank you for selecting our equipment, materials, and service. Where labor reduction and fast changeover is important, the Roll-a-Print feeds Advanced Poly-Bags, flat film or tubing manufactured by Advanced Poly-Packaging, Inc.

1.2   Overview

The Roll-a-Print is designed to lower your printing costs with high speeds, versatility, reliability, and simplicity.

- **High Speeds**: Prints at rates up to 10" per second (depending on the level of detail in the print, print/font size and materials).
- **Versatility**: Designed to print on a variety of films including polyethylene, polypropylene, laminated films, foils, and various other materials. Different ribbon may be required based on the type of material.
- **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 printer, save the settings in memory and recall those settings for repeat runs.

1.3   Special Features

Energy Conservation and Component Saver: To extend its life and conserve energy in your plant, the Roll-a-Print is programmed to sequentially shut components down when not in use for extended periods. Air flow can also be shut off preserving compressed air. Finally, a screen saver is provided to extend the life of the touch screen.

Pass Code Protection: 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, preventing access to settings screen. Factory settings are protected by a Level One pass code and should only be provided to maintenance personnel.

Predetermined Counter: Preset the Roll-a-Print to stop after a predetermined number of print cycles. 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 Roll-a-Print stops to alert the operator to begin the next work order or to push aside the box to begin filling another. Pressing Reset 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 printing production over a period of time.

1.4   Using This Manual: Typographical Conventions

This manual functions as one manual for several model printers. Some sections of these chapters will only apply to a specific printer. These sections will be properly noted. 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 Roll-a-Print.

- Text Normal text.
- **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.

1.5   Warranty Registration

This section must be completed and returned to Advanced Poly Packaging, Inc. to register the Roll-a-Print for Warranty Protection.

Roll-A-Print 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: service@advancedpoly.com

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Chapter 2: Getting Started

Summary
Safety, Risks
Installation Procedures
Air and Power
Main Power
Threading Diagram

2.1 Summary

This chapter describes in detail procedures to receive and setup the Roll-a-Print, including uncrating, environmental, air and power requirements, and assembly and height adjustments. Additionally, this chapter describes how to turn on power to the Roll-a-Print, properly thread bags through the machine, and properly thread the ribbon through the printer.

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 or crushed or broken bone injuries if they come in contact with any other moving components. Improper use, improper adjustments 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:

- 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.

- 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.

- Ensure that any height adjustments allow for sufficient movement of the operator. Improper height adjustments could negatively affect operator movement, causing strain, added stress, discomfort and fatigue.

- To avoid injury, do not operate the equipment if 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 temperature areas that can cause crush, cut or burn injuries to hands or fingers.

- To avoid injury, do not reach under the equipment, guards or elsewhere under the machine. Do not place hands or fingers near any moving components.

- Do not remove or loosen fasteners on the frame. If loosened, the equipment may drop suddenly, causing injury or damage to the machine.

- To avoid injury, avoid coming in contact with pinch points including rollers or other moving components.

- 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.

- 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.

2.3   Installation Procedures

The Roll-a-Print is shipped completely assembled and in a carton or crate. Remove all tape, banding or packing materials that secure the machine. To ensure the highest production possible, consider product flow to the printer and packaged product flow away from the printer when positioning the unit into your packaging areas. The Roll-a-Print 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 38° Celsius).

2.4   Air and Power Requirements

Power Requirements: Provision must be made for 110 VAC, 60 Hz line current with ground. Optional 220V/50hz voltage may have been supplied based on your local electrical requirements. The full load current for the Roll-a-Print is 10 Amps.

CAUTION: A qualified electrician should ensure that the Roll-a-Print power outlet is properly grounded, voltages are as required and amperage capacity is sufficient.

NOTE: APPI recommends a dedicated 20 Amp circuit for the Roll-a-Print.

Air Requirements: At least 1 CFM free air is required, regulated to 40 PSI (2.76 BAR). Air should be dry and oil-free

NOTE: Running the Roll-a-Print at a higher PSI setting than 40 PSI (2.76 BAR) will cause excessive wear and may cause damage to components on the printer.

2.5   Air and Power Hookup

This section describes in detail how to hook up air and power and the air and power requirements.

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

The air supply should be fed to the Roll-a-Print 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 40 PSI (2.76 BAR).

2.6   Main Power

The main power switch is located on the side cover of the machine. To turn the machine on, turn the switch clockwise from the horizontal OFF position to the vertical ON position. The green Power light on the touch screen will illuminate and the Introduction screen will be displayed. The program version will also be identified. The Introduction screen will only appear for a few seconds until automatically changing to the Printer Settings screen.

2.7   Threading Diagram

The following diagrams are provided to demonstrate the web path for threading bags through the machines as well as how to thread the ribbon through the print head. See Figures 2-1 through 2-3.

NOTE: The RAP2800 uses the print head depicted in figure 2-3 turned upside down for the TIZ hang behind printer.

NOTE: The RAP1400-08Z uses the same print head diagram as the RAP1400 and the RAP2800, it just uses 8" rollers in length instead of 4" rollers.

2.8   Note on Adjustments to the Roll-a-Print

Upon receipt, it is not unusual for the Roll-a-Print to be out of alignment due to shipping and excessive handling. Unless physically damaged, the Roll-a-Print will function properly after minor adjustments are accomplished. Refer to Chapter 4 for information on adjustments to the Roll-a-Print.
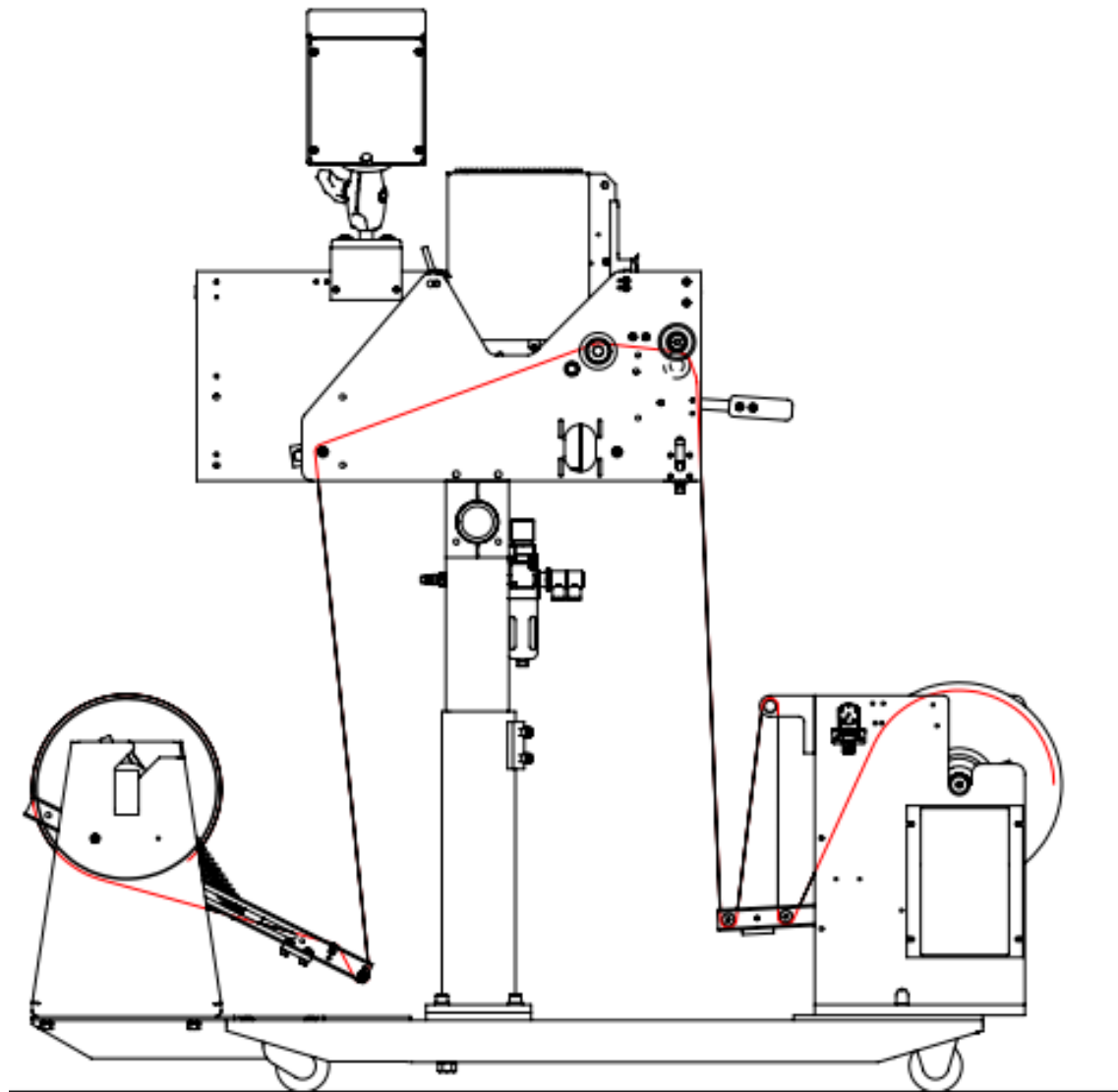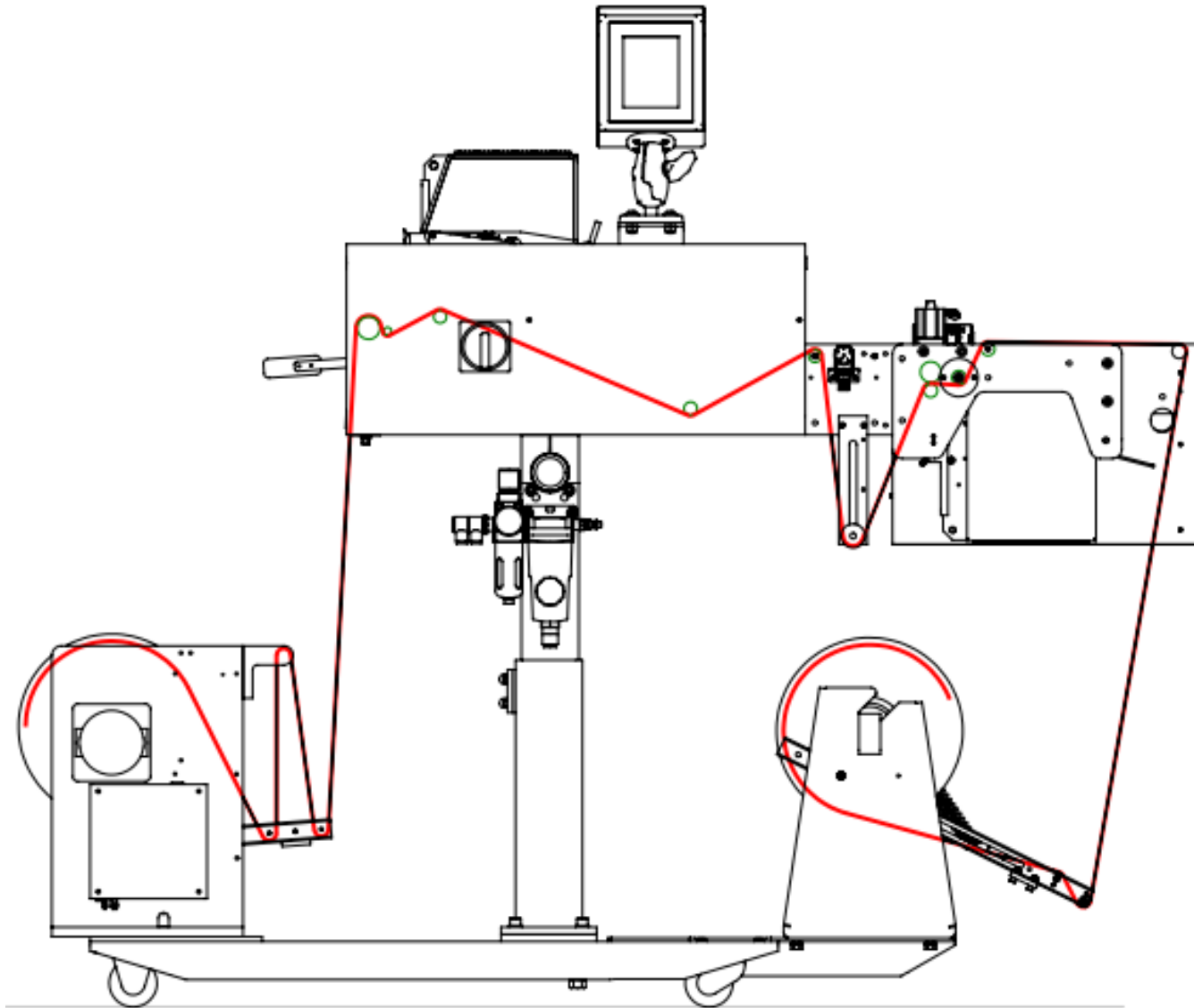
Figure 2-1

Figure 2-2

Figure 2-3
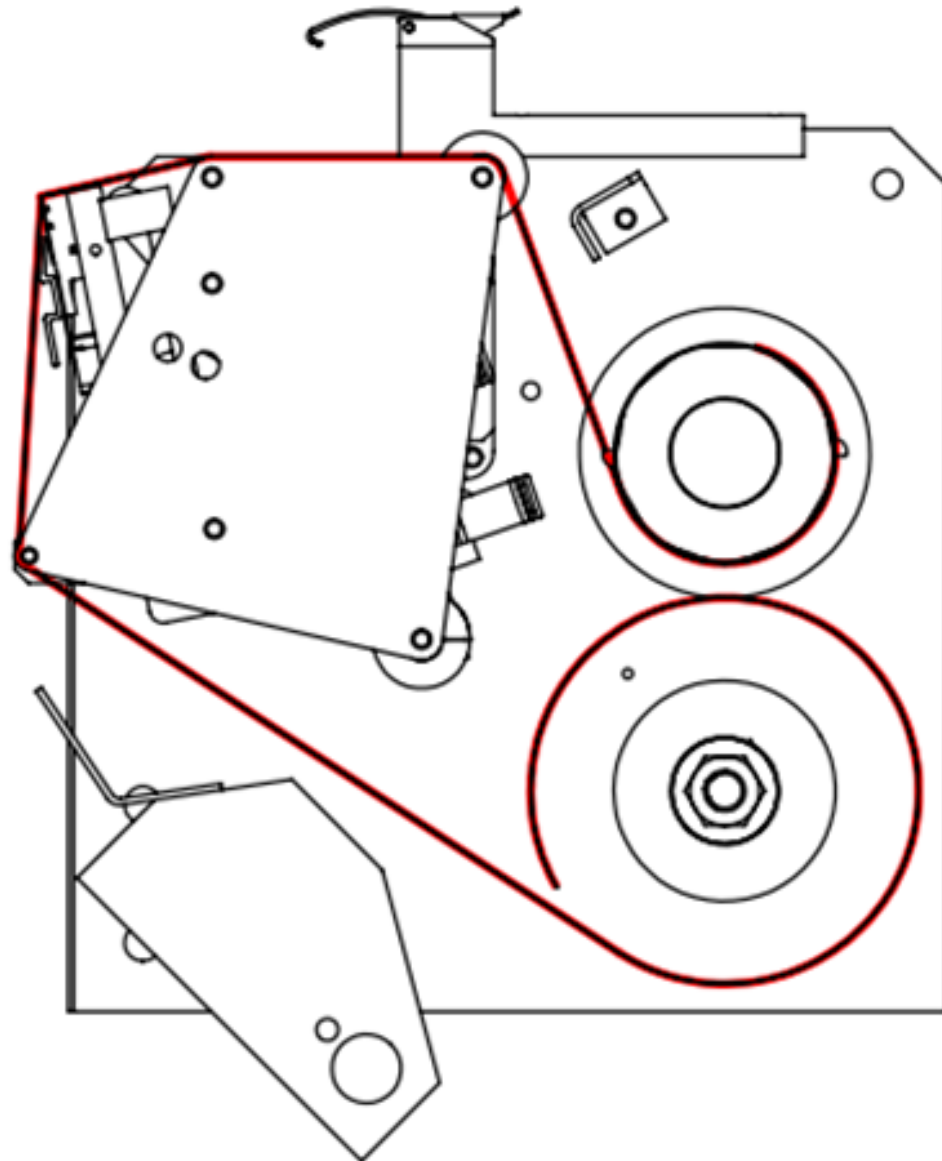
Chapter 3: Operation

Summary

Touch Screen Program

Introduction Screen

Main Menu

Printer Settings

Stored Labels

Counters

Job Save

Technical Assistance

Password Setup

Factory Settings

Printer Status

PLC I/O

Alarm History

Warning and Message Screens

3.1 Chapter Summary

This section describes the identification, operation and adjustments of the touch screen program for all three APPI Roll-a-Prints. All three Roll-a-Prints use the same operation program. The following sections apply to all three machines.

3.2 Touch Screen Program

The touch screen program is a user-friendly, menu-driven setup and operation program.   Popup windows are incorporated for quick and easy setting adjustments. A general color scheme has been used for consistency with operation:

- **Blue**: Background color used for text information. No "buttons" or functions are blue.
- **Green**: Used for buttons that change settings. 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. 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.

Figure 3-1

3.3 Introduction Screen

When the Roll-a-Print is turned on, an Introduction screen is displayed. The Introduction screen functions as a welcome screen, and it contains a button that will take the operator to the Printer Settings screen. See Figure 3-1.

3.4 Main Menu

The Main Menu screen allows the operator to quickly navigate to other areas in the program. See Figure 3-2. 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. Press the **STOP** button to change the button to START and begin operation. Press the **START** button to change the button to STOP and stop operation.

Figure 3-2

- **MANL / AUTO**: This button can be pressed to enter the machine into either Automatic or Manual mode. Press the **MANL** button to switch to Automatic mode. Press the **AUTO** button to switch to Manual mode. Automatic mode allows the machine to cycle automatically. Manual mode requires the operator to press the **MC** (Manual Cycle) button to cycle the machine.

- **Printer ON / Printer OFF**: This button turns the printer on and off. Press the **Printer ON** button to change the button to Printer OFF and turn the printer off. Press the **Printer OFF** button to change the button to Printer ON and turn the printer on.

3.5   Printer Settings Screen

The Printer Settings screen displays the printer's status and allows for settings adjustment. See Figure 3-3.

Index Speed: Index Speed is the speed, in inches per second, at which the bag will feed /index into position. To adjust this setting, press the **Index Spd** button, enter a value into the numeric keypad and press the **ENT** button.

Darkness: Darkness can be set between 1 and 30. Darkness settings can be set in your label software, but can also be overridden by adjusting the Darkness setting on the Printer Settings screen. Increase the Darkness setting to improve print quality. A typical setting is 20. To adjust this setting, press the **Darkness** button, enter a value into the numeric keypad and press the **ENT** button.

Print Offset: Print Offset is a delay setting that causes the print to be raised on the bag. Increasing this setting will cause loss of production. To adjust this setting, press the **PrintOffset** button, enter a value into the numeric keypad and press the **ENT** button.

Figure 3-3

Stop Point: The distance, in inches, the bag stops at after being read by the sensor. To adjust this setting, press the **StopPoint** button, enter a value into the numeric keypad and press the **ENT** button.

Feed Distance: The distance, in inches, the sensor does not read the bag before it begins reading the bag again. To adjust this setting, press the **Feed Dist** button, enter a value into the numeric keypad and press the **ENT** button.

The Printer Settings screen features a column of five rectangular indicators in the middle of the screen that display the printer's status and illuminate during operation:

- **Power Off:** Displayed when power to the printer is shut off.
- **No Label:** Displayed when a label has not been downloaded.
- **Printing:** Displayed when the Roll-a-Print is printing.
- **Error:** Displayed when the machine encounters an error.
- **Buffer:** Displayed when the labels are loading and the printer is preparing to print.

Press the **Reprint ON** / **Reprint OFF** button to turn the Reprint function on and off. The Reprint function allows the operator to continuously print the same label.

The Printer Settings screen displays the downloaded label parameters, including the **Darkness** setting, the **Speed** setting, the **Quantity** setting and the **Length** setting. Darkness, Print Speed and Quantity are parameters set up in the label software, displayed on the Printer Settings screen for informational purposes. However, the **Darkness** setting can be changed on the Printer Settings screen.

This screen also displays the length of the current and previous bag, along with the average bag size. Press the **New Bag** button to reset the currently downloaded label.

The **Clear Labels** button can clear the downloaded label format or the label format that is recalled from stored memory. Press the **Clear Error** button to clear an error with the printer and continue operation.

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3.6   Stored Labels

The Stored Labels screen allows for adjustment of the stored label settings. See Figure 3-4. Many of the settings and statuses displayed on this screen also appear on the Printer Settings screen. Refer to the previous section for information on those settings.

Label #: This button allows the operator to recall a label. To recall a label, press the **Label#** button and type in a number from 001 to 999, depending on the label that you would like to recall. Enter the desired label number into the numeric keypad and press **Enter**. From the factory, APPI has included at least one sample label format (001) for testing.

Label Length: This setting allows the operator to adjust label length. Because the length of the label is not saved when downloading labels in memory, APPI recommends that stored labels are the same length. Otherwise, you must use a chart that describes the label format length for each stored label. To change this setting, press the **Label Length** button, enter a value into the numeric keypad and press the **ENT** button.

3.7   Counters

The Counters screen allows for adjustment of the preset and total counters. See Figure 3-5. The Preset Count allows the operator to set a predetermined number of bags to be printed. Once the preset number is reached, operation will stop. The Total Count allows the operator to view the total amount of bags processed.

To adjust the Preset Count, press the blue box under Preset, enter a value on the numeric keypad and press the **ENT** button. To disable the Preset Count function, set the value to zero. To adjust the Total Count, press the blue box under Total, enter a value on the numeric keypad and press the **ENT** button. Setting the Total Count to zero will display the total counts run and will not stop the system.

To reset either value, press the **Reset** button under the respective count.

3.8   Job Save

The Roll-a-Print is able to store machine settings, called *recipes*. Each time a setting is changed on the machine, the settings are immediately saved in short-term memory so that if power is lost, the Roll-a-Print will power on with the job that was running before power was lost. See Figure 3-6.

To save a job to a memory location, press the **Job Save** button from the Main Menu, enter the recipe number (memory location) and then your part number. Then press the **Save** button. You will be prompted to confirm the save function.

To recall a recipe that has already been saved to a memory location, enter the recipe number and then press the **Settings** button. You can then review the settings before pressing the **Load** button.
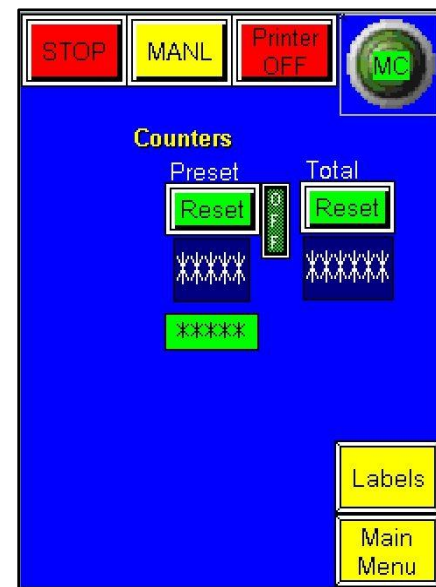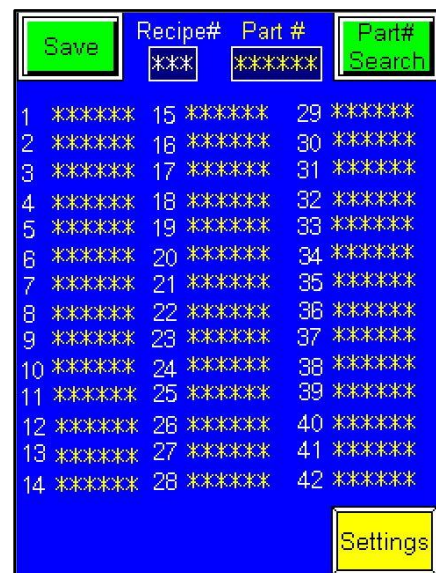

Figure 3-4

Figure 3-5

Figure 3-6

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If you do not know the recipe number, enter your part number, then press the **Part # Search** button. You can then press the **Settings** button to view and load your settings.

NOTE: If power is lost to the printer, the downloaded labels will be lost and will require downloading again, unless the Stored Labels function is used to recall the label.

3.9   Technical Assistance

The Technical Assistance screen provides manufacturer information, factory settings adjustments, functions testing, and troubleshooting. It also displays the program version for PLC controller and touch screen. See Figure 3-7.

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.

Several menu options are available from the Technical Assistance menu that will assist with troubleshooting the Roll-a-Print and change settings that affect the operation of the equipment.

Technical assistance sections of the touch screen program should be accessed by specialized personnel only. These sections are provided for troubleshooting and advanced setup by qualified service engineers.

Figure 3-7

3.10 Password Setup Screen

APPI has included a pass code function in all touch screen equipment to prevent operators from changing settings. See Figure 3-8.

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.
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.

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 Roll-a-Print into operation:

Figure 3-8

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** button to display the Password Setup Screen. Then press the **ON / OFF** toggle button to turn the pass code function ON. If you change the pass codes, 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. Timeout time can be changed by pressing the **Timeout** button, entering a value in the numeric keypad and pressing the **ENT** button.
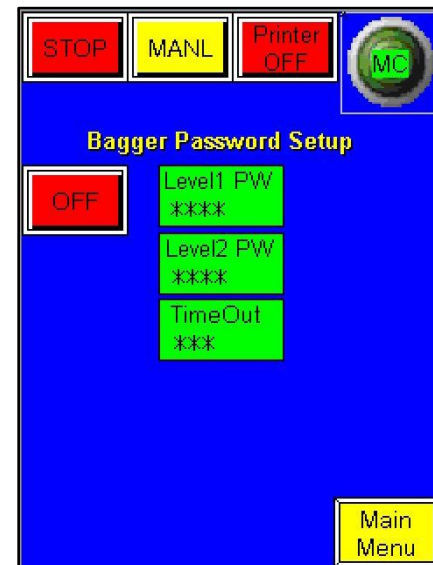
To change the pass codes, press the **Level1 PW** button or the **Level2 PW** button, enter a new code on the numeric keypad and press the **ENT** button.

If you misplace or forget the pass codes, contact the APPI Service Department for assistance. APPI will provide a "factory code" so that the current pass codes can be displayed. Once you receive the factory code, press the F5 function key, located to the right of the touch screen, to enter the factory code. Your current pass codes will be displayed.

3.11 Factory Settings
The Factory Settings screen contains additional settings that should only be set by qualified technicians or by the factory. See Figure 3-9.

Feed Distance: This setting allows horizontal perforations that could cause the bagger to stop at the wrong location to be ignored. To adjust this setting, press the **Feed Dist** button, enter a value on the numeric keypad and press the **ENT** button**.**

Missed Perforation: The number of missed perforations that can occur before operation stops and an error message is displayed. To adjust this setting, press the **Miss Perf** button, enter a value on the numeric keypad and press the **ENT** button.

Figure 3-9

Feed Error: The distance, in inches, a perforation can go undetected before a Feed Error occurs and an error message is displayed. Press the **FeedErr OFF** button to turn the Feed Error function on. Press the **FeedErr ON** button to turn theFeed Error function off.

Press the **Doorsw OFF** button to turn the door switch function on. Press the **Doorsw ON** button to turn the door switch function off. The door switch function stops the RAP and displays an alarm message if any door is open.

The Print Mode button allows for adjustment of the printer's operation mode and for the RAP to operate as a regular, stand-alone printer. The RAP must be connected to the bagger through the AUX3 port.

3.12 Printer Status Screen
The Printer Status screen is used for troubleshooting the printer. See Figure 3-10. The printer sends a status message when powered on and after each print. If the **Error** indicator illuminates, the actual error message will be displayed on the Printer Status screen.

Figure 3-10

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.

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

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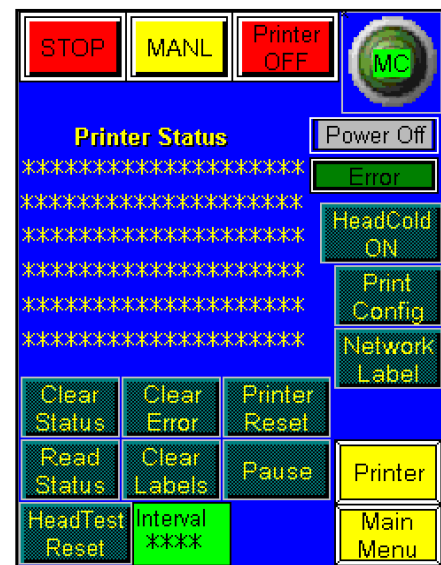
Print Config: Press this button to print the parameters for the printer.

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.

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

The Printer Status screen also allows the operator to reset and recall the status by pressing the **Clear Status** and **Read Status** buttons, respectively.

3.13 PLC I/0 Screens

The PLC I/O screens are provided for maintenance personnel to determine the status of the PLC and review the mode of outputs and inputs. PLC I/O screen(s) are also used to assist APPI Service Technicians working with your maintenance personnel to troubleshoot the Roll-a-Print in the field. See Figure 3-11.

To determine the function of each Input / Output, press the Info button to display a brief description of each input or output LED. See Figure 3-12.

3.14 Alarm History

The Alarm History screen allows the operator to track all fault messages that stop operation. See Figure 3-13. This screen can be accessed by pressing the **Alarm History** button on the Main Menu screen.

Figure 3-11
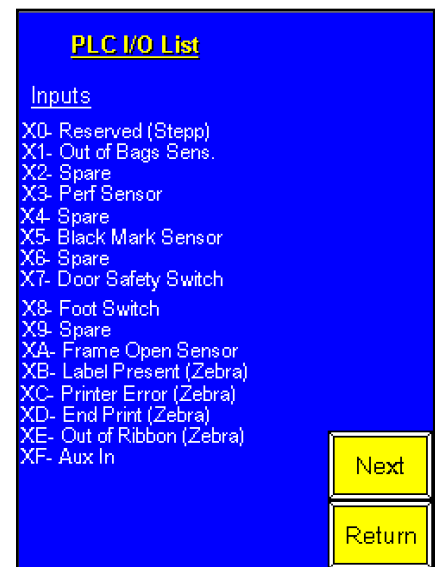
Figure 3-12

Figure 3-13

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3.15 Warning and Message Screens

The Roll-a-Print touch screen program features many informational screens that are displayed automatically to alert the operator of situations on the machine. Some messages serve as functional messages that describe the status of equipment or errors, 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 press **Return**. See Figures 3-14 through 3-16 for examples of these messages.

Warning!

Preset count reached

Touch Return to continue.

Return

Figure 3-14

Warning!

Frame is open.

Please close cover to operate.

Touch Return to continue.

Return

Figure 3-15

Warning!

Printer out of ribbon.

Touch Return to continue.

Return

Figure 3-16

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Chapter 4: Adjustments, Maintenance and Troubleshooting

Pinch Roller Adjustment
Roller Web Guides
Print Position
Preventative Maintenance
PLC IO Listing

4.1   Pinch Roller Alignment / Film Tracking

If bags or film are not feeding properly (straight) through the Roll-a-Print, then the pinch rollers may not be aligned. Film weaving may be caused by several factors, including poor tension, roller misalignment or improper threading.

To check the pinch rollers, position a light source inside the machine (near the print head), and from the front of the machine, slowly lower the frame by lowering the handle located on the right front of the RAP. As soon as the rollers are not touching one another, you can see a gap. With the gap at 1/32" or less, see if light is emitted consistently from the gap. Then raise the frame to determine if the rubber roller touches the steel roller at the same time, entirely across the rollers.

If the right side or left side of the rubber roller touches first, then the roller requires alignment. To adjust the rollers, first turn the power off and unplug the machine from the power source. The adjustment block assemblies are located on the front lower corners of the side plates, on each side.

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 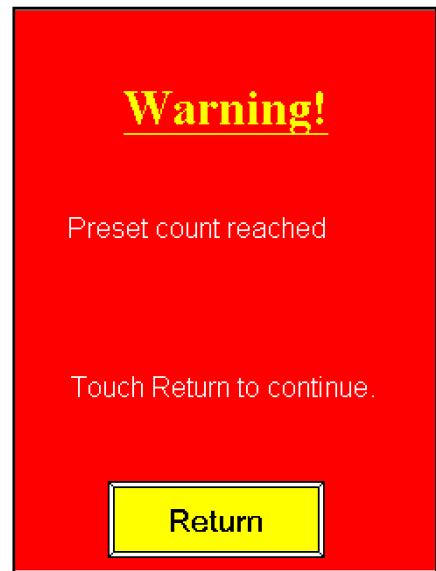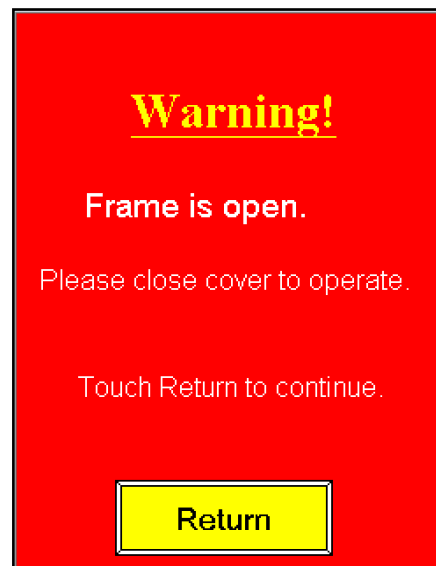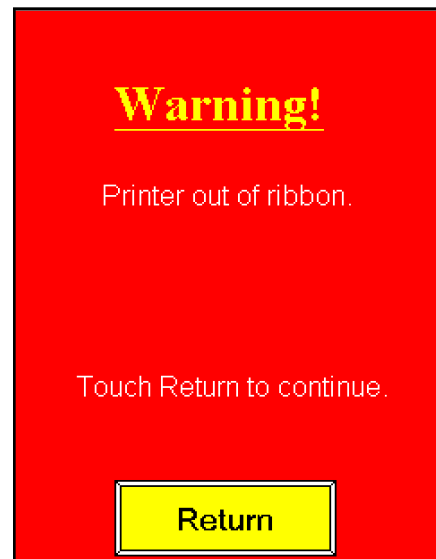the inner frame locked in the UP position, lower the lower roller by turning the adjustment screws counter-clockwise until the lower roller is parallel to the upper roller and leaving 1/16" gap between the rollers. Turn the adjustment screw clockwise alternatively, keeping the lower roller parallel with 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.

With the rollers slightly touching and parallel, turn each adjustment screw approximately ½ turn clockwise. Then test the compression by putting film between the rollers. Pull the film through the rollers while holding the rubber roller still. If the film pulls out easily, turn the compression adjustment screws 1/2 turn clockwise. Continue this adjustment until the film is slightly difficult to pull out of the rollers.

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

When you are satisfied with the compression, slightly lower the inner frame and slowly raise 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 on the upper block of the compression tension assembly. Then re-tighten the nut on the adjustment screws. Replace the covers, plug the cord into the power outlet and turn the main power on.

4.2   Roller Web Guides

Two plastic spring web guides, located immediately prior to and behind the print head assembly, are used for fine adjustment of tracking. Once the web is tracking within +/- 1/8" left to right, the web guides can be used to further assist tracking. Hold the upper roller in place while turning and sliding the aluminum guides close to the bags without touching the bags.

NOTE: If the bags are not tracking properly prior to moving the web guides to the film, the guides could actually 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.

4.3   Print Position (Left / Right Adjustment)

The print head can be moved left to right to adjust for print location. A locking mechanism can be attached to secure the print head into position.

4.4 Preventative Maintenance

The following maintenance items should be performed by the operator or maintenance personnel to prolong the life of the equipment. Failure to perform these tasks may result in premature wear, personal injury or equipment damage.

ITEM	DESCRIPTION	FREQ.
Print head	Clean with a soft white cotton cloth each ribbon roll change	Each roll
Air pressure	Check air pressure to ensure 60-70 PSI	Daily
Printer rollers	Clean with a soft white cotton cloth until no residue is seen on the cloth	Daily
Pinch rollers	Clean with alcohol	Daily
Aluminum rollers	Clean with alcohol	Weekly
Perforation sensor	Clean with alcohol, inspect for wear	Weekly
Cylinders	Remove air and push in manually to ensure free movement with no binding	Weekly
Springs	Inspect for cracks in springs, ensure free movement	Monthly
Wiring	Ensure no loose contacts or worn shielding	Monthly
Fasteners	Tighten mounting bolts and fasteners	Monthly

4.5 PLC IO Listing

The Main PLC and Expansion PLC IO Listings are provided to assist in troubleshooting the Roll-a-Print.

MAIN PLC					
	INPUT	DESCRIPTION	OUTPUT	DESCRIPTION	
	X0	Reserved	Y0	Stepper Pulse CW	
	X1	Bag Out Sensor	Y1	Stepper Pulse CCW	
	X2	Spare	Y2	Ribbon Drive	
	X3	Perf Sensor	Y3	Spare	
	X4	Spare	Y4	Spare	
	X5	Black Mark Sensor	Y5	Spare	
	X6	Spare	Y6	Spare	
	X7	Door Safety Switch	Y7	Spare	
	X8	Foot Switch	Y8	Reprint	
	X9	Spare	Y9	Start Print	
	XA	Frame Open Sensor	YA	Printer Pause	
	XB	Label Downloaded	YB	Aux Ready	
	XC	Printer Error	YC	Spare	
	XD	End Print	YD	HV Trigger	
	XE	Out of Ribbon	YE	Aux Out	
	XF	Aux In	YF	Print Head Solenoid	
EXPANSION PLC					
	X20	Spare	Y20	Spare	
	X21	Spare	Y21	Spare	
	X22	Spare	Y22	Spare	
	X23	Spare	Y23	Spare	
	X24	Spare	Y24	Spare	
	X25	Spare	Y25	Spare	
	X26	Spare	Y26	Spare	
	X27	Spare	Y27	Spare	
	X28-X2F	Spare	Y28F	Spare	

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Chapter 5: Parts and Drawings

Roll-a-Print 1400 Parts Lists and Drawings

Roll-a-Print 2800 Parts Lists and Drawings

5.1 ROLL-A-PRINT 1400 SYSTEM LAYOUT

T-ROLL1400

1	1	TA-T60050	STAND ASSEMBLY RAP1400	28
2	1	TA-T600051	DANCER ASSEMBLY RAP 1400	29
3	1	TO-T1-WINDUP	DRIVEN REWIND UNIT	31
4	1	TA-T60000	MAIN BODY ASSEMBLY, RAP 1400	33
5	1	TA-T2Z1000RAP	ELECTRONICS ASSEMBLY RAP 1400	38
6	1	TA-T60052	IOP ASSEMBLY RAP1400	37
7	1	TA-T15-8000RAP	ZEBRA ROLL-A-PRINT PRINTER ASSEMBLY	41

NOTE: For the 8" Print Head Model (T-Roll 1400-08Z) the Electronics Assembly changes to TA-T2Z1000-08Z (p.45) and the Printer Assembly changes to TA-T2Z8000-08Z (p.48).
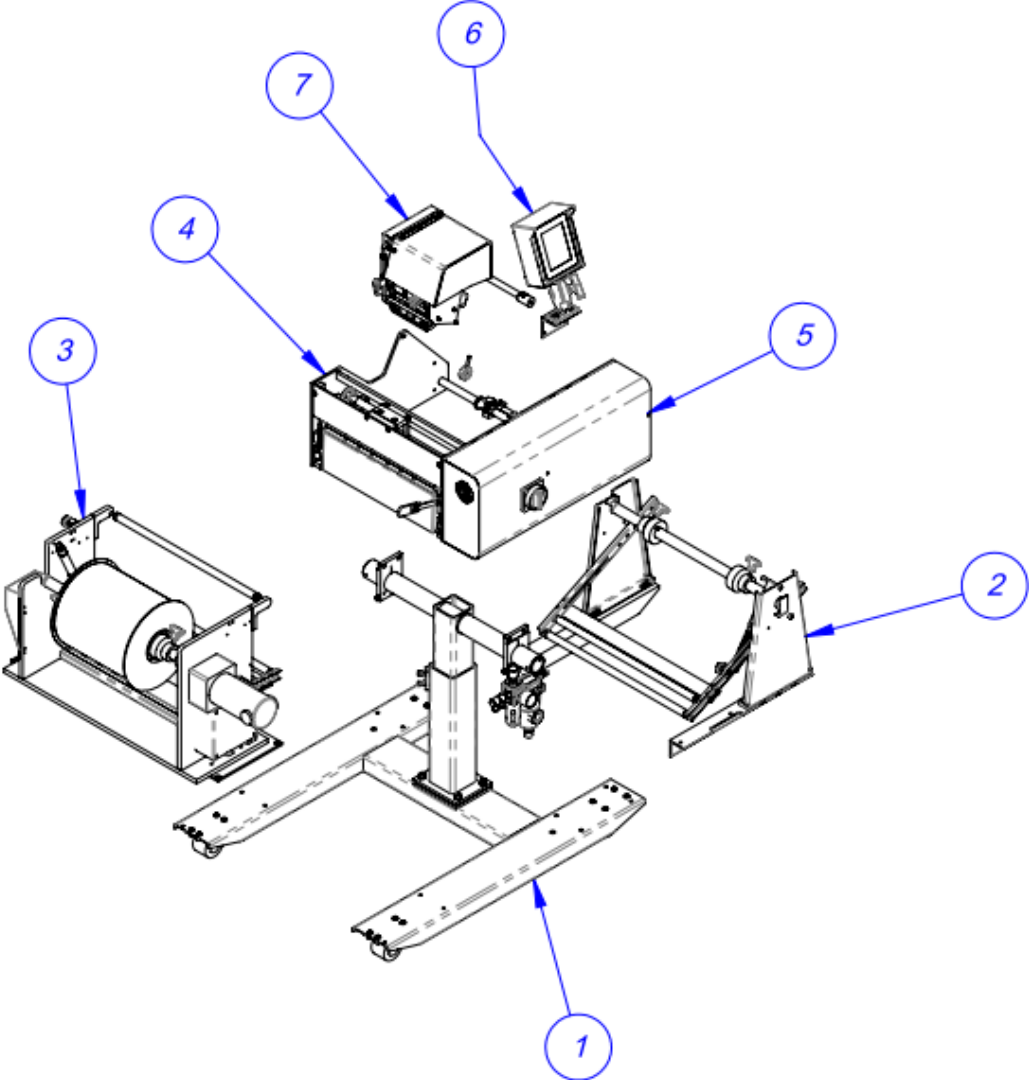
A. STAND ASSEMBLY
TA-60050

ITEM NO.	QTY	PART NO.	DESCRIPTION
1	1	TP-T1MA00051RAP	LOWER BASE WELDMENT
2	2	TP-110763	CASTER, RIGID
3	2	TP-110756	CASTER, SWIVEL
4	1	TP-T1MA00051-1	LOWER COLUMN
5	1	TP-T1MA00087	CROSS PIPE
6	1	TP-T1MC00019-2	BASE CLAMP
7	1	TP-T1MC00019-1	BASE CLAMP
8	1	TP-T1MC00019-3	DRYER/REG BRACKET
9	1	TP-406260-1	FILTER / DRYER/ REGULATOR ASSEMBLY
10	1	TP-401222	HEX NIPPLE
11	1	TP-401267	DOUBLE ELBOW
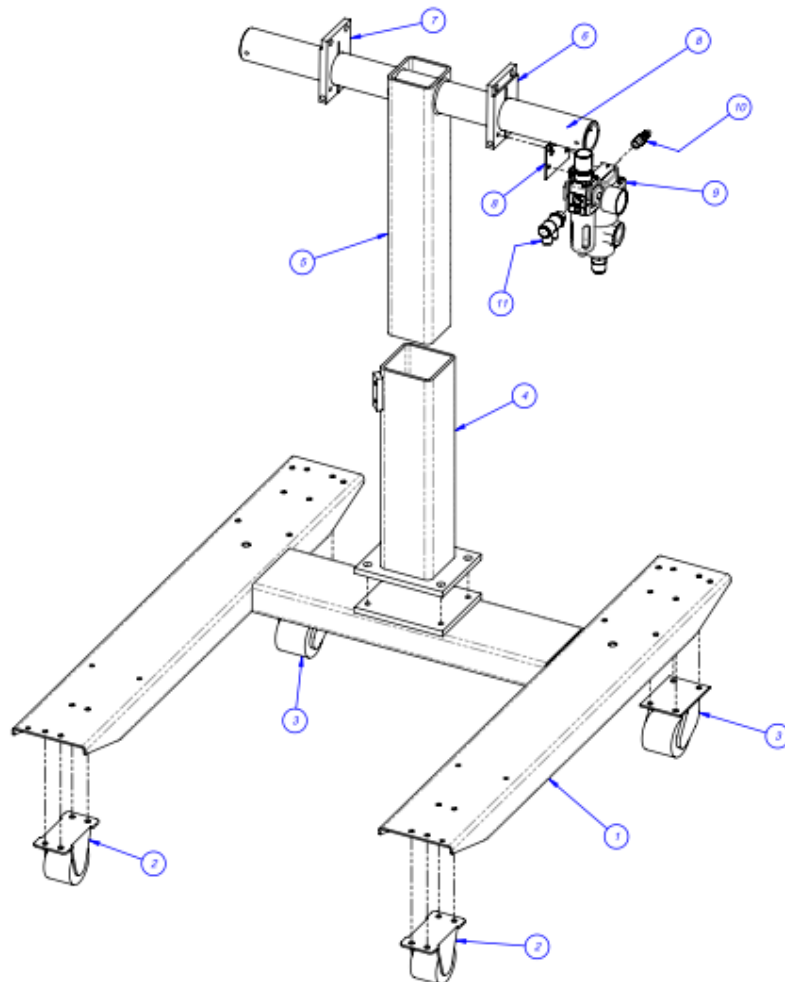
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	TA-T10220	DANCER ASSEMBLY
2	1	D9-148208-103	DANCER EXTENSION (RIGHT)
3	1	D9-148208-104	DANCER EXTENSION (LEFT)
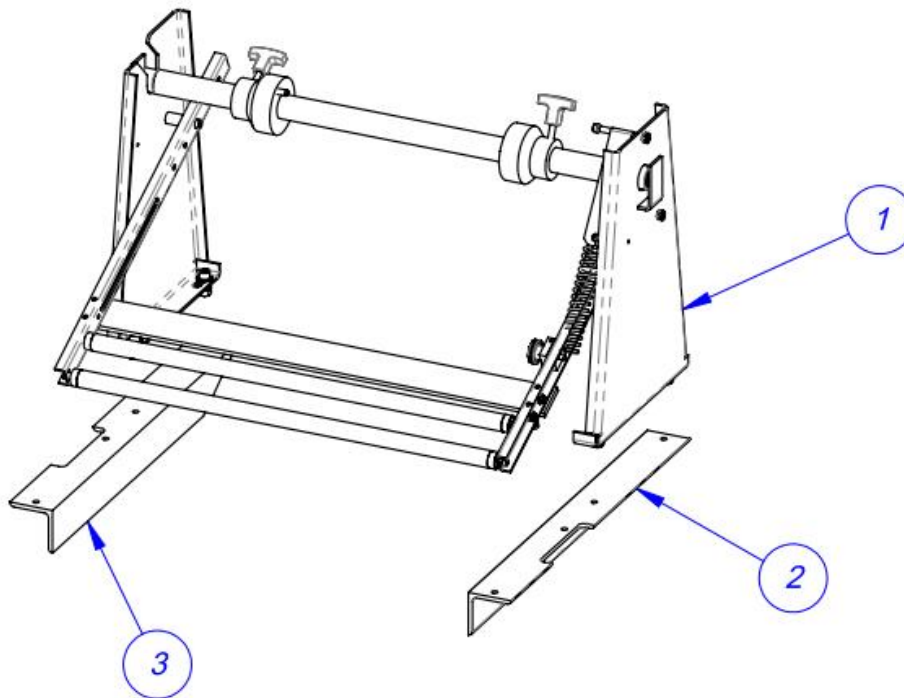
B.1 Dancer Assembly

TA-T10220

ITEM NO.	QTY	PART NO.	DESCRIPTION
1	1	TP-T1MA00069-1	DANCER SIDE PLATE
2	1	TP-T1MA00069-2	DANCER SIDE PLATE
3	2	TP-T1MA00072	DANCER TENSION BAR
4	1	TP-T1MA00073	BAG ROLL SHAFT
5	1	TP-T1MA00186	TENSION ADJUSTER
6	2	TP-504132	CAM FOLLOWER
7	1	TP-T1MA0081	DANCER TENSION BAR CROSS BRACE
8	2	TA-T10010	FILM TENSION HUB ASSEMBLY
9	1	TP-109212	KNOB
10	1	TP-T1MA00115	BELT TENSION STRAP & SPRING
11	2	TP-104148	SPACER
12	1	TP-103338	SCREW, SHOULDER 1/4 x 2 x 10-24
13	2	TP-T1MA0090	DANCER GUIDE ROLLER SHAFT
14	4	TP-514101	ROLLER BEARING
15	2	TP-T1MA0089	DANCER GUIDE ROLLER
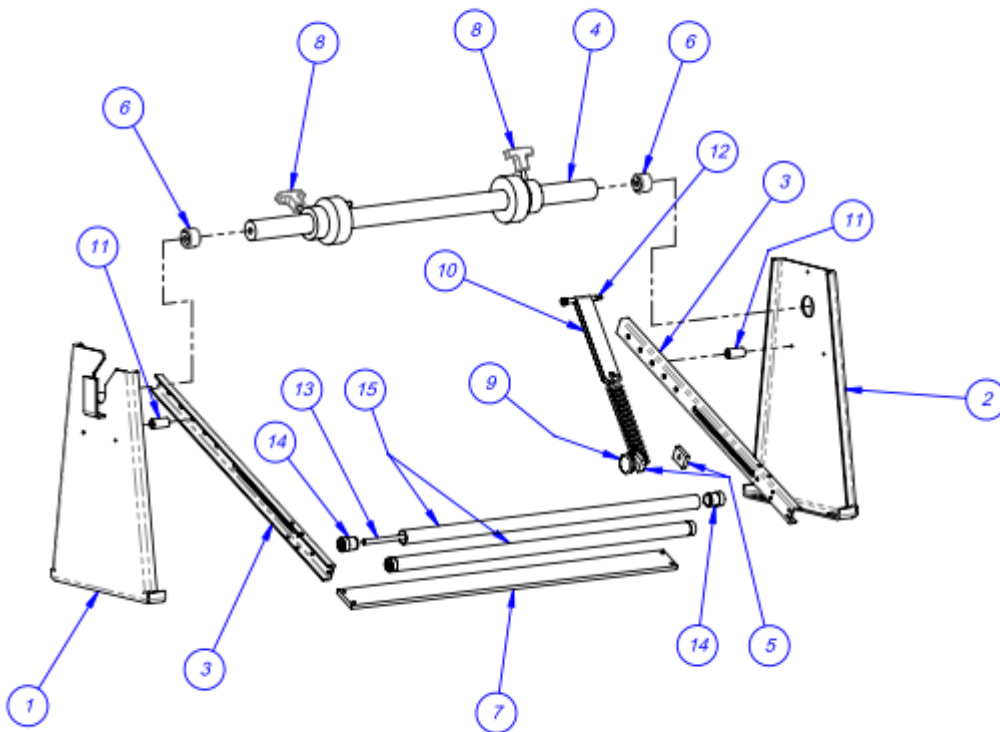
C. DRIVEN REWIND UNIT

TO-T1-WINDUP

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	TP-T6RW0016	BASE
2	1	TP-T6RW0012-1	SIDE PLATE - LEFT
3	1	TP- T6RW0012-2	SIDE PLATE - RIGHT
4	1	TP-406259	REGULATOR
5	1	TP-T6RW0017	ROLLER EXTENSION
6	1	TP-T6RW0017	ROLLER EXTENSION
7	1	ASSEMBLY	STANDARD ROLLER
8	2	TP-106106	SPRING PIN
9	1	TP-T6RW0014	COUPLING
10	1	TP-T6RW0015	SHAFT
11	1	TP-504132	CAM FOLLOWER
12	1	TA-T6RW300	DANCER ASSEMBLY
13	1	TP-T6RW0022	WINDUP SHAFT
14	1	TP-T6RW0020	CYLINDER SHAFT MN'T BLOCK
15	1	TP-403248	BIMBA CYLINDER
16	1	TP-404252	ROD CLEVIS
17	1	TP- 501115	MOTOR
18	1	TP-T6RW0025	BOTTOM COVER
19	1	TP-T6RW0026	TOP COVER
20	1	TP-T6RW0024	RACEWAY
21	1	TP-217006	DRIVE SPEED CONTROL
22	2	TA-T10010	FILM TENSION HUB ASSY
23	1	TP-T6RW0029	SPEED CONTROL BRACKET
24	1	TP-215022	LIMIT SWITCH
25	1	TP-T6RW0030	LIMIT SWITCH PULLEY
26	1	TP-503124	14 TOOTH PULLY
27	1	TP-503107	BELT
28	1	TP-215020	SOCKET
29	1	TP-215343	RELAY
30	1	TP-103304	SHOULDER BOLT
31	1	TP-212106	STRAIN RELIEF
32	1	PART OF 217006	POTENTIOMETER
33	1	FOR 1/2" HOLE	GROMMET
34	1	VARIED	BAG ROLL
35	1	D9-148208-101	REWIND MOUNT (RIGHT)
36	1	D9-148208-102	REWIND MOUNT (LEFT)
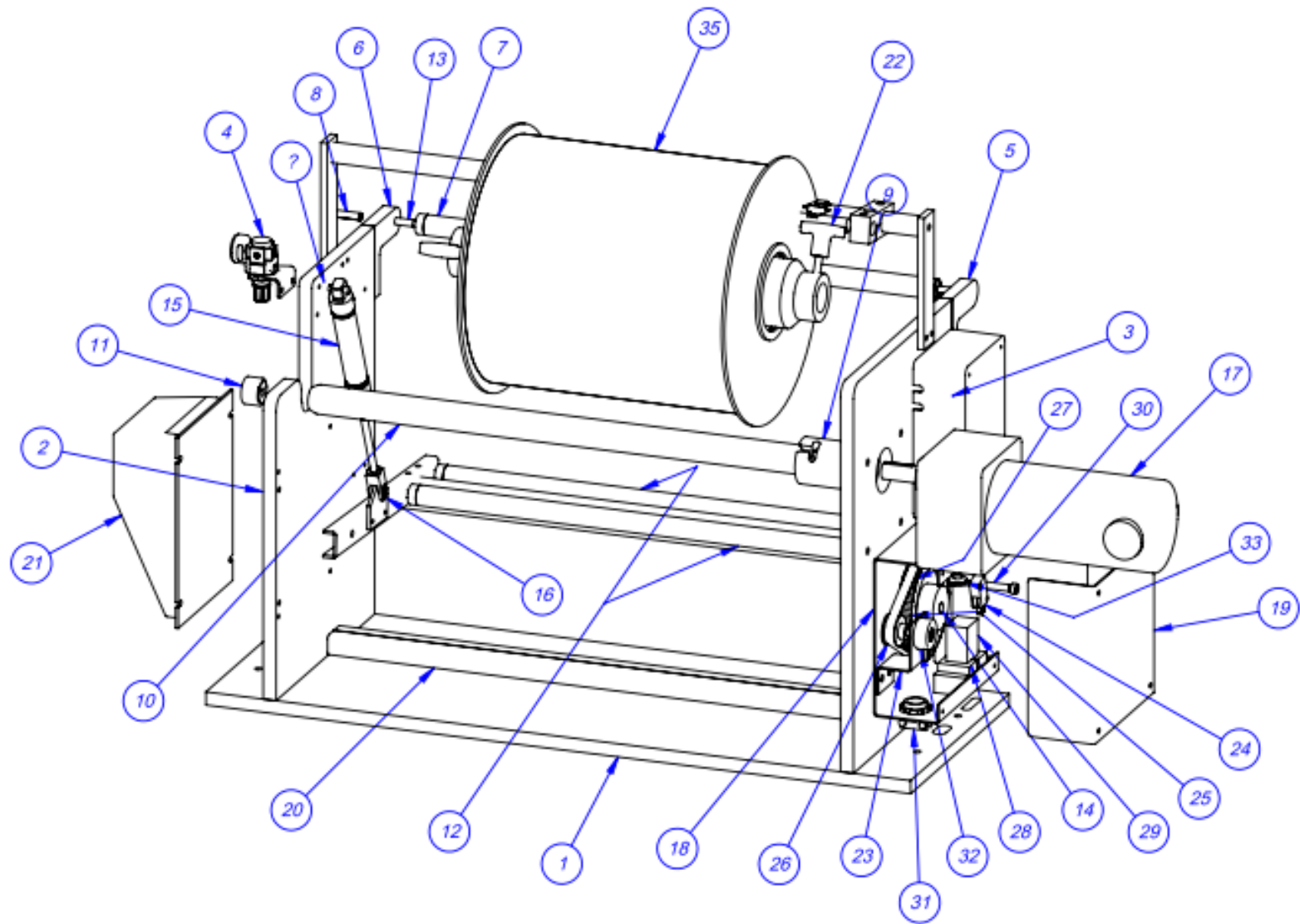
D. MAIN BODY ASSEMBLY

TA-60000

ITEM NO.	QTY	PART NO.	DESCRIPTION
1	1	TP-T6A1012	SIDE PLATE (LEFT)
2	1	TP-T6A1013	SIDE PLATE (RIGHT)
3	2	TP-T1MC00044	FACE PLATE BLOCK
4	1	TP-T1MC00042NB	FACE PLATE
5	2	TP-T1MC00079	CYLINDER PIVOT SHAFT
6	2	TP-T100054	COVER SUPPORT CLAMP
7	2	TP-T1MC00018-S14	ROLLER MOUNT
8	1	TP-T1MC00118-1	WEB ROLLER BRACKET
9	1	TP-T100119	FILM WEB ROLLER
10	1	TP-T100T20	FILM WEB ROLLER SHAFT
11	1	TP-T1MC00118-2	WEB ROLLER BRACKET
12	2	TP-107177	BRUSHING
13	1	TP-BP-1013-S14	MOUNTING BAR
14	2	TP-T1MC00125S14	SENSOR MOUNTING BAR
15	1	TP-T1MC00083	H.V. SENSOR INSULATOR
16	1	TP-T100020NB	FINGER PLATE
17	2	TP-TIMC00124-3	H.V. SENSOR MOUNT
18	2	TA-T100124-1	H.V. TANG
19	2	TP-106214	COTTER PIN
20	2	TP-108118	TORSION SPRING
21	2	TP-T6A1006	NIP ROLL MOUNT
22	1	TP-T1MB00013	ALUMINUM ROLLER SHAFT
23	1	TP-T1MB00012	ROLLER
24	2	TP-107227	BUSHING, THRUST NYLON
25	2	TP-504107	BEARING, .500 BORE, 1.125 OD, 9/32 WIDE
26	2	TP-T6A1005	LINK ADJUSTER
27	2	TP-T6A1001	LINK
28	2	TP-T6A1008	CLAMP LINK
29	2	TP-103304	SHOULDER BOLT
30	2	TP-103129	SCREW, SHCS 10-32 x 1/2

31	2	TP-211374	MAGNET, ROUND
32	1	TP-T6A1033	HANDLE
33	1	TP-T6A1015	ROLLER FINGER
34	1	TP-T6A1025	FRONT COVER
35	1	TP-T6A1056	HANDLE
36	1	TP-106134	1/4 DIAMETER X 3/4"LG. CENTER GROOVED DOWEL PIN # 98400A246
37	2	TP-T6A1004	LINK STOP
38	1	TP-215200	MAGNETIC SWITCH, T-1000 MACHINE OPEN SENSOR
39	1	TP-T1MC 00017NB	RUBBER ROLLER
40	2	TP-504113	.75 BORE, 1.75 OD
41	1	TP-T1MC00161	DRIVEN PULLEY
42	1	TP-501165	T-375 MOTOR
43	1	TP-T41027	MOTOR PULLEY
44	1	TP-T100091	BELT TENSIONER
45	1	TP-504132	CAM FOLLOWER
46	1	TP-107342	3/8 ID x 3/4 OD x 1/8 THK.
47	1	TP-102143	WASHER, 5/16 FLAT
48	1	TP-102156	WASHER, 5/16 LOCK
49	1	TP-103284	SCREW, BHCS 5/16-18 x 1-1/4"
50	2	TP-504114	T-375 STEEL ROLL BEARING, 1/2" BORE
51	1	TP-T6A1050	PRINT ROLL
52	2	TP-T6A1002	ADJUSTER BLOCK
53	2	TP-T6A1055	LOTO STAND-OFF
54	1	TP-BO-185	BAG-OUT SENSOR CLAMP
55	1	TP-BO-175	BAG-OUT DETECTOR BLOCK
56	1	TP-109212	KNOB
57	1	TP-T6A1057	COLLAR STOP
58	1	TP-215005	SWITCH
59	1	TP-215004	ALLEN BRADLEY LOTO KNOB
60	2	TP-111010	SPRING CLOSURE COLLAR
61	1	TP-T6A1027	SIDE COVER
62	1	TP-218020	PART #3 DIM RAIL
63	1	TP-T2Z2005	LATCH BAR

MAIN BODY ASSEMBLY

TA-60000
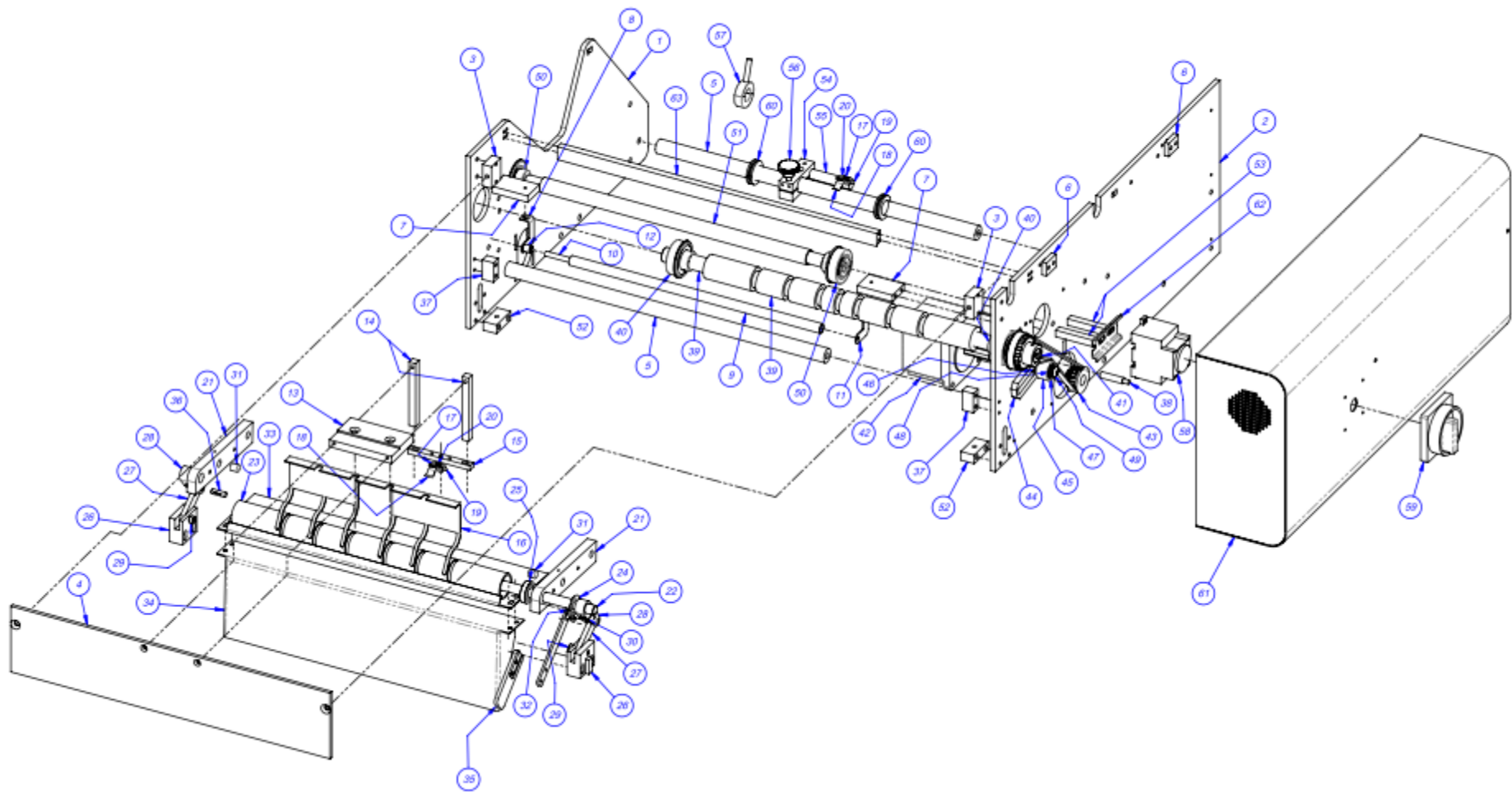
D.1   AIR KNIFE ASSEMBLY
TP-T100016-S14RAP

ITEM NO.	QTY	PART NO.	DESCRIPTION
1	1	TP-BP-1013-S14	MOUNTING BAR
2	2	TP-T1MC00125S14	SENSOR MOUNTING BAR
3	1	TP-T1MC0083	H.V. SENSOR INSULATOR
4	1	TP-T100020NB	FINGER PLATE
5	1	TA-T100124-1	H.V. SENSOR ASSEMBLY
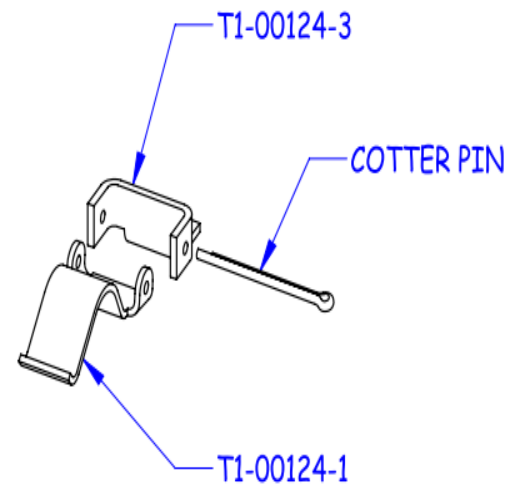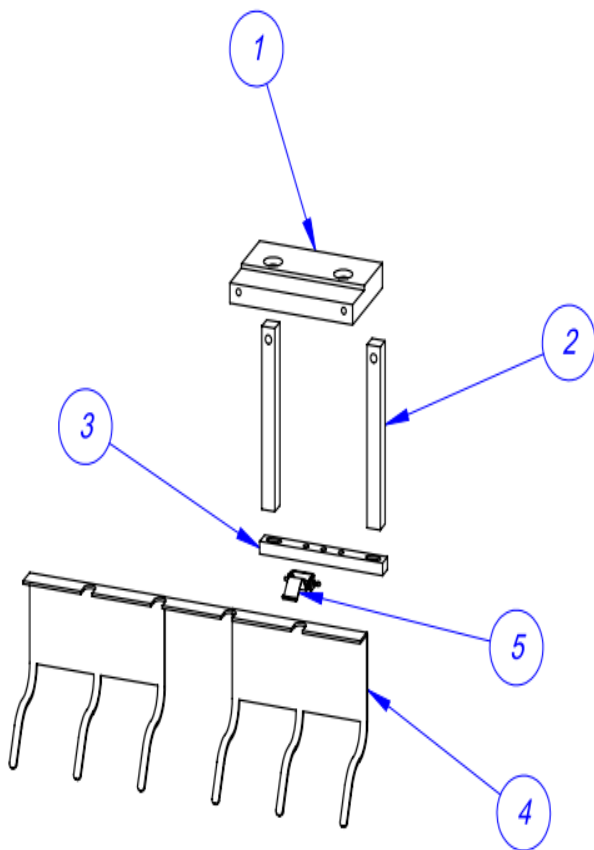
E. IOP ASSEMBLY

TA-60052

ITEM NO.	QTY	PART NO.	DESCRIPTION
1	1	TP-T6MD00039	HOUSING
2	1	TP-T6MD00039-1	HOUSING BACK PANEL
3	1	TP-220358-1	TOUCH SCREEN
4	1	TP-111125-2	SOCKET ASSEMBLY
5	1	TP-111130	IOP BASE
6	1	TP-T6MD000109	TOUCH SCREEN MOUNT
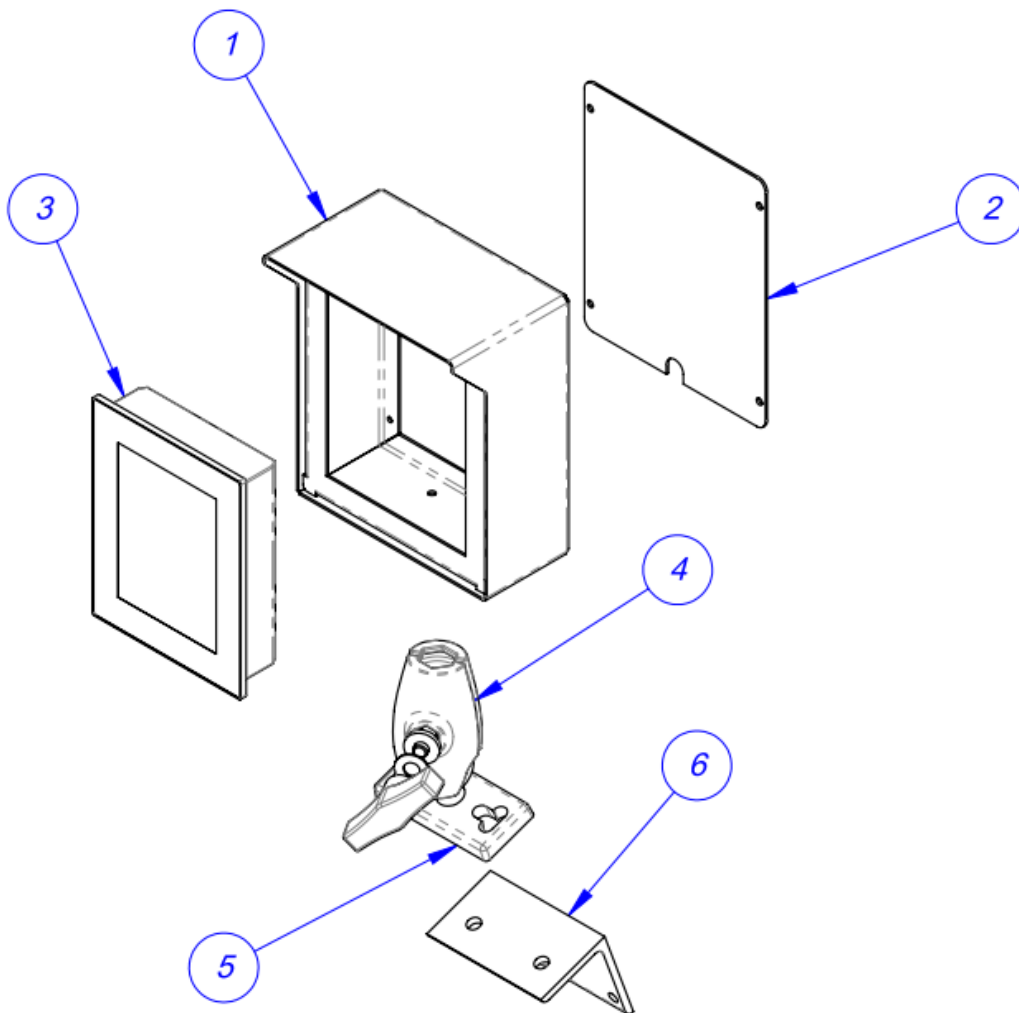
F. ELECTRONICS ASSEMBLY

TA-T2Z1000RAP

ITEM NO.	QTY	PART NO.	DESCRIPTION
1	1	TA-T2Z1000	ELECTRONICS ASSEMBLY
2	1	TP-501169-1	5-PHASE DRIVER
3	1	TP- T2ZRAP102	DRIVE MOUNT
4	1	TP-T1MC00021-RAP	TRANS MOUNTING PLATE
5	1	TP-211386	HIGH VOLTAGE TRANSFORMER
6	1	HP-58243A1	HEAT SHIELD
7	1	TP-T1ME00301	HIGH VOLTAGE BOARD
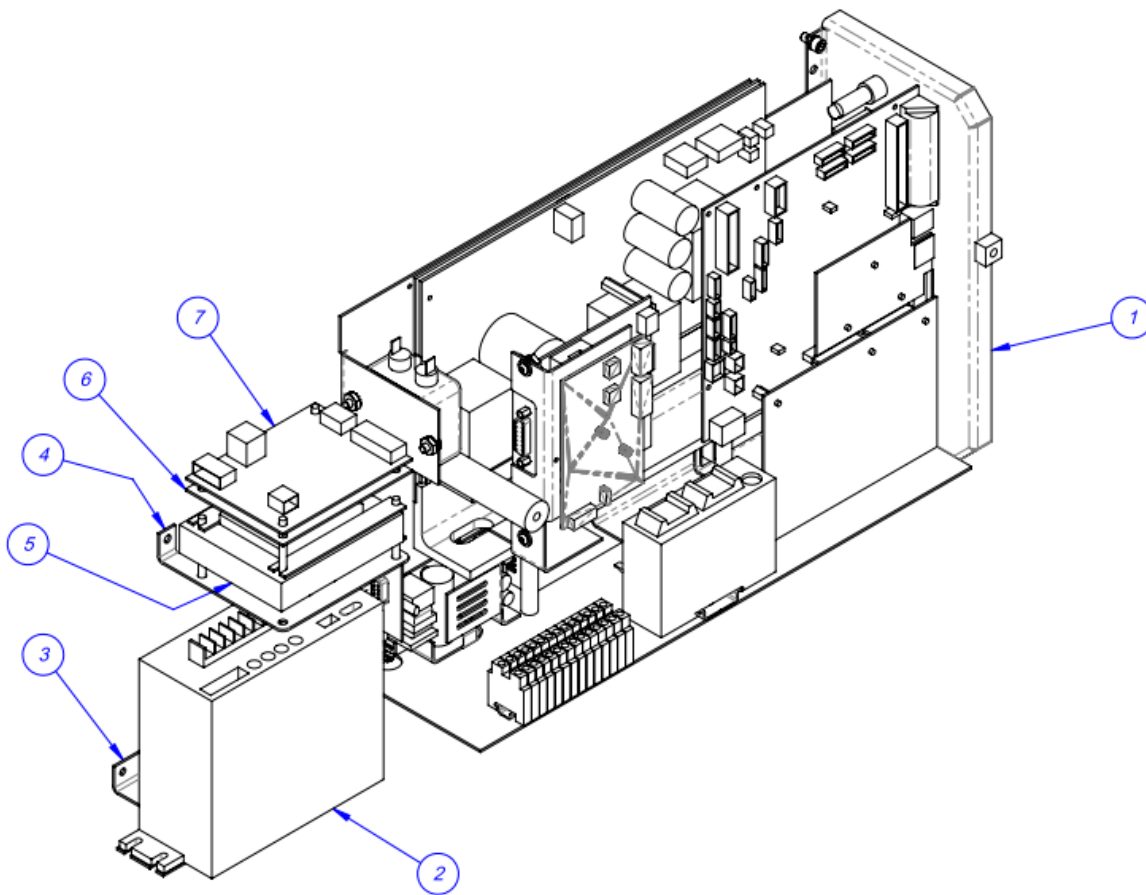
F.1ELECTRONICS ASSEMBLY (Continued)

TA-T2Z1000

ITEM NO.	QTY.	PART NO	DESCRIPTION
1	1	TP- T2Z1005	ELECTRONICS BASE
2	2	TP-212247	CONNECTOR, MULTIPOLE RECTANGULAR
3	1	TP-215384	POWER SWITCH,
4	1	TP-218020	PART #3 DIM RAIL
5	1	VP-Z-33050M	POWER SUPPLY BOARD
6	1	TP-220511,214111,220513	PLC, BATTERY & COMM 2 CAS
7	1	TP-212246	CONNECTOR, MULTIPOLE RECTANGULAR
8	1	TP-207216	FUSE HOLDER
9	1	TP- 212410	AC OUTLET
10	14	TP- 208142	LARGE TERMINAL BLOCK
11	1	TP-218021	DIN RAIL (SMALL)
12	1	TP-212160	PLC CONNECTOR
13	1	TP- 112240	POWER CORD STRAIN RELIEF
14	1	V-Z-113-8K1-00070	LOGIC BOARD
15	2	TP- T2Z1008	STAND-OFF - 2.5"
16	1	TP- 213361	24VDC, 3AMP POWER SUPPLY
17	1	TP-205108	EMI FILTER, CORCOM
18	1	TP-501156	DC MOTOR DRIVE, DRIVEN PRINT ROLL
19	1	TP- T2Z1010	STAND-OFF
20	1	TP- T2Z1007	OVERLAY
21	1	TP- T2Z2012	COVER PANEL STAND-OFF
22	1	TP- T2Z1009	ELECTRONICS ASSEMBLY SPACER
23	1	TP- T2Z1004	APPLICATOR BOARD MOUNT
24	1	VP-Z-P1011156	xi4 24-28V APPLICATOR INTERFACE OPTION/MAINT KIT
25	1	VP-Z-57389M	APPLICATOR INTERFACE ASSEMBLY 24V
26	4	TP-214273	STAND-OFF, NYLON, 1/2", #440
27	6	TP-214327	SCREW JACK
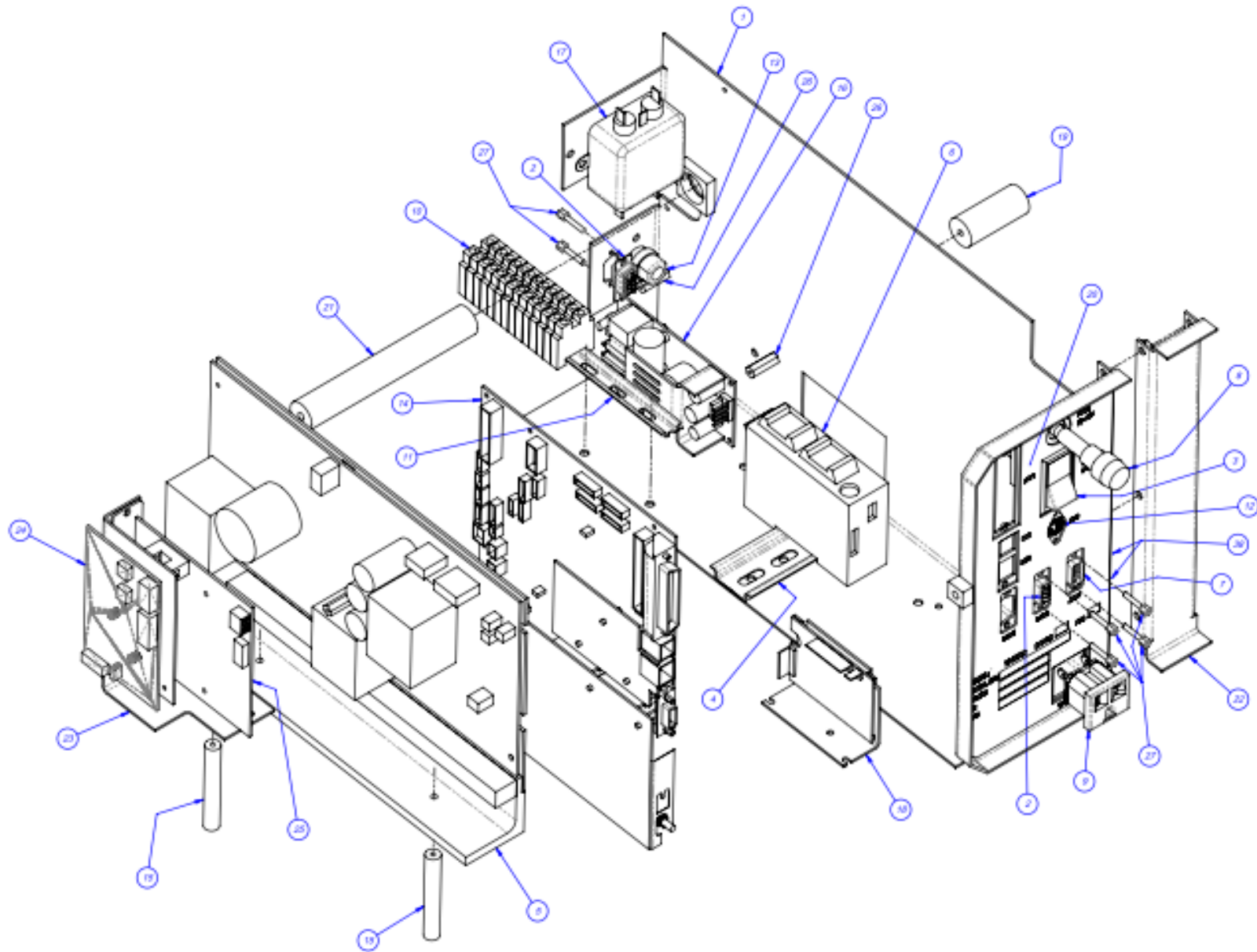
G. ZEBRA ROLL-A-PRINT ASSEMBLY

TA-T15-8001RAP

ITEM NO.	QTY	PART NO.	DESCRIPTION
1	1	TA-T15-8000	T-375 ZEBRA PRINTER
2	1	TP-T2Z8101	HINGE ASSEMBLY
3	1	TP-T2Z8102	LEXAN PRINTER GUARD
4	1	TP-T2Z2010	STOP BAR
5	1	TP-115111	BLADE DRAW LATCH
6	1	TP-T2Z2004	PRINTER PIVOT ROD
7	2	TP-T14M1035	GUIDE ROD HOLDER

TA-T15-8000-Z

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- 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 MAINT 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

FOUR INCH PRINTER SUBASSEMBLY

TA-T15-8000
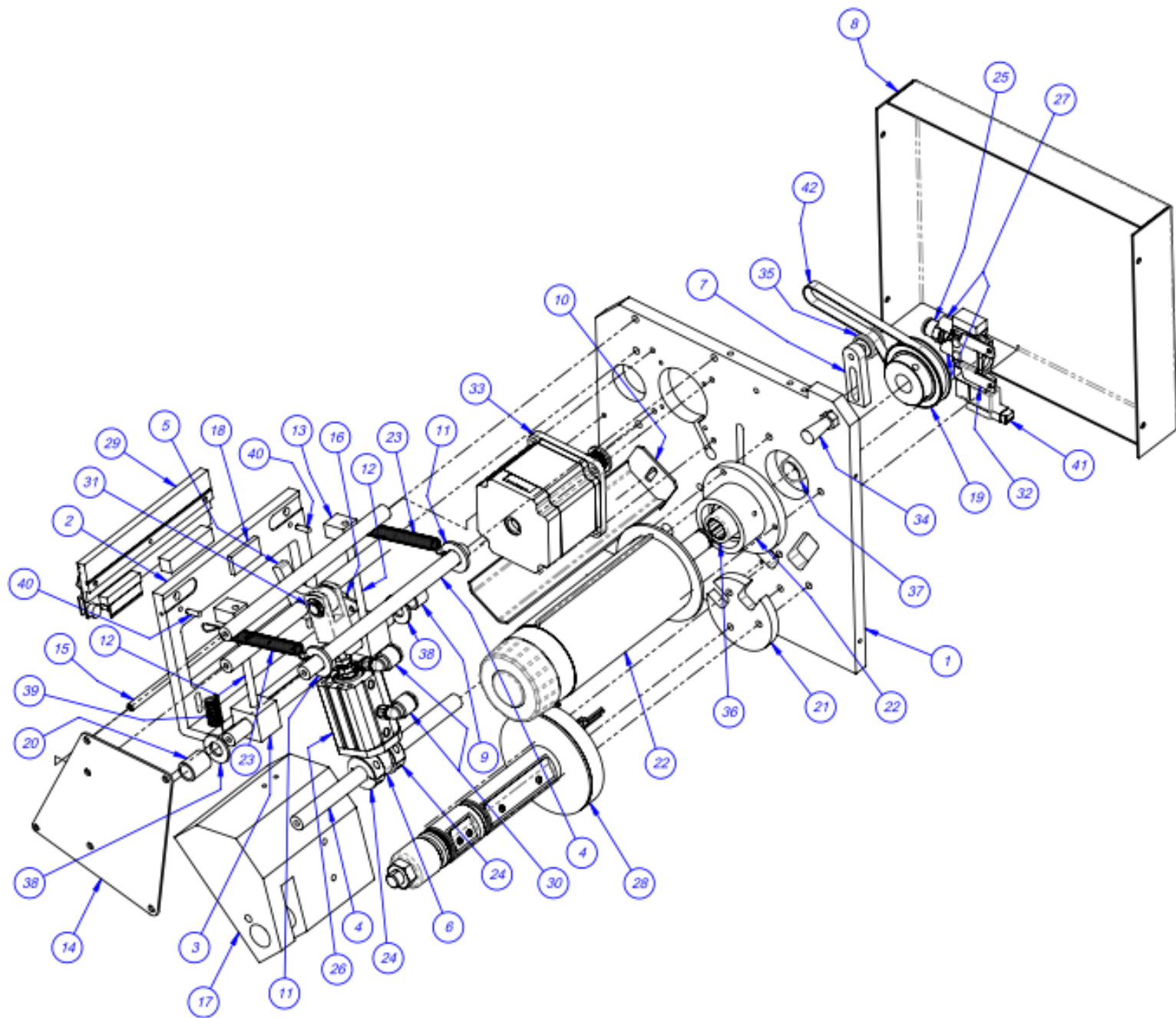
H. BAG OUT DETECTOR ASSEMBLY

TA-T2Z-BO10

ITEM NO.	QTY	PART NO	DESCRIPTION
1	1	TP-T15M8040	BAG OUT SENSOR BRACKET
2	1	TP-216101	1" DIAMETER REFLECTOR, ADHESIVE BACK
3	1	TP-216155	SENSOR CLEAR MATERIAL PHOTO CELL
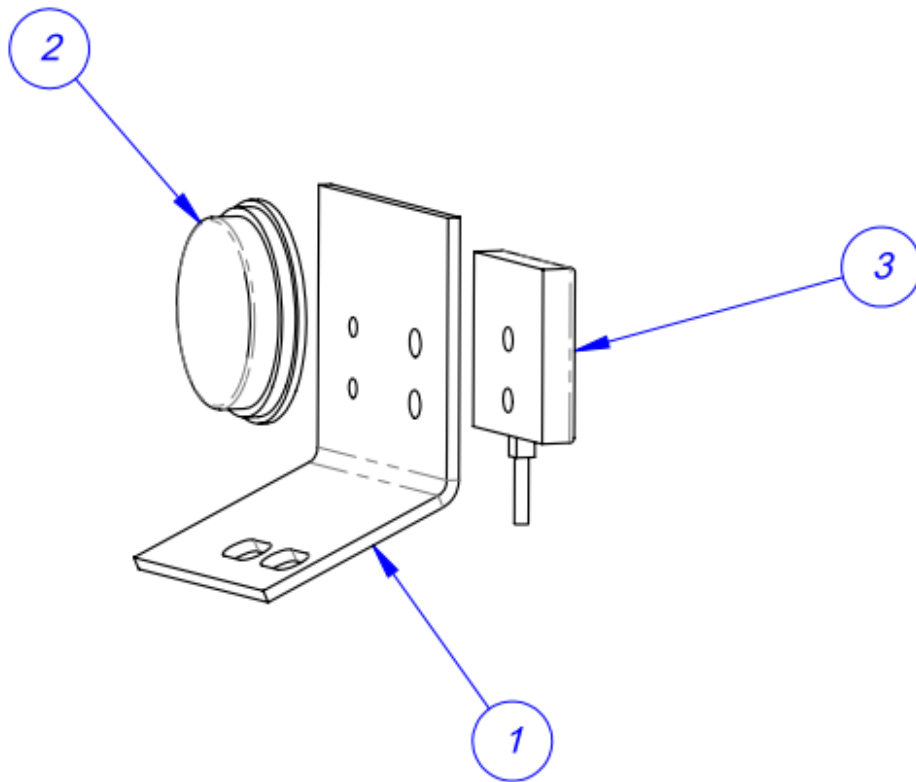
I. ELECTRONICS ASSEMBLY (8" Print Head Model)

TA-T2Z1000-08Z

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	SEE NEXT PAGE	ELECTRONICS ASSEMBLY
2	1	TP-501169-1	5- PHASE DRIVER
3	1	TP- T2ZRAP102	DRIVE MOUNT
4	1	TP-T1MC00021-RAP	TRANS MOUNTING PLATE
5	1	TP-211386	HIGH VOLTAGE TRANSFORMER
6	1	HP-58243A1	HEAT SHIELD
7	1	TP-T1ME00301	HIGH VOLTAGE BOARD
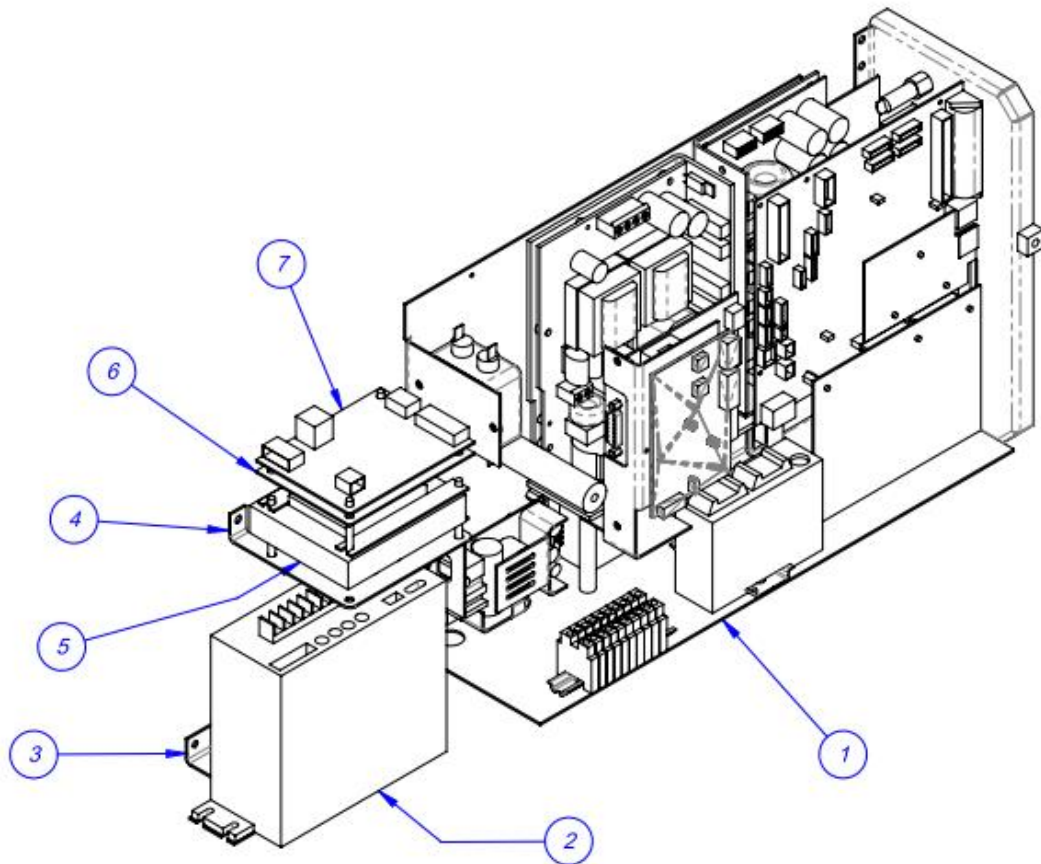
I.1 ELECTRONICS ASSEMBLY DETAIL

TA-T2Z1000-08Z

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	TP- T2Z1005	ELECTRONICS BASE
2	1	TP-215384	POWER SWITCH
3	1	TP-207216	FUSE HOLDER
4	1	TP-212247	CONNECTOR, MULTIPOLE RECTANGULAR
5	1	TP-212160	PLC CONNECTOR
6	1	V-Z-113-8K1-00070	LOGIC BOARD
7	1	TP-212246	CONNECTOR, MULTIPOLE RECTANGULAR
8	1	TP- 212410	AC OUTLET
9	1	TP-205108	EMI FILTER, CORCOM
10	1	TP-213361	24VDC, 3AMP POWER SUPPLY
11	1	TP-218020	System Layout
12	1	TP-208142, TP-218021	DIN RAIL & TERM BLOCK
13	1	(AC)VP-Z-P1007557, (DC)VP-Z-P1040670	AC/DC POWER SUPPLY
14	1	TP-501156	DC MOTOR DRIVE, DRIVEN PRINT ROLL
15	1	TP- T2Z2012	COVER PANEL STAND-OFF
16	1	TP-T2Z1004	APP BOARD & MOUNT
17	1	TP- T2Z1007	OVERLAY

ELECTRONICS ASSEMBLY

TA-T2Z1000-08Z
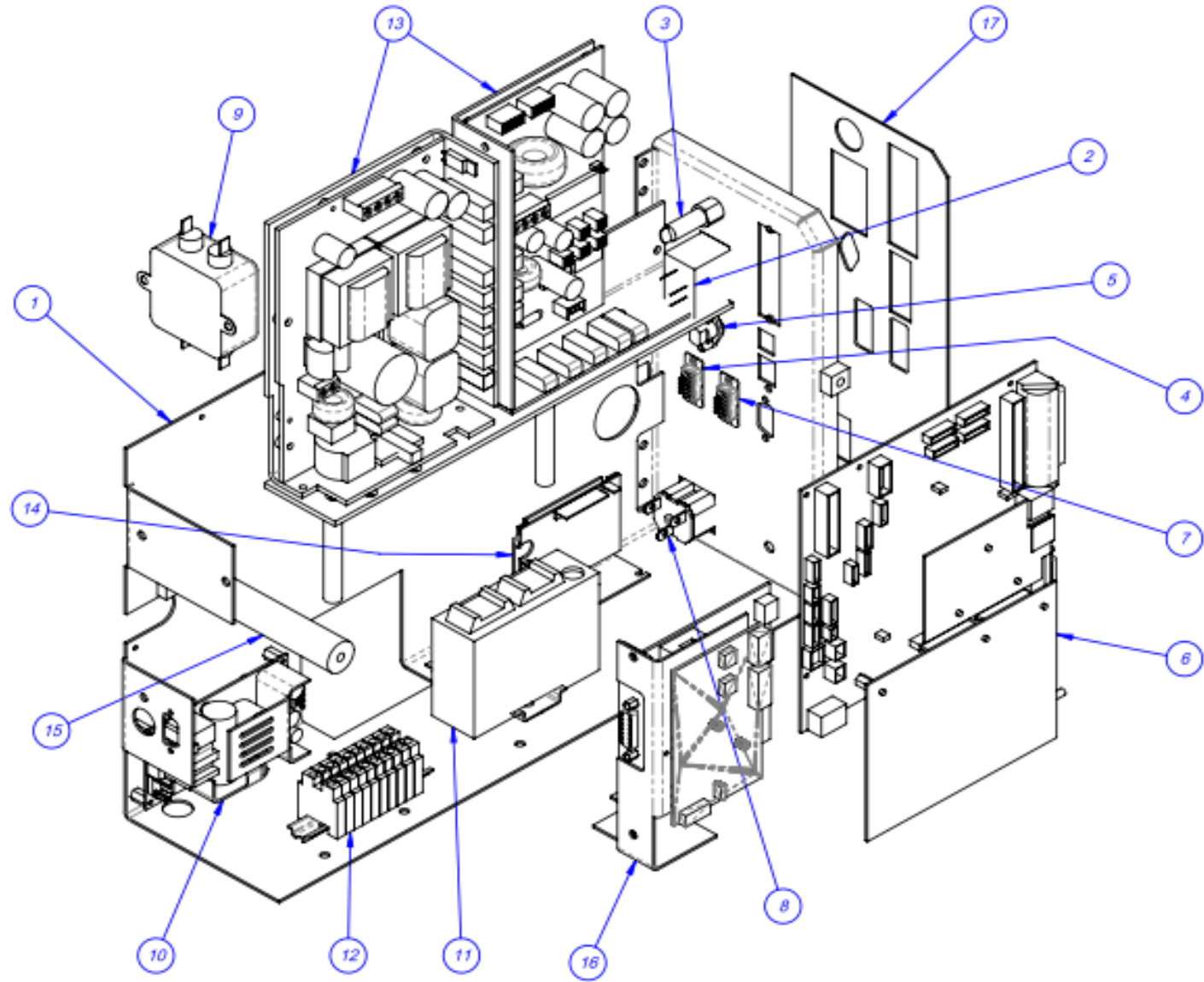
J. EIGHT INCH PRINTER ASSEMBLY

TA-T2Z8000-08Z

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	TP-T15M8001RAP	PRINTER SIDE PLATE
2	1	TP-T15M8002RAP	MOUNTING PLATE PRINT HEAD
3	2	TP-T15M8003	ADJUSTMENT BLOCK
4	5	TP-T15M8004RAP	SUPPORT ROD
5	1	TP-T15M8005	CAM-PRINT HEAD
6	1	TP-T15M8006	CYLINDER MOUNT
7	1	TP-T15M8008RAP	BELT GUARD
8	1	TP-T15M8010	LOCATING SPACER
9	2	TP-15M8012	SPRING MOUNT
10	2	TP-15M8013	ADJUSTMENT ROD
11	2	TP-15M8014	ADJUSTMENT ROD BLOCK
12	1	TP-T15M8030RAP	END PLATE
13	1	TP-T15M8031RAP	ROLLER SHAFT
14	1	TP-T15M8032	SHAFT MOUNT
16	1	TP-T15M0036	PIVOT BLOCK
17	2	TP-108127	SPRING
18	2	TP-111107	6435K33 COLLAR CLAMP
18	1	TP-402175	BRACKET
19	1	TP-402260	VALVE
20	2	TP-404263	MUFFLER
21	1	TP-401265	AIR FITTING
22	1	TP-403140	AIR CYLINDER
23	1	VP-Z-1006062	xi4 RIBBON SUPPLY SPINDLE MAINT. KIT
24	1	VP-Z-G22250	8" WIDE RIBBON TAKE UP SPINDLE
25	1	VP-Z-P1004238	8" PRINT HEAD, 203 dpi
26	1	TP-T15M-8011RAP	SENSOR BRACKET
27	1	TP-404148	CLEVIS
28	1	VP-Z-G31197M	203 dpi ZEBRA MOTOR 8" WIDE
29	1	TP-T15M8042	RIBBON TAKE-UP PULLEY
30	1	TP-T2Z8500	MICRO ADJUST ASSEMBLY
31	1	TP-T15M8007	BELT TENSIONER
32	1	TP-504138	CAM FOLLOWER
33	1	TP-T2Z2004	PIVOT SHAFT
34	2	TP-T14M1035	GUIDE ROD HOLDER
35	1	TP-503113	BELT

EIGHT INCH PRINTER ASSEMBLY

TA-T2Z8000-08Z
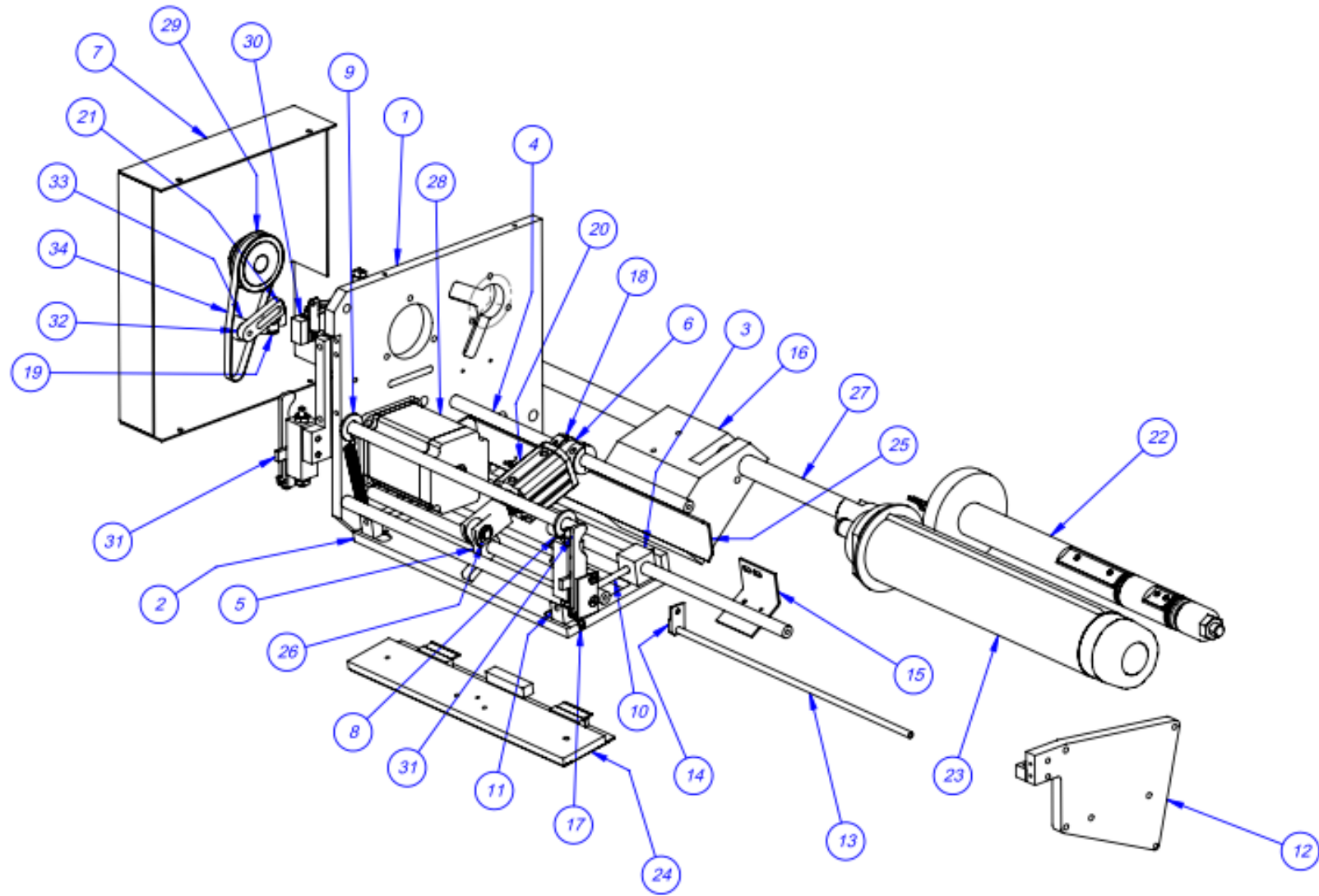
5.2 ROLL-A-PRINT 2800 SYSTEM LAYOUT
T-ROLL2800

ITEM NO.	QTY	PART NO.	DESCRIPTION	PAGE NO.
1	1	TA-T60050	STAND ASSEMBLY	28
2	1	TA-T2Z1000	ELECTRONICS ASSEMBLY	38
3	1	TA-T2Z8010RAP	FOUR INCH PRINTER	41
4	1	TA-T60052	IOP ASSEMBLY	37
5	1	TA-T60051	DANCER ASSEMBLY RAP1400	29
6	1	TA-T6000	MAIN BODY ASSEMBLY	33
7	1	TO-T1-WINDUP	DRIVEN REWIND UNIT	31
8	1	T-Ti1000Z	INLINE THERMAL PRINTER	51
9	1	D9-158977-302	WEB ROD	--
10	1	D9-158977-304	TIE PLATE	--
11	1	D9-158977-305	TIE SPACER	--

NOTE: The T-Ti1000Z Inline Thermal Printer is inverted when mounted to the Roll-a-Print 1400 to create the Roll-a-Print 2800. The drawings in this manual reflect the T-Ti1000Z printer as it is right-side-up.
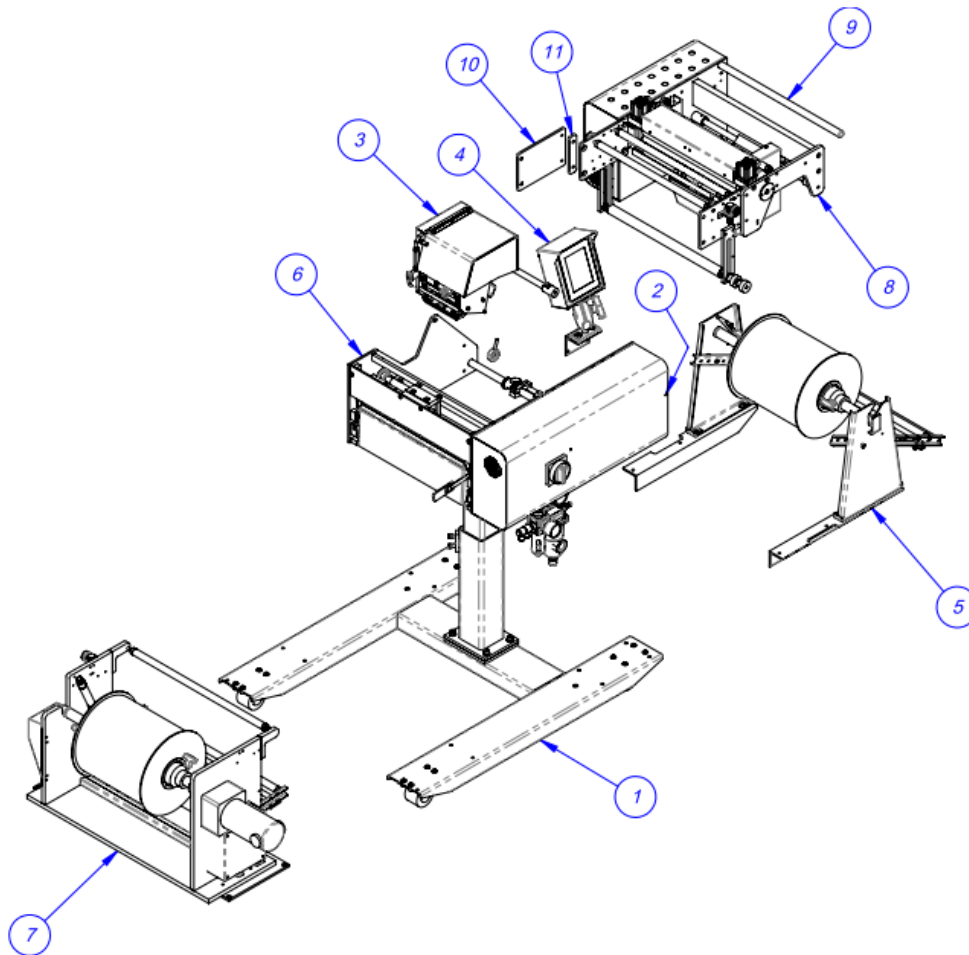
A. Ti-1000Z Inline Thermal Printer

T-Ti1000Z

ITEM NO.	QTY.	PART NO.	DESCRIPTION	PAGE No.
1	1	TA-T2Z1000	ELECTRONICS ASSEMBLY	39
2	1	TA-T2Z2000	MOUNTING ASSEMBLY	56
3	1	TA-T2Z2000-1	NIP ROLL ASSEMBLY	57
4	1	TA-T2Z4000	PRINTER REGISTER	58
5	1	TA-T2Z8000	ZEBRA PRINTER ASSEMBLY	42
6	1	TA-T2Z-BO10	BAG OUT DETECTOR ASSEMBLY	48
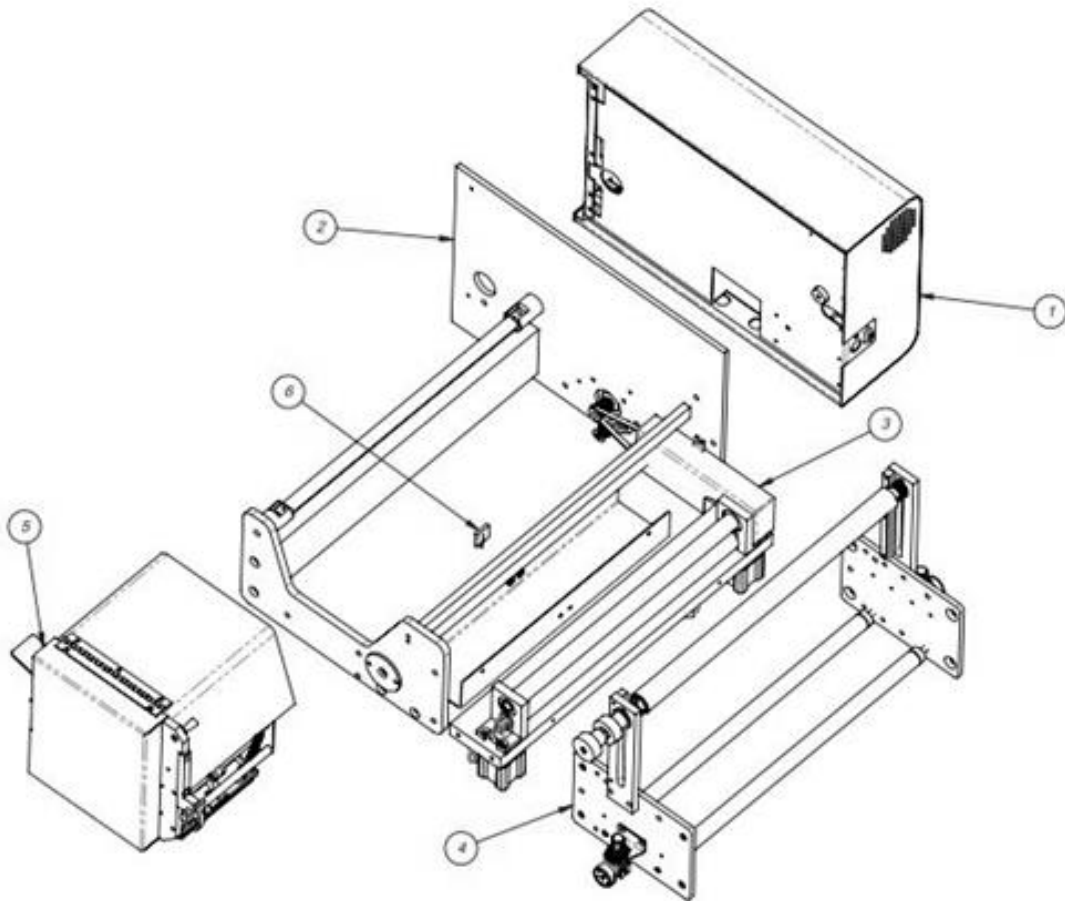
Mounting Assembly

PN: TA-T2Z2000

ITEM NO.	QTY.	PART NO	DESCRIPTION
1	1	TP-T2Z2002-1	MOUNTING SIDE PLATE - RIGHT SIDE
2	1	TP-T2Z2002-2	MOUNTING SIDE PLATE - LEFT SIDE
3	1	TP- T2Z2007	SUPPORT BRACE
4	2	TP- T14M1035	GUIDE ROD HOLDER
5	1	TP-T2Z2004	PIVOT SHAFT
6	1	TP-T2Z2005	LATCH BAR
7	1	TP-T2Z2011	BEARING PLATE
8	2	TP-504097	PRECISION FLANGED BALL BEARING
9	1	TP-T2Z2006	PRINT HEAD ROLLER
10	1	SEE ASSEMBLY	BELT IDLER
11	1	TP- T2AC10-012	BAG-OUT SENSOR MOUNT
12	1	VP-Z-46198M	MOTOR
13	1	TP-T2Z2022	TUBING COVER
14	1	TP-503187	BELT
15	1	TP- T2Z2013	BELT COVER
16	1	TP-T1MC00052	GUIDE ROLLER (PRINT REG)
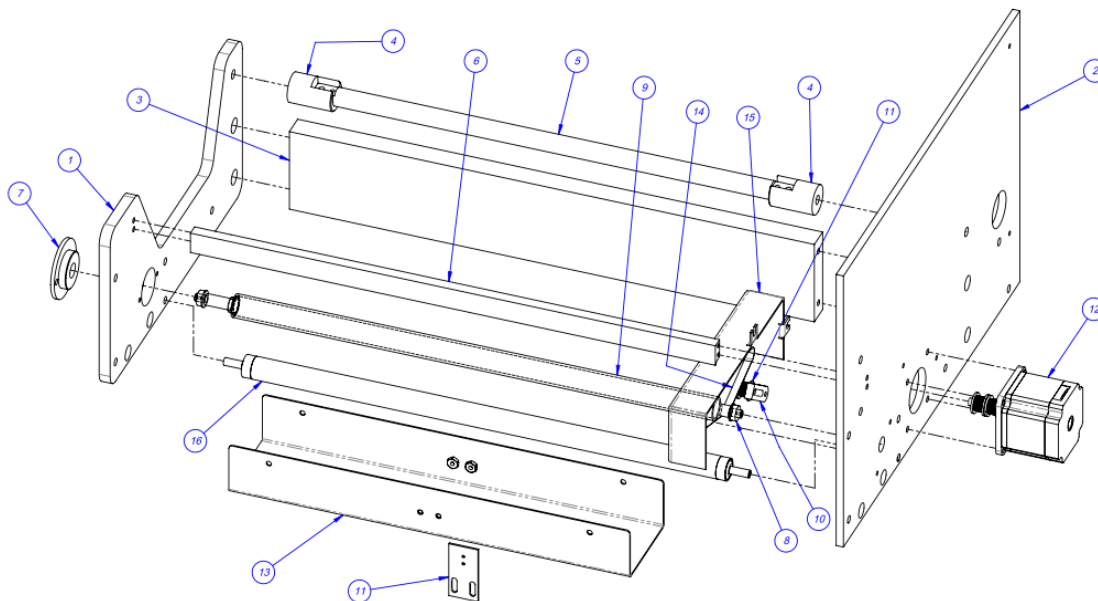
Nip Roll Assembly

PN: TA-T2Z2000-1

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	TP-T2Z2025	NIP ROLL DEAD SHAFT
2	1	TP-T2Z2026	ROLLER TUBE
3	2	TP-108092	3/8" SNAP RING
4	2	TP-T2Z4010	BUSHING CAGE
5	2	TP-403236	NIP ROLL CYLINDER
6	1	TP-404252	CLEVIS
7	2	TP-T2Z2030	CYLINDER PIN
8	1	TP-T2Z2029	MODIFIED CLEVIS
9*	1	TP-T2Z2016	NIP ROLL SUPPORT BRACE
10	2	TP-T2Z2028	BEARING HOUSING
11	1	TP-T2Z2027	DRIVEN NIP ROLL
12	2	TP-504129	½" BORE, 1- ½" O.D., 3/8 WIDEKP-A SERIES RADIAL TYPE
13	1	TP-T2Z2019	DRIVEN NIP ROLL PULLEY
14	2	TP-401277	ELBOW, ¼ TUBE x 10 – 32 TH'D
15	2	TP-402186	FLOW CONTROL
16	2	TP-401254	UNION TEE FITTING
17	1	TP-402255	VALVE
18	1	TP-402175	BRACKET
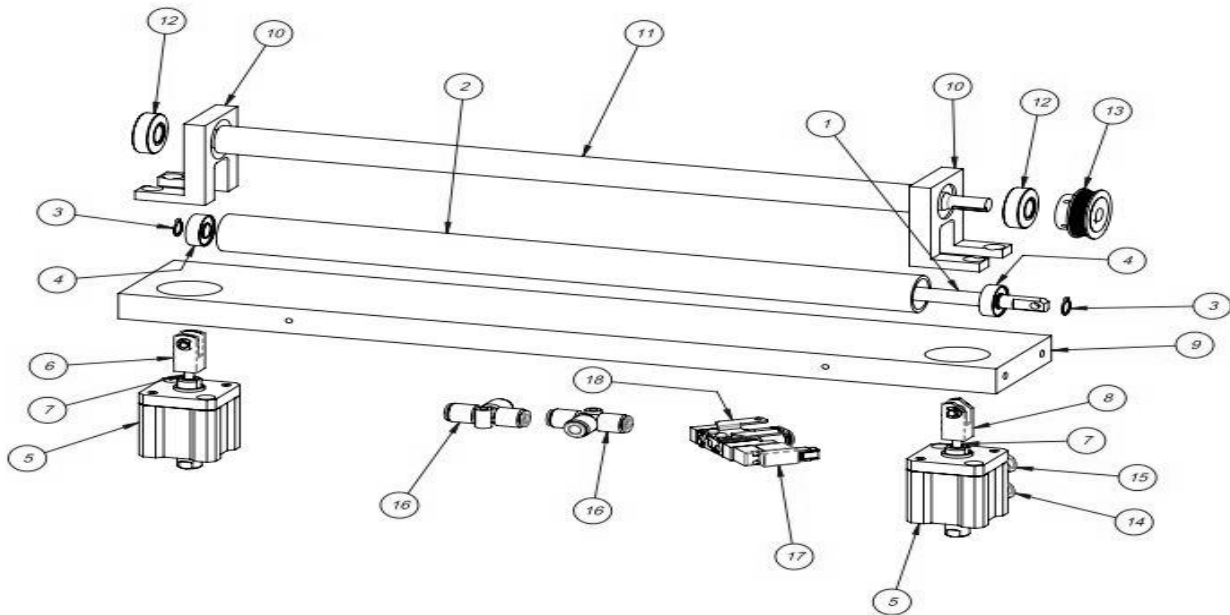
Printer Register

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	2	TP-T2Z4001	PRINTER MOUNTING BRACKET
2	2	TP-T2Z4002	RACK MOUNT
3	2	TP-406259	MINI-REG ASSEMBLY
4	2	TP-T2Z4003	SHORT GEAR RACK
5	1	TP-T2Z4004	GEAR
6	1	TP-T2Z4005	GEAR
7	2	TP-107108	BEARING
8	1	TP-T2Z4007	ROLLER TUBE
9	2	TP-T1MC00052	GUIDE ROLLER (PRINT REG)
10	4	TP-106106	SPRING PIN
11	2	TP-T2Z4010	BUSHING CAGE
12	1	TP-T2Z4006	ROLLER SHAFT
13	2	TP-109149	HANDLE, KNURLED STEEL

5.3 Notes

Date: Note: