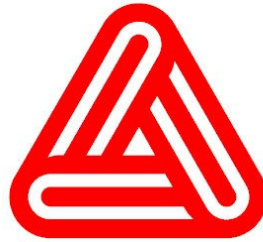
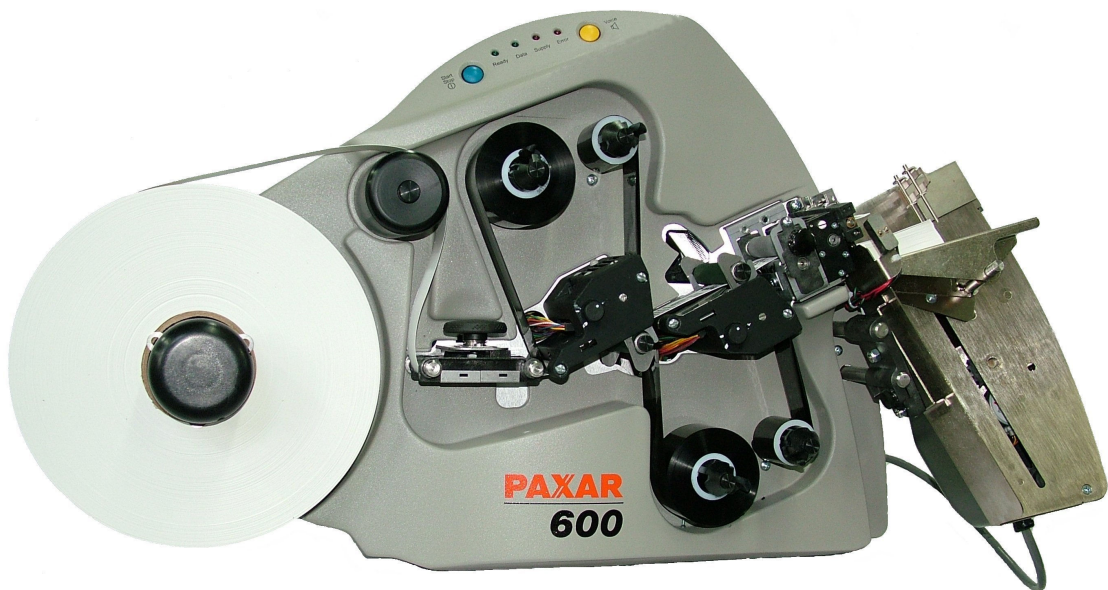

User's Manual



**AVERY
DENNISON®**

SNAP™ 600 Printer



**AVERY DENNISON
Manual Edition 2.1**

11 April 2011

Manual Part Number 591398

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1.0 Introduction

The AVERY DENNISON SNAP 600 printer is designed for convenience, easy installation and operation, and dependability. It is capable of printing two-sided brand/care labels at a rate of up to 12 inches (305mm) per second. Your AVERY DENNISON SNAP 600 printer allows for quick change-outs of inks, stock, and label sizes, providing the versatility required to meet most brand/care labeling needs.

This manual is prepared for the actual printer operator, and is intended to be an easy-to-use, quick reference guide. It contains procedures for receiving, handling, set-up, installation, operation, and maintenance of the AVERY DENNISON SNAP 600 printer.

Please read this section of the manual to familiarize yourself with the printer and to guide you through the initial receiving and set-up of your new AVERY DENNISON SNAP 600 printer. Throughout this manual, a system of NOTES, CAUTIONS, and WARNINGS has been used to quickly identify key information you need to help ensure your personal safety and to operate the printer properly.

Before you install or use your new AVERY DENNISON SNAP 600 printer, it is important to review all NOTES, CAUTIONS, and WARNINGS in this manual to help ensure maximum benefit from your printer. **We also strongly suggest that you watch the 17-minute training video, which will operate in any CD-ROM drive.** You may want to keep the training video with this manual for easy, quick reference in the future.



NOTES call attention to information that is especially significant to understanding and operating the equipment.



CAUTION notices inform you of actions or situations in which the printer might be damaged.



WARNING notices describe situations in which lack of attention or insufficient equipment knowledge could cause either personal injury or damage to the printer.

2.0 Installation

2.1 Preparing for the installation

2.1.1 AC Power Line



NOTE: AVERY DENNISON requires that the minimum electrical service be 10 Amps @ 115VAC or 6 Amps @ 230VAC. This will allow the AVERY DENNISON SNAP 600 printer, PC, and any additional support or service equipment to be plugged into the same service. It is highly recommended that the printer and its accessories be on a dedicated circuit.

The electrical service supplying power to the AVERY DENNISON SNAP 600 printer or to peripheral equipment connected to the AVERY DENNISON SNAP 600 printer should meet standard electrical code practices, including proper grounding and neutrals.

2.1.2 Location Considerations

The printer weighs 45 pounds (20.5 Kg) and requires a table of sufficient quality and strength to handle this load. The AVERY DENNISON SNAP 600 printer requires an area with the approximate dimensions of 72" wide x 30" deep x 32" high (1.8 m x 76 cm x 81 cm). The host PC (if used) and any printer options will increase the required area. AVERY DENNISON recommends using an industrial type worktable. Refer to Figure 1 below.

The AVERY DENNISON SNAP 600 printer is designed for easy operator accessibility to the printer controls and components. Select your AVERY DENNISON SNAP 600 printer's location to meet the following criteria:

1. Choose an area that maintains optimum flow of your product and allows for the operator's comfort. Consider the physical demands being placed on the operator with respect to height of the table on which the printer will be placed, the amount of space around the printer, and the operator's accessibility to the printer. Refer to Figure 1.
2. While AVERY DENNISON has designed the printer to be reasonably quiet, select an area where repetitious noise from printing and cutting processes is acceptable.



CAUTION: It is each customer's responsibility to make sure that the workstation created for the AVERY DENNISON SNAP 600 printer meets the recommended requirements to ensure optimal operation of the printer.

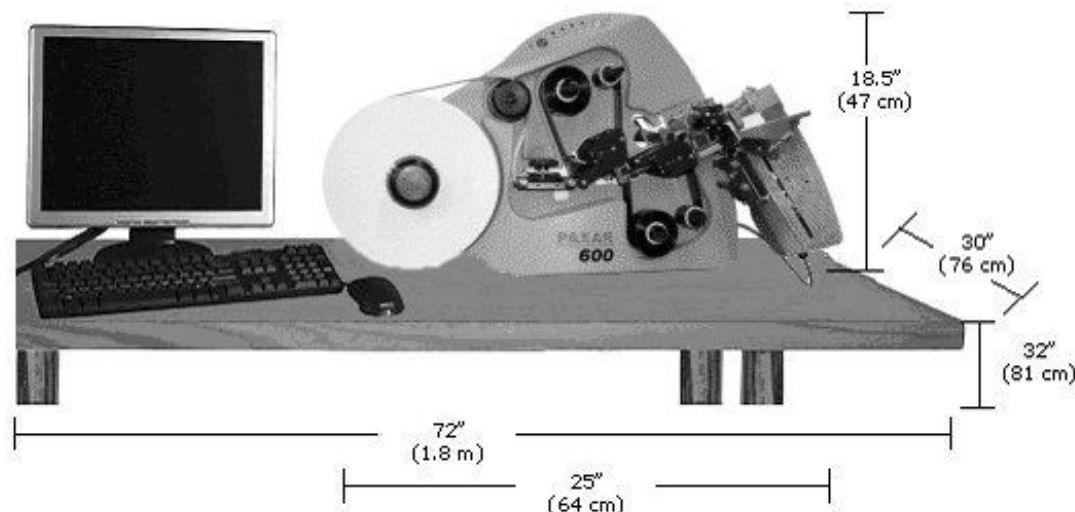


Figure 1. Recommended Workstation Layout

2.1.3 Personal Computer Requirements

This section describes the hardware and application software requirements for the personal computer you will be using to download information to the AVERY DENNISON SNAP 600 printer.

The AVERY DENNISON SNAP 600 printer can be connected to any type of computer capable of sending the AVERY DENNISON Command Language, or PCL.

PCMate Platinum application supports the new remote virtual control / display panel feature when using the AVERY DENNISON SNAP 600 printer. The software can also be automatically upgraded via the Internet, and it utilizes the higher communication speeds of the AVERY DENNISON SNAP 600 printer.



NOTE: When using PCMate Platinum, the following minimum system requirements are strongly recommended:

- IBM® PC or Compatible
- Microsoft Windows® 2000, XP or later
- 256 Megabytes of RAM
- At least 4 Gigabyte of available disk space
- Pentium III or later processor, 800Mhz minimum
- CD ROM drive
- Internet Connection to access software upgrades and remote diagnostics

Refer to your PCMate Platinum user's manual for proper installation procedures.

2.1.4 User Safety

1. Follow all of the safety requirements and procedures established for your facility.
2. Turn off the power to the printer before cleaning, servicing, or replacing any components.
3. It is not necessary to turn off the power when loading or changing supplies.



CAUTION: Since the AVERY DENNISON SNAP 600 printer has some pinch points; the machine has been designed to protect these areas. To optimize printer operation and performance, and to preserve the integrity of the machine's safety features, AVERY DENNISON strongly recommends that these features not be modified or bypassed.

2.2 Receiving

The AVERY DENNISON SNAP 600 printer-shipping carton weighs 65 pounds (30 Kg). It is shipped in a large cardboard carton specially made to protect the printer, and may be awkward or difficult to move by hand to its installation location.



CAUTION: Do not remove the printer from the carton or unpack in the shipping / receiving department.

1. Move the AVERY DENNISON SNAP 600 printer with a forklift, forkcart or handcart to its intended location. It is easier and safer to use one of these handling devices to move the printer. Leaving the printer in the carton while it is being moved within your facility will help protect it until placed in its new location.
2. The stacker, remote display/control unit and any other accessories purchased for the printer may be shipped separately.

2.3 Unpacking

2.3.1 Removing the printer from the carton

1. Open the carton from the top by removing the banding straps and/or cutting the taped seam on the top of the carton.
2. Remove the foam-packing layer (see Figure 2).



CAUTION: Do not discard any of the packing / shipping material in case you have to move the printer to another location or return it to AVERY DENNISON for service.

3. Open the plastic covering protecting the printer.
4. Position your left hand in the foam cutout above the stock arbor. Grasp the lower stacker-mounting shaft. Carefully lift it out of the box, and place the printer on the workstation table.
5. Turn the Stock Arbor knob counter-clockwise and remove the protective foam behind the Stock Arbor.
6. Unpack the stacker from its box and place it on the workstation table next to the printer. Refer to Section 2.5.1, Attaching the Stacker.

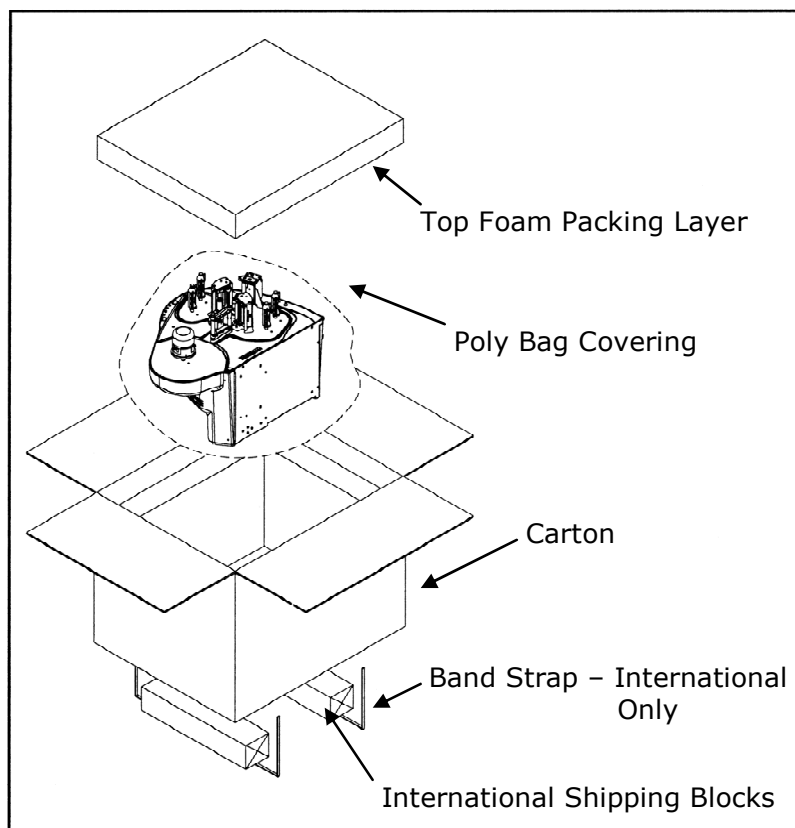


Figure 2. Shipping Carton

2.3.2 Inspection / Inventory Checklist

1. Inspect the printer for any damage that may have occurred as a result of shipping.
2. Check the AVERY DENNISON SNAP 600 printer shipping carton to be sure the following items are also included with your printer.

- ☐ AVERY DENNISON SNAP 600 printer User's Manual
 - ☐ Serial Cable
 - ☐ A quick-disconnect power cord for 115-Volt printer)
 - ☐ PCMate Platinum software (CD)
 - ☐ Instructional Video (CD)
3. If you see obvious damage to the printer, or if any items listed above are missing, contact AVERY DENNISON for further instructions.
- In the U.S.A., call (570) 888-6641, select option for Customer Service.
 - In all other countries, please contact your local AVERY DENNISON supplier.

2.4 Printer Description

Shown below are the important parts of the AVERY DENNISON SNAP 600 Printer. Please take a moment to familiarize yourself with the printer.

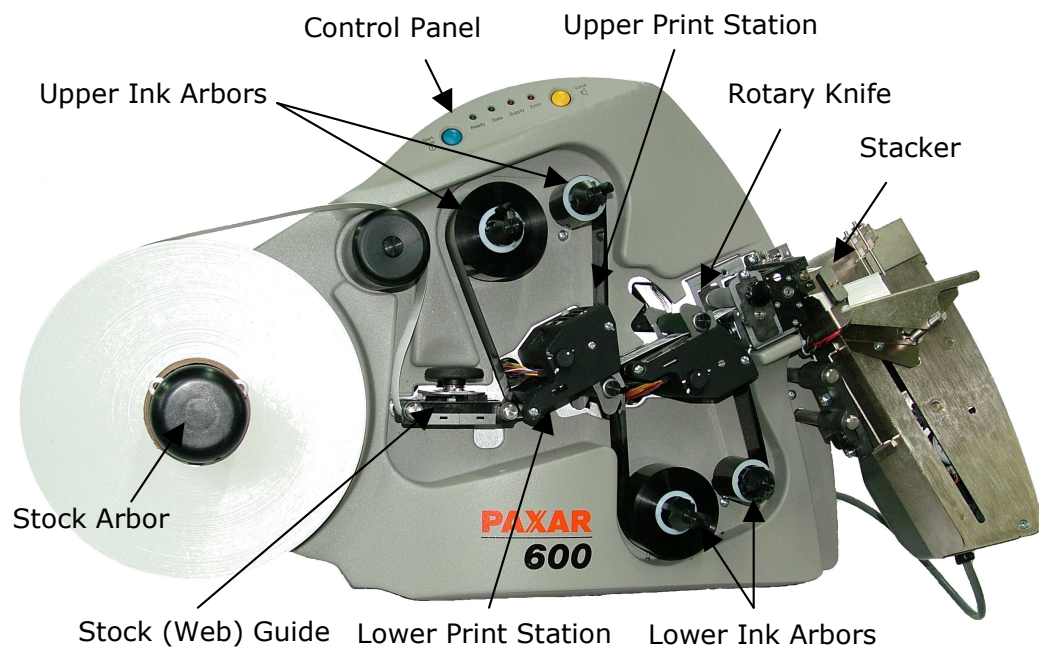


Figure 3. AVERY DENNISON SNAP 600 Printer



NOTE: Please take some time to become familiar with the printer's major components and their functions. Refer to Figure 3.

- **The Stock Arbor** holds the stock supply roll. By rotating the outer knob clockwise or counterclockwise, you can adjust the Stock Arbor to accommodate stocks ranging from ½ inch - 2 ¼ inches (12.7 mm - 57.2 mm) wide.
- **The Stock or Web Guide** is adjusted by rotating the black knob.
- **The Upper and Lower Print Stations** are equipped with knobs for adjusting print head pressure and print density to control the print quality.
- **The Upper and Lower Ink Arbors** are spring loaded, allowing them to open up and self center the ink cores to each other. They accommodate ink rolls ranging from 1 inch - 2 ½ inches with Inch Adapter or from 25 mm – 60 mm with the Metric Adapter.
- **A Rotary Knife Assembly** is supplied with the printer. For applications utilizing woven tapes, a Sonic Knife accessory option providing ultrasonic cutting and sealing is available.
- **The Stacker** collects the finished, printed labels. You can adjust it to accommodate a variety of label stocks and short or long labels. Once the stacker reaches the bottom, the printer will stop, indicate the stacker is full, and allow you to remove the labels.
- **The Control Panel** with buttons and LED's indicate printer status and information about specific jobs.



WARNING: This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

2.5 Setting Up the Printer

2.5.1 Attaching the Stacker

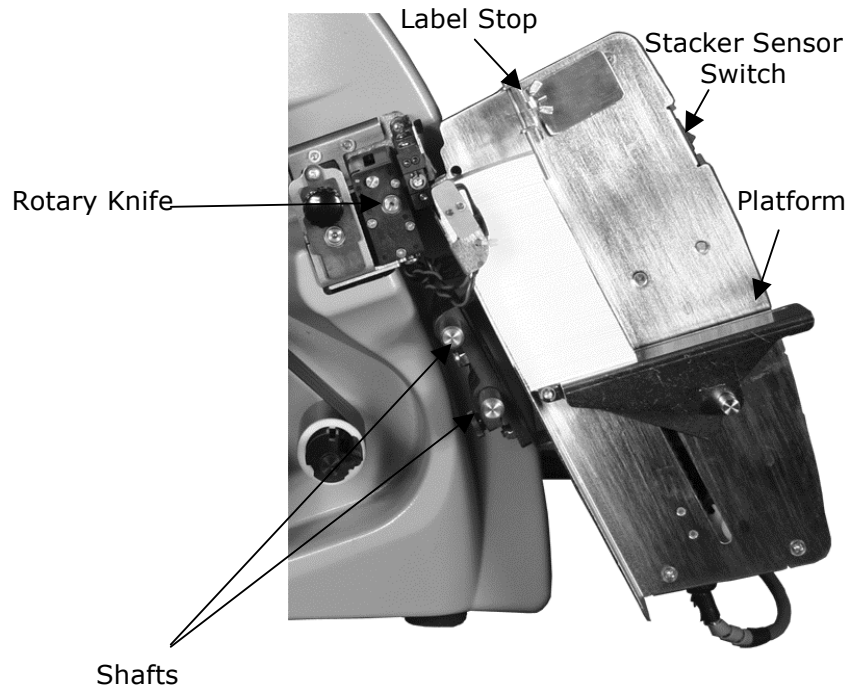


Figure 4. Rotary Knife and Stacker with Bottom Tipped Out

The stacker and knife are two separate assemblies that can be installed and/or replaced easily and quickly. For information on removing or adjusting the stacker, refer to Section 4.2.

1. Locate the two shafts on the printer below the Auxiliary Feed and Knife assembly (see Figure 4).
2. Slide the stacker onto the two shafts until the backside of the stacker is beyond the stock size to be run.



NOTE: Be sure to slide the top of the stacker behind the Nip Roller stripping plate.

3. Connect the stacker interface cable extending from the bottom of the stacker assembly into the larger connector on the right side of the printer. Rotating the connector and applying light pressure inward will help engage the connectors.



NOTE: There is a sleeve on the connector that will snap when the connector is fully engaged with the mating connector. The two cables will slide into each other only when the connectors are properly aligned with each other.

2.5.2 Checking the Main Fuse Configuration



WARNING: Before powering on the printer, you must check to be sure the main fuses on the AC power receptacle are set for the appropriate voltage for your location (Line voltage of 90-132VAC @ 50-60Hz, single phase or 180-265VAC @ 50-60Hz, single phase).

The main fuse(s) on the AVERY DENNISON SNAP 600 printer are located inside the AC power entry receptacle on the backside of the printer (see Figure 5). The AC power entry has a fuse drawer that holds the fuse(s) and selects the appropriate line voltage.

1. Look at the line voltage level shown in the window on the back of the printer (see Figure 1). If the number in the window matches the appropriate voltage for your location, you can proceed with setting up your printer.
2. If the line voltage does not match the voltage for your location, contact your local AVERY DENNISON supplier. To change the Fuse Configuration, see Appendix 1.
 - In the U.S.A., call (570) 888-6641.
 - In all other countries, please contact your local AVERY DENNISON supplier.



WARNING: Some printers require internal changes when switching the line (mains) voltage from 115V to 230V. Refer to Appendix 1 for instructions. Failure to follow the instructions may result in damage to the printer.



CAUTION: If the number in the window DOES NOT match the AC power line intended to be supplied to the printer, DO NOT plug in the power cord.



WARNING: Attempting to open the AC power entry with the AC power cord already inserted will damage the AC entry.

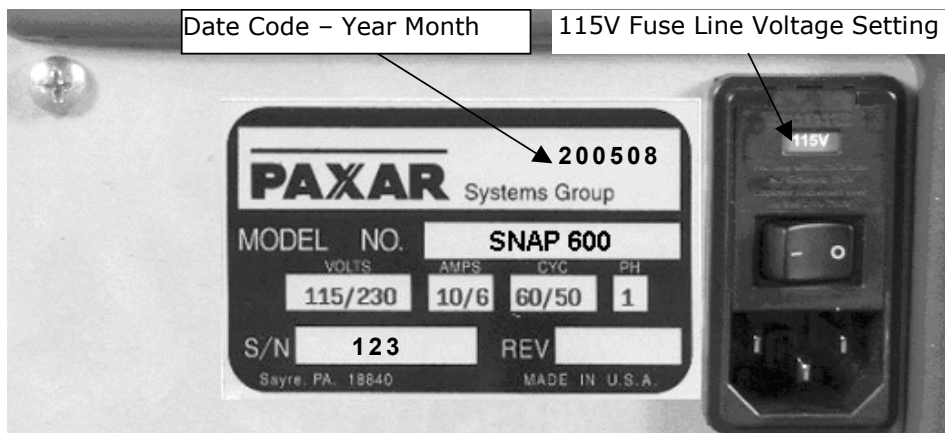


Figure 5. Right Side of Printer – Rear View

2.5.3 Installing the Power Cord

A quick-disconnect power cord is shipped with each 115V printer. The cord for 115V printers will use the standard three-prong plug used in the U.S.A.

If a power cord is not supplied with your printer, and your printer is operating at a rating other than 115V, you will need to obtain a power cord for your voltage application. The power cord should have an IEC-320-C13 plug on one end and the appropriate plug for your power receptacle at the other end.

1. Locate the AC power entry receptacle on the backside of the printer just below the power switch (see Figure 5).
2. Plug the power cord into the AC power entry receptacle.

2.5.4 Installing the PC Interface Cable

If you will be using your AVERY DENNISON SNAP 600 printer with a personal computer, one of the following computer interface cables is required:

- Null-modem serial cable with Part number 581139 connector
- USB / Serial adapter – Part number 581140
- Ethernet adapter

1. Locate the communication cable connectors on the backside of the printer (see Figure 6).
2. Plug in the serial cable connection to the serial port.

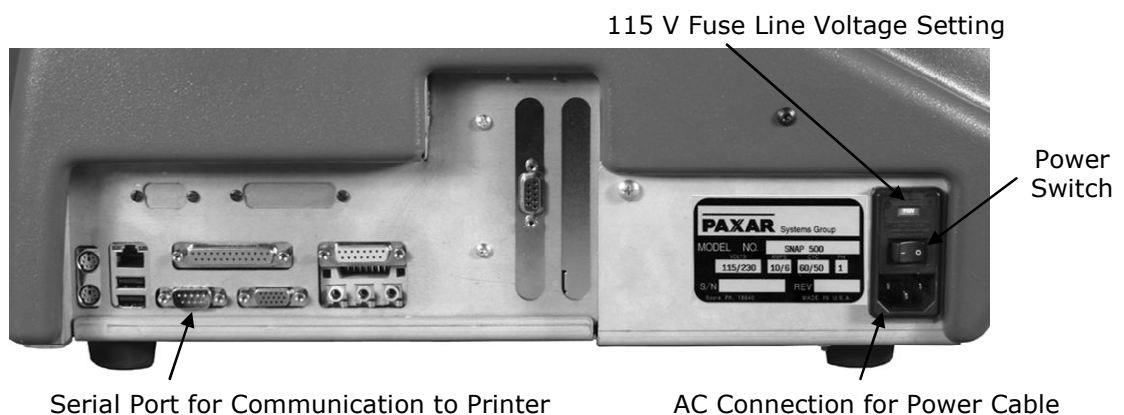


Figure 6. Rear View of the Printer

2.5.5 Installing PCMate Platinum Software

The software used to drive the AVERY DENNISON family of printers is covered in a separate manual. The PCMate Platinum software is a Windows® application used to create formats for the AVERY DENNISON SNAP 600 printer as well as all other AVERY DENNISON control printers.

The printer is also capable of operating directly from a mainframe when using the RS232 interface and AVERY DENNISON's command language (PCL).



NOTE: When using PCMate Platinum with virtual control / display interface, the remote control / display module will function. However, it is only needed when the printer is driven by a mainframe computer or other software interface packages.

2.6 Printing a Test Label

2.6.1 Loading Supplies

Before you can print a test label, the printer must be loaded with stock and ink. Refer to section 3.1 for instructions on loading the stock and ink.

2.6.2 Turning the Printer on

Turn the power switch on. The power switch is located on the back of the printer, just above the power cord.

The four lights on the Printer Control Panel will come on for a few seconds, and then all four lights will start to flash. This indicates that the printer is performing its internal diagnostic tests. After several seconds, the lights will stop flashing and the Ready light will come on. This indicates that the printer is ready.

If any problems occur, see sections 9 and 10, Troubleshooting.

2.6.2 Selecting the Test Format

There are two test formats built into the printer. These are selected using the Option Menu System. The steps below describe how to select one of the test formats. For more information on the Option Menu System, see section 3.4.



When the instructions say to press a button, press the button for a short time and release it. When the instructions say to press and hold a button, press the button and hold it down until the printer responds.

When you are in the Option Menu System, you can get out by pressing and holding the Voice button until the printer says "Returning to print mode."

1. Press and hold the Voice button until the printer says “Press Start for Test Patterns.”
2. Press the Start button. The printer will say “Press Start for Test Pattern 1.” If you want to print test pattern 1, press the Start Button, then go to step 3. If you want to print test pattern 2, press the Voice button. The printer will say “Press Start for Test Pattern 2.” Press the Start button.
3. The printer will say “Ready to print test pattern 1 (or 2), Returning to print mode.” At this time the Data light will come on. The printer is now ready to print the test labels.

2.6.3 Printing the Test Labels

Press the Start button. The stacker (if installed) will move the platform to its start position and the printer will begin printing the test labels.

If any problems occur, either the Supply or Error light will come on. If this happens, press the Voice button and the printer will say a message telling what the problem is. Correct the problem and press the Start button again. Repeat this until the printer runs continuously.

If you can't get the printer to run, refer to sections 9 and 10 Troubleshooting.

3.0 Operation

3.1 Loading Supplies

Your AVERY DENNISON SNAP 600 printer is designed with both upper and lower ink supply stations.

The ink arbors have a spring-loaded latch, which self-centers the roll of ink to ensure smooth tracking through the machine. If you are using supplies based on the metric system, ensure that the latch on the arbor is gray. If you are using supplies based on the inch, ensure that the latch on the arbors is black.

The ink cores have splines on their inside surfaces. These splines align with the grooves in the ink arbors. When installing the ink roll, the splines must align with the grooves.

3.1.1 Installing Ink to the Top Ink Supply Station

1. Install an empty ink core on the upper ink rewind arbor. It is important that the core be the same width as the core of the ink being used.



NOTE: The empty ink core should be the same width as the ink supply roll.

- a. Press the latch, rotate the core slightly to align the splines and grooves, and slide it gently onto the arbor. Release the latch as soon as the core starts to slide on the arbor.
- b. As you slide the core onto the arbor, you will hear a clicking noise as the latch ratchets onto the core. When the core is centered on the arbor, it will stop. See Figure 7.



CAUTION: To avoid damaging the print head, the ink supply roll should be ¼ inch (6 mm) wider than the stock.

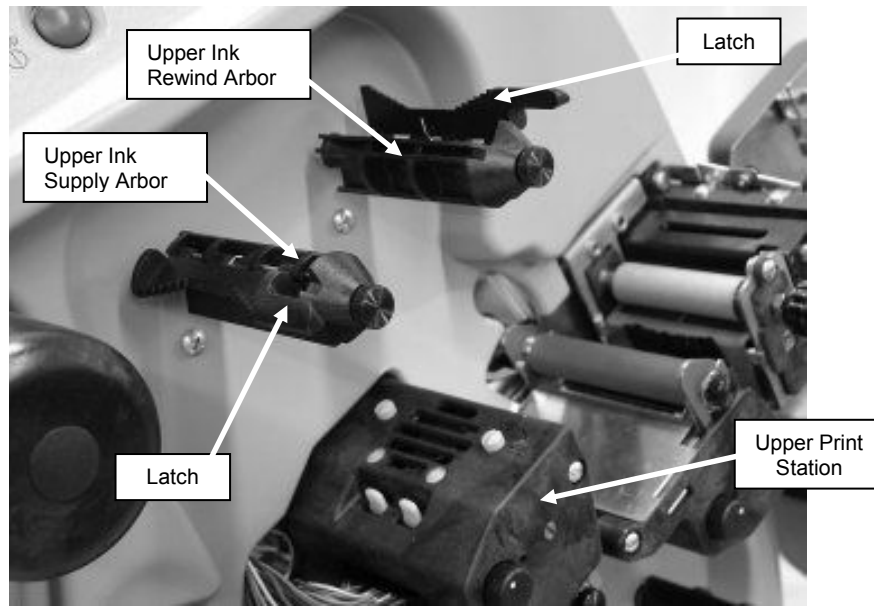


Figure 7. Upper Ink Supply and Print Stations - Unloaded



NOTE: The ink system is designed to rewind one roll of ink at a time. When the rewind core is full, replace it with an empty ink core. Do not try to add a second roll to the first rewind core, since it will not track through the printer correctly and will result in poor print quality.

2. Remove the plastic packaging around the roll of ink and install it on the ink supply arbor. Ensure that the leading edge is pointing toward the Stock Arbor.



NOTE: For best results, leave the ink roll wrapped in plastic until you are ready to use it in the printer.

3. Open the print roller (See Figure 8).
4. Pull the ink down and to the right, beneath the turn bar, between the upper print roller and the upper print station, toward the stacker side of the upper ink rewind arbor.

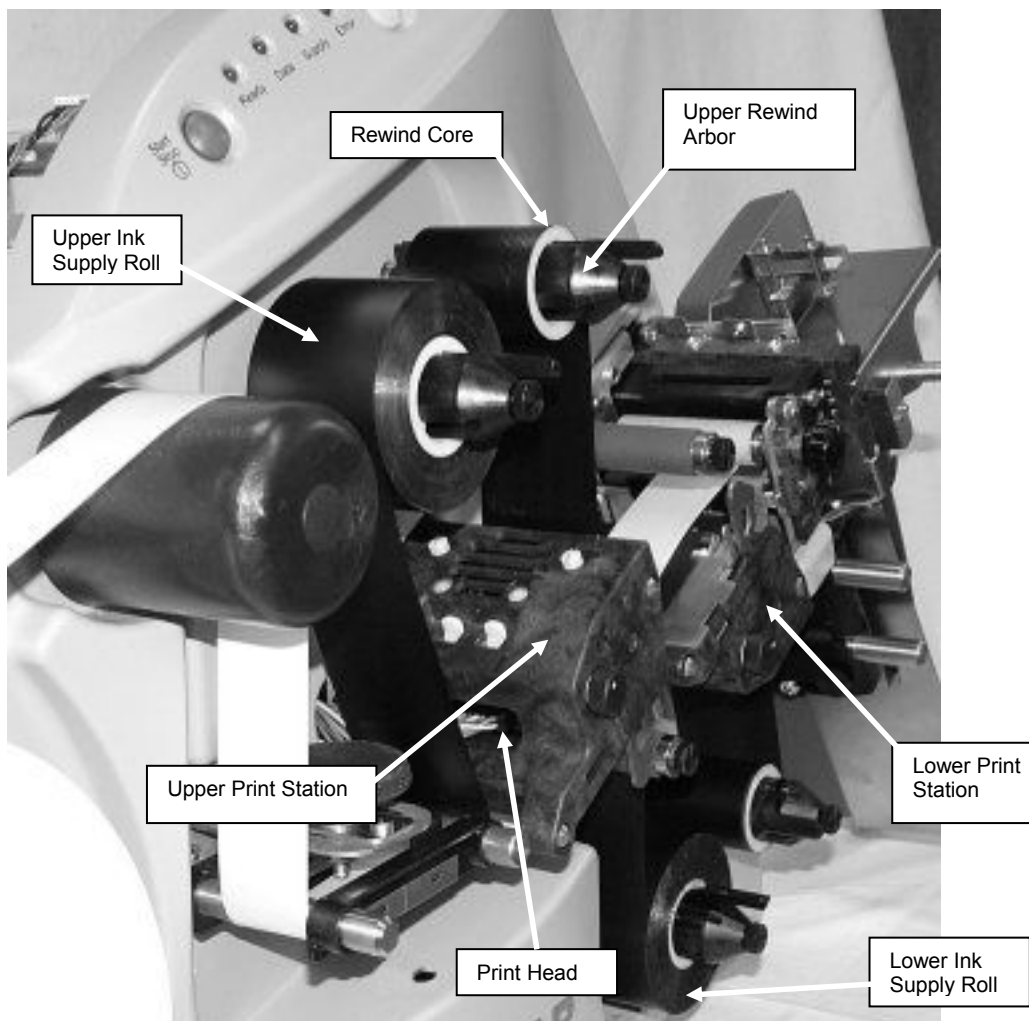


Figure 8. Upper and Lower Ink Supply and Print Stations - Loaded

4. Fasten the ink supply to the rewind core.
 - a. If you are using a new roll of ink, the leader you are advancing through the machine already has adhesive on it. Press the leader onto the rewind core until it sticks to the core.
 - b. If you are installing a partially used roll of ink, you must first attach a small piece of transparent tape to the leading end of the ink roll. Then, tape the end to the ink on the rewind core.
5. Wind the core for several turns to make sure the ink tracks flat as it is pulled through the printer.
6. To remove an ink core from the arbor, depress the latch and slide the core from the arbor. Save the empty core to be used as the next rewind core.

3.1.2 Installing Ink to the Bottom Ink Supply Station

Installing Ink on the Bottom Print Station is done in the same way as the Top Print Station, except that the ink runs up over the Turnbar, across the printhead to the rewind arbor.

3.1.3 Loading the Stock

Before loading a roll of stock, you will need to be familiar with the following parts of the AVERY DENNISON SNAP 600 printer (Refer to Figures 9 and 10).

The *Stock Arbor* is designed to clamp the core of the stock supply rolls to hold them in place during printing operations. By rotating the outer knob on the stock arbor, you can adjust for roll widths ranging in size from ½ inch - 2 ¼ inches (12.7 mm - 57.2 mm). This helps keep the stock straight while it moves to the center of the print head. To function properly, the stock roll must be wound firmly and centered on the core with no telescoping of the roll. You do not need to make any other adjustments.

The *Stock or Web Guide* is located between the Stock Arbor and Lower Print Station and guides the stock through the machine toward the print head. The black knob located above the web guide controls the width of the guides. Turning the knob clockwise will widen the web guides, while counterclockwise turns will narrow the web guides.

The *Upper and Lower Print Stations* on the AVERY DENNISON SNAP 600 printer are stationary. The rollers swing open and closed for threading and printing. These rollers are held in position for printing with latches on both the inside and outside end of the rollers.



NOTE: If you are printing two-sided labels, both print rollers must be closed in order for the printer to operate. If a two-sided label design is sent to the printer and the lower print roller is open, the Error LED will light up and the printer will stop. If you are printing single-sided labels, the lower print roller should remain open so the ink rolls will not rotate.

The *Stock Feed* is the assembly located in front of the knife. The Feed has a knob, which is used to manually advance the material through the knife, the nip roller, and into the stacker. (See figure 10)

New rolls of Supply Stock are sealed and packaged individually. When you are ready to load the stock, remove the packaging and follow the steps below.

1. Remove the transparent tape holding the end of the supply stock to the outer part of the roll. To avoid damaging the rollers or print heads, use scissors to cut off any portion of the supply stock that has adhesive on it.
2. Rotate the knob counterclockwise to retract the "fingers."

3. To install the stock supply roll, begin with the leading end at the top of the roll.
4. Slide the stock supply roll onto the Stock Arbor (see Figure 9).
5. Rotate the knob counter-clockwise quickly to extend the retraction fingers that hold the supply roll in place.
6. With both print rollers in the open position, pull the stock from the top of the supply roll, and over the Decurler Roller.

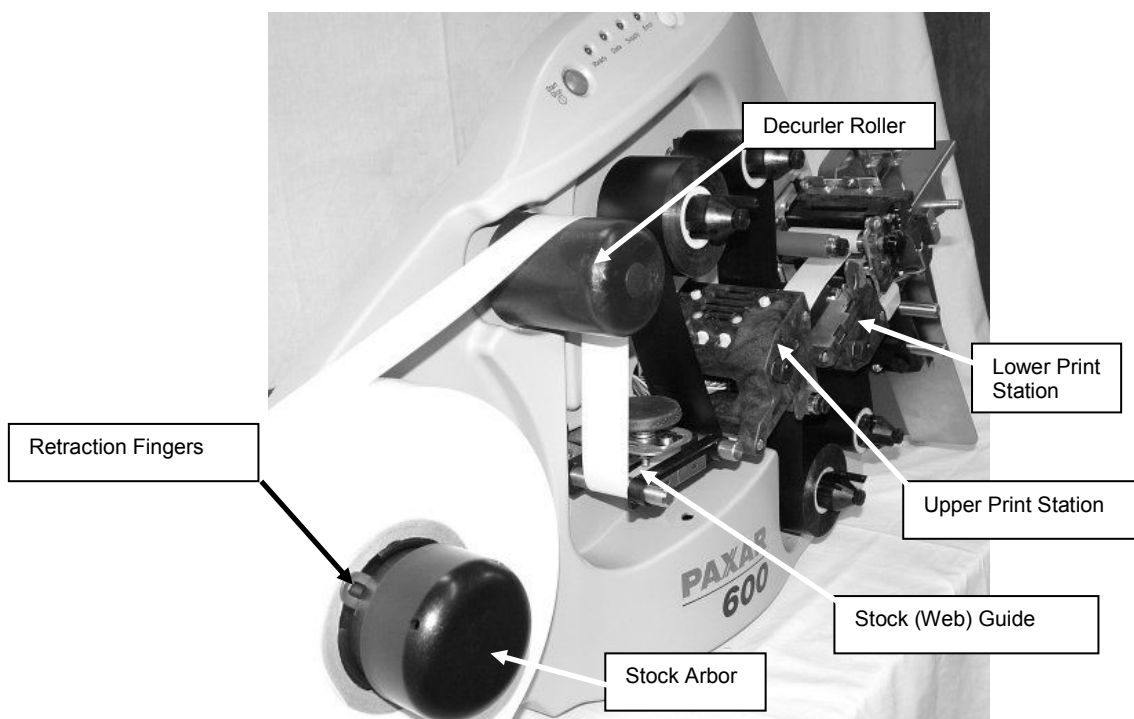


Figure 9. Stock Supply Through Print Stations

7. Pull the roll of stock under the stock (web) guides.
8. Continue threading the stock between the print rollers and through the feed.
9. Rotate the black knob on the feed counter-clockwise and advance the stock through the knife and nip rollers and into the stacker (until it extends about ½ inch or 10 mm - 15 mm from the rollers).
10. If the stock will not advance through the knife, refer to Section 5.4.2, Knife Home Position Adjustment.
11. Close the upper and lower print rollers.
12. Rotate the stock web guide knob to align it to the stock width.
13. Tighten the stock arbor knob to apply tension to the stock.

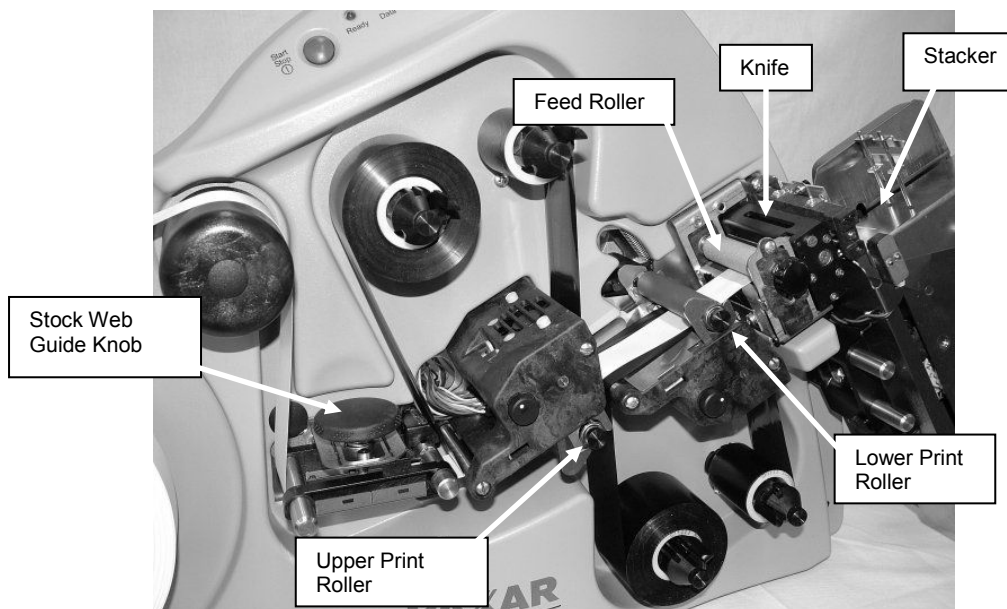


Figure 10. Stock Supply Through Knife and Stacker

3.1.4 Butt Splice



CAUTION: To prevent damage to the print head, do not use butt splices.

The AVERY DENNISON SNAP 600 printer is designed to allow for fast, frequent changing and loading of stock and supplies. On this model it is quicker to re-thread the stock than to use a butt splice.

3.2 Sending a Print Job to the Printer

In order to print labels, you must send a Print Job to the printer. The Print Job tells the printer what label to print, what information to print on the label, and how many labels to print.

How a Print Job gets to the printer depends on how your company system is set up. You may be using AVERY DENNISON's label design program PCMate Platinum, or you may be using a special application on a PC or a mainframe. Consult your supervisor on how your company sends Print Jobs.

3.3 Printing Labels

3.3.1 The Control Panel

The Control Panel on your AVERY DENNISON SNAP 600 printer is located at the top of the machine. Figure 11 shows the control buttons and lights displayed on the printer. The buttons allow you to control the printer, and the lights indicate the status of the printer.

- The Start Button starts and stops printing. If there are labels ready to print, pressing the Start Button starts printing. If the printer is running, pressing the Start Button stops printing.
- The Ready Light indicates the printer has been powered up, completed its diagnostics, and is ready to accept Print Jobs.
- The Data Light indicates you have sent a Print Job to the printer and it is ready to print.
- The Supply Light indicates that either the stock or ink supply has run out and needs reloading, or the stacker is full. It may also come on if you have an accessory attached and there is a problem with it.
- The Error Light indicates a problem exists somewhere in the printer.
- If the printer is not printing, pressing the Voice Button will play a message describing the status of the printer. If the printer is printing, pressing the Voice Button will stop printing.



Figure 11. Control Panel

3.3.2 Printing

Once a print job has been sent to the printer, the Data light will come on. You can then press the Start Button to start printing.

When printing starts, the stacker will move the platform up and down to position it in the correct position. Then the printer will start printing labels.

As the printer prints, the cut labels will drop onto the top of the stack. As the stack grows, the stacker platform moves down so that the top of the stack stays in the same position.

3.3.2.1 Handling the Leader

When you start printing for the first time, or after some errors, the printer will create a leader. The leader is a longer piece of material that may be blank or may have some partially printed labels. These labels are not usable and are not part of the print job.

When the printer creates a leader, grab it as it comes out of the nip rollers and pull it out of the stacker when the printer does the first cut. (If you are not using the stacker, or you are using some other accessory such as a Rewinder or Looper, you may need to handle the leader differently.)

3.3.3 Errors

If the printer encounters a problem during printing, it will stop printing and either the Supply or Error light will come on. The Supply light means that there is a problem with either the ink or the stock, or the stacker is full. The error light means that there is some other problem with the printer.

There are three ways to determine what the problem is:

1. Press the Voice button. A message will play that describes the problem.
2. The problem will be displayed in the Printer Status box on the Virtual Control Panel in PCMate Platinum. See section 8.0 for a description of the Virtual Control Panel.
3. The problem will be displayed on the Remote Front Panel option, if it is installed. See section 7.0 for a description of the Remote Front Panel.

Correct the problem and press the Start Button to start printing again.



NOTE: If the error condition no longer exists, the printer will start. It is not necessary to press the Start button twice as is required with previous AVERY DENNISON printer models. If the error continues to recur, contact your local AVERY DENNISON representative.

3.3.4 End of Day

When the printer finishes printing all the print jobs that have been sent, it will stop with a few labels left to print. This allows you to send another next print job and print it without wasting stock and ink. The Data light will flash to indicate this condition.

When this occurs, you may send another print job. The printer will start up automatically.

If you are finished for the day or you need to change stock or ink for the next print job, press the Start Button. The printer will print the last few labels of the last print job. You can then turn off the printer or change the stock and ink for the next print job.

3.3.5 Clearing Print Jobs

If you have sent print jobs to the printer and do not want to print the labels, press and hold both the Start/Stop and Voice buttons simultaneously. After about 2 seconds, the printer will say "Clearing Current Batch." If there is only one print job, the Data light will go out.

If there are more than one print job and you only want to clear the current one, release the buttons.

If there are more than one print job and you want to clear them all, continue to hold the buttons until the printer says, "Clearing All Batches."

3.3.6 Using Pre-Printed Stock

When using pre-printed stock, the printer must detect a sense mark on the stock in order to print in the proper place. There are five methods for detecting the sense mark - two standard methods and three optional methods.

- The AVERY DENNISON 600 printer has two through-hole sensors standard with each printer. One sensor is mounted in the web guides and will detect a hole or slot on the inside edge of the stock. This system moves with the web guides so it is necessary for the web guides to be properly adjusted. The other sensor will detect a hole or slot centered on the stock. Choosing between these systems is controlled by a toggle switch located on the right end of the printer between the printer and the stacker. Pressing the top of the switch will select the edge sensor, and pressing the bottom of the switch will select the center sensor.
- A top reflective sensor is available as an option. This sensor is fixed in the center of the left web guide shaft and will detect a black sense mark printed on the top of either tape or tag stock.
- A bottom reflective sensor is available as an option. This is installed in a bracket assembly mounted directly below the left web guide roller and is

capable of traversing the entire width of the stock and will detect a black sense mark on either tape or tag stock.

- Two contrast sensors are also available as options. Both are dimensionally identical and use a fiber-optic pickup tube mounted in the up-right frame with the tip protruding into a slot in the left web guide shaft. The first is a contrast sensor for more easily detected sense marks. The second is a color/contrast sensor for colored and difficult to detect sense marks.
- The fiber-optic pickup tube is moveable and will detect sense marks across the entire width of the supply. Refer to appendix 7 for instructions on teaching these sensors.

3.3.6.1 Selecting the Sensor

The type of sensor to be used can be selected in one of two ways. First, the sensor type can be selected as part of the format (see the PCMate Platinum manual or the PCL manual for details).

The sensor type that is selected in the format can be overridden using the Virtual Control Panel (see section 8.0) or the Remote Front Panel (see section 7.0). If the Format sensor type is selected, the printer will use the sensor specified in the format. If one of the other sensor types is selected, the printer will use that sensor and ignore the selection in the format.



The printer does not know if the optional sensors are installed. If one of these sensors is selected but not installed, the printer will not operate properly.

3.3.6.2 Aligning the Stock to the Sensor

In order to work properly, the stock must be aligned to the sensor before starting to print. To do this, close one or both print-head rollers (depending on whether the label is single- or double-sided) and use the Auxiliary Feed knob until the sense mark is just to the left of the sensor. Then rotate the ink rewind arbors to take up any slack and press the Start Button.



This alignment must be done anytime the printer would normally create a leader. This will happen after most errors. Do not align the stock after a normal stop or a stacker full.

3.3.7 Feeding the stock

To feed the stock, press and hold the Start button. After a short delay, the printer will feed stock through the printer. To stop the feed, release the Start button.

If you are in the middle of printing a batch, feeding the stock will cause the printed labels between the printhead and the knife to feed through without cutting. These labels will be re-printed the next time you start printing. The batch quantity will be correct.

3.4 Option Menu System

The Option Menu System allows you to

- Print test labels
- Play demos

- Set the voice volume



When the instructions say to press a button, press the button for a short time and release it. When the instructions say to press and hold a button, press the button and hold it down until the printer responds.

When you are in the Option Menu System, you can get out by pressing and holding the Voice button until the printer says "Returning to print mode."

You will use the Start / Stop and Voice buttons to move through the Option Menu System. Each time you press a key, a voice message will follow, or the machine will initiate or stop an action. Regardless of which of the three functions you want to select in the Option Menu System, you select it the same way:

1. Press and hold the Voice button for about two seconds.
2. The Voice message will say, "Press Start for Test Pattern."
3. If you do not want to run a test pattern, press the Voice button.
4. The voice message will say, "Press Start for Demos."
5. If you do not want to listen to the demos, press the Voice button.
6. The voice message will respond with, "Press Start to Set Volume."
7. If you do not want to change the speaker volume, press the Voice button.
8. The printer will say "Returning to Print Mode." At this time the Option Menu System is complete and the printer is back to normal operation.

For more information on how to utilize each of the three possibilities in the Option Menu System, refer to Sections 3.4.1, Running Test Labels; 3.4.2, Using Voice Demos; and 3.4.3, Setting / Adjusting Voice Button Volume. Appendix 8 contains a flowchart of the Option Menu System.

3.4.1 Running Test Labels

Your AVERY DENNISON SNAP 600 printer offers you two Test Patterns to run before you proceed to production.

Test Pattern 1, consisting of a solid line down the middle on the front and back of the label and a solid line across the web that is exactly 1" from the cut. This test pattern is helpful in adjusting your print position to compensate for mechanical tolerances in the printer.

Test Pattern 2 more closely resembles an actual label and can be used to make adjustments to the printhead pressure and contrast (see sections 4.1.1 and 4.1.2).

When you have determined which Test Pattern you wish to operate, use the appropriate procedure.



NOTE: The printer is set up to print the selected label test format in a very large quantity. You must manually start and stop the printing to make any necessary adjustments and to end the test run.

Test Pattern 1

1. To run a test label, press and hold the Voice button about two seconds. The voice message will say, "Press Start for Test Pattern."
2. Press the Start / Stop Button. The voice message will say, "Press Start for Test Pattern 1."
3. Press the Start / Stop button. The voice message will respond with, "Ready to Print Test Pattern 1. Returning to Print Mode." The Data light will turn on.
4. Press the Start / Stop button. The machine will begin printing Test Pattern 1.
5. To stop printing the test labels, press the Start / Stop button. The Data light will remain on. Make any necessary adjustments, and press Start / Stop to resume printing the test labels.
6. Once satisfied with the test label you are running, press either the Start / Stop or Voice button to stop the test run. The Data light will remain on.
7. Press and hold the Start / Stop and Voice buttons simultaneously to clear the current batch of labels being printed.
8. The voice message will say, "Clearing Current Batch." The Data light will go out.

If you want to run Test Pattern 2, you must first clear the batch, and begin with Step 1 for Test Pattern 1.

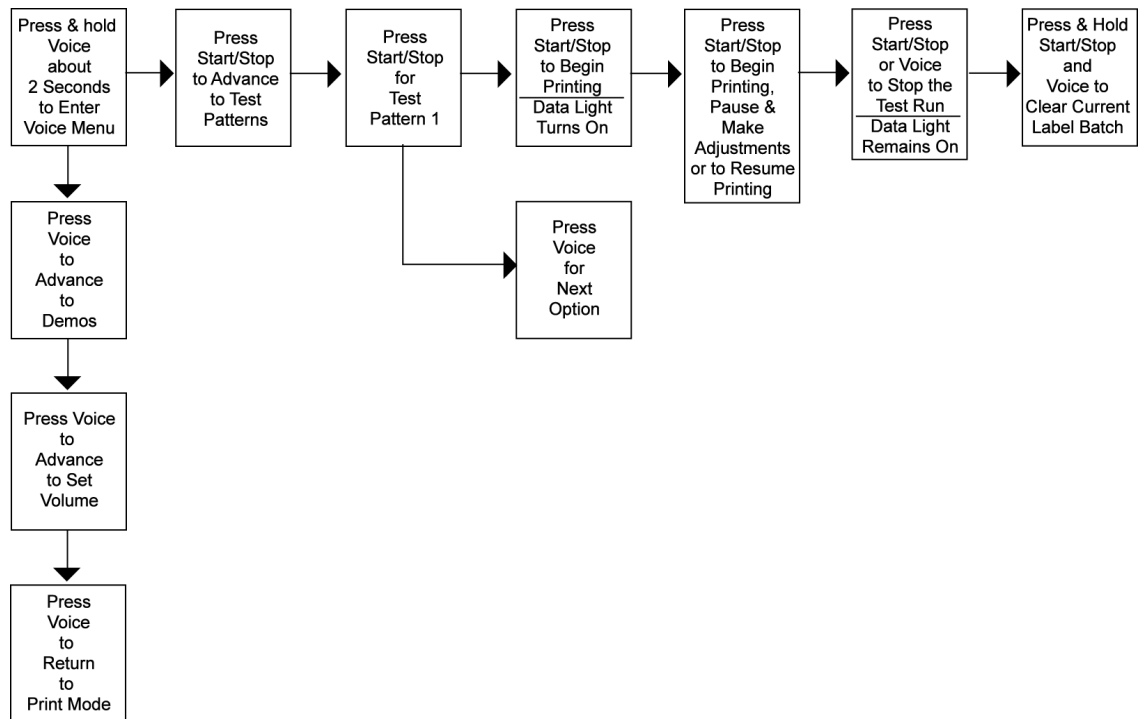


Figure 12a. Running Test Patterns

Test Pattern 2

1. Press and hold the Voice button for about two seconds. The voice message will state, "Press Start for Test Pattern."
1. Press the Start / Stop button. The voice message will state, "Press Start for Test Pattern 1."
2. Press the Voice button.
3. The voice message will say, "Press Start for Test Pattern 2."
4. Press the Start / Stop button. The voice message will say, "Ready to Print Test Pattern 2. Returning to Print Mode." The Data light will turn on.
5. Press the Start / Stop button. The machine will begin printing Test Pattern 2.
6. To stop printing the test labels, press the Start / Stop button. The Data light will remain on. Make any necessary adjustments, and press Start / Stop to resume printing the test labels.
7. Once satisfied with the test label you are running, press either the Start / Stop or Voice button to stop the test run. The Data light will remain on.
8. Press and hold the Start / Stop and Voice buttons simultaneously to clear the current batch of labels being printed.
9. The voice message will say, "Clearing Current Batch." The Data light will go out.

3.4.2 Using Voice Demos

To help you become more familiar with your AVERY DENNISON SNAP 600 printer, the machine is equipped with two voice demos. Demo 1 provides a basic introduction to the printer. Demo 2, consisting of 21 separate voice messages, reviews the basic features of the printer one-by-one.



NOTE: To exit the Voice menu, press and hold the Voice button at the end of any voice prompt.

Demo 1

1. Press and hold the Voice button longer than two seconds to activate the Option Menu System.
2. The voice message will say, "Press Start for Test Pattern."
3. Press the Voice button.
4. The voice message will say, "Press Start for Demos."
5. Press the Start button.
6. The voice message will say, "Press Start for Demo 1."
- 7A. Press the Start button. The machine will play Demo 1 and exit.

Demo 2

If you want to select Demo 2, repeat steps 1-6 in the Demo 1 section above.

- 7B. Press the Voice button. The voice message will say, "Press Start for Demo 2."
8. Press the Start button. This will activate the series of 21 voice messages. At the end of each message, you can either press Voice to repeat the message, or press Start to advance to the next message.



NOTE: When listening to Demo 2, press the Voice button to repeat a message, and press the Start / Stop button to advance to the next message.

9. After the last message plays, the machine states, "This concludes our demo." The machine exits by itself.
10. If you are at Step 7B above and you decide not to listen to Demo 2, press the Voice button, which advances you to the Change Volume menu. The voice message responds with, "Press Start to Set Volume."

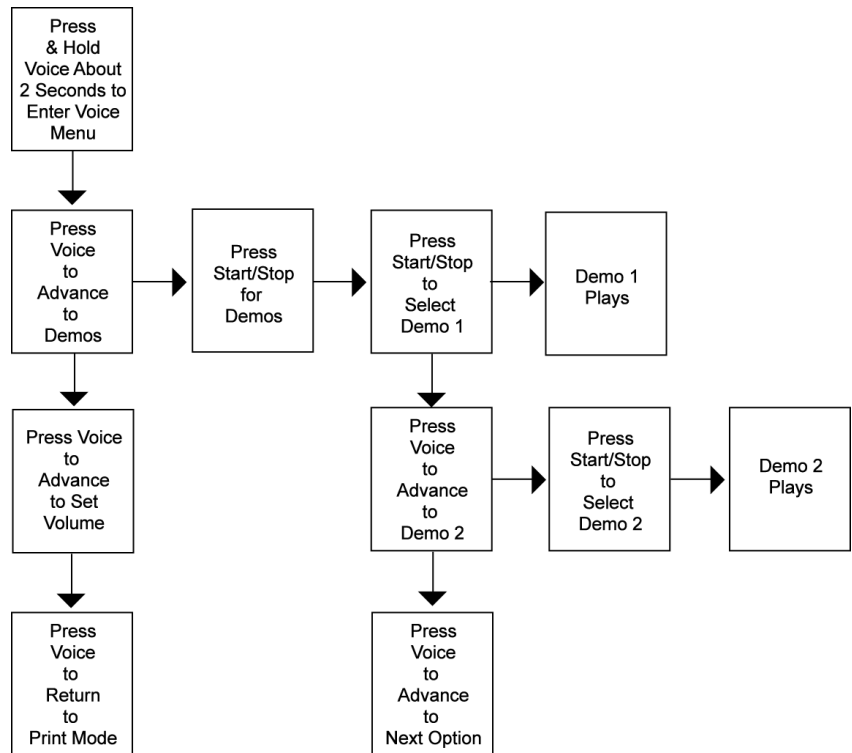


Figure 12b. Running Voice Demos

3.4.3 Setting / Adjusting Voice Button Volume

The volume level of the voice messages on your AVERY DENNISON SNAP 600 printer is set at Level 3 at the factory. If you want to adjust the voice button's volume setting on your printer, follow the steps listed below.



NOTE: When you select volume setting, the menu will begin with the current volume at which your machine is set, Level 3.

1. Press and hold the Voice button longer than two seconds to activate the Option Menu System.
2. The voice message will say, "Press Start for Test Pattern."
3. Press the Voice button. The voice message will say, "Press Start for Demos."
4. Press the Voice button. The voice message will say, "Press Start to Set Volume."
5. Press the Start / Stop button. The voice message says, "Press Start for Volume Level 3."

To increase from volume level 3 to 5, follow these additional steps.

6. Press the Voice button. The voice message says, "Press Start for Volume Level 4."
7. Press the Voice button. The voice message says, "Press Start for Volume Level 5."
8. Press the Start button. The voice message says, "Volume Set to Level 5. Returning to Print Mode."



NOTE: Each time you press the Start button, the volume level will increase by one increment until the maximum level is reached.

If you want to decrease the voice volume to Level 1 or 2, follow Steps 1-7 above and continue to press the Voice button until you reach the desired volume level.

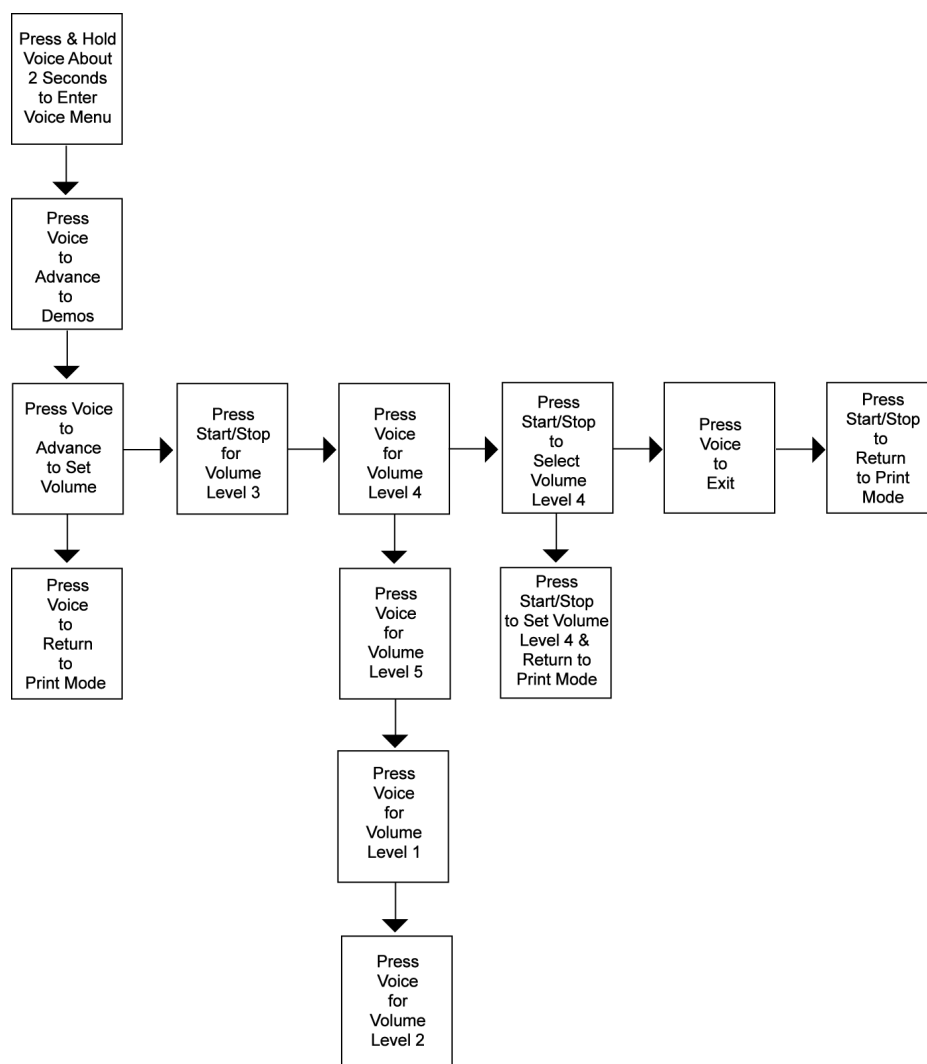


Figure 12c. Adjusting Voice Volume

4.0 Making Adjustments

4.1 Print Head Adjustments

The two print stations on the AVERY DENNISON SNAP 600 printer are stationary. The print rollers swing open for loading stock and ink and are closed when the machine is printing. The rollers are held in the print position with a latch on both the inside and outside end of the rollers.

When printing labels, there are two adjustments you may need to make to the print stations: (1) adjust the print head pressure, and (2) adjust the contrast, which controls print darkness (density).

4.1.1 Adjusting Print Head Pressure

Each print head has two print head pressure buttons, (see Figure 13).

To change the print head pressure settings, follow the steps listed below.



CAUTION: For extended print head life, use the lighter print pressure setting whenever possible.

1. To decrease print head pressure, use a flat blade screwdriver, depress the button and to turn both buttons $\frac{1}{4}$ turn (90 degrees) counterclockwise until they are in the upper position.
2. To increase print head pressure, use the flat blade screwdriver, depress the button and to turn each of the buttons clockwise until they are in the lower position.



CAUTION: Ensure that both buttons on the print head are in the same position.

The buttons will not rotate all the way around, only 90 degrees back and forth to the desired setting.

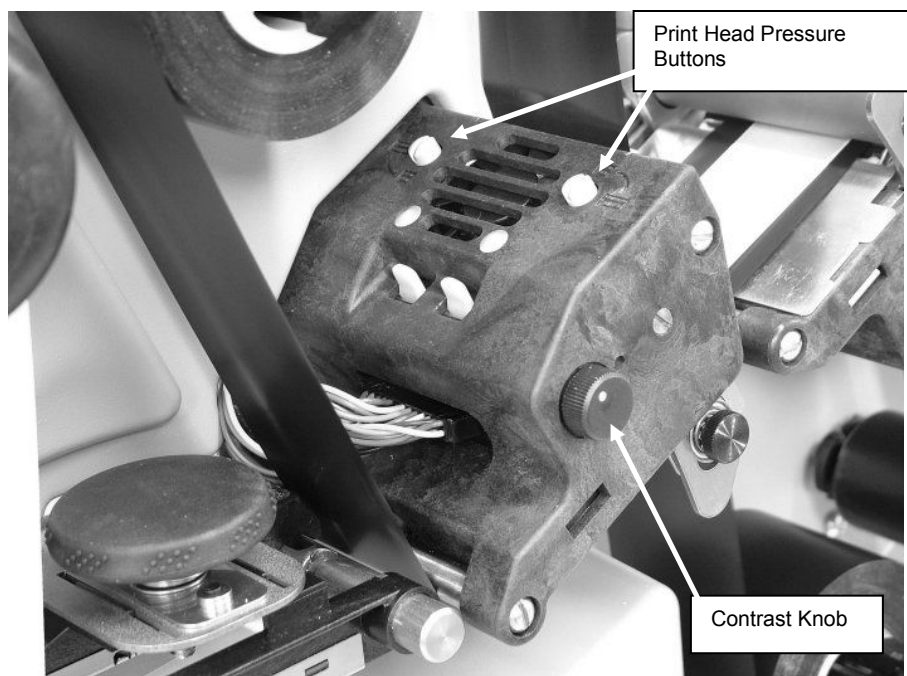


Figure 13. Print Head Components

4.1.2 Adjusting Density (Darkness)

The contrast knob for adjusting print density (darkness) is located between the two print head pressure buttons (see Figure 13). You may adjust the contrast knob while printing labels.

The nominal contrast setting is in the center of the rotation.

1. To increase print density, rotate the contrast knob clockwise.
2. To decrease print density, rotate the contrast knob counterclockwise.

You can manually rotate the contrast knob 270 degrees. At maximum value, the print will not become any darker. In fact, it may actually begin to get lighter.

4.2 Adjusting the Stacker

The stacker on your AVERY DENNISON SNAP 600 printer is adjustable in four ways: the position of the stacker on the mounting pins, the height of the stack, the angle at which labels are accumulated in the stack, and the angle of the platform. Different settings of these adjustments may be needed depending on the length and width of the labels being printed and the material being used. There are no incorrect settings, only adjustments that allow the stacker to better accommodate the size and type of material used for the label being printed and stacked. You will soon learn the settings that work best for your labels.

4.2.1 Stacker Position

The stacker slides in and out on the mounting pins. This allows for proper positioning of the stacker for the width of the label you are printing. The stacker should be set so that the back wall of the stacker is just behind the back end of the label where it comes out of the nip rollers.

The stacker mount bracket has a thumbscrew that locks the stacker in position and also stiffens the mounting.

Adjusting the stacker angle (see section 4.2.3) will move the position of the back wall. If you adjust the stacker angle, be sure to readjust the stacker position.

4.2.2 Toggle Switch

The stacker has two electronic sensors that set where the top of the stack is. Depending on the size of the label to be collected on the stacker, use the toggle switch to select from the two different electronic sensors (See Figure 5 and 11).

1. Determine the size of label to be printed.
 - a. For short feeds ranging from 1 - 2 inches (25 mm - 51 mm), use the upper sensor.
 - b. For long feed and/or woven labels, use the lower sensor.
2. Depress the top portion of the toggle switch to use the upper sensor.
3. Depress the bottom portion of the toggle switch to use the lower sensor.

4.2.3 Stacker Angle

The angle of the stacker is adjustable, and can be tipped out a maximum of 20 degrees at the bottom from the vertical position shown in Figure 5. Since there is no single stacker angle that is best for all label lengths and types of materials, you can adjust the stacker angle to best accommodate each run.

1. When the feed is 2 inches (51 mm) or longer, or when using coated tapes, the stacker works well with the bottom tipped out.
2. When using woven tapes, the stacker should be vertical or almost vertical.

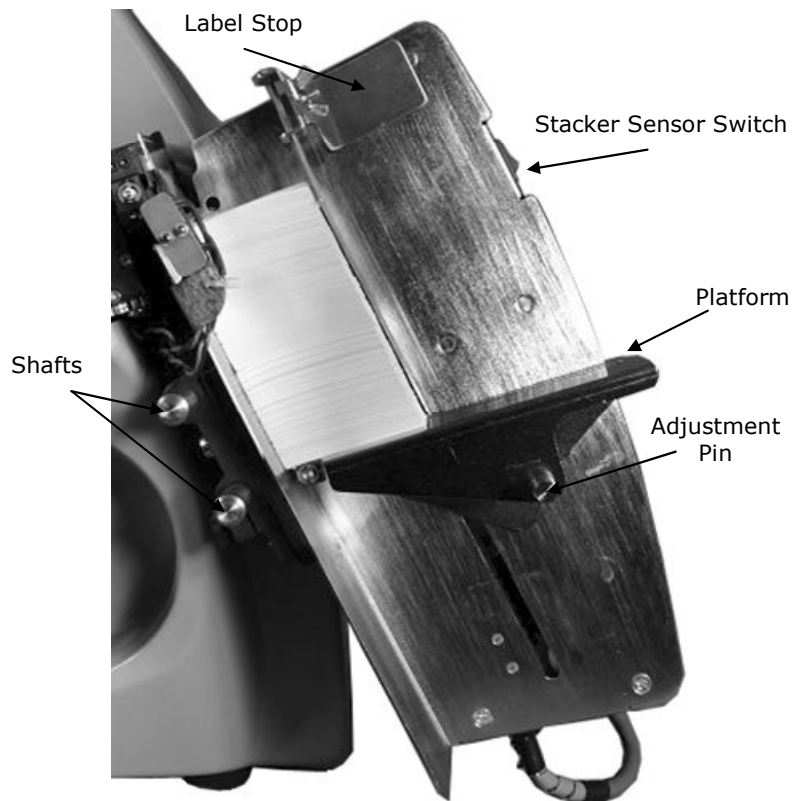


Figure 14. Stacker Angle – Almost Vertical

4.2.4 Platform

The platform angle can be adjusted in two different locations to alter the angle at which labels are stacked and stopped.

1. Pull the spring loaded Adjustment Pin and move the platform from a horizontal to a backwards angle approximately 20 degrees up on the outer end of the platform.
 - a. For satin labels, use the lower position.
 - b. For coated labels, and short feed labels, elevate the outer end.

The label stop helps position the labels in the stack. The label stop is magnetic. Follow these steps to adjust the position of the label stop.

2. Place a cut label on the stacker platform and slide it into the back corner.
3. Move the label stop to within 1/8 inch (3 mm) of the end of the label.

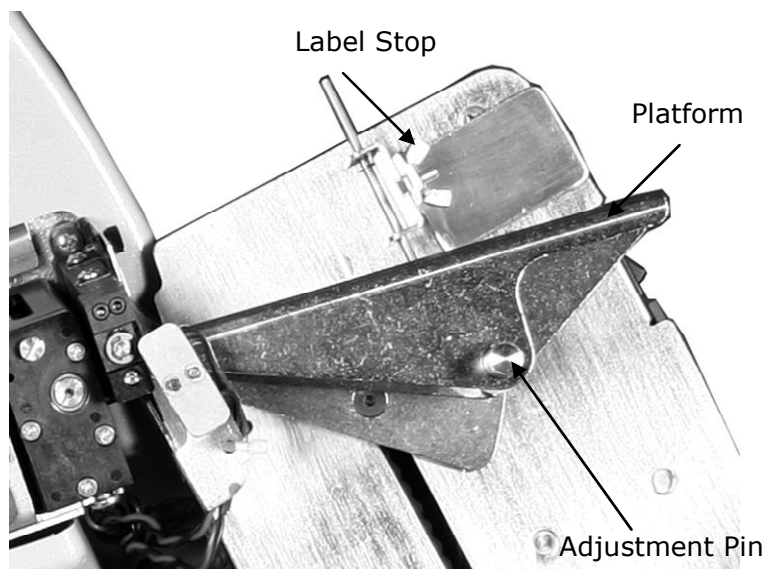


Figure 15. Stacker Platform Angle Adjustment

4.3 Print and Cut Adjustments

The print and cut adjustments allow you to compensate for mechanical tolerances in the printer so that the print is positioned correctly and the cut occurs at the right place.

4.3.1 Cut Adjust



NOTE: The cut adjust should only be made when using pre-printed stock (see section 3.3.6). If the cut adjust is changed when you are using blank stock, the print will appear to move on the label.

If you use pre-printed stock, do the cut adjust using the pre-printed stock and then do the print adjust using either pre-printed or blank stock.

If you never use pre-printed stock, set the cut adjust to zero.

The cut adjust allows you to adjust the cut position so that it cuts in the right place with relation to the sense mark on pre-printed stock.

The cut adjust may be made two ways: using the Virtual Control Panel (sec. 8.0) in PCMate Platinum, or using the Remote Front Panel (sec 7.0). In the Virtual Control Panel, the cut adjust is found on the Options tab. On the Remote Front Panel, the cut adjust is found under the Print/Cut Adjust menu item.

When the cut adjust is set correctly, the printer will cut the label at the leading edge of the sense mark. If the cut is not in the right place, increase the cut adjust value to move the cut to the right (looking at the printer) or decrease the value to move the cut to the left. Each step is 0.003"/0.076mm.

4.3.2 Print Adjust

The print adjust allows you to move the print with relation to the cut. There are two print adjusts, one for the top print station and one for the bottom print station.

The print adjust may be made two ways: using the Virtual Control Panel (section 8.0) in PCMate Platinum, or using the Remote Front Panel (section 7.0). In the Virtual Control Panel, the print adjust is found on the Options tab. On the Remote Front Panel, the print adjust is found under the Print/Cut Adjust menu item.

The best way to set the print adjust is to use Test Pattern 1 (see section 3.4.1). The test pattern has a line printed across the stock that is 1" from the cut. Run a few labels and measure the distance from the cut to the line. Then increase the print adjust value to move the print to the right, or decrease the print adjust value to move the print to the left. Each step is 0.003"/0/076mm. Repeat until the line is in the correct place.



NOTE: It is common practice to use the print and cut adjusts to "fine-tune" a format. If you do this, you will have to do it for each format that you use. A better approach is to correct any print position problems in the format, and to use the Sense To Cut option to move the cut if necessary. Refer to the PCMate Platinum manual for details.

4.4 Printer Features

The AVERY DENNISON SNAP 600 printer has many features that can be controlled by the operator. Each of these features can be selected from either the Virtual Control Panel (see section 8.0) or the Remote Control / Display Module (see section 7.0). Unless otherwise noted, these features can be found in the Options tab or the Virtual Control Panel or the Feature menu of the Remote Front Panel. Refer to the sections on the Virtual Control Panel or the Remote Front Panel for instruction on how to access these settings.

4.4.1 Selecting the Printer Language

The AVERY DENNISON SNAP 600 printer has the capability of presenting both text and voice messages in multiple languages.



The printer is shipped with English as the only language. Other languages must be installed separately. Contact your local AVERY DENNISON Representative for information about what languages are available and how to install another language.

In the Virtual Control panel, access the Options tab. To select the printer language, click on the arrow in the Language box to drop down a list of available

languages. Click on the desired language. Then click on Apply or Close to activate the selected language.

On the Remote Front Panel, select Feature Menu-Language. Use the Yes and No keys to select the desired language, and then press the Enter key.



Selecting the printer language does not change the PCMate Platinum language. See the PCMate Platinum manual for information about changing languages.

4.4.2 Setting the Date and Time

The AVERY DENNISON SNAP 600 printer has a built-in clock and calendar. You may change the date and time as follows:

In the Virtual Control Panel, access the Options Tab. The current printer date and time is shown. You may change the values in the Date or Time box, or you can simply click on the Sync to PC button to set the printer to the same date and time as the PC. Click on Apply or Close to set the printer date and time.

In the Remote Front Panel, select Feature-Date or Feature-Time. Change the date or time and press enter to set the new value.

4.4.3 Enabling or Disabling the Cutter

You may disable the cutter in order to use an accessory such as a Rewinder. If the cutter is enabled, it will cut according to the Cut Count selected in the format. If the cutter is disabled, it will not cut.



If you have an optional Sonic Knife installed, it will also be enabled or disabled using this command.

In the Virtual Control Panel, access the Options Tab. Click on the arrow in the Cutter box. Select Enabled to run the cutter or Disabled to turn the cutter off.

In the Remote Front Panel, select Feature – Cutter. Use the Yes and No keys to select Enabled or Disabled, then press the Enter key.

4.4.4 Selecting the Print Speed

The print speed is normally set in the format. You may override the format setting and specify the speed you want the printer to run. This is useful if you have formats that were designed for other AVERY DENNISON printers.

In the Virtual Control Panel, select the Options tab. Click on the arrow in the Print Speed box to drop down a menu of print speed choices. Click on the desired choice and click on Apply or Close to set the print speed.

In the Remote Front Panel, select Feature-Print Speed. Use the Yes and No keys to select the desired choice and press the Enter key.

The available choices are:

- **Format** – use the print speed specified in the format. If the print speed does not exist in the AVERY DENNISON SNAP 600 printer, it will use the closest print speed that is not greater. For example, if the format was designed for a 676 printer and calls for 5 ips, the AVERY DENNISON SNAP 600 printer will use 4.5 ips.
- **Translate** – uses the corresponding speed from the printer specified in the format. For example, if the format was designed for a 676 printer and called for 5 ips (the third speed in the printer's speed list of 3, 4, and 5 ips), the AVERY DENNISON SNAP 600 printer would use 6 ips, which is the second speed in its speed list of 4.5, 6, 7, 10 and 12 ips.
- **4.5, 6, 7, 10 or 12** – selects the desired print speed.

4.4.5 Selecting the Flagging Mode

This selection allows you override the flagging mode specified in the format. It is set in the same way as the Print Speed.

The available selections are:

- **Format** – uses the flagging mode specified in the format
- **Side-step** – This selection is for the High Volume Stacker, which is not available for the AVERY DENNISON SNAP 600 printer. Do not select this.
- **Disabled** – Disables flagging. No flagging will be done.

4.4.6 Selecting the Sense Mark Type

This selection allows you to override the sense mark type (none, top through hole or bottom reflective) selected in the format. Its main purpose is to allow you to activate the optional Contrast Sensor, since older formats or formats for other AVERY DENNISON printers will not have the Contrast Sensor type.

This option is set in the same way as Print Speed.

The available selections are:

- **Format** – use the sense mark type specified in the format
- **Top Hole Sensor, Bottom Reflective, Contrast** – selects the sensor type
- **Disabled** – ignores the sense mark. This is useful when designing a format using blank stock to avoid wasting the more expensive pre-printed stock.



The printer does not know whether the Bottom Reflective or Contrast Sensor is installed. If you select a sensor type that is not installed, the printer will not print properly.

4.4.7 Setting the Default Transfer Type

The transfer type specifies the type of stock and ink that is being used. For example, transfer type 97 is 4800TWT fabric with CT1111 ink. The transfer type tells the printer how much energy is needed to print when using that stock and ink. See Appendix 2 for a list of available transfer types.

It is highly recommended that the transfer type be specified in the format. However, if a transfer type is not specified in the format, the printer uses the default transfer type.



PCMate Platinum always includes the transfer type in the format. If you are using PCMate Platinum, you do not need to specify a default transfer type.

The default transfer type is selected the same way as Print Speed. To change the value on the Remote Front Panel, use the Yes and No keys to set the value, then press the Enter key to accept it.

4.4.8 Viewing the Life Counts

The AVERY DENNISON SNAP 600 printer maintains a count of the total number of labels printed, and the total number of inches of material. Also, there is a resettable label counter.

In the Virtual Control Panel, the Life Counts can be found in the Life Counts/Software Version tab. To reset the resettable label counter, click on the Reset button.

On the Remote Front Panel, the life counts are found under the Life Counts/Version menu. When displaying the resettable counter, press the Enter key to reset the counter.

5.0 Maintenance

5.1 Print Head Cleaning and Handling



NOTE: AVERY DENNISON recommends cleaning print heads.

- 1. With alcohol and a cotton pad or cloth every 2-4 hours of continuous usage;**
- 2. With alcohol and Velcro cleaning pads after 8 hours of use.**

Print heads are extremely sensitive and can be easily damaged, if not cleaned regularly and handled properly. To help prolong print head life and ensure excellent print quality, AVERY DENNISON recommends the following cleaning schedule.

- After two to four hours of continuous usage, wipe the print heads with alcohol and a cotton pad or cloth.
- After eight hours of continuous operation, a more vigorous cleaning is required. Use alcohol and a Velcro cleaning pad, such as those supplied with each new printhead.

5.1.1 Handling Techniques

Static discharge can easily damage thermal print heads. To avoid a static discharge, follow these procedures.

1. Keep all print heads in their original anti-static bags until they are ready to be installed in the printer.
2. Wear an anti-static wrist strap to prevent static discharge from your body into the printer, when working with a print head. Wear anti-static gloves at all times when handling print heads to prevent oils on your hands from contaminating the print head. The AVERY DENNISON SNAP 600 printer optional spare parts kit contains an anti-static wrist strap and gloves.
 - a. If your company has not purchased the spare parts kit, buy the anti-static wrist strap at your local electronics store.
 - b. Extra anti-static gloves can be ordered from AVERY DENNISON.
 - c. If an anti-static glove is not available, thoroughly wash and dry your hands before handling the print head.
3. Do not touch any terminals extending from the print head or the print line.



CAUTION: Never remove the print head from the printer except to replace it.

Optimal benefits are received when you follow AVERY DENNISON's cleaning supply recommendations.

1. Always use clean supplies.
2. Use alcohol and the loop side of a Velcro pad or a cotton pad to clean the print head.
3. Never use anything abrasive to the print head.
4. Never use anything metallic on or near the print head.

5.1.2 Cleaning Procedures



CAUTION: AVERY DENNISON recommends Master Cleaning Kit #921341K for use in cleaning print heads.

1. Before cleaning any part of your AVERY DENNISON SNAP 600 printer, turn off the power to the printer.
2. To avoid damaging the print head, wear the anti-static wrist strap (which must be in contact with the skin and be tight). Be sure the button on the strap comes into direct contact with your skin.
3. Fasten the clip end of the anti-static wrist strap to a metal portion of the printer (usually the stacker) to prevent static from your skin from entering the print station.
4. Wear anti-static gloves at all times when handling a print head to prevent oils from your hands from contaminating the print head. While wearing the gloves, remove the cotton or Velcro pad from the package.
5. After 2 to 4 hours of continuous use: Apply a liberal amount of alcohol to a cotton pad and rub firmly across the print line of the print head several times to remove any build-up of ink, dust, dirt or debris. Wait a few minutes for the alcohol to evaporate, and resume printing.
6. After 8 hours of use: Apply a liberal amount of alcohol to the loop side of a Velcro pad and rub firmly across the print line of the print head several times to remove any build-up of ink, dust, dirt or debris. Wait a few minutes for the alcohol to evaporate, and resume printing.
7. Clean the print rollers and auxiliary feed rollers with alcohol and a cotton pad to remove any ink, dust or dirt build-up.
8. Clean sensors with a dry cotton or foam swab.



CAUTION: Do not use alcohol to clean sensors.

5.2 Print Head Replacement

When you see voids in the printing, and print quality does not improve, even after cleaning the heads, it is time to replace the print heads. Follow the procedures listed below.

1. Turn off the power to the printer.
2. Remove the stock and ink supplies from the printer for easier print head removal.



WARNING: Before replacing a print head, review the **Print Head Handling Procedure Sheet** packaged with each print head to determine if any procedures have changed.

3. To avoid damaging the print head, wear an anti-static wrist strap (which must be in contact with the skin and be tight) and anti-static gloves at all times when handling a print head. Be sure the button on the strap comes into direct contact with your skin.
4. Before installing the printhead, make a note of the printhead resistance value (Rav) printed on the label attached to the printhead. You will need this value to set the printhead category as described below.
5. Fasten the clip end of the anti-static wrist strap to a metal portion of the printer (usually the stacker) to prevent static from your skin from entering the print station.

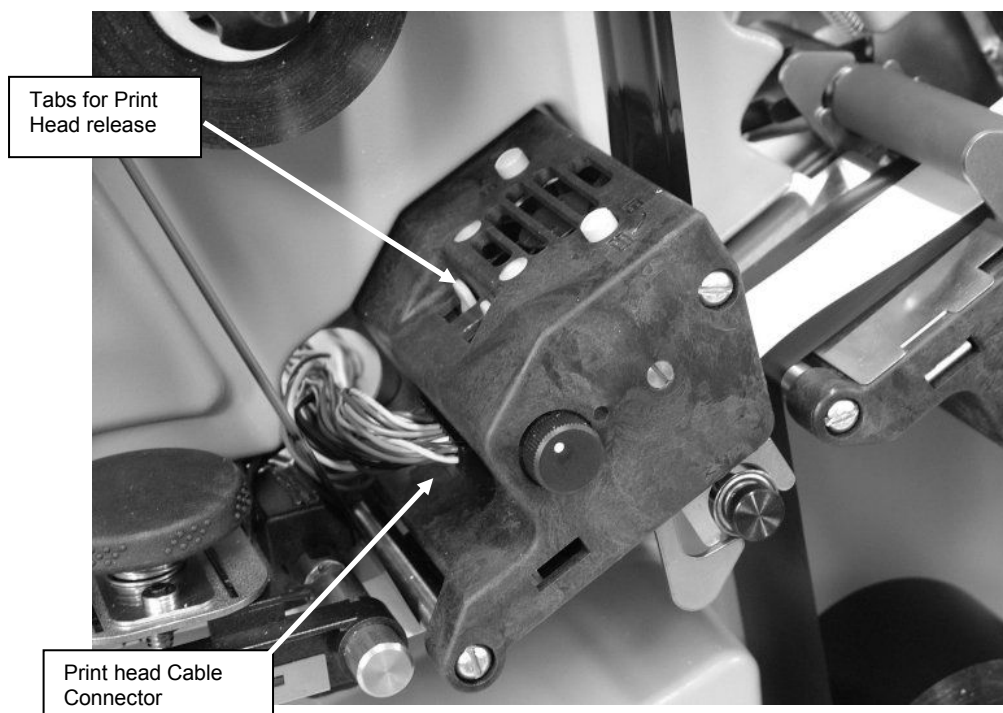


Figure 16. Print Head Components

6. Wearing your anti-static gloves, unplug the cables that connect to the print head by grasping the print head cable, rocking it gently (see Fig. 17a). Depressing the two grey tabs on the top of the print station (see Fig. 17b). Reach underneath and remove the print head assembly from the print station.



Figure 17a. Unplugging Print Head Cable



Figure 17b. Two Tabs on Print Station - Depressed



Figure 17c. Print Head Assembly – Removed



Figure 17d. Inserting Print Head Assembly



Figure 17e. Print Head Assembly

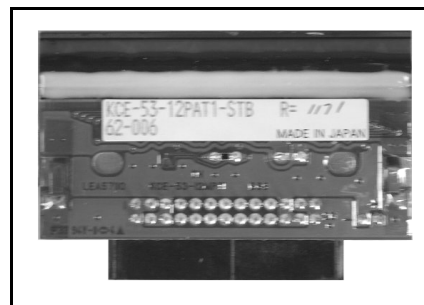


Figure 17f. Print Head

7. Place the new print head assembly onto the plastic mount bracket underneath the print station (see Fig. 17c and 17d). Push it up until it clicks into position.

8. Reconnect the print head cable connectors, making sure that the connectors are seated tightly.



WARNING: If the cables are not connected correctly, the print head will be destroyed when the power to the printer is turned on. Check to see that the cable is tight by observing from underneath the print head. The cable's connectors should be inside of the connectors located on the print head.

9. Replace the stock and ink supplies, and double-check your work.
10. Turn on the power to the printer.
11. You must set the printhead category to adjust for variations in the individual printheads. Using the average resistance value from step 4 above, determine the printhead category from the table below

Head Category	Average Resistance
1	1075 - 1122
2	1123 - 1170
3	1171 - 1217
4	1218 - 1265
5	1266 - 1312
6	1313 - 1359
7	1360 - 1407
8	1408 - 1455

12. You may set the head category using either the Remote Front Panel or the Virtual Control Panel in PCMate Platinum. Using the Remote Front Panel, press the MODE key until PRINthead SETUP appears. Press the ENTER key, then press the MODE key as needed to select either the TOP or BOTTOM printhead. Use the left and right arrow keys to select the desired head category from the table, then press ENTER to set the value.
13. Using the Virtual Control Panel in PCMate Platinum, select the COM port to which the printer is attached, and then click the Show Settings button. Click on the Options tab and set appropriate head category. Click the Apply Settings button to return to PCMate Platinum.
14. As a final test, make a test run to check the print quality of the labels.

5.3 Lubrication

The AVERY DENNISON SNAP 600 printer is manufactured with ball bearings that do not require lubrication and there are two (2) oil-impregnated bronze bushings in the Nip Roller assembly that do require lubrication.



Caution: AVERY DENNISON recommends lubricating the bronze bushings with one drop of multi-use oil once every month during normal operation.

5.4 Rotary Knife Assembly

The rotary knife assembly for the AVERY DENNISON SNAP 600 printer sets into a groove in the mounting bracket and is locked in place with a single screw. It has been designed to deliver an average of two million cuts if used with woven tapes and four million cuts when used with coated tapes, provided no foreign objects are inserted into the assembly that could damage the knife blades.

No maintenance is required for the knife assembly. There are no field replacement components. When the blades become dull, replace the rotary knife assembly. Replacement knife assemblies are sold ready to install with no adjustments required.

5.4.1 Removing and Replacing the Knife Assembly



WARNING: When adjusting, removing, or replacing the knife assembly, you must turn off the power to the printer to avoid personal injury.

1. Turn off the power to the printer.
2. Using the Auxiliary Feed Roller knob, back the stock out of the knife.
3. Using a Phillip's head screwdriver, loosen but do not completely remove, the retaining screw on the outboard end of the knife (see Fig. 18a). It is actually better if you leave the retaining screw in so you will have a place to lift the outboard end of the assembly.
4. Place your right index finger on the head of the retaining screw and your thumb on top of the assembly and lift up. This will remove the key that is machined into the knife base from the groove in the mounting bracket (see Fig. 18b).
5. Slide the knife straight out until the stripper contacts the outer support. This will pull the rotary knife shaft from the motor drive coupler and the mounting screw out of the clamp slot.
6. Lift the knife assembly vertically from the printer.
7. Remove the retaining screw from the used knife assembly and insert it into the new knife assembly.

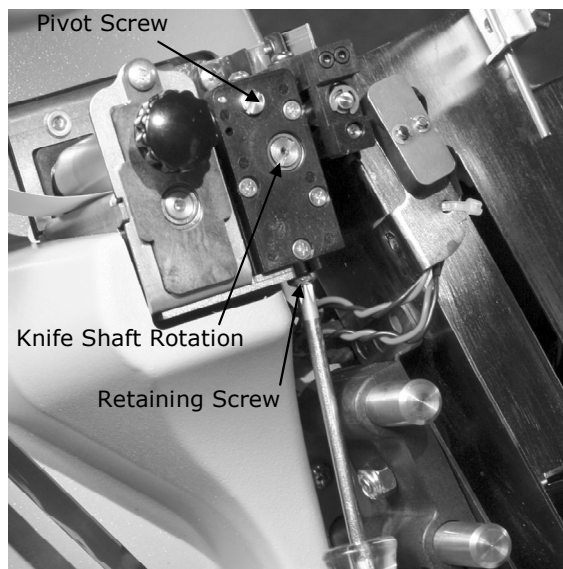


Figure 18a. Outboard End View of Knife

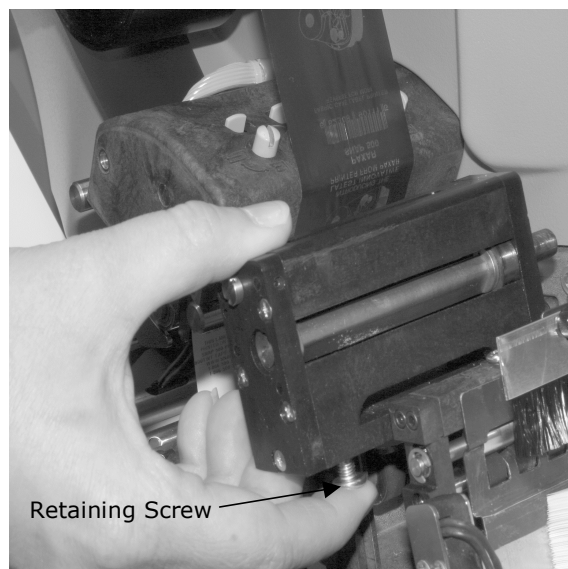


Figure 18b. Removing Knife Assembly



WARNING: Keep your fingers out of the knife assembly to avoid personal injury.

8. Properly dispose of the used knife assembly.
9. To insert the new knife assembly, slide it down vertically into the space between the Auxiliary Feed and the Nip Rollers.
10. Hold the knife assembly on the upper outboard corner. Use a flat blade screwdriver to rotate the rotary knife blade with the screw slot in the knife until the knife blade slips into the drive shaft.
11. Continue to hold the knife assembly in place. Use a Phillip's head screwdriver to retighten the screw.
12. Turn on the power to the printer and allow the knife to return to home position.
13. Rethread the stock through the Auxiliary Feed, Nip Roller, and knife.

5.4.2 Adjust the Knife Home Position

To adjust the Knife Home Position, follow the procedure listed below.

1. Insert a flat blade screwdriver into the slot in the end of the knife.
2. Rotate the screwdriver counterclockwise until you hear an audible click.
3. Continue to turn the screwdriver approximately 1/8 of a rotation more.

6.0 Service Adjustments

6.1 Stock (Web) Guide Position

The stock (web) guide is set at the factory to center the stock to the printed image. If a slight mechanical adjustment is needed, follow these steps.

1. Locate the two screws under the Stock (Web) Guide mount plate.
2. Open the web guides to the widest position by turning the knob above the guide clockwise.
3. Loosen the two screws.
4. Move the guide to the position desired.
5. Re-tighten the screws.

6.2 Stock (Web) Guide Width Adjustments

Use the knob to move the guides until they touch the edges of the stock.

6.3 Stock Feed

The Stock Feed is the assembly located in front of the knife. It requires no pressure adjustment and will move the stock through the printer with one or both heads closed.

If the stock will not advance through the Knife, check to be sure the knife is in the home position (see Sect. 5.4.2, Knife Home Position Adjustment).

6.4 Knife Shear Adjustment

The Knife Assembly in your AVERY DENNISON SNAP 600 printer has no field replacement components, and basically requires no maintenance or adjustments. The only adjustment that can be made to the knife in the field is for shear.



WARNING: Knife adjustments procedure must be followed exactly or damage will occur.

WARNING: When adjusting, removing, or replacing the knife assembly, you must turn off the power to the printer to avoid personal injury.

1. Turn off the power to the printer.
2. Remove the knife assembly from the printer as described in Section 4.4.1. Refer to Figures 18a and 18b.
3. Loosen the outer pivot screw by making one complete turn (see Fig. 19a).

4. The two setscrews move the stationary outboard end of the knife to increase or decrease the shear.
5. To increase the shear, loosen the right setscrew $\frac{1}{4}$ turn (see Fig. 19b) and tighten the left setscrew (see Fig. 19c).

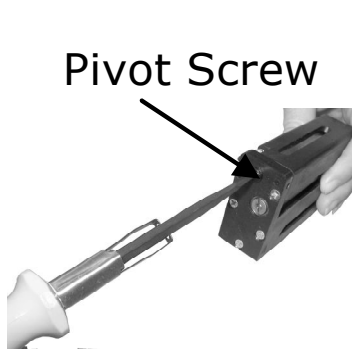


Figure 19a. Loosening Outer Pivot Screw



Figure 19b. Adjusting Right Set Screw



Figure 19c. Adjusting Left Set Screw

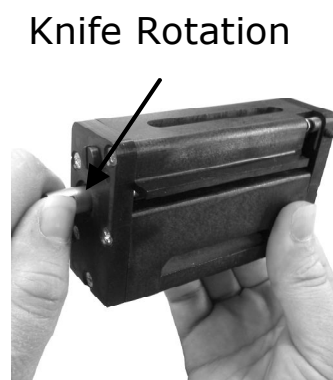


Figure 19d. Manual Rotation of Knife Shaft

6. Re-tighten the outer pivot screw. Screw should be snug but not over tightened. Over tightening may prevent the upper blade from rotating.
7. Rotate the shaft by hand, using the inboard shaft extending from the assembly (Fig. 19d). The knife should rotate freely, and will make a metallic shearing sound during rotation.
8. Insert a strip of the material to be cut so it extends from both sides of the knife. Test by rotating the knife shaft again to cut the material.
9. If the two parts of the material are still attached by thread, the knife is damaged and must be replaced.
10. If your test only cuts the material part way through, an additional adjustment is required.
11. Retest and repeat Steps 9 and 10 above.

7.0 Remote Control / Display Module

If your AVERY DENNISON SNAP 600 printer is connected to a mainframe rather than a personal computer, you may use the Remote Control / Display module (see Figure 20) for various functions. This module serves as a standalone controller and a printer status display so you can adjust the parameters of your print runs and observe the current status of the printer. For example, you can use the remote control / display module to do the following:

- Start and stop the printer.
- Change printer settings, such as the print and cut positions.
- Enable / Disable the knife.
- View the printer status, such as the number of labels printed and cut, operating system version, and other features within the printer.
- View error messages.

The Remote Control/Display Module can be connected and disconnected from the printer with the printer on. This allows the use of one module with multiple printers.

For more information, refer to the Remote Control / Display Module User's Manual.



Figure 20. Remote Control / Display Module

7.1 Controlling the Printer

As shown in Figure 20, the Remote Control / Display Module has two rows of buttons. The top row contains the Start, Feed, Test, and Stop buttons. Here is a brief description of their functions.

- Start – If batches are present, this button initiates printing.
- Feed – This button has no function in the AVERY DENNISON SNAP 600 printer.
- Test – This button has no function in the AVERY DENNISON SNAP 600 printer.
- Stop – Stops the printer.

When you turn on the power to the printer, the message LED says, “Ready for Batches.” If there are print jobs loaded on the printer, the top line of the LCD display will say “BATCH ID” and the bottom line will show the Batch ID and the remaining quantity to be printed.

7.2 The Menu System

The Remote Control / Display Module has a menu system that allows you to view and change various settings in the printer. See section 4.3 and 4.4 for details about the settings.

You can enter the menu system by pressing the MODE key. Pressing the MODE key repeatedly shows the main menu items. When you reach the menu item you want, press the ENTER key. This starts a sub-menu. You can scroll through the sub-menus using the Mode key. Pressing the EXIT key turns off the menu system.

7.3 Changing Values

Settings can be changed in one of three ways:

- If the choices are in the form of a list, such as Print Speeds, use the Yes and No keys to scroll back and forth through the choices. When the display shows the choice you want, press the ENTER key. This accepts your change and makes it active.
- If the setting is a numerical value, such as the Cut Adjust, use the Yes and No keys to change the value (Yes decreases the value, No increases the value). When the setting is correct, press the Enter key. In most cases, the current value is shown on the left of the display and the new value on the right. When you press the Enter key, the current value will change.
- If the setting has multiple digits, such as the date or time, the left-most digit will be flashing. Use the Yes and No keys to change the value, then press Enter. The next digit will begin to flash. Continue until the value is

correct, then press either the MODE key (to go on to the next menu entry) or EXIT to exit the menu system.

8.0 Virtual Control Panel

PCMate Platinum has the capability of controlling the AVERY DENNISON SNAP 600 printer and making adjustments right on the PC.

When a AVERY DENNISON SNAP 600 printer is connected to PCMate Platinum (see the PCMate Platinum manual for details about printer connections), and the Print Module is active, a Virtual Control Panel is displayed at the bottom of the PCMate Platinum window (see figure 21).

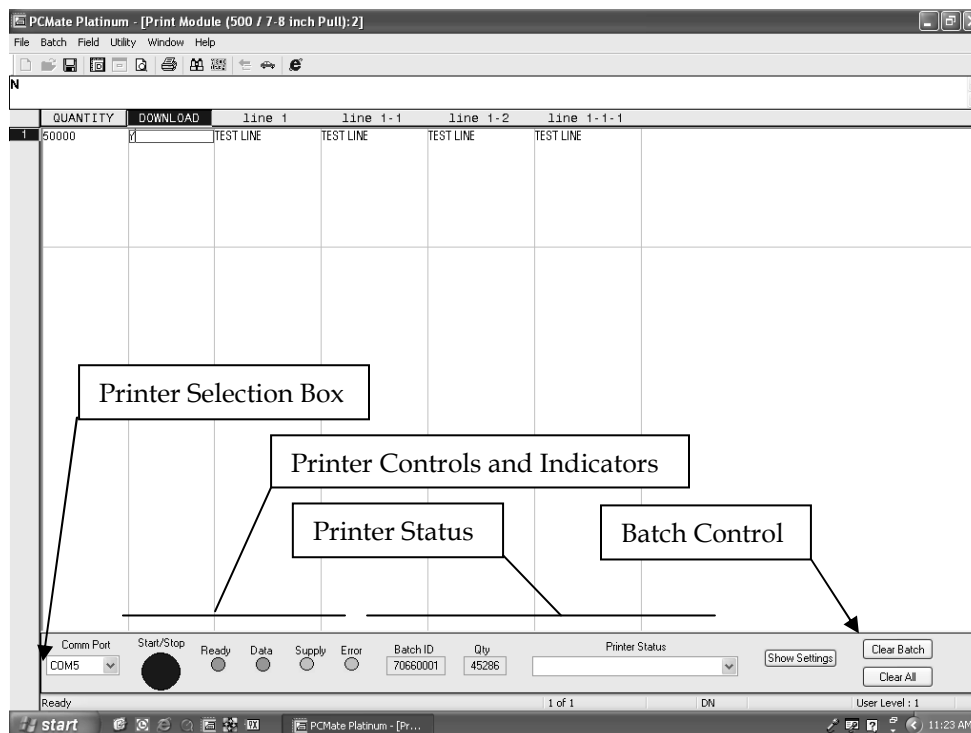


Figure 21. PCMate Platinum Print Module with Virtual Control Panel



If more than one printer is connected to PCMate Platinum at one time, select the active printer using the Printer Selection box at the left side of the Virtual Control Panel.

The Virtual Control Panel has lights and buttons that simulate the Control Panel of the printer and work in exactly the same way. You can start and stop the printer and monitor its status from the PC.



There is no Voice button on the Virtual Control Panel. The voice messages are displayed in the status box.

The Printer Status boxes show the Batch ID, Quantity and printer status.

You can clear the current batch or all batches using the Batch Control buttons on the right side of the window.

8.1 Viewing and Changing Printer Settings

The printers' settings can be viewed and changed using the Virtual Control Panel. Click on the Show Settings button to bring up the Settings Window (see figure 22).

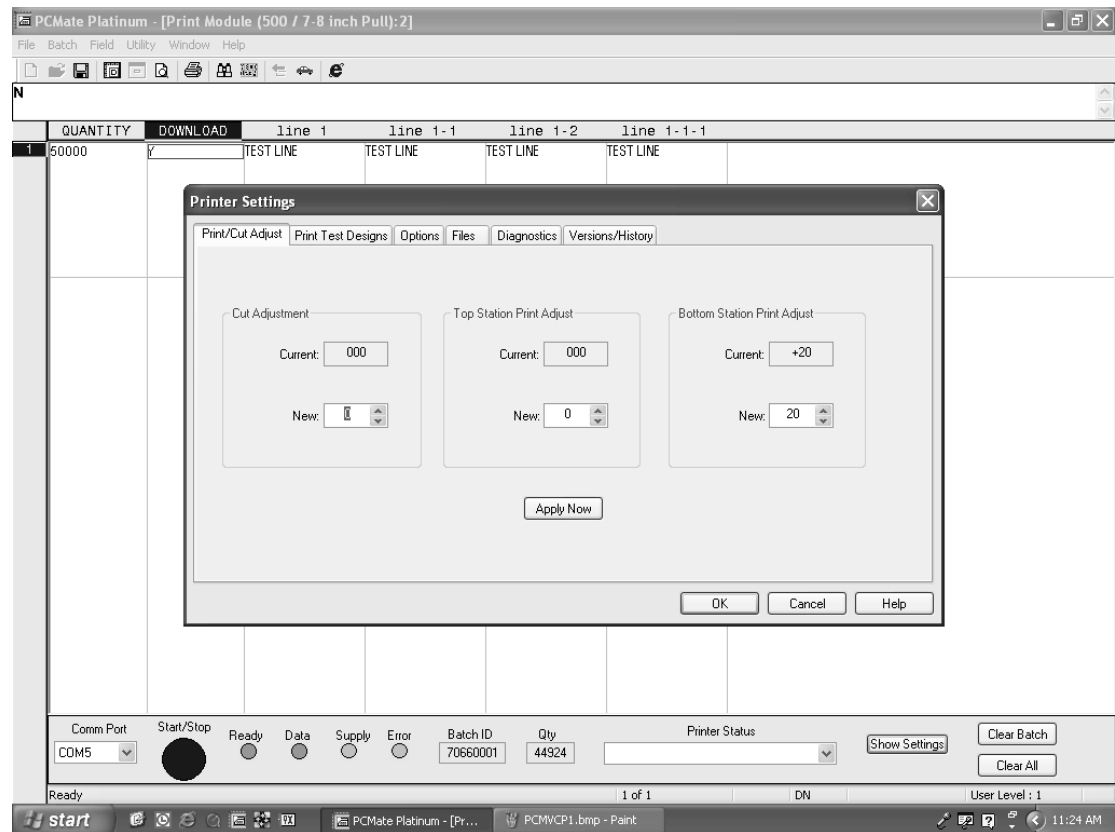


Figure 22. Virtual Control Panel with Show Setting Window

The settings are organized into a series of pages with tabs at the top. To select one of the pages, click on the tab. See section 4.4 for a description of the settings and how to change them.

9.0 Upgrading the Printer Software

9.1 Introduction

The AVERY DENNISON SNAP 600 printer software can be updated electronically. Software upgrades are distributed as a single file called the upgrade or UPG file. PCMate Platinum will take the UPG file and automatically upgrade the printer. Once the upgrade process is started, no other action is required.

9.2 What is Needed

The upgrade can only be performed by PCMate Platinum. Therefore, you must have a Microsoft PC running PCMate Platinum to upgrade the printer software. See Section 2.1.3 for the minimum requirements to run PCMate Platinum.

9.3 Getting the UPG file

9.3.1 Using SpecStar to get the UPG file

The easiest way to get the upgrade file is through SpecStar. (Contact your AVERY DENNISON Sales representative for information about SpecStar). If you have a SpecStar account, contact your SpecStar Coordinator and request that an upgrade be scheduled for your account. Once this is done, log onto SpecStar, select In Plant, then Retrieve Updates. The upgrade file will be automatically put on your PC, and the next time you start up PCMate Platinum, it will offer to upgrade the printer.

9.3.2 Ordering the UPG file on CD

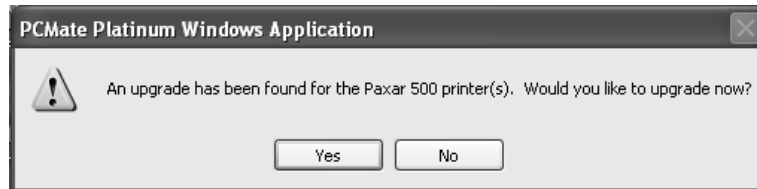
You can order the upgrade file on CD. Contact Customer Service and order part number 05800327. When you receive the CD, copy the UPG file on the CD to the C:\D2Comm\Control folder on the PC that is connected to the printer. The next time you start PCMate Platinum, it will offer to upgrade the printer.

9.4 Getting Ready to Upgrade the Printer

In order to perform the upgrade, the printer must be turned on and connected to PCMate Platinum. Refer to the PCMate Platinum manual for instructions on connecting the printer.

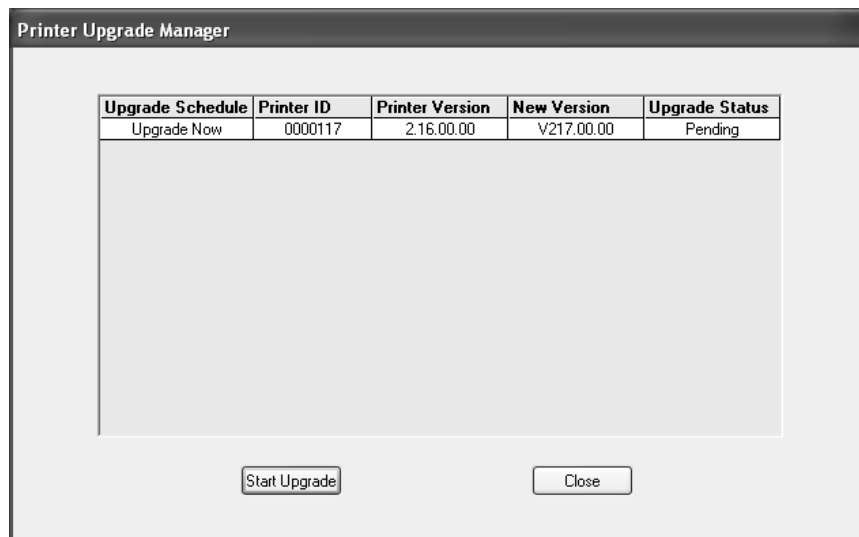
9.5 Performing the Upgrade

Start PCMate Platinum. The following screen will appear.



Click on the Yes button to start the upgrade. Clicking on the No button will take you into PCMate Platinum. Each time you start up PCMate Platinum, this screen will appear until you either perform the upgrade or remove it (see below).

When you click on the Yes button, the following screen will appear.



If you have more than one printer connected to the PC, they will all show in this window. If you leave the Upgrade Schedule box at Upgrade Now (see below), all the printers will be upgraded, one at a time.

In the box under Upgrade Schedule, it will say Upgrade Now. If you click on the box, a drop down list will offer the following choices:

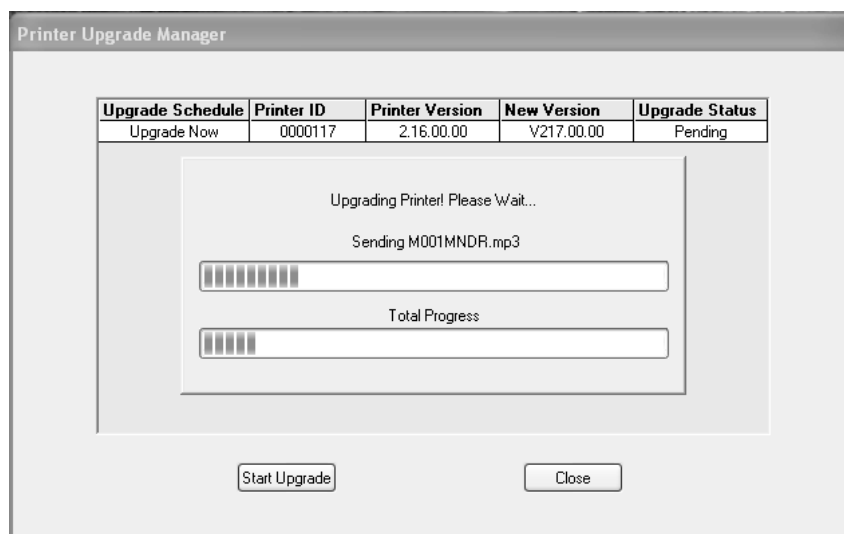
- Upgrade Now - this will cause the printer to be upgraded when you click on the Start Upgrade button.
- Upgrade Later - This choice will skip the upgrade for that printer, but keep the upgrade file. The next time you start PCMate Platinum, the upgrade will be offered again. This allows you to skip the upgrade until later.
- Remove Upgrade - If you select this option, the printer will not be upgraded, and the upgrade file will be deleted.

To start the upgrade, click on the Start Upgrade button. No further action is required until the upgrade process is complete.

The upgrade process can take quite a while. If the process is interrupted, the printer will attempt to revert to the last revision. If it fails, it will revert to a safe version. If this occurs, it will be necessary to redo the upgrade.

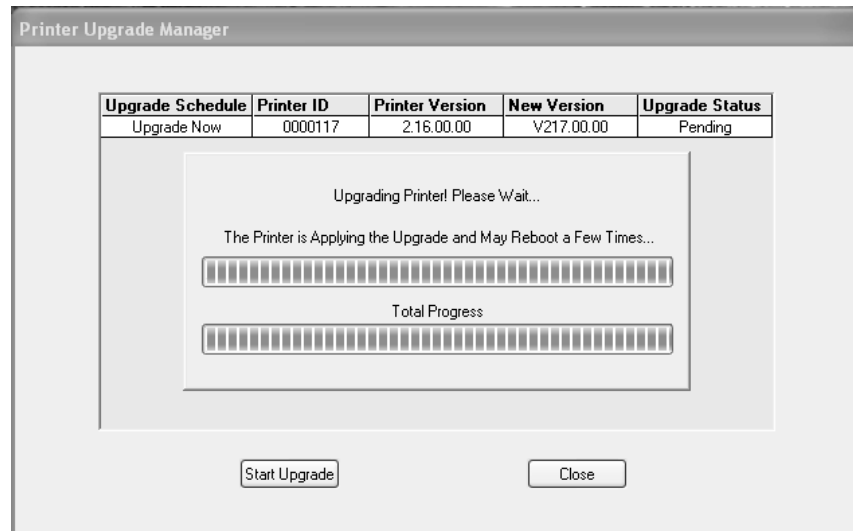
The following window will appear.

The following description of the upgrade process is accurate as of this writing. However, changes may be made to improve the process. It is important to allow the process to finish.



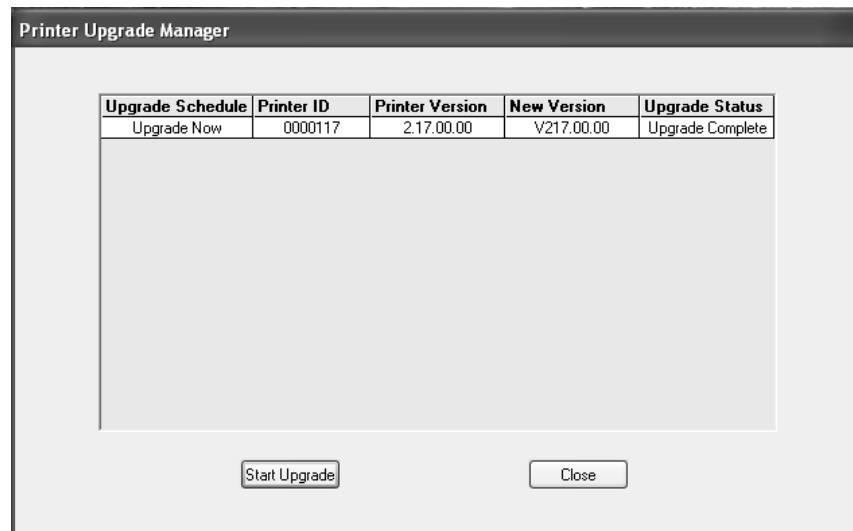
During the first part of the upgrade process, PCMate Platinum sends the necessary files to the printer. This screen allows you to monitor the progress of the file transfer. The top progress bar shows the file being sent, while the bottom bar shows the overall progress.

Once all the files have been transferred to the printer, the printer must perform its upgrade. The following window will appear.



The printer will reboot and say, “Upgrade in progress. Please wait.” After a few minutes, the printer will reboot again. It will then say “Programming MCB. Please wait” At this time, the lights on the printer control panel will all come on.

After a few minutes, the printer will reboot again. After a few more minutes, the following window will appear on the PC.



The Upgrade Status is now “Upgrade Complete”. Click on Close to continue to PCMate Platinum.

10.0 Electrical Troubleshooting

10.1 Power Up / Sign On / Communications

Problem	Probable Cause	Corrective Action
LEDs do not light.	1) Incorrect supply voltage.	1) Confirm that the AC entry is configured for the line voltage intended to be applied to the machine. Failure to do so can damage the machine's internal power supply. Refer to Appendix 1, "Fuse Configuration."
	2) Machine is not plugged in.	1) Check that both ends of the power cord are plugged in securely. 2) Confirm that the outlet the machine is plugged into has power.
	3) Missing or blown fuse(s).	1) Check that the fuse(s) located inside the AC entry are present and intact. Replace as needed. Refer to Appendix 1, "Fuse Configuration."
LEDs flash	1) PC board power failure	1) Cycle the power off and back on again.
Printer says "Boot Error 1" or "Hardware error 1. Printer requires service" or "PCI interface bad. Change the MCB" during power up	1) PCB failure	1) Replace MCB board
	2) Motherboard failure	1) Replace motherboard
Printer says "Boot Error 2" or "Hardware error 2. Printer requires service" or "BIOS Corrupted. Replace the motherboard or reset the BIOS" during power up	1) Corrupted BIOS	1) Connect a standard PC monitor and keyboard to the printer and follow the instructions found in the Engineering Bulletin "06_015_500_BIOS_Revised.doc" to reset the BIOS settings.
	2) Motherboard failure	1) Replace motherboard
Printer says "Boot Error 3" or "Hardware error 3. Printer requires service" or "Corrupted safe operating system. Replace the flash disk" during power up. (Message depends on software version.)	1) Flash Disk Failure	1) Replace Flash Disk Module
	2) Motherboard Failure	1) Replace motherboard

Printer says "Boot Error 4" or "Hardware error 4. Printer requires service" or "Cannot communicate with the MCB. Change the MCB" during power up. (Message depends on software version.)	1) PCB failure	1) Replace MCB Board
	2) Motherboard Failure	1) Replace motherboard
Printer says "Running Backup Operating System. Please upgrade" after power up. (Message depends on software version.)	1) Upgrade failure	1) Upgrade to the latest operating system.
Printer says "Running Safe Operating System. Please upgrade" after power up. (Message depends on software version.)	1) Software failure	1) Upgrade to the latest operating system. NOTE: The safe operating system will run the printer, but it does not have the latest features and improvements. Upgrade as soon as possible.
Machine does not receive data.	1) Communications cable is loose or unconnected.	1) Check and secure both ends of the serial cable with the thumbscrews.
	2) Incompatible communication cable	1) Ensure the communication cable is a null modem serial cable with DB9F connector.
	3) Machine is not powered on or has not completed diagnostics tests.	1) Power machine on and wait until machine ready light is on. Re-download data.
	4) Data sent to wrong printer.	1) In PCMate Platinum change to the printer where the data is intended to be sent.
	5) Configuration incorrect in PCMate Platinum .	1) Reconfigure PCMate Platinum for AVERY DENNISON PCL printer as per your PCMate Platinum manual.
	6) Faulty Mother Board	1) Replace the Mother Board.



IF THE RECOMMENDED CORRECTIVE ACTIONS DO NOT RESOLVE THE PROBLEM (S), CONTACT YOUR LOCAL AVERY DENNISON REPRESENTATIVE.

10.2 Stock / Ink Advance

Problem	Probable Cause	Corrective Action
Stock or ink does not advance when the start button is depressed.	1) No batches to be printed. (Data light is not on.)	1) Download batch (If batch downloaded uses the same design as a previously downloaded batch, the machine will start automatically).
	2) An interlock condition exists. (Supply or Error light is on.)	1) Press the voice button to determine the error. 2) If using PCMate Platinum, check the virtual control / display. 3) If using the Remote Control / Display Module, view error message.
	3) Stock is bound.	1) Remove and rethread the stock.
	4) Ink is bound.	1) Remove and rethread the ink.



IF THE RECOMMENDED CORRECTIVE ACTIONS DO NOT RESOLVE THE PROBLEM (S), CONTACT YOUR LOCAL AVERY DENNISON REPRESENTATIVE.

10.3 Print

Problem	Probable Cause	Corrective Action
Stock advances but the printer does not print.	1) Stock registration sensor is misaligned (preprinted stocks only).	1) Re-align sense mark with sensor, refer to section 3.3.6.2 Sensors.
	2) Print head cable is disconnected or faulty.	1) Power off the machine and reinsert the print head connector or replace the cable.
	3) Print head is faulty.	1) Replace the print head.
	4) Stock and Ink Transfer Type selection in Design File doesn't match supplies.	1) Refer to the PCMate Platinum software manual.
Machine stops after every third label.	1) Stock registration sensor is misaligned (preprinted stocks only).	1) Refer to the PCMate Platinum software manual.
	2) Label length selection in the Design File doesn't match the printed stock length.	
Print registration is off in the feed direction.	1) Print position is incorrect.	1) Use the Virtual Control / Display or Remote Control / Display to adjust the print position.
	2) Field(s) position incorrect in the Design File.	1) Refer to PCMate Platinum software manual.
	3) Sense-to-cut selection in the Design File is incorrect.	1) Refer to PCMate Platinum software manual.
	4) Bound print roller.	1) Check that the print roller turns freely on its shaft. If it does not, replace it.
Print registration is off in the web direction.	1) Machine is incorrectly threaded.	1) Check and rethread the media as needed. Refer to section 3.1.3 Loading the Stock.
	2) Web guides incorrectly adjusted.	1) Check and adjust web guides as needed. Refer to section 6.2, Stock (Web) Guide Width Adjustments.
	3) Stock Arbor is not tight.	1) Check and adjust as needed. Refer to section 3.1 Loading Supplies.



IF THE RECOMMENDED CORRECTIVE ACTIONS DO NOT RESOLVE THE PROBLEM (S), CONTACT YOUR LOCAL AVERY DENNISON REPRESENTATIVE.

Problem	Probable Cause	Corrective Action
Print density is too light or too dark.	1) Stock and Ink Transfer Type selection in Design File doesn't match supplies.	1) Refer to the PCMate Platinum software manual.
	2) Incorrect contrast setting in the machine setup.	1) Adjust the contrast control on each print head. Refer to section 4.1 Print Head Adjustments.
	3) Misadjusted print head pressure.	1) Set print head pressure. Refer to section 4.1 Print Head Adjustments.

Problem	Probable Cause	Corrective Action
Voids in print image in the feed direction.	1) Ink is misaligned with the stock.	2) Ink must be 1/4" or 5 mm wider than the stock. Example: 1"(25 mm) web requires 1 1/4" (30 mm) ink.
	2) Print head is dirty.	1) Power off the machine. Clean the print head and print. Refer to section 5.1, Print Head Cleaning and Handling.
	3) Faulty print head.	1) After cleaning the print head and running a test label, if a void still exists, replace the print head.
	4) Misadjusted print head pressure.	1) Set print head pressure. Refer to section 4.1.1, Adjusting Print Head Pressure.
	5) Worn printer roller.	1) Contact your local AVERY DENNISON representative.



IF THE RECOMMENDED CORRECTIVE ACTIONS DO NOT RESOLVE THE PROBLEM (S), CONTACT YOUR LOCAL AVERY DENNISON REPRESENTATIVE.

10.4 Cut / Stack

Problem	Probable Cause	Corrective Action
Machine fails to cut labels (the rotary knife does not rotate).	1) The knife is disabled.	1) Enable the knife in the setup menu via the Remote Control / Display Module section 7.0, or through the Virtual Control / Display in PCMate Platinum section 8.0.
	2) Cut count is set to "0" in the Design File.	1) Refer to the PCMate Platinum software manual.
The stacker platform fails to run.	1) The stacker cable is disconnected.	1) Power off the machine and insert the stacker cable in the stacker port.
Labels will not stack.	1) Stacker is not operating.	1) Be sure the nip roller is free to rotate.
	2) Stacker position on the machine too high or too low.	1) Move the toggle switch to the opposite position.
	3) Incorrect position platform bed angle.	1) Use the pull pin to change the platform angle.
Knife does not cut completely through.	1) Knife blade shear is misaligned.	1) Refer to section 6.4, Knife Shear Adjustment.
Knife will not cut.	1) Knife blades are dull.	1) Refer to section 5.4.1, Removing and Replacing the Knife assembly.



IF THE RECOMMENDED CORRECTIVE ACTIONS DO NOT RESOLVE THE PROBLEM (S), CONTACT YOUR LOCAL AVERY DENNISON REPRESENTATIVE.

10.5 Printer Errors

Printer errors are indicated by either the Supply or Error light being on.

When the Supply light is on, the printer supplies (stock or ink) require attention. Generally, this means the stock or one of the ink rolls is empty, or the stacker is full.

If the Error light is on, some condition occurred that would not allow the printer to continue printing.

Whenever either the Supply or Error light is on, pressing the Voice button will play a message describing the problem. If you are using PCMate Platinum, an error message will be displayed in the Printer Status box of the Virtual Front Panel, or if you have a Remote Front Panel, the error message will be shown on the display.

The table below shows all of the printer error messages, along with a description of the problem and some possible solutions.

Voice Message	Prompt	Description
Knife Error. Press start to continue.	KNIFE DID NOT HOME	The knife did not complete the cut properly, or the knife could not initialize properly. Try again. If this happens frequently or continuously, the knife needs service
The stacker is full. Remove labels from the stacker.	STACKER FULL	The stacker is full. Remove all labels from the stacker. If this error occurs when there are no labels on the stacker, the stacker requires service.
Stacker sensor error. Remove labels from the stacker.	STACKER SENSOR ERROR	This error occurs when the stacker tries to position the platform before printing. The platform position sensor did not respond as expected. This is usually caused by labels blocking the sensor. Remove all labels from the platform and try again. If the error still occurs, the stacker requires service.
Open the bottom print station for a single sided format	BOTTOM CLOSED	The bottom print station roller must be open to print a single-sided format. This eliminates the need to install ink on the unused station. If this error occurs when the bottom station roller is open, the head open sensor is not working.
Lower (Upper) print station error. Printer requires service.	ST1 (2) LOW TEMP READ ERR	This error indicates that the upper or lower printhead temperature is out of normal range. This is generally caused by a disconnected printhead. Check the printhead connections. If the error still occurs, change the printhead. If the error still occurs, replace the printhead cable. If the error still occurs, replace the MCB.

Voice Message	Prompt	Description
Internal error. Press start to continue.	MCB CMD_FRE INDEX ERR MCB CMD_FSE INDEX ERR MCB BAD STACK ERROR MCB KNF FLIT TBL TOO BIG MCB KNIFE STATE TOO BIG MCB KNIFE STATE TOO BIG MCB BEMF MON ST TOO BIG MCB STACKR HM ST TOO BIG MCB KNF HOME ST TOO BIG MCB BEMF CTRL ST TOO BIG MCB SHE BATCH Q OVERFLOW MCB FVE INDEX ERROR MCB ERROR #58 MCB ERROR #59 MCB ERROR #60 MCB ERROR #64 MCB ERROR #68 MCB ERROR #69 MCB ERROR #70 MCB ERROR #91 MCB ERROR #95 MCB ERROR #97 MCB ERROR #98 MCB ERROR #99	These are internal software errors. If one of them occurs, clear the error and continue. If the error continues to occur, report the error and the circumstances that cause it to AVERY DENNISON Service. These errors are caused by errors in the software and are not caused by hardware failures.
Internal error. Press start to continue.	OUT OF MEMORY IMAGER ERROR 919	These are internal errors similar to the ones above. However, these errors will require power cycling the printer. If the error continues to occur, report the error and the circumstances that cause it to AVERY DENNISON Service.
Knife cycle error. Increase label length or select a slower print speed.	LBL TOO SHORT FOR SPEED	This error indicates that the label is shorter than the minimum length for the selected print speed. Refer to the Printer Specifications for minimum label lengths. (Minimum label lengths are different for the Sonic Knife. Refer to the Sonic Knife manual.) To run and cut the label, you must either make the label longer or reduce the print speed.
The stock supply roll is empty	STOCK OUT	This error indicates the stock supply roll is empty. If the stock supply roll is not empty, make sure the supply core is firmly held by the arbor clamp. If this error continues to occur, remove the stock roll and press the Start button (the Ready light must be on). The stock arbor should spin counter-clockwise briefly. If it doesn't, the motor or MCB is defective. If it spins and you continue to get the error after re-installing the stock roll, the MCB is defective.

Voice Message	Prompt	Description
The lower (upper) print station ink roll is empty	INK OUT BOTTOM (TOP)	This error indicates that the ink on the specified print station is either missing or broken, or the supply roll is empty. If this error continues to occur even though the ink supply rolls are properly installed, remove the ink rolls and press the Start button. The unwind (supply) arbor should spin counter-clockwise and the rewind (take-up) arbor should spin clockwise briefly. If one or both of the motors does not spin, the motor(s) or MCB are defective. If both motors spin, install a new ink roll. If the error continues to occur with the new ink roll, the MCB is defective.
The lower (upper) print station roller is open	HEAD OPEN BOTTOM (TOP)	This error indicates that either the upper or lower platen roller is open. Close the roller. If the error continues to occur when the roller is closed, check the roller open sensor.
Missed sense mark	MISSED SENSE MARK	The format specifies a sense mark, but no sense mark was found. Possible causes are misalignment of the sensor to the sense mark or incompatibility of the sense mark and the sensor type. Another possible cause is a mismatch between the label length that is set in the format with the actual distance between sense marks on the stock.
The lower (upper) print head is overheated. Wait until the error light to go out then press start to continue	HEAD 1 (2) OVER TEMP	The printer continuously monitors the temperature of the printhead to ensure it doesn't overheat and damage the printhead. When the printhead temperature reaches a pre-set limit, the printer will stop with this error. Wait for the error light to go out and continue printing. However, it is likely that the error will happen again. Possible solutions are to reduce the print speed or to reduce the amount of copy on the label. If this error happens when the printer is first turned on or does not clear itself within a few minutes, the printhead or MCB may be defective.
Bar code failure	VERIFIER HALT 1 (2) 912 (Note: there is no difference between 1 and 2)	This indicates that the bar code verifier found a bad bar code. The most likely cause is a print quality problem such as an ink wrinkle or a dot out on the printhead. If this error happens on every label, check the printhead for dots out. If this error happens often, but not every label, check the bar code minimum height requirement or lower the ANSI grade.
Communication error. Press start to continue.	BUFFER OVERFLOW	This error indicates that the host computer sent more data than the printer can handle. This error is generally caused by a mismatch in the serial protocol setting (XON/XOFF or RTS/CTS) between the printer and the host, or a cable that does not have the RTS/CTS lines.
N/A	TOO MANY FIELDS	The number of fields on the label exceeds the maximum number allowed.
The imager and MCB software versions are not compatible	SOFTWARE MISMATCH	The printer checks to make sure the software versions within the printer are compatible. This error indicates that the versions are not compatible. Upgrade to the latest operating system software.

Voice Message	Prompt	Description
Internal error. Press start to continue.	MCB ERROR #61	These errors are all related to identification devices in the printer or peripherals that are used to read the printer configuration. If one of these errors continues to occur after a power cycle, disconnect all peripherals (stacker, sonic knife, etc.). If the problem still occurs, replace the Frame ID memory. If it still occurs, replace the MCB. If disconnecting the peripherals fixes the problem, reconnect one at a time to determine which one is causing the problem, then replace the printer interface harness.
	MCB ERROR #62	
	MCB ERROR #63	
	MCB ERROR #65	
	MCB ERROR #66	
	MCB ERROR #67	
	MCB ERROR #71	
	MCB ERROR #72	
	MCB ERROR #73	
	MCB ERROR #74	
	MCB ID NOT FOUND	
	MCB ERROR #78	
	MCB ERROR #79	
	MCB ERROR #80	
	FRAME ID NOT FOUND	
	MCB ERROR #84	
	MCB ERROR #85	
	MCB ERROR #86	
	MCB ERROR #87	
	MCB ERROR #88	
	MCB ERROR #89	
	MCB ERROR #88	
	MCB ERROR #89	
	MCB ERROR #91	
	MCB ERROR #92	
	MCB ERROR #93	
	MCB ERROR #94	
	MCB ERROR #100	
Internal error. Press start to continue.	MCB ERROR #96	This error is related to the Security Batch Count feature. It indicates that the Batch Count queue is full, which should never happen. The only way to recover from this is to reset the MCB by removing the battery on the MCB with the power off, then replacing it. This will also reset all the printer settings (print and cut adjust, baud rate, cutter enable, etc.) to their default values.



IF THE RECOMMENDED CORRECTIVE ACTIONS DO NOT RESOLVE THE PROBLEM (S), CONTACT YOUR LOCAL AVERY DENNISON REPRESENTATIVE.

11.0 Mechanical Troubleshooting

11.1 Stock

Problem	Probable Cause	Corrective Action
Stock will not roll smoothly or the stock jumps.	1) Web guides are incorrectly adjusted.	1) Be sure stock roll is as flat as possible and does not extend over core. 2) Adjust web guides to touch stock roll, but do not pinch the roll.
Stock does not pull smoothly through print head module.	1) Web guides are too tight.	1) Adjust web guides to touch outer edges of stock with the minimum pressure required.
Stock jams in bridge blade rollers or knife area.	1) Knife not cutting the full width of stock.	1) Refer to section 6.4, Knife Shear Adjustment.
	2) Nip rollers are not turning.	1) Be sure the nip roller is free to rotate and moves easily in the bearing slots. Check for a loose drive gear.



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11.2 Ink

Problem	Probable Cause	Corrective Action
Ink wrinkles or will not pull smoothly.	1) Ink supply and rewind rolls are misaligned.	1) Make sure rewind core is equal to or wider than the supply roll width. 2) Check that the motor is working and has back tension on the supply roll.
	2) Ink buildup on the turn bar(s).	1) Clean the turn bar(s) with alcohol.
	3) Incorrect ink width.	1) Use an ink width $\frac{1}{4}$ " (5 mm) wider than the stock being printed on.
Ink rolls loosely on Rewind core.	1) Ink rewind roll not turning.	1) Check that the motor is working.
	2) Ink rewind roll is too full.	1) Remove ink rewind roll. Replace ink rewind roll with an empty core.

11.3 Print

Problem	Probable Cause	Corrective Action
Poor print – uneven or no print.	1) Print head pressure is too light.	1) Move pressure buttons to opposite position. 2) Ensure that both pressure buttons are set to the same position.
	2) Ink rewind roll is too full.	1) Remove ink rewind rolls and replace with empty cores.

11.4 Knife

Problem	Probable Cause	Corrective Action
Knife stops during cut in stock.	1) Knife blades are dull.	1) Refer to section 5.4.1, Removing and Replacing the Knife Assembly.
Stock is popping in front of the knife.	1) Knife blades are dull.	1) Refer to section 5.4.1, Removing and Replacing the Knife Assembly.



IF THE RECOMMENDED CORRECTIVE ACTIONS DO NOT RESOLVE THE PROBLEM (S), CONTACT YOUR LOCAL AVERY DENNISON REPRESENTATIVE.

Appendices

1. Fuse Configuration

The main fuse(s) on the AVERY DENNISON SNAP 600 are located inside the AC power entry receptacle. The entry has a fuse drawer that holds the fuse(s) and selects the appropriate line voltage. If the number in the window **DOES NOT** match the AC line voltage intended to be supplied to the printer, **DO NOT** plug the power cord in. Reconfigure as follows:

- 1) Remove the power cord.
- 2) Using a flat blade screwdriver, open the AC entry by lifting the tab just above the voltage indicator window.

WARNING: Attempting to open the AC entry with the AC power cord inserted into it will cause damage to the AC entry.

- 3) Remove the red fuse drawer.
- 4) Remove all fuses and the fuse jumper if it is present.
- 5) Insert into the fuse drawer the correct number and style of fuses and fuse jumper for your application.

Configuration Number One: Line voltage between the range of
90 - 132VAC @ 50 - 60Hz 1 Ph

- 1) Install one 921167 - 10.0A 250V Fast Acting 1/4 x 1 1/4"
 - 2) Install one Fuse Jumper
- See Figure FUSE1

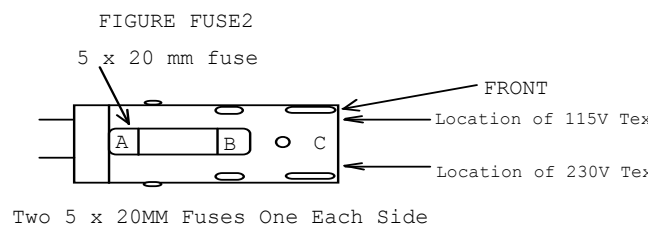
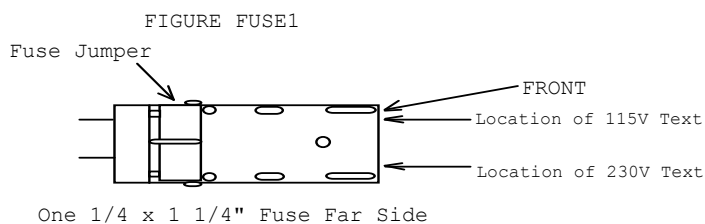
Configuration Number Two: Line voltage between the range of
180 - 265VAC @ 50 - 60Hz 1 Ph

- 1) Install two 990757 - 6.3A 250V 5 x 20MM

NOTE: The fuse jumper must be removed to install both 5 x 20mm fuses.

The fuses must be between points A and B as shown not B and C.

See Figure FUSE2




- 6) Reinsert the fuse drawer into the AC entry with the desired voltage up.
- 7) Close the AC entry and verify the correct voltage is now visible.

1.2 Reconfiguring the Internal Power Supply

Check the fuse label on the back cover of the printer. If the fuse label has the warning shown below, you must perform the following procedure to reconfigure the internal power supply to 115V or 230V.



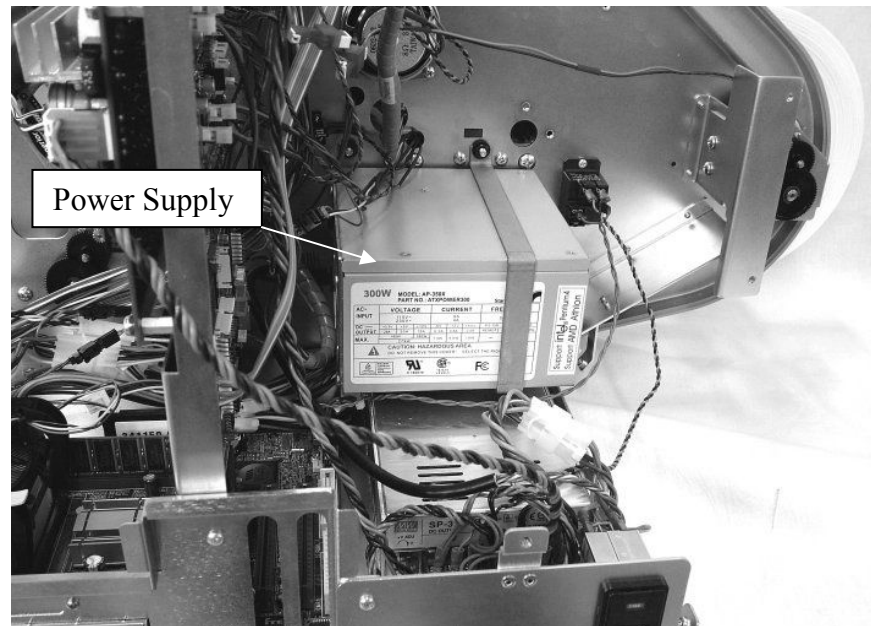
NOTE: If the printer has the  mark on the back of the printer near the AC entry, you do not need to reconfigure the internal power supply.

FUSE WARNING	
FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, SHOCK OR ELECTRICAL HAZARD. USE ONLY 250VAC FUSES WITH RATINGS AS NOTED BELOW. DO NOT INTERCHANGE FUSES.	
MACHINE VOLTAGE (DETERMINED BY FUSE DRAWER ORIENTATION INTERNAL TO AC ENTRY)	MAINS PROTECTION (INTERNAL TO AC ENTRY)
90-132VAC 50-60Hz	10.0 A 250V TIME DELAY 1/4 X 1 1/4 FUSE (ONE)
180-265VAC 50-60Hz	6.0 A 250V TIME DELAY 5 X 20mm FUSE (TWO)
WARNING - INTERNAL CHANGES ARE REQUIRED WHEN CHANGING THE MAINS VOLTAGE. REFER TO THE USER'S MANUAL FOR INFORMATION AND INSTRUCTIONS	

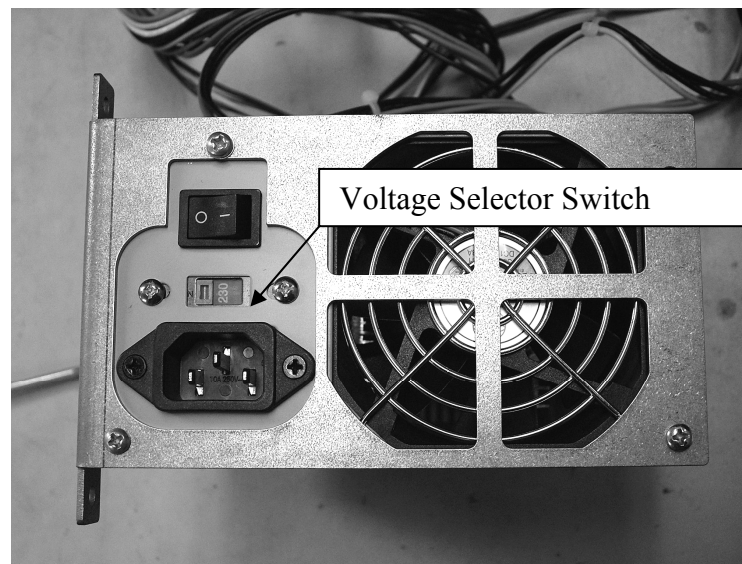


WARNING: The following procedure requires internal access to the printer. If the instructions are not followed exactly, damage to the printer or personal injury or death may occur. This procedure should only be performed by a qualified service technician.

- 1) Unplug the power cord from the back of the printer. Do not reconnect the power cord until the procedure is complete.
- 2) Remove the back cover of the printer.
- 3) Locate the power supply as shown in the picture below.



- 4) The voltage selector switch is found on the side of the power supply facing the MCB. See the picture below. To access the switch, it may be necessary to remove the mounting screws and carefully move the power supply away from the MCB. There are four mounting screws, two above the supply and two below. Be careful not to put excessive strain on the power supply cables.



- 5) Using a small, flat-blade screwdriver, move the switch so that the correct line (mains) voltage shows in the window. If necessary, re-mount the power supply to the frame. (Make sure the power switch on the power supply is in the ON (1) position and the power cord is securely inserted in the appliance coupler.)
- 6) Re-assemble the cover on the printer.
- 7) Connect the power cord to the printer.

2. Ink and Stock Transfer Types

Transfer Type values associated with the XT commands.

Value	Transfer Type
51	Heat Seal & SD-1111 Ink
69	Fabric 2800 & TT-1111 Ink
70	Fabric 2800 & HR-3111 Ink
71	Fabric 2800 & TT-3111 Ink
72	Fabric 2800 & HC-3111 Ink
73	Fabric 2800 & HR-1111 Ink
74	Fabric 2795 & TT-1111 Ink
75	Fabric 2795 & HR-3111 Ink
76	Fabric 2795 & TT-3111 Ink
77	Fabric 2795 & HC-3111 Ink
78	Fabric 2795 & HR-1111 Ink
82	Fabric 2800 & HR-4111 Ink
83	Fabric 2795 & HR-4111 Ink
94	2800 Fabric & GP-1111 Ink
95	2795 Fabric & GP-1111 Ink
96	2795 Fabric & CT-1111 Ink
97	4800 Fabric & CT-1111 Ink
98	4800 Fabric & CT-1114 (Blue)
99	4800 Fabric & GP-1111
100	2395NWT Fabric & CL-1111 (UK)
101	2395NWT Fabric & XC-3111 (UK)
102	2395NWT Fabric & HR-1111 (UK)
103	2495NWT Fabric & CL-1111 (UK)
104	2495NWT Fabric & XC-3111 (UK)
105	2495NWT Fabric & HR-1111 (UK)
106	4000NWT Fabric & CL-1111 (UK)
107	4000NWT Fabric & XC-3111 (UK)
108	4000NWT Fabric & HR-1111 (UK)
109	4002NWT Fabric & CL-1111 (UK)
110	4002NWT Fabric & XC-3111 (UK)
111	4002NWT Fabric & HR-1111 (UK)
112	G.S. Satin & XC-3111 (UK)
113	2012T Fabric & XC-3111 (UK)
114	1021T Fabric & XC-3111 (UK)
115	2800 Fabric & CT-1111
116	591SST Fabric & CT-1111 Ink
117	591SST/601SST Fabrics & CT-1114 Ink

Value	Transfer Type
118	601SST Fabric & CT-1111 Ink
119	591SST/601SST Fabrics & CT-1115 Ink
120	591SST/601SST Fabrics & CT-1117 Ink
121	591SST Fabric & CT-1112 Ink
122	601SST Fabric & CT-1112 Ink
155	4900NWT / 4900HSA & HS1111
156	1800FRA & TW1111
157	1800FRA & GP1111
158	2085NWT / 2495NWT / 2360NWT & HS1111
159	2360NWT / 2800NWT & XC3111
160	2895NWT / 2800NWT & HS1111
161	2895NWT & XC3111
162	2895NWT & HC3111
163	1800MWA & GP1111
164	1800MWA & TW1111
165	604LKP / 601LKP & DS7501 / 7502 / 7504
166	604LKP / 601 LKP & DS7503
167	4800NBC Fabric & HS1011
168	2012T Fabric & HS1111/1112
169	4360NBT Fabric & SD1011
170	4041THS Fabric & HS1111
171	4700TWT Fabric & PL1111
172	4800TST Fabric & CT1111
173	4800TST Fabric & CT1112
174	4800TST Fabric & CT1114
175	4800TST Fabric & CT1115
176	4800TST Fabric & CT5137
177	4800TST Fabric & HS1111
178	770SWT Fabric & CT1112
179	770SWT Fabric & CT1114
180	770SWT Fabric & CT1115
181	770SWT Fabric & CT5137
182	772SWT Fabric & CT1112
183	772SWT Fabric & CT1114
184	772SWT Fabric & CT1115
185	772SWT Fabric & CT5137

3. Printer Specifications

Print Method:	Narrow web thermal transfer two sided printer Speeds - 3 IPS (76.2mm/second), 4.5 IPS (114.3mm/second), 6 IPS (152.4mm/second), 7 IPS (177.8mm/second), 8 IPS (202.3mm/second), 10 IPS (254mm/second), 12 IPS (304.8mm/second)
Label Size	Min: 1/2" (12.7mm) web x 1.062" (26.9mm) feed at 3 IPS (standard stacker) Min: 1/2" (12.7mm) web x 1.062" (26.9mm) feed at 4.5 IPS (standard stacker) Min: 1/2" (12.7mm) web x 1.062" (26.9mm) feed at 6 IPS (standard stacker) Min: 1/2" (12.7mm) web x 1.062" (26.9mm) feed at 7 IPS (standard stacker) Min: 1/2" (12.7mm) web x 1.062" (26.9mm) feed at 8 IPS (standard stacker) Min: 1/2" (12.7mm) web x 1.263" (32.1mm) feed at 10 IPS (standard stacker) Min: 1/2" (12.7mm) web x 1.473" (37.4mm) feed at 12 IPS (standard stacker) Max: 2 1/4" (57.2mm) web x 5" (127mm) feed (standard stacker) 5:1 web feed to width ratio (optional 8" tray) 2 1/4" (57.2mm) web x 14" (355.6mm) feed No stacker - optional rewind unit or cut without stacking
Print Area	Min: None Max: Up to 2" (50.8 mm) web x Up to 13.875" (352.4 mm) feed -
Resolution	300 DPI (11.8 dots per mm)
Fonts	True Type - English alphabet, Cyrillic, and Asian characters. 4pt up to 96pt (300 DPI), Supply dependant on 4, 5 and 6 point characters All rotations 0°, 90°, 180°, 270°
Logos	No restriction on number or size per tag (up to maximum image area) All rotations 0°, 90°, 180°, 270°
Care Symbols	Full Ginetex Care Symbol set and full NAFTA / ASTM Care Symbol Set Fully Scaleable All rotations 0°, 90°, 180°, 270°
Justification	Left, Right, and Center field selectable
Stock	Support for blank or pre-printed fabrics, coated or uncoated polyester, woven labels, dip-coated nylons, heat transfer and heat seal tapes. Also support for blank or pre-printed card stock, coated or uncoated, up to 10 point - as well as pressure sensitive labels. Supply Roll: 3" ID (76 mm) cardboard core, Maximum roll size 11.5" O.D. (29 cm)

Interface	Null modem serial cable DB9 F connector May require USB/serial adapter May require external Ethernet adapter
Control Panel	Push-button start/stop with 4 LED lights – Ready, Data, Supply, Error voice button
Dimensions	18.5" (470mm) high x 25" (635mm) wide Including stacker x 20.0" (508.0mm) deep
Weight	45 Lbs. (20.45 Kg.)
Electrical	90-132 / 180-265 VAC 50-60Hz - 10 / 6 Amp 1 Ph User selectable
Temperature	40°F (4°C) to 95°F (35°C)
Humidity	5% to 90% non-condensing
Other Features	<ul style="list-style-type: none"> - Downloading of information while machine is operating - Sequenced Fields - Time/Date Stamping (Both month/day/year and day/month/year format) - Life Counts – Through PCMate Platinum or Remote Control/Display Module - Operator adjustable: Contrast – Adjustable on printhead Cut position, print position and baud rate – Adjustable through PCMate Platinum virtual display or optional remote display - Error Detection of: Stock out, ink out, print head open, feed open, full stacker, stacker jam, and print head over-temperature – with voice commands. - Display: Labels left to be cut and stacked in a batch, batch ID, total life inches, total life cuts - Self Diagnostics – Through PCMate Platinum - Missed sense mark detection and correction
Ink Ribbon	<p>AVERY DENNISON standard thermal colors and widths AVERY DENNISON white plastic core: Maximum Ink I.D. 3.5"</p> <p>Ink widths:</p> <p style="padding-left: 40px;">With Metric Adapter - 25mm, 30mm, 35mm 40mm, 45mm, 50mm or 60mm metric widths only.</p> <p style="padding-left: 40px;">With Inch Adapter - 1", 1 ¼", 1 ½" 1 ¾", 2", 2 ¼" or 2 ½" inch widths only.</p>
Options	<ul style="list-style-type: none"> - Remote Control / Display Module - Back reflective sensor – Reads black sense mark printed on back of white preprinted stock, centered in web. - Contrast or color sensor – Reads sense mark printed on front of preprinted stock. Sense mark or stock may be colored. - Bar code verifier – Scans every bar code printed. Stops printer if a bar code does not scan.

4. Instructions for Factory / Field Installation of Top Reflective Sensor 590013(F)

Installation Procedure

1. Disconnect Power to Printer.
2. Disconnect Stacker Interface Cable & Remote Display Panel (if so equipped).
3. Remove the Rear Cover (save screws).
4. Remove ¼-20 Phillips Head Screw located on the back of the Upright Frame closest to the Supply Unwind & just above the smaller Power Supply
5. Remove the Turn Bar from the Web Guide Bracket & replace with the Bar supplied with the kit as shown in Figure 1.

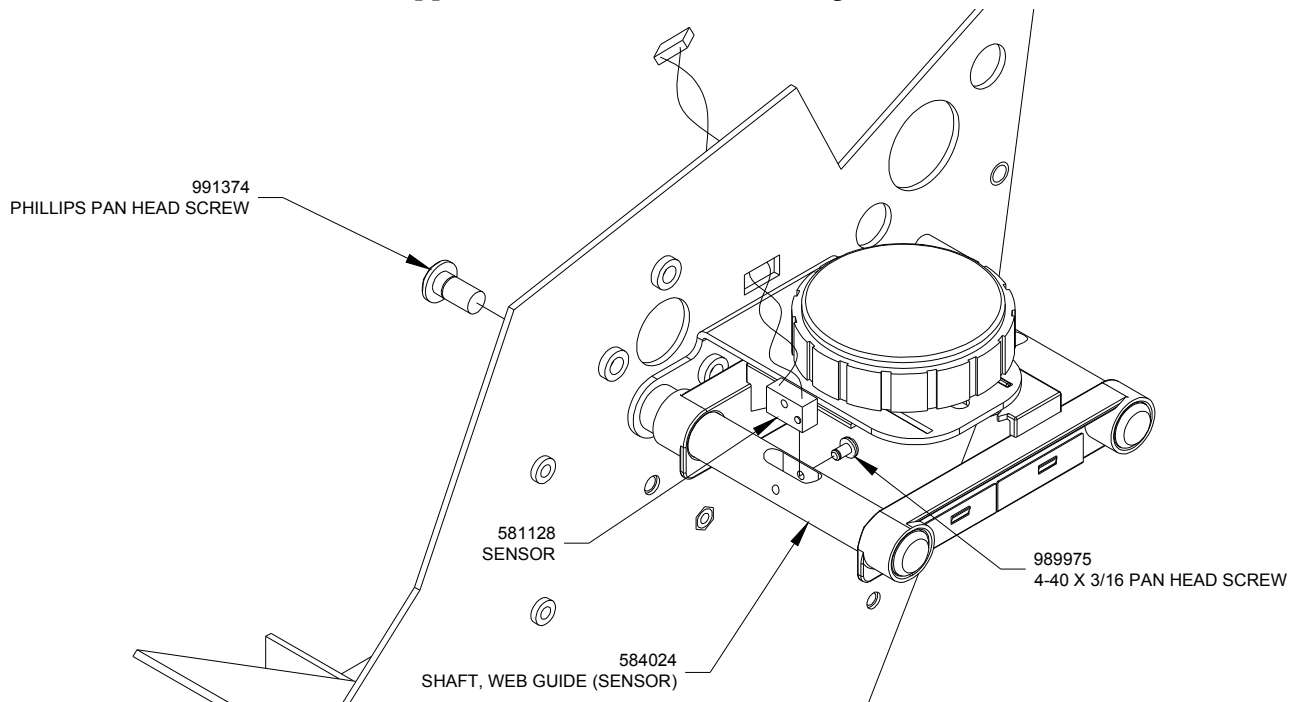


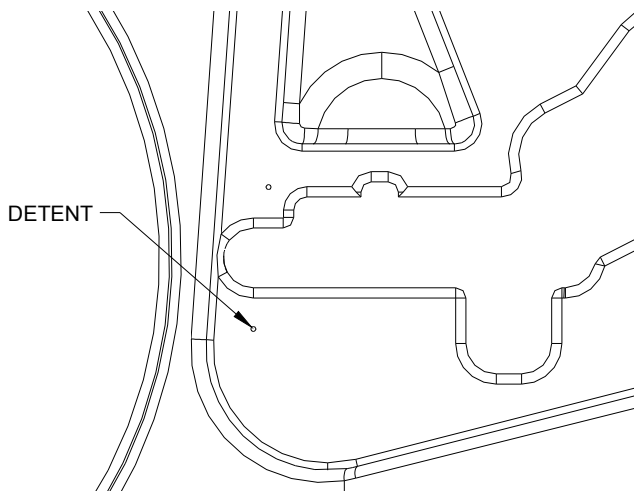
Figure 1

6. Hold the Bar with the through hole in a vertical position. Reassemble Step 4. ¼-20 Screw & secure. Be sure Web Guide Slides smoothly on Bar.
7. Assemble Harnessed Sensor into the through hole front the top & secure with the 4-40 Screw in the inside hole in the Turn Bar. See Figure 1.
8. Insert the Connector / Lead through the Upright Frame behind the Web Guide Knob and connect to connector marked "Top Reflective Sensor" in MCB Board.
9. Reinstall Cover from Step 3.

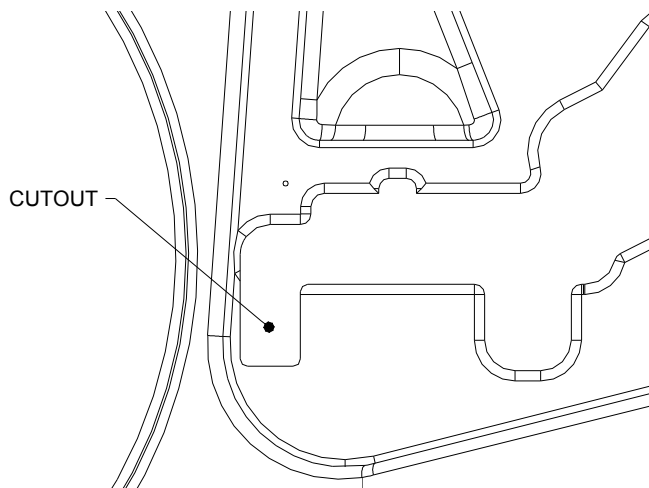
5. Instructions for Factory / Field Installation of Back Reflective Sensor 590010(F)

Disassembly and Cover Alteration

1. Disconnect Power to Printer.
2. Disconnect Stacker Interface Cable & Remote Display Panel (if so equipped).
3. Remove the Rear Cover (save screws).
4. Remove Web Guide to facilitate reworking Front Cover. (Upright Frame has all required holes to mount this sensor). Save Web Guide Screws.
5. Locate (2) small detents in the Front Cover to the left of the Web Guide opening.
6. Using a 3/16 drill, create a hole through the Front Cover in the **BOTTOM HOLE ONLY**. Increase holes size to 3/8 or larger.



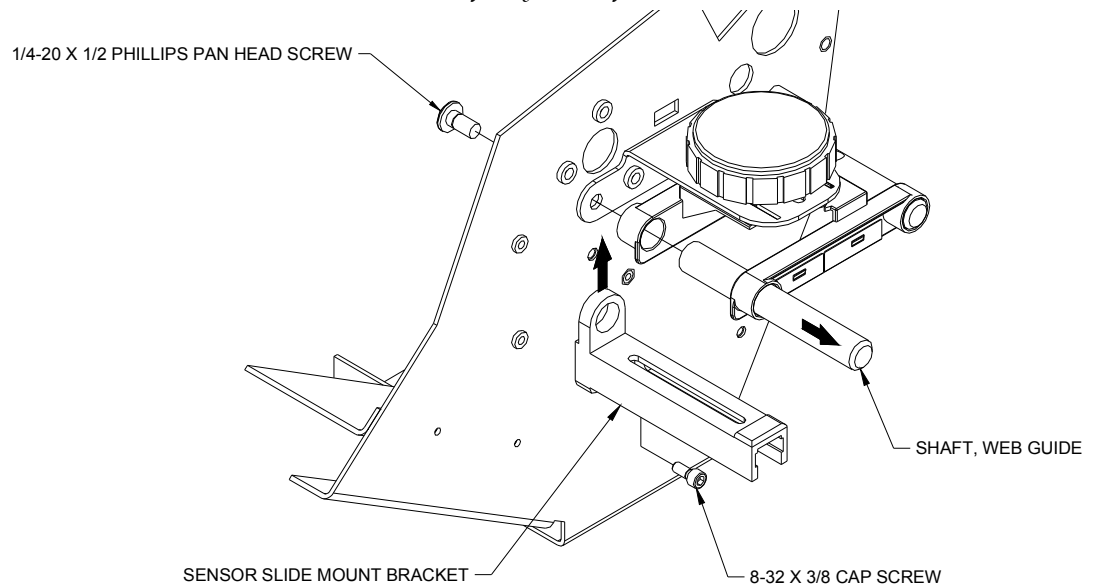
7. Using a Dremel Tool or small saw, create a rectangular hole large enough to accept and secure the Sensor Slide Mounting Bracket.



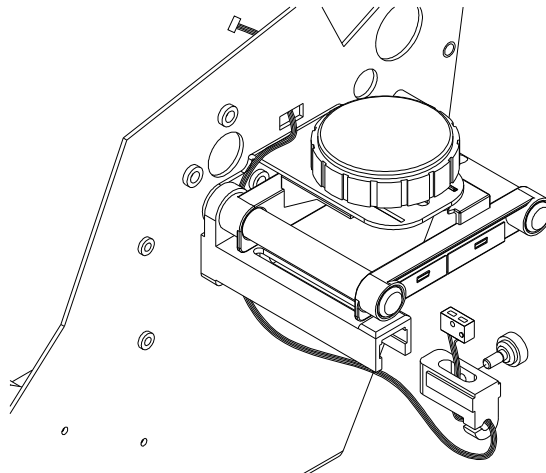
Mounting Bracket / Sensor Assembly

1. Remove 1/4-20 Phillips screw from left side of Web Guide. Slide toward front of Web Guide Assembly and install Sensor Slide Mounting Bracket as shown.
2. Replace 1/4-20 Screw and reinstall Web Guide Assembly with Sensor Slide Mounting Bracket onto Upright Frame.
3. Secure Web Guide Assembly with screws from step 5 and secure Sensor Slide Mounting Bracket to Frame with 8-32 x 3/8 Cap Screw.

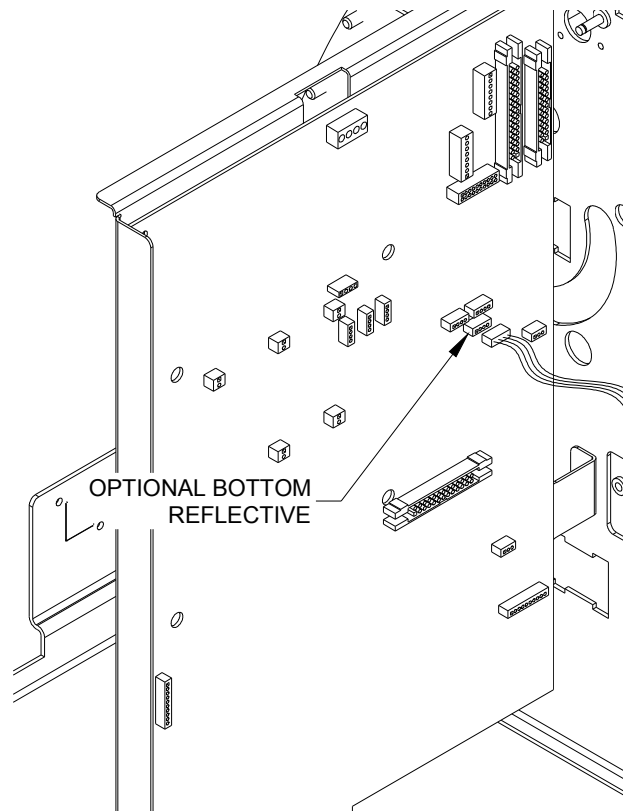
Note: Be sure Web Guides move freely on shafts.



4. Assemble Harnessed Sensor into Sensor Slide so that view ports are on top and flush with Slide. Form wires into molded hook on bottom of Slide.
5. Assemble Slide into Slide Mount Bracket and assemble 8-32 x 3/8 Cap Screw / Thumb-cap into Slide.
6. Form Sensor wires into loop, pass behind Rear Web Guide and through hole behind Web Guide Knob to rear of printer.

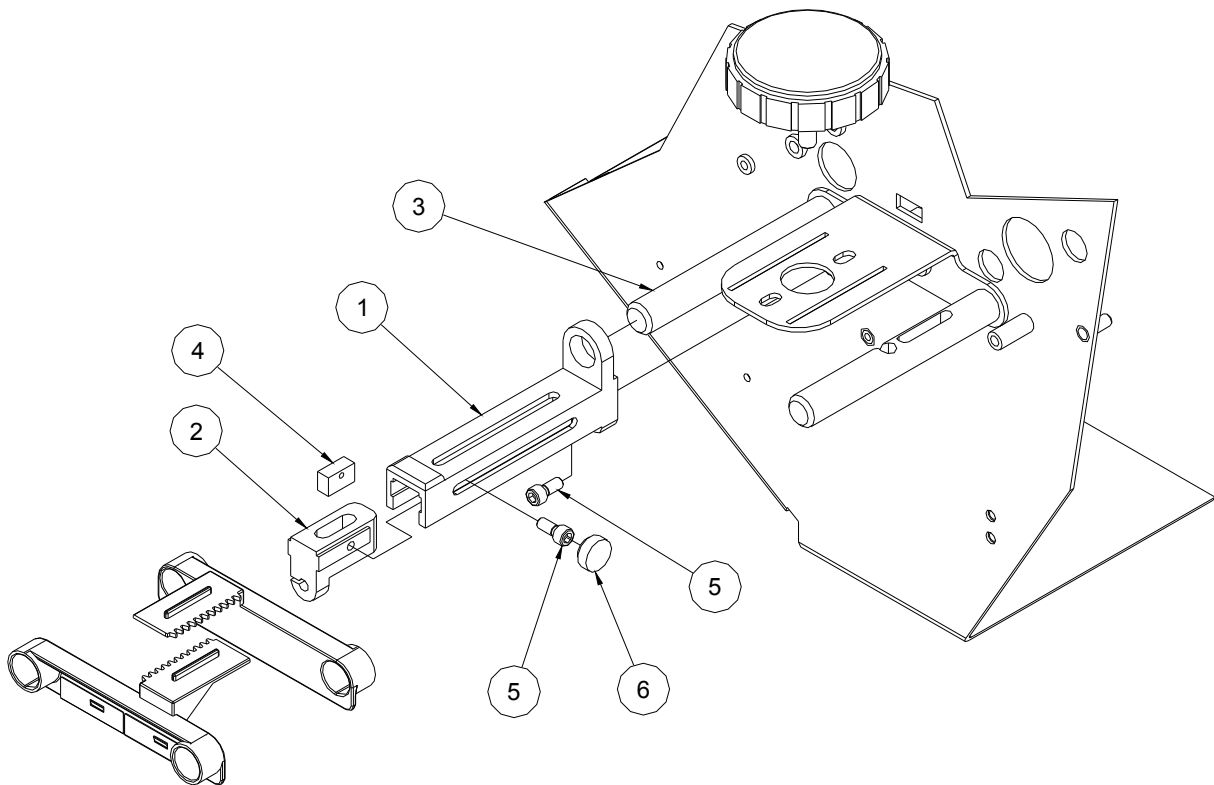


7. Install Sensor Connector into receptacle on MCB marked "Optional Bottom Reflective"



8. Reinstall Cover, Stacker and Remote Display

Assembly & Parts List



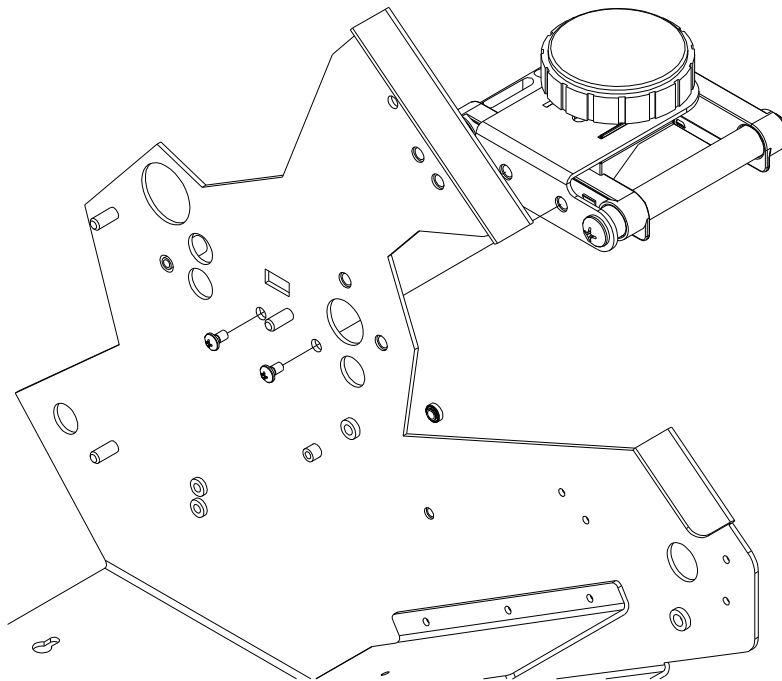
Item	Part #	Description	Qty
1	594009	Mounting bracket, Sensor slide	1
2	594010	Slide, Sensor mount	1
3	584009	Shaft, Web guide	1
4	581128	Sensor, Reflective harnessed	1
5	990051	8-32 x 3/8 Cap screw	2
6	990314	#8 Thumb cap	1
7	594010D	Installation document – Back reflective sensor option	1

6. Instructions for Factory / Field Installation of Top Sensor Assemblies 590011(F) & 590014(F)

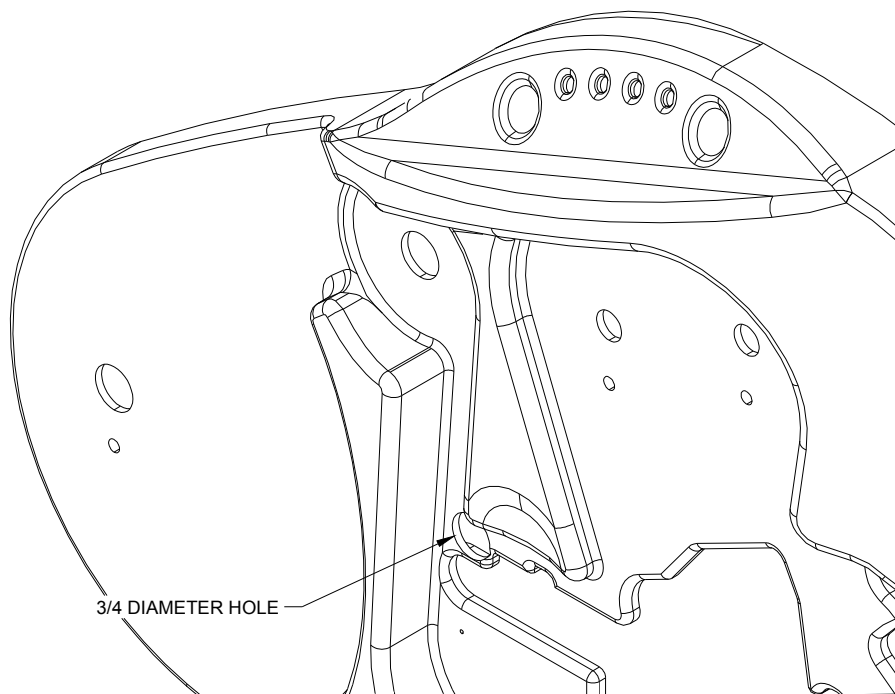
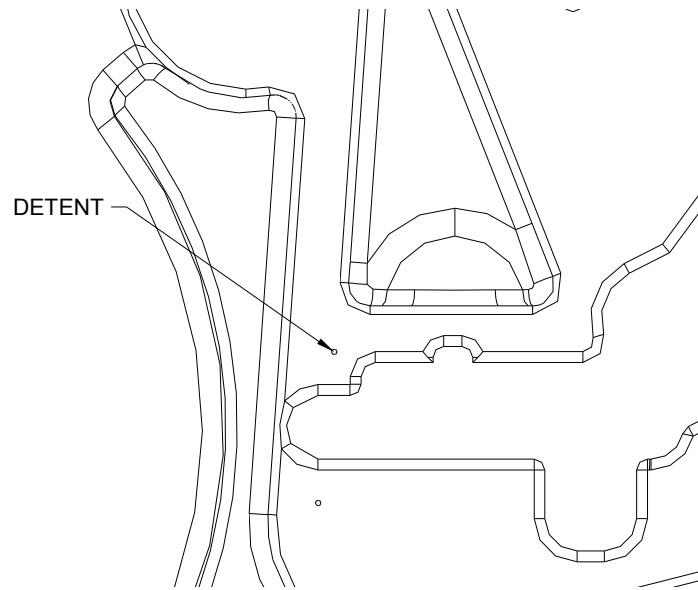
These Sensors are alike in mechanical configuration. 590011 & 590011F are Contrast Sensor Assemblies only and 590014 & 590014F are Color Contrast Assemblies

Installation Procedure – Front of Printer

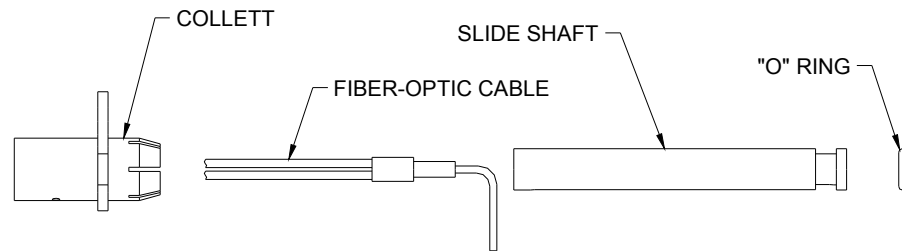
1. Disconnect Power to Printer.
2. Disconnect Stacker Interface Cable & Remote Display Panel (if so equipped).
3. Remove the Rear Cover (save screws).
4. Remove Web Guide Assembly to facilitate required Front Cover rework.



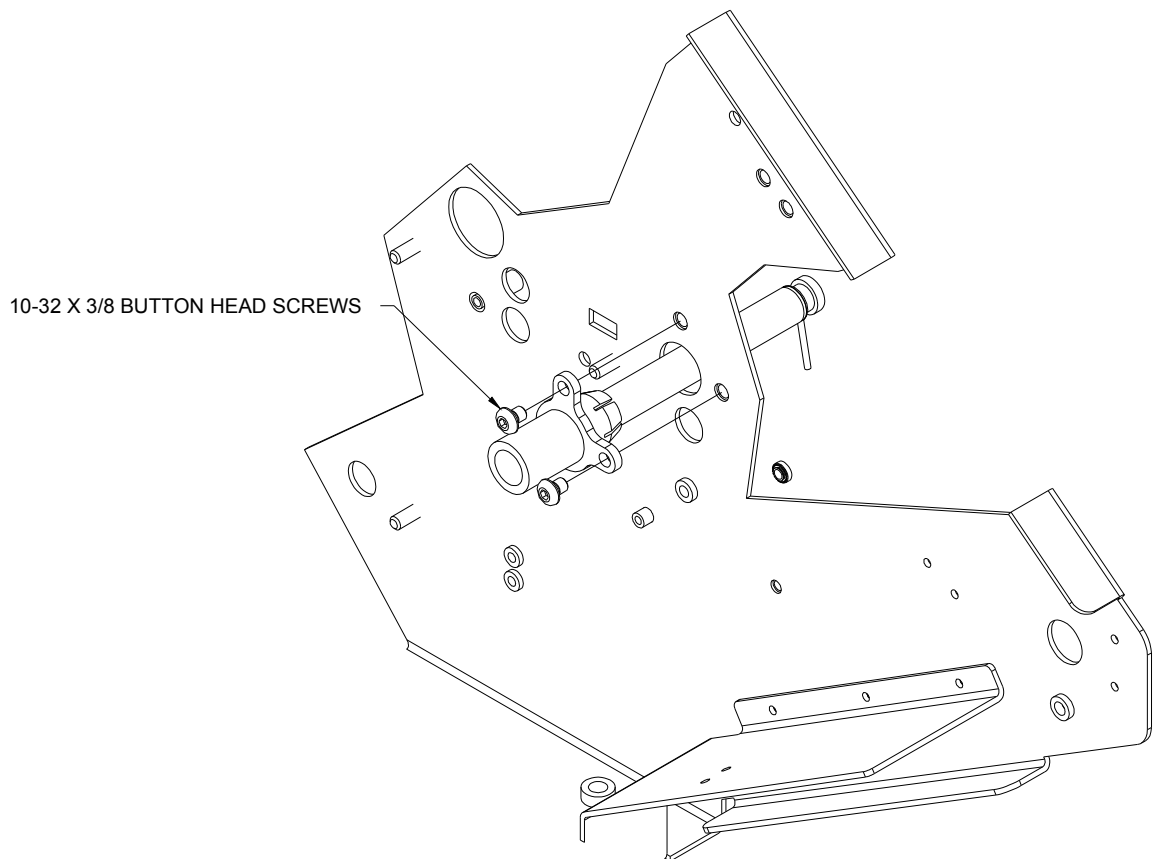
5. Locate a small detent point on the Front Cover above and to the left side of the Web Guide Mount. Using this detent as a center, Drill a $3/16$ " diameter hole in the Cover. Using successively larger Drills or Dremel Tool, enlarge the hole to $3/4$ " diameter in line with the $3/4$ " diameter hole in the Upright Frame.



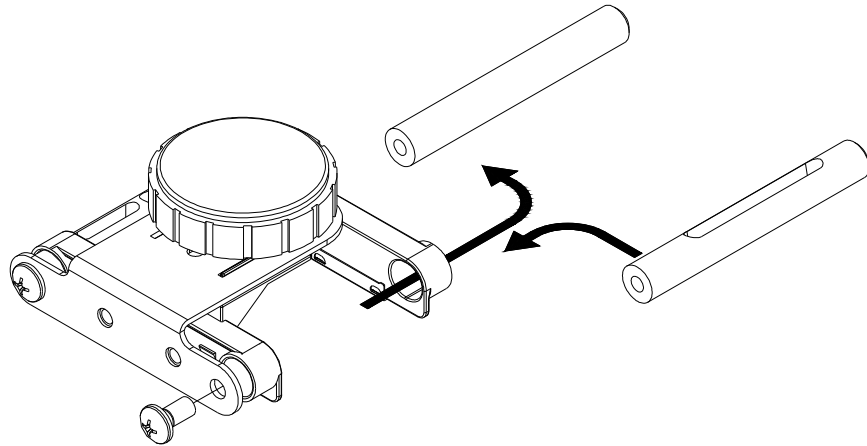
6. Create a sub-assembly of the Plastic Collet, the Fiber Optic Slide Shaft, The Fiber Optic Cable and the "O"-Ring.
 - a) Slide the (2) cables at the rear of the Fiber-Optic Assembly through the Collet as shown. This must be done by sliding one cable through, then sliding cable end of the other cable through parallel to the first. They will not go through together.



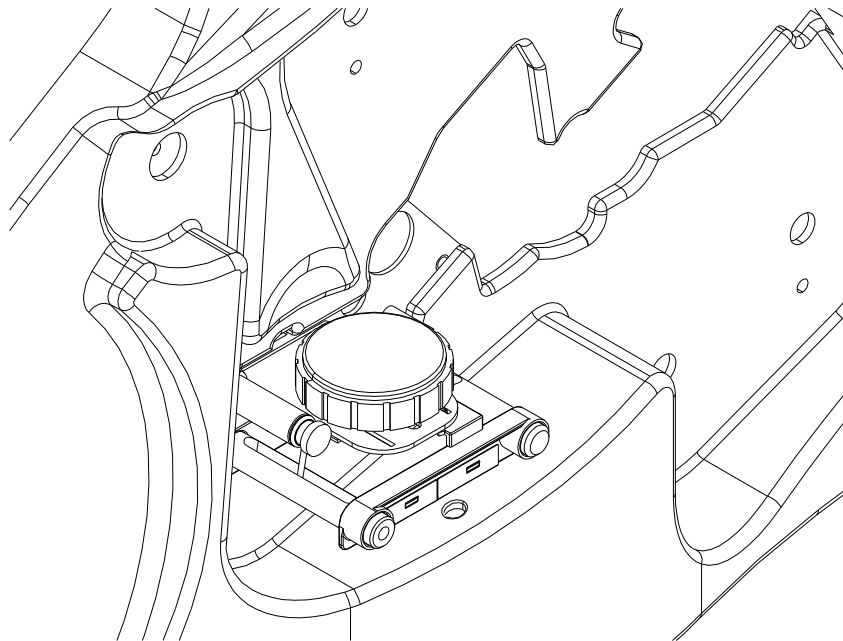
7. From the back of the Upright Frame, slide the Collet / Cable Assembly through the $\frac{3}{4}$ diameter hole and secure with (2) 10-32 x $\frac{3}{8}$ Button Head Screws. Install the "O"-Ring in the front groove behind the Fiber-Optic Tube.



8. Remove the Left Web Guide Shaft from the assembly removed in Step 4 and replace with the slotted Shaft with the wide Slot up and rotated clockwise approximately 15°. Do not Tighten ¼-20 Shaft Mount Screw.



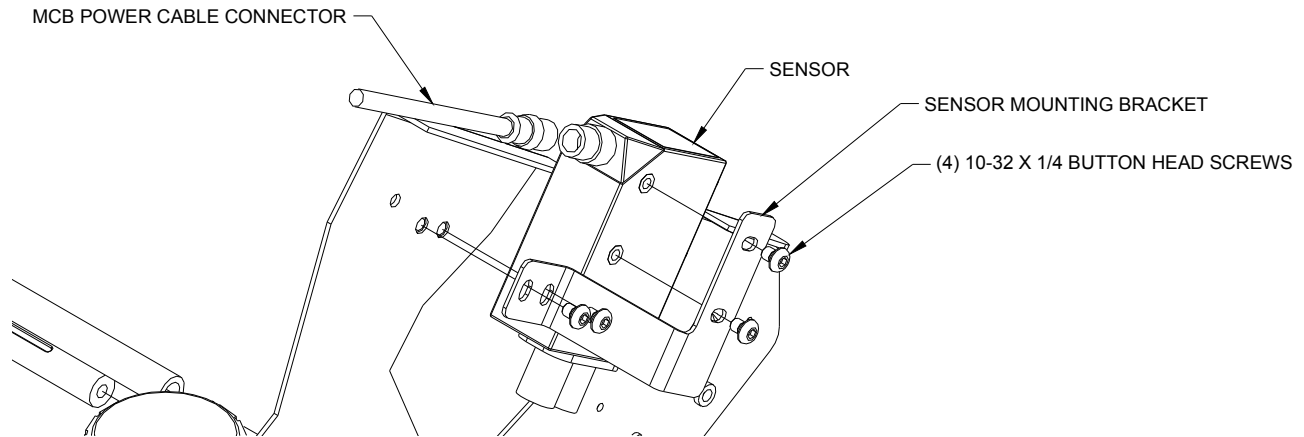
9. Reinstall the Web Guide Assembly with the Fiber-Optic Tube inserted into the slotted Web Guide Shaft. Align the Tube in the Shaft so that it slides Freely and is approximately 15° clockwise from vertical. Tighten ¼-20 Screw from Step 8.



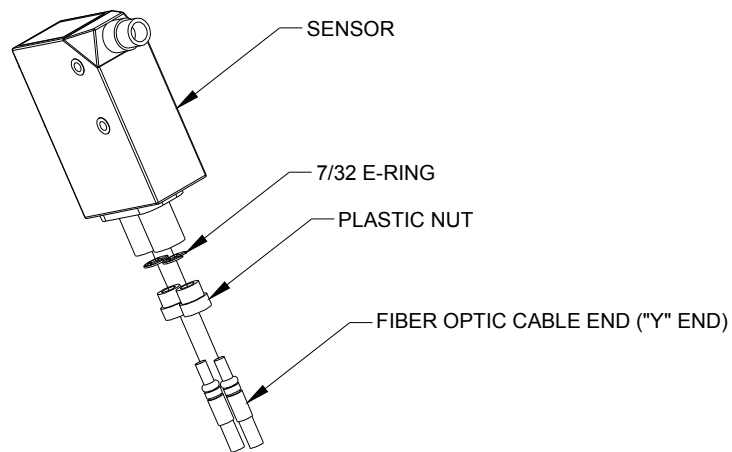
- **Note:** When not in use, be sure sensor is located in the center of the Web Guide Shaft.

Installation Procedure – Rear Assembly

1. Assemble Sensor Mounting Bracket to Sensor body with (2) 6-32 x $\frac{1}{4}$ Button Head Screws.



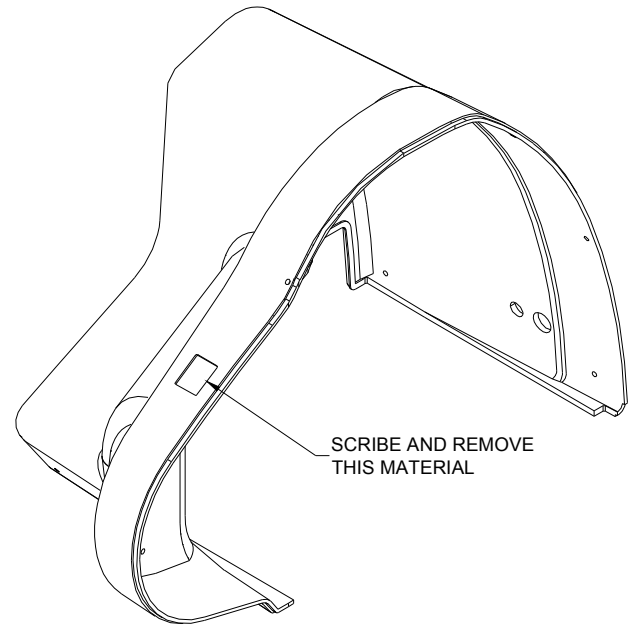
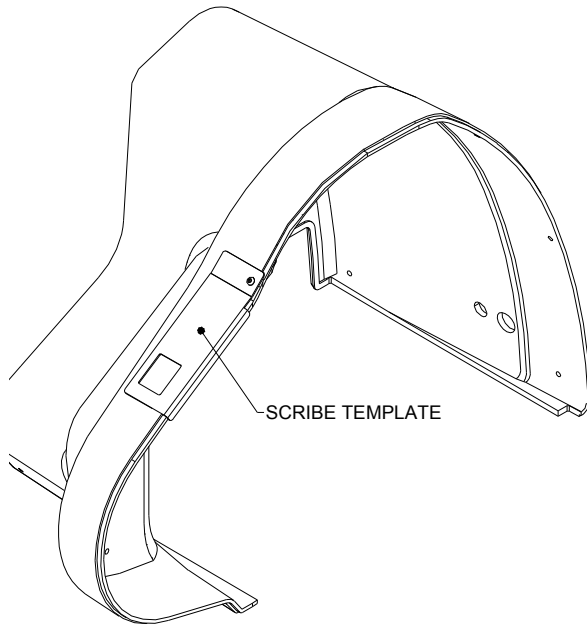
2. Remove (2) plastic Jam Nuts from Sensor, slide of ends of "Y" Cable and secure with (2) 7/32 "E" Clips.
3. Insert the threaded Plastic Nuts into the Sensor receptacles, firmly seating the Fiber-Optic Cable ends and tighten the Plastic Nuts.



4. Assemble the Sensor / Bracket / Lead Assembly to the Upright Frame using (2) Pem Nuts shown above. Use 10-32 x $\frac{1}{4}$ Button Head Screws supplied with kit.
5. Assemble Sensor Power Cable to Sensor and plug into MCB Connector labeled "Option Top Color / Contrast".

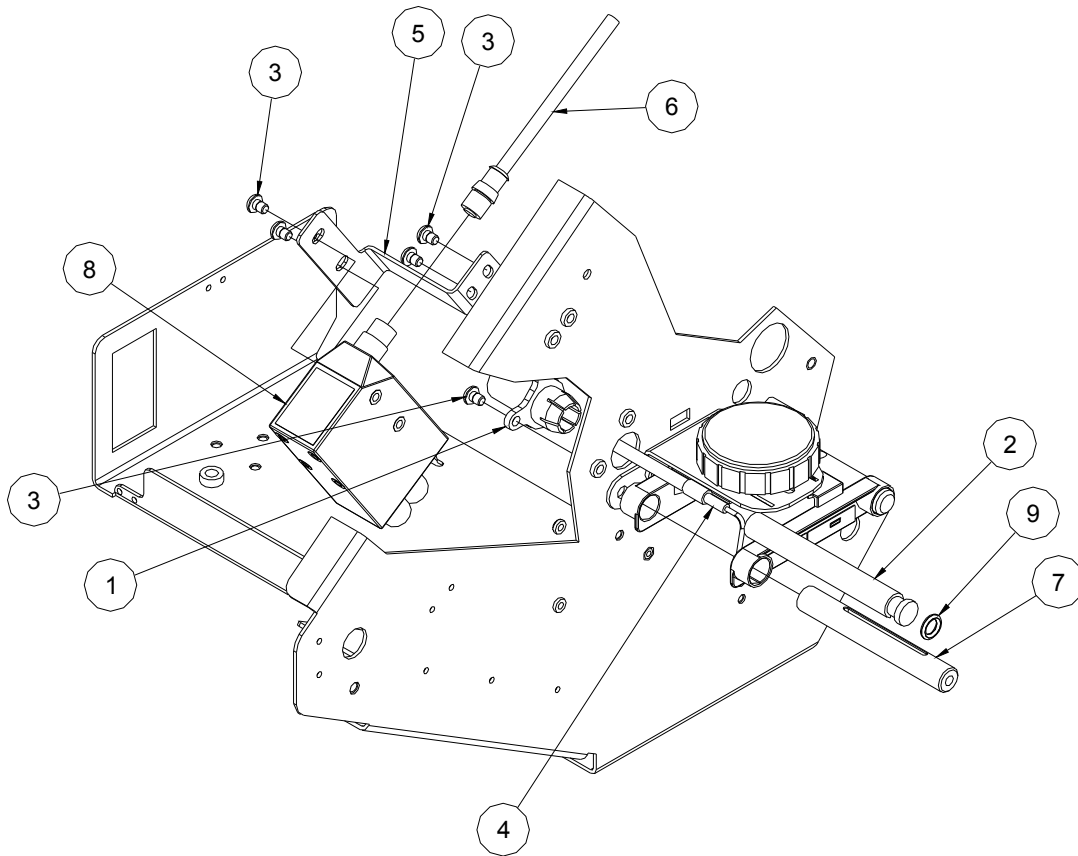
Final Assembly

1. Using the supplied Template, scribe a cutout line on the Rear Cover.



2. Remove the material within this scribed line. Drill corners and use a Dremel Tool or Small Saw.
3. Slide Cover onto Printer. The Cutout should be over the Control Plate on the Sensor. The Sensor may require both horizontal and vertical readjustment to fit below the cutout.
4. Reattach the Rear Cover. Reconnect Stacker and Remote Display Panel connections.
5. When ready to use a sense mark format, program the Sensor per instructions provided with the Sensor.

Assembly & Parts List



Item	Part #	Description	Qty
1	594008	Collet, Sensor mount	1
2	594007	Mount, Fiber optic	1
3	990089	10-32 x 1/4" Button head screw	6
4	591304	Light guide, Fiber optic	1
5	581316	Bracket, Color / Contrast sensor	1
6	581124	Cable, Contrast sensor	1
7	584030	Shaft, Contrast sensor mount	1
8*	581181	Sensor, Contrast, Sick	1
	581182	Sensor, Color, Sick	
9	991509	"O" ring, 5/16" x 1/2" x .032" Wall	1
10	990329	Snap ring, 7/32 e-ring (not shown)	1
11	591305	Template, Sensor mount (not shown)	1
12	590011D	Instructions, Top color / Contrast sensor	1

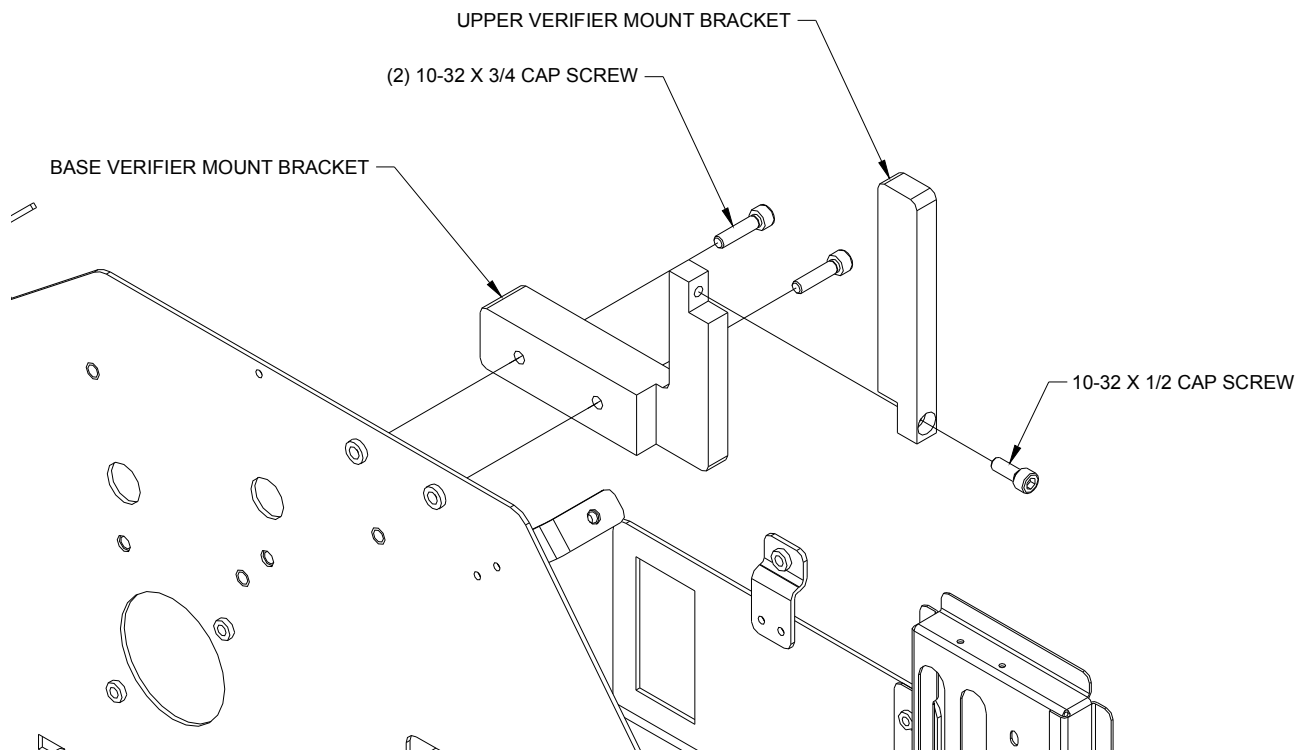
* 590011 & 590011F use part no. 581181

* 590014 & 590014F use part no. 581182

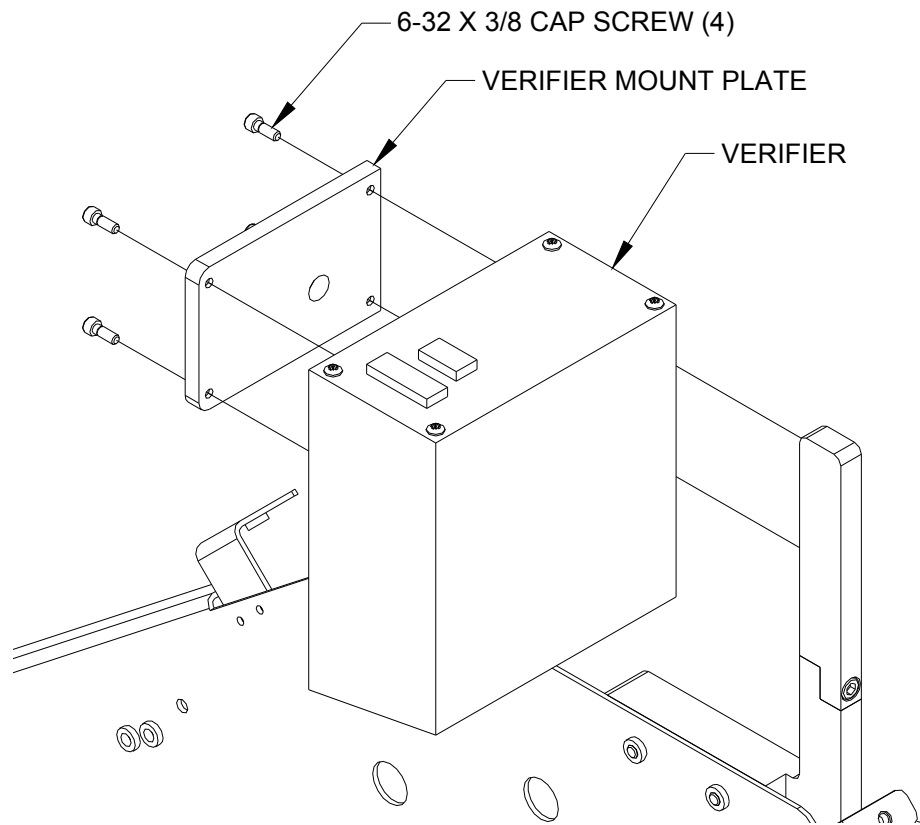
7. Instructions for Factory / Field Installation of High Speed Verifier Assembly 590015F (Factory) and 590015 (Field)

Installation Procedure - Mechanical

- 1) Disconnect Power to Printer.
- 2) Disconnect Stacker Interface Cable & Remote Display Panel (if so equipped).
- 3) Remove the Rear Cover (save screws).
- 4) Install the Base Verifier Mount Bracket on the back of the Upright Frame in (2) 10-32 Pem Nuts in the upper most right side of the Frame. Secure with (2) 10-32 x $\frac{3}{4}$ Cap Screws.
- 5) Install the Upper Verifier Mount Bracket onto the Base Bracket with (1) 10-32 x $\frac{1}{2}$ Cap Screw. Tighten securely.

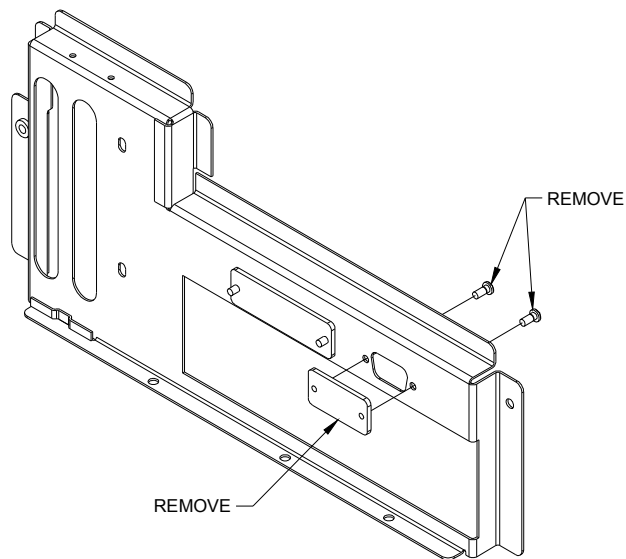


- 6) Install Verifier Mount Plate to the Upper Verifier Mount Bracket using (2) 6-32x 3/8 Cap Screws and attach the Verifier to the Plate with the remaining (2) 6-32 x 3/8 Cap Screws.

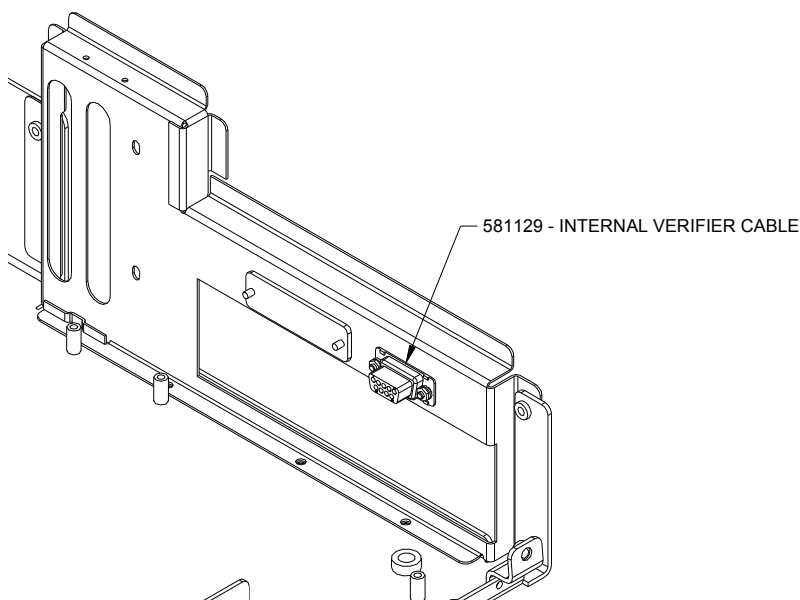


Installation Procedure - Electrical

- 1) Facing the back of the Printer, remove the existing connector plate and screws and discard.



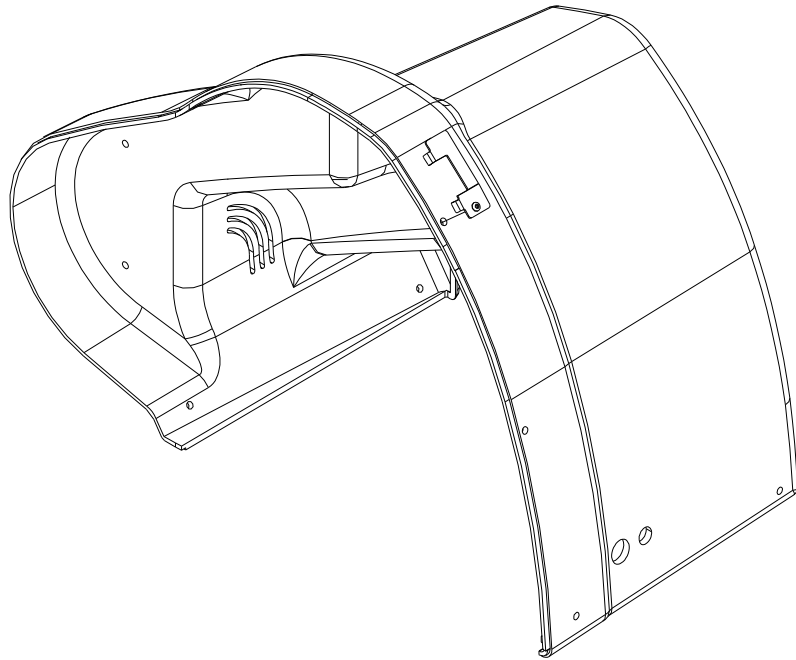
- 2) Assemble Internal Verifier Cable into slot and secure with hardware supplied on 581129.



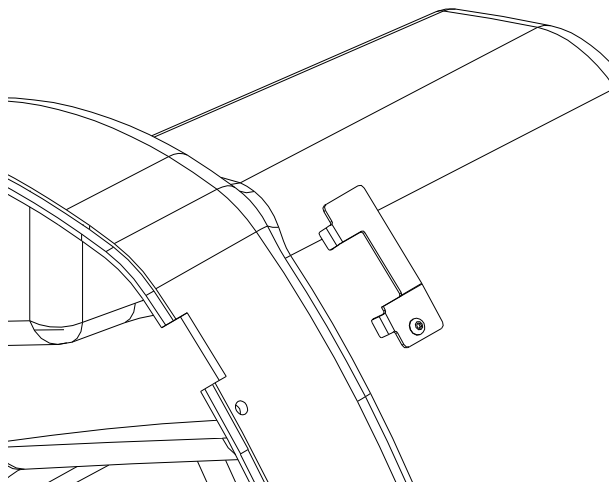
- 3) Mount J1 (5 wire, 10 pin connector) to MCB J7. Mount J2 (3 wire, 10 pin connector) to MCB J11.
- 4) Assemble External Verifier Lead Connector to mating Connector in internal cable (installed in step 2) & mating Connectors to top of Verifier.

Installation – Rear Cover

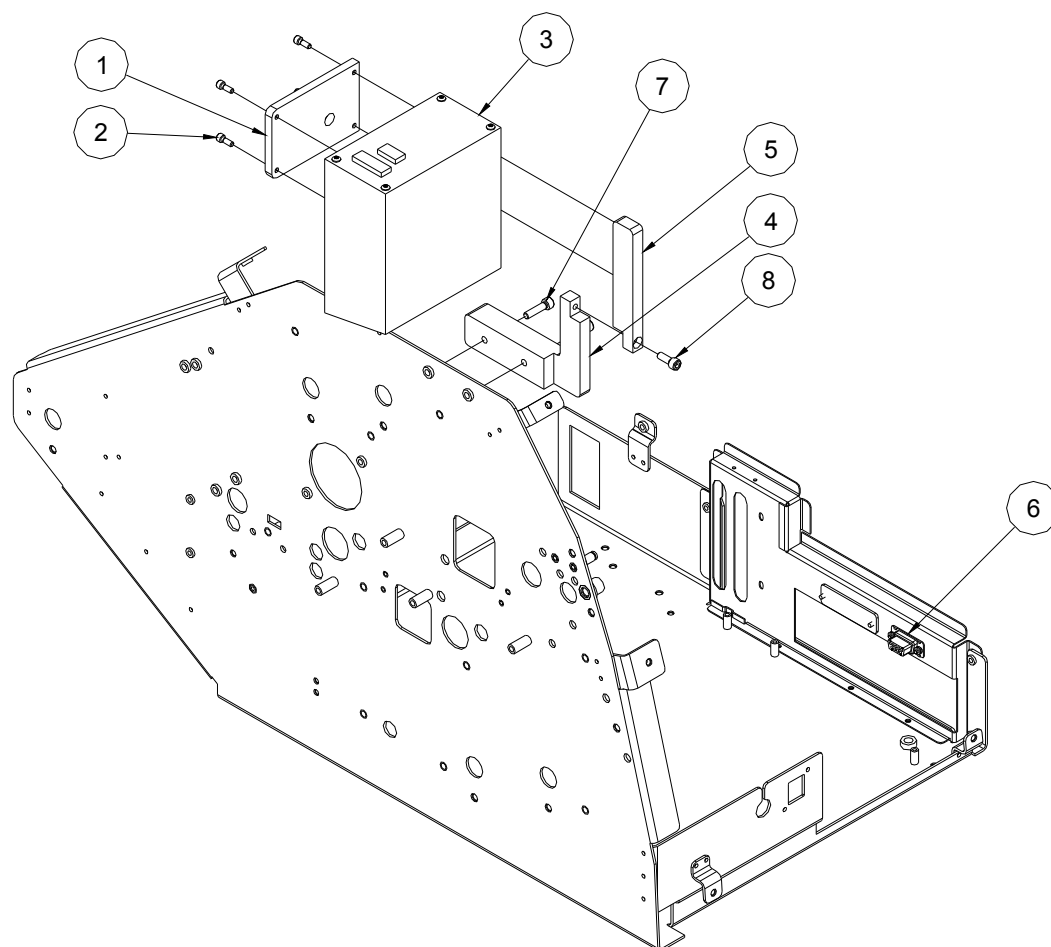
- 1) Insert the Template supplied into the cover hole below and closest to the above Verifier Bracket Assembly. Bending the Template slightly to match the Cover contour will assure a more accurate location.



- 2) Scribe a line around the inner cutout of the Template.
- 3) Remove the Template and with a small saw or Dremel Tool, remove the material within the scribed line. Slide the Cover onto the Printer to assure a clearance around the Verifier Bracket.



Assembly & Parts List



Item	Part #	Description	Qty
1	581309	Plate, Verifier mount	1
2	990016	6-32 x 3/8 Cap screw	4
3	551144	Verifier, 8"	1
4	591302	Bracket, Verifier, Mount base	1
5	591301	Bracket, Verifier upright	1
6	581129	Harness, Verifier, Internal	1
7	990083	10-32 x 3/4 Cap screw	2
8	990081	10-32 x 1/2 Cap screw	1
9	581144	Harness, External verifier (not shown)	1
10	581303	Template, Verifier, Cover alt. (not shown)	1
11	590015D	Installation document – Verifier	1

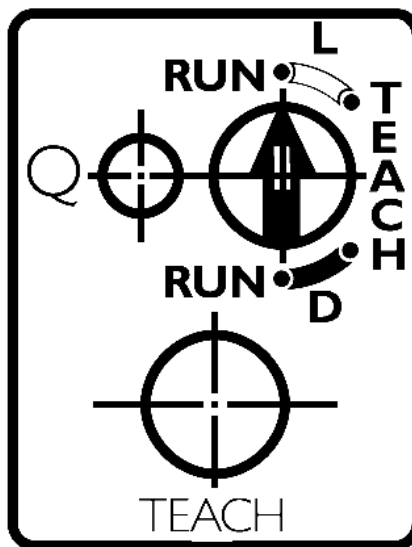
8. Programming the Contrast Sensors

There are two optional contrast sensors available for the SNAP 600 printer. 590011 is the standard contrast sensor. It works well in most situations where there is significant contrast between the material background and the sense mark. In situations where there is less contrast between the material and the sense mark, or the material and sense mark are of similar colors, the 590014 Color Contrast Sensor may be required.

Both sensors have to be “taught” the difference between the material background and the sense mark. The procedures are similar, and are described below.

Programming the 590011 Contrast Sensor

The figure below shows the control panel for the 580011 Contrast Sensor. The sensor can detect a light sense mark on dark material (L) or a dark sense mark on light material (D). In each mode, the control switch can be set to RUN or TEACH.



To teach the sensor, thread the printer with the stock to be used. Position the material so that a sense mark is just to the left of the sensor position. Adjust the sensor position across the web so that the sensor lines up with the sense mark.

Set the control switch on the sensor to the TEACH position. If the material has a light sense mark on dark material, set the switch to TEACH L. If the material has a dark sense mark on light material, set the switch to TEACH D.

Press and hold the TEACH button while using the stock advance knob to move the sense mark under and past the sensor.



Make sure that the stock is tight against the web guide. The best way to do this is to press the TEACH button with the left index finger, while applying back tension to the supply roll with the left thumb. This ensures that the stock is in the same position that it will be when the printer is running.

Release the TEACH button. If the Q light flashes rapidly, the sensor did not program correctly. If the process fails repeatedly, the sensor may not be lined up correctly with the sense mark, or there may not be enough contrast between the background and the sense mark.

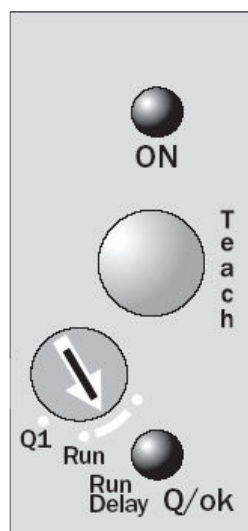
Move the material so that the sense mark moves back and forth under the sensor. The Q light on the sensor should flash when the sense mark passes under the sensor.

Move the configuration switch to either the RUN L or RUN D position, depending on the sense mark.

Programming the 580014 Color Contrast Sensor

The figure below shows the control panel for the 580014 Color Contrast Sensor. The configuration switch has three positions:

- Q1 – Teaching mode
- Run – Run mode
- Run Delay – Do not use



To teach the sensor, thread the printer with the stock to be used. Position the material so that a sense mark is just to the left of the sensor position. Adjust the sensor position across the web so that the sensor lines up with the sense mark.

Set the control switch on the sensor to the Q1 position. Press and hold the TEACH button while using the stock advance knob to move the sense mark under and past the sensor.



Make sure that the stock is tight against the web guide. The best way to do this is to press the TEACH button with the left index finger, while applying back tension to the supply roll with the left thumb. This ensures that the stock is in the same position that it will be when the printer is running.

Release the TEACH button. If the Q/ok light flashes rapidly, the sensor did not program correctly. If the process fails repeatedly, the sensor may not be lined up correctly with the sense mark, or there may not be enough contrast between the background and the sense mark.

Move the material so that the sense mark moves back and forth under the sensor. The Q/ok light on the sensor should flash when the sense mark passes under the sensor.

Move the configuration switch to RUN position.

7. Warranty Policy

Avery Dennison Retail Information Systems, In-Plant Printing Solutions provides the following warranty policy.

Scope

Warranties against defects from workmanship for equipment and parts manufactured and sold from Sayre, PA. Includes time and material except as otherwise noted below.

Time

- New equipment and parts: 6 months
- Refurbished equipment and parts: 90 days
- Warranty period starts when equipment ships from selling location.

General Conditions

Avery Dennison extends warranty coverage under the following conditions.

- Equipment and parts will perform within published specifications. Promised or implied statements by any Avery Dennison employee or representative will not be deemed to vary the terms of the warranty.
- Equipment and parts must be installed and operated according to recommended procedures and operating conditions.
- Consumable elements are not covered. Consumable elements are those that show normal wear from typical equipment usage including, without limitation, printheads, knives, rollers in contact with the web, and sonic units. Avery Dennison reserves the right to determine which elements are defined as “consumable.”
- No customer maintenance may be performed except as directed by qualified Avery Dennison personnel.
- Equipment and parts damaged by negligence or abuse are not covered.
- Avery Dennison US reserves the right in its sole discretion to incorporate any modifications or improvements in the machine system and machine specifications which it considers necessary but does not assume any obligation to make said changes in equipment previously sold.

Equipment Purchased In US and Shipped In US

- Avery Dennison US covers warranty for equipment and parts installed and operated in the Americas (United States, Canada, Mexico, Central America, Caribbean Region, and South America excluding Brazil).
- Outside the US, the local Avery Dennison office is responsible for equipment and parts warranty. Customers must ensure coverage during machine purchase.
- Equipment purchased and exported to regions outside local Avery Dennison office coverage are not covered by warranty. The purchasing agent must acquire a service contract from the Avery Dennison office where the equipment or parts are operated to ensure machine coverage. For example, if an agent purchases a printer in the US, exports to Brazil, and then needs warranty coverage, Avery Dennison Brazil has no obligation to provide warranty coverage. The agent must purchase services from Avery Dennison Brazil.

THE WARRANTIES PROVIDED HEREIN ARE EXCLUSIVE AND ARE IN LIEU OF ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHER WARRANTY OF QUALITY OR PERFORMANCE, WHETHER EXPRESS OR IMPLIED. EXCEPT THE WARRANTY OF TITLE, IN NO EVENT SHALL AVERY DENNISON BE LIABLE FOR ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, EVEN IF AVERY DENNISON HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Service

When ordering machines and supplies in the U.S.A., reference all correspondence to the address below.

EVERY DENNISON Corporation
One Wilcox Street
Sayre, PA 18840

Call: 1-800-967-2927 or (570) 888-6641

Fax: (570) 888-5230

For spare parts, requests for service or technical support, contact

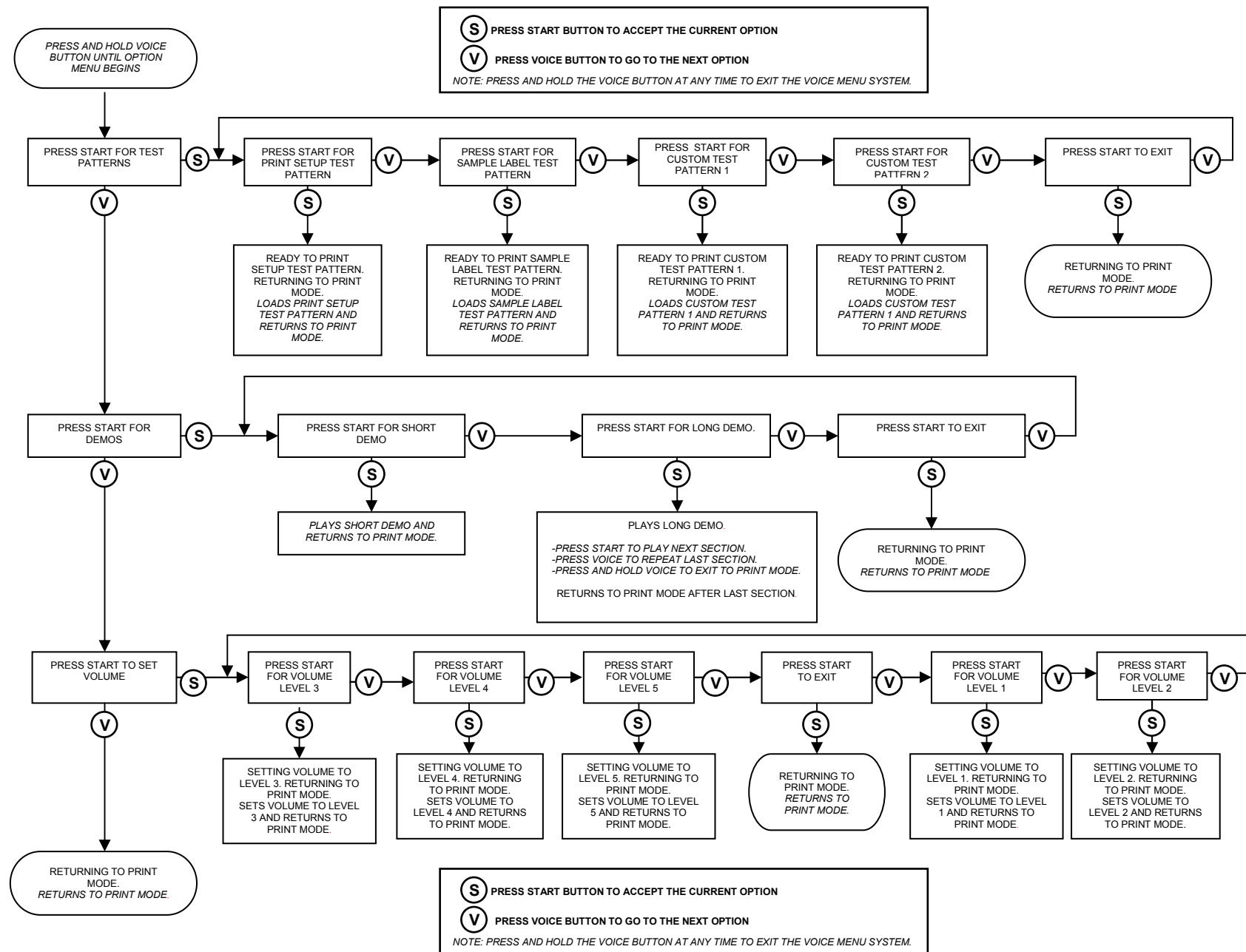
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One Wilcox Street
Sayre, PA 18840

Call: 1-800-967-2927 or (570) 888-6641

Fax: (570) 888-5230

For parts and service in other countries, please contact your local AVERY DENNISON supplier.

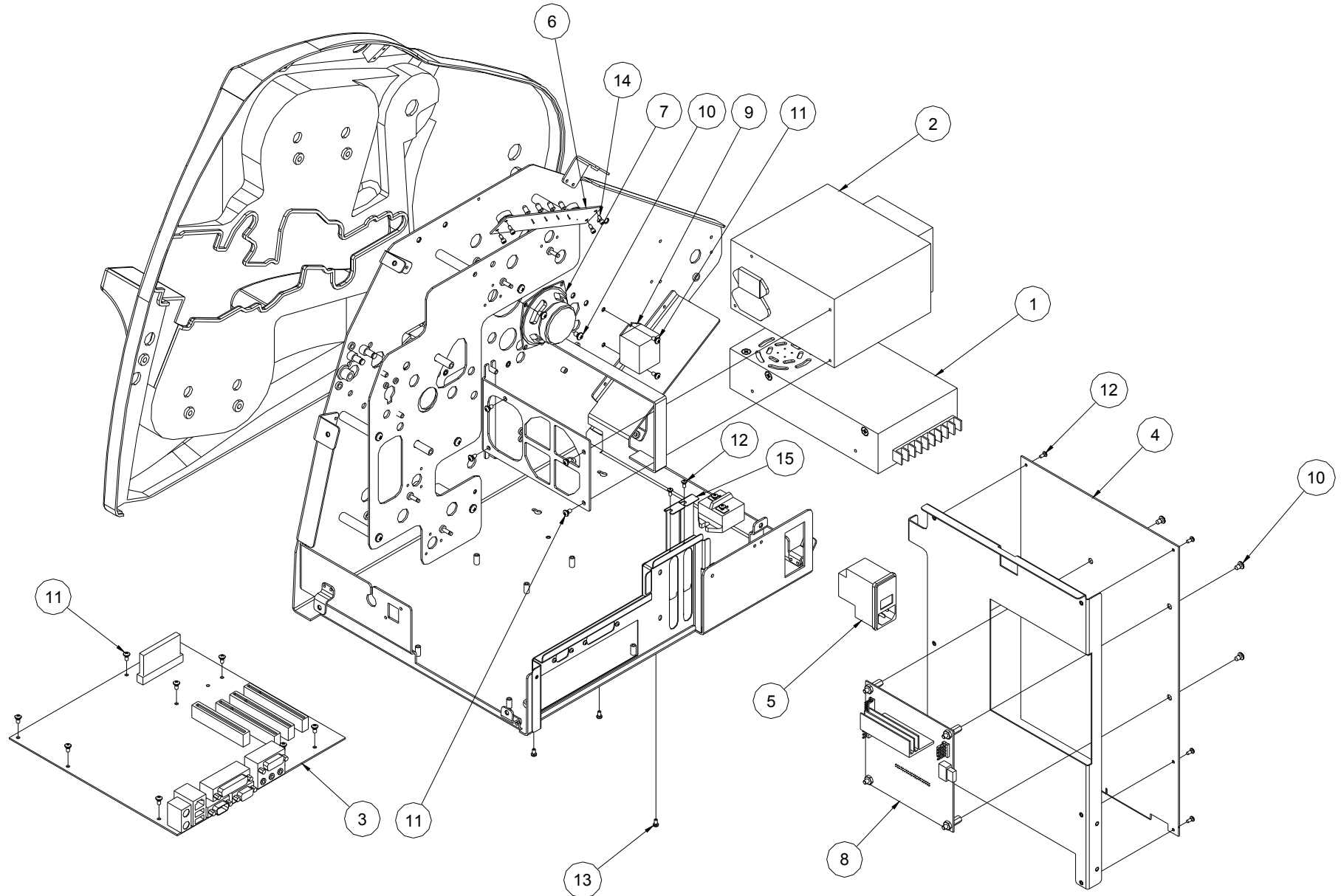
10. Option Menu System Flowchart



VOICE OPTION MENU NAVIGATION CHART

Electrical Assembly Drawings

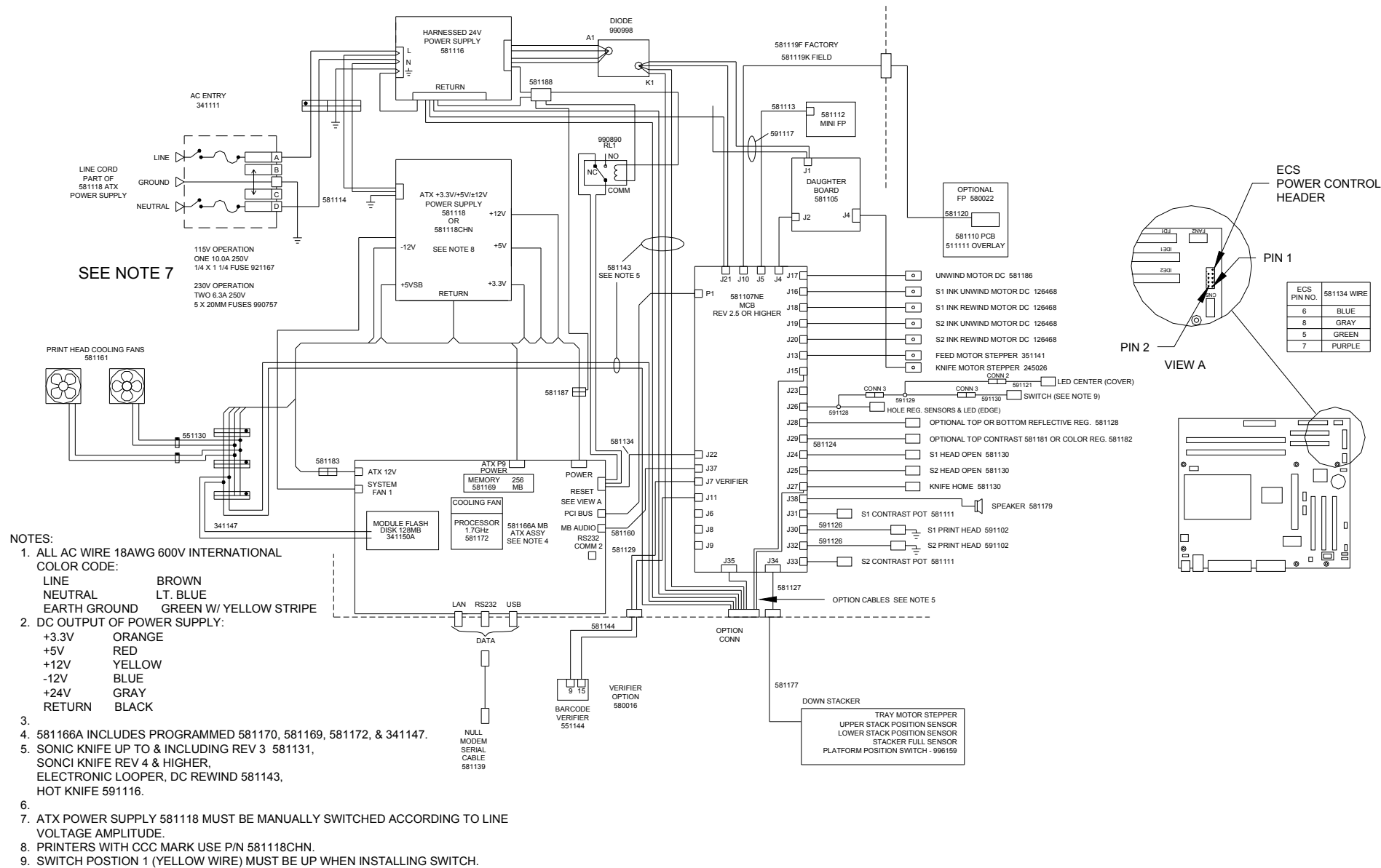
Electrical Components Drawing



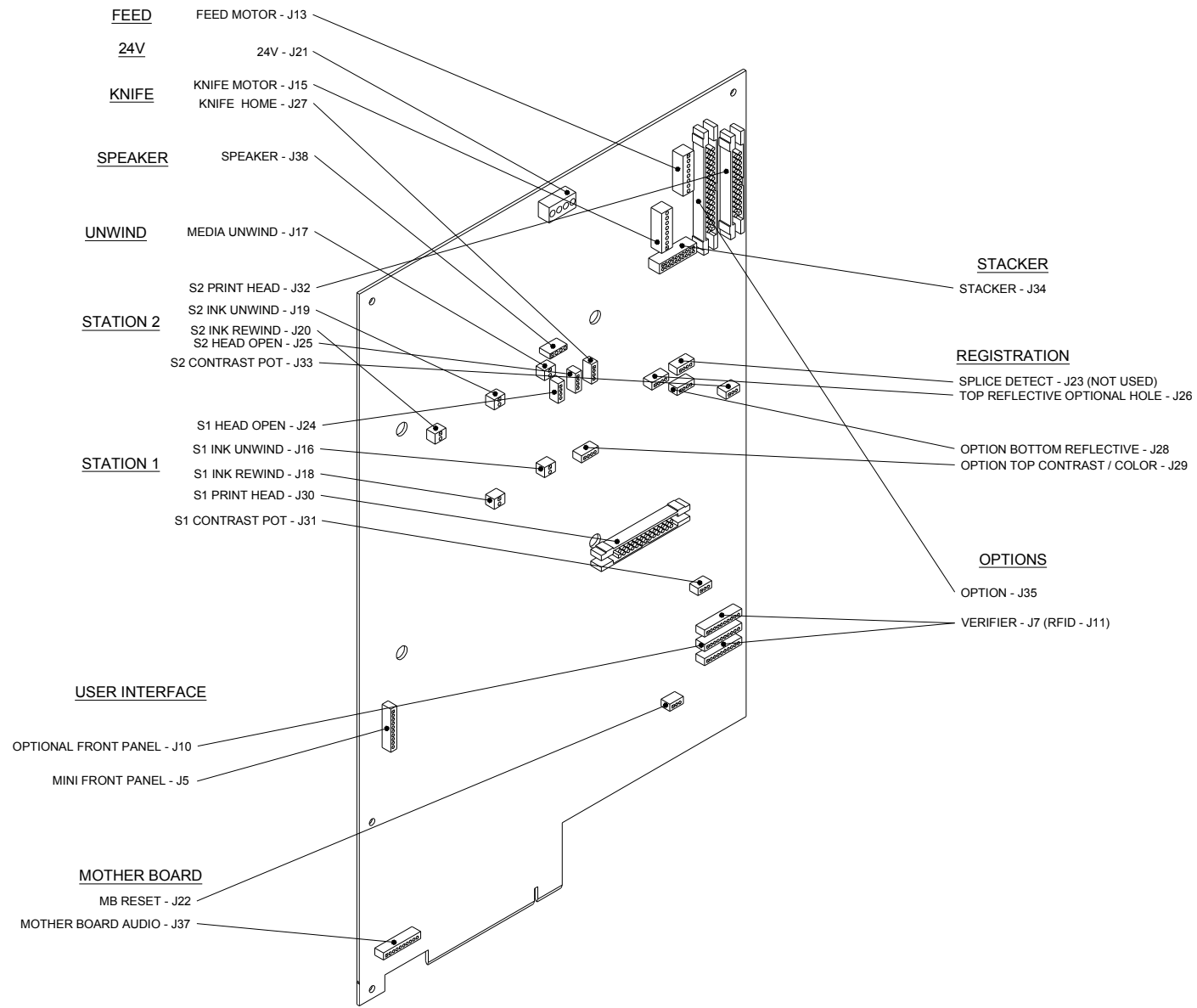
Electrical Components Parts List

Item	Part #	Description	Qty
1	581116	Power supply, 24v Harnessed	1
2	581118	Power supply, +3.3v / +5v / -12v	1
3	581170	PCboard, Mother board	1
4	581107NE	PCboard, MCB 600	1
5	341111	AC entry with switch	1
6	581112	PCboard, Mini front panel	1
7	581179	Speaker, 8 Ohm 2w, Harnessed	1
8	581105	PCB, Optional, Daughter board	1
9	990890	Relay, Mechanical 24VDC	1
10	991373	8-32 x 1/4 Phillips pan head screw	6
11	991372	6-32 x 1/4 Phillips pan head screw	14
12	991422	4-40 x 1/4 Phillips pan head screw	7
13	989530	3mm x 6mm Phillips pan head screw	3
14	990006	4-40 x 1/4 Cap screw	4
15	996214	Bracket, Blank PCI	2

Electrical System Schematic

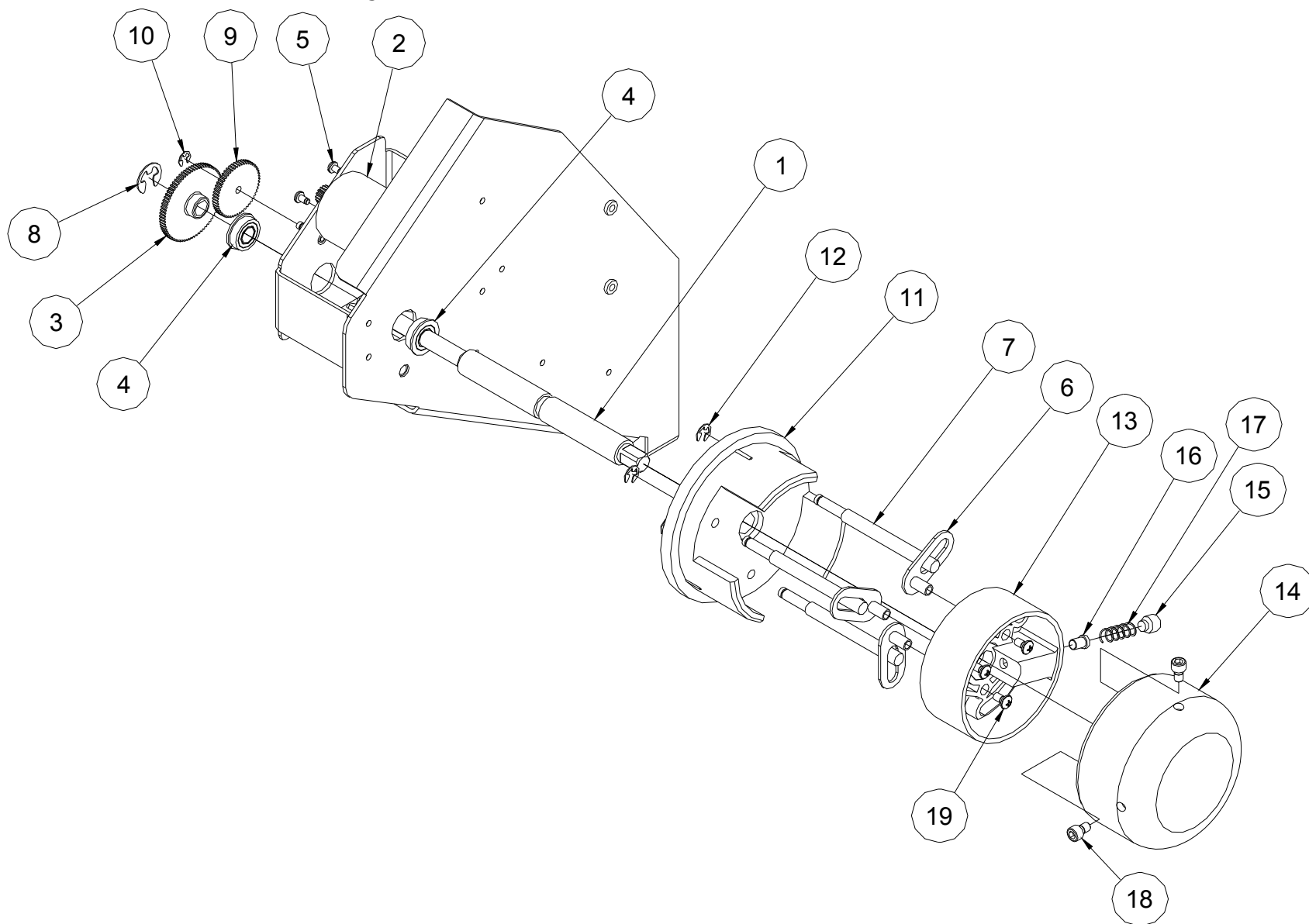


Harness Connections



Mechanical Assembly Drawings

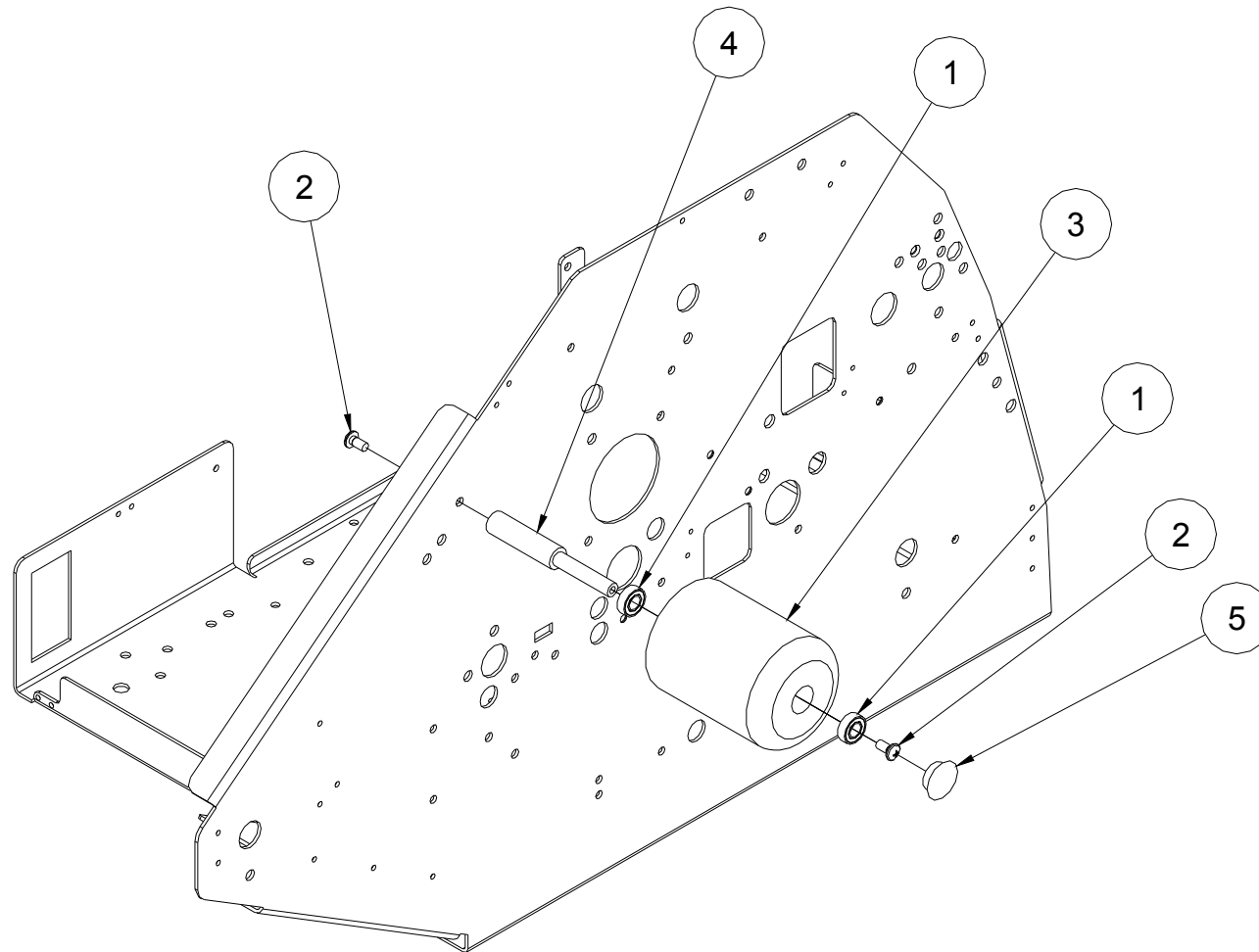
Unwind Assembly



Unwind Parts List

Item	Part #	Description	Qty
1	593001	Shaft, Unwind	1
2	126468	Motor, Ribbon	1
3	117954	Gear, Ribbon, 75T	1
4	991510	Ball bearing, 16mm OD x 8 mm ID flg	2
5	991507	2.6mm x 5mm Pan head screw	3
6	583005	Bracket, Core locator	3
7	583004	Shaft, Core locator	3
8	990327	Snap ring, 5/16 e-ring	1
9	117955	Gear, ribbon, 54T – 15T	1
10	991367	Snap ring, 9/64 e-ring	1
11	593003	Hub, Inner	1
12	990325	Snap ring, 3/16 e-ring	3
13	593002	Hub, Outer, Unwind	1
14	583006	Knob, Unwind	1
15	989971	5/16 - 18 x 3/8 Set screw	1
16	583009	Drag plug, Unwind	1
17	991443	Spring, Compression	1
18	990052	8-32 x 1/2 Cap screw	2
19	991372	6-32 x 1/4 Pan head screw	3

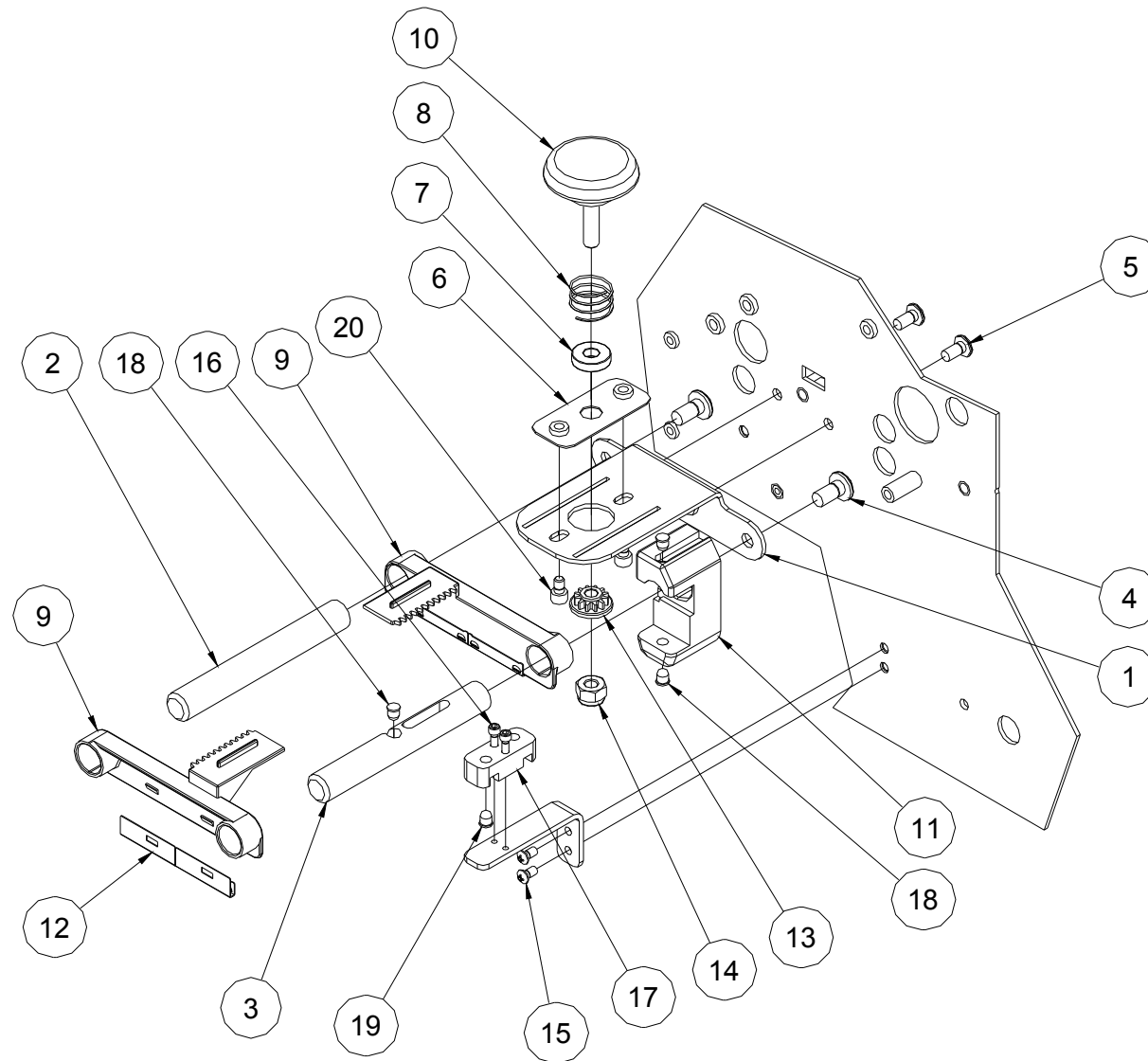
Decurler Assembly



Decurler Parts List

ITEM	PART #	Description	QTY
1	117903	Bearing, Platen	2
2	991379	10-32 x 3/8 Phillips pan head screw	2
3	594011	Roller, Decurler	1
4	594012	Shaft, Decurler	1
5	991516	Plug, 5/8 Dia. Hole	1

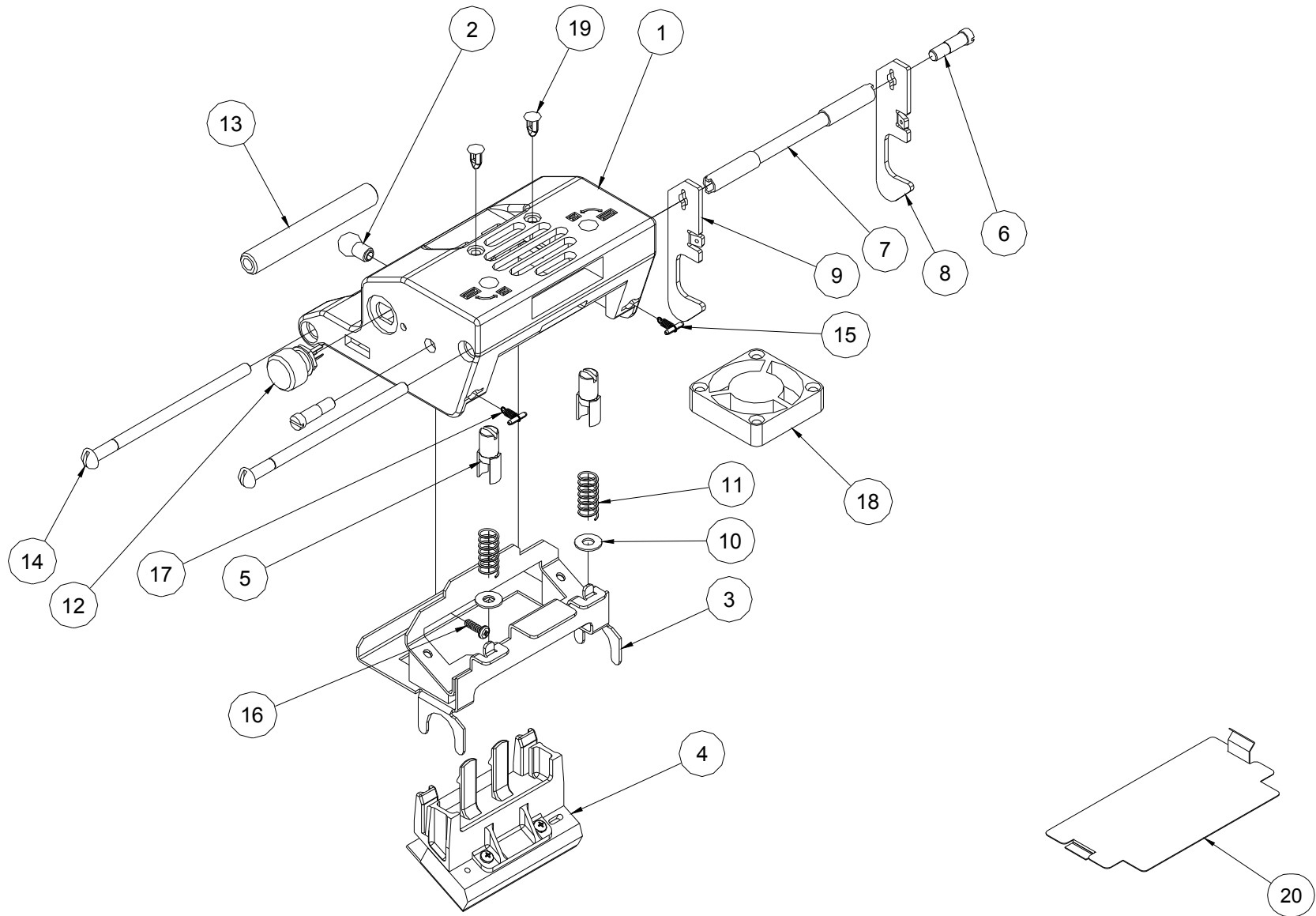
Web Guide Assembly



Web Guide Parts List

Item	Part #	Description	Qty
1	581209	Bracket, Web guide	1
2	584009	Shaft, Web guide	1
3	594014	Shaft, Web guide (sensor)	1
4	991374	1/4-20 x 1/2 Phillips pan head screw	2
5	991379	10-32 x 3/8 Phillips pan head screw	2
6	584021	Bracket, Micro adjust	1
7	584035	Spacer, Web guide	1
8	991447	Spring, Compression	1
9	584006	Bracket, Web guide	2
10	991511	Knob, Soft touch	1
11	594001	Block, Sensor mount	1
12	118826	Guide, Wear	4
13	584025	Gear, Web guide adjust	1
14	990148	1/4-20 e-s Nut	1
15	991372	6-32 x 1/4 Phillips pan head screw	2
16	989973	4-40 x 1/2 Cap screw	2
17	588028	Bracket, Diode mount, Rear	1
18	591128	Sensor, Reg optical switched	1
19	591129	Sensor, IR LED center, Harnessed	1
20	990050	Hexagon socket head cap screw	2

Print Head Assembly



Print Head Parts List

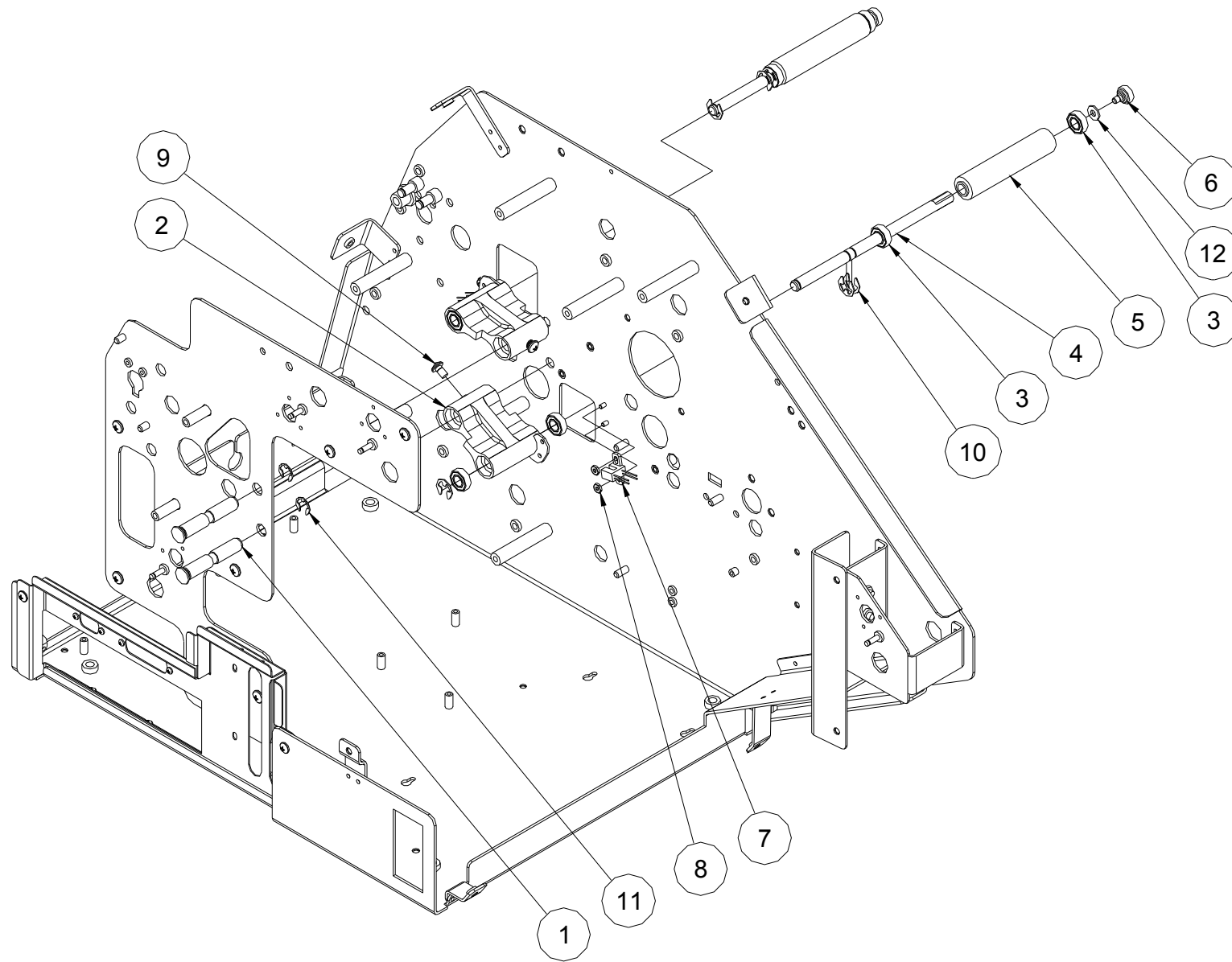
ITEM	PART #	Description	QTY
1	595002	Housing, Print head	1
2	117950	Pin, Print head pivot	1
3	595001	Bracket, Print head mount	1
4	595090	Assembly, Print head / Retainer	1
5	117951	Button, Pressure	2
6	585005	Screw, Special head lock	2
7	585006	Shaft, Head lock	1
8	585007	Latch, Head left	1
9	585008	Latch, Head right	1
10	990469	Washer, Nylon, .031 Thick	2
11	991532	Spring, Compression	2
12	581111	Pot, Contrast control	1
13	595004	Shaft, Ink turn	1
14	991512	10-32 x 3 1/2 Round head slotted screw	2
15	990436	Roll pin, 1/16 x 3/8	2
16	PB00700220	Screw, Print head	1
17	991513	Spring, Extension	2
18	581161	Fan, Print head harnesses	1
19	991492	Nylon rivet	2
20*	595007	Cover plate, Print head	1

ORDER PART NO. 595091T FOR TOP PRINT HEAD ASSY

ORDER PART NO. 595091B FOR BOTTOM PRINT HEAD ASSY

* ITEM 20 (595007) IS ONLY ON THE BOTTOM PRINT HEAD ASSY

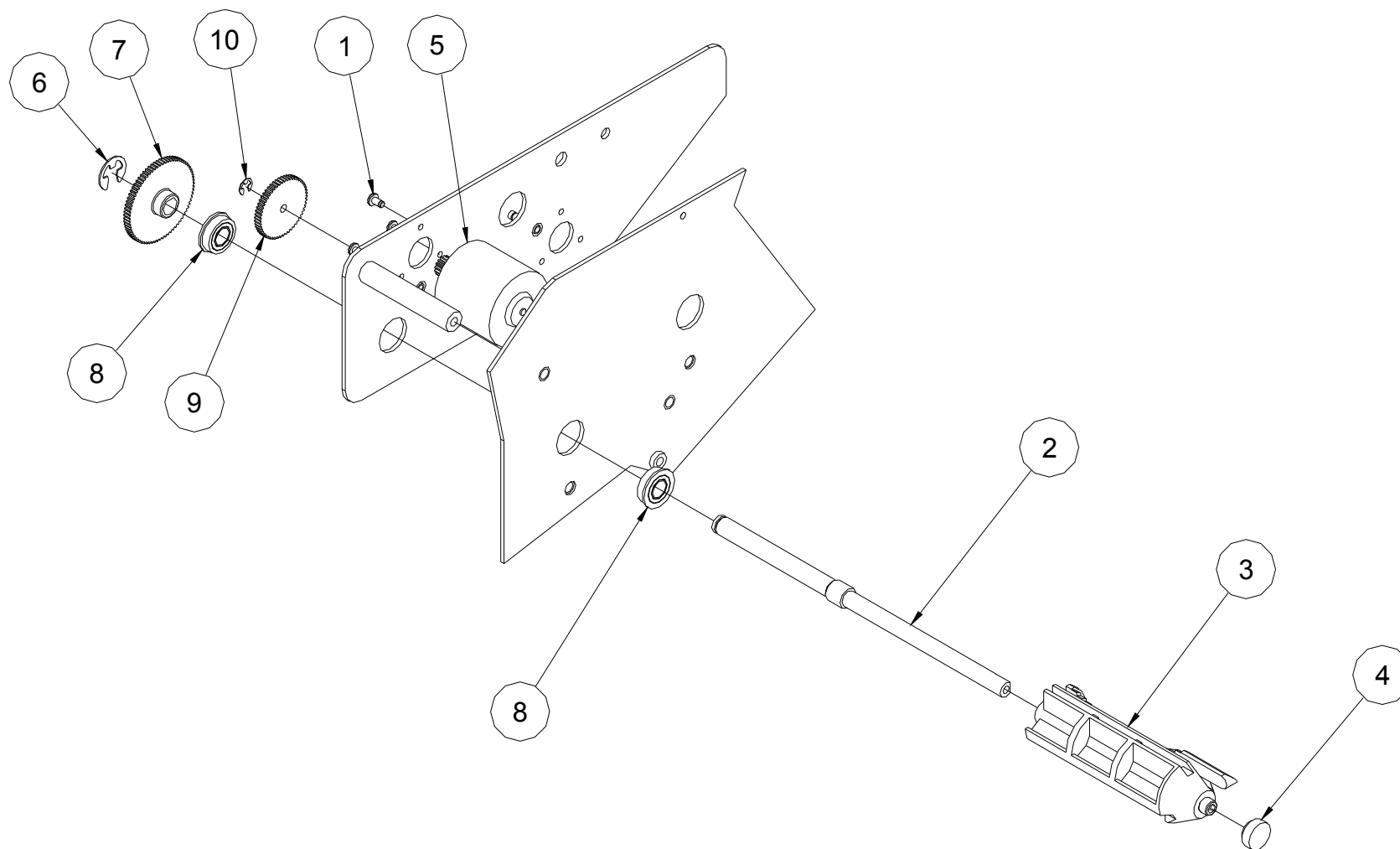
Platen Roller Assembly



Platen Roller Parts List

ITEM	PART #	Description	QTY
1	595009	Shaft, Swing block	2
2	585014	Bracket, Swing arm	2
3	117903	Bearing, Platen	8
4	595005	Shaft, Platen roller	2
5	595010	Roller, Molded platen (60 Durometer – Red)	2
6	991454	8-32 Thumb screw	2
7	581130	Sensor, Optical slotted, Harnessed	2
8	990005	Hex nut, 4-40	4
9	991480	10-32 5/16 Phillips pan head screw	2
10	990327	Snap ring, 5/16 e-ring	6
11	990486	Snap ring, 3/8 e-ring	2
12	990068	Washer, #8 Lock	2

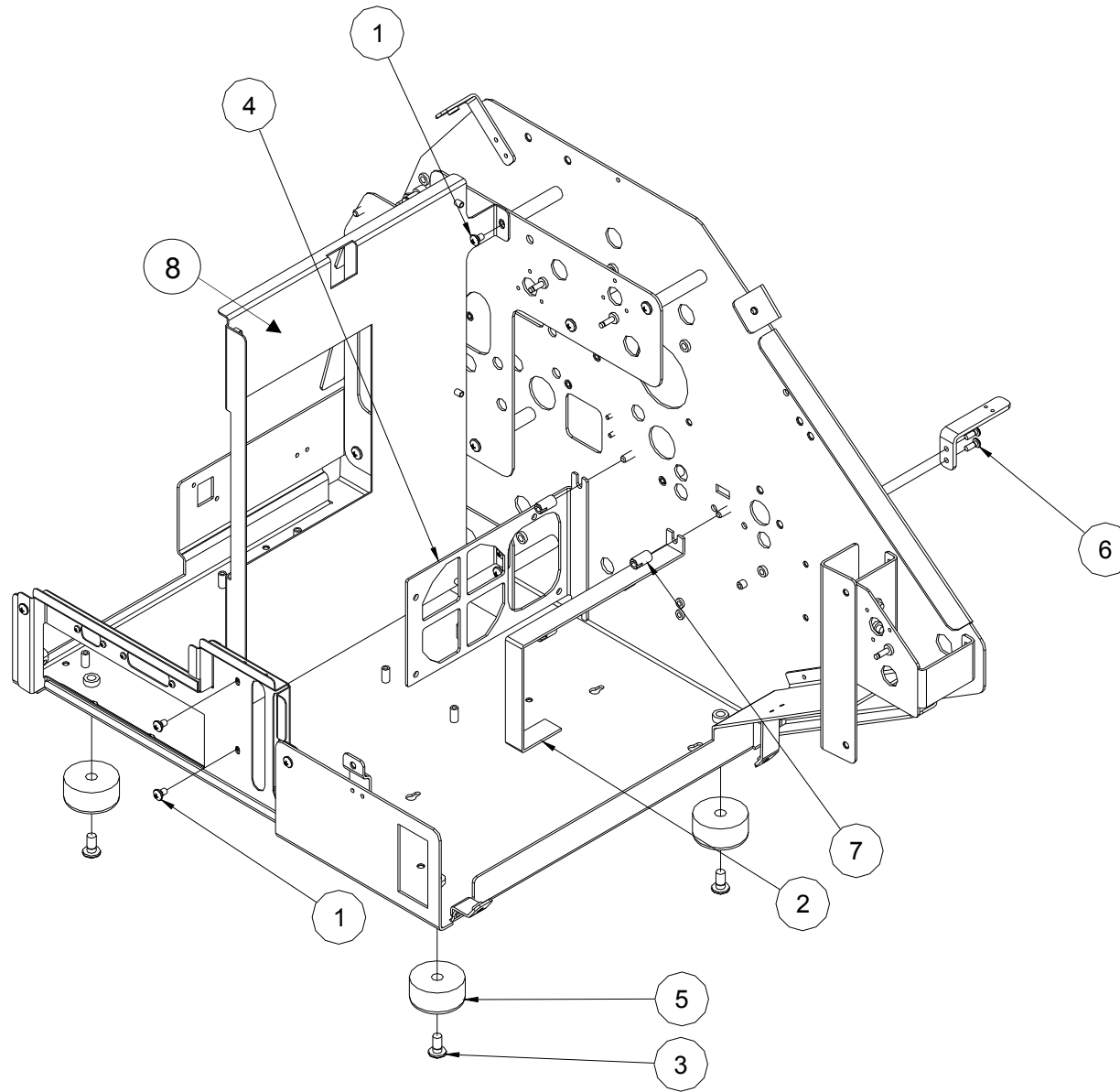
Ink Rewind Assembly



Ink Rewind Parts List

Item	Part #	Description	Qty
1	991507	2.6mm x 5mm Pan head screw	3
2	596001	Shaft, Ink arbor	1
3	586094K 586095K	Kit, Single arbor assembly, Inch Kit, Single arbor assembly, Metric	1
4	991454	8-32 x 1/4 Thumbscrew	1
5	126468	Motor, Ribbon	1
6	990327	Snap ring, 5/16 e-ring	1
7	117954	Gear, Ribbon, 75T	1
8	991510	Ball bearing, 16mm OD x 8mm ID flg	2
9	117955	Gear, Ribbon, 54T - 15T	1
10	991367	Snap ring, 9/64 e-ring	1

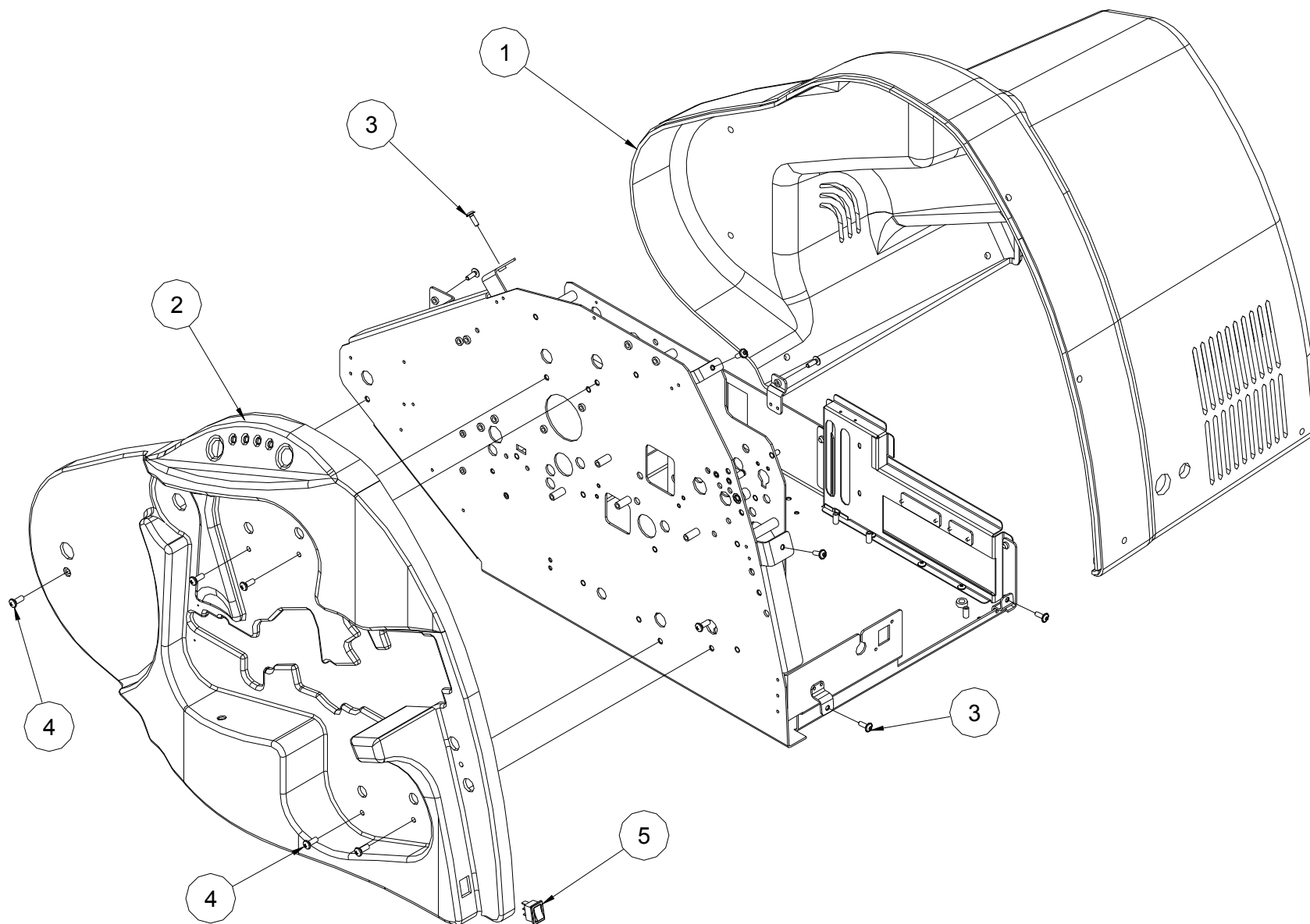
Upright Frame Assembly



Upright Frame Parts List

Item	Part #	Description	Qty
1	991372	6-32 x 1/4 Phillips pan head screw	4
2	581203	Bracket, Strap, Power supply 5V	1
3	991374	1/4-20 x 1/2 Phillips pan head screw	4
4	581202	Bracket, Power supply 5v	1
5	341210	Feet, 1 1/2 Diameter x 3/4 High	4
6	991436	6-32 x 3/8 Phillips pan head screw	2
7	591204	Bushing, Lock	3
8	591211	Bracket, PCB Support	1

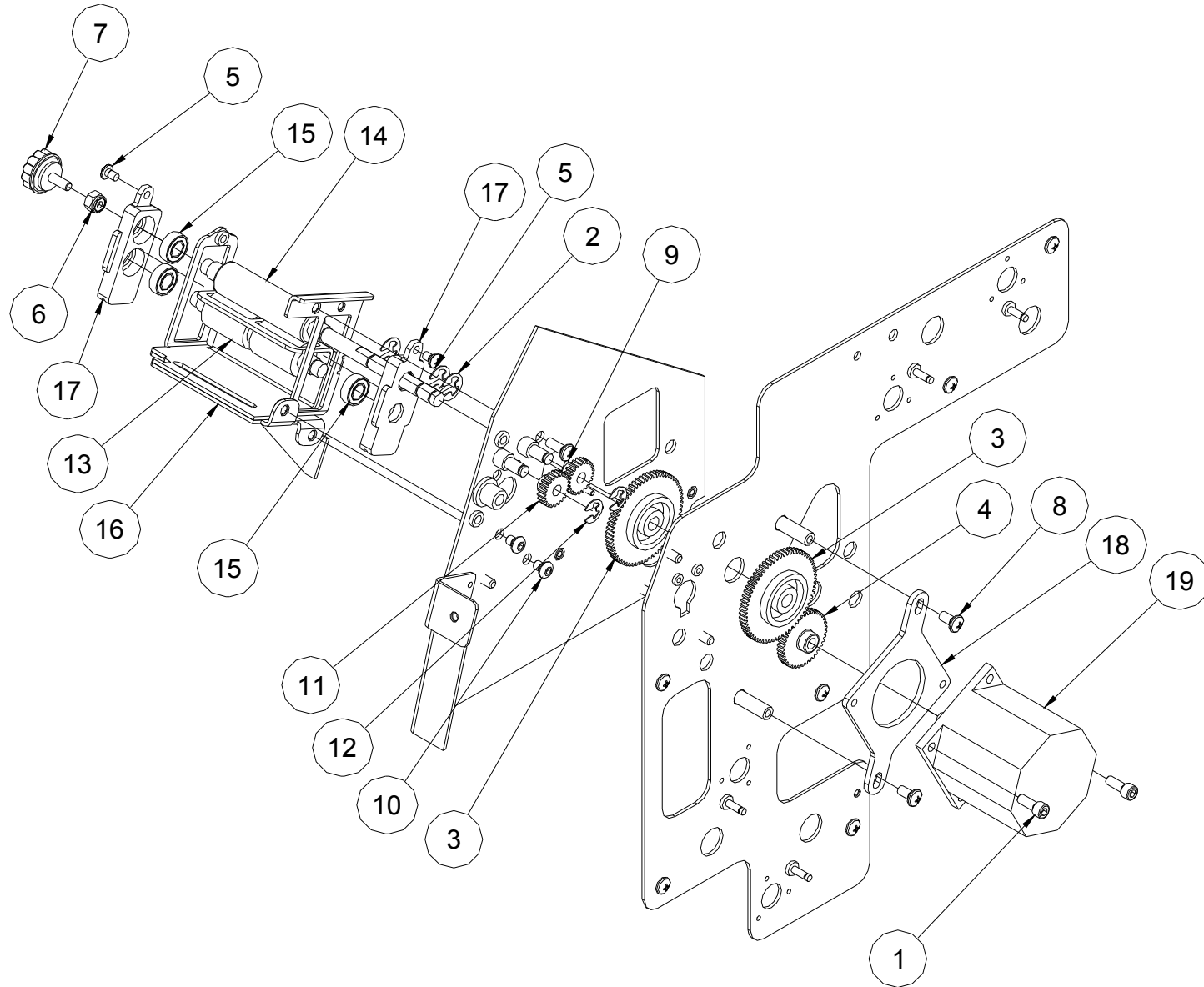
Covers Assembly



Covers Parts List

Item	Part #	Description	Qty
1	581205	Cover, Rear, 500	1
2	591202	Cover, Front, 600	1
3	991508	8-32 x ½ Flanged button head screw	10
4	991376	10-32 x ½ Phillips pan head screw	6
5	591130	Switch, Sensor hole, Harnessed	1

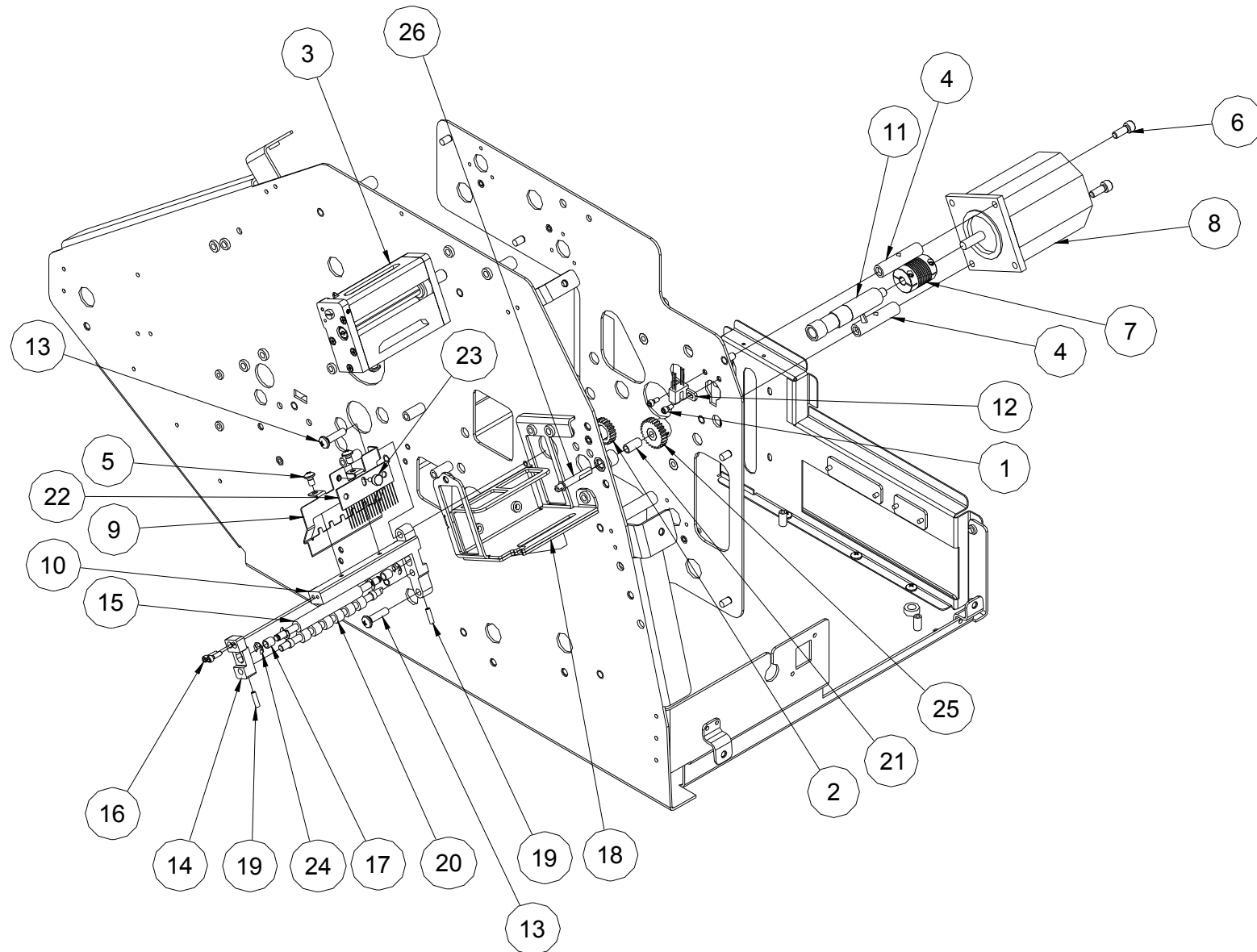
Feed – Drive Train Assembly



Feed – Drive Train Parts List

Item	Part #	Description	Qty
1	990081	10-32 x 1/2 Cap screw	2
2	990327	Snap ring, 5/16 e-ring	3
3	117902	Gear, Platen	2
4	585016	Gear, 38T, Drive 300 DPI	1
5	991373	8-32 x 1/4 Phillips pan head screw	2
6	990104	10-32 e-s Nut	1
7	206042	10-32 Thumbscrew knob with threads	1
8	991379	10-32 x 3/8 Phillips head screw	2
9	991376	10-32 x 1/2 Phillips pan head screw	1
10	990089	10-32 x 1/4 Button head screw	2
11	584027	Gear, Idler 22T, 32P	2
12	990326	Snap ring, 1/4 e-ring	2
13	594024	Roller, Molded idler	1
14	594003	Grit roller, Aux drive	1
15	117903	Bearing, Platen	4
16	594013	Frame, Knife / Drive	1
17	584010	Bracket, Support bearing	2
18	584026	Bracket, Feed motor mount	1
19	351141	Ink motor	1

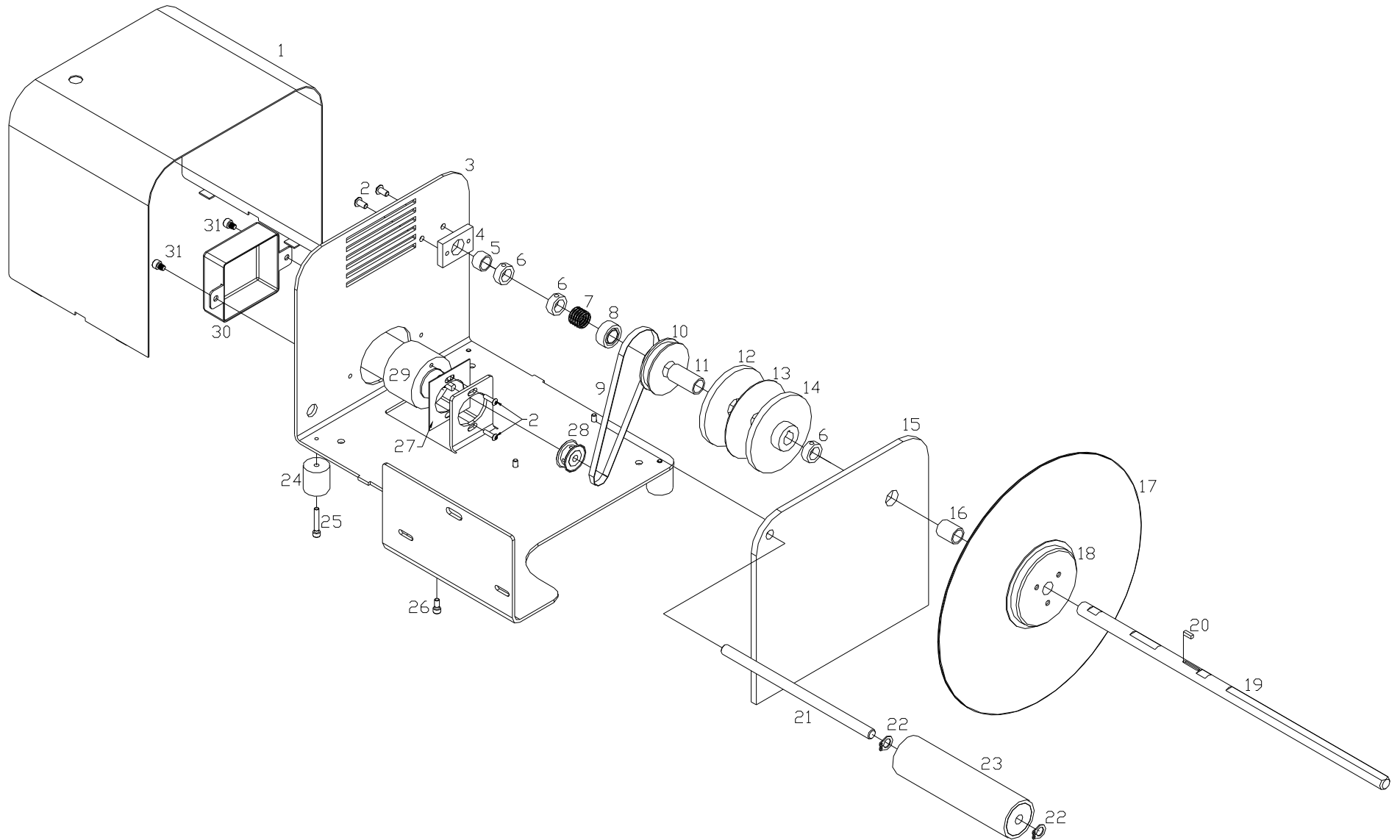
Knife Drive – Nip Roller Assembly



Knife Drive – Nip Roller Parts List

Item	Part #	Description	Qty		Item	Part #	Description	Qty
1	990006	4-40 x 1/4 Cap screw	2		14	584033	Bracket, Nip roller, Outer	1
2	584027	Gear, Idler 22T, 32P	2		15	584016	Roller, Nip, Idler	1
3	597190	Knife assembly, 600	1		16	990424	4-40 x 3/8 Cap screw	2
4	587017	Standoff, Knife motor	2		17	999165	Bushing, 3/16 x 1/4 x 1/4	2
5	991372	6-32 x 1/4 Phillips pan head screw	2		18	594013	Frame, Knife / Drive, 600	1
6	990081	10-32 x 1/2 Cap screw	2		19	354022	Spring, Eccentric lift	2
7	991438	Drive, Beam coupling	1		20	594005	Roller, Nip drive, Molded	1
8	245026	Motor, Stepper	1		21	999788	Bushing, 3/16 x 1/4 x 1/2	1
9	588045	Bracket, Label stop	1		22	584034	Static brush	1
10	584019	Bracket, Nip roller mount	1		23	991471	4-40 x 1/4 Thumbscrew	1
11	587018	Shaft, Knife drive	1		24	990325	Snap ring, 3/16 e-ring	4
12	581130	Sensor, Optical	1		25	584028	Gear, Nip 26T, 32P	1
13	991377	10-32 x 3/4 Phillips pan head screw	2		26	594004	Shaft, Nip roller drive	1

Rewind Assembly Drawing (Option)



Rewind Parts List (Option)

Item	Part #	Description	Qty
1	111201	Cover	1
2	990090	10-32 x 3/8" Button Head Screws	4
3	111029	Base	1
4	112037	Support, Shaft Bearing	1
5	999121	1/2 x 3/4 x 1/2" Bushing	1
6	990374	1/2" Collar	3
7	990465	Compression Spring	1
8	999017	1/2" Thrust Ball Bearing	1
9*	112031	Timing Belt, 67T 1/5P	1
10	112005	28T 1/5P Timing Belt Pulley	1
11	999118	1/2 x 5/8 x 1 1/4" Bushing	1
12	112030	Drive Disc	1
13*	112032	Friction Disc	1
14	112028	Driven Disc	1
15	111030	Upright	1
16	999147	1/2 x 5/8 x 3/4" Bushing	1
17	923010	10" Roll Disc	2
18	111025	Hub, 3" Rewind Insert	2

Item	Part #	Description	Qty
19	112033	Shaft, 6x6 Rewind	1
20	112035	Key, 1/8 x 1/8 x 3/8"	1
21	112034	Decurler Shaft	1
22	990264	3/8" Snap Ring	2
23	111027	Decurler Roller Assembly	1
24	111032	Rubber Feet	4
25	990054	8-32 x 1" Cap Screw	4
26	989974	8-32 x 3/8" Cap Screw	3
27	112036	EAR Motor Insulation	1
28	197078	12T 1/5P Timing Belt Pulley	1
29	351161	Motor	1
30	111034	Cover, Drive Motor	1
31	990079	10-32 x 1/4" Cap Screw	2
32	351183	6x6 Rewind Motor Harness (NS)	1
33	990026	6-32 x 3/4" F.H. Screw (NS)	6
34	923014	Roll Unwind Disc Hub (NS)	2
35	251136	Bushing, Strain Relief (NS)	1

* Recommended spare parts

[illegible]