028028

Operators and Service Manual

Avery Dennison
SNAP™ 500 Thermal Printer, Gen 1 and Gen 2
300dpi: 2/1 2/0 1/1 1/0
600dpi: 1/1 2/1

Gen 1 – 2 heads

Gen 2 – 1, 2, or 3 heads

AVERY DENNISON

05631398 Rev 5.3 03/2017
Original Instructions

WARNING

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
1) this device may not cause harmful interference, and
2) this device must accept any interference that may cause undesired operations.

This Class A digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. Cet appareil numerique de la classe A respecte toutes les exigences du Reglement sur le material broilleur du Canada

Declaration Of Conformity

according to EN ISO/IEC 17050-1:2004

Manufacturer's Name and Address
Avery Dennison RIS LLC
(dba Avery Dennison RBIS or dba Avery Dennison)
170 Monarch Lane
Miamisburg, Ohio 45342 U.S.A.
Phone: 937-865-2123

Product Information

Product Name:	Thermal Printer, Label
Model Number:	SNAP 500 with optional Sonic Knife
Trademarks:	Avery Dennison®

Type of Test	Standard Used
Low Voltage Directive (LVD) – 2014/35/EU	EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013
EMC Directive – 2014/30/EU	EN 55032:2012/AC: 2013, Class A EN 55024:2010 EN 61000-3-2:2014 EN 61000-3-3:2013
Machinery Directive – 2006/42/EC	EN 60204-1 EN ISO 12100:2010

The model number listed represents a worst case configuration. This model number is the main product identifier in the regulatory compliance documentation and test reports.

This device was designed and constructed according to the fundamental safety and health requirements of the following EU directives:

- WEEE Directive – 2012/19/EU
- RoHS Directive – 2011/65/EU
- REACH Directive - Regulation (EC) No. 1907/2006

1 February 2017
Date

Frank Dominguez
Regulatory Engineer

TCSNAP500CD Rev. AH 2/17
http://www.monarch.averydennison.com/support/regulatory.asp

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INTRODUCTION

AVERY DENNISON has designed the SNAP™ 500 printer for simple installation, easy operation, and dependability. Use your printer to produce two-sided, multi-color care labels for your apparel, footwear, or other products needing identification. Printing up to a speed of up to 7 inches (178 mm) per second, (supply dependent) the SNAP 500 printer features quick change-outs of inks and tapes, multilingual voice prompts, and easy operating system updates.

This manual guides the printer operator as an easy-to-use, quick-reference guide. It contains procedures for receiving, handling, set-up, installation, operation, and maintenance of the SNAP 500 printer.

The SNAP 500 printer line consists of 2 generation of printers:

- SNAP 500 Gen 1 is a 2-headed machine for printing on both sides of the label.
- SNAP 500 Gen 2 is a 1-, 2-, or 3-headed machine. It always has locations for 3 heads even if there the printer does not have all 3 heads. This is how to tell the two machines apart.

This manual covers all head configurations for both generations.

Throughout this manual, a system of NOTES, CAUTIONS, and WARNINGS identify key information to ensure your personal safety and to proper printer operation. Please review these carefully.

We also strongly suggest that you watch the 17-minute training video, which is available on the Avery Dennison support web site. Refer to the documentation included with the printer for more details.

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.

1.0 Safety Instructions

- Follow all of the safety requirements and procedures established for your facility.
- Turn off the power to the printer before cleaning, servicing, or replacing any components.
- You do not have to turn off the power when loading or changing supplies.
- Follow all cautions and instructions marked on the product
- There are hazardous moving parts in the printer. Service should be performed only by trained service personnel.
- All covers and guards must be in place when operating the printer and should be removed only by trained service personnel.
- Do not push objects of any kind through openings in the equipment. Dangerous energy might be present and cause fire, electric shock, or damage to the equipment.
- Do not block or cover the openings of the equipment.
- Do not place the equipment near a radiator or heat register. This could cause the product to overheat.
- Turn off the printer and disconnect the power cord before servicing the printer.
- Operators should read and understand the Operators manual before operating the printer
- If the printer operates improperly or fails to respond to commands, turn the printer off using the power switch. If the problem continues to occur, obtain service for the printer.
- The AC mains supply for the printer should be properly grounded and provide overcurrent protection as required to meet all local electrical and building codes.
- The AC mains supply for the printer should be properly grounded and should meet all local electrical and building codes and provide overcurrent protection as required.
- The AC mains supply for the printer should be properly grounded and should meet all local electrical and building codes and provide overcurrent protection as required
- Do not remove, deface, or defeat any safety guards or warning labels.
- Do not operate the printer with any parts missing or broken.
- For information about supply compatibility or environmental information, contact your local Avery Dennison Customer Service.

- The printer has been designed to be as safe as possible. However, there are moving parts during the normal operation of the printer. Obey all warning labels and safety instructions during operation.

CAUTION: The SNAP 500 printer has some pinch points which have safeguards design in. AVERY DENNISION strongly recommends that you do not modify or bypass these safeguards.

CAUTION: Danger of explosion if battery is incorrectly replaced. Return product to Avery Dennison for proper replacement and disposal. Call 1 – 800 – 543 – 6650

Warning: There are hazardous moving parts at the print head station. Keep hair, loose garments, jewelry and fingers away.

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 SNAP 500 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 SNAP 500 printer or to peripheral equipment connected to the SNAP 500 printer should meet standard electrical code practices, overcurrent protection, proper grounding and neutrals.

2.1.2 Location Considerations

The SNAP 500 printer weighs 55 pounds (25 kg) and requires a table of sufficient quality and strength to handle this load. The printer requires an area of approximately 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 SNAP 500 printer is designed for easy operator accessibility to the printer controls and components. Select your SNAP 500 printer's location that optimizes product flow and operator comfort:

- Physical demands on the operator will dictate proper height of the table supporting the printer. Ensure the operator has comfortable access to the printer. Refer to Figure 1.
- Allow enough space for smooth flow of materials that the operator will load on the printer as well as space for processing the finished product from the printer.
- 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: Each customer must take responsibility to ensure the workstation created for the SNAP 500 printer meets the recommended requirements to ensure optimal operation of the printer.

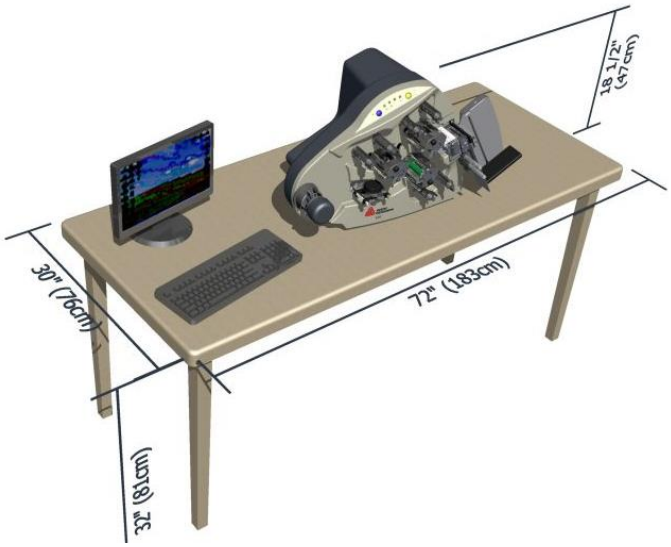


Figure 1: Recommended Workstation Layout

2.1.3 PC Requirements

Most customers use a personal computer to download information to the SNAP 500 printer. The printer can be connected to any type of computer capable of sending the AVERY DENNISON Command Language, or PCL.

PCMate Platinum tag and label printing software supports the new virtual control panel feature when using the SNAP 500 printer. PCMate features higher communication speeds of the SNAP 500. Finally, it can deliver firmware upgrades from the Internet.

NOTE: PCMate Platinum requires the following minimum system:

- IBM ® PC or Compatible
- Microsoft Windows® XP, 7 or later (check for latest version of Windows)
- At least 2 Gigabytes of RAM
- At least 10 Gigabyte of available disk space
- Pentium III or later processor, 800Mhz
- Monitor with 1024 x 768 resolution
- CD ROM drive or
- Internet connection to access software upgrades and remote diagnostics

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 and accessories before cleaning, servicing, or replacing any components.
3. You do not have to turn off the power when loading or changing supplies.

CAUTION: The SNAP 500 printer has some pinch points which have safeguards design in. AVERY DENNISION strongly recommends that you do not modify or bypass these safeguards.

CAUTION: Danger of explosion if battery is incorrectly replaced. Return product to Avery Dennison for proper replacement and disposal.

WARNING: There are hazardous moving parts at the print head station. Keep hair, loose garments, jewelry and fingers away

2.2 Receiving

The SNAP 500 printer shipping carton weighs 75 pounds (34 Kg). The carton is large and specially made to protect the printer. It 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. Move the carton to the installation location.

- Move the SNAP 500 printer with a forklift, fork cart, 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.
- 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 by removing the banding straps.
2. Cut the tape seam on the top of the carton.
3. Remove top foam-packing layer (see Figure 2A).

4. Remove any individual pack components like the supply unwind arbor.

Figure 2A – Shipping Carton

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.

5. The printer has been wrapped with plastic to protect the printer from the packing material and moisture.
6. It requires 2 people to remove the printer from the carton and place on the workstation..

Figure B

7. Lift the outer packing sleeve from the base (see Figure B) above.
8. Unpack the unwind arbor from its box and place it on the workstation table next to the printer. Refer to Section 3.5.2 Attaching the Unwind Assembly & Refer to Section 3.5.1, Attaching the Stacker.

CAUTION: Lifting the printer from any component other than case or stacker supports can damage the printer and cause needless start up delays.

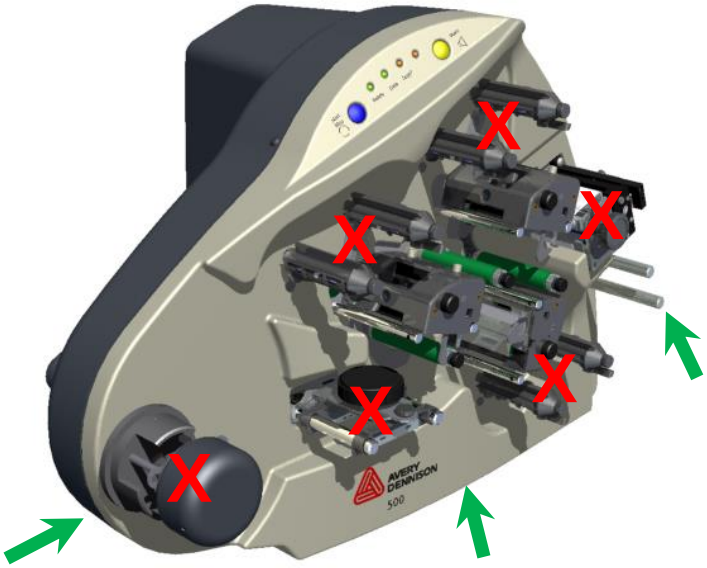


Figure 2B: Possible Lift Locations

2.3.2 Inspection and Inventory Checklist

1. Inspect the printer for any damage that may have occurred from shipping.
2. Check the SNAP 500 printer shipping carton for:
   - ❑ Serial Cable
   - ❑ A quick-disconnect power cord for 115-Volt printer)
3. If you see obvious damage or if any missing items contact AVERY DENNISON for further instructions.
   - In the U.S.A., call (937) 865-2123, select option for Customer Service.
   - Outside the U.S.A., please contact your local AVERY DENNISON supplier.

CAUTION: Each customer must take responsibility to ensure the workstation created for the SNAP 500 printer meets the recommended requirements to ensure optimal operation of the printer.

2.3.3 Downloading Support Documentation

1. Go to www.monarch.averydennison.com/support to download **manuals**, **videos**, **software**, and **firmware** upgrades.

2. Find the section marked "Documentation & Printer Status Codes," select "Snap 500" from the *Select Apparel Model* drop-down box, and look in the appropriate section on the page for the following.

    - PCMate Platinum software
    - Instructional Video
    - SNAP 500 Printer User's Manual

2.3.4 Disassembly and Disposal

1. No special steps are needed to decommission the printer.
2. Remove stock and ink and disconnect the power cord and communication cable(s);
3. Dispose of the printer in accordance with local laws and ordinances.

2.4 Printer Description

2.4.1 Component Descriptions

Shown below are the important parts of the SNAP 500 Printer. Please take a moment to familiarize yourself with the printer.

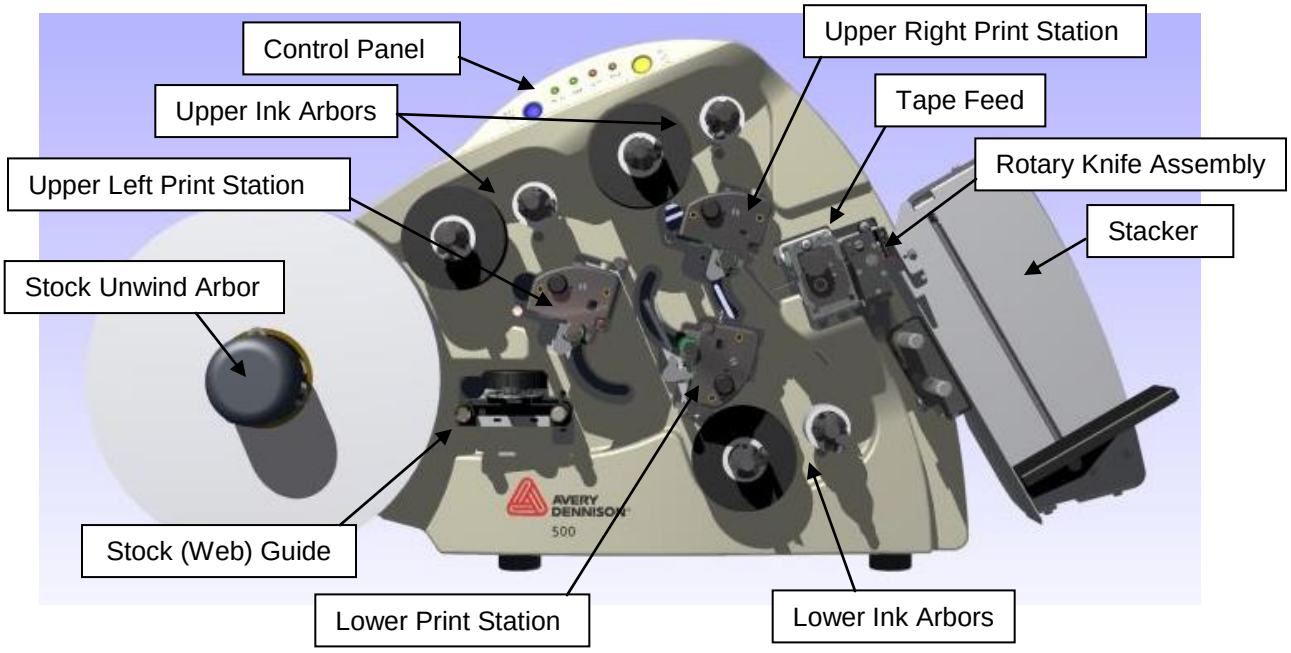


Figure 3: SNAP 500 Printer (Gen 2 shown)

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

- **The Stock Unwind Arbor** holds the supply roll. By rotating the outer knob clockwise or counterclockwise, you can adjust the Tape Arbor to accommodate tapes ranging from ½ inch - 2 ¼ inches (12.7 mm - 57.2 mm) wide. The arbor auto-centers the tape through the printer. Metal fingers extend to hold the supply roll in place. This allows back tension which keeps the tape centered through the printer.
- **The Stock (Web) Guide** guides the stock through the printer and is adjusted by rotating the black knob.
- **The Upper and Lower Print Stations** house the print head assemblies. They have 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. 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** comes with printer. When printing and cutting woven tapes, use a Sonic Knife accessory option that provides ultrasonic cutting and sealing of the ends that prevents unraveling.
- **The Stacker** collects the finished, printed labels. You can adjust it to accommodate a variety of label tapes 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.

2.4.2 Printer Configurations

The Snap 500 comes in 4 configurations, the 2 print heads over 1 print head, 2 over 0, 1 over 1, and the 1 over 0. Each of these configurations is described below.

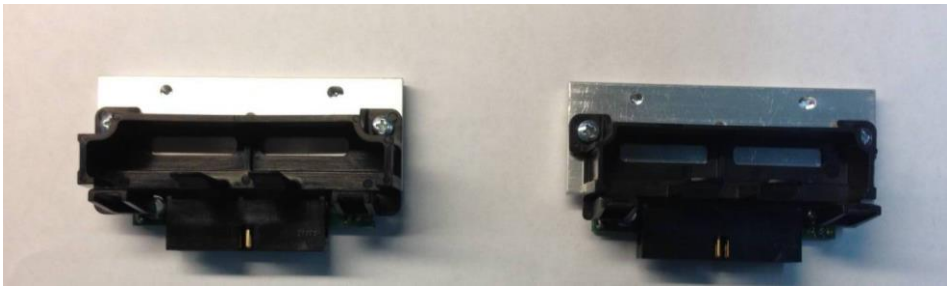
- **2 over 1** – The Snap 500 2 over 1 features two print heads over 1 lower print head, capable of printing a two sided label. Two colors on top and one color on the bottom.
- **2 over 0 –** The Snap 500 2 over 0 features two print heads, both on top, capable of printing one sided two color labels.
- **1 over 1 –** The Snap 500 1 over 1 features two print heads with one on top and one on bottom, capable of printing two sided one colored labels.

NOTE: There are 2 generations of this machine. The first generation machine has only 2 heads. The second generation machine has 2 heads but a location for a 3rd head. This is how to tell the two machines apart.

- **1 over 0 –** The Snap 500 1 over 0 features one upper print head over no lower print head, capable of printing a one color, one sided label .
- **Printhead resolution** - The printer may also have either a 300dpi or 600dpi printhead.

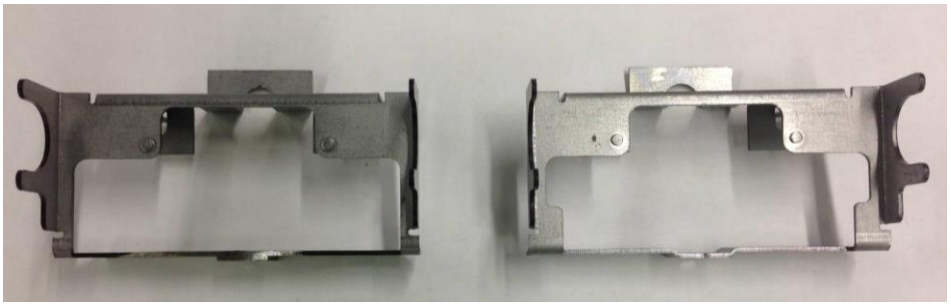
Print head retainers (mounted to print heads) and print head brackets are also different between the two generations. They are not interchangeable. See differences in pictures below.

Figure 3A: Print Heads and Retainers



GEN 1 GEN2

Figure 3B: Print Head Brackets



GEN 1 GEN2

2.5 Printer Setup

2.5.1 Attaching the Stacker

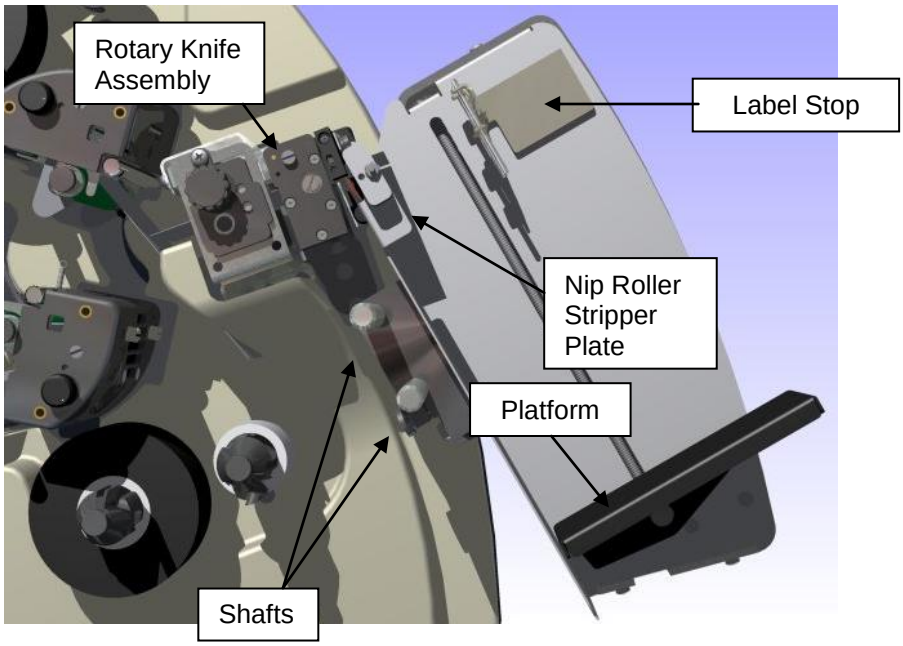


Figure 4: Rotary Knife and Stacker

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

1. Locate the two shafts on the printer below the Rotary Knife assembly (see Figure 4).
2. Slide the stacker onto the two shafts until the backside of the stacker is beyond the tape size to be run. The stacker should go under the Nip Roller Striper Plate.

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.
4. Cycle power on the printer to allow it to detect the stacker.

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 Attaching the Unwind Assembly

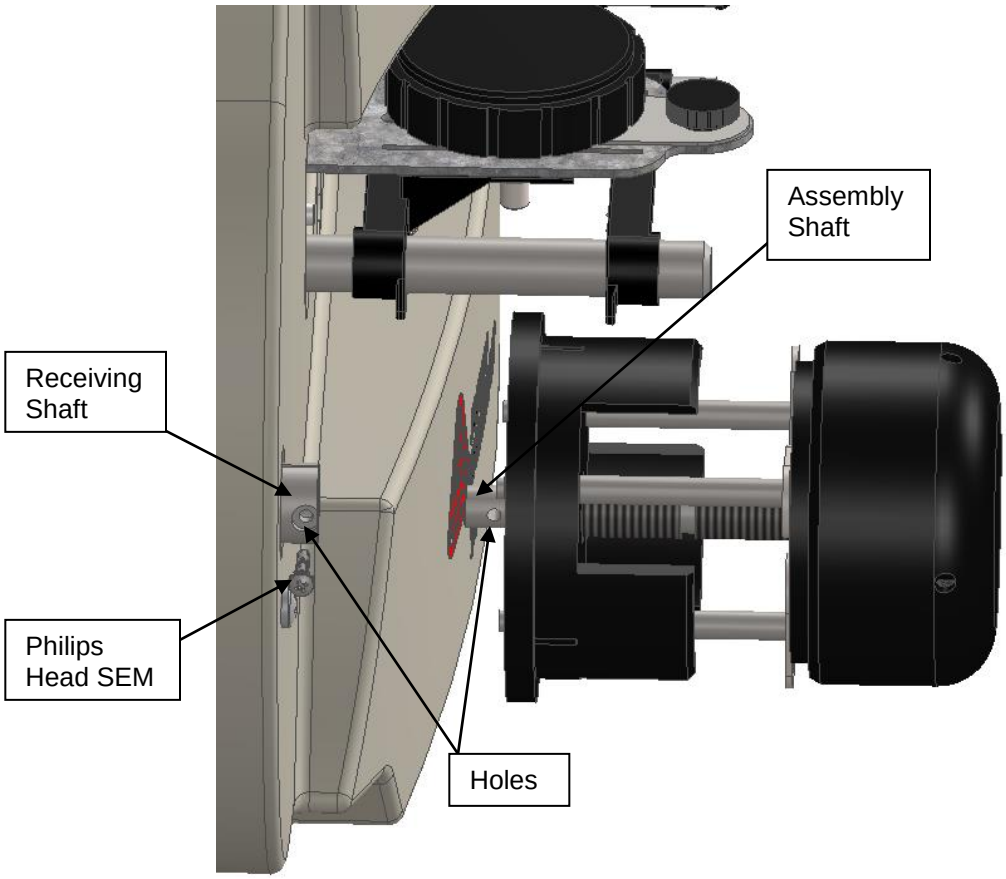


Figure 5A: Unwind Assembly Installation

The unwind assembly is shipped detached from the printer to prevent damage during shipping.

1. The unwind assembly is easily attached by sliding the shaft on the assembly into the receiving shaft mounted on the printer.
2. Line up the holes in the assembly shaft and receiving shaft and insert provided Philips head sem screw and tighten.

2.5.3 Mains Disconnect

WARNING: Before connecting and powering on the printer, you must check to be sure the mains line voltage is 100-240VAC @ 50-60Hz, single phase.

There are no main fuses on the SNAP 500 printer. The line cord is the printer's mains disconnect device.

1. Look at the line voltage level shown on the back of the printer (see Figure 5). If the mains line voltage for your location is within the range limits, 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.

- In the U.S.A., call (937) 865-2123.
- Outside the U.S.A., please contact your local AVERY DENNISON supplier.

WARNING: Some older 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

2.5.4 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 voltage other than 115V, obtain a power cord for your 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.

2.6 Communications Cable Installation

Use one of the following interface cable options:

- Null-modem serial cable – Part number 05581139 connector
- USB / Serial adapter – Part number 05581140
- Ethernet adapter – Part number 05591105. ASUS, BCM, or Advantech motherboards support the Ethernet port on the printer so the Ethernet adapter is not required.

2.6.1 Serial Cable

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

The default serial port setup in the printer is 115,200 baud, no parity, 8 data bits, 1 stop bit.

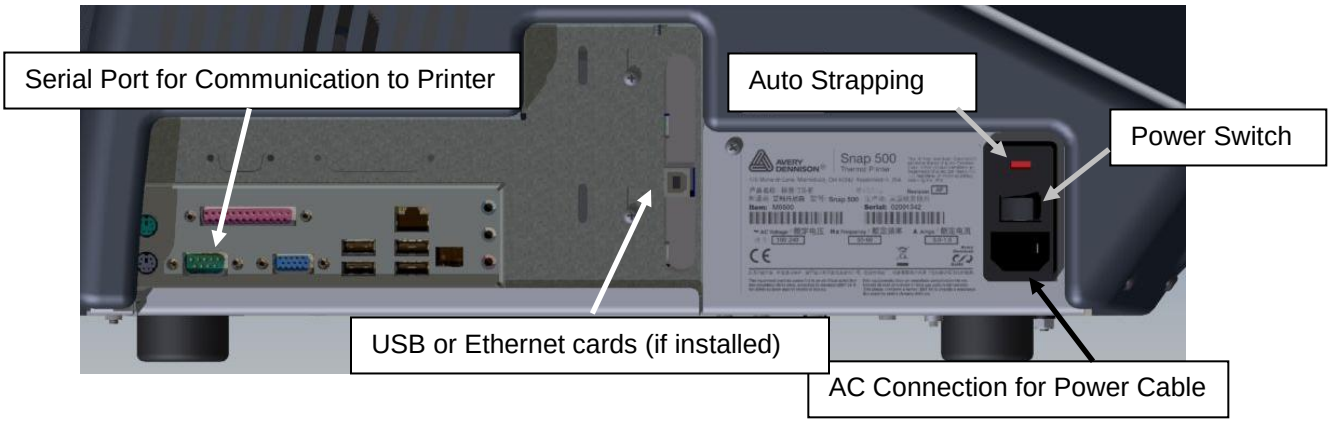


Figure 6: Rear View of the Printer

2.6.2 USB Cable

- Use either the USB option card if higher download speeds are required for the extra expense of the option, or
- USB to Serial adapter, if the USB connector is needed and serial download speed is acceptable.

2.7 Networking Setup

The recommended network setup is through a Static IP address. Once an IP address has been set, the operator can then view and change the printer settings through the SNAP webserver using a browser on any computer on the network. Most of the functionality of the VCP in PCMate is available through the web server. See section 5.4 for the webserver.

2.7.1 BIOS settings

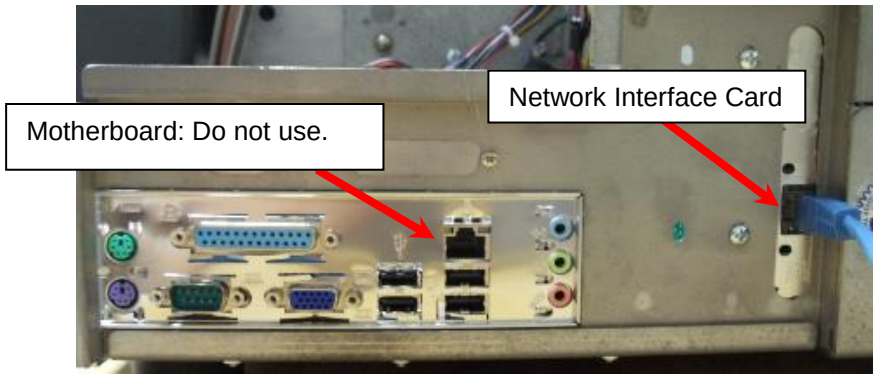
The Advantech motherboard requires no updates to the BIOS.

BCM motherboard requires the following updates to use the Ethernet port on the printer's motherboard.

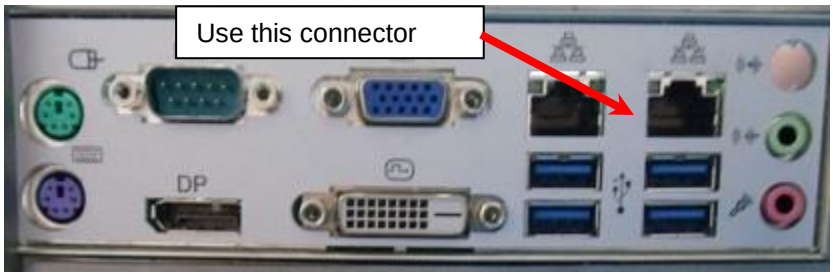
- Connect a video monitor to the video port and a keyboard to the PS/2 connector on the printer.
- Restart the printer and press the "DEL" key to cause the printer to enter the CMOS Setup Utility.
- Arrow down to Integrated Peripherals, press Enter
- For GbE Controller set to ENABLE.
- For 82573 Controller set to ENABLE
- Press F10, the Enter (OK) to save.
- Restart the printer.

2.7.2 Connecting the networking cable

Older motherboards:



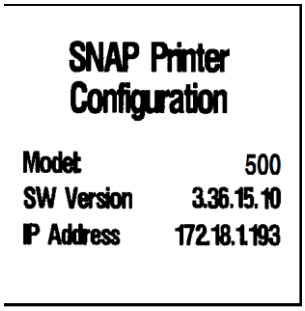
Newer motherboard:



2.7.3 Setting the Printer IP Address

DHCP process may take some time so wait at least one minute after the printer finishes its initialization with the "Ready" light is on steady before continuing. Do this only the first time a printer connects to the network.

1. Contact your Network Administrator to obtain a static IP address.
2. The default mode is DHCP mode. When attached to the network, the printer will obtain a DHCP address from the network.
3. Find the DHCP address by printing a Network ID Test Label.
    - Press and hold the Voice Button until the printer says "Press Start for Test Patterns."
    - Press the Start Button
    - Press the Voice Button until you hear "Press Start for Custom Test Pattern 1."
    - Ensure only the top printhead is open.
    - Press the Start Button
    - Find the IP address on the resulting label.



4. Use a browser such as Internet Explorer and enter the printer's IP address to access the printer's webserver. Enter the static IP address as described in section 5.4.2.
5. If moving to another network, set the printer back into DHCP mode. See section 5.4.3 for instructions using the webserver.
6. See section 5.4.4 for troubleshooting tips on the network connection.

If no IP address prints on the Network ID Test Label, the printer may not have completed the DHCP process. Wait a few minutes and try again.

If there is still a problem, make sure the network cable is connected proper and check the other network connections.

If you still cannot obtain a DHCP address, try resetting the printer to DHCP mode as described in section 5.4.3.

Finaly, set the static IP address manually and test the network connect as described above.

2.8 PCMate Platinum Software Installation

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 designs for the SNAP 500 printer as well as all other AVERY DENNISON printers.

2.9 Printing a Test Label

2.9.1 Loading Supplies

Before you can print a test label, the printer must be loaded with tape and ink. Refer to section 4.1 for instructions on loading the tape and ink.

2.9.2 Turning the Printer on

1. Turn the power switch on. The power switch is located on the back of the printer, just above the power cord.
2. 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.

NOTE: During the power sequence the knife will cycle backwards 1 time to find home and there will be an audible bell as the printer powers up.

3. If any problems occur, Troubleshooting Sections.

2.9.3 Selecting the Test Format

There are four 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 Narrow Setup Test Pattern." If you want to print test pattern, press the Start Button then go to step 3.

   If you want to print Wide Setup Test Pattern, press the Voice button. The printer will say "Press Start for Wide Setup Test Pattern." If you want to print this test pattern Press the Start button then go to step 3.

   If you want to print Custom Test Pattern 1, press the Voice button. The printer will say "Press Start for Custom Test Pattern 1". If you want to print this pattern Press the Start button then go to step 3.

   If you want to print Custom Test Pattern 2, press the Voice button. The printer will say "Press Start for Custom Test Pattern 2" If you want this test pattern press Start then go to step 3.
3. The printer will say "Ready to print Narrow test pattern (or will say wide, or custom 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.
4. Ensure you have care label stock and thermal transfer ink ribbon loaded on the top and bottom printing stations.

2.9.4 Printing the Test Labels

1. 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.
2. 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.
3. If you can't get the printer to run, refer to sections 9 and 10 for troubleshooting.

3.0 Operation

3.1 Loading Supplies

For information about supply compatibility or environmental information, contact your local Avery Dennison Customer Service.

Your SNAP 500 printer is designed with up to three ink supply stations, as many as two upper and one lower. The ink supply station setup is dictated by the option of the printer your ordered. There is no way to change this setup at your location.

The ink arbors have a spring-loaded latch, which automatically centers the roll of ink to ensure smooth tracking through the printer. Ink ribbon cores based on the metric system, use the gray arbors; inch uses black arbor.

The ink cores have spines on their inside surfaces which align with the grooves in the ink arbors. Spines allow the printer to control the tension of the ink ribbon during printing, minimizing wrinkling and optimizing print quality.

NOTE: Only use the white plastic cores on the SNAP printers. If you have a black plastic core they are design for the Avery Dennison 9800 series or the ADTP printers.

3.1.1 Installing Ink to the Top Ink Supply Station(s)

1. Install an empty ink core on the upper ink rewind arbor. Ensure the core is 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 and rotate the core slightly to align the spines with the grooves on the arbor. 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 supply tape.

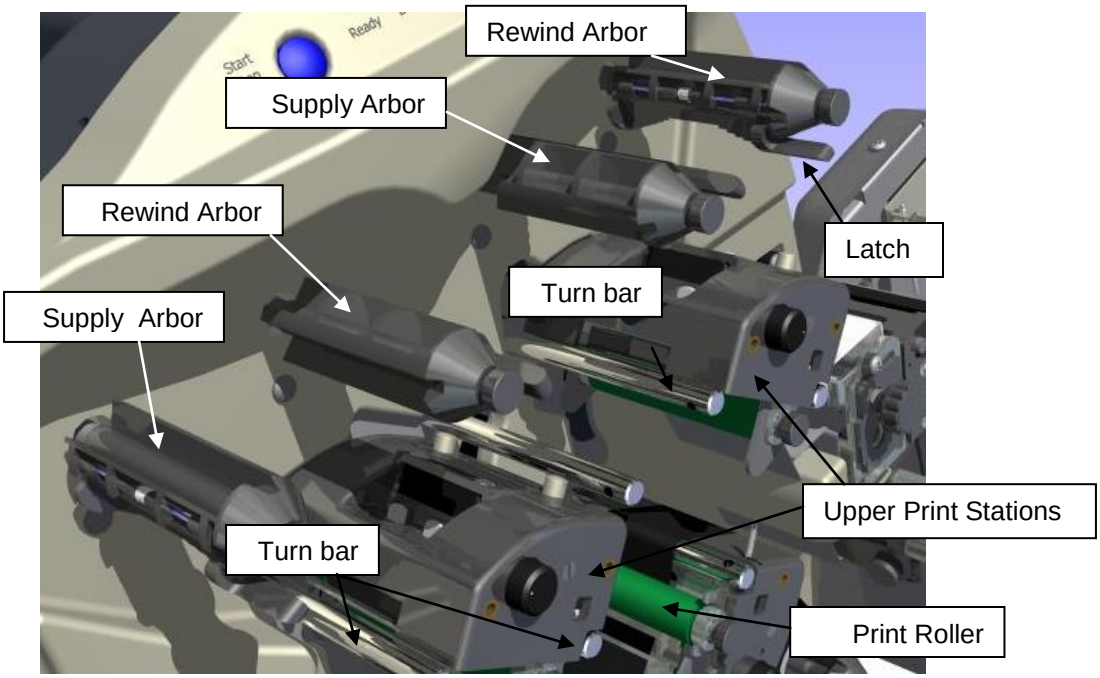


Figure 7: Upper Ink Supply and Print Stations – Unloaded (Gen 2 shown)

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 Tape 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.

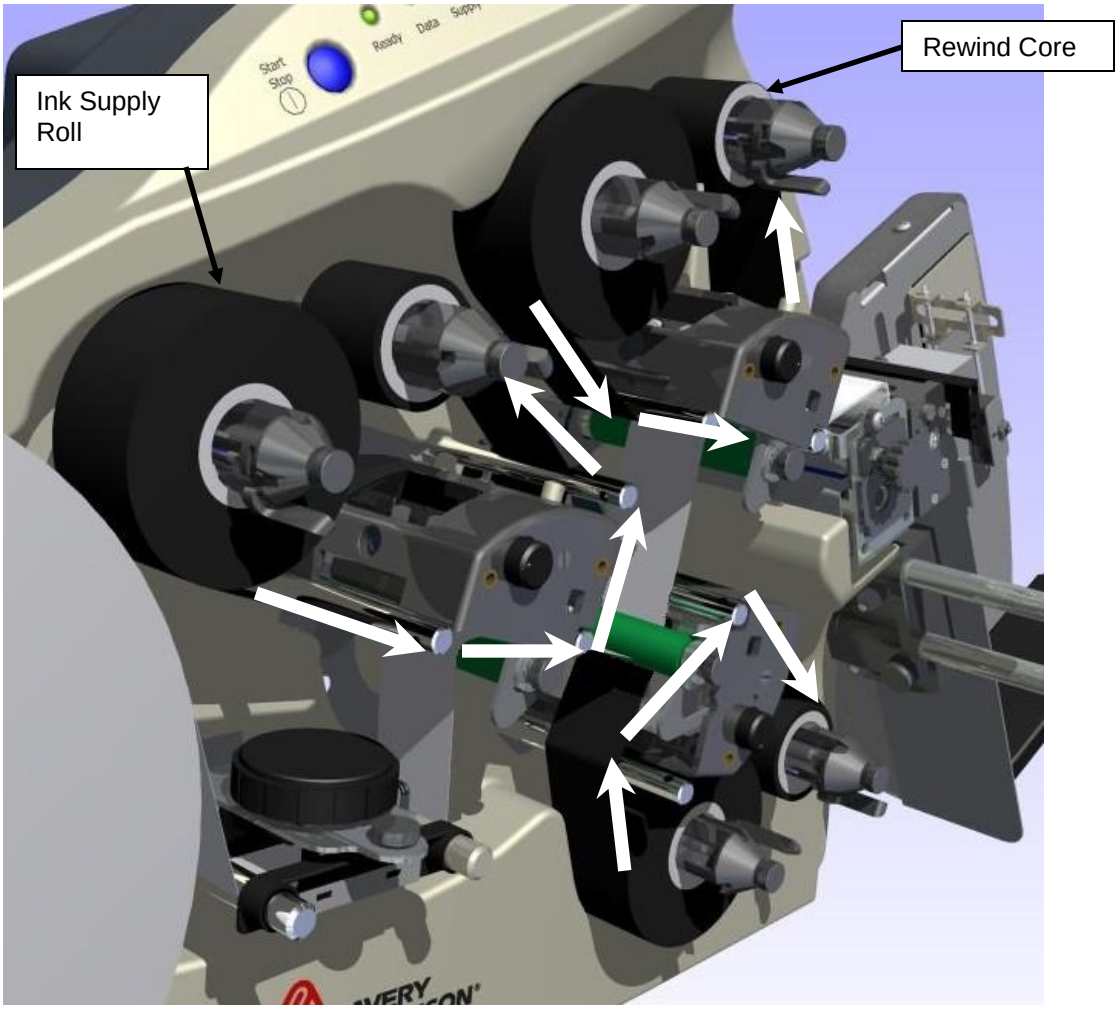


Figure 8: Upper and Lower Ink Supply and Print Stations – Loaded (Gen 2 shown)

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(s), except that the ink runs up over the turn bar, across the print head to the rewind arbor. See Figure 8.

3.1.3 Loading the Stock

Before loading a roll of stock, you will need to be familiar with the following parts of the SNAP 500 printer (Refer to Figures 9 and 10).

The **Stock Arbor** is designed to clamp the core of the supply rolls to hold them in place during printing operations. This function provides back tension which helps keep the stock straight while it moves to the center of the print head. By rotating the stock arbor knob, you can adjust for roll widths ranging in size from ½ inch - 2 ¼ inches (12.7 mm – 57.2 mm). 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 (Web) Guide** is located between the Tape Unwind Arbor and Lower Print Station and guides the tape through the machine toward the print head. The black knob located above the tape (web) guide controls the width of the guides. Turning the knob clockwise will widen the guides, while counterclockwise turns will narrow the web guides. Adjust so that the guides are just touching the edges of the tape.

If your SNAP 500 printer has the Mini Web Guide Adapter installed, please refer to Appendix 10.4.

The ***Upper and Lower Print Stations*** on the SNAP 500 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 **Feed / Auxiliary Feed** is the assembly located in front of the knife. It works by pulling the tape through one or all of the print heads and into the Knife and Nip rollers. The Feed has a knob, which is used to manually advance the material through the knife, the nip roller, and into the stacker. The Gen 2 Feed Assembly has a small set of rollers on the exit side of the assembly. This is the Auxiliary Feed. They work with the main Feed Assembly to maintain proper tension of tape as it moves through the printer.

New supply rolls are sealed and packaged individually. When you are ready to load the tape, follow the steps below.

1. Remove the plastic packaging and discard.

2. Remove the tape holding the end of the supply 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 that has adhesive on it.
3. Rotate the Tape Unwind Arbor Knob Counter-Clockwise to retract the "fingers" on Gen 1. Clockwise on Gen 2.
4. To install the supply roll, begin with the leading end at the top of the roll leading towards the stacker.
5. Slide the stock roll onto the Stock Arbor (see Figure 9).
6. Rotate the Stock Arbor knob clockwise quickly to extend the fingers that hold the supply roll in place on Gen 1. Counter-Clockwise on Gen 2.
7. With all print rollers in the open position, pull the stock from the top of the supply roll.

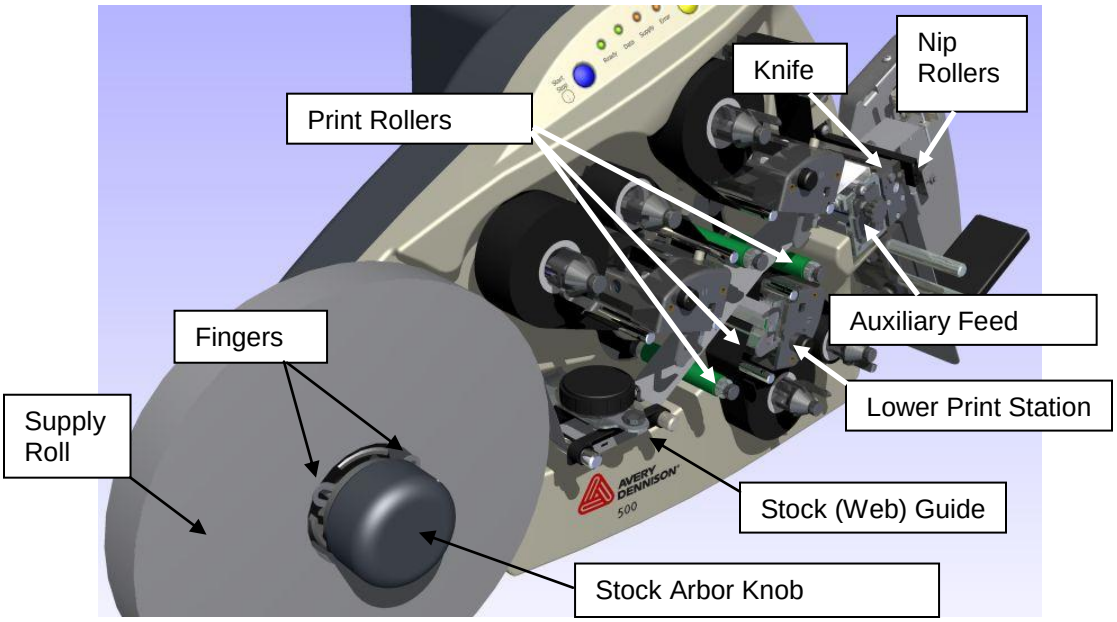


Figure 9: Tape Supply Though Print Stations (Gen 2 shown)

8. Pull the roll of stock to the right of the Stock (web) Guide.
9. Continue threading the stock between the print rollers and print heads, through the Feed Roller and up to the Auxiliary feed.
10. Rotate the Auxiliary Feed Knob 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).
11. If the stock will not advance through the knife, refer to Section 5.4.2, Knife Home Position Adjustment.

12. Remove slack from the supply roll and the tape running through the printer. Starting with the right-most printhead, close the print rollers in order moving from right to left. Ensure there is no slack between any of the rollers.
13. Rotate the Stock (Web) Guide Knob to align it to the stock width.
14. Tighten the Stock Arbor Knob to apply tension to the stock.

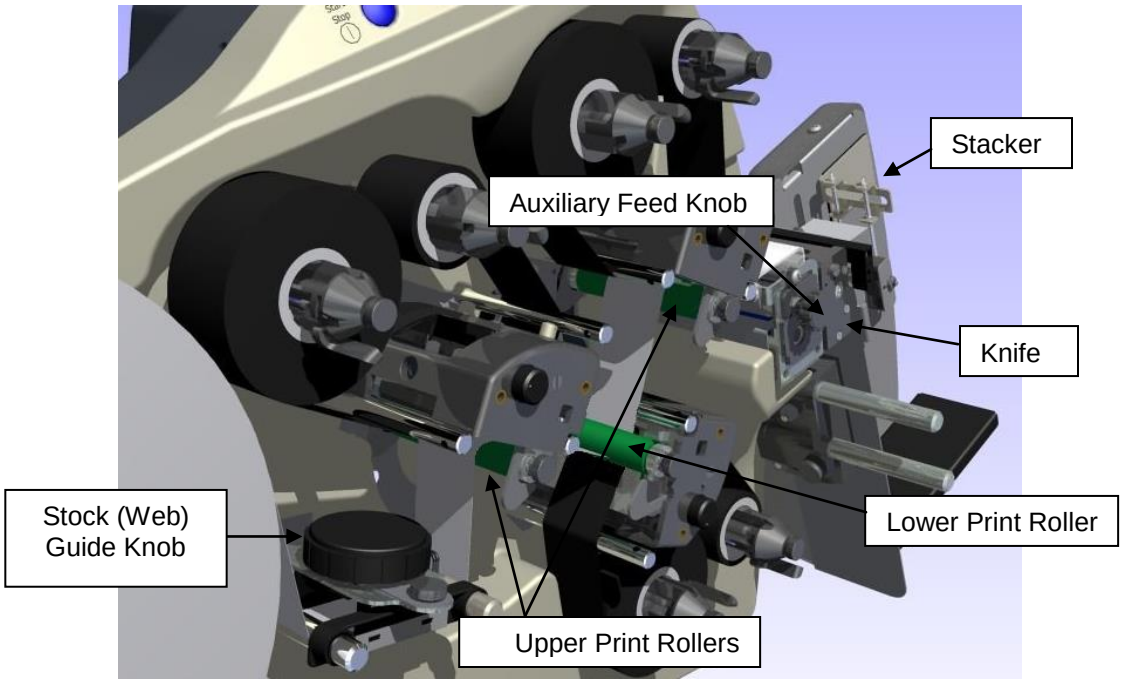


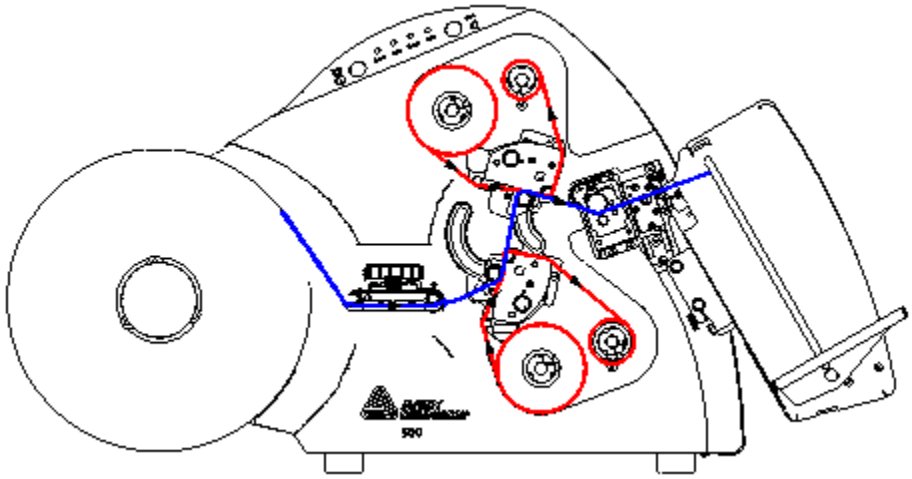
Figure 10: Tape Supply through Knife and Stacker (Gen 2 shown)

3.1.4 Butt Splice

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

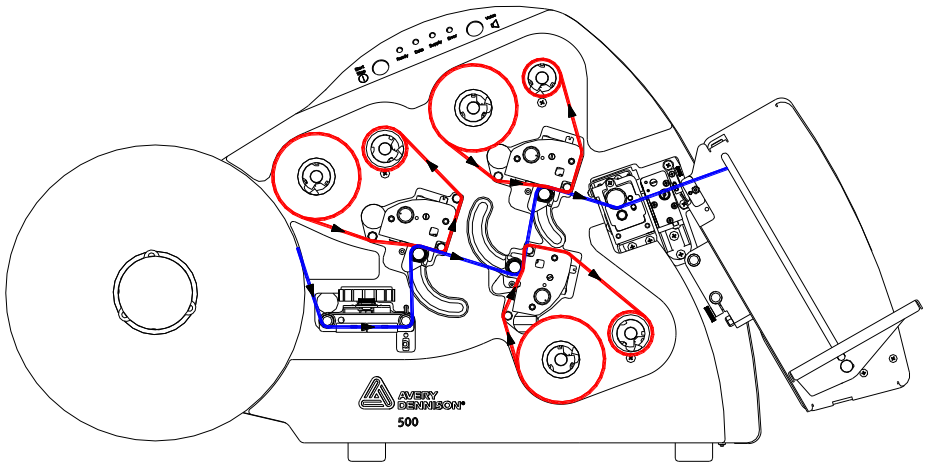
The SNAP 500 printer is designed to allow for fast, frequent changing and loading of tape and supplies. We recommend re-threading the tape rather than to using a butt splice. If you determine that splicing is faster for threading, tape the ends of the stock together. Turn the feed roller and advance the splice through the printer. Do not try and run the splice through the printer as it can cause damage.

3.1.5 Threading Diagrams – Gen 1

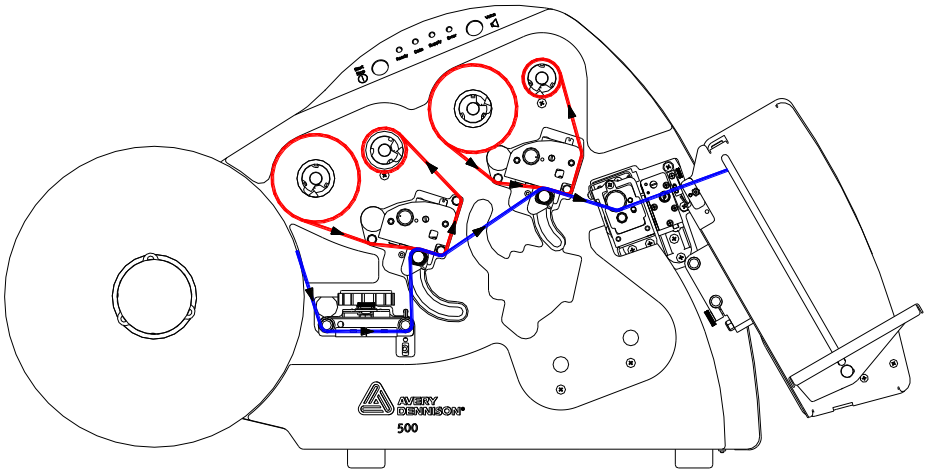


SNAP 500 1 over 1 (Gen 1)

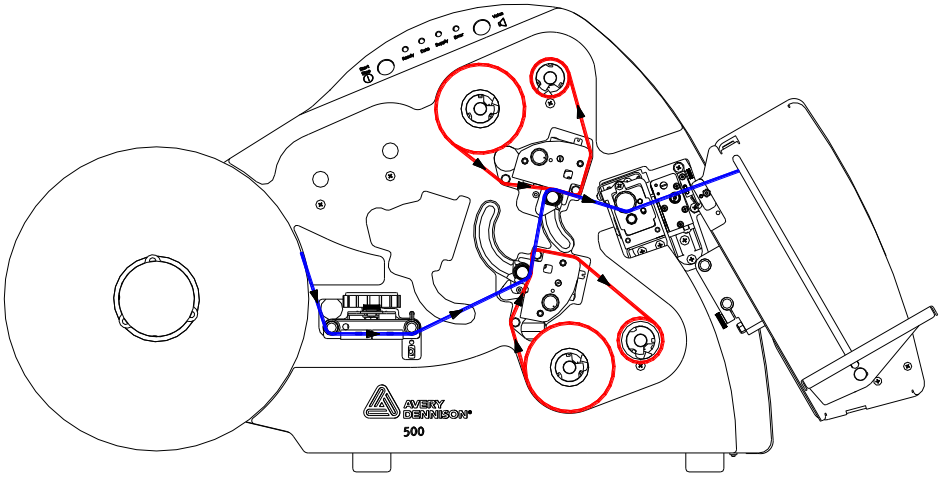
3.1.6 Threading Diagrams – Gen 2



Snap 500 2 over 1

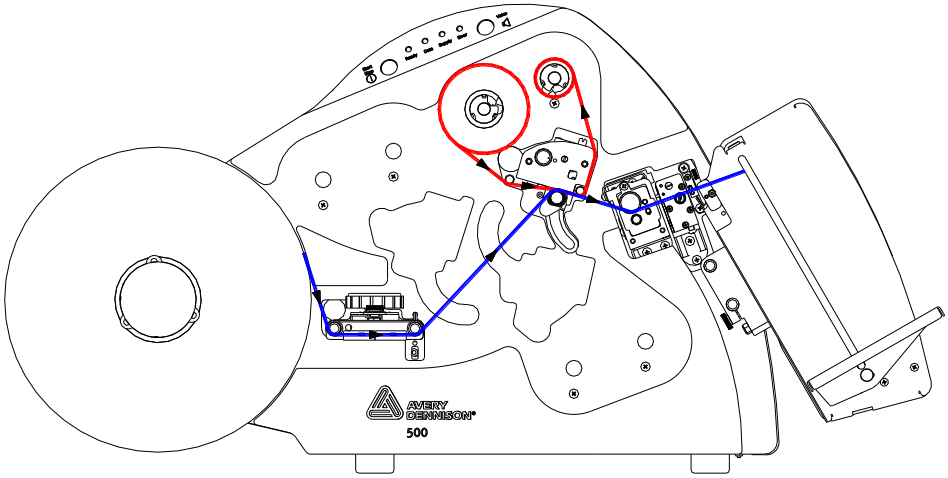


Snap 500 2 over 0



Snap 500 1 over 1

(Gen 2)



Snap 500 1 over 0

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.

Getting a print job 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 Printer Control Panel

The Control Panel on your SNAP 500 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/Stop Button** is a blue button that starts and stops printing. If there are labels ready to print, pressing the Start/Stop Button starts printing. If the printer is running, pressing the Start/Stop Button stops printing. If the printer is sitting idle with no batches and print arbors released pressing the Start/Stop Button and holding will advance supply material through the feed without turning the ink. This is especially helpful with threading LokPrint oven accessory.
- The **Ready Light** is a green light that indicates the printer has been powered up, completed its diagnostics, and is ready to accept print jobs.
- The **Data Light** green light that indicates you have sent a print job to the printer and it is ready to print. If the Data Light is flashing, you are at end of day (see section 3.3.4).
- The **Supply Light** is a yellow light indicates that: either the tape 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** is a red light that indicates a problem exists somewhere in the printer.
- The **Voice Button** is a yellow button and will play a message describing the status of the printer when pressed. Use it to determine causes of printer issues. If the printer is printing, pressing the Voice Button will stop printing.

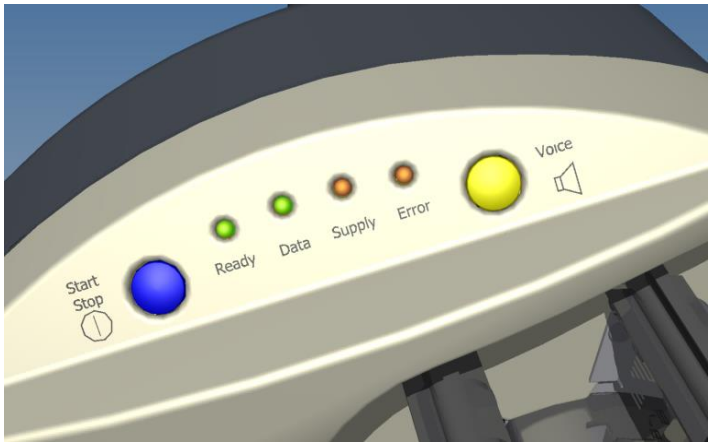


Figure 11: Control Panel

3.3.2 Printing

The printer has hazardous moving parts. Keep hair, loose garments, jewelry and fingers away from the print path during printing.

- Once a print job has been sent to the printer, the Data light will come on.
- Press the Start/Stop Button to start printing.
- Before printing starts, the stacker will move the platform to the correct position.
- When printing for the first time or after certain errors, the printer will create a leader. The leader is a longer piece of material that comes out of the printer. The printer is not sure what is on this material so it "starts over". It may be blank or may have some partially printed labels. These labels are not usable. The printer automatically makes up these labels are part of the print batch.
- Grab the leader 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 allowing the labels to fall into a box, you may need to handle the leader differently.)

- The printer starts printing and will drop cut labels 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.

3.3.3 Feeding the stock

To feed the tape, press and hold the Start/Stop button. After a short delay, the printer will feed tape though the printer. To stop the feed, release the Start/Stop button.

If you are in the middle of printing a batch, feeding the tape 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.

3.3.4 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 tape or the stacker is full. The error light means that there is some other problem with the printer.

There are two 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.

Correct the problem and press the Start/Stop 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/Stop button twice as is required with previous AVERY DENNISON printer models. If the error continues to recur, contact your local AVERY DENNISON representative.

3.3.5 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. The Data Light will flash. Sending another print job will allow the printer to continue printing without producing a leader. The feature helps prevent wasting stock and ink.

If all the jobs are finished or you need to change stock and/or ink and the data light is flashing, 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.

3.3.6 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 is 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."

3.4 Using Pre-printed Stock

When using pre-printed stock, the printer must detect a sense mark on the tape in order to print in the proper place.

- The SNAP 500 printer comes with a top reflective sensor standard. This sensor, mounted in the top-right-hand post of the web guide, detects a black sense mark on the top surface of a white tape. The sensor cannot be moved from the center position.
- A contrast sensor option will detect a colored sense mark on the top surface of a colored tape. Mounted on the left-hand post that holds the web guide. It is movable across the web. See Appendix 10.5.
- A hole sensor is an option. This sensor will detect a hole or slot either centered on the stock or ¼" from the inboard edge of the stock. See Appendix 10.6

3.4.1 Selecting the Sensor

The registration sensor type 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.

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

3.4.2 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, open the print-head rollers and use the Feed knob until the sense mark is just to the left of the sensor. Then rotate the rewind ink arbors to

take up any slack and press the Start/Stop Button and close the appropriate print-head rollers.

This alignment must be done only the first time you print after power up, or after a "missed sense mark" error. Do not align the tape after a normal stop or a stacker full.

To program the Contrast Sensor, see instructions in the appendix.

To use the Web Guide Hole Sensor, see instructions in the appendix.

3.5 Printing Pressure Sensitive Adhesive Labels

3.5.1 Printing Labels

Although the SNAP 500 is a care label printer, it is capable of printing pressure sensitive adhesive (PSA) labels or stickers. These stickers are carried on a flexible liner and contain some kind of registration mark.

Loading, printing, and troubleshooting procedure for PSA labels are the same as printing care labels. Most applications require one-sided printing. Finished labels can be:

- rewound
- cut into multiple-labels strips or "sheets"
- cut into single labels.

3.5.2 Ink out Errors

The SNAP 500 GEN1 printer uses system that drives the platen roller under the top printhead to move the labels through the printer. The SNAP 500 GEN2 printer uses the feed roller to pull the label material through all printheads. When printing PSA labels on GEN2 printer, pay close attention to the amount of pressure on the label stock. If one or more of the following conditions exist:

- wide label
- high pressure
- green platen roller
- 2 heads engaged

the printer might not have enough torque to pull the labels through the printhead. This problem will show itself in an "ink out" error. The printer tries to start printing and does not see the ink moving fast enough. It will stop the printer and report "ink out". To fix this issue, reduce pressure and use a red platen roller. Consider switching to a SNAP 500 GEN1 printer.

3.6 Option Menu System

The Option Menu System allows you to

- Print test labels
- 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."

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: "Press Start for Narrow Test Pattern."
2. If you do not want to print a test pattern, press the Voice button: "Press Start to Set Volume."
3. If you do not want to change the speaker volume, press the Voice button: "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 use each of the possibilities in the Option Menu System, refer to sections for Running Test Labels; and Setting /Adjusting Voice Button Volume.

3.6.1 Printing Test Patterns

Your SNAP 500 printer offers you four test patterns to run before you proceed to production.

Narrow Test Pattern, 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. This test pattern is only for 2 print heads.

Wide Test Pattern, more closely resembles an actual label and can be used to make adjustments to the print head pressure and contrast.

Custom Test Pattern 1, is the top right print station only and prints the printers Configuration which includes the model, SW Version, and IP Address.

Custom Test Pattern 2, is the same as Narrow Test Pattern but for 3 heads on a Gen 2 printer.

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.

Printing Narrow Test Patten

1. To run a test label, press and hold the Voice button about two seconds. Voice says, "Press Start for Test Pattern."
2. Press the Start/Stop Button. Voice says, "Press Start for Narrow Test Pattern."
3. Press the Start/Stop button. Voice says, "Ready to Print Narrow Test Pattern. Returning to Print Mode." The Data light will turn on.
4. Press the Start/Stop button. Narrow Test Pattern prints.
5. Press the Start/Stop button to stop. The Data light will remain on. Make any necessary adjustments, and press Start / Stop to resume printing.
6. Once satisfied with the test label, 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 together to clear the test labels.
8. Voice says, "Clearing Current Batch." The Data light will go out.

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

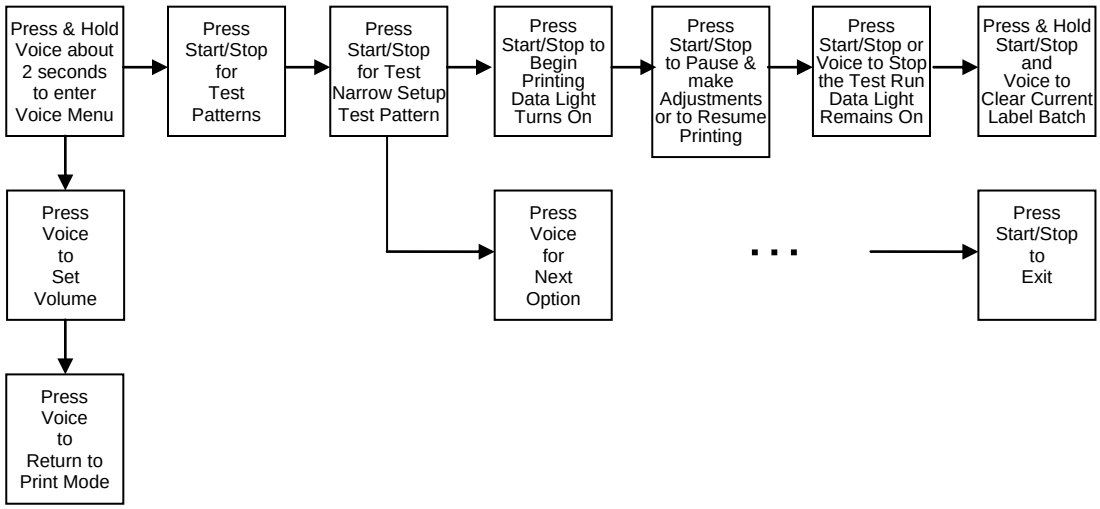


Figure 12A: Running Test Patterns

Follow the same procedure to print the other test patterns.

3.6.2 Setting / Adjusting Voice Button Volume

The volume level of the voice messages on your SNAP 500 printer is set at Level 3 at the factory. To adjust volume:

NOTE: During the menu, the printer will begn 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: "Press Start for Test Pattern."
2. Press the Voice button: "Press Start to Set Volume."
3. Press the Start / Stop button: "Press Start for Volume Level 3."
4. Press the Voice button: "Press Start for Volume Level 4."
5. Press the Voice button: "Press Start for Volume Level 5."
6. Press the Start/Stop button: "Volume Set to Level 5. Returning to Print Mode."

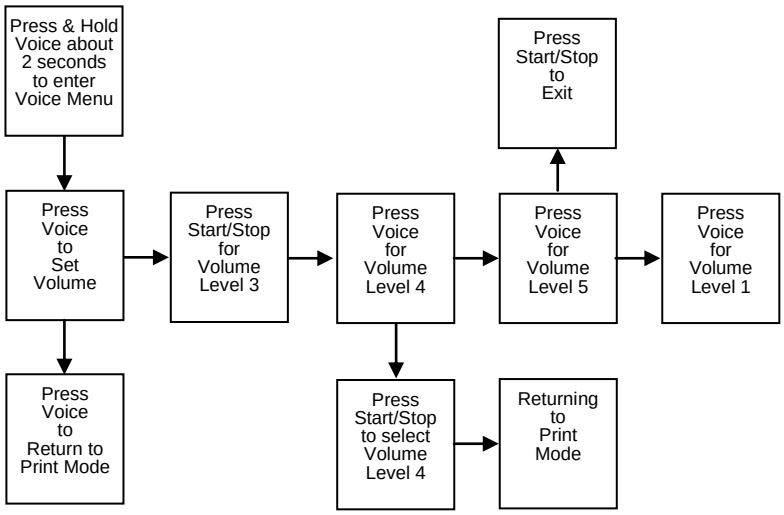


Figure 12B: Adjusting Voice Volume

4.0 Making Adjustments

4.1 Print Head Adjustments

The one, two, or three print stations on the SNAP 500 printer are stationary. The print rollers swing open for loading stock and ink and close 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: (1) print head pressure, and (2) 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). Adjust print head pressure as follows:

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

1. Decrease print head pressure: use a flat blade screwdriver to depress both buttons and turn them ¼ turn (90 degrees) counterclockwise until they are in the upper position.
2. Increase print head pressure: use the flat blade screwdriver to depress both buttons and turn them clockwise until they are in the lower position.

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

Only rotate buttons 90 degrees back and forth to the desired setting.

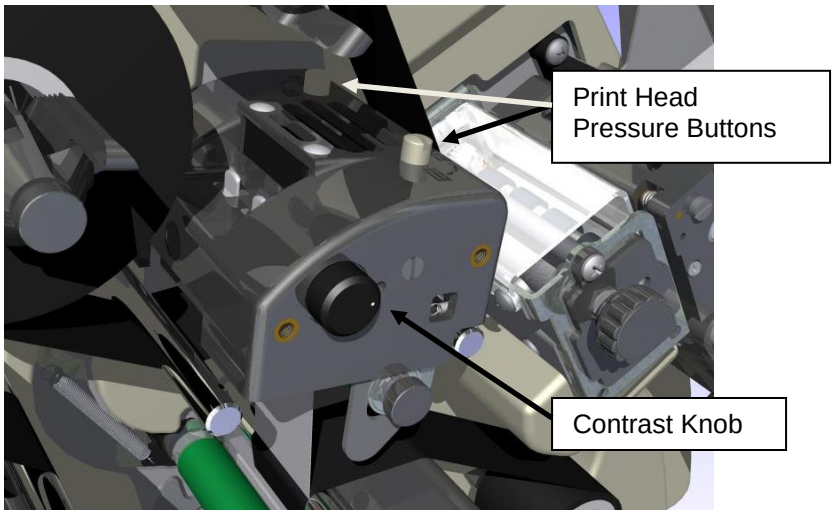


Figure 13: Print Head Components

4.1.2 Adjusting Density (Darkness)

The contrast knob for adjusting print density (darkness) is located on the outboard end of each print head housing (see Figure 13). You may adjust the contrast knob while printing labels.

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

- To increase print density, rotate the contrast knob clockwise.
- 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.

See Appendix 10.2 for more help in determining settings for tape/ink combinations not found in PCMate.

CAUTION: For extended print head life, use the lowest print contrast the produces acceptable print quality.

4.2 Adjusting the Stacker

The stacker on your SNAP 500 printer is adjustable in three ways:

- The stacker position on the mounting pins (in and out),
- The stacker angle at which labels accumulate in the stack, and
- The platform angle.

You may need different settings depending on the label size and material. Feel free to make adjustments until you are satisfied with the stacking. That way you will soon learn the settings that work best for your labels. Tip: Adjusting the static brush height on the exit nip rollers will often guide labels into the stacker. This can be adjusted as well as the 3 stacker adjustments.

4.2.1 Stacker Position

The stacker slides front and back on the mounting pins allowing its proper positioning for the width of the label. Set the back wall of the stacker just behind the back corner 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 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 Stacker Angle

The angle of the stacker can be tipped out a maximum of 20 degrees at the bottom from the vertical position. Adjust the stacker angle to best accommodate each run.

1. When the label 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.

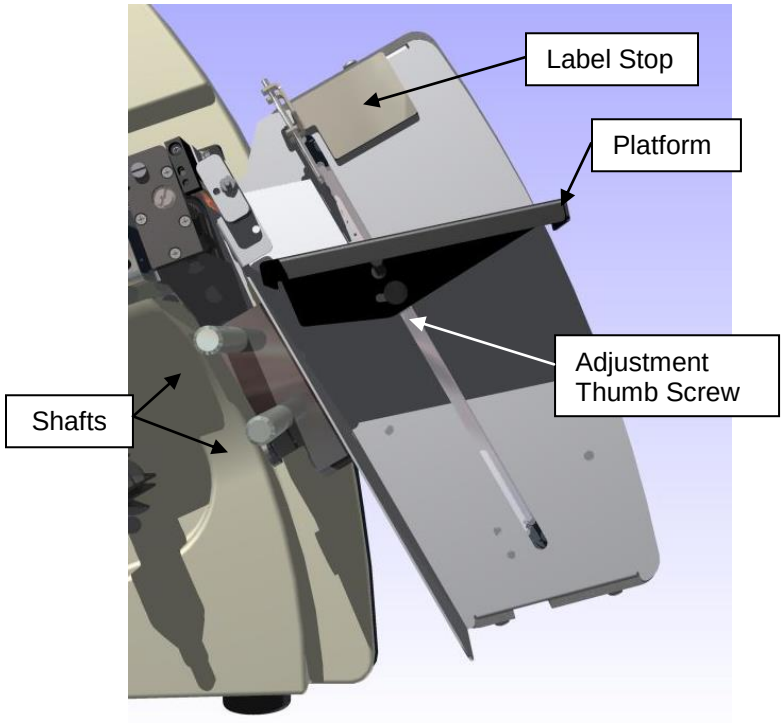


Figure 14: Stacker Angle – Almost Vertical

4.2.3 Platform Angle

Adjust platform angle to alter the angle at which labels are stacked and stopped.

1. On Gen 2 printers loosen the Adjustment Thumb Screw and move the platform to an angle approximately 20 degrees up on the outer end of the platform.
   - For satin labels, use the lower position.
   - For coated labels, and short feed labels, elevate the outer end.

On Gen 1 machines the platform adjustment is a pin you pull and adjust the platform in 1 of the 2 allowable positions.

a. The label stop helps position the labels in the stack. The label stop is magnetic. Place a cut label on the stacker platform and slide it into the back corner.

b. Move the label stop to within 1/8 inch (3 mm) of the end of the label.

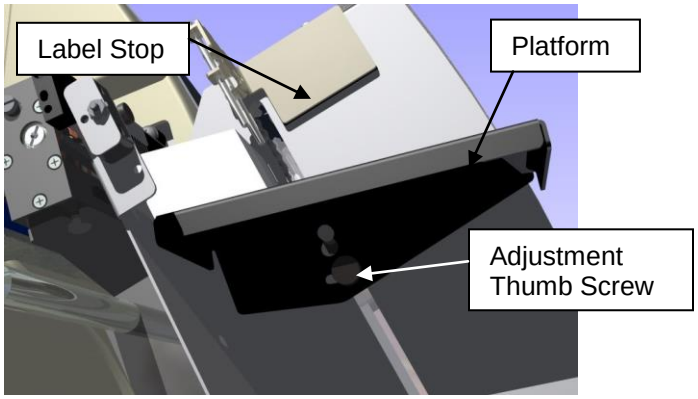


Figure 15A: Stacker Platform Angle Adjustment

4.2.4 Height of Stack - Stacker Sensor

The stacker uses an electronic sensor to determine the top of the stack. Gen 2 printers have no adjustment for the stacker sensor. Gen 1 printers have a switch on the back of the stacker that will change stack height to either the upper or lower position.

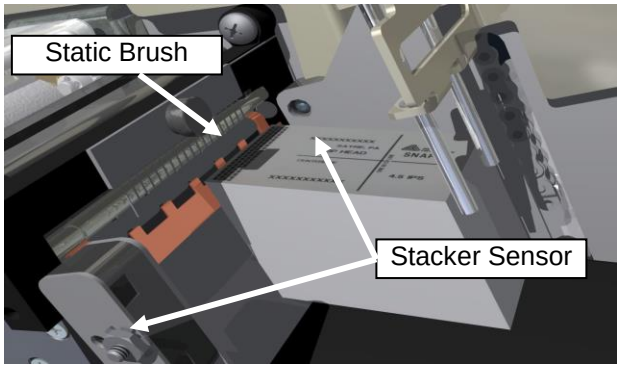


Figure 15B: LED Locations

4.2.5 Static Brush

A static brush mounted with a thumbscrew allows easy adjustment to help guide and control labels into the stacker. The brush should contact the material as it exits the nip rollers. Maintain the static brush in good condition for best stacking.

In general – a light pressure is sufficient to stack well, but long feeds will require slightly more pressure.

Keep the static brush parallel to the nip roller mount bracket.

4.3 Virtual Control Panel

4.3.1 Introduction

PCMate Platinum allows the operator to control the printer and make adjustments directly from the PC.

The **Virtual Control Panel** (VCP) shows at the bottom of the PCMate Platinum screen when a SNAP 500 printer is properly connected.

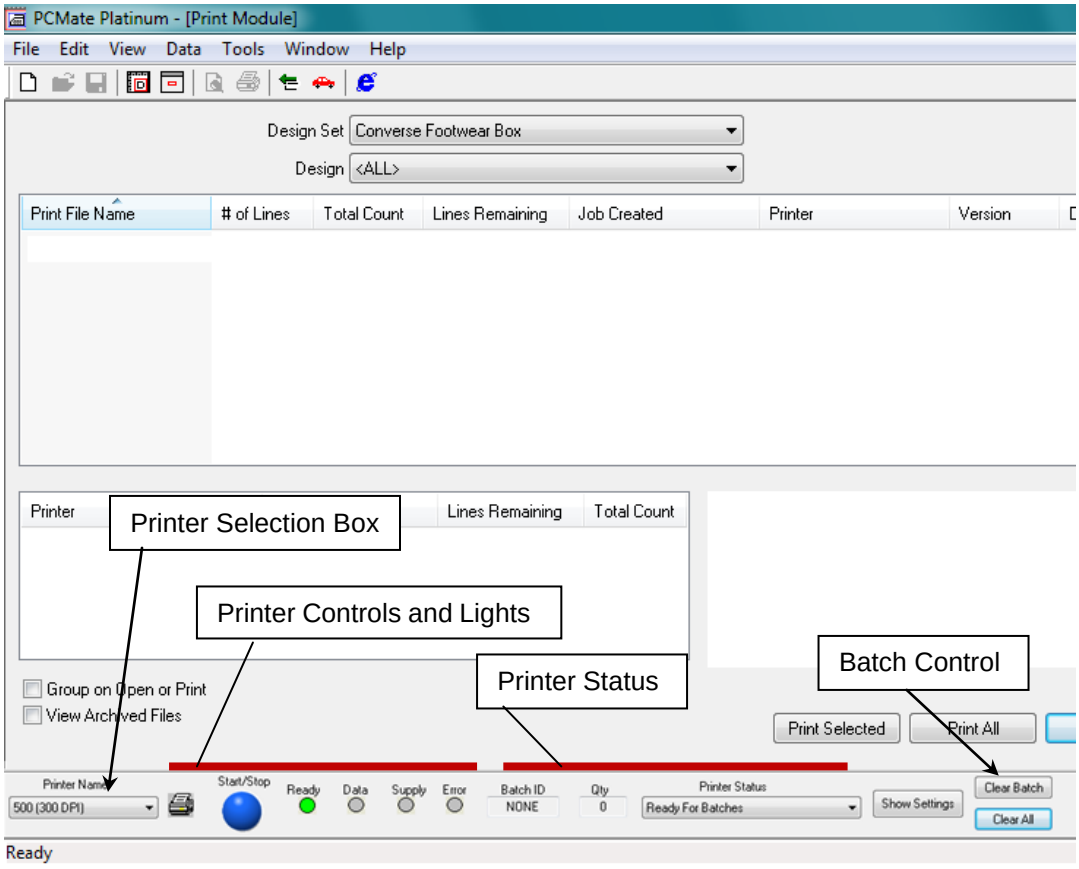


Figure 21: PCMate Platinum Print Module with Virtual Control Panel

If more than one printer is connected, select the printer of interest from the "Printer Selection Box"

The VCP has controls and lights that simulate the printer's control panel that work the same way. With no Voice Button, messages are displayed in the Printer Status box. Start and stop the printer with the Start/Stop button.

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

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

4.3.2 Changing Printer Settings in PCMate

Click the "Show Settings" button on the VCP for the **Printer Settings** Window.

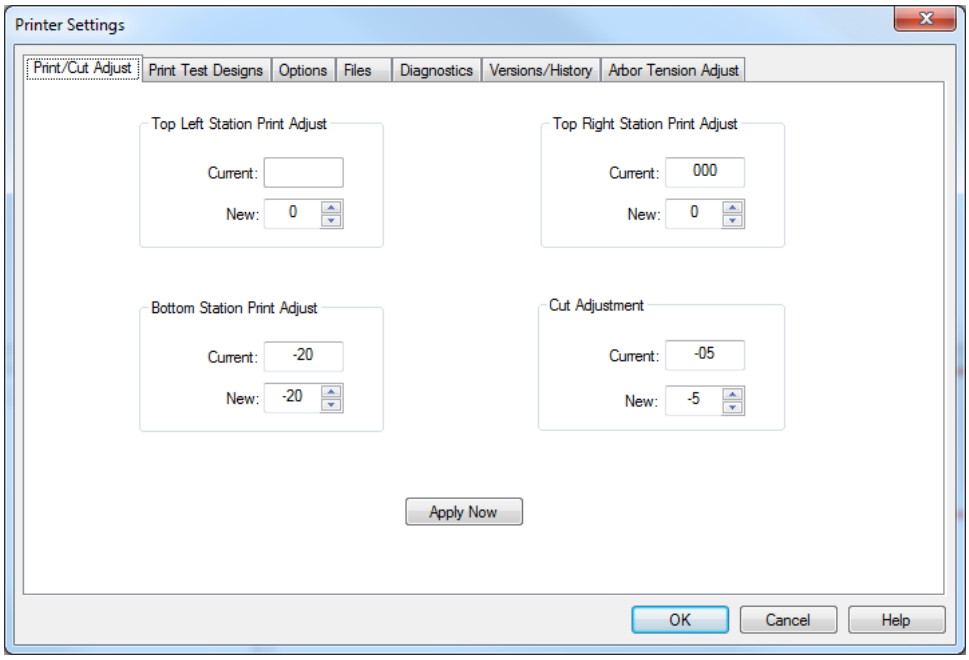


Figure 22a: Virtual Control Panel with Show Setting Window (Firmware 3.35 and below)

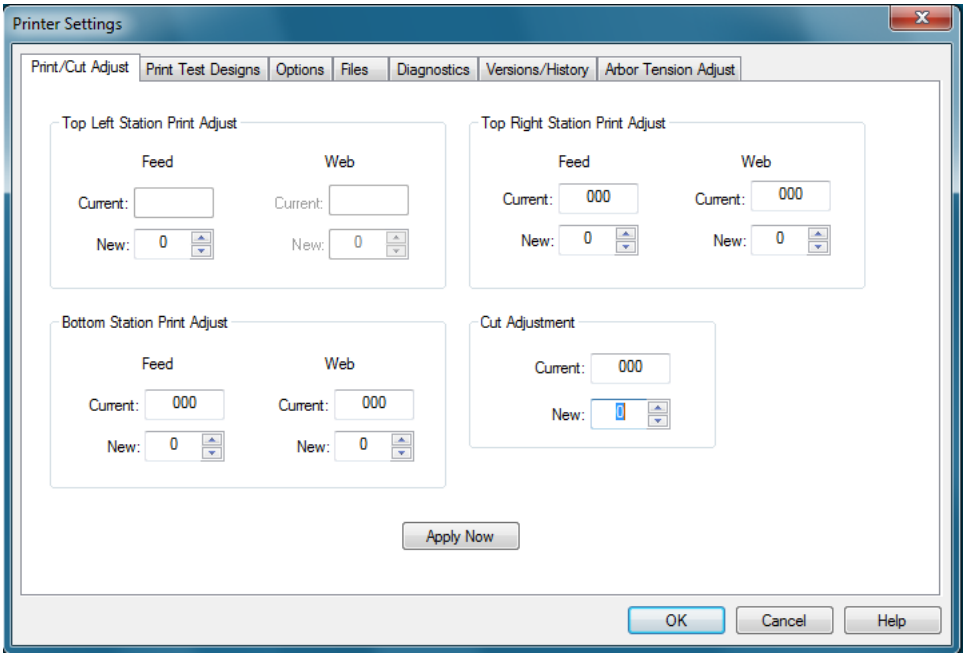


Figure 22b: Virtual Control Panel (Firmware 3.36 and above) showing the adjustments available across the width of the printer.

Printer settings have several tabs. Click on the tab to select page.

4.3.3 Print/Cut Adjust Tab

The cut adjust will help the printer cut in the right place with relation to the sense mark on pre-printed tape. Cut adjust is found the **Print/Cut Adjust** tab.

Use cut adjust with pre-printed tape only. Put cut adjust to zero when using blank tape and use print adjust to position the print properly on the label relative to the cut.

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.

The print adjust allows you to move the print with relation to the cut, one print adjustment for each print station.

Use the Narrow Test Pattern to set the print adjust. The test pattern has a line printed across the tape that is 1" from the cut. Run a few labels and measure the distance from the cut to the line. Then, increase the print adjustment value to move the print to the right, or decrease the print adjustment value to move the print to the left. Each step is 0.003"/0/076mm. Repeat until the line is in the correct place.

Facing the printer, the inboard side is closest to the printer body, and an operator side is closest to the operator. Use the following guide to understand the numbers.

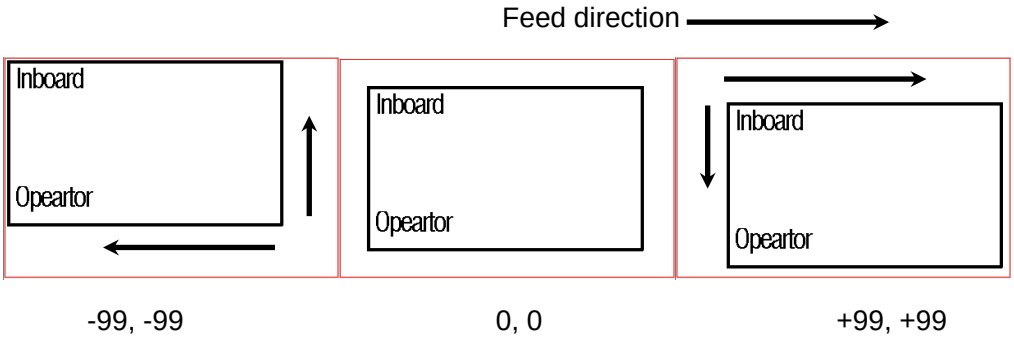


Figure 22c: Print adjust and width adjust

Image adjust across the width of the printer is available through Firmware 3.36 and above, using PCMate 7.6.2 and above.

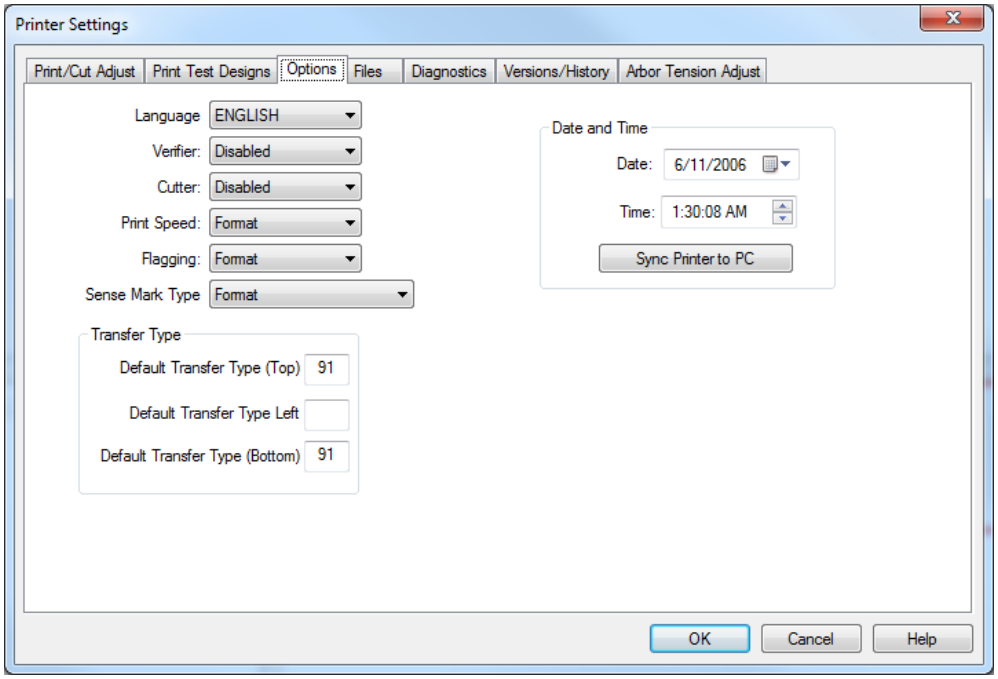
NOTE: Don't use print and cut adjusts to "fine-tune" a format. Rather correct any print position problems in the format and use these adjustments to correct printer variation only. Otherwise, you have to adjust each format before printing.

4.3.4 Selecting the Printer Language

The SNAP 500 printer has the capability of presenting both text and voice messages in multiple languages.

The printer ships with several languages installed. Operating System (OS) upgrade files only contain English. Use a separate language upgrade to add any new prompts in other languages.

In the Virtual Control panel, click on 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.

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

4.3.5 Setting the Date and Time

The SNAP 500 printer has a built-in clock and calendar. You may change the date and time as follows:

In the Virtual Control Panel, click on 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.

4.3.6 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 between labels.

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.

4.3.7 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.

The available choices are:

- Format – use the print speed specified in the format. If the print speed does not exist in the SNAP 500 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 SNAP 500 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 SNAP 500 printer would use 6 ips, which is the third speed in its speed list of 3, 4.5, 6, and 7 ips.
- 3, 4.5, 6 or 7 – selects the desired print speed.

4.3.8 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 SNAP 500 printer. Do not select this.
- Disabled – Disables flagging. No flagging will be done.

4.3.9 Selecting the Sense Mark Type

This selection allows you to override the sense mark type (none, top reflective 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 Reflective, Bottom Reflective, Contrast – selects the sensor type
- Disabled – ignores the sense mark. This is useful when designing a format using blank tape to avoid wasting the more expensive pre-printed tape.

The printer does not detect 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.

4.3.10 Setting the Default Transfer Type

The transfer type specifies the type of tape 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 tape and ink. See Appendix 2 for a list of available transfer types.

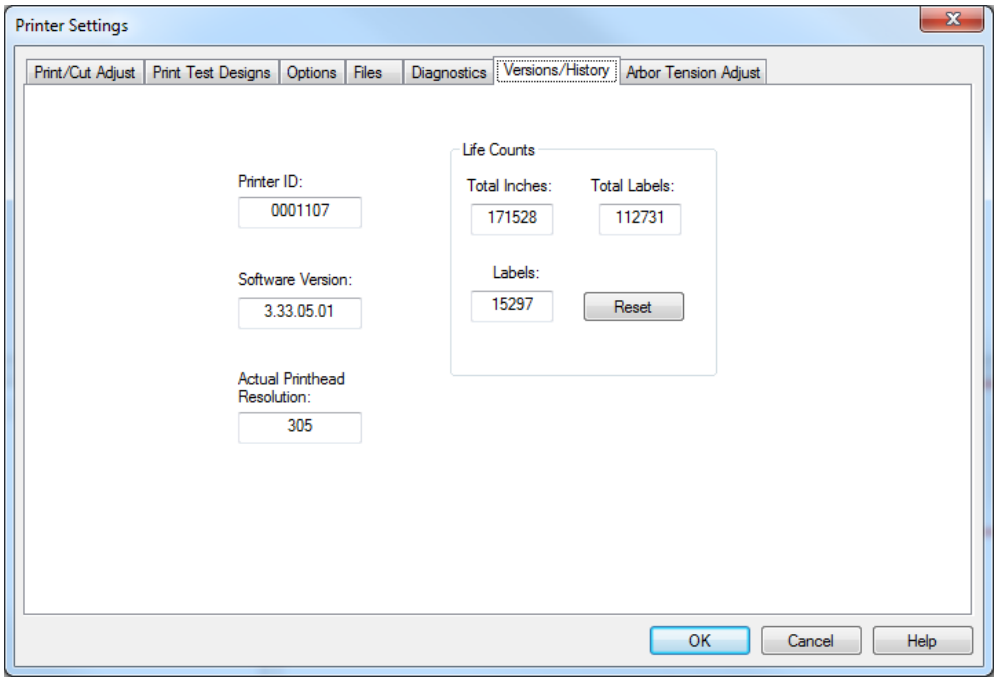
Be sure to specify the transfer type in the format. However, if a transfer type is not specified in the format, the printer uses the default transfer type.

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.

4.3.11 Viewing the Life Counts

The SNAP 500 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 **Versions/History** tab. To reset the resettable label counter, click on the Reset button.



4.3.12 Firmware Version

Check the version of the firmware install by clicking on the **Versions/History** tab and noting the Software Version box listed. Use this to verify the firmware version before upgrading.

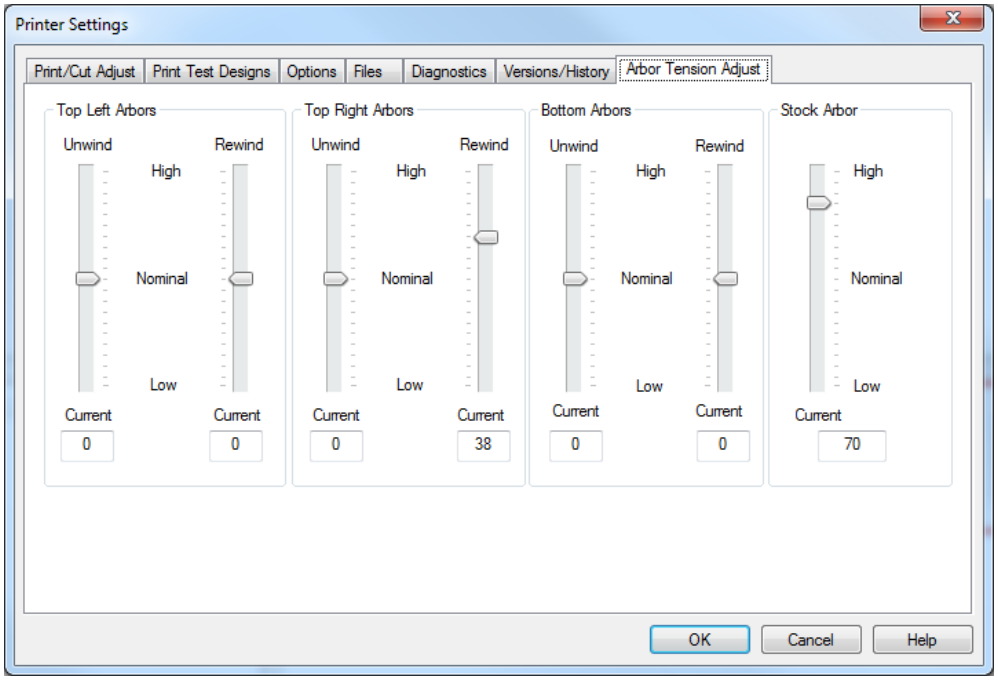
Printer ID is the printer serial number.

Actual Printhead Resolution is available for versions that support 600dpi printing.

4.3.13 Print Quality

If thermal transfer ink wrinkling is causing problems, adjust the tensions of the arbors to remove the wrinkles. Click on the **Arbor Tension Adjust** tab and slide the Unwind and Rewind arbor tensions in order to remove the wrinkles. Too little tension will make more wrinkles. Too much tension will break the ink ribbons.

Tracking issues through the printer can be helped by adjusting the Stock Arbor tension.



4.3.14 Other information on VCP

Print Test Designs – no purpose

Files – lists files stored on the printer. This can help determine in the printer has a font installed.

Diagnostics – Test various printer components by running Interactive SNAP Diagonstics. You can also view the Error Log File.

4.4 Web Server

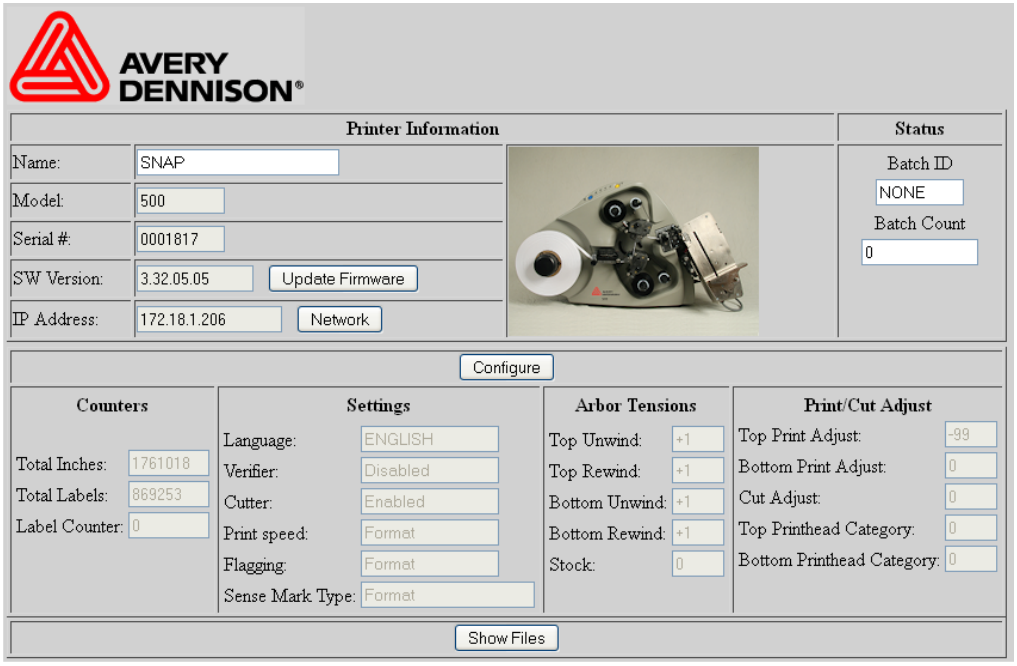
The SNAP Printer Web Server allows you to:

- setup the networking configurations for the printer,
- view and change the printer settings remotely, and
- upgrade the printer remotely.

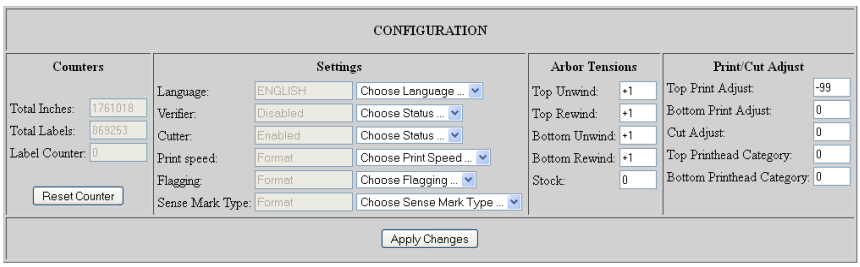
See section 3.7 for instructions on connecting a printer to the network.

4.4.1 Viewing and Changing the Printer Settings

Access the web server by opening a browser on any computer connected to the network. Enter the printer's IP address in the address bar and press Enter. The following window will appear:



The values shown are the current printer settings. To change the settings, click the Configure button. The following window will appear:

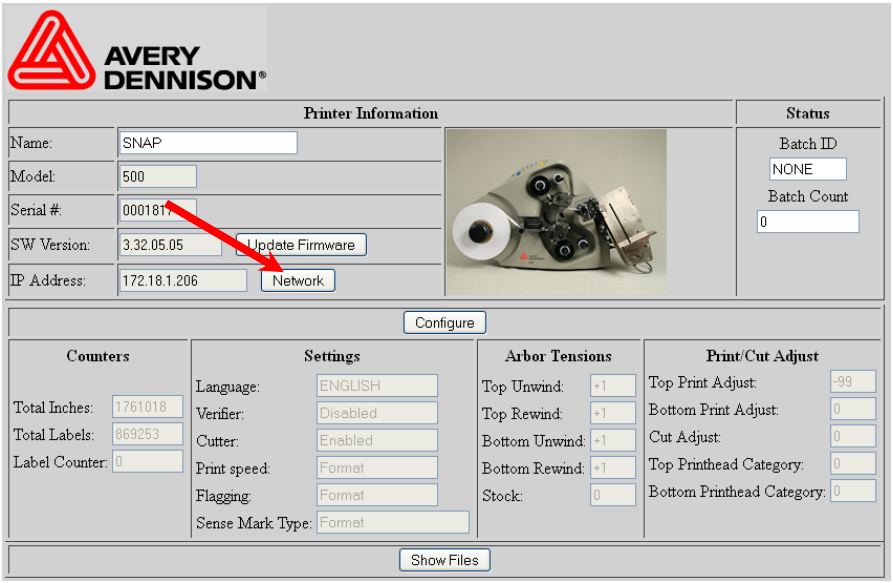


Clicking the "Go Back" button will return to the previous window without making any changes.

To change any setting, enter the value in the box or select a value from the drop down list. Click on Apply Changes to change the printer settings. Values that are grayed out are not changeable.

4.4.2 Converting the DHCP Address to a Static Address

Once you know the DHCP address, open a browser (Internet Explorer, Firefox, etc.) on any computer connected to the network. In the address bar, enter the DHCP address and press "Enter". The following window will appear:

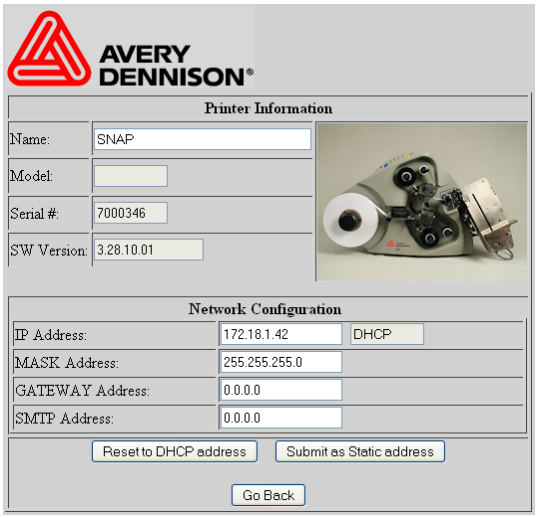


Click on the Network button. The following window will appear.

The DHCP address is shown in the IP Address box and the mode is DHCP.

Enter the static IP address in the IP Address box and click the "Submit as Static address" button.

At this time, the IP address is set to the static address and the web server will no longer be available.



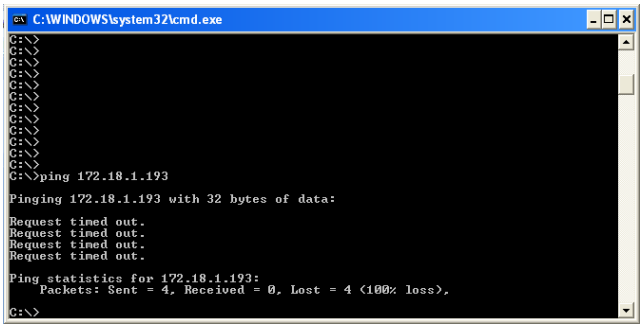
4.4.3 Resetting the Printer to DHCP Mode

Before moving the printer to a new network, set up the printer for automatic connection to the new network. Put the printer into DHCP:

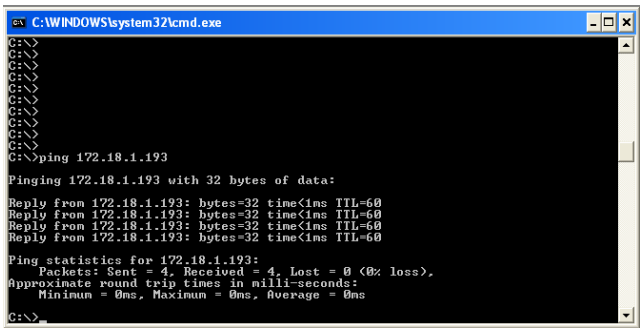
- Access the web browser as described above
- Click the Network button. The window shown above will appear.
- Click the Reset to DHCP Address button.

4.4.4 Troubleshooting the Network Connection

1. Turn the printer off and connect a standard computer monitor and keyboard to connections on the printer's motherboard.
2. Turn the printer on. When the prompt "Press F1 to enter setup" appears, press the <F1> key on the keyboard. You have about a second to do this.
3. A window will appear asking for a password. Type IP and press the <Enter> key.
4. A list of commands will appear. Refresh the list by entering a ? (question mark).
5. Make sure TCPIP is enabled. Type "TCPIP" <Enter> If TCPIP is disabled, enter "TCPIP ENABLE" <Enter>.
6. Enter "IP" and the address e.g. "IP 198.1.63.123" <Enter>.
7. Type "Exit" <Enter>. Wait for the printer to complete its initialization.
8. From a PC on the network, start a Command Prompt window by clicking Start – Run and entering "cmd" in the box, then click the OK button.



9. Ping the printer to test it. At the command prompt enter "ping" followed by the IP address e.g. "ping 198.1.63.123" <Enter>.
10. The ping command will try to contact the printer four times. If there is a problem with the connection, the result will be "Request timed out"
11. A successful ping looks like this



6.0 Maintenance

There are hazardous moving parts in the printer. Covers must be in place when energized. Service should be performed only by trained service personnel.

5.1 Print Head Cleaning and Handling

NOTE: AVERY DENNISON recommends cleaning print heads as follows:
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.

Clean print heads regularly and handle them properly to avoid damage and extend life. Follow this 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, conduct a more vigorous cleaning. Use alcohol and a Velcro cleaning pad, such as those supplied with each new print head.

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. 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.

3. Wear anti-static gloves at all times when handling print heads to prevent oils on your hands from contaminating the print head. The SNAP 500 printer 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. Order extra anti-static gloves from AVERY DENNISON.
    c. If an anti-static glove is not available, thoroughly wash and dry your hands before handling the print head.
4. 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 print quality and print head life come from:

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

5.1.2 Cleaning Procedures

CAUTION: AVERY DENNISON recommends Master Cleaning Kit #05921341K for use in cleaning print heads.

1. Before cleaning any part of your SNAP 500 printer, turn off the power.
2. Following handling techniques recommended above.
3. 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.
4. 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.
5. Clean the print rollers and auxiliary feed rollers with alcohol and a cotton pad to remove any ink, dust or dirt build-up.
6. 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 tape 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. Follow handling techniques listed above.

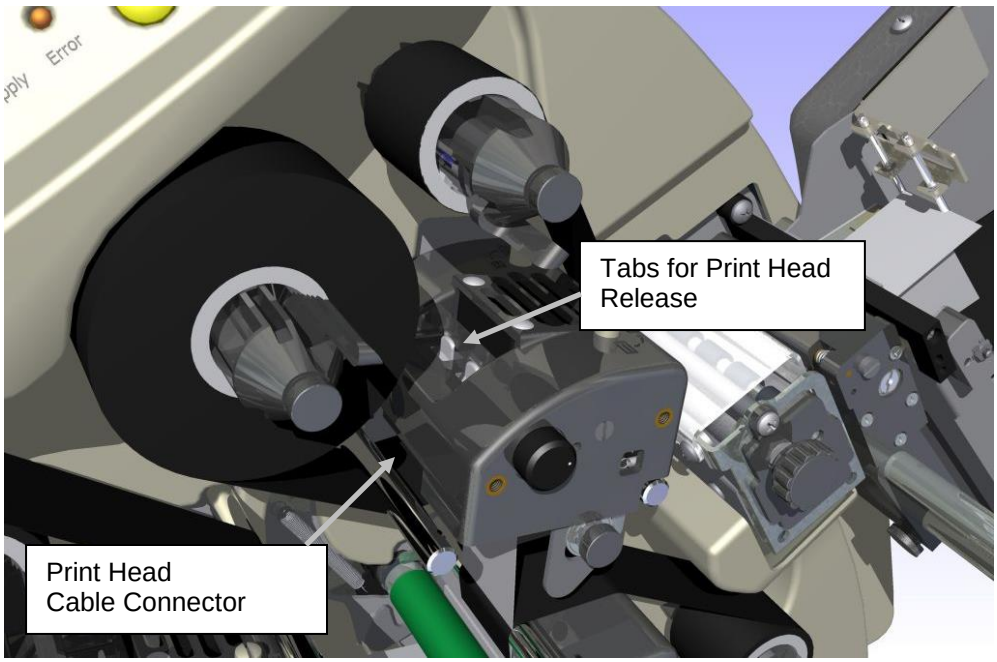


Figure 16: Print Head Components

4. 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

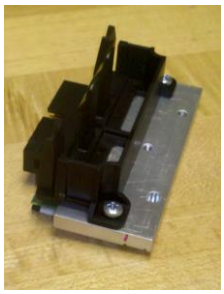


Figure 17e. Print Head Assembly

Figure 17f. Print Head

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

6. 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.

7. Replace the tape and ink supplies, and double-check your work.
8. Turn on the power to the printer.
9. As a final test, make a test run to check the print quality of the labels.

5.3 Lubrication

The SNAP 500 printer has ball bearings that do not require lubrication. However, there are two (2) oil-impregnated bronze bushings in the auxiliary rollers of the Gen 2 feed assembly that do require lubrication.

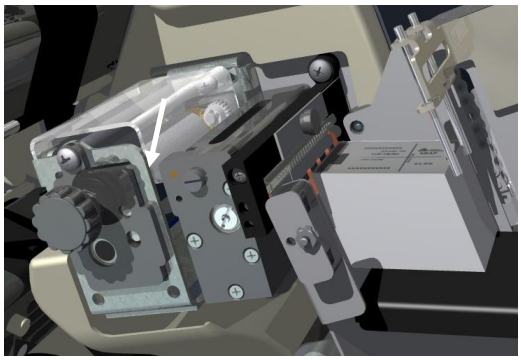


Figure 18a: Lubrication Locations

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 SNAP 500 printer sets into a groove in the mounting bracket and is locked in place with a single screw. Expect an average of 2 million cuts from woven tapes and 4 million cuts from coated tapes. Knife life decreases when foreign objects are inserted into the assembly.

With no field replacement components available, replace the rotary knife assembly when blades become dull. No adjustments are required to replacement knife assemblies.

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 Feed Roller knob, back the tape 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. 18b). Leave the retaining screw in the assembly 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.

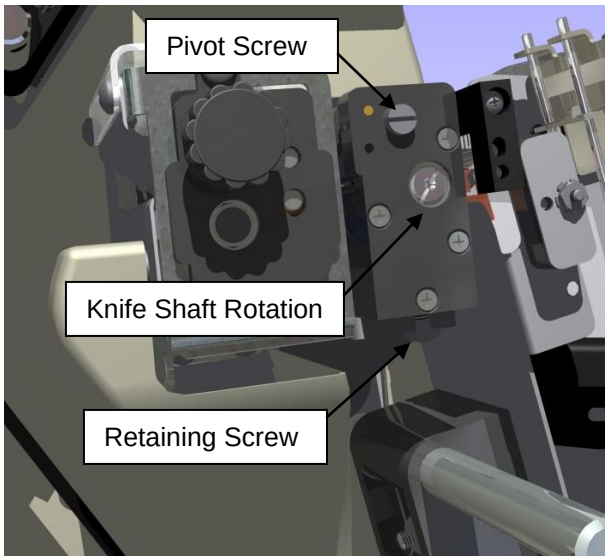


Figure 18b. Outboard End View of Knife

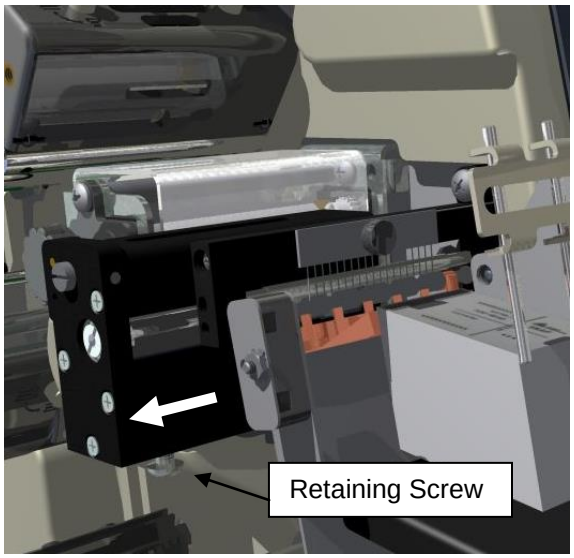


Figure 18c. Removing Knife Assembly

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 tape 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.

5.5 Knife Blade Cleaning

Occasionally knife blades will become dirty from buildup of coated tapes affecting knife performance. This may cause material to loop between the feed and knife mechanisms. In order to restore knife to original operating condition build up on blades must be removed.

- Coatings will build up at different number of cuts depending on material being cut.
- Coatings that are thicker and softer may require more frequent cleaning.
- Woven materials without coatings require less frequent cleaning.

5.5.1 Cleaning Procedure

1. Follow knife removal instructions in section 5.4.1.
2. Remove knife cover by removing 3 screws shown in figures 18d and 18e.

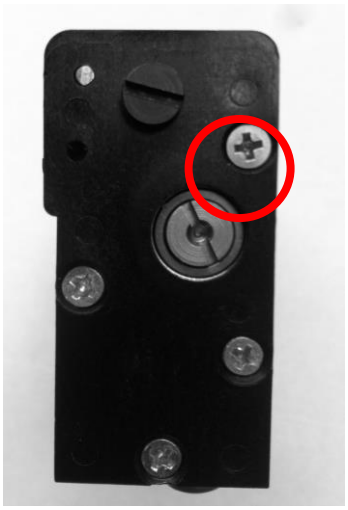


Figure 18d. Front View

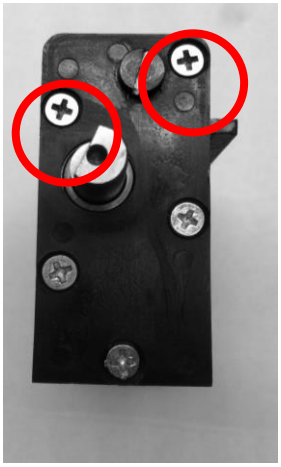


Figure 18e. Rear View

3. With knife cover removed use a cotton swab with alcohol and buff off adhesive build up in areas noted in figures 18f and 18g.

4. Do not use metal tools to scrape off buildup that could chip blades.

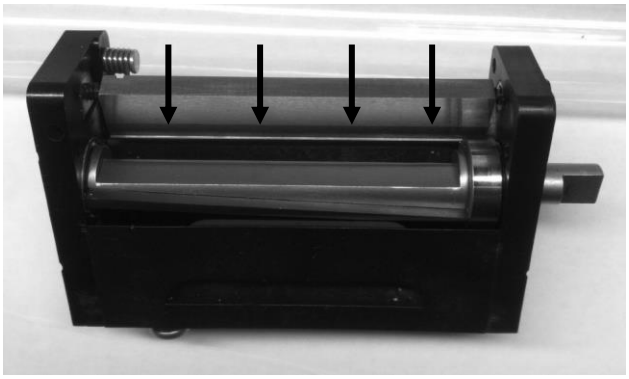


Figure 18f. Stationary Blade

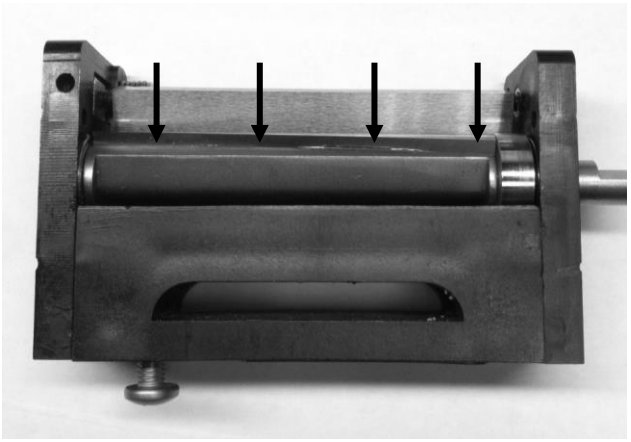


Figure 18g. Rotary Blade

5. Clean both input and exit edges of stationary blade.

6. Clean all surfaces of rotary blade.

7. Clean knife cover and frame for any buildup.

8. Replace cover on knife then replace knife on machine following instructions in section 5.4.1.

6.0 Service Adjustments

There are hazardous moving parts in the printer. Covers must be in place when energized. Service should be performed only by trained service personnel.

6.1 Tape (Web) Guide Position

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

1. Locate the thumb screw on the top of the Tape (Web) Guide mount plate.
2. Open the web guides to the widest position by turning the knob above the guide clockwise.
3. Loosen the thumb screw.
4. Move the guide to the position desired.
5. Re-tighten the thumb screw.

6.2 Tape (Web) Guide Width Adjustments

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

6.3 Auxiliary Feed

The Auxiliary Feed is the assembly located in front of the knife. It works with the main feed to maintain proper tension of the tape as it moves through the printer from the top print station into the Knife and Nip rollers.

If the tape 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 SNAP 500 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 ¼ turn (see Fig. 19b) and tighten the left setscrew (see Fig. 19c).

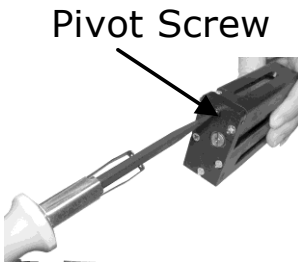


Figure 19a. Loosening Outer Pivot Screw

Figure 19b. Adjusting Right Set Screw

Figure 19c. Adjusting Left Set Screw

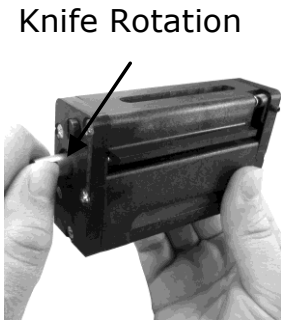


Figure 19d. Manual Rotation of Knife Shaft

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.

6.5 Feed Assembly Adjustment

Feed Assembly adjustment is set at factory to track tape straight from last print station through knife and nip assemblies. Various circumstances can occur and result in stock tracking toward or away from printer causing jams. To adjust tape tracking follow these steps:

1. Start printing either a loaded batch or use test patterns as described in section 3.4.1. When printer begins printing apply slight resistance to unwind media (placing slight pressure with palm of hand to media is sufficient), making it harder for feed to pull material through machine.

    a. If material begins tracking correctly adjust unwind tension higher following steps in section 8.1. Once in printer setting click tab for "Arbor Tension", then adjust "Stock Arbor" from "Nominal to Higher" a little at a time. Clear batch and retry until tape tracks correctly.

    b. If material continues tracking abnormally after testing with slight palm pressure do not adjust tension mentioned in 6.5.1a and continue with step 6.5.2.

2. Check for missing, bound, or crushed auxiliary roller springs, damaged auxiliary rollers, or material that does not belong in feed assembly. If anything abnormal is present replace parts, if foreign objects are present, remove and retest to see if these were the cause.

3. If there are no mechanical issues adjust Feed Assembly alignment by backing out adjustment set screws shown in figure 20a using a 5/32 Allen wrench until they stop on Feed Assembly frame. Note this only needs to be done until screws touch assembly, too much force will bend assembly frame.

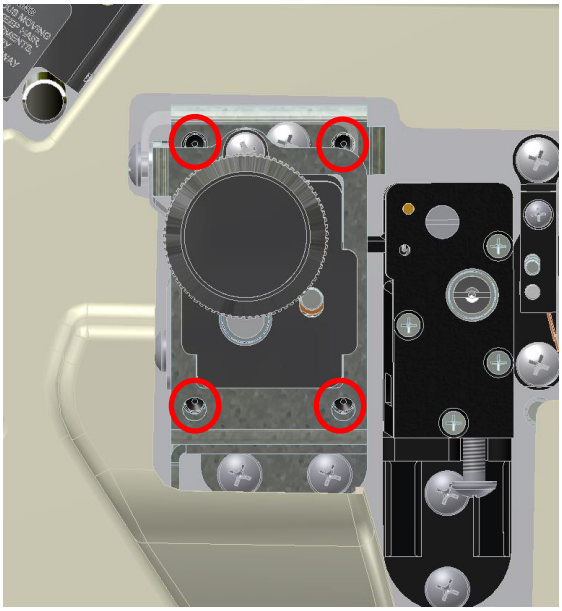


Figure 20a: Adjustment Set Screws

4. Loosen 3 Phillips head screws holding Feed Assembly to machine.

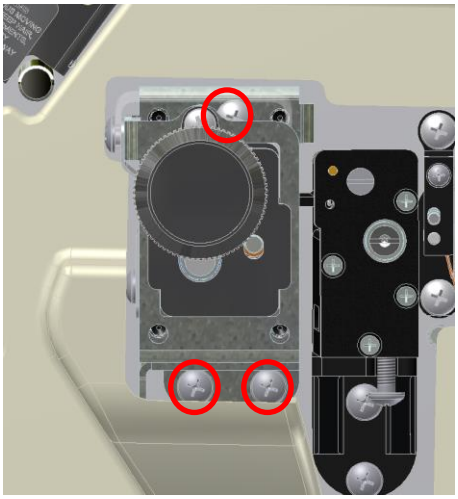


Figure 20b: Phillips Head Screws

5. Continue backing out adjustment set screws shown in figure 20a based on direction stock needs to track. Backing out screws on left will track web more inward (used when stock tracks towards front of machine). Backing out screws on right will track web more outward (used when stock tracks towards machine).
6. Begin by backing out adjustment set screws ¼ to ½ turn at a time.
7. Retighten Phillips head screws shown in figure 20b and retry printing.
8. Continue with steps 5 through 8 until tape tracks appropriately.

7.0 Upgrading the Printer Firmware

7.1 Introduction

The SNAP 500 printer firmware can be updated electronically using "UPG" files received from Avery Dennison. A "UPG" file is a software file with ".upg" as an extension. Files are either "zip" files, which must be extracted/unzipped, or UPG files.

To upgrade the printer firmware, you will need a "UPG" file.

After receiving the "UPG" file, you may upgrade your printer one of three methods way:

- PCMate Platinum can perform the upgrade. This takes approximately 15-20 minutes. Please be patient.
- USB flash drive containing UPG file inserted into one of the USB slots on the back of the printer can perform the upgrade. This takes approximately 4-5 minutes.
- The Ethernet Interface Option if installed can be used to upgrade through the printer's web server.

7.2 Selecting the UPG file

The UPG file you need will depend on the motherboard in the SNAP printer being upgraded. If you are unsure, you can look at the connector area of the motherboard. .

The current motherboard (as of Sep 2016) looks like this: →

If necessary, you can remove the back cover. See that the current motherboard is Green and called "Advantech".

If you have this in your printer, you will need firmware **3.35** or above.

Firmwares 3.35 an above also work for BCM (blue) and ASUS (brown) motherboards.

If you have one of these motherboards, you will need **3.30.16.15**

MachSpeed P4MDPT	Red color "P4KDPT" printed on board
Chaintech MP4M26A	Yellow/gold color Chaintech" printed on heat sink next to processor Fourth line of the BIOS reads "MP4M266A"
Epox EP-P4MKI-EP	Green color "EP-P4MKI-EP" printed in white on the motherboard near the memory slots. Fourth line of BIOS reads "10/01/2004 for Apollo P4M266A Chipset"
Biostar U8668-D	Red/purple color "U8668-D printed on motherboard near memory slots. Fourth line of BIOS reads "U8668-R35-D"
Biostar MCP6P M2+	Blue in color "MCP6P M2+" printed next to heat sink. Connector block on back of printing missing parallel port connector (25 pin D-shall above serial and video connectors)

7.3 Getting the UPG file

7.3.1 Getting UPG file using D2Comm

The easiest way to get the UPG file is through D2Comm. If you have a D2Comm account,

- Request your D2Comm Coordinator to schedule an upgrade for your account.
- Log in to D2Comm, select "**In Plant**", and then "**Retrieve Updates**".
- The upgrade file will automatically download.
- Start **PCMate** to upgrade. There is no need to unzip this file as it will already be a UPG file.

7.3.2 Getting UPG file without using D2Comm

You may download the upgrade file as follows:

1. Go to www.monarch.averydennison.com.
2. On the left, click "**SUPPORT**", then "**Printer Utilities, Firmware & Drivers**"
3. Next in the Firmware second (2nd one down), click "**Apparel Models – SNAP 500 & SNAP 700**"

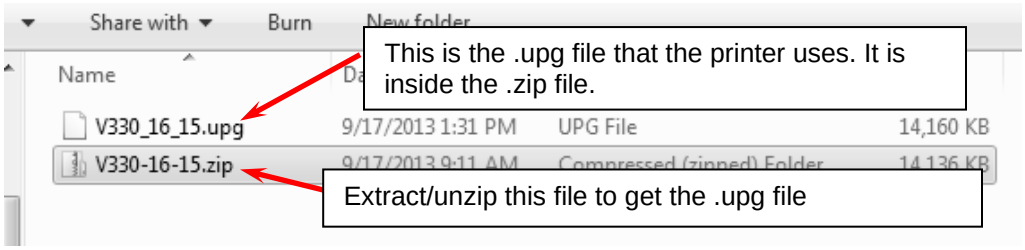
4. Choose one of 3 upgrade files. For example, for version 3.36.15.10:
    a. V3_36_15_10.upg – This is the complete upgrade and includes English and all alternate language messages and prompts
    b. V3_36_15_10_OS.upg – This is the upgrade with English only
    c. V3_35_15_10_ALT_LANGUAGES.upg – This upgrade contains only the alternate language messages and prompts. This version does NOT contain the printer operating system.

The file that downloads has "zip" extension. You must unzip and extract the UPG file from this download.

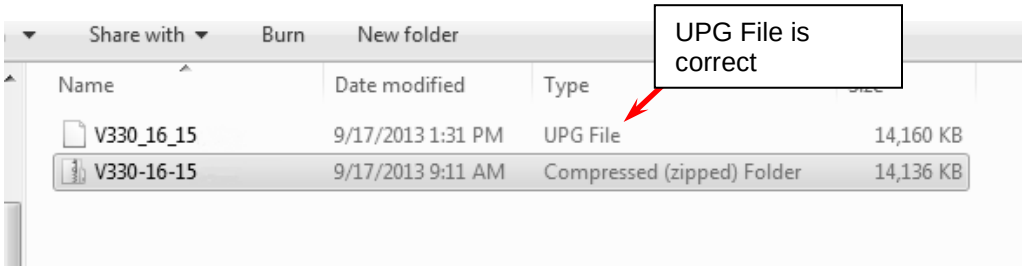
7.4 Performing the Upgrade

7.4.1 Unzipping the file

1. Once you have received the upgrade file through D2Comm or the website, make sure it has the ".upg" extension or is an UPG file "Type". If it has the ".zip" extension, then **unzip/extract** the file to the desired folder.



With extensions



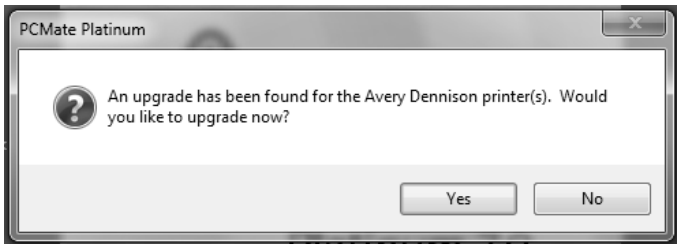
Without extensions

2. If you have a ".zip" file or the "Type" is "Compressed (zipped) Folder", and then extract/unzip the file by right-clicking on it and selecting "**Extract All…**" Some version of Windows will allow you to double click on the zip file and copy the internal .upg file to another folder.

7.4.2 Upgrading through PCMate

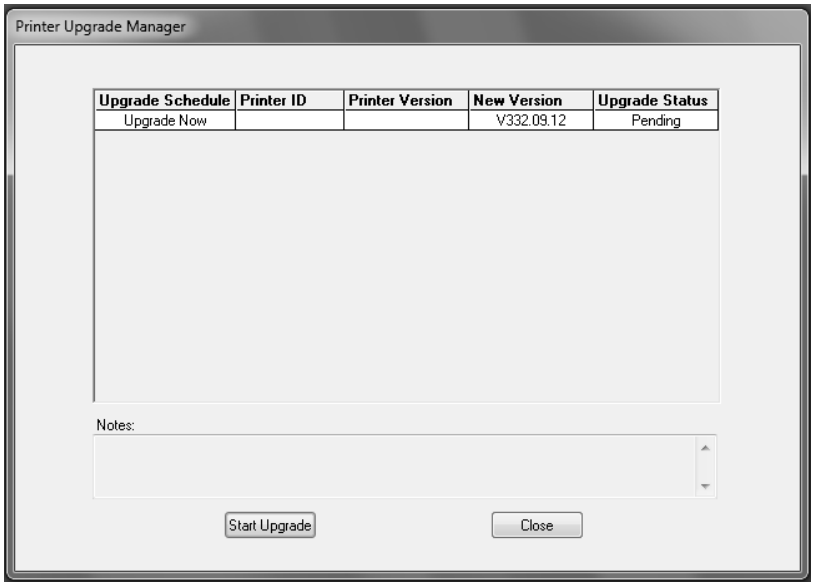
1. Once you have received the upgrade file through D2Comm, check that the UPG file is in the *"C:\D2Comm\Control\"* folder.

2. Start **PCMate Platinum**. The following screen will appear.



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

4. 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.

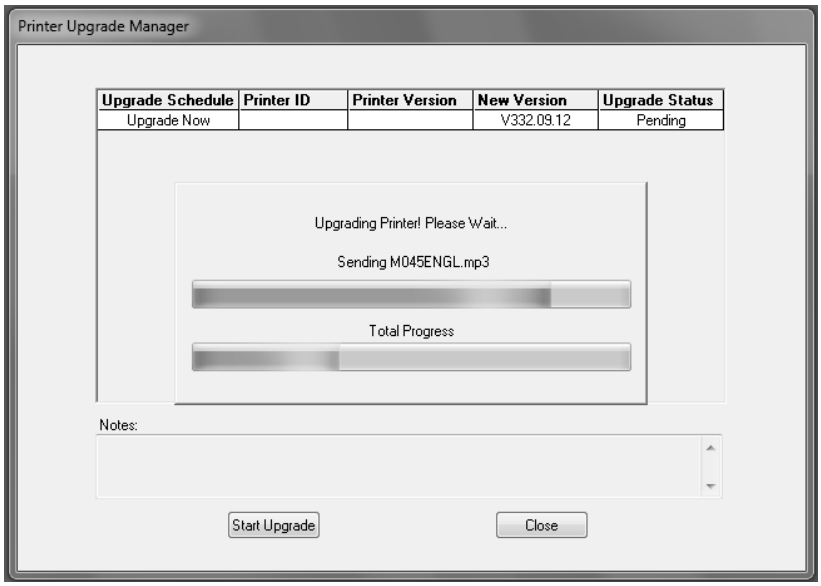
5. In the box under Upgrade Schedule, it will say Upgrade Now. If you click on the box, a drop down list will offer the following choices:

   - 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.

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

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.

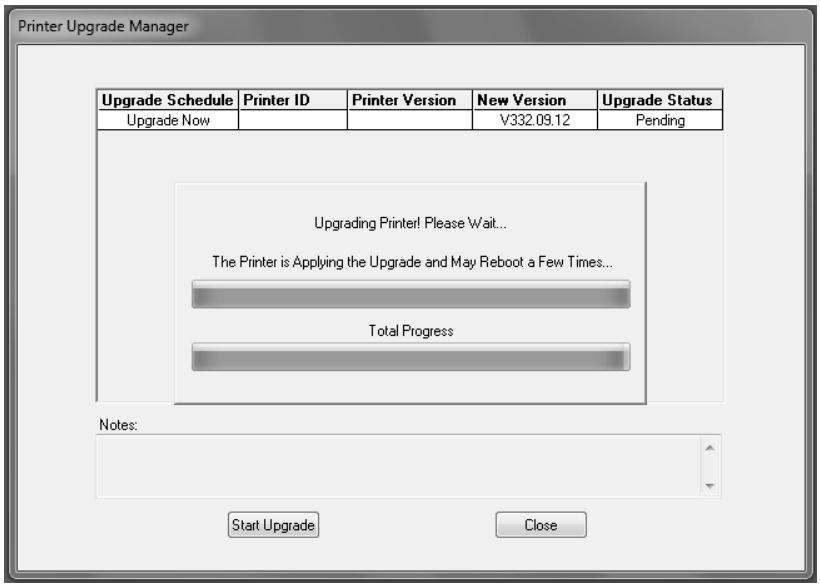
7. The following window will appear.



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.

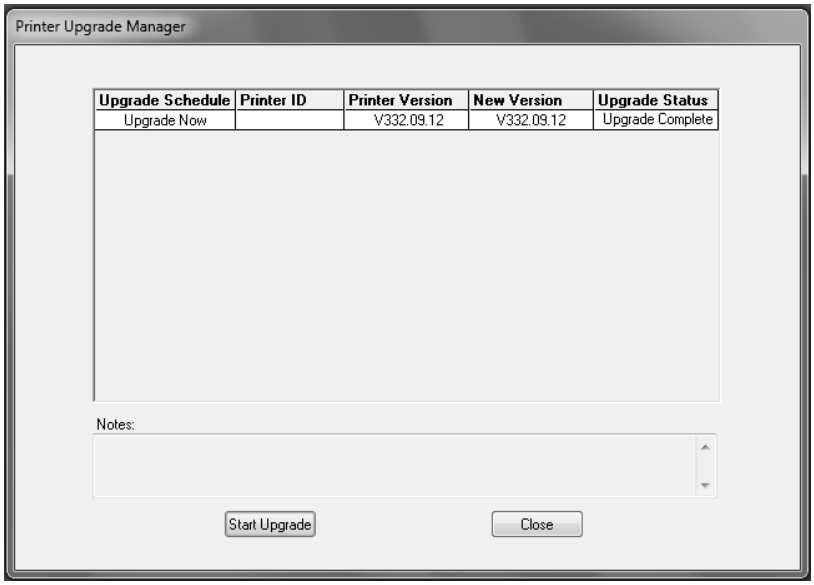
8. Once the files are on the printer, the following window will appear. Do not click on any buttons until the upgrade finishes.



9. The printer will reboot, ring the chimes, and may say,

   - Upgrade in progress. Please wait
   - Programming MCB. Please wait
   - Updating auxiliary files
   - Starting system backup of this upgrade
   - Distributing language sound files
   - Upgrade complete

   Then the following window will appear. Click "Close" to continue.



7.4.3 Upgrading through USB Flash Drive

1. Make sure the file you received has a ".upg" extension. If it has a ".zip" extension, then **extract/unzip** to get the upgrade file.
2. Place the upgrade file in the root directory of a USB flash drive.
3. Insert the drive in one of the USB slots on the back of the printer.
4. When the printer is turned on, it will detect the USB flash drive and upgrade the printer automatically.
5. This process takes approximately 4-5 minutes.

Some older operating systems do not support this function. If you try it and it doesn't work, you must upgrade using PCMate.

7.4.4 Upgrading through the Webserver

This instruction uses the Filezilla FTP Client Application as an example. Filezilla is an open source FTP client that is available freely from http://filezilla-project.org/ . Other FTP clients operate in a similar manner.

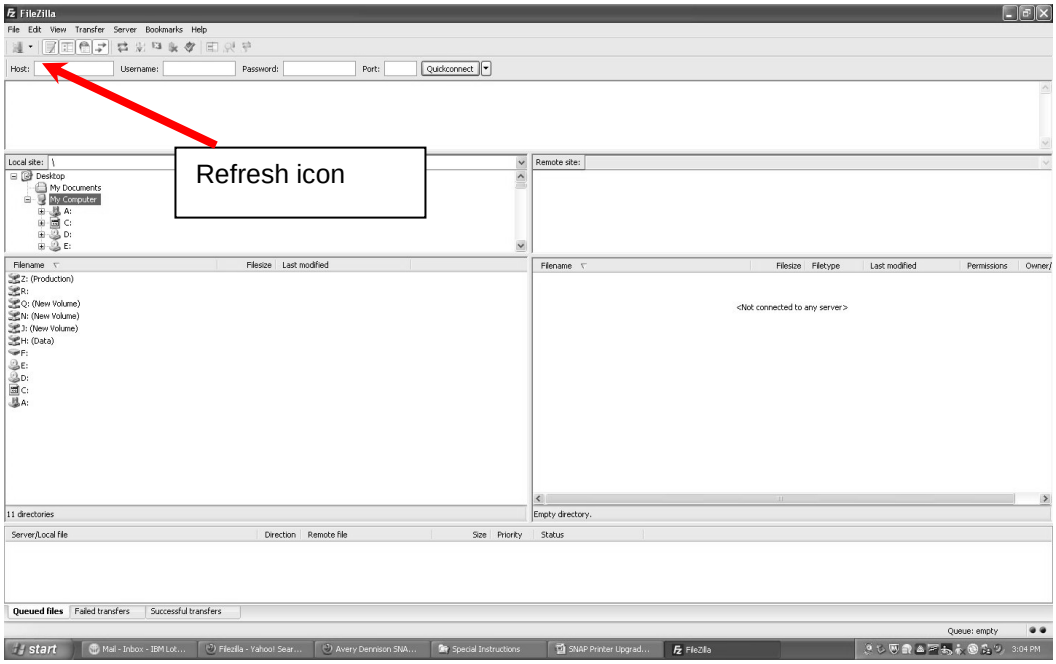
This upgrade procedure is only available in printer firmware version 3.28.11.01 and above. If the printer is not at this version or above it must be upgraded through PCMate or a USB drive. Future upgrades can then be done through the Web Server.

Make sure your file has the ".upg" extension or the file type is "UPG file". If it has the ".zip", you must extract/unzip the file before using.

Accessing the printer though Filezilla or another ftp client allows access to the entire printer file structure. Moving, deleting or otherwise changing any files or folders can result in erroneous operation or disabling of the printer. Use caution.

Connecting to the Printer through Filezilla

1. Start the Filezilla application. The following window will appear:

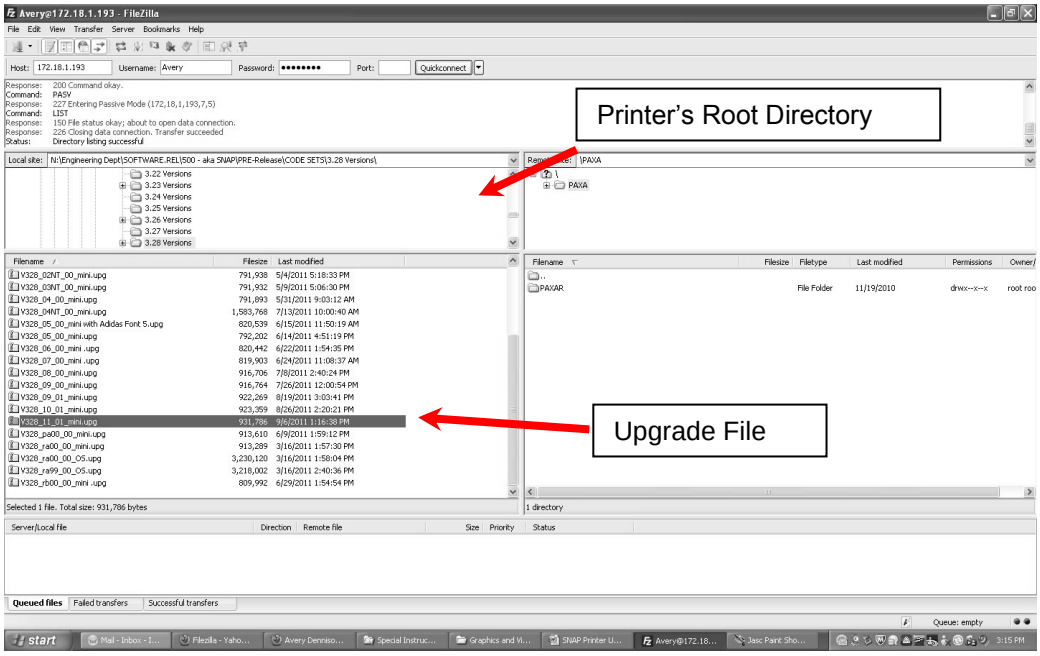


2. Enter the printer's IP address in the host box, enter the printer's username (Avery) and password (Dennison) in the corresponding boxes, and click the **Quickconnect** button.

3. The screen is divided into two sets of panes. The left panes show folders on the computer, and the right panes show folders on the printer. The top pane on each side shows the folder, and the bottom pane shows files and subfolders in the highlighted folder.

4. The information in these panes is not live – it is a snapshot of the file structure when the screen was last refreshed. To refresh the screen, select View – Refresh from the menu or click the Refresh icon on the toolbar. Transferring the Upgrade File to the Printer

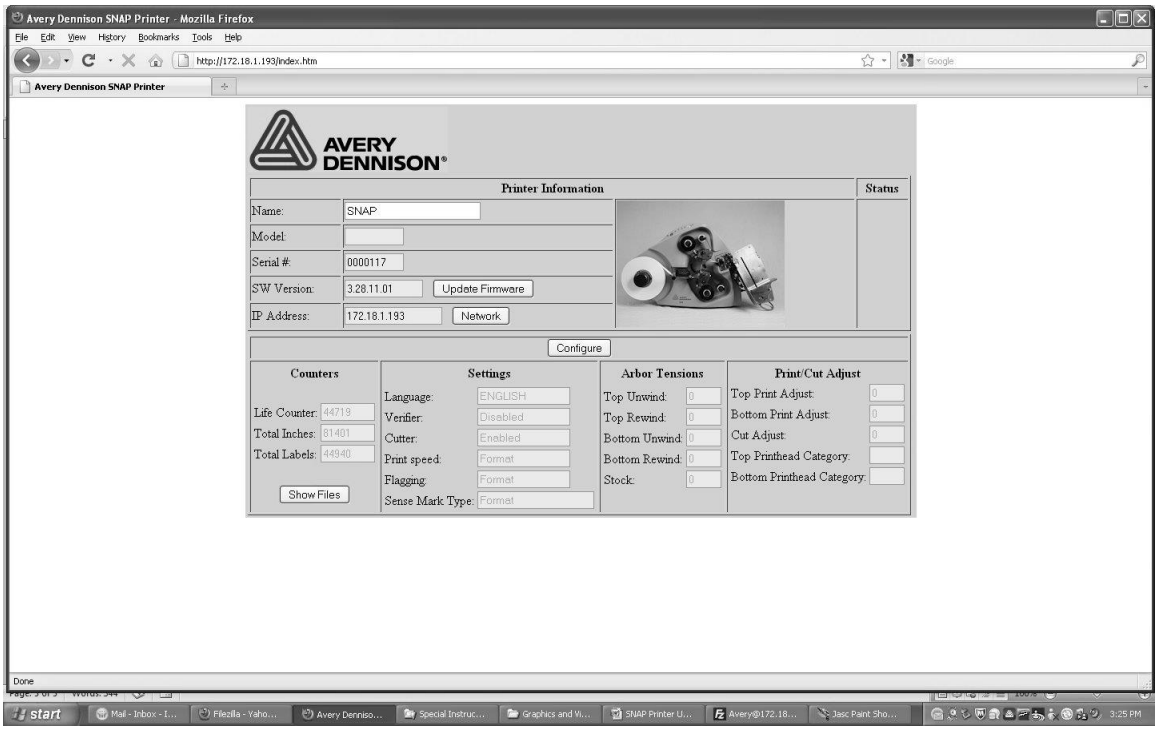
5. The screen below shows Filezilla ready to transfer the upgrade file to the printer. In the left panes, the folder on the computer that hold the upgrade file has been selected in the upper pane and the upgrade file is selected in the lower pane. In the right panes, the root directory of the printer is shown. The upgrade file must be placed in the printer's root directory.



6. To transfer the file, simply drag it from the bottom left pane to the bottom right pane, or double click the upgrade file.

There may be a folder in the root directory of the printer called PAXA. This is a temporary folder used in processing the upgrade file. Ignore this directory and place the upgrade file in the root directory.

7. To upgrade the printer, first open a browser window, enter the printer's IP address in the address bar, and press **Enter**. The following window will appear.



8. Click the **Upgrade Firmware** button. The printer will perform the upgrade operation automatically.

9. There is no indication from the browser when the upgrade is complete. To determine if the upgrade is complete, refresh the browser window. When the upgrade is complete, the above window will reappear with the new firmware version shown in the SW Version box.

If you refresh the browser window during the upgrade process, you will receive an error message that the connection has timed out or the web page is unavailable. Simply refresh again until the web page appears.

8.0 Electrical Troubleshooting

There are hazardous moving parts in the printer. Covers must be in place when energized. Service should be performed only by trained service personnel.

8.1 Power Up / Sign On / Communications

Problem	Probable Cause	Corrective Action
LEDs do not light.	1) Insufficient supply voltage.	1) Look at the line voltage level shown on the back of the printer (see Figure 5). Confirm that the mains line voltage for your location is within the range limits.
	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.
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	1) Flash Disk Failure	1) Replace Flash Disk Module

3. Printer requires service" or "Corrupted safe operating system. Replace the flash disk" during power up. (Message depends on software version.)		
	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 change to the printer where the data is intended to be sent.
	5) Configuration incorrect in PCMate.	1) Reconfigure PCMate for AVERY DENNISON PCL printer as per your PCMate 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.

8.2 Tape / Ink Advance

Problem	Probable Cause	Corrective Action
Tape 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) Tape is bound.	1) Remove and rethread the tape.
	4) Ink is bound.	1) Remove and rethread the ink.
Tape tracks inward or outward while printing	1) Stock Arbor Tension too low 2) Feed Assembly Alignment Incorrect 3) Feed Assembly Damage	1) See Section 6.5

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

8.3 Print

Problem	Probable Cause	Corrective Action
Tape advances but the printer does not print.	1) Tape registration sensor is misaligned (preprinted tapes 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) Tape and Ink Transfer Type selection in Design File doesn't match supplies.	1) Refer to the PCMate software manual.
Machine stops after every third label.	1) Tape registration sensor is misaligned (preprinted tapes only). 2) Label length selection in the Design File doesn't match the printed tape length.	1) Refer to the PCMate software manual.
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 software manual.
	3) Sense–to–cut selection in the Design File is incorrect.	1) Refer to PCMate 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 Tape.
	2) Web guides incorrectly adjusted.	1) Check and adjust web guides as needed. Refer to section 6.2, Tape (Web) Guide Width Adjustments.
	3) Tape 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) Tape 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 tape.	2) Ink must be 1/4" or 5 mm wider than the tape. Example: 1"(25 mm) web requires 1 ¼" (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.

8.4 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 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.
	4) Static brush height too high or too low	1) Adjust height of static brush on exit nip rollers.
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.

8.5 Printer Errors

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

When the Supply light is on, the printer supplies (tape or ink) require attention. Generally, this means the tape 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 tape supply roll is empty	STOCK OUT	This error indicates the tape supply roll is empty. If the tape 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 tape roll and press the Start button (the Ready light must be on). The tape 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 tape 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. If this error occurs while printing pressure sensitive adhesive labels on a SNAP 500 GEN2, the labels are causing too much drag through the printer. Reduce printhead pressure and use a red platen roller.
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.

Voice Message	Prompt	Description
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.
Internal error. Press start to continue.	MCB ERROR #61 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	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, re-connect one at a time to determine which one is causing the problem, then replace the printer interface harness.
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.

9.0 Mechanical Troubleshooting

There are hazardous moving parts in the printer. Covers must be in place when energized. Service should be performed only by trained service personnel.

9.1 Tape

Problem	Probable Cause	Corrective Action
Tape will not roll smoothly or the tape jumps.	1) Web guides are incorrectly adjusted.	1) Be sure stock roll is as flat as possible and do not extend over core. 2) Adjust web guides to touch stock roll, but do not pinch the roll.
Tape does not pull smoothly through print head module.	1) Web guides are too tight.	1) Adjust web guides to touch outer edges of tape with the minimum pressure required.
Tape 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.

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

9.2 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 ¼" (5 mm) wider than the tape 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.

9.3 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.

9.4 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.
Tape 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.

9.5 Minimum Cut Length

Problem	Probable Cause	Corrective Action
Machine drops short tickets between knife and nip roller assembly. See section 10.3 for minimum length ticket requirements.	1) Knife out of alignment	1. Loosen knife bracket screws shown in diagram. 2. Rotate knife towards nip roller assembly. 3. Hold in place while tightening screws.

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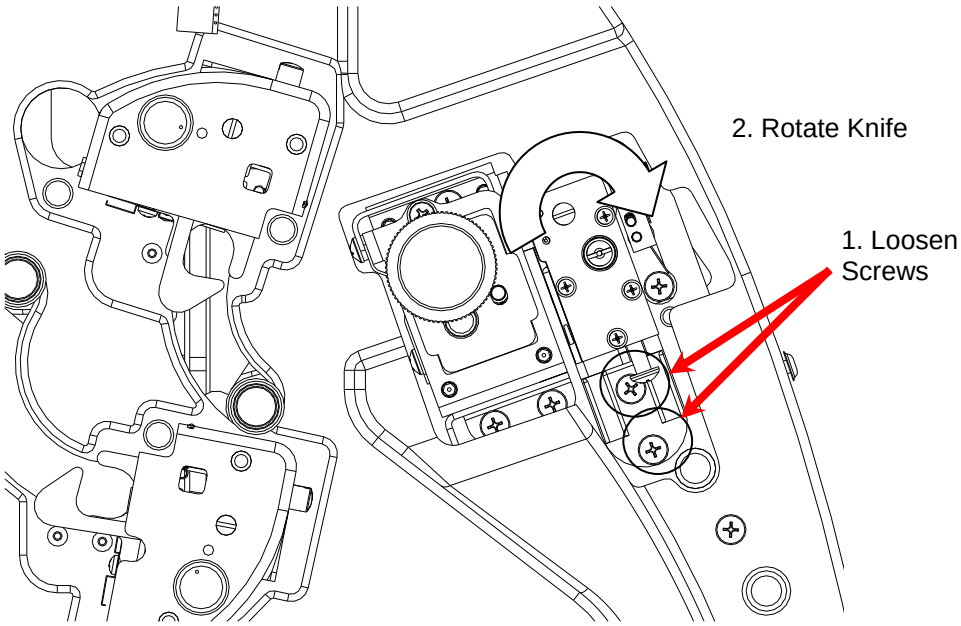


9.6 Stacker

Problem	Probable Cause	Corrective Action
Stacker fails to move up or down when start button is depressed.	1) Interface cable	1) Not plugged in all the way. 2) Just installed and needs to be power cycled for printer to identify option installed. 3) Printer has no batches to print.
Platform cannot find home	1) Sensor unplugged	1) Remove back cover and check connections. 2) Broken wire or damaged LED
	2) Sensor out of alignment	1) Outer bracket bent and needs to be reformed.

Top of stack is blocking incoming labels	1) Sensor not operational	1) Check sensor alignment
		2) Stacker not connected
		3) Loose connection
Stack of labels falling over	1) Static brush position	1) Move static brush up or down
	2) Platform angle	1) Move to other position
	3) Tip stacker	1) Change angle
Label not entering stacker	1) Label jam in knife	1) Clean out label and debris
	2) Nip roller not pulling	1) Worn rubber roller - Replace
		2) Loose set screw or drive gear - Tighten
	3) Soft material / narrow web hitting static brush	1) Adjust the height of the static brush

10.0 Appendices

10.1 Ink and Tape Transfer Types

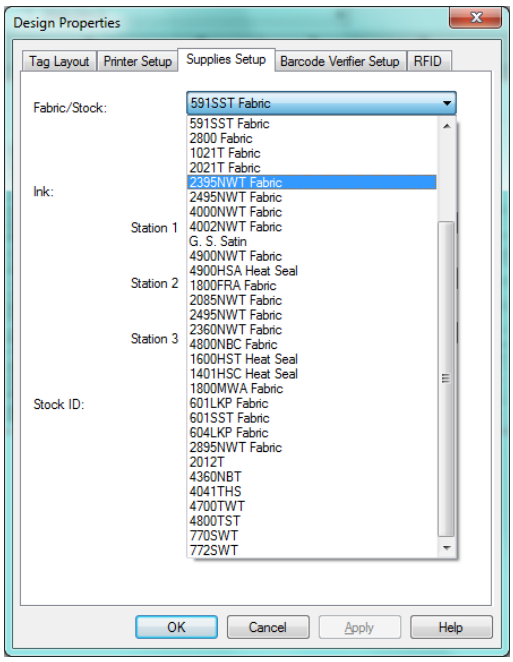
Transfer Type values associated with the XT commands.

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

10.2 Tape/Ink Transfer Types to Use When Not Found in PCMate

PCMate and the SNAP 500 printer allow an operator to program the energy levels of the printhead to optimize print quality and printhead life. In the PCMate format, on the "Design Properties" page under the "Supplies Setup" tab, the operator selects and fabric and ink combination. This selection prompts the printer to use a certain printhead energy level.



When the SNAP 500 was released, testing personnel tested various combinations of fabric and ink to find the best transfer type. For example, they found a printhead program for 4800TWT and CT1111 ink that produced the best print quality and assigned it transfer type "97".

Keep in mind that transfer type "97" is just a program for the printhead and is not specifically set up for 4800TWT/CT1111. "97" can be used for other fabric/ink combinations.

However, some fabric and ink combination may not appear in the table. In this case, the operator can use a fabric and ink combination that is close in energy level. Since a transfer type is just a printhead energy level, a family of care label tapes should all have about the same transfer type.

On the following page, you will find the procedure for selecting the fabric and ink combination in PCMate for a fabric and ink that are not listed.

Procedure

1. Determine the "family" for the fabric you are going to use. e.g 714E is a woven satin.
2. Look in the table for the lowest recommended heat setting denoted by the "X" in the column closest to the top of the table. For example, if you have 714E which is a woven satin tape, start with the "1600HST and TT1012" PCMate setting.

Heat Level	Transfer Type code	PCMate Transfer Type Setting	Nylon	Coated Polyester	Coated Satin	Heat Seal	LOKPRINT	Woven Satin	Tyvek
Ultra Low	69	2800, TT1111	X				X		
Low	70	2800, HR3111	X						
Medium Low	159	2360NWT, XC3111	X			X			
Medium	133	1600HST, TT1012	X	X	X	X	X		X
Medium High	152	604LKP, DS8111	X	X	X	X	X	X	
High	116	591SST, CT1111	X	X	X			X	
Ultra High	183	772SWT, CT1114	X					X	

3. Print a sample label and use the contrast adjust knob on the printer to get the print darkness and print quality you want. You might need more energy if the ink requires it. Different inks will require different energy settings.
4. If you need more heat, select the next setting in the table.
5. When printing from a program that doesn't use PCMate, place the transfer type code after the ~XT command. e.g.

~XA~XUS0~XW1536~XP4546~XMH4180~XFN~XL1~XS30~XN1~XT203~XN2~XT203~XC01~XX700~XD300~XGL

CAUTION: For extended print head life and prevent ink breakage, use the lowest print contrast the produces acceptable print quality.

10.3 Printer Specifications

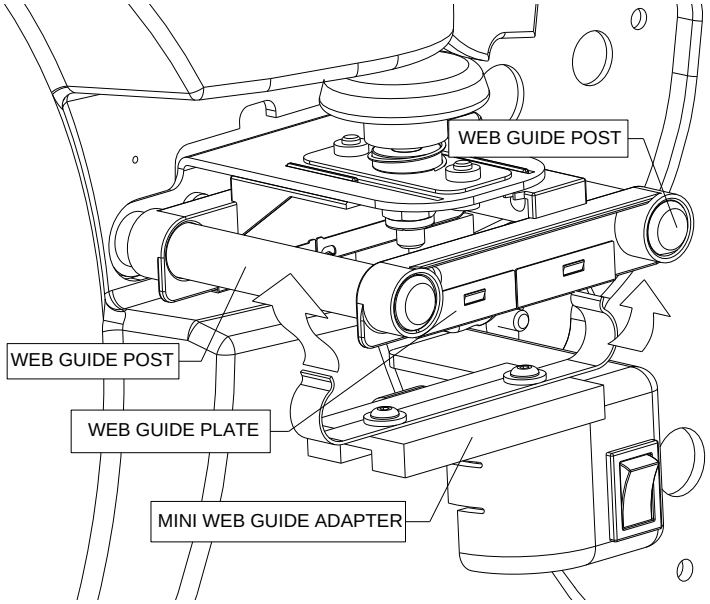
Print method:	Narrow web thermal transfer two sided printer Speeds - 3 IPS (76.2mm/second), 4.5 IPS (114.3mm/second), 5 IPS (127mm / second), 6 IPS (152.4mm/second), 7 IPS (177.8mm/second)
Label Size	Gen 1 standard feed: Min: 1/2" (12.7mm) web x 1.013" (25.73mm) feed at 3 IPS (standard stacker) Gen 1 short feed option, Gen 2 standard feed: Min: 1/2" (12.7mm) web x .725" (18.42mm) feed at 3 IPS (standard stacker) Min: 1/2" (12.7mm) web x .775" (19.69mm) feed at 4.5 IPS (standard stacker) Min: 1/2" (12.7mm) web x .840" (21.34mm) feed at 5 IPS (standard stacker) Min: 1/2" (12.7mm) web x 1.013" (25.73mm) feed at 6 IPS (standard stacker) Min: 1/2" (12.7mm) web x 1.057" (26.85mm) feed at 7 IPS (standard stacker) Both Gen printers: Max: 2 1/8" (54mm) web x 5" (127mm) feed (standard stacker) 5:1 web feed to width ratio 2 1/8" (54mm) web x 14" (355.6mm) feed - No stacker – optional rewind unit or cut without stacking. Stacker capacity: Standard coated tape approximately 2,000 label for full stacker.
Print Area	Min: 1 dot Max: Up to 2" (50.8 mm) web x up to 13.875" (352.4 mm) feed -
Resolution	305 dots per inch (12 dots per mm) 609 dots per inch (24 dots per mm)
Fonts	True Type – English alphabet, Cyrillic, and Asian characters. 4pt up to 96pt (300DPI), Supply dependent 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 Scalable 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 and heat seal tapes. 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	Push-button start/stop with 4 LED lights – Ready, Data, Supply, Error voice button

Panel	
Dimensions	18.5" (470mm) high x 25" (635mm) wide Including stacker x 20.0" (508.0mm) deep
Weight	50 lbs. (22.7 Kg.) 65 lbs. (29.5 Kg.) Shipping Weight with carton, printer, stacker, accessories
Electrical	100-240 VAC 50-60Hz – 3.0 / 1.5 Amp 1 Ph Auto Strapping
Temperature	40°F (4°C) to 95°F (35°C)
Humidity	5% to 90% non-condensing
Sound Level Pressure (SPL)	less than 80 dB Maximum
Other Features	- 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 or Remote Control/Display Module - Operator adjustable: Contrast – Adjustable on printhead Cut position, print position and baud rate – Adjustable through PCMate 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 - Missed sense mark detection and correction
Ink Ribbon	AVERY DENNISON standard thermal colors and widths AVERY DENNISON white plastic core: Maximum Ink I.D. 3.5" Ink widths: With Metric Adapter - 25mm, 30mm, 35mm 40mm, 45mm, 50mm or 60mm metric widths only. With Inch Adapter - 1", 1 ¼", 1 ½" 1 ¾", 2", 2 ¼" or 2 ½" inch widths only.
Options	- Back reflective sensor — Reads black sense mark printed on back of white preprinted tape, centered in web. - Contrast sensor — Reads sense mark printed on front of preprinted tape. Sense mark or tape may be colored.
Serial Port Default Setup	Default serial port configuration is 115,200 baud, no parity, 8 data bits, 1 stop bit.

10.4 Mini Web Guide Adapter

Some printers have the ***Mini Web Guide Adapter*** installed***.*** To use this feature

- Turn the large black web guide knob to widen the web guide plates to their maximum "open" position.
- Slide the Mini Web Guide Adapter up, under the web guide, in between the web guide plates.
- The Mini Web Guide Adapter will "clip" onto the web guide posts.
- Turn the large black web guide knob so that the web guide plates close in on the Mini Web Guide Adapter.
- Doing this will automatically center the Mini Web Guide Adapter.



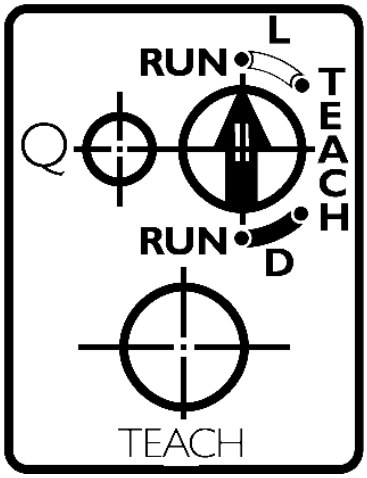
10.5 Programming Contrast Sensors

The SNAP 500 has an optional contrast sensors available.

- 05580009 is the color contrast sensor that may be required in situations with less contrast between the material and the sense mark or the material and sense mark are of similar colors.

Programming the Contrast Sensor

To teach the sensor:

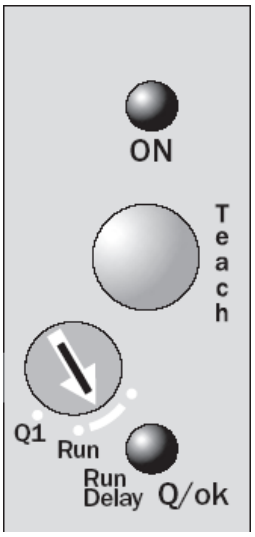


1. Thread the printer with the stock to be used
2. Position the material so that a sense mark is just to the left of the sensor position
3. Adjust the sensor position across the web so that it lines up with the sense mark
4. Set the control switch on the sensor to the TEACH position.
   - If the material 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.
5. 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.

6. Release the TEACH button.
7. 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.
8. 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.
9. Move the configuration switch to either the RUN L or RUN D position, depending on the sense mark.

Programming the Color Contrast Sensor



The configuration switch on the panel has three positions:

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

To teach the sensor:

1. Thread the printer with the stock to be used.
2. Position the material so that a sense mark is just to the left of the sensor position.
3. Adjust the sensor position across the web so that the sensor lines up with the sense mark.
4. Set the control switch on the sensor to the Q1 position.
5. 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.

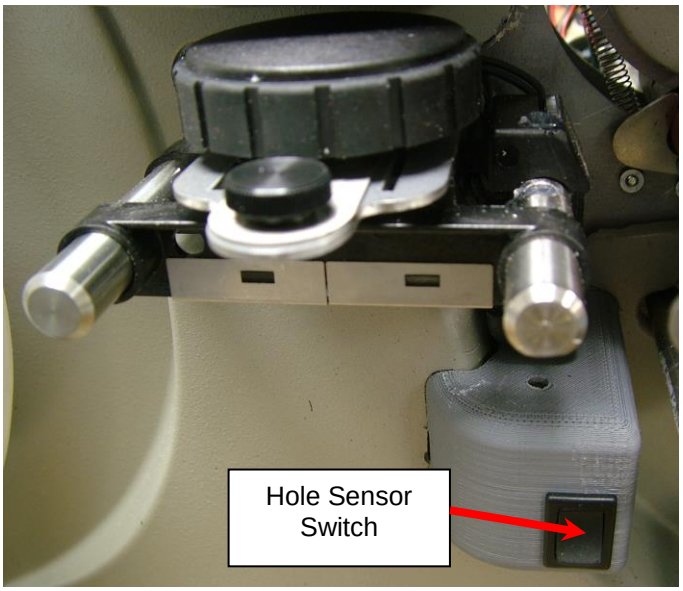
6. Release the TEACH button.

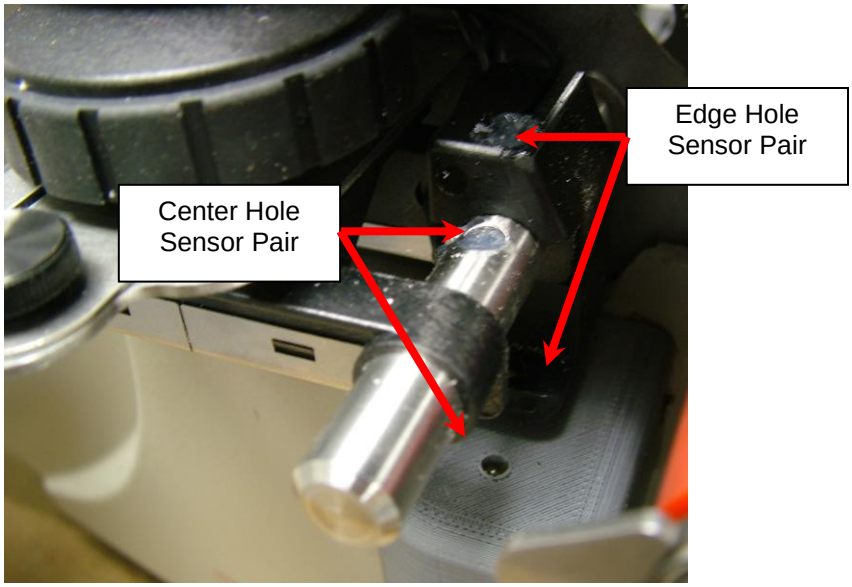
- If the Q/ok light flashes rapidly, the sensor did not program correctly. If the process fails repeatedly, the sensor may not be lined up correctly with the sense mark, or there may not be enough contrast between the background and the sense mark.

7. 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.
8. Move the configuration switch to RUN position.

10.6 Using the Web Guide Hole Sensor

Some SNAP 500s are equipped with a hole sensing web guide system. The system includes a pair of sensors that move in and out with the web guide for "inside" edge hole sensing, and a pair of center mounted, fixed sensors, for center hole sensing. The user can switch back and forth, between the edge and center sensing positions by using the provided sensor switch.





The hole sensor switch in the "up" position activates the edge hole sensors. The "down" position activates the center hole sensor.

10.7 Warranty Policy

Avery Dennison Retail Branding and Information Solutions provides the following warranty policy.

Scope

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

Time

- New equipment and parts: 1 year, return to depot.
- 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, print heads, 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.

- Warranty coverage is provided "return to depot" by returning the printer to Miamisburg OH or your shipping location. On-site warranty service is available if you purchase a service contract at time of printer purchase. You will not lose the warranty period.

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 is 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.

10.8 Service

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

AVERY DENNISON Corporation

170 Monarch Lane

Miamisburg, OH 45342

Call: 1-800-214-0872 or (937) 865-2123

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

AVERY DENNISON Corporation

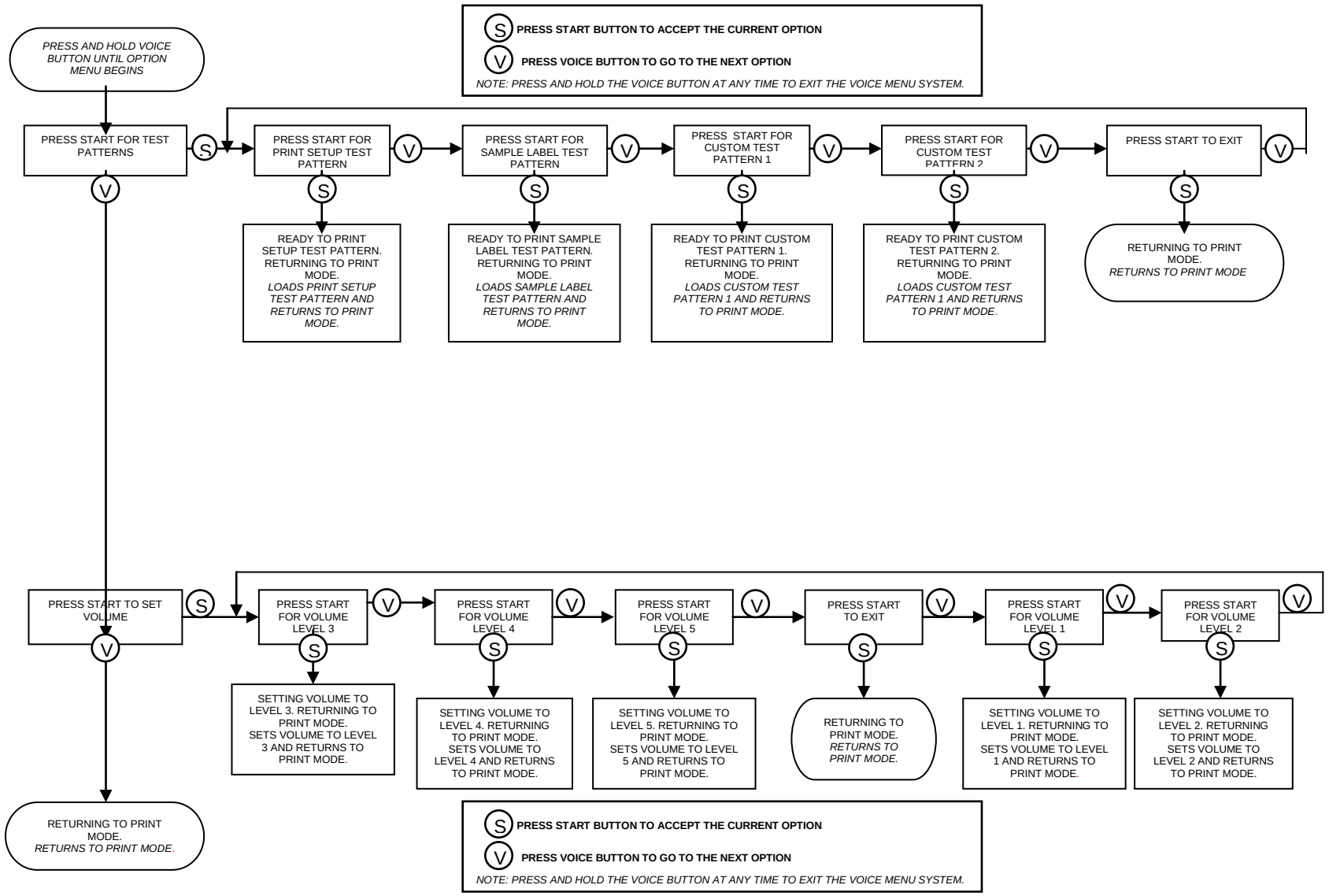
170 Monarch Lane

Miamisburg, OH 45342

Call: 1-800-214-0872 or (937) 865-2123

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

10.9 Option Menu System Flowchart

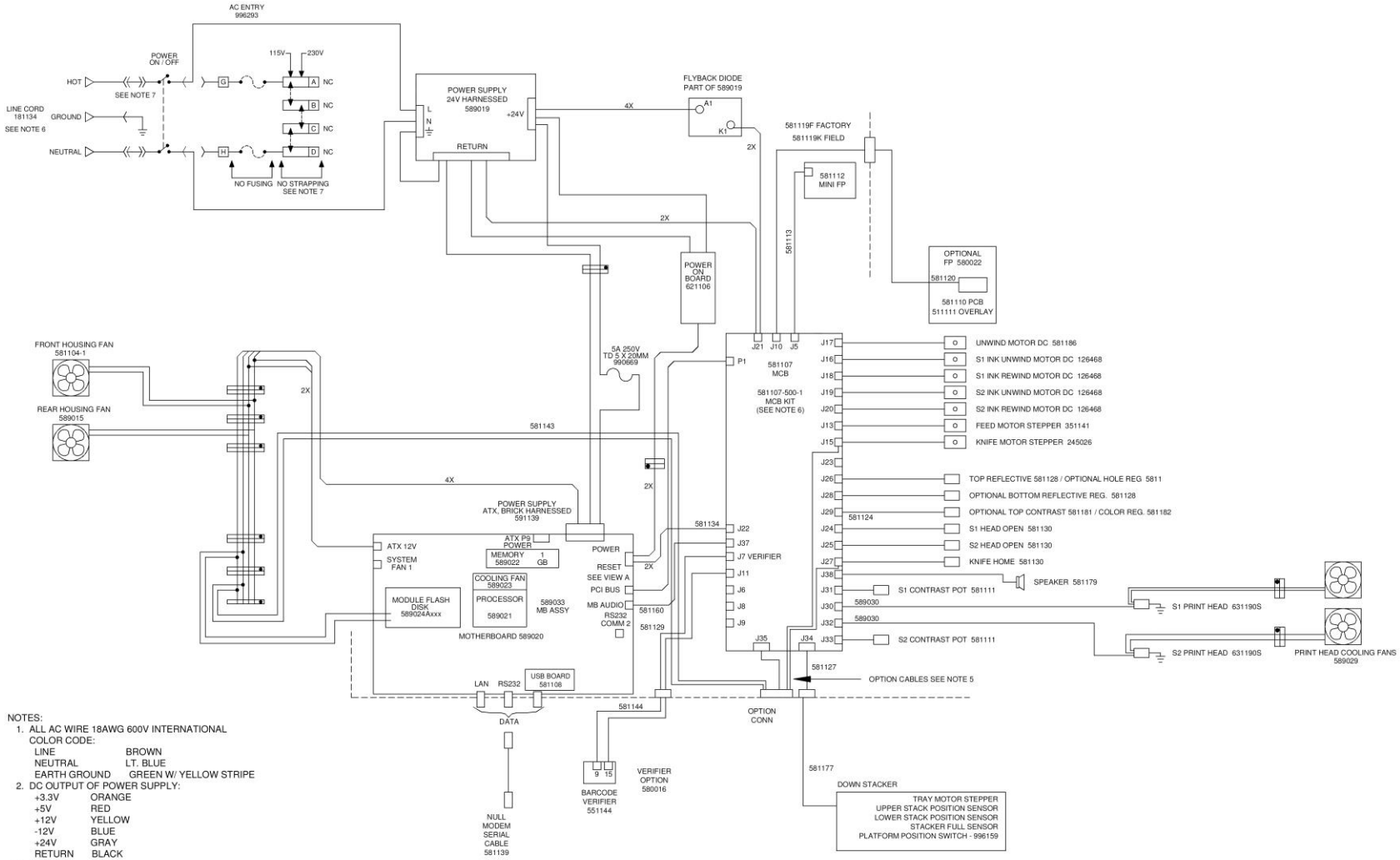


VOICE OPTION MENU NAVIGATION CHART

11.0 Electrical Assembly Drawings

11.1 Electrical System Schematic

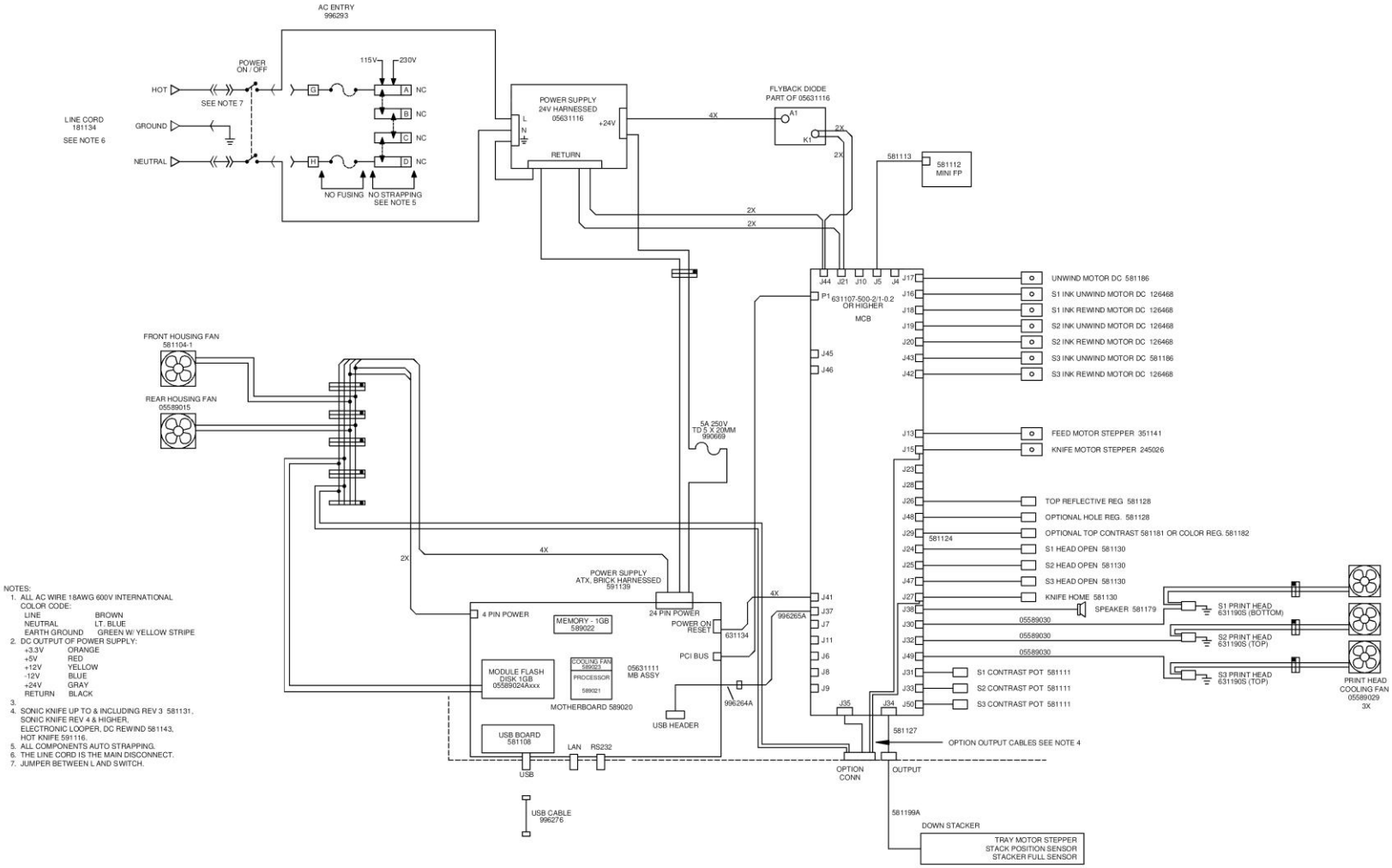
Gen I



NOTES:
1. ALL AC WIRE 18AWG 600V INTERNATIONAL
   COLOR CODE:
   LINE BROWN
   NEUTRAL LT. BLUE
   EARTH GROUND GREEN W/ YELLOW STRIPE
2. DC OUTPUT OF POWER SUPPLY:
   +3.3V ORANGE
   +5V RED
   +12V YELLOW
   -12V BLUE
   +24V GRAY
   RETURN BLACK
3.
4.
5. SONIC KNIFE UP TO & INCLUDING REV 3 581131,
   SONCI KNIFE REV 4 & HIGHER,
   ELECTRONIC LOOPER, DC REWIND 581143,
   HOT KNIFE 591116.
6. 581107K INCLUDES 341150A FLASH MODULE REQUIRED FOR CODE BELOW 2.15.12.14.
7. ALL COMPONENTS AUTO STRAPPING.

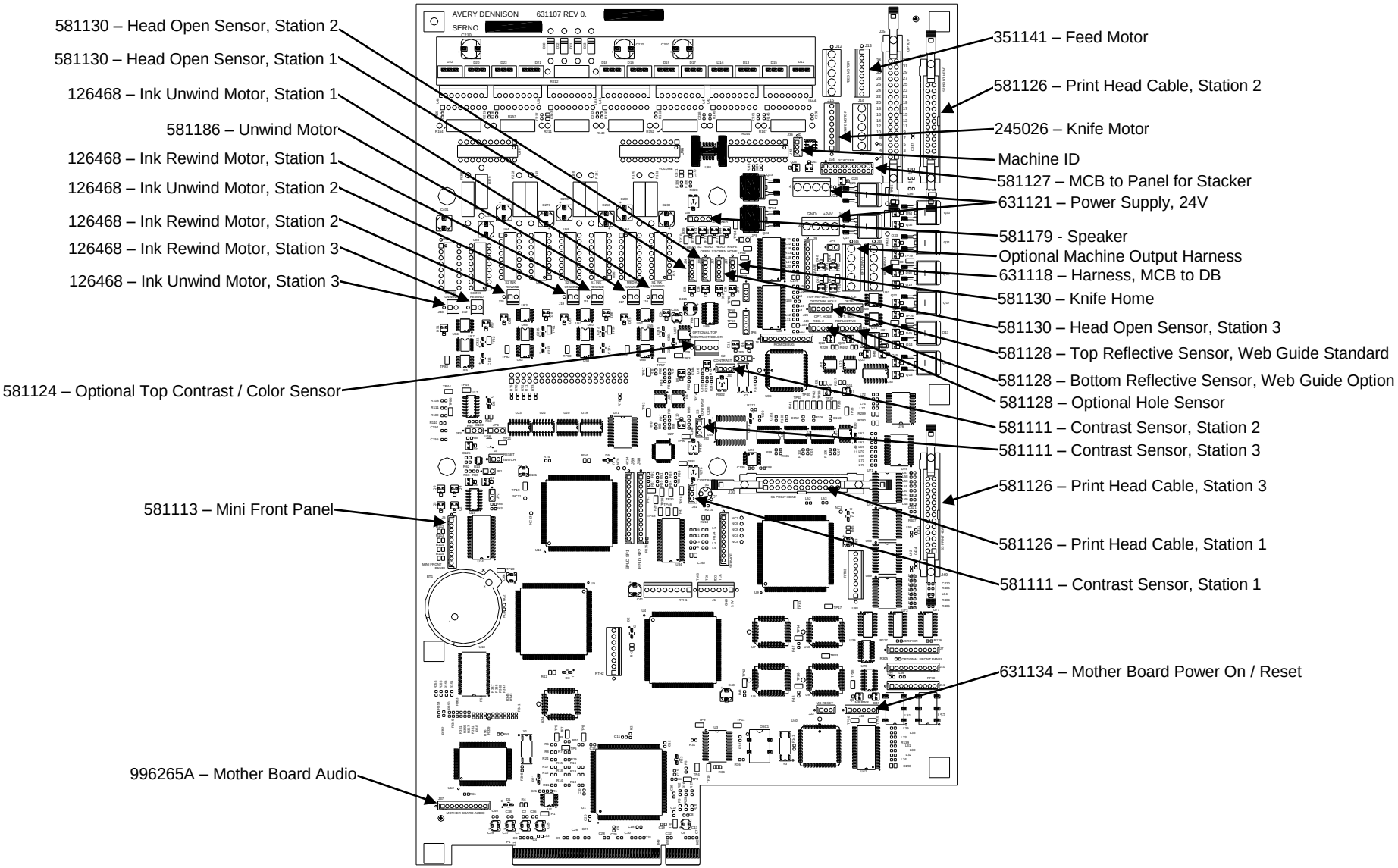
Mother Board P/N 05589027

Gen II



Mother Board P/N
05589027

11.2 Harness Connections



12.0 Mechanical Assembly Drawings

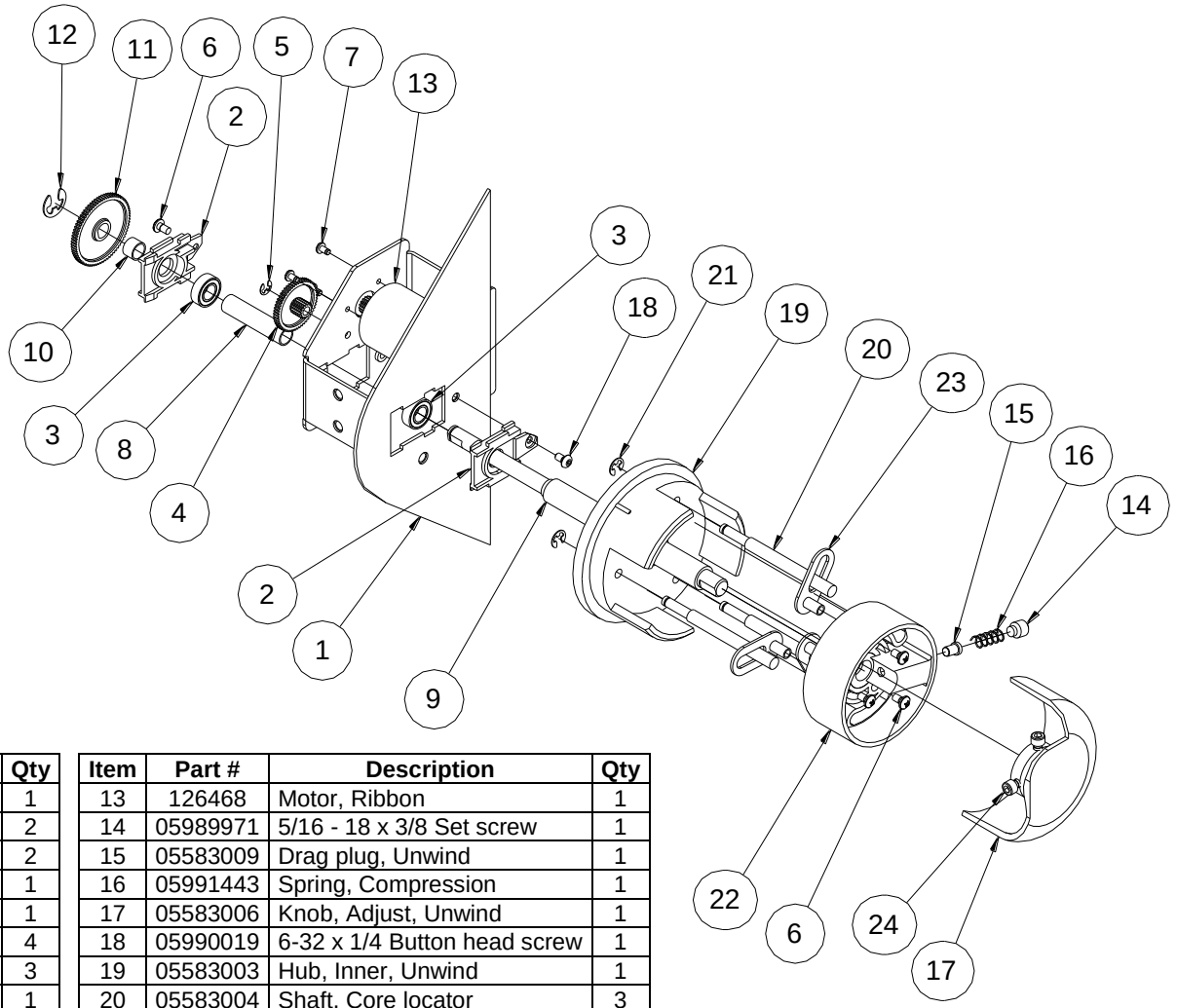
The SNAP 500 comes in various print head configurations and resolutions. These drawings cover the

SNAP 500 1/1 – Gen 1

SNAP 500 2/1 300DPI – Gen 2

SNAP 500 2/1 600DPI differences are shown on a page at the end – Gen 2

12.1 Unwind Assembly – Gen 1



Item	Part #	Description	Qty
1	05581201	Frame, Upright (ref only)	1
2	118052	Holder, Bearing	2
3	117903	Bearing, Platen	2
4	117955	Gear, Ribbon, 54T - 15T	1
5	05991367	Snap ring, 9/64 e-ring	1
6	05991372	6-32 x 1/4 Pan head screw	4
7	05991368	2.5x 5mm Pan head screw	3
8	05586005	Spacer, Ink arbor, Inner	1
9	05583007	Shaft, Unwind	1
10	05586004	Spacer, Ink arbor, Outer	1
11	117954	Gear, Ribbon, 75T	1
12	05990327	Snap ring, 5/16 e-ring	1

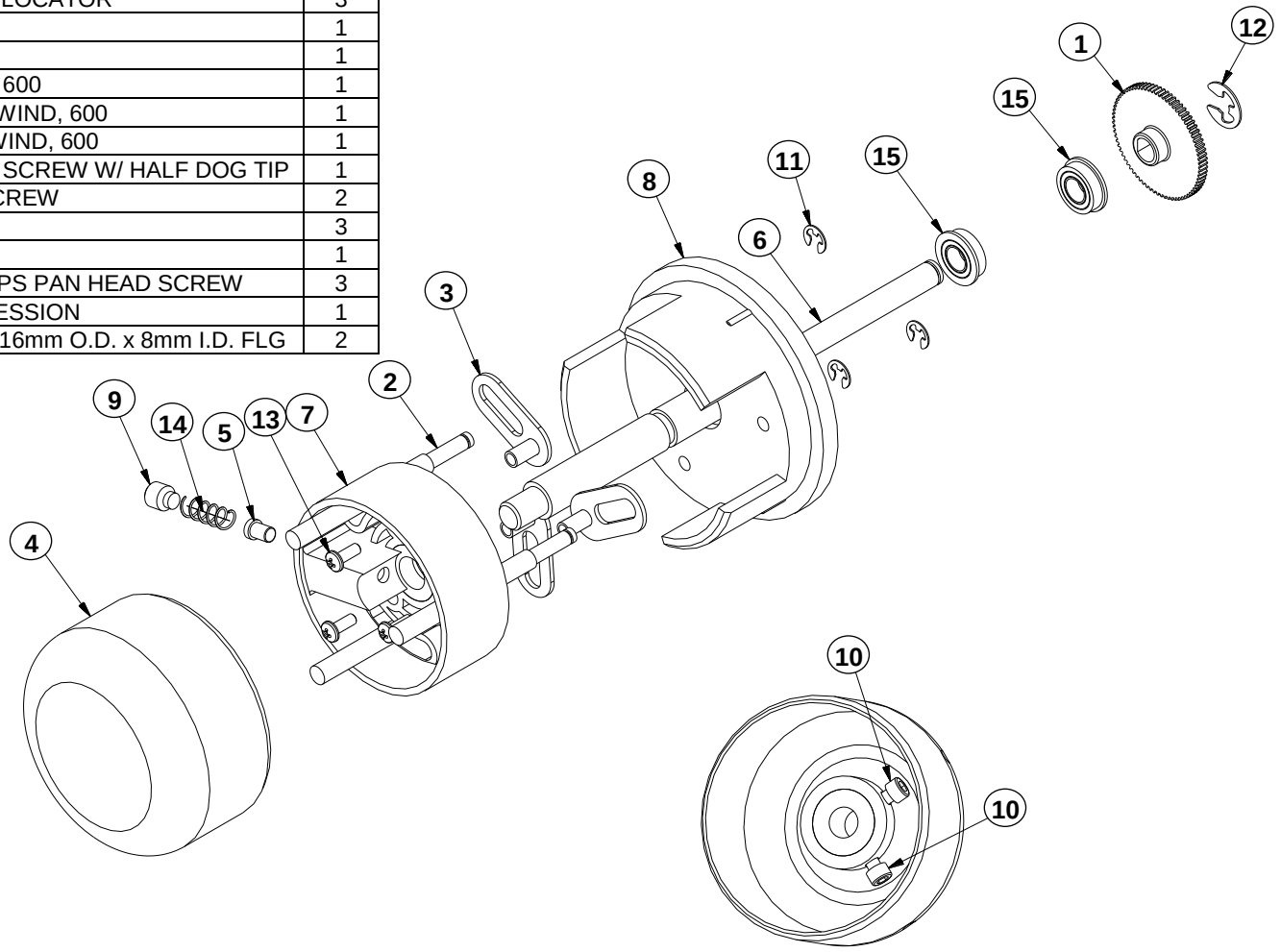
Item	Part #	Description	Qty
13	126468	Motor, Ribbon	1
14	05989971	5/16 - 18 x 3/8 Set screw	1
15	05583009	Drag plug, Unwind	1
16	05991443	Spring, Compression	1
17	05583006	Knob, Adjust, Unwind	1
18	05990019	6-32 x 1/4 Button head screw	1
19	05583003	Hub, Inner, Unwind	1
20	05583004	Shaft, Core locator	3
21	05990325	Snap ring, 3/16 e-ring	3
22	05583002	Hub, Outer, Unwind	1
23	05583005	Bracket, Core locator	3
24	05990052	8-32 x 1/2 Cap screw	2

12.2 Unwind Assembly – Gen 2

Single Shaft Design (Old)

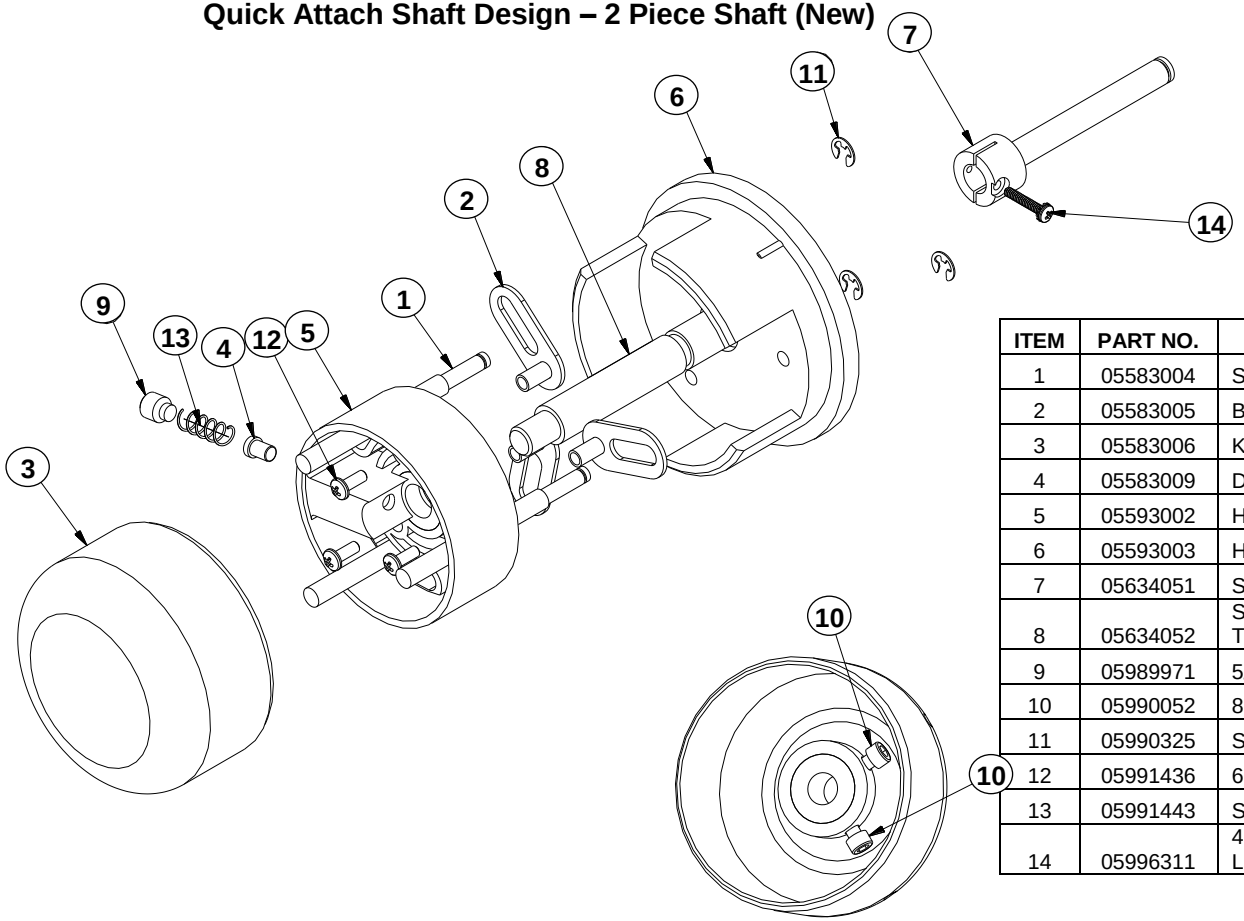
ITEM	PART NO.	DESCRIPTION	QTY
1	117954	GEAR-RIBBON 75T	1
2	05583004	SHAFT, CORE LOCATOR	3
3	05583005	BRACKET, CORE LOCATOR	3
4	05583006	KNOB, UNWIND	1
5	05583009	DRAG, PLUG	1
6	05593001	SHAFT, UNWIND, 600	1
7	05593002	HUB, OUTER, UNWIND, 600	1
8	05593003	HUB, INNER, UNWIND, 600	1
9	05989971	5/16-18 X 3/8 SET SCREW W/ HALF DOG TIP	1
10	05990052	8-32 X 1/2 CAP SCREW	2
11	05990325	E-RING, 3/16	3
12	05990327	E-RING, 5/16	1
13	05991436	6-32 X 375 PHILLIPS PAN HEAD SCREW	3
14	05991443	SPRING, COMPRESSION	1
15	05991510	BALL BEARING , 16mm O.D. x 8mm I.D. FLG	2

***If you have a unwind with a single shaft (item 6) and need a replacement. Order parts 7, 8, and 14 from BOM in section 12.3.



12.3 Unwind Assembly – Gen 2

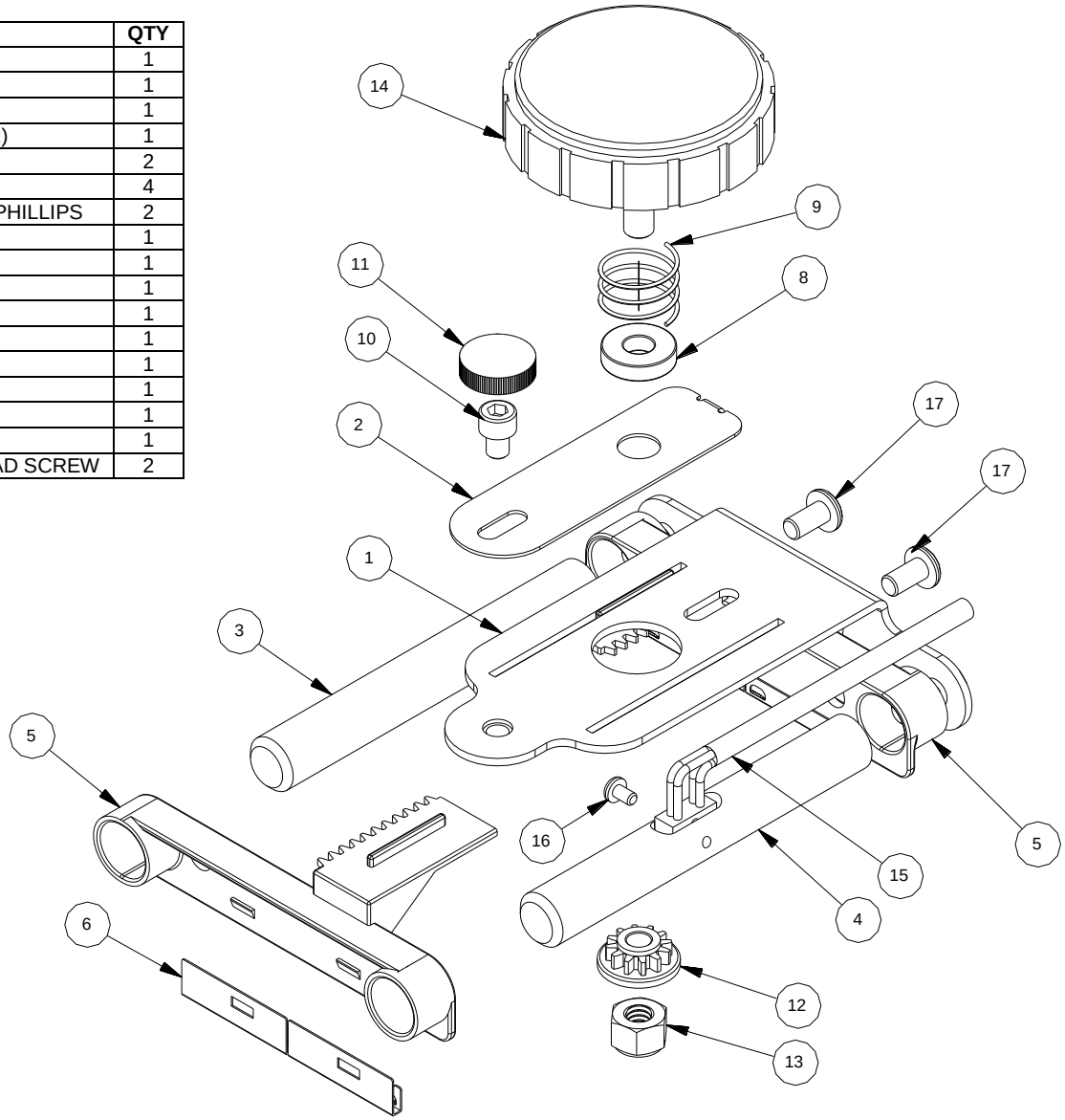
Quick Attach Shaft Design – 2 Piece Shaft (New)



ITEM	PART NO.	DESCRIPTION	QTY
1	05583004	SHAFT, CORE LOCATOR	3
2	05583005	BRACKET, CORE LOCATOR	3
3	05583006	KNOB, UNWIND	1
4	05583009	DRAG, PLUG	1
5	05593002	HUB, OUTER, UNWIND, 600	1
6	05593003	HUB, INNER, UNWIND, 600	1
7	05634051	SHAFT, QUICK ATTACH UNWIND	1
8	05634052	SHAFT, QUICK ATTACH UNWIND THREADED	1
9	05989971	5/16-18 X 3/8 SET SCREW W/ HALF DOG TIP	1
10	05990052	8-32 X 1/2 CAP SCREW	2
11	05990325	SNAP RING, 3/16 "E" RING	3
12	05991436	6-32 X 375 PHILLIPS PAN HEAD SCREW	3
13	05991443	SPRING, COMPRESSION	1
14	05996311	4 SCREW, 4-40 X 5/8 PPHS W/ EXT TOOTH LOCK WASHER	1

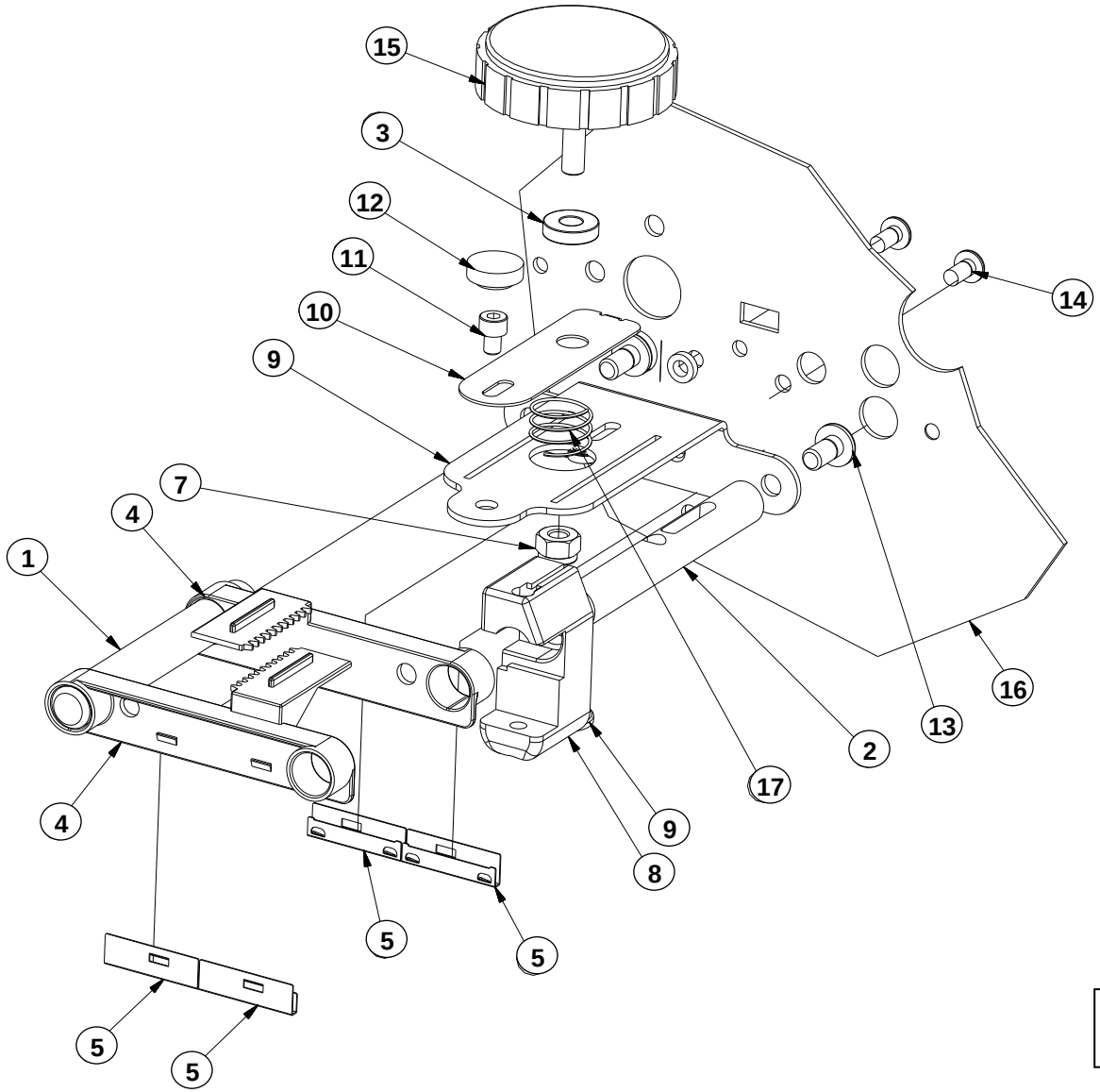
12.4 Guide Assembly – Gen 1 and 2

ITEM	PART NO.	DESCRIPTION	QTY
1	05584058	BRACKET, WEB GUIDE	1
2	05584059	PLATE, WEB GUIDE	1
3	05584009	SHAFT, WEB GUIDE	1
4	05584024	SHAFT, WEB GUIDE (SENSOR)	1
5	05584006	BRACKET, WEB GUIDE	2
6*	118826	GUIDE, WEAR	4
7	05991374	1/4 SCREW, 1/4-20 X 1/2 PAN PHILLIPS	2
8	05584035	SPACER, WEB GUIDE	1
9	05991447	SPRING, COMPRESSION	1
10	05990079	10-32 X 1/4 CAP SCREW	1
11	05990313	THUMB KNOB, #10	1
12	05584025	GEAR, WEB GUIDE ADJUST	1
13	05990148	1/4-20 E-S NUT	1
14	05991366	KNOB, CLAMPING	1
15	05581128	SENSOR, REF HARN	1
16	05989975	4-40 X 3/16 PAN HD SCREW	1
17	05991379	10-32 X 3/8 PHILLIPS PAN HEAD SCREW	2



* Recommended spare parts

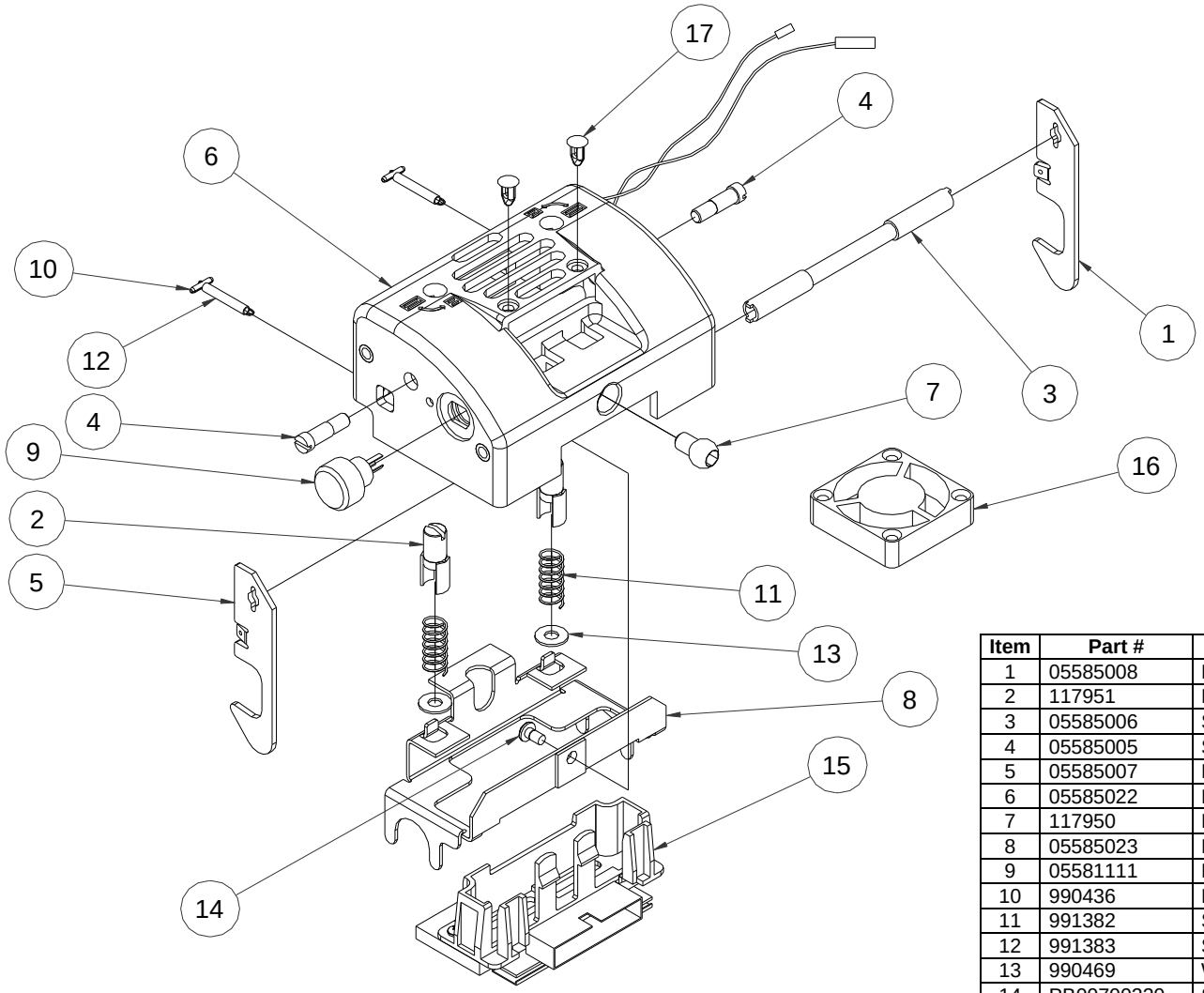
12.5 Guide Assembly – Gen 1 with Hole Sensing



ITEM	PART NO.	DESCRIPTION	QTY
1	05584009	SHAFT, WEB GUIDE	1
2	05594014	SHAFT, WEB GUIDE SENSOR	1
3	05584035	SPACER, WEB GUIDE	1
4	05584006	BRACKET, WEB GUIDE	2
* 5	118826	GUIDE, WEAR	4
6	05584025	GEAR, WEB GUIDE ADJUST	1
7	05990148	1/4-20 ES NUT	1
8	05594001	BLOCK, SENSOR MOUNT	1
9	05584058	BRACKET, WEB GUIDE	1
10	05584059	PLATE, WEB GUIDE	1
11	05990079	10-32 X 1/4" SH CAP SCR	1
12	05990313	THUMB KNOB, #10	1
13	05991374	1/4-20 X 1/2 PAN HD MACH SCR	2
14	05991379	10-32 X 3/8 PH PAN HD SCR	2
15	05991366	KNOB, CLAMPING	1
16	05591201K	FRAME, SNAP 500	1
17	05991447	SPRING, COMPRESSION	1
18	05591121	LED, HARNESSED	1
19	05591128	SENSOR, REG OPTL SWITCH	1
20	05591129	SENSOR, IR LED CEN HARN	1
21	05591130	SWITCH, SENS HOLE HARN	1
22	05581222	COVER, HOLE SENSR SWITCH	1

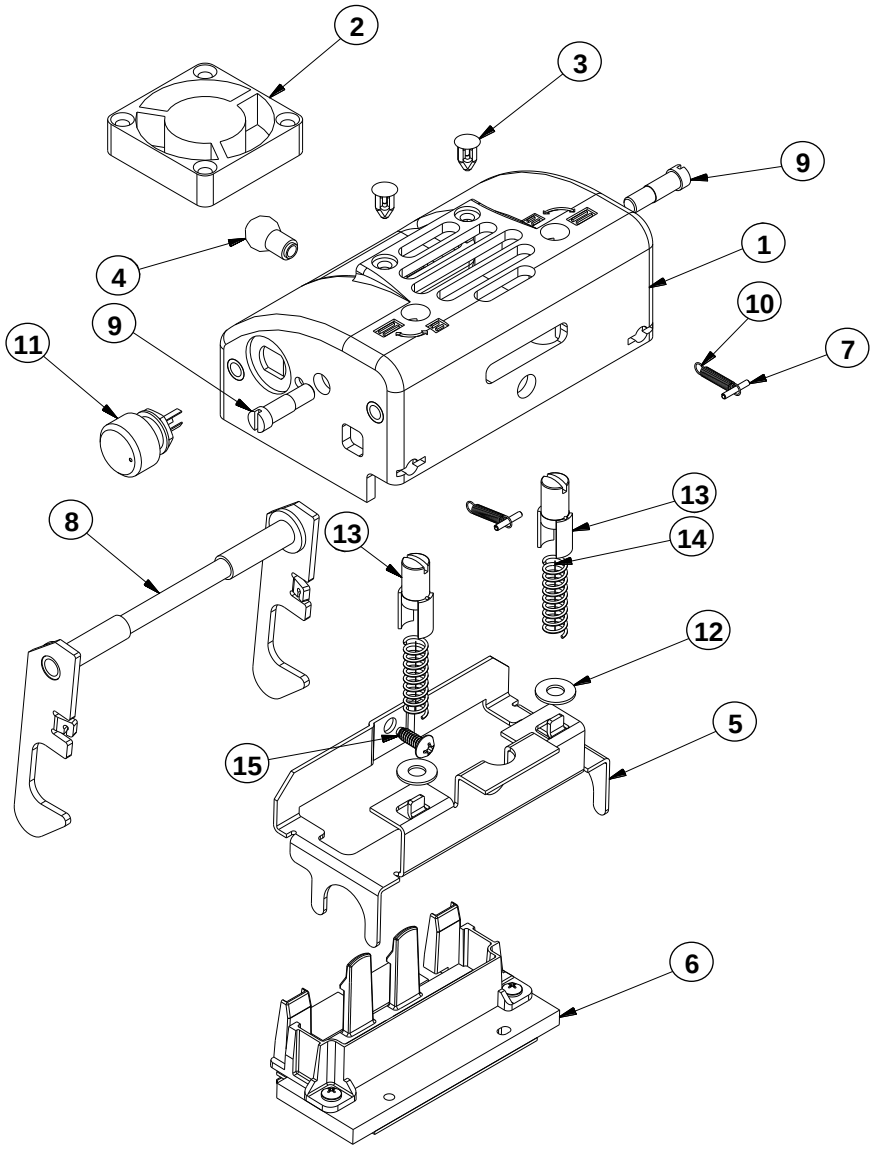
ITEMS 18-22 NOT SHOWN
* RECOMMENDED SPARE PARTS

12.6 Print Head Assembly – Gen 1



Item	Part #	Description	Qty
1	05585008	Latch, Head - Right	1
2	117951	Button, Pressure	2
3	05585006	Shaft, Head lock	1
4	05585005	Screw, Special head lock	2
5	05585007	Latch, Head - Left	1
6	05585022	Mount, Print head	1
7	117950	Pin, Print head pivot	1
8	05585023	Bracket, Print head mount	1
9	05581111	Pot, Contrast control	1
10	990436	Roll pin, 1/16 x 3/8	2
11	991382	Spring, Compression	2
12	991383	Spring, Extension	2
13	990469	Washer, Nylon, .031 Thick	2
14	PB00700220	Screw, Pan head, Phillips	1
15	05581190	Assembly, Print head, 500	1
16	05589029	Harness, Fan, Print Head	1
17	991492	Nylon rivet	2

12.7 Print Head Assembly – Gen 2

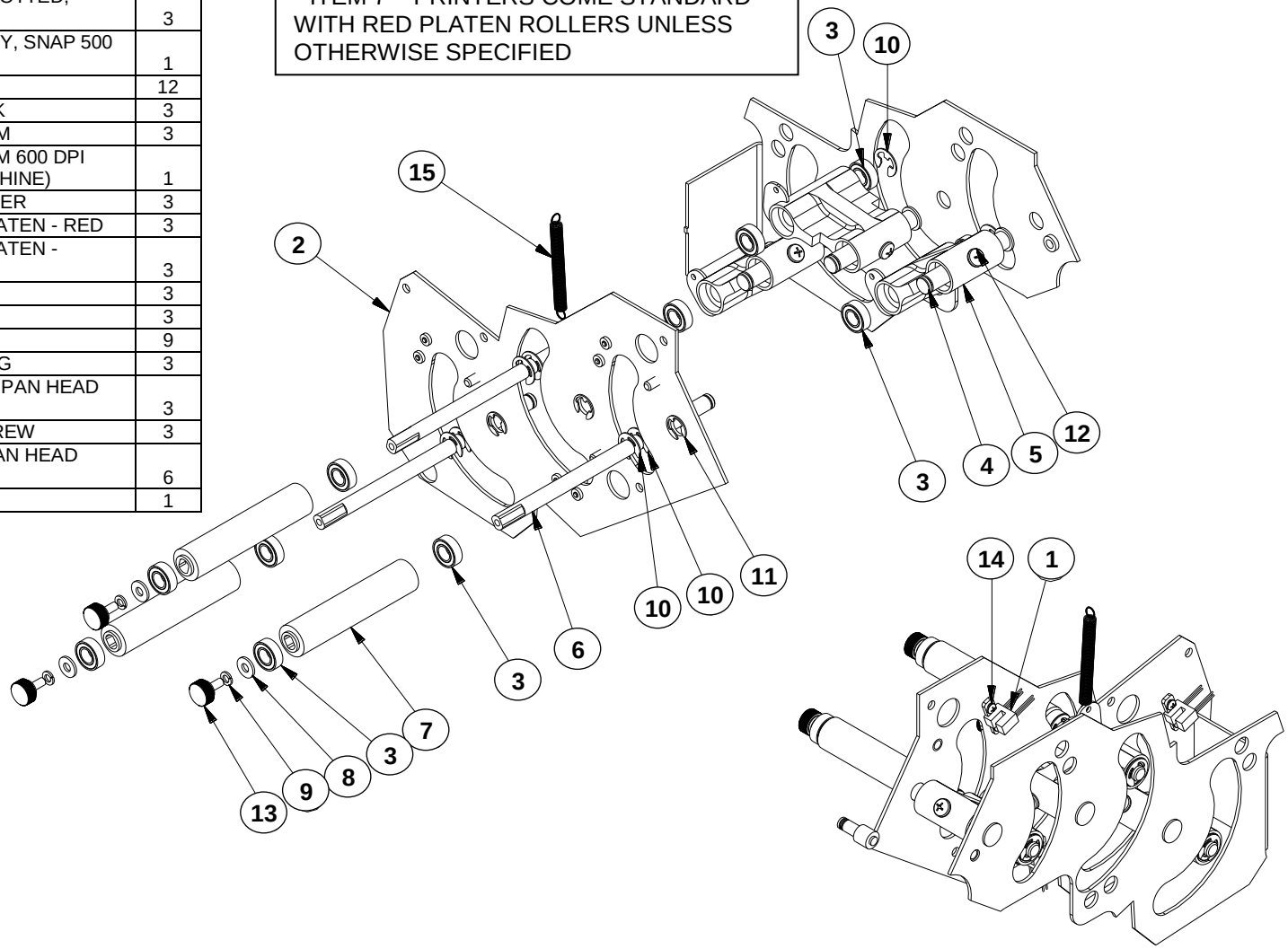


ITEM	PART NO.	DESCRIPTION	QTY
1	05585022	MOUNT, PRINT HEAD	1
2	05589029	HARNESS, FAN, PRINT HEAD	1
3	991492	RIVET	2
4	117950	PIN, PRINT HEAD PIVOT	1
5	05635003	BRACKET, PRINT HEAD MOUNT	1
6	05631190S	PRINT HEAD, 500 2 OVER 1	1
7	990436	ROLL PIN, .062 X .375	2
8	05585027	ASSY, LATCH, PRINT HEAD	1
9	05585005	SCREW, SPECIAL, HEAD LOCK	2
10	991383	SPRING, EXTENSION	2
11	05581111	POT, CONTRAST CONTROL	1
12	990469	WASHER, NYLON, .031 THICK	2
13	117951	BUTTON PRESSURE - TOOL T-10542	2
14	991382	SPRING, COMPRESSION	2
15	991653	SCREW, PAN HEAD PHILLIPS	1
NS	05581126	CABLE, PRINTHEAD	3

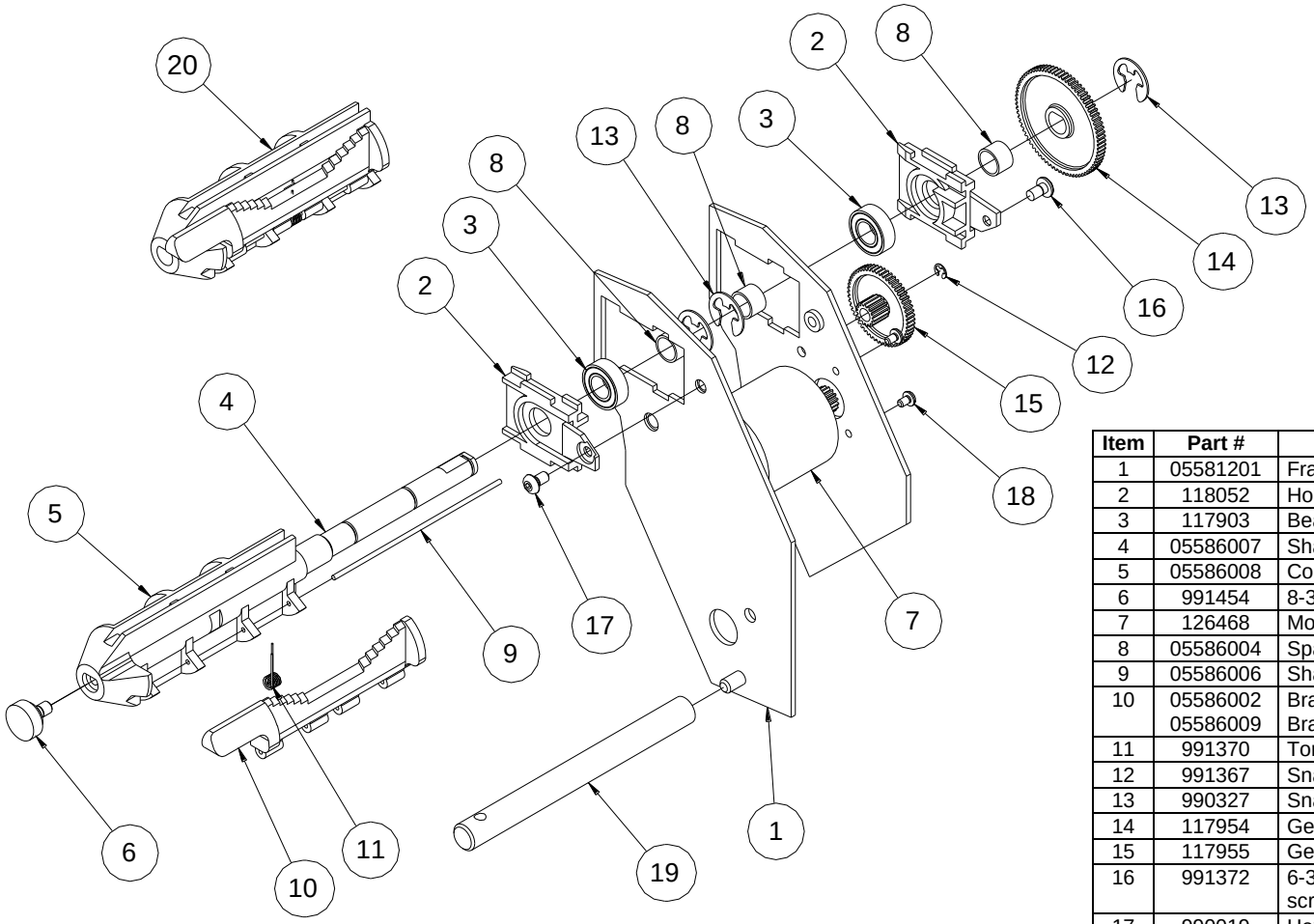
12.8 Swing Arm Assembly – Gen 2

ITEM	PART NO.	DESCRIPTION	QTY
1	05581130	SENSOR, OPTICAL SLOTTED, HARNESSED	3
2	05631201	KIT, FRAME ASSEMBLY, SNAP 500 2/1	1
3	117903	BALL BEARING	12
4	05585012	SHAFT, SWING BLOCK	3
5	05585014	BRACKET, SWING ARM	3
5	05635008	BRACKET, SWING ARM 600 DPI (USE ON 600 DPI MACHINE)	1
6	05595005	SHAFT, PLATEN ROLLER	3
7*	05595010	ROLLER, MOLDED PLATEN - RED	3
7*	05595008	ROLLER, MOLDED PLATEN - GREEN	3
8	990067	WASHER, #8 SAE	3
9	990068	LOCK WASHER, #8	3
10	990327	E-RING, 5/16	9
11	990486	SNAP RING, 3/8 E-RING	3
12	991480	10-32 X 5/16 PHILLIPS PAN HEAD SCREW	3
13	991643	8-32 X 3/8 THUMB SCREW	3
14	991422	4-40 X 1/4 PHILLIPS PAN HEAD SCREW	6
15	991608	SPRING, EXTENSION	1

* ITEM 7 – PRINTERS COME STANDARD WITH RED PLATEN ROLLERS UNLESS OTHERWISE SPECIFIED



12.9 Ink Unwind / Rewind Assembly – Gen 1

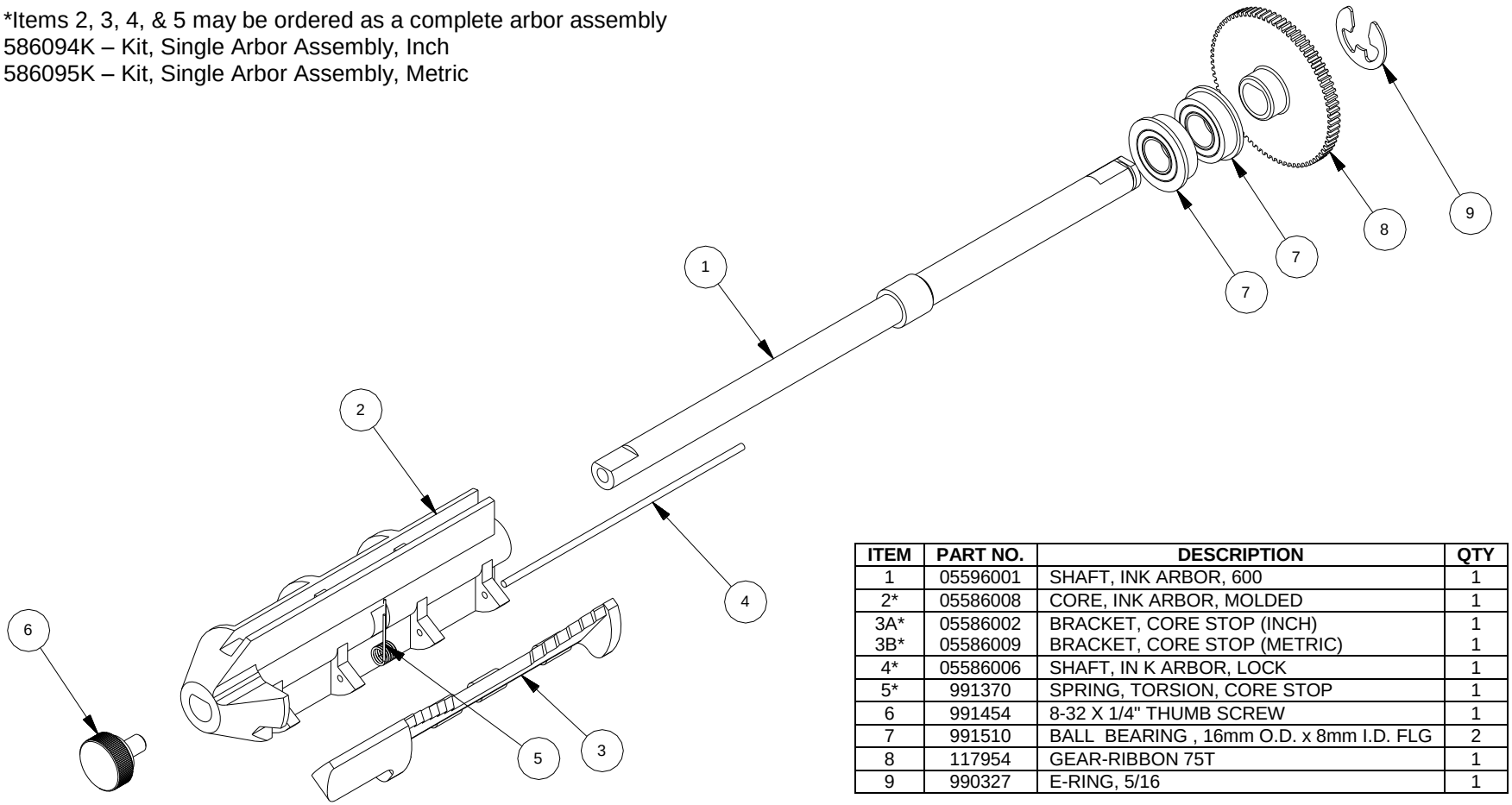


Item	Part #	Description	Qty
1	05581201	Frame, Upright	1
2	118052	Holder, Bearing	2
3	117903	Bearing, Platen	2
4	05586007	Shaft, Ink arbor	1
5	05586008	Core, Ink arbor, Molded	1
6	991454	8-32 x 1/4 Thumb screw	1
7	126468	Motor, Ribbon	1
8	05586004	Spacer, Ink arbor, Outer	3
9	05586006	Shaft, Ink arbor lock	1
10	05586002 05586009	Bracket, Inch core stop - Black Bracket, Metric core stop - Gray	1
11	991370	Torsion spring	1
12	991367	Snap ring, 9/64 e-ring	1
13	990327	Snap ring, 5/16 e-ring	3
14	117954	Gear, Ribbon, 75T	1
15	117955	Gear, Ribbon, 54T - 15T	1
16	991372	6-32 x 1/4 Phillips pan head screw	1
17	990019	Hexagon socket BH cap screw	1
18	991368	2.5mm x 5mm Slotted PH screw	3
19	05586003	Shaft, Ink turn	1
20*	05586094K 05586095K	Kit, Single arbor assembly, Inch Kit, Single arbor assembly, Metric	

*Item 20 may be ordered as a complete arbor assembly

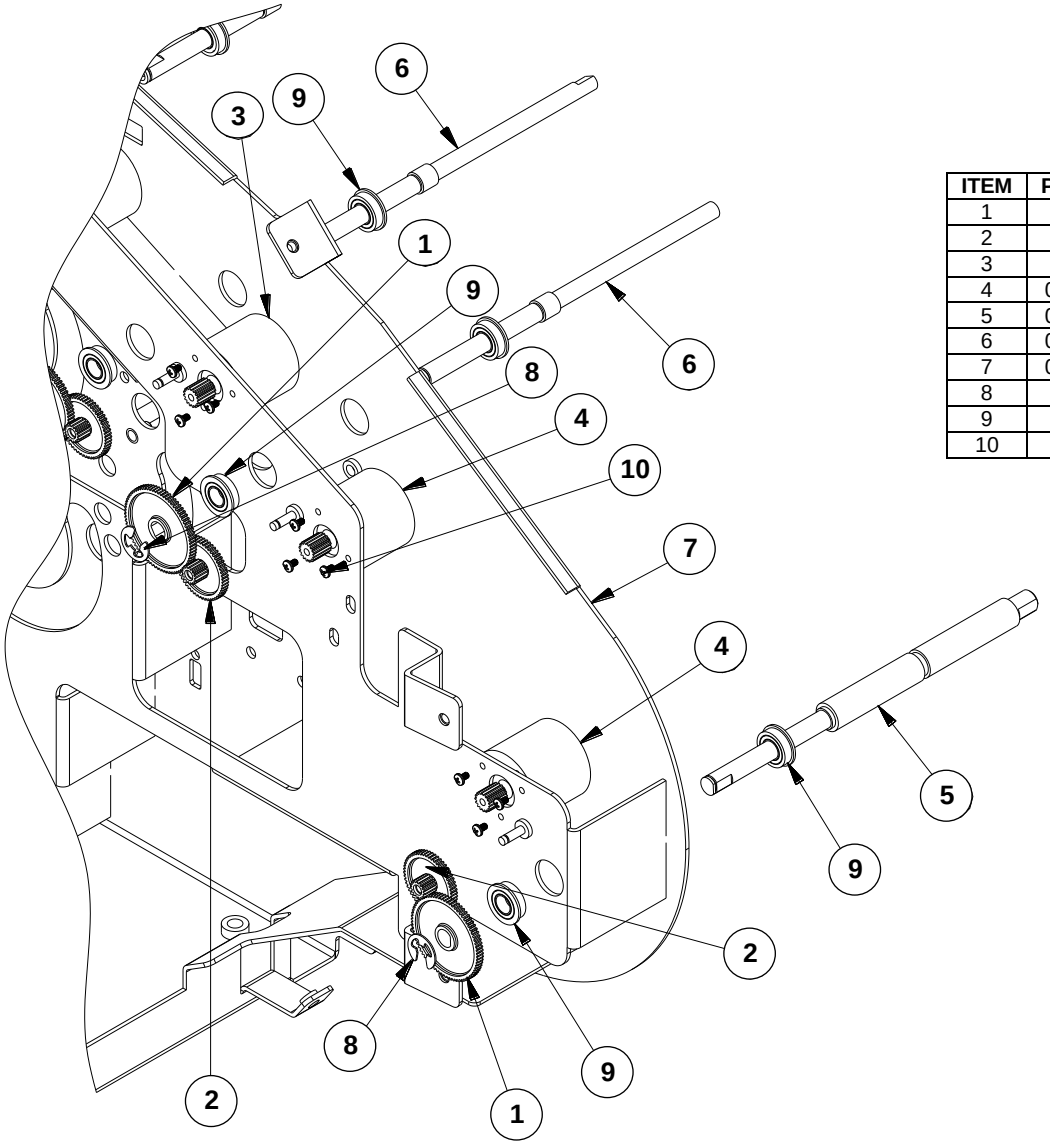
12.10 Ink Unwind / Rewind Arbor Assembly – Gen 2

*Items 2, 3, 4, & 5 may be ordered as a complete arbor assembly
586094K – Kit, Single Arbor Assembly, Inch
586095K – Kit, Single Arbor Assembly, Metric



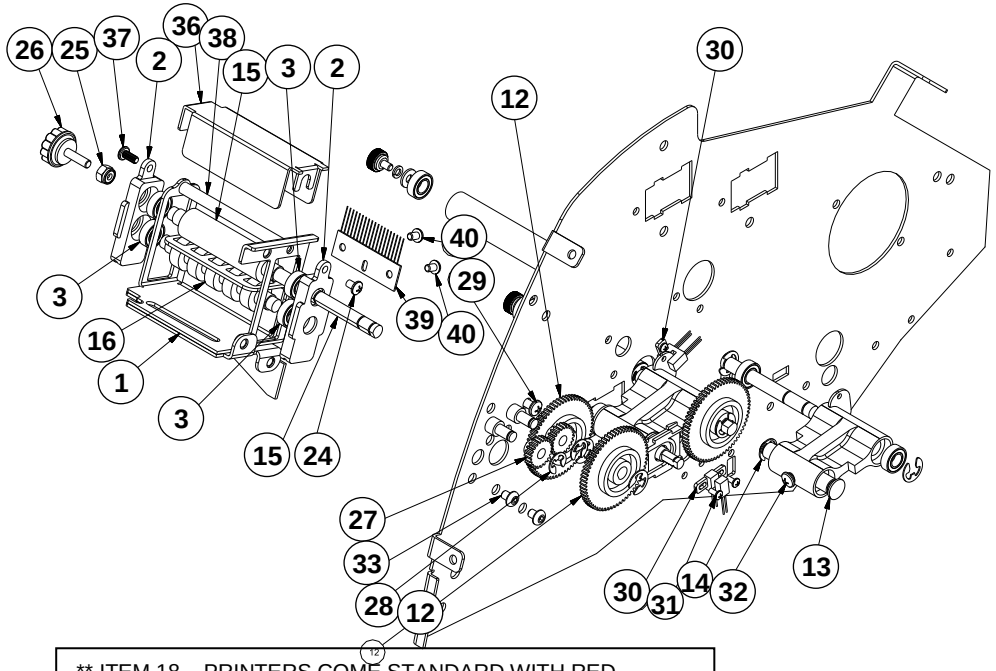
ITEM	PART NO.	DESCRIPTION	QTY
1	05596001	SHAFT, INK ARBOR, 600	1
2*	05586008	CORE, INK ARBOR, MOLDED	1
3A* 3B*	05586002 05586009	BRACKET, CORE STOP (INCH) BRACKET, CORE STOP (METRIC)	1 1
4*	05586006	SHAFT, IN K ARBOR, LOCK	1
5*	991370	SPRING, TORSION, CORE STOP	1
6	991454	8-32 X 1/4" THUMB SCREW	1
7	991510	BALL BEARING , 16mm O.D. x 8mm I.D. FLG	2
8	117954	GEAR-RIBBON 75T	1
9	990327	E-RING, 5/16	1

12.11 Ink / Unwind Motor Assembly – Gen 2



ITEM	PART NO.	DESCRIPTION	QTY
1	117954	GEAR-RIBBON 75T	7
2	117955	GEAR-RIBBON 54T-15T	7
3	126468	MOTOR - RIBBON	5
4	05581186	MOTOR, STOCK UNWIND W/ EXTENSION	2
5	05593001	SHAFT, UNWIND, 600	1
6	05596001	SHAFT, INK ARBOR, 600	6
7	05631201	KIT, FRAME ASSEMBLY, SNAP 500 2/1	1
8	990327	E-RING, 5/16	7
9	991510	BALL BEARING , 16mm O.D. x 8mm I.D. FLG	14
10	991639	M2.6 X 4mm PPHS	21

12.12 Feed – Drive Train Assembly – Gen 1

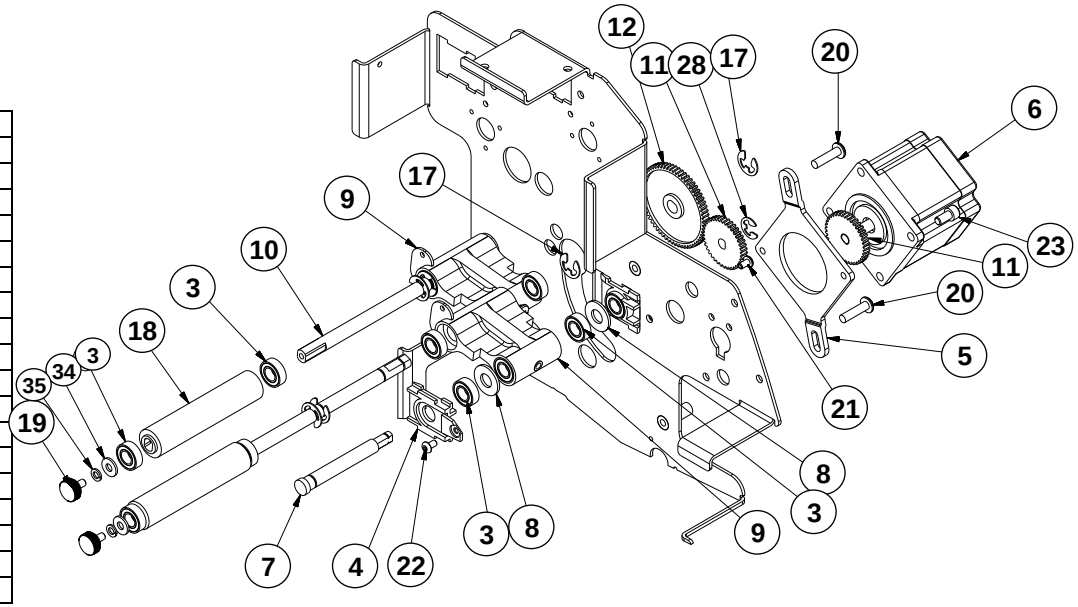


ITEM	PART NO.	DESCRIPTION	QTY
1	05584011	FRAME, KNIFE / DRIVE	1
2	05584010	SUPPORT, BEARING	2
3	117903	BALL BEARING	16
4	118052	HOLDER, BEARING	2
5	05584026	BRACKET, FEED MOTOR MOUNT	1
6	351141	STEPPER MOTOR, HARNESSED	1
7	05585013	SHAFT, SWING BLOCK	1
8	990439	NYLON WASHER	2
9	05585014	BRACKET, SWING ARM	2
10	05585024	SHAFT, PLATEN ROLLER	2
11	05585016	GEAR, 38T DRIVE 300 DPI	2
12	117902	GEAR, PLATEN	3
13	05585012	SHAFT, SWING BLOCK	1
14	990486	SNAP RING, 3/8 E-RING	1
15*	05584012	ROLLER, AUX DRIVE	1
16*	05584013	ROLLER, MOLDED, IDLER	1
17	990327	E-RING, 5/16	10
18* **	05595010	ROLLER, MOLDED PLATEN - RED	2
18* **	05595008	ROLLER, MOLDED PLATEN – GREEN	2
19	991454	8-32 THUMB SCREW	2
20	991377	10-32 X 3/4 PHILLIPS PRINT HEAD SCREW	2

*Recommended spare parts

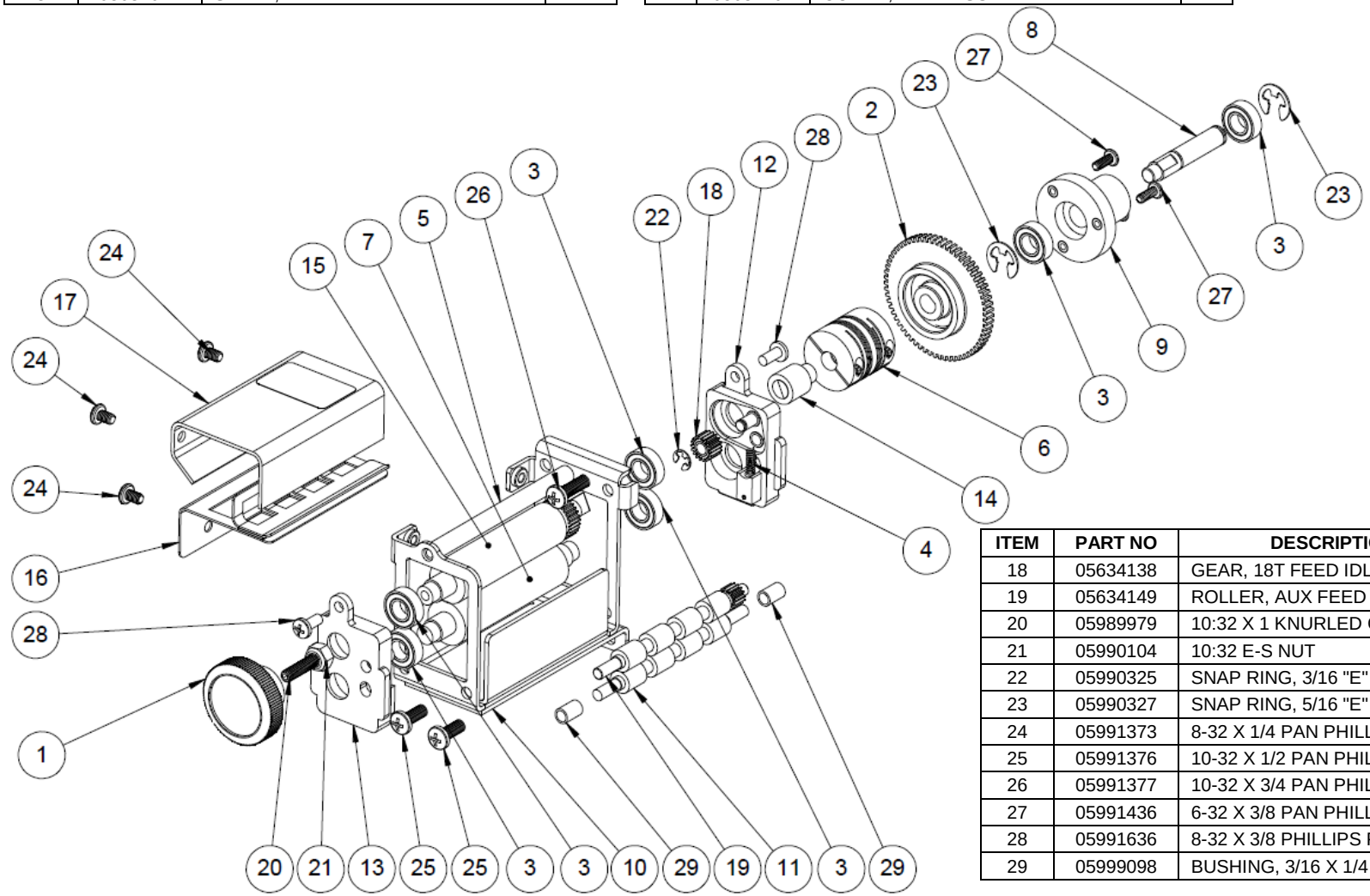
** ITEM 18 – PRINTERS COME STANDARD WITH RED PLATEN ROLLERS UNLESS OTHERWISE SPECIFIED

ITEM	PART NO.	DESCRIPTION	QTY
21	991372	6-32 X 250 PHILLIPS PAN HEAD SCREW	1
22	990019	6-32 X 1/4 BHCS	1
23	990080	10-32 X 3/8 SHCS	2
24	991373	8-32 X 1/4 PHILLIPS PAN HEAD SCREW	1
25	990104	10-32 E-S NUT	1
26	206042	THUMB SCREW KNOB WITH THREADS	1
27	05584027	GEAR, IDLER 22T, 32P	2
28	990326	E-RING, 1/4	3
29	991376	10-32 X 1/2 PHILLIPS PAN HEAD SCREW	1
30	05581130	SENOSR, OPTICAL SLOTTED, HARNESSED	2
31	989983	4-40 X 1/4 PHILLIPS PAN HEAD SCREW	4
32	991480	10-32 X 5/16 PHILLIPS PAN HEAD SCREW	1
33	990089	10-32 X 1/4 BHCS	2
34	990067	#8 SAE WASHER	2
35	990068	LOCK WASHER, #8	2
36	05584075	COVER, FEED GUARD, SNAP 500	1
37	991636	8-32 X 3/8 PHILLIPS PAN HEAD SCREW	1
38	05594041	SHAFT, AUX. DRIVE SUPPORT	1



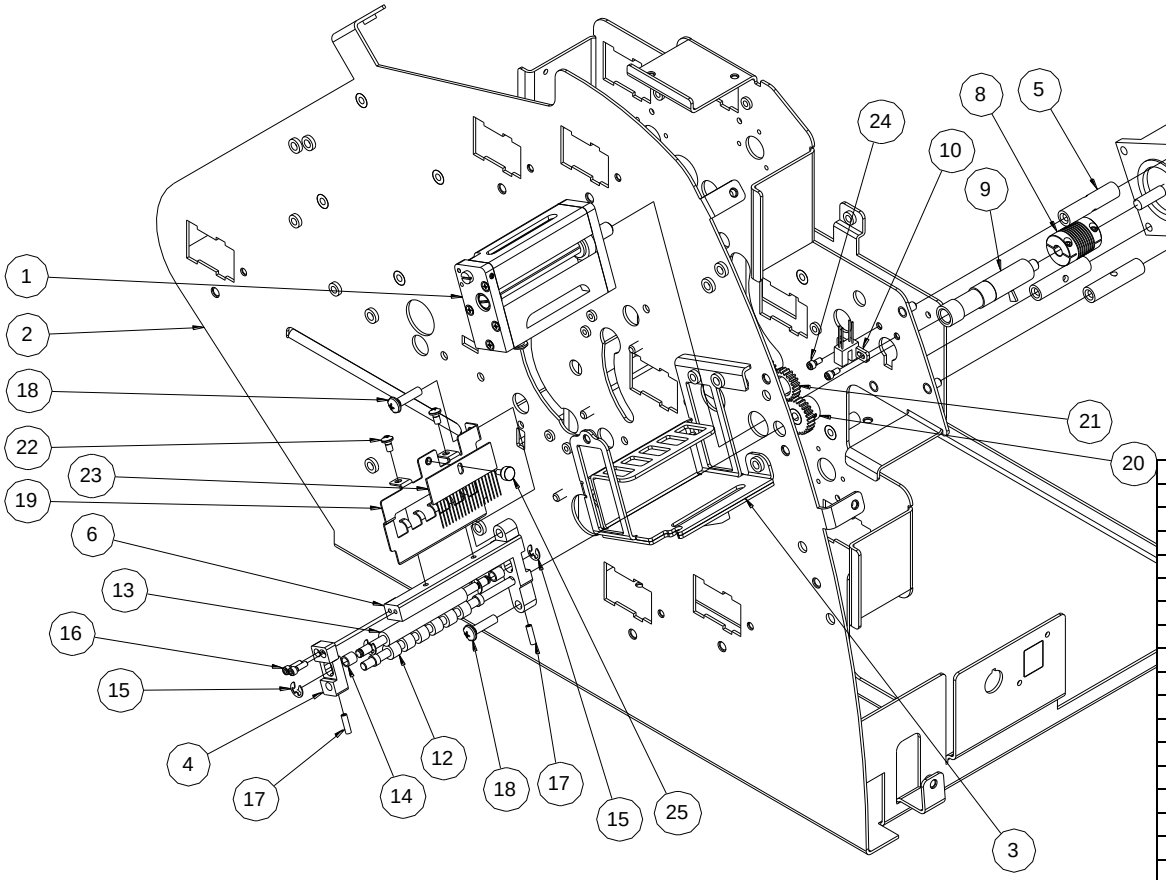
12.13 Feed Assembly – Gen 2

ITEM	PART NO	DESCRIPTION	QTY.
1	105023K	IMPRESSION ADJ. KNOB	1
2	117902	GEAR-PLATEN	1
3	117903	BEARING-PLATEN	6
4	05354022	SPRING, ECCENTRIC LIFT	1
5	05594041	SHAFT, AUX DRIVE SUPPORT	1
6	05627030	DRIVE, BEAM COUPLING, ALTERED	1
7	05634010	ROLLER, MOLDED LOWER FEED	1
8	05634011	SHAFT, FEED DRIVE	1
9	05634012	BEARING MOUNT, FEED SHAFT	1
10	05634015	BRACKET, FEED ASSEMBLY	1
11	05634020	ROLLER, LOWER NIP FEED	1
12	05634021	BRACKET, INNER ROLLER ASSEMBLY	1
13	05634022	BRACKET, OUTER ROLLER ASSEMBLY	1
14	05634101	ASSEMBLY, DRIVE	1
15	05634102	ROLLER, GRIT	1
16	05634103	ASSEMBLY, STRIPPER	1
17	05634104	COVER, FEED ASSY	1



ITEM	PART NO	DESCRIPTION	QTY.
18	05634138	GEAR, 18T FEED IDLER	1
19	05634149	ROLLER, AUX FEED DRIVE	1
20	05989979	10:32 X 1 KNURLED CUP POINT	1
21	05990104	10:32 E-S NUT	1
22	05990325	SNAP RING, 3/16 "E" RING	1
23	05990327	SNAP RING, 5/16 "E" RING	2
24	05991373	8-32 X 1/4 PAN PHILLIPS	4
25	05991376	10-32 X 1/2 PAN PHILLIPS	2
26	05991377	10-32 X 3/4 PAN PHILLIPS	1
27	05991436	6-32 X 3/8 PAN PHILLIPS NS	3
28	05991636	8-32 X 3/8 PHILLIPS PAN HEAD	2
29	05999098	BUSHING, 3/16 X 1/4 X 3/8	2

12.14 Knife – Drive – Nip Roller Assembly – Gen 1

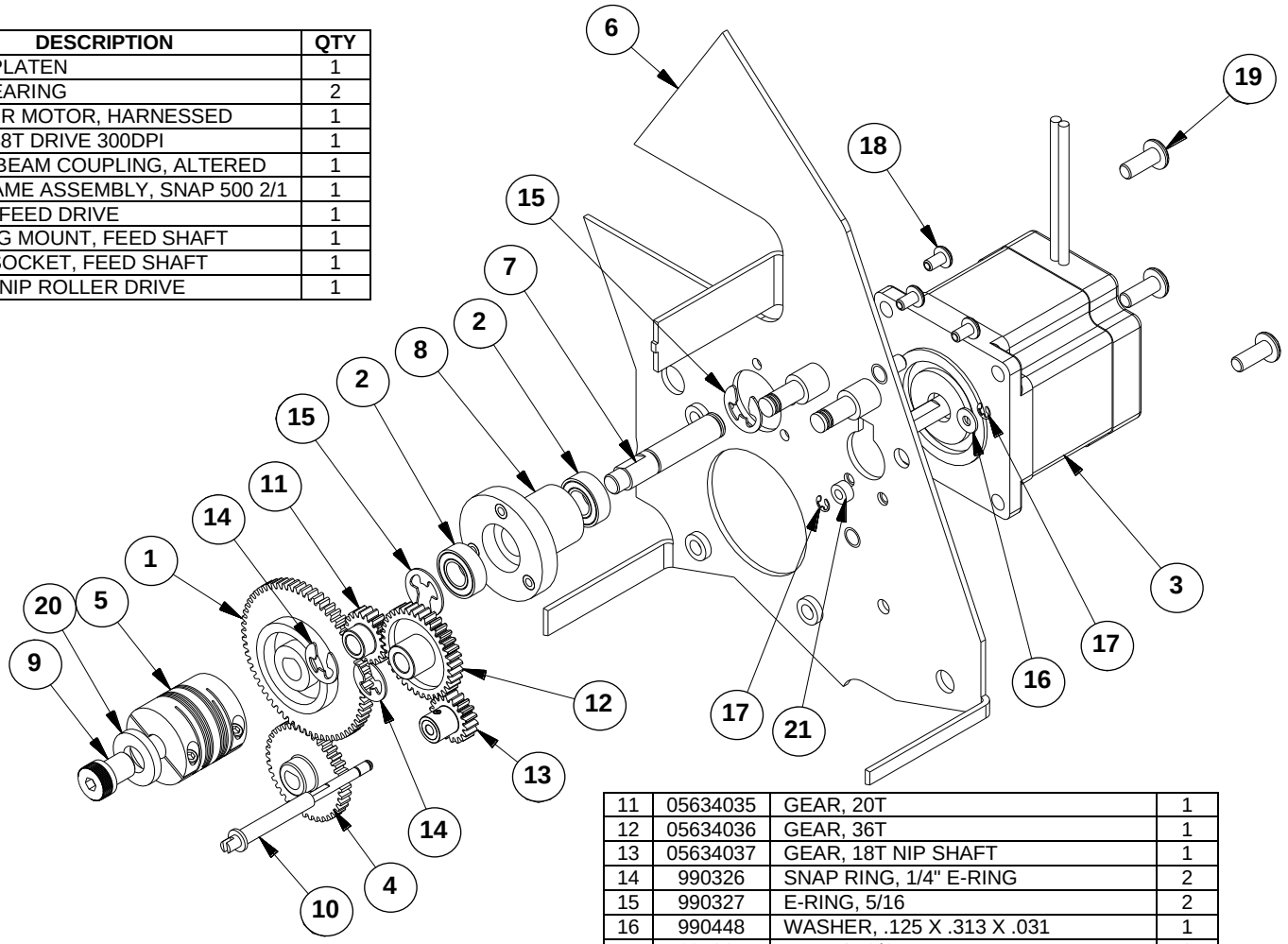


Item	Part #	Description	Qty
1	0587090-1	Assembly, Knife	1
2	05581201	Frame, Upright	1
3	05584011	Frame, Knife / Drive	1
4	05584033	Bracket, Nip roller, Outer	1
5	05587017	Standoff, Knife motor	3
6	05584019	Bracket, Nip roller mount	1
7	245026	Motor, Stepper	1
8	991438	Drive, Beam coupling	1
9	05587018	Shaft, Knife drive	1
10	05581130	Sensor, Optical	1
11	990081	10-32 x 1/2 Cap screw	3
12*	05584015	Roller, Molded	1
13	05584016	Roller, Nip, Idler	1
14	999165	Bushing, 3/16 x 1/4 x 1/4	2
15	990325	Snap ring, 3/16 e-ring	4
16	990424	4-40 x 3/8 Cap screw	2
17	991523	Spring, comp 500/600 nip ass'y	2
18	991377	10-32 x 3/4 Phillips PH Screw	2
19	05588045	Bracket, Label stop, Rear	1
20	05584028	Gear, Nip 26T, 32P	1
21	05584027	Gear, Idler 22T, 32P	2
22	991372	6-32 x 1/4 Phillips pan head screw	2
23*	05584034	Electrical, Static brush	1
24	990006	4-40 x 1/4 Cap screw	2
25	991471	4-40 x 1/4 Thumb screw	1

*Recommended Spare Parts

12.15 Drive Assembly – Gen 2

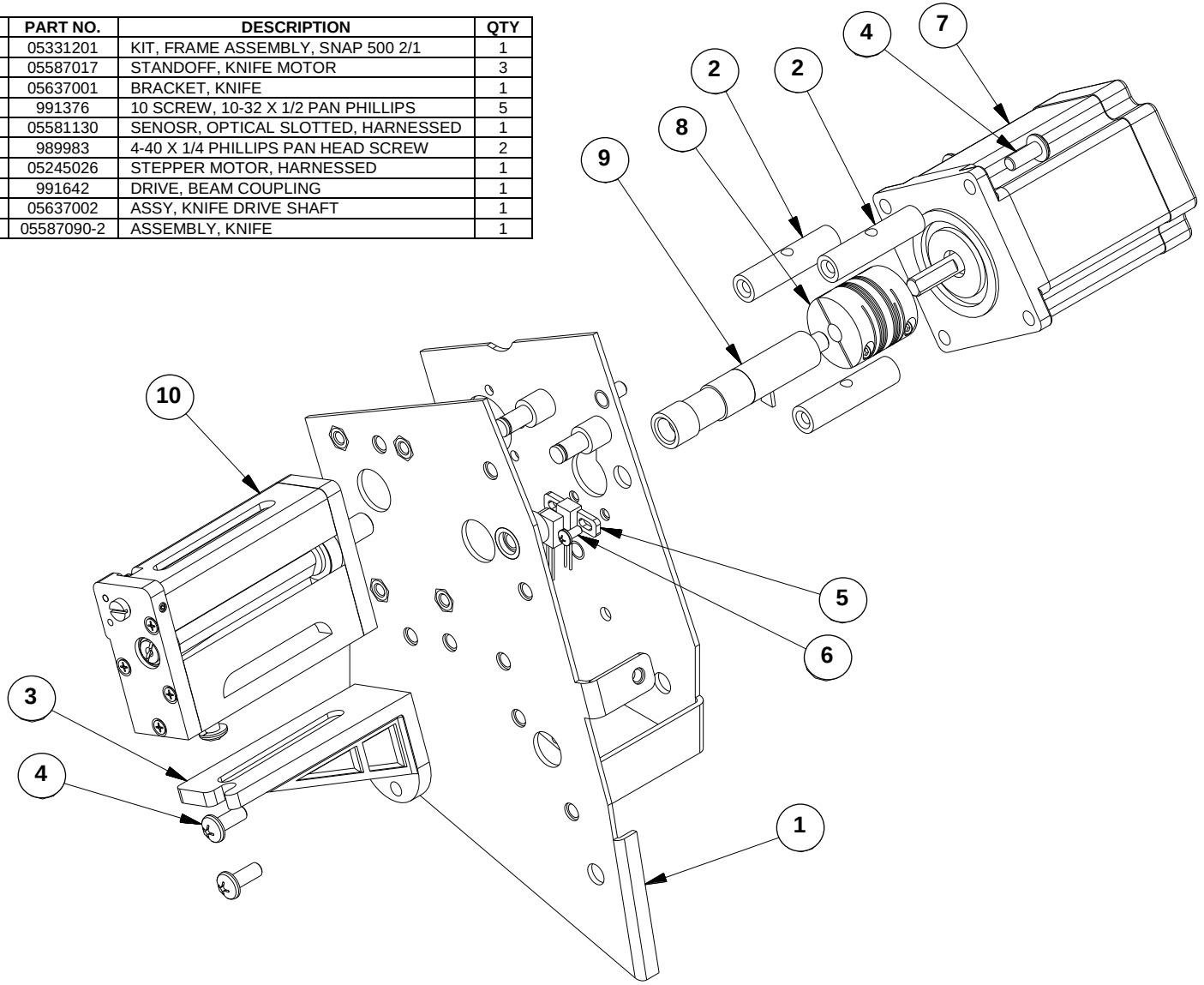
ITEM	PART NO.	DESCRIPTION	QTY
1	117902	GEAR, PLATEN	1
2	117903	BALL BEARING	2
3	05351141	STEPPER MOTOR, HARNESSED	1
4	05585016	GEAR, 38T DRIVE 300DPI	1
5	05627030	DRIVE, BEAM COUPLING, ALTERED	1
6	05631201	KIT, FRAME ASSEMBLY, SNAP 500 2/1	1
7	05634011	SHAFT, FEED DRIVE	1
8	05634012	BEARING MOUNT, FEED SHAFT	1
9	05634013	DRIVE SOCKET, FEED SHAFT	1
10	05634027	SHAFT, NIP ROLLER DRIVE	1



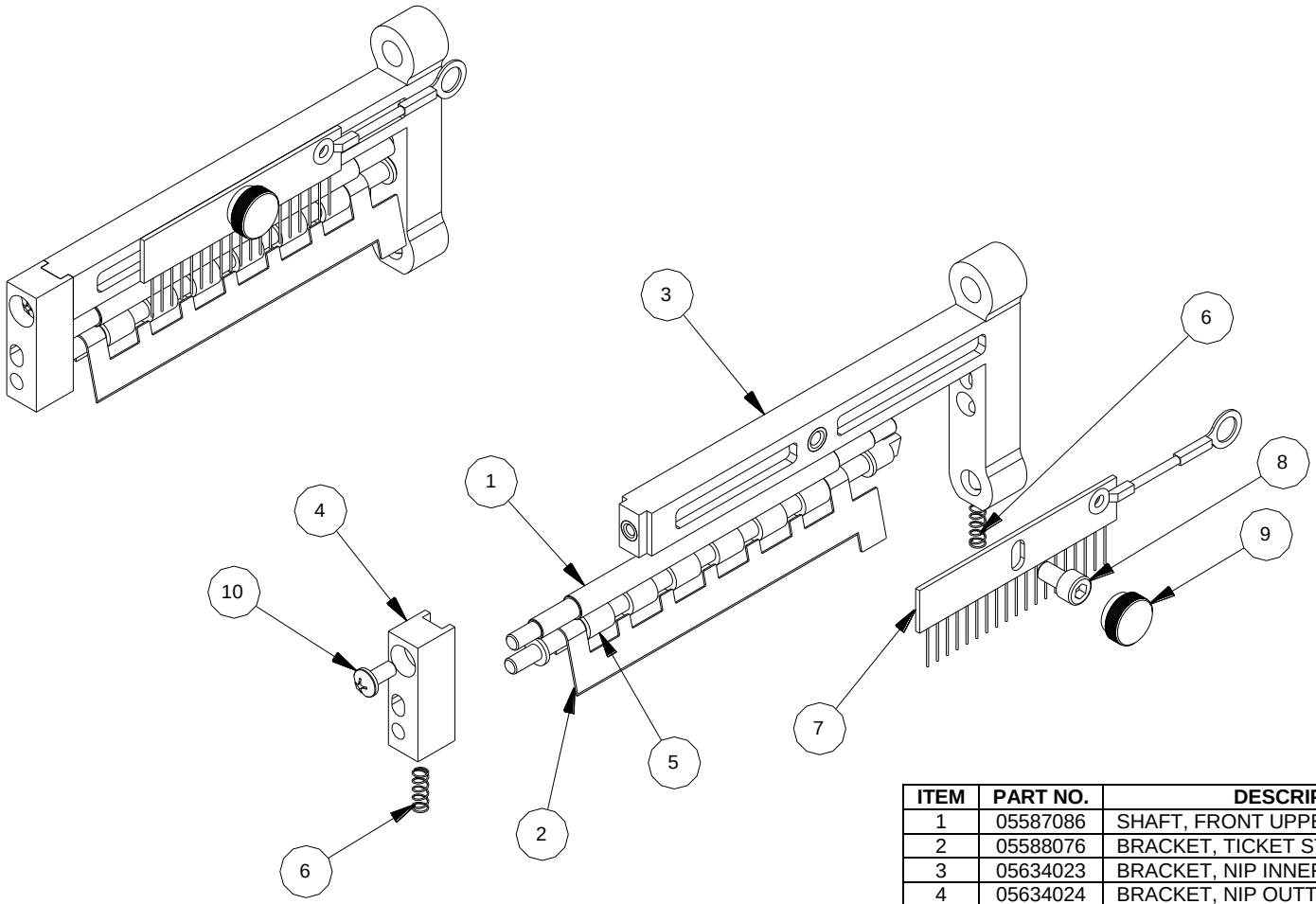
11	05634035	GEAR, 20T	1
12	05634036	GEAR, 36T	1
13	05634037	GEAR, 18T NIP SHAFT	1
14	990326	SNAP RING, 1/4" E-RING	2
15	990327	E-RING, 5/16	2
16	990448	WASHER, .125 X .313 X .031	1
17	991367	E-RING, 9/64	2
18	991372	6 SCREW, 6-32 X 1/4 PAN PHILLIPS	3
19	991376	10 SCREW, 10-32 X 1/2 PAN PHILLIPS	3
20	991645	WASHER, 11/32ID 11/16OD .11THK	1
21	999802	BUSHING, 1/8 X 1/4 X 1/8	1

12.16 Knife Assembly – Gen 2

ITEM	PART NO.	DESCRIPTION	QTY
1	05331201	KIT, FRAME ASSEMBLY, SNAP 500 2/1	1
2	05587017	STANDOFF, KNIFE MOTOR	3
3	05637001	BRACKET, KNIFE	1
4	991376	10 SCREW, 10-32 X 1/2 PAN PHILLIPS	5
5	05581130	SENOSR, OPTICAL SLOTTED, HARNESSED	1
6	989983	4-40 X 1/4 PHILLIPS PAN HEAD SCREW	2
7	05245026	STEPPER MOTOR, HARNESSED	1
8	991642	DRIVE, BEAM COUPLING	1
9	05637002	ASSY, KNIFE DRIVE SHAFT	1
10	05587090-2	ASSEMBLY, KNIFE	1

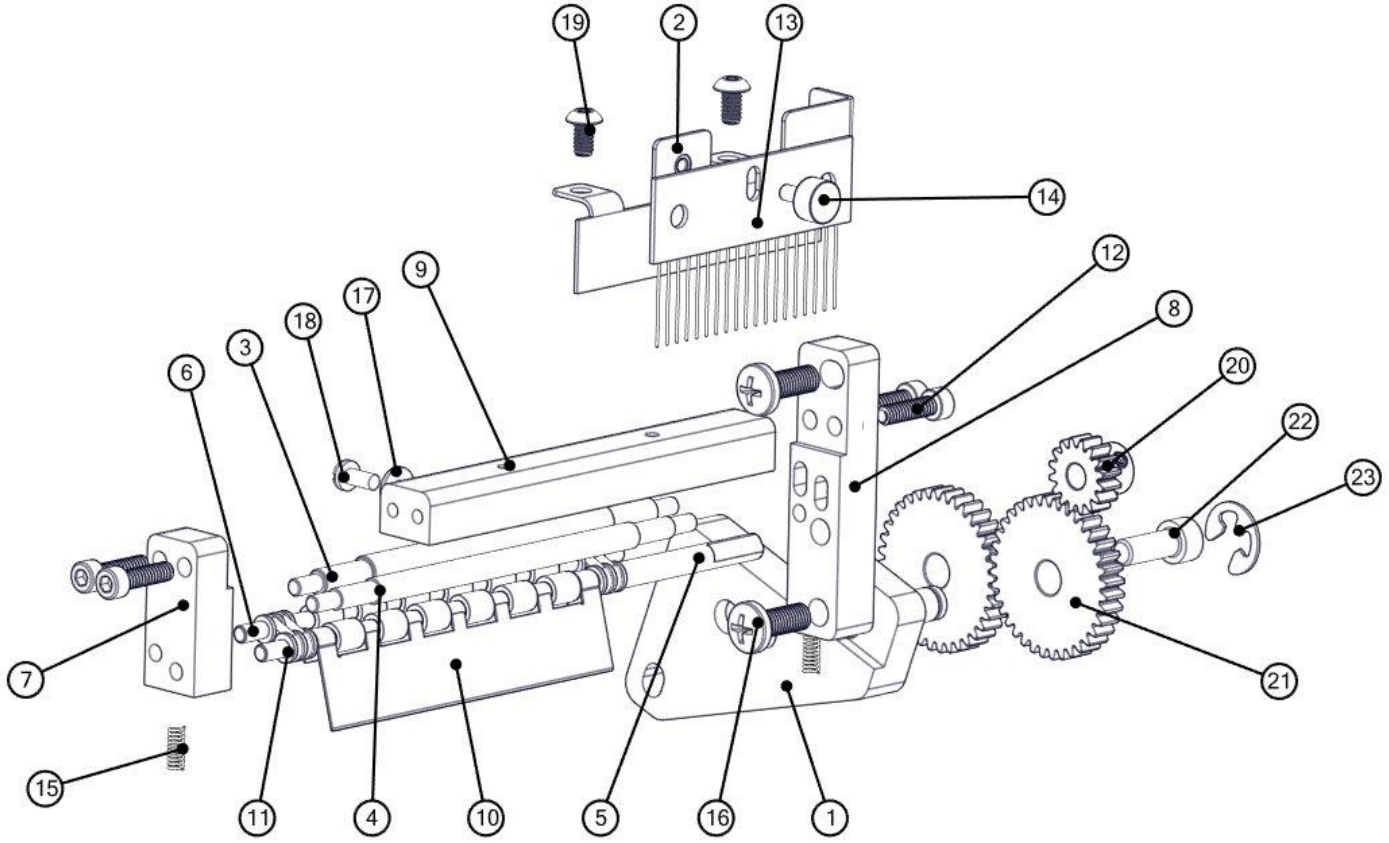


12.17 Nip Roller Assembly – Gen 2



ITEM	PART NO.	DESCRIPTION	QTY
1	05587086	SHAFT, FRONT UPPER ROLLER	1
2	05588076	BRACKET, TICKET STRIPPER	1
3	05634023	BRACKET, NIP INNER ASY	1
4	05634024	BRACKET, NIP OUTTER ASY	1
5	05634025	ROLLER, NIP MOLDED	1
6	05634026	SPRING, NIP	2
7	05634033	ELECTRICAL, STATIC BRUSH	1
8	990015	6-32 X 1/4 SHCS	1
9	990314	KNOB, THUMB SCREW, #6	1
10	991422	4 SCREW, 4-40 X 1/4 PAN HD PHILLIPS	1

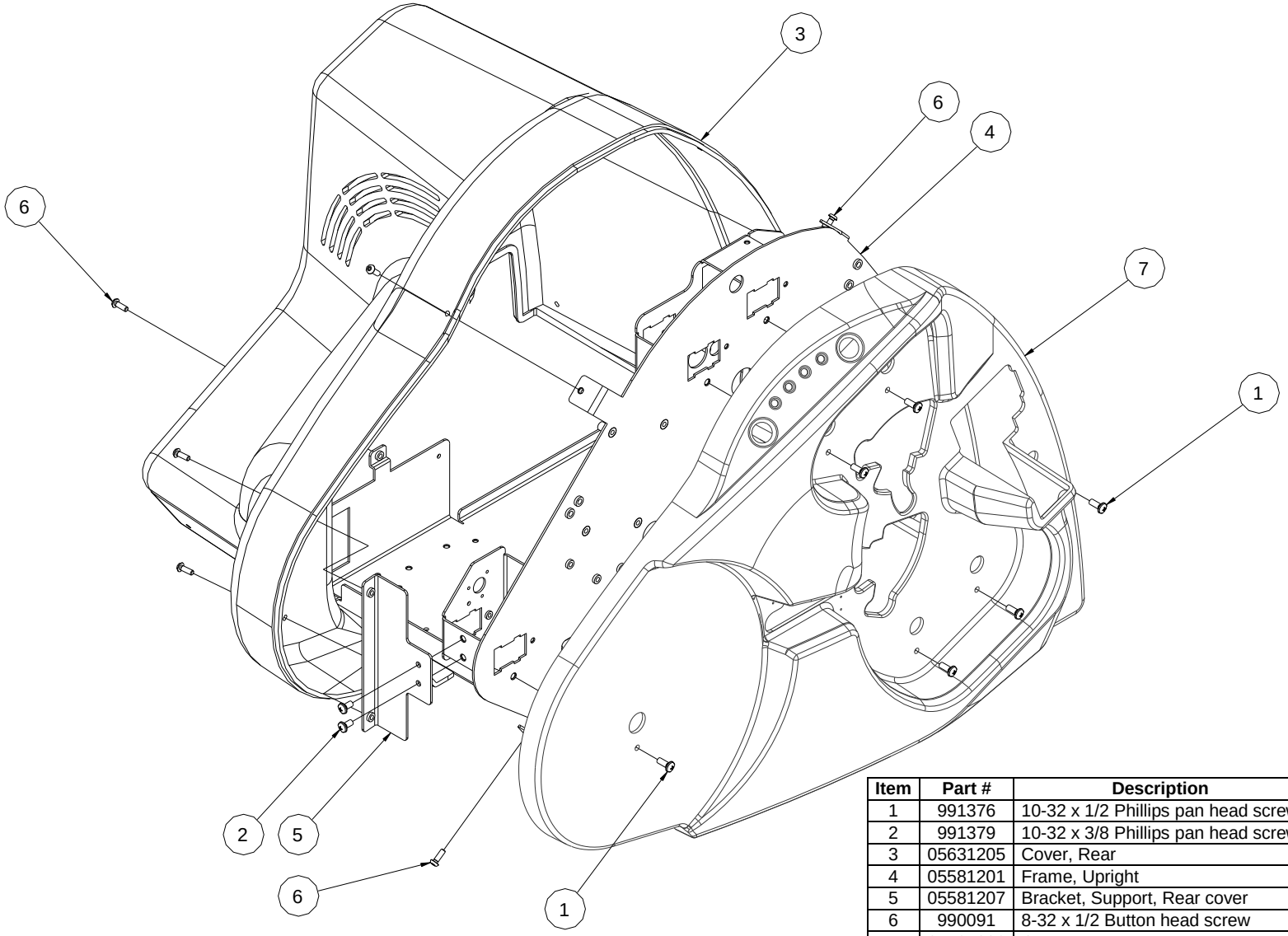
12.18 Short Feed Option – Gen 1



BOM ID	DRAWING NUMBER (config)	TITLE (config)	Qty
1	05584077	BRACKET, SNAP 500 SHORT FEED	1
2	05587116	BRACKET, STATIC BRUSH	1
3	05587084	SHAFT, REAR UPPER ROLLER	1
4	05587086	SHAFT, FRONT UPPER ROLLER	1
5	05587095	SHAFT, REAR LOWER ROLLER	1
6	05587096	SHAFT, FRONT LOWER ROLLER	1
7	05587097	BRACKET, OUTER ROLLER SUPPORT	1
8	05587098	BRACKET, INNER ROLLER SUPPORT	1
9	05587099	PLATE, OFFSET	1
10	05587115	BRACKET, STRIPPER PLATE	1
11	05991614	"O" RING 1/16 X 3/16 X 5/16	4
12	05990017	6:32 X 1/2 CAP SCREW	4

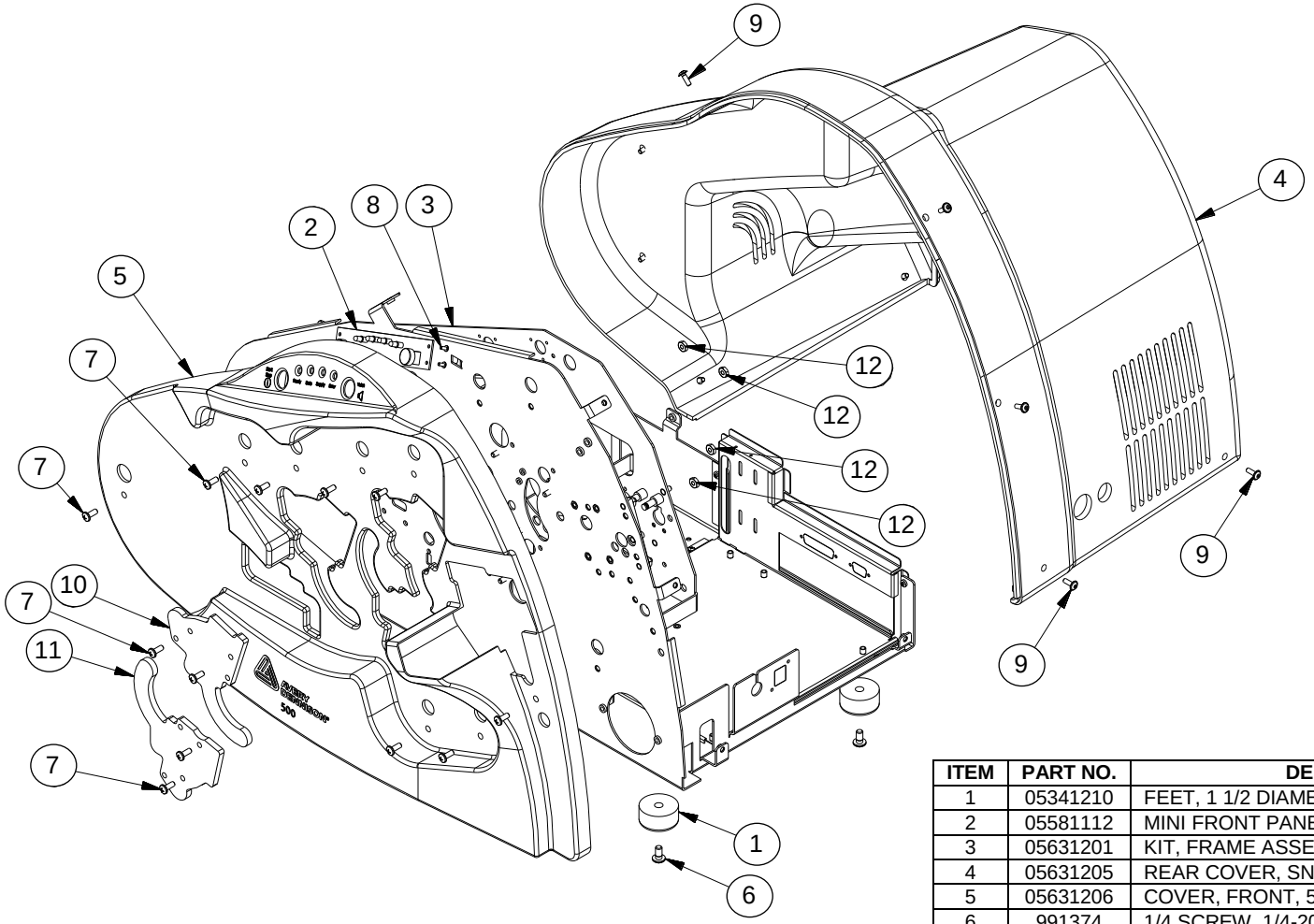
BOM ID	DRAWING NUMBER (config)	TITLE (config)	Qty
13	05584034	ELECTRICAL, STATIC BRUSH	1
14	05991471	4-40 X 1/4 THUMB SCREW	1
15	05991523	SPRING, COMP 500/600 NIP ASSEMBLY	2
16	05991376	10-32 X 1/2 PAN PHILLIPS	2
17	05990448	WASHER, .125 X .313 X .031 FL NS	1
18	05989983	4:40 X 1/4 PAN HEAD SCREW	1
19	05990019	6:32X1/4 B.H. SCREW	2
20	05584076	GEAR, 16T	1
21	05634036	GEAR, 36T	2
22	05990081	10:32X1/2 CAP SCREW	2
23	05990326	SNAP RING, 1/4 "E" RING	2

12.19 Covers Assembly – Gen 1



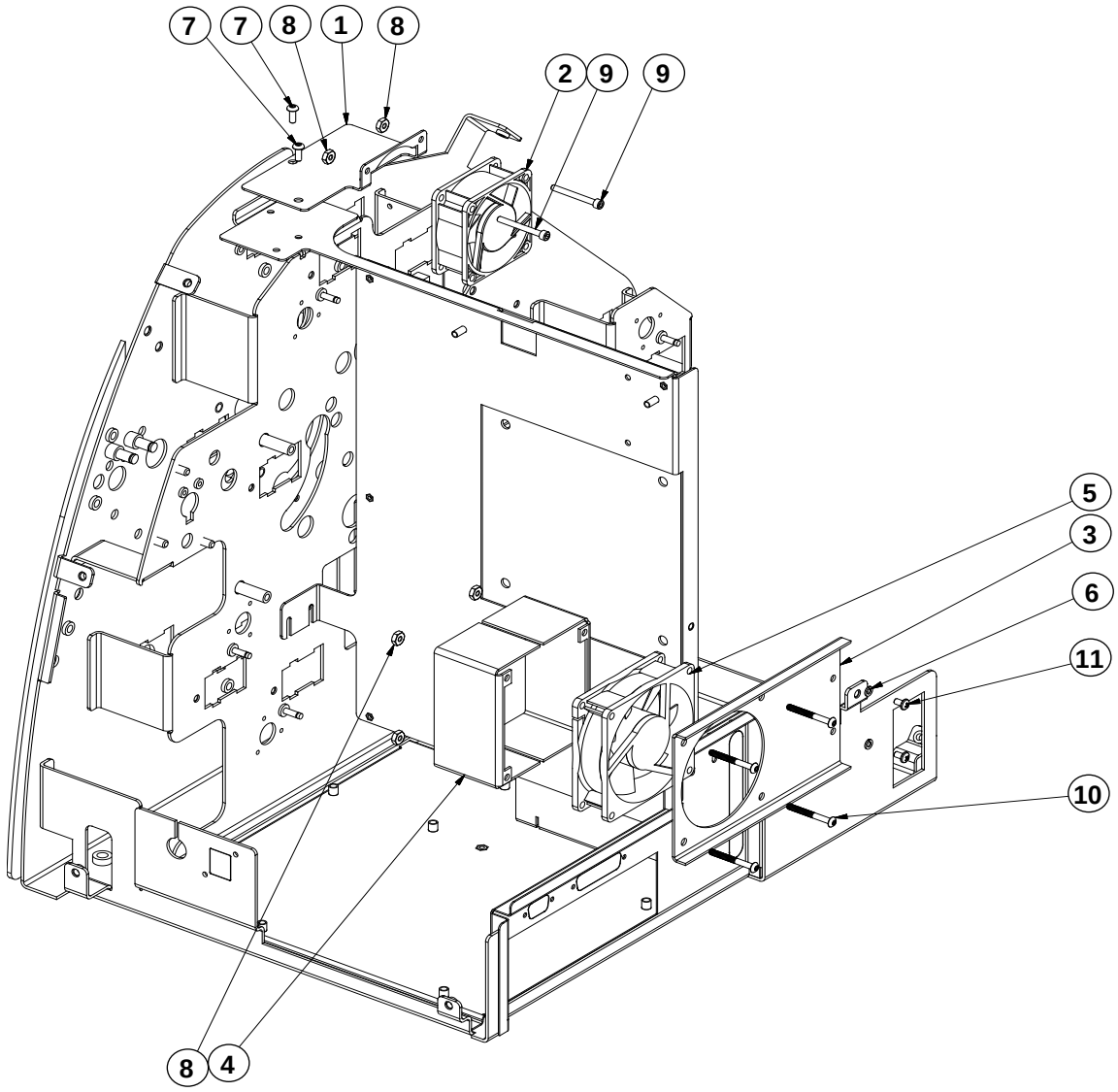
Item	Part #	Description	Qty
1	991376	10-32 x 1/2 Phillips pan head screw	6
2	991379	10-32 x 3/8 Phillips pan head screw	2
3	05631205	Cover, Rear	1
4	05581201	Frame, Upright	1
5	05581207	Bracket, Support, Rear cover	1
6	990091	8-32 x 1/2 Button head screw	10
7	05581206	Cover, Front	1

12.20 Covers Assembly – Gen 2



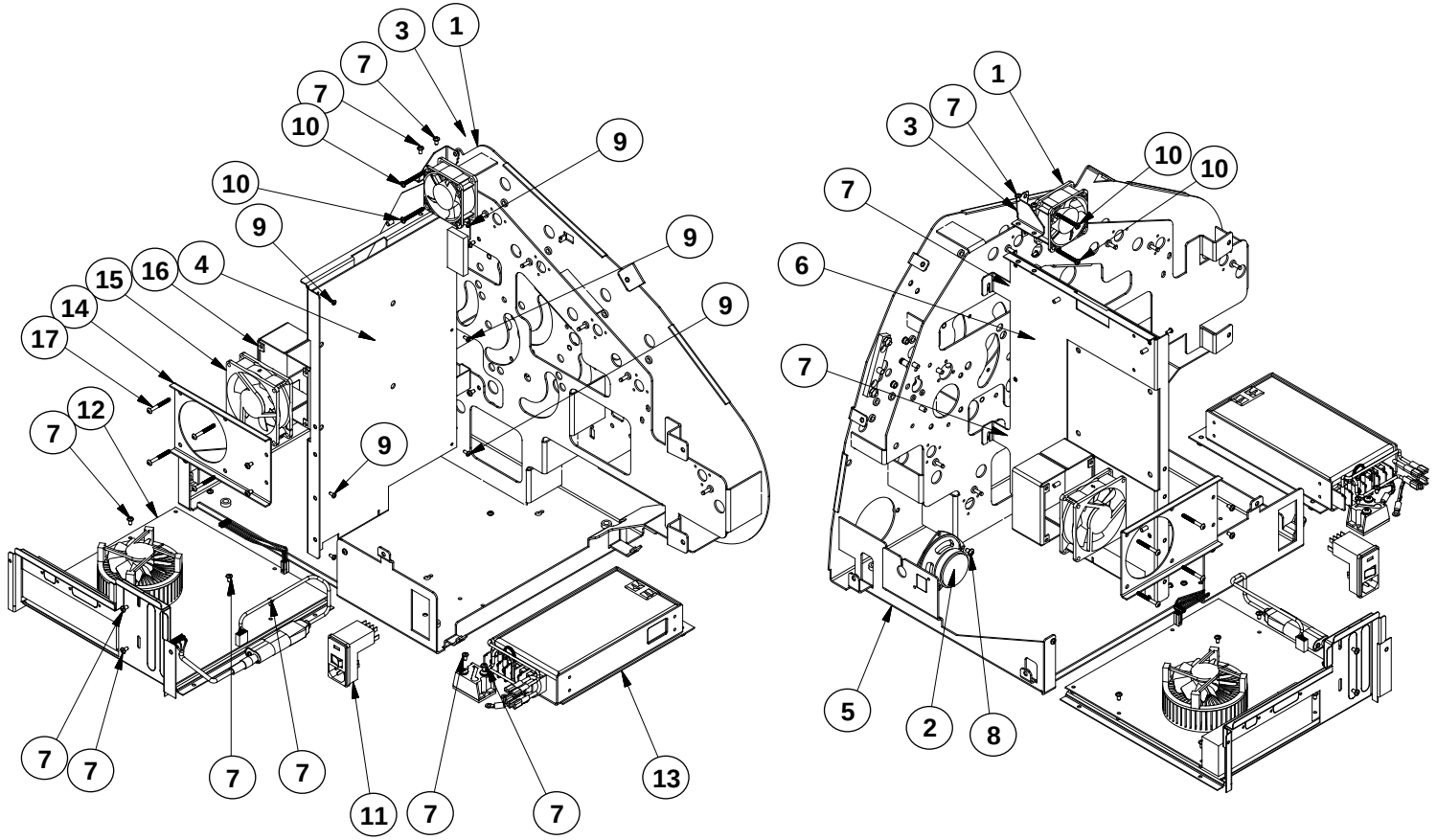
ITEM	PART NO.	DESCRIPTION	QTY
1	05341210	FEET, 1 1/2 DIAMETER, RUBBER	4
2	05581112	MINI FRONT PANEL	1
3	05631201	KIT, FRAME ASSEMBLY, SNAP 500 2/1	1
4	05631205	REAR COVER, SNAP 500 2/1	1
5	05631206	COVER, FRONT, 500 2 OVER 1	1
6	991374	1/4 SCREW, 1/4-20 X 1/2 PAN PHILLIPS	4
7	991376	10 SCREW, 10-32 X 1/2 PAN PHILLIPS	12
8	991422	4 SCREW, 4-40 X 1/4 PAN HD PHILLIPS	4
9	991508	8-32 X 1/2 FLANGED BUTTON HEAD SCREW	10
10	05631208	INSERT, UPPER PRINT HEAD	1
11	05631207	INSERT, LOWER PRINT HEAD	1
12	990103	10-32 HEX NUT	4
NS	05586010	STATIC BRUSH (INK ROLL)	3

12.21 Fan Assembly – Gen 1



ITEM	PART NO.	DESCRIPTION	QTY
1	05581001	BRACKET, TOP FAN	1
2	05581104-1	FAN, HARNESSED 12V	1
3	05589012	BRACKET, FAN MOUNT	1
4	05589013	BRACKET, FAN CHUTE	2
5	05589015	HARNESS, FAN 80MM 12V	1
6	989965	LOCK WASHER, #6 SAE	2
7	990020	6-32 X 3/8 BHCS	2
8	990038	6-32 HEX NUT	6
9	991086	6-32 X 1 1/4 SHCS	2
10	991285	6-32 X 1 250 BHCS	4
11	991372	6-32 X 1/4 PAN PHILLIPS	2

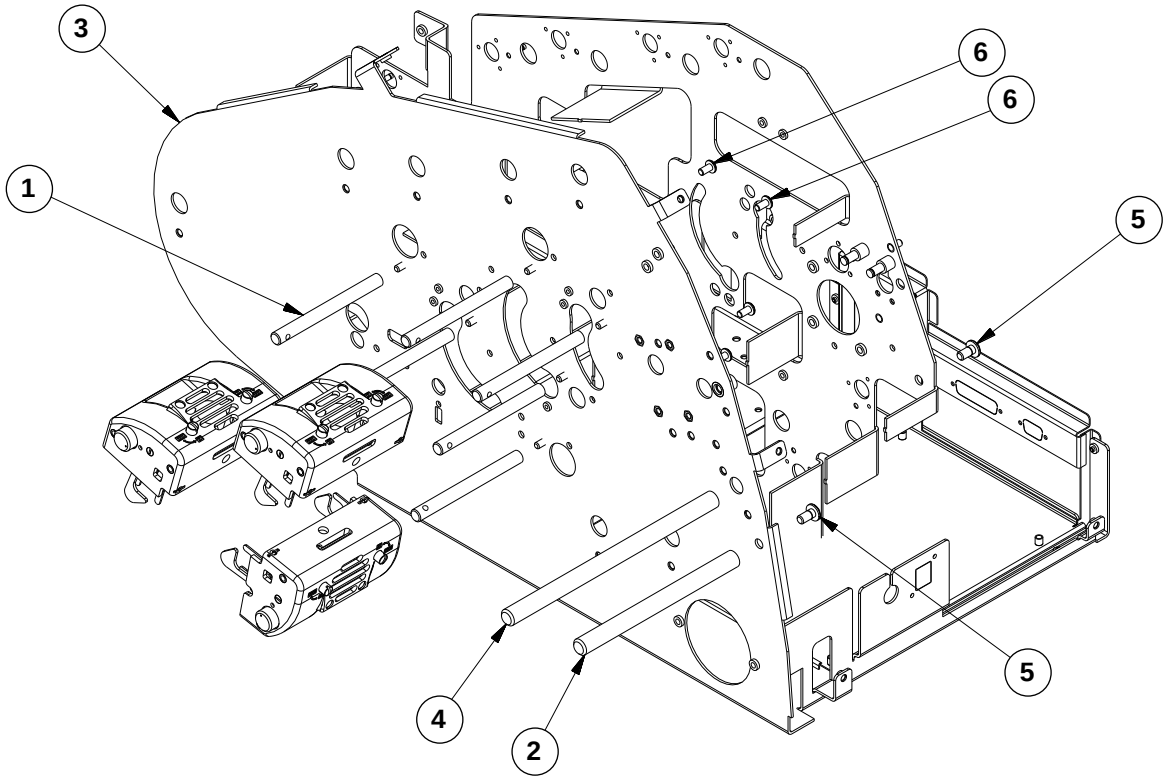
12.22 Electrical Components Assembly – Gen 2



ITEM	PART NO.	DESCRIPTION	QTY
1	05581104-1	FAN, HARNESSED, 12V	1
2	05581179	SPEAKER, 8 OHM 2W HARNESSED	1
3	05631000	BRACKET, MCB COOLING FAN	1
4	05631107-500-2/1-0	PCB, MCB 500 2/1 PROGRAMMED	1
5	05631201	KIT, FRAME ASSEMBLY, SNAP 500 2/1	1
6	05631202	BRACKET MCB SUPPORT	1
7	991372	6 SCREW, 6-32 X 1/4 PAN PHILLIPS	16
8	991373	8 SCREW, 8-32 X 1/4 PAN PHILLIPS	2

9	991422	4 SCREW, 4-40 X 1/4 PAN HD PHILLIPS	6
10	991638	SCREW, 6-32 X 1.250" PHCS	2
11	996293	ENTRY, AC UNFILTERED	1
12	05631111	ASSEMBLY, ADVANTECH MOTHERBOARD, 2 OVER 1, HARNESSED	1
13	05631116	POWER SUPPLY, MEANWELL 24V HARNESSED WITH OFSET BRACKET, 2 OVER 1	1
14	05589012	BRACKET, FAN MOUNT	1
15	05589015	HARNESS, FAN 80MM 12V	1
16	05589013	BRACKET, FAN CHUTE	2
17	05991285	6-32 X 1 250 BHCS	4

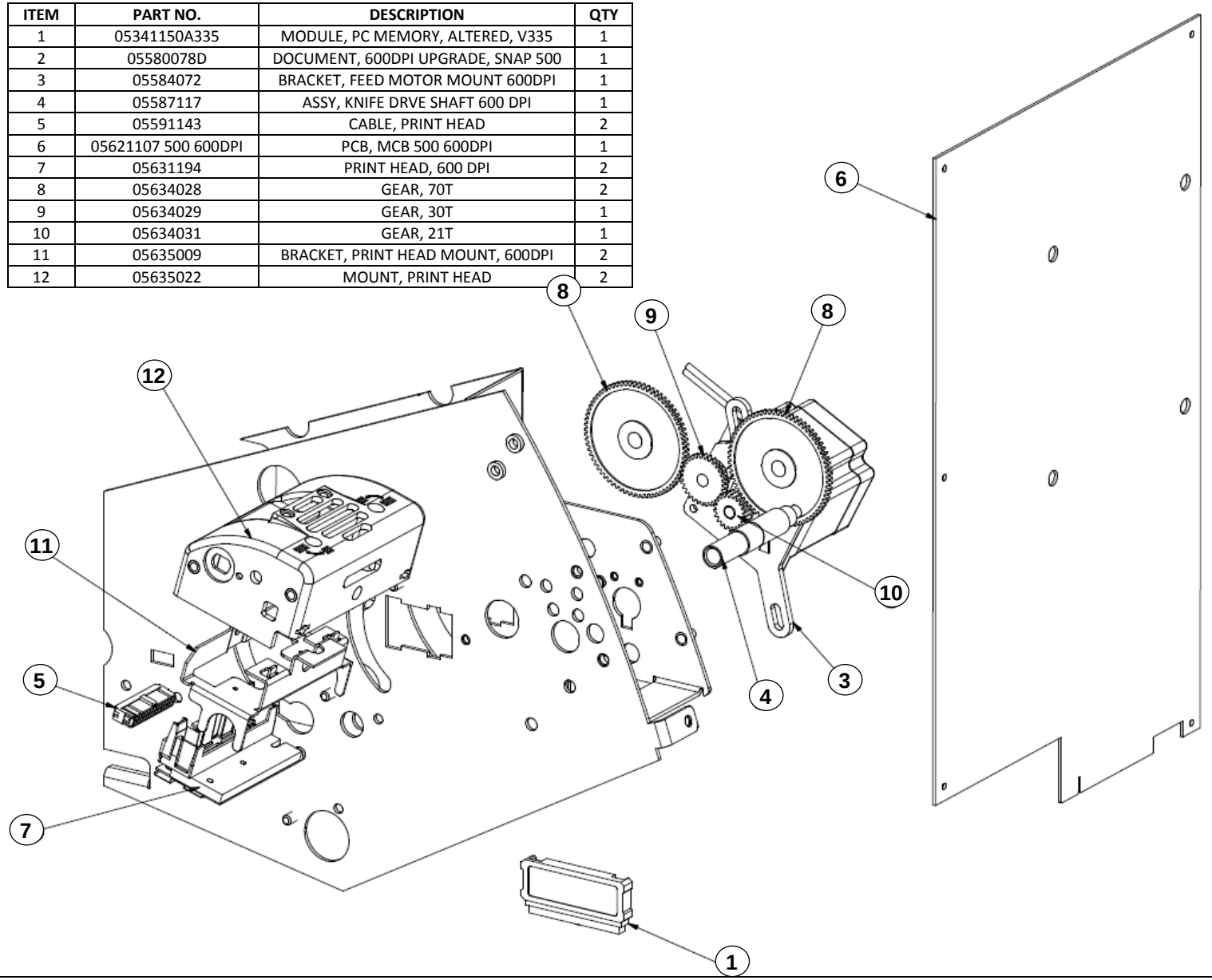
12.23 Turn Bar / Stacker Mount Assembly – Gen 2



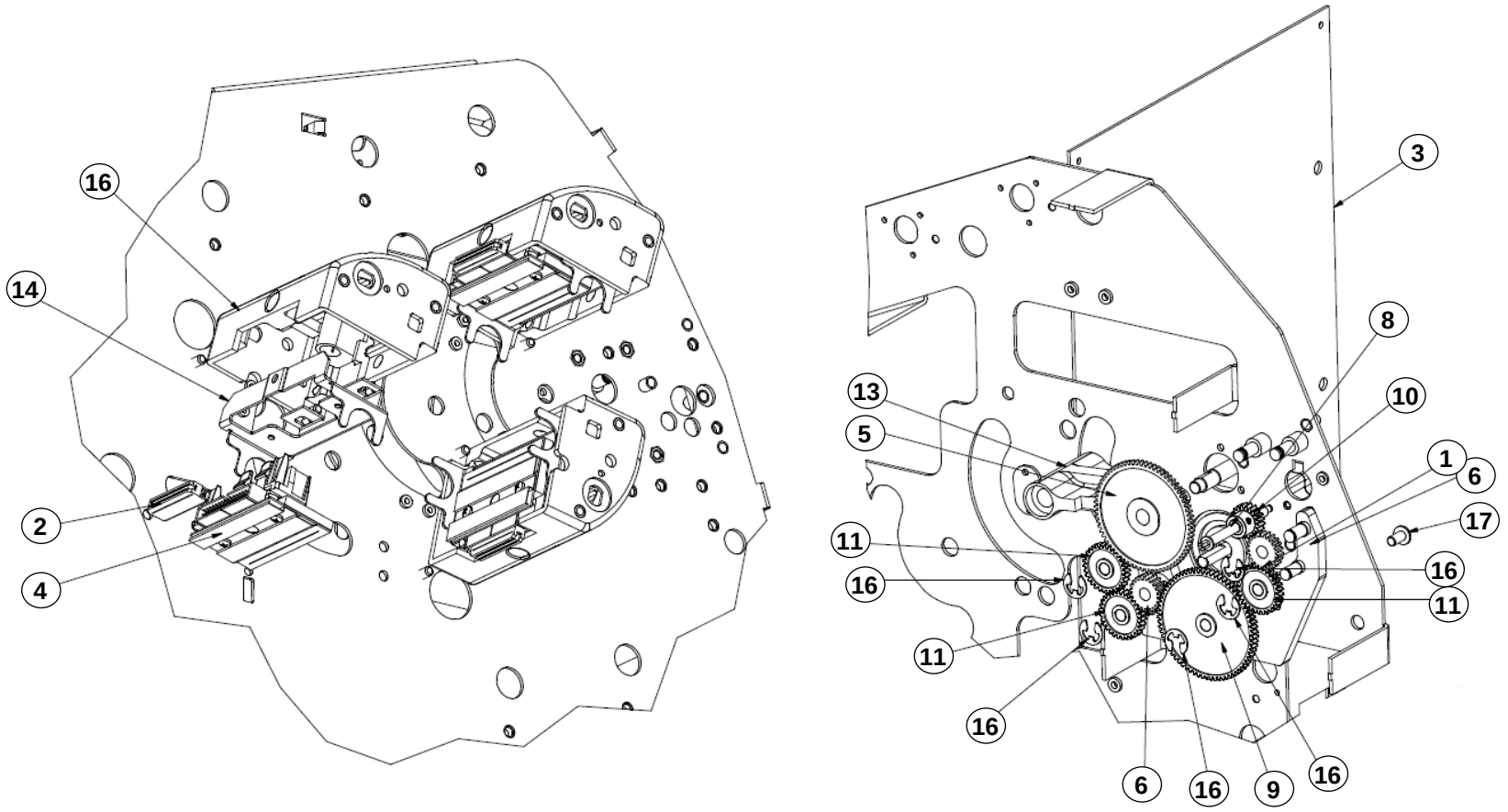
ITEM	PART NO.	DESCRIPTION	QTY
1	05586003	SHAFT, INK TURN	6
2	05588009	SHAFT, STACKER MOUNT	1
3	05631201	KIT, FRAME ASSEMBLY, SNAP 500 2/1	1
4	05638001	SHAFT, LONG STACKER MOUNT	1
5	991374	1/4 SCREW, 1/4-20 X 1/2 PAN PHILLIPS	2
6	991379	10-32 X 3/8 PHILLIPS PAN HEAD SCREW	6
NS	05586010	STATIC BRUSH (INK ROLL)	3

12.24 600DPI Machine Parts List – Gen 1

ITEM	PART NO.	DESCRIPTION	QTY
1	05341150A335	MODULE, PC MEMORY, ALTERED, V335	1
2	05580078D	DOCUMENT, 600DPI UPGRADE, SNAP 500	1
3	05584072	BRACKET, FEED MOTOR MOUNT 600DPI	1
4	05587117	ASSY, KNIFE DRVE SHAFT 600 DPI	1
5	05591143	CABLE, PRINT HEAD	2
6	05621107 500 600DPI	PCB, MCB 500 600DPI	1
7	05631194	PRINT HEAD, 600 DPI	2
8	05634028	GEAR, 70T	2
9	05634029	GEAR, 30T	1
10	05634031	GEAR, 21T	1
11	05635009	BRACKET, PRINT HEAD MOUNT, 600DPI	2
12	05635022	MOUNT, PRINT HEAD	2



12.25 600DPI Machine Parts – Gen 2

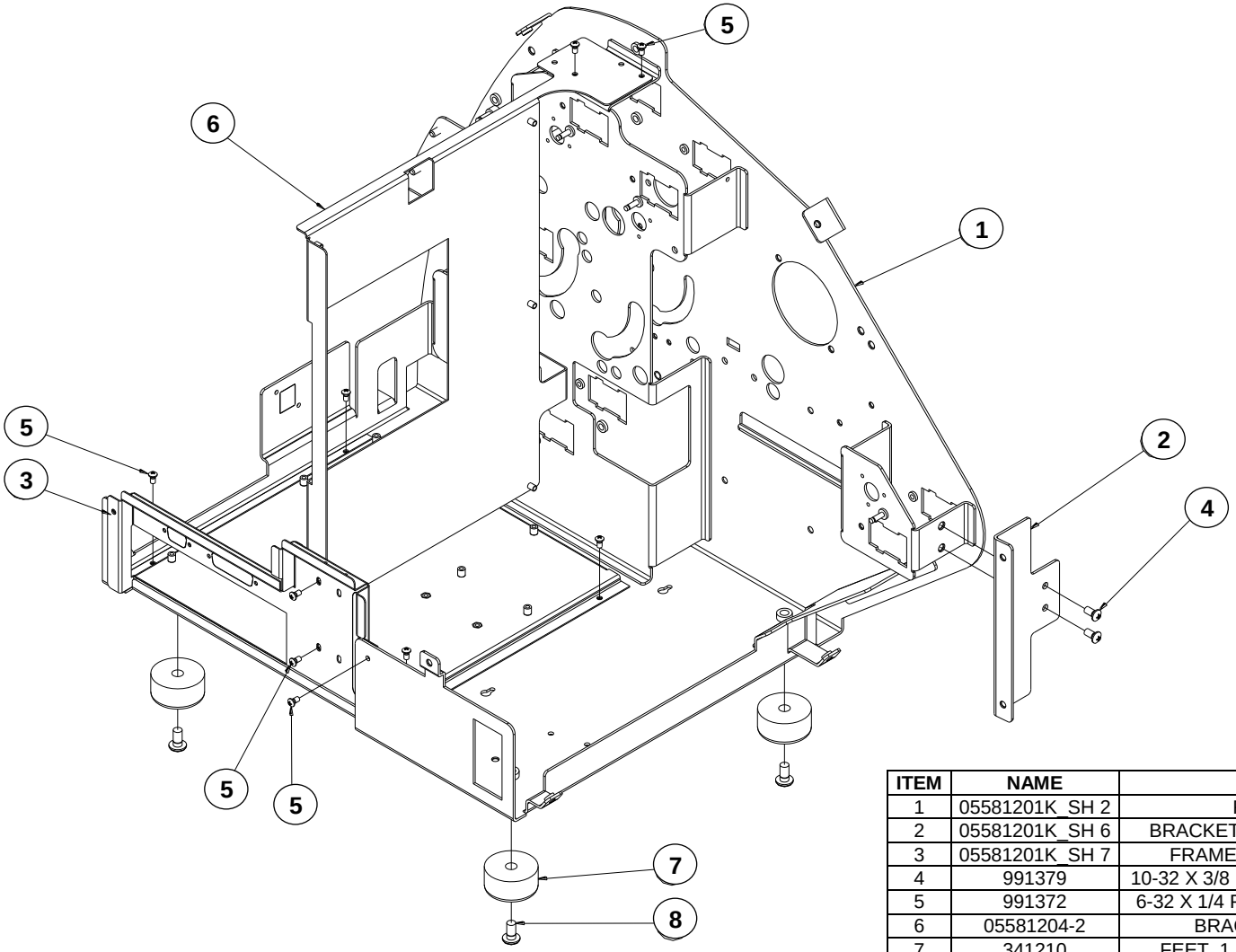


** The SNAP printer is not convertible between 300DPI & 600DPI **

ITEM	PART NO.	DESCRIPTION	QTY
1	05584027	GEAR, IDLER 22T, 32P	1
2	05591143	CABLE, PRINT HEAD	3
3	631107 500 2_1 600DPI	PCB, MCB 500 2/1 PROGRAMMED	1
4	05631194	PRINT HEAD, 600 DPI	3
5	05634028	GEAR, 70T	1
6	05634030	BRACKET, 600DPI	1
7	05634031	GEAR, 21T	1
8	05634044	SHAFT, NIP DRIVE 600 DPI	1

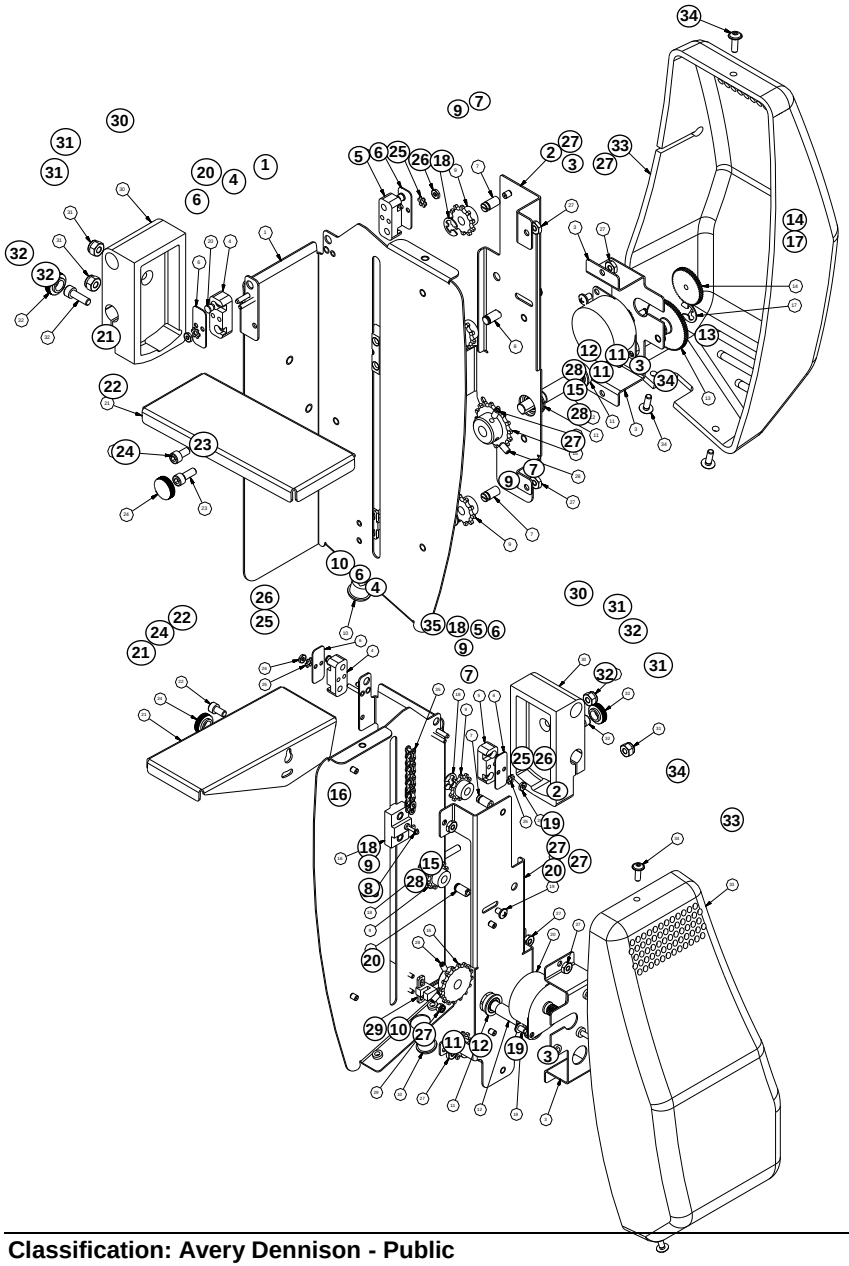
9	05634045	GEAR, 70T 600 DPI	1
10	05634046	GEAR, 20T NIP SHAFT 600 DPI	1
11	05634050	GEAR, 30T 600 DPI	3
12	05634092D	DOCUMENT, 600DPI UPGRADE	1
13	05635008	BRACKET, SWING ARM 600 DPI	1
14	05635009	BRACKET, PRINT HEAD MOUNT, 600DPI	3
15	05635022	MOUNT, PRINT HEAD	3
16	990326	SNAP RING, 1/4" E-RING	5
17	991379	10-32 X 3/8 PHILLIPS PAN HEAD SCREW	2

12.26 Upright Frame Assembly – Gen 1



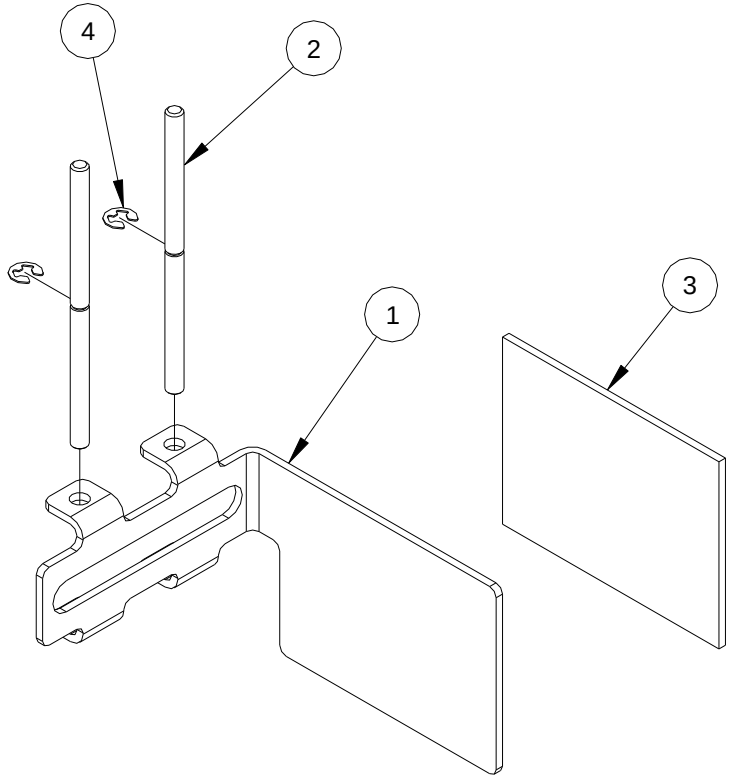
ITEM	NAME	DESCRIPTION	QTY
1	05581201K_SH 2	FRAME, UPRIGHT	1
2	05581201K_SH 6	BRACKET, SUPPORT, REAR COVER	1
3	05581201K_SH 7	FRAME, MOTHER BOARD TRAY	1
4	991379	10-32 X 3/8 PHILLIPS PAN HEAD SCREW	2
5	991372	6-32 X 1/4 PHILLIPS PAN HEAD SCREW	9
6	05581204-2	BRACKET, MCB SUPPORT	1
7	341210	FEET, 1 1/2 DIAMETER X 3/4 HIGH	4
8	991374	1/4-20 X 1/2 PHILLIPS PAN HEAD SCREW	4

12.27 Stacker



ITEM	PART NO.	DESCRIPTION	QTY
1	05638005	FRAME, STACKER 500 2/1	1
2	05638004	BRACKET, MIDDLE SUPPORT	1
3	05638003	BRACKET, STACKER MOTOR	1
4	05588029	BRACKET, DIODE MOUNT, FRONT	1
5	05588028	BRACKET, DIODE MOUNT REAR	1
6	05588031	COVER, LABEL SENSOR	2
7	05638006	SHAFT, SPROCKET	2
8	05638007	SHAFT, TENSIONER	1
9	05991640	SPROCKET, STACKER, 10T	3
10	221117	STRAIN RELIEF .360 X .625"	1
11	05991510	BALL BEARING , 16mm O.D. x 8mm I.D. FLG	2
12	05638002	SHAFT, MAIN DRIVE	1
13	117954	GEAR-RIBBON 75T	1
14	117955	GEAR-RIBBON 54T-15T	1
15	05991419A	SPROCKET, STACKER 16T ALTERED	1
16	05588001A	PLATFORM SLIDE, ALT	1
17	05990327	E-RING, 5/16	1
18	05990329	E-RING, 7/32	3
19	05991373	8 SCREW, 8-32 X 1/4 PAN PHILLIPS	3
20	05581199A	HARNESS, DOWNSTACKER, PROGRAMMED WITH GEAR	1
21	05588080	BRACKET, LABEL PLATFORM	1
22	05991182	10-32 X 3/8 SHCS w Nylon	1
23	05990081	10-32 x 1/2 SOC HD CAP SCR	1
24	05990313	THUMB KNOB, #10	1
25	05989966	#4 STAR WASHER	2
26	05990005	4-40 HEX NUT	2
27	05990069	8-32 HEX NUT	5
28	05990058	8-32 X 1/4 KNURLED CUP POINT	2
29	05989986	4-40 ES NUT	1
30	05638010	BRACKET, STACKER MOUNT	1
31	05990104	10-32 E-S NUT	2
32	05991455	10-32 X 5/8 THUMB SCREW	1
33	05588072	COVER, STACKER REAR VENTED	1
34	05991508	8-32 X 1/2 FLANGED BUTTON HEAD SCREW	3
35	05638008	CHAIN, STACKER DRIVE	1
36	05991335	E-RING, 3/32	1

12.28 Label Stop



Item	Part #	Description	Qty
3	05588043	Magnet, Label stop	1
1	05588041	Bracket, Magnetic label stop	1
2	05588042	Pin, Magnetic label stop	2
4	05991356	Snap ring, 1/8 E-ring	2

AVERY DENNISON Technical Support
Product / Services
Installation Report

Customer:		**Failure Report #:**	(For office use)
Address:		**Service Report #:**	
		Failure Reported By:	
		Date:	
		Model #:	
Contact:		**Serial #:**	
Phone #:		**Mfg. Date:**	(For office use)

Out of Box Failure	Yes		No		Within 30 Days of installation	Yes		No	
Total Inches		---			Within Warrantee	Yes		No	
Total Cuts		---			If within Warrantee, which month		.		

Failure Codes

Code		Description	Code		Description
100		Normal user Adjustments only, not a failure.	106		Non-operating (bad) electronic part, not visually broken.
101		Could not repair, (return machine to engineering).	107		Non-operating (bad) mechanical part, not visually broken.
102		Visually broken or bent electrical parts.	108		Re-adjustment required internally to function.
103		Visually broken or bent mechanical part.	109		Re-adjustment required externally to function.
104		Missing Electrical part, machine won't function.	110		Part fell off or disconnected, put back on, still good.
105		Missing mechanical part, machine won't function.	111		Missing Supplies or Formats

Description Of Failure

13.0 Revision Record

Revision	Date	Description
2.0	27-MAR-2013	Removed CE mark from manual as not required Update FCC ID and moved to page 2 Moved WEEE symbol to page 2 Added section 6.5 Added Tracking to Troubleshooting Guide Added Revision Records Page Added Heading for Section 8.0 Added 600 DPI Part Diagrams and BOM Updated Page Numbers
2.1	30-APR-2013	Changed print head part number from 631190 to 631190S Updated Min Label Size on page 83. Added troubleshooting instructions to correct minimum ticket fallout issues to page 83.
2.2	17-JUL-2013	Updated Printer Spec for minimum label lengths
2.3	22-NOV-2013	Updated 600dpi
2.4	08-SEP-2014	Updated options, added Gen 1 and Gen2 updates ECN 3010082
2.5	09-DEC-2014	Added sections 2.5.2 and 12.3 ECN 3010206 Removed note about Contrast Sensor. Not transferred to BC05
2.6	08-DEC-2015	Updated sections 11.1 Gen I and II, 12.6, 12.23 & 12.24 Added print head retainer and bracket details on page 17. Revised internal test pattern documentation
3.0	03-JUN-2016	584026 was 584057. Page 123 Added risk assessment review documentation Added down stacker documentation and parts pages
4.1	12-JUL-2016	Updated BOM for section 13.13. Page 132
5.0	22-SEP-2016	Updated networking (Sections 3.7 and 5.4) and Image Shift in VCP (Section 5.3.3) Added page classifications per Avery Dennison policy.
5.1	21-OCT-2016	Added more legible call out numbers to mechanical drawings
5.2	02-FEB-2017	Updated page 134, Item 3, Back Cover 05631205 was 05581205 Updated Declaration of Conformity
5.3	06-MAR-2017	Added section on printing PS labels including troubleshooting ink out. Updated Voice menu trees to remove Demos

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