Operators and Service Manual

Avery Dennison
LOKPRINT 2

LOKPRINT 2 Oven Unit

05631398 Rev 4.2 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

Table of Contents

1.0 Introduction

This user manual was arranged for the person who is going to operate the system. The information is arranged in the order that is needed to install, and then operate the system. It starts with general information, then to unpacking the carton, setup, installing the supplies, machine operation, and then finally care and maintenance.
We at AVERY DENNISON hope that you will come to appreciate the efforts and quality that have gone into producing your AVERY DENNISON LOKPRINT II System and wish to remind you that you are our number one priority. We welcome any constructive comments or criticisms so that we may continue to offer you the best products in the industry for years to come.

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

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

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

2.0 Safety Instructions

This system has some pinch points and hot surfaces. All of these areas have been well guarded and it is recommended that the safety features of this system are never altered or defeated.

Heaters

The heat chamber has been designed to prevent the operator from coming into contact with areas that will cause burns during normal operation. Some surfaces are very warm to the touch. The IR lamps and internal lamp guards are extremely hot. Extra care should be taken when threading the machine while the machine is turned on. Any maintenance or cleaning should be done after the machine has been turned off and allowed to cool.

Feed Roller

The feed rollers will absorb heat from the web as the machine runs. These rollers have a self-closing cover to avoid contact during operation. The feed system is also equipped with an operator knob to advance the fabric forward and backwards as needed to avoid touching the hot rollers.

CAUTION: Turn off the power and allow the machine to cool before cleaning.

3.0 Installation

3.1 Preparing for the installation

3.1.1 AC Power Line

The LOKPRINT II requires an electrical service of 20A @ 115V or 10A @ 230V and the LOKPRINT II must be purchased as a 115volt or 230 volt electrical configuration. Check the machine's serial number plate to make sure the machine is the desired electrical line voltage.

Power consumption is 18 amps @ 115 volts and 9 amps @ 230 volt. Connect the power cord to a grounded 115 or 230 volt AC electric outlet of sufficient power. Because of the higher current draw of the LOKPRINT II, the SNAP printer and the SS Finishing Station should be on a separate electrical service.

Refer to the SNAP 500 Printer and SS Finisher serial number plates for their line requirements. Please check with your local electrical code and have the system wired by a qualified electrician.

LOKPRINT II Main Line Protection

The LOKPRINT II main AC power switch also serves as a resettable circuit breaker. The 115V machine incorporates a 20A breaker while the 230V machine uses a 10A breaker.

3.1.2 Location Considerations

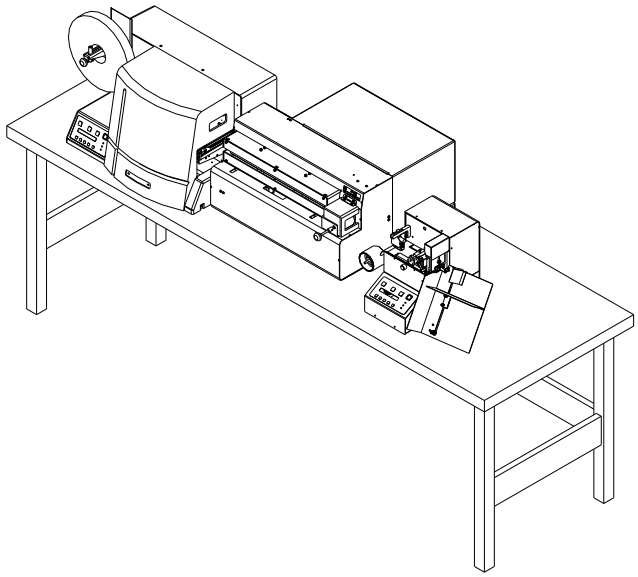


Figure 1: Recommended Workstation Layout

The LOKPRINT II requires a workstation with a minimum worktable of 30" (76.2cm) deep x 96" (243.8cm) long x 30" high (adjustable height may be desired depending on if the operator will be standing or seating). The worktable does not include a space for the computer.

The table must be capable of supporting 300 Lbs. (136.1Kg).

The LOKPRINT II should be installed with the alignment template included to ensure the fabric tracks properly from the printer into the LOKPRINT II. Locate the SS Finishing Station close to the exit of the LOKPRINT II without restricting its dancer arm travel. (see setup instructions)

3.1.3 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 LOKPRINT II has some pinch points which have safeguards design in. AVERY DENNISION strongly recommends that you do not modify or bypass these safeguards.

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

3.2 LOKPRINT II Internal Fuse Configuration

3.2.1 Branch Circuit Protection

Both controllers and the feed motor drive circuit have a 5x 20mm fuse as per the following chart:

Device	Fuse Designator	AVERY DENNISON Part #	115 VAC & 230VAC
U1	F3	990754	1.0A 250V FA 5x20mm
U2	F4	990754	1.0A 250V FA 5x20mm
Web Feed Motor	F6	990915	1.6A 250V TL 5x20mm

3.2.2 Power Cord

Both the 115V and 230V machines incorporate a quick disconnect power cord. The 115V cord requires a NEMA 5-20R receptacle while the 230V cord requires a NEMA 6-15R receptacle. Install the receptacle end of the power cord in the plug on the back of the machine then insert the plug end of the cord in the appropriate wall outlet.

3.3 Unpacking

The AVERY DENNISON equipment is shipped in a large cardboard box, which may be difficult to move by hand.

DO NOT REMOVE THE MACHINE FROM THE BOX OR UNPACK IN THE SHIPPING / RECEIVING DEPARTMENT.

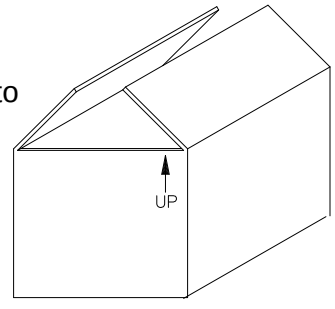
NOTE: Unpacking in the shipping/receiving department is not recommended for the following reasons:

First: The cardboard carton in which your AVERY DENNISON equipment was shipped allows the machine to be moved with a forklift, fork cart or handcart. Because of the weight of the machine, it is easier and safer to use one of these devices to move the equipment to its intended installation location.

Second: Leaving the machine in the carton while it is being moved within your facility will help to protect the equipment during any movements to this location. Once the equipment has reached its intended location you should begin the unpacking process.

Open the carton from the top. Do not cut deep into the carton, as there are items located just under the top. Remove the items located on the top insert. Remove the top insert. Lift the machine onto the table with the two banding straps. Remove the two straps and the plastic from the machine. Inspect the machine for shipping damage. If damage is discovered, contact AVERY DENNISON for further instructions – See the Warranty section under Service for contact information. In other countries please contact your local AVERY DENNISON supplier.

Once you are satisfied that there was no obvious shipping damage, the machine can now be moved to its intended location. In some cases, a double box has been used to ship your machine.



Save the shipping materials to relocate the equipment or return to factory for service.

3.3.1 Inventory of Components

The following is a list of additional parts (pieces) that should be included in your LOKPRINT II shipping container. If anything is missing notify AVERY DENNISON immediately – See the Warrenty section under Service for contact information. In other countries contact your local AVERY DENNISON supplier.

- AVERY DENNISON LOKPRINT II "User's Manual".
- Quick-disconnect power cord.
- Printer / LOKPRINT II positioning template.
- Web Tension Assembly
- Interface harness between the printer and LOKPRINT II

3.3.2 Recommended Spare Parts

The following spare parts are recommended for each facility that has a LOKPRINT II

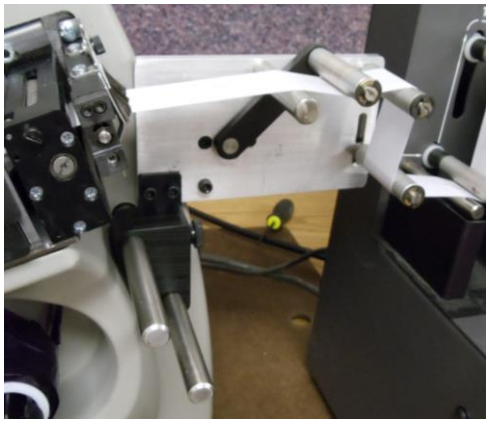
Spare Parts Kit 560010 120V / 230V contains the following parts.

Part #	Description	Qty
224045	Timing belt 1/5P 72T	1
561120	Elec, Quartz lamp, Harnessed	4
564010	Spring, Feed, Right	2
564011	Spring, Feed, Left	2
564030	Assembly, Grit roller, Upper	1
564031	Assembly, Grit roller	1
990754	Fuse, 1.0A 250V F.A. 5 X 20mm	2
991113	Drive, Timing belt, 54T X ¼"	1

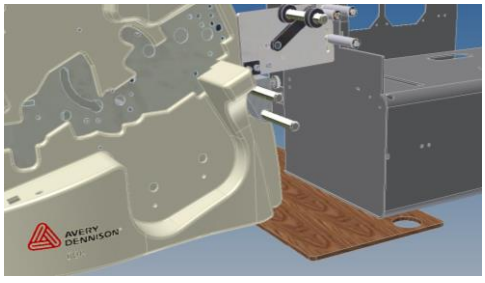
3.4 Installation and Setup

1) Position the SNAP printer on the left side of the recommended work table.
2) Set the assembly template under the feet of the printer as shown below.

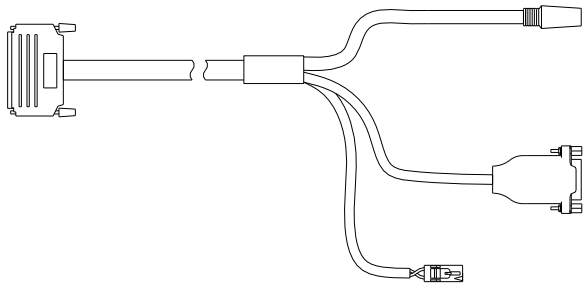
3) Install the Web Tension Assembly. The assembly is built, but was removed for shipping to avoid damage. Slide the assembly on the two shafts show below. Move the tension assemble all the way to the back and tighten the thumb screw.



4) Set the LOKPRINT II over in the smaller two holes



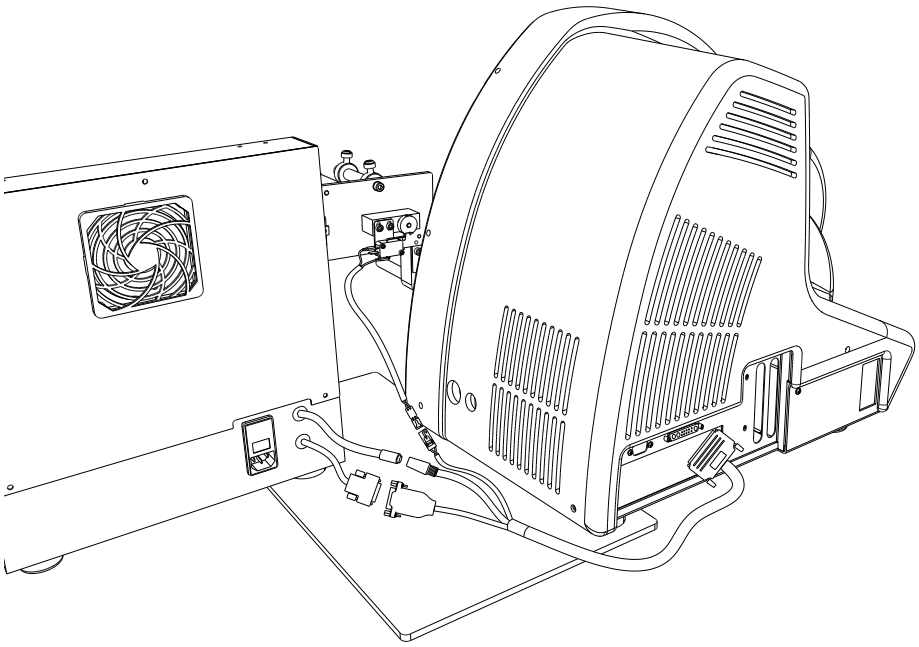
5) Locate the interface harness below and connect it the the back of the printer as shown below.



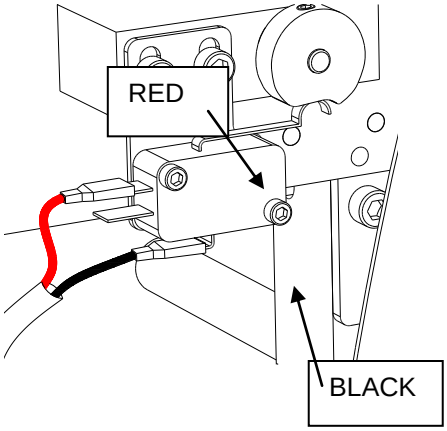
CAUTION: Before making any electrical connections the AC power to the printer must be off to avoid electrical damage to the equipment and person working on the units.

NOTE: THE ACCESSORY EQUIPMENT HAS MEMORY BUTTONS THAT ARE READ BY THE PRINTER DURING POWER UP OF EACH OPTION. TURN THE PRINTER ON FIRST BEFORE POWERING UP THE LOKPRINT II.

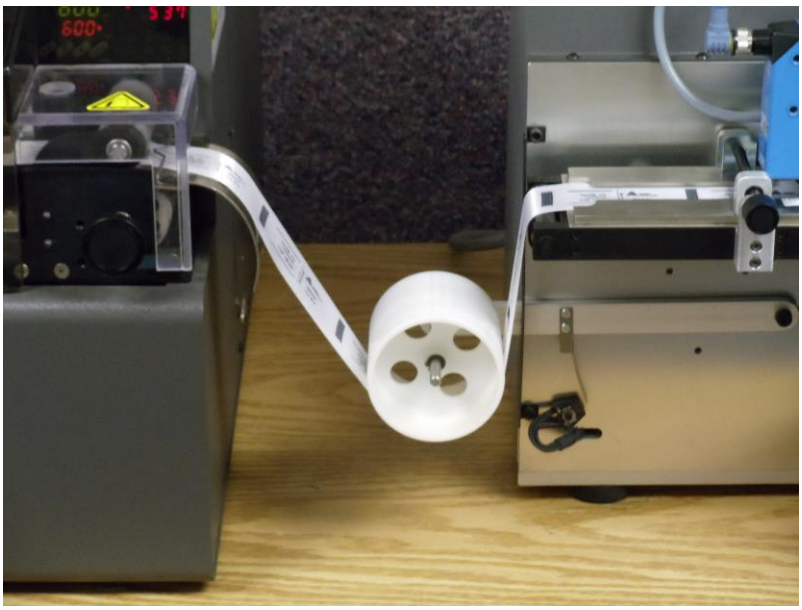
With the power off to both the LOKPRINT II and the printer, connect large connector to the back of the printer and tighten the connector screws. Connect both the 7 and 15 pin cable connectors located on the left side of the LOKPRINT II to the host printer and tighten the 15 pin connector screws. Connect the 2 - pin cable connector located to the Web Tension Switch.



Check that the red and black wires are connected to the Web Tension Switch as shown below.



6) Place the SS Finisher at the end of the LOKPRINT II unit and align the exit location of the web from the LOKPRINT II to the SS Finisher dancer arm roller. The dancer arm roller must not contact the LOKPRINT II. (Space approx 7" apart).



7) The normal stop/start to the system is with the printer start and stop button. You do not need to stop the SS Finisher as the printer will control the three units once they are up and running labels.

8) There is an interface accessory cable 05581158 (not included) that can be run from the printer to the SS Finisher. This will stop the printer when the stacker is full on the SS Finisher. The full stacker command is the

only communication between the printer and SS Finisher. The SS Finisher is a stand-alone accessory.

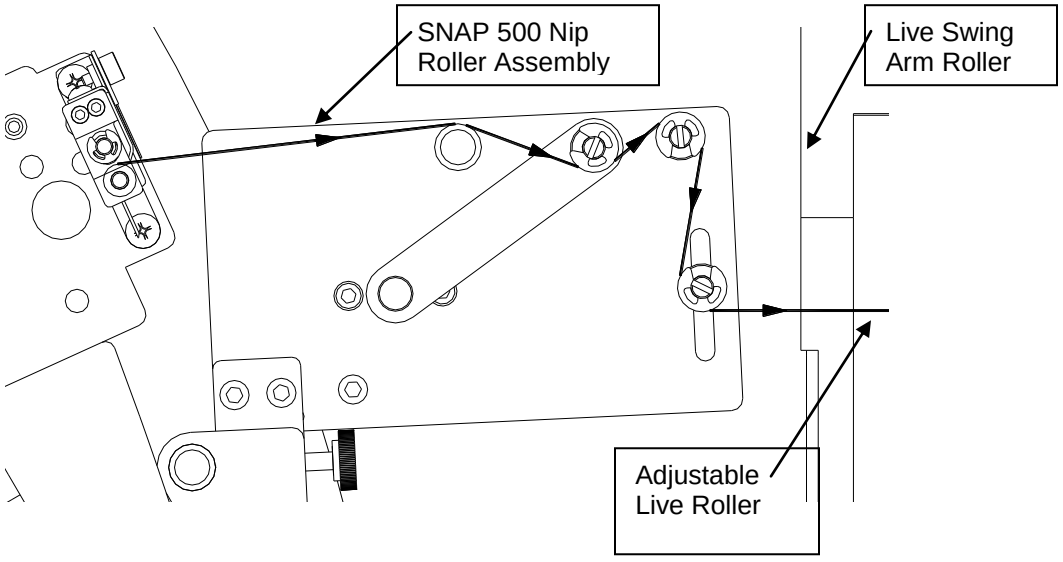
9) Power on the printer first, then the LOKPRINT II, and Finishing Station. The LOKPRINT II will start an internal timer that take 8 minutes stabilize once the pyrometers are up to temperature. Overall initial warm up is approx 10 to 12 minutes depending on environment temperature. Once warned up and stable the green ready light will come on signaling the system is ready to use.

CAUTION: If, for some reason the temperature set in the pyrometer drops below the low temperature setting the green light will go off. The LOKPRINT II will restart the internal time (8 minute stabilization) once the pyrometers reach their run temperature.

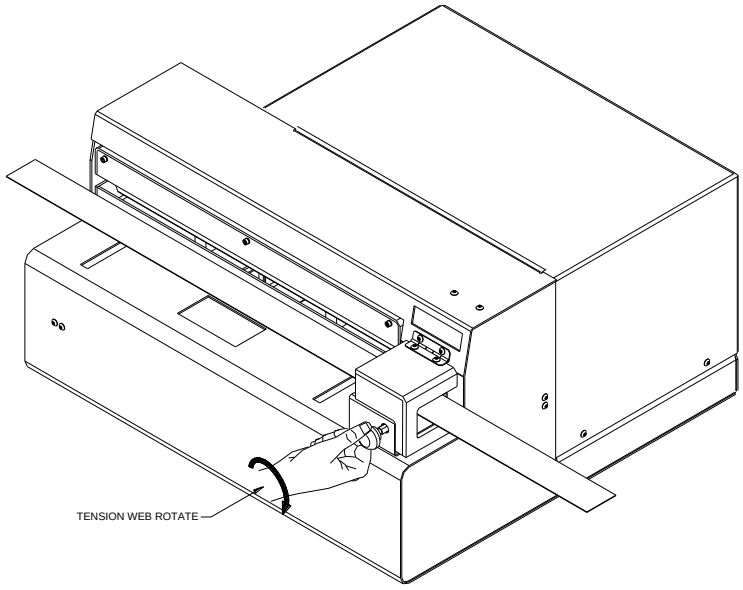
NOTE: AVOID FANS BLOWING ON OR AROUND THE LOKPRINT II. THEY CAN COOL THE OVEN SENSORS AND CAUSE IT TO SYSTEM TO STOP AND IT WILL THEN RESET THE WARM UP / STABILIZATION CYCLE TO BEGIN AGAIN.

NOTE: ROOM TEMPERATURE IS CRITICAL TO THE OPERATION OF THE LOKPRINT II OVEN UNIT. AIR IS PULLED IN THE FRONT COVER AND EXHAUSTED OUT THE BACK OF THE UNIT. CHANGES IN THE AIR TEMPERATURE WILL AFFECT OTHER INTERNAL COMPONENTS AND THE SUBLIMATION PROCESS OF THE WEB. SEE SPECIFICATION FOR TEMPERATURE RANGE.

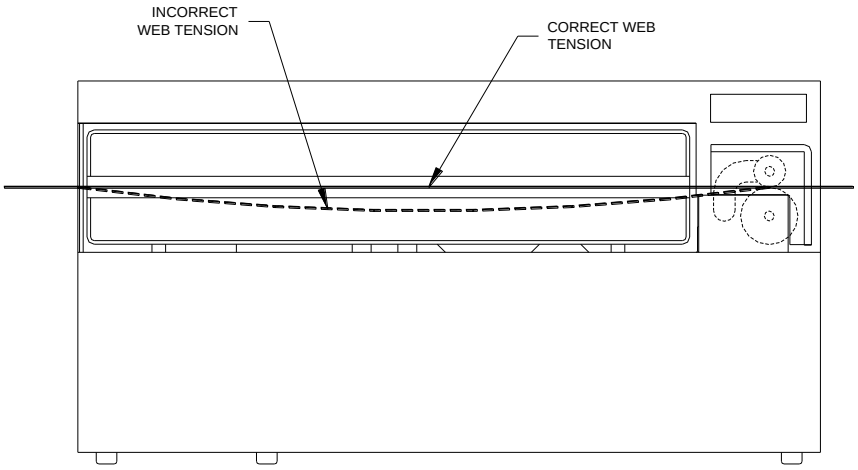
10) Load fabric and ink on the printer (see printer user manual), advance the fabric though "Web Tension Assembly" as shown below and then into the LOKPRINT II.



Thread the fabric through the LOKPRINT II. Tension the web with the LOKPRINT II feed knob to remove excess slack between the printer feed rollers and the LOKPRINT II feed rollers. The system will further tension the web at the start of printing.



AVERY DENNISON LOKPRINT II



11) Download data to the Printer, this format should include a printed sense mark for the Finishing Station to register.

12) Press the printer start and allow the system to run until there are sufficient printed labels to thread the SS Finishing Station. See SS Finisher manual.

13) Thread the SS Finishing Station and align the sensor and sense mark with the registration sensor. The sense mark printed on the label must be

the first thing the sensor sees when you start the SS Finishing Station. (See the SS Finisher manual for more details on operation).

14) Start the SS Finishing Station in order to remove the slack between the LOKPRINT II and the Finishing Station. The SS Finisher dancer arm will lift and stop the SS Finisher. The SS Finisher front panel has a Speed adjustment. This should be set to the lowest value to provide constant tension on the fabric between the LOKPRINT II and the SS Finishing Station with the least amount or stopping and starting. (See the SS Finisher Manual for more details).

15) Start the system, the LOKPRINT II oven will move out to cover the web. There is an oven insulation strip secured to the Plexiglas guard. The oven should fully engage the strip to keep the oven temperature from dropping below the pyrometer low set point.

4.0 Product Description

4.1 Theory of Operation

The LOKPRINT II was designed to receive labels printed on both sides from an AVERY DENNISON SNAP 500 printer using dye sublimation inks and polyester tapes. The LOKPRINT II heats the web and the dye sublimates the labels then feeds the SS Finishing Station for ultrasonic cut and stacking. The LOKPRINT II is equipped with four infrared (IR) quartz heating bulbs and two non-contact IR heat sensors. One sensor is controlling the web temperature and a second monitoring the fabric temperature to ensure the web stays in range to provide a cured label. The controller controls the energy provided to the quartz bulbs, which produces the heat. The control, sensors, SCR (energy source), and quartz bulbs are all part of an automatic, "closed loop" system to ensure fully sublimated labels.

Once connected, all components of the LOKPRINT II act as a system, including the Printer, LOKPRINT II and the Finishing Station. Optimum dye sublimation occurs between the temperatures of 400° - 420° F (205° - 215.5° C) inside the heat chamber. The LOKPRINT II will shut the printer down if the web temperature drops below 400° F (205° C). This closed loop system approach ensures maximum sublimation and minimum label waste.

4.2 Description of Operation

4.2.1 Hands free operation

Once the LOKPRINT II has been threaded, very little operator input is needed. As the fabric moves through the heat chamber - the controllers control and monitor the web temperature as it moves through the LOKPRINT II.

The LOKPRINT II is threaded with the heat chamber in a parked (back) position. When the printer's start button is pushed, the heat chamber will move forward to the operating position that covers the web - heating it to the desired temperature.

If the "stop" button on the printer is pushed or if the system shuts down automatically, the heat chamber will move back to the parked position.

4.2.2 Interlocks

During operation, the LOKPRINT II will shut down the system automatically, if one or more of the following conditions exist. See the Printer and or Finishing Station manuals for their interlocks.

(1) Power lost to the LOKPRINT II.

(2) LOKPRINT II power switchable circuit breaker exceeds safe current or temperature levels.

(3) Oven didn't reach the operating position in time at startup.

(4) No web in web sensor.

(5) Heat chamber thermostat temperature exceeds safe limit.

(6) Web under temperature alarm.

(7) Oven over temperature alarm.

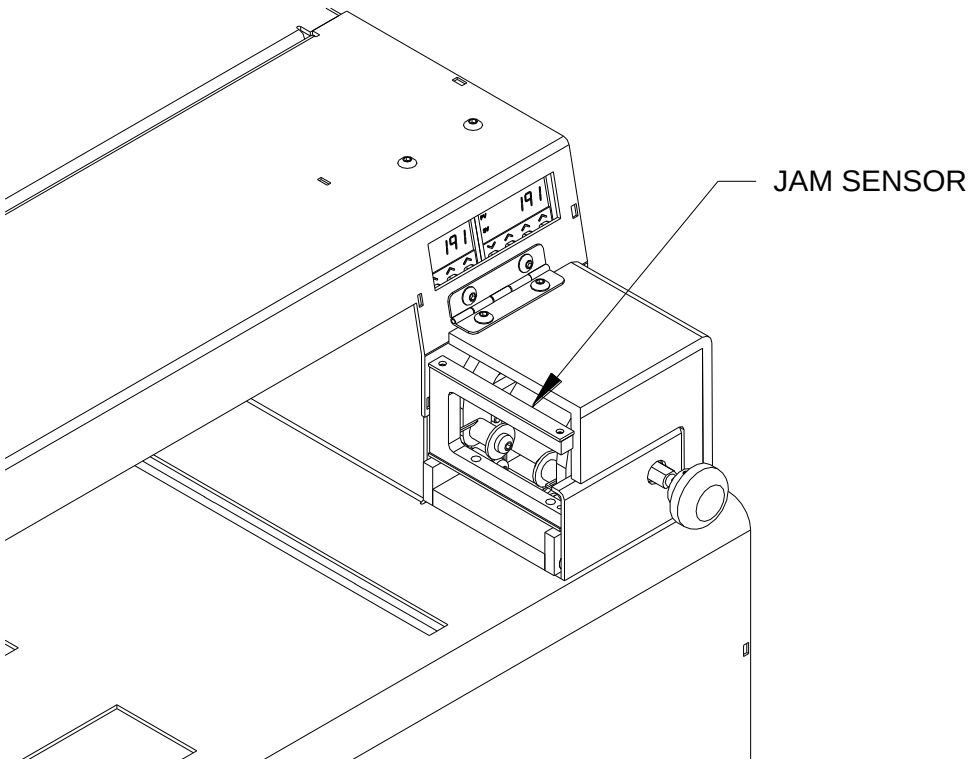
(8) Guard open.

The recommended room temperature for the system is 60°F (15.5°C) to 90°F (32.2°C). If a cooling system is required it should not be pointed directly at the system to create drafts that could affect the sublimation process.

4.3 LOKPRINT II Specification

Sublimation method:	Non-contact Narrow polyester web Dye sublimation thermal transfer inks
Web speed:	Speed – 5 IPS - (127mm/second)
Web Size:	Min: 1.062" (27mm) Max: 2.0" (50.8mm) Feed length: No restrictions on the LOKPRINT II station
Cutting:	No cutter included in LOKPRINT II station
Interface:	AVERY DENNISON SNAP 500 printer family
Finishing method interface:	SS Finisher (ultra sonic cutter with stacker) Rewind accessory
Dimensions	13.5" (34.5cm) high x 26.5" (67.3cm) wide x 23.5" (59.7cm) deep
Weight	58 Lbs. (26.3Kg.) Shipping Weight = 81 Lbs. (36.7Kg.)
Electrical	115 volt system: 90-132 VAC 50-60Hz 20Amp 1 Phase. 230 volt system: 180-265 VAC 50-60Hz 10Amp 1 Phase.
Temperature	60°F (15.5°C) to 90°F (32.2°C)
Humidity	5% to 90% non-condensing

5.0 Operation / Adjustments



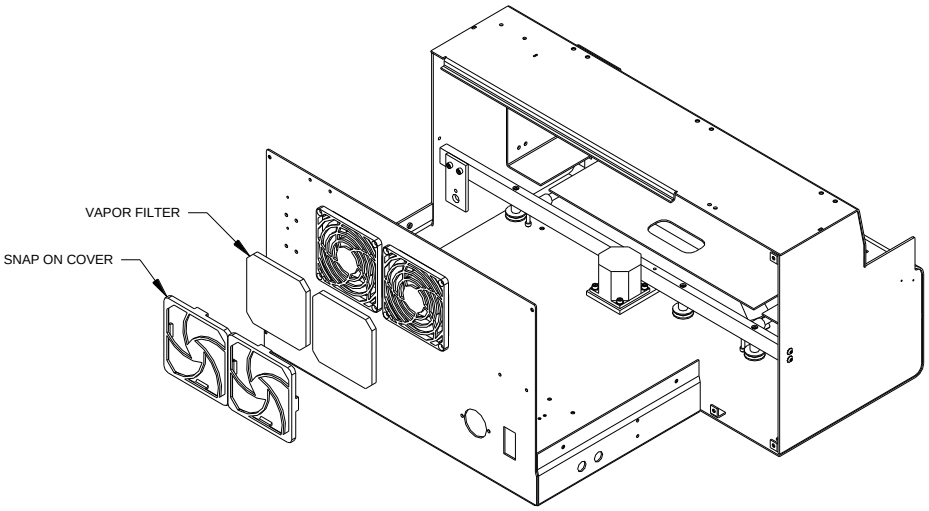
5.1 Jam Sensor

The jam sensor (illustrated with the bridge removed) is looking for the presence of the fabric for the printer to start and continue to operate.

If the fabric in not present, the system will not start and the printer front panel will display a message "Check Stacker".

If the fabric breaks during operation and pulls out of the sensor, the system will stop and printer front panel will again display "Check Stacker".

If the web sags more than the feed can take up before the heat chamber moves to the run position, the web may be pushed out of the jam sensor and stop the system.



5.2 Ventilation

The LOKPRINT II is equipped with a ventilation system comprising of two fans with carbon filters and multiple internal machine compartments / components. One filter is used to reduce the odors that are exhausted from the heat chamber while the other is used to filter the ambient air drawn in to cool the electronics compartment.

Vapors created during the sublimation process have an odor and may be seen as smoke escaping from the heat chamber area. If there is an unusually high amount of odor or visual smoke escaping near the front of the machine - check the filter(s) on the back of the machine. Make sure they are in place and clean. The filters are held in place with a snap on cover for quick and easy replacement.

The exhaust fan's filter (on the right as viewed from the rear of the machine) will normally need to be turned over after 2 rolls of ink and replaced after approximately 4 rolls of ink. At the time of replacement it is recommended to move the intake fan's filter to the exhaust fan and install a new filter on the intake fan. This rotation procedure will insure that both filters are kept at peak performance.

As the system pulls fresh air in the front of the heat chamber and exhausts it out the filter - it also cools the outer surfaces of the machine so they are safe to the touch. These surfaces will be warm to the touch, but will not cause burns.

It is extremely important to keep the Plexiglas guard closed at all times during operation except for threading the fabric. The airflow management and heat chamber control systems have both been designed to operate with the guard closed and all the covers in place. Attempting to operate the system with any guard or cover altered or missing will disrupt the control strategies and adversely affect the fabric temperature.

5.3 Feed Roller

The feed roller has two torsion springs that supply even tension for tracking. If the fabric fails to track properly through the printer, check to see if one of the springs have come loose, broken or been stretched out of shape. The feed is equipped with a hand knob used to thread the machine. This knob should turn freely with very little resistance in the clockwise direction only. If resistance occurs, check to see if the bearings need to be greased / replaced. Use standard multi-purpose grease to lubricate the bearings. To lubricate the bearings - the assembly will need to be disassembled, cleaned and repacked with grease. Do not use contact cleaners to clean the bearings, as this will destroy the bearings.

5.4 Heat Chamber Care

In the unlikely event that the fabric touches the bulbs - it will melt onto them and / or the inner oven. Remove as many of the un-melted pieces as possible without touching the bulbs.

DO NOT attempt to scrape melted fabric from the bulbs. Any remaining fabric residue will burn off, much like a self-cleaning oven. Simply re-thread a fresh section of fabric and continue printing.

CAUTION: DO NOT try to scrape or chip melted fabric off the IR lamps. This could permanently damage the IR lamp. You will notice an increased amount of smoke in the heat chamber as the bulbs burn off the melted web fabric. This is normal.

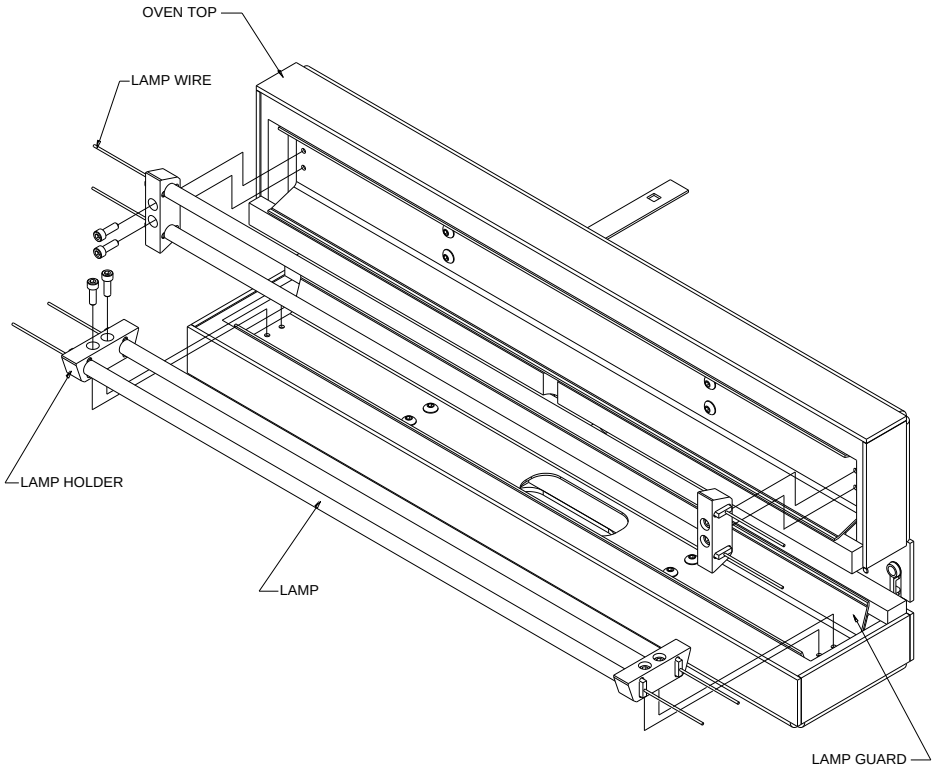
5.5 Feed Roller Care

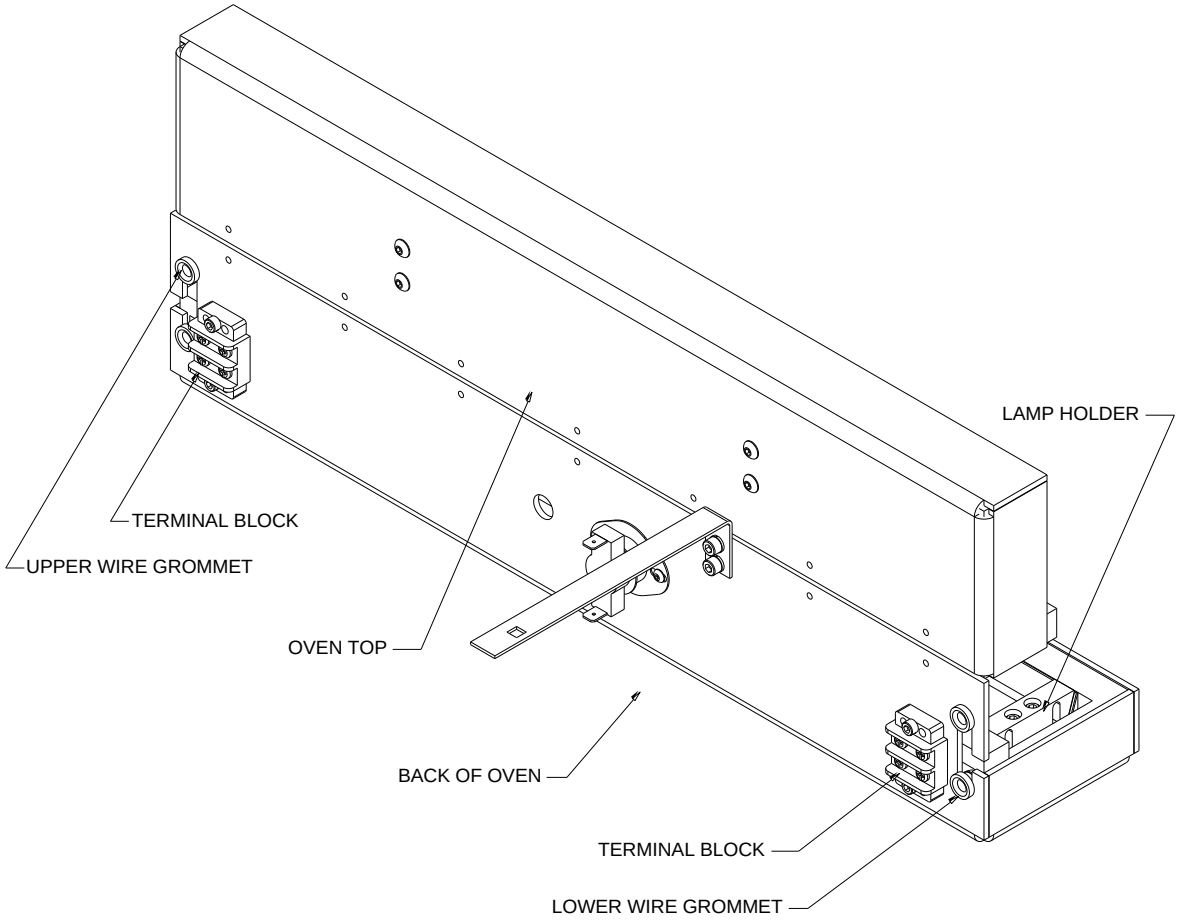
The feed rollers will pick up the ink dye during normal operation. The rollers should be cleaned after every two rolls of ink. The rollers can be cleaned with alcohol and a nylon bristle toothbrush. The rollers have a non-stick coating that can be damaged if cleaned with a wire brush, making it very difficult to clean once the coating is worn off. The alcohol used for cleaning should have an alcohol content of 70% or higher and can be purchased from your local drug store.

6.0 Maintenance

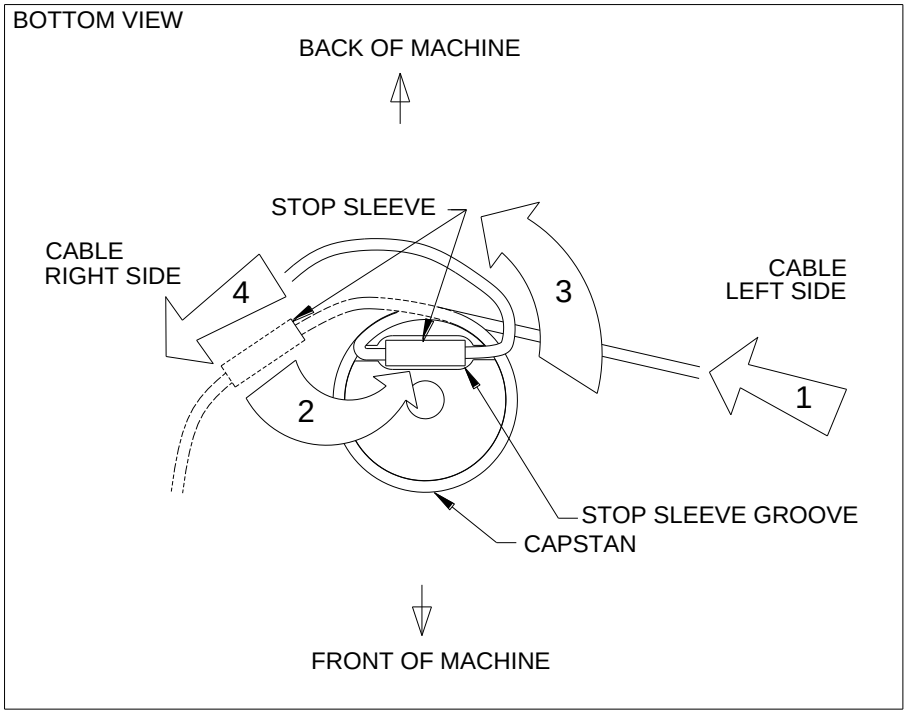
6.1 Lamp Replacement Procedure

1. Remove rear cover from machine chassis. Disconnect the lamp wires from the two terminal blocks located on the back of the lamp oven for the defective lamp(s).
2. There are 3 hex nuts holding an "L" shaped brackt that keep the upper hinged oven cover in the closed postion. Removed the 3 hex nuts to be replaced
3. At front of the machine, open the clear plastic oven guard and move lamp oven forward. Oven top is hinged. Swing oven top upward to expose lamp guards and lamps.
4. Unscrew lamp holders from lamp guards and remove the defective lamp(s) and lamp holders. Replace old or defective lamp(s).
5. Re-assemble lamp holders and lamps to lamp guards. Do not over tighten the lamp holders and crack the mounts. Feed lamp wires through wire grommets in back of oven. Ensure upper wires go through upper grommets and lower wires go through lower grommets. Re-connect lamp wires to the terminal blocks located on the back of the lamp oven.
6. Close the top lamp over cover. Replace the top oven retainer bracket with the original 3 hex nuts
7. Re-attach rear cover to main chassis. Close clear plastic oven guard.




LAMP HOLDER
TERMINAL BLOCK
UPPER WIRE GROMMET
OVEN TOP
BACK OF OVEN
TERMINAL BLOCK
LOWER WIRE GROMMET

6.2 Installing the Drive Cable at the Capstan



1: Feed the drive cable in from left hand side and wind around the Capstan five times, starting from the top and working down to the bottom.
2: Wrap the Drive Cable into the Stop Sleeve Groove so that the Stop Sleeve fits.
3: Once the Drive Cable exits the Stop Sleeve Groove, wrap the Drive Cable around the Capstan again.
4: Continue feeding the Drive Cable forward to the right side and around the Drive Cable pulleys on the machine.

7.0 Troubleshooting

Problem	*Probable Cause*	Corrective Action
Web will not advance	1) Insufficient feed pressure.	1) Check for broken spring. 2) Spring is off pressure mount pin. 3) Clean ink build up from grit rollers. 4) Check for thread fiber in feed roller bearings.
	2) Defective feed component.	1) Check for loose or broken feed timing belt. Make sure the timming belt is not tight. Run with 1/8" (3mm) side to side free play total ¼" (6mm). 2) Check for loose setscrews on feed motor or grit roller driven shaft. 3) Check for worn bearings. 4) Worn feed or pressure grit rollers. 5) Rheostat out of adjustment – Call for service support 6) Defective feed motor. 7) Motor runs for a while and loses power. Let system cool and it works. – check room temperature to spec. DC motors loose power if overheated.
Web will not sublimate completely.	1) IR lamp(s) out	1) Replace blown lamp(s). 2) Inspect wire leads from lamps 3) Check for loose terminal block connection.
	2) Defective IR sensor	1) Replace
	3) Defective sensor controller	1) Replace
	4) Blocked filters	1) Replace filters
	5) Web is not tracking through the middle of the heat chamber.	1) Move the LOKPRINT II so the web tracks in the center of the heat lamps. 2) Check feed springs and replace
Smoke coming from the front of Heat Chamber.	1) Blocked filter	1) Replace filter(s).
	2) Fan not operational	1) Check blown fuse. 2) Replace defective fan.
	3) Web broken or fallen on IR lamps causing excessive build up on lamps	1) Stop system and allow the build up to burn off.

7.1 Interlock Trouble Shooting Guide

The following is a list of LOKPRINT II problems along with possible causes / remedies of each that will stop the host printer with a check stacker error:

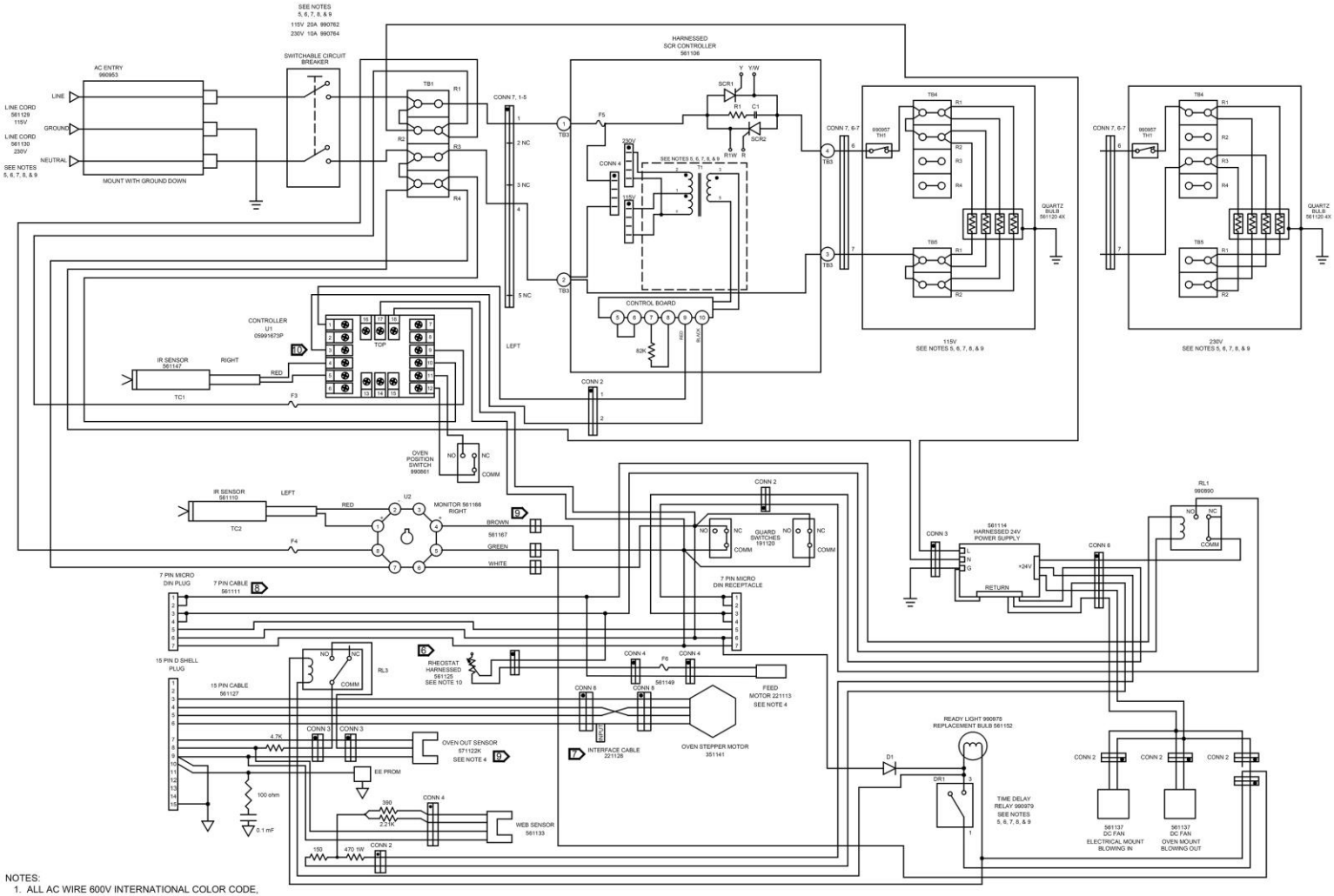
Problem	*Probable Cause*	Corrective Action
No lights on / in LOKRPINT II Check Stacker error cannot be cleared. System will not start.	Power switch position.	Toggle power switch on back of LOKRPINT II box.
	Power switch over current trip.	Confirm power switch rating matches machine line voltage.
		Check lamp-wiring matches machine line voltage.
		Check SCR Controller strapping matches machine line voltage.
	Outlet / power fault.	Plant electrician.
READY light is not on. Check Stacker error cannot be cleared. System will not start.	Insufficient time since the Fuji sensed the top of the inner oven at 400°.	Wait 8 minutes after the C light on the Fuji turns on.
	READY light bulb fault.	Evaluate / replace bulb as needed.
	Wiring error / fault.	Confirm proper connection of 7-pin connector between the LOKRPINT II and the 676.
		Confirm wiring of all component(s) that were replaced.
	U1 Controller programming error.	AVERY DENNISON service to confirm / reprogram as needed.
	U1 offset error.	AVERY DENNISON service to confirm / set exit temperature as needed.
	U2 Monitor programming error.	AVERY DENNISON service to confirm / reprogram as needed.
	U2 offset error.	AVERY DENNISON service to confirm / set offset as needed.
	SP / SP2 switch bale misalignment or fault.	Adjust / evaluate / replace oven position switch.
	Oven lamp wiring error / fault.	Check lamp wiring matches machine line voltage / evaluate / replace as needed.
	U2 Sensor fault.	Evaluate / replace sensor, requires AVERY DENNISON service to confirm / set exit temperature as needed.
	U2 Monitor fault.	Evaluate / replace U2, requires AVERY DENNISON service to confirm / set exit temperature as needed.
	U1 Sensor fault.	Evaluate / replace sensor, requires AVERY DENNISON service to confirm / set exit temperature as needed.
	U1 Controller fault.	Evaluate / replace U1, requires AVERY DENNISON service to confirm / set exit temperature as needed.

Problem	Probable Cause	Corrective Action
READY light is on. Check Stacker error can be cleared. Oven travels out or attempts to travel out and immediately retracts.	Oven obstacle.	Remove / adjust obstacle so that oven travels freely.
	Oven to guard insulation strip misalignment.	Adjust insulation strip for full oven engagement without interference.
	Oven out sensor misadjust / wiring error / fault.	Adjust sensor for proper oven position / evaluate / replace sensor.
	Oven drive line fault, mechanical or electrical.	Evaluate the drive line for mechanical binds / problems.
		Confirm proper connection of 15-pin connector between the LOKPRINT II and the 676.
	No web.	Thread the web through the LOKPRINT II
	Web not centered in web sensor.	Center the web in the LOKPRINT II web sensor.
	Web sensor IR shield missing.	Reinstall the IR shield.
	Web sensor / wiring fault.	Evaluate / replace the web sensor.
System stops during batch READY light goes out. Check Stacker error cannot be cleared for 8 minutes. System will not start.	SP2 Misadjusted.	AVERY DENNISON service to confirm / set SP2 as needed.
	U1 Controller programming error.	AVERY DENNISON service to confirm / reprogram as needed.
	U1 offset error.	AVERY DENNISON service to confirm / set exit temperature as needed.
	U2 Monitor programming error.	AVERY DENNISON service to confirm / reprogram as needed.
	U2 offset error.	AVERY DENNISON service to confirm / set offset as needed.
	Oven lamp wiring error / fault.	Evaluate the four lamps / wiring / replace as needed.
	U1 Sensor fault.	Evaluate / replace sensor, requires AVERY DENNISON service to confirm / set exit temperature as needed.
	U2 Sensor fault.	Evaluate / replace sensor, requires AVERY DENNISON service to confirm / set exit temperature as needed.
	U1 Controller fault.	Evaluate / replace U1, requires AVERY DENNISON service to confirm / set exit temperature as needed.
	U2 Monitor fault.	Evaluate / replace U2, requires AVERY DENNISON service to confirm / set exit temperature as needed.

Problem	Probable Cause	Corrective Action
READY light is on. Check Stacker error cannot be cleared. System will not start.	LOKPRINT II guard open.	1) Close guard. 2) Guard switch out of adjustment
	Finishing Station stacker platform at bottom of its travel.	Remove labels and raise platform.
	Web present sensor is not covered by the web	Move LKP II so the web tracks in the middle of the feed roller
	Web tension assembly at the end of the printer sensor is not triggered	Web is not threaded through tension device correctly – see threading in this document.
		Sensor arm on the cam is not setting in the low setting when arm is in the up position – adjust cam location
Finishing Station displays Close Guard.	Finishing Station guard open.	Close guard.
U1 readout > 800°.	U1 Sensor misalignment.	AVERY DENNISON realign sensor.
	U1 Controller programming error.	AVERY DENNISON service to confirm / reprogram as needed.
	U1 Sensor fault.	Evaluate / replace IR sensor, requires AVERY DENNISON service to confirm / set exit temperature as needed.
	U1 Controller fault.	Evaluate / replace U1, requires AVERY DENNISON service to confirm / set exit temperature as needed.
	SCR fault.	Evaluate / replace SCR.
READY light is on. Oven travels out or attempts to travel out and immediately retracts. Check stacker error can be cleared.	Oven out sensor mis-adjustment.	Adjust the oven out sensor mount bracket position as needed.
	Oven to guard insulation strip misalignment.	Adjust the guard insulator strip as needed.
	Guard switch bale(s) misadjusted.	Adjust the switch bale(s) as needed.
READY light is not on. Check Stacker error can be cleared.	7 pin connector between the LOKPRINT II and 676 partially or completely disconnected.	Reinsert the 7-pin connector.
System starts but does not pull fabric though the oven.	Finishing Station sensor misadjusted.	Align sensor and fabric so that the sensor mark is the first thing the sensor will see at restart.
		Adjust the sensor sensitivity to respond to the sense mark on the fabric.
System stops during batch READY light is on. Check Stacker error can be cleared.	Finishing Station cut length misadjusted.	Set the cut length on the Finishing Station front panel to match the distance between the sense marks on the fabric after the LOKPRINT II oven.
Finishing Station displays Align Stock	LOKPRINT II exit temperature too high.	AVERY DENNISON service to confirm / set exit temperature as needed.

8.0 Electrical Schematic

8.1 115 / 230 Volt Schematic

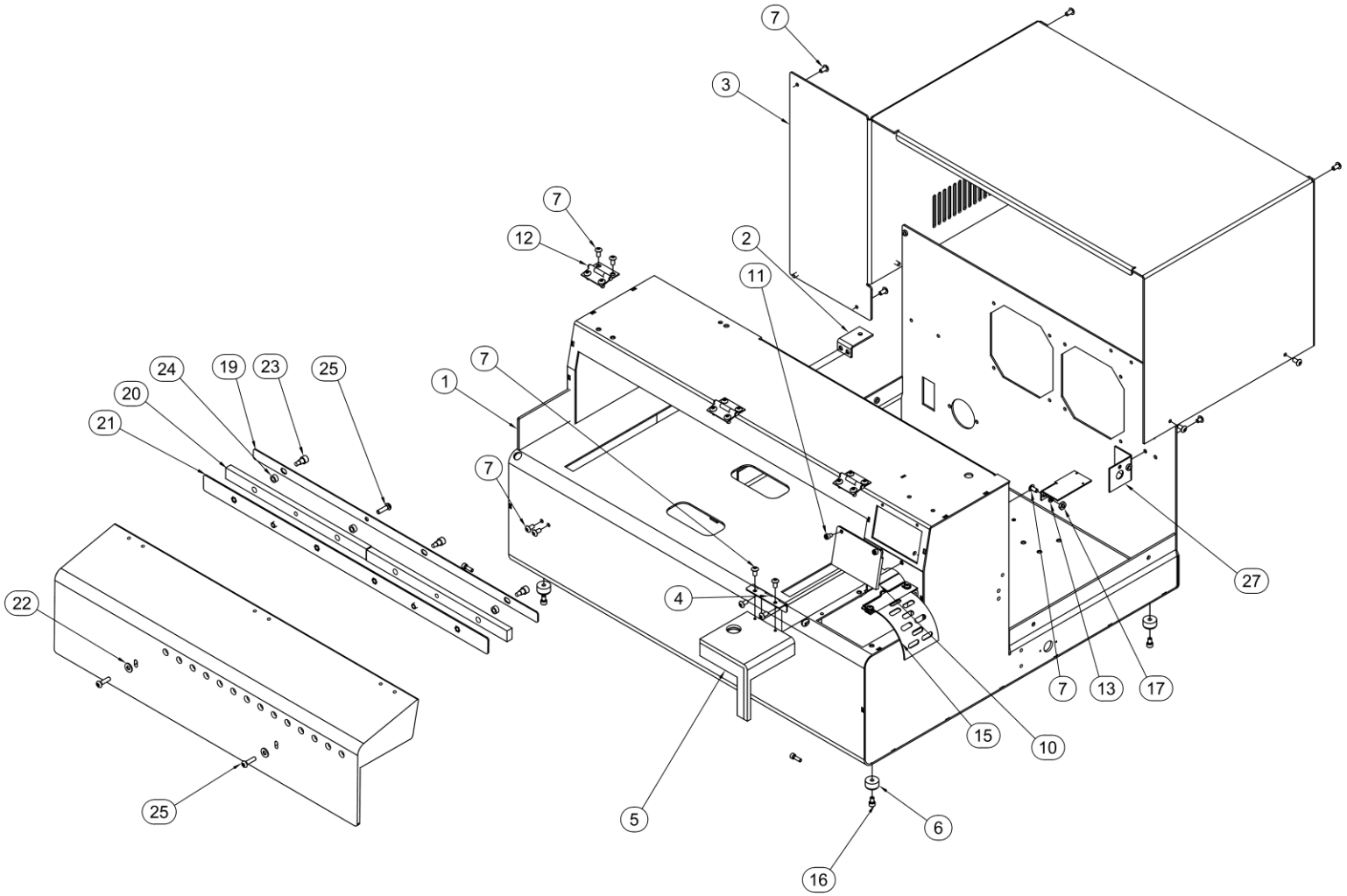


NOTES:

1. ALL AC WIRE 600V INTERNATIONAL COLOR CODE,
   LINE = BROWN
   NEUTRAL = LT BLUE
   EARTH GROUND = GREEN WITH YELLOW STRIPE
2. DC OUTPUT OF POWER SUPPLY: +24VDC GRAY, RETURN BLACK.
3. REMOVE ANY / ALL FACTORY JUMPERS FROM TB2.
4. REQUIRES TCB ROLLER DROP DRIVE CHANNEL AND SENSOR CHANNEL. CAN SUPPORT INK SAVE OR LOKPRINT, NOT BOTH.
5. LINE CORD MUST BE CHANGED FOR LINE VOLTAGE AMPLITUDE.
6. T1 MUST BE STRAPED FOR LINE VOLTAGE AMPLITUDE.
7. BULBS MUST BE WIRED FOR LINE VOLTAGE AMPLITUDE.
8. DR1 SETTING: 115V & 230V 1,2,3,4,9,10 CLOSED / 5,6,7,8 OPEN
9. SWITCHABLE CIRCUIT BREAKER MUST BE CHANGED FOR LINE VOLTAGE AMPLITUDE.
10. SET & GLYPTAL RHEOSTAT WITH 13.6V ACROSS SAME.

FUSE CHART		
	115V AC	230V AC
F3	1.0A 250V 5 X 20mm FA 990754	1.0A 250V 5 X 20mm FA 990754
F4	1.0A 250V 5 X 20mm FA 990754	1.0A 250V 5 X 20mm FA 990754
F6	1.6A 250V 5 X 20mm TL 990915	1.6A 250V 5 X 20mm TL 990915

8.2 Cover Assembly

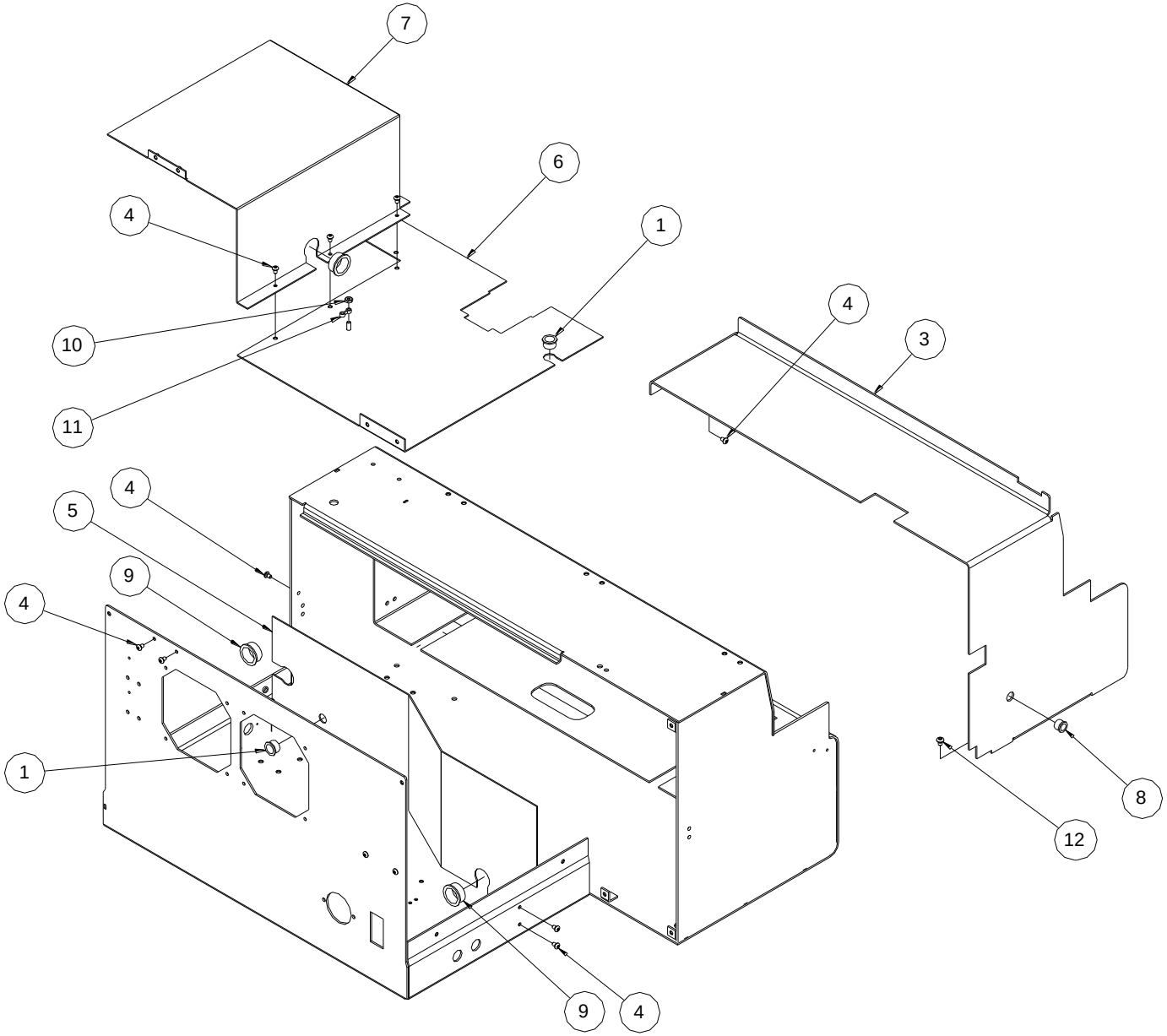


8.3 Cover Parts List

Item	Part #	Description	Qty
1	561203	Cover, Chassis, Main	1
2	565008	Bracket, Mount, Pulley	1
3	561204	Cover, Chassis, Back	1
4	561206	Hinge, Feed cover	1
5	561205	Cover, Feed	1
6	991199	Bumper, Rubber 8-32	5
7	990090	10-32 x 3/8 Button head screw	29
8	990052	10-32 x 1/2 Cap screw	5
9	565032	Bracket, In-out oven switch	1
10	561210	Cover, Controller	1
11	990050	8-32 x 1/4 Cap screw	2
12	224051	Hinge, Access cover	3
13	990728	Washer, #10 lock	2
14	561133	Sensor, Web harness (not shown)	1

Item	Part #	Description	Qty
15	564019	Ass'y, Stripper	1
16	990052	10-32 x 5/16" Socket hd cap scr	5
17	990103	10-32 Hex nut	2
18	990089	10-32 x 1/4" Button hd cap screw	1
19	561221	Guard, Inner baffle	1
20	565027	Baffle, Heat unit	2
21	561218	Guard, Baffle flange	1
22	990014	# 10 Flat washer	2
23	990230	10-32 x 1/4" Shoulder screw	3
24	565051	Spacer, Baffle	4
25	990092	10-32 x 3/4" Button hd cap screw	3
26	561209	Cover, Front, Heat unit	1
27	565050	Bracket, Rheostat	1

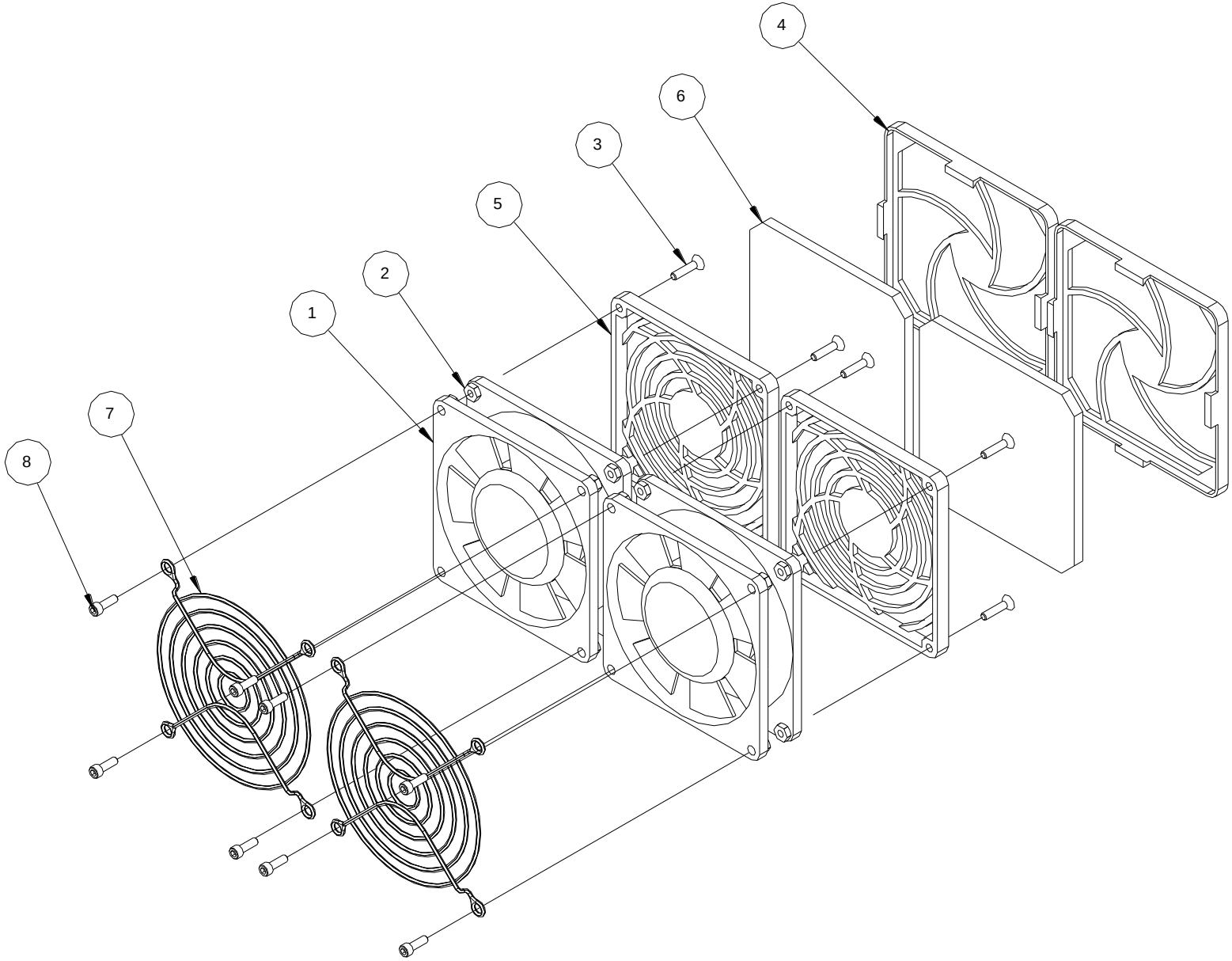
8.4 Baffle Assembly



8.5 Baffle Parts List

Item	Part #	Description	Qty
1	990811	Strain Relief, 5/8 x 1/2	3
2	561203	Cover, Chassis, Main (Ref Only)	1
3	561217	Guard, Top baffle	1
4	990066	8-32 x 1/4 Button head screw	16
5	561211	Guard, Lower baffle	1
6	561213	Guard, Horizontal baffle	1
7	561212	Guard, SCR baffle	1
8	990984	Strain relief, 1/2 x 3/8	1
9	990985	Strain relief, 1 x 3/4	3
10	990069	Hex nut, #8	1
11	990512	Tie wrap, TY534M	1
12	990089	10-32 x 1/4 Button head screw	2

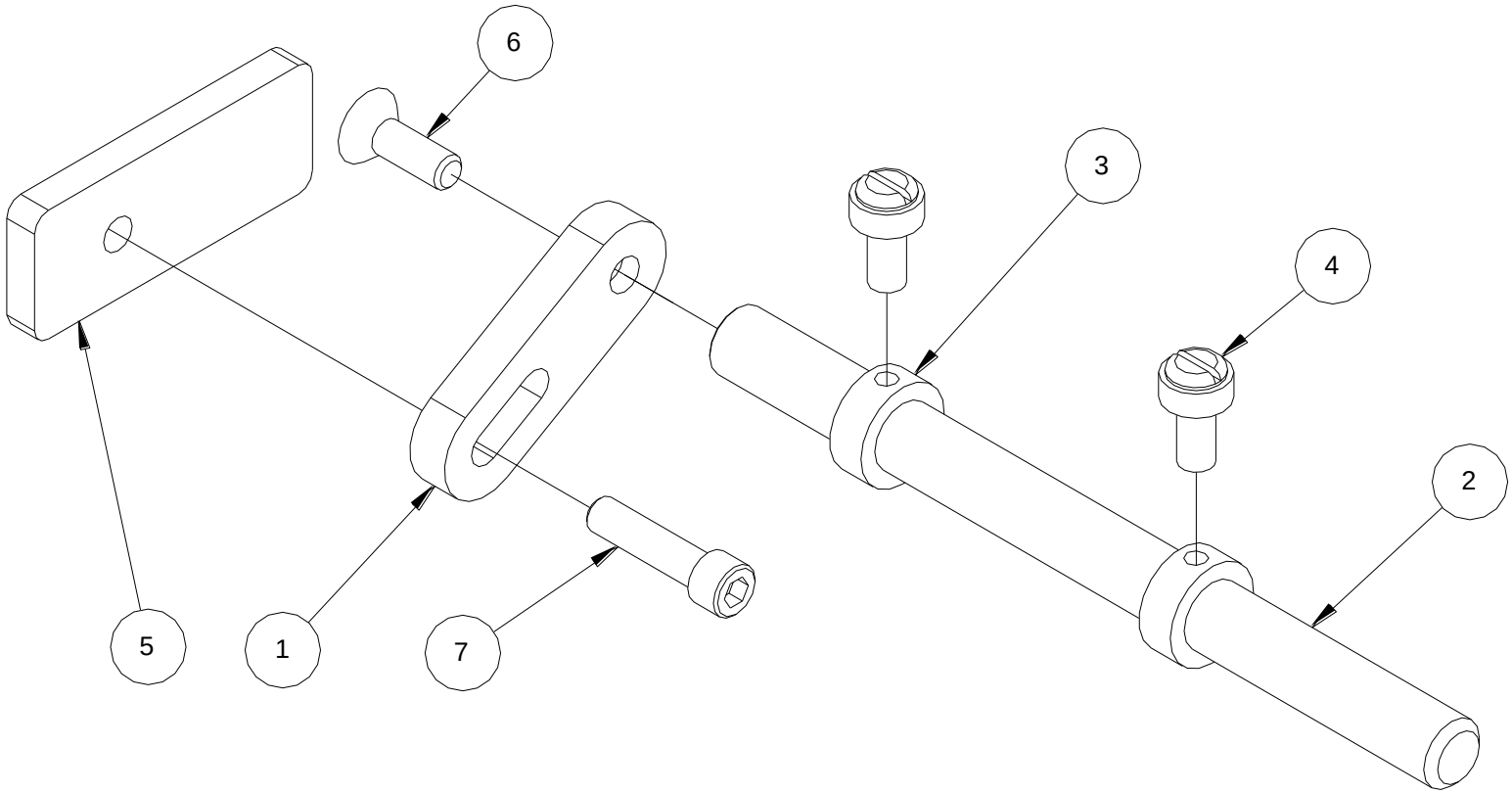
8.6 Air Filter Assembly



8.7 Air Filter Parts List

Item	Part #	*Description*	Qty
1	561137	Fan, Exhaust	2
2	990069	Hex nut, 8-32	16
3	991198	8-32 x 3/4 Flat head cap screw	8
4	991196	Assembly, Fan filter	2
5	991196	Assembly, Fan filter	2
6	565023	Filter, LOKPRINT	2
7	561140	Fan, Finger guard	2
8	990052	8-32 x 1/2 Cap screw	8

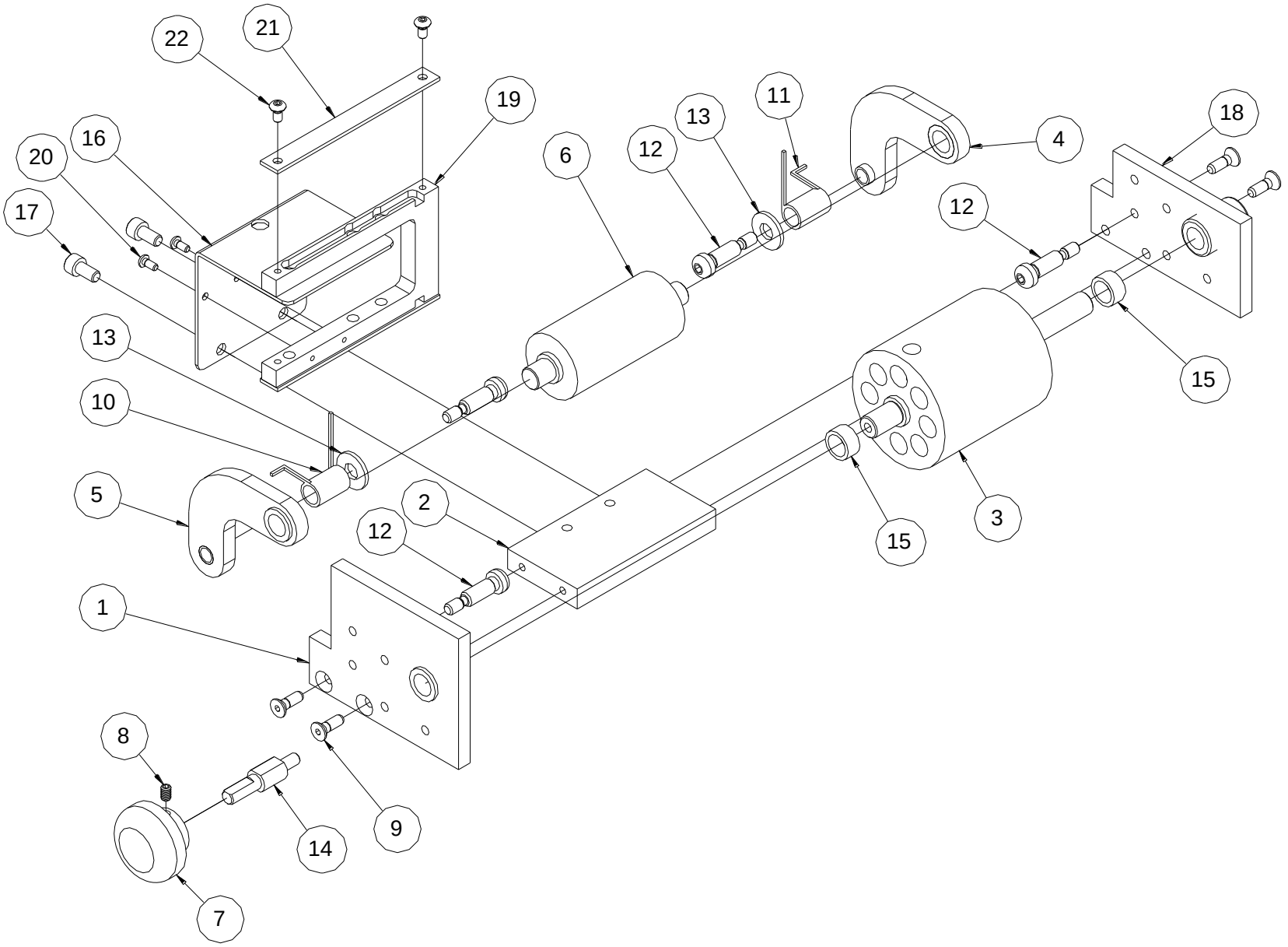
8.8 Web Guide Assembly



8.9 Web Guide Parts List

Item	Part #	Description	Qty
1	353004	Roller mount	1
2	194020	Web turn shaft	1
3	990374	1/2 Collar	2
4	990484	1/4-20 x 1/2 Nylon slotted screw	2
5	565021	Bracket, Tie bar	1
6	990133	1/4-20 x 3/4 Flat head screw	1
7	990123	1/4-20 x 1 Cap screw	1

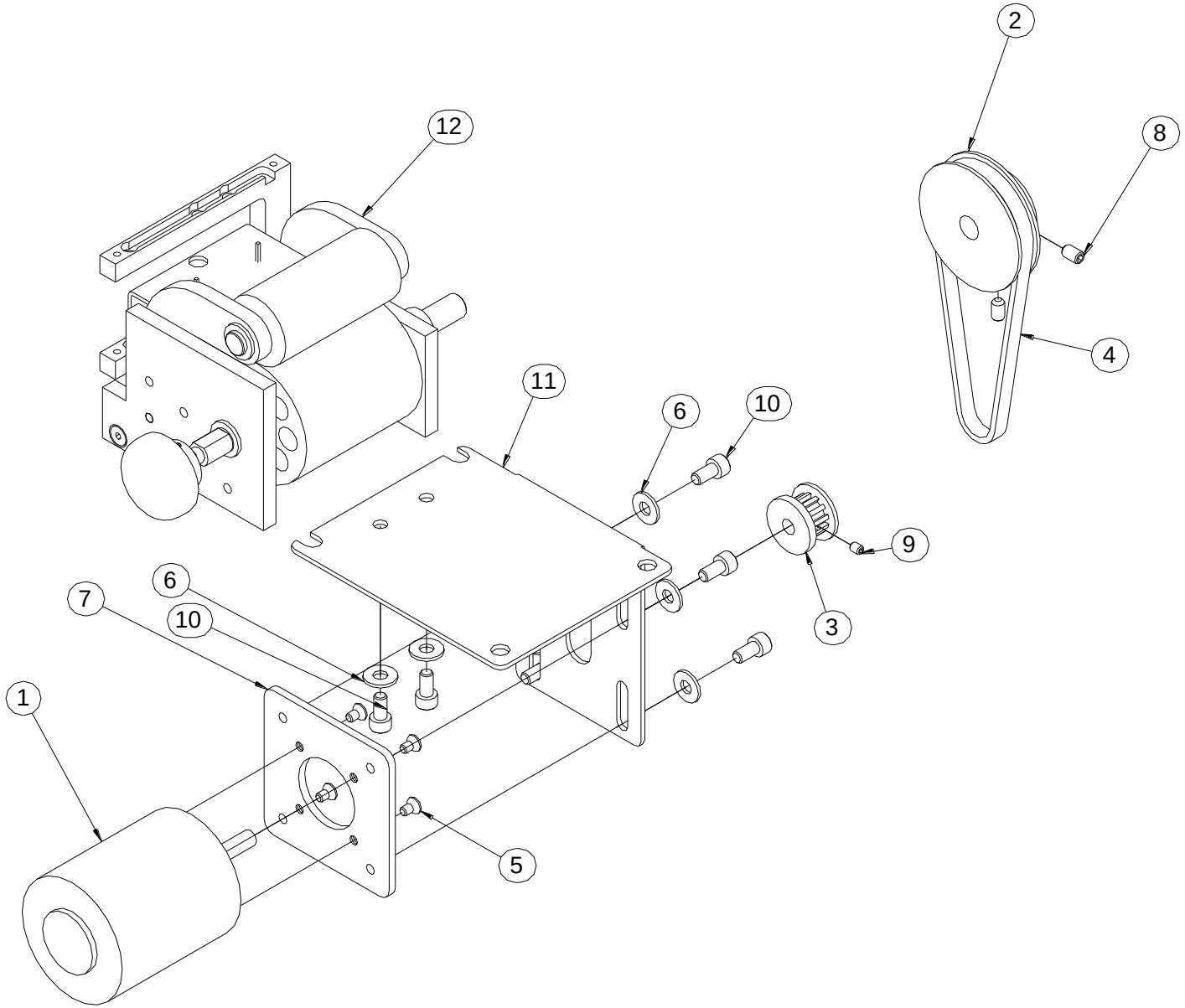
8.10 Drive Assembly



8.11 Drive Parts List

Item	Part #	Description	Qty
1	564033	Assembly, Mount plate, Front	1
2	564005	Bracket, Base, Feed	1
3	564031	Assembly, Grit roller	1
4	564034	Assembly, Pressure arm, Rear	1
5	564035	Assembly, Pressure arm, Front	1
6	564030	Assembly, Grit roller, Upper	1
7	105023	Knob, Impression adjust	1
8	990058	8-32 x 1/4 Knurled cup point	1
9	990456	8-32 x 1/2 Flat hd cap screw	4
10	564010	Spring, Feed right	1
11	564011	Spring, Feed left	1
12	991194	1/4 x 1 shoulder bolt 10-32	4
13	990167	Washer, 1/4 SAE	2
14	564013	Shaft, Knob adapter	1
15	999108	Bushing, 3/8 x 1/2 x 1/4	2
16	564016	Bracket, Jam sensor mount	1
17	990080	10-32 x 3/8" Socket hd cap screw	2
18	564032	Ass'y, Mount plate rear	1
19	378064	Bracket, Jam sensor	1
20	989983	4-40 x 1/4 Button head screw	2
21	378060	Guard strip, Jam sensor	2
22	990019	6-32 x 1/4 Button head screw	4

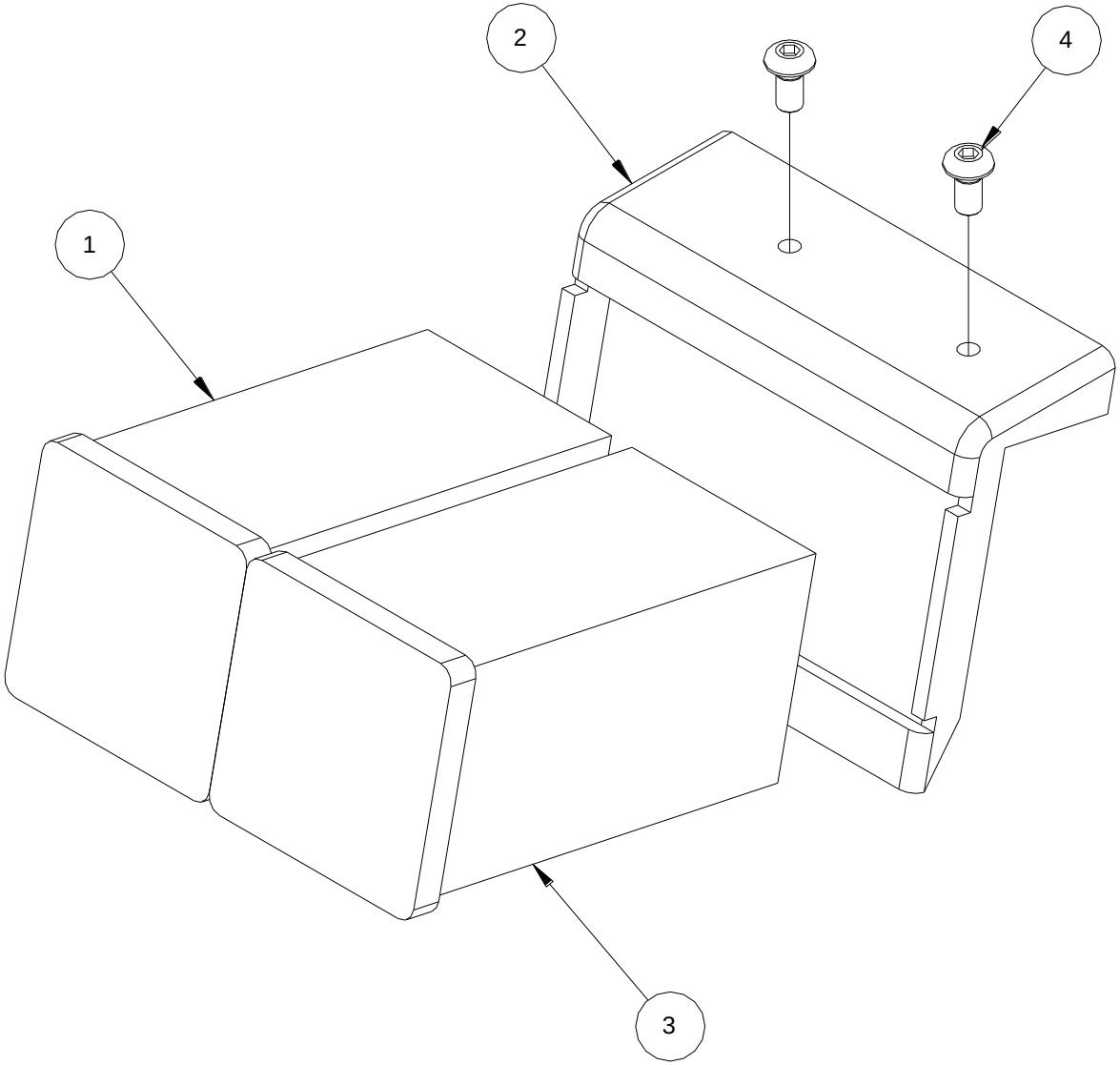
8.12 Feed Assembly



8.13 Feed Parts List

Item	Part #	Description	Qty
1	221113	Motor, Feed / Deflect harnessed	1
2	562001	Sprocket, 30T Timing	1
3	562002	Sprocket, 10T Timing	1
4	991113	Drive, Timing belt, 54T x 1/4	1
5	990029	6-32 x 1/4 Flat head screw	4
6	990102	Washer, #10 SAE	6
7	224067	Bracket, Motor mount	1
8	990095	10-32 x 3/8 Set screw	2
9	990756	6-32 x 3/16 Set screw	1
10	990080	10-32 x 3/8 Cap screw	6
11	564021	Bracket, Feed	1
12	564090	Ass'y, Feed, 2 Sided LKP	1

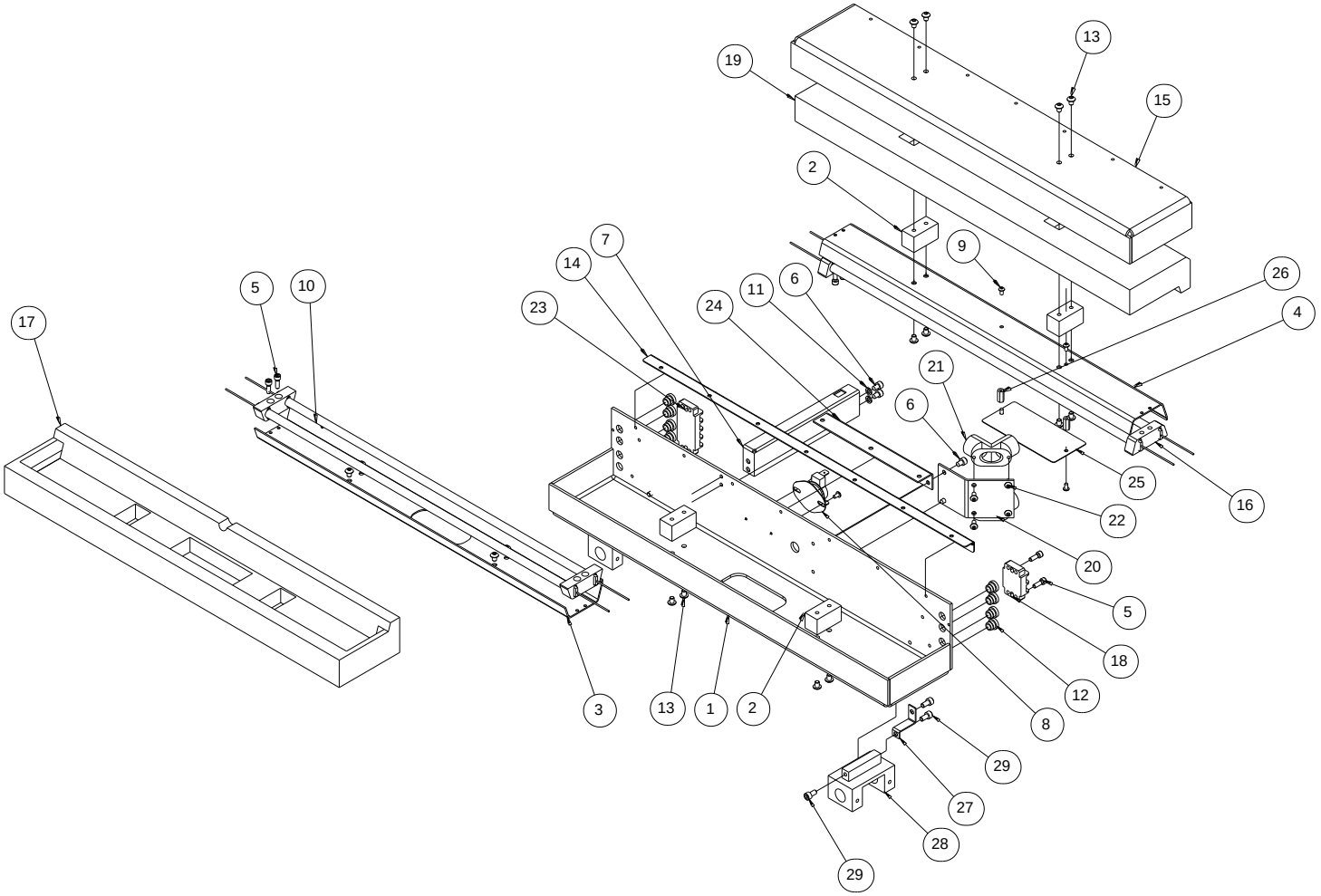
8.14 Controller Assembly



8.15 Controller Parts List

Item	Part #	Description	Qty
1	991673P	Controller, Temperature, 6040 Series, Programmed	1
2	564017	Bracket, Controller	1
3	561148	Controller, Fuji, Programmed	1
4	990090	10-32 x 3/8 Button head screw	2

8.16 Heat Chamber Assembly

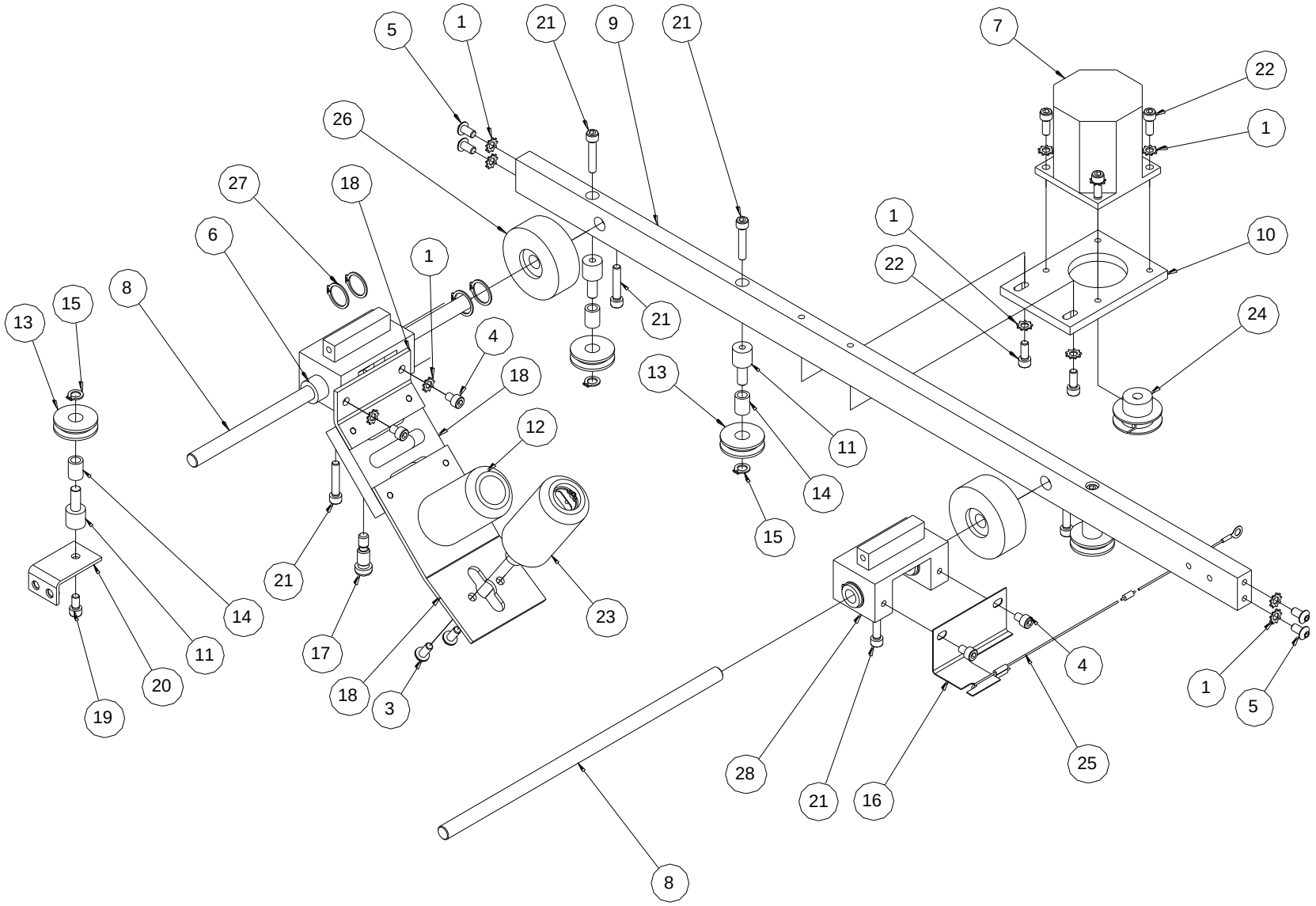


Heat Chamber Parts List

Item	Part No.	Description	Qty.
1	565002	COVER, LAMP GUARD	1
2	565004	BRACKET, MOUNT, GUARD	4
3	561201	COVER, GUARD,LAMP LOWER	1
4	561202	COVER, GUARD,LAMP, UPPER	1
5	990052	8-32 X ½ SOCKET HD CAP SCR	10
6	990079	10-32 X 1/4 CAP SCREW	4
7	565016	BRACKET, FLAG, SENSOR	1
8	990957	SENSOR, 250 D, 25A THERMOSTAT	1
9	990019	6-32 X 1/4 BUTTON HEAD SCREW	6
10	561120	QUARTZ LAMP HARNESSED	4
11	990728	WASHER, #10 LOCK	2
12	565020	BUSHING, WIRE	8
13	990089	10-32 X 1/4 BUTTON HEAD SCREW	16
14	565030	HINGE, COVER, LAMP GUARD	1
15	565029	COVER, LAMP GUARD, UPPER	1

Item	Part No.	Description	Qty.
16	565026	BRACKET, MOUNT LAMP	4
17	561215	GUARD, OVEN INSULATION	1
18	990941	ELECTRICAL, TERMINAL BLOCK 2X2	1
19	561219	GUARD, OVEN INSULATION, UPPER	1
20	565036	BRACKET, WIRE HARNESS	1
21	561144	CONNECTOR, CABLE	2
22	990065	8-32 X 3/8 BUTTON HEAD SCREW	4
23	990768-1	ELECTRICAL, TERMINAL BLOCK 2X4	1
24	565043	BRACKET, OVEN CLAMP	1
25	565044	COVER, LAMP	1
26	181148	6-32 BUTTON HD CAP SCREW	2
27	565058	SLIDE BRACKET	2
28	565057	BRACKET, SLIDE MOUNT	2
29	990080	10-32 x 3/8 SOCKET HD CAP SCR	6

8.17 Slide Mechanism Assembly

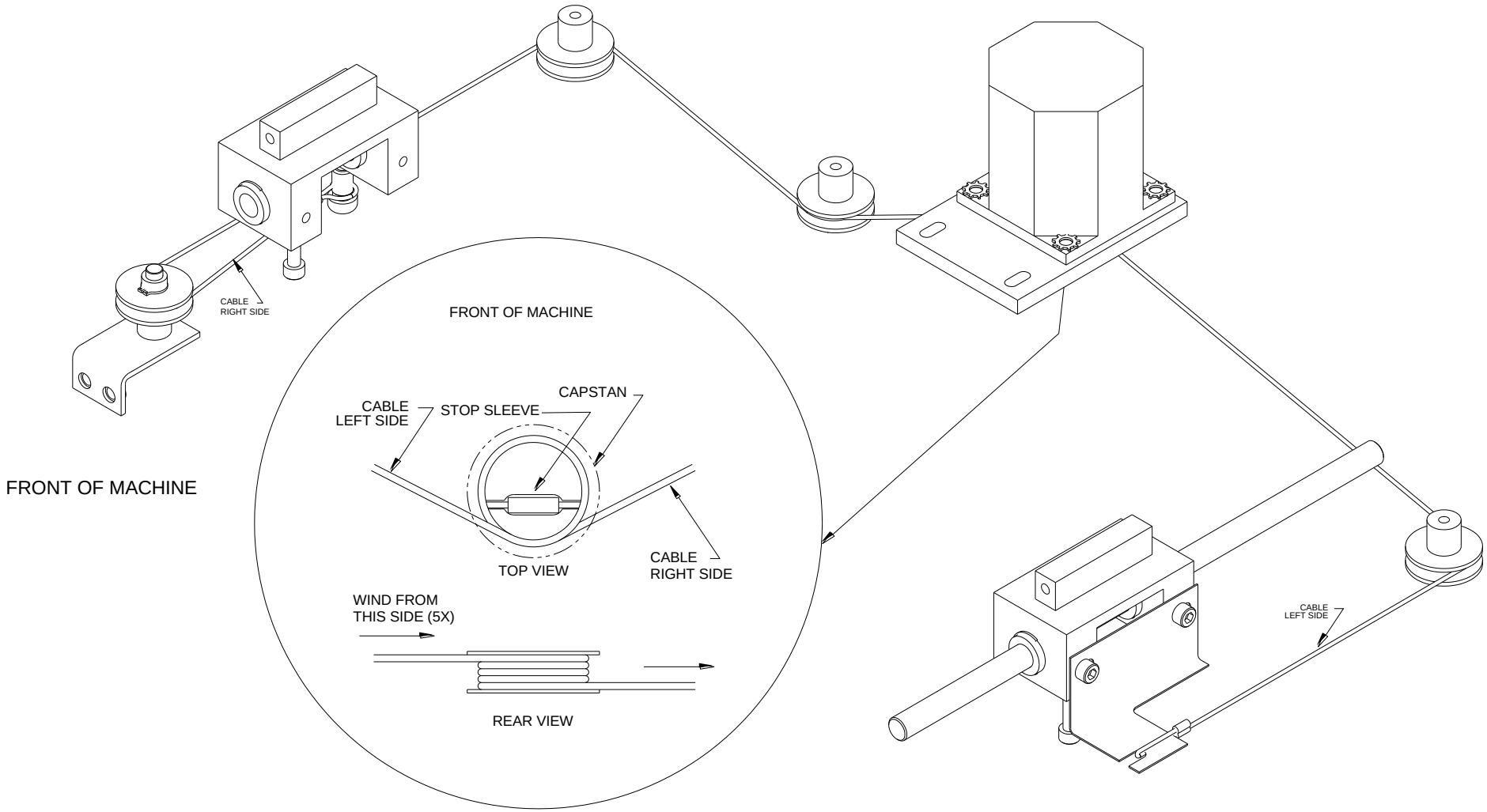


Slide Mechanism Parts List

ITEM	Part No.	Description	Qty
1	989977	WASHER, #10 STAR	12
2	991183	EXTENSION SPRING (NOT SHOWN)	2
3	990940	MOUNTING SCREW FOR IR SENSOR	4
4	990079	10-32 X 1/4 CAP SCREW	4
5	990090	10-32 X 3/8 BUTTON HEAD SCREW	4
6	285027	LINEAR BEARING	4
7	351141	STEPPER MOTOR, HARNESSED	1
8	565010	SHAFT, SLIDE MOUNT	2
9	565009	BRACKET, MOUNT STIFFNER	1
10	564003	BRACKET, MOUNT,STEPPER MOTOR	1
11	224068	SHAFT, IDLER PULLEY	4
12	561147	ASSY, IR SENSOR, HARN. FOCUSED	1
13	224073	DRIVE, IDLER PULLEY	4
14	999103	BUSHING, 1/4 X 3/8 X 1/2	4

ITEM	Part No.	Description	Qty
15	990262	SNAP RING, 1/4"	4
16	565042	BRACKET, CABLE	1
17	991194	1/4 X 1 SHOULDER BOLT 10-32	1
18	565033	BRACKET, PYROMETER	1
19	991182	10-32 X 3/8 CAP SCREW	1
20	565008	BRACKET, MOUNT, PULLEY (REF)	1
21	990084	10-32 X 1 CAP SCREW	7
22	990081	10-32 X 1/2 CAP SCREW	6
23	561110	SENSOR, IR HARNESSED	1
24	562003	HEAD, DRIVE, CAPSTAN	1
25	564024	DRIVE, FEED CABLE	1
26	565095	KEEPER, BEARING BLOCK	2
27	991246	COLLAR, SNAP RING 5/8"	8
28	565057	BRACKET, SLIDE MOUNT	2

8.18 Cable Routing Diagram



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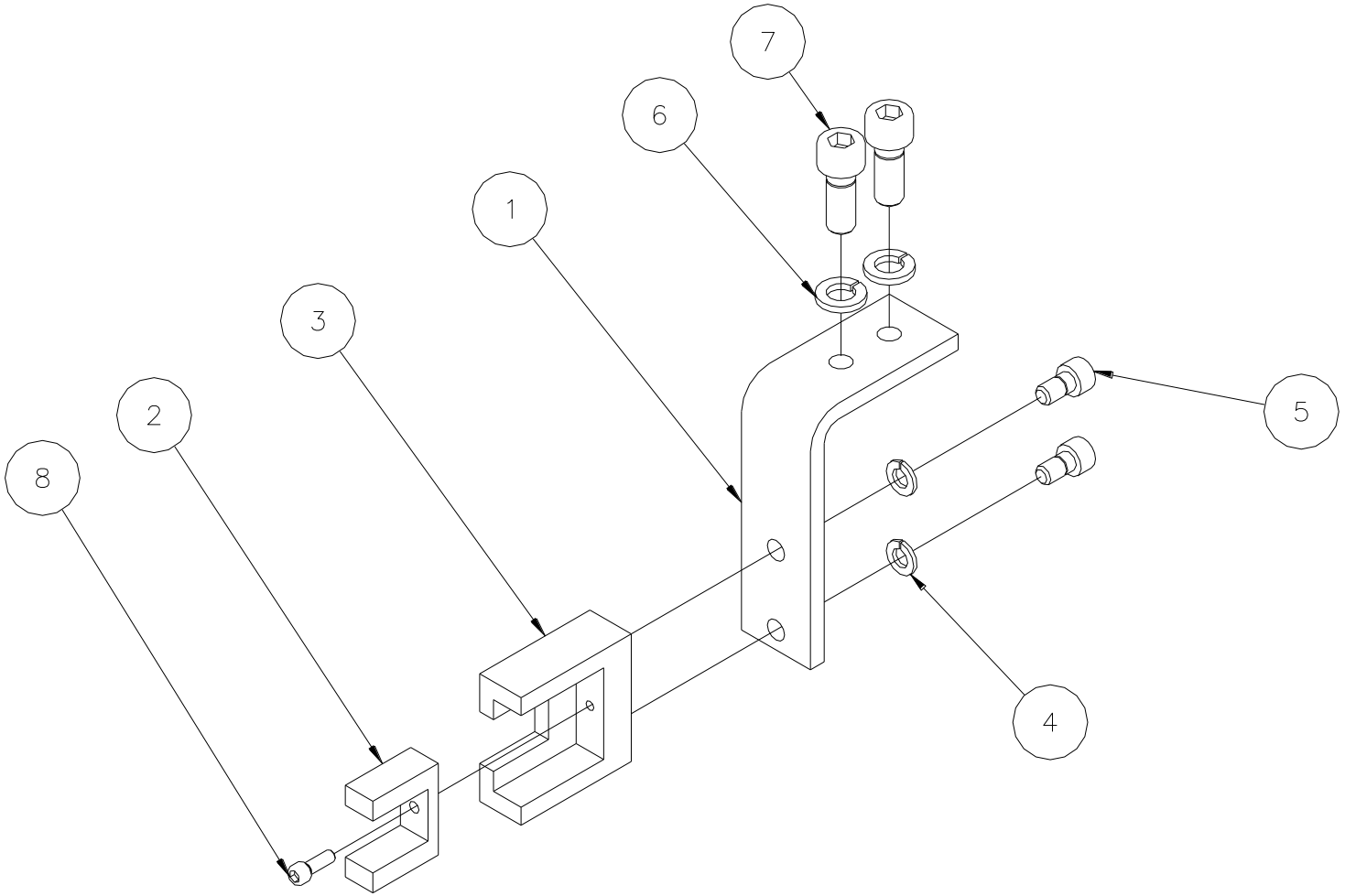
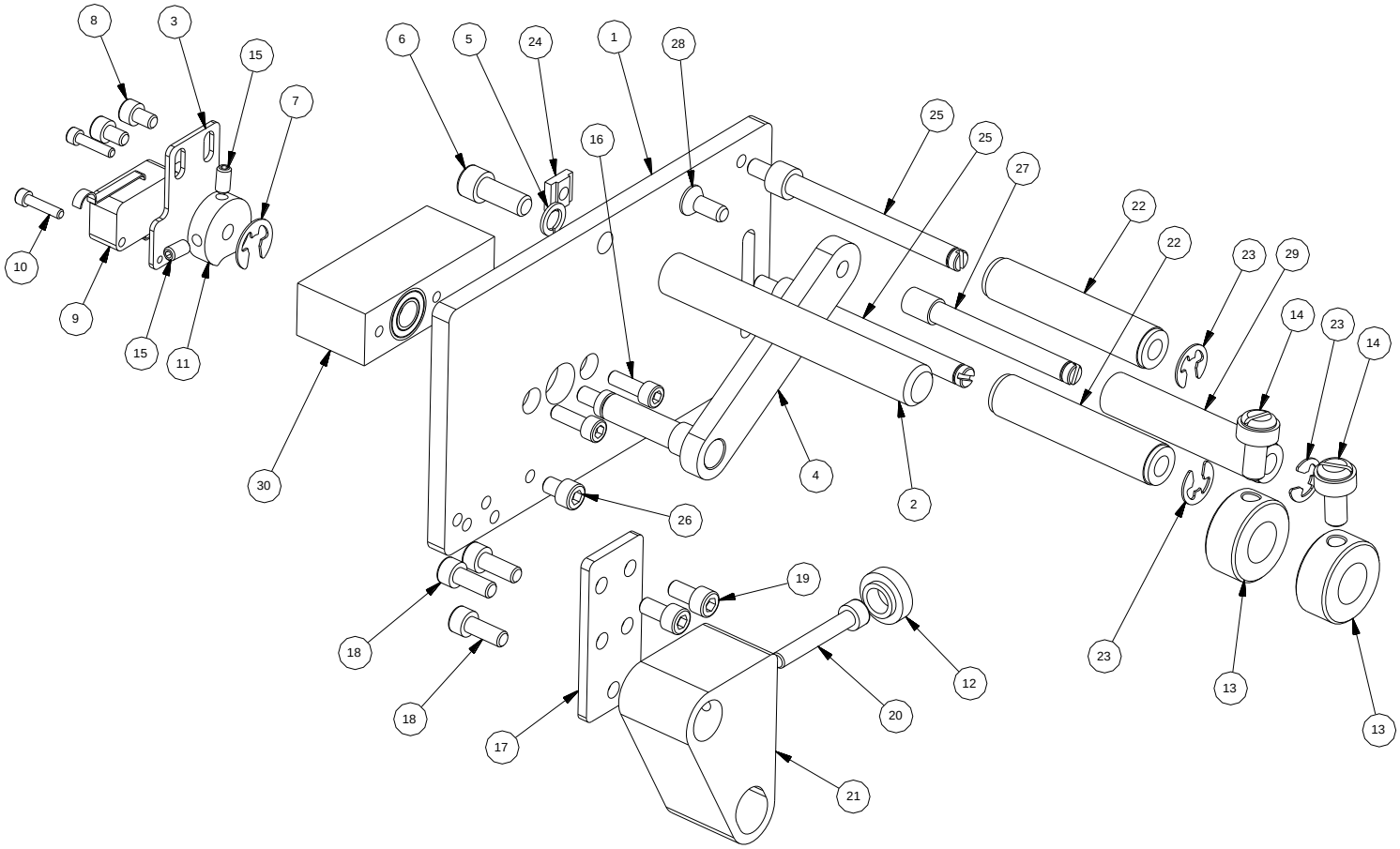
8.19 Home Sensor Assembly



8.20 Home Sensor Parts List

Item	Part #	Description	Qty
1	565015	Bracket, Sensor	1
2	371131	Harness, Ink out sensor	1
3	358024	Jam sensor bracket	1
4	989976	#6 Star washer	2
5	990015	6-32 x 1/4 Cap screw	2
6	990728	#10 Lock washer	2
7	990081	10-32 x 1/2 Cap screw	2
8	990000	2-56 x 1/4 Cap screw	1

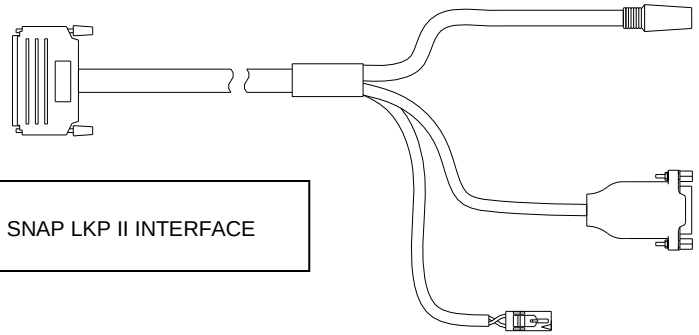
8.21 Web Tension Assembly



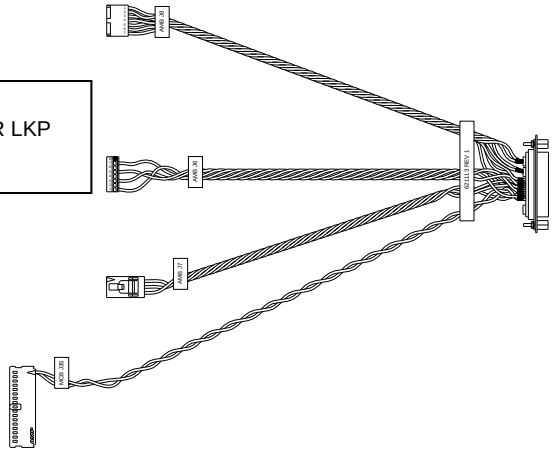
8.22 Web Tension Parts List

ITEM	PART NO.	DESCRIPTION	QTY
1	581345-1	BRACKET, MOUNTING PLATE	1
2	584009	SHAFT, WEB GUIDE	1
3	581348	BRACKET, MICRO SWITCH MOUNT	1
4	581349	ASSEMBLY, SWING ARM	1
5	990145	1/4 LOCK WASHER	1
6	990121	1/4-20 X 5/8 SHCS	1
7	990327	E-RING, 5/16	1
8	990050	8-32 X 1/4 SHCS	2
9	191120	MICRO-SWITCH	1
10	989973	4-40 X 1/2 SHCS	2
11	564088	BRACKET, ROLLER	1
12	990313	KNOB, SZ 10 THUMB SCREW	1
13	990374	1/2 COLLAR	2
14	990484	1/4:20X1/2 NYLON SLOTTED SCREW	2
15	990058	8-32 X 1/4 KNURLED CUP POINT	2
16	990052	8-32 X 1/2 SHCS	2
17	581350	BRACKET, SWING BLOCK	1
18	990081	10-32 X 1/2 SHCS	3
19	990080	10-32 X 3/8 SHCS	2
20	990085	10-32 X 1 1/4 SHCS	1
21	581346	BRACKET, MOUNTING BLOCK	1
22	224039	ROLLER ASSEMBLY	2
23	990326	SNAP RING, 1/4" E-RING	3
24	188008	STACKER "T" NUT	1
25	581354	SHAFT, LIVE ROLLER	2
26	990079	10-32 X 1/4 SHCS	1
27	581355	SHAFT, LIVE ROLLER, SWING ARM	1
28	990196	10-32 X 1/2 FHCS	1
29	581356	ASSY, LIVE ROLLER, SWING ARM	1
30	581357	ASSY, BEARING MOUNT	1

8.23 Electrical Parts

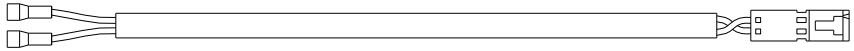


621120B
HARNESS, SNAP LKP II INTERFACE



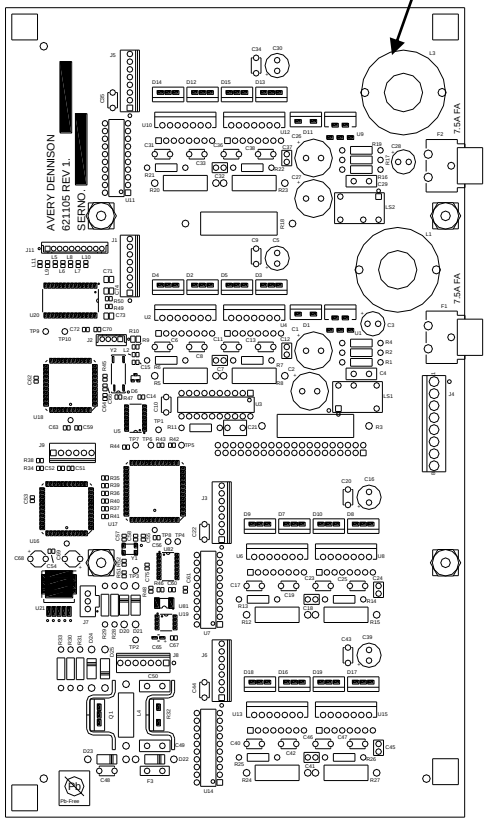
621113
HARNESS, SNAP OUT FOR LKP

621114
HARNESS, SNAP / LKP
WEB TENSION SWITCH



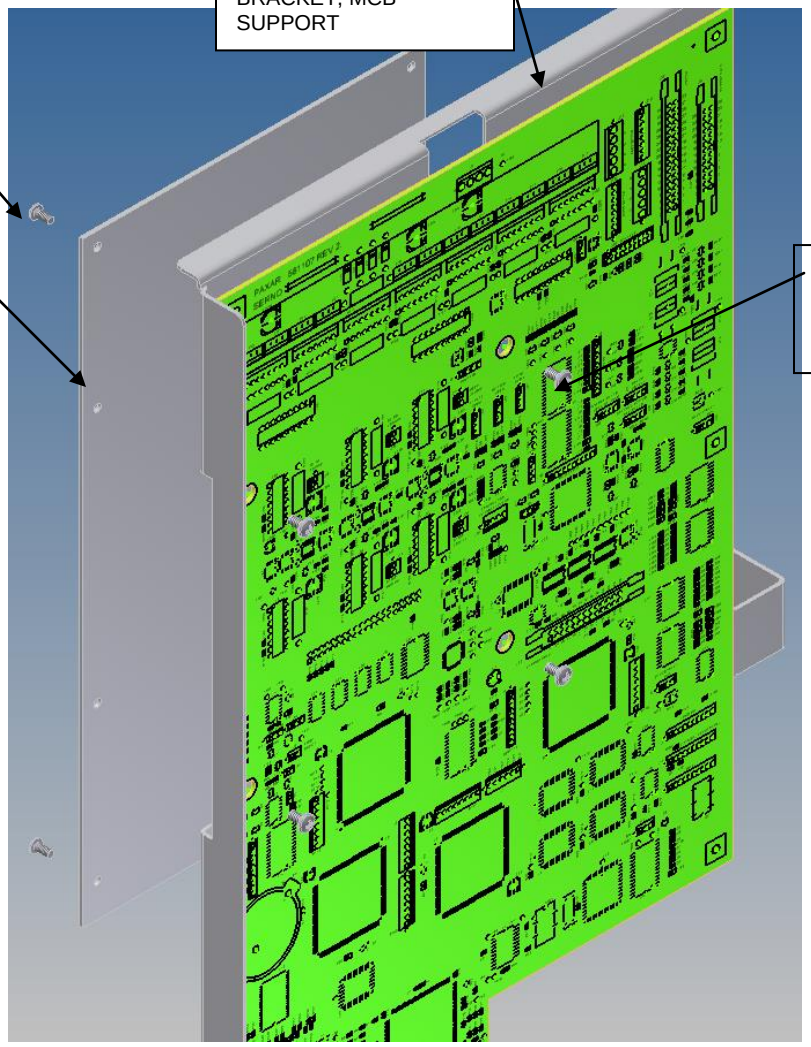
8.24 Electrical Parts

621105
AUXILIARY MOTOR BOARD (PCB)



991422
4-40 X ¼ PHILLIPS
PAN HEAD SCREW
(4 pcs)

581204-1
BRACKET, MCB
SUPPORT



991372
6-32 X ¼ PHILLIPS
PAN HEAD
SCREW
(4 pcs)

9.0 Revision Record

Revision	Date	Description
4.0	04-DEC-2012	Removed CE mark from manual as not required Update FCC ID and moved to page 2 Moved WEEE symbol to page 2
4.1	31-MAY-2013	Update manual to support the SNAP printer line.
4.2	24-FEB-2017	Updated Electrical Schematic Updated Controller Parts List Updated Cover Assembly Drawing and Cover Parts List

028028

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