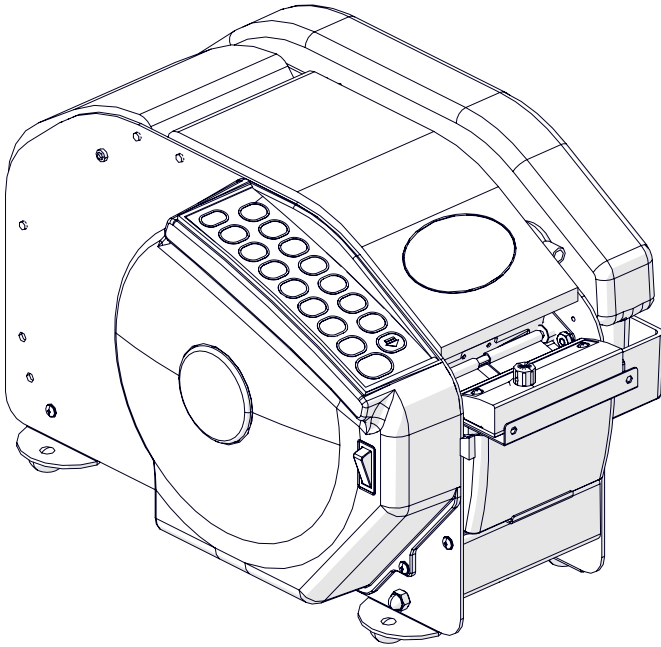



**BETTER
PACKAGES[®], Inc.**
A WHOLLY OWNED SUBSIDIARY OF 

USER MANUAL 500 SERIES




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USER NOTES

For all IPG product manuals please visit www.itape.com/systems-manual or use this QR code



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TECHNICAL ASSISTANCE

This is the **Better Packages Model 500 Series** WAT Dispenser you ordered. It has been set up and tested in our factory with IPG manufactured water activated tapes. If any problems occur when setting up or operating this equipment, please contact the authorized distributor from where you purchased this dispenser.

If contact with the authorized distributor is not possible, **IPG Machinery Support** is available. Should the need to contact **IPG Machinery Support** arise, **please have the equipment model and serial number available prior to contact**. This information can be found on the nameplate of the Dispenser. A section at the bottom of this page is available to write this information down. **IPG Machinery Support** is available during normal business hours (M-F 8am-7pm) Eastern Time.

Phone: +1 813-345-3070

Email: machsupp@itape.com

Replacement Parts

A breakdown of parts, including part numbers, can be provided upon request. If you know the part number that you require please contact your authorized distributor or Better Packages Customer Service 1-203-926-3700 or 1-800-237-9151 (United States only), parts can also be found directly at www.betterpackages.com/parts

Please use this area to enter the detailed information on your dispenser. This should be filled out at the time of install. This information can be found on the nameplate of the machine, next to the main power plug on the back of the dispenser.

Machine

Model

Serial

Distributor

Name

Phone/Email

Date of Purchase

WARRANTY INFORMATION

Better Packages, Inc. Limited Warranty

Better Packages warrants each new machine and accessory to be free from defects in materials and workmanship under normal and proper use conditions. The following warranty periods from date of purchase apply:

| Model | Parts | Labor |
|--------------------------|---------|----------|
| Better Pack 755e Series | 2 Years | 6 Months |
| Better Pack 555e Series | 2 Years | 6 Months |
| Better Pack 500 Series | 2 Years | 6 Months |
| Better Pack 333 Series | 2 Years | 6 Months |
| Better Pack PS2A | 1 Year | 6 Months |
| Curby Mini Taper (BP222) | 1 Year | 6 Months |
| Packer 3S | 2 Years | 6 Months |
| Tape Shooter 404 | 2 Years | 6 Months |
| Auto H2O Series | 1 Year | 6 Months |

Wearable parts such as shear blades, water brushes, motor brushes, **side guide plates and upper tape guide plates** are not covered under the warranty. The following wearable parts are warranted for 3 months from date of purchase:

1. Main Board
2. Solenoid
3. Main Motor

Warranty Conditions and Exclusions

Machines and accessories used for any improper or unintended purpose will not be considered for warranty protection. Any modification of the machines or accessories shall make this warranty null and void. Use of replacement parts other than genuine Better Packages replacement parts shall also make this warranty null and void.

Better Packages shall have no obligation to repair or replace (1) those parts failing due to operator misuse, carelessness, or due to any accidental cause other than equipment failure, or (2) parts that fail due to:

1. Misapplication, lack of proper maintenance, abuse, improper installation, or abnormal conditions such as temperature, moisture, dirt, or corrosive matter, etc.
2. Inadequate cleaning, improper operating environment, improper utilities, or operator error.
3. Operations beyond the rated capacity of the product.
4. Alteration or servicing of the product by anyone other than an authorized representative of Better Packages.
5. Any attempt by the purchaser to repair or correct alleged defective equipment. In this event the purchaser is responsible for all expenses incurred.

IN NO EVENT SHALL BETTER PACKAGES BE LIABLE FOR ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGE FROM THE SALE OR USE OF THESE PRODUCTS. THIS DISCLAIMER APPLIES BOTH DURING AND AFTER THE TERM OF WARRANTY.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE (EXCEPT AS MAY BE OTHERWISE PROVIDED BY LAW).

This warranty gives you specific legal rights, and you may also have other rights, which vary, from state to state.

WARRANTY INFORMATION

Warranty Service

Better Packages will replace or repair (at the company's discretion) any defective parts within the warranty period, on a no-charge basis. The Authorized Distributor/Service Center will furnish, without charge, necessary labor to service the machine.

For service under this warranty, call or write your nearest Better Packages Distributor/Service Center or Better Packages, Inc. Ansonia, CT at 800-237-9151 (US only) or (203) 926-3700. To locate your local Authorized Distributor/Service Center, visit www.betterpackages.com.

If customer wishes, with authorization from Better Packages or an Authorized Distributor/Service Center, a product may be shipped to Better Packages for warranty service. Any item shipped for warranty service must be shipped in the original factory carton and properly packed with the original protective packaging inserts or a secure carton that will properly protect the unit during transit. Any damage to machines or parts received improperly packed are the responsibility of the customer. All associated shipping or freight costs related to items shipped for service are the sole responsibility of the customer. Transportation charges on machines or parts returned to Better Packages for service must be prepaid by the customer. Customers will be responsible for freight expenses on parts or machines returned to them.

Better Packages' ship-to address is: 4 Hershey Drive, Ansonia, Connecticut 06401.

Warranty Registration

Filling out the warranty card and returning it to us protects your warranty and allows us to keep you informed of product upgrades. Visit www.betterpackages.com/warranty-registration to fill out the warranty card online.

GENERAL INFORMATION

Description of the 500

The Better Pack 500 is a simple-to-use electric water-activated tape dispenser (also known as a paper tape dispenser, gummed, or gum tape water-activated tape dispenser) made for medium-to high-volume shipping and packaging areas. The 500 allows for up to a 600 ft. long or 7.5" diameter roll of tape (182.5 meter long or 190mm diameter roll).

The 500 is equipped with a heater unit, water tank, and water bottle, 44oz (1.3 liter).

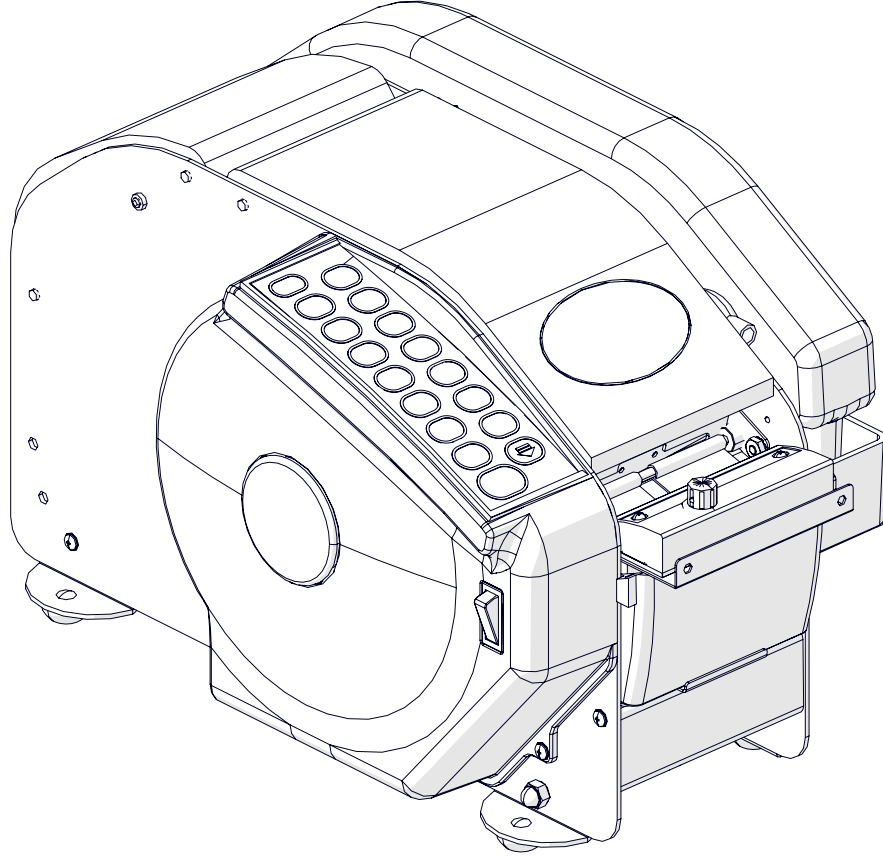


Figure 1: Better Packages 500

Definitions

Common terms that will be used throughout this manual.

WAT – IPG Brand Water Activated Tape

User/Operator – The individual who has been trained on the daily use of the Machine System

Maintenance Champion – The individual(s) who work for the end user of the Machine System who are responsible for conducting general and preventative maintenance

IMPORTANT SAFEGUARDS

There are a number of safety labels used on the 500. These labels are placed at different locations on the dispenser to warn operators and service personnel of possible dangers. Please read the labels on the machine and the following safety precautions before using the machine.

Read this manual for other important safety operating and service information.

Only trained personnel are to operate machine.

Only fully qualified technicians are to service this machine.

Wear safety glasses when performing maintenance.

Allow time to cool before working on or near the heater.

Disconnect electrical power before servicing.

Follow Lock Out / Tag Out Procedures BEFORE servicing any machinery.

All factory installed covers and guards must be in place before operating.

Stay clear of moving parts which can shear and cut.

Should any of the safety labels on the dispenser be damaged or destroyed, replacements can be ordered through your distributor.

LABEL PLACEMENT

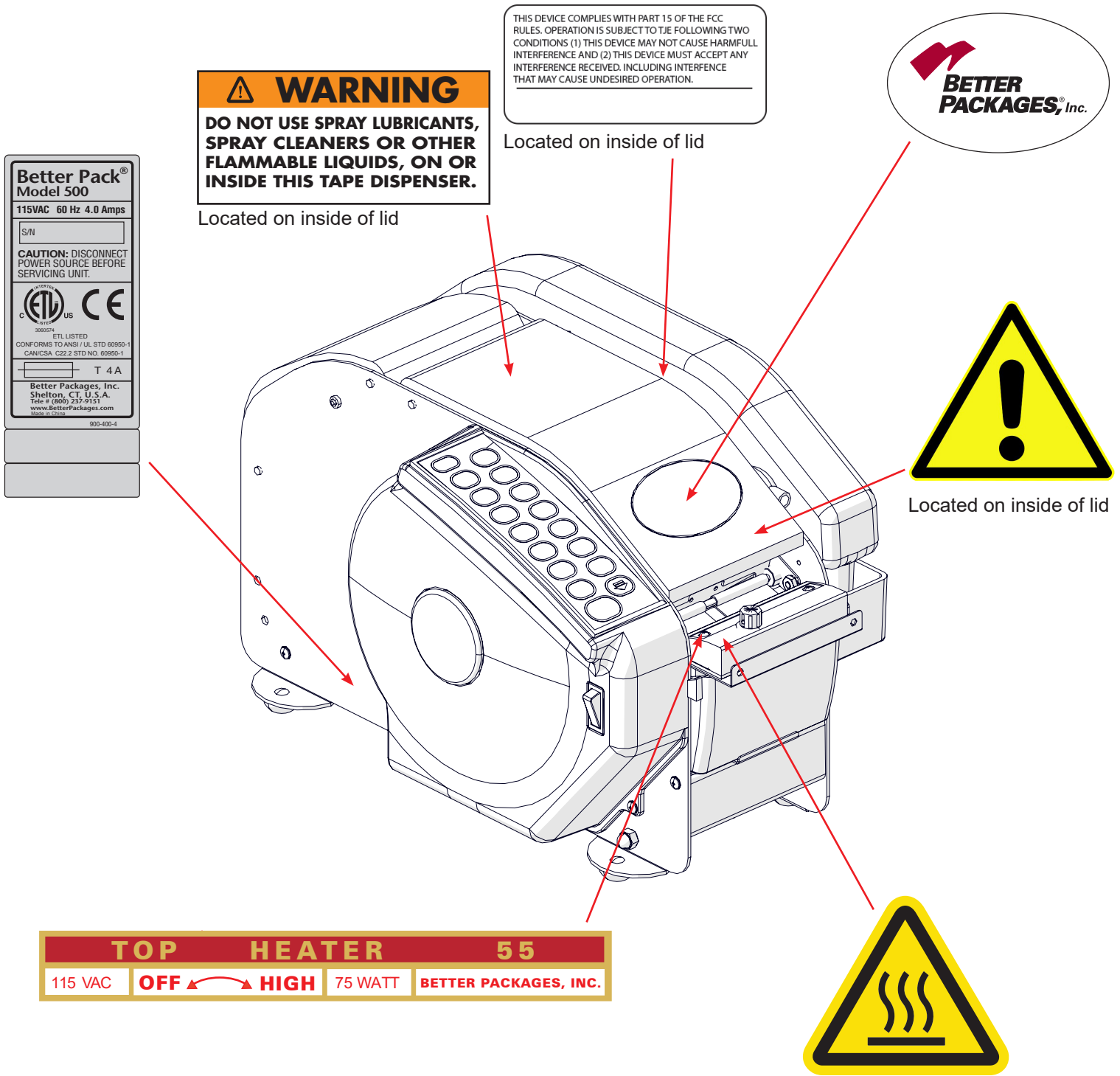



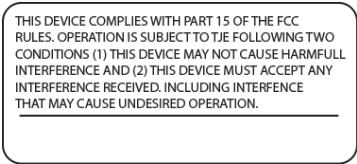



Figure 2: Label Placement

LABEL DESCRIPTIONS

| | |
|--|---|
| <p>The label shown is affixed to the heaters.</p> <p>It warns operators and service personnel to keep their hands clear of hot elements. Allow time to cool, minimum of 30 minutes, prior to servicing.</p> <p>Reorder number: 9004150</p> |  <p>Figure 3: Hot Decal</p> |
| <p>The label shown is affixed to the inside of the lid.</p> <p>It warns operators and service personnel to not use specific cleaners or lubricants.</p> <p>Reorder number: 9002810</p> |  <p>Figure 4: Warning Hazard Decal</p> |
| <p>The label shown is affixed to the inside of the lid.</p> <p>It alerts the user that this is automated machinery and to keep hands clear of moving parts. Always disconnect from all energy sources before servicing.</p> <p>Reorder number (Gum Side In): 9004380</p> |  <p>Figure 5: Alert Decal</p> |
| <p>The label shown is affixed to the inside frame.</p> <p>It alerts the user that this machine complies with the PART 15 of the FCC.</p> <p>Reorder number: 9003640</p> |  <p>Figure 6: FCC Part 15 Label</p> |
| <p>The label shown is affixed top of the heater unit.</p> <p>It alerts the user of the power used by the heater and how to control the heater's thermostat. Allow time to cool, minimum of 30 minutes, prior to servicing.</p> <p>Reorder number: TH103H</p> |  <p>Figure 7: Top Heater Label</p> |

Should any of the safety labels on the Case Sealer be damaged or destroyed, replacements can be ordered through your distributor.

LABEL DESCRIPTIONS

The label shown is affixed to the front cover.

It is the logo of Better Packages.

Reorder number: 9004020



Figure 8: Better Packages Logo

The label shown is affixed to the side plate of the machine next to the connection panel.

It is the model and serial label. This will display model, power requirements, serial number, certifications, fuse rating, and manufacturer details.

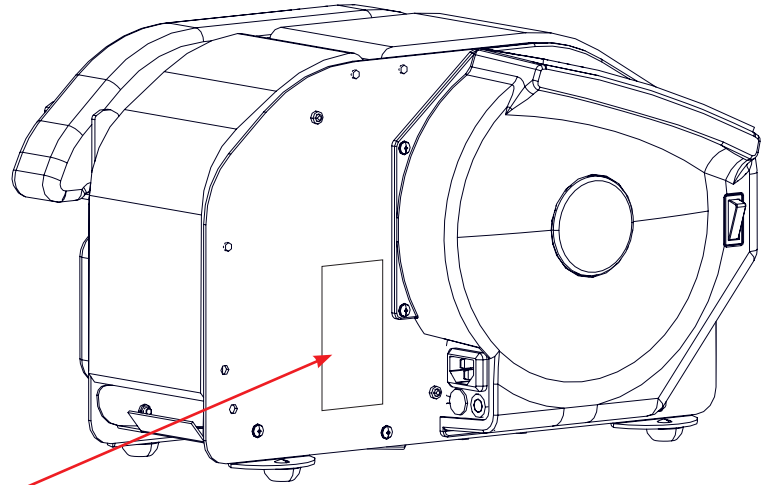
Reorder number: Please contact Better Packages Customer Service for the correct replacement for your machine as there are different models.



Figure 9: Machine Nameplate

Should any of the safety labels on the Case Sealer be damaged or destroyed, replacements can be ordered through your distributor.

MACHINE NAMEPLATE



Model Number

Electrical Requirements

Serial Number

Machine Certifications
(this may vary by country)

Fuse Information

Manufacturer Details

Serial Label Reorder Number

Better Pack[®]
Model 500

115VAC 60 Hz 4.0 Amps

S/N

**CAUTION: DISCONNECT
POWER SOURCE BEFORE
SERVICING UNIT.**

ETL LISTED
CONFORMS TO ANSI / UL STD 60950-1
CAN/CSA C22.2 STD NO. 60950-1

T 4 A

Better Packages, Inc.
Shelton, CT, U.S.A.
Tele # (800) 237-9151
www.BetterPackages.com
Made in China

900-400-4

Figure 10: Machine Nameplate

IMPORTANT SAFEGUARDS

Explanation of Signal Word Consequences



WARNING: INDICATES A POTENTIALLY HAZARDOUS SITUATION, WHICH IF NOT AVOIDED COULD RESULT IN DEATH OR SERIOUS INJURY OR PROPERTY DAMAGE



CAUTION: INDICATES A POTENTIALLY HAZARDOUS SITUATION, WHICH IF NOT AVOIDED COULD RESULT IN MINOR OR MODERATE INJURY OR PROPERTY DAMAGE



WARNING

- 1. To reduce the risk associated with mechanical, pneumatic, and electrical hazards:**
 - Read, understand, and follow all safety and operating instructions before operating or servicing the Dispenser
 - Allow only properly trained and qualified personnel to operate and service this equipment
- 2. To reduce the risk associated with pinches, entanglement, and hazardous voltage:**
 - Turn electrical supply off and disconnect before performing any adjustments, maintenance, or servicing the Dispenser
- 3. To reduce the risk associated with pinches and entanglement hazards:**
 - Turn the Dispenser off when not in use
 - Never attempt to work on any part of the Dispenser, load tape, or remove jammed tape from the Dispenser while the machine is powered on
- 4. To reduce the risk associated with hazardous voltage**
 - Position electrical cord away from foot traffic and vehicle traffic
 - Do not operate the Dispenser with a damaged power cord
- 5. To reduce the risk associated with sharp blades hazards:**
 - Keep hand and fingers away from the tape cutoff blades, the blades are very sharp
- 6. To reduce the risk associated with fire and explosion hazards:**
 - Do not operate this equipment in potentially flammable and/or explosive environments
- 7. To reduce the risk associated with muscle strain:**
 - Use proper body mechanics when moving or lifting the Dispenser
- 8. To reduce the risk associated with mechanical, pneumatic, and electrical hazards:**
 - Allow only properly trained and qualified personnel to operate and service this equipment



CAUTION

- 1. To reduce the risk associated with pinch hazards:**
 - Keep hands, hair, loose clothing, and jewelry away from internal components



CAUTION: TO AVOID INJURY THE MACHINE OPERATOR SHOULD REMAIN ATTENTIVE AND SHOULD NEVER REST THEIR HANDS, ARMS, HEAD, OR ANY OTHER BODY PART ON THE MACHINE.



WARNING: DISCONNECT THE DISPENSER FROM ALL ENERGY SOURCES AND ALLOW THE HEATER TO FULLY COOL BEFORE PERFORMING ANY MAINTENANCE TO THE DISPENSER.

This equipment is not suitable for use in locations where children are likely to be present.

IMPORTANT SAFEGUARDS

Operator Skill Level Descriptions

These descriptions and levels are uniform across all Better Packages WAT Dispensers

Skill “A” Dispenser Operator

This operator is trained to use the Dispenser with the machine controls, to change tape, clear jams, and perform basic troubleshooting.

Important: *The end user area supervisor must ensure that the operator has been properly trained on all dispenser functions before operating the dispenser.*

Skill “B” Mechanical Maintenance Technician

Also referred to as the Maintenance Champion, this technician, is trained to use the Dispenser as the Operator and to check and adjust mechanical components, to perform maintenance operations and repair the Dispenser. A skill “B” operator is not allowed to work on live electrical components.

Skill “C” Factory Trained Technician

A Skill “C” technician is trained by IPG and may perform extraordinary maintenance. This includes electrical components.

Operators skill level required to perform the following tasks on the Tape Head

| OPERATION | MACHINE CONDITION | OPERATOR SKILL LEVEL | NUMBER OF OPERATORS |
|---|-------------------------------|-----------------------------|----------------------------|
| Tape Roll Replacement | Powered Off | A | 1 |
| Feed Wheel Adjustment | Powered Off | A | 1 |
| Blade Replacement | Electrical Power Disconnected | B | 1 |
| Ordinary Maintenance and Preventative Maintenance | Electrical Power Disconnected | B | 1 |

Better Packages offers a mail in factory maintenance program. Contact your Authorized IPG Representative for more information.

SPECIFICATIONS

500 Dimensions

Dispenser Weight (without tape roll):
24 lbs (10.8kg)

Shipping Weight:
30 lbs (13.6kg)

Maximum tape roll diameter: 7.5" (190mm)

Maximum tape roll length: Up to 600ft (182.5m)

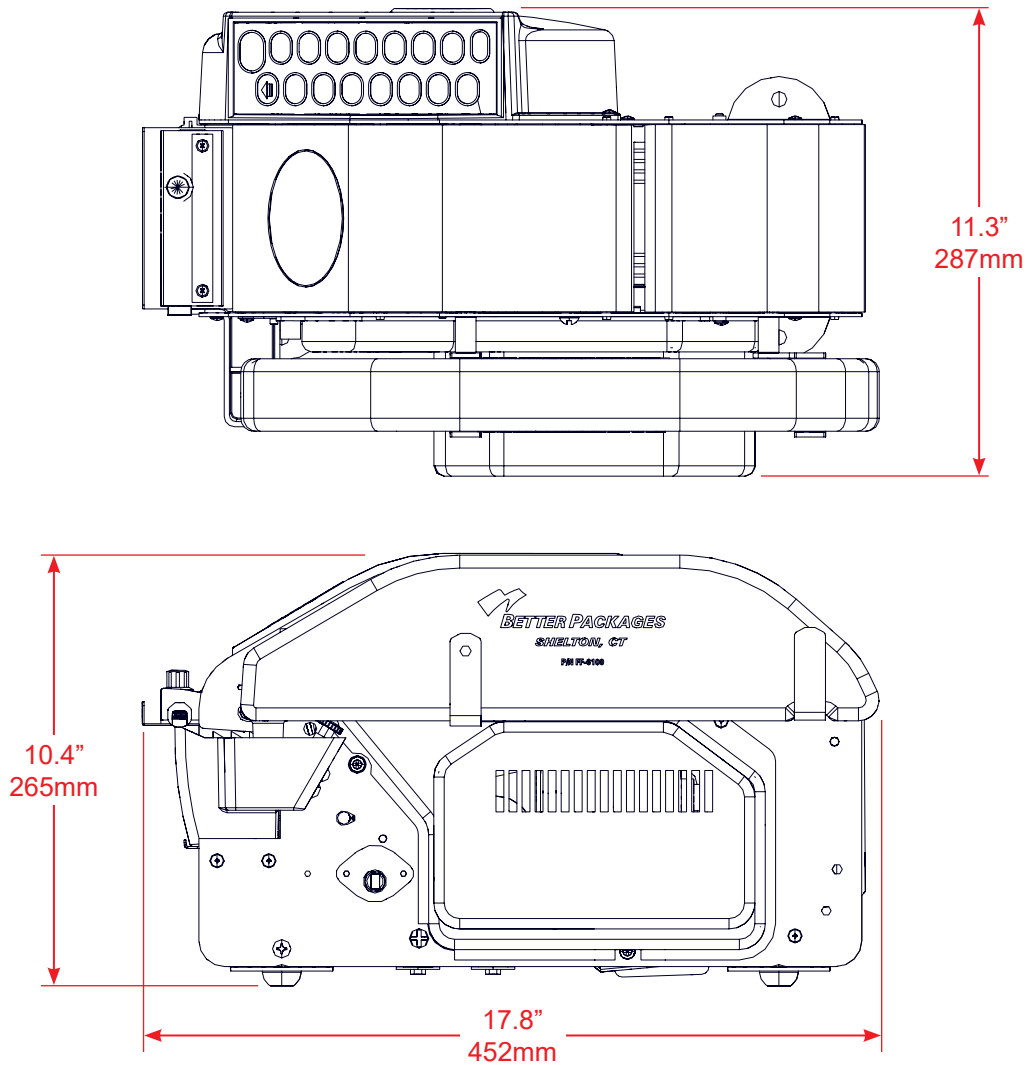


Figure 11: Dispenser Dimensions

SPECIFICATIONS

500 Components

Front Lid shown in open position.

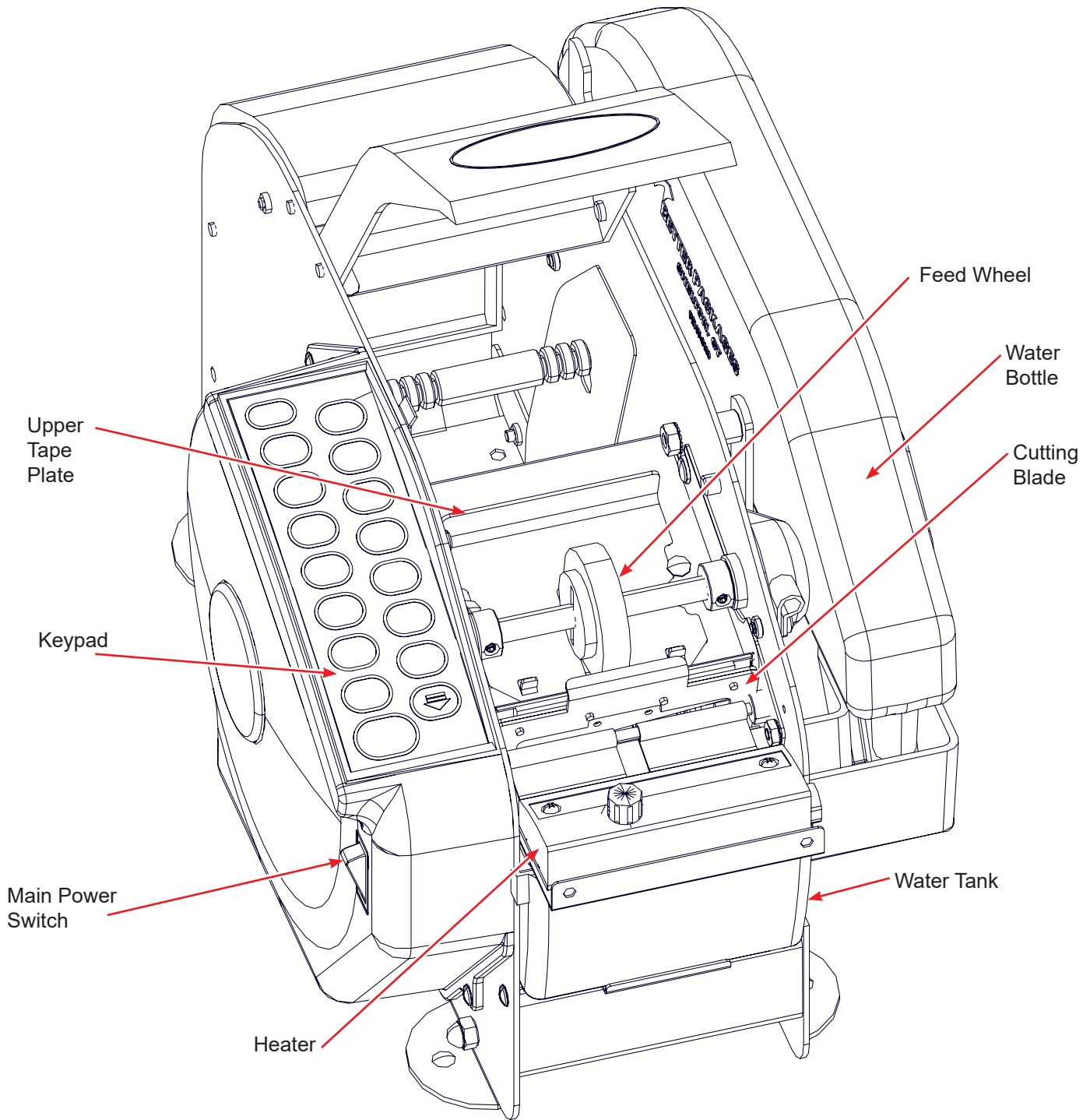


Figure 12: Better Packages 500 Components

SPECIFICATIONS

Operating Conditions

Use in a dry, relatively clean environment at 40° to 105° F (5° to 40° C). Humidity not to exceed 90% at a temperature of 68° F (20° C). The 500 will be capable of operating correctly at altitudes up to 10,000 ft. (3,000 m) above sea level.

This dispenser is not designed to operate in a refrigerated or freezer environment.

Tape Requirements

Use only IPG Brand Water Activated Tape.

Maximum tape roll diameter of 7.5" (190mm) with a maximum tape roll length of 600ft (182.5m).

Technical Specifications

Dispensing Speed: 45" (114cm) per second.

Water Bottle Capacity: 44oz (1.3 liter)

Power Requirements:

Always connect the 500 to a properly grounded outlet, that has been installed in accordance to all local codes and ordinances, using a power cord that has been provided by Better Packages.

| North America (US/Canada) | | |
|----------------------------------|------------------------|--------------------|
| Model | Length/Unit of Measure | Power Requirements |
| BP500 | Inches | 115V 60Hz, 4A |

| Europe | | |
|---------------|------------------------|--------------------|
| Model | Length/Unit of Measure | Power Requirements |
| BP500M | Metric | 230V 50Hz, 2A |

Tape Length

The 500 comes standard to be able to dispense tape lengths from 6in to 45". 500M models come standard to be able to dispense 15cm to 145cm. There is a standard tolerance of +/- 1/2" (6mm) for each strip of dispensed tape.

SET-UP PROCEDURE

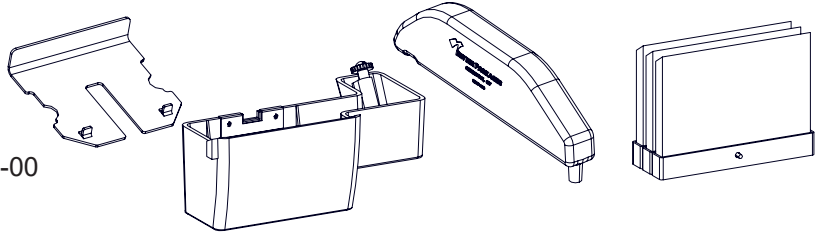
Unpacking

After opening all the top flaps on the carton, you will find instructions for properly removing the dispenser and its included materials. It is recommended to keep all packing materials in case you need to ship the dispenser later or wish to pack and store it.

Verifying the Contents

Once the dispenser has been removed from the carton verify it has been shipped with all of the following items.

- Wetting Brushes Qty 1 Part Number: E-107-X
- Water Tank Qty 1 Part Number: E-561-PX
- Water Bottle Qty 1 Part Number: FF-6100
- Upper Tape Plate Qty 1 Part Number: FM-12EL
- Tape Roll Guides Qty 2 Part Number: B500-004-00
- Power Cord Qty 1
- User Manual Qty 1



The power cord included will be for the region/country your unit is sold into.

Figure 13: Included Components

Adjusting the Roll Guides

The 500 has two (2) roll guides that are pre-fitted on a slotted guide rod. The guide rod has four (4) slots for the left and right side roll guides. This allows for the 500 to accept tape widths from 1.5" to 3" (38mm to 76mm) in width. Adjusting the guides are easy. Lift up on the roll guide allowing it to slide freely. Move it to the desired slot and drop it in position. Verify the bottom tab of the roll guide fits into the corresponding slot on the bottom tape of the tape basket.

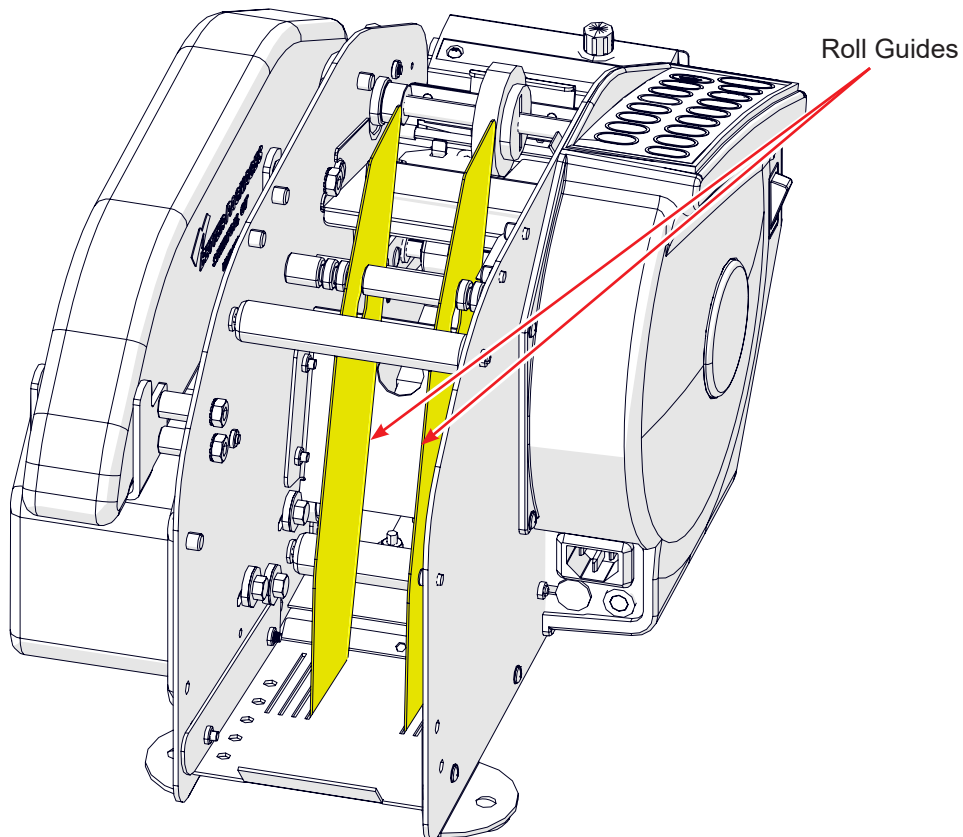


Figure 14: Roll Guides

SET-UP PROCEDURE

Loading the Tape Gum Side In

The following procedure is for loading tape into the Better Packages 500

1. Open the **rear lid**.
2. Using scissors cut the end of the tape so it is a square clean cut.
3. Place the roll in the **tape basket** so that:
 - The roll is vertical.
 - The cut end comes from under the roll and over the back.
4. Feed the tape over the **Rear Roller** and feed it towards the **feed wheel**.
5. Close the **read lid**.
6. Open the **front lid**.
7. Slip the tape under the **upper tape plate** and under the **feed wheel**. The tape should rest up to the **blade**.
8. Close the **front lid**.

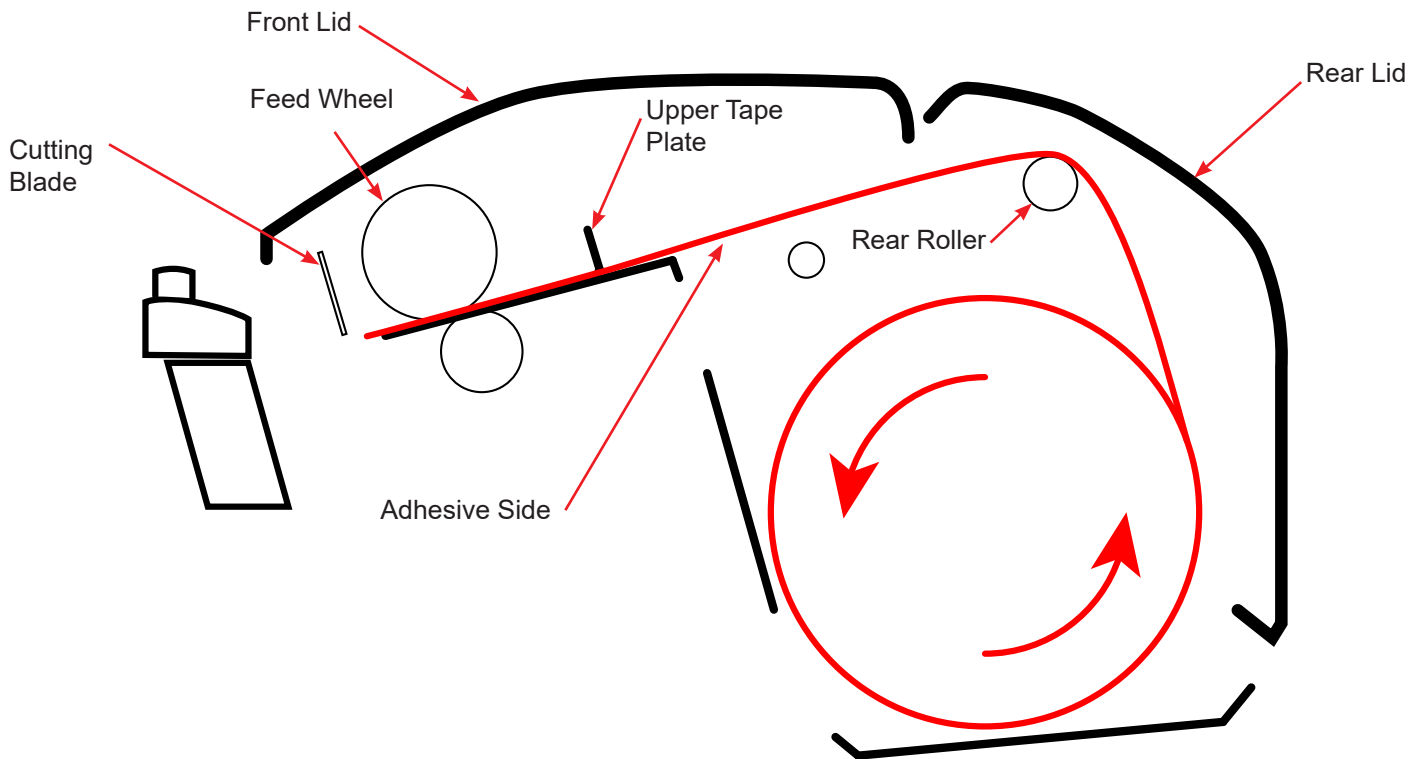


Figure 15: Tape Threading Path

SET-UP PROCEDURE

Checking the Upper Tape Plate

Verify the upper tape plate is completely installed and in the proper position. If the tape plate is not in proper position remove it by grasping the bent upper portion and sliding it out toward the rear of the Dispenser. Verify the tape path is clean and dry before sliding the upper tape plate back into position. It should rest under the guide bar near the blade and be seated around the feed wheel. It should rest against the two (2) guide pins.

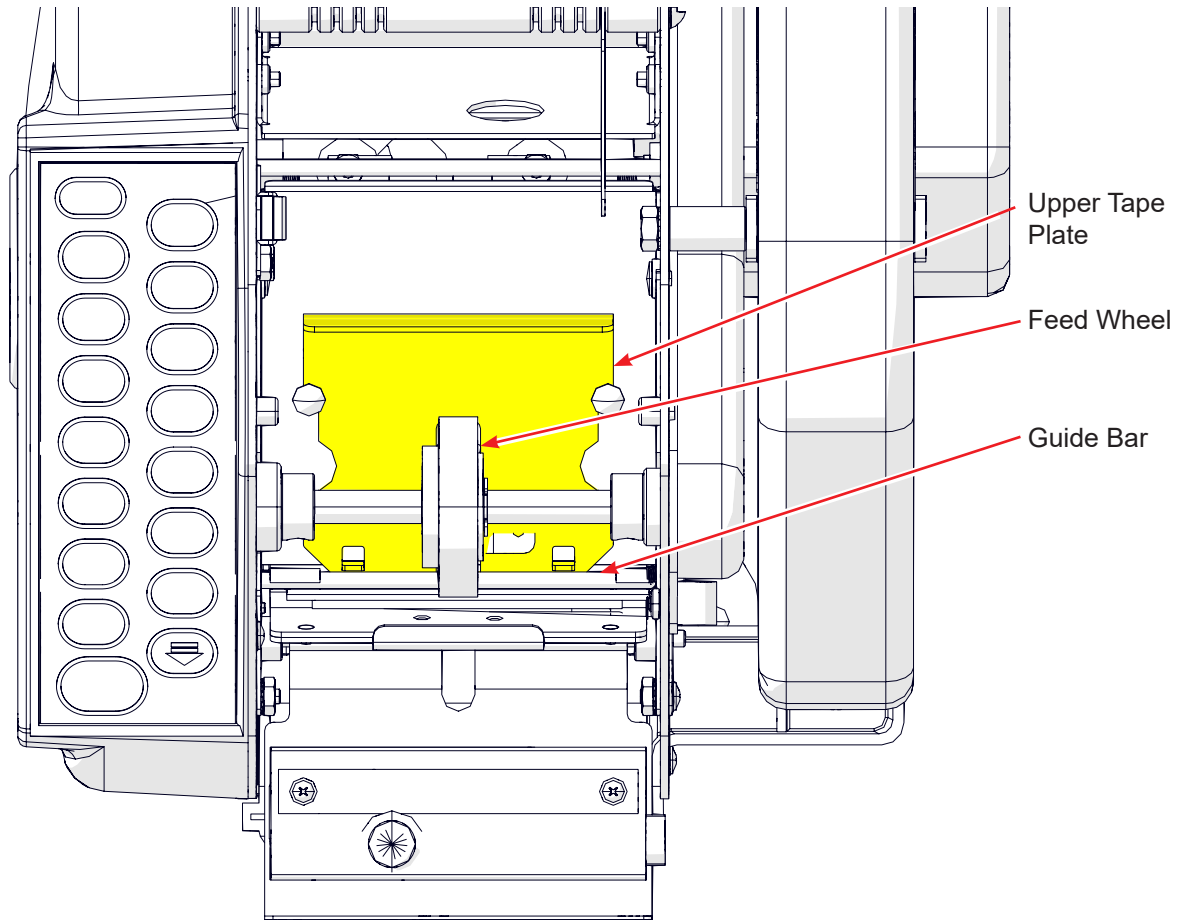


Figure 16: Upper Tape Plate

The Upper Tape Plate is vital for the functionality of the Dispenser. If the plate is not in position or is missing the tape will jam.

SET-UP PROCEDURE

Installing the Brushes and Water Tank

The 500 uses a triple brush design that is held together with a cotter pin.

To install the brush:

1. Orient the brushes in the proper direction with the shortest bristles closest to the Dispenser. The loop of the cotter pin should point to ward the retaining bracket in the water tank.
2. Angle the brushes to allow the cotter pin to slip under the retaining bracket.
3. Pull the front of the brush toward the front of the water tank to fully seat the brush in the tank.
4. The brush is properly installed when the bristles are flat across the top of the tank.

Water level can be adjusted with a knob on the right side of the water tank. Advancing the knob into the tank will lower the water level and backing it out will raise the water level. Water level may need to be adjusted depending on the volume of tape being dispensed in short periods of time.

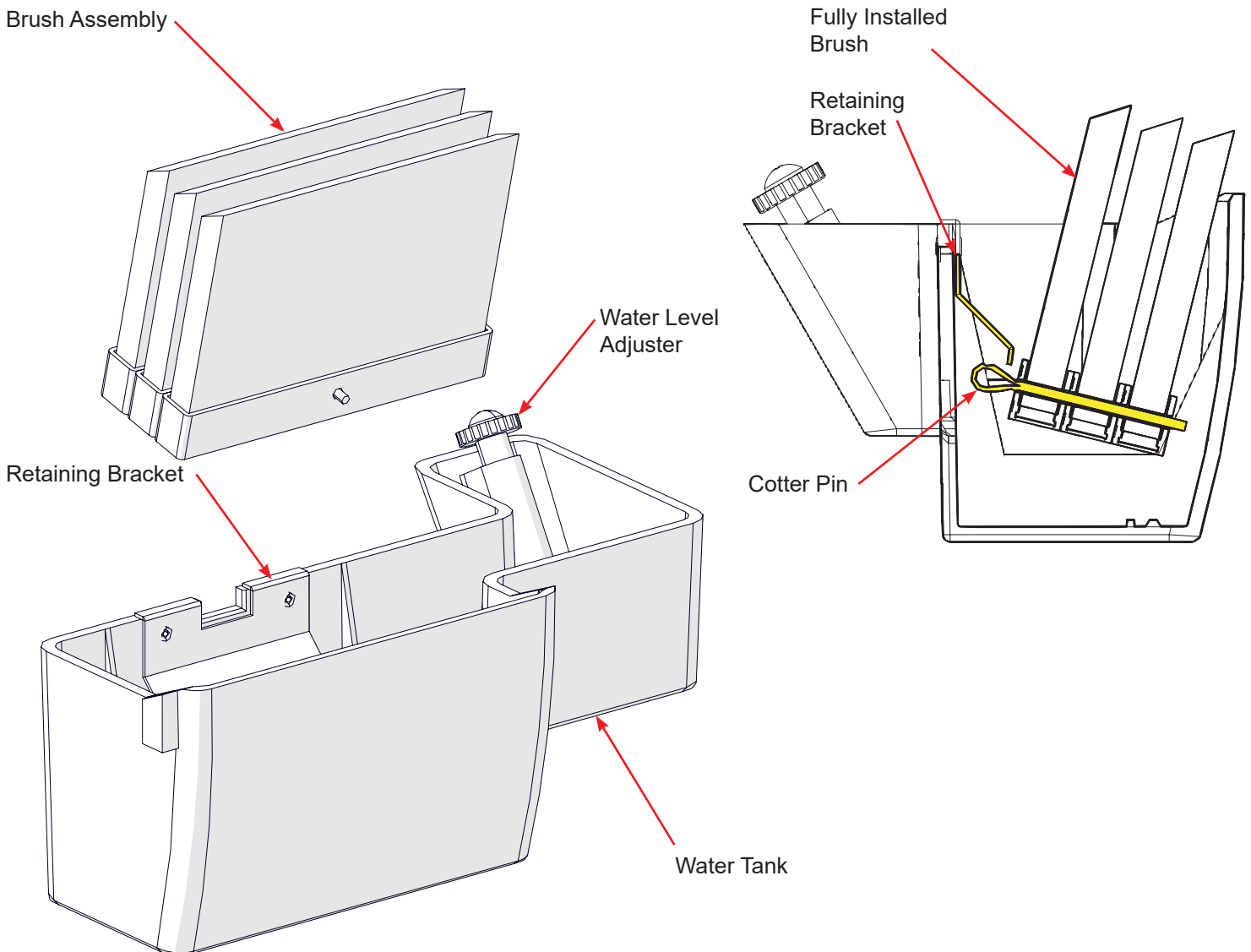


Figure 17: Brush Install

SET-UP PROCEDURE

Water Tank Install



CAUTION: UNDER NORMAL OPERATIONAL CONDITIONS THE BOTTOM OF THE HEATER WILL BE HOT. HANDLE THE HEATER ONLY USING THE GRIP BAR AND HANDLE ON THE HEATER OR ALLOW TIME FOR THEM TO FULLY COOL BEFORE HANDLING.

1. Grip the tank from end opposite of the brushes.
2. Angle the assembled tank back slightly to allow the brushes to slip under the heater.
 - If necessary the heater can be lifted by the bar on the front of the heater to allow for easier install.
3. Lift up slightly and tilt the bottom of the tank into the machine. The tank shelf has a small lip locking the tank on the tank shelf.
4. Give the tank a slight nudge back and forth to verify it is fully seated on the shelf.

Water level can be adjusted with a knob on the right side of the water tank. Advancing the knob into the tank will lower the water level and backing it out will raise the water level. Water level may need to be adjusted depending on the volume of tape being dispensed in short amounts of time.

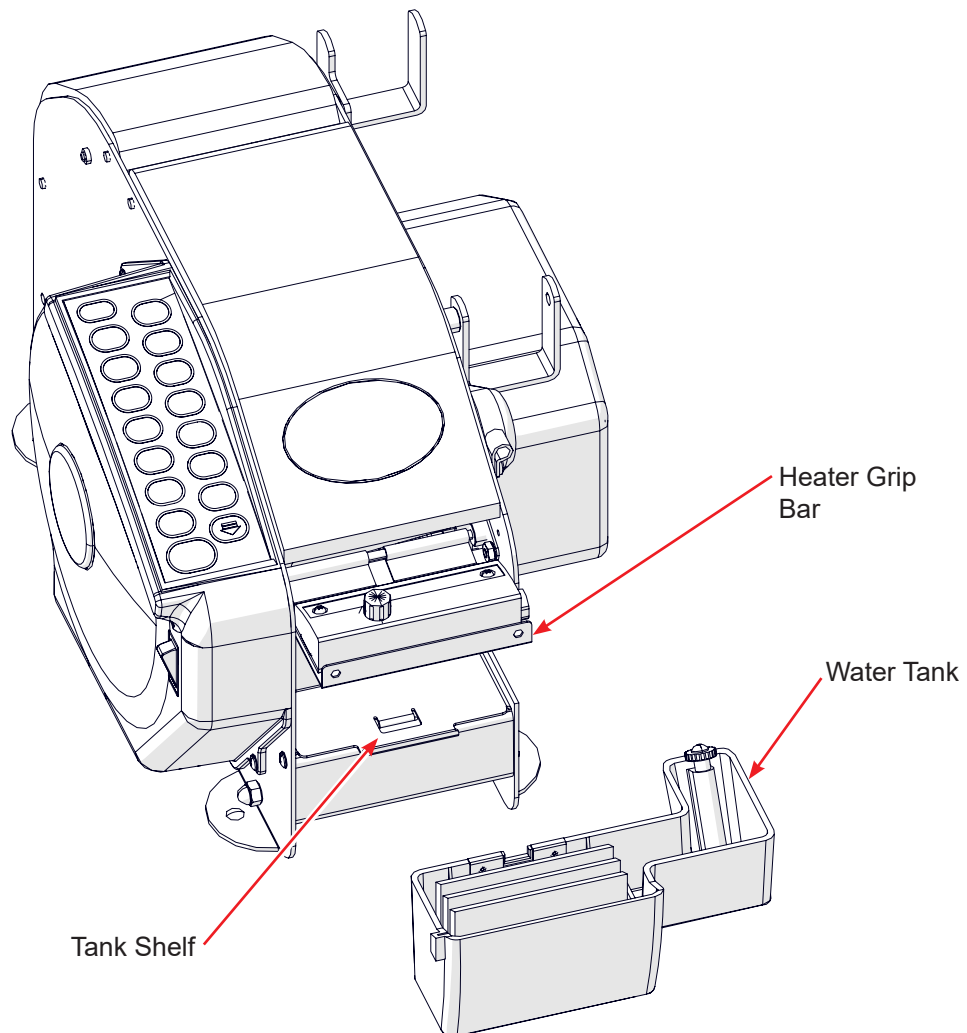


Figure 18: Water Tank Install

SET-UP PROCEDURE

Water Bottle Install

The 500 series machines all use the same 44oz (1.8 liter) water bottle. For best results fill the water bottle with room temperature water. There is no need for any special water such as distilled water. In the event your facility has hard water or water with a higher than normal mineral count you may want to consider using filtered water.

The water bottle on the 500 does not have a bottle cap. When installing a full water bottle on the machine it is best to hold it upside-down right next to the water bottle support brackets. Place a thumb over the opening in the water bottle. Rotate the bottle just over the support brackets. In one motion remove your thumb from the opening and place the water bottle onto the brackets so the spout of the bottle is inside the water tank. Water will flow into the tank until it reaches the opening in the water bottle, forming a seal.

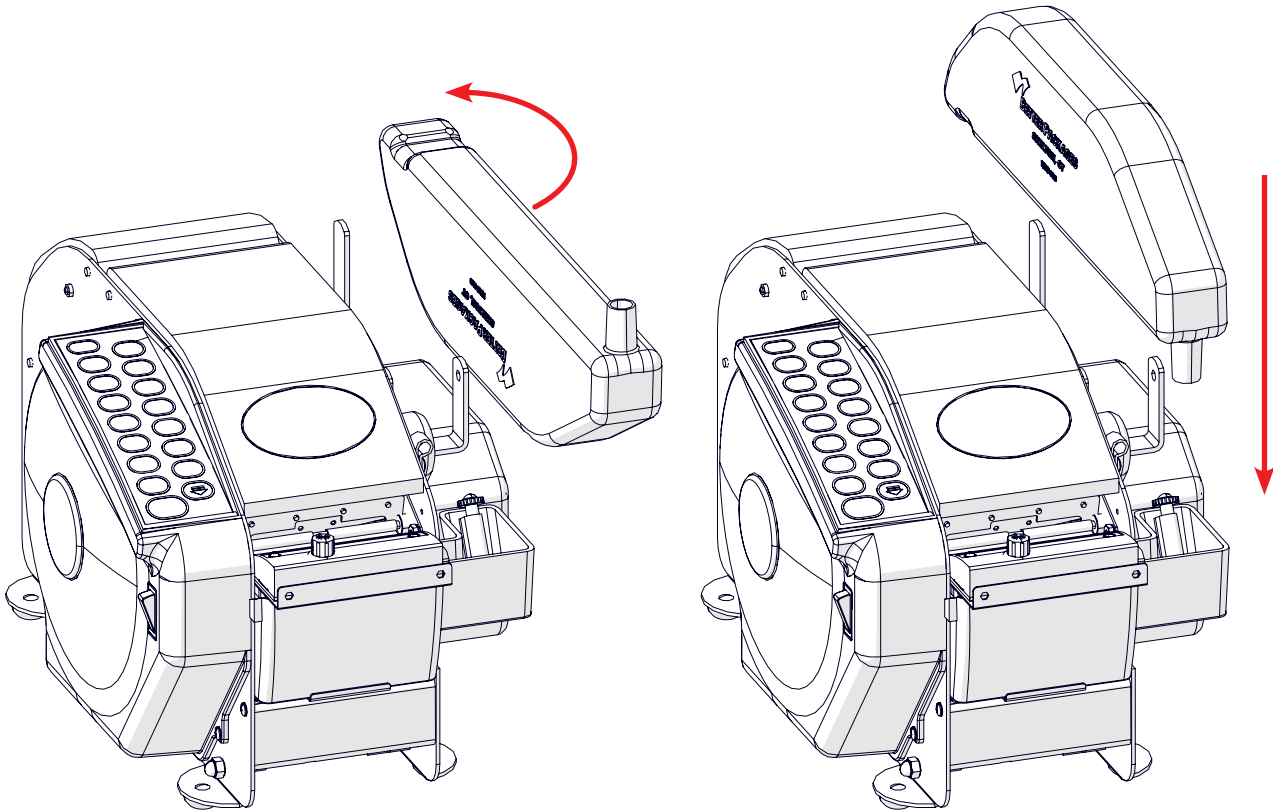


Figure 19: Water Bottle Install

SET-UP PROCEDURE

Connecting Power and Utilities

The 500 series machines come equipped with a three (3) pin power socket that is capable of accepting a variety of power cords for use around the world. The Dispenser is also equipped with a fuse holder.

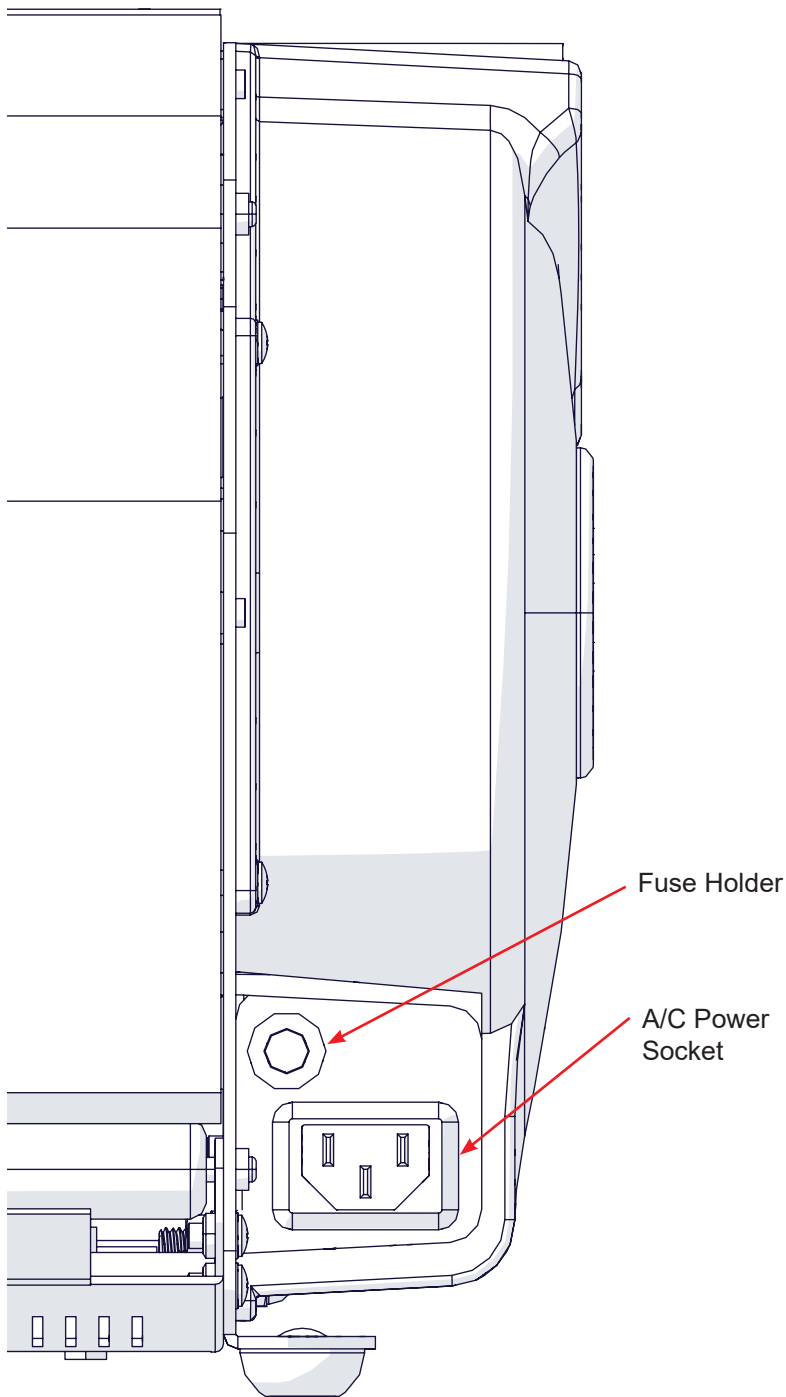


Figure 20: 500 Series Power Panel

There are two models of the 500 that are manufactured for world wide use. See the Technical Specifications section for which model is rated for your power requirements. To connect the Dispenser to power first verify the main power switch is in the Off [O] position, then insert the female end of the cord into the A/C Power Socket, then insert the male end into a properly grounded power outlet, lastly flip the main power switch to the On [I] position. The machine will beep when fully booted.

Only replace the fuse with a 4A 5 x 20mm supplied by Better Packages. Replacement part number [ST2341K](#).

Always use a power cord that has been supplied by Better Packages.



WARNING: DO NOT TOUCH THE METAL PINS ON THE BACK OF THE MACHINE OR ON THE POWER PLUG AFTER OPERATING THE EQUIPMENT.



CAUTION: ALL METAL PARTS ON THE DISPENSER ARE ELECTRICALLY GROUNDED. IT IS REQUIRED TO USE A PROPERLY GROUNDED POWER OUTLET THAT HAS BEEN INSTALLED BY A PROFESSIONAL.

SET-UP PROCEDURE

Setting and Adjusting Temperature



CAUTION: UNDER NORMAL OPERATIONAL CONDITIONS THE BOTTOM OF THE HEATER WILL BE HOT. HANDLE THE HEATER ONLY USING THE HEATER GRIP LOCATED AT THE FRONT OF THE HEATER OR ALLOW TIME FOR THEM TO FULLY COOL BEFORE HANDLING, AT LEAST 30 MINUTES.

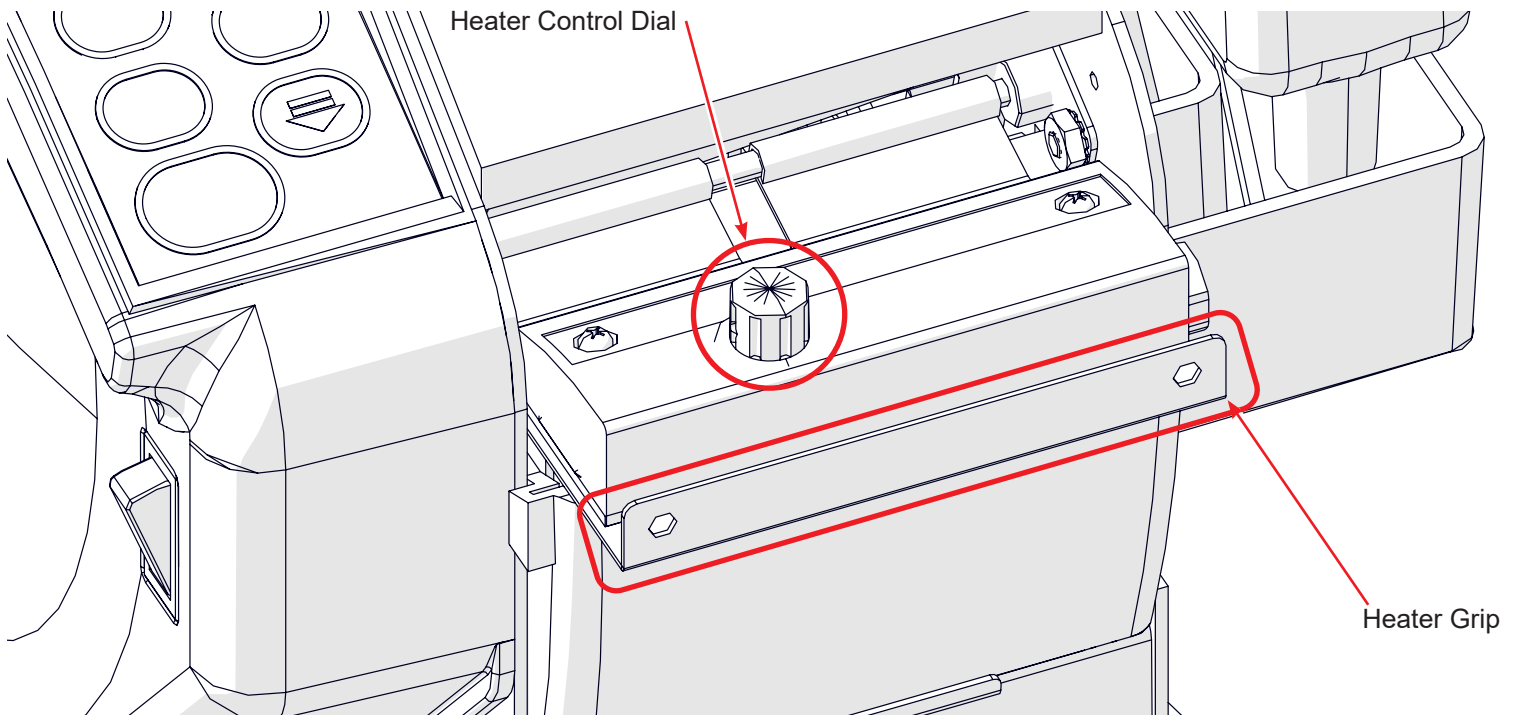


Figure 21: 500 Heater

The 500 series machines use the same heater unit. The heater is adjustable through a knob on the top of unit. The Dispenser is shipped with the heater in the OFF [O] position.

Rotate the dial to the desired the heat setting. The heater setting is dependent on the environment the Dispenser is in. If the Dispenser is in a climate controlled space the heater will **not** need to set higher than 50%. This will help extend the life of the heater.

OPERATION

General Operating Procedures

Verify the Dispenser is plugged into a properly grounded outlet. If the power cord is not connected to the Dispenser verify the main power switch is in the off position before connecting the cord to the rear of the Dispenser prior to plugging it into an outlet. See the section titled Connecting Power and Utilities for more details.

Verify tape is loaded correctly. If no tape is loaded see the section titled Loading the Tape for more details.

1. Flip the main power switch. After the machine successfully boots you will hear an audible beep giving the operator an audible alert that the machine is ready for use.
2. Adjust the heaters to the desired setting.
3. Select the desired output on the keypad.

Selecting the Length of Tape

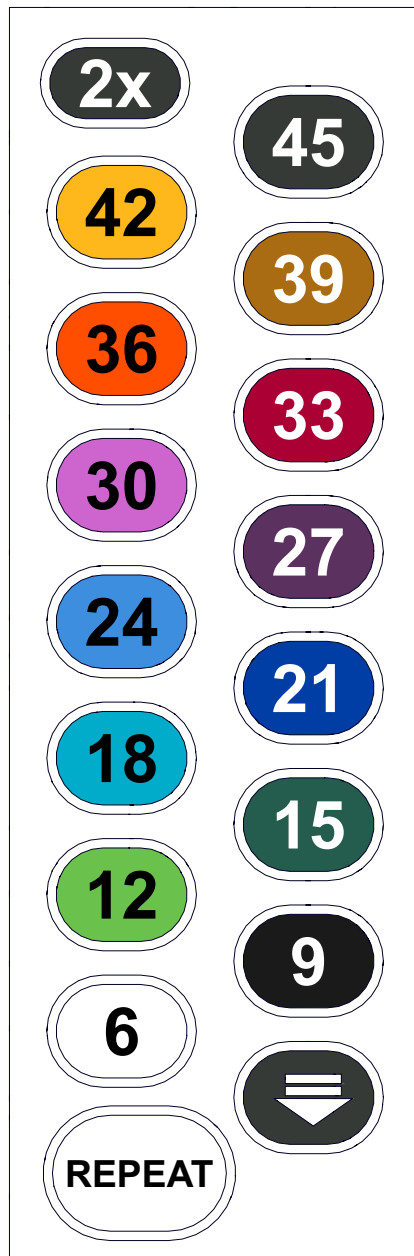



Figure 22: Keypad

The Dispenser allows for lengths of tape ranging from a minimum of 4 inches (102mm) to a maximum of 120 inches (3048mm) in increments of 1/2 inch (13mm).

The 500 keypad has two columns of numbered buttons, a “2x” button at the top, and repeat and random buttons at the bottom.

The “2x” button will double the selected length on the keypad.

The Random Button  will continuously dispense tape for as long as an operator holds it down. With practice an operator can utilize this button to quickly and accurately dispense tape for their cases.

The Repeat button will dispense the last length of tape the 500 dispensed. This includes the Random button and using the “2x” modifier.

Depending on the model of machine the numbers on the buttons will vary. 500 model will dispense tape in units of inches. 500M model will dispense tape in units of centimeters.

APPLYING TAPE TO A CARTON

Choosing the Correct Tape Type

| TYPE | CHARACTERISTIC |
|--|---|
| Paper Tape or Kraft Paper Tape | Made from paper only, with no additional reinforcing material |
| Reinforced Tape or Reinforced Paper Tape | Made from paper and contains additional strands of reinforcing material, typically fiberglass |

IPG offers a variety of different grades of Paper Tape or Kraft Paper Tape. In most circumstances this non-reinforced tape is good for smaller and lighter cartons.

IPG offers a variety of different grades of Reinforced Tape or Reinforced Paper Tape. In most circumstances this reinforced tape is good for larger boxes and those with increased weight.

Contact your Authorized IPG Representative for the best tape for your applications.

Choosing the Correct Tape Length

In most situations it is recommended to dispense a length of tape that is equal to the length of seam on the carton with an additional 4-6" (101-152mm) to allow for tape legs on either end of the carton.

In the event the carton is extremely long an additional 6-8" (101-203mm) is recommended for tape legs.

In the event the carton is short an additional 3-4" (76-101mm) is may be used in place of the standard 4-6" (101-152mm).

Proper Tape Moistening

Dispense a piece of tape and examine the adhesive surface. The tape should:

- Be evenly wet
- Have no dry spots
- Have no spots where water is running off the surface.

Rub the wet adhesive with your finger.

- The adhesive should have an "oily" feel and consistency.
- You should be able to move the adhesive underneath your finger.

When you rub two wet adhesive surfaces of the tape together against each other, you should see "strings" of adhesive stretching between the two surfaces as you pull them apart, looking much like taffy as it is pulled.

If the tape is too wet or watery, it:

- Will not set fast enough
- May slip slightly over the surface of the carton, causing a "loose" seal If the tape is not wet enough, it:
- May be tacky or sticky like pressure sensitive tape, but not "oily" like properly moistened tape.
- Is too dry to properly activate the adhesive which will prevent a permanent bond from forming (because the adhesive cannot penetrate the corrugate fibers).
- May too easily pull off the carton during handling and transportation.

APPLYING TAPE TO A CARTON

Sealing the Carton

Based off of use by many operators the best way to apply the tape to the carton after it has been dispensed is:

1. Grip the tape from the sides.
2. Place the wet tape on the end of one of the flaps to be sealed so that:
 - Half of the tape's width is on one flap
 - The other half is overhanging
3. Fold the flap without the tape down to its closed position.
4. Fold the other carton flap (the one with the overhanging tape) down into its proper closed position so that the overhanging portion of the tape is now in contact with the other flap on the opposite side of the carton.
5. Starting from the middle of the carton, apply a light downward pressure and wipe your hands over the tape on top of the carton flaps. Move from the center to the sides and then down over the overlapping ends in the sides of the carton. Sometimes wiping the tape down a second time before releasing the carton is helpful

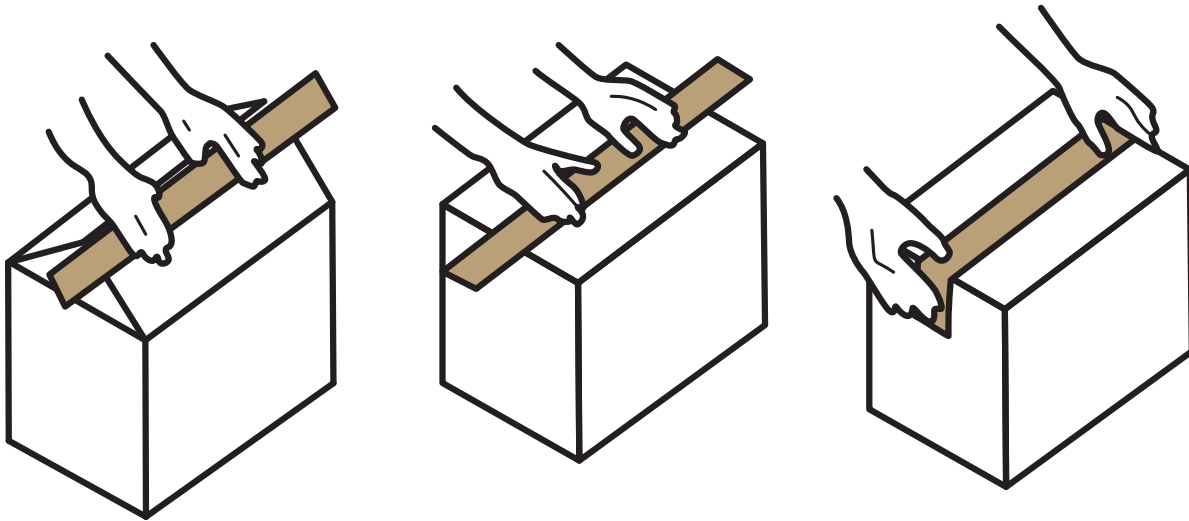


Figure 23: Applying Tape

Common Tape Patterns

The following are commonly used tape patterns. **“H” pattern** or sometimes referred to as the **“I” pattern** is when the center seam is sealed as normal and two more strips of tape are applied to seal the sides of the minor flaps. This allows for a secure and aesthetically pleasing carton. The **“Belly Band”** is when a strip of tape is placed in the opposite direction of the center seam. This helps secure heavier loads and is applied to the top and bottom of the box. The **“X” pattern** is more rarely used but is considered the most secure and is a cross between the “H” pattern and the “Belly Band.” It is used for extremely heavy items.

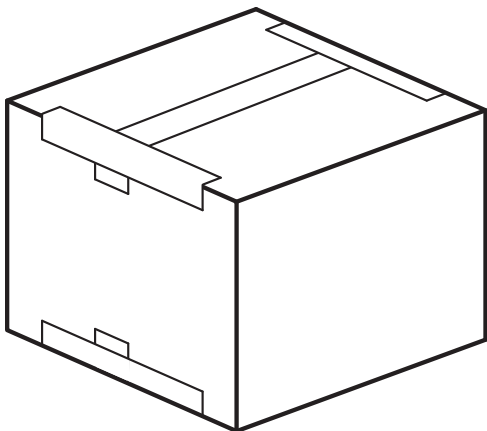


Figure 24: “H” Pattern

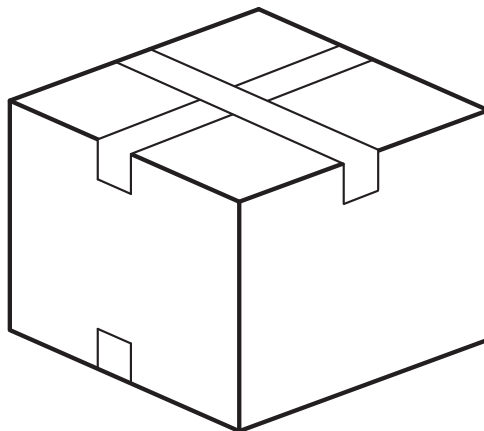


Figure 25: Belly Band

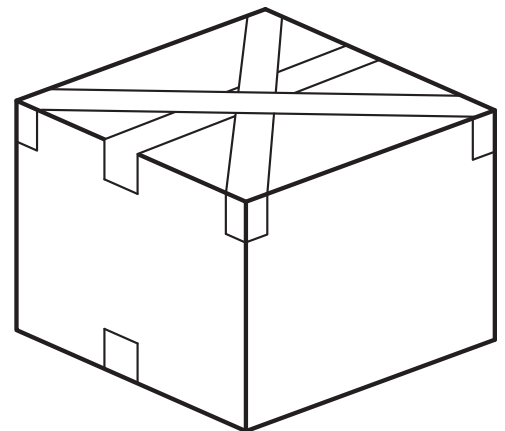


Figure 26: “X” Pattern

PREVENTATIVE MAINTENANCE

Suggested Preventative Maintenance Schedule



WARNING: TURN OFF ELECTRICAL POWER SUPPLY BEFORE PERFORMING MAINTENANCE. THE CUT-OFF BLADE IS EXTREMELY SHARP USE CUT RESISTANT GLOVES WHEN SERVICING OR REPLACING THE BLADE. THE HEATER WILL BE HOT. ALLOW TIME TO COOL PRIOR TO SERVICING.

Weekly

- Wash brushes with mild soap and water. Rinse well to remove all soap residue.
- Clean any accumulated dust with a dry brush or blower.
- Wash water tank with mild soap and water. Rinse well to remove all soap residue.

Monthly

- Clean accumulated glue from blades using a scraper. Do not scrape the cutting edge of the blade this can cause damage and may result in needing to change the blade or result in poor tape cutting.
- Apply a light coating of a light machine oil to the back of the blade. If the dispenser is being used in an area where the packaging of food consumables is done a food grade multipurpose oil should be used.
- Add only a few drop of a light machine oil to felt pads. If the dispenser is being used in an area where the packaging of food consumables is done a food grade multipurpose oil should be used.

Annually

- Thoroughly clean all accumulated pieces of tape, dust, and any other foreign material from inside the Dispenser with a dry brush or blower.
- Clean the bottom of heaters and pressure plates of accumulated tape adhesive.
- Clean all covers with a damp rag.

Washing the Tank, Brush, and Bottle

Water Brush: Glue from the tape may accumulate and reduce the effectiveness of the moistening system. Wash brushes weekly with mild soap. Be sure to agitate the bristles while in the soap and water solution. A brush is considered clean after this agitation and all adhesive build up has been removed.

It is recommended to soak brushes in a solution of mild soap and water daily overnight. This will reduce any adhesive build up and extend the life of the brushes.

If you operate multiple machines all brushes may soak in the same container.

Rinse the brushes in running warm water before reinstalling them into a clean water tank.

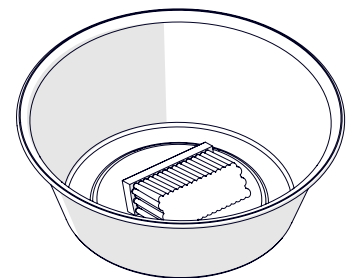


Figure 27: Brush Cleaning

Water Tank: Glue from the tape may accumulate in the water tank. This build up can accumulate in the water brushes and result in a reduction of water transmission to the tape and a weaker bond to the carton.

It is recommended to wash the water tank once a week in a warm soap and water solution. Use a low-scratch abrasive brush to clean the bottom of the water tank as well as the tight areas. Rinse the water tank in running warm water before reinstalling.

Water Bottle: Hard water build up may appear in the water bottles over time. If you have hard water or other mineral rich water it is recommended to use a filtered water to extend the life of the brush.

It is recommended to wash out the water bottle once a week with a warm soap and water solution. Fill the bottle $\frac{1}{4}$ to $\frac{1}{2}$ with the soap and water solution. Block the water bottle opening, then shake the bottle vigorously. Allow the bottle to drain before rinsing with warm water. Allow the water bottle to fully dry before reusing.

In extreme circumstances the water bottle may be cleaned with a white vinegar and water solution but it would be recommended to replace the water bottle.

The adhesive is non-toxic and water soluble. If adhesive builds up on an operator's hands, washing with soap and water will remove any debris. Standard packing gloves or other required PPE should be used in accordance with plant policies where the dispenser is being operated in.

TROUBLESHOOTING

| PROBLEM | POSSIBLE CAUSES | SOLUTIONS |
|-------------------------------|---|--|
| Tape is too short | Feed wheel is out of adjustment | Conduct a feed wheel check and adjustment. |
| Tape is too long | Damaged encoder wheel | Remove left side cover and verify the integrity of the encoder wheel. |
| | Keypad connector is not connected properly | Remove the left side cover and verify the data ribbons are connected to all pins. If the keypad is shifted it will still function but keys will no longer work as desired. |
| Dispenser not outputting tape | Dispenser is unplugged | Verify the power cord is connected to the Dispenser and a properly functioning grounded outlet. |
| | Dispenser is off | Flip the main power witch to the ON position. |
| | Safety interlock system is interrupted | Verify the lid(s) of the Dispenser are closed. |
| | | Verify the magnet in the left side of the lid(s) is in place. Verify the lid is properly closed and not skewed. |
| | Fuse is blown | Replace the main fuse. Use a fuse rated at AL T2 250V. ST2341K |
| | Keypad is disconnected | Remove the left side cover and verify the data ribbons are connected to all pins. |
| Main Board is damaged | Verify the Dispenser is connected to a working outlet and plugged in, flip the main power switch to the ON position, the Dispenser should have an audible beep. If there is no beep the Main Board will need replacement. | |
| Poor tape wetting | Low water level | Adjust the height of the Water Bottle using the slider on the Water Tank. |
| | Dirty application brushes | Soak the brushes in warm water and clean with mild soap. |
| | Tape is not making contact with the brushes | Verify the heater is properly mounted and not damaged. |
| | Water Bottle empty | Refill the Water Bottle |

If you are experiencing trouble with your Dispenser or it is functioning in a way that is not consistent with this manual please contact IPG Machinery Support at +1 813-345-3070 between the hours of 8am and 7pm Eastern Standard Time or via email at machsupp@itape.com.

APPENDIX PARTS LISTING

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Recommended Spare Parts

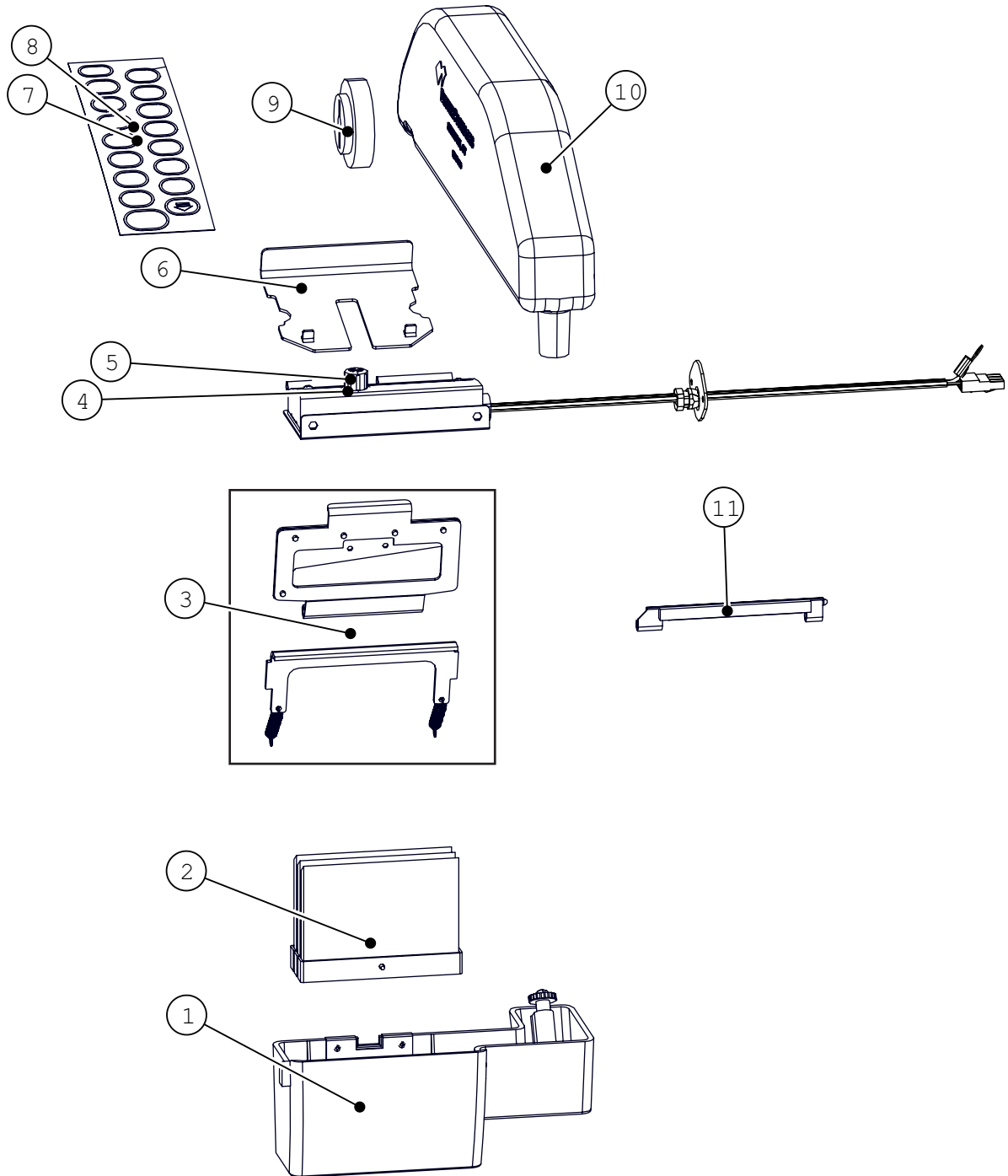
The following is a list of parts that is recommended to keep on hand.

| Description | Item Number | QTY |
|------------------|---------------------------|-----|
| Brush | E-107-X | 1 |
| Upper Tape Plate | TH55-L-XXX-230 | 1 |
| Fuse* | 4A ST-2341K 2A ST-2490 | 1 |
| Feed Wheel | E555-065-00 | 1 |

*4A fuse is for BP500 | 2A fuse is for BP500M

APPENDIX

Commonly Ordered Parts

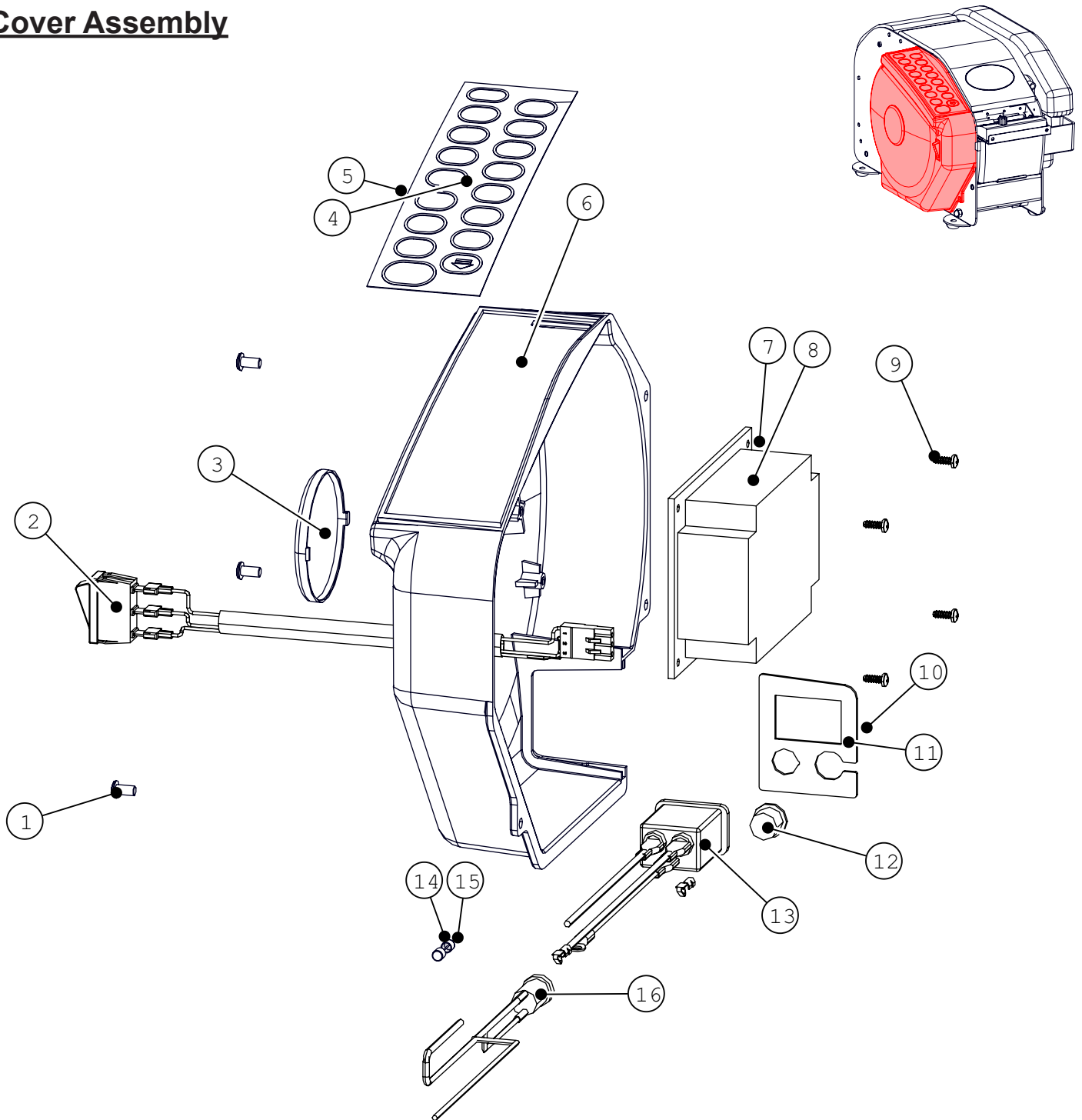


| ITEM | DESCRIPTION | PART NUMBER | QTY |
|------|----------------------|----------------|-----|
| 1 | TANK ASSY | E-561-PX | 1 |
| 2 | BRUSH ASSY | E-107-X | 1 |
| 3 | BLADE KIT, BP500 | B500-031-K | 1 |
| 4 | HEATER ASSEMBLY 500 | TH55-L-XXX | 1 |
| 5 | HEATER ASSEMBLY 500M | TH55-L-XXX-230 | 1 |
| 6 | UPPER TAPE PLATE | FM-12EL | 1 |

| ITEM | DESCRIPTION | PART NUMBER | QTY |
|------|---------------------------|-------------|-----|
| 7 | KEYBOARD ASSY, B500, INCH | B500-003-01 | 1 |
| 8 | KEYBOARD ASSY, B500M, CM | B500-003-02 | 1 |
| 9 | FEED WHEEL | E555-065-00 | 1 |
| 10 | WATER BOTTLE | FF-6100 | 1 |
| 11 | FELT/BACKET ASSY | SA-10-X | 1 |

APPENDIX

Left Cover Assembly

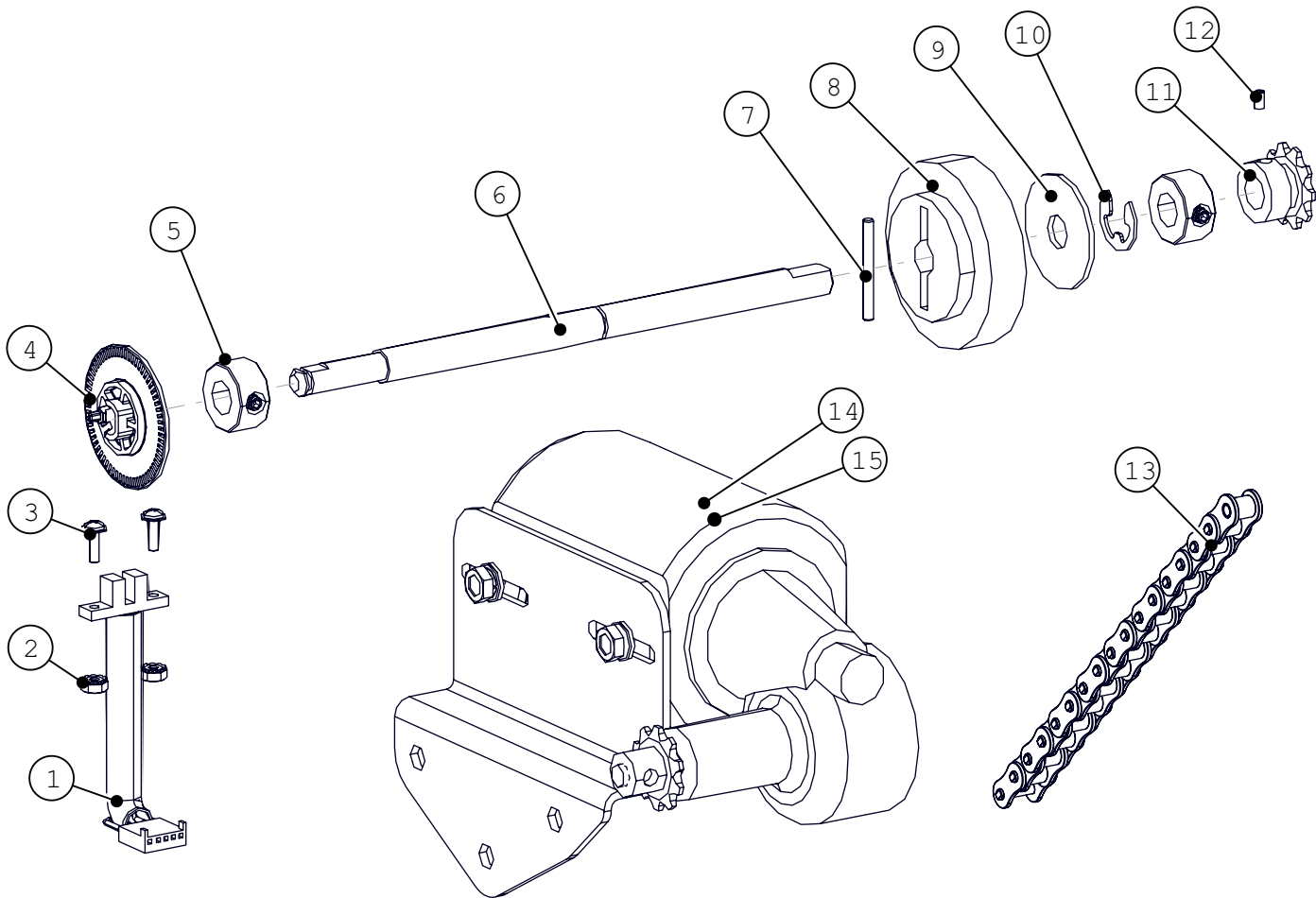
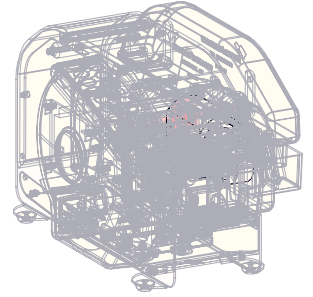


| ITEM | DESCRIPTION | PART NUMBER | QTY |
|------|-----------------------------------|-------------|-----|
| 1 | SCREW, #10-24 x 3/8 | ST-1949 | 3 |
| 2 | SWITCH ASSEMBLY | B500-014-01 | 1 |
| 3 | BADGE | B500-012-00 | 1 |
| 4 | KEYBOARD ASSY, B500, INCH | B500-003-01 | 1 |
| 5 | KEYBOARD ASSY, B500, CM | B500-003-02 | 1 |
| 6 | COVER, B500 LEFT SIDE | B500-002-00 | 1 |
| 7 | PCB ASSY, BP500M CONTROLLER BOARD | B500-001-02 | 1 |
| 8 | PCB ASSY, BP500 CONTROLLER BOARD | B500-001-01 | 1 |
| 9 | SCREW, PLASTITE, #8 x 3/8" LG | ST-2876 | 4 |

| ITEM | DESCRIPTION | PART NUMBER | QTY |
|------|--------------------------------------|-------------|-----|
| 10 | PLATE, POWER ENTRY, DOUBLE FUSE | B500-010-00 | 1 |
| 11 | PLATE, POWER ENTRY, SINGLE FUSE | B500-006-00 | 1 |
| 12 | PANEL PLUG | ST-2873 | 1 |
| 13 | LINE FILTER ASSY | E555-128-01 | 6 |
| 14 | FUSE, 4A, 5MM x 20MM, SLO BLO (110V) | ST-2341 | 1 |
| 15 | FUSE, 2A, 5MM x 20MM, SLO BLO, 250V | ST-2490 | 1 |
| 16 | FUSE HOLDER | ST-2321 | 3 |

APPENDIX

Drive Assembly

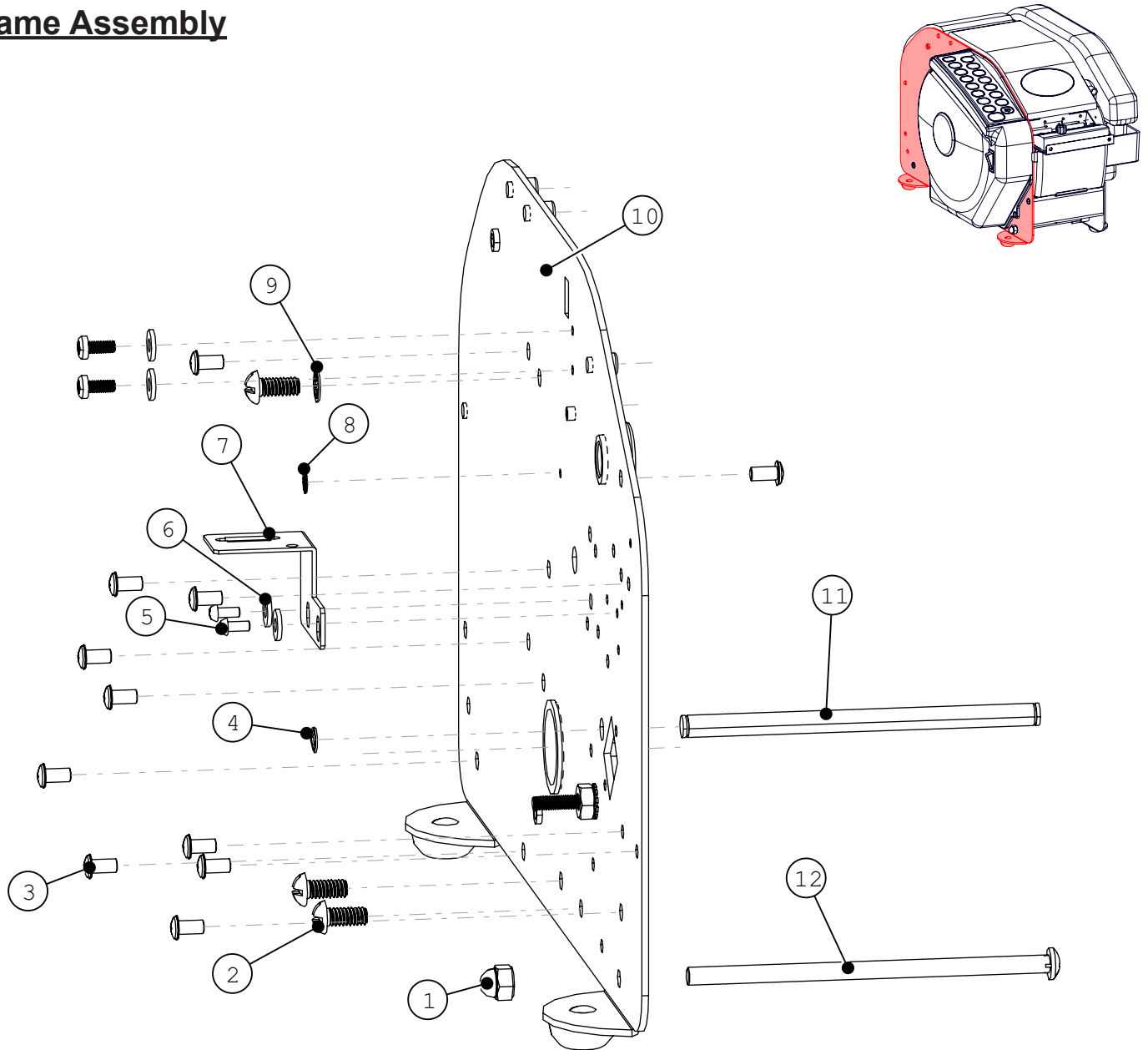


| ITEM | DESCRIPTION | PART NUMBER | QTY |
|------|-------------------------|-------------|-----|
| 1 | SENSOR ASSY | B500-017-01 | 1 |
| 2 | NUT, #4-40 KEPS | ST-1068 | 2 |
| 3 | SCREW, #4-40 X 3/8" | ST-2913.prt | 2 |
| 4 | ENCODER WHEEL | E555-150-00 | 1 |
| 5 | COLLAR & SET SCREW ASSY | K-37-X | 2 |
| 6 | SHAFT, FEED WHEEL | B500-011-00 | 1 |
| 7 | PIN, FEED WHEEL SHAFT | EA-46P | 1 |
| 8 | FEED WHEEL | E555-065-00 | 1 |

| ITEM | DESCRIPTION | PART NUMBER | QTY |
|------|---------------------|-------------|-----|
| 9 | WASHER | ST-2528 | 1 |
| 10 | E-RING | FM-101 | 1 |
| 11 | FEED SHAFT SPROCKET | ND-114-A | 1 |
| 12 | SET SCREW | BM-172 | 1 |
| 13 | DRIVE CHAIN | ND-116 | 1 |
| 14 | MOTOR ASSY 500 | E555-044-01 | 1 |
| 15 | MOTOR ASSY 500M | E555-044-02 | 2 |

APPENDIX

Left Frame Assembly

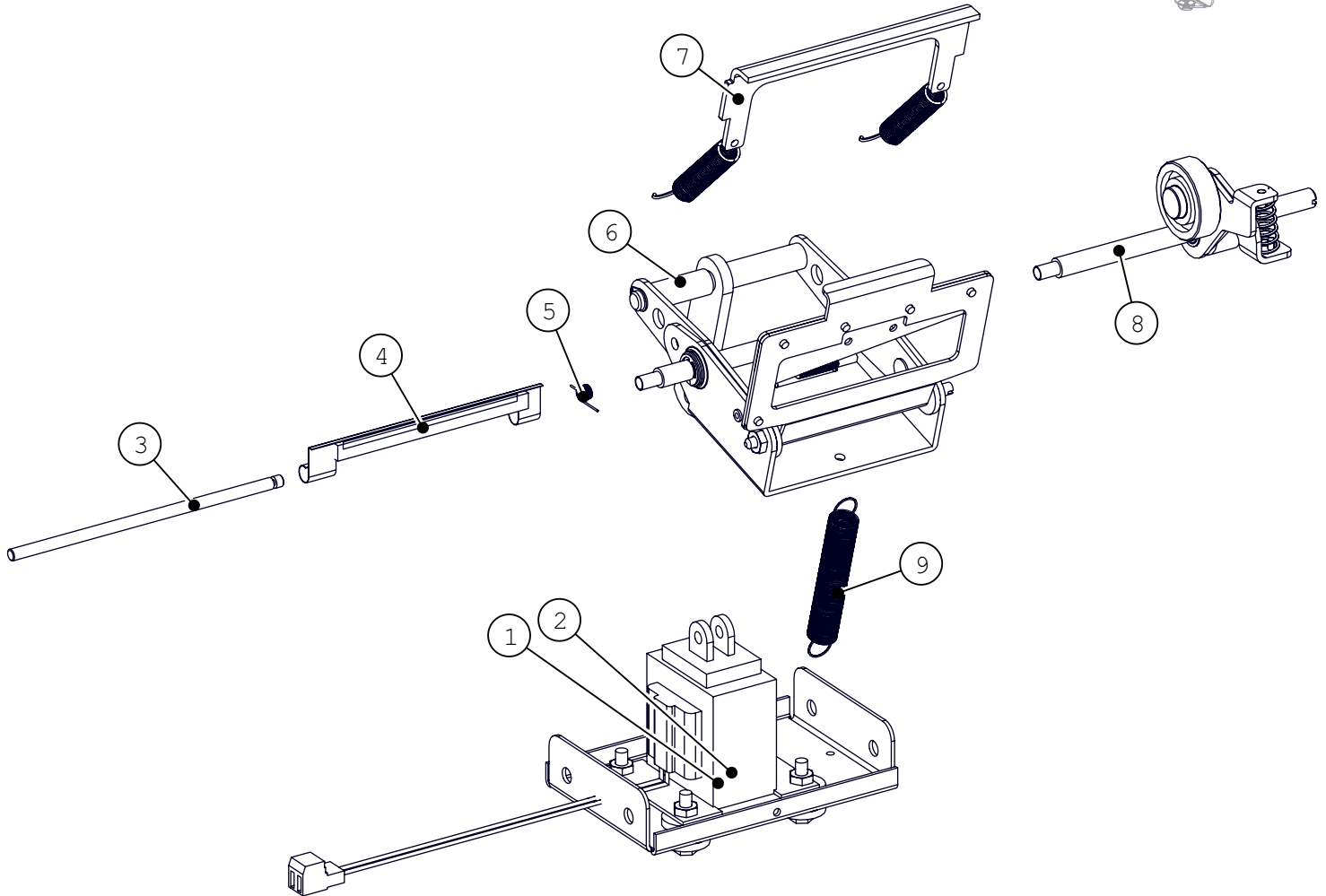
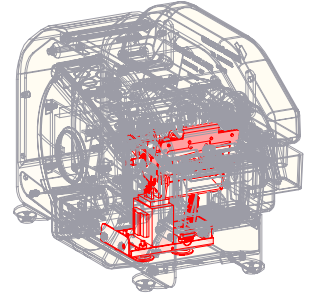


| ITEM | DESCRIPTION | PART NUMBER | QTY |
|------|---------------------|-------------|-----|
| 1 | ACORN NUT | ST-2881 | 1 |
| 2 | SCREW, 1/4-20 1/2" | TO-256 | 3 |
| 3 | SCREW, #10-24 x 3/8 | ST-1949 | 11 |
| 4 | RETAINING RING | WK2 | 1 |
| 5 | SCREW, #8-32 x 5/16 | K-255 | 4 |
| 6 | WASHER, FLAT #8 | ST-1965 | 4 |
| 7 | BRACKET, SENSOR | B500-018-00 | 1 |

| ITEM | DESCRIPTION | PART NUMBER | QTY |
|------|---------------------|-------------|-----|
| 8 | RETAINING RING | WK20 | 1 |
| 9 | INTERNAL LOCKWASHER | 1214 | 1 |
| 10 | LEFT FRAME ASSY | B500-L-XXX | 1 |
| 11 | YOKE STOP BAR | E-527 | 1 |
| 12 | TIE SCREW | FM-61 | 1 |

APPENDIX

Tape Cutting Assemblies

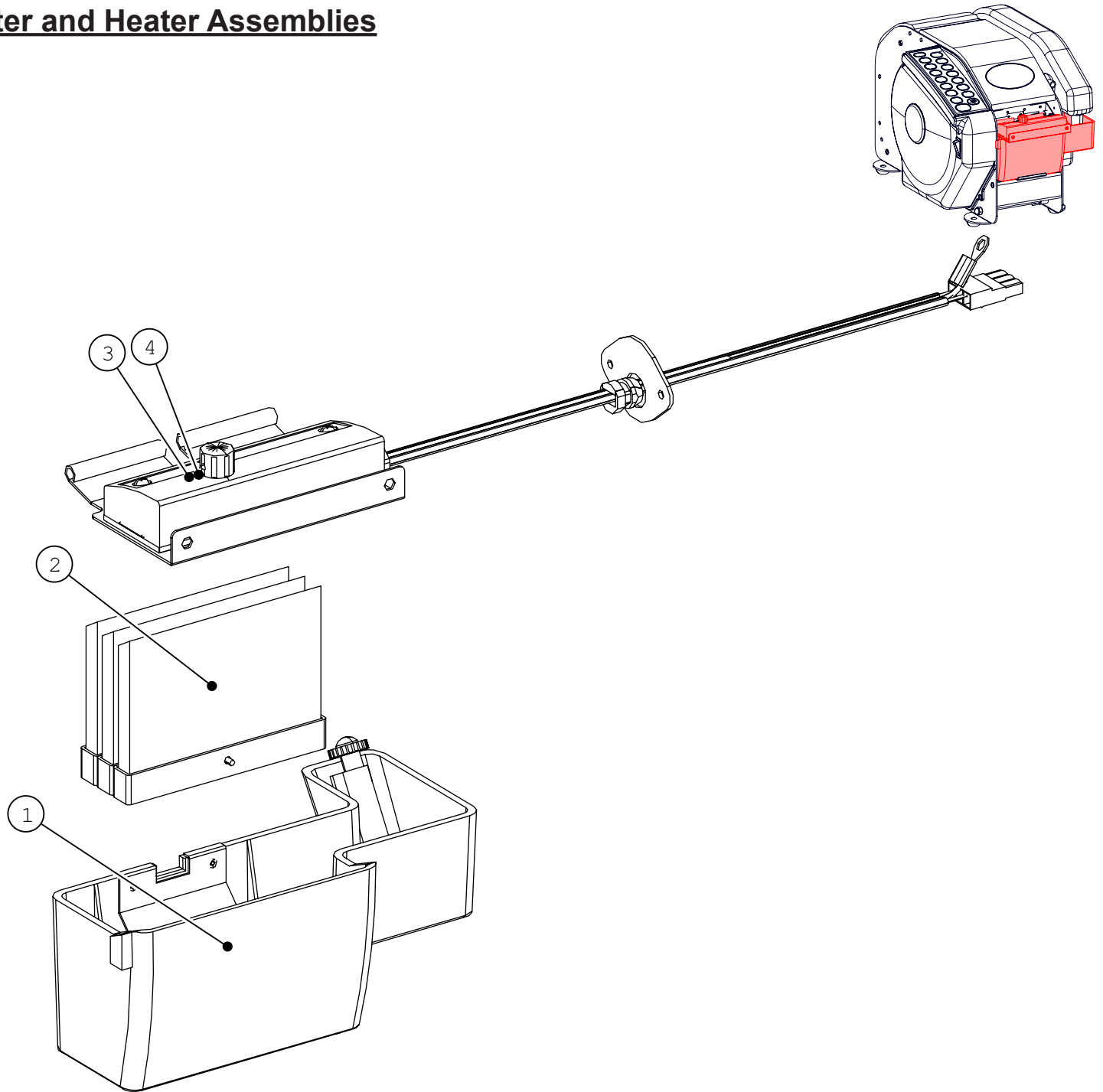


| ITEM | DESCRIPTION | PART NUMBER | QTY |
|------|--------------------------|-------------|-----|
| 1 | SOLENOID SHELF ASSY 500 | B500-035-01 | 1 |
| 2 | SOLENOID SHELF ASSY 500M | B500-035-02 | 1 |
| 3 | SHAFT | E-580 | 1 |
| 4 | FELT/BACKET ASSY | SA-10-X | 1 |
| 5 | SPRING | SA-13 | 1 |

| ITEM | DESCRIPTION | PART NUMBER | QTY |
|------|-----------------------|-------------|-----|
| 6 | CUTTER YOKE ASSY | B500-021-02 | 1 |
| 7 | STATIONARY BLADE ASSY | FM-21-X | 1 |
| 8 | IDLER & SHAFT ASSY | E626-XXX | 1 |
| 9 | CUTTER SPRING | E-585-C | 1 |

APPENDIX

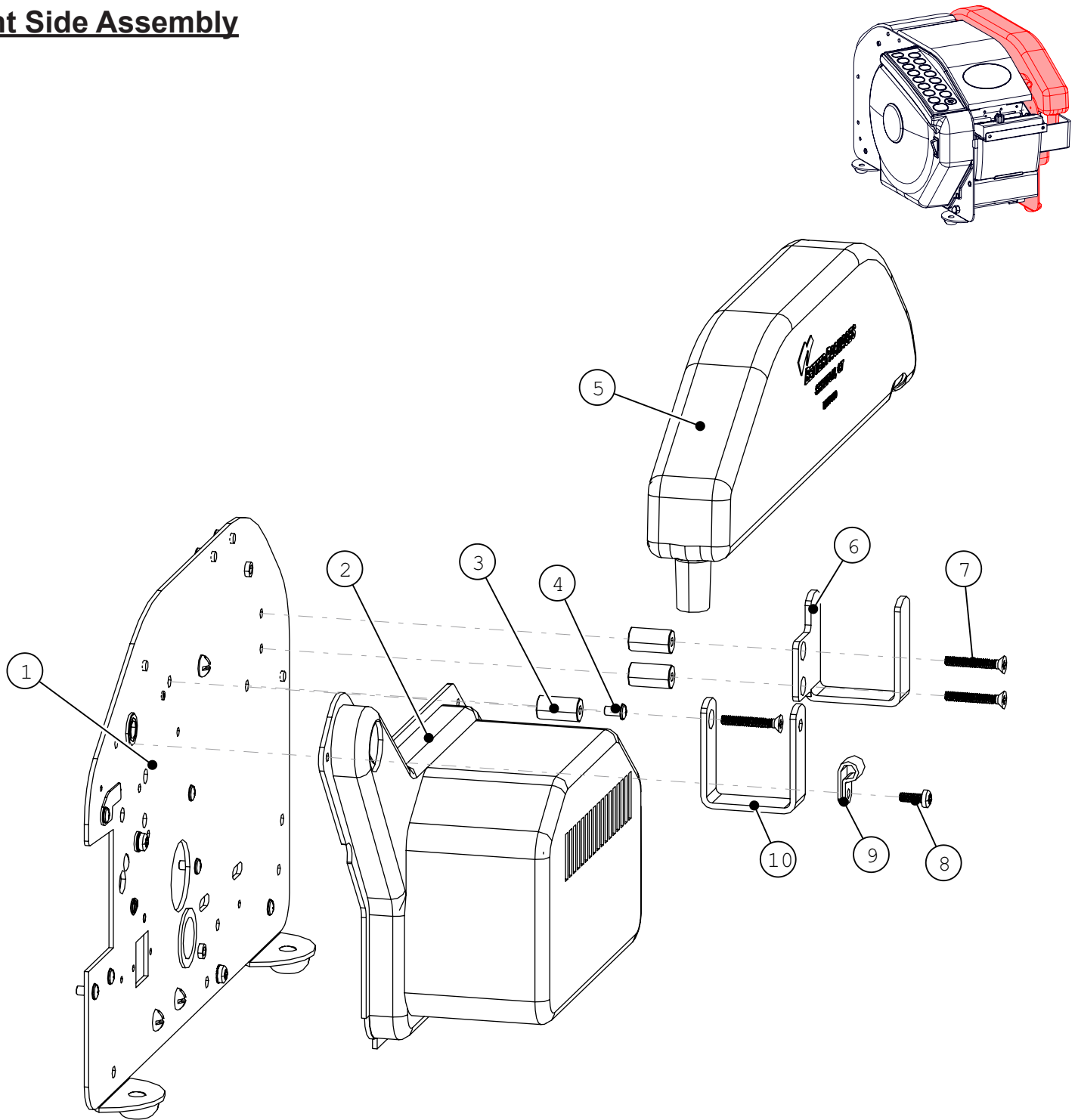
Water and Heater Assemblies



| ITEM | DESCRIPTION | PART NUMBER | QTY |
|------|------------------|----------------|-----|
| 1 | TANK ASSY | E-561-PX | 1 |
| 2 | BRUSH ASSY | E-107-X | 1 |
| 3 | HEATER ASSY 500 | TH55-L-XXX | 1 |
| 4 | HEATER ASSY 500M | TH55-L-XXX-230 | 1 |

APPENDIX

Right Side Assembly

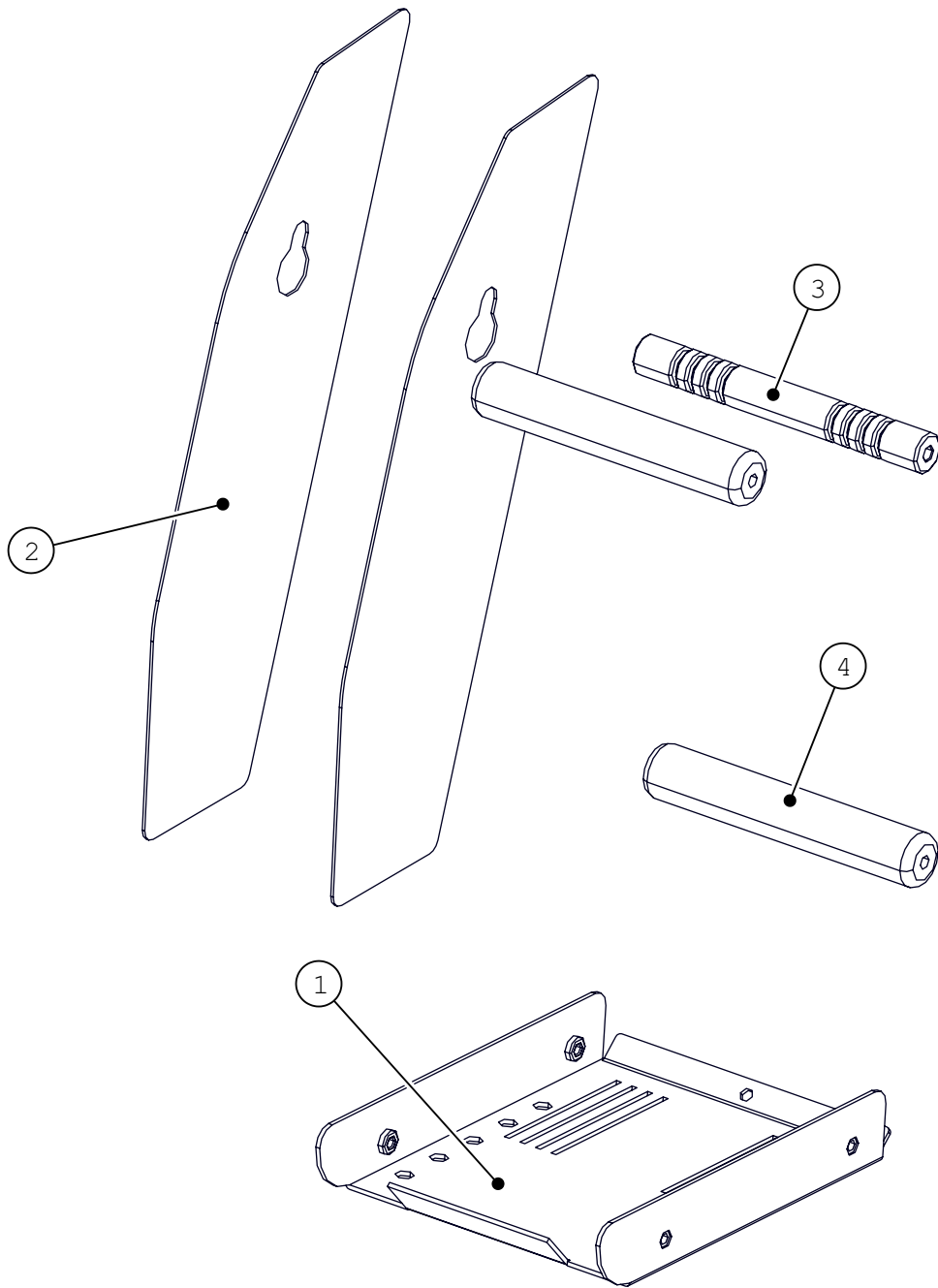
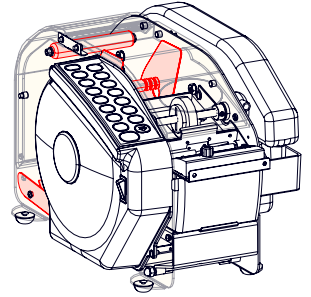


| ITEM | DESCRIPTION | PART NUMBER | QTY |
|------|----------------------|-------------|-----|
| 1 | RIGHT FRAME ASSY | B500-R-XXX | 1 |
| 2 | MOTOR & CHAIN COVER | E-559 | 1 |
| 3 | SPACER | ST-1592 | 3 |
| 4 | SCREW, #10-24 x 3/8 | ST-1949 | 1 |
| 5 | WATER BOTTLE | FF-6100 | 1 |
| 6 | BOTTLE BRACKET, REAR | FF-6110 | 1 |

| ITEM | DESCRIPTION | PART NUMBER | QTY |
|------|-----------------------|-------------|-----|
| 7 | SCREW, #10-32 x 1 1/4 | ST-2924 | 3 |
| 8 | SCREW, #10-32 x 1/2 | FM-96P | 1 |
| 9 | CLIP | E-676 | 1 |
| 10 | BOTTLE BRACKET, FRONT | FF-6120 | 1 |

APPENDIX

Tape Path Components



| ITEM | DESCRIPTION | PART NUMBER | QTY |
|------|-----------------|-------------|-----|
| 1 | BASKET | FM-57-X | 1 |
| 2 | ROLL GUIDE | B500-004-00 | 1 |
| 3 | SLOTTED TIE ROD | FM-56 | 1 |

| ITEM | DESCRIPTION | PART NUMBER | QTY |
|------|------------------|-------------|-----|
| 4 | TAPE ROLLER ASSY | FM-59-X | 2 |

