

## Check Points:

### 1: [Cleaning](#)

**1.1:** A dirty machine will typically present with multiple issues; whether film related or not, the machine should always be thoroughly cleaned by the end user or service provider.

- Often existing issues are not reported by the end user, or observed by the service provider, until after a change has been made.

### 2: [Maintenance](#)

**2.1:** An unmaintained machine will typically present with multiple issues; whether film related or not, the machine should be always be well maintained by the service provider.

**2.2:** Rusted, or unlubricated guide shafts will amplify film related issues.

- Often existing issues are not reported by the end user, or observed by the service provider, until after a change has been made.

### 3: [Film Temp](#)

**4:** All film should be stored at "room temperature", i.e. above 50 degrees.

**4.1:** Cast film is produced at a lower temperature, which results in a lower optimum operating temperature. Generally the temperature should be lowered by 5-10 degrees when compared to blown film, though cast film often has a wider operating range.

**4.2:** Blown film is produced at a higher temp, which results in a higher optimum operating temperature. Generally the temperature should be raised by 5-10 degrees when compared to cast film, with blown film often having a narrower operating range.

**5: [Film Setup](#):** Within the Film Setup, four areas are discussed:

#### 5.1: Brake

- Differences in roll volume/weight can affect the ability to feed film due to an incorrect peel point.

#### 5.2: Holding Spikes

- Differences in core width can affect the ability to feed film due to slippage causing inconsistent brake positions.

#### 5.3: Mandrel Depth

- Differences in core length can affect the ability to feed film due to poor alignment of the front film edge, thus preventing correct alignment with the front film feeder.
- Note that some brands have variable core length within the same model/SKU of film; if over 0.5" of variation is observed, the film should not be used. Less than 0.25" variation is preferred.

#### 5.4: Film Length and Centering

- Differences in roll length and composition can affect the film length and centering.
- Always adjust the brake before the length/centering.

## 6: [Tray Files](#)

**6.1:** Always observe/inspect trays before and after making a film change.

➤ Often existing issues are not reported by the end user, or observed by the service provider, until after a change has been made.

**6.2:** Generally all tray files should be set at zero, but adjust as needed, noting that blown film inherently doesn't stretch as well as cast, and cast film inherently stretch's more than blown film.

**6.3:** Utilization of FRONT FEEDER = YES, REAR FEEDER = YES, STRETCH = negative value, can all reduce the strain on the film.

## 7: [Insertion Height](#)

**7.1:** Although this is machine specific, and not affected by film variables, it should still be checked to ensure correct feeding.

**7.2:** Note that some films leave more oil residue than others, thus the insertion plates should be wiped/scrubbed with alcohol periodically.

➤ Often existing issues are not reported by the end user, or observed by the service provider, until after a change has been made.

## 8: [Pinch Strength](#)

**8.1:** Although this is machine specific, and not affected by film variables, it should still be checked to ensure correct feeding.

➤ Often existing issues are not reported by the end user, or observed by the service provider, until after a change has been made.

## 9: [Clamp Strength](#)

**9.1:** Although this is machine specific, and not affected by film variables, it should still be checked to ensure correct wrapping.

➤ Often existing issues are not reported by the end user, or observed by the service provider, until after a change has been made.

## 10: [One-Way Rollers](#)

**10.1:** Although this is machine specific, and not affected by film variables, it should still be checked to ensure correct wrapping.

➤ Often existing issues are not reported by the end user, or observed by the service provider, until after a change has been made.

## 11: [Film Belts](#)

**11.1:** Film feeding belts are often the last to be replaced, despite being one of the most likely causes of film feeding issues in a properly adjust machine.

**11.2:** All four belts should be replaced at the same service interval, normally after one year of average usage.

➤ Often existing issues are not reported by the end user, or observed by the service provider, until after a change has been made.

**11.3:** Note that all films leave a degree of residue due to their composition. Thus a films composition/residue can wear into belts, causing belts that worked for a period of time with the original film, to no longer work with the new film composition/residue.

### **Warning:**

- *The sealing rollers operate at a high temperature, touching them while hot may cause severe burns.*
- *Never operate this machine without training and authorization from your supervisor.*
- *Always keep your fingers, hands and clothing away from sharp or moving parts.*
- *Failure to follow these instructions could result in injury, damage to the equipment, and/or void the warranty.*

### **Supplies:**

**1:** Bucket of clean warm water for general cleaning throughout the machine.

**1.1:** Optional: Mild degreaser or a non-chloride-based sanitizer.

**2:** Do not use Chloride based cleaners.

**3:** Do not use any water-based cleaners on:

**3.1:** Print Heads.

**3.2:** Platen Rollers.

**4:** Isopropyl/Rubbing Alcohol or Alcohol swabs/wipes for use on Print Heads and Platen Rollers, as well as any other area that requires a strong solvent.

**5:** Mineral Oil for conditioning the stainless panels against corrosion.

**5.1:** Minimal use recommended.

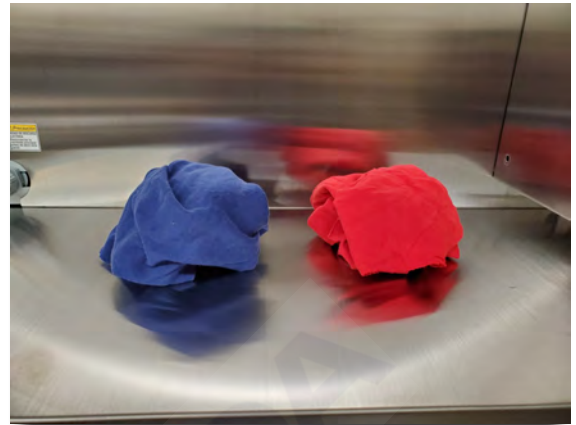


**6:** Clean cotton towels:

**6.1:** Unless noted, a **BLUE** towel indicates the usage of water, or water-based cleaners. Towel should be damp, well wrung out, and without drips.

**6.2:** When specifically noted, **BLUE** indicates the use of mineral oil.

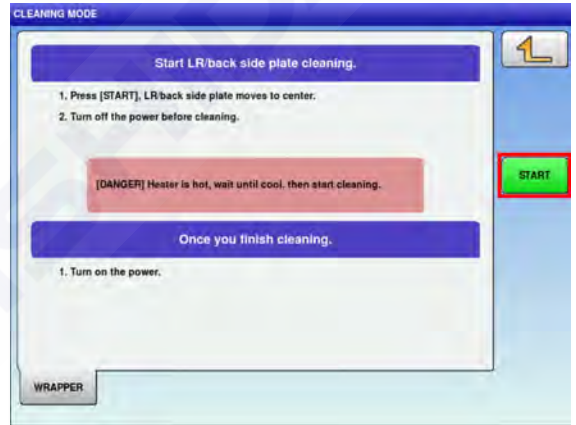
**6.3:** A **RED** towel indicates the usage of Isopropyl/Rubbing Alcohol or Alcohol swabs/wipes.



**Procedure:**

**7:** All steps are to be completed daily, unless otherwise noted by a red "⇒" style bullet point.

**8:** Enter Cleaning mode from the main page, then press "START".



**9:** Power OFF the wrapper.

**10:** Note that the switch is a positive lock style. Do not turn back to the ON position until the machine is completely powered off, e.g., after 60 seconds.



**11:** Clean the orange sealing rollers of all film and food debris.

➤ Take caution not to directly touch the rollers or hold the towel in one place as The sealing rollers operate at a high temperature, touching them while hot may cause severe burns.



- 12:** Remove the blue weigh platter.
- 13:** Wipe or spray the platter clean depending on the level of debris.
- 14:** Do not soak the platter.
- 15:** Wipe dry then set aside on the pack table.



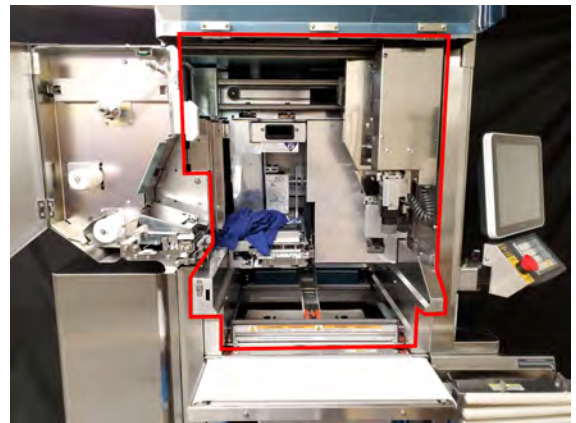
- 16:** Wipe down the entire exterior of the machine, removing residue from all stainless panels.
- ⇒ Once per week, apply a small amount of mineral oil to a clean and dry cotton towel, then wipe/buff all exterior panels.
- 17:** Afterwards, there should be no noticeable oil residue on the panels; overuse of mineral oil can contaminate internal components.



- 18:** Clean the screen as well as the keypad.
- 19:** If the keypads protective cover is damaged, call for service.



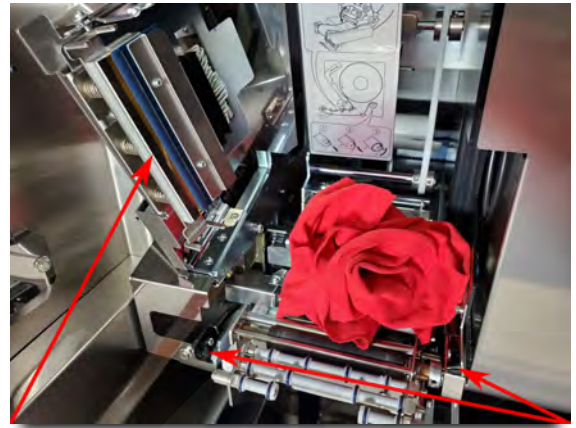
- 20:** Open both the clear front cover and the POP printer's stainless cover.
- 21:** Wipe down all interior stainless panels.



**22:** Raise the print head, then clean with alcohol until all debris is removed.

**22.1:** Note that if cuts, scratches or other damage is visible, call for service as this will affect the print quality.

**23:** Clean the left and right peel sensors with alcohol.

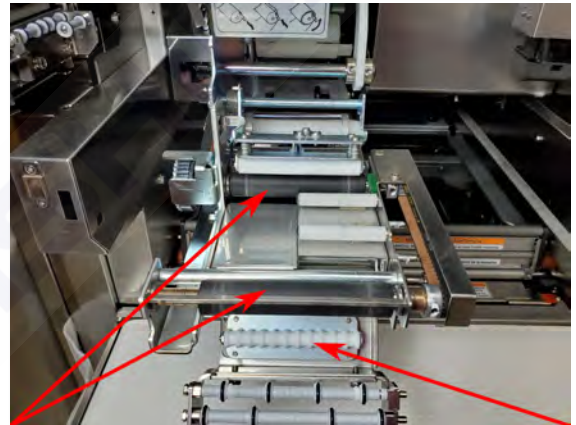


**24:** Pull the out the cassette and remove the label roll.

**25:** Clean both black platen rollers with alcohol until all debris is removed; rotate as needed.

**25.1:** Note that if cuts, splits or other damage is visible, call for service as this will affect the print quality.

**26:** Clean both white roller with alcohol until all debris is removed; rotate as needed.



**27:** Wipe behind the printer to remove all label dust.

**28:** Load labels.

**29:** Push the printer back into place then carefully lower and latch the print head.



⇒ Once per week, clean/blow out the “Label Present Sensor” on the main applicator.

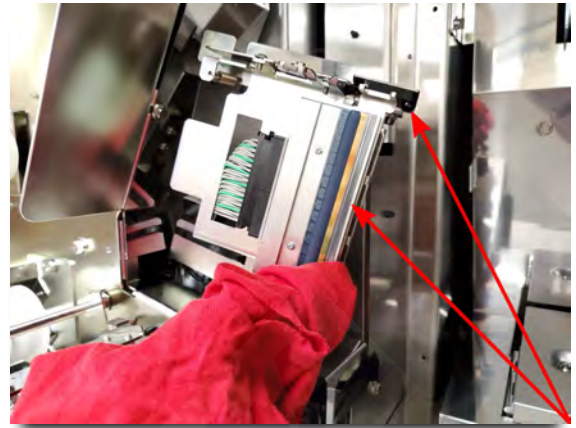
⇒ Do not use compressed air as the applicator fan could be damaged.



**30:** Raise the print head, then clean with alcohol.

**30.1:** Note that if cuts, scratches or other damage is visible, call for service as this will affect the print quality.

**31:** Clean the peel sensor with alcohol.

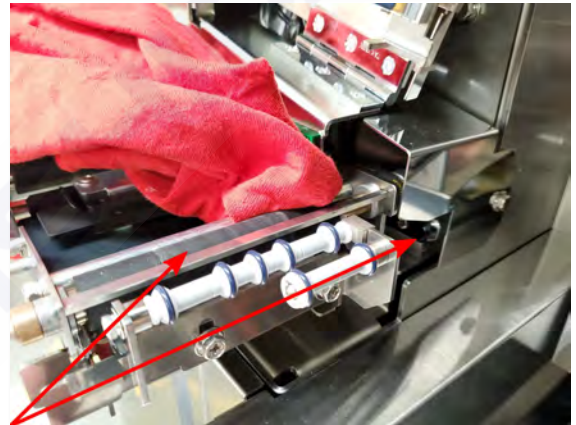


**32:** Remove label roll.

**33:** Clean the black platen roller with alcohol.

**33.1:** Note that if cuts, splits or other damage is visible, call for service as this will affect the print quality.

**34:** Clean the peel sensor with alcohol.



**35:** Wipe away all label dust from the print area.

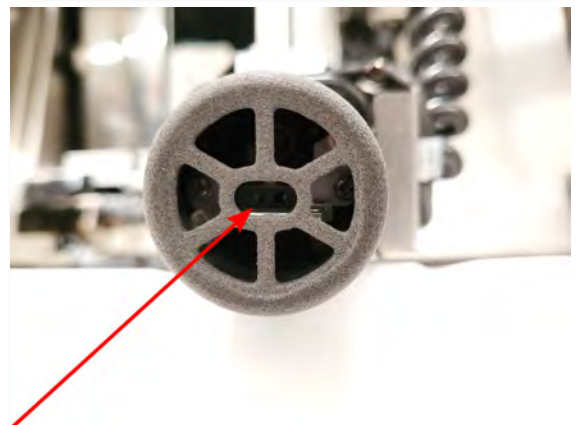
**36:** Load labels.

**37:** Carefully lower and latch the print head and tension latch.



⇒ Once per week, clean/blow out the “Label Present Sensor” on the POP applicator.

⇒ Do not use compressed air as the applicator fan could be damaged.

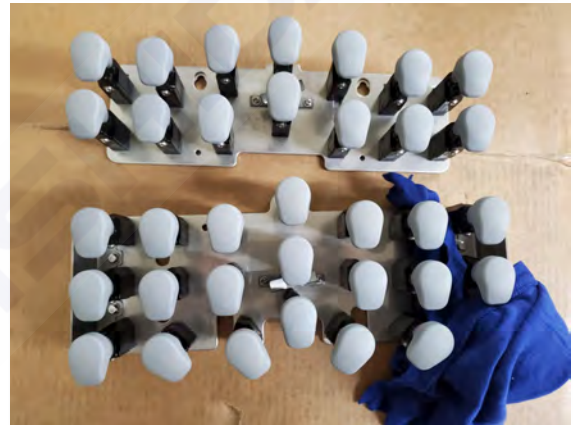


**38:** Wipe the package lift heads clean.

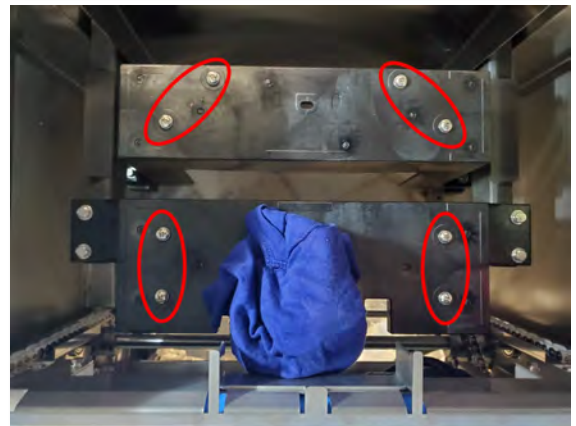
**39:** Remove any food debris from between the lift heads, then wipe down the base plate.



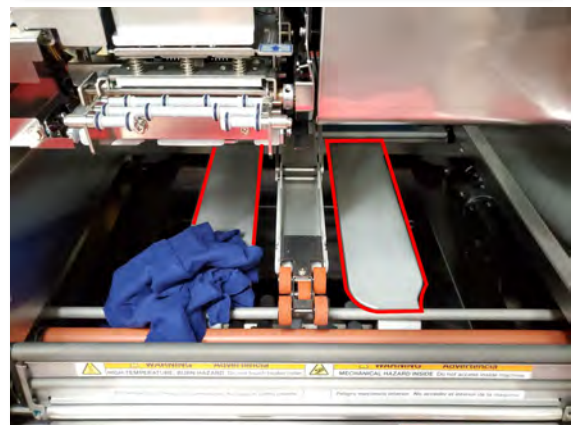
- ⇒ Once per week, remove and clean the package lift heads.
- ⇒ Do not submerge or spray the lift assemblies.



- ⇒ Once per week, clean any debris from the black package lift plate, particularly under the cross-head screws.
- ⇒ Return both package lift assemblies.



**40:** Wipe down both side folders to remove all film residue and food debris.



**41:** Pull the rear folder forward and wipe clean to remove all film residue and food debris.



**42:** Pull the package pusher forward and wipe clean.



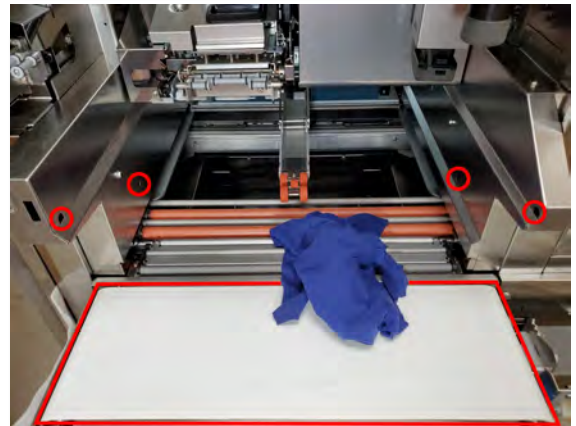
**43:** Wipe the white transfer belt clean.

**43.1:** Alcohol can be used here if needed.

**44:** Clean all four outfeed sensor cut outs.

**44.1:** If obstructed, these sensors can cause the following errors:

- Don't Put Hands Into Machine 0449-0000 = Rear Sensor Array.
- Don't Put Hands Into Machine 0449-0001 = Front Sensor Array.



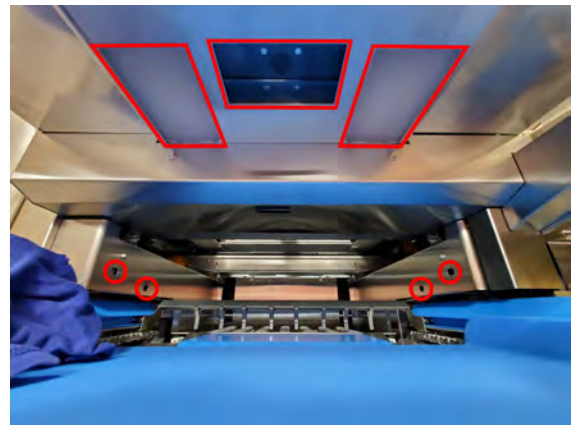
**45:** From underneath the transfer belt, wipe all three lens clean.

**45.1:** Alcohol can be used on all three lens, if needed.

**46:** Clean all four infeed sensor cut outs.

**46.1:** If obstructed, these sensors can cause the following errors:

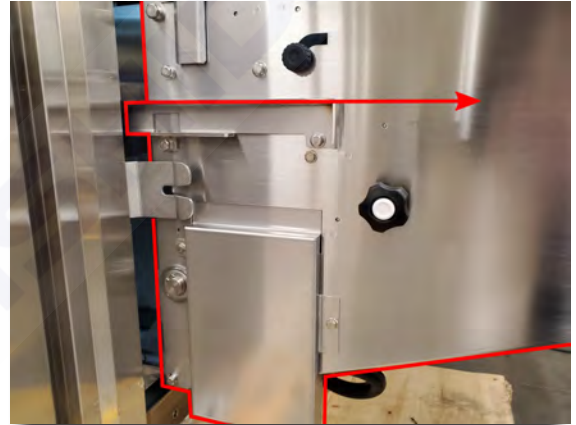
- Don't Put Hands Into Machine 0448-0000 = Rear Sensor Array.
- Don't Put Hands Into Machine 0448-0001 = Front Sensor Array.



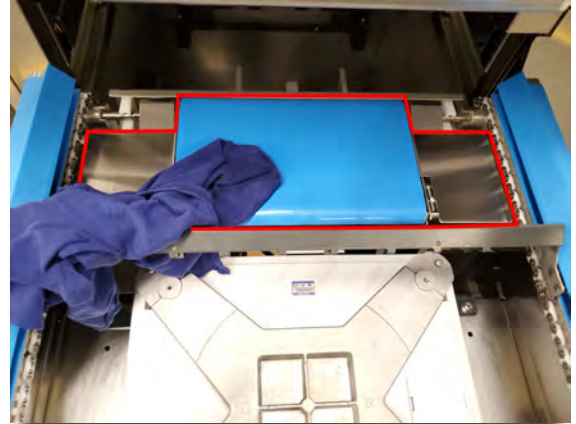
- ⇒ Once per week, clean the “Conveyor Full” sensor on the stock conveyor.
- ⇒ If obscured, packages will not be transferred onto the stock conveyor.



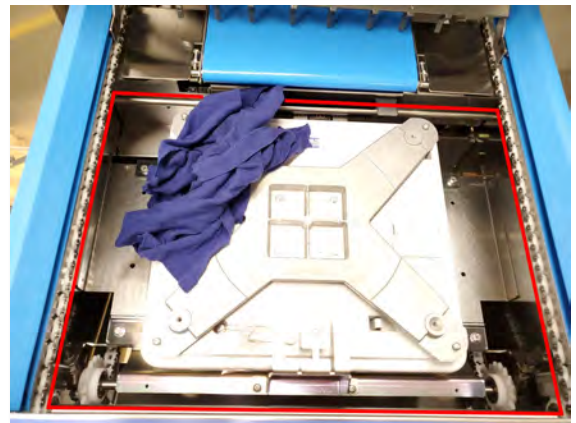
- 47:** Loosen the two thumb screws on each side of the infeed.
- 48:** Carefully slide the infeed out



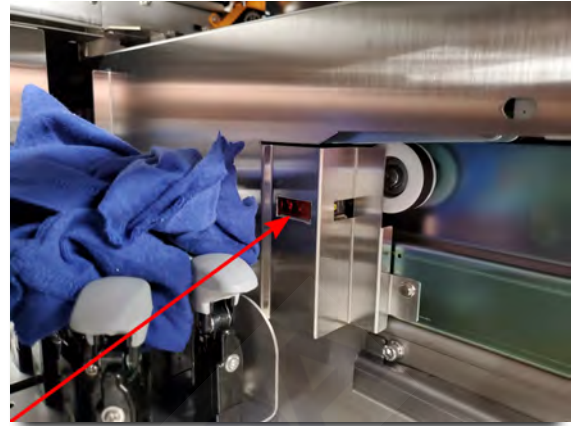
- 49:** Slowly pull the infeed pusher bar towards the operator while cleaning the blue centering belt.
- 50:** Continue moving the infeed pusher bar, cleaning all three bars.
- 51:** When complete, position a pusher bar directly above the blue centering belt.



- 52:** Clean the top of the scale and weigh spider.
- 53:** Clean the side areas of the scale.



⇒ Once per week, while the infeed is pulled out, clean the red “package lift” sensor, located to the right of the lift heads.

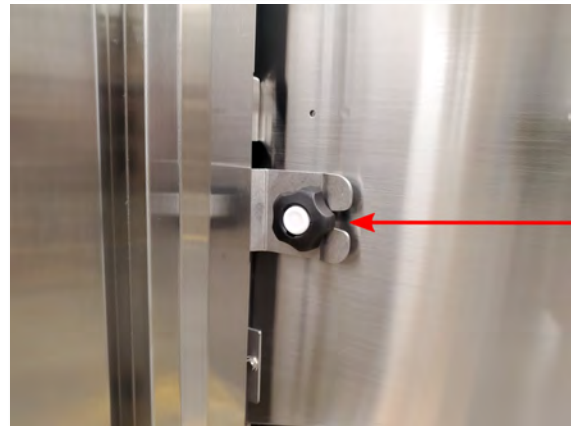


⇒ Once per week, while the infeed is pulled out, clean the reflector for the “package lift” sensor, located to the left of the lift heads.



**54:** Push the infeed back into place and tighten the two thumb screws.

**55:** If the infeed is not pressed fully inward, errors can occur.



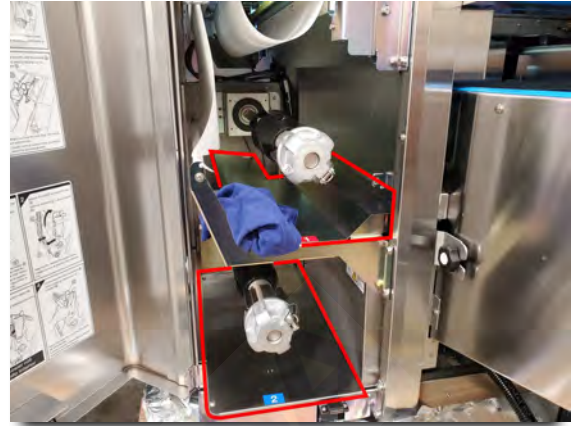
**56:** Under the infeed, pull the clean out door forward and carefully drop down.

**57:** Clean any debris.

**58:** Close the clean out door by raising and pushing back.



- ⇒ Once per week, remove both rolls of film and clean any dust.
- ⇒ Call for service if a significant amount of cardboard dust is found.



- 59:** Cover the wrapper, then begin cleaning the room.
- 60:** Never leave uncovered while spraying.
- 61:** Do not spray near the wrapper, instead, utilize the squeegee to move water and debris from underneath the wrapper.
- 62:** Once spraying has ended and the steam has dissipated from the room, uncover the wrapper.
- 63:** Never leave covered overnight.



- 64:** Power ON the wrapper.
- 65:** Never leave powered off overnight.
- 66:** Note that the switch is a positive lock style. Do not turn back to the OFF position until the machine is completely powered on, e.g., after 60 seconds.
- 67:** Press EXEC to cycle the machine.

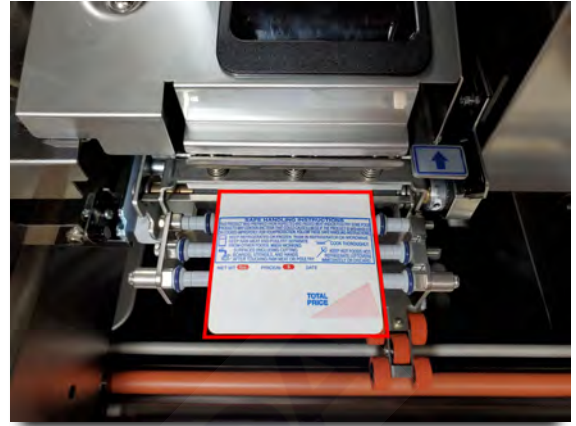


- 68:** Open the clear front cover
- 69:** Wipe down the side walls of the package area.



**70:** Print and remove 3 labels; this will allow alignment of the labels with the print head.

**70.1:** Note the quality of print, call for service if print quality appears degraded despite proper cleaning of the print head.



**71:** Print and remove 3 labels: this will allow alignment of the labels with the print head.

**71.1:** Note the quality of print, call for service if print quality appears degraded despite proper cleaning of the print head.

**72:** Close the clear front cover.



**RICE LAKE**  
RETAIL SOLUTIONS



Customer: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Model: \_\_\_\_\_ WM-Ai / WM-Ai-P  
 Serial Number: \_\_\_\_\_

Inspection Date: \_\_\_\_\_  
 Technician(s): \_\_\_\_\_  
 Cycle Count: \_\_\_\_\_  
 Installation Date: \_\_\_\_\_

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This WM-Ai Preventative Maintenance Guide is divided into three intervals - **DAILY, 6-MONTH, YEARLY**. The DAILY maintenance is generally the responsibility of the end-user. It is recommended that the servicing technician review these daily maintenance checks with the appropriate manager, especially if it is evident these checks are not being performed properly.

**\*\* Allow 2-3 hours for a 6-MONTH inspection and 4-6 hours for a YEARLY inspection. \*\***

	<b>Sections</b>		<b>Sections</b>		<b>Sections</b>
<b>1</b>	LIFT HEAD	<b>10</b>	FILM TRANSPORT/INSERTION	<b>19</b>	CAMERA & LIGHTING
<b>2</b>	WRAPPING: FRONT / REAR	<b>11</b>	LIFT DRIVE	<b>20</b>	TOUCHSCREEN DISPLAY
<b>3</b>	WRAPPING: LEFT / RIGHT	<b>12</b>	LIFT SIZE CHANGE	<b>21</b>	KEYBOARD ASSEMBLY
<b>4</b>	SEAL HEATERS	<b>13</b>	FILM ROLL HOLDERS	<b>22</b>	SAFETY SWITCHES
<b>5</b>	DISCHARGE PUSHER	<b>14</b>	FILM FEEDER MOVEMENT	<b>23</b>	FILE BACK-UP
<b>6</b>	INFEED	<b>15</b>	LABEL APPLICATOR - MAIN	<b>24</b>	ADJUSTMENTS, PARTS REPLACED,
<b>7</b>	CENTERING UNIT	<b>16</b>	LABEL APPLICATOR - POP	<b>25</b>	SAMPLE LABELS
<b>8</b>	SCALE	<b>17</b>	PRINTER - MAIN	<b>26</b>	REFERENCE DRAWINGS
<b>9</b>	FILM FEEDER ASSEMBLIES	<b>18</b>	PRINTER - POP		

Required materials:

- Grease: White, Yellow, and Black (see table below for specifications)
- Disposable brushes, small or cotton swabs (for grease application)
- Wrench set, metric
- Socket set, metric (optional)
- Screwdrivers, assorted
- Allen wrench set, metric
- Sandpaper (100 grit)
- Clean, lint-free rags
- Compressed Air / Vacuum
- Isopropyl Alcohol
- Adhesive remover (for labels)
- Thermal head cleaning kit
- Weight set (30 lb, or 15 Kg)
- Key, interlock bypass, 2 pieces (p/n 95540)
- Machinist Ruler
- USB flash drive (8 GB or smaller, FAT32 format, USB 3.0)

Lubrication for WM-Ai

Color of grease	RLWS Part Number	Description	Industry Reference Number
(Y) Yellow	77932	General Purpose Lithium Grease (323916) [Shell Alvania Grease "No2"]	Sta-Lube SL3310
(W) White	77933	White Food-Grade Grease (380059) [Sumico White Alcom Grease "No2"]	CRC SL35600
(B) Black	77934	Multi-Purpose Grease (371219) [Daizo Nichimori "L-210"]	Sta-Lube SL3330

The parts listed in the Check Points and Replacement Parts columns on pages 3~9 are identified by a drawing number and part number. The drawing number refers to the parts drawings on pages 11~34. For example, in section 4: Seal Heaters on page 4, the orange seal heater rollers are identified as #8, p/n 174923. This refers to #8 on the Seal Heaters drawing on page 14.

	Section	Check Points	Comments	Tool/Grease/ Program	Replacement Parts	Check			✓	
						D	6 mo	Y		
1	LIFT HEAD	Loose Screws	Tighten screws- Fingers and Handle				X	X		
		Cleaning	Clean the Lift Head Assembly	Soap & Water		X	X	X		
		Surface friction of Lift Heads -Center & Front Left (#7), Front Right (#8), Left (#9), Right (#10), Rear Center (#14), Rear Left (#15), Rear Right (#16),	If the Heads are worn smooth (polished) roughen with sandpaper. Replace worn out or damaged heads or finger assemblies.	Sandpaper (100 grit)	125697 (#7) 171831 (#8) 125698 (#9) 125699 (#10) 171832 (#14) 171833 (#15) 171834 (#16)		X	X		
		Lift Heads Movement - See above	Replace broken assemblies that are too weak to operate and spring back.		See above		X	X		
		Latch Pin Assembly -Spring (#6)	Replace broken or weak compression spring.		172335 (#6)		X	X		
		Lubrication	Grease all springs, as needed. After working in the grease, wipe off excess.	White Grease			X	X		
		2	WRAPPING: FRONT/REAR	Loose Screws	Tighten screws as needed. Listen for odd noises.	Adjust Menu, Unit Action, 12: Back Plate				X
Condition of Rear Wrap Plate	Clean any food, dirt, oil, or label adhesive. If worn smooth (polished) roughen with sandpaper.			Soap & Water (Daily) Adhesive Remover Sandpaper (#100)		X	X	X		
Plastic bushings - Leading Roller Mounting Brackets (#2) - Square Shaft Mounts (#4)	Replace bushings if worn out. Note: Roller brackets can be swapped right / left side.				172528 (#2) 172530 (#4)				X	
Wrap Plate and Roller Shaft alignment	Roller Shaft should be parallel with the fixed Rollers at the exit. (Loosen and adjust Shaft Holders [#2] – page 11)			#2 Phillips driver					X	
Roller Shaft condition - Stepped Roller Shaft (#3)	Roller Shaft must be straight - not bent. Replace if necessary.				172529 (#3)		X	X		
Roller Shaft movement - Shaft Holder (#2)	Roller Shaft must turn freely. Apply grease at plastic mounting brackets - 2 places. Swap left & right brackets or replace worn plastic brackets as needed.			White grease	172528 (#2)		X	X		
Square mounting shafts	Clean debris and old grease, apply new grease			Black grease					X	
Photo sensor - Home Position, B102 (#503)	Clean as needed. Sensor is located at the rear right of the Rear Wrap plate.			Compressed Air	171837 (#503)				X	

	Section	Check Points	Comments	Tool/Grease/ Program	Replacement Parts	Check			✓	
						D	6 mo	Y		
3	WRAPPING: LEFT/RIGHT	Loose screws	Tighten screws as needed. Listen for odd noises.	Adjust Menu, Unit Action, 11: Side Plate				X		
		Linear Bushings	Clean debris and old grease, apply new grease	Yellow grease			X	X		
		Linear Bushings movement - Linear Bearing Block, front (#1) - Linear Bearing, rear (#2)	Replace if worn out - excessive resistance.		172514 (#1) 157900 (#2)				X	
		Photo sensor - Home Position, B101 (#503)	Clean as needed. Sensor is located at the rear of the Left Wrap plate.	Compressed Air	171837 (#503)				X	
		Condition of Side Wrap Plates	Clean any food, dirt, oil, or label adhesive. If worn smooth (polished) roughen with sandpaper.	Soap & Water (Daily) Adhesive Remover Sandpaper (#100)		X	X	X		
4	SEAL HEATERS	Heater Guard solenoid	Check smooth operation					X		
		Heater Guard photo sensor	Clean	Compressed Air				X		
		Sealing Heater Rollers - cleaning	Caution <b>rollers are hot</b> . Allow to cool down before cleaning. Remove burnt on film (black) with a Degreaser (ex. Totally Awesome Orange). <b>DO NOT</b> use abrasive cleaning tools that will damage the roller surface.	Damp cloth (Daily) Degreaser (PM)		X	X	X		
		Sealing Heater Rollers - movement - Roller Assy (#8) - Bushing (#22)	Clean or replace		174923 (#8) 153654 (#22)				X	
		Temperature adjustment	Confirm higher and lower temperature adjustment is possible						X	
5	DISCHARGE PUSHER	Loose screws	Tighten screws as needed. Listen for odd noises.	Adjust Menu, Unit Action, 13: Pusher				X		
		Drive Belts - tension	Right and Left side belts must be balanced					X		
		Square mounting shafts	Clean debris and old grease, apply new grease	Black grease					X	
		Photo sensor - Home Position, B100 (#503)	Clean as needed. Sensor is located at the rear right of the Discharge Pusher.	Compressed Air	171837 (#503)				X	
		Discharge Pusher clearance - home position	Confirm the Discharge Pusher does not contact drive gears, etc. at the home position. Listen for noise from contact.						X	
		Green tape - Green Grip Tape, Sheet (#999)	Replace if loose or peeling		172536 (#999)			X	X	
		Discharge Pusher - cleaning	Remove labels, food, etc.			X	X	X		

	Section	Check Points	Comments	Tool/Grease/ Program	Replacement Parts	Check			✓
						D	6 mo	Y	
6	INFEED	Loose screws	Tighten screws as needed. Listen for odd noises.	Adjust Menu, Unit Action, 4: Feed				X	
		Drive Chains - Chain (#23)	Check for damage, cracks, etc.		171835 (#38)		X	X	
		Infeed Rail Drawer Slides	Confirm easy in/out movement. Clean debris and old grease, apply new grease.	Yellow grease				X	
		Photo sensor – Home position [front, left] (#502)	Clean. Check for any contact damage.	Compressed Air	104239 (#502)			X	
		Thumb screws	Confirm the thumb screw shafts are positioned correctly and locking jam nuts are tight.	10mm wrench	47159 (#22) 125462 (M6 nut)		X	X	
7	CENTERING	Centering Shaft	Listen for odd noises. Clean debris and old grease, apply new grease.	Yellow grease			X	X	
		Green Belt assy	Remove, disassemble, clean. Ensure smooth movement.				X	X	
		Blue Belt	Clean with soap and water.			X	X	X	
8	SCALE	Check zero and calibration		30 lb. test weights				X	
		Four corner check		5 lb. test weight				X	
		Weighing	Correct weighing	1 lb. test weight		X	X	X	
		Blue Scale Platter - Platter (#15)	No bleach. Replace if color has changed or surface is worn smooth.	Soap & Water (Daily)	170292 (#15)	X	X	X	
		Confirm Label data matches Display						X	
		Check level						X	
9	FILM FEEDER ASSEMBLIES	White Film Feed belts - White Belt (#9)	Check for broken wires, yellowing, worn surface, or other damage	Inspection and test wrapping	171838 (#9)			X	
		Green Film Feed belts - Long Green Belt (#10)	Check for polished surface, slipping, meandering, or other damage	Inspection and test wrapping	171839 (#10)			X	
		Film Centering: Upper and Lower rolls	Adjust centering. Verify consistency.	Adjust Menu, Wrapping Machine, Film tab				X	
		Film pieces on belts	Remove pieces. Clean belts with soap and water if needed. DO NOT use alcohol.	Inspection and test wrapping			X	X	
		Film Clamps - 6 places	Ensure all clamps operate properly and provide sufficient grip strength.	Adjust Menu, Unit Action, 17: Front Clamp & 18: Rear Clamp				X	

	Section	Check Points	Comments	Tool/Grease/ Program	Replacement Parts	Check			✓
						D	6 mo	Y	
9	FILM FEEDER ASSEMBLIES (Cont.)	Film Detect & Film Over "Claw" Sensor - Spring Plate, Film Detect (#33) - Coil Spring, Film Detect (34) - Spring Plate, Film Over (#29) - Film Detect Photo Sensor (#502) - Film Over Photo Sensor (#501)	Verify sensor operation. Remove any film pieces or build up. If worn smooth (polished) roughen with sandpaper.	Compressed Air. Sand Paper (100 grit)	175364 (#33) 175369 [F] (#34) 175365 [R] (#34) 175367 (#29) 171837 (#502) 104239 (#501)		X	X	
10	FILM TRANSPORT (INSERTION PLATE & CUTTER)	Stop position for Insertion Unit	Verify clearance.	Adjust Menu, Unit Action, 24: Film Change				X	
		One-Way Roller (clear plastic) - Roller Clutch Assy, 1-Groove (#5) - Roller Clutch Assy, 5-Groove (#6)	Verify one-way, smooth movement. Check for scratches. Remove film pieces and clean with alcohol.	Isopropyl Alcohol	172563 (#5) 172565 (#6)		X	X	
		Sensors - Cutter, home (#503) - Insertion, home (#503) - Insertion, open [green] (#505, #506) - Magnet [green] (#504)	Clean. Verify operation. Cutter (home), Insertion Plate (home), and Insertion Plate (open).	Compressed Air. Adjust Menu, Unit Action, 1: Sensor Check	104239 (#503) 175361 (#505) 175362 (#506) 105979 (#504)			X	
		Cutter Blade - Blade (#4)	Check for corrosion or rust	Visual inspection	176682 (#4)		X	X	
		Cutter Blade Guard - Blade Guards (#1) [Outer] (#2) [Inner] - Leaf Spring (#5) - Coil Spring (#11) [Front] (#12) [Rear]	Check movement. Clean film pieces. Check for cracks.	Visual inspection	178891 (#1) 178892 (#2) 178893 (#5) 172560 (#11) 172561 (#12)		X	X	
		Cutter Blade Solenoids	Check movement. Check return spring operation.	Adjust Menu, Unit Action, 15: Cutter				X	
		Feeder movement home position sensor - Photo Sensor	Clean as needed. Sensor is located at the lower right side of the Film Feeder assy.	Compressed Air	104239			X	
11	LIFT DRIVE	Lower limit photo sensor. - Photo Sensor (#502)	Clean. Verify operation.	Compressed Air	157856 (#502)		X	X	
		Up / Down operation	Listen for odd noises during operation	Adjust Menu, Unit Action, 2: Lift				X	
		Linear Bushings - Linear Bushing Bearing (#11)	Clean debris and old grease, apply new grease.	Yellow grease	157900 (#11)		X	X	
12	LIFT SIZE CHANGE	Lift Size Change movement	Listen for odd noises during operation	Adjust Menu, Unit Action, 3: Lift Change				X	
		Lift Size Change photo sensor - Photo Sensor, B214 (#501)	Clean off any debris	Compressed Air	104239 (#501)			X	

	Section	Check Points	Comments	Tool/Grease/ Program	Replacement Parts	Check			✓
						D	6 mo	Y	
13	FILM ROLL HOLDERS	Film Roll Holding Spikes	Check if the spikes hold the rolls	2.5mm Allen wrench			X	X	
		Film position	Shaft end hub --> front edge of film is even blade or farther bac				X	X	
		Film Roll Brake - Brake Assy (#27)	Confirm film roll stops and does not over turn. Stop position, full roll: 10:00-11:00	Adjust Menu, Wrapping Machine, Roll tab	172604 (#27)		X	X	
14	FILM FEEDER MOVEMENT	Movement (Front & Rear Feeders)	Confirm smooth movement. Listen for odd noises during operation	Adjust Menu, Unit Action, 9: Front Feeder Move 10: Rear Feeder Move				X	
		Belt tension (2 black drive belts)	Verify belt tension and condition					X	
		Drive Shafts	Clean debris and old grease, apply new grease.	Yellow grease				X	
		Home & Limit Photo Sensors (4 places) - Front Limit (#502) - Feeder Position, 3 places (#503)		Compressed Air	171837 (#502) 104239 (#503)			X	
		Main Hex Drive Shaft	Clean debris and old grease, apply new grease.	Black grease				X	
15	LABEL APPLICATOR - MAIN	Movement: three directions - Photo Sensors, 8 places (#501)	No unusual sounds. Clean with compressed air. Confirm beep in Adjust menu.	Compressed air. Adjust Menu, Unit Action, Label App. Tab, 1: Appl Control Sensor	104239 (#501)			X	
		Applicator End (Spring loaded assy)	Push the Applicator up. Verify free movement and vibration/bounce when lowered is not excessive.	White grease				X	
		Fan suction - Fan Suction Assy (#608)	Verify the Applicator Suction Fan can hold a 0.015 lb. tray.		172624 (#608)			X	
		Applicator Shafts: Left/Right (2), Back/Front (2), Up/Down (1)	Check for rust. Clean debris and old grease, apply new grease.	Yellow grease			X	X	
		Applicator Shoe (black) (#59)	Replace if worn or cracked		171864 (#59)		X	X	
		Label Detection sensor (inside applicator shoe) (#607)	Clean dust from sensor	Cotton swab	172623 (#607)	X	X	X	

	Section	Check Points	Comments	Tool/Grease/ Program	Replacement Parts	Check			✓
						D	6 mo	Y	
16	LABEL APPLICATOR - POP	Movement: three directions - Photo Sensors: 5 places (#509), 1 place (#510)	No unusual sounds. Clean with compressed air. Confirm beep in Adjust menu.	Compressed air. Adjust Menu, Unit Action, Label App. Tab, 1: Appl Control Sensor	104239 (#509) 171837 (#510)			X	
		Applicator End (Spring loaded assy)	Push the Applicator up. Verify free movement and vibration/bounce when lowered is not excessive.	White grease				X	
		Fan suction - Fan Suction Assy (#606)	Verify the Applicator Suction Fan can hold a 0.015 lb. tray.		178215 (#606)			X	
		Applicator Shafts: Left/Right (2), Up/Down (1)	Check for rust. Clean debris and old grease, apply new grease.	Yellow grease		X	X		
		Applicator Shoe (black) (#44)	Replace if worn or cracked		178204 (#44)	X	X		
		Label Detection sensor (inside applicator shoe) (#605)	Clean dust from sensor	Cotton swab	178214 (#605)	X	X	X	
17	PRINTER - MAIN	Printing Quality - Print Head (#501)	Verify print is complete and legible. Clean print head.	Adjust Menu, Printer, Printer 1, Head tab, PRINT. Isopropyl alcohol	178188 (#501)		X	X	
		Label Feeding - Print Rollers (#42)	Check if printing expands or contracts. Check and clean 2 print rollers. Remove paper dust.	Adjust Menu, Printer, Printer 1, Head tab, PRINT. Label & Isopropyl alcohol	171873 (#42)			X	
		"Head Up" sensor - Sensor (#601) - Magnet (#502)	Verify sensor operation	Adjust Menu, Printer, Printer 1, Head tab, "Head Up"	172669 (#601) 105979 (#502)			X	
		Label Gap sensor - Gap Sensor Assy (#601) Peel sensor - Transmitter, Left Side (#503) - Receiver, Right Side (#504)	Check sensor readings are normal. Clean, calibrate, or replace sensors as needed.	Adjust Menu, Printer, Printer 1, Label Feed tab & Peel Sensor tab	172669 (#601) 171876 (#503) 171877 (#504)		X	X	
		Label Pickup Roller Table - Roller Table O-Rings (#2) - Roller Table O-Rings, End	Clean adhesive from rollers. Verify smooth turning		157891 (#2) 178190 [End]		X	X	
		Drive Gears	Clean debris and old grease, apply new grease. Examine gears for cracks or chips.	White grease				X	
		Magnet (home position) - Catch Magnet (#37)	Inspect catch magnet for wear. Verify magnet holds and printer drive gears mesh well at home position		172642 (#37)			X	

	Section	Check Points	Comments	Tool/Grease/ Program	Replacement Parts	Check			✓
						D	6 mo	Y	
18	PRINTER - POP	Printing Quality - Print Head (#502)	Verify print is complete and legible. Clean print head.	Adjust Menu, Printer, Pop, Head tab, PRINT. Isopropyl alcohol	178188 (#502)		X	X	
		Label Feeding - Print Rollers (#32)	Check if printing expands or contracts. Check and clean 2 print rollers. Remove paper dust.	Adjust Menu, Printer, Pop, Head tab, PRINT. Label & Isopropyl alcohol	178218 (#32)			X	
		"Head Up" sensor - Sensor (#601) - Magnet (#503)	Verify sensor operation	Adjust Menu, Printer, Pop, Head tab, "Head Up"	178227 (#601) 105979 (#503)			X	
		Label Gap sensor - Gap Sensor Assy (#601) Peel sensor - Transmitter, Left Side (#505) - Receiver, Right Side (#504)	Check sensor readings are normal. Clean, calibrate, or replace sensors as needed.	Adjust Menu, Printer, Pop, Label Feed tab & Peel Sensor tab	178227 (#601) 171877 (#505) 171876 (#504)		X	X	
		Label Pickup Roller Table - Roller Table O-Rings (#2) - Roller Table O-Rings, End	Clean adhesive from rollers. Verify smooth turning		157891 (#2) 178190 [End]		X	X	
19	CAMERA & LIGHTING	Camera - P-1107 Camera Controller (#501) - CMOS Camera (#502)	Verify tray recognition. Place trays in four corners in operation mode. Calibrate as needed.	Adjust Menu, Camera	171865 (#501) 172626 (#502)			X	
		LED Lights - LED Assy, Left side (#503) - LED Assy, Right side (#504)	Confirm both LED lights are lit	Operation Mode	172627 (#503) 172628 (#504)			X	
		Camera and light lens cover	Clean clear plastic lens cover	Cloth		X	X	X	
20	TOUCH SCREEN DISPLAY	Contrast - LCD Display (#504) - P-1102 Display Control Bd (#501)	Verify brightness of the display. Replace Invertor or Display as needed.	Adjust Menu, Display Check	158278 (#504) 171882 (#501)			X	
		Touchscreen operation - Touch Panel (#503)	Confirm accuracy. Calibrate or replace as needed.	Adjust Menu, Touch Screen	171883 (#503)		X	X	
		Touchscreen cleaning	Clean touchscreen display	Cloth		X	X	X	
21	KEYBOARD ASSEMBLY	Keyboard - Keyboard Assy (#501)	Confirm all keys function and show as dark squares	Adjust Menu, Key Check	171884 (#501)			X	
		Keyboard Transparent cover - Cover (#999)	Clean keyboard cover. Replace as needed.	Cloth	98400 (#999)	X	X	X	
22	SWITCHES	Check eight (4) Door Safety Switches.						X	
		Check Emergency Stop.						X	

	Section	Check Points	Comments	Tool/Grease/ Program	Replacement Parts	Check			✓
						D	6 mo	Y	
23	DATA BACKUP	Backup WM-Ai wrapper memory.	USB flash drive backup is the preferred method as this method captures more than the software backup.	Setup Menu, File Save/Load, USB > Scale tab and/or SLP-5 / Maintenance Utility				X	

**24. Adjustments, Comments, Parts Required, etc.**

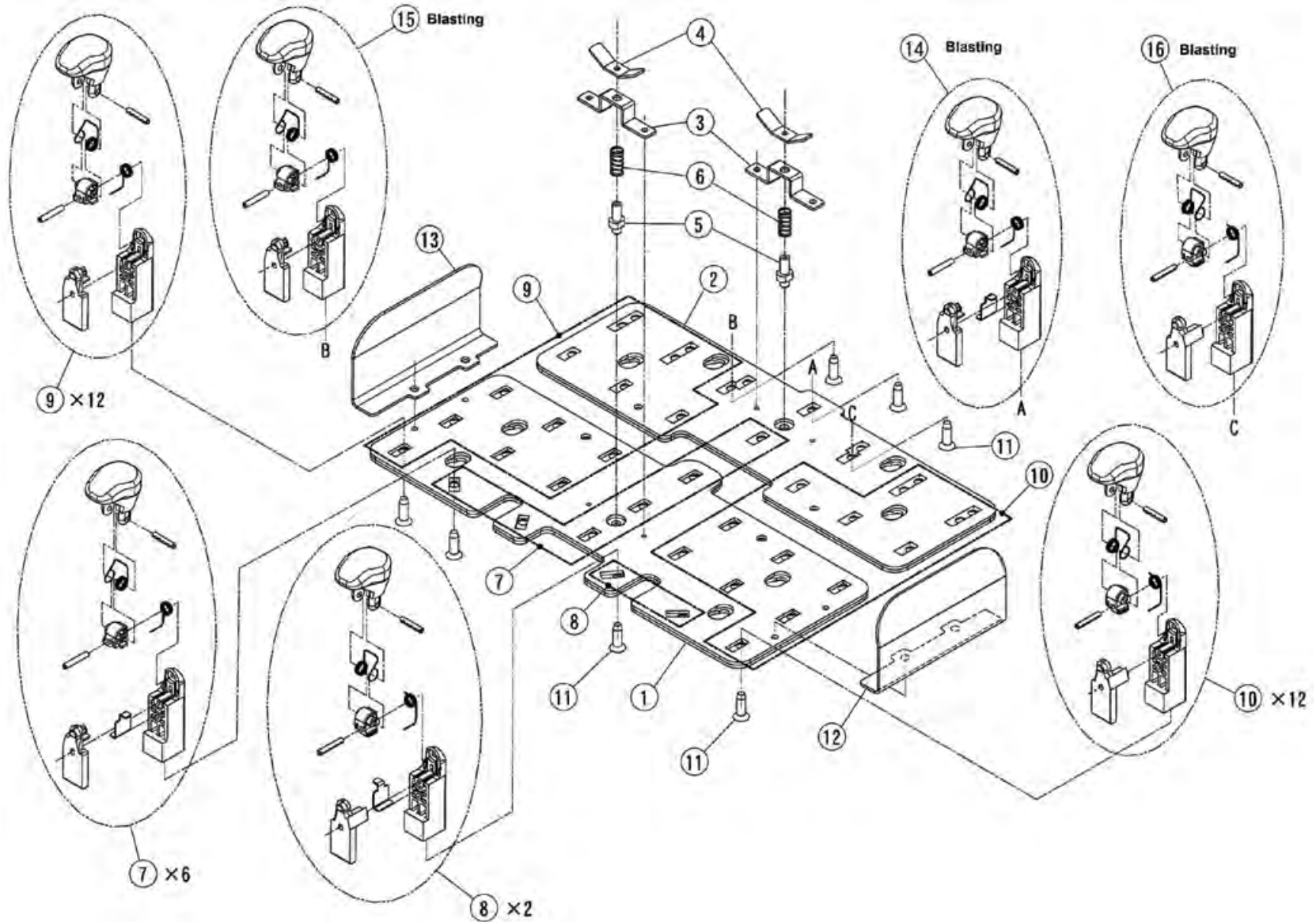
Section	Inspection Items and Contents	Comments	Replacement Parts

**25. SAMPLE LABELS**

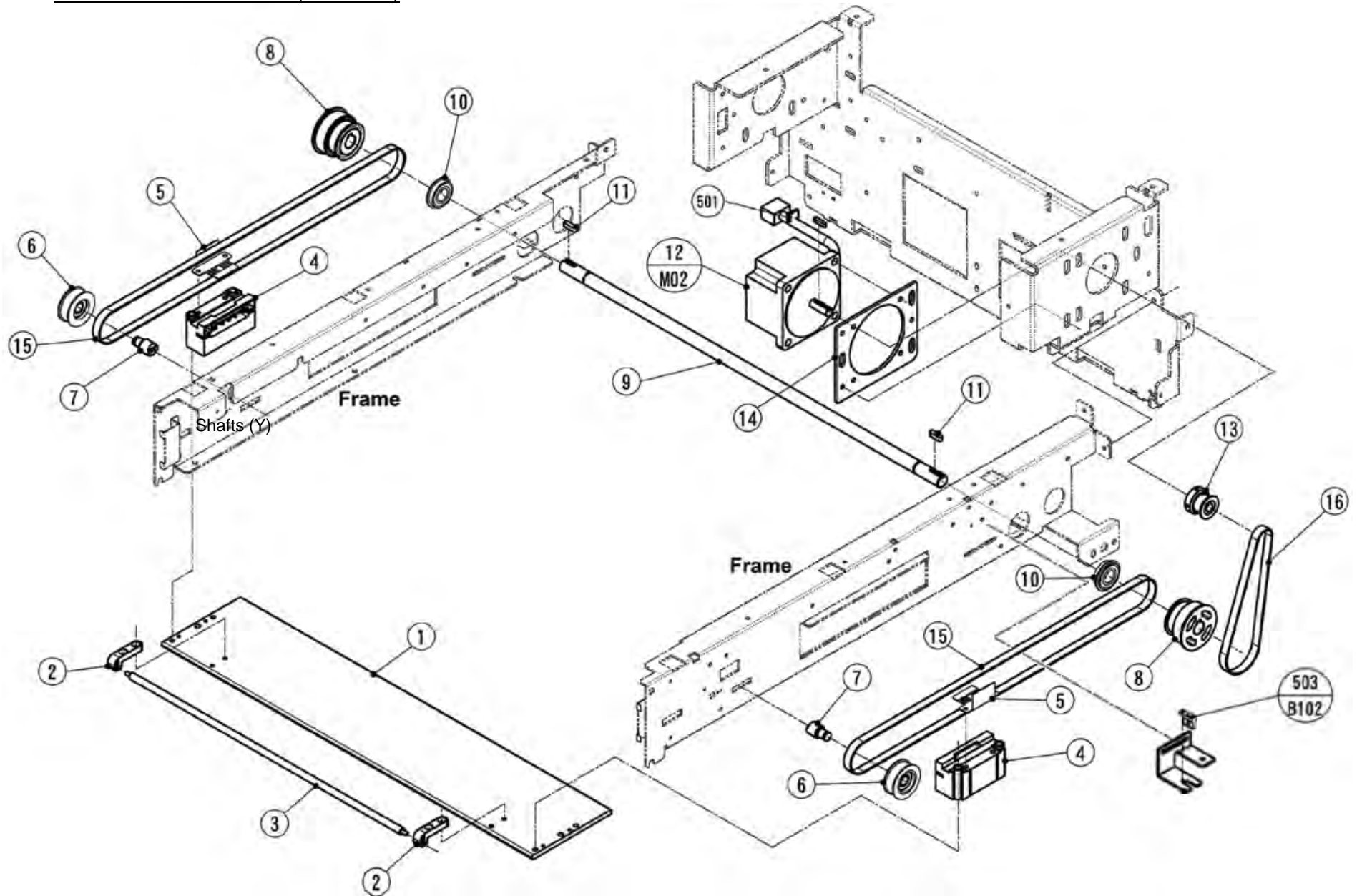
[ SAMPLE LABELS ]

## 26. Reference Drawings

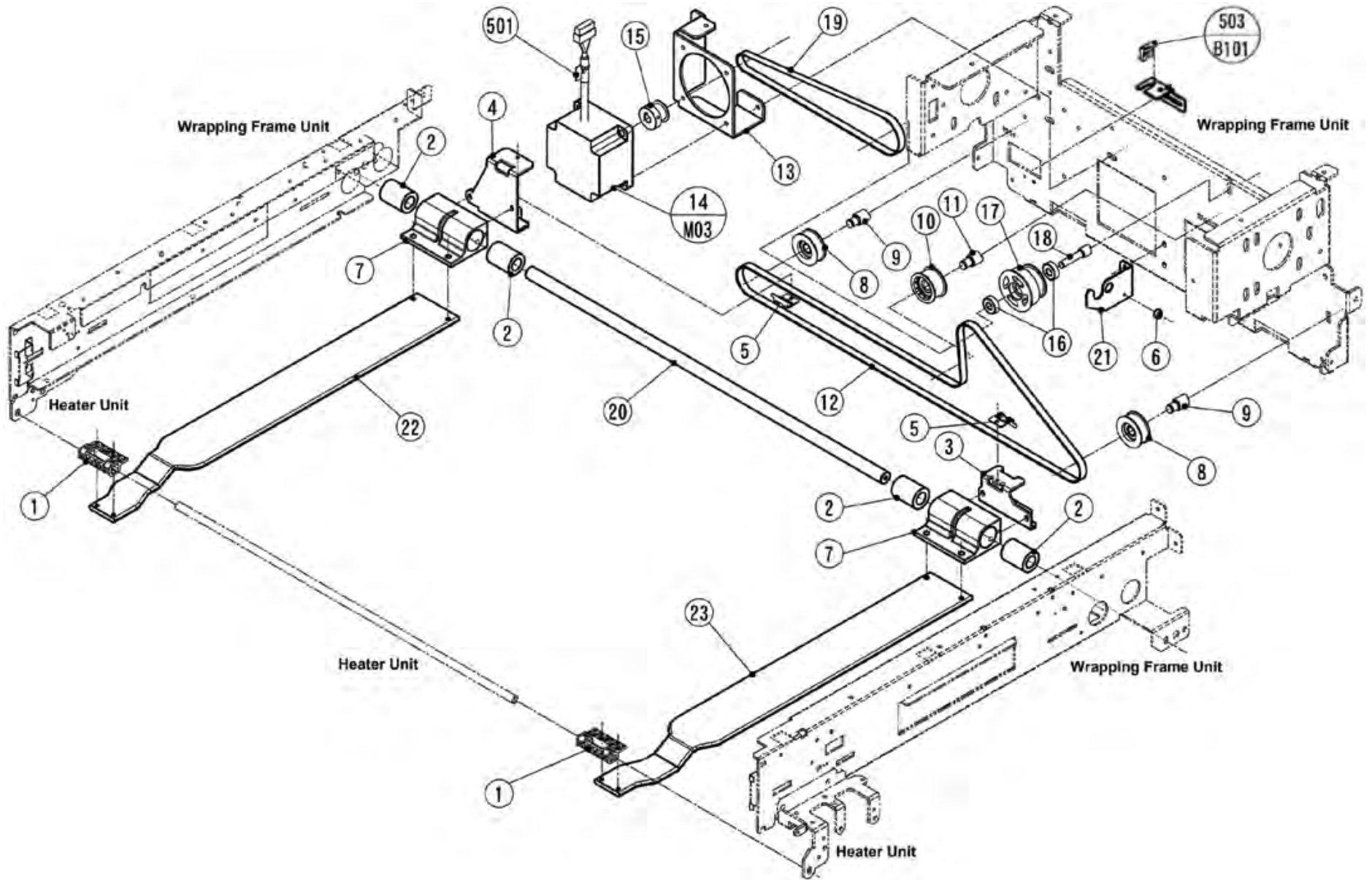
### LIFT HEAD ASSEMBLY (Section 1)



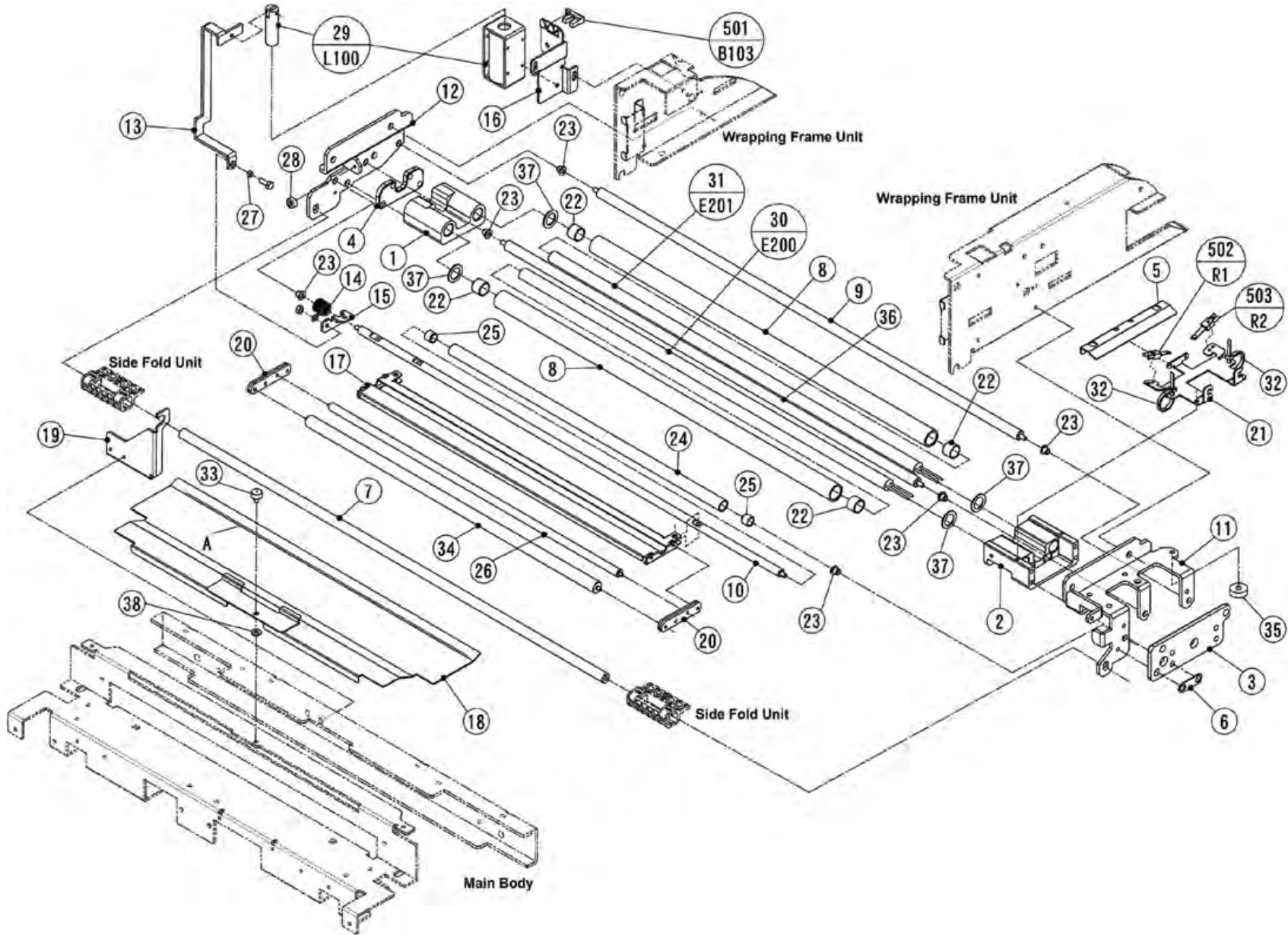
WRAPPING: FRONT/REAR (Sections 2)



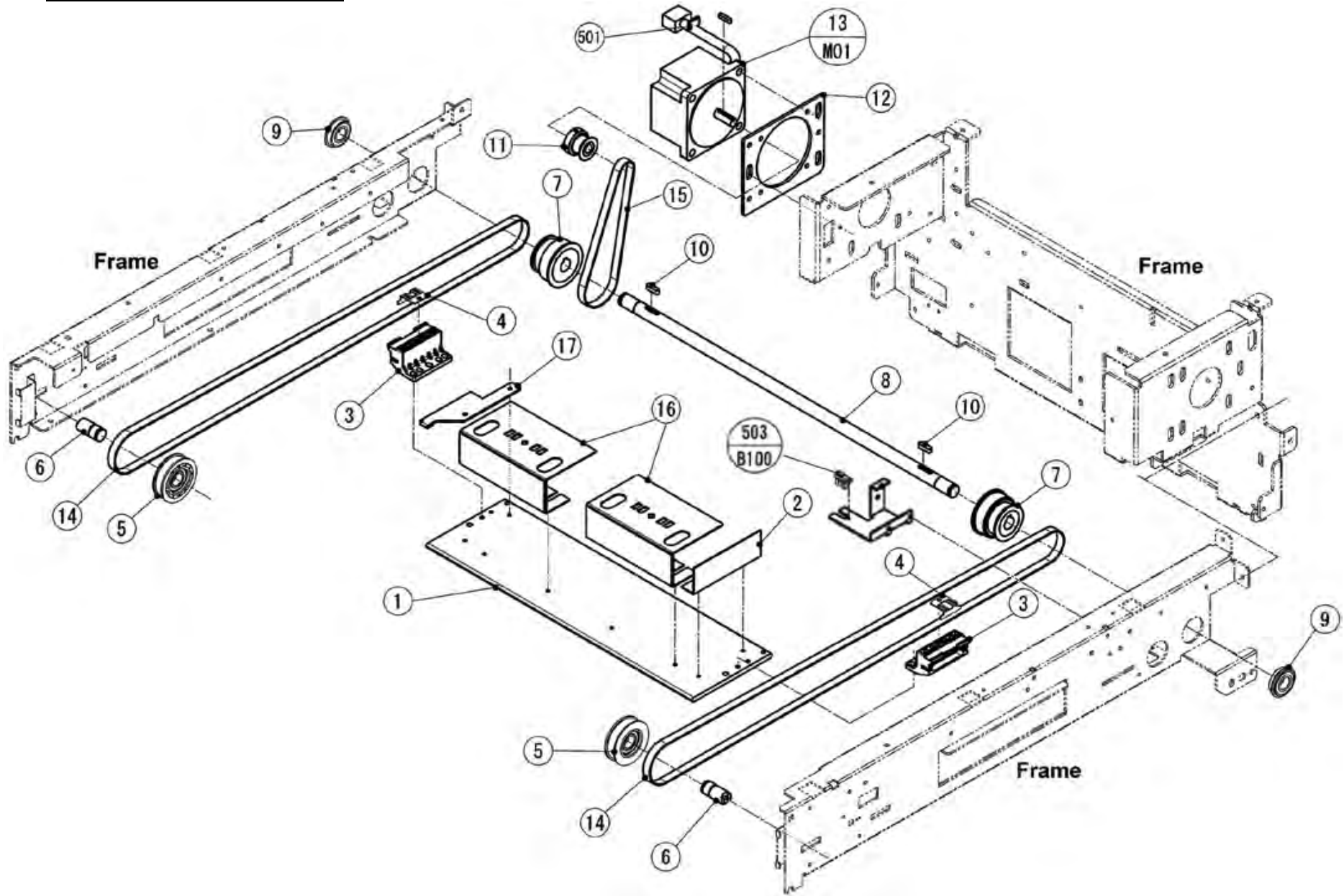
WRAPPING: LEFT/RIGHT (Section 3)



SEAL HEATERS (Section 4)

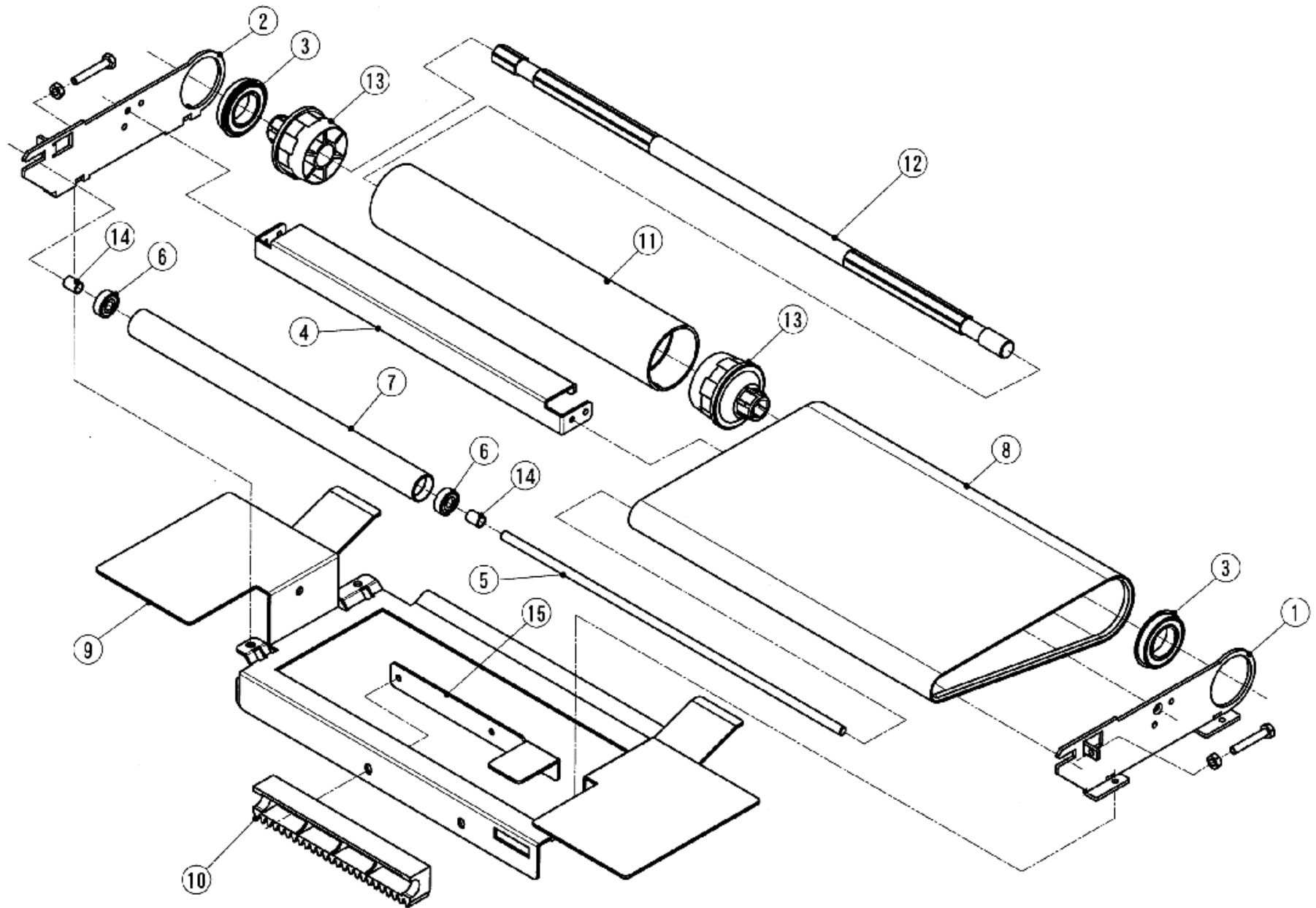


DISCHARGE PUSHER (Section 5)



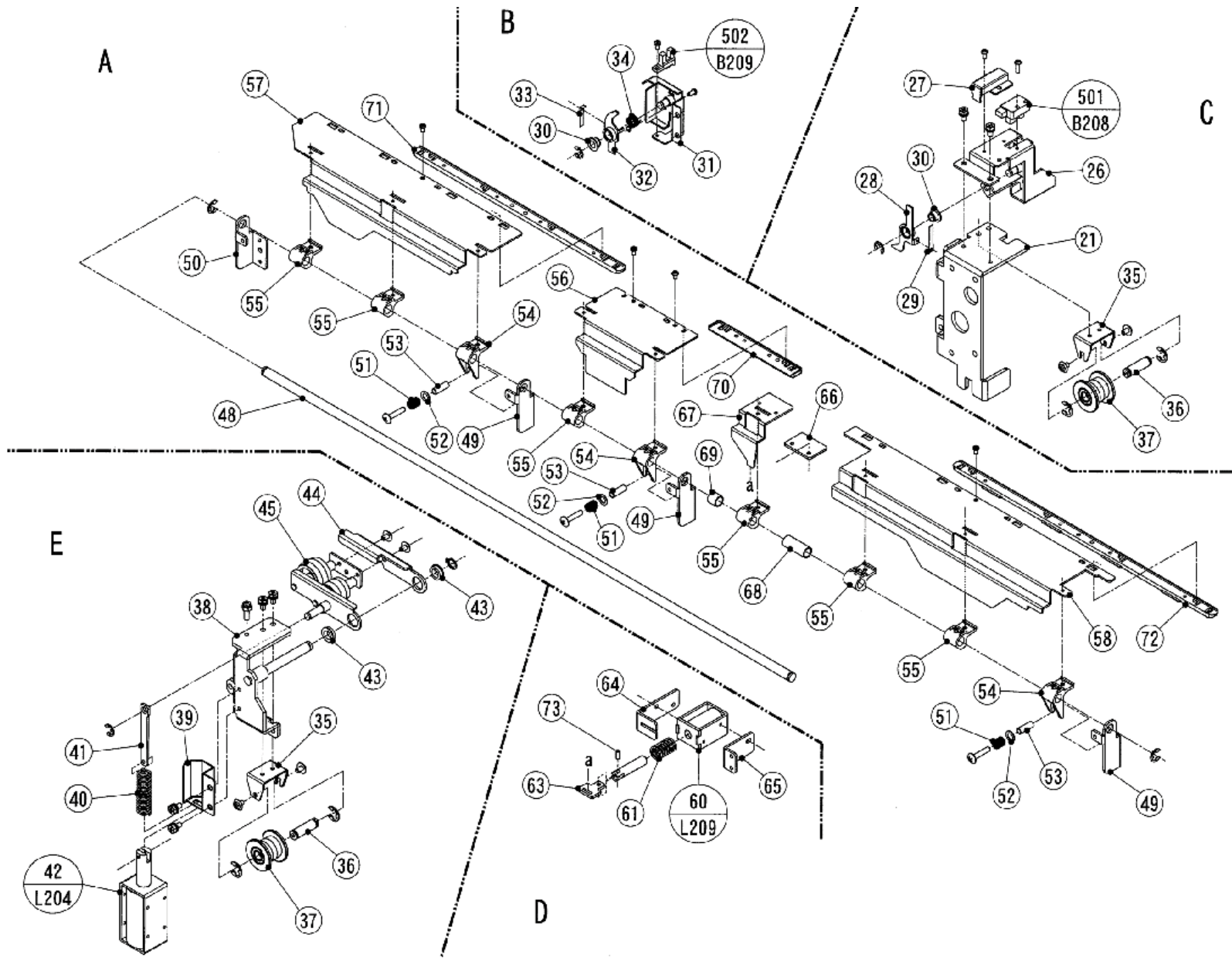


CENTERING (Section 7)

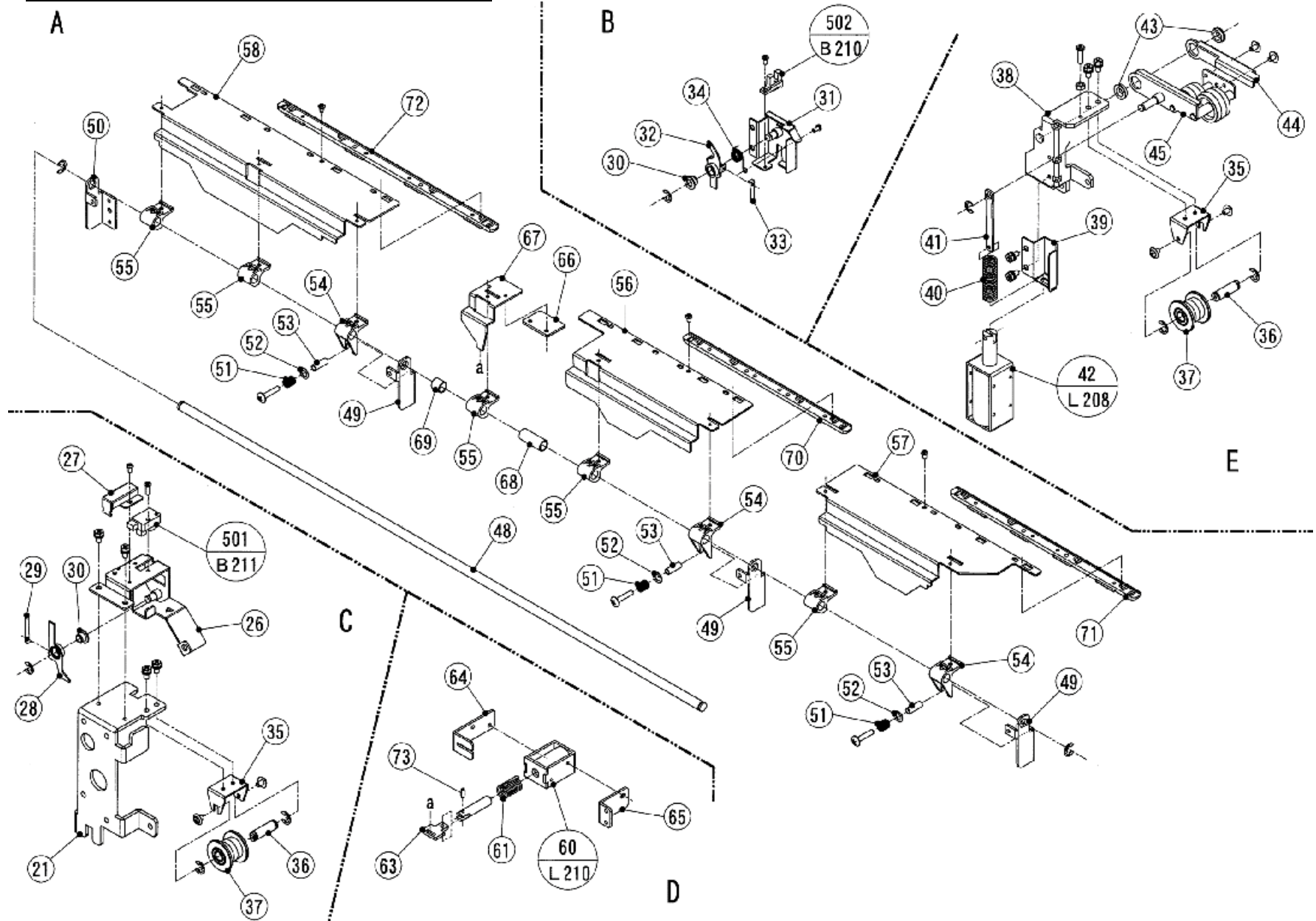




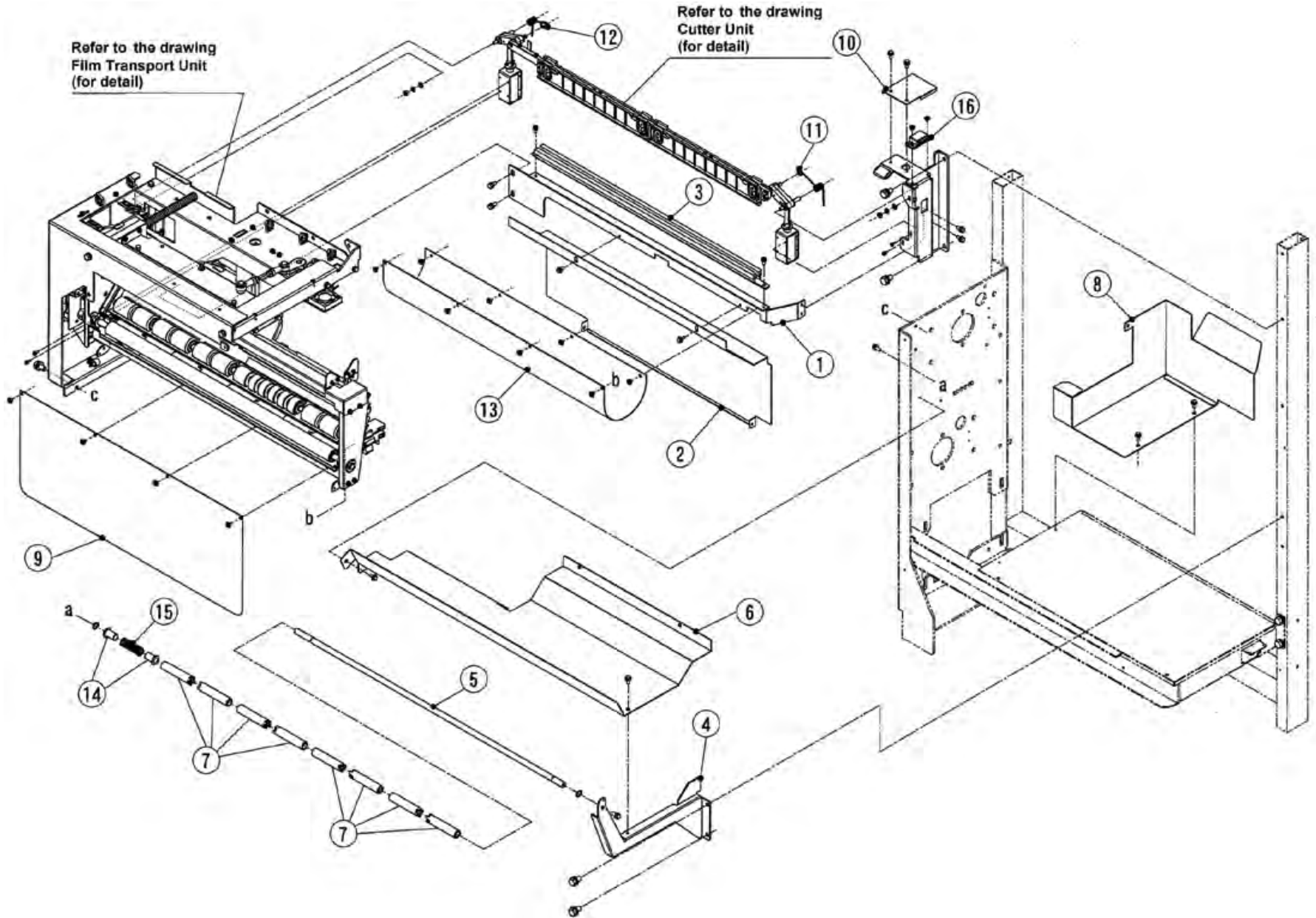
FILM FEEDER ASSEMBLY - FRONT UNIT (Section 9)



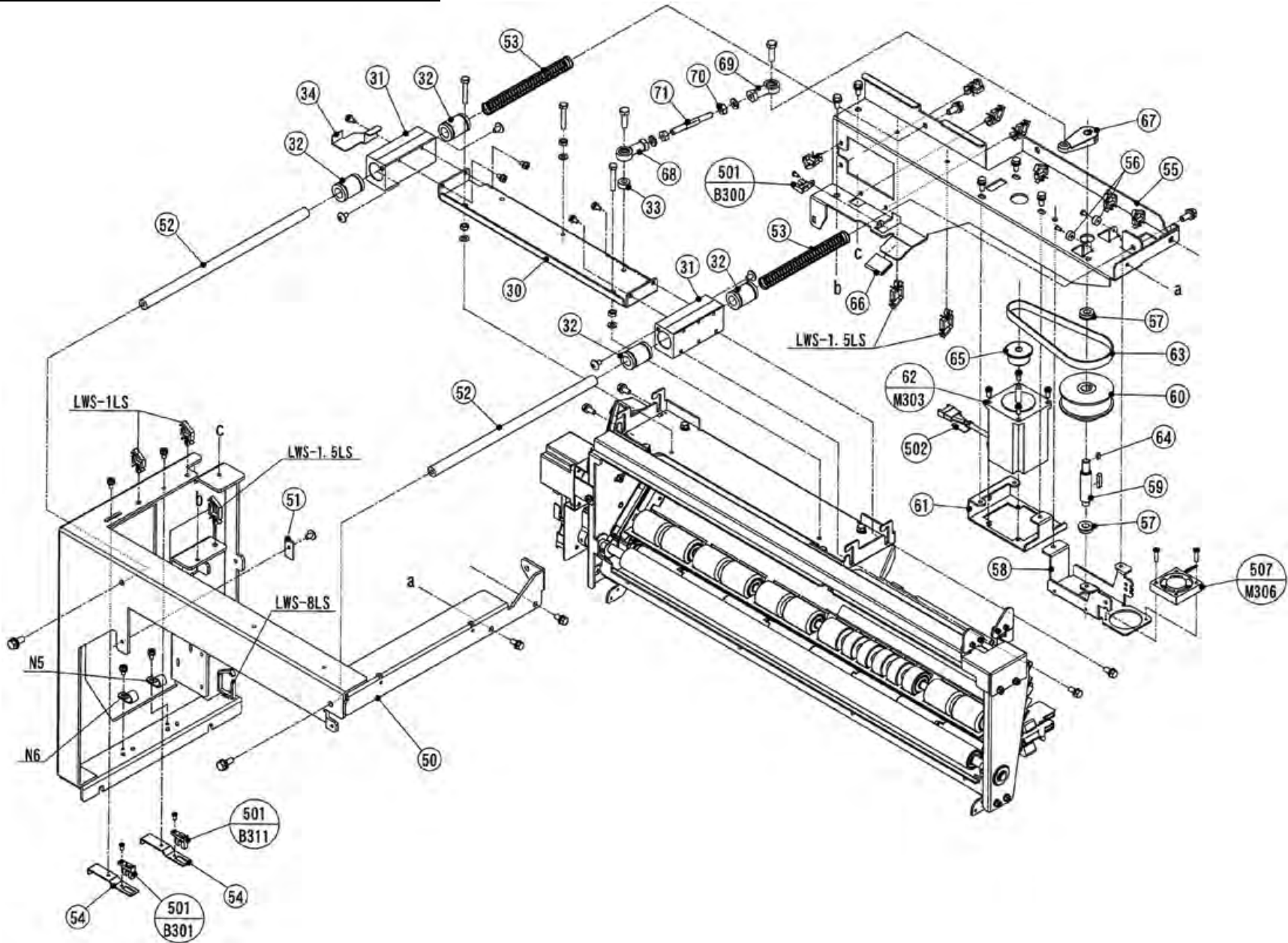
FILM FEEDER ASSEMBLY - REAR UNIT (Section 9)



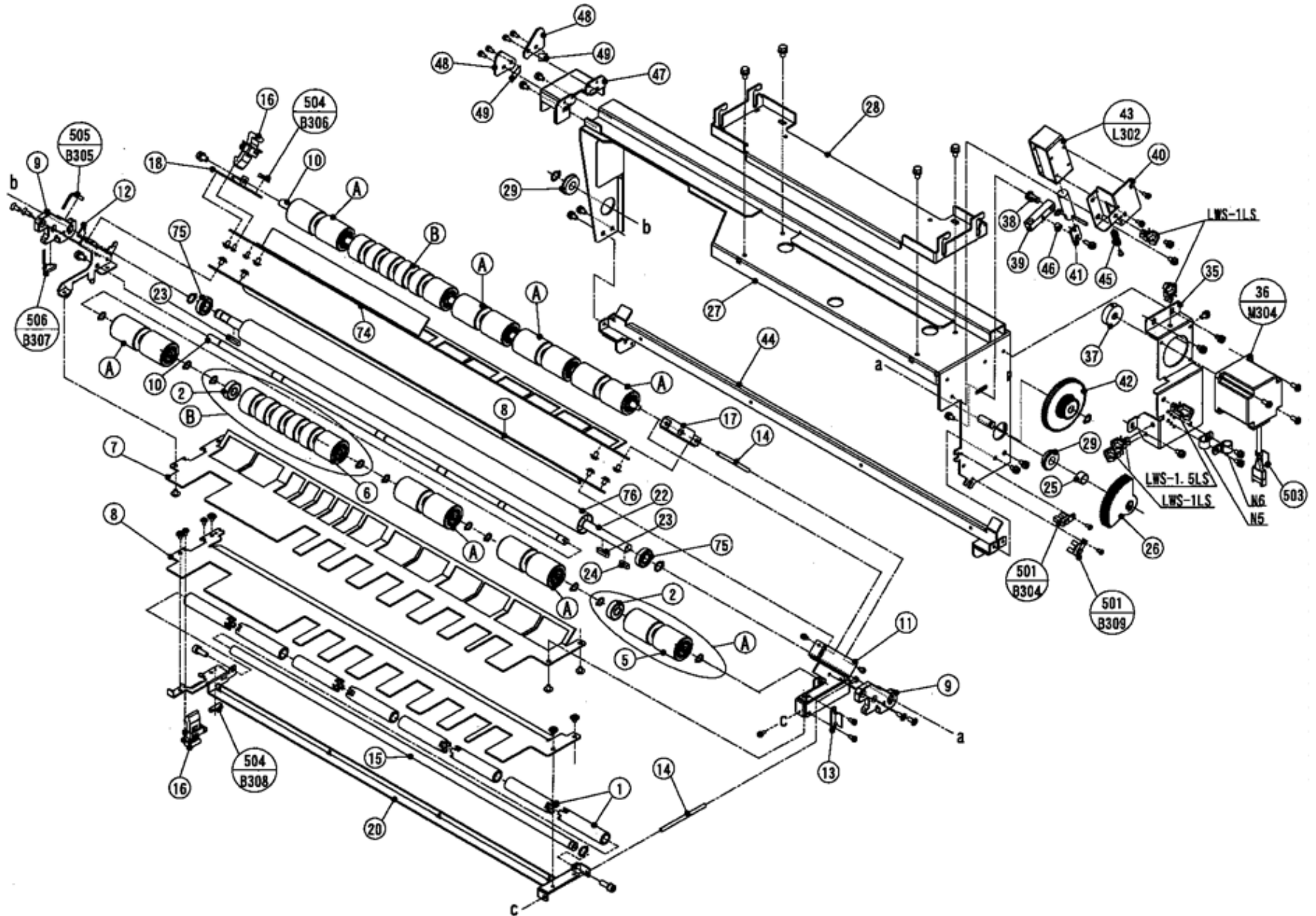
FILM TRANSPORT ASSEMBLY #1 (Section 10)



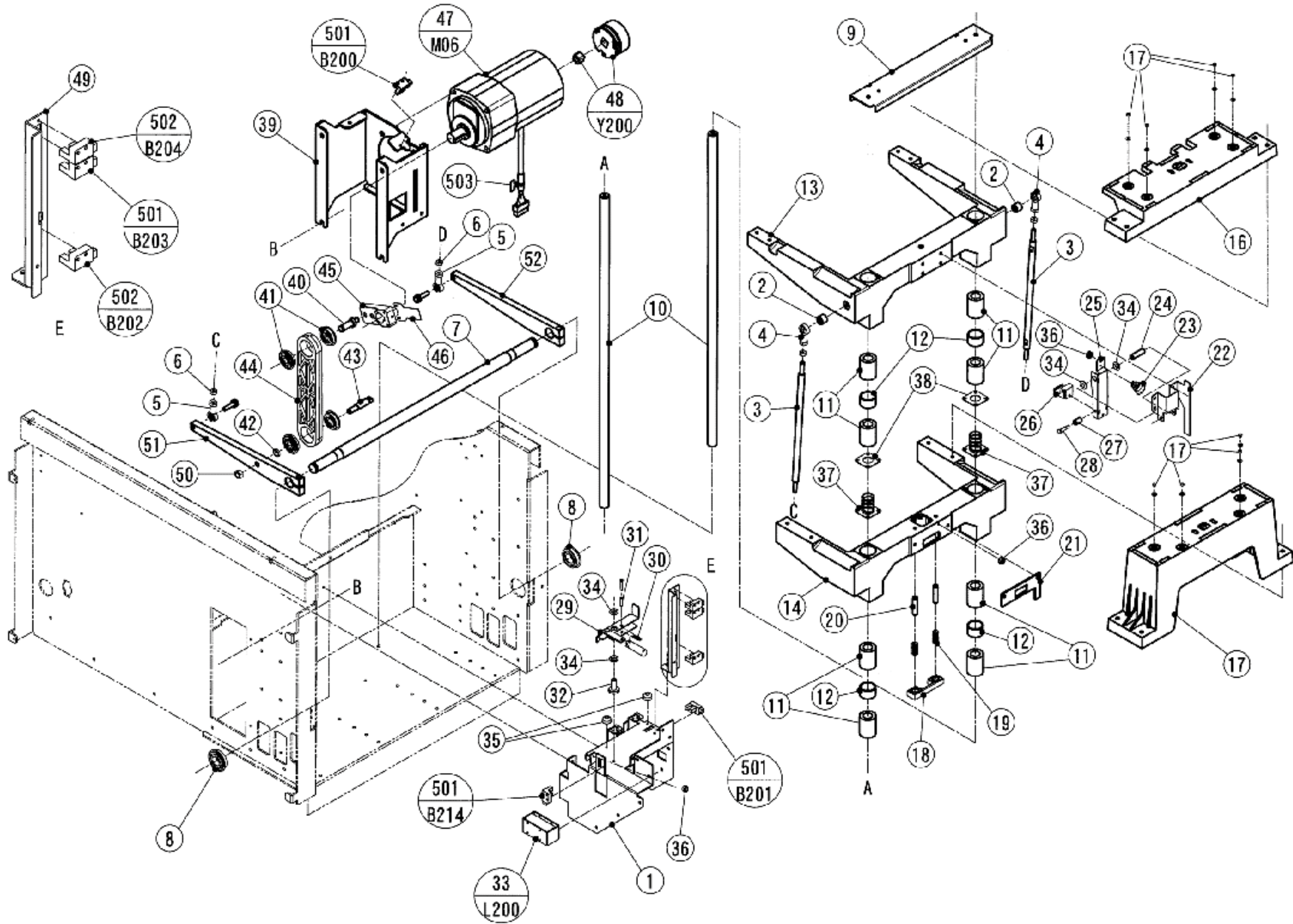
FILM TRANSPORT ASSEMBLY - #2 (Section 10)



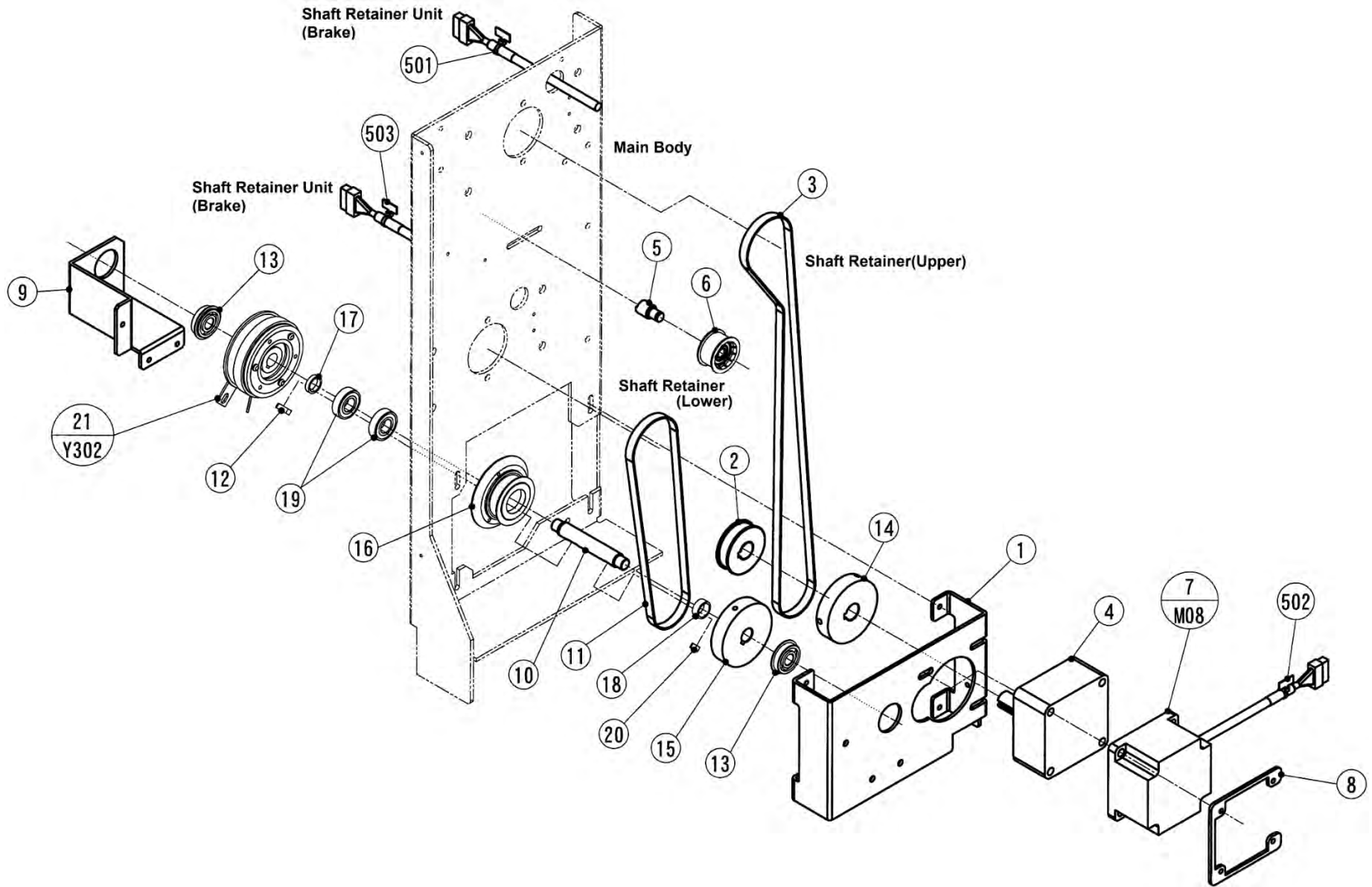
FILM TRANSPORT ASSEMBLY - #3 (Section 10)



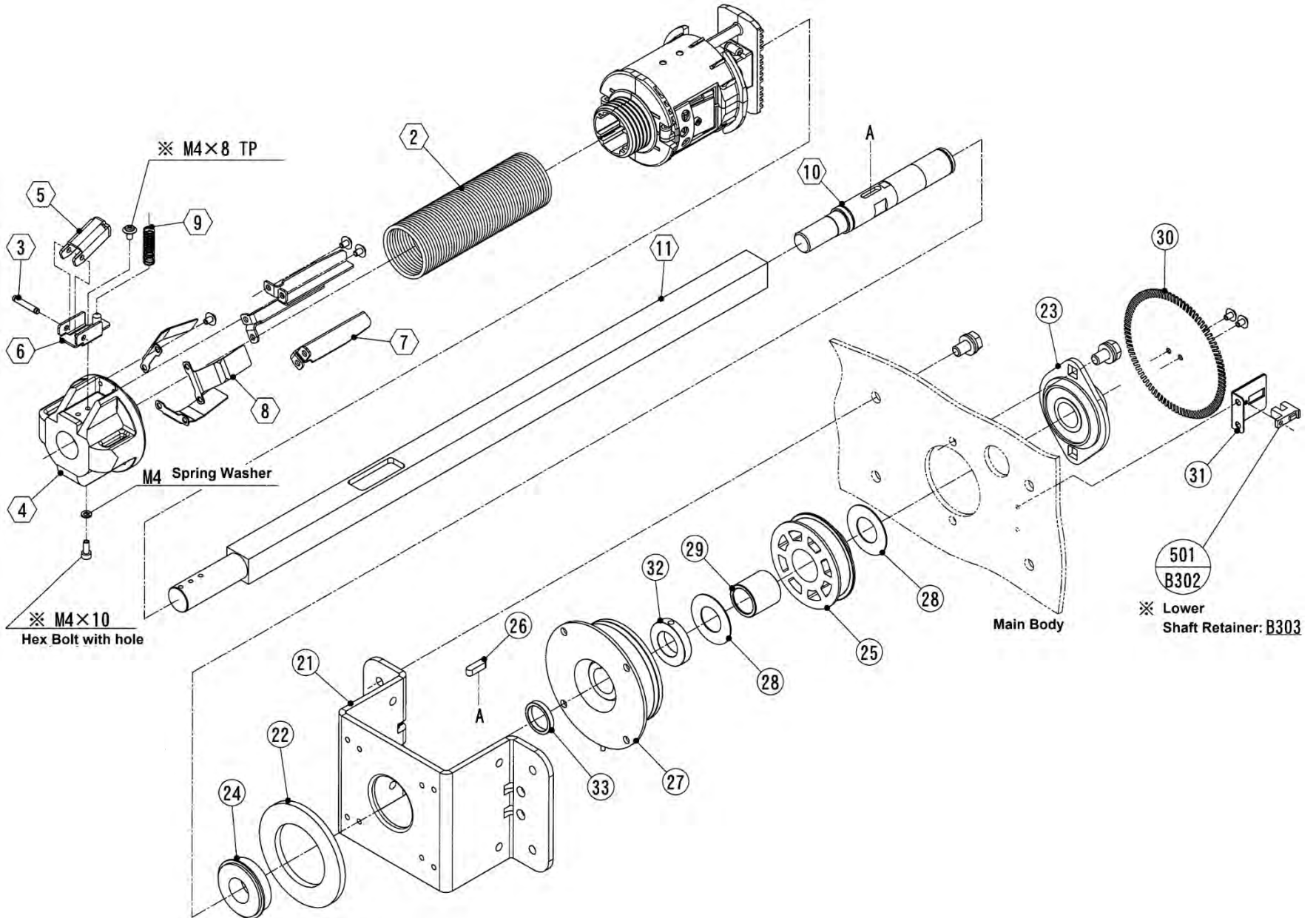
LIFT DRIVE (Section 11) & LIFT SIZE CHANGE (Section 12)



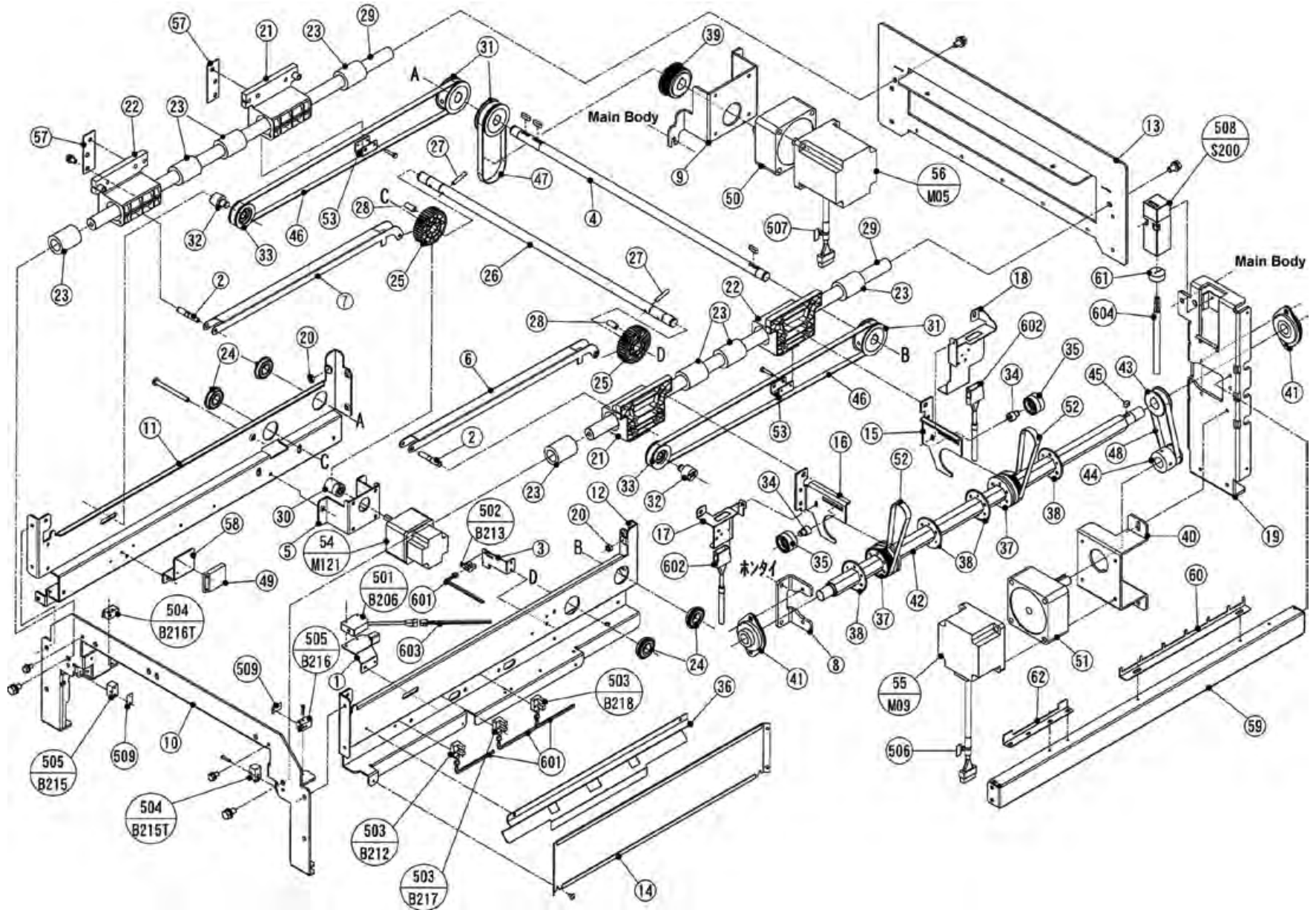
FILM ROLL DRIVE - (Section 13)



FILM ROLL HOLDERS - (Section 13)

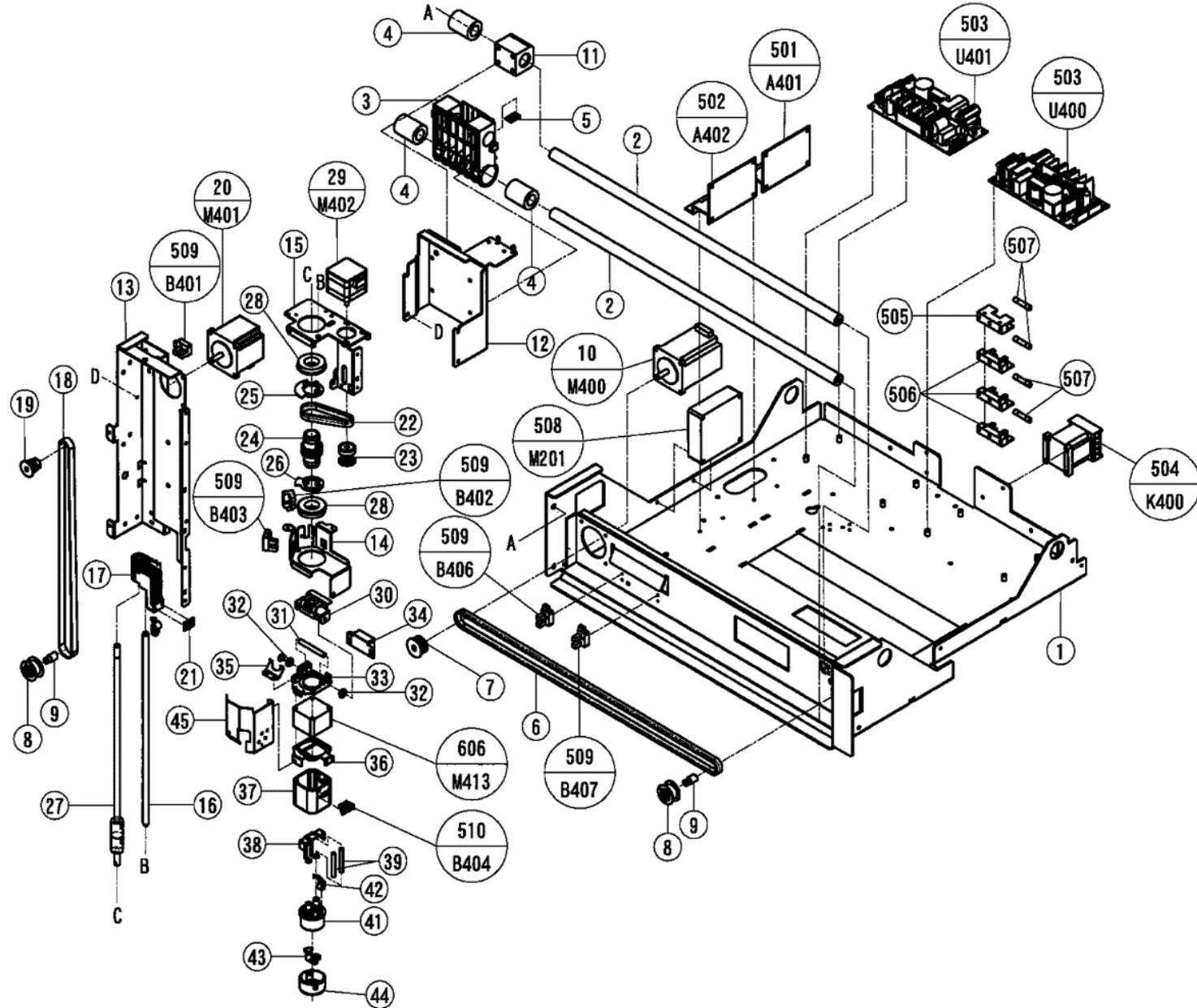


FILM FEEDER MOVEMENT (Section 14)

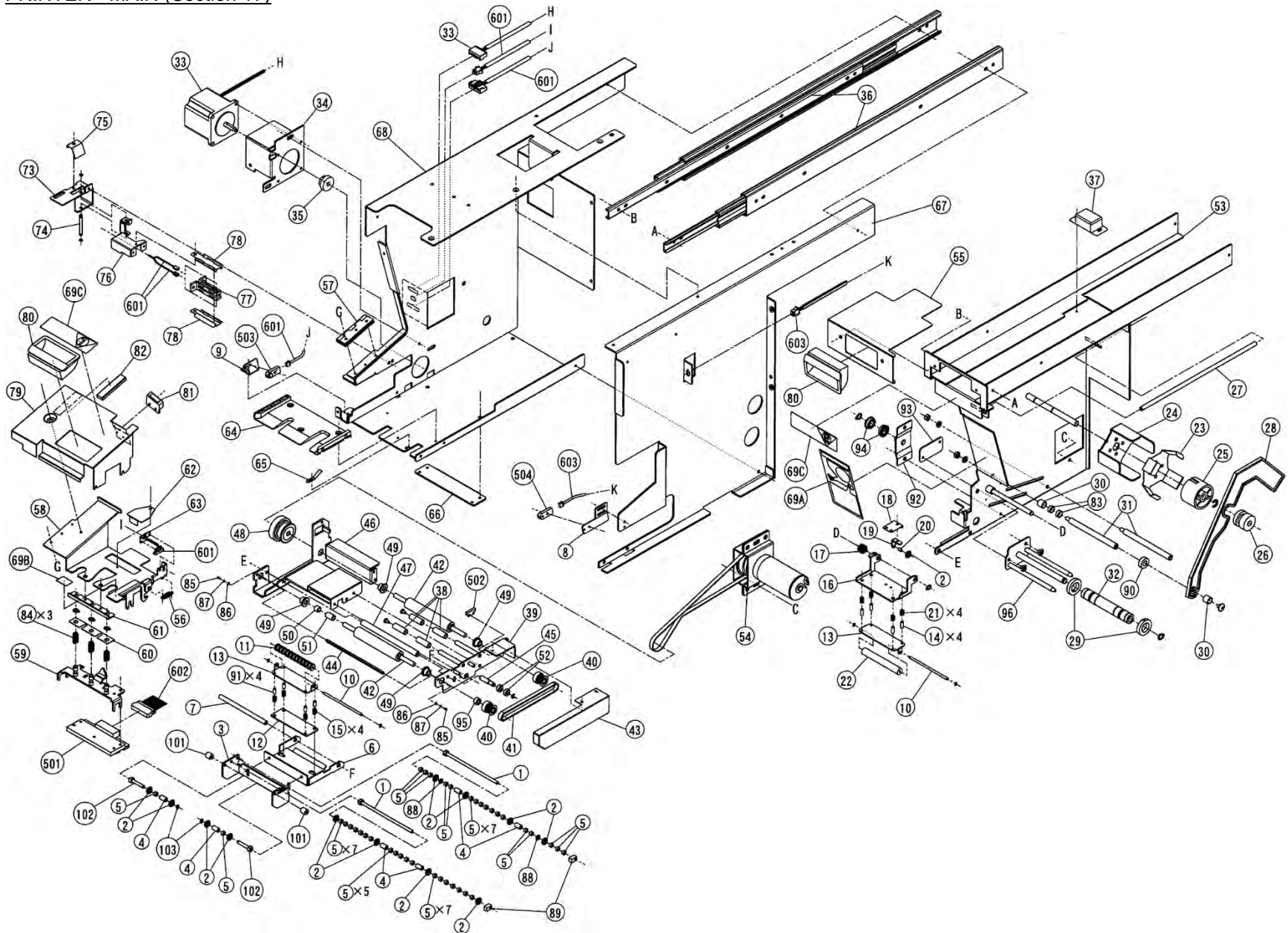




LABEL APPLICATOR - POP (Section 16)

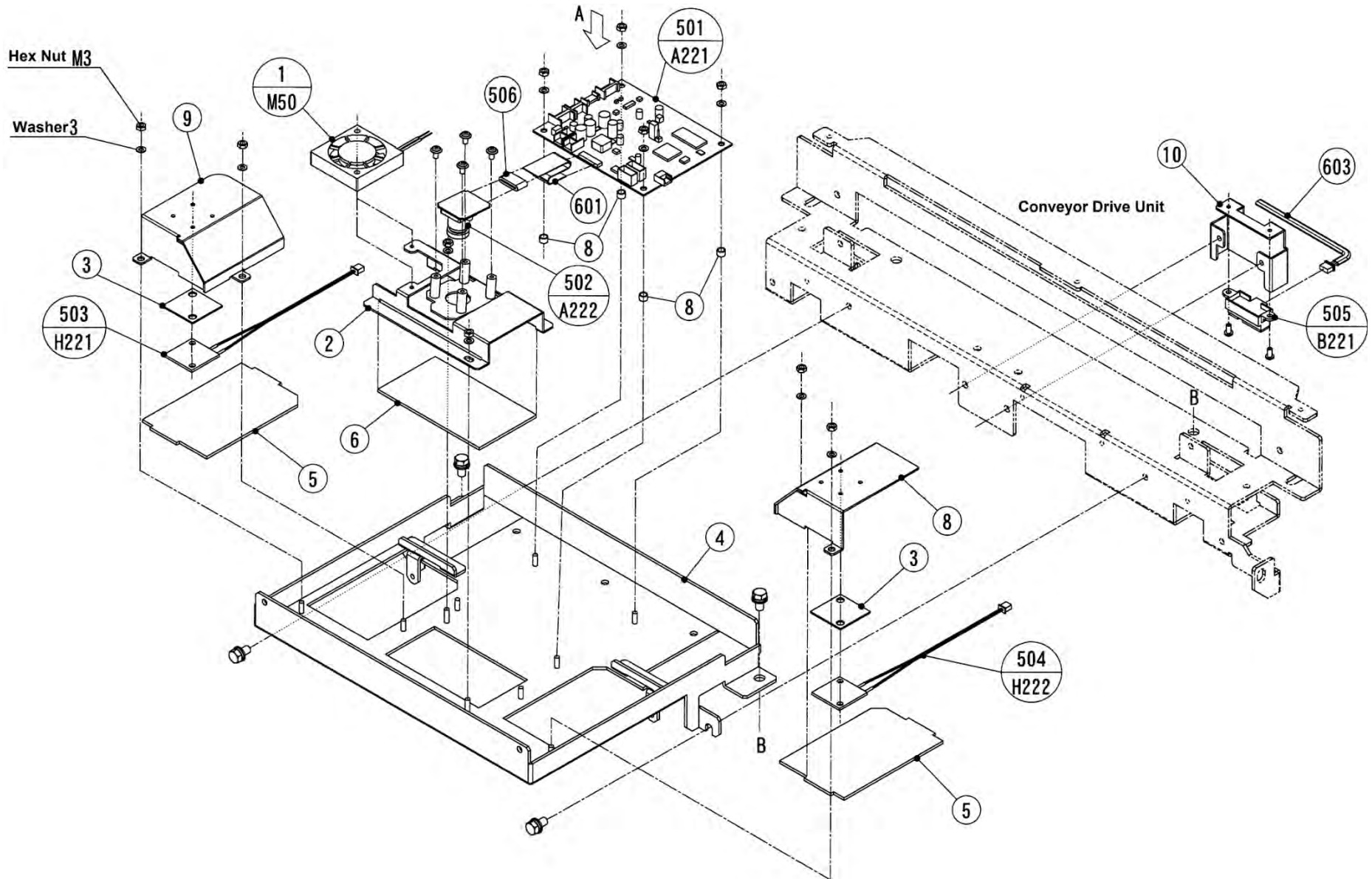


PRINTER - MAIN (Section 17)

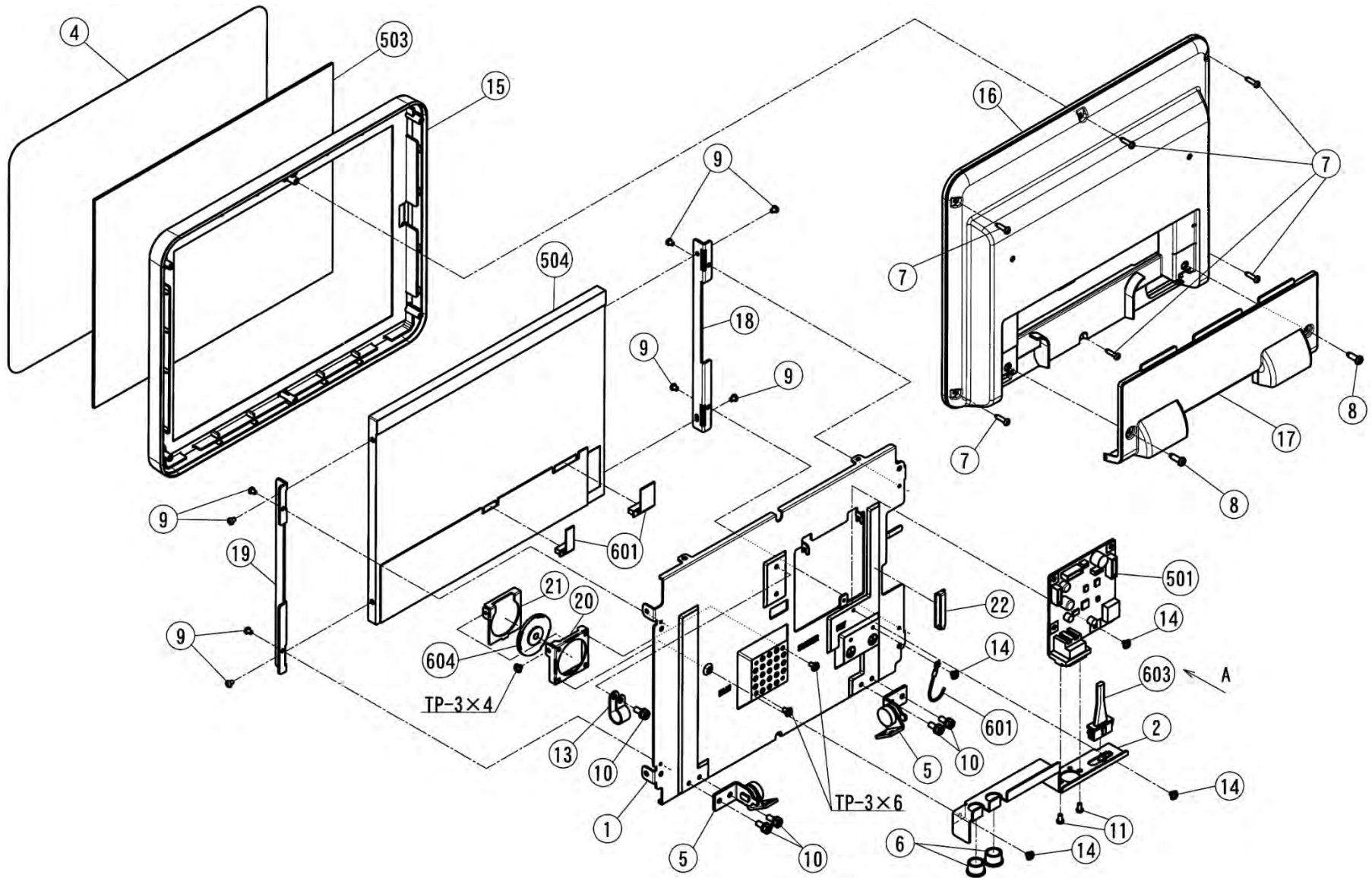




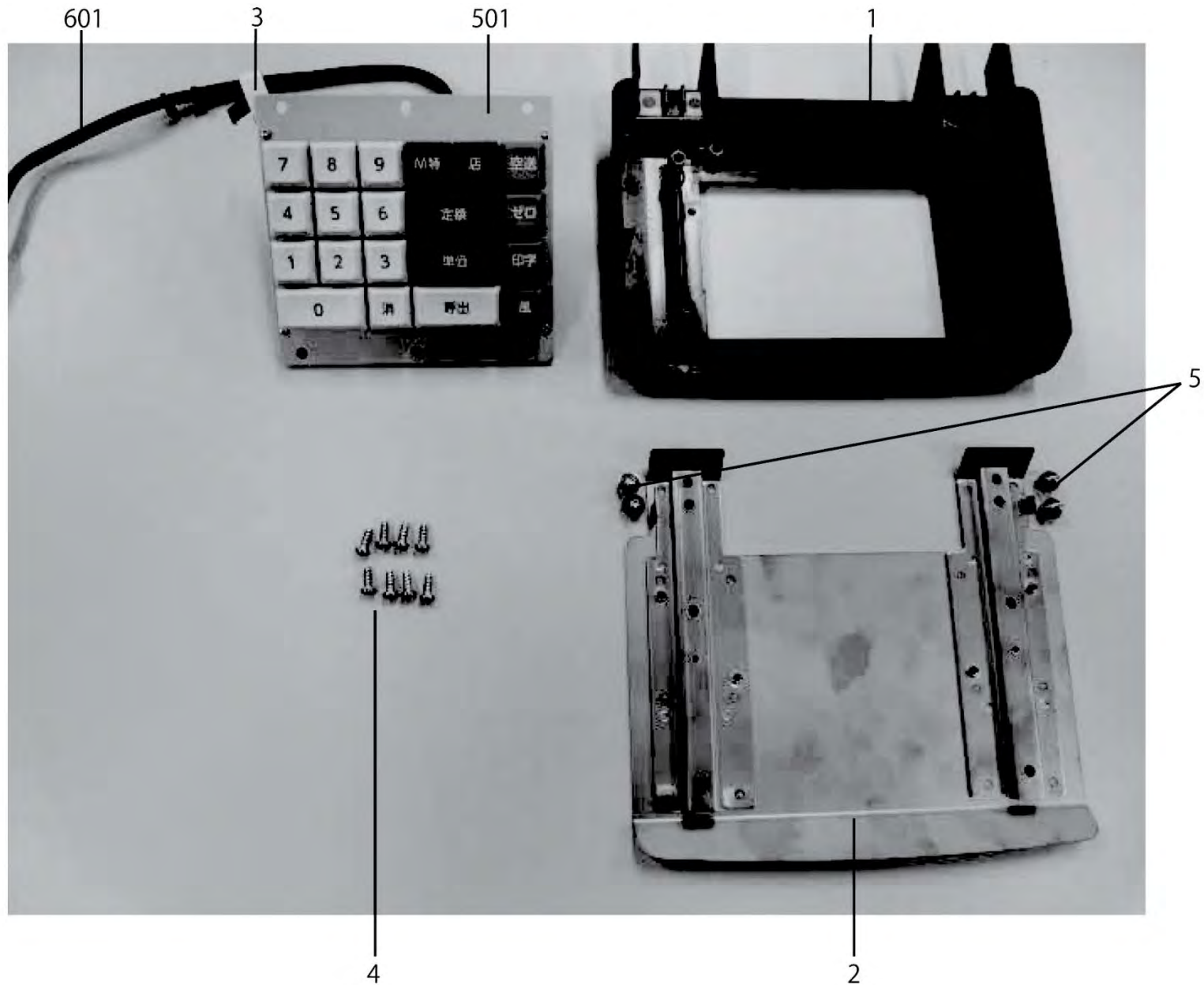
CAMERA & LIGHTING (Section 19)



TOUCH SCREEN DISPLAY (Section 20)



KEYBOARD ASSEMBLY (Section 21)





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## Access

**1:** From the operation screen, locate the "DIAL" or "TEMP" key.

**1.1:** Due to the editable nature of the presets, this key can vary in location and name. Check both the "Operation" screen as well as the "Function/Page Down" page.

**2:** Note that if the "TEMP" or "DIAL" key is greyed out, enter the managers/keylock password then touch the "MANAGER" or "KEYLOCK" key to unlock.



## Film Heater

**3:** Locate the FILM HEATER settings, then confirm "ON" is selected.

**4:** Enter the desired temperature (60-65F is standard for Mitsubishi film), then touch OK to save.

**4.1:** Note that lower temperature (less than 60F) can cause a reduction of playability and adhesion to components.

**4.2:** Note that higher temperature (higher than 65F) can cause a reduction of durability and an increase in adhesion to components.

➤ Both can result in excessive film shreds and failures to feed.



## Seal Heater

**5:** Locate the HEATER settings, then confirm "ON" is selected.

**6:** Enter the desired temp (300F is standard for Mitsubishi film) then touch OK to save.

**6.1:** Note that this temperature is dependent on film thickness as well as tray weight; adjust as needed to ensure all trays are fully sealed, throughout the weight range in use.

➤ Utilization of the TRAY HOLD and OUTFEED STOP within individual tray files can mitigate sealing issues as well.



## Condition

7: Return to the Operation screen.

8: If the sealing bar has not reached the set temperature, the wrapper status key will appear **BLUE**, while displaying "HEATER ON" and the set temperature.



9: If the sealing bar has reached the set temperature, the wrapper status key will appear **GREEN**, while displaying "HEATER ON" and the set temperature.



10: If the sealing bar has exceeded the set temperature, the wrapper status key will appear **RED**, while displaying "HEATER ON" and the set temperature.

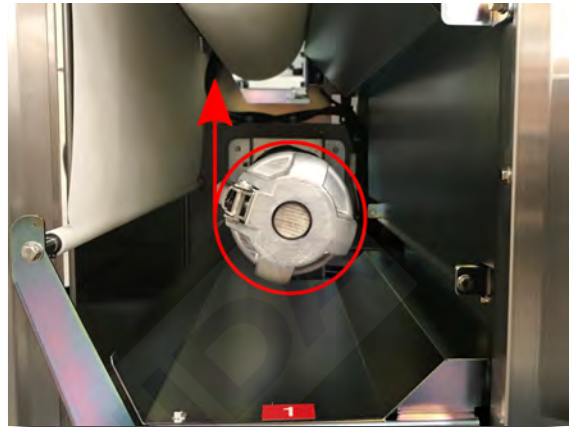


11: If the sealing bar has been turned off, the wrapper status key will appear **GREEN**, while displaying "HEATER OFF".



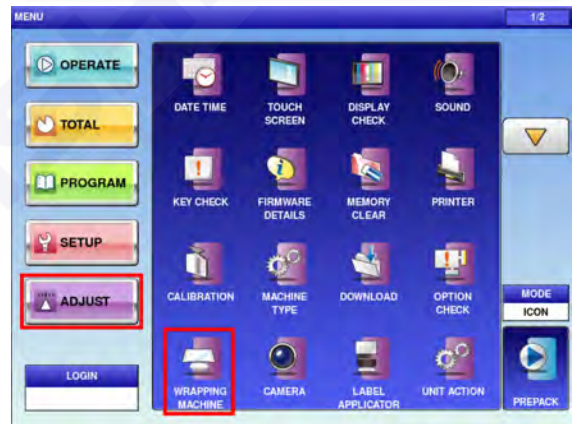
### Brake Inspection:

- 1: Open the left film access door.
- 2: Bypass the doors interlock with a service key (PN-95540).
- 3: A working brake will prevent the roll from rotating in this position:
  - 3.1: If the roll can be rotated with effort, consider replacing the brake at the next service.
  - 3.2: If the roll can be rotated with little effort, replace immediately.

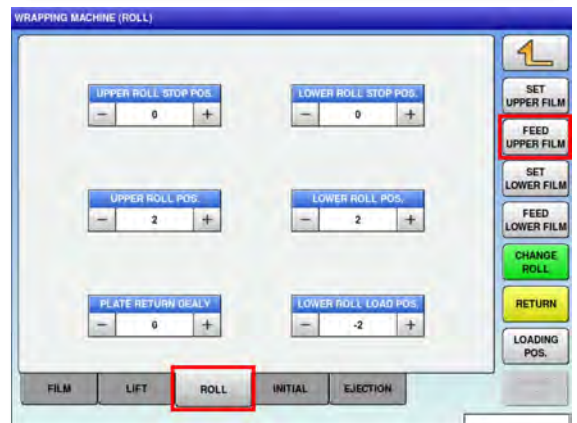


### Brake Adjustment:

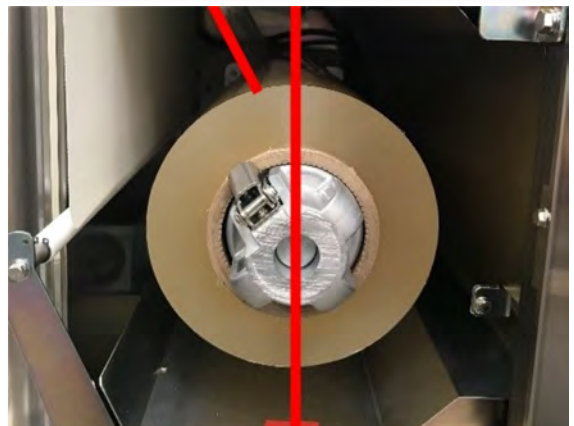
- 4: From the main menu enter the Service Code + PLU then enter the ADJUST and WRAPPING MACHINE menus.



- 5: Select the ROLL tab.
- 6: Load fil if needed, then feed three sheets of film, removing after each.
  - > Note that after any film loading process, the first two film feeds will be slower, as the machine records the rotations.



- 7: Confirm brake position.
- 8: The film should peel off the roll between 11 and 12.



9: Adjust the UPPER BRAKE POSITION as needed until the brake/peel position is correct.

9.1: Lowering the value = Postpone brake engagement, giving a higher clock value.

9.2: Raising the value = Advance brake engagement, giving a lower clock value.

10: Repeat procedure on the lower roll.



### Holding Spike Inspection:

11: Inspect the inside of a used fill roll for signs of slippage. Excessive cardboard dust and/or damage to the interior of the film core will cause the film roll to slip during film feeding. This slippage occurs when:

11.1: The spikes are either too low or worn out/dull.

11.2: The core diameter is too large, i.e. non approved film being used.



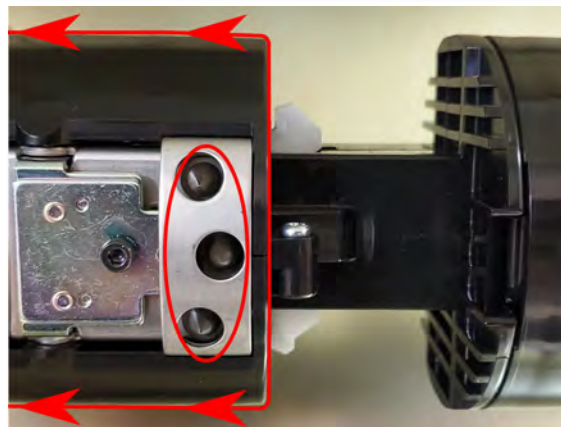
### Holding Spike Adjustment:

12: Push the backing plate towards the rear of the machine to extend the three spikes.

13: When fully extended to the rear, the spikes should protrude by 7mm.

14: Confirm the spikes are sharp and not damaged.

➤ Take caution when working near the core spikes.

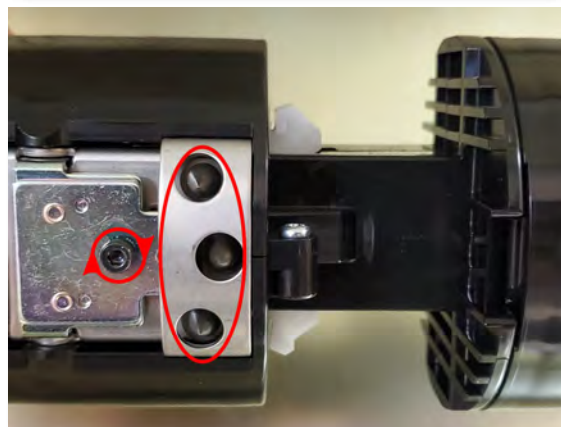


15: If adjustment is needed, rotate the 2.5mm socket head bolt clockwise extend by 7mm.

➤ Note that the spikes should not protrude while in the non-extended position, otherwise binding will occur during loading/unloading of rolls.

16: If these adjustments do not resolve the issue, order PN 171858 “Roll Assembly” and replace the unit.

➤ Do not attempt to disassemble the Roll Assembly.

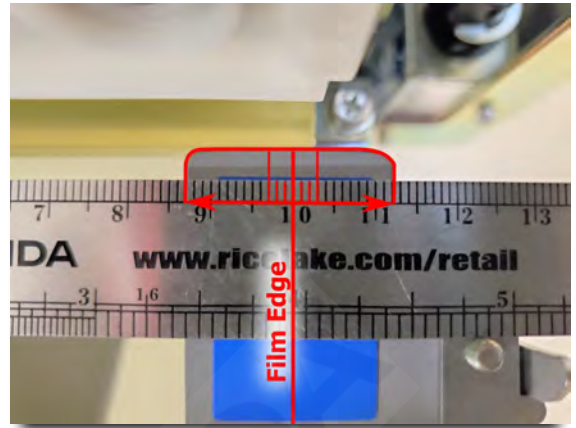


### Mandrel Depth Inspection:

17: Engage the E-Stop.

18: Open the left film access door.

19: Evaluate the position of the films outer edge for the desired roll: if correct, the edge of the film should align with the center of the insertion finger, roll to roll variances caused of up to +/- 3mm, when measured from left or right of the center line, are tolerable.



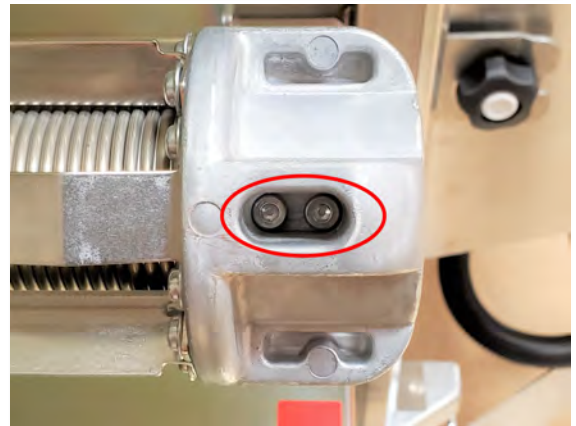
### Mandrel Depth Adjustment:

20: If adjustment is needed, first measure the current mandrel depth in relation to the shaft; 6mm is pictured, although 5mm increments of adjustment can be achieved.

> Note that Mitsubishi film requires both mandrels to be set at 6mm, thus this is the factory standard.

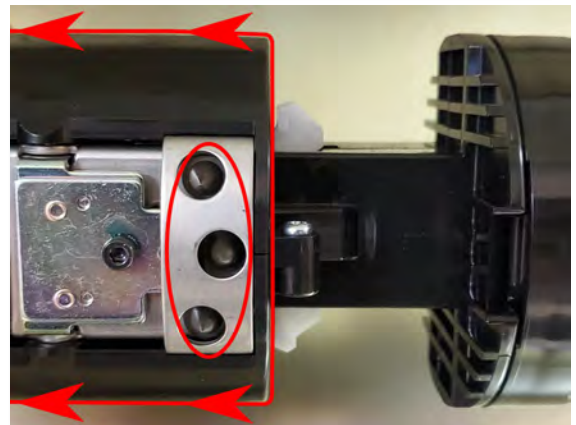


21: Remove the two 3mm Allen bolts.



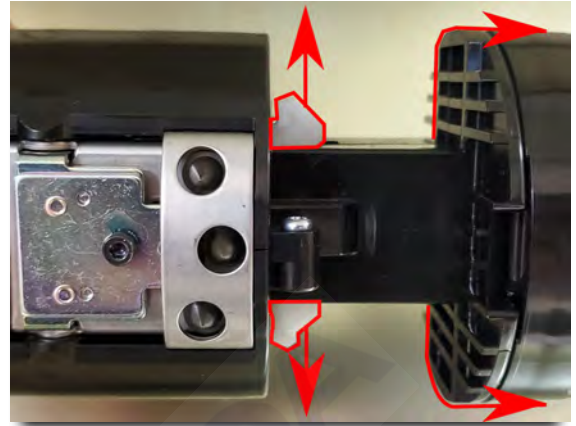
22: Push the backing plate towards the rear of the machine to reveal the two white tabs.

> Take caution when working near the core spikes.



**23:** Pull the white tabs outward.

**24:** Slide the assembly off towards the front of the machine.

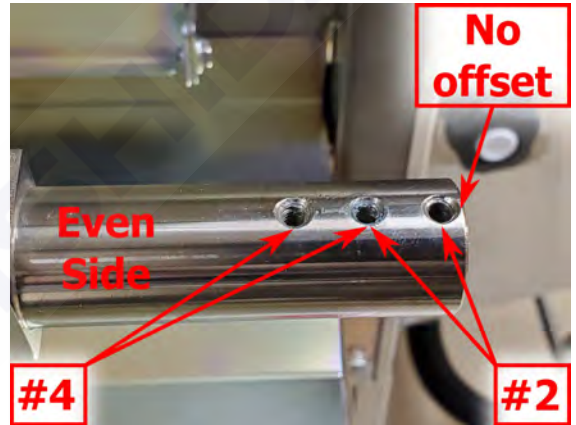


**25:** The shaft is tapped in four locations, providing four mounting positions. These are divided into the "Even" and "Odd" sides.

**26:** The "Even Side" has each hole set to 10mm apart, providing adjustment increments of 10mm:

**26.1:** Position 2 will provide 16mm of extension.

**26.2:** Position 4 will provide 6mm of extension.

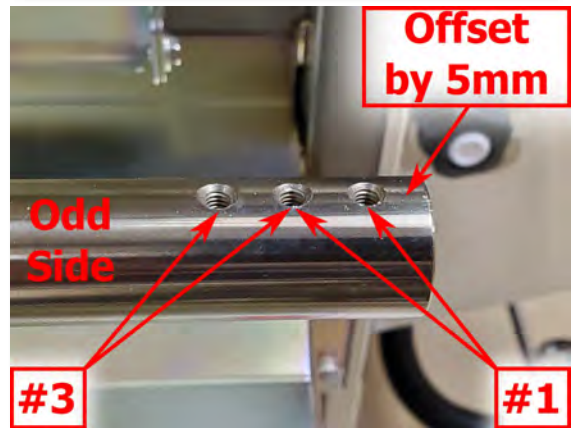


**27:** "Odd Side" is offset by 5mm when compared to the "Even Side", though each hole is still 10mm apart, which now provides adjustment increments of 5mm when compared to the "Even Side".

**27.1:** Position 2 will provide 11mm of extension.

**27.2:** Position 3 will provide 1mm of extension.

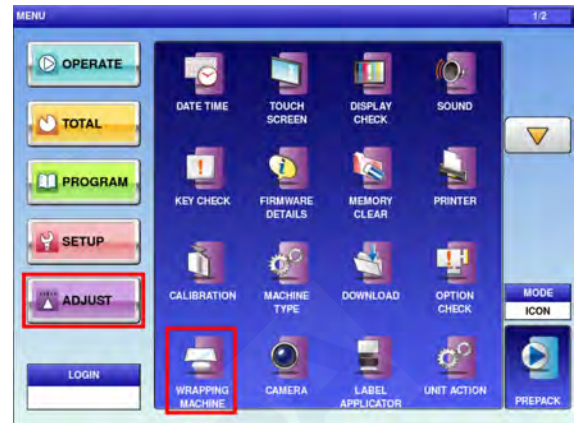
➤ Example: If an additional 5mm of extension is needed, the assembly will need to be rotated 180 degrees and shifted forward.



### Length/Centering:

➤ Note that the brake procedure should always be completed prior to film centering/length adjustments.

**28:** From the main menu enter the Service Code + PLU then enter the ADJUST and WRAPPING MACHINE menus.



**29:** Select the FILM tab.

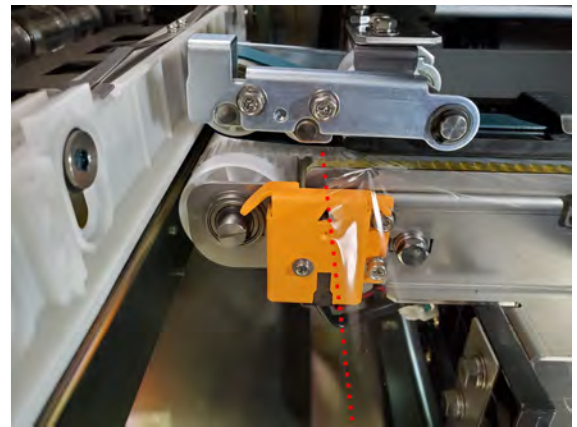
**30:** Touch FEED UPPER FILM.



**31:** On the right side of the machine, the film should stop in line with the stainless-steel plate.



**32:** On the left side of the machine, the film should stop in line with the triangle cutout found on the orange bracket.



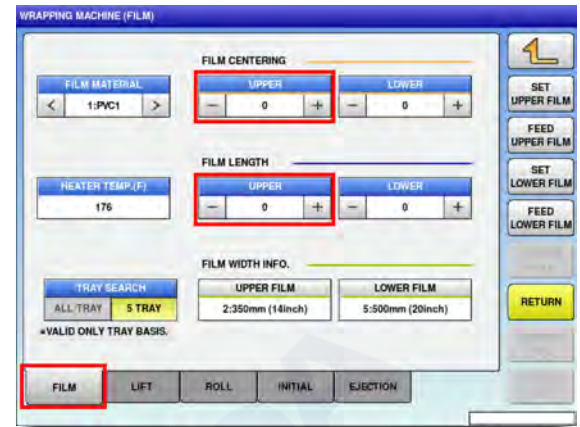
33: Select the FILM tab.

34: Touch FEED UPPER FILM.

35: On the right side of the machine, the film should stop in line with the stainless-steel plate.

36: On the left side of the machine, the film should stop in line with the triangle cutout found on the orange bracket.

37: Adjust FILM CENTERING and FILM LENGTH as needed until the film is positioned correctly.



37.1: Example:

- If the film is too far to the right by one inch on both ends, adjust centering.
- If the film is too far to the right by one inch on the right side but correct on the left side, adjust length and centering, as length will add to the overall measurement.

## Programming:

➤ Note that all trays will need to be programmed prior to operation; only trays that have been programmed can be used.

**1:** From the main menu enter the Service Code + PLU then enter the PROGRAM and TRAY menus.

**2:** Enter a number to be associated to the new tray then the PLU key.

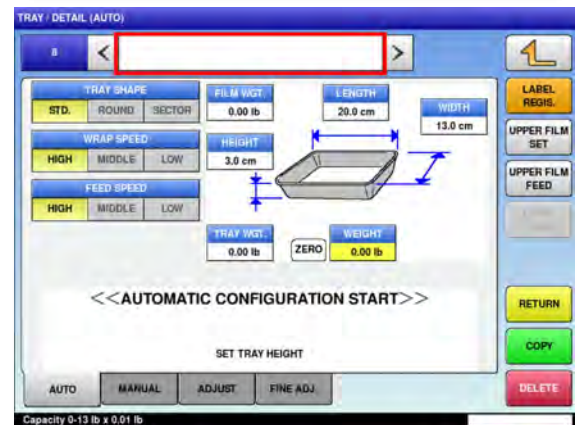
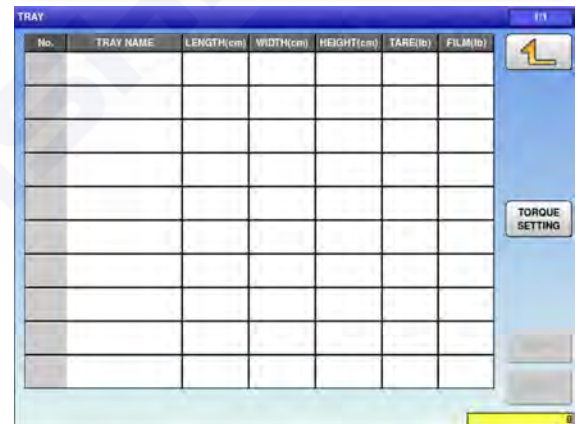
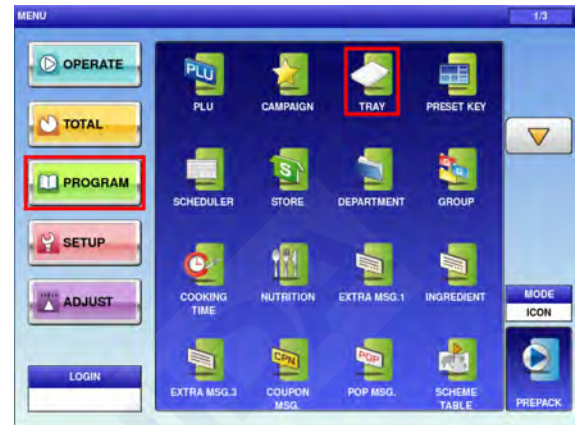
**2.1:** Example: 8P tray = 8.

**3:** Message 13001-0000 PROGRAM CHECK will indicate that the tray has not been programmed, touch EXEC.

**4:** Touch the blank white field to name the tray.

**5:** Use the once screen keyboard to name the tray file, then touch the return arrow.

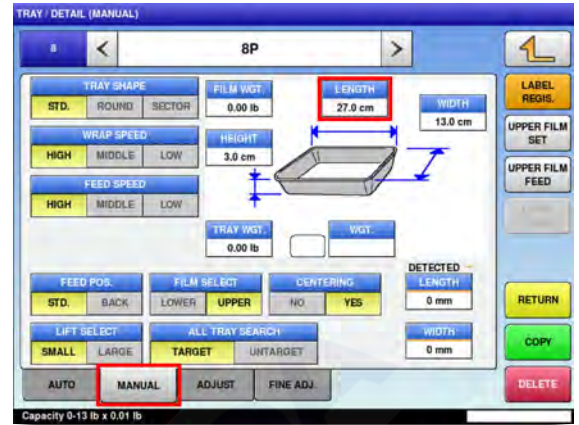
**5.1:** Example: “8P”



6: Select the MANUAL tab.

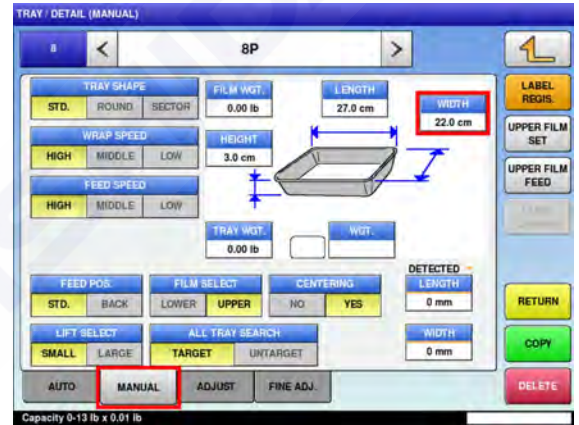
7: Manually measure the top of the tray from left to right, then input into the LENGTH field.

➤ Note that a decimal is not needed when inputting values, e.g., 27.0 is entered as 270.



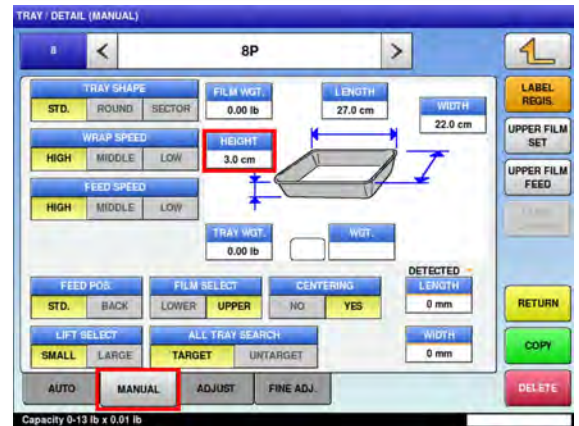
8: Manually measure the top of the tray from front to back, then input into the WIDTH field.

➤ Note that a decimal is not needed when inputting values, e.g., 22.0 is entered as 220.



9: Manually measure the top of the tray to the bottom, then input into the HEIGHT field.

➤ Note that a decimal is not needed when inputting values, e.g., 3.0 is entered as 30.

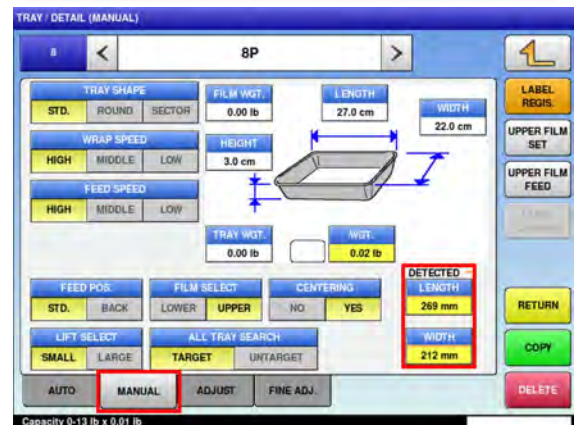


10: Touch DETECTED: LENGTH/WIDTH.

11: This will activate the camera and the scale.

12: Place the tray, and soakers, if used, on the weigh platter.

13: Center the tray left to right and position closest to the operator.



14: Touch TRAY WGT. to assign weight to the field.

15: Touch DETECTED: LENGTH/WIDTH to deactivate.

16: The detected length/width fields will be saved.

16.1: Note that these values are what the camera sees, therefore they may or may not correspond to the physical measurements taken.

16.2: Variances will increase as the tray size increases, up to 1cm.

➤ Note: Do not program Tares in both the "Tray file" and the "PLU file". If both files contain tare weights, they will be added together.

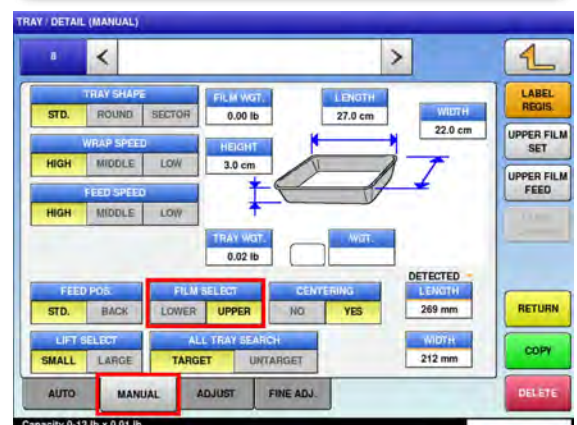
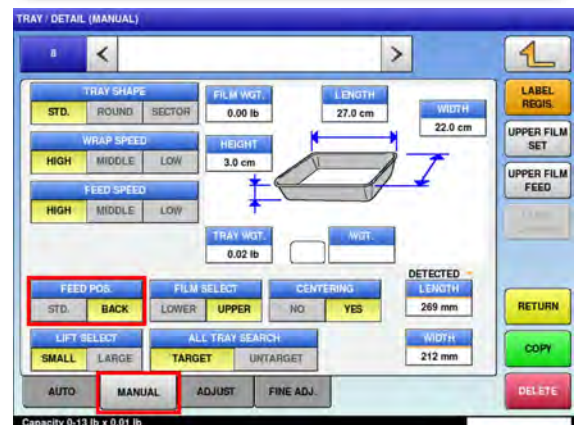
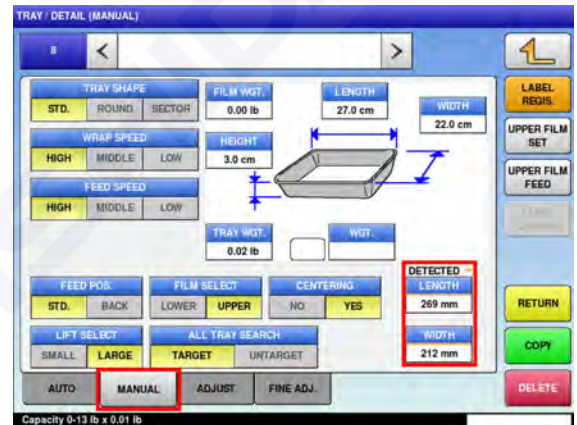
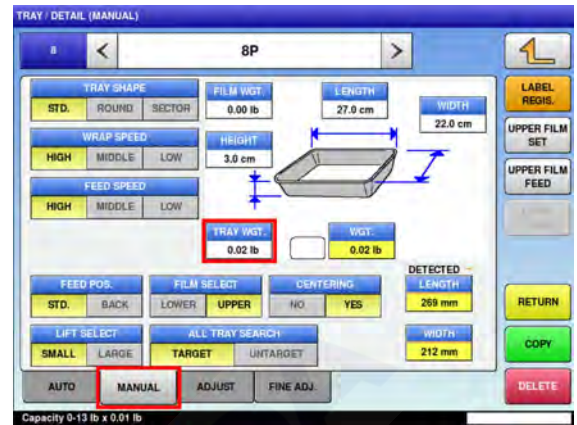
17: Change LIFT SELECT to LARGE if they tray measures over 150mm wide.

18: Change FEED POS. if the edges of the tray are highly angled.

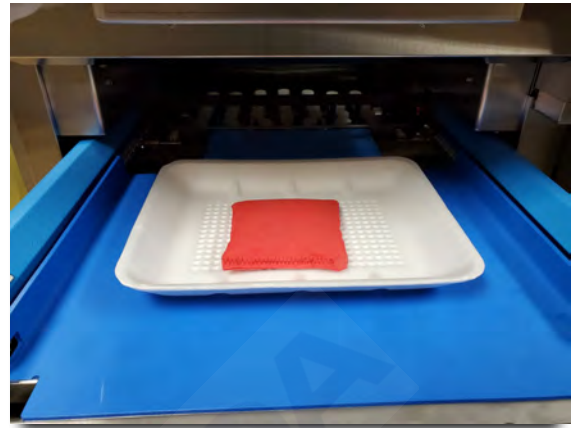
19: Change FILM SELECT to best match the film to tray size:

19.1: Measure the circumference of the tray front to back than add 20%.

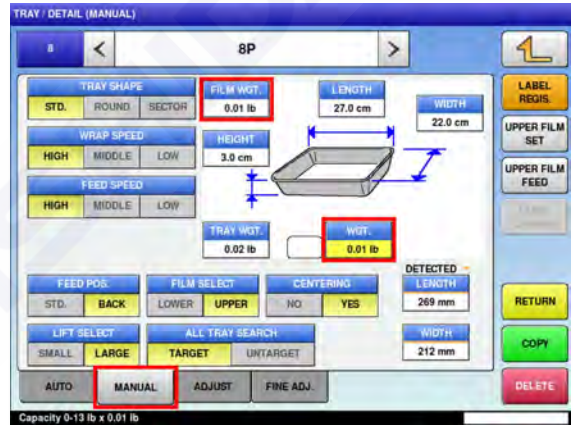
19.2: This is the minimum film size for the tray.



- 20: Place an object into the tray to trigger the minimum wrap weight.
- 21: The tray will automatically infeed and transport film.
- 22: Press PLU to complete the wrap process.



- 23: Press the WEIGHT key to activate the scale, then remove film from the wrapped tray
- 24: Place the film on the weigh platter, touch FILM WGT to capture the value, then touch WEIGHT again to deactivate.
  - Note that FILM WGT is only utilized only when in LABEL mode, e.g. when the front cover has been opened to allow hand labeling of prewrapped items, the FILM WGT will engage to compensate for the film present during weighing.



**Adjustment:**

- 25: Select the ADJUST tab.
- 26: Wrap the tray again, this time examining the wrap quality of the tray.
- 27: If the underside is not sealed when wrapping typical weight, engage one, or both:
  - 27.1: TRAY HOLD = Slight downward pressure during outfeed is applied.



- 28: OUTFEED STOP = Turn on, then enter values until the tray briefly stops over the sealing bars. Both bars should stop directly below the seam to provide a secure seal.
- 29: Do not exceed a value of "5" for STOP TIME, or excessive melting of film and trays can occur.



**30:** If the front or rear of the tray is bending, or breaking, lower the clamp values.

**31:** If the issue persists, set “FRONT/REAR FEEDER” to YES to reduce tension during the under-fold process.

**32:** If wrinkles are present, adjust the appropriate clamps, but do not exceed values of +/-10.

**32.1:** Note that clamp values have zero relation to clamp strength.

- Higher clamp settings provide for tighter wraps but also can cause film tearing and crushing of the tray.
- Higher clamp values = increased clamping time
- Lower clamp values = decreased clamping time

**33:** SHIFT VOLUME will move the sheet of film further left or right, but will not change the total length of film.

**34:** FILM LENGTH will adjust the total length of film, but will not change the position.

**35:** STRETCH will change how far the rear feeder moves rearward, after the film had been fed.

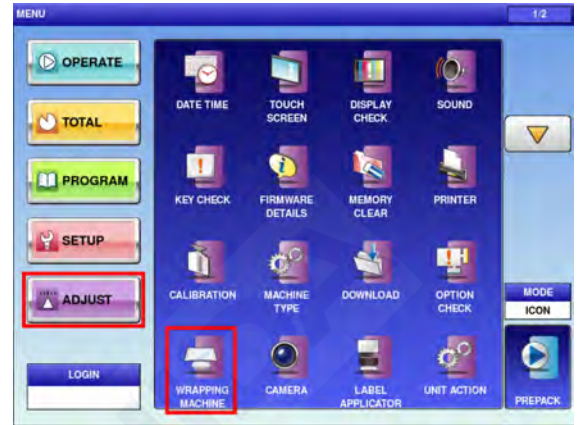
**36:** SIDE THRT will adjust distance of travel for the side folding plates.

**37:** Select LABEL REGIS.



**Inspection:**

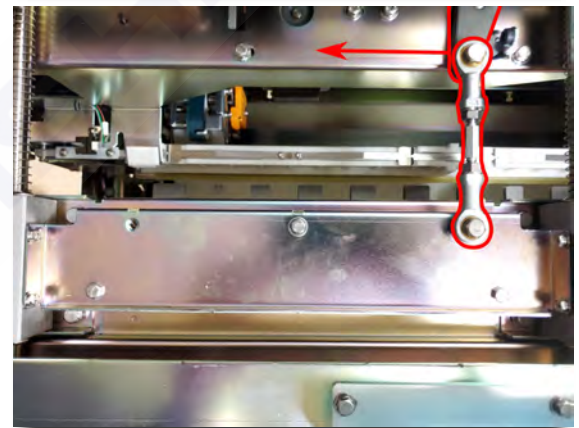
**1:** From the main menu enter the Service Code + PLU then enter the ADJUST and WRAPPING MACHINE menus.



**2:** Engage the E-Stop.

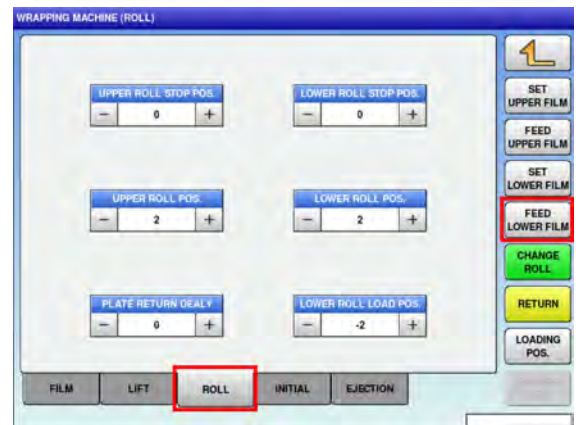
**3:** Insert the insertion plate assembly into the machine by pushing the turnbuckle linkage to the rear of the machine.

**4:** Note that the panel has been removed for clarity, but removal is not required during setup.



**5:** Note that if the linkage cannot be found, release the E-Stop, select the ROLL tab then press FEED LOWER FILM.

**6:** As soon as the insertion plate begins traveling inwards, press the E-Stop. This will release the drive linkage.

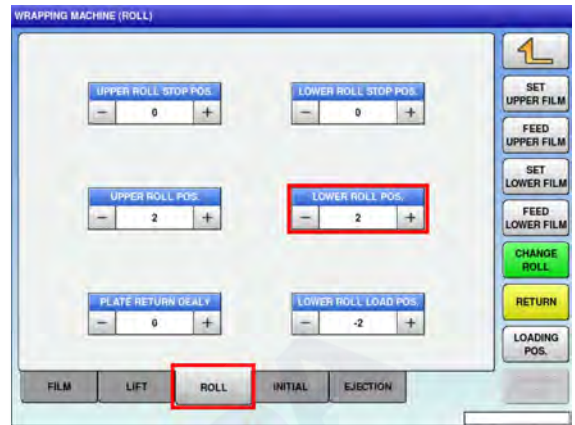


**7:** From the front and rear, confirm 1-2mm of clearance is visible between the top of the white pulley and the bottom of the lower insertion plate.

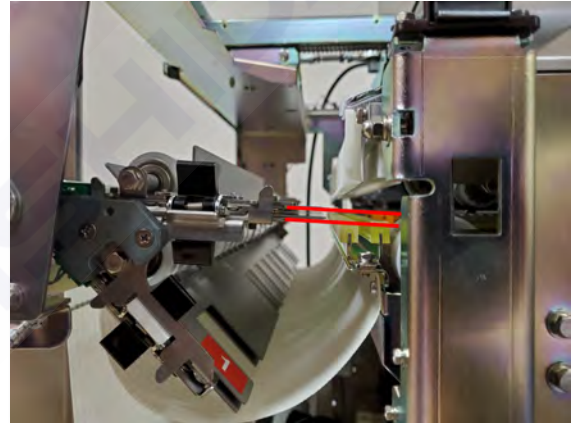


## Adjustment

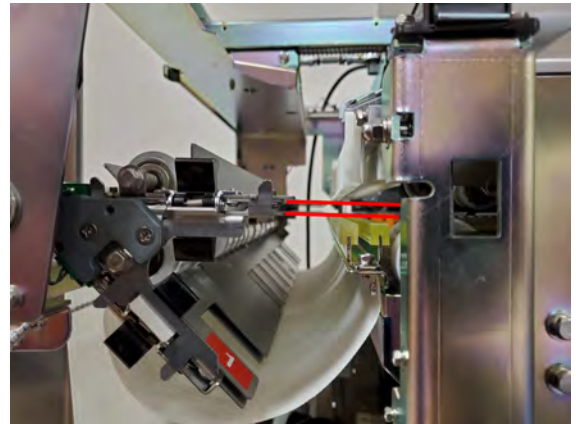
- 8:** To adjust, release the E-Stop.
- 9:** Set the LOWER ROLL ROS to -4.
- 10:** Touch CHANGE ROLL to cycle the insertion plate.
- 11:** Continue cycling until the lower plate is in the ready position.



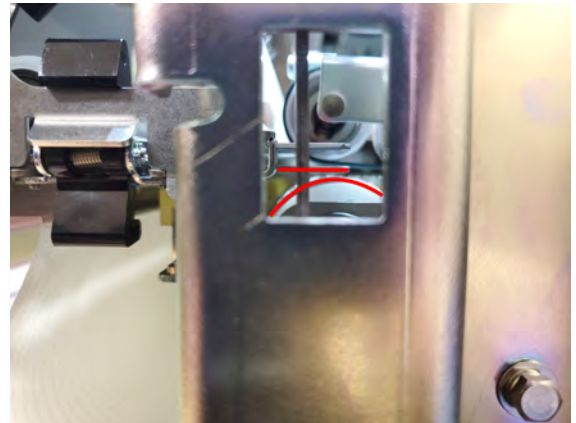
- 12:** The insertion plate will now be too low, as shown in the accompanying image.
- 13:** Increase the LOWER ROLL POS by one point.
- 14:** Cycle the insertion plate using the CHANGE ROLL key until the lower plate is in the ready position.



- 15:** Continue increasing the LOWER ROLL POS and cycling until the insertion plate “jumps” into the next position and appears to clear both the cutter as well as the cutter guard.
- 16:** After the “jump”, increase the LOWER ROLL POS by an additional 2 points.



- 17:** Engage the E-Stop, then release the drive linkage and manually insert the plate to confirm 1-2mm of clearance is visible between the top of the white pulley and the bottom of the lower insertion plate.



18: Repeat the above procedure for the UPPER ROLL POS.



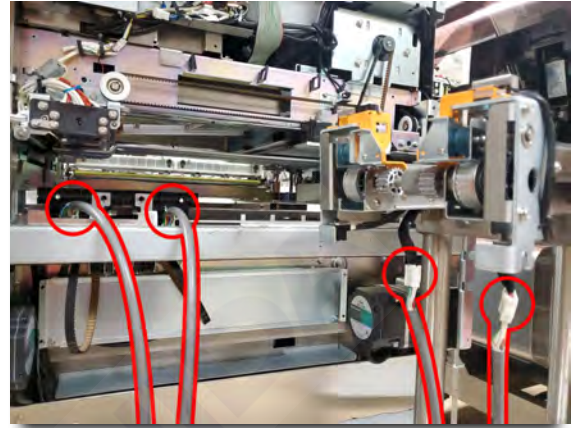
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RETAIL SOLUTIONS

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**Access Method #1**

**1:** Both the inspection and adjustment can be preformed outside of the machine, while utilizing the extension cables, PN-176133.

**1.1:** Note that this is the preferred method, particularly if the feeders have already been removed.



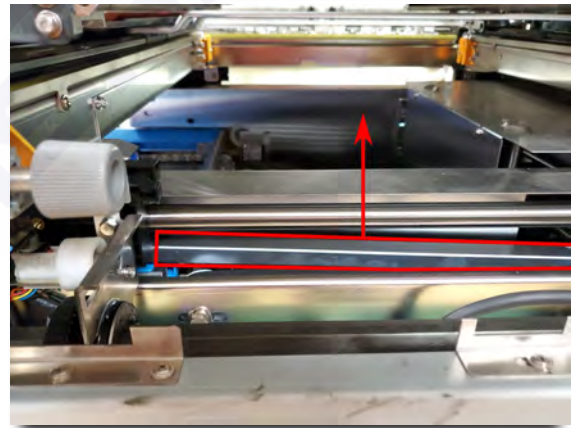
**Access Method #2**

**2:** Both the inspection and adjustment can be preformed inside of the machine in the event that the extension cables are not available, or if the feeders do not need to be removed from the machine.

**2.1:** Note that the upper roll of film must be removed, and the lower insertion plate should be in the "ready to feed" position.

**3:** On the right side, open the access door.

**4:** Raise the linkage arm to move the front feeder slightly to the rear.

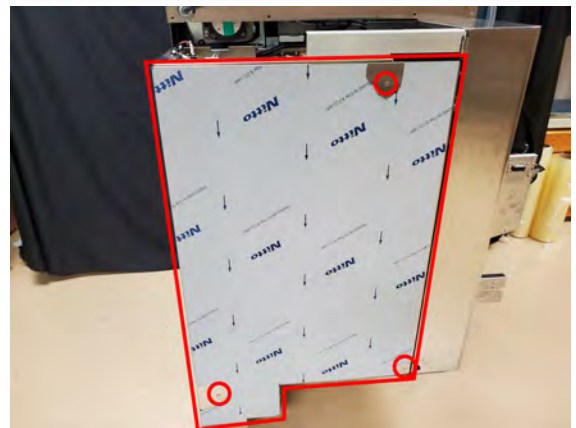


**5:** Move the rear feeder to the front-most position, until just touching the front feeder.

**6:** Close the access door on the right side.



**7:** On the left side, remove the three 7mm bolts mounting the lower left panel.



8: Loosen the two 7mm bolts mounting the lower left panel.

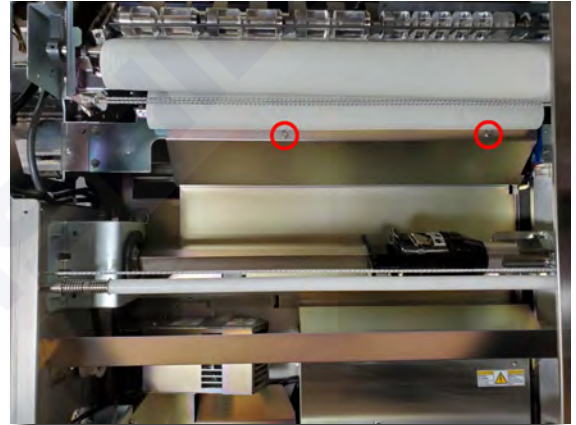
9: Remove panel and set aside.



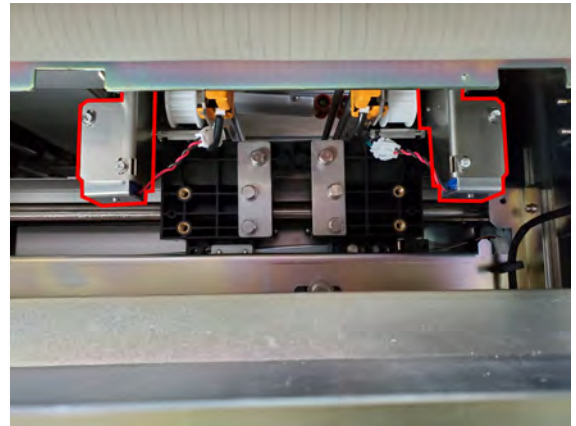
10: Remove the two 7mm bolts mounting the gold catch panel.

10.1: Note that the anti-static curtain may need to be moved to view the bolts.

11: The panel can now hinge downward, until it rests on the upper roll mandrel shaft.



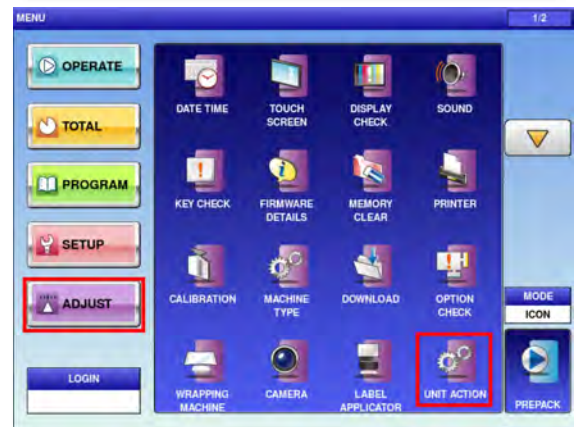
12: Both front and rear solenoids will now be accessible.



### Inspection:

➤ Note that although inspection can be conducted in or out of the machine, for clarity, "Access Method #1" is displayed.

13: From the ADJUST menu, select UNIT ACTION.



14: Run PINCH.

15: Allow the solenoids to warm up prior to testing.

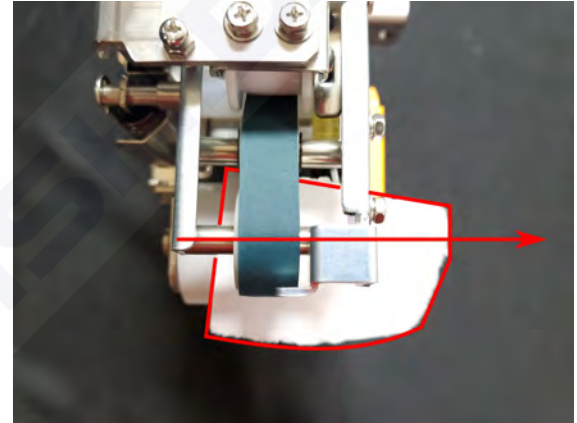
16: PINCH LONG TIME can be used to shorten this process.



17: Slide a piece of paper between the upper and lower clamp.

18: When the solenoid engages, pull the paper outwards at 90 degrees from the direction of belt travel.

19: The paper should be held firmly with only slight slippage. If the paper tears, the pinching force is too strong.

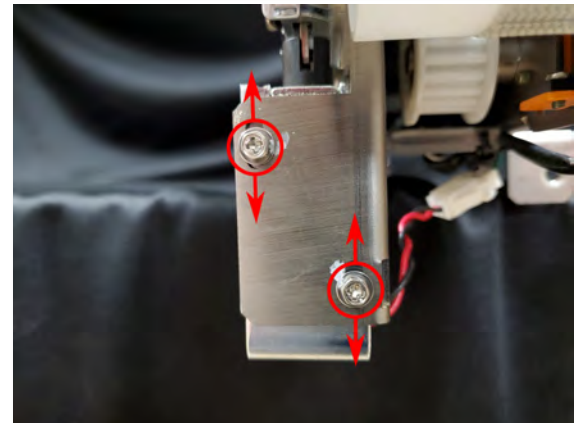


#### Adjustment:

➤ Note that although adjustment can be conducted in or out of the machine, for clarity, the extension cable method is displayed.

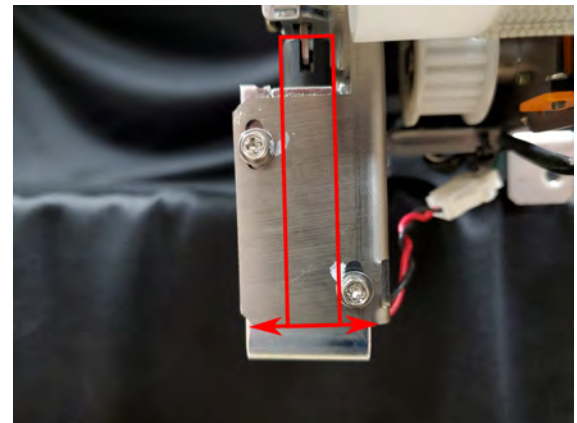
20: To adjust, loosen the two 5.5mm cross head mounting bolts.

21: Slide the solenoid up or down, by 0.5mm, or less.

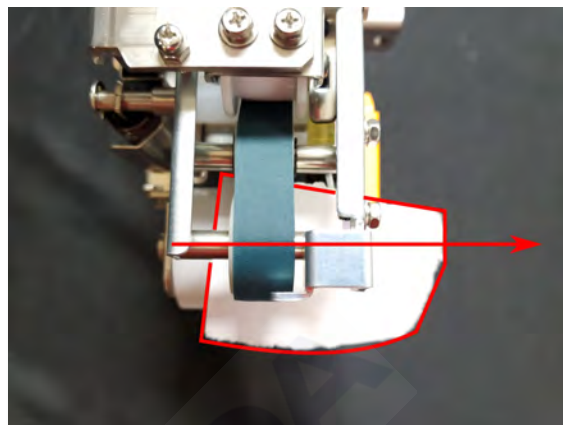


22: Confirm the solenoid and plunger are in line.

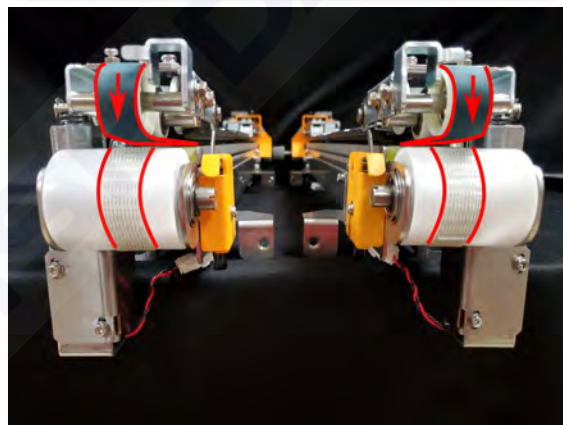
23: Tighten the two cross headed 5.5mm bolts.



- 24: Run the pinch test in unit action.
- 25: Slide a piece of paper between the upper and lower clamp.
- 26: When the solenoid engages, pull the paper outward.
- 27: The paper should be held firmly with only slight slippage. If the paper tears, the pinching force is too strong.
- 28: Repeat adjustment if needed.



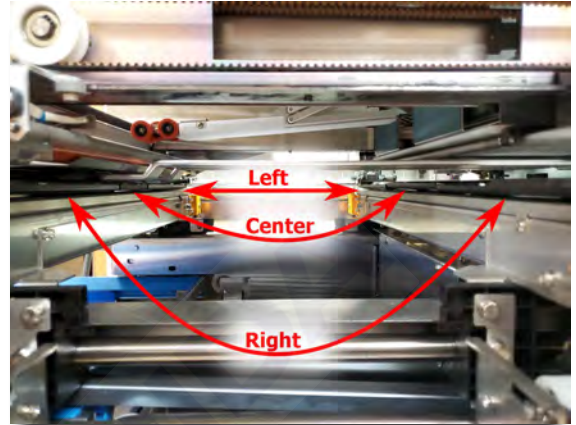
- 29: Confirm that both assemblies pinch and release at exactly the same time, no lag should be visible between the two units.
- 30: Continue adjusting the solenoids until timing is 100% synced.



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**Inspection:**

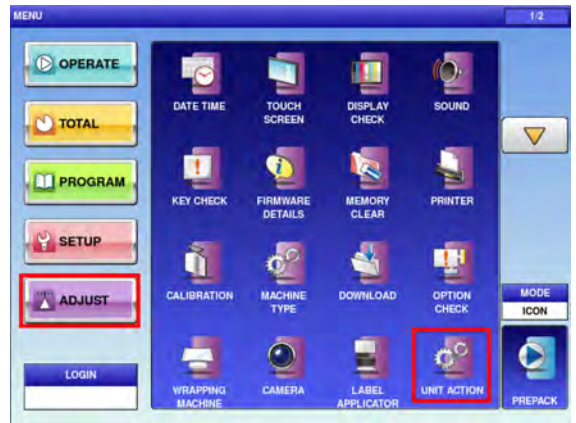
**1:** Locate all six film clamps.



**2:** Note that inspection can be performed with the film feeders in, or out, of the machine. But adjustment must be completed outside the machine. Attached the extension cable, PN-176133



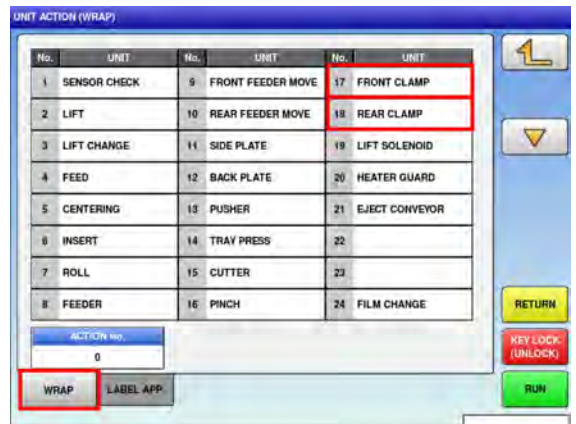
**3:** From the ADJUST menu, select UNIT ACTION.



**4:** Select the WRAP tab.

**5:** Select #17 "FRONT CLAMP" or #18 "REAR CLAMP", depending on which assembly is being inspected.

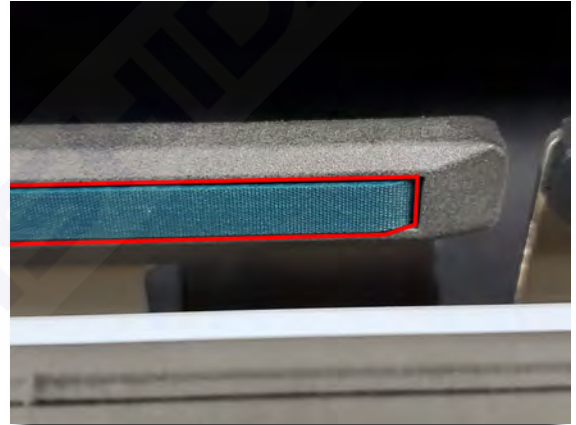
**6:** Touch EXEC.



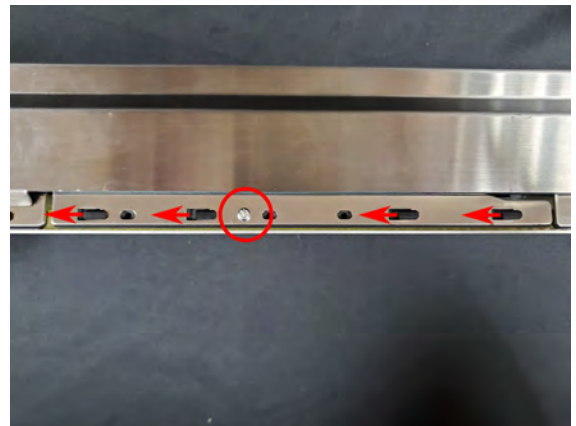
- 7: Center a piece of paper between the upper and lower clamp.
- 8: When the solenoid engages, pull the paper outward.
- 9: The paper should be held firmly.
- 10: Repeat on the remaining five film clamps.
- 11: Repeat in the left and right sections of the clamp.



- 12: Inspect the upper clamps for damage, wear, or shiny areas.
- 13: The upper clamps should have a textured feel and a matte finish.



- 14: To replace an upper clamp, remove the single cross head screw.
- 15: Slide the clamp until the “keepers” are free.



- 16: Inspect the lower clamp for chips, cuts, damage or detaching from the rail.
- 17: The lower clamps should be glossy and fully attached to the rail.
- 18: The lower front/rear clamps can be replaced at this time, if needed.



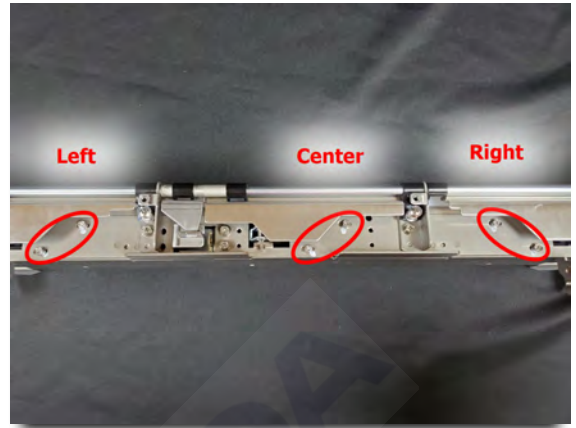
### Adjustment:

**19:** To adjust, locate the appropriate solenoid, out of the three solenoids:

**19.1:** Left

**19.2:** Center

**19.3:** Right

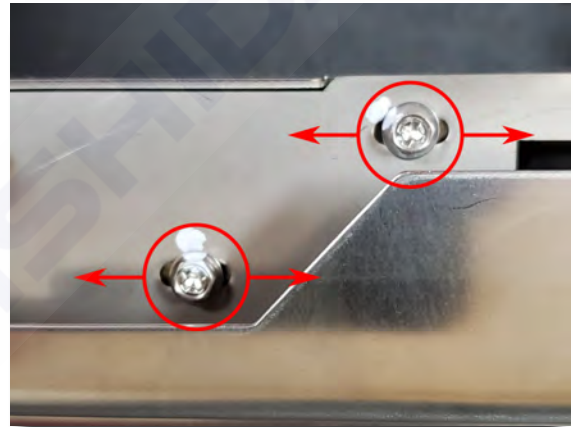


**20:** Loosen the two cross headed 5.5mm mounting bolts.

**21:** Slide the solenoid to the left or right, by 0.5mm, or less.

**22:** Confirm the solenoid and plunger are in line.

**23:** Tighten the two cross headed 5.5mm bolts.



**24:** Repeat the clamp test in unit action while centering a piece of paper between the upper and lower clamp.

**25:** When the solenoid engages, pull the paper outward.

**26:** The paper should be held firmly.

**27:** Repeat in the left and right sections of the clamp.



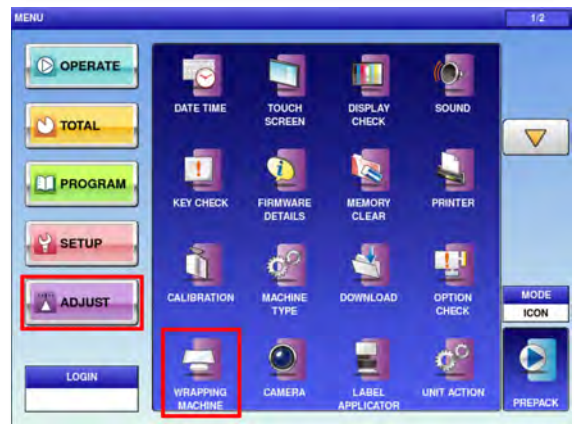
- > Note that a revised version of the one-way rollers, shaft and bearings was implemented beginning at SN-100524993.
- > This is now sold as a complete, backward compatible, assembly, PN-206218.
- > This revision has made the following parts obsolete:
  - > PN-189267, Shaft.
  - > PN-47165, Bearing.
  - > PN-172565, Roller Assembly.
  - > PN-172563, Roller Assembly.

### Removal:

**1:** Bypass the film loading door with a service key.



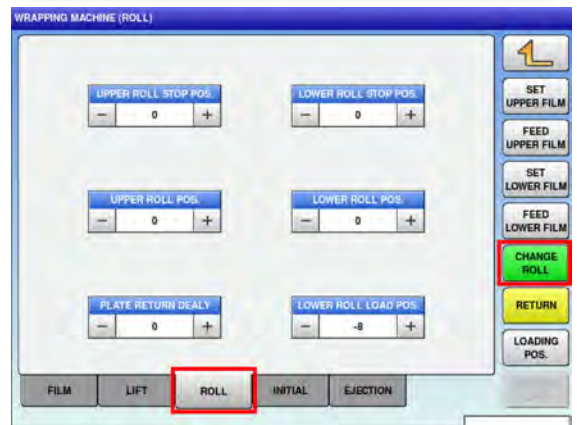
**2:** From the main menu enter the Service Code + PLU then enter the ADJUST and WRAPPING MACHINE menus.



**3:** Select the ROLL tab.

**4:** Touch CHANGE ROLL until the desired plate is in the film feeding position.

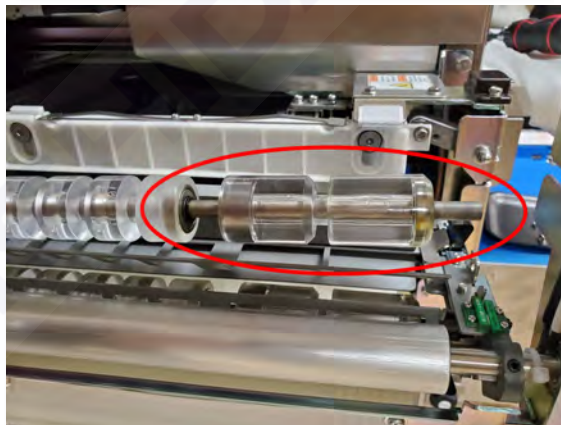
**5:** Engage the E-Stop.



6: Remove the 8mm bolt.



7: Lift the roller assembly up and outward.



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**Inspection:**

**8:** Inspect the bearings and retaining clips for any film debris.



**9:** Note that the one-way rollers should spin freely, and evenly with each other.

**10:** If scratches or damage is visible, replace the assembly, as this can cause film feeding issues.



**11:** During reassembly, note the end of the shaft is keyed and should be aligned horizontally.

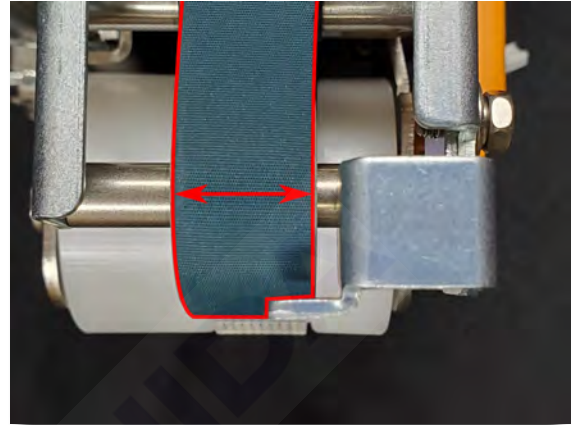
**12:** Taking care not to scratch the rollers on the insertion plate.

**13:** Re-install the 8mm bolt.

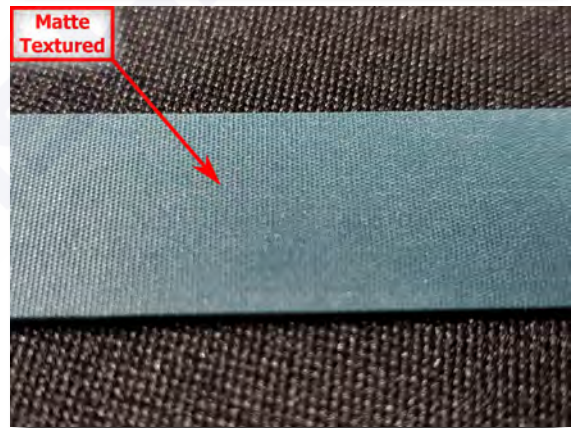


**Replacement of Green Belt:**

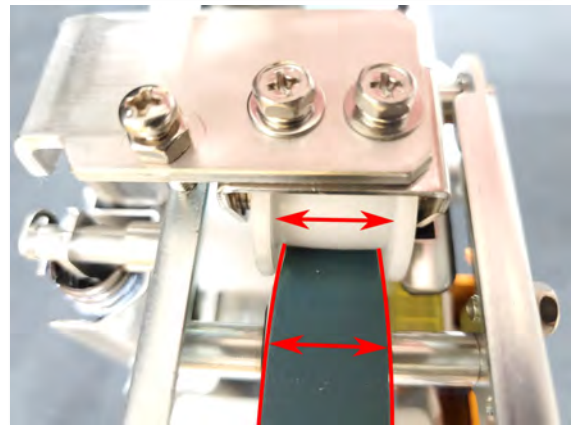
- 1: Locate the idler pulley on the left side of the assembly.
- 2: Inspect the tension of the green belt by attempting to slip it off the pulley.
- 3: If the green belt slips of the pulley with little effort, the belt is stretched and must be replaced.
  - Note that this test can be conducted while the feeder is still inside the machine.



- 4: Inspect the green belt for damage, wear, or shiny areas.
- 5: The green belt should have a textured feel and a matte finish.

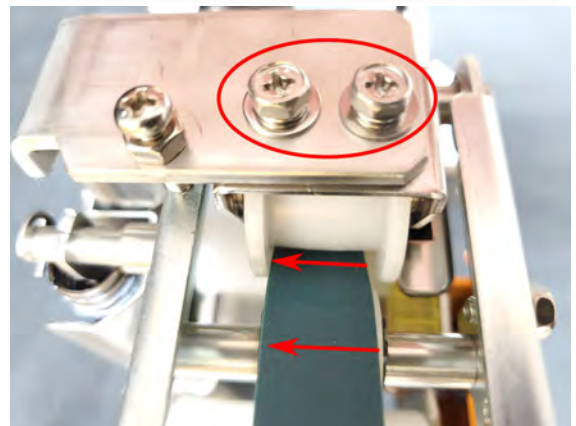


- 6: Observe the green tracking pattern from both the left and right side of the machine while rotating.
  - Note that rotation can be achieved manually or via UNIT ACTION #4 "FEED".
- 7: The green belt should remain centered within the both white pulleys during left and right rotation.

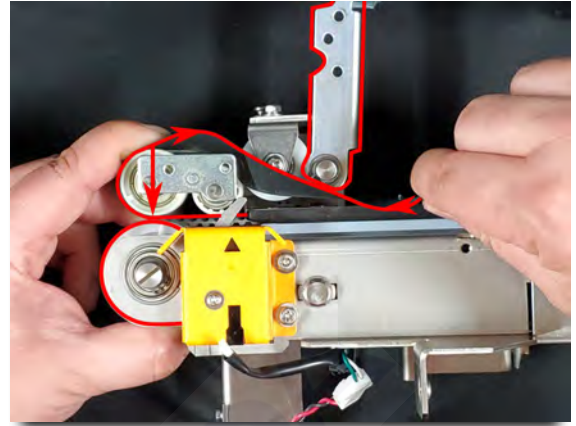


**7.1: Example:**

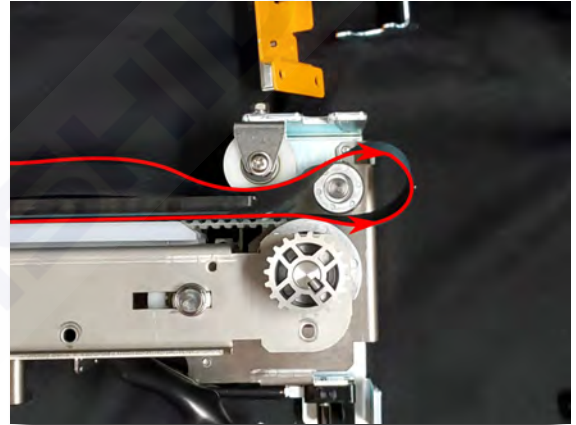
- Green belt is rubbing on the right side of the pulley causing excessive wear and premature belt failure.
- Adjust the guide.



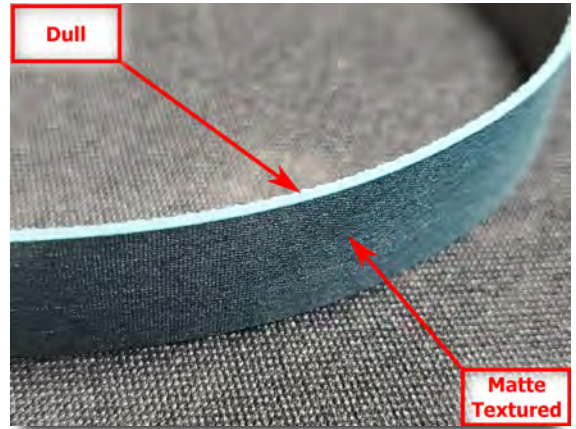
- 8:** To replace the belt, on the left side, move the metal bracket to the 12 o'clock position.
- 9:** Compress the pinch pullies to hold the green belt in place.
- 10:** Grasp the green belt near the left clamp and pull towards the left.
- 11:** Slide the green belt out of the pullies.



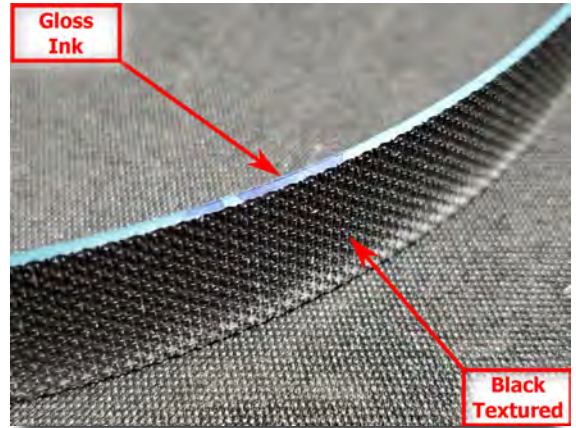
- 12:** On the right side, pull the green belt to the right and out of the pullies.



- 13:** Prepare a new belt.
  - 13.1:** Note that one edge of the belt has no ink and is dull.
  - 13.2:** This edge faces down during reassembly.
  - 13.3:** Note that one side of the belt is green and textured
  - 13.4:** This faces the outside, i.e. film side.



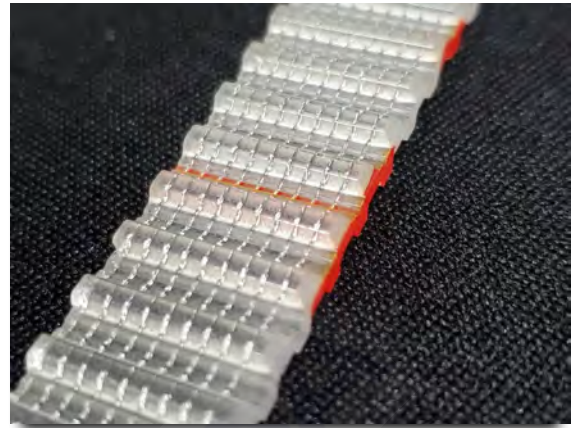
- 14:** Note that one edge of the green belt has blue ink and is shiny.
  - 14.1:** This edge faces up during reassembly.
  - 14.2:** Note that one side of the belt is black and textured
  - 14.3:** This faces the inside, i.e. pulley side.
- 15:** Assemble in reverse order.



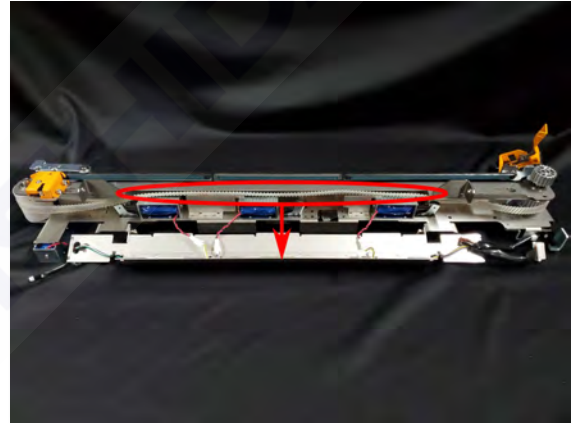
### Replacement of White Belt:

**16:** Inspect the white belt for damage, wear or dull spots.

**16.1:** The white belt should have a high gloss finish on the film contact side, without any discoloration or abrasions.

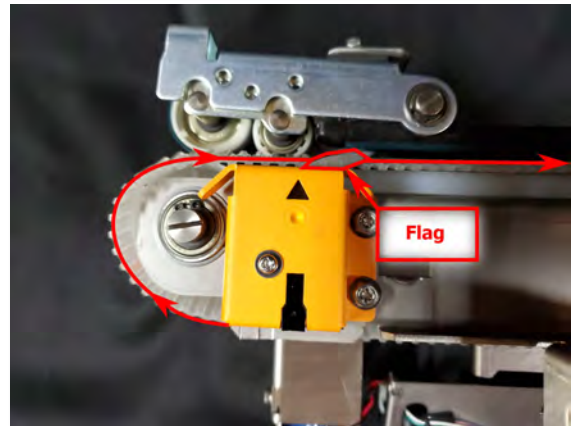


**17:** To replace, move the white belt to the front of the solenoids.

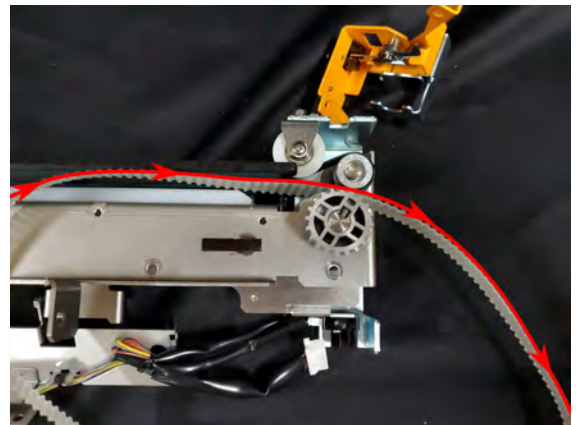


**18:** On the left side, rotate the white belt to the right while walking the belt off of the left pulley.

**19:** Note the position of the flag and take care not to damage.

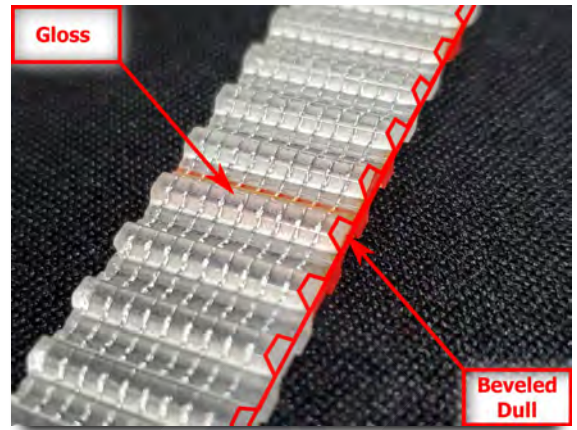


**20:** On the right side, continue walking the belt to the right and off of the pulley.



**21: Prepare a new belt.**

- Note that both edges of the belt have red ink, but only one edge is beveled.
- This edge faces down during reassembly.
- Note that one side of the belt is glossy and untextured.
- During reassembly, this faces the outside, i.e. film side.



- Note that both edges of the belt have red ink, but only one edge is straight.
- This edge faces up during reassembly.
- Note that one side of the belt is matt and textured.
- During reassembly, this faces the inside, i.e. pulley side.

**22: Assemble in reverse order.**

