



USER MANUAL RSA 3036-SB



For Serial Numbers: TM644 XX X XXX





OPERATION MANUAL

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SERVICE INSTRUCTIONS

Service

This is the Intertape Model RSA 3036-SB Carton Sealing Machine you ordered. It has been set up and tested in our factory with Intertape manufactured pressure sensitive tapes. If any problems occur when setting up or operating this equipment, please contact the authorized distributor from where you purchased this item.

Should you need to contact **Interpack Technical Support**, please have the Case Sealer <u>model</u> <u>number and serial number</u> available. This information can be found on the nameplate of the side panel of the machine. Interpack Technical Support is available during normal business hours (Eastern Time).

PHONE 813-621-8410 x101

If you have a technical question that does not require an immediate response, you may contact Interpack by fax.

FAX 813-621-8449

Replacement Parts

Order parts by <u>item number</u>, <u>part name</u> and <u>quantity required</u>. Replacement parts are available from your Authorized Interpack Distributor exclusively.

Should you require assistance selecting the correct part, you may call:

Intertape Polymer Group Interpack Machinery 9940 Currie Davis Drive, Suite 23B Tampa, FL, 33619

Tel: 1-800-474-8273 Option 3

Fax: 1-800-462-1293

MODEL:	
CEDIAL NUMBER	
SERIAL NUMBER:	
DISTRIBUTOR PURCHASED FROM:	
DATE OF PURCHASE:	

WARRANTY

EQUIPMENT WARRANTY AND LIMITED REMEDY: The following warranty is made in lieu of all other warranties, express or implied, including, but not limited to, the implied warranty of merchantability, the implied warranty of fitness for a particular purpose, and any implied warranty arising out of a course of dealing, a custom or usage of trade:

Intertape sells its Interpack Tape Heads, Case Tapers and Case Erectors with the following warranties:

- 1. The HSD[®] 2000 Tape Heads' knife blades, springs and wipe down rollers will be free from all defects for a period of ninety (90) days.
- 2. All other HSD[®] 2000 Tape Head parts will be free from all defects for one (1) year after delivery.
- 3. Water Activated Tapers' blades and brushes will be free from defects for ninety (90) days after delivery
- 4. Drive Belts will be free from defects for ninety (90) days after delivery
- 5. The Gear Motors will be free from defects for one (1) year after delivery.
- 6. All other components for Case Tapers and Case Erectors will be free from defects for one (1) year after delivery.

If any part is proven defective within its warranty period, then the exclusive remedy and Intertape's and the seller's sole obligation shall be, at Intertype's option, to repair or replace the part, provided the defective part is returned immediately to Intertape's factory or an authorized service station designated by Intertape.

A part will be presumed to have become defective after its warranty period unless the part is received or Intertape is notified of the problem no later than five (5) calendar days after the warranty period.

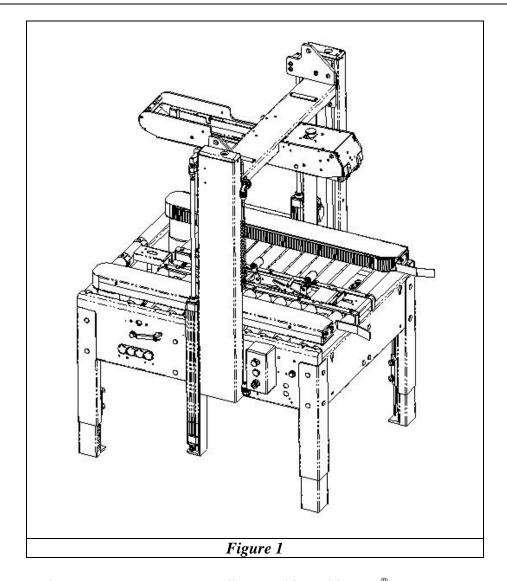
If Intertape is unable to repair or replace the part within a reasonable time, then Intertape, at its option, will replace the equipment or refund the purchase price. Intertape shall have no obligation to install the repaired or replacement part.

Intertape shall have no obligation to provide or pay for the labor required to install the repaired or replacement part. Intertape 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

- Failure or damage is due to misapplication, lack of proper maintenance, abuse, improper installation or abnormal conditions such as temperature, moisture, dirt or corrosive matter, etc.
- 2. Failure due to inadequate cleaning, improper operating environment, improper utilities or operator error.
- 3. Failure due to operations above the rated capacities, or in any other improper manner, either intentional or otherwise.
- 4. Failure is due to equipment, which has been altered by anyone other than an authorized representative of Intertape Polymer Group.
- 5. Failure is due to an attempt by the purchaser to correct alleged defective equipment. In this event the purchaser is responsible for all expenses incurred.

LIMITATION OF LIABILITY: Intertape and seller shall not be liable for direct, indirect, special, incidental or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability or any other legal theory.

The foregoing Equipment Warranty and Limited Remedy and Limitation of Liability may be changed only by written agreement signed by authorized officers of Intertape and seller.

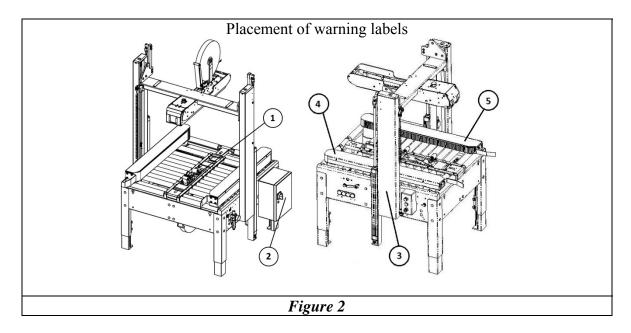


The Interpack RSA 3036-SB Carton Sealing Machine with HSD® 2000-ET II Tape Heads is designed to apply Intertape brand pressure sensitive carton sealing tape to the top and bottom center seam of regular slotted corrugated cartons. The RSA 3036-SB is auto-adjustable to a random variety of carton sizes (see Carton Specifications, Pg. 12) and permits tighter sealing by means of compression guides. The self-centering Drive Bases makes carton width adjustment effortless. The RSA 3036-SB Carton Sealer may be ordered with controls on either side to facilitate its adaptation into an existing conveyor line.

SAFETY ISSUES

There is a number of safety labels used on Interpack Carton Sealers. These labels are placed at different locations (refer to figure 2) on the machine 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 and service machine.
- ✓ Wear safety glasses.
- ✓ Shut off power to machine before adjusting.
- **✓** Unplug electrical power before servicing.
- ✓ All covers and guards must be in place before operating.
- ✓ Stay clear of moving parts which can shear and cut.
- ✓ Never operate the Tape Heads with the Knife Guard removed.
- ✓ Turn electrical supply off before servicing the Tape Heads, including tape loading and threading.



(1) The illustrated label shown in Figure 3 is attached to the Knife Guard inside the upper and lower HSD2000 ETII Tape Head. The label warns operators and service personnel of the very sharp knife used to cut the tape at the end of the tape

application.

The HSD2000 ETII Tape Heads are equipped with a Knife guard that covers the blade. The Tape Heads should never be operated with the blade guards removed.

Turn air and electrical supplies off before servicing the tape heads.



Figure 3

(2) The label shown in figure 4 is attached to the control box next to the on/off switch. The label warns the service personnel to unplug the power supply before attempting any service work on the carton sealer.



Figure 4

(3)

The illustrated label shown in Figure 5 is located on the side of the column. This label provides convenient safety instruction for the operator and service personnel in the operation of the Intertape Carton Sealing Equipment.

AWARNING

OPERATION / SERVICE

- Only trained people are to operate and service machine.
- Shut off power to machine before adjusting.
- Unplug electrical power before servicing.

MACHINE MANUAL For other important safety, operating and service information read this machine's manual.

EYE HAZARD Wear Safety Glasses which conform to ANSI Std. Z87.1 or EN 166



COVERS AND GUARDS All covers and guards must be in place before operating machine.

ELECTRICAL SHOCK Hazardous voltages may cause personal injury.



Only authorized and qualified personnel are to service electrical enclosures.

FAILURE TO FOLLOW THE ABOVE COULD RESULT IN SEVERE INJURY.

Figure 5

*(*4)

The illustrated label shown in Figure 6 is located on the exit end of the drive base it warns the operators and service personnel of the pinch points at the exit ends of the drive belts.



Figure 6

(5) The illustrated label shown in Figure 7 is located on the "In feed" end of the right hand drive belt. The label warns the operators and service personnel of the pinch point at the in feed ends of the drive base.

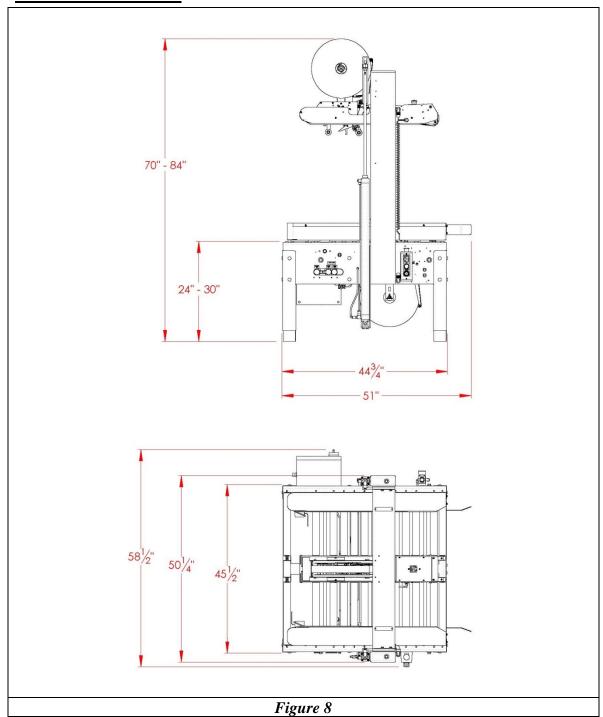


Figure 7

Note: Should any of the safety labels shown in Figure 2 be damaged or destroyed, replacements are available.

SPECIFICATIONS

Machine Dimensions



Machine Weight

862 lbs. (391 kg).

Power Requirements

Electrical:

115VAC, 50/60HZ, 10.0A

Standard Electrical equipment:

- Two (2) 1/3HP gear motors.
- A neoprene power cord.
- A grounded plug.

Pneumatic:

9 CFM @ 90 PSI 0.25 m³/min @ 6.2 bar.

Contact your Intertape representative for power requirements not listed above.

Operating Speed

Belt speed is 82 feet per minute. Actual production rate is dependent on operator's dexterity and the case size mix.

Operating Conditions

Use in a dry, relatively clean environment at 40° to 105° F (5° to 40° C) with clean dry cartons.

Tape

- 1) General
 - Use Intertape brand Pressure Sensitive Carton Sealing Tape.
- 2) Tape Width

The machine can accommodate 2 or 3 inch wide tape (48mm or 75mm), depending on tape head supplied.

- 3) Tape Roll Diameter
 - Maximum of 16 inches (405 mm) on a 3-inch (76.2 mm) diameter core. (Accommodates all Intertape brand film tape machine roll lengths).
- 4) **Tape Application Leg Length Standard** 2.5 inches (+0.25", -0") (63.5 mm, +6.3 mm, -0 mm).
- 5) **Tape Application Leg Length Optional**2 inches (+0.25", -0") (50.8 mm, +6.3 mm, -0 mm). Refer to HSD[®] 2000 ET II
 Tape Head manual for adjustment of tape application leg length.

Note: For further specifications on the tape heads consult the tape head manual for your specific tape head.

Carton Specifications

Material:

Style: regular slotted containers (RSC)

125 to 275 PSI bursting test, single or double wall B or C flute.

Weight:

5 to 85 lbs. (2.5 to 38.5 kg)

Size:

Carton size	Length (inches)	Width (inches)	Height (inches)
Minimum	6"	5 3/4"	5"
Maximum Infin	ite	30"	36"

The carton sealer can accommodate most cartons within the size ranges listed above. However, if the box length (in direction of seal) to box height ratio is 0.75 or less, then several boxes should be test run to assure proper machine performance. The formula is as follows:

 $\frac{Carton\ length}{Carton\ height} > 0.75$

SET-UP PROCEDURES

Receiving and Handling

The machine is shipped to the customer in a box and fixed to a pallet.

- Remove the strapping and the staples at the bottom of the box.
- Lift off the box cover and sleeve.
- Remove the mounting bolts and nuts, which secure the RSA 3036-SB to the shipping pallet.
- Lift the machine off the pallet and install it on your packaging line.
- Remove all tie wraps and other shipping materials.

Note: After unpacking the machine, look for any damage that may have occurred during shipping. Should the machine be damaged, file a claim with the transport company and notify your Intertage representative as soon as possible.

Set-up

The Carton Sealer must be installed on a near level ground.

Ensure that the machine is level and firmly on the ground (no rocking). Adjust the leg height with the four (4) telescopic adjustment legs to accommodate conveyor heights from 24 to 30 inches.

To adjust the Carton Sealer height, jack up the machine to give ample room to extend the legs. Using a 3/4" (19 mm) box end wrench, loosen the eight (8) 1/2" hex head bolts. Adjust the legs to the desired conveyor height and tighten the bolts. Etched lines on the legs ease leveling.

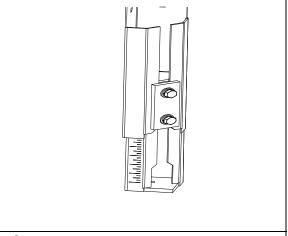


Figure 9

Customer supplied feed and exit conveyors (or rollers) must be level with the machine, otherwise, the performance of the machine may be affected. The customer-supplied feed conveyor (if used) should provide straight and level entry. The customer-supplied exit conveyor (if used) should be straight and declined no more than 1/4 inch per foot away from the machine.

Stop / Start Box

The Stop/Start Box contains:

- (1) The red "E-Stop" mushroom push button.
- (2) The green "on" push button.
- (3) The operation selection button.

The E-Stop is a detent type, when it is pushed down, it will stay in the down position. In order to re-start the machine, the operator has to twist and pull out the E-Stop button and press on the green "on" push button.

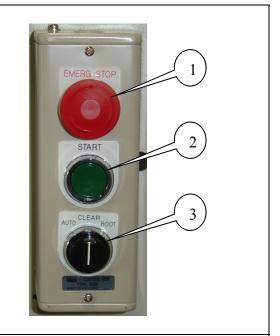


Figure 10

Second E-Stop on the Top Tape Head Box

There is a second E-Stop button on the Top Tape Head Box.

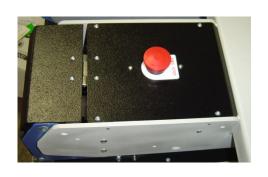


Figure 11

Electrical Box Handle

The electric Box contains a Power Switch Disconnect to prevent the use of the machine. The machine will not start unless the Power Switch Disconnect is turned to "ON"

To open the electric Box, turn the Power Switch to the "OFF" position, and use a slotted screwdriver and turn it clockwise to open the door.



Figure 12

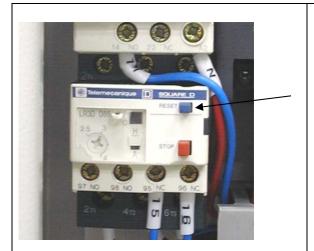
Electrical Box

A six (6) foot standard three conductor power cord with plug is provided for 115 V, 60 Hz, 15 amp electrical service. The servicing receptacle must be properly grounded. Before the machine is plugged into the receptacle, ensure that all materials are removed from the machine.

When opening the door of the electrical box, the door handle should stay in the electrical box disconnect switch. In order to close the electrical box door again, align the switch arm with the handle in the door.



Figure 13



The electric motors are protected with an automatic re-settable overload. This reset is located in the electrical box in the lower left quadrant. Push on the blue button to reset. The current setting should be set at 110% of the FLA of a single motor.

Figure 14

Air Connection

The regulator has a male "quick disconnect" adaptor. Connect clean dry compressed air to this adapter. The RSA-3036-SB requires a minimum of 9 CFM. at **90 PSI**.

To regulate the air pressure, pull on the green knob located on the side of the machine. Turn the knob clockwise for more pressure and counterclockwise for less. When the air pressure is at **90 PSI**, push back down on the button until a "click" is felt to lock it in position. The thread size is 3/8 NPT.



Figure 15

Note: Should the compressed air be cut for any reason, the Top Tape Head Box will stop until the compressed air is restored.

Air Pressure Regulators

The Air Regulators are factory-preset. There are four (3) Air Regulators for the RSA 3036-SB without the Compression Guides and five (4) for the carton sealer with the Compression Guide option. The recommended air pressure is indicated on the top of each air pressure dial.

For the Top Tape Head Box, the air pressure dial is located on the left: BALANCE. The Drive Base air pressure regulators are located immediately to the right of the Top Tape Head Box regulators: DRIVE BASE - OPENED and DRIVE BASE - CLOSED. The Air Pressure Regulator for each component is located under the machine directly below each corresponding air pressure dial.

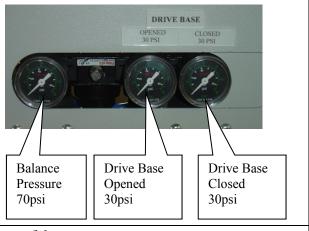


Figure 16

Tape Loading and Threading

Warning!

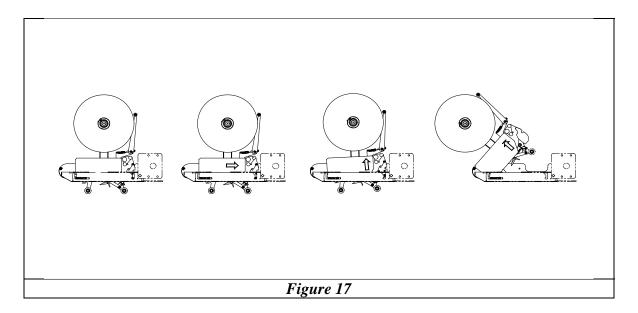
Turn off electrical power supply and disconnect the power cord from the electrical supply before beginning to work on the Tape Heads or to load tape. If power cords are not disconnected, severe injury to personnel could result.

The HSD®2000-ET II - 2 in. tape heads accommodate 48 mm (2" nominal) wide tape rolls, while the optional HSD®2000-ET II- 3 in. tape heads accommodate 75 mm (3" nominal) wide rolls. See the label on the side of the HSD®2000-ET II tape head for the loadable tape sizes.

Warning!

The knife contained in the Tape Head is extremely sharp. Use caution when removing the blade guard and threading the tape to avoid personnel injury.

To thread the tape in the upper Tape Head, you do not require any special tools. Push the Tape Head towards the in feed of the machine and lift up (refer to fig. 17).



Pull approximately twelve (12) inches of tape from the roll and fold in half lengthwise. This allows you to thread the tape without it adhering to the guide and clutch rollers inside the Tape Head.

Follow the tape-threading diagram on the side plate of the HSD[®] 2000-ET II Tape Head. Refer to your Tape Head manual for further information if required. Operate the blade guard from the knife in the Tape Head to cut off the folded tape.

Replace the upper Tape Head to its initial position.

To thread the lower Tape Head, no special tools are required.

Reconnect machine and turn the operation selection button on the Stop/Start box to "bottom only" (BOTT). This will place the top Tape Head box to the uppermost position. Re-disconnect the machine to proceed the tape threading.

Remove the lower Tape Head by grasping the tape application rollers and lifting straight up.

Pull approximately twelve (12) inches from the roll and fold in half lengthwise. This allows you to thread the tape without it adhering to the guide and clutch rollers inside the Tape Head.

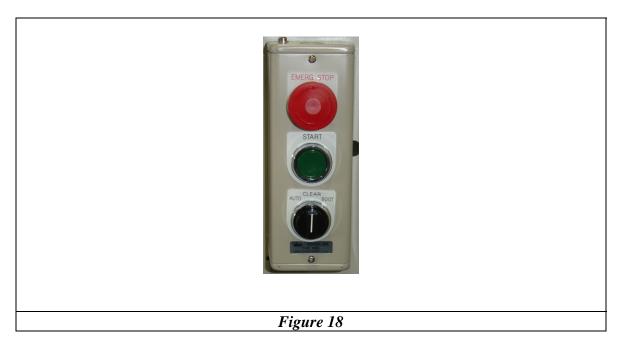
Follow the tape-threading diagram on the side plate of the HSD[®] 2000-ET II Tape Head. Refer to your Tape Head manual for further information if required.

Operate the blade guard from the knife in the Tape Head to cut off the folded tape. Reconnect the machine

OPERATING INSTRUCTIONS

Once the Tape Heads (both bottom and top) have been loaded with tape and threaded (refer to the appropriate Tape Head manual for loading and threading instructions) the machine is ready to process regular slotted cartons. The following instructions are presented in the order recommended for processing cartons successfully through the RSA 3036-SB Carton Sealing machine.

The RSA 3036-SB Carton Sealer has three operating modes. The operator selects these modes, using the 3-position switch located on the bottom of the Stop/Start Control box. Refer to Figure 18.



Automatic Mode:

This is the standard operating mode of the machine. In the automatic mode the Top Tape Head Box stays in its current position until a carton arrives. If the carton is taller than the height of the Top Tape Head Box then the front plate is depressed and the head rises. If the carton is shorter than the height of the Top Tape Head Box the bottom switch is covered and the Top Tape Head Box lowers.

- 1. Ensure that the compressed air is plugged and at the right pressure, 90 PSI.
- 2. Turn the control switch placed under the start button to "AUTO" (Automatic).
- 3. Press the start button, the drives will start.
- 4. Introduce a carton with the flaps held in the closed position so the proper switch is actuated. Do not place hands in front of carton.
- 5. The Top Tape Head Box will rise or fall to set itself at the height of the carton.
- 6. When the front plate or bottom plate is depressed and the bottom switch is covered, the side drives will close.

- 7. The carton will pass through the machine and be taped.
- 8. When the exit sensor is released the drives will open.

Bottom Only Mode:

This mode is used for sealing the bottom of the carton only. In this mode, the top tape head box remains up all the time.

- 1. Ensure that the compressed air is plugged in and at the right pressure, 90 PSI.
- 2. Turn the control button placed under the start button to "BOTT" (Bottom Only).
- 3. Press the start button, the drives will start.
- 4. The Top Tape Head Box will move to its highest position and remain there.
- 5. Present the carton over the front sensor, up to the steel gate.
- 6. The drive bases will then close on the carton to carry it through the bottom tape head.
- 7. The machine resets when the carton clears the exit sensor.

Clear Mode:

This mode is used to clear a jammed carton. When in this mode the belts moves out and the Top Tape Head Box up.

- 1. Ensure that the compressed air is plugged in and at the right pressure, 90 PSI.
- 2. Turn the control button placed under the start button to "CLEAR" (Clear Jam).
- 3. Remove jammed carton.

Warning! Ensure that the operator's hands are away from the moving belts of the side drive base assembly. Do no place hand on the front edge of the carton while it is entering the machine.

Note: Should any problem occur during processing that requires halting the machine, press the red "E-Stop" mushroom button.

Note: The machine should <u>never</u> be washed down or subjected to conditions causing condensation on components.

ADJUSTMENTS

The RSA 3036-SB comes fully adjusted from the factory with the exception of overfilled box feature. However, air pressure may require fine tuning for the rest of adjustments.

Balancing the Top Tape Head Box

When the machine is in Automatic and running with no carton introduced, the Top Tape Head Box should remain stationary. If it floats up or down the balance regulator (Figure 16) needs to be adjusted. Increase the pressure to stop the ascent of the Top Tape Head Box. Reduce the pressure to stop the descent of the Top Tape Head Box.

Speed of descent of Top Tape Head Box

If the Top Tape Head Box lowers on the boxes too quickly, the flow controls at the bottom of the side cylinders need adjustment (Figure 19). Using a flat head screwdriver, turn clockwise to slow the descent and counter-clockwise for a faster descent. Both cylinders should be adjusted the same amount and should be done 1/8 of a turn at the time.

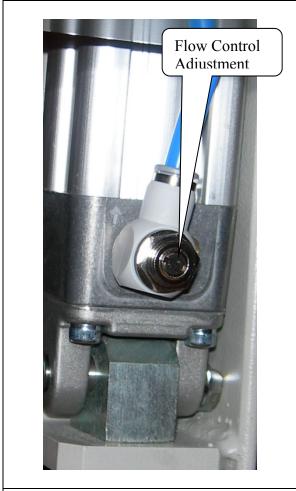
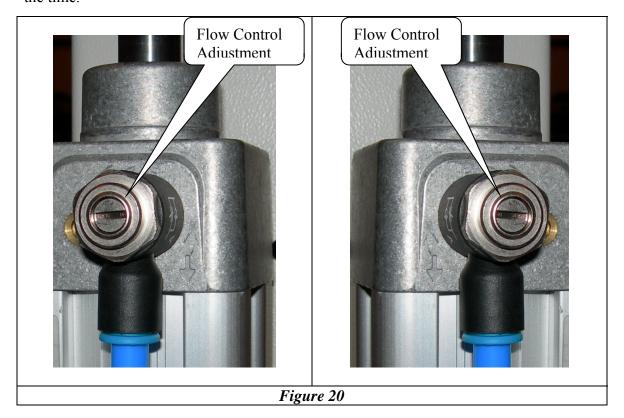




Figure 19

Speed of raising of Top Tape Head Box

If the Top Tape Head box bangs when it reaches its apex or ascends to quickly the flow controls at the top of the side cylinders need to be adjusted (Figure 20. Using a flat head screwdriver, turn clockwise to slow the ascent and counter-clockwise for a faster ascent. Both cylinders should be adjusted the same amount and should be done 1/8 of a turn at the time.



Drive Bases

Speed of closing and opening:

The Flow Control Valves at each end of the drive base cylinder under the machine controls the speed of closing and opening of the drive base. Using a flathead screwdriver, turn clockwise to slow the movement of the drive bases and counter-clockwise for a faster movement. This adjustment is to be done 1/8 of a turn at a time. The flow controls regulate the flow of the air exiting the cylinder.

For Heavy boxes:

The air pressure should be increased, by 5 PSI at a time on the DRIVE BASE - CLOSED regulator by turning the green knob clockwise until the box can be centered by the drive bases.

Different types of boxes may require slightly different adjustments than those that are factory-preset.

For fragile boxes:

Adjust the speed of descent of the Top Tape Head Box with the use of the Flow Control Valves (refer to "Speed of descent of Top Tape Head Box in previous page) so the Top Tape Head Box moves slower.

To prevent the Top Tape Head Box from overloading the top of the box, the operator can adjust the air pressure on the BALANCE regulator as necessary.

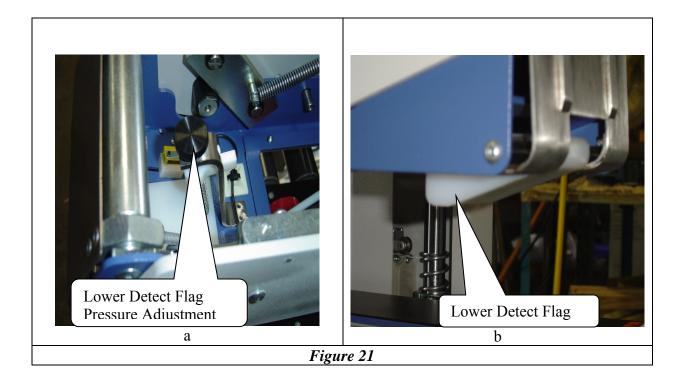
To prevent the drive bases from closing too quickly and too hard on fragile boxes, the air pressure regulator and flow controls can be adjusted as necessary.

Overfilled Cases

For overfilled cases:

The RSA 3036-SB comes with a box overfilled feature to compensate for overfilled boxes to seal properly. This feature will require to be adjusted to suit your carton sealing needs.

To adjust the overfilled case device locate the knob underneath the E-Stop button on the Top Tape Head Box (Fig. 11). Adjust counterclockwise to exert pressure on the lower detect flag (Fig. 21b) conforming overfilled cases fully close when processing, see figure 21a for knob location.



For non-overfilled cases:

For non-overfilled cases reduce pressure on the Lower Detect Flag by turning knob (fig. 21a) clockwise.

Note: Always have a minimum amount of pressure applied to the Lower Detect Flag for cases either non-overfilled or overfilled. Over pressured Lower Detect Flag will cause cases to rip or damage box integrity. Likewise under pressured Lower Detect Flag will cause erratic Top Tape Head Box movement when head rises.

MAINTENANCE

The RSA 3036-SB carton sealer has been designed for trouble-free service. The machine will perform best when it receives routine cleaning and maintenance.

Warning!

Turn off electrical power and air supply and disconnect the power cord from the electrical supply before beginning cleaning or maintenance. If power cords are not disconnected, severe injury to personnel could result.

Lubrication

Spray the Column Shafts, Base Sliding Shafts, and Compression Guide Shaft optional once a month with a silicon-based dry film lubricant. This won't attract dust and lint from the surroundings. No other lubrication is necessary to operate the machine.

Cleaning

Cartons produce a sizable amount of dust and paper chips when processed or handled. If this dust is allowed to build up in the machine, it may cause component wear and overheating of motors. Remove the accumulated dust with a shop vacuum. Avoid using compressed air to remove the dust as this may cause the dust to penetrate into parts.

Changing air regulator filter

The filter on the air regulator removes dirt and moisture from air plant before it enters the carton sealer. This filter should be changed on a six-month interval.

First remove the metallic cover from the air pressure regulator. To do so, press on the tongue in rear and twist the cover 1/8 of a turn. Pull down on the cover. Next unscrew the glass tube (semi-auto condensate drain) and carefully remove. The filter will now be visible. At the bottom of the filter, unscrew the small plastic nut. Change the filter (Refer to the Recommended Spare Parts List) and reassemble.



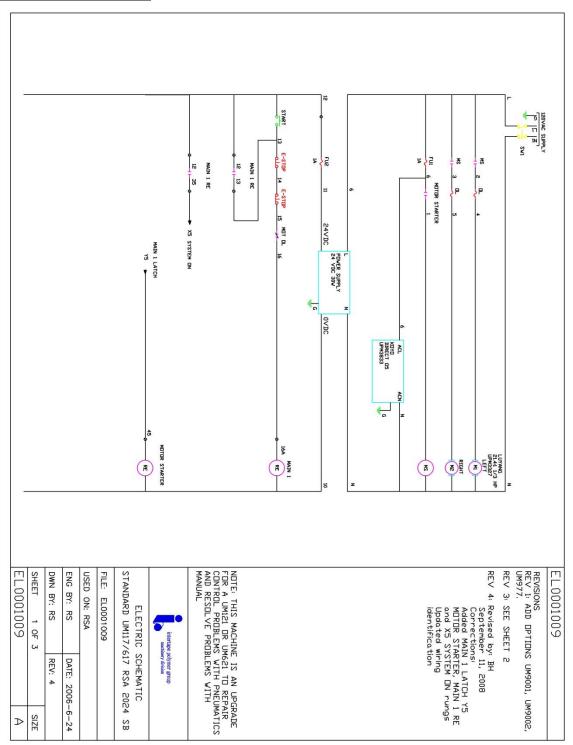
Figure 22

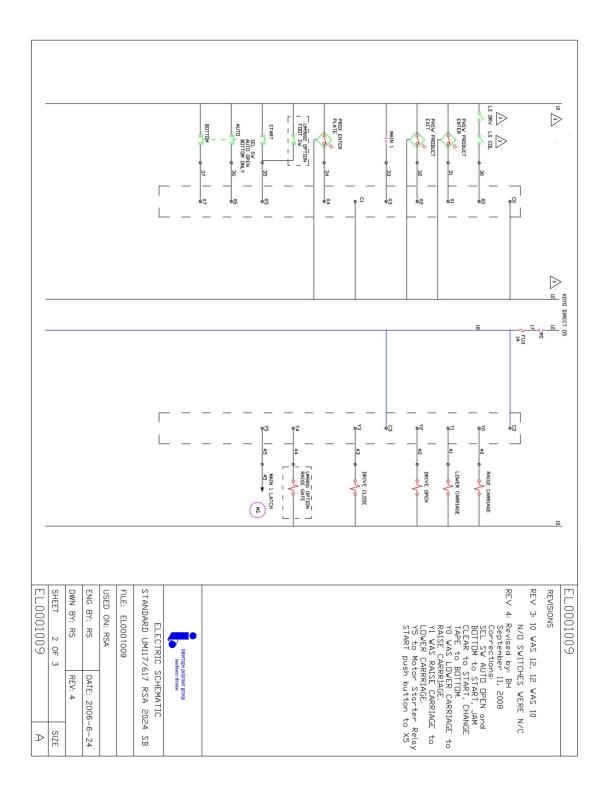
TROUBLESHOOTING

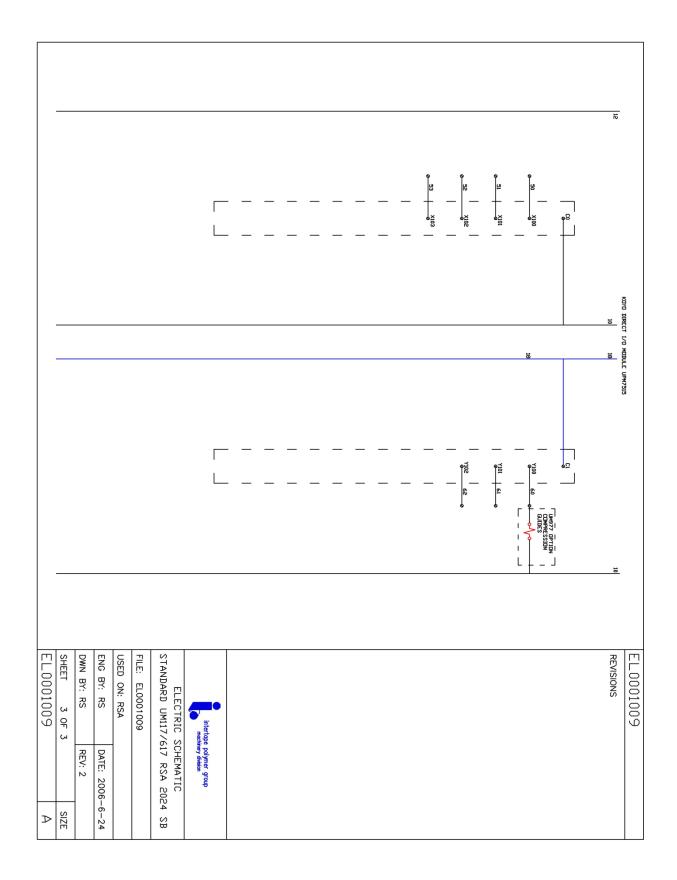
Interpack Carton Sealers are fabricated with high quality components that provide trouble-free operation for a long period. However, should a problem occur, we recommend that you consult the following table. If the problem you encounter is not discussed in this table, call Intertape Customer Service Department (see page 3 of this document).

MODES	TROUBLE	POSSIBLE CAUSES	SOLUTIONS
1,2	Air is supplied. Main power is turned "on" and nothing happens.	1- Overload protection by circuit breaker.	1- Check that all circuits are "on".
		2- Top Tape Head Box and/or Stop/Start Box E- Stop buttons are at pushed position.	2- Pull Top Tape Head Box and/or Stop/Start Box E-Stop buttons.
1,2	Cartons are not taped properly.	Tape Head is not adjusted correctly.	Refer to Tape Head manual.
1,2	The Top Tape Head Box comes down too quickly.	Air Flow controls need adjustment.	Turn the air flow controls at the bottom of the side cylinders clockwise.
1,2	The Top Tape Head Box has no action, either at down, up or half-way position.	When machine has been activated without box.	Turn the operation selection button on the Stop/Start box to CLEAR and then AUTO to resume operation.
	Drive bases stay closed onto a box.		

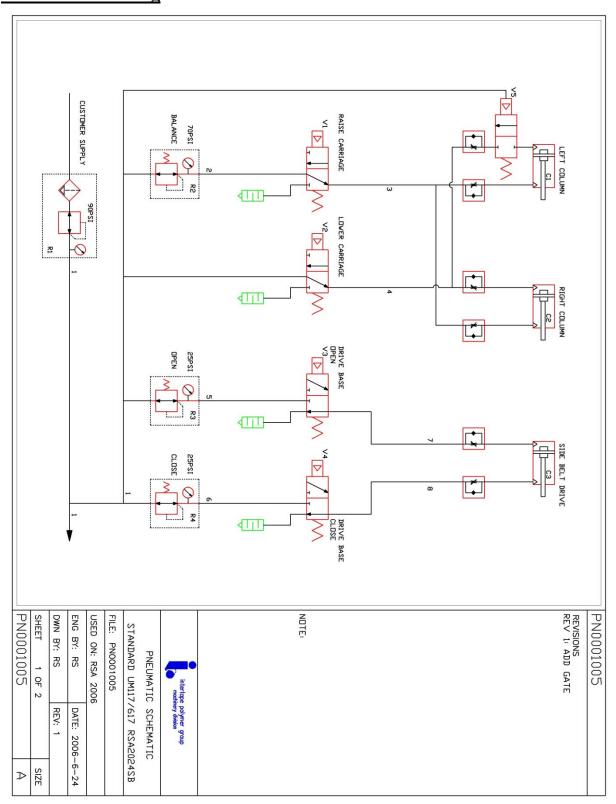
Electrical Drawing

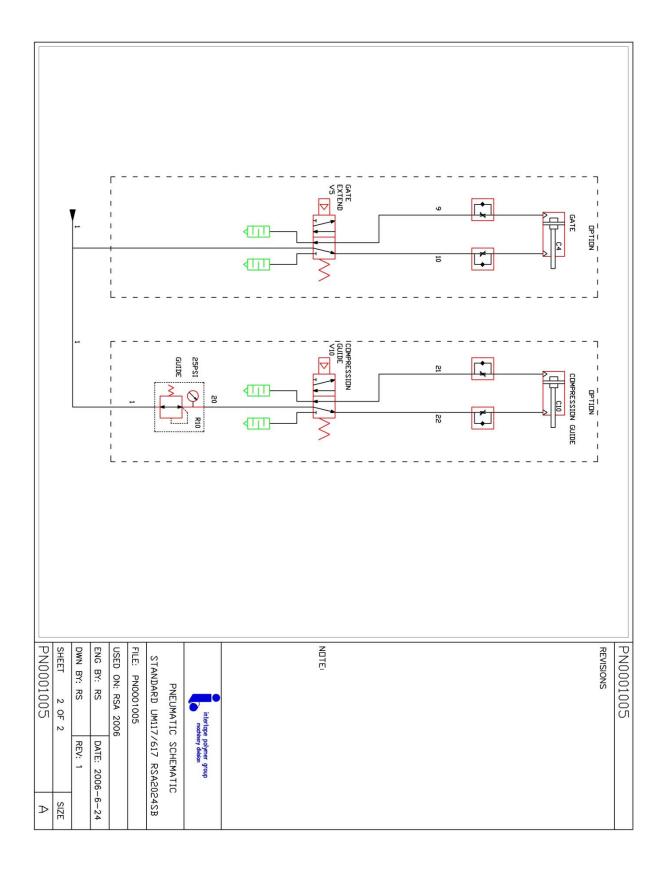




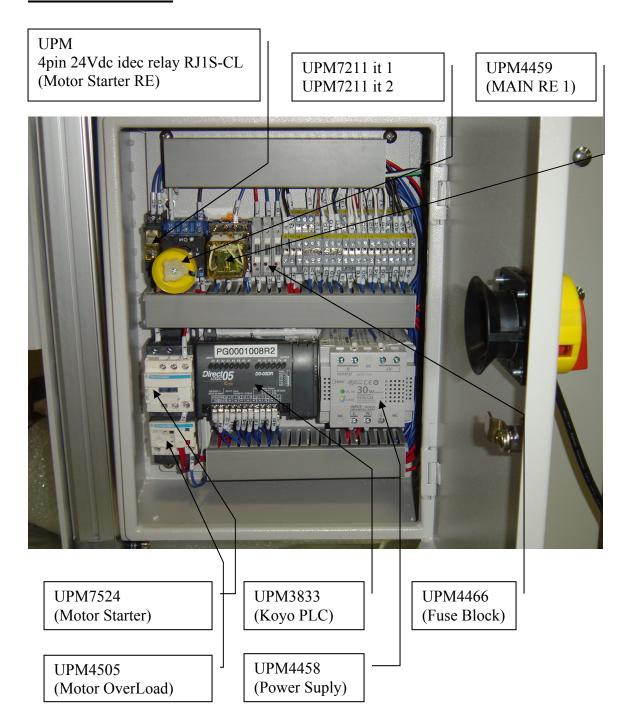


Pneumatic Drawing

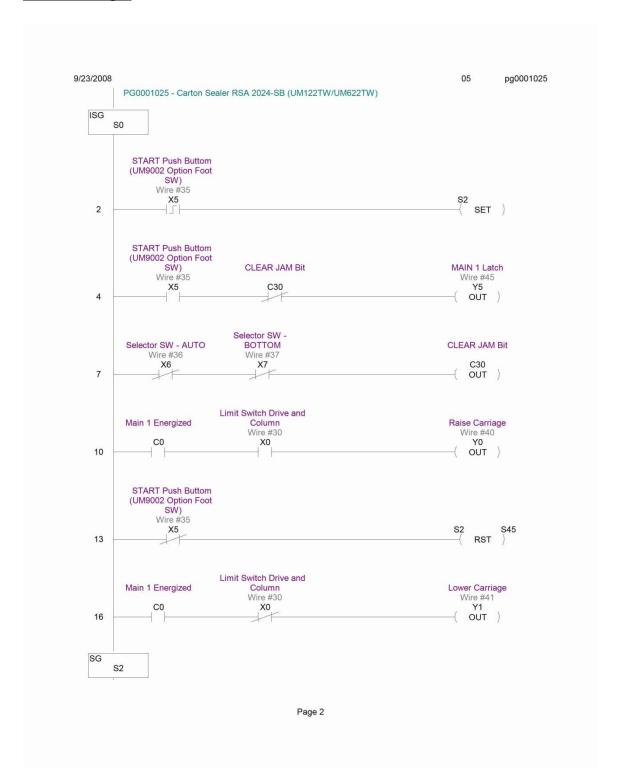


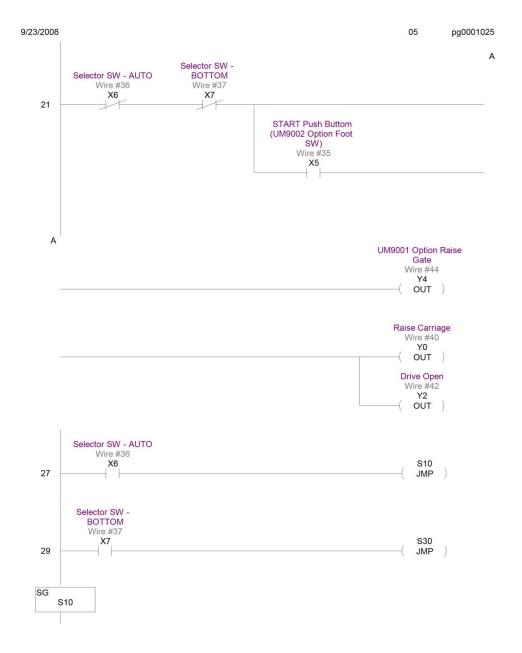


Electrical Cabinet

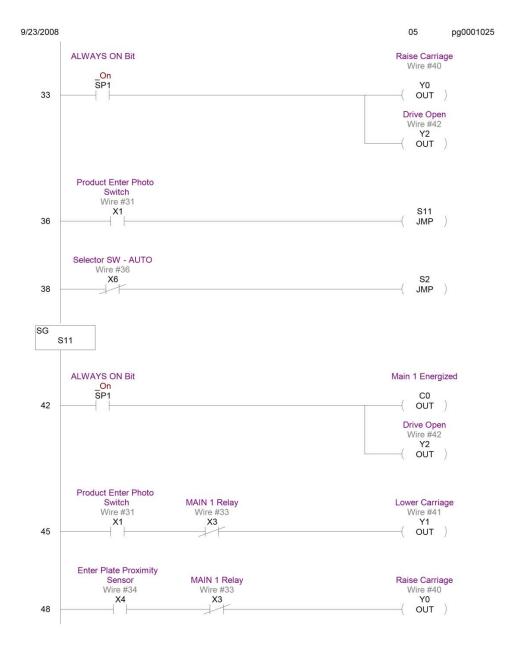


Ladder Logic





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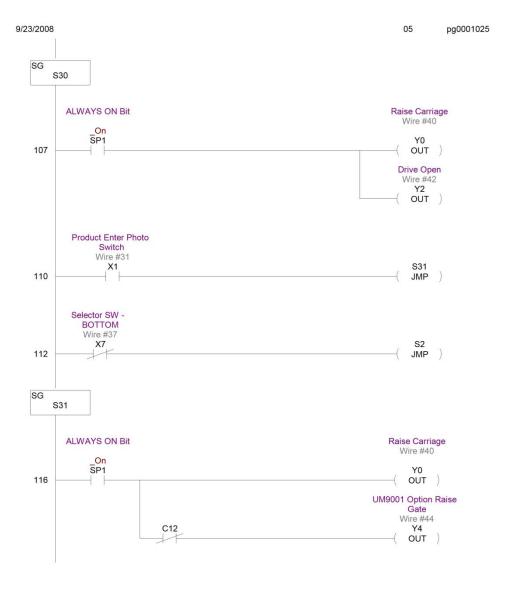
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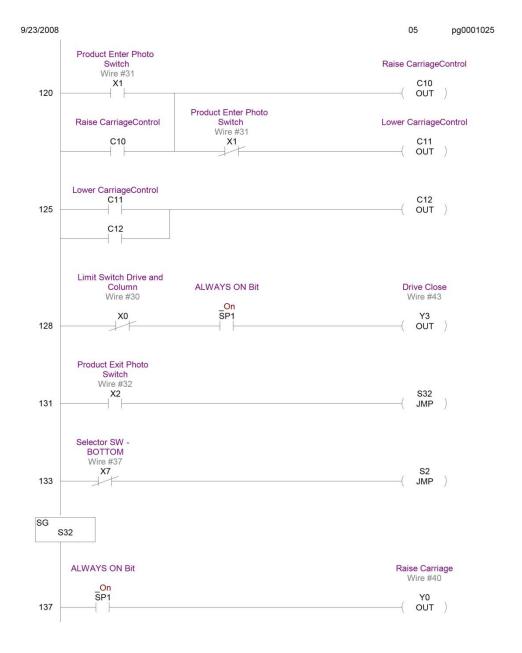
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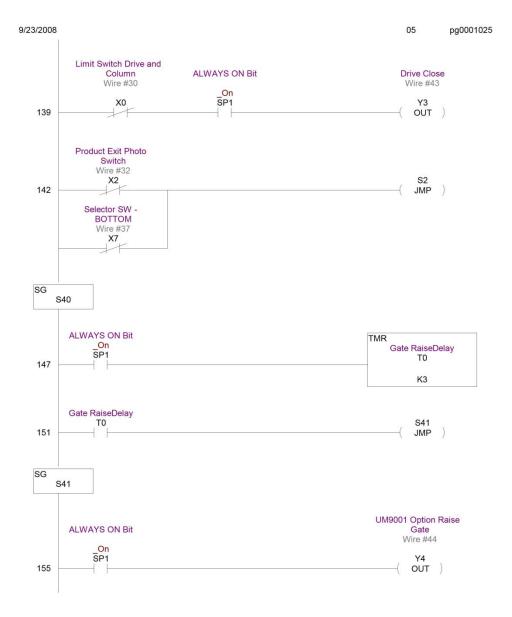
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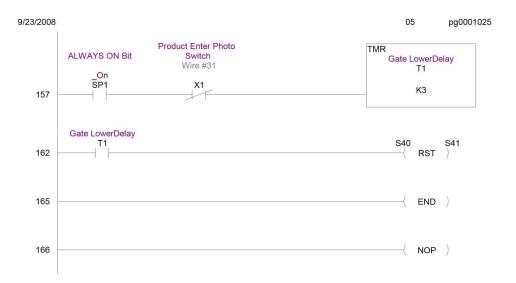
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RECOMMENDED SPARE PARTS LIST

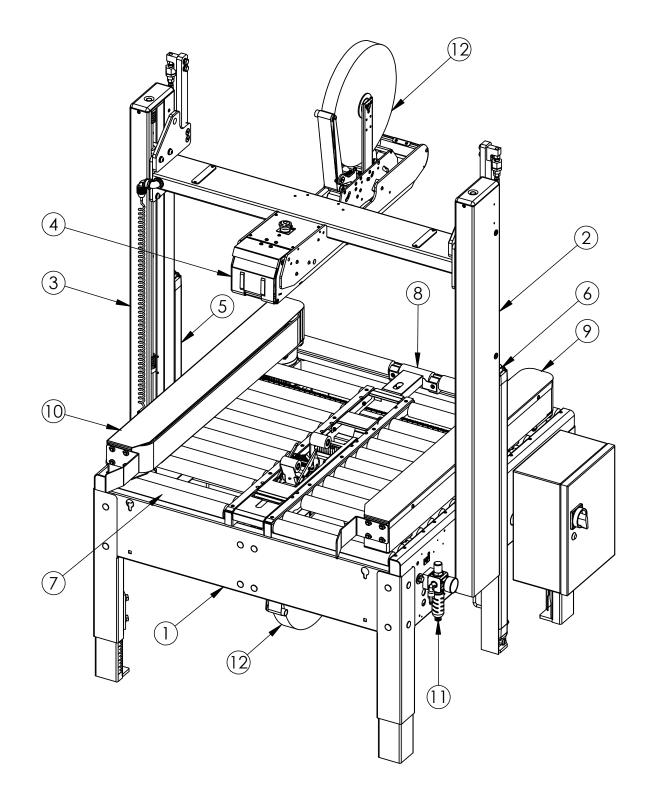
We recommend that you stock the following spare parts.

Description	Item Number	Recommended Quantity
BEARING PULLEY	UPM0324	2
BUMPER UPM0576		8
BELT UPM2565		2
LINEAR BEARING 25MM SHAFT	LM25UU	2
SPRING BLADE	UPM0011	2
BO PRESSURE GAUGE 40MM 0.6 BAR	UPM3273	1
CHAIN THREADED LINK L.H.	UPM3259EV	1
CHAIN THREADED LINK R.H.	UPM3260EV	1

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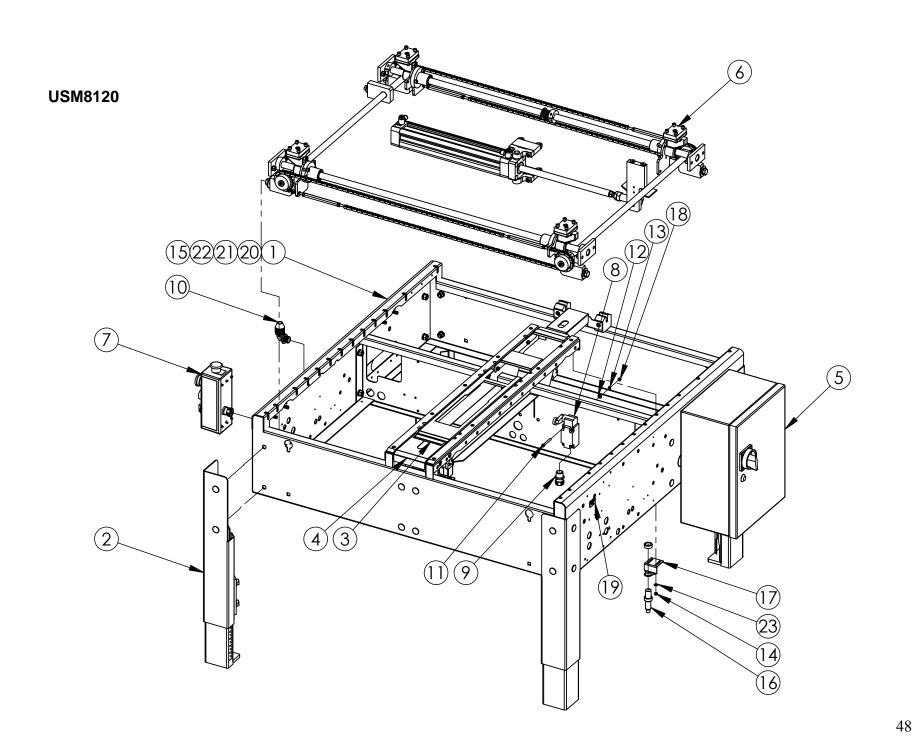
APPENDIX A - PARTS LISTS - UM644T

UM644T

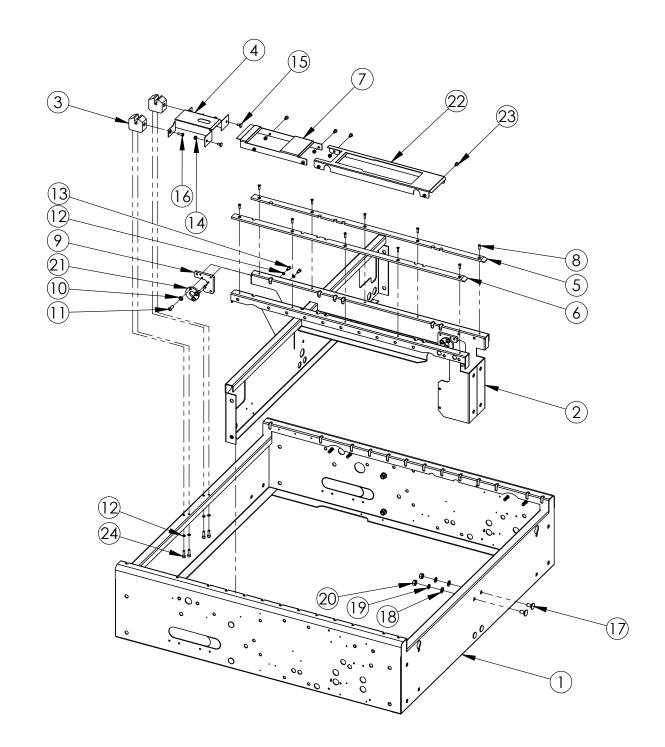


UM644T

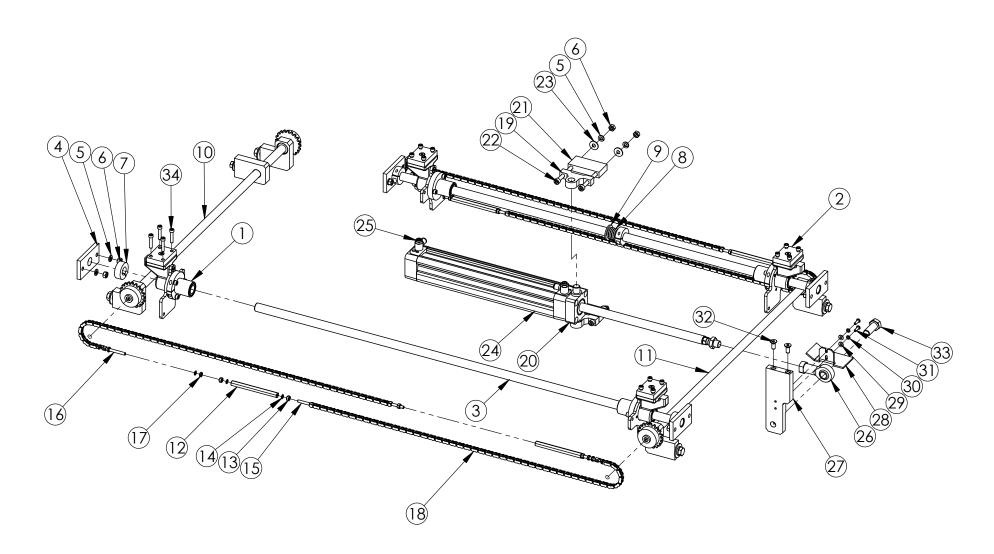
PART NUMBER	DESCRIPTION	QTY.
USM8120	BASE ASSEMBLY	1
USM8118	COLUMN 3036 RSA RIGHT	1
USM8119	COLUMN 3036 RSA LEFT	1
USM6117	BRIDGE WITH TAPE-HEAD BOX	1
USM8123	CYLINDER COLUMN LEFT HAND	1
USM8122	CYLINDER COLUMN RIGHT HAND	1
UPM7645	PVC ROLLER 3036 METRIC	26
UPM3227	PVC ROL CHARCOAL DIA 1.9 X 4.50	1
UAM1079	DRIVE BASE 100 mm RIGHT	1
UAM1078	DRIVE BASE 100 mm LEFT	1
USM1217	PNEUMATIC	1
UH210	HSD 2000 ET II 2"	2
	USM8120 USM8118 USM8119 USM6117 USM8123 USM8122 UPM7645 UPM3227 UAM1079 UAM1078 USM1217	USM8120 BASE ASSEMBLY USM8118 COLUMN 3036 RSA RIGHT USM8119 COLUMN 3036 RSA LEFT USM6117 BRIDGE WITH TAPE-HEAD BOX USM8123 CYLINDER COLUMN LEFT HAND USM8122 CYLINDER COLUMN RIGHT HAND UPM7645 PVC ROLLER 3036 METRIC UPM3227 PVC ROL CHARCOAL DIA 1.9 X 4.50 UAM1079 DRIVE BASE 100 mm RIGHT UAM1078 DRIVE BASE 100 mm LEFT USM1217 PNEUMATIC



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	UAM0323	BASE SUB ASSEMBLY	1
2	UAM0275	LEG ASSEMBLY METRIC	4
3	USM8090	STOP GATE	1
4	UAM0318	INLET COVER ASSEMBLY	1
5	USM0808	ELECTRIC ASSEMBLY	1
6	USM8124	CENTRING MECHANISM	1
7	UAM0322	STOP START SWITCH ASS'Y	1
8	UPM3416	LIMIT SWITCH	1
9	UPM0196	STRAIN RELIEF	1
10	UPM0202	STR.RE3LIEF, NON-MET.LIQUIDTIGHT	1
11	UF5605	SHCS M5-0.8 x 45mm	4
12	UF1827	FW M5	4
13	UF7023	LW M5	4
14	UF7007	SS HEX NUT M5-0.8	2
15	UPM4478	DECAL, DRIVE BASE	1
16	UPM0317	PHOTOELECTRIC SENSOR	1
17	UPM3248EV	SENSOR SUPPORT	1
18	UF6307	HEX NUT M5-0.8	4
19	UPM3579	DECAL COMPR. GUIDE 20 PSI	1
20	UPM4476	BALANCE 35 PSI	1
21	UPM4479	DECAL, OPENED 25 PSI	1
22	UPM4480	CLOSE 25 PSI	1
23	UF6340	SS FW M5	2

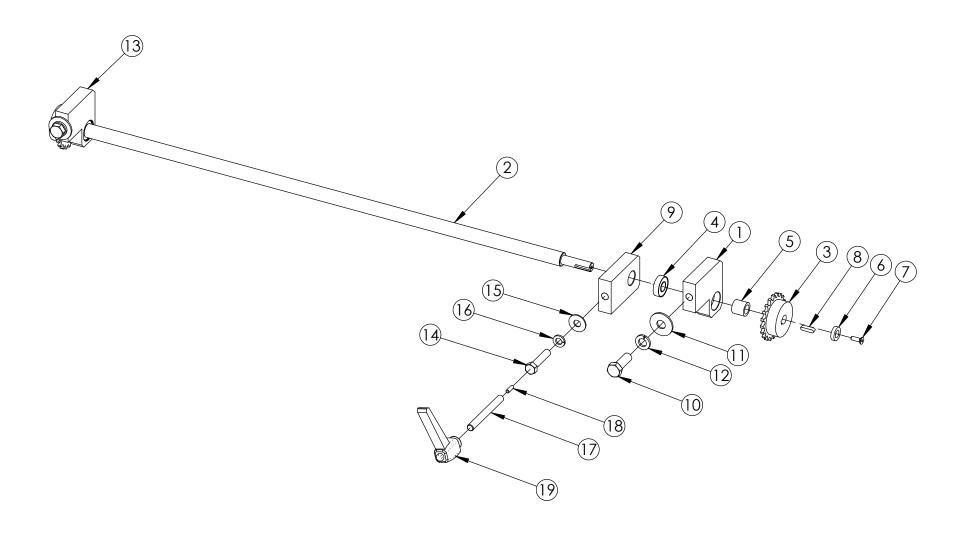


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	UPM7632	BASE, MACHINE, 3036	1
2	UPM7633	TRANSVERSE BRACING 3036 SB	1
3	UPM3234EV	OUTLET ROLLER BLOCK	2
4	UPM3233EV	OUTLET COVER	1
5	UPM0606EV	SLIDING PAD R.H.	1
6	UPM0609EV	SLIDING PAD L.H.	1
7	UPM3228	REAR GAP FILLER	1
8	UF4114	SELF TAPPING SCREW M5 X 16mm	10
9	UPM7625	FLANGE BEARING SPACER	2
10	UF0867	LW M8	6
11	UF1318	BHC\$ M8-1.25 x 20 mm	6
12	UF6363	LW M6	8
13	UF0820	SHCS M6-1 x 12	4
14	UF5900	NYLON LOCK NUT M6-1.0	10
15	UF 3713	CARRIAGE BOLT M6 - 1 x 12	2
16	UF5402	FHCS M6 - 1 x 20	2
17	UF4229	CARRIAGE BOLT M10-1.5 x 20	8
18	UF3680	FW M10	8
19	UF6371	LW M10	8
20	UF6314	HNR M10 x 1.5	8
21	UPM9694	SHAFT COLLAR	2
22	UPM3815	T.H. INSERT 2"	1
23	UF0810	SHCS M6-1 x 8	8
24	UF0835	SHCS M6-1 X 20mm	4
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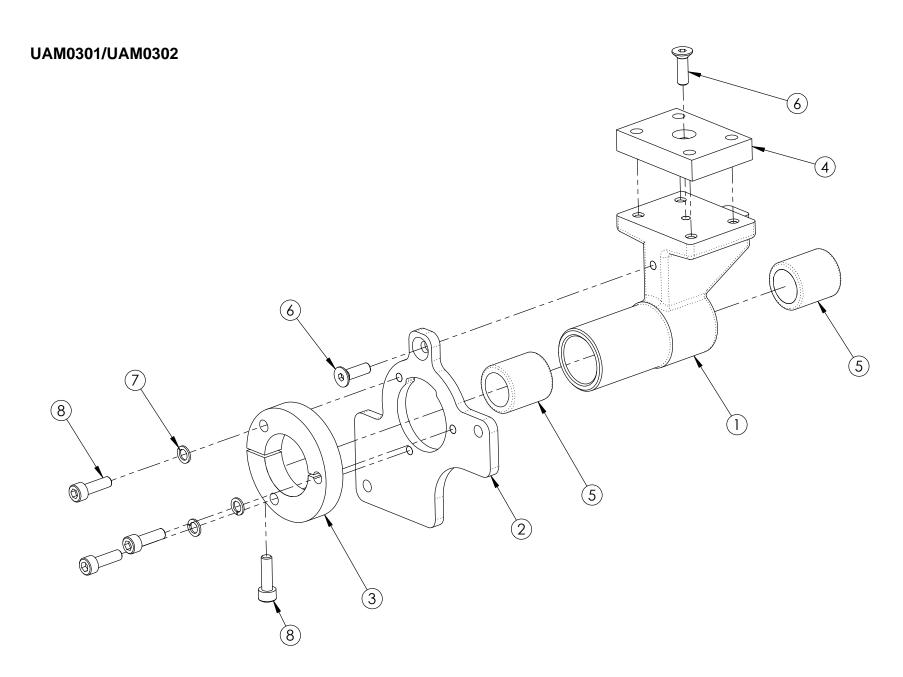
1 UAM0301 DRIVE SUPPORT REAR SIDE RSA 2 2 UAM0302 DRIVE SUPPORT FRONT SIDE RSA 2 3 UPM4519 SHAFT 20mm 2 4 UPM3250 SHAFT ANCHOR PLATE 4 5 UF0867 LW M8 12 6 UF0866 HNR M8 - 1.25 12 7 UPM3330 COLLAR 20mm 5 8 UPM3401 SPRING FOR 20mm SHAFT, LC 112 M0 1 9 UF1824 FW ZINC 20mm 1 10 UAM0312 SPROCKET SHAFT 1 11 UAM0300 SPROCKET SHAFT 1 12 UPM3255EV TURNBUCKLE 4 13 UF3638 SS HNR M6-1.0 8 14 UF6363 LW M6 16 15 UPM3255EV CHAIN THREADED LINK L.H. 4 16 UPM3260EV CHAIN THREADED LINK R.H. 4 17 UF3361 SS HEX JAM NUT 6mm 8 18 UPM3260EV	ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
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18 UPM4561 CHAIN 35 FOR RSA3036 4 19 UPM3299 BEARING BRACKET CR=16 2 20 UPM3295 PIVOT MOUNTING MT5/MT6 1 21 UPM3341 TRUNNION SPACER 2 22 UF6406 SHCS M8-1 X 75mm 4 23 UF1821 FW M8 4 24 UPM4562 CYLINDER 50 BORE x 320 1 25 UPM3132 FLOW CONTROL G 1/4 MALE X 8mm TUBE 2 26 UPM2884 BALL EYE ROD END M16 1 27 UPM3265EV DRIVE BASE ANCHOR PLATE 1 28 UPM3249 LIMIT SWITCH BRACKET 1 29 UF1827 FW M5 2 30 UF7021 SS LW M5 2 31 UF3277 BHCS M5-0.8 X 16mm 2 32 UF1190 M8 - 1.25 x 20 FHCS 2 33 UF4305 HHCS M16-2.0 x 40mm 1	16	UPM3260EV	CHAIN THREADED LINK R.H.	
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21 UPM3341 TRUNNION SPACER 2 22 UF6406 SHCS M8-1 X 75mm 4 23 UF1821 FW M8 4 24 UPM4562 CYLINDER 50 BORE x 320 1 25 UPM3132 FLOW CONTROL G 1/4 MALE X 8mm TUBE 2 26 UPM2884 BALL EYE ROD END M16 1 27 UPM3265EV DRIVE BASE ANCHOR PLATE 1 28 UPM3249 LIMIT SWITCH BRACKET 1 29 UF1827 FW M5 2 30 UF7021 SS LW M5 2 31 UF3277 BHCS M5-0.8 X 16mm 2 32 UF1190 M8 - 1.25 x 20 FHCS 2 33 UF4305 HHCS M16-2.0 x 40mm 1	19	UPM3299	BEARING BRACKET CR=16	2
22 UF6406 SHCS M8-1 X 75mm 4 23 UF1821 FW M8 4 24 UPM4562 CYLINDER 50 BORE x 320 1 25 UPM3132 FLOW CONTROL G 1/4 MALE X 8mm TUBE 2 26 UPM2884 BALL EYE ROD END M16 1 27 UPM3265EV DRIVE BASE ANCHOR PLATE 1 28 UPM3249 LIMIT SWITCH BRACKET 1 29 UF1827 FW M5 2 30 UF7021 SS LW M5 2 31 UF3277 BHCS M5-0.8 X 16mm 2 32 UF1190 M8 - 1.25 x 20 FHCS 2 33 UF4305 HHCS M16-2.0 x 40mm 1	20	UPM3295	PIVOT MOUNTING MT5/MT6	1
23 UF1821 FW M8 4 24 UPM4562 CYLINDER 50 BORE x 320 1 25 UPM3132 FLOW CONTROL G 1/4 MALE X 8mm TUBE 2 26 UPM2884 BALL EYE ROD END M16 1 27 UPM3265EV DRIVE BASE ANCHOR PLATE 1 28 UPM3249 LIMIT SWITCH BRACKET 1 29 UF1827 FW M5 2 30 UF7021 SS LW M5 2 31 UF3277 BHCS M5-0.8 X 16mm 2 32 UF1190 M8 - 1.25 x 20 FHCS 2 33 UF4305 HHCS M16-2.0 x 40mm 1	21	UPM3341	trunnion spacer	2
24 UPM4562 CYLINDER 50 BORE x 320 1 25 UPM3132 FLOW CONTROL G 1/4 MALE X 8mm TUBE 2 26 UPM2884 BALL EYE ROD END M16 1 27 UPM3265EV DRIVE BASE ANCHOR PLATE 1 28 UPM3249 LIMIT SWITCH BRACKET 1 29 UF1827 FW M5 2 30 UF7021 SS LW M5 2 31 UF3277 BHCS M5-0.8 X 16mm 2 32 UF1190 M8 - 1.25 x 20 FHCS 2 33 UF4305 HHCS M16-2.0 x 40mm 1	22	UF6406	SHCS M8-1 X 75mm	4
25 UPM3132 FLOW CONTROL G 1/4 MALE X 8mm TUBE 2 26 UPM2884 BALL EYE ROD END M16 1 27 UPM3265EV DRIVE BASE ANCHOR PLATE 1 28 UPM3249 LIMIT SWITCH BRACKET 1 29 UF1827 FW M5 2 30 UF7021 SS LW M5 2 31 UF3277 BHCS M5-0.8 X 16mm 2 32 UF1190 M8 - 1.25 x 20 FHCS 2 33 UF4305 HHCS M16-2.0 x 40mm 1	23	UF1821	FW M8	4
26 UPM2884 BALL EYE ROD END M16 1 27 UPM3265EV DRIVE BASE ANCHOR PLATE 1 28 UPM3249 LIMIT SWITCH BRACKET 1 29 UF1827 FW M5 2 30 UF7021 SS LW M5 2 31 UF3277 BHCS M5-0.8 X 16mm 2 32 UF1190 M8 - 1.25 x 20 FHCS 2 33 UF4305 HHCS M16-2.0 x 40mm 1		UPM4562	CYLINDER 50 BORE x 320	
27 UPM3265EV DRIVE BASE ANCHOR PLATE 1 28 UPM3249 LIMIT SWITCH BRACKET 1 29 UF1827 FW M5 2 30 UF7021 SS LW M5 2 31 UF3277 BHCS M5-0.8 X 16mm 2 32 UF1190 M8 - 1.25 x 20 FHCS 2 33 UF4305 HHCS M16-2.0 x 40mm 1		UPM3132	-	
28 UPM3249 LIMIT SWITCH BRACKET 1 29 UF1827 FW M5 2 30 UF7021 SS LW M5 2 31 UF3277 BHCS M5-0.8 X 16mm 2 32 UF1190 M8 - 1.25 x 20 FHCS 2 33 UF4305 HHCS M16-2.0 x 40mm 1		UPM2884		
29 UF1827 FW M5 2 30 UF7021 SS LW M5 2 31 UF3277 BHCS M5-0.8 X 16mm 2 32 UF1190 M8 - 1.25 x 20 FHCS 2 33 UF4305 HHCS M16-2.0 x 40mm 1		UPM3265EV		
30 UF7021 SS LW M5 2 31 UF3277 BHCS M5-0.8 X 16mm 2 32 UF1190 M8 - 1.25 x 20 FHCS 2 33 UF4305 HHCS M16-2.0 x 40mm 1		UPM3249	LIMIT SWITCH BRACKET	-
31 UF3277 BHCS M5-0.8 X 16mm 2 32 UF1190 M8 - 1.25 x 20 FHCS 2 33 UF4305 HHCS M16-2.0 x 40mm 1		UF1827		2
32 UF1190 M8 - 1.25 x 20 FHCS 2 33 UF4305 HHCS M16-2.0 x 40mm 1				
33 UF4305 HHCS M16-2.0 x 40mm 1				
34 UF4236 SHCS M6-1 X 30mm 16				
	34	UF4236	SHCS M6-1 X 30mm	16

UAM0312/UAM0300



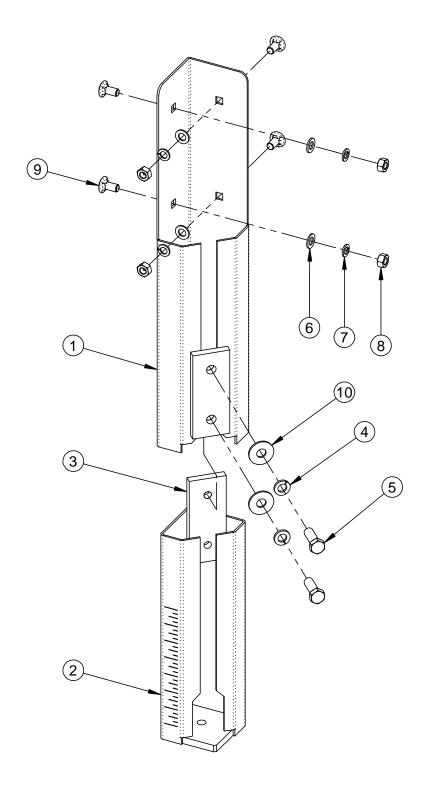
UAM0312/UAM0300

ITEM	PART #	DESCRIPTION	UAM0299/QTY.	UAM0300/QTY.	UAM0312/QTY.
1	UPM3275EV	SPROCKET SHAFT BEARING HOUSING L.H.	1	1	1
2	UPM3263EV	SPROCKET SHAFT	1	1	1
3	UPM0028	SPROCKET 35B20 1/2 KW 3/16 X 3/32	2	2	2
4	UPM1637	BEARING R8-2RS	2	2	2
5	UPM1646	SPROCKET SPACER (LONG)	2	2	2
6	UPM0150	SPROCKET SHAFT WASHER	2	2	2
7	UF5404	FHCS M5 - 0.8 x 16 mm	2	2	2
8	UF2210EV	SQUARE KEY ROUND ENDS 5 X 5 X 20	2	2	2
9	UPM3264	LOCKING DEVICE PLATE	1	-	1
10	UF3062	HHCS M12-1.75 x 25	2	2	2
11	UF4231	FW M12	2	2	2
12	UF4230	L.W. ZINC M12	2	2	2
13	UPM3262EV	SPROCKET SHAFT BEARING HOUSING R.H.	1	1	1
14	UF0240	HHCS 3/8-16 x 1.75	-	-	1
15	UF1720	REG F.W. ZINC 3/8	-	-	1
16	UF1770	L.W. ZINC 3/8	-	-	1
17	UF2142	THD ROD 3/8-16 X 3.5 LG W.HOLE	1	-	-
18	UPM0131	PIN STOP	1	-	-
19	UPM0037	HANDLE ADJUSTABLE (COLUMN)	1	-	-

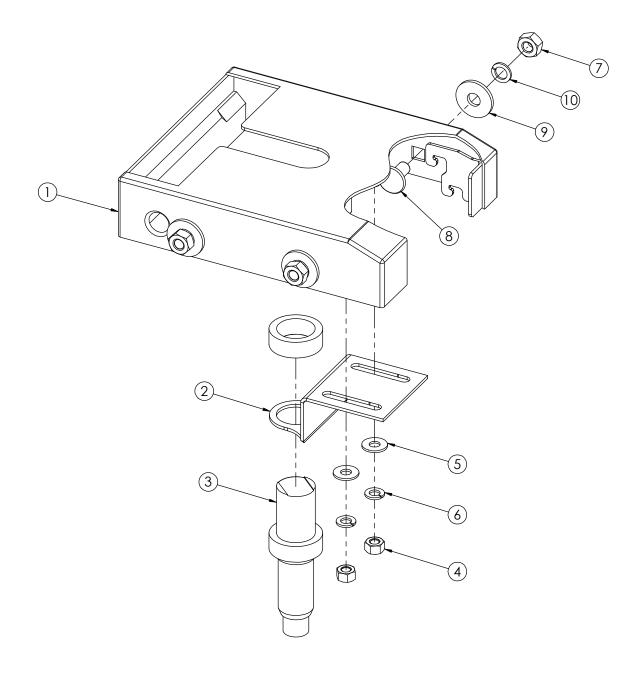


UAM0301/UAM0302

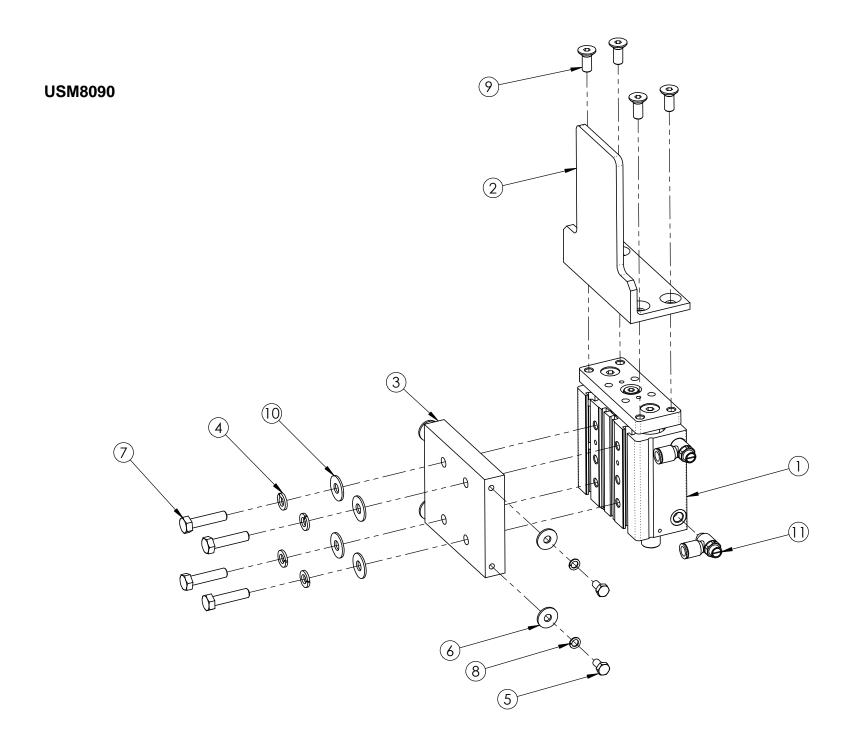
ITEM	PART #	DESCRIPTION	UAM0301/QTY.	UAM0302/QTY.
1	UPM3243EV	CASTING FOR DRIVE SUPPORT RSA LH	1	1
2	UPM3237EV	ANCHOR PLATE REAR SIDE	1	-
2	UPM3244EV	ANCHOR PLATE FRONT SIDE	1	1
3	UPM3266EV	SPLIT COLLAR FOR DRV SUPT RSA	1	1
4	UPM3242EV	DRIVE SUPPORT SPACER	1	1
5	UPM3303	LINEAR BEARING 20mm	2	2
6	UF5402	FHCS M6 - 1 x 20	2	2
7	UF6363	LW M6	3	3
8	UF0835	SHCS M6-1 X 20mm	4	4



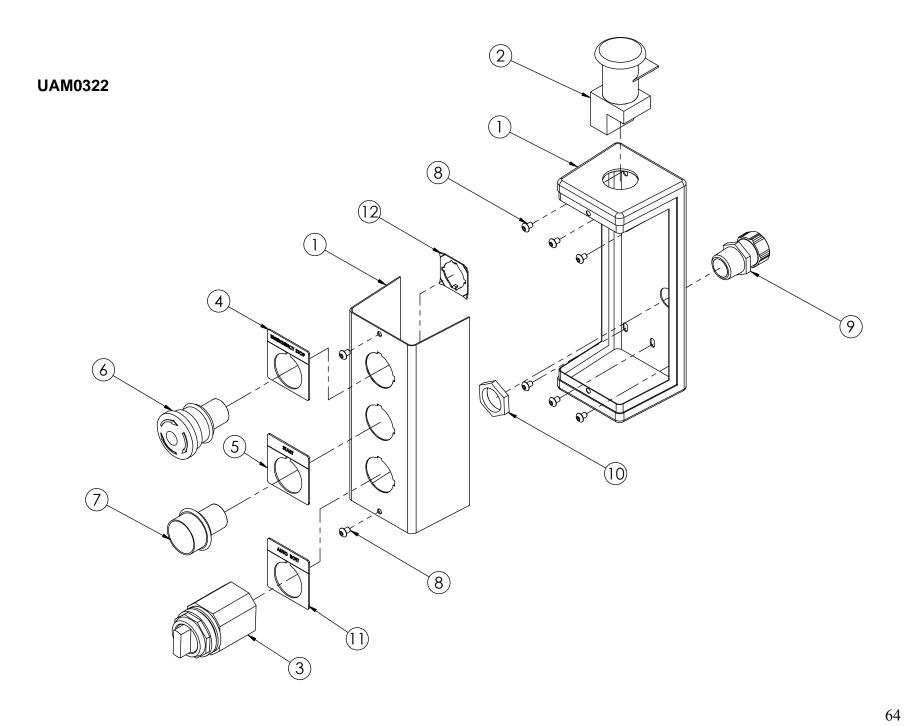
ITEM	PART #	DESCRIPTION	QTY.
1	UPM7640	LEG WELDMENT	1
2	UPM7641	LEG ADJUSTMENT	1
3	UPM7642	LEG FRICTION PLATE	1
4	UF4230	L.W. ZINC M12	2
5	UF6393	HHCSM12-1.75 x 35	2
6	UF3680	FW M10	4
7	UF6371	L.W. M10	4
8	UF6314	HNR M10 x 1.5	4
9	UF4229	CARRIAGE BOLT M10-1.5 x 20	4
10	UF4231	FW M12	2



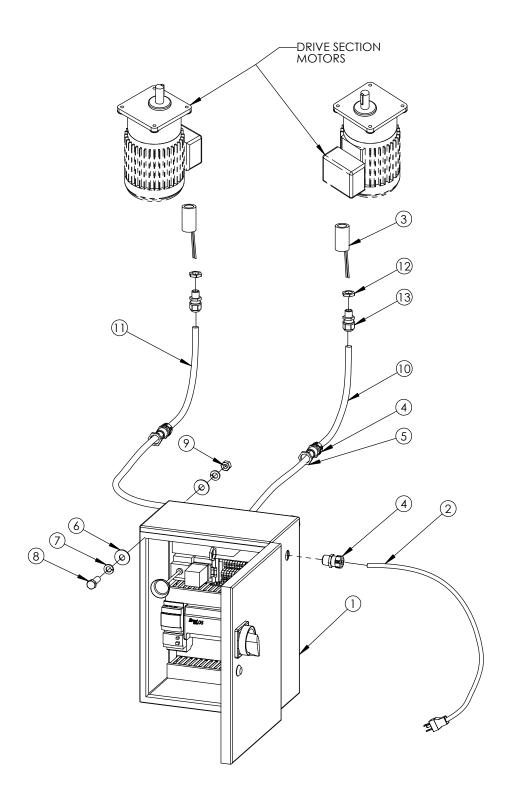
ITEM	PART #	DESCRIPTION	QTY.
1	UPM3231EV	INLET COVER WELDMENT	1
2	UPM3248EV	SENSOR SUPPORT	1
3	UPM0317	PHOTOELECTRIC SENSOR	1
4	UF6307	HEX NUT M5-0.8	2
5	UF1827	FW M5	2
6	UF7023	LW M5	2
7	UF3638	SS HNR M6-1.0	4
8	UF 3713	CARRIAGE BOLT M6 - 1 x 12	4
9	UF6341	SS FW M6	4
10	UF6411	SS LW M6	4



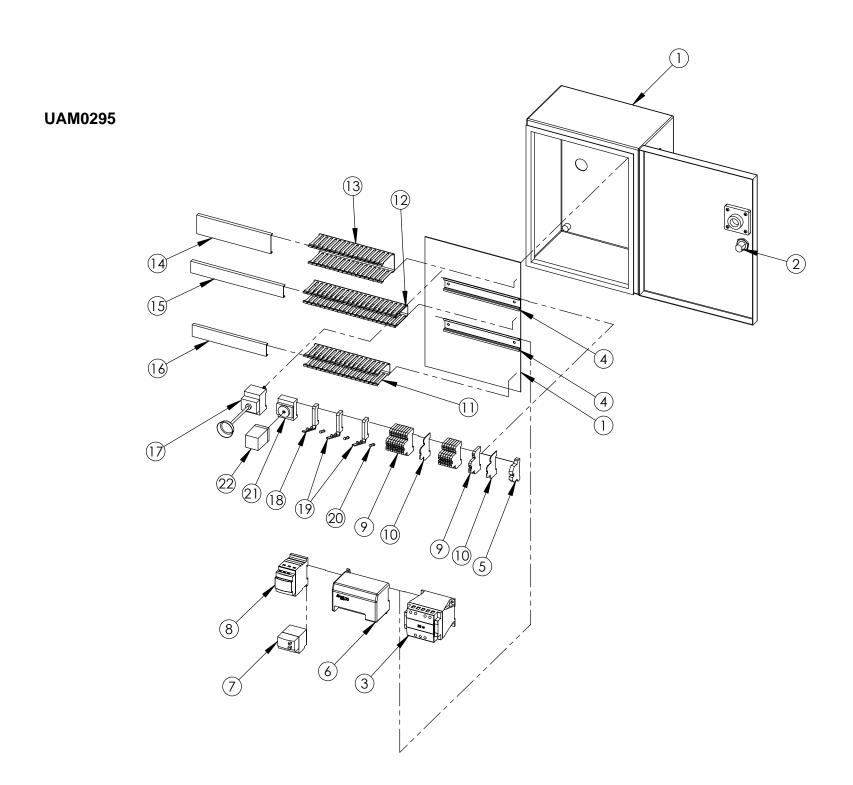
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	UPM3804	GPC GUIDE CYLINDER 32mm X 50mm	1
2	UPM7513	GATE FOR BOSCH GUIDED CYL	1
3	UPM7511	CYLINDER MNT PLT	1
4	UF0867	LW M8	4
5	UF6313	HHCS M6-1.0 X 12mm	4
6	UF1828	REG F.W. M6	4
7	UF3642	HHCS M8-1.25 X 35mm	4
8	UF6363	LW M6	4
9	UF1190	M8 - 1.25 x 20 FHCS	4
10	UF1821	FW M8	4
11	UPM3787	FLOW CONTROL VALVE G 1/8 male 8mm tube	2



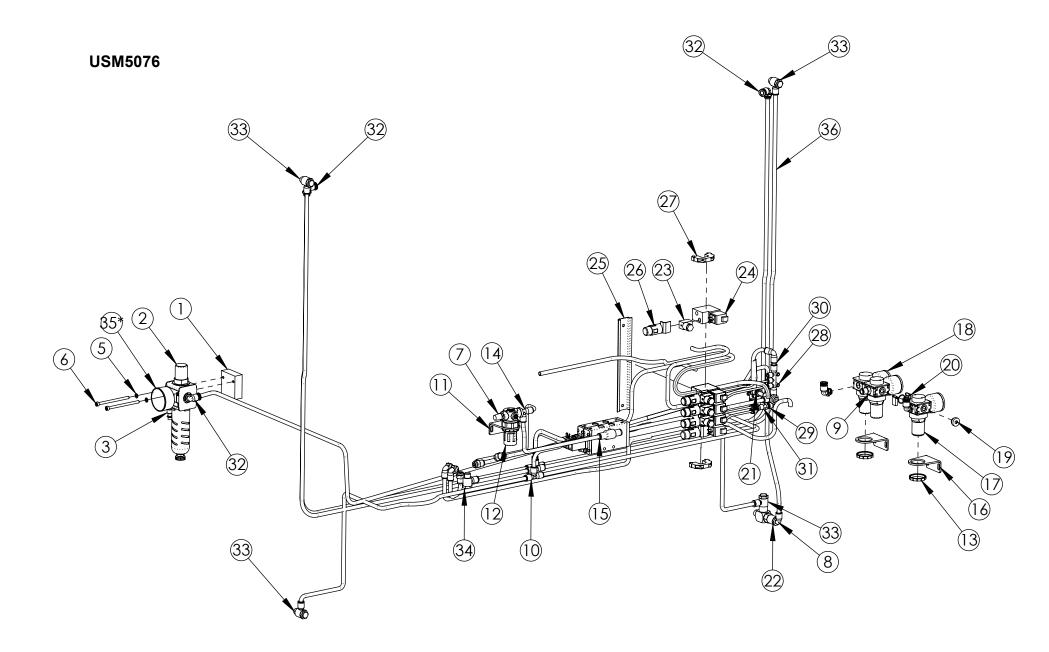
ITEM	PART #	DESCRIPTION	QTY.
1	UPM1504EV	ELECTRIC SWITCH BOX 4 HOLES	1
2	UPM4516	mushroom bottom switch	1
3	UPM4517	SELECTOR SWITCH	1
4	UPM0419	LEGEND PLATE "EMERG.STOP"	1
5	UPM0418	LEGEND PLATE "START"	1
6	UPM0693EV	STOP BUTTON RED MUSH INC	1
7	UPM4514	ON/OFF GREEN BUTTON RSA	1
8	UF7008	SS BHCS M4-07 X 6mm	6
9	UPM0197EV	STR.RELF METL.LIQDTGHT M20X1.5 (8-10mm)	1
10	UPM0341EV	LOCKNUT M20 X 1.5(FOR STRAIN RELF)	1
11	UPM4518	LEGEND PLATE "AUTO BOTT"	1
12	UPM6076	ANTI ROTATION WASHER	1



ITEM	PART #	DESCRIPTION	QTY.
1	UAM0295	ELECTRIC CONTROL BOX UA262024SB TW	1
2	UPM0209	POWER CORD, 14/3	1
3	UPM9719	CAPACITOR 16uF	2
4	UPM0197EV	STR.RELF METL.LIQDTGHT M20X1.5 (8-10mm)	3
5	UPM0341EV	LOCKNUT M20 X 1.5(FOR STRAIN RELF)	3
6	UF4231	FW M12	4
7	UF4230	L.W. ZINC M12	4
8	UF3062	HHCS M12-1.75 x 25	2
9	UF4234	HNR M12 x 1.75	2
10	UPM0225	CABLE 18/3 TYPE SJ	1
11	UPM0225	CABLE 18/3 TYPE SJ	1
12	UPM9728	LOCKNUT M16 X 1.5(FOR STRAIN RELF)	2
13	UPM9727	STR.RELF METL.LIQDTGHT M16X1.5 (8-10mm)	2

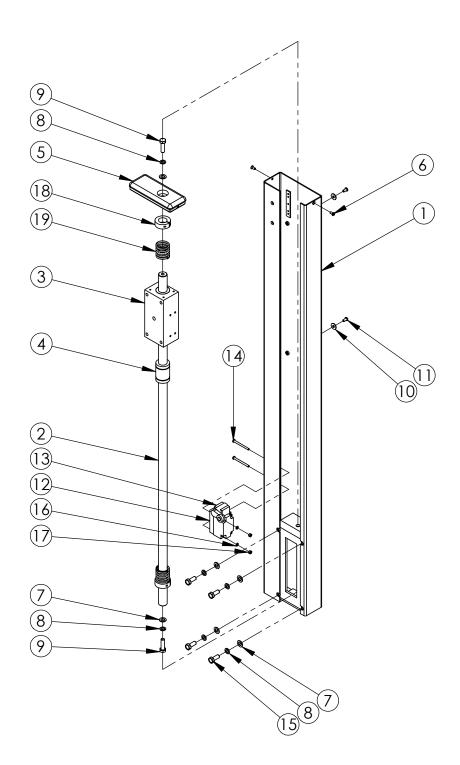


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ITEM	PART#	DESCRIPTION	QTY.
1	UPM3418EV	BOX ELECT. 400mm X 305mm X 150mm	1
2	UPM4465	CAM LOCK	1
3	UPM4458	POWER SUPPLY IDEC 1.3 A	1
4	UPM0407	DIN RAIL	2
5	UPM7440	TB END ANCHOR FOR DN SER	1
6	UPM3833	PLC KOYO 8IN VDC 6 OUT RELAY	1
7	UPM4505	MOTOR O/L TELEMEC 7-10A	1
8	UPM7524	MOTOR STARTER TELEMEC 110VAC	1
9	UPM2880	TERMINAL BLOCK DOUBLE TW	15
10	UPM2881	TERMINAL BLOCK DOUBLE END CAP	2
11	UPM0226	WIRE WAY 30mm	1
12	UPM0226	WIRE WAY 30mm	1
13	UPM0254	WIRE WAY 50mm	1
14	UPM0255	COVER 50mm	1
15	UPM0177	COVER 30mm	1
16	UPM0177	COVER 30mm	1
17	UPM7211	ON / OFF SAF SWITCH CONT PANEL	1
18	UPM7428EV	FUSE TERMINAL BLOCK 5mm, WHITE LED	1
19	UPM4466	FUSE TERMINAL BLOCK 5mm, RED LED	2
20	UPM7120	FUSE 5mm X 20mm 1AMPM250V IEC	3
21	UPM9726	RELAY SOCKET	1
22	UPM4459	RELAY IDEC 24V 11 PINS	1

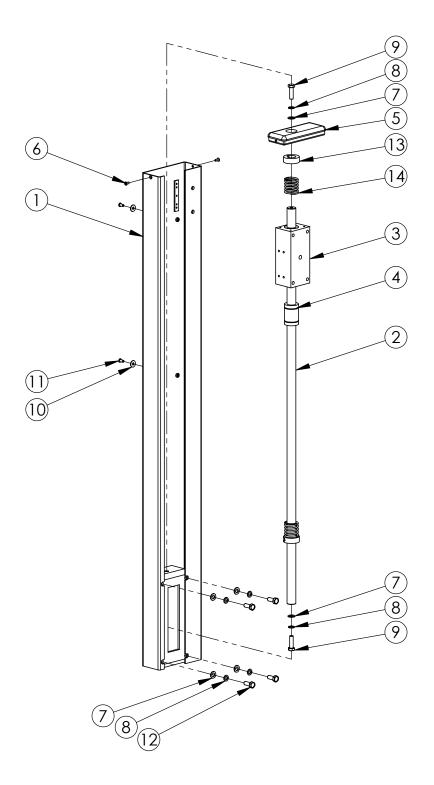


ITEM	PART #	DESCRIPTION	QTY.
1	UPM3755	FILTER REG. MOUNTING BRKT.	1
2	UPM3267	FILTER REGULATOR G3/8	1
3	UPM0436	FTG Q.D. 3/8	1
4	UPM3175	BRASS ELBOW	1
5	UF7021	SS LW M5	2
6	UF4240	SHCS M5-0.8 x 80mm	2
7	UPM3109	SILENCER G 1/4 M	1
8	UPM3124	ELBOW FTG.SWVL G1/4	3
9	UPM3125	FTG. STR G1/4	4
10	UPM3138	"T" FTG	3
11	UPI0096	MOUNTING BRACKET NL1	1
12	UPM4179	BO PRESS REG NL 0.3-6 BAR MANI	1
13	UPM3272	CONTROL PANEL NUT	3
14	UPM3139	FTG "T" 8mm TUBE G1/4	2
15	UPM3614	CHECK VALVE 8mm	1
16	UPM3271	MOUNTING BRACKET NL1	2
17	UPM3268	PRESSURE REGULATOR MANIFOLD	3
18	UPM3273	PRESSURE GAUGE G1/8	3
17	UPM3268	PRESSURE REGULATOR MANIFOLD	

ITEM	PART #	DESCRIPTION	QTY.
19	UPM3133	PLUG G1/4	1
20	UPM3270	BLOCK ASSEMBLY KIT	2
21	UPM4475	FTG. "X" 8 mm TUBE CONNECTOR	1
22	UPM3387	CHECK VALVE	1
23	UPM3392	ELECT. CONN WITH LED VALVE	7
24	UPM3395	VALVE	8
25	UPM0407	DIN RAIL	1
26	UPM3391	SILENCER VALVE	8
27	UPM0420	END ANCHOR	2
28	UPM3396	MULT T-CON	1
29	UPM3398	ELBOW CONNECTOR 8 mm STEM 6 mm TUBE	1
30	UPM3140	FTG "L" 8mm TUBE	1
31	UPM3397	FITTING, Y-PUSH-IN REDUCING 6 TO 4	1
32	UPM7882	ELBOW FTG UNIVERSAL 1/4 - 8mm TUBE, MALE	5
33	UPM7884	FLOW CONTROL VALVE 3/8" x 8mm	4
34	UPM3132	FLOW CONTROL G 1/4	1
35*	UPM3654	PRESSURE GAUGE	1
36	UPM3411	8mm TUBING	1



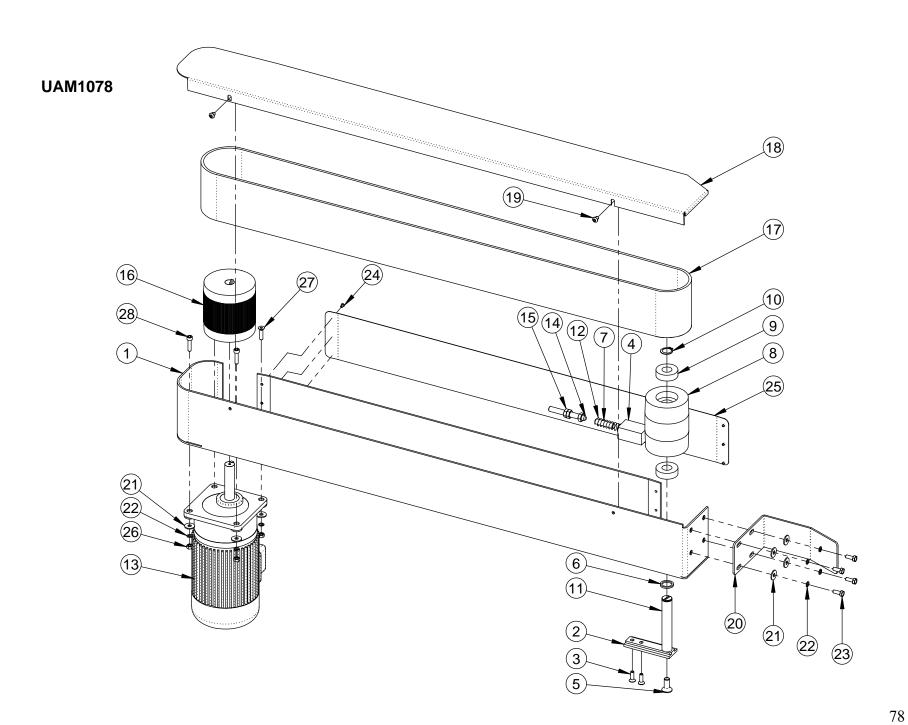
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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	UPM9692	COLUMN 36 RIGHT METRIC	
2	UPM4522	COLUMN SHAFT	1
3	UPM9651	COLUMN BLOCK 40 mm BORE	1
4	LM 25UU	LINEAR BEARING 25 mm	2
5	UPM2182EV	COLUMN CAP RIGHT SIDE	1
6	UF5400	FHC\$ M5-0.8 x 12 mm	2
7	UF3680	FW M10	6
8	UF6371	LW M10	6
9	UF0301	HHCS M10-1.5 x 35	2
10	UF1828	REG F.W. M6	
11	UF1195	BHCS M6-1 x 12 mm	
12	UPM3419	LIMIT SWITCH SPACER	
13	UPM3416	LIMIT SWITCH	1
14	UF4311	BHC\$ M5-0.8 x 60 mm	4
15	UF6382	HHCS M10-1.5 x 25 mm	4
16	UF7023	LW M5	
17	UF6307	HEX NUT M5-0.8	
18	UPM1912	COLLAR 25mm	2
19	UPM0054	SPRING 1-17/64 OD X 1-5/8 LG X .148	



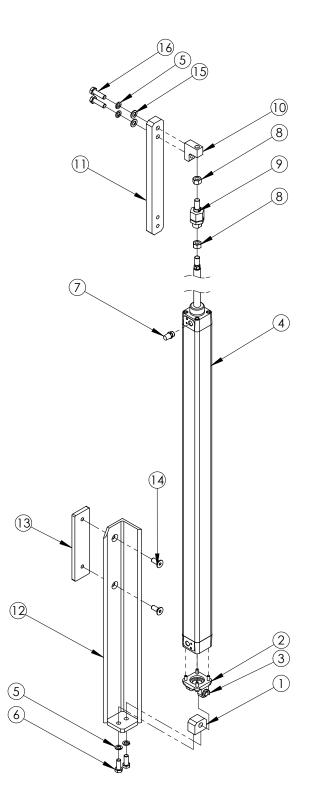
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	UPM9691	COLUMN 36 LEFT METRIC	
2	UPM4522	COLUMN SHAFT	1
3	UPM9651	COLUMN BLOCK 40 mm BORE	1
4	LM 25UU	LINEAR BEARING 25 mm	2
5	UPM0741EV	COLUMN CAP LEFT SIDE	1
6	UF5400	FHC\$ M5-0.8 x 12 mm	2
7	UF3680	FW M10	
8	UF6371	LW M10	
9	UF0301	HHCS M10-1.5 x 35	
10	UF1828	REG F.W. M6	2
11	UF1195	BHCS M6-1 x 12 mm	2
12	UF6382	HHCS M10-1.5 x 25 mm	4
13	UPM1912	2 COLLAR 25mm	
14	UPM0054	054 SPRING 1-17/64 OD X 1-5/8 LG X .148	

UAM1079 14(15)(7)(12)(4) (5)

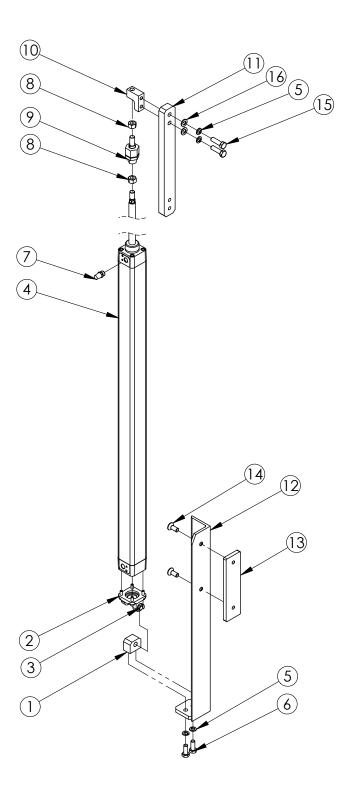
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ITEM	PART#	DESCRIPTION	QTY.
1	UPM9673	DRIVE SECTION RIGHT 100 mm	1
2	UPM1879EV	TENSIONNER SLIDE	1
3	UF5402	FHCSM6 - 1 x 20	
4	UPM0101EV	TENSIONNER SPRING HOLDER	1
5	UF1191	FHCSM10-1.5 x 25	1
6	UPM0109	IDLER PULLEY SPACER	1
7	UPM0112	SPRING LOCATOR PIN	1
8	UPM0392	IDLER PULLEY	1
9	UPM0324	BEARING, PULLEY	2
10	UF2220	SNAP RING (MEDAL) SH0075PA	1
11	UPM0393EV	IDLER PULLEY SHAFT 100mm	1
12	UPM0038	DIESPRING (DRIVEBASE)	
13	UPM7152	1/3 HP 110V MOTOR, LONG SHAFT	
14	UF1400	SSS HK 3/8-16 X 3	
15	UF1540	HNR 3/8-16	
16	UPM9681	DRIVE PULLEY 100mm	
17	UPM2565	BELT ENDLESS 100 x 2120mm	
18	UPM9688	DRIVE COVER METRIC RIGHT	
19	UF1206	BHCSM6-1 X 8mm	2
20	UPM9690	BOX GUIDE	1
21	UF1828	REG F.W. M6	
22	UF6363	LW M6	
23	UF0454	M6-1.0 X 16mm HHCS	
24	UPM9686	STRIP UHMW 100 W, 850 L, 0.8 T	1
25	UF2080	POP RIVET S44	6
26	UF3637	HNR M6-1.0	4
27	UF1194	FHCSM6 - 1 x 25 mm	2
28	UF0840	SHCSM6-1 X 25mm	2



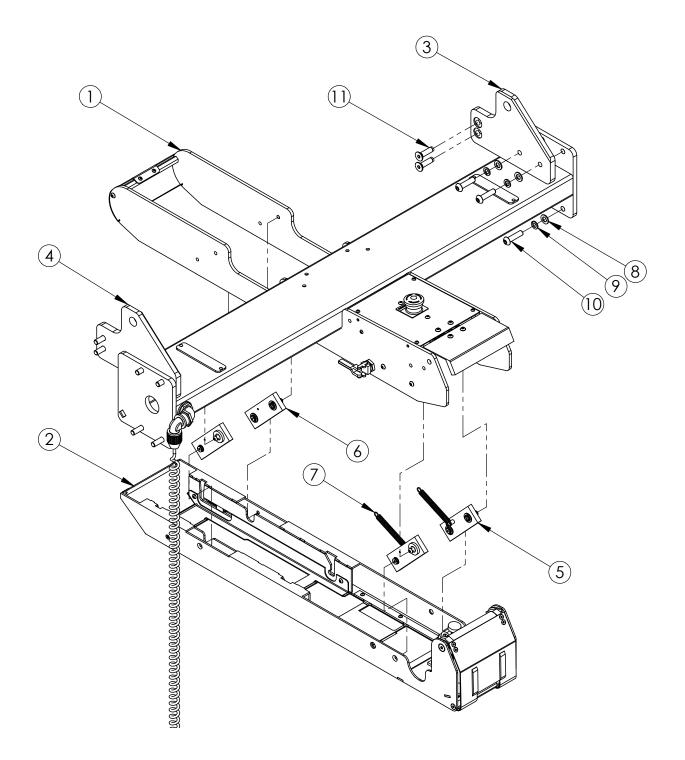
ITEM NO. PART NUMBER		DESCRIPTION	QTY.
1	UPM9674	DRIVE SECTION LEFT	1
2	UPM1879EV	TENSIONNER SLIDE	1
3	UF5402	FHCSM6 - 1 x 20	2
4	UPM0101EV	TENSIONNER SPRING HOLDER	1
5	UF1191	FHCS M10-1.5 x 25	1
6	UPM0109	IDLER PULLEY SPACER	1
7	UPM0112	SPRING LOCATOR PIN	1
8	UPM0392	IDLER PULLEY	1
9	UPM0324	BEARING, PULLEY	2
10	UF2220	SNAP RING (MEDAL) SH0075PA	1
11	UPM0393EV	IDLER PULLEY SHAFT 100mm	1
12	UPM0038	DIE SPRING (DRIVE BASE)	1
13	UPM7152	1/3 HP 110V MOTOR, LONG SHAFT	1
14	UF1400	SSS HK 3/8-16 X 3 1	
15	UF1610	HNJ3/8-16	3
16	UPM9681	DRIVE PULLEY 100mm	1
17	UPM2565	BELT ENDLESS 100 x 2120mm	1
18	UPM9689	DRIVE COVER METRIC LEFT	1
19	UF1206	BHCSM6-1 X 8mm	2
20	UPM9690	BOX GUIDE	1
21	UF1828	REG F.W. M6	8
22	UF6363	LW M6	
23	UF0454	M6-1.0 X 16mm HHCS	4
24	UF2080	POP RIVET S-44	
25	UPM9686	STRIP UHMW 100 W, 850 L, 0.8 T	1
26	UF3637	HNR M6-1.0	4
27	UF1194	FHCSM6 - 1 x 25 mm	2
28	UF0840	SHCSM6-1 X 25mm	2



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	UPM3170EV	VERTICAL EYE BRACKET 12mm	1
2	UPM2901	REAR CLEVIS, 40mmCYL.	1
3	UPM2903	PIVOT PIN-SNAP RING	1
4	UPM4325	CYLINDER ISO BORE 40 x 865mm	1
5	UF6371	LW M10	4
6	UF3647	HHC\$ M10-1.25 x 25 mm	2
7	UPM3109	SILENCER G 1/4 M	
8	UF4234	HNR M12 x 1.75	
9	UPM3075	FLEXIBLE COUPLING M12	1
10	UPM4527	CYLINDER OFFSET ATTACHMENT	1
11	UPM9700	VERTICAL LINK PL. M.	1
12	UPM0165	CYLINDER VERTICAL ANGLE L.H.	1
13	UPM0146EV	BACK PLATE ANGLE SUPPORT	
14	UF1191	FHCS M10-1.5 x 25	
15	UF3680	FW M10	2
16	UF0301	HHCS M10-1.5 x 35	2



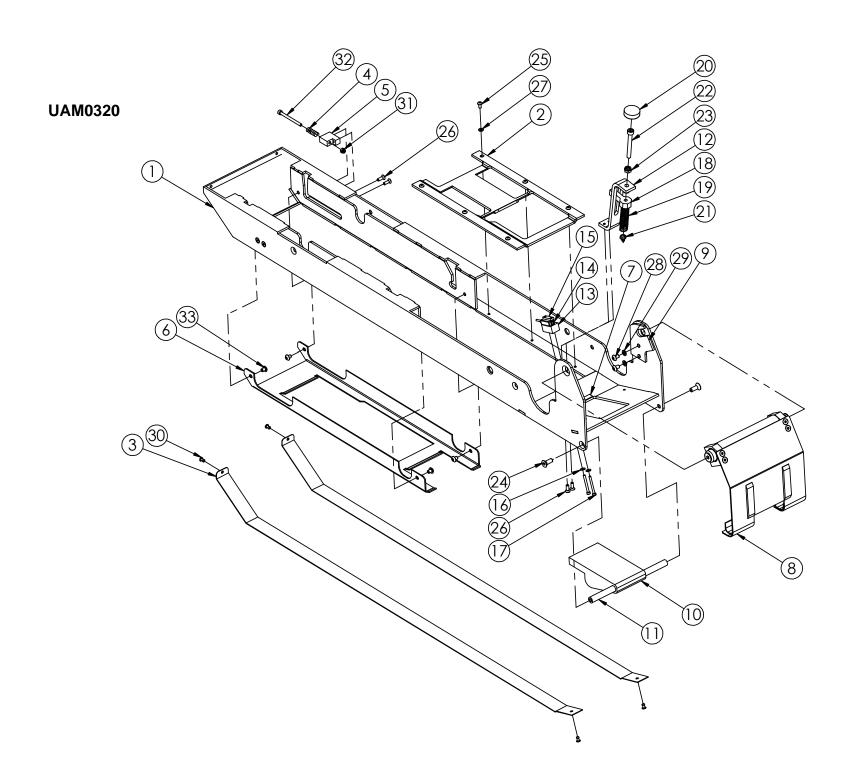
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	UPM3170EV	VERTICAL EYE BRACKET 12mm	1
2	UPM2901	REAR CLEVIS, 40mmCYL.	1
3	UPM2903	PIVOT PIN-SNAP RING	1
4	UPM4325	CYLINDER ISO BORE 40 x 865mm	1
5	UF6371	LW M10	4
6	UF3647	HHCS M10-1.25 x 25 mm	2
7	UPM3109	SILENCER G 1/4 M	1
8	UF4234	HNR M12 x 1.75	2
9	UPM3075	FLEXIBLE COUPLING M12	
10	UPM4527	CYLINDER OFFSET ATTACHMENT	
11	UPM9700	VERTICAL LINK PL. M.	1
12	UPM0152	CYLINDER VERTICAL ANGLE R.H.	1
13	UPM0146EV	BACK PLATE ANGLE SUPPORT	1
14	UF1191	FHCS M10-1.5 x 25	2
15	UF0301	HHCS M10-1.5 x 35	2
16	UF3680	FW M10	2



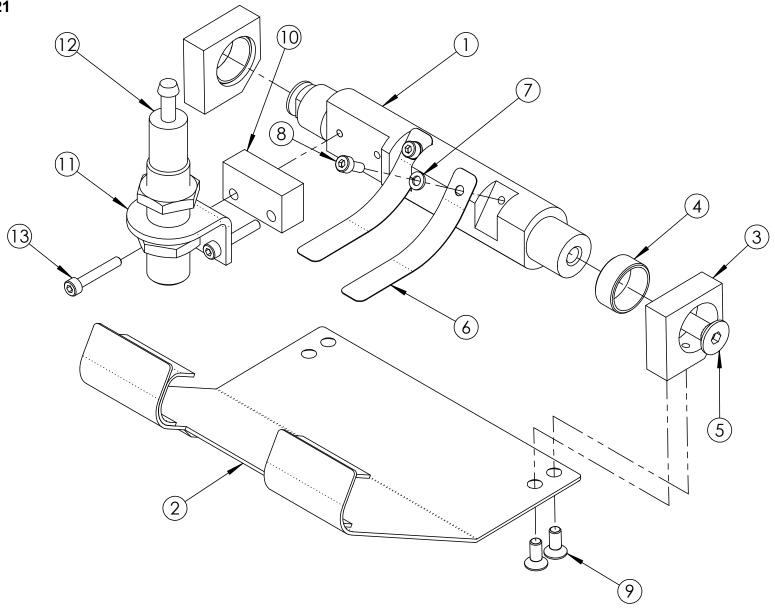
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	UAM1080	BRIDGE ASSEMBLY	
2	UAM0320	TOP TAPE HEAD FRAME	1
3	UPM3321	BRIDGE CONNECT PLATE	1
4	UPM3305	BRIDGE CONNECT PLATE LEFT	1
5	UAM0297	PIVOT ASS'Y	2
6	UAM0296	PIVOT ASS'Y	
7	UPM1042	extension spring	2
8	UF3680	FW M10	8
9	UF6371	LW M10	8
10	UF6384	BHCS M10-1.5 x 40mm	8
11	UF4313	FHCS M10-1.5 x 35mm	4

31) 26) **UAM1080** TO TO THE TOTAL PROPERTY OF THE POST OF TH

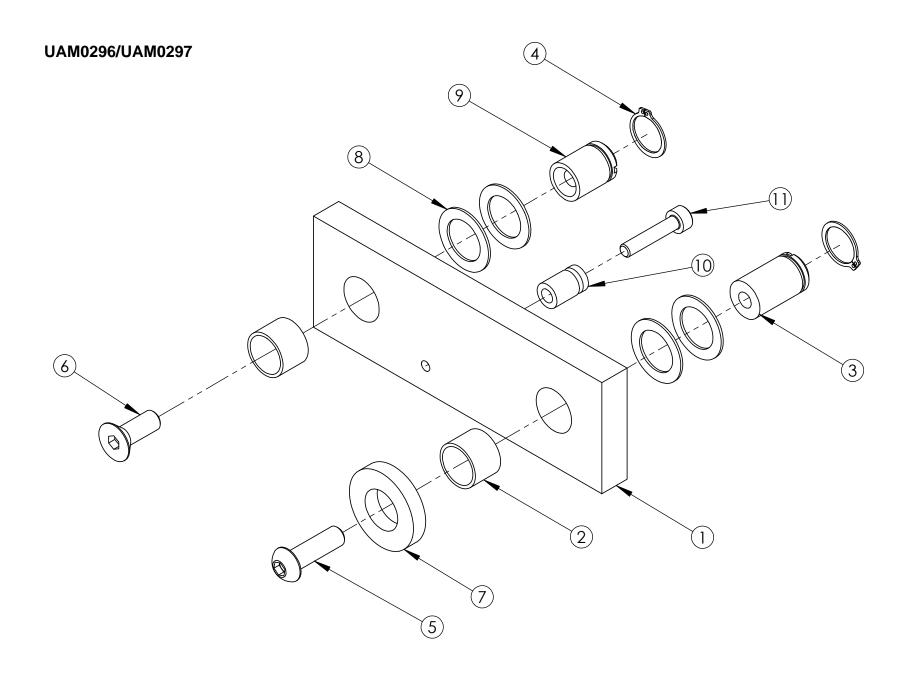
ITEM NO. PART NUMBER 1 UPM9654 BRIDGE 3036 SB 2 UPM3360EV HEX SPACER BAR 3 UPM3245EV COVER SUPPORT 4 UPM6066 ELECTRICAL SWITCH COVER UM122 5 UPM3292 REAR COVER GUARDING 6 UPM0196EV STRAIN RELIEF 7 UPM6058 STRAIN RELIEF 8 UPM1937EV ELECTRICAL BOX 9 UPM0419 LEGEND PLATE "EMERG.STOP" 10 UPM3892 EMERGENCY BUTTON 11 UPM2196 TOGGLE CLAMP 12 UPM0695 CONN. ELECT. ELBOW 13 UF1824 FW ZINC 20mm 14 UPM0341 LOCKNUT 1/2"(FOR STRAIN RELF) 15 UPM0202 STR.RE3LIEF, NON-MET.LIQUIDTIGHT 16 UPM0213 CABLE, RETRACTABLE 17 UPM1008 BRIDGE PLATE COVER 18 UPM2192 BLACK PLUG 19 UPM6061 SENSOR COVER PLATE 20 UPM3241 DETECTOR'S HINGE	QTY. 1 1 2 1 1
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5 UPM3292 REAR COVER GUARDING 6 UPM0196EV STRAIN RELIEF 7 UPM6058 STRAIN RELIEF 8 UPM1937EV ELECTRICAL BOX 9 UPM0419 LEGEND PLATE "EMERG.STOP" 10 UPM3892 EMERGENCY BUTTON 11 UPM2196 TOGGLE CLAMP 12 UPM0695 CONN. ELECT. ELBOW 13 UF1824 FW ZINC 20mm 14 UPM0341 LOCKNUT 1/2"(FOR STRAIN RELF) 15 UPM0202 STR.RE3LIEF, NON-MET.LIQUIDTIGHT 16 UPM0213 CABLE, RETRACTABLE 17 UPM1008 BRIDGE PLATE COVER 18 UPM2192 BLACK PLUG 19 UPM6061 SENSOR COVER PLATE 20 UPM3241 DETECTOR'S HINGE	
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10 UPM3892 EMERGENCY BUTTON 11 UPM2196 TOGGLE CLAMP 12 UPM0695 CONN. ELECT. ELBOW 13 UF1824 FW ZINC 20mm 14 UPM0341 LOCKNUT 1/2"(FOR STRAIN RELF) 15 UPM0202 STR.RE3LIEF, NON-MET.LIQUIDTIGHT 16 UPM0213 CABLE, RETRACTABLE 17 UPM1008 BRIDGE PLATE COVER 18 UPM2192 BLACK PLUG 19 UPM6061 SENSOR COVER PLATE 20 UPM3241 DETECTOR'S HINGE	1
11 UPM2196 TOGGLE CLAMP 12 UPM0695 CONN. ELECT. ELBOW 13 UF1824 FW ZINC 20mm 14 UPM0341 LOCKNUT 1/2"(FOR STRAIN RELF) 15 UPM0202 STR.RE3LIEF, NON-MET.LIQUIDTIGHT 16 UPM0213 CABLE, RETRACTABLE 17 UPM1008 BRIDGE PLATE COVER 18 UPM2192 BLACK PLUG 19 UPM6061 SENSOR COVER PLATE 20 UPM3241 DETECTOR'S HINGE	1
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13 UF1824 FW ZINC 20mm 14 UPM0341 LOCKNUT 1/2"(FOR STRAIN RELF) 15 UPM0202 STR.RE3LIEF, NON-MET.LIQUIDTIGHT 16 UPM0213 CABLE, RETRACTABLE 17 UPM1008 BRIDGE PLATE COVER 18 UPM2192 BLACK PLUG 19 UPM6061 SENSOR COVER PLATE 20 UPM3241 DETECTOR'S HINGE	1
14 UPM0341 LOCKNUT 1/2"(FOR STRAIN RELF) 15 UPM0202 STR.RE3LIEF, NON-MET.LIQUIDTIGHT 16 UPM0213 CABLE, RETRACTABLE 17 UPM1008 BRIDGE PLATE COVER 18 UPM2192 BLACK PLUG 19 UPM6061 SENSOR COVER PLATE 20 UPM3241 DETECTOR'S HINGE	1
15 UPM0202 STR.RE3LIEF, NON-MET.LIQUIDTIGHT 16 UPM0213 CABLE, RETRACTABLE 17 UPM1008 BRIDGE PLATE COVER 18 UPM2192 BLACK PLUG 19 UPM6061 SENSOR COVER PLATE 20 UPM3241 DETECTOR'S HINGE	1
16 UPM0213 CABLE, RETRACTABLE 17 UPM1008 BRIDGE PLATE COVER 18 UPM2192 BLACK PLUG 19 UPM6061 SENSOR COVER PLATE 20 UPM3241 DETECTOR'S HINGE	1
17 UPM1008 BRIDGE PLATE COVER 18 UPM2192 BLACK PLUG 19 UPM6061 SENSOR COVER PLATE 20 UPM3241 DETECTOR'S HINGE	1
18 UPM2192 BLACK PLUG 19 UPM6061 SENSOR COVER PLATE 20 UPM3241 DETECTOR'S HINGE	1
19 UPM6061 SENSOR COVER PLATE 20 UPM3241 DETECTOR'S HINGE	2
20 UPM3241 DETECTOR'S HINGE	4
	1
21 UPM0967EV SPRING RETAINER LONG	1
	2
22 UPH133 STOP, KNIFE ARM, 15/16"D.URETH.	6
23 UPM2168EV STOP RETAINER TH BOX	2
24 UF4050EV BHCS M4 - 0.7 x 20	2
25 UF6325 SS BHCS M6-1 x 20	6
26 UF3278 SS BHCS M6-1 x 12 mm	4
27 UF7023 LW M5	4
28 UF6307 HEX NUT M5-0.8	4
29 UF3649 BHCS M4-0.7 x 12mm	2
30 UF6365 BHCS M4 x 0.7 x 10mm	4
31 UF3686 BHCS M5-0.8 X 10mm	2
32 UF5603 BHCS M5 X 0.8 X 20mm	4



ITEM	PART #	DESCRIPTION	
1	UPM6059	T.H. BOX WELDMENT UM122	
2	UPM9655	TOP FILLER ET Metric	
3	UPM0029	STRIP, UHMW, 2" W X .03" THK	2
4	UPM1068	COMP.SPRING SWIVEL T.H. ASSY	
5	UPM7541	SPRING SUPPORT M4	
6	UPM3246	ET T.H. TOP GAP FILLER	1
7	UPM6067	PAD	1
8	UAM0321	SWITCH PLATE ASS'Y	1
9	UPM6064	ANTI ROTATING PLATE	1
10	UPM6063	LOWER SENSOR FLAG	1
11	UPM6062	LOWER PIVOT SHAFT	1
12	UPM4454	SPRING BRACKET	1
13	UPM4457	SENSOR SPACER	1
14	UPM7592	PHOTO SW 24VDC 15mm DIFF	
15	UPM7604	NUT PLATE PHOTO SENSOR	
16	UF3707	FW 3 mm	
17	UF4307	SHCS M3-0.5 x 30	
18	UPM4455	SPRING CAP	
19	UPM1444	COMPRESSION SPRING	
20	UF2101	LOC KNOB M6 x 26 mm	
21	UF2072	TEK'S HEX HEAD 10-16 x 3/8	
22	UF7002	SS M6-1 X 50mm SHCS	
23	UF5900	NYLON LOCK NUT M6-1.0	2
24	UF1192	FHCS M6-1 x 16 mm	2
25	UF3685	BHCS M4-0.7 x 8mm	
26	UF3714	FHCS M4-0.7 x 12mm	6
27	UF3681	L.W. M4	
28	UF7010	SS BHCS M5 - 0.8 x 8 mm	
29	UF7023	LW M5	
30	UF2080	POP RIVET S-44	4
31	UF6376	NYLON LOCKNUT M4	2
32	UF6375	SHCS M4-0.7 x 50mm	2
33	UF3276	SS BHCS M5 X 0.8 X 6mm	



ITEM	PART#	DESCRIPTION	QTY.
1	UPM6065	FRONT SUPPORT SHAFT UM122	1
2	UPM6060	SWITCH PLATE UM122	1
3	UPM2129EV	SENSOR PLATE PIVOT BLOCK	2
4	UPM0335EV	TEFLON BUSHING 201Dx10L	2
5	UF1190	M8-1.25 x 20 FHCS	2
6	UPM0011	SPRING BLADE	2
7	UF3681	LW M4	2
8	UF9148	SHCS M4-0.7 x 10mm	2
9	UF3282	SS FHCS M5-0.8 x 12 mm	4
10	UPM3238	UPM0733 SPACER	1
11	UPM0733	MOUNTING BRACKET FOR M18 SENSOR	1
12	UPM0014	FRONT PADDLE SENSOR IG5399	1
13	UF4308	SHCS M4-0.7 x 25mm	2



UAM0296/UAM0297

ITEM	PART #	DESCRIPTION	UAM0297/QTY.	UAM0296/QTY.
1	UPM1130EV	PIVOT PLATE REAR	1	1
2	UPM9075	BEARING PERMAGLIDE 12 X 14 X 10	2	2
3	UPM0968EV	PIVOT SHAFT LONG T.H. BOX 222	1	1
4	UF6300	RETAINING RING FOR 12mm SHAFT	2	2
5	UF1241EV	BHCS M6-1 x 20	1	1
6	UF1192	FHC\$ M6-1 x 16 mm	1	1
7	UPM1158	PIVOT SHAFT SPACER	1	1
8	UF1940	F.W. NYLON 1/2IDx.772ODx.032TH	4	4
9	UPM2247EV	PIVOT SHAFT SHORT T.H. BOX 222	1	1
10	UPM0962EV	SPRING RETAINER	1	-
11	UF3646	SHCS M4-0.7 x 20	1	-