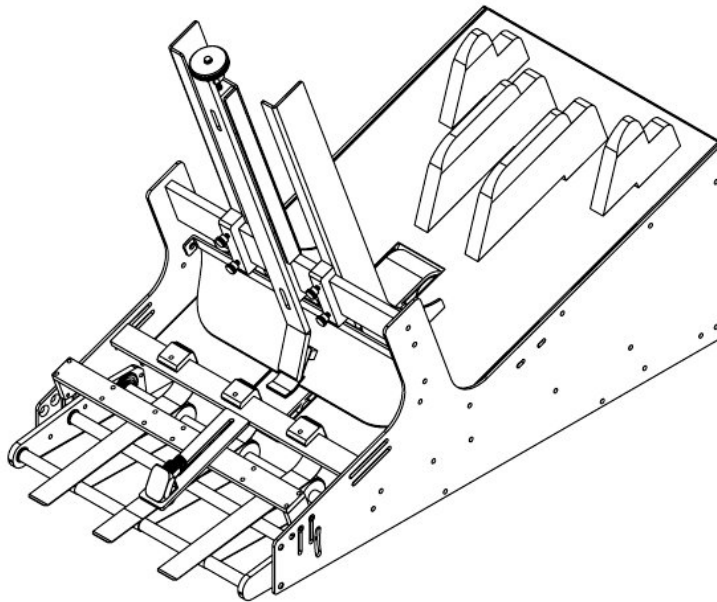


Maxim Operator's Manual

Models: RX-12bc

PATENT PENDING



Illustrations in this guide are for reference only and may depict optional features that are available at additional costs.

CONTENTS

PURCHASED CONTENTS	3
OVERVIEW & SPECIFICATIONS	4
ASSEMBLY INSTRUCTIONS.....	5
IF YOU PURCHASED YOUR FEEDER WITH A MOUNTING STAND:	5
FEEDER ASSEMBLY INSTRUCTIONS:.....	5
FRICTION FEEDING OVERVIEW	7
PRODUCT SETUP	8
LOADING PRODUCT	8
PRODUCT SETUP.....	9
FEATURES and FUNCTIONALITY	10
RX-12BC REAR PANEL	10
DISCHARGE ASSEMBLY	12
REMOTE OPERATOR SCREEN.....	13
PRODUCT SETUP FAULT CONDITIONS	15
FAULT CONDITIONS.....	15
CREATING PRODUCT SEPARATION	16
CORRECTING for PRODUCT SKEW	16
OPERATING STACK HEIGHT	17
RX-12BC ELECTRICAL SCHEMATIC	18
RX-12BC INTERFACE CONNECTIONS.....	19
ACCESSORIES AND AFTERMARKET OPTIONS.....	20
ILLUSTRATED PARTS	22
WARRANTY.....	30
NOTES	31

Thank you for purchasing your Maxim RX Friction Feeder. Enclosed please find simple step-by-step instructions to help you quickly assembly your product. Before you begin, we recommend that you follow the steps below:

1. Please read the instructions thoroughly
2. Identify all parts, inspect that all items are received and there is no damage from shipping.
3. You will need the following tools: 1/8", 3/16" and 5/32" allen wrench.

PURCHASED CONTENTS



Chassis Assembly



Hopper Assembly



(2) Product Wedges, and (2)
Short Product Wedges

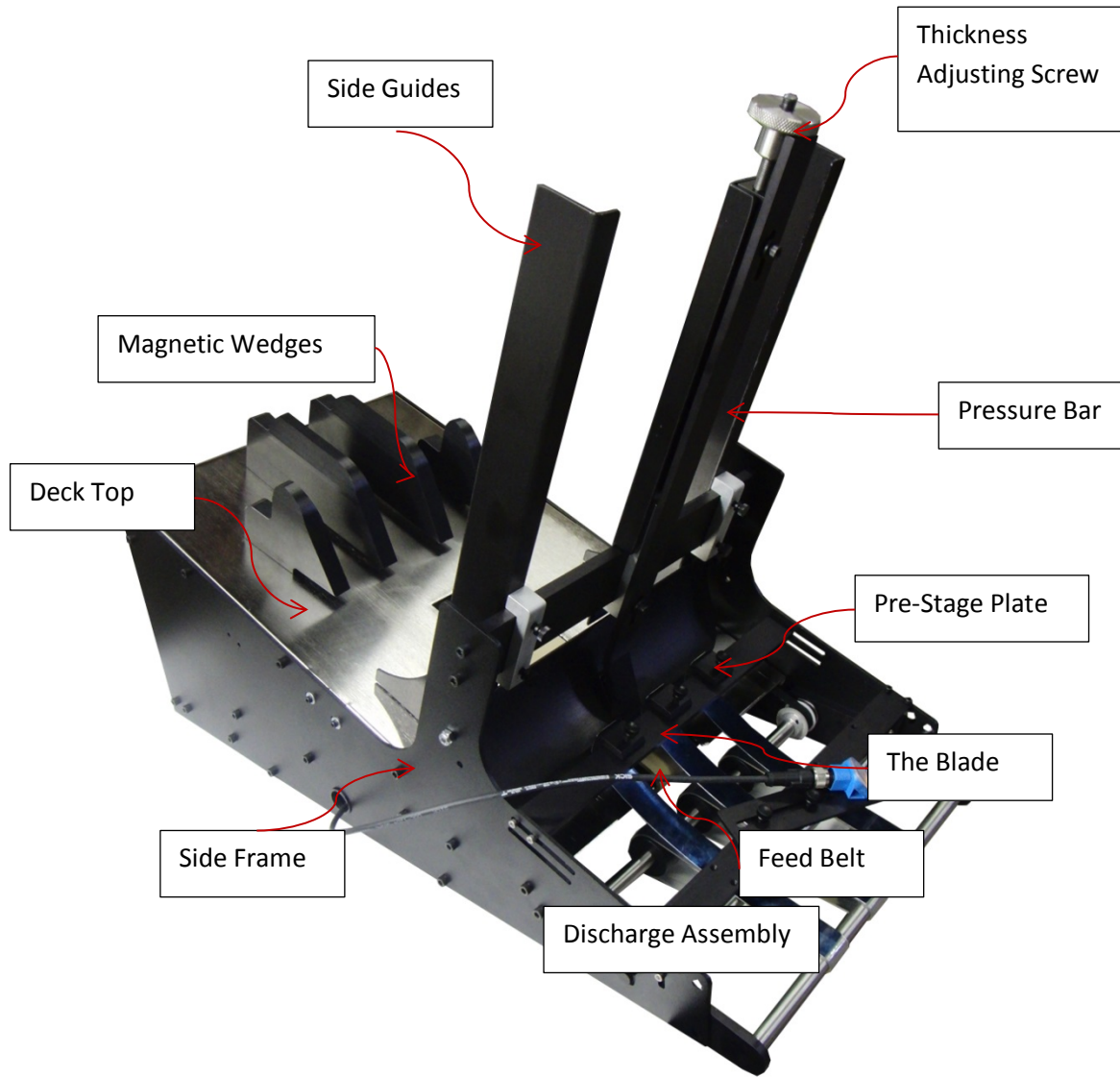


Power Cord



Trigger Assembly

OVERVIEW & SPECIFICATIONS

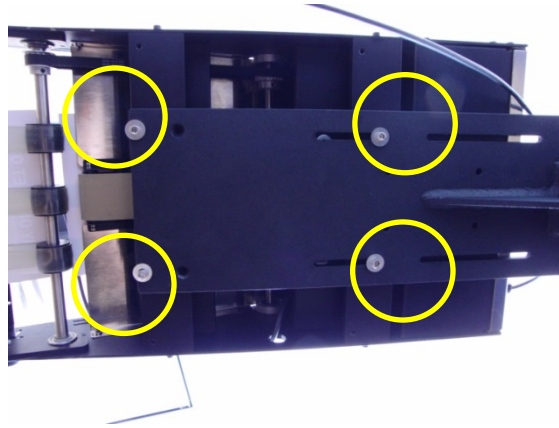


PRODUCT SIZES:	2.5"W x 3.5"L – 12"W x 12"L
PRODUCT THICKNESS:	.004" - .375"
SPEED:	400 ft./min, DC motor
WEIGHT:	38 lbs (17.24 kg)

ASSEMBLY INSTRUCTIONS

IF YOU PURCHASED YOUR FEEDER WITH A MOUNTING STAND:

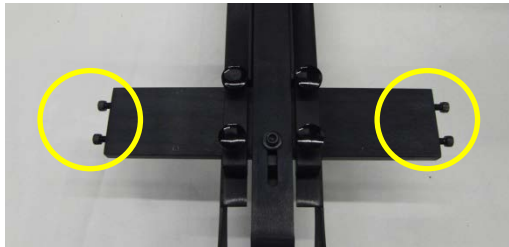
1. Assemble your stand referencing the Mounting Stand Assembly instructions.
2. Remove the RX feeder chassis from the box. The feeder will come with (2) mounting bars underneath the feeder if purchase with a stand.



3. Rest the feeder on the stand head and secure it to the mounting bars using a 3/16" allen wrench with the 4-screws provided.

FEEDER ASSEMBLY INSTRUCTIONS:

1. Locate the Hopper and remove the 4 screws on the Hopper Assembly



2. Loosen or remove the Thickness Adjusting Screw



3. Insert the Hopper Assembly between the chassis side frames. Be sure the pressure bar on the hopper is positioned over the Blade



4. Mount the Hopper Assembly to the Chassis side frame with the 4 screws using a 5/32" allen wrench. Position the Hopper Assembly in the screw slots with 1/8" clearance above the chassis deck-top.



5. Place the magnetic Product Wedges on the chassis decktop. These will be used to support and lift your product.



The wedges contain powerful magnets. Do not place your fingers between the magnets and any metal object.

You are now ready to load product.

FRICITION FEEDING OVERVIEW

IMPORTANT: *If you are unfamiliar with friction feeding technology, it will be extremely beneficial to review the following section.*

Friction = surface resistance, of one object against another, to relative motion.

Feeder = a device that feeds product

Watch video demo: vimeo.com/superiorphs/feederbasics

Friction feeding technology is used to separate and feed objects through the motion of friction. A stack of product is placed into the hopper and separated by pulling the bottom piece through the feeder against the static friction weight of the product on top of it.

There are three basic guidelines for using friction feeding technology:

6. **Can the product be fed?** Take two pieces of your product and place them together. If they can slide apart, they can be fed. Good product candidates for friction feeding include card stock, cards, envelopes, paper, chip board, corrugate material, and other flat surface materials.
7. **Does the product easily mark or chip easily?** Some products mark easier than others so this will need to be tested.
8. **Does the product interlock when separating?** Some irregular shaped and die cut products may interlock when feeding and rip the product.

If any of these steps cannot be achieved, you will need to use something other than a friction feeder to separate your product.

The primary goal in friction feeding is to create a gap between each piece of product. For the Maxim RX-12bc, product separation will occur on the discharge of the feeder.

*****PRODUCT SEPARATION DOES NOT OCCUR UNDER THE BLADE****

This will be further detailed in the Product Setup section.

PRODUCT SETUP

WATCH VIDEO DEMONSTRATION: vimeo.com/superiorphs/rxproductsetup

LOADING PRODUCT

1. Raise the Pressure Bar off the feed belt by turning the Thickness Adjusting Screw counter-clockwise.
2. Center one piece of product under The Blade and **loosely** tighten down the Pressure Bar by turning the Thickness Adjusting Screw clockwise. Be sure the product is centered over the feed belt to prevent skewing.
3. Fan out 1" of product and load into the hopper. Be sure the stack of product is perfectly fanned out and follows the curve of the Pre-Stage Plate.
4. Position the Magnetic Wedges to produce a little lift on the back end of the product. The RX-12bc/d come with 2-Small Product Wedges that are the longer wedges. These are notched on the bottom so they can be placed over the feed belt to support shorter products. In general, for filmsy products longer than 6" to 8", place the **Roller Support Wedges** (shown right, sold separately) under the product stack to help support the weight and aid in product separation.
5. Be sure the product is supported evenly to reduce product skewing as it's fed.



NOTE: the amount of lift is product dependent. Use more lift for flimsy products, less for rigid products.

NOTE 2: more lift equals more separation, less lift equals less separation.

6. Adjust the Side Guides to 1/16" to 1/8" of clearance on either side of the product so it isn't pinched.
7. Fan out 2-3" of product and place it in the hopper. Again, be sure the stack is perfectly fanned out and hugging the curve of the Pre-Stage Plate.
8. Stack height above the Pre-Stage Plate does not need to be fanned out. Be sure your product is jogged square before loading.



PRODUCT SETUP

The following instructions are general starting points and can be adjusted for your application.

1. Plug-in your power cord and turn the feeder on. Be sure the Sheet Sensor light at the nose of the feeder is NOT illuminated. If the light is lit on the sensor with no product present, it is detecting an object, such as the shaft, spring steel, or other object, and will need to be positioned so the light turns off.
2. Press and hold the Jog button while slowly tightening the Thickness Adjusting Screws to create a gap between each piece of product as it passes through the discharge. Once you achieve a ¼" to ½" gap between each piece, you can stop tightening the Thickness Adjusting Screw.
CAUTION: Do not overtighten. If you are creating too much pressure on the feed belt and not getting a gap between each piece, see Troubleshooting: Creating Product Separation.
3. As product passes the Sheet Sensor, it will illuminate when it's blocked and turn off when no object is present. On the RX-12bc, this is what is communicating the count to the feeder. If no gap is present or there is an overlap in product, this will create miscounts.
4. RX-12bc: set the Batch Count on the rear panel to '01'.
5. As a starting point, set the speed dial to 5 and press the Cycle button. The feeder will stage the leading piece of product to wherever the sensor is positioned. Cycle again. If one piece of product fed out and the feeder stopped, you have successfully setup your feeder. If not, proceed to Troubleshooting: Creating Product Separation.
6. RX-12bc: for batch counting applications, incrementally increase the batch count size while making fine-tuning setup adjustments until you reach your desired batch count, i.e. 05, 10, 15, 20). Be sure to count each stack to make sure the count is correct.

NOTE: Over counts result from not detecting a gap between each piece. Under counts result from the sheet sensor detecting (a) a reflective product, (b) curled product, or (c) a dark color on a sheet activating a second count.

7. If you are using the Trigger Sensor Assembly to externally cycle the feeder, be sure the feeder is turned off before plugging it in. Mount the assembly and position the sensor to detect a passing object such as a lug on a conveyor or a hand motion. The sensor has a 2-inch detection range.

FEATURES AND FUNCTIONALITY

RX-12BC REAR PANEL



CYCLE: Pressing the Cycle button will manually trigger the feeder to the preset count or to run continuously until stopped. You can externally trigger the feeder by using the Trigger Assembly or sending a signal through the I/O. If the feeder receives a second signal before the cycle is complete, it will put the feeder in fault mode and stop the feeder. Cycle is not operable when a Fault is present. NOTE: if a Stop or Fault happens in Batch Counting mode, the feeder will reset the cycle count to zero.

JOG: The feeder will advanced when the Jog button is pressed. The feeder will run continuously when the Job button is activated. This option is typically used when setting up product in the feeder or clearing any product under the Blade or in the discharge. While holding down the Jog button, you can adjust the Thickness Adjusting Screw and feed until the product runs consistently. The Jog function ignores any fault conditions.

STOP · FAULT: If a miss-feed, jam, time-out, or miss-detect occurs, it will put the feeder into fault mode and the stop light will blink red. Clear the jam and press the Stop button to reset the feeder into Ready Mode.

TRIGGER: The Trigger port is a 4-pin connector for the Trigger Assembly. The Trigger Assembly is use to send an external signal to the feeder to cycle.
 Pin 1 - +24VDC Pin 2 – Signal Return Pin 3 – 0VDC

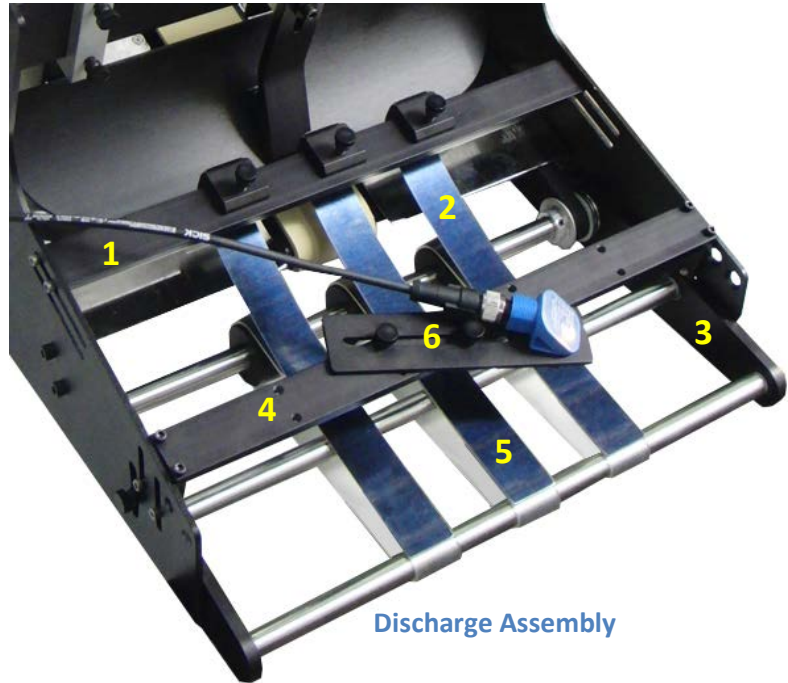
I/O: The I/O is a 9-pin connector for an external interface cable (sold separately). See Electrical Schematic for pin-out wiring diagram. The I/O connector is used to receive operating signals from an external host system such as a wrapper, conveyor, or other host system.

Pin 1- Constant Fault (O)	Pin 2 - +24VDC (O)	Pin 3 – Ext Stop (I)
Pin 4 – Ext Jog (I)	Pin 5 – Busy (O)	Pin 6 – Not Used
Pin 7 – 0V (O)	Pin 8 – Ext Trigger (I)	Pin 9 – Dropper (O)

POWER / FUSE: Power inlet for power cord and On/Off power switch. The RX-12bc andRX-12d come standard with 115vac – 60Hz CorCom power filter (optional 220vac is available) with 2 – 3-amp slow-blow fuses. Be sure the voltage window reads the correct voltage for your supplied power (115/220). The round fuse holder contains a 1-amp fast-acting fuse to protect the DC circuitry.

DISCHARGE ASSEMBLY

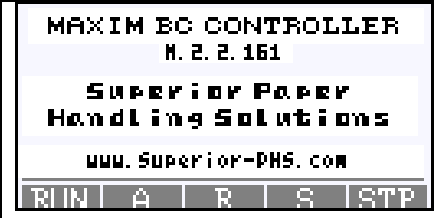
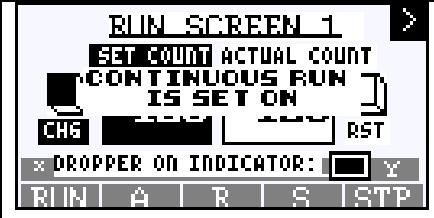

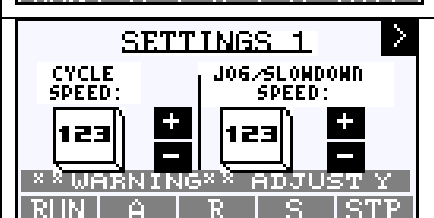
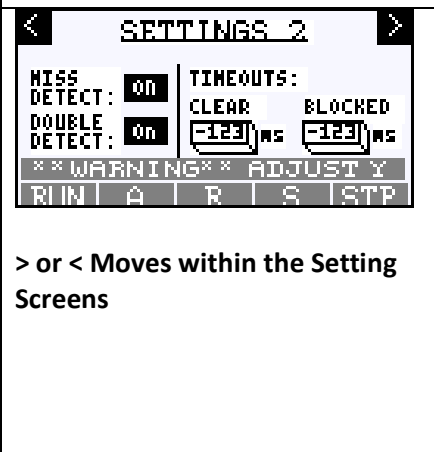
The discharge on the Maxim RX-12bc and RX-12d come with many features and advantages for your product setup. The discharge belts run *faster* than the main feed belt, pulling the product faster when it enters the discharge and creating a gap between each piece.

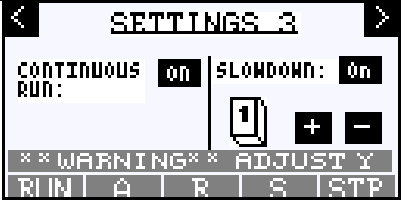
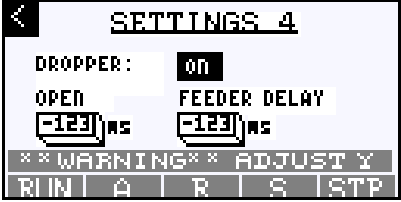



Discharge Assembly

1. **Discharge Cross Bar** – this bar is adjustable forward and back to control the pinch point of the product between the spring steel straps and urethane belts when it enters the discharge. In general, for longer products you will want to position the bar closer to the main feeder belt. Positioning is product dependent so use trial-and-error for the correct placement. This bar can also be positioned in the top or bottom slots. The bottom slots are used for thin sheets and/or longer product to create more grab on the product to aid in separation.
2. **Spring Steel Straps** – these three straps create pressure on the product and guide it down the discharge. You can bend these to create the desired amount of pressure on the product or position them along the discharge cross bar for different sized products. You can position the rollers along the shaft for different sized products by loosening the two set-screws on each roller, but be sure the spring steel straps are always positioned over the urethane belts.
3. **Adjustable Discharge Assembly** – the adjustable discharge houses the drive and idler shafts. It is adjustable up and down to angle your product into whatever you're feeding on.
4. **Elevated Discharge Cross Bar** – the sensor cross bar houses the sheet sensor bracket and double detect (optional). This can be adjusted up-and-down, forward-and-back. The sheet sensor has a 2-inch range and should be positioned to detect the product within 2-inches.
5. **Short/Long Spring Steel** (not pictured) – The RX-12bc comes with an additional long spring steel attached to the sensor cross bar. It is slightly bent down at the tip to aid in high-speed batch counting and acts as a kick-down on the back end of the product as it leaves the feeder. This can be bent to your desired angle. The RX-12d comes with a shorter spring steel attached to the sensor cross bar for one-shot applications to aid in product separation.
6. **Sheet Sensor Bracket** – the sheet sensor bracket holds the sheet sensor and can be position to detect the edge of the leading piece of product. Be sure the sheet sensor is not positioned over a shaft, spring steel or other object.

REMOTE OPERATOR SCREEN

	<p>POWER UP SCREEN: F2 (A)</p> <p>ABOUT screen showing firmware. This is the power up page.</p>
	<p>RUN SCREEN 1: F3 (R)</p> <p>This will be the most common page to run from.</p> <ul style="list-style-type: none"> -Batch count setting is in the black box. Change it by pressing black CHG button next to it. Set your count and enter. -Actual count is displayed in white box. A RST (reset) can be performed by pressing the white RST box -Dropper ON indicator is shown here. Black box indicates the dropper output is ON <p>-“CONTINUOUS RUN IS SET ON” will replace all batch and actual run boxes when continuous run is set to an ON condition in Settings 3 page.</p>
	<p>RUN SCREEN 2: F3 (R) - ></p> <p>-Total count. This is a totalizer that is only resettable by pressing the RST box. Useful for shift counts, job counts, etc.</p>
	<p>SETTINGS 1: F4 (S)</p> <ul style="list-style-type: none"> -Cycle speed. This is the max run speed. Max value 100. Can be changed by pressing the + and - buttons or by pressing the value button and setting it through a number keypad. - Jog/Slowdown Speed. This is the speed setting for jogging and when there is a slowdown count entered in Settings 3 page.
 <p>> or < Moves within the Setting Screens</p>	<p>SETTINGS 2: F4 (S) - ></p> <ul style="list-style-type: none"> -Miss detect. Missed detect is used to ensure all pockets are filled in a conveyor line setup. While ON (Blk), if another trigger or cycle is received before the current batch cycle is finished, the feeder will fault. -Double detect. If your feeder is equipped with a double sheet detection assembly, here is where you could turn it ON/OFF. (I.E. while setting up the feeder, you may wish to have this turned OFF until you have all the adjustments made) -Timeouts. These are set to monitor the gap in the discharge between individual feeds. It is evaluated at the sheet sensor. Each setting can be set by pressing the indicator button and entering the value in the numerical keypad. All values are in milliseconds.

	<p>Blocked is when there is no gap detected and the sheet sensor stays on for this set period of time. (I.E. incorrect sheet setup at the separator, or a jam in the discharge assembly).</p> <p>Clear is when there is too much time between products with the sheet sensor. (I.E. the feeder runs empty or if the feeder is setup incorrectly in the separator assembly thus not feeding consistently).</p>
 <p>> or < Moves within the Setting Screens</p>	<p>SETTINGS 3: F4 (S) - >></p> <p>-Continuous run mode. Activate by pressing the button. When on, Run Screen 1 will indicate the Continuous Mode is ON. Continuous run mode does not allow batch count operation.</p> <p>-Slowdown. Activate by pressing the button. Slowdown count number can be set up to 9. The slowdown allows the operator to slow the feeder down by a set number within the batch count to allow for better stop and position control as a batch cycle completes. (I.E. Batching a 50 count at max cycle speed 100% with a slowdown count of 2 at 30% slowdown speed. Count 49 and 50 of the batch will exit the feeder slower than counts 1-48)</p>
	<p>SETTINGS 4: F4 (S) - >>></p> <p>-Dropper. Activate by pressing the button. When ON, Run Screen 1 will indicate it's ON selection. In this mode, a run/cycle/trigger will generate an output (24VDC) signal at pins 9 and 2 of our I/O connection. This signal will stay ON for a time period as set by the OPEN time setting in this screen. (I.E. How long you want to open a drop door)</p> <p>The I/O output will go OFF and then the feeder will begin to feed following a FEEDER DELAY time setting also set in this screen. (I.E. You may want to delay the feeder somewhat as the drop door is returning to its normal position)</p>
	<p>ALL SCREEN BACKGROUND:</p> <p>**WARNING** This will scroll on all screens when the Slowdown count is set too high in order to allow max run speed. (I.E. Running a batch size of 5 and a slow down count of 5 in Settings 3 page. You would never get to Cycle Speed because the Slowdown count would hold it through the 5 count).</p> <p>F- Key descriptors RUN (Cycle Feeder) – F1 A (About or Power up screen) – F2 R (Run Screen 1) – F3 S (Settings 1) – F4 STP (Stop/Reset Feeder) – F5</p>

PRODUCT SETUP FAULT CONDITIONS

FAULT CONDITIONS

ISSUE	POSSIBLE CAUSE	PROPOSED SOLUTION
Time Out Error	<ol style="list-style-type: none"> 1. Sheet sensor in discharge is blocked or unblocked for about 2 seconds when feeder is triggered to feed. 2. Sheet sensor in discharge is not changing state 3. Sensor was moved and is reflecting off a surface, is on all the time, and doesn't see gap 4. Product is overlapped so there is no gap 5. No Product is coming through feeder. 6. Wedge and Separator Blade settings are incorrect 7. Feed Belt is not turning 8. Motor is not turning. 9. Feed Belt Turns, but Discharge belts do not turn 	<ol style="list-style-type: none"> 1, 2, 3. Move sensor 4. Adjust wedge and gate separator blade, and adjust discharge hold down straps as required to create separation and gap 5. Product is out or almost out. Refill hopper 6. Adjust wedge and gate separator blade to create separation and gap 7.a. Speed knob turned down too low. Turn up speed knob so belt turns 7.b. Check timing belt and pulleys between motor and drive shaft. Replace belt or tighten pulley set screws if needed 8.a. If older unit, check if brushes are worn. Replace brushes 8.b. Verify 90 Volts to the motor when it should be running. If not, check operation of relay, then Click PLC. Replace component as needed 9. Check timing belt and pulleys between main drive shaft and discharge drive shaft. Replace or tighten as needed.
Miss Detect	Product is not dispensed in time between two trigger (lug) signals	Slow down lugged conveyor or speed up feeder

CREATING PRODUCT SEPARATION

Product separation is controlled by couple factors: (1) the amount of pressure on the product between the main feed belt and pressure bar, (2) the amount of lift from the wedges, (3) the amount of weight in the hopper, (4) the product itself. All four work together to create a balance in the feeder and aid in product separation. There is no magic formula for all products; just trial-and-error.

1. **Pressure vs. Lift:** Do not overtighten the Pressure Bar. This will create too much resistance on the motor and can prematurely wear on consumable parts. Instead, create more lift on the back end of the product stack by moving the wedges forward.
2. **Weight:** Rigid products, such as chipboard material, tend to be lightweight and may require more weight in the hopper to increase contact with the feed belt to pull the product through. Just the opposite is true for heavy products. The weight of a heavy stack, such as paper sheets, can create too much resistance on the bottom piece to pull it through. Instead, increase the wedge lift to reduce the weight of the stack off the feed belt or position the Low Profile Wedge Rollers (sold separately) on the deck-top to disperse the stack weight.
3. **Product Types:** The Maxim RX Series is designed to be a cost-effective solution for a variety of applications and product types. It is not recommended for any type of glossy product substrates. There are thousands of different products on the market and it's impossible to give a comprehensive list of what can and can't feed. Product testing is always highly recommended before the sale of a Maxim RX feeder if the product poses any type of feeding issues.

CORRECTING for PRODUCT SKEW

On Maxim RX models, two factors contribute to skewing:

1. **Uneven product weight distributed over the feed belt:**
 - a. Be sure the weight of your product stack is evenly distributed over the feed belt. Position the magnetic wedges under and around your product stack to help distribute the weight.
 - b. In general, whichever corner of your product is leading first usually means that side of the product has more contact with the feed belt and is pulling faster. Using micro-adjustments with your wedges, lift that side of the product off the belt or lower the other side.
2. **Product not centered in the hopper:**
 - a. For symmetrical products, be sure the product stack is centered over the feed belt and adjust the side guides to help center your product.
 - b. For asymmetrical products, be sure the stack is positioned over the feed belt to distribute the product weight evenly. This is especially true with poly bags and other uneven products.

OPERATING STACK HEIGHT

Operating stack height refers to the amount of product in the hopper. This will vary depending on the weight and rigidity of your product. While the feeder has a maximum stack capacity of 16", your product may not allow for that. Heavy-thin products, such as paper sheets, will have a lower operating stack height around 2"-5", while lighter-rigid products, such as envelopes, may run at full 16" capacity. The greater the weight, the greater the friction and force needed to separate the product.

NOTE: Overtightening the Blade and creating too much pressure to try and separate your product can damage the feeder by creating too much resistance on the motor and prematurely wearing down your belts, Blade, and other consumables.

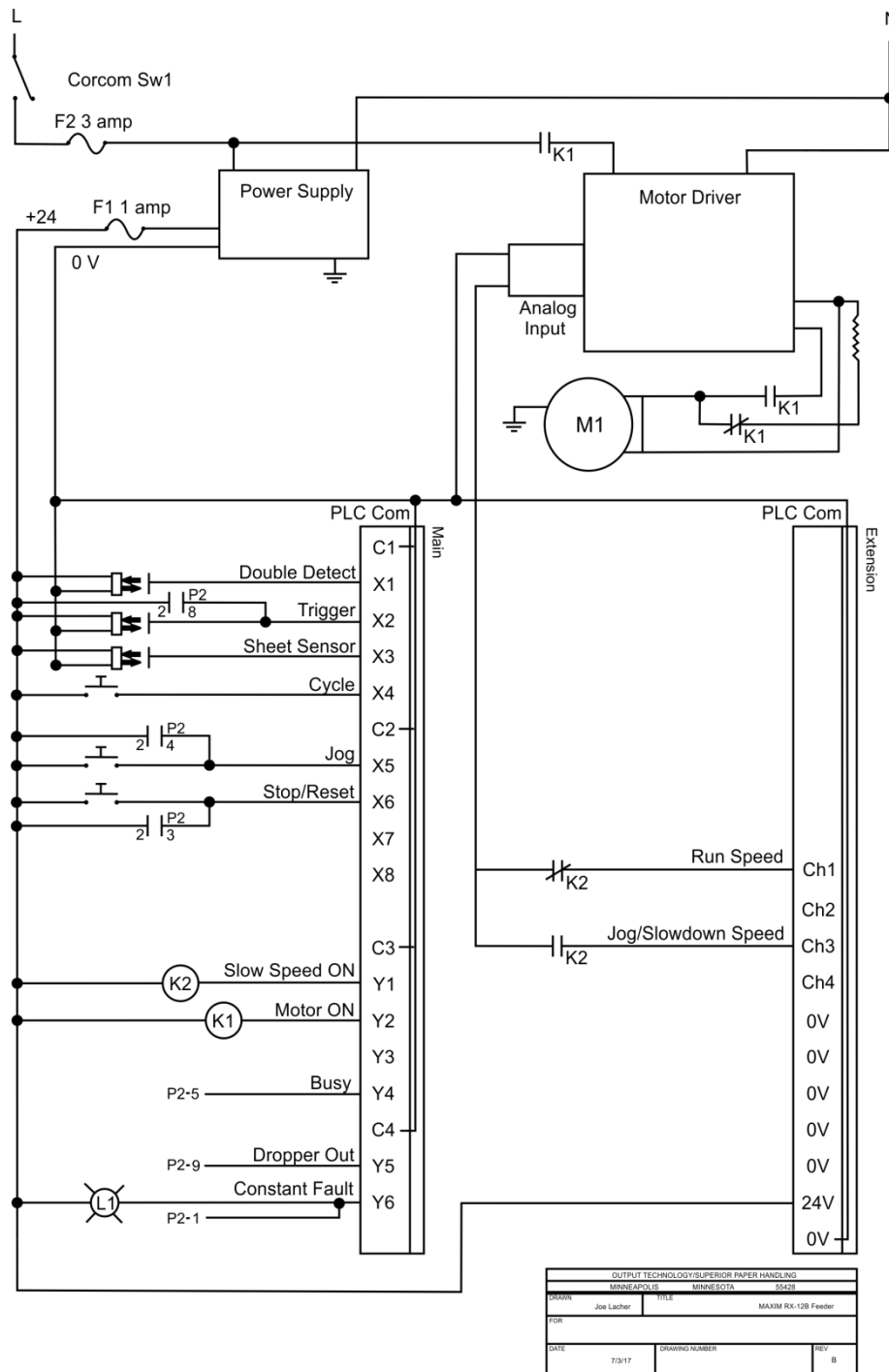
Instead, use the wedges to lift heavier products off the feed belt to aid in separation and reduce friction, and/or reduce your stack height. There is no exact formula to determine your operating stack height. For maximum results, use trial-and-error to find your optimal stack height for your specific product type and keep your operating stack height close to that range. You may notice feeding inconsistencies if the operating weight/height of your product stack is not consistent.

RX-12BC ELECTRICAL SCHEMATIC

Pin 1- Constant Fault (O)
 Pin 4 – Ext Jog (I)
 Pin 7 – 0VDC (O)

Pin 2 - +24VDC (O)
 Pin 5 – Busy (O)
 Pin 8 – Ext Trigger (I)

Pin 3 – Ext Stop (I)
 Pin 6 – Not Used
 Pin 9 – Dropper (O)



RX-12BC INTERFACE CONNECTIONS



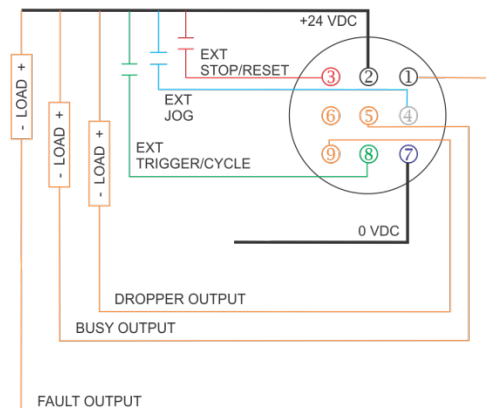
READ THE FOLLOWING DESCRIPTIONS FOLLOWING THE DIAGRAM BELOW BEFORE WIRING TO THE I/O PLUG. DAMAGES TO THE FEEDER WILL RESULT IF THE I/O IS NOT PROPERLY CONFIGURED. WARRANTIES ARE VOID IF IT'S DETERMINED AN IMPROPER I/O WAS CREATED. NEVER SUPPLY VOLTAGE FROM AN EXTERNAL SOURCE TO ANY OF THESE PINS.

The Maxim RX-12BC has 3-inputs, 3-outputs, and 2-power (24VDC+/-).

Maxim RX12-BC

User Guide and panel instruction

I/O connections (DIAGRAM)



INPUTS

The inputs allow for external control of the feeder.

By apply PIN 2 to PIN 3 (STOP/RESET) or PIN 8 (TRIGGER/CYCLE) you can externally start, stop and reset the feeder.

OUTPUTS

FIRST - NEVER SUPPLY PIN 2 DIRECTLY TO THE OUTPUTS (PINS 1, 5, & 9) DAMAGE TO THE FEEDERS PLC CONTROLLER WILL OCCUR. THERE MUST BE AN ELECTRICAL LOAD BETWEEN THESE PINS AS SHOWN ABOVE.

The outputs are used to control an optional SPHS Dropper and also allow the user to monitor the BUSY and FAULT condition of the feeder. Each output can power up to 100ma. (A standard coil 24 VDC relay would be an example) This is helpful when you want to install the feeder into a system layout. The PLC outputs are pulled low when the condition is true. (i.e. when the feeder is busy performing its batch cycle, PIN 5 is pulled low. The diagram above shows that if you connect a load such as a relay between PIN 5 and PIN 2, an active 24 VDC will be present when the feeder is BUSY. You could hold a system from starting while the BUSY signal is on. Also is the case in monitoring the FAULT output. When the feeder faults this input is pulled low.

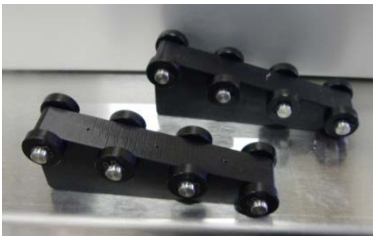
ACCESSORIES AND AFTERMARKET OPTIONS



Height Adjustable Mounting Stand. Designed with locking swivel casters and low-toe profile for mobility on the production floor. 30"-40" height adjustable. Includes Stand Mounting Brackets when purchased with feeder.



Vacuum Carriage. 2 hole patterned vacuum block and feed belt assembly. Allows users to bring vacuum in and assist feeding of various coated stocks. Call for conversion options.



Low-Profile Roller Support Wedges, set of 2. Used to lift the weight heavy products off the feed belt to reduce friction and aid in product separation, and to provide added support/lift for long, flimsy products. Generally, products greater than 8"L.



DECK Extensions. Rear plate deck extensions for longer product capacity through the feeder.

Double Detect.

Maxim product lines offer an electronic burn through sensor that can be used for double feed detection

1. Open the plastic lid on the Double Detect Amplifier, and HOLD the Teach Button until the Red display shows "Pt".
2. Place 2 pieces of product between the fiber optic sensors in the discharge area.

NOTE: Place the 2 pieces together at their thickest point (i.e. envelop flaps). Because this is a burn-through sensor, choose the darkest ink area if possible.

3. With the 2 pieces of product in place, PRESS the Teach Button once. The sensor will set a value in the green portion of the display. This is the threshold value the sensor will use to determine a pass/fail reading. This value can be changed manually by pressing the ► or ◀ buttons if the threshold value achieved through teaching isn't sufficient.



RUN DISPLAY

The Double Detect Amplifier should be set to a Dark - On status from the factory. This is the required setting to work with the MAXIM line. If needing to set, follow these Instructions below

1. Open the plastic lid on the Double Detect Amplifier, and HOLD the Mode Button until the Red display shows "L-d".
2. PRESS the Mode Button once until the green display flashes.
3. Use the ► or ◀ buttons to change the green display to read "d on". PRESS the Mode Button to set.
4. Use the ► or ◀ buttons to cycle through the menus until the red display reads "end". PRESS the Mode Button once to take it out of the menu screens and back to the run screen.



MENU DISPLAY

ILLUSTRATED PARTS

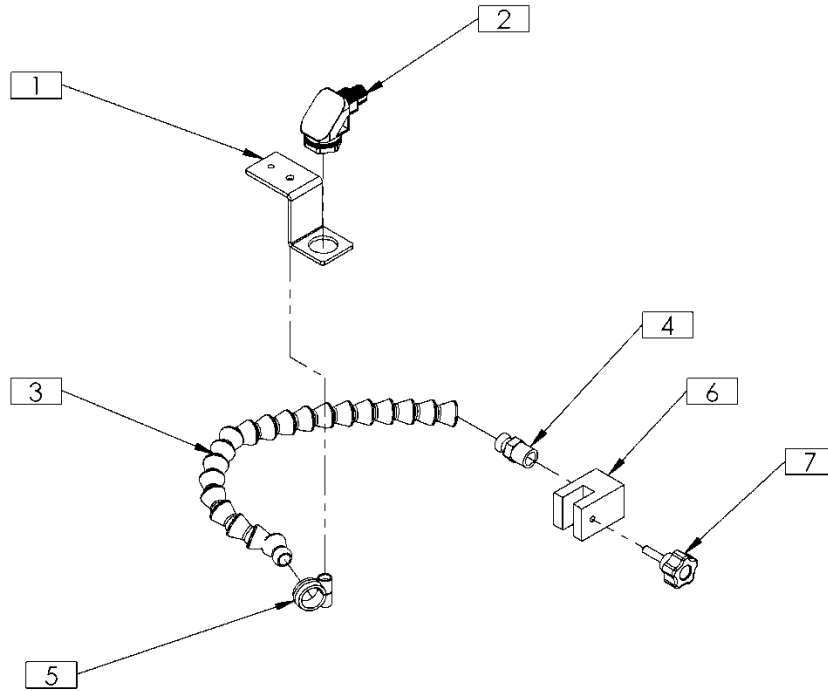
ITEM NO.	PartNo	DESCRIPTION	QTY.
1	400323	RX-12 MOTOR PAN ASSEMBLY W/O BUMPERS	1
2	400160	RX-12D CHASSIS ASSEMBLY	1
3	400098	RX-12 WEDGE ASSEMBLY	1
4	400155	RX-12 CARRIAGE ASSEMBLY	1
5	400156	RX-12 HOPPER ASSEMBLY	1
6	500025	MAXIM RX-12 BD DISCHARGE	1
7	300845	TIMING PULLEY	1
8	301198	DECK EXTENSION (OPTION)	1
9	400227	RX-12 BURN THRU DOUBLE DETECT (OPTION)	1
10	100390	TRIGGER SENSOR ASSEMBLY	1
11	100431	POWER CORD	1
12	301199	DECK EXTENSION (OPTION)	1
13	301364	COUNTER	1
14	301177	TIMING BELT	1

PROPRIETARY AND CONFIDENTIAL
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SUPERIOR PAPER HANDLING SOLUTIONS. ALL RIGHTS RESERVED. NO PART OF THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

Superior
 Paper Handling Solutions

Assembly Number: **500026**

TRIGGER SENSOR ASSEMBLY



ITEM NO.	PartNo	DESCRIPTION	QTY.
1	100260	SENSOR BRACKET	1
2	100388	SENSOR	1
3	100393	LOC LINE	2
4	100394	NPT CONNECTOR	1
5	100395	CLAMP	1
6	100261	SENSOR BRACKET	1
7	100392	KNOB	10
8	100389	CABLE (NOT SHOWN)	1
9	100396	CONNECTOR (NOT SHOWN)	1
10	100399	CLAMP (NOT SHOWN)	1

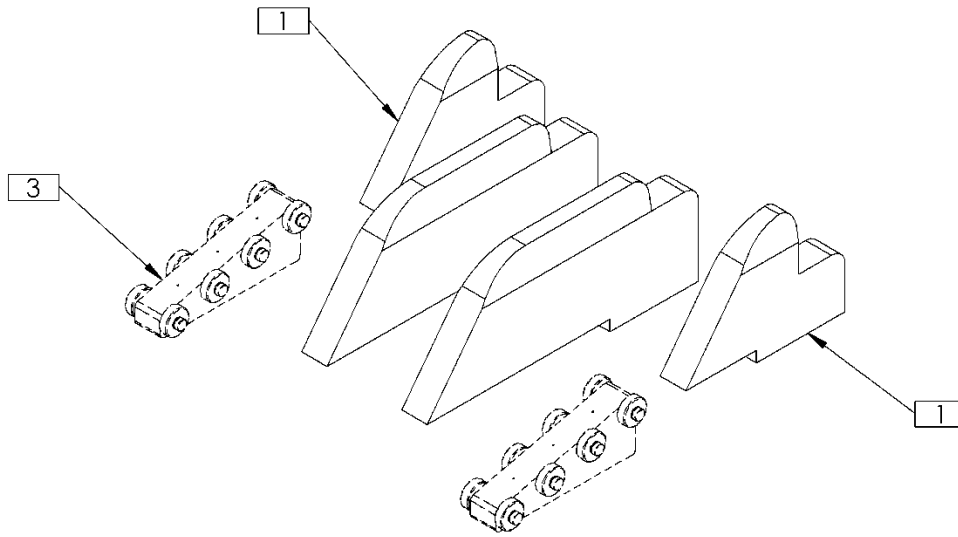
PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF SUPERIOR PAPER HANDLING SOLUTIONS. ALL RIGHTS RESERVED. THIS DOCUMENT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM SUPERIOR PAPER HANDLING SOLUTIONS.

Superior
 Paper Handling Solutions

Assembly Number: **100390**

RX-12 WEDGE ASSEMBLY



ITEM NO.	PartNo	DESCRIPTION	QTY.
1	400060	REAR MAGNETIC WEDGE ASSEMBLY	2
2	400069	REAR MAGNETIC WEDGE ASSEMBLY, SMALL PRODUCT	2
3	400171	LOWER PROFILE ASSEMBLY (OPTION)	2

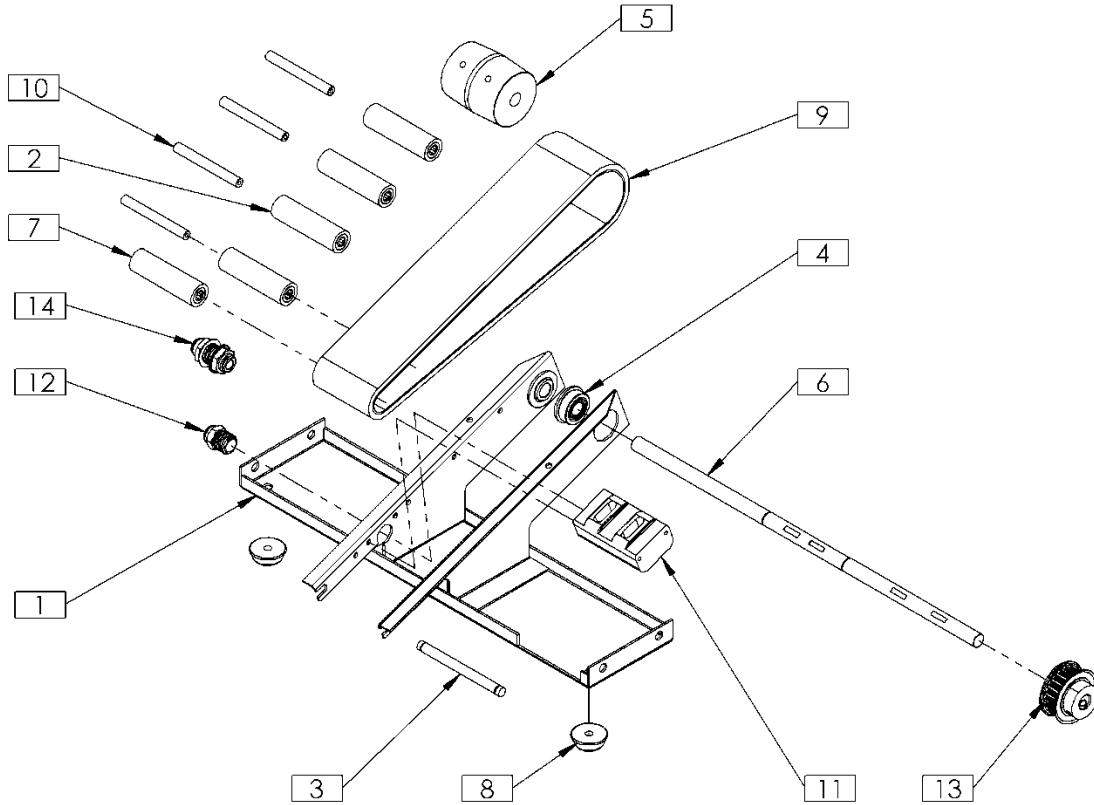
PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF SUPERIOR PAPER HANDLING SOLUTIONS. ALL RIGHTS RESERVED. THIS DOCUMENT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

Superior
 Paper Handling Solutions

Assembly Number: **400098**

RX-12 CARRIAGE ASSEMBLY



ITEM NO.	PartNo	DESCRIPTION	QTY.
1	301011	CARRIAGE	1
2	400263	ROLLER IDLER ASSEMBLY	4
3	301004	SHAFT IDLER DISCHARGE	1
4	300525	BEARING	2
5	301003	ROLLER DRIVE REAR	1
6	301012	REAR DRIVE SHAFT	1
7	400151	IDLER ROLLER DISCHARGE ASSEMBLY	1
8	300524	ROUND BUMPER	2
9	300991	FEED BELT	1
10	301005	SHAFT IDLER	4
11	301839	MANIFOLD (OPTION)	1
12	350141	STRAIGHT ADAPTOR (OPTION)	1
13	300845	TIMING PULLEY	1
14	350147	WALL ADAPTOR (OPTION)	1
15	350146	VACUUM LINE (NOT SHOWN)	1

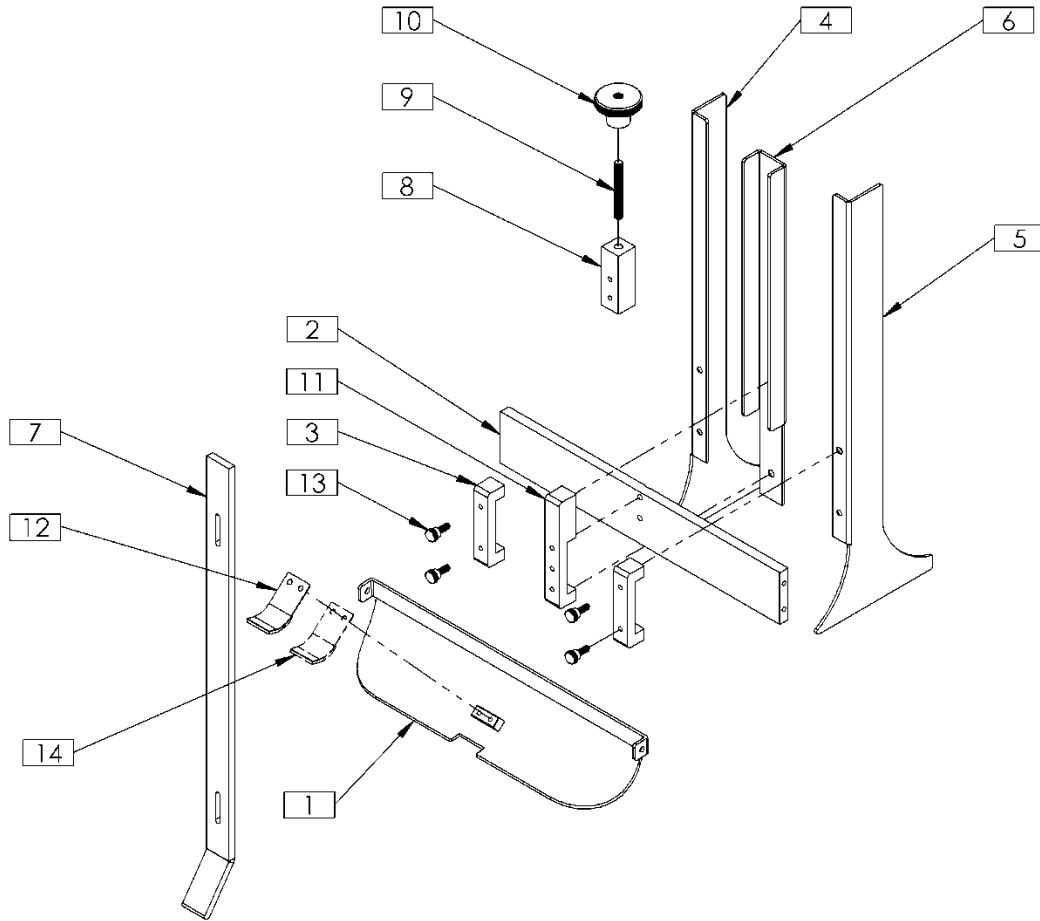
PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF SUPERIOR PAPER HANDLING SOLUTIONS. IT IS TO BE USED ONLY FOR THE PURPOSES INTENDED AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF SUPERIOR PAPER HANDLING SOLUTIONS. © 2017

Superior
 Paper Handling Solutions

Assembly Number: **400155**

RX-12 HOPPER ASSEMBLY



ITEM NO.	PartNo	DESCRIPTION	QTY.
1	300527	RX-12 PRE SHINGLE PLATE	1
2	300500	CROSS BAR	1
3	300501	CROSS BAR CLAMP	2
4	300505	SIDE GUIDE RIGHT	1
5	300506	SIDE GUIDE LEFT	1
6	301062	CENTER HOPPER PLATE	1
7	300562	PRESSURE BAR	1
8	300561	TOP ADJUSTMENT BLOCK	1
9	300563	THREADED ROD	1
10	300564	KNOB	1
11	301063	CENTER CROSS BAR CLAMP	1
12	400226B	BLADE™ BLUE	1
13	390097	THUMB SCREW	4
14	400226A	THE BLADE™ RED (OPTION)	1

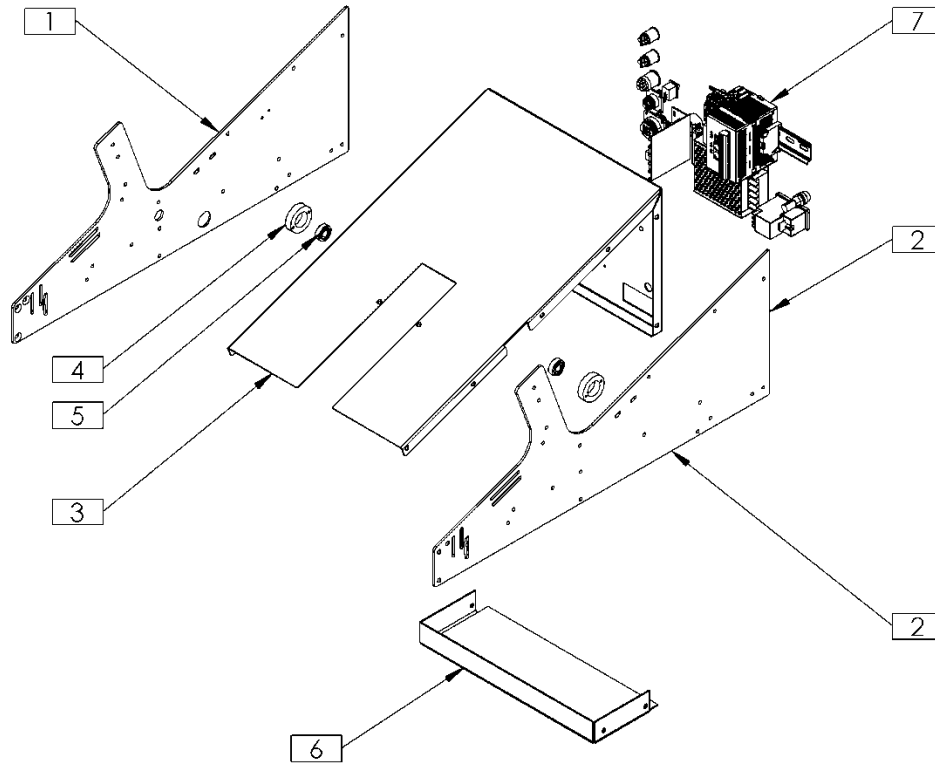
PROPRIETARY AND CONFIDENTIAL

THIS DOCUMENT IS UNCLASSIFIED. THIS DRAWING IS THE SOLE PROPERTY OF SUPERIOR PAPER HANDLING SOLUTIONS. ALL RIGHTS RESERVED. THIS DRAWING IS A TRADE SECRET. THIS DRAWING IS THE PROPERTY OF SUPERIOR PAPER HANDLING SOLUTIONS. ALL RIGHTS RESERVED.

Superior
 Paper Handling Solutions

Assembly Number: **400156**

RX-12 CHASSIS ASSEMBLY



ITEM NO.	PartNo	DESCRIPTION	1200B/ QTY.
1	300988	RIGHT SIDE	1
2	300989	LEFT SIDE	1
3	301058	DECK PLATE - 12	1
4	300520	BEARING HOLDER	2
5	100135	BEARING	2
6	301130	GUARD	1
7	400183	RX-12 ELECTRONICS PACKAGE	1

Contact SPHS with your serial number for Electronics Support

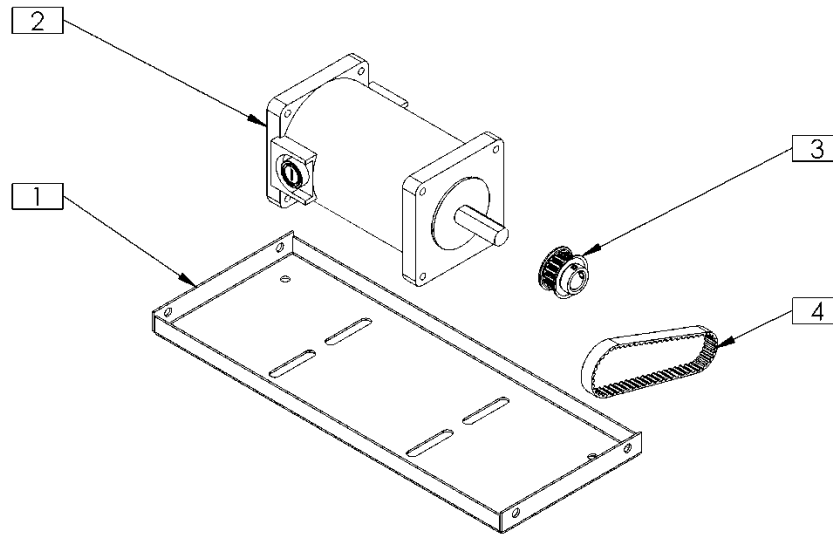
PROPRIETARY AND CONFIDENTIAL

THIS DRAWING IS THE PROPERTY OF SUPERIOR PAPER HANDLING SOLUTIONS. IT IS TO BE USED ONLY FOR THE PURPOSES INTENDED. IT IS TO BE KEPT IN CONFIDENTIALITY AND NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

Superior
 Paper Handling Solutions

Assembly Number: **400160**

RX-12 MOTOR PAN ASSEMBLY W/O BUMPERS



ITEM NO.	PartNo	DESCRIPTION	QTY.
1	300511	RX-12 MOTOR PAN	1
2	300842	DC MOTOR	1
3	300844	TIMING PULLEY	1
4	300846	TIMING BELT	1

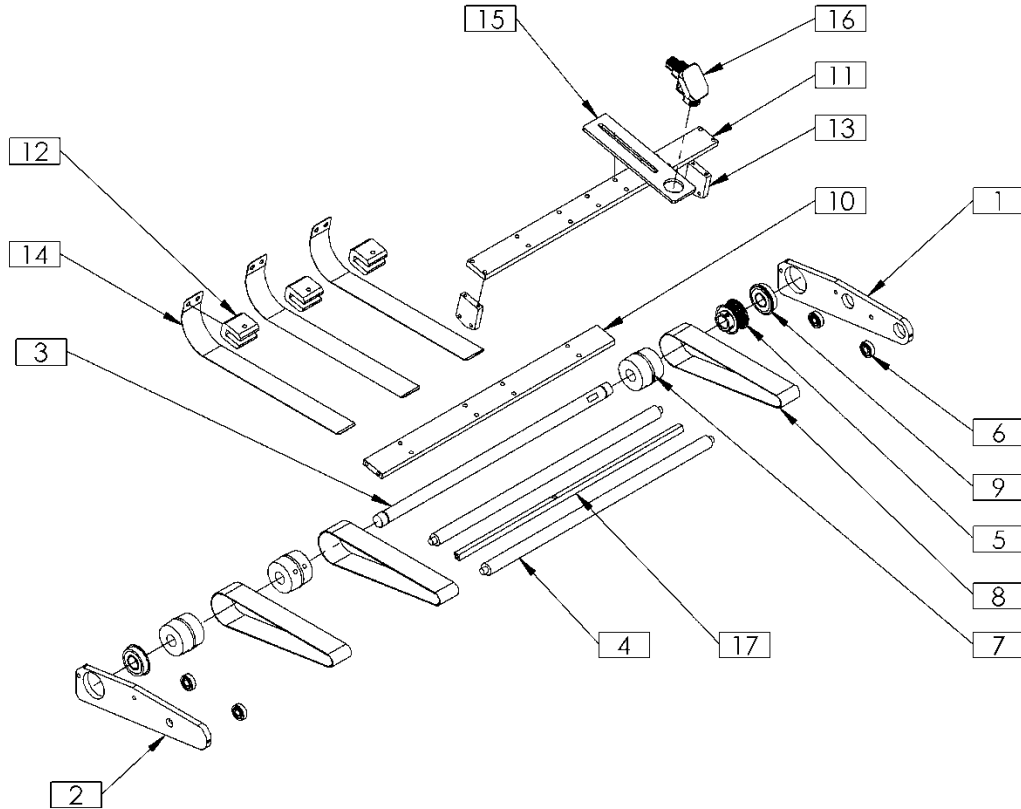
PROPRIETARY AND CONFIDENTIAL

THIS DRAWING IS THE PROPERTY OF SUPERIOR PAPER HANDLING SOLUTIONS. IT IS TO BE USED ONLY FOR THE PURPOSES SPECIFIED. IT IS TO BE KEPT IN CONFIDENTIALITY AND NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

Superior
 Paper Handling Solutions

Assembly Number: **400323**

MAXIM RX-12 DISCHARGE



ITEM NO.	PartNo	DESCRIPTION	QTY.
1	300971	LEFT DISCHARGE FRAME MEMBER	1
2	300970	RIGHT DISCHARGE FRAME MEMBER	1
3	300585	DRIVE SHAFT	1
4	300583	IDLER SHAFT	2
5	300844	TIMING PULLEY	1
6	300978	BEARING	4
7	300973	CROWNED DRIVE ROLLER	3
8	100158	FEED SECTION BELT	3
9	300980	FLANGE BEARING	2
10	300974	DISCHARGE CROSS BAR	1
11	301082	DISCHARGE CROSS BAR	1
12	300975	HORIZONTAL BLACK ADJUSTMENT BLOCK	3
13	301079	ELEVATED CROSS BAR UPRIGHT	2
14	301090	DISCHARGE STRAP	3
15	301093	SHEET SENSOR BRACKET	1
16	100387	SENSOR	1
17	301116	RX-12 DD MOUNT BAR	1

PROPRIETARY AND CONFIDENTIAL

THIS DRAWING IS THE PROPERTY OF SUPERIOR PAPER HANDLING SOLUTIONS. IT IS TO BE USED ONLY FOR THE PURPOSES INTENDED. IT IS TO BE KEPT IN CONFIDENTIALITY AND NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

Superior
 Paper Handling Solutions

Assembly Number: **500025**

WARRANTY

SUPERIOR-PHS LIMITED WARRANTY

Superior Paper Handling Solutions, Inc. (Superior-PHS) warrants this product to be free from defect in materials and workmanship, when used under recommended operating conditions, for a period of one year from the date of original shipment.

If you discover a defect during the warranty period, please notify the distributor from whom you purchased this product, who will arrange for the replacement parts to be sent to you. Defective parts must be returned to Superior-PHS for credit on replacement parts. Shipping and labor costs are not included in this warranty. If the defect is not field repairable and if you return it to Superior-PHS during the warranty period, Superior-PHS will, at its sole option, repair or replace this product at no charge to you other than shipping charges to and from the facility in Minneapolis, MN.

If you return this product to Superior-PHS for warranty repair or replacement, please attach to the returned product your name and your company's name, address, telephone number and fax number; a description of the problem; and a copy of the bill of sale or invoice that shows the appropriate serial number for the product. All returns must be accompanied by an authorized Superior-PHS Returned Goods Authorization (RGA) number. An authorized RGA number can be obtained from the Superior-PHS distributor from whom you purchased this product.

This warranty applied only to products manufactured by Superior-PHS. This warranty does not apply if the product has been damaged by accident, abuse, misuse, neglect, improper maintenance, misapplication, or as a result of being modified with the written permission of Superior-PHS; or if the product's serial number has been removed or defaced. This warranty further does not apply to the failure of any rubber-based or consumable components including, but not limited to, rollers, bearings, belts, fuses, or bulbs.

ALL IMPLIED WARRANTIES INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND THE IMPLIED WARRANTY OF MERCHANTABILITY ARE HEREBY DISCLAIMED.

Superior-PHS is not responsible for special, incidental, or consequential damages resulting from any breach of warranty or under any other legal theory, including lost profits, downtime, goodwill, or damage to or replacement of equipment or property.

This warranty and the remedies set forth above are exclusive and are in lieu of all others, oral or written, express or implied. There are no warranties that extend beyond the description on the face hereof. No Superior-PHS employee, distributor, or agent is authorized to make any modification, extension, or addition to this warranty.

NOTES

Superior Paper Handling Solutions, Inc.
7150 Boone Ave North, Suite 130
Brooklyn Park, MN 55428

Tel: 763-546-9140
Fax: 763-546-8883

Email: info@superior-phs.com
Web: www.Superior-PHS.com