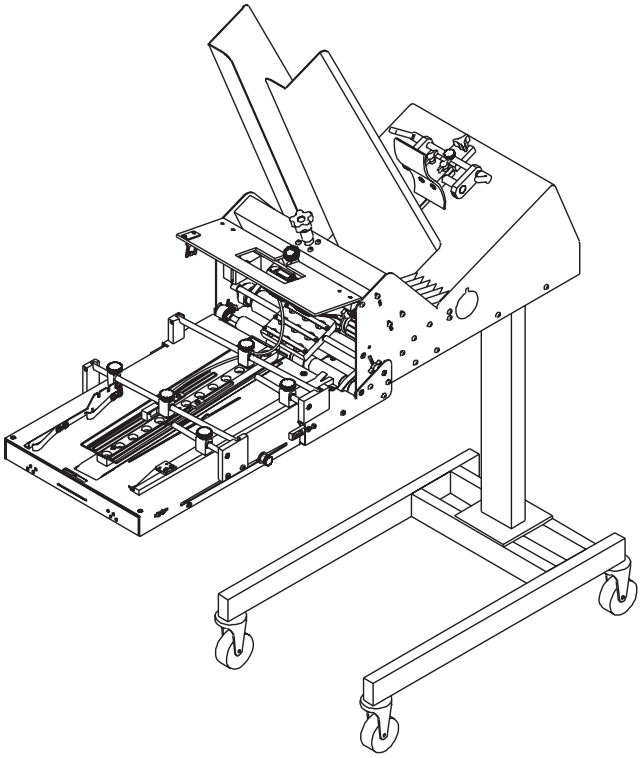
Reliant 270RT

Press Feeder

Operator Manual



Streamfeeder®

First Edition (December 1999)
Part No.: 00900203, Rev. A

Streamfeeder, LLC
103 Osborne Road
Minneapolis, MN 55432-3120 USA

TEL: 612.502.0000
FAX: 612.502.0100
E-MAIL: service@streamfeeder.com
WEB: www.streamfeeder.com

Printed in the USA.

Contents

Before You Begin

Welcome to Streamfeeder. This manual was included with your new Streamfeeder Reliant 270RT Press Feeder. It provides all the information you need to efficiently operate and maintain the product.

Who Should Read This Manual

This manual is primarily intended for press operators who will be using the 270RT Press Feeder in their day-to-day operations. *Please read it thoroughly before you operate the machine.*

Qualified technicians should also be familiar with the information in this manual.

How This Manual Is Organized

This manual is divided into the following main areas:

- "Safety": *This section is at the front of this manual for good reason. It covers all safety issues that you should be familiar with before you go any further with adjustments, power-up, or operation.*
- Section 1, "About the Machine": *Introduces you to the feeder. It provides a complete description of all controls, connectors, and sensors.*
- Section 2, "Preparing for Operation": *Includes all adjustments you should make before attempting to do a power-up and successfully run envelopes through the machine.*
- Section 3, "Installing the Machine": *Provides you with simple step-by-step instructions to properly install and align a 270RT with an offset press.*
- Section 4, "How to Operate": *Walks you through the basic steps needed to run the machine — from power-up to shutdown.*
- Section 5, "Troubleshooting": *Gives you the basic diagnostic information you need to quickly and accurately solve problems to minimize downtime.*
- Section 6, "Inspection and Care": *Covers all the steps to keep your feeder running properly to minimize downtime and maximize product life,*
- Appendices: *Contains instructions for interfacing the feeder, custom hardware kit, and specific offset print presses.*

NOTE

The information in Sections 5 and 6 is designed to be a quick and easy method for the operator to minimize downtime. Streamfeeder does not recommend opening the feeder compartment or performing any part replacement based on the information given in this manual. For more detailed information, please see the Technical Information Guide, and/or consult with a qualified technician.

Message Conventions

Eight types of messages may appear in this manual which emphasize information of particular interest:

DANGER signifies an operator action or specific equipment area that can result in serious injury or death if proper precautions are not taken.

WARNING signifies an operator action or specific equipment area that can result in personal injury if proper precautions are not taken.

CAUTION signifies an operator action or specific equipment area that can result in equipment damage if proper precautions are not taken.

ELECTRICAL DANGER signifies an operator action or specific equipment area that can result in personal injury or death from an electrical hazard if proper precautions are not taken.

TIP signifies information that is provided to help the operator minimize problems in the operation of the machine.

NOTE provides useful additional information that the operator should be aware of to perform a certain task.

CHECK signifies an action that should be reviewed by the operator before proceeding.

IMPORTANT alerts the operator to actions that can potentially lead to operational problems or equipment damage if instructions are not followed properly.

Other Related Documents

Qualified technicians will want to review the companion *Technical Information Guide*. This document covers non-operational topics intended only for qualified technical employees.

Safety

Make sure you thoroughly read this Section until you become familiar with all the safety issues relating to the safe operation of this machine.

Please read all of the Warnings that follow to avoid possible injury. Although Streamfeeder has made every effort to incorporate safety features in the design of this machine, there are residual risks that do exist that an operator should be aware of to prevent personal injury.

Please read all of the Cautions that follow to prevent damage to the machine. The 270RT is built with the highest quality materials. However, damage can occur if the machine is not operated and cared for within design guidelines as recommended by Streamfeeder.

Danger

- **Equipment interior contains incoming 120- or 240-VAC electrical power. Bodily contact with these high voltages can cause electrocution, which can result in serious injury or death.**

Warnings

- **When operating the feeder, always make sure the discharge safety shield is in the closed position (covering the discharge belts and rollers).** Failure to do so may expose your hands or fingers to moving parts which can cause serious injury.
- **When performing service or maintenance on the feeder, always lift the discharge safety shield to disengage the safety interlock, turn Off the main power switch, and disconnect the feeder from the electrical power source.** Failure to do so may expose you to dangerous high voltage or moving parts which can cause serious injury.
- **When performing initial adjustments prior to operation, always make sure you lift the discharge safety shield to disengage the safety interlock, turn Off the main power switch, and disconnect the feeder from the electrical power source.** Failure to do so may expose you to a potential start-up, and therefore moving parts which can cause serious injury.
- **Make sure you always plug the machine into a 3-prong, properly grounded and fused electrical power source.** Never remove or disable the grounding lug at the outlet. Failure to follow these warnings may expose you to dangerous high voltage which can cause serious injury.

Warnings (cont.)

- **Do not attempt to make any adjustments while the machine is running.** Failure to follow this warning may expose you to moving parts which can cause serious injury.
- **Never attempt to clear a jam from the machine until you turn Off the main power switch and disconnect the machine from the electrical power source.** Failure to do so may expose you to a potential start-up, and therefore moving parts which can cause serious injury.
- **Do not attempt to gain access to the inside of the feeder.** Refer all questions or problems to a qualified technician.

Cautions

- **When the machine is not in use, avoid stacking or storing materials on the carriage assembly to prevent damage to the belts.**
- **When replacing fuses, always use the exact type supplied with the machine as shipped from the factory. IMPORTANT: Always make sure power module is replaced exactly as removed. Failure to follow this caution can result in damaged electrical parts.**
- **When performing routine cleaning of parts, only use those methods and cleaning solvents (isopropyl alcohol) which are specified by Streamfeeder.** Failure to do so may cause unpredictable results and can cause damage to machine parts. See Section 6, “Inspection and Care”, for recommendations.
- **Do not attempt to use the machine for any other purpose other than what was recommended by Streamfeeder.** Failure to follow this caution may cause unpredictable performance, and/or can cause damage to machine parts.
- **Avoid leaving any loose cabling near any moving parts.** Failure to follow this caution may result in damage to machine parts.
- **Avoid any type of direct impact to the sensor and extension assembly.** Failure to follow this caution can cause damage to the photo sensor or extension.
- **Do not apply lubricants to any part of the machine.**
- **Do not attempt to gain access to the inside of the feeder. Do not attempt to remove and replace parts.** Refer all questions or problems to a qualified technician.

Labeling

Streamfeeder has affixed safety labels to those areas of the 270RT Press Feeder where potential operator hazards do exist (such as, moving belts or rollers). Shown below are label examples, along with their respective locations.

Feed Belt Guards

Discharge Safety Shield

Electrical Noise

The air contains electromagnetic interference (EMI) fields and radio frequency interference (RFI), also known as “electrical noise”. Usually this noise is small enough in size (amplitude) to not be a problem. If intense enough, however, it can cause problems for other electrical equipment.

Streamfeeder has designed the feeder with noise immunity in mind. Even the sensors provided with the machine have a certain amount of noise immunity built-in. However, in extremely noisy environments, these design considerations are not necessarily immune to electrical noise and therefore, operational problems can occur. *If you suspect any such electrical noise problems, please report it to a qualified technician.*

Safety Listings and Certifications

CE

This symbol on the back panel means the product is in compliance with the following standards under the provisions of the Machinery Directive 89/392/EEC and the amendments 91/368/EEC, 93/44/EEC and 93/68/EEC, and the EMC Directive 89/336/EEC.

1 About the Machine

Features

The 270RT Press Feeder is designed for reliability, flexibility, and ease of use with a variety of smaller offset presses.

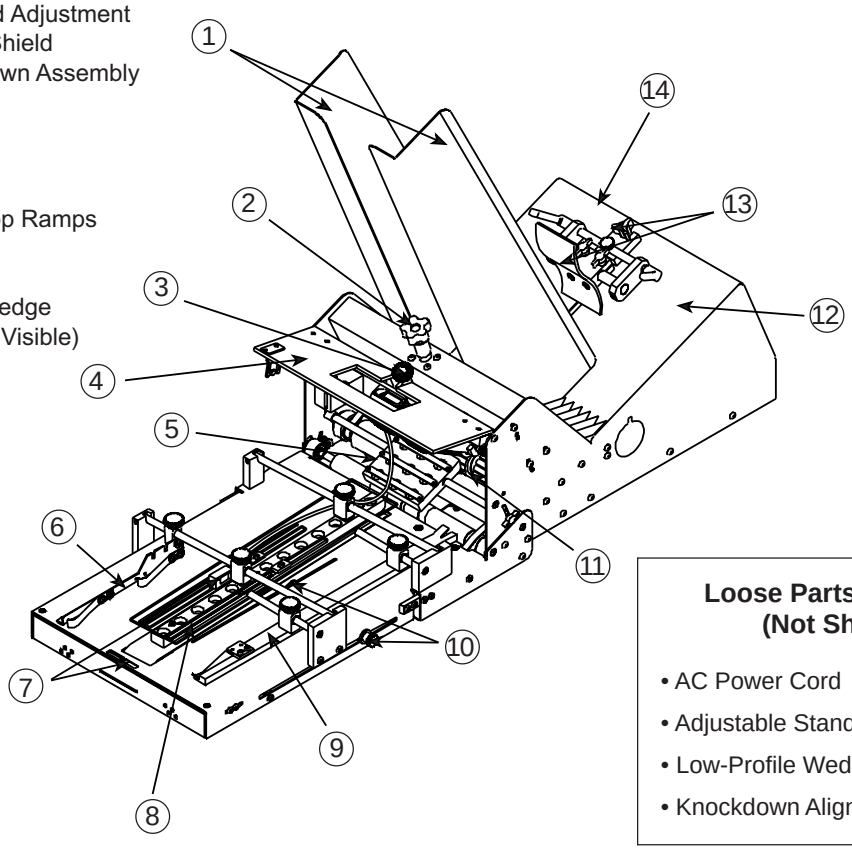
All parts required for setup, loading, feeding, sensing, and easy operator control are combined into one compact unit.

Review the *main assemblies* in Figure 1 to become familiar with names and locations of feeder parts and adjustments. This will help to prepare you for initial setup. Descriptions are found in Table 1.

Review the *control panel components* in Figure 2 to become familiar with names and locations of specific connectors, switches, and controls. This will help to prepare you for installation and operation. Descriptions are found in Table 2.

Main Assemblies

1. Side Guides (Adjustable)
2. Side Guide and Adjustment Knob
3. Gate Assembly and Adjustment
4. Discharge Safety Shield
5. Top Roller Hold-Down Assembly
6. Tension Springs
7. Photo Sensors
8. Transport Belt
9. Alignment Rail
10. Adjustable Backstop Ramps
11. Feed Belts
12. Table Top
13. Adjustable Back Wedge
14. Control Panel (Not Visible)



Loose Parts Supplied (Not Shown)

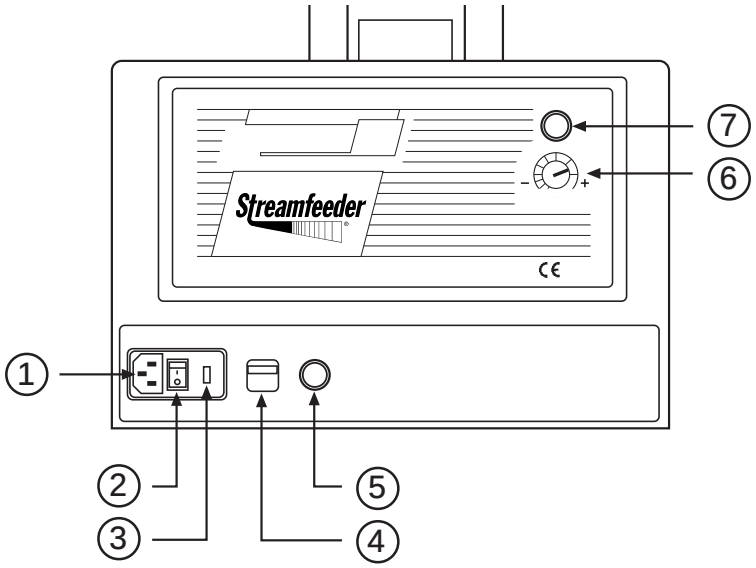
- AC Power Cord
- Adjustable Stand
- Low-Profile Wedge
- Knockdown Alignment Spring

Figure 1. Main Assemblies of the Reliant 270RT Press Feeder

Table 1. Main Assemblies Feature Descriptions

Feature	Description
① **Side guides (adjustable)** ② **Side guide adjustment knob**	Holds a stack of envelopes to be fed and helps keep them straight for proper entry through the gate assembly area. A single adjustment knob allows you to move the side guides together or apart for different size envelopes. Can be positioned equally or offset.
③ **Gate assembly and adjustment**	Mounted on a gate bracket assembly above the feed belts, this device provides a curvature to help shingle stacked material. When properly adjusted, a clearance is created to help singulate and feed material.
④ **Discharge safety shield**	Provides residual risk protection to the operator when the feeder is running. A built-in interlock switch stops the feeder when it is opened.
⑤ **Top roller hold-down assembly (adjustable)**	A block of small bearings that are mounted on an adjustable shaft. The assembly gently forces the envelope onto the discharge belts. This process ensures that the position of the envelopes is maintained after it goes through the gate assembly. To maintain downward pressure, use the T-nuts to loosen the shaft and adjust the block in an upward or downward position.
⑥ **Tension springs**	Assures the envelope is maintained flush against the alignment rail.
⑦ **Photo sensors**	There are two sensors on the 270RT. The top sensor detects the trailing edge of the envelope and triggers the feeder to feed another piece. The bottom sensor detects the leading edge of the envelope and commands the feeder to stop when the piece is staged.
⑧ **Transport belts**	Combined with the top roller hold-down assembly, provide the friction and motion necessary to pull envelopes away from the gate assembly area. Transport belts operate faster than drive belts, speeding up envelopes for proper registration at the alignment rail.
⑨ **Alignment rail**	Keeps the envelope straight as it moves across the alignment table.
⑩ **Adjustable backstop ramps**	Keeps the envelopes from bouncing backward when they contact the alignment table stop. Locate the adjustments on the side of the alignment table.
⑪ **Feed belts**	Provide the friction and motion necessary to pull individual envelopes from the bottom of the stack and through the gate assembly area.
⑫ **Table top**	Used to support the back wedge.
⑬ **Adjustable back wedge**	Lifts the envelopes to keep them off the table top, reduces excessive contact with the feed belts, and helps push the envelopes against the curvature of the gate assembly. For proper lift, adjustment wingnuts and locking levers allow sliding the wedge to various positions and angles.
⑭ **Control panel (not shown)**	Contains buttons for speed control, Jog function, reset function, mode selection, and AC power. For descriptions, see Figure 2 and Table 2.
Loose Parts **AC power cord, 8 ft. (2.44m)** **Adjustable stand** **Low-profile wedge** **Large product knock down assy.**	 IEC320 removable three-prong plug and cord. As a base for the Reliant 270RT, allows for easy mobility. Helps support larger envelopes as they go through the feeder. Optional device to provide support and pressure for larger envelopes.

Control Panel Components



1. AC Power Cordset Connector
2. Power On/Off
3. Fuse Holder
4. Mode Switch
5. Proof/Reset/Status Button
6. Variable Speed Control
7. Jog Button

Figure 2. Control Panel Components

Table 2. Control Panel Feature Descriptions

Feature	Description
① **AC power cordset connector**	The cordset plugs into this IEC320 connector to provide the feeder with power from a grounded/fused outlet. Switchable for either 115 or 230VAC.
② **Power On/Off**	Toggles the AC power On or Off.
③ **Fuse holder**	Contains two replaceable GMD3, 3-Amp, 5-mm fuses. CAUTION: Always make sure the power module is replaced exactly as removed. Failure to follow this caution can result in damaged electrical parts.
④ **Mode switch**	Allows the operator to use two modes of operation: Jog and Run. Jog: The operator uses the button to slowly feed the envelope forward. Use the Jog mode to set the transport table adjustments. Run: Use this mode when all of the adjustments are correct and the feeder is ready for production.
⑤ **Proof/Reset/Status Button**	Indicates power status and resets the feeder for these conditions: - After a time-out occurs during a misfeed, or if the hopper is empty. - When the safety shield is open. The indicator emits one quick flash and a constant tone during a time-out. The indicator flashes steadily and beeps if the safety shield is open.
⑥ **Variable speed control**	This dial switch (labeled Speed) allows the feeder speed to be synchronized with the press. Turn the dial counterclockwise to decrease speed; clockwise to increase speed. Note: The feeder motor stops if turned completely counterclockwise.
⑦ **Jog Button**	A spring-loaded button that, when pushed, allows the operator to slowly feed the envelope forward.

2 Preparing for Operation

WARNING!

ELECTRICAL DANGER!

Do not attempt to make adjustments to the 270RT feeder or the offset press if the power is On. Always turn the power to Off and disconnect all equipment from the electrical power source before making adjustments. Failure to do so can expose you to a potential start-up, and therefore, moving parts that can cause serious injury.

Do not wear loose clothing when operating the feeder.

Avoid making adjustments with loose or unsecured parts. This can potentially damage parts.

Before you connect your 270RT to your offset press, you must make several feeder adjustments to accommodate the envelopes. Once you have made all of the necessary feeder adjustments, you should perform a test run to verify your settings.

Perform the following steps to set up the 270RT:

1. Adjust the gate assembly.
2. Adjust the side guides.
3. Adjust the back wedge.
4. Adjust the top roller hold-down assembly.
5. Position the alignment rail and tension springs.
6. Position the backstop ramps and hold-down springs.
7. Position the photo sensor.

STEP 1: Gate Assembly Adjustment

NOTE

The term "hopper" refers to the space where the envelopes are stacked (made up of the side guides).

Review

The gate assembly provides the curvature to help shingle the envelopes and the proper gap to help the feed belts pull envelopes through the gate assembly area — one at a time. The downward pressure (or weight) of the stack in the hopper will provide the force to help push the envelope against the curvature of the gate assembly, and help it contact the feed belts. This shingling will allow the gate assembly to efficiently separate (and singulate) the envelopes.

To achieve the optimum separation, you have to use the adjustment knob to either increase (clockwise) or decrease (counterclockwise) the gap between gate assembly and the feed belts. Depending on the characteristics of the envelopes that you are using, you may have to change the gate assembly from the factory-set *high* spring tension to a *low* spring tension. See "Change from Factory Set High-Tension to Low-Tension" on page 7.

IMPORTANT

Feeding problems will occur with either too many envelopes in the hopper, or too large a gap between the gate assembly and the envelopes.

Objective

Adjust the gate assembly for a minimum gap, with minimum pressure on the envelopes. Your objective is to adjust the clearance so that a single envelope passes without resistance. The optimum setting should be a gap adjustment of 1.5 thickness of material.

STEP 1: Gate Assembly Adjustment (continued)

CAUTION!

Excessive lowering of the gate assembly can damage the envelopes or lead to premature wear of the O-rings or feed belts.

If the bottom the envelope does not move freely, then the gate assembly is too tight. This can lead to premature wear of the O-rings or feed belts.

TIP

A wider gap between the envelopes and belt provides the highest tolerance for curled and bent edges.

Procedure

To adjust the gate assembly for proper gap,

1. Slide one envelope under the gate assembly (Figure 3, ①**)**. You may have to pull up on the adjustment knob to allow the envelopes to be inserted (Figure 3, ②).
2. Test the top piece for clearance. Grasp the envelope with two hands and slide it front-to-back under the gate assembly (Figure 4). A proper adjustment allows a slight amount of drag on the top of the envelope.
3. Adjust the knob on the gate assembly until the envelope has the desired drag. Turn the knob clockwise to increase clearance or counterclockwise to decrease clearance (Figure 5).
4. Repeat the drag tests and adjust as needed to achieve acceptable clearance.

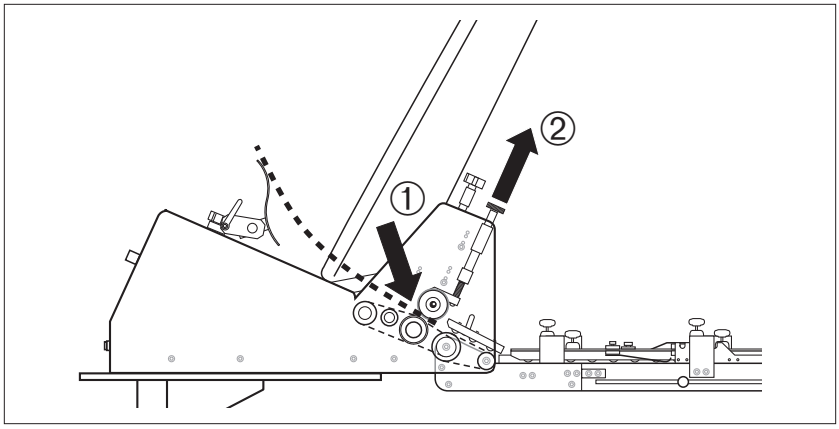


Figure 3. Lift Gate Assembly to Insert an Envelope

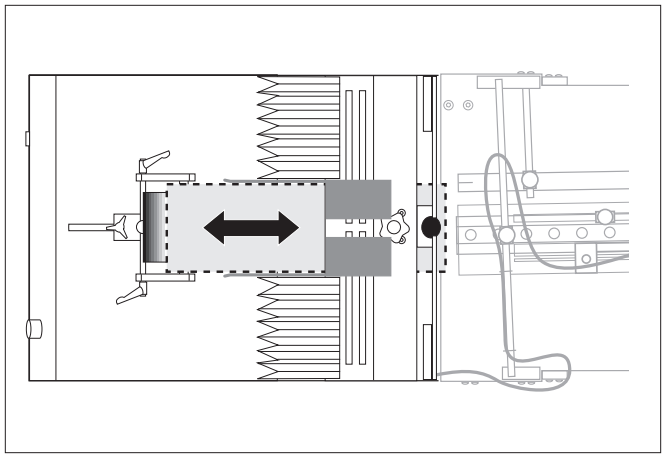


Figure 4. Use an Envelope to Set the Gap

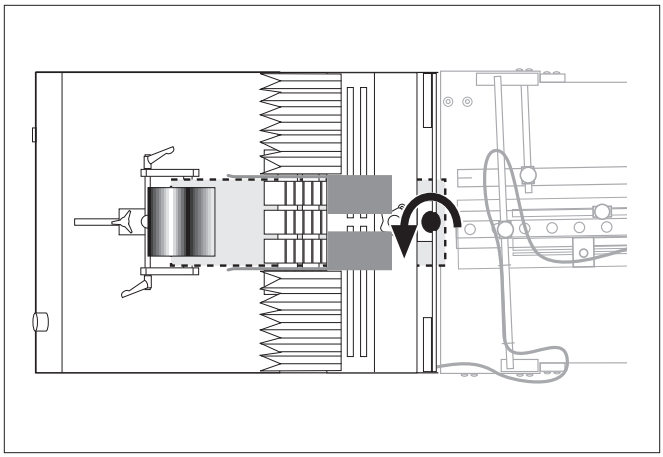


Figure 5. Adjust Gate Assembly for Correct Gap

Changing From Factory Set High-Tension to Low-Tension

CAUTION

Excessive lowering of the gate assembly can damage the envelopes and/or lead to premature wear of the O-rings or feed belts.

Review

The 270RT is shipped to you with a high-tension spring in the gate assembly. This works well for most envelopes, allows for tall stack height, and helps provide the best performance in preventing doubles. However, certain types of envelopes may require that you change the gate assembly from a *high-tension* setting to a *low-tension* setting (for example, irregular shaped envelopes).

If you are feeding envelopes of irregular thickness, you should change to low-tension. This provides the following benefits:

1) allows the gate assembly to adjust to the irregular thicknesses.
2) prevents marking on the envelopes by the gate assembly.
3) prevents peeling back the top sheet of a multi-page item.

IMPORTANT

When changing from a low-tension to high-tension setting, you may have to adjust the stack height downward to prevent feeding problems.

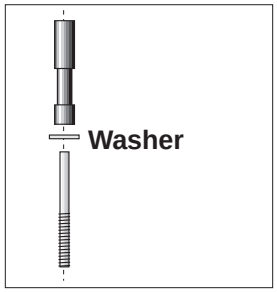
NOTE

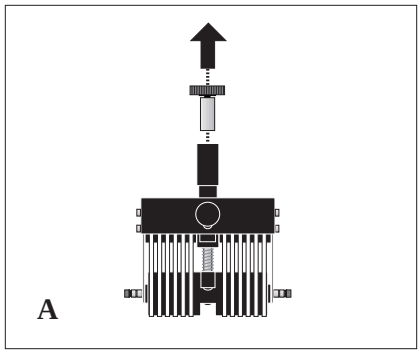
Certain types of envelopes may require even more tension than the high-tension setting can provide. To increase tension even further, place a washer between the cylinder and spring.

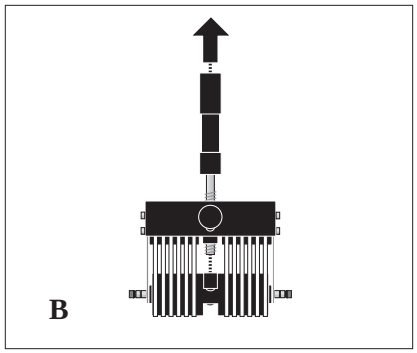
Procedure

To change the spring from a *high* to a *low* tension,

1. Remove the gate assembly from gate bracket assembly. To do so, pull cylinder down with one hand, lift up on the knob with the other hand, and tip the cylinder at a slight angle to remove.
2. Remove the adjustment knob by turning counterclockwise (Figure 6A). Then lift the cylinder off the top of the spring (Figure 6B).
3. Turn the cylinder around so that the cylinder collar faces up (Figure 6C), then place the cylinder on top of the spring.
4. Replace the adjustment knob. Turn the knob approximately eight revolutions before you install the gate assembly.







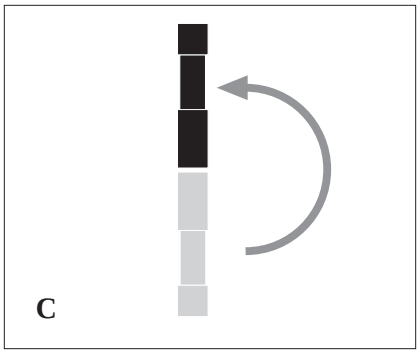


Figure 6. Adjust Gate Assembly for Low-Tension

STEP 2: Side Guides Setting

Review

The side guides hold the stack of envelopes being fed, and they guide the envelopes through the feeder in a straight line of movement. You can adjust the side guides to accommodate different sizes of envelopes.

Objective

Adjust the side guides so that the envelope stack maintains uniformity from top to bottom, with no drifting or binding. Adjustments are made *horizontally*.

Make sure the space between the side guides can accommodate the size of the envelopes being fed. Consider the following as you adjust the guides:

- An initial starting point should always be that each guide is of equal distance from the center point of the machine.
- Each edge of the envelope should rest equally on the belts, on both sides of the gate assembly (or equidistant spacing). *However, there can be certain instances where the guides do not need to be centered due to the envelope's characteristics. This is called offset spacing.*
- Adjust both side guides to be as close as possible to either side of the envelope, without causing binding, curling of edges, or resistance to movement.

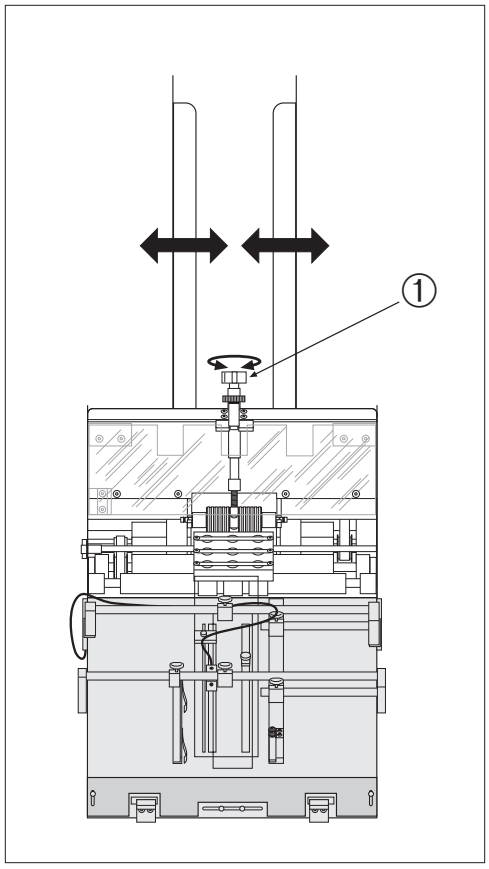


Figure 7. Horizontal Adjustment of Side Guides

Procedure

To adjust each side guide for proper *equidistant* horizontal spacing using the single-knob adjustment,

1. Place a small stack of envelopes in the hopper.
2. Using the side guides adjustment knob (centrally located between the two guides), turn in either direction until guides are located at the recommended distance from the envelope: 1/16 inch (1.6 mm) from each edge, 1/8 inch (3.1 mm) overall (Figure 7, ①).
3. Visually check both guides for proper spacing from the envelope.

STEP 2: Side Guides Setting (continued)

To adjust each side guide for proper *offset* horizontal spacing (Figure 8),

1. Push down on the side guides spring-loaded adjustment knob to disengage the guides from the gear mechanism (Figure 8, ①).
2. Grasp whichever side you wish to offset first and move into position (Figure 8, ②).
3. Place a small stack of envelopes in the hopper, with the edge of paper against offset guide.
4. Move the second side guide so that it is located at the recommended distance from the envelope: 0.0625 in. (1.6 mm) from each edge, 0.125 in. (3.1 mm) overall.
5. Lift up on the spring-loaded adjustment knob so that the guides lock into place.
6. Visually check both guides for proper spacing of the envelope.

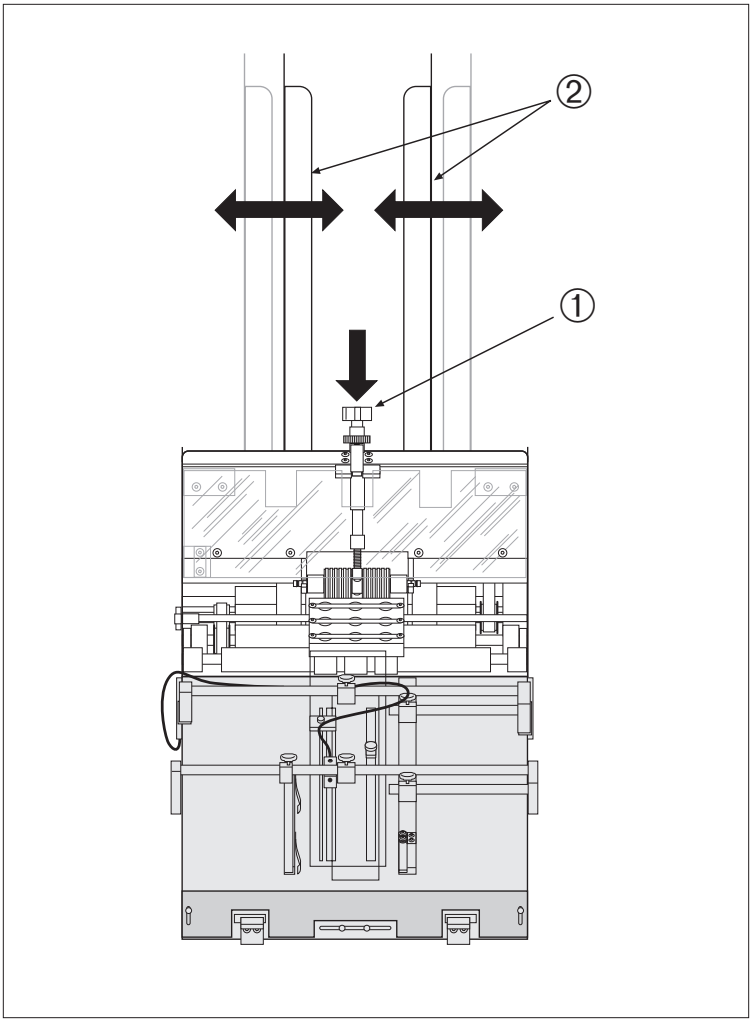


Figure 8. Individual Side Guide Offset

STEP 3: Back Wedge Adjustment

NOTE

Keep in mind that the back wedge works with the gate assembly to provide the proper lift, curvature of the envelope, and proper belt/ envelope contact to separate and feed one envelope at a time.

TIP

There are a number of feeding problems which can be solved by simply adjusting the back wedge to different positions. Some of these problems include double feeds, skewing, twisting, poor singulation, ink or varnish buildup on the belts, and jamming at the gate assembly area.

Review

The back wedge provides proper lift to the envelope to help keep it off the table top and feed belts, and it creates the force necessary to push envelopes against the gate assembly. By adjusting it back and forth from the gate assembly or pivoting side to side, you can create the lift and force necessary to shingle envelopes against the curvature of the gate assembly. Also, it keeps other envelopes off the feed belts until proper separation of the bottom sheet at the gate assembly has occurred.

Here are some general guidelines that should help you determine how the back wedge should be positioned for your particular envelope size:

- *Pivoting the back wedge from its perpendicular to the gate assembly* (Figure 9A) will increase or decrease the amount of drag or contact (traction) on the feed belts for a given side. This can also be used to control twisting or skewing of the envelopes as they leave the gate assembly area.
- *If the back wedge is positioned too far backward* from the gate assembly (Figure 9B), then the belts are driving the envelopes before the bottom sheet has separated and left the gate assembly area. This pushes the gate assembly up, creating more pressure on the envelopes, O-rings, and feed belts. The result can be premature buildup of ink or varnish on the belt surfaces. It can also cause more than one envelope at a time to be forced under the gate assembly, creating a double feed.

  By moving the back wedge forward, only the bottom envelope can make contact with the belt surface. Slippage is reduced, minimizing buildup on the belt surface. Double feeding is also reduced.
- *If the back wedge is positioned too far forward* to the gate assembly (Figure 9C), then a pinch point can be created between the top surfaces of the wedge and the envelopes. Moving the back wedge even closer towards the gate assembly can allow envelopes to overhang the wedge, creating too much lift of the envelopes off the feed belts.

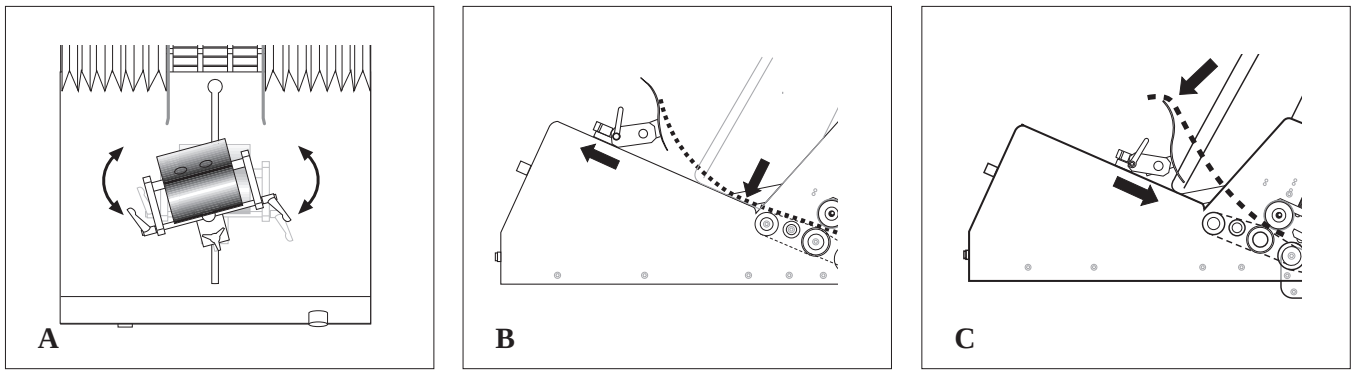


Figure 9. Tips for Proper Back Wedge Adjustment

STEP 3: Back Wedge Adjustment (continued)

Objective

Adjust the back wedge for proper support of the envelopes off the table top, without creating any pinch or stress points.

Procedure

To adjust the back wedge for initial proper positioning,

1. Grasp a handful of envelopes, approximately 2 to 2.5 in. (5 to 6 cm) thick, and shingle the edges with your thumb (Figure 10).
2. Place the shingled envelopes in the hopper so that the edges rest against the curvature of the gate assembly (Figure 11, ①).
3. Turn the back wedge wing-nut adjustment counterclockwise to loosen the wedge (Figure 11, ②).

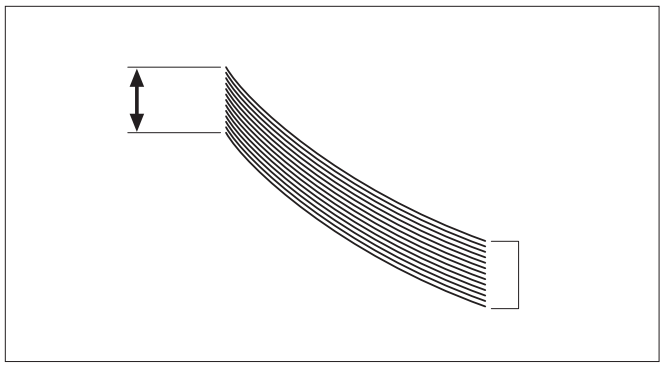


Figure 10. Shingle a Small Stack of Envelopes By Hand

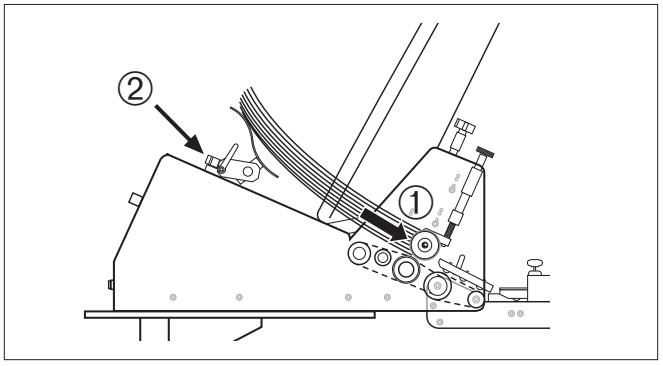


Figure 11. Position Envelopes Prior to Loosening Back Wedge

STEP 3: Back Wedge Adjustment (continued)

4. Move the back wedge forward and backward until the bottom envelope is not touching the table top (Figure 12). A good starting point is to measure about 1/16 inch (1.6 mm) from the bottom envelope to front edge of table top. Then as you test, you can fine tune from this point. *You can fine-tune the back wedge location by loosening the roller swivel wing-nut to pivot the rollers back and forth (Figure 13, ①) while still keeping the envelopes against the curvature of the gate assembly (Figure 13, ②).*

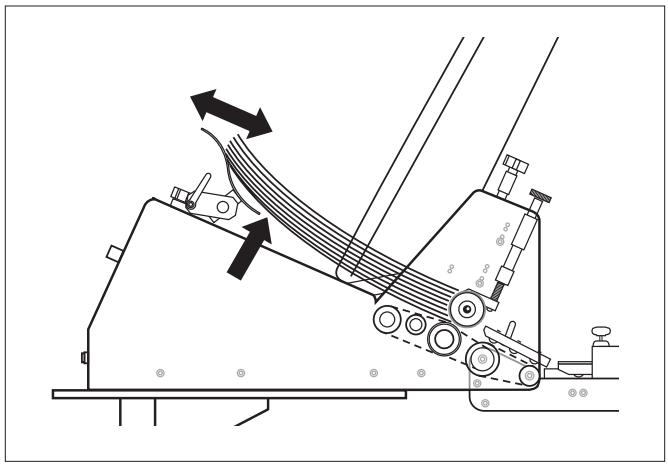


Figure 12. Adjusting Back Wedge Distance

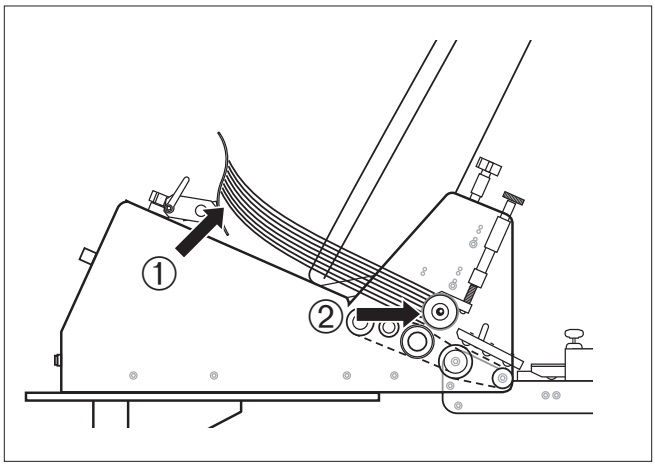


Figure 13. Tilting Back Wedge

5. Large envelopes may require a Low Profile Wedge combination to support the envelopes in their center area (Figure 14A).
6. Make sure the edge of the back wedge assembly is parallel with the edge of the envelope stack (Figure 14B, ①). Adjust as required and then tighten the wing-nut (Figure 14B, ②).

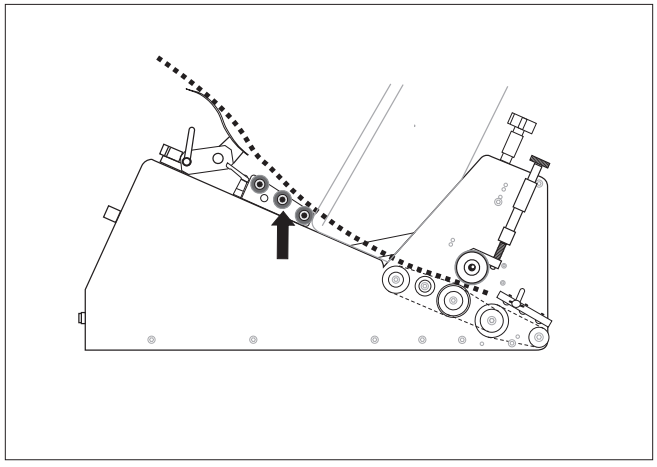


Figure 14A. Low Profile Wedge Supporting Center

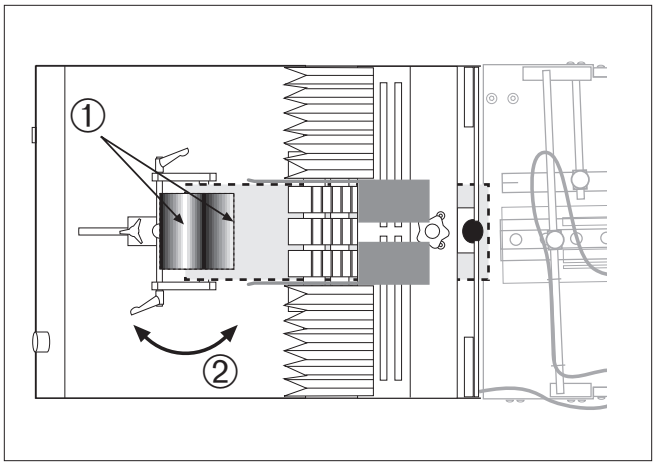


Figure 14B. Adjusting Back Wedge for Parallel

STEP 4: Top Roller Hold-Down Assembly Setting

Review

The top roller hold-down assembly consists of an array of ball bearings in a block that is mounted on a movable shaft, just above the discharge belt. This assembly rests on top of the envelope as it exits the gate assembly area.

Objective

Adjust the top roller hold-down assembly for the proper amount of pressure so that the envelope exits the discharge area efficiently and squarely.

Procedure

To adjust the top roller hold-down assembly for proper pressure,

1. Loosen the two T-nuts on either side of the shaft (Figure 15A).
2. Lift up on the top roller hold-down assembly, and insert one envelope under the rollers (Figure 15B). Then allow the assembly to lightly rest on top of the envelope.
3. Retighten (or lock) the two T-nuts to secure the top roller hold-down assembly in position. The proper pressure (or gap) should be retained.
4. Verify that the assembly is set for the proper amount of pressure (or drag) by sliding the envelope back and forth. There should be a very slight amount of drag.

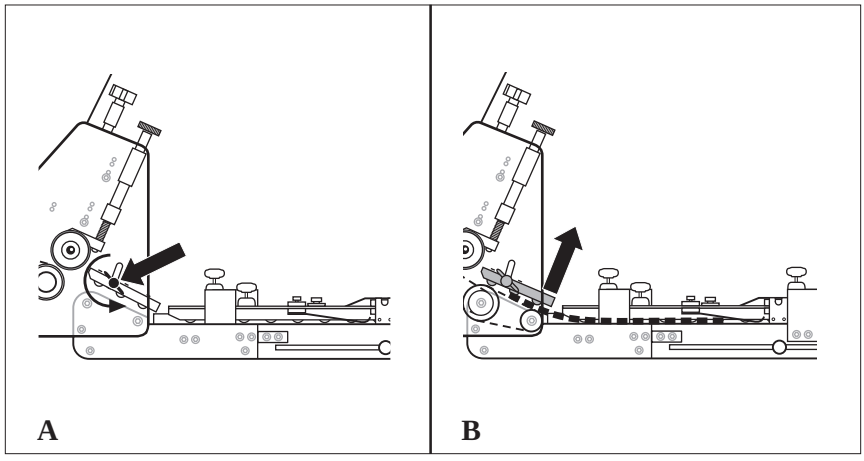


Figure 15. Adjust Top Roller Hold-Down Assembly

STEP 5: Alignment Rail and Tension Springs Setting

Objective

The alignment rail should be positioned to keep the envelope straight as it is discharges onto the table. The tension springs should apply light pressure to keep the envelope flush against the alignment rail.

Before you begin this setup and alignment procedure, locate the Mode switch between the yellow Proof/Reset button and the power switch. Place the switch in the Jog mode (switch is in the down position). Locate the blue Jog button above the speed control knob. Turn on the machine.

Procedure

To position the alignment rail,

1. Press the blue Jog button to advance the envelope until the front edge of the envelope emerges from under the feeder hold down mechanism, and just before it reaches the alignment rail.
2. Loosen the alignment rail screws.
3. Slide the alignment rail against the envelope (Figure 16A, ①). Make sure that the envelope is approximately 1/16 inch (1.6 mm) from the inside edge of the rear tabbed area of the rail (Figure 16B).
4. Move the front of the alignment rail so the rail is parallel with the edge of the deck. Verify the rail is parallel by utilizing the markings etched onto the tabletop.
5. Ensure that the photo sensor (Figure 16B ≠) is directly over the black belt and not over the stainless steel of the table. Adjust it with the roller assembly if necessary.
6. Tighten the alignment rail screws.

NOTE

The outside edge of the alignment rail must be parallel to the edge of the transport table

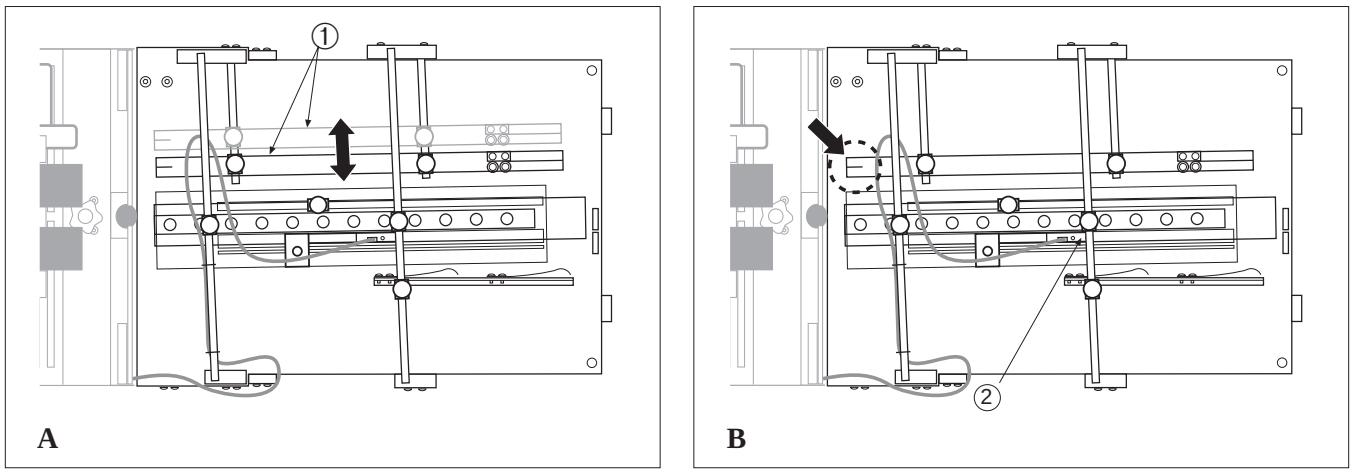


Figure 16. Position the Alignment Rail

STEP 6: Backstop Ramps Adjustment

Objective

Position the backstop ramps to keep the envelope flush against the stop at the end of the alignment table.

Procedure

To position the backstop ramps,

1. Press the Jog button to advance the envelope to the front edge (called the stop) of the transport table.
2. Loosen the ramp adjustment knobs for the backstop ramp. (located on either side of the transport table, Figure 17B, ①).
3. Slide the adjustment knobs to position the edge of the ramps just behind and barely touching the envelope. See Figure 17B, ② below and Figure 18 on the following page. Move the ramps simultaneously to achieve proper alignment.
4. Tighten the ramp adjustment knobs.
5. Note that the ramp height is also adjustable. Thicker product may require a higher ramp height. Thinner product may hang up on a too-high ramp.

   Ramp height is adjusted from beneath the feeder. Lower the bottom cover of the transport section of the feeder to access the adjustments for ramp height.

CHECK

Make sure the edge of the envelope is flush against the front edge of the transport table.

CHECK

The ramps should keep the product flat and straight against the stop. Do not allow the envelope to bend or curl.

CHECK

Ensure that the envelope is aligned in three places: at the front edge of the transport table, the back at the ramp site, and along the alignment rail side.

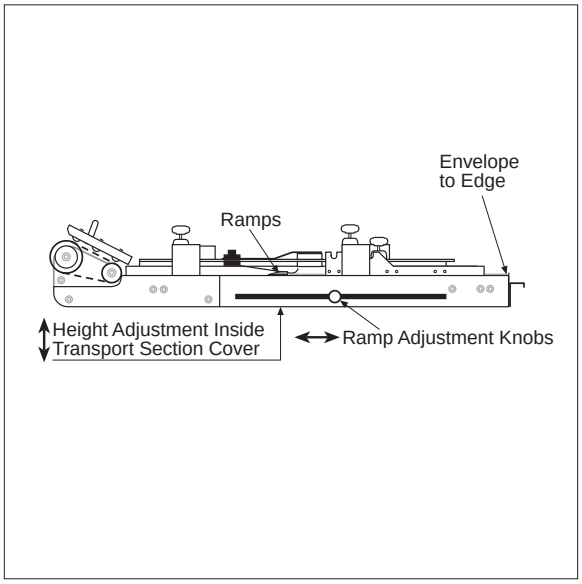


Figure 17A. Adjusting Ramps, Side View

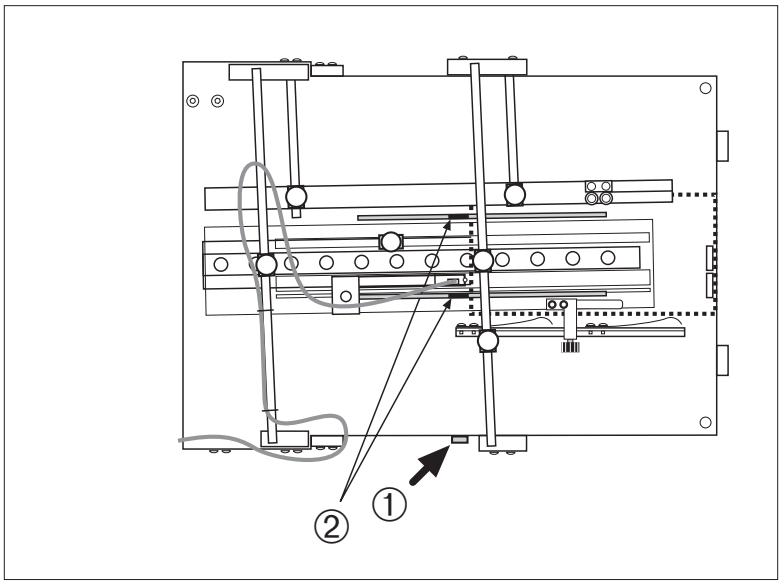


Figure 17B. Adjusting Ramps, Top View

STEP 7: Hold-Down (Tension) Springs Adjustment

Objective

The hold-down springs push down the back edge of the envelope after it passes the backstop ramps. This adjustment procedure for the springs automatically positions the photo sensor over the envelope. Following steps 1–4 below assures proper photo sensor position over the envelope and no further sensor adjustments are needed

Procedure

To position the two separate hold-down springs,

1. Loosen the knobs for the hold-down springs.
2. Position each spring so that it is just past the edge of the envelope and ahead of the backstop ramp (Figure 18 detail).
3. Ensure that the springs apply light pressure to hold the envelope down and in place directly behind the ramps.
4. Tighten the knob for the hold-down springs.

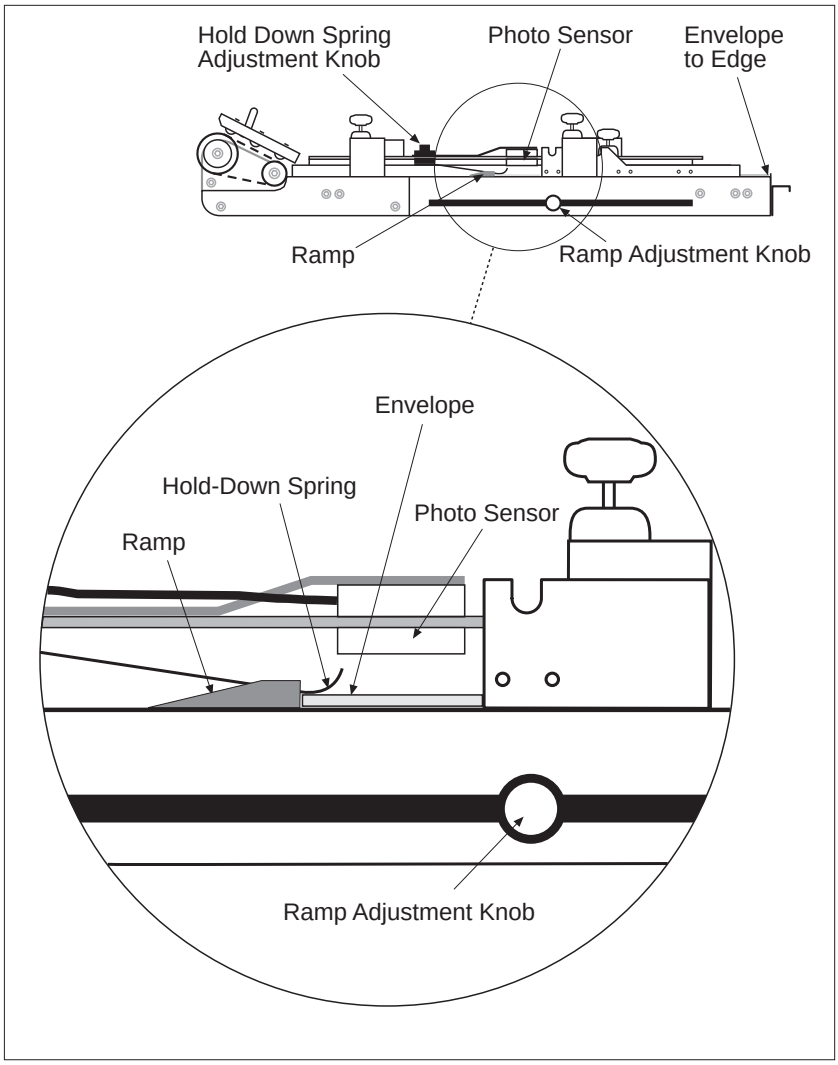


Figure 18. Adjust the Hold-Down Springs

STEP 8: Front Tension Springs Adjustment

CHECK

Make sure that the alignment springs apply light pressure, just enough to keep the envelope flush against the alignment rail (opposite the tension springs).

Objective

Adjust the front tension springs to maintain proper envelope alignment.

Procedure

To adjust the front alignment springs,

1. Loosen the rail fastener for the alignment springs.
2. Slide the rail with the alignment springs toward the envelope (Figure 19, ①) until the curved sections of the horizontal alignment springs lightly touch the outside edge of the envelope (Figure 19, ②).

   The vertical spring should rest lightly on the envelope.
4. Tighten the rail fastener.

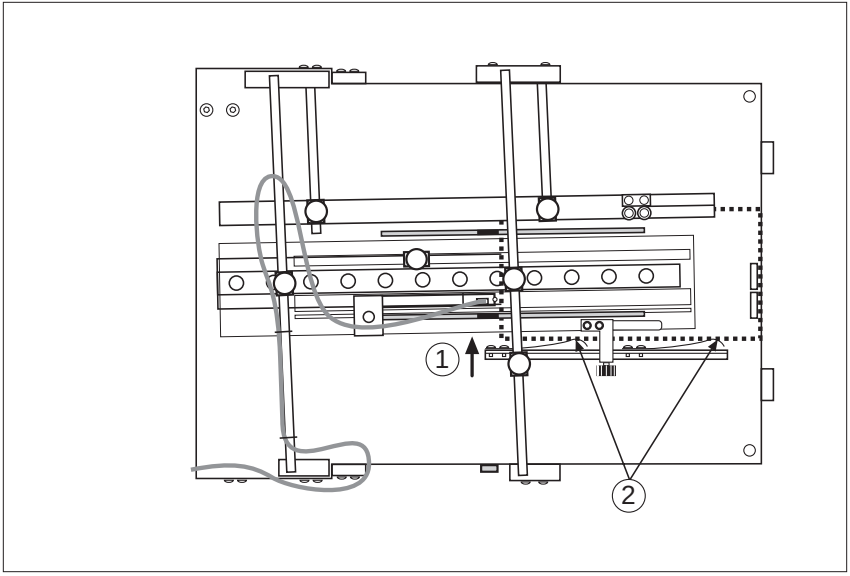


Figure 19. Adjust the Front Tension Springs

STEP 9: Photo Sensors Adjustment

WARNING!

Only adjust the photo sensor when the feeder power is Off. Do not attempt to adjust the photo sensor while the feeder power is On or while the feeder is running. Doing so may expose you to pinch points that can cause injury to hands or fingers.

Review

The feeder photo sensors are factory-calibrated; no adjustment is needed. The 270RT uses two photo sensors to detect envelopes and manage feeding operations: a top sensor and a bottom sensor.

The top sensor detects the trailing edge of the product and triggers the feeder to send the next piece. The top sensor can be moved forward or backward to accommodate different product sizes. The top sensor is automatically positioned properly during the hold-down spring setup process. If you need to adjust the top sensor, refer to the Troubleshooting section of this manual.

The bottom sensor detects the leading edge of the product and stops the feeder when the product meets the alignment table stop. The bottom sensor can be moved left or right to accommodate different suction cup patterns on your offset press.

Objective

Position the top photo sensor forward or backward to accommodate the product size and to adjust the feeder timing. The feeder should send the next piece soon enough to avoid a feeder time out.

Position the bottom photo sensor to the left or right window to accommodate the suction cup pattern on the offset press. You do not want a suction cup obstructing the bottom sensor's line of sight. If the photo sensor is not adjusted properly for the envelopes, you may get false triggering of the photo-cell.

STEP 9: Photo Sensors Adjustment

CAUTION!

To avoid damaging any feeder parts, always turn Off the feeder when making adjustments.

CHECK

Make sure the top photo sensor is positioned over the black belt. If it is positioned over the table, the reflection of the metal will cause false readings.

Procedure

To properly position the bottom photo sensor,

1. Note the suction cup pattern on your press.
2. Loosen the bottom photo sensor fasteners.
3. Move the bottom photo sensor so it is positioned between the sucker feet (Figure 20). Note that the sensor is at an angle, so it should be slightly offset from center.
4. Tighten the bottom photo sensor fasteners.

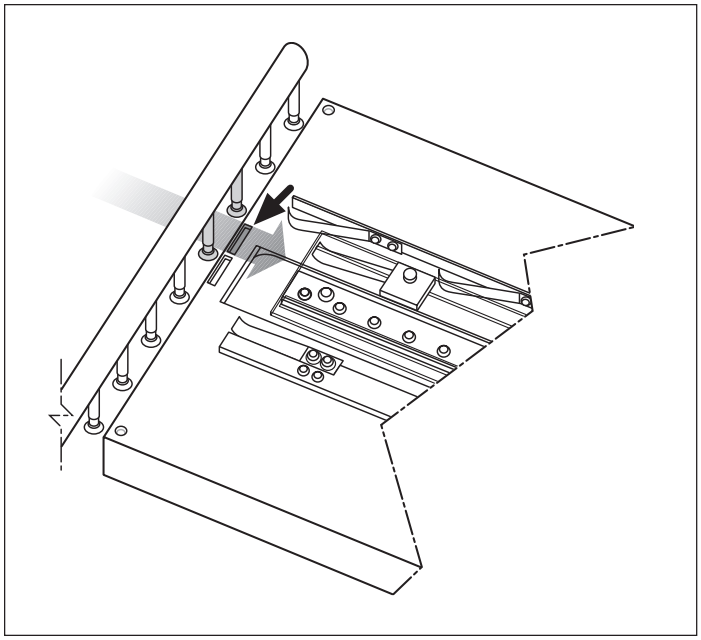


Figure 20. Adjust the Bottom Photo Sensor

3 Installing the Machine

DANGER!

ELECTRICAL WARNING!

Do not attempt to make adjustments to the 270RT feeder or the offset press if the power is On. Always turn the power to Off and disconnect all equipment from the electrical power source before making adjustments. Failure to do so can expose you to a potential start-up, and therefore, moving parts that can cause serious injury.

Do not wear loose clothing when operating the feeder.

Avoid making adjustments with loose or unsecured parts. This can potentially damage parts.

Streamfeeder supplies several hardware kits that connect the 270RT to specific presses you may use in your print shop. Appendix B contains instructions for the hardware kits listed.

To order hardware kits for offset presses not listed below, contact your local authorized Streamfeeder reseller.

Offset Press Hardware Kit
Heidelberg Quickmaster
Heidelberg Printmaster
Heidelberg GTO
Ryobi
AB Dick
Hamada
Multi

Installation of the 270RT involves two procedures,

1. Prepare the press to receive the feeder registration table.
2. Connect the feeder to the press.

After connecting the feeder to the press, run several sample tests to optimize the feeder speed setting.

STEP 1: Preparing the Press to Receive the Feeder

Procedure

To prepare the press,

1. Remove any hardware from the top rack of the press that might obstruct the feeder table.
2. Open the press side guides to a position that allows the feeder table to connect to the press without interference.

STEP 2: Connecting the Feeder to the Press

Review

The offset press hardware kits included with your 270RT will vary depending on your press model. Each kit requires specific instructions, but the following section provides general guidelines.

General Procedure

To connect the feeder to the press,

1. (Use the handle on the base of the feeder.) Raise the feeder table to a level that is in the proper position to connect with the press.
2. Roll the feeder into the press, and connect the feeder table to the appropriate hardware in the offset press.
3. Center the feeder table with the press.
4. Adjust the press side guides to hold the feeder in position.
5. Verify that the feeder and press are securely attached and that the feeder table is level with the print press table.

See the Appendix for instructions that apply to your specific offset press.

4 How to Operate

Sequence of Operation

This section provides a sequence of operation for the 270RT. It also provides information for clearing a jam and for shutdown.

To operate the feeder, follow the procedures in the order listed,

1. Load envelopes in the hopper.
2. Determine stack height.
3. Turn feeder power on.
4. Set and adjust speed.
5. Run test cycles.
6. Perform final check.

STEP 1: Loading Envelopes into the Hopper

NOTE

Shingling prevents multiple envelopes from jamming under the gate assembly at start-up.

To load the envelopes into the hopper,

1. Shingle a small stack of the envelopes (Figure 21) so that the stack conforms to the curvature of the gate assembly.
2. Push the stack, gently, to make sure lead edges touch the gate bracket assembly and front edges of the side guides (Figure 21).
3. At the back of the wedge, ensure that the trailing edges of the envelopes are off the table top and feed belts Figure 22, ①).
4. Ensure that the envelope edges are against the curvature of the gate assembly (Figure 22, ②).

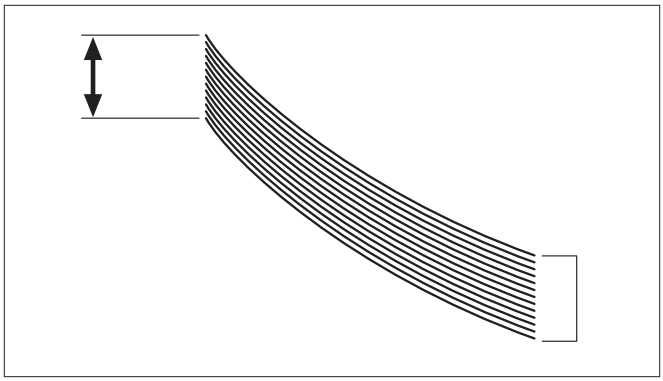


Figure 21. Shingle the First Stack

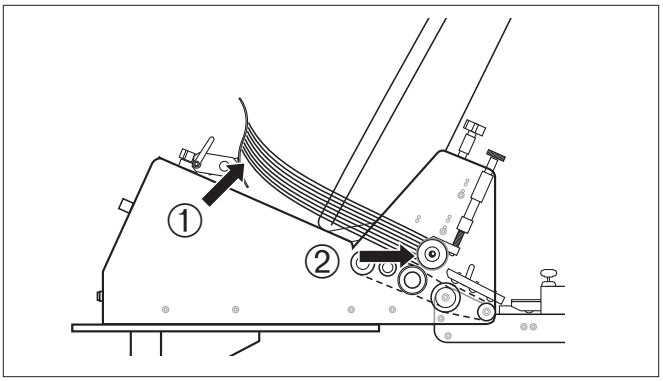


Figure 22. Envelope Edges Against Gate Assembly

STEP 2: Determining Stack Height

To determine stack height,

1. Gradually add envelopes to the hopper. The stack height will have a preferred minimum and a maximum, so experiment to determine effective range of height (Figure 23).
2. Load envelopes into the hopper as straight and as evenly as possible.

As you add each handful, gently push in each stack so that the lead edges rest firmly against front of the side guides. Always add envelope stacks that are aligned straight and even so that they fit flush against the side guides.

TIP

The stack height affects the downward pressure on the feed belts. Greater downward pressure can increase the chances for double feeds.

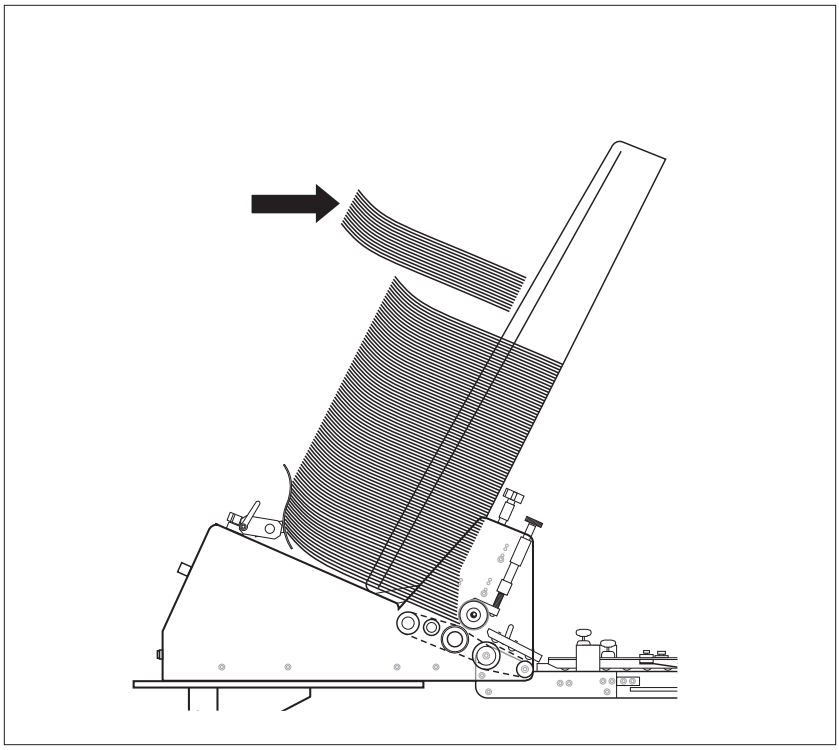
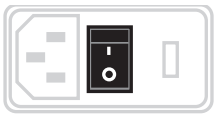


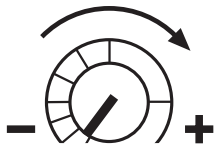
Figure 23. How to Add Envelopes to the Hopper

STEP 3: Powering On Feeder



1. Press the vertical line on the Power On/Off toggle switch to apply power to the feeder.

STEP 4: Setting/Adjusting Speed



The variable speed control determines how quickly the feed belts turn.

1. Adjust the feeder speed to synchronize the envelope delivery with the press.
2. Run the feeder at the slowest speed possible that keeps up with the press.

If the feeder is not keeping up with the press, increase the speed.

STEP 5: Running Test Cycles

1. With the feeder already fully loaded and powered On, run the press and feeder through several cycles*.

If you are removing the envelopes manually, press the cycle/proof button to insert a two-second delay into the feeder timing. This will allow enough time to remove the envelopes.

*Note: Be sure Mode Switch is in the run mode.

STEP 6: Final Check

Check to make sure,

- Leading edge of the presented envelope stops at proper location.
- Proper separation is occurring at the gate assembly area.
- Shingling occurs at the curvature of the gate assembly.
- Envelopes are not being damaged during cycling.
- Feeder is secured to press and will not move during operation.

Clearing a Jam

WARNING!

Always turn off the power to the machine before attempting to clear a jam.

If a jam occurs during operation,

1. Turn off the power to the feeder.
2. Open the discharge safety shield (a safety switch prevents the feeder from starting while the shield is in the “open” position).
3. Remove the jammed product from the feeder. While doing so, try to determine the cause of the jam (see Section 5, “Troubleshooting”).
4. Verify whether any adjustments are loose. If so, refer to Section 2, “Preparing for Operation,” for proper adjustment procedures.
5. Close the discharge safety shield.
6. Restore power to the feeder.

Shutdown

When the feeder is not in use for long periods of time, you need to make sure it is safely stored until you use it again.

1. Turn the feeder power Off by pushing the circle (**O**) at the **Power** On/Off toggle switch.
2. Disconnect the feeder power cord from the AC power source.
3. Cover the feeder with a cloth or plastic tarp to prevent dust and debris from accumulating.

5 Troubleshooting

Table 3 is intended to provide you with quick solutions to common problems you may encounter. For additional troubleshooting information, see the *Technical Information Guide*.

Table 3. Quick-Look Troubleshooting

Problem	Cause	Solution
No AC power to the feeder	1. The On/Off switch is in the "Off" position.	Check that the switch is turned to "On".
	2. The power cord is loose or not plugged into the outlet.	Check and secure the power cord at the AC outlet.
	3. The female end of the power cord is loose or not plugged into the AC power inlet at the rear of the feeder.	Check and secure the cord at the AC power inlet at the rear of the feeder.
Reset button light blinking and alarm sounding	1. The discharge safety shield is not closed completely.	Close the safety shield and press the **Reset** button.
	2. The feeder operation was stopped due to a timeout fault (e.g., a jam).	Clear the jam and press the **Reset** button.
	3. Possible faulty safety interlock switch.	Consult with a qualified technician.*
Continuous feeding	1. Possible overlapping of the envelopes. The photo sensor does not acknowledge the gap between the envelopes.	See "Feeding Doubles" in this Troubleshooting section.
	2. The photo sensor is not adjusted properly; it may be "seeing" background objects.	Make sure the photo sensor is directly over the black belt and not over the stainless steel part of the table. See Step 9 in Section 2, "Preparing for Operation".
No feeding	1. The gate assembly may be improperly adjusted (there could be more than one sheet of thickness in the gate). Also, the gate assembly may be too low and the envelopes cannot pass under the gate.	Adjust the gate assembly. See Step 1 in Section 2, "Preparing for Operation".
	2. Wedge is positioned incorrectly. It is either too far forward or too far back.	Review Step 3 in Section 2, "Preparing for Operation".

*For replacement procedures or for additional troubleshooting information not covered above, refer to the *Technical Information Guide*.

Table 3. Quick-Look Troubleshooting (continued)

Problem	Cause	Solution
Misfeeding at the press	1. The feeder is not properly aligned with the press, and the suction cups on the press cannot take the product from the feeder.	Review Step 2 in Section 3, “Installing the Machine”.
Feeding doubles	1. The gate assembly may be improperly adjusted (there could be more than one sheet of thickness in the gate).	Adjust the gate assembly. See Step 1 in Section 2, “Preparing for Operation”.
	2. The back wedge may be improperly adjusted.	Review Step 3 in Section 2, “Preparing for Operation”.
	3. The O-rings may be worn or damaged. Or, if applicable, the angled edge may be damaged.	Rotate the O-rings. Or, if applicable, replace the angled edge (see Section 6, “Inspection and Care”, for the procedure). If wear is excessive, consult with a qualified technician.
	4. Envelopes are interlocking.	Check the envelopes and source.
	5. Static buildup.	Check the envelopes and source.
Feeding belts are operating, but the envelopes are not feeding through the machine.	1. The envelope stack weight is too low when the stack height is down, resulting in a reduction of the down pressure.	Review loading the envelopes in Section 4, “How to Operate”.
	2. Binding of envelopes occurs in the side guides.	Adjust the side guides farther apart to allow freedom of movement between the envelopes.
	3. Slippery feed belts due to material buildup.	First, see Cleaning the Feed and Transport Belts in Section 6, “Inspection and Care”. If cleaning does not solve the problem, consult with a qualified technician.*
	4. Possible envelope adhesion or interlocking between the bottom envelope and the next one.	Review Step 1 in Section 4, “How to Operate”. Or, review Step 1 in Section 2, “Preparing for Operation”.
	5. The gate assembly may be adjusted too tightly.	Review Step 3 in Section 2, “Preparing for Operation”.
	6. There is too much weight in the hopper.	Remove some envelopes from the stack. Test again.

*For replacement procedures or for additional troubleshooting information not covered above, refer to the *Technical Information Guide*.

Table 3. Quick-Look Troubleshooting (continued)

Problem	Cause	Solution
Feedbelts not tracking on the rollers	1. Excessive weight in the hopper.	Reduce the weight. Test again.
	2. Excess down pressure on the gate assembly.	Rotate the gate assembly 1/8 of a turn to increase the gap and then manually test again. Review the gate assembly adjustment in Section 2, “Preparing for Operation”.
	3. Check for off-centered envelopes from the center point of the machine.	Review the side guides setting in Section 2, “Preparing for Operation”.
	4. The stack is bearing down on the edge of the belt.	Move the stack away from the belt, even if this causes the stack to be aligned off center from the center line of the feeder.
	5. The belt is showing wear.	Review the gate assembly adjustment and back wedge adjustment in Section 2, “Preparing for Operation”. Also, see Section 6, “Inspection and Care”. If the wear is excessive, consult with a qualified technician.*
	6. The rollers are out of adjustment.	Consult with a qualified technician.*
Jamming during operation (feeder and transport)	1. Improper adjustment in any of the following areas. • *gate assembly* • *back wedge* • *top roller hold-down assembly* • *feeder speed* • *alignment rail* • *tension springs*	Turn the **Power** switch to “Off” (push the circle O). Remove jammed material from the feeder. While doing so, try to determine the cause of the jam. Verify each adjustment. Review Section 2, “Preparing for Operation”.
Jamming during operation (press related)	1. The feeder is not properly aligned with the press.	Review how to install the feeder in Section 3, “Installing the Machine”.
	2. Speed setting on the feeder is too fast.	Review Step 4 in Section 4, “How to Operate”.
Material skewing	1. The back wedge is not properly aligned.	Review the back wedge adjustment in Section 2, “Preparing for Operation”.
	2. The hold-down spring tension is either too loose or too tight.	Review the hold-down spring installation in Section 3, “Installing the Machine”.
	3. There is too much gate pressure.	Review the gate assembly adjustment and back wedge adjustment in Section 2, “Preparing for Operation”.

*For replacement procedures or for additional troubleshooting information not covered above, refer to the *Technical Information Guide*.

Table 3. Quick-Look Troubleshooting (continued)

Problem	Cause	Solution
Loose product spacing at end of registration table	1. Speed setting too high. 2. Ramp height adjusted too high. 3. Tension springs are set too tight. 4. Transport belt is too loose and possibly slipping.	Decrease speed dial setting. Drop bottom cover on registration table and lower ramp height. Refer to Step 8 in Section 2, “Preparing for Operation”. Drop bottom cover on registration table. Loosen front shaft and pull forward to increase tension. Retighten front shaft and replace bottom cover.
Envelope stopping before reaching end of table	1. Bottom photo-cell is “seeing” press sucker feet. 2. Speed setting is set too low to keep up with press. 3. Envelopes are slipping on feed belts (wedge or gate set incorrectly, or stack is too high).	Refer to Step 9 in Section 2, “Preparing for Operation”. Either increase feeder speed or decrease speed of press. Reduce stack height. Refer to “Preparing for Operation” to adjust wedge or gate.
Envelope not consistently reaching end stop	1. Speed set too low and product is getting hung up on ramps. 2. Alignment rail is not square, causing envelope to skew. 3. Ramps are either too high or too tight.	Increase speed dial setting. See Step 5 in Section 2, “Preparing for Operation”. See Step 6 in Section 2, “Preparing for Operation”.
Suckers on offset press not properly accepting envelopes	1. Table is too low. 2. Right side spring is too tight on product.	Adjust table height. Adjust spring for light tension only.

6 Inspection and Care

DANGER!

ELECTRICAL DANGER!

Do not attempt to make adjustments to the 270RT feeder or the offset press if the power is On. Always turn the power to Off and disconnect all equipment from the electrical power source before making adjustments. Failure to do so can expose you to a potential start-up, and therefore, moving parts that can cause serious injury.

Do not wear loose clothing when operating the feeder.

Avoid making adjustments with loose or unsecured parts. This can potentially damage parts.

Read this Section to learn how to:

- Visually inspect your machine to detect problems which may require adjustment or replacement.
- Periodically care for your machine to prevent any operational problems.

Visual Inspection

Check for Feed and Discharge Belt Wear

Referring to Figure 24, ① and ②,check for visual signs of:

- Walking. Replace as required (see the *Technical Information Guide* for more information).
- Cracking. Replace as required (see the *Technical Information Guide* for more information).
- Thinning. Replace as required (see the *Technical Information Guide* for more information).

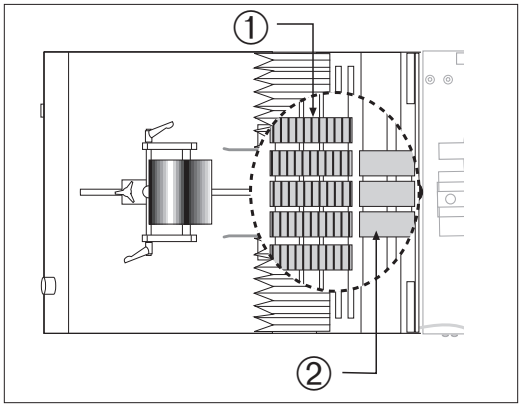


Figure 24. Inspecting Feed and Discharge Belts

Visual Inspection (continued)

Check for Timing and Drive Belt Wear

Referring to Figure 25, ① and ②, check for visual signs of:

- Fraying. Replace as required (see *Technical Information Guide*).
- Missing teeth. Replace as required (see *Technical Information Guide*).
- Cracking. Replace as required (see *Technical Information Guide*).
- Paper residue buildup. Clean from belts, especially in grooves. For more information, see “Preventive Care,” page 36.

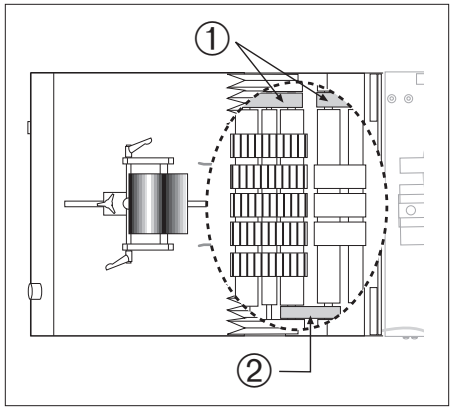


Figure 25. Inspecting Timing Belt and Drive Belt

Check Tracking on Feed and Discharge Belts

Referring to Figure 26, ① and ②, check for visual signs of:

- Stretching (see the *Technical Information Guide* for more information).
- Improper roller adjustment (see the *Technical Information Guide* for more information).

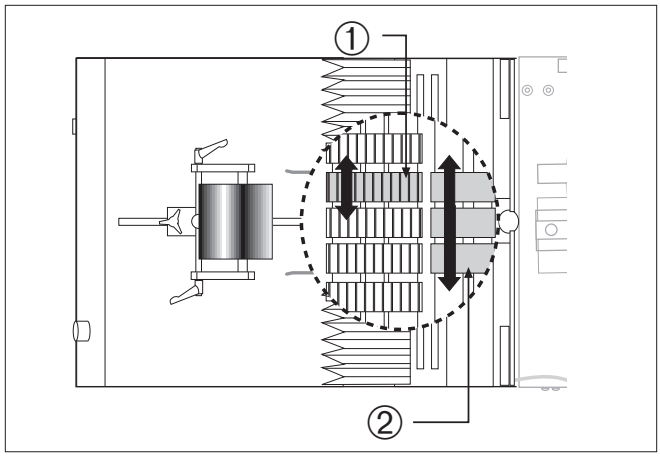


Figure 26. Ensure Proper Feed Belt Tracking

Visual Inspection (continued)

Check Tracking on Timing and Drive Belts

Referring to Figure 27, check for visual signs of misaligned timing pulleys. See the *Technical Information Guide* for more information.

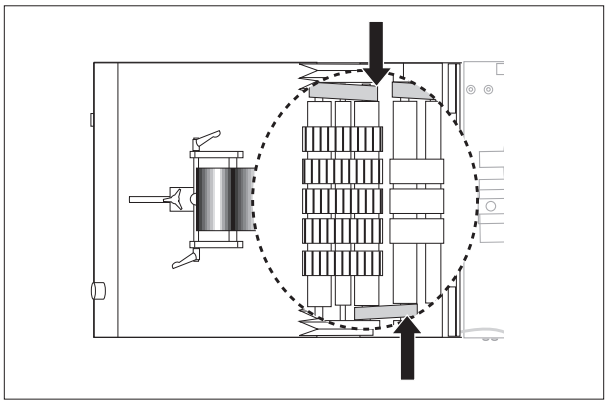


Figure 27. Ensuring Proper Drive Belt Tracking

Checking for Gate Assembly Wear

Check for visual signs of wear:

- Advancing O-ring, or standard O-ring: Evidence of flat areas along the O-rings (Figures 28 and 29, respectively).
- Bar Gate: The angled wedge begins to flatten excessively (Figure 30).

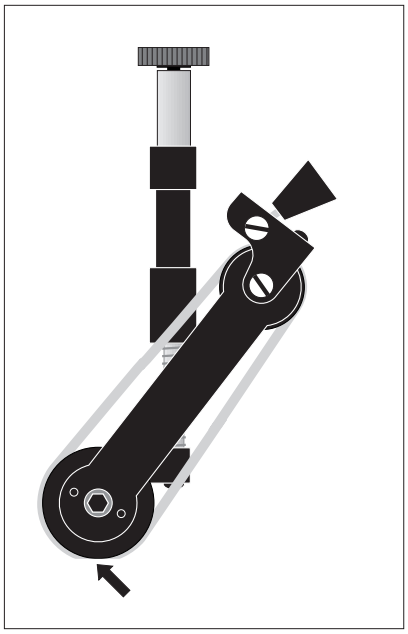


Figure 28. Advancing O-Ring Gate

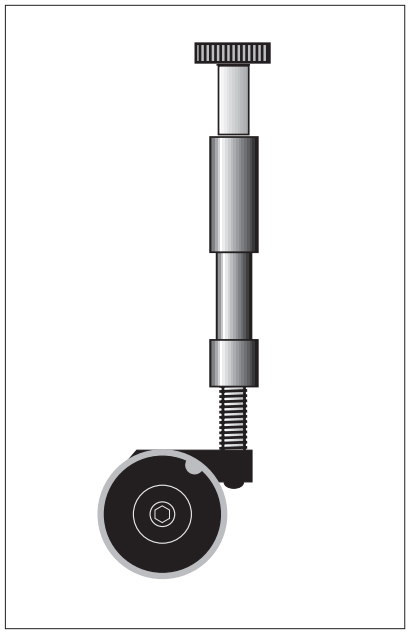


Figure 29. Standard O-Ring Gate

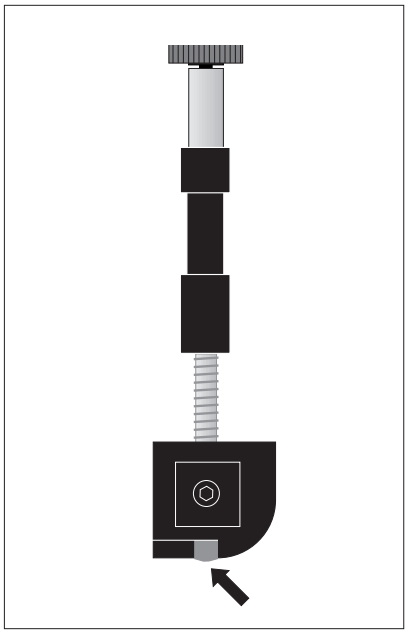


Figure 30. Bar Gate

Visual Inspection (continued)

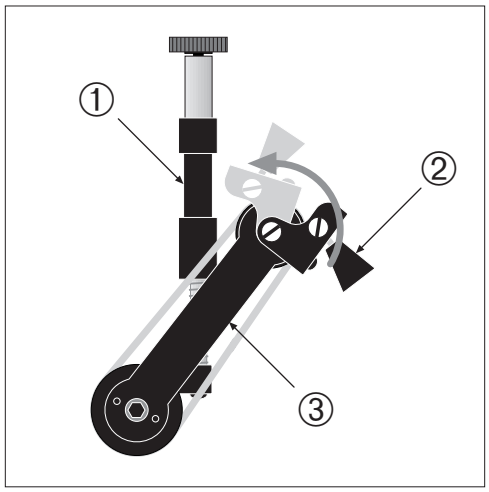


Figure 31. Advancing O-Ring Gate

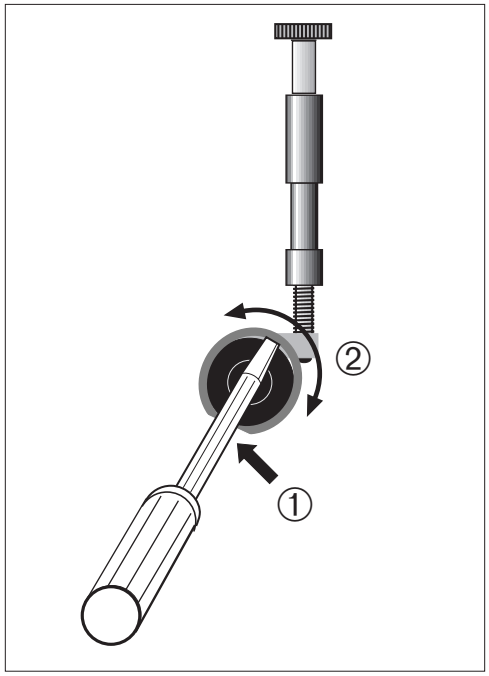


Figure 32. Standard O-Ring Gate

Advancing O-Ring Gate: Adjusting Worn O-Rings

To adjust worn O-rings on advancing O-ring gate (Figure 31),

1. Turn Off the feeder and remove the power cord from the outlet.
2. Open the discharge safety shield to access the gate.
3. Make sure the advance knob is secure and is in-line with the side plate.
4. Rotate the O-rings by grasping the advance knob and pushing it towards gate cylinder about 0.125 to 0.25 in. (3 to 6 mm).
5. Close the discharge safety shield and restore power.

Standard O-Ring Gate: Adjusting Worn O-Rings

To adjust worn O-rings on a standard O-ring gate (Figure 32),

1. Turn Off the feeder and remove the power cord from the outlet.
2. Open the discharge safety shield to access gate.
3. Remove the gate assembly from the gate plate.
4. Insert a screwdriver into the slot on top of the gate assembly (Figure 32, ①).
5. Rotate the screwdriver clockwise, or counterclockwise, 360° (Figure 32, ②) to move the worn area of the O-ring about 0.125 to 0.25 in. (3 to 6 mm).
6. Remove the screwdriver, and repeat steps 1 through 5 for each ring as necessary.
7. Reinstall the gate assembly, close the discharge safety shield, and restore power to the feeder.

Visual Inspection (continued)

Replacing Worn Angled Wedge

To replace a worn angled wedge (Figure 33),

1. Turn Off the feeder, and remove the power cord from the outlet.
2. Open the discharge safety shield to access the gate.
3. Remove the gate assembly from the gate plate.
4. Remove the plate (two screws).
5. Remove the angled wedge.
6. Install a new angled wedge.
7. Reinstall the plate (two screws).
8. Reinstall the gate assembly, close the discharge safety shield, and restore power.

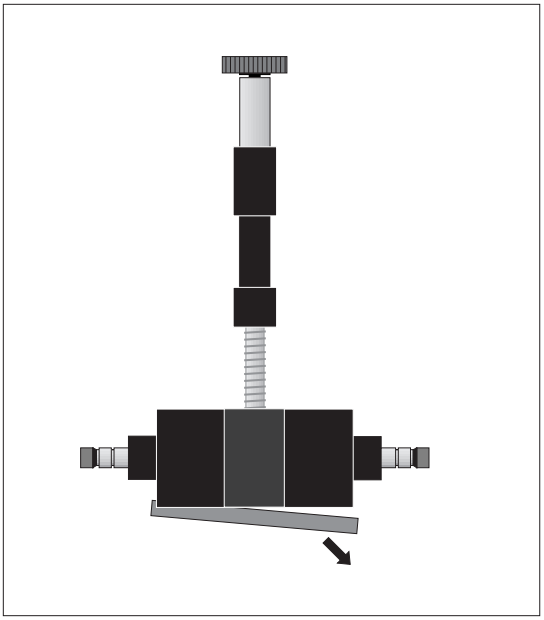


Figure 33. Bar Gate

Preventive Care

CAUTION

Use only isopropyl alcohol. Other solvents can cause belts to wear prematurely, and even cause total breakdown of material.

Cleaning schedule for various envelopes:

- *Typical: every month*
- *Dusty: after every shift*
- *High ink or varnish: 1 time per shift*

Cleaning Feed and Transport Belts

To clean the feed belts (Figure 34, ①),

1. Turn Off the feeder and remove the power cord from outlet.
2. Open the discharge safety shield.
3. Remove the gate assembly from the gate plate for easier access to the belts.
4. Apply a small amount of isopropyl alcohol to a soft cloth.
5. Use your hand to move the feed belt, starting with one feed belt at a time. Carefully press the moistened area of the cloth to the belt.

As you rotate the belt, use moderate pressure to wipe across the belt in the direction of the grooves.

1. After several rotations of the belt, repeat for each belt.
2. Use a dry area of the cloth to dry the belts, starting with the first belt you cleaned. Follow the same technique as for cleaning the belts. Ensure that the belts are dry.
3. Repeat the drying process for each belt.
4. Reinstall the gate assembly.
5. Close the discharge safety shield.
6. Restore power to the feeder.

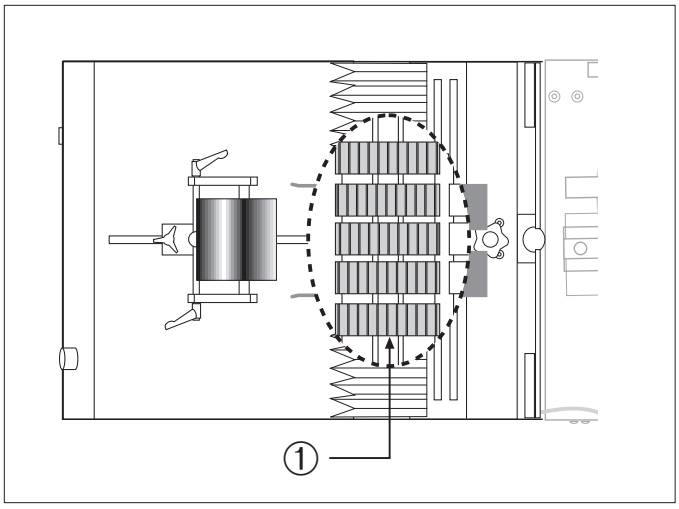


Figure 34. Clean the Feed Belts

Preventive Care (continued)

To clean the discharge belts (Figure 35, ①),

1. Turn Off the feeder and remove the power cord from the outlet.
2. Open the discharge safety shield.
3. To access the discharge belts, move the top roller hold-down assembly away from the transport belts by loosening the two T-nuts on either side of shaft.
4. Lift up on the top of the roller assembly.
5. Repeat steps 4 through 6 for cleaning the feed belts (page 36).
6. Reinstall the gate assembly.
7. Return the roller hold-down assembly to its original position.
8. Close the discharge safety shield.
9. Restore power to the feeder.

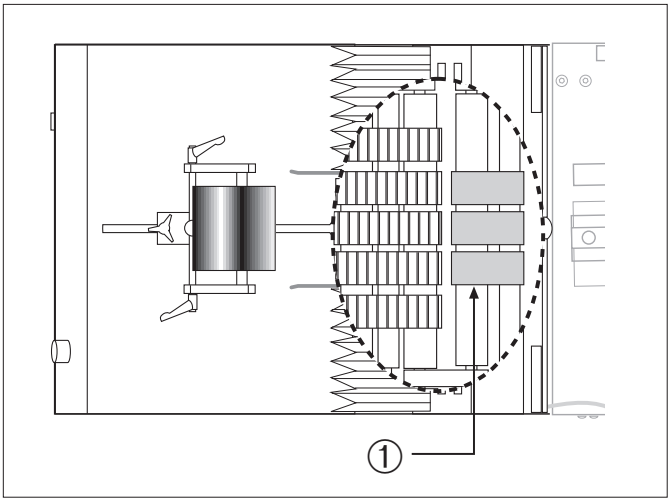


Figure 35. Clean the Discharge Belts

Preventive Care (continued)

CAUTION!

Use only isopropyl alcohol. Do not use any other types of solvents. They can cause premature wear of the belts, or even total breakdown of the envelopes.

NOTE

Depending on the application, it may be necessary to move the feeder from original installation so as to access gate assembly.

Cleaning schedule for various envelopes:
• *Typical: every month*
• *Dusty: after every shift*
• *High ink or varnish: 1 time per shift*

Cleaning the Gate Assembly

To clean gate assemblies,

1. Turn Off feeder and remove power cord from outlet.
2. Open discharge safety shield to access gate.
3. Remove gate assembly from gate bracket assembly.
4. Apply a small amount of isopropyl alcohol to a soft cloth.
5. Wipe across O-rings (Figures 36 and 37), or angled wedge if applicable (Figure 38). First wipe in one direction, then the other.
6. Taking a dry portion of the cloth, go back and wipe all surfaces to ensure they are dried.
7. Reinstall gate assembly, close discharge safety shield, and restore power.

It may be necessary to recheck the alignment of the feeder with the press if the feeder was moved from its original installation position. For a review, refer to Section 3, “Installing the Machine.”

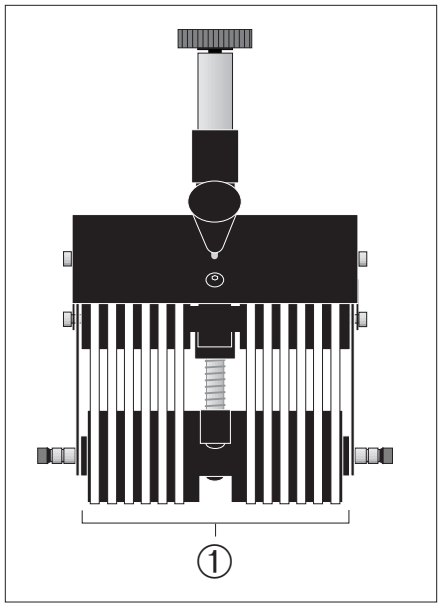


Figure 36. Advancing O-Ring Gate

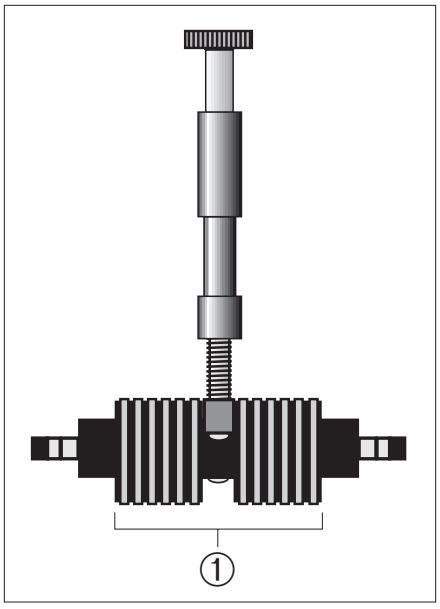


Figure 37. Standard O-Ring Gate

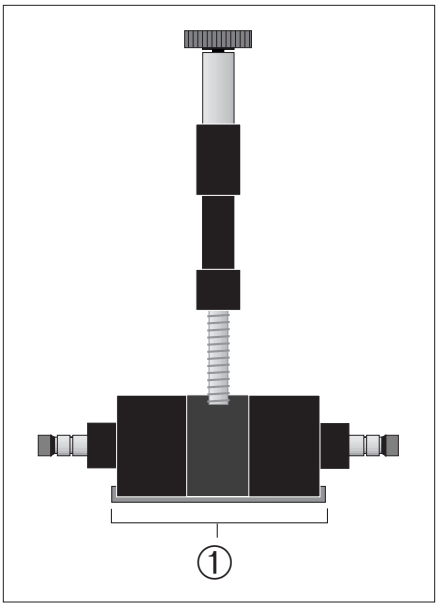


Figure 38. Bar Gate

Preventive Care (continued)

CAUTION!

Do not use any solvents or cleaning agents when cleaning the photo sensor lens. This can result in surface damage and eventual faulty performance.

Cleaning the Photo Sensor

To clean the photo sensor lens:

1. Turn Off the feeder and remove the power cord from the outlet.
2. Use a soft, dry cloth to wipe across the face of the photo sensor lens. Use compressed air to remove dust from bottom photo-cell, as it may be difficult to reach with a cloth.
3. Recheck the adjustments to make sure the feeder is still in alignment with the target (for a review, refer to Section 2, “Preparing for Operation”).
4. Restore power to the feeder.

Appendices

This Appendix provides information for installing additional hardware and interfacing the Reliant 270RT to various offset print presses.

Because you are already familiar with the principles of setting up and operating the press feeder, the instructions in this section combine those principles with information provided in this Appendix.

The instructions in this Appendix show you how to:

- Change the Knockdown Spring Assembly
- Connect the Reliant 270RT to various offset presses

Appendix A: Changing Side Tension Springs

The Reliant 270RT press feeder can accommodate a full range of envelope types and sizes up to 10 inches by 13 inches (C4 size). The general instructions for setting up and aligning the machine apply to all the various sizes of envelopes that you might use in this process.

This appendix provides instructions for installing the extra knockdown spring assembly to accommodate larger envelopes and envelopes with excessive edge curl.

Procedure

Install large product knockdown spring assembly,

1. Loosen the locking knob on the knockdown spring assembly.
2. Install the knockdown spring assembly by clamping it onto the rail holding the side tension springs. Position it so it does not interfere with the standard spring assembly that pushes down vertically on the envelopes. Adjust spring tension for a light pressure.
3. Tighten the knockdown spring assembly locking knob snugly.
4. Follow the procedure in Section 2, “Preparing for Operation,” Step 5.

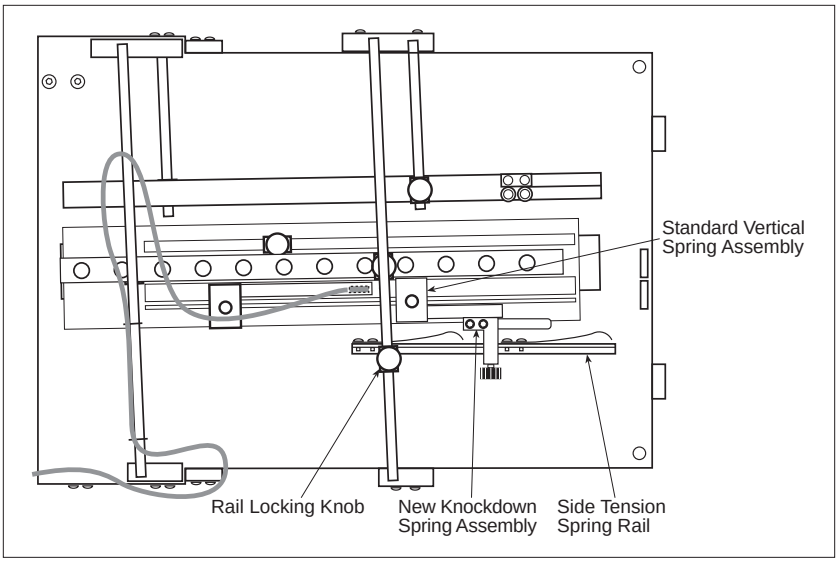


Figure 1. Adjusting the Tension Springs

Appendix B: Interfacing Feeder to Presses

Heidelberg Quickmaster Presses

NOTE

After you start the press, the table will raise until it makes contact with the lockout-bar.

NOTE

If you have any difficulty with the feeder moving, lock the casters so the table cannot roll or move. There should not be any movement from side to side or up and down when the feeder is installed correctly.

Procedure

To connect the Heidelberg Quickmaster and 270RT feeder,

1. Lower the feed table on the offset press using the crank lever.
2. Apply the feed table lockout-bar onto the right side of the press. The bar is moveable and must be positioned to disengage the feed table.
3. Ensure that the rubber-stop at the top of the bar makes contact with the paper feed height detector.
4. Roll the 270RT into place, lining up the feeder table with the press.
5 Ensure that the four flat brackets connect to the slots of the offset press, and that the top of the 270RT table is aligned to the top of the press registration bar (Figure 2).
6. Locate the two pins on each side of the table. Position the side guides against the pins, using the crank lever on the side of the press.

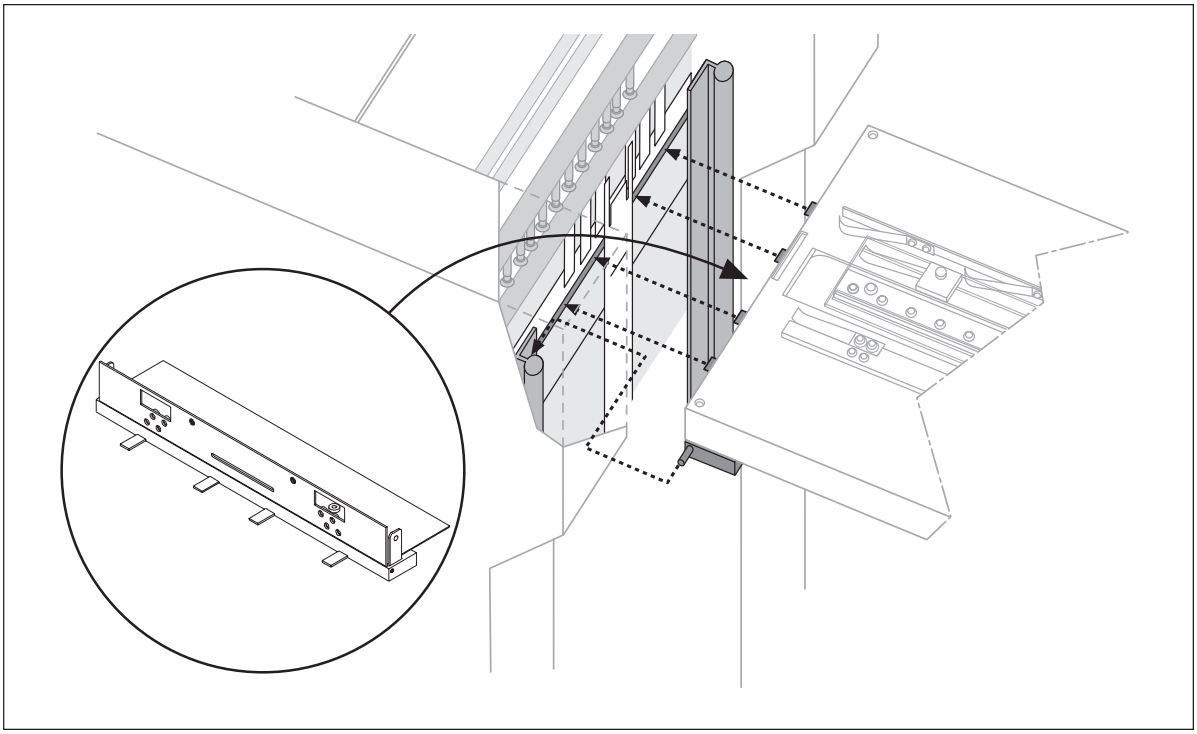


Figure 2. Connect the Quickmaster to the 270RT Feeder

Heidelberg Printmaster Presses

NOTE

After you start the press, the table will raise until it makes contact with the lockout-bar.

NOTE

If you have any difficulty with the feeder moving, lock the casters so the table cannot roll or move. There should not be any movement from side to side or up and down when the feeder is installed correctly.

Procedure

These instructions take into account that the hardware kit is already installed on the 270RT.

To connect the Heidelberg Printmaster and 270RT feeder,

1. Lower the feed table on the offset press using the crank lever.
2. Apply the feed table lockout-bar onto the right side of the press. The bar is moveable and must be positioned to disengage the feed table.
3. Ensure that the rubber-stop at the top of the bar makes contact with the paper feed height detector.
4. Roll the 270RT into place, lining up the feeder table with the press.
5. Ensure that the four flat brackets connect to the slots of the offset press, and that the top of the 270RT table is aligned to the top of the press registration bar (Figure 3).
6. When the feeder table is in place, locate the two extensions on each side of the mounting block.
7. Position the side guides against the extensions, using the crank lever on the side of the press.

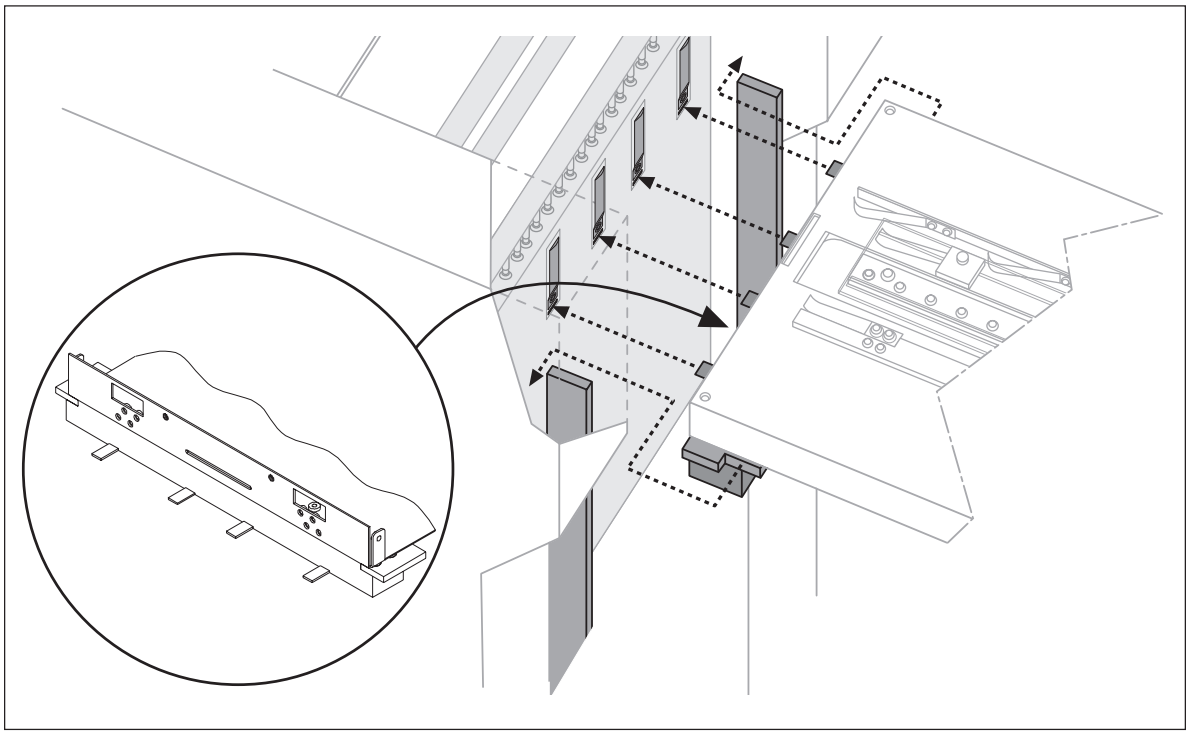


Figure 3. Connect the Printmaster to the 270RT Feeder

Heidelberg GTO Presses

Procedure

These instructions take into account that the hardware kit is already installed on the 270RT.

To connect the Heidelberg GTO press and 270RT feeder,

1. Remove any items on the press that can interfere with the feeder.
2. Lower the feed table to its lowest position.
3. Open the side guides as far as possible.
4. Disengage the press feed table to keep it from raising.
5. Roll the feeder into the press, and use the handle on the stand to adjust the height.
6. Intersect the right and left alignment blocks to offset press side guides (Figure 4).
7. Adjust the feeder table as necessary, checking the position and height.
8. Lift the table and push the hooks into place on press side guides.
9. Adjust the height of the feeder table, and ensure that the hooks are locked securely into place, and registration table is level.
10. Adjust the side guides as necessary.

NOTE

If you have any difficulty in leveling the feeder table, lock the casters so the table cannot roll or move. There should not be any movement from side to side or up and down when the feeder is installed correctly.

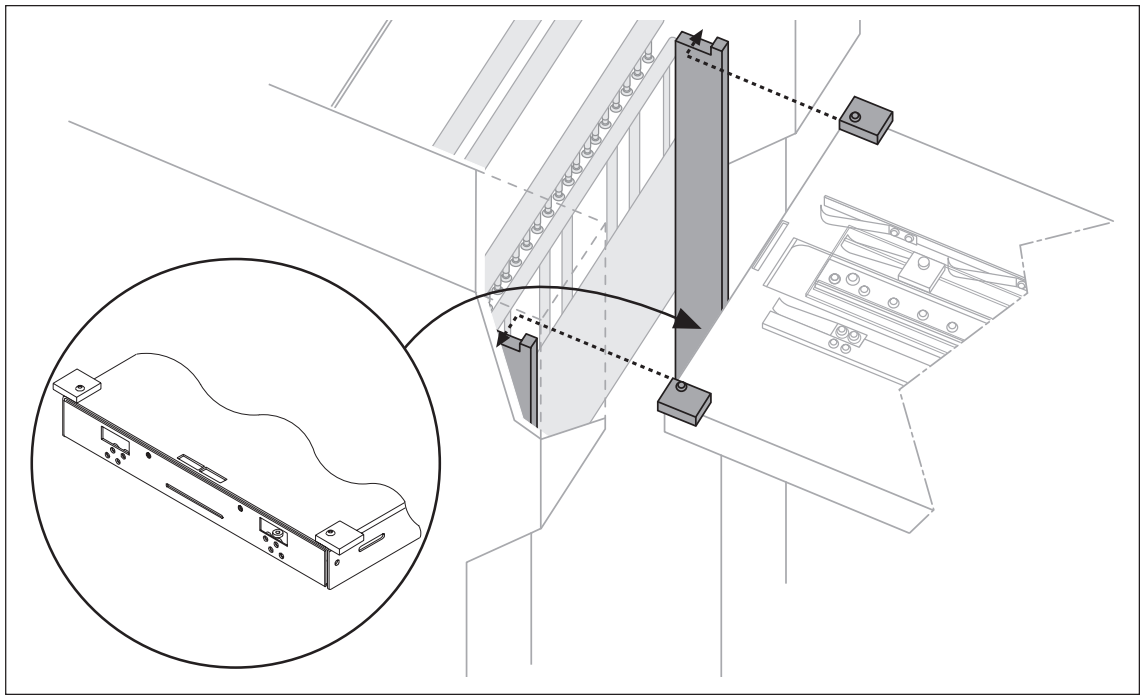


Figure 4. Connect the Heidelberg GTO Press to the 270RT Feeder

Ryobi Presses

Procedure

These instructions take into account that the hardware kit is already installed on the 270RT.

To connect the Ryobi Press and 270RT feeder:

1. Remove any items on the press that can interfere with the feeder.
2. Lower the press feed table to its lowest position.
3. Open the side guides as far as possible.
4. Disengage the press feed table to keep it from raising.
5. Roll the feeder into the press, and use the handle on the stand to adjust the height.
6. Lock the “J” hooks onto the cross bar of the press, making sure the hooks wrap around the bar (Figure 5).
7. Adjust the height and position of the feeder table as needed.
8. Lift the table and push the hooks into place.
9. Adjust the height of the feeder table, and ensure that the hooks are locked securely into place, and registration table is level.
10. Adjust the side guides as necessary.

NOTE

If you have any difficulty with the feeder moving, lock the casters so the table cannot roll or move. There should not be any movement from side to side or up and down when the feeder is installed correctly.

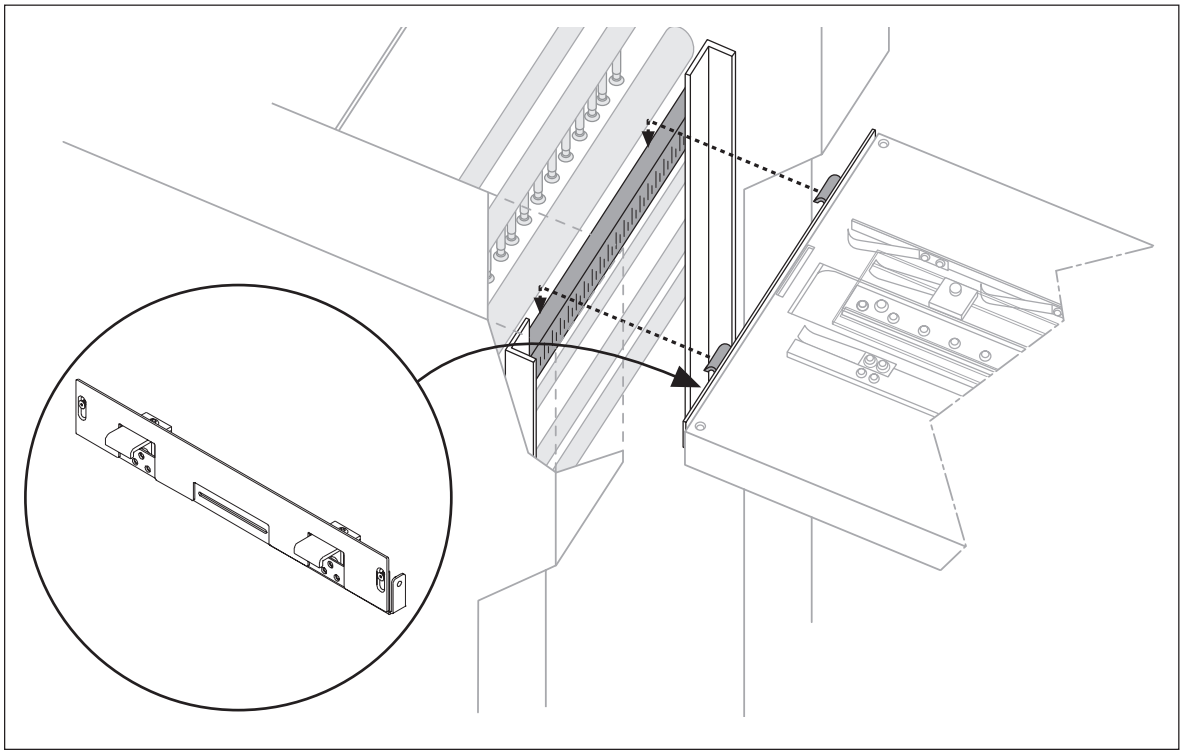


Figure 5. Connect the Ryobi to the 270RT Feeder

AB Dick Presses

Procedure

These instructions take into account that the hardware kit is already installed on the 270RT.

To connect the AB Dick press and the 270RT feeder,

1. Remove any obstacles from the press before preparing to connect the 270RT.
2. Disengage the press feed table to keep it from raising.
3. Locate the two hooks on the front of the adapter plate.
4. Locate the notched areas on the press plate, and line them up with the moving fingers on the press.
5. Roll the feeder toward the press, and position close to the required height.
6. Lift the front of the feeder table and push it into place.
7. Ensure that the hooks are securely attached to the press plate (Figure 6).
8. Adjust the feeder stand height.
9. Adjust the side guides on the offset press to hold the feeder in place.

NOTE

If you have any difficulty with the feeder moving, lock the casters so the table cannot roll or move. There should not be any movement from side to side or up and down when the feeder is installed correctly.

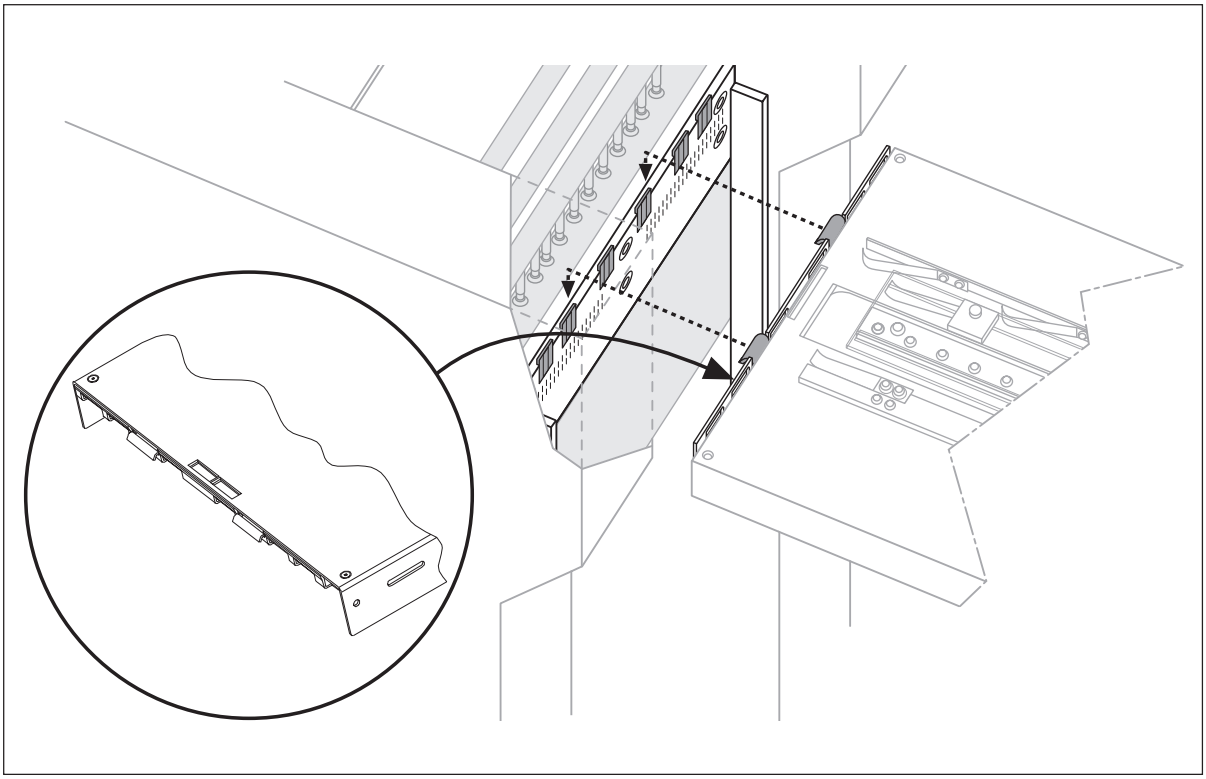


Figure 6. Connect the AB Dick Press to the 270RT Feeder

Hamada Presses

Procedure

These instructions take into account that the hardware kit is already installed on the 270RT.

To connect the Hamada press and 270RT feeder,

1. Remove any items on the press that can interfere with the feeder.
2. Lower the press feed table to its lowest position.
3. Open the side guides as far as possible.
4. Disengage the press feed table to keep it from raising.
5. Roll the feeder into the press, and use the handle on the stand to adjust the height.
6. Lock the “J” hooks onto the cross bar of the press, making sure the hooks wrap around the bar (Figure 7).
7. Adjust the height and position of the feeder table as needed.
8. Lift the table and push the hooks into place.
9. Adjust the height of the feeder table, and ensure that the hooks are locked securely into place, and registration table is level.
10. Adjust the side guides as necessary.

NOTE

If you have any difficulty with the feeder moving, lock the casters so the table cannot roll or move. There should not be any movement from side to side or up and down when the feeder is installed correctly.

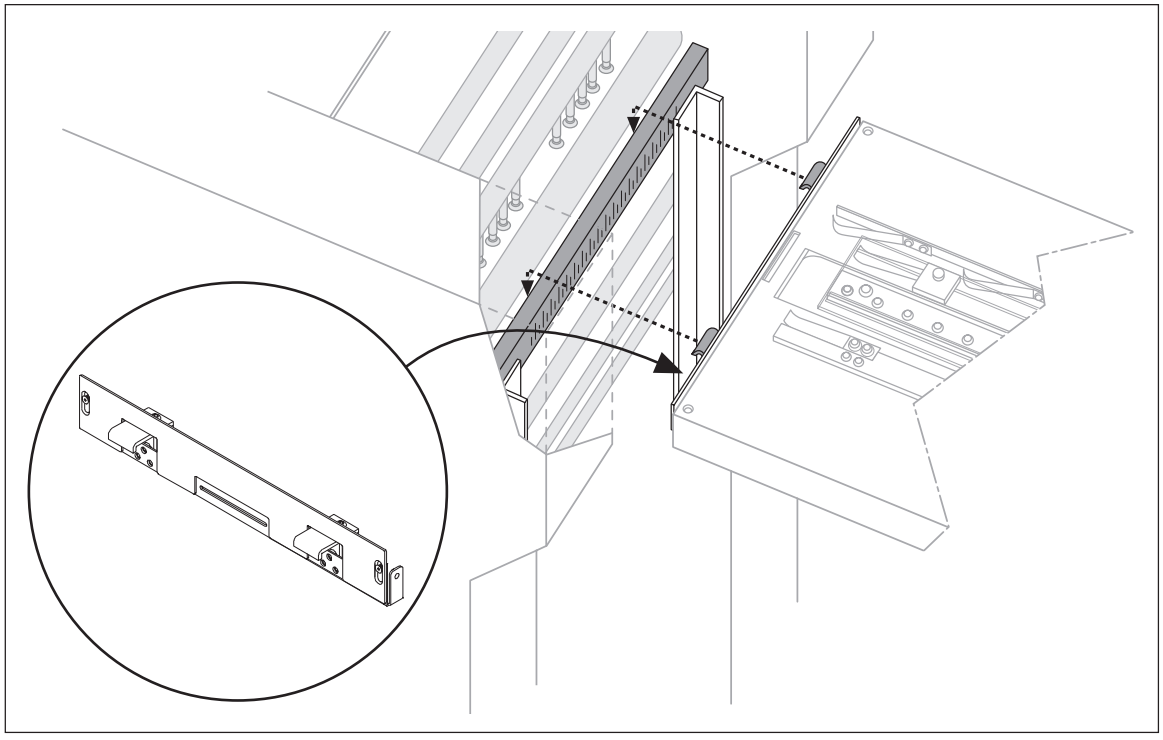


Figure 7. Connect the Hamada Press to the 270RT Feeder

Multi Presses

Procedure

These instructions take into account that the hardware kit is already installed on the 270RT.

To connect the Multi press and 270RT feeder,

1. Remove any items on the press that can interfere with the feeder.
2. Lower the feed table to its lowest position.
3. Open the side guides as far as possible.
4. Disengage the press feed table to keep it from raising.
5. Roll the feeder into the press, and use the handle on the stand to adjust the height.
6. Use the “J” hooks to lock onto the cross bar of the press, making sure the hooks wrap around the bar.
7. Adjust the feeder table as necessary, checking the position and height.
8. Lift the table and push the hooks into place.
9. Adjust the height of the feeder table, and ensure that the hooks are locked securely into place, and registration table is level.
10. Adjust the side guides as necessary.

NOTE

If you have any difficulty in leveling the feeder table, lock the casters so the table cannot roll or move. There should not be any movement from side to side or up and down when the feeder is installed correctly.

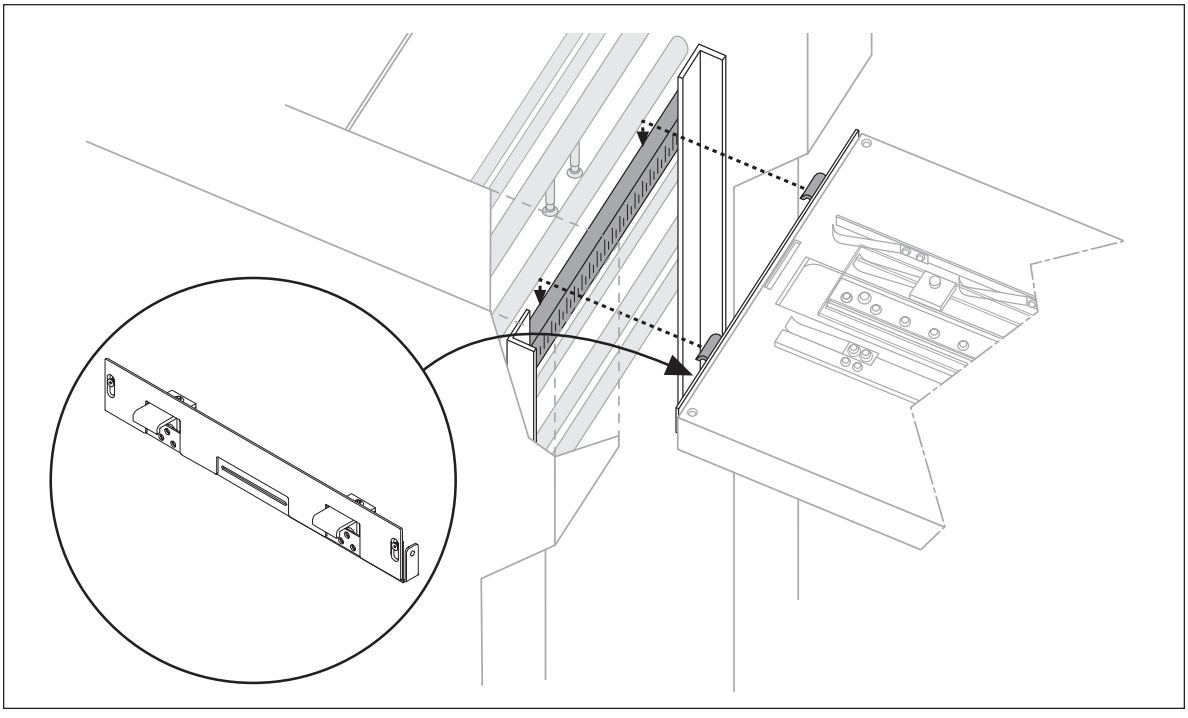
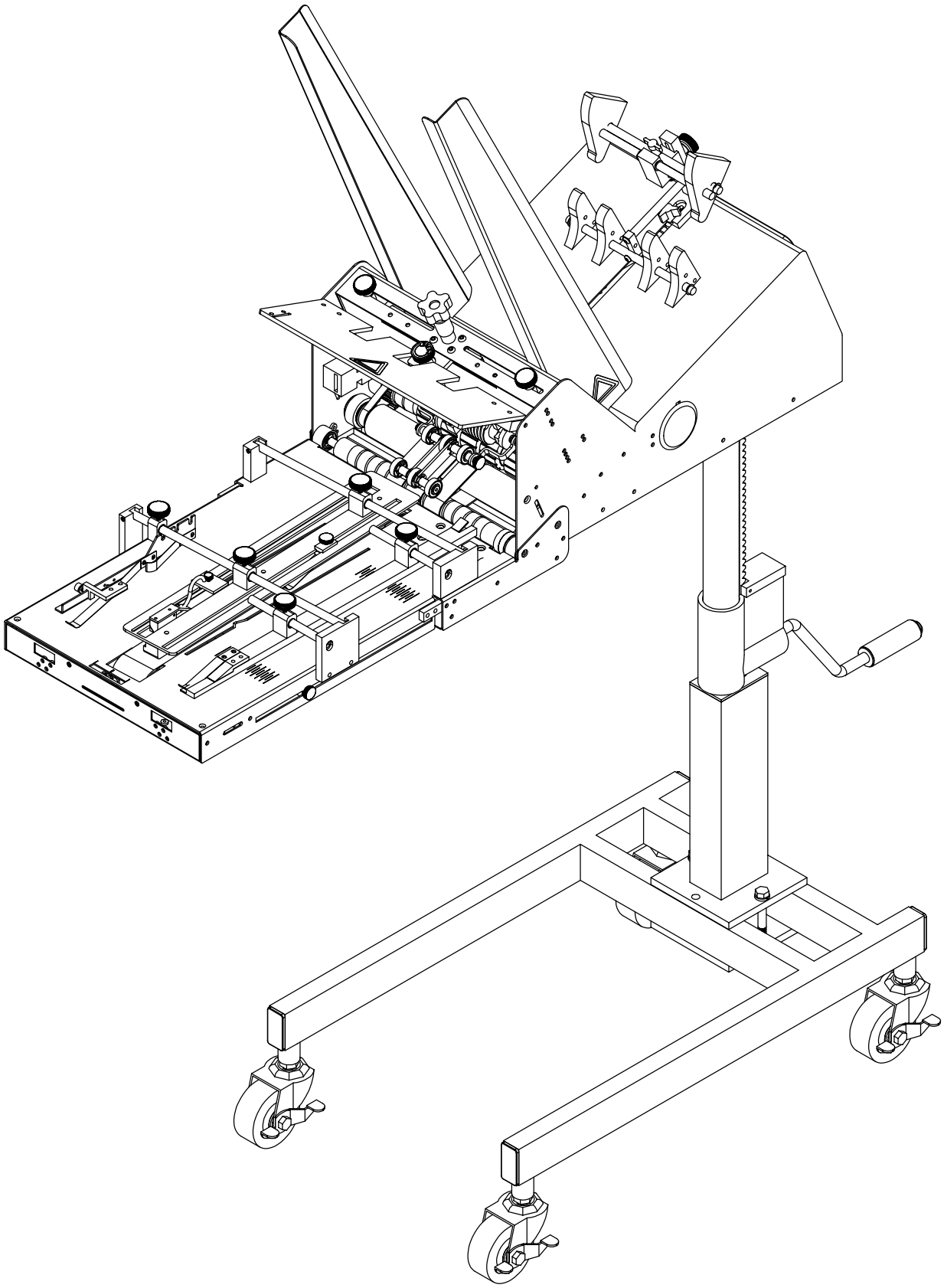


Figure 8. Connect the Multi Press to the 270RT Feeder

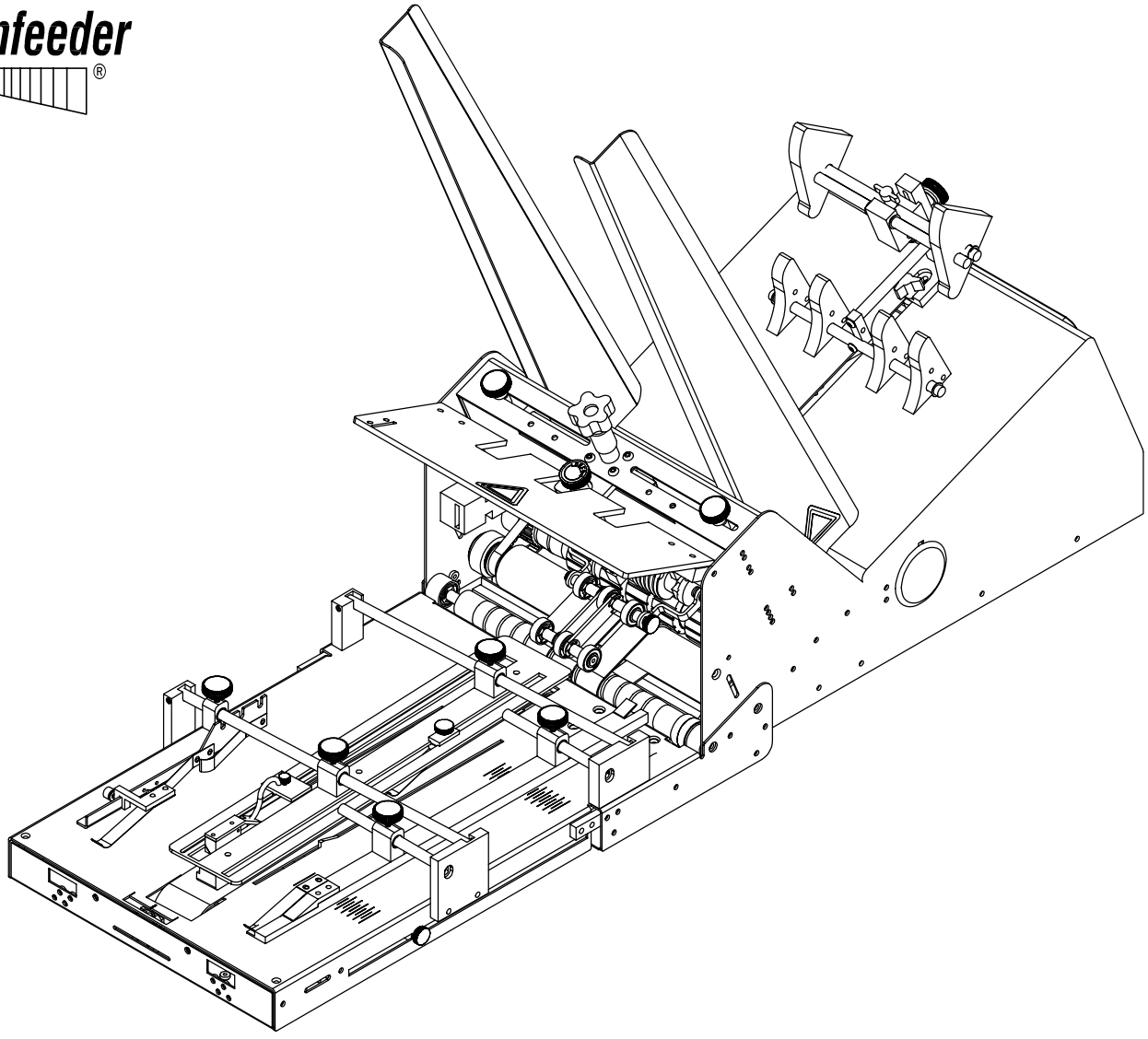
Streamfeeder®



RELIANT 270RT

Last Updated 5/3/01

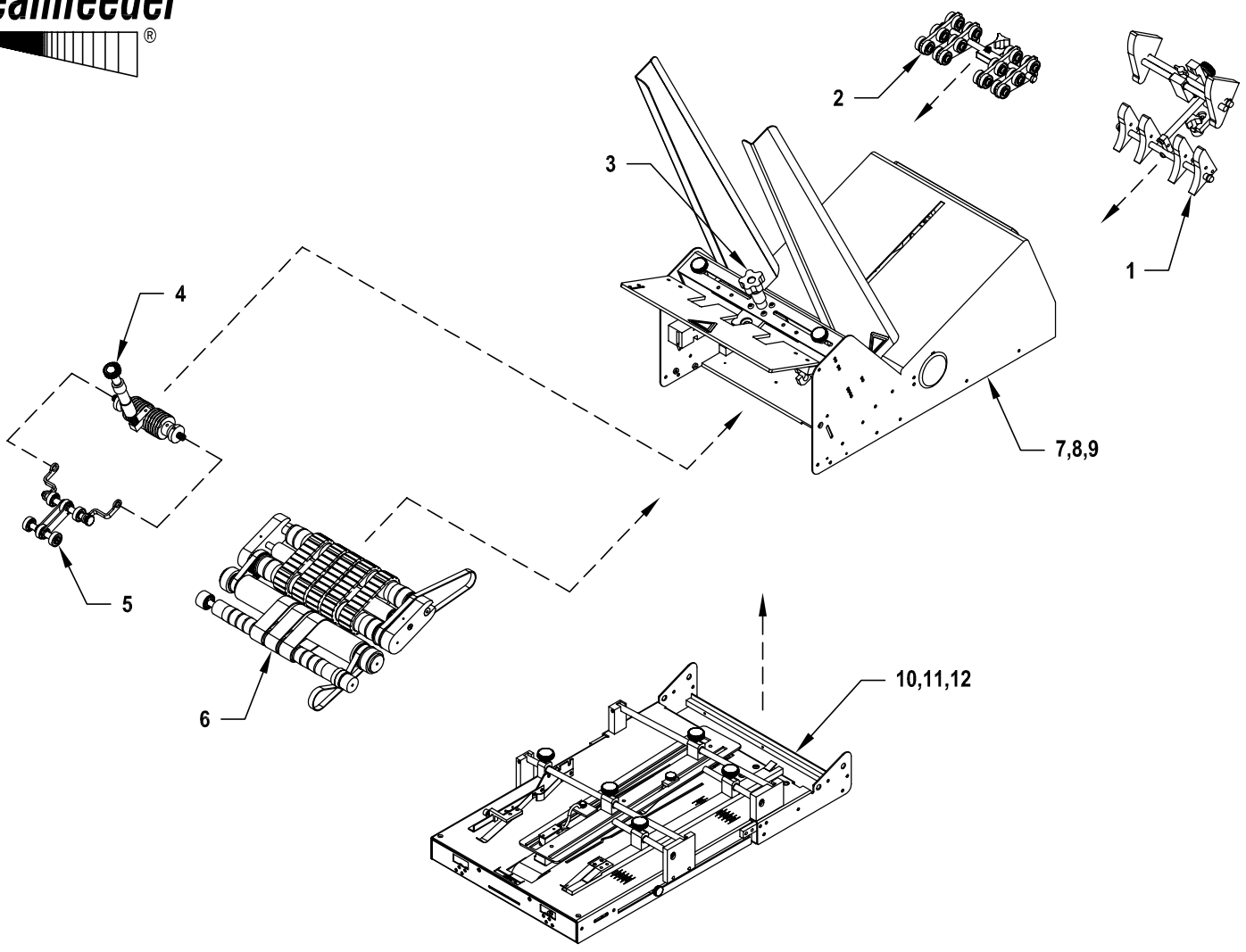
Streamfeeder®



RELIANT 270RT

Last Updated 5/3/01

Streamfeeder®



RELIANT 270RT

Last Updated 5/3/01

RELIANT 270RT

1: COMBINATION WEDGE ASSEMBLY #63311968

DIAGRAM NUMBER	QTY	DESCRIPTION	PART NUMBER
1-1	1	Knob Wing 10-32	23500076
	1	Wedge Angle Adjust Spacer	44968008
	1	SHCS 10-32 X 2" LG	00002323
1-2	2	Wedge Guide Shaft	44633018
1-3	2	Wedge	44968004
1-4	1	Shaft Wedge Guide	23560214
1-5	1	Spring Compression	23560083
1-6	6	Ring Grip 3/8 Waldes	00001110
1-7	1	Main Block	44968002
1-8	1	Pivot Adjuster Shaft	44968007
1-9	1	Mount Block Arm	44968001
1-10	1	Knob Plastic 10-32	44681021
	1	Spacer .25 X .5	435SO264
	1	Screw Socket Set 10-32 X 1-1/2" LG Cup Point	00003313
1-11	1	Knob Plastic 10-32	44681021
	1	Screw Socket Set 10-32 X 3/4" LG Nylon Tip	44681020
1-12	1	Round Knob	44968009
	1	Screw Socket Set 10-32 X 1" LG	00002201
1-13	1	Mounting Block	44968005
1-14	2	SHCS 10-32 X 3/8" LG	00002310
1-15	1	T Nut Round	44633016
1-16	1	Knob 3 Arm 10-32 X 5/8	44633033
1-17	1	Shaft, Wedge	44968010
1-18	1	Wedge Mount Riser	44968006
1-19	4	Wedge Curved	44968003
1-20	2	BHCS 10-32 X 3/4" LG	00003331

Streamfeeder®

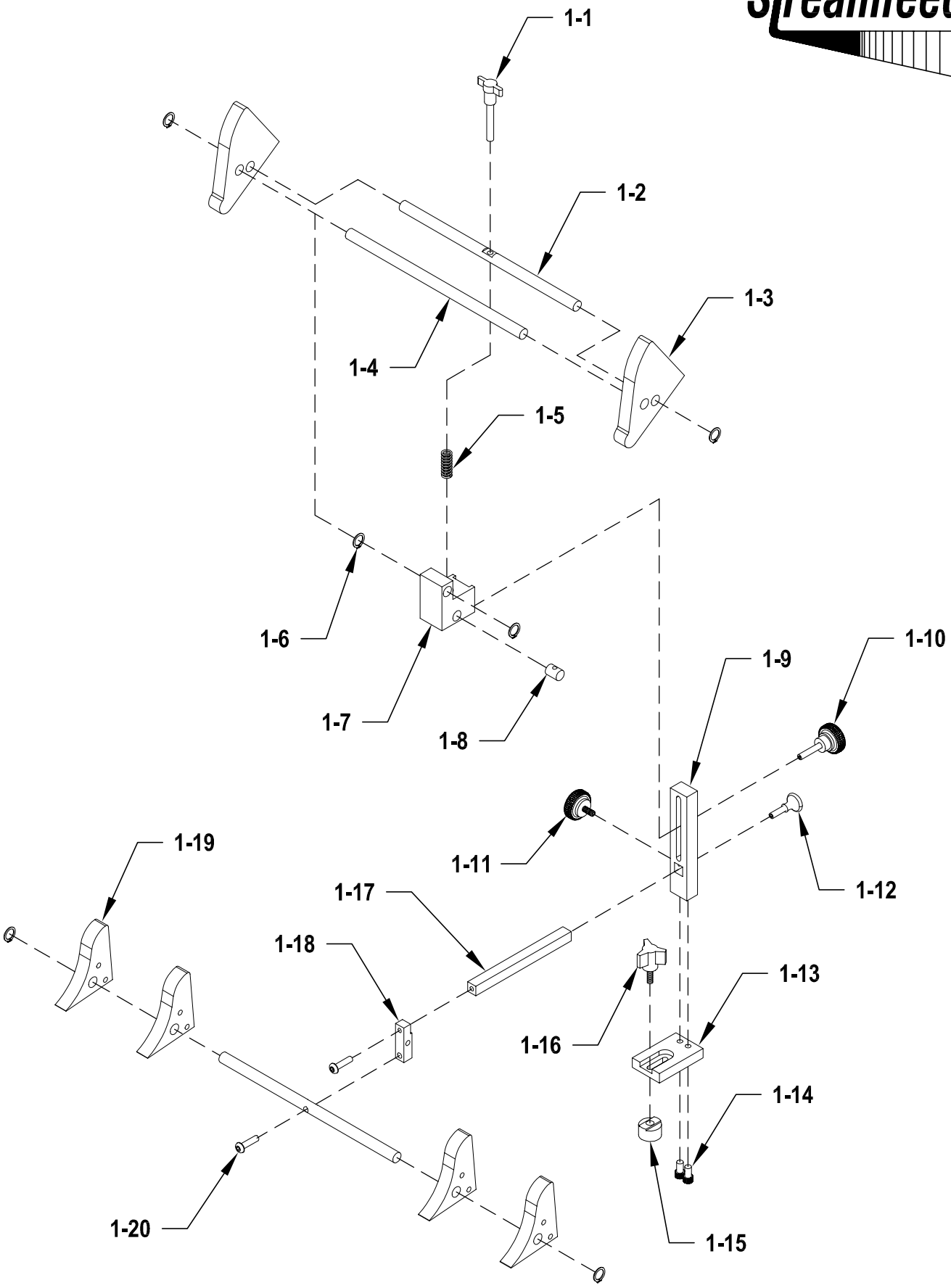


Diagram 1

Combination Wedge
Assembly #63311968

RELIANT 270RT

Last Updated 5/3/01

RELIANT 270RT

2: LOW PROFILE WEDGE ASSEMBLY #63311050

DIAGRAM NUMBER	QTY	DESCRIPTION	PART NUMBER
2-1	1	Wedge Guide Shaft	44633018
2-2	1	SHCS 10-32 X 5/8” LG	00002320
2-3	1	Knob 3 Arm 10-32 X 5/8	44633033
2-4	1	Wedge Block	44633014
2-5	1	T-Nut Round	44633016
2-6	12	Shaft Belt Tension	33500020
2-7	24	Bearing Ball R6	23500095
2-8	24	Washer Flat #10	00002607
2-9	24	BHCS 10-32 X 3/8” LG	00002305
2-10	4	Narrow Roller Wedge	43560050
2-11	2	Ring Grip 3/8” Waldes	00001110

Streamfeeder®

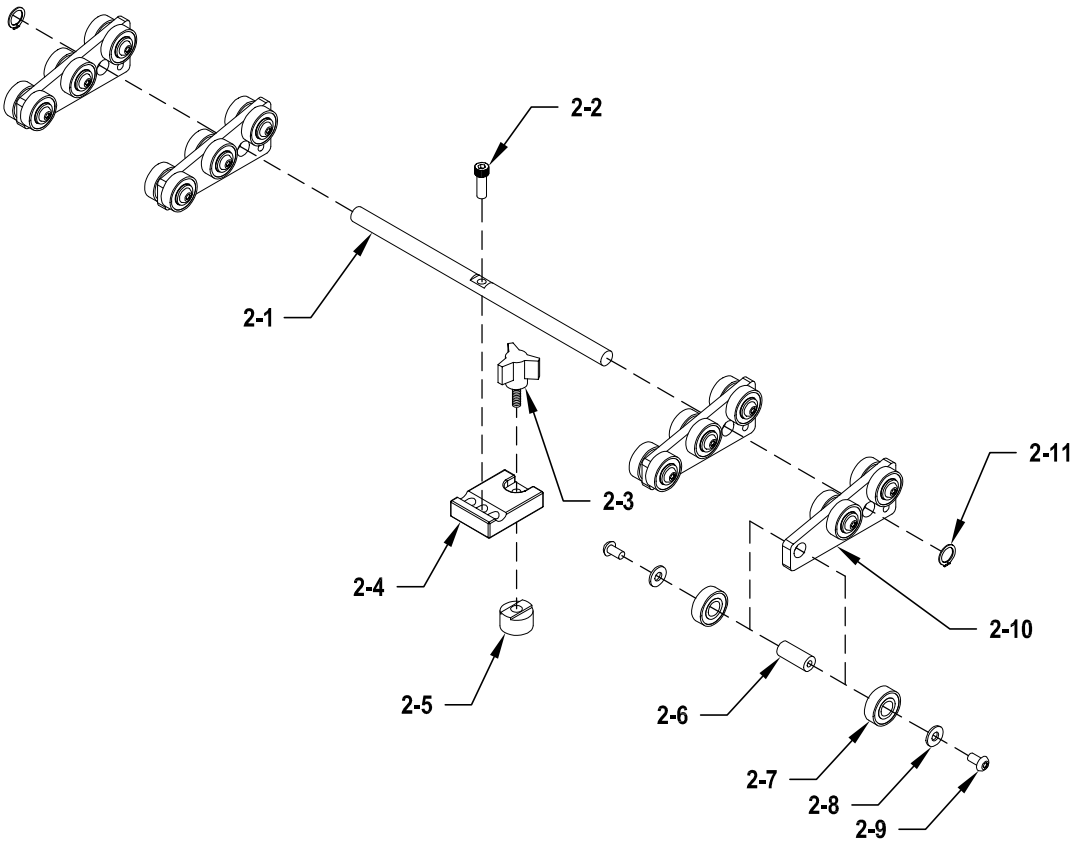


Diagram 2

Low Profile Wedge
Assembly #63311050

RELIANT 270RT

Last Updated 5/3/01

RELIANT 270RT

3: SOLID GATE PLATE ASSEMBLY #64011004

DIAGRAM NUMBER	QTY	DESCRIPTION	PART NUMBER
3-1	1	Guide Adjustment Cover Side	44646012
	4	BHCS 10-32 X 3/8" LG	00002805
3-2	1	Gate Support Bar Lower	44646003
	2	Hook Gate J	15000007
	2	SHCS 8-32 X 5/8" LG	00002215
3-3	2	Rail Side Guide Support	44646006
3-4	2	Guide Adjustment Block	44646001
	4	Screw Socket Set 1/4-20 X 1/4" LG	00002205
3-5	1	Guide Stationary Block Side	44646002
3-6	4	Rack	44646010
3-7	2	Spacer Lower	44646015
3-8	1	Block Adjustment Reference	44646004
	4	BHCS 10-32 X 3/8" LG	00002805
3-9	1	Shaft Pinion Adjustment	44646005
3-10	1	Solid Gate Plate	44640004
3-11	4	Screw Flat Head 10-32 X 3/8" LG	00002234
3-12	2	Knob Plastic 10-32	44681021
	2	Screw Socket Set 10-32 X 1 1/2" LG	00003313
	2	Spacer Upper	44646016
3-13	1	Knob 5 Lobe	44646009
	1	Spring Retainer Upper	44646008
	1	Spring Retainer Lower	44646007
	1	Spring Compression	44646013
3-14	2	Screw Flat Head 10-32 X 1/2" LG	00002830

Streamfeeder®

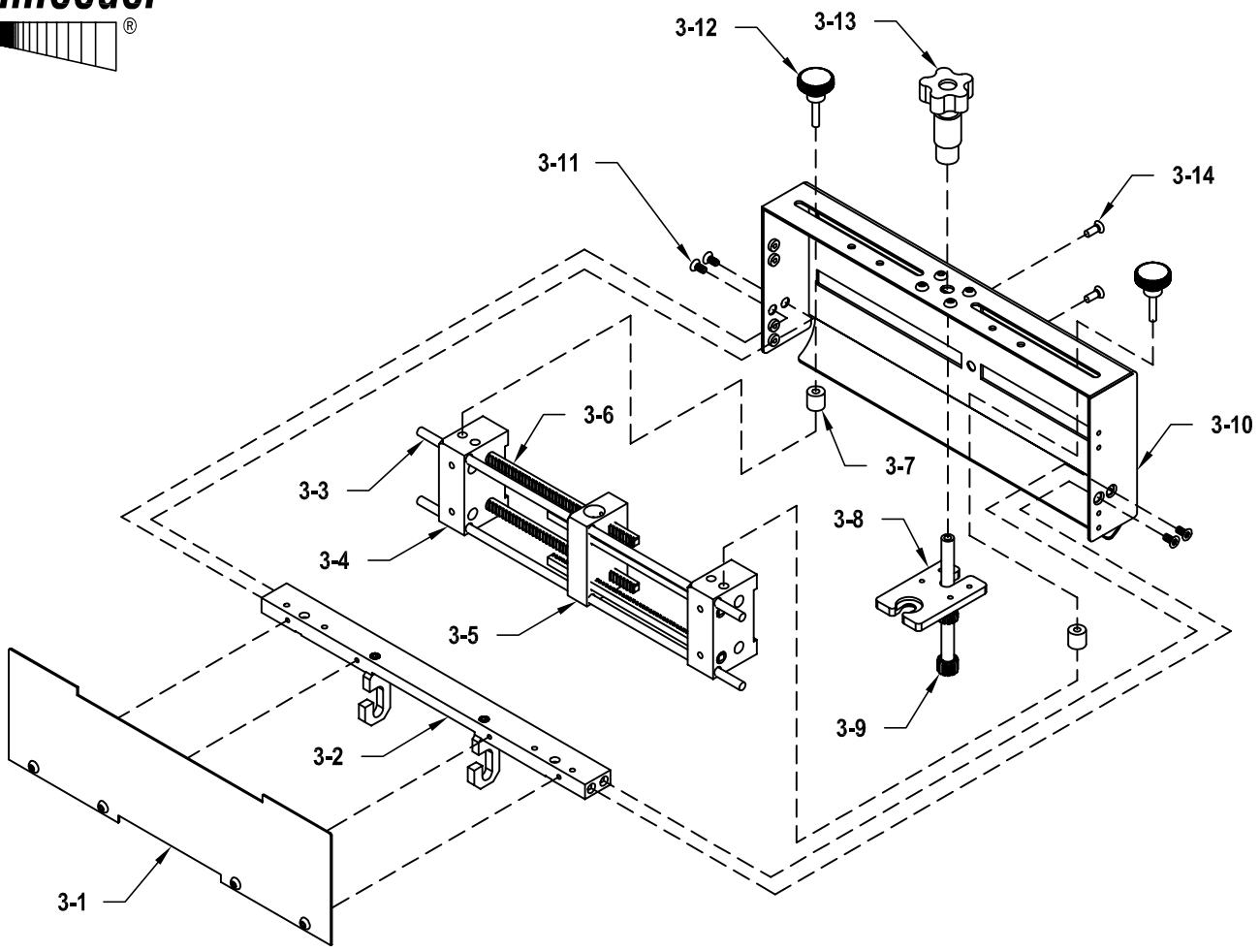


Diagram 3

Gate Plate
Assembly #64011004

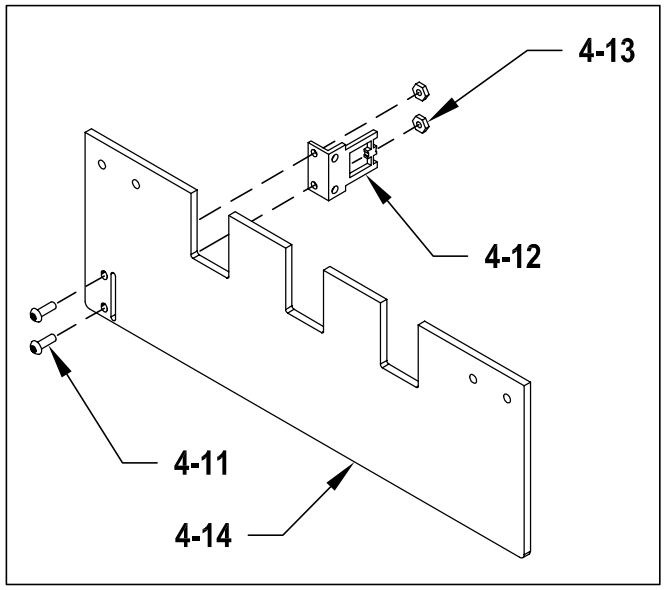
RELIANT 270RT

Last Updated 5/3/01

RELIANT 270RT

4: STANDARD O RING GATE W/HORIZON ADJUST & COVER ASSEMBLY #67511020

DIAGRAM NUMBER	QTY	DESCRIPTION	PART NUMBER
4-1	1	Adjustment Knob Assembly for Gate	23511037
4-2	1	Cylinder Gate Spring Tension	23500019
4-3	1	Shaft Gate Lift	23560084
	1	Spring Gate Compression	23500083
4-4	1	Mount Gate Lift Shaft	15000001
4-5	1	BHCS 10-32 X 1/2” LG	00002334
4-6	2	Screw	44872005
4-7	12	O Ring Gate Cylinder	23500089
4-8	1	BHCS 10-32 X 1” LG	00002340
	1	Washer Flat #10	00002607
4-9	1	Gate Cylinder w/Horizon (Not Sold Separately)	51101001
	2	Screw Socket Set 10-32 X 1/4” LG Cup Pt	00002216
4-10	2	Roller	44872003
	2	Screw Socket Set 10-32 X 3/8” LG Nylon Tip	44872007
4-11	2	BHCS 8-32 X 1/2” LG	00002302
4-12	1	Key Safety Interlock	44649010
4-13	2	Nut Keps 8-32 Zinc	00002121
4-14	1	Cover Protective Standard Gate	44675013



NOTE: Gate assy with out cover is P/N 13511872

Diagram 4

Standard O Ring Gate
w/Horizon Adjust & Cover
Assembly #67511020

RELIANT 270RT

Last Updated 5/3/01

RELIANT 270RT

5: HOLD DOWN ASSEMBLY #87211002

DIAGRAM NUMBER	QTY	DESCRIPTION	PART NUMBER
5-1	6	Bearing Ball R6	23500095
5-2	12	Clip E 3/8 Waldes	00001150
5-3	4	Ring Grip 3/8 Waldes	00001110
5-4	1	Hold Down Shaft	44841049
5-5	2	Hold Down Joint	44841052
5-6	1	SHCS Nylock 10-32 X 1/2” LG	44350017
5-7	1	Right Hold Down Bracket	44841051
5-8	1	Shaft Hold Down Long	44872006
5-9	1	Left Hold Down Bracket	44841053
5-10	1	Washer Lock #10	00002608
5-11	1	Knob Small Black	23500091
	1	SHCS 10-32 X 1/2” LG	00002315

Streamfeeder®

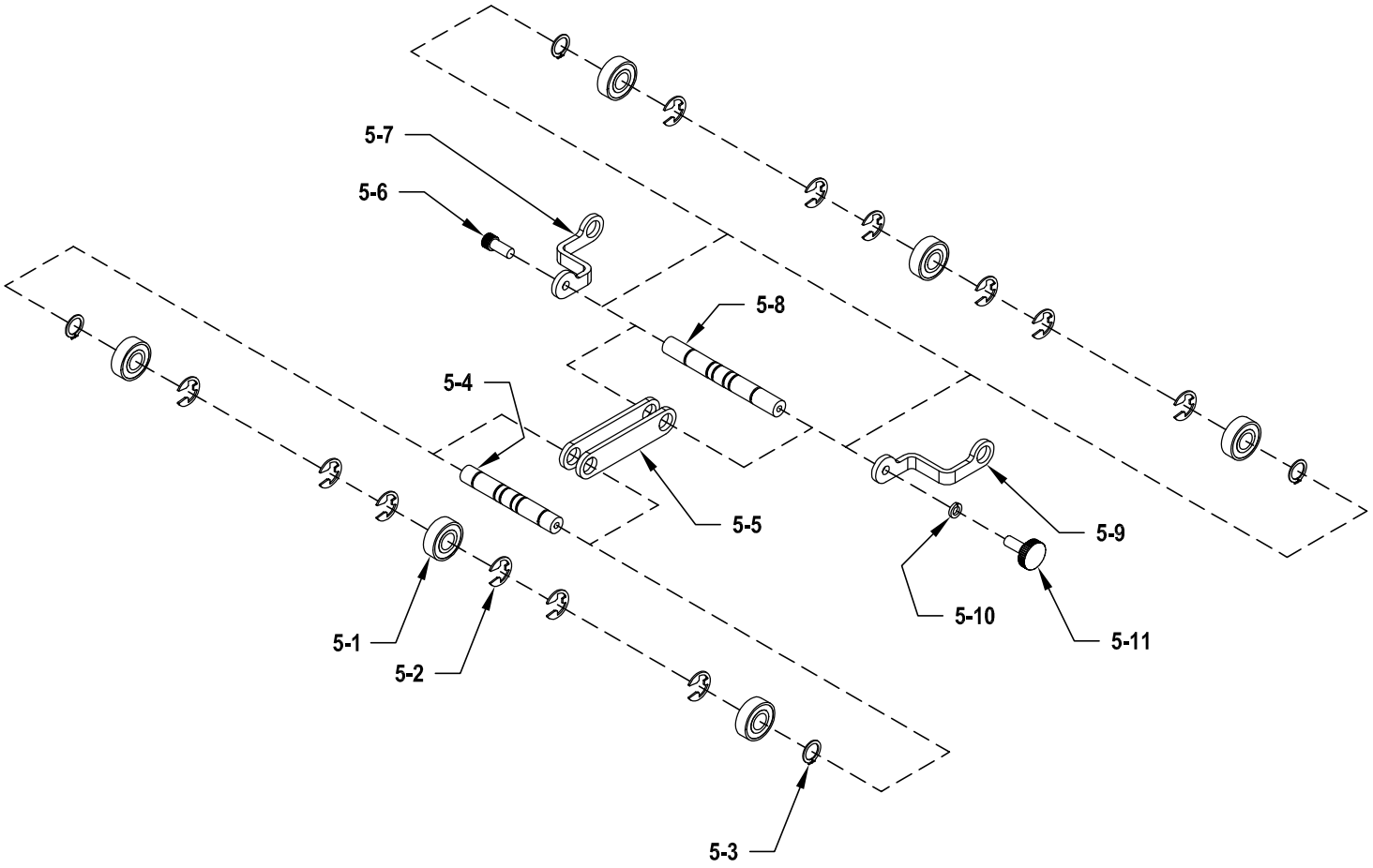


Diagram 5

Hold Down
Assembly #87211002

RELIANT 270RT

Last Updated 5/3/01

RELIANT 270RT

6: GROOVED GUM CARRIAGE ASSEMBLY #68111005

DIAGRAM NUMBER	QTY	DESCRIPTION	PART NUMBER
6-1	1	Shaft Discharge Front	51080045
	2	Double Detect Bearing Cup Holder	23560121
	2	Bearing Ball R6	23500095
	2	Bearing Ball R8	23500094
	2	Clip 3/8 Waldes	00001150
	2	Bearing Oilite 3/8 X 1/2	23500250
6-2	1	Shaft Rear Discharge	44675046
	1	Pulley 16T 1/2 Bore w/Flange	43560097
	1	Pulley 21T 1/2 Bore	44681027
	2	Holder Outboard Bearing Cup	23500032
	2	Bearing Ball R8	23500094
	2	Clip E 1/2 Waldes	00001155
	2	Screw Socket Set 10-32 X 1/8" LG (For 16T Pulley)	00003352
	1	Screw Socket Set 10-32 X 5/16" LG (For 21T Pulley)	00002217
	1	Screw Socket Set 10-32 X 1/4" LG (For 21T Pulley)	00002216
	2	Key Woodruff 1/8 X 3/8	00003351
6-3	1	Drive Belt 130XLO37	44681039
6-4	1	Shaft Drive	44630019
	1	Pulley 20T 1/2 Bore w/Flange Driven	23500097
	1	Pulley 24T 1/2 Bore Flangeless	43560098
	2	Clip E 1/2 Waldes	00001155
	2	Bearing Ball R8	23500094
	3	Screw Socket Set 10-32 X 5/16" LG (1 for flanged pulley, 2 for flangeless pulley)	00002217
	1	Screw Socket Set 10-32 X 1/4" LG (for flanged pulley)	00002216
	2	Key Woodruff 1/8 X 3/8	00003351
6-5	1	Shaft Discharge Feed Roller	43550036
	1	Belt Support Tube	44630003
	2	Bearing Ball R6	23500095
	2	Clip E 3/8 Waldes	00001150
6-6	1	Idler Shaft	43555047
	1	Tube Driven	44630004
	4	Bearing Ball R8	23500094
	3	Clip E 1/2 Waldes	00001155
6-7	3	Discharge Belt Clear 1W	44675015
6-8	1	Belt Drive Timing 78XL037	23560078

Carriage Continued on Next Page….

RELIANT 270RT

6: GROOVED GUM CARRIAGE

6-9	1	Holder Carriage Right Side	44485005
6-10	5	Belt Feed Tan Grooved Composite	23500162
6-11	1	Drive Belt 190XL037	44675021
6-12	1	Holder Carriage Left Side	44485006

Streamfeeder®

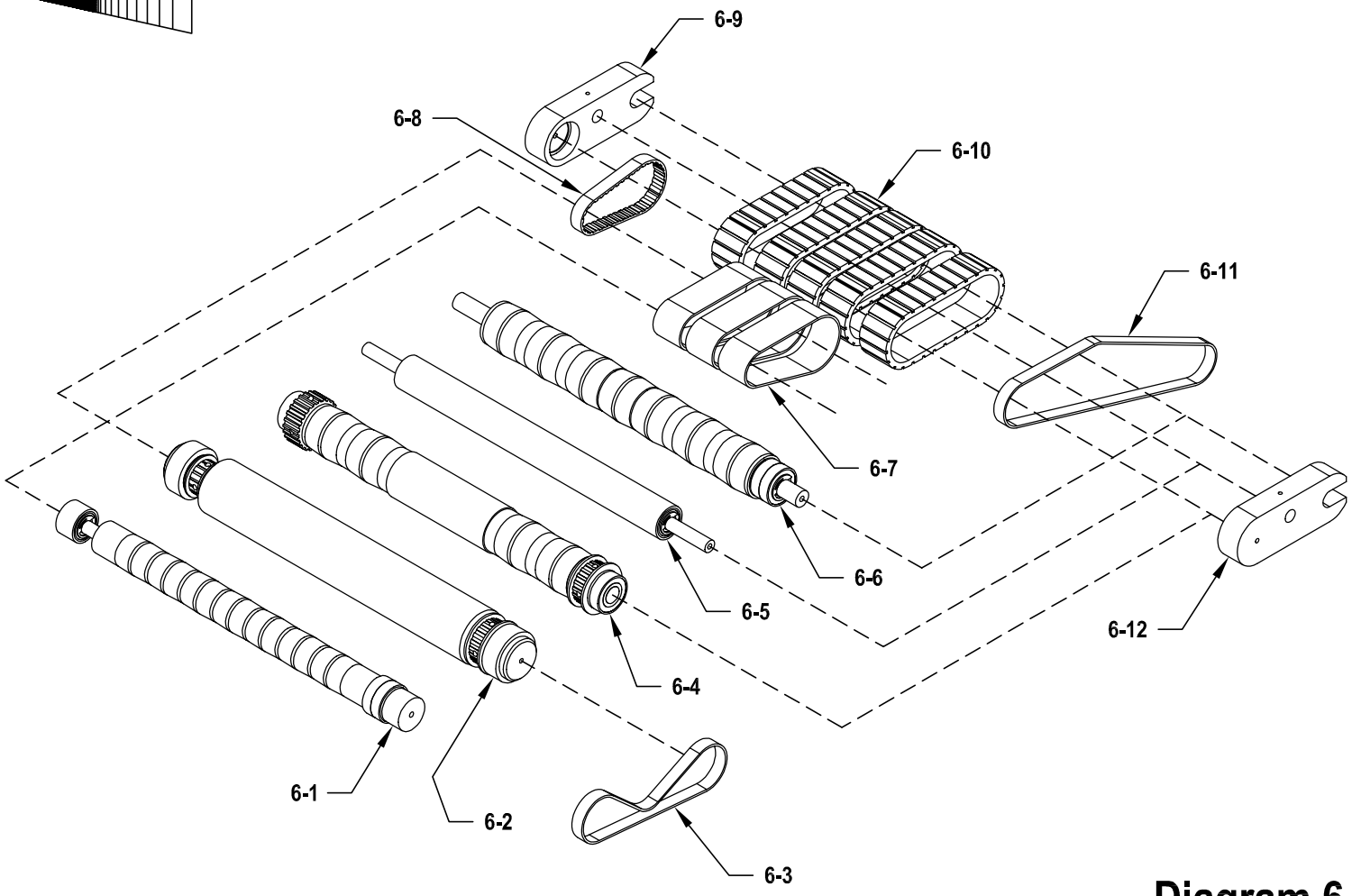


Diagram 6

Grooved Gum Carriage
Assy #68111005

RELIANT 270RT

Last Updated 5/3/01

7: ELECTRICAL COMPONENTS
ASSEMBLY #67511002

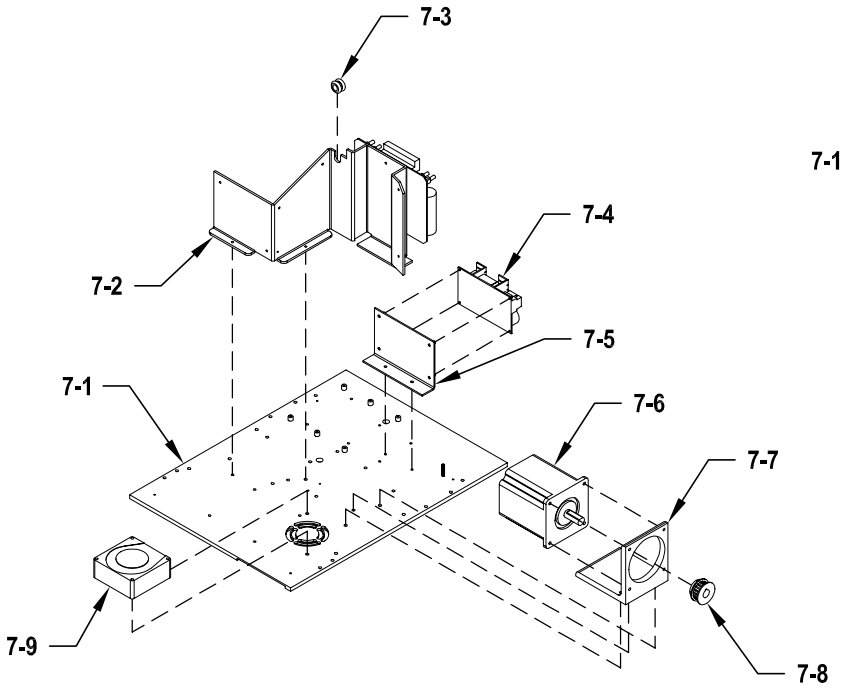
DIAGRAM NUMBER	QTY	DESCRIPTION	PART NUMBER
7-1	1	Base Plate	44630002
7-2	1	Board Stepper Drive BLD72-5	44649030
7-3	1	Grommet 3/4 X 3/8 X1/2	44649054
7-4	1	Board Power DC 5V & 12V 2.5 X 4.25	44649033
or	1	POWER SUPPLY, 5V&12V	901745
7-5	1	Bracket Power Supply Mounting	44649036
or	1	BRACKET, POWER SUPPLY	901810
7-6	1	Motor Drive Stepper Assy	53511390
7-7	1	Motor Mount	44630011
7-8	1	Pulley 18T 1/2 Bore W/Flange & Hub	44350053
	2	Screw Socket Set 10-32 X 1/8” LG	00003352
7-9	1	Fan Assembly ST/Reliant Cooling	64911035
7-10	1	Transformer Power 300VA	44683025
7-11	1	Bracket Mounting CPU Board	44649038
7-12	1	Board I/O Expansion	44675035
7-13	4	Standoff Male/Female 6-32 X 1	44649048
7-14	1	Boards ES CPU	44675037
NS	16	Cable Tie Wrap	435SO263
NS	2	Terminal Female	44649046
NS	34	Sheating #0 HP Black	44649085
NS	1	Cable Ribbon 2 Inch 50 Pin	44675036

RELIANT 270RT

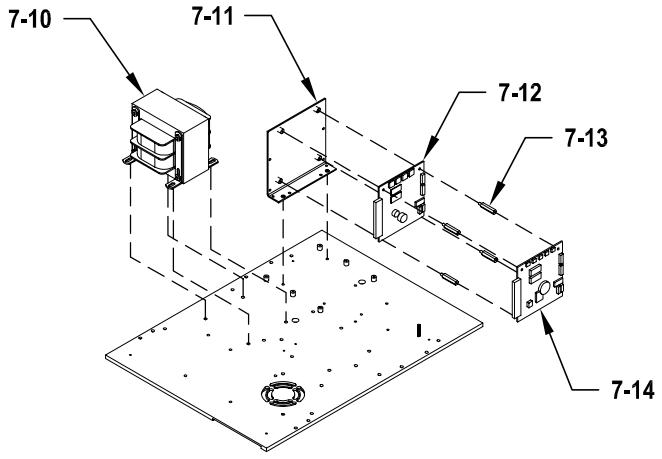
7: ELECTRICAL COMPONENTS

DIAGRAM NUMBER	QTY	DESCRIPTION	PART NUMBER
NS	4	Terminal Disconnect Female 22-18 ga	53500045
NS	4	Joint Wire Crimp Style	53500152
NS	2	Terminal Disc Female .020 22-18 AWG	53500254
NS	1	Cable DC Power Supply Assy AC Input	63011006
NS	1	Harness Safety Interlock	64911001
NS	1	Cable Ground Wire Assembly	63011007
NS	1	Harness Sheet Sensor	64911002
NS	1	Harness DC Power Supply	64911003
NS	1	Harness Drive Control	64911007
***NS**	4	Holder Adhesive Wire	23500079
***NS**	3	Cable Tie Wrap	435SO263
***NS**	1	Power Cord (115V Models Only)	53511020
***NS**	1	Power Cord / Allen Wrench Set (230V Only)	53522210

Streamfeeder®



FRONT AREA



REAR AREA

Diagram 7

Electrical Components
Assembly #67511002

RELIANT 270RT

Last Updated 5/3/01

RELIANT 270RT

8: BASE FEATURES 1

DIAGRAM NUMBER	QTY	DESCRIPTION	PART NUMBER
8-1	2	Mount Front Base Plate	44675003
8-2	2	Mount Back Base Plate	44675004
8-3	1	Bracket Rubber Spacer	44640009
8-4	1	Support O Ring Cover	43555068
8-5	1	Switch Safety Interlock Assembly	64911009
8-6	2	Shaft Top Cover Hinge Mount	44640011
8-7	2	Hinge Top Cover Mount	44640012
8-8	1	Side Guide Right 1424	44640018
	1	Label Warning	44600005
8-9	1	Side Guide Left 1424	44640017
	1	Label Warning	44600005
8-10	1	Shell Reliant	44675001
8-11	1	Plug 2” Hole Cover	44500061
8-12	1	Label Warning (For Protective Cover)	44600004
NS	1	Belt Tensioner Assembly	23511290
NS	1	Ruler Label	44500060
NS	2	Guard Accordion Rear	44600001

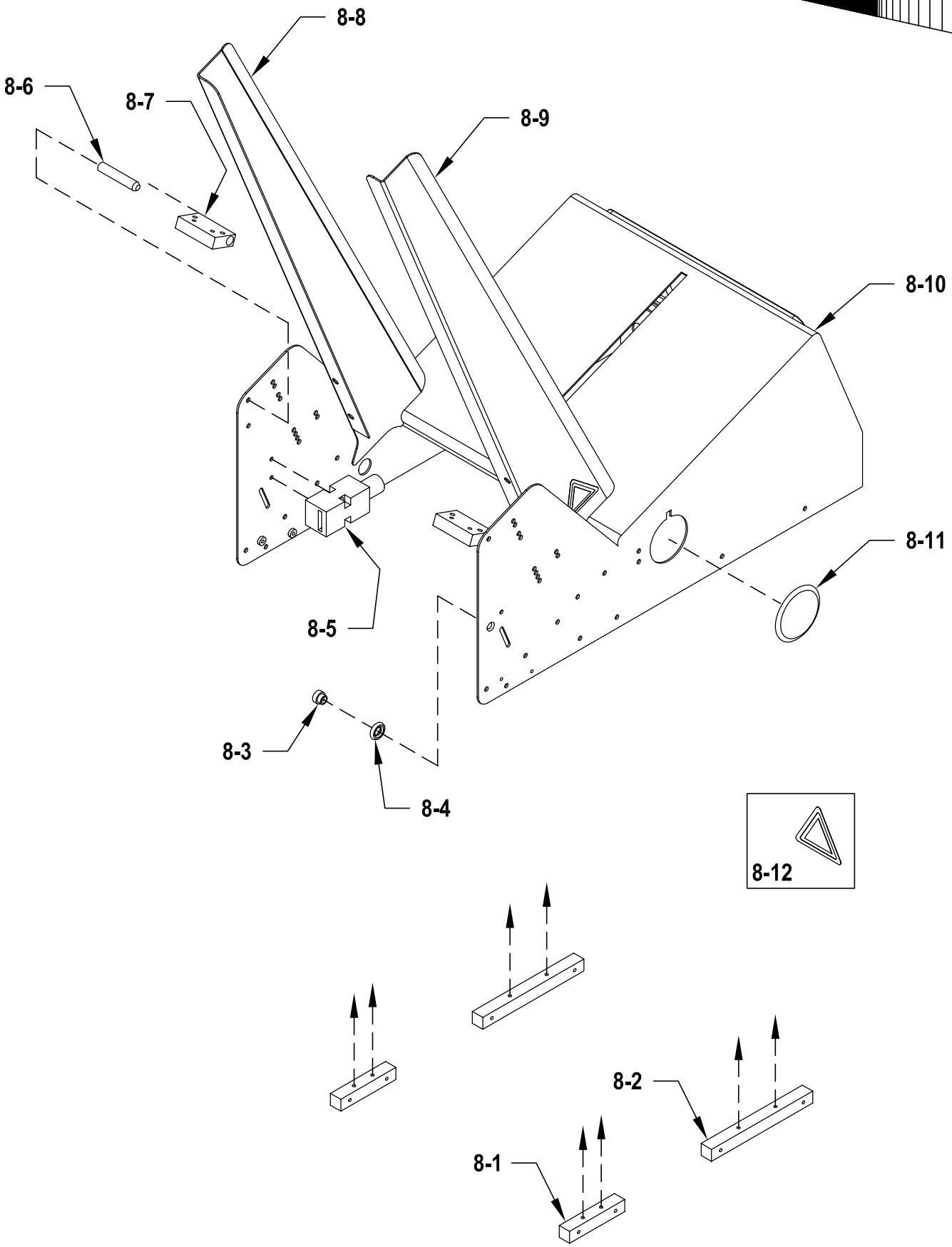


Diagram 8

Base Features 1

RELIANT 270RT

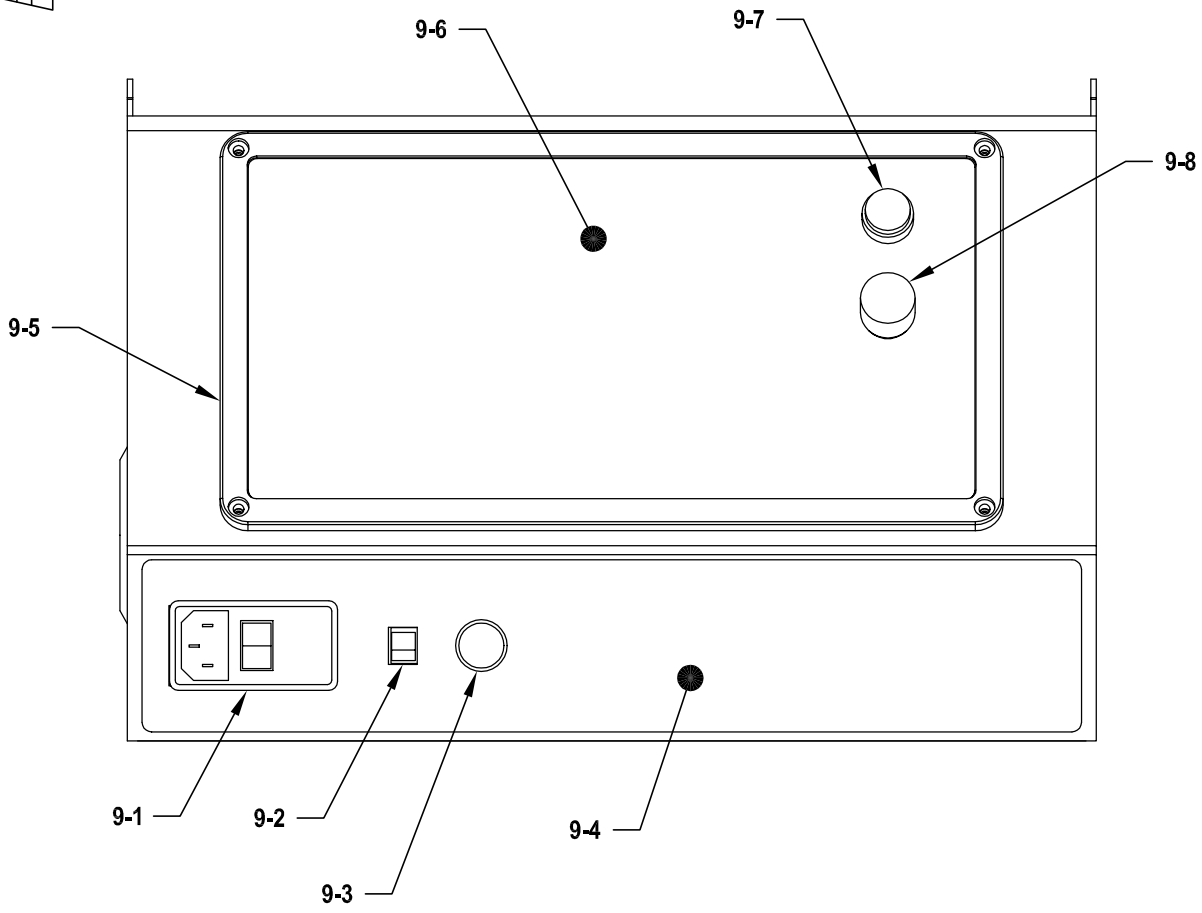
Last Updated 5/3/01

RELIANT 270RT

9: BASE FEATURES 2

DIAGRAM NUMBER	QTY	DESCRIPTION	PART NUMBER
9-1	1	Module AC Power Entry (w/o fuse)	44649034
	2	Fuse 3A 250V Slo-Blo GMD 5 X 20mm	53500006
9-2	1	Select Switch Harness Assembly	67511026
9-3	1	Harness Fault/Reset Switch Assembly	67511034
9-4	1	Graphic Lower 270RT	44681076
9-5	1	Cover Plate	44699016
9-6	1	Graphic Upper 270RT	44681070
9-7	1	Harness Cycle Button Assembly	69911002
9-8	1	Harness Potentiometer Assembly	67511030

Streamfeeder®



Last Updated 5/3/01

RELIANT 270RT

Diagram 9

Base Features 2

RELIANT 270RT

10: DECK (PART 1 OF 3) #68111027 (NARROW DECK) #68111007 (WIDE DECK)

DIAGRAM NUMBER	QTY	DESCRIPTION	P/N NARROW	P/N WIDE
10-1	1	Shaft Front Driven	44681180	44681117
	1	Pulley Crown	→	44681088
	2	Cup Bearing	→	44681089
	2	Bearing Ball R8	→	23500094
	2	Screw Socket Set 1/4-20 X 1/2” LG	→	00002327
10-2	1	Transport Belt Black SFT 1.875W X 38L	→	44681118
10-3	2	Knob Small Black	→	23500091
	2	Washer Flat 3/16	→	00002605
	2	SHCS 10-32 X 3/8” LG	→	00002310
10-4	1	Shaft Ramp	44681182	44681078
10-5	2	Ramp	→	44681077
10-6	1	Shaft Rear Drive	→	44681090
	1	Pulley Crown	→	44681088
	1	Cup Bearing	→	44681089
	1	Bearing Ball R8	→	23500094
	2	Screw Socket Set 1/4-20 X 1/2” LG	→	00002327
10-7	1	Helical Beam Coupling	→	44681031
	2	Alignment Bearing Block	→	44681030
	2	Bearing Ball R8	→	23500094
10-8	2	Clip E 1/2 Waldes	→	00001155
10-9	1	Shaft Rear Coupler	→	44681091
	1	Pulley 21T 1/2 Bore	→	44681027
	1	Holder Bearing Cup	→	44681042
	1	Bearing Ball R8	→	23500094
	2	Screw Socket Set 8-32 X 1/8” LG	→	00002402
	1	Key Woodruff 1/8 X 3/8	→	00003351
NS	1	Clamp Cable	→	23500078
NS	4	Holder Adhesive Wire	→	23500079

Streamfeeder®

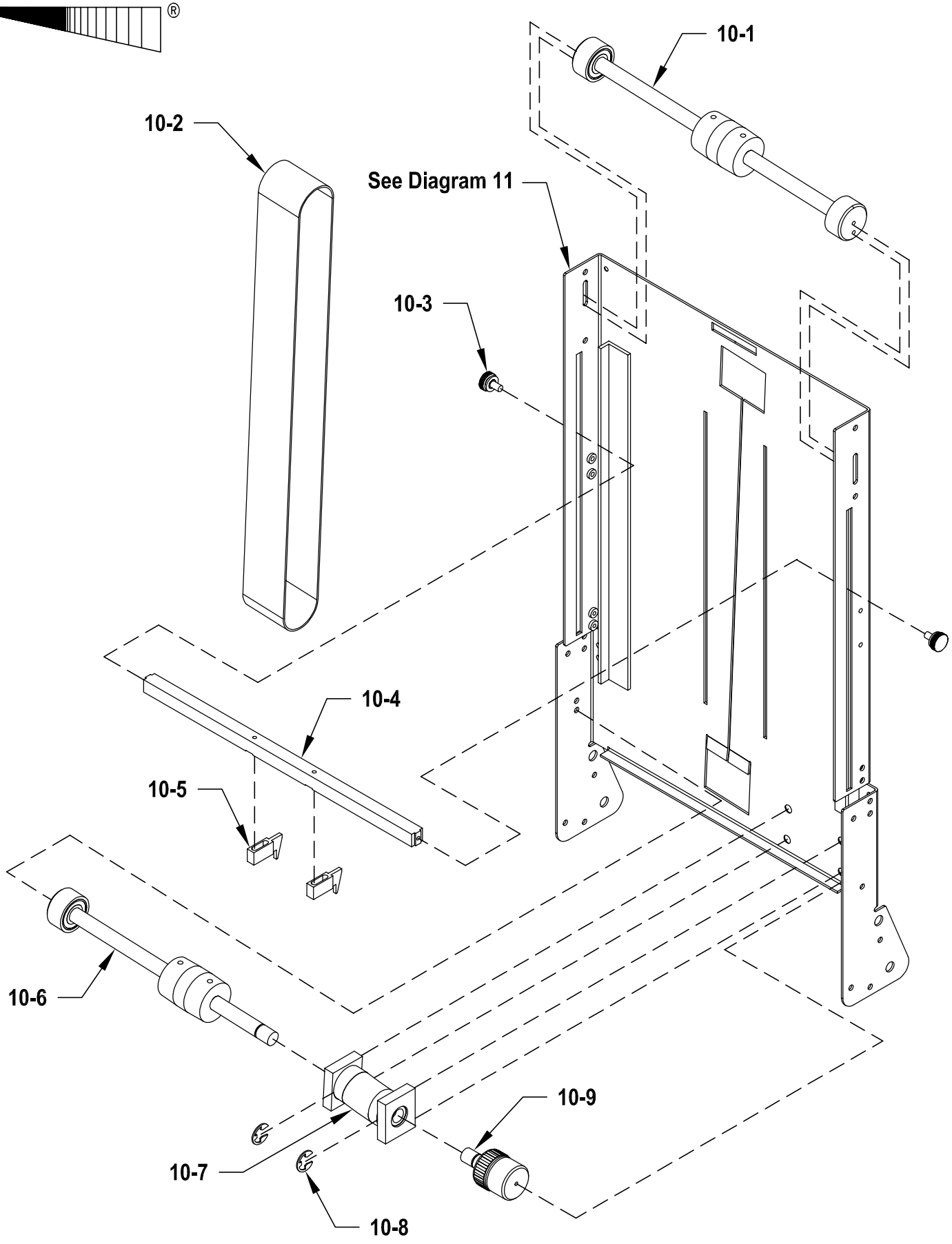


Diagram 10

Deck (Part 1 of 3)
Assembly #68111007

RELIANT 270RT

Last Updated 5/3/01

RELIANT 270RT

11: DECK (PART 2 OF 3) #68111027 (NARROW DECK) #68111007 (WIDE DECK)

DIAGRAM NUMBER	QTY	DESCRIPTION	P/N NARROW	P/N WIDE
11-1	2	Knob Plastic 10-32	→	44681021
	2	Screw Socket Set 10-32 X 3/4" LG Nylon Tip	→	44681020
11-2	2	Block Alignment Rail	→	44681040
	4	Insert Bearing	→	44681022
11-3	1	Shaft Rear Alignment	→	44681087
11-4	1	Alignment Rail	→	44681121
11-5	1	Shaft Front Alignment	44681179	44681086
11-6	1	Low Tension Alignment Spring	→	44681041
11-7	1	Front Spring Holder	→	44681067
11-8	1	Mount Hold Down Rear Left	→	44681082
	1	Plunger Ball 10-32	→	44681019
11-9	1	Mount Hold Down Front Left	→	44681083
	1	Plunger Ball 10-32	→	44681019
11-10	1	Mount Hold Down Rear Right	→	44681084
	1	Plunger Ball 10-32	→	44681019
11-11	1	Mount Hold Down Front Right	→	44681085
	1	Plunger Ball 10-32	→	44681019
11-12	1	Alignment Table	44681183	44681080
11-13	2	Support Block	N/A	44681111
11-14	1	Alignment Cover	44681184	44681094
11-15	1	Bar Cover Support	→	44681095
11-16	1	Mount Photo Eye	→	44681165
11-17	1	Sensor 270RT Bottom Sheet	→	68111009
NS	1	Harness Sensor 270RT Bottom Sheet	→	68111010

Streamfeeder®

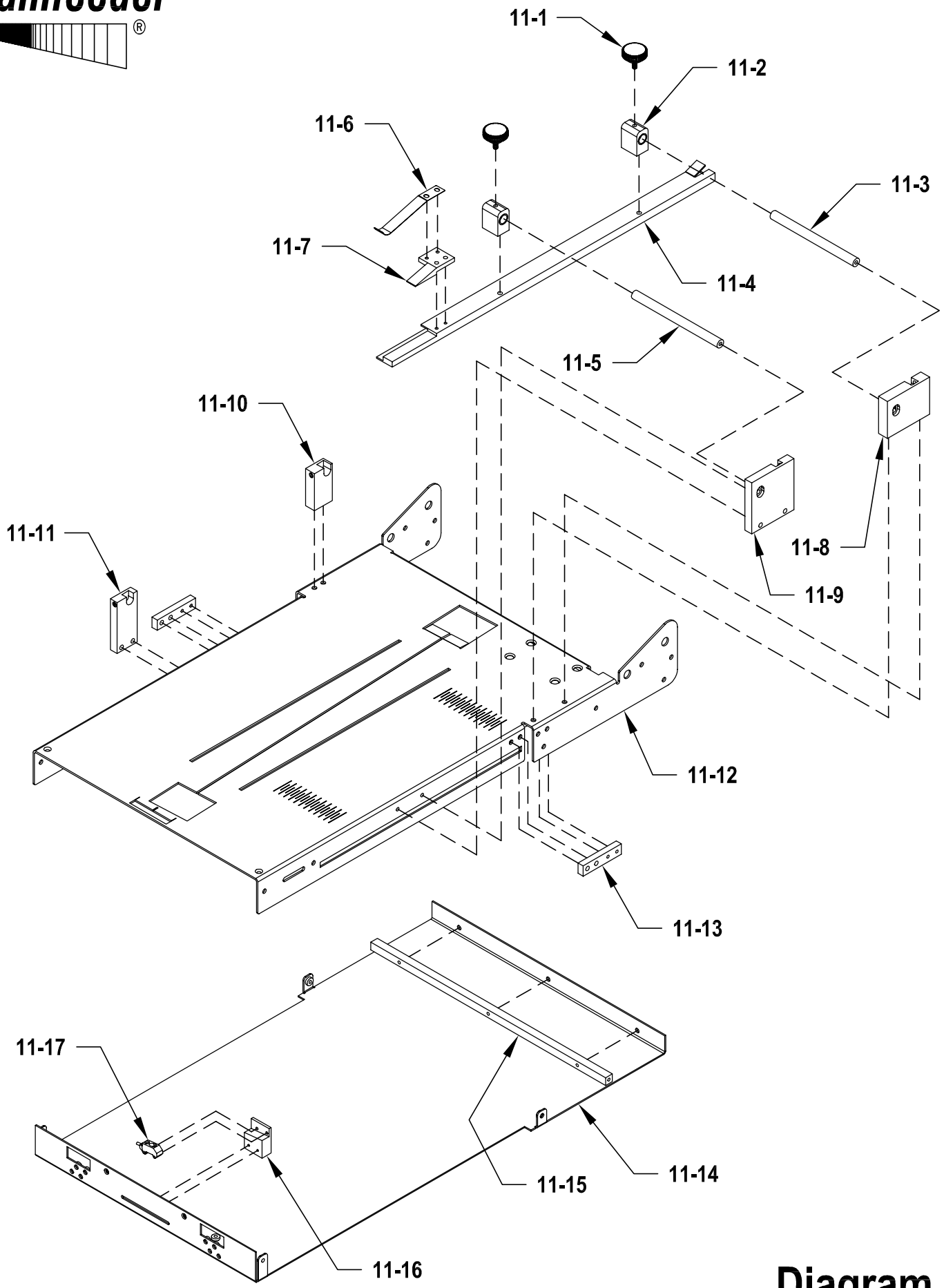


Diagram 11

Deck (Part 2 of 3)
Assembly #68111007

RELIANT 270RT

Last Updated 5/3/01

RELIANT 270RT

12: DECK (PART 3 OF 3) #68111027 (NARROW DECK) #68111007 (WIDE DECK)

DIAGRAM NUMBER	QTY	DESCRIPTION	P/N NARROW	P/N WIDE
12-1	1	Shaft Hold Down Rear	→	44681092
12-2	1	Shaft Hold Down Front	44686181	44681093
12-3	3	Knob Plastic 10-32	→	44681021
	3	Screw Socket Set 10-32 X 3/4" LG Nylon Tip	→	44681020
12-4	2	Block Hold Down .125	→	44681010
	4	Insert Bearing	→	44681022
12-5	1	Knob Small Black	→	23500091
	1	SHCS 10-32 X 3/8" LG	→	00002310
12-6	1	Clamp Spring Block	→	44681106
12-7	1	Knob Black #6	→	44681146
	1	SHCS 6-32 X 3/8" LG	→	00003304
12-8	1	Clamp Photo Sensor	→	44681135
12-9	1	Mount Photo Sensor	→	44681133
12-10	1	Sensor 270RT Top Flight	→	68111008
12-11	1	Block Spring Alignment	→	44681109
	2	Insert Bearing	→	44681022
12-12	1	Offset Press Spring Holder	→	44681052
12-13	4	Low Tension Alignment Spring	→	44681041
12-14	1	Large Product Knock Down Spring Assy	→	68111023
12-15	1	Hold Down Cover	→	44681079
12-16	1	Bracket Photo Sensor	→	44681134
12-17	1	Block Spring	→	44681081
12-18	13	Ball 5/8 Chrome Steel	→	44500033
12-19	1	Rail 13 Ball Hold Down Block	→	44681005
NS	2	High Tension Alignment Spring	→	44681058

Streamfeeder®

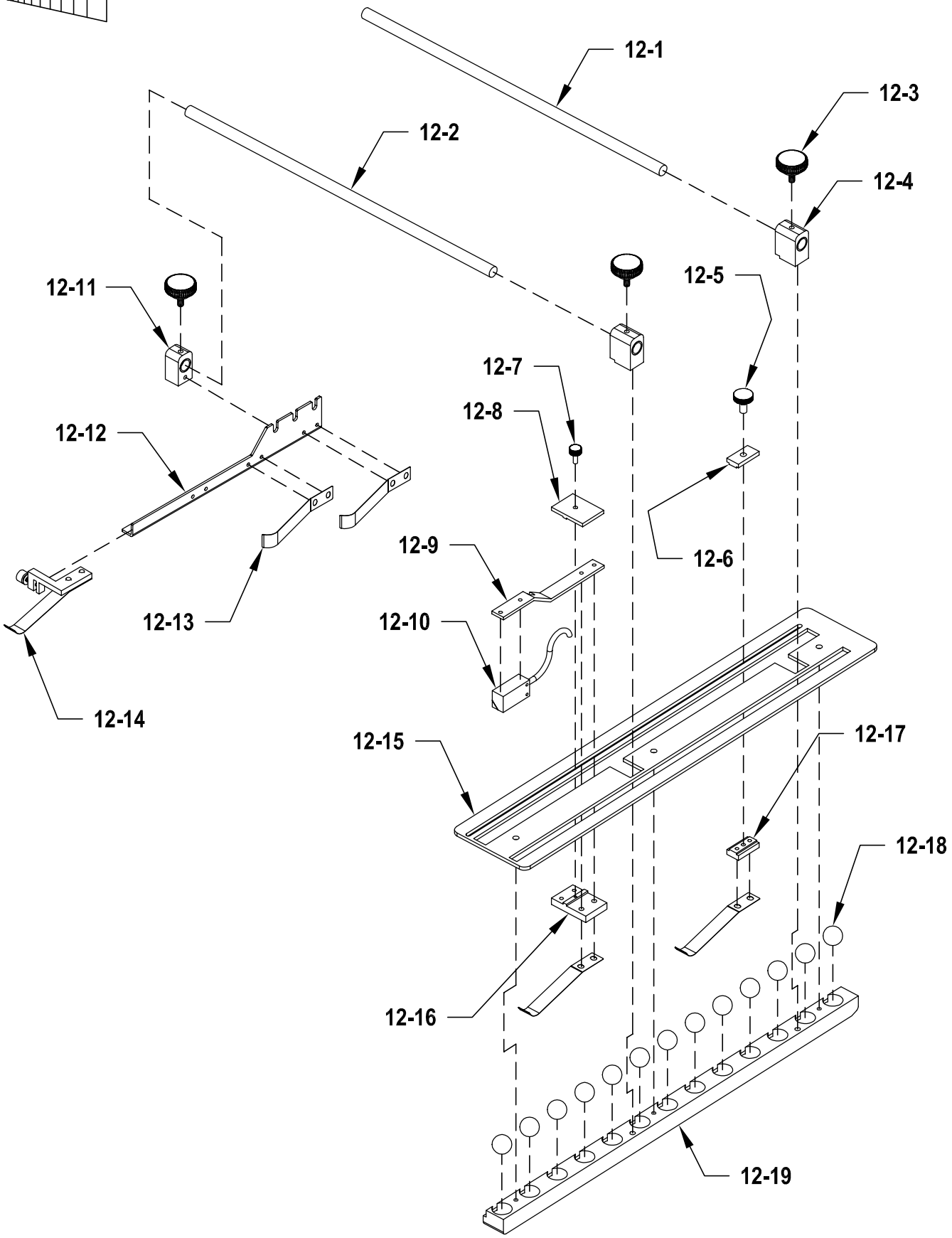


Diagram 12

Deck (Part 3 of 3)
Assembly #68111007

RELIANT 270RT

Last Updated 5/3/01

103 Osborne Road • Minneapolis, MN 55432-3120 USA
TEL: 612.502.0000 • FAX: 612.502.0100
E-MAIL: service@streamfeeder.com
WEB: www.streamfeeder.com