

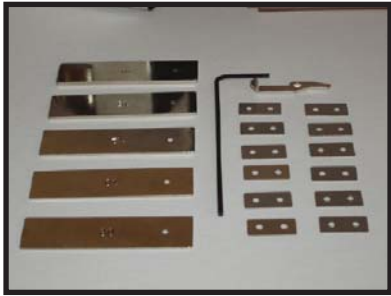


DRFF-520

Precision Screw Feeder

Setup Manual

Included Accessories:



- AC adapter 100-240VAC/15VDC (Not shown)
- 2.0 mm hex wrench
- Screw stoppers
 - Small - 1.0 - 2.0mm screws
 - Large - 2.0 - 5.0mm screws
 - Note: Small is pre-installed*
- Measurement shims
 - 0.8, 1.0, 1.2, 1.5, 2.0mm (1 each)
- Spacer shims
 - 0.2mm (2 pieces)
 - 0.5mm (10 pieces)
 - Note: 4 - 0.5mm are pre-installed*

Quick Setup

Step 1

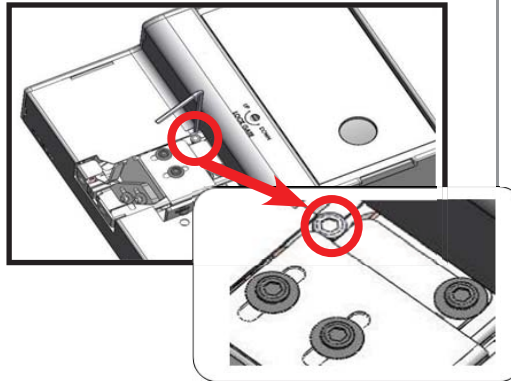
Measure the diameter of the screw threads. This screw feeder can be adjusted to accommodate screws between 1.0 - 5.2 mm in diameter. *We used a 4.0mm screw.*



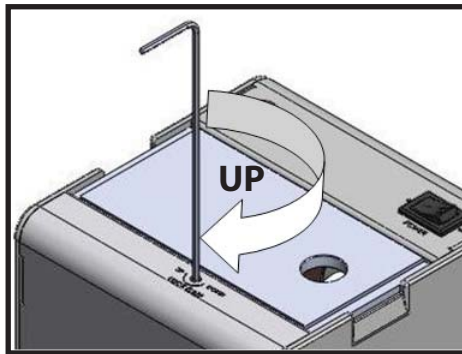
Step 2

Remove the rail using the hex wrench provided, by following the next steps.

2-1 Loosen, the rail screw by 2 turns



2-2 Turn clockwise until top gate is fully open



2-3 Turn clockwise until side gate is fully open

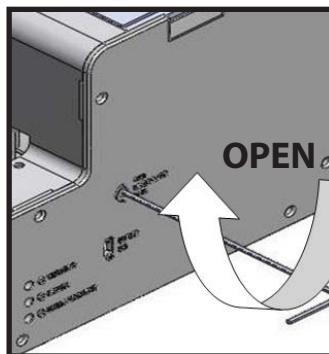
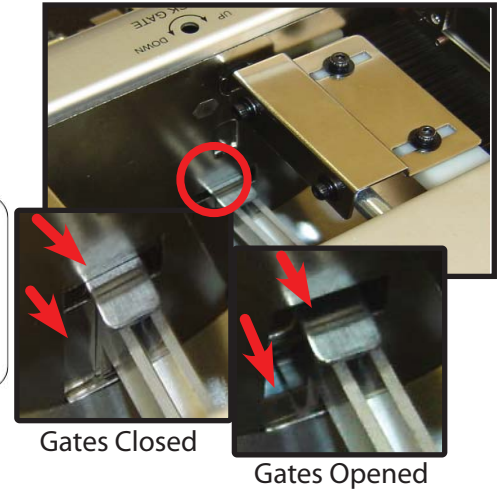
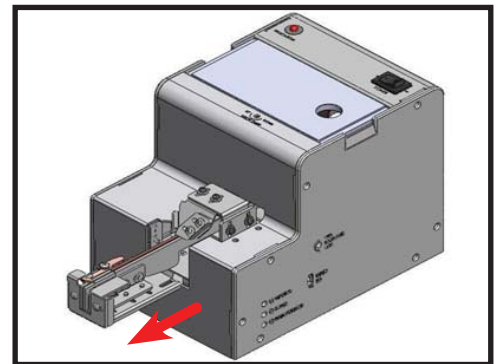


Photo of top and side gates fully open



2-4 Slide rail straight forward and out

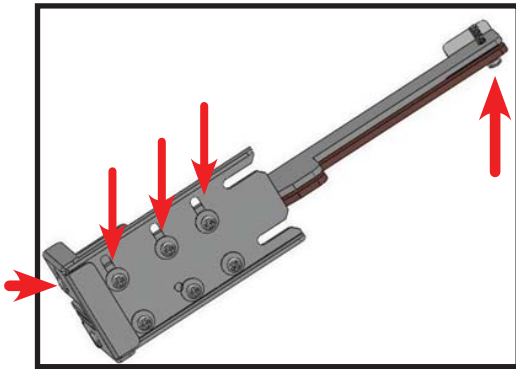




Step 3

Using a #1 Phillips screwdriver, loosen the following screws on the rail. Remove only the rear screw and any pre-installed spacer shims, at the rear of the rail.

Note: Do not remove screws on the front or sides of the rail.



Step 5

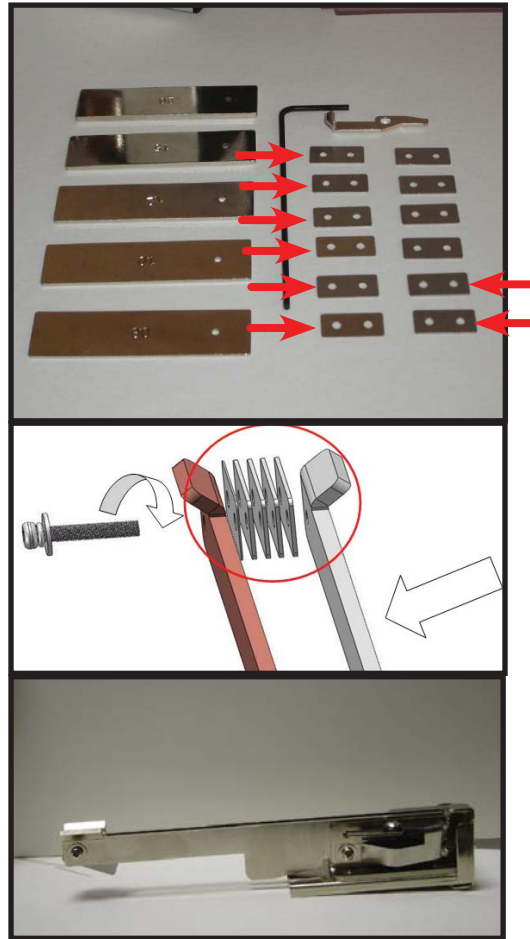
With the measurement shims in place, tighten the screws from step 3, then remove the measurement shims

Step 6

Using the correct combination of spacer shims, insert the shims into the rear of the rail, secure them by reinstalling the screw.

We used (8) 0.5 and (1) 0.2mm to equal a 4.2mm gap.

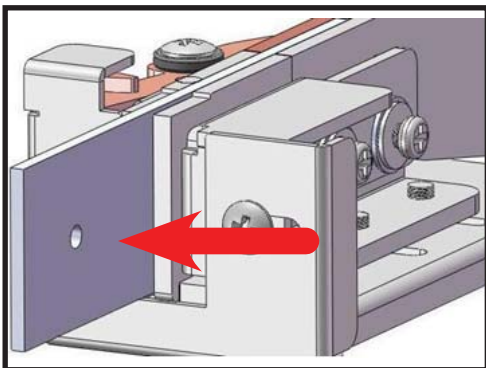
Note: angling the shims at approx 15° will allow screws to slide in the rail smoothly.



Step 4

Using the measurement shims, place the proper combination of shims into the front of the rail making the gap slightly larger than the screw thread diameter.

We used (1) 1.0, (1) 1.2 and (1) 2.0mm measurement shims to equal a 4.2mm gap.

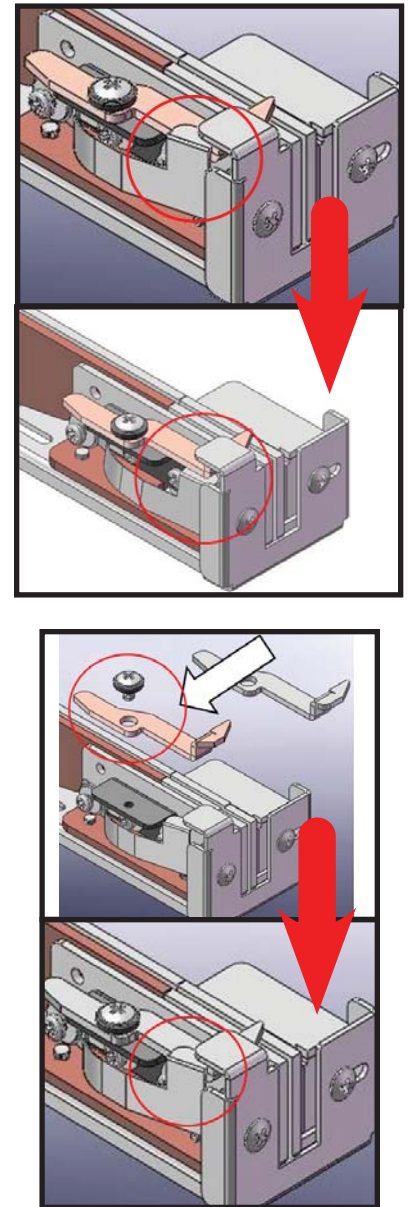


Step 7 **STOP!**

THIS STEP MAY NOT BE NECESSARY.

Place the stopper spring under stopper and remove the screw and washer. Install proper size stopper based on screw size. Reinstall washer and screw. Move stopper spring back to its original position.

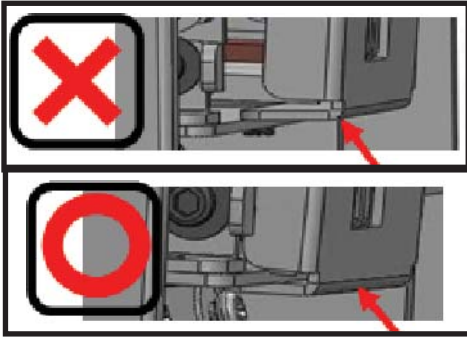
We used the large stopper



Step 8

Carefully install rail into the DRFF-520 paying close attention to the correct position.

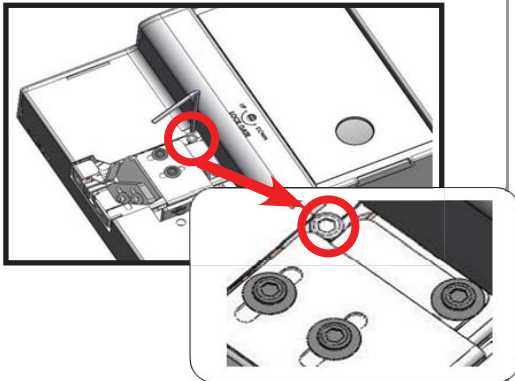
Note: Tab on the bottom of the rail must come into contact with the metal on inside of the feeder.



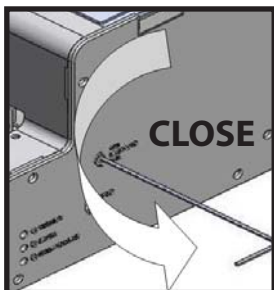
Step 9

Lock the rail and side gate.

Note: ensure side gate does not make contact with the rail, leave a gap between the rail and gate as to not allow a screw to become lodged in gap.



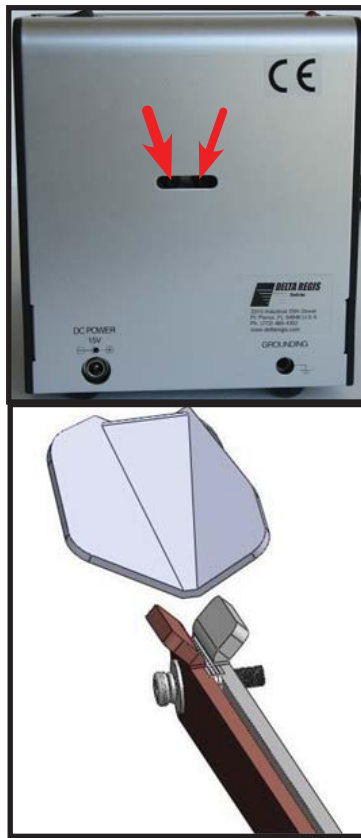
Turn counter clockwise until side gate is fully close.



Step 10

Make sure hopper is centered on the rail, if not, adjust the hopper from rear of the machine by carefully loosening the two screws by 2 turns, make the adjustment then tighten the screws.

Note: Do not remove the screws!



Step 11

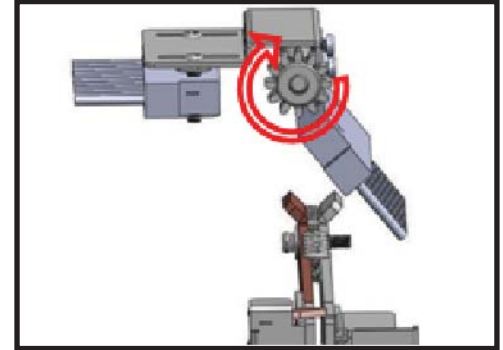
Place a few screws into the rail below the brush.



Step 12

Sweep brush across the rail. The brush should not come into contact with the ramp and should barely contact the top of the screw heads.

DO NOT FORCE BRUSH!



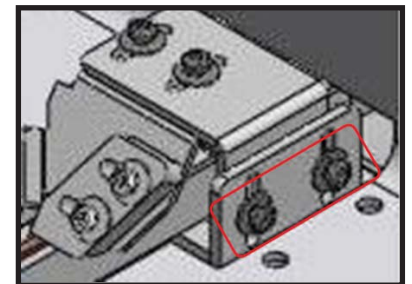
Step 13

Measure the head of the screw.



Step 14

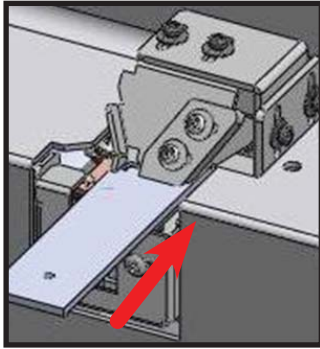
Loosen the screws as shown below. These allow for up and down adjustment of the pedestal.



Step 15

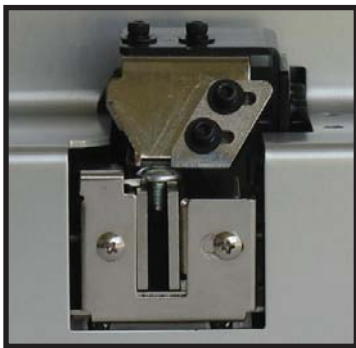
Using the proper combination of measuring shims, place the shims between the pedestal and rail and press down on the pedestal while tightening the screws which will allow most accurate height adjustment, then remove the shims.

We used (1) 1.0 and (1) 1.2mm measurement shim for a 2mm headed screw.
Note: the gap between the rail and pedestal should be slightly more than the actual screw head height.



Step 16

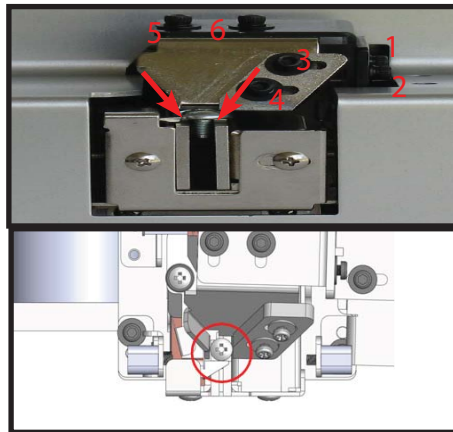
Place a screw in the rail just behind the stopper arm.



Step 17

The faceplate should be centered with the rail and screw head allowing enough pick up room for the screwdriver bit.

Screws 5 & 6 adjust front to back
 Screws 1 & 2 adjust up and down
 Screws 3 & 4 adjust left and right

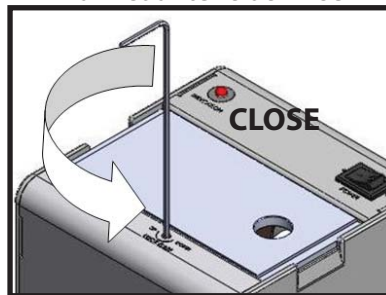


Step 18

Close the top gate.

Note: ensure gate does not make contact with the rail, leave a gap between the rail and gate as to not allow a screw to pass.

Turn counter clockwise



Step 19

Place some screws into the feeder and power on. Make sure the screws are sliding down the rail smoothly. Make sure you can pick up the screws smoothly from the front with your screwdriver.



Step 20

Place the cover back to its original position.



Keep cover on at all times when screw feeder is in use.

Additional Adjustments

Overload Alarm

This adjustment allows you to switch on and off the alarm that indicates when an overload is occurring

Vibration Timer

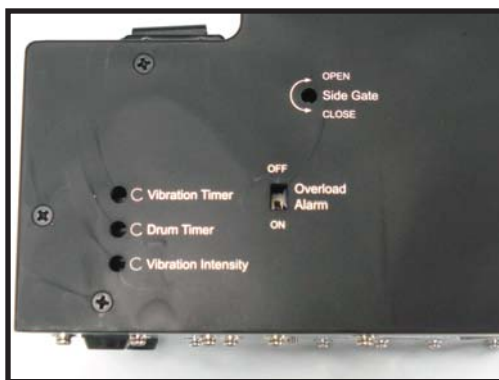
This adjustment allows you to determine the vibration time after a screw has reached the pick up point of the feeder.

Drum Timer

This adjustment allows you to determine the time in which the drum will feed screws into the rail after a screw has reached the pick up point of the feeder.

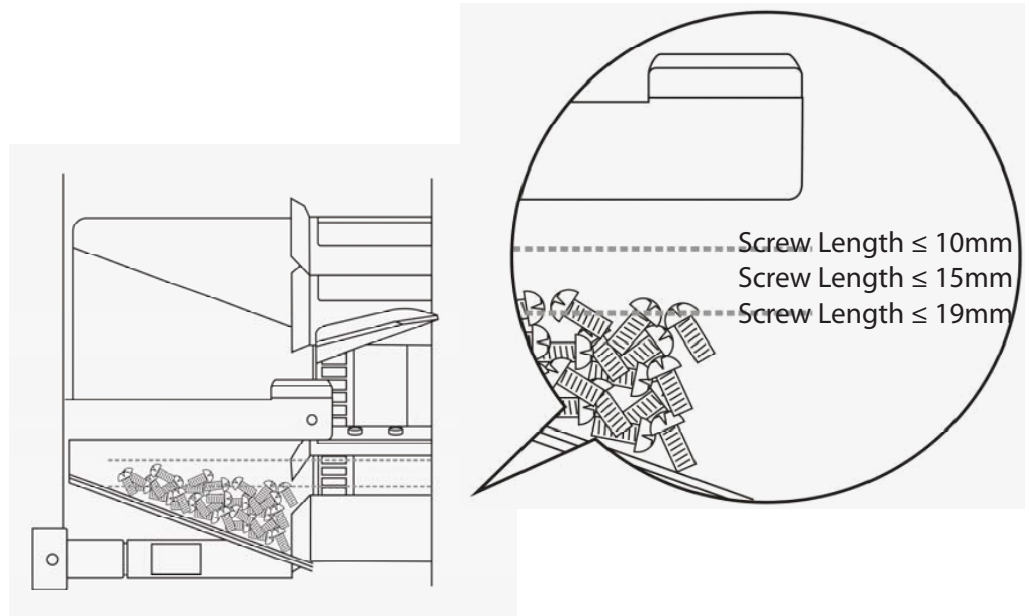
Vibration Intensity

This adjustments allows you to control the intensity of the vibration of the feeder



Recommended Screw Capacities

To ensure you do not overload your screw feeder, please follow the recommended fill lever for your screw length.



Troubleshooting

PROBLEM	PROBABLE CAUSES	SOLUTION
Not operating or Buzzing sound when Power is turned ON	There is no power supplied.	Check the connection of the adaptor.
	The screw chamber is overloaded with too many screws.	Remove some screws out to a proper level.
	Problem with Power Switch, Motor or PCB.	Replace the faulty Switch, Motor or PCB.
	Screw (or something else) has fallen into the machine.	Remove the dropped object.
Roller stopped	Motor unit has stripped gear.	Replace the Motor.
	Roller has got stuck or gears have been stripped.	Check whether Roller got stuck and replace it.
No vibrated screws come out.	Width of rail groove is incorrect.	Adjust the width of rail groove.
	Screw with abnormal posture at Holding Plate was not swept away by Brush.	Remove the misplaced screw, and adjust height of Holding Plate.
	Screw is caught at Holding Plate abnormally.	Remove the misplaced screw, and adjust height of Holding Plate.
	Screw with abnormal posture stops halfway in the rail groove.	Remove the screw and follow these steps:
		· Adjust the improper height of Bit Guide Assembly.
		· Tilt the unit backward to make abnormal screws slide backward, take out screws in the rail.
		· Adjust the height of Holding Plate.

Troubleshooting continued...

PROBLEM	PROBABLE CAUSES	SOLUTION
No movement of the vibrated screws	Gap too narrow between Holding Plate and Screw head.	Adjust the Holding Plate
	Rail is dirty.	Clean the Rail
	Rails has abnormal vibration	Adjust the vibration intensity
	Screw is jammed on Vibration Motor.	Remove the jammed screw.
	No vibration from motor	Replace Vibration Motor
Abnormal screw can pass the gap of Holding Plate.	Misplaced screw has not been swept off	Adjust the Brush
	Holding Plate has not adjusted properly	Adjust the height of Holding Plate.
Screw can't reach Stopper point.	Screws are stopped while still on Rail.	Adjust the height of Holding Plate.
	The rail groove is too narrow.	Adjust the width of Rail Assembly
	The Rail is magnetic at front	Demagnetize the Rail
Bit can't pickup the fed screw.	Bit Guide position is not adjusted to the center of Bit Guide.	Adjust the height of Holding Plate.
Noise when Roller is turning	Roller is stuck with screw or touching other parts.	Power off
		Clear the fallen screw and adjust Rail Assembly.
Screw falls into the machine		Shake the screw out through the bottom hole of the machine.
		Open the Housing to pick out the screw.



Delta Regis Tools, Inc.
3315 Industrial 25th Street
Fort Pierce, Florida 34946

Phone: (772) 465-4302

Fax: (772) 465-4368

Email: sales@deltaregis.com

www.deltaregis.com