

HS-Series Screw Presenter Operation Instructions

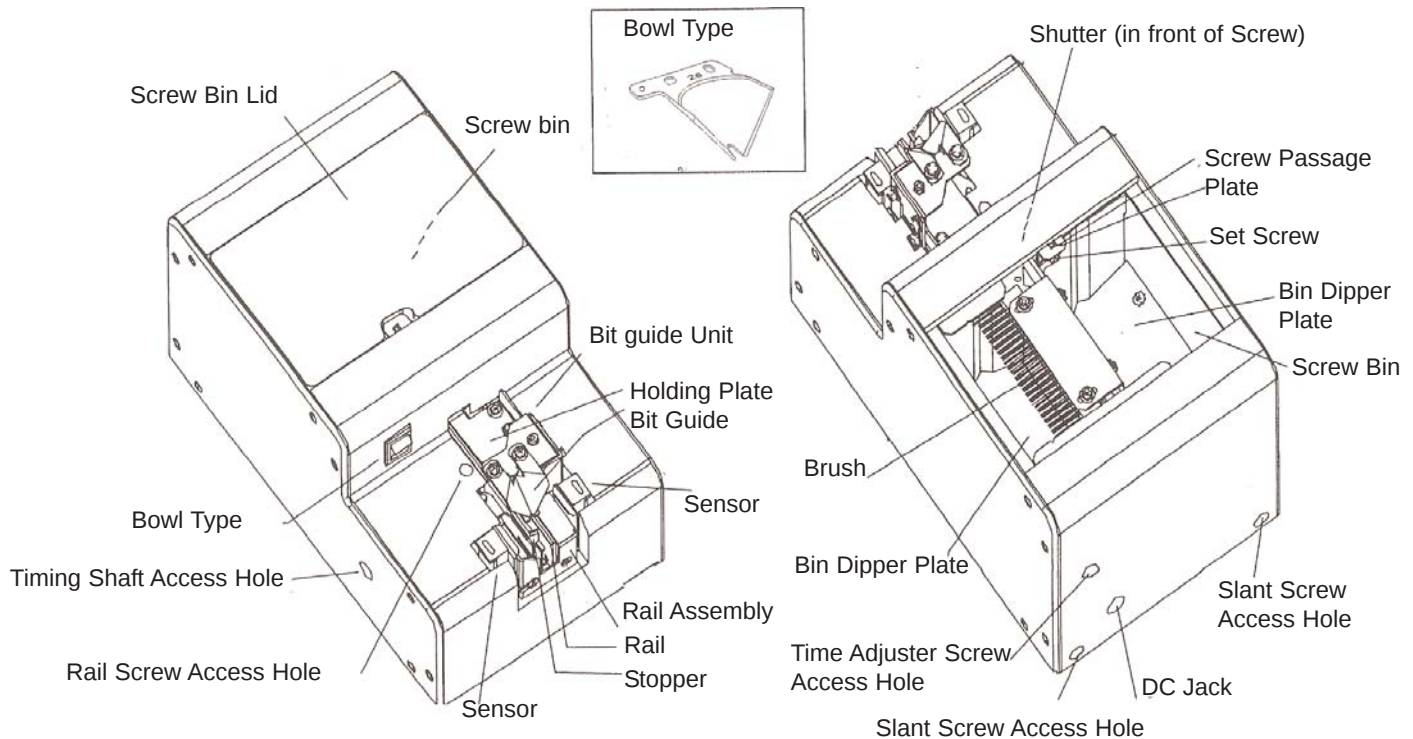
(Rev 2 9/7/11)



HS-Series Screw Presenter Operation Instructions

Introduction

The screw presenter is a high precision yet inexpensive table top screw-feeder designed to enhance productivity. Instead of an operator picking-up screws for the assembly process, screws are placed into the hopper of Surefeed and dispensed for pick-up by assembly tool. The compact system can fit into any work environment for easy accessibility and provides virtually maintenance-free operation.



Before Operating

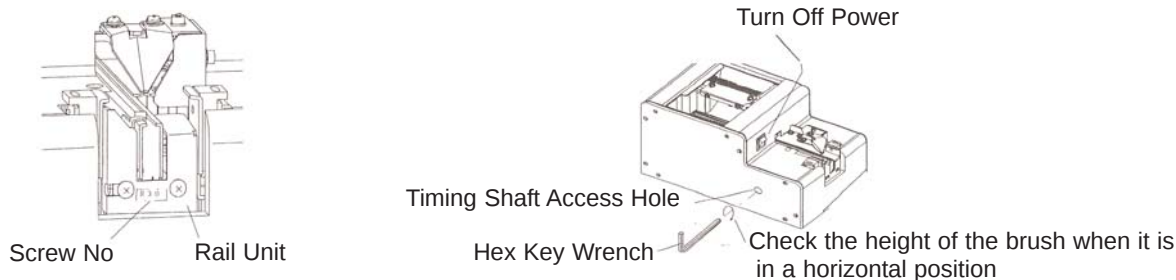
Before using the screw presenter verify that the correct screw size is being used with the HS-Series model.

Before operation, adjust the following items according to the screw type being used.

1. Brush
2. Screw Passage Plate
3. Bit Guide Unit
4. Rail Unit

Note! Be sure to turn off the power switch of the screw presenter before making any adjustments.

HS Model	Max. Screw Diameter
HS-14C	M1.4
HS-17C	M1.7
HS-20	M2.0
HS-23	M2.3
HS-26	M2.6
HS-30	M3.0
HS-40	M4.0
HS-50	M5.0



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Adjustment of the Brush

Check the height of the brush when it is in a horizontal position. If the brush is not horizontal, adjust as follows:

1. Turn the timing shaft clockwise the Hex Key Wrench (included). Put a few screws in the rail to check the height of the brush. Rotate the brush manually within about 120°, as indicated by the arrow in Fig. 2
2. Be careful not to turn the brush forcefully beyond 120°.

Fig 2.

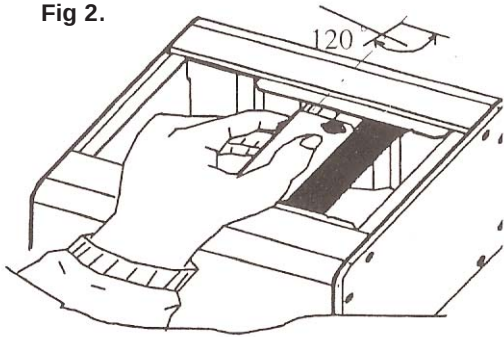
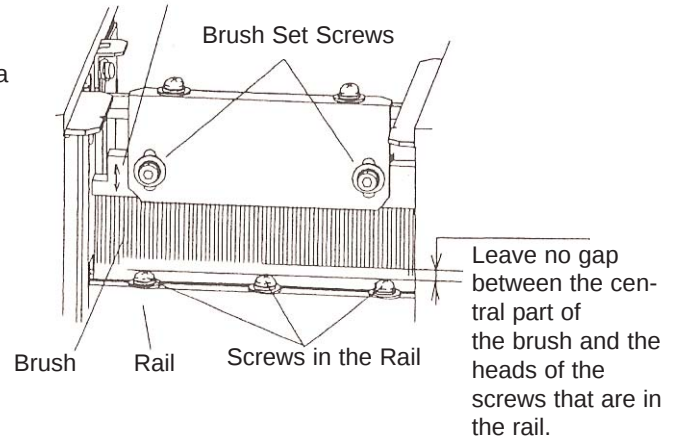


Fig 1.

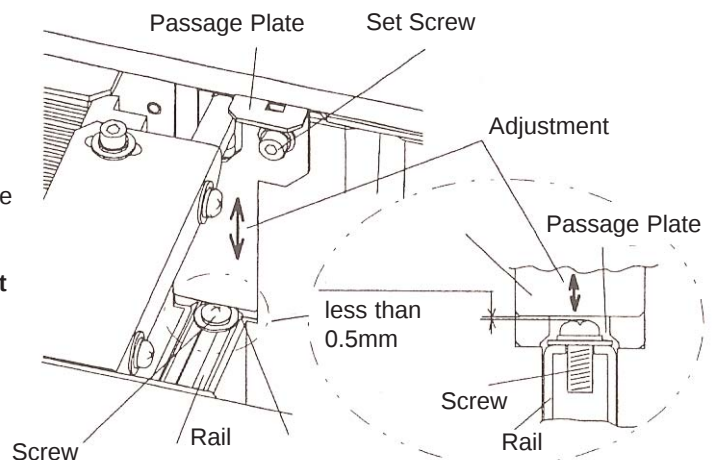


4. No adjustment is needed if there is no gap between the central part of the brush and the heads of the screws that are in the rail.
5. If there is a gap, adjust as follows.
6. Loosen the two Brush Set Screws
7. Adjust the top of the brush. Leave no gap between the central part of the brush and the heads of the screws that are in the rail.
8. Do not lower the brush to much. After adjusting the brush, fasten the brush set screws. Then make sure brush turns smoothly by testing it again.

Adjustment of the Passage Plate

1. Remove the screw bin lid.
2. Place a few screws in the rail and slide them up to the screw passage. To check the clearance between the passage plate and the head of the screw.
3. No adjustment is necessary if the clearance is less than 0.5mm.
4. To adjust, loosen the set screw and adjust by manually moving the passage plate up and down. When the clearance is less than 0.5mm., tighten the set screw.

Note ! If the shaft of the screw is a bit short, a slight adjustment is required.



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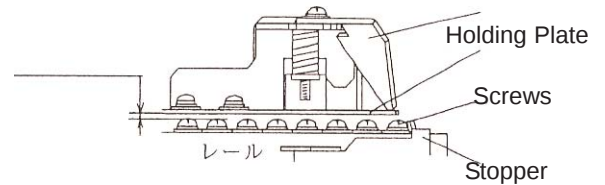
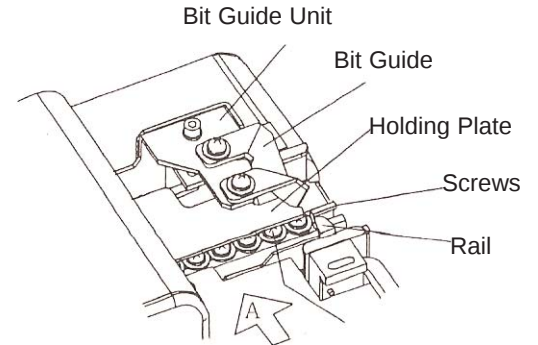
Adjustment of the Bit Guide Unit

In a case of using FLAT and Oval Screw Types, replace the screw holding plate.

M2.0-M2.3 (Model 2023F)
M2.6-M3.0 (Model 2630F)

M4.0 (Model 4040F)
M5.0 (Model 5050F)

1. Place five to ten screws in the rail and tilt the screw presenter until the screws hit the stopper of the rail unit. No adjustment is necessary if the clearance between the holding plate and the head of the screw is 0 to 1mm.
2. The screw cannot go through the screw passage when the shutter is closed. To open the shutter, turn the timing shaft clockwise with Hex Key wrench.
3. The screws cannot move toward the stopper if the clearance between the holding plate and the rail is narrower than the head of the screw.



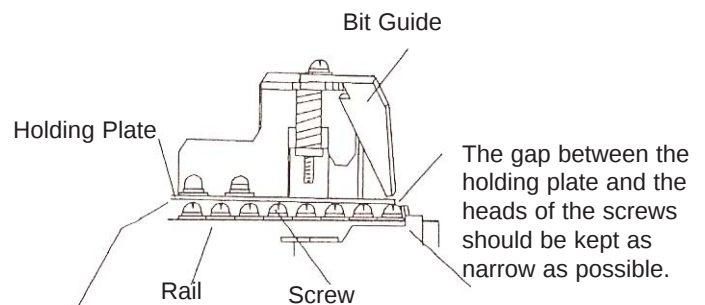
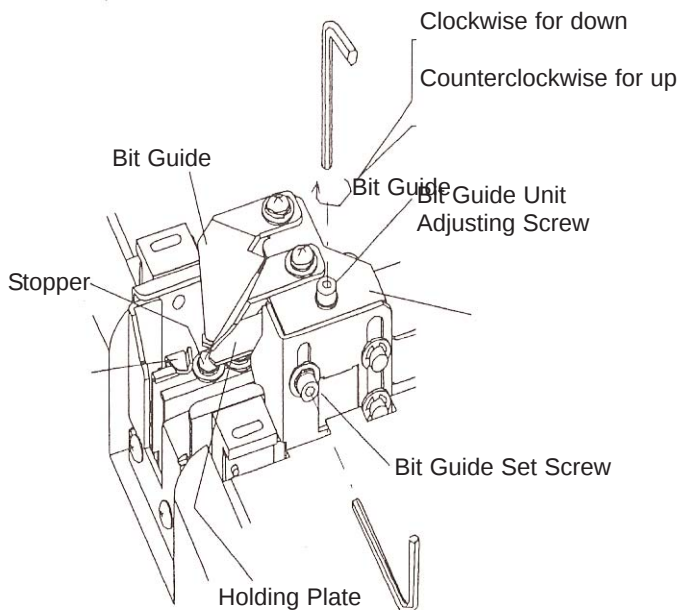
To Adjust the Height

1. Tilt the feeder so that a screw hits the stopper. Then loosen the set screw.
2. Turn the bit guide unit adjusting screw until a clearance of 0 to 1mm is obtained.
3. Tighten the screw again after the adjustment.

Note ! If the shaft of the screw is a bit short, a slight adjustment is required.

If the heads of the screws are not in alignment with the rail, try to make the gap between the holding plate and the heads as narrow as possible.

Then the screws can be smoothly fed in the rail. The gap at the front should not be less than the gap at the back.



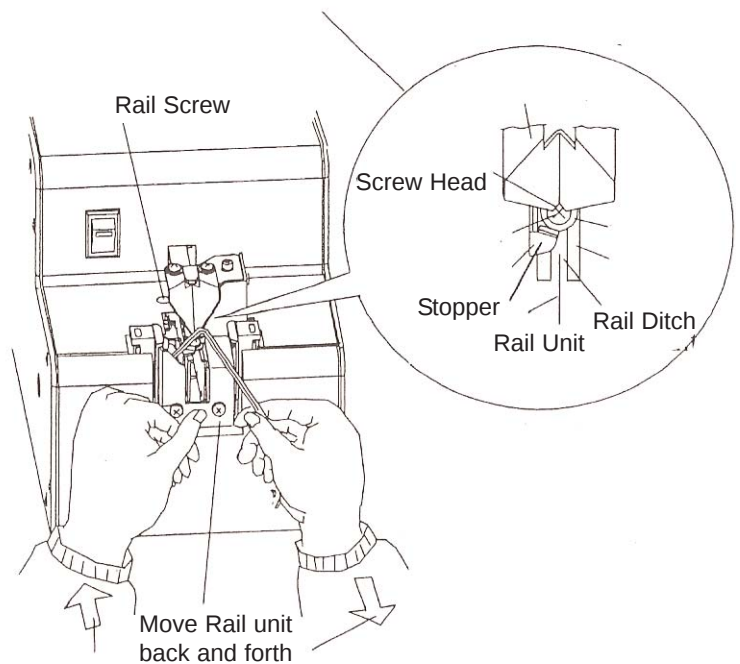
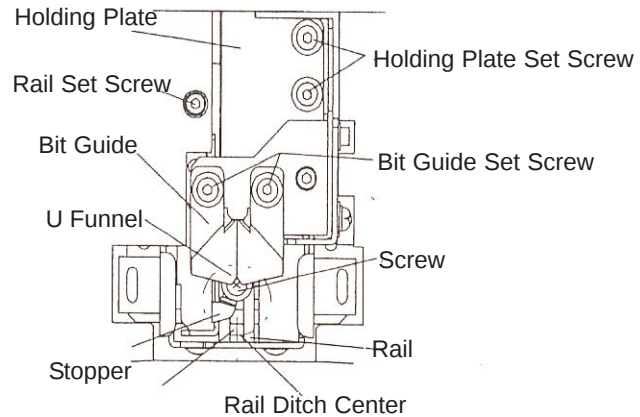
HS-Series Screw Presenter Operation Instructions

The Screw Presenter is shipped with a U Funnel on the holding plate, on the Bit Guide, and the center of the rail ditch to keep it in alignment. If, however, the unit was bumped or jarred during shipment, these critical parts may have gotten out alignment. And will need to be adjusted.

1. Loosen the holding plate and the bit set guide screws with the Hex Key wrench and align the slots with the center of the rail ditch.
2. Tighten the screws after adjustment.

Adjustment of the Rail Unit.

1. Place five to ten screws in the rail and tilt the screw presenter until the screws hit the stopper of the rail unit.
2. When the shutter is closed, the screws cannot go through the screw passage. If it is closed, open the shutter by turning the timing shaft clockwise with Hex Key wrench.
3. The Stopper is fixed to the rail unit. The adjustment of the Stopper is made by moving the rail unit back and forth.
4. If the slot on the Holding Plate, the slot on the Bit Guide and the rear point of the Phillips slot on the screw head are not in alignment, adjust as follows. Loosen the rail screw with Hex Key wrench and move the rail unit back and forth to get aligned. Tighten the screw after adjustment.

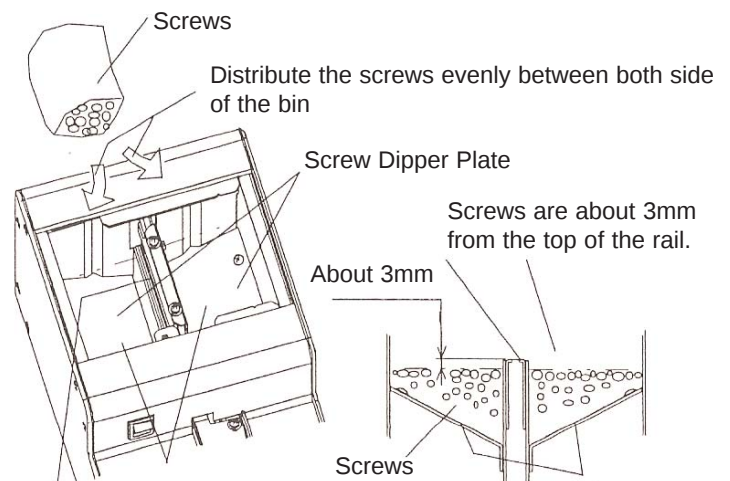


Operating the Screw Presenter (Add in the Screws)

Open the screw bin lid. If the bin dipper plate is at the lowest position, pour in screws until the screws come to about 3mm from the top of the rail.

If the dipper plate needs to be lowered, turn the timing shaft clockwise to lower the screw dipper plate to its lowest position. Then the brush can be set at the desired position for adding the screws.

Note! Don't overload the screw bin. The motor protection circuit won't start the screw presenter if it is overloaded.



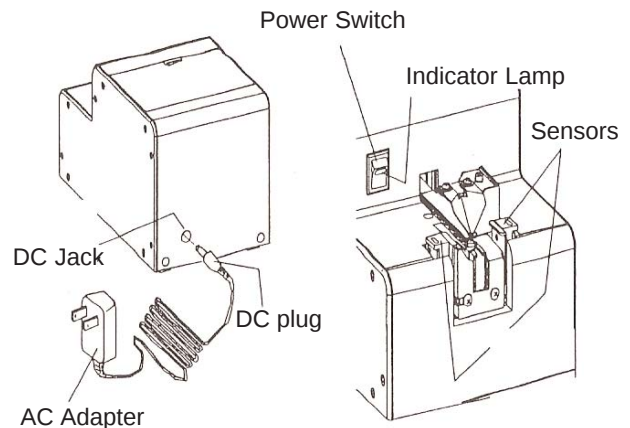
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Turn on the Screw Presenter

Insert the AC adapter plug into the DC at the rear of the screw presenter. Insert the AC adapter into the electric outlet and turn on the power (the indicator light will come on).

The screw dipping plate and the rail will begin oscillating and the screw presenter will start feeding screws. If the screw is not removed the stopper, the sensor will react and stop the feeder. If the screw is removed, the sensor will react and start the feeder.

Note! Don't overload the screw bin. The motor protection circuit won't start the screw presenter if it is overloaded.



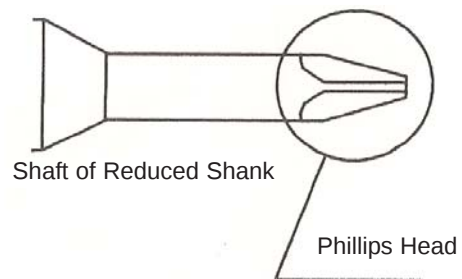
To Pick Up Screws

Use the appropriate bit for the screw and ensure it fits within the bit guide of the screw presenter (Some applications may require the bit to have a reduced shank).

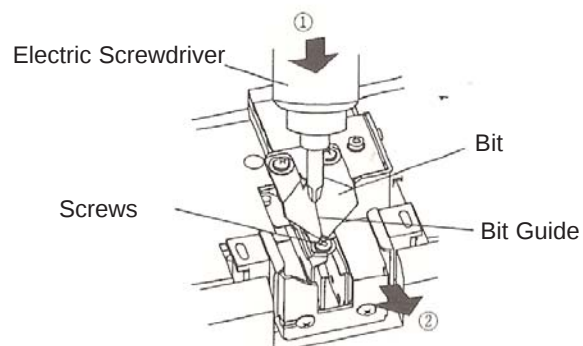
Attach a bit to your electric screwdriver to match the head of the screw. The screwdriver bit must be magnetized before use or vacuum attachment must be utilized with the electric screwdriver.

Place bit somewhere in the opening of the bit guide and push it downward until it hits the screw head. The back and forth movement of the rail will stop when the screwdriver bit reaches the bottom of the screw head slot.

Then pull the screw out towards you. Be careful not to push the screwdriver bit into the screw head with too much force.



Screw type	Screw dia.	Bit type bit-guide No.	Shape of bit
JCS	M1. 4	BG-26	H4, #00 ϕ 1.5, #0 ϕ 2.0
	M1. 7		H4, H5 #0, ϕ 2.5
	M2. 0		H4, H5, or NEJICCO same #1 ϕ 2.6
JIS	M2. 0	BG-32	H4, H5 or NEJICCO same #2 ϕ 3.2
	M2. 3		
	M2. 6		
	M3. 0		
	M4. 0		
	M5. 0		



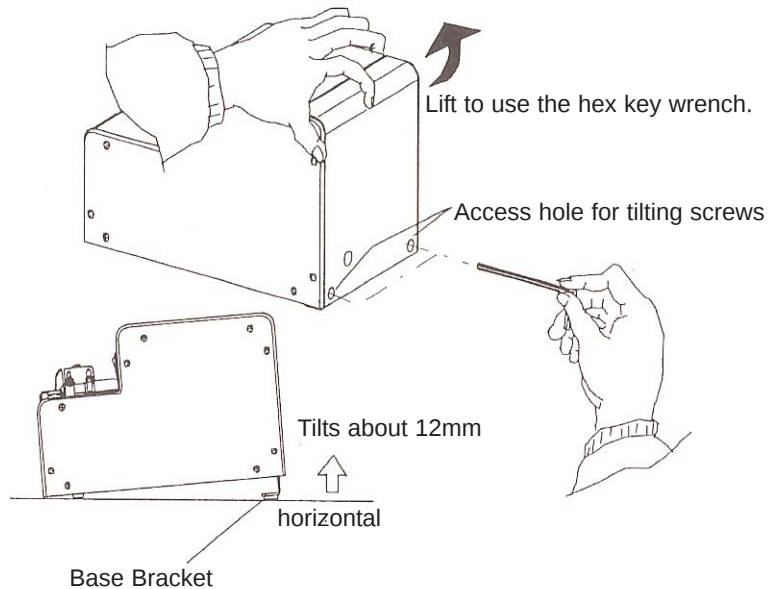
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How to Tilt the Screw Presenter

The screw presenter should normally be set horizontally. However, if it has difficulty feeding some type of screw smoothly, slant the screw presenter toward the front direction.

Lift the rear of the unit slightly, loosen the slant screws with the hex key wrench and pull out the base bracket (it can be pulled out by about 12mm). Tighten the screw when the desired slant is achieved. Tighten the screw when the desired slant is achieved. Make sure the screw presenter is steady and that it doesn't wobble.

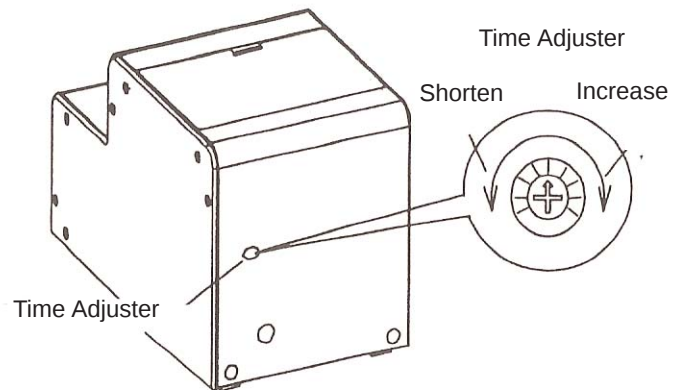
Note! Do not slant the screw presenter too much. Screws may get caught in the screw passage is slanted more than necessary.



Adjusting Interval Time

The interval time for feeding the next screw to the bit guide can be adjusted manually. Adjustment time can be 0 to 6 seconds.

Adjust the proper interval time according to the condition of use. To adjust the interval time, there is time adjuster in the rear part of the screw presenter. Use a small screw driver. To increase interval time, turn the time adjuster clockwise. To shorten the interval time, turn the time adjuster counterclockwise. Do not turn the time adjuster beyond its range.



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Trouble Shooting

Problem: The Screw Presenter Doesn't Run When Turned On

Cause

The unit is not plugged in.

A screw has not been removed from the stopper for a long duration

The bin is over loaded with screws

Some screws are caught in the gaps

Solution

Check the AC adapter is connected

Remove the screw from the stopper

Remove some screws until they reach 3mm below the rail

Remove the screws

Problem: Screws Aren't Feeding

Cause

Screws are too large for the rail unit

Too few screws in the bin

The brush cannot sweep up the screw passage

The screw shaft gets caught in the screw passage

The rail doesn't move back and forth.

Solution

Use correct size screws.

Put the proper amount in the bin

Adjust the brush

Adjust the screw passage plate

Remove it and adjust the screw plates. Loosen the bit guide screw and move the bit guide upward. Then tilt the screw presenter to remove the screw from the front end of the rail and adjust the holding plate. Remove the screw waiting to be fed. (If not operating after this, contact Mountz Service Staff)

Inadequate adjustment of the time adjuster.

Adjust the timing.

Problem: A screw has fallen into the ditch of the rail.

Cause

The screw is too small for the rail unit

Solution

Replace the correct size screw or install different size rail

Problem: The screw in the rail don't feed smoothly.

Cause

The gap between the holding plate and the screw head is too narrow.

A screw with a spring washer, the diameter of which is narrower than the rail unit, was placed into the bin.

The rail has become clogged with dust or oil

The rail doesn't move back and forth

Solution

Adjust the bit guide unit (Adjust the holding plate)

Slant the screw presenter. If the unit doesn't feed, contact Mountz

Clean the rail and the rail guide

Remove the screw waiting to be fed from the rail. If no screw is caught in the rail, but it's still not moving, contact Mountz.

HS-Series Screw Presenter Operation Instructions

Trouble Shooting

Problem: The Screw Sometimes go Through the Screw Passage in an Abnormal Position

Cause

Inadequate adjustment of the screw passage plate

The screw presenter is tilted more than necessary

Solution

Adjust it properly

Tilt the screw presenter only as much as necessary

Problem: The Screw Fails to Reach the Specified Position at the Bit Guide

Cause

The screw stops halfway in the trail

In correct adjustment of back and forth movement of the rail unit

The time adjuster is not adjusted properly

Solution

Adjust the bit guide unit (Adjust the the holding plate)

Adjust it correctly

Adjust it properly

Problem: The Bit Sometimes Doesn't Match the Phillips Head

Cause

Improper position (front /back)

Improper position (left/right)

Solution

Adjust the rail unit properly

Adjust the bit guide and holding plate properly

Problem: The Screw Presenter Sops Suddenly

Cause

At the moment of over-load, the screw feeding vibrated rail will repeat regular/reverse rotations alternatively during approx 5 sec and then anti-overcurrent circuit will stop the machine

The screw has not been removed from the stopper for the set duration

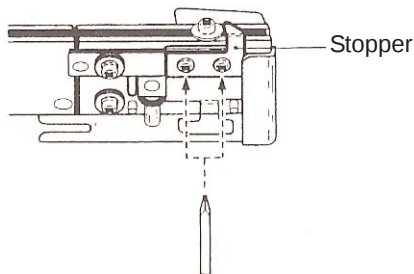
Solution

Turn the power off and then on. If the screw presenter stops again, then there is an overload. Remove some screws.

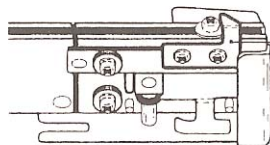
Screw has ben caught in the gaps. Remove screws.

Adjusting SEMS and W-SEMS screws

If you use SEMS and W-SEMS screws, the stopper set on the head of the screw, you can smoothly catch the screw one by one.



The stopper can move up and down, after you loosen two screw from the stopper



After adjusting the height of the screws, head fixed the stopper parallel to the screw rail unit with two screws.

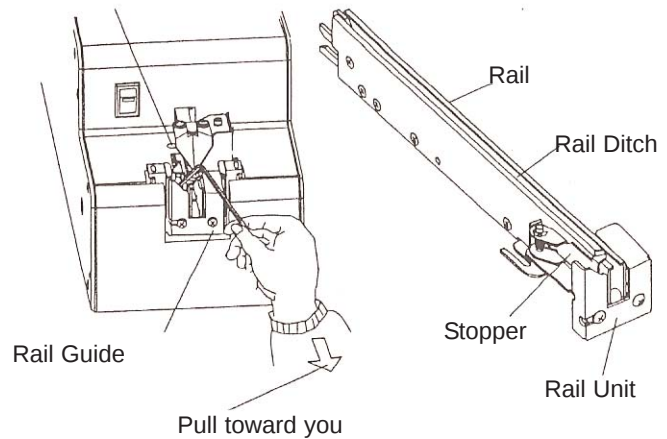
Note! Be careful to set the stopper and not bend the screw rail unit

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Maintenance

Always turn off the unit before performing maintenance.
Remove all screws in the bin and the rail.

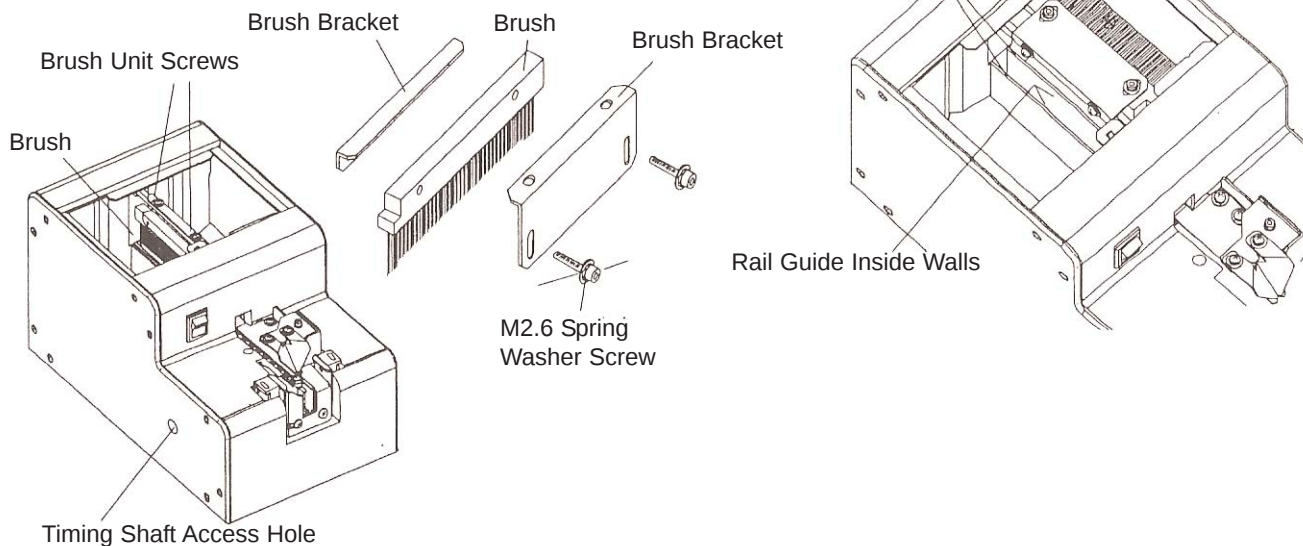
Cleaning the rail: Loosen the rail screw with hex key wrench. Pull the rail unit toward you and take it out. Clean the rail ditch and the top of the rail with a clean cloth. Visually inspect the rail guide walls and see if there is any dust. Clean it with cloth



Replacement Parts

Rail Unit - If after cleaning the the part and screws still don't flow smoothly, then it is time to replace.

Brush - When the item is too worn and torn to wipe the screws, it is time to replace items.





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Mountz Calibration & Repair Services

Mountz Inc. features an experienced calibration and repair staff. Our trained technicians can calibrate and repair most any tool. Mountz provides rapid service with quality that you can trust as we offer three state-of-the-art calibration lab and repair facilities that can calibrate up to 20,000 lbf.ft.

With over 45 years of experience, Mountz's in-depth knowledge of torque is reflected in our tool's craftsmanship and our ability to provide solutions to both common and uncommon torque applications. We perform calibrations in accordance with ANSI/NCSS-Z540. Mountz is dedicated solely to the manufacturing, marketing and servicing of high quality torque tools.

Mountz is an ISO 9001 certified and ISO 17025 accredited company.

Tool Service & Repair Capability

- Torque Wrench Calibration: Click Wrench, Dial Torque Wrench, Beam Wrench, Cam-Over & Break-Over Wrench
- Torque Screwdrivers: Dial, Micrometer, Preset & Adjustable
- Torque Analyzers/Sensors: All brands
- Electric Screwdrivers: All brands
- Air Tools: All brands
Impact Wrenches, Drills, Pulse Tools, Grinders, Percussive Tools,
Air Screwdrivers, Nutrunners, DC Controlled Nutrunners
- Torque Multipliers: All brands

Mountz Torque Testers and Calibration Equipment

Torque tools go out of calibration with use. Calibrating a torque tool is a fine-tuning process of bringing the tool back within its tolerance. Torque testers can also be used for quick tools tests on the line or in the lab to determine whether torque tools are holding a given setting.

A regular torque tool calibration and re-calibration guarantees the operator repeatable accuracy and adherence to international standards. Torque testing also ensures torque equipment is operating to peak performance and can highlight potential tooling problems before they arise perhaps due to tool wear or broken components.

Controlling torque is essential for companies to ensure their product's quality, safety and reliability isn't compromised. The failure of a three-cent fastener that isn't properly tightened can lead to catastrophic or latent failures. Fasteners that are insufficiently torqued can vibrate loose and excessive torque can strip threaded fasteners. Using a quality torque tool has become increasingly important for many companies to ensure that proper torque is being applied and maintains gauge requirements associated with the ISO 9001 Quality Standard. Look for the Mountz hexagon logo - it's a stamp for quality tools, service and knowledge in the field of torque control.

Mountz Service Locations

Eastern Service Center

19051 Underwood Rd.
Foley, AL 36535
Phone: (251) 943-4125
Fax: (251) 943-4979

Western Service Center

1080 N.11th Street
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Fax: (408) 292-2733

Mexico Service Center

Mountz Mexico SA de CV Chihuahua
Av. Cristobal Colon #15343
Col. Paseos de Chihuahua
Chihuahua, Chih. Mexico CP 31125
Phone: (614) 481-0023
Fax: (614) 481-0053

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sales@mountztorque.com

Download a "Service Form" and include a copy
when you send the tools in to be serviced.

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www.mrmetric.com

