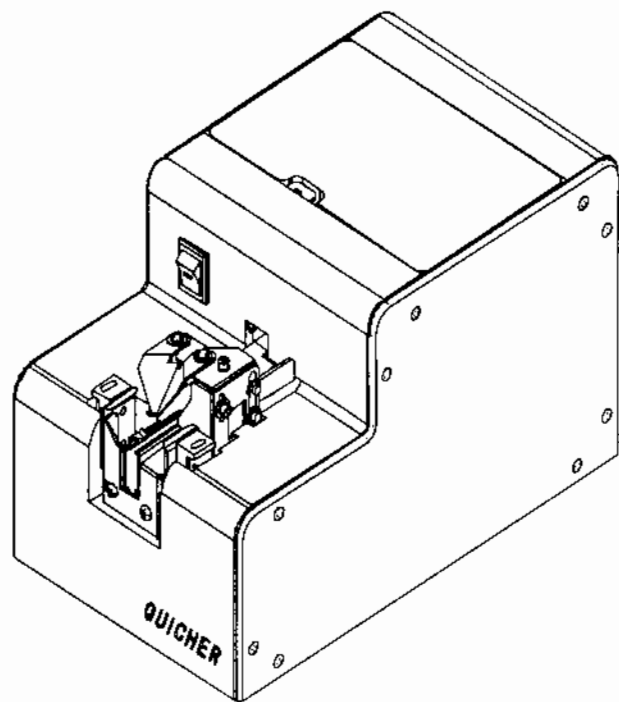


INSTRUCTION BOOK

QUICHER

***AUTOMATIC SCREW FEEDER
NJ SERIES***



Read this booklet carefully before operating.

TABLE OF CONTENTS

Read this booklet carefully before operating.

The feeder has the following accessories:

1 AC Adaptor and 1 Hexagonal wrench

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1. IMPORTANT SAFETY INSTRUCTIONS

1) Be sure to keep the feeder away from flammable or explosive gases, heat sources, humidity, static electricity and direct sunlight.

Do not use the feeder if the above are present.

2) Set the feeder on a flat and stable place. Otherwise it may fall and cause injuries.

3) Unplug the AC adaptor from the electric outlet after use or when the feeder is not used for a long time.

4) Use only the AC adaptor supplied with the feeder.

5) Never insert fingers or other objects in the screw bin, the access holes or other open spaces.

6) In case of malfunction, turn off the power and unplug the AC adaptor.

Continuing to use a malfunctioning feeder may cause fire, electric shock or injury. Contact the dealer you bought it from.

7) Do not scratch the rail or allow oil to get on it.

8) Use only the recommended screws. Do not use screws covered with oil or dust.

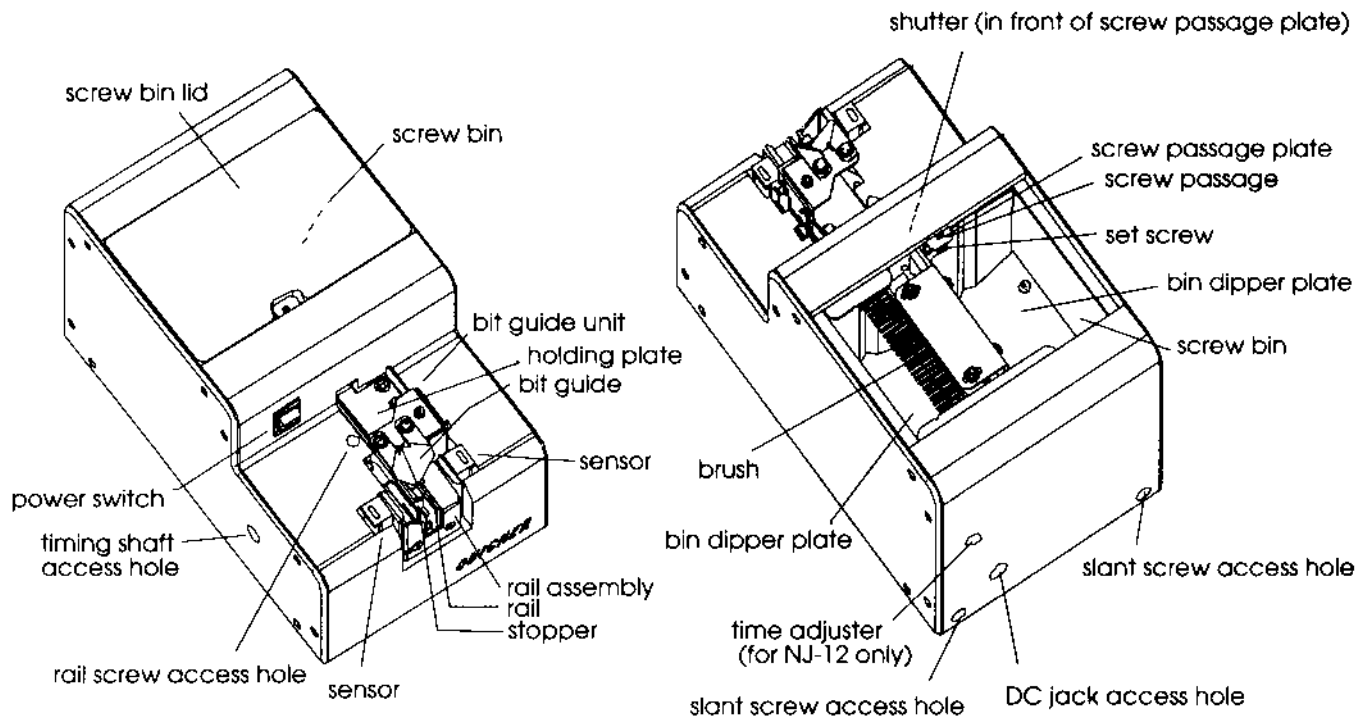
9) Do not use excess force when removing screws.

CAUTION: Do not attempt to repair, disassemble or modify the feeder by yourself.

Consult your dealer for assistance.

2. NAMES OF PARTS

Fig - 1



3. BEFORE USE

3-1 Check screw type

Before operating your QUICHER screw feeder, make sure you are using the appropriate size screws.

You can easily replace the rail unit to match the diameter of the screw you wish to use. Check the screw number shown on the front of the rail unit to make sure you are using the correct diameter screw.

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

- * Brush
- * Screw passage plate
- * Bit guide unit
- * Rail unit

CAUTION: Be sure to turn off the power switch of the feeder before making any adjustments.

TYPE	SCREW No	DIAMETER
NJ-12	R14	ø1.4
	R17	ø1.7
NJ-23	R20	ø2.0
	R23	ø2.3
	R26	ø2.6
	R30	ø3.0
NJ-45	R40	ø4.0
	R50	ø5.0

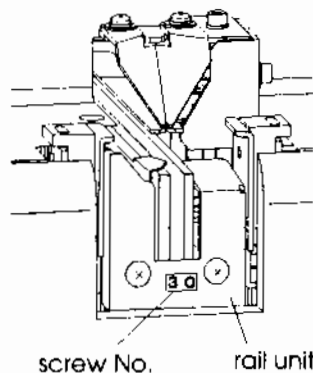
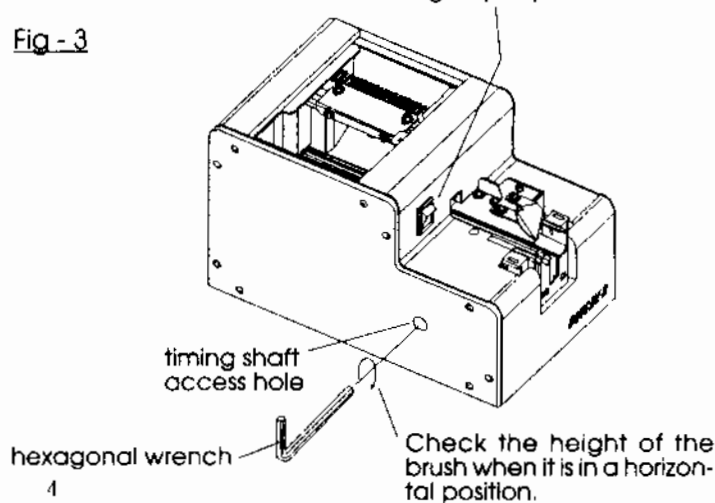


Fig - 2

Be sure to turn off the power switch of the feeder before making any adjustments.

Fig - 3



3-2 Adjustment of the brush

Check the height of the brush when it is in a horizontal position, as shown in Fig-3.

If not horizontal, adjust as follows:

Turn the timing shaft clockwise with the included hexagonal wrench. Put a few screws in the rail to check the height of the brush. Rotate the brush manually within about 120 degrees, as indicated by the arrow in Fig-4.

Be careful not to turn the brush forcibly beyond 120 degrees. No adjustment is necessary if there is no gap between the central part of the brush and the heads of the screws, as in Fig-5.

If there is a gap, adjust as follows:

Loosen the brush set screws. Adjust to make the central part of the brush just touch the tops of the screws.

Do not lower the brush too much, however.

Tighten the screws after adjusting, then make sure the brush turns smoothly by testing it again.

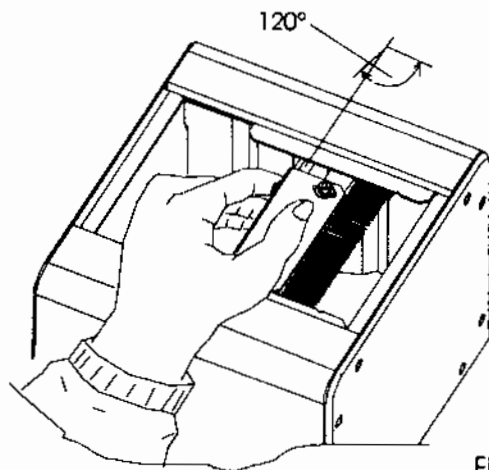


Fig - 4

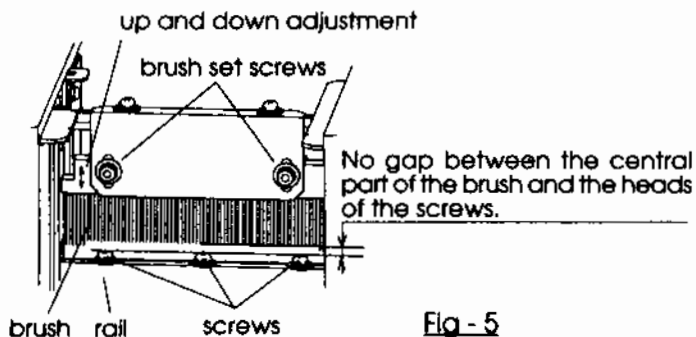


Fig - 5

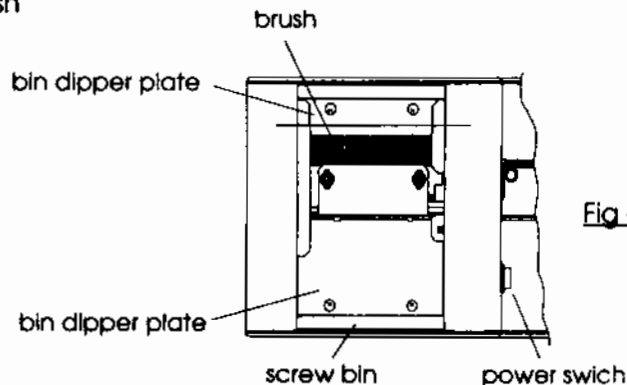


Fig - 6

3-3 Adjustment of the passage plate

Remove the screw bin lid.

Place a few screws in the rail and slide them up to the screw passage (b) to check the clearance between the passage plate (d) and the head of the screw.

No adjustment is necessary if the clearance is less than 0.5 mm.

To adjust, loosen the set screw (a) and adjust by manually moving the passage plate (d) up and down. When the clearance is less than 0.5 mm, tighten the set screw.

Note: If the shaft (c) of the screw is a bit short, a slight adjustment is required.

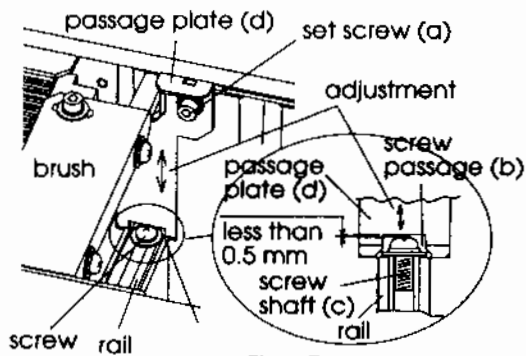


Fig - 7

3-4 Adjustment of the bit guide unit

Place five to ten screws in the rail and tilt the feeder until they 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 1 mm, as in Fig-8.

The screw cannot go through the screw passage (b) when the shutter is closed.

To open the shutter, turn the timing shaft clockwise with the hexagonal wrench.

The screws cannot move toward the stopper if the clearance between the holding plate (e) and the rail is narrower than the head of the screw.

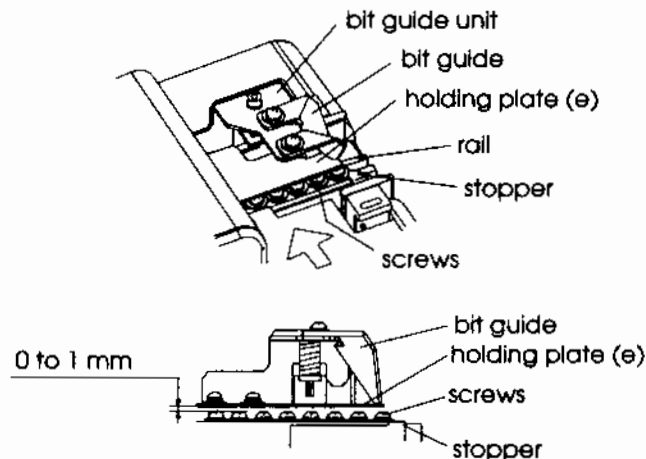


Fig - 8

To adjust the height

Tilt the feeder so that a screw (a) hits the stopper (b), then loosen the set screw (c). Turn the bit guide unit adjusting screw (d) until a clearance of 0 to 1 mm is obtained. Be sure to tighten the screw (c) 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, as in Fig-10.

Then the screws can be smoothly fed in the rail. The gap at the front should be a little less than the gap at the back, as in Fig-10.

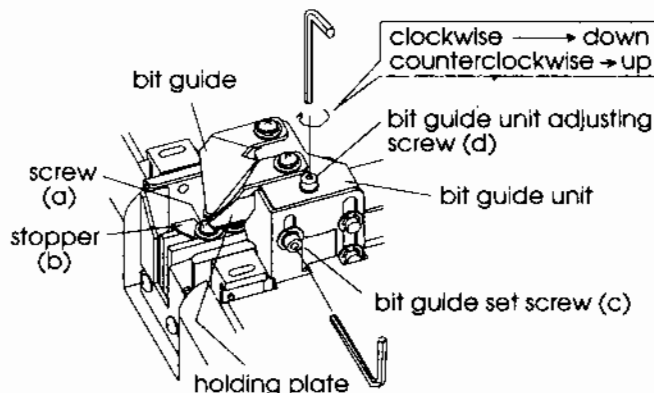
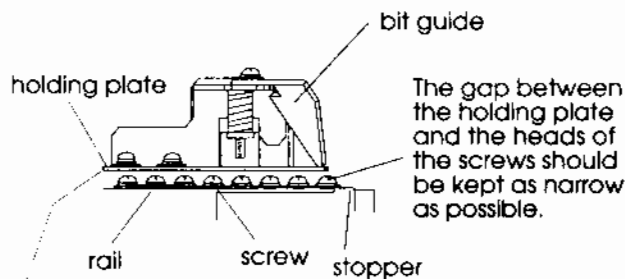


Fig - 9



The gap at the front should be a little less than the gap at the back.

Fig - 10

The feeder was shipped from the factory with the V slot on the holding plate (a), V slot on the bit guide (b) and the center of the rail ditch (c) in perfect alignment. If, however, the unit was bumped or jarred during shipment, these crucial parts may have gotten out at alignment, in which case they must be readjusted as follows: Loosen the holding plate and bit guide set screws with the hexagonal wrench and align the slots with the center of the rail ditch. Tighten the screws after adjustment.

3-5 Adjustment of the rail unit

Place five to ten screws in the rail and tilt the feeder until they hit the stopper of the rail unit.

When the shutter is closed, the screws cannot go through the screw passage.

If it is closed, turn the timing shaft clockwise with the hexagonal wrench to let it open.

The stopper is fixed to the rail unit. The adjustment of the stopper is made by moving the rail unit back and forth.

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 the hexagonal wrench and move the rail unit back and forth to get them aligned. Tighten the screw after adjusting.

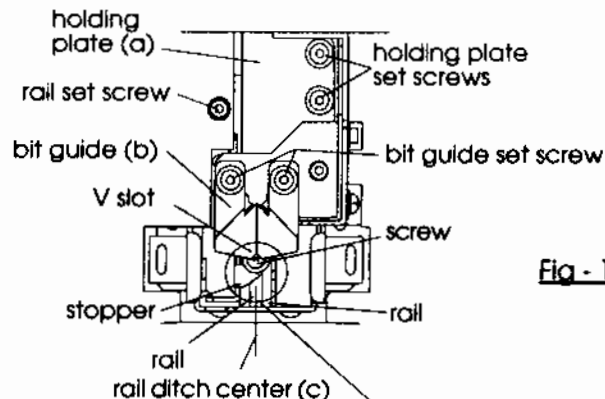


Fig - 11

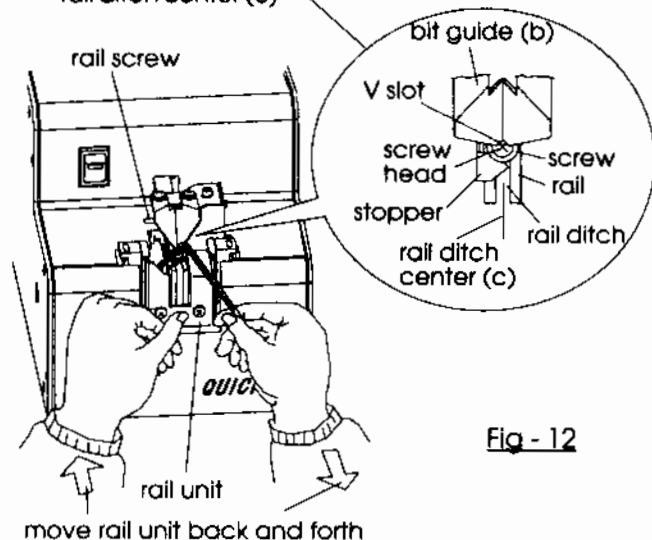


Fig - 12

4. OPERATION

Follow the procedure below after completing all adjustments for your screw type.

4-1 Feeding in the screws

Open the screw bin lid.

If the bin dipper plate is at the lowest position, pour in screws until they come to about 3 mm of the top of the rail, as shown in Fig-13.

Turn the timing shaft clockwise to lower the screw dipper plate to its lowest position, as in Fig-13, then the brush can be set at the desired position for the screws to be put in.

Note: *Don't overload the screw bin.

*The motor protection circuit won't start the feeder if the feeder is overloaded.

4-2 To turn on the feeder

Insert the AC adaptor plug into the DC jack at the rear of the feeder.

Insert the AC adaptor into the electric outlet and turn on the power switch (the indicator should come on).

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

Note: *Don't overload the screw bin.

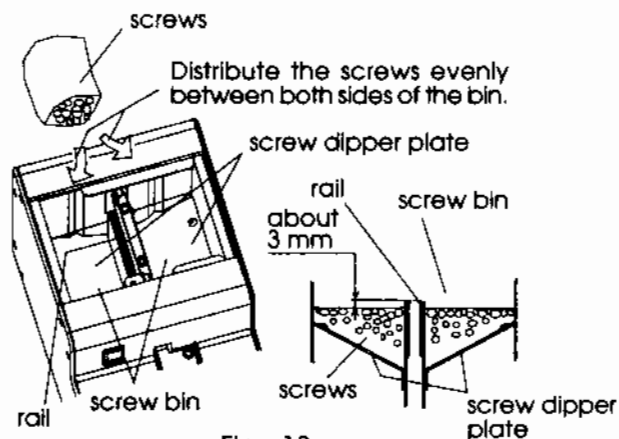


Fig - 13

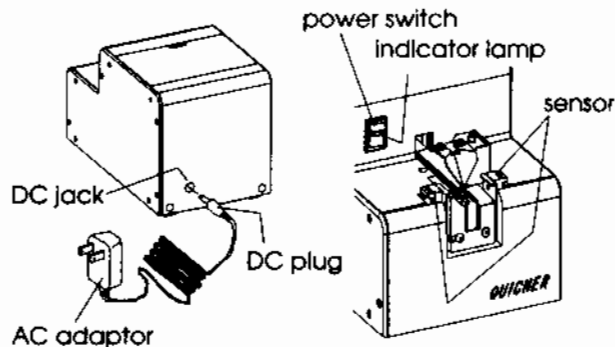


Fig - 14

4-3 To pick up screws

Attach a bit to your electric screwdriver to match the head of the screw.

(The screwdriver bit must be magnetized before use.)

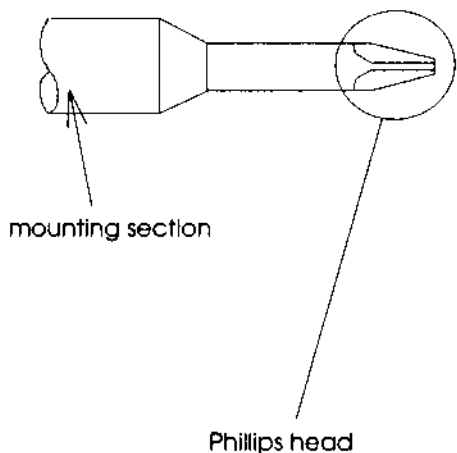
Put the driver bit somewhere in the opening of the bit guide and push it straight down while turning the bit slightly, until it hits the screw head.

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. If the driver is lowered into the screw head with moderate force, the back and forth movement of the rail will stop.

Do not use more pressure than necessary to stop the back and forth movement of the rail.



STANDARD	SCREW DIAMETER	CROSS SIZE ON TOP No.
JIS SMALL SCREW	ø1.4	No.0
	ø1.7	No.0
	ø2.0	No.1/No.2
	ø2.3	No.1/No.2
	ø2.6	No.1/No.2
	ø3.0	No.1/No.2
	ø4.0	No.2
ø5.0	No.2	

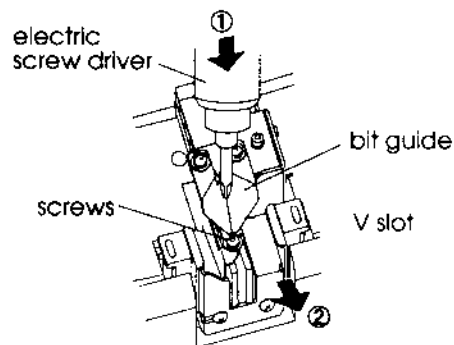


Fig - 15

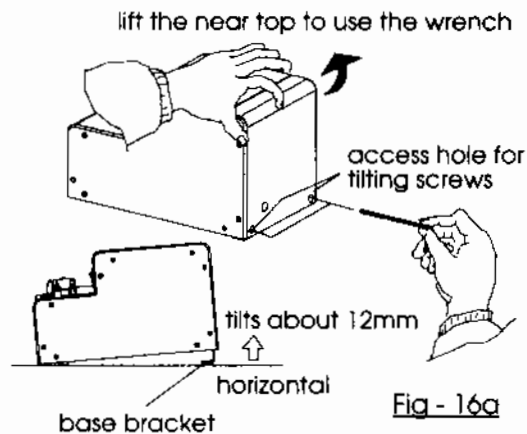
4-4 How to tilt the feeder forward

The feeder should normally be set horizontally. However, if it has difficulty feeding some types of screws smoothly, slant the feeder toward the front direction, as shown in Fig-16a.

Lift the rear of the feeder slightly, loosen the slant screws with the hexagonal wrench and pull out the base bracket (it can be pulled out by about 12 mm).

Tighten the screws when the desired slant is achieved. Make sure the feeder is steady and that it doesn't wobble.

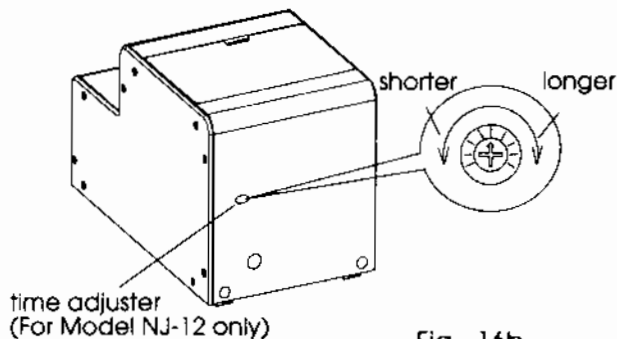
Note: Do not slant the feeder too much. Screws may get caught in the screw passage if slanted more than necessary.



4-5 How to set the Time Adjuster (for model NJ-12 only)

If you don't remove a screw from the stopper for a certain duration, the feeder stop moving. It starts feeding again when a screw is removed. For Model NJ-12 only, it is possible to adjust the above mentioned duration and adjust it according to types of screws.

Turn the time adjuster at the rear of the feeder clockwise to lengthen the duration and counterclockwise to make it shorter. Do not force adjuster beyond its normal rotation range.



5. TROUBLE SHOOTING

CAUTION: Be sure to turn off the power switch of the feeder before making any adjustments.

PROBLEM	CAUSE	REMEDY
5-1 The feeder doesn't run when turned on.	<p>The feeder is not plugged in. A screw has not been removed from the stopper for the set duration.</p> <p>The bin is overloaded with screws. Some screws have gotten caught in the gaps.</p>	<p>Check if the AC adaptor is connected. Remove the screw from the stopper. Adjust the time adjuster (Model NJ- 12 only). Remove some screws until they reach 3 mm below the top of the rail. Remove them.</p>
5-2 Screws don't feed.	<p>Screws are too large for the rail unit. Too few screws in the bin. The brush cannot sweep up the screws. Screws are abnormally positioned in the screw passage.</p> <p>The screw shaft gets caught in the screw passage. The screw gets caught in the rail in an abnormal position.</p> <p>The rail doesn't move back and forth.</p>	<p>Use correct size screws. Put in the proper amount. Adjust the brush.</p> <p>Adjust the screw passage plate. The problem will occasionally be solved when the proper amount of screws are put in. Remove it and adjust the screw passage plate. Remove it. To remove, loosen the bit guide unit set screws and move the bit guide upward. Then tilt the feeder to remove the screw from the front end of the rail and adjust the holding plate. Remove the screw waiting to be fed.</p>

PROBLEM	CAUSE	REMEDY
	<p>(A screw is caught in the rail.)</p> <p>Inadequate adjustment of the time adjuster. (for Model NJ-12 only)</p>	<p>(If no screw is caught in the rail, but it's still not moving, contact your dealer). Adjust it properly. (for Model NJ-12 only)</p>
<p>5-3 A screw has fallen into the ditch of the rail.</p>	<p>The screw is too small for the rail unit.</p>	<p>Use the correct size screw or install a different size rail. Contact your dealer.</p>
<p>5-4 The screw in the rail don't feed smoothly.</p>	<p>The gap between the holding plate and the screw head is too narrow. A screw with a spring washer, the diameter of which was narrower than the rail unit, was put in the bin. The rail has become clogged with dust or oil. The rail doesn't move back and forth. (A screw is caught in a gap.)</p>	<p>Adjust the bit guide unit. (Adjust the holding plate). Slant the feeder as in 4-4. If the feeder doesn't feed, contact your dealer. Clean the rail and the rail guide.</p> <p>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 your dealer.</p>
<p>5-5 Screws sometimes go through the screw passage in an abnormal position. The screw shaft sometimes gets caught in the screw passage.</p>	<p>Inadequate adjustment of the screw passage plate. The feeder is tilted more than necessary.</p>	<p>Adjust it properly.</p> <p>Tilt the feeder only as much as necessary.</p>

PROBLEM	CAUSE	REMEDY
5-6 The screw fails to reach the specified position at the bit guide.	The screw stops halfway in the rail. Incorrect adjustment of back and forth movement of the rail unit. The time adjuster is not adjusted properly. (for Model NJ-12 only)	Adjust the bit guide unit. (Adjust the holding plate.) Adjust it correctly. Adjust it properly. (for Model NJ-12 only)
5-7 The bit sometimes doesn't match the Phillips head.	Improper position (front/back) Improper position (left/right)	Adjust the rail unit properly. Adjust the bit guide and holding plate properly.
5-8 The feeder stops suddenly.	Motor protection circuit is activating due to overloading. The screw has not been removed from the stopper for the set duration.	Turn the power off, then on again. If the feeder stops again: Overload : Remove some screws. Screws have been caught in the gaps: Remove them. Remove the screw.
5-9 Screws have dropped inside the feeder housing.		Shake out the screws from the hole on the rear of the feeder.

6. MAINTENANCE

CAUTION: Be sure to turn off the feeder before performing maintenance.

Remove all the screws in the bin and the rail.

6-1 Cleaning

** Cleaning the rail

Loosen the rail screw with the hexagonal wrench. Pull the rail unit toward you to take it out.

Clean the rail ditch and the top of the rail with a clean, thin cotton cloth soaked with alcohol.

** Cleaning the rail guide inside walls

Visually inspect the rail guide inside walls and if there is dust, remove it with a clean, thin cotton cloth soaked with alcohol.

remove all the screws in the bin and the rail.
loosen the rail set screw (through access hole)

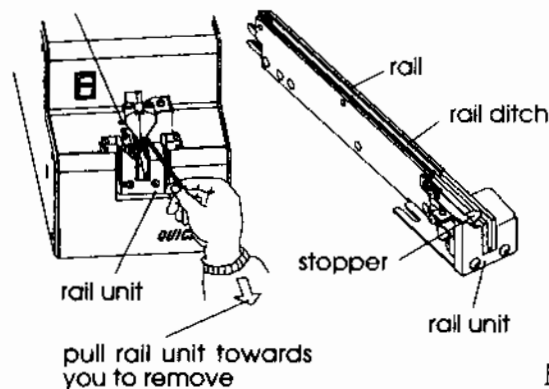


Fig - 17

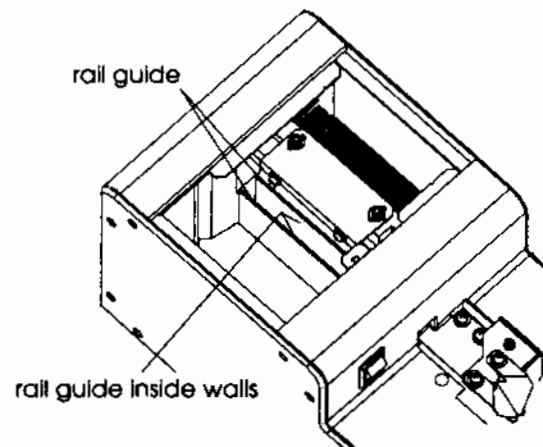


Fig - 18

6-2 Replacement

** Replacement of the rail unit

Replacement of the rail unit is recommended if, after cleaning it as per the instructions in 6-1, screws still don't flow smoothly due to flaws, etc. Replacement can easily be done.

** Replacement of the brush

Replace the brush when it is too worn and torn to wipe the screws in an abnormal position.

Turn the timing shaft clockwise to set the brush unit in the position shown in Fig-19. Remove the brush unit screws and the brush unit.

Then disassemble the brush (as shown in Fig-19), replace it and reassemble it.

7. OPTIONAL PARTS

A variety of rail units are available as optional parts. You may need to replace it in the following cases:

- * The feeder doesn't feed screws smoothly.
- * When using screws of a different diameter.

Note: Contact your dealer for a suitable unit if you need to use countersunk small screws, oval countersunk small screws, nonstandard screws, etc.

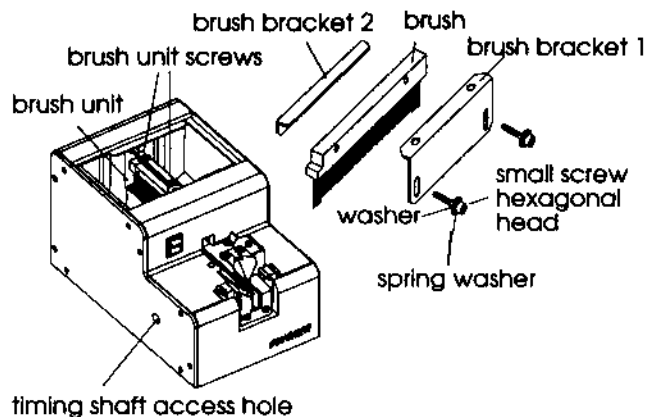
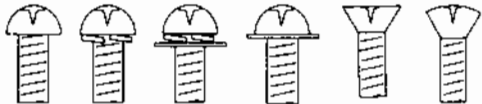


Fig - 19

8. SPECIFICATIONS

QUICHER					
SCREW TYPE	MODEL	TYPE	DIAMETER	RAIL NO.	RECOMMENDED TYPES OF SCREWS
	NJ-12	NJ-1214	ø1.4	R14	<p>TYPICAL SCREWS</p>  <p>SCREW -----> METRIC SCREW, TAPPING SCREW, ETC.</p> <p>MATERIAL -----> STEEL (MAGNETIZABLE)</p> <p>SLOT TYPE -----> PHILLIPS HEAD</p> <p>LENGTH OF SHAFT ----> UP TO 18 mm MODEL NJ-12: UP TO 10 mm</p>
		NJ-1217	ø1.7	R17	
	NJ-23	NJ-2320	ø2.0	R20	
		NJ-2323	ø2.3	R23	
		NJ-2326	ø2.6	R26	
		NJ-2330	ø3.0	R30	
	NJ-45	NJ-4540	ø4.0	R40	
		NJ-4550	ø5.0	R50	
POWER SUPPLY	AC 100V 50/60Hz INTERNAL:DC 12V 500mA				
EXTERNAL DIMENSIONS	130W X 215D X 136H				
WEIGHT	Approx. 3kg				

DESIGNS, SPECIFICATIONS AND FEATURES MAY BE UPGRADED WITHOUT NOTICE.

