

Disassembly (massager) and assembly

The disassembly steps 1 ~ 5 can be done without removing the massager from the chair (please work with the connector cord removed).

1. Removing the intensity adjustment unit.

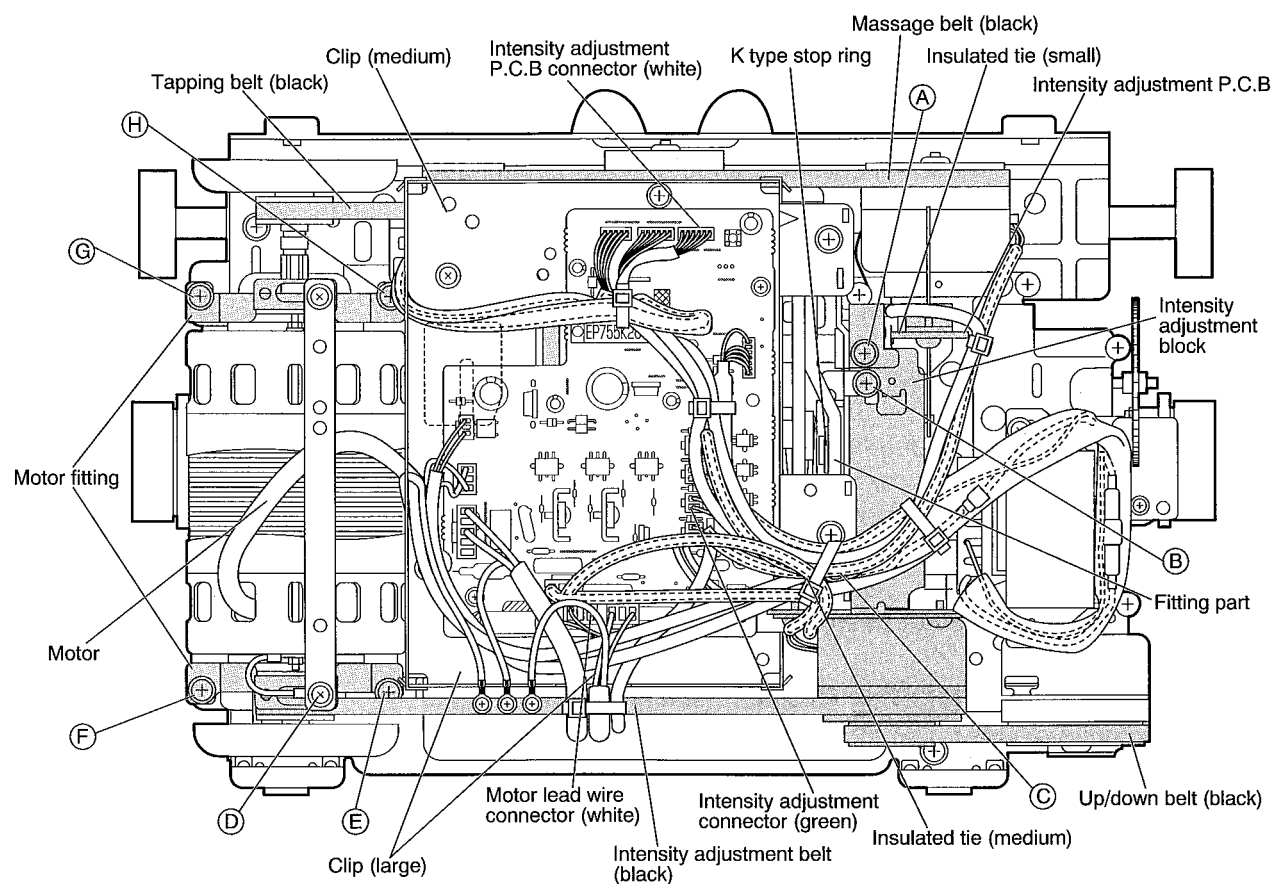
1. Cut off the insulated tie (medium) bundling the lead wire and gear box side sensor and the insulated tie (small) bundling the lead wire of intensity sensor with the aid of a nipper.
2. Remove the up/down belt and intensity adjustment belt.
3. Remove the intensity unit connector (green) and intensity sensor connector (white).
4. Remove the intensity sensor set screw A, and remove the intensity sensor.
5. Remove the K type stop ring.
6. Remove the intensity unit set screws B and C.
7. Remove the fitting part, and withdraw.

*If the intensity sensor has not been removed from the intensity adjustment unit, the intensity adjustment unit cannot be disassembled and assembled.

Indication	Type of screw
(A)~(D)	Screw (Cup,S,K4-6)
(E)~(H)	Screw (Cup,S,K4-10)

2. Removing the motor

1. Remove the motor lead wire bundle from the clip (large), and remove the motor lead wire connector(white).
2. Remove the massage belt, tapping belt and intensity adjustment belt.
3. Remove the motor earth wire set screw D
4. Remove the motor fitting set screw E to H, and remove the motor.



3. Removing the tapping shaft assembly

(1 to 10, see pages 39 and 41. 11 to 14, see page 41)

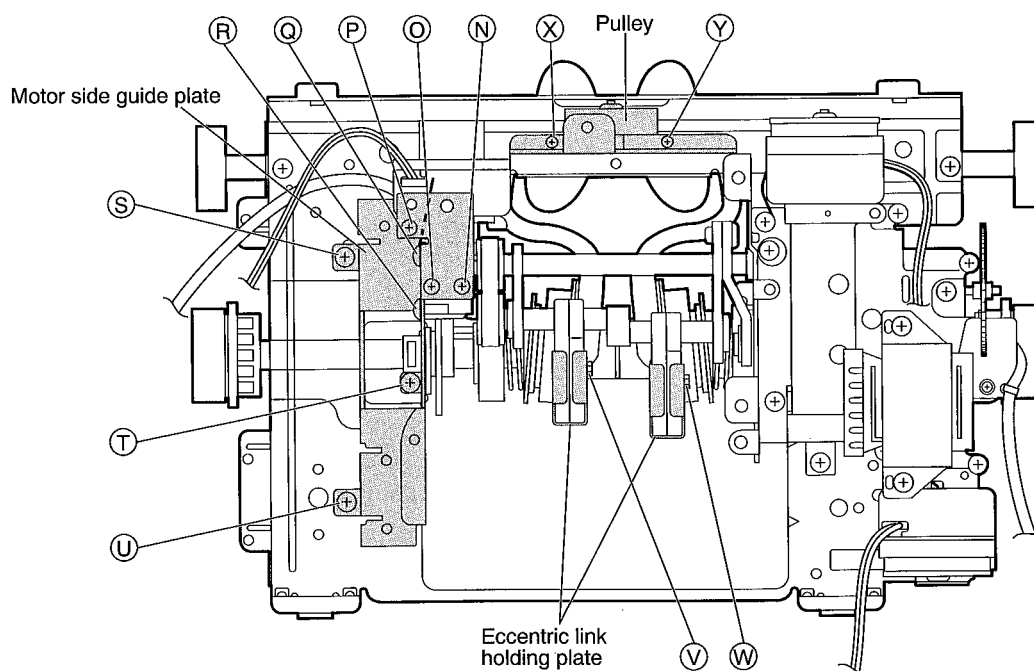
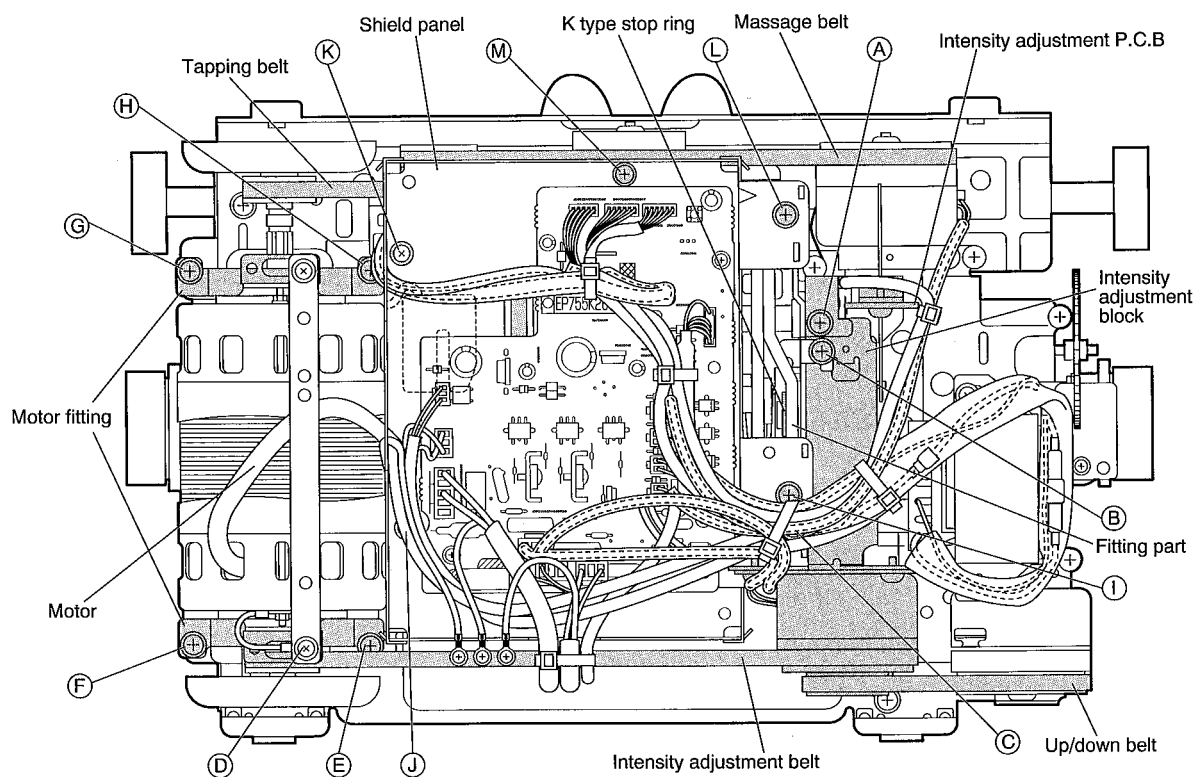
1. Cut all the insulated ties bundling each sensor and lead wires with the aid of a nipper, and remove the lead wires bundled to the wire saddles (medium, large).
2. Remove all the connectors to the main circuit board.
3. Remove the massage belt, tapping belt, up/down belt and intensity adjustment belt.
4. Remove the intensity sensor set screw A, and remove the intensity sensor.
5. Remove the K type stop ring.
6. Remove the intensity adjustment unit set screws B and C.
7. Remove the fitting part, and remove the intensity adjustment unit.
8. Remove the motor ground wire set screw D.
9. Remove the motor fitting set screws E to H, and remove the motor.
10. Remove the shield panel (fitted to the circuit) set screw and idler pulley set screws I to M, and remove the shield panel.
11. Remove the motor side guide plate set screws N to U, and remove the motor side guide plate.
When removing the screw Q, take care so that the ground spring is not lost.
12. Remove the idler pulley set screws X and Y, and remove the idler pulley.
13. Remove the eccentric link holding plate set screws V and W with a spanner, and remove the eccentric link holding plate.
14. In this state the tapping shaft assembly can be removed.

4. Removing the tapping clutch (see pages 41 and 43)

1. Perform the removal steps 1 to 12 of 3 "Removing the tapping shaft assembly".
2. Remove the tapping clutch assembling screw (Bind, TP, B3-20), remove the tapping gear box B, and remove the tapping clutch. (see page 43)

Indication	Type of screw
(A)~(D)	Screw (Cup,S,K4-6)
(I)~(M)	
(E)~(H)	Screw (Cup,S,K4-10)

Indication	Type of screw
(N)~(P)	Screw (Bind,TP,B4-48)
(Q)~(R)	Screw (TP,K4-14)
(S)~(U) (X)~(Y)	Screw (Cup,S,K4-10)
(V)~(W)	Screw (Hex,S,K4-22)



Assembling the tapping clutch

After removing the tapping clutch from the tapping shaft assembly, assemble them according to the specified procedure.

Assembling Procedure

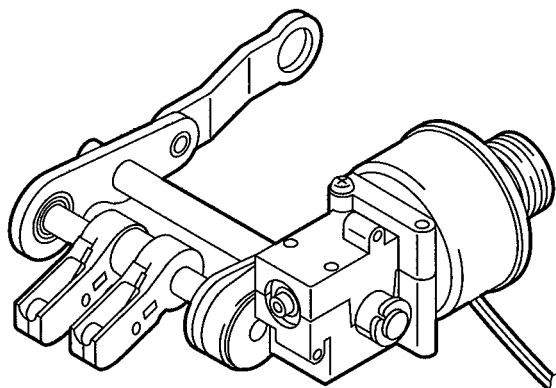
(see Figures top and middle)

1. Fit the tapping gear box side plate to the shaft of tapping shaft assembly.
2. Fit the E type stop ring to the shaft.
3. Fit the tapping gear box A to the shaft.
4. Check the direction of tapping clutch lead wire outlet, and install the tapping clutch.
5. Install the tapping gear box B
6. Fix with the tapping gear box assembling screw (Bind,TP,B3-20)

Instructions when assembling

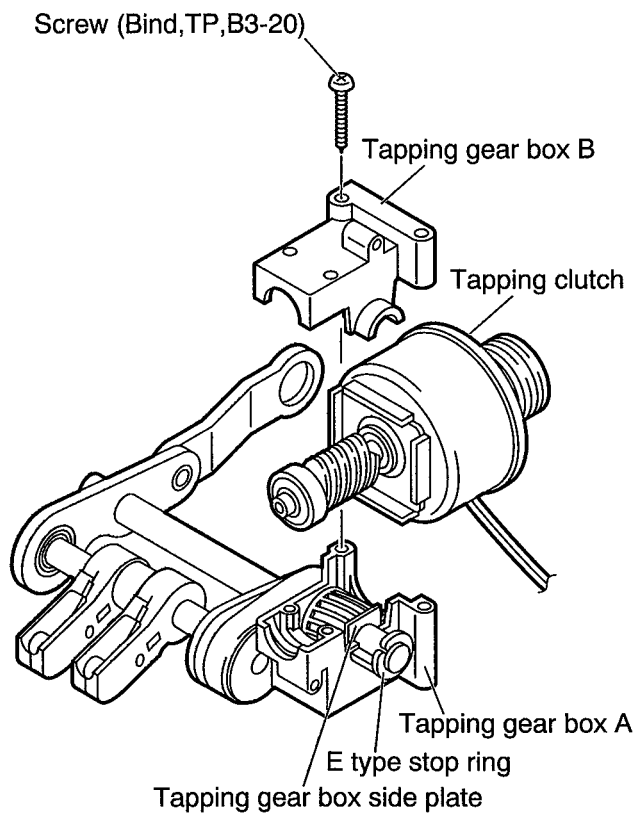
(see Figure bottom)

If there is any clearance between the tapping gear boxes A and B, it is impossible to insert into the hole of the motor side guide plate.



Tapping shaft assembly

Screw (Bind,TP,B3-20)



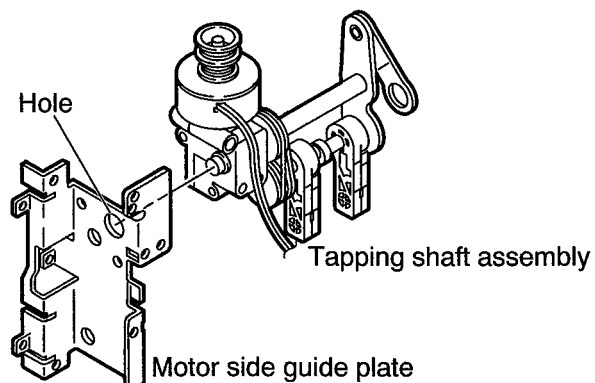
Tapping gear box B

Tapping clutch

Tapping gear box A

E type stop ring

Tapping gear box side plate



Hole

Tapping shaft assembly

Motor side guide plate

5. Removing the gear box

*The drive pipe, up/down shaft, up/down gear, pinion B block, arm (left, right) and guide roller F cannot be disassembled or assembled if the massager is not dismantled from the chair.

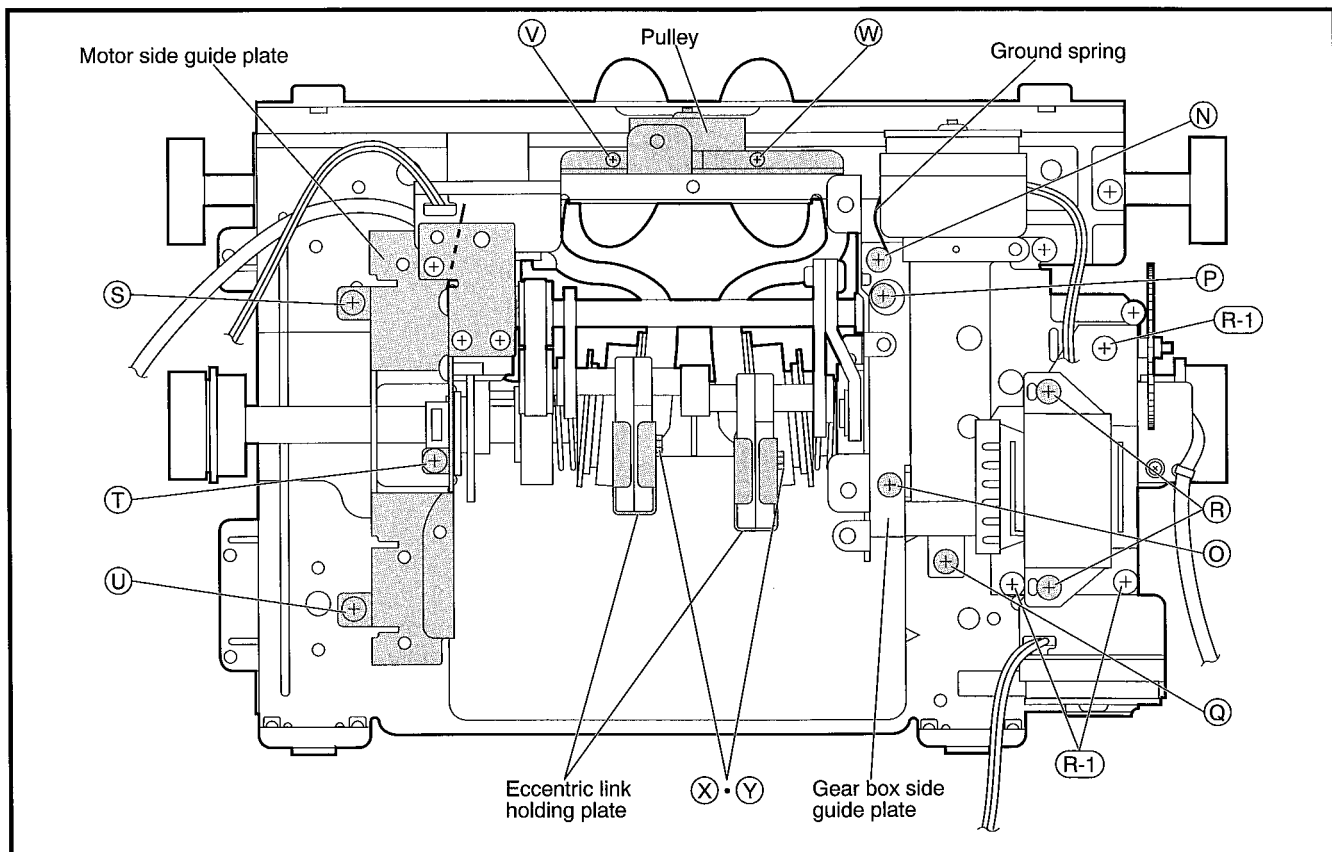
1. Perform removal of steps 1 to 10 of “3. Removing the tapping shaft assembly”.
2. Remove the gear box side guide plate set screws N and O.
3. Remove the transformer set screw R, and remove the transformer and remove the base for transformer set screw R-1, and remove the base for transformer.
4. Remove the motor side guide plate set screws S to U.
5. Remove the idler pulley set screws V and W, and remove the idler pulley.
6. Remove the eccentric link holding plate set screws X and Y with a spanner, and remove the eccentric link holding plate.
7. Remove the tapping shaft assembly as one unit, without removing the guide plate for gear box and the guide plate for motor. **(see Figure)**
8. Remove the gear box screws **(see Figure)**
9. After removing the screws, the massage clutch, up/down clutch and intermediate gear block can be removed.

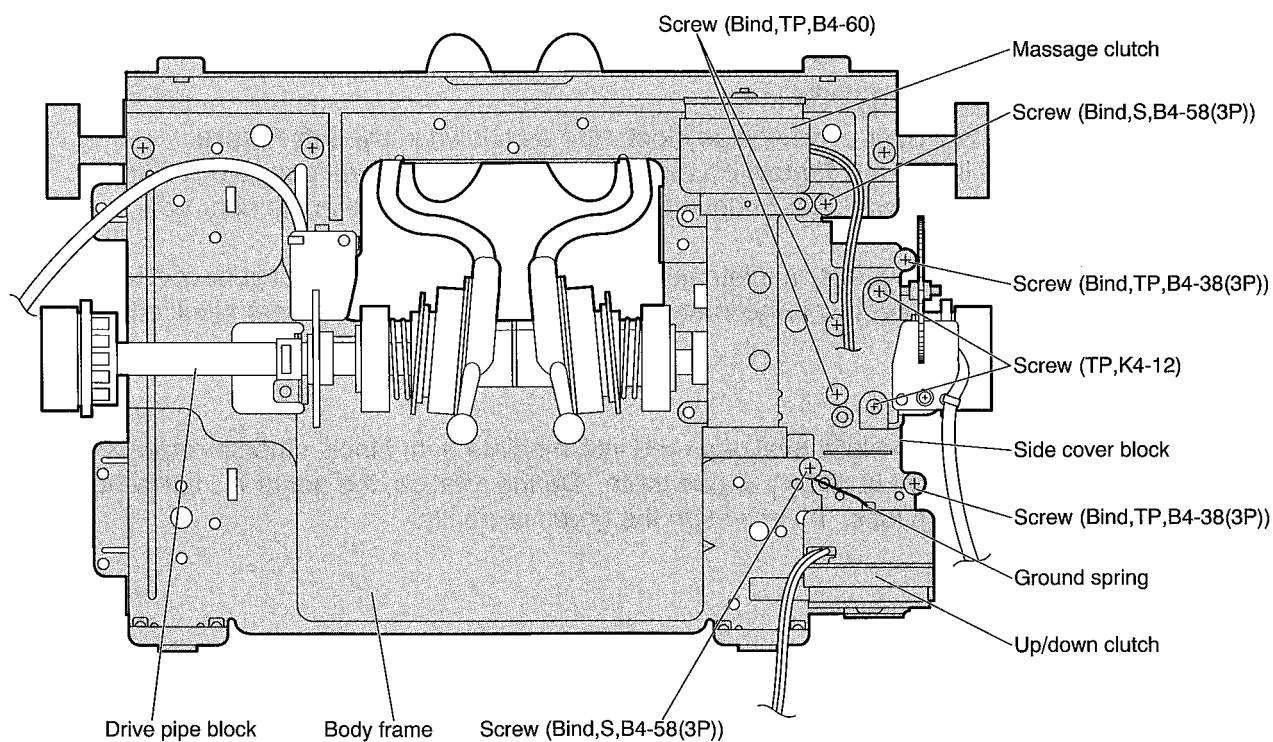
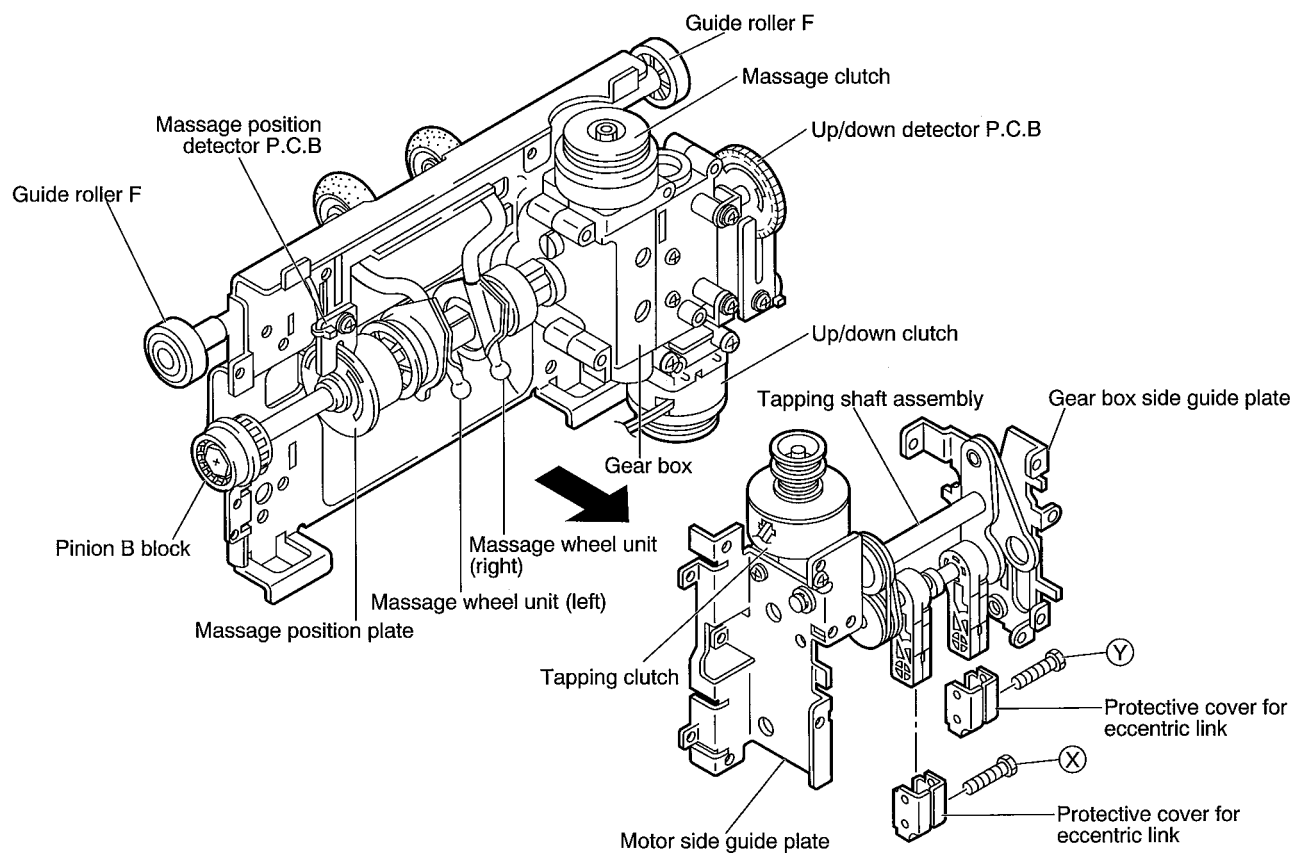
*Take care so that the grease does not stick to the massage clutch and up/down clutch pulleys. If grease sticks, remove it with alcohol.

*The massage clutch and up/down clutch have similar shapes. The lead wires are the same gray color, so please choose based on connector color.

Massage clutch connector color: White
Up/down clutch connector color: Red

Indication	Type of screw
(P~Q)	Screw (Hex,S,K4-10)
(R)	Screw (TP,K4-14)
(N~O)	Screw (Bind,TP,B4-38)
(S~W)	Screw (Cup,S,K4-10)
(X~Y)	Screw (Hex,S,K4-22)



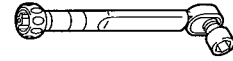


6. Removing and mounting the up/down shaft bolt (see top Figure)

*1. To remove the up/down shaft bolt, the box driver (ø13 mm) must be used. To install, the torque wrench with ø13 mm must be used.

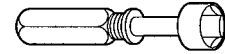
*2. The torque wrench with ø13 mm socket and the box driver (ø13 mm) are available as parts.

Order Parts No. Torque wrench for up/down shaft bolt :WEP000S8857



Box driver for up/down shaft

:WEP000S8867



1. Removing

The pinion A and pinion B of massager block (left, right) are secured with the up/down shaft bolts. Remove then with the box driver (ø13 mm).

(It is possible to use the Phillips head screwdriver. But it may deform the screw head. Therefore, it is necessary to use the box driver.)

2. Mounting

- It is necessary to control the tightening torque of the up/down shaft bolt.

Up/down bolt tightening torque: 4 N/m (40 kgf-cm).

*If the up/down shaft bolt has been insufficiently tightened, it may loosen when the massager moves up and down, and the massager may detach from the chair.

If the up/down shaft bolt has been excessively tightened, the bolt head may shear.

Tighten the up/down shaft bolt of pinion A and pinion B, while controlling the torque.

Assembling (see bottom Figures)

•Assembling the oval gear

1. Put the V mark on the oval gear of drive pipe block side as shown in **the left Figure**.

2. Put the mark as shown in **the left Figure** on the oval gear of intermediate gear block side.

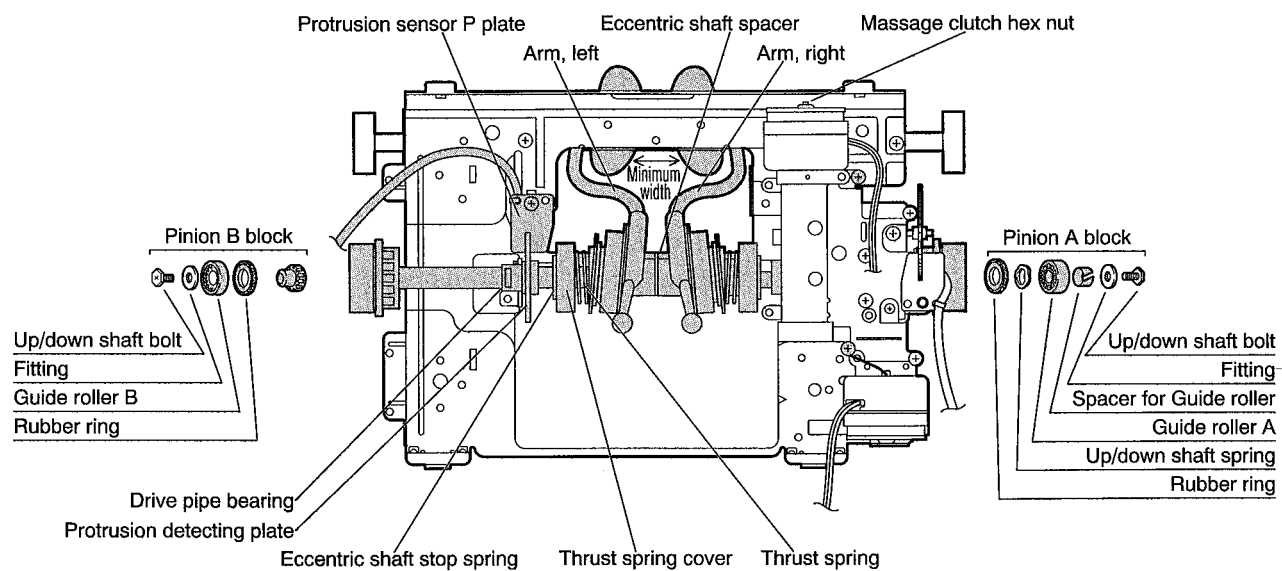
3. Arrange aside the V mark of oval gear of drive pipe block, and assemble in the gear box.

(see the right Figure)

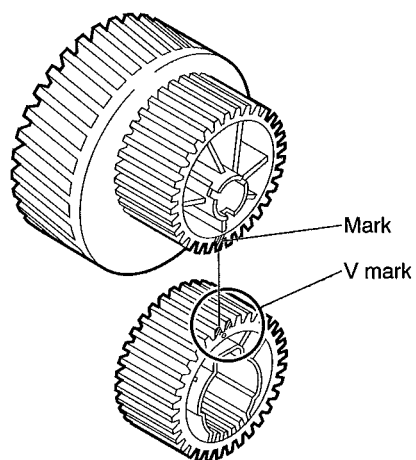
4. Aligning the mark of oval gear of intermediate gear block with the V mark of oval gear of drive pipe block as shown in **the center Figure**, insert the intermediate shaft of intermediate gear block into the groove A of gear box.

(see the right Figure)

*When aligning the drive pipe block oval gear and intermediate gear block, smooth rotation will not be possible even if the alignment is off by just one tooth. During rotation, the gears will not match up, and may cause the massager to lock. Please align the gears correctly.

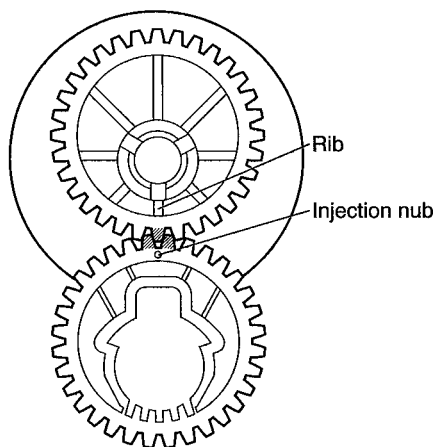


Intermediate gear block

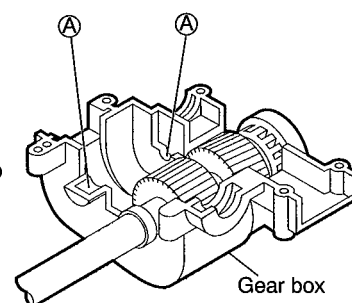


Drive pipe block oval gear

Intermediate gear block



Drive pipe block oval gear



7. Removing the right and left arms

(Remove the massager from the chair before beginning the following procedure.)

1. Perform steps 1 to 7 in section, "5. Removing the gear box."
2. Remove screws A and B which connect the gear box and main frame, and remove the main frame.
(When removing the main frame, turn the massage clutch hex nut so that the massage width is at its minimum.)
3. Remove the up/down shaft bolt of the pinion B block with the box driver, and remove the pinion B block.
4. Remove the drive pipe bearing, and remove the protrusion detecting plate. (Take care not to break the protrusion detecting plate.)
5. Using the massage wheel block removing tool, grasp the thrust spring cover and remove the eccentric shaft stop spring. Next, remove the thrust spring cover and thrust spring, and then remove the arm (right), eccentric shaft spacer, and arm (left). Please note that disassembly is possible even without the massage wheel block removing tool.

Indication	Type of screw
Ⓐ~Ⓑ	Screw B4-58 (3P)

