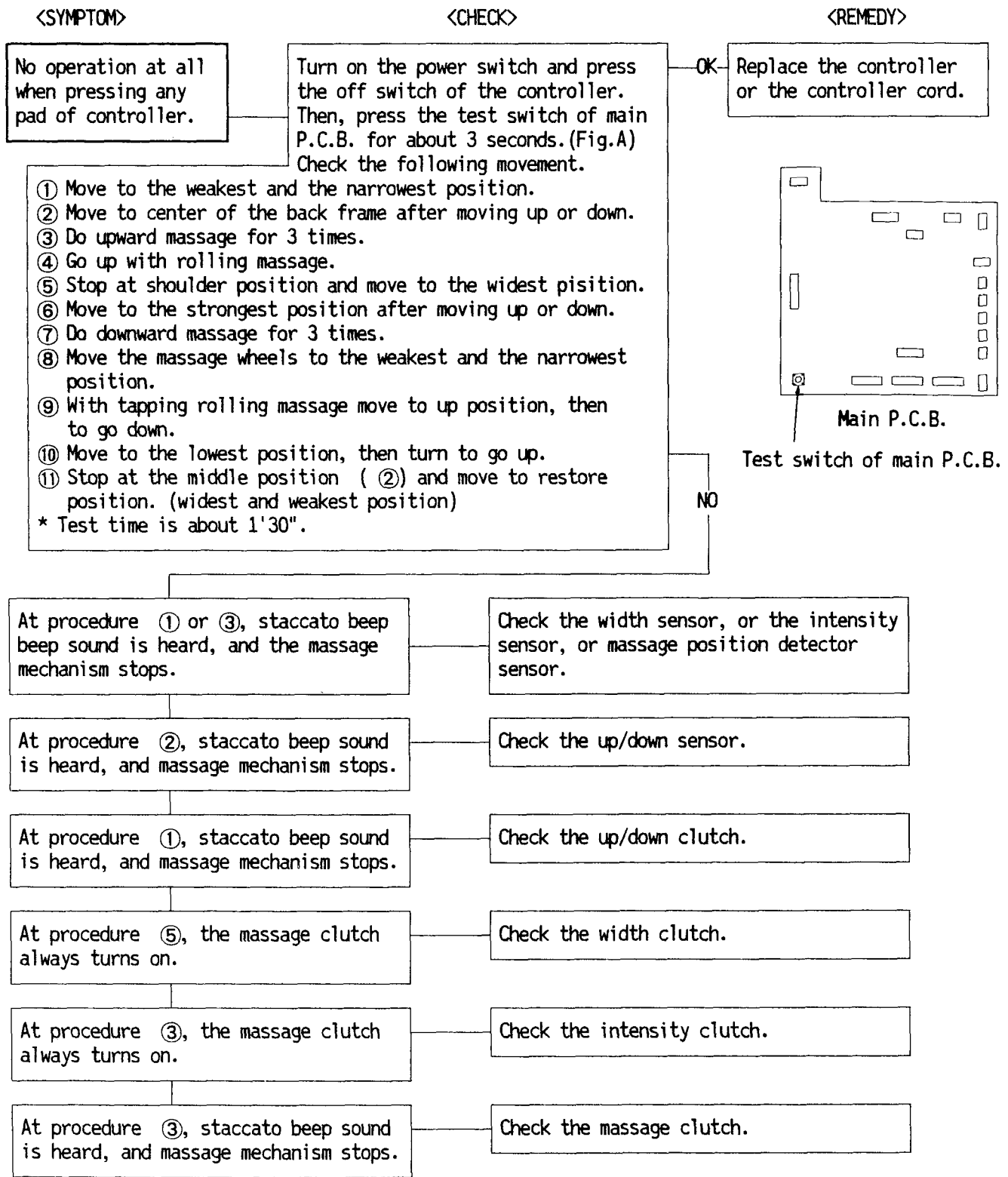


TROUBLESHOOTING GUIDE

With the massage mechanism mounted in the chair, the electrical parts should be checked for continuity between lead wires, resistance value, and other electrical conditions at the plug-in section of the circuit block in accordance with the procedure given below. In addition

to the items below, open circuits in the wiring, power switch contact defects, printed circuit board foil peeling, broken parts, solder separation, etc., should be checked. Specially, where there is interrupted solder connections can be the cause of the malfunction.



(To be continued)

<SYMPTOM>

<CHECK>

<REMEDY>

At procedure ⑨, the up/down clutch always turns on.

Check the tapping clutch.

No operation at all
(Motor does not move)

With the plug inserted into the AC outlet and the switch turned on, check the voltage between terminals 1 and 3 of the 5 pin red connector (CNB) in the main P.C.B. There should be about 120V.

NO - Check the power cord.

NO - Replace the power cord.

YES - Check the fuse.

NO - Replace the fuse.

YES - Check the transformer input voltage between 1 and 3 of the 3 pin yellow connector (CNE). There should be AC 120V.
Check the transformer output 1 voltage between 1 and 3 of the 3 pin blue connector (CNK). There should be AC 120V
Check the transformer output 2 voltage between 1 and 3 of the 3 pin green connector (CNL). There should be AC 24V.

NO - Replace the transformer.

YES - Check the voltage between terminals 1 and 5 of 5 pin or 1 and 3 of 3 pin red connector (CNA) in the main P.C.B. There should be about 120V.

NO - Replace the main P.C.B.

YES - Check the motor.

NO - Replace the motor.

Mechanism does not move to the upper position or dose not move to the lower position.

Adjust the up/down detector gear.

No operation at all.
(Motor moves or
buzzes)

Check the voltage between 1 and 2 of
the 2 pin black connector (CNF)
Check the voltage between 1 and 2 of
the 2 pin green connector (CNG)
Check the voltage between 1 and 2 of
the 2 pin yellow connector (CNH)
Check the voltage between 1 and 2 of
the 2 pin red connector (CNI)
Check the voltage between 1 and 2 of
the 2 pin white connector (CNG)
Each value should be DC 33V.

NO — Replace the main P.C.B.

YES — Check the resistance two black lead
wires of 2 pin black terminal.
There should be about 1.0 k Ω .

NO — Replace the tapping
clutch.

YES — Check the resistance two green lead
wires of 2 pin green terminal.
There should be about 1.0k Ω .

NO — Replace the intensity
clutch.

YES — Check the resistance two yellow lead
wires of 2 pin yellow terminal.
There should be about 1.0 k Ω .

NO — Replace the width
clutch.

YES — Check the resistance two white lead
wires of 2 pin white terminal.
There should be about 1.0 k Ω .

NO — Replace the massage
clutch.

YES — Check the resistance two red lead
wires of 2 pin red terminal.
There should be about 1.0 k Ω .

NO — Replace the up/down
clutch.

YES — Check the voltage between ground and 4 of 6 pin red con-
nector (CNN).
There should be about 5 V at the highest massage posi-
tion.
There should be about 0 V at the lowest massage position.
Check the voltage between ground and 5 of 6 pin red con-
nector (CNN).
There should be about 5 V at the highest massage posi-
tion.
There should be about 0 V at the lowest massage position.
Check the voltage between ground and 6 of 6 pin red con-
nector (CNN).

NO — Replace the up/down
detector P.C.B.

(To be continued)

<SYMPTOM>

<CHECK>

<REMEDY>

There should be about 0 V at the highest massage position.
There should be about 0 V at the lowest massage position.

YES

Check the voltage between ground and 4 of 6 pin black connector(CNP).
There should be about 5 V at the widest massage wheel position.
There should be about 5 V at the narrowest massage wheel position.
Check the voltage between ground and 5 of 6 pin black connector(CNP).
There should be about 5 V at the widest massage wheel position.
There should be about 0 V at the narrowest massage wheel position.
Check the voltage between ground and 6 of 6 pin black connector(CNP).
There should be about 0 V at the widest massage wheel position.
There should be about 0 V at the narrowest massage wheel position.

NO

Replace the width detector P.C.B.

YES

Check the voltage between ground and 4 of 6 pin white connector(CN0).
There should be about 5 V at the strongest massage position.
There should be about 0 V at the weakest massage position.
Check the voltage between ground and 5 of 6 pin white connector(CN0).
There should be about 5 V at the strongest massage position.
There should be about 0 V at the weakest massage position.
Check the voltage between ground and 6 of 6 pin white connector(CN0).
There should be about 0 V at the strongest massage position.
There should be about 0 V at the weakest massage position.

NO

Replace the intensity detector P.C.B.

YES

Check the voltage between ground and 4 of 5 pin white connector(CNQ).
There should be about 0 V at the widest massage wheel position.
There should be about 5 V at the narrowest massage wheel position.
Check the voltage between ground and 5 of 5 pin white connector(CNQ).
There should be about 5 V at the widest massage wheel position.
There should be about 0 V at the narrowest massage wheel position.

NO

Replace the massage position detector P.C.B.

<SYMPTOM>

<CHECK>

<REMEDY>

Foot massager does not operate.

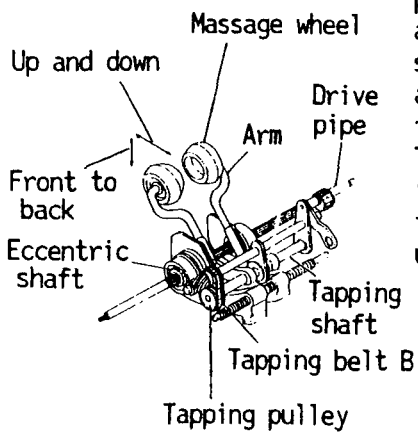
Check the output voltage between 1 of 3 yellow connector (CNE) and 3 of 3 yellow connector, Each value should be AC 120V.

NO - Replace the main P.C.B.

YES - Check if the power cord for foot massager breaks.

NO - Replace the power cord for foot massager.

YES - Replace the motor for foot massager.

| <SYMPTOM> | <PROBLEM> | <REMEDY> |
|---|---|--|
| When the unit is operating in the automatic mode (after back massage and back tapping massage have finished), all of the indicator lamps on the controller flash on and off during the upper massage and the massage wheels stop. | The massage wheel are designed to stop automatically when a force of 30 kg or more is applied to it. When this happens, all the indicator lamps on the the controller flash on and off. | Explain to the customer that he she should sit up to relieve pressure on the wheel just (5 seconds or loess) before the indicator lamps on the controller start to flash. |
| During the massaging operation or the rolling operation, the massage wheels seem to have become misaligned either front to back or up and down. | For the tapping operation, the massage wheels are moved alternately up and down by the tapping shaft, which moves eccentrically and symmetrically left and right. (Refer to the figure) For this reason, no matter which position the tapping shaft stops at, the two massage wheels will stop in positions which are not aligned with each the both front to back or up and down. This misalignment will be a maximum of approximately 9 mm front to back and approximately 11 mm up and down. | The extent of this misalignment is normally not a problem. However, in the event that there is an inquiry from a customer, explain that the misalignment is due to the construction of the massager as indicated at left, and that it is not a malfunction or defect of the product. |
|  | | |