ROTAI
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RT-A70PLUS Massage Chair Maintenance Instruction

Detailed parameters

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	Configuration	Parameters
Mechanism	Upper mechanism: 30# airbag mechanism	
	Lower mechanism: 11# mechanism	
Track	Flexible track	Upper track: 1100mm Lower track: 200mm
Legrest	Footrest lift actuator	Distance: 106mm
Back	Backrest actuator	Distance: 145mm
Airbag	46 full-body wrap-around airbags	Leg airbag: 20, Valve count: 3; Foot airbag: 12, Valve count: 4; Arm airbag: 8, Valve count: 4; Shoulder airbag: 6, Valve count: 2; Other areas mechanism: Valve count: 2.
Air pump	Main air pump	Working voltage: AC24V
	11# mechanism air pump	Working voltage: DC24V
Heating	Two large heating areas: Backrest, legrest	Backrest heating pad*2: Carbon fiber heating pad: Max surface temperature 52°C; Size: 120*370mm; Power: 26W; Legrest heating pad*4: Graphene heating pad: Max surface temperature 47°C; Size: 120*160mm; Power: 16W;
Upgraded	8-inch Touch LCD Panel	8 inches, wired, touch
	Armrest quick buttons	Rotary Switch functions: Long press to power on/off, knob to adjust massage intensity, single click to switch massage programs, default massage time 20 minutes. Independent button functions: Coffee mode, game mode, nap mode, zero-gravity mode, airbags, body part selection, heating switch, backrest up/down, auto program, all buttons are mechanical; Backrest up/down supports long press mode, single point trigger.
	ROTAI Smart App	Compatible with iOS 10.0+ and Android 5.0+; RONGTAI smart app scans to connect via Bluetooth; Supports massage chair upgrades; Supports app expansion.
Safety	1 Area Anti-pinch Sensor	Power box and rear cover
Phone Charging	USB charging	USB charging: 5V, 2A
Speaker	Wireless Bluetooth stereo sound	Bluetooth connection via mobile phone for music playback, heavy bass speakers, maximum power 8W per speaker.
Programs	Auto programs: User group: 3 sets, Pain relief: 3 sets, Classic: 3 sets, Featured: 3 sets,	User Group: Women’ s Massage, Men's Massage, Senior’ s Joy Pain relief: Neck & Shoulder, Back & Spine, Waist & Hip Classic: Thai Massage, Ancient Massage, Muscle Pushing Featured: Fascia Master, Loosen Up, Full Extension, Focus: Head massage, neck massage, shoulder massage, back massage, waist massage, hip massage, leg massage

Homescreen

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Auto Massage Programs

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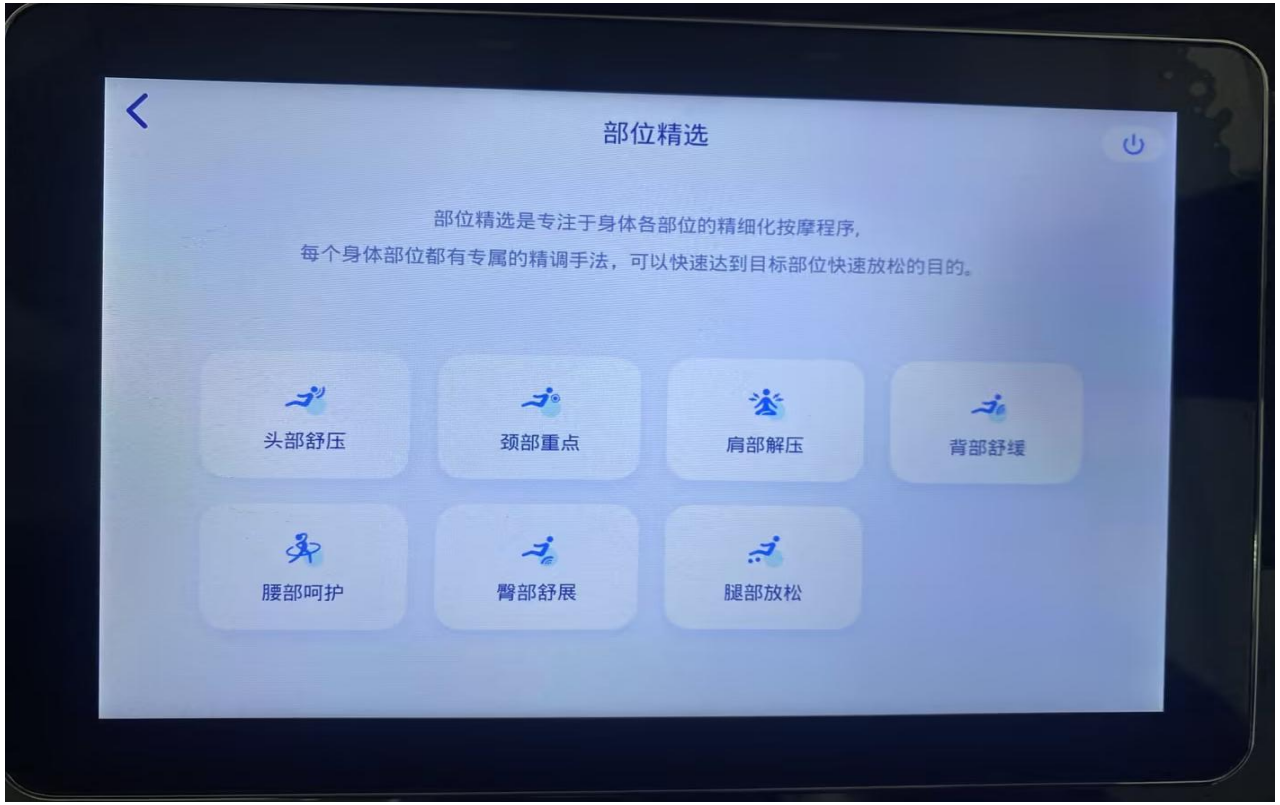

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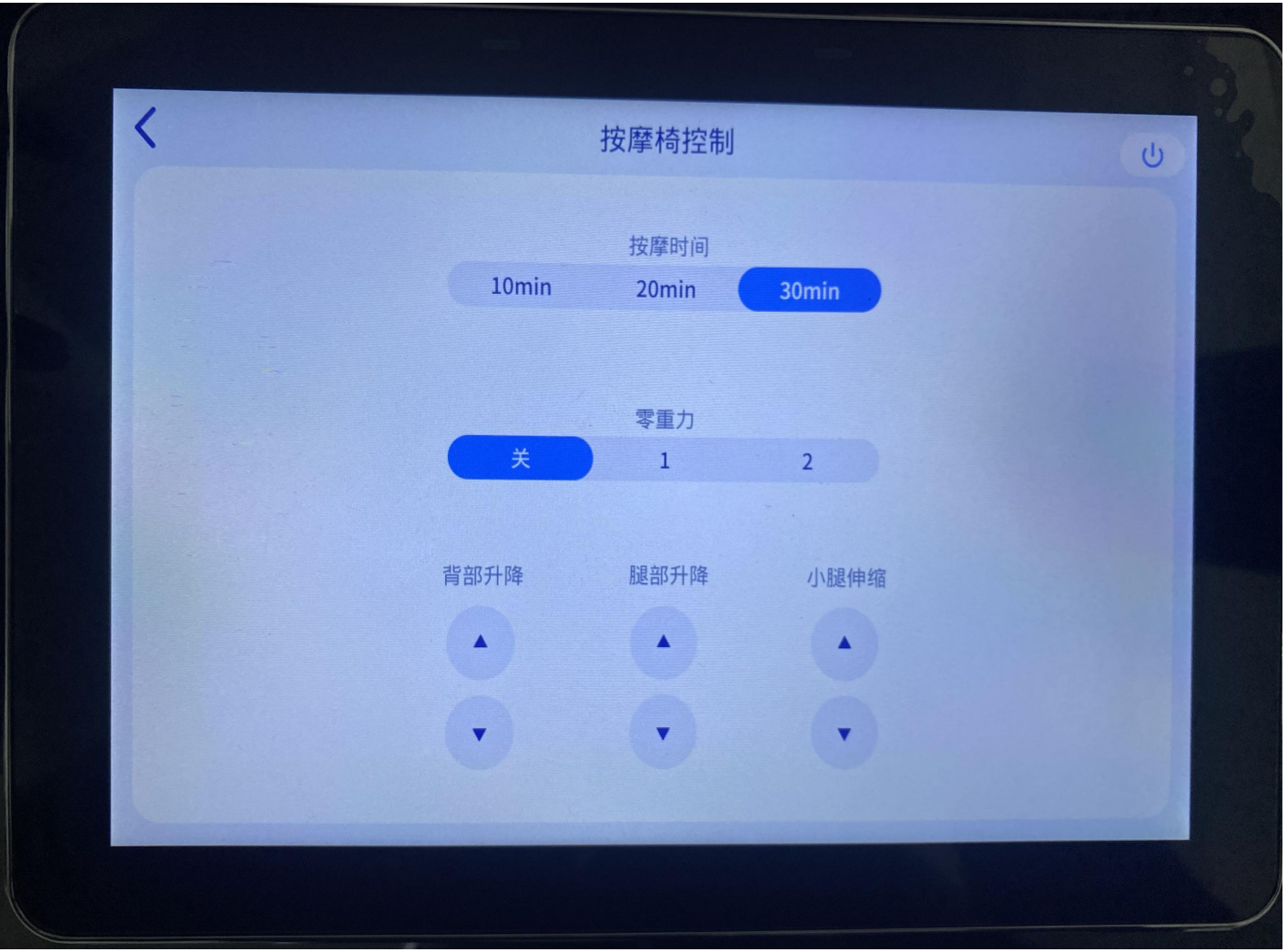
Massage Chair Control



Zero-gravity

- Adjustable zero-gravity: 1/2 positions

Massage Time

- Adjustable massage time: 10/20/30 minutes

Angle Adjustment

- Backrest actuator up/down
- Legrest actuator up/down
- Extend/Retract

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Manual Options

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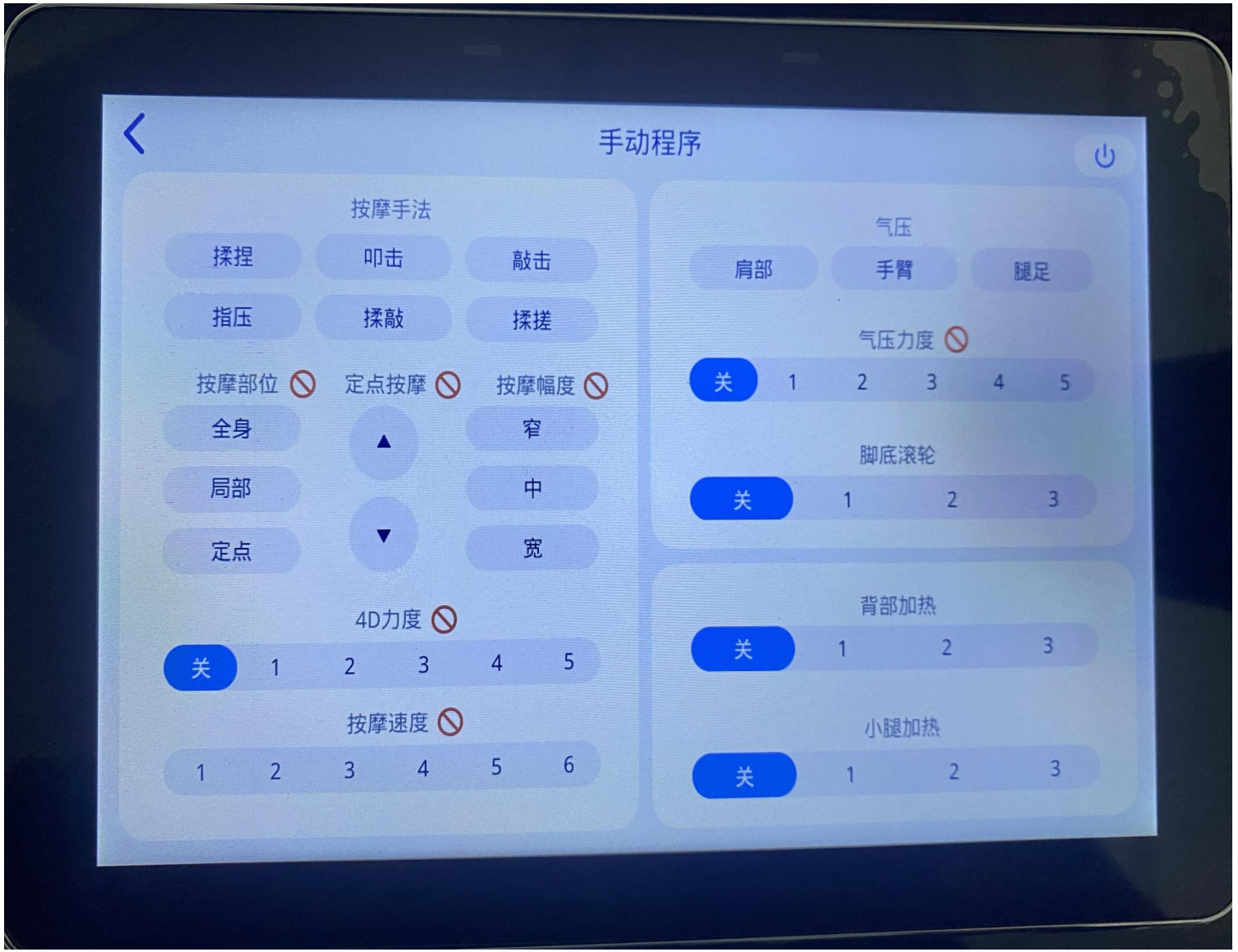

Techniques

- Kneading
- Knocking
- Shiatsu
- Sync
- Tapping
- Rubbing

Massage Part

- Whole
- Partial
- Point
- **Massage Width**
- **Wide**
- **Medium**
- **Narrow**

4D Intensity

- Power On/Off
- 1,2,3,4,5 3D strength
- Massage Speed
- 1,2,3,4,5,6 massage speed

Air pressure	• Adjustable air pressure areas • Adjustable air pressure intensity
Foot Rollers	• Adjustable foot roller speed: 3 levels
Back Heat	• Adjustable calf heating temperature: 3 levels
Leg heating	• Adjustable calf heating temperature: 3 levels
Foot heating	• Adjustable foot heating temperature: 3 levels

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How to enter engineering mode

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Fig. 1

Click to set as shown in fig. 1

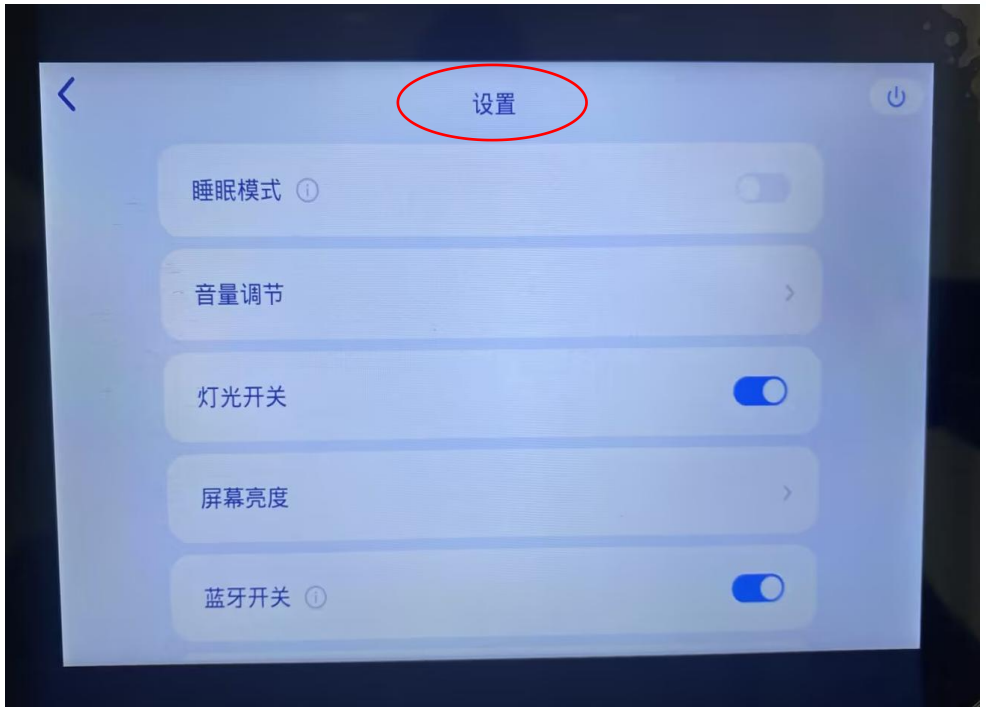

Fig. 2

Double-click top to set as shown in fig. 2

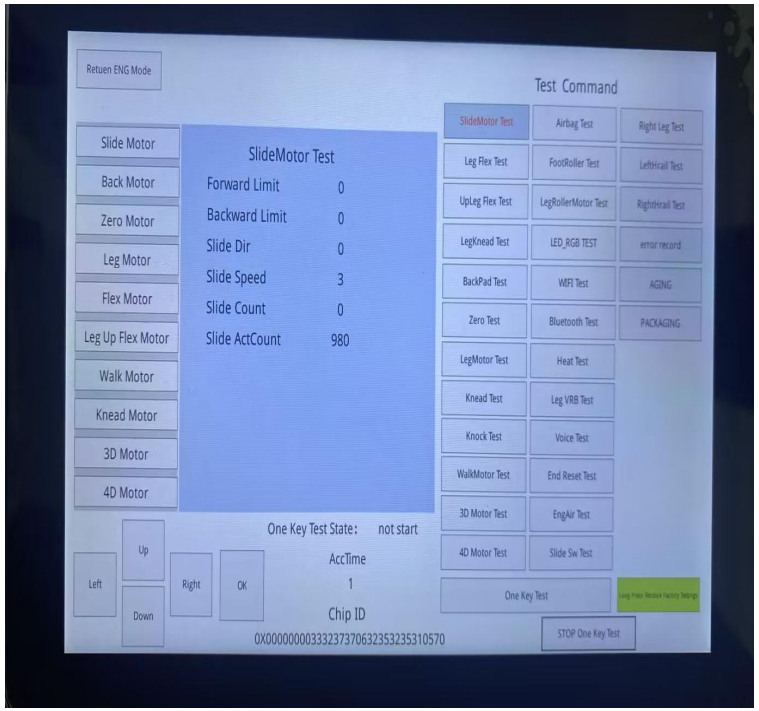

Fig. 3

Enter engineering mode as shown in fig. 3

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Legrest Installation

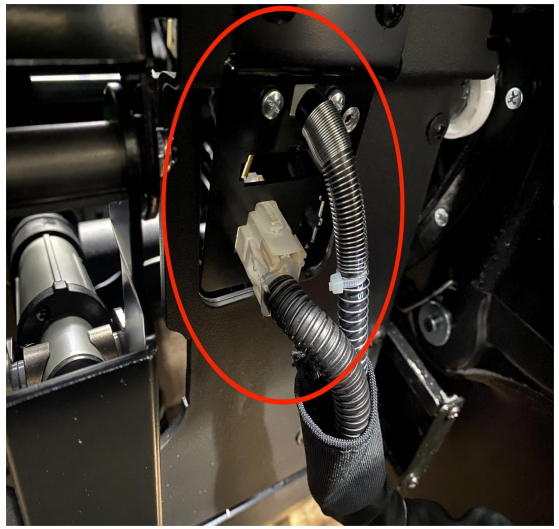

Fig. 1

Connect air tube and harness as Fig. 1

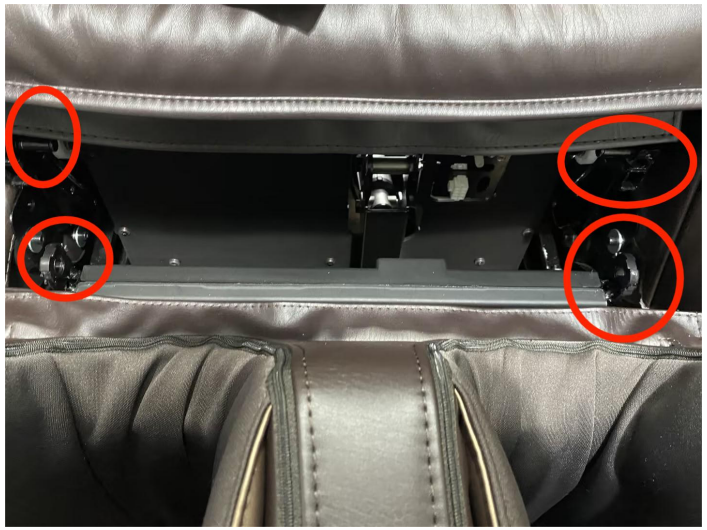

Fig. 2

Fit the hook in shaft of chair body as Fig. 2

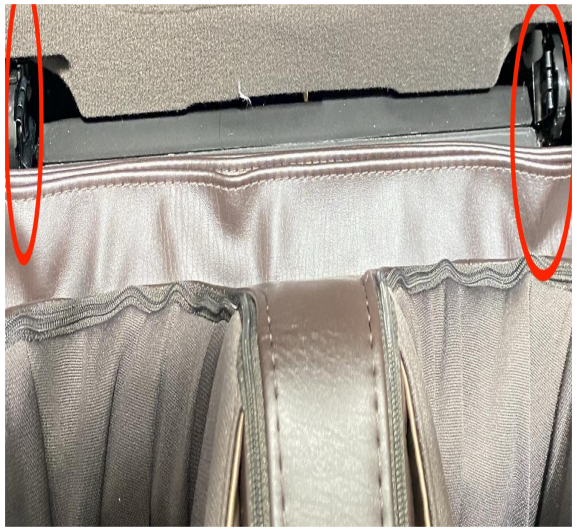

Fig. 3

Fix clips on both sides as Fig. 3

Fig. 4

Zip it up as Fig. 4

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Armrest Removal

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Fig. 1

Remove 4 marked screws as shown in fig. 1

Fig. 2

Remove 2 marked screws as shown in fig. 2

Fig. 3

Unzip marked shoulder zipper as shown in fig. 3

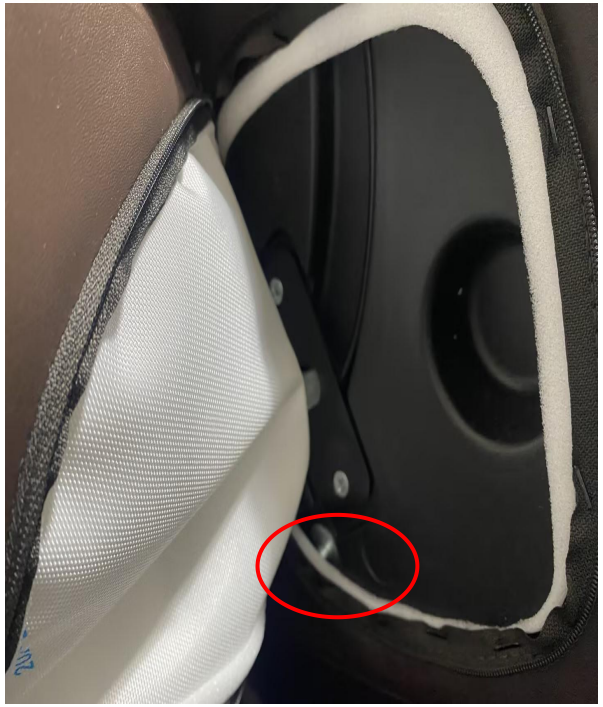

Fig. 4

Remove 1 marked screw as shown in fig. 4

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Armrest Removal

Fig. 1

Lower backrest to the bottom before removing 3 marked screws as shown in fig. 1

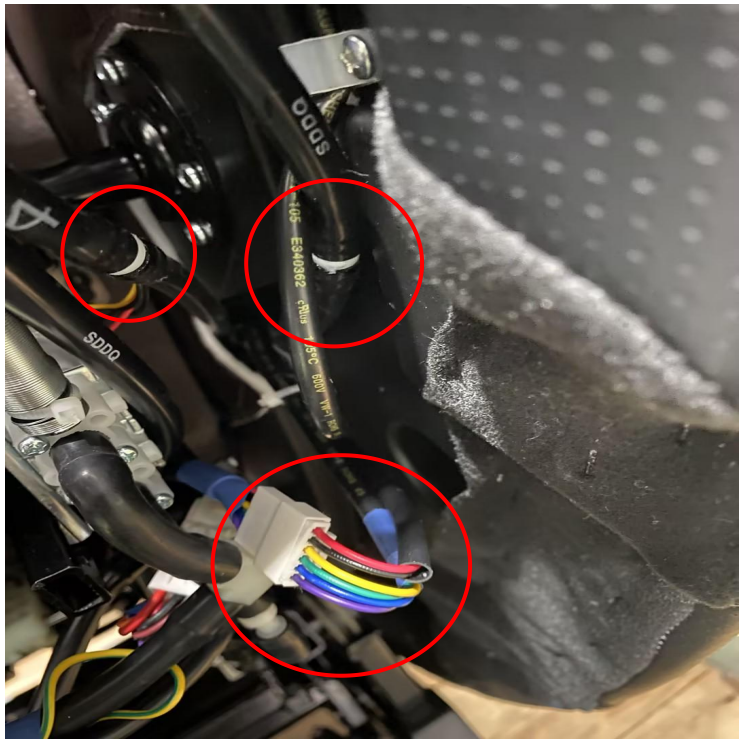


Fig. 2

Disconnect marked armrest connector and air hose as shown in fig. 2

Footrest Panel Removal

Fig. 1

Remove 1 marked screws as shown in fig. 1

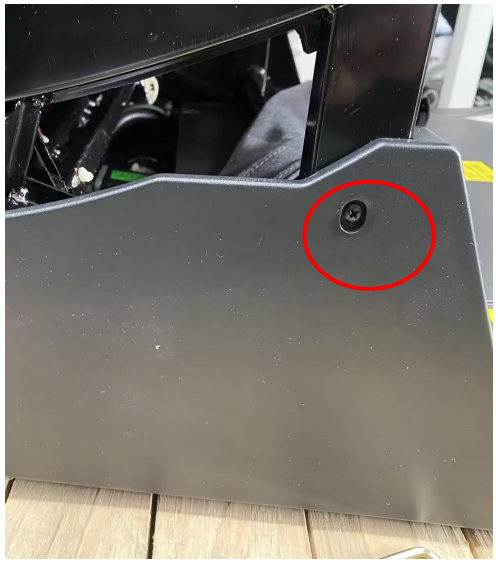


Fig. 2

Remove 1 marked screw as shown in fig. 2

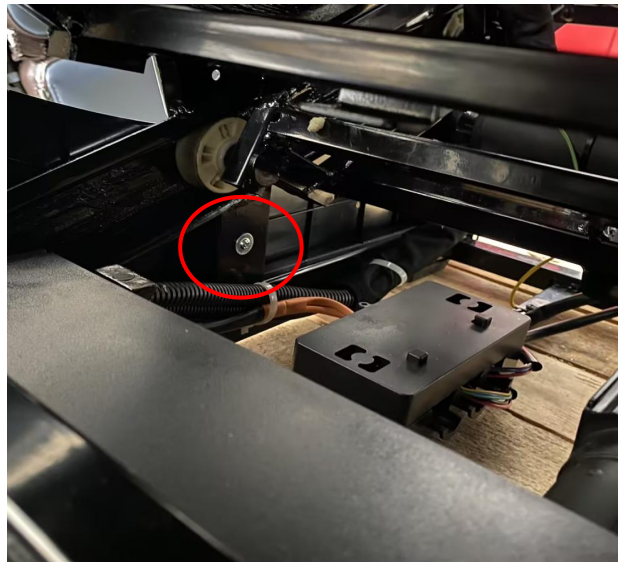


Fig. 3

Remove 1 marked screw as shown in fig. 3

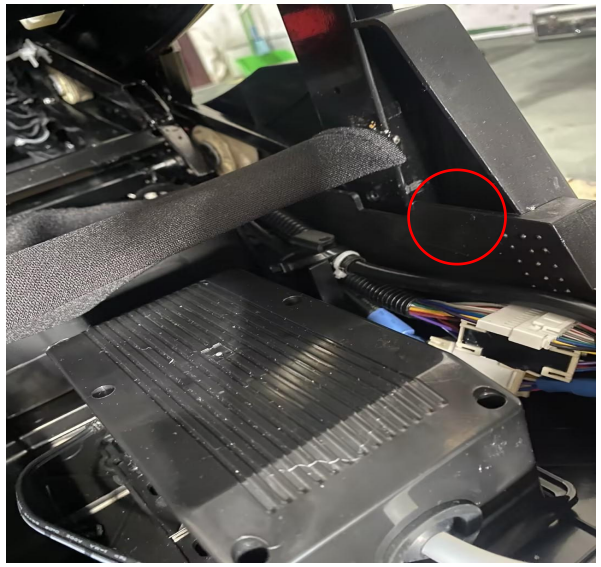


Fig. 4

Remove 1 marked screw as shown in fig. 4

Front Panel Removal

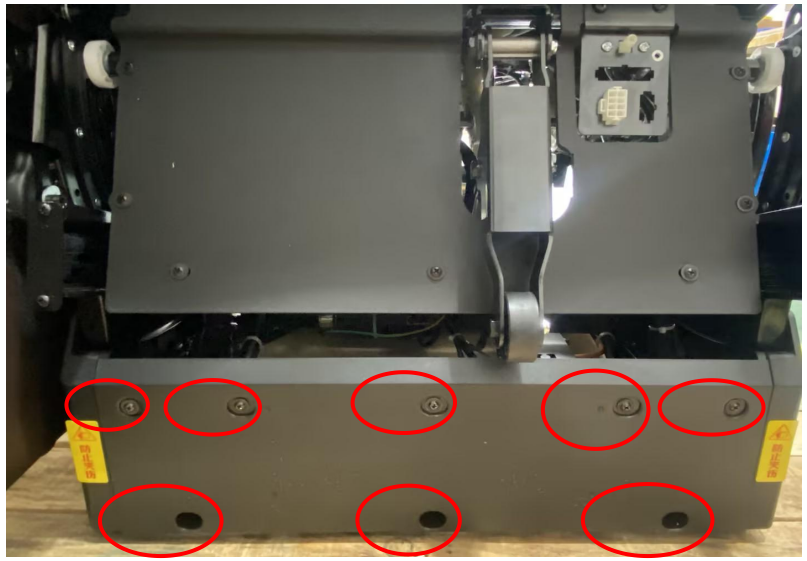


Fig. 1

Remove 8 marked screws as shown in fig. 1

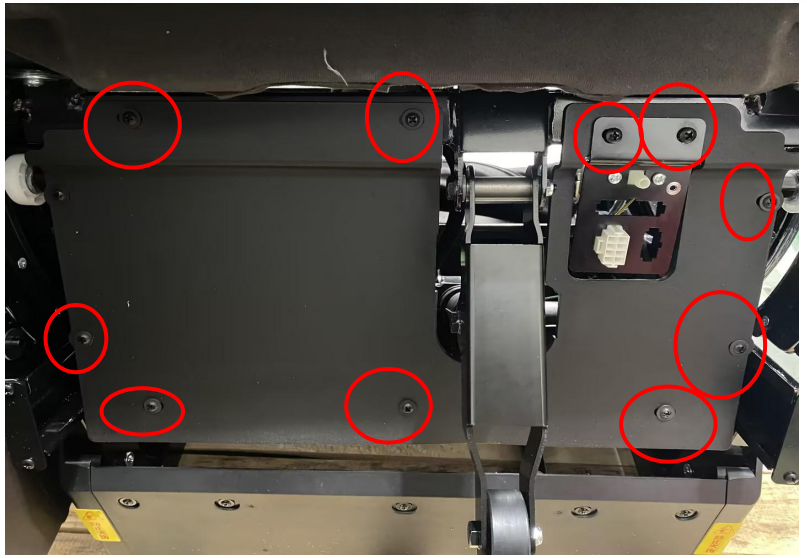


Fig. 2

Remove 10 marked screws as shown in fig. 2

Head Cover Removal

Fig. 1

Remove 1 marked screw from each side as shown in fig. 1

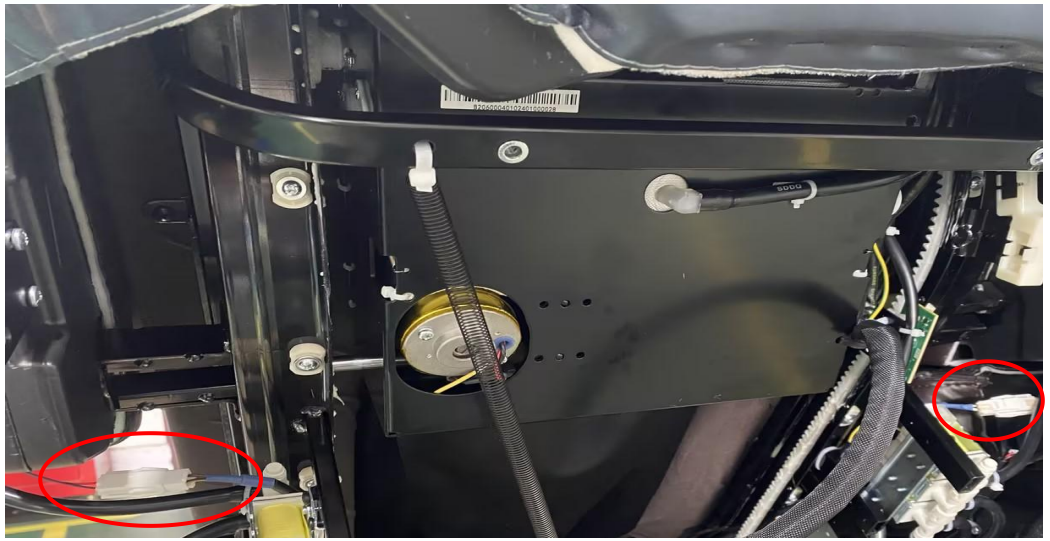


Fig. 2

Disconnect left and right speaker connectors as shown in fig. 2

Legrest Removal

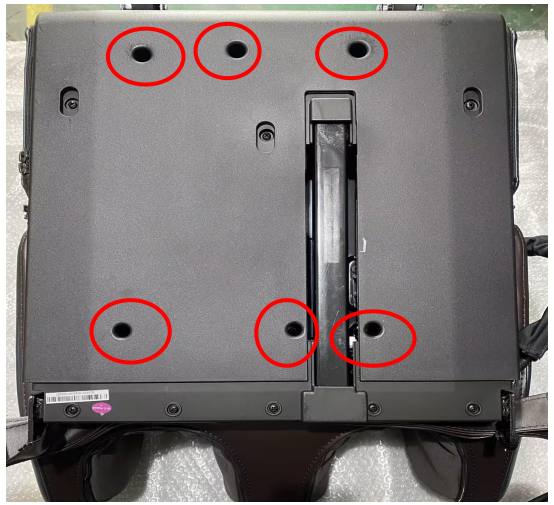


Fig. 1

Remove 6 marked screws as shown in fig. 1

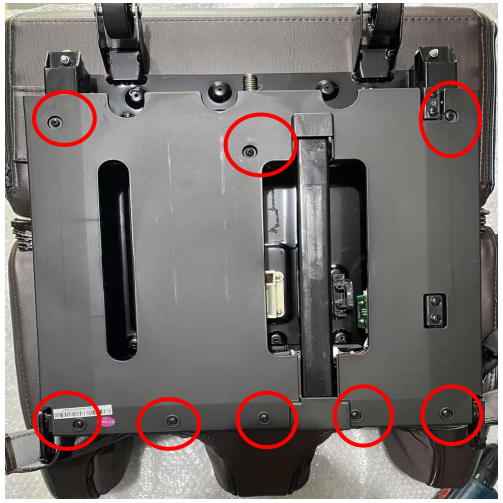


Fig. 2

Remove 8 marked screws as shown in fig. 2

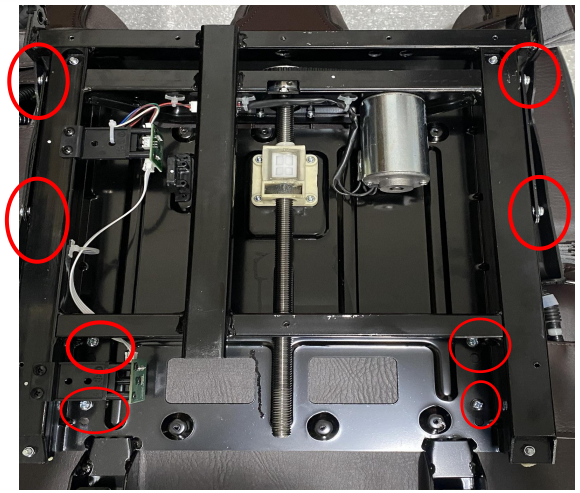


Fig. 3

Remove 8 marked screw as shown in fig. 3

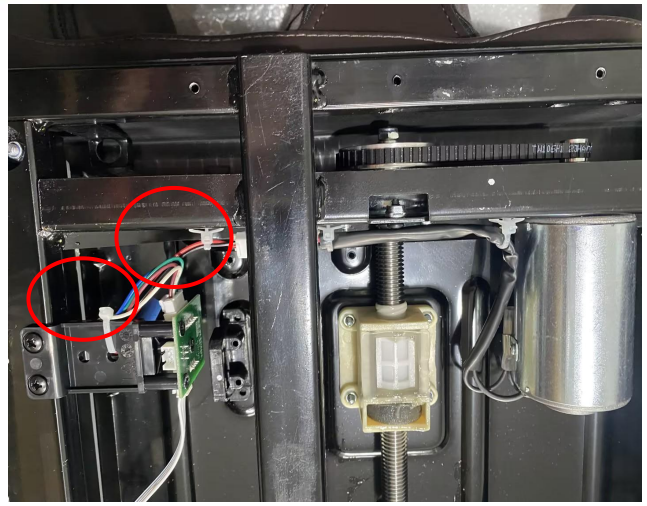


Fig. 4

Disconnect 2 marked connectors as shown in fig. 4

Legrest Removal

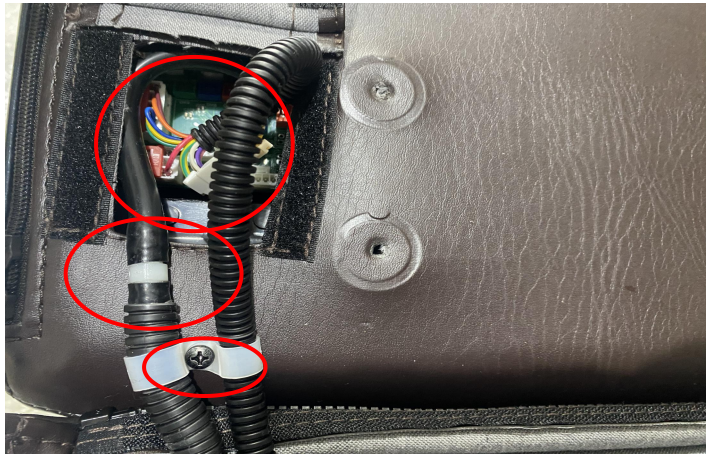


Fig. 1

Fig. 2

Fig. 3

Remove 1 marked screw and disconnect air hose and connector as shown in fig. 1

Unzip marked zipper as shown in figs. 2 and 3

Legrest Removal

Fig. 1

Fig. 2

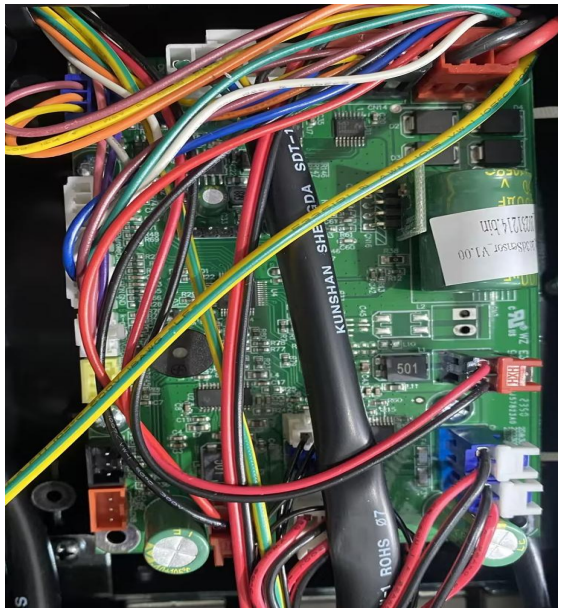


Fig. 3

Remove the marked leather cover as shown in fig. 1

Remove 2 marked screws to reveal the mainboard as shown in figs. 2 and 3

Legrest Removal

Fig. 1

Fig. 2

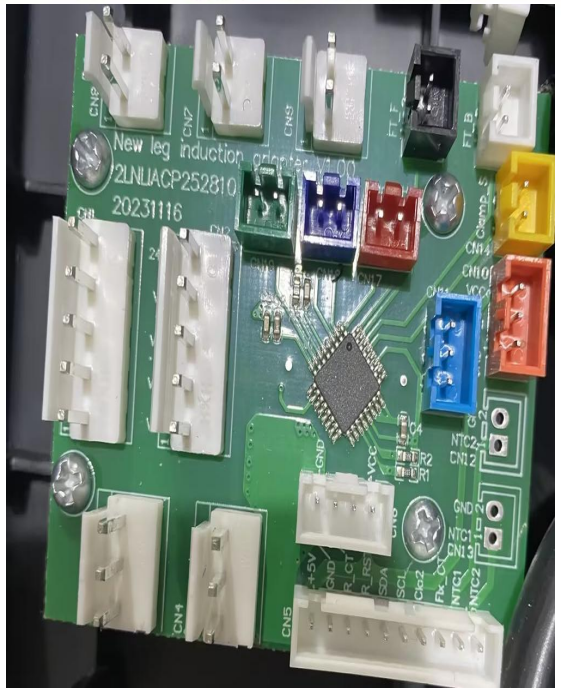


Fig. 3

Unzip marked zipper as shown in fig. 1

Remove 6 marked screws to reveal the transfer board as shown in figs. 2 and 3

Upper Mechanism Removal

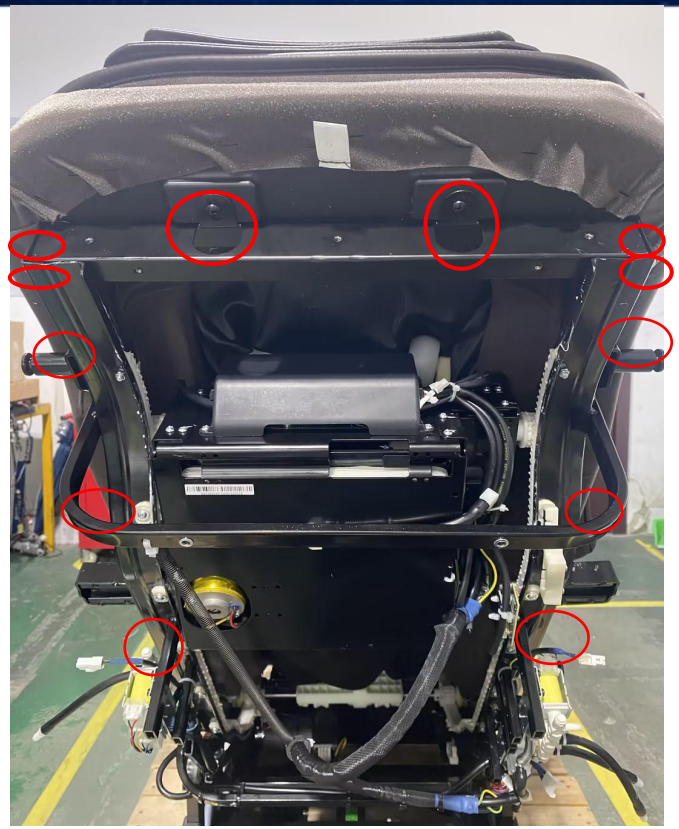


Fig. 1

Remove 12 marked screws as shown in fig. 1

Upper Mechanism Removal

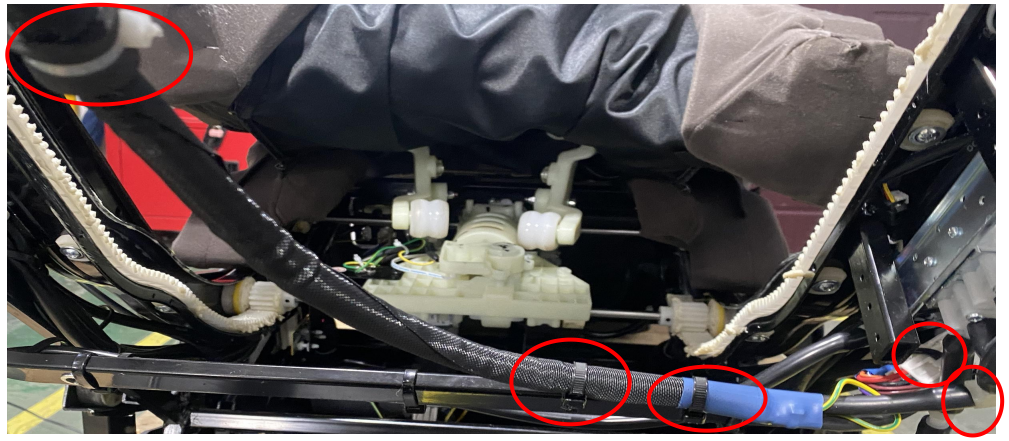


Fig. 1

Fig. 2

Cut off marked ties and unplug the air hose connector as shown in fig. 1

Use a 24V external power source to adjust the walking motor and remove the mechanism as shown in fig. 2

Lower Mechanism Removal

Fig. 1

Fig. 2

Fig. 3

Unzip marked zipper as shown in figs. 1, 2, and 3

Lower Mechanism Removal

Fig. 1

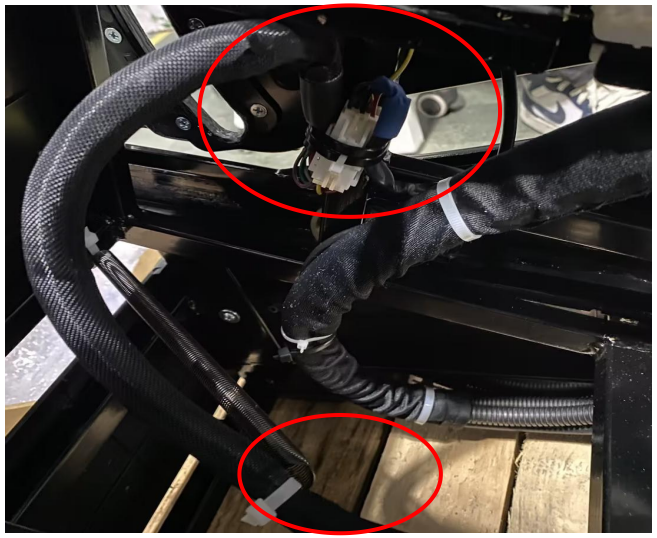


Fig. 2

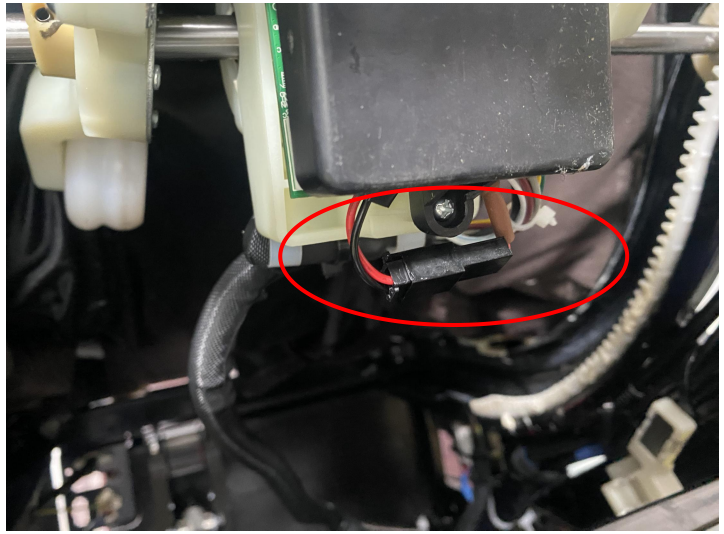


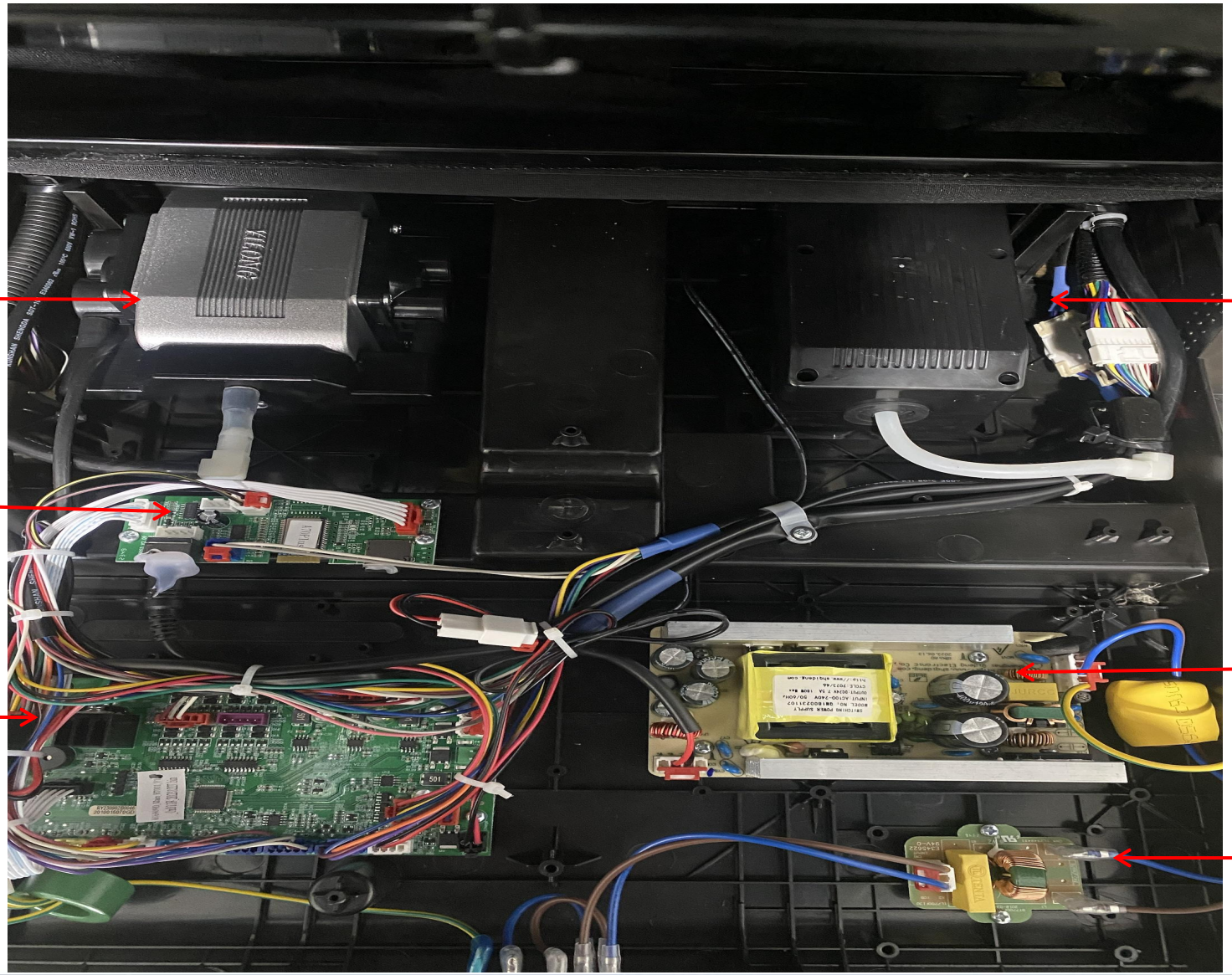
Fig. 3

Remove 1 marked screws as shown in fig. 1

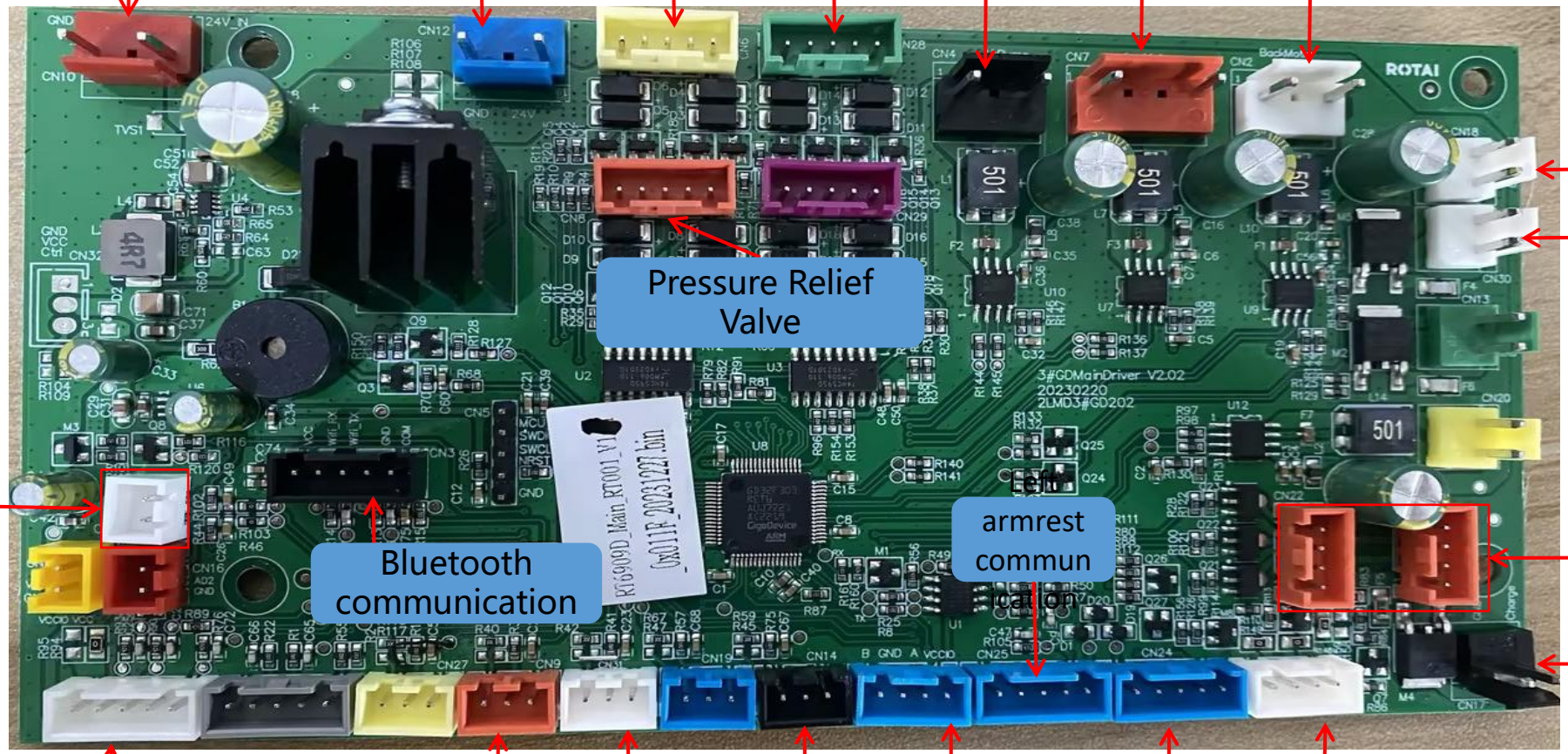
Cut off marked ties and unplug connector as shown in fig. 2

Unplug the walking motor connector and use an external 24V power source to remove the mechanism as shown in fig. 3

Power Box


AC24 Air Pump
User Interface Board
Mainboard
DC24V Mechanism air pump
Power Board
Filter Board

Mainboard Connector Distribution



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Upper Mechanism Mainboard Connector Diagram

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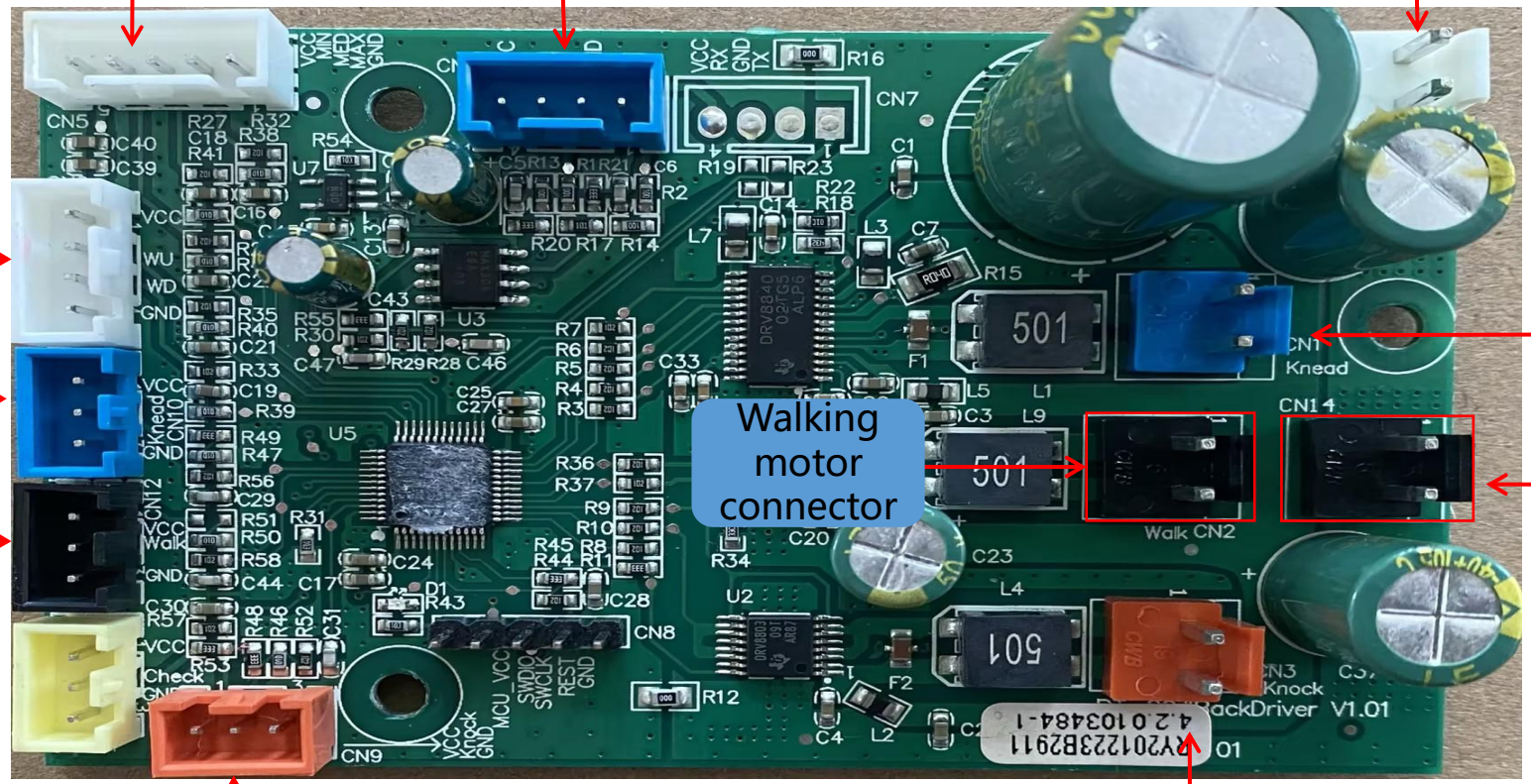

Width Connector

485 Communication connector

DC24V input connector

Distance Limit Connector

Kneading motor signal connector

Walk motor signal connector

Kneading Motor Connector

Walking motor commission connector

Walking motor connector

Knocking motor signal connector

Tapping motor connector

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Lower Mechanism Mainboard Connector

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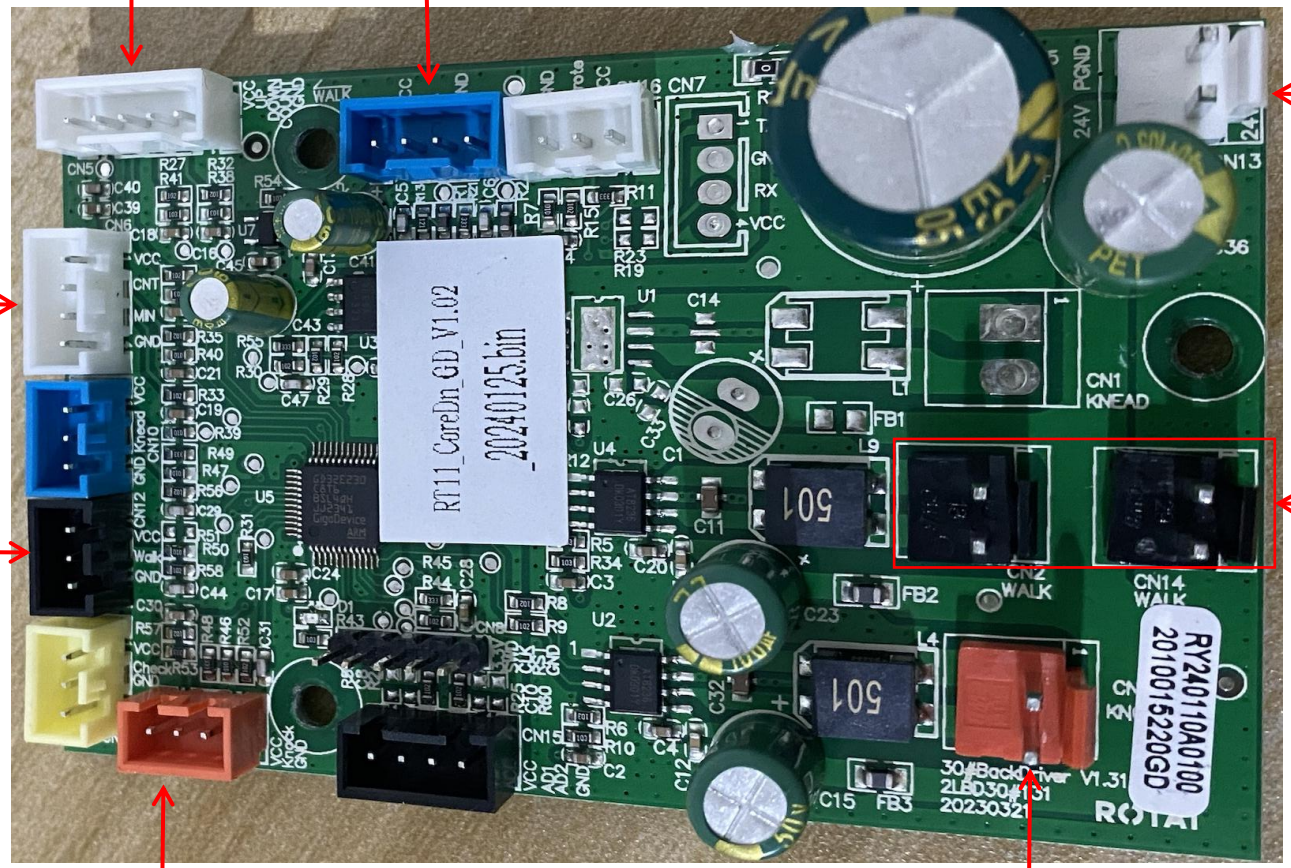

Width Connector

485 Communication connector

DC24V input connector

Distance Limit Connector

Walk motor signal connector

Walking motor connector

Knocking motor signal connector

Knocking motor connector

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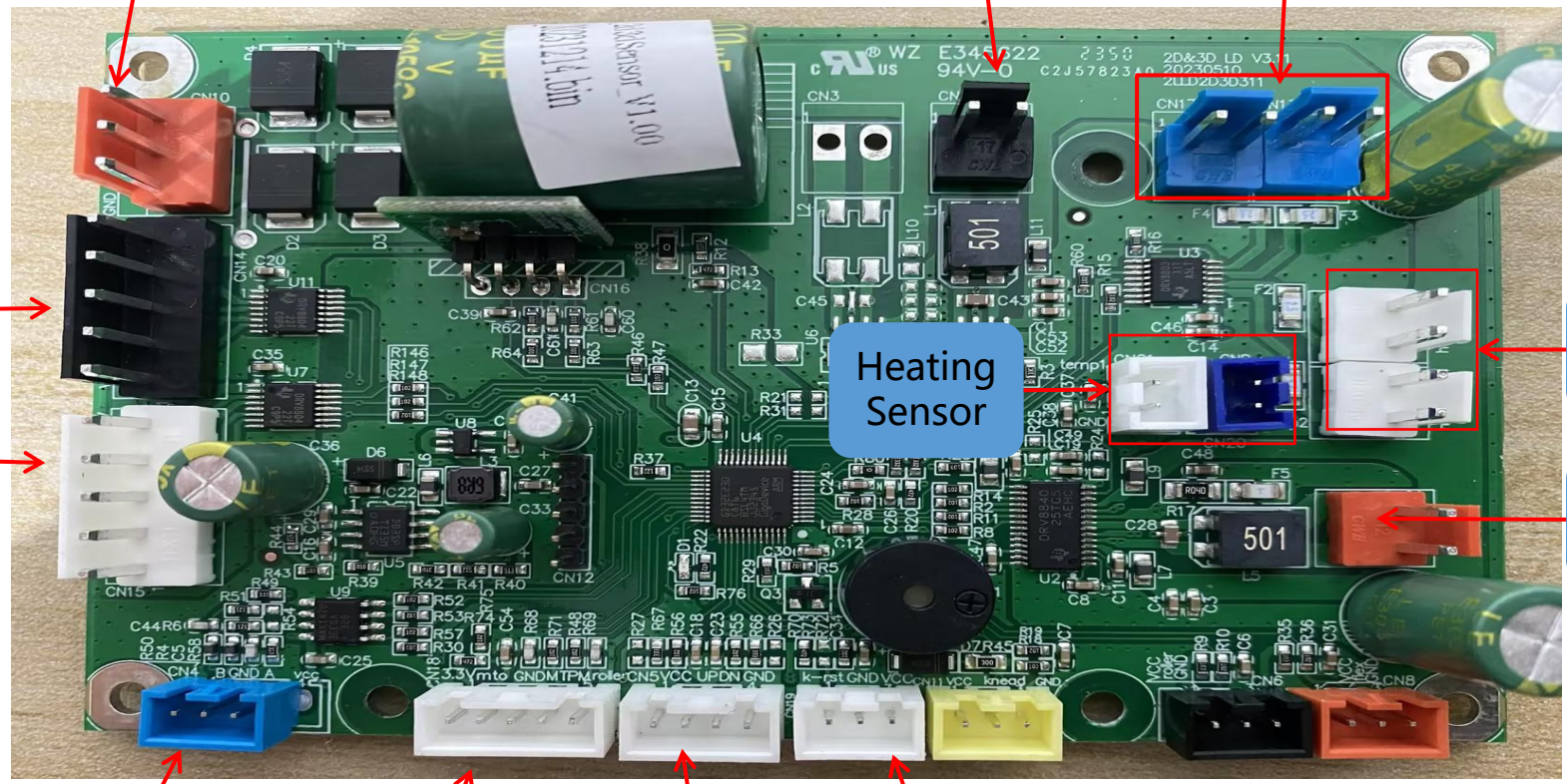
Upper legrest Mainboard Connector Diagram



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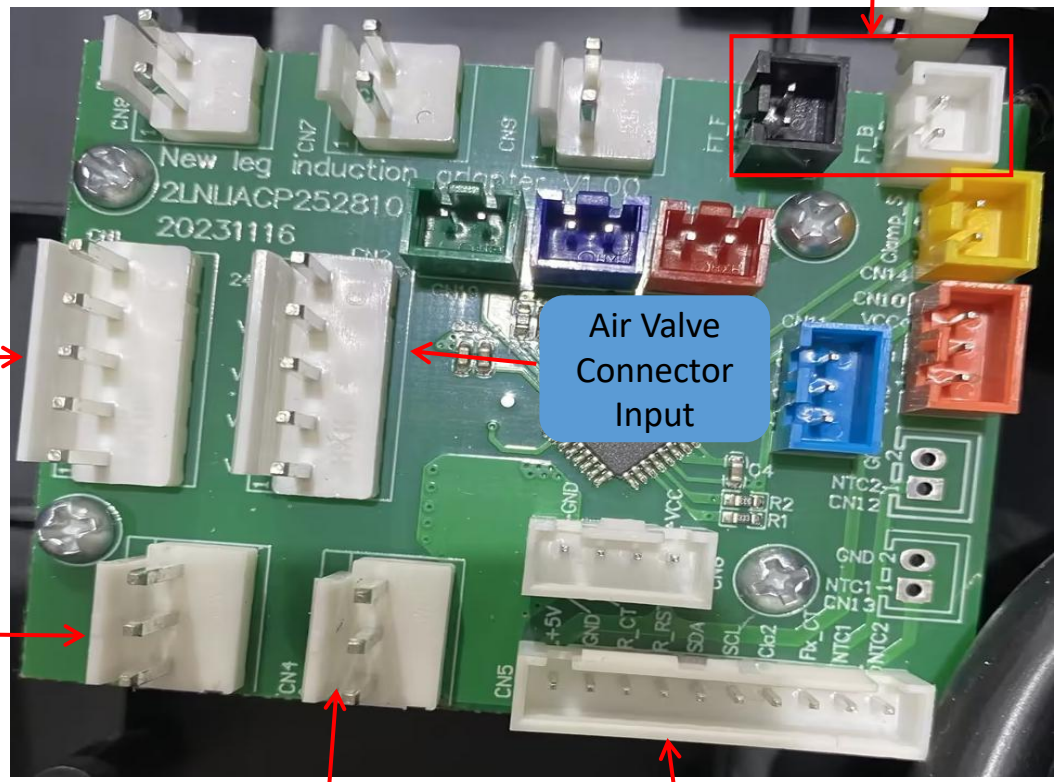
Lower Legrest Transfer Board



Lower legrest left and right rear foot sensors

Air Valve Connector Output

Air Valve Connector Input

Foot Roller Motor Connector Output

Foot Roller Motor Connector Output

Legrest Detection

Upper&Lower Mechanism Width Board, 3D Limit Board 3D Counter Board, Upper&Lower Mechanism Distance Limit Board

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Walking Counting Connector

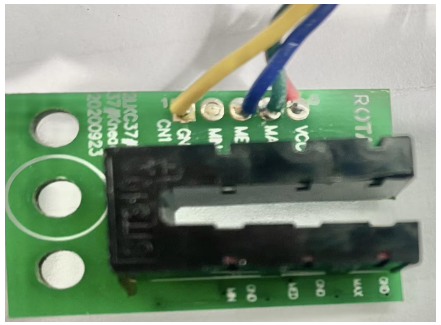
Lower Mechanism Walking Counting Board

Kneading counting connector

Lower Mechanism Kneading counting board

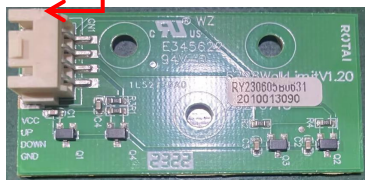
3D Limit Connector

3D Limit Board



Upper Mechanism Width Board or optocoupler counting board

Upper Mechanism Distance Limit Board Connector



Upper Mechanism Distance Limit Board

Lower Mechanism Distance Limit Board Connector

Lower Mechanism Distance Limit Board

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5V Power Board, User Connecting PCB Connector Diagram

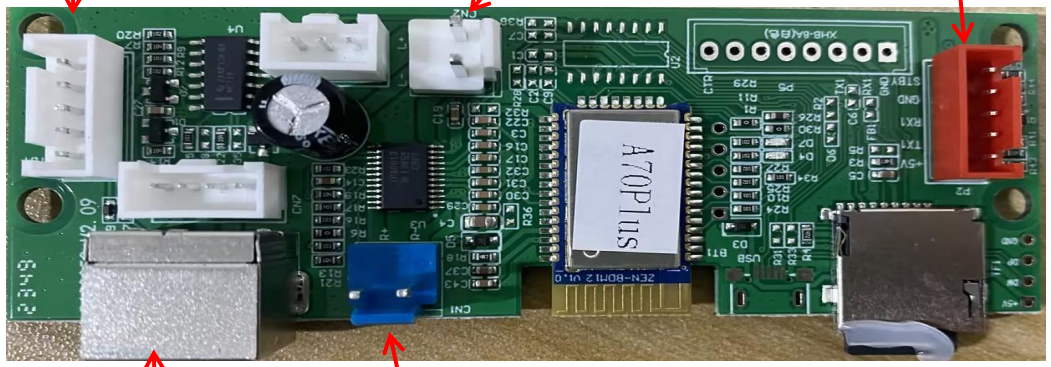
AC220V Input

DC24V Output

Mainboard Communication Connector

left speaker connector

APP Communication connector



Remote Plug-in Unit Case

Right speaker

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Upper Mechanism Diagram

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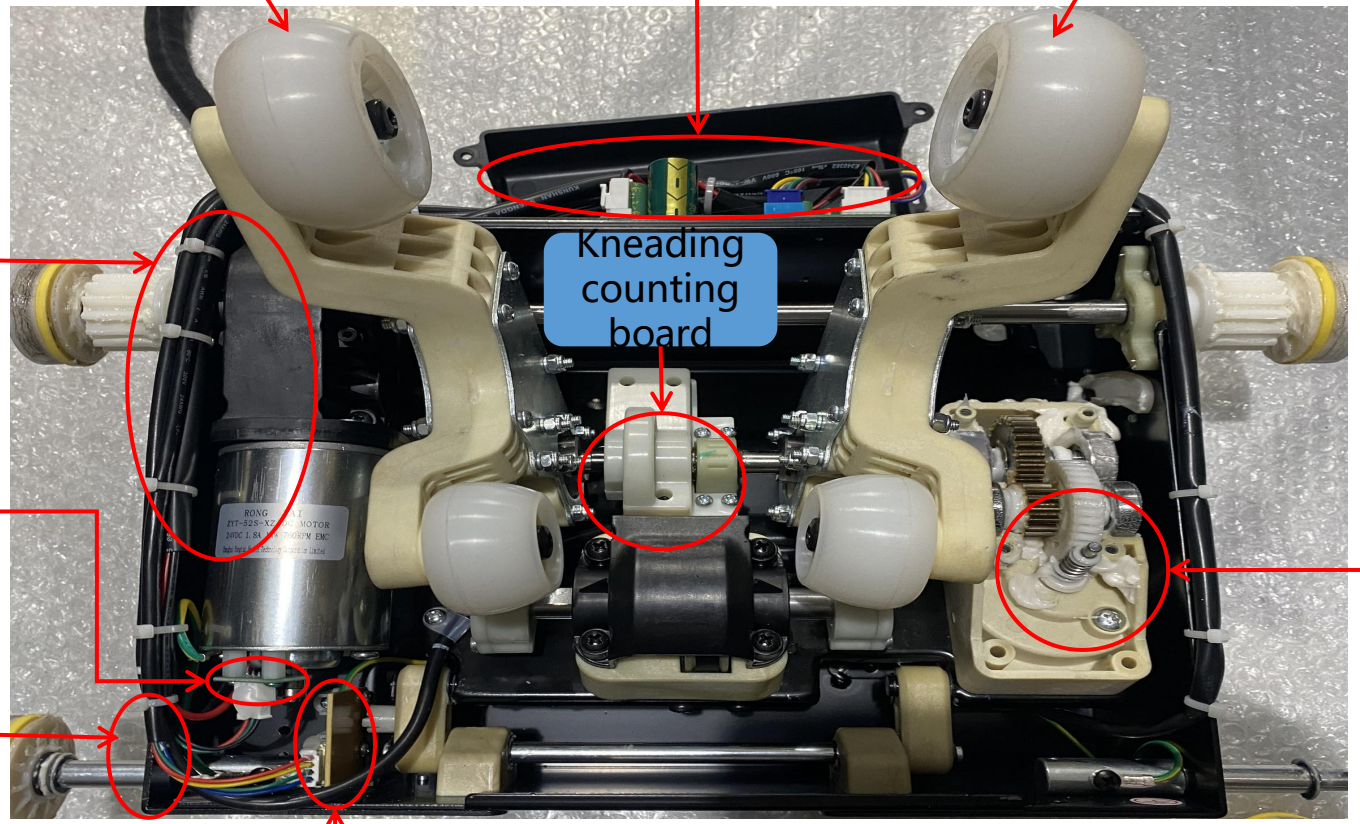

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Lower Mechanism Structure

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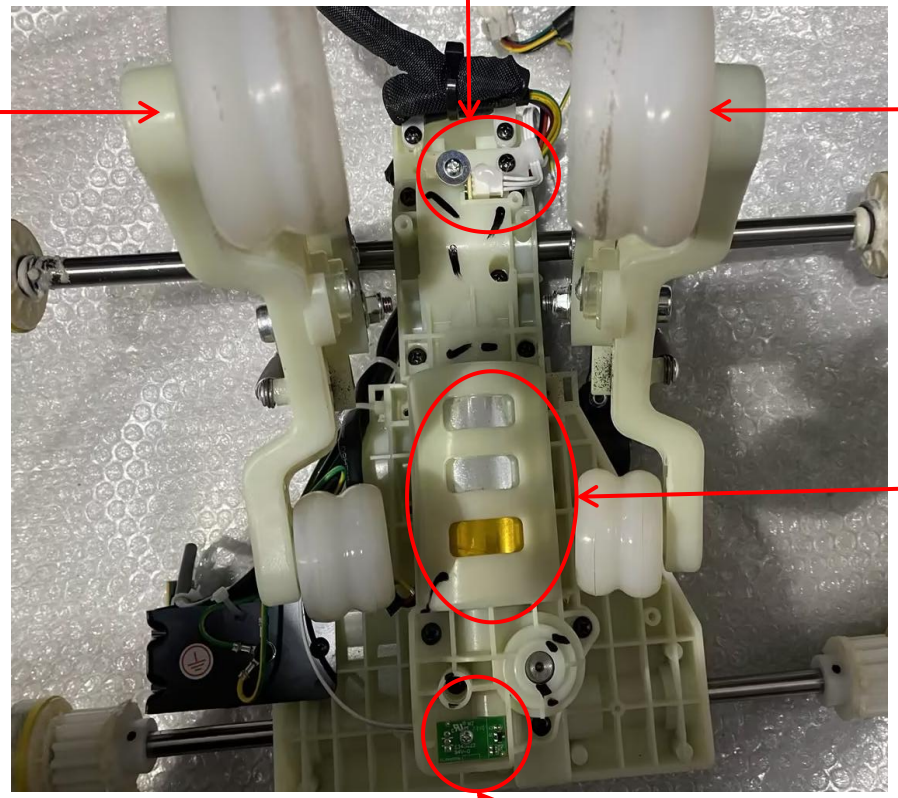
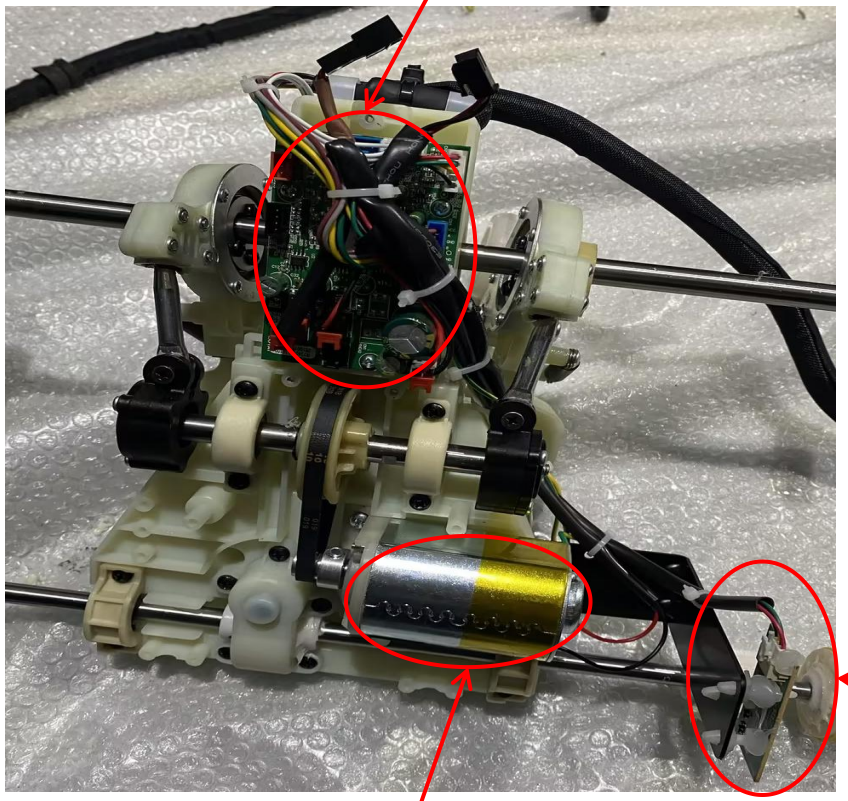




Troubleshooting

1. The touchscreen cannot control the massage chair
2. Burnt fuse
3. Kneading motor not working
4. Mechanism cannot detect width
5. Tapping motor not working
6. Walking motor not working
7. Mechanism airbag not working
8. Legrest actuator not working
9. Backrest actuator not working
10. legrest extension not working
11. Foot roller not working
12. Airbags not working
13. Button pad not working
14. Wireless charger not working
15. Massage chair error alert
16. Body scan no results

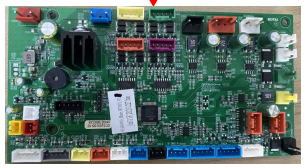
1. The touchscreen cannot control the massage chair

1. Try replacing the Touchscreen.

3. Use a multimeter to test if the mainboard has a DC 5V output. If there is no output, the mainboard is faulty and should be replaced.

Touchscreen → Bluetooth board → Mainboard → Mainboard communication cable

2. Use a multimeter to test if the user interface board has a DC 5V output. If there is no output, the user interface board is faulty and should be replaced.



4. Use a multimeter to check if the cable harness has poor contact or is broken. Replace the cable harness.

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2. Burnt fuse

1. Replace the fuse with the same type if the voltage fluctuations cause the fuse to blow out.

3. If the fuse is not blown, turn off the power and plug the connector back to power supply board, unplug the transformer 220V connector, turn on the power, if the fuse is blown, power board is short circuited and need to be replaced.

Burnt fuse

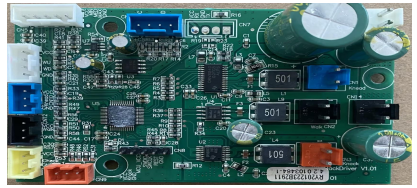
Filter board is short circuited

Power board is short circuited

2. If the fuse is blown again, unplug the red marker connector on the power supply board and power on, if fuse is blown again then replace a filter or filter board.

3. Kneading motor not working

1. Use controller to power on the chair, select MANUAL mode -SYNC Massage. Connect kneading motor to knocking motor connector port on the mechanism mainboard, and check if the kneading motor works. If not, replace the kneading motor.



3. Use a multimeter to check if the cable harness has poor contact or is broken. Replace the cable harness.

Kneading motor malfunctions

Mainboard malfunctions

Loose/broken connection cable

2. If it works, the mainboard is faulty. Replace the mechanism mainboard.

4. Mechanism cannot detect width

1. Enter engineering mode, activate kneading, and check for changes in width values. If none, replace the width board.

Width board

Kneading motor counter board

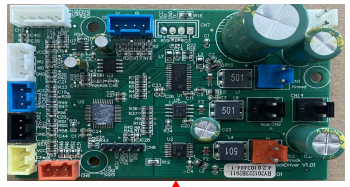
Loose/broken connection cable

2. In engineering mode, activate kneading, check if kneading counter is normal. If not, replace the kneading motor.

3. Use a multimeter to check if the cable harness has poor contact or is broken. Replace the cable harness.

5. Knocking motor not working

1. Use controller to power on the chair, select MANUAL mode -SYNC Massage. Connect knocking motor to kneading motor connector port on the mechanism mainboard, and check if the knocking motor works. If not, replace the knocking motor.



3. Use a multimeter to check if the cable harness has poor contact or is broken. Replace the cable harness.

Knocking motor malfunctions

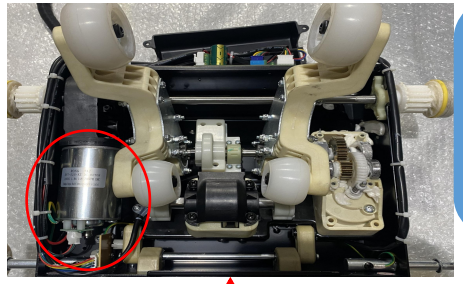
Mainboard malfunctions

Loose/broken connection cable

2. If it works, the mechanism mainboard is faulty. Replace the mechanism mainboard.

6. Walking motor not working

1. Switch on the controller and power on the chair, select MANUAL mode-SYNC massage, then choose POINT massage, press the "UP" or "DOWN" button to check if there is no fast beep sounds from the controller, the upper distance limit board may be faulty (replace it) or the distance signal wiring harness may be broken or have a poor connection.



3. Plug the motor back to its original position, exchange walking motor connector and kneading motor connector to check if the walking motor functions. If motor moves then replace the mainboard, if motor fails to move, the motor cable is loose or broken, replace with a new cable.

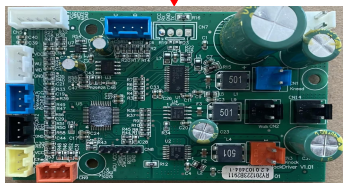
Distance limit sensor board is damaged

Walking motor malfunctions

Mainboard malfunctions

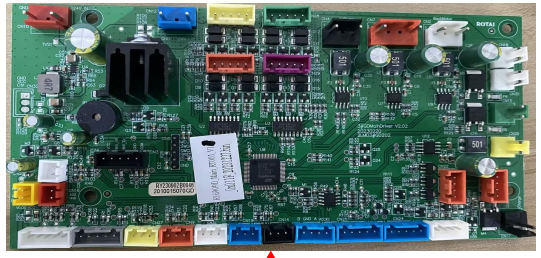
Loose/broken connection cable

2. If both have slow single beeping sound, the limit sensor signal is good, then unplug mechanism walking motor connector (black color) and plug it into tapping motor connector socket (red color) to check if walking motor works. If no, the motor is damaged and needs to be replaced.



4. Use a multimeter to check if the cable harness has poor contact or is broken. Replace the cable harness.

7. Mechanism airbag not working



Mechanism air pump malfunctions

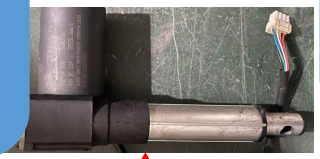
Mainboard malfunctions

1. Use a multimeter to measure the mainboard; if the mechanism's air pump connector has a DC 24V output, the mechanism's air pump is faulty and should be replaced.

2. Use a multimeter to measure the mainboard; if the mechanism's air pump connector has no DC 24V output, the mainboard is faulty and should be replaced.

8. Legrest actuator not working

1. Exchange test: Plug the legrest actuator connector into the beckrest actuator port, press the backrest up/down button, if the legrest can raise up or go down , the legrest actuator is good, then something went wrong with the mainboard or the actuator wire. Use a multimeter to test the wire, if it is good, then the mainboard is faulty and need to be replaced.

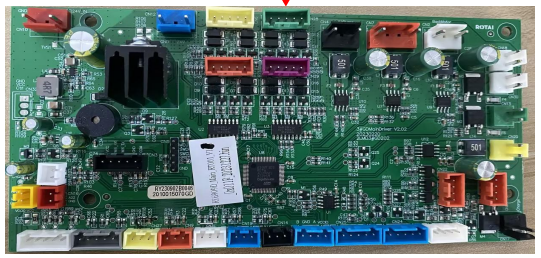


3. Use a multimeter to check if the cable harness has poor contact or is broken. Replace the cable harness.

Mainboard malfunctions

Actuator malfunctions

Loose/broken connection cable



2. If the actuator fails to function after above exchange of connectors, the actuator is faulty and need to be replaced.

9. Backrest actuator not working

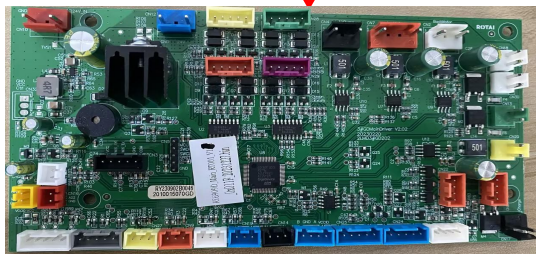
1. Exchange test: Plug the backrest actuator connector into the legrest actuator port, press the legrest up/down button, if the backrest can raise or recline, the backrest actuator is good, then something went wrong with the mainboard or the actuator wire. Use a multimeter to test the wire, if it is good, then the mainboard is faulty and need to be replaced.

3. Use a multimeter to check if the cable harness has poor contact or is broken. Replace the cable harness.

Mainboard malfunctions

Actuator malfunctions

Loose/broken connection cable



2. If the actuator fails to function after above exchange of connectors, the actuator is faulty and need to be replaced.

10. Legrest extension motor not working

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2.Switch on the leg extension function, use the multimeter to test legrest mainboard for DC24V voltage output, if there is no voltage output, replace the mainboard.

4. Use a multimeter to check if the cable harness has poor contact or is broken. Replace the cable harness.

Lower legrest extension limit sensor board malfunctions

Upper legrest mainboard malfunctions

Extension motor malfunctions

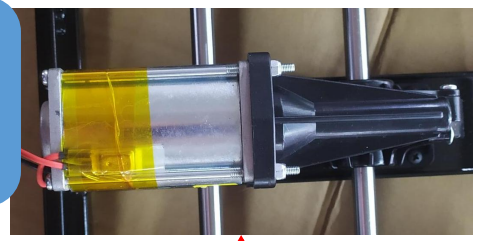
Loose/broken connection cable

1. Adjust the lower legrest extension using the hand controller, listen to the sound. If the legrest stops in the reset position and there is a fast sound, it indicates an issue with limit sensor, and needs to replace the limit sensor board or checking if the limit detection board connection wire is open. If there is a slow sound, it suggests a motor or legrest mainboard issue with no motor working voltage output.

3. If there is, then replace the extension motor.

11. Foot roller motor does not work

1.Switch on the foot roller function, use the multimeter to test the connector plug of legrest mainboard for DC24V voltage output, if no, replace the legrest mainboard.

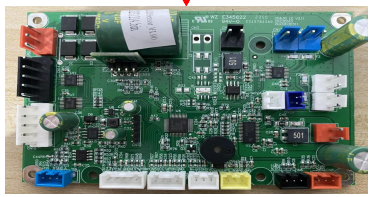


3. Use a multimeter to check if the cable harness has poor contact or is broken. Replace the cable harness.

Mainboard malfunctions

Roller motor malfunctions

Loose/broken connection cable



2. If yes, replace the roller motor.

12. Airbags not working

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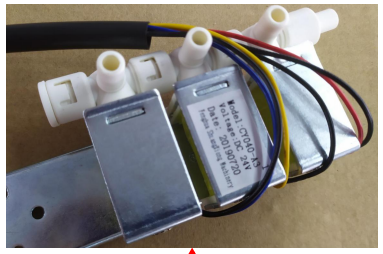
1. If part of the airbags fail to inflate, check the air hoses in that area to see if they are folded or fell off.



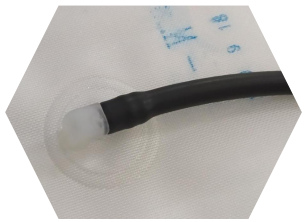
3. If the air pump vibrates, check if the mainboard air valve has AC24V output. Replace the mainboard if not.

Air hose

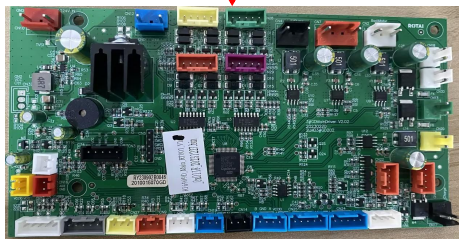
Air valve

Mainboard

Air pump

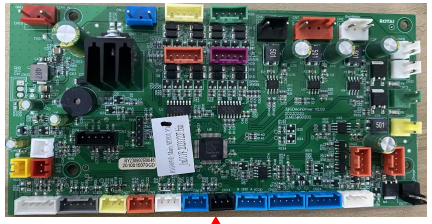


2. If air hose and airbags are good, use a multimeter to test air valve connector, if the black probe and yellow probe read between 160-170, air valve is good, otherwise the air valve is damaged.



4. If all airbags fail to work, check if the air pump is functioning. If the air pump is not working, check if the mainboard has an output of AC24V. If there is an output, replace the air pump; if not, replace the mainboard.

13. Button pad not working



If the mainboard voltage is 5V or the signal is normal, replace the button pad.

mainboard

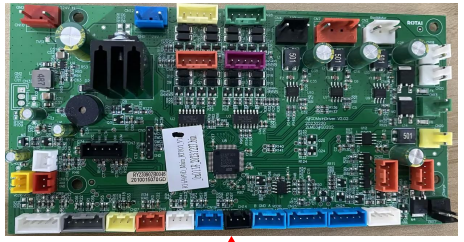
Button pad

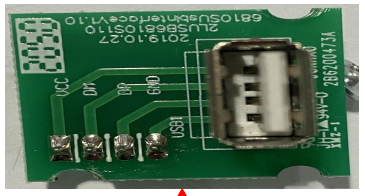
Loose/broken connection cable

Check if the mainboard has a 5V voltage or signal output. If there is no voltage signal output, replace the mainboard.

Check if the connectors of the button board are loose, if the pins are out, or if the cable is broken. Replace the cable.

14.USB charger not working





Check if the connectors in the wiring are loose, if the pins are out, or if the cable is broken. Replace the cable.

Mainboard

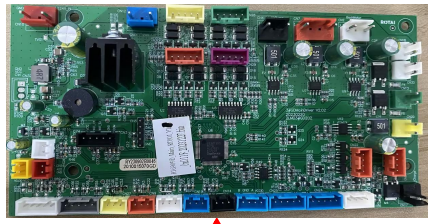
USB Charging Board

Loose/broken connection cable

Check if the mainboard has a DC 24V voltage output. If there is no voltage output, replace the mainboard.

Check if the charging board has a DC 24V input. If there is voltage input, replace the charging board.

15. Massage chair error alert



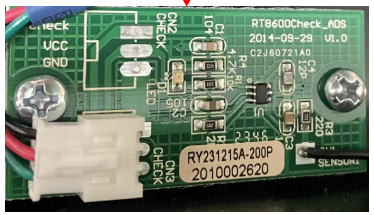
If there is a 5V voltage input, replace the Sensor board.

Mainboard

Sensor Board

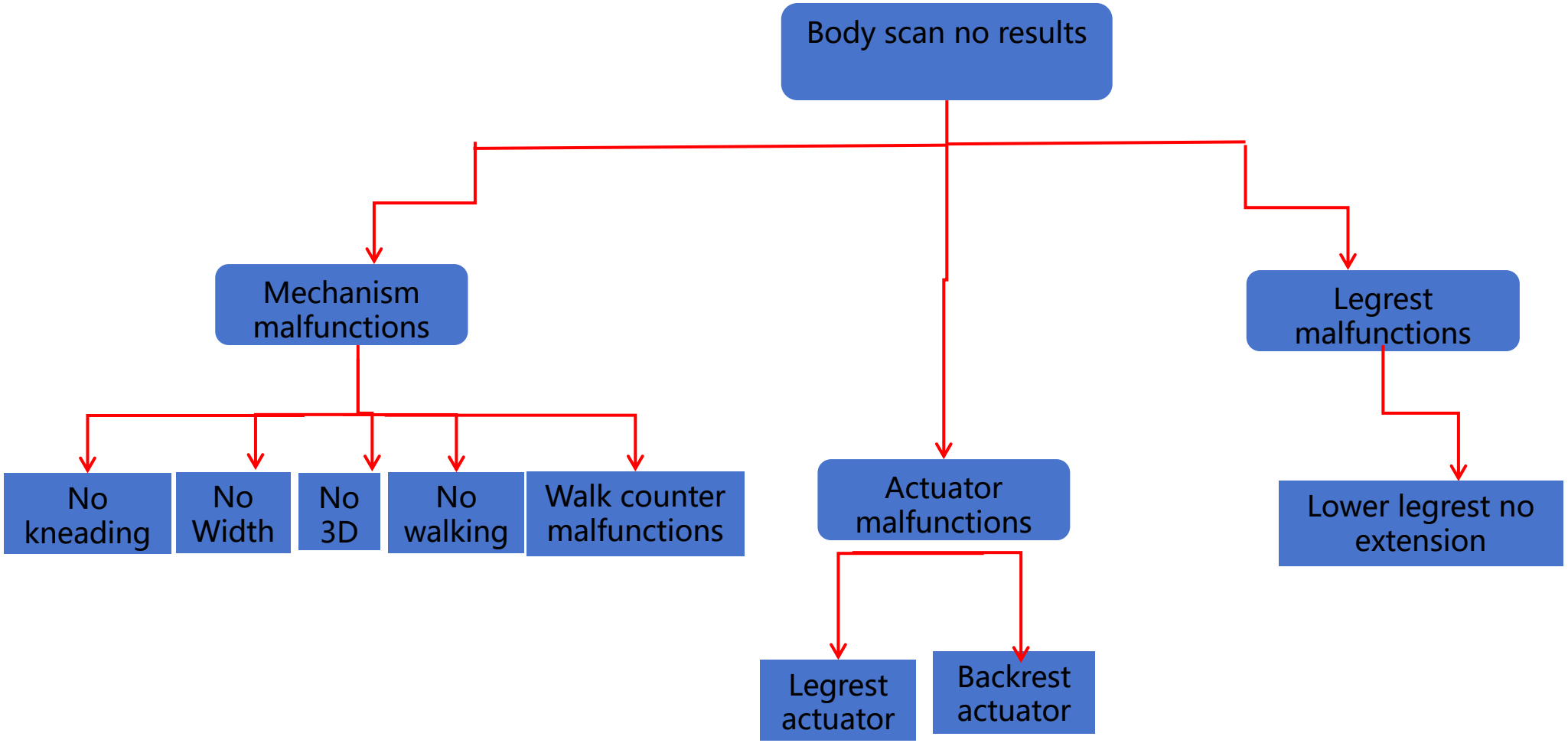
Loose/broken connection cable

Check if the mainboard has a DC 5V voltage output. If there is no voltage output, replace the mainboard.



Check if the connecting wires are broken or if the connectors have poor contact. Replace the cable.

16. Body scan no results



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