



浙江豪中豪健康产品有限公司

A3580A Massage Chair After-sales Service Manual

售后服务中心

25 年 5 月

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3. Internal Structure of the Product
4. Component Disassembly and Assembly Diagrams
5. Fault Diagnosis Approach



Operation and Parameter Introduction

- 1、Main functions
- 2、Product size
- 3、Parameters



1.1 Main Functions of the Product



1.2 Size



1.3 Product Parameter Introduction



- Rated Voltage: 110-220V (AC)
- Output Voltage: DV24V
- Rated Power: 70W (ultra-low energy consumption)
- Rated Time: 20 minutes
- Leather: Special leather for massage chairs
- Noise: $\leq 55\text{dB}$
- Net Weight/Gross Weight: 77KG/92KG
- Number of Airbags: 24
(4 in arms, 4 in palms, 4 in legs, 8 in feet)
- Packaging Dimensions: 156*76* 87cm
(disassembled calf packaging)

Two Basic Control Principles

Mechanical massage hand:
Controls functions such as kneading, tapping, rolling, walking, and pressing.



Air Pump: Provides air pressure for the entire body.



Switching Power Supply:
Supplies power to the massage chair, providing DC24V and 5V.



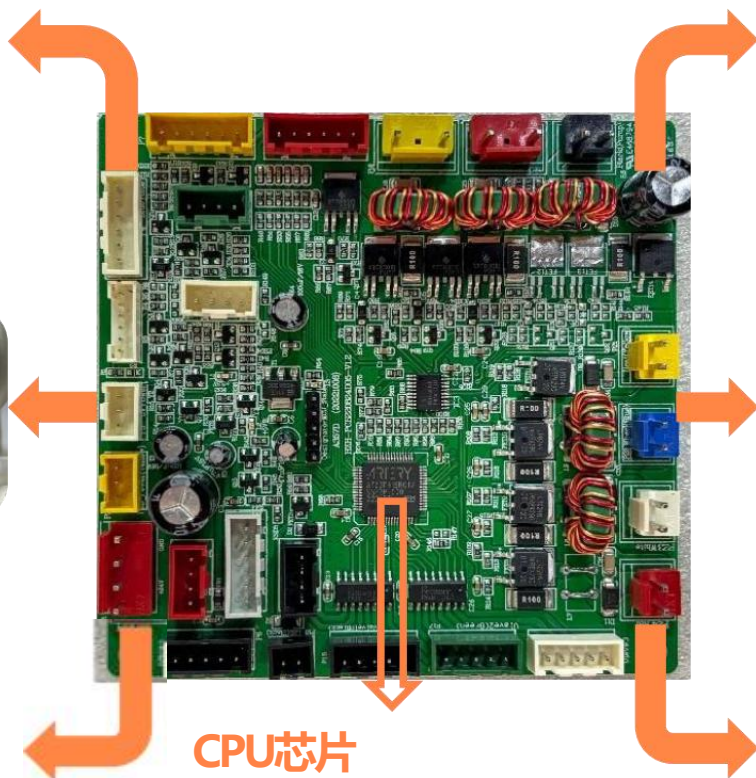
Controller: Signal trigger chip controls the operation of the massage chair functions.



Electric Cylinder:
Controls the lifting function of the massage chair.



Electromagnetic Valve:
Controls air pressure inflation and deflation.



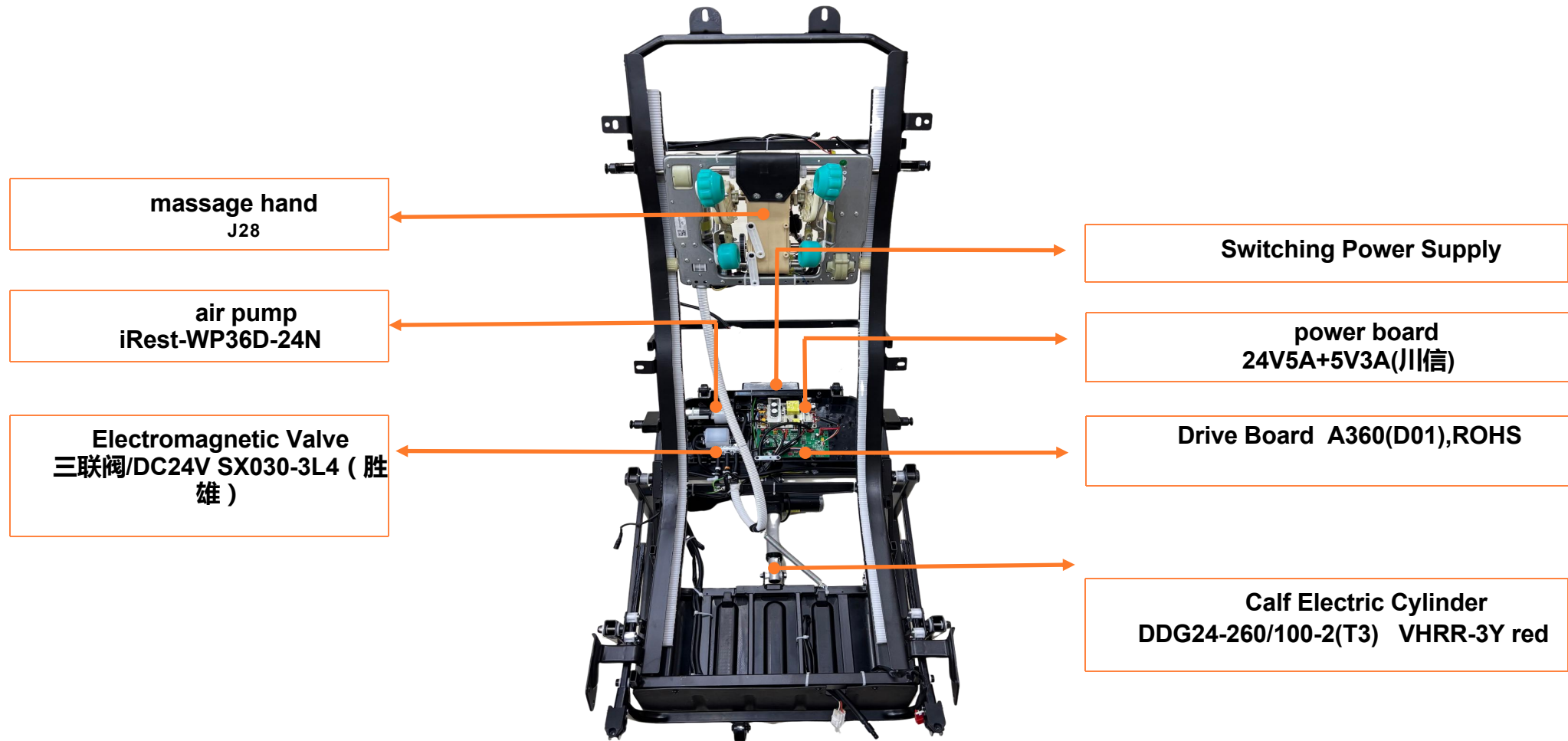
CPU芯片

Three Internal Structure of the Product

- Mechanical Hand Assembly (J28)
- Switching Power Supply Box
- Air Pump (iRest-WP36D-24N)
- Switching Power Supply (24V5A + 5V3A, Chuanxin)
- Drive Board (A360(D01), ROHS)
- Electromagnetic Valve (Three-way valve/DC24V SX030-3L4, Shengxiong)
- Calf Electric Cylinder (DDG24-260/100-2(T3), VHRR-3Y red terminal)



3.1 Distribution Inside the Main Unit



3.2 Drive Board Component Diagram

Bluetooth, Smart Voice Control, Speaker

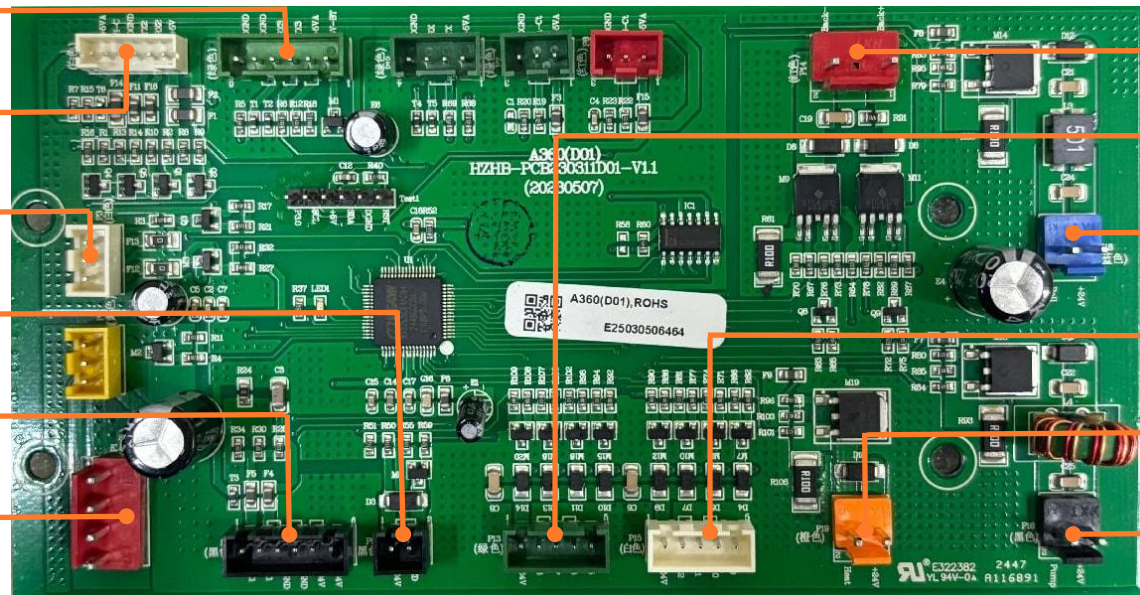
Controller

5V Input

LED Light

Mechanical Hand

24V Input



Electric Cylinder

Seat Frame Electromagnetic Valve

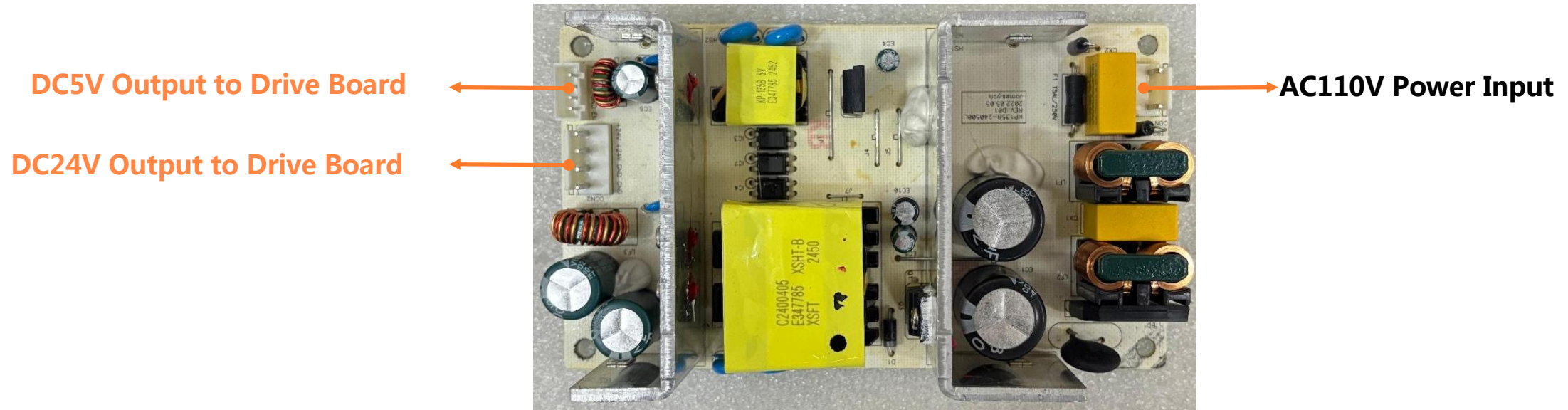
Foot Roller

Calf Electromagnetic Valve

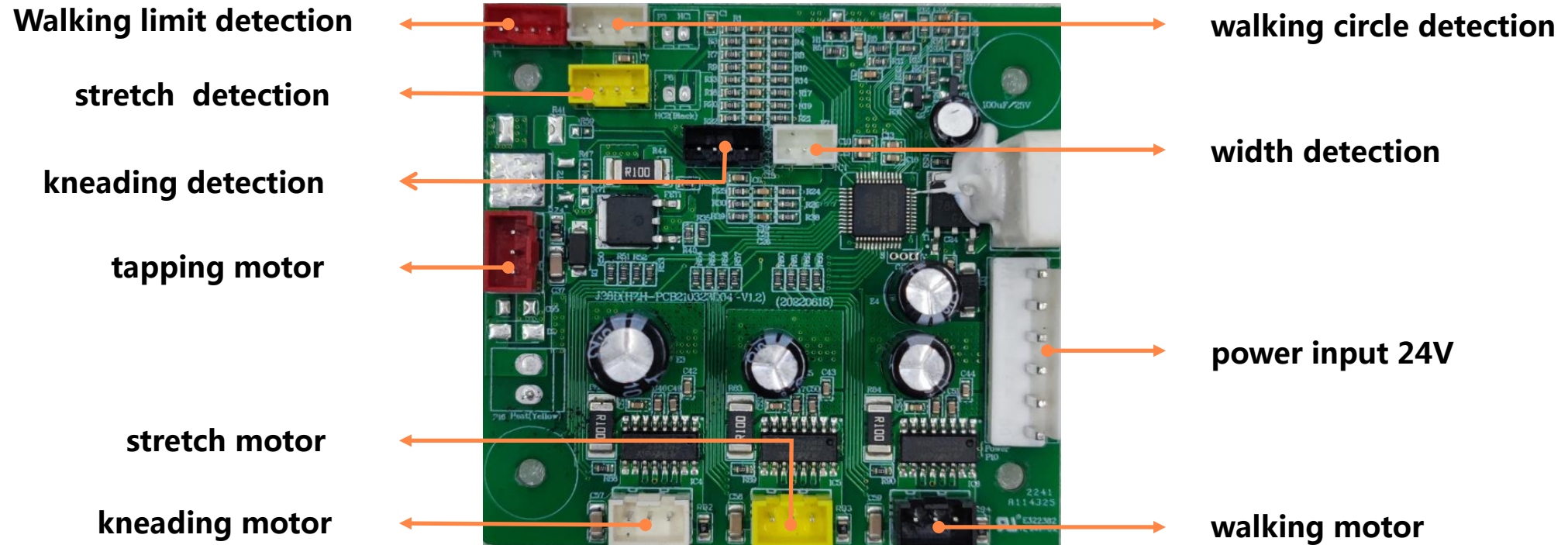
Backrest Heating

Air Pump

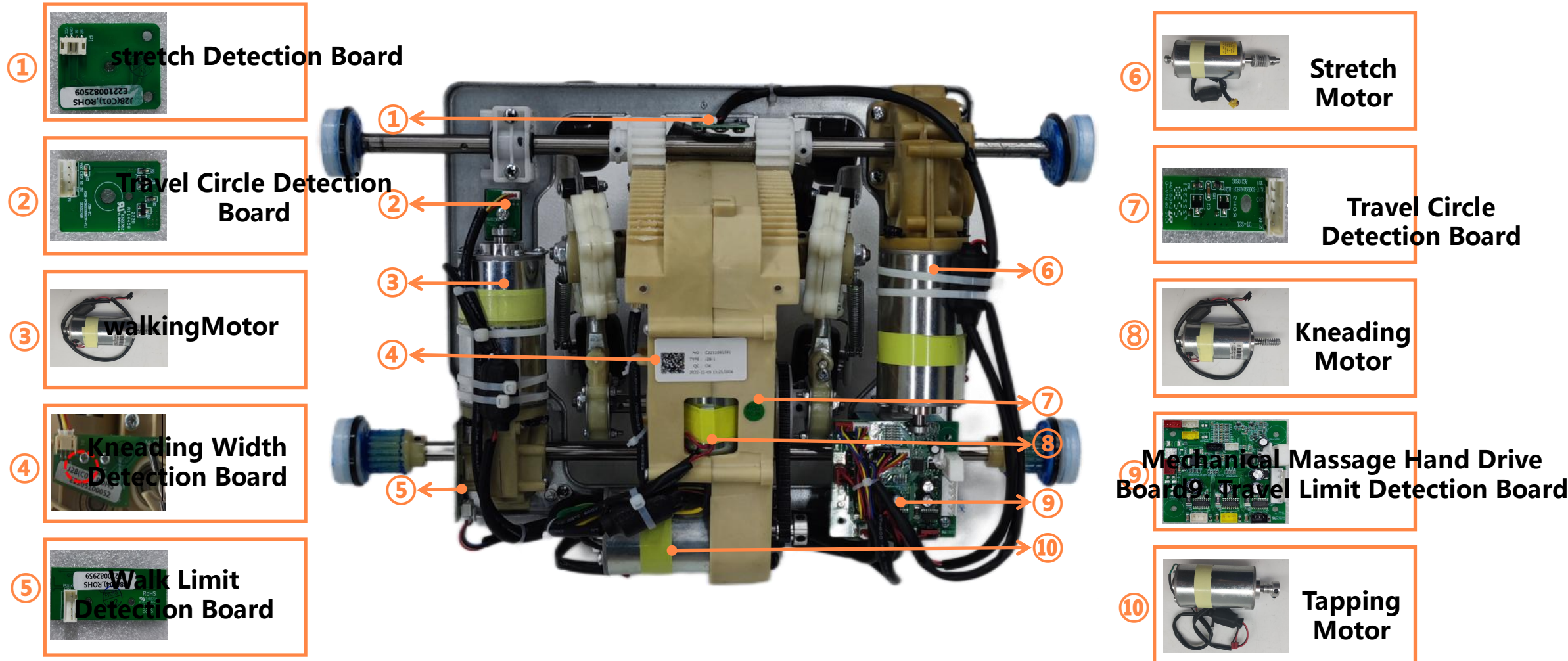
3.3 Switching Power Supply Diagram



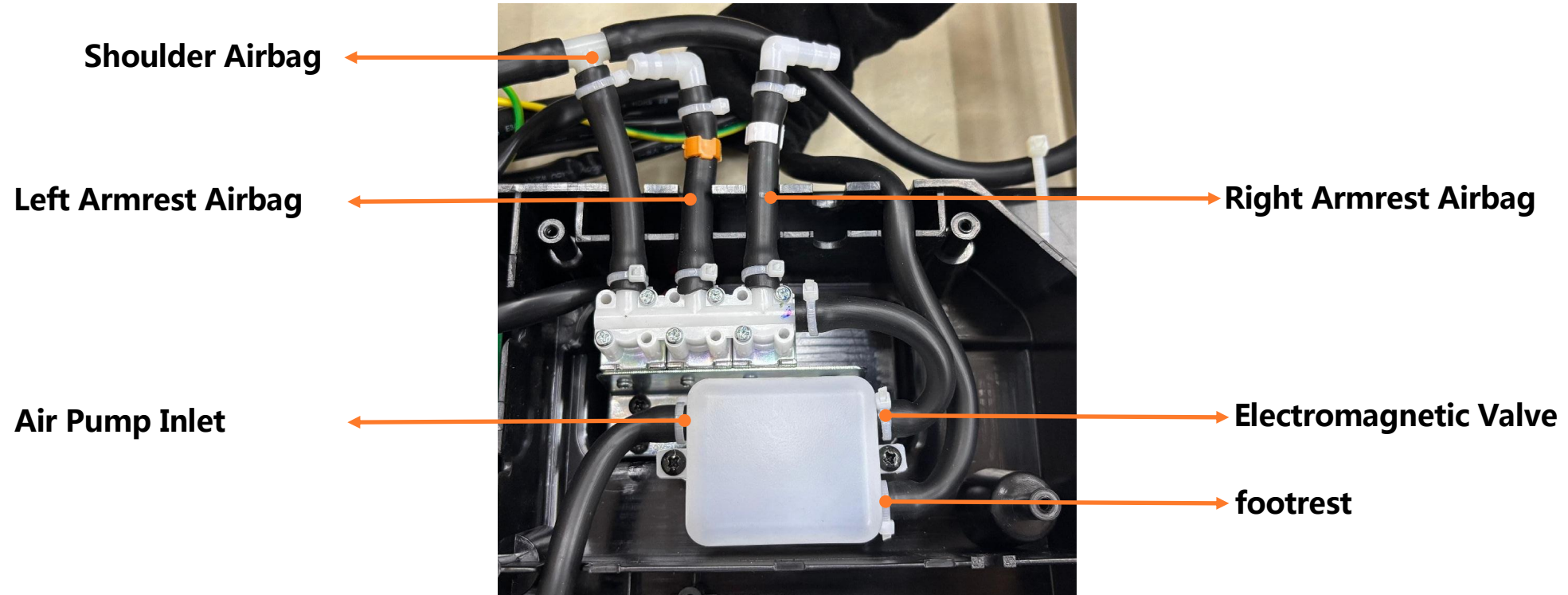
3.4 Mechanical Massage Hand Drive Board Diagram



3.5 Mechanical Massage Hand Assembly Component Distribution



3.6 Seat Frame Electromagnetic Valve Diagram



1. Disassembly of Footrest Assembly
2. Disassembly of Backrest Cover
3. Disassembly of Rear Cover
4. Disassembly of Upper Armrest Component
5. Disassembly of Armrest Component
6. Disassembly of Backrest Frame
7. Disassembly of Smart Voice Control and Speaker
8. Disassembly of Outer Side Panel Component
9. Disassembly of Electric Cylinder
10. Disassembly of Mechanical Massage Hand Assembly
11. Disassembly of Foot Roller Assembly



4.1 Disassembly of Footrest Assembly



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1. Remove two screws on both sides of the calf.
2. Separate the calf connector and air hoses.
3. Remove the calf massage assembly.

4.2 Disassembly of Backrest Cover



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1. Remove four fixing screws of the backrest cover.
2. Pry open the back cover with a screwdriver.
3. Remove the backrest cover.

4.3 Disassembly of Rear Cover



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1. Remove two screws of the rear cover.
2. Remove the rear cover.

4.4 Disassembly of Upper Armrest



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1. Pry open the cover with a flathead screwdriver.
2. Remove the fixing screws with a hex key.
3. Pull out the upper armrest component forward.

4.4.1 Disassembly of Upper Armrest



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1. Separate the air hoses and connectors.
2. Remove the upper armrest component.

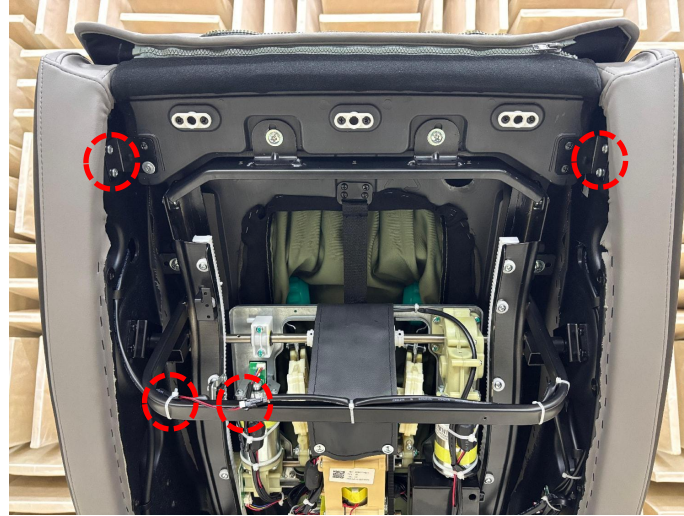


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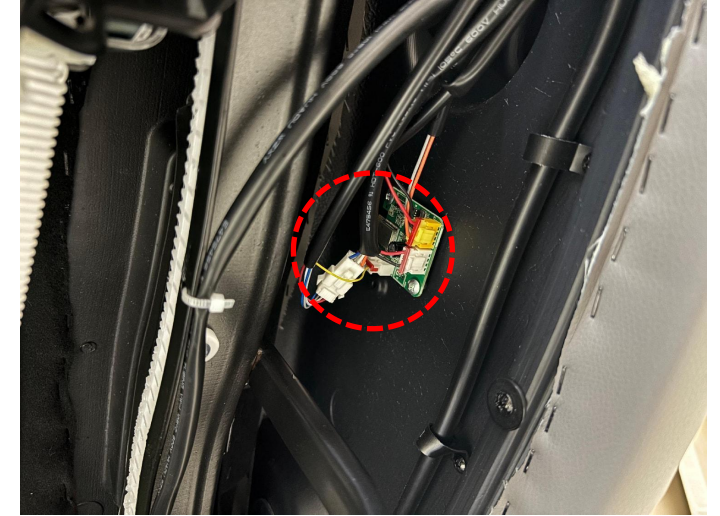
4.5 Disassembly of Armrest Component



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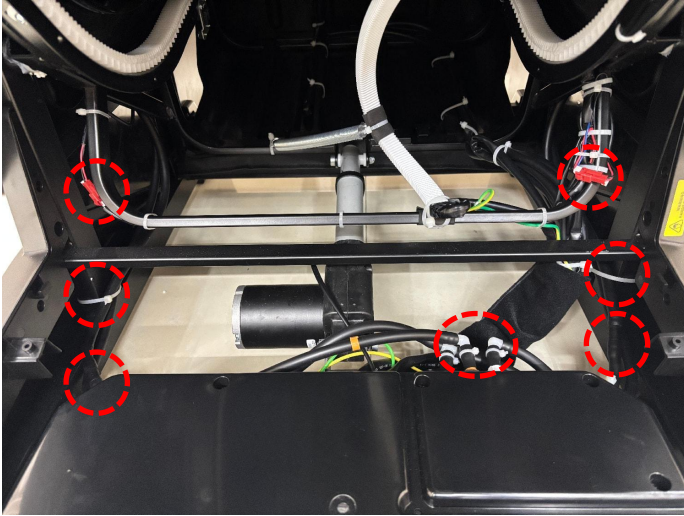
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1. Remove the screws at the rear end of the armrest on both sides, separate the zip ties and the connector of the speaker.
2. Pry open the cover with a flathead screwdriver.
3. Separate the connector of the Bluetooth board.

4.5.1 Disassembly of Armrest Component



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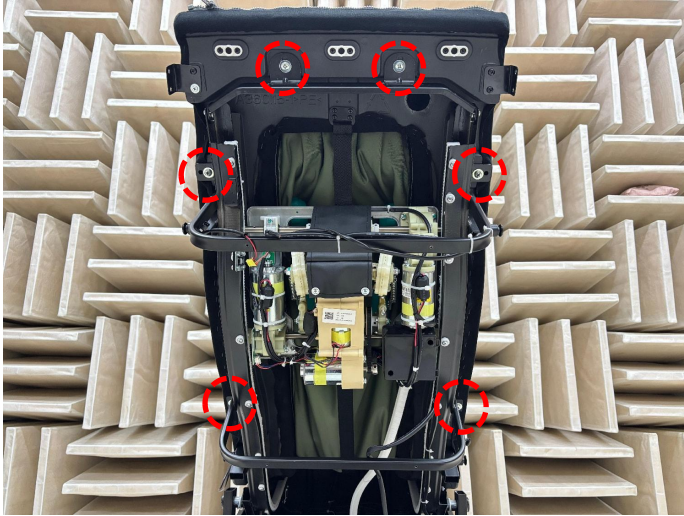
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4. Separate the zip ties, air hoses, and connectors of the armrest.
5. Remove the armrest component.

4.6 Disassembly of Backrest Frame



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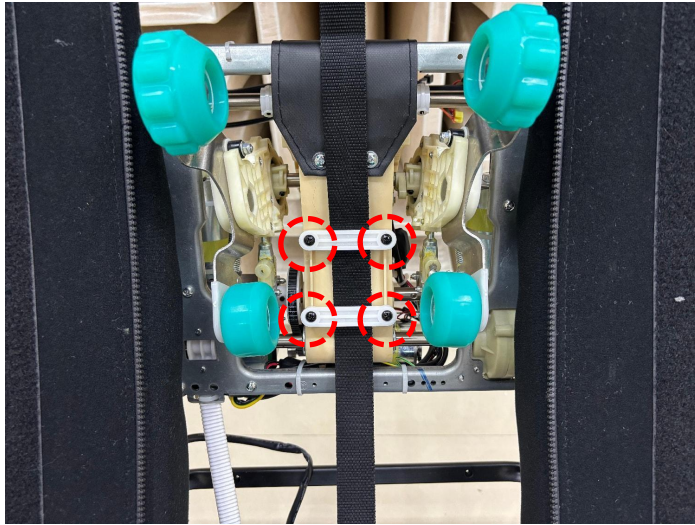
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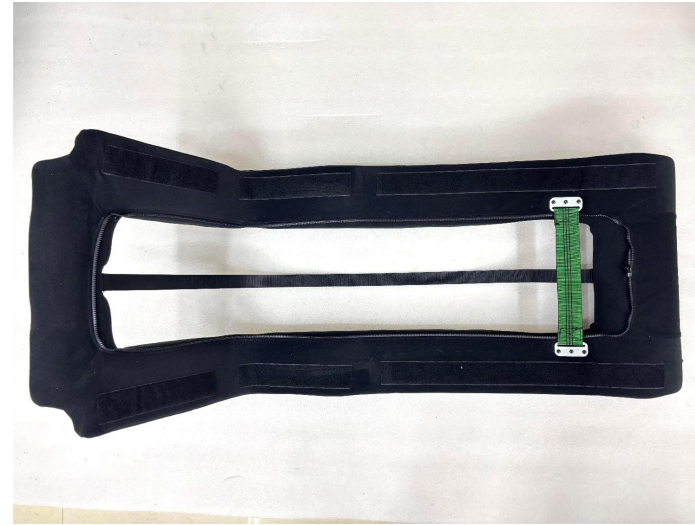
1. Remove six screws of the backrest.
2. Remove the heating wire bundle fixing screw on the side of the seat frame.
3. Open the backrest kneading cloth.

4.6.1 Disassembly of Backrest Frame



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1. Remove the bookbag strap fixing screw.
2. Remove the backrest frame component.



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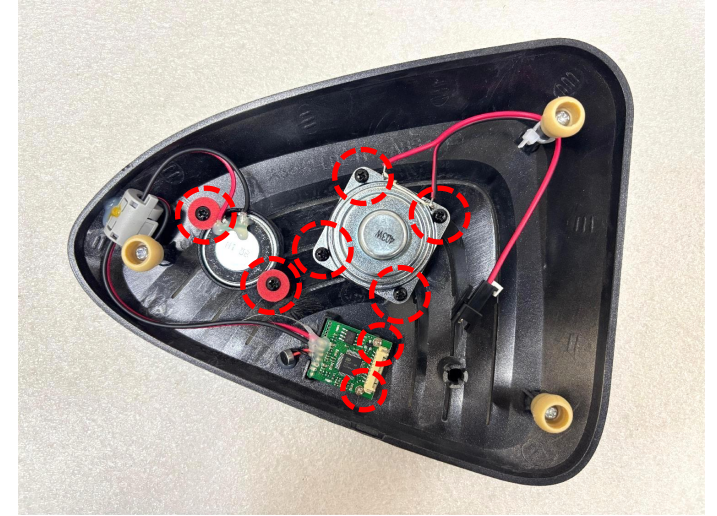
4.7 Disassembly of Smart Voice Control and Speaker



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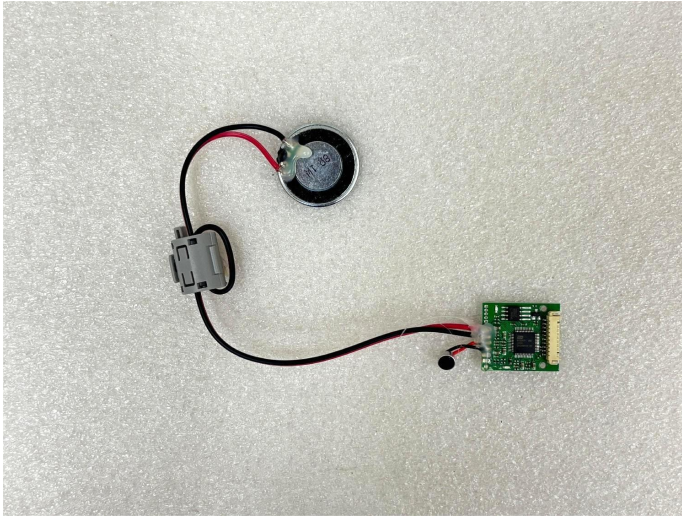
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1. Pry open the speaker cover.
2. Remove all fixing screws.
3. Separate the connecting connector.

4.7.1 Disassembly of Smart Voice Control and Speaker



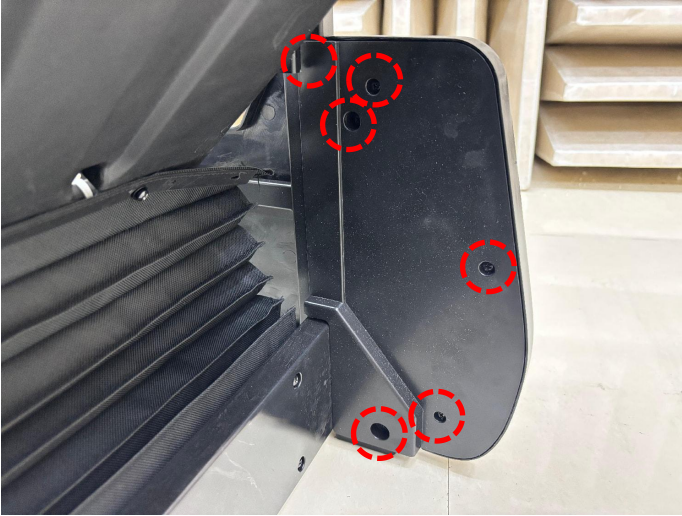
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4. Remove the smart voice control board component.
5. Remove the speaker component.

4.8 Disassembly of Outer Side Panel Component



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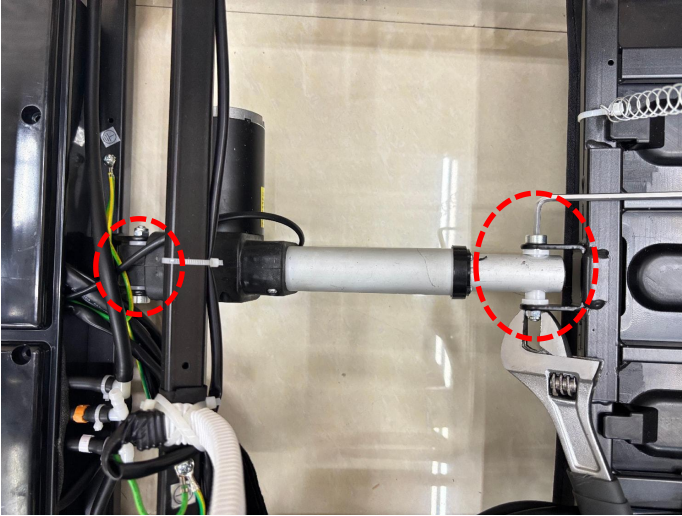
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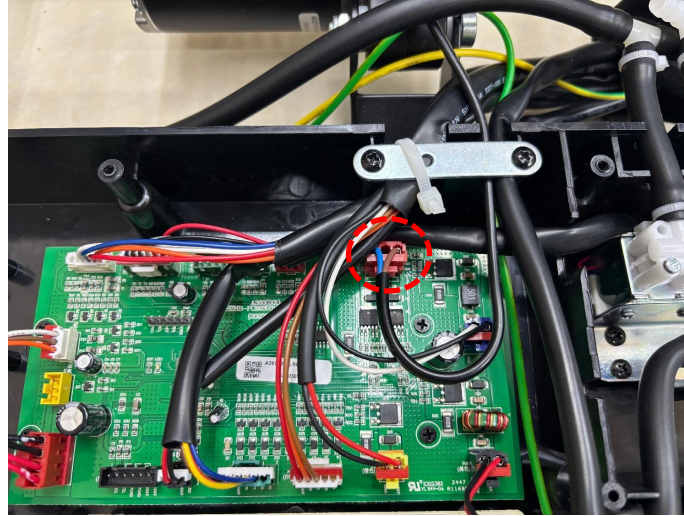
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1. Lay the massage chair down and remove the front screw of the outer side panel.
2. Remove two screws inside the outer side panel.
3. Remove the outer side panel component.

4.9 Disassembly of Electric Cylinder



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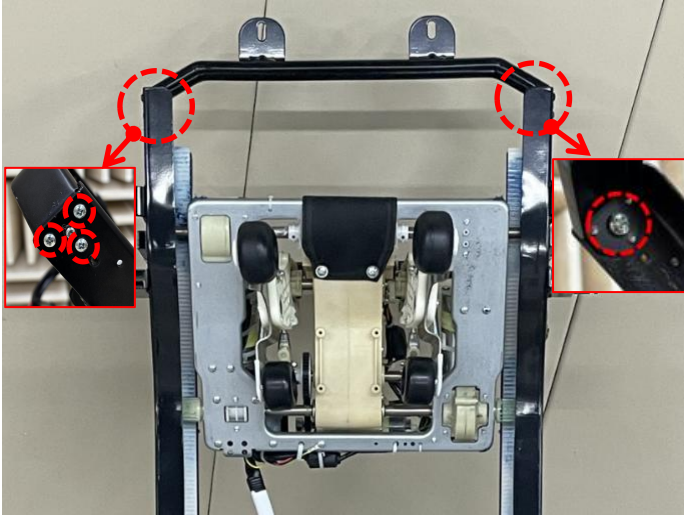
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1. Remove the fixing screws with a hex key and an adjustable wrench.
2. Separate the electric cylinder connector (red).
3. Remove the electric cylinder.

4.10 Disassembly of Mechanical Massage Hand Assembly



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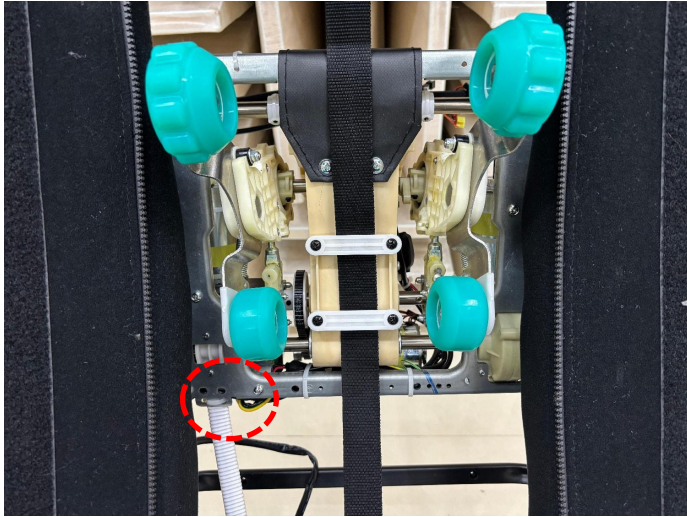
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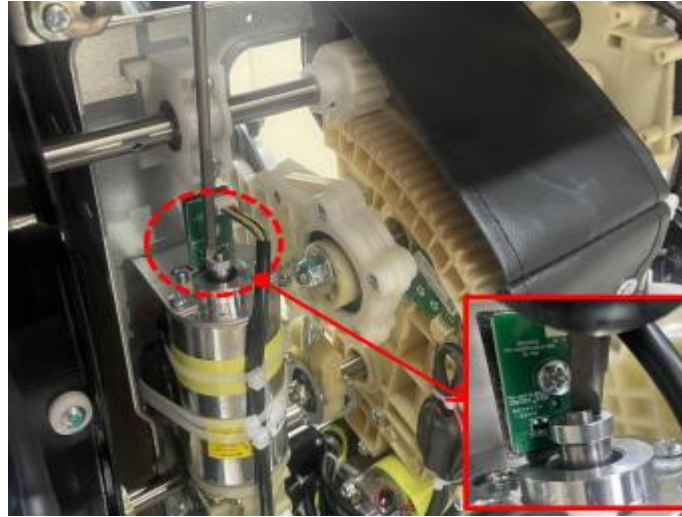
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1. Remove three fixing screws on both sides of the crossbeam and one internal fixing screw on both sides.
2. Remove the fixing screws of the mechanical hand drive box cover and the fixing zip ties.
3. Separate the connectors of the mechanical massage hand.

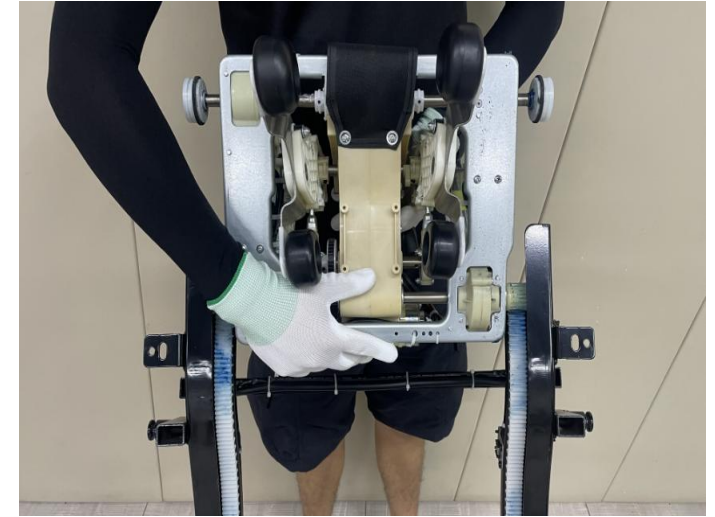
4.10.1 Disassembly of Mechanical Massage Hand Assembly



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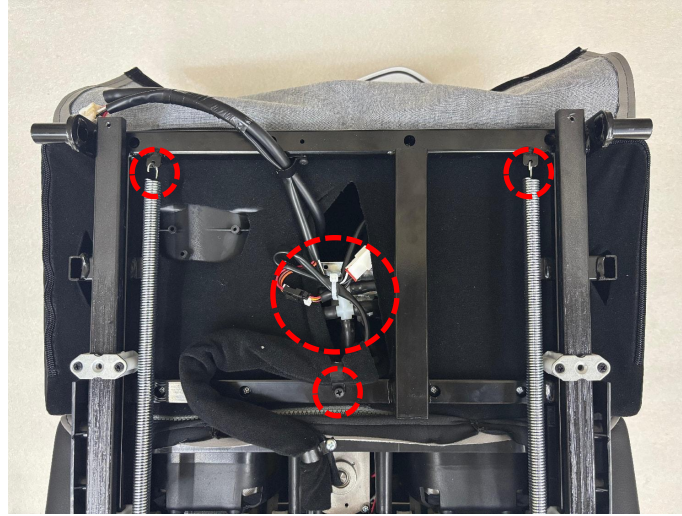
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4. Separate the mechanical hand ground wire screw and the mechanical hand wire bundle fixing zip ties.
5. Use a manual or electric flathead screwdriver to rotate the travel motor to the top, or push the core upward with both hands.
6. Remove the mechanical massage hand component.

4.11 Disassembly of Foot Roller Assembly



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1. Remove four screws of the rear cover.
2. Separate the spring, connectors, and remove the fixed wire bundle.
3. Separate the upper and lower calf cloth zipper.

4.11.1 Disassembly of Foot Roller Assembly



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4. Separate the lower calf kneading cloth zipper.
5. Separate the kneading cloth Velcro and remove the kneading cloth.
6. Remove four front screws.

4.11.2 Disassembly of Foot Roller Assembly



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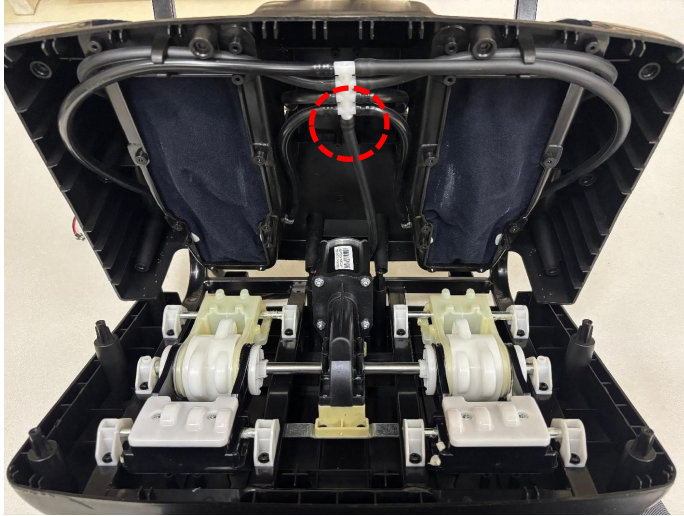
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7. Remove the calf bottom cover.

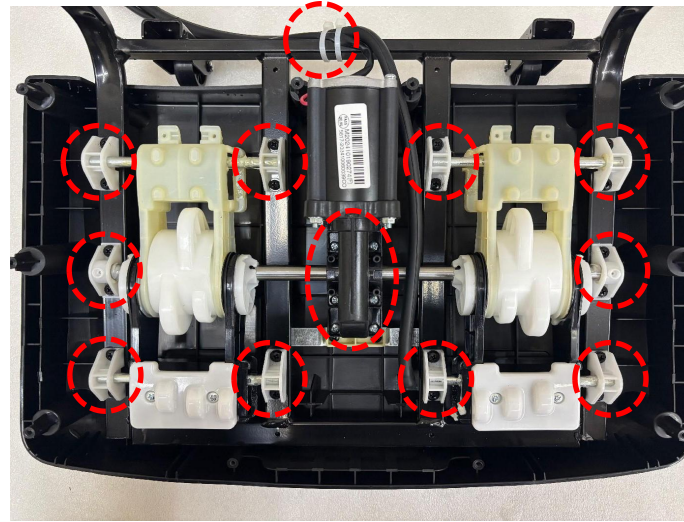
8. Use a nail remover to remove the cloth fixing nails and open the cloth zipper.

9. Remove ten fixing screws.

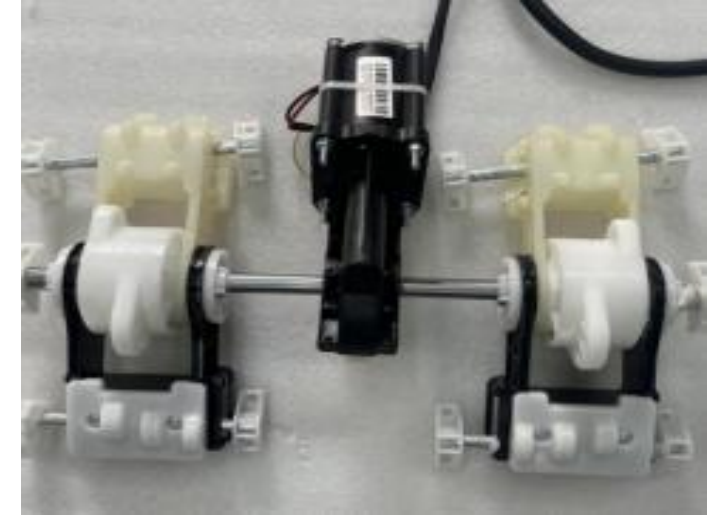
4.11.3 Disassembly of Foot Roller Assembly



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10. Remove the calf bottom cover.

11. Remove all screws of the roller motor component, separate the connectors and ground wire.

12. Remove the foot roller component.

1. Whole machine does not work
2. Mechanical massage hand does not work
3. Mechanical massage hand does not travel
4. Mechanical massage hand extension does not work
5. Kneading/Tapping does not work
6. Electric cylinder does not work
7. Air pump/some air pressure does not work
8. LED light does not work
9. Smart voice control does not work
10. Foot roller does not work
11. Bluetooth does not work
23. Back heating does not work



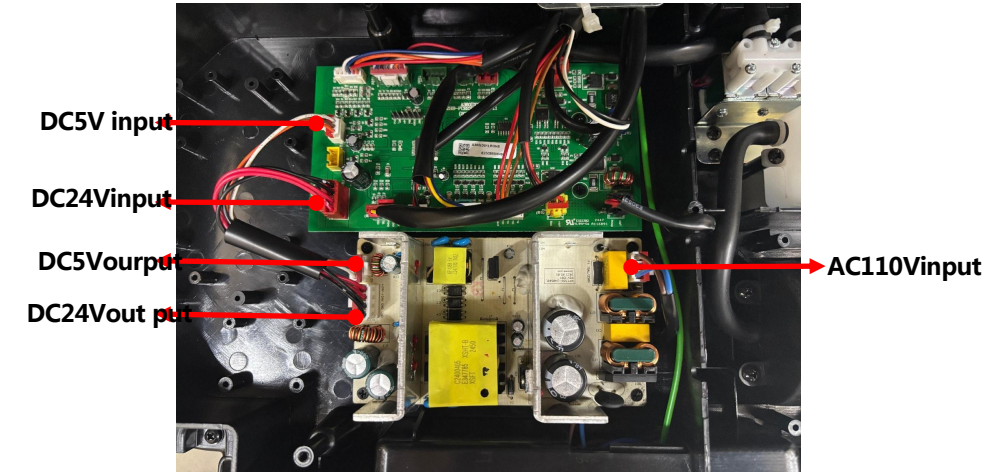
5.1 Whole Machine Does Not Work



power switch box assembly



remote controller

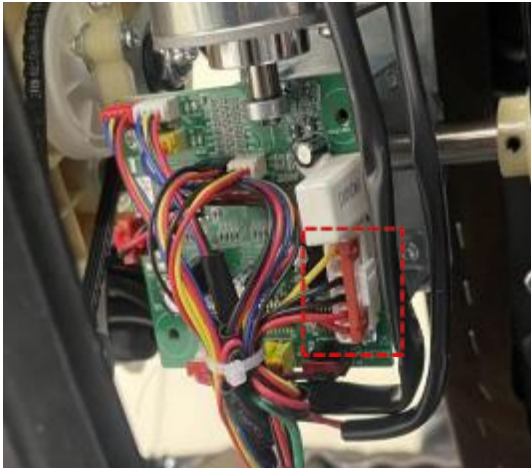


1. Power switch box malfunction
2. Remote controller malfunction
3. Switching power supply malfunction
4. Drive board malfunction

Fault Diagnosis Method:

1. Check whether the power switch box is damaged, whether the switch is turned on, and whether there is AC220V input.
2. The hand controller itself may be damaged, causing the machine to fail to start. Use the substitution method to determine this.
3. Check whether the power supply board outputs 24V/5V voltage normally. If not, the power supply board is damaged. If normal, the power supply is fine, and the issue lies with the drive board, which should be replaced.

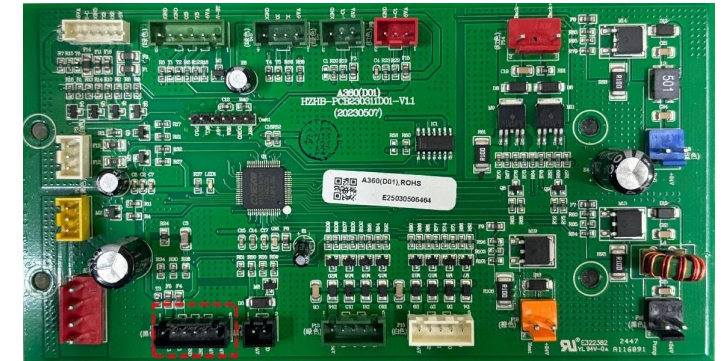
5.2 Mechanical Massage Hand Does Not Work



massage hand power supply plug-in



massage hand PCB



Drive board massage hand plug-in

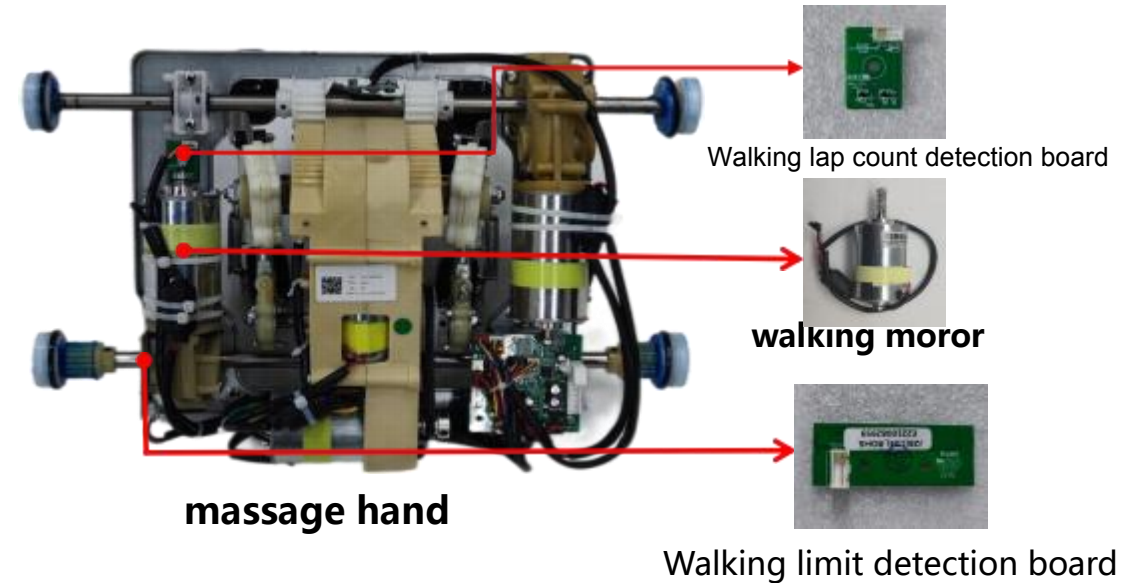
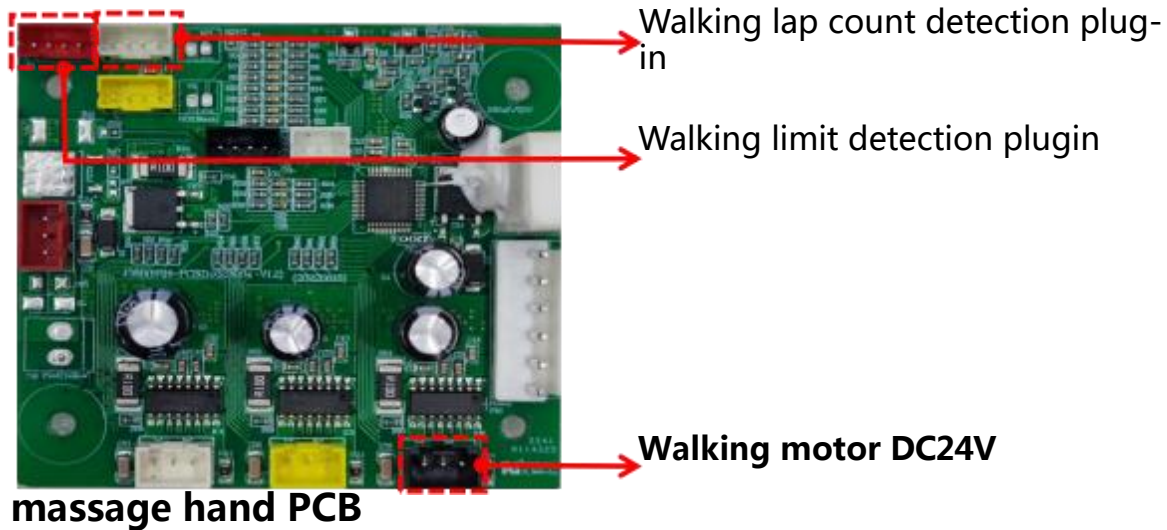
Possible Causes:

1. Connector loose or poor contact
2. Mechanical hand drive board malfunction
3. Drive board malfunction

Fault Diagnosis Method:

1. Check whether the mechanical massage hand connector is loose or has poor contact.
2. Verify if the mechanical hand drive board receives 24V power input. If voltage is present, replace the mechanical hand drive board.
3. If the drive board has no DC24V output, replace the main drive board.

5.3 Mechanical Massage Hand Does Not Travel



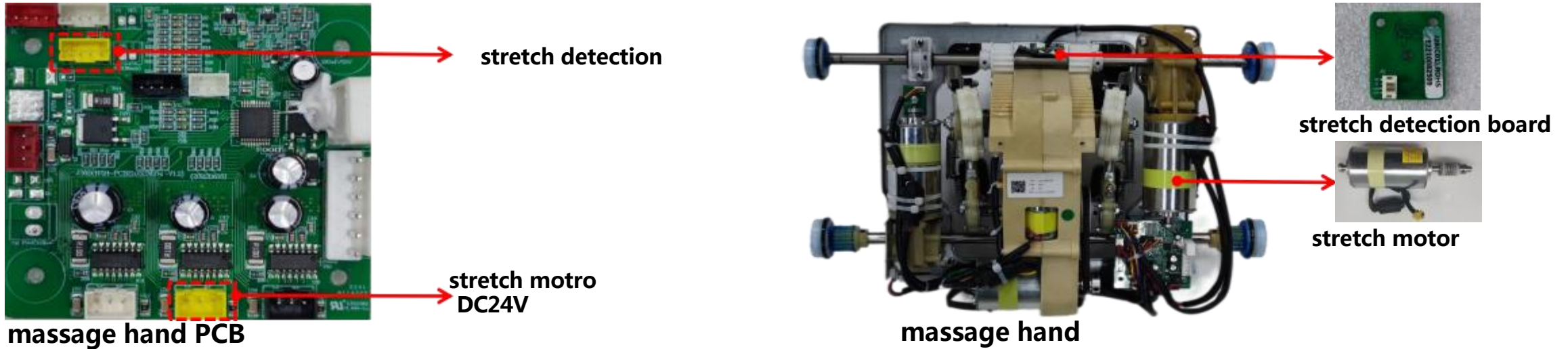
Possible Causes:

1. Travel motor malfunction
2. Travel circle detection board malfunction
3. Travel limit detection board malfunction
4. Mechanical hand drive board malfunction

Fault Diagnosis Method:

1. Test the motor by using the power supply from the tapping motor to determine if it is functional.
2. Check if the travel circle detection board is damaged or if the optocoupler is blocked.
3. Determine if the upper and lower limit detection boards are damaged or if the magnets have fallen off.
4. Check for mechanical massage hand drive board malfunction.

5.4 Mechanical Massage Hand Extension Does Not Work



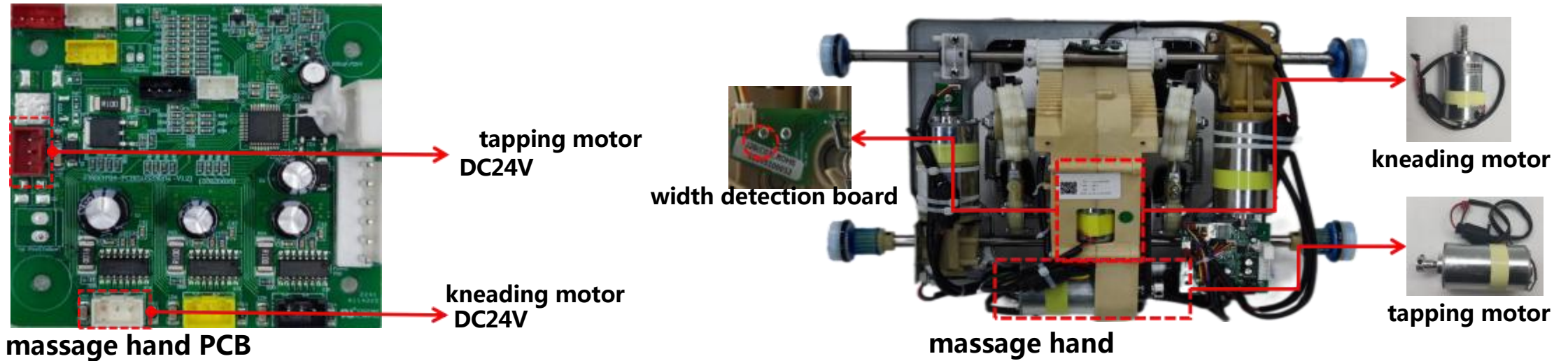
Possible Causes:

1. Extension motor malfunction
2. Extension detection board malfunction
3. Mechanical hand drive board malfunction

Fault Diagnosis Method:

1. Test the motor by using the power supply from the tapping motor or by measuring the motor resistance (normal if within 20 ohms).
2. Check if the extension detection board is damaged.
3. Verify if the mechanical hand drive board is damaged.

5.5 Kneading/Tapping Does Not Work



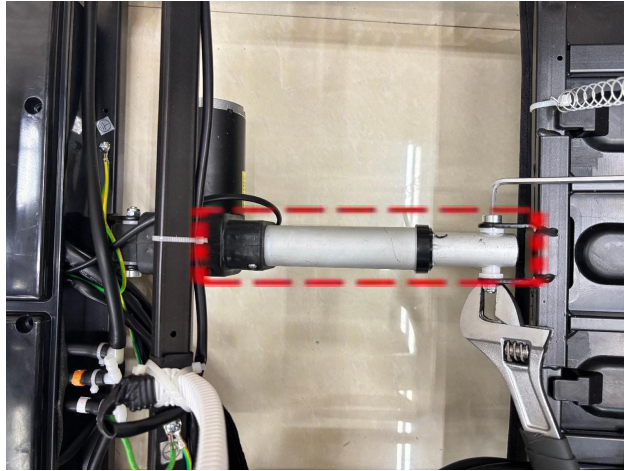
Possible Causes:

1. Tapping/Kneading motor malfunction
2. Width detection board malfunction
3. Mechanical hand drive board malfunction

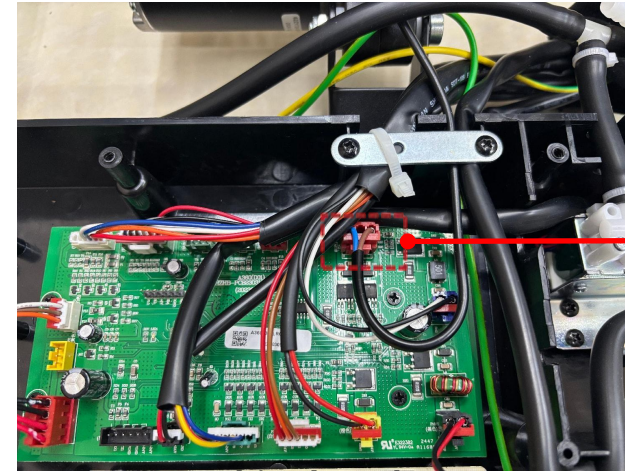
Fault Diagnosis Method:

1. Test the motor by using the power supply from the tapping motor.
2. Check if the width detection board is damaged.
3. Use the substitution method to determine if the mechanical hand drive board is broken.

5.6 Electric Cylinder Does Not Work



Electric cylinder



drive board

Electric cylinder plug

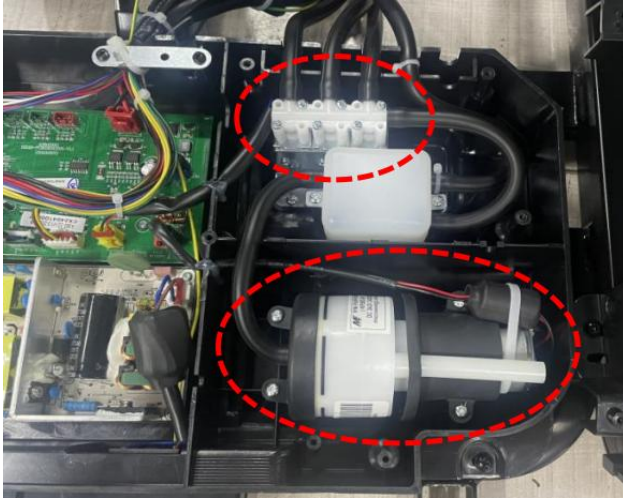
Fault Diagnosis methods:

Possible Causes:

1. Electric cylinder malfunction
2. Drive board malfunction

1. You can use a multimeter to measure the electric cylinder plug-in, plug-in are DC24V replacement electric cylinder, no DC24V plug-in, the replacement driver board (in electric cylinder under the working condition measurement)
2. If the electric cylinder is functioning properly, then we need to consider replacing the drive board

5.7 Air Pump/Some Air Pressure Does Not Work



air pump box



air hose folded and air bags broken



PCB air pump plug-in

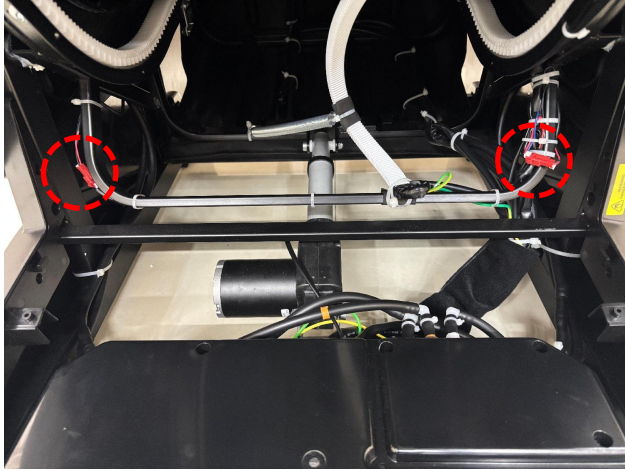
Possible Causes:

1. Airbag damage
2. Air hose kinked or disconnected
3. Drive board malfunction
4. Electromagnetic valve malfunction

Fault Diagnosis methods:

1. Check if there is any breakage on the airbags or the air hose is folded
2. Check if the solenoid valve is damaged, or the plugin is loose
3. Bad control on the drive circuit, replace the driver board
4. The air pump malfunctions.

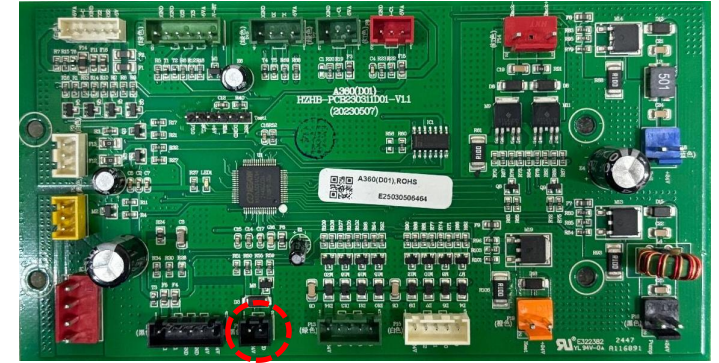
5.8 LED Light Does Not Work



armrest led light plug-in



armrest led light plug-in



drive board led light plug-in

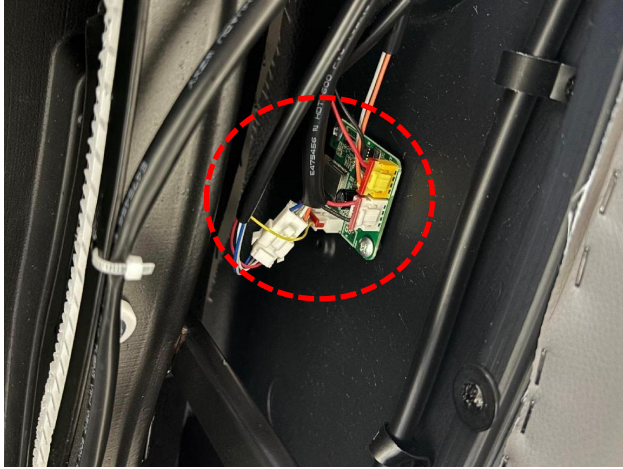
Possible Causes:

1. Loose connector
2. LED strip malfunction
3. Drive board malfunction

Fault Diagnosis Method:

1. Check whether the red connectors of the led lights on both sides of the armrest are properly inserted and whether there is any looseness.
2. The led light strip is broken, causing it to not work.
3. Check if the drive board's led light connector has a DC24V voltage output. If there is no voltage, replace the drive board.

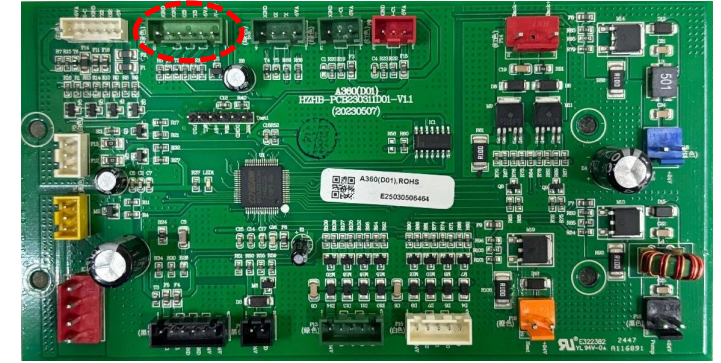
5.9 Smart Voice Control Does Not Work



Voice control plug-in



Voice control board



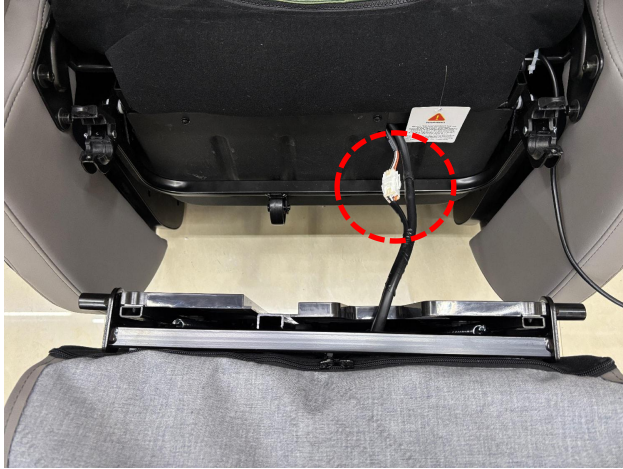
driver board
Voice control plug-in

Fault Diagnosis Method:

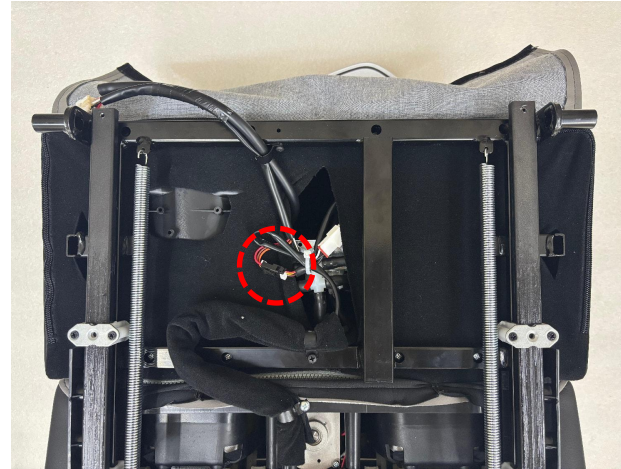
Possible Causes:

1. Voice control switch malfunction
 2. Voice control board malfunction
 3. Drive board malfunction
1. Check whether the Bluetooth voice control switch on the controller Settings interface is turned on.
 2. If the driver board has a 5V voltage and the Bluetooth board indicator light does not flash, replace the Bluetooth voice control board.
 3. If the control of this drive circuit has problem, replace the drive board.

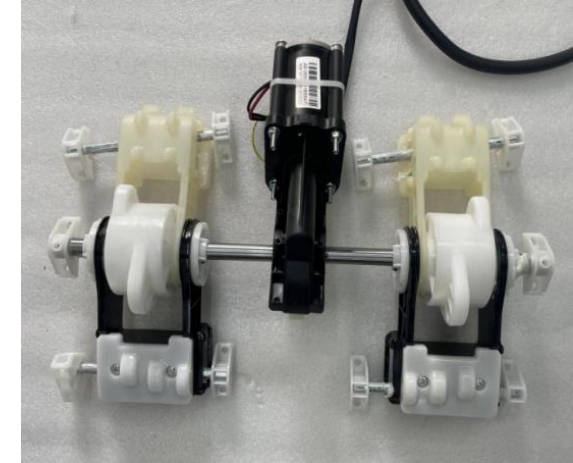
5.10 Foot Roller Does Not Work



Footrest connect plug-in



Foot roller connection plug



Foot roller motor

Possible Causes:

1. Loose connectors
2. Roller motor malfunction

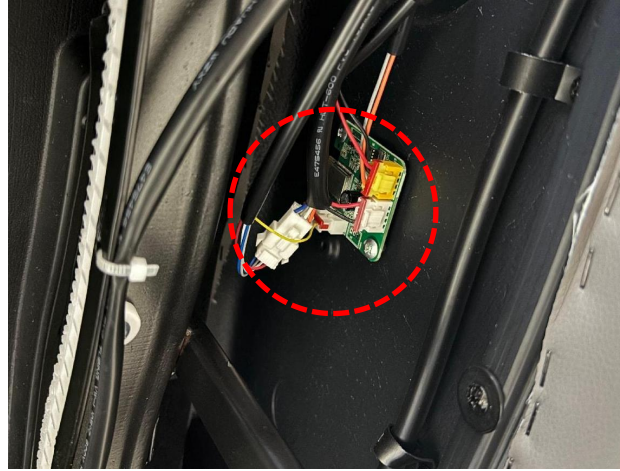
Fault Diagnosis Method:

1. Check if the connectors between the calf drive board and the roller are loose or have poor contact.
2. Use a multimeter to measure if there is a DC24V voltage output to determine if the roller motor is functional.
3. Measure the DC24V output at the calf roller connector. If there is no voltage output, replace the drive board; otherwise, replace the motor.

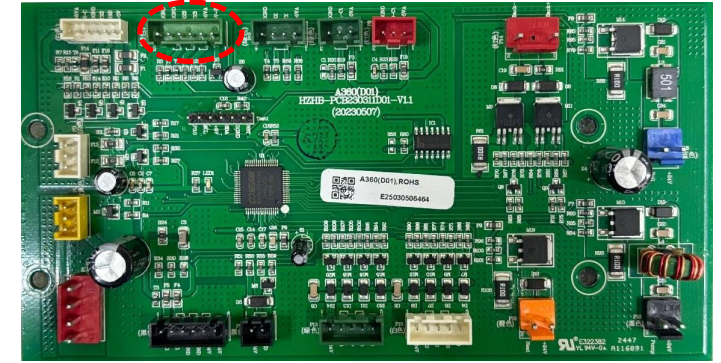
5.11 Bluetooth Does Not Work



Remote controller setting interface



Bluetooth board



Drive board footrest heating

Fault Diagnosis Method:

Possible Causes:

1. Bluetooth switch malfunction
 2. Bluetooth board malfunction
 3. Drive board malfunction
1. Check whether the Bluetooth voice control switch on the remote controller setting interface is turned on.
 2. If there is a 5V voltage on the drive board and the Bluetooth board indicator light is not flashing, replace the Bluetooth voice control board.
 3. If the control circuit for this path has problem, replace the drive board.

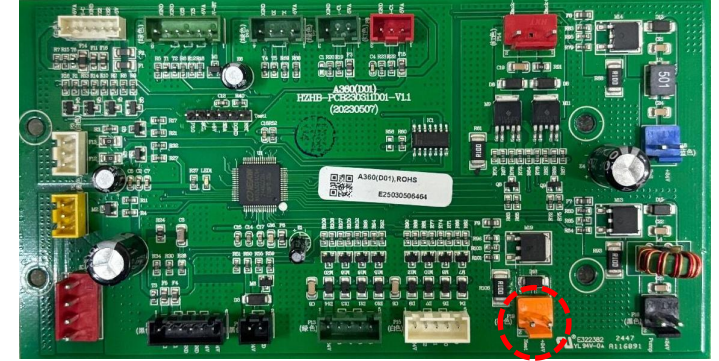
5.12 Backrest Heating Does Not Work



back heating plug



heating wire



drive board heating plug

Fault Diagnosis Method:

1. Check whether the backrest heating plug is loose or has poor contact.
2. Check if there is a DC24V voltage input to the backrest heating. If voltage is normal, replace the heating wire.
3. If there is no DC24V voltage output from the drive board heating plug, replace the drive board.

Possible Causes:

1. Loose heating plug
2. Heating wire malfunction
3. Drive board malfunction



按摩椅 我要艾力斯特