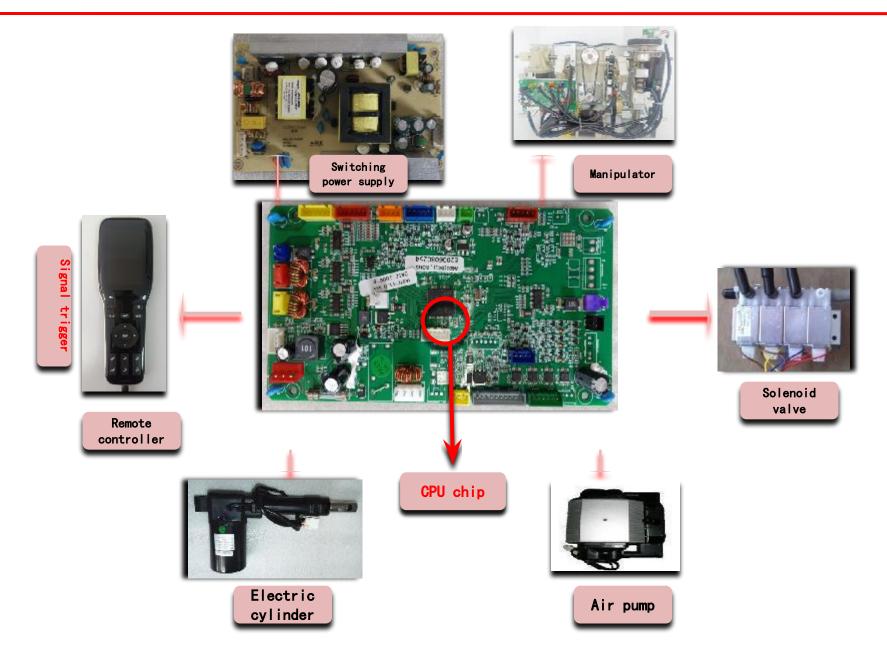


## The control principle of massage chair

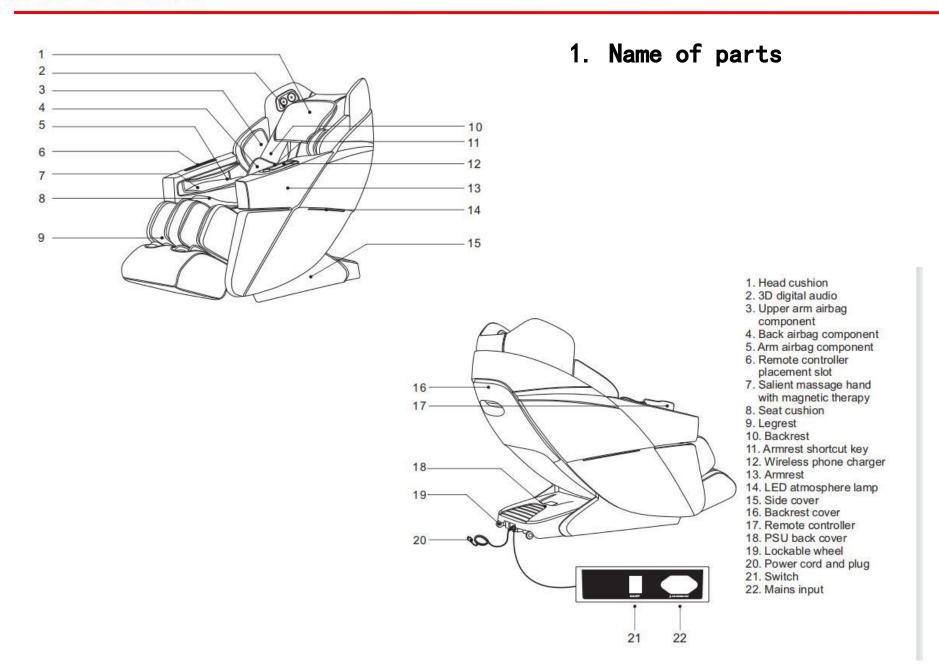




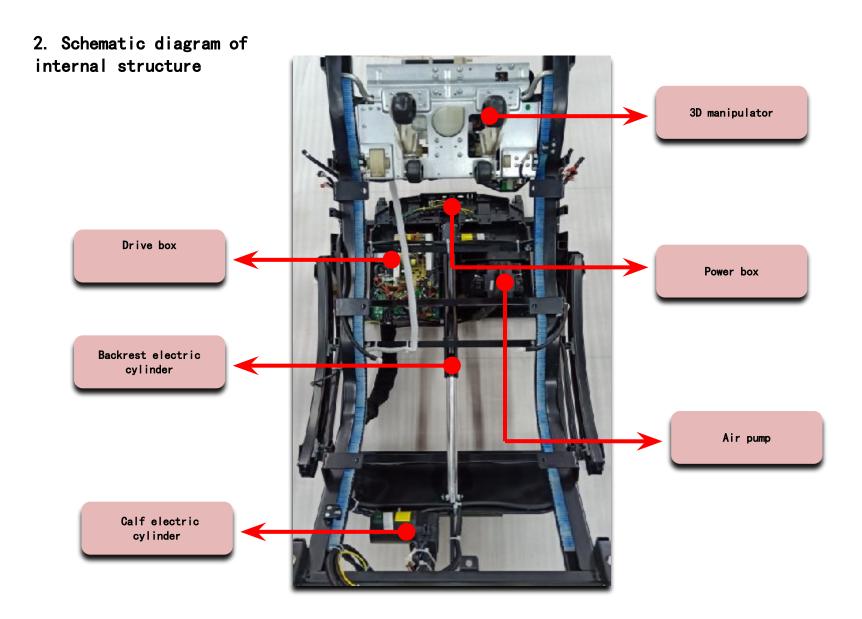
After-sale maintenance-internal structure and disassembly and assembly

- 1. Name of parts
- 2. Schematic diagram of internal structure
- 3. Distribution diagram of PCB plug-ins
- 4. Schematic diagram and video of product disassembly and assembly



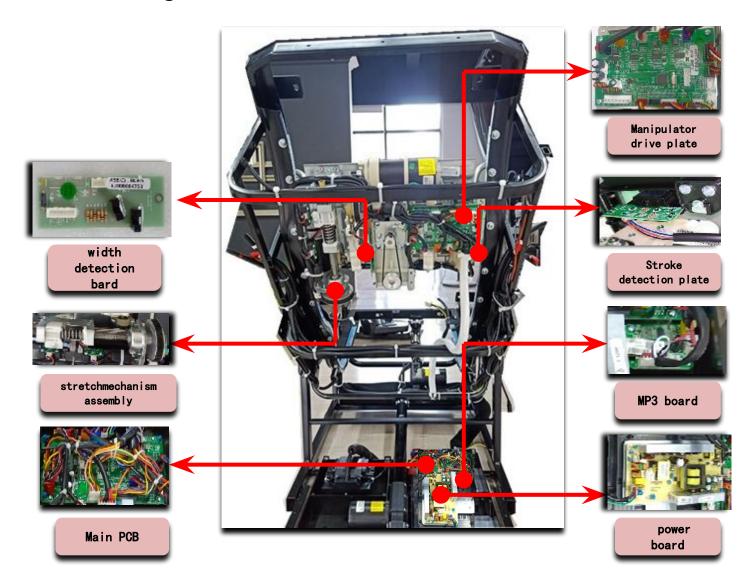






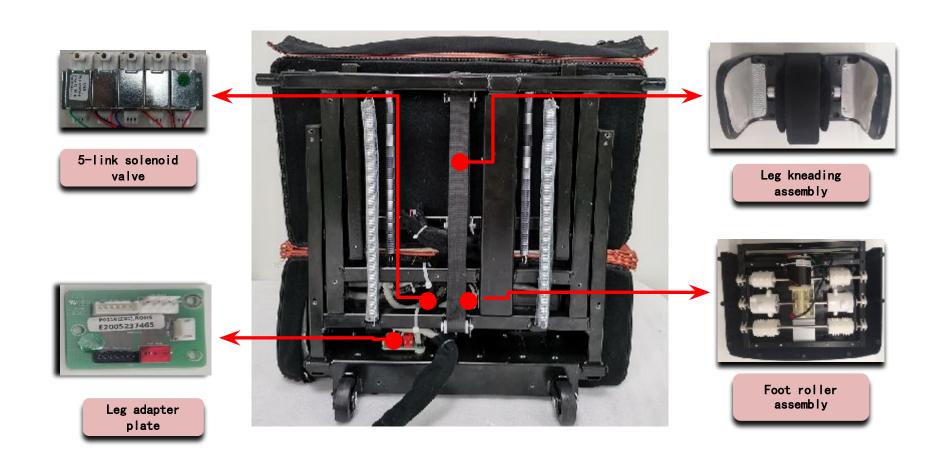


2.1. Schematic diagram of internal structure (reverse side)



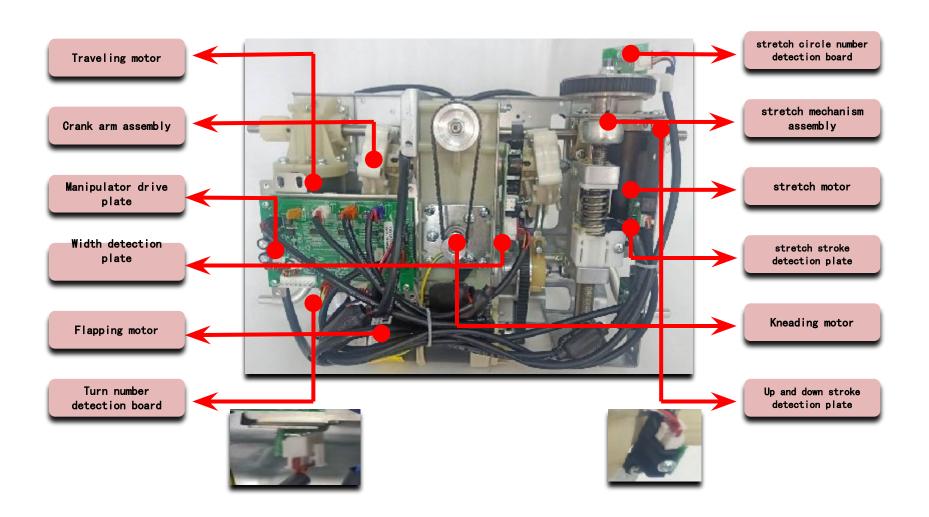


### 2.2. Schematic diagram of internal structure of footrest

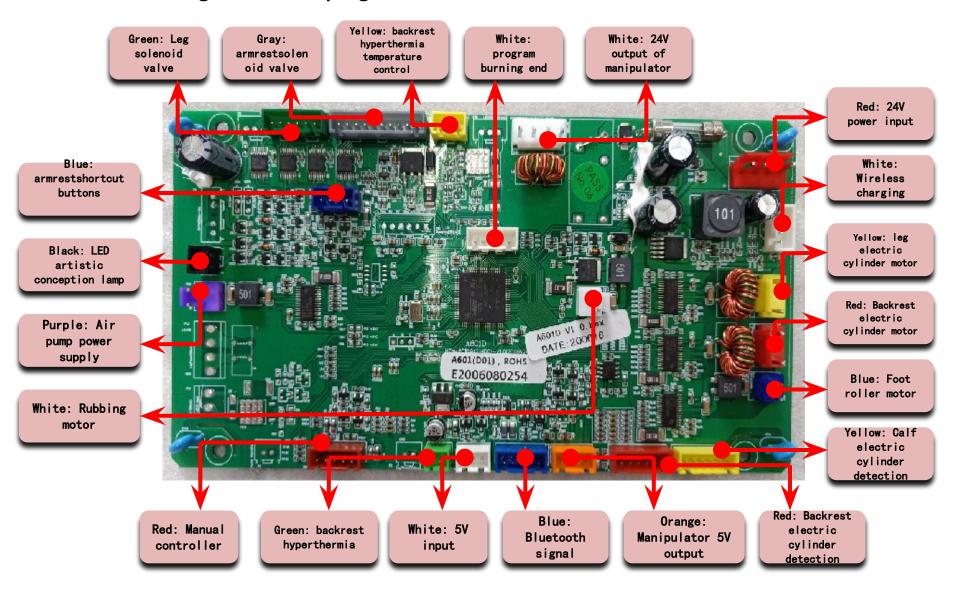




#### 2.3. Schematic diagram of 3D manipulator mechanism

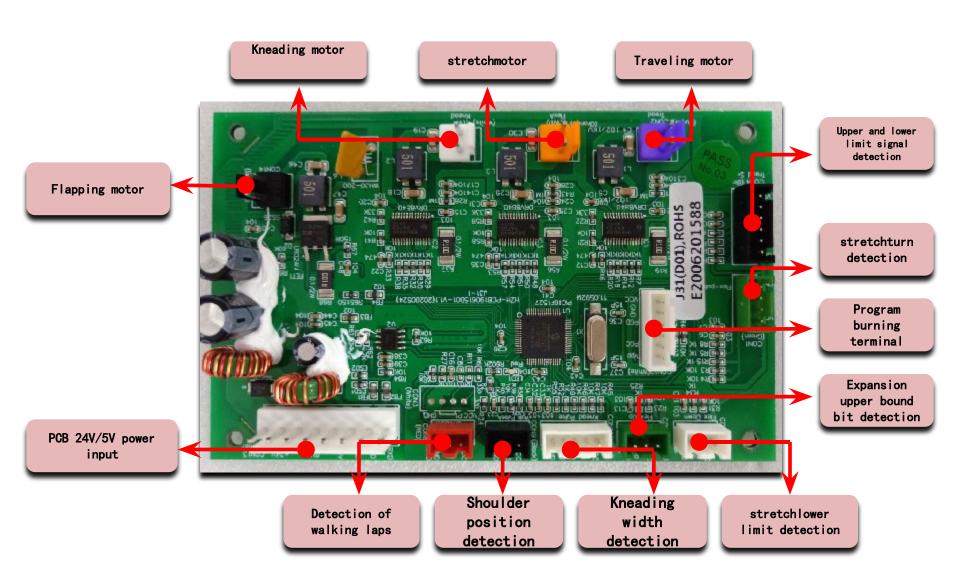


#### 3. Schematic diagram of PCB plug-in distribution





3.1. Schematic diagram of plug-in distribution of manipulator driving board





#### 3.1. Schematic diagram of power board plug-in distribution





#### 4.1. Schematic diagram and video of armrestinstallation







A. Hang the armresthook at the gap of the seat frame first B, Plug in the armresttrachea and wire harness

C. Finally, the upper end of the armrest is hung on two white hanging posts on the rack



#### 4.1. 1 Schematic diagram and video of armrest installation







D. Fix the two screws in the red ring at the upper end of the armrest

E. Fix the two screws at the front end of the armrest

F, finally buckle the armrest decorative strip into the hole





#### 4. 2. Schematic diagram of calf installation



1. Open the calf support seat gland



4. Hang the calf on the support seat



2. Place your calves forward



5. Fix the left and right screws



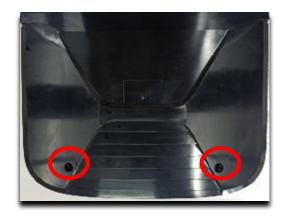
3. Insert tracheal and wiring harness plug-ins



6. Zip the leather and tidy it flat



#### 4.3. Schematic diagram of disassembly and assembly of drive box







A. Remove two screws of the outer cover of the seat frame

B, remove 10 screws of the upper cover of the drive box

C, the circuit board fuse can be replaced after disassembly





### 4.4. Schematic diagram of disassembly and assembly of back cover



A. Remove the 4 screws of the backrest cover



B, take out the backrest cover downward



#### 4.5. Schematic diagram and video of disassembly and assembly of armrest trim board



A. Remove the internal fixing screws of the red ring on the inner side of the armrest armrest LED colored light wire harness separation



B, remove the outside screw and pull out the decorative cover forcibly to separate the bayonet

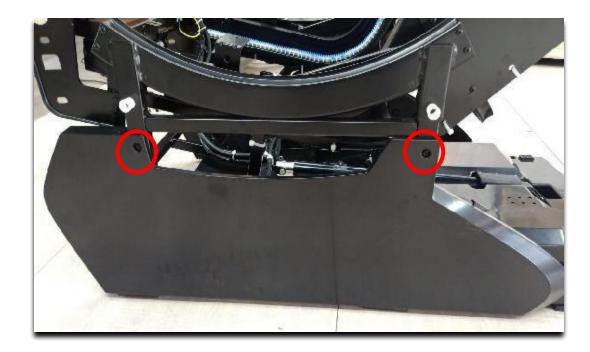


C, remove the decorative outer cover





## 4.6. Schematic diagram and video of disassembly and assembly of seat frame side cover



A. Remove two screws on the outer side of the outer  $$\operatorname{\textbf{plate}}$$ 



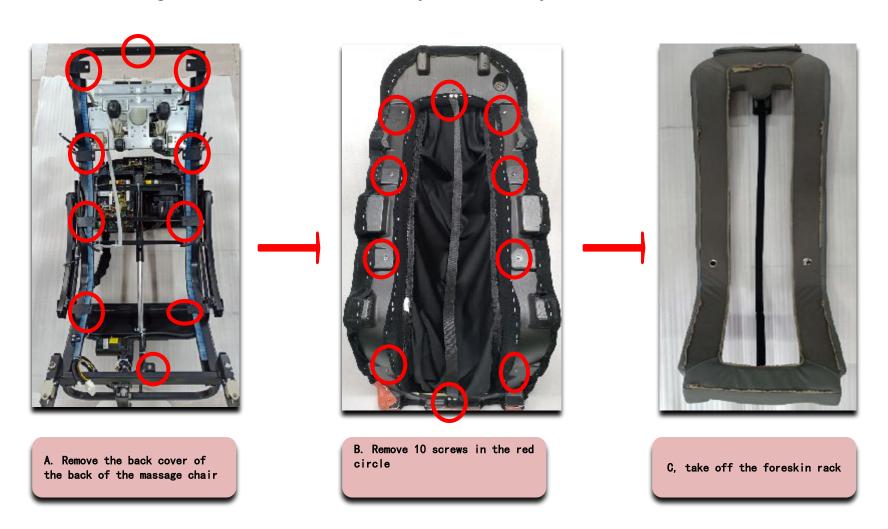
A. Remove the three screws at the inner red circle position



A. Remove the side cover assembly of the seat frame



#### 4.7. Schematic diagram and video of disassembly and assembly of foreskin rack





#### 4.8. Schematic diagram and video of capsule disassembly and assembly



1. Remove four screws on the left and right sides of the capsule



3. Remove the trachea plugs on both sides of the outer side of the capsule



2. Unplug the speaker plug-in on the right side of the capsule



C. Separate capsule assemblies



#### 4.9. Schematic diagram of speaker disassembly and assembly



1. Gently pry it up with a 1-shaped screwdriver



1. Remove the two screws on the small speaker



1. Remove the 4 car buckles on the speaker cover



1. Remove the small speaker

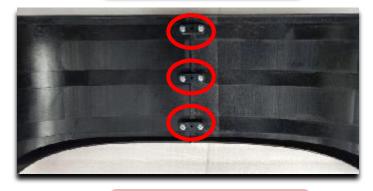


# 

#### 4.10. Schematic diagram of disassembly and assembly of capsule cover plate



Remove two screws on the outside of the left and right sides



3. Remove the whole shell and remove the 6 screws at the center position



2. Remove one screw on the left and right inner sides



4. Separate the left and right capsule covers



4.10. Schematic diagram of disassembly and assembly of intelligent voice control component, wireless charging board and shortcut key board



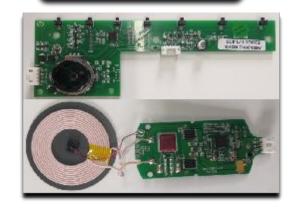
 Gently pry open with a 1-shaped screwdriver



3. Remove the relevant screws at each part



2. Separate 4 metal buckles

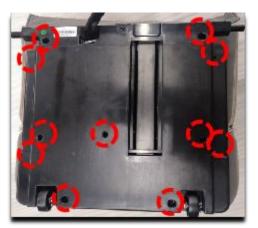


4. Just unplug the harness

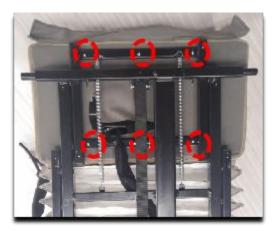




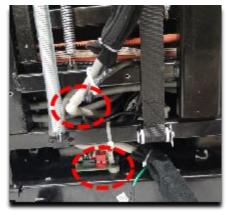
# 4.11. Schematic diagram and video of calf kneading and disassembly



A. Remove the screws in the red ring of the calf stretchback cover and remove the cover



B. Remove the 6 screws in the red ring of the calf steel frame



C, separating the air pipe from the kneading plug-in and removing the kneading component



D. Remove the upper leg holster



E. Separate the calf kneading assembly





#### 4.12. Schematic diagram of disassembly and assembly of calf roller



A. Remove the screws in the red ring of the lower leg back cover



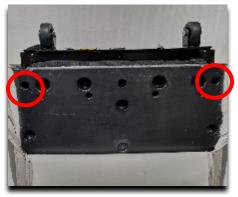
D. Remove all the screws of the lower leg bottom panel



B, remove the screws in the red ring at the bottom of the calf



E. Separate the calf trachea from the plug-in



C, remove the screws in the red ring for separating the lower leg holster

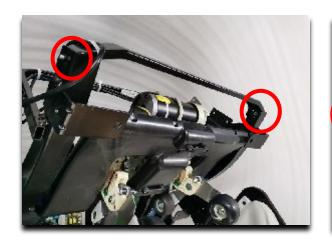


F. Finally, remove the roller assembly





#### 4.13. Schematic diagram and video of manipulator disassembly and assembly







A. Remove the screws in the red rings on both sides of the backrest steel frame (Remove the foreskin and support capsule first)

B, separate the tie in the red circle, and remove the ground wire screw and limit magnet (Take photos to save the wiring for subsequent restoration)

C, take out the manipulator with both hands and separate it from the fuselage (when the whole machine is powered off)



## After-sale maintenance-fault judgment and troubleshooting

- 1. Hand controller error code
- 2. The whole machine does not work
- 3. The manipulator can't walk up and down.
- 4. The kneading/tapping motor does not work
- 5. Stretching does not work
- 6. The kneading motor does not work
- 7. The foot roller motor does not work
- 8. The backrest/calf electric cylinder does not work
- 9. Intelligent voice control does not work
- 10 armrest LED light does not work
- 11. A certain group of air pressure does not work
- 12. Bluetooth function doesn't work
- 13. The armrest shortcut button does not work
- 14. Backrest heating does not work
- 15 wireless charging does not work



Display	Trouble	Possible causes	
ВО	Error in communication between massage hand and PCB	J31 massage hand problem, PCB problem     Massage hand connection problem or plug-in loosened	
FB	The upper and lower limit switch of the massage hand detects simultaneously	The upper and lower limit switch lines are not connected well     Upper and lower limit switches (one or two) broken	
FC	The position signal of the upper and lower circles is not detected in the unit time of the massage hand	<ul> <li>The upper and lower position signal lines are not connected well.</li> <li>Walking detection code disk collection detection photoelectric tube.</li> <li>Up and down moving motor problem.</li> <li>J31 Motherboard up and down moving motor drive circuit problem.</li> </ul>	
		Overload or other reasons make the upper and lower moving motors unable to work properly.	

FD	When the massage hand move up and down, no upper limit or lower limit signal was detected in 40 unit time.	<ul> <li>Overload or other causes slow up the motor.</li> <li>The upper and lower limit switch is damaged.</li> </ul>
F9	Overload or short circuit of driving circuit of walking motor	<ul> <li>Walking motor drive circuit problem.</li> <li>Walking motor failure, resulting in exceptional current.</li> <li>Overload or other cause of motor shutdown causing exceptional current.</li> </ul>
FE	Shoulder position detection signal not detected	<ul> <li>Shoulder position detection slot photo coupling broken</li> <li>Shoulder position detection line plug loose out</li> </ul>
F6	Kneading width detection signal 1 not detected	<ul> <li>Kneading width detection photoelectric tube 1 broken</li> <li>Kneading motor broken.</li> <li>Kneading drive circuit problem.</li> <li>Overload or other cause the motor does not work properly</li> </ul>

F7	Kneading width detection signal 2 not detected	Kneading width detection Photoelectric tube 2 Kneading motor broken. Kneading drive circuit problem. Overload or other cause the motor does not wo	
F8	Overload or short circuit of driving circuit of kneading motor	Kneading motor drive circuit problem. Kneading motor broken, resulting in exceptiona Overload or other cause cause motor to turn ar exceptional current	
E0	Lower leg lift motor cycles can not be detected in unit time	Circle number detection hall damage.  Motor broken  Motor drive circuit problem.  The motor does not work properly due to except other causes	otional load or
E4	Lower back lift motor cycles can not be detected in unit time	Circle number detection Hall Damage. Motor broken Motor drive circuit problem. The motor does not work properly due to except other causes	otional load or

E1	The lower leg lift motor detected up and lower limit signal simultaneously	1.	The upper and lower limit switch lines are not connected well.  The upper and lower limit switches are damaged (one or two).
E5	The back lift motor detected up and lower limit signal simultaneously	1.	The upper and lower limit switch lines are not connected well.  The upper and lower limit switches are damaged (one or two).
E2	When the calf lifting motor working, no signal detected inspected time from the upper or lower limited switch	1.	Overload or other causes slow the motor. The upper and lower limit switch is damaged.
E6	When the back lifting motor working, no signal detected inspected time from the upper or lower limited switch	1.	Overload or other causes slow the motor. The upper and lower limit switch is damaged.

FA	Tapping motor drive circuit has problem	<ul> <li>Tapping motor drive circuit has problem</li> <li>1. Tapping motor broken</li> <li>2. Overload or other causes slow the motor.</li> </ul>
F5	Tapping motor circuit opening	<ul> <li>Tapping motor drive circuit has problem</li> <li>Tapping motor circuit opening, plug off, or wire broken</li> </ul>
E3	leg lifting motor driver circuit detection error	<ul> <li>Leg lifting motor drive circuit has problem</li> <li>Leg lifting motor broken</li> <li>Overload or other causes slow the motor.</li> </ul>
E7	back lifting motor driver circuit detection error	Back lifting motor drive circuit has problem     Back lifting motor broken     Overload or other causes slow the motor.
F4	stretching motor driver circuit detection error	Stretch motor drive circuit has problem     Stretch motor broken     Overload or other causes slow the motor.
F0	Stretching motor detected front and real limit signal simultaneously	The stretch signal detection element damage.     Stretch detection line broken or plug-in loop.

F1	Hall signal 1 can't detect the number of cycles when the stretching motor working	Stretch motordrive circuit has problem     Stretch motor brokenStretch detection board broken
F2	Hall signal 2 can't detect the number of cycles when the stretching motor working	<ul> <li>Stretch motor drive circuit has problem</li> <li>Stretch motor broken</li> <li>Stretch detection board broken</li> </ul>
F3	No upper limit or lower limit signalis detected with 20 seconds when the stretching motor working	<ul> <li>Stretch motor drive circuit has problem</li> <li>Stretch motor broken</li> <li>Stretch detection board broken</li> <li>Magnet drops</li> </ul>
B1	Error communication between massage chair and armrest shortcut key	<ul> <li>Armrest shortcut keyboard broken</li> <li>Link between shortcut key and massage chair loose or wire harness broken</li> </ul>
В7	Error in foot roller motor drive circuit detection	<ul> <li>Foot roller motor drive circuit has problem</li> <li>Foot roller motor broken</li> <li>Overload</li> </ul>

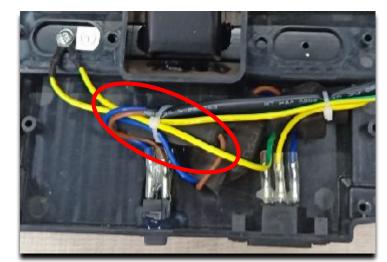
B5	Error in calf kneadingmotor drive circuitdetection	<ul> <li>Calf kneading motor drive circuit has problem</li> <li>Calf kneading roller motor broken</li> <li>Overload</li> </ul>
B6	Calf kneading motor circuit opening	<ul> <li>Calf kneading motor drive circuit has problem</li> <li>Calf kneading motor circuit opening or plug loop</li> </ul>
B2	Back heating overload or short circuit	<ul> <li>Back heating drive circuit has problem</li> <li>Back heating overload or short circuit</li> </ul>
В3	Backrest heating temperature sensor has problem	<ul> <li>Main board temperature detection circuit has problem</li> <li>Temperature probe malfunction, wirebroken, or plug-in loop</li> </ul>
B4	Back heating circuit opening	<ul> <li>Main board heating circuit malfunction</li> <li>Heater circuit opening, plug-in loop or wire broken</li> </ul>
B8	Error detection in 24V AC air pump drive circuit	<ul><li>Air pump drive circuit has problem</li><li>1. Air pump broken</li><li>2. Overload</li></ul>
BF	No SD card on bluetooth board	No SD card or not connected well

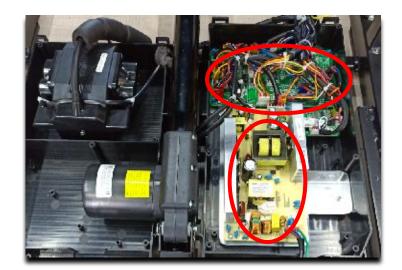
## 5.1. 2, Error code of remote controller

After power on the massage chair, press the leg lower + backrest up + lying down key at the same time, and then press the menu key to enter the TEST mode, and the LC + error code display will come out, showing 00, indicating that there is no error.

### 5. 2, The Whole Machine does not work







1

2

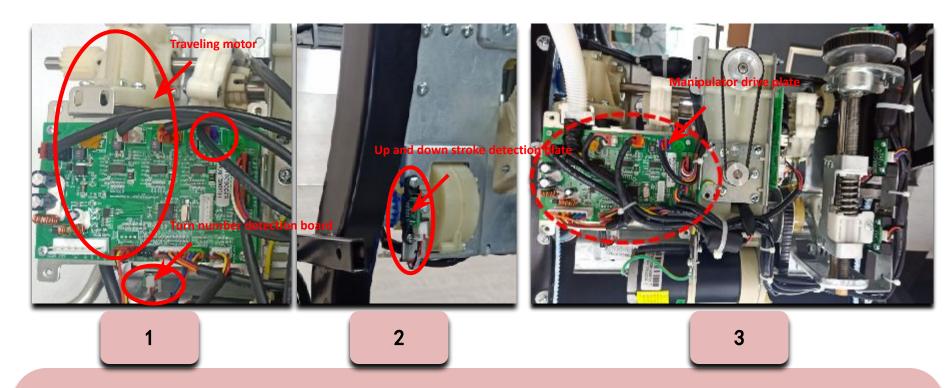
3

#### Fault diagnosis and maintenance:

- A, The manual controller is damaged and cannot be turned on, which is eliminated by substitution method (1):
- B, Fuse burn, mightbe caused by the overload or the short circuit of the PCB, remove the short circuit load, the PCB, replace the fuse (2);
- C, Check that the 24V/5VA voltage output of the power board is it normal. If it is not normal, we can confirm the power board is damaged (3).

Normal means that the power supply is normal. The problem is the PCB, replace a new one Note: 5VA is come out when the mass chair is power on

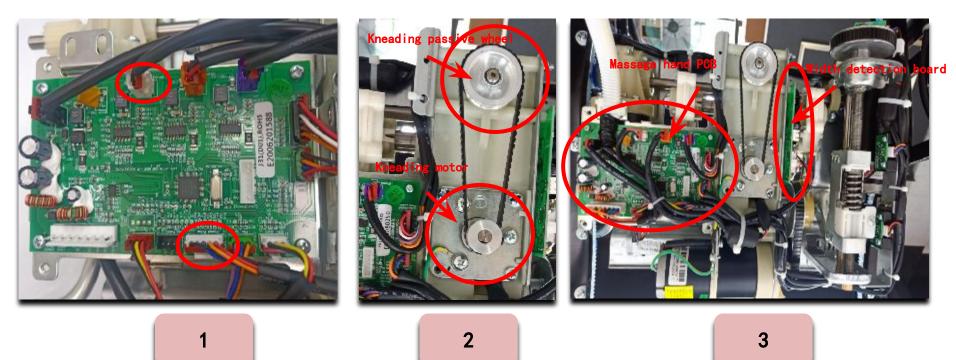
#### 5.3, Massage hand can not walk up and down



#### Fault diagnosis and maintenance::

- A, First check whether the massage hand PCB wire harness has bad contact or plug off (1);
- B, To judge whether the walking motor is damaged, you can use the power supply of the tapping motor to judge whether the walking motor is broken or not (1);
- C, Check whether the travel circle detection board is damaged (1);
- D. Check whether the upper and lower travel detection board is damaged (2); ERROR CODE: FB/FC/FD/F9
- E, Substitution method to determination while the massage hand PCB is damaged (3);

### 5.4, The kneading function does not work

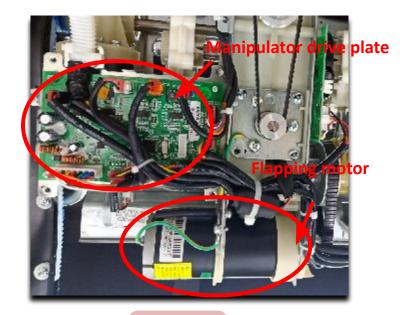


#### Fault diagnosis and maintenance::

- A, First check whether the mass hand PCB wire harness has bad contact or plug off (11);
- B, To judge whether the kneading motor is damaged, you can use the power supply of the tapping motor to judge whether the walking motor is broken or not (2);
- C, Check whether the width detection board is dam (3);
- D. Substitution method to determination while the mass hand PCB is damaged (3); ERROR CODE: F6/F7/F8
- E, Turn kneading passive wheel by hand and check if it feels very tight. If so, replace the kneading worm gear box component (2)

# 5.5, The tapping function does not work





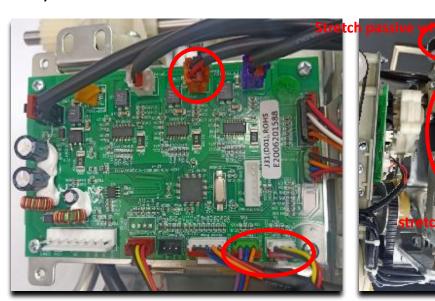
1

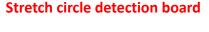
2

### Fault diagnosis and maintenance::

- A, First check whether the massage hand PCB wire harness has bad contact or plug off (1);
- B, To judge whether the tapping motor is damaged, you can use the power supply of the kneading motor to judge whether the tapping motor is broken or not (2);
- C, Substitution method to determination whether the massage hand PCB is damaged (2); ERROR CODE: FA/F5

### 5. 6. The stretch function does not work







1

2

3

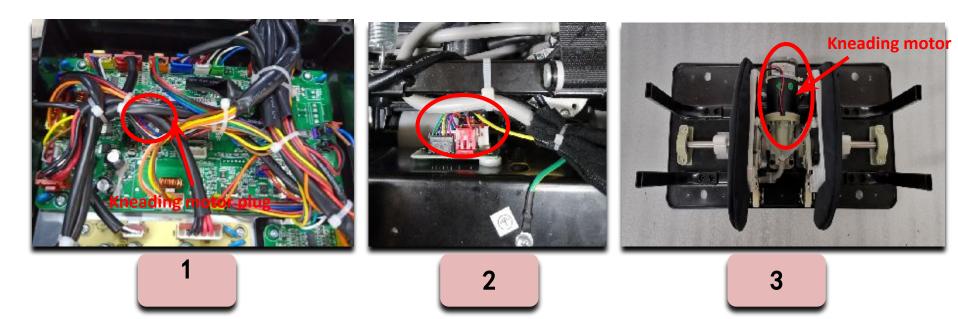
#### Fault diagnosis and maintenance:

- A, First check whether the massage hand PCB wire harness has bad contact or plug off (11);
- B, To judge whether the stretch motor is damaged, you can use the power supply of the tapping motor to judge whether the stretch motor is broken or not (2);
- C, Check whether the stretch circle detection board is damaged (3);
- D, Check whether the stretch upper and lower limit detection boards are damaged (3)
- E, Substitution method to determination while the massage hand PCB is damaged (3)

ERRORE CODE: F0/F1/F2/F3/F4

F, Turn the stretch passive wheel by hand to see if it is abnormal. If it is abnormal, replace the stretch mechanism assembly (2)

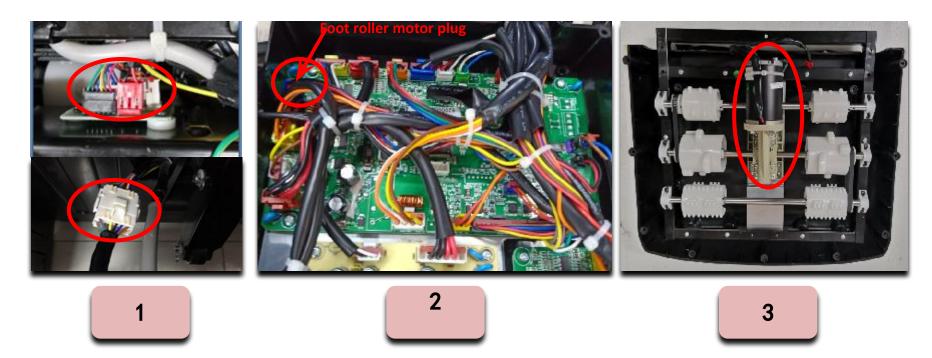
# 5.7, The calfrest kneading motor does not work



### Fault diagnosis and maintenance:

- 1. First check whether the PCB kneading function plug-in is loose, whether there is DC24V voltage output (1)
- 2. If not, check whether the calf adapter plug is look (2), if it is normal, replace a new kneading motor (3)
- 3. If all above are normal, replace a new PCB (1) ERROR CODE: B5/B6

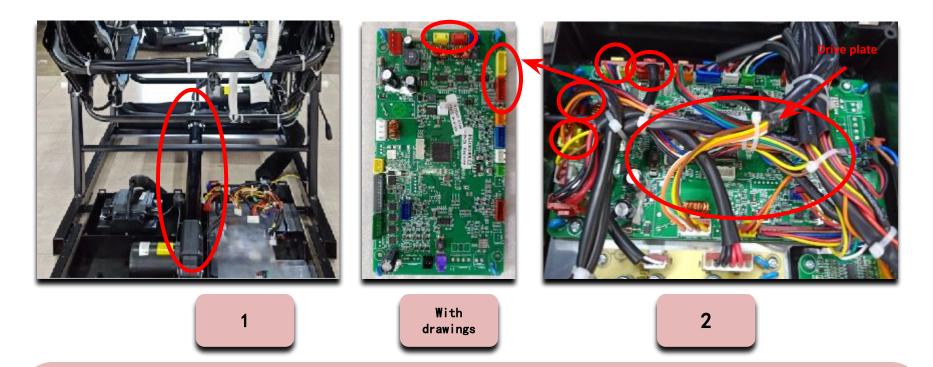
### 5.8, Foot roller does not work



### Fault diagnosis and maintenance:

- A, Check whether the cable harness connecting the leg and the main chair is in bad contact or not, and whether there is DC24V output, (1)
- B, If there is no voltage output, check whether the plug-in on the PCB is loose or not, and whether there is voltage output. (2)
- D, If the above is normal. And no problem with the wiring harness, we can check the sole roller motor (3)

### 5.9. The backrest cannot be lifted



- 1. First, check whether the plug-in of the backrest electric cylinder on the PCB is normal (Figure 2);
- 2. Because the working voltage and parameters of backrest and calf electric cylinder are the same (except size), we can use replacement way (red and yellow) to judge whether the electric cylinder is damaged (two yellow and two red exchange at the same time) (attached figure); If damaged, replace the backrest electric cylinder (Figure 1)
- 3. If the electric cylinder is normal, we should consider replacing the PCB (Figure 2); Fault code: E4/E5/E6/E7



## 5.10, the calf can't



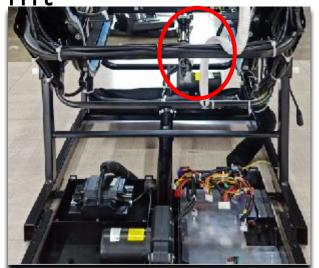






Figure 1

With drawings

Figure 2

- 1. First, check whether the plug-in of the backrest electric cylinder on the PCB is normal (Figure 2);
- 2. Because the working voltage and parameters of backrest and calf electric cylinder are the same (except size), we can use replacement way (red and yellow) to judge whether the electric cylinder is damaged (two yellow and two red exchange at the same time) (attached figure); Replace leg electric cylinder if damaged (Figure 1)
- 3. If the electric cylinder is normal, we should consider replacing the drive plate (Figure 2); Fault code: E0/E1/E2/E3



## 5.11. Intelligent voice control does not work

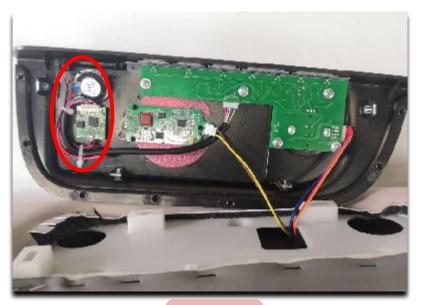






Figure 1

Figure 2

Figure 3

- 1. Turn on the massage chair through the armrest quick button or through the voice entry
- 2. When the voice control does not work, the wiring harness and signal of the receiving microphone are poor, or the intelligent voice control board is damaged
- 3. In addition, the PCB and shortcut key board also have a small probability of damage



# 5.12. The wireless fast charging function does not work







Figure 1

Figure 2

Figure 3

- 1. Check whether the fast charging plug-in and armrest plug-in on the PCB are abnormal (Figures 2 and 3)
- 2. The wiring harness of the fast charging plate is poor or the fast charging plate is damaged (Figure 1)
- 3. In addition, the PCB also has a small probability of damage (Figure 2)



#### 5.13. The armrestshortcut button does not work

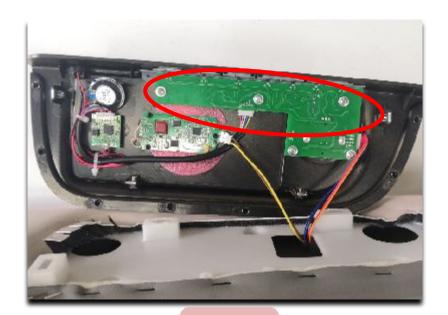


Figure 1



Figure 2



Figure 3

- 1. Check whether the armrest shortcut key plug-in on the PCB is abnormal (Figure 2),
- 2. Poor wiring harness of shortcut board or board damaged (Figure 1)
- 3. In addition, the PCB also has a small probability of damage (Figure 2) Fault code: B1





### 5.14. The LED of armrest trim cover does not work





Figure 1 Figure 2

- 1. Check whether the LED plug-in of the PCB is abnormal and whether there is DC12V voltage output. If not, replace the PCB (Figure 1)
- 2. Check whether the armrest line plug-in has poor contact or falls off (Figure 2);
- 3. If the light bar is poor, replace the armrest light bar;



## 5.15. The whole machine air pressure and single group air pressure do not work



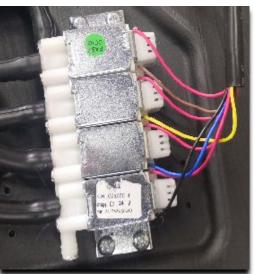






Figure 1

Figure 2

Figure 3

Figure 4

- 1. Check whether the relevant air bag is broken and whether the air hose is bent (Figure 1)
- 2. Check that the solenoid valve of relevant air pressure is damaged or the plug-in of air valve plate is defective (Figure 3)
- 3. Detect the resistance value of a single group of solenoid valves to judge whether the solenoid valve is good or broken (unimpeded value means broken) (Figure 2)
- 4. Check whether there is AC24 voltage output at the air pump plug-in of the driving plate, and replace the driving plate if there is no voltage output (Figure 3)
- 5. The PCB has voltage output, so it is necessary to consider replacing the air pump at this time (Figure 4) Fault code: B8



# 5. 16, Bluetooth music function does not work







Figure 1

Figure 2

Figure 3

- 1. Check whether the Bluetooth switch of the manual controller is turned on and whether the pairing is successful
- 2. Check whether the Bluetooth plug-in of the PCB is abnormal and whether there is 5V voltage output (Figure 2)
- 3. If there is no abnormality in the above situation, consider replacing the Bluetooth board (Figure 1)
- 4. If one side speaker no sound, check the wiring harness and replace the speaker; (Figure 3)

### 5.17. Heating function does not work



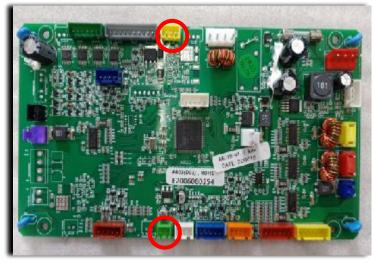




Figure 1

Figure 2

Figure 3

### Fault judgment and maintenance:

- 1. Check whether the backrest heating pad and PCB plug-in are abnormal (Figures 1, 2 and)
- 2. Measure whether there is AC22V voltage output at the green plug-in, and replace the PCB if there is no voltage output (Figure 2)
- 3. Detect whether the heating wire is conductive, and replace the backrest heating wire without resistance; (Figure 3)

Fault code: B2/B3/B4

