



BreathCare PAP

Maintenance Manual

Please carefully read the maintenance manual before maintenance, and follow the maintenance manual.

Version history:

Version	Revised on	Revision content	Revised by	Remark
V1.00	Oct. 23, 2024	New version preparation	Wang Lian	

Dear maintenance engineers:

Thank you for maintaining our BreathCare PAP device, this maintenance manual applies to positive airway pressure device YH-680A/B and YH-690A/B series, hereinafter referred to as BreathCare PAP device. We sincerely hope this maintenance manual can offer the help for you. If you have any comment or suggestion in the process of maintenance, please contact our company in time.

Note: Please read this maintenance manual and the user manual carefully before servicing.

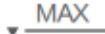
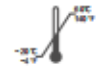
Please keep the manual properly for future reference.

Contents

Warnings and precautions	4
1 Product Composition	6
2 Analysis and solving of common problems	8
2.1 Finding and solving problems	8
3 Main device disassembly and replacement of main parts	15
3.1 Attention Items	15
3.2 Tools	15
3.3 Operation Steps	15
3.3.1 Replace or remove the water tank assembly	15
3.3.2 Replace or remove the filters	15
3.3.3 Replace or remove the main host	16
3.3.3.1 Replace or remove the panel operation steps:	16
3.3.3.2 Replace or remove the data module assembly	17
3.3.3.3 Replace or remove the main control board and screen	18
3.3.3.4 Replace or remove the blower	19
3.3.3.5 Replace or remove the DC power board	20
3.3.3.6 Replace or remove the heating plate assembly	21
4 Main device assembly	21
4.1 Attention Items	21
4.2 Tools	21
4.3 Operation Steps	22
4.3.1 Assemble the main host components	22
4.3.2 Assemble the main air duct assembly	23
4.3.3 Assemble the exhaust pipe assembly	24
4.3.4 Assemble the screen assembly	25
4.3.5 Assemble the main control board assembly	25
4.3.6 Assemble data transmission components	26
4.3.7 Assemble the upper shell assembly	27
4.3.8 Assemble the decorative cover and base assembly	28
4.3.8.1 Assemble the decorative cover	28
4.3.8.2 Assemble the filter cotton	29
4.3.8.3 Assemble the water tank assembly	29
4.3.9 Assemble the heating plate assembly	29
Appendix A List of accessories	30

Symbol Meaning

The following marks may appear on the product or on the outer packaging of the product.

Symbol	Meaning	Symbol	Meaning
	Follow instructions for use		A warning/caution
	Type BF applied part		Class II equipment
	Minimum water level		Maximum water level
	Press to start /stop therapy		Warning: hot surface
	Medical device		Alternating current
	Serial number		Direct current
	Manufacturer		MR unsafe
	General warning sign		Temperature limitation for storage and transport
	Humidity limitation		Atmospheric pressure limitation
Rx Only	Prescription only		
	Country of manufacture (China) Date of manufacture is on the right side of the symol or below it.		
	Environmental information (EU directive 2012/19/EE Waste Electrical and Electronic Equipment (WEEE))		
IP22	Protected against access to hazardous parts with a finger and solid foreign objects of 12,5 mm in diameter and greater, protected against vertically falling water drops when enclosure titled up to 15 degrees.		

Warnings and precautions

The maintenance service of the BreathCare series ventilator can only be carried out at Yuwell Medical authorized service centers. Unauthorized groups or individuals have no maintenance rights.

Warning:

- This manual is for the maintenance engineer's reference only. The guidance of the maintenance manual is not intended to replace the regulations and agreements on the use of the BreathCare PAP device.
- The maintenance engineer should carefully read the BreathCare PAP device User Manual, and familiarize with the contents.
- The maintenance engineer should have safety protection and go through the disinfection process after maintaining the device.
- The BreathCare PAP must only use the AC/DC power adapter provided by the manufacturer. Do not use the power source of other devices for power supply.
- For safe operation, the maintenance engineer needs to have safety protection, wear electrostatic gloves and electrostatic bracelets. Place the BreathCare PAP on the anti-static desk.
- Unauthorized personnel are not allowed to maintain or modify the ventilator. Improper maintenance and unauthorized changes to the ventilator may endanger the patient's safety and cause injury to the patient while using the ventilator.
- The power cord must be unplugged when performing maintenance operations.
- Use this product only for the intended use described in this manual and do not use auxiliary accessories not approved by the manufacturer.

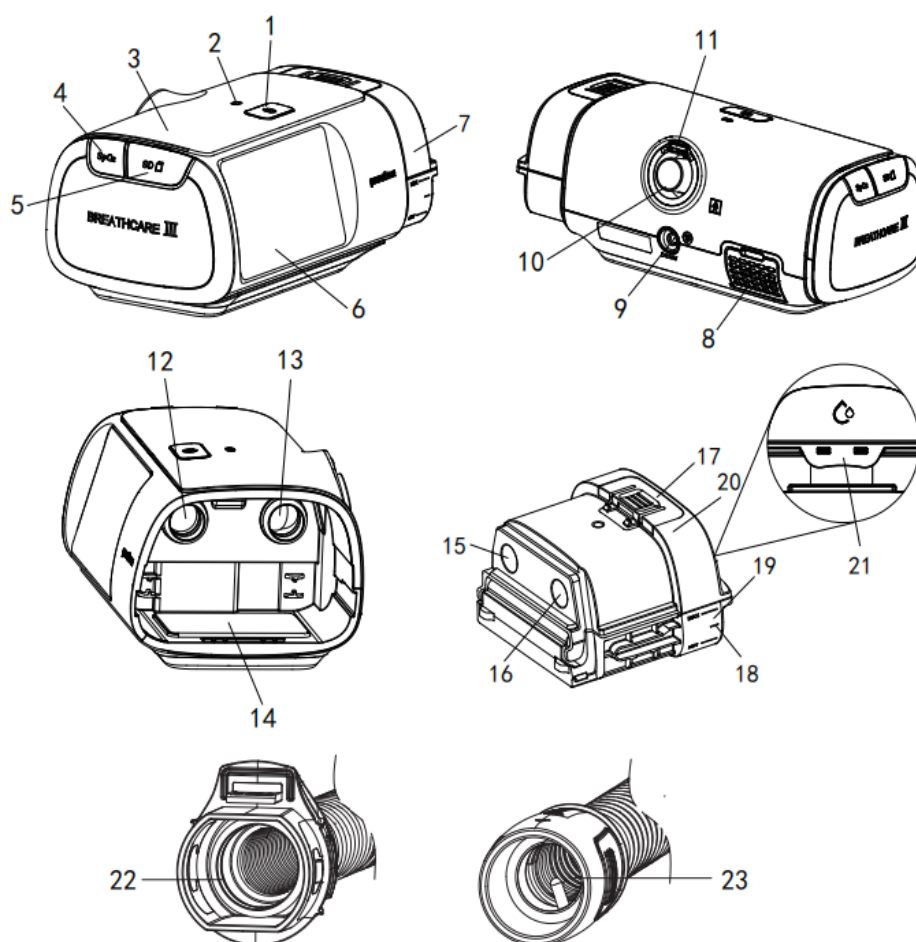
Note:

- Before the maintenance of the device, inquire the user for details and check if there is water in the device. If there is water, don't power on the device.
- Please properly save users' treatment data and parameters setting for users' reference.
- Take appropriate safety precautions when handling the ventilator.
- Liquid dripping or splashing into the device may damage the device or cause a risk of electric shock.
- The device must not be maintained, covered or moved while connected to the patient.
- Do not drop any objects into the air tube or air outlet.

- Do not clean the machine during operation.
- Do not turn on the BreathCare PAP when its case or cable is damaged.
- Do not use the BreathCare PAP in damp rooms, bathrooms or around containers (or tubs) filled with water.
- Before use, you need to ensure the compatibility of the BreathCare PAP and components as well as all accessories used to connect it to the patient. It is recommended that you use our original products, as the use of products from other companies may reduce the therapeutic effect or damage the BreathCare PAP.

1 Product Composition

The BreathCare PAP comprises the main device, humidifier, power adapter (including power cord), breathing pipe, facial mask and data transmission module.



No.	Part Name	Explanation
1	Start button	Press this button to start/stop treatment; press this button on other pages to return to the home page
2	Light source sensor	Sensing the light intensity of the surrounding environment of the ventilator to adjust the screen brightness
3	Main device	Main host of the device
4	Oximetry module interface	Port for connecting the oximetry module (optional)

5	SD card slot	Port for inserting the SD card
6	Display screen	Display and operation functions, displaying the operating status of the device and other information
7	Humidifier	Contains water for humidifying the air
8	Fresh air inlet	Fresh air is drawn in, and the built-in air filter cotton removes solid impurities from the air.
9	Power jack	DC input from here
10	Air outlet of the device	Air is output from this outlet for connection to pipes
11	Power connection for heated breathing tube	Power can be turned on when the heated breathing pipe is connected here.
12	Main device air outlet	Air is output from here and enters the humidifier
13	Main device air adapter	Humidified air passes through here to reach the ventilator air outlet
14	Heating plate	Contact with the humidifier to evaporate the water in the humidifier
15	Humidified air outlet	Humidified air is output from here
16	Humidified air input port	Connect to the ventilator and air enters from here
17	Humidifier button	Press this button to separate the humidifier from the main device
18	Water level	Indicate the amount of water added to the humidifier
19	Humidifier base	Used to hold water
20	Humidifier cover	Open this cover to add water to the humidifier
21	Humidifier buckle	Pry open the buckle to separate the humidifier cover and base; Press the buckle to connect the humidifier cover and base
22	Connection port of the device	Port where the breathing pipe connects to the ventilator
23	Mask connection port	Port where the breathing pipe connects to the mask

 **Attention:** The power jack of the main device is used to connect with the DC power adapter plug. The BreathCare PAP is only able to use the AC/DC power adapter provided by the manufacturer. Using other AC/DC power adapters might cause damages to the BreathCare PAP or cause dangers of fire and electric shock.

2 Analysis and solving of common problems

2.1 Finding and solving problems

Serial No.	Symptom	Analysis of possible causes	Solutions
Questions of using experience			
1	Symptoms of nasal and laryngeal dryness and irritation	1 Air dryness.	1. Check if the heating and humidification level is on. 2. Increase the levels of heating and humidification.
2	Oral and laryngeal dryness	1. When open your mouth and breathe, you feel dryness in your mouth and the pharynx. 2. Low levels of heating and humidification.	1. Use a chin strap to avoid mouth breathing or use a full face mask 2. Increase the levels of heating and humidification.
3	The facial mask leaks air that blows into the eyes, irritating or drying the eyes.	1. Check and make sure if the facial mask is properly worn. 2. Check whether the size of the facial mask is appropriate or not.	1. Adjust the position of the facial mask and the tightness of the headband by referring to the instruction manual, to make sure the facial mask is worn correctly.
4	The part of the face in contact with the facial mask turns red or has inflammation.	1. The headband is too tight; 2. The mask size is inappropriate; 3. Allergic to materials of the facial mask.	1. Adjust the headband appropriately to allow a finger distance between the headband and the face. 2. Confirm the appropriate size by measuring the nasal card and choose the appropriate mask. 3. Replace the nasal pillows mask or other material mask.
5	There is condensation in the pipeline	1. Incorrect parameter settings. 2. Because the nasal mask wall and the extension tube of standard YN-03 cannot be heated. When the ambient temperature is low, condensation will occur on the nasal mask wall or the extension tube. 3. The ambient room temperature is low and there is a temperature difference.	1. Lower the levels of heating and humidification, and physically isolate the tube with protective cover. 2. Remove the extension tube, and connect the nasal mask end directly to the connector of the extension tube port to avoid condensation on the extension tube. 3. Increase the indoor room temperature.

Serial No.	Symptom	Analysis of possible causes	Solutions
6	Nasal, sinus or ear pain	1. Inflammation 2. High pressure	1. Stop using and consult the professionals.
Common abnormal working of the ventilator			
1	The temperature of the inhaled air is too high.	1. The filter cotton is blocked. 2. The air inlet is blocked. 3. The distance between the BreathCare PAP and the wall or other objects is too short, leading to an obstructed air flow. 4. High levels of heating and humidification.	1. Clean or change the filter cotton. 2. Clear foreign matter at the air inlet. 3. Move the BreathCare PAP to places with smooth air flow, and keep it from the wall or other objects with at least 20cm. 4. Lower the levels of heating and humidification.
2	Power-on abnormality, unable to start normally or black screen or blurred screen when starting.	1. The power adapter is not connected or the connection is loose. 2. The power adapter is damaged. 3. The DC power harness is not connected correctly. 4. The screen is damaged. 5. Damaged main control board.	1. Re-plug the adapter connection port. 2. Check whether the power adapter indicator light is normal. 3. Disassemble the machine to check whether the power harness is not connected correctly and the harness is damaged. 4. Replace the screen. 5. If the above troubleshooting methods did not solve the problem, then disassemble the machine and replace the main control board.
3	Power on and start normally, but the backlight brightness of the device is abnormal.	1. The backlight setting level is too low. 2. The screen is damaged.	1. Backlight setting level of the display interface. 2. Disassemble the machine and replace the screen.
4	Power on and start normally, but fail to enter the working state after pressing the start button.	1. Program operation abnormality. 2. Start button failure.	1. Restart the BreathCare PAP. 2. Replace the main control board.
5	Power on and start normally, button failure.	1. Program operation abnormality. 2. Button failure. 3. Main control board failure.	1. Restart the BreathCare PAP. 2. Disassemble the machine and replace the button. 3. If the above

Serial No.	Symptom	Analysis of possible causes	Solutions
			troubleshooting methods did not solve the problem, then disassemble the machine and replace the main control board.
6	There is no air output.	1. Tube blockage. 2. Pressure or air flow detection malfunction. 3. Main control board failure.	1. Check for tube blockage. 2. Recalibrate the ventilator. 3. Replace the main control board.
7	Too small air flow output.	1. The BreathCare PAP is working in the ramp time. 2. The set pressure value of the ventilator is too low. 3. There is a blockage in the air pipes. 4. The filter cotton is blocked. 5. Blower failure.	1. Turn off or shorten the ramp time. 2. Increase the set pressure. 3. Clean the air pipes. 4. Change the filter cotton. 5. If the above troubleshooting methods did not solve the problem, then replace the blower.
8	The ventilator works normally, and the pressure seems to be too high or too low	1. The breathing pipes or the pressure sampling pipes are not properly connected with the interface of the BreathCare PAP. 2. The facial mask or the breathing pipes leak air. 3. Calibration data is incorrect. 4. Sensor malfunction.	1. Disassemble and reassemble the connection port. 2. Check whether the mask and breathing pipe are leaking or damaged. 3. Recalibrate the parameters of the ventilator. 4. Replace the main control board.
9	The ventilator is too noisy during operation.	1. The breathing pipe is not connected properly. 2. The facial mask or the breathing pipes leak air. 3. The heated humidifier is not sealed properly or the humidifier jar seal is not assembled properly. 4. Oscillation or falling causes parts to loosen or fall off. 5. Blower failure.	1. Disassemble and reassemble the pipeline. 2. Check whether the mask or breathing pipe is leaking or damaged. 3. Replace the heated humidifier or reassemble the humidifier jar seal. 4. Disassemble the machine to check the status of the parts and reassemble the whole machine. 5. If the above troubleshooting methods did not solve the problem, then disassemble the machine and replace the blower.

Serial No.	Symptom	Analysis of possible causes	Solutions
10	Auto Start/Stop abnormality	1. Check whether Auto Start/Stop is on or not. 2. There is a blockage in the air pipes. 3. The mask does not match. 4. Air flow detection abnormality in the main control board.	1. Reset the Auto Start/Stop function. 2. Clean the pipeline. 3. Check if the mask specifications and models match. 4. Recalibrate or change the main control board.
11	Heating humidifier shows temperature abnormality.	1. Heating plate failure. 2. Main control board abnormality.	1. Disassemble the machine and replace the heating plate. 2. If the above troubleshooting methods did not solve the problem, then disassemble the machine and replace the main control board.
12	Ramp time function abnormality.	1. Ramp time setting error. 2. Main control board clock abnormality.	1. Reset the ramp time on display interface. 2. Disassemble the machine and replace the main control board.
13	Time failure	1. Time setting errors. 2. The battery power is not enough or the battery is misplaced. 3. Main control board clock abnormality.	1. Reset the time on display interface of the device. 2. Disassemble the machine to check if the battery is detached and replace the battery. 3. If the above troubleshooting methods did not solve the problem, then disassemble the machine and replace the main control board.
14	SD card reading failed.	1. Storage card malfunction or SD card mismatch. 2. Poor connection between the storage card and the main device. 3. Main control board failure.	1. Disassemble and replace the storage card. 2. Disassemble and reinsert the storage card. 3. If the above troubleshooting methods did not solve the problem, then replace the main control board.

Serial No.	Symptom	Analysis of possible causes	Solutions
15	Abnormal parameter display or adjustment	1. Program operation abnormality. 2. Main control board failure.	1. Reset the parameters on the display interface or restarts the device. 2. If the above troubleshooting methods did not solve the problem, then disassemble the machine and replace the main control board.
16	The water tank cover is not tight.	1. The humidifier buckle is damaged. 2. The water tank cover is damaged.	1. Check the humidifier buckle for damage. 2. Check the water tank cover for damage.
17	Touch screen failure.	1. Software is stuck. 2. Screen harness is not connected correctly. 3. Screen cable is damaged or screen is damaged.	1. Restart the device. 2. Replug screen harness. 3. Replace the screen.
18	Slow response of operation screen	1. Software is stuck. 2. Touch screen failure.	1. Restart the device. 2. Replace the screen.
19	Data transmission failure.	1. Data upload function is not enabled. 2. Data overflow or the device is not used. 2. Signal is absent or weak.	1. Check whether data upload function is enabled. 2. Check the treatment data and treatment time. 3. Signal symbol is absent or flickering on the display interface, restart the device or search for strong signal.
20	Awakened	1. Abnormal parameter setting.	1. Reset parameters.
21	Air leakage	1. Leakage when wearing. 2. Humidifier jar leaks. 3. Mask leakage. 4. Pipeline leakage.	1. Wear the mask again. 2. Replace the humidifier jar. 3. Replace the mask. 4. Reassemble or replace the pipeline.
22	The device cannot stop the therapy after removing the mask.	1. Sensor data acquisition abnormality. 2. Sensor zero offset.	1. Recalibrate the ventilator. 2. Replace the main control board.
Analysis of error codes displayed on the ventilator			
1	The BreathCare PAP shows ERROR 1.	1. There is pressure at the moment of ventilator startup. 2. Pressure sensor is blocked. 3. Pressure sensor offset.	1. Check whether the machine is started with a mask. 2. Disassemble the machine to check whether the pressure sensor or silicone

Serial No.	Symptom	Analysis of possible causes	Solutions
		4. Damaged pressure sensor or main control board.	tube is blocked or not. 3. Recalibrate the ventilator. 4. If the above troubleshooting methods did not solve the problem, then replace the main control board.
2	The BreathCare PAP shows ERROR 2.	1. There is pressure at the moment of ventilator startup. 2. Flow sensor is blocked. 3. Flow sensor offset. 4. Damaged flow sensor or main control board.	1. Check whether the machine is started with a mask. 2. Disassemble the machine to check whether the flow sensor or silicone tube is blocked. 3. Recalibrate the ventilator. 4. If the above troubleshooting methods did not solve the problem, then replace the main control board.
3	The BreathCare PAP shows ERROR 3.	1. The heating plate connection wire is detached or plugged in incorrectly. 2. NTC heating plate is damaged. 3. Damaged main control board	1. Disassemble the machine and re-plug the connector. 2. Disassemble the machine and replace the heating plate. 3. If the above troubleshooting methods did not solve the problem, then replace the main control board.
4	The BreathCare PAP shows ERROR 4.	1. The BreathCare PAP self-test circuit is abnormal. 2. Sensor malfunction.	1. Repower up the machine. 2. Replace the main control board.
5	The BreathCare PAP shows ERROR 5.	1. Parameters detection malfunction. 2. Damaged FLASH、EEPROM storage or main control board.	1. Repower up the machine. 2. Disassemble the machine and replace the main control board.
6	The BreathCare PAP shows ERROR 6.	1. The flow sampling tube is detached or damaged. 2. The pressure sensor is damaged.	1. Check the connection status of the flow sampling tube or replace the sensor. 2. Replace the main control board.

Serial No.	Symptom	Analysis of possible causes	Solutions
7	The BreathCare PAP shows ERROR 7.	1. The heating plate connection wire has poor contact. 2. Heating plate is damaged. 3. Damaged main control board.	1. Check whether the heating plate connection wire has poor contact. 3. The heating plate fuse is disconnected, replace the heating plate. 4. Replace the main control board.
8	The BreathCare PAP shows ERROR 8.	1. The blower connection wire has poor contact. 2. Blower abnormality. 3. The fuse of the main control board is disconnected. 4. Damaged main control board.	1. Check whether the blower connection wire has poor contact. 2. Check whether water has entered the blower, and replace the blower for testing. 3. Check whether the fuse of the main control board is disconnected. 4. Replace the main control board.
9	The BreathCare PAP shows ERROR 9.	1. The software reads the time information incorrectly. 2. Main control board clock failure.	1. Restart the BreathCare PAP. 2. If the above troubleshooting methods did not solve the problem, then replace the main control board.

The problems users may face in the process of using, their causes, and the suggested solutions are listed above.

3 Main device disassembly and replacement of main parts

Any unauthorized repair or maintenance will invalidate the product warranty. This section briefly illustrates the main device disassembly and indicates the major sub-components that need to be replaced.

3.1 Attention Items

- 1) Prior to disassembly or assembly, ensure that the power supply is not connected to the BreathCare PAP.
- 2) The maintenance personnel must wear anti-static bracelets and anti-static clothes.
- 3) If there is debris in the slot of the detached cross screw, must clean before reassembly.

3.2 Tools

- 1) Cross screwdriver (5mm diameter).
- 2) Combination cut pliers.

3.3 Operation Steps

3.3.1 Replace or remove the water tank assembly

Place the main device flat on a protective mat or a clean table, with the button facing upward, as shown in Figure 1-01; press the main device with your left hand, and pinch the humidifier jar assembly to the right with your right hand, and you can pull out the humidifier jar assembly, as shown in Figure 1-02;



Figure 1-01



Figure 1-02

3.3.2 Replace or remove the filters

Place the main device flat on a protective mat or a clean table, with the button facing upward, open the filter cover on the left side, and take out the filter cotton, as shown in Figure 1-03 and Figure 1-04;



Figure 1-03

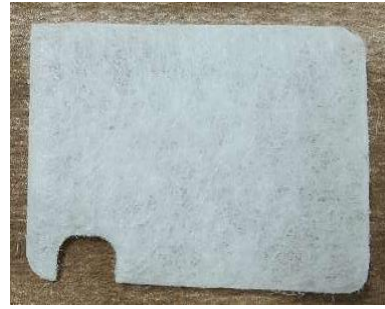


Figure 1-04

3.3.3 Replace or remove the main host

3.3.3.1 Replace or remove the panel operation steps:

- 1) Place the main device flat on a protective pad or a clean table with the panel facing upward as shown in Figure 1-05.
- 2) Turn the machine over and use a cross screwdriver to remove the 4 fixing screws on the base, as shown in Figure 1-06;
- 3) Disassemble the base from the main device, as shown in Figure 1-07/08;
- 4) Turn the machine over and remove the decorative cover_BC3 along the connection between the screen and the decorative cover_BC3, as shown in Figure 1-09/10;
- 5) After removing the decorative cover_BC3, remove the 5 internal fixing screws, as shown in Figure 1-11/12;
- 6) First remove the heating tube ring, then remove the cover assembly, and the disassembly is completed, as shown in Figure 1-13/14.



Figure 1-05



Figure 1-06



Figure 1-07



Figure 1-08



Figure 1-09



Figure 1-10

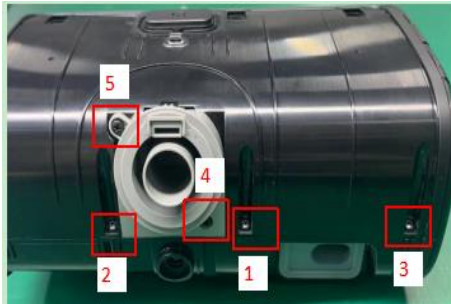


Figure 1-11



Figure 1-12



Figure 1-13



Figure 1-14

3.3.3.2 Replace or remove the data module assembly

Place the main device flat on a protective mat or a clean table, open the rubber cover, and remove the internal screws, as shown in Figure 1-15; remove the left cover assembly and remove the data transmission module. The disassembly is completed as shown in Figure 1-16;



Figure 1-15



Figure 1-16

3.3.3.3 Replace or remove the main control board and screen

1) Place the main device flat on a protective mat or a clean table with the bottom facing upward; use a cross screwdriver to remove the 3 fixing screws on the board, as shown in Figure 1-17; then remove the screen connection wire, as shown in Figure 1-18; finally remove the wiring harness on the board, and the main control board is disassembled, as shown in Figure 1-19/20.



Figure 1-17

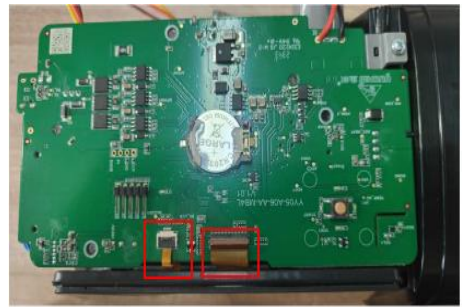


Figure 1-18

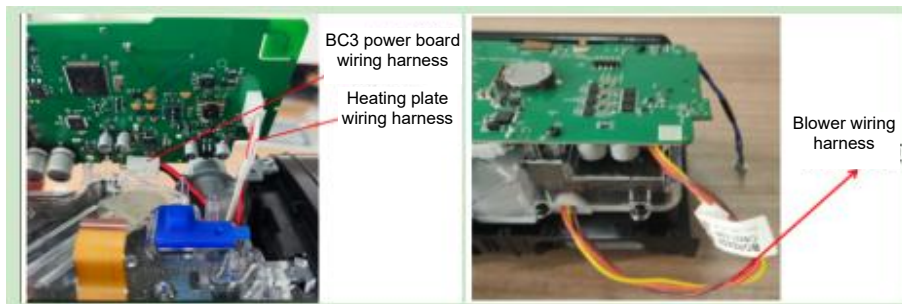


Figure 1-19



Figure 1-20

2) Before replacing the screen, remove the main control board and the 2 screws that fix the screen. The disassembly is completed as shown in Figure 1-21/22;

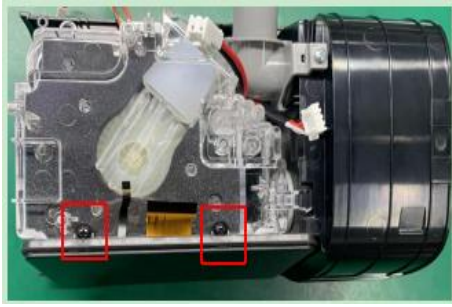


Figure 1-21



Figure 1-22

3.3.3.4 Replace or remove the blower

- 1) Place the main device flat on a protective mat or a clean table, and remove the "exhaust pipe_BC3", as shown in Figure 1-23;
- 2) Use a cross screwdriver to remove the 5 fixing screws on the cover assembly, as shown in Figure 1-24/25/26;
- 3) Remove the cover assembly and remove the draft tube_BC3 on the duct baffle plate, as shown in Figure 1-27/28/29;
- 4) Take out the blower and remove the blower exhaust pipe assembly_BC3. The disassembly is completed as shown in Figure 1-30/31/32.

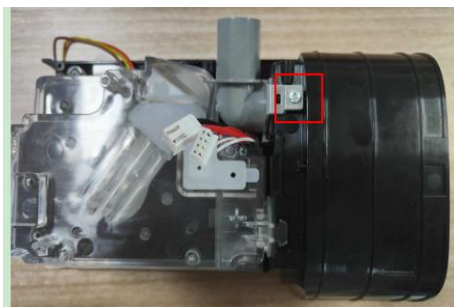


Figure 1-23

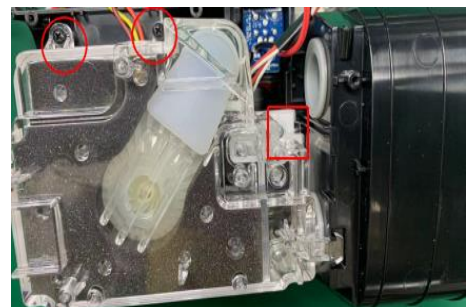


Figure 1-24

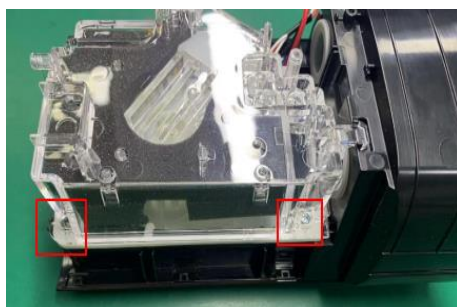


Figure 1-25



Figure 1-26

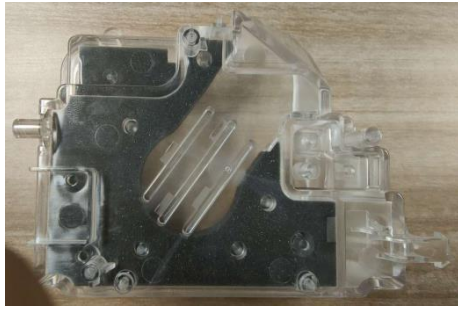


Figure 1-27

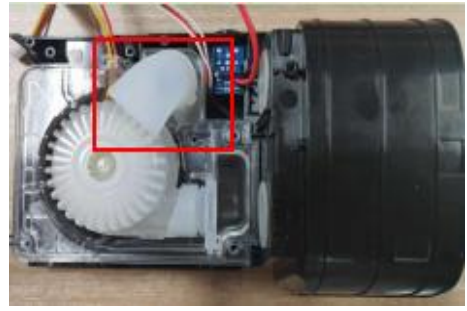


Figure 1-28

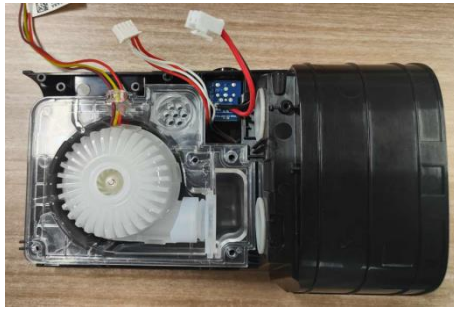


Figure 1-29

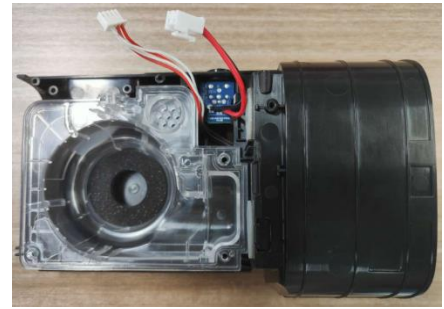


Figure 1-30



Figure 1-31

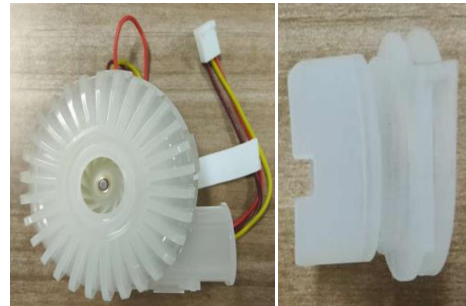


Figure 1-32

3.3.3.5 Replace or remove the DC power board

Place the main device flat on a protective mat or a clean table, use a cross screwdriver to remove the heating tube fixing screws, remove the heating tube, as shown in Figure 1-33; then remove and replace the power board, as shown in Figure 1-34;

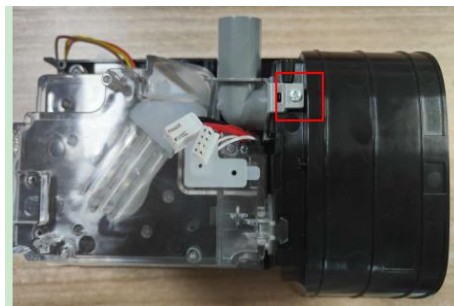


Figure 1-33



Figure 1-34

3.3.3.6 Replace or remove the heating plate assembly

Place the main device flat on a protective mat or a clean table, as shown in Figure 2-21; turn the machine upside down, press the buckles on both sides of the heating plate, and remove the heating plate, as shown in Figure 1-36/37.



Figure 1-35



Figure 1-36



Figure 1-37

4 Main device assembly

Any unauthorized repair or maintenance will invalidate the product warranty. This section briefly illustrates the main device assembly and indicates the major sub-components that need to be replaced.

4.1 Attention Items

- 1) Prior to disassembly or assembly, ensure that the power supply is not connected to the BreathCare PAP.
- 2) The maintenance personnel must wear anti-static bracelets and anti-static clothes.
- 3) If there is debris in the slot of the detached cross screw, must clean before reassembly.

4.2 Tools

- 1) Cross screwdriver (5mm diameter)
- 2) Combination cut pliers

4.3 Operation Steps

4.3.1 Assemble the main host components

Inlet hose_BC3, BC3 power board, DC seat bracket_BC3, main body disc_BC3, humidifier jar inlet and outlet components_BC3;

1) First, place the main body_BC3 on a protective mat or a clean table; then clamp the air inlet hose_BC3 on the main body_BC3, as shown in Figure 2-01, and finally put the main body disc_BC3 on the main body _BC3 positioning column, as shown in Figure 2-02;



Figure 2-01

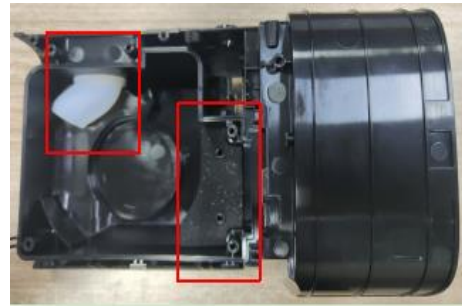


Figure 2-02

2) Clamp the BC3 power board on the DC seat bracket_BC3, as shown in Figure 2-03; then clamp the DC seat bracket with the BC3 power board on the red frame on the main body_BC3 as shown in Figure 4, as shown in Figure 2-04.

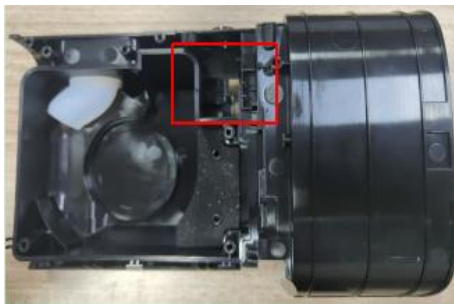


Figure 2-03



Figure 2-04

3) Put the two humidifier jar inlet and outlet components_BC3 in the red frame of the main body_BC3 (must not lose the roundness), as shown in Figure 2-05.



Figure 2-05

4.3.2 Assemble the main air duct assembly

1) Put the blower exhaust pipe assembly_BC3 on the blower (align the notch), and secured with nylon rolled strip, as shown in Figure 2-06;

2) Align the notch of the blower exhaust pipe assembly on the assembly shown in Figure 4 with the ribs on the main body of the main device, press it to the bottom, and the blower should be placed flat. Clip the blower wire in the red frame shown in Figure 2-07 into the corresponding notch of the silicone (the wires must not cross), as shown in Figure 2-08;

3) Put the draft tube_BC3 of the duct baffle plate on the red frame shown in Figure 2-09 (notch against protruding ribs); Assemble the duct cover component assembly onto the main body of the main device (fasten the buckle in the red frame), as shown in Figure 2-10;

4) Use two cross recessed pan head self-tapping screws ST2.9×13_GB/T845_galvanized_H-type cross recessed F-type tail/blue to fix the duct cover assembly (in the red frame shown in Figure 1), as shown in Figure 2-11;

5) Use one cross recessed pan head self-tapping screw ST2.9×13_GB/T845_Galvanized_H-type cross recessed F-type tail end/blue to fix the duct cover assembly (in the red frame shown in Figure 2-12), as shown in Figure 2-12; use two cross recessed pan head self-tapping screws ST2.9×8.5_GB/T845_H-type cross recessed F-type tail end/black to fix the duct cover assembly, as shown in Figure 2-13.



Figure 2-06

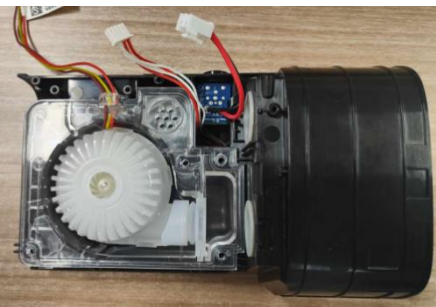


Figure 2-07



Figure 2-08

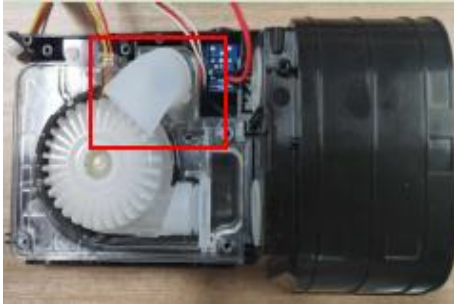


Figure 2-09



Figure 2-10

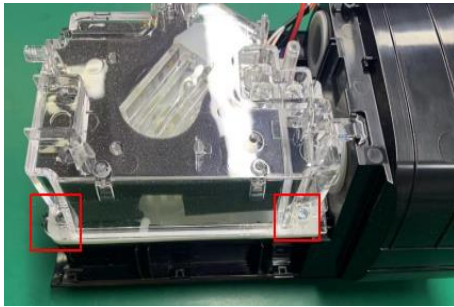


Figure 2-11

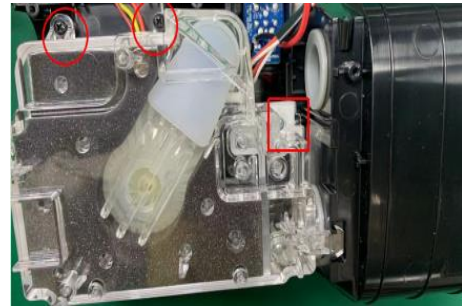


Figure 2-12

4.3.3 Assemble the exhaust pipe assembly

Exhaust pipe_BC3, ventilator tamper-evident label 80% black/black background with white characters, sensor silicone_BC3_SSR;

- 1) Install the sensor silicone_BC3_SSR in the red frame of the assembly shown in Figure 2, as shown in Figure 2-13;
- 2) Paste a ventilator tamper-evident label 80% black/black background with white characters in the red circle shown in Figure 1, as shown in Figure 2-14;
- 3) Press the exhaust pipe_BC3 to the bottom along the notch, and fix it with a cross recessed pan head self-tapping screw ST2.9×6_GB/T845_galvanized_H-type cross recessed F-type tail (in the red frame of Figure 2), as shown in Figure 2-15.



Figure 2-13

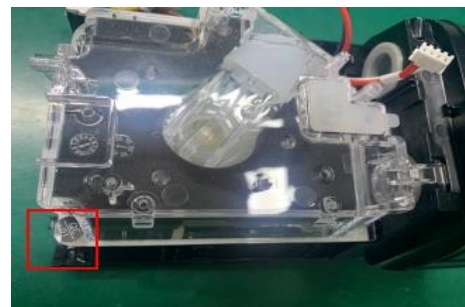


Figure 2-14

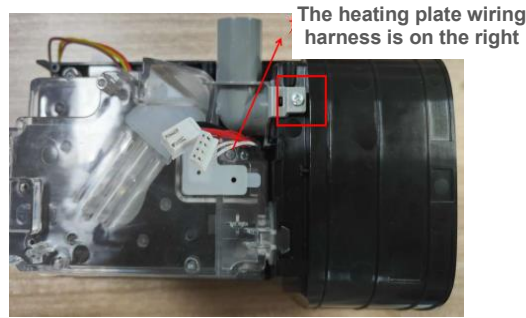


Figure 2-15

4.3.4 Assemble the screen assembly

Buckle the BC3 screen onto the assembly shown in Figure 2, and fix it with two cross recessed pan head self-tapping screws ST2.9×8.5_GB/T845_H cross recessed F-type tail/black (in the red frame of Figure 2-16), as shown in Figure 2-16.

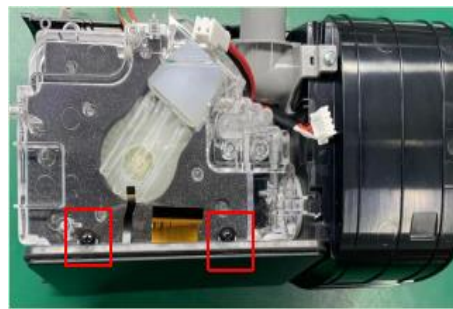


Figure 2-16

4.3.5 Assemble the main control board assembly

- 1) Plug the data module adapter cable into the BC3 main control board, as shown in Figure 2-17;
- 2) First plug the BC3 power board wiring harness into the circuit board, and then plug the heating plate wiring harness into the circuit board, as shown in Figure 2-18.
- 3) Plug the blower wiring harness into the circuit board, as shown in Figure 2-19;
- 4) Plug the two LCD screen cables into the circuit board, as shown in Figure 2-20;
- 5) Align the air outlet of the circuit board sensor with the three holes of the draft tube on the duct baffle plate, press it to the bottom, and use three cross recessed pan head self-tapping screws ST2.9×8.5_GB/T845_H

cross recessed F-type tail/black to fix the circuit board (shown in Figure 1), as shown in Figure 2-21;

6) Fix the blower wire with two cable ties (in the red box shown in Figure 2), as shown in Figure 2-22.



Figure 2-17

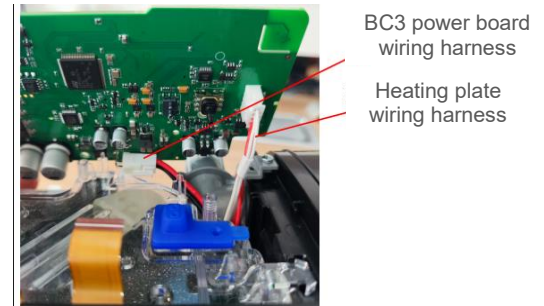


Figure 2-18

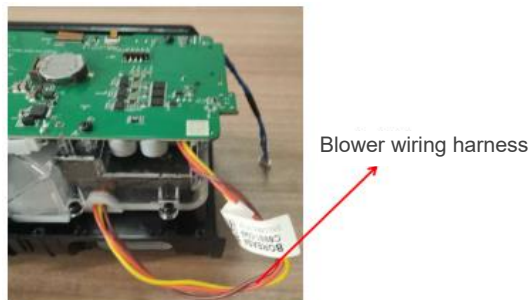


Figure 2-19

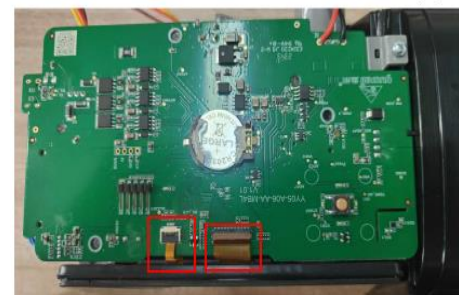


Figure 2-20

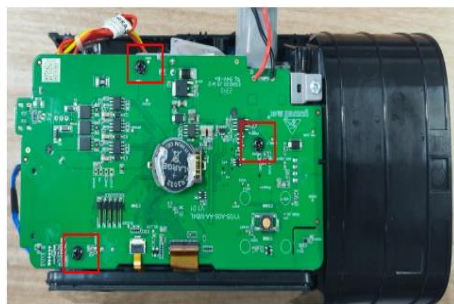


Figure 2-21

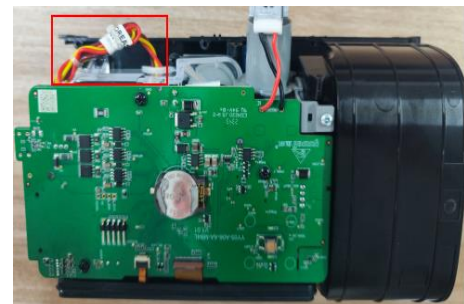


Figure 2-22

4.3.6 Assemble data transmission components

- 1) Install the oximetry cover_BC3 and SD card cover_BC3 on the left cover_BC3, as shown in Figure 2-23;
- 2) Connect the other end of the data module adapter cable to the circuit board on the data transmission subassembly (optional) and clamp it on the plastic part, and then use a cross recessed pan head self-tapping screw ST2.9×8.5_GB/T845_H cross recessed F-type tail/black to fix the left cover

(open the oximetry cover_BC3 before fixing), as shown in Figure 2-24/25.



Figure 2-23



Figure 2-24



Figure 2-25

4.3.7 Assemble the upper shell assembly

Cover assembly_BC3 (optional), cover assembly_BC3_black button (optional), heating tube ring_BC3

- 1) Buckle the cover assembly_BC3 on the main body of the main device (against the red circle in Figure 1) (note the direction of the power button) (as shown in Figures 2-26/27).
- 2) Insert the heating tube ring_BC3 into the heating pipeline female socket assembly, as shown in Figures 2-28;
- 3) Use five cross recessed pan head self-tapping screws ST2.9×8.5_GB/T845_H cross recessed F-type tail/black to first fix the cover assembly_BC3 (be careful not to press on the blower wiring harness), and then fix the heating tube ring_BC3 (as shown in the red box in Figure 2-29).

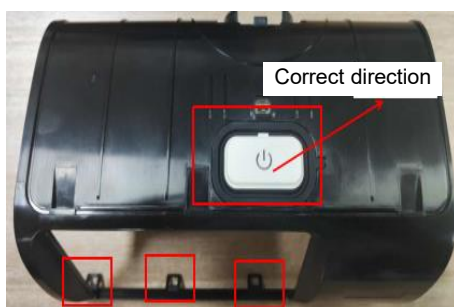


Figure 2-26



Figure 2-27



Figure 2-28

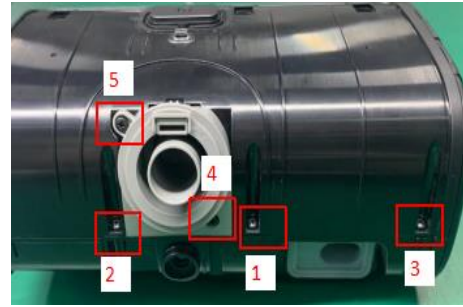


Figure 2-29

4.3.8 Assemble the decorative cover and base assembly

Decorative cover_BC3, decorative cover_BC3_black (optional), buffer column_BC3.

4.3.8.1 Assemble the decorative cover

- 1) Insert the front end of the decorative cover_BC3 into the slot (shown in the red frame in Figure 2-30), and then press it flat, as shown in Figure 2-30;
- 2) Put the four buffer columns_BC3 on the base, as shown in Figure 2-31;
- 3) Buckle the base on the main body of the main device, buckle properly, and fix the base with four cross recessed pan head self-tapping screws ST2.9× 8.5_GB/T845_H cross recessed F-type tail/black, as shown in Figure 2-32/33.



Figure 2-30

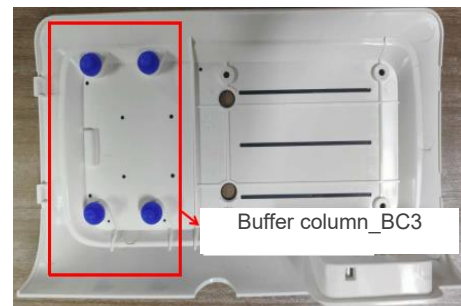


Figure 2-31



Figure 2-32



Figure 2-33

4.3.8.2 Assemble the filter cotton

Put the air inlet filter cotton_BC3 flat on the filter cover_BC3, as shown in Figure 2-34.

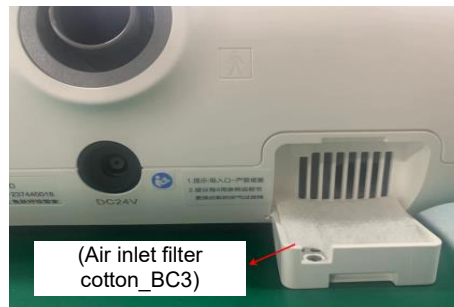


Figure 2-34

4.3.8.3 Assemble the water tank assembly

Push the humidifier jar T assembly from right to left into the cavity of the main body of the main device, as shown in Figure 2-35/36.



Figure 2-35



Figure 2-36

4.3.9 Assemble the heating plate assembly

Put the heating plate assembly_TIB_BC3 wiring harness through the hole in the red frame of the main body component assembly (shown in the red frame in Figure 2-37), and clamp the heating plate on the buckle of the main body component (shown in the red circle in Figure 2-38), as shown in Figure 2-37/38.



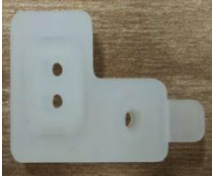
Figure 2-37



Figure 2-38

Appendix A List of accessories

Serial No.	Accessory name	Material pictures
1	BC3 main control unit	
2	Data module adapter cable	
3	Data module	
4	Oximetry cover_BC3	
5	Main body_BC3	
6	Main body disc_BC3	
7	Inlet hose_BC3	
8	DC seat bracket_BC3	

9	BC3 power board	
10	Humidifier jar inlet and outlet assembly_BC3	
11	Blower exhaust pipe assembly_BC3	
12	Blower	
13	Air duct cover component assembly	
14	Sensor silicone_BC3_SSR	
15	Outlet pipe_BC3	
16	BC3 screen	
17	SD card cover_BC3	

18	Left cover_BC3		
19	Humidifier jar T assembly		
20	Air Inlet filter cotton_BC3		
21	Heating plate assembly_TIB_BC3		
22	Cover assembly_BC3_Black button (optional)		
23	Decorative cover_BC3_Black (optional)		

☆ < This accessory material and picture are for reference only. Please contact after-sales service if you need to replace accessories >