Service Manual

(infusion Pump & enteral feeding pump)

V0.3
1. Abnormal After Turn on The Infusion Pump

1.1 The alarm light on and indicating “use battery” after turn on the machine:

Possible Cause 1: AC power cable is damaged or not plugged in.

Solution 1: plug in the power cable with proper force.

Solution 2: replace power cable. (as per diagram 1)

Diagram 1

Possible Cause 2: The connection between unit board and driver board is poor contact / loosing/ damaged.

Solution: Open the front and rear shell of machine; check the 5-pin connecting wire between power board and driver board. Reconnect the wire or replace it. (As shown in Diagram 2 and 3).

Diagram 2
Diagram 3

Possible Cause 3: The driver board fuse was burnt.

Solution: Use the multimeter to check if the fuse is connected; if no, use the same specification of fuse (2A 63V) for replacement. Location of fuse as shown in Diagram 4.
1.2 AC/DC indicator light, LCD screen and machine top indicator light are not on, and there is no boot tone after turn on the machine.

Possible Cause 1: The connecting wire between main board and driver board is loosed or damaged.
Solution 1: Open back shell of machine, reinsert the connecting wire between main board and driver board and check if machine returns to normal. (as shown in Diagram 5)

![Diagram 5](image)

Solution 2: Replace the connecting wire between main board and driver board to check if machine returns to normal.

![Diagram 6](image)
Possible Cause 2: The 5-pin connecting wire between power board and driver board is loosing or damaged.
**Solution:** Please check the 5-pin connecting wire, reinserting or replacing it.

Possible Cause 3: certain part of driver board is damaged.
**Solution:** Replace the driver board to see if machine returns to normal (as shown in Diagram 8)
1.3 AC/DC indicator light is on, but there is one or two abnormal between LCD screen, top indicator light, boot tone after turn on the machine.

**Possible Cause:** Corresponding part of main board is damaged.
**Solution:** Replace the main board and check if machine returns to normal.

![Diagram 9 (main board)](image)

1.4 Error code “0XE0” after turn on the machine.

**Possible Cause 1:** The connecting wire between main board and driver board is poor contact or damaged.
**Solution 1:** Open back shell of machine, reinsert connecting wire between main board and driver board and check if machine returns to normal.
Solution 2: Replace the connecting wire between main board and driver board and check if machine returns to normal.

Possible Cause 2: driver board is damaged.
Solution: Replace the driver board.

1.5 Error code “0XE3” after turn on the machine.

Possible Cause 1: Memory board encounters interference that cause incorrect writing.
Solution: Recover factory default setting as per instructions in user manual.
Note: If the infusion set being used is not supplied by IV pump manufacturer, please recalibrate its accuracy and pressure value after recover to factory default setting.

Possible Cause 2: Main board is damaged.
Solution: Replace the main board.

2. Abnormal During Operation

2.1 Green indicator light sometimes is on and sometimes is off; or error alarm for air bubble even correct installation of IV set.

Possible Cause 1: The IV set is too thin or too soft (the normal accepted diameter of IV set is 3.5---4.5mm)

Possible Cause 2: Air bubble sensor is damaged.
Solution: Replace air bubble sensor.
1). unplug the red black wire and white yellow wire. Of air bubble sensor.
2). Remove the screw on air bubble sensor
3). Open pump door
4). Use tweezers from the position shown in Diagram11 to push off the sensor.
5). Install new air bubble sensor. Insert two cable as shown in Diagram 11.
Possible Cause 3) air bubble detection circuit on the motherboard damage
Maintenance Step 1> contact the supplier.

2.2 Error code “0XE1” or “OXE2” during operation.
OEX1 / OEX2 alarm means the wire connecting Hall sensor and pump body is loosening.
We need to replace and re-install Hall connecting wire.

Solution:

Step 1: Open the pump shell. Take out the old Hall connecting wire.
Step 2: Insert the new Hall connecting wire
Step 3: Use solid sols to fix the connecting wire. The procedure to replace the Hall connecting wire is finished.

2.3 Always indicating low battery.

Possible Cause 1: The battery is aging and can not recharge.
Solution: replace the battery
1). Remove the screw as shown in diagram 13, take off batter cover
2). Install new battery
3) Pull out the old battery, install a new battery with tweezers (as shown in Diagram 14)
4). Install battery cover, tighten the screws
Possible Cause 2: The connecting wire between power board and driver board is poor contact or damaged.
Solution 1: Open the front and rear shell, reinsert this connecting wire and check if machine returns to normal.
Solution 2: Replace this connecting wire.
Possible Cause 3: driver board is damaged.
Solution: replace the driver board.

2.4 The other error codes during operation please contact the supplier.