

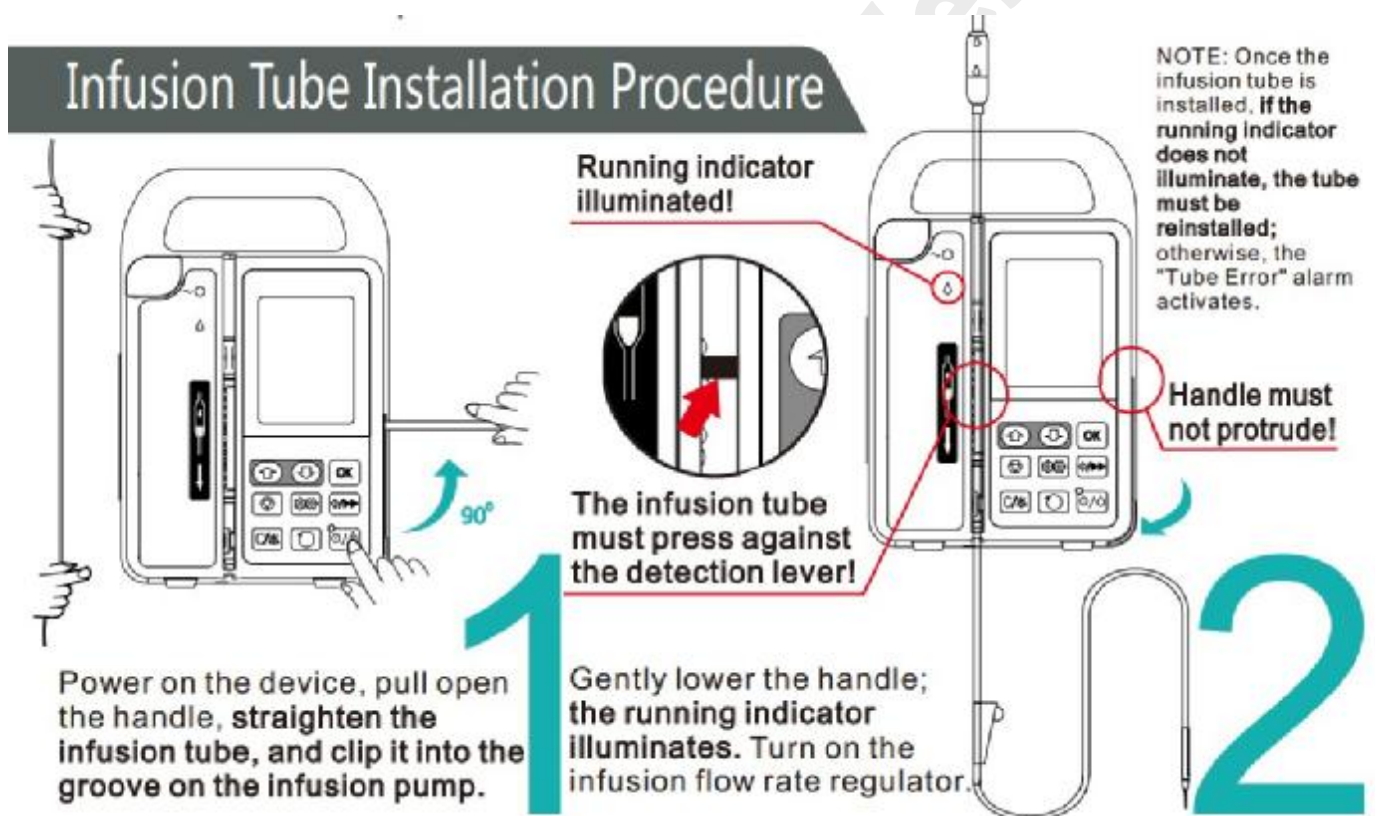
SK-600II QUESTIONS ANDTROUBLE SHOOTING

TABLE OF CONTENTS

This FAQ Booklet is kind of service guide for our engineer to answer the daily questions from our distributors and end-user.

Questions from customers cover a wide range of topics, for easy discussion, we focus on Customer service.

Note: Below figure shows the whole procedure how to install the IV set correctly.

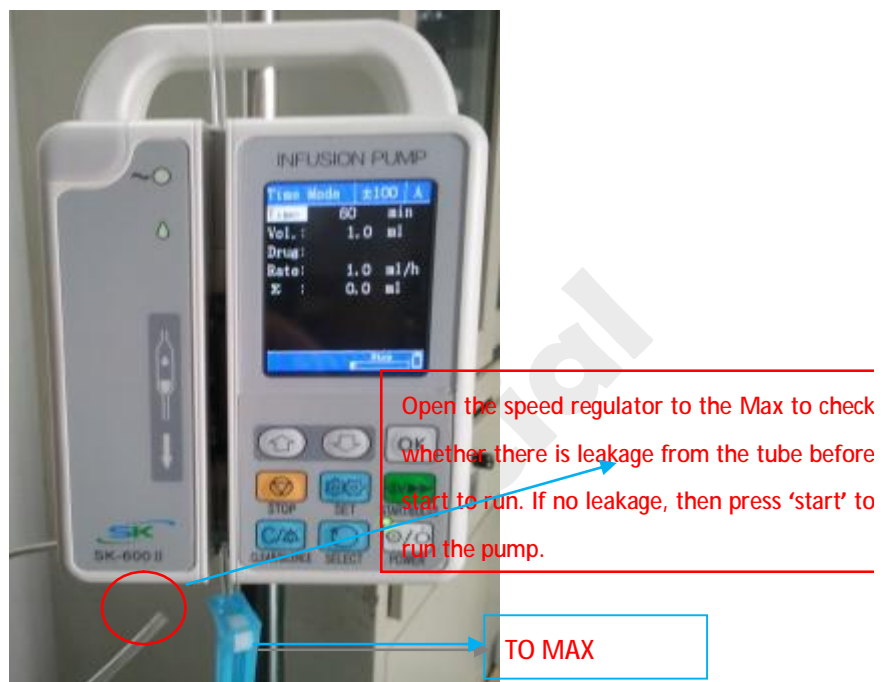
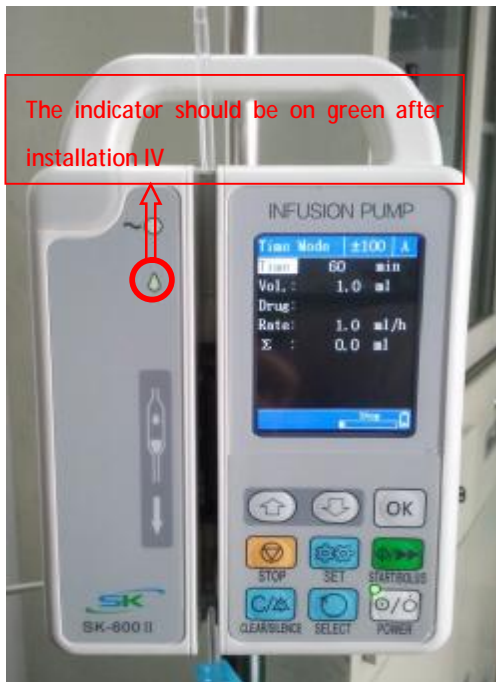


Q1. Why is there leakage after install the IV SET?

AFR: Pause operation immediately once leakage issue happened.

1).IV set installation incorrect, make sure the IV set install correct and the indicator is on green, otherwise it will leakage., turn on the infusion-tube drop speed regulator to check whether there is free flow before staring operation . It can start work if no leakage.

- 2). Try to test with other kinds of pipe to confirm it. It will lead to leakage if the pipe material is too thinness.
- 3). Replace the pump body if there is still leakage after above checking procedure.



Q1. The voice is too loud when make alarming.

AFR: According to related legal rules, the alarming voice of infusion pumps should be enough loud in order to remind the user.

Q2. Why can't cancel the alarming sound?

AFR: According to related legal rules, the alarming voice of infusion pumps should not be forbidden by manual. The alarming triggered by the pumps will give warning to nurses or doctors.

Q3. Why the power connector does not have ground connector?

AFR: According to the security rules and related laws, It's not necessary design power ground connector for syringe and infusion pumps, Our design is totally meets the related rules.

Q4. How many tubes can be supported by the infusion pump

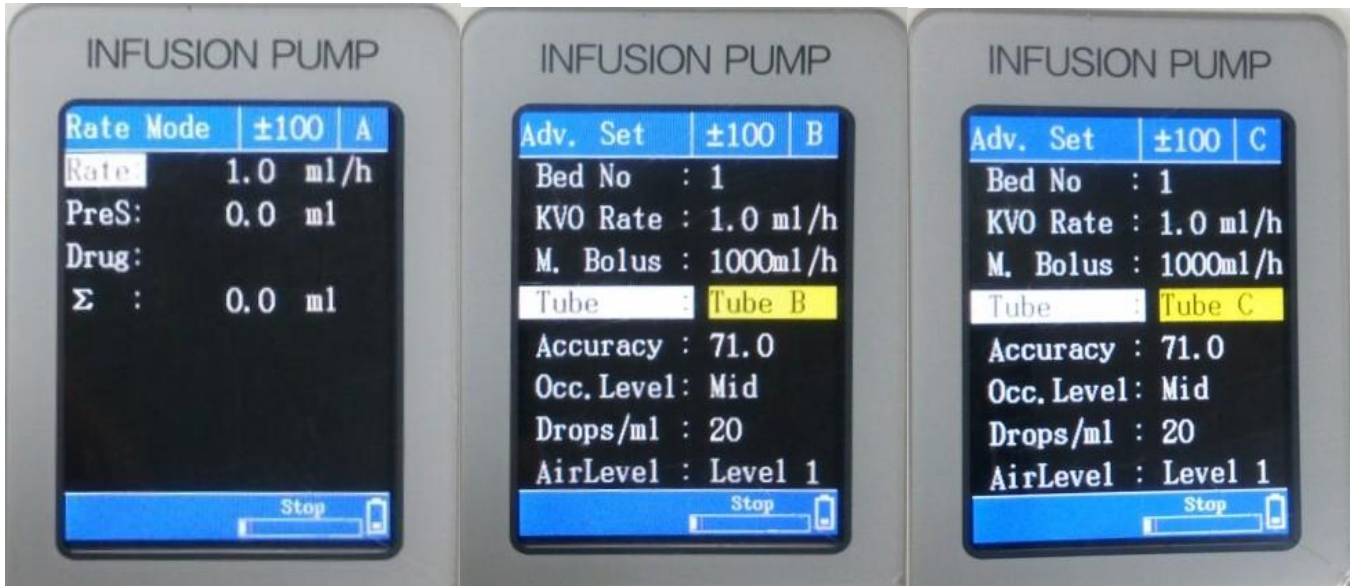
AFR: Actually, the infusion pump can support all kinds of brand tube.

Q5. What means the logo 'A' in the screen?

AFR: 1).For the infusion pump, Type A tube as default in the pump from manufacture. if you do not change the type in the menu, It is means the pump will recognize the tube as Type A after installed any kind brand of tube.
2).The user can save three kinds of accuracy value of three kinds of tube.
As showing below, enter the setup menu to choose one of the type tube.

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As showing below, enter the setup menu to choose one of the type tube.










Q7. Why there are type A.B.C in the menu.

AFR: 1). The purpose of this function is convenience for users' operation.

Let's suppose, In the hospital, There are may be more than one kind of tube under operation(for example, they have 3 kinds of brand tube , Brand 1,Brand 2,Brand 3)
As mentioned above, the accuracy value will be different due to different brand tube, In this case, it necessary to do accuracy, the user can save any one brand as any one kind of three type after calibration. for example.

- Brand 1====>Type A(after adjustment)
- Brand 2====>Type B(after adjustment)
- Brand 3====>Type C(after adjustment)

Q8. Why can't adjust the drop speed? For example, The max drop speed is 6 dropml/h.

AFR: 1).This issue caused by the configuration. Press the keys  and  simultaneously to enter the setup menu. Press the key  or  to choose the sub-menu of 'Drop/ML'. Then press  to change the numeric. 20 drop/ml as default from the manufactory, then exit the menu, the max drop speed can achieve to 133drop/min. press  and  keys simultaneously to transform the RATE and DROP mode.



NOTE: The configuration of Drop/ml depends on the tube. Normally, there are two kinds of tube in the markets. 20drop/ml and 60drop/ml. Please check the drop specification of the tube in advance.

Q9. No display after turn on

AFR: 1) Open rear panel to check if cable for the screen is loosen. If yes, fix it.



2) If the cable and its connection is OK, the screen is defective. Please disassemble the pump and main board to replace the screen.

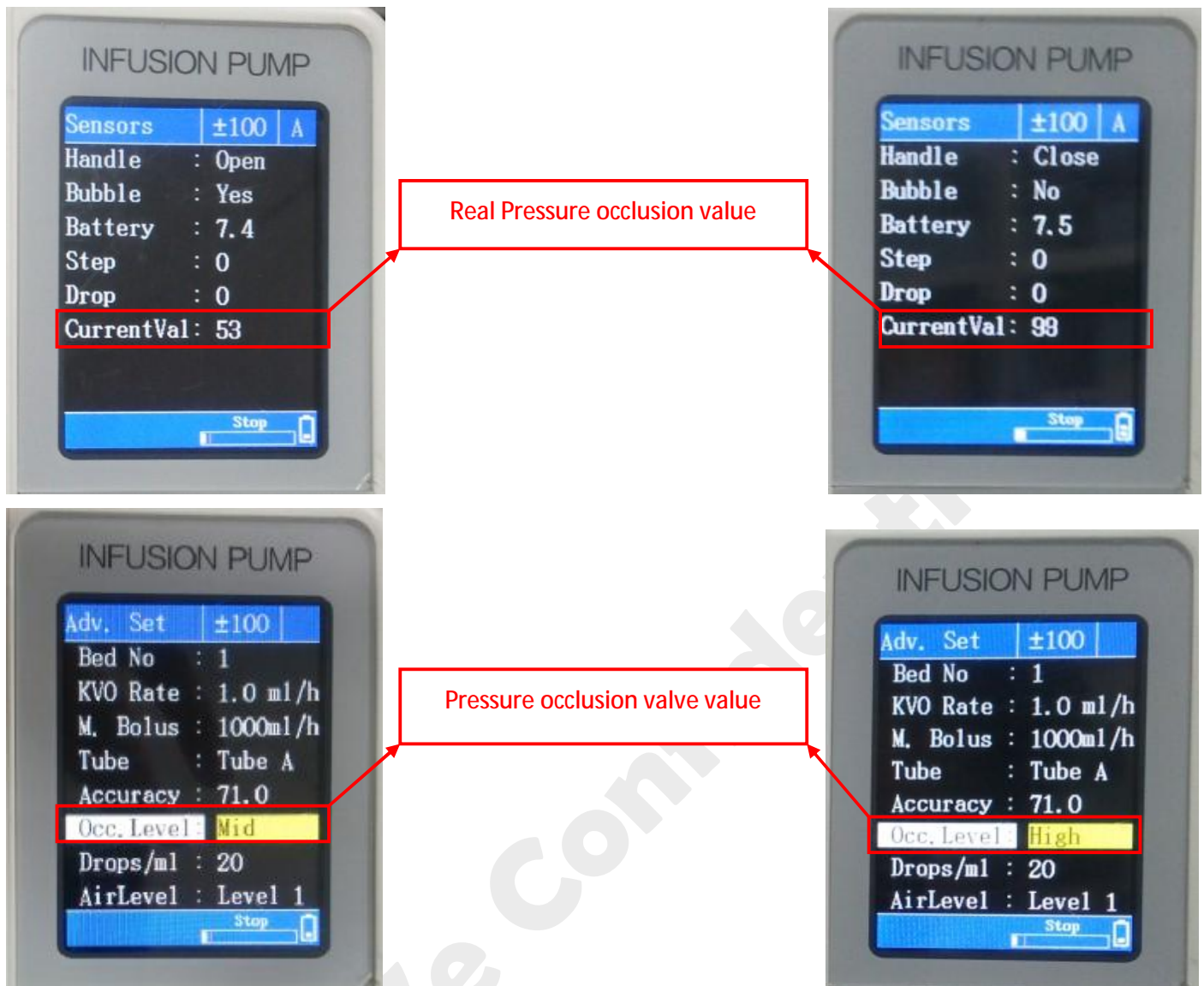
Q10. It alarm "Motor Err"

AFR: 1) Open the rear panel to check if the motor works normally. (If it does not work, please replace the main board).

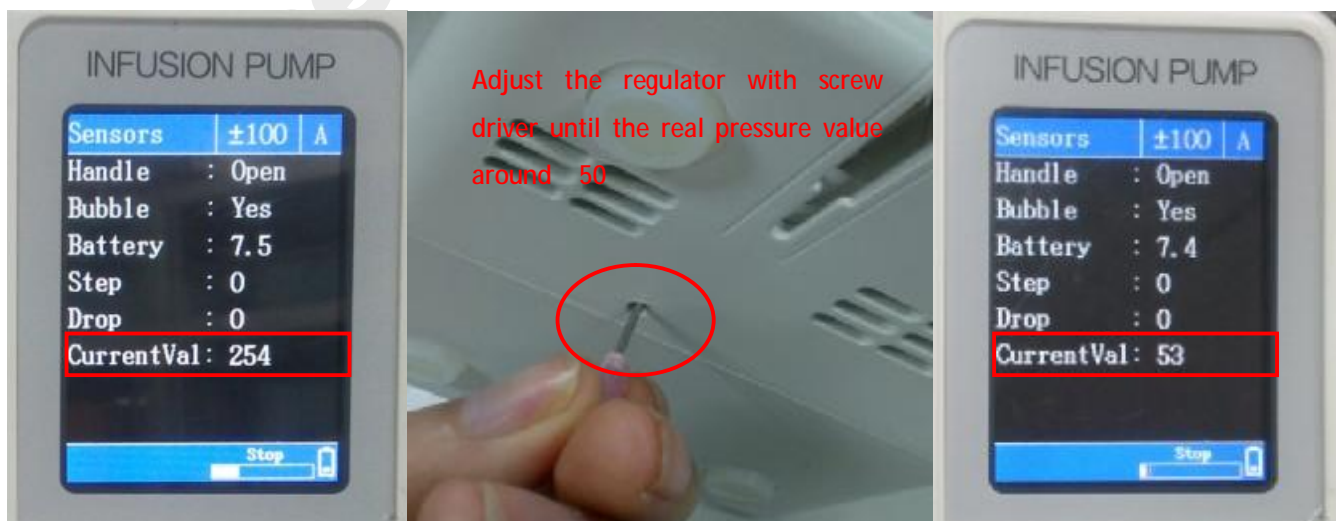
2) If motor works normally, then the pump itself is blocked. Please replace it test.

Q11. It alarm "Occl"

AFR: 1) Press both  and  button simultaneously to check the real pressure occlusion value (the last line value). The value without IV set is around from 45-65 and around 90-110 after installing IV set, if is normal. Then press "Stop" and 'Select' buttons simultaneously to check the pressure occlusion valve value. Normally it should be Middle level, Please change to High level.





2) If the currently occlusion value is too high (for example around 1000), Then adjust the pressure regulator with screw driver, the pressure regulator located in the bottom.. There is one small hole in the bottom of the pump and one screen inside, Please circumgyrate the screen check the currently pressure occlusion value until around 50

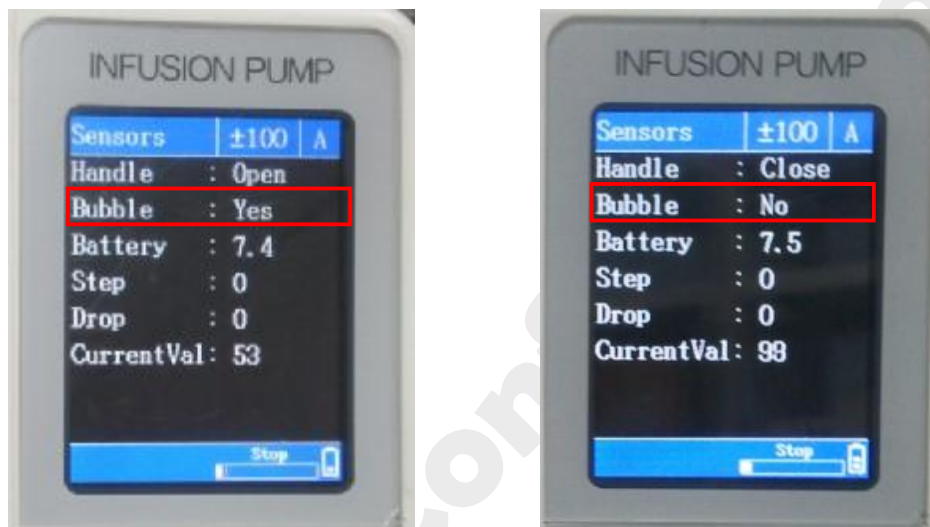




3).The pressure sensor damaged if the sensitivity value can't be adjusted. Please replace it. Please refer to the service manual for disassembly.

Q12. It alarm "Tube Error"

AFR: 1) .IV SET is not well installed. (Indicator does not light up).

2).IV set is well installed but indicator still does not light up. Press both  and  keys simultaneously and check currently bubble value (the second line value). When the IV set not well installed and the air inside that the air bubble value should be Yes, when the IV set well installed that the air bubble value should be No.(As the below picture shows)



3) Through the above steps, install the IV set and press both  and  keys simultaneously and the interface shows **Handle: Open Bubble: No** .It mentioned that the middle of IV set not put in the end, please reinstall it.

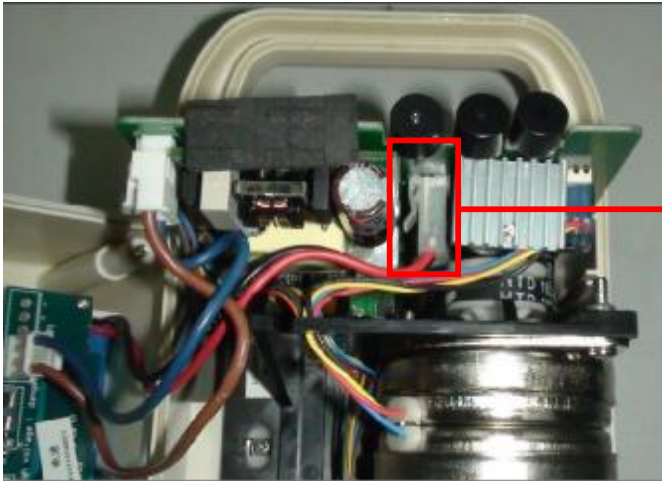
Q13. The battery can't be charged or charged fully

AFR: 1).The battery damaged, Please replace it.

2).The cable between disconnection between battery and the main-board, please check the connection. 3).The main board has defective.

Note:

1. When connect the cable between battery and main-board, please do not make connection reverse, otherwise it will burn the main-board.
2. The battery can't be charged if the pump power off



Cable between battery and main-board

Q14. Why the pump with high temperature?

AFR: The pump with temperature is normally, because the motor inside under working will generate heat energy. The temperature will be higher especially when the infusion rate is high speed and long time operation.

Q15. It can't adjust or do setup through the keyboard

AFR: 1) Check every key on keyboard in standby status. If any key is not working, replace the key board.

2) If it can be started but the all the keys are not working, check the cable connected between keyboard and main board. If cable is ok, replace the main board.

Q16. It can't be turned on

AFR: 1). It can't be turned on using AC power. Check the AC power supply source and cable.

2).It can't be turned on using internal battery (using AC power supply can work). Possible causes: battery failure. No battery inside or the battery can't recharge.

3).It can't start neither with AC power supply nor battery. Solution: check the cable connection between main board and power supply board. If the cable connection is ok, replace the power supply board.

Q17. It can't be turned off

AFR: 1).Please press the 'STOP' button, then press the 'POWER' button last 3-5 second.

2) Press the 'POWER' button to observe the changes in pump.

3) If the above still can't be turned off , please replace the power supply board

Q18. The accuracy is correct at the first time after doing calibration, but why the accuracy is still inaccuracy after several hours operation?

AFR: 1).First make sure the calibration procedure is correct(Refer to the accuracy calibration guide), the indicator located in the front panel should be on green, otherwise, please re-install the IV set again.

2). Have you changed the tube position after each 4hours operation according to the requirement? If not, the leakage will happen due to the tube distortion after long time operation.

3).If it still happen like this even change the tube position, probably it caused by the quality of the tube. Please replace another kind of tube to test.






4) .The pump body inside has defective, please replace it

Q19. The pump can't make occlusion alarming even the pressure is too high.

AFR: 1) The pressure sensor or pressure board damaged. Please do across testing to confirm it.

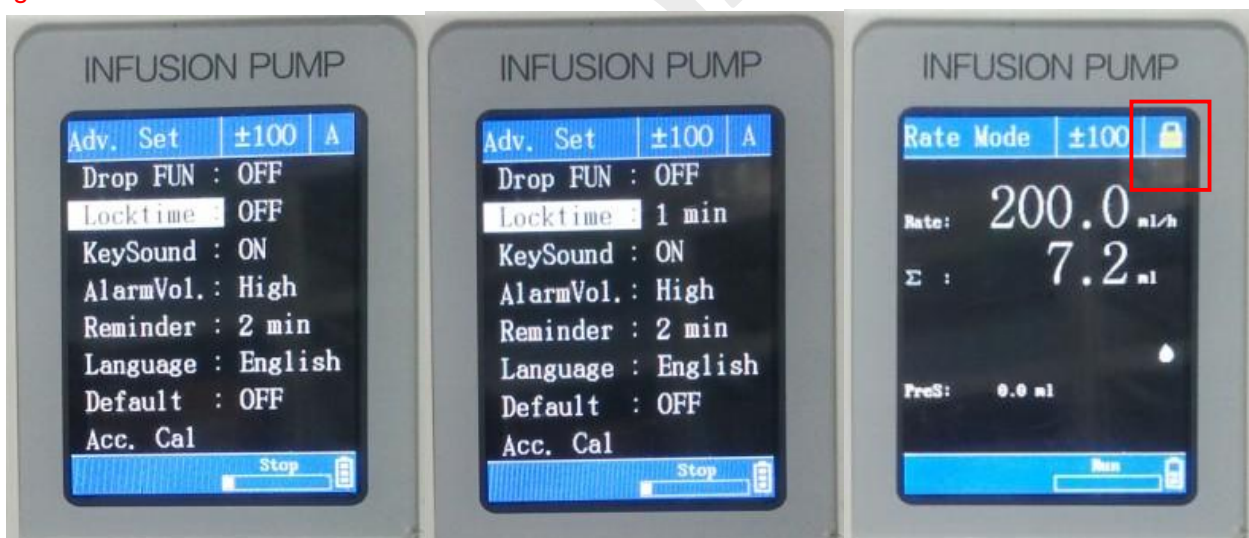
Q20. Why there is no response when press the key button?

AFR: 1).The 'Lock time' function is on or off? The key button will lock if the function active. Please long press the SET key unlock it.



2). Press the keys  and  simultaneously to enter the setup menu. Press the key  or  to choose the sub-menu of '**Lock time**'. Then press  to choose 'OFF' to freeze this function.

Note: If active the 'Lock time' function, the key board will frozen after minutes.(Max to six minutes)

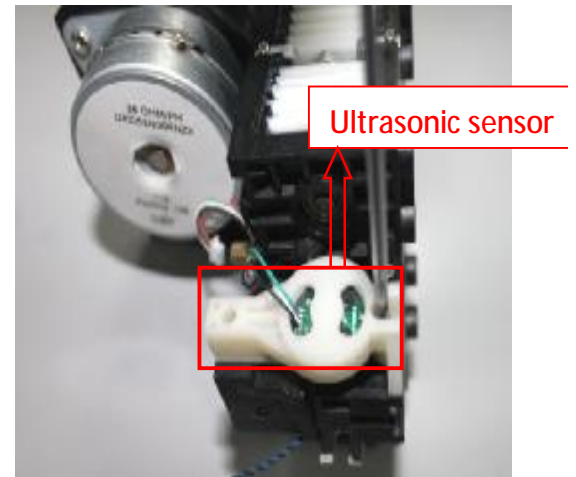
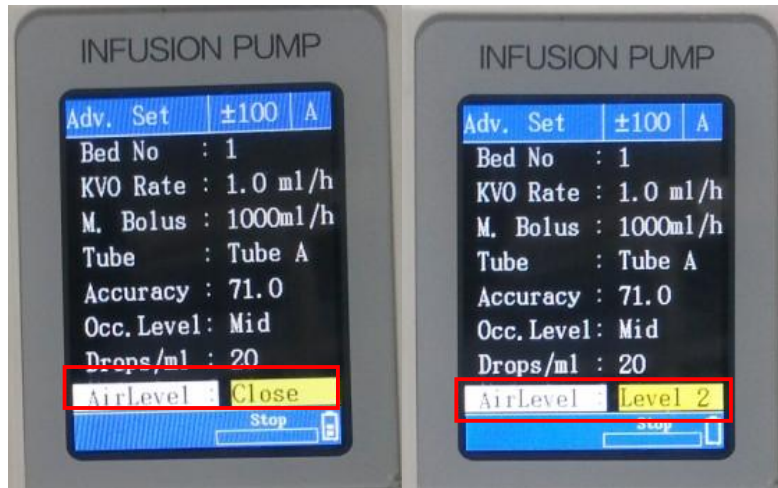
As shown below, if the 'Lock time' setup as 1min, the key board will be frozen after 1min, there is one lock logo in the right corner.



Q21. The pump can't make alarming when there is bubble in the tube.

AFR: 1) Please check this function active or not. Press 'STOP'  and 'MENU'  keys simultaneously. It indicates the bubble detection function was canceled if the 'Air level' setup as 'Close'.As shown below. Please adjust it to level 2 or level 3.




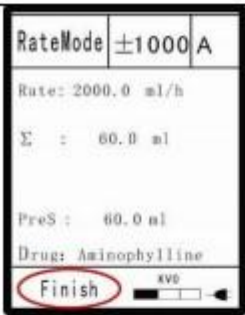



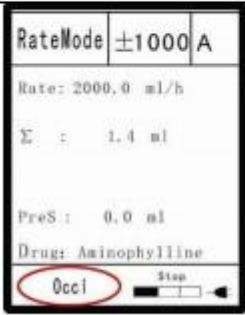


2). Please replace the ultrasonic sensor or pressure board to test it if the error still happened. Please check the service manual for details.










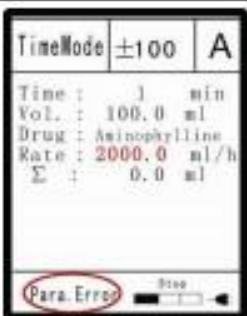
Q22. The pump can't make occlusion alarming even the pressure is too high.


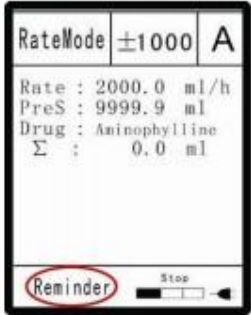
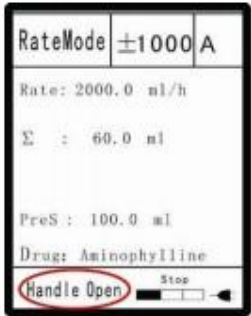


AFR: 1) The pressure sensor or pressure board damaged. Please do across testing to confirm it.

Alarming information related infusion pumps

Alarm Information	Information display	A	B	L	Cause	Action required
Air Bubble		Yes	No	High	Air bubbles in the tube.	Press the  key to stop infusion and turn off the alarm. Eliminate the air from the tube and press the  key to restart infusion.
					There is a fault with one of the infusion pump sensors.	Contact the manufacturer.
Finish		Yes	No	High	Infusion volumes have already been set.	Press the  key to stop infusion and turn off the alarm. Press the  key to clear the accumulated volume, then press the  key to restart infusion.
Occlusion		Yes	No	High	The infusion circuit is blocked.	Press the  key to stop infusion and turn off the alarm. Eliminate the blockage and press  to restart infusion.
					Occlusion threshold is too high.	Raise the occlusion level.

Alarm Information	Information display	A	B	L	Cause	Action required
					There is a fault with one of the infusion pump sensors.	Contact the manufacturer.
Check Tube		Yes	No	High	Infusion tube not installed correctly, handle is protruding at the side.	Reinstall the tube correctly, ensure that handle is not protruding from side and that running indicator light is on.
					There is a fault with one of the infusion pump sensors.	Contact the manufacturer.
Battery Empty		No	No	High	Battery is too low.	Connect an AC power source and recharge the battery.
					The battery is old or there is a fault with the charging circuit of the infusion pump.	Contact the manufacturer.
System Error		Yes	No	High	Data communication error.	Contact the manufacturer.

Alarm Information	Information display	A	B	L	Cause	Action required
Motor Error		Yes	No	High	The infusion pump motor is operating abnormally.	Press the  key to stop infusion and turn off the alarm. Press the  key to restart infusion. If this alarm sounds again, please contact the manufacturer.
Drop rate error (requires an optional drop rate sensor)		Yes	No	High	There is an error with the drop rate parameter settings.	Reset the drop rate parameters correctly.
					Accuracy is not calibrated.	Recalibrate tube accuracy.
					Running the pump for long periods of time results in water droplets forming on the funnel walls, affecting the monitoring capabilities of the drop rate sensor.	Shake the water droplets off the funnel walls.
					Liquid is not able to flow freely within the tube.	Eliminate blockage in the infusion circuit.
					There is a fault with the drop rate sensor.	Contact the manufacturer.
Parameter Error		Yes	Yes	High	40 drops of liquid are detected when the pump is stopped.	Check if the tube is leaking.
					In Time Mode and BW Mode, calculated rate exceeds 0.1–2000 ml/h.	Reset parameters and ensure that rate is within the allowable range.

Alarm Information	Information display	A	B	L	Cause	Action required
Low battery		Yes	No	Mid-level	Low battery.	Connect an AC power source and recharge the battery.
					The battery is old or there is a fault with the charging circuit of the infusion pump.	Contact the manufacturer.
Reminder		Yes	No	Mid-level	The infusion pump was not started within the set time period after the correct installation of the tube.	The infusion pump was started within the set time period after the correct installation of the tube. See 'Methods for setting starting times' 5.2.6 Reminder Settings
Handle Open		Yes	Yes	Mid-level	Handle open during infusion.	Press  to stop infusion and turn off the alarm. Close the handle and press  to restart infusion.
AC Disconnect	The AC indicator light does not illuminate.	No	No	Low	Not connected to AC power source.	Connected to AC power source.