

# BYZ-810/810T Series Syringe Pump **BEYOND**

## Operation procedure card

### ⚠ Warnings

- Please read throughout the operator's manual before using. Use the accessories specified in the this manual;
- Please deal with alarms immediately as audible or visual alarm signals occurring;
- The user is obligated to perform calibration to confirm the accuracy and pressure of pump before using; ensure the accuracy of pressure and precision to using a non-recommended syringe brand.
- Stop using the pump if liquid is spilled on the pump until it is maintained and qualified; put the devices from service if there is ingress or spillage of water; only use after maintenance is performed by qualified professional.
- Stop using the pump if accuracy error  $> \pm 3\%$ . Restart the pump after calibration. Detailed steps refer to operator's manual or consult the authorized manufacturer;
- Before starting injection, always remove the air bubbles in the syringe and extension tube and confirm the parameters carefully before starting the syringe pump and ensure current parameters are in line with clinical needs.

### ⚠ Precautions

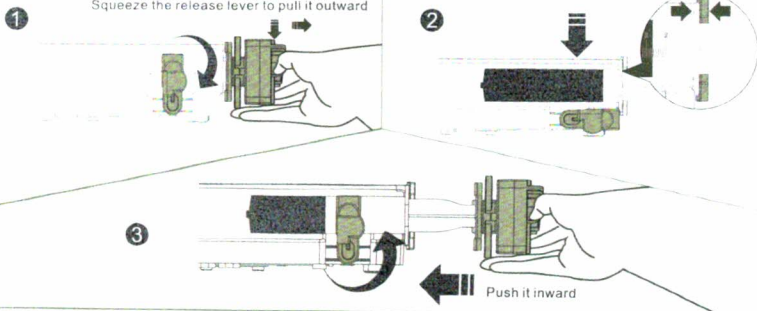
- Never use organic solvent, such as benzene and butanone etc. to clean the device;
- Never dip the syringe pump into the water or put it in moist conditions;
- Close attentions should be paid on actual clinical situations of patients and pump's working status.

### 👉 Step by Step Procedures

- Connect AC power and turn on "on/off" rocker switch on the back of pump;
- Install syringe and choose syringe brand according to actual needs;
- Set the injection parameters and work mode according to actual needs;
- Double-click the "BOLUS" button to exhaust air from extension tube and syringe. **Must disconnect the pump from patients when exhausting air;**
- Press "START" button to start injection after connecting the pump to the patient. The indicator will work by circle. Press "STOP" button to stop injection;
- Turn off "on/off" rocker switch on the back of pump and disconnect AC power.

### ✖ Install syringe

- Pull out the syringe barrel clamp and rotate it counterclockwise 90°. Squeeze the plunger release lever and pull it outward;
- Place the syringe onto the pump. Rotate the syringe barrel clamp clockwise 90°. Squeeze the plunger release lever, then move it inward to clamp the syringe;
- Make sure the barrel flange is inserted into the flange clip of the pump, and the end of the syringe core rod is well connected to the sensor that on the middle of the upper and nether hooks.



## Alarms & Alarm Removal

When alarm occurs, press the "SILENCE" button to pause/clear the audible alarm for 2 minutes. Press "START" button to continue injection after finding and remove the alarm. It will alarm again if the alarm still exists. The alarm signals will continuously exist unless it's removed.

Alarm condition	Reasons	Measures
Injection finishes	The injection has been completed.	Press "STOP/SHIFT" button to cancel the alarm.
Injection of limited amount finished	The preset limit volume is finished.	Press "STOP/SHIFT" button to cancel the alarm.
Injection is blocked	The tube is knotted or blocked.	Press "STOP/SHIFT" button to cancel the alarm. Solve the problem of tube and then press "START" button to continue.
	High drug concentration, but with a low occlusion pressure level setting.	Press "STOP/SHIFT" button to cancel the alarm. Increase the blocking pressure level and then press "START" button to continue.
Syringe is improperly installed	<ul style="list-style-type: none"> <li>• The syringe is not well installed during injection.</li> <li>• Attempt to start an injection without a syringe in right place.</li> </ul>	Press "STOP/SHIFT" button to cancel the alarm. Reinstall the syringe properly.
Syringe falls off	<ul style="list-style-type: none"> <li>• Attempt to start an injection but the plunger release lever is not restoration;</li> <li>• The plunger release lever does not clamp the syringe during operation, causing the syringe to fall off.</li> </ul>	Press "STOP/SHIFT" button to cancel the alarm. Check the spanner and clamp the syringe.
Battery empty	The battery will run out soon.	Connect the AC mains power, and the alarm will cancel automatically.
Please note injection soon finishes	Remind that injection is going to finish.	Unable to eliminate the alarm until injection finishes.
Low battery	The battery voltage is low.	Connect the AC power.
Forget the operation	Pump is turned on but without any operating actions for more than 2min.	Cancel the alarm by pressing any button (Except the "SILENCE" button)
AC power has been pulled out	Turn pump on without connecting to AC power.	Connect AC power.

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