CABINET WATER SOFTENER

RUNXIN VALVE PROGRAMMING PROCEDURE

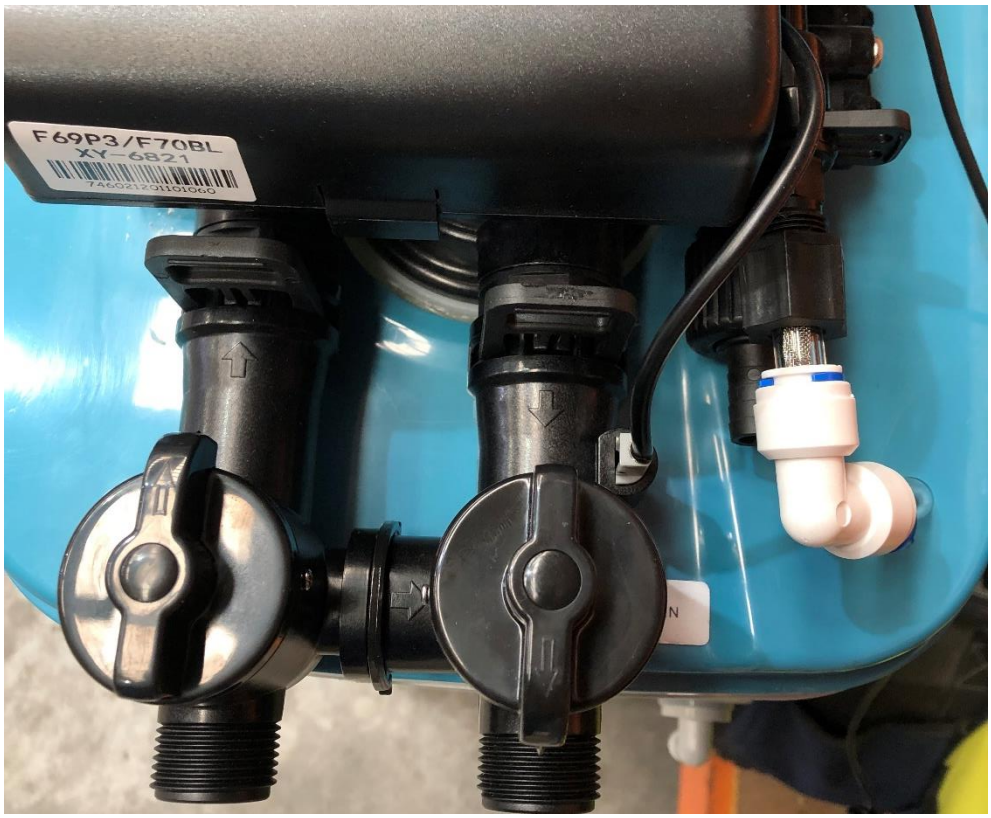
Models:

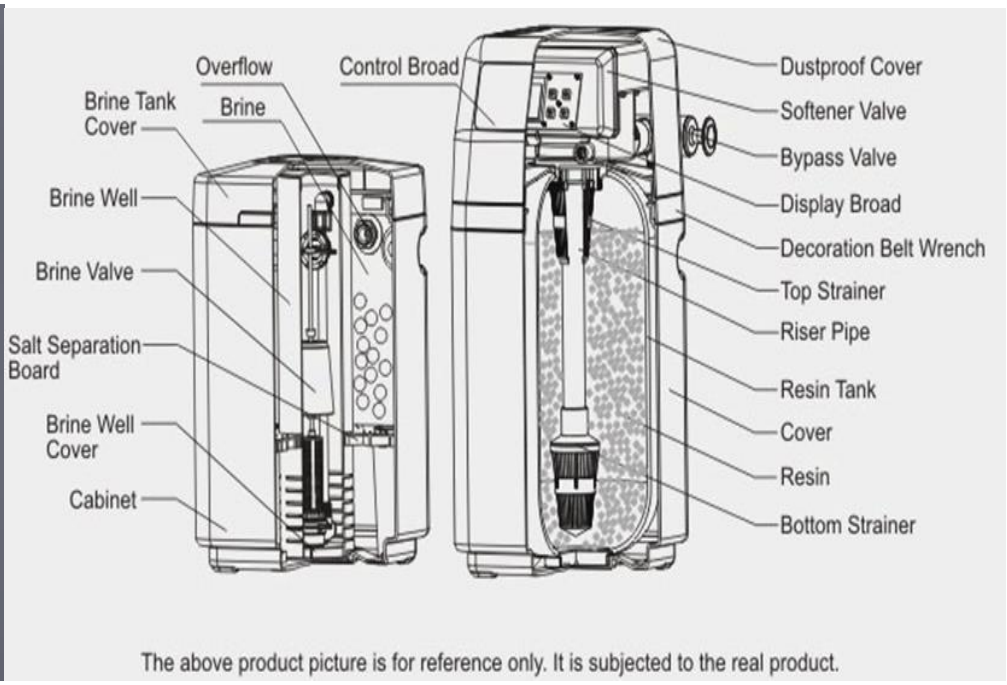
Cabinet Softener: RL-R150

F69P3/F70BL – 74602

Valve Buttons

Valve Configuration





The above product picture is for reference only. It is subjected to the real product.

Model	**Time clock type: 73502P(F69P1)**
	Meter type: 73602P(F69P3)
Installation type	**Top-mounted**
Inlet/outlet	**3/4" F**
Drain	**1/2" M**
Brine line connector	**3/8"M**
Base	**2.5"-8NPSM**
Riser pipe	**1.05"OD**
Resin Amount	**28Lts**
Water treatment capacity	**2 m^3/h**
Tank diameter	**10 x 35”**
Water pressure	**0.15MPa～0.6MPa**
Water temperature	**5℃～38℃**
Water turbidity	**Up-flow regeneration＜2FTU**
Power adapter	**Input AC100 - 240V/50-60Hz Output DC12V/1.5A**

Button Operation

Menu / Confirm

Start Regeneration / Skip Regeneration Cycle / Return

Down

Up

Valve Locked – Press  **&**  **Simultaneously for 5 secs to unlock the screen**

Control Valve Symbols

Backwash

Brine Draw

Brine Refill

Fast Rinse

Settings

Clock

Days until Backwash

Controller Locked

Water softener Installation

Softener Location

It is important to Install the softener in a suitable place:

- Preferably indoors. (if outdoors it is recommended to have the unit undercover or in a shed)
- As close as possible for water connections, drain line not to be too far from the unit
- On a level ground or platform
- Ambient temperatures to not exceed 49°C or below 1°C
- Near electrical supply for transformer with constant power out the GPO
- Water pressure not to exceed 600kPa with a minimum pressure required of 150kPa
- Easily accessible for maintenance of the unit, Add salt to the brine tank

Installation

A Non return Valve must be Installed on the outlet plumbing to avoid Brine tank overfilling during Regeneration Cycle

- Connect the inlet and outlet pipework as per the directional arrows on the back of the water softener valve ¾" Female BSP connections
- Run the drain line to an open drain line, an air gap is required to prevent back pressure or a siphon (As per Diagram)
- Secure all pipework from the water softener
- Fit a 12mm drain line for the overflow from the side of cabinet softener to a drain. Air gap required from hose into the drain

Initial Start Up

- Connect power to the Controller and set up programming for the valve

To Set Clock

- Unlock Valve – Press Up & Down arrow together for 5 secs until you hear a beep.
- Press the Menu Button.
- The time will be displayed Press Menu button again.
- The hour time will flash.
- Change the Hour time to correct time by pressing the up or Down button & press Menu to save.
- The minutes will then flash.
- Change the minutes time with the up or down arrow and press menu to confirm changes.

Set Regeneration Time

- Unlock Valve – Press Up & Down arrow together for 5 secs until you hear a beep.
- Press the Menu Button.
- Press the Down arrow.
- Press Menu – The hour will then flash change the Hour time to desired time by pressing the up or Down button & press Menu to save.
- The minutes will then flash.
- Change the minutes time with the up or down arrow and press menu to confirm changes.

Regenerate on 0m³ Capacity or at Regeneration Set Time

- Unlock Valve – Press Up & Down arrow together for 5 secs until you hear a beep.
- Press the Menu Button.
- Press down arrow twice.
- A-01 will be on the screen.
- Press Menu it will flash press Up or Down and menu to save changes.
    - The setting is either A-01 or A-02
    - A-01 will Regenerate at the next set time as per previous instruction.
    - A-02 will Regenerate immediately when capacity has reached 0m³.

How to change Regeneration Days Override

- Unlock Valve – Press Up & Down arrow together for 5 secs until you hear a beep.
- Press the Menu Button.
- Press down arrow four times.
- H-## will be on the screen. (This is the current setting for the days override
- Press the Menu Button
- The Digits will then flash change the number to desired number of days by pressing the up or Down button & press Menu to save.

Set Water softener Capacity

- Unlock Valve – Press Up & Down arrow together for 5 secs until you hear a beep.
- Press the Menu Button.
- Press down arrow four.
- An hourglass and a m^3 symbol will light up
- Press Menu Button
- The digits will then flash, change the number to the amount of capacity estimated for the ion exchange process in litres the softener will produce eg:

Feed hardness (ppm)	Total Capacity (m^3)	Salt Usage per Regen
50ppm	28m^3	3Kg
70ppm	20m^3	3Kg
90ppm	15.5m^3	3Kg
120ppm	11.5m^3	3Kg
150ppm	9m^3	3Kg
200ppm	7m^3	3Kg
250ppm	5.5m^3	3Kg

How to Change

Regeneration Cycle Minutes

<u>Backwash</u>

- Unlock Valve – Press Up & Down arrow together for 5 secs until you hear a beep.
- Press the Menu Button.
- Press down arrow five times.

– The hourglass and the backwash symbol will light up, press menu, the time will flash, press the up and down arrows to change to 8mins
– Press menu to confirm

Brine Draw

– Once Backwash is set, Press down
– The Hourglass and the Brine Draw symbol  will light up, press menu, the time will flash, press the up and down arrows to change to 49mins
– Press menu to confirm

Brine Refill

– Once Brine Draw is set, Press down
– The Hourglass and the Brine Refill symbol  will light up, press menu, the time will flash, press the up and down arrows to change to 7mins
– Press menu to confirm

Fast Rinse

– Once Brine Refill is set, Press down
– The Hourglass and the Fast Rinse symbol  will light up, press menu, the time will flash, press the up and down arrows to change 5mins
– Press menu to confirm

Once the softener is programmed you can now start passing water through the unit

- Fill the Cabinet brine tank with water approx. 25mm above the salt platform
- Add at least two bags of salt to the platform
- Put the softener into Regeneration – screen will display -00- this is the valve moving into the backwash cycle, once this has stopped the

backwash symbol will be displayed and the minutes will start counting down.

- Slowly open the inlet water connection a ¼ turn to allow a small flow of water into the softener to releasing air out of the cylinder
- Once all the air has been removed from the cylinder you can now open the inlet valve fully to clean the resin bed
- When the water is running clear press the regen button again to skip to the next cycle
- The valve will now be in Brine draw cycle, press the regen button again to skip to brine refill
- Allow the valve to top up the brine tank to the required level for a salt solution
- Once refill has completed leave the valve to complete the regeneration process and rinse the resin bed

Troubleshooting

Problem	Possible Cause	Solution
Filter Fails to Backwash	a. Power to controller has been interrupted b. Backwash cycle times set incorrectly c. Controller Damaged	a. Check power connection is ok b. Reset the backwash cycle times c. Check or replace controller
Filter passing raw water	a. Bypass valve is open b. Damaged riser pipe c. Internal Valve Leak	a. Close Bypass Valve b. Check the riser pipe is not cracked and O-ring is ok c. Check or change valve body
Water pressure loss	a. Filter requires a backwash	a. Backwash filter b. Unblock pipework

	b. Check no blockage in pipework	
Loss of media material through drain line	a. Air in the system b. Backwash flow control to high c. Top screen broken	a. Bleed air from the system. Check for leaks b. Reduce Backwash flow to suitable size c. Check and replace top screen
Control valve cycle continuously	a. Wrong size transformer b. Foreign material stuck in drive gear c. Faulty valve	a. Use correct Transformer b. Remove Foreign material from drive gear c. Replace valve
Water flowing through drain line continually	a. Power outage during backwash or fast rinse b. Internal Valve leak	a. Turn on Power, cycle through to service b. Check or replace valve body
All indicators display on the controller	a. Wiring between the display board and control board failure b. Control board is faulty c. Transformer damaged d. Incorrect voltage	a. Check a replace cable b. Replace control board c. Check or replace transformer d. Replace transformer with correct size
No display on controller	a. Wiring between the display board and control board failure b. Control board is faulty c. Display board is faulty d. Transformer damaged e. Power outage	a. Check a replace cable b. Replace control board c. Replace display board d. Check or replace transformer e. Check power supply
E1 Flash	a. Wiring between the locating board and display board failure b. Locating board damaged c. Mechanical driver fails d. Faulty control board	a. Replace the wiring between display board and locating board b. Replace locating board

	e. Wiring between the control board and motor fault f. Motor damaged	c. Check and repair mechanical part d. Replace control board e. Replace wiring between control board and motor f. Replace motor
E2 Flash	a. Component on locating board damage b. Wiring of locating board fails to work c. Control board is faulty	a. Replace locating board b. Replace locating board wiring c. Replace Control board
E3 or E4 Flash	a. Control board is faulty	a. Replace Control Board

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