1. SERVICE:

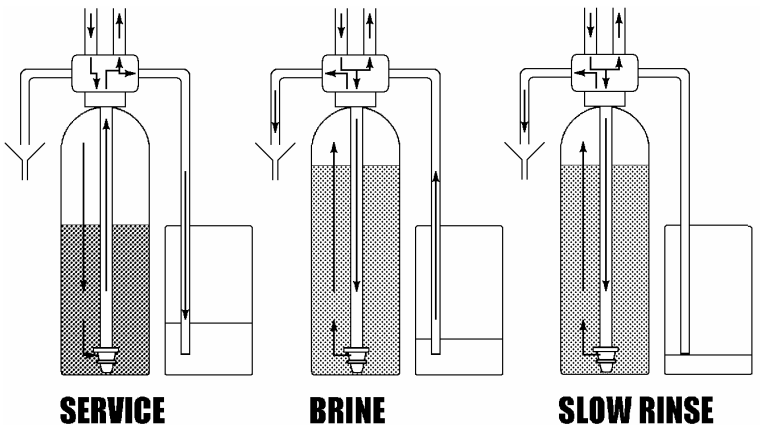
Untreated water flows down through the resin bed and up through the riser tube; the water is conditioned when passing through the resin. The throughput is dependent on the maximum permissible pressure drop for the complete water softener and the maximum permissible specific load of the resin (generally taken as 40 litres soft water per hour per litre resin).

2. BRINE:

Salt brine, drawn from the brine tank by the injector, flows down through the riser tube and slowly up through the resin bed to drain; the resin is being regenerated when the salt brine passes through. The brine cycle is terminated when the air check is shut.

3. SLOW RINSE:

Slow rinse continues for the remainder of the brine cycle; the injectors motive water flows down through the riser tube and slowly up through the resin bed to drain, slowly washing the brine from the resin tank.



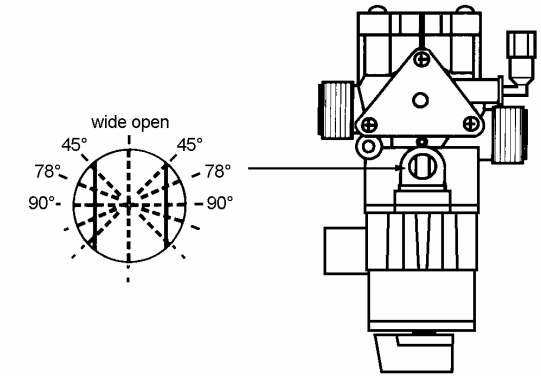
Installation Setup

1. Flush the hose before using it to supply water to the resin tank. After the line runs clear turn off the water and connect it to the inlet side of the resin tank.
2. Slowly turn the freshwater supply on until the supply water valve is completely open.
3. Allow freshwater to flow into the resin tank and from the outlet of the resin tank for a minimum of 2 minutes. This will purge the air and any foreign materials from the resin tank.
4. Turn off the freshwater flow to the resin tank.
5. Remove the lid from the brine tank and fill the tank to the ¼ level using only **freshwater**.
6. Slowly add water softener rock salt **(pellets are not recommended)** to the water in the brine tank. Add enough salt to reach the top of the water level. Add more freshwater bringing the water level to just below the overflow outlet. Stir the water salt combination very gently (15 seconds) then replace the cover.
7. Connect the brine solution feed-line to both, the brine tank and the resin tank.
8. **Shutoff** the outlet side of the resin tank using a turn valve or pipe cap.
9. Add a drain tube to the drain outlet elbow. This waste water is a saltwater solution and should be disposed of properly.
10. Slowly turn on the freshwater valve until the water valve is completely open.
11. Turn the manual timer all the way to the **two hour position**.
12. Water should begin to flow from the end of the drain elbow or drain tube. The resin tank is being regenerated.
13. After 3-5 minutes the brine solution will begin to be drawn from the brine tank. The flow can be checked by disconnecting the brine feed-line from the brine tank. Once the line is disconnected, listen for a vacuum sound at the end of this tube. If you hear a vacuum sound, the system is working correctly; reconnect the feed-line to the brine tank.
14. *Special note:* If the brine waste-water is flowing too fast – water is wasted **or** too slow - brine solution draw is reduced. The "Drain Flow Adjuster" can be adjusted to vary the brine waste-water flow rates. For most applications this "Drain Flow Adjuster" should be left to the FULL OPEN position. When you close this "Drain Flow Adjuster" the vacuum and solution draw from the brine tank is reduced.
15. After the two hour regeneration cycle, the manual timer will move to the OFF position. In the off position, the following changes occur.
    - The system is fully regenerated
    - The system is now in service mode (ready to provide soft water)
    - The system allows fresh water to be supplied to the brine tank back through the brine solution feed-line
    - The brine tank will fill with fresh water and the float will close the water supply once the tank is full
    - The discharge elbow/waste water line will stop flowing waste water
16. After the water softener has been operated for a period of time the tank resin will become *depleted again, repeat the above steps starting with number 10.

Comment: The quality of the soft water being supplied by the resin tank can be determined using a conductivity meter or by adding a conductivity light to the outlet side of the resin tank.

*Check outlet water conductivity at 150 gallons of use.

Drain flow adjuster



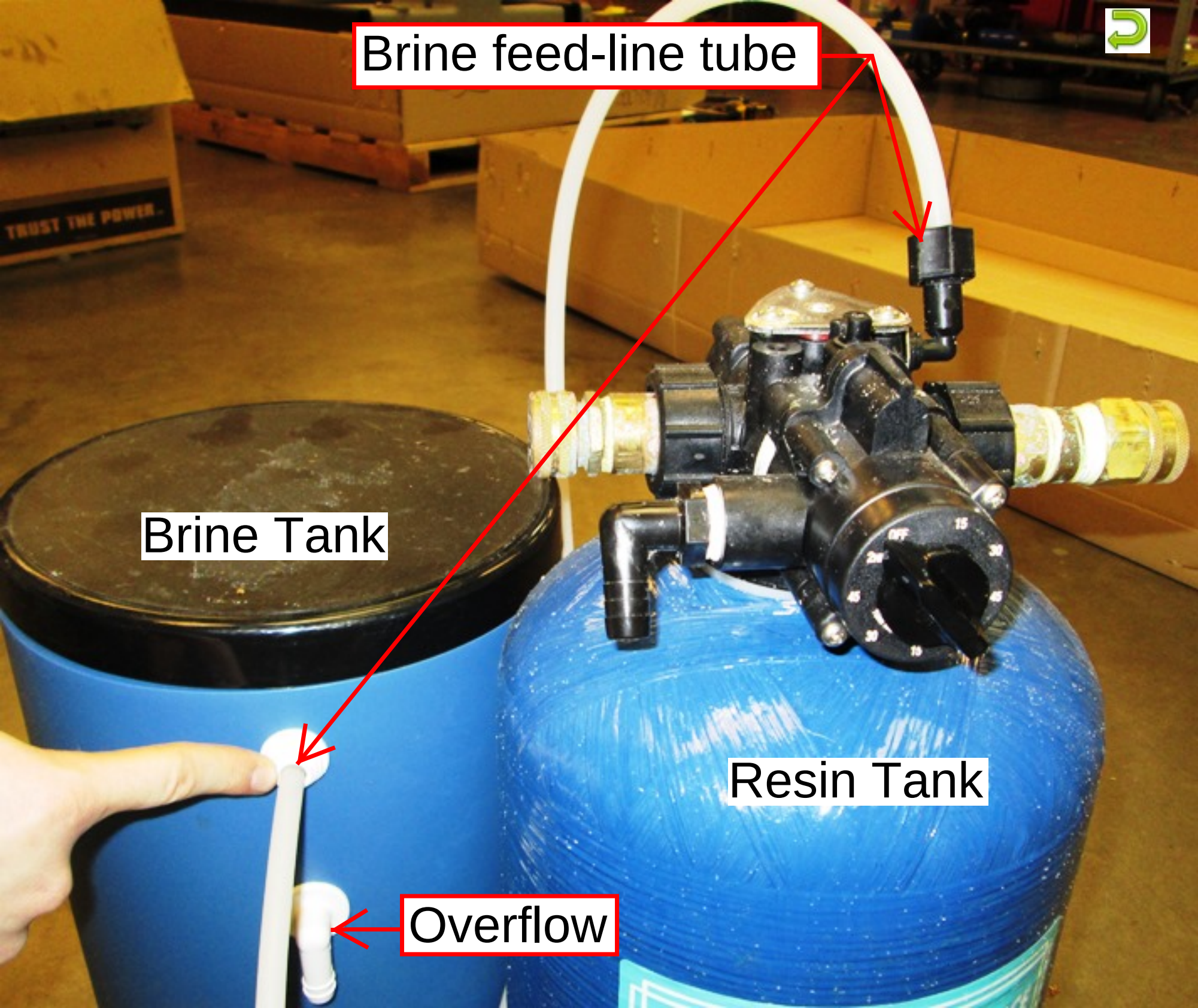
!!! ATTENTION

When the valve is equipped with an incorporated drain flow control (optional), the drain flow adjuster is assembled and locked in the wide open position! By releasing the locking screw of the locking plate, the drain flow adjuster can still be used, but note that the maximum flow to drain is limited by the incorporated drain flow control (optional).

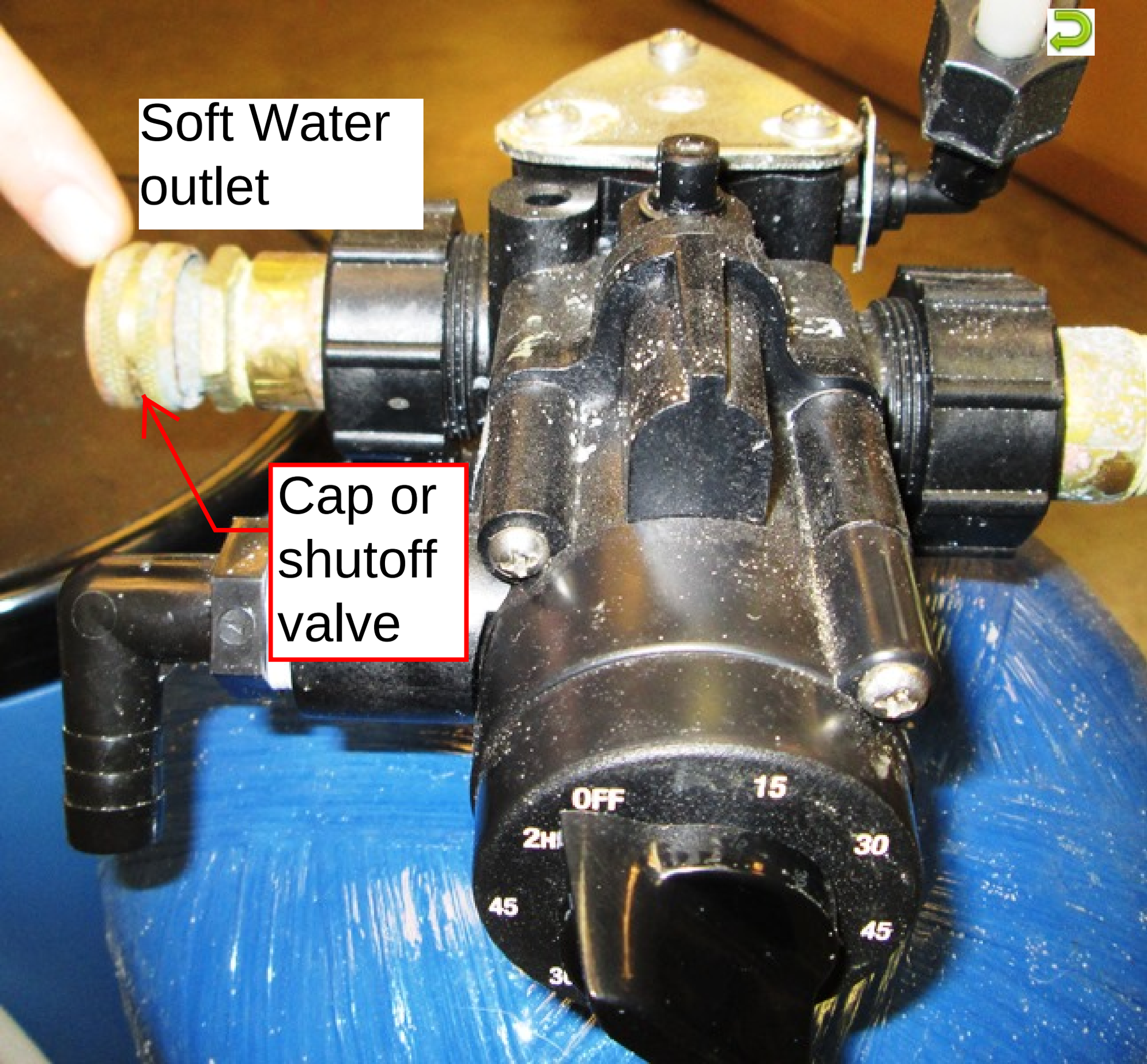
With the drain flow adjuster it is possible to adjust the water flow to drain during regeneration. The so created counter pressure helps to keep the piston of the valve in the regeneration position when the operating pressure is extremely low (< 1,5 bar). To adjust:

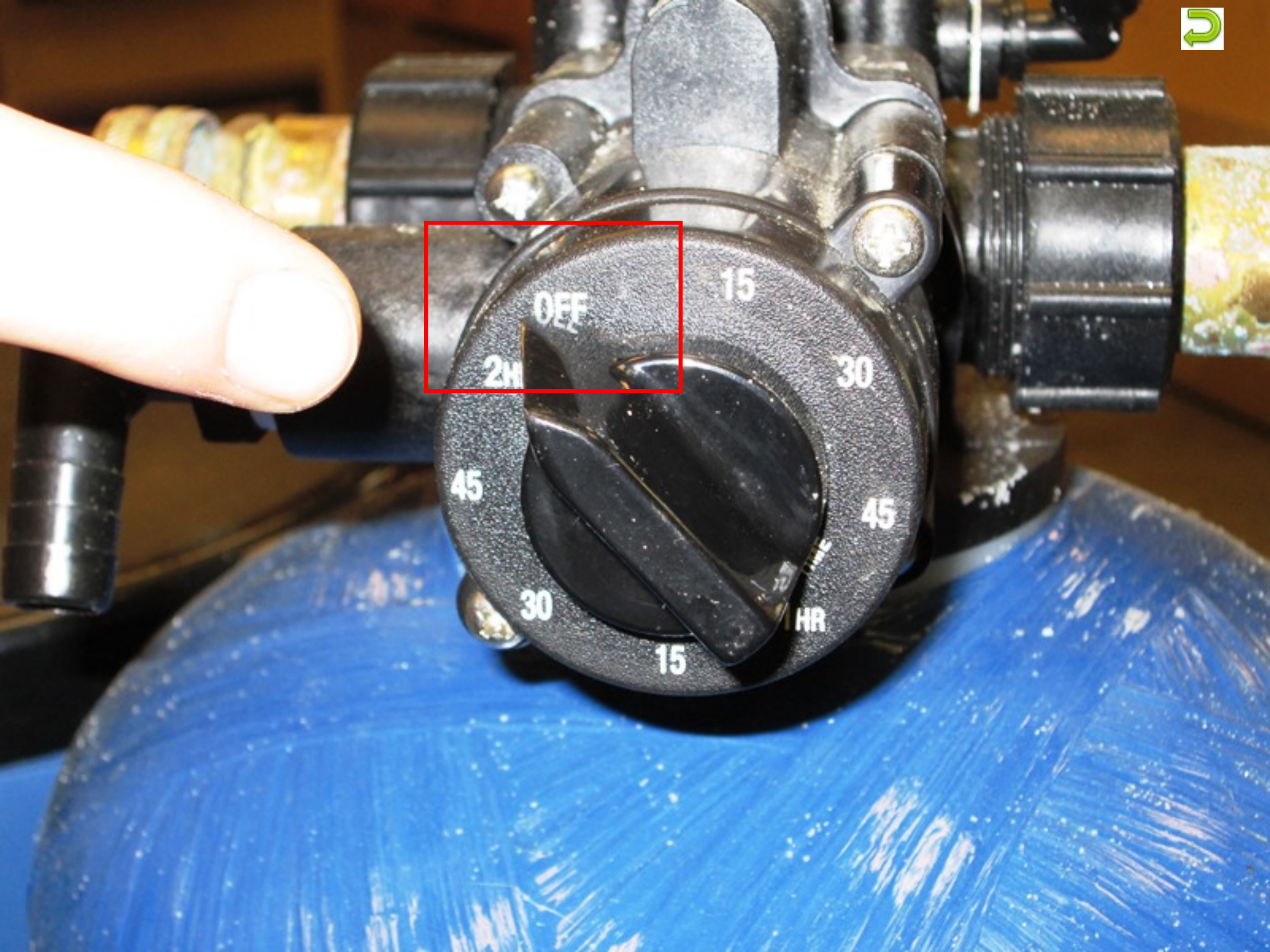
1. Place the unit in brine/slow rinse position.
2. Turn the drain flow adjuster either to the right or to the left until the piston remains stable in the regeneration position.

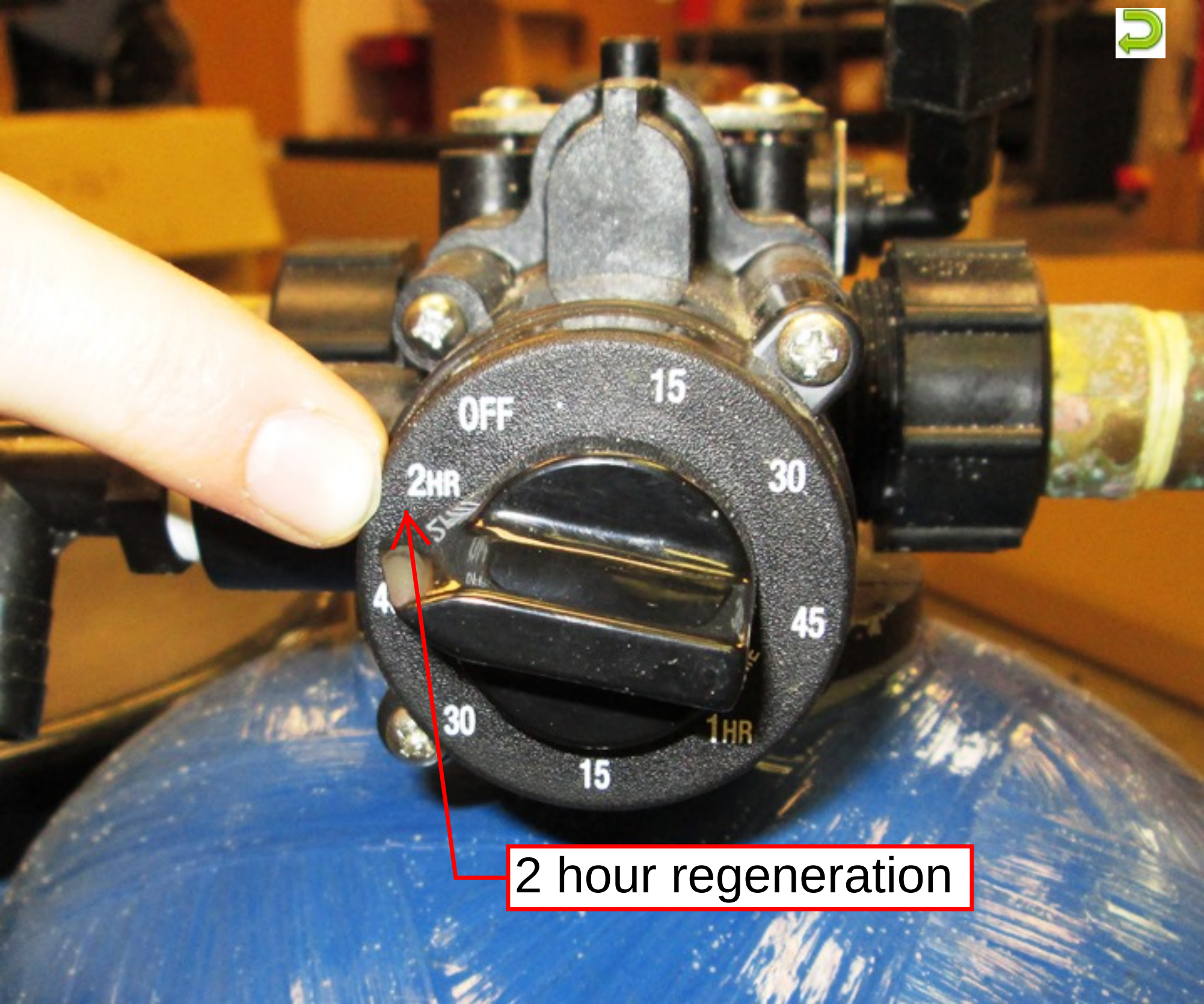
Do note that closing the drain flow adjuster too much, will result in bad suction of the injector.


Brine feed-line tube
Brine Tank
Resin Tank
Overflow

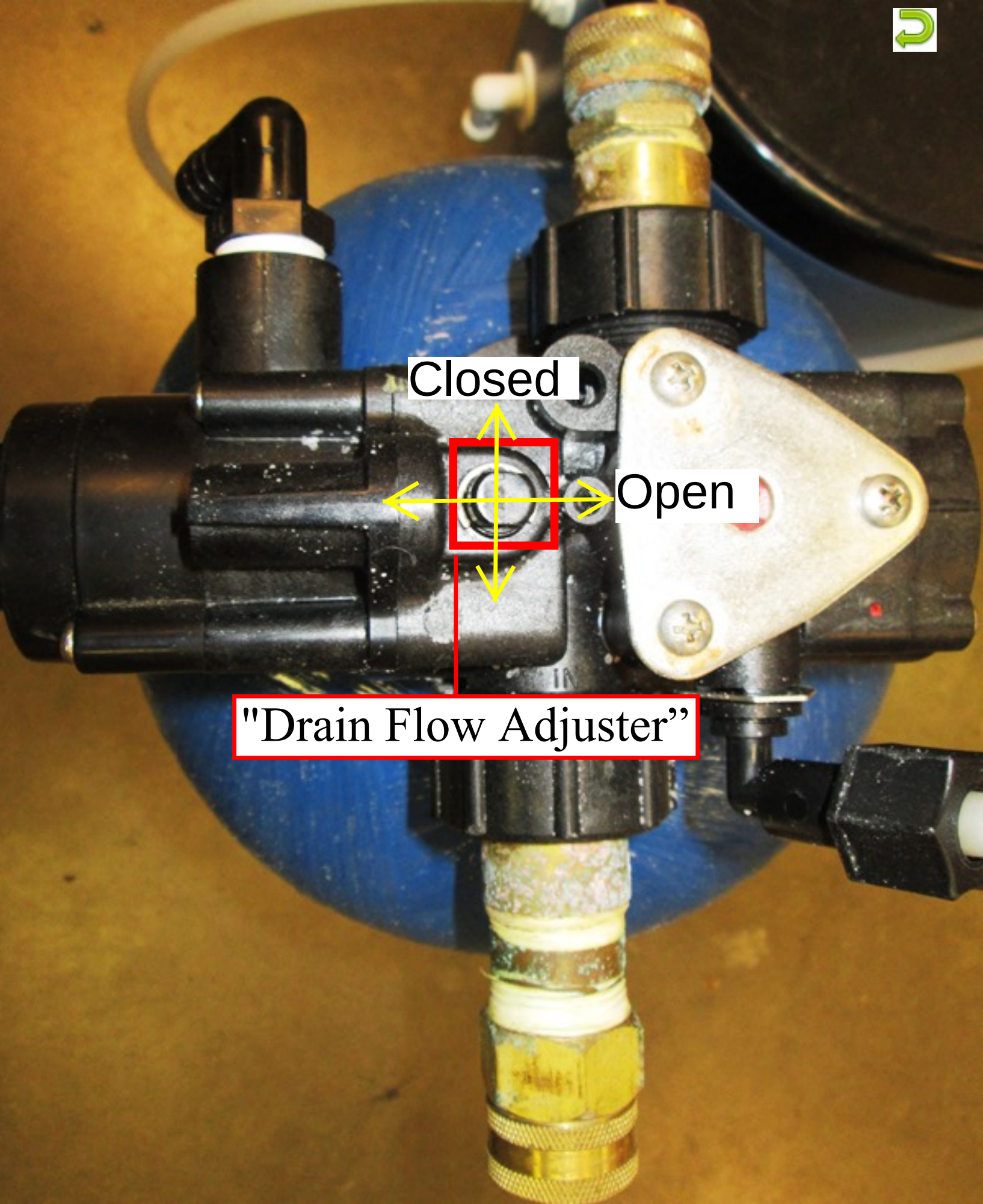

Fresh Water inlet
OFF
15
30
45
45


Soft Water outlet
Cap or shutoff valve
OFF
15
30
45
45


OFF
15
30
45
HR
15
30
45


OFF
15
30
45
1HR
15
30
2HR
2 hour regeneration


Drain
Elbow
OFF
15
30
45
45
30
15


Closed
Open
"Drain Flow Adjuster”