



FLOCCA.

**Troubleshooting v1**

MARK 2

## 1. TROUBLESHOOTING

This guide has been provided to assist with any issues that may occur on site associated with the Mark 2 version of the Flocca. We have learned a lot from the Mark 1 version and have improved the outlet assembly and programming significantly. We will discuss some possible scenarios and issues based on symptoms, their likely cause and the suggested corrective action that may be undertaken to correct the problem. If the issue cannot be resolved on site or if further parts are required, please contact Flocca or the distributor where you purchased your unit for advice. The solenoid valve and flow meter are considered consumables and should be replaced every 12 months or 6 months on high-use sites. If you have our Mark 1 version, please contact us to request the trouble shooting guide for that unit.

## 2. ALARMS

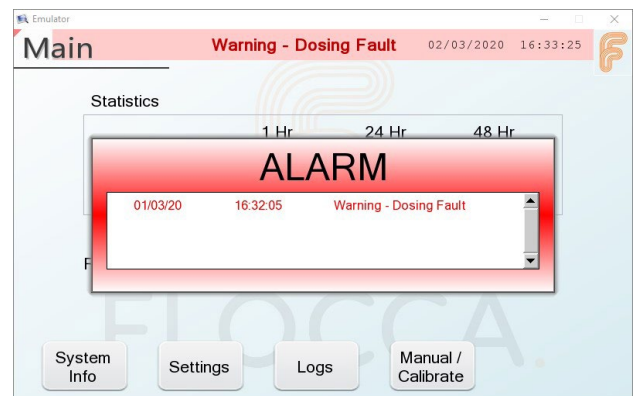
The system will create an alarm when the flow meter does not register any flow through the system for 30 seconds when activated. This issue can occur for three reasons:

1. IBC is out of chemical or the level is below the outlet hose (most common cause)
2. Flow meter is not reading correctly
3. Solenoid is stuck in the closed position

In response to this alarm, the solenoid valve will 'chatter' to try to dislodge any small particles that may prevent the flow meter rotor from spinning, as well as attempting to release the pin within the solenoid if it is stuck.

If unsuccessful in registering flow after chattering 4 times at about 30 second intervals, the system will shut the solenoid and raise a second alarm. The system will not activate again until these alarms have been cleared.

To clear a current alarm, go to the Main Screen (Home) – System Info – Alarms and clear the alarm by unticking the relevant box.



### 3. NO POWER

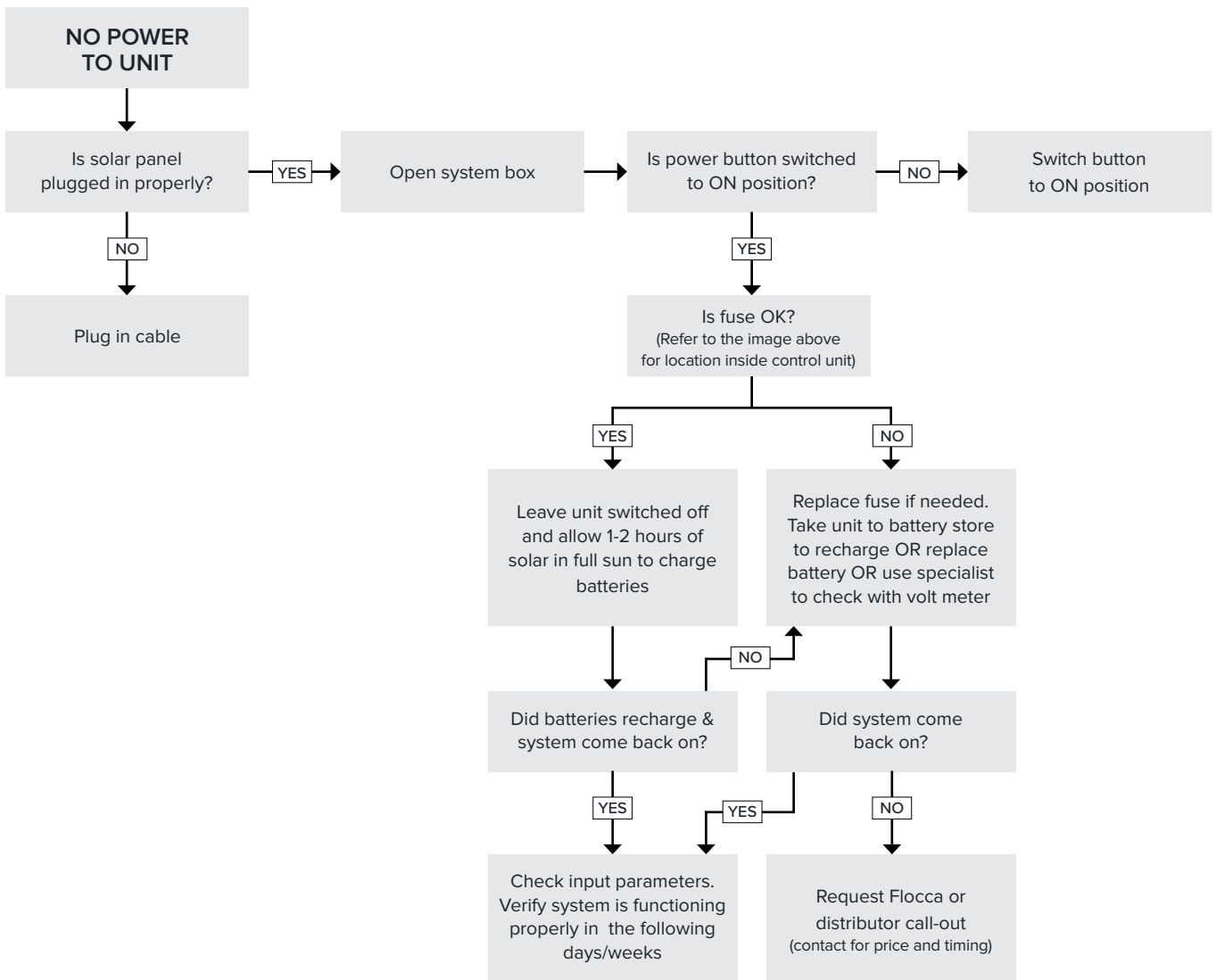
Our Mark 2 system has been optimised to use very little power. Even on a rainy day when the system is activated regularly, the battery should have sufficient capacity to cater for the unit operating.

Possible causes for loss of power can be:

1. The solar panel connection cable or solar panel regulator
2. Shade on any part of the solar panel
3. A blown fuse.

You can step through the flowchart below to find a solution.

The majority of our Mark 2 version units have a 5Amp fuse, which are able to handle up to a 100W solar panel (depending on panel specifications).

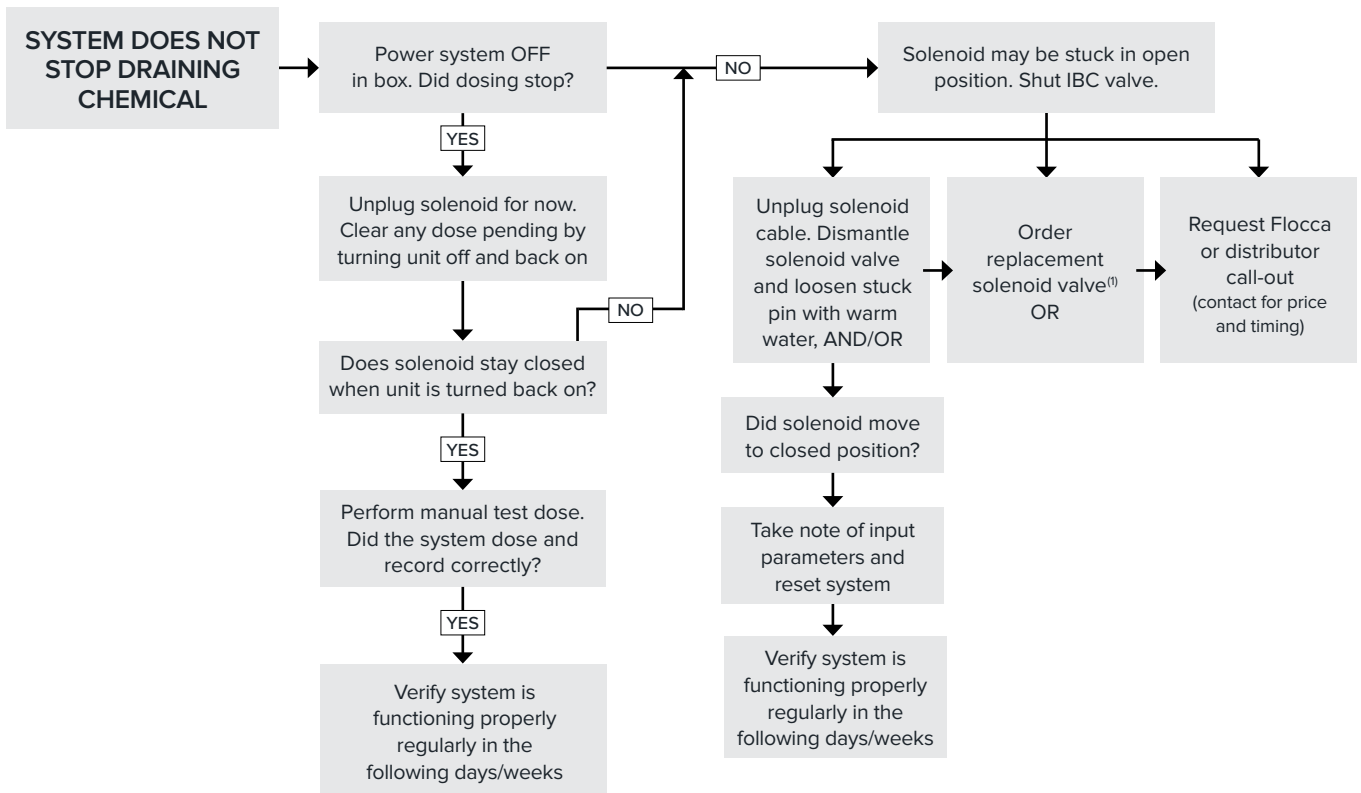


## 4. SYSTEM DOES NOT STOP DRAINING CHEMICAL

A major improvement we have made with our Mark 2 system to prevent loss of chemical by and shutting of the solenoid when no flow is being registered (refer Alarms). There are two possible reasons for the system to keep draining:

1. A backlog or 'Pending dose' from registered flow or rainfall (most common)
2. A failed solenoid with the pin stuck in open position
3. Flow meter not registering properly (alarm will be created after 30 seconds and solenoid chatters)
4. If flow meter is installed backwards it may register partial flow and therefore dose more than required

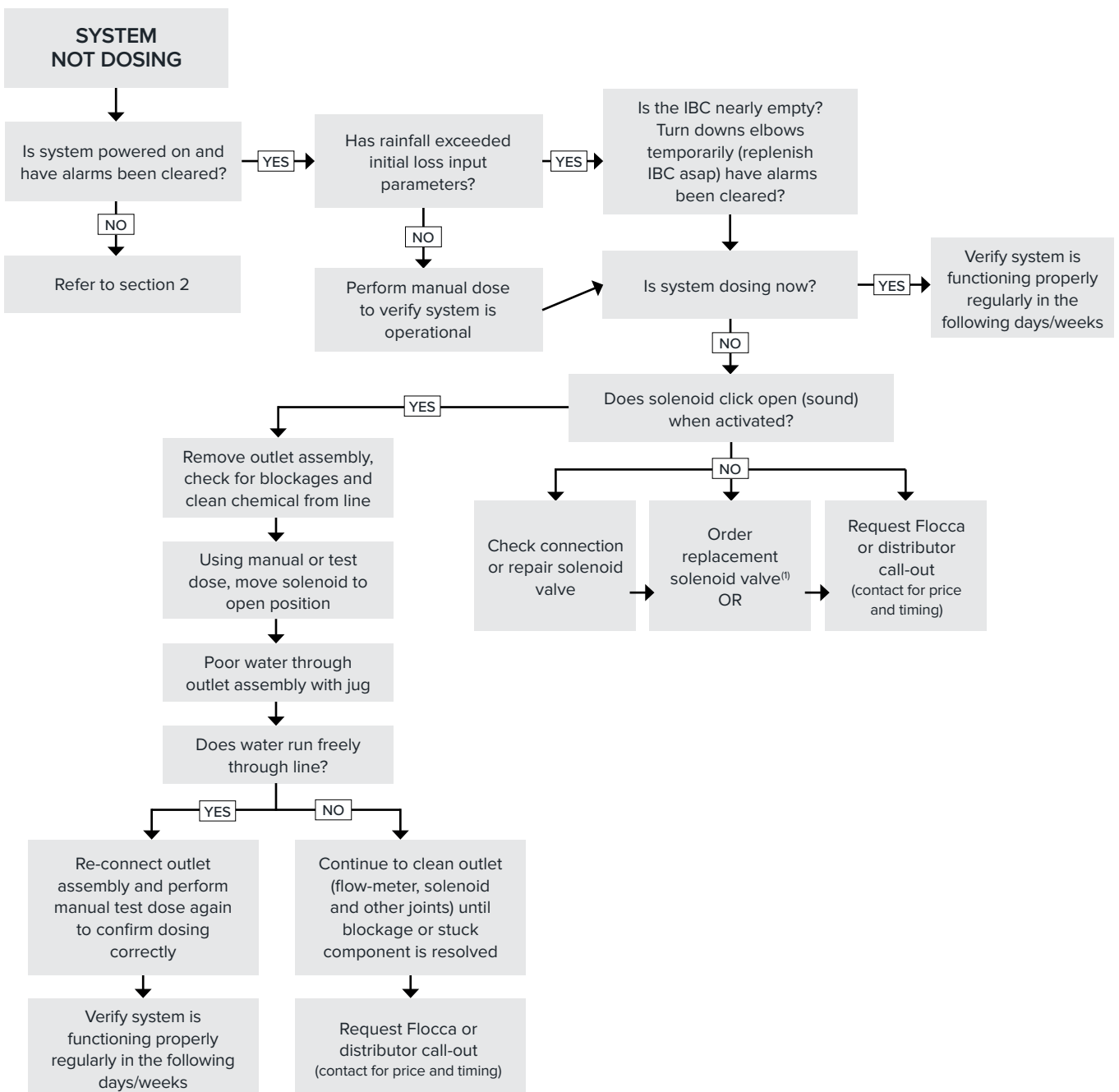
A backlog may occur when changing IBC's or the system was not able to complete dosing (IBC volume is below the outlet hose). The flow meter is directional and the arrow must be in the direction of flow. You can step through the flowchart below to find a solution. The solenoid valve and flow meter are considered consumables and should be replaced every 12 months as a minimum. They can be ordered online at [flocca.com.au](http://flocca.com.au) or by contacting your distributor.



## 5. SYSTEM NOT DOSING – FLOCCA RAIN

The system may not be dosing due to:

1. Initial Loss input parameters
2. An active alarm, which can be cleared as per section 2
3. If the IBC is nearly empty there may not be sufficient head to push chemical over the elbows at the outlet hose. Turn the outlets down in this case to get them below the IBC valve and replenish the IBC as soon as possible
4. Blockage in the outlet assembly
5. Solenoid valve stuck in closed position



## 6. SYSTEM NOT DOSING – FLOCCA FLOW

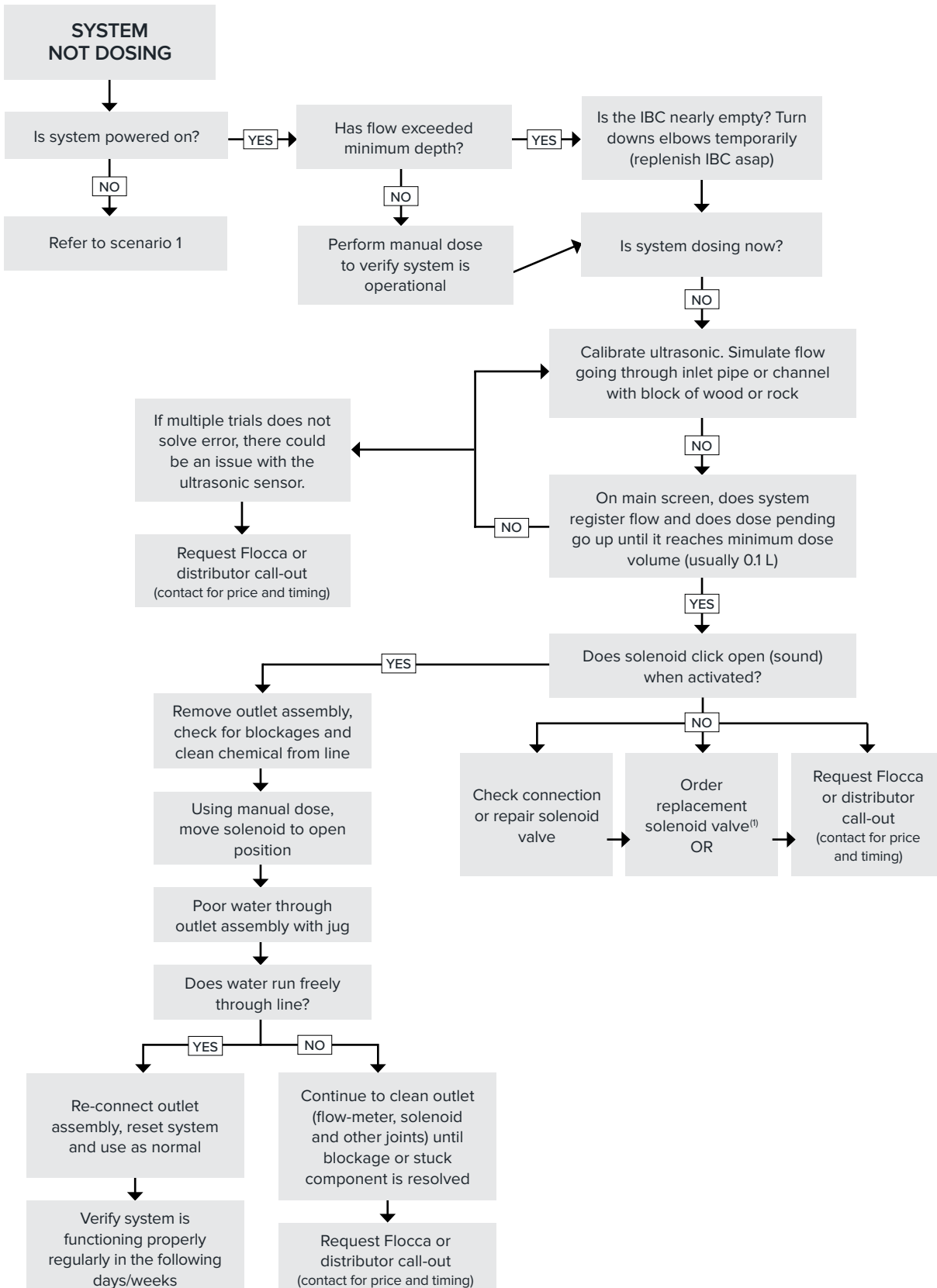
The system may not be dosing due to:

1. Input parameters for minimum flow are higher than current flow depth (default minimum 15mm depth)
2. An active alarm, which can be cleared as per section 2
3. If the IBC is nearly empty there may not be sufficient head to push chemical over the elbows at the outlet hose. Turn the outlets down in this case to get them below the IBC valve and replenish the IBC as soon as possible
4. Blockage in the outlet assembly
5. Solenoid valve stuck in closed position
6. Ultrasonic needs to be re-calibrated

The ultrasonic sensor is very sensitive and may need to be re-calibrated. Refer to quick setup guide for instructions. Note that the minimum depth of flow in the pipe or channel to trigger the Flocca Flow system is 15mm (default). When simulating flow, make sure to go over this level. As a guide, we use 100mm depth in a 600mm diameter pipe to simulate flow.

REFER TO THE DIAGRAM ON NEXT PAGE

## 6. SYSTEM NOT DOSING – FLOCCA FLOW (continued)



## 7. INTERNAL COMPONENTS SOLENOID AND FLOW METER

Both the solenoid and flow meter have internal parts that are in contact with the flocculant or coagulant. Those substances are quite sticky and can crystallise internally. It may also be possible for debris to get stuck in the flow meter, preventing the rotor from spinning. As mentioned previously, we recommend replacing these parts every 12 months as a minimum. If a site fix is required, both the solenoid and flow meter can be disassembled as per images below with a wrench, Allen key and/or a screw driver. Rinse the inside of the solenoid and flow meter with clean water. The pin inside the solenoid should move freely in its housing and the spring and rubber diaphragm should be connected together. The rotor in the flow meter should spin when blowing into the meter (do not touch with your mouth, flocculant does not taste great).

### INTERNAL COMPONENTS OF SOLENOID VALVE



*Pin can be stuck into surround via crystallised chemical or corrosion from chemical.*

### INTERNAL COMPONENTS OF FLOW METER



*Wheel can get stuck or resisted via crystallised chemical typically between the pin and rotor. Ensure no residual chemical on pin prior to reinstalling*





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