

# Ag-S Quick Start Manual Silver Ion Water Treatment System



**M395 – Quick Start  
December 20, 2019**

Pick one of the three examples that most closely matches your situation and adjust the flow, tank size and desired final dosage level to your installation requirements.



## 1.0 Quick Start Guide

### 1.1 Example 1: Tank Recirculate Mode; 8 cubic meter tank, watermaker with 625 liters per hour, and 40 PPB Silver

The watermaker run signal should be connected to the **In 3** terminals, power to the input power terminals and the Ag-S connected to the water system according to the drawing: Tank recirculate mode example 1.

*Set Water Tank Capacity – Enter the max. capacity of your fresh water tank*

1. Select **Setup** from the main menu and press Enter
2. Select **Tank/Dir** and press Enter
3. Select **Tank recirculate** and press Enter
4. Select **Set** and then Select the units of measure, **Cubic meters** and press Enter.
5. Use the up and down arrows to set the value to 8.0 and press Enter
6. Press the left arrow 3 times to get back to the **Setup** menu.

*Configure Input*

7. Select **Inputs** and press Enter
8. Select **In 3** and press Enter
9. Select **Fixed flow to tank** and press Enter
10. On the first entry for this input selection, skip to the next step. If making a change to this selection then Select **Set**
11. Select the units of **l/hr** and press Enter; and then the arrows to set the value to 625 and press Enter
12. Select **Input polarity; Closed=On** is normal and then press enter
13. Press the left arrow once to get back to the **Setup** menu.

*Set Ag Concentration*

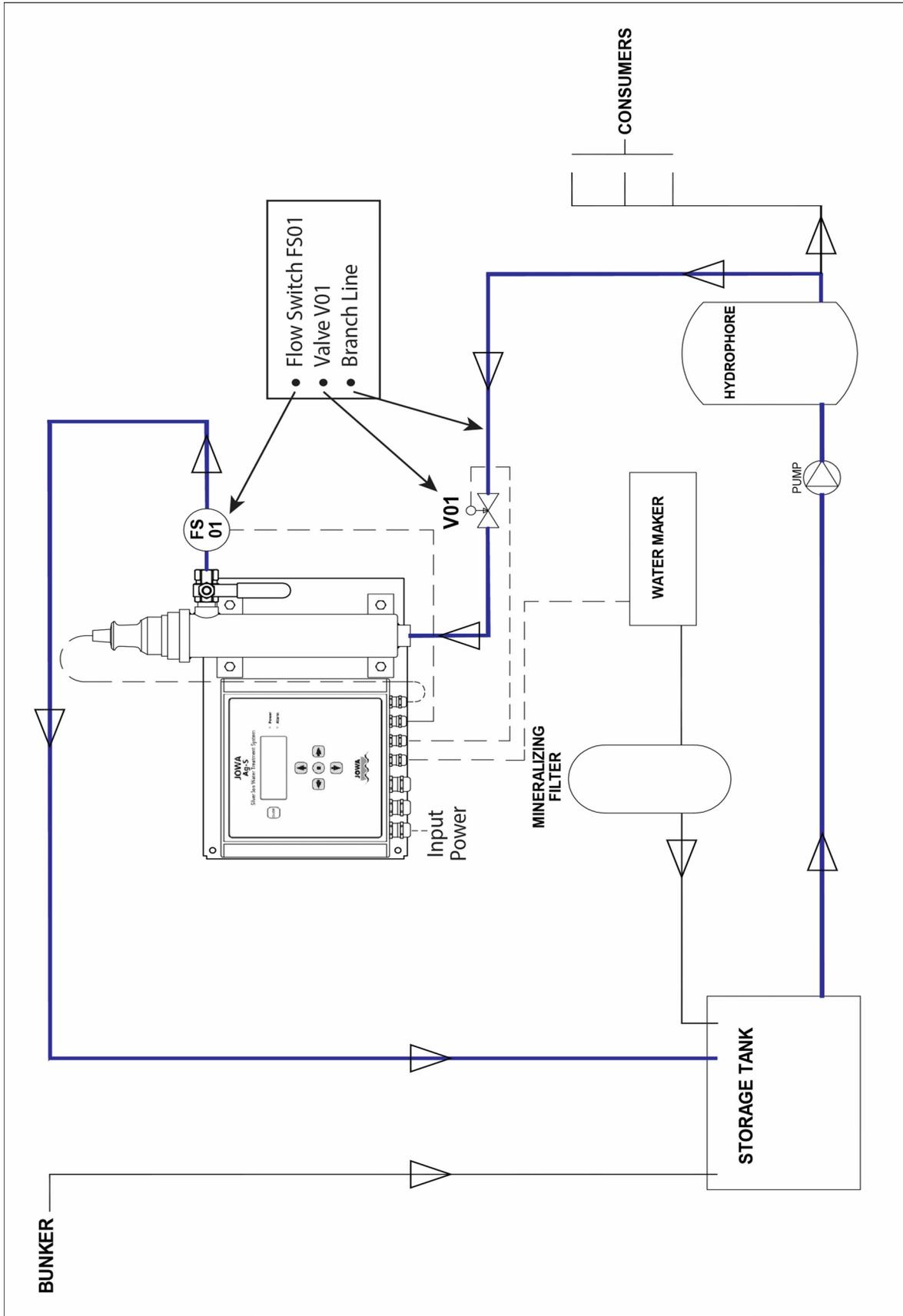
14. Select **Ag PPB** and press Enter; Use the arrows to set the value to 40 and press Enter.

*Adjust Flow through Chamber*

15. To set the flow rate through the chamber use the Flush menu also under **Setup** to turn the solenoid valve V01 on and off. Turn the flow on by pressing Enter and adjust the flow regulator to the chamber to 3l/min. Confirm that the –Flow on the display turns to Flow when flow is on and back when off. See Section 11 of the manual to adjust the flow switch.

When the watermaker is running the Ag-S will count up the amount of water that has been produced. Once enough water has been produced to allow the unit to operate for 2 minutes the Ag-S will start to generate silver ions and continue to run until the desired PPB is reached.

# Tank recirculate mode; Example 1



**1.2 Example 2: Tank Recirculate Mode; 20 cubic meter tank, watermaker with flow meter (10 l/pulse) on output, bunker line going through the same flow meter, and 50 PPB Silver.**

The flow meter pulse output line should be connected to the **In 1** terminals, power to the input power terminals and the Ag-S connected to the water system according to the drawing: Tank recirculate mode with Flow Meter; Example 2. The flow meter is on a combined line for the output of the watermaker and the bunker line.

*Set Water Tank Capacity – Enter the max. capacity of your fresh water tank*

1. Select **Setup** from the main menu and press Enter
2. Select **Tank/Dir** and press Enter
3. Select **Tank recirculate** and press Enter
4. Select **Set** and then Select the units of measure, **Cubic meters** and press Enter.
5. Use the up and down arrows to set the value to 15.0 and press Enter (15 is the highest possible value)
6. Press the left arrow 3 times to get back to the **Setup** menu.

*Configure Input*

7. Select **Inputs** and press Enter
8. Select **In 1** and press Enter
9. Select **Flowmeter pulses** and press Enter
10. On the first entry for this input selection, skip to the next step. If making a change to this selection then Select **Set**
11. Select the units of **l/pulse** and press Enter and then the arrows to set the value to 10 and press Enter
12. Select **Input polarity; Closed=On** is normal and then press enter
13. Press the left arrow once to get back to the **Setup** menu.

*Set Ag Concentration*

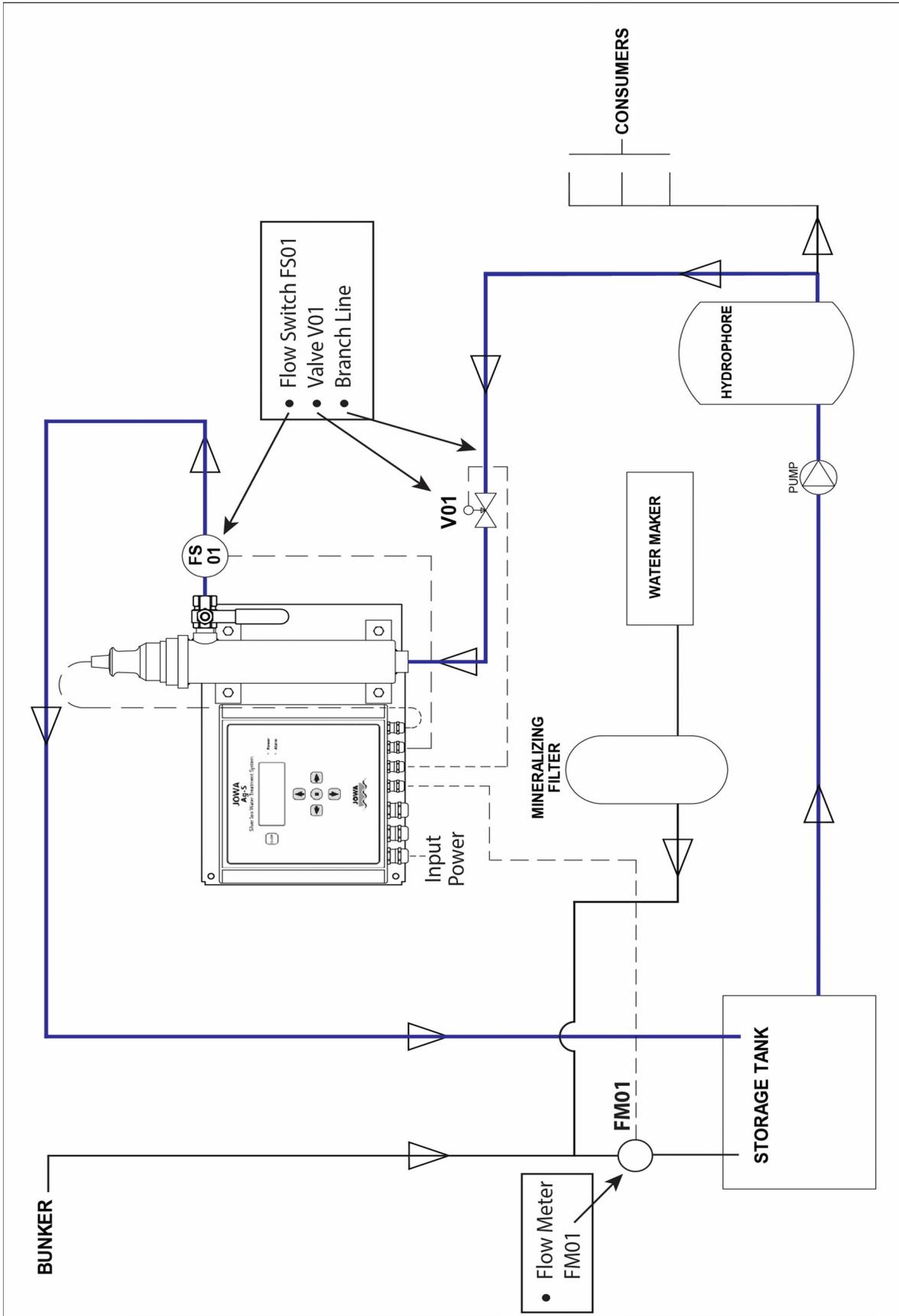
14. Select **Ag PPB** and press Enter; Use the arrows to set the value to 50 and press Enter.

*Adjust Flow through Chamber*

15. To set the flow rate through the chamber use the Flush menu also under **Setup** to turn the solenoid valve V01 on and off. Turn the flow on by pressing Enter and adjust the flow regulator to the chamber to 3l/min. Confirm that the –Flow on the display turns to Flow when flow is on and back when off. See Section 11 of the manual to adjust the flow switch.

When water is going through the flowmeter the Ag-S will count the pulses, which represent the amount of water that has been produced or bunkered. Once enough water has flowed to allow the unit to operate for 2 minutes, the Ag-S will start to generate silver ions and continue to run until the desired PPB is reached.

# Tank recirculate mode with Flow Meter; Example 2



### 1.3 Example 3: Direct flow mode; flow from watermaker is a fixed 75 liters per minute and the desired silver level is 45 PPB.

The Direct Flow signal should be connected to the **In 1** terminals, power to the input power terminals and the Ag-S connected to the water system according to the drawing: Direct flow mode; Example 3.

#### *Select Direct Flow Mode*

1. Select **Setup** from the main menu and press Enter
2. Select **Tank/Dir** and press Enter
3. Select **Direct flow** and press Enter; then **Confirm** by pressing Enter
4. Press the left arrow twice to get back to the **Setup** menu.

#### *Configure Input*

5. Select **Inputs** and press Enter
6. Select **In 1** and press Enter
7. Select **Direct flow** and press Enter
8. Select the units of **l/min** and press Enter and then the arrows to set the value to 75 and press Enter
9. Select **Input polarity; Closed=On** is normal and then press enter
10. Press the left arrow once to get back to the **Setup** menu.

#### *Set Ag Concentration*

11. Select **Ag PPB** and press Enter; Use the arrows to set the value to 45 and press Enter.

#### *Adjust Flow through Chamber*

12. Under the **Setup** menu go to the **Flush** menu. This will allow you to see the status of the flow switch. The On/Off feature that opens and closed the flow valve relay is not used in the Direct Flow mode.
13. Adjust the Flow Regulator/Indicator to the chamber so that it is fully open
14. With water flowing through the system, adjust the Throttle Valve so that just over 3 liters per minute is flowing through the chamber
15. Adjust the Flow Regulator/Indicator to reduce the flow to the chamber to 3 liters per minute
16. Confirm that the –Flow on the display turns to Flow when flow is on and back when off. See Section 11 of the manual to adjust the flow switch.

### Direct Flow mode; Example 3

