

# 396-3630Y1 SurePoint Catalyst system and JDRC 2000

**Setup Control Valve**

Product 2 Liquid

Control Valve Type: **PWM Close**

Valve Response Rate (1-100): **80**

Control Deadband (%): **2**

Start with the Valve Response Rate at 80. You will also make some changes in the Advanced Tuning (described later). If system is too slow to adjust to speed changes, increase Valve Response by 5 at a time.

If the system overshoots and oscillates decrease by 5 at a time.

**Setup PWM**

Product 2 Liquid

Coil Frequency (Hz): **125**

High Limit (%): **80.0**

Low Limit (%): **7-10**

PWM Startup (%): **10**

Set at 100 if using the Catalyst with another Liquid system

Start with the Low Limit and PWM Startup as shown above. Monitor the PWM DC % on the Run page. If the pump needs to go below 10% DC, change the Low Limit above. Adjust the PWM Startup % so the pump starts at the speed you want.

Most SurePoint Catalyst systems with the 0.08 to 1.6 GPM flowmeter have a flow cal of 22710 pulses per gallon. The JDRC will not accept a 5-digit flow cal so we set 177 pls/fl oz. ( $22710 / 128 = 177$  pulses per fl.oz.)

Check the Serial Number sticker on the side of the flowmeter to confirm pulses/gal.

**Setup Rate Sensor**

Product 2 Liquid

Flowmeter Calibration: **177**

Flowmeter Pulse/Units: **fl oz**

**Setup Alarms**

Product 2 Liquid

Off Rate Alarm (% off target rate): **20**

Alarm?

Enter minimum flow rate required to maintain spray pattern.

Minimum Flow Rate (gal/min): **0.0**

For a rate of 32 oz/acre ( $32 / 128 = 0.25$  gal/acre), check the Decimal Shift box, and enter the rate as 0.25 gal/acre.

**Setup Rates**

Product 2 Liquid

Preset Rate Values (gal/ae): Rate 1: **0.25**, Rate 2: 0.00, Rate 3: 0.00

Rate Bump (gal/ae): **0.10**

Rate Selection: **Predefined**

Rate Smoothing:  **15** %

Decimal Shift:

**Setup Tank**

Product 2 Liquid

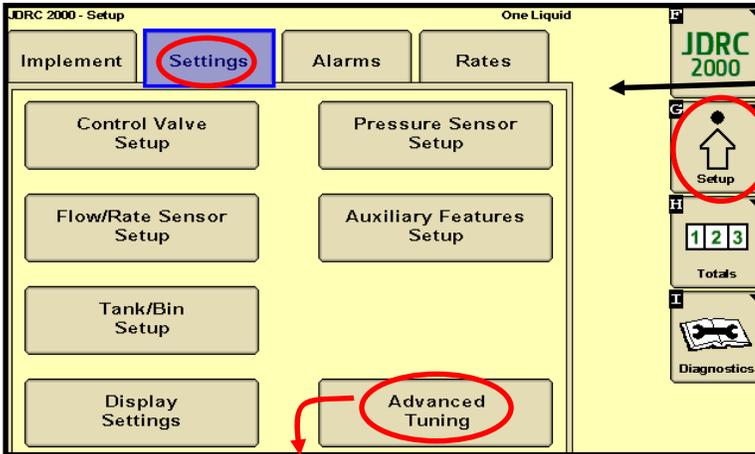
Tank Capacity (gal): **0**

Current Level (gal): **0**

Low Tank Level (gal): **0**

Alarm?

Use this if you want to keep track of product in the tank.



### Advanced Tuning

On SurePoint **electric pump systems** (Tower 110, Tower 200, Catalyst, and Spartan), it will be necessary to use the **Advanced Tuning** feature in addition to the regular Control Valve Calibration. To activate **Advanced Tuning**, press and hold the **Settings** tab for about 8 seconds.

On **electric pump** systems, set the PID Valve Tuning parameters as shown (below left). Press the “?” for an explanation of what each of these values does.

Fine-tuning of the system may require some adjustment of these numbers along with the Valve Response Rate on the Control Valve Setup.

