

Tests for Initial Operation

17. Initial Operation in MANUAL mode:

1. Fill the system with water. For first time startup, open air bleed valve.
2. Enter a Test Speed at Setup > Implement > Test Speed.
3. Navigate to MANUAL MODE on the JDRC 2000 Run page.
4. Height switch must be DOWN (or uncheck Height Switch box).
5. Turn on Master Switch. Press and hold (+) to increase flow. If you get "SOLUTION PUMP DRY", see next box below.
6. Monitor Flow (gal/min), PSI, DC, Pump RPM. Only Valve A will be on unless pressure exceeds 70 PSI. Open Valve B with the manual toggle switch by the valve.
7. Go to Section Switch box (see previous page). Turn Sections OFF and ON.
8. Turn Master Switch OFF.

NOTICE

Running these tests will dispense liquid. Be sure it is safe to dispense the liquid at this time.

Setup > Implement >

Height Switch

Test Speed 

OPTIONAL MANUAL PUMP OPERATION: If you get "SOLUTION PUMP DRY", start with this:

"Solution Pump Dry" will not hurt the SureFire pump.

Go to **Diagnostics > Tests > Calibrate PWM LIMITS**. This is a place where you can manually run the pump without the system shutting down if it doesn't read flow immediately. When you press START, the section valves will open. Press and hold (+) to increase the PWM Duty Cycle. Hydraulic pumps will need to be around 130% DC to get flow. When priming the pump, it will help to open the air bleed valve and run the pump faster to get primed and to get the air out.

You can also run the system manually at **Diagnostics > Tests > Control/Section Test**. When running the system here, you will get a *Solution Pump Dry* warning if the system doesn't read flow. This will not hurt the SureFire pump.

TROUBLESHOOTING TIP: Pump Won't Run—Start the Calibrate PWM Limits Test. Press and hold the (+) button to run the PWM Duty Cycle (DC) to 100%. With a voltmeter check voltage at the 4-pin PWM connector. Should have 12-13 volts. If there is voltage here, but pump won't run, check the pump as described next:

Hydraulic Pump—On the hydraulic valve block, pop up the Manual Override button (red knob on top of solenoid). If unit has been in the field, you may need to loosen the dirt to move the knob. In cab, turn hydraulic flow to very low. Engage hydraulics. Pump should begin turning. Slowly increase hydraulic flow to speed up pump. Do not overspeed pump. When finished testing, lock the Manual Override button in the down position for field operation.

18. Initial Operation in AUTO mode: (Could also do **Diagnostics > Nozzle Flow Check**).

1. Enter a Test Speed at Setup > Implement > Test Speed.
2. Navigate to AUTO MODE on the JDRC 2000 Run page. Select a Rate.
3. Height switch must be DOWN (or uncheck Height Switch box).
4. Turn on Master Switch. (**NOTE: Pressure will be much less with water than with heavier, thicker fertilizer.**)
5. Monitor Actual Rate (gal/hr), Flow (gal/min), PSI, DC, Pump RPM.
6. Go to Section Switch box (see previous page). Turn Sections OFF and ON.
7. Turn Master Switch OFF.

Check out the other tests available at **Diagnostics > Tests**. Check out system information at **Diagnostics > Readings >**

TIPS: (1) Go to **Diagnostics > System Summary** for a quick look at the System Settings.

(2) Go to **Diagnostics > Product Summary** for a quick look at the settings for each product setup.

(3) Go to **Diagnostics > Readings** for important information and feedback: *Hardware/Software, Delivery System, Section Status, System Voltage, Pressure Sensors, RPM Sensors and more.*

(4) See the *JDRC 2000 PumpRight System Manual (396-3583Y1)* and *Gen3 LiquiShift Manual (396-4608Y1)* for more information on safety, setup, and operation. Available at www.surefireag.com/support.

WARNING

The operator is responsible for knowing and understanding the safe operation of this equipment. Systems with hydraulic equipment require additional safety precautions to prevent serious injury and/or death. See the full SureFire Manual and the *John Deere Rate Controller 2000 Operator's Manual* for important safety information and setup and operating instructions.

Go to www.surefireag.com/support for the SureFire manual.

MAW

