Precision Liquid Fertilizer Solutions

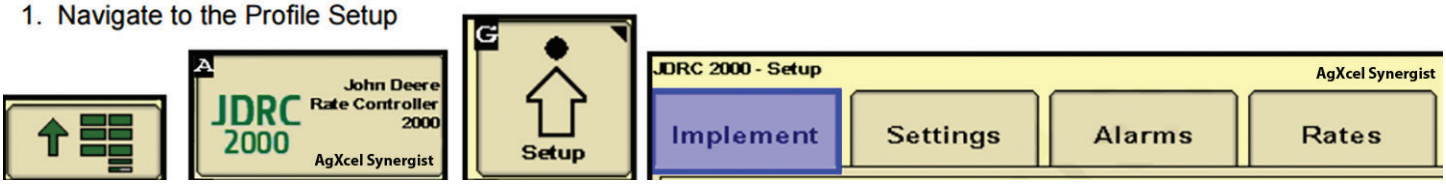
www.agxcel.com
where precision meets the soil...
877.218.1981

QuickStart Setup Instructions for JDRC 2000 & GX12HP Injection System

PLEASE NOTE: ***Your setup may vary.*** Not all screens are shown. See JD JDRC 2000 Operator's Manual for safety information and additional setup/operating information.

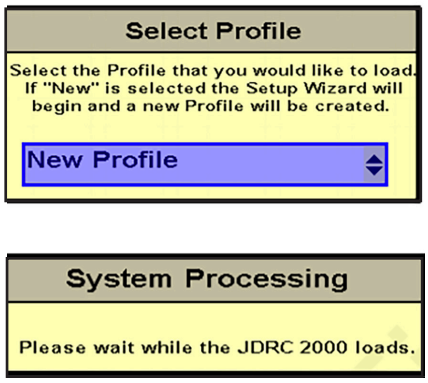
PROFILE SETUP

1. Navigate to the Profile Setup

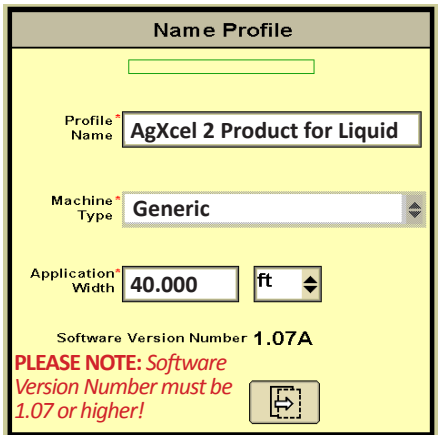


For the initial setup, start a new profile. The JDRC 2000 allows you to store 8 profiles. Be prepared to wait during this phase of the setup process....***A LONG TIME!***

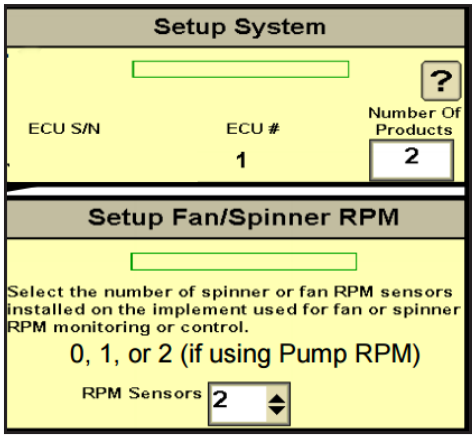
2. Enter Profile Name



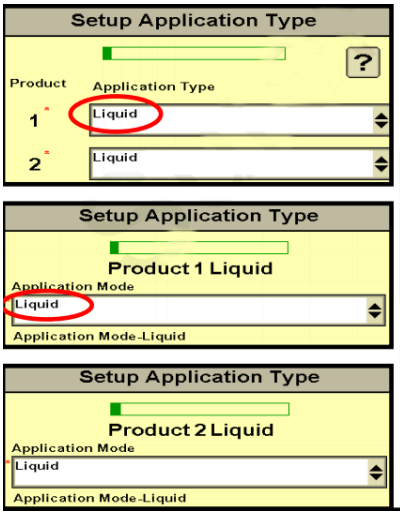
3. Machine Type -> AgXcel 2 Product for Liquid



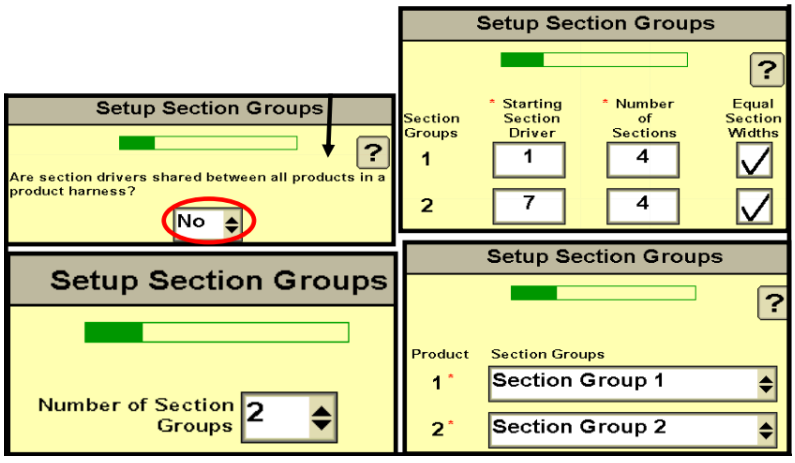
4. Setup System and RPM Sensors



5. Select Application Type & Application Mode.



6. Setup Section Groups. Section Group 2 will start with Section Driver 7.
Other Section Setups are possible. The standard AgXcel harness has Sections 1-6 with Product 1, and Sections 7-12 with Product 2.

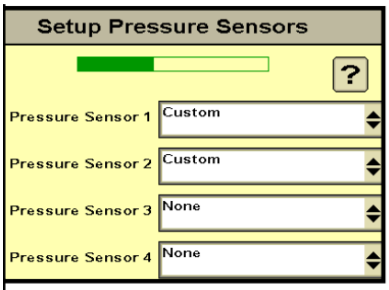


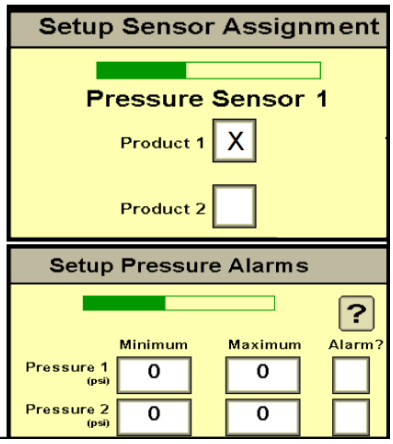
Note: Ensure that the **Master Clutch** is **Disabled**

PO Box 1611
Kearney, NE 68848
877.218.1981
www.agxcel.com

QuickStart Setup Instructions for JDRC 2000 & GX12HP Injection System

7. The AgXcel Pressure Sensor will be setup as a Custom sensor. Calibration will be done later.

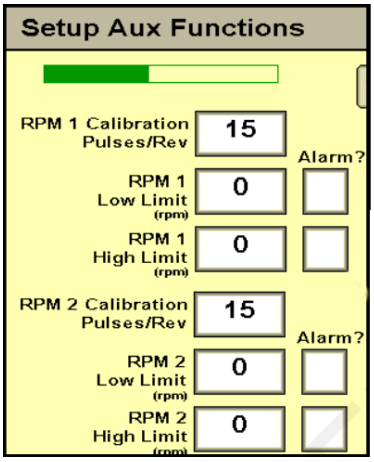


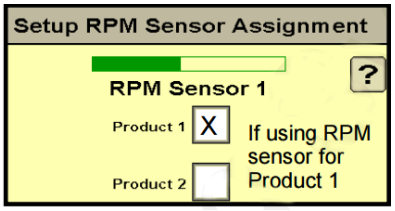


Sensors (such as pressure, pump RPM, spinner RPM) do not need to be assigned to a specific product if they are just being used to monitor a device and not to control it. AgXcel recommends that you NOT assign pressure and RPM sensors to a specific product. However, there may be times when you want to assign the sensor to a product.

For a typical setup, leave these 3 screens as shown on the left.

8. Optional Aux Functions - RPM Sensors



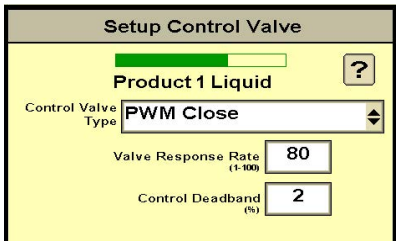


(See Display Settings for instructions on how to show pressure and RPM for a product on the product Run Screen).

On the AgXcel wiring harness indicated above, Pressure Signal 1 and RPM Sensor 1 are on the Product 1 connector. Pressure Signal 2 and RPM Sensor 2 are on the Product 2 connector.

The AgXcel hydraulic pump with an RPM Sensor is 15 pulses / rev as shown. If monitoring something else, enter the pulses / rev for that encoder or sensor.

9. Control Valve Setup



If the pump is slow to respond to rate or speed changes, increase Valve Response Rate 10hz at a time. If product oscillates around the rate going across the field, reduce Valve Response Rate.

Valve Response Rate: *(Adjust as needed)*

- **GX5 (hydraulic) 80**
- **GX2 (electric) 100**
- **Synergist..... 80**
- **GX12HP.....80**

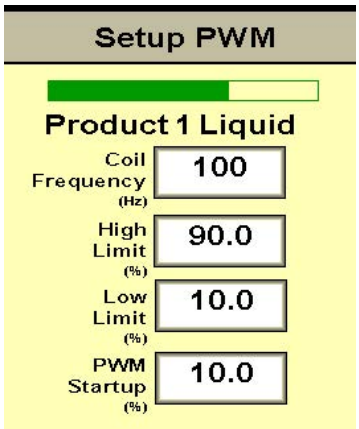
Control Deadband: Start at 2

Low Limit (Adjust in field as needed)

- **GX5 (hydraulic) 25**
- **GX2 (electric) 10**
- **Synergist..... 10**
- **GX12HP.....10**

Pump Startup *(Adjust in field as needed)*

- **GX5 (hydraulic) 40**
- **GX2 (electric) 40**
- **Synergist..... 10**
- **GX12HP.....10**



NORMAL OPERATION

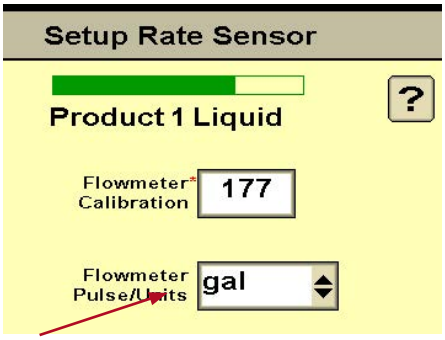
37.1 DC%

PWM STARTUP

10%

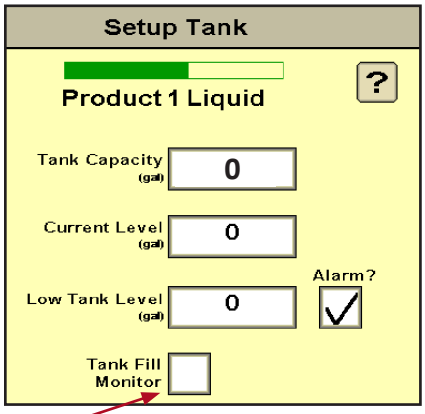
QuickStart Setup Instructions for JDRC 2000 & GX12HP Injection System

10. Enter appropriate Flowmeter Cal.



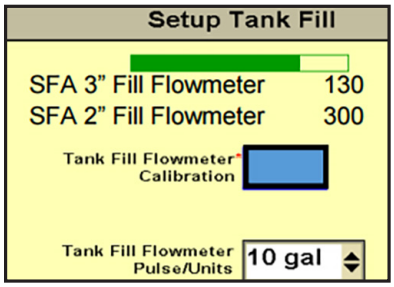
CAUTION: When choosing **Pulses/Unit**, ensure that you choose **GAL**. When selecting GAL with the Flow Cal. entered, the controller will read in Ounces/Acre.

11. Tank & Fill Flowmeter Setup



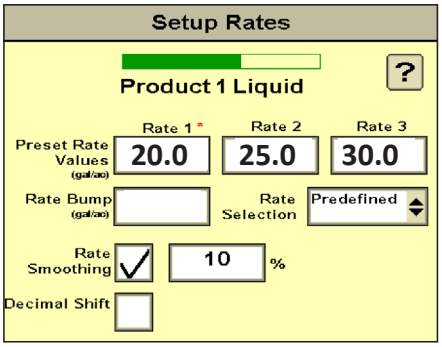
Check **Tank Fill Monitor** box if using a fill flowmeter. Then enter **Tank Fill Flowmeter Calibration (Units are 10 gal.)**

12. Fill Flowmeter Cal Setup



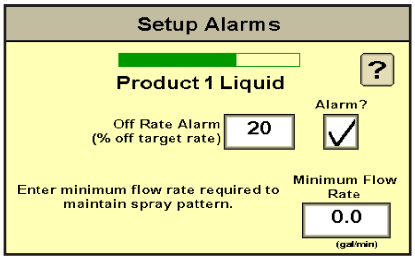
13. Set Rates & Rate Smoothing as desired.

Check the **Decimal Shift** box to enter rates with one more decimal point (such as 0.25 gpa).



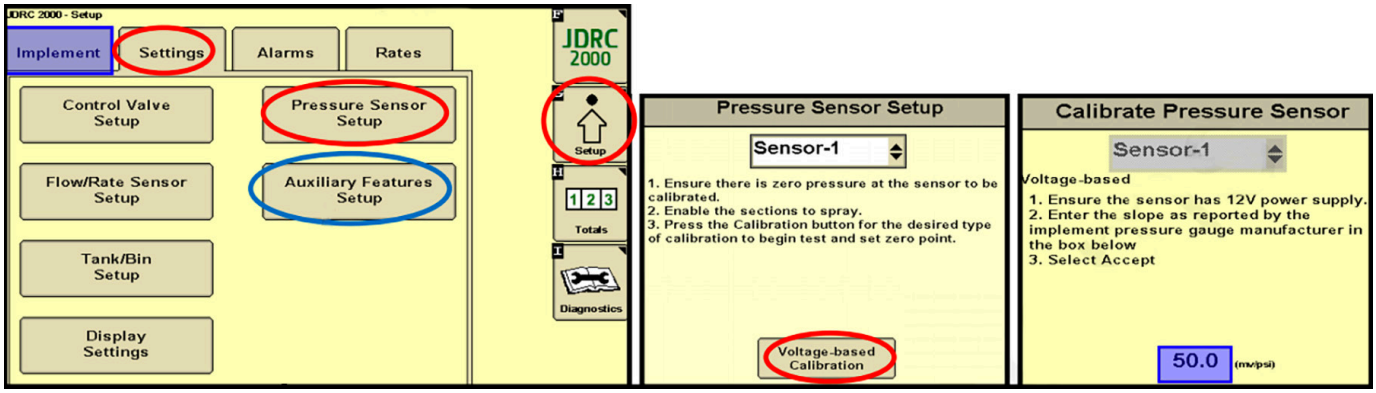
14. Set Off Rate Alarm as desired.

The **Min. Flow Rate** box will not be present if a pressure sensor has been assigned to this product. Typically, **Min. Flow Rate** will be left at 0.



Number of Pumps	Flow Calibration Number
1 Pump	84
2 Pumps	42
3 Pumps	28
4 Pumps	21

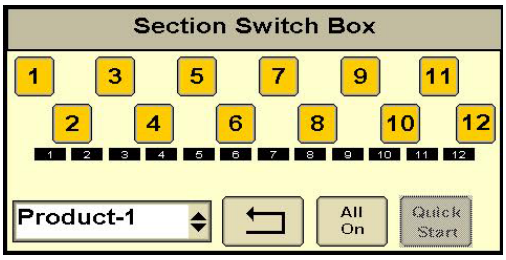
13. Pressure Sensor - When using an AgXcel pressure sensor the steps must be performed below. AgXcel uses a 0 - 100 PSI pressure transducer and a calibration number of **50.0 mv/PSI** is to be used. To ensure that the sensor is properly calibrated, please make sure that the M12 connector with a **GREEN lit LED is DISCONNECTED** from the sensor. this will ensure that the sensor does not detect any pressure in the system. 0 Pressure = 0.00 V



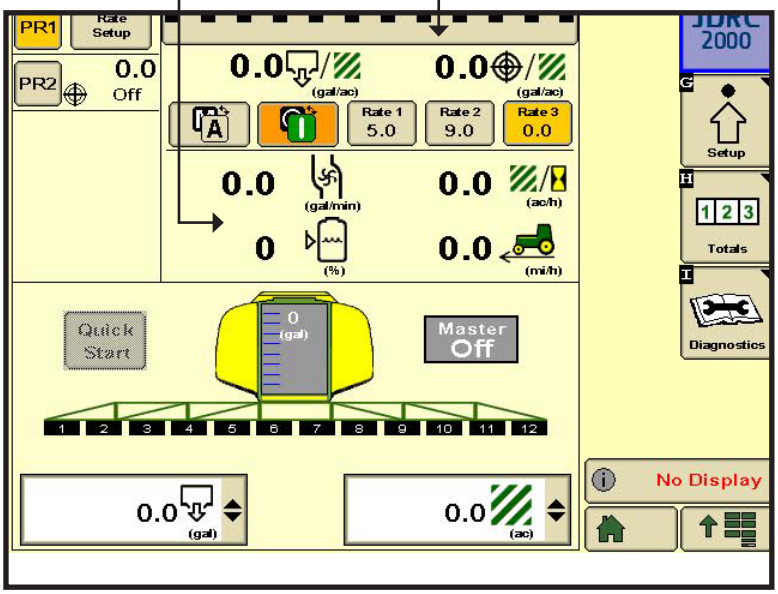
QuickStart Setup Instructions for JDRC 2000 & GX12HP Injection System

Set these 4 items in **Setup -> Settings -> Display Settings**

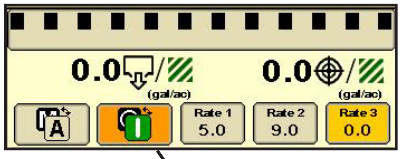
- **Gal/min**
- **Pressure (PSI)**
- **DC(%) (PWM)**
- **Mi/hr**



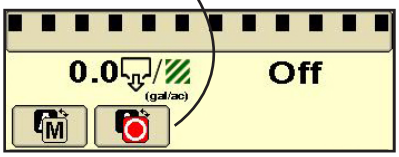
Press on this bar to open Section Switch Box



Auto Mode

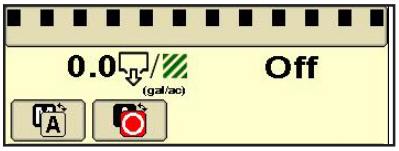


System ENABLE / DISABLE

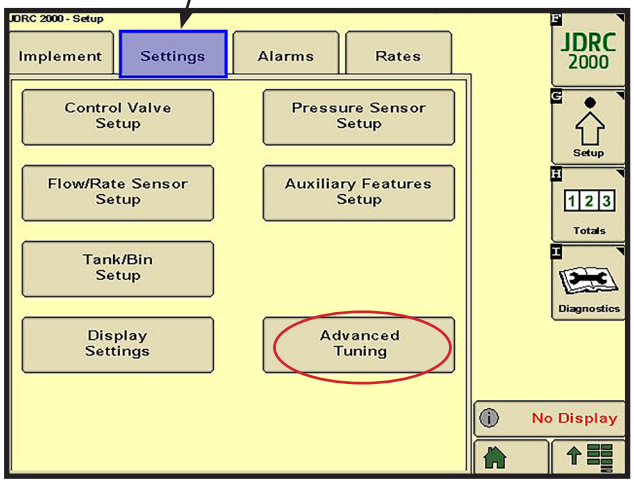


MANUAL

AUTO



Press and HOLD the SETTINGS tab for about 10 seconds until the Advanced Tuning button displays



15. Advance Tuning - Many times the Control Valve Settings are not enough to appropriately control the AgXcel EMD PWM Intelligent Module. Therefore, additional fine tuning using the JDRC2000 under the Advance Tuning section is required. On the AgXcel GX2 or Synergist system the PID values must be modified. For more in-depth details of this feature press the ? button.

Default Settings are:

P = 50 D = 50

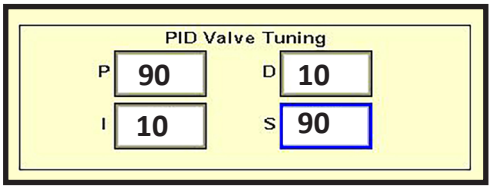
I = 20 S = 50

PID Valve Tunning for AgXcel GX2 Electric System:

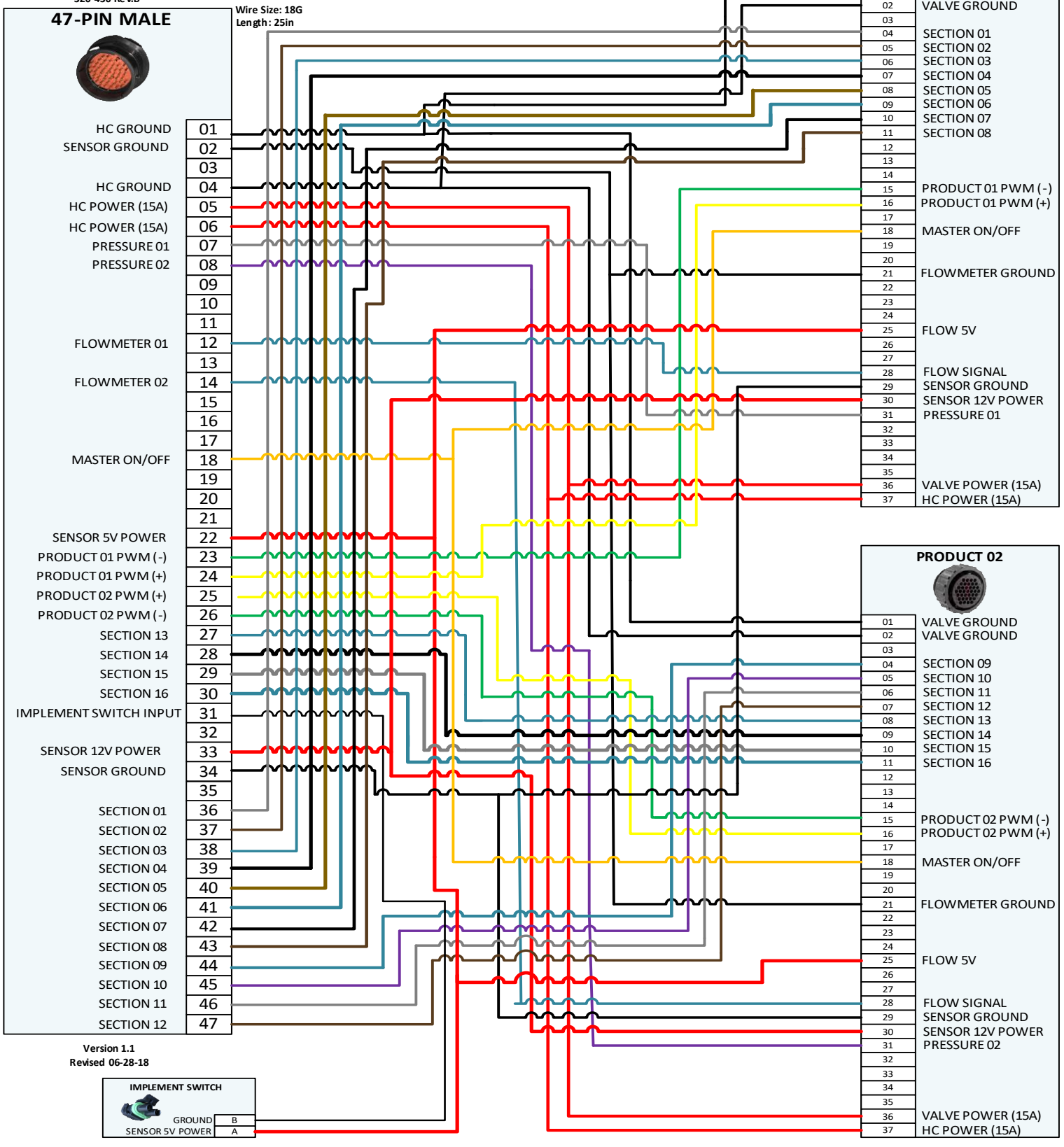
Set P = 90 D = 10

Set i = 10 S = 90

Setting P = 100 and S = 100 will ensure the quickest response from the AgXcel GX2 Electric System



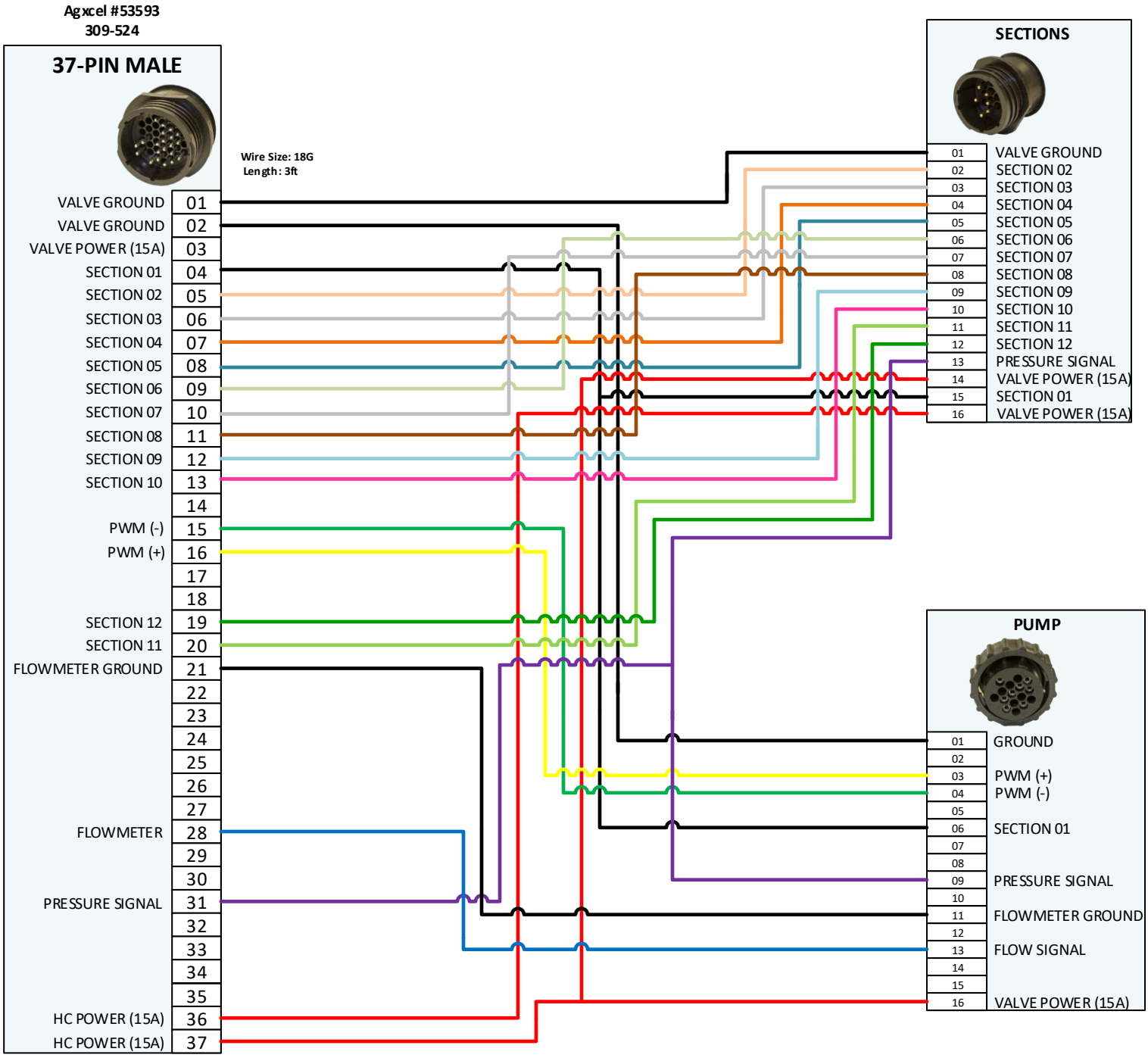
AgXcel John Deere GS 2000
Two Product Harness



WWW.AGXCEL.COM 877-218-1981 info@agxcel.com

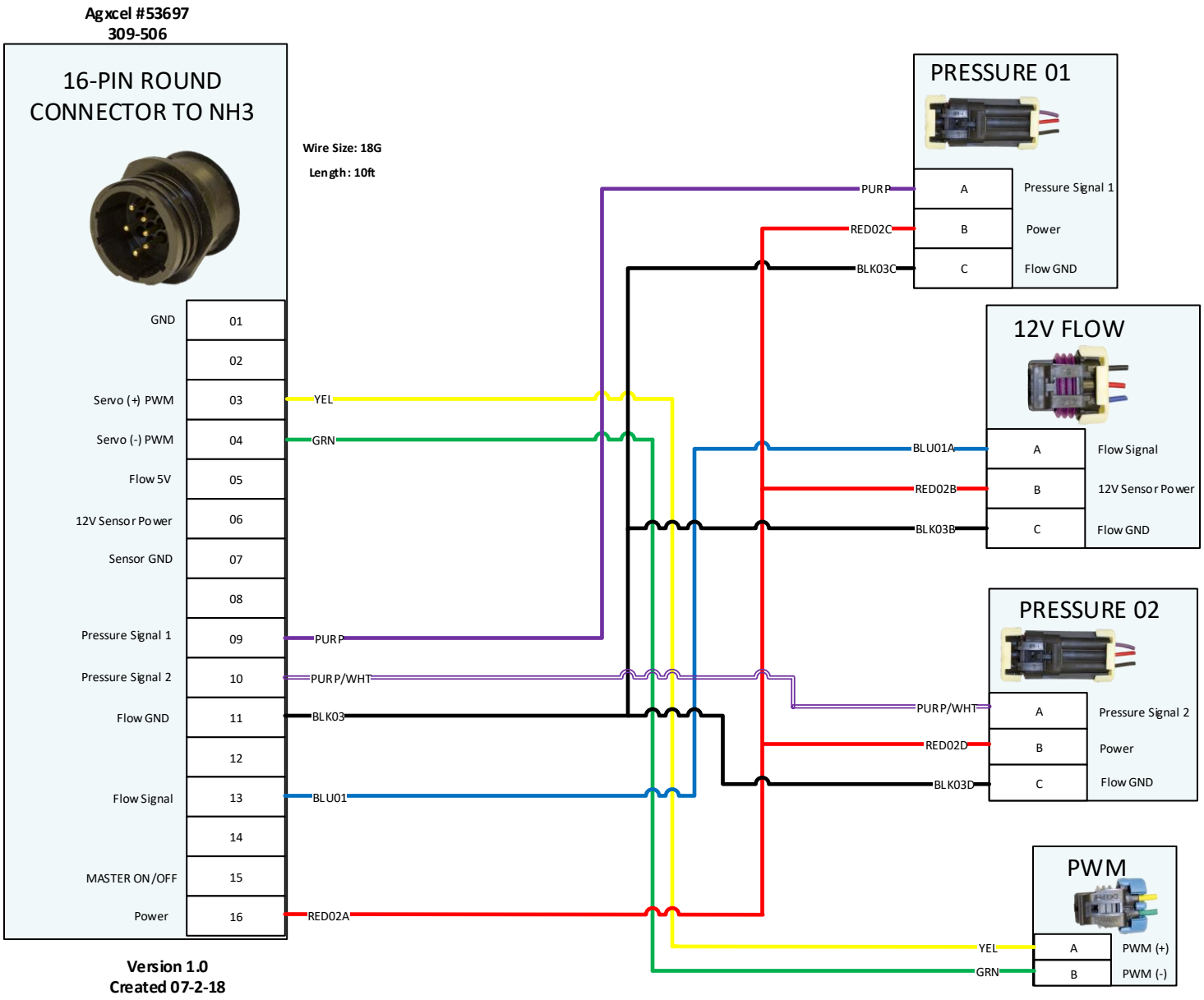
AgXcel John Deere Green Star GS2/GS3 Integration Harness 37-Round Pin to Twin 16-Round Pin "Y" Connector

Agxcel #53593
309-524



Revised 1.1
Created 07-02-18

AgXcel Channel Integration Harness (PWM,Flowmeter,Pressure)



Version 1.0
Created 07-2-18