Precision Liquid Fertilizer Solutions

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877.218.1981

Quick Start Setup Instructions for AgLeader ISO Liquid Rate Controller

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

MENU STRUCTURE FOR LIQUID RATE CONTROLLER

Main Screen
- Overview
- Target/Actual Rates
- MPH

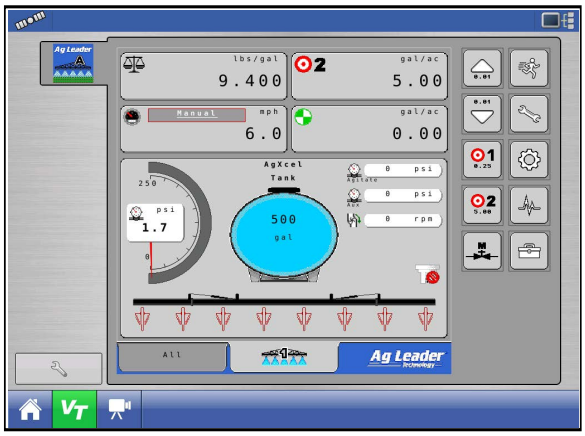
Settings
- Manage Components
- Control Valve
- Alarm
- System

Calibration
- Pressure
- Flow
- Pump
- Speed

Diagnostics
- Module
- Alarms
- Unlocks

System Information

AgLeader technology is a very flexible control plat-form with many capabilities. This quick start setup guide will show you the necessary steps to setup your display to control AgXcel's Fertilizer Pump Systems. Follow the general directions in your AgLeader ISO User Manual (especially under Configuration and Liquid Rate Control). This manual will show you the specific num-bers and settings to use with your AgXcel Fertilizer Pump System.



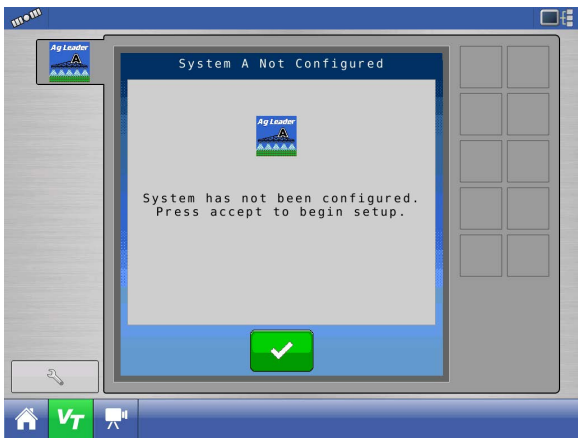
Integra & InSight Users

Information in this manual is applicable to the ISO version through the monitor's Virtual Terminal, except for screen-shots shown in the **Setup & Operation**. The **Calibration** and **Setup** values in this section **DO** apply to the Integra and InSight. However, the Integra and InSight has a completely different screen layout and menu structure that is not shown in this manual. Use your AgLeader manual to navigate, then enter the appropriate numbers from the AgXcel manual.

Virtual Terminal (VT) -

When your Agleader ISO Liquid Rate Controller is correctly connected, It will be discoverable in your monitor's Virtual Terminal section. Select the Virtual Terminal icon, which in this case is displayed on the bottom as "VT"

- From the "**Home**" screen, press the "**VT**" icon on the bottom of the screen, which will take you to the **Virtual Terminal** screen.
- Once on the **Virtual Terminal** screen, your AgLeader ISO module will be detected. Once detected, it will load your current configurations. If this is your first time setting up, it will display a message letting you know that system has not been configured.



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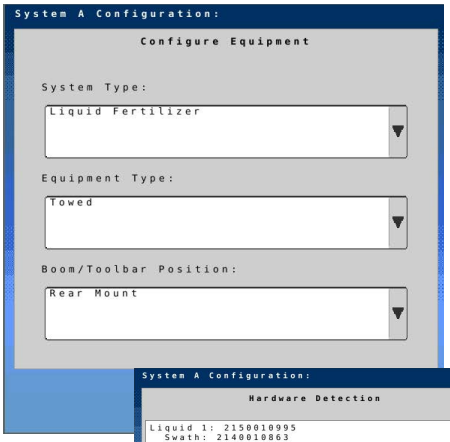
Quick Start Setup Instructions for AgLeader ISO Liquid Rate Controller

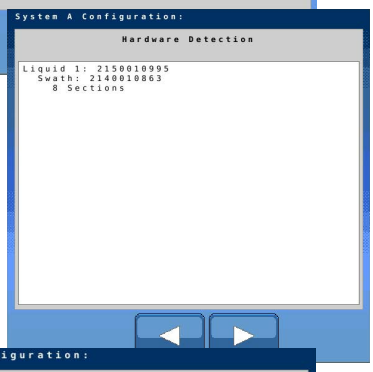
System Configuration -

System configuration is where you will set the AgLeader ISO to be compatible with the AgXcel fertilizer system components. In this section of the setup, this is where you will configure the AgLeader ISOLiquid Rate Controller to manage the AgXcel fertilizer system.



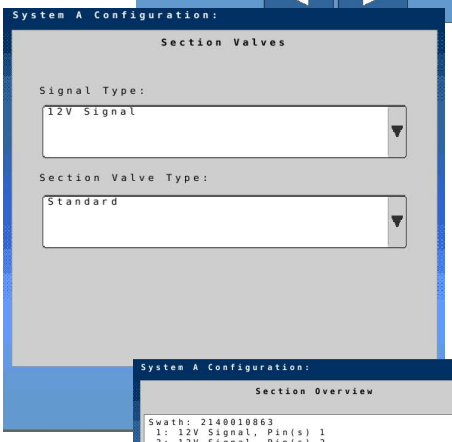
Configure Equipment -

1. System Type: Liquid Fertilizer
2. Equipment Type: User Defined
3. Boom/Toolbar Position: User Defined



Hardware Detection -

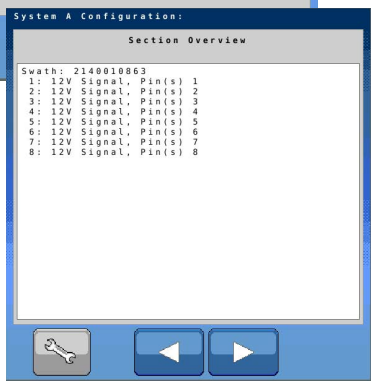
This screen will display the successfully connected modules. You will see your liquid module(s) and your swath module if you have them available.



Section Valves (If Swath Module is Connected)

The Section Valve screen will only display if you have the AGLeader ISO swath module correctly connected.

1. Signal Type: 12v Signal
2. Section Valve Type: Standard



Section Overview -

AgLeader ISO will detect how many section shutoff valves that are connected to the swath module harness. Depending on the amount of sections that are connected will be listed in the Section Overview.

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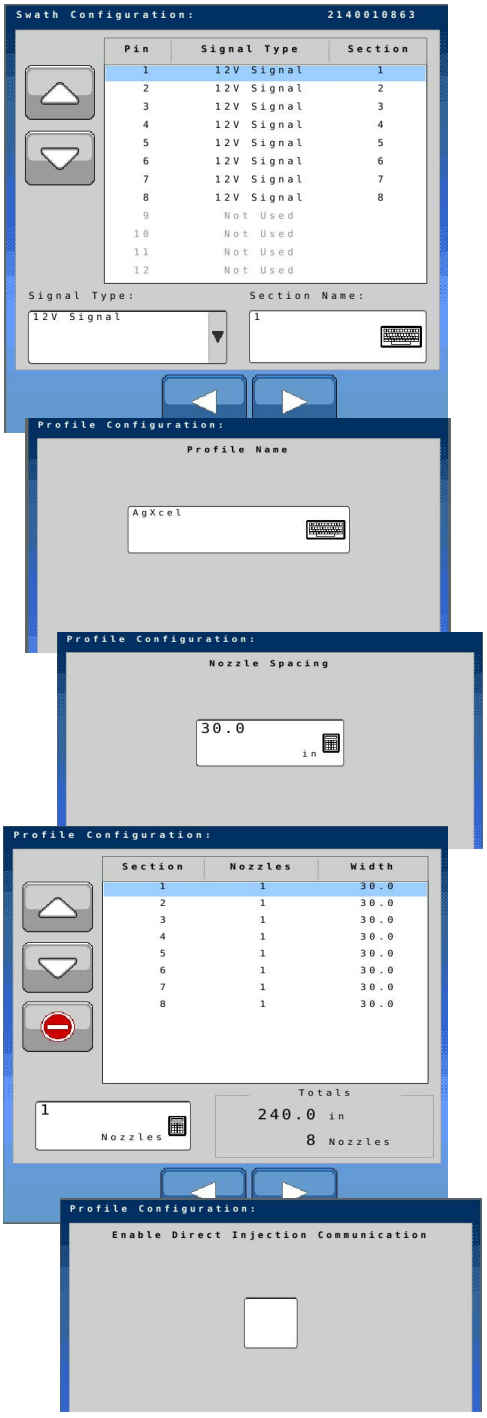


Swath Configuration -

Swath Configuration will allow you to name each section and assign the signal type to them.

1. **Signal Type:** 12v Signal
2. **Section Name:** User Defined

Profile Configuration - Profile Name

This will section of the configuration will allow you to create a profile that will save the configurations set to that profile that is being created. AgLeader ISO can have up to 4 stored profiles on its system.

Nozzle Spacing -

This is the measurement between each nozzle or row on your toolbar. This will be measured in inches.

Nozzle Assignment (Sections) -

If you do have the AgLeader ISO Swath Module then you will be able to assign how many rows are in each section for the setup that you have.

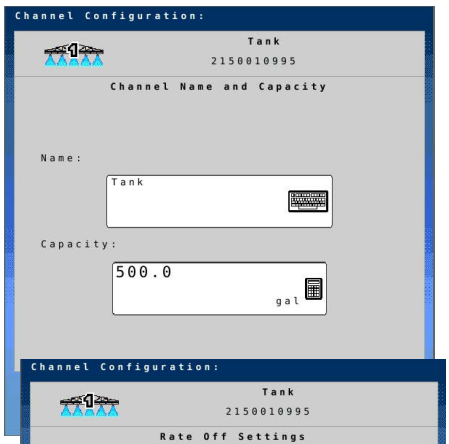
Direct Injection Communication -

Enable this if you are using direct injection setup.

Quick Start Setup Instructions for AgLeader ISO Liquid Rate Controller

Channel Configuration - Channel Name and Capacity

On the channel configuration screen, AgLeader will allow you to name the tank and capacity that you are using with the AgXcel's pump system.

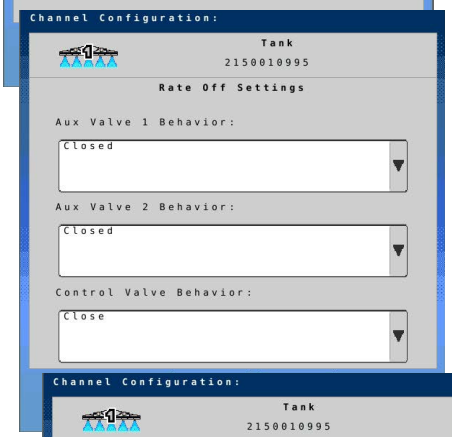


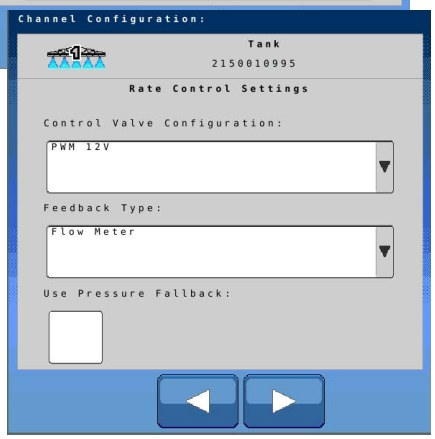
Rate Control Settings -

Rate controller settings is where you will set the AgLeader to be compatible with the AgXcel fertilizer system components.

Control Valve Configuration: PWM 12V
Feedback Type: Flow Meter
Use Pressure Fall-back: Enable this setting to allow AgLeader to lock into your target rate by using pressure readings as a fall-back*

*When using optional Pressure Transducer Kit P/N 53491



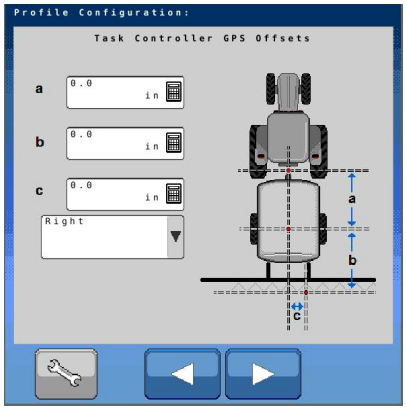


Rate Off Settings -

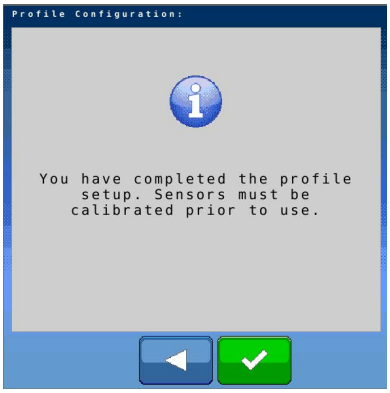
Aux Valve 1 Behavior: Closed
Aux Valve 2 Behavior: Closed
Control Valve Behavior: Closed

Profile Configuration - Task Controller GPS Offsets

Enter the GPS offsets for the setup.

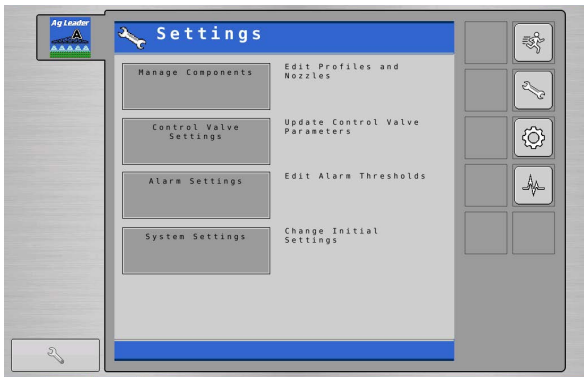


Once the profile has been completed, a notice will pop up stating that the set up is complete and that the sensors will need to be calibrated



Quick Start Setup Instructions for AgLeader ISO Liquid Rate Controller

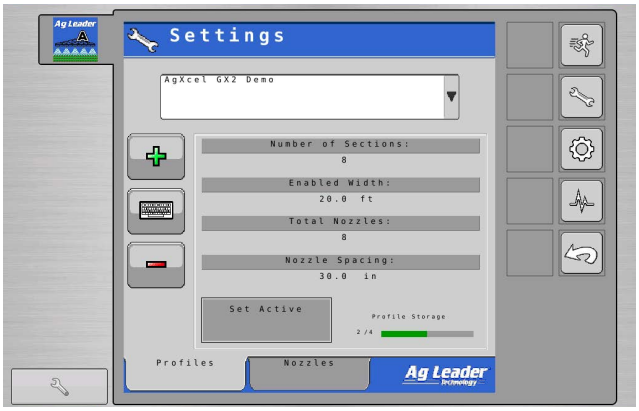
AgLeader ISO Settings Structure

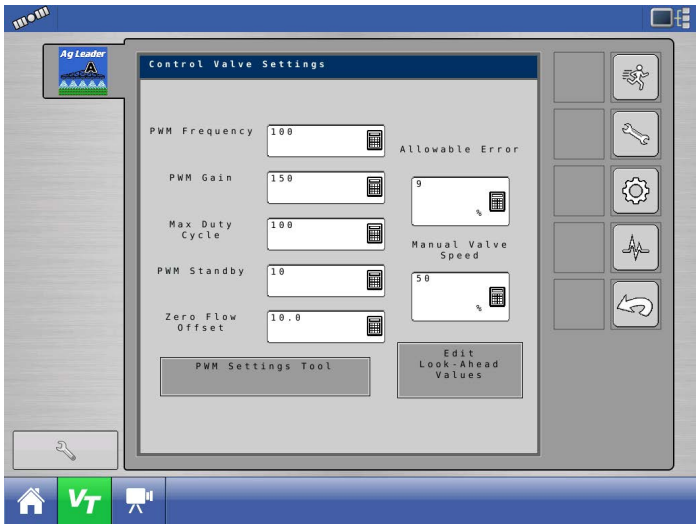


- **Manage Components -** Edit Profiles and Nozzles
- **Control Valve -** Update Control Valve Parameters
- **Alarm -** Edit Alarm Thresholds
- **System -** Change Initial Settings

Settings - Manage Components

In the Manage Component menu, you will be able to add, edit, or remove profiles for your AgLeader ISO. You can store up to 4 profiles on the AgLeader. Selecting the Nozzle tab will also allow you to do the same for the nozzle profiles.





Settings - Control Valve Setting

PWM Frequency:

All Systems..... 100

PWM Gain:

GX5 (hydraulic).... 800
GX2 (electric)..... 9900
Synergist..... 9900
GX12HP.....150

Max Duty Cycle:

All Systems..... 100

PWM Standby:

GX5 (hydraulic)..... 30
GX2 (electric)..... 10
Synergist..... 10
GX12HP.....10

Zero Offset:

GX5(hydraulic)..... 30
GX2 (electric)..... 5
Synergist..... 5
GX12HP.....10

Allowable Error:

All Systems..... 2%

Manual Valve Speed:

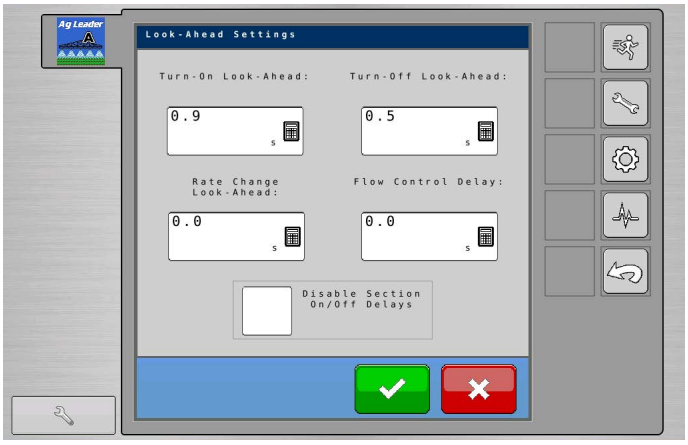
All Systems..... 100%

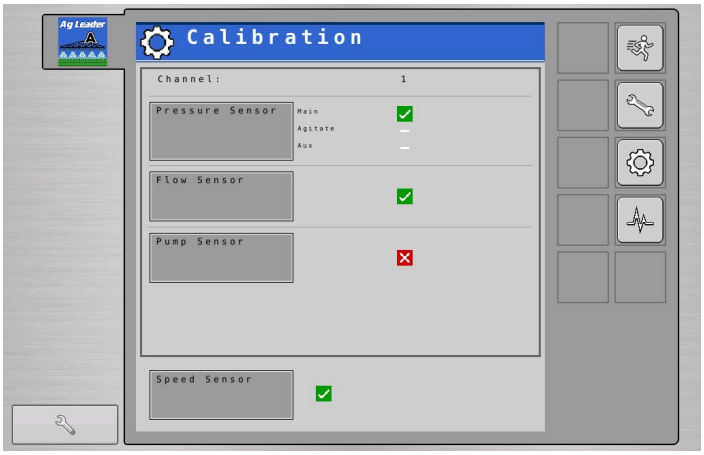
Zero Flow Offset is Low PWM Limit Lower this setting if pump will not go low enough. Raise this to get to the rate quicker on startup.

Quick Start Setup Instructions for AgLeader ISO Liquid Rate Controller

Look-Ahead Settings

Turn-On Look-Ahead: 0.9 s
Turn-Off Look-Ahead: 0.5 s
Rate Change Look-Ahead: 0.0 s
Flow Control Delay: 0.0 s
Disable Sections On/Off Delays: Unchecked



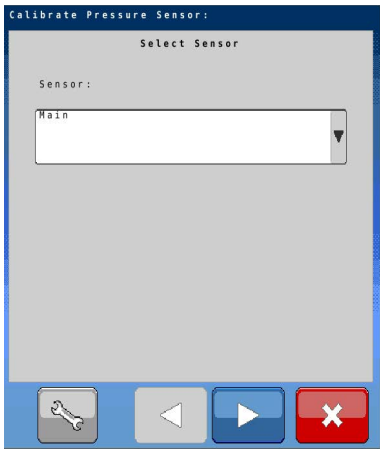


AgLeader ISO Calibration Structure

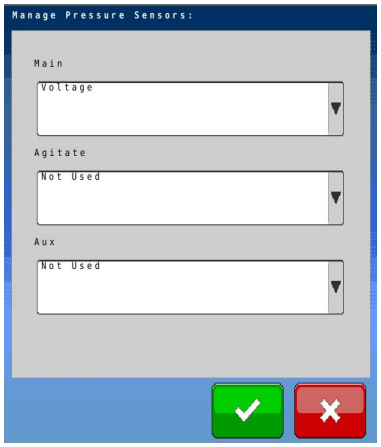
- Pressure Sensor Calibration
- Flow Sensor Calibration
- Pump Sensor Calibration
- Speed Sensor

Calibration - Pressure Sensor

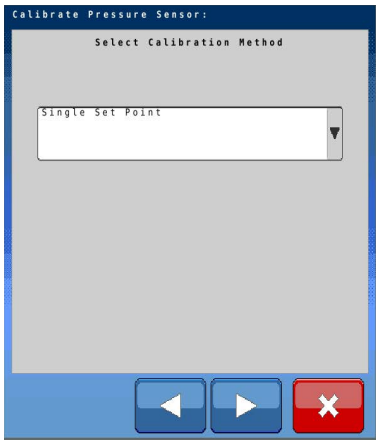
Sensor: Main Selected



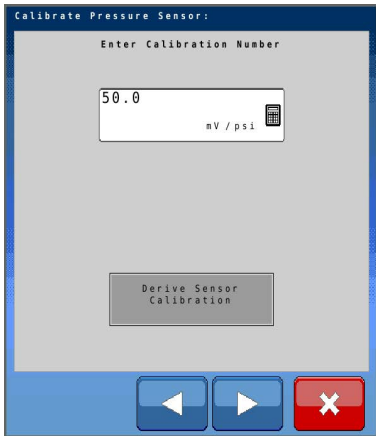
Main: Voltage



Calibration Method: Single Set Point

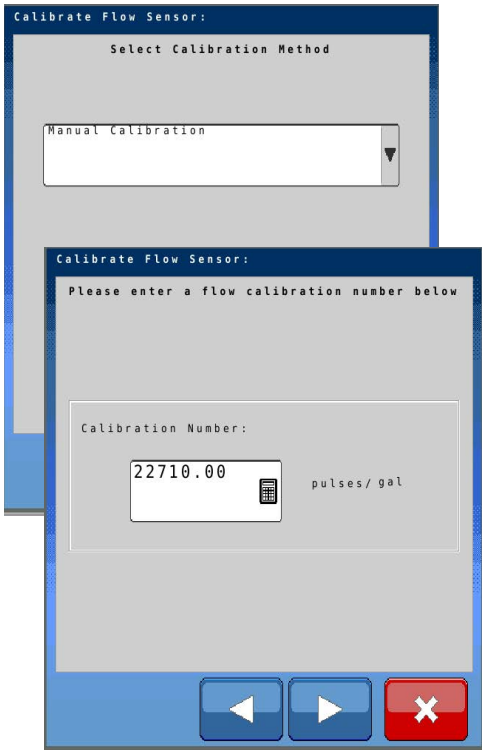


Pressure Sensor Calibration Number: 50 mv/psi



Quick Start Setup Instructions for AgLeader ISO Liquid Rate Controller

Calibration - Flow Sensor



Calibration Method: Manual Calibration

AgXcel's Flow Meter Chart

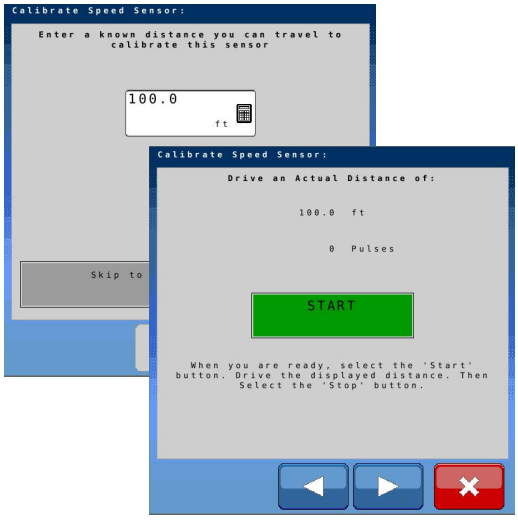
Number of Pumps	Flow Calibration Number
1 Pump	84
2 Pumps	42
3 Pumps	28
4 Pumps	21

Please refer to your Serial Number system guide to see your flow calibration number.

Calibration - Pump Sensor

Check your pump's sensor pulses/rev calibration number. If you do not have one then disable the pump's sensor feature.

Calibration - Speed Sensor



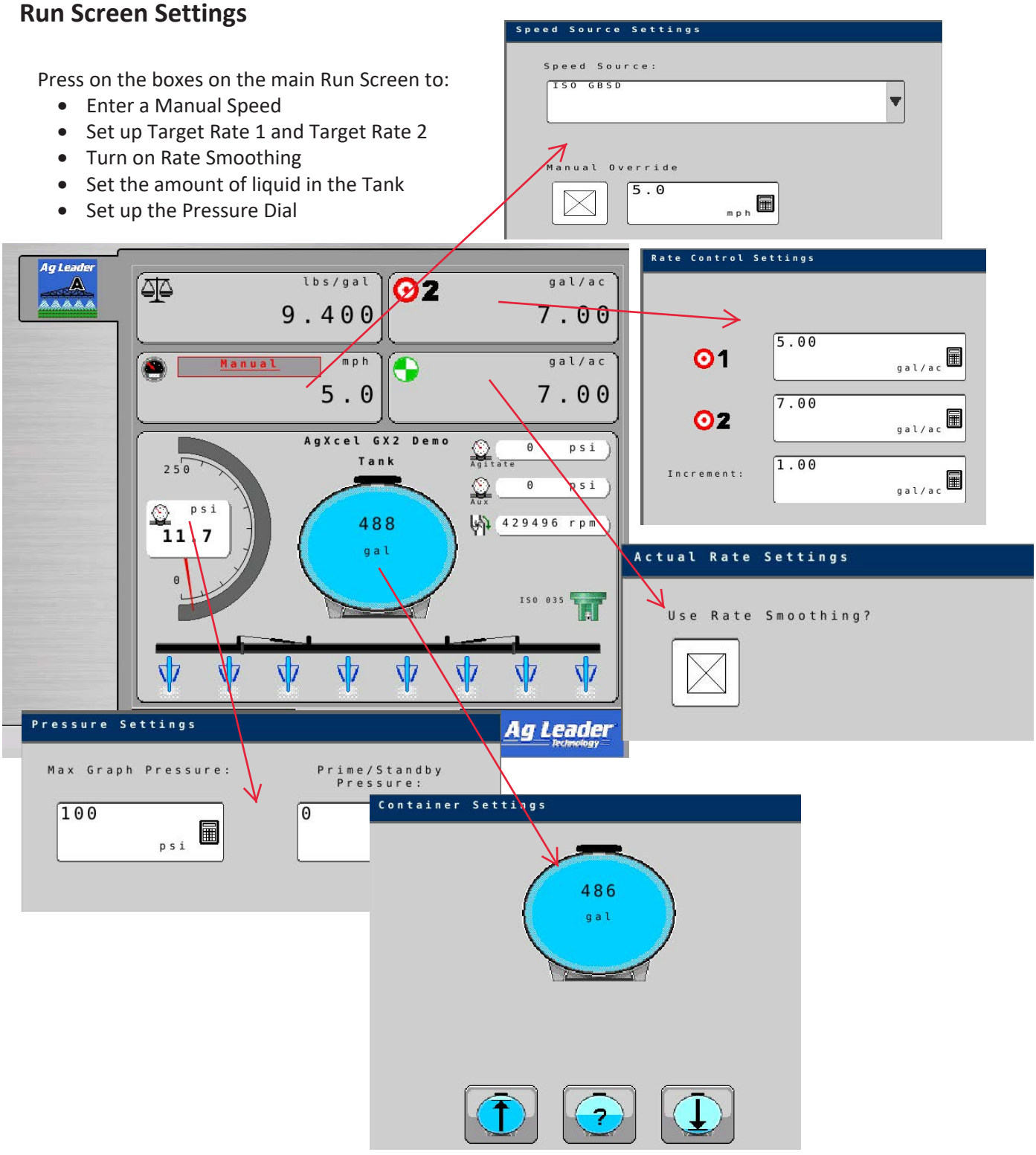
Check your speed sensor pulses/100ft calibration number. If unable to find then run the calibration that you see in the above screenshots.

Quick Start Setup Instructions for AgLeader ISO Liquid Rate Controller

Run Screen Settings

Press on the boxes on the main Run Screen to:

- Enter a Manual Speed
- Set up Target Rate 1 and Target Rate 2
- Turn on Rate Smoothing
- Set the amount of liquid in the Tank
- Set up the Pressure Dial



116 E 6TH ST
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AG LEADER ISO
Main Channel Harness

Agxcel #55695

24-PIN CHANNEL CONNECTOR

Wire Size: 18G
Length: 11"x17"

AUX 01 CLOSED	A-01	GRN/WHT 330
	A-02	
PRESSURE SENSOR POWER	A-03	RED 115
PRESSURE SENSOR POWER	A-04	RED 116
PRESSURE SENSOR POWER	A-05	RED 117
FLOW METER POWER	A-06	RED 114
	A-07	
SERVO OPEN	A-08	WHT 315
AUX 01 OPEN	B-01	GRN 329
	B-02	
MAIN PRESSURE SENSOR SIGNAL	B-03	WHT 754
PRESSURE SENSOR 02 SIGNAL	B-04	WHT 755
PRESSURE SENSOR 03 SIGNAL	B-05	WHT 756
	B-06	
FLOW METER SIGNAL	B-07	WHT 704
SERVO CLOSED	B-08	BLK 314
AUX 02 CLOSED	C-01	BLU/WHT 332
PRESSURE SENSOR GND	C-02	BLK 015
PRESSURE SENSOR GND	C-03	BLK 016
PRESSURE SENSOR GND	C-04	BLK 017
FLOW METER GND	C-05	BLK 014
	C-06	
	C-07	
AUX 02 OPEN	C-08	BLU 331

PRESSURE 01

RED 115	A	PRESSURE SENSOR POWER
BLK 015	B	PRESSURE SENSOR GND
WHT 754	C	PRESSURE SENSOR 01 SIGNAL

PRESSURE 02

RED 116	A	PRESSURE SENSOR POWER
BLK 016	B	PRESSURE SENSOR GND
WHT 755	C	PRESSURE SENSOR 02 SIGNAL

PRESSURE 03

RED 117	A	PRESSURE SENSOR POWER
BLK 017	B	PRESSURE SENSOR GND
WHT 756	C	PRESSURE SENSOR 03 SIGNAL

PWM

BLK 314	1	SERVO CLOSED
WHT 315	2	SERVO OPEN

FLOW METER

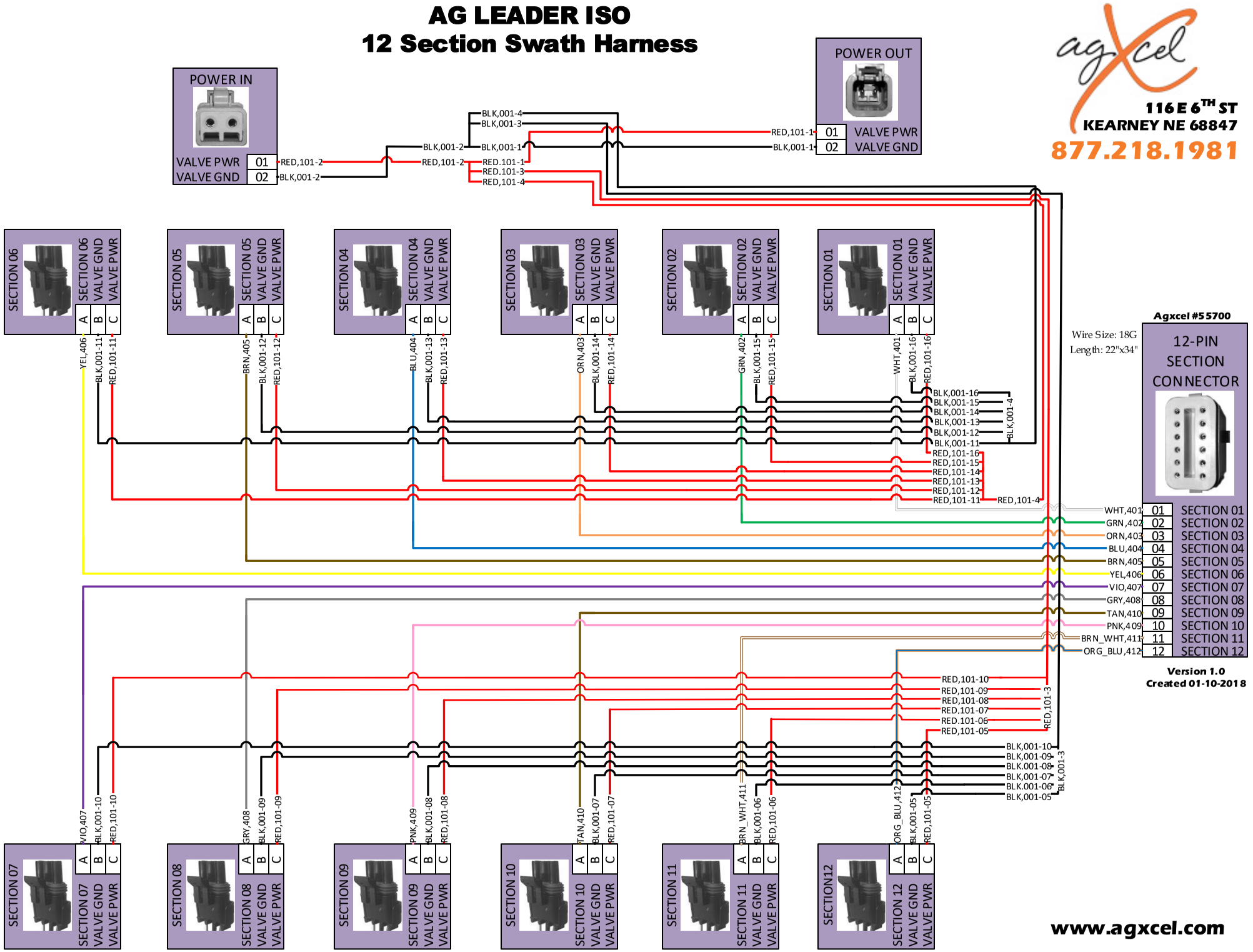
WHT 704	1	FLOW METER SIGNAL
BLK 014	2	FLOW METER GND
RED 114	3	FLOW METER POWER

AUX VALVES

GRN 329	1	AUX 01 OPEN
BLU 331	2	AUX 02 OPEN
BLU/WHT 332	3	AUX 02 CLOSED
GRN/WHT 330	4	AUX 01 CLOSED

Version 1.0
Created 01-10-2018

AG LEADER ISO
12 Section Swath Harness



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