AGXCEL INSTALLATION GUIDE
GX20 Dry Treater User Guide
Quickstart App

agXcel

GX20DT
Dry Treater

www.agxcel.com

AgXcel GX20 Dry Treater User Guide Quickstart App

Dashboard

When you login, you will be brought to the Dashboard. The Dashboard is the central control monitoring and managing page. It is on this page, you will monitor the live recipe and also control various aspects for the operation. The Dashboard is also used to monitor the various components of the system.

Press to connect to the GX20 Wi-Fi

The GX20 will produce its own Wi-Fi so you won't need to connect to your own Wi-Fi.

Wi-Fi Connection – AgXcel utilizes a Wi-Fi connection from the base system to the tablet. This wireless connection allows you to stay mobile when controlling the chemical mixing station. The GX20 module utilizes a USB Wi-Fi dongle and a proprietary protocol for enhanced communication with minimal communication loss. This Wi-Fi connection will vary from location to location given various environmental obstructions. The Wi-Fi is designed to connect to th GX20 unit automatically. If you happen to loose connection to the GX20 when the app is open, you can press "Connect to GX20" on the top right of the screen to get connected to the Wi-Fi again.

Editing the Dashboard

Product Name - You can edit the name of a recipe by pressing and holding the value below the *Product Name Opt. on the Dashboard*.

Rate - This will show in real time what your rates are when running a recipe (Non-Editable).

Actual - This will show in real time how much liquid has been dispensed while running a recipe (Non-Editable).

Target - This will show how much is requested to be put out for the recipe that has been entered. You can edit your target by pressing and holding the value underneath *TARGET*.

Time - This will show how long a recipe will be running and will count down in real time. You can also change the behavior of how your recipe runs.

System - This will show which system is running. You can change the name of the system by pressing and holding the value below the *SYSTEM* icon.

Status - The status will be *Red* if the system is *OFF* and *Green* when the system is *ON* (Non-Editable).

The indicators on the bottom of the Dashboard will let you know what the system is doing without having to go and look at the system.

Number of Products - This allows the user to control up to 5 electric valves for splitting chemical into different plumbing. With this feature, the user can run up to 5 products through the first system.

Rinse Start - This enables the ability for an electric valve to be hooked into Boom 6 on the section harness and be manipulated by this button.
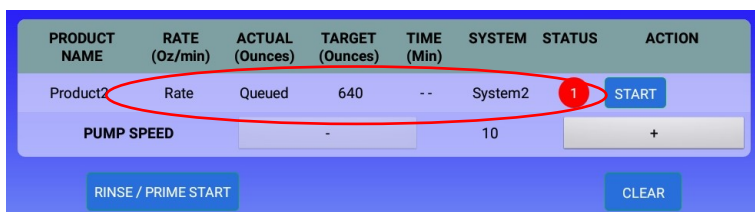
WiFi - Lets you know if you are connected to the GX20 Module

Panel Light - This will mimic the light that is on top of the box (view page 9 for light signal details).

Flow Meter - Lets you know if the Flow Meter is actively recieving a signal.

Pumps - Lets you know if the pumps are receiving a signal.

Press and hold on these values

Start - You can start running a recipe by pressing *START* underneath your recipe details.

Pause - You can Pause the system and then Resume it by pressing Pause or Resume next to the Start button.

Clear - When you are finished with a recipe or need to reset the recipe, press *CLEAR* to clear the details on the Dashboard.

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If you press and hold the values under *TIME*, you can change the behavior of the recipe. By changing the behavior, you can make the recipe only run in Gallon per Minute, you can run the recipe as if you were controlling a rheostat, or you can run the recipe with a timer and have a target of how much chemical you desire to dispense.
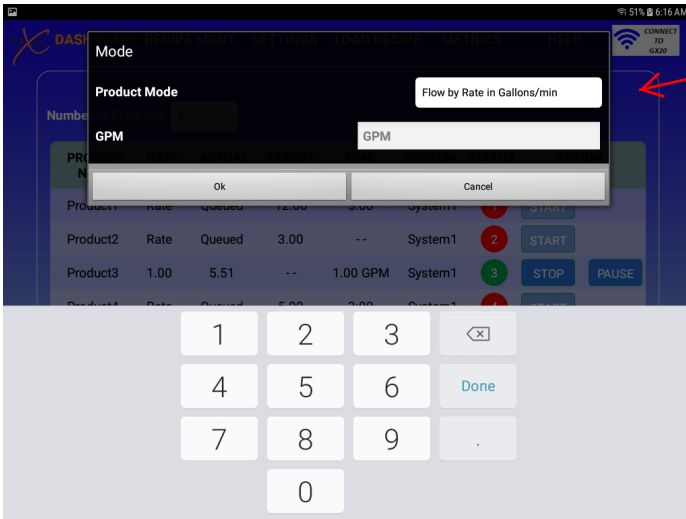
When selecting "*Flow by Rate in Gallons/min*", the recipe will only run at the value entered and will always run until you manually stop the recipe. You will not be able to enter a target when running in this mode.

When selecting "*Flow by Rate*", you have the ability to manually change the pump speeds. You can also enter a target so the GX20 system will shut off once you have dispensed your desired amount of chemical.
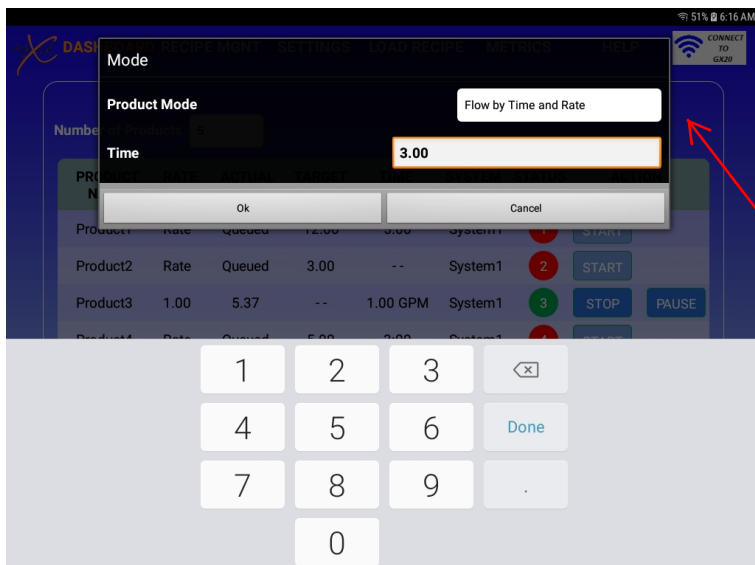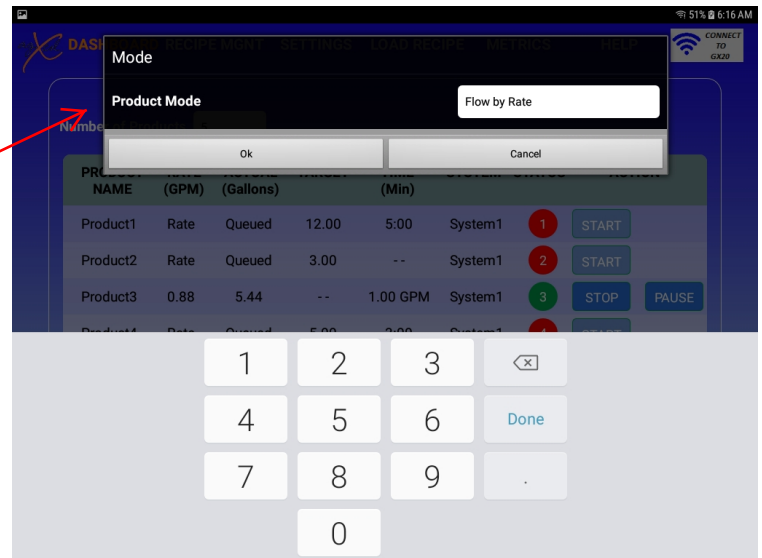
When selecting "*Flow by Time & Rate*", the recipe will find it's rate based off your target and time, the app will automatically find your rate to run.

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071919 info@agxcel.com

Dashboard Information

Wi-Fi – The Wi-FI LED is used to inform the user that a proper Wi-FI connection has been established. When the LED is RED this denotes there is no Wi-Fi connection and the user must intervene to make this connection. When the LED is GREEN this denotes that the GX20 app is connected to the control station and ready to process any functions from the user.

Panel Light –the panel light is the light that is mounted on top of the GX20 unit. This light is used to inform the user of operational tasks that are taking place. The Panel Light will use solid and flashing sequences to update the user on progress.

Flow Meter – The flow meter LED is used to inform the user that the flow meter is sending a reading back to the intelligent module. When the LED is RED this informs the user that there is no signal from the flow meter. When the LED is GREEN this informs the user that the flow meter is detecting flow and receiving a signal.

PWM – The PWM LED is used to inform the user that there is a signal being sent to the pumps and when the LED is RED, there is no signal and when the LED is GREEN, the signal is received indicating that the pumps are running.

PUMP – The pump LED is used to inform the user that the pumps are running. RED informs the user that the pumps are not running and GREEN means the pumps are running.

Dashboard Control Panel – The Dashboard Control Panel is where the details of each ingredient and progress are displayed. This informs the user a real-time status of the recipe cycle.

a. Product Name – name of product that is being dispensed
b. Speed – Current speed of the pump in GPM
c. Actual – Real-time display of gallons that have ran
d. Target – The target that is being achieved or that has been pre configured by the user
e. System – System 1, System 2, or System 3
f. LED – Displays which system has ran
g. Pump Speed – The user can increase or decrease the speed of the pump. This will not affect the overall final rate that was preselected by the user.

Settings

Connect to GX20 Machine - If your tablet is not connecting to the Wi-Fi by itself, press this button to tell the tablet to connect to the Wi-Fi.

Update Module Firmware - When receiving an updated app from AgXcel, you may need to update your module. Pressing this will allow your app to send a new update to the module. Only use this setting if instructed by AgXcel.

Reset Data in GX20 - This option allows you to clear the cache that your system has collected throughout the day. If you notice that your system is a little slow to respond, press this button and then re-boot the system to clear the systems cache. It is also good practice to do this every evening before shutting down for the day.

Unit of Measurement - Will let you read in Gallons, Ounces, Quarts, or Liters.

Pump Size- AgXcel uses 2.0 GPM and 5.3 GPM pumps depending on the users rates. You can see the model of your pump by looking at the sticker on the front of the pump.
If you are using AgXcel's low injection pump (multiple plunger pumps ran with a sprocket), then you will need to set this option to Injection Pump.

Flow Calibration - This number will affect how many Pulses per Gallon the Flow Meter will read. If this number is incorrect, the pump system will inject an incorrect amount of liquid even through the tablet says you are locked in on your rate. This is preset by AgXcel.

Duty Cycle - This is where you can enter the starting pump percentage. Default is 10%.

Delta - This gives the pumps an Allowable Error. Default is 0.2.

Valve Response Rate - This affects the aggressiveness of the pumps. Default is 5.

High Flow Meter Present - If you have a Turbine Flow Meter or a Flow Meter thats lowest rate is 0.6 GPM or higher, you will need to enable this setting. This will be pre-set by AgXcel if this Flow Meter is present.

Select Measurement Type - This setting does not affect the performance of the system.

Select Operational Mode - This setting does not affect the performance of the system.

Select Dispense Mode - This setting does not affect the performance of the system.

Start Delay - Once you press start on the Dashboard, the system will not start to dispense liquid until the recipe has reached the time desired for the start delay.

Auto Prime Delay - This will force the system to stay on and not shut off due to insufficient liquid during the priming sequence.

Insufficient Liquid Delay - This will keep the pumps running for the set amount of seconds when the Flow Meter stops detecting liquid during a batch.

Smoothing Factor - This will help keep your target rate within the percentage set.

Rinse Mode - Selecting this will add a button under your systems on the Dashboard. Pressing Rinse Start will turn the pumps on and can control any sort of valve that is hooked into Boom 6 on the section harness.

Dry Sensor Tripping Time - This adds a delay on how fast or slow the GX20 will start to apply when the Dry Switch has been triggered.

Auto Sensor Start Delay - Enter a delay for how long it takes for the GX20 to start applying once the Dry Trip Sensor has been triggered.

Relay Options - Switch between Proximity Sensor and Dry Trip Sensor.

Relay Options for System - Choose which systems needs to be controlled by the Dry Trip Switch or the Proximity Sensor.

Display RPM Output - When using an RPM Sensor, you can see how many pulses per revolution the GX20 is turning at.

RPM Detect - When using an RPM Sensor to turn the GX20 on and off, enable this setting.

RPM Visual - To see how many RPM's the GX20 is sensing from the Auger, enable this setting.

RPM Setup - This is used to adjust the GX20's application rate with the speed of the auger.

Tank Monitor - If the user is using a bucket to feed the GX20 with chemical, you can use this feature to monitor the level of the tank.

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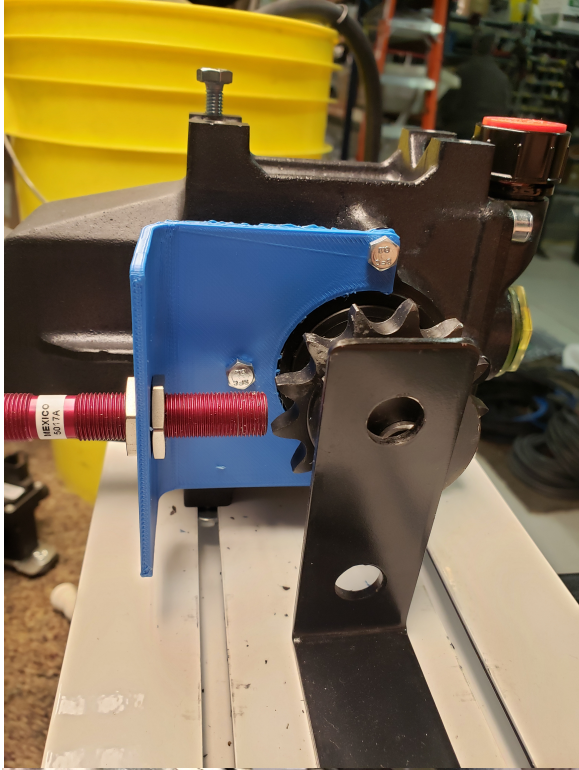
AgXcel's RPM Sensor

AgXcel's Low Rate Injection Pump

Because the application rates are so low, the standard magnetic Flow Meter can not detect rates below 12oz. The Low Injection Pump uses an RPM Sensor to detect pulses. We also added an Flow Sensor that will notify the operator if liquid is moving through the system.

Another RPM Sensor will be included in the kit. This other RPM Sensor will need to be placed on a moving part such as a sprocket or a chain on the auger so the GX20 knows when to turn on and off with the auger.

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RPM Setup - This is used to adjust the GX20's application rate with the speed of the auger.

AgXcel's Dry Trip Sensor

AgXcel can use a Dry Trip Sensor to detect when product has reached a certain point in the auger. Once this switch has been triggered, the GX20 will start to coat the product.

Ensure that the Dry Trip Switch is placed in an area where the fertilizer can make contact and bend the switch.

Help and FAQ

Here you can find some of our frequently asked questions and some more infor-mation about AgXcel.
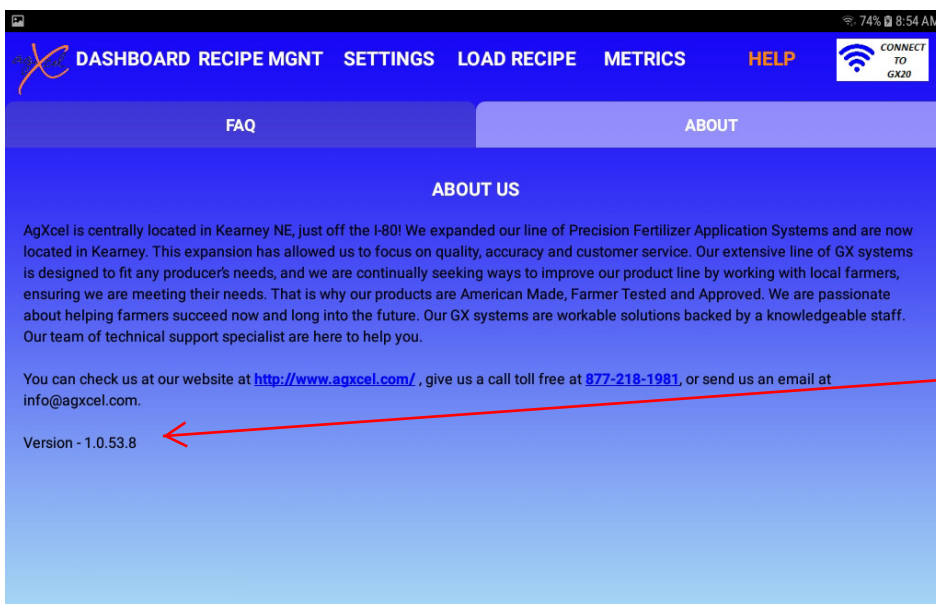
This will show the current Version of the app you are using
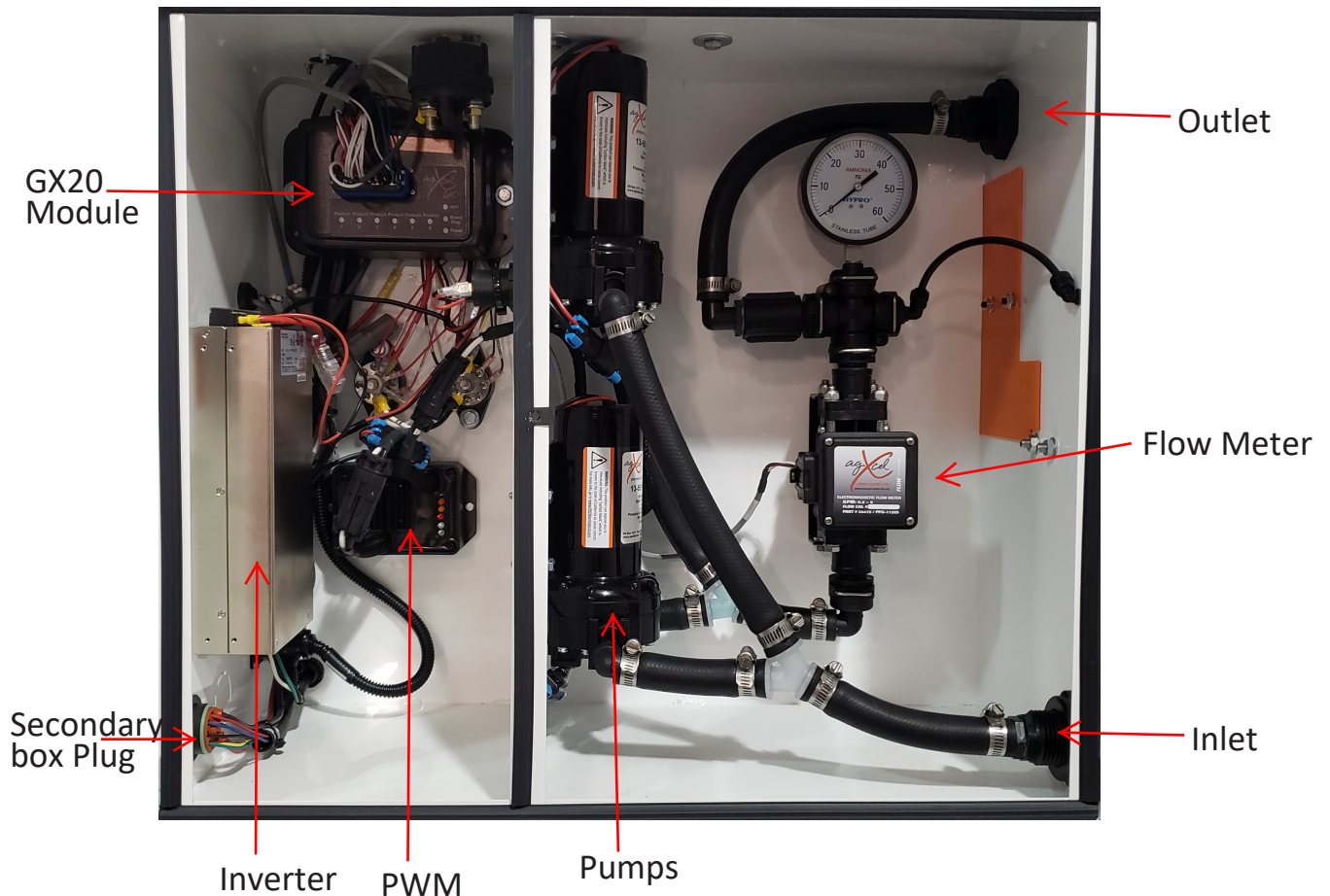
GX20 Module - The Module is the brain of the GX20. The Module gives off the Wi-Fi signal for connection between the tablet and the GX20. It also controls everything in the GX20.

Inverter - The Inverter will plug into a standard 120V outlet and will power everything on the inside with 12V.

PWM - The PWM will control how much voltage is sent to the pumps to keep an accurate rate.

Pumps - You will either receive two 2.0 GPM pumps or two 5.3 GPM pumps

Flow Meter - The Flow Meter will regulate the flow of the GX20 system.

Light Signals

LED TOWER LIGHT BEHAVIOR – This behavior will be for the LED tower light that is mounted on the top of the GX20 unit. The LED behavior will be used to inform the user of various tasks being performed or issues that may have occurred. The light has 3 steady LED lights which are RED, YELLOW and GREEN and it has the ability to flash these LED's as well. The GX20 board will use the RED, YELLOW, and GREEN LED steady lights as well as the flashing sequences. The IFB board has already pinned these i/o's so we are going to use these since they are outputs already marked on the board. Flashing LEDs will also show up on the APP as these processes are running on the system. This will allow the user to identify the correct function of each LED. So there must be a matching set of LED's that flash both on the app and on the system light tower.

STEADY ON

RED STEADY LED – A RED steady LED means that the system has a fault and needs attention. The following items could be a fault:

1. The system is trying to prime but has failed
  • This could be due to its inability to auto prime and needs user intervention
  • The tank could be empty and needs to be refilled
  • A Bad flow meter that need attention as it cannot detect flow

2. The system EPD is not responding and or has overheated

3. POSSIBLE REMEDIES:
  • Validate that the EPD does not have any flashing signals with the RED LED other than a steady OFF and ON when the system is idle.
  • If any other LED cycle is present other than a steady off and on, NOTE the LED cycle and call AgXcel Support
  • Power cycle the EPD by disconnecting power to the EPD, waiting a few seconds and reapplying power. This should clear up any LED signals on the EPD

4. The system is not detecting the flow meter
  • Flow meter could have gone bad
  • Flow meter harnesses may have an issue and the system is not detecting pulses

Red FLASHING LED – NOT USED FOR SIGNALS BY AGXCEL

YELLOW STEADY LED – the YELLOW steady signifies that the user has selected to run the GX20 in MANUAL mode. The YELLOW STEADY LED means that the system is in manual mode and is running liquid. The LED will stay STEADY YELLOW as long as the pumps are running or flow meter is detecting flow and when the pumps stop the YELLOW STEADY will turn to YELLOW with a CONTINUOUS 2 flashes and a pause.

1. YELLOW Flashing with 2 flashes and a PAUSE continuous means the system is in manual mode but the pumps are not running but are ready for their next task. Once the user presses the AUTO MODE button then the LED will switch to a GREEN Flashing LED to show that the system is now in AUTO MODE.
2. The YELLOW LED light will Flash 4 fast times and pause when the system is on hold YELLOW FLASHING – the YELLOW Flashing LED is used when the system is Auto-Priming. When the user has selected to self-prime the startup process of the GX20 this YELLOW Flashing LED will continue until the unit is completely primed.
1. When the system is primed the unit will turn off the YELLOW Flashing LED and turn back to a GREEN Flashing LED,
  • Unless the system has been turned on to start a Recipe then this LED will turn to a Flashing Green LED.
2. If the system fails to Auto-Prime then it will go into a STEADY RED LED. This is when user intervention is required

Light Signals Continued

GREEN FLASHING LED –

1. The GREEN FLASHING LED will be used to inform the user that the system has power and it is ready to perform any task. This GREEN FLASHING LED shows the user that all has booted up fine and is ready to run a task.
2. The GREEN STEADY denotes that the system has been programmed to run a Recipe of any kind and the start button has been pressed and the system IS pumping liquid. This GREEN STEADY means that everything is running fine and the GREEN LED will continue to flash until the job has finished.
3. GREEN RAPID FLASH – GREEN Rapid Flashing LED means that the user is running the GX20 in a TIMED mode. This means that the user has selected to run a specified amount of liquid in a specified amount of time, a timed recipe. Once the time recipe has finished the LED will turn back to a GREEN FLASHING LED meaning the system is ready for its next task.
4. For Delayed Start - The system will Flash the GREEN LED and then the YELLOW LED and repeat to show that the system is ready but is in a delayed start. Once the delay is reached then the LED will change accordingly to a GREEN STEADY LED denoting that the system is now running.
   If the user chooses to use the Auto-Prime or not, and the system has been turned on and the START button has been pressed to run a Recipe and the Recipe is running, the GREEN STEADY LED will continue to stay ON solid until the Recipe is complete or the TIMED flow rate is complete.

4 Green, 4 Yellow, 4 Red Flashes -

1. When the system light is flashing Green, Yellow, and Red 4 times continuously, that means that the system is rinsing or priming.

Emergency Stopping

MASTER ON/OFF SWITCH- (MS)

A master on/off switch will be mounted on the top of the enclosure. This MS shall be used to turn the system completely off. The power source will be 12v but may be produced directly from a 12v source or a power converter. In each scenario the power source MS shall cut all power from the GX20 mixer. The MS is used to control all power to the GX20 but should not be used to turn off the system in case of an emergency.

When the GX20 is sitting outside below freezing point, it is good practice for you to flush out whatever is in the system with anti freeze. Any sort of anti freeze will run through the GX20 with no issues.

Once the chemical that was being used is rinsed out of the system and only antifreeze is left, you can either keep the antifreeze in the GX20 or you can try to drain as much out as you can. If you expect the weather to be below the listed temperature of the antI freeze, then you should drain the anti freeze out of the GX20 system and store the GX20 in a heated room to prevent any damage.

At the end of everyday, AgXcel recommends flushing out the GX20 with hot water or with anti freeze. If the temperature is going to be below 32F or 0C, then use anti freeze to prevent damaging parts inside the GX20 from freezing water.
We also recommend flushing the GX20 everyday to preserve the life span of the pumps and other electrical components. Lots of chemicals that get ran through the GX20 will start to eat the diaphragms in the pump if left for extended periods of time.

Note: Any sort of freezing in the GX20 will damage the Pumps and Flow Meter.

Section Control Plug-in
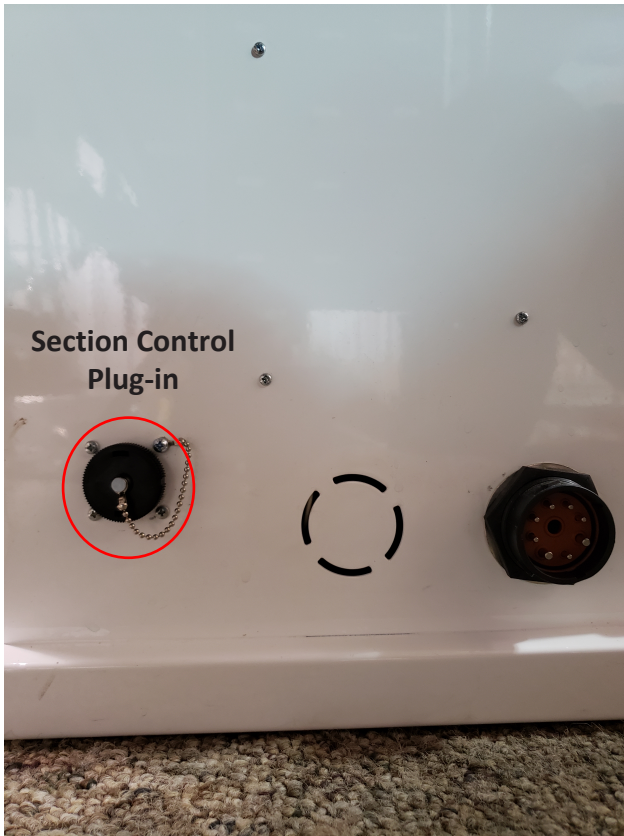
When connecting the Tee Jet Electric Section Valves to the system, you will need a 6 Section Boom Harness.

Connect the Section Valve Harness to the box by connecting it to the Section Valve Control Outlet. You will need to find the correct way that the harness will need to connect to the box by twisting the round end of the section harness on the outlet until you feel the harness lock into place. When you feel the harness lock into place, twist the cap to ensure that the harness is secured to the connection. You should feel the harness screwing onto the connector.

This will be your Section Boom Harness. Use this harness to connect the system to the Tee Jet Electric Section Valves.

In some cases, you may need an extension cable from the Section Boom Harness to the Section Valves. When AgXcel is told the distance that the GX20 will be from the Section Valves, extensions will be added as needed.

Tee Jet Electric Section Valves

Banjo Electric Ball Valve

Extension Harness (Number of plugs on the outlet will vary on users set up).

The Banjo Electric Ball Valve can be put in place just before the spray tip so the hose can hold pressure and prevent unnecessary spraying after application.

If you have more that one GX20 system, you will need to connect the boxes together using the 8 Pin extension cable. This cable will provide power to the second system.
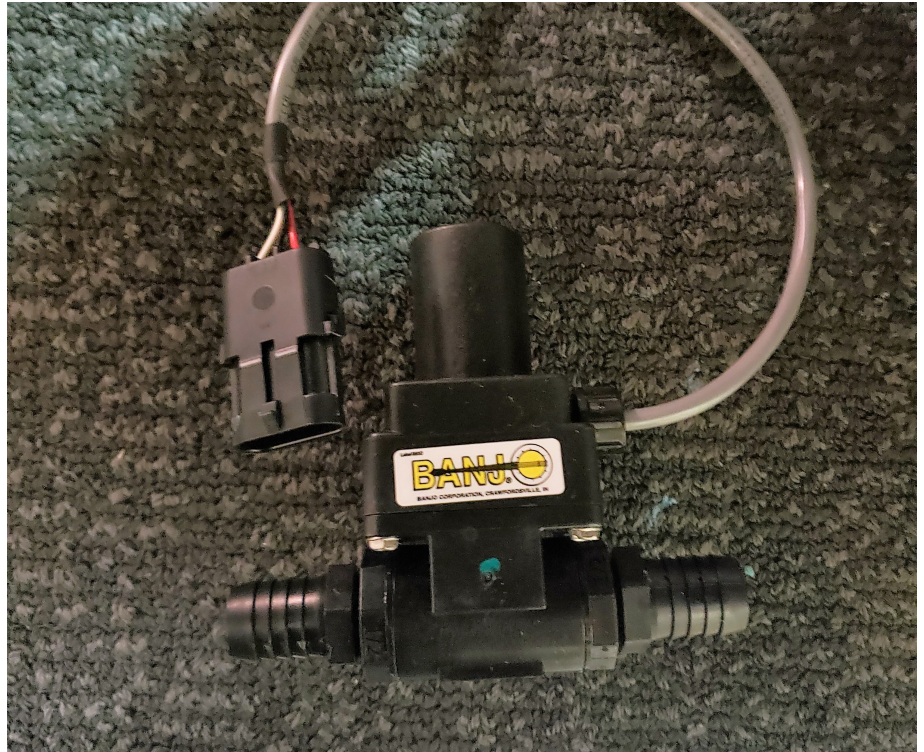
To control the Ball Valve, connect the Ball Valve to the lead that is coming out of the left side of the box. This Ball Valve will activate when the first system is in use
(second box will control the ball valve connected that box and the third box will control the ball valve connected to the third box).

In some cases, you may need an extension cable from the Ball Valve to the GX20. When AgXcel is told the distance that the GX20 will be from the Ball Valve, extensions will be added as needed.

Priming the GX20

If the GX20 is not priming, try some of these options below...

1. Ensure that all ball valves are open.

2. Ensure that no air bubbles are present in the system. Opening the White and Blue Bleeder Valve on the right side of the GX20 will release air out of the system after the Flow Meter.

3. Taking off the spray tip during priming can help prime the system faster.

4. Ensure that the Dim Red LED on the left side of the Flow Meter is on (represents 12V is going to the Flow Meter).

5. Ensure both pumps are plugged in (if two are present).

6. If priming the system from a bucket and not a tote, ensure that your outlet hose is not pumping air bubbles into the same bucket as the liquid bucket. This can cause air to go back into the feed line of the GX20. Keeping the bucket above the GX20 can help with an initial prime.

Flow Meter LED
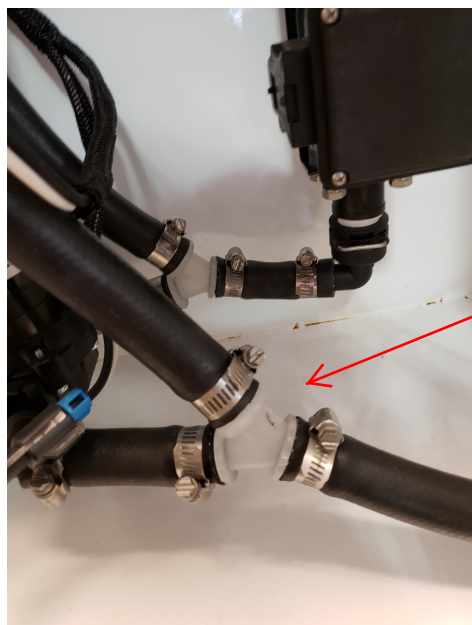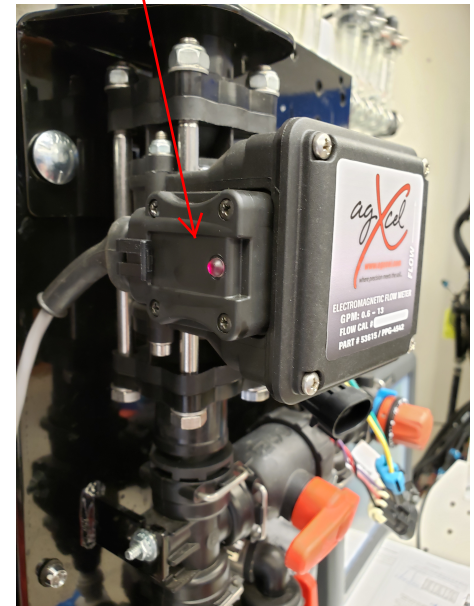
Bleeder Valve

Plastic Y
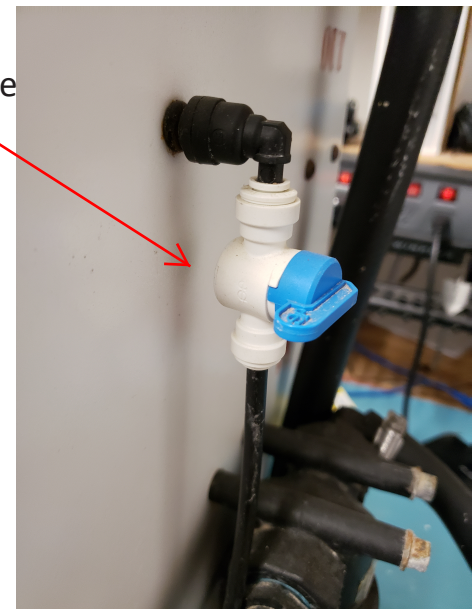
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GX20 Dry Treater User Guide

NOZZLE TYPE	CAPACITY SIZE	ORIFICE DIAMETER	SINGLE NOZZLE SETUP		DUAL NOZZLE SETUP		TRIPLE NOZZLE SETUP	
			GALLONS PER MINUTE	PRESSURE	GALLONS PER MINUTE	PRESSURE	GALLONS PER MINUTE	PRESSURE
H1/4U-SS8010	10	0.079	.35 GPM	5 PSI	1 GPM	5 PSI	1.1 GPM	5 PSI
			.50 GPM	10 PSI	1.1 GPM	10 PSI	1.6 GPM	10 PSI
			.71 GPM	20 PSI	1.4 GPM	15 PSI	2.0 GPM	15 PSI
			1.0 GPM	40 PSI	1.6 GPM	20 PSI	2.4 GPM	20 PSI
			1.4 GPM	80 PSI	1.8 GPM	25 PSI	2.6 GPM	25 PSI
			1.6 GPM	100 PSI	1.9 GPM	30 PSI	2.8 GPM	30 PSI
			2.2 GPM	200 PSI	N/A	35 PSI	2.9 GPM	35 PSI
H1/4U-SS8020	20	0.109	.71 GPM	5 PSI	1.6 GPM	5 PSI	2.3 GPM	5 PSI
			1.0 GPM	10 PSI	2.3 GPM	10 PSI	3.2 GPM	10 PSI
			1.4 GPM	20 PSI	2.7 GPM	15 PSI	3.7 GPM	15 PSI
			2.0 GPM	40 PSI	3 GPM	20 PSI	N/A	20 PSI
			2.8 GPM	80 PSI	3.3 GPM	25 PSI	N/A	25 PSI
			3.2 GPM	100 PSI	N/A	30 PSI	N/A	30 PSI
			4.5 GPM	200 PSI	N/A	35 PSI	N/A	35 PSI
H1/4U-SS8030	30	0.133	1.1 GPM	5 PSI	2.4 GPM	5 PSI	3.4 GPM	5 PSI
			1.5 GPM	10 PSI	3.2 GPM	10 PSI	4.3 GPM	10 PSI
			2.1 GPM	20 PSI	3.8 GPM	15 PSI	N/A	15 PSI
			3.0 GPM	40 PSI	4.3 GPM	20 PSI	N/A	20 PSI
			4.2 GPM	80 PSI	4.8 GPM	25 PSI	N/A	25 PSI
			4.7 GPM	100 PSI	N/A	30 PSI	N/A	30 PSI
			6.7 GPM	200 PSI	N/A	35 PSI	N/A	35 PSI
H1/4U-SS8040	40	0.153	1.4 GPM	5 PSI	3.4 GPM	5 PSI	4.0 GPM	5 PSI
			2.0 GPM	10 PSI	4.3 GPM	10 PSI	4.7 GPM	10 PSI
			2.8 GPM	20 PSI	5.1 GPM	15 PSI	N/A	15 PSI
			4.0 GPM	40 PSI	5.7 GPM	20 PSI	N/A	20 PSI
			5.7 GPM	80 PSI	N/A	25 PSI	N/A	25 PSI
			6.3 GPM	100 PSI	N/A	30 PSI	N/A	30 PSI
			8.9 GPM	200 PSI	N/A	35 PSI	N/A	35 PSI
H1/4U-SS8050	50	0.172	1.8 GPM	5 PSI	3.9 GPM	5 PSI	5.0 GPM	5 PSI
			2.5 GPM	10 PSI	5.0 GPM	10 PSI	6.0 GPM	10 PSI
			3.5 GPM	20 PSI	N/A	15 PSI	N/A	15 PSI
			5.0 GPM	40 PSI	N/A	20 PSI	N/A	20 PSI
			7.1 GPM	80 PSI	N/A	25 PSI	N/A	25 PSI
			7.9 GPM	100 PSI	N/A	30 PSI	N/A	30 PSI
			11.2 GPM	200 PSI	N/A	35 PSI	N/A	35 PSI
H1/4U-SS8060	60	0.188	2.1 GPM	5 PSI	4.5 GPM	5 PSI	5.7 GPM	5 PSI
			3.0 GPM	10 PSI	6.0 GPM	10 PSI	6.6 GPM	10 PSI
			4.2 GPM	20 PSI	N/A	15 PSI	N/A	15 PSI
			6.0 GPM	40 PSI	N/A	20 PSI	N/A	20 PSI
			8.5 GPM	80 PSI	N/A	25 PSI	N/A	25 PSI
			9.5 GPM	100 PSI	N/A	30 PSI	N/A	30 PSI
			13.4 GPM	200 PSI	N/A	35 PSI	N/A	35 PSI
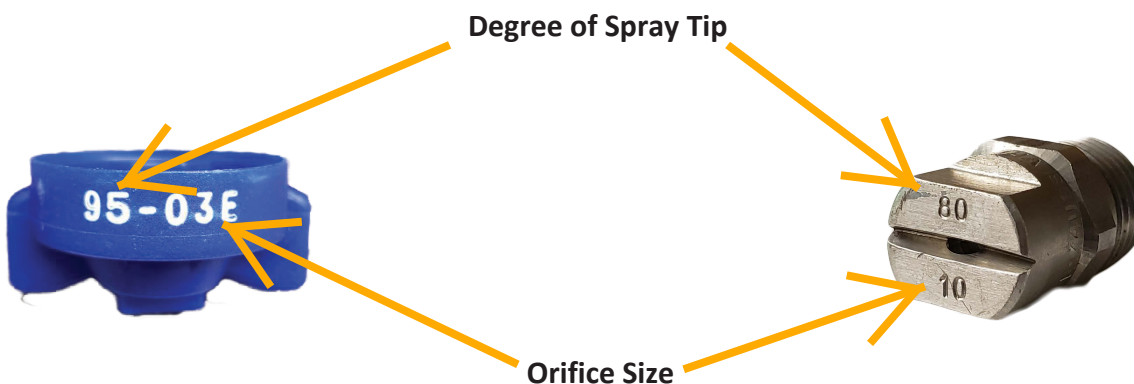
Degree of Spray Tip

Orifice Size

95-03E

80

10

NOZZLE TYPE	CAPACITY SIZE	ORIFICE DIAMET	SINGLE NOZZLE SETUP		DUAL NOZZLE SETUP		TRIPLE NOZZLE SETUP	
			OUNSES PER MINUTE	PRESSURE	OUNCES PER MINUTE	PRESSURE	OUNCES PER MINUTE	PRESSURE
H1/4U-SS8005	5		25 OZ/MIN	5 PSI	64 OZ/MIN	5 PSI	74 OZ/MIN	5 PSI
			38 OZ/MIN	10 PSI	66 OZ/MIN	10 PSI	115 OZ/MIN	10 PSI
			51 OZ/MIN	20 PSI	99 OZ/MIN	15 PSI	162 OZ/MIN	15 PSI
			64 OZ/MIN	40 PSI	128 OZ/MIN	20 PSI	N/A	20 PSI
			77 OZ/MIN	60 PSI	153 OZ/MIN	60 PSI	N/A	60 PSI
H1/4U-SS8004	4		19 OZ/MIN	5 PSI	26 OZ/MIN	5 PSI	57 OZ/MIN	5 PSI
			38 OZ/MIN	10 PSI	42 OZ/MIN	10 PSI	89 OZ/MIN	10 PSI
			51 OZ/MIN	20 PSI	88 OZ/MIN	15 PSI	128 OZ/MIN	15 PSI
			64 OZ/MIN	40 PSI	108 OZ/MIN	20 PSI	194 OZ/MIN	20 PSI
			79 OZ/MIN	60 PSI	128 OZ/MIN	60 PSI	N/A	60 PSI
H1/4U-SS8003	3		19 OZ/MIN	5 PSI	25 OZ/MIN	5 PSI	50 OZ/MIN	5 PSI
			25 OZ/MIN	10 PSI	37 OZ/MIN	10 PSI	80 OZ/MIN	10 PSI
			32 OZ/MIN	20 PSI	57 OZ/MIN	15 PSI	110 OZ/MIN	15 PSI
			43 OZ/MIN	40 PSI	74 OZ/MIN	20 PSI	140 OZ/MIN	20 PSI
			61 OZ/MIN	60 PSI	100 OZ/MIN	60 PSI	190 OZ/MIN	60 PSI
H1/4U-SS8002	2		N/A	5 PSI	N/A	5 PSI	42 OZ/MIN	5 PSI
			N/A	10 PSI	29 OZ/MIN	10 PSI	56 OZ/MIN	10 PSI
			16 OZ/MIN	20 PSI	40 OZ/MIN	15 PSI	85 OZ/MIN	15 PSI
			27 OZ/MIN	40 PSI	59 OZ/MIN	20 PSI	125 OZ/MIN	20 PSI
			32 OZ/MIN	60 PSI	67 OZ/MIN	60 PSI	169 OZ/MIN	60 PSI
H1/4U-SS80015	15		N/A	5 PSI	N/A	5 PSI	30 OZ/MIN	5 PSI
			N/A	10 PSI	20 OZ/MIN	10 PSI	50 OZ/MIN	10 PSI
			20 OZ/MIN	20 PSI	34 OZ/MIN	15 PSI	72 OZ/MIN	15 PSI
			24 OZ/MIN	40 PSI	48 OZ/MIN	20 PSI	112 OZ/MIN	20 PSI
			28 OZ/MIN	60 PSI	54 OZ/MIN	60 PSI	150 OZ/MIN	60 PSI
H1/4U-SS8001	1		N/A	5 PSI	N/A	5 PSI	N/A	5 PSI
			N/A	10 PSI	12 OZ/MIN	10 PSI	32 OZ/MIN	10 PSI
			N/A	20 PSI	24 OZ/MIN	15 PSI	57 OZ/MIN	15 PSI
			15 OZ/MIN	40 PSI	32 OZ/MIN	20 PSI	90 OZ/MIN	20 PSI
			21 OZ/MIN	60 PSI	39 OZ/MIN	60 PSI	127 OZ/MIN	60 PSI

Degree of Spray Tip

95-03E

80

10
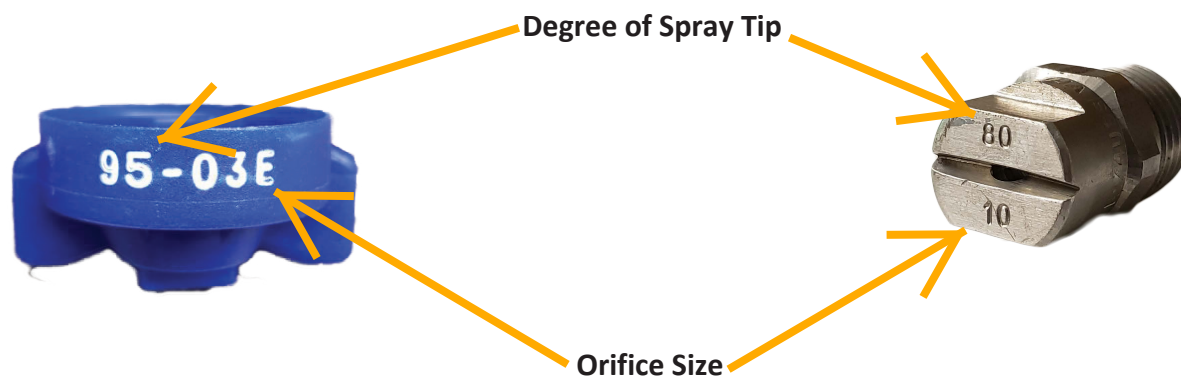
Orifice Size

PWM

EPD LED Signals

AgXcel has 2 styles for PWM's. One of the models has three lights and the other model has five lights. Ensure that you are looking at the correct diagram to confirm the signals you are receiving.

LED STATUS INDICATOR CODES

Indicator		Condition
Light on steady		Unit is turned on and operating normally
Steady Flashing		Unit in HOLD. Check Run/Hold jumper or remote switch for correct operation.
1 Flash/pause		Open circuit detected. Check motor connections for open.
2 Flashes/pause		Output short circuit detected. Check motor wiring.
3 Flashes/pause		Over-current condition. Check total load.
4 Flashes/pause		Input Power fault. Check input power wiring.
5 Flashes/pause		Input frequency out of range.

NOTE: Cycle power with the controller ON/OFF switch to clear a fault code

		Color	Time Line	LED State	Condition
POWER	Power (12V)	Green		Off	No power (or less then 6.8V)
	Power (12V)	Green		1hz Flash	Under Voltage (less then 10.5V)
	Power (12V)	Green		On Solid	12V supplied (power is acceptable)
PWM	PWM	Blue		Off	No PWM Signal to the Module
	PWM	Blue		1hz Flash	PWM signal present
	PWM	Blue		On Solid	Maximum Duty Cycle
TEMP	High Temp	Yellow		Off	Module within Temperature Range
	High Temp	Yellow		1hz Flash	Module Temp is elevated
	High Temp	Yellow		On Solid	Module Auto Shutdown from Temp
MOTOR CURRENT	Current	Red		Off	Normal Operation (Under Max)
	Open Circuit	Red		1hz Flash	Open Circuit Condition
	Over Current	Red		On Solid	Over Current (Output Shorted)
MOTOR RUNNING	Motor	Orange		Off	Motor is not running
	Motor	Orange		On Solid	Motor is running

The PWM's take 12 volts for power and will send that voltage to the pumps to kick on and off. If the pumps are not turning on, then your PWM might not be getting 12 volts or your pumps might have gone bad.

Flow Meter

If you are having issues with your system not putting out the correct amount of product, your Flow Meter Calibration number could be off. You can see which model of flow meter you have by looking at the flow ranges on the front of the flow meter or by looking at the silver sticker on the right side of the Flow Meter.

Magnetic Flow Meter

Flow Meter Calibration Numbers

Orion Magnetic Flow Meters
0.08 - 1.6: *22710*
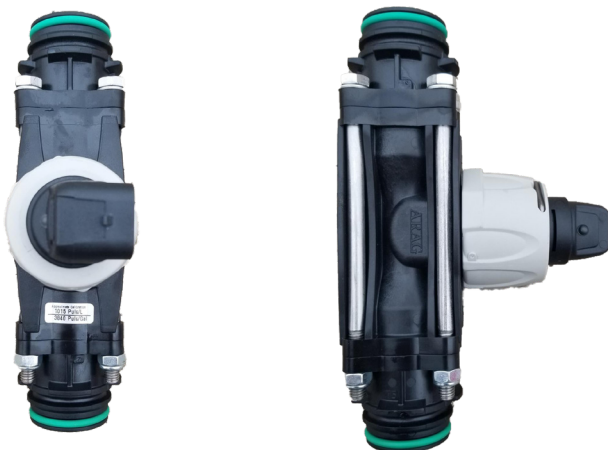0.13 - 2.6: *22710*
0.3 - 5: *11355*
0.6 - 13: *4542*

Orion Wolf Flow Meter
0.7 - 13: *3840*

Wolf Flow Meter

If you are running a recipe and the Dashboard is not giving you a Rate, then either your Flow Meter is not detecting liquid or your Flow Meter is not receiving power. You can see if you Flow Meter is getting a signal by looking on the left side of the Flow Meter and checking to see if you have a Red or Orange light glowing. This light will be flashing when the system is running.

If your Flow Meter is still not detecting your product and you are getting a signal to the flow meter and there is liquid going through the Flow Meter, then your Flow Meter may not be able to read your chemical. If your chemical contains *Dicamba*, then the Orion Magnetic Flow Meter will not be able to read that product. You would need the Orion Wolf Flow Meter.

Pumps

AgXcel uses 2 Remco 5.3 GPM or 2.0 GPM 12 volt pumps. The 5.3 GPM pump can do a max of 3.4 GPM.

With 2 of the 5.3 GPM pumps, you can go as high as 6.8 GPM. The lowest that 2 of the 5.3 GPM pumps can put out when both pumps are connected is 0.5 GPM.

If you need to achieve a lower rate, then you can dis-connect one of the pumps.

The highest two 2.0 GPM pump can go is 3.1 GPM and the highest one 2.0 GPM pump can go is 1.5 GPM. The lowest that the 2.0 GPM can go is 0.08 GPM for both 1 and 2 pumps.

5.3 GPM
Pump

2.0 GPM
Pump

GX20 Module

Power - You will always have a Green LED if the system is turned on.

Board Diag. - This light will turn Yellow meaning that the board has booted properly.

WiFi - This light will turn Blue typically 30 - 60 seconds after power has been given to the board.

Product 1 - 6 - These lights will turn Red when the product coordinating with the LED is active.

It is recommended to turn your system off when you are done for the day so the data on the GX20 Module can reset.