SurePoint™ Ag Systems

QuickDraw SPRAY TENDER SYSTEM

QuickDraw 3000

Operator's Manual

396-01-6860-EN
10Dec2024
Version 2.0.0

This document contains information specific to Model Year 2025 QuickDraw 3000 spray tender product. Instructions including installation, setup, operation, troubleshooting, and parts can be found in this manual. Display Rev: 3.4.10

Thank you for purchasing a QuickDraw 3000 from SurePoint Ag Systems. Register your QuickDraw by scanning the QR code on the Serial Number label inside the right hand wall of the cabinet, or by scanning the QR code on the QuickDraw controller screen at initial startup. Complete registration information can be found on the webpage.

Copy Serial Number info here:

Part Number: 605-_____

Serial Number: QD_____

Service Contact Information

If a problem occurs with your QuickDraw that cannot be corrected with the information included with this manual, please contact your supporting dealer for service and technical assistance. If further assistance is needed, contact SurePoint Ag Systems.

Date Purchased: _____

Dealer: _____

Dealer Contact: _____

Dealer Phone: _____

Factory Service/Support

SurePoint Ag Systems

9904 Highway 25

Atwood, KS

Call: 866-626-3670

Text: 785-626-7391

surepointag.com/support

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1. Introduction

1.1. Instructional Videos

1.1.1. QuickDraw 3000 Instructional Videos

Listed below are instructional videos with links to the SurePoint Ag YouTube page. Navigate to each specific video, or go to the QuickDraw 3000 playlist for step-by-step instructional videos.

Figure 1. YouTube QuickDraw 3000 Playlist

SCAN ME

Scan this QR with your smart device to navigate to the SurePoint Video Playlist.

- System Overview
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- Operation and Navigation
- Creating a Recipe
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1.2. Warranty - SPA Standard

Warranty Policy

SurePoint Ag Systems, Inc. (hereinafter referred to as “SurePoint”) warrants the whole goods products it sells to be free from defects in material or workmanship for a period of one (1) year from the date of sale of the product(s) to the original user.

SurePoint warrants the parts it sells to be free from defects in material or workmanship for a period of ninety (90) days from the date of delivery of the product(s) to the original user. This shall include replacement parts installed by SurePoint.

Warranty of SurePoint whole goods and/or parts applies only to material and workmanship. Misuse, misapplication, neglect, alteration, accident, normal wear, or acts of God affecting SurePoint products are not eligible for warranty. Warranty shall apply only to the smallest reasonably serviced component (e.g. if a PWM solenoid fails on a hydraulic pump assembly, only the solenoid will be covered under warranty, not the entire pump assembly). In the event that multiple components are replaced, component warranty eligibility will be assessed once the parts are returned to SurePoint for determination of failure (parts determined to still be in working order will be returned to the dealer and warranty will not apply to those components).

1.2.1. Warranty Claims

A warranty claim and request to return defective product(s) must be presented to the SurePoint Support Department, describing the defect in material or workmanship of the product(s). This claim may be made via phone, e-mail, fax, or written request. Claims for warranty of whole goods or parts must also include proof of date of sale of the product(s) to the original user.

The SurePoint Support Department will proceed in making a preliminary decision as to the eligibility of the claim for warranty consideration. After the SurePoint Support Department deems it necessary to proceed with warranty consideration, a determination will be made as to whether or not the original product needs to be returned to SurePoint. In the event a return is deemed necessary, a Return Materials Authorization (RMA) will be generated by the SurePoint Support Department. The defective product(s) in question must be sent, freight prepaid, within fourteen (14) days of the discovery of the product failure and initial warranty claim. Replacement product(s) may be sent to the selling dealer, directly to the customer, or picked up at the SurePoint facility. At the discretion of the SurePoint Support Department, replacement product(s) may be sent prior to, or after, the SurePoint Returns Department receives the defective product(s).

NOTE

Any variation in the above procedure is at the sole discretion of the SurePoint Support Department.

SurePoint agrees to handle all warranty claims in a timely manner and will inform dealers of any revisions or modifications to the SurePoint Warranty Policy. Eligible warranty claims will be processed by SurePoint within sixty (60) days of receiving failed product(s).

If a warranty claim is found to be ineligible for warranty coverage, the SurePoint Support Department will be responsible to inform the dealer or end user in order to determine the course of action to be taken. SurePoint reserves the right to make changes in specification and design without notice and without incurring any obligations to owners of products previously sold.

1.3. Safety - General

Safety alert symbols found throughout this manual are used to call your attention to instructions involving your personal safety and the safety of others. Failure to follow these instructions can result in injury or death.

1.3.1. Recognize Safety Information

This is a safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.

1.3.2. Signal Words

Note the use of signal words, DANGER, WARNING, CAUTION, and NOTICE with safety messages. The appropriate signal word for each has been selected using the following guidelines:

DANGER

DANGER indicates imminently hazardous situation that, if not avoided, can result in death or serious injury. This signal word is to be limited to the most extreme situations typically for machine components which, for functional purposes, cannot be guarded.

WARNING

WARNING indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

CAUTION

CAUTION indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE
NOTICE is used to address safety practices not related to personal safety.

1.3.3. Personal Protective Equipment (PPE)

Wear clothing and personal protective equipment appropriate for the job. Wear steel-toed shoes when operating. Wear hearing protection when exposed to loud noises. Do not wear additional hearing impairment devices such as radio headphones, etc.

1.3.4. A Word to the Operator

It is your responsibility to read and understand the safety messages in this manual. You are the key to safety. Safety is your responsibility.

1.3.5. Battery Safety

Use caution when connecting, disconnecting, charging, and jumpstarting the machine's battery.

Keep sparks and flames away from the battery. Battery gas can explode and cause serious injury.

Remove jewelry that can make electrical contact and create sparks.

1.3.6. Chemical Safety

Chemicals used in agricultural applications can be harmful to personal health and/or the environment if not used correctly. Always follow all label directions for effective, safe, and legal use of any chemicals.

1.3.7. Replace Safety Signs

Replace missing or damaged safety signs. See the machine operator's manual for correct safety sign placement.

2. System Overview

The QuickDraw spray tender system makes the process of tending your sprayer more efficient and more accurate, with greater safety. The system provides a historical record of each batch. The system allows the batching of either 4, 6, or 9 bulk products, depending on which model was purchased, plus 5 manual products, and can include up to 4 automated carriers. The QuickDraw controller works together with the iPad app to simplify the management of your sprayer batches. Configuration of recipes can be handled in either the QuickDraw controller or on the iPad QuickDraw app. The iPad QuickDraw app is the preferred method for recipe configuration due to its portable nature and easy use. The QuickDraw app communicates with the QuickDraw controller via WI-FI. The QuickDraw controller takes these recipes and automatically populates the calculations and measurements necessary to complete a batch that ends up in the sprayer. The iPad can be used to start a batch and to monitor/control the mixing operation. Once a batch is completed, the information for that batch is logged in the controller. The QuickDraw app can then be used to send the historical information out of the controller to the iPad.

The QuickDraw manages bulk liquid products automatically. These are products typically stored in bulk totes or shuttles. The QuickDraw also calculates the correct amount of manual measured products in a batch. Manual measured products include small-package liquids, dry flowables, and powders. Each recipe can include up to 5 manual products.

Figure 2. System Overview QR

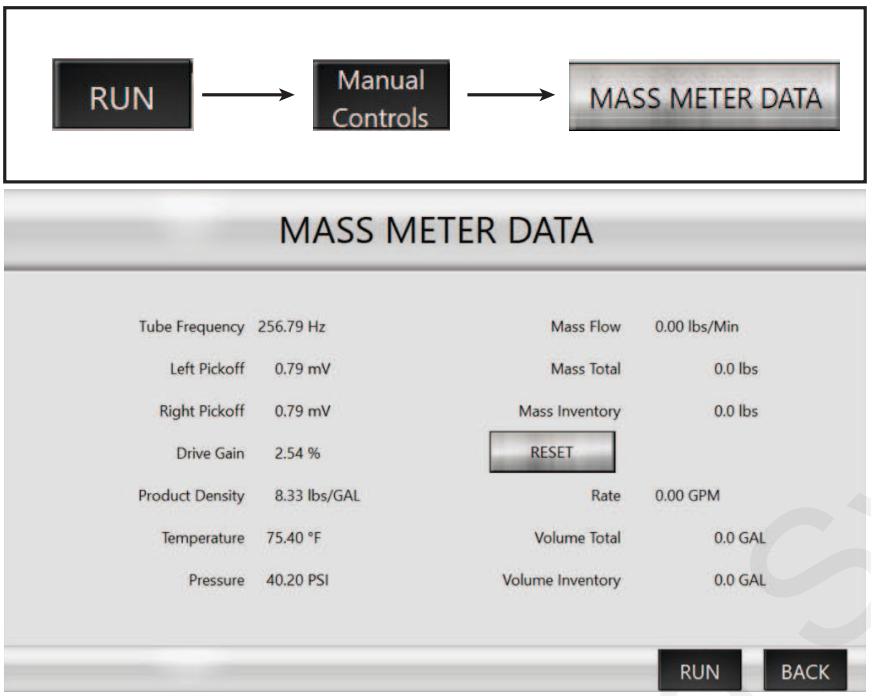
2.1. QuickDraw Overview

2.1.1. QuickDraw and iPad

The QuickDraw is designed to be used with an iPad. Creating and editing recipes, managing farms, fields, and products, configuring totes, and setting up batches can all be done on the QuickDraw controller or the QuickDraw iPad App. The iPad App can be used to start a batch and to monitor the batch while it is running. Batch history is downloaded to the iPad to be accessible outside the controller. If an iPad is temporarily unavailable, the QuickDraw controller is fully functional without the iPad.

2.1.2. Mass Meter Data

Figure 3. Mass Meter Data Screen



This information will not normally be used. SurePoint Support may use it to evaluate the operation of the mass meter for troubleshooting purposes.

2.1.3. Automated Product Valves

The standard product valve is a 1 ½" Port Valve. These valves are Fast Valves with CAN technology allowing the QuickDraw 3000 controller to partially open the product valves for smaller volumes and quickly shut valves as needed for accurate measurement. Fast Valves with CAN technology allow the QuickDraw 3000 controller to partially open the product valves for smaller volumes and quickly shut valves as needed for accurate measurement.

It is essential before each batch is run to verify that the recipe being used has the chemicals matched correctly with the valves they are connected to, as shown on the QuickDraw Run Screen.

2.1.4. Batches less than 100 gallons

The QuickDraw may not have time to dispense all the chemicals desired before the Total Carrier amount has been pumped. The carrier is pumped at approximately 50 gallons per minute while the products are being dispensed through the Venturi system. Also, batches that have 35% or more of the batch volume from the chemical products may not complete. The message *Batch Unlikely to Complete, >65% of the Total Batch needs to be carrier in order to guarantee batch success* will display if such a batch is set up. The Pump Suction setup may sometimes be a better option if small batches or batches with a high concentration of chemical are needed.

2.1.5. Air Leaks

The QuickDraw will not work properly if there are any air leaks in the plumbing on the suction side of the venturi. Air leaks will create pump priming problems and will cause the flowmeters to behave erratically. Air leaks can result in inaccurate chemical measurement. It is essential that all hoses and connections be airtight.

2.1.6. Automated Air Purge Cycle

An optional accessory that uses compressed air to automatically purge the hose from the QuickDraw to the sprayer after each batch is run.

WARNING

Before operating the QuickDraw, the user must be familiar with the chemical products to be used. Read the label for each product, understand and follow all precautions for safe handling, mixing, and application of the products being used. Wear any required PPE and be prepared to act in the event of an unintended release of any product.

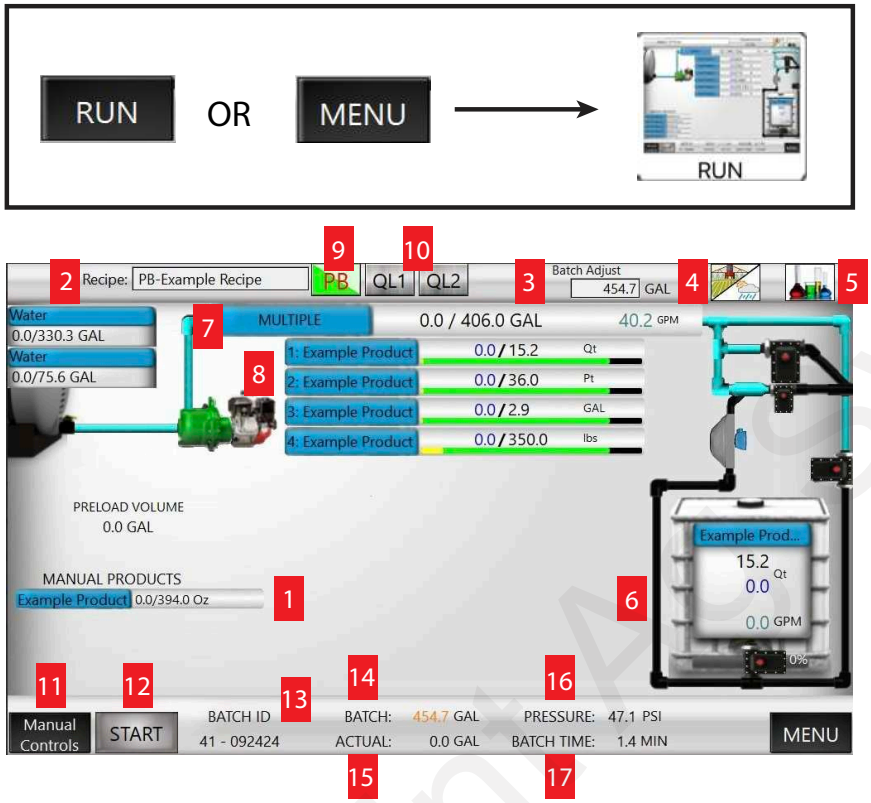
2.1.7. Venturi and Pump Suction Configuration

The QuickDraw is available in two configurations, Venturi Suction and Pump Suction. Venturi Suction is the most common. In **Venturi** the transfer pump is located on the QuickDraw inlet. It pushes water across a venturi to create suction which draws chemical products through the mass meter and into the batch. In a **Pump Suction** setup, the transfer pump is located on the Quick Draw outlet. Suction from the pump is utilized to draw chemical products through the mass meter and into the batch. The Pump Suction setup allows the unit to make smaller batches or batches with a higher concentration of chemical.

3. QD Controller Screen

3.1. Run Screen

Figure 4. Run Screen



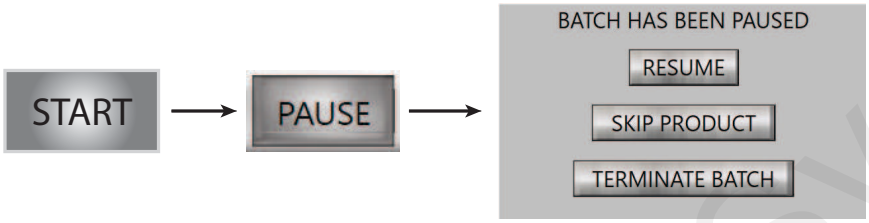
This screen contains all the real-time data that occurs during operation.

1. Manual products - displayed if any are included in the current batch.
2. Current Recipe - click in the box to select a recipe or create new recipe.
3. Batch adjust - click in the box to adjust the current load.
4. Field and Weather button - click here to enter current settings if desired.
5. Job Screen button - press here to return to the Job Screen to make changes to the current batch.
6. Tote that is currently dispensing product - Black number is target value for current batch, Blue number is current dispensed value, and Green number is the flow rate.
7. Carrier - The product used as the carrier liquid in a batch. This is typically water but could be something like a liquid fertilizer.
8. Tote products - Corresponds with valve number on side of QuickDraw cabinet. Number of current/target per batch. Yellow bar shows how much of product is to be used in current batch. Green bar shows relative amount of product in each tote. Press on a tote to navigate to the Tote Setup Screen.
9. Partial Batch - Appears once batch is started and is used when you need to pause or stop a batch and resume it at a later time to dispense the remainder.
10. QL1 & QL2 - Quickload 1 & Quickload 2 buttons allow you to toggle between preselected recipes.
11. Manual Controls - Individual valves can be manually operated here. See Manual Controls for more detail

12. Start - press this button to initiate a batch. Once initiated, this button changes from START to PAUSE. See Pause Batch for more details.

> **WARNING**
> Familiar yourself with this product and manual entirely before pressing Start! Starting a batch will dispense chemical products. Be sure all totes are identified properly in the QuickDraw, all hoses are connected securely, and all manual valves are in the correct position. Know how to operate the E-stop.

Pause - Once a batch is active, pressing pause will put the process into a paused state. By default, the pump will continue to run but valves will be closed. Once paused, this screen will popup to give you options of next actions.



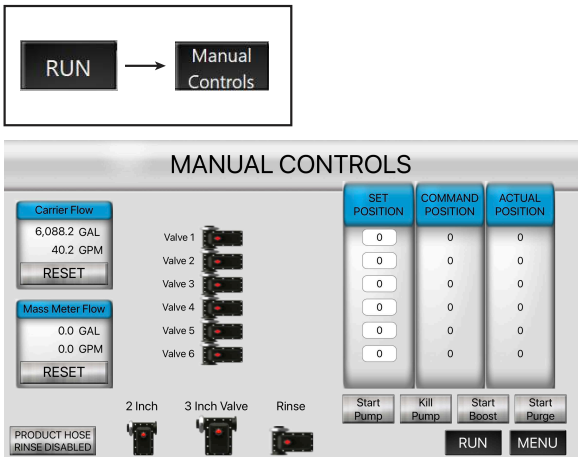
13. Batch ID - unique number created for every batch than can be used to correlate current batch with other data being utilized elsewhere.
14. Batch - Orange number is the calculated target total batch size for the current batch. This will be the final batch size that is loaded.
15. Actual - black number shown is the current batch size dispensed. The batch will complete once it reaches target number.
16. Pressure - Display-only value shown to monitor current pressure.
17. Batch Time - Display-only value shown for eclipsed time of current batch.

Figure 5. Run Screen and Batch Operation Video

SCAN ME

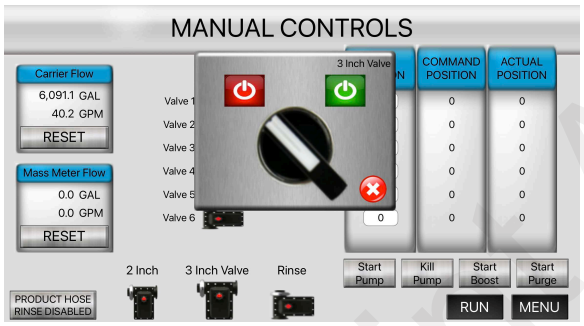
3.1.1. Manual Controls

Figure 6. Manual Controls Screen



Use this screen to manually open and close a valve. Press on a valve to bring up the ON/OFF switch. Actual Position is the current position the valve is reporting to the controller.

Figure 7. Manual Control Valve



Use the red and green power icons to toggle a valve on or off. Press the red X to exit back to Manual Control Screen.

Figure 8. Operating System with Manual Controls

3.2. QuickDraw Controller Menu Screen

Figure 9. Menu Screen

When power is turned on, QuickDraw defaults to the RUN SCREEN. Navigate to the MENU SCREEN by pressing "MENU" in the bottom right corner.

- RUN: Gives access to the main operational screen that shows live data during batch operation. All the operational and data management screens are available from here.
- JOB: Shows the job screen that is used to set up the current job that will be batched out. From here a new recipe can be created or an existing recipe can be loaded and edited.
- SETTINGS: Global settings to the controller are changed here. There are two system settings screens.
- MAINTENANCE: This screen allows access to maintenance items that rarely need accessed.
- HISTORY: Allows access to the historical log stored in the controller.
- ALARMS: Alarms will prevent a batch from running. Press the ALARMS button to go to ACTIVE ALARMS screen to resolve the issue to continue running a batch.
- WARNINGS: A batch will continue running with warnings, but there may be a problem with completing the batch as desired. Press WARNINGS to see ACTIVE WARNINGS to resolve any issues.
- FIELD AND WEATHER: This brings up a screen to enter the Grower, Farm, Field, Recipe, Temperature, Wind Speed/Direction and other information for the current batch record.
- DATA MANAGEMENT: Use this when working offline with the iPad to access screens to add Grower, Farm, Field, and Product information, and to create recipes. Go to this screen to begin transferring data to the QuickDraw controller once the iPad is connected to the QuickDraw.

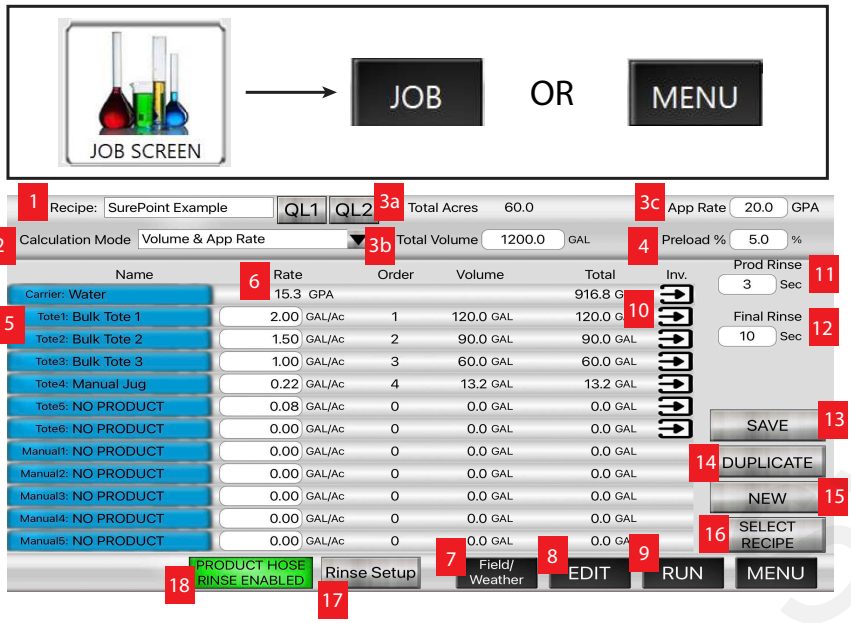
NOTE
DATA MANAGEMENT button only appears when working from iPad. This will not show up on the QuickDraw controller display.

Figure 10. Operation and Navigation Video

SCAN ME

3.3. Job Screen

Figure 11. Job Screen



The Job Screen is used for setting up and verifying the batch to be run. Changes can be made here to the basic Recipe that will apply only to the current batch and not permanently save the batch settings.

1. Recipe box - Press in this box to navigate to the select recipe screen.
2. Calculation Mode - Select or verify the units to calculate the job (Volume & App Rate, Area & App Rate, Individual Volume, or Area & Carrier Rate)
3. 3a: Total Acres - Enter total number of acres for the job. 3b: Total Volume - Enter the total volume in gallons of the job. 3c: App Rate - Enter the desired application rate for the job in Gallons per Acre.

> **NOTE**
> These parameters may or may not be displayed based on the Calculation Mode selected.

4. Preload - Enter the desired preload volume in gallons or percentage.
5. Products - Product type (Carrier, Tote, Manual) and Product name shown. Always verify that totes/chemicals shown are correct and connected to the valve shown. Press the blue box to navigate to the Product setup screen.
6. Rate - Desired rate shown for each product, units vary based on selected product.
7. Field/Weather - This button navigates to the Field and Weather settings page where you can populate specific settings such as Grower, Farm, Operator, Crop, Field, Machine, Pest, Temperature, Wind, and Boom Height. These are optional and the data will be available on any historical record for each batch.

> **NOTE**
> To import field and weather settings from another source like JD Ops Center, click the 'Instructions: Data Import from Farm Management Software' button.

8. Edit - Navigate to the Recipe screen to edit any products and settings of the current Job.

9. Run - Navigates to the Run Screen.

> **NOTE**
> This will NOT start the batch.

10. Inventory - Click on this icon to navigate to the product setup screen. Modify/verify the inventory amounts of each product, especially after re-loading.
11. Product Rinse - This determines the rinse time after preload and each product is dispensed. If set to 3 seconds, the rinse valve will open for 3 seconds prior to the product valve opening. The common header will rinse for the set period of time. Default and minimum setting is 3 seconds.
12. Final Rinse - This determines the rinse time after all products are dispensed. Default and minimum setting is 10 seconds.
13. Save - Press the Save button to permanently save the current settings. Any changes made without pressing save will only change for the current batch.
14. Duplicate - Press this button to save a duplicate copy of the current recipe. A new recipe with the prefix 'DUP' will be saved to the recipe list. The name and any parameter changes can be edited from the edit recipe screen.
15. New - Press this to create a new recipe.
16. Select Recipe - Press here to choose which existing recipe to set as current, or to create a new recipe.
17. Rinse Setup - Only populated when product hose rinse is enabled. Change parameters for each automatic product hose , length and diameter, so amount of product can be calculated properly when rinsing.
18. Product Hose Rinse - Press to toggle automatic rinse enabled or disabled.

Figure 12. Setting up a Job Video

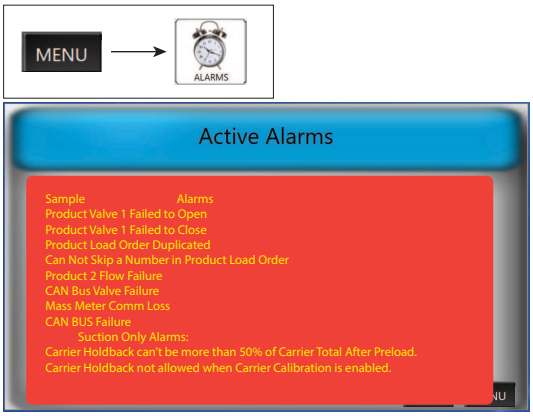
SCAN ME

3.4. Running a Batch

1. Turn on the QuickDraw controller. The following steps can be done from the QD screen or from the iPad App if it is connected to the QuickDraw.
2. Open the Job Screen. (MENU > JOB)
3. Press on the box beside Recipe. Select a Recipe or create a new recipe.
4. On the Job Screen, select or verify the Calculation Mode (Volume & App Rate, Area & App Rate, Individual Volume, or Area and Carrier Rate).
5. Depending on Calculation Mode, enter the Total Acres, App Rate, and/or Total Volume for the batch.
6. Enter the Preload Volume (this is how much carrier (water) will be added at the start of the batch before any other products are added).
7. Verify that the totes/chemicals shown are correct and connected to the valve shown.
8. Verify/change the Rate for each product. Rates can be changed on this screen to be effective for this batch. To only change the rate for this batch, do NOT press SAVE. To change a rate for this batch and for all future batches with this recipe, make the change and then press SAVE. The recipe will be saved with the new rate.
9. Verify the Order that products will be added. If Order needs to be changed, press EDIT at the bottom of the screen and make the desired changes.
10. Press on Field/Weather to enter Grower, Farm, Field, Operator, Crop, Machine, Pest, Temp, Wind Speed / Direction and Boom Height. These are optional entries, but will add information to the historical record for each batch. Return to Job Screen.
11. Pressing on EDIT will show the Totes with Rates and Load Order. Pressing on any blue box will do the same thing.
12. Press on the arrow under Inventory to verify/update the amount of chemical in the Tote.
13. Prod Rinse: Default and minimum time is 3 seconds; it can be set for more. The product valve manifold will rinse for this time between every chemical that is loaded.
14. Final Rinse: Default and minimum time is 10 seconds. Longer times may be used. After all products/chemicals are loaded the product valve manifold will rinse for this amount of time.
15. Verify that Prod Volume and Total Gallons for each product appear reasonable for this batch and that there is enough product in each tote to complete the batch. See Inventory above.
16. Verify that all tote valves are in correct position and that all hoses are connected properly.
17. When all is ready on the Job Screen, press RUN to go to the RUN SCREEN (this does NOT start the batch).
18. Start the pump when ready to run the batch, and then, on the RUN SCREEN, press START.

3.5. Alarms And Warnings

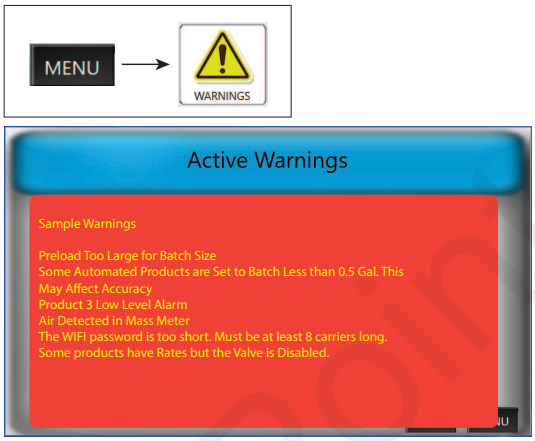
Figure 13. Active Alarm Screen



Examples of Active Alarms that could be present.

When building a Job or Recipe you may experience a Warning or Alarm. A batch will NOT run if an alarm is present. The issue must be resolved before the batch can be started or resumed.

Figure 14. Active Warnings Screen



Examples of Active Warnings that could be present

A batch will run if a Warning is present, but the issue should be addressed as it could lead to more problems.

NOTE
See Troubleshooting [90] section of this manual for more information about Alarms and Warnings.

3.5.1. Alarm Retry

Figure 15. Alarm Retry Button

When alarms occur, an ALARM RETRY button appears on the lower right corner of the screen.

The alarm also pauses the current process, closes all valves and shuts off the pump if the pump supports automatic shutoff. Fix the issue, then start the pump, and push ALARM RETRY to continue the batch. When an alarm occurs, there is a 10-second waiting period before the QuickDraw will allow the pump to be restarted. The batch will continue from where it was and finish the previously started batch. If the alarm continues to happen or you are unable to determine the issue, contact your dealer for technical support.

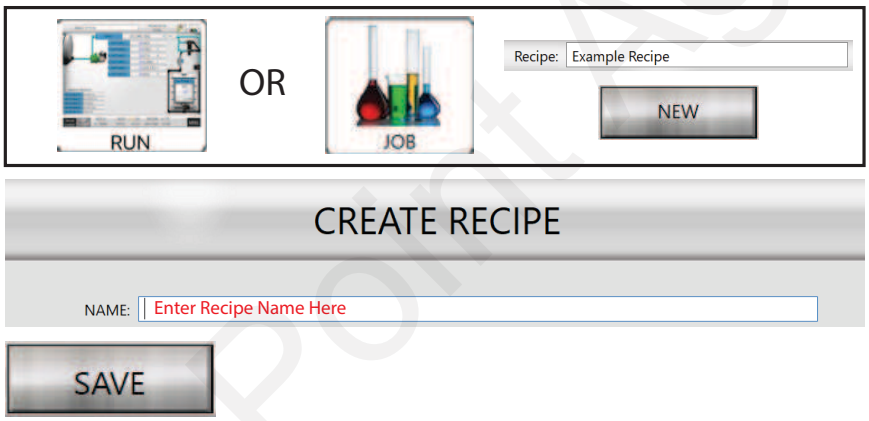
NOTE
A batch can also be terminated from the alarm start by pressing PAUSE, followed by TERMINATE BATCH.

3.6. Creating a New Recipe

Recipes consist of automated bulk products, manually added products, and/or multiple carrier. The automated bulk products are the products that are connected to the QuickDraw product valves. These products hook up directly to valves 1-4 or 1-6 or 1-9 depending on the QuickDraw model. The system can pull in bulk products automatically as long as the total amount required for that product for the batch is greater than 0.5 gallons on a Venturi (Non-suction) model or 1.0 gallons on a Pump Suction model. Anything that is in powder form or less than the minimum stated above would be considered a manually added product. The process will pause when it gets to these products in the cycle and allow for the operator to use the optional swing down eductor system available from SurePoint, user provided, or the operator can use the eductor system on their sprayer, if available, to add these products to the batch. When finished adding a manual product, a tap on the screen tells the controller to continue to the next product).

NOTE
Do not delay in adding the manual products, as the carrier is being pumped at 40-50 GPM during this time. A delay (especially on a small batch) could result in all the carrier being pumped before all chemicals are added. If there will be a delay, Pause the batch.

Figure 16. How to create a new recipe

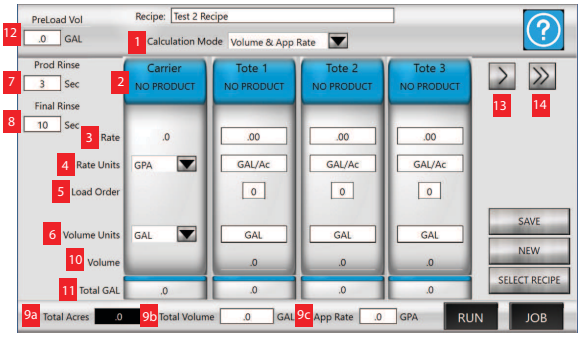


Once the name is saved, the Edit screen will appear so the remainder of the recipe settings can be entered.

- Navigate to the Run or Job screen and press on the box next to Recipe:
- Press the NEW button
- Type the name of the new recipe
- Press SAVE to store the new recipe name

NOTICE
Changes are not stored until the SAVE button is pressed!

Figure 17. Create/Edit Recipe Screen



Use this screen to select, create, delete, or edit a recipe.

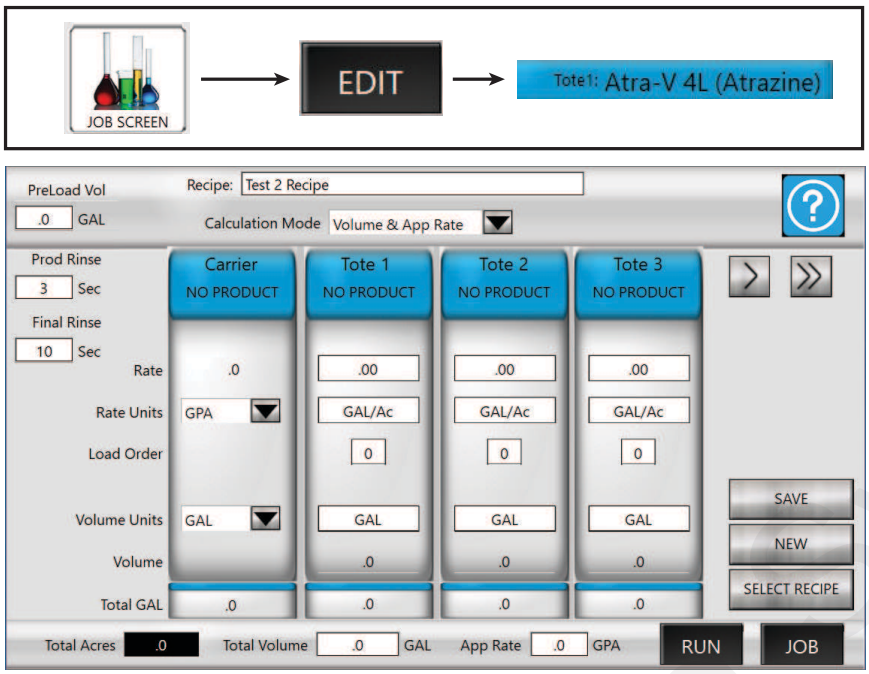
1. Calculation mode - Depending on the selected mode, the user can changes acres, volume, and app rate to calculate load size and product totals.
2. Tote (blue portion) - Touching one of the totes gives the user the ability to change the product corresponding to that tote.
3. Rate - The amount (in selected rate units) that will be applied. Click on the Rate box to set the rate for that product.
4. Rate Units - Select the units to be used for the application rate. Available options are: GPA (gallons per acre), fl oz/ac (fluid ounces per acre), pt/ac (pint per acre), qt/ac (quart per acre), lbs/ac dry (pounds per acre dry), L/ac (liters per acre), mL/ac (milliliters per acre), lbs/100 (pounds per 100 gallons), pt/100 (pint per 100 gallons), qt/100 (quart per 100 gallons), gal/100 (gallon per 100 gallons), oz/ac dry (ounces per acre dry), g/ac (grams per acre), kg/ac (kilograms per acre), g/100 (grams per 100 liters), kg/100 (kilogram per 100 liters), mL/100 (milliliters per 100 liters), or L/100 (liters per 100 liters).
5. Load Order - Specifies the order in which the products will be loaded in this recipe.
6. Volume Units - Set the units to be used for calculating the amount of product used. This amount will be shown in Volume.
7. Prod Rinse - The amount of time that the product valve manifold will be rinsed between products.
8. Final Rinse - The amount of time that the product valve manifold will be rinsed after the final product has been added.
9. Acres/Volume/App Rate - Change these to adjust product and load totals.
10. Volume - Displays the amount of product necessary in the selected totalizer units for that product. This is calculated by taking number of acres * rate entered and then converting from the rate units to totalizer units. i.e. $\frac{\left(32\frac{oz}{acre}\cdot 100acres\right)}{128\frac{oz}{gal}} = 25gal$
11. Total gallons - Shows the total amount needed for the current batch of each product in the total batch units (gallons or liters).
12. Preload Volume/Percentage - Select an amount of carrier to be loaded prior to any product being loaded.

Figure 18. Creating a Recipe

SCAN ME

3.6.1. Edit Recipe

Figure 19. Edit Recipe



The edit recipe screen appears the same as the Job screen, but can only be edited while on this screen. Press on any setting to made a change to the recipe. When finished, press SAVE to permanently update the recipe.

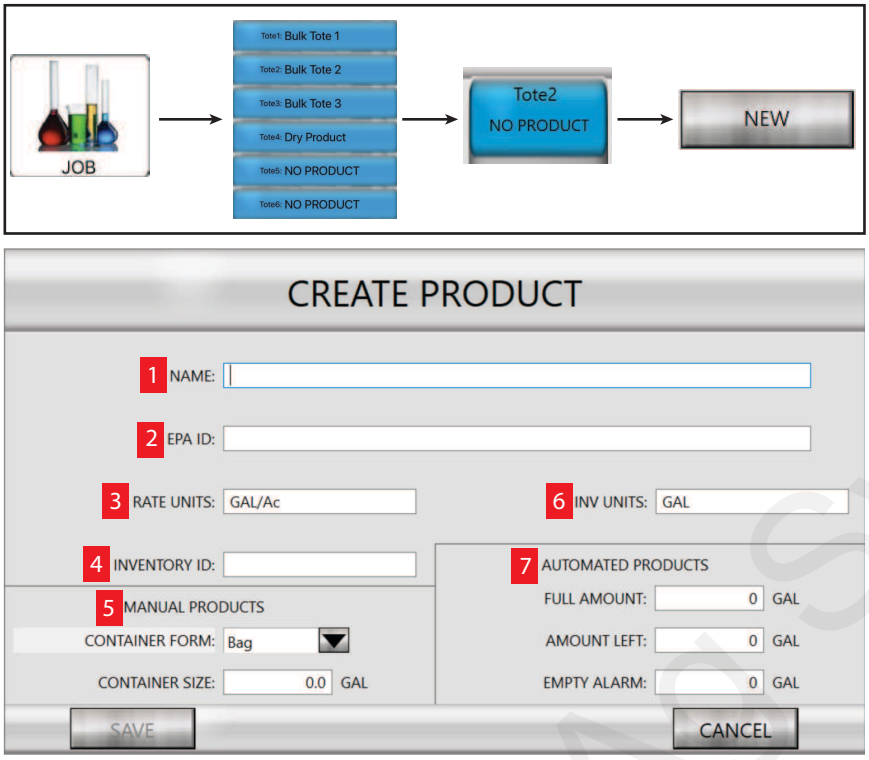
To edit a different existing recipe, press in the text box next to recipe to chose a different recipe.

Figure 20. Editing an existing Recipe

SCAN ME

3.7. Tote Setup Screen (Product Setup)

Figure 21. Creating a New Product



1. Name - Choose a name for the new product
2. EPA ID - Document the EPA ID so it's recorded with your batch
3. Rate Units - Select the units desired for the product
4. Inventory ID - Assign the product a specific identifier
5. Manual Products - Select container form and size if this product is to be added to the batch as a manual product
6. Inv Units - Units assigned to the product for inventory records
7. Automated Products - Populate these boxes if the product is an automated product

3.8. Flow Cal Formula

Example of when to increase Flow Cal: The QuickDraw 3000 Display shows Actual 1000 gallons, however your physical tank shows you dispensed 900 gallons. Your current flowmeter calibration number is 91 pls/gal. The formula you would use would be QuickDraw 3000 Actual: divided by what was Physically displayed in your tank and multiply that times your Flow Meter pls/gal. (1000/900) 91 = 101.1 pls/gal Example of when to decrease Flow Cal: The QuickDraw 3000 Display shows Actual: 1000 gallons however your physical tank shows you dispensed 1100 gallons. Your current flowmeter calibration number is 91 pls/gal. The formula you would use would be Quick-Draw 3000 Actual: divided by what was Physically displayed in your tank and multiply that times your Flow Meter pls/gal. (1000/1100) 91 = 82.7pls/gal

Figure 22. Carrier Flow Calibration Formula

$$\left[\frac{\text{QD Display Total Dispensed (GAL)}}{\text{Tanks Actual Carrier Dispensed (GAL)}}\right] \text{ X } \text{Current Carrier Pulses / GAL} = \text{New Carrier Flow Cal Pulses / GAL}$$

The carrier flow cal can always be adjusted manually if needed. Use this equation to find the new carrier flow cal number.

Examples:

- QuickDraw dispensed 1100 gallons with flow cal number at 91, new carrier flow cal should be: $\frac{1000}{1100} \cdot 91 = 82.7 pulses\,.\,per\,.\,gallon$
- QuickDraw dispensed 900 gallons with flow cal number at 91, new carrier flow cal should be: $\frac{1000}{900} \cdot 91 = 101.1 pulses\,.\,per\,.\,gallon$

TIP

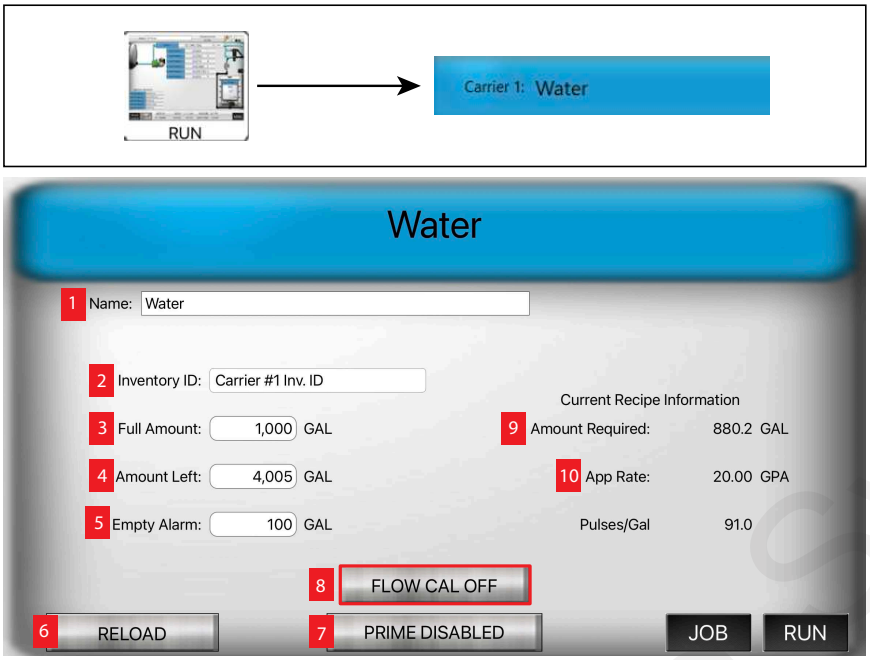
Increase the Carrier Flow Cal (Pluses/Gal) if more carrier is needed. Decrease the Carrier Flow Cal (Pulses/Gal) if less carrier is needed.

Figure 23. Carrier Flow Meter & Automated Calibration Process

SCAN ME

3.9. Carrier Setup Screen

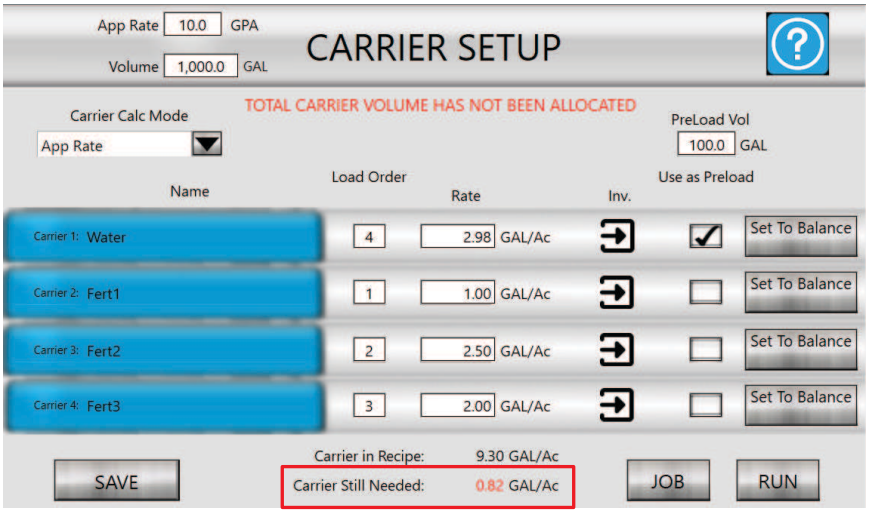
Figure 24. Setup New Carrier



Navigate to the Carrier Setup screen to add, select, or edit a carrier.

1. Name - Add a name to the carrier
2. Inventory ID - Assign a specific identifier for this carrier.
3. Full Amount - Maximum amount of carrier when tank is full
4. Amount Left - Actual amount of carrier currently in the tank. This should match the Full amount when tank is full.
5. Empty Alarm - Selected amount to trigger the low carrier alarm.
6. Reload - Press to reload the carrier. This will make full amount and amount left equal the same, and the button will disappear.
7. Prime disabled/enabled - Enable to extend prime time to 30 seconds on first batch. This will prevent a product flow failure alarm. Default prime duration is 10 second.
8. Flow Cal off/enabled - Enable to calibrate the carrier flow meter.
9. Amount Required - Shows the amount of carrier needed for the recipe that is currently selected.
10. App Rate - Application rate of the recipe that is currently selected.

Figure 25. Carrier Setup Screen



If Carrier Still Needed does not equal 0, add amounts to one or more carriers to fulfill the recipe. Press 'Set To Balance' to allocate a carrier needed to the appropriate carrier.

> ***NOTE***
> *This screen is only accessible if QD is setup for more than one carrier.*

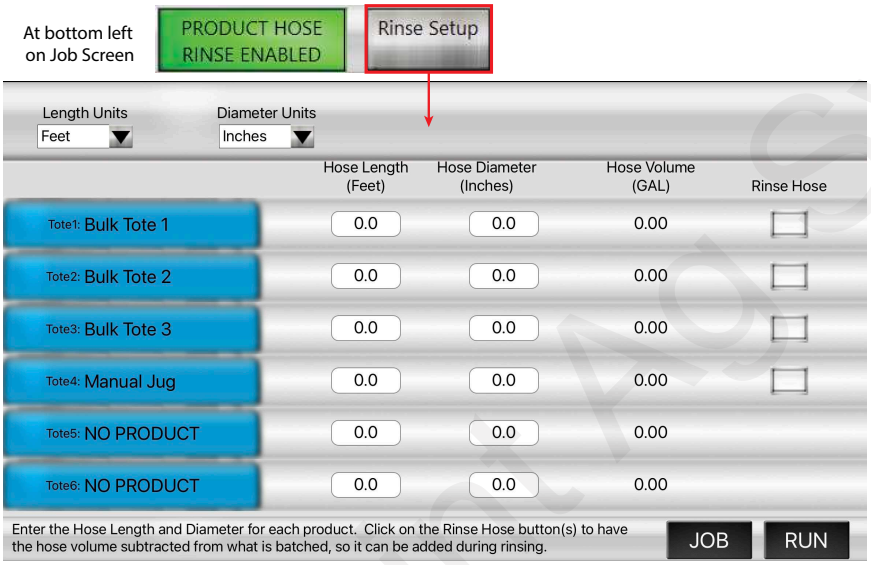
3.10. Product Hose Rinse

Rinse a product hose with the carrier, while accounting for the chemical in the hose and the carrier used for rinsing as part of the batch.

TIP

Product Hose Rinse can also be used in conjunction with the SurePoint Ag Bulk Blaster to rinse a tote and include chemical and rinse water as part of the batch.

Figure 26. Product Hose Rinse Setup



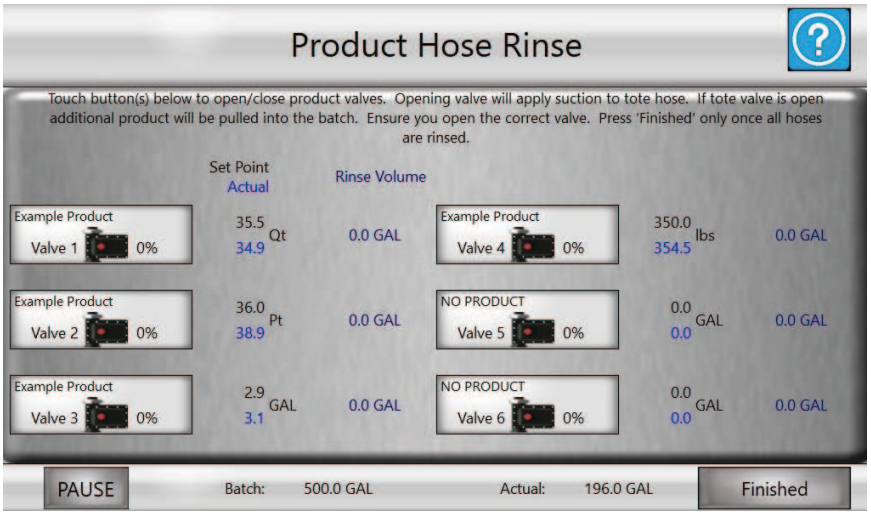
If you don't want to use the product hose rinse function, ensure the "Product hose rinse disabled" button is displayed, or click on the green "Product hose rinse enabled" button.

- Select length and diameter units you choose to use.
- Enter the hose length and diameter for each product, measured from the QuickDraw valve stack to the product valve.
- Check the Rinse Hose box to have the hose volume subtracted from what is batched so it can be added during rinsing.
- The hose volume will be automatically calculated and displayed.
- When finished setup, return to the Job or Run screen.

Figure 27. Product Hose Rinse Video

SCAN ME

Figure 28. Product Hose Rinse



After all products have been added, this screen will appear.

Once all valves have been correctly positioned, press on the desired valve on the screen to open the valve and rinse the hose. The valve icon will change from black to green when opened. Press on the valve again to close it once the hose has been rinsed. Press Finished when all hoses have been rinsed. The QuickDraw will advance to top off the remaining carrier.

When Product Hose Rinse is enabled for a selected product, the batch will run as a normal. When the batch reaches the Product that has Rinse Hose selected it will stop pulling product into the batch when it reaches the total amount needed minus the amount of product that's in the hose. Example: A batch uses 5 gallons of product. The product hose is 1 ½" in diameter and 11' long. 1 ½" x 11' = 1 gallon. When product hose rinse is select the batch will run like normal when it gets to this product that has Rinse Hose selected it will pull in 4 gallons of product rinse like normal, then proceed to the next product. Once all products have been pulled into the batch the Rinse Hose Screen will appear

NOTE
Once Finished has been pressed, you cannot return to the product hose rinse screen.

Full Hose Rinse

1. Close the valve on the tote/shuttle
2. Press the valve button that corresponds to the correct product. This will begin sucking product/carrier into the batch. If a hose volume was entered on the Rinse Setup screen, the Product Actual amount will count up until it reaches the set point, after which, all measured liquid will be allocated to the Product Volume.
3. Detach the hose from the chemical tote and attach it to the Product Hose Rinse port on the side of the QuickDraw. Leave the other end of the hose attached to the QuickDraw valve stack.
4. Open the Product Hose Rinse port valve and all valves on the product hose.
5. Once you have reached the desired Rinse Volume, press the valve button again to close the valve. Then close the Products Hose Rinse port valve. (Repeat for each hose you want to rinse.)

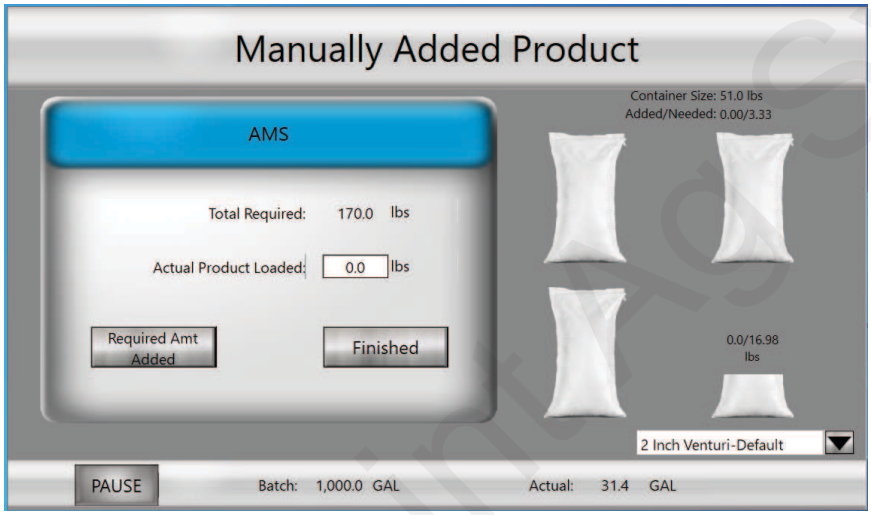
3.11. Set up Manual Product

3.11.1. Manual Products

Manual Products are products in a batch that are not added through one of the automatic valves. These products are added through the optional Swing Down eductor, the sprayer's eductor, a ChemCaddy, or are added directly to the sprayer tank. Manual products (up to 5) are included in the recipe and appear in the historical batch record. Manual products may be dry or powder products, or they may be liquid products that do not come in bulk containers or that will have less than 0.5 gallons (1.0 gal on Pump Suction model) in a batch. (Liquid products that are in a tote connected to one of the valves, but which are scheduled to have less than 1 gallon in a batch, may be run through the automatic product part of the recipe, but it is recommended they be added as a manual product.) As the recipe is created, the order of the manual product(s) is entered. The manual product(s) can be set up to load in whatever order the operator desires.

3.11.2. Adding Manual Products

Figure 29. Manually Add Product Screen

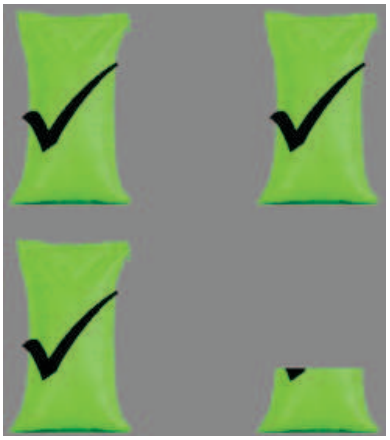


This screen will appear when a batch is running and manual products are needed.

Add the amount of product called for in the recipe, or the Total required. Press on each bag or jug as you add it and it will turn green to keep track of what's added and what is still needed, then press "Required Amt Added". If the amount added is different than total required, enter that amount. Once all product is added, press finished.

IMPORTANT

Pressing Finished without entering any amount of manual product added will not add the manual products to the Batch Volume or Batch History. No product will be documented.



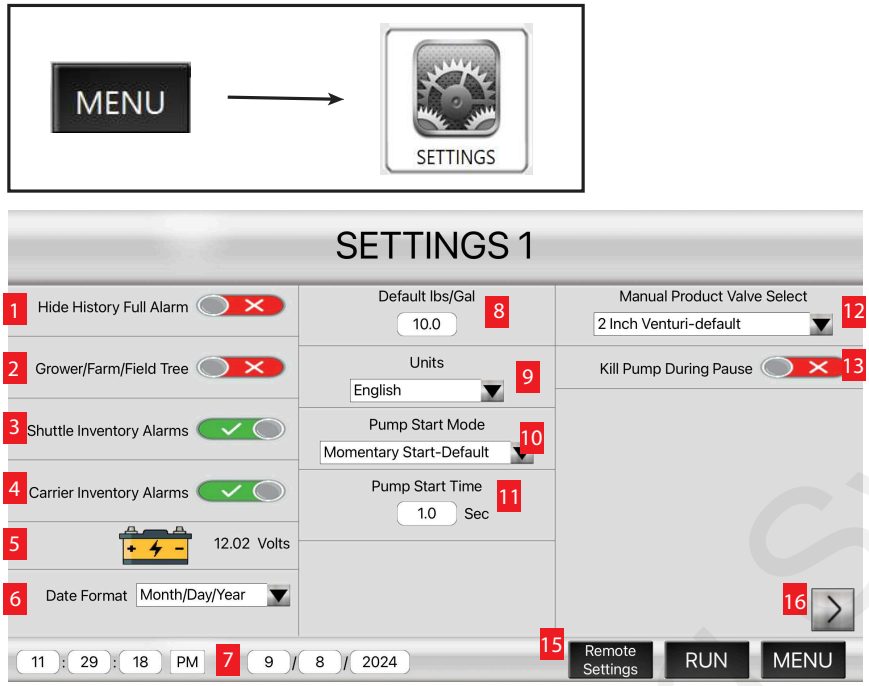
White jugs or bags indicate units still required, green with check mark indicate the product has been added.

TIP

If there is going to be a substantial delay in adding the manual product, press "Pause" on the Manually Added Product screen to stop the carrier flow until the manual product can be added. Once added, resume the batch.

3.12. System Settings

Figure 30. System Settings Screen 1



1. Hide History Full Alarm - If ENABLED, the system will overwrite old history records without warning when the history is full. The History will hold 100 batches. Batch number 101 will overwrite batch number 1.
2. Grower/Farm/Field Tree - If ENABLED, the user will only see Farms associated with the current Grower, and Fields associated with the current Farm when selecting Farms and Fields. If DISABLED, the user will be able to see all the Farms and Fields while selecting.
3. Shuttle Inventory Alarms - If ENABLED, the screen will show a warning when a batch is set up if the inventory of that product or carrier is below what is needed for that batch. For this to work, the inventory of the product tote or carrier tank must be updated each time a new tote is connected, or a tank is refilled. If DISABLED, there will be no warning before a batch starts, but flow alarms will activate, and the system will pause the batch if the tote or tank runs empty and flow is not detected.
4. Carrier Inventory Alarms - when enabled, will prompt an alarm when minimum inventory is reached.
5. Battery Voltage - Shows the voltage reaching the controller from the battery (VDC).

> **NOTE**
> For optimum performance, it is recommended to operate with a minimum Battery Voltage of 12.4 V.

6. Date Format - Select format from pull-down menu.
7. Time/Date Set - This is the time / date that will be recorded in the batch history for each batch. Click on each box in the Time and each box in the Date to set.
8. Default lbs/gal - This is used to convert dry products into an equivalent liquid volume.
9. Units - Select English or Metric.
10. Pump Start Mode - When set as Momentary Start, the pump-start output is on for Pump Start Time when the batch is started. When set to Maintained Start, the pump start output is on as long as the batch is active. Maintained is the correct choice for hydraulic pumps and probably

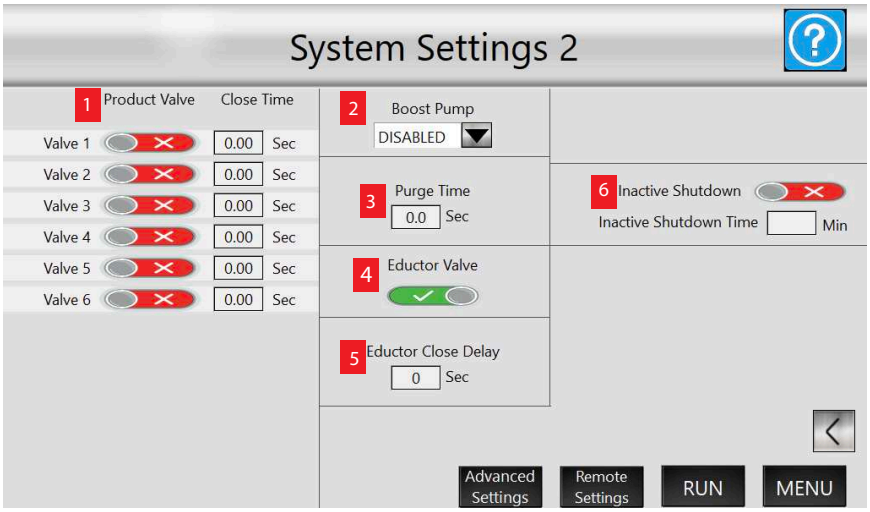
the best choice for electric, but it depends on the user's motor control center. If the motor has a start-stop push-button setup, Momentary may need to be the setting.

NOTE

Note: For gas engines most users are able to use Momentary Start and a Pump Start time of 1.0 Second. Entering a number larger than needed may cause the starter to continue to try and start while the engine is running and may cause damage to the starter or flywheel. For Electric Motors most users utilize maintained start. In this scenario the relay in the QuickDraw Harness opens and allows the customer supplied power to flow through to the motor.

11. Pump Start Time - Desired duration the QuickDraw will trigger the pump starter. Default is 1.0 second.
12. Manual Product Valve Select - This determines which valves are open and closed when adding Manual Products to batch. Default and typical setting is 2 Inch Venturi for a Venturi system. To set the QuickDraw in bypass mode, select 3 Inch Valve.
13. Kill Pump During Pause - Default is Disabled (Red X). Change to Enabled (Green checkmark) if you want to kill the pump anytime the Batch is Paused.
14. Carrier Valve Control - Only shows when system is set for more than 1 carrier. Default is Blending. Select Manual if you want more than one Carrier Valve to open when a Batch begins.
15. Remote Settings - Navigates to Remote Settings screen.
16. System Settings 2 - Arrow takes you to the next page of System Settings.

Figure 31. System Settings Screen 2



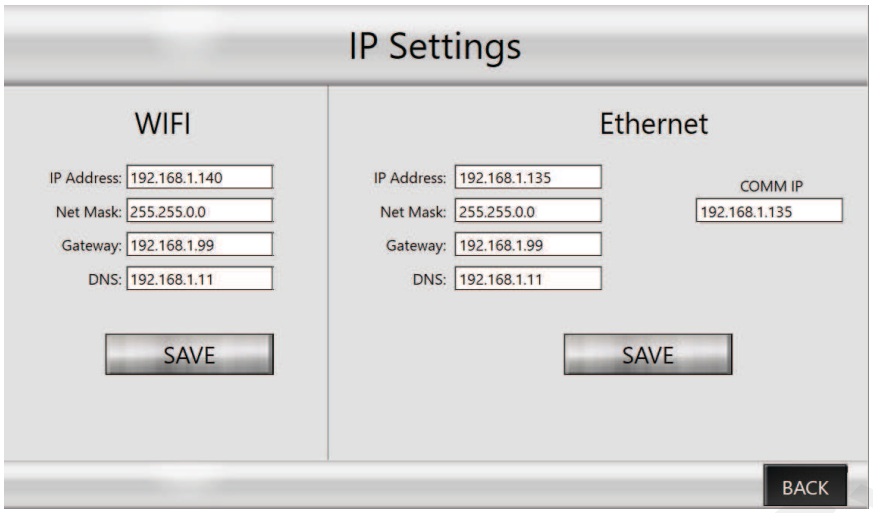
1. Product Valve & Close Time - Select DISABLED to disable that valve and to prevent it from opening even if a recipe calls for that valve. This may be needed to allow a batch to run even if one of the valves is not operating. Close time is the duration of time before the Target amount is reached that the valve will start to close, and is used to fine tune product valves to better hit target. The default value for a 1" valve is 1.5 seconds. The default for a 1 1/2" valve is 3.2 seconds.

> **TIP**
> If batch is overshooting the target, increase the valve close time. If batch is undershooting the target, decrease valve close time.

2. Boost Pump - This selects the product during which you would like the optional Boost Pump to be active. Extra harnessing is needed for this option. Typically, will be DISABLED, unless using the Boost Pump option.
3. Purge Time - Sets the duration of the Hose Purge cycle at the end of a batch. If Purge is not installed, this should be 0.0.
4. Eductor Valve - Enable if your QuickDraw is connected to an Eductor, and set the close delay in seconds.
5. Eductor Close Delay - Eductor valve close time in seconds
6. Inactive Shutdown - If ENABLED, the controller will shut down if it is inactive for the duration set in minutes.

3.12.1. IP Settings

Figure 32. IP Settings Screen

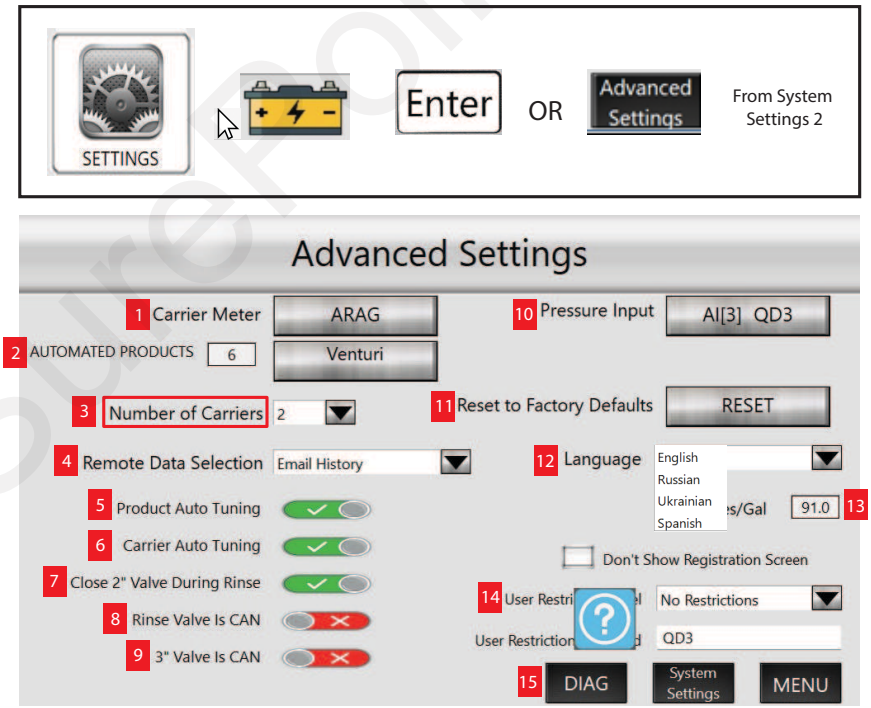


These are accessed through the Advanced Settings screen.

CAUTION
Do not change these settings without consulting with a SurePoint Ag technician

3.12.2. Advanced Settings

Figure 33. Advanced Settings Screen

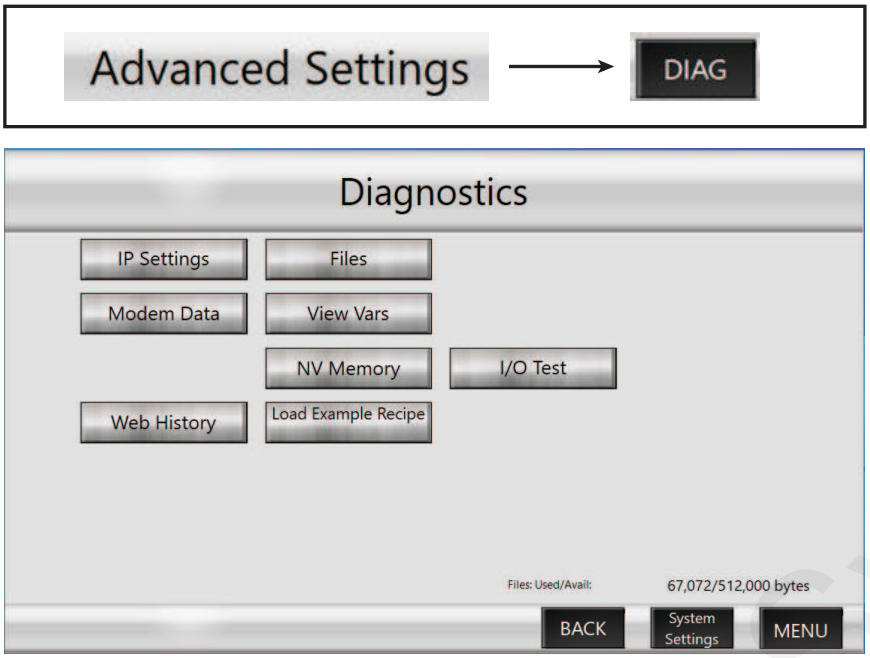


These settings rarely require access or modifications

CAUTION
Do not change these without consulting with a SurePoint Ag Technician.

1. Carrier Meter - Press to toggle between Arag, Seametrics, or Polmac . (default is Arag) Default Cal numbers: Arag = 91, Seametrics = 13.7, Polmac (turbine) = 79.5.
2. Automated Products - Can be 4, 6, or 9 depending on the model of your QuickDraw.
3. Number of Carriers - Select between 1 and 4 carriers.
4. Remote Data Selection - Default is email history.
5. Product Auto Tuning - Typical is Green. This will enable the QD to automatically tune the closing time on the product valve if it consistently overshoots or undershoots the desired amount. If the measured amount of product over or under applies 3 times consecutively the QuickDraw 3000 Controller will adjust valve timing to improve accuracy of product being mixed into batch.
6. Carrier Auto Tuning
7. Close 2" Valve During Rinse - Typically Red. Is only set to green if a more ample rinse of Venturi is required.
8. Rinse Valve is CAN
9. 3" Valve is CAN - not standard use and should default to red.
10. Pressure Input - Press to toggle from QD3 to QD2 if using this controller on an older Quick-Draw 2 Model.
11. Reset to Factory Defaults - Press reset to restore all settings to factory status.
12. Language - Select desired Language. Currently supported: English, Russian, Ukranian, Spanish, or French (CAN)
13. Pulses/Gal - Default is 91 for the Arag carrier flow meter. The default for the Seametrics flowmeter is 13.7. Polmac default flow cal is 79.5. The number here will be the default setting if no carrier is selected. To change the flow cal for a specific carrier, go to that carrier and edit the Pulses/Gal. Changing the number here will not change a carrier that has already been set up.
14. User Restriction - Controls access to recipe settings
    - No Restrictions - User has full access to change all aspects of recipe
    - Mild - User is restricted to changes that can be made on the job screen, but does not allow access to product and load orders.
    - Medium - Same as mild but restricts modifying product rates.
    - Full - User is only allowed to change selected recipe.
15. Diag - Press to navigate to the Diagnostics screen.

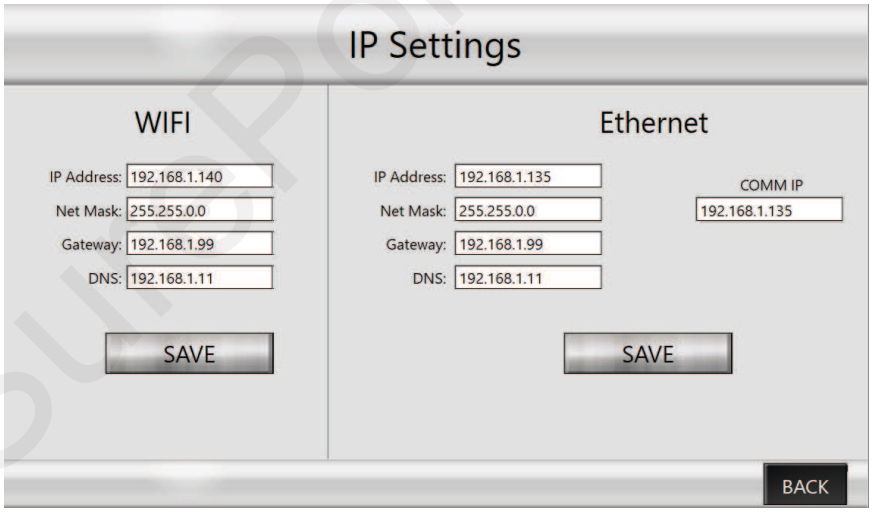
Figure 34. Diagnostics Screen



From advanced settings page, press Diag button.

> ***CAUTION***
> *Do NOT modify any settings unless instructed to do so from SurePoint Ag Technical Support.*

Figure 35. IP Settings

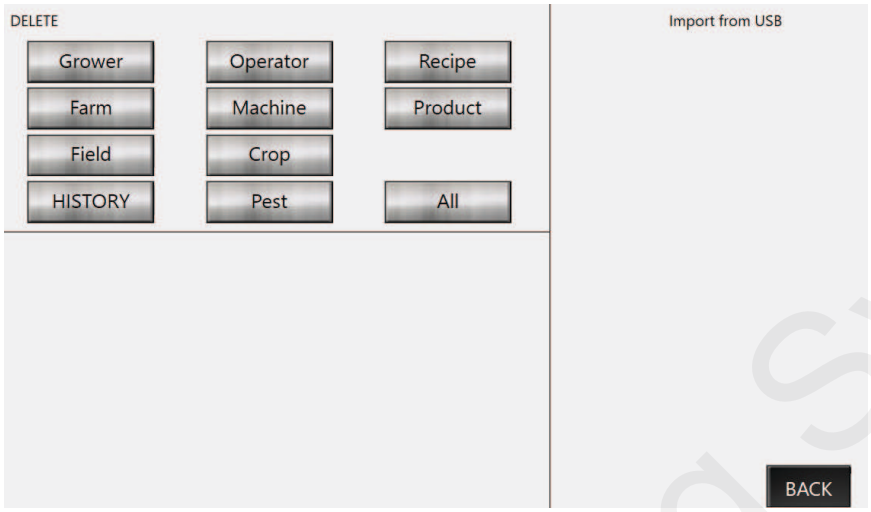


From Diagnostic screen click IP Settings button

CAUTION

Do NOT modify any settings unless instructed to do so from SurePoint Ag Technical Support.

Figure 36. Files



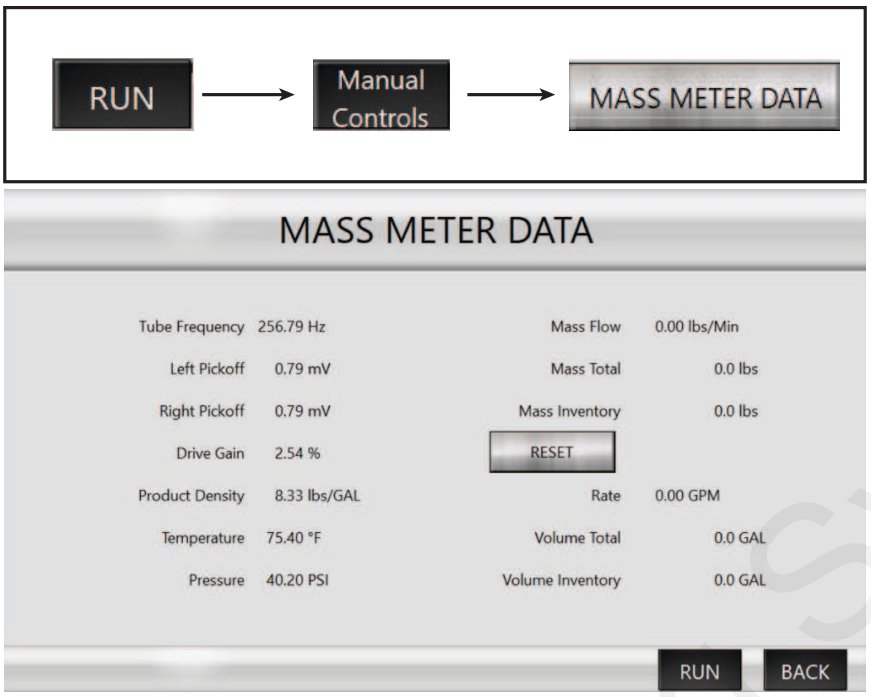
From Diagnostic screen click Files button

CAUTION

Do NOT modify any settings unless instructed to do so from SurePoint Ag Technical Support. These buttons will delete all entries in each field.

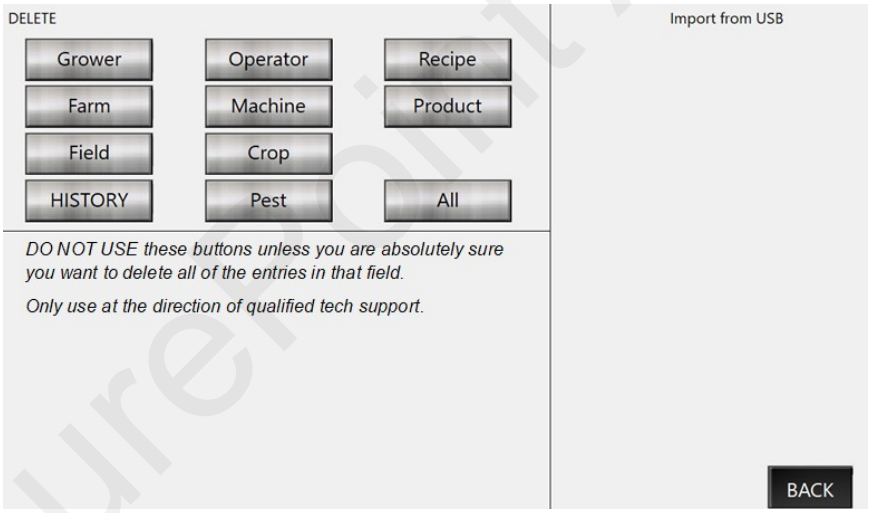
3.12.3. Mass Meter Data

Figure 37. Mass Meter Data Screen



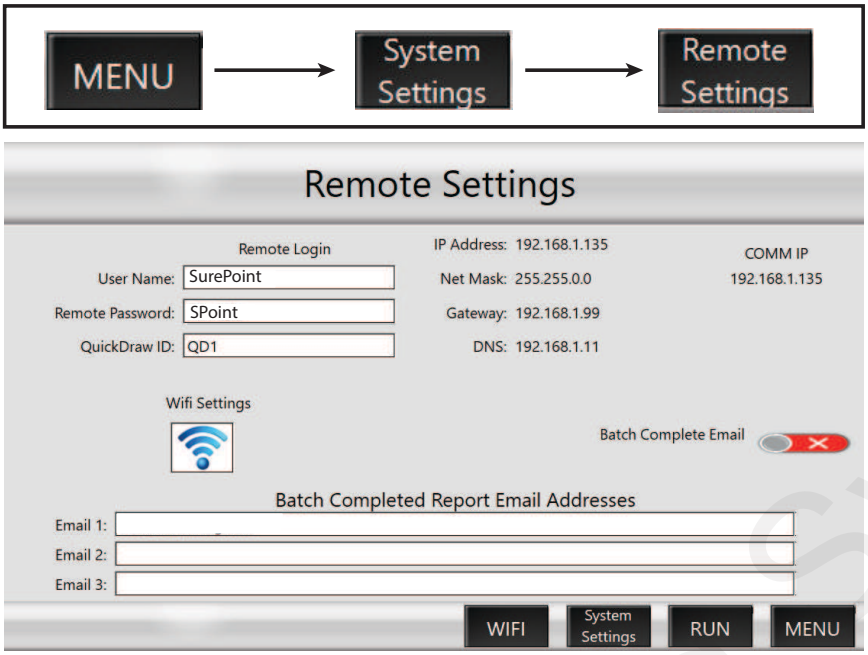
This information will not normally be used. SurePoint Support may use it to evaluate the operation of the mass meter for troubleshooting purposes.

3.12.4. Files



3.13. Remote Communications Setup

Figure 38. Remote Settings Screen



Wi-fi Connection: This is used to determine whether the QuickDraw will connect to an existing Wi-fi network or create its own network that can be connected to. When set to “Create QuickDraw Wi-fi” the QuickDraw controller will create a Wi-fi network that can be connected to by other devices. When set to “Connect to External Wi-fi” the QuickDraw controller will attempt to connect to an existing Wi-fi network. See “QuickDraw Wi-fi” and “Remote Wi-fi” for network login settings.

QuickDraw Wi-fi: When “Wi-fi Connection” is set to “Create QuickDraw Wi-fi” the SSID will be the name of the network the QuickDraw controller creates, and the Password will be the Network Security Key for that Wi-Fi network.

Remote Wi-fi: When “Wi-fi Connection” is set to “Connect to External Wi-fi” the SSID will be the name of the network the QuickDraw controller will try to connect to, and Password is the Network Security Key for that network. To select the network to which you want to connect, click “Scan for Wi-fi”. This will create a list of all available networks at which point you can choose the correct one by clicking it.

Scan for Wi-fi: Clicking “Scan for Wi-fi” will display all available Wi-fi networks and associated signal strength. Clicking on an available network will set that network to the network the QuickDraw attempts to connect to when “Wi-fi Connection” is set to “Connect to External Wi-fi”.

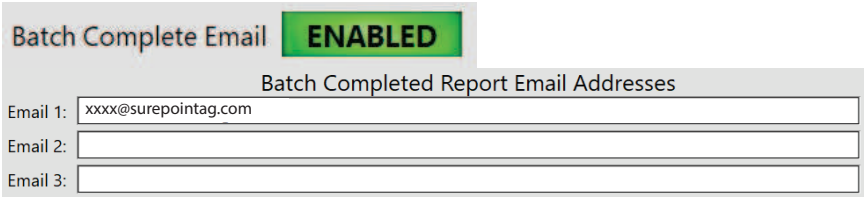
Reset IP Address: When “Wi-fi Connection” is set to “Connect to External Wi-fi” the “Reset IP Settings” button will be visible. Clicking this will force the QuickDraw to reconnect to the network and find a new IP address. This is sometimes necessary when connecting to a new network.

3.14. Remote Connectivity Package (Optional)

An optional Remote Connectivity Package is available for the QuickDraw 3000. This includes a modem with antenna to allow the QuickDraw to communicate via the internet. This option requires the purchase of a renewable subscription plan.

With the Remote Connectivity Package a batch report email can be sent at the completion of each batch. Other cloud connectivity features are also in development for future release.

Figure 39. Batch Email



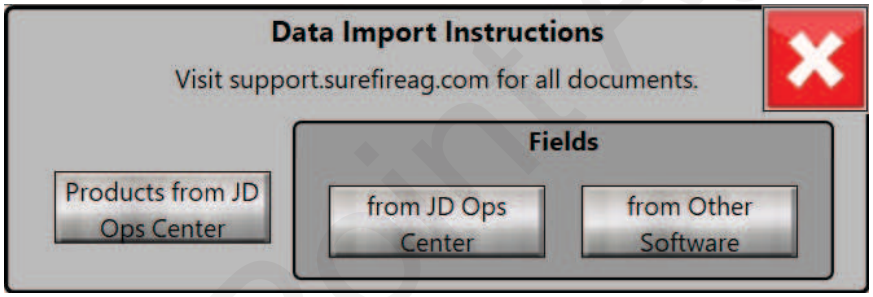
If enabled, batch history will send to the email addresses populated.

3.15. Field and Weather Settings

Figure 40. Field and Weather Settings

This information is not required, but will become a part of the batch and historical record if populated.

Figure 41. Import Data



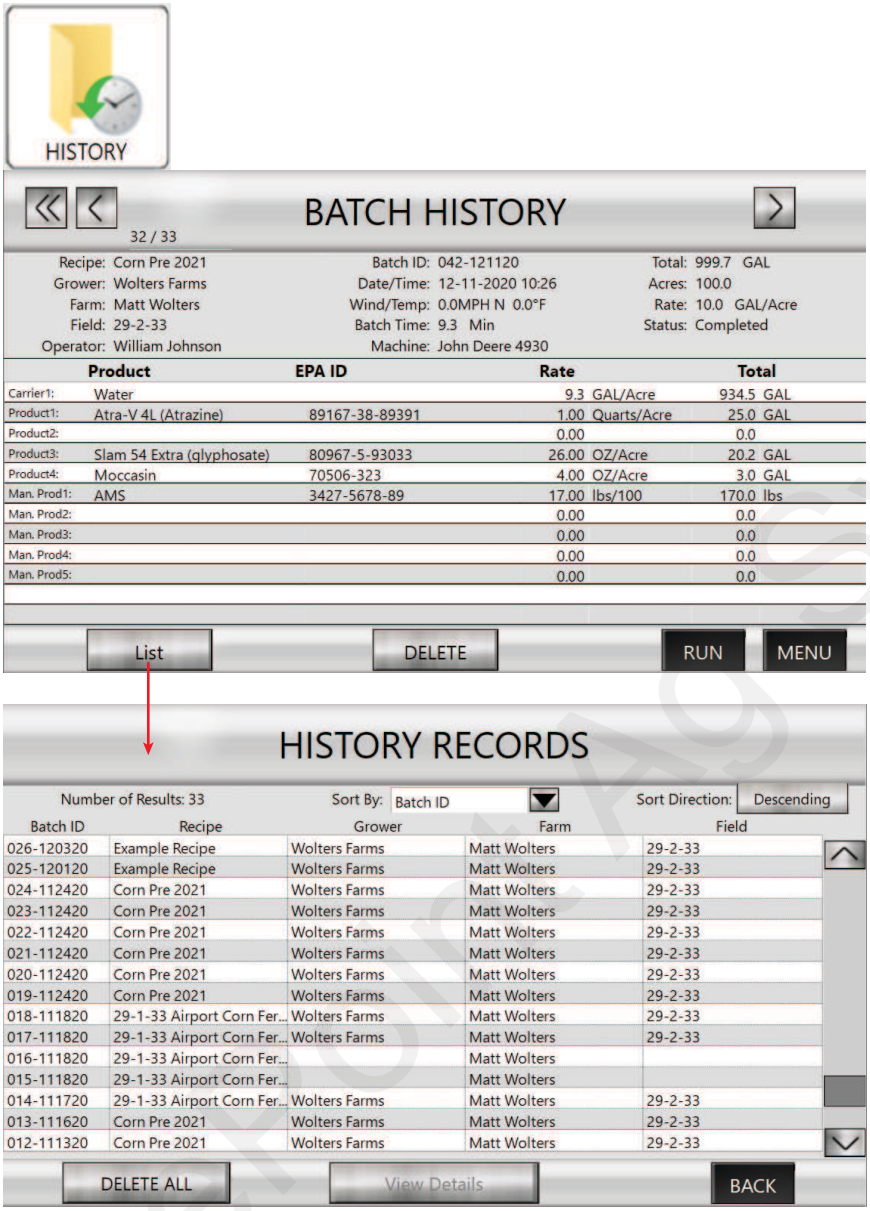
If you want to import fields from John Deere Operations Center or from other software, press on this button and follow the instructions to export the data from Operations Center or other software to a USB Drive, and then import it to the QuickDraw.

Figure 42. Grower/Farm/Field Tree

If ENABLED, the user will only see Farms associated with the current Grower, and Fields associated with the current Farm when selecting Farms and Fields. If DISABLED, the user will be able to see all the Farms and Fields while selecting.

3.16. History

Figure 43. History Screen



All history records are available to view or delete from the QuickDraw controller.

3.16.1. History—Emailed Batch .csv File from QD 3000

When the QuickDraw is set up for remote connectivity, if “Batch Complete Email” is Enabled on the Remote Settings Screen, the following report will be emailed after each batch to the email(s) entered.

Batched Data		2020-02-10 14:00,
QuickDraw Identifier		QD1234
Mix Name		Example Recipe
Batch ID		027-02/10/20
Client		MAW
Farm		Rawlins
Field		W80
State		CO
County		Rawlins
Batch Status		Completed
Wind/Temperature		SW 4.0 MPH, 66.0 deg F
Total Area		10.0 Acres
Total Batched		99.8 GAL
	Total Carrier	92.9 GAL
Carrier Name		Water
	Rate	3.3 GAL/Acres
	Total	35.8 GAL
Carrier Name		Fert 1
	Rate	1.9 GAL/Acres
	Total	19.1 GAL
Carrier Name		Fert 2
	Rate	1.9 GAL/Acres
	Total	19.0 GAL
Carrier Name		Fert 3
	Rate	1.9 GAL/Acres
	Total	19.0 GAL
Product Name		Arrow
	Rate	2.00 Pints/Acre
	Total	2.5 GAL
Product Name		Bravo
	Rate	32.00 OZ/Acre
	Total	2.5 GAL
Product Name		Champion
	Rate	24.00 OZ/Acre
	Total	1.9 GAL

NOTE
This feature requires a SurePoint wireless modem to be activated.

3.17. Software Update

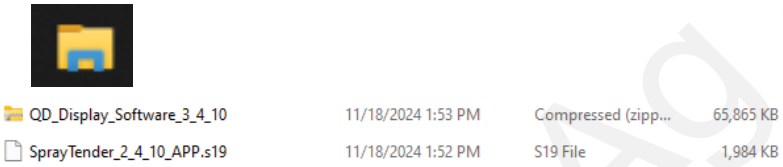
Go to the SurePoint Support website SurePoint Ag Support Home support.surepointag.com

Go to Home/Categories/Spray Tender Products/QuickDraw 3000 Max/QuickDraw 3000 Max (10/2019-Present)

Figure 44. Software Download from SPA Support Site

On the right-hand side of the screen there are links to download different documents. One of the sections is titled "Software Update", under which will be "QuickDraw 3000 Display Controller Firmware V....." and "QuickDraw 3000 Display Software Update V .....".Click on both links to download the software to your computer.

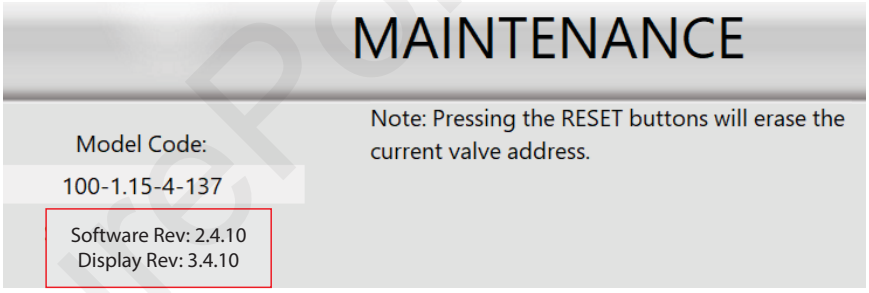
Figure 45. Downloaded Files to PC



Files should look similar to these.

Open the File Explorer on your computer and go to Downloads. Copy the 2 files that you downloaded from the Support Site and paste them into your USB drive.

Figure 46. Maintenance Screen on QD Controller



Navigate to this screen MENU>MAINTENANCE

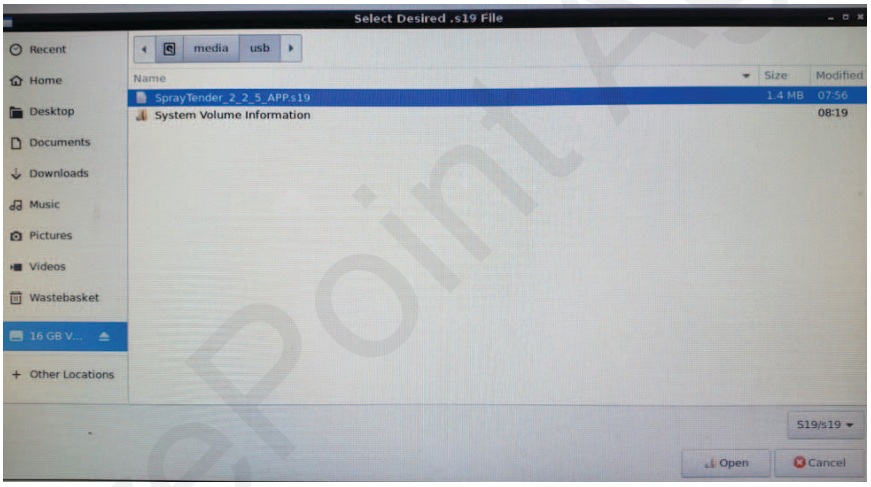
If the Display Rev is less than 1.8, the Display_Software_x_x.zip file on the USB will need renamed. Change the name to Display_Software.zip

Eject the USB from your computer and insert it into the QD3000 controller. Then go to the MENU screen on the QD3000 controller. This will bring up the following screen:

Figure 47.

Click on the INSTALL button to update the display software. Select the file with the Display software. The install will take several seconds during which time the display will turn off and then back on. Once the display software has been updated, the QD3000 controller will return to the RUN screen. Go back to the MENU screen and wait for the Software Update screen to be displayed. Click on the UPDATE button. The following screen will then be displayed:

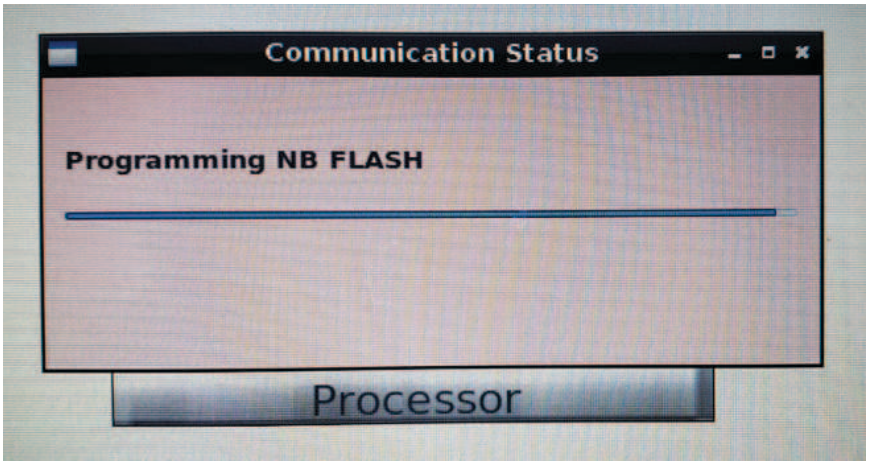
Figure 48.



The file ending in ".s19" should be highlighted in blue, as shown above. If it is not, press on it so it is highlighted. Then press Open in the bottom right-hand corner of the screen.

After several seconds, the following box will appear, indicating that the software is downloading:

Figure 49.



One the software has been successfully downloaded, the box shown above will display: "All Done -- Rebooting".

Then press OK and exit out of all the screens until you get to the MENU screen.

Finally, remove the USB drive from the QD3000 controller.

Figure 50. Installing Software Updates

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4. QD3000 iPad App

4.1. QuickDraw 3000 App

Figure 51. QD 3000 App

On the iPad, go to the App Store and download the SurePoint QuickDraw 3000 app.

Figure 52. Connecting to iPad App

SCAN ME

4.2. iPad App (QuickDraw 3000 App)

The iPad app is not necessary to operate the QuickDraw 3000 in the field, but it does provide many convenient features, and the QuickDraw 3000 is intended to be used with an iPad. The QD 3000 app is NOT the same as the original QD app. The new QD 3000 iPad must be downloaded and used

With the iPad app, new recipes can be created, existing recipes can be edited, and products can be entered and set up. Grower, farm, field, operator, and other information can be entered and set up on the iPad without being near the QuickDraw. Setup can be done at home or in the office on the iPad and then transferred to the QuickDraw when connected with the Wi-fi connection.

Historical records of batches and all other files from the QuickDraw controller will be transferred to the iPad when they are connected.

The iPad app can be used to START a batch and to report the progress of Manually Added Products during a batch. The user can monitor the progress of the batch from the iPad and does not have to stay by the controller.

The QD3000 iPad App, for the most part, has the same screens and navigation features as the QuickDraw controller. The iPad can be used in the OFFLINE mode (at home or in the office) to train a new user in navigating and setting up the system.

The iPad Menu screen has the all the same buttons as the QuickDraw controller, plus an additional Data Management button. These will be shown in the coming pages.

4.3. Using an iPad on more than one QuickDraw

A single iPad can be used to control/update multiple QuickDraw's. Information/recipes that are added to the iPad while OFFLINE may be directed in whole or in part to individual controllers or to all controllers (See DATA MANAGEMENT > SEND > SEND & DELETE > DATA).

The iPad will store historical data from every controller it has ever connected to. When the iPad is OFFLINE, all historic data from every controller will be displayed. This data can be filtered as usual (explained later) and also by QuickDraw ID.

When the iPad is connected to a controller, it will only show data that is on that controller. Historical records from other controllers will not be visible. Also, any items that were created offline and that have not been sent to the controller will not be visible or selectable. (See Data Management later)

4.4. iPad Quick Start

The QD3000 iPad app is not the same as the original QuickDraw iPad app. QD3000 app must be downloaded.

IMPORTANT
If using one iPad for more than one QuickDraw, the DATA transfer may be done differently.

On the iPad app (OFFLINE - indicated by Red X at the top of the screen)

MENU > DATA MANAGEMENT > Add Grower/Farm/Field (optional)

DATA MANAGEMENT > Add Carrier and Product(s)

DATA MANAGEMENT >Add Recipe(s). SAVE when recipe is complete.

Repeat for additional Grower/Farm/Field information, additional Products, and additional Recipes.

Steps to Connect iPad to QuickDraw

1. Turn on the QuickDraw controller and open the QD3000 App on the iPad.
2. On each device go to SETTINGS > REMOTE SETTINGS.
3. On each device enter the USER NAME, Remote PASSWORD, and QuickDraw ID.

   NOTE
   At least one of these must be changed from the default settings (typically will change the QuickDraw ID).
4. On the controller, press WI-FI SETTINGS or WI-FI. Note or set up SSID (QuickDraw) and Password (SurePoint).
5. Note the IP Address on the Controller WI-FI page. WI-FI IP on iPad must match this.
6. Save the WI-FI Settings and reboot the controller.
7. After reboot is complete, connect the iPad to the WI-FI network assigned on the controller: (iPad > Settings > WI-FI > QuickDraw > SurePoint (password)).
8. Go to the QuickDraw app. There should be green bars at the top of the iPad App screen, indicating that the iPad and controller are connected. (If not connected, press the red X.)

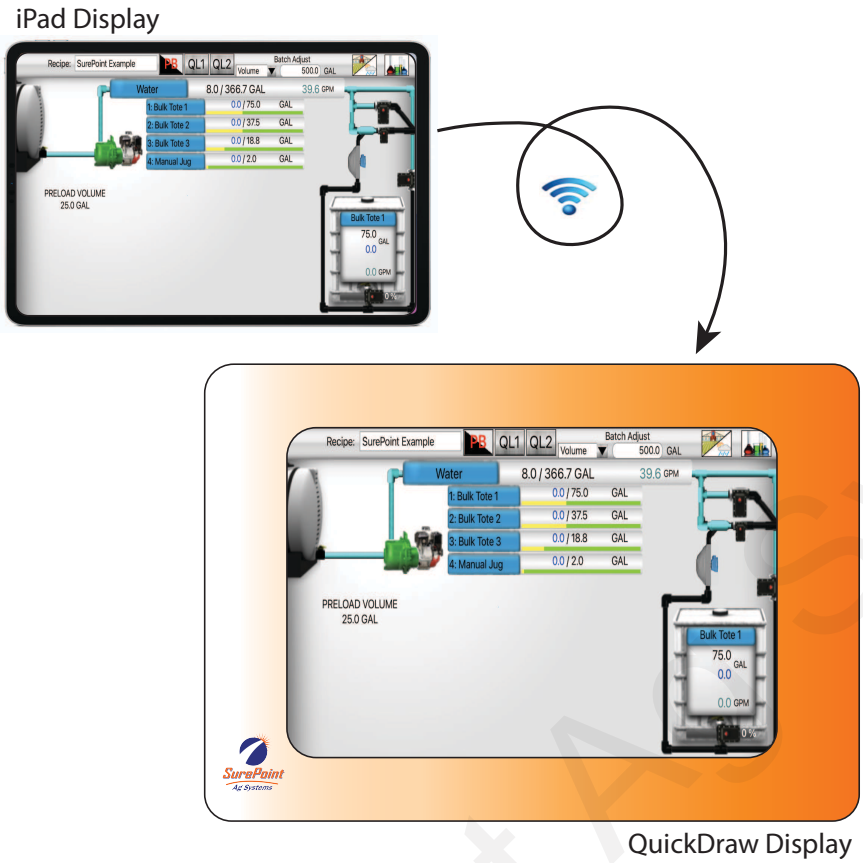
On the iPad app: MENU >DATA MANAGEMENT > SEND & DELETE.

The information and recipes you entered on the iPad are now on the QuickDraw controller.

With the iPad connected, the rest of this may be done from the iPad or from the QuickDraw.

4.5. iPad App Connection Instructions

Figure 53. Connecting iPad to QuickDraw Display

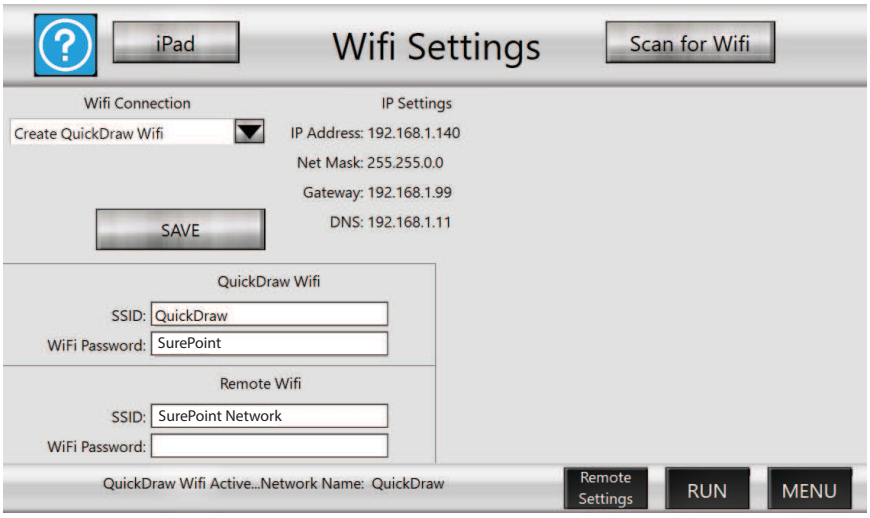


The QD3000 iPad app communicates with the QuickDraw controller via a Wi-Fi connection.

4.5.1. How to setup Wi-Fi Connection

Go to the Wi-fi Setup screen on the QD3000 controller via MENU->SETTINGS->Remote Settings->WI-FI. This will display the following screen which details the Wi-Fi settings for the QD Controller:

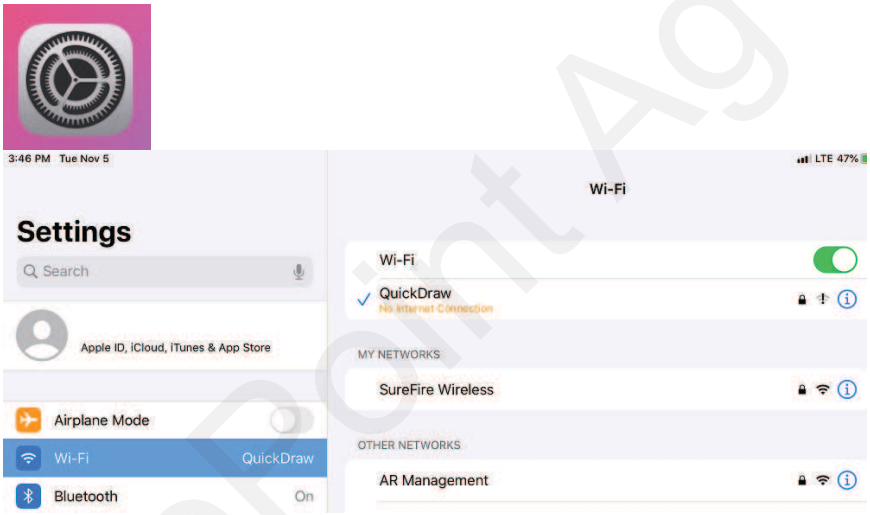
Figure 54. QuickDraw 3000 Controller Wi-Fi Settings



Wi-Fi Settings for QD3000 Controller

The iPad needs to connect to the Wi-Fi network created by the QD Controller. To do this, click the Settings button on your iPad to open the settings app, then select Wi-Fi.

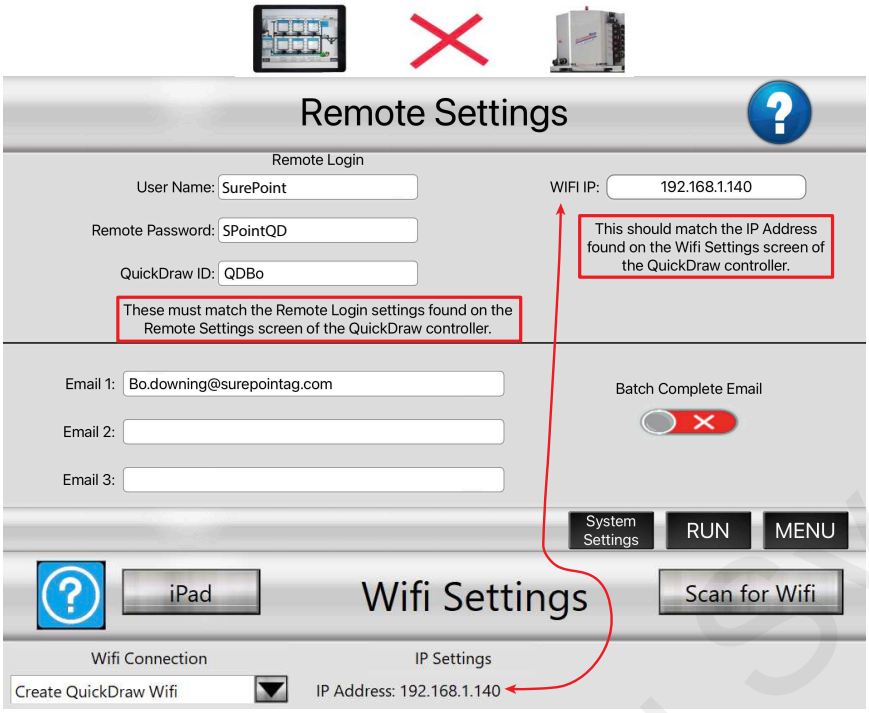
Figure 55. iPad Settings



Look for the Wi-Fi SSID that matches the QuickDraw Wi-Fi.

1. Select the Wi-Fi network that matched the SSID found on the Wi-fi Setup screen of the QD Controller. In this case, “QuickDraw”.
2. You will likely be prompted for a password to connect. Use the Passcode found below the SSID used in the previous step. In this case, “SurePoint”.
3. You should now be connected to the QD Controller’s Wi-Fi network. The iPad will likely indicate that it has “No Internet Connection” as it does in the image above. This is normal and not a problem.
4. Exit out of Settings app on your iPad.
5. Launch the QuickDraw 3000 app on your iPad.
6. From the iPad app, go to the Remote Settings screen via MENU > SETTINGS > Remote Settings.

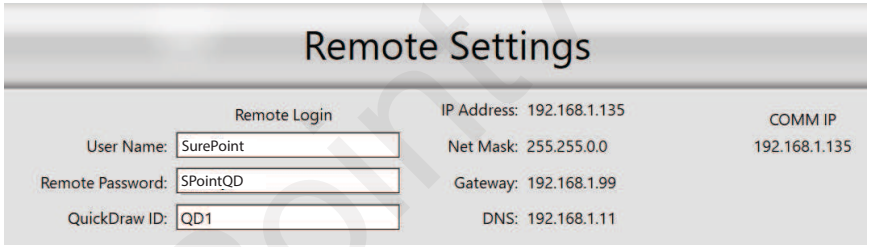
Figure 56.



The Remote Settings screen from the iPad app

7. On the QD Controller, go back to the Remote Settings screen.

Figure 57.



Remote Settings screen from QD Controller

8. The above image shows the default values for User Name, Password, and QuickDraw ID. At least one of these needs to be changed from default before attempting to connect. It usually makes the most sense to change the QuickDraw ID as this is used to identify the controller in historical records.
9. The User Name, Password, and QuickDraw ID on the QD3000 iPad app must be set to match those found on the Remote Settings screen on the QD Controller.
10. On the iPad app, click the Connection Status icon (press the red X) at the top of the screen to connect to the QD Controller. Successful connection will be indicated by two green lines. Red lines indicate the connection has not been established.

Figure 58. iPad connection status

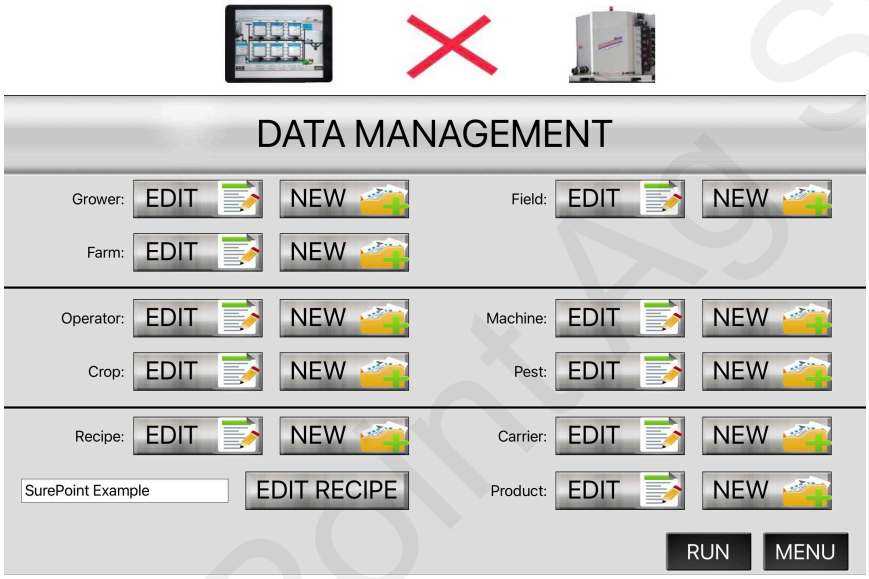
- *Green lines = Connected (to go offline, press on the green lines and they will turn red)*
- *Red lines = Connection Failed (login credentials are incorrect)*
- *Red X = iPad is Offline (press the red X when you want to connect)*

4.6. iPad App Menu and Data Management Screen

Figure 59. Data Management (from iPad)

From the menu screen, 'Data Management' is present from the iPad app only.

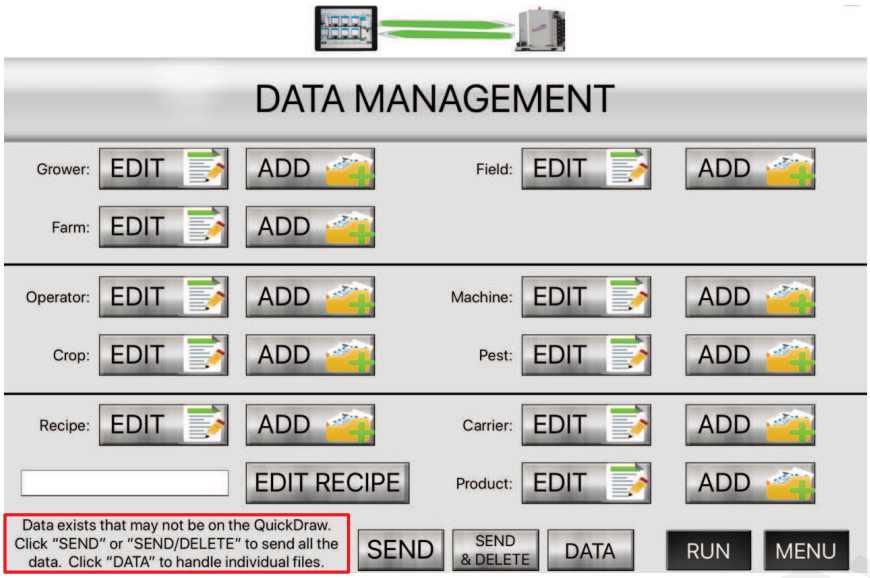
Figure 60. Data Management Offline (from iPad app)



While working OFFLINE (indicated by the Red X), on the DATA MANAGEMENT SCREEN the user can ADD or EDIT entire recipes or the carrier(s) and products that will be used. Grower, Farm, Field, Operator, Crop, Machine, and Pest can also be added or edited.

When the iPad is later connected to the QuickDraw controller, these items can be transferred, in total or in part, to the QuickDraw controller.

Figure 61. Data Management Connected (from iPad app



When information has been entered on the iPad App while the iPad is not connected to the QuickDraw controller, there will be a message at the bottom of the Data Management screen when the iPad is connected.

- Press SEND to transfer all the new data to the QD, and still leave the data on the iPad.
- Press SEND & DELETE to transfer all the data to the QD, and also permanently remove that data from the iPad. See Using an iPad on more than one QuickDraw [46]
- Press DATA to go to the next screen, where you can transfer individual parts of the new data.

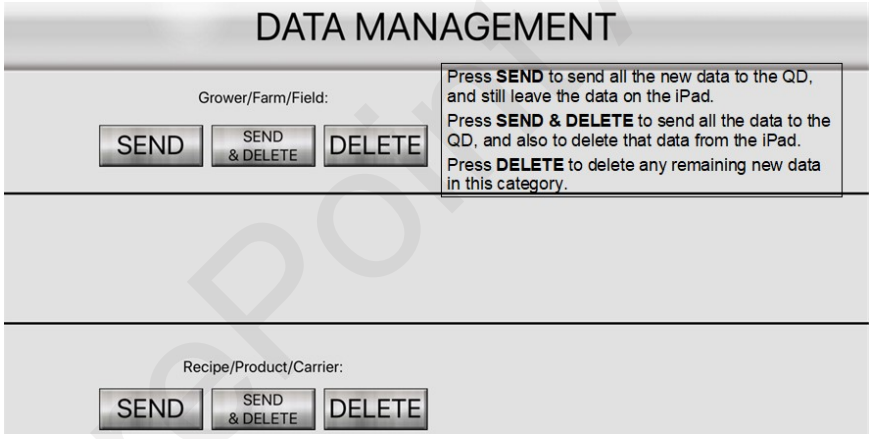


Figure 62. Creating Recipe on iPad App and Transferring

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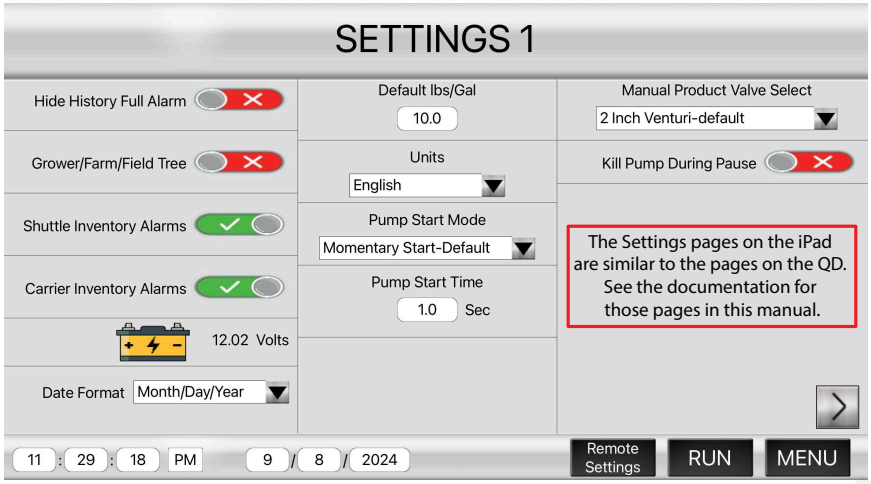
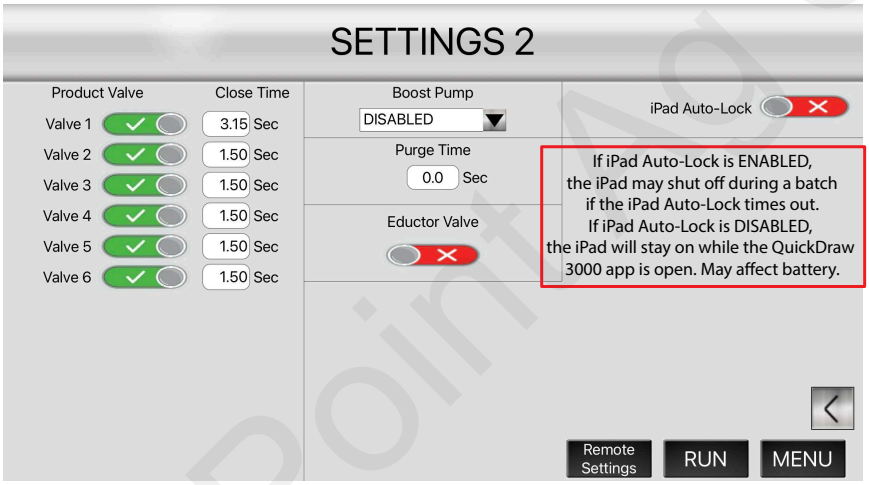
4.7. iPad Settings

Figure 63. Settings 1 (from iPad)



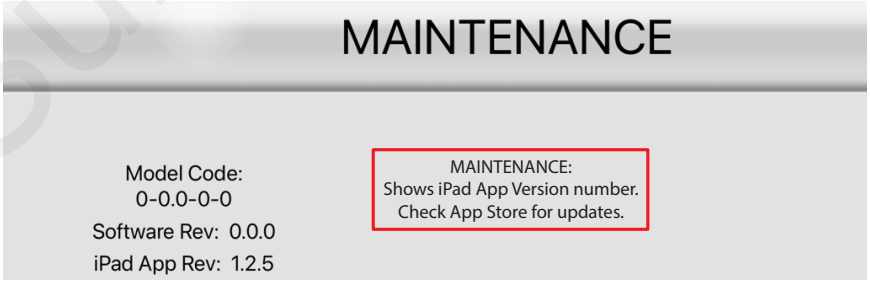
The Settings pages on the iPad are similar to the pages on the QD Controller.

Figure 64. Settings 2 (from iPad)



If iPad Auto-Lock is ENABLED, the iPad may shut off during a batch if the iPad Auto-Lock times out. If iPad Auto-Lock is DISABLED, the iPad will stay on while the QuickDraw 3000 app is open. This will affect your iPad's battery.

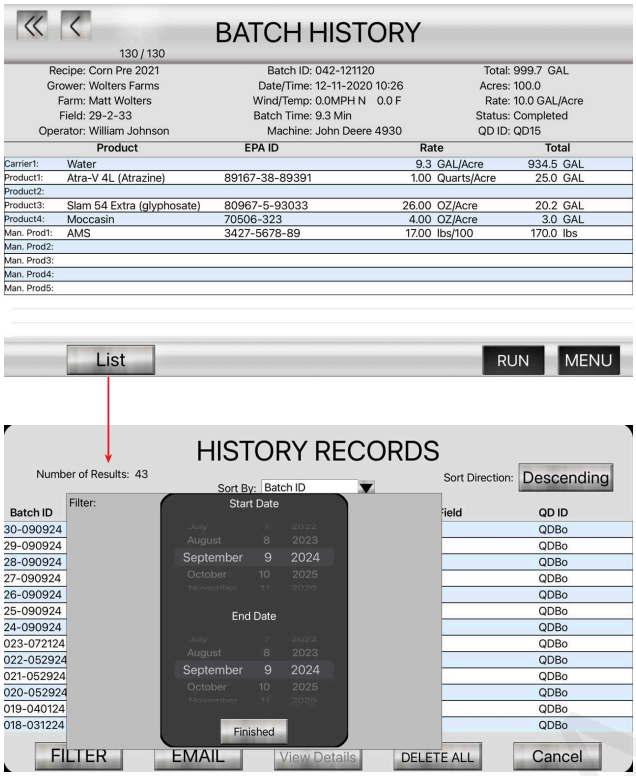
Figure 65. Maintenance Screen (from iPad)



The Maintenance screen shows the iPad App version number. Check the App Store for updates.

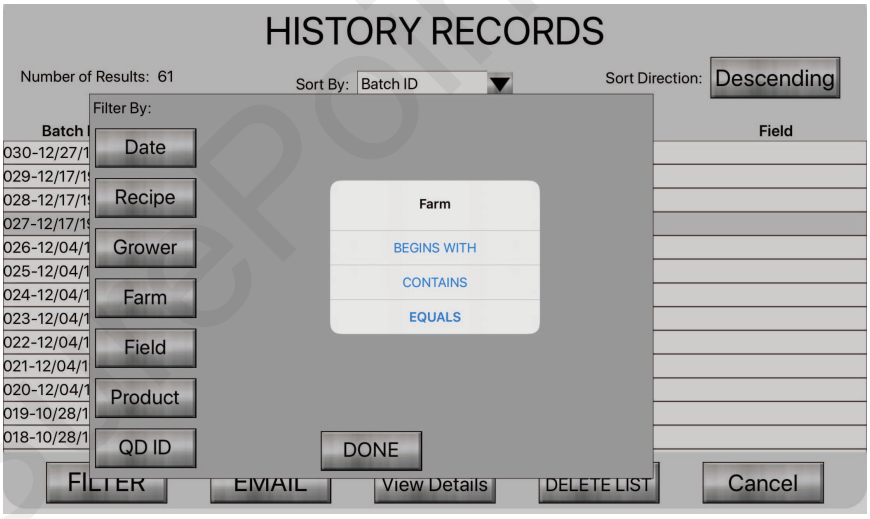
4.8. History (from iPad App)

Figure 66. History from iPad



From the iPad, History records can be filtered by Date, Recipe, Grower, Farm, Field, Product, or Quick-Draw ID.

Figure 67. Filter History



Use the filter feature to select only the records you want to view. Filter by more than one field using AND/OR.

Reports of the filtered batches may be sent as a group, with a report on each batch and final report on the cumulative totals of all products used.

4.9. iPad Filtering

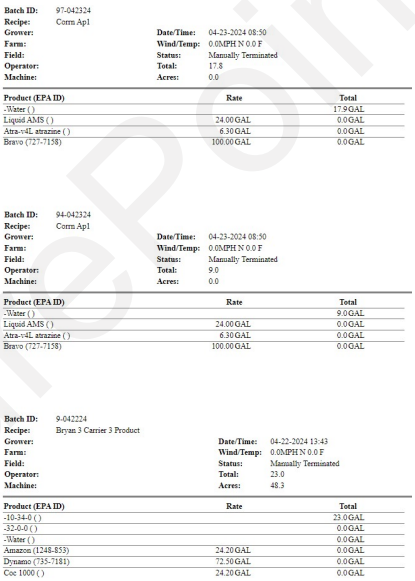
Using the iPad, you can select which setting to filter by in order to better sort your history records. Filtering options include: Date, Recipe, Grower, Farm, Field, Product, and QuickDraw ID.

Figure 68. Filtering using iPad

Filter by Date shown.

NOTE

Filtering can only be done from the QD3000 app on an iPad, not from the QD Controller.



Batch ID: 97-042324
Recipe: Corn Ap1
Grower:
Farm:
Field:
Operator:
Machine:
Date/Time: 04-23-2024 08:50
Wind/Temp: 0.0MPH N 0.0 F
Status: Manually Terminated
Total: 17.8
Acres: 0.0

Product (EPA ID)	Rate	Total
-Water ( )		17.9 GAL
Liquid AMS ( )	24.00 GAL	0.0 GAL
Atra-v4L atrazine ( )	6.30 GAL	0.0 GAL
Bravo (727-7158)	100.00 GAL	0.0 GAL

Batch ID: 94-042324
Recipe: Corn Ap1
Grower:
Farm:
Field:
Operator:
Machine:
Date/Time: 04-23-2024 08:50
Wind/Temp: 0.0MPH N 0.0 F
Status: Manually Terminated
Total: 9.0
Acres: 0.0

Product (EPA ID)	Rate	Total
-Water ( )		9.0 GAL
Liquid AMS ( )	24.00 GAL	0.0 GAL
Atra-v4L atrazine ( )	6.30 GAL	0.0 GAL
Bravo (727-7158)	100.00 GAL	0.0 GAL

Batch ID: 9-042224
Recipe: Bryan 3 Carrier 3 Product
Grower:
Farm:
Field:
Operator:
Machine:
Date/Time: 04-22-2024 13:43
Wind/Temp: 0.0MPH N 0.0 F
Status: Manually Terminated
Total: 23.0
Acres: 48.3

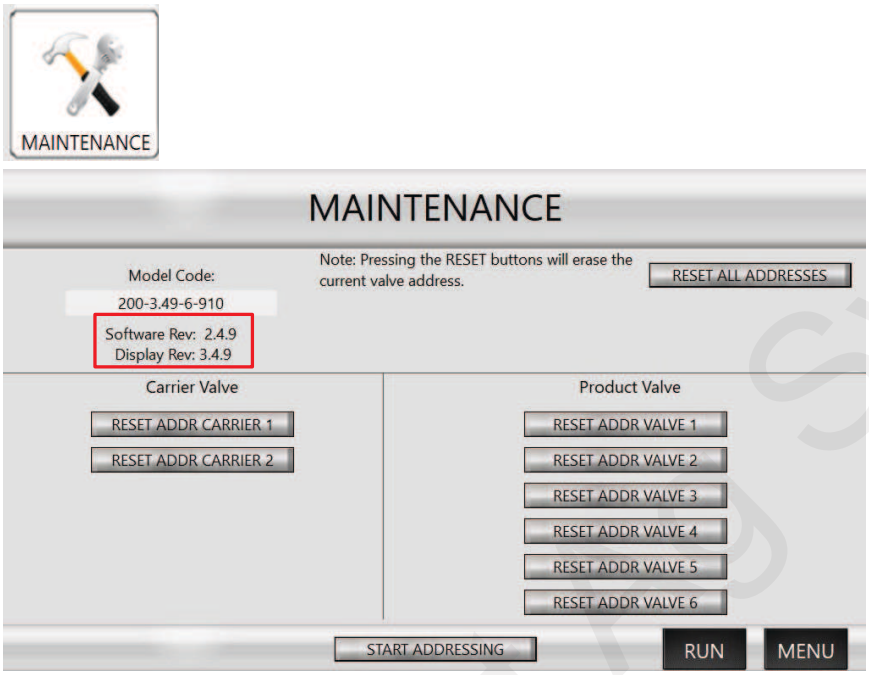
Product (EPA ID)	Rate	Total
-10-34-0 ( )		23.0 GAL
-32-0-0 ( )		0.0 GAL
-Water ( )		0.0 GAL
Amazon (1248-853)	24.20 GAL	0.0 GAL
Dynamo (735-7181)	72.50 GAL	0.0 GAL
Coc 1000 ( )	24.20 GAL	0.0 GAL

5. Maintenance

5.1. Maintenance

If a valve is replaced or moved, it is necessary to reset the valve address, so the controller knows which valve it is communicating with.

Figure 69. Maintenance Screen



Use this page to reset valve addresses and view current software revision of the QuickDraw.

NOTICE
Do not reset a valve address unless a valve has been replaced or moved.

5.2. Draining System (freeze preventative)

Drain your system when sitting overnight in frigid environments

It is important to protect the components of the QuickDraw from freeze damage when the Quick-Draw will be in an environment subject to freezing temperatures.

The QuickDraw 3000 is plumbed with a drain system that will allow the critical components to be drained if the unit will be in freezing temperatures. The drain system is a 1/4' tube with two 1/4-turn manual valves that can be opened. To provide better drainage, the electric rinse valve must be opened along with the manual product hose rinse valve, eductor supply valve, and rinse valve.

If the QuickDraw is not level, be sure that all critical components are protected from freeze damage.

For complete and/or long-term protection, run RV Anti-freeze or Sprayer Anti-freeze through the system.

1. Be sure it is safe to dispense the liquid from the 1/4" drain tube.
2. Open the two 1/4-turn drain valves (beside or behind the QD Controller).

Figure 70. Drain Valves

Located inside cabinet - bottom, right

3. On the outside of the QD cabinet, open the Product Hose Rinse Valve, Eductor Supply valve, and Rinse Valve.
4. Go to Run Screen > Manual Controls > Rinse Valve > ON
5. Be sure any other hoses, fittings, components, etc are protected from freeze damage.
6. Before using, close all the valves that were opened and be sure all hoses are secured.

Figure 71. Outlet

Be sure the outlet of the drain tube is in a place where it is safe to discharge the liquid that will be drained

5.3. Winterization Procedure

QuickDraw 3000 Winterization Procedure

The following is the Winterization Procedure for QuickDraw 3000. This winterization process is best used during early spring and late fall periods when still actively using the system to tender. Over-winter it is recommended to keep your QuickDraw inside a climate-controlled building. If this is not possible, utilize winterization procedure and then remove Control Console (User Interface) as well as the battery and keep them inside a climate-controlled building.

Recommended Materials for Winterizing:

- 5/16 socket and Ratchet
- 5-10 Gallons of RV Antifreeze
- Appropriate Personal Protection Equipment
- (Optional 12 Volt Pump)

IMPORTANT

Always wear appropriate Personal Protection Equipment (PPE). If chemical is still present, ensure that you are capturing the chemical in a safe manner.

1. Perform a Product Hose Rinse with any Product Hoses that are connected to the cabinet (Insert Product Hose Rinse QR Code)
2. Once the Product Hose Rinse Is complete, disconnect all the hoses from the cabinet. To aid in draining water from the cabinet and reduce the chance of water being trapped in the cabinet it is recommended that the hoses be disconnected as close to the cabinet as possible. (Remove any caps that may be installed on the valves)
3. Open all manual valves that are connected to the cabinet including
   a. Product Hose Rinse
   b. Eductor Supply
   c. Rinse
   d. The black and blue 1/4" Valves in the bottom right side of the cabinet
      i.

NOTE

It is recommended to open these one at a time to ensure that water is draining from the tubes. If water is not draining from the tubes it is recommended to check for a blockage to ensure that the water is allowed to drain.

4. Open blue valve to ensure water is flowing from drain tube. When fluid is done draining open the black valve and ensure that the water is flowing.
5. Open all of the electronic valves in QuickDraw 3000 Max cabinet by going to the Manual Controls screen and clicking on the valves that your cabinet has and toggle them to green including
   a. All product valves
   b. 2 Inch valve
   c. 3 Inch valve
   d. Rinse valve
   e. Other valves if equipped

i. Eductor

6. Once all of the water is drained from the cabinet proceed to adding RV antifreeze back to the cabinet. This can be done a couple different ways
   a. If no transfer pump or electric pump is available, after you complete steps 1-4 you can pour RV antifreeze into the outlet of the pump and open/close the 2 and 3 inch valves on the bottom of the cabinet. See QR Code for winterization utilizing this method.
   b. Utilizing a pump to fill the cabinet with RV antifreeze through the drain ports on the bottom of the cabinet or through the inlet port on the side of the cabinet and fill the cabinet with 4-5 gallons of RV antifreeze.
      i. To pump antifreeze, you can use your transfer pump or an electric pump plumbed to the inlet fitting on the QuickDraw.
      ii. Use “Manual Controls” on controller to open “Rinse Valve”
      iii. Pump Antifreeze into the QuickDraw Pump Inlet until product is discharged from Quick Draw Outlet.
      iv. Use “Manual Controls” on controller to close “Rinse Valve”
      v. Use “Manual Control” to open each of “Product Valves” (4, 6, or 9 valves depending on your system). Antifreeze should discharge from each valve.
      vi. Open the “Product Hose Rinse” and “Eductor Supply” valves. Antifreeze should discharge, if not, pump antifreeze until it does. Close valves.
      vii. Use manual controls to open “2” Venturi Valve” and “3” By-Pass Valve”. Antifreeze should discharge from QuickDraw outlet when each of these valves open. If Antifreeze does not discharge when the valves open, pump additional antifreeze until it visibly discharges from QuickDraw outlet.
      viii. Open and drain 2 valves located at bottom of mass meter (right of controller).
      A.

NOTE
Using **only** compressed air will not get all water out of the QuickDraw plumbing. To ensure no damage occurs from freezing, it is necessary to use antifreeze.

Figure 72. Winterizing a QuickDraw Max Cabinet

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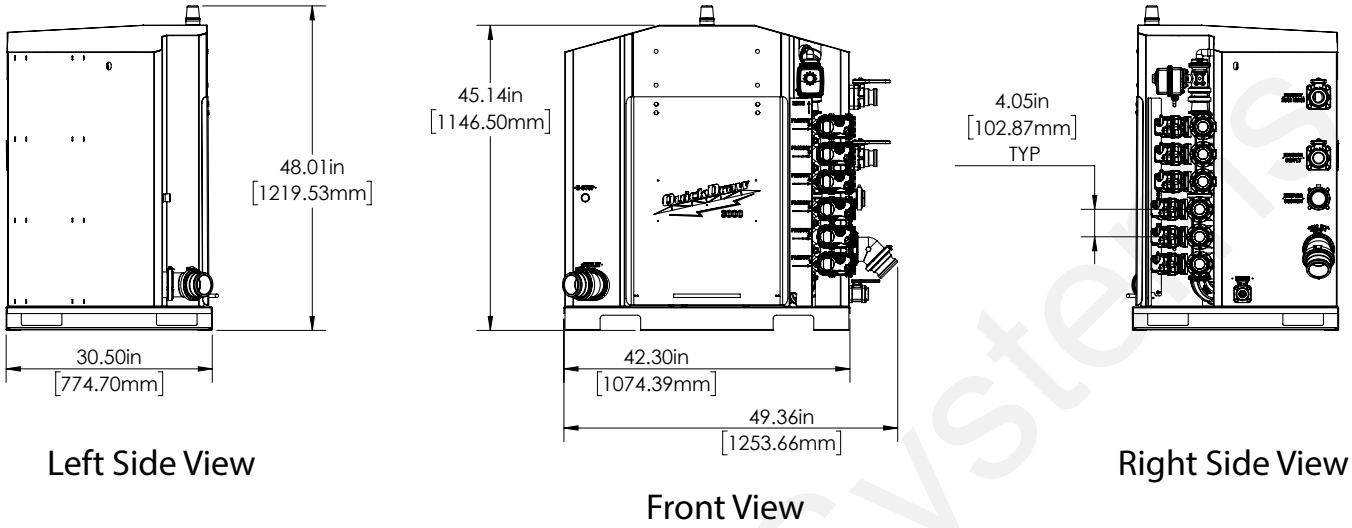
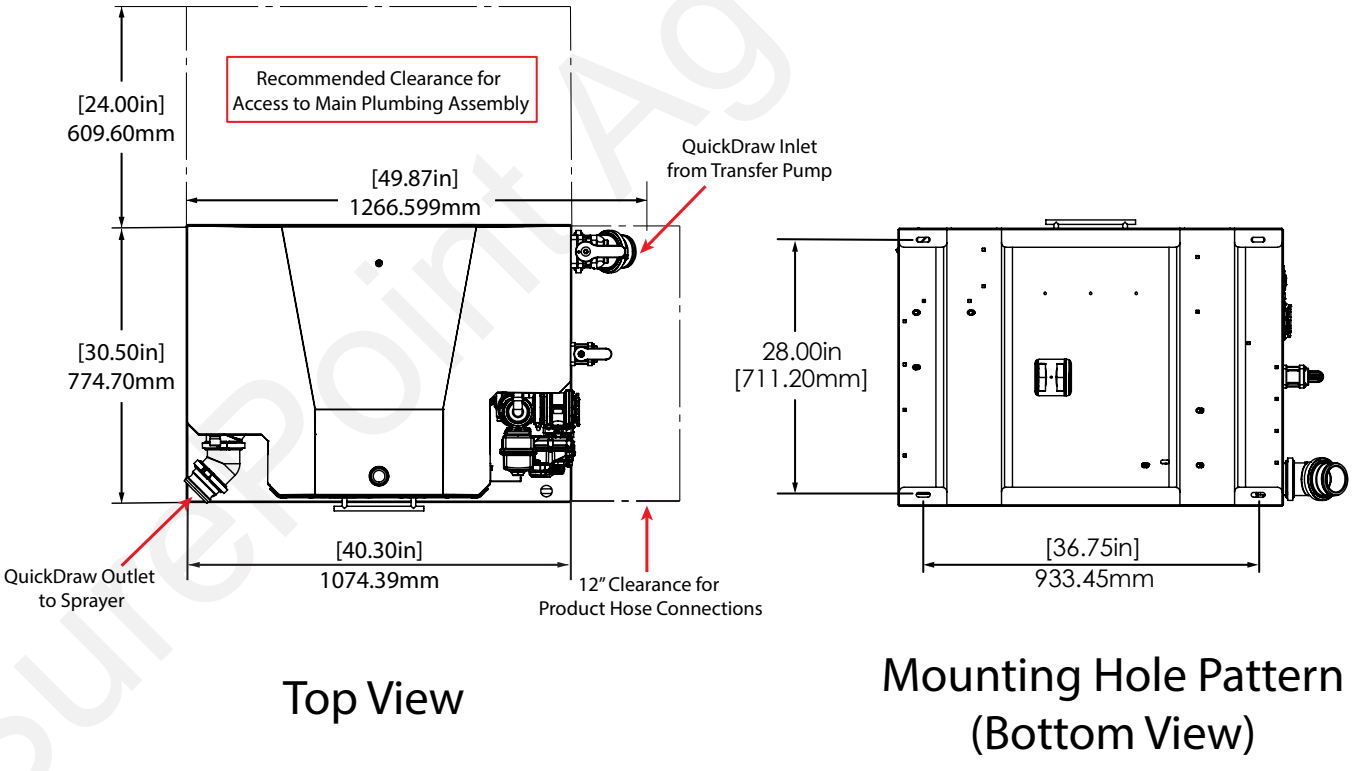
5.4. QuickDraw 3000 Dimension Drawing

Figure 73. Front and Side Views



Six Product QD 3000 Max Cabinet Dimensions

Figure 74. Top and Bottom Views



Six Product QD 3000 Max Cabinet Dimensions

6. Installation and Wiring

6.1. Harnessing

QuickDraw Harnesses

- 208-05-5899Y1 - QuickDraw 3000 Wiring Harness (MY'25)
- 208-05-6711Y1- QuickDraw 3000 10' Extended Wiring Harness (MY'25)
- 208-05-6712Y1- QuickDraw 3000 25" Extended Wiring Harness (MY'25)

Power Connections

- Requires 208-NAPA7578 - 12 Volt Battery, BCI Group 78 (Or customer provided battery)
- 205-2213Y1 - 40 Amp 480MP Power Cable - 20’ 6AWG
- 208-02-2191Y1 - Power Supply - 25Amp, 110VAC to 12VDC with 480 MP Tower Connector
- 206-02-220Y1 - 2 Pin - 480MP Extension Cables
- 201-4241Y1 - 40A Y Cable: 480MP Tower to (2) 480MP Shroud

Gas Engine Pumps

- 208-05-2414Y1 - QuickDraw Pump Stop Harness Set
  - 208-05-2802Y1 - QuickDraw Pump Stop Harness
  - 208-05-2633Y1 - QuickDraw Pump Stop Harness (Grounded Coil)
- 208-05-2430Y1 - QuickDraw Electric Pump Start Gas Engine 12V Supply Harness
- 208-05-3944Y1 - QuickDraw Gas Engine Push Button Start
- 208-05-4783Y1 - QuickDraw iGX390 Honda Engine Control Final Harness
- 208-05-4784Y2 - QuickDraw iGX390 Honda Engine Control Adapter Harness
- 208-05-6482Y1 QuickDraw Vanguard Engine Final Harness
- 208-05-6490Y1 QuickDraw Vanguard Engine Control Harness

Electric Pumps

- 208-05-3955Y1 - QuickDraw Electric Pump Start-Stop Harness (*See Manual 396-3684Y1*)
  - Stop/Start Starter Panel with QuickDraw Start and Stop Harnesses Installed
  - On/Off Motor Starter with QuickDraw Start and Stop Harnesses Installed

Hydraulic Pumps

- 208-05-3774Y1 - Hydraulic Booster Pump Harness
- 208-05-4240Y1 - Hydraulic Transfer Pump Solenoid Start Harness

Remote Connectivity (Cloud Based Connections)

- 606-05-300150 - QuickDraw Remote Connectivity Kit

Multiple Carrier Valve Wiring

- 208-05-3363Y2 - QuickDraw CAN Valve Expansion Harness
- 206-04-291_Y1 - 4-Pin Deutsch Extension Cable
  - 5 ft- 206-04-2913Y1 - 4-pin - 5' Deutsch Extension Cable
  - 10 ft - 206-04-2914Y1 - 4-pin - 10' Deutsch Extension Cable
  - 20 ft - 206-04-2915Y1 - 4-pin - 20' Deutsch Extension Cable

Hose Reel

- Requires 208-NAPA7578 - 12 Volt Battery, BCI Group 78 (Or customer provided battery)

- 205-2213Y1 - 40 Amp 480MP Power Cable - 20’ 6AWG
- 201-4241Y1 - 40A 480MP Tower x 2 480MP Shroud Y Cable

Electric Carrier Fill Valve Kit

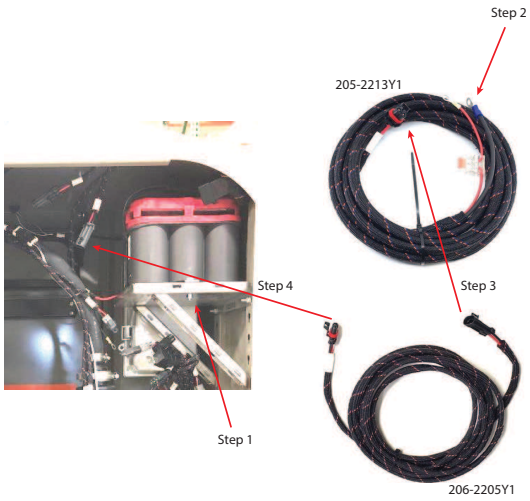
- 208-05-4859Y3 - Electric Carrier Single Valve Control Harness
- 208-05-6855Y1 - Electric Carrier Refill Valve Control Harness

6.2. Power Connections

Power Essentials

- 208-NAPA7578 - 12 Volt Battery, BCI Group 78
- 205-2213Y1 - 40 Amp 480MP Power Cable - 20’ 6AWG
- 206-02-220_Y1 - 2 Pin - 480MP Extension Cable

Figure 75. Connecting Power



1. Install battery and tighten battery hold downs.

> **NOTE**
> Battery is not always provided by SurePoint due to shipping constraints

2. Connect the ring terminals of the 205-2213Y1 harness to the truck/tractor battery and route to the trailer hitch or disconnection point.
3. Use the appropriate length or combination of 2-pin 480MP extension cables to route from the hitch to inside the QuickDraw. 20 ft is most commonly used.
4. Connect the extension harness to the connector inside the QuickDraw labeled ***External Power.***

> **NOTE**
> In lieu of a battery and harnessing in stationary/plant applications a 110V to 12V power supply is used. SurePoint P/N: 208-02-2191Y1 - Power Supply - 25Amp, 110VAC to 12VDC.

6.3. Gas Engine Pump

6.3.1. Start/Stop and Power

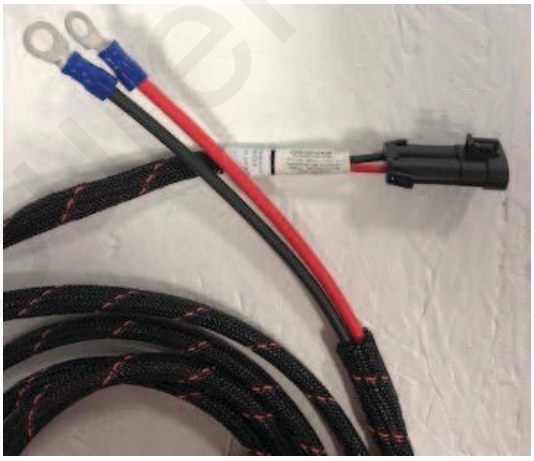
Generic Pump Wiring Essentials

- 208-05-2414Y1 - QuickDraw Pump Stop Harness Set
  - 208-05-2802Y1 - QuickDraw Pump Stop Harness
  - 208-05-2633Y1 - QuickDraw Pump Stop Harness (Grounded Coil)
- 208-05-2430Y1 - QuickDraw Electric Pump Start Gas Engine 12V Supply Harness
- 208-05-3944Y1 - QuickDraw Gas Engine Push Button Start

QuickDraw Honda iGX390 Pump Wiring

- 208-05-4784Y2 - QuickDraw iGX390 Honda Engine Control Adapter Harness
- 208-05-4783Y1 - QuickDraw iGX390 Honda Engine Control Final Harness

208-05-2430Y1 : QuickDraw Electric Pump Start Gas Engine 12V Supply Harness



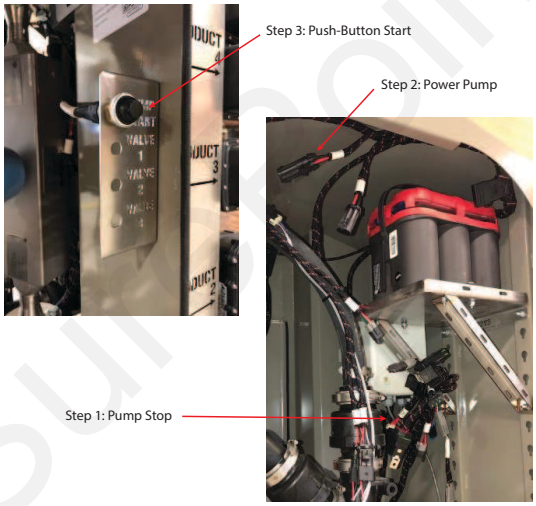
208-05-3944Y1: QuickDraw Gas Engine Push Button Start

Pump Connections:

1. First, follow the steps on 396-2944Y1 - QuickDraw Pump Stop Quick Help guide (located inside the 208-05-2414Y1 harness bag) to determine whether to use the standard or grounded pump stop harness. Use those instructions to connect the bullet connectors properly for your motor.
2. Connect the ground wire from the 208-05-2430Y1 harness, and pump stop grounded ring terminal if applicable, to motor ground.
3. Connect 12V power from 208-05-2430Y1 12V supply harness and 208-05-3944Y1 Push button start power cable (Red Ring Terminal) to the motor coil as shown.
4. Remove the spade connector with black boot from the coil and connect the female spade connector of the 208-05-3944Y1 Push Button Start harness to the coil and the male connector to the boot previously removed.

6.3.2. Harness Connections

QuickDraw Connections:



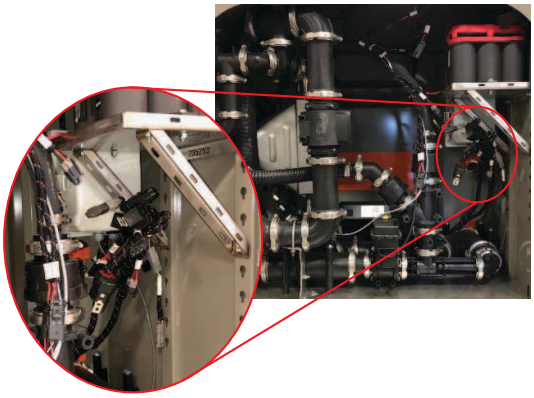
1. Route Pump Stop harness (P/N 208-05-2802Y1 or 208-05-2633Y1) inside the QuickDraw cabinet and connect 150MP Shroud to male connector labeled ***Pump Stop***. *Note: The connector may have a dust cap that needs to be removed.*
2. Route 12V Pump Power Harness (P/N 208-05-2430Y1) inside the QuickDraw cabinet near the battery mount and connect to ***Pump Power*** on the main QuickDraw Harness.

NOTE
The connector may have a dust cap that needs to be removed.

3. Route 208-05-3944Y1 QuickDraw Push-Button Start Harness to inside the QuickDraw cabinet (or other desired start location). Install 475-4266Y1-SS - QuickDraw Aux Switch mounting bracket by removing 1/4" bolt for Product Valve label, then re-use bolt and install mounting bracket. Mount pump start button in the mounting bracket.
4. In the QuickDraw controller system settings, change the ***Pump Start Mode*** to MAINTAINED START.

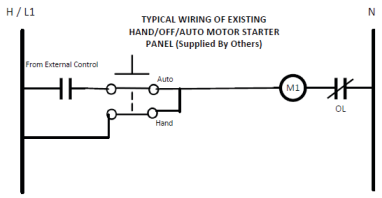
6.4. Electric Pump

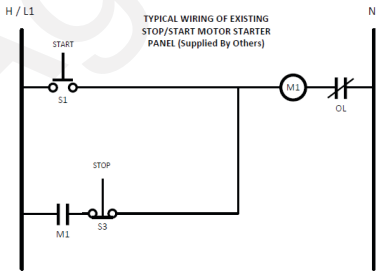
6.4.1. Start/Stop Wiring Overview

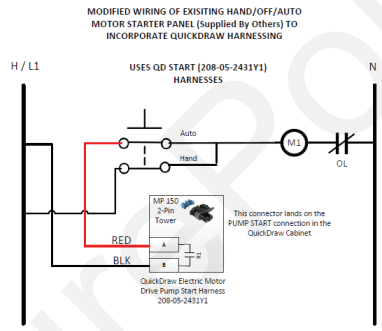


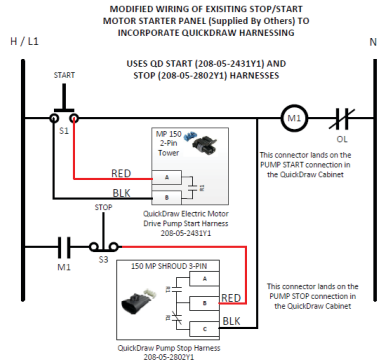
Pump Start and Pump Stop Connections

1. 208-05-2431Y1 - QuickDraw Electric Motor Drive Pump Start Harness (Connect to ***Pump Start***)
2. 208-05-2802Y1 - QuickDraw Pump Stop Harness (Connect to ***Pump Stop***)
3. See the following pages for Motor Control Panel Wiring.
4. In the QuickDraw controller system settings, change the ***Pump Start Mode*** to either ***Momentary*** or ***Maintained***, depending on motor control panel wiring.









WARNING

Wiring an electric motor to a customer supplied motor control panel and the QuickDraw must be performed by an electrician . Typical motor control panel wiring schematics are supplied, but the customer is responsible for providing their own motor control panel and wiring. SurePoint Ag systems does not supply this equipment.

6.5. Hydraulic Pump

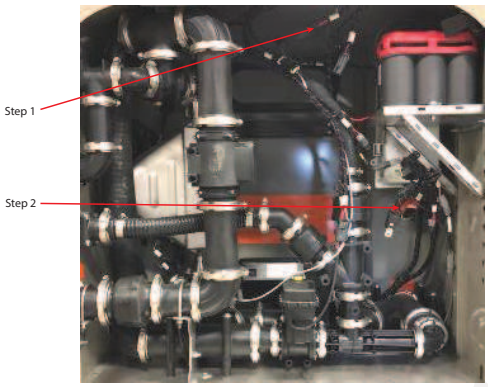
6.5.1. Transfer Pump Harnessing

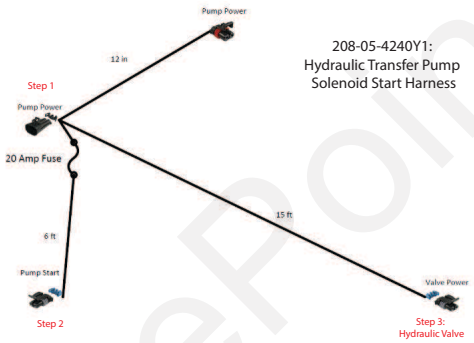
Hydraulic Pumps

- 208-05-3775Y1 - Hydraulic Transfer Pump & Agitation Harness
- 208-05-4240Y1 - Hydraulic Transfer Pump Hydraulic Solenoid Start Harness

Installation Instructions:

1. Use the 208-05-4240Y1 harness and plug into the ***Pump Power*** connector in the QuickDraw.
2. Next, plug the Pump Start connection into the ***Pump Start*** connector in the QuickDraw.
3. Plug the 2-pin connector into the 150MP connection on the solenoid coil. See next page for typical solenoid installation.
4. In the QuickDraw controller system settings, change the ***Pump Start Mode*** to MAINTAINED START.





6.5.2. Booster Pump Harnessing

This section is used for bulk products requiring more flow than is achievable by venturi suction.

Hydraulic Booster Pump Harnesses:

- 208-05-3774Y1 - Hydraulic Booster Pump Harness
- 208-05-3711Y2 - QuickDraw Aux Output Harness

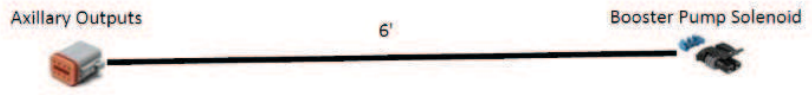
Installation Instructions:

1. Plug 208-05-3711Y2 Aux Output Harness into the QuickDraw ***Aux Outputs*** connector.
2. Plug 208-05-3774Y1 Hydraulic Booster Pump Harness into the ***Auxiliary Outputs*** connector in the 208-05-3711Y2 harness
3. Plug the 2-pin connector into the 150MP connection on the solenoid coil. See next page for typical solenoid installation.

4. Setup QuickDraw controller for Boost pump operation and select which product valve the boost pump is connected to.

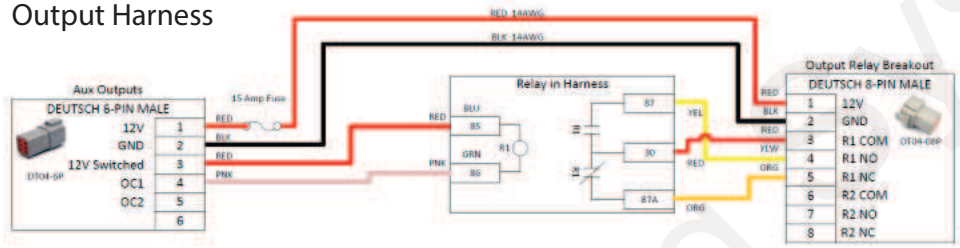
208-05-3774Y1: Hydraulic Booster Pump Harness

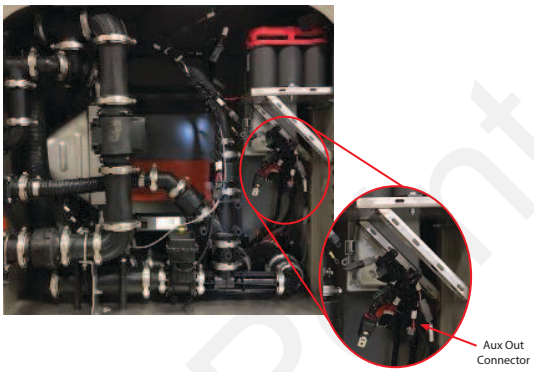
208-05-3774Y1
Hydraulic Booster
Pump Harness



208-08-3711Y2: QuickDraw Aux Output Harness

208-05-3711Y1
QuickDraw Aux
Output Harness



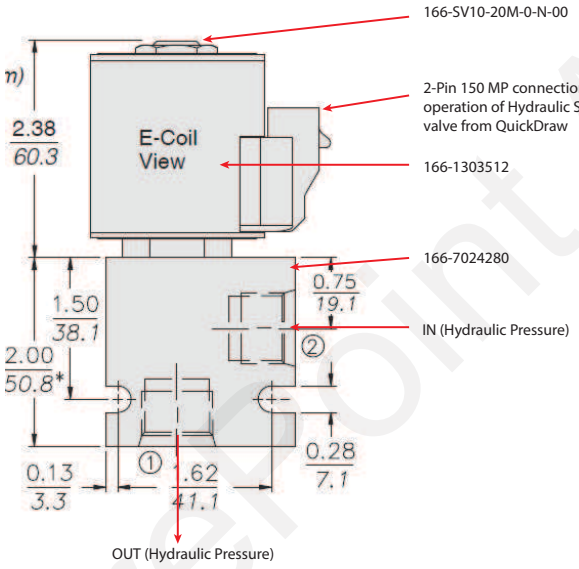


6.5.3. Typical Hydraulic Solenoid Valve

Figure 76. P/N: 206-02-13200

2-pin 150MP - 5' Extension Cable (Quantity 2 for agitation and boost pump hydraulic solenoids)

Figure 77. P/N: 166-SV10-20M-0-N-00

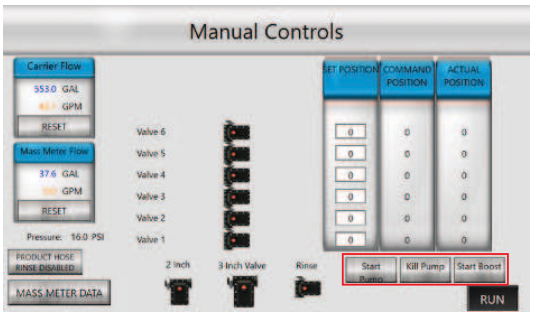


ON/OFF solenoid cartridge valve - Normally Closed

6.6. Controller Setup for Pumps

Manual Pump Start/Stop:

The Manual Controls Screen allows the user to start/kill the transfer pump or start/kill the boost pump when outside of running a batch.

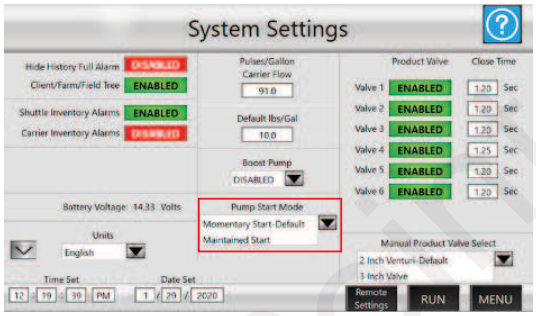


Pump Start Mode:

Momentary - The output is enabled for 3 seconds when the batch start is pressed

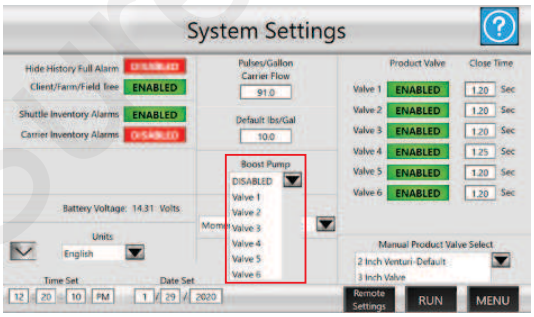
Maintained - The output is constant for the duration of the batch

For Hydraulic pumps, the pump start mode should be set to ***Maintained Start***. For electric motors, depending on the electrical wiring and customer provided motor control center, either option may be selected. When using a start-stop push-button setup, ***Momentary Start*** should be selected.



Boost Pump:

Choose ***DISABLED*** if no boost pump is present, or select the product valve the boost pump is connected to. Typically the 2" full ported Valve 1 is best for boost pump applications.



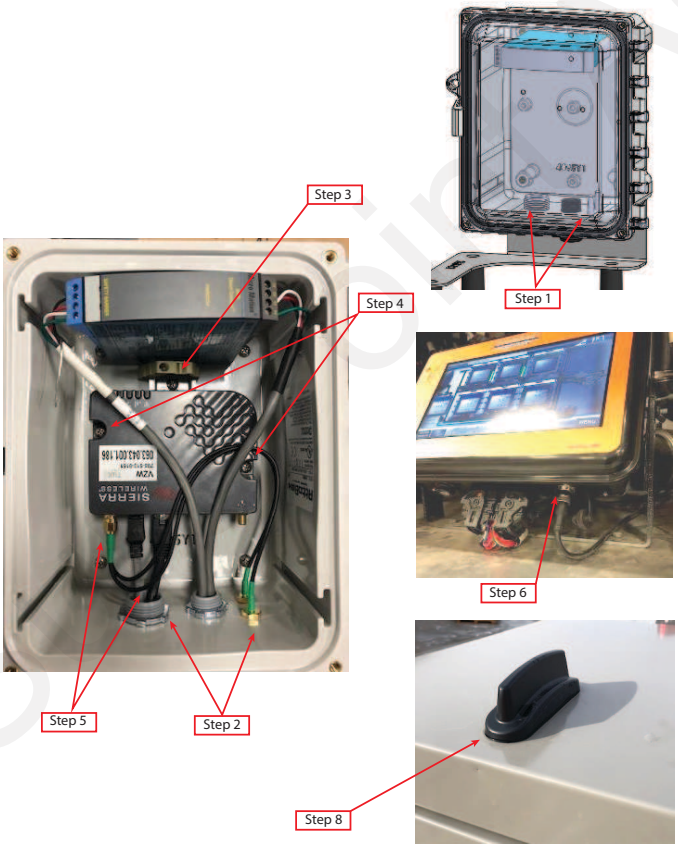
6.7. Remote Connectivity

Typically, Remote Connectivity is installed at the time of order by SurePoint Ag Systems. However, in some cases it may need to be installed in the field.

606-05-300150 - QuickDraw Remote Connectivity Kit

Installation Instructions:

1. Remove 3/4" pipe plug and gray PVC hole plugs. The existing Power Conditioner will need to be temporarily removed and relocated.
2. Install 3/4" cable gland and (2) SMA coax cable bulkheads (P/N: 217-3353Y1) into the pre-drilled and plugged holes.
3. Remove the existing 5" DIN rail and install the 4095Y1 mounting plate with (4) screws. Use 2" DIN rail and DIN rail stop to relocate the Mass Meter Power conditioner.
4. Install the QuickDraw modem using (2) Size 10 - 32 thread machine screws into the tapped mounting holes as shown.
5. Push the ethernet and power cable through the 3/4" cable gland and plug in.
6. Connect the ethernet cable to the bottom right M12 ethernet port on the QuickDraw controller.
7. Route the power cable to the ***Modem Power*** connector (under the battery tray) for 12VDC.
8. Remove the plug and install the GPS/Modem in the hole in the top of the cabinet. Connect the cable labeled GPS to the GPS SMA cable and one of the LTE (yellow label) antenna cables to the SMA cable. Make sure these correspond to the right connector inside the plastic enclosure.



6.8. Hose Reel

Power Connection & Wiring

Hose Reel Harnesses

- 208-NAPA7578 - 12 Volt Battery, BCI Group 78 (Or customer provided)
- 205-2201Y1 - 40 Amp Y Cable (480 MP shroud x 2 480 MP tower's)
- 205-2213Y1 - 40 Amp 480MP Power Cable - 20' 6AWG

QuickDraw Power Connections (From Power Connection Section on page 5):

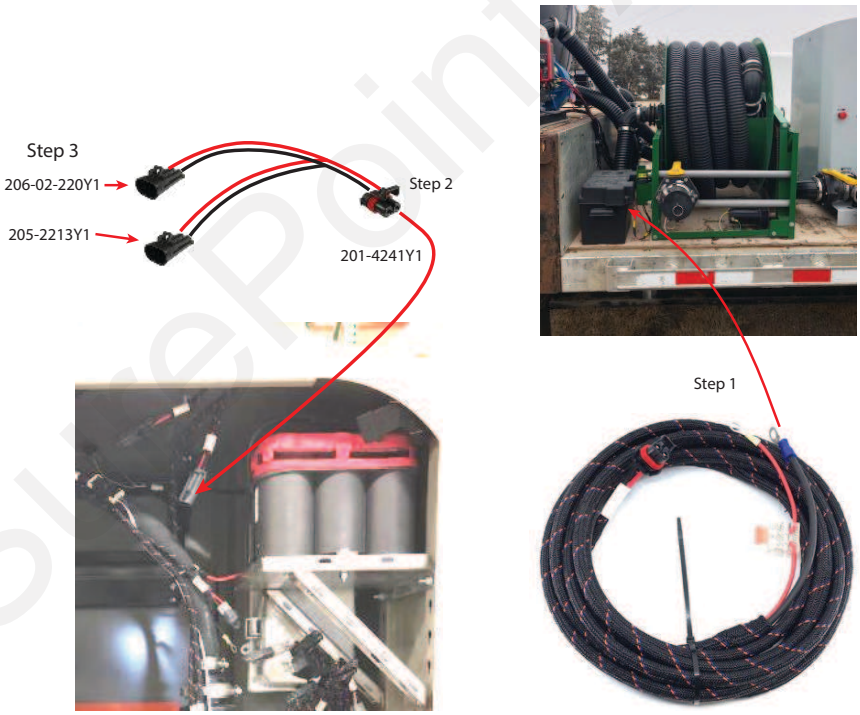
- Connect the ring terminals of the 205-2213Y1 harness to the truck/tractor battery and route to the hitch or disconnection point. (May have already been completed)
- Use the appropriate length or combination of 2-pin 480MP extension cables to route from the trailer hitch to inside the QuickDraw.
- Connect the extension harness to the connector labeled ***External Power*.**

Hose Reel Power Connections:

1.Provide battery cover and securely mount 12V dedicated hose reel battery. Connect the ring terminals of the 205-2213Y1 harness to the battery and route harness inside the QuickDraw Cabinet.

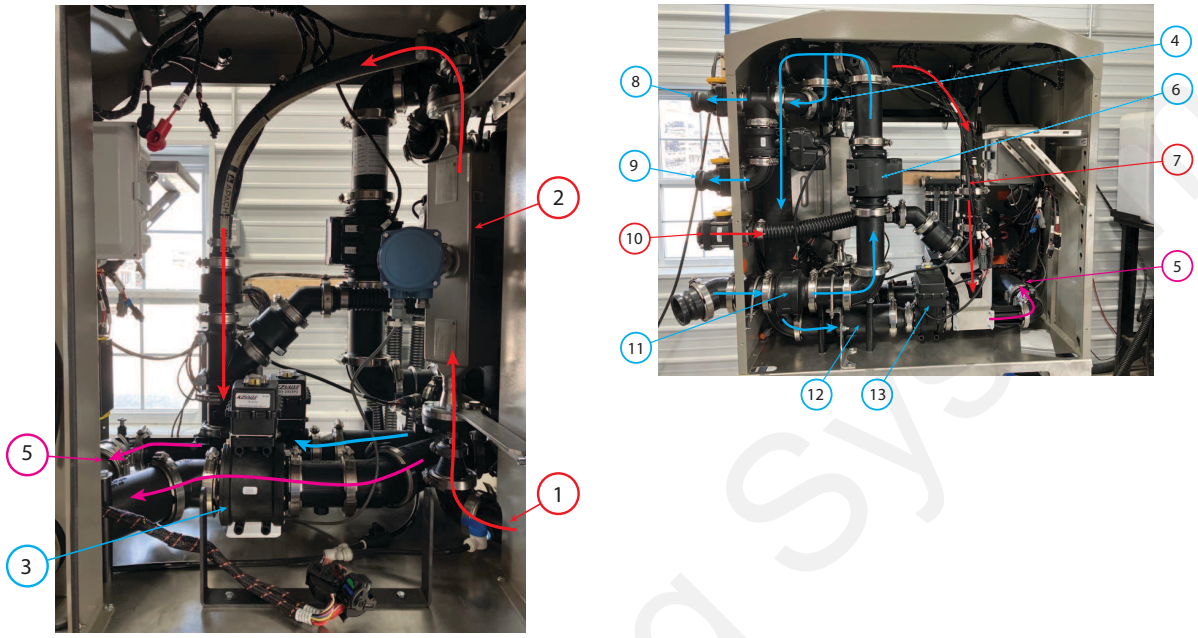
2.Connect 201-4241Y1 (40A 480MP Tower x 2 480MP Shroud Y Cable) to the connector labeled ***External Power*** inside the QuickDraw**.**

3.From the 201-4241Y1 (40A 480MP Tower x 2 480MP Shroud Y Cable), connect 206-02-220_Y1 (extension cable, length varies) from truck/tractor battery power supply harness and 205-2213Y1 (Fused Power Cable) from hose reel terminals.



7. Components

7.1. Carrier/Product Plumbing and Flow



1. Chemical from valve stack
2. Chemical Mass flow meter
3. 3 inch carrier bypass valve
4. Water rinse (between products)
5. To Sprayer
6. Carrier Flowmeter
7. Chemical Suction line
8. Product hose rinse
9. Carrier to Eductor
10. Eductor Suction
11. Carrier from Pump
12. Carrier through Venturi
13. Venturi

Figure 78. Internal Components

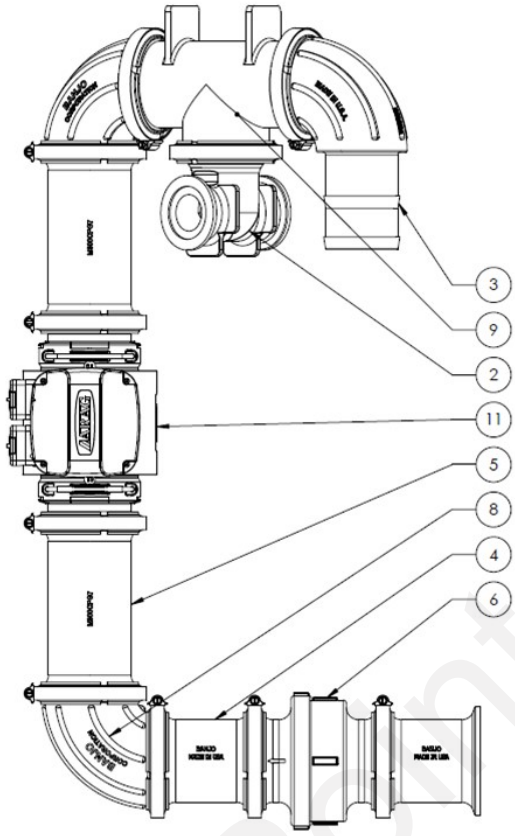
SCAN ME

7.2. Carrier Flowmeter

204-01-46299A91 *3" Arag E-Mag Flowmeter (16-660 GPM) QuickDraw Calibration: 91 pulses/gallon*

204-01-WMP101-300 *3" Seametrics Electro Magnetic Flowmeter (14-670 GPM) QuickDraw Calibration: 13.7 pulses/gallon*

204-01-01513 *3" Polmac MPT Turbine Polypropylene Flowmeter QuickDraw Calibration: 79.5 pulses/gallon*

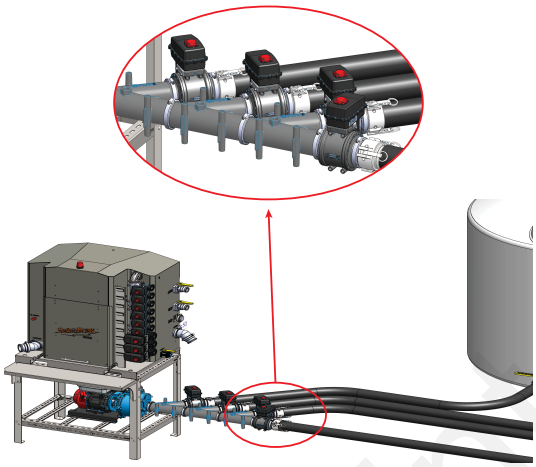


Item No.	Part Number	Description	Qty
1	100-075PLUG	3/4" Pipe Plug	1
2	105-300200200-075	3" x 2" x 2" Manifold Tee with 3/4" Tap	1
3	105-300BRBSWP90	3" Manifold x 3" HB - 90 Degree Sweep	1
4	105-300CPG	3" Manifold Coupling	2
5	105-300CPG7	3" Manifold Coupling - 7"	2
6	105-300CV	3" Manifold Check Valve	1
7	105-300G-H	3" EPDM Manifold Gasket	10
8	105-300SWP90	3" Manifold Sweep - 90 Degree	2
9	105-300TEE	3" Manifold Tee	1
10	105-FC300	3" Manifold Clamp	10
11	204-01-46299A91	3" Water Flowmeter (16-660 GPM)	1

7.3. Carrier Blending Valve Assembly

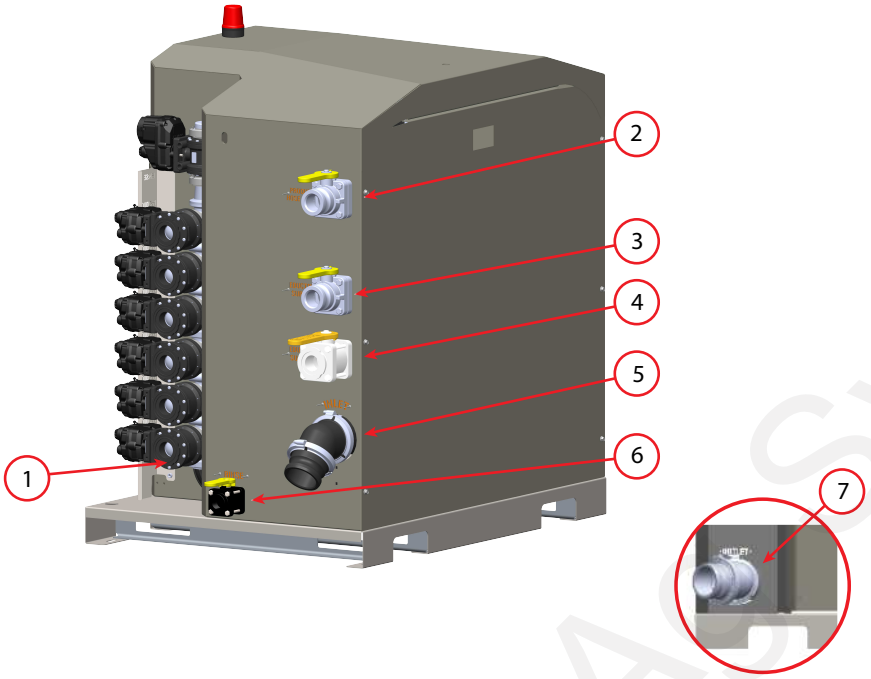
Item Number	Item Description
396-4851Y1	Carrier Blending Instruction Sheet
606-04-150200	2 Product Carrier Blending Kit - Valve Manifolds for Central Mounting
606-04-150300	3 Product Carrier Blending Kit - Valve Manifolds for Central Mounting
606-04-150400	4 Product Carrier Blending Kit - Valve Manifolds for Central Mounting
606-04-175200	2 Product Carrier Blending Kit - CAN Valves and Y Cables Only - (Need Plumbing and Ext. Cables)
606-04-175300	3 Product Carrier Blending Kit - CAN Valves and Y Cables Only - (Need Plumbing and Ext. Cables)
606-04-175400	4 Product Carrier Blending Kit - CAN Valves and Y Cables Only - (Need Plumbing and Ext. Cables)

Valve Assembly	103-3366Y1	3" KZ Valve Assembly - CAN Control
Actuator	104-3636Y1	QuickDraw Replacement CAN Actuator for 2",3" & 4" (butterfly)Valve
Valve Body	104-M2K22	3" QD Valve Only



7.4. External Plumbing Fittings

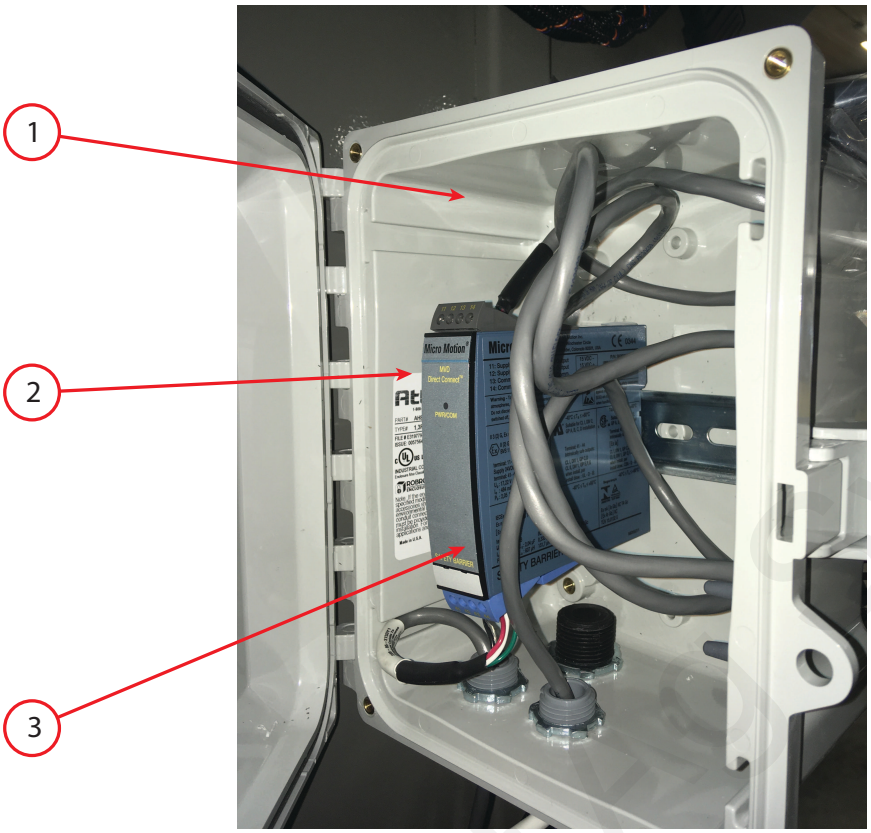
Figure 79. Right side of cabinet



#1	1 1/2” Product Valve	M200 flange
#2	Product Hose Rinse	2” Male Camlock
#3	Eductor Supply	2” Male Camlock
#4	Eductor Suction	Manual Valve
#5	Pump Outlet (Inlet to QD)	3” Male Camlock
#6	Aux Rinse	3/4” FPT
#7	Outlet to Sprayer	3” Male Camlock

7.5. Coriolis Mass Meter - Power Conditioner

Figure 80. Power Conditioner Box



1. 208-05-2643Y1 QD Harness to Coriolis Power Conditioner
2. 208-05-2981Y1 QD Power Conditioner
3. 208-05-2733Y1 QD Coriolis to Power Conditioner Harness

Power Conditioner Troubleshooting:

Front Red light should be ON.

Top (gray) terminal block:

- Power from QD Controller

- Red to Black 24 volts

Bottom (blue) terminal block:

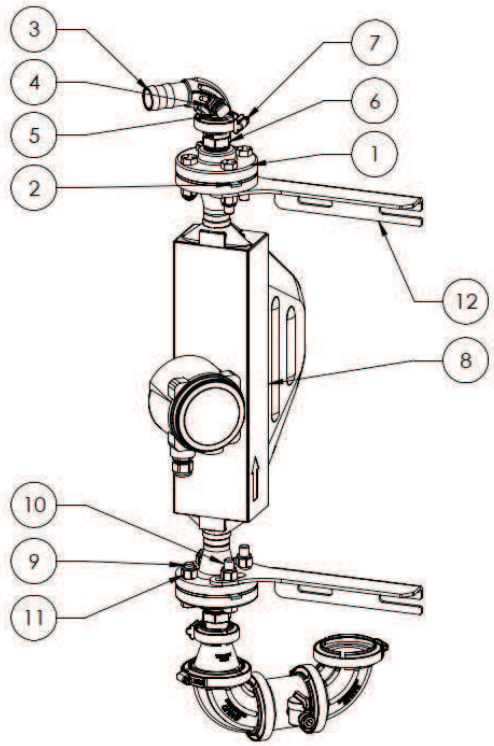
- Power to the Mass Meter

- Red to Black 14 to 15 volts

7.6. Coriolis Mass Meter Assembly

QuickDraw$_{MAX}$ All Models 1” Mass Meter

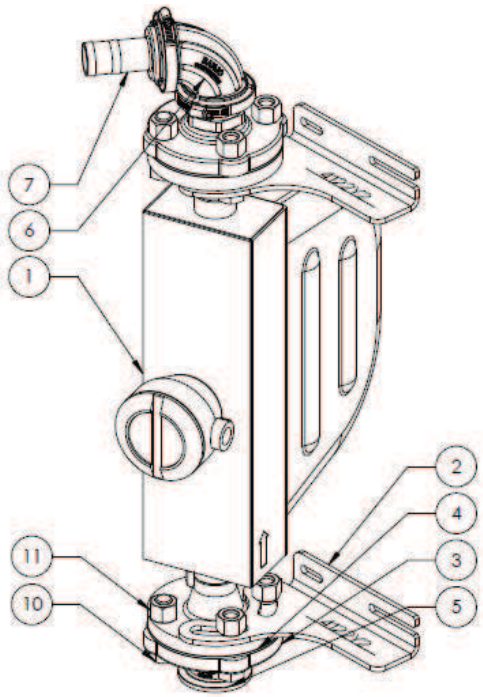
Figure 81. 1 inch Mass Meter



Item No.	Part Number	Description	Qty
1	100-100AF	1" FPT x ANSI Flange	2
2	100-100AFG	1" FPT x ANSI Flange Gasket	2
3	105-100125BRBSWPG90	1" Manifold x 1 1/4" HB - 90 Degree Sweep	1
4	113-06-038025	QC to MPT—3/8” QC x 1/4” MPT	1
5	113-05-038	Plug—3/8” QC	1
6	105-100MPT	1" Flange x 1” MPT	2
7	105-FC100	1” Manifold Clamp	2
8	204-01-R100S	QuickDraw 1” Mass Meter	1
9	300-080200-5	1/2" x 2" Hex Head Bolt - G5	4
10	300-080208-5	1/2" x 2-1/2" Hex Head Bolt - G5	4
11	321-08	1/2" Nylock Nut	8
12	475-2670Y3-SS	QuickDraw 3000 Coriolis Flowmeter Support Bracket	2
13	113-52-038038	Valve - 3/8" QC x 3/8" MPT	1

QuickDraw$_{MAX}$ 3000 2” Mass Meter

Figure 82. 2 inch Mass Meter



Item No.	Part Number	Description	Qty
1	100-200AF	2" FPT xANSI Flange	2
2	100-200AFG	2" FPT x ANSI Flange Gasket	2
3	105-200G-H	2" EPDM Manifold Gasket for 220 Series Manifold Fittings	2
4	105-220MPT	2" Full Port Manifold x 2" MPT	2
5	105-220SWP90	2" Full Port Manifold Sweep - 90 Degree	1
6	105-220150BRB	2" Full Port Manifold x 1-1/2" HB	1
7	105-FC220	2" Full Port Manifold Clamp	2
8	300-120208-5	3/4" x 2-1/2"Hex Head Bolt - G5	8
9	321-12	3/4" Nylock Nut	8
10	204-01-R200S	QuickDraw 2" Coriolis Mass Meter	1
11	475-4122Y2-SS	R200 Mass Meter Mounting Brackets	2

7.7. Electronic Components

Figure 83. EStop and Light

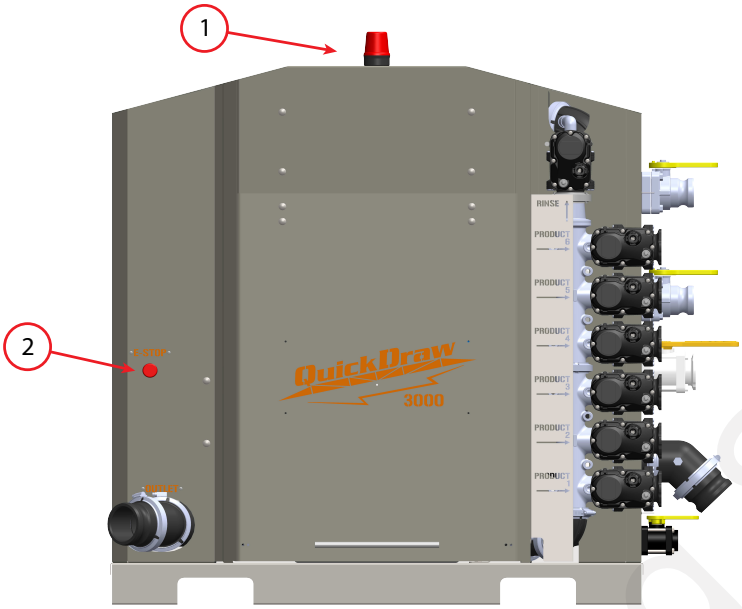
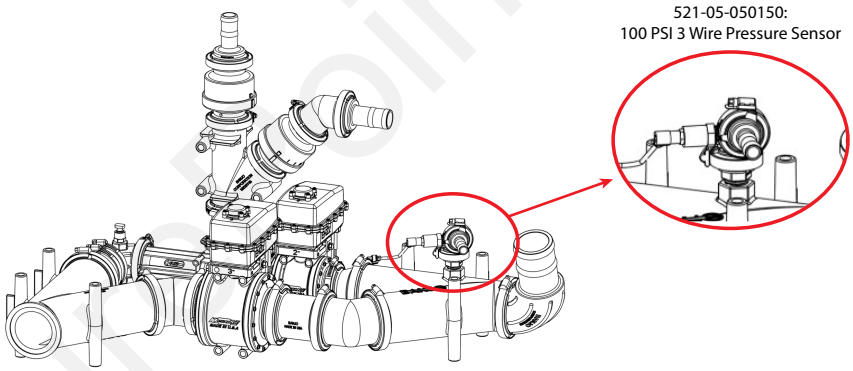
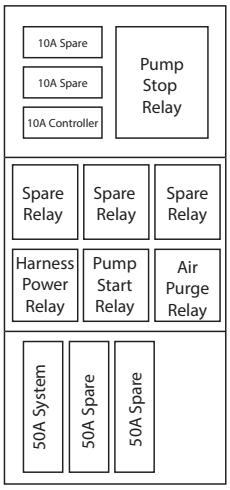


Figure 84. Pressure Sensor

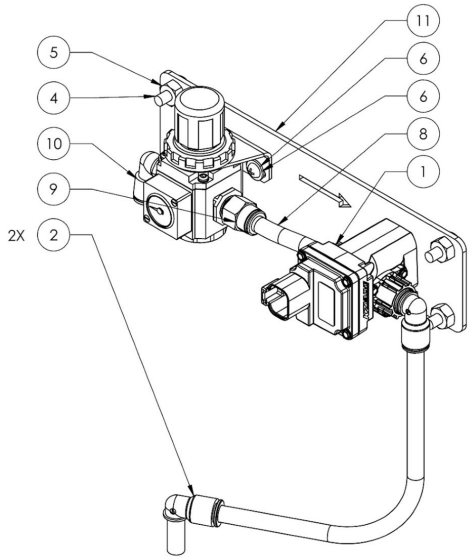


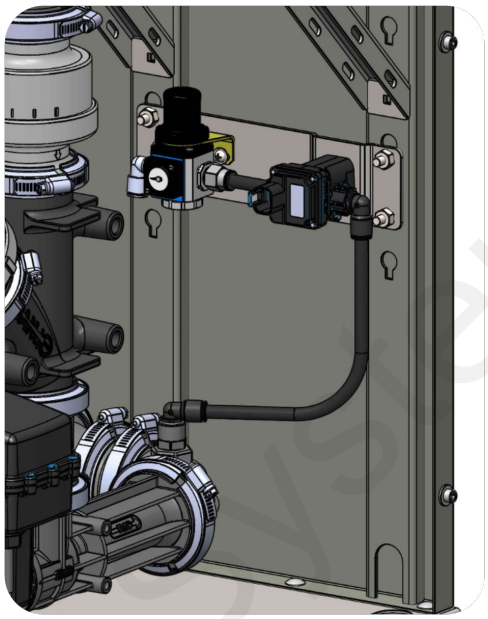


Power Distribution Center, found inside the QuickDraw Cabinet

7.8. QuickDraw Air Purge QuickDrawMAX 3000 Retrofit Kit

606-03-300175





ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	103-4496Y1	Zip Valve 1/4" Nylon, 2-way, SS Ball, 3/8" Push to Connect	1
2	113-12-038038	Stem Elbow - 3/8" Stem x 3/8" QC	2
3	137-MGR200-08L	Air Pressure Regulator w/ 60 psi Gauge – ¼" NPT Inlet/Outlet	1
4	304-040012-5	Carriage Bolt - 1/4" x 3/4" G5	4
5	323-04	1/4" Flange Nut	4
6	330-1024	Size 10 Flat Washer	2
7	340-100012	Machine Screw - Size 10 x 3/4"	2
8	385-043-AP1	Bulk 3/8" Tubing	1
9	385-50-038025-CZ	3/8" Tube to 1/4 NPT Straight - Pneumatic Fitting	1
10	385-51-038025-CZ	3/8" Tube to 1/4 NPT 90 Elbow - Pnuematic Fitting (Not Used)	1
11	475-4852Y1	QuickDraw Air Purge Regulator/Valve Mounting Bracket	1
12	757-97349A200	Size 6 Thread Forming Screw for Plastic - SS	3
*13	*208-05-4863Y1*	*QuickDraw Adapter Aux Output to Air Purge*	*1*
*14	*105-220SWPG90*	*2" Manifold Sweep with 1/4" Gauge Port - 90 Degree*	*1*
*15	*757-2048N11*	*QD Check Valve - 1/4" MPT x 3/8" QC*	*1*

7.9. Replacement Parts by Valve P/N

Table 1. Replacement Valve Parts

Valve Assembly	**103-2416Y1**	**QuickDraw Venturi Valve, 220 Flange, 2" Thru Ball, WP Shroud**
Actuator	104-3636Y1	QuickDraw Replacement CAN Actuator for 2",3" & 4" (butterfly)Valve
Valve Body	104-M2I22	Replacement 220 Flange KZ Valve for 103-2416Y1
Valve Assembly	**103-2417Y1**	**QuickDraw Valve, 300 Flange, 3" Thru Ball, WP Shroud**
Actuator	104-3636Y1	QuickDraw Replacement CAN Actuator for 2",3" & 4" (butterfly)Valve
Valve Body	104-M2K22	3" QD Valve Only
Valve Assembly	**103-3366Y1**	**3" KZ Valve Assembly - CAN Control**
Actuator	104-3636Y1	QuickDraw Replacement CAN Actuator for 2",3" & 4" (butterfly)Valve
Valve Body	104-M2K22	3" QD Valve Only
Valve Assembly	**103-5951Y1**	**Electric Valve, M200 Flange, 1-1/2" SS Ball, EH9 Actuator, CAN Control**
Actuator	104-5952Y1	Actuator, EH9 CAN Control, KZ 1" QX Series or 1-1/2" MX
Valve Body	104-T2H22	1.5" KZ Valve Only (Replacement for 1.5" QD Product Valve)

7.10. QuickDraw Connection Kits

606-01-400350	QuickDraw Connection Kit for 2” Hose

Figure 85.

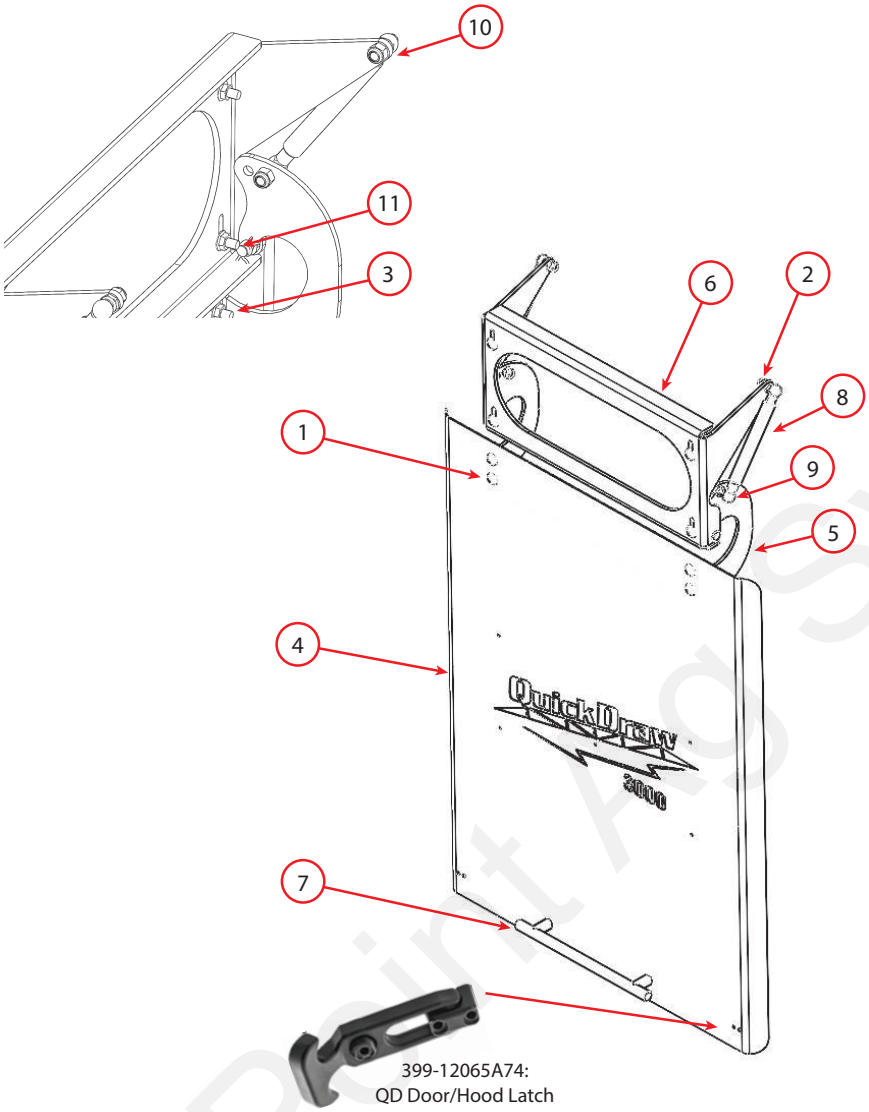
See 396-4887Y1 QuickDraw Hose Connection Instruction Sheet

7.11. QuickDraw Hose, Plumbing, and Valve Kits

606-04-100100	QuickDraw 3" Sprayer Fill Hose Kit
606-04-100200	QuickDraw Trailer 3" Plumbing Kit - 2 Carrier Tanks
606-04-100250	QuickDraw Trailer 3" Plumbing Kit - 2 Carrier Tanksw/ Electric Valves
606-04-100300	QuickDraw Trailer 3" Plumbing Kit - Single Carrier Tank
606-04-100350	QuickDraw Trailer 3" Plumbing Kit - Single Carrier Tankw/ Electric Valves
606-04-150200	2 Product Carrier Blending Kit - Valve Manifolds for Central Mounting
606-04-150300	3 Product Carrier Blending Kit - Valve Manifolds for Central Mounting
606-04-150400	4 Product Carrier Blending Kit - Valve Manifolds for Central Mounting
606-04-175200	2 Product Carrier Blending Kit - CAN Valves and Y Cables Only - (Need Plumbing and Ext. Cables)
606-04-175300	3 Product Carrier Blending Kit - CAN Valves and Y Cables Only - (Need Plumbing and Ext. Cables)
606-04-175400	4 Product Carrier Blending Kit - CAN Valves and Y Cables Only - (Need Plumbing and Ext. Cables)
606-04-200100	QuickDraw Trailer Harness Complete Kit (Pump Start/Stop & Power)
606-04-200150	QuickDraw Harness Kit for standard GX Honda Engine

7.12. QuickDraw Door Components

Gen2/ QuickDraw Max 3000



399-12065A74:
QD Door/Hood Latch

Item No	Part Number	Description	Quantity
1	304-040012-5	Carriage Bolt - 1/4" x 3/4" G5	8
2	321-05	5/16" Nylock Nut	4
3	323-04	1/4" Flange Nut	8
4	475-2331Y3-GY	QuickDraw Cabinet Door	1
5	475-2332Y1-BK	QuickDraw Hinge	1
6	475-2333Y1-BK	QuickDraw Hinge/Gas Spring Mount	1
7	757-1325A24	QuickDraw Door Handle	1
8	606-08-10050	QuickDraw Gas Spring kit	1
9	757-9416K74	QuickDraw 10 mm Steel Ball Socket x M6 Thread	4
10	757-9512K73	QuickDraw Ball Mounting Hardware, Ball Stud 10mm	4
11	757-97245A673	QuickDraw 3/8" Steel Clevis Pin	2

8. Troubleshooting

Symptom	Solution
Low Voltage ("Comm Loss" / "CAN BUS Valve Failure Alarm")	• Charge the battery. Check harnesses and connections if battery is charging from vehicle.
Low Chemical Flow Rate	Determine if it is one product or all products; If only one product, investigate the line, tote valve, and product in tote; If all products are slow, most likely low/no suction from venturi; • Make sure ALL valves on educator are closed; • Check for outlet restriction limiting drop across venturi.
Batch volume does not match tank volume.	• Adjust "Carrier Flow Pulses Per Gallon" on Edit Carrier screen (see page 29); • Calculate % error. Adjust Cal Value by that percentage. Increase Flow Cal if more is needed.
E-Stop Switch Failure	• Jump wires together, replace switch
CAN Valve Position Sensor Failure	• Disable valve on system Settings screen, replace Actuator
Air in Mass Meter Warning	• If this happens while priming hose, no concern. If message persists on multiple batches, investigate plumbing connections from control valve to tote
Relays (3)- Harness Power, Pump Stop, Pump Start	Power—Should be able to hear this one click about 10 seconds after controller power-up. If this relay doesn't work, the Valves and 3" Meter, won't power up. Pump Kill- Pump will not start, or does not shut off Automatically • Replace Relay—located in the fuse panel. (available at parts stores) Most fuses have a spare included from the factory.
Fuses (2)- 10A and 50A	• Check for blown fuses in the fuse panel. (top left in cabinet). Replace as needed.
Valve will not operate.	• Check on Settings screen to be sure valve is ENABLED.
Valve communication failure (COMM FAIL)	• Be sure valve is connected to the wiring harness and that the connectors look good. • Go to the Manual Controls from the Run Screen. Use the controls here to try to control the valve. • If valve does not operate, try unplugging another valve and plug the valve that is not working into that connector. If the valve works, then the valve is OK, but something is wrong with the harness. If the valve is still not functional, most likely the valve has an issue and needs to be replaced.
Replacing a valve	• First, make sure all of the valves are enabled on the System Settings screen. Plug in the new valve. Once the new valve is detected the QuickDraw controller screen should change to a valve commission screen. If the valve number shown on this screen matches the valve that is missing, then hit continue to address the new valve. If it is not then enter the correct valve number and press continue. This will configure the valve to the correct valve number. • After configuring a new valve go to the Manual Controls screen from the Run screen and make sure all valves are operating and that they are operating in the correct position. Make sure that valve 1 is 1 and 2 is 2 and so forth.

Mass Meter Power Conditioner / Safety Barrier (Optional Modem goes in box)	 Front Red light should be ON. Top (gray) terminal block: Power from QD Controller: Red to Black 24 volts Bottom (blue) terminal block: Power to the Mass Meter: Red to Black 14 to 15 Volts

Table 2. Alarm Definitions

Active Alarm	Action prior to contacting dealer
Product Valve X Failed to Open/Close	Check electrical connection on valve. Control Valve Manually to observe valve position on manual controls screen. Run>Manual Controls>Open/Close valve.
Product X Flow Failure	Check product in tote, verify valve is open. New totes may need Prime enabled.
Carrier Flow Failure	
Batch Complete, Products Not Complete	Not all chemicals were added to the batch.
Battery Voltage Low	Charge or replace battery
ESTOP has been enabled	Disable ESTOP to return to normal operation
Mass Meter Comm Loss	See Troubleshooting section
Cannot Duplicate a Load Order	This Load Number is already being used. Change the Load Number to a Number that is not being used
Cannot Skip a Load Order	Load Order Numbers must be sequential. Change the Load Order Number to the next sequential number
Suction Only:	
Carrier Throttling Valve Failed to Open/Close	Check electrical connection on valve. Control Valve Manually to observe valve position on manual controls screen. Run>Manual Controls>Open/Close valve
Carrier Holdback can't be more than 50% of Carrier Total after PreLoad	Decrease Carrier Holdback Volume
Carrier Holdback not allowed when Carrier Calibration is enabled	Set Carrier Holdback to 0
Multi Carrier Only:	
Carrier Valve X Failed to Open/Close	Check electrical connection on valve. Control Valve Manually to observe valve position on manual controls screen. Run>Manual Controls>Open/Close valve

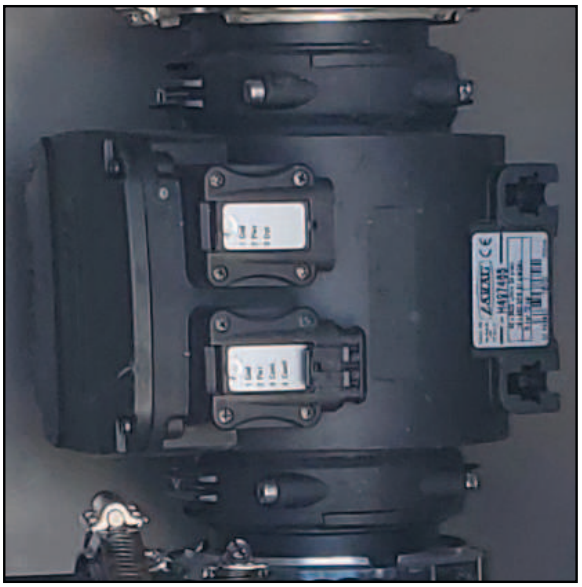
Table 3. Warning Definitions

Active Warning	Action prior to contacting dealer
Carrier level is below the low level setpoint	Check product level in tote.
Product X level is below the low level setpoint	Check Inventory Level for that product in QuickDraw
Carrier level is below what is needed to complete the batch	If tote is low, empty, Pause batch, install new tote, then resume batch.
Product X level is below what is needed to complete the batch	
Some automated products are set to batch less than 0.5 Gal	Products less than 0.5 Gal per batch are not recommended due to potential accuracy errors.

Active Warning	Action prior to contacting dealer
PreLoad too large for batch size	Reduce PreLoad amount for batch.
Some products have a load order and rate but no selected products	Select product for load order or rate
Some products have rates but valve is disabled	Enable valve for those products
Air detected in Mass Meter Excessive Air in Mass Meter	Tighten all fittings and clamps from tote to Mass Meter on QuickDraw. This could also occur when a new tote is connected, or a tote is nearly empty.
The hose volume for at least one of the totes is larger than the batch total for tote	Increase batch total for that product Decrease hose size
Some carriers have rates but no load order	Create load order for carrier
Some carriers are set to batch less than 20 Gal	Carriers less than 20 gal per batch are not recommended to to potential accuracy errors.
Carrier volume may be too low to guarantee batch success due to carrier calibration	
After PreLoad, more than 65% of the batch needs to be carrier to guarantee batch success Could be an issue when App Rate is very low and chemical concentration is high	Increase App Rate or decrease chemical concentration for batch
Carrier calibration is not possible due to low carrier setpoint	Batch too small to run carrier calibration, increase batch size
Carrier Failed to Calibrate	Verify flows against baseline flow. Can be accompanied by additional Alarms/Warnings that will help with diagnosis.
Wi-Fi password is too short	Modify Wi-Fi password to ensure it's a minimum of 8 characters long.
<u>Multi Carrier Only:</u>	
Carrier X Level is below the low level setpoint Carrier X Level is below what is needed to complete the batch Carrier X calibration is not possible due to low carrier setpoint	Check carrier level in the tank, refill if needed. Check the inventory level for that carrier in QuickDraw, increase if needed
Carrier X failed to calibrate	

8.1. Carrier Flowmeter (Arag Orion X)

Figure 86. Orion X Flowmeter



PN: 204-01-46299A913 Arag E-Mag Flowmeter (16-660 GPM)

The standard carrier flowmeter is a 3" Arag Electromagnetic flowmeter. The flowmeter calibration can be adjusted as needed to increase the accuracy of the carrier measurement. The ORION X flowmeter is able to detect only the passage of conductive liquids with a conductivity equal to or greater than 300 µS/cm. The chart below explains the meaning of the various light patterns that may be shown on the meter.

Table 4. Carrier Flowmeter Troubleshooting Lights

Light	Light Description	Flowmeter Status
	OFF (not illuminated)	The flowmeter is not powered
	Blinking Green	The flowmeter is waiting to acquire an address on the CAN line to which it is connected
	Solid Green	Presence of STILL liquid inside the flowmeter
	Solid Blue	The flowmeter is reading the passage of the liquid inside
	Solid Violet	No liquid has been detected inside the flowmeter
	Solid White	Cleaning of the reading electrodes in progress

Light	Light Description	Flowmeter Status
	Blinking Red	Error; the error codes are indicated through blinking pattern of the red light. Description of error codes listed below.
	Solid Red	Severe Error; Contact a service center

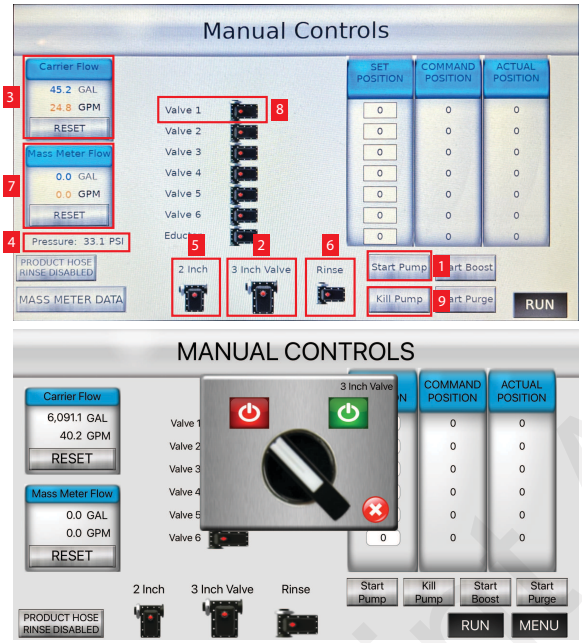
Number of Red Blinks	Error Code Description	Recommended Solutions
2	Hardware Error	Contact ARAG
3	Corrupted Calibration Data	Contact ARAG authorized service
4	Power supply voltage too high or too low	Check the power supply voltage and restore the correct value
5	Unstable reading	Check that the flow is normal and make sure to have complied with the hydraulic connection instructions (position, pipe dimensions, straight sections before and after the flowmeter, etc.)
6	Too high temperature has been detected	Check ambient temperature and, if outside the specified limits, turn off the device and, before turning it on again, wait for the temperature to fall within the specified ones
7	Setting data are corrupted and the default ones have been restored	Contact an ARAG authorized Service Center to check data integrity and to restore correct operation Check that all settings are as required, validate data by accessing the “New notifications” menu and press OK (the operation can be performed only by skilled technical staff)

8.2. Initial Flow Testing

SurePoint Ag strongly recommends testing your system with water upon first time startup and at the beginning of each season to confirm there are no leaks in the system and to confirm your flow rates are in an acceptable range. These verifications can determine if you have inefficiencies in your plumbing, pinpoint poor performing components, or discover where blockages are that will need to be removed to ensure peak performance.

SurePoint recommends using at least 1000 gallons of water in your carrier tank and at least two totes of water connected to your product valves. (Advised to check each of your product valves with these two totes).

Figure 87. Manual Controls



From the Main Menu, press RUN > Manual Controls to initiate your water only test.

1. Start the pump
2. Open the 3" valve
3. Document the carrier flow of 3 inch valve:_____GPM
4. Document the pressure of 3 inch valve: _____PSI
5. Close the 3" valve (2), and open 2" Valve
   Document the carrier flow of 2 inch valve:_____GPM
   Document the pressure of 2 inch valve: _____PSI
6. Open the rinse valve
7. Document the mass meter flow of rinse valve:_____GPM
   Close the rinse valve.
8. Open product valve 1.
   Visually confirm the tote volume is decreasing.
   Document the mass meter flow of Valve 1:_____GPM
   Move liquid tote hoses to other product valves and repeat to confirm flow rates and product valve operation.
9. Press Kill Pump when complete.

8.3. Periodic Flow Test

On the previous page you should have your baseline flow rates from your initial startup testing. This page is your periodic comparisons against those baseline numbers. SurePoint recommends completing these tests annually, or anytime you suspect flow errors.

Baseline

Date: M/D/Y __/__/____
3" flow GPM _____ Pressure_____
2" flow GPM_____ Pressure_____
Rinse Flow Mass GPM_____ Pressure_____
Product Flow Rinse GPM_____ Pressure_____

Normal Flow

3" flow > 200 GPM
2" Flow > 40 GPM
Rinse Flow Mass > 25 GPM
Product Flow Rinse > 20 GPM

*If normal flows are below values shown above, see Troubleshooting for more info
*All values shown with water, actual product will vary with viscosity

Periodic Test #1
Date: M/D/Y __/__/____
3" flow GPM_____ Pressure_____
2" flow GPM_____ Pressure_____
Rinse Flow Mass GPM_____ Pressure_____
Product Flow Rinse GPM_____ Pressure_____

Periodic Test #2
Date: M/D/Y __/__/____
3" flow GPM_____ Pressure_____
2" flow GPM_____ Pressure_____
Rinse Flow Mass GPM_____ Pressure_____
Product Flow Rinse GPM_____ Pressure_____

Periodic Test #3
Date: M/D/Y __/__/____
3" flow GPM_____ Pressure_____
2" flow GPM_____ Pressure_____
Rinse Flow Mass GPM_____ Pressure_____
Product Flow Rinse GPM_____ Pressure_____

Periodic Test #4
Date: M/D/Y __/__/____
3" flow GPM_____ Pressure_____
2" flow GPM_____ Pressure_____
Rinse Flow Mass GPM_____ Pressure_____
Product Flow Rinse GPM_____ Pressure_____

Periodic Test #5
Date: M/D/Y __/__/____
3" flow GPM_____ Pressure_____
2" flow GPM_____ Pressure_____
Rinse Flow Mass GPM_____ Pressure_____
Product Flow Rinse GPM_____ Pressure_____

Periodic Test #6
Date: M/D/Y __/__/____
3" flow GPM_____ Pressure_____
2" flow GPM_____ Pressure_____
Rinse Flow Mass GPM_____ Pressure_____
Product Flow Rinse GPM_____ Pressure_____

Periodic Test #7
Date: M/D/Y __/__/____
3" flow GPM_____ Pressure_____
2" flow GPM_____ Pressure_____
Rinse Flow Mass GPM_____ Pressure_____
Product Flow Rinse GPM_____ Pressure_____

Periodic Test #8
Date: M/D/Y __/__/____
3" flow GPM_____ Pressure_____
2" flow GPM_____ Pressure_____
Rinse Flow Mass GPM_____ Pressure_____
Product Flow Rinse GPM_____ Pressure_____

Periodic Test #9
Date: M/D/Y __/__/____
3" flow GPM_____ Pressure_____
2" flow GPM_____ Pressure_____
Rinse Flow Mass GPM_____ Pressure_____
Product Flow Rinse GPM_____ Pressure_____

Periodic Test #10
Date: M/D/Y __/__/____
3" flow GPM_____ Pressure_____
2" flow GPM_____ Pressure_____
Rinse Flow Mass GPM_____ Pressure_____
Product Flow Rinse GPM_____ Pressure_____

9. Links and References

Navigate to any additional SurePoint manuals, accessories, or parts webstore by following the links or QR codes below.

Figure 88. SurePoint Ag Webstore Home

SCAN ME

*Find any replacement parts for SurePoint products. *Must have dealer login to place order**

Figure 89. SurePoint Ag Support Site

SCAN ME

Find any reference material for all SurePoint products

Figure 90. SurePoint Spray Tender Webstore

SCAN ME

Figure 91. QuickDraw 3000 Product Support Page

SCAN ME

Find reference material specific to QuickDraw 3000, and supporting products/accessories

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SurePoint Ag Systems

9904 Highway 25

Atwood, KS 67730

Call: 866-626-3670

Text: 785-626-7391

surepointag.com