



USER MANUAL

MODEL:

ALX-PRO

Chemical Allocation Controller

English (Original Instructions)

Updated: 02/22/2022



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Safety Warning



- All personnel servicing this unit must be familiar with the information contained in this manual. Follow all installation and maintenance instructions.
- Follow safety instructions of chemical manufacturer (SDS).
- Wear proper PPE when working with chemicals (gloves, safety glasses, face shield, etc.)
- Always follow plant and OSHA guidelines.
- Avoid contact of chemicals with skin and eyes. If contact occurs, see SDS sheet for further first aid measures.
- Follow all local codes for backflow prevention when connecting to a potable water supply.
- Disconnect power before servicing equipment.
- **WARNING: Severe damage to your facility, or contamination of your water supply, can occur without proper backflow prevention.**

Overview

The ALX-PRO offers the highest level control system available to accurately measure, dispense, and record chemical consumption. PRO units allow authorized Users to log in with a 4-digit code or RFID card to reliably dispense chemicals via time or weight-based methods. The 10" touchscreen and stainless steel keypad provide an easy interactive platform, making the dispensing process as smooth as possible.

All PRO systems integrate with the Clean Intel website, an online reporting and configuration dashboard. Its secure connection ensures privacy of all data and allows managers to create new users, monitor dispense permissions, construct chemical application recipes, and more both in the field or on the go.

Specifications

- Dimensions: 16" x 14" x 8"

Software [V5]

- Maximum number of Users: 500
- Maximum number of Manifolds: 10
- Max number of pumps/chemicals: 32
- Maximum number of Applications: 500
- Maximum Dispense Steps per Application: 6
- Dispense Step time range: 00.1s - 99m:99.9s
- Permissions time range: 1-24 hours
- Max Permissions count: 99
- Maximum number of Devices: 16

NOTE: A single CAN-SO-4 counts as 4 Devices.

Acceptable Chemical Products

- Acids
- Caustics
- Sanitizer
- Chlorine

Terminology

- **Users** - The people who will be using the system to dispense Applications. Up to 999 users can be stored.
- **Permissions** - Control the number of times each User can access each Application. Can be disabled.
- **Devices** - The physical outputs and/or inputs that connect to the controller to perform a function. The ALX-PRO is compatible CAN-SO-1 and CAN-SO-4 solenoid valve output devices as well as CAN-SC devices for weight-based applications.
- **Applications** - Recipes which determine the type and sequence of Dispense Steps. Up to 999 recipes can be stored.
- **Dispense Steps** - Segments of an Application that determine which output Device will be energized and for how long. Each Application can contain up to 6 Steps.
- **Fixed Time Step** - Will energize an output Device for a specified amount of time. Reported Step volume must be manually entered.
- **Calibrated Step** - Uses Device Calibration to determine how long an output Device should be energized, based on a specified target volume.
- **Weight-Based Step** - Uses Scale Calibrations to determine how long an output Device should be energized, based on weight. Requires CAN-SC device for integration with ALX-PRO.

PROTECT THE ENVIRONMENT

Please dispose of packaging materials, old machine components, and hazardous fluids in an environmentally safe way according to local waste disposal regulations.



Please remember to recycle.

Installation Requirements

Compressed Air (typical installation)

- Clean, dry air
- 10 CFM (283 L/min) @ 80 psi (5.5 bar) minimum
- 100 psi (6.9 bar) maximum supply pressure
- Recommended regulator setting: 80 PSI (5.5 bar).

Water Supply (typical installation)

- Cold Portable Water
- 7 GPM (26.5 Lpm) @ 35 psi (2.5 bar) minimum
- 100 psi (6.9 bar) maximum supply pressure
- Recommended regulator setting: 50 PSI (3.4 bar)

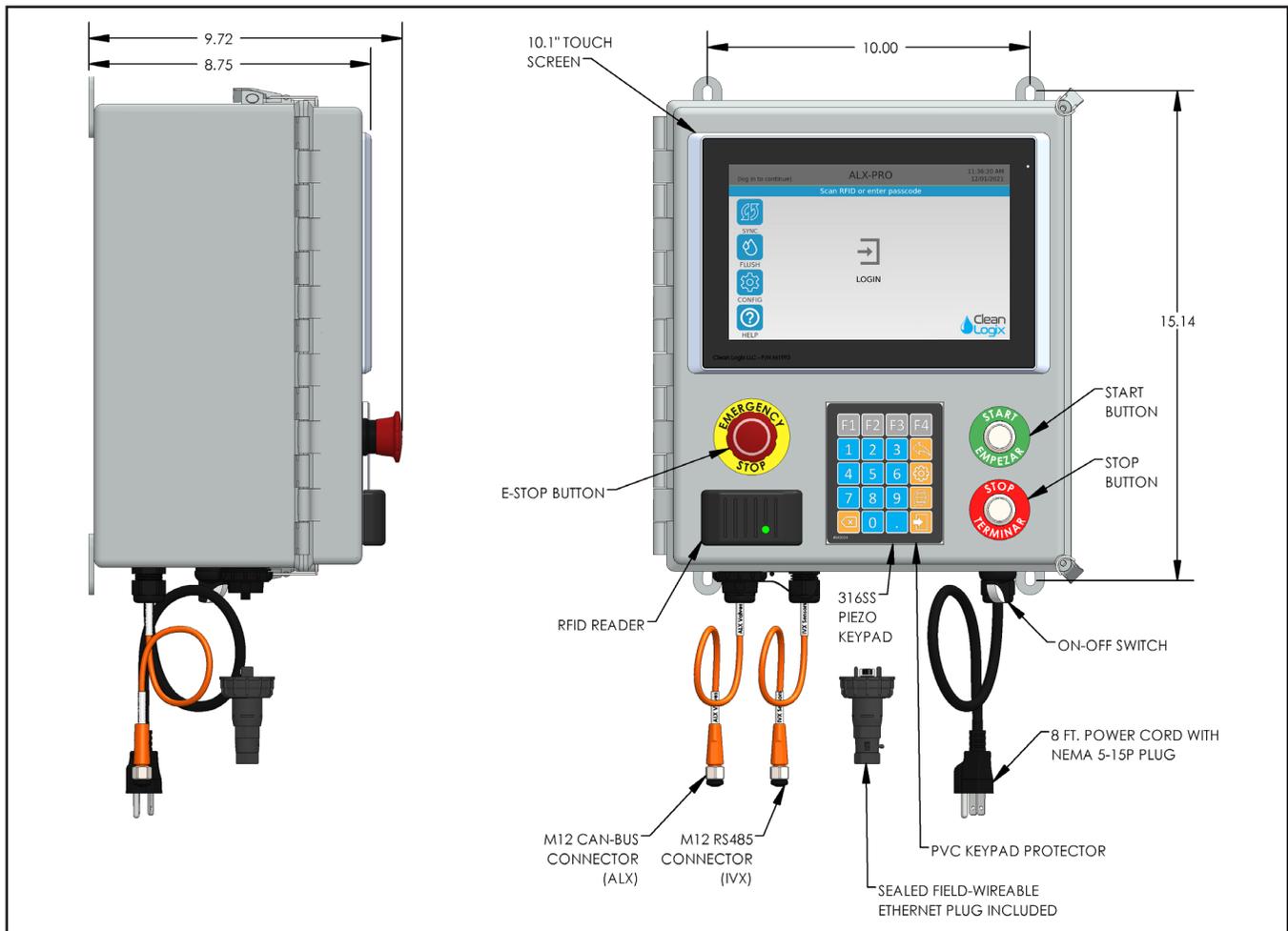
Electrical

- 110 VAC, 5A, Single Phase, 50-60 Hz
- NEMA 5-15 GFCI Protected Outlet
- Surge suppression recommended

Network

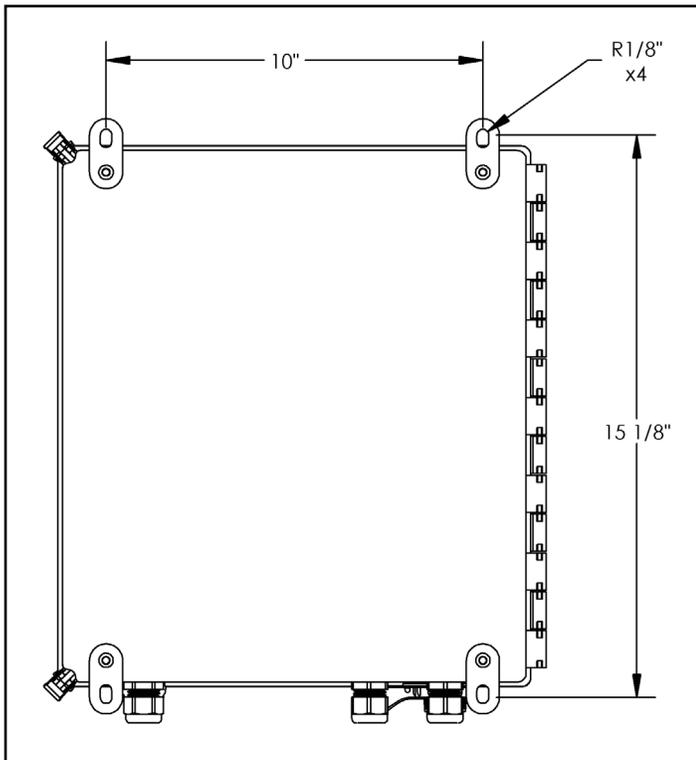
- Cat 5e or higher Ethernet cable connection (field-wired sealed plug included with unit)
- CELL-POE cellular box (sold separately)

NOTE: A back flow preventer must be installed in the water supply to this unit, per local codes.



Mounting Controller

1. Determine mounting location, with consideration of the following:
 - User accessibility
 - Distance to electrical outlet
 - Distance to Devices/pumps
 - Accessibility to Ethernet
2. Attach the included mounting feet to the controller.
3. Securely mount unit to wall using appropriate hardware (not included).



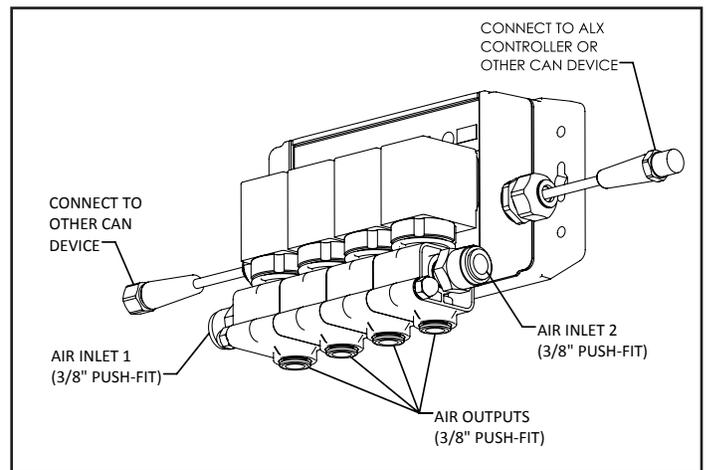
4. Plug power cord into a 115 VAC, GFCI protected receptacle.
5. Using the included sealed ethernet plug, connect Ethernet (either from the facility or CELL-POE) via Cat 5e cable (or similar).

Connecting Devices

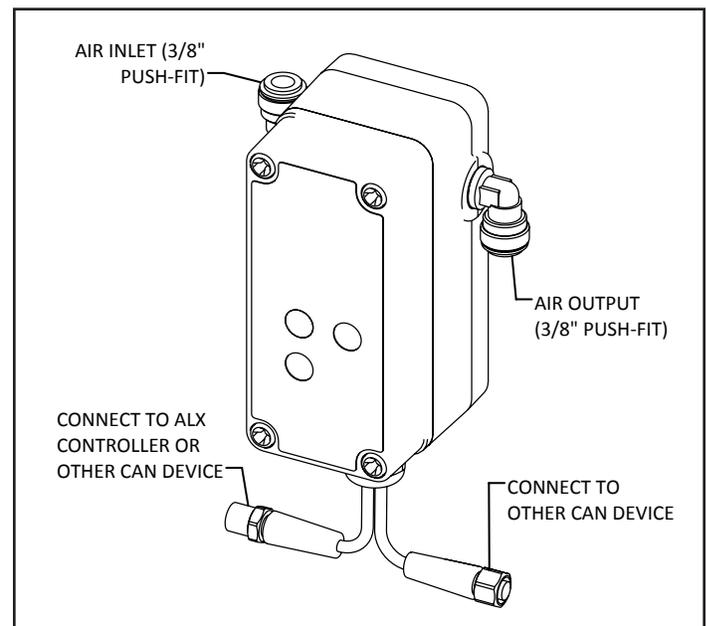
The following types of Devices are compatible with the ALX-PRO:

- **CAN-SO-4:** A four output, 3-way solenoid valve pack for controlling 1/2" or smaller AODD pumps and/or air operated valves
- **CAN-SO-1:** A single output, 2-way solenoid valve for controlling up to a 1" Air Operated Double Diaphragm (AODD) pumps

CAN-SO-4



CAN-SO-1

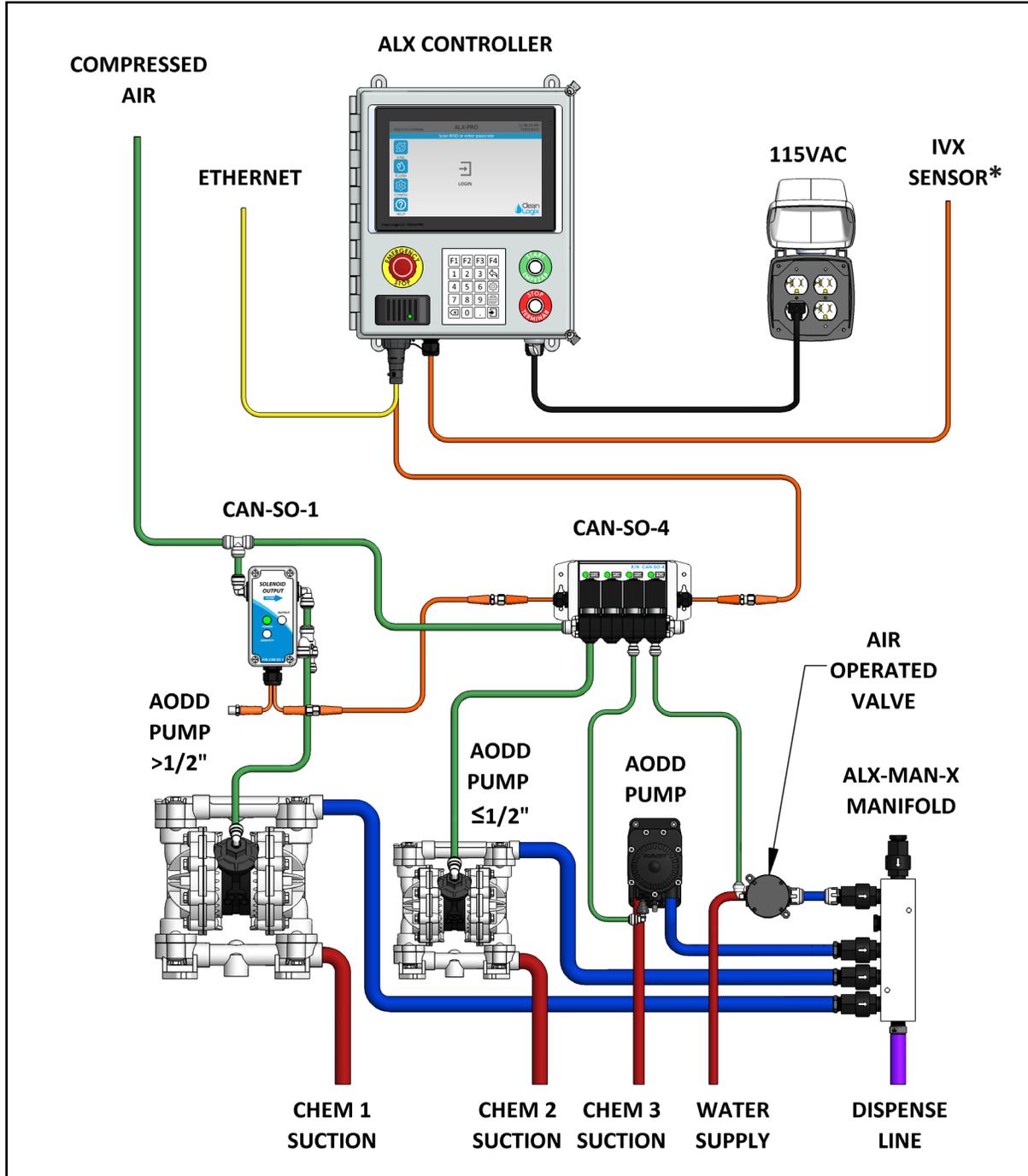


Connecting Devices (continued)

1. Mount and connect Devices in a daisy-chain fashion using the orange M12 cables. They can be installed in any order. (**NOTE:** If purchased as a -KIT, the Devices will be supplied pre-mounted and connected)
2. Hand tighten M12 cable connections, then tighten two more clicks using wrenches.
3. Plumb compressed air lines and fluid lines for pumps and valves as necessary [see below]

**See Appendix for IVX Sensor Integration*

Installation Example:



Configuration

General Settings

1. Login as admin using the keypad or RFID

NOTE: Contact Clean Logix for admin setup.

1. Press **CONFIG** on the side menu
2. Under the **General** tab, the software version and unit ID can be viewed.
3. The following Configuration options are available:

- **Dispense Permissions:** limit the number of dispenses each user can access per/day or not. Toggle on (to the right/blue) to enable.
- **Max Dispense Time:** If enabled, will limit the maximum amount of time (seconds) that an application recipe can be dispensed for. Use the + and - buttons or press the entry window to type in a value.

NOTE: To avoid ending dispenses early, set the **Max Dispense Time** so that it will not compromise larger dispense Applications.

- **Time Zone:** Identifies Time Zone for operation area. Used in reports and logs.
- **Water Flush:** If enabled, will allow water flushes for an allotted amount of time. Use the + and - buttons or press the entry window to type in a value.
- **Water Flush Required:** If enabled, requires a water flush between dispense applications to flush manifold and dispense lines.
- **Clear All Learned Calibrations:** Clears all previously logged dispense calibrations for pump overshoot.

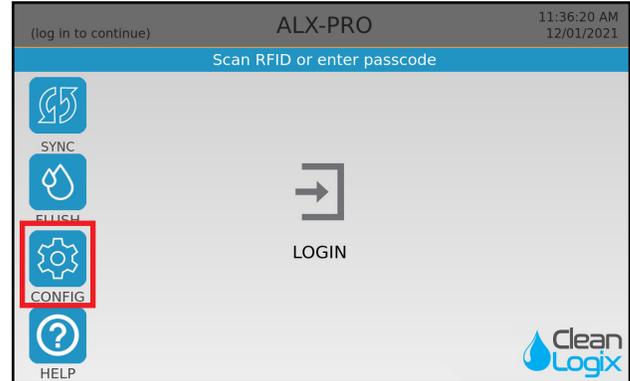


Fig. 7.1: Home screen, Configuration selection



Fig. 7.2: Admin screen, General selection

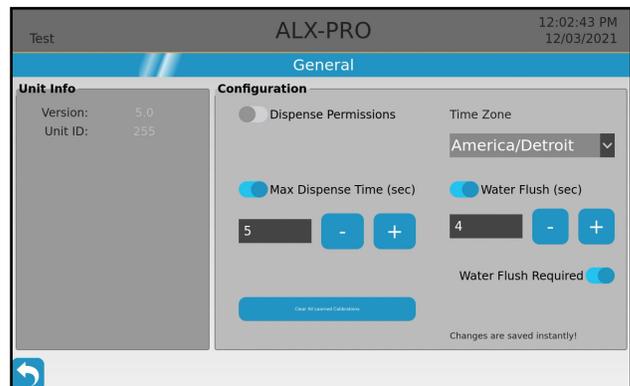


Fig. 7.3: General settings screen



More Information

Please contact Clean Logix at:

(616)-438-9200 or sales@clean-logix.com

Configuration (cont.)

Add New User

1. From the configuration screen, select Users.
2. Click the blue Add New User button to add a new user
 - **Name:** User name, used in reporting
 - **Key Code:** 4-digit passcode for login.
 - **RFID:** Optional RFID access. Scan RFID code at unit to enter.
 - RFID cards must be assigned to each user. RFID codes cannot be used between multiple users.
 - *iClass* or *MIFARE* cards will not register

NOTE: HID Prox cards are fully supported. RFID cards are available for purchase from Clean Logix. Contact us for more details.

3. Select the green check mark to save user.
4. Sync with Clean Intel - Unit must be synced before user is added to list and able to login.

NOTE: To edit or delete an existing user log onto Clean Intel.

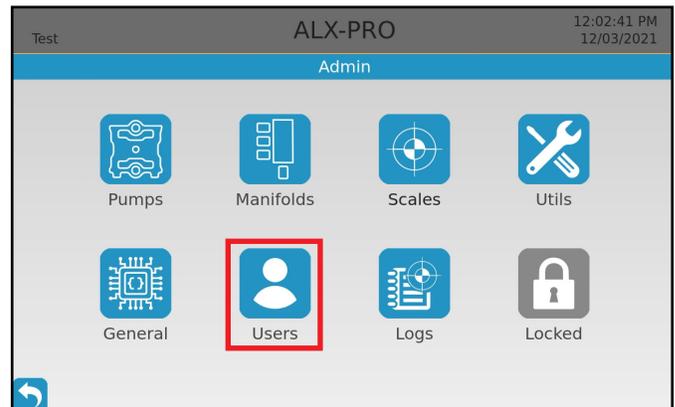


Fig. 8.1: Admin screen, General selection

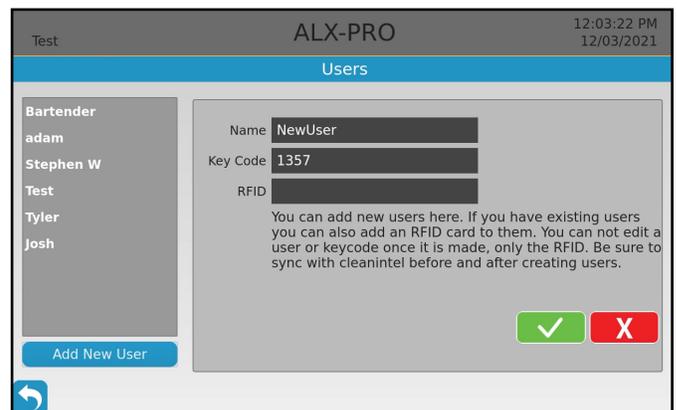


Fig. 8.2: Users screen

Configuration (cont.)

Pumps

In order to dispense chemical with the ALX-PRO, the following requirements are necessary:

- Each chemical being dispensed must be assigned to a Pump (i.e. solenoid device).
- Water must be assigned to each manifold that requires water **or** if the manifold flush function will be used.

1. From the admin configuration page select **Pumps**

2. The left sidebar will display a list of all the available pump solenoid devices.

- **Green:** The device is connected
- **Red:** The device is disconnected or not receiving power
- **Orange:** Current selected device.

3. Select a pump solenoid device from the list by clicking on it. The following details and options will be available:

- **ID:** Solenoid device ID number. This number will be labeled on a corresponding CAN-SO-4 or CAN-SO-1.
- **Manifold:** Manifold the pump is/will be connected to physically for dispensing.

NOTE: Chemicals need to be set up on Clean Intel for selections to be available.

- **Chemical:** The chemical that will be pumped for dispenses using this solenoid.
- **Calibration Type:** Dispense calibrations for precise measurements.
 - **Time Cal:** always available
 - **Weight Cal:** requires scale (see page 13 for more information on calibrations).



Fig. 9.1: Admin screen, Pumps selection

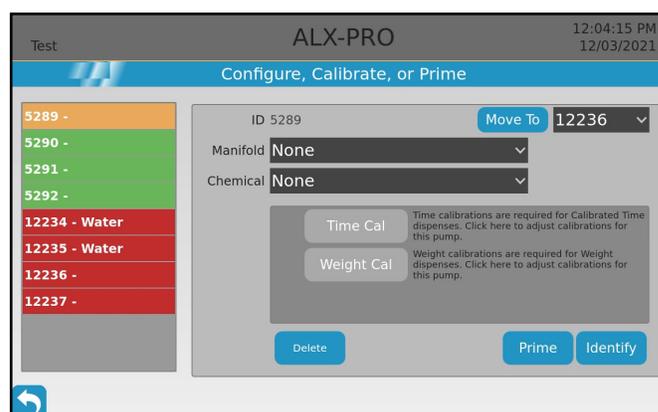


Fig. 9.2: Pumps screen

General

Installation

Configuration

Operation

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Appendices

Configuration (cont.)

Pumps (cont.)

- **Prime:** Actively runs the pump for up to 30-seconds, without dispense application selection. Used for initial set up and troubleshooting.
- **Identify:** Causes light on solenoid device to blink. Do not cause pump to run - visual indicator only.
- **Move To:** Migrates the pump settings to another solenoid device. Pick a selection from the drop down menu, select **Move To**, and confirm to save changes.
- **Delete:** to remove a pump and its settings select the blue delete button.

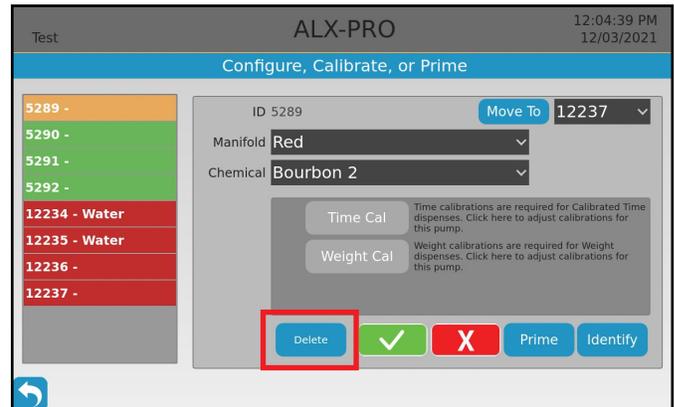


Fig. 10.1: Pumps screen, delete selection.

CAUTION:

When deleting a pump, all calibrations for both time and weight based dispensing will be removed. If the pump device is later re-added it will need to be recalibrated prior to dispensing.

NOTE: Deleting pumps should only happen when a device breaks and is replaced. If the device is deleted and reconnected, it will automatically show up in the list of pumps again with no chemical assignments.

Configuration (cont.)

Manifolds

1. From the configuration page select **Pumps**
2. The left sidebar will display a list of all existing manifolds.
3. Select a manifold from the list to display its details
 - **Name:** Text identifier for manifold. Used in various configuration and operation screens as well as reports.
 - **Color Selection:** Visual reference for manifold, used in configuration and operation screens. Does not affect performance or functions.
 - **Scale:** For weight-based units only. Identifies whether manifold will use a scale or not for dispenses. Connected scales will appear available for selection.
 - **Water Configuration:** Identifies whether water is currently connected and configured for a pump on this manifold. Required for water flushes.
 - **Delete:** to remove a manifold entirely select the blue delete button at the bottom right.

Adding Manifolds

1. Add a new manifold by clicking **Add** in the **Manifolds Settings** screen, at the bottom of the manifold list.
2. Give the Manifold a name.
3. Select the color to be displayed with this manifold.
4. If the manifold will use a scale for weight based dispenses, select it from the list.

NOTE: If the scale is not listed, it will need to be added and configured (see page 13)

5. When finished, select the green checkmark to save the Manifold and add it to the list.



Fig. 10.1: Admin screen, Manifolds selection.

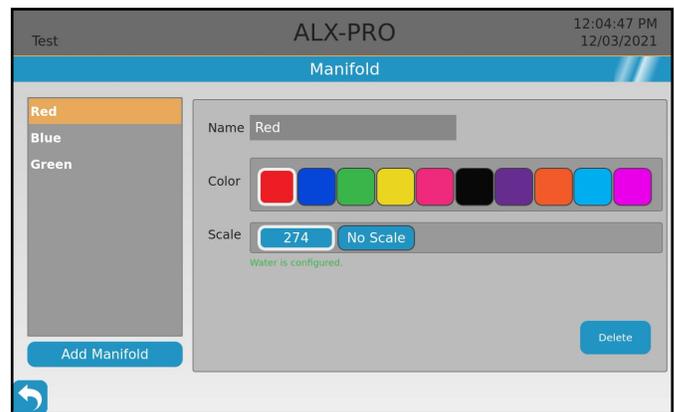


Fig. 10.2: Manifolds screen, active manifold selection.



Fig. 10.3: Manifolds screen, new manifold

Configuration (cont.)

Before the unit can dispense chemical, each pump must be primed so the chemical fills up the hose to the manifold for accurate dispense volumes.

Priming Pumps

1. Ensure tubing and hoses are all properly connected between the chemical container, pump, and manifold.

NOTE: Before the pumps start to prime, a solenoid device must be assigned water to that manifold to perform a manual water flush between priming pumps.

2. Arrange a suitable contain and ensure the dispense line above or inside it to catch the liquid to measure.
3. Navigate to the Pump configuration screen.
4. Select the solenoid device for the pump you want to prime.
5. Select the Prime button at the bottom right corner of the screen.
6. When ready, press the **Start** button to turn the Device output on and begin pumping solution.

⚠ WARNING:
Pressing the START key on this screen will cause the output to turn on and the pump to run! Wear PPE and be ready to contain the flow of chemical in an appropriate vessel!

7. When liquid begins dispensing out of the main dispense line press **Stop** to cease pump activity.
8. Perform a manual water flush to clean the manifold and dispense line before priming or dispensing another chemical.

Repeat this process for each pump.

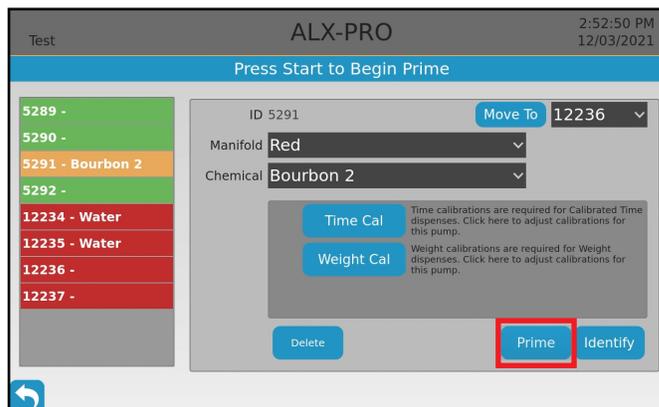


Fig. 12.1: Pumps screen, Prime selection.



Fig. 12.2: Start button

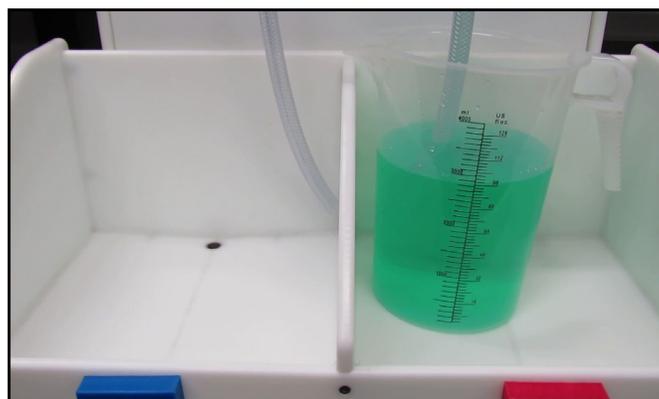


Fig. 12.3: Dispense container (shown on ALX Tower)

Calibrations

Weight-Based Scale Set-Up

Weight-based ALX-PRO models will require their scales to be calibrated prior to use to ensure the best accuracy when dispensing.

1. From the admin configuration screen, select **Scales**.
2. A list of connected scales will be listed
 - **Green**: The device is connected, configured, and ready to be used.
 - **Red**: The scale is connected, but has not be set up.
3. Select the scale to calibrate.
4. Make sure there is nothing on the scale, then click **Tare Scale**. The scale will be zeroed out.

NOTE: If installed in an ALX dispensing tower kit with a scale, ensure the jug trays are empty, properly installed, and nothing is underneath or affecting their contact with the scale.

5. Place a weight, between 10-30 lbs., on the scale.

NOTE: The specific weight of this object *must be known and ideally calibrated for accuracy.*

6. Using the keypad, enter the weight and click **OK**.
7. With the weight still on the scale, press Measure Now to display a live weight reading.
 - The live reading should match your entered value from the previous step.
 - If it does not the scale must be recalibrated - Remove all weight from the scale and click **Tare Scale** to start over.

Clean Logix recommends recalibrating the scale every 2-3 months to ensure the best accuracy.



Fig. 13.1: Admin screen, Scales selection



Fig. 13.2: Scales screen, no selection, 1 un-configured scale

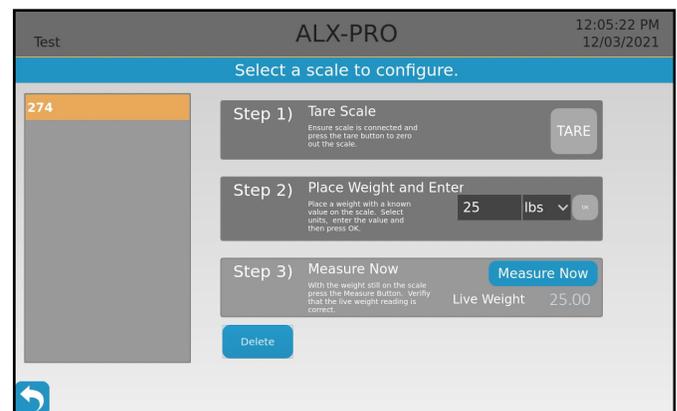


Fig. 13.3: Scales screen, scale calibration in progress

Calibrations (cont.)

Weight-Based Overshoot Calibrations

When dispensing pump overshoot is always possible which may alter your final dispense volume. To help ensure greater accuracy, Weight Calibrations can be entered for each pump to help manage overshoot and provide more accurate dispenses.

1. From the admin configuration screen, select **Pumps**.
2. Select a configured pump device to calibrate.
3. Ensure a manifold and chemical is identified for the chosen pump solenoid devices and select **Weight Cal** - The Weight Calibration screen will launch.
4. Identify settings to calculate:
 - **Use Learning:** OPTIONAL - if enabled, system will auto-log dispense volumes and will auto-calculate overshoot over time for more accurate dispenses. (is not immediate)
 - **GPM:** The estimated gallons per minute measurement of the connected chemistry or solution. *May vary depending on viscosity and temperature. Contact your chemical manufacturer or distributor for support.*
 - **Pre Act:** The overshoot dispense amount (oz), or the amount that continued to dispense after the pump turned off.
5. Once entered, select **Calibrate Pre Act**.
6. Arrange a suitable container, **with accurate volume markings**, and ensure the dispense line is above or inside it to catch the liquid to measure.
7. Enter the target volume for the dispense.
8. Press **Start** to begin dispensing - the scale will measure the volume and will stop the pump once the target volume is reached.
9. Wait for the dispense to finish.
10. Confirm the volume dispensed or alter as needed.

Repeat for all other pumps.



Fig. 14.1: Admin screen, Pumps selection

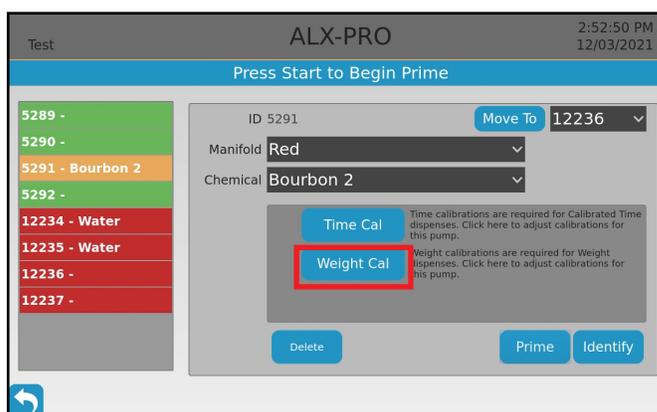


Fig. 14.2: Pumps screen, pump selected with Cal options

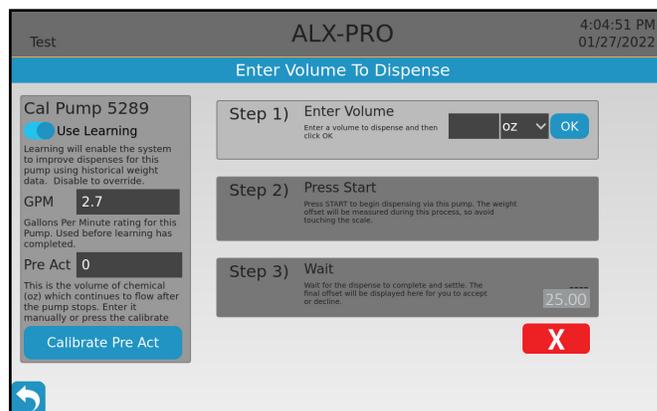


Fig. 14.3: Scales screen, scale calibration in progress

Calibrations (cont.)

Time-Based Calibrations

Before pumps can perform Time-Based dispenses they will each need to be calibrated for the chemical they will be controlling. Time-based calibration entry requires pump to run and chemistry to be dispensed.

1. From the configuration screen, navigate to Pumps
2. Select a green, configured pump device to calibrate
3. Ensure a manifold and chemical is identified for the chosen pump solenoid devices and select **Time Cal**
4. The Time Calibration screen will appear with 2 calibration point windows.
5. Ensure tubing and hoses are all properly connected between the chemical container, pump, and manifold.
6. Arrange a suitable container, **with accurate volume markings**, and ensure the dispense line above or inside it to catch the liquid to measure.
7. Press the **Update** for the first calibration point to add or update the first calibration point. A new window will appear with step-by-step instructions.
8. Press **Start** to begin dispensing. The calibration timer will calculate how long the pump runs for.

TIP: For increased accuracy, dispense for the shortest amount of time you intend to run this pump for in regular applications.

Ex) if you anticipate the shortest dispense to be 10 sec. long, run the pump for 6 sec.

WARNING:

Pressing START will cause the output to turn on and the pump to run! Wear PPE and be ready to contain the flow of chemical!!

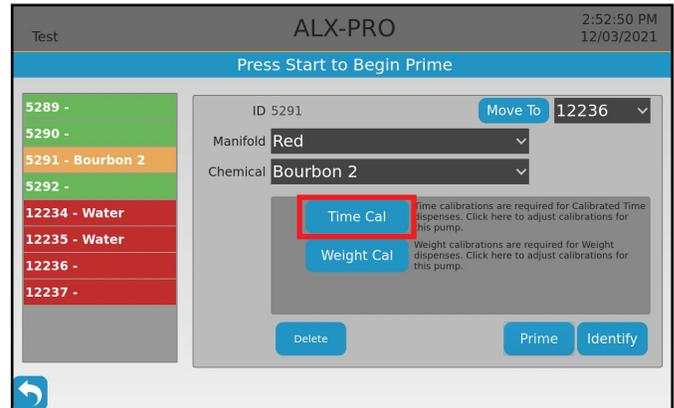


Fig. 15.1: Pumps screen, Time Calibration selection.

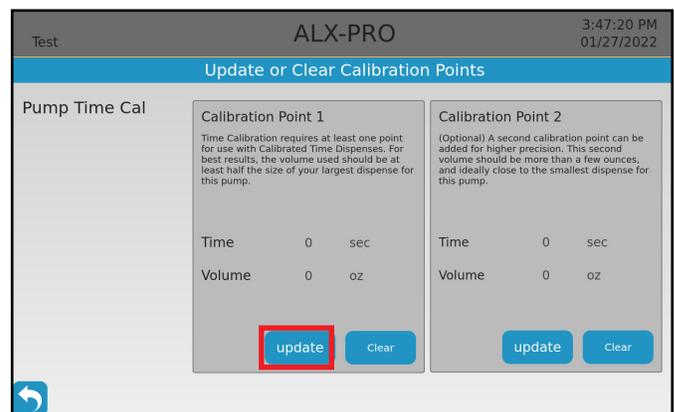


Fig. 15.2: Time Calibration window, update selection.

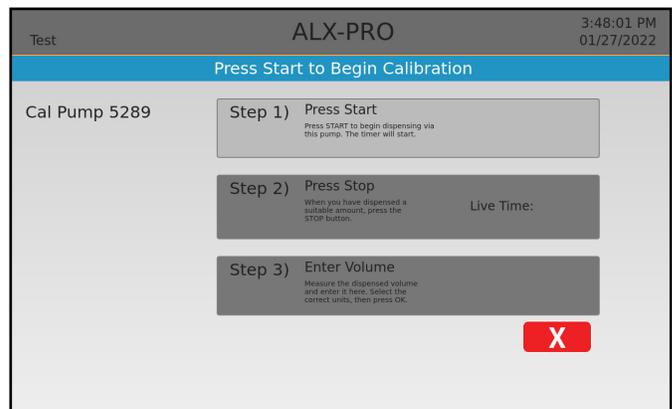


Fig. 15.3: Time Calibration process window - new entry.

Calibrations (cont.)

Time-Based Calibrations (cont.)

9. Press **Stop** to cease pump activity.
10. Measure the volume dispensed in the container.
11. Enter the volume measurement to complete the first calibration point.
12. Click **Confirm** to save the calibration value. The screen will return to the main Time Calibration window.
13. Select Update on the second calibration to add a second data point.

NOTE: Only one calibration point is required to enable Timed Calibrations. Clean Logix recommends having 2 calibration points per pump to ensure accuracy.

TIP: For the second calibration point, dispense for the longest amount of time you intend to run this pump for in regular applications.

Example) if you anticipate the longest dispense to be 20 sec. long, run the pump for 25 sec.

14. Press **Start** to begin dispensing and follow the previous instructions to enter the volume.

Repeat this process for ALL pumps (*including water*) that will be dispensing via time based values.

Deleting Calibrations

1. Select the pump to remove calibration point and open the Time Cal screen.
2. Click **Clear** to remove values for each point.

NOTE: Clearing calibrations should be a rare occurrence, but may be required if changes in the plant environment occur (e.g. change in air/water pressure, hose length, pump type, etc). That may affect the speed at which chemical is dispensed.

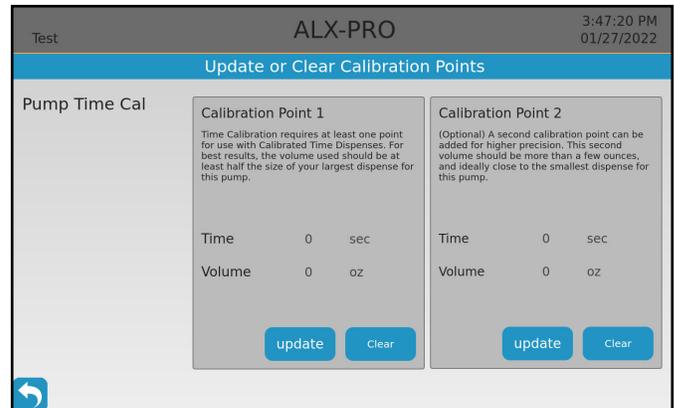


Fig. 16.1: Time Calibration screen with cleared values.

Operation

Application Dispensing

- To begin dispensing, log in as a User by either swiping a RFID card or typing their 4-digit passcode to login.
- On login, the Application browser will load.
- Select an application to dispense by one of the following methods:
 - App Code:** Begin typing in the app's 4-digit code. The browser will begin filtering down the results.
 - Filtering:** Using the sidebar menu, select the manifold, chemical, and/or location to filter down the results.
 - Browsing:** Using the arrow keys at the top of the screen, sift through the application recipes page by page.

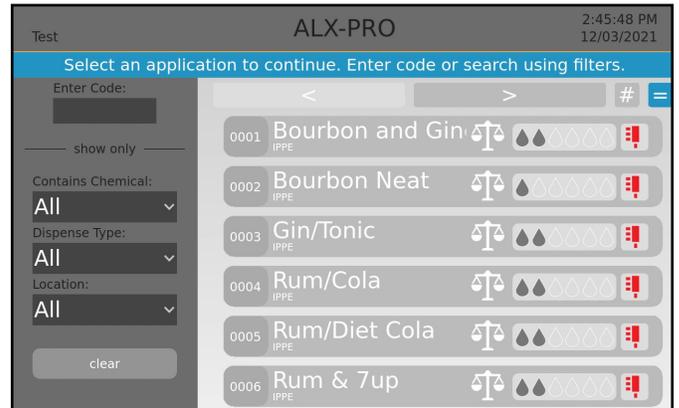
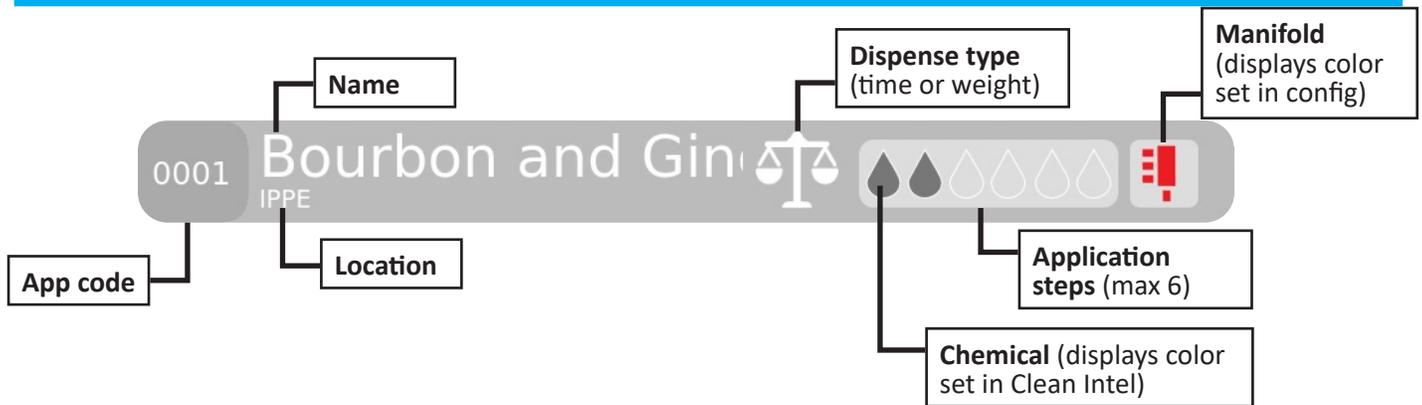


Fig. 17.1: App Selection screen, no filters enabled.

NOTE: Application cards will display the code, name, location, dispense type, # of chemicals/steps, and which manifold it is connected to.



- Select the Application to be used - the dispense window will launch.
- Arrange a suitable container and ensure the dispense line above or inside it to catch the liquid to measure.

Operation (cont.)

Application Dispensing (cont.)

6. Press **Start** to begin dispensing.
7. When the dispense has completed 3 options will be available:
 - **Go Back:** Return to Application Browser
 - **Flush:** Perform a water flush (settings configured by admin, see page 7)
 - **Repeat:** Dispense the same application again, immediately.
8. Alternatively, press **Stop** to log out.

Manual Water Flush

Manual water flushes can be performed at any time, for any manifold with water connected.

1. Select **Water Flush** from the home screen - the Manifold selection screen will appear.
2. Select a Manifold to flush.

NOTE: All manifolds will be listed, regardless of water connection. If a manifold does not have water configured it will display an error message on the top header and not function.

3. Press **Start** to open the solenoid valve and begin dispensing water.
4. Press **Stop** to cease pump activity and stop flushing water.
5. Repeat with other manifolds as necessary or return to the home screen.

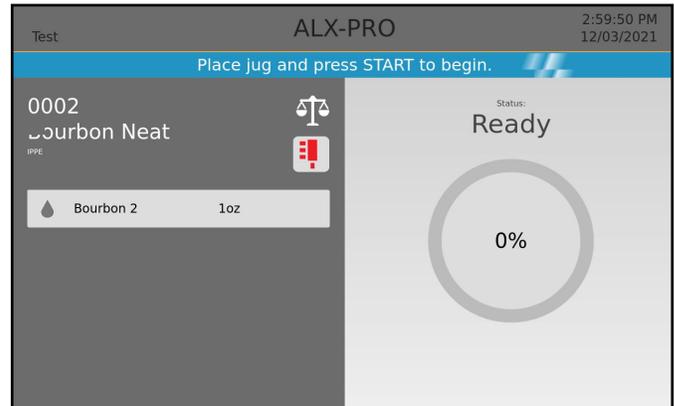


Fig. 18.1: Dispense screen - Ready

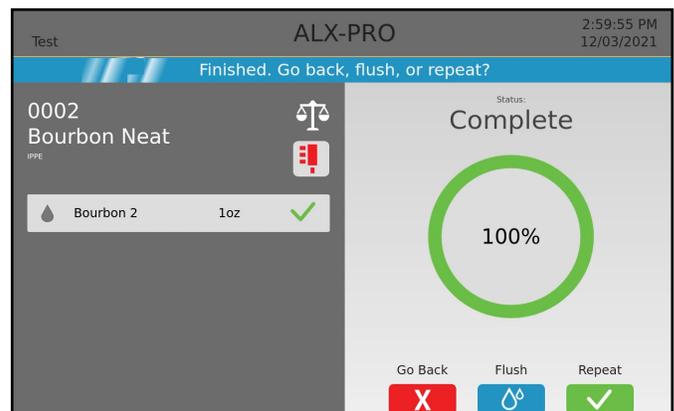


Fig. 18.2: Dispense screen - Complete

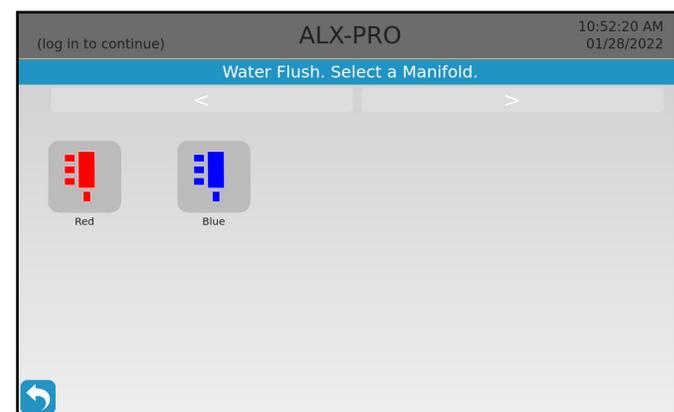


Fig. 18.3: Manual Flush Screen

Reporting

Syncing to Clean Intel

1. To sync information to and from **CleanIntel.com**, press the **Sync** button in the bottom right corner of the home screen.
2. A data transfer will automatically initiate from the unit to the website and back again through the cellular router.
3. The unit will sync up all the data logs of dispenses including:
 - Which users have logged in
 - How much chemical has been dispensed
 - Which applications have been used
 - The time and duration for all dispenses
4. If a manager has created a new user, updated the list of chemicals or applications, or added new user permissions on **CleanIntel.com**, the syncing process will update the unit with this new data.
5. The unit is configured to sync to **CleanIntel.com** hourly, so a user will rarely need to manually sync.
6. If the syncing fails, ensure the unit has internet connection by checking the network connection method (ethernet, WiFi, or CELL-POE).
 - If configured with a CELL-POE device, check the router's status lights:
 - 4 Solid Bars = Strongest signal
 - 1 Red Bar = Weakest signal

NOTE: Consult the CELL User Manual for additional information or troubleshooting.

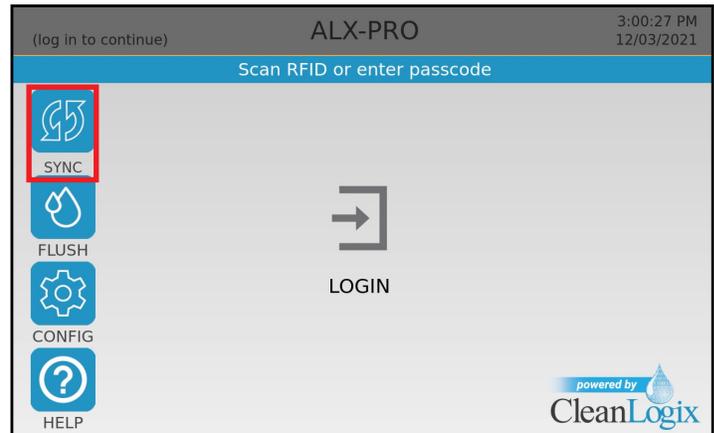


Fig. 19.1: Home screen, Sync selection

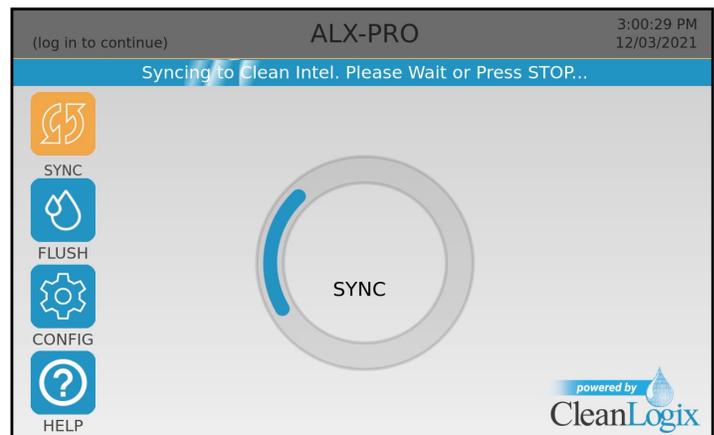


Fig. 19.2: Sync in progress



Fig. 19.3: Cradlepoint Cell Router connection status lights

Reporting (continued)

History Logs

The ALX-PRO will continually log data, which can be viewed at any time via the Logs section of the admin configuration menu.

1. From the configuration screen, select Logs
2. Using the drop down menu, select which activity log to view
 - **Dispense History by App:** Date, time, user, and amount for each application recipe. Organized by Application.
 - **Dispense History by User:** Date, time, and application consumption for each dispense. Organized by User.
 - **Pump Calibration History:** Date, time, user, and data entry for pump calibration changes (adding, editing, or deleting). Organized by pump solenoid device.
 - **All Configuration History:** Complete history log of all admin configuration setting changes. Organized by user.
 - **Manifold Configuration History:** Date, time, user, and data entry for manifold configuration settings (adding, editing, or deleting). Organized by manifold.
 - **Pump Configuration History:** Date, time, user, and data entry for pump configuration settings (adding, editing, or deleting). Organized by pump solenoid device.
 - **Scale Configuration History:** Date, time, user, and data entry for weigh scale configuration settings (adding, editing, or deleting). Organized by scale.

NOTE: Only weight based units equipped with scales will display Scale Configuration History.

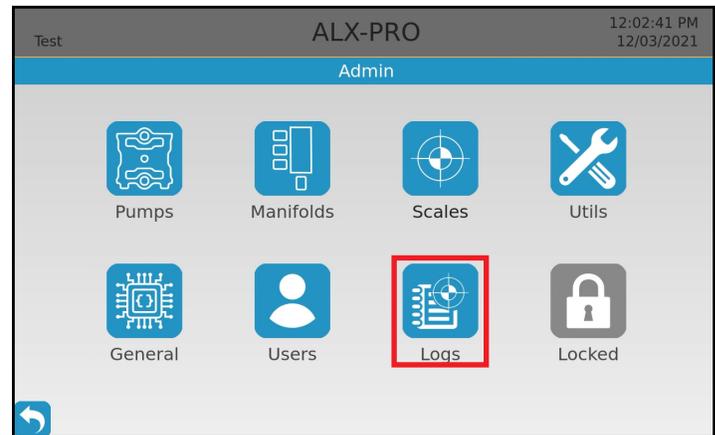


Fig. 20.1: Admin screen, Logs selection

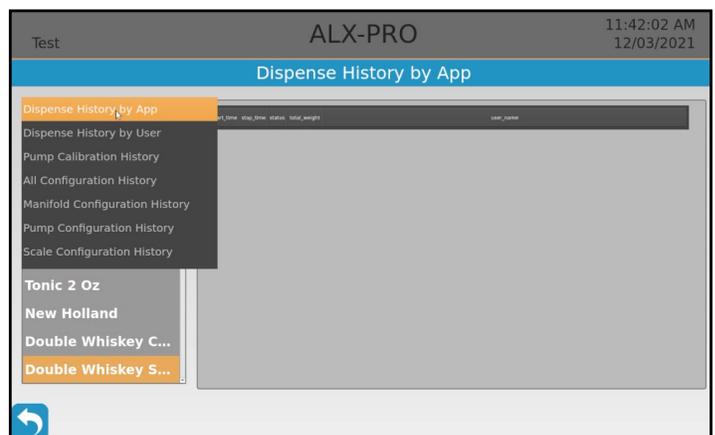


Fig. 20.1: Admin screen, Logs selection

Troubleshooting

Invalid App Code

Cause	Solution
The code typed in does not reference any existing application setup on cleanintel.com.	<ul style="list-style-type: none"> Use the application browser to find the correct application. If not available, the application may not be set up. Contact your system administrator for support.

Chemical not assigned to pump

Cause	Solution
A chemical in the application is not assigned to a pump.	<ul style="list-style-type: none"> Ensure all solenoid devices have power. Navigate to Pump Configuration and assign the chemical to a device.

All Chemicals not on Same Manifold

Cause	Solution
The application trying to dispense has multiple chemicals, but not all are assigned to the same manifold.	<ol style="list-style-type: none"> Navigate to Manifold Configuration screen. Assign the chemicals in the application to the same manifold. (See Page 11).

Flush required, no water assigned to manifold

Cause	Solution
Water is not assigned to the manifold that has an application that is trying to dispense, but a post-dispense water flush is required.	<ol style="list-style-type: none"> Navigate to Manifold Configuration screen. Assign the water to the same manifold as the rest of the chemical in that application. (See Page 11).

No App Permissions Set Up

Cause	Solution
No permissions to dispense this application have been setup for this user on cleanintel.com.	<ol style="list-style-type: none"> Login to Clean Intel Navigate to Users and edit the user's permissions to be able to dispense that application. Sync the unit to push changes to the ALX-PRO <p><u>Alternative:</u> under General Settings select "Don't Use Permissions" (See Page 7)."</p>

Troubleshooting (continued)

Too Many Uses

Cause	Solution
The application has been dispensed by that particular user to their max permission level within a 24-hour period.	<ol style="list-style-type: none">1. Login to Clean Intel2. Navigate to Users and edit the user's permissions to be able to dispense that application more times within a 24-hour period.3. Sync the unit to push changes to the ALX-PRO. <p><u>Alternative:</u> under General Settings select "Don't Use Permissions" (See Page 8)."</p>

Warning: No Calibrations Near Dispense Size

Cause	Solution
There are no calibrations close to the amount of chemical that is attempting to be dispensed.	<ol style="list-style-type: none">1. Navigate to Pump Configuration and assign the chemical to a device.2. Select the pump requiring calibration3. Calibrate a value close to the dispense amount. (See Page 14-15).

Pump Needs Calibration

Cause	Solution
The application trying to dispense is time-based and needs the pump to be time-calibrated, but the pump is not.	<ol style="list-style-type: none">1. Navigate to Pump Configuration.2. Select the pump requiring calibration and select Time Cal.3. Set calibration points as necessary (See page 15).

Scale Not Assigned

Cause	Solution
The scale has not been assigned to a manifold in the Admin screen.	Navigate to Manifold Configuration screen and assign the scale to the manifold. (See Page 11).

Troubleshooting (continued)

The Scale is not Connected

Cause	Solution
The scale is not connected to the CAN-SC scale conditioner	Verify the connection from the scale conditioner to the scale.
The CAN-SC scale conditioner is not receiving power.	<ul style="list-style-type: none"> • Ensure CAN cables are connected, secure, and free of corrosion. • Check for a red light on the CAN-SC scale conditioner is receiving power.
The scale has not been calibrated.	Navigate to Scale Configuration. Follow on-screen instructions to calibrate. (See Page 13).

Dispense Cancelled

Cause	Solution
User pressed STOP before the dispense finished.	<p>During a dispense, do not press any buttons until the ALX-PRO stops dispensing on its own.</p> <p>If this error still appears, press STOP to return to the home screen.</p>

Jug lifted prematurely! Remove jug.

Cause	Solution
<p>Weight based units only</p> <p>User interfered with the scale by lifting the dispense container before the dispense finished - causing incorrect scale readings."</p>	Empty or replace jug with new container and restart dispense. Do not touch container or scale until dispense is complete.

Scale never settled! Remove Jug.

Cause	Solution
<p>Weight based units only</p> <p>Vibration or unstable communication with the unit caused the scale to be unable to settle/tare itself before the dispense.</p>	<ul style="list-style-type: none"> • Verify CAN-SC device(s) are properly connected and receiving power. • Ensure nothing is physically interfering with the scale (check underneath the scale) • Check that the scale is working properly and has not been damaged.

Troubleshooting (continued)

Pump activated, but no chemical arrived! Remove Jug

Cause	Solution
<p>Weight based units only No chemical arrived during the dispense.</p>	<ul style="list-style-type: none"> Verify that pump is primed (supply hose from pump to manifold is full). Ensure pump has an air connection, tubing is secure, and compressed air supply is available.

Keypad Not Working

Cause	Solution
The USB may not be plugged in	<ol style="list-style-type: none"> Shut down power and unplug the unit. Open the controller enclosure and verify whether the USB is plugged into the correct CPU port. Reboot to verify.
The keypad may be broken	Replace the keypad (see Parts Callout for part # and contact Clean Logix)

Touchscreen Not Selecting Properly

Cause	Solution
The screen may need to be calibrated	Follow the monitor calibration instruction (page 32) to recalibrate the touchscreen. Restart the system when complete and try again.
The screen may be broken	Replace the screen (see Parts Callout for part # and contact Clean Logix)

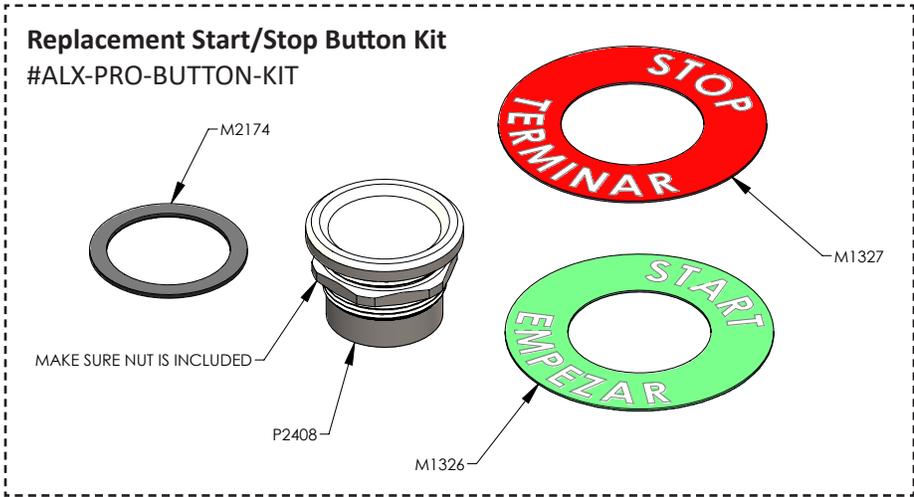
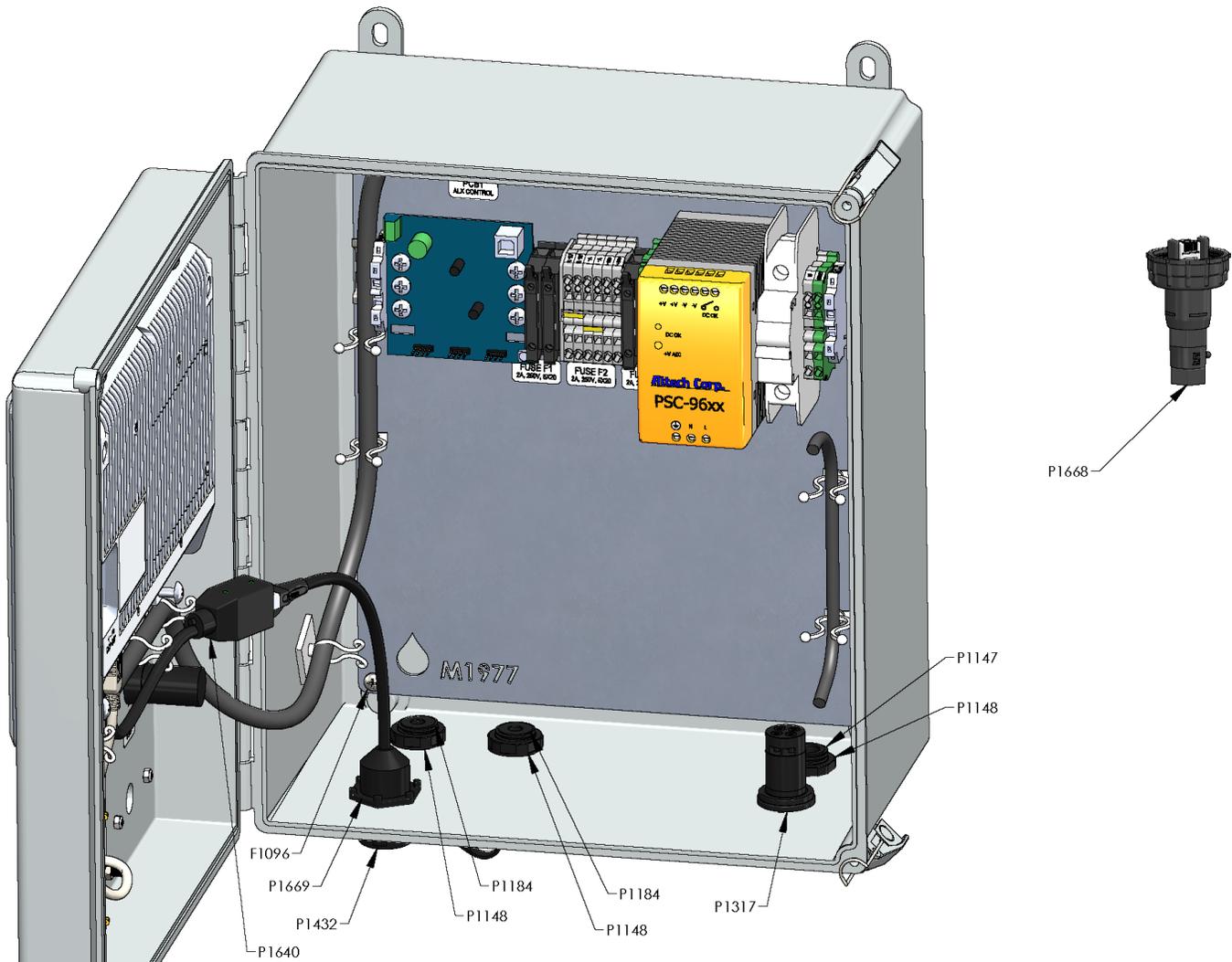
Might be invalid water only app

Cause	Solution
The application that is attempting to be completed contains a water dispense step but the manifold dispensing does not have water set up.	Navigate to Manifold Configuration screen. Assign the water to the same manifold as the rest of the chemical in that application. (See Page 11).

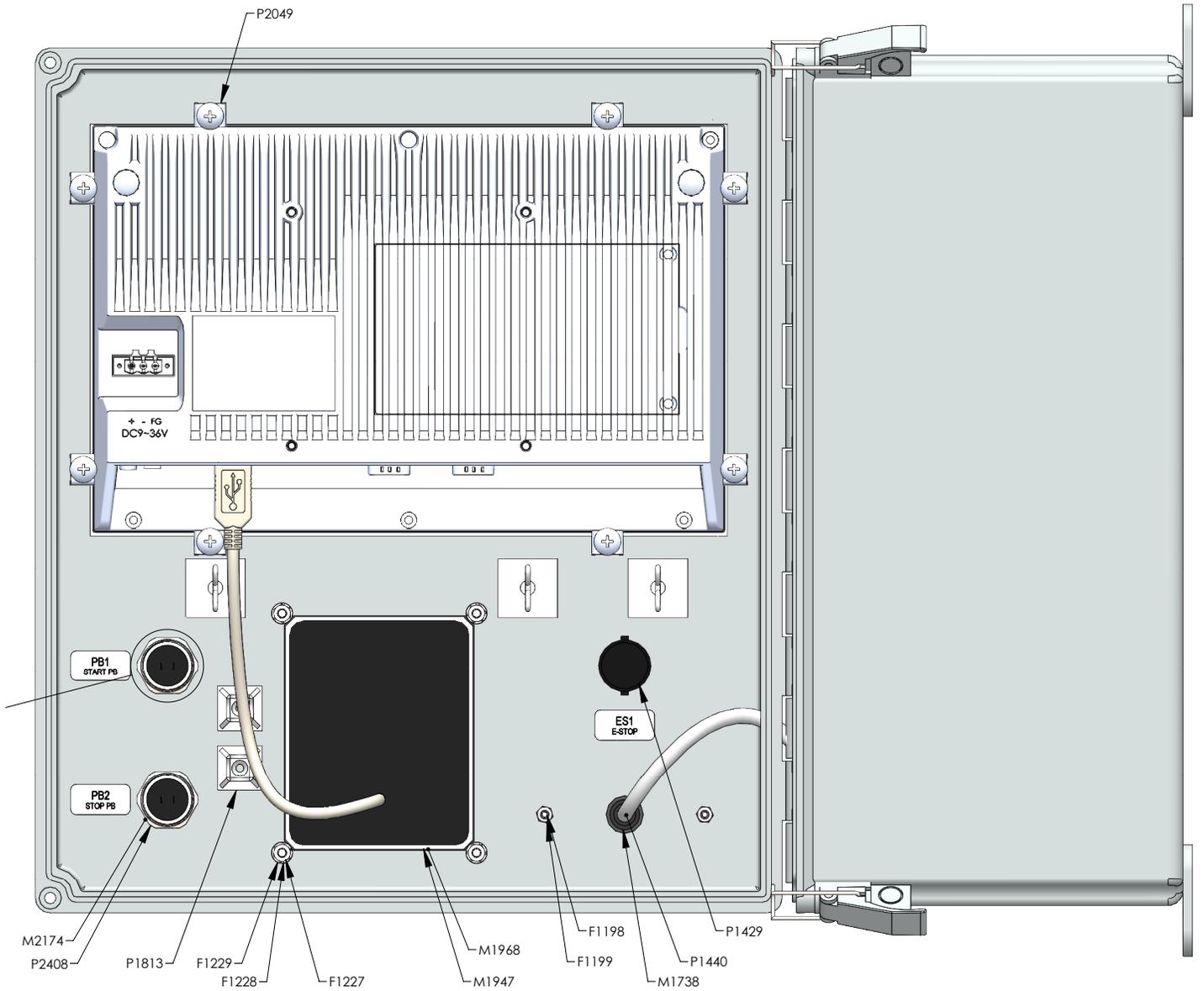
App dispense error: App canceled

Cause	Solution
User pressed STOP before the dispense finished.	<p>During a dispense, do not press any buttons until the ALX-PRO stops dispensing on its own.</p> <p>If this error still appears, press STOP to return to the home screen.</p>

Appendix A - Parts Callout



Appendix A - Parts Callout (continued)



General

Installation

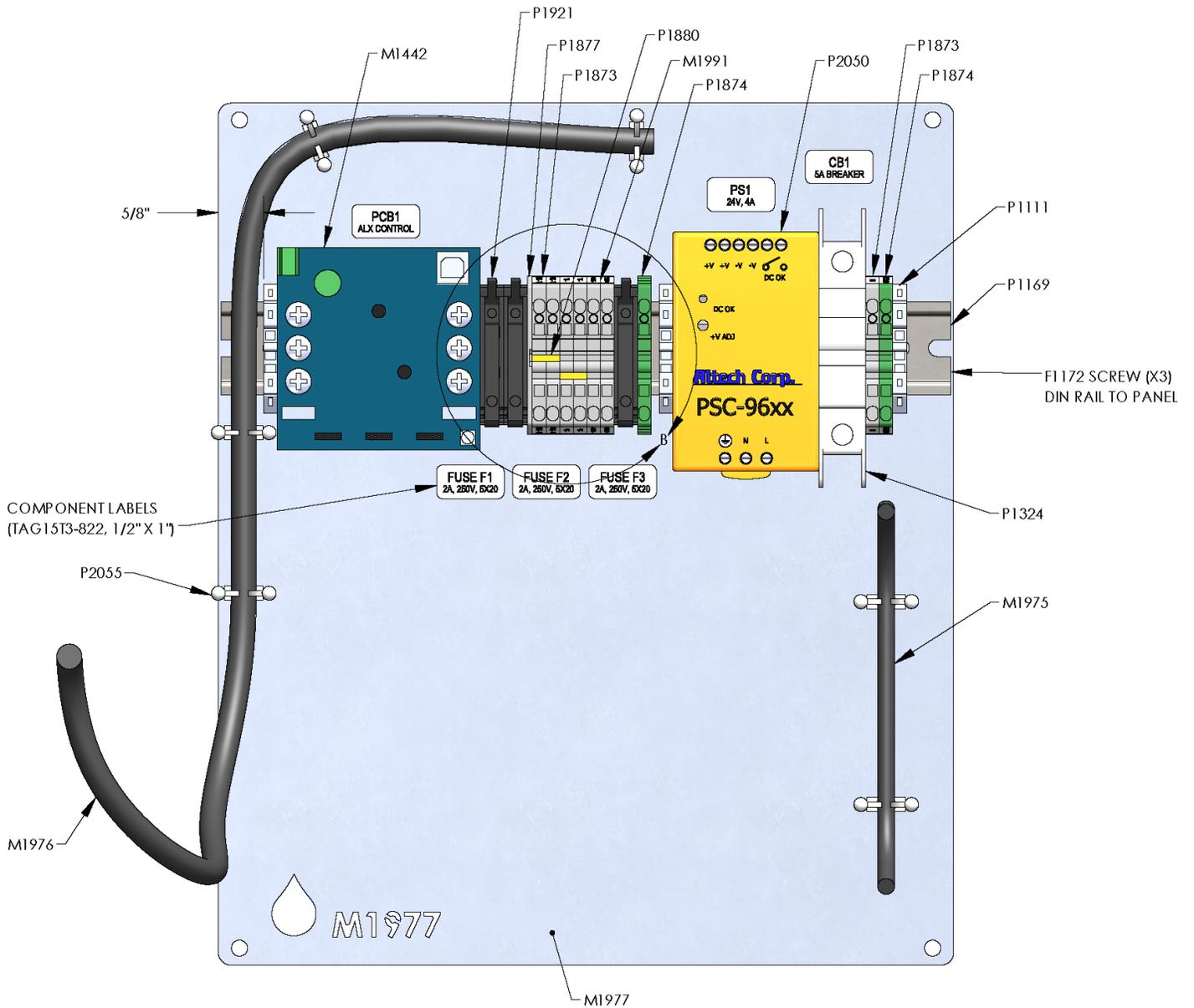
Configuration

Operation

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Appendices

Appendix A - Parts Callout (continued)



Appendix A - Parts Callout (continued)

Part No.	Description
F1096	SCREW MACHINE 10-32 X 3/8 SS PHILLIPS TRUSS HD
F1172	SCREW THREAD FORMING 10-32 X 1/2 HEX WASHER HEAD ZINC
F1198	SCREW MACHINE 4-40 X 1/2 FLAT HEAD PHILLIPS 316SS
F1199	NUT NYLOCK 4-40 ZN
F1227	NUT HEX M4 ZN
F1228	WASHER SPLIT LOCK M4 316SS
F1229	WASHER M4 316SS DIN125
L0002	LABEL - COMPONENT, USES 1" X 0.5" STOCK P2038 (TAG15T3-822)
L0003	LABEL - WIRE, USES 1" X 2.25" SELF LAMINATING STOCK P2035 (TAG9T3-100B)
L0004	LABEL - SYSTEM SPECIFICATIONS, USES 3" X 5" SILVER STOCK P2036 (TAG80T1-795)
M1326	DECAL START BUTTON 22mm
M1327	DECAL STOP BUTTON 22mm
M1442	PCB ALX CONTROL
M1738	GASKET RFID PROXPOINT PLUS
M1947	KEYPAD, PIEZO, STAINLESS STEEL 20-KEY
M1968	KEYPAD GASKET, PIEZO
M1972	ENCLOSURE, ALX-PRO V4, MACHINED
M1973	DECAL, E-STOP LEGEND, 22mm BUTTON
M1975	WIRE HARNESS - ALX-PRO V4 - POWER (rev A)
M1976	WIRE HARNESS - ALX-PRO V4 - CONTROL (rev C)
M1977	ALX-PRO V4 BACK PANEL
M1991	TERMINAL BLOCK LABEL 5.1mm, CUSTOM LABELS FOR ALX-PRO V4, 1492-M5X5C
M1993	PANEL PC
M2024	LABEL ALX-PROV4 PIEZO KEYPAD
M2174	GASKET, RUBBER, 22mm ID X 28mm OD, FOR P2408
P1111	DIN RAIL ENDSTOP PHOENIX CONTACT 3022276 CLIPFIX 35-5
P1147	CORD GRIP 1/2 NPT X .170-.450 BLK HEYCO M3231
P1148	CORD GRIP NUT 1/2" NPT BLACK - HEYCO 8463
P1169	DIN RAIL 35mm
P1184	CORD GRIP 1/2 NPT X .095-.260 BLK HEYCO M4518

Part No.	Description
P1190	USB CABLE RT ANGLE, STRAIGHT A MALE, UP ANGLE B MALE, 0.75M
P1276	CABLE ASSY DC POWER 2.5mm X 6' 18AWG
P1282	CABLE, M12, 4 POLE, 5m (16.48 ft.) AXIAL FE-MALE/AXIAL MALE, PVC IP69K ORG
P1288	POWER CORD 18/3 SJOOW 90 BLACK N.A. W/ 5-15P & 7in ROJ (10 FEET)
P1317	Eaton Selector Switch, NON-ILL V-POS MTN SEL SWTCH THB-GP BLK-BZL 2NO
P1324	CIRCUIT BREAKER EATON WMZT1D05
P1429	PUSH-PULL PUSH BUTTON, RED, 40MM, NON-ILL, COMPACT (NOTE: Order in multiples of 20)
P1432	USB RECEPTACLE DUST CAP SAMTEC DCA-17-01
P1440	RFID READER HID PROXPOINT PLUS 6500
P1441	FUSE 250VAC 2A 5X20
P1540	M12 PORT CAP
P1640	POE INJECTOR WITH LED INDICATOR
P1668	SOCKET RJ45 FIELD WIRED SAMTEC SCPFE-17-G-01
P1669	RECEPTACLE RJ45 PANEL MOUNT SAMTEC SCRES-G-00.25-D-C5E
P1758	LABEL, UNDERWRITERS LABRATORY
P1813	CABLE TIE HOLDER
P1873	TERMINAL BLOCK SPRING CLAMP 2.5mm 2 POINT PASS THRU GRAY A-B 1492-L3
P1874	TERMINAL BLOCK SPRING CLAMP 2.5mm GROUND A-B 1492-LG3
P1877	TERMINAL BLOCK END BARRIER L3 SERIES A-B 1492-EBL3
P1880	TERMINAL BLOCK JUMPER 5.1mm 10-POLE A-B 1492-CJK5-10
P1921	FUSE HOLDER 5mm DIN RAIL MOUNT A-B 1492
P1934	GREASE, ELECTRIC INSULATING .170Z ONE TIME USE PACK
P2049	PC, PANEL MOUNT, 10 INCH, TEGUAR TP-2945-10
P2050	POWER SUPPLY 24VDC, 4A, ALTECH PSC-9624
P2051	DRIVE, SOLID STATE, 2.5", 30GB, MLC, IND. TEMP, SSD
P2054	CABLE CLIP, TWIST LOCK, ADHESIVE MOUNT, 1" X 1" PAD, UP TO 1/2" BUNDLE
P2055	CABLE CLIP, TWIST LOCK, SNAP-IN, UP TO .600" BUNDLE
P2408	SWITCH, PIEZO BUTTON, N.O., MOMENTARY, SINGLE POLE, 22mm, 316SS, 24V AC/DC, 0.2A

General

Installation

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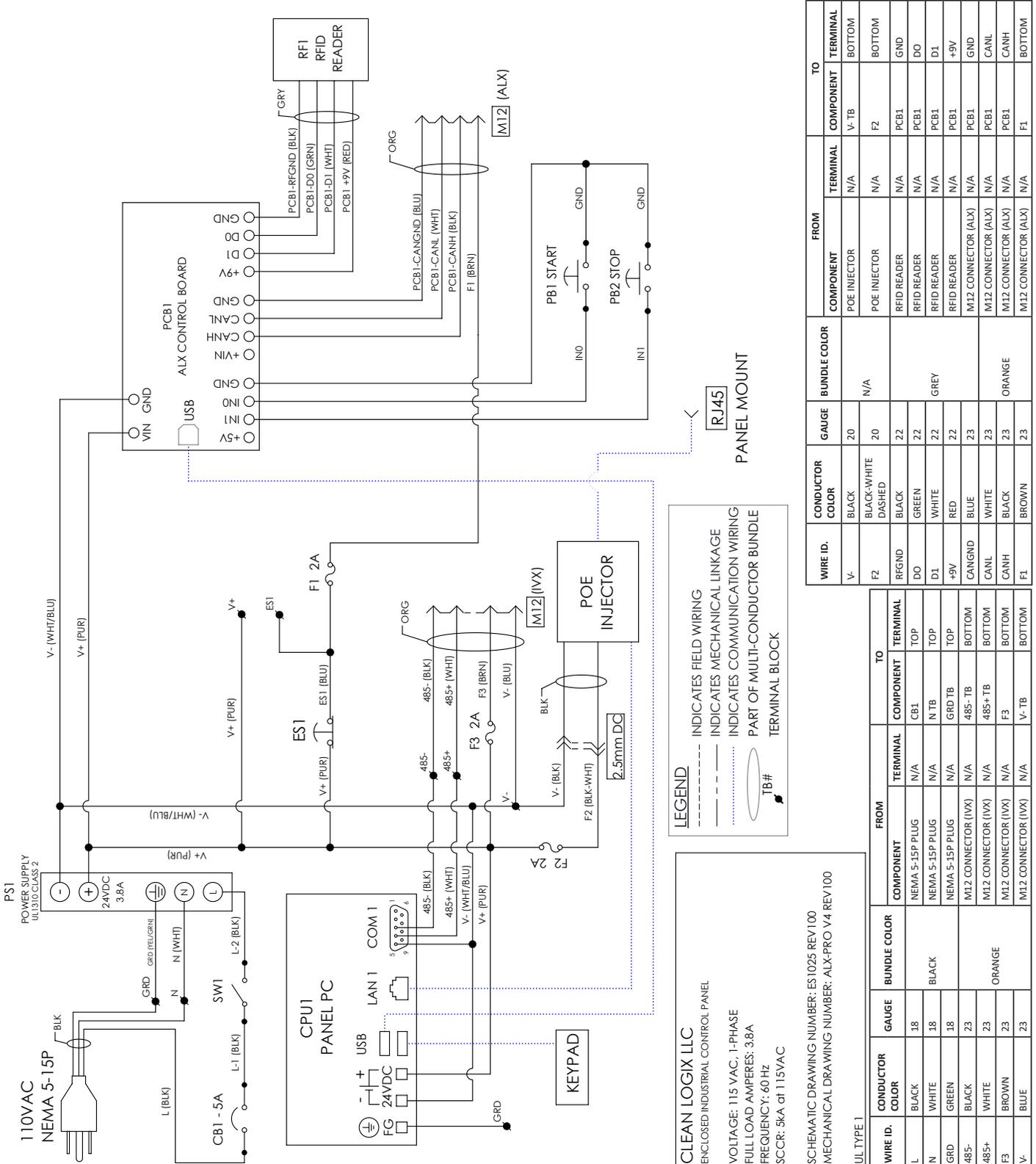
Appendices

USER MANUAL: ALX-PRO

READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT



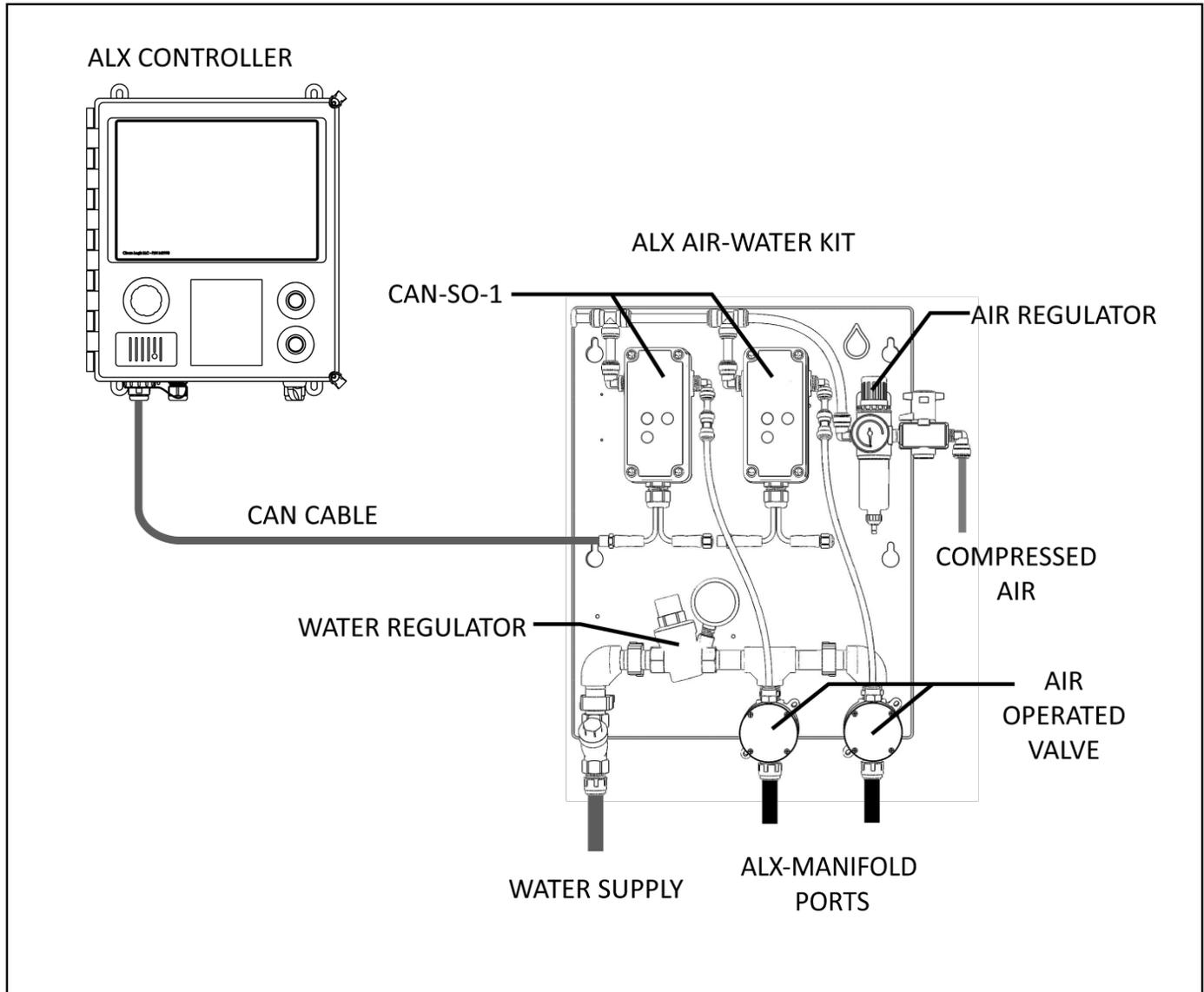
Appendix B - Electrical Schematic



Appendix C - ALX AIR-WATER KIT Installation Set Up

1. Mount and connect Devices in a daisy-chain fashion using the orange M12 cables. They can be installed in any order.
2. Hand tighten M12 cable connections, then tighten two more clicks using wrenches.
3. Plumb compressed air lines and fluid lines for pumps and valves as necessary [see below]
 - *Clean Logix recommends setting the air pressure between 60 & 80 PSI.

Installation Example (Shown with ALX-AWK-SA-2):



Appendix D - Network Configuration

Network Configuration settings are available for units to be integrated into a facility's existing network, via Ethernet or WiFi sources. To connect and configure the unit for either option:

1. Power down the system via the power switch on the bottom of the enclosure and unplug the unit.
2. Open the enclosure and remove **FUSE F2** (for use with the CELL-POE) as shown in [Figure 34.1].

FUSE & WIRE LOCATIONS

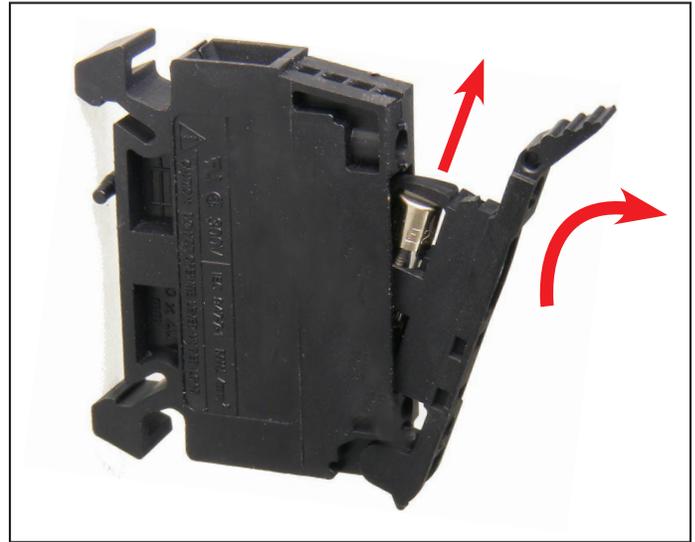
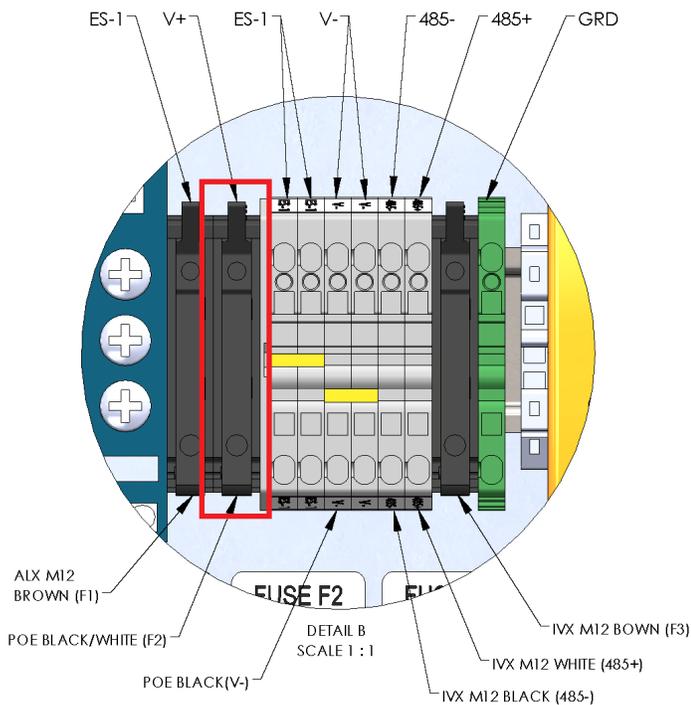


Fig 32.1: Opening fuse holder and removing fuse

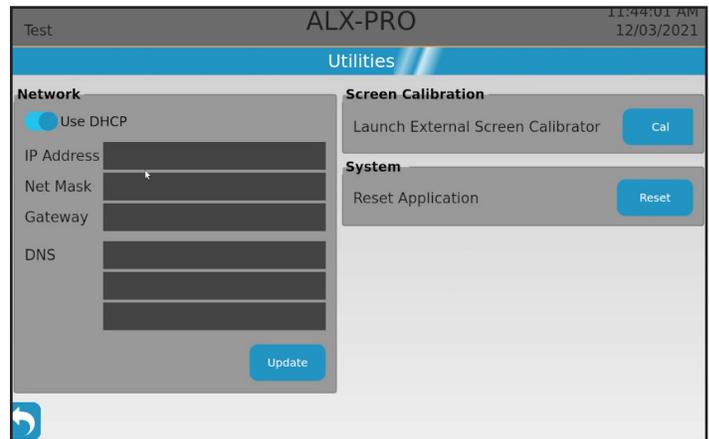


Fig 32.2: Network utility settings

3. Using the included sealed ethernet connector, connect a Cat5e cable (or similar) to the ALX-PRO.
4. Login to the unit as an admin level user.
5. Navigate to **Config** screen to view **Network Settings**.
6. Enter the information as necessary for the plant network to be configured to.
7. Click **Apply** to save changes and enable networking.

Appendix E - Screen Calibration

The touchscreen HMI used in the ALX-PRO allows for the precise selection of on-screen commands. In some cases, these calibration settings may become invalid, causing incorrect or missed selections.

To recalibrate the screen review the following instructions:

1. Login to the unit as an admin level user.
2. Navigate to the **Config** menu screen.
3. Select **Calibrate Monitor** and follow the on screen instructions to re-calibrate the touch screen settings.
4. Setting are saved on completion.
5. Power cycle the unit to enable the new calibration settings.
6. Test touchscreen and re-calibrate as necessary.

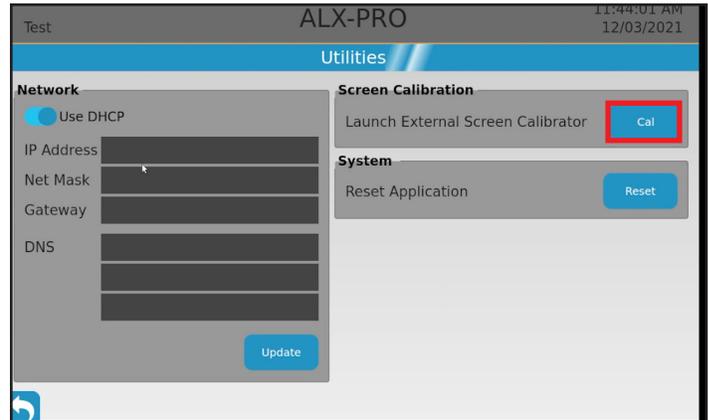


Fig 33.1: Network utility settings



More Information

Please contact Clean Logix at:
(616)-438-9200 or sales@clean-logix.com