USER MANUAL

MODEL:

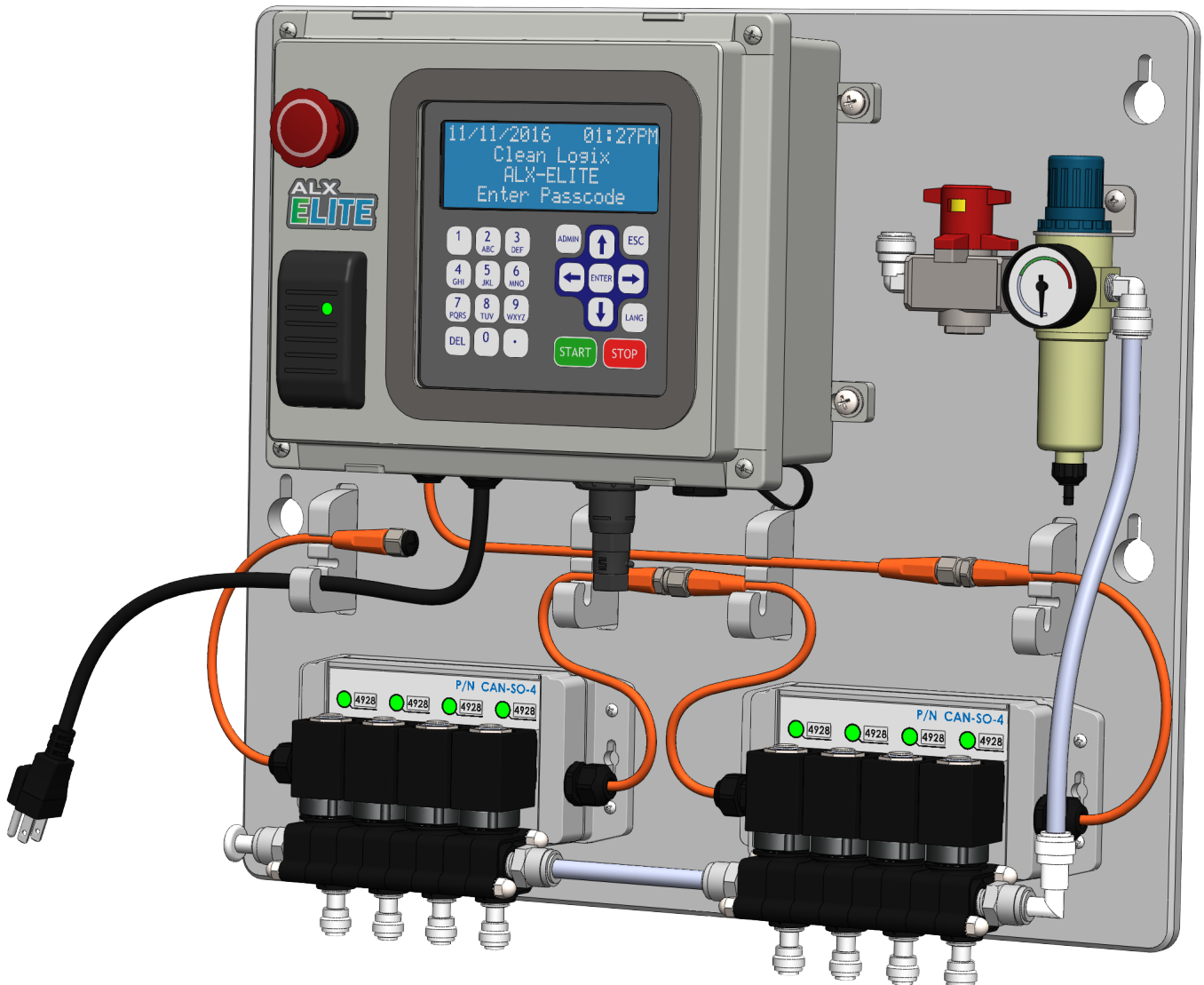## ALX-OMNI-ELITE
Chemical Allocation Controller

English (Original Instructions)
Updated: 03/24/21

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⚠ WARNING:

1. Avoid contact of chemicals with skin and eyes. If contact occurs, see MSDS sheet for further first aid measures.

2. Always wear appropriate PPE

3. Follow safety instructions of chemical manufacturer (MSDS).

4. Always follow plant and OSHA guidelines about the use of equipment.

5. Disconnect power before servicing equipment.

Overview

The ALX-OMNI-ELITE is a chemical management controller with mounting plate that can dispense chemicals according to programmable recipes (Applications). Access to Applications can be restricted on a per-user basis over a rolling time period. Users can be required to use a 4-digit login passcode or RFID card to login before dispensing Applications. This allows tracking and recording of chemical usage by User. The ALX-ELITE will generate and e-mail Reports on demand or on a daily, weekly or monthly basis. Reports can also be downloaded to a USB flash drive for immediate viewing. All configuration of the ALX-ELITE can be performed using the built-in keypad and character display. The ALX-ELITE will also broadcast a local WiFi network which allows access to the web-browser based System Editor for configuration using a laptop.

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-ELITE is compatible CAN-SO-1 and CAN-SO-4 solenoid valve output devices.

- **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.

Specifications

Software

- Maximum number of Users: 100

- Maximum number of Applications: 999

- 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

Hardware

- Maximum number of Devices: 16*

- Dimensions: 12" x 10" x 7"

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

Acceptable Chemical Products

- Acids

- Caustics

- Sanitizers

- Chlorine

Acceptable RFID Card Types:

ProxCard® II	Proximity®
ISOProx® II	ProxCard® Plus
DuoProx® II	ProxKey® II
Smart ISOProx®	MicroProx®
DuoProx® II	MIFARE®

NOTE: Only *Prox®* RFID cards are accepted. *iClass* cards will not register.

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Installation Requirements

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)

  -OR-
- WiFi (802.11n or 802.11b/g), WPA security

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
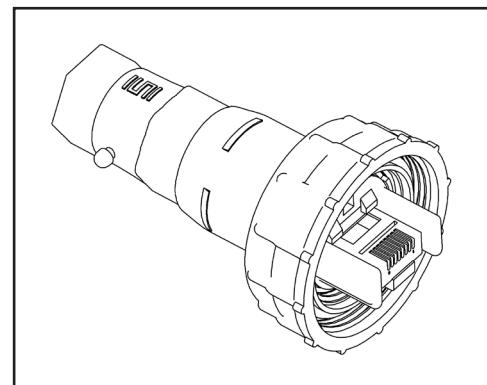- Recommended regulator setting: 50 PSI (3.4 bar).

NOTE: A back flow preventer must be installed in the water supply to this unit, per local codes.
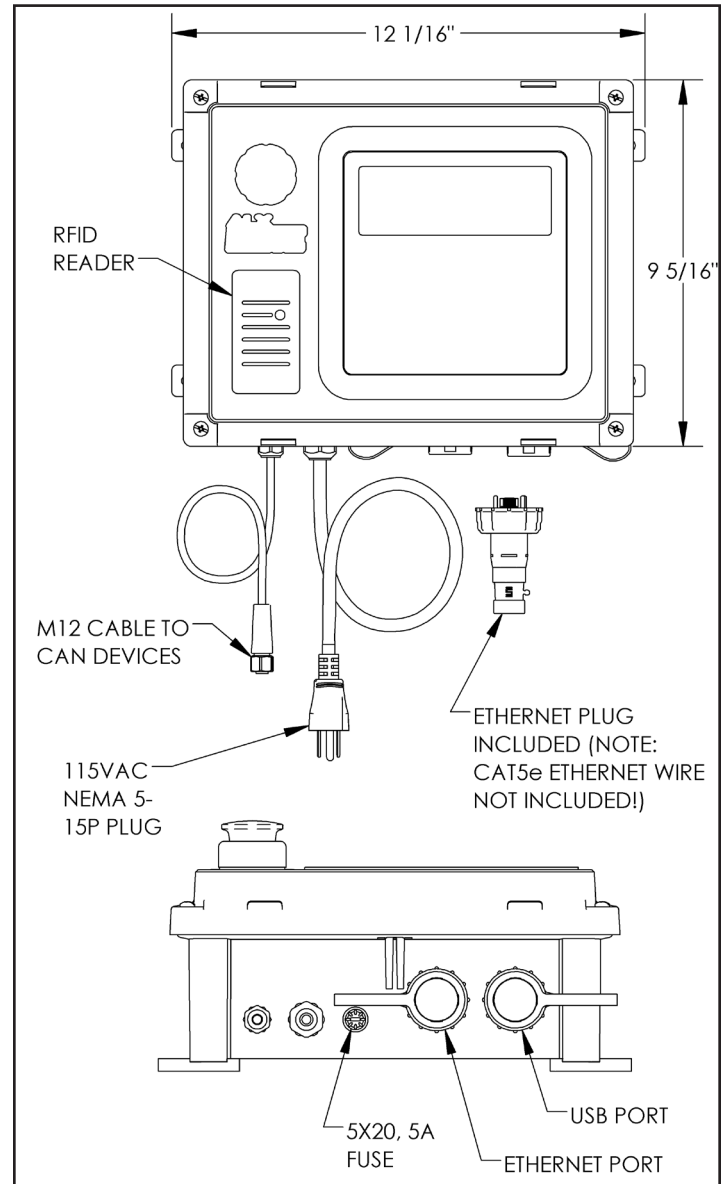
Connecting Ethernet (if not using WiFi)

1. Connect ethernet using supplied plug. Following instructions included with plug.

NOTE: This plug **must** be used to ensure environmental sealing of the ethernet port!

Mounting System

1. Determine mounting location, with consideration of the following:

   • User accessibility

   • Distance to electrical outlet

   • Distance to Devices/pumps

2. Securely mount to wall using appropriate hardware (not included) via the keyholes on the mounting plate.

3. Plug power cord into a 115 VAC, GFCI protected receptacle.

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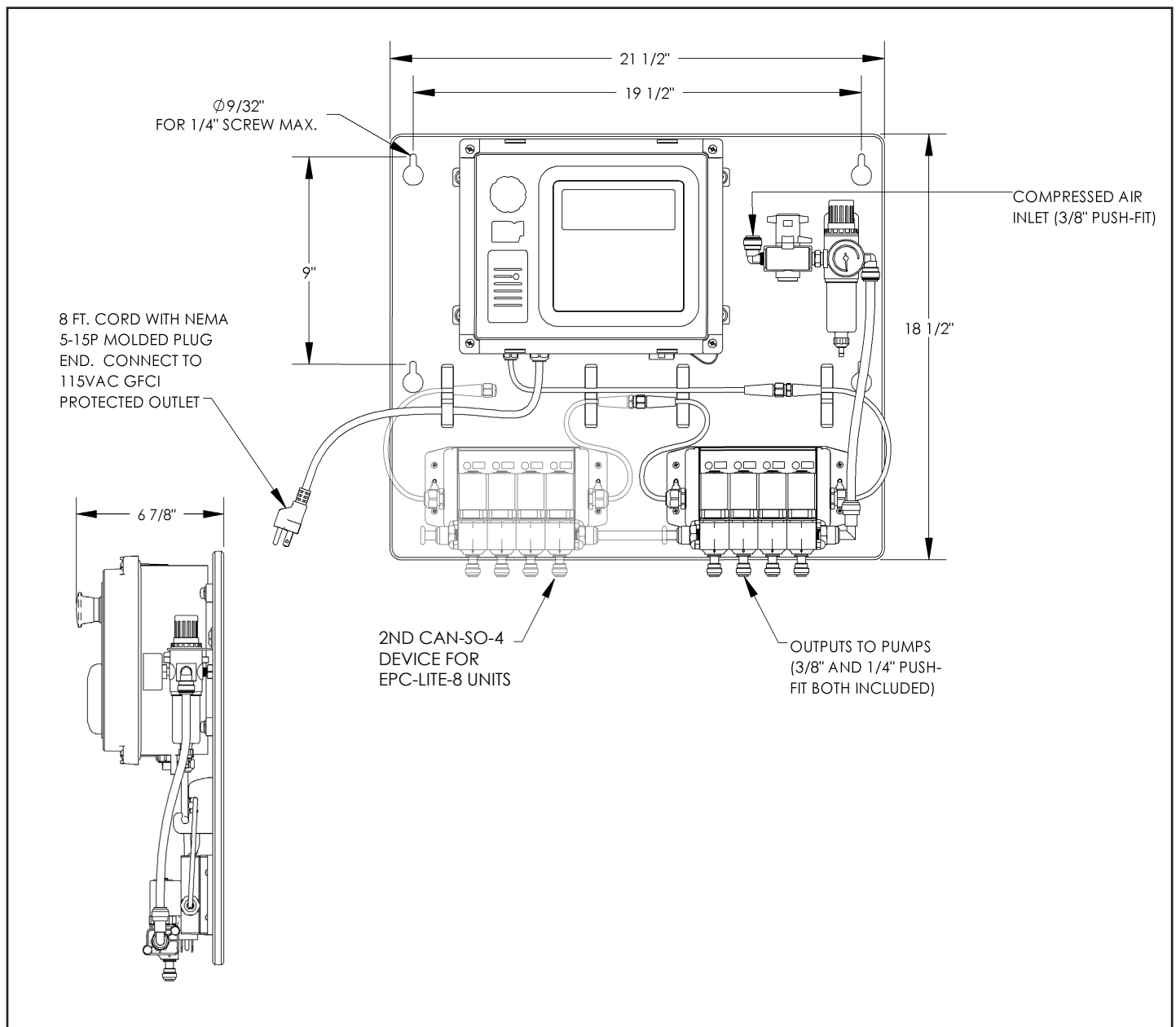
Connecting Devices

1. CAN-SO-4 Devices will be mounted and connected prior to shipping. In the event they need to be reconnected: hand tighten the M12 cable connections, then tighten two more clicks using wrenches.

2. Plumb compressed air lines and fluid lines for regulator, pumps, and valves as necessary [see below]

Installation Example:

COMPRESSED AIR

115VAC   ALX CONTROLLER

CAN-SO-4   CAN-SO-4

AODD PUMP >1/2"   AODD PUMP ≤1/2"   AODD PUMP

IN   OUT   IN   OUT   IN   OUT
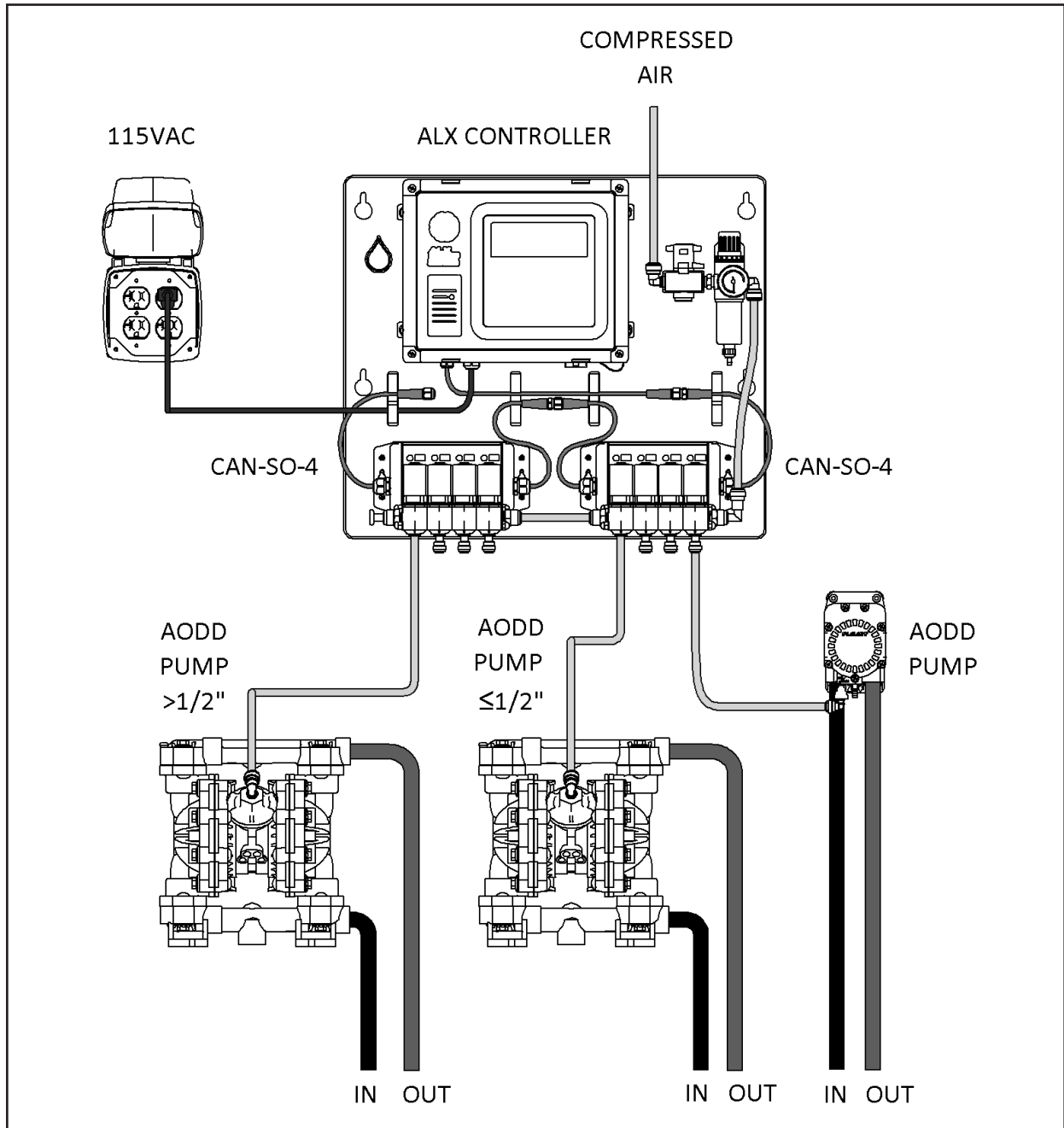
Shown with ALX-OMNI-ELITE-8 for dispensing up to 8 chemicals

Notes:

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⚠️ This section explains how to setup the ALX-ELITE using the built-in keypad and screen. Alternatively, a laptop or tablet can be used. For more information, refer to *Appendix A - System Editor*.

Administrator Login

1. Press the **ADMIN** key.

2. Type in a 4-digit administrator passcode.

   NOTE: The default Administrator user passcode is **1234**. This passcode can be changed under the "Users" section.

   NOTE: Users will be automatically logged out after 1 minute of inactivity for security.

Users

Adding a User

1. Log in as an administrator.

2. Use ↑ and ↓ keys to select Users and press **ENTER**.

3. Select 00-Add New User and press **ENTER**.

4. Enter a Name and a 4-digit Passcode.

   NOTE: Each user must have a unique 4-digit passcode.

5. Use → and ← keys to grant or deny Administrator privileges.

6. If desired, an RFID card can be scanned to populate the RFID field.

   NOTE: Only one RFID card can be assigned per user, cards cannot be shared between other users.

7. Press the **ESC** key to exit.

8. When prompted to save changes, press ← for Yes or → for No.

```
ELITE Admin Menu
 1-Users
 2-Devices
 3-Applications
 4-Permissions
 5-Unit Config
 6-Unit Info
 7-Set Date & Time
 8-USB Options
 9-Network Setup
 10-Reporting
```

```
Edit Users
>00-Add New User
 01-administrator
```

```
Editing User #02
 Name:Jason
 Password: 1234
 Admin:    >NO< YES
 RFID: 0000000000
 Edit Permissions
   (DELETE Entry)
```

```
 Save changes?
  Are you SURE?
 Press <= for Yes
 Press => for No
```

Users (continued)

Editing a User

1. Select a user in the list and press **ENTER**.

2. Edit the user settings as necessary

3. Press the **ESC** key to exit.

4. When prompted to save changes, press ← for Yes or → for No.

```
Edit Users
 00-Add New User
 01-administrator
>02-Jason
```

```
Editing User #02
 Name:Jason
 Password: 1234
 Admin:    >NO< YES
 RFID: 0000000000
 Edit Permissions
   (DELETE Entry)
```

Deleting a User

1. Select a user in the list and press **ENTER**.

2. Use the ↓ key to scroll to the bottom of the screen.

3. Select (DELETE Entry) and press **ENTER**.

4. When asked to confirm, press ← for Yes or → for No.

```
Delete this User?
  Are you SURE?
 Press <= for Yes
 Press => for No
```

⚠️ **CAUTION:**

The unit will always require at least one user to be an administrator. Be careful not to delete all of the administrators!

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Devices

Adding a Device

1. Make sure devices are connected and green lights are illuminated.

2. Log in as an administrator.

3. Use ↑ and ↓ keys to select Devices and press **ENTER**.

4. Select a device from the list and press **ENTER**.

   > **NOTE:** When new Devices are first connected, they will appear in the Device list with the name "CONFIG PUMP"

   > **TIP:** A red indicating light will blink on the currently selected device

5. Type in a name for the device

6. Select the Device Type:
   - AODD Pump - Constant output
   - Valve - Constant output
   - Piston Pump - Pulsed output with user defined stroke Volume and ON/OFF cycle Time.

7. If Piston Pump is selected, enter stroke volume and ON/OFF Time

8. If you wish to prime, press the **START** key to turn the Device output on and press **STOP** when to turn off.

   > ⚠️ **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!

9. Press the **ESC** key to exit.

10. When prompted to save changes, press ← for Yes or → for No.

```
Edit Devices
>0555-CONFIG PUMP
 0875-CONFIG PUMP
 0689-Water (Red)
```

```
Editing Device #0555
Demo Chemical
Type:   AODD Pump
Prime (Start/Stop)
Edit Calibration
Replace Controller
  (DELETE Entry)
```

```
Editing Device #0555
Demo Chemical
Type:   Piston Pump
Prime (Start/Stop)
Volume: 000.00oz
ON Time:   00.0s
OFF Time: 00.0s
Replace Controller
  (DELETE Entry)
```

```
Save changes?
   Are you SURE?
 Press <= for Yes
 Press => for No
```

Devices (continued)

Calibrating a Device

1. Select a device from the list and press **ENTER**.

2. Use the ↓ key to select `Edit Calibration` and press **ENTER**.

   > **NOTE:** Devices which are configured as a Piston Pump cannot be calibrated.

3. Determine which dispense hose will flow liquid when the Device output is turned on.

4. Arrange a container to catch the liquid.

   > **TIP:** Use a container with volume markings!

5. Select `Cal Point 1` and press **ENTER**.

6. Decide on an approximate target volume for the calibration point and press the **START** key.

   > **TIP:** For best accuracy, choose a volume target that is at least half the amount of the largest volume of the chemical to be dispensed in an Application

7. When the liquid in the container gets close to your target, press the **STOP** key.

8. Take an accurate measurement of the amount dispensed and enter the Volume and Units on the screen.

9. Press **ESC** to exit.

10. *Optional: Repeat steps 5-9 for Cal Point 2.*

   > **NOTE:** For more information about Calibrations refer to Appendix B.

```
Edit Devices
>0555-Demo Chemical
 0875-CONFIG PUMP
 0689-Water (Red)
```

```
Editing Device #0555
>Edit Calibration
 Replace Controller
 (DELETE Entry)
```

```
Calibrating #0555
>Cal Point 1
 Cal Point 2
 View Calibrations
```

```
Calibrate Point 1
 Press START to run
 Press STOP to stop
 Enter volume & unit
```

```
Calibrate Point 1
 Running....0008.2s
 Press STOP to stop
 Enter volume & unit
```

```
Calibrate Point 1
 Cal Time: 0008.2s
 Enter Volume:0128.0
 Enter Units:    oz
```

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Devices (continued)

Editing a Device Calibration

Calibration points can be manually edited or deleted after they have been created:

1. Select a device from the list and press **ENTER**.

2. Use the ↓ key to select Edit Calibration and press **ENTER**.

3. Select View Calibrations and press **ENTER**.

4. Select the calibration point you wish to edit and use the → and ← keys and number pad to edit the values as necessary.

5. *Optional: use the **DEL** key to delete the selected calibration point.*

> **TIP:** Only established calibration points can be edited. Once a calibration point is deleted, it must be reestablished with the normal calibration procedure before it can then be edited.

```
Edit Devices
>0555-CONFIG PUMP
 0875-CONFIG PUMP
 0689-Water (Red)
```

```
Editing Device #0555
 Demo Chemical
 Type:   AODD Pump
 Prime (Start/Stop)
 Edit Calibration
 Replace Controller
    (DELETE Entry)
```

```
#0555 Calibrations
 1-0128.0oz   0008.2s
 2- NOT SET
 Press DEL to clear
```

```
Calibrating #0555
 Cal Point 1
 Cal Point 2
 View Calibrations
```

```
Delete Point?
    Are you SURE?
   Press <= for Yes
   Press => for No
```

Devices (continued)

Replacing a Device

This function allows you to replace an existing Device and migrate Device information to a new one (Device Name, Type, and Calibrations):

1. Disconnect the current device from the CAN bus

2. Ensure there is no sign of moisture, corrosion, bent or broken pins in the orange M12 cable connections.

3. Connect the new Device.

> **NOTE:** Always hand tighten orange M12 cable connections, then tighten two more clicks using wrenches to ensure a good seal!

4. Select the current Device from the list and press **ENTER**.

5. Use the ↓ key to scroll to the bottom of the screen.

6. Select `Replace Controller` and press **ENTER**.

7. Select the new Device number and press **ESC**

Deleting a Device

1. Select a Device in the list and press **ENTER**.

2. Use the ↓ key to scroll to the bottom of the screen.

3. Select `(DELETE Entry)` and press **ENTER**.

4. When asked to confirm, press ← for Yes or → for No.

```
Edit Devices
>0555-CONFIG PUMP
 0875-CONFIG PUMP
 0689-Water (Red)
```

```
Editing Device #0555
 Demo Chemical
 Type:  AODD Pump
 Prime (Start/Stop)
 Edit Calibration
>Replace Controller
    (DELETE Entry)
```

```
Replace Controller
Demo Chemical
 Current  0555
 New      0875
```

```
Delete this Device?
  Are you SURE?
 Press <= for Yes
 Press => for No
```

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Applications

Adding an Application

1. Log in as an administrator.

2. Use ↑ and ↓ keys to select `Applications` and press **ENTER**.

3. Select `00-Add New App` and press **ENTER**.

4. Enter a 3-digit Access Code and a Name.

> **NOTE:** Each Application must have a unique 3-digit code.

5. Select `Add dispense step` and press **ENTER**.

6. Select a Device. The Device name will be displayed below.

7. Select a Dispense Type and Time/Volume:

   - `Fixed Time` - Will energize the Device for the amount of time specified in the `Time:` field and requires `Volume:` to be manually entered for Reporting purposes.

   - `Calibrated` - Requires `Volume:` to be manually entered and uses the Device Calibration to automatically calculate and fill in the `Time:` field.

> **NOTE:** If the Device does not have at least one calibration point, the `Time:` field will remain at `00m:00s` and the Application will not run!

> **NOTE:** If the Device is configured as a Piston Pump, the `Type:` field will show `Piston Pump`. `Volume:` must be manually entered and `Time:` is automatically calculated.

8. Press **ESC** to return to previous screen.

9. Repeat steps 5-7 above to add more dispense steps or press **ESC** if finished.

10. When prompted to save changes, press ← for Yes or → for No.

```
Edit Applications
>000-Add New App
 001-Demo App 1
```

```
Editing Application
 App# 123
 Name:Demo App 2
>Add dispense step
```

```
App# 123 Step# 1
 Device #0689
 Name:Water (Red)
 Type: Calibrated
 Time: 00m:15s
 Volume:
 000.50GAL 000.00 oz
```

```
Editing Application
 App# 123
 Name:Demo App 2
 Step#1-Water (Red)
 Step#2-Demo Chemic
 Add dispense step
      (DELETE App)
```

Applications (continued)

Deleting a Dispense Step

1. Select an Application in the list and press **ENTER**.

2. Select the `Step#` you wish to delete and press the **DEL** key.

3. When asked to confirm, press ← for Yes or → for No.

```
Edit Applications
 000-Add New App
 001-Demo App 1
>123-Demo App 2
```

```
Editing Application
 App# 123
 Name:Demo App 2
 Step#1-Water (Red)
 Step#2-Demo Chemic
 Add dispense step
     (DELETE App)
```

```
   Delete Step#2?
    Are you SURE?
  Press <= for Yes
  Press => for No
```

Deleting an Application

1. Select an Application in the list and press **ENTER**.

2. Use the ↓ key to scroll to the bottom of the screen.

3. Select `(DELETE App)` and press **ENTER**.

4. When asked to confirm, press ← for Yes or → for No.

```
   Delete this App?
    Are you SURE?
  Press <= for Yes
  Press => for No
```

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Permissions

1. Log in as an administrator.

2. Use ↑ and ↓ keys to select `Permissions` and press **ENTER**.

3. Select a user and press **ENTER**.

4. Use ↑ and ↓ keys to select an Application and → and ← keys to change the Permission counts.

> **TIP:** Use `All Apps Perm` to quickly add equal permissions to all Applications. Note that this number will override ALL individual permissions!

5. Hit the **ESC** key to save and return to the previous screen.

```
ALX-ELITE Admin Menu
 Devices
 Applications
>Permissions
```

```
User to Edit
 01-administrator
>02-User 2
 03-User 3
 04-User 4
```

```
User #:02 Permission
 All Apps Perm  <10>
  #001 Demo App 1 05
  #123 Demo App 2 10
```

Unit Configuration

1. Log in as an administrator.

2. Use ↑ and ↓ keys to select `Unit Config` and press **ENTER**.

3. Use ↑ and ↓ keys to select an option and → and ← keys to change selections

```
System Configuration
 User Login:    ON
 Permissions:   OFF
 Permission Hrs: 00
 Units:   Imperial
 TimeZone: Eastern
 Unit Name:_
 Language: English
```

Unit Configuration (continued)

- **User Login:** Turns the user login requirement ON or OFF

> **NOTE:** When User Login is turned OFF, the bottom of the home screen will read Press START To Begin. When turned ON, the screen will read Enter Passcode.

- **Permissions:** Turns Application Permissions ON or OFF.
- **Permission Hrs:** Sets the rolling time period to use for permissions
- **Units:** Imperial (Gal, oz) or Metric (L, ml)
- **TimeZone:** Select the local time zone
- **Unit Name:** Input a custom name. It will be referenced in all future Reports
- **Language:** sets the default language that the controller will revert to each time it is rebooted.

```
01/11/2017    01:27PM
   CleanLogix ELITE
       Welcome!
Press START To Begin
```

```
01/11/2017    01:27PM
   CleanLogix ELITE
       Welcome!
   Enter Passcode
```

Unit Info

1. Login as an administrator.
2. Use ↑ and ↓ keys to select Unit Info and press **ENTER**.
3. Press **ESC** to exit.

> **NOTE:** The Unit Info screen is read-only.

```
System Information
Unit ID#: 123456
Version #: 1.1
Built: 01/11/2017
```

Set Date & Time

1. Login as an administrator.
2. Use ↑ and ↓ keys to select Set Date & Time and press **ENTER**.
3. Use → and ← keys to select a field and ↑ and ↓ keys to change it.
4. Press **ESC** to exit.

```
Date
M: 01 D: 11 Y: 2017
Time
H: 04 M: 10 PM
```

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USB Options

The ALX-ELITE includes a 8GB USB drive already plugged into the port on the bottom of the controller. The controller will store dispense logs on this USB drive, which can be retrieved manually or automatically via e-mail. The USB drive can also be used to import and export controller settings (Users, Devices, Applications) and for software updates.

```
USB Options
 Export Settings
 Import Settings
 Update Dispense Lo
 Update Software
```

⚠ CAUTION:

Leave a USB drive plugged into the unit at all times, except when manually retrieving logs or importing/exporting. If the USB drive is removed indefinitely or for long periods of time, the controller will stop sending e-mail reports!
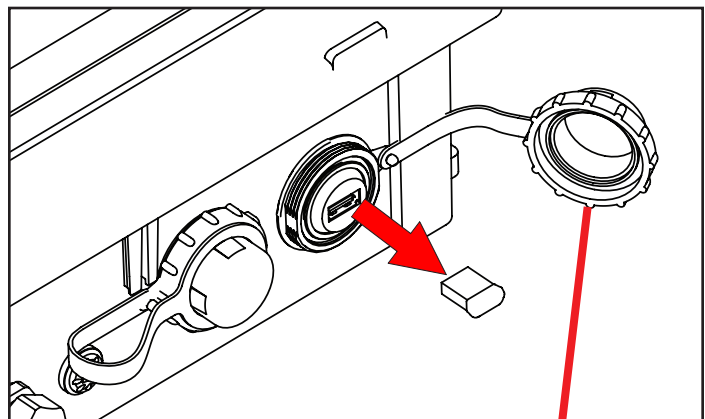
Export Settings

This will export the controller settings for Users, Devices and Applications. It will create a file on the USB drive named **export.db** in a folder named **export.**

1. Make sure a USB drive is plugged into the controller port.

2. Log in as an administrator.

3. Use ↑ and ↓ keys to select USB Options and press ENTER.

4. Use ↑ and ↓ keys to select Export Settings and press **ENTER**.

⚠ CAUTION:

Always make sure to install and tighten the protective cap after the USB flash drive is re-inserted. If using a flash drive other than the one included, make sure the protective cap will still fit in place and screw on all the way!

NOTE: When importing settings, the system will automatically reboot when finished.

Import Settings

This will import previously saved settings for Users, Devices and Applications.

1. Follow the steps above to export settings onto a USB drive and plug it into a laptop.

2. Create folder on the USB drive and call it **import**.

3. Save a copy of the **export.db** file into the **import** folder and rename the copied file **import.db**

4. Plug the USB drive back into the controller

5. Use ↑ and ↓ keys to select Import Settings and press **ENTER**.

Network Setup

1. Login as an administrator.

2. Use ↑ and ↓ keys to select `Network Setup` and press **ENTER**.

3. Select an option and press **ENTER**:

```
Network Setup
 Ethernet Status
 Ethernet Config
 WiFi Status
 WiFi Config
```

Ethernet Config and Status

1. Select `Ethernet Config` and press **ENTER**

2. Select `Config:` and use → and ← keys to change between `DISABLE`, `STATIC` and `DHCP`

3. If `STATIC` was selected, enter the IP, GW (Gateway), MASK and DNS

4. Press **ESC**

5. Select `Ethernet Status` to verify the connectivity:

   - `Down-Offline` - No network connection
   - `Up-Online` - Network connected

```
Ethernet Config
 Config:    DHCP
```

```
eth0: Down - Offline
IP:   000.000.000.000
GW:   000.000.000.00
MASK:000.000.000.000
```

WiFi Config and Status

1. Select `WiFi Config` and press ENTER

2. Select `Config:` and use → and ← keys to change between `DISABLE`, `STATIC` and `DHCP`

3. Enter an `SSID:` (name of the network).

4. Select `WPA:` and Press → or ← for YES or NO

5. Select `PASS:` and enter the network password

6. If `STATIC` was selected, enter the IP, GW (Gateway), MASK and DNS.

7. Press **ESC**

8. Select `WiFi Status` to verify the connection:

   - `Down-Offline` - WiFi is connected but there is no network connection
   - `Up-Offline` - WiFi network connection established but no communication
   - `Up-Online` - WiFi is connected and is communicating

```
WiFi Config
 Config:    DHCP
 SSID: Example
 WPA:        YES
 PASS: eXampl3
```

```
WiFi:   Up  - Online
IP:   192.168.002.202
GW:   192.168.002.001
MASK:255.255.255.000
```

TIP: If Ethernet or WiFi are not being used, make sure to set them to DISABLED. This will allow faster boot-up times.

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Reporting

1. Login as an administrator.

2. Use ↑ and ↓ keys to select Reporting and press ENTER.

3. Select Enabled: and use → and ← keys to change between YES and NO

Report Timing

1. Select Report Timing and press ENTER

2. Set Range: using → and ← keys to specify report frequency (Daily, Weekly or Monthly)

3. Set Time: at which to e-mail the report

4. Press **ESC**

Report Addresses

1. Select Report Addresses and press **ENTER**

2. Type in the e-mail addresses that reports will be sent to

3. Press **ESC**

Report Now

1. To test the report e-mail addresses, select Report Now and press **ENTER**

   • The cursor will stop flashing while the report is being processed

   • When the report is sent, the screen will display Report Successful

2. Press **ESC** when finished.

```
Reporting Menu
 Enabled:    YES
 Report Timing
 Report Addresses
 Report Now
```

```
Report Timing
 Range:     Daily
 Time:     12:00 AM
```

```
Report Addresses
 example@blank.com
```

```
Generating Report
```

```
Report Successful
```

USB Reporting

Export Dispense Logs

1. Make sure a USB drive is plugged into the controller port.

2. Log in as an administrator.

3. Use ↑ and ↓ keys to select `USB Options` and press **ENTER**.

4. Use ↑ and ↓ keys to select `Update Dispense Lo` and press **ENTER**.

5. Remove the USB drive and plug it into a laptop or computer

```
USB Options
 Export Settings
 Import Settings
>Update Dispense Lo
 Update Software
```

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Dispensing an Application

1. If the screen says `Press START to Begin`, Press **START**.

2. If the screen says `Enter Passcode`, Type in a 4-digit passcode or swipe a valid RFID card.

3. Select an Application either by using the ↑ and ↓ keys, then press **ENTER** to select the Application.

   > **TIP:** You can use the number keys to begin typing a specific Application number to filter the list below.

4. Make sure the dispense hose is in an appropriate size container.

5. Press **START**.

6. The screen will show a status bar, the elapsed time (`C 0:07`) and the total Application time (`T 0:20`).

7. When the application completes, the screen will show `Dispense Complete` and a summary.

8. To exit and log out, press **ESC**.

9. To dispense the same App again, press **START** twice.

10. To stay logged in and go back to the App selection screen, press **START** and then **ESC**.

> **TIP:** if any errors appear, refer to the troubleshooting guide on the following pages

```
11/11/2016    01:27PM
      CleanLogix
      ALX-ELITE
   Enter Passcode
```

```
11/11/2016    01:27PM

   Passcode: XXXX
```

```
Select App #---
  001-Demo App 1
  123-Demo App 2
```

```
App # & Name: #123
Demo App 2
    Press START To
       Dispense
```

```
Dispensing App #123
Demo App 2
STATUS██████
Time C 0:07 / T 0:20
```

```
      Cheers!
  Dispense Complete
#123 Demo App 2
Total:T00:20/0.750G
```

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Troubleshooting

```
     Permissions
count exceeded!
```

Cause	The user logged in has exceeded their permissions to use the application
Solution	Log in as an Administrator and increase the permission count for that user or wait for the time period to reset

```
     Oh No!
Dispense Cancelled!
```

Cause	User pressed STOP before the dispense finished.
Solution	During a dispense, do not press any buttons until the post-dispense screen appears, signaling the end of the dispense.

```
    Application
     config is
      invalid
```

Causes	When attempting to dispense an Application, one or more of the following is true: • The Application does not contain any dispense steps • The Application contains a dispense step with a zero time value • The Application contains a Calibrated Time Step, but the Device used in that step does not have any Calibration Points
Solution	Log into the Admin screen, then under "Applications" select the Application, then check and correct the above conditions

```
Device missing.
Unable to start
dispense!
```

Cause	One or more of the Devices assigned to this Application have been disconnected from the CAN network.
Solution	Ensure there are solid green lights on all of the Devices. Flashing lights indicate a loss of communication. Check orange M12 cable connections to ensure they are not corroded or damaged

Troubleshooting (continued)

```
Select App#---
  No applications
```

Cause	No Applications are setup
Solution	Login as an Administrator and create new Applications (Page 14)

```
Action Failed
```

Cause	Export Settings was attempted, but there is no USB drive in the USB port
Solution	Plug in a USB drive and retry

```
INVALID user, Abort?
    Are you SURE?
  Press 1 for Yes
  Press 2 for No
```

Causes	When creating or editing a User, one or more of the following is true: • User passcode is already in use • User passcode is missing • User name is missing
Solution	Press 2, then check and correct the above conditions

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Appendix A - System Editor

The ALX-ELITE includes a web-browser based System Editor that provides a user-friendly interface for configuring Users, Applications, etc.

Accessing the System Editor via WiFi

1. Make sure the ALX-Elite system is powered up and is less than 20 feet away

2. On a laptop or tablet, view the list of available wireless networks

3. Select the network named **ALXElite**[Unit ID]

> **NOTE:** The [Unit ID] used in the network name can be found in the Admin>Unit Info screen. This allows network differentiation when in range of multiple ALX-ELITE units.

4. *When prompted for a Network Key, type **alxelite**

5. Open a web browser such as Google Chrome or Internet Explorer

6. *In the address bar, type **alx-elite.com**

Accessing the System Editor via Ethernet

1. Make sure the ALX-Elite is connected to the same Ethernet network as your computer
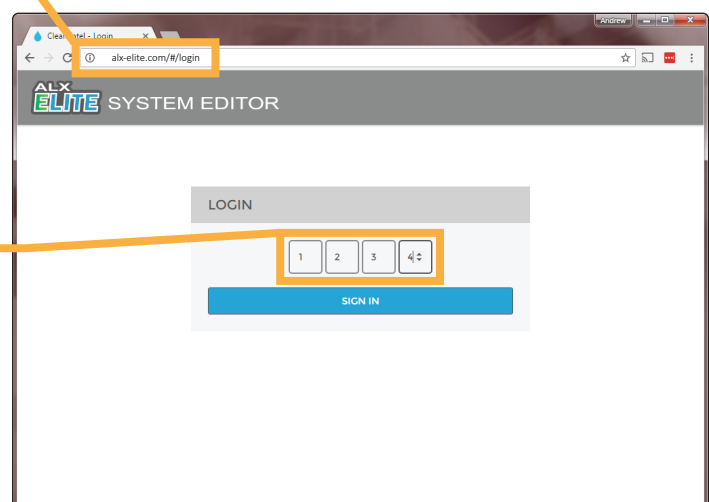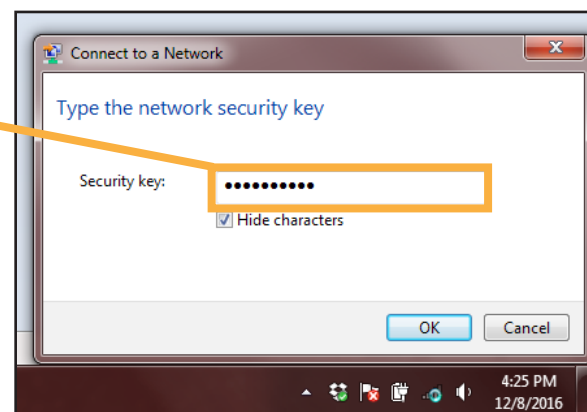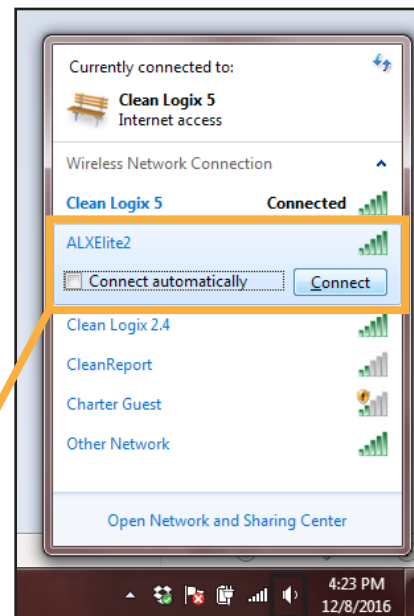
2. Repeat steps 1, 5 and 6 above

Logging into the System Editor

1. Login using a 4-digit passcode from any User that has Admin privileges. The passcode for the default "administrator" User is **1234**

> ***NOTE:** For units shipped before 01/06/2017 (or without 1.1 update) use the following:
>
> Network Key: **cleanlogix**
>
> URL: **10.15.15.1**

Using the System Editor

1. Navigate using the tabs on the left hand side of the screen (or the symbols on the bottom, if using tablet/smartphone device)

2. Users, Devices, Applications, Permissions and Reporting can all be edited using the System Editor

> **TIP:** In order to view/edit Devices and create Applications, the device(s) must first be connected and configured through the Front Panel of the ALX-ELITE!

3. Use the **EDIT** button to modify features of existing Users, Devices, Applications and Permissions

4. Use the blue **+** button to add new Users, Applications, and Reports

5. Use the blue **SAVE** button to save changes before changing tabs or exiting the System Editor

6. Changes take effect on the ALX-ELITE immediately

    DO NOT use the Front Panel on the ALX-ELITE while using the System Editor!

> **NOTE:** Due to small screen sizes, Applications cannot be edited while viewing the System Editor on a smart phone.

General

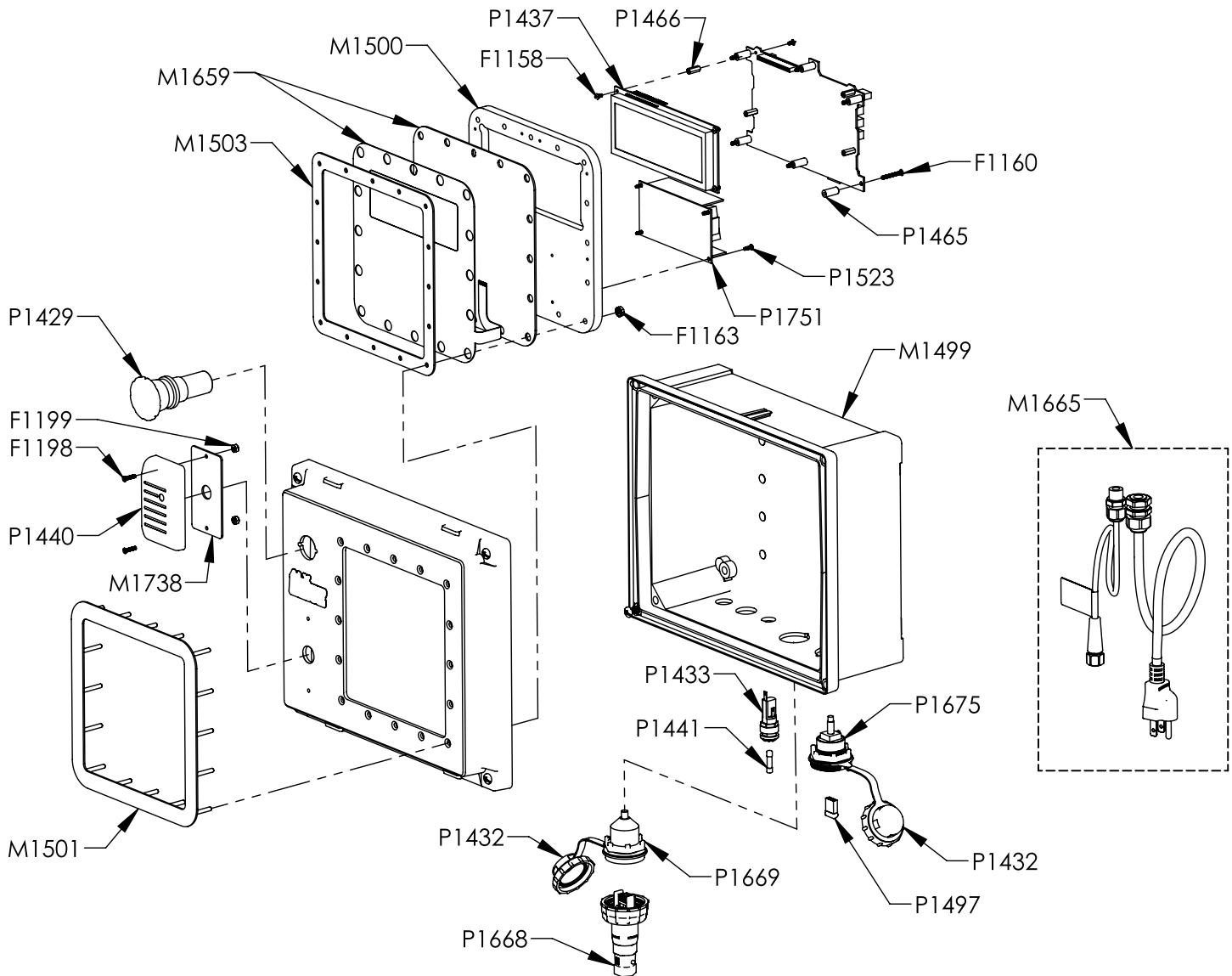Installation

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Appendix B - Parts Callout

Part No.	Description
F1158	SCREW MACHINE M2.5 X 5 SS PHILLIPS PAN HD
F1160	SCREW MACHINE 4-40 X 7/8 ZN PHILLIPS PAN HD
F1163	NUT KEPS LOCK 6-32 ZN
F1198	SCREW MACHINE 4-40 X 1/2 FLAT HEAD PHILLIPS 316SS
F1199	NUT NYLOCK 4-40 ZN
M1499	CONTROLLER ENCLOSURE
M1500	MEMBRANE BACK PLATE
M1501	MEMBRANE BEZEL
M1503	GASKET 200 SERIES KEYPAD
M1659	KEYPAD REPLACEMENT KIT FOR LITE/ELITE CONTROLLERS
M1665	WIRING - LITE SERIES - HARNESS ASSEMBLY
M1738	GASKET RFID PROXPOINT PLUS
P1429	PUSH-PULL BUTTON RED 40MM

Part No.	Description
P1432	USB DUST CAP ASSY
P1433	FUSE HOLDER 250V 10A PANEL MOUNT
P1437	LED DISPLAY 4X20
P1440	RFID READER HID PROXPOINT PLUS 6500
P1441	FUSE 250VAC 2A 5X20
P1465	SPACER #4 X 1/4" X 9/16" NYLN
P1466	STANDOFF M2.5 X 12 BRASS
P1497	USB FLASH DRIVE 8GB LOW PROFILE
P1523	SCREW #4-24 X 5/16" HI-LO PHILLIPS PAN ZN
P1668	TERMINAL RJ45 FIELD WIRED CIRCULAR SEALED
P1669	RECEPTACLE RJ45 CIRCULAR SEALED w/ 0.25m CABLE
P1675	RECEPTACLE USB-A CIRCULAR SEALED w/0.50m CABLE
P1751	POWER SUPPLY 24V 2.5 AMP 60 WATT OPEN FRAME

Appendix B - Parts Callout (continued)
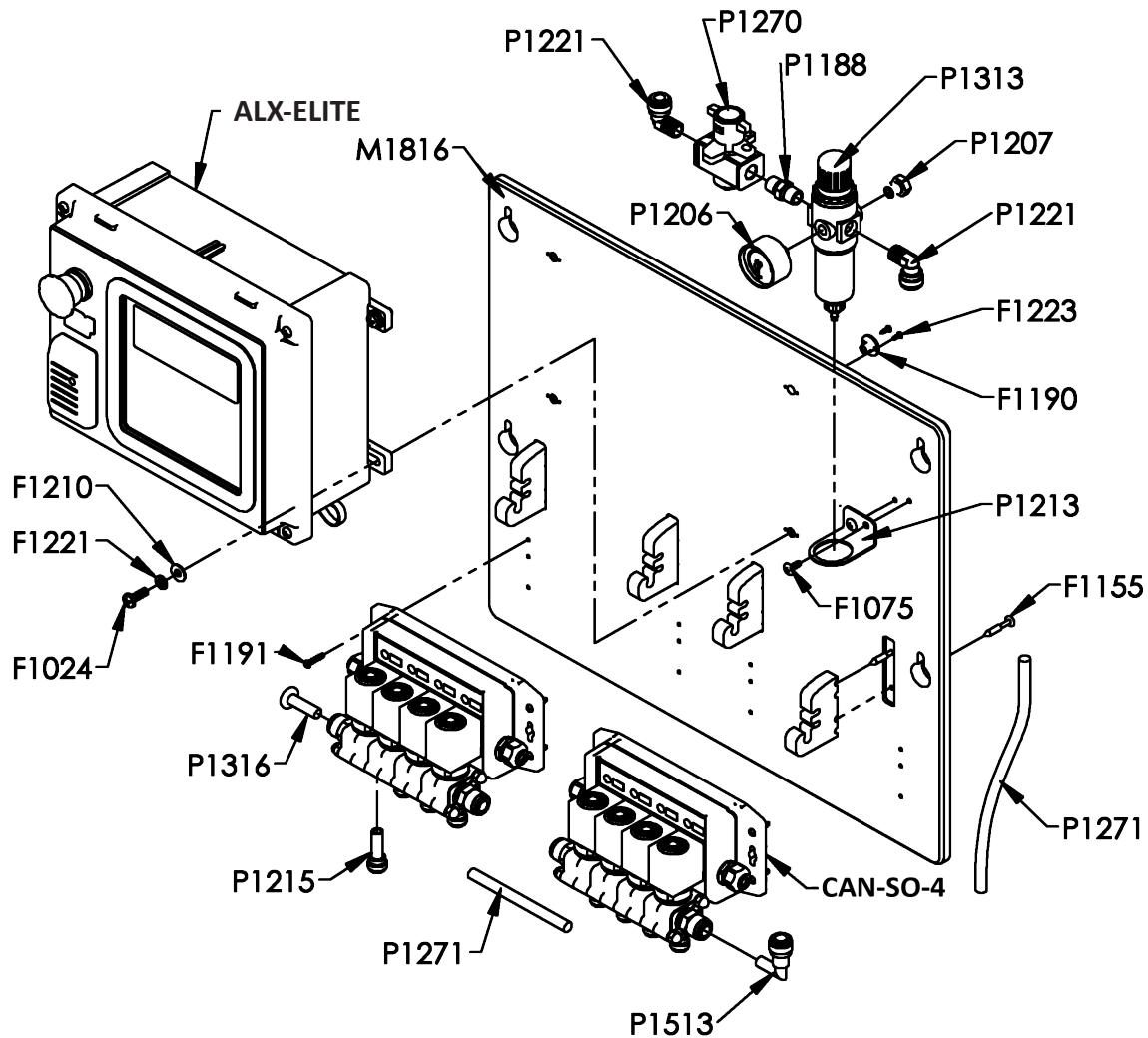
Part No.	Description
CAN-SO-4	CAN CONNECTED MODULE WITH FOUR 3-WAY MANIFOLDED VALVES
ALX-ELITE	ALX-ELITE ALLOCATION CONTROLLER
F1024	SCREW MACHINE 1/4-20 x 3/4 SS PHILLIPS
F1075	SCREW SELF TAP 10-16 X 1/2 SS
F1155	SCREW SHARX #10 X 1-1/4 PAN HD 316SS
F1190	NUT BRAD TEE 1/4-20 SS
F1191	SCREW HI-LO 8-18 X 3/4 SS
F1210	WASHER FLAT 1/4 316SS
F1221	WASHER SPLIT LOCK 1/4 316SS
F1223	SCREW SELF TAP #4 X 3/8 316SS
M1816	BACK PLATE WITH 4 WIRE GUIDES (18.5" x 21.5")
P1188	PIPE HEX NIPPLE 1/4 SS

Part No.	Description
P1206	GAUGE 1-1/2" DUAL SCALE
P1207	PIPE HEX PLUG 1/8 POLY
P1213	MOUNTING BRACKET A33-82
P1215	QUICK FIT REDUCER 3/8" X 1/4"
P1221	QUICK FIT ELBOW 1/4" NPT x 3/8" TUBE
P1270	SHUTOFF/LOCKOUT VALVE 1/4 NPT
P1271	3/8" OD POLYETHYLENE TUBING - NATURAL - 1'"
P1271	3/8" OD POLYETHYLENE TUBING - NATURAL - 1'"
P1313	REGULATOR 1/4"
P1316	QUICK FIT PLUG 3/8"
P1513	QUICK FIT STEM ELBOW 3/8" X 3/8"
P1540	M12 PORT CAP

<u>Notes:</u>

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Appendix C - Device Calibrations Explained

Calibrating a Device is advantageous because it allows the Device to be used in multiple different Applications and Calibrated type Dispense Steps with *different volume targets* and the controller will automatically calculate the necessary run time to achieve the target volume each time. This eliminates the guess work or trial and error that is necessary with Fixed Time Dispense Step types.

A calibration point is a relationship between Time and Volume. The graph below will help illustrate the following points:

- The controller allows one or two user-defined calibration points to be programmed. These do not need to be in any specific order- i.e. $T1$ can be less than $T2$ or $T1$ can be greater than $T2$.

- However, if $T1 < T2$ and $V1 > V2$, then calibration point $(T1, V1)$ will be considered invalid and ignored. In other words if a calibration point has a shorter Time than the other, but a larger Volume, it is considered invalid (i.e. in the real world the longer a pump runs the more volume you will get!).

- The controller automatically assumes that $(0,0)$ is a fixed calibration point (0 time = 0 volume).

- If only one calibration point is programmed, the graph will look like a straight line from $(0,0)$, through the calibration point and to infinity.

- If two calibration points are programmed, then the graph will be a line between $(0,0)$ and $(T1,V1)$, then a straight line between $(T1,V1)$ and $(T2,V2)$, and finally will continue past $(T2,V2)$ along a line that, if drawn to the left of $(T2,V2)$, would pass through $(0,0)$.

- It is not recommended to extrapolate more than 500% of the largest calibration point. So if you have a 1 gallon calibration point, you should not create a Dispense Step with more than 5 gallons.

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