



USER MANUAL

MODEL:

ALX-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-ELITE is a chemical management controller 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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READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT



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

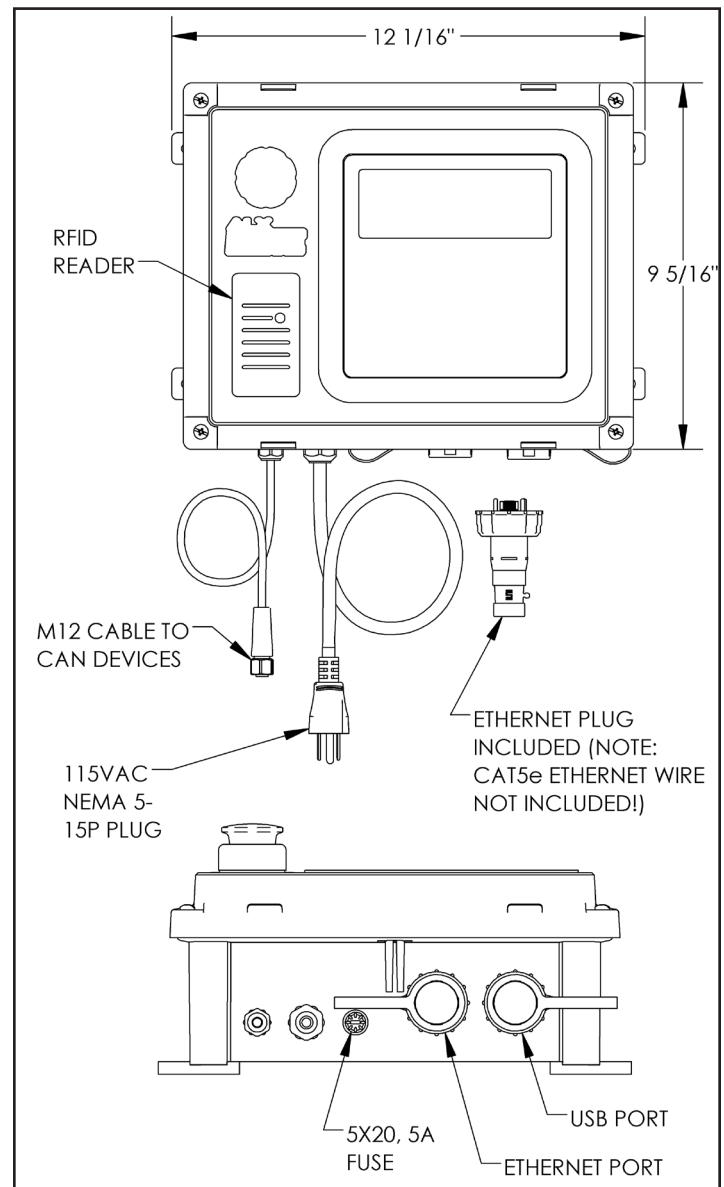
Compressed Air (typical installation)

- 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)

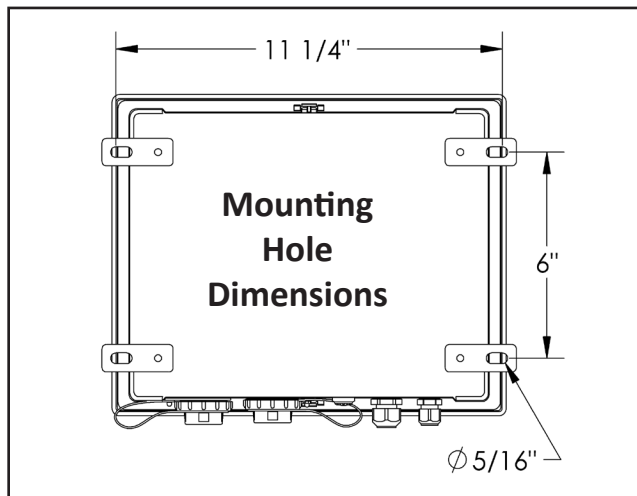
- Cold Portable Water
- 7 GPM (26.5 Lpm) @ 35 psi (2.5 bar) minimum
- 100 psi (6.9 bar) maximum supply pressure
- Recommended regulator setting: 50 PSI (3.4 bar).

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



Mounting Controller

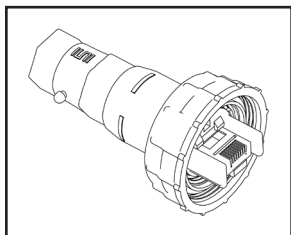
- Determine mounting location, with consideration of the following:
 - User accessibility
 - Distance to electrical outlet
 - Distance to Devices/pumps
 - Accessibility to Ethernet or WiFi
- Attach the included mounting feet to the controller.
- Securely mount unit to wall using appropriate hardware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



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

Connecting Ethernet (if not using WiFi)

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



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

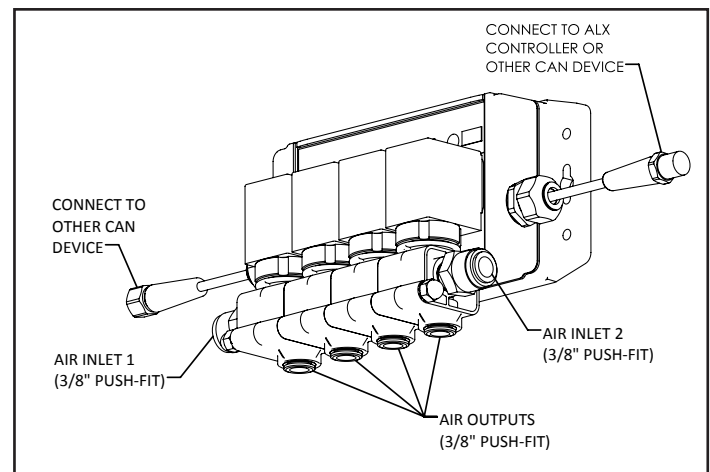
Connecting Devices

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

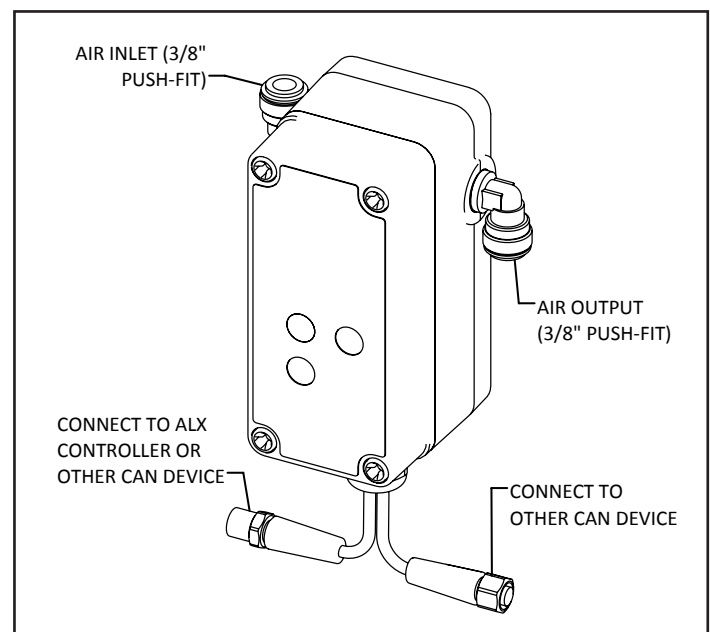
- CAN-SO-4:** A four output, 3-way solenoid valve pack for controlling 1/2" or smaller AODD pumps and/or air operated valves
- CAN-SO-1:** A single output, 2-way solenoid valve for controlling up to a 1" Air Operated Double Diaphragm (AODD) pumps

Continued on next page

CAN-SO-4



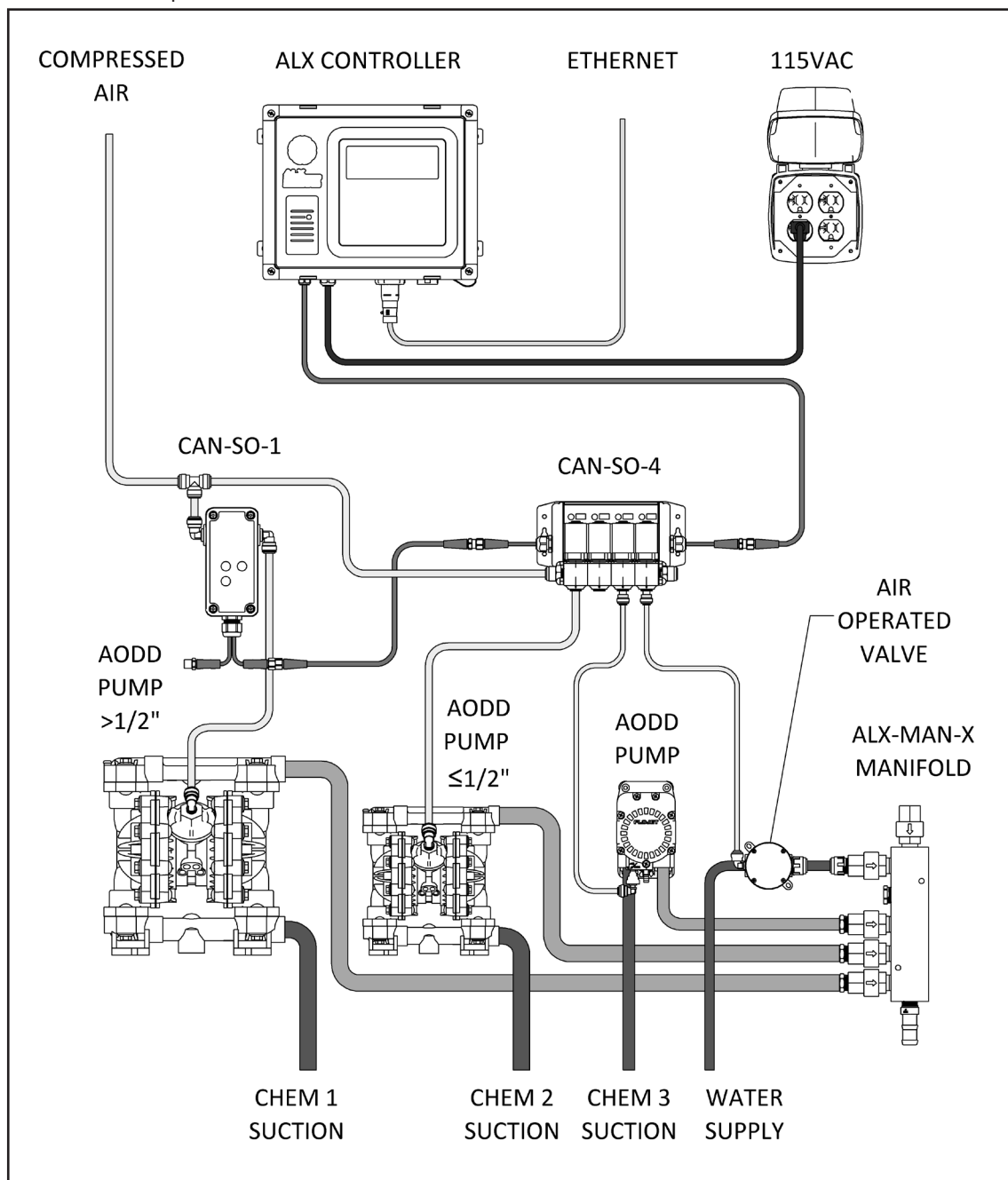
CAN-SO-1



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]

Installation Example



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READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT



Notes:

Notes section with 18 horizontal lines for writing.

- General
- Installation
- Configuration
- Operation
- Troubleshooting
- Appendices

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READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT



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!

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!

```
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
```

9. Press the **ESC** key to exit.
10. When prompted to save changes, press **←** for Yes or **→** 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
```

General

Installation

Configuration

Operation

Troubleshooting

Appendices

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: AOOD 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**

```
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
```

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.

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
    
```

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
```

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

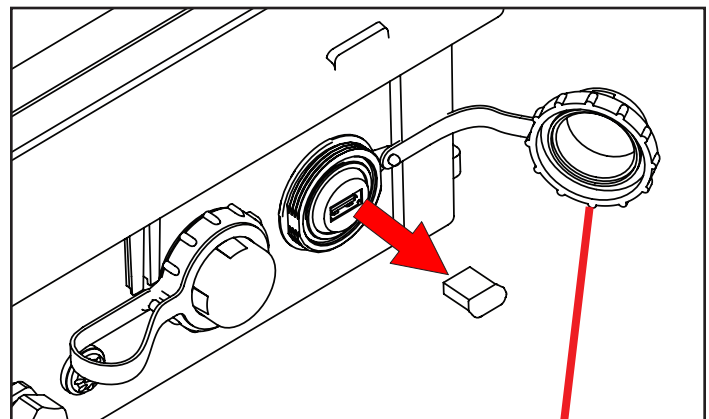
This will export the controller settings for Users, Devices and Applications. It will create a file on the USB drive named **export.db** in a folder named **export**.

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**.

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**.



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.

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: eXamp13
```

```
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.

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**

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

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

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 Addresses
example@blank.com
```

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.

```
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
```

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
```

USER MANUAL: ALX-ELITE

READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT



Notes:

Notes section containing 18 horizontal lines for writing.

- General
- Installation
- Configuration
- Operation
- Troubleshooting
- Appendices

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
conf@ 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

USER MANUAL: ALX-ELITE

READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT



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
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

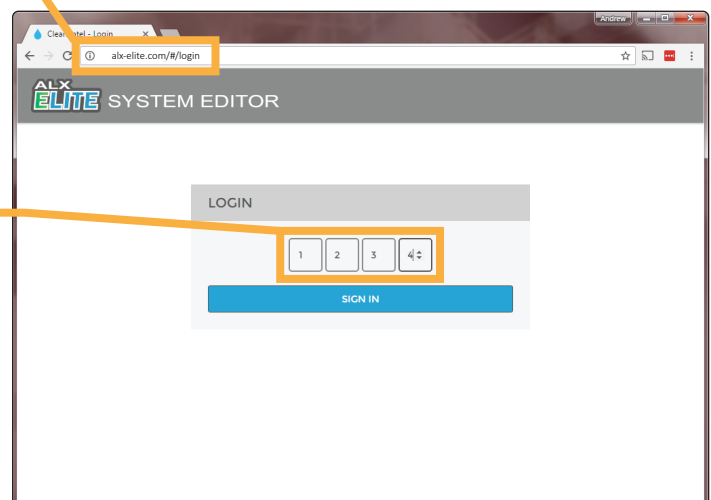
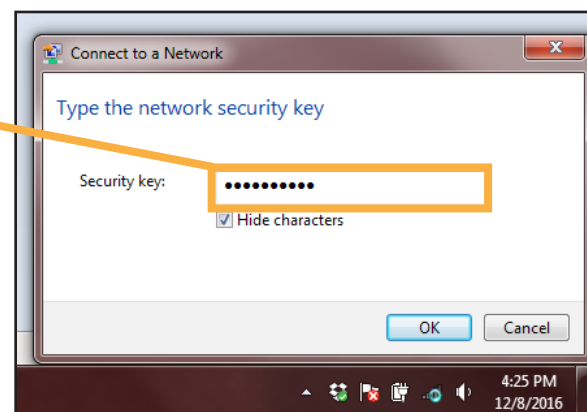
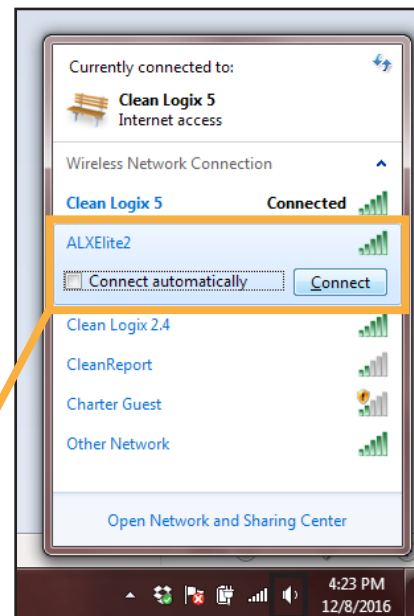
Logging into the System Editor

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**



USER MANUAL: ALX-ELITE

READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT



Appendix A - System Editor

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

CAUTION:

DO NOT use 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

Configuration

Operation

Troubleshooting

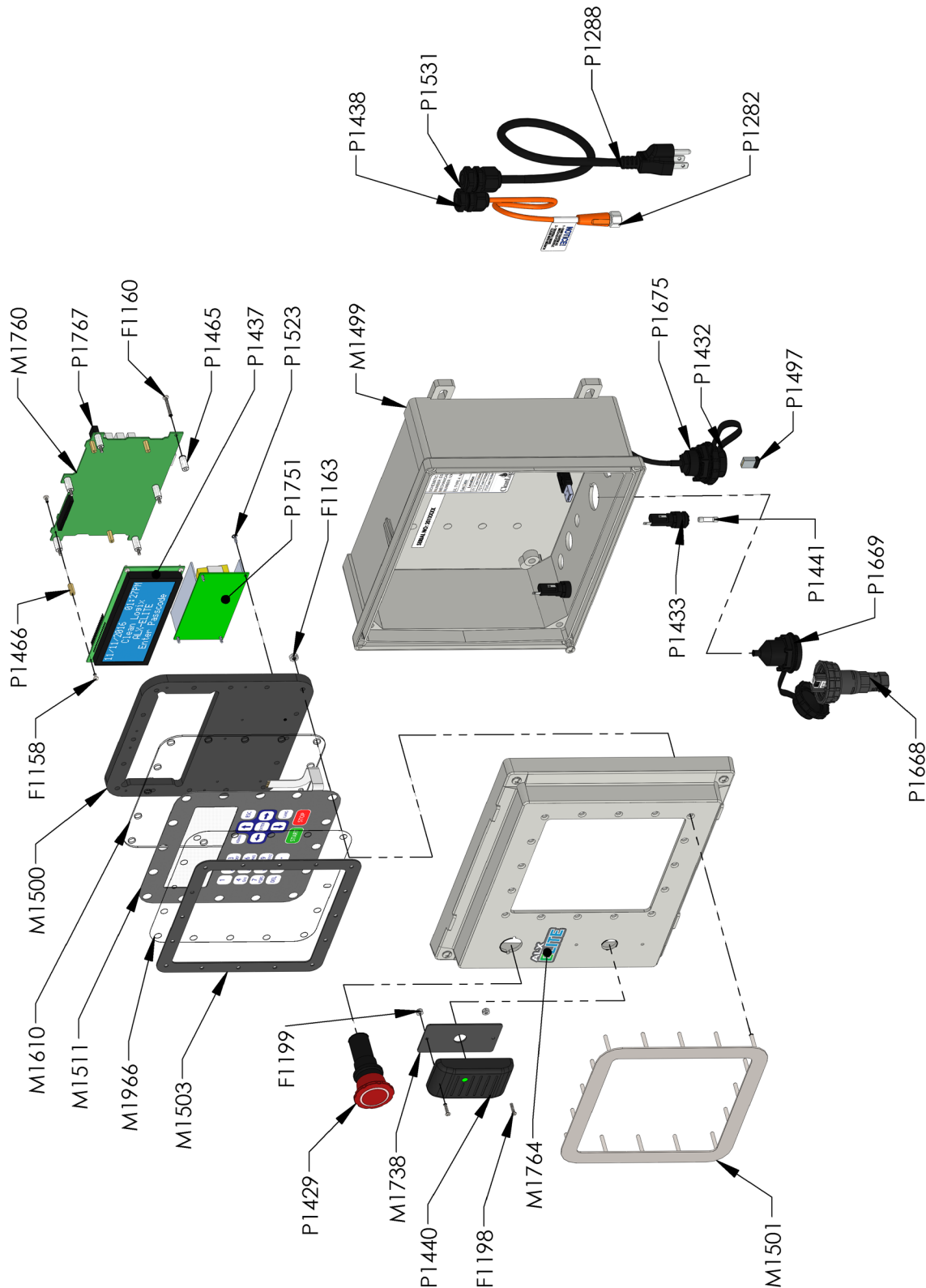
Appendices

USER MANUAL: ALX-ELITE

READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT



Appendix B - Parts Callout



Appendix B - Parts Callout

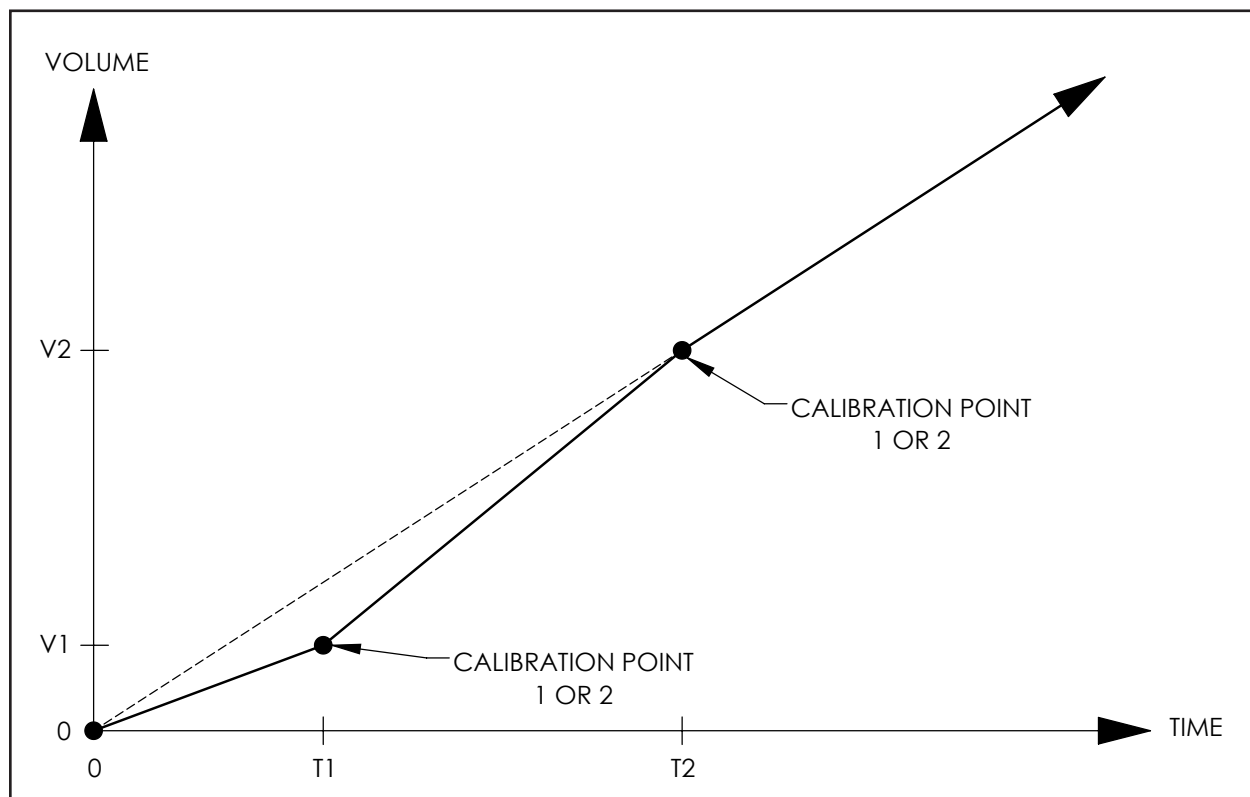
Part No.	Description
F1158	SCREW MACHINE M2.5 X 5 SS PHILLIPS PAN HD
F1160	SCREW MACHINE 4-40 X 7/8 ZN PHILLIPS PAN HD
F1163	NUT KEPS LOCK 6-32 ZN
F1198	SCREW MACHINE 4-40 X 1/2 FLAT HEAD PHILLIPS 316SS
F1199	NUT NYLOCK 4-40 ZN
M1499	CONTROLLER ENCLOSURE
M1500	MEMBRANE BACK PLATE
M1501	MEMBRANE BEZEL
M1503	GASKET 200 SERIES KEYPAD
M1511	MEMBRANE KEYPAD 200 SERIES
M1610	200 SERIES KEYPAD CARRIER
M1738	GASKET RFID PROXPOINT PLUS
M1760	PCB ELITE SERIES
M1764	DECAL ALX-ELITE
M1966	LITE-ELITE KEYAD PROTECTOR
P1128	TERMINAL HOUSING 4-POS
P1130	TERMINAL CRIMP
P1282	CAN CABLE 5 Meter (16.48ft)
P1288	POWER CORD 18-3 SO 5-15P
P1429	PUSH-PULL BUTTON RED 40MM
P1432	USB DUST CAP ASSY
P1432	USB DUST CAP ASSY
P1433	FUSE HOLDER 250V 10A PANEL MOUNT
P1434	TERMINAL CRIMP VH/NV 18-22AWG JST
P1435	TERMINAL HOUSING VH 3-POS
P1436	TERMINAL HOUSING VH 4-POS
P1437	LED DISPLAY 4X20
P1438	CORD GRIP PG9 X .065-.230 BLK
P1440	RFID READER HID PROXPOINT PLUS 6500
P1441	FUSE 250VAC 2A 5X20
P1464	TERMINAL, #4 RING, 18-22 AWG NON-INS
P1465	SPACER #4 X 1/4" X 9/16" NYLN
P1466	STANDOFF M2.5 X 12 BRASS
P1489	FUSE 250VAC 5A 5X20
P1497	USB FLASH DRIVE 8GB LOW PROFILE
P1523	SCREW #4-24 X 5/16" HI-LO PHILLIPS PAN ZN
P1531	CORD GRIP PG11 X .230-.400 BLK W/NUT
P1668	TERMINAL RJ45 FIELD WIRED CIRCULAR SEALED
P1669	RECEPTACLE RJ45 PANEL MOUNT CIRCULAR SEALED w/ 0.25m CABLE
P1675	RECEPTACLE USB-A PANEL MOUNT CIRCULAR SEALED w/0.50m CABLE
P1678	LABEL CAN CABLE WRENCH
P1751	POWER SUPPLY 24V 2.5 AMP 60 WATT OPEN FRAME
P1754	MICRO SD CARD 32GB
P1758	LABEL - UL508 PANEL
P1767	USB WIFI ADAPTER

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. T_1 can be less than T_2 or T_1 can be greater than T_2 .
- However, if $T_1 < T_2$ and $V_1 > V_2$, then calibration point (T_1, V_1) 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 (T_1, V_1) , then a straight line between (T_1, V_1) and (T_2, V_2) , and finally will continue past (T_2, V_2) along a line that, if drawn to the left of (T_2, V_2) , 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.



Appendix D - Replacing Keypad or Keypad Protector

Replacing the keypad protector or the keypad itself for an ALX ELITE controller is a simple process that can be accomplished in a short amount of time.

CAUTION:

Careful not to damage the circuit board or connections points during the process.

Accessing Keypad and Protector:

1. Unplug the controller from power and any CAN connected devices (i.e. solenoids)
2. Remove the 4 screws at each corner of the enclosure and gently lift the top of the controller from its base [Figure 31.1].

NOTE: The cables and wire lengths leading from the base to the lid can vary and may be taut when removing.

3. Unplug any short cables (ethernet, USB, RFID, etc.) connected to the circuit board to allow clearance to remove the keypad.
4. Using a 5/16" deep-well socket or wrench, remove all 16 nuts around the keypad backplate [Figure 31.2 - 31.3].
5. Proceed to the next page and follow the instructions for the part(s) to be replaced.

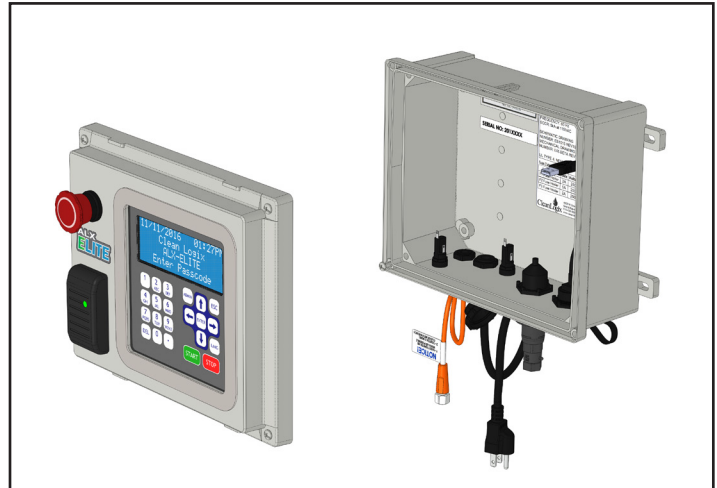


Figure 31.1: Removing enclosure cover

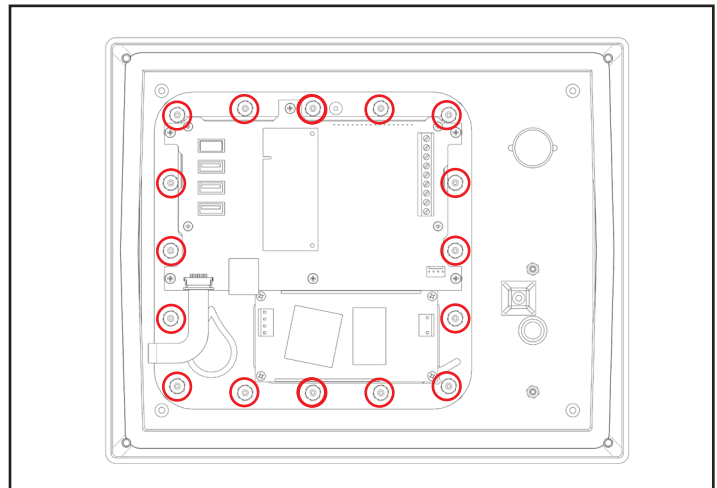


Figure 31.2: Keypad backplate nut locations

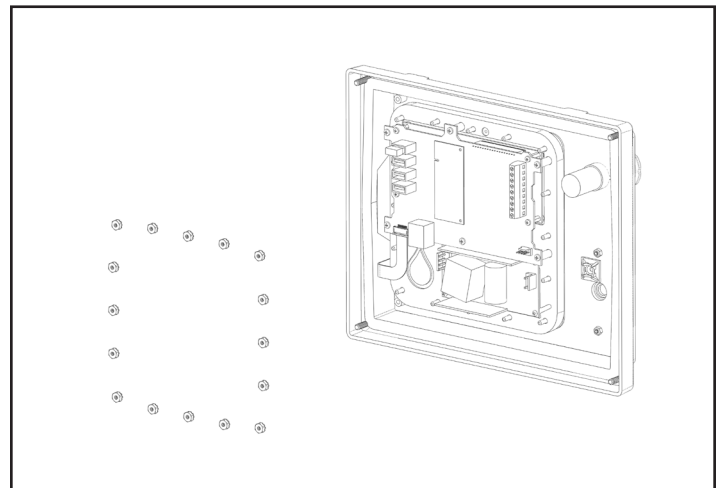


Figure 31.3: Removing 16 keypad backplate nuts

Appendix D - Replacing Keypad or Keypad Protector (cont.)

Replacing Keypad Protector:

1. Remove the keypad and backplate with it's connected circuit board and hardware [Figure 32.3]

NOTE: If the keypad is not to be replaced it may remain plugged into the circuit board backplate. To remove the keypad, see **Replacing Keypad** section (page 33)

2. Remove the damaged keypad protector and discard.
3. Replace the protector in the same location, against the keypad gasket, aligning all mounting holes with the threaded studs as before.
4. Lay the backplate with the keypad against the protector, aligning all mounting holes with the threaded studs as before.

NOTE: Verify the keypad is key-side down, with the screen window in the correct orientation.

5. With the keypad and its new protector secured against the gasket replace the backplate and secure it place with all 16 nuts.
6. Reattach any cables or wires previously removed and secure the lid of the enclosure back to its base.
7. Plug in, power up the controller and test prior to re-installing for normal operation.

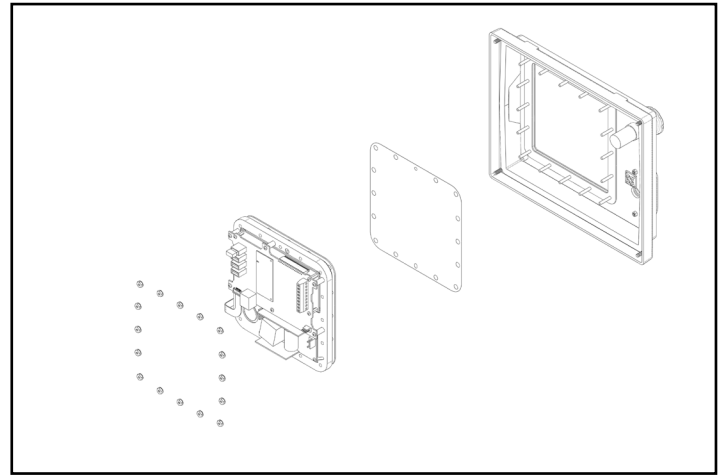


Figure 32.1: Removing keypad and backplate to access protector



More Information

Please contact Clean Logix at:

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

Appendix D - Replacing Keypad or Keypad Protector (cont.)

Replacing Keypad:

1. Unplug the keypad ribbon from the circuit board by sliding the locking pins up using a fingernail or small flathead screwdriver [Figure 33.1 - 33.2].
2. Pull the green keypad ribbon out of the connection port.
3. Remove the backplate with its connected circuit board and hardware [Figure 33.3]
4. Remove the damaged keypad and discard appropriately.
 - If necessary, remove the keypad protector and replace it as outlined in the previous section.
5. Remove the plastic film from both the front and back of the new keypad.
6. Lay the new keypad on the protector, aligning all mounting holes with the threaded studs as before.

NOTE: Insert the keypad key-side down, with the screen window in the correct orientation. The keypad ribbon will not align to connection port if mounted incorrectly.

7. With the new keypad and its protector aligned against the gasket, replace the backplate and secure it place with all 16 nuts.
8. Plug the keypad ribbon into the connection port on the circuit board as before and lock both retaining pins into place.
9. Reattach any cables or wires previously removed and secure the lid of the enclosure back to its base.
10. Plug in, power up the controller and test prior to re-installing for normal operation.

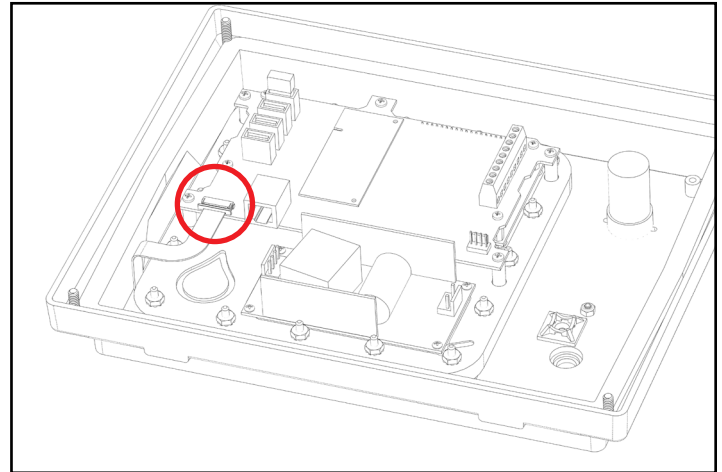


Figure 33.1: Keypad connection port location

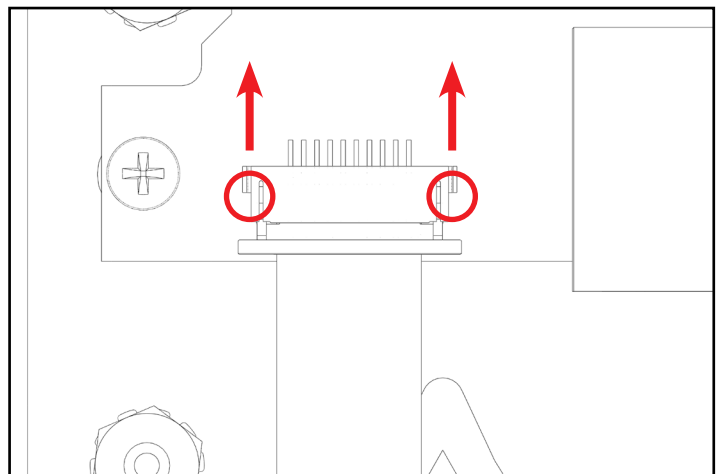


Figure 33.2: Unlocking keypad connection port

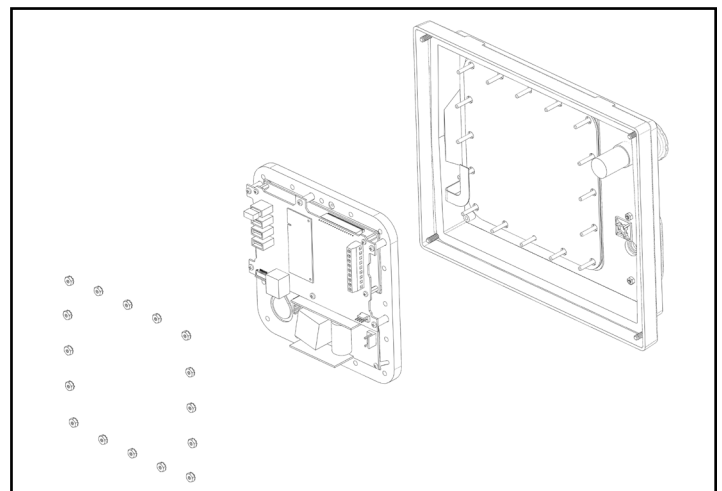


Figure 33.3: Removing backplate (keypad still in position)