# FXM-HP
# RUGGED UPS MODULE
## QUICK CONFIGURATION GUIDE



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**Distributed in Australia by:**



Alpha
*Power Systems*

**FXM HP UPS** EDUCATION SERIES

# QUICK CONFIGURATION GUIDE

Thank you for purchasing the Alpha® FXM-HP UPS module series. We think you will find it to be a very comprehensive and easy to use UPS. The system is designed to operate as soon as it's properly wired and turned on, but if you'd like to dig deeper and do more setup this guide will help you configure the most common items. As always, if you have any questions please refer to the manual or give our technical support line a call. **The default login username and password are "admin".**

## MOUSE & KEYBOARD FOR LCD

The USB Type A connector on the FXM-HP UPS can be used to connect peripheral devices such as a wired/wireless mouse and/or keyboard.

## LANGUAGE & UNITS

The language can be English or French and the units Metric or Imperial. To change the language and units of the interfaces:

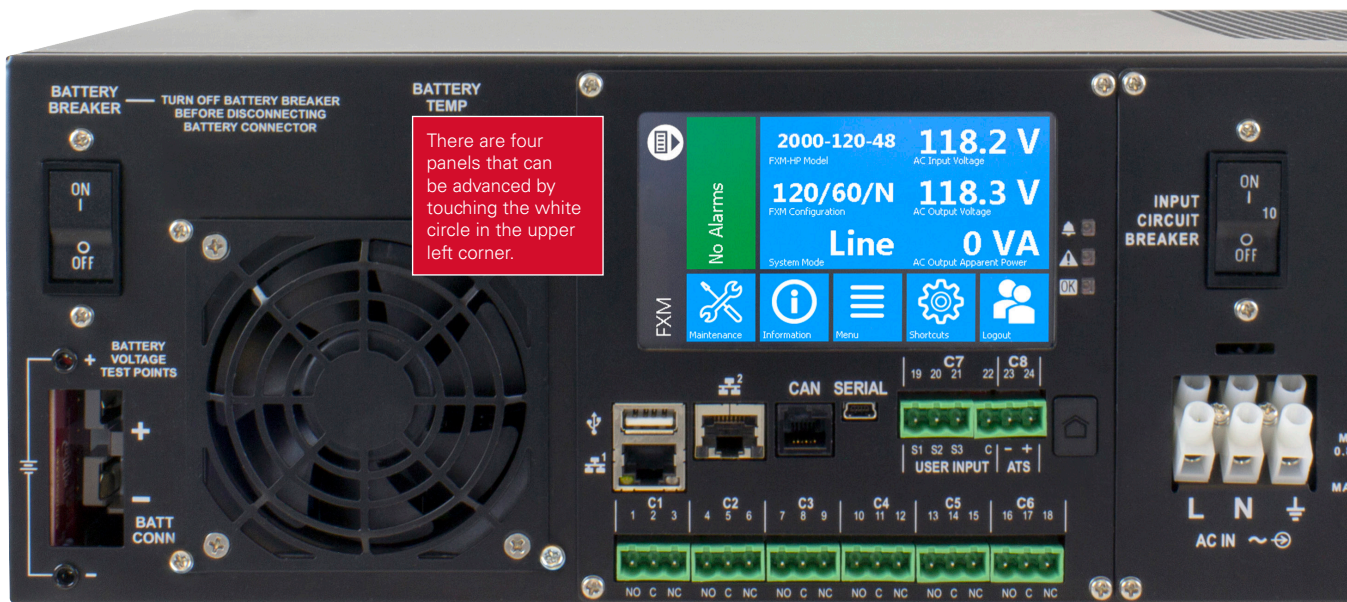**LCD** – Shortcuts/Page Down/Language – Then login and select your change.
**Web** – The upper right corner of the web page has a dropdown to make the change. It can be selected to be on the top right corner of Login page as well.

## ROTATE DISPLAY FXM HP 1100/2000

If the FXM-HP UPS has been mounted vertically and the display has not been rotated for right-reading, you will need a Phillip's screwdriver to rotate the display. Remove the four screws that hold the display and carefully rotate so that it is right-reading and re-install the screws.

## DISPLAY CONFIGURATION – DASHBOARD VALUES

The dashboard area of the display is user configurable as to which configuration or IO values are shown. There are four panels that can be advanced by touching the white circle in the upper left corner. Each of these panels has 6 fields. They are numbered 1-24 and are 1, 2, 3 on the left side and then 4, 5, 6 on the right, starting with the first panel and the numbers increase with each panel. To set the fields via LCD select: Menu/Controller/ Configure Controller/User Interface Preferences/FXM HP Dashboard Values. Now select the dashboard value you would like to change. Scroll to FXM-HP UPS and select to get to most of the commonly used UPS fields. Select the field you will like and then the checkmark. To set the fields via web browser: type "dash" in the search bar, then enter, and scroll down for FXM-HP UPS Dashboard Values and select edit on the dashboard value you wish to change. Then navigate to the new value and Save.

There are four panels that can be advanced by touching the white circle in the upper left corner.

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## BATTERY CONFIGURATION

The FXM-HP UPS comes preconfigured for a 100Ah battery. You can however configure for a specific battery from the profile list which includes our most common batteries. Use your web browser and login to the UPS. Then type "configure batt" in the search bar and then enter. In the Configuration table select "Configure Battery String" and follow the below instructions. This can also be done via the LCD by selecting the "Battery" shortcut and selecting Configure Battery String wizard.

1. **Battery Parameter Source** – Select "Use Parameters based on Battery Model" and then "Next"

2. **Battery Manufacturer** – Select manufacturer

3. **Battery Model** – Select model and then "Next." If your model is not listed, then set the values manually using the wizard.

4. **Verify Values** that come up and then "Next"

5. **Name the String** – You could rename the string, but it is typically left as is, click "Next"

6. **Map the String** – Leave as is, click "Next" (if mappings get changed on accident, default is below)
   - **Battery Voltage** – Select "FXM ADIO: Battery Voltage"
   - **Battery Current** – Select "FXM ADIO: Battery Current"
   - **Midpoint Voltage** – Ignore
   - **Battery Breaker** – Select "FXM-HP xxxx-xxx: Battery Breaker Open" and then "Next"

7. **Select "Done"**

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## BATTERY STATE OF HEALTH (SOH)

Battery SOH should be reset to 100% when the batteries are first installed, and Battery Estimation should be enabled.

**LCD METHOD**

- Menu/System/FXM-HP xxxx-xxx/System Functions/Battery Runtime and Health.

- In the Configuration table enable Battery Estimation.

- In the Status table select "Reset Battery State of Health to 100%."

**WEB METHOD**

- Type "state of" in the search bar and then enter.

- In the Configuration table enable Battery Estimation.

- In the Status table select "Reset Battery State of Health to 100%."

## POWER OUTAGE ALARM DELAY

This feature is useful for locations that have short outages and you do not wish to be notified unless the outage exceeds the configured time delay. By setting this delay the FXM-HP UPS will provide backup power to the load and log an outage. It will not trigger any outage related alarms, dry contact relays, or email to be sent until the outage duration exceeds the Power Outage Alarm Delay value.

## LCD METHOD

- Menu/System/FXM-HP xxxx-xxx/xxx/Configure System/System Properties/Power Outage Alarm Delay and select edit.
- Change the delay time to your desired value.

## WEB METHOD

- Type "outage" and then enter. Change the delay time to your desired value.

## ETHERNET

Ethernet is typically connected through the Ethernet 1 connection which is setup for static IP. The default address is 192.168.0.90. To change the settings:

## LCD METHOD

- Shortcuts/Ethernet/Ethernet Front1/Configuration/Change Network Configuration.
- After you login you can change each of the settings.

## WEB METHOD

- "Type "front" in the search bar and then enter. Use the "Change Network Configuration" wizard in the Configuration table.

## EMAIL

The FXM-HP UPS can be configured to send alarm summary emails. In this case the FXM-HP UPS is acting as a Simple Mail Transfer Protocol (SMTP) client and can work with private and public servers. Alarms that trigger emails are held in queue and are sent out together after the preset interval has elapsed. The default is 10 minutes and the range is 5-60 minutes. After you have setup the email configuration be sure to "Send Test Email" to verify.

### LCD METHOD

- Menu/Controller/Configure Controller/Communications/Email/SMTP Configuration
- Enter the setup information and set the SMTP server password.
- Go back one step from this menu and then go to Email Destination to setup a valid from address, recipients list, and send interval.
- This page also has the email test button.

### WEB METHOD

- Type "email" in the search bar and then enter.
- In the SMTP Configuration table enter the setup information and set the SMTP password.
- In the Email Destination table set a valid from address, recipients list, and send interval.
- Then send a test email to verify settings.

## TIME & DATE

It is a good idea to set the time and verify the date of the UPS so that logging features will log time/date with your local values. You can set these values manually, sync with web browser, or synchronize to network time server. Be sure to also select your daylight savings time method.

**LCD METHOD**
- Shortcuts/Page Down/Clock
- Then choose the method to set them.

**WEB METHOD**
- Type "time" in the search bar and then enter.
- Then choose the method to set them.

## DRY CONTACT RELAYS

Dry contact relays are programmed with default settings of:

| C1 | C2 | C3 | C4 | C5 | C6 (configurable at factory) |
|----|----|----|----|----|------------------------------|
| On Battery | Low Batt. + No Line | Low Batt. + No Line | Timer 1 | Alarms | 48 or 24VDC based on battery bus |

The default settings can be changed, and the methods to do so are covered in detail in the "FXM HP Dry Contact Relays" application note.

## CLONE CONFIGURATION

To make configuration easier and faster the FXM-HP UPS can clone its controller configuration file to upload to other units via the USB Type A connector or web browser.

**LCD METHOD**

- Insert a USB drive into the USB Type A connector.
- Then Menu/Controller/Advanced Functions/Configuration File/ Configuration File/Export Controller Clone and then Export.
- Remove the USB drive and insert into unit you wish to clone to.
- Then shortcuts/Browse USB/Select .xml File, and then Import.

**WEB METHOD**

- Type "clone" in the search bar and then enter.
- Select "Export Controller Clone" and it will save an XML file to your downloads directory. Locate the file and rename for convenience.
- Then on the unit you wish to clone to, select "Import" and browse to the file and upload.

## UPGRADING CONTROLLER SOFTWARE

*NOTE: Check www.alpha.ca for the latest software update and download.*

**LCD METHOD**

- Copy the new controller software file (.azp) to the USB drive and insert into the USB Type A connector.
- Then shortcuts/Browse USB/Select .azp file/Execute.

**WEB METHOD**

- Type "new controller" and then enter.

- Select "Upload New Controller Software and Reboot" and select the .azp file, then "Upload."

- Software will install and the controller will reboot.

# UPGRADING CONTROLLER OPERATING SYSTEM

*NOTE: Check www.alpha.ca for the latest software update and download.*



**LCD METHOD**

- Insert USB drive into the USB Type A connector.

- Then Shortcuts/Browse USB/Select CORDEXHP.OS.Vxxx.zip file/ Execute.

- Software will install and the controller will reboot.



**WEB METHOD**

- Type "new controller" and then enter.

- Select "Upload Controller OS Software and Reboot" and select the CORDEXHP.OS.Vxxx.zip file, then "Upload."

- Software will install and the controller will reboot.

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## UPGRADING FXM-HP UPS FIRMWARE

*NOTE: Check www.alpha.ca for the latest software update and download.*

**LCD METHOD**

- Insert USB drive into the USB Type A connector.
- Then shortcuts/Browse USB/Select .acan file/Execute.

**WEB METHOD**

- Type "firmware" in the search bar and then enter.
- In the Firmware Files section select "Upload Firmware File" and locate the file and upload.
- In the Firmware Upgrade table select edit in File.
- Use the dropdown list and find the firmware file, select, and Save.
- Then select "Start Firmware Upgrade."

## ALARMS

There are alarms for the controller as well as for the FXM. They come pre-configured, but you may wish to change the default settings. Navigate to Alarms/All Alarm Settings or via LCD Menu/Alarms/All Alarm Settings.

Type search string

Click to change sort

Click to edit alarm settings
See next page



| Name | Status | Limit | Priority | Relay | Actions |
|---|---|---|---|---|---|
| FXM-HP 120V-48V/854: Battery Breaker Open | Inactive | | Warning | --- | Test Alarm |
| FXM-HP 120V-48V/854: AC Input Breaker Open | Inactive | | Warning | --- | Test Alarm |
| FXM-HP 120V-48V/854: AC Output Overloaded | Inactive | | Critical | --- | Test Alarm |
| FXM-HP 120V-48V/854: AC Output Short Circuit | Inactive | | Critical | --- | Test Alarm |
| FXM-HP 120V-48V/854: AC Power Outage | Inactive | | Minor | --- | Test Alarm |
| FXM-HP 120V-48V/854: Battery Temperature Probe Unplugged | Inactive | | Minor | --- | Test Alarm |
| FXM-HP 120V-48V/854: Internal Temperature | Inactive | | Major | --- | Test Alarm |
| FXM-HP 120V-48V/854: AC Output Voltage High | Inactive | | Major | --- | Test Alarm |
| FXM-HP 120V-48V/854: AC Output Voltage Low | Inactive | | Major | --- | Test Alarm |
| FXM-HP 120V-48V/854: Battery Over Voltage | Inactive | | Major | --- | Test Alarm |

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Select pages

## EDIT THE ALARM



You can enable/Disable the alarm

Adjust priority level of the alarm – Warning, Minor, Major, and Critical

You can add a relay to be triggered by the alarm

## POWER FLOW (WEB BROWSER ONLY)

Power Flow is a great way to "see" all the power moving through the system in a visual format. You can also see alarms and dry contact relay configuration and status. Look for the "Power Flow" menu and select the FXM-HP UPS. There is also a "Show Summary" button on the left that summarizes the values.

| FXM-HP UPS NAVIGATION GUIDE | | |
|---|---|---|
| | **WEB PAGE** | **LCD TOUCHSCREEN** |
| **Dashboard Value Fields** | Search "dash", then enter, then scroll to "FXM-HP Dashboard Values" | Menu/Controller/Configure Controller/User Interface Preferences/FXM HP Dashboard Values |
| **Battery Configuration** | Search "configure batt", then enter, select Configure Battery String Wizard | Shortcuts on Dashboard/Battery/Configure Battery String |
| **Battery State of Health & Estimation** | Search "state of", then enter, Status/Reset Battery State of Health to 100% | Menu/System/FXM-HP/System Functions/Battery Runtime and Health/Status & Configuration |
| **Power Outage Alarm Delay** | Search "outage", then enter, System Properties | Menu/System/FXM-HP/Configure System/System Properties |
| **Ethernet** | Search "front", then enter, Configuration, use wizard | Shortcuts/Ethernet/Ethernet Front(1)/Configuration/Change Network Configuration |
| **Email** | Search "email", then enter | Menu/Controller/Configure Controller/Communications/Email/SMTP Configuration/Set items manually or use wizard |
| **Time & Date** | Search "time", then enter, choose method | Shortcuts/Page Down/Clock - Then choose the method to set |
| **Clone Configuration - Export** | Search "clone", then enter, "Export Controller Clone" | Menu/Controller/Advanced Functions/Configuration File/Configuration File/Export Controller Clone and then Export |
| **Clone Configuration - Import** | Search "clone", then enter, "Import" | Shortcuts/Browse USB/Select .xml File/Execute |
| **Software Update - Controller** | Search "new controller", then enter, "Upload New Controller Software and Reboot" | Shortcuts/Browse USB/Select .azp file/Execute |
| **Software Update - OS** | Search "new controller", then enter, "Upload Controller OS Software and Reboot" | Shortcuts/Browse USB/Select CORDEXHP.OS.Vxxx.zip file/Execute |
| **Firmware Update** | Search "firmware", then enter, Firmware Files, "Upload Firmware File", Select File, "Start Firmware Upgrade" | Shortcuts/Browse USB/Select .acan file/Execute |
| **Alarms** | Alarms/All Alarm Settings | Menu/Alarms/All Alarm Settings/Scroll to desired alarm |
| **Power Flow** | Power Flow/FXM-HP | NA - Web Page Only |

| Low Battery Threshold | Search "battery thresh", then enter, System Properties | Menu/System/FXM-HP/Configure System/System Properties |
|---|---|---|
| Relay Status | System/FXM-HP/Status and scroll | Dashboard fourth panel |
| Relay Timer Duration | System/FXM-HP/System Functions/Load Shedding Relays/Select Timer/Timer | Shortcuts on Dashboard/Timers/Select Timer/Configuration |
| Relay Trigger - Clear Alarm | System/FXM-HP/Configure System/Alarms/Relay | Shortcuts on Dashboard/Relays/Configuration/Relay |
| Relay Trigger - Add new | Alarms/All Alarm Settings/Select Alarm/Relay | Menu/Alarms/All Alarm Settings/Select Alarm/Relay/FXM-HP/FXM ADIO/Choose Relay |
| Relay Name | System/FXM-HP/Status/Relays/Select Relay/Name | Menu/System/FXM-HP/Status/Relays/Select Relay/Relay Output/Name/Name |

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