



7700 Riverfront Gate  
Burnaby, BC  
V5J 5M4, Canada  
T: 604 436 5900  
F: 604 436 1233  
www.alpha.ca

member of The  Group™

## Cordex Controller Software v2.16

Alpha Technologies is pleased to announce the release of our newest software version for the Cordex Controller (CXC), Version 2.15.

### Compatibility:

This software will run on all CXC Cordex controllers:

- The software with the .ELFZ extension is built to run on the CXCU, CXCI+ and CXCM1+ controllers
- The software with the .EZIP extension is built to run on the CXC, CXCI, CXCM, CXCM1, CXCM2, CXCM3, CXCM4, CXCR, CXCP and CXCHV controllers

This software release does not include features to support AIM inverter modules (e.g. AMPS power systems). Note: AMPS24 controllers running version 3.x or higher cannot be downgraded to version 2.x.

This software release will only support LPS on CXCI+ controllers.

### New Features and Improvements:

- **Probe Fail Temperature:** Added a feature which allows the user to define a temperature to be used for temperature compensation calculations should the system detect a battery temperature probe failure. If the system detects a failure of the battery temperature probes, then the "Probe Fail Temperature" is used in the temperature compensation calculation to determine the appropriate DC bus voltage. The default value of 25 C ( 77 F) is an industry standard and appropriate for indoor systems. For outdoor systems, setting the "Probe Fail Temperature" to the same value as your "Upper Breakpoint Temperature" provides the most protection for the batteries.
- Resolved an issue where the event log may be cleared if the "Confirm Clear Event log" popup box was closed.

## Upgrade procedures using the Web Browser:

1. Connect your computer and Cordex Controller by way of the Internet, Intranet, or Ethernet direct connection (cross-over cable)
2. Log into CXC web interface, and from the Main Menu select the **Controller** menu
3. First, perform a “soft reset” on the Controller by choosing “Reset” and following the prompts
4. When the reset cycle is finished (which may take up to 30 minutes if a defrag is needed), reconnect to the Controller and return to the **Controller** menu
5. Select **Upgrade Software**
6. Click **Browse** and find the .zip(CXC) or .elfz(CXC+) file containing the new software
7. Press **Submit**
8. The software is loaded and then the controller is rebooted. Close your browser window when prompted

**You have now successfully upgraded the Cordex controller. Thank you for choosing Alpha Technologies.**

## Limitations and Known Issues:

- LVDs should not be connected to a normally open contact. When a CXC controller loses power or does a soft reset the relay may be temporarily de-energized which could result in the LVD contact opening.
- Please note that in CXC v2.10 and above, a checksum has been added to the upgrade file to ensure that a CXC upgrade file is valid before the update is applied to the CXC. CXC upgrade files below v2.10 do not have this checksum and the files will be considered invalid if you try to load them with the exception of CXC v2.07. If you would like to revert to a version before CXC v 2.10, you must first downgrade to v2.07 before going to other, earlier releases.
- **WARNING:** As part of CXC v2.14, we have allocated space for larger configuration files. As a result, it is possible that a configuration file generated by CXC 2.14 and above may be too large to be loaded in previous versions of the CXC controller software. If it is necessary to downgrade the CXC software the user must save partial configurations so as to stay under the size limit of approximately 100K bytes. Failure to observe this warning may result in controller hanging or constant reset behavior. Recovery requires special tools and specific knowledge and the controller may need to be returned to Alpha Technologies.
- After doing a software upgrade the controller will sometimes report an improper controller shutdown alarm. This can be ignored. It has no effect on the operation of the system.
- Resetting a CXC can take up to 30 minutes. A reset will cause the CXC to save persistent files and may trigger a defragmentation cycle, which can take up to 30 minutes
- IP address changes on the LCD require a soft reset before they take effect
- The LPS “Comms Lost” alarm is missing from the SNMP implementation of the LPS alarm table. Traps related to this alarm will function as expected, but SNMP users will not be able to query the status of the alarm
- On the statistics log page, only the first ten custom signals can be selected. This restriction reduces the amount of memory needed for the log file
- When importing a configuration file using Internet Explorer version 9 and you decide to discard the changes, you may get a message box saying “To display the webpage again, the web browser needs to resend the information you’ve previously submitted”. In the dialog you will see a *retry* or *cancel* option. Choosing the *cancel* option will proceed with the discard, while choosing the *retry* will re-import the configuration thus not discarding any configuration settings
- When user starts a Data Log with the following settings:
  - Log Time Interval less than 60 seconds
  - FIFO File Save Option enabled

If the user exports the Data Log to the client PC there is a chance that the newest log entries will be at the bottom of the Data Log as opposed to the top breaking the rules of the FIFO File Save Option

- This software has been tested with the following browsers:

- Internet Explorer versions: 7, 8, & 9  
(needs to run in compatibility mode to display properly)
- Firefox versions: 12  
(using Internet Explorer “IE” Tab 2 to display properly)
- Chrome versions: 19  
(using IE Tab Multi “Enhance” to display properly)
- Safari versions: Not supported

## **Change log history:**

### **V2.15**

- Resolved an issue where the CXCM1 and CXCI controllers would not automatically reset in the event of a watchdog timeout.
- Resolved an issue where if the SNMP software was unable to communicate with one or more of its destinations the SNMP software might cause the system to reset.
- Date and time stamp information has been added to the diagnostic file.
- Resolved an issue where the Display Mode button on the front panel of the CXCI+ controller would not display data in all positions.

### **V2.14**

- Added a filter on digital inputs to avoid a noisy environment from causing the digital inputs to bounce and possibly cause ghost alarms or trigger equations.
- Fixed a very rare race condition specific to the CXCI and CXCM1 hardware where a relay that is normally energized was not consistently being set to its default (energized) position after a power cycle.
- Increased the size allowed for a configuration file from 100kB to 140kB.
- Resolved a number of issues which were causing improper shutdowns under stress.
- Resolved an issue to correctly display the time zone adjustment on the WEB UI.
- Added an unknown alarm for the LPS36 to handle new alarms produced by ongoing development of the LPS36.
- Added some additional Chinese translations.
- Disabled the ability to alter the Rectifier Phase Mapping on the LCD screen. This must now be done using the WEB UI. This should be fixed and added back in a future release.

### **v2.12**

- Made small improvements to the accuracy of Voltage, Current and Temperature sensors
- Resolved an issue where a large event log could cause the controller to reset
- Resolved an issue with the Chinese language option where the Alarm Configuration page would not load
- Resolved an issue where a large configuration file, including the new LPS settings, could cause the controller to reset

## **v2.10**

- Added preliminary support for Cordex HP LPS36 line power system modules
- Added preliminary support for Cordex HP CXRF 48-2.4kW rectifier modules
- Added controller hardware and software version information to the factory information web page
- Added an announce message that will cause a router to update its address resolution tables when the IP Address is changed on the CXC
- Added a link to save event/statistics/data logs as files to PC in CSV format
- Added a button to allow the user to clear the event log
- Initiating a battery test or changing the battery charge state on the LCD now requires a password

## **v2.07**

- Improved the filtering on BMS alarms to reduce the possibility of detecting a false alarm in situations where there is noise or the value is close to the threshold
- Fixed a problem where a CXC v2.05 or v2.06 controller could reset or fail if language files, configuration files and logging were using too much memory. Additional memory space was allocated for these functions

## **v2.06**

- Fixed some mapping errors for SNMP traps so that the Varbinds values properly match the MIB
- Fixed a problem where relays were being reset when an alarm cutoff (ALCO) duration expires
- Added an option to the rectifier power save feature to reduce shutdown and restart log entries to one every 24 hours
- Added a second tone set for major and minor alarms which increases the volume

## **v2.05**

- The number of custom signals was increased from 10 to 20. The values of the custom signals may not be set over SNMP
- The number of destination and SNMP community strings was increased to 10

- Email addresses of up to 63 characters long are now supported (previous support was up to 31 characters only)