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Release 120-240V Firmware 01.11.01 Build 0049

If upgrading to this version, the user is required to first upgrade Conext Gateway with the latest firmware. Refer to the XW Pro Amended Firmware Upgrade Procedure.

- Released: 18 Aug 2021
- Summary of Changes
 - Improved performance on low battery voltage or low SoC conditions by always allowing reconnection to the grid when it returns.
 - Improved Voltage Ridethrough
 - Improved Transient Over Voltage detection and response time

Release 120-240V Firmware 01.11.00 Build 0028

If upgrading to this version, the user is required to first upgrade Conext Gateway with the latest firmware. Refer to the XW Pro Amended Firmware Upgrade Procedure.

- Released: 01 Mar 2021
- Summary of Changes
 - AC relay disconnect and reconnect levels are moved from grid codes to AC settings menu (advanced).
 - Improved synchronization and transitions of multi-unit systems to backup power.
 - Reduced inrush current during backup power to grid tie transition.
 - Simplified the firmware upgrade process by preserving the existing grid code.
 - ISO-NE SRD 2018 Grid Code Compliance
 - NYSEG IEEE 1547a-2014 Grid Code Compliance
- Bug Fixes
 - Resolved grid code application mismatches.

Release 120-240V Firmware 01.09.00 Build 0009

Firmware release for UL1741-SA17 and SA18 CSA Release.

If upgrading to this version, the user is required to first upgrade Conext Gateway with the latest firmware. The user is also required to re-apply the correct Grid Code for their region using Gateway user interface after the firmware upgrade. Refer to the XW Pro Amended Firmware Upgrade Procedure.

- Released: 21 Aug 2020
 - Summary of Changes
 - Generator Input (AC2) settings are configured by default to match the grid code selection.
 - Improved grid forming frequency recovery after generator disconnects.
 - Improved the time to start grid forming upon external contactor feedback.
 - Added Force Disconnect Pulse feature which allows the shutdown of AC Coupled inverters before reconnecting to the grid.
 - Enabled SoC Control mode with Battery Monitor
 - Change inverter states based on SoC level.
 - AC Coupling controls improvements using SoC level.
 - Bug Fixes
 - Fix AC2 generator qualification issues.
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Release 120-240V Firmware 01.06.00 Build 0386

SA17 and SA18 CSA Release

- Released: 03 Mar 2020
 - Summary of Changes:
 1. Added support for SoC Based control using BatMon.
 2. Added enable/disable for EPC Discharge Power command.
 3. Added AC Connect persistent command to allow remote disconnection from AC Grid.
 4. BTS based Remote Power Off does not require a full power cycle of XW Pro to restart.
 - Known Issues:
 - AC Coupling with BatMon using SoC will ramp the frequency too quickly to the max frequency. This results in AC Coupled inverters to shutdown and XW Pro will discharge the battery until SoC drops below the SoC Grid Forming limit and the AC Coupled inverters return back to operation to recharge the battery. This issue will not show up with BMS systems or Battery Voltage Based Control.
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Release 120-240V Firmware 01.04.00 Build 0353

HECO Rule 14 Certified Release

- Released: 05 Dec 2019
 - Summary of Changes:
 1. Added Transient Over Voltage detection and configuration parameters.
 2. Added configurable ramp settings for External Power Controls, Sell Amps, Curve response times.
 3. Added configurable Vref for Q(v) control.
 4. Added Reactive Power control command point.
 5. Added IEEE 1547 50Hz region code support.
 6. Added HECO Rule 14 - 2018 and HECO Rule 14 - 2018 Molokai and Lanai region code support.
 7. Added measured reactive power reading.
 8. Faster acting AC Coupling improvements based on SoC (State Of Charge)
 - Known issue:
 - AC2 (generator) not qualifying
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Release 120-240V Firmware 01.03.00 Build 0003

- Released: 12 Nov 2019
- Summary of Changes:
 1. AC Coupling Improvements
 - Faster control response with frequency shifting for enhanced performance.
 - Charge regulation based on **Max Chg Rate** for use cases with manual charge settings and with Battery Monitor.
 - Charge regulation for Max Chg Rate in combination with BMS integration via Conext Gateway will be added in a future release.
 2. Added capability to support battery BMS integration through Conext Gateway.
 - Conext Gateway firmware update for BMS integration and compatible batteries to be announced subsequently.
 3. Change inverter states based on SoC Levels from external BMS. SOC control from Battery Monitor to be added in a future release.
 4. External Power Control support. This allows external controllers to command the inverter to be in charge or discharge states.
 5. Multi-unit operation improvements (up to 4 units 120/240V split phase)
 - Added support for External Contactor configurations
 - Current sharing and voltage regulation improvements
 - Updated calibration procedure

Release 120-240V Firmware 01.02.00 Build 0005

Production Release for Rule 21 CSA Certification

- Released: Mar 12, 2019
- Summary of Changes:
 1. Fixed the factory default (for Grid Code) issue that would block the PREPA settings if not properly set.
 2. Added a logic output function to indicate the AC grid is connected or disconnected for production end of line test.

Release 120-240V Firmware 01.01.00 Build 0233

Production Release for Rule 21 CSA Certification

- Released: Feb 15, 2019
- Summary of Changes:
 - **CSA Certified for California Rule 21 requirements**
 - This version of release is for standalone unit operation only, ie, the multi-unit operation mode is excluded.
 - Firmware must be updated to this version to be compliant with California Rule 21.
 - **Added Features and improved Rule21 Functions:**
 1. Active Power Control based on grid voltage, ie $P = f(V)$, with user configurable limits.
 2. Active PowerControl based on grid frequency, ie $P = f(F)$, with user configurable power-frequency slopes.
 3. Reactive Power Control based on grid voltage, ie $Q = f(V)$, with extended configurable reactive power limits (+/- 60% of rated power).
- **Fixed Bugs and other changes**
 1. Modified Vdc power derating (under grid support operation) start point to Vdc_recharge + 0.5V.
 2. Fixed issue where inverter output voltage goes low when DC power has a fast drop and recovers.
 3. Fixed issue where master / slave is out of synchronization.
 4. Set Rule21 settings as factory default.
 5. Grid code settings are preserved on 'reset to factory defaults' request.

- 6. Fixed issue where ON/OFF button doesn't work properly.

Release 120-240V Firmware 01.00.00 Build 0020

Production Release for Rule 21 CSA Certification

- Released: Nov. 16, 2018
- Summary of Changes:
 - **CSA Certified for California Rule 21 requirements**
 - This version of release is for standalone unit operation only, ie, the multi-unit operation mode is excluded.
 - Firmware must be updated to this version to be compliant with California Rule 21.
 - **Supports the following Rule21 Functions:**
 - **High Frequency Ride-Through** with user configurable enable/disable and over frequency trip limits.
 - **Low Frequency Ride-Through** with user configurable enable/disable and under frequency trip limits.
 - **High Voltage Ride-Through** with user configurable enable/disable and over voltage trip limits.
 - **Low Voltage Ride-Through** with user configurable enable/disable and under voltage trip limits.
 - **Power Command** from 0% to 100% of the rated power.
 - **Fixed Power Factor Control** (80% ~ 100% capacitive and 80% ~ 100% inductive).
 - **User Configurable Power Ramp Time** for grid connection / reconnection (1s to 1000s).
 - **User Configurable Power Ramp** for power sell command (1% per second to 100% per second).
 - **Active Power Control** based on grid frequency, ie $P = f(F)$, with constant power-frequency slope.
 - **Reactive Power Control** based on grid voltage, ie $Q = f(V)$, with user configurable limits.