



# IO Expansion

## Firmware v1.1a

### Release Description

**DATE: 2023-06-30**

#### FEATURE ENHANCEMENTS

- Cyber Security:
  - None.
- General:
  - Added support for minor changes to the Main Processor Board hardware to address supply chain issues. This change has no impact on the functionality of the I/O Expansion when compared to the v1.1 Firmware release.

#### CORRECTIONS TO ISSUES

- Cyber Security:
  - None.
- General:
  - None.

#### COMPATIBILITY

TESLA Control Panel Software	v3.3 and above
Relay Control Panel Software	v2.8 and above
RecordBase View Software	v3.2 and above
RecordGraph Software	V5.1 and above
61850 Configurator	v2.2 Rev 1 and above

Minor releases, designated with a revision or letter (e.g. v3.4 Rev 1 or v3.4a), maintain the same compatibility as their base version (e.g. v3.4 Rev 0 or v3.4).

ERLPhase Power Technologies Customer Support Contact Information

[support@erlphase.com](mailto:support@erlphase.com)

+1 (204) 477-0591 Option 1

[www.erlphase.com](http://www.erlphase.com)



## REVISION HISTORY

### v1.1 – 2019-07-19

- **Enhancement:** Added the ability to configure the pickup delay on external inputs.
- **Minor:** Removed the RDRE1 Logical Node from the 61850 ICD file since this feature is not supported.

### v1.0a – 2017-11-06

- **Enhancement:** Enhanced robustness of Firmware updates in the presence of power or communication interruptions.
- **Enhancement:** Added compatibility with IEEE C37.118-2011 compliant clock sources.
- **Critical:** Fixed issue where External Inputs were mapped incorrectly in records and in MODBUS.
- **Major:** Fixed issue where DNP3 Time Sync Loss alarm (BI 143) wasn't being sent.
- **Major:** Fixed issue where the time generated on the IRIG output was incorrect under some conditions when no external time reference was connected.
- **Major:** Fixed issue where the date would not increment correctly under some conditions when no external time reference was connected.
- **Major:** Fixed issue with DNP3 Binary Input states (Object Group 1, 2) all changing to default after a unit power cycle or reboot.
- **Minor:** Fixed issue with Sequence of Events reporting conditionally suspended for masters 2 and 3 in applications with multiple DNP3 masters.
- **Minor:** Improved system diagnostic file retrieval via network ports.

### v1.0 – 2014-06-24

- Initial product release

## CLASSIFICATION OF CHANGES MADE

The issues fixed in software / firmware upgrades are classified as defined below. While it is always the user's decision to upgrade installed products, these classifications provide a guideline for the need and priority of the upgrade.

**Critical:** Critical changes fix issues/problems that prevent the basic operation of the device and have no workaround. Critical changes merit a product upgrade as soon as possible, if that function is being used under the conditions causing the issue

**Major:** Major changes fix problems that prevent the basic operation of the device but do have a workaround. Any major changes merit a product upgrade as soon as possible if the function is being used under the conditions causing the issue and a workaround is not acceptable.

**Minor:** Minor changes fix non vital issues that do not prevent the basic operation of the device

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and may or may not have a workaround. Product upgrades for such changes are not necessary unless they apply to and are needed by the user.

**Feature Enhancement:** Feature enhancements add a capability or extend existing capabilities of the product. Upgrades for such changes need be made only if and when that feature enhancement is desired.

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