B-PRO 4000

Firmware v2.1a

Release Description

DATE: 2023-03-31

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 B-PRO 4000 when compared to the v2.1 Firmware release.

CORRECTIONS TO ISSUES

- None.

COMPATIBILITY:

B-PRO 4000 Offliner Settings Software	v2.0 or above
Relay Control Panel Software	v1.3 or above
RecordBase Central Station Software	v4.1 or above
RecordBase View Software	v2.5 or above
RecordGraph Software	v4.1 or above
61850 IED Configurator Software	v2.0 Rev 1 or above
ICD File Version	v1.0 Rev 09
B-PRO 4000 Setting Version	402
B-PRO 4000 User Manual	v2.0 Rev 5

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

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REVISION HISTORY

v2.1 – 2020-06-12

- **Cyber Security:** Added a message to the event log for user login attempts.
- **Cyber Security:** Removed “View” user password requirement on the front panel so that users may access read-only parameters without needing to login using a password.
- **General:** Updated the default setting file to disable LEDs from ProLogic settings.
- **General:** Optimized event handling on the display to improve performance when the IED is heavily loaded.
- **General:** Improved ability to recover from cases where the front screen goes blank or is disturbed after extreme transient conditions.

v2.0d – 2018-08-24

- **Major**: Enhanced the security of 87B/87T during the clearing of simultaneous, close-in external faults occurring along with extensive current transformer saturations on systems with multiple feeders connected to the bus/transformer.
- **Major:** Enhanced the security of 87T during unbalanced external faults occurring under lightly loaded conditions.

v2.0c - 2014-01-13

- **Enhancement:** Support added for alternate Flash device configuration on the product main processor board, due to manufacturer component obsolescence.
- **Major:** Elimination of potential conflicting error mode processing in 50Hz systems due to internal systems communications loss/restart cycle impacting “Relay Functional” status.
- **Major:** Correction of long-term memory overrun condition due to settings use with ProLogic and Virtual Inputs inhibiting proper reboot on unit power cycle.

v2.0a - 2012-10-18

- **Enhancement:** Introduced front panel display update filter when displaying trip events.
- **Enhancement:** Modified time display format on front panel display from “hh:mm:ss” to “hh:mm”.
- **Enhancement:** Modified record extension rules to allow for up to 2x the user-configured record length.
- **Minor:** Maintenance utility now displays MAC addresses for both network ports.

v2.0 - 2011-12-23

- **Enhancement:** Added support for Relay Control Panel.
- **Enhancement:** Added support for LCD front panel display.
- **Enhancement:** Added support for configurable Target and Alarm LEDs.
- **Enhancement:** Added support for configurable pre-fault time and event auto save.
- **Enhancement:** Added output contact high speed recording and ProLogic inputs.
- **Enhancement:** Improved IEC61850 support.
- **Enhancement:** Added IRIG-B signal loss reports via output contacts, metering, recording and DNP3.
- **Major:** addressed DNP3 issue with Binary Inputs points not reporting correctly.
- **Major:** addressed issue on timestamping virtual input changes.
- **Major:** corrected DC alarm/blocking sensitivity issue.

CLASSIFICATION OF CHANGES MADE

The issues fixed in software / firmware upgrades are classified as defined below. While the decision to upgrade installed products is the user's, 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 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**.**