# Release Notes for Firmware of H&H PMLA Series Electronic Loads

Contact H&H to check possibility of firmware update for your specific device. Provide serial number.

Concerning Components:

AI:     Analog Interface Board
DI:     Data Interface Board
UI:     User Interface Board

# PMLA Firmware Release Notes

## Firmware Release: AI1.5.1 DI1.5.1 UI1.5.0

Bugfixes / Corrected
- ➢ Corrected synchronization for watchdog, MPPT and list function responses.

Backwards Compatible
Hardware: supports version 9 of PMLA load module with PMLA memory module
Software: Yes

## Firmware Release: AI1.5.1 DI1.5.0 UI1.5.0

New Features/Added
- ➢ Added MPP tracking functionality.

Backwards Compatible
Hardware: supports version 9 of PMLA load module with PMLA memory module
Software: Yes

## Firmware Release: AI1.4.1 DI1.4.0 UI1.4.0

Enhancements / Changed
- ➢ Optimized firmware for PMLA load module with PMLA memory module.

Backwards Compatible
Hardware: supports version 9 of PMLA load module with PMLA memory module
Software: Yes

## Firmware Release: AI1.4.0 DI1.4.0 UI1.4.0

New Features/Added
- ➢ Added functionality for getting list execution status (time and points).
- ➢ Added commands/queries for user-specific notification messages and beeps.
- ➢ Added a LIST function specific main screen.

Enhancements / Changed
- ➢ Improved notification popup window in order to stay on top on a serious warning and to display different user texts properly.
- ➢ Added possibility to update GPIB firmware in production mode and during initial operation.
- ➢ Enhanced the error queue management for local and remote errors.
- ➢ Changed time representation in DISC function specific main screen.

Bugfixes / Corrected
- ➢ Corrected order of channel-specific technical data.
- ➢ Fixed potential type errors in format strings for sscanf functions.

Backwards Compatible
Hardware: Yes
Software: Yes

## Firmware Release: AI1.3.1 DI1.3.0 UI1.3.3

New Features/Added
- ➢ Added "USB Locked" icon which is displayed if there are any open files on the USB flash drive on UI.
- ➢ Added displaying of max. resistance value in Technical Data screen.
- ➢ Added settings export to and import from an attached USB flash drive.
- ➢ Added Alarms dialog.
- ➢ Added variable calibration points for the adjustment of the device via the user interface.

Enhancements / Changed
- ➢ Improved the evaluation of the rotary encoder to avoid unwanted encoder events.
- ➢ Enhanced indication of RV and OV conditions in order to allow entering the parameter menu during pending RV or OV conditions.
- ➢ Enhanced Help Window.

Backwards Compatible
Hardware: Yes
Software: Yes

## Firmware Release: AI1.3.1 DI1.3.0 UI1.3.1

Enhancements / Changed
- ➢ Optimized adjustment procedure on AI.

Backwards Compatible
Hardware: Yes
Software: Yes

## Firmware Release: AI1.3.0 DI1.3.0 UI1.3.1

Enhancements / Changed
- ➢ Added Tips and Tricks dialog window.

Bugfixes / Corrected
- ➢ Fixed bug which prevented from switching on/off all load inputs with Shift -> Input (concerning versions 1.2.0, 1.2.1 and 1.3.0)

Backwards Compatible
Hardware: Yes
Software: Yes

## Firmware Release: AI1.3.0 DI1.3.0 UI1.3.0

New Features/Added
- ➢ Added functionality for channel grouping (subsystem CHANnel:GROup).

Enhancements / Changed
- ➢ Added displaying of the channel names in "Channel Focus" screen.
- ➢ Added functionality for indicating HSE error.

Backwards Compatible
Hardware: Yes
Software: Yes

## Firmware Release: AI1.2.0 DI1.2.0 UI1.2.1

Enhancements / Changed
- ➢ Added the displaying of German "Umlaute" in the help texts.
- ➢ Added the displaying of channel names in "Channel Focus" screen.

Backwards Compatible
Hardware: Yes
Software: Yes

## Firmware Release: AI1.2.0 DI1.2.0 UI1.2.0

New Features/Added
- ➢ Added discharge function.
- ➢ Added triggered activation state to acquisition and list function.
- ➢ Added list function in local mode

Enhancements / Changed
- ➢ Disabled the External Settings checkbox in CP and CR function mode to avoid settings conflicts.
- ➢ Added a warning notification if the External Setting is activated and the CP or
- ➢ CR function mode should be selected to avoid settings conflicts.
- ➢ Disabled the protection edit boxes depending on the protection state and mode.
- ➢ Changed label text of right function key from "BACK" to "ESC".

- ➢ Changed label text of left function key from "SAVE" to "OK".
- ➢ Added the possibility to exit a menu or dialog window with the "Esc" key.
- ➢ Added the user interface test to the H&H service menu.
- ➢ Added message boxes for user queries.
- ➢ Added a message box before resetting the device settings, before reloading the factory settings and before the firmware update procedure.
- ➢ Changed target directory for screenshots.
- ➢ Added buzzer and encoder settings dialog.
- ➢ Improved broadcast and event evaluation.
- ➢ Added new H&H logo.
- ➢ Extended screen help texts.
- ➢ Enhanced the formatting of the measurement values in the main screens.
- ➢ Added the quick boot selection.
- ➢ Added Main screen settings dialog.
- ➢ Added Graph screen settings dialog.
- ➢ A lot of minor enhancements.

Bugfixes / Corrected
- ➢ Corrected power-on value, reading and clearing of Standard Event Status Register.

Backwards Compatible
Hardware: Yes
Software: Yes

## Firmware Release: AI1.1.1 DI1.1.0 UI1.1.1

Enhancements / Changed
- ➢ Changed functionality for initializing EEPROM with default parameter values and strings after first application startup on AI.

Bugfixes / Corrected
- ➢ Fixed bug which prevented the displaying of the Device Version in Technical Data screen

Backwards Compatible
Hardware: Yes
Software: Yes

## Firmware Release: AI1.1.0 DI1.1.0 UI1.1.0

New Features/Added
- ➢ Added functionality for watchdog

Enhancements / Changed
- ➢ Added scroll functionality for a stopped graph display
- ➢ Added QR code to Contact dialog on UI

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- ➢ Added a check for activated options at startup
- ➢ Added save, recall, power-on, reset and factory setting screens on UI
- ➢ Changed "Device Settings" menu to "System Settings" menu
- ➢ other minor enhancements

Bugfixes / Corrected
- ➢ Minor bugfixes

Backwards Compatible
Hardware: Yes
Software: Yes

## Firmware Release: AI1.0.1 DI1.0.1 UI1.0.1

New Features/Added
- ➢ Initial Release