

# Version History

## Razor PDM Firmware PDMLink Software



### Release 5

<b>Software Version</b>	1.5.93
<b>Firmware Version</b>	1.5.558
<b>Release Date</b>	27/04/2023

### PDMLink

#### Improvements

- Updated Functions to become Connections, now also includes input usages as well.
  - Issue #69
- Improved startup time by improving load times of files.
  - Issue #210
- Added support for copy/paste/cut of entire configuration tabs, including all settings in the tab
  - Issue #152
- Reduced installed application size
  - Issue #208
- Improved parameter searching throughout to now be keyword based and will match all words in any order
  - Issue #198
- Added improved tab management
  - Issue #213
- Added reminder to store when opening a configuration while connected to a PDM
  - Issue #207
- Simplified Settings Boxes to contain more information relevant to each item
- Updated CAN Aux Demo to include more information and examples
- Added Headlights Demo to show how to setup modern OEM style headlights
- Updated themes to improve readability and contrast of user interface

#### Fixes

- Prevent duplication of pin connections when changing loading a different configuration
  - Issue #199

#### Know Issues

- When disconnecting and reconnecting to a PDM, PDMLink may need to be reopened to allow a connection to be established.

### Razor PDM Firmware

#### Improvements

- Added support for direct PDM to PDM CAN communication without requiring an ECU
  - Issue #43
- Ability to disable the rollover on a Keypad Function Count.
  - Issue #48

- Added a 16<sup>th</sup> Keypad Function to allow dual 8 button keypads
  - Issue #51

#### Fixes

- Prevented superfluous USB communication
  - Issue #49

#### Known Issues

- Keypad counts transmitting with a channel ID of 0 will lock CAN Keypad

## Release 4

<b>Software Version</b>	1.4.86
<b>Firmware Version</b>	1.4.478
<b>Release Date</b>	25/01/2023

## PDMLink

- QoL fixes such as preventing users from entering incorrect characters, config opening being sped up, floats in parameter info dialog being truncated
  - Issues #157, #185, #140
- Added pin “Status” runtime and coloured indicator to the pin configuration and connection tables as well as making the Function text more visible.
  - Issues #178, #116
- Multiple fixes to offline configuration such as stopping IO being selectable when they haven’t been configured, the app no longer crashing when selecting the output pin of a GP Function from a clean state (no connection or config), Reset Settings always working, and processing strings correctly when receiving a schema
  - Issues #187, #153, #149, #165
- Fixed erroneous warning popups and multiple function connections showing up when loading a config and applying a layout
  - Issue #180
- Updated file path so that it doesn’t matter if a user changes their ‘Documents’ folder or has it protected by OneDrive
  - Issue #175
- Moved config file locations and made new versions of db\_schema.json append onto old ones.
  - Issues #188, #189
- Fixed bugs such as function pop buttons opening runtimes instead of settings, incorrect label substitution when a changed label was a subset of another label (e.g Keypad Function 1 & Keypad Function 10), and IDs with hidden tags not being hidden
  - Issues #141, #162, #127

## Razor PDM Firmware

- Changed the PDM Disable setting to always be on and replaced it with a PDM Output Enable setting that can override all outputs and keep them in the off state.
  - Issues #35, #36, #171
- Added a standby mode for the pdm when a config is being sent down. While the settings are being changed, all outputs will now be temporarily turned off and events disabled.
  - Issue #44

- Fixed schema default values for strings and enums that are sent to the app.
  - Issues #31, #46
- Fixed a bug in the checksum calculation and made CAN memory allocation and thread init safe.
  - Issues #47, #50

## Release 3

<b>Software Version</b>	1.3.77
<b>Firmware Version</b>	1.3.12
<b>Release Date</b>	17/11/2022

## PDMLink

- Added text based logic calculator for GP Logic blocks and a visual representation of math block expressions
  - Issue #150
- Help manual popup moved to non-modal dialog.
  - Issue #173
- Fixed bugs resulting in schema not downloading properly after a firmware change and timer settings boxes not drawing correctly
  - Issue #168, #136
- Fixed UI stuttering when dragging boxes
  - Issue #161
- Reduced CPU usage when connected to a PDM
  - Issue #143
- Re-enabled the ability to downgrade firmware
  - Issue #154

## Razor PDM Firmware

- Added the ability to override output settings as well as a test mode (switch active and PWM) and a safety cutoff for all outputs that override other control functions.
  - Issues #2, #28, #12
- Added state control for Timer blocks. Gives the ability to increment and reset a count of the number of times a pulse is generated by a timer block
  - Issue #6
- Multiple Keypad changes – LED feedback now dependent on a parameter, state control added including the ability to reset and/or increment/decrement the count depending on expressions.
  - Issues #4, #37
- Minor changes such as setting temp cutoff default to 90 degrees and ADIO Input voltages being locked at zero when the ADIO is configured as an output.
  - Issues #27, #19
- Any exception now results in trap mode in bootloader
  - Issue #32
- Added additional checks to the database writing to help ensure integrity. If an entry gets a value that is outside of its range, a store will set the entry to its default value.
  - Issues #38, #39

## Release 2

<b>Software Version</b>	1.2.72
<b>Firmware Version</b>	1.2.28
<b>Release Date</b>	15/09/2022

## PDMLink

- General updates. Regenerated User Manual, Removed redundant files from installer, changed default app logging level to provide better feedback, Added high DPI monitor and Windows 11 support.
  - Issues #145, #148, #130, #128, #123
- Fixed issues with offline configuration by adding default PDM data. Improves a range of behaviors such as inability to perform offline configuration, enumerated values showing as numbers, and issues loading config files prior to PDM connection.
  - Issues #144, #146, #147, #118
- Minor UI adjustments – corrects some icon sizes.
  - Issue #137
- Fixed crash bugs – when User Manual was previously open, and when loading config files from a fresh install.
  - Issues #121, #129
- Added a Tools menu item to remove cached PDM data – requires restart.  
Used to refresh PDM data – this is required by pre release testers but may be useful for general users.  
This does not delete user data.
  - Issue #118

## Razor PDM Firmware

- Improved Math and logic expressions.
  - Adds new operators: =, ==, !=, >=, <=, ^ (xor).
  - Adds new functions: int(), pow(), if()
  - Issue #5

## Release 1

<b>Software Version</b>	1.1.65
<b>Firmware Version</b>	1.1.15
<b>Release Date</b>	02/09/2022

## PDMLink

First release

## Razor PDM Firmware

First release

## Revision History

Version	1.1.65	02/09/2022
	1.2.72	15/09/2022
	1.3.76	17/11/2022
	1.4.86	25/01/2023
	1.5.91	12/04/2023