LDD-1321 Software Release Notes

Devices:

LDD-1321

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Release date: 16 June 2025

1 Current Release Notes, Version 1.30

2025-06-16; LDD-1321 Service Software v1.30; LDD-1321 Firmware v1.30.

1.1 Supported Devices

- LDD-1321: hardware version range 1.10 – 1.20.

1.2 New and Improved Features

- Number of GPIO channels reduced from 10 to 2, since the rest was unused. This does not change the number of usable GPIOs, only the GPIO channel parameter (ID 6103) is affected.
- HW Enable removed from the LDD and TEC Output Enable parameter (ID 2000 and 2100). The GPIO functions now directly change these parameters.
- The device address is now applied on reset instead of immediately.
- New parameter "Always off after Reset" ID 2140 to disable the LDD output after every reset or power cycle.
- Added error 188 "reset required". If a parameter is changed which requires a reset to apply the device goes into error state now. This tells the user to reset the device and avoids confusion regarding the state of parameters.
- Increased the accuracy of the NTC temperature calculations.
- The signal generator has been internally optimized. These changes do not affect the use of the signal generator.
- The "External Temperature Measurement Limits" parameters for channel 2 were previously copied from channel 1. They are now calculated separately.

1.3 Resolved Issues

- The Pump GPIO function now also works on GPIO 9 and 10.
- The service software now properly reads and applies the communication watchdog.
- The parameter Set Output States (ID 52102) now also works for GPIO9 and GPIO10.
- The Fan Tacho GPIO function is now properly deactivated if the GPIO function is changed.
- The fan GPIO pins are now initialized early to avoid unintended spin up.
- The auto reset when triggered by an interlock error is no longer affected by the initial blocking time.
- Fixed a bug which caused a MCU system malfunction with error number 10.
- Fixed a bug that caused an immediate TEC overcurrent and the corresponding error to occur every time the device was reset in temperature control mode with the TEC power stage enabled, even though the current error threshold is set higher than the current limitation.
- The external temperature measurement ADC raw value upper limit error was being triggered spuriously upon initialization.
- Resolved an issue where in the Advanced / TEC tab the "Disable on LDD Error" parameter accessed the "Error Delay" parameter instead.
- Fixed an issue where the current control circuit was not properly reinitialized after a soft reset.

1.4   Known Issues

- The following parameters cannot be imported from a Default.ini created in an earlier firmware version:
    - TEC Output Stage Enable / Output Enable (ID 2000)
    - TEC Output Stage Input Selection / Input Selection (ID 2010)
    - LDD Input Source Selection / Output Enable (ID 2100)
    - LDD Anode Voltage Settings / Supply Enable (ID 2130)

2 Previous Release Notes, Version 1.20

2024-07-03; LDD-1321 Service Software v1.20; LDD-1321 Firmware v1.20.

2.1 Supported Devices

- LDD-1321: hardware version range 1.10 – 1.20.

2.2 New and Improved Features

- New GPIO function: edge triggered hardware enable.
- Added LPC output level monitor parameter (ID 1601).
- Increased upper limit of the slope limit parameter (ID 2113).
- Removed deprecated volatile parameters:
    - Removed: parameter 3100, 50000, 50001, 50022.
    - Changed: parameter 2100, 2101.

2.3 Resolved Issues

- In case of an interlock error the auto reset now waits until the interlock has been released again before triggering.
- A concurrent parameter save and reset could lead to memory loss.
- Fixed an out of bounds write when setting the stop fan channel of a GPIO to an invalid channel. Any channel higher than channel 2 is invalid for the stop fan GPIO function.
- Fixed a bug where the GPIO HW Enable goes active even if the GPIO input is logic low. Happened when setting the HW Enable channel to an invalid channel. Only channel 1 is valid for the HW Enable GPIO function.
- Fixed a service software crash which occurred after being open for longer than 7 hours. Firmware was unaffected.

2.4 Known Issues

- None known at time of release.

3   Previous Release Notes, Version 1.11

2024-04-30; LDD-1321 Service Software v1.11 (no change); LDD-1321 Firmware v1.11.

3.1   Supported Devices

- LDD-1321: hardware version range 1.10 – 1.20.

3.2   New and Improved Features

3.3   Resolved Issues

- Fixed a bug in the fan control feature which caused it not to work under certain conditions.

3.4   Known Issues

- None known at time of release.

4   Previous Release Notes, Version 1.10

2024-01-24; LDD-1321 Service Software v1.10; LDD-1321 Firmware v1.10.

4.1   Supported Devices

- LDD-1321: hardware version range 1.10 – 1.10.

4.2   New and Improved Features

- PWR-1191 (TEC power stage) and temperature control added.
- The analog voltage input can now be used to set the current.
- Light power control feature (LPC) added.
- The set current can now be set by using a lookup table (LUT).
- Signal generator feature added.

4.3   Resolved Issues

- None.

4.4   Known Issues

- None known at time of release.

5 Previous Release Notes, Version 1.00

2023-08-21; LDD-1321 Service Software v1.00; LDD-1321 Firmware v1.00.

5.1 Supported Devices

- LDD-1321 hardware version range 1.10 – 1.10.

5.2 New and Improved Features

- None.

5.3 Resolved Issues

- None.

5.4 Known Issues

- None known at time of release.

A   Change History

Date of change	Doc/Version	Changed/ Approved	Change / Reason
2024-01-24	A	RS / HS	• Release v1.10
2024-03-26	B	RS / SC	• Expand hardware compatibility range
2024-04-30	C	RS / HS	• Update hardware compatibility range • Release v1.11
2024-07-03	D	SC / RS	• Release v1.20
2025-03-21	E	SC / MLO	• Release v1.30 (withdrawn)
2025-06-16	F	RS / MLO, SC	• Release v1.30