

Product Update

EasyNO_x – NO_x Monitoring

New Software – Release 1.8.0



As of now all EasyNO_x devices are delivered by MOTORTECH with software version 1.8.0.

To update an EasyNO_x, please read the section Software Update in the latest version of the operating manual, which can be downloaded at www.motortech.de.

Download

The new EasyNO_x software and the latest operating manual can be downloaded at the following link (approx. 50 MB):

<https://www.motortech.biz/downloads/MOTORTECH-SoftwarePackage-EasyNOx-FW-1-8-0.zip>



Update from software version 1.8.0 or higher

Be sure to observe the section *Fixing of Calculation Error* on page 6 when updating from one of the lower software versions to software version 1.8.0 or higher.



Back up device activations, configuration, and logs

Before updating the software, back up the activated devices (see section *Devices* in the EasyNO_x operating manual) and the EasyNO_x configuration (see section *Display* in the EasyNO_x operating manual).

To back up the logs, remove the memory card from the EasyNO_x. Note that in this state, the NO_x monitor of the EasyNO_x will not record any data. For each year the NO_x monitor has logs for, a folder with the corresponding year number exists on the memory card. Back up the desired year folders to a PC.

New Functions and Modifications

Release 1.8.0 – 2022-04-16

NO_x monitor

- Update: The NO_x monitoring report now reconciles the summed NO_x outage hours. Additionally, the raw value of NO_x outage hours is listed in the *Miscellaneous section*.
Product safety: The sensor element of the NO_x sensor no longer heats up to the working temperature in demo mode.
- New function: In the NO_x monitoring report, the operating days and NO_x failure days are now given in the summary. Likewise, the NO_x failure hours as well as the NO_x failure days calculated forwards and backwards are shown in the daily values.
- New function: With the rights of the access level *Master*, functions for finding and correcting errors are available in the *NO_x Export* view via the *More* button. These functions may only be used upon instruction from MOTORTECH or by authorized persons for service purposes and may lead to a loss of the NO_x monitor's data integrity.

DISTRIBUTION

Customers / others	Yes
Representatives and Sales Partners	Yes
OEM partners	No
MOTORTECH subsidiaries	Yes

Product Update

- New function: With the rights of the access level *Master*, the *Simulation* entry is available in the *NO_x Setup view*. Changes to this entry can result in personal injury and damage to property and lead to the loss of the NO_x monitor's data integrity. This entry is protected by a security query and may only be changed by authorized persons for service purposes.
- Update: In the NO_x monitoring report, the summed NO_x failure hours are now reconciled. In addition, the raw value of the NO_x failure hours is listed in the *Miscellaneous* section.
- Bugfix: An error was fixed that in certain cases caused the NO_x failure hours not to be displayed in the *Alm* entry in the *Overview view*.

Release 1.6.1 – 2021-07-20

NO_x monitor

- Bugfix: An error was fixed that in release 1.6.0 caused the NO_x monitor to no longer calculate the daily average correctly.
- Bugfix: An error was fixed that caused the screen to go black if you exited the *NO_x Export view* while a log was being copied or a NO_x monitoring report being created.

Release 1.6.0 – 2021-06-01

NO_x monitor

- Bugfix: In the German user interface, the group selection fields in the *NO_x History view* are now available in German.
- Bugfix: An error in the *NO_x Monitoring view* was fixed that caused the measured value display for oxygen O₂ not to be updated at measured values close to 0 %.
- New function: *View NO_x Sensor* added for displaying status information from the connected NO_x sensor.
- Update: Online help updated.
- Update: The operator data for the NO_x monitoring report can now be specified in the newly added view *Information on Operator*.
- Update: In the *NO_x Setup view*, values up to 2,000 mg/Nm³ are now allowed for the NO_x concentration daily average thresholds *Level Limit* and *Level Warning*.

General

- Bugfix: An error was fixed that in a software update caused the EasyNO_x to stop and become inoperable.
- Bugfix: An error was fixed that caused the PIN Reset Authorization Key (PRRK) display window to freeze upon requesting a reset key for all PINs.

Release 1.4.4 – 2021-02-23

NO_x monitor

- Bugfix: An error was fixed that led to a crash in the *NO_x Export view*.

General

- Update: Unit for memory allocation changed in service report (PDF).

DISTRIBUTION

Customers / others	Yes
Representatives and Sales Partners	Yes
OEM partners	No
MOTORTECH subsidiaries	Yes

Product Update

Release 1.4.3 – 2021-01-18

NO_x monitor

- Bugfix: In the *NO_x Trends* view, the displayed chemical formula and unit of an entry in the legend was corrected.
- New function: The available setting range of the charging pressure threshold now adapts itself to the scaling of the manifold pressure sensor.

I/O communication module BPlus

- Bugfix: If the value range is exceeded, the analog output outputs 20 mA now.

Release 1.4.2 – 2020-12-08

NO_x monitor

- Bugfix: Restart from the *Display Configuration* view works properly again.
- Bugfix: In *NO_x Monitoring* view color background of LCD displays in case of faulty signal corrected.
- Bugfix: Detection of continued normal operation when MAP signal is faulty fixed.
- Bugfix: Value gaps in the *NO_x History* view are now displayed correctly.
- Bugfix: All detected errors or manipulations on the NO_x files are now indicated.
- Bugfix: Miscalculation of hours at the turn of the year fixed.
- New function: Country-specific date formats are now used in the *NO_x Export* view.
- New function: The serial numbers of the SD card, the CAN bus modules and the NO_x sensors are now monitored.
- New function: A message box appears if a report is to be generated and no operator data has been specified.
- New function: In the *NO_x Monitoring* view, the color gradient and the end value of the analog NO_x display now adapt to the configured thresholds.
- New function: Predefined filtering of NO_x and O₂ raw values
- New function: Display of O₂ trend in the *NO_x Trends* view
- New function: SD card errors are registered in the logbook.
- Update: The input of the constants *K* and *KNO₂* has been limited to 2 decimal places.
- Update: For better differentiation, the line width in the *NO_x Trends* view has been widened.

General

- Bugfix: Software dongles could not be backed up.
- Bugfix: A crash could occur when adding software dongles.

Release 1.4.1 – 2020-08-06

NO_x monitor

- Bugfix: Missing translations in the logbook corrected.
- Bugfix: Data compression of the current day in the annual log and in the PDF report removed.
- New function: Saving and loading of NO_x monitor configuration files
- Update: Online help updated.

I/O communication module BPlus

- Bugfix: Analog output scaled. 0 mg/Nm³ to 1,000 mg/Nm³ corresponds to 4–20mA.

DISTRIBUTION

Customers / others	Yes
Representatives and Sales Partners	Yes
OEM partners	No
MOTORTECH subsidiaries	Yes

Product Update

Release 1.4.0 – 2020-08-03

Release 1.3.00001 – 2020-08-03

NO_x monitor

- New function: The logbook input dialog now additionally displays the locked entries and allows the user to log in with a higher level when selecting a locked entry.

General

- Bugfix: Fixed some minor bugs in the function mapping.

Release 1.3.00000 – 2020-07-27

NO_x monitor

- New function: Two new NO_x monitoring modes, *Load via CANopen* and *Start/Stop via CANopen*, available.

General

- Bugfix: SDO heartbeat timeout set from 1 second to 2 seconds.
- New function: Device profile CiA 401 added.
- New function: Device *BPlus* (I/O communication module) added.
- New function: Function mapping of analog and binary inputs and outputs implemented.
- New function: The general error and warning output of the EasyNO_x can now be diverted to devices with CiA-401 profile.

Release 1.2.1 – 2020-07-09

NO_x monitor

- Bugfix: Separation of normal operation detection and NO_x averaging
- Bugfix: One hour offset at day change fixed.
- New function: Added minimum temperature monitoring for thermocouples.
- New function: In the *NO_x Thresholds Settings* view, the NO_x monitoring parameters are disabled if no serial number is specified.
- New function: Load signal input on CAN bus module
- New function: MAP values are displayed as trend.
- New function: All NO_x monitor views are automatically exited after a timeout.
- New function: Scaling of MAP sensor implemented.
- New function: Logbook entries filter extended.
- Update: Display of historical values optimized.

General

- New function: EasyNO_x online help added.
- Update: No logging of the Operator access level login in the Events view
- Update: Main menu button Recordings with smaller text

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Representatives and Sales Partners	Yes
OEM partners	No
MOTORTECH subsidiaries	Yes

Product Update

Release 1.2.0 – 2020-06-17

Test Release 1.1.00002 – 2020-06-17

NO_x monitor

- Bugfix: The logbook now checks that an SD card is inserted in the EasyNO_x.
- Bugfix: Several minor bugs fixed.
- New function: The operator information has been added to the report.

General

- Update: Screenshot function integrated.
- Update: User interface style sheet revised.

Test Release 1.1.00001 – 2020-06-10

NO_x monitor

- New function: The logbook was added.
- New function: The signing of the report was added.
- Update: The report was improved.

Test Release 0.1.00004 – 2020-05-28

NO_x monitor

- Bugfix: An error was fixed that caused the online display of the second NO_x monitor to be displayed inversely.

Test Release 0.1.00003 – 2020-05-19

NO_x monitor

- New function: Different arrangements of the thermocouples are supported.
- New function: The NO_x monitoring report was added.
- Update: The trend page is now accessed through the *NO_x Monitoring* view.
- Update: The display format of the normal operation hour counter and the failure hour counter has been changed.

General

- Update: The configuration and service PDFs now also list the NO_x configuration values.

Test Release 0.1.00002 – 2020-05-07

NO_x monitor

- Bugfix: An error in the handling of the dew point was fixed.

Test Release 0.1.00001 – 2020-05-05

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Customers / others	Yes
Representatives and Sales Partners	Yes
OEM partners	No
MOTORTECH subsidiaries	Yes

Product Update

NO_x monitor

- New function: The NO_x sensor status was added.

Test Release 0.0.1 – 2020-04-20

- Initial version

Known Issues

All versions

- After deleting devices in the device configuration, in certain cases they can only be added back to the device configuration after the EasyNO_x has been restarted.
- The connection status symbol at the bottom right of the menu bar also shows disconnections to devices that have not been added.

Fixing of Calculation Error

In software version 1.8.0, the calculation of the annual files was corrected. If you upgrade from a lower software version to software version 1.8.0 or higher, all annual files on the EasyNO_x must be corrected. Proceed as follows:

1. First perform the desired software update on the EasyNO_x.
2. After that, log in to the EasyNO_x with the rights of the access level *Master*.
3. From the *NO_x Main Menu* view, use the *Export* button to open the *NO_x Export* view.
4. Select the year whose annual file you want to correct and tap the *More* button.
5. Delete the respective annual file via the *Delete Annual File* button.
 - ▶ The respective annual file has been deleted.
6. Repeat steps 4 to 5 in order to correct further annual files.
7. Restart the EasyNO_x by tapping the *Reboot* button in the *Display Configuration* view or briefly interrupting the voltage supply to the EasyNO_x.
8. For one time, starting the device software takes longer depending on the number of recorded operating days (approx. 1 minute for every 100 operating days).
 - ▶ The deleted annual files have been successfully recreated with corrected calculations.

Monitoring of Serial Numbers

As of software version 1.4.2, the serial numbers of the NO_x sensor, the CAN bus module and the memory card are being monitored. If you update from software version 1.4.1 or lower to a higher version, you will get entries in the logbook that the serial numbers of these devices have been changed respectively. These messages appear because no serial numbers have been stored before, and therefore they do not need to be observed.

If you replace the NO_x sensor or another device in the EasyNO_x system, we recommend additionally making a manual entry in the logbook for confirmation.

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OEM partners	No
MOTORTECH subsidiaries	Yes