

I MIC6 Ignition Controllers

New Firmware — Release 1.0.2

Firmware 1.0.2 is a release for all MOTORTECH ignition controllers of the MIC6 series. In order to operate the MIC6 ignition controllers with firmware version 1.0.2, MICT 2.33.00000 or higher – which is in the scope of supply – must be installed on your PC.

In order to update the MIC6 ignition controllers, please read the latest operating manual which is available for download at www.motortech.de. Check your settings prior to starting your engine.

Download

The new firmware for your device, all current operating manuals and the MICT at least required for operation can be downloaded at the following address (160 MB):

<http://www.motortech.biz/downloads/MOTORTECH-SoftwarePackage-MIC6-FW-1-0-2.zip>

New Functions and Modifications

Release 1.0.2 – 2019/05/13

- Bugfix: An error was fixed which caused the output of the wrong status bits for the message "Operational error caused by pickup signals".

Release 1.0.1 – 2018/12/18

- Bugfix: An error was fixed in which a measurement signal for output monitoring was sporadically incorrectly interpreted and therefore a primary short circuit was reported.

Release 1.0.0 – 2018/04/04

Test Release 0.99.00000 – 2018/04/04

- Bugfix: An error was fixed which caused a failed assertion for a system configured with only one pickup with a N-2 disc on the camshaft as soon as the first signal was detected on the pickup input.
- At very low temperatures of the output board, the output error monitoring is suspended for a limited period of time, so that the high voltage supply components can achieve the normal operating range through self-heating.
- Calibration of the analog current input for hardware revision 1.04
- Calibration of the analog voltage input for hardware revision 1.04

Test Release 0.7.00000 – 2017/11/09

- New J1939 function: A configurable address filter can be set so that broadcast PGNs are only accepted from one or two specific source addresses. If the filter is deactivated, the broadcast PGNs are accepted from all source addresses.
- New J1939 Tx-PGN 0xF004: *Electronic Engine Controller 1* for transmitting the current speed
- The period of the J1939 task was reduced from 10 ms to 5 ms to achieve more precise transmission times.
- The supply voltage limit for the overload function was lowered from 20 V to 17 V. Above this limit, the status bits that indicate the exceedance of the power output limit are set.
- Calibration of the analog current input for hardware revision 1.03
- Calibration of the analog voltage input for hardware revision 1.03
- Bugfix: Adaptation of the external processor bus control to the requirements of the data sheet.

- The limit for triggering an internal temperature warning was increased from 105 °C to 110 °C.
- The limit for triggering an internal temperature error was increased from 115 °C to 120 °C.
- New function *MRAM Dump* (available only with an MICT development version).
- Bugfix: An error was fixed due to which the status bit *Cylinder Individual Timing Limited* continuously changed its state ("blinked").
- Bugfix: A faulty array access was corrected in a function that, in non-operative state, updates the respective cylinder individual ignition angle and the limitation status for all outputs.
- Changed behavior of status bit: *Cylinder Individual Timing Limited*
The status bit is now additionally also set if the global ignition timing violates the global timing limits only due to an adjustment of a cylinder individual offset.
- In order to reduce latency after changes, the calculation of the global ignition timing was changed.
- New mode *Testbed Operation* was added.
- Support for extended *Misfire Control* was added (available only with an MICT development version).
- Bugfix: An error was fixed that, on systems with an N-1 disc each on camshaft and crankshaft, lead to a pickup signal loss on the crankshaft not being recognized.

Test Release 0.5.00000 – 2016/10/24

- The algorithms for pickup synchronization have been improved to reduce synchronization time.

Test Release 0.3.00000 – 2016/08/18

- Extended info message: *Firing enabled (Start/Stop In: x, CAN y, RS485: z, speed: s RPM)*
- Extended info message: *Firing disabled (Start/Stop In: x, CAN y, RS485: z, speed: s RPM)*
- New function: The second CAN interface is freely configurable.
- Bugfix: An error was fixed, due to that the pickup inputs PU4 to PU6 did not work if the pickup redundancy is disabled.
- Bugfix: Now it is possible to set the value *PickupRedundancyEnable* by MOTORTECH parameter download.

Release 0.2.0 – 2016/05/31

Test Release 0.1.00000 – 2016/05/31

- Initial version

Known Issues

All Versions

- Pickup input types *N Magnets* and *Single Magnet* are not implemented in firmware.