

CIM FW version 4.5 Release Notes

CIM v4.5.0 02/05/2024

- New version number for production release

CIM V4.4.5 02/03/2024

- Change order of INV commands during polling

CIM V4.4.1 01/26/2024

- Fix Auto Reset logic

CIM v4.4.0 01/17/2024

- Version number updated for Hot fix release to address Acceleration/Deceleration issues
- Only changed version numbers from v4.3.6

CIM v4.3.6 12/06/2023

- Summary of changes from v4.3.0
 - Changed ACC/DEC calculations based on S-Curve formula
 - Improved reporting of motor current
 - Implemented Skip Speed behavior based on Gen2 motors

CIM v4.3.0 11/02/2023

- Version number updated for release of firmware to production. No other changes.
- Summary of major changes from v4.2.0
 - Added a Boot Loader to handle updating of CIM firmware if a newer image is loaded
 - Added CIM firmware update over Modbus.
 - Added verification of Inverter image prior to trying to update.
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 - Added handling of User 24V output.

CIM v4.2.21 11/01/2023

- Updates to InvAutoRestart(), it now seems to behave correctly with the proper number of retries.

CIM v4.2.20 11/01/2023

- Addresses issues with fault retries. If retry count is set to anything but 0 it retries forever (ignores count).

CIM v4.2.19 10/31/2023

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- Fixed repeated restart attempts when faulting.
- Locked rotor now faults 1 time and stops as expected.

CIM v4.2.18 10/31/2023

- Remove inverter reset on continuous communications faults

CIM v4.2.17 10/31/2023

- Added new register for temp sensor

CIM v4.2.14 10/24/2023

- Changed Modbus response for writing register to wait until operation completes.
- (1 Update INV) use 45 second timeout
- (9 init INV upload) 7.5 second timeout
- (10 init CIM upload) 15 second timeout

CIM v4.2.13 10/23/2023

- Fixed CRC calculation for Inverter images

CIM v4.2.12 10/19/2023

- Fixed Foldback Enable Register
- Modified register map to include this register as an Inverter register.

CIM v4.2.9 10/11/2023

- Fixed Active Fault register

CIM v4.2.8 10/09/2023

- More changes to inverter reset classification.
- Added USB Modbus RTU functionality.

CIM v4.2.7 10/06/2023

- Changed optimization settings for Debug and Release to get similar performance for inverter reset timing functions.

CIM v4.2.6 10/01/2023

- Fixed initialization of AO1 for voltage/current mode.
- Changed Inverter Reset function to recognize various modes of inverter reset: Normal, Erased Flash, Abnormal voltages/hard fault.

- This is needed for low-voltage programming or Inverter code from the CIM.
- Added 2 inverter fault bits 13 & 14 to indicate INV_FLASH (13) or INV_ERROR (14).
- Added registers to read Flash Headers for active, new, and inverter images.
- Added test for inverter image crc and size before allowing programming of inverter.

CIM v4.2.5 09/28/2023

- Adds handling of User 24V output faults.

CIM v4.2.4 09/27/2023

- Changed Inverter parameter initialization to do Factory Settings, then force updates to temperature fault and warning limits, then read all inverter values.
- Fixed setting temps during initial loading
- Put Bootloader into automatic mode

CIM v4.2.2 09/20/2023

- Fixed CIM uploader Bootloader is in automatic mode for now.

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CIM v4.2.0 08/31/2023

- Initial release to manufacturing for pilot builds

- Inverter code now uploadable over Modbus