

Release Notes for Hardware & Firmware

Hardware Type	Firmware Type
Premet X	FW-C00037-CT

Version 2.07 (25.10.2023)

New functions:

Bug fixes:

- HW 3.00 (only): Fixed Test screen showing sensor error

Known issues:

Version 2.06 (31.08.2023)

New functions:

Bug fixes:

- HW 3.00: Device will give “Sensor Error” for engines without pickups and PMAX below 100 bars.
- Fixed a bug where measurements below 30 bars compression pressure were allowed. Starting from Version 2.06 30 bars of pressure are required for the measurement to proceed.

Known issues:

- HW 3.00 (only): Test screen shows sensor error when no dynamic pressure is applied (range 30+ bars required for the Test screen to work).

Version 2.05 (17.05.2023)

New functions:

Bug fixes:

- **Measurement Procedure**
 - Fixed an empty screen showing during measurements if Engine Library Important parameters are all set to “Not required” from the PREMETS Cloud. This can happen after device updates to 2.04 version, but do not receive engine library update.

Known issues:

Version 2.04 (24.12.2022)

New functions:

- **Measurement Procedure**
 - New screen added with request to add measurement parameters. Only visible if flags are set in the device engine library.
 - Auto measurement – screen added at the end of the measurement procedure
 - Manual measurement – screen added after each cylinder is measured
 - Default values for specific parameters can now be set using the PREMETS Cloud.

Improvements:

- **Engine Library parameters**
 - Restructured to allow additional parameters configuration
- **After receiving new engine library from the cloud – automatic selection of the first engine in the new engine library**

Bug fixes:

Known issues:

Version 2.03 (17.05.2021) Skipped

New functions:

Improvements:

Bug fixes:

Known issues:

Version 2.02 (19.11.2021)

New functions:

Improvements:

Bug fixes:

- Fixed Auto Measurement Procedure – it was halting indefinitely due to debug port hardware interrupts (Only happens on slow running engines)
- Low Battery indication now works properly in RPM/Test modes (inside Setup Screen)

Known issues:

Version 2.01 (19.11.2021) Skipped

New functions:

Improvements:

Bug fixes:

Known issues:

Version 2.00 (06.07.2021)

New functions:

- **WIFI Screen**
 - o RESET button moved to “Scan” screen
 - o Removed Update button (now automatic)
 - o **Scan Screen**
 - New button “SMART” - allows for WiFi configuration from a mobile/laptop device
 - RESET button moved here

Improvements:

- WiFi password now visible during typing
- Added more guiding user messages for user in WiFi
- Battery drain reduced by setting Gauge to shutdown mode instead of sleep mode
 - o Must make sure device is turned on and turned off before sending to client

Bug fixes:

- ADC saturations limits changed from [2000 - 63000] to [5000 - 60000], this should reduce the clipping of the signal.
- Fixed typo on loading screen after successful update
- Changed all mentioned WiFi to proper capitalization

Known issues:

Version 1.04 (05.10.2020)

New functions:

- **WIFI Screen – UPDATE button** User can now update firmware without uploading any data. The update procedure includes:
 - o Downloading new main chip update
 - o Downloading new WIFI chip update
 - o Uploading Calibration Data if requested by Cloud
 - o Uploading Engine Library if requested by Cloud
 - o Receiving new calibration data from Cloud
 - o Receiving new engine library from Cloud
 - o **NOTE:** Requires NWP (WIFI) version 1.00 or higher
- New Update icon while update procedure is running
- Message box in WIFI screen now has scroll (UP/DOWN Buttons)
- Recovery/Update of WIFI chip from file on the SD card
 - o Copy the required “mcuflashing.bin” to G:/System/mcuflashing.bin and go into WIFI menu.
 - o Works from NWP version 0.73 (cannot upgrade 0.05)

Improvements:

- WIFI Scan screen is hidden until user pressed SCAN
- WIFI Screen has more lines

- WIFI Upload button now only uploads files from the device
 - o **NOTE:** If main chip version is lower than 1.04, upload also checks for updates.
- Removed HOME button from the measure screen to reduce accidental touches during measurement procedure

Bug fixes

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Known issues

- If NWP is factory restored to version 0.73 and the main chip is updated to version 1.00 or higher, there is no option for Cloud update.
 - o Fix by: Sending NWP file for recovery from SD Card

Version 1.03 (09.06.2020)

New functions:

- **Calibration due** message shows when the device starts when device/sensor (pressure or/and AE) calibration is due. This is unskippable by the user. Message disappears in a few seconds.

Improvements:

- none

Bug fixes

- NPU version now updates properly in the device info screen, after CPU firmware update accomplished

Version 1.02 (18.05.2020)

New functions:

- Added Calibration per device (not per sensor), editable from PREMETS Cloud only
- Calibration due message shows on device info screen

Improvements:

- Removed license fields on the device info screen
- Changes to sensor sensitivity doesn't change the calibration date
- Added button for clearing UPLOADED (Record screen) flag of measurement.
- Change error messages of hardware.
- Change p(max) and a(max) to p(mxc) and a(mxc) in Table and Bar Screens.

Bug fixes

Version 1.01 (02.12.2019)

New functions:

- Multiple OTP pages available for change of revision number and production date at CMT premises

Improvements:

- none

Bug fixes:

- Fixed display flickers/crash

Version 1.00 (16. 10. 2019)

Improvements

- Device Hardware Revision Number added to Device Info Screen next to PCB Revision Number.

Bug fixes

- Fixed a bug where NWP Version doesn't show if Azure.lic is missing. Now it shows regardless if Azure.lic file is there.
- Other minor fixes

Version 0.11 (20. 09 2019)

Improvements

- More reliable WIFI status reporting
- New WIFI chip version available (0.73)
- Licence file is no longer needed.

Bug fixes

- Upload icon hides on unsuccessful connection
- Other minor fixes

Version 0.10 (09.09.2019)

New functions:

- Over the Air (OTA) updates for both the WIFI chip and Main-board chip
- New WIFI chip version available (0.72) (required for 0.10 version to work)

- Restore of Factory settings for WIFI chip

Improvements

- From WIFI version 0.72 onwards no license file is required for the device to connect to the cloud
- Measurement record file upload has larger limit 100kB (63kB last update)
- Pressure signal is no longer filtered at device level
- Users can request upload of Calibration Files & Engine Library files from the Premet Cloud
- Cloud manager can upload new Calibration and Engine Library files from the Cloud to the device
- Customer answers question if he wants to download the updates or skip them
- Main menu errors when entering WIFI menu removed for messages on the WIFI screen message box.

Bug fixes

- Open WIFI networks are now properly stored on the device
- If more than 7 networks are saved to the device memory, the next one overwrites the 7th network. (Previously dismissed)
- Other minor fixes

Version 0.09 (05.06.2019)

New functions:

- A warning message appears before each measurement to double check the scavenge air pressure.

Improvements

- Existing engine can now also be changed on the device from viewer software
- Onscreen messages for mode AUTO have been improved
- Time to take a measurement has been improved significantly. Only the first cylinder does require sensor tests and takes longer.
- Following customer requests, the number of cycles can now be set to up to 32.
- Initial screen does wait for any key to be pressed.

Bug fixes

- When the sensor does not get pressure in auto mode the record can be continued.
- Date and time when exporting data from device now time when record was saved and not when engine library was created.

- When a teeth sensor is in use PREMETS does now make correction of angle between TDC sensor and the first teeth after TDC sensor mark.
- Other minor fixes

Version 0.08 – not released

Version 0.07 – not released

Version 0.06 (10. January 2019)

New functions:

- Automatic TDC correction after measurement when measured without pick up sensor.
- The button MANUAL on Measure screen does not initiate a measurement automatically to not confuse users. Measurement is now always initiated from one of the measure screen GRAPH, TABLE or BAR.
- Amplifier Charge added in SETUP/TEST Screen.

Improvements

- Removed all Toolbar buttons except HELP from HOME screen to improve focus in HOME screen.
- Removed ships and engine name of active engine in headline from all screens not relevant for the engine. Now shown only in GRAPH, TABLE, BAR, RECORD, ENGINE and TDC Correction screen.
- Improved bottom line to improve visibility. Bottom line now shows date and time and battery status on all screens. On all screens related to the measurement the measurement mode is shown and if TDC has not been corrected the exclamation mark.
- Help screens have been changed accordingly.

Bug fixes

- Minor fixes