



CoreSense™ M10

Release Notes

Software version 1.3.0.5



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1. CoreSense™ M10 Software

1.1 Version 1.3.0.5

1.1.1 Available Packages

- [M10_WEB_UPDATE_1.3.0.5.zip](#): Web Update install package
- [M10_USBkey_UPDATE_1.3.0.5.zip](#): USB key Update install package
- [M10_USBkey_WIPE_INSTALL_1.3.0.5.zip](#): USB Key Wipe install package

1.1.2 Release summary

- **New Features:**
 - A DHCP server is now running on the Service Port. The system will provide an IP address to the client computer that can reach the CoreSense M10 interface on 172.16.100.1 (COREMX-1149).
 - Moisture can now be display as AW (COREMX-1059)
- **Improvements:**
 - Additional compounds are added to improve standard gas predictions engine (COREMX-1085,1054)
 - System warns the operator for data lost when the time is changed in the past (COREMX-1063)
 - Local HMI time displays “UTC” label (COREMX-1088)
 - Exported csv file has the column label with “UTC” (COREMX-1191)
 - LEDs on the Head Unit are decoupled and can show states that are independent (COREMX-1066)
 - More Events are created when actions are performed by the operator (COREMX-1061, 1207, 1307)
- **Fixed Issues:**
 - Cold start pump heating (COREMX-1055,1065, 272, 1329)
 - AW value on DNP3 publishing (COREMX-1058)
 - Gas cell temperature control on 240Vac (COREMX-1057, 642, 1001)
 - Database housekeeping script timeout (COREMX-1328)
 - NaN value for Water Activity (COREMX-1298)
 - Wrong Oil temperature over Modbus TCP/RTU (COREMX-742)
 - Faulty configuration file management (COREMX-846, 847)
 - Administration settings page error message (COREMX-1318)

1.1.3 Important notes for installation

- Use an USB key build with [M10_USBkey_UPDATE_1.3.0.5.zip](#) to update a system and keep the CoreSense M10 database and configuration.
- Use [M10_WEB_UPDATE_1.3.0.5.zip](#) to update a system remotely using the web interface and keep the CoreSense M10 database and configuration.
- Use an USB key build with [M10_USBkey_WIPE_INSTALL_1.3.0.5.zip](#) for all new installation.
- Use an USB key build with [M10_USBkey_WIPE_INSTALL_1.3.0.5.zip](#) for an installation that reset database and configuration file of the CoreSense M10.

1.1.4 Installation procedure

Follow these steps to update the CoreSense M10 software. The update procedure consists of two main steps, which can either be executed remotely using the web interface or locally using an USB key.

1.1.4.1 Update remotely using the web interface

CoreSense M10 software update:

1. Obtain the CoreSense M10 software images from ABB (see §1.1.3).
2. Open a web browser and enter the IP address of your system in the address bar. IP address is shown in the bottom of the CoreSense M10 local screen. Your computer must be configured in the same network subnet.
3. Click on **Settings** tab and then click on **System Logs**. Enter your password to gain access, factory password is *Admin*.



Figure 1. System logs.

4. Click on **Export all**. A download should start. Save and keep the *.zip* file as it may help ABB service in case a problem occurs during the update.

- Click on **History** and on **fgs**→**Acetylene** and then on **Export**. A download should start. Save and keep the .csv history file.

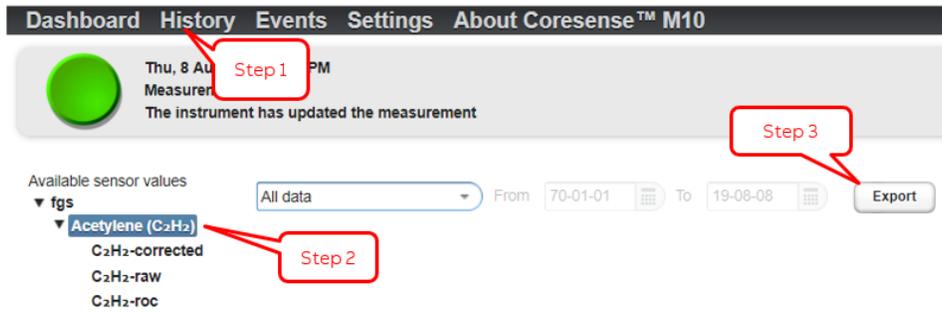


Figure 2. History.

- Click on **Settings** and on **Update firmware**. A new page appears.



Figure 3. Update firmware.

- Click on **Choose File** and select the M10_WEB_UPDATE_1.3.0.5.zip file. Click on **Open** and then on **Update**. The update process will start and can last for few minutes. Messages will appear on the **Status** pane during the process and “Rebooting instrument now” will appear at the end of the process. The update is complete once a “Session Expired” red banner appears on the top of the web page.

Note: Google Chrome browser is recommended for web update as it show the progress of the update process at the bottom left corner of the page.

- Click on the refresh button of your web browser to refresh your web session.
- To validate that the update process completed successfully, click on **About CoreSense™ M10** and validate that the version numbers are the following:
 - BOOT.hddimg: 1.1.4
 - APP.img: 1.0.19
 - PERSISTENT.img: 1.0.4
 - MATLAB.img: 9.2.0
 - CS8_APP.img: 1.3.0.5
 - CS8_MODELS.img: 1.2.0
 - Sensor Board Firmware: 1.5.2288
 - Interface Board Firmware: 1.3.1411

1.1.4.2 CoreSense M10 software update using USB key

Important Note:

- If the update process do not seem to work on your CoreSense M10, try it again with a different USB key from another trademark or update remotely using the web interface (see §1.1.4.1).

Follow these steps to either wipe install or update the CoreSense M10 software:

1. Obtain the CoreSense M10 software images from ABB (see §1.1.3).
2. On the a **USB key**, extract M10_USBkey_UPDATE_1.3.0.5.zip or M10_USBkey_WIPE_INSTALL_1.3.0.5.zip making sure NOT to create a folder and to install at the root of the USB filesystem.
3. Open the CoreSense M10 cabinet.
4. Shutdown the instrument using the main power switch.

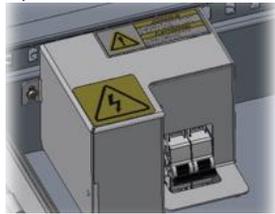


Figure 4. Instrument main power switch.

5. Insert the first USB key on the USB port of the CoreSense M10 cabinet.

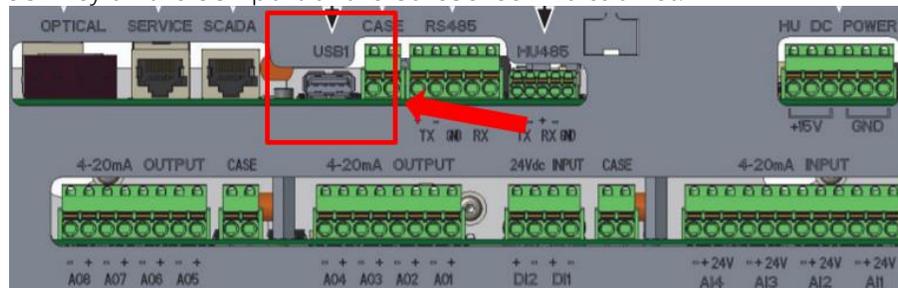


Figure 5. Instrument USB port.

6. Turn on the instrument using the main power switch (see Figure 4). The update process will start automatically.
7. Messages will appear on the local screen during the update process lasting for a few minutes. The update process is complete when a message indicating to remove the USB key and to reboot appears.
8. After the “remove USB key and reboot” message appear on the screen, remove the USB key and power cycle the instrument. You may be asked to calibrate the screen by touching the 4 crosses displayed on the screen.



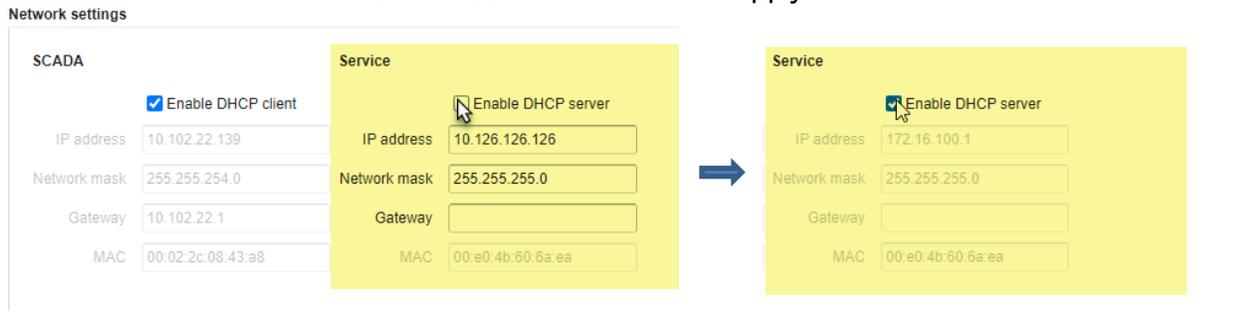
Figure 6. Screen calibration.

- A complete system update will be done after this step. During the process, the instrument may reboot two or three times depending on the required updates for your system. Wait until the dashboard page is displayed for at least 4 minutes. (The dashboard might be empty for the first 20 minutes).

1.1.4.3 Enabling DHCP server on Service port

Following a system update the network interface configuration is unchanged. To enable the DHCP server on the Service port (like any new system or after a Wipe Install), the steps to follow are:

- Access web page of the system
- Select **Settings**->**Administration settings**
- Click on **Enable DHCP server** check box and **Apply** button



1.1.4.4 Hydrogen sensor firmware update

Important Note:

- Your CoreSense M10 does not require a Hydrogen sensor firmware update if the version number is 3.966J, to verify click on **About CoreSense™ M10** and look for **“H2Scan Sensor Firmware”**
- The hydrogen sensor update requires CoreSense M10 software version of 1.2.0.12 (or higher).

Follow these steps to update Hydrogen sensor firmware using web interface:

- Click on **Settings** and on **Update firmware** (see Figure 3). A new page appears.
- Click on **Choose File** and select the M10 WEB H2SUpdate 3.966J.zip file. Click on **Open** and then on **Update**. The update process will start and can last for few minutes. Messages will appear on the **Status** pane during the update process. It will be completed a few minutes after the “Rebooting instrument now” message. The update is complete once a “Session Expired” red banner appears on the top of the web page.
- Click on the refresh button of your web browser to refresh your web session.
- To validate that the update process completed successfully, click on **About CoreSense™ M10** and validate that the H2Scan version number is:
 - H2Scan Sensor Firmware 3.966J
- Verify that date and time is properly set and that the thermal pump is enabled in the **Settings**→**Administration** page. Refer to CoreSense M10 User Guide for further details.
- Still in the **Administration** page, make sure NTP server is not enabled if you do not intend to use it.
- Wait 20 minutes and check if the system LED is still green. If the system LED turns blue and an event concerning “Golden reference check failed”, call ABB service to get an extra tool to fix this issue.

Follow these steps to update Hydrogen sensor firmware using USB key:

- On a **USB key**, extract M10 USBkey H2SUpdate 3.966J.zip making sure NOT to create a folder and to install at the root of the USB filesystem.

2. Shutdown the instrument using the main power switch (see Figure 4).
3. Insert the second USB key on the USB port of the CoreSense M10 cabinet (see Figure 5).
4. Turn on the instrument using the main power switch (see Figure 4). The update process will start automatically.
5. Messages will appear on the local screen during the update process lasting for a few minutes. The update process is complete when a message indicating that H2Scan firmware updated successfully appears.
6. After the “update success” message appear on the screen, remove the USB key and power cycle the instrument.
7. Using a computer, open a web browser and navigate to your CoreSense M10 web interface by entering its IP address in the address bar. IP address is shown in the bottom of the CoreSense M10 local screen. Your computer must be configured in the same network subnet.
8. To validate that the update process completed successfully, click on **About CoreSense™ M10** and validate that the version numbers are:
 - H2Scan Sensor Firmware 3.966J
9. Verify that date and time is properly set and that the thermal pump is enabled in the **Settings→Administration** page. Refer to CoreSense M10 User Guide for further details.
10. Wait 20 minutes and check if the system LED is still green. If the system LED turns call ABB service center for assistance.

1.2 Version 1.2.1.0 0035-00-3-00003-01 Rev H

1.2.1 Available Packages

- [M10_WEB_UPDATE_1.2.1.0.zip](#): Web Update install package
- [M10_USBkey_UPDATE_1.2.1.0.zip](#): USB key Update install package
- [M10_USBkey_WIPE_INSTALL_1.2.1.0.zip](#): USB Key Wipe install package

1.2.2 Release summary

- **New Feature:**
 - None
- **Fixed Issues:**
 - Remote Web HMI server display error HTTP 500
 - Delay added prior to get pump speed status
 - Bad Golden References detection regression.

1.3 Version 1.2.0.12 0035-00-3-00003-01 Rev G

1.3.1 Available Packages

- [M10_WEB_UPDATE_1.2.0.12.zip](#): Web Update install package
- [M10_USBkey_UPDATE_1.2.0.12.zip](#): USB key Update install package
- [M10_USBkey_WIPE_INSTALL_1.2.0.12.zip](#): USB Key Wipe install package
- [M10_WEB_H2SUpdate_3.966J.zip](#): Hydrogen sensor firmware web update package
- [M10_USBkey_H2SUpdate_3.966J.zip](#): Hydrogen sensor firmware USB key update package

1.3.2 Release summary

- **New Features:**
 - Maintenance page added
 - Auto diagnostics improved
 - Bad Golden References detection
 - Fine leak detection generates a warning instead of a fatal error
 - IR Source switching algorithm improved
 - Firmware update keeps past data (vs wipe install)
 - Add instrument configuration upload/download
 - Export all logs now retrieves the five last spectrum and golden references
- **Fixed Issues:**
 - Web server does not freeze if sensor head communication fails
 - Temperature alarms now respect product requirements
 - Bad device ID detection
 - Gas cell temperature out of range detection
 - Thermal pump temperature lowered when powered on 220V
 - Log files space limitation
 - Cold start: heat critical parts before turning on whole instrument
 - DNP3 scales only 4-20ma inputs. No scaling applied on gas values
 - Major leak detection skipped when pressure under 5 psi
 - Blinking blue behavior corrected (Only if 1 pump or 1 source left)
 - Sensor proxy communication issue fixed
 - DEMO Mode correction
 - Minor bugs corrections
 - H2 sensor firmware update

Contact us



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