

Release Notes

Vaisala DIAL Atmospheric Profiler DA10

DA10 firmware version 2.5

- Ceilometer data and Web user interface (UI)
- June 2026

Update need

This release does not contain any critical fixes. You can update the firmware if you want to take the new features or fixes into use.

Compatibility

The format of the netCDF file is no longer 100 % compatible with release 2.3 due to the added parameters.

New features and improvements

- Algorithm parameter adjustments introduced in the Web UI:
 - Mixing ratio averaging time selection
 - Laser bandwidth configuration factor
- NetCDF file content expanded:
 - Both online and offline profiles shown in attenuated backscatter netCDF
 - All 4 serial numbers of the DA10 are now shown in water vapor mixing ratio (MR) and attenuated backscatter (ABS) files:
 - DA10, gateway, both device control modules (far DAC and near DAC)
 - New instrument telemetry data in both NetCDF files:
 - Temperature of the optics unit
 - Internal humidity

Known issues

A fault remains that causes background radiance measurement not get reported. This will be corrected in a separate fix release.

Improvements

Small updates and fixes to security and user experience.

Installation notes

Download the firmware from docs.vaisala.com. The package includes the necessary software files and release notes.

Install the software update using the DA10 Web UI.

Update the software in this order:

1. Device control module firmware (both device control modules)
2. DA10GW firmware
3. DA10 Client



Do the updates in one go. Do not pause for long periods of time during the update.

The update does not require a factory reset.



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Table 1 Software versions

Device	Version
Gateway DA10GW	1.4.2
Device control modules	2.5.1
DA10 Client	1.0.6

DA10 firmware version 2.3

- Ceilometer data and Web user interface (UI)
- October 2025

Update need

This release does not contain any critical fixes. You can update the firmware if you want to take the new features or fixes into use.

Compatibility

The format of the netCDF file is not 100 % compatible with release 2.0 due to the added parameters.

New features and improvements

- Standard ceilometer measurement data added to ABS netCDF:
 - Cloud base heights (5 layers), vertical visibility, cloud thickness, penetration depth, and sky condition
 - Precipitation and fog detection
 - Airplane filter
- Fully integrated user interface under a single Web UI.
- Self-diagnostics introduced, initially focused on informing of possible errors in installation and configuration.
- SFTP option added for netCDF file transfer.
- Adjustments to mixing ratio (MR) calculation algorithm to improve accuracy.
- Better device performance, cybersecurity, and user experience.

Installation notes

Download the firmware from docs.vaisala.com. The package includes the necessary software files and release notes. Install the software update using the DA10 Web UI.

Update the software in this order:

1. Device control module firmware (both device control modules)
2. DA10GW firmware
3. DA10 Client



Do the updates in one go. Do not pause for long periods of time during the update.

The update does not require a factory reset.

Table 2 Software versions

Device	Version
Gateway DA10GW	1.3.7
Device control modules	2.3.2
DA10 Client	1.0.6

Document updates

- [DA10 User Guide \(M212895EN\)](#)
- [DA10 Installation Guide \(M212894EN\)](#)
- [DA10 Firmware Update Instructions \(M213281EN\)](#)

DA10 firmware version 2.0

- Gain control and diagnostics
- February 2024

Update need

This release does not contain any critical fixes. You can update the firmware if you want to take the new features or fixes into use.

Compatibility

- The format of the netCDF file is not 100 % compatible with release 1.10.

New features and improvements

- Automatic receiver gain control introduced to prevent signal saturation.
- Window condition and laser power measurements included in data reporting.
- Firmware update procedure simplified for future updates (update to 2.0 not yet affected)
- Small improvements to device performance.

Security enhancements

- Small improvements to cybersecurity.

Known issues

Table 3 Known issues

Issue	Remedy/Workaround
User interface not yet fully integrated.	–
Limited self-diagnostics.	–

Installation notes

To update the firmware, see the instructions delivered in the firmware update ZIP file.

The update packages are complementary to all DA10 users. New software can be updated onsite or remotely by users. The most recent update package is available from Vaisala Technical Support and at docs.vaisala.com.

Document updates

- [Vaisala DIAL Atmospheric Profiler DA10 User Guide](#)
- [Vaisala DIAL Atmospheric Profiler DA10 Installation Guide](#)

DA10 firmware version 1.10

- Backscatter measurement
- November 2023

Update need

This release does not contain any critical fixes. You can update the firmware if you want to take the new features or fixes into use.

Compatibility

- The format of the netCDF file is not 100 % compatible with release 1.9.

New features and improvements

- Measures and reports backscatter profile.
- Reports uncertainty for water vapor profile.
- Corrected a slight bias in water vapor measurement.
- Implemented small improvements to device performance.

Security enhancements

- Implemented small improvements to cybersecurity.

Known issues

Table 4 Known issues

Issue	Remedy/Workaround
Self-diagnostics not yet implemented.	–
Firmware update procedure has to be done manually.	–

Installation notes

To update the firmware, see the instructions delivered in the firmware update ZIP file.

The update packages are complementary to all DA10 users. New software can be updated onsite or remotely by users. The most recent update package is available from Vaisala Technical Support.

DA10 firmware version 1.9

- Initial release
- June 2023

Update need

This release does not contain any critical fixes. You can update the firmware if you want to take the new features or fixes into use.

New features and improvements

- Measures water vapor profile.
- Data transmitted in netCDF file format using a separate client application.

Known issues

Table 5 Known issues

Issue	Remedy/Workaround
Backscatter profile reporting not yet implemented.	–
Self-diagnostics not yet implemented.	–
Firmware update procedure has to be done manually.	–

Installation notes

To update the firmware, see the instructions delivered in the firmware update ZIP file.

The update packages are complementary to all DA10 users. New software can be updated onsite or remotely by users. The most recent update package is available from Vaisala Technical Support.