Improvements to ultraDAWN™ (NEON) Firmware

INTRODUCTION

This document highlights the most important enhancements, changes, and bug fixes made to the ultraDAWN firmware. Please contact us at www.wyatt.com/contact if you have any questions or suggestions.

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VERSION HISTORY

Known Issues

- OBSERVER 2.1.0 is only compatible with ultraDAWN firmware version 9.1.6 or later. Attempting to use OBSERVER with older versions of the ultraDAWN firmware will not function correctly.
- Occasionally, spurious Startup Check errors may occur following a firmware update. Performing a hard reboot will resolve this issue.

9.3.7

Improvements and Bug Fixes

- Includes version 0.5.64 of Frontly (instrument front panel application).
- **Added:** For ultraDAWN instruments with a QELS module, attenuation levels can be set to: None, Low, Medium, and High. The selected level is retained after a restart. (S-32624)
- **Added:** Rh is now available on the Dashboard when DLS data collection is enabled on OBSERVER. (S-29219)
- **Fixed:** The firmware no longer crashes when the instrument's real-time clock has an invalid date, such as when the RTC battery is dead. (D-31445, D-31497)
- **Fixed:** The Orbit state was not correctly synced at startup. (D-31904)
- **Fixed:** OBSERVER could not acquire control of the firmware if a new session ID was created without restarting the instrument. Changing the session ID no longer removes access for the active client. (D-31934)

9.2.11

Improvements and Bug Fixes

- Includes version 0.5.41 of Frontly (instrument front panel application).
- **Changed:** Updated firmware to support new electronic parts. (S-27813)
- **Changed:** The “Output Slope” for the analog out now defaults to 1. (S-22726)
- **Changed:** User is now prompted for confirmation if restoring factory defaults. (S-22699)
- **Fixed:** Instrument intermittently stuck on "Connecting" dialog during boot-up. (D-28121, D-28203, S-27235)
- **Fixed:** Audio issues when rebooting some older instruments. (D-29029, S-29003)
- **Fixed:** Startup Check errors can occur after rebooting under heavy firmware load. (D-28905, D-28958, D-28955)
- **Fixed:** Some older instruments manufactured prior to 2025 may throw a Startup Check error with firmware version 9.2.9. (D-29173)

9.1.13

Improvements and Bug Fixes

- **Fixed:** The power button may stop working if the instrument does not initialize properly on startup. (D-27629)

9.1.12

Improvements and Bug Fixes

- **Added:** The network port number for clients to connect to the ultraDAWN is now visible on the Settings tab. (S-17588)
- **Changed:** When "Reload" on the Settings page is used to restore factor defaults, the user is now prompted for confirmation before the change is applied. (S-22699)

9.1.9

Improvements and Bug Fixes

- **Fixed:** Results do not update on the front panel for the Online Macromolecule workflow. (D-21044)
- **Fixed:** Installer would sometimes hang when trying to find instruments on the network. (D-19715)
- **Fixed:** Installer would not properly report out of disk space error. (D-19559)
- **Fixed:** Some communication settings were not preserved after a reboot. (D-19163)

9.1.6

Improvements and Bug Fixes

- **Added:** Support for Inline AAV workflow. (S-17302)
- **Changed:** The names of various result traces were changed to be consistent with OBSERVER. (D-20483, D-20485)
- **Fixed:** Various issues when ASTRA and OBSERVER are collecting data simultaneously. (D-17724, D-19246,)
- **Fixed:** The name of size result (Length and Radius) was not updated when the model was changed on OBSERVER. (D-20484)

9.0.10

Improvements and Bug Fixes

- **Added:** Added a SATA drive health monitor. (S-18673)
- **Fixed:** The firmware updater has been made more reliable. (S-19000)

9.0.7

Improvements and Bug Fixes

- **Changed:** Optimized logging by the firmware. (D-18218)

9.0.5

Improvements and Bug Fixes

- **Added:** Support for ASTRA Security Pack lockout. (S-16753, D-17871)
- **Fixed:** Addressed an issue where the Warlock would not log all events. (D-17608)
- **Fixed:** Addressed an issue where a missing startup check parameter would cause a startup check error. (D-18298)
- **Fixed:** A statically set IP address will now always stick across reboots. (D-16753)

8.3.0

Improvements and Bug Fixes

- **Added:** Support for Inline Nanoparticle workflow. (TT#20182)

8.2.24

Improvements and Bug Fixes

- **Added:** Support for the Heated/Cooled temperature option. (TT#20027)
- **Fixed:** Addressed an issue where ultraDAWN could lose the connection to OBSERVER and the graph would stop updating. (TT#20026)

8.2.22

Improvements and Bug Fixes

- **Added:** A security update to further ensure that your instrument is not susceptible to network-based malware. (TT#19698)

8.2.20

Improvements and Bug Fixes

- **Added:** Support for new Online Nanoparticle workflow in OBSERVER 1.1.0. (TT#19592)

8.2.15

Improvements and Bug Fixes

- **Added:** ultraDAWN Display Unit in Advanced Mode. (TT #19089)
- **Fixed:** ultraDAWN loading image performance improved (TT#19332)
- **Fixed:** ultraDAWN was not displaying OBSERVER graph upon instrument restart (TT#19371)
- **Fixed:** ultraDAWN & OBSERVER out of sync (TT#19334)

8.2.14

Improvements and Bug Fixes

- **Added:** Ability to select multiple traces on the OBSERVER graph. (TT #19165)
- **Added:** Rg trace to the OBSERVER graph. (TT #19166)
- **Added:** Ability to lock the front panel interface via a lock button on the front panel. (TT #19163)

8.2.10

Initial Release

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Please contact Wyatt Customer Support if you need more information about changes in earlier versions of the firmware.