

# Improvements to Möbiuζ® Firmware

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## INTRODUCTION

This document highlights the most important enhancements, changes, and bug fixes made to the Möbiuζ® Firmware. Please contact us at [support@wyatt.com](mailto:support@wyatt.com) if you have any questions or suggestions.

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## VERSION HISTORY

### 1.2.0.5

#### Improvements and Bug Fixes

- Added a security update to further ensure that your instrument is not susceptible to network-based malware. (#19698)
- Modified firmware updater so that antivirus scanners do not report false positives when scanning the updater.

### 1.2.0.4

#### Improvements and Bug Fixes

- Updated Laser Diagnostic utilities for better serviceability. (#18187, #18188, #18189)
- Added a check to verify the maximum temperature setting. (#18194)

### 1.2.0.3

#### Improvements and Bug Fixes

- Added support for Laser Saver Mode. Activate mode in the System tab. (#12894)
- Improved detection of avalanche photodiode detector (APD) errors. They were being over reported. This error can only occur when the laser is off. If present, these errors are visible in the Alarms tab in the log on the front panel. (#14704)

### 1.2.0.0

#### Improvements and Bug Fixes

- Added support for new instrument operating system. (#15268)

### 1.1.0.8

#### Improvements and Bug Fixes

- Added support for new Single Board Computer. (#13054)

### 1.1.0.6

#### Improvements and Bug Fixes

- You can now configure IP settings in the Comm tab without an active Ethernet connection, and it will remain once connection is restored. (#11930)
- Corrected instrument serial number on System tab. (#13045)
- When the laser is initially turned on, the "Laser Stable" alarm is triggered. The alarm will remain on until it has stabilized around 55 mW for at least 30 seconds. (#12711)
- QELS and DLS are synonymous. For clarification, all instances of "QELS" in the front panel now read "DLS". (#12683)

### 1.0.3.7

#### Improvements and Bug Fixes

- Added an option to restore default values for the Auto Attenuation parameters; in the System tab, select Configure Auto Attenuation, then select

Default Values. (#7842)

- Instrument automatically restarts upon firmware update. (#10710)
  - For newer instruments, the Firmware Updater will automatically restart the instrument to complete the firmware upgrade process.
  - **Important:** if the instrument doesn't restart, the user still **must manually restart** via the front panel.
- Since the autocorrelation function can help determine if the cell is clear of bubbles, a "Pressurize" button has been added to the QELS tab when an Atlas is attached. (#11116)
- Laser controller now supports multiple laser models. (#11396)
- Switching from Correlation Function to Count Rate in the QELS tab resulted in no display of count rate data before the switch. (#9576)
- Alarm IN and OUT fixes:
  - When Dynamics was connected to the instrument, and the user checked the "Alarm IN" checkbox in the Alarm tab, if they selected Cancel in the resulting prompt to take over control, the check box was disregarding Cancel and toggling anyway. (#10317)
  - The Alarm OUT checkbox was only updating when the Alarm IN checkbox was toggled (#11844)
- There was an error in hardware clock rollover code that, in rare cases, could cause a spurious gap in QELS data of about 200 minutes. (#10388)
- DLS measurements were sometimes incorrect because of a mishandled temperature value. (#10423)
- In some cases, the static IP address was not persisting after a reboot. (#11916)
- The laser detection alarm was not getting triggered in the absence of a laser. (#12036)
- Load Factory Default in the System tab was not correctly setting values for all instrument components. (#10738)

## 1.0.2.10

### Improvements and Bug Fixes

- Optimized firmware to gain fivefold improvement in calculation speed. (#11341, #11549)

## 1.0.2.6

### Improvements and Bug Fixes

- Added support for new laser models. (#10265, #10438)
- Added support for new cell types. (#9260, #10439, #10468)
- Corrected the "Alarm In" in so that it matches the state of the "Alarm In" port on the back panel of the instrument. (#10309)
- Added warnings in the Firmware Updater for potential problems during firmware upgrade. (#10338, #10358)

## 1.0.1.11

### Improvements and Bug Fixes

- Improved laser stability logic. (#9597)
- Added the option to display one minute of data in the main graph. (#9375)
- Corrected a touchscreen issue that prevented navigation with the keypad (#9623)

## 1.0.1.5

### Improvements and Bug Fixes

- Fixed an issue that could prevent the user from adjusting the temperature through the Front Panel. (#9260)

## 1.0.1.4

### Improvements and Bug Fixes

- Added a four-digit PIN value to control remote access from the Wyatt Aurora® iPad application. (#8616)
- Added firmware support for touchscreen instruments (#8814, #8813)

## 1.0.1.2

### Improvements and Bug Fixes

- Added temperature regulation of the valve system to allow more sensitive leak checking.
- Temperature control can now be stepped by a configurable amount to allow quick adjustments to compensate for valve power states.

## 1.0.0.88

### Improvements and Bug Fixes

- Change in pressure during the leak test is now reported in percent as well as bar.
- The pressure change parameter is no longer reset when switching tabs in the front panel.
- Atlas serial number is now tied to the Atlas™ hardware, not the Mobius.
- Several Atlas parameters are now stored in NVRAM on the device, so they are retained when moving an Atlas from one instrument to another.

## 1.0.0.87

### Improvements and Bug Fixes

- Added support for the Atlas device.

## 1.0.0.81

### Initial release

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