

Improvements to Eclipse™ (NEON™) Firmware

Introduction

This document highlights the most important enhancements, changes, and bug fixes made to the Wyatt Firmware. Please contact us at support@wyatt.com if you have any questions or suggestions.

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Revision History

5.10.0

Software compatibility

Eclipse (NEON) firmware version 5.10.0 requires VISION 3.1.1.8 or higher to connect to the instrument in VISION RUN.

Miscellaneous changes

- **New:** Support for the new channel temperature regulator with leak sensor. (TT#20035)
- **New:** The instrument configuration can be retrieved and set remotely. (TT#20074)
- **Fixed:** A high memory usage causing the low memory warning to appear will not occur anymore. (TT#19994)
- **Fixed:** Self-test voltage failures were not properly flagged as a failure. (TT#20090, TT#20091)
- **Fixed:** Unable to boot an Eclipse (NEON) instrument when there are flow controller errors. (TT#20128)
- **Fixed:** Over-current and self-test voltage error badges did not appear on the front panel of an Eclipse (NEON) instrument. (TT#20129)
- **Fixed:** Minimum inlet flow is set to 0.05 mL/min to better control flow during focus and focus + injection steps with low flows. (TT#20036)
- **Fixed:** Reduced number of cross flow alarms during linear ramps by providing a better flow ramping. (TT#20132)
- **Fixed:** Reduced number of inlet flow alarms by adding a pump calibration function in the Performance & Tuning window in VISION RUN to adjust for minor differences between the pump flow and the measured flow. (TT#19955)
- **Fixed:** Missing alarms for low solvent and over-current. (TT#20133)
- **Fixed:** Parameter changes are not immediate. (TT#20134)

5.7.0

Software compatibility

Eclipse (NEON) firmware version 5.7.0 requires VISION 3.0.1.12 or higher to connect to the instrument in VISION RUN.

Miscellaneous changes

- **Fixed:** Use configurable values for self-test voltage tolerances. (TT#20049)

5.6.0

Software compatibility

Eclipse (NEON) firmware version 5.6.0 requires VISION 3.0.1.12 or higher to connect to the instrument in VISION RUN.

Miscellaneous changes

- **Added:** Support the dispersion inlet channel. (TT#20013)
- **Fixed:** When using an Eclipse (NEON) instrument with the SEC switching option, the cross-flow controller will now properly control the cross-flow after a hard reboot of the instrument. (TT#20009)

5.4.0

Software compatibility

Eclipse (NEON) firmware version 5.4.0 requires VISION 3.0.1.12 or higher to connect to the instrument in VISION RUN.

Miscellaneous changes

- **New:** Mitigate the flow rate drop when switching from Focus to Elute. (TT#19834, TT#19810)
- **New:** Faster internal response time to improve data quality and reproducibility. (TT#19838)
- **New:** Implemented “Alarm Out” to stop the flow when a critical error occurs. (TT#19921)
- **New:** Depressurize the channel when a critical error occurs to not put the instrument in an unsafe state. (TT#19928)
- **Changed:** Better data communication with VISION RUN and correct conversion parameters. (TT#19837)
- **Changed:** Use the Channel Pressure instead of the DCM Pressure when calculating the Focus Flow Offset. (TT#19927)
- **Fixed:** Use seconds for timestamps instead of milliseconds. (TT#19885)
- **Fixed:** Ensured that the detector flow mismatch badge appears when the set value and read value for the detector flows differ by the flow warning threshold set in the software. (TT#19907)
- **Fixed:** Incorrect warning/error level for the leak alarms. A flow controller leak and the valve leak alarm will now trigger an error while the fluid connection leak alarm will only trigger a warning. (TT#19908)
- **Fixed:** When the DCM Pressure controller is disconnected, the front panel will now show the “DCM Pressure controller” error instead of the “Detector Flow Meter” error. (TT#19918)
- **Fixed:** Ensured the collection current start time is reset when in Prerun. Not doing so could add an extra data point at the end of a collection at offset zero. (TT#19923)
- **Fixed:** When the “Focus Valve” is unplugged, it will not show the “SEC Switching Valve” error alongside the “Focus Valve” error. (TT#19924)
- **Fixed:** When using an Eclipse (NEON) instrument with the DCM option, it will now allow users to set both the detector flow and the channel flow to the same value (thus using the instrument as if it did not have the DCM option). (TT#19929)
- **Fixed:** When pressing the “Stop Flow” button on the front panel, it will now display a red error badge instead of a warning one. (TT#19930)
- **Fixed:** The focus flow offset calibration is now correct for Eclipse (NEON) instruments without the DCM option (TT#19960)

5.0.5

Initial Release.

Software compatibility

Eclipse (NEON) firmware version 5.0.5 requires VISION 3.0.0.20 or higher to connect to the instrument in VISION RUN.