

RELEASE NOTES

AARC52

Adaptive Aeromagnetic Real-Time Compensator

Host Firmware Release RMS11122-03-D

These release notes contain important information about the new firmware and how it will affect the performance of instruments in which it is installed. The notes outline functional enhancements, adaptive changes and, if applicable, problem corrections.

Please read this documentation carefully. References to pertinent sections in the product's user's guide are shown in square brackets.

Compatibility:

(D)AARC500 Front End Firmware: ≥ RMS1877-05-B, with HW Rev. ≥ 3.00

≥ RMS1877-04-E, with HW Rev. < 3.00

(D)AARC5XX Support Software: ≥ Oct/2022

1. The maximum *Host Sampling Rate* for the system has been increased from 80 to 160 Hz. This is the rate at which raw, processed (i.e., compensated) and ancillary data are recorded, output, and displayed. The *Front End (FE) Sampling Rate*, i.e., the rate at which magnetometer signals are acquired and processed, remains unchanged (with a maximum of 1280 Hz).

[User's Guide: Section 4.3.1]

2. Custom device support –

In addition to the standard general-purpose data acquisition functionality supported via analog and Ethernet (TCP/IP) interfaces, the new firmware release provides enhanced support for a collection of commonly used ancillary devices: (a) decoded data from the device may be monitored in real-time in a dedicated window through the user interface; and (b) decoded data may be output to some external device (e.g., a navigation system). Data capture is via any one of the logical connections supported via Ethernet, and data output via the serial (RS232) Remote Control Port.

Radar and laser altimeters are typical examples of the devices supported with this enhanced functionality. Since the format of output packets varies widely amongst the various devices, 'customized' interpretations are required.

[User's Guide: Sections 3.4.1, 3.4.3, 3.4.7, Appx.L]

3. The warning/reminder to clean the fan filter after a certain number of operating hours can now be disabled.

[User's Guide: Section 3.4.1]

4. The checking for potential processing power violations has been adjusted to reflect measures implemented in release RMS1877-05-B of the Front End firmware to reduce crosstalk amongst analog inputs.

[User's Guide: Appendix 4.3]

5. Adjustments to the boot file disable potentially problematic keyboard 'hot keys' in the windows manager.

6. Cosmetic: real-time graphic display; FE configuration dialog; LP-filter dialog.