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RELEASE NOTES

AARC500 Adaptive Aeromagnetic Real-Time Compensator

DAARC500 DAS & Adaptive Aeromagnetic Real-Time Compensator

Front End Firmware Release RMS1877-02-E

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 include information about enhancements, adaptive changes, and corrections to known problems. Please read this documentation carefully.

Compatibility:

AARC500 – requires Host firmware RMS1878-02-B or later
DAARC500 – requires Host firmware RMS1936-02-C or later

See also the notes under the various items below.

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1. When the *triggering mode* parameter is set to *ext-PPS*, the firmware now prevents the system from locking up in the event of a failure of the device generating the triggering signal.

   If a pulse at the *event 0* input in the event input port (J9) has not been detected in over 128 output cycles (e.g., 12.8 sec. with a host sampling rate F_{SH} = 10 Hz), the Front End will automatically switch to *internal* triggering mode, and will issue an error message (Code 30).

   To resume operation under ext-PPS triggering, the operator can either re-select this triggering mode from the user interface, or re-start the system.

2. The firmware now supports an optional GPS receiver. Standard GGA data packets are expected through one of the serial ports in the RMS4916 Magnetometer Processor Module. GPS time and position information is appended at the end of output packets. The GPS receiver may be embedded in the chassis, or external.

   NOTE: This function is not supported in current versions of the AARC500 and DAARC500 hardware and Host firmware.

3. Event inputs (J9) can now be configured to trigger on either the falling edge (i.e., active-low pulse – default), or on the rising edge (active-high pulse).

   NOTE: This function requires the following:

   RMS4852 Magnetometer I/F: ≥ 2876V2R2

   AARC500 Host FW ≥ RMS1878-02-D

   DAARC500 Host FW ≥ RMS1936-02-D