

AHRS-2/MAG-2 Firmware Revision

Version 1.09 09/11/2021 (Franz Lamers)

Enhancement: Added a pitch and bank zero function to the horizon setup menu

Version 1.08 24/05/2021 (Franz Lamers)

Enhancement: Changed backlight increment to 5% and 1% below 10%. Added backlight % readout

Version 1.07 12/11/2020 (Franz Lamers)

Enhancement: Added Heading bug user input
Enhancement: Added SP-7 attitude CAN message emulation
Enhancement: Added CAN packet filtering
Bug: Fixed CAN/INT AHRS speed message mph reading km/h
Bug: Fixed heading bug not showing if below 50 degrees and heading is <=359 degrees

Version 1.06 17/06/2020 (Franz Lamers)

Enhancement: Updated WMM tables

Version 1.05 18/05/2020 (Franz Lamers)

Bug: Fixed km/h and knots GPS speed to AHRS aiding

Version 1.04 20/04/2020 (Franz Lamers)

Enhancement: Added in serial communications
Enhancement: Added support for a new screen controller
Enhancement: General clean up

Version 1.03 18/10/2019 (Franz Lamers)

Bug: Fixed MAG-2 to be able to display GPS pages
Bug: Fixed GPS SOG: nm to kts

Version 1.02 26/09/2019 (Franz Lamers)

Enhancement: Added GPS display on/off menu item

Version 1.01 25/07/2019 (Franz Lamers)

Enhancement: Added GPS info display
Enhancement: Added auto/manual magnetic variation to compass (Has to have an external NMEA GPS for auto magnetic variation calculation)

Version 1.00 06/02/2018 (Franz Lamers)

Initial release

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AHRS-4 Firmware Revision

Version 1.07 09/11/2021 (Franz Lamers)

Enhancement: Added a pitch and bank zero function to the horizon setup menu

Version 1.06 24/05/2021 (Franz Lamers)

Enhancement: Changed backlight increment to 5% and 1% below 10%. Added backlight % readout

Version 1.05 12/11/2020 (Franz Lamers)

Enhancement: Added Heading bug user input
Enhancement: Added SP-7 attitude CAN message emulation
Enhancement: Added CAN packet filtering
Bug: Fixed CAN/INT AHRS speed message mph reading km/h
Bug: Fixed heading bug not showing if below 50 degrees and heading is <=359 degrees

Version 1.04 17/06/2020 (Franz Lamers)

Enhancement: Updated WMM tables

Version 1.03 18/05/2020 (Franz Lamers)

Bug: Fixed km/h and knots GPS speed to AHRS aiding

Version 1.02 20/04/2020 (Franz Lamers)

Enhancement: Added in serial communications
Enhancement: Added support for a new screen controller
Enhancement: General clean up

Version 1.01 18/10/2019 (Franz Lamers)

Bug: Fixed GPS SOG: nm to kts

Version 1.00 27/08/2019 (Franz Lamers)

Initial release

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AIRDATA-1 Firmware Revision
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Version 1.02 24/05/2021 (Franz Lamers)

Enhancement: Changed backlight increment to 5% and 1% below 10%. Added backlight % readout

Version 1.01 23/03/2021 (Franz Lamers)

Bug: Fixed calibration date not showing in the calibration menu with certain sensors

Version 1.00 21/10/2020 (Franz Lamers)

Initial release

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ALT-6 Firmware Revision
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Version 1.09 10/05/2021 (Franz Lamers)

Enhancement: Cleaned up mechanical wheels negative altitude scrolling

Version 1.08 02/05/2021 (Franz Lamers)

Enhancement: Implemented an altitude deviation alarm
Enhancement: Changed backlight increment to 5% and 1% below 10%. Added backlight % readout

Version 1.07 26/08/2020 (Franz Lamers)

Enhancement: Added support for a new altitude pressure sensor

Version 1.06 01/06/2020 (Franz Lamers)

Enhancement: Added a temperature compensation function for the altimeter

Version 1.05 18/05/2020 (Franz Lamers)

Enhancement: Added a factory altitude calibration function
Bug: Fixed the VSI m/s scale showing the incorrect value

Version 1.04 20/04/2020 (Franz Lamers)

Enhancement: Added support for a new altitude pressure sensor
Enhancement: Added in infiniteq serial protocol
Enhancement: General clean up

Version 1.03 07/08/2019 (Franz Lamers)

Enhancement: Simplified the altitude calibration
Enhancement: Enabled altitude FIFO buffer moving average

Version 1.02 08/06/2019 (Franz Lamers)

Enhancement: Changed Baro setting to 946/1050mb (28.00/31.00)
Enhancement: Change Baro IN to "Hg

Version 1.01 11/10/2018 (Franz Lamers)

Enhancement: Added a piecewise altitude calibration factors

Version 1.00 07/04/2018 (Franz Lamers)

Initial release

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ALT-7 Firmware Revision
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Version 1.09 10/05/2021 (Franz Lamers)

Enhancement: Cleaned up mechanical wheels negative altitude scrolling

Version 1.08 02/05/2021 (Franz Lamers)

Enhancement: Implemented an altitude deviation alarm
Enhancement: Changed backlight increment to 5% and 1% below 10%. Added backlight % readout

Version 1.07 26/08/2020 (Franz Lamers)

Enhancement: Added support for a new altitude pressure sensor

Version 1.06 01/06/2020 (Franz Lamers)

Enhancement: Added a temperature compensation function for the altimeter

Version 1.05 18/05/2020 (Franz Lamers)

Enhancement: Added a factory altitude calibration function

Bug: Fixed the VSI m/s scale showing the incorrect value

Version 1.04 20/04/2020 (Franz Lamers)

Enhancement: Added support for a new altitude pressure sensor

Enhancement: Added in infiniteq serial protocol

Enhancement: General clean up

Version 1.03 07/08/2019 (Franz Lamers)

Enhancement: Simplified the altitude calibration

Enhancement: Enabled altitude FIFO buffer moving average

Version 1.02 08/06/2019 (Franz Lamers)

Enhancement: Changed Baro setting to 946/1050mb (28.00/31.00)

Enhancement: Change Baro IN to "Hg

Version 1.01 11/10/2018 (Franz Lamers)

Enhancement: Added a piecewise altitude calibration factors

Version 1.00 07/04/2018 (Franz Lamers)

Initial release

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ASI-5 Firmware Revision
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Version 1.08 28/11/2021 (Franz Lamers)

Bug: Fixed airspeed max value

Version 1.07 17/07/2021 (Franz Lamers)

Enhancement: Added in an analog dial display and menu option

Version 1.06 24/05/2021 (Franz Lamers)

Enhancement: Changed backlight increment to 5% and 1% below 10%. Added backlight % readout

Version 1.05 17/11/2020 (Franz Lamers)

Enhancement: Added support for new pressure sensor

Version 1.04 21/09/2020 (Franz Lamers)

Enhancement: Improved accuracy of airspeed sensor 3 (Set ASI CAL to 100% if ASI sensor is 3)

Version 1.03 24/05/2020 (Franz Lamers)

Enhancement: Improved accuracy of airspeed sensor 2

Version 1.02 20/04/2020 (Franz Lamers)

Enhancement: Added in serial communications
Enhancement: Added a flight log
Enhancement: General clean up

Version 1.01 02/03/2020 (Franz Lamers)

Enhancement: Support added for the digital airspeed sensor
Enhancement: Support added for the digital high speed sensor
Enhancement: Changed the minimum airspeed to 20mph

Version 1.00 28/03/2018 (Franz Lamers)

Initial release

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ASV-2 Firmware Revision

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Version 1.14 28/11/2021 (Franz Lamers)

Bug: Fixed airspeed max value

Version 1.13 24/05/2021 (Franz Lamers)

Enhancement: Changed backlight increment to 5% and 1% below 10%. Added backlight % readout

Version 1.12 17/11/2020 (Franz Lamers)

Enhancement: Added support for new airspeed pressure sensor

Version 1.11 21/10/2020 (Franz Lamers)

Enhancement: Improved accuracy of airspeed sensor 3 (Set ASI CAL to 100% if ASI sensor is 3)

Version 1.10 26/08/2020 (Franz Lamers)

Enhancement: Added support for a new altitude pressure sensor

Version 1.09 01/06/2020 (Franz Lamers)

Enhancement: Added a temperature compensation function for the altimeter

Version 1.08 18/05/2020 (Franz Lamers)

Enhancement: Added a factory altitude calibration function
Enhancement: Improved accuracy of airspeed sensor 2

Version 1.07 20/04/2020 (Franz Lamers)

Enhancement: Added support for a new altitude pressure sensor
Enhancement: Added in infinitedq serial protocol
Enhancement: Added a flight log
Enhancement: General clean up

Version 1.06 03/04/2020 (Franz Lamers)

Enhancement: Added support for a new altitude pressure sensor
Enhancement: Added in infiniteq serial protocol
Enhancement: Added a flight log

Version 1.05 10/02/2020 (Franz Lamers)

Enhancement: Support added for the digital high speed sensor

Version 1.04 03/02/2020 (Franz Lamers)

Enhancement: Support added for the digital airspeed sensor
Enhancement: Changed the minimum airspeed to 20mph

Version 1.03 07/08/2019 (Franz Lamers)

Enhancement: Simplified the altitude calibration
Enhancement: Enabled altitude FIFO buffer moving average

Version 1.02 08/06/2019 (Franz Lamers)

Enhancement: Changed Baro setting to 946/1050mb (28.00/31.00)
Enhancement: Change Baro IN to "Hg

Version 1.01 11/10/2018 (Franz Lamers)

Enhancement: Added a piecewise altitude calibration factors

Version 1.00 28/03/2018 (Franz Lamers)

Initial release

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EMS-2 Firmware Revision
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Version 1.18 18/11/2021 (Franz Lamers)

Enhancement: Added in a direct connection option to the Rotax 912iS ECU
Enhancement: Menu changes for the Rotax 912iS and UL Power

Version 1.17 02/09/2021 (Franz Lamers)

Enhancement: Changed the hobbs minutes in the communication output to normal minutes

Version 1.16 11/06/2021 (Franz Lamers)

Bug: Fixed EGT/CHT display when using ULPower AUX box

Version 1.15 22/04/2021 (Franz Lamers)

Enhancement: Changed backlight increment to 5% and 1% below 10%. Added backlight % readout
Bug: Fixed Rotax 912iS Throttle position, ambient pressure, ECU hours, Engine hours

Version 1.14 26/03/2021 (Franz Lamers)

Enhancement: Made an automatic/manual menu item selection for the displaying of the analog channels/Volts/Map/Current section
Enhancement: Cleaned up the volts on/off, numeric and bargraph displays

Version 1.13 04/03/2021 (Franz Lamers)

Bug: Fixed CJC showing degree F in the calibration menu

Version 1.12 16/10/2020 (Franz Lamers)

Enhancement: Added selection for decimal or normal hours to Hobbs Meter

Version 1.11 25/08/2020 (Franz Lamers)

Enhancement: Enabled Rotax 912is engine and warning messages
Enhancement: Enabled Rotax 912is throttle bar graph
Bug: Fixed UL Power Fuel Pressure alarm
Bug: Fixed UL Power Oil/Fuel Pressure bar to psi resolution

Version 1.10 20/04/2020 (Franz Lamers)

Enhancement: Added Hobbs/Maintenance start selection
Enhancement: General clean up

Version 1.09 14/02/2020 (Franz Lamers)

Enhancement: Added UMA senders N1EU70, T1EU70, N1EU70A, T1EU70A, N1EU150, T1EU150

Version 1.08 30/01/2020 (Franz Lamers)

Bug: Fixed the fuel pressure voltage UMA N1EU07/T1EU07 Bar unit
Enhancement: Added the UL Power Sync sensor fault message
Enhancement: Added support for the UL Power Aux box
Enhancement: Changed UL Power ignition status version 0 to latest version doc
Enhancement: Changed UL Power MAP Pressure version 0 to latest version doc
Enhancement: The current ADC values show when menu selection is over the zero and gain menu options
Enhancement: Changed default current gain from 140 to 315

Version 1.07 25/09/2019 (Franz Lamers)

Bug: Fixed the minimum volts causing a max values CRC error

Version 1.06 05/08/2019 (Franz Lamers)

Bug: Fixed CH3 and CH4 ADC values not displaying when NTC is selected for TC Channels

Version 1.05 08/07/2019 (Franz Lamers)

Bug: Fixed RDAC current calibration resolution when under 10A
Bug: Made Analog Channels 3 and 4 = off when NTC is selected for CHT Channels

Version 1.04 10/03/2019 (Franz Lamers)

Enhancement: Enabled the UL Power ECU

Version 1.03 04/02/2019 (Franz Lamers)

Bug: Fixed fuel level averaging bug when using more than 1 tank
Bug: Fixed leap year time issue
Enhancement: Changed Fuel Level RDAC inputs to Channel 1->4

Version 1.02 16/11/2018 (Franz Lamers)

Bug: Fixed the ADC Value display in the USER menus
Enhancement: Added in a fuel level channel to the analog channels

Enhancement: Added in flight start selection between RPM1/RPM2 (Start for Hobbs/maintenance timer)
Enhancement: Support added for the Rotax 912iS CAN unit
Enhancement: Support added for the UL Power engine using the RS232 protocol
Enhancement: Increased MAP Cal band to 75
Enhancement: Serial out analog pressure unit is set to 0.1psi
Enhancement: Added fuel flow

Version 1.01 16/11/2018 (Franz Lamers)

Bug: Fixed the CHT been to low on the display when no EGTs are shown
Enhancement: Removed the vertical silver line if only CHTs are selected
Enhancement: Moved the temperature unit if only CHTs or EGTS are selected

Version 1.00 28/09/2018 (Franz Lamers)

Initial release

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FF-5 Firmware Revision
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Version 1.04 24/05/2021 (Franz Lamers)

Enhancement: Changed backlight increment to 5% and 1% below 10%. Added backlight % readout

Version 1.03 28/05/2020 (Franz Lamers)

Bug: Fixed manual speed entry if Tank1 and Tank2 set to sender
Bug: Fixed initial loading of fuel tank level when manually entering a fuel level

Version 1.02 20/04/2020 (Franz Lamers)

Enhancement: Added in serial communications
Enhancement: General clean up

Version 1.01 30/01/2020 (Franz Lamers)

Bug: Fixed the fuel pressure voltage UMA N1EU07/T1EU07 Bar unit

Version 1.00 12/04/2018 (Franz Lamers)

Initial release

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FLIGHT-3 Firmware Revision
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Version 1.06 28/11/2021 (Franz Lamers)

Bug: Fixed airspeed max value

Version 1.05 02/09/2021 (Franz Lamers)

Enhancement: Changed the hobbs minutes in the communication output to normal minutes

Version 1.04 24/05/2021 (Franz Lamers)

Enhancement: Changed backlight increment to 5% and 1% below 10%. Added backlight % readout

Version 1.03 17/11/2020 (Franz Lamers)

Enhancement: Added support for new airspeed pressure sensor

Version 1.02 21/10/2020 (Franz Lamers)

Enhancement: Added support for a new altitude pressure sensor

Enhancement: Increased filtering of the Volts value

Enhancement: Increased filtering of the Current value

Enhancement: Increased filtering of the OAT value

Version 1.01 16/10/2020 (Franz Lamers)

Enhancement: Added selection for decimal or normal hours to Hobbs Meter

Enhancement: Improved accuracy of airspeed sensor 3 (Set ASI CAL to 100% if ASI sensor is 3)

Version 1.00 07/05/2020 (Franz Lamers)

Initial release

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INFO-2 Firmware Revision
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Version 1.11 29/09/2021 (Franz Lamers)

Enhancement: Changed the G-force setup menu text

Enhancement: Improved the G-force calibration method

Version 1.10 19/05/2021 (Franz Lamers)

Enhancement: Increased filter for slip indicator

Enhancement: Increased filter for volts

Enhancement: Increased filter for temperature

Enhancement: Increased filter for current

Enhancement: Removed split seconds on stop watch

Enhancement: Changed backlight increment to 5% and 1% below 10%. Added backlight % readout

Version 1.09 17/06/2020 (Franz Lamers)

Enhancement: Updated WMM tables

Version 1.08 20/04/2020 (Franz Lamers)

Enhancement: General clean up

Version 1.07 14/04/2020 (Franz Lamers)

Enhancement: Added +9G/-6G & +10G/-8G G-Force scale

Enhancement: Added colored alarm and caution boxes around G-Force and G-Force max min values

Enhancement: Added caution and alarm colored ticks to the G-Meter display

Enhancement: Changed High and Low alarm on/off to Caution/High

Version 1.06 29/1/2020 (Franz Lamers)

Bug: Fixed the current gain readout in the current menu when <10A
Enhancement: The current ADC values show when menu selection is over the zero and gain menu options
Enhancement: Changed default current gain from 140 to 315

Version 1.05 18/09/2019 (Franz Lamers)

Enhancement: Added GPS info displays and menus
Bug: Fixed the minimum volts causing a max values CRC error
Enhancement: Added a dual G-Force meter scale (+5G/-3G and +10G/-6G)
Enhancement: Automatically syncs time from GPS when a valid fix has been achieved

Version 1.04 11/09/2019 (Franz Lamers)

Bug: Fixed the lightning charge bolt graphic to turn on >0A and not at 1A

Version 1.03 23/08/2019 (Franz Lamers)

Enhancement: Added a new G-Meter display plus new G-force menu items
Enhancement: Added communications and related menu items

Version 1.02 09/05/2019 (Franz Lamers)

Bug: Fixed the slip indicator ball showing the incorrect direction

Version 1.01 11/02/2019 (Franz Lamers)

Bug: Fixed leap year time issue

Version 1.00 29/03/2018 (Franz Lamers)

Initial release

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MAP-4 Firmware Revision
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Version 1.04 02/09/2021 (Franz Lamers)

Enhancement: Changed the hobbs minutes in the communication output to normal minutes

Version 1.03 24/05/2021 (Franz Lamers)

Enhancement: Changed backlight increment to 5% and 1% below 10%. Added backlight % readout

Version 1.02 16/10/2020 (Franz Lamers)

Enhancement: Added selection for decimal or normal hours to Hobbs Meter

Version 1.01 20/04/2020 (Franz Lamers)

Enhancement: Added in serial communications
Enhancement: Added a flight log
Enhancement: Added Hobbs/Maintenance start selection
Enhancement: General clean up

Version 1.00 11/04/2018 (Franz Lamers)

Initial release

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RPM-2 Firmware Revision
=====

Version 1.06 02/09/2021 (Franz Lamers)

Enhancement: Changed the hobbs minutes in the communication output to normal minutes

Version 1.05 12/04/2021 (Franz Lamers)

Enhancement: Changed backlight increment to 5% and 1% below 10%. Added backlight % readout

Version 1.04 13/10/2020 (Franz Lamers)

Enhancement: Added selection for decimal or normal hours to Hobbs Meter

Version 1.03 20/04/2020 (Franz Lamers)

Enhancement: Added in serial communications
Enhancement: Added a flight log
Enhancement: Added Hobbs/Maintenance start selection
Enhancement: General clean up

Version 1.02 11/11/2018 (Franz Lamers)

Enhancement: Added in 2 Engine/Rotor display screens
Enhancement: Added in Engine/Rotor left/right selection
Enhancement: Added in flight start selection between RPM1/RPM2, Engine/Rotor (Start for Hobbs/maintenance timer)

Version 1.01 08/09/2018 (Franz Lamers)

Enhancement: Improved the Rotor/RPM screen

Version 1.00 09/04/2018 (Franz Lamers)

Initial release

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TC-5 Firmware Revision
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Version 1.03 12/04/2021 (Franz Lamers)

Enhancement: Changed backlight increment to 5% and 1% below 10%. Added backlight % readout

Version 1.02 04/03/2021 (Franz Lamers)

Bug: Fixed CJC showing degree F in the calibration menu

Version 1.01 29/03/2020 (Franz Lamers)

Enhancement: Added in serial communications
Enhancement: General clean up

Version 1.00 23/04/2018 (Franz Lamers)

Initial release

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TC-6 Firmware Revision
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Version 1.03 18/05/2021 (Franz Lamers)

Enhancement: Changed backlight increment to 5% and 1% below 10%. Added backlight % readout

Version 1.02 04/03/2021 (Franz Lamers)

Bug: Fixed CJC showing degree F in the calibration menu

Version 1.01 20/04/2020 (Franz Lamers)

Enhancement: Added in serial communications
Enhancement: General clean up

Version 1.00 24/04/2018 (Franz Lamers)

Initial release

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TP-4 Firmware Revision
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Version 1.06 24/05/2021 (Franz Lamers)

Enhancement: Changed backlight increment to 5% and 1% below 10%. Added backlight % readout

Version 1.05 20/04/2020 (Franz Lamers)

Enhancement: Added in serial communications
Enhancement: General clean up

Version 1.04 14/02/2020 (Franz Lamers)

Enhancement: Added UMA senders N1EU70, T1EU70, N1EU70A, T1EU70A, N1EU150, T1EU150

Version 1.03 03/02/2020 (Franz Lamers)

Bug: Fixed the pressure voltage UMA N1EU07/T1EU07 Bar unit
Enhancement: The current ADC values show when menu selection is over the zero and gain menu options
Enhancement: Changed default current gain from 100 to 315

Version 1.02 18/09/2019 (Franz Lamers)

Bug: Fixed the minimum volts causing a max values CRC error

Version 1.01 16/10/2018 (Franz Lamers)

Bug: Fixed the LM335 cal factor when loading default settings

Version 1.00 26/06/2018 (Franz Lamers)

Initial release