TRI-SONICA MINI ™ Firmware Release Notes
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1.9.5 (Jun 2020)

- Fixed error in dew point calculation that was reporting slightly lower dew point values.
- Fixed hard fault exception when running the **acclimate** command.
- Added **kalmanfilter** command to expert menu
- Fixed issue that caused extreme temperature and humidity values to be reported when two acoustic pathways are partially blocked.
- Added tilt calibration values to the **settings** command output.
- Added compass calibration values to the **settings** command output.
- Added firmware version to the **settings** command output.

1.9.2 (May 2020)

- Fixed spelling in **declination** command
- Returned **declination** command to menu when using a Rev D board
- Added LVTTL to protocol options
- Added board revision output to **version** command using the 'board' argument
- Fixed Digimesh Help Missing \r\n
- Fixed an issue where RH, pressure, tilt, and compass sensors were returning incorrect values when in low power mode.
- Fixed **compasscalibrate** for LSM303AGR so that it outputs proper compass data
- Adjusted the compass calibrate function for both old and new magnetometers to correct reported calibration errors.

1.9.0 (October 2019)

- Updated to work with Rev E PCBs.
- Fixed error that caused unexpected internal humidity, pressure, tilt, or compass errors.
- Fixed the temperature and humidity to be -99.1 and the corrected humidity to be the RH Sensor Raw Humidity value, when in a fully blocked condition.
- Fixed the **display** command output to display the Pressure decimals indicator.

1.8.0 (August 2019)

- Fixed long help for **show**, **hide**, **decimals**, **tag**, **untag** to include proper \r\n.
- Fixed **display** and **decimals** to show and set humidity decimal places.
- Added **tagid** command.
- Fixed bug where the temperature and humidity can get stuck with 'nan'

- Rewrote humidity calculations to use partial pressures to determine molar mass. The calculations are no longer dependent on the previous temperature reading.
- Modified the **calibration** command to accept a pressure value so that a more accurate value of molar mass can be calculated for determining the speed of sound.
- Added output mode to Run DigiMesh Radios
- Added low power stop mode
- Enabled trigger line for use as a wake-up signal for low power stop mode
- Set output data format to text mode when the 232 signal is connected to ground.
- Fixed **nvwrite** error where output data format was being set to 232 mode while the 232 signal was connected to ground, regardless of the user selected output format mode.
- Modified output tags to make them unique.

1.7.4 (March 2019)

- Changed **acclimate** command to use 40 samples like the calibrate command
- Fixed bug with incorrect temperature output when in Wind Sensor mode.

1.7.0 (February 2019)

- Reduced power consumption
- Changed spelling error of **aclimate** to **acclimate**
- Added Shadow Correction calculations to reflect wind-tunnel testing
- Changed input of the Dew Point Calculation to use Average of the RH Sensor and Average Air Temperature

1.6.0 (October 2018)

- Improved Noise
- Improved the Calibration Routine
- Reset Calibration time to 10 seconds
- Added **unit** user command for unit types, and calculations to give output values in chosen units
- Gave Direction outputs decimals
- Added **aclimate** command (spelling corrected in version 1.7.0)
- Added help command instructions about not including [] or <>.
- Removed Deprecated commands and their functions.
- Added **orientuv** command to output in Met std coord, ATI coord, or old (error!) TSM coord.
- Increased averaging time of Dew Point to humidity calculation to average over 30 seconds.

1.5.2 (June 2018)

- Improved Internal Diagnostic
- ***(*Please contact Anemoment if you have a TriSonica Mini with this version and you are interested in upgrading firmware*.)***

1.5.1 (March 2018)

- Added Decimals to Pitch and Roll Outputs

- Enabled External Trigger
- Tripled the Calibration Time
- Added TriSonica ID Field

1.4.1 (January 2018)

- Improved **calibrate** command
- Adjusted **version** command to indicate "present" instead of "installed"
- Updated Function with the TriSonica PCBA Rev D to add 422 capability
- Added **protocol** command for 232 and 422
- Enabled the 232 input signal to force a known state.

1.3.4 (November 2017)

- Fixed Accelerometer and Magnetometer Values to display properly
- Fixed Crash when **show all** is executed.
- Fixed Temperature Decimals setting and display
- Added compass **declination**
- Use the long-term temperature average to calculate humidity
- Added **json** command to show the current support level for JSON outputs.
- Settings Command uses JSON Format output (JSON Level 1)

1.2.2 (May 2017)

- Fixed a display issue where previously enabled features were not being removed from the display output and the **show**, **hide**, **help** displays
- Fixed error in Dew point calculation from temp and rh.
- Properly set baud rate from flash.
- Add the adjustment to the humidity sensor to calculate the outside humidity, based on the internal temperature, internal humidity, and the outside or sonic temperature.
- Adjust **distance** and **offset** command to allow setting independent channels.

Items in **bold** indicate commands.