



## MXS Release history

Version	Date	Change/additions
<b>01.28.10</b>	Jul, 5th 2019	<ul style="list-style-type: none"><li>▪ Fixed bug in Channel Expansion/TCHub firmware that caused blinking in Race Studio 3 Live Measures</li></ul> <p><b>External modules</b></p> <ul style="list-style-type: none"><li>▪ <b>40.63</b> Channel Expansion/TC Hub<ul style="list-style-type: none"><li>▪ Fixed bug that caused blinking in Race Studio 3 Live Measures</li></ul></li></ul>
<b>01.28.08</b>	Jun, 12th 2019	<ul style="list-style-type: none"><li>▪ Fixed CAN protocols with multiplex frames</li></ul> <p><b>External modules</b></p> <ul style="list-style-type: none"><li>▪ <b>40.62</b> Channel Expansion/TC Hub</li><li>▪ <b>35.61</b> GPS Module</li></ul>

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Version	Date	Change/additions
<b>01.28.03</b>	Feb, 12th 2019	<ul style="list-style-type: none"><li>▪ Fixed display artifacts in measures value cleaning</li></ul> <p><b>External modules</b></p> <ul style="list-style-type: none"><li>▪ <b>01.26.49</b> GS-Dash<ul style="list-style-type: none"><li>▪ Measures timeout improved</li><li>▪ Spansion support</li><li>▪ Fix data recall synchronization issue</li></ul></li><li>▪ <b>01.26.48</b> Memory Module<ul style="list-style-type: none"><li>▪ Improved support for various models of SD cards</li></ul></li><li>▪ <b>02.26.51</b> Shift Light Module<ul style="list-style-type: none"><li>▪ Fixed issues with some ECUs</li></ul></li></ul> <p>No changes for the other modules</p>
<b>01.26.46</b>	Dec, 5th 2018	<ul style="list-style-type: none"><li>▪ Added management of Shift Light Module</li><li>▪ Added the support for auto brightness levels configuration (day brightness level, night brightness level and threshold are now fully configurable)</li></ul> <p><b>External modules</b></p> <p>No changes</p>
<b>01.26.42</b>	Oct, 30th 2018	<ul style="list-style-type: none"><li>▪ Support for CAN Optical Lap (IRM_42)</li><li>▪ Set Brightness Mode using Remote button fix</li><li>▪ CAN Bus 120 Ohm Resistor setting fix</li><li>▪ Optical Beacon blind time fix</li></ul> <p><b>External modules</b></p> <p>No changes</p>
<b>01.26.38</b>	Oct, 5th 2018	<ul style="list-style-type: none"><li>▪ Added possibility to force channels in Online</li><li>▪ Fixed bug on Digital output priority handling</li></ul> <p><b>External modules</b></p> <p>No changes</p>
<b>01.26.28</b>	Apr, 12th 2018	<ul style="list-style-type: none"><li>▪ Added remote display management</li></ul> <p><b>External modules</b></p> <ul style="list-style-type: none"><li>▪ <b>01.26.22</b> Memory Module</li><li>▪ <b>01.26.28</b> GS-Dash</li><li>▪ <b>01.26.28</b> Formula Steering Wheel 3</li></ul>

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		<ul style="list-style-type: none"><li>▪ <b>35.58</b> GPS Module</li><li>▪ <b>25.47</b> Lambda</li><li>▪ <b>40.61</b> Channel Expansion/TC Hub</li><li>▪ <b>70.03</b> Remote buttons interface</li></ul>
<b>01.26.25</b>	Jan 11th 2018	<ul style="list-style-type: none"><li>▪ Fixed bug when the Start Data Recording standard condition is configured: in some conditions it caused not recorded data</li><li>▪ Fixed bug in volume sensors with gallons unit measure</li></ul> <p><b>External modules</b></p> <ul style="list-style-type: none"><li>▪ <b>01.26.22</b> Memory Module</li><li>▪ <b>35.58</b> GPS Module</li><li>▪ <b>25.47</b> Lambda</li><li>▪ <b>40.61</b> Channel Expansion/TC Hub</li><li>▪ <b>70.03</b> Remote buttons interface</li></ul>
<b>01.26.24</b>	Nov 14th 2017	- No changes -
<b>01.26.23</b>	Oct 24th 2017	<ul style="list-style-type: none"><li>▪ Support for CAN builder ID mask feature</li><li>▪ Consumed fuel channel</li><li>▪ Fix: Pulse per wheel revolution setting not working for Speed1 or Speed2 digital inputs</li><li>▪ Fix: wrong order of operands in bias math channel</li></ul> <p><b>External modules</b></p> <ul style="list-style-type: none"><li>▪ <b>01.26.22</b> Memory Module</li><li>▪ <b>35.58</b> GPS Module</li><li>▪ <b>25.46</b> Lambda</li><li>▪ <b>40.60</b> Channel Expansion/TC Hub</li><li>▪ <b>70.03</b> Remote buttons interface</li></ul>
<b>01.26.14</b>	Jul 7th 2017	<ul style="list-style-type: none"><li>▪ Improved CAN management: more reliability in firmup and configuration transmission</li></ul> <p><b>External modules</b></p> <ul style="list-style-type: none"><li>▪ <b>01.26.14</b> Memory Module</li><li>▪ <b>35.58</b> GPS Module</li><li>▪ <b>25.46</b> Lambda</li><li>▪ <b>40.60</b> Channel Expansion/TC Hub: minor bugs fixed</li><li>▪ <b>70.03</b> Remote buttons interface</li></ul>

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<b>01.26.08</b>	Jun 20th 2017	<ul style="list-style-type: none"><li>▪ Memory Module support</li></ul> <b>External modules</b> <ul style="list-style-type: none"><li>▪ <b>01.26.08</b> Memory Module</li><li>▪ <b>35.58</b> GPS Module</li><li>▪ <b>25.46</b> Lambda</li><li>▪ <b>40.60</b> Channel Expansion/TC Hub: minor bugs fixed</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.24.54</b>	May 19th 2017	<ul style="list-style-type: none"><li>▪ Includes firmware GPS v 35.58.00 that fixes data synchronization with SmartyCam HD</li></ul> <b>External modules</b> <ul style="list-style-type: none"><li>▪ <b>35.58</b> GPS Module</li><li>▪ <b>25.46</b> Lambda</li><li>▪ <b>40.60</b> Channel Expansion/TC Hub: minor bugs fixed</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.24.52</b>	May 18th 2017	<ul style="list-style-type: none"><li>▪ Added support for new display configuration (<b>RaceStudio3 v 3.15.00 required</b>)</li></ul> <b>External modules</b> <ul style="list-style-type: none"><li>▪ <b>35.56</b> GPS Module</li><li>▪ <b>25.46</b> Lambda</li><li>▪ <b>40.60</b> Channel Expansion/TC Hub: minor bugs fixed</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.24.14</b>	Mar 24th 2017	<ul style="list-style-type: none"><li>▪ Fixed bug that caused no data from channels with hysteresis</li></ul> <b>External modules</b> <ul style="list-style-type: none"><li>▪ <b>35.56</b> GPS Module</li><li>▪ <b>25.46</b> Lambda</li><li>▪ <b>40.56</b> Channel Expansion/TC Hub</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.24.13</b>	Mar 24th 2017	<ul style="list-style-type: none"><li>▪ Improved accelerometer support: better filtering and uniform sign convention on various devices</li><li>▪ Fixed occasional spikes on accelerometer channels</li></ul>

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		<b>External modules</b> <ul style="list-style-type: none"><li>▪ <b>35.56</b> GPS Module</li><li>▪ <b>25.46</b> Lambda</li><li>▪ <b>40.56</b> Channel Expansion/TC Hub</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.24.00</b>	Jan 26th 2017	<ul style="list-style-type: none"><li>▪ Fixed issue that caused CAN network malfunction when remote button device is in the network</li></ul> <b>External modules</b> <ul style="list-style-type: none"><li>▪ <b>35.56</b> GPS Module</li><li>▪ <b>25.46</b> Lambda</li><li>▪ <b>40.56</b> Channel Expansion/TC Hub</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.22.99</b>	Jan 19th 2017	<ul style="list-style-type: none"><li>▪ Added management of GPS position accuracy measure for display and CAN output</li><li>▪ Fixed bug in "Backlight" menu voice (icon missed)</li></ul> <b>External modules</b> <ul style="list-style-type: none"><li>▪ <b>35.56</b> GPS Module</li><li>▪ <b>25.46</b> Lambda</li><li>▪ <b>40.56</b> Channel Expansion/TC Hub</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.22.94</b>	Dec 5th 2016	<ul style="list-style-type: none"><li>▪ No changes</li></ul> <b>External modules</b> <ul style="list-style-type: none"><li>▪ <b>35.56</b> GPS Module</li><li>▪ <b>25.46</b> Lambda: fixed bug that caused shifted lambda samples</li><li>▪ <b>40.56</b> Channel Expansion/TC Hub</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.22.92</b>	Nov 29th 2016	<ul style="list-style-type: none"><li>▪ Fixed bug which prevented editing of Wi-Fi and User parameters from RS3</li><li>▪ Minor improvements</li></ul> <b>External modules</b> <ul style="list-style-type: none"><li>▪ <b>35.56</b> GPS Module: improvements in GPS measurements available to SmartyCam overlay</li><li>▪ <b>25.44</b> Lambda</li><li>▪ <b>40.56</b> Channel Expansion/TC Hub</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>

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<b>01.22.86</b>	Nov 15th 2016	<ul style="list-style-type: none"><li>▪ Added IRM CAN LAP support</li></ul> <p><b>Warning: this firmware release requires Race Studio 3 ver. 3.10.10 or higher.</b></p> <p><b>External modules</b></p> <ul style="list-style-type: none"><li>▪ <b>35.54</b> GPS Module: improved satellites fix</li><li>▪ <b>25.44</b> Lambda: added keep alive support</li><li>▪ <b>40.56</b> Channel Expansion/TC Hub</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.22.82</b>	Oct 11th 2016	<ul style="list-style-type: none"><li>▪ Speed up USB transfer</li><li>▪ Speed up display pages loading at the startup</li><li>▪ Fixed bug in GPS lap management that in some cases caused loss of laps detected</li></ul> <p><b>Warning: this firmware release requires Race Studio 3 ver. 3.10.10 or higher.</b></p> <p><b>External modules</b></p> <ul style="list-style-type: none"><li>▪ <b>35.50</b> GPS Module</li><li>▪ <b>25.42</b> Lambda</li><li>▪ <b>40.56</b> Channel Expansion/TC Hub: improved analogic channels acquisition</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.22.74</b>	Sep 15th 2016	<ul style="list-style-type: none"><li>▪ Fixed alarms functionality based on acquisition channels under encryption</li><li>▪ Fixed message alarms that sometimes were partially or totally erased</li></ul> <p><b>Warning: this firmware release requires Race Studio 3 ver. 3.10.10 or higher.</b></p> <p><b>External modules</b></p> <ul style="list-style-type: none"><li>▪ <b>35.50</b> GPS Module</li><li>▪ <b>25.42</b> Lambda</li><li>▪ <b>40.55</b> Channel Expansion/TC Hub</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.22.60</b>	Jul 25th 2016	<ul style="list-style-type: none"><li>▪ Fixed: clear alarm by remote buttons</li><li>▪ Fixed: Wi-Fi troubles with TP-link routers</li><li>▪ Fixed: alarm hysteresis condition</li><li>▪ Minor bugfixes and improvements</li></ul> <p><b>Warning: this firmware release requires Race Studio 3 ver. 3.10.10 or higher.</b></p>

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		<b>External modules</b> <ul style="list-style-type: none"><li>▪ <b>35.50</b> GPS Module</li><li>▪ <b>25.42</b> Lambda</li><li>▪ <b>40.55</b> Channel Expansion/TC Hub</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.22.16</b>	Jun 17th 2016	<ul style="list-style-type: none"><li>▪ Fixed display issue when 8 pages are configured</li><li>▪ Minor improvements</li></ul> <p><b>Warning: this firmware release requires Race Studio 3 ver. 3.10.10 or higher.</b></p> <b>External modules</b> <ul style="list-style-type: none"><li>▪ <b>35.50</b> GPS Module</li><li>▪ <b>25.42</b> Lambda (fixed issues with channels configured at 5Hz)</li><li>▪ <b>40.55</b> Channel Expansion/TC Hub: improvement in measurements accuracy</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.22.14</b>	Jun 10th 2016	<ul style="list-style-type: none"><li>▪ New track management, compatible with the MyChron5 one</li><li>▪ Test data recall</li></ul> <p><b>Warning: this firmware release requires Race Studio 3 ver. 3.10.10 or higher.</b></p> <b>External modules</b> <ul style="list-style-type: none"><li>▪ <b>35.50</b> GPS Module</li><li>▪ <b>25.42</b> Lambda (fixed issues with channels configured at 5Hz)</li><li>▪ <b>40.55</b> Channel Expansion/TC Hub: improvement in measurements accuracy</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.18.21</b>	Apr 19th 2016	<ul style="list-style-type: none"><li>▪ CAN output support</li></ul> <b>External modules</b> <ul style="list-style-type: none"><li>▪ <b>35.50</b> GPS Module</li><li>▪ <b>25.42</b> Lambda (fixed issues with channels configured at 5Hz)</li><li>▪ <b>40.55</b> Channel Expansion/TC Hub: improvement in measurements accuracy</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.18.18</b>	Mar 11th 2016	<ul style="list-style-type: none"><li>▪ Fixed bug in Custom Position Sensor (the measure was multiplied by 1000)</li><li>▪ Fixed bug in negative measures displayed by SmartyCam</li></ul>

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		<ul style="list-style-type: none"><li>▪ Wi-Fi robustness improvements</li><li>▪ New menu option for manually adjustable display brightness</li></ul> <p><b>External modules</b></p> <ul style="list-style-type: none"><li>▪ <b>35.50</b> GPS Module</li><li>▪ <b>25.42</b> Lambda (fixed issues with channels configured at 5Hz)</li><li>▪ <b>40.54</b> Channel Expansion/TC Hub</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.18.12</b>	Feb 17th 2016	<ul style="list-style-type: none"><li>▪ Increased numbers of CAN2 channels to 80</li><li>▪ Fixed gear calibration issue</li><li>▪ Fixed +12 Time Zone that was missing from menu</li></ul> <p><b>External modules</b></p> <ul style="list-style-type: none"><li>▪ <b>35.50</b> GPS Module</li><li>▪ <b>25.40</b> Lambda</li><li>▪ <b>40.54</b> Channel Expansion/TC Hub</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.18.07</b>	Dec 23rd 2015	<ul style="list-style-type: none"><li>▪ Missing default AiM logo added</li></ul> <p><b>External modules</b></p> <ul style="list-style-type: none"><li>▪ <b>35.50</b> GPS Module</li><li>▪ <b>25.40</b> Lambda</li><li>▪ <b>40.54</b> Channel Expansion/TC Hub</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.18.06</b>	Dec 4th 2015	<ul style="list-style-type: none"><li>▪ New WiFi support</li><li>▪ Customizable logo</li><li>▪ Revised menu system:<ul style="list-style-type: none"><li>▪ Track display via menu</li><li>▪ WiFi status</li></ul></li><li>▪ System parameters editable via RS3 and menu</li><li>▪ Improved and faster test list handling</li><li>▪ Autorecording (standard conditions) will not be triggered by GPS speed alone, RPM or another speed required (avoid false positives)</li></ul>



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<b>01.14.59</b>	Nov 10th 2015	<ul style="list-style-type: none"><li>▪ Support for new board revisions which allow powering off the WiFi module (MXG rev C , MXL2 rev E)</li></ul> <b>External modules</b> <ul style="list-style-type: none"><li>▪ <b>35.50</b> GPS Module</li><li>▪ <b>25.40</b> Lambda</li><li>▪ <b>40.52</b> Channel Expansion/TC Hub</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.14.58</b>	Sep 9th 2015	<ul style="list-style-type: none"><li>▪ Fixed bug: minor fix affecting SEAT_SPORT Leon MK3 protocols</li></ul> <b>External modules</b> <ul style="list-style-type: none"><li>▪ <b>35.50</b> GPS Module</li><li>▪ <b>25.40</b> Lambda</li><li>▪ <b>40.52</b> Channel Expansion/TC Hub</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.14.57</b>	Aug 6th 2015	<ul style="list-style-type: none"><li>▪ Fixed bug: the measures from CAN Expansions were not displayed on SmartyCam</li></ul> <b>External modules</b> <ul style="list-style-type: none"><li>▪ <b>35.50</b> GPS Module</li><li>▪ <b>25.40</b> Lambda</li><li>▪ <b>40.52</b> Channel Expansion/TC Hub</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.14.56</b>	Jun 23rd 2015	<ul style="list-style-type: none"><li>▪ Same as 1.14.55 (this version contains MXL2-only changes)</li></ul> <b>External modules</b> <ul style="list-style-type: none"><li>▪ <b>35.50</b> GPS Module</li><li>▪ <b>25.40</b> Lambda</li><li>▪ <b>40.52</b> Channel Expansion/TC Hub</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>

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<b>01.14.55</b>	Jun 23rd 2015	<ul style="list-style-type: none"><li>▪ Implemented display luminosity management (Night Vision setting in Display menu: OFF/ON/AUTO)</li><li>▪ Remote buttons interface handling added</li><li>▪ CAN 2G max frame frequency up to 200 Hz</li><li>▪ Minor bugfixes</li></ul> <p><b>External modules</b></p> <ul style="list-style-type: none"><li>▪ <b>35.50</b> GPS Module</li><li>▪ <b>25.40</b> Lambda</li><li>▪ <b>40.52</b> Channel Expansion/TC Hub</li><li>▪ <b>70.01</b> Remote buttons interface</li></ul>
<b>01.14.44</b>	Jun 4th 2015	<ul style="list-style-type: none"><li>▪ Expansion communication problems: some systems produced with V1.14.42 did not contain expansions firmwares. Upgrading to this version fixes the issue.</li><li>▪ Fixed bug: sometimes the change of color of colored measures was delayed w.r.t. the triggering event</li><li>▪ Minor bugfixes</li></ul> <p><b>External modules</b></p> <ul style="list-style-type: none"><li>▪ <b>35.50</b> GPS Module</li><li>▪ <b>25.40</b> Lambda</li><li>▪ <b>40.52</b> Channel Expansion/TC Hub</li></ul>
<b>01.14.42</b>	May 21st 2015	<ul style="list-style-type: none"><li>▪ Fixed bug on gear calculation when the used speed is GPS speed</li></ul> <p><b>External modules</b></p> <ul style="list-style-type: none"><li>▪ <b>35.50</b> GPS Module</li><li>▪ <b>25.40</b> Lambda</li><li>▪ <b>40.52</b> Channel Expansion/TC Hub</li></ul>
<b>01.14.41</b>	May 19th 2015	<ul style="list-style-type: none"><li>▪ Fixed bug: after firmup in some conditions the CAN peripheral configuration may be corrupted (missing channels)</li><li>▪ Other minor bugfixes</li></ul> <p><b>External modules</b></p> <ul style="list-style-type: none"><li>▪ <b>35.50</b> GPS Module</li><li>▪ <b>25.40</b> Lambda</li><li>▪ <b>40.52</b> Channel Expansion/TC Hub</li></ul>

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<b>01.14.38</b>	May 11th 2015	<ul style="list-style-type: none"><li>▪ Date/Time automatic synchronization to GPS time in addition to PC, preserving time zone setting</li><li>▪ Odometers and lap times can be used as generic display measures</li><li>▪ Implemented exit timeout from Messages and Popups according to configuration</li><li>▪ New menu system: Date time (Time zone, DST, time format), Odometers, System Info</li><li>▪ CAN 1/2 encrypted format management</li><li>▪ Alarms/event management improvement</li></ul> <p><b>External modules</b></p> <ul style="list-style-type: none"><li>▪ <b>35.50</b> GPS Module</li><li>▪ <b>25.40</b> Lambda</li><li>▪ <b>40.52</b> Channel Expansion/TC Hub</li></ul>
<b>01.12.55</b>	Apr 30th 2015	<ul style="list-style-type: none"><li>▪ Added compatibility with RS232 ECU line at 55750 baud</li></ul>
<b>01.12.54</b>	Apr 8th 2015	<ul style="list-style-type: none"><li>▪ Fixed bug missing track selected in download file</li><li>▪ Added save last display page</li></ul> <p><b>External modules</b></p> <ul style="list-style-type: none"><li>▪ <b>35.50</b> GPS Module</li><li>▪ <b>25.39</b> Lambda</li><li>▪ <b>40.52</b> Channel Expansion/TC Hub</li></ul>
<b>01.12.50</b>	Mar 26th 2015	<ul style="list-style-type: none"><li>▪ Fixed the time displayed in AM and PM format, that was sometimes wrong</li><li>▪ The number of possible total events (used by alarms, popups, messages, etc) has been raised to 48</li><li>▪ Fixed some problems in deleting existing recordings</li><li>▪ Fixed misbehavior in event handlings (e.g. disabling did not always work)</li><li>▪ Improved crank management</li><li>▪ Improved firmware upgrade robustness</li></ul> <p><b>External modules</b></p> <ul style="list-style-type: none"><li>▪ <b>35.50</b> GPS Module</li><li>▪ <b>25.38</b> Lambda</li><li>▪ <b>40.51</b> Channel Expansion</li></ul>
<b>01.12.44</b>	Mar 13th 2015	<ul style="list-style-type: none"><li>▪ First official release</li></ul>