





Version	Date	Change/additions
01.32.22	Mar, 15th 2023	■ GPS09C support  External modules  No changes
01.32.08	Jun, 7th 2022	■ Fixed GPS data sampling from GPS CAN devices (GPS08/GPS09)  External modules  No changes
01.32.00	May, 17th 2022	■ SmartyCam 3 Sport support  External modules  No changes
01.30.44	May, 2nd 2022	■ Fixed digital speed parameters from RS3 configuration setup  External modules  No changes
01.30.38	Feb, 18th 2022	<ul> <li>Added GPS09B device support</li> <li>External modules</li> <li>02.38.03 GPS09B</li> </ul>

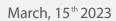






Version	Date	Change/	additions additions
01.30.30	Aug, 6th 2021	■ Fixed bad	d GPS data synchronization (that caused shorter lap times and GPS speed acquisition)
		External n	nodules
		<b>02.36.64</b>	GPS09 Module
01.30.06	Nov, 25th 2020	■ Added G	PS09 support
		External n	nodules
			GPS Module: Fix Masterclock received from master that caused bad values in GPS data timestamp
01.30.00	Jun, 9th 2020	■ Race Sim	ulators handling
		■ Added H	our/Date info from GPS tracks
		Added re	ference speed used to calculate odometers
		Improved	d k-line handling
		External n	nodules
		No change	s
01.28.20	Dec, 4th 2019	Improved	d setting of LEDs brightness
		■ Fixed issu	ue on CAN bus off handling of ECU CAN line
		Improved	d synchronization between data from GPS and local data acquisition
		External n	nodules
		<b>35.64</b>	GPS Module
			■ Improved synchronization between data from GPS and local data acquisition
01.28.10	Jul, 5th 2019	■ Fixed bug	g in Channel Expansion/TCHub firmware that caused blinking in Race Studio 3 Live Measures
		External n	nodules
		<b>40.63</b>	Channel Expansion/TC Hub
			■ Fixed bug that caused blinking in Race Studio 3 Live Measures
01.28.08	Jun, 12th 2019	■ Fixed CA	N protocols with multiplex frames
		External n	nodules
		<b>40.62</b>	Channel Expansion/TC Hub
		<b>35.61</b>	GPS Module







Version	Date	Change/additions
01.28.03	Feb, 12th 2019	■ Fixed display artifacts in measures value cleaning
		External modules
		<ul> <li>01.26.49 GS-Dash</li> <li>Measures timeout improved</li> <li>Spansion support</li> <li>Fix data recall synchronization issue</li> </ul>
		<ul> <li>01.26.48 Memory Module</li> <li>Improved support for various models of SD cards</li> </ul>
		<ul><li>02.26.51 Shift Light Module</li><li>Fixed issues with some ECUs</li></ul>
		No changes for the other modules
01.26.46	Dec, 5th 2018	Added management of Shift Light Module
		External modules
		No changes
01.26.38	Oct, 5th 2018	<ul> <li>Added possibility to force channels in Online</li> </ul>
		Fixed bug on Digital output priority handling
		External modules
		No changes
01.26.28	Apr, 12th 2018	- No changes -
01.26.25	Jan 11th 2018	■ Fixed bug when the Start Data Recording standard condition is configured: in some conditions it caused not recorded data
		Fixed bug in volume sensors with gallons unit measure
		External modules
		■ 01.26.22 Memory Module
		■ <b>35.58</b> GPS Module
		<b>25.47</b> Lambda
		■ 40.61 Channel Expansion/TC Hub
		■ <b>70.03</b> Remote buttons interface







Version	Date	Change/additions
01.26.24	Nov 14th 2017	- No changes -
01.26.23	Oct 24th 2017	<ul> <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> External modules
		■ 01.26.22 Memory Module
		<b>35.58</b> GPS Module
		■ <b>25.46</b> Lambda
		■ 40.60 Channel Expansion/TC Hub
		■ 70.03 Remote buttons interface
01.26.14	Jul 7th 2017	■ Improved CAN management: more reliability in firmup and configuration transmission
		External modules
		<b>01.26.14</b> Memory Module
		<b>35.58</b> GPS Module
		25.46 Lambda  Classification (TC livib), relicent by the discrete
		<ul><li>40.60 Channel Expansion/TC Hub: minor bugs fixed</li><li>70.03 Remote buttons interface</li></ul>
		70.00 Remote Buttons interface
01.26.08	Jun 20th 2017	Memory Module support
		External modules
		■ <b>01.26.08</b> Memory Module
		<b>35.58</b> GPS Module
		<b>25.46</b> Lambda
		■ 40.60 Channel Expansion/TC Hub: minor bugs fixed
		<b>70.01</b> Remote buttons interface
01.24.54	May 19th 2017	■ Includes firmware GPS v 35.58.00 that fixes data synchronization with SmartyCam HD
		External modules
		<b>35.58</b> GPS Module
		<b>25.46</b> Lambda
		■ 40.60 Channel Expansion/TC Hub: minor bugs fixed
		■ <b>70.01</b> Remote buttons interface







Version	Date	Change/additions
01.24.52	May 18th 2017	Added support for new display configuration (RaceStudio3 v 3.15.00 required)
		External modules
		<b>35.56</b> GPS Module
		<b>25.46</b> Lambda
		■ 40.60 Channel Expansion/TC Hub: minor bugs fixed
		■ <b>70.01</b> Remote buttons interface
01.24.14	Mar 24th 2017	■ Fixed bug that caused no data from channels with hysteresis
		External modules
		<b>35.56</b> GPS Module
		<b>25.46</b> Lambda
		■ 40.56 Channel Expansion/TC Hub
		■ <b>70.01</b> Remote buttons interface
01.24.13	Mar 24th 2017	<ul> <li>Improved accelerometer support: better filtering and uniform sign convention on various devices</li> </ul>
		■ Fixed occasional spikes on accelerometer channels
		External modules
		<b>35.56</b> GPS Module
		<b>25.46</b> Lambda
		■ 40.56 Channel Expansion/TC Hub
		■ <b>70.01</b> Remote buttons interface
01.24.00	Jan 26th 2017	■ Fixed issue that caused CAN network malfunction when remote button device is in the network
		External modules
		<b>35.56</b> GPS Module
		<b>25.46</b> Lambda
		■ 40.56 Channel Expansion/TC Hub
		■ <b>70.01</b> Remote buttons interface
01.22.99	Jan 19th 2017	<ul> <li>Added management of GPS position accuracy measure for display and CAN output</li> </ul>
		External modules
		<b>35.56</b> GPS Module
		<b>25.46</b> Lambda
		■ 40.56 Channel Expansion/TC Hub
		■ <b>70.01</b> Remote buttons interface







Version	Date	Change/additions
01.22.94	Dec 5th 2016	■ No changes
		External modules
		<b>35.56</b> GPS Module
		■ 25.46 Lambda: fixed bug that caused shifted lambda samples
		■ 40.56 Channel Expansion/TC Hub
		■ <b>70.01</b> Remote buttons interface
01.22.92	Nov 29th 2016	■ Fixed bug which prevented editing of Wi-Fi and User parameters from RS3
		<ul><li>Minor improvements</li></ul>
		External modules
		■ 35.56 GPS Module: improvements in GPS measurements available to SmartyCam overlay
		<b>25.44</b> Lambda
		■ 40.56 Channel Expansion/TC Hub
		■ <b>70.01</b> Remote buttons interface
01.22.86	Nov 15th 2016	<ul> <li>Added IRM CAN LAP support</li> </ul>
		Warning: this firmware release requires Race Studio 3 ver. 3.10.10 or higher.
		External modules
		■ 35.54 GPS Module: improved satellites fix
		■ 25.44 Lambda: added keep alive support
		■ 40.56 Channel Expansion/TC Hub
		■ <b>70.01</b> Remote buttons interface
01.22.82	Oct 11th 2016	■ Speed up USB transfer
01122.02	000 11012010	Fixed bug in GPS lap management that in some cases caused loss of laps detected  The second approximation of the second loss of laps detected loss detected loss of laps detected loss detected l
		Warning: this firmware release requires Race Studio 3 ver. 3.10.10 or higher.
		External modules
		■ 35.50 GPS Module
		■ 25.42 Lambda
		■ 40.56 Channel Expansion/TC Hub: improved analogic channels acquisition
		■ <b>70.01</b> Remote buttons interface







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Version	Date	Change/additions
01.22.74	Sep 15th 2016	Fixed alarms functionality based on acquisition channels under encryption
		Warning: this firmware release requires Race Studio 3 ver. 3.10.10 or higher.
		External modules
		<b>35.50</b> GPS Module
		<b>25.42</b> Lambda
		<b>40.55</b> Channel Expansion/TC Hub
		■ <b>70.01</b> Remote buttons interface
01.22.60	Jul 25th 2016	■ New: test data recall
		Fixed: clear alarm by remote buttons
		Fixed: Wi-Fi troubles with TP-link routers
		Fixed: alarm hysteresis condition
		■ Minor bugfixes and improvements
		Warning: this firmware release requires Race Studio 3 ver. 3.10.10 or higher.
		External modules
		<b>35.50</b> GPS Module
		<b>25.42</b> Lambda
		<b>40.55</b> Channel Expansion/TC Hub
		■ <b>70.01</b> Remote buttons interface
01.22.16	Jun 17th 2016	Minor improvements
		Warning: this firmware release requires Race Studio 3 ver. 3.10.10 or higher.
		External modules
		<b>35.50</b> GPS Module
		<b>25.42</b> Lambda

40.55 Channel Expansion/TC Hub70.01 Remote buttons interface







Version	Date	Change/additions
01.22.14	Jun 10th 2016	■ New track management, compatible with the MyChron5 one
		Warning: this firmware release requires Race Studio 3 ver. 3.10.10 or higher.
		External modules
		<b>35.50</b> GPS Module
		■ 25.42 Lambda (fixed issues with channels configured at 5Hz)
		■ 40.55 Channel Expansion/TC Hub: improvement in measurements accuracy
		■ <b>70.01</b> Remote buttons interface
01.18.21	Apr 19th 2016	■ CAN output support
		External modules
		<b>35.50</b> GPS Module
		<b>25.42</b> Lambda (fixed issues with channels configured at 5Hz)
		■ 40.55 Channel Expansion/TC Hub: improvement in measurements accuracy
		■ 70.01 Remote buttons interface
01.18.18	Mar 11th 2016	■ Fixed problem with calculated gear channel in graphic display
		■ Fixed bug in Custom Position Sensor (the measure was multiplied by 1000)
		Fixed bug in negative measures displayed by SmartyCam
		■ Wi-Fi robustness improvements
		New menu option for manually adjustable display brightness
		External modules
		<b>35.50</b> GPS Module
		25.42 Lambda (fixed issues with channels configured at 5Hz)
		<b>40.54</b> Channel Expansion/TC Hub
		<b>70.01</b> Remote buttons interface
01.18.12	Feb 17th 2016	■ Increased numbers of CAN2 channels to 80
		■ Fixed gear calibration issue
		■ Fixed +12 Time Zone that was missing from menu
		External modules
		<b>35.50</b> GPS Module
		<b>25.40</b> Lambda
		<b>40.54</b> Channel Expansion/TC Hub
		■ <b>70.01</b> Remote buttons interface







Version	Date	Change/additions
01.18.07	Dec 23rd 2015	Missing default AiM logo added
		External modules
		<b>35.50</b> GPS Module
		<b>25.40</b> Lambda
		<b>40.54</b> Channel Expansion/TC Hub
		■ 70.01 Remote buttons interface
01.18.06	Dec 4th 2015	■ New WiFi support
01.10.00	Dec 4(112013	= Customizable logo
		Revised menu system:
		Track display via menu
		■ WiFi status
		System parameters editable via RS3 and menu
		Improved and faster test list handling
		<ul> <li>Autorecording (standard conditions) will not be triggered by GPS speed alone, RPM or another speed required (avoid false positives)</li> </ul>
		External modules
		<b>35.50</b> GPS Module
		<b>25.40</b> Lambda
		<b>40.54</b> Channel Expansion/TC Hub
		■ <b>70.01</b> Remote buttons interface
01.14.59	Nov 10th 2015	■ Support for new board revisions which allow powering off the WiFi module (MXG rev C , MXL2 rev E)
		External modules
		<b>35.50</b> GPS Module
		<b>25.40</b> Lambda
		<b>40.52</b> Channel Expansion/TC Hub
		■ <b>70.01</b> Remote buttons interface
01.14.58	Sep 9th 2015	Fixed bug: minor fix affecting SEAT_SPORT Leon MK3 protocols
		External modules
		<b>35.50</b> GPS Module
		<b>25.40</b> Lambda
		<b>40.52</b> Channel Expansion/TC Hub
		■ <b>70.01</b> Remote buttons interface





March, 15<sup>th</sup> 2023

# MXL2 Release history

Version	Date	Change/additions
01.14.57	Aug 6th 2015	■ Fixed bug: the measures from CAN Expansions were not displayed on SmartyCam
		External modules
		■ 35.50 GPS Module
		<b>25.40</b> Lambda
		<b>40.52</b> Channel Expansion/TC Hub
		■ <b>70.01</b> Remote buttons interface
01.14.56	Jun 23rd 2015	Fixed bug in MXL2 preventing the update of segment display upon page change
		External modules
		<b>35.50</b> GPS Module
		<b>25.40</b> Lambda
		<b>40.52</b> Channel Expansion/TC Hub
		■ <b>70.01</b> Remote buttons interface
01.14.55	Jun 23rd 2015	■ Implemented display luminosity management
		(Night Vision setting in Display menu: OFF/ON/AUTO)
		Remote buttons interface handling added
		<ul><li>CAN 2G max frame frequency up to 200 Hz</li><li>Minor bugfixes</li></ul>
		External modules
		<b>35.50</b> GPS Module
		<b>25.40</b> Lambda
		<ul><li>40.52 Channel Expansion/TC Hub</li><li>70.01 Remote buttons interface</li></ul>
		- 70.01 Nemote buttons interface
01.14.44	Jun 4th 2015	■ Fundamina agramumination much larger agram automorphism du selection de la 42 did not agraeia
01.14.44	Juli 4012013	Expansion communication problems: some systems produced with V1.14.42 did not contain expansions firmwares. Upgrading to this version fixes the issue.
		Fixed bug: sometimes the change of color of colored measures was delayed w.r.t. the triggering event
		Minor bugfixes
		External modules
		<b>35.50</b> GPS Module
		<b>25.40</b> Lambda
		<b>40.52</b> Channel Expansion/TC Hub







Version	Date	Change/additions
01.14.42	May 21st 2015	Fixed bug on gear calculation when the used speed is GPS speed
		External modules
		<b>35.50</b> GPS Module
		<b>25.40</b> Lambda
		<b>40.52</b> Channel Expansion/TC Hub
01.14.41	May 19th 2015	■ Improved MXL2 display handling solving possible refresh issues
		Fixed bug: after firmup in some conditions the CAN peripheral configuration may be corrupted (missing channels)
		Other minor bugfixes
		External modules
		<b>35.50</b> GPS Module
		<b>25.40</b> Lambda
		<b>40.52</b> Channel Expansion/TC Hub
01.14.38	May 11th 2015	Date/Time automatic synchronization to GPS time in addition to PC, preserving time zone setting
		<ul> <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> </ul>
		New menu system: Date time (Time zone, DST, time format), Odometers, System Info    New menu system: Date time (Time zone, DST, time format), Odometers, System Info
		■ CAN 1/2 encrypted format management
		Alarms/event management improvement
		External modules
		<b>35.50</b> GPS Module
		<b>= 25.38</b> Lambda
		<b>40.51</b> Channel Expansion
01.12.55	Apr 30th 2015	Added compatibility with RS232 ECU line at 55750 baud
01.12.54	Apr 8th 2015	Fixed bug missing track selected in download file
		Added save last display page
		Showed laptime field name till the first lap acquired
		External modules
		<b>35.50</b> GPS Module
		<b>25.39</b> Lambda
		<b>40.52</b> Channel Expansion/TC Hub







Version	Date	Change/additions
01.12.50	Mar 26th 2015	<ul> <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>
		External modules
		<b>35.50</b> GPS Module
		<b>25.38</b> Lambda
		<b>40.51</b> Channel Expansion
01.12.44	Mar 13th 2015	<ul><li>Added the menu voice "Reset Gear Calc" when the gear calculated channel is configured</li><li>Bug fixing:</li></ul>
		<ul> <li>ECU protocols management with more than 64 channels when some of them are disabled</li> <li>Bias math channel</li> </ul>
		<ul><li>Sensors calibration</li><li>Predictive algorithm with GPS speed</li></ul>
		■ Improved gear calculation algorithm
		■ Graphic display when the measures are cleaned
01.12.24	Jan 23rd 2015	■ Start and stop recording time increased to 3 sec.
		<ul> <li>Bug fixing:</li> <li>Shift light management in dot mode</li> <li>RPM /3</li> </ul>
		Alarm management
		GPS speed usage on SmartyCam and in logging strategy
		Digital speed calculation (in case of more than one speed)
		Minor bug fix
		External modules
		<b>35.50</b> GPS Module
		<b>25.35</b> Lambda
		<b>40.46</b> Channel Exp./TC Hub
01.12.08	Dec 5th 2014	Improvements and some bugs fixed in calibration, digital outputs, data memo and popup alarm messages