FANATEC®

FanaLab

Manual

EN

Thank you for choosing

FANATEC®

To get the most out of FanaLab, please read this manual before use. It contains important health and safety information and should be retained for future reference.

INDEX

⚠ WARNING! Musculoskeletal disorders

Use of game controllers, keyboards, mice, or other electronic input devices may be linked to serious injuries or disorders. When playing video games, as with many activities, you may experience occasional discomfort in your hands, arms, shoulders, neck, or other parts of your body. However, if you experience symptoms such as persistent or recurring discomfort, pain, throbbing, aching, tingling, numbness, burning sensation, or stiffness, DO NOT IGNORE THESE WARNING SIGNS. PROMPTLY SEE A QUALIFIED HEALTH PROFESSIONAL, even if symptoms occur when you are not playing a video game. Symptoms such as these can be associated with painful and sometimes permanently disabling injuries or disorders of the nerves, muscles, tendons, blood vessels, and other parts of the body. These musculoskeletal disorders (MSDs) include carpal tunnel syndrome, tendonitis, tenosynovitis, vibration syndromes, and other conditions.

While researchers are not yet able to answer many questions about MSDs, there is general agreement that many factors may be linked to their occurrence, including medical and physical conditions, stress and how one copes with it, overall health, and how a person positions and uses their body during work and other activities (including playing a video game). Some studies suggest that the amount of time a person performs an activity may also be a factor. If you have questions about how your own lifestyle, activities, or medical or physical condition may be related to MSDs, see a qualified health professional.

1 GENERAL

⚠ ATTENTION

- This Software is not a replacement for our driver package and the wheel property page. You need to install the current driver package to use and update your Fanatec© products on a PC.

- The recommended operation time of the wheel with continuous force feedback activity is 1 hour.

- Excessive use may cause health risks. We recommend taking a break of 5 minutes every 20 minutes, and do not drive for more than 2 hours per day.

📖 GENERAL NOTES

- FanaLab is fully usable after installing it. We always recommend updating to the latest version of software and driver package. A PC is required to use the software.

- All specifications in this document are subject to change. The FanaLab, firmware and/or PC driver may be updated to implement new features or general improvements.

- All Fanatec® products which might be mentioned in this manual are not included within the FanaLab and sold separately. You can obtain them from the Fanatec Webshop: www.Fanatec.com

- Additional peripheral devices like shifters, pedals, LED displays and others which might be mentioned in this manual are not included and are sold separately. You can obtain them from the Fanatec Webshop: www.Fanatec.com

- This manual discusses connections and functions related to Fanatec® steering wheels and a PC. This is not a replacement manual for the other corresponding products! Read the quick guides or user manuals for the other products as well!

- The software is developed and owned by Fanatec. It is only the responsibility of Fanatec to publish software updates for FanaLab. We do not recommend to use modified versions of our software.

- It is not allowed to make changes on software versions, which are not explicitly mentioned in this manual.

- For complications with any third-party software, as well as hardware damage, which would be associated with our software, we take no responsibility.

2　INTRODUCTION

You have downloaded a toolbox to customize your sim racing experience even more and add additional functionality with your Fanatec© peripherals.

The FanaLab gives you the opportunity to adjust the Rev LEDs and customize the display on your Steering wheel to the most important information and adjust several vibration settings you need during the thrill of sim racing. Additionally we are working on a **„Dynamic Force Feedback"** to give you even more options for adjustments to your personal preferences.

FANATEC®   FanaLab

③ INSTALLATION GUIDE

You can download the FanaLab at the download section on our Website: https://www.fanatec.com/eu-en/support/home by searching in the Products drop down menu for 'FanaLab'.
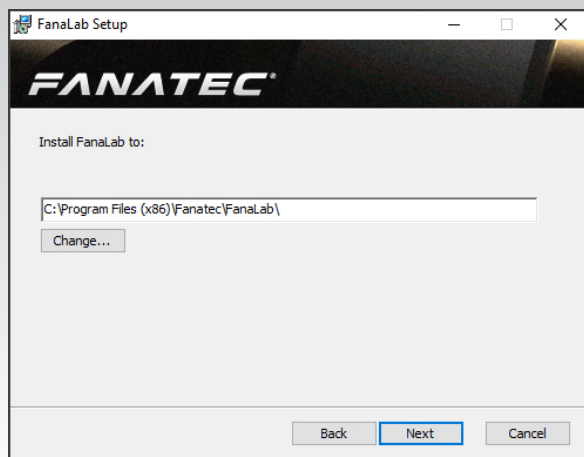
After downloading you need to double click on the installation file and follow the instructions.
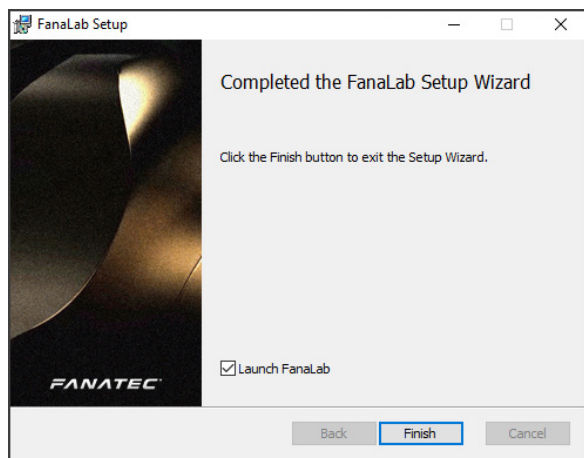

You need to accept the terms in the License Agreement to continue the installation.
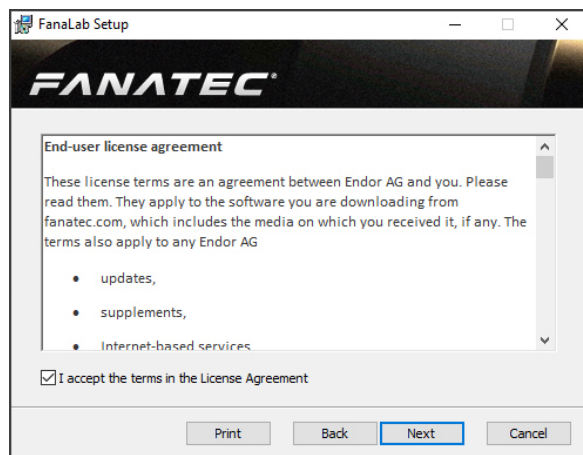
Then choose the destination where you want to install it, press the 'Install' Button and start the installation.

On the last page of the setup wizard you can select 'Launch FanaLab' to start immediately.

4   COMPATIBILITY

FanaLab is fully compatible with the Fanatec© CSL Elite Wheel Base+, ClubSport Wheel Base V2.5 and Podium DD1, DD1 PS4 & DD2 and with all CSL Elite, ClubSport and Podium Steering wheels we are currently selling on our shop at www.fanatec.com

The vibration settings for Steering wheels will work with every ClubSport steering wheel except the ClubSport Steering wheel Universal Hub for Xbox One.
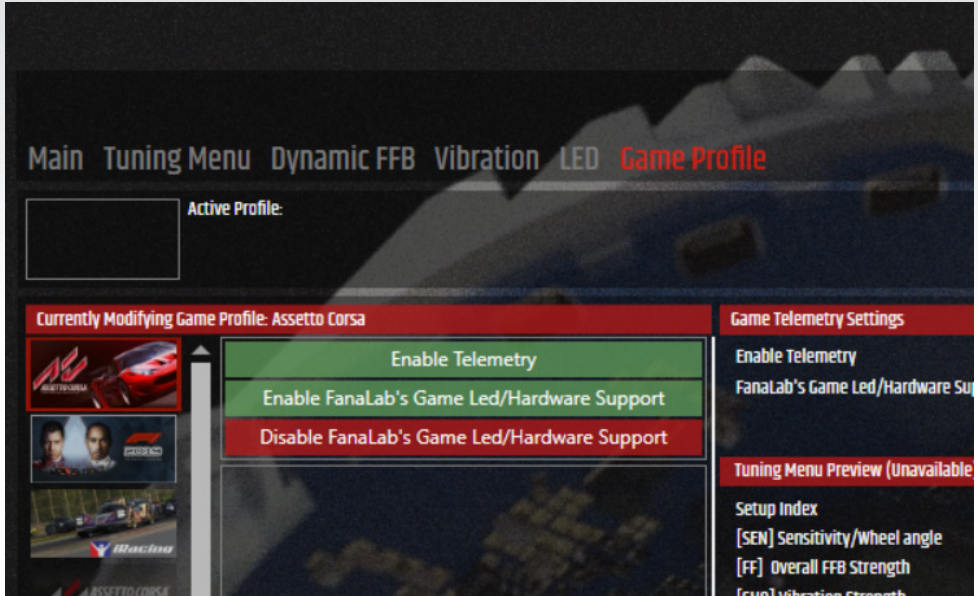
The vibration settings for pedals will work with the vibration motors on Fanatec ClubSport Pedals V3 and Fantatec ClubSport Pedals V3 inverted.

⑤ FIRST STARTUP

The first time you start your game in combination with FanaLab you need to enable the communication between the software and the game.

First, go to **„Game Profile"** and choose the game on left column.

Then click on the green buttons **Enable Telemetry** and **Enable FanaLab's Game LED/Hardware Support**. In some games you will see a window with "xx.ini changed successfully" and in others we will show you instructions how to change the appropriate settings in game. Unfortunately, we are not able to set up every game perfectly for you, but the software will continue to improve in this area.

After these two steps, the in game Fanatec support should be disabled, the FanaLab can read the telemetry of the game and you're ready to go!

⚠️ **NOTE: After a software update from the game, you may have to redo this procedure.**

6 FUNCTIONS & FEATURES

6.1　Main

In the **Main** section you are presented with an overview of your connected Fanatec© devices, the games installed on your PC that are compatible with the FanaLab, your game that is currently running and a segment where you can launch the Dashboard in the future.

Right next to the 'active devices' header is a **Refresh** button to refresh the software when you swap your Steering wheel or other peripherals.

6.1.1 Active Devices

The segment **Active Devices** shows your currently attached devices. If you have for example a ClubSport Steering Wheel F1® 2019, there will be an arrow next to the Steering wheel, where you can change the product picture to the right version.

This can also be done with your Pedals and Wheel Base.

6.1.2   Game selection

On the right column you can see games which are supported by FanaLab. Normally games are detected automatically but they can also be added manually by right-clicking on the game image. There you can select **Launch via Exe** and after that you can select **Set Exe Path** and choose the game Exe in your files. Now you can start games via FanaLab. It is also possible to set a third-party exe if you want to run a game via a content manager software or similar programs. There is an option to hide games you don't want to play by right clicking the game image and selecting **Hide**. To scan for games and show the hidden ones again you can click on the eye symbol at top of the game list.

6.1.3 Launch Dashboard

In the future we are planning our own Dashboard Overlay on screen as well as our own smartphone app! This will add many new features, including showing live data with different gauges.

6.1.4 Current Game

This section shows the racing game/sim you are currently running on your PC.

6.2　Tuning Menu

The Tuning Menu works exactly as on your Fanatec Steering Wheel and make it easier for you to adjust in between sessions. It provides the best overview of your current settings and is the perfect addition for your 'Podium Hub' allowing Tuning Menu adjustments at any time. By hovering the pointer over the titles, you'll find a more detailed definition of each adjustment.
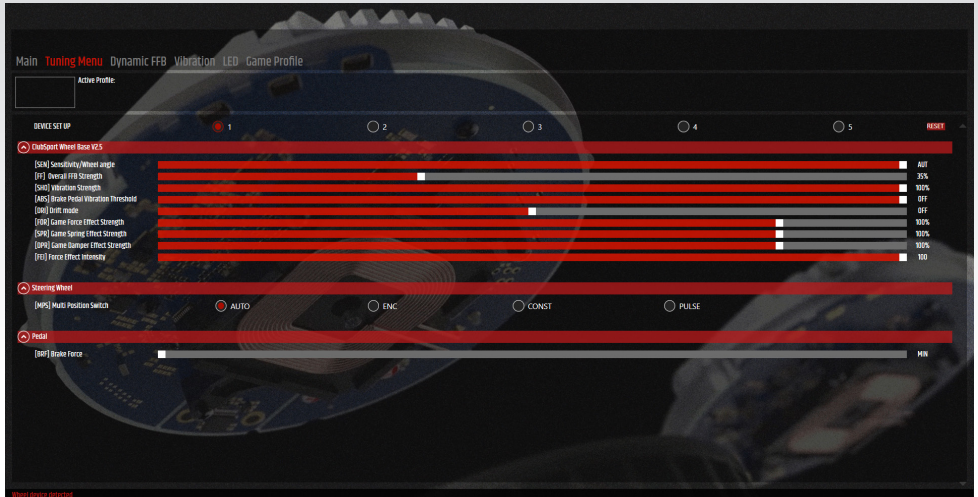
6.2.1 [SEN] Maximum Steering Angle

SEN range: 90 ... 900 (1080 on CSL Elite and Podium WB) AUTO SEN default: AUTO

The sensitivity defines the steering angle. If SEN is set to 90 the steering wheel can only be turned 90° (45° to left and 45° to right side direction from calibrated centre position). If SEN is set to 900 (1080) the steering wheel can be turned the maximum mechanical lock of 900° (1080°) at the CSL Elite and ClubSport Wheel Base V2.5 (540° to left and 540° to right side direction from calibrated centre position on the Podium Wheel Base). If SEN is set to AUTO the sensitivity is controlled by the PC driver (see chapter PC driver for more details) or games can directly support this feature.

6.2.2 [FF] Overall FFB Strength

FF range: OFF 001 ... 100 FF default: 100 (35 on Podium Wheel Base)

The Force Feedback defines the maximum strength of the motor when force feedback effects from software / games are sent to the Wheel Base. If FF is set to OFF, there will be no force feedback effect executed by the Wheel Base motor. If FF is set to 001, the motor will execute only 1% of the maximum motor power. If FF is set to 100, the motor will execute 100% of the maximum motor power.

6.2.3 [SHO] Shock/Vibration Strength

SHO range: OFF 010 ... 100 SHO default: 100

The strength of the shock / vibration motors inside the Fanatec® steering wheel can be adjusted from 100% to 0%. These vibration motors can be used by a game directly (Fanatec® SDK) or by the ABS function.

6.2.4 [ABS] Brake Pedal Vibration Threshold

ABS range: 000 ... 100 OFF ABS default: OFF

This feature gives you a direct feedback based on your brake inputs. If you set the value to 100 the vibration will start as soon as you give 100% brake input to the game. If you set it to 95% the vibration will start if you push the brake to 95% or more. The ABS feature uses the vibration within your wheel rim (can be turned off by setting SHO to "0") AND the vibration motor on a CSP (V2 or V3) pedal set if it is connected directly to the wheel - not individually by USB. ABS can also be simulated dynamically by the game if the developer makes use of the Fanatec® SDK.

6.2.5 [FOR] Game Force Effect Strength, [SPR] Game Spring Effect Strength, [DPR] Game

Damper Effect Strength

FOR range: OFF 010 ... 120 FOR default: 100 (%)

SPR range: OFF 010 ... 120 SPR default: 100 (%)

DPR range: OFF 010 ... 120 DPR default: 100 (%)

These force feedback modifiers give you the ability to change the force feedback signals of a game (only applicable if game uses these effects). In theory there are three types of signals which a game can send: Force (pushes the

wheel into a specific direction), spring (pulls the wheel towards the dynamic centre) and damper (creates friction). Not every game uses all types of effects and some games even use only one type to create all different feelings. Using your Tuning Menu in the Wheel Base you can increase or reduce these different effects individually.

⚠ **NOTE:** **If SPR is set to low values or 'OFF' the Wheel Base will not be able to move the attached steering wheel to correct centre position after calibration run.**

⚠ **IMPORTANT:** **Only set these values higher than 100% if the force feedback effects are clearly not strong enough and weaker in comparison to other games. When the game sends full effects and the wheel is set to 100%, the device will work at its power limit. Pushing up one value to a very high number or even raising multiple values will result in higher load on the motor and increased heat development. For further information check the FAQ section on our website www.fanatec.com/support.**

6.2.6 [FEI] Force Effect Intensity

FEI range: 0 ... 100 FEI default: 100

This parameter adjusts the overall intensity of force effects and can make effects smoother: OFF is very smooth while 100 is very sharp and direct. Tuning this parameter can help to refine a harsh or spiky force feedback signal in some games.

6.2.7 [DRI] Drift mode (CSL E WB+ & CS WB V2.5)

DRI range: -05 ... -01 OFF 001 ... 005 DRI default: -05

The drift mode reduces overall resistance of the wheel and lets you turn the wheel more easily. It almost works like power steering. It reduces the basic dampening of the wheel in the range of -05 to -01 and makes the wheel turn faster in the range of 001 to 005. If the value is set to values beyond -05 (or if the games FFB interferes with this feature) you might experience some oscillation. If that happens - reduce the value or turn DRI "-05"."-05" to "-01" is a damper effect (natural damper), "OFF" is without damper effect and "001" or higher values are with motor assistance to accelerate the steering wheel.

[DRI] Drift mode

6.2.7 [NDP] Natural Damper (P WB DD)

NDP range: OFF ... 100 NAT DMP default: 050

The natural damper will give you an additional damper which you can adjust from OFF to 100. At 100 you will have the strongest dampening effect which reacts to the acceleration and angle of your steering. If you turn it OFF, your steering will have no additional damping, making it easier to turn the wheel. The Natural Damper is a useful setting to reduce unwanted wheel oscillation. Oscillation is typically caused by latency in the feedback loop and is more apparent in racing games that are not optimised for high-torque motors. The default value of 50 is a good balance between steering responsiveness and oscillation mitigation.

6.2.8 [NFR] Natural Friction (P WB DD)

NFR range: OFF ... 100 NFR default: Off

The natural friction setting is used to simulate the mechanical feel of a vehicle's steering components. The higher the setting, the more resistance you will feel when rotating the wheel. This can enhance the feeling of driving vehicles without power steering, or with very wide tyres. This setting can also help to prevent oscillation.

6.2.9 [MPS] Multi Position Switch:

Auto; Encoder; Constant; Pulse MPS default: AUTO

In AUTO mode the steering wheel decides which mode is appropriate for the game being played. In Encoder mode the MPS simulates two buttons, one when you turn the MPS left and one when you turn the MPS right.

In Constant mode, the MPS outputs a constant button signal for each position.

In PULSE Mode, the MPS outputs a specific button signal for each position which is only sent as a single pulse when you move the switch.

⚠ **NOTE: In case you have attached a Fanatec© Steering wheel with Multi-Position Switches, another header with 'Steering wheel' will appear below the Tuning Menu. There you can adjust the mode in which the Multi Position Switch will work.**

6.2.10 [BRF] Brake Force

BRF range: MIN. … 050 ... MAX. BRF default: 050

BRF allows to adjust the brake feeling: Increasing BRF to MAX. means the user needs to press the brake with maximum force to achieve 100% brake signal. Reducing BRF to MIN. means the user needs to press the brake only with minimum force to achieve 100% brake signal. You can either check the brake signal level on the PC driver or you can see it on the Rev LEDs on the attached steering wheel (depending on steering wheel type).

⚠ **NOTE: BRF is only available when a supported pedal set is connected to Wheel Base's PEDAL port. Please read the description and/or manuals of your pedals to verify if the BRF feature is supported.**

6.2.11 [AP] Advanced Paddle Module

APM Modes: CbP; CH; bt; AnA AP default: CbP

AP allows you to change the modes of your mounted Advanced Paddle Module analog paddles without having a specific switch on your Steering Wheel. **Clutch Bite Point (CbP):** Left and right analogue paddle work in parallel as clutch, the one pressed further is valid.

Clutch/Handbrake (CH): Left Paddle is clutch, right paddle is handbrake.

Brake/Throttle (bt): Left paddle is brake, right paddle is throttle

Mappable analogue axes (AnA): Paddle can be mapped as two additional axes but be aware these are sharedwith the joystick.

6.3   Dynamic Force Feedback

By using game telemetry, we are able to optimize the signals for our peripherals and create a whole new Force Feedback experience! As we are in the very-early stage of developing our new system we are currently only offering a few new damper effects. There will be much more to come in future updates.

6.3.1 Speed Sensitive (Damper)

By enabling the dampening overlay you activate a damper that helps to stabilise wheel oscillation at high speed.

With the **Speed Threshold** slider you can adjust the minimum speed the damper should be activated.

The **Damper Effect Range** slider adjusts the steering angle within the damper should be activated. We recommend a wider range to guarantee a better fading in and out of the damper.

The **Damper Effect Strength** slider adjusts the impact of the damper overlay.

6.3.2 Driving Reverse (Damper)

By enabling **Driving Reverse** you activate a damper that helps to stabilise wheel oscillation when reversing the car.

The **Damper Effect Strength** slider adjusts the impact of the damper.

The **Fade-in Intensity** adjusts the curve how the damper overlay ramp up over the Force Feedback that is sent by the game.

⚠ **NOTE: The Tuning Menu setting [DPR] influences the strength of Dynamic Damper effects, if [DPR] is set off or too low, the Dynamic Damper might not have an impact!**

6.4　Vibration

On the Vibration settings you can enable, adjust or disable vibrations on Fanatec© Peripherals without changing settings in the game! By hovering the pointer over the titles, you'll find a more detailed definition of each adjustment. On the right of every header there is a 'default' button to reset the settings to its default values.

6.4.1 Steering wheel

This feature ONLY works with Fanatec© ClubSport Steering wheel except the ClubSport Steering wheel Universal Hub for Xbox One.

The **ABS** slider can adjust the intensity of the vibration motors in your Steering wheel while the ABS on your car is working.

The 'Vibration duration' adjusts the duration when the game gives the ABS ON output in milliseconds. That means when the game gives a single ABS Output the Vibration motors will work for the duration you set. With a longer duration you can smooth out small ABS Signal latencies.

Engine vibration increases the vibration strength linearly to the current engine rpm.

The **Engine** slider can adjust the maximum vibration strength. The initial vibration adjusts when the vibration will start, adjusted in percentage of the maximum RPM.

The **Rev Limiter** slider adjusts the intensity of the Vibration motors when the car hits the Rev Limiter.

The 'Threshold' slider of the Rev Limiter adjust the percentege of the engine rpm, where the vibration motor starts.

The **Suspension Travel** slider adjusts the intensity of the Vibration motors when the car experiences suspension travel due to bumpy roads, curbs, or off-track driving.

The 'Threshold' slider next to Suspension Travel adjusts the sensitivity of the vibration motors to suspension changes.

The **Traction Control** slider can adjust the intensity of the vibration motors in your Steering wheel while the TC on your car is working.

The 'Vibration duration' adjusts the duration of vibration when the game gives the TC ON output in milliseconds. That means when the game gives a single TC Output the Vibration motors will work for the duration you set. With a longer duration you can smooth out small TC Signal latencies.

The **Wheel Lock** slider adjusts the intensity of the vibration motors when the tyres start to lock up.

The **Wheel Spin** slider adjusts the intensity of the vibration motors when the tyres start to get wheelspin.

The **Understeer** slider adjusts the vibration intensity when the car starts to understeer.

The 'Friction Limit' slider sets the limit on the difference between the steering angle and the slip angle of the tyres at which the vibration motors start.

The **Oversteer** slider adjusts the vibration intensity when the car starts to understeer.

The 'Friction Limit' slider sets the limit on the difference between the steering angle and the slip angle of the tyres at which the vibration motors start.

6.4.2 Brake Pedal

The first checkbox enables vibration of the brake pedal when the ABS is working.

The second checkbox enables vibration of the brake pedal during suspension travel.

The 'Threshold' slider next to Suspension Travel adjusts the minimum travel Input required to trigger the vibration motors.

The third checkbox enables vibration of the brake pedal when tyres are locking up.

6.4.3 Throttle Pedal

The first checkbox enables vibration of the throttle pedal when the car hits the rev limiter.

The second checkbox enables vibration of the throttle pedal during suspension travel.

The 'Threshold' slider next to Suspension Travel adjusts the minimum travel Input required to trigger the vibration motors.

The third checkbox enables vibration of the brake pedal when tyres spin under power.

6.5   LED

In this menu allows full customisation for every LED on your Fanatec© Steering wheel as well as the display, no matter which wheel you are using! The overview on this page changes depending on the functionality and features of the selected Steering wheel. Every segment of the LED Page can be enabled or disabled separately. On the right of every header there is a 'default' button to reset the settings to its default values.
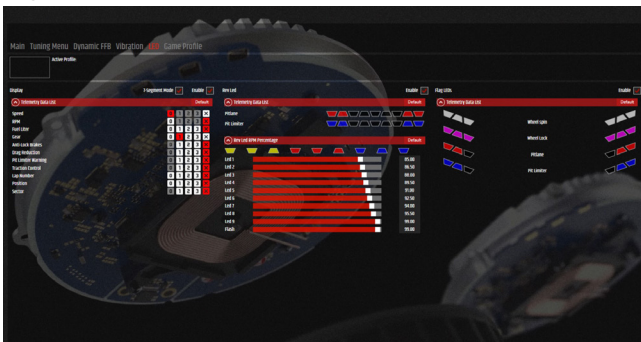
6.5.1 Display

In the segment **Display** you have the Telemetry Data List which shows you every information that the Steering wheel can offer you.

With the numbers on the right, you can adjust the priority of every telemetry data that can be shown. The variety gets from 0 to 3 and X.

Only one data type can be assigned priority 0 and will be always shown, whenever no other data sends information.

Data with priority 1-3 will be shown when the Steering wheel receives the information and overwrites data with priority 0 for several seconds. After that it disappears.

Data with a lower priority number overwrites everything with a higher number. When multiple functions share the same priority, the data which arrives last will overwrite the previous one

With the X you can disable this specific data type.

⚠️ **NOTE:** If you want to use all features of the Telemetry Data List on a ClubSport Formula wheel with OLED display (V2, F1® 2018, F1® 2019, F1® PS4), you need to enable the **7-Segment Mode** in the Software.

⚠️ **NOTE:** For now, the OLED Display on the CSL Elite Steering Wheel McLaren GT3 only can show Speed, RPM, and Gear number.

6.5.2 Rev-LEDs

In the upper section you can choose specific LEDs from your Rev lights which light up when you are in the pitlane or when the Pit Limiter is active (not supported by every game). With the new-generation ClubSport Formula wheels (V2, F1® 2018, F1® 2019, F1® PS4) you can even choose the colour of each LED (Pit AND Rev-LED), click and hold the left mouse button and hover your mouse over the color you want to choose!

In **RevLED RPM Percentage** it is possible to adjust when every single LED in the Rev bar on your Steering wheel and CSL Elite Wheel Base should light up.

For example, it is now possible to change the direction of the Rev bar to other options than 'from left to right'.
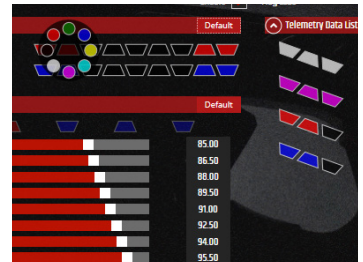
6.5.3 Flag LEDs

Flag LEDs are only available on the new generation ClubSport Formula wheels and the upcoming Button Module Endurance and won't appear when a different Steering Wheel is recognized and the implementation varies by game.

You can use the Flag LEDs to show Wheel Spin, Wheel Lock, Pitlane, and Pit Limiter

For each outlet it is possible to choose from the group of 6 LEDs and change them in color by hovering the mouse over the specific LED.

There is a pre-set on default just to show you the functionality of this tool.

Pitlane and Pit Limiter are working together with the settings of the Rev-LEDs.

6.6   Game Profile

On this page you see installed games which are compatible with the FanaLab, endless saving options for every single game, settings to enable/disable FanaLab implementation, and a quick overview of the setting that is currently active.

On the upper left corner are the buttons you need for a first start-up mentioned under '4. First Start-up'.


Enable Telemetry: This button is used to enable that the FanaLab can read the telemetry of the chosen game

Enable FanaLab's Game LED/Hardware Support: This button is to disable the in-game support for Fanatec hardware to give our software the ability to use the display and/or LEDs without trouble. This setting is recommended to avoid conflicts.

Disable FanaLab's Game LED/Hardware Support: If you don't want to use the FanaLab, just click this button and the original in game Fanatec Support will be enabled again.

If you have activated a profile, it will be shown as below:
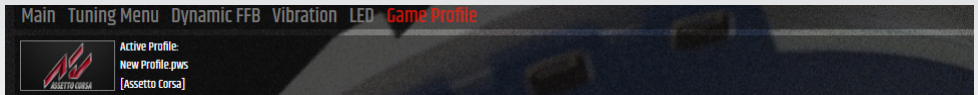
On the lower left corner are the settings for your profiles.

Here you can change the name of the profile and choose if you want to save specific Tuning Menu, Vibration, Led or Dynamic FFB settings in your profile.

If you uncheck one, the settings from the current profile will stay when you activate the new profile.

It is also possible to import profiles by using the **Import** button below Save.

If you have your first profile saved, you can activate the profile by using the **Load** button or export the profile for external save by just clicking **Export**

Next to the name of your profiles is the **Default?** button. If you click on that, it will be filled in green and this setup will be loaded as default setup when you start the game.

By clicking the trashcan, you can delete the chosen profile.

7   SETTINGS

In the settings on the top righthand corner you get access to set notifications for a deeper look into the telemetry.

In the control Settings you can enable balloon messages, minimize the FanaLab, change the background in the software or enable device mismatch warnings.

Also you can see Log Settings and watch the live telemetry that the FanaLab gets from the game.
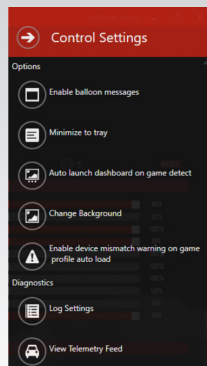
8   TROUBLESHOOTING

In case difficulties occur in connection with utilisation of the FanaLab, please use the following guide for elimination of errors:

Problem description	Solution
After changing the Steering wheel from a Club-Sport Formula V2 to another Steering wheel, the Rev LEDs won't work.	Go to the Main Page and press the 'Refresh' button on 'active devices'.
Have no access to the Natural Settings in the Tuning Menu of my Podium Wheel Base.	When you change the picture in the active devices on the 'Main' page of the Wheel Base to a DD, the natural settings will appear and the Drift Mode disappears.
	Change the Mode from your Podium Wheel Base to PC Mode (which we recommend for all games except Project CARS 2)
Constant vibration on the pedals or the steering wheel.	Change the Threshold of setting higher than 0 because some games cause issues with a low threshold setting.
The Vibration in the Steering wheel/Throttle Pedal is too weak when the car hits the Rev Limiter	Go to the LED Settings and decrease the percentage of the 'Flash' bar in the Rev Led settings.
CSL P1 Steering wheel only lights up white on RevStripe™	This happens when two different colours in your Rev-LED settings show the same percentage of RPM. So, the RevStripe™ can only show yellow, red, blue and white and if some colours collide, it will always show white.

Designed by

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