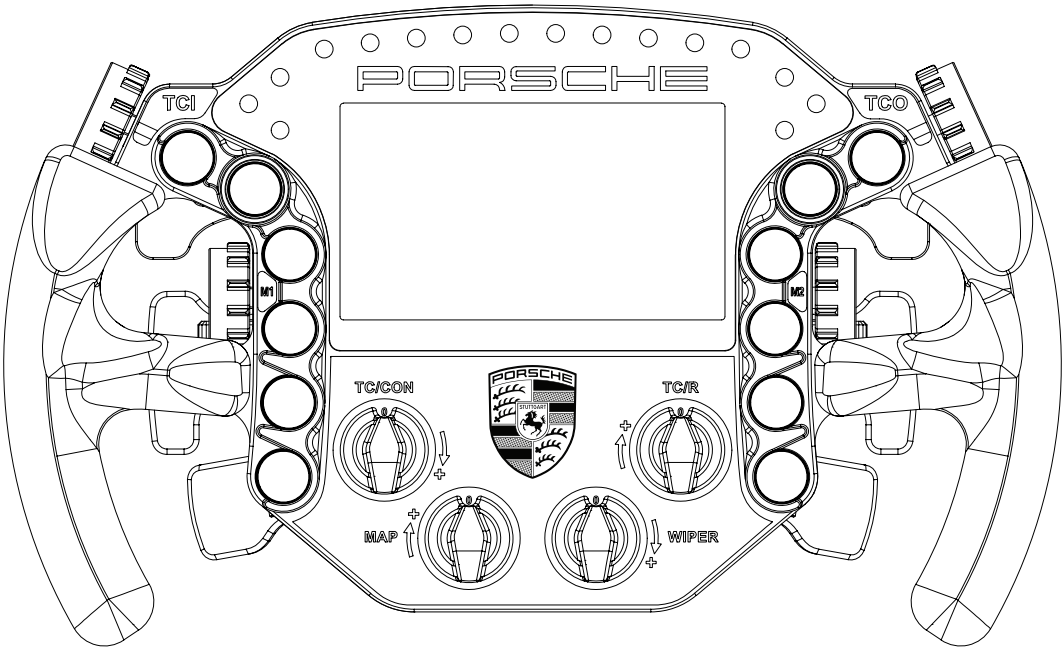
INSTRUCTION MANUAL



PORSCHE 911 RSR
SIM RACING STEERING WHEEL

VERSION 1.4

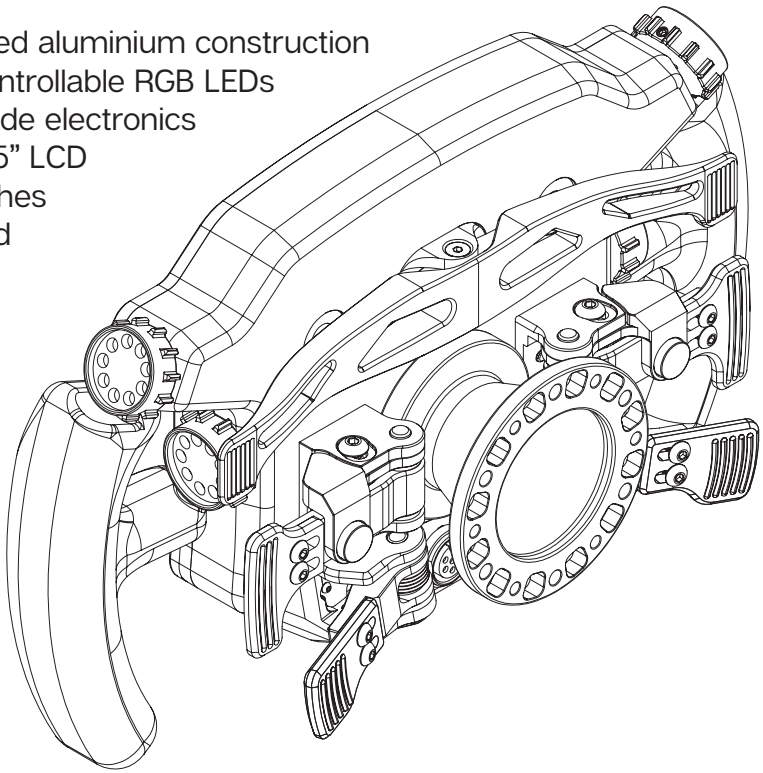
Last updated: 20-03-2024

BEFORE YOU START:

Thank you for your purchase. In this manual we will provide you with the means to get started using your new steering wheel!

Porsche 911 RSR Sim Racing Steering Wheel

Features:
Full billet anodized aluminium construction
80 telemetry controllable RGB LEDs
Motorsports grade electronics
High resolution 5” LCD
Adjustable clutches
Porsche licensed

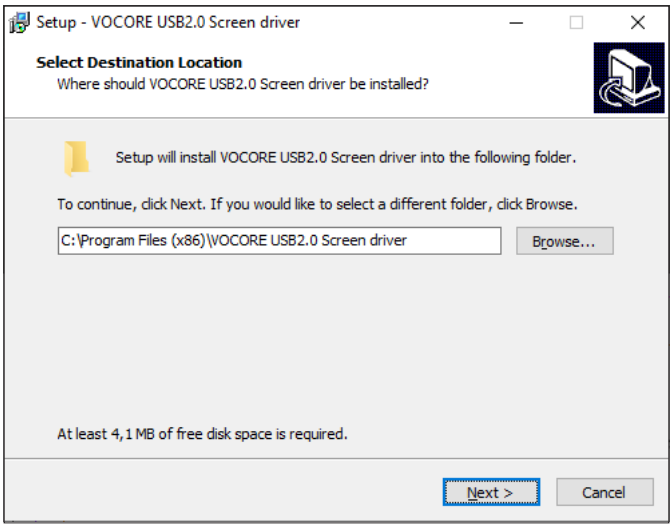


Installing drivers

Display drivers
To enable the display part of the steering wheel, specific drivers are needed. These drivers can be downloaded from the product page.

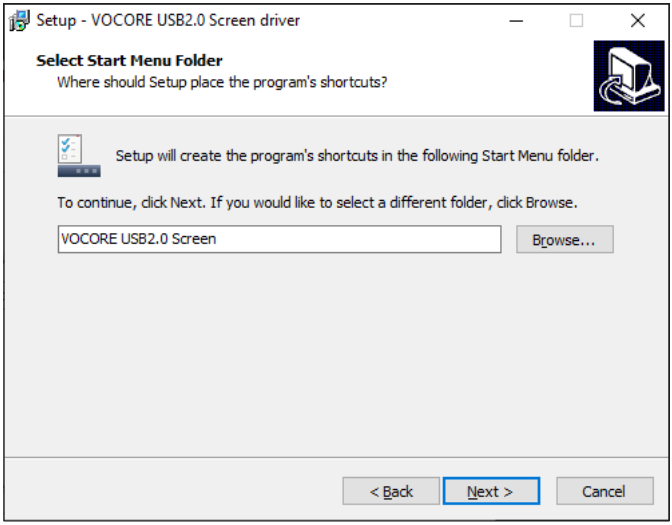
Vocore drivers download:

Installation
To install the display drivers, run the downloaded package and specify the location where to install the drivers:



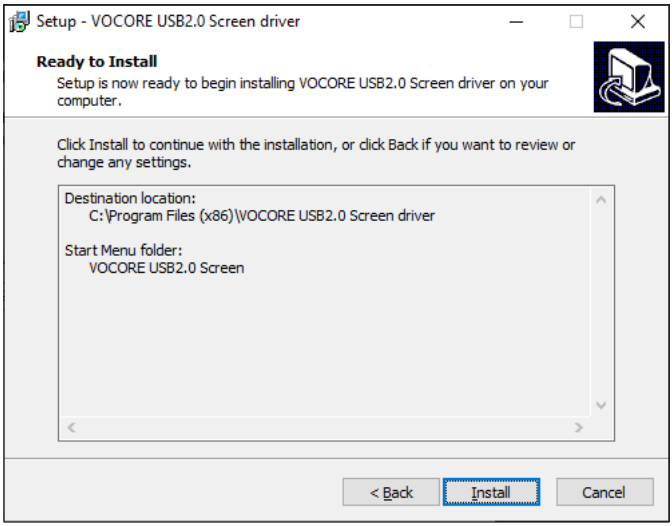
Press 'Next'.

Specify the name of the start menu folder:



Press 'Next'.

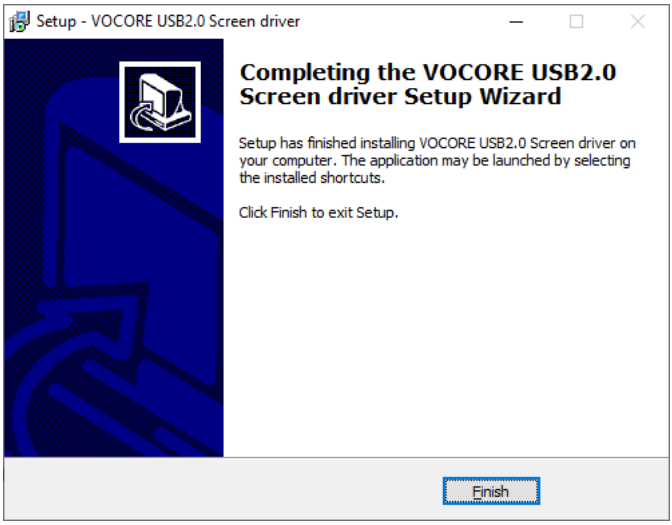
Review the settings before installation:



Press 'Install'.

The drivers will install now. Sometimes this can take longer than expected. This usually means a system restore point is being made and should not hinder installation.

If it does, unplug the USB cable to the wheel in case it is connected and try again. Make sure you have administrator rights on your system.



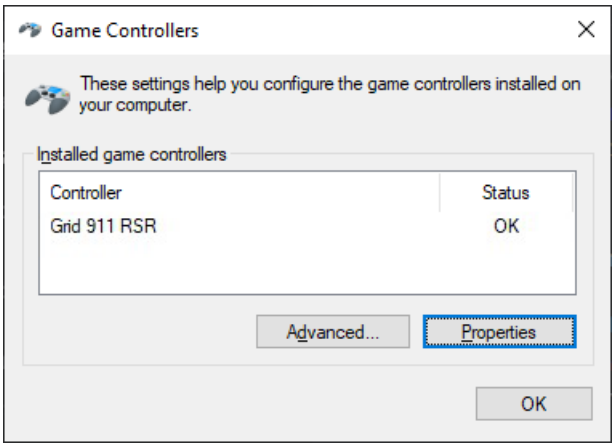
Press 'Finish'.

Initial calibration

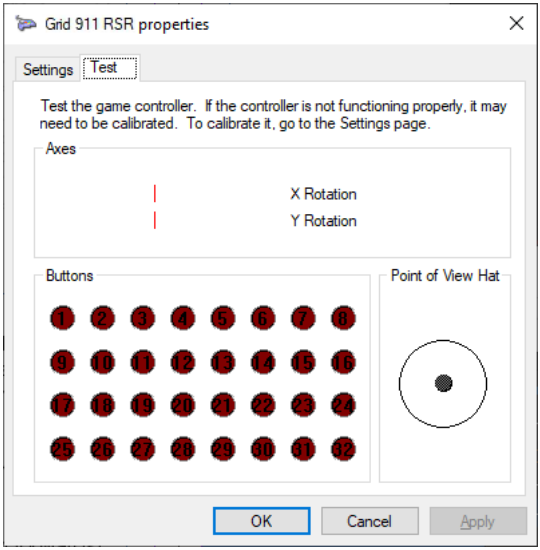
Before using the wheel, we recommend to walk through calibration of all paddles found on the back of the wheel.

To make this an easier and more visual experience, let's open the Windows Game Controller program.

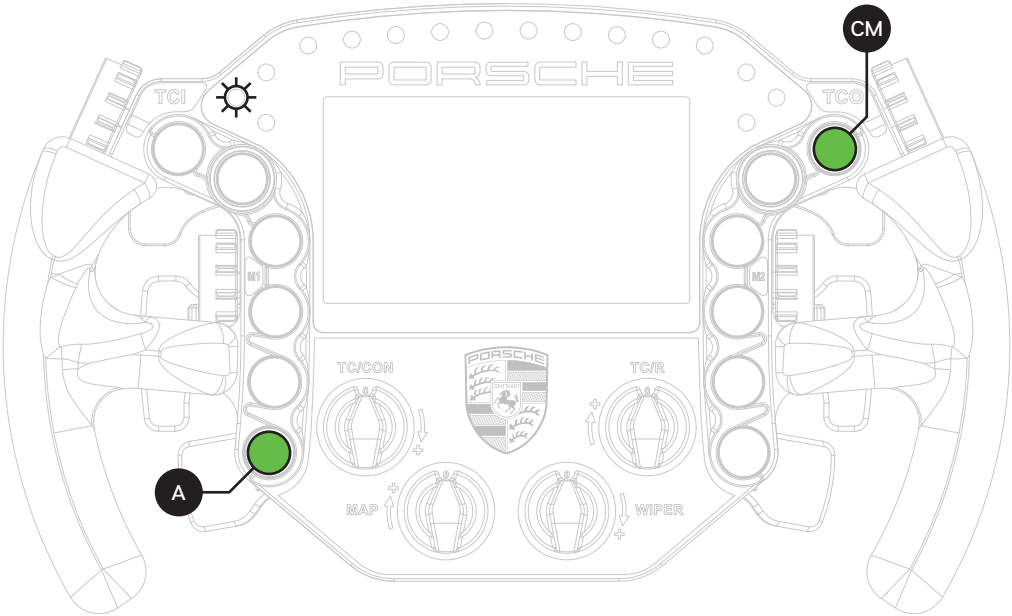
The quickest way to do this is to press the windows-key, type 'Game Controller' and hit 'enter' on your keyboard. This will open the Windows Game Controller program.



Select 'GRID 911 RSR' from the list and press 'Properties' to access the properties window.



Calibration Mode
The calibration is a very straightforward process, but first we need to enter the Calibration Mode on the wheel itself. To activate the wheels' calibration mode, **Press and Hold** the ADJUST (A) button and CALIBRATION MODE (CM) button at the same time. Keep doing so for at least **5 seconds**, until you see BUTTON 1 flashing in the calibration program. On the wheel itself, the far left LED will start flashing (red). Release both buttons when the wheel successfully entered Calibration Mode.



Calibration
Calibration is easy to do. Simply press and hold for about a second, release and you're done. After this has been done with both clutches and mono arm, the wheels' firmware has registered the minimum and maximum values for travel. Press the Adjust (A) button a single time to exit the Calibration Mode.

While the Windows Game Controller program is still running, it is worthwhile to check all buttons and encoders are working.

All buttons have one input, the front encoders have two (clockwise and anti-clockwise). The thumb encoders also have an additional push functionality. As for now this windows program only shows you 32 button inputs on screen, don't worry, the wheel works fine. We hope this will be expanded with future windows updates.

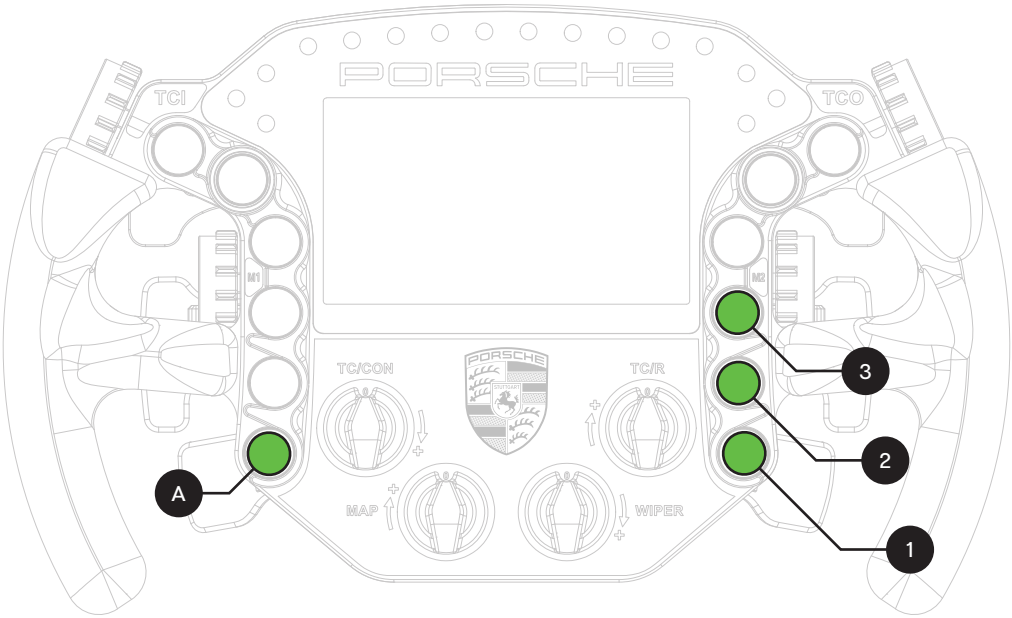
Clutch modes and bite point adjustment

To make the most out of the dual clutches installed, they need to be set-up to your liking and intended use.

Mode selection
We offer multiple modes for different uses. This can be changed on the fly on the wheel itself. The three modes are:

- Bite point: The 2 clutch paddles are working as 1 analog input. Left side is the adjustable bite point clutch and the right side clutch is the master. Bite point adjustment available *ONLY* in this mode.
- Dual axis: The 2 clutch paddles are working as 2 separate analog axis.
- Button: The 2 clutch paddles are working as regiular buttons.

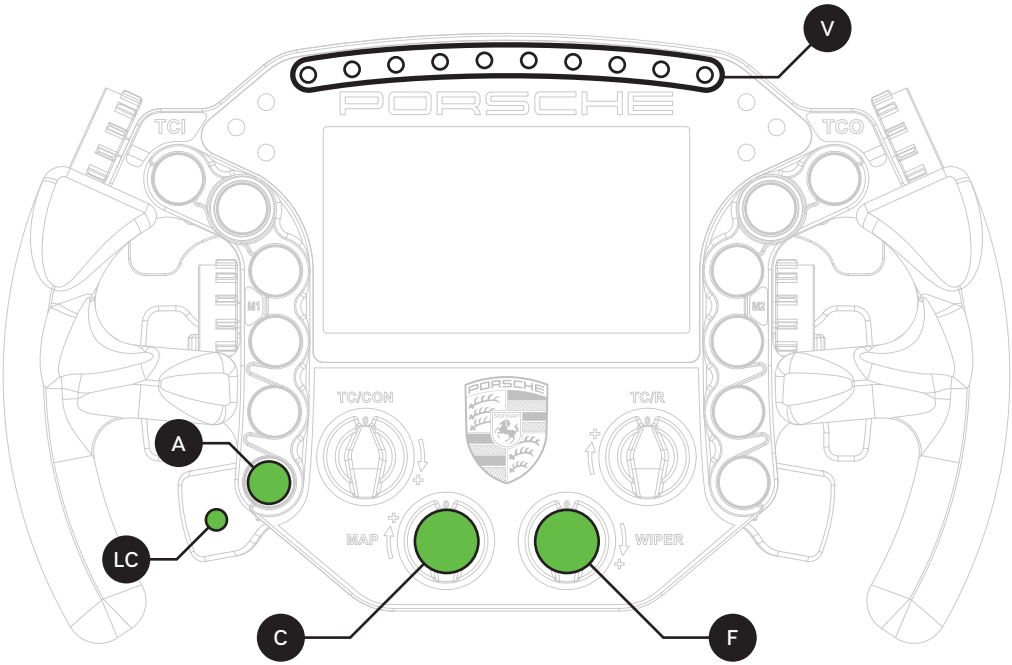
To switch modes, **Press and Hold** the ADJUST (A) button and **Press** the mode of your choice. (1) Bite point, (2) Dual axis, (3) Button. Release both buttons after you have made a selection.



Bite point adjustment
Bite point adjustment is available only in the BITE POINT mode. If you are not in this mode, please see the previous page how to switch to this mode. Also, it is important that both paddles are calibrated before adjusting their behavior. Please see Page 10 before following the steps on this page, if you have not calibrated your clutch paddles already.

To adjust the bite point, **Press and Hold** the ADJUST (A) button. Next, start by dialing in the bite point roughly by using the Coarse (C) adjustment knob, tweak using the Fine (F) adjustment knob.

The Coarse (C) adjustment adjusts in roughly 10% increments, while Fine (F) roughly does 1% of adjustment. This way you can really dial in your clutches without compromise.



To make it easier to adjust and know the (exact) percentage of the bite point, there is visual feedback (V) on the wheel itself. The RPM LEDs will show red (10% per LED) while using the Coarse adjustment knob, green (1% per LED) while using the Fine adjustment knob. You should also be able to see the changes update live, following the steps on the prevous page.

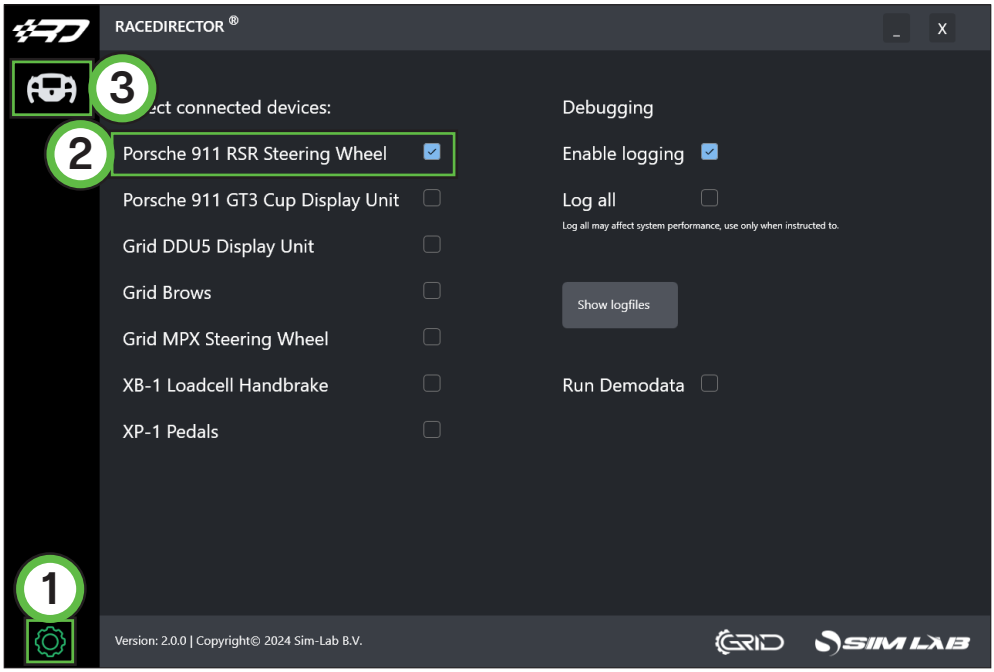
RaceDirector

Download and install the lastest version of RaceDirector from
www.sim-lab.eu/srd-setup

For explanation on how to install and use RaceDirector, please read the manual.
This can be found here: *www.sim-lab.eu/srd-manual*

We will now go over the very basics to get going using RaceDirector to get you on track asap. We really urge you to go through the manual for a more in depth explanation of the possiblities RaceDirector has to offer.

First we need to activate the product, this is done on the 'Settings' (1) page.

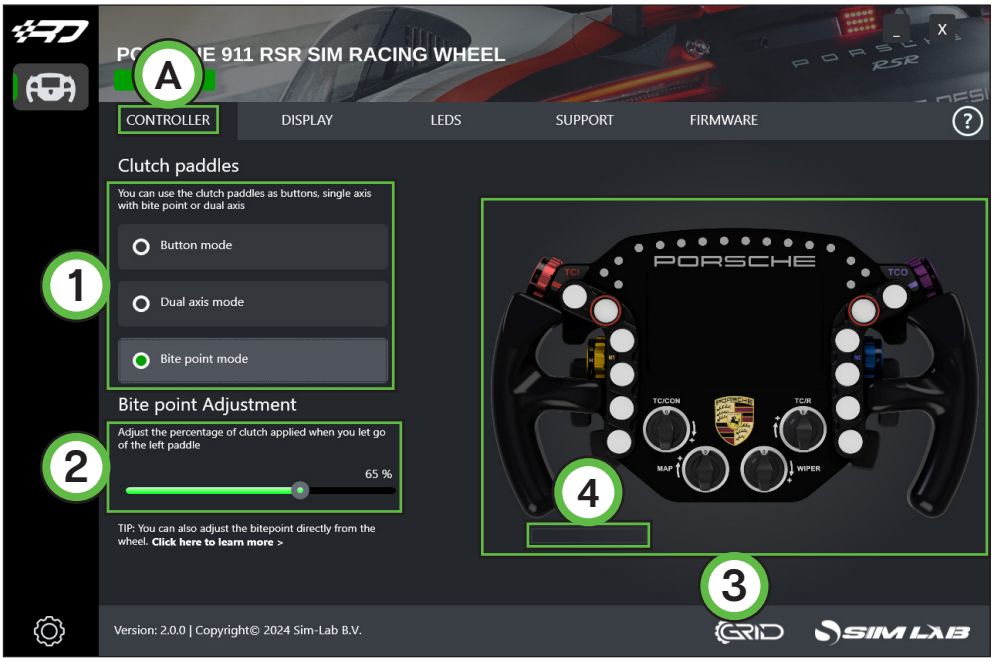


Tick the 'Activate' tickbox next to 'Porsche 911 RSR Steering Wheel' (2) and its icon (3) should appear on the left side of the screen. Selecting the icon (3) will take us to its device pages.

Device pages

We will go over each device page in order, explaining their contents per page.

CONTROLLER (A)
This device page focusses more on the mechanical part of controlling the device. Seeing the options mentioned, it is probably clear this page has more to do with the controls on the wheel than its display for example.



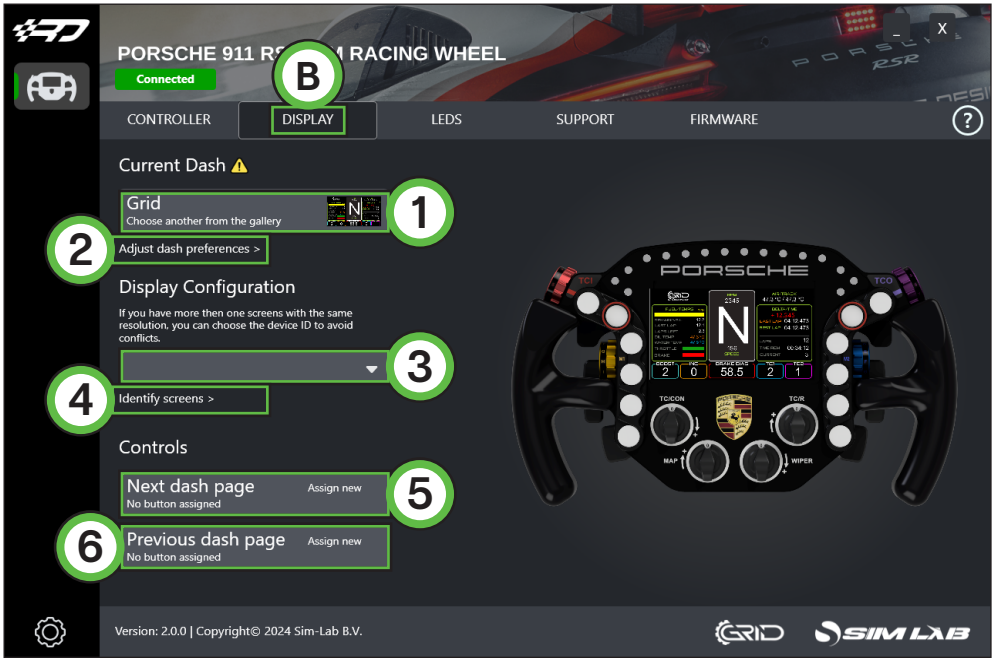
The left side of the screen contains some options, all having to do with the clutches for this wheel. The various 'Clutch modes' (1) can be selected as would be done on the wheel.

One option which is easier done through software than on the actual wheel is precisely dialing in a bitepoint for the clutch in 'Bite point mode'. Using the 'Bite point Adjustment' (2) slider, you are able to specify a bite point from 0-100%.

On the right is the 'Visual Representation' (3) of the wheel and the 'Clutch indicator(s)' (4) which show the clutch input. The clutch indicator will be a single or double one, or hidden, depending on your clutch settings.

DISPLAY (B)

Almost all of the options found here speak for themselves, though for the sake of being complete, we will go over them on by one.



- 'Current Dash' (1)

  This allows you to select a dash for a given car. We do not support all cars in every sim. In case a caution symbol ⚠ is shown, the selected dash requires installation of a font. Click the icon and a window with instructions will pop up. Follow these to manually install the fonts required. After restarting RaceDirector, you are good to go.

- 'Adjust dash preferences >' (2)

  A new window will allow you to adjust some dash preferences. (See next page)

- 'Display configuration' (3)

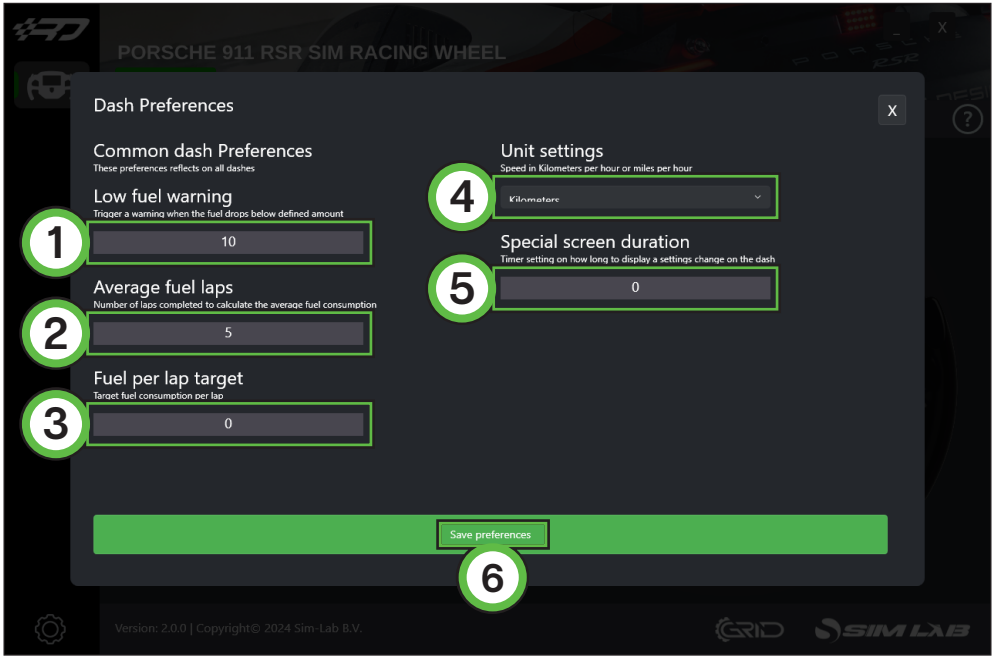
  This will make sure the chosen dash is rendered on the intended display. When you are not sure which display to select, press 'Identify screens >' (4) to help identifying which display is which. If a single vocore screen has been connected, this will be automatically selected.

- ‘Next dash page’ (5)
  Cycle to the next page of the loaded dash. Select the appropriate button you want to use and press ‘Confirm’.

- ‘Previous dash page’ (6)
  Cycle to the previous page of the loaded dash, works like described above.

Note: when the page controls are configured, they won’t affect a dash *unless* a sim is running *or* the ‘Run Demodata’ option is ticked in the RaceDirector settings.

Dash Preferences
These are common settings shared among dashes.



We do expect these to slowly expand, depending on requests from the community and new cars added to our favorite sims.

- ‘Low fuel warning’ (1)
  This number (in liters) will be used for the dash to know when to acticate the ‘Low Fuel’ alarm or warning.

- ‘Average fuel laps’ (2)
  This value determines how many laps are used to calculate average fuel usage. The average is reset every time you enter the pits to keep the average a fair number.

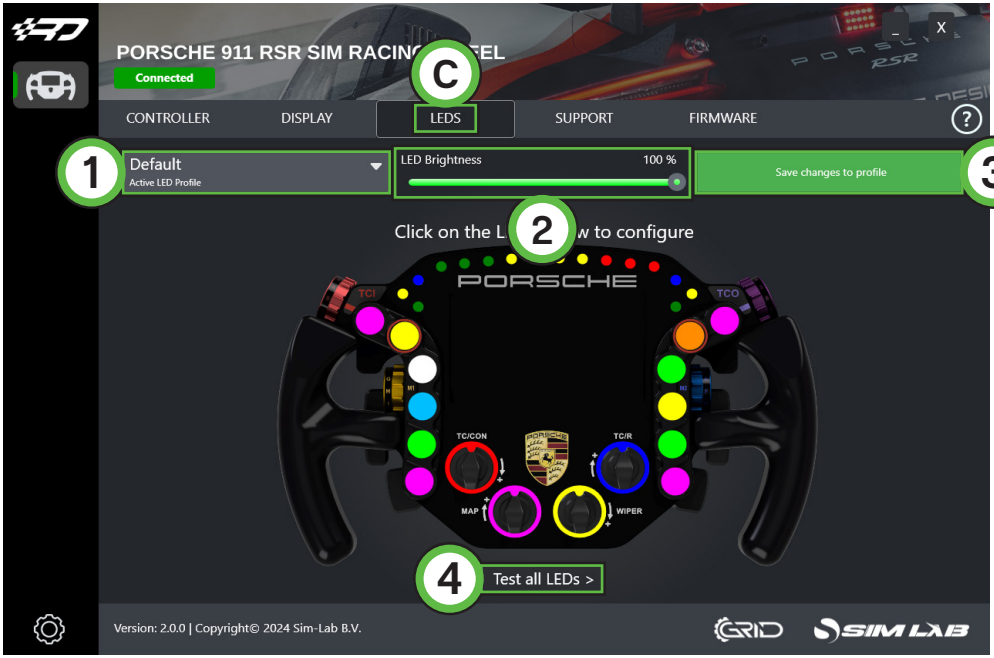
- ‘Fuel per lap target’ (3)
  This value (in liters) allows you to set a target fuel comsumption (per lap), great to use in endurance racing.

- ‘Unit settings’ (4)
  At the moment this setting only applies to the speed variable.

- ‘Special screen duration’ (5)
  Special screens are overlays which are triggered when adjusting certain functions. Think brake balance, traction control etc. This number (in seconds), changes the duration of the overlay. A value of 0 is turning the feature off entirely.

When happy with your settings, press ‘Save preferences’ (6) to return to the main RaceDirector window.

LEDS (C)
This will be explained in two parts, first we will go over the main options.



- 'Default' (1)
  This selection menu is how you select an existing profile and load it, or create a brand new one. In this case, the 'default' LED profile is loaded. You can create and store as many as you like.

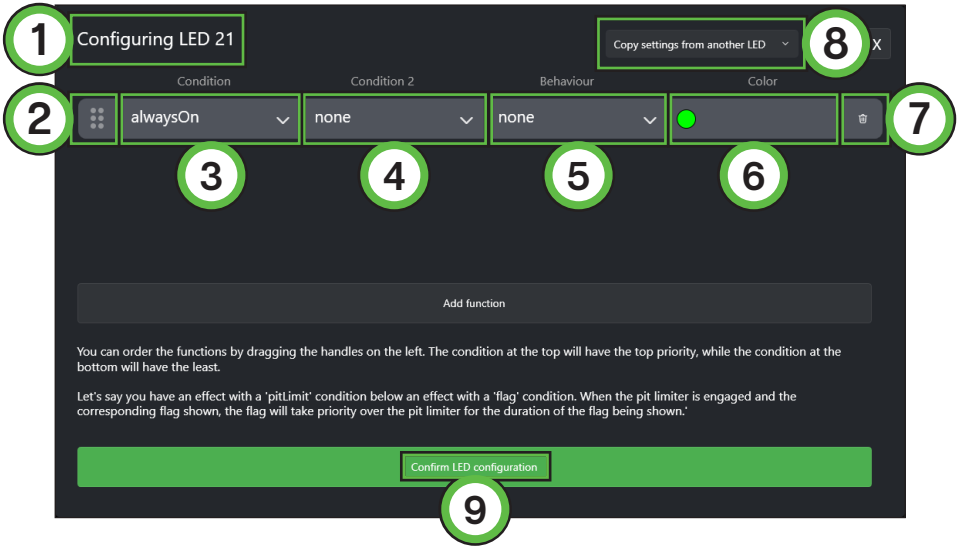
- LED Brightness' (2)
  This slider changes the brightness for all LEDs on the device.

- 'Save changes to profile' (3)
  Use this button to save changes made to a profile, or use it to save a new profile. This button also indicates when a change was made to an existing profile, turning orange as a warning.

- 'Test all LEDs >' (4)
  This opens up a pop-up window where you use test input to see what the LEDs do using the currently loaded profile.

One thing which is quickly apparent from switching to this page, is the addition of all sorts of colors. The loaded LED profile is shown on the steering wheel, which can be adjusted very easily. Every LED can be clicked on and adjusted inside the LED setup window.

Clicking on any LED/color brings up the LED setup window. This shows the LED number (1) and the functions which can be configured. Each LED can behave differently and can contain up to 3 functions (rows) at a time. An overview; 'Condition (3), 'Condition 2' (4), 'Behaviour' (5) and 'Color' (6). There is also the possibility to 'Copy settings from another LED' (8). There is also a 'Sorting' (2) and a 'Remove' (7) function.



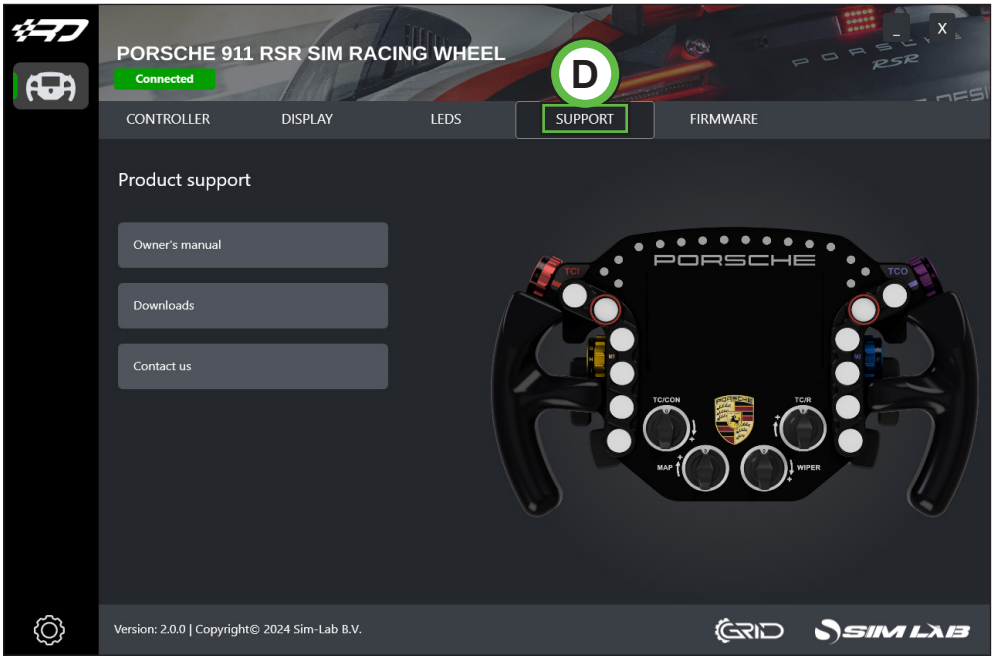
When happy with your settings, there is the obligatory 'Confirm LED configuration' (9) button. This confirms your LED settings and returns you to the main RaceDirector window.

There should be enough info in the provided default LED profiles to be able to adjust LED settings to your liking. To start building your own profile, we suggest to copy an existing one and change where needed. The advantage is you always have a backup of the default profile to fall back to.

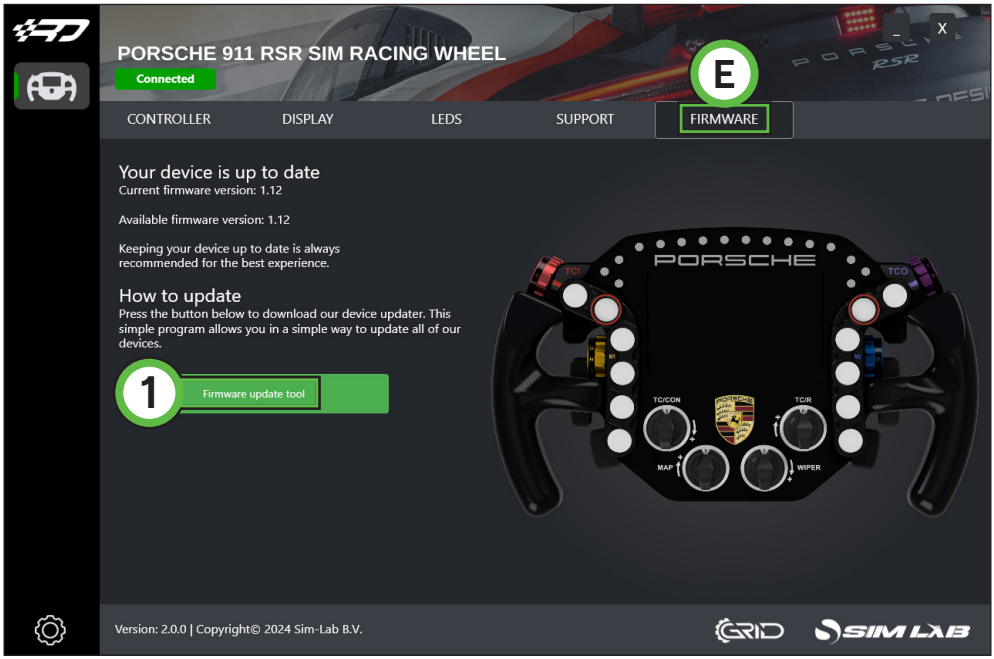
We do recommend to read the RaceDirector manual for detailed information on functions, settings and basic rules for the LED settings and the LED setup window.

SUPPORT (D)

If you run into trouble with your hardware, here are a few options to help you in finding a solution.



FIRMWARE (E)
On this page you can see the current firmware loaded on the wheel. If your firmware is out of date, we recommend to update it using our tool.



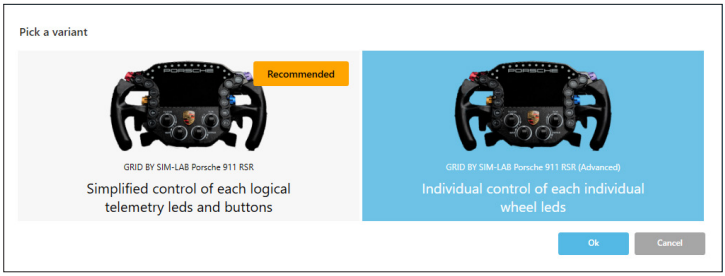
RaceDirector keeps tabs on current firmware versions. When it detects a difference, a notification ● will let you know more recent firmware has been detected.

Press 'Firmware update tool' (1) to download the tool.

For more information on how to use the tool, please see its documentation: sim-lab.eu/firmware-updater-manual

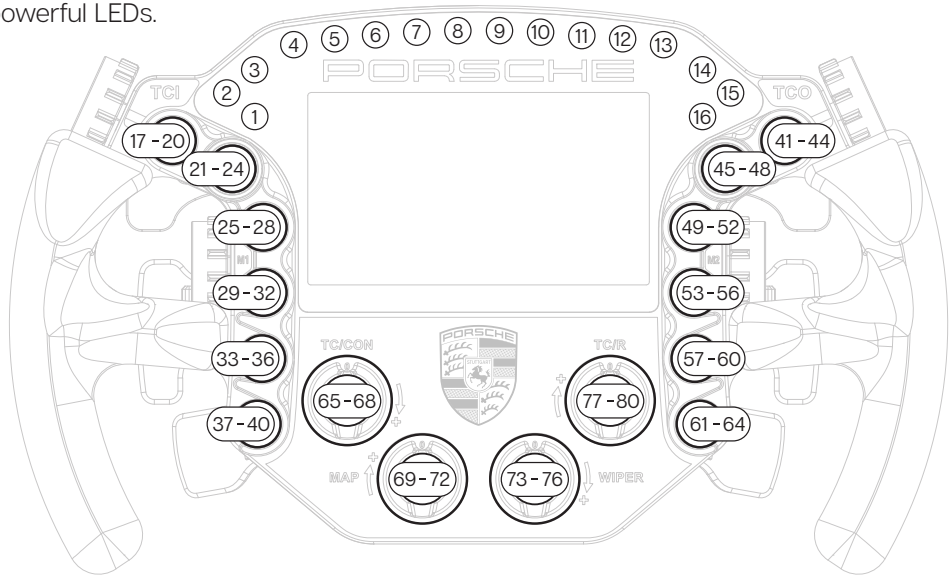
Simhub Support

For advanced users, we do still support people who prefer using Simhub. When adding a device, choose the advanced option as indicicated below to get indiviual access to all 80 LEDs to go all the way.



Changing the LEDs' functions.

To change the LED effects you need to know their numbering to identify them on the wheel. The following schematic shows the LED numbering for the available inputs and RPM LEDs. The buttons and encoder knob LEDs consist of four very small but powerful LEDs.



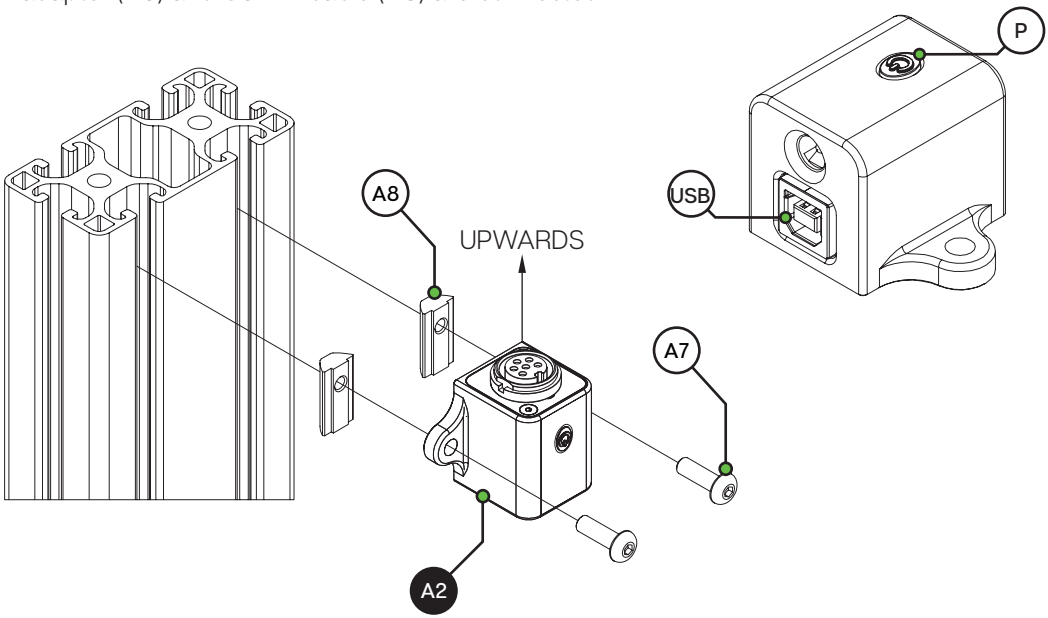
There should be enough info in the provided default LED profiles to be able to adjust LED settings to your liking. To start building your own profile, we suggest to copy an existing one and change where needed. The advantage is you always have a backup of the default profile to fall back to.

Note: for issues/troubleshooting your Simhub profiles, please refer to Simhub documentation or Simhub support.

Power Injection Box installation

The connection between your new wheel and PC is handled through the Power Injection Box (PIB) (A2). This will transfer signals and power to the wheel.

Installation is very straightforward. We recommend to have the connector for the coiled cable (A4) oriented upwards. The bottom of the PIB is where your DC power adapter (A5) and USB-A cable (A3) are connected.



Connect all cables to and from the power injection box before plugging in the power supply. This ensures there are no grounding issues when plugging in cables while the device is powered. The current version of the power injection box has an on/off power button (P), you might need to press this if your wheel isn't recognized immediately. Also this makes it easier for you to turn off power for the wheel, just press the power button (P) once.

Secure all cables in such a way they can't be tripped on or accidentally pulled from their sockets.

When experiencing intermittent signal loss, we recommend using a powered USB hub.

ONLY connect approved 'GRID' sim racing steering wheels or risk DAMAGE to your steering wheel or PC!

Bill of materials

IN THE BOX			
#	Part	QTY	Note
A1	Porsche 911 RSR Sim Racing Steering Wheel	1	
A2	Power Injector Box	1	Interface between wheel and PC.
A3	USB-A Cable	1	
A4	USB Coiled Cable	1	
A5	DC power adapter	1	
A6	Label package	1	
A7	Bolt M5 X 16 DIN 7380	2	
A8	Slot-Nut M5	2	

More information

If you still have some questions regarding assembly of this product or about the manual itself, please refer to our support department. They can be reached at:

support@sim-lab.eu

Alternatively, we now have Discord servers where you can hang out or ask for help.

www.sim-lab.eu/discord / www.gridbysimlab.com/discord

Product page on the GRID Engineering website: