



# PORSCHE 911 GT3 R (992)

USER MANUAL





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Dear iRacing User,

The latest in a long line of Porsche 911s built for sports car racing, the 992-spec edition of the Porsche 911 GT3 R follows in the footsteps of the 991-based GT3 R that debuted for the 2019 racing season. It also joins the current model of the Porsche 911 GT3 Cup car, which debuted in 2021, as a racing Porsche based on the 992 generation. In its inaugural IMSA WeatherTech SportsCar Championship season, five teams—Pfaff Motorsports, MDK Motorsports, Wright Motorsports, AO Racing Team, and Kelly-Moss with Riley—have all brought at least one 992 to the grid across the GTD and GTD Pro divisions.

The 911 GT3 R (992) is powered by a 4.2-liter Porsche flat-six engine, a step up in displacement from the 4.0-liter units in the previous car. Its first IMSA win came at the hands of Pfaff's GTD Pro squad of Klaus Bachler, Patrick Pilet, and Laurens Vanthoor in the 2023 12 Hours of Sebring, and the duo of Bachler and Pilet backed it up the next month with a third place finish on the streets of Long Beach. Kelly-Moss with Riley took the car's first GTD podium at Sebring as well with Alec Udell, Julien Andlauer, and David Brule.

The following guide explains how to get the most out of your new car, from how to adjust its settings off of the track to what you'll see inside of the cockpit while driving. We hope that you'll find it useful in getting up to speed.

Thanks again for your purchase, and we'll see you on the track!







# CHASSIS

DOUBLE-WISHBONE FRONT, MULTILINK REAR SUSPENSION.



LENGTH  
**4619 mm**  
181.8 in

WIDTH  
**2050 mm**  
80.7 in

WHEELBASE  
**2507 mm**  
98.7 in

DRY WEIGHT  
**1250 kg**  
2755 lbs

WET WEIGHT  
WITH DRIVER  
**1496 kg**  
3300 lbs

# POWER UNIT

WATER-COOLED SIX-CYLINDER  
BOXER ENGINE



DISPLACEMENT  
**4.2 Liters**  
256.3 cid

TORQUE  
**375 lb-ft**  
505 Nm

POWER  
**565 bhp**  
416 kW

RPM LIMIT  
**9500**





# Introduction

The information found in this guide is intended to provide a deeper understanding of the chassis setup adjustments available in the garage, so that you may use the garage to tune the chassis setup to your preference.

Before diving into chassis adjustments, though, it is best to become familiar with the car and track. To that end, we have provided baseline setups for each track commonly raced by these cars. To access the baseline setups, simply open the Garage, click iRacing Setups, and select the appropriate setup for your track of choice. If you are driving a track for which a dedicated baseline setup is not included, you may select a setup for a similar track to use as your baseline. After you have selected an appropriate setup, get on track and focus on making smooth and consistent laps, identifying the proper racing line and experiencing tire wear and handling trends over a number of laps.

Once you are confident that you are nearing your driving potential with the included baseline setups, read on to begin tuning the car to your handling preferences.

## GETTING STARTED

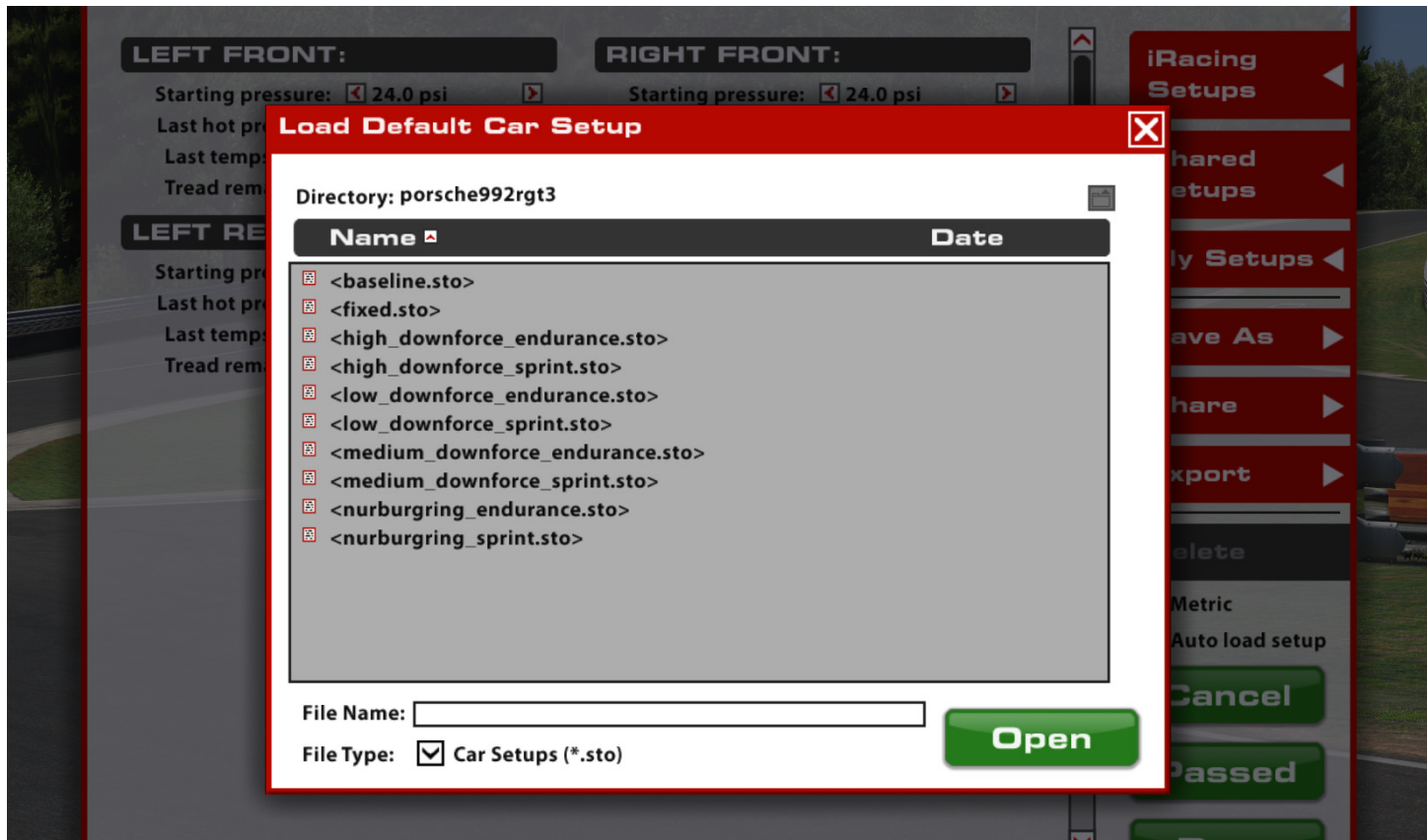


Before starting the car, it is recommended to map controls for Brake Bias and Traction Control settings. While this is not mandatory, this will allow you to make quick changes to the brake bias and traction control systems to suit your driving style and track conditions while out on track.

Once you load into the car, getting started is as easy as pressing the clutch and pulling the “upshift” paddle to put it into gear, and hitting the accelerator pedal while releasing the clutch. The Porsche 911 GT3 R (992) does not require manual clutch operation to shift in either direction.

Upshifting is recommended when the shift light cluster over the digital display is fully illuminated and all LEDs are blue.

## LOADING AN iRACING SETUP



Upon loading into a session, the car will automatically load the iRacing Baseline setup [baseline.sto]. If you would prefer one of iRacing's pre-built setups that suit various conditions, you may load it by clicking Garage > iRacing Setups > and then selecting the setup to suit your needs.

If you would like to customize the setup, simply make the changes in the garage that you would like to update and click apply. If you would like to save your setup for future use click "Save As" on the right to name and save the changes.

To access all of your personally saved setups, click "My Setups" on the right side of the garage.

If you would like to share a setup with another driver or everyone in a session, you can select "Share" on the right side of the garage to do so.

If a driver is trying to share a setup with you, you will find it under "Shared Setups" on the right side of the garage as well.



# Dash Configuration

## RACE 1



The Porsche 911 GT3 R (992) features an integrated digital dash display with three page options. Two Race pages display information about how the car is running, while a Qualifying page displays information to help the driver know how fast (or slow) the current lap is.

Left Columns	
MAP	Current Engine Map setting, non-adjustable.
AC	Current Air Conditioner setting, inoperable.
THR	Current throttle pedal map setting.
FC1	Inoperable, locked to a single value.
Oil Temp	Engine Oil Temperature in °F or °C.
Oil Press	Engine Oil system pressure in Pounds-per-square-Inch or Bar.
Water Temp	Engine cooling water temperature in °F or °C.
Water Press	Engine cooling system pressure in Pounds-per-square-Inch or Bar.
TC-LA	Current Traction Control level setting.
TC-LO	Traction Control “Longitudinal” setting. This is linked with TC-LA and both will show the same value based on the selected Traction Control setting.
ABS	Currently selected Anti-lock Braking System level.

**RACE 1** (CONTINUED)

Center	
Speed	Current speed in Miles-per-hour or Kilometers-per-hour
Gear Indicator	Currently selected gear
Tire Information	The tire information box will display live tire pressure and temperature information. Pressures are shown in the center in Pounds-per-square-inch or Kilopascals, temperatures are shown in the outer corners in °F or °C.
Right Columns	
Lap	Current lap number
Laptime	Previously completed lap time
Time Diff	Time difference between the current lap and the session best lap.
Pred. Time	Predicted lap time for the current lap
Brake Bias	Current Brake Bias setting, displayed as an offset from 50%. For example, if the brake bias is set to 54% this will display 4.00, while a 48% brake bias will display -2.00. When changing the Brake Bias, a graphical bar will appear on the right side of the display giving an indication of how far forward or rearward the Bias is currently set.



RACE 2



Race 2 is essentially the same page as Race 1 , however the Engine Temp/Pressure cluster is swapped for a Fuel information cluster on the left side of the display.

Left Columns	
Fuel Used	Amount of fuel used since leaving pit road, in US gallons or liters.
Fuel p. Lap	Amount of fuel used during the previous lap, in US gallons or liters.
Fuel Press	Current fuel system pressure in psi or bar.
Fuel Level	Current amount of fuel in the fuel tank, in US gallons or liters.

QUAL



The Qualifying page contains most of the information seen in the Race pages but replaces the Engine and Fuel information with Lap Time, and the Race page Lap Time cluster is replaced with a live split.

Qualifying Dashboard	
Laptime	The engine and fuel information is replaced with a Laptime display showing the previously completed lap time.
Time Diff	The laptime information cluster is replaced with a split time display and a graphical split bar to show how the current lap relates to the fastest lap of the session.



## OVERLAYS



## PIT ROAD LIMITER

When the pit road limiter is enabled the dash will feature a large green overlay with the currently selected gear, vehicle speed, and the pit road speed limit. In addition, the wheel spin/lock LED clusters will illuminate in green and the speed indicator at the top of the dash will change to engine RPM. Should the speed exceed the pit road speed limit, this overlay will change from green to red.

## OVERLAYS (CONTINUED)



## VALUE CHANGE

Whenever a driver-controlled value is changed (ABS, TC, etc.) the right side of the display will show a blue overlay box with the value being changed and the value itself. This will clear shortly after the final change has been made.



## LOW FUEL WARNING

Should the amount of fuel in the tank drop below 10 Liters a red warning overlay will appear on the right side of the dash. Along with this warning, the lower-most LED lights on the display's side clusters will illuminate in red.



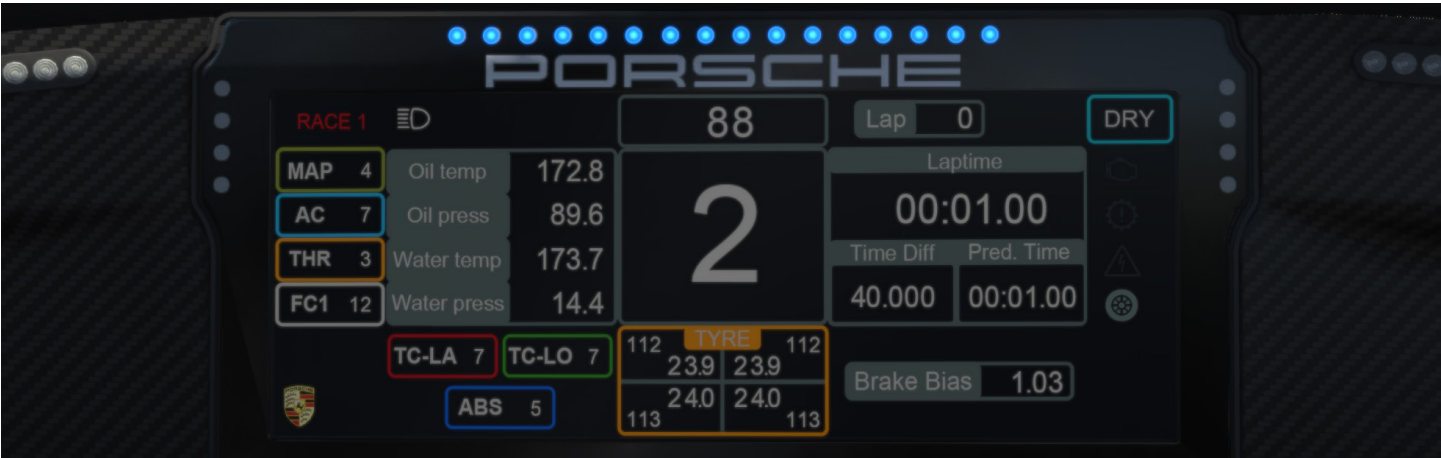
LED CLUSTERS

SHIFT LIGHTS

Across the top of the display is a set of LED shift lights that indicate when the engine RPM has reached the optimum shift point.



As RPM increases the LEDs will light up from the outside to the inside (green to red), converging just prior to the ideal shift point.



When the ideal shift point has been reached, all shift light LEDs will change to blue and begin flashing.

## TC/ABS INDICATORS

A pair of LED strips on either side of the dash provide a visual display of the Traction Control system attempting to control rear wheelspin on throttle and front or rear lockups under braking.



Whenever the Traction Control system is active and attempting to control wheelspin the side clusters will be illuminated in blue.



Whenever either the front or rear wheels lock under braking the side clusters will split and show pink for a front axle lockup and yellow for a rear axle lockup. These LEDs also show the severity by how many LEDs are illuminated: One LED shows relatively small or initial locking while all four LEDs indicates severe or complete axle lockup.

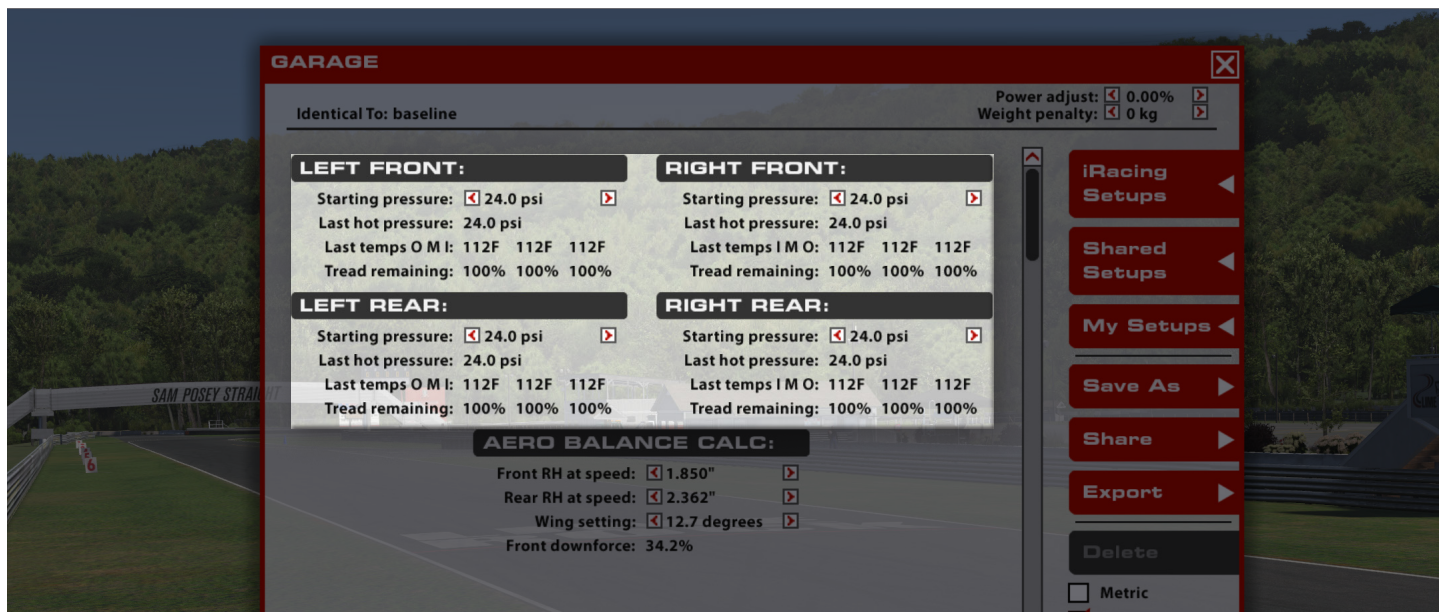
## Advanced Setup Options

This section is aimed toward more advanced users who want to dive deeper into the different aspects of the vehicle's setup. Making adjustments to the following parameters is not required and can lead to significant changes in the way a vehicle handles. It is recommended that any adjustments are made in an incremental fashion and only singular variables are adjusted before testing changes.



# Tires/Aero

## TIRES



### STARTING PRESSURE

This sets the air pressure in the tires when the car is loaded into the world. Lower pressures will produce more mechanical grip with more rolling drag and heat buildup, while higher pressures will reduce heat buildup and rolling drag, but will also reduce the available grip. Generally, higher pressures will perform better at tracks with high speeds and high loads while slower tracks with tighter corners will see better performance out of lower tire pressures.

### LAST HOT PRESSURE

The Last Hot Pressure displays the air pressure in the tire when the car is returned to the garage. The difference between Cold and Hot pressures can be used to identify how the car is progressing through a run in terms of balance, with heavier-loaded tires seeing a larger difference between Cold and Hot pressures. Ideally, tires that are worked in a similar way should build pressure at the same rate to prevent a change in handling balance over the life of the tire, so Cold pressures should be adjusted to ensure that similar tires are at similar pressures once up to operating temperature.

### LAST TEMPS

Tire carcass temperatures once the car has returned to the pits or the driver has gotten out of the car. Wheel Loads and the amount of work a tire is doing on-track are reflected in the tire's temperature, and these values can be used to analyze the car's handling balance. Center temperatures are useful for directly comparing the work done by each tire, while the Inner and Outer temperatures are useful for analyzing the wheel alignment (predominantly camber) while on track. These values are measured in three zones across the tread of the tire. Inside, Middle and Outer relative to the chassis centerline.

## TREAD REMAINING

The amount of tread remaining on the tire once the car has returned to the pits or the driver has gotten out of the car. Tire wear is very helpful in identifying any possible issues with alignment, such as one side of the tire wearing excessively, and can be used in conjunction with tire temperatures to analyze the car's handling balance. These values are measured in the same zones as those of temperature.

## AERO CALCULATOR



The Aero Calculator is a tool used to display the car's approximate aerodynamic values in a given configuration. Changing the rear wing angle and applying the on-track ride height will display the car's aerodynamic balance when it is at speed and give an idea for how the car may behave in certain configurations. This calculator can also be used to determine what changes need to be made to the car to alleviate aerodynamically-induced handling issues, such as ride height changes to restore a given downforce balance for a wing angle change.

### FRONT RH AT SPEED

The Ride Height (RH) at Speed is used to give the Aero Calculator heights to reference for aerodynamic calculations. When using the aero calculator, determine the car's Front Ride height via telemetry at any point on track and input that value into the "Front RH at Speed" setting.

### REAR RH AT SPEED

The Ride Height (RH) at Speed is used to give the Aero Calculator heights to reference for aerodynamic calculations. When using the aero calculator, determine the car's Rear Ride height via telemetry at any point on track and input that value into the "Front RH at Speed" setting.

### WING SETTING

Changing the Rear Wing Setting will alter the angle of attack of the rear wing assembly. Higher angles will increase downforce and shift aero balance rearward but will also increase drag. Lower angles will reduce drag and downforce while shifting aero balance forward. It's very important to tune the Rear Wing angle to suit the track characteristics for optimum performance: Higher-speed tracks will usually benefit from the reduced drag of a lower wing angle while slower, twisty tracks will see better performance with a high wing angle and increased downforce. This setting in the Aero Calculator is linked to the Wing Setting angle in the Rear section of the chassis page and changing either setting will also change the other.

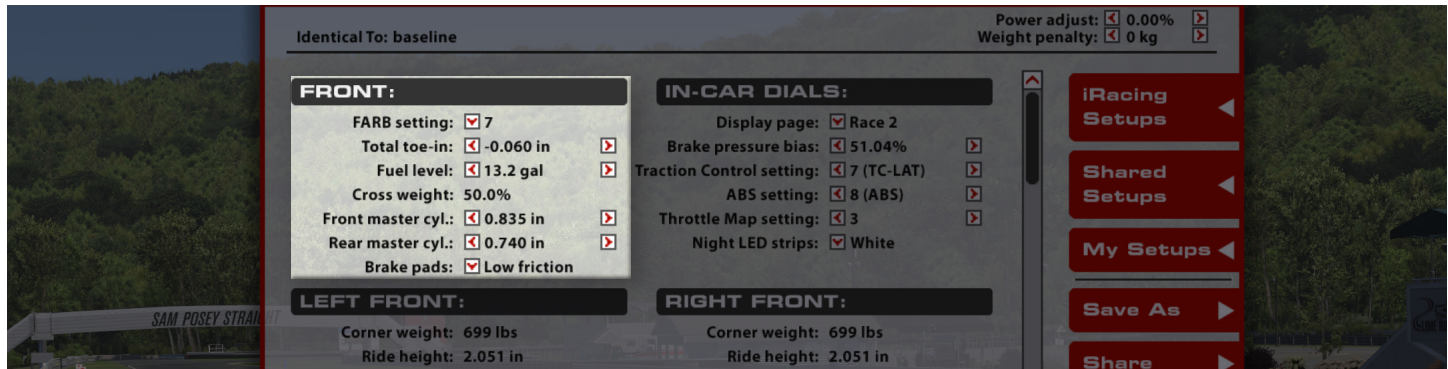
### FRONT DOWNFORCE

Front Downforce is how much of the car's total downforce is over the front axle, displayed as a percentage. A higher percentage value indicates an increase in front downforce, increasing oversteer in mid- to high-speed corners. A lower percentage value indicates an increase in rear downforce, increasing understeer in mid- to high-speed corners.



# Chassis

## FRONT



### FARB SETTING

The FARB (Anti-Roll Bar) Setting alters the stiffness of the front suspension in roll. Increasing the ARB setting value will increase the roll stiffness of the front suspension, resulting in less body roll but increasing mechanical understeer. This can also, in some cases, lead to a more responsive steering feel from the driver at initial steering input. Conversely, reducing the ARB setting will soften the suspension in roll, increasing body roll but decreasing mechanical understeer. This can result in a less-responsive feel from the steering, but grip across the front axle will increase.

### TOTAL TOE-IN

Toe is the angle of the wheels relative to the chassis centerline when viewed from above. Negative toe-in sets the front of the tires farther from the centerline than the rear of the tires while positive toe-in sets the front of the tires closer to the centerline than the rear of the tires. Toe-out will destabilize the car in a straight line but this will increase turn-in response at the cost of increased tire temperature and wear. Reducing toe-out (and even running toe-in) will stabilize the car in a straight line and reduce temperature and wear, but could make the car sluggish in response to steering inputs.

### FUEL LEVEL

Fuel level is the amount of fuel in the fuel tank when the car leaves the garage.

### CROSS WEIGHT

Cross weight is the amount of weight on the car's Left-Rear and Right-Front tires relative to the total weight of the car, displayed in percent. This is adjusted via the corner spring preload adjustments (Front and Rear Spring Perch Offset). This value should be around 50% for most tracks.

### FRONT MASTER CYLINDER

The Front Brake Master Cylinder size can be changed to alter the line pressure to the front brake calipers. A larger master cylinder will reduce the line pressure to the front brakes, which will shift the brake bias rearwards and increase the pedal effort required to lock the front wheels. A smaller master cylinder will increase brake line pressure to the front brakes, shifting brake bias forward and reducing required pedal effort to lock the front wheels.

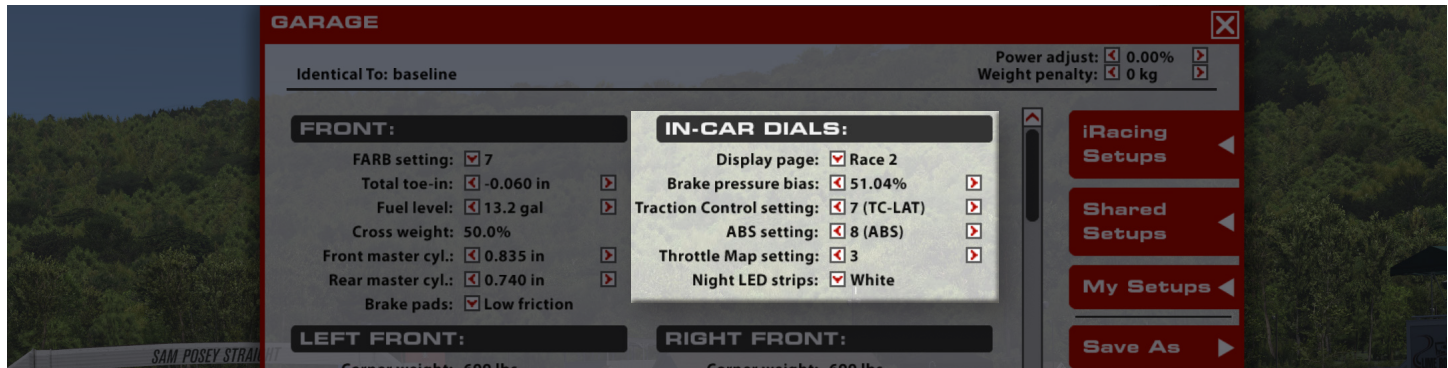
## REAR MASTER CYLINDER

The Rear Brake Master Cylinder size can be changed to alter the line pressure to the rear brake calipers. A larger master cylinder will reduce the line pressure to the rear brakes, which will shift the brake bias forwards and increase the pedal effort required to lock the rear wheels. A smaller master cylinder will increase brake line pressure to the rear brakes, shifting brake bias rearward and reducing required pedal effort to lock the rear wheels.

## BRAKE PADS

The vehicle's braking performance can be altered via the Brake Pad compound. The "Low" setting provides the least friction, reducing the effectiveness of the brakes, while "Medium" and "High" provide more friction and increase the effectiveness of the brakes while increasing the risk of a brake lockup.

## IN-CAR DIALS



### DISPLAY PAGE

The Display Page setting sets which page the digital dash display will show when the car is loaded into the world.

### BRAKE PRESSURE BIAS

Brake Bias is the percentage of braking force that is being sent to the front brakes. Values above 50% result in more pressure being sent to the front, while values less than 50% send more force to the rear. This should be tuned for both driver preference and track conditions to get the optimum braking performance for a given situation.

### TRACTION CONTROL SETTING

This setting alters how much the Traction Control system will cut engine torque to prevent wheelspin in heavy throttle application or low-grip conditions. Higher values will be more aggressive with torque cut to reduce wheelspin while lower values will allow slightly more wheelspin before intervening. Setting this value to "0" will disable the Traction Control. This value is adjustable from the in-car F8 black box.

### ABS SETTING

The current ABS map the car is running. The ABS system features 12 positions divided into three groups to suit varying track conditions, with lower values providing less assistance and higher values providing more assistance to prevent brake lockup. Settings 1-6 are for slick tires in dry conditions, 7-11 are for wet conditions. Generally, setting 7 will be good for light rain while settings will need to be increased as conditions worsen, with setting 11 being for heavy rain. Setting 0 disables the system completely.

### THROTTLE MAP SETTING

There are 3 settings on this car. They can be adjusted to suit driving style and track conditions. Position 1 has a butterfly shape where small pedal movements result in proportionately less engine torque. This can help prevent wheelspin when modulating the pedal in low speed or low grip situations. Position 3 is linear - 50% pedal position results in 50% of maximum possible torque. Position 2 is halfway between linear and butterfly.

### NIGHT LED STRIPS

This changes the color of the LED light strip around the outside of the rear side windows, useful for identifying a specific car on-track when multiple cars share the same livery. This has no effect on vehicle performance.



## FRONT CORNERS



### CORNER WEIGHT

The weight underneath each tire under static conditions in the garage. Correct weight arrangement around the car is crucial for optimizing a car for a given track and conditions. Individual wheel weight adjustments and crossweight adjustments are made via the Spring Perch Offset settings.

### RIDE HEIGHT

Distance from ground to a reference point on the chassis. Since these values are measured to a specific reference point on the car, these values may not necessarily reflect the vehicle's ground clearance, but instead provide a reliable value for the height of the car off of the race track at static values. Adjusting Ride Heights is key for optimum performance, as they can directly influence the vehicle's aerodynamic performance as well as mechanical grip. Increasing the front ride height will decrease overall downforce and shift the aerodynamic balance rearward, but will decrease drag slightly. Conversely, reducing front ride height will increase downforce and shift aero balance forward while slightly increasing overall drag.

### SPRING PERCH OFFSET

Used to adjust the ride height at a corner of the car by changing the installed position of the spring's upper perch. Increasing the spring perch offset will reduce spring preload, lowering the corner of the car. Reducing the spring perch offset will increase spring preload and raise the corner of the car. These changes should be kept symmetrical across the axle (left to right) to ensure the same corner ride heights and no change in cross weight.

### SPRING RATE

Spring Rate is the stiffness of the suspension's corner springs controlling each wheel. The value is a representation of how much force (Pounds or Newtons) is required to compress the spring a specific distance. Springs are used to keep the chassis from contacting the track under the loads seen on track and to manage the chassis' aerodynamic attitude, but their stiffness also has a major influence on the car's handling characteristics. On the front end, stiffer springs can keep the front splitter from moving too much under increasing aerodynamic loads but will decrease mechanical grip and can lead to understeer in slower corners. Softer springs will result in more front end movement, which can hurt aerodynamic performance, but will increase mechanical grip in the front axle and reduce understeer (or cause oversteer, in extreme cases) when cornering.

## CAMBER

Camber is the vertical angle of the wheel relative to the center of the chassis. Negative camber is when the top of the wheel is closer to the chassis centerline than the bottom of the wheel, positive camber is when the top of the tire is farther out than the bottom. Due to suspension geometry and corner loads, negative camber is desired on all four wheels. Higher negative camber values will increase the cornering force generated by the tire, but will reduce the amount of longitudinal grip the tire will have under braking. Excessive camber values can produce very high cornering forces but will also significantly reduce tire life, so it is important to find a balance between life and performance.

## REAR CORNERS

LEFT REAR:	RIGHT REAR:
Corner weight: 908 lbs	Corner weight: 909 lbs
Ride height: 2.844 in	Ride height: 2.844 in
Spring perch offset: 0.659"	Spring perch offset: 0.659"
Spring rate: 1599 lbs/in	Spring rate: 1599 lbs/in
Camber: -3.0 deg	Camber: -3.0 deg

REAR:	GEARS / DIFFERENTIAL:
RARB setting: 4	Gear stack: FIA
Total toe-in: 0.122 in	Friction Faces: 8
Wing setting: 12.7 degrees	Diff preload: 88 ft-lbs

### CORNER WEIGHT

The weight underneath each tire under static conditions in the garage. Correct weight arrangement around the car is crucial for optimizing a car for a given track and conditions. Individual wheel weight adjustments and crossweight adjustments are made via the Spring Perch Offset setting.

### RIDE HEIGHT

Distance from ground to a reference point on the chassis. Since these values are measured to a specific reference point on the car, these values may not necessarily reflect the vehicle's ground clearance, but instead provide a reliable value for the height of the car off of the race track at static values. Adjusting Ride Heights is key for optimum performance, as they can directly influence the vehicle's aerodynamic performance as well as mechanical grip. Raising the rear ride height will increase overall downforce and shift aero to the front of the car but will increase drag. Decreasing rear ride height will do the opposite, with aero shifting rearward and overall downforce and drag decreasing.

### SPRING PERCH OFFSET

Used to adjust ride height and corner weight, adjusting this setting applies a preload to the spring under static conditions. Decreasing the value increases preload on the spring, adding weight to its corner and increasing the ride height at that corner. Increasing the value does the opposite, reducing height and weight on a given corner. These should be adjusted in pairs (left and right, for example) or with all four spring preload adjustments in the car to prevent crossweight changes while adjusting ride height.

### SPRING RATE

Spring Rate changes how stiff the spring is, represented in a force per unit of displacement. Primarily responsible for maintaining ride height and aerodynamic attitude under changing wheel loads, stiffer springs will maintain the car's aero platform better while sacrificing mechanical grip. Softer springs will deal with bumps better and increase mechanical grip, but will cause the car's aerodynamic platform to suffer.



## CAMBER

Camber is the vertical angle of the wheel relative to the center of the chassis. Negative camber is when the top of the wheel is closer to the chassis centerline than the bottom of the wheel, positive camber is when the top of the tire is farther out than the bottom. Due to suspension geometry and corner loads, negative camber is desired on all four wheels. Higher negative camber values will increase the cornering force generated by the tire, but will reduce the amount of grip the tire will have under braking. Excessive camber values can produce very high cornering forces but will also significantly reduce tire life, so it is important to find a balance between life and performance. Higher rear camber values can increase cornering stability but reduce straight-line stability under braking, while lower rear camber values can often increase traction out of low-grip corners.

## REAR



### RARB SETTING

The RARB (Anti-Roll Bar) Setting alters the stiffness of the rear suspension in roll. Increasing the ARB setting value will increase the roll stiffness of the rear suspension, resulting in less body roll but increasing mechanical oversteer. Conversely, reducing the ARB setting will soften the suspension in roll, increasing body roll but decreasing mechanical oversteer.

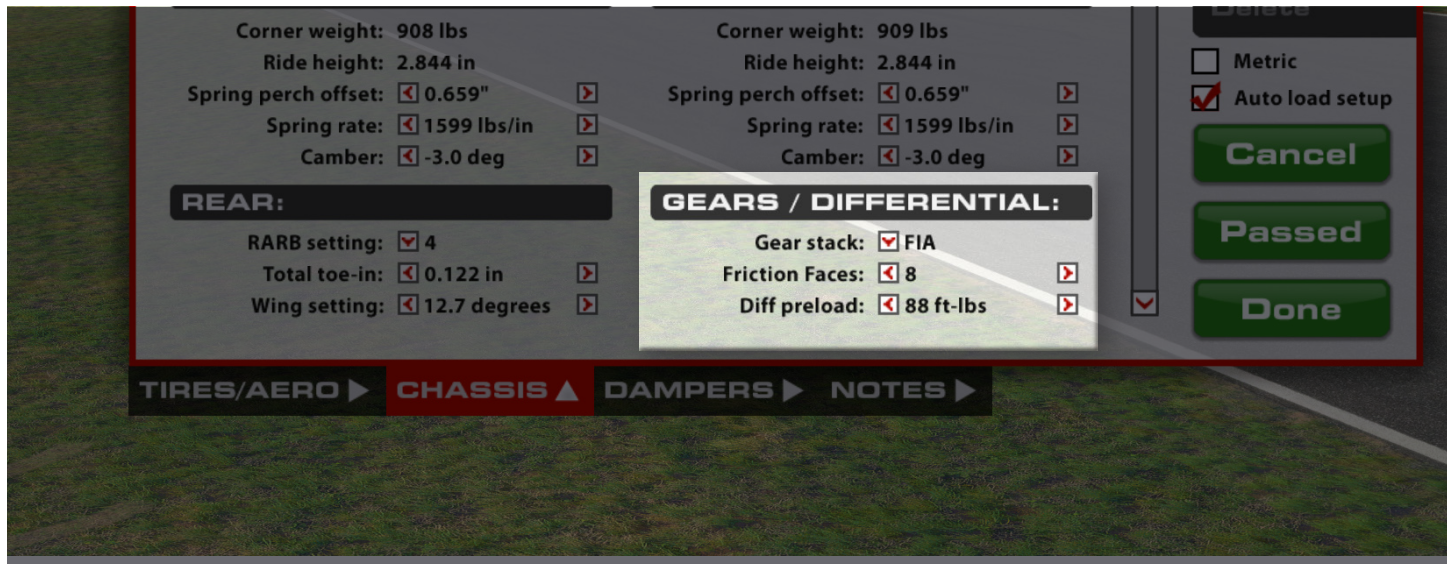
### TOTAL TOE-IN

Toe is the angle of the wheel, when viewed from above, relative to the centerline of the chassis. Toe-in is when the front of the wheel is closer to the centerline than the rear of the wheel, and Toe-out is the opposite. On the rear end, adding toe-in will increase straight-line stability but may hurt how well the car changes direction.

### WING SETTING

Changing the Rear Wing Setting will alter the angle of attack of the rear wing assembly. Higher angles will increase downforce and shift aero balance rearward but will also increase drag. Lower angles will reduce drag and downforce while shifting aero balance forward. It's very important to tune the Rear Wing angle to suit the track characteristics for optimum performance: Higher-speed tracks will usually benefit from the reduced drag of a lower wing angle while slower, twisty tracks will see better performance with a high wing angle and increased downforce. This setting on the Chassis page is linked to the Wing Setting angle in the Aero Calculator and changing either setting will also change the other.

## GEAR DIFFERENTIAL



### GEAR STACK

There are three options for the six forward transmission gear stacks to help tailor the car's acceleration and top speed for various circuit types. The "Short Stack" installs a gear set to provide the best acceleration but lowest top speed, best for high-downforce tracks where speeds stay under 255kph (160mph). The "FIA" stack is good for medium downforce tracks with speeds under 270kph (170mph). The "Daytona" stack is for lower-downforce tracks where top speed is crucial and acceleration can be sacrificed.

### FRICTION FACES

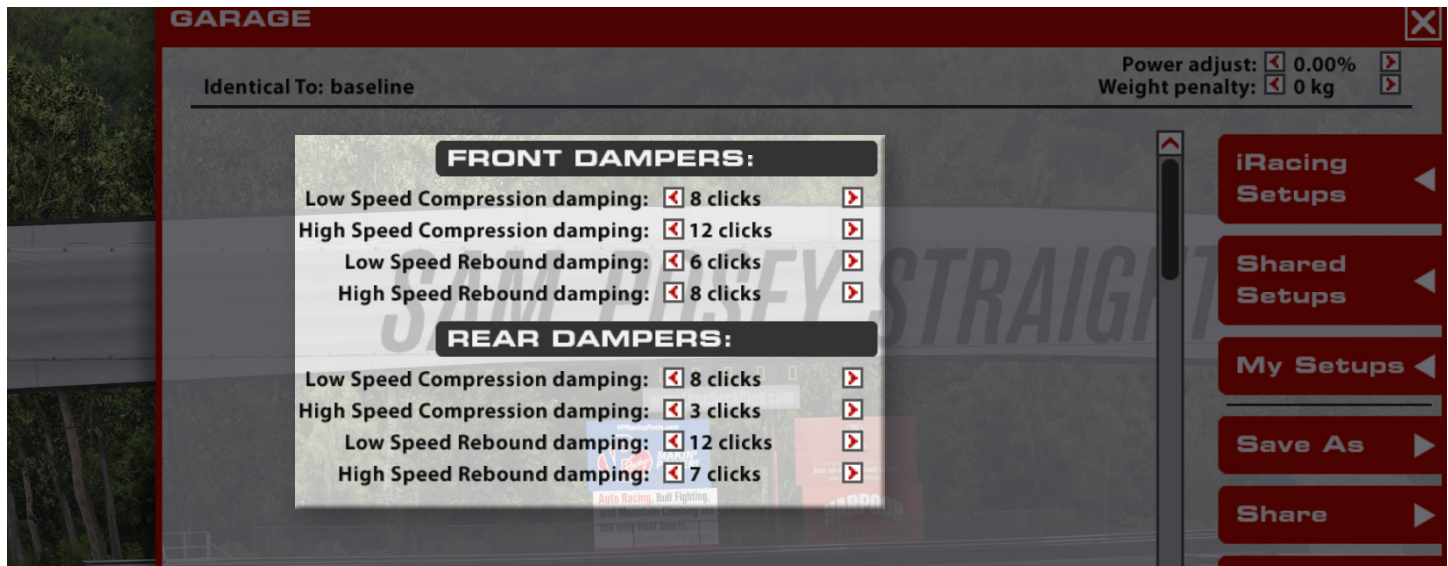
Changing the number of clutch plates, or friction faces, in the differential will multiply the force produced by the differential to keep the rear axle locked. Higher numbers of faces will multiply the forces relative to the lowest setting of 4 friction faces. For example, 8 faces will have twice as much force as 4 plates, while 6 plates will have 1.5 times the forces of 4 plates.

### DIFF PRELOAD

Diff preload is a static amount of locking force present within the differential and remains constant during both acceleration and deceleration. Increasing diff preload will increase locking on both sides of the differential which will result in more understeer when off throttle and more snap oversteer with aggressive throttle application. Increasing the diff preload will also smooth the transition between on and off throttle behavior as the differential locking force will never reach zero which can be helpful in reducing lift-off oversteer and increasing driver confidence. Typically diff preload should be increased when there is noticeable loss in slow corner exit drive and/or over-rotation during transition between the throttle and brake in low to mid speed corners.



# Dampers



The 4-way KW dampers homologated for this car have 18 possible settings for each adjustment. Setting “0” provides maximum damping and setting “18” is the minimum damping for each adjustment.

## LOW SPEED COMPRESSION DAMPING

Low Speed Compression affects how resistant the shock is to compression (reduction in length) when the shock shaft is moving at relatively low speeds, usually during movement caused by driver input (steering, braking, & throttle) and typical cornering forces. Lower values will increase compression resistance and transfer load onto a given tire under these low-speed conditions more quickly.

On the front axle, increasing Low Speed Compression (lower value settings) can induce understeer while braking and during the turn-in phase, with the effect ending through the center of the corner. Increasing Low Speed Compression (lower value settings) on the rear axle will aid in traction and forward drive when throttle is applied out of a corner.

## HIGH SPEED COMPRESSION DAMPING

High Speed Compression affects the shock’s behavior in high-speed travel, usually attributed to curb strikes and bumps in the track’s surface. Lower compression values will cause the suspension to be stiffer in these situations, while higher values will reduce the damping forces and allow the suspension to absorb these bumps better but may hurt the aerodynamic platform around the track and risk the bottom of the chassis coming into contact with the track surface. For very large bumps a lower click setting on High Speed Compression can resist suspension compression and raise the chassis to clear the bump and prevent grounding the chassis.

## LOW SPEED REBOUND DAMPING

Low-speed Rebound damping controls the stiffness of the shock while extending at lower speeds, typically during body movement as a result of driver inputs. Lower rebound values will increase damping forces and resist expansion of the shock, higher click values will allow the shock to extend faster. Higher rebound forces (lower click values) can better control aerodynamic attitude but can result in the wheel being unloaded when the suspension can’t expand fast enough to maintain proper contact with the track. Excessive rebound can lead to unwanted oscillations due to the wheel bouncing off of the track surface instead of staying in contact.

**LOW SPEED REBOUND DAMPING CONT.**

On the front axle, increasing Low Speed Rebound forces (lower click values) can induce understeer on throttle application. Increasing Low Speed Compression (lower click values) on the rear axle can stabilize the car under braking and also induce understeer at initial turn-in.

**HIGH SPEED REBOUND DAMPING**

High-speed rebound adjusts the shock in extension following large bumps and curb strikes. Lower clicker values will reduce how quickly the shock will expand, while higher values will allow the shock to extend more easily. Despite not having as much of an effect on handling in result to driver inputs, High-speed rebound can produce similar results in terms of aerodynamic control and uncontrolled oscillations if set improperly.