



iRacing

Official Licensee



AMG
PETRONAS
FORMULA ONE TEAM



MERCEDES-AMG F1 W12 E PERFORMANCE

USER MANUAL



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DEAR IRACING USER,

Congratulations on your purchase of the Mercedes-AMG F1 W12 E Performance! From all of us at iRacing, we appreciate your support and your commitment to our product. We aim to deliver the ultimate sim racing experience, and we hope that you'll find plenty of excitement with us behind the wheel of your new car!

The Mercedes-AMG Petronas Formula One Team has been the most dominant race team in the world over much of the past decade, winning seven World Driver's and World Constructor's Championships in a row from 2014-2020 thanks to the combined efforts of Lewis Hamilton, Nico Rosberg, Valtteri Bottas, and George Russell. For the 2021 season, the last before sweeping revisions to the competition formula, the team introduced the F1 W12 E Performance as its next heir to the throne.

Powered by a 1.6-liter V6 hybrid capable of producing over 1,000 horsepower, the car was an evolution of the dominant W11 that had won all but four races the previous year. The W12 won with Hamilton on its debut in Bahrain and took victories in three of its first four starts, while also leading Hamilton to his milestone 100th career Grand Prix victory in a compelling Russian Grand Prix that saw rain fall in the race's closing laps.

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.

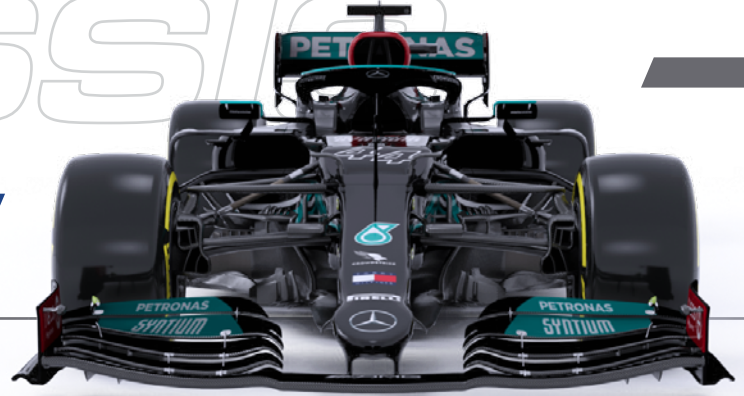
Thanks again for your purchase, and we'll see you on the track!





CHASSIS

DOUBLE WISHBONE PUSHROD FRONT
DOUBLE WISHBONE PULLROD REAR



LENGTH
5700mm
224in

WIDTH
2000mm
78.7in

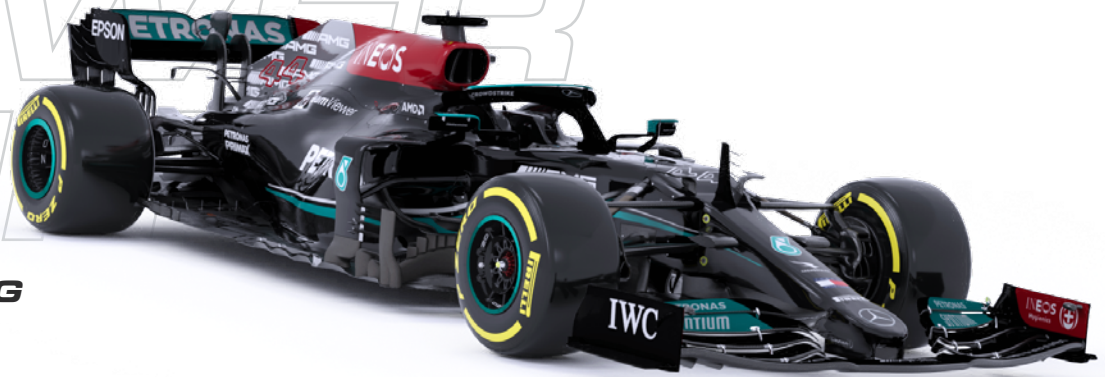
WHEELBASE
3724mm
146.6in

DRY WEIGHT
833kg
1836lbs

WET WEIGHT
WITH DRIVER
943kg
2078lbs

POWER UNIT

**MERCEDES-AMG
M12 1.6L V6**



DISPLACEMENT
1.6Liters
98CID

RPM LIMIT
13000RPM

TORQUE
530lb-ft
718Nm

POWER
1050bhp
782kW

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 setups for each track commonly raced by these cars. To access the provided 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 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.

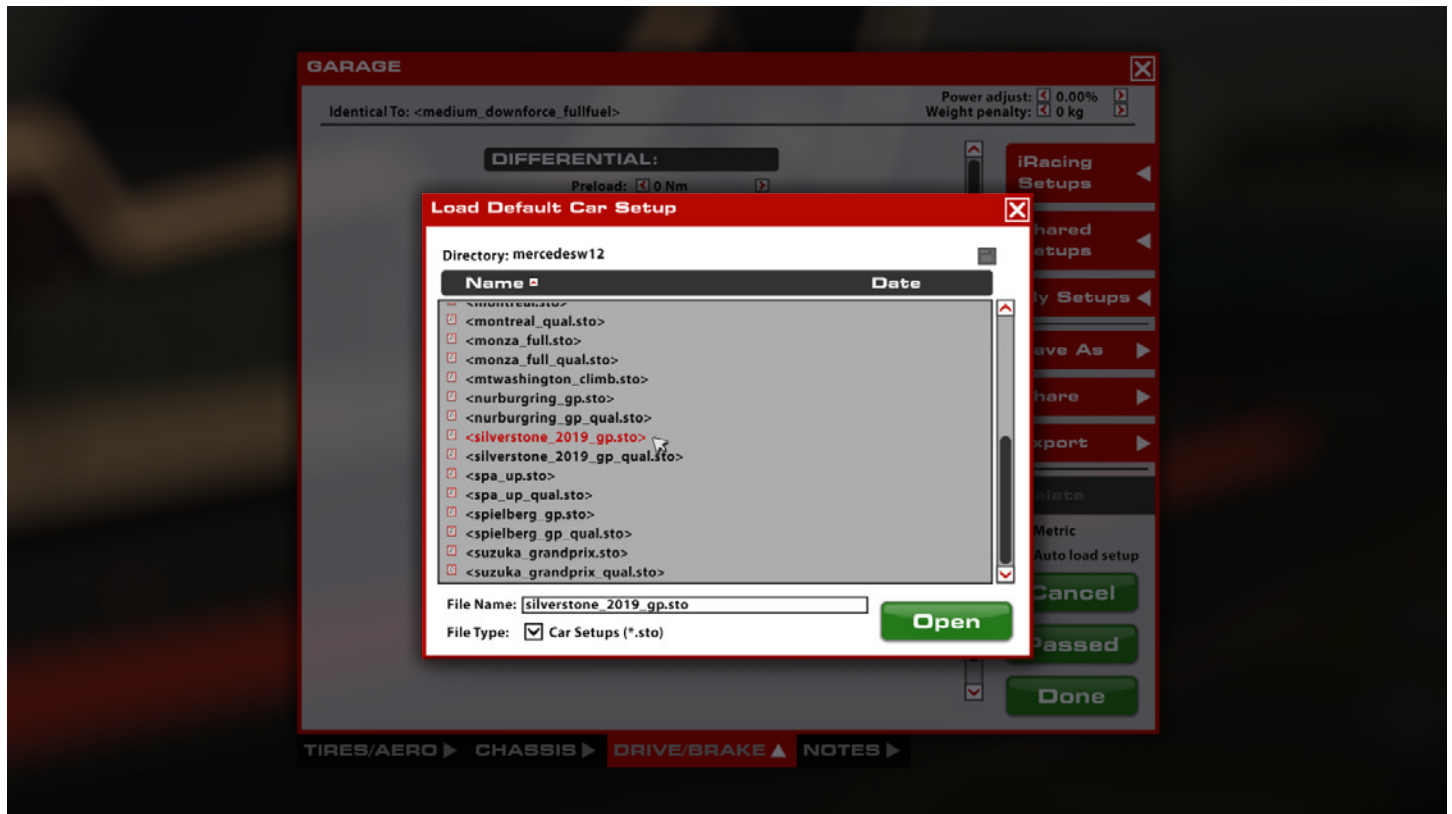
Once you are confident that you are nearing your driving potential with the included baseline setups, read on to begin tuning the car to your handling preferences.

GETTING STARTED



Once the car is loaded, simply turn on the ignition, press the starter button, and wait for the engine revs to stabilize. Leaving the pits is as simple as pressing “upshift” to put the car in gear, and hitting the accelerator pedal while slowly releasing the clutch. Once the car is in motion, all shifting is clutchless and doesn’t require manual throttle cuts. Simply press the upshift or downshift buttons to select the next gear, and the car will do everything for you. Upshifting is recommended when the blue lights illuminate on the top of the steering wheel, around 11,500rpm.

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 Pages

The Mercedes-AMG W12 features a digital dash display built into the steering wheel with two display pages. These pages show all relevant information about the engine to the driver as well as information about lap times, fuel usage, and tire data. For both pages, the values shown are displayed in units based on the selection in the Garage screen.

WARMUP PAGE



SPEED - Vehicle speed

Gear Status Indicators - When the car is loaded into the world during Test, Practice, or Qualifying, the drivetrain will need to learn all eight forward gears to optimize shifting performance. Initially all eight gears will be represented with a red box. After each gear is selected and the engine has reached high RPM in that gear, its corresponding box will turn green, with all eight boxes being removed from the screen once all gears have been learned.

Gear Indicator - The currently selected gear is shown in the center of the display

Tire Surface Temperatures - The tire surface temperatures are represented by large white numbers on the sides of the display. These values will update in real time and can be used to determine when the tires are at their ideal operating temperature.

Tire Carcass Temperatures - The temperature in the tire carcass is displayed with blue numbers next to the Tire Surface Temperatures. These core temperatures represent the temperature within the tread itself and will heat up and cool down slower than the surface temperatures.

Current Deploy Mode - The hybrid system deploy mode currently in use is shown directly beneath the Gear Indicator.

BATT - The battery's current charge level is shown underneath the Deploy Mode. This value is the percentage of charge currently stored within the battery.

DELTA - This value appears once a lap time has been set in the session and represents the difference in time for the current lap against the session fastest lap.

TWATER - The engine coolant temperature is shown in the center of the screen at the very bottom and can be used to identify engine cooling issues.

Live Brake Bias - The large orange number on the right side of the screen shows the instantaneous brake bias. When there is no brake input from the driver, this value will show the base brake bias, but as the brake pedal is depressed the value will change based on the brake ramping settings.

Base Brake Bias - Below the Live Brake Bias value is the Base Brake Bias value. This value is a combination of the Coarse and Fine brake bias settings and does not factor in the Brake Bias Migration setting.

RACE PAGE



DEPLOY - This value represents how many hybrid system deploy mode changes are remaining during the current lap.

LAP - Current lap number

Laptime Delta - The difference between the current lap time and the session best lap time is shown in the upper left section of the display

Gear Indicator - The currently selected gear is shown in the center of the display

Live Brake Bias - The large orange number on the right side of the screen shows the instantaneous brake bias. This value is the same as what is shown on the Warmup page.

LL - The amount of fuel used in the previous lap, in kilograms per lap.

TAR - The target fuel usage is shown below the previous lap's fuel usage. This value shows how much fuel should be used per lap to reach the end of the race.

Current Deploy Mode - The hybrid system deploy mode currently in use is shown directly beneath the Gear Indicator.

BATT - The current charge state of the battery (in percent) is shown under the currently selected deploy mode.

LAST - The previous lap time is shown in the bottom right of the display in blue numbers.

Fuel Bar - On the right side of the display during Race sessions, a colored bar will show whether or not the current fuel level is enough to reach the end of the race based on the current fuel usage. Each block in the bar represents 50 grams of fuel, with green blocks representing excess fuel and red blocks representing a lack of fuel. For example, if the bar shows two green blocks, there is 100 grams of excess fuel, while two red blocks would represent the fuel level being 100 grams less than what is necessary to complete the race.

LAP END SCREEN



TIME - The previous lap time is shown in the upper left of the display

LAP - The current lap number is shown in the top right of the display

Gear Indicator - The currently selected gear is shown in the center of the display

DELTA - The difference between the previous lap time and the session best lap time

FUEL DELTA - The difference in the amount of fuel used on the previous lap relative to the Target Fuel Usage value will appear at the bottom of the display in kg/lap.

HALO CENTER PILLAR



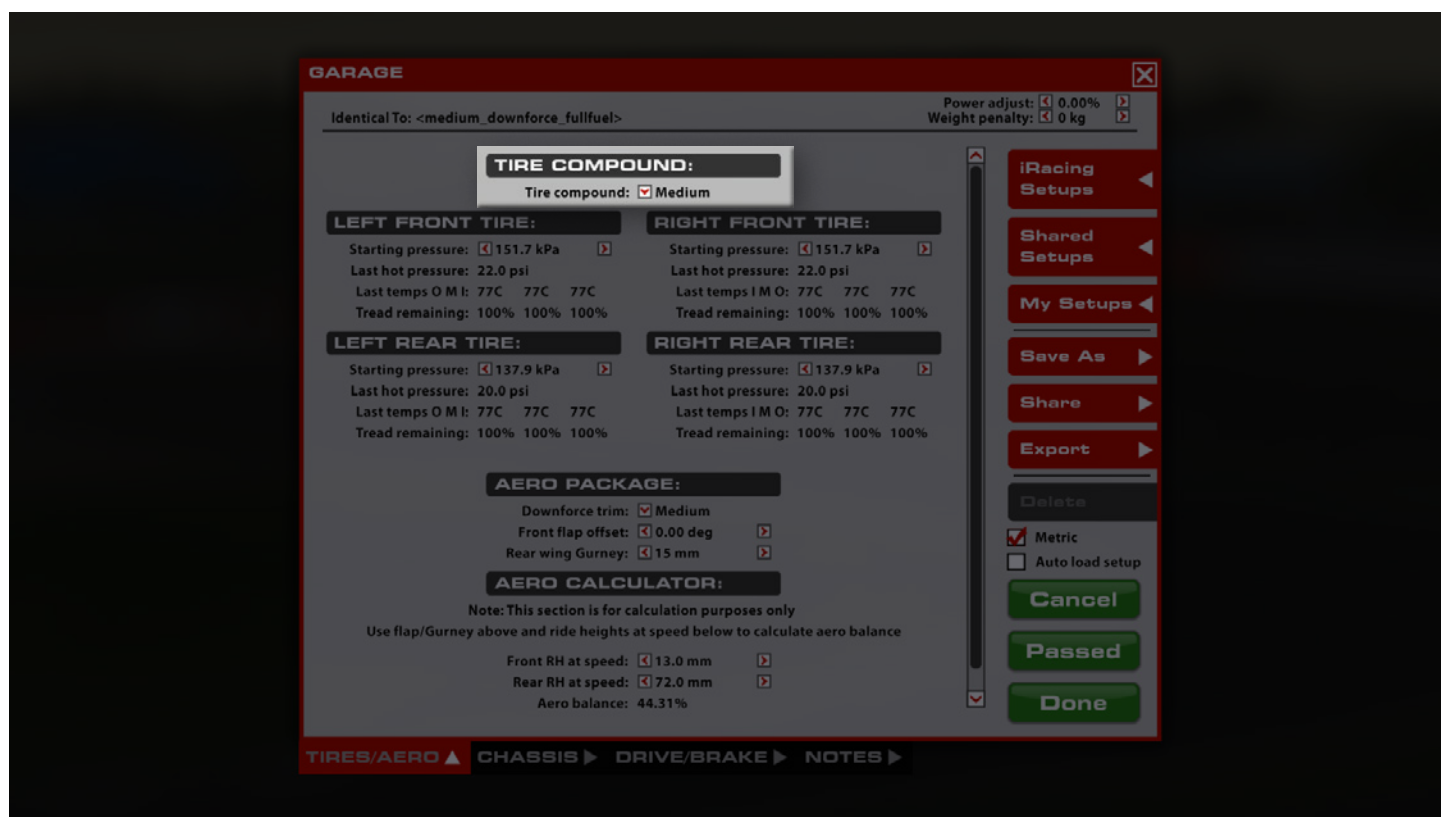
To improve driver visibility, the center support pillar for the Halo can be removed via the “Hide Obstructions” setting in the Options menu. To enable this option go to the Options and then Graphics menu, then change the “Hide Obstructions” setting to either “Cockpit halo” or “All”. This will set the center pillar to a transparent version.

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

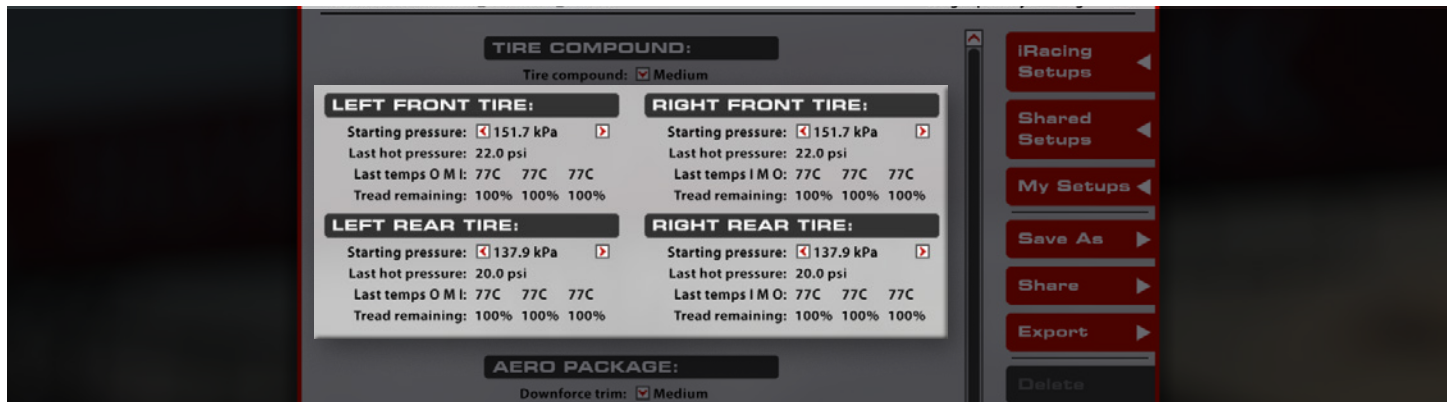
TIRE COMPOUND



TIRE COMPOUND

A selection of three tire compounds is available for use in the Mercedes W12: Soft (Red sidewall lettering), Medium (Yellow sidewall lettering), and Hard (White sidewall lettering). The Soft compound has a high level of grip and will result in a faster overall pace at the cost of shorter tire life, while the Hard compound has a relatively low amount of grip and will produce a slower pace with a much longer tire life. The Medium compound will be between the Soft and Hard in grip levels, pace, and tire life. For race sessions, cars must start the race on the compound used in Qualifying.

TIRE SETTINGS (ALL FOUR TIRES)



STARTING PRESSURE

Air pressure in the tire when the car is loaded into the world. Higher pressures will reduce rolling drag and heat buildup, but will decrease grip. Lower pressures will increase rolling drag and heat buildup, but will increase grip. Higher speeds and loads will require higher pressures, while lower speeds and loads will see better performance from lower pressures. Cold pressures should be set to track characteristics for optimum performance.

LAST HOT PRESSURE

Air pressure in the tire after the car has returned to the pits. 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. Careful attention should be paid to the Hot Pressures to extract the most performance out of the tires during a race.

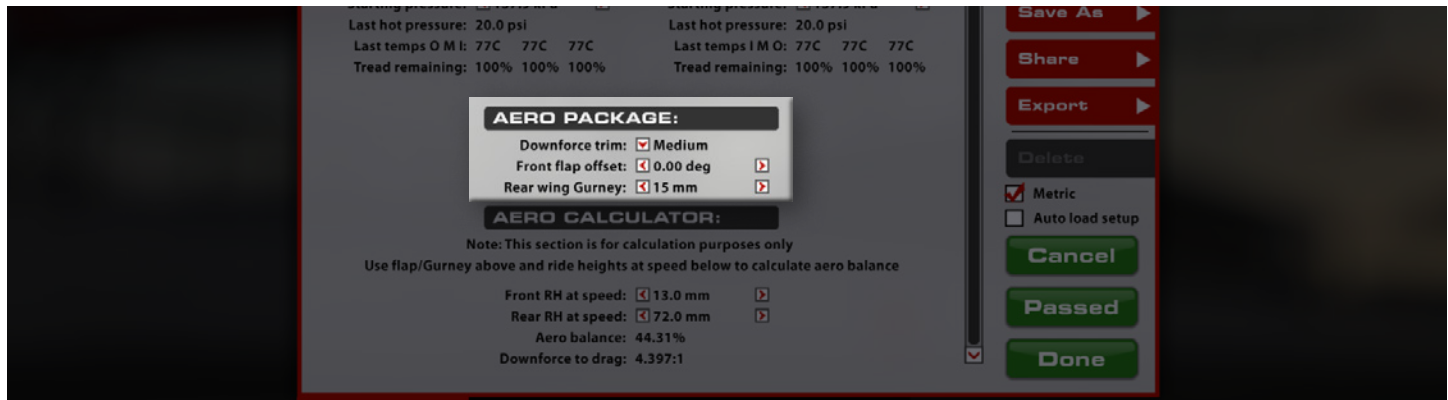
TIRE TEMPS O M I

The temperatures measured in the garage are tire carcass temperatures, measured within the tread rubber itself. Wheel Loads and the amount of work a tire is doing on-track is 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 while on track.

TREAD REMAINING

The amount of tread remaining on the tire once the car has returned from the pits. Tire wear is very helpful in identifying any possible issues with alignment, such as one side of the tire wearing excessively, but should never be prioritized over tire temperatures when analyzing handling balance.

AERO PACKAGE



DOWNFORCE TRIM

Three downforce packages are available to optimize performance for various track types. The High downforce package will produce the most aerodynamic grip but with the highest amount of drag and the Low downforce package will produce the least aerodynamic grip but will produce very little drag. The Medium downforce package will produce a result between the High and Low packages.

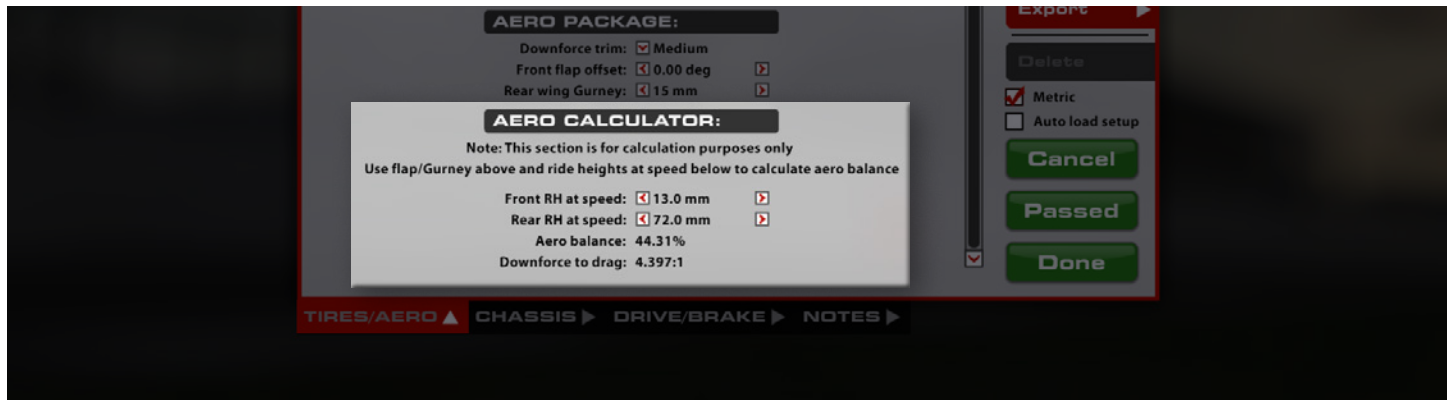
FRONT FLAP OFFSET

The front wing's upper flap can be changed to alter the downforce level as well as move the aerodynamic balance forward or rearward on the car. Higher values will increase the angle on the flap, producing more downforce from the front wing while shifting the aerodynamic balance forward. Lower values will reduce downforce and shift the aerodynamic balance rearward and slightly reduce drag.

REAR WING GURNEY

The Rear Wing Gurney setting changes the height of a small flap at the trailing edge of the rear wing's uppermost element. Increasing the wicker's height will shift aero balance rearward but will also increase drag, while decreasing the wicker height will reduce downforce and drag and shift aero balance forward.

AERO CALCULATOR



The Aero Calculator is a quick way to get a general idea of the car's aero balance in the current configuration. After setting the Aero Package to the desired values, changing the "RH at Speed" values to the car's on-track heights (pulled from telemetry data) will display the aerodynamic balance with those settings. This is very helpful for planning setup changes to either keep the same aerodynamic balance after a change or to understand how much the balance will shift with changes.

FRONT & REAR RH AT SPEED

The RH (Ride Height) at Speed settings are inputs for the aero calculator to determine the approximate aero performance with the chosen aero package. Changing these values changes the displayed Front Downforce value as well as the Downforce-to-Drag ratio in the calculator. To check on-track performance, use the average of the front ride height sensors (Front RH) and the average of the rear ride height sensors (Rear RH) from telemetry. These can also be changed to observe how rake will affect aerodynamic performance prior to ride height or spring changes.

AERO BALANCE

Aero Balance represents the percentage of total downforce that is working on the front axle. This is affected by fr, front wing angle, rear wing gurney, and the overall downforce trim, and should be monitored during the chassis setup process to prevent unexpected results. To ensure chassis adjustments don't become masked by aerodynamic changes, always refer to this value to ensure it remains constant before and after aerodynamic setup changes.

DOWNFORCE TO DRAG

The Downforce to Drag ratio is a relation of how much downforce is produced for one unit of drag. Generally, a larger Downforce to Drag ratio would imply the car is working efficiently and producing large amounts of downforce for given drag numbers, while a lower Downforce to Drag value is typically seen on more slippery, low-drag aerodynamic packages.

Chassis

FRONT



TRANSPARENT HALO

If desired, the Halo's central pillar can be removed to improve visibility while driving. This setting has no impact on vehicle performance.

WEIGHT DIST

The Weight Distribution value shows how much of the car's total weight is situated on the front axle. This can be used in conjunction with the Front Downforce percentage to tune how stable the car is at high speeds or how easily the car will rotate through low-speed corners. Increasing the Weight Distribution percentage will shift weight forward, making the car less darty and more stable at high speeds, but will be more resistant to direction changes at low speeds. Lower Weight Distribution values will shift weight rearward, causing the car to be twitchier at high speeds but will rotate more easily through slow corners.

HEAVE RATE

The front Heave Rate controls the stiffness of the heave spring. This spring works to resist purely vertical travel, and is crucial for maintaining and supporting high levels of downforce at higher speeds. Stiffer heave spring rates will result in less suspension travel over changing loads, which is good for aerodynamics, but can make the suspension overly stiff and reduce mechanical grip. Softer heave springs will help with mechanical grip but could lead to bottoming out at high speeds and higher ride heights at lower speeds. Further, softer heave springs can lead to excessive chassis movement and an unstable aerodynamic platform.

ROLL RATE

The Roll Rate changes the stiffness of the front suspension's anti-roll device. Higher roll rates will increase front roll stiffness, reducing roll but increasing understeer, while lower roll rates will reduce stiffness, increase roll, and reduce understeer. Increased roll stiffness will also reduce the change in wheel camber due to chassis roll, while softer roll stiffness values will result in more camber change.

RIDE HEIGHT

Front Ride Height measures the distance from the ground to a point on the chassis plane measured at the front axle. Since this value is measured at the chassis floor, it does not account for the plank along the center of the car, and thus doesn't accurately represent the car's actual ground clearance. Altering the static ride height will affect aerodynamic performance, with lower front ride heights increasing overall downforce, more forward aero balance, and less drag.

FRONT CORNERS



CORNER WEIGHT

This is the weight situated at the wheels while in the garage. Correct weight arrangement around the car is crucial for optimizing a car for a given track and conditions.

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. Higher negative camber values will provide more cornering forces in the direction of the tire's camber (more aggressive turn-in response), but may reduce braking capability at high camber angles. Always use negative camber on all four wheels, however circuits with significantly more turns in one direction may benefit from asymmetric camber values.

TOE-IN

Toe is the angle of the wheel, looking from vertical, relative to the chassis centerline. Toe-in is when the front of the wheels are closer to the centerline while Toe-out is when the front of the wheels are farther from the centerline than the rear of the tires. On the front end, Toe will alter how quickly the tires respond to steering inputs and influence how stable the car is in a straight line. Toe-out settings (negative garage value) will increase turn-in response and make the car less stable in a straight line, while Toe-in (positive garage value) will increase straight-line stability while making initial steering response more sluggish.

REAR CORNERS



CORNER WEIGHT

This is the weight situated at the wheels while in the garage. Correct weight arrangement around the car is crucial for optimizing a car for a given track and conditions.

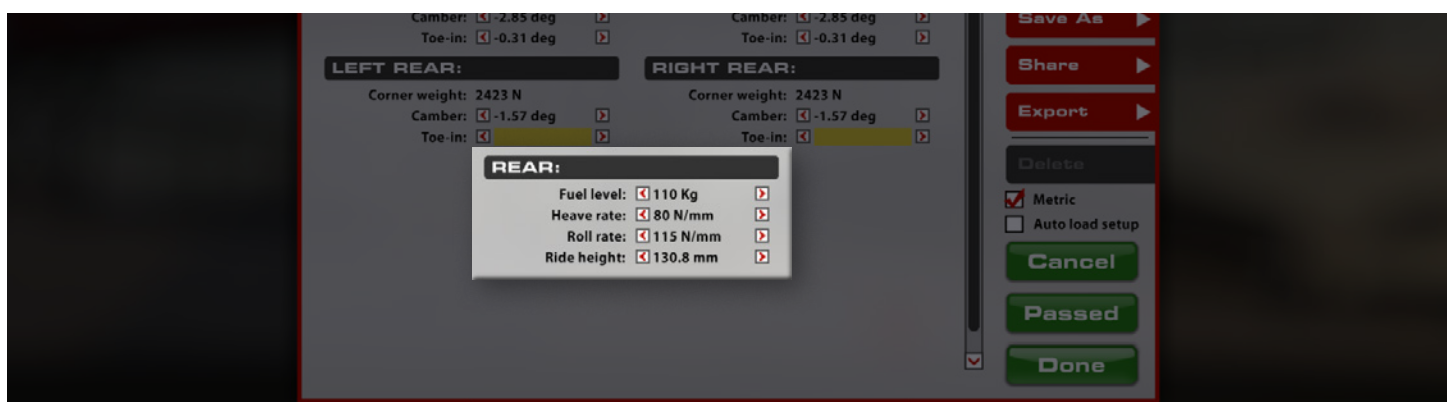
CAMBER

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. In the rear, more camber produces more cornering stability, especially at high speeds and high loads, while less camber will often increase traction on throttle application. Always use negative camber on all four wheels, however circuits with significantly more turns in one direction may benefit from asymmetric camber values.

TOE-IN

Toe is the angle of the wheels relative to toe chassis centerline when viewed from above. Positive toe-in puts the front of the tires closer to the centerline than the rear of the tires, negative toe-in is not allowed at the rear. For the rear, it is desirable to have toe-in (positive value) for both rear tires, which produces a more directionally-stable configuration and helps with throttle application. Less toe-in will allow the car to rotate better, especially at turn-in and on throttle, but will be less stable in a straight line and through the corner's center. For the rear of the car, each wheel is adjustable individually instead of having a net toe value like the front end.

REAR



FUEL LEVEL

The amount of fuel in the car can be altered for various configurations, such as qualifying, or removed entirely during the chassis setup process. It's usually best to set the car up with low or no fuel, then add the desired fuel level before going out to the track.

HEAVE RATE

The rear Heave Rate controls the stiffness of the rear heave spring. This spring works to resist purely vertical travel, and is crucial for maintaining and supporting high levels of downforce at higher speeds. Stiffer heave spring rates will result in less suspension travel over changing loads, which is good for aerodynamics, but can make the suspension overly stiff which reduces mechanical grip. Softer heave springs will help with mechanical grip, but could lead to bottoming out at high speeds and higher ride heights at lower speeds. Rear heave rate greatly influences the chassis' rake angle, and thus both the amount of downforce produced and the aerodynamic balance, around the circuit.

ROLL RATE

The Roll Rate changes the stiffness of the rear suspension's anti-roll device. Higher roll rates will increase rear roll stiffness, reducing roll but increasing oversteer, while lower roll rates will reduce stiffness, increase roll, and increase understeer.

RIDE HEIGHT

The rear Ride Height is represented as a single value at the chassis centerline at the rear of the floor. Since this value is measured at the floor, it does not account for the plank along the center of the car, and thus doesn't accurately represent the car's actual ground clearance. Altering the static ride height will affect aerodynamic performance, with higher rear ride heights increasing overall downforce, more forward aero balance, and more drag.

Drive / Brake

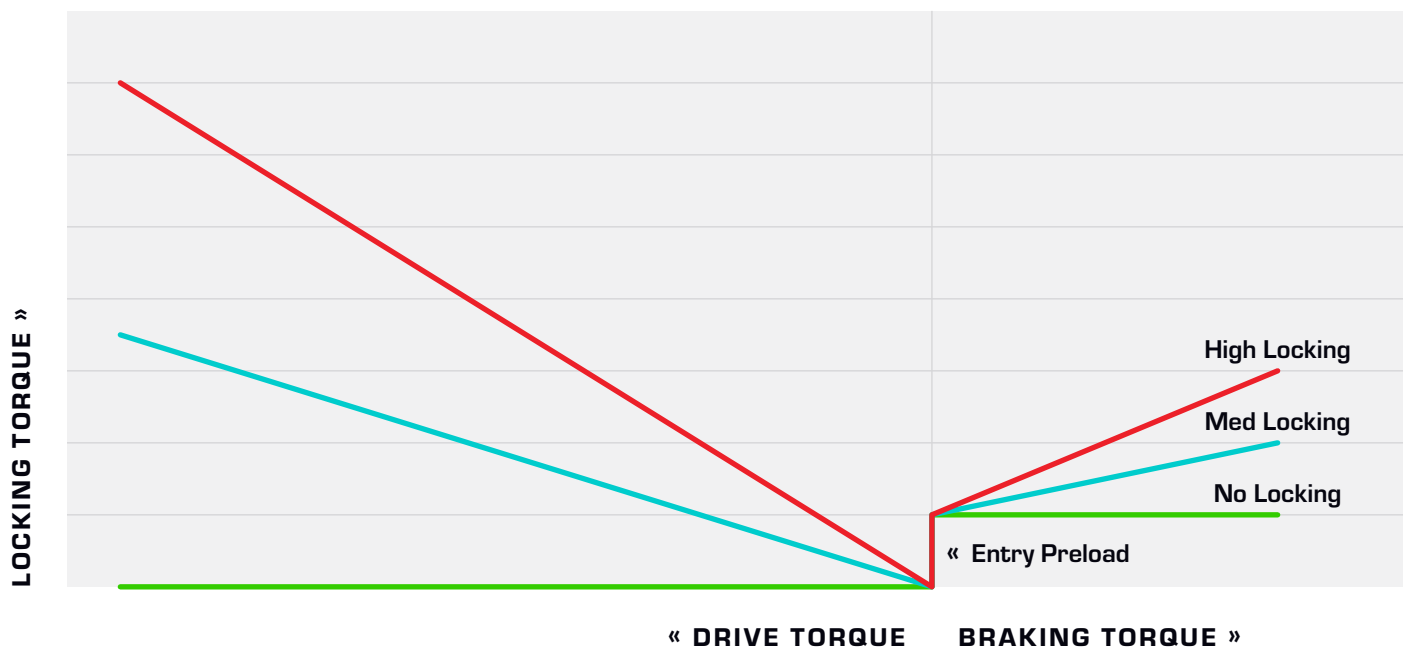
DIFFERENTIAL



ENTRY PRELOAD

The preload setting applies a static locking force to the differential that will be present during deceleration, but has no effect during center-corner or acceleration. Increasing the preload setting applies more locking force to the differential, inducing understeer on deceleration, while reducing the preload force will reduce locking force and run more open, with more oversteer on deceleration.

LOCKING TORQUE



ENTRY

The differential's Entry setting controls the amount of locking force present during deceleration in a corner and the turn-in phase. Higher values apply more locking force and more understeer, while lower values apply less locking force and more oversteer during this section of a corner. This adjustment can be changed in the car via the ENTRY setting in the F8 black box.

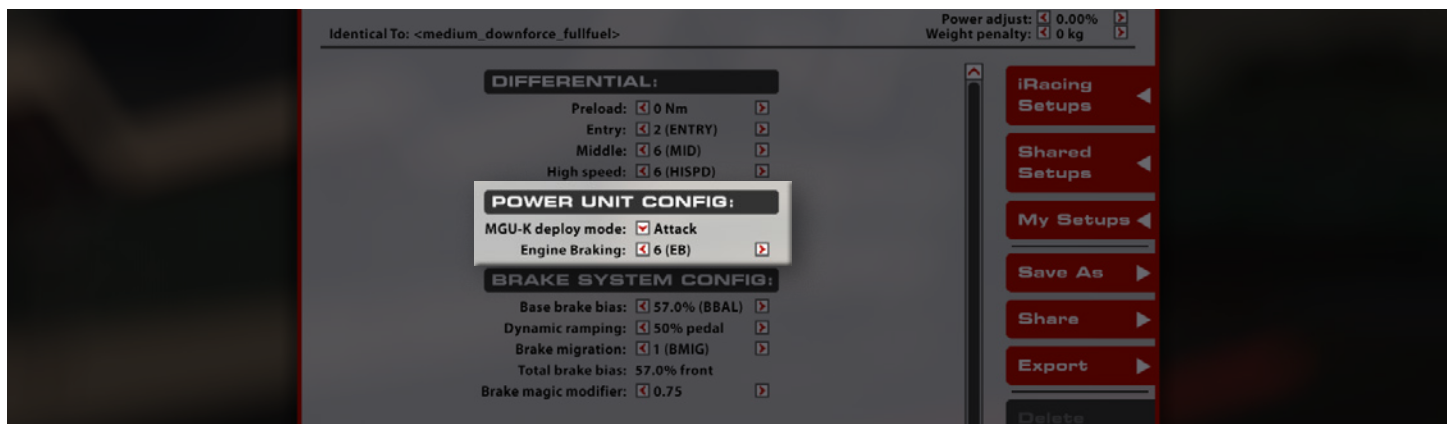
MIDDLE

Once the deceleration phase of a corner is complete but prior to the acceleration phase, the differential will apply a locking force based on the Middle setting. Higher values will apply more locking force and lower values will apply less locking force. Since this setting is active during a transition phase between deceleration and acceleration, conditions for both entry and exit overlap, with higher Middle settings producing more understeer on deceleration and oversteer on acceleration. Lower Middle settings will do the opposite, with more oversteer on deceleration and more understeer on acceleration. This adjustment can be changed in the car via the MID setting in the F8 black box.

HIGH SPEED

The High Speed setting controls the amount of locking force applied to the differential during acceleration and through corners with heavy throttle applications. As with the other two differential settings, higher values apply more locking force and lower values reduce the locking force during the acceleration phase. Higher amounts of locking force will increase oversteer, while reducing the locking force will increase understeer on throttle. This adjustment can be changed in the car via the HISPD setting in the F8 black box.

POWER UNIT CONFIG



MGU-K DEPLOY MODE

The Mercedes W12 Hybrid system can run in one of five modes to alter how much battery State of Charge (SoC) is present in the system at the end of the lap:

No Deploy - This mode will prevent the hybrid system from deploying electrical energy to propel the car with an electric motor (MGU-K), and is used to ensure the battery is fully charged at the beginning of a qualifying lap. This engine mode is only available during Qualifying and Practice/Test sessions.

Qual - This mode is intended to be used on flying laps during qualifying sessions. It will deploy nearly all of the available electrical energy to propel the car as much as possible with an electric motor (MGU-K) over a single lap. During qualifying, you will use No Deploy to store as much electrical energy as possible during your out lap and, potentially, slow laps, and will switch to Qual mode just before the final corner as you approach start/finish to begin your fast lap(s). This engine mode is only available during Qualifying and Practice/Test sessions.

Attack - This mode should be used sparingly and primarily in short bursts during races to aid overtaking. It will draw the battery charge down quite aggressively, costing performance if you need to re-charge the battery. Typically, this mode will give a smaller lap time benefit than you will lose having to re-charge, so should be used only when it is absolutely necessary to make an overtake. It may also be used during the last lap or so of a race to draw the battery down when it will no longer be needed. This engine mode is only available during Practice and Race sessions.

Balanced - This mode should be used most of the time during races. It deploys as much electrical energy as possible to propel the car and minimize lap times while maintaining an average battery state of charge (SoC) of 80% over the lap. During the opening laps of a session, it will take 2-3 timed laps for the controller to learn and draw the battery down from 100% to 80%. From the 3rd or 4th timed lap, the system should deploy in a stable and consistent manner from lap to lap. This engine mode is only available during Practice and Race sessions.

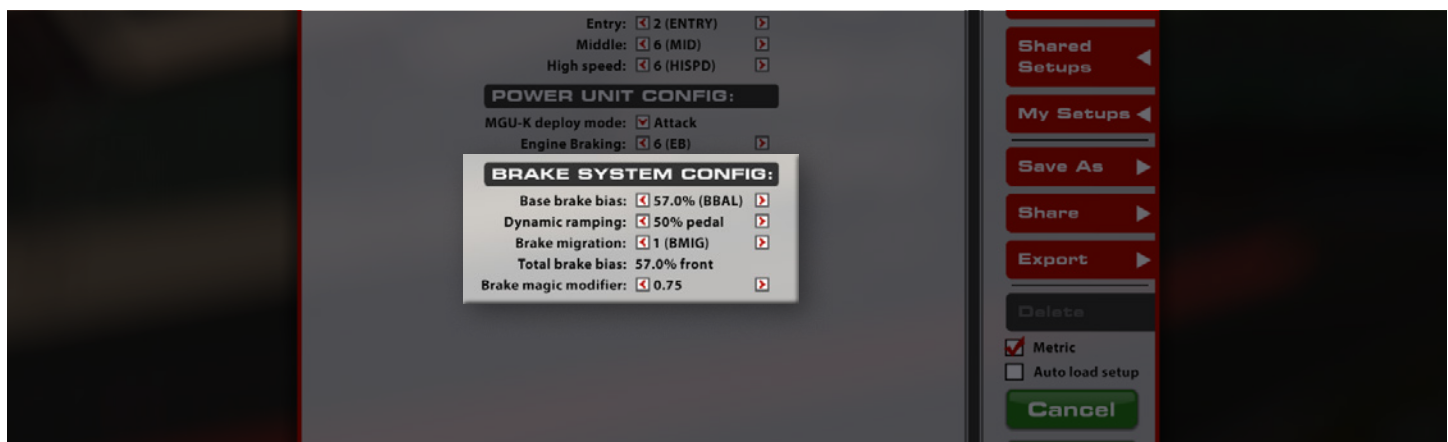
Build - This mode should only be used when you are desperate to build battery SoC as quickly as possible and can afford to compromise lap times to do it. It will target an average SoC of 100% over the lap. Note: you should not keep using this deployment mode once it has stabilized, as harvested electrical energy will be lost if the battery is already at 100% SoC. This engine mode is only available during Practice and Race sessions.

While on track, the Power Unit system is limited to four deployment mode changes per lap. Once the limit has been reached, the system will remain in whichever mode was last selected until the car has crossed the start/finish line to begin another lap.

ENGINE BRAKING

The Engine Braking setting controls how much deceleration force will come from the engine when the driver releases the throttle. Higher amounts of engine braking occur at lower setting values, and can induce more oversteer when off-throttle. Less engine braking is produced at higher setting values and can result in more understeer when off throttle. This adjustment can be changed in the car via the EB setting in the F8 black box.

BRAKE SYSTEM CONFIG



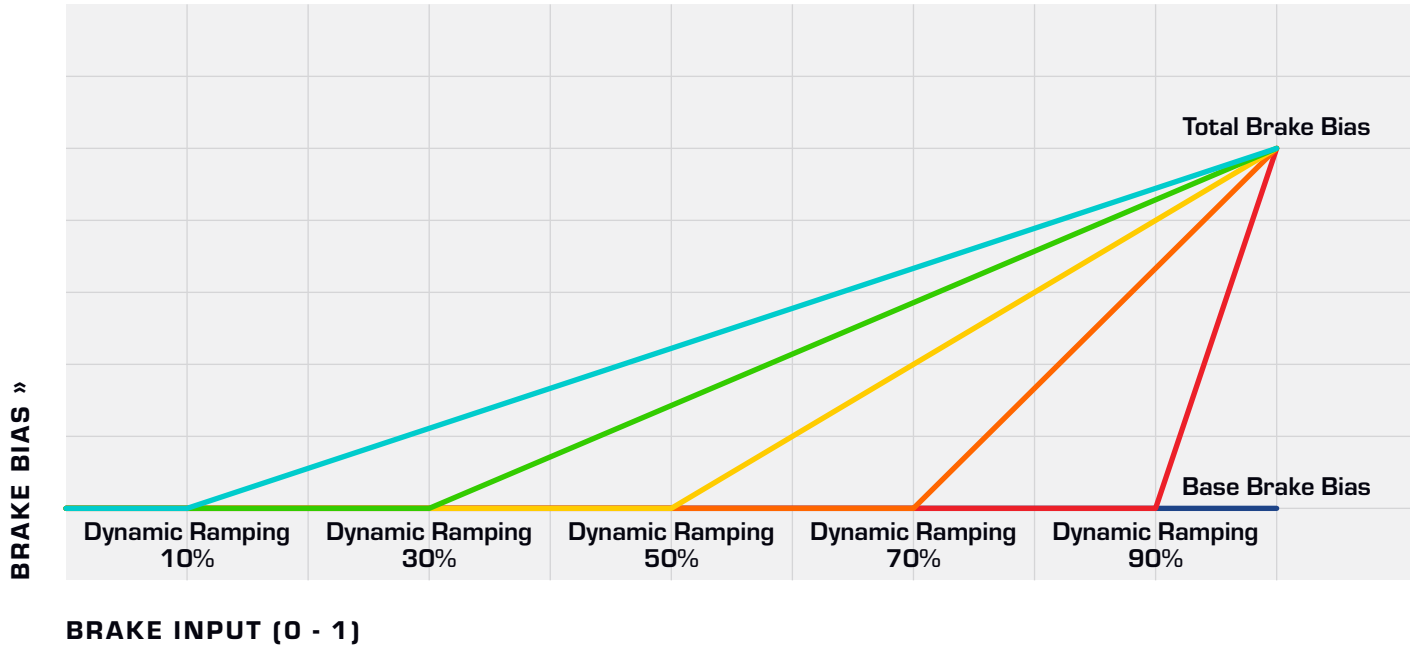
BASE BRAKE BIAS

The Base Brake Bias sets the amount of total braking force that is sent to the front brakes. Increasing this value shifts more braking force to the front axle, decreasing this shifts more to the rear of the car. This setting should be set so that maximum applied braking force doesn't lock either the front or rear axle unexpectedly, but can also be used to tune the car's handling at turn-in. Higher brake bias values will result in a more directionally-stable car under braking, but can slightly induce understeer and risk locking one of the front wheels if set too far forward. Lower brake bias values will cause the car to want to turn into a corner more easily under braking, but can potentially lock one of the rear wheels and spin the car. This adjustment can be set in the car via the BBAL setting in the F8 black box.

DYNAMIC RAMPING

The point at which brake bias ramping will begin can be set with the Begin Bias Ramping setting. This value sets when the brake bias will begin to increase from the Base Front Brake Bias setting to the Total Brake Bias value, with this value representing the amount of pedal travel where ramping begins.

DYNAMIC BRAKE BIAS RAMPING



BRAKE MIGRATION

When the driver presses the brake pedal past the value set with the Dynamic Ramping option, the brake bias will begin moving forward from the Base Brake Bias value to a value set with the Brake Migration setting to reach the Total Brake Bias value at 100% brake travel. Each setting of Brake Migration will increase the Total Brake Bias value by 1% from no change at setting 1 to a 9% forward value at setting 10. This value can be adjusted in-car via the BMIG setting in the F8 black box.

This setting is important to achieving peak braking performance at the high amounts of aerodynamic load produced at high speeds. Having the brake bias shift forward under heaving braking takes advantage of the increased braking capability under high aero loads, but also shifts the brake rearward as speed (and aero load) decreases. This helps to allow heavy braking forces while avoiding front-wheel lockup late in the braking phase.

TOTAL BRAKE BIAS

The maximum brake bias that will be achieved at full brake pedal travel is shown in the Total Peak Balance value. This setting takes the Base Brake Bias setting and applies the Brake Migration Value to determine what the Brake Bias will be at full pedal travel.

BRAKE MAGIC MODIFIER

Brake Magic is a system that will change the brake bias to a pre-set, front-heavy brake bias setting to quickly heat the front brakes and tires for safety car or warm-up laps. The garage value for Brake Magic determines the brake bias when Brake Magic is turned on, represented as a decimal instead of percentage (0.75 represents 75% brake bias).