SETUP GUIDE FOR GTR2 : SETUP YOUR CAR IN 21 STEPS

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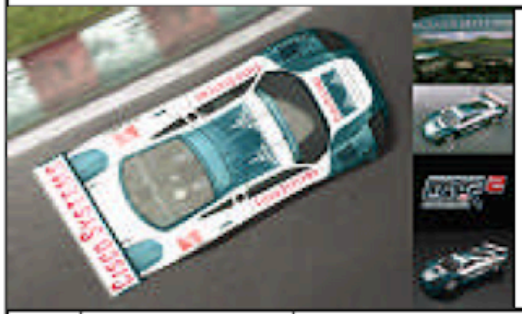
This Setup guide is intended for the GT racing car simulation on PC : GTR2. Its intent is to give a simple and accessible methodology for a pilot with basic knowledge to delve in them. The guide presented in a table form will be covering the different settings that can be adjusted on your car each in turn. The ideal starting point to work from is the game's default setup. The first thing you should do is to go get use to it on track without changing anything except the gear ratios to adapt them to the chosen circuit. Next, once you are lapping consistently, we are going to work on each aspect of the setups, STEP by STEP modifying one parameter at a time. This guide is intended for the simulation mode where no aids interfere with the car's reaction: The feedback from your modification will be at its maximum.

Each modification needs to be followed by a few laps to validate its positive or negative effect on the INDICATORS. These INDICATORS can be given in an explicit manner (tire temperature for example) or in an implicit manner (oversteering tendency for example). To keep it simple the table will list for each INDICATOR an ACTION to take.
Each STEP is divided amongst numerous ELEMENTS to configure, once no more ACTIONS can be taken on a given ELEMENT you will be able to consider that configuration done. Each STEP's difficulty is given with the color of the arrow in the rightmost column.



Easy setup Average setup Hard setup

In Green => Goal to obtain in tweaking the setup
In Red => Increases tire wear
In Blue => Diminishes tire wear

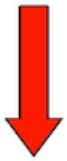
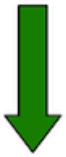
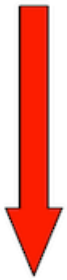
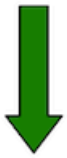
Indicator Type :
= Visual MoTeC Motec ɔmportment

Last recommendations :

+ You need to be comfortably set and in a calm environment. Concentrate on the task: most of the settings you are going to work on are hardly perceptible without good concentration.
+ Save the setup at each STEP with a clearly defined name (ex. 993RS_Race_STEP14.svm).
+ If the modification doesn't improve the INDICATOR, move back one step.
+ If the modification improves the INDICATOR, try going further in that direction to reach the point where you should stop.

STEP	ELEMENT	INDICATOR (Information or Comportment)	ACTION to take	Difficulty
0	DEFAULT SETUP	_	Change GTR2's default setup for your car	X
		_	Choose your tires (depending on race length and weather)	X
		_	Choose the radiator opening (depending on race length and external temperature)	X
		_	Choose revolution limits (depending on race length and external temperature)	X
		_	Choose the initial fuel quantity (depending on race length and weather)	X
1	GEAR BOX MoTeC	Engine reaches revolution limits in the longest straight in 6th gear	Lengthen 6th gear and re-arrange 2nd to 5th gear to get even spacing between 1st & 6th gear	↓
		Engine does not reach revolution limits in the longest straight in 6th gear	Shorten 6th gear and re-arrange 2nd to 5th gear to get even spacing between 1st & 6th gear	
		Engine reaches the revolution limit at the end of the longest straight	None	
2	BRAKE DUCT	Brake temperature gets lower than 300°C in the straights	Diminish brake duct openings	↓
		Brake temperature goes over 600°C while braking	Increase brake duct openings	
		Brake temperatures are always between 300 and 600°C	None	
3	CAMBER INITIAL SETUP	Interior Tire Temperature - Exterior Tire Temperature < 0°C	Increase negative camber	↓
		Interior Tire Temperature - Exterior Tire Temperature > 5°C	Decrease negative camber	
		0°C < Interior Tire Temperature - Exterior Tire Temperature < 5°C	None	
	TIRE PRESSURE INITIAL SETUP	Center of tire Colder than Exterior and Interior Tire Temperature	Increase Tire Pressure	
		Center of tire Warmer than Exterior and Interior Tire Temperature	Lower Tire Pressure	
		Center Tire Temperature is Between Exterior and Interior Tire temperature	None	
4	BRAKE BIAS	Front wheels lock first while braking (Tendency for the car to go straight off track)	Adjust bias towards rear	↓
		Rear wheels lock first while braking (Tendency for the car to spin)	Adjust bias towards front	
		Front wheels and rear wheels lock at the same time	None	
5	STEERING LOCK	Steering reaches the end stop in the sharpest turn	Increase Steering Lock	↓
		Steering at 50% in the sharpest turn	Decrease Steering Lock	
		Steering at 90% in the sharpest turn	None	

6	DIFFERENTIAL POWER	Good propulsion but car understeers under power	Decrease power
		Lack of propulsion exiting corners	Increase power
		Good balance between understeer / Propulsion on corner exit	None
	DIFFERENTIAL COAST	Stable braking but lift off understeer	Decrease coast
		Unstable braking, lift off oversteer	Increase coast
		Good balance between understeer / Braking stability	None
	DIFFERENTIAL PRELOAD	Car too nervous transitioning from braking / Acceleration	Decrease preload
		car not enough responsive transitioning from braking / Acceleration	Increase preload
		Good responsiveness in the Braking / Accelerating transition	None
7	SPLITTER	Fast track (type Enna Pergusa or Monza)	Front splitter at 1
		All other tracks	Front splitter at 2
	WING	Understeering car in a fast curve (more than 120 kph)	Decrease rear wing
		Oversteering car in a fast curve (more than 120 kph)	Increase rear wing
		Car is neutral or slightly oversteering in a fast curve	None
8	GEAR BOX	Engine reaches revolution limits in the longest straight in 6th gear	Lengthen 6th gear and re-arrange 2nd to 5th gear to get even spacing between 1st & 6th gear
		Engine does not reach revolution limits in the longest straight in 6th gear	Shorten 6th gear and re-arrange 2nd to 5th gear to get even spacing between 1st & 6th gear
		Engine reaches the revolution limit at the end of the longest straight	None
9	CASTER	Steering soft, limpy / Not enough feedback / Car understeering	Increase caster
		Steering too firm / Car unstable in fast curves	Decrease caster
		Stable car and steering as desired	None
10	FRONT TOE IN/OUT	Turning in is hard	Increase opening (Negative value)
		Lacking straight line stability	Decrease opening
		Good balance between turn-in / straight line stability	None
	REAR TOE IN/OUT	Looking for faster top speed	Decrease opening
		Rear-end instability in a straight	Increase opening
		Good stability for the rear-end in a straight	None
11	RIDE HEIGHT (DEFAULT SETUP) MoTeC	Motec analyser shows that the car is hitting the ground	Increase ride height keeping rear 10 to 20 mm higher than front
		Motec analyser shows that the car is too high	Decrease ride height keeping rear 10 to 20 mm higher than front
		Motec analysis shows that the car is at its lowest without touching ground.	None
12	CAMBER	Interior Tire Temprature - Exterior Tire Temperature < 0°C	Increase negative camber
		Interior Tire Temperature - Exterior Tire Temperature > 5°C	Decrease negative camber
		0°C < Interior Tire Temperature - Exterior Tire Temperature < 5°C	None
	TIRE PRESSURE	Center of tire Colder than Exterior and Interior Tire Temperature	Increase Tire Pressure
		Center of tire Warmer than Exterior and Interior Tire Temperature	Lower Tire Pressure
		Center Tire Temperature is Between Exterior and Interior Tire temperature	None
13	FRONT ANTI ROLL BAR	Imprecise steering in slow curves	Increase front ARB
		Need more grip in slow curves	Decrease front ARB
		Good compromise between grip / steering accuracy in slow curve	None
	REAR ANTI ROLL BAR	Car understeers in slow curve	Increase rear ARB
		Car oversteers in slow curve	Decrease rear ARB
		Neutral car handling in a slow curve	None
14	CAMBER	Interior Tire Temeprature - Exterior Tire Temperature < 0°C	Increase negative camber
		Interior Tire Temperature - Exterior Tire Temperature > 5°C	Decrease negative camber
		0°C < Interior Tire Temperature - Exterior Tire Temperature < 5°C	None
	TIRE PRESSURE	Center of tire Colder than Exterior and Interior Tire Temperature	Increase Tire Pressure
		Center of tire Warmer than Exterior and Interior Tire Temperature	Lower Tire Pressure
		Center Tire Temperature is Between Exterior and Interior Tire temperature	None

15	SPRINGS (GLOBAL SETTING)	Car is too soft does not react promptly to controls	Harden front and rear springs	
		Car is too nervous and GLOBALLY lacks grip	Soften front and rear springs	
		Car is responsive and steady	None	
	SPRINGS (CAR BALANCE)	Car is GLOBALLY understeering (middle of curve with no gas or brakes applied)	Harden rear springs or soften front springs	
		Car is GLOBALLY oversteering (middle of curve with no gas or brakes applied)	Harden front springs or soften rear springs	
		Car is GLOBALLY neutral (middle of curve with no gas or brakes applied)	None	
16	RIDE HEIGHT MoTeC	Motec analyser shows that the car is hitting the ground	Increase ride height keeping rear 10 to 20 mm higher than front	
		Motec analyser shows that the car is too high	Decrease ride height keeping rear 10 to 20 mm higher than front	
		Motec analysis shows that the car is at its lowest without touching ground.	None	
17	CAMBER	Interior Tire Temperature - Exterior Tire Temperature < 0°C	Increase negative camber	
		Interior Tire Temperature - Exterior Tire Temperature > 5°C	Decrease negative camber	
		0°C < Interior Tire Temperature - Exterior Tire Temperature < 5°C	None	
	TIRE PRESSURE	Center of tire Colder than Exterior and Interior Tire Temperature	Increase Tire Pressure	
		Center of tire Warmer than Exterior and Interior Tire Temperature	Lower Tire Pressure	
		Center Tire Temperature is Between Exterior and Interior Tire temperature	None	
18	SHOCK ABSORBERS BUMP/REBOUND **SLOW**	Weight transfer too fast resulting in grip lost	Slightly harden both front and rear	
		Weight transfer too slow / Car too nervous in curves	Slightly soften both front and rear	
		Car understeers in turn entry and turn exit	Harden rear or soften front	
		Car oversteers in turn entry and turn exit	Harden front or soften rear	
		Balanced weight transfers and neutral car handling in curves	None	
	SHOCK ABSORBERS BUMP/REBOUND **FAST**	Bumpy track /Lost of adherence over bumps and kurbs	Slightly soften both front and rear	
		Car bounces over bumps resulting in a lost of grip	Slightly harden both front and rear	
		Car understeers over bumps	Harden rear or soften front	
		Car oversteers over bumps	Harden front or soften rear	
		Balanced car and neutral handling over bumps	None	
19	RIDE HEIGHT MoTeC	Motec analyser shows that the car is hitting the ground	Increase ride height keeping rear 10 to 20 mm higher than front	
		Motec analyser shows that the car is too high	Decrease ride height keeping rear 10 to 20 mm higher than front	
		Motec analysis shows that the car is at its lowest without touching ground.	None	
20	PACKERS MoTeC	Even if ride height is properly adjusted, the car touches on some bumps	Install some packers to prevent ground contacts	
		Car never touches ground even on bumps	None	
21	CAMBER	Interior Tire Temperature - Exterior Tire Temperature < 0°C	Increase negative camber	
		Interior Tire Temperature - Exterior Tire Temperature > 5°C	Decrease negative camber	
		0°C < Interior Tire Temperature - Exterior Tire Temperature < 5°C	None	
	TIRE PRESSURE	Center of tire Colder than Exterior and Interior Tire Temperature	Increase Tire Pressure	
		Center of tire Warmer than Exterior and Interior Tire Temperature	Lower Tire Pressure	
		Center Tire Temperature is Between Exterior and Interior Tire temperature	None	

Quick Setup	Car is understeering	Car is oversteering
Turn entry	• - front spring tension • + rear spring tension • - front bump dampers • - rear rebound dampers • + caster • + negative camber front • - negative camber rear • + front toe-in • + front brake bias • - coast (FWD) + coast (RWD)	• + front spring tension • - rear spring tension • + front bump dampers • + rear rebound dampers • - caster • - negative camber front • + negative camber rear • - front toe-in • + rear brake bias • + coast (FWD) - coast (RWD)
Turn apex	• - front Anti-roll bar • + rear anti-roll bar • + negative camber front • - negative camber rear • - power (FWD) + power (RWD)	• + front Anti-roll bar • - rear anti-roll bar • - negative camber front • + negative camber rear • + power (FWD) – power (RWD)
Turn exit	• + front spring tension • - rear spring tension • + front rebound dampers • + rear bump dampers • - caster • - negative camber front/rear • - rear toe-in • - power (FWD) + power (RWD)	• - front spring tension • + rear spring tension • - front bump dampers • - rear rebound dampers • + caster • + negative camber front/rear • + rear toe-in • + power (FWD) - power (RWD)
General	• Softer springs and anti-roll bars make for increasing grip in slower turns and decreasing tire wear and temperature • But it as well decreases the car's responsiveness and requires higher ride height. • **Balance grip/wear vs. response by adjusting springs**	
	• Decreasing tire pressure makes for better grip, but increases tire temps and wear • Increasing front toe-in makes for better turning, but increases tire temps and wear • Increasing camber makes for better turning, but increases tire temps and wear • **Balance tire temps by adjusting camber (inner temp reading), toe-in (outer temp reading), and tire pressure (middle temp reading)**	
	• Stiffer suspensions make for better car control, but make vulnerable to bumps and curbs • **Balance ride height and decrease bump/rebound dampers to avoid getting odd reactions to curbing**	
	• **Balance brake bias and brake power to reduce tire wear from locking front/rear tires**	