

Sega GT Tuning FAQ

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SEGA GT SETTINGS GUIDE V1.0 (Copyright 2001-2002 Jacob Chodoriwsky)

System: Dreamcast

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This guide can also be found at my website:

Shinkutat's Sega GT Warehouse of Goodness

<http://www.geocities.com/shinkutat>

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1. Handling Settings

First of all it should be noted that drastic changes bring drastic results; if you want to tune your car well, take it into Time Attack and go on Sky Peak Hill (forward or reverse) because this is the most difficult track in the game in terms of terrain. If your car handles well on this track, it will handle well on any track. Test your car, make a minor adjustment to one setting, repeat until your car handles the way you like it.

Spring Rate -This affects the stiffness of the springs, which affect handling responsiveness and oversteer/understeer. Having the bars lined up is the natural neutral for your car. Having the front higher than the rear will have your car respond quicker but have understeer more or oversteer less. If the front is lower than the rear, the car will respond a tad slower but oversteer more or understeer less. Increasing both makes the car stiffer and generally turn quicker and respond to bumps in the road more. Lowering both makes the car turn slower and respond to bumps less.

Ride Height -The ride height detemines your car's steering responsiveness. The lower your car is, the quicker it responds and the more sensitive the steering is. However, if your car is too low it will bottom out on the rough courses and you will lose control. If it is to high the car will not respond well and turn too slowly. It also affects weight transfer; the higher your car is the more

weight transfer will occur during braking and turning, so a high car will get more front tire grip from braking but less rear tire grip so it will turn sharper (initially) but accelerate out of the corner more slowly. A Lower car will turn quicker and will also have a better top speed and better acceleration overall due to being more aerodynamic.

Dampers -The hardness of the shock absorbers. Raise these if you want your car to turn more (increase oversteer) in response to turning and/or bumps in the road. Lower these if you want your car to react less (increase understeer) and turn slower and not react to bumps on the road as much.

Camber Angles -the angles at which your car's tires meet the ground. Increasing this gives your car a bigger turning circle, but makes its steering more sensitive; so it's best to never adjust this by any more than 0.2 on either the front, back, or both at any one time; adjust it too much and you'll oversteer all over the place! Usually you only need to increase the front camber angle, but in some situations, like when a tiny adjustment makes your car oversteer too much (F: 0.1/R: 0.0 makes your car turn too tight), make the rear the same as the front or a bit less to counteract the effect.

Stabilizers -Stiffness of the car chassis. You usually don't need to change this but for some cars that roll too much on corners and lose their grip due to one side lifting up (and the rear-end slides out when you hit the gas even a bit). If that happens to you, increase both the front and rear stabilizers equally by 1. If you find that the car is too stiff and turns too tight but the rear end doesn't slide, try decreasing both the front and rear stabilizers by 1.

Brakes -Front/Rear brake balance: start at 50/50, and test it out; then work your way up increasing front and decreasing rear until when you brake hard your tires lock; then put it back by 1 so that your brakes are the strongest possible without locking your tires. You can tell you've locked your tires when you brake hard and then can't turn for the next 1-2 seconds.

Tires -These should almost always be Soft/Soft. The only exception would be some RR cars and the Viper GTS/R 2000 Concept which turn too tight and must have Mediums in the front so that they don't oversteer all the time.

Downforce -The pressure on the front and/or rear tires to keep them in contact with the ground. Adding downforce is like adding weight, and can be used to balance out a car that does not have an ideal weight balance. Adding downforce to the rear increases rear traction, but decreases front traction, so in a rear-drive car, for example, this would keep the back wheels on the ground more but hurt steering responsiveness and cause the car to oversteer less or understeer more. Adding downforce in the front puts more pressure on the front wheels, so this will usually increase the front wheels' traction but in turn decrease the rear wheels' traction. In a rear-drive car, for example, this would make the car oversteer more or understeer less and turn quicker. The downside is that the rear wheels would slip more in some situations and acceleration would be reduced. Any downforce at all will make your car slower (by a bit) in the straights, but if it makes the car handle better you'll be faster in the turns (which is more important).

2. Engine/Gear Settings

Turbo/Supercharger Boost -always leave this at max, except when you must be under a certain HP level for a message board challenge.

Gears -Generally speaking, adjusting gear ratios will tweak your acceleration (both initial and lateral) and top speed. However, an increase in one area does not necessarily

mean a decrease in another. As compared to the stock gear ratio for any given car, optimized settings will generally increase the car's takeoff acceleration, lateral acceleration, and top speed. Here are the steps to optimize any car's gear ratios:

1) First, write down your car's RPMs for max HP output and max torque output. Now go to time trial with your car and choose Heat Stage 1000m (here you can test both 400m (initial) and 1000m (lateral) acceleration. Set the Final Drive to the maximum (for now). Everything depends on making your car run at its most power-producing RPM levels. Put first gear all the way up, provided you can do the following:

NA

2nd: just below 1500 less than max torque
*3rd: just below 1000 less than max torque
4th: just below 500 less than max torque
5th: just below 500 less than max HP
6th: just below max HP
**7th: just below 500 or 1000 more than max HP

Supercharger

2nd: just below 1000 less than max torque
3rd: just below 500 less than max torque
*4th: just below max torque
5th: just below 500 less than max HP
6th: just below max HP
**7th: just below 500 or 1000 more than max HP

Turbo

2nd: just below 1000 less than max torque
3rd: just below 500 less than max torque
*4th: just below 1000 less than max HP
5th: just below 500 less than max HP
6th: just below max HP
**7th: just below 1000 more than max HP

Note: Let's say you want to set the 2nd gear for a 7spd NA car; its max torque is 567lb/ft@5200RPM. You want to set its 2nd gear to start at just under 3700RPM. So if setting it to 2.435 makes it start at 3700RPM and 2.434 makes it start at 3698RPM, set it to 2.434.

This method is to make your car's acceleration really explosive when it shifts through the gears. You want to get out of 1st gear ASAP*** (that's when tires spin most), max torque in the first few gears (takeoff acceleration), and max HP in the higher gears (lateral acceleration).

* If your car has 6 gears, don't use the marked gear, and proceed to use the following settings for the next gear down (ex: NA car 6spd: use 4th RPM setting for 3rd gear, use 5th RPM setting for 4th gear, and use 6th RPM setting for 5th gear.)

** If your car has 5 gears, drop the gear marked with a single * as for 6 gear cars, but also ignore the 7th gear setting (ex: turbo car 5spd: use 5th RPM setting for 4th gear, and use 6th RPM setting for 5th gear.)

*** If your car prevents you from using the RPM levels I specified (ex: your 7th gear

won't start any higher than 3500RPM (way below the max HP level for any car in the game)), lower your first gear just low enough so that you can adjust the gear ratios to use the appropriate RPM levels.

Now, as for the cases where I gave two options (such as 7th gear for NA cars), use your own judgement and test them out. Setting your final gear is important so you don't make your car rev too low in its final gear (which makes cars go slower and shift back into the previous gear).

Once the main ratios are set, try it out in the 1000m using automatic transmission (for consistency's sake). Floor it off the line until you finish. Lower your final gear by 0.200 and repeat. Your time will keep getting better until a point (keep track of both your 400m times and your 1000m times). Once your 1000m time actually goes up (or if your 400m time goes up drastically), set your Final Drive back up by 0.100. If it goes back to the better time, leave it. If it's still not back to its best, put it up another 0.100 and leave it at that. Now go to the Sprint Zone and check its top speed. As long as your top speed is reasonable (taking into account its HP, torque, weight, class, aerodynamics, tire size, and drivetrain), don't change a thing since you won't hit your top speed on any of the real race courses anyway.

Happy tuning!
