

OWNERS' WORKSHOP MANUAL

GET TO KNOW YOUR DIRT STREET STOCK



LUCA



This manual is intended to provide you with a guide to using the setup adjustments available on the Street Stock so that you can have a better understanding of the adjustments available to you.

Before diving into advanced setup changes, it is best to become familiar with the car and track as well as how the car feels when you adjust the Tight to Loose slider. Get on track and focus on making smooth and consistent laps, identifying the proper racing line and experiencing the handling of the car with different levels of Tight to Loose.

Once you are confident that you are nearing your driving potential with the Tight to Loose slider, read on to the Advanced section to begin tuning the car more closely to your handling preferences.



DRIVING TIPS

Street Stocks are heavy and sluggish. Even though the car may feel underpowered, keeping tire spin to a minimum is important.

Try rolling into the throttle even if it feels like you can run more throttle. A lot of throttle doesn't always equate to going faster. Play around with the balance of throttle control and forward momentum to maximize your lap times.



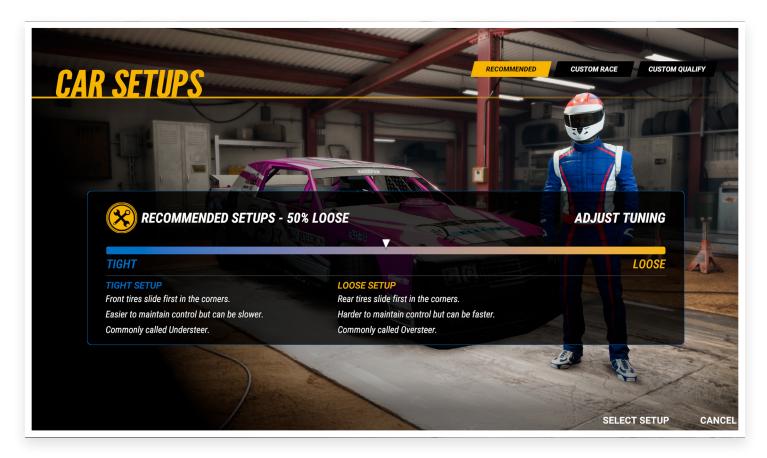
TECH SPECS

| CHASSIS BOTH CARS | | | |
|----------------------|--|---------|--|
| DESCRIPTION | Double Wishbone Independent front, floating leaf spring rear | | |
| LENGTH | 199 in | 5054 mm | |
| WIDTH | 89 in | 2260 mm | |
| WHEELBASE | 107 in | 2717 mm | |
| DRY WEIGHT | 2860 lbs | 1297 kg | |
| WET WEIGHT W/ DRIVER | 3200 lbs | 1451 kg | |

| POWER UNIT | | | |
|--------------|--|-----------|--|
| DESCRIPTION | Naturally aspirated steel block pushrod V8 | | |
| DISPLACEMENT | 358 cid | 5.9 Liter | |
| TORQUE | 355 lb-ft | 481 Nm | |
| POWER | 285 bhp | 212 kW | |

BASIC CAR SETUP

For those who wish to change the car's handling characteristics without diving into the Custom Setup options, the Recommended setups can be adjusted with the Tight/Loose slider in the Car Setups menu. Changing the slider setting towards either Loose or Tight will automatically adjust the car's setup to behave that way.



TIGHT SETUP

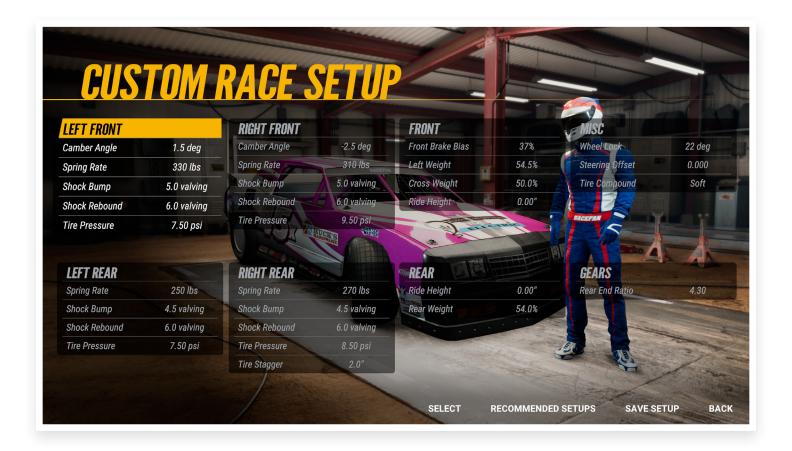
A Tight setup will generally be easier to control, especially when applying throttle because they will lose some front grip while cornering, a condition known as Understeer. These setups will not turn quite as easily, and can sometimes be slower, but will be easier to apply the throttle due to increased grip.

LOOSE SETUP

A Loose setup is more difficult to control because it will tend to lose rear grip when cornering, a condition known as Oversteer. These setups will turn better, but be more difficult to apply the throttle due to the reduced grip. This can be faster in some cases, but an excessively loose setup, will be slower due to the lack of rear grip.

ADVANCED CAR SETUP

Once you are confident that you are nearing your driving potential with the Tight to Loose slider, begin tuning the car more closely to your handling preferences with the following adjustments.



CORNERS

CAMBER ANGLE

Camber is the vertical angle of the wheel. Set the left side positive (tire leaning away from the car) and the right side negative (tire leaning towards the car).

| MORE CAMBER | LESS CAMBER |
|--------------------|--------------------|
| MORE TURN RESPONSE | LESS TURN RESPONSE |
| LESS STABILITY | MORE STABILITY |

SPRING RATE

Spring Rate describes how stiff the corner spring is. Softer springs allow for more mechanical grip and deal with bumps better, while stiffer springs produce better response to driver inputs. Smaller, slower tracks will benefit from softer springs while stiffer springs will work better at fast, high-banked tracks.

| LEFT FRONT | | RIGHT FRONT | |
|--------------------------|-----------------------------------|--|--|
| STIFFER | LOOSER ON TURN-IN | STIFFER TIGHTER ON TURN-IN | |
| SOFTER | TIGHTER ON TURN-IN | SOFTER LOOSER ON TURN-IN | |
| | | | |
| LEFT REAR | | RIGHT REAR | |
| LEFT REAR STIFFER SOFTER | TIGHTER ON EXIT LOOSER ON EXIT | RIGHT REAR STIFFER LOOSER ON EXIT AND THROTTLE SOFTER TIGHTER ON EXIT | |

SHOCK BUMP

Shock Bump affects how stiff the shock is in compression (reduction in length). Higher values will make the shock harder to compress (good for smooth conditions), while lower values make the shock easier to compress (good for bumpy conditions). Differences between corner bump stiffnesses change the overall balance of the car on corner entry and exit, but not in the center of the corner.

| FRONT SHOCK BUMP | REAR SHOCK | K BUMP |
|---|-----------------|-----------------------------------|
| HIGHER TIGHTER ON ENTRY LOWER LOOSER ON ENTRY | HIGHER LOWER | TIGHTER ON EXIT LOOSER ON EXIT |

SHOCK REBOUND

Shock Rebound affects how stiff the shock is during expansion (increase in length). Higher rebound values will slow expansion of the shock, which is good for aero and smooth conditions, while lower values will allow the shock to extend faster, which is good for bumpy conditions to prevent unloading the tires. Differences between corner rebound stiffnesses change the overall balance of the car on corner entry and exit, but not in the center of the corner.

| LEFT FRONT | | RIGHT FRONT | |
|----------------------------|-----------------|------------------------------------|--|
| HIGHER | TIGHTER ON EXIT | HIGHER LOOSER ON EXIT | |
| LOWER | LOOSER ON EXIT | LOWER TIGHTER ON EXIT | |
| | | | |
| LEFT REAR | | RIGHT REAR | |
| LEFT REAR Higher | LOOSER ON ENTRY | RIGHT REAR HIGHER TIGHTER ON ENTRY | |

TIRE PRESSURE

Air pressure in the tire. Higher pressures will reduce grip while lower pressures will increase grip. Higher speeds and loads will require higher pressures, while lower speeds and loads will see better performance from lower pressures. Pressures should be set to track characteristics for best performance.

| RIGHT FRON | T | RIGHT REAR | |
|-----------------------------|--------------------|---|--|
| HIGHER | TIGHTER ON TURN-IN | HIGHER LOOSER ON EXIT AND THROTTLE | |
| LOWER | LOOSER ON TURN-IN | LOWER TIGHTER ON EXIT | |
| | | | |
| LEFT FRONT | | LEFT REAR | |
| LEFT FRONT HIGHER | LOOSER ON TURN-IN | LEFT REAR HIGHER TIGHTER ON EXIT | |

TIRE STAGGER

Stagger is the difference in size of the left-rear and right-rear tire.

| HIGHER STAGGER | LOWER STAGGER |
|--|---------------------------------------|
| BETTER TURN-IN | MORE UNDERSTEER ON TURN-IN AND CENTER |
| MORE OVERSTEER THROUGH CENTER AND EXIT | BETTER TRACTION ON EXIT |
| | |

FRONT

FRONT BRAKE 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 driver preference and track conditions.

HIGHER BRAKE BIAS

MORE UNDERSTEER UNDER BRAKING

LOWER BRAKE BIAS

MORE OVERSTEER UNDER BRAKING

LEFT WEIGHT

The percentage of vehicle weight that is over the left-side tires.

HIGHER LEFT WEIGHT

LOOSER HANDLING

LOWER LEFT WEIGHT

TIGHTER HANDLING

CROSS WEIGHT

Percentage of total weight in the right front and left rear tires.

HIGHER CROSS WEIGHT

MORE TRACTION ON THROTTLE
MORE UNDERSTEER THROUGH THE CORNER

LOWER CROSS WEIGHT

MORE OVERSTEER THROUGH THE CORNER LESS TRACTION ON CORNER EXIT

RIDE HEIGHT

Distance from ground to the front end. A lower front ride height can increase front grip, but can also make the car too loose.

LOWER FRONT RIDE HEIGHT

MORE OVERALL OVERSTEER

HIGHER FRONT RIDE HEIGHT

MORE OVERALL UNDERSTEER

REAR

RIDE HEIGHT

Distance from ground to the rear end. Lowering the rear ride height can increase rear grip, but can make the car too tight.

LOWER REAR RIDE HEIGHT

MORE OVERALL UNDERSTEER

HIGHER REAR RIDE HEIGHT

MORE OVERALL OVERSTEER

REAR WEIGHT

Percentage of total weight on the rear tires.

HIGHER REAR WEIGHT

MORE OVERSTEER IN HIGH-SPEED CORNERS
MORE TRACTION OUT OF LOW-SPEED CORNERS

LOWER REAR WEIGHT

MORE UNDERSTEER IN HIGH-SPEED CORNERS LESS TRACTION OUT OF LOW-SPEED CORNERS

MISC

WHEEL LOCK

The amount of steering range available at maximum input.

MORE WHEEL LOCK

HIGHER STEERING RANGE FASTER STEERING RESPONSE

LESS WHEEL LOCK

LOWER STEERING RANGE SLOWER STEERING RESPONSE

STEERING OFFSET

This is used to compensate for chassis settings which cause the car to pull in one direction by recentering the steering wheel to eliminate steering input on the straights.

TIRE COMPOUND

Tire compound changes the softness of the tires on the car. This directly affects grip and will impact handling.

| SOFT | MEDIUM | FIRM |
|------------------------------------|----------------------------|------------------------------------|
| HIGH GRIP CAN INDUCE UNDERSTEER | BALANCED GRIP AND HANDLING | LOWER GRIP CAN INDUCE OVERSTEER |

GEARS

REAR END RATIO

The Rear End Ratio is the gear ratio between the driveshaft pinion and the differential ring gear. This will affect top speed and acceleration, and should be changed to reach maximum engine RPM by the end of the track's longest straight.

| HIGHER RATIO | LOWER RATIO |
|--------------|-------------|
| | |

LOWER TOP SPEED
BETTER ACCELERATION

HIGHER TOP SPEED LESS ACCELERATION