WRECKFEST 2 // TUNING SETTINGS EXPLAINED

What every category and setting in the setup menu does · companion to the per-car quick-reference cards

The per-car cards tell you what values to run. This document explains what each knob physically does, so you can diagnose and adjust beyond the templates. Two words describe almost every handling problem. Understeer: the front tires give up first, so you turn and the car pushes wide. Oversteer: the rear gives up first, and the back steps out toward a spin. Nearly every setting below shifts the car toward one or the other, so once you can name the problem, the fix usually follows.

Method: change one setting at a time, in small steps, with a few laps between changes. Note where the problem happens (entry, mid-corner, or exit) because different settings govern each phase, and a car can understeer on entry while oversteering on exit. This is also a contact racer: the theoretically fastest setup is often twitchy when someone taps your rear quarter, so in dirty lobbies it pays to trade a little lap time for stability.

Entry (braking & turn-in)
Governed by brake balance and pressure, Coast lock, front toe, rake, and the Front Balancer. Entry problems appear the moment you brake or lift.

Mid-corner (steady state)
Governed by ARBs, springs, camber, Ackermann, Preload, and wedge on ovals. Mid problems appear at maximum steering, pedals quiet.

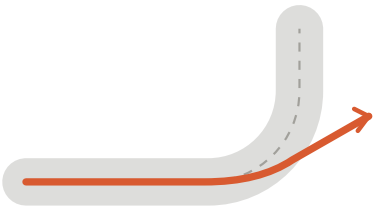
Exit (power down)
Governed by Power lock, rear springs, rear toe, and gearing. Exit problems appear as you roll back onto the throttle.

The one rule that unlocks half the menu: a relatively stiffer spring or anti-roll bar on an axle reduces that axle's cornering grip. Stiffer front (or softer rear) means understeer; stiffer rear (or softer front) means oversteer. This applies to springs and ARBs alike, and it is the cleanest way to shift overall balance.

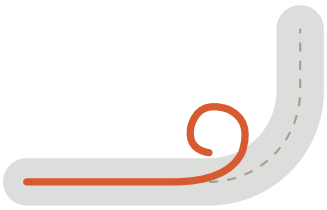
BRAKES

Braking Force Balance

How braking effort is split between the front and rear axles. This is the single most influential brake setting. More front bias makes the car stable under braking and resistant to spinning, at the cost of entry understeer; push it too far and the fronts lock early, and locked fronts don't steer. More rear bias helps the car rotate into corners and can shorten stops, but a rear that locks or unloads snaps into oversteer, punished hardest when braking over crests and bumps.



Too much front bias: fronts lock, the car pushes wide



Too much rear bias: rear locks first, the car rotates and spins

If the car spins under braking, move balance forward. If it plows straight on at entry, move it rearward.

Braking Force Pressure

Overall clamping strength. The goal is the highest pressure that doesn't lock tires on the surface you're racing, because locked tires stop slower than tires at the edge of grip, and locked fronts don't steer at all.

Higher: shorter stops on grippy tarmac, and heavy cars need it. The risk is lockup, especially on dirt, gravel, and mud, where tires freeze far more easily.

Lower: effectively adds modulation. Vital on keyboard, where braking is all-or-nothing, useful on trigger controls, and the standard move for loose surfaces.

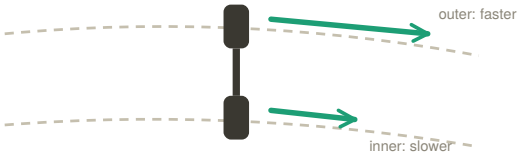
Tires freezing the instant you brake: lower it. Never quite stopping in time on tarmac: raise it.

Front Balancer

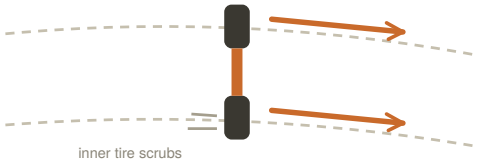
A toggle, added after Update #7, that changes how brake balance is apportioned toward the front axle. Think of it as a bias bar on the front brakes. Its exact behavior isn't well documented, so treat it empirically: pick one hard braking zone, try it both ways, keep whichever version of the car you trust more on entry, and re-test whenever you change Braking Force Balance, since the two interact.

DIFFERENTIAL how the driven wheels are allowed to spin at different speeds

In a corner, the outer wheel travels a longer arc than the inner one, so they want to spin at different speeds. A fully open diff allows exactly that: predictable, but the unloaded inside wheel spins up uselessly out of slow corners. A fully locked diff forces both wheels to turn together: maximum drive traction, good for dirt and drifting, but the car resists turning. The three settings control how locked the diff behaves in each situation. On a FWD car (Crusader, Gizmo) all of this acts on the front axle, which inverts several effects: locked-under-power becomes understeer and torque-steer rather than power oversteer.



Open: wheels spin at their own speeds



Locked: forced equal, resists turning

Power — the exit-phase setting

How much the diff locks under acceleration. Higher lock sends torque to both driven wheels out of corners: better traction, better drive, and on loose surfaces it lets you steer with the throttle. The RWD cost is power oversteer, where the whole rear axle breaks loose together; the FWD cost is power understeer and steering that fights your hands. Lower lock gives more forgiving exits, but the unloaded inside wheel wastes power spinning, so drive off slow corners is weak.

Exits ending in half-spins: lower it. Inside wheel flaring while the car crawls off hairpins: raise it.

Coast — the entry-phase setting

How much the diff locks off-throttle and under braking. Higher lock stabilizes entry: the locked axle resists rotation, so the rear stays planted when you lift or brake, and engine braking bites harder. The cost is entry understeer. Lower lock lets the car rotate freely on entry, which is agile but invites lift-off oversteer on RWD. On FWD, low Coast is a feature: it frees the deliberate lift-off rotation that steers a front-driver.

Nervous the moment you lift: raise it. Refuses to turn in: lower it.

Preload — the consistency setting

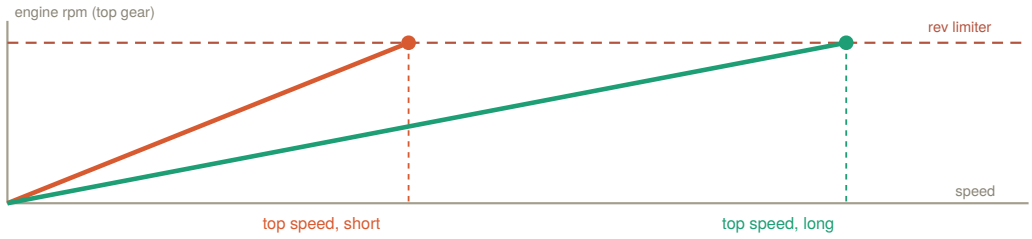
The baseline locking torque the diff always carries, which sets how quickly and firmly it transitions between open and locked. Higher preload gives consistent, immediate behavior: the car responds the same every corner, which builds confidence and tames snappy transitions from brake to throttle, at the cost of a little locked-diff understeer everywhere. Lower preload is more agile and willing to rotate in transitions, with a handling character that shifts more noticeably between throttle and brakes. Tune it last, after Power and Coast are close.

Inconsistent or snappy in the brake-to-throttle handover: raise it. Lazy changing direction: lower it.

GEARING

Final Drive

Gearing trades acceleration character against top speed, but the trade is lopsided in this game. Low-speed acceleration is mostly traction-limited, so the extra wheel torque from shorter gearing largely becomes extra wheelspin, and measured 0–60 times barely move. Top speed, by contrast, is controlled directly: your maximum is redline in top gear, so shortening cuts the ceiling almost one-for-one.



Shorter gearing climbs to the limiter sooner: more response per gear, a much lower ceiling.

The rule follows: gear so you just reach the top of your last gear at the track's fastest point. Hitting the limiter with straight still left is acceleration dropping to zero while longer-geared cars keep pulling. Where shorter gearing genuinely earns its keep is corner-exit response, since it holds the engine in its power band at the speeds where you roll back on. That matters most for low-torque engines that hate lugging, and least for big-torque muscle. On dirt, treat short gearing as an oversteer ingredient: it amplifies wheelspin, which stacks with Power lock. FWD tolerates shortness best, because its wheelspin pulls the car straight.

Bouncing off the limiter with straight left: lengthen. Engine bogging below its band out of slow corners: shorten.

SUSPENSION

Springs over rough ground (side view)

A tire in the air has no grip. Soft springs keep tires on rough ground; stiff springs keep the body flat on smooth ground.

Ride height and rake (side view)

Height sets the center of gravity and the clearance budget. The front/rear split (rake) is a balance tool of its own.

Front & Rear Springs

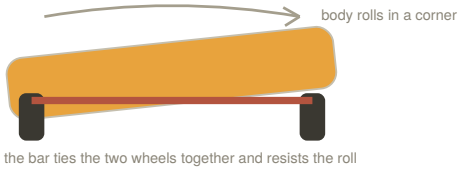
Stiffer springs keep the car flat and responsive, which suits smooth tarmac, where body control lets you carry speed through direction changes; too stiff on bumps and the car skips and hops, losing grip every time a tire leaves the ground. Softer springs let the tires follow rough ground and absorb landings, which suits dirt, gravel, ruts, and jumps; too soft on tarmac and the car wallows and responds late. The front/rear split follows the axle rule from page one, and soft rear springs also serve traction on torquey RWD cars. On FWD the convention inverts: a stiff rear makes the car pivot, which is the point.

Front & Rear Ride Height

Lower ride height means a lower center of gravity: flatter cornering and more grip on smooth surfaces, at the risk of bottoming out over bumps, kerbs, and jumps, where the chassis slamming the ground causes a sudden loss of grip. Higher ride height buys suspension travel for rough ground and survives jumps and off-track excursions, at the cost of a taller, more roll-prone car; heavy cars need more of it everywhere. Raising the rear relative to the front (rake) sharpens turn-in and trends toward oversteer, while front-high calms the car. Small changes go a long way. Rule of thumb: as low as the surface allows, raised until you stop hearing the chassis smack the ground.

ANTI-ROLL BARS a pure cornering-balance tool

Front & Rear ARB

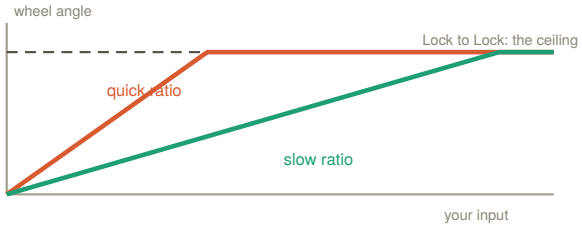


Anti-roll bars connect the left and right wheels of an axle and resist body roll in corners. They barely matter in a straight line, which makes them the cleanest way to tune cornering balance without changing ride quality the way spring changes do. The axle rule applies directly: a stiffer front bar means less roll and sharper initial response but more mid-corner understeer, while a stiffer rear bar makes the car rotate more willingly. Softening works the other way, adding grip to the softened end. On rough dirt, run both softer overall, because a stiff bar transmits every one-wheel bump across the axle. On FWD, a deliberately stiff rear bar is the signature setup: the loose rear is the rotation.

Mid-corner understeer: soften front or stiffen rear. Mid-corner oversteer: the opposite. Tippy in fast direction changes: stiffen both.

STEERING

Lock to Lock & Steering Ratio



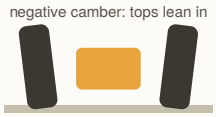
Ratio is the slope; lock is the ceiling. Both curves reach the same maximum angle — one just gets there sooner.

Lock to Lock is your maximum steering angle. More of it catches bigger slides, holds deeper drift angles, and handles hairpins and derby scrums; less reaches maximum sooner and feels more direct, but caps how sideways you can get before running out of correction. Dirt, drifting, and derbies want generous lock; clean tarmac needs less. Keep the full range on a gamepad too, since you want all the counter-steer available regardless of input device.

Steering Ratio is the sensitivity between your hands and the front tires. A quicker ratio darts into corners with small inputs and counter-steers fast when the rear steps out, at the cost of twitchiness at speed; a slower ratio is calm and precise at speed but needs bigger, slower inputs, which can leave you behind a developing slide. Heavy, slow-rotating chassis gain little from a quick ratio anyway. Gamepad players should run one notch slower than any recommendation, since the stick's short travel amplifies everything, and it's worth setting the game's own sensitivity and deadzone to a comfortable baseline before compensating in the car setup.

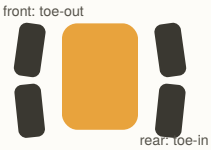
ALIGNMENT

Camber (front view)



Vertical tilt of the tires. Negative pre-compensates body roll so the loaded outside tire sits flat mid-corner.

Toe (top view)



The angle of the tires viewed from above: toward each other (toe-in) or apart (toe-out).

Ackermann (steering geometry)

The inside front wheel traces a tighter circle, so it needs more angle to roll cleanly instead of scrubbing.

Front / Rear Camber

More negative camber buys mid-corner grip on the loaded axle, and tarmac rewards it, heavy roll-prone cars most of all: more negative front fights understeer, more negative rear tames oversteer. Near zero keeps the full contact patch when driving straight, which means better braking and traction, and it's the right call on dirt and offroad, where tires slide rather than lean. FWD cars give nearly the whole camber budget to the front, which steers, brakes, and drives.

Front / Rear Toe

Front toe-out sharpens turn-in with a slightly nervous feel on straights; front toe-in does the reverse. Rear toe-in is the classic stability setting: it plants the rear, resists oversteer, and forgives bumps and power, making it cheap anti-spin insurance on lively RWD cars. Rear toe-out makes the car eager to rotate and is generally a handful outside deliberate drift builds. All toe adds scrub, which is drag, so keep every angle small.

Ackermann

More Ackermann helps tight, slow corners like hairpins, figure-8 crossings, and derby maneuvering, improving low-speed turn-in and reducing front scrub. Less, toward parallel steering, suits fast sweeping corners where the car slides slightly and both fronts work at similar angles. Its effect is subtler than camber or toe; tune it late, and to the track.

Wedge

Cross-weight: load shifted diagonally across the chassis. A circle-track tool that only makes sense where you turn one direction all day. On an oval, adding wedge makes the car tighter and more planted, toward understeer; removing it frees the car up, toward oversteer. The catch is that it makes the car asymmetric, so a setup wedged for a left-turning oval handles differently in right-handers. Leave it neutral on road courses and figure-8s; on ovals, make it your primary balance knob. Loose off the corner, add. Too tight, remove.

SURFACE BASELINES

Tarmac circuit: stiffer springs, low ride height, stiffer ARBs, more negative camber, high brake pressure, slight rear brake bias, moderate power/coast lock, slower steering ratio, longer final drive sized to the main straight.

Dirt / gravel: softer springs, raised ride height, softer ARBs, mild camber, reduced brake pressure, high power lock to steer with the throttle, generous steering lock, quicker ratio, shorter final drive for exit response.

Oval: everything from the relevant surface baseline, plus wedge as the primary balance knob. Don't be shy about asymmetric thinking; the car only turns one way.

Derby: stability over speed. Front brake bias, high ride height, soft springs, maximum steering lock, and a fairly locked diff so you can power out of tangles with one wheel in the air.

Alignment and damage: your carefully set alignment lasts exactly until someone punts you into a wall. A car that suddenly pulls to one side or won't track straight after contact has bent alignment. The setup didn't change; the car did. Don't chase mid-race gremlins with sliders.

SYMPTOM → SETTING QUICK REFERENCE

SYMPTOM	WHEN	TRY, IN ORDER
Car won't turn in (understeer)	Entry	Rearward brake balance · less Coast lock · front toe-out · softer front ARB/ springs
Rear snaps out under braking	Entry	Forward brake balance · lower brake pressure · more Coast lock · rear toe-in
Pushes wide mid-corner	Mid	Softer front ARB · stiffer rear ARB · more negative front camber · less Preload
Spins under power	Exit	Less Power lock · softer rear springs/ARB · rear toe-in · gentler throttle
Inside wheel spins, weak drive off corners	Exit	More Power lock · more Preload
Skips and hops over bumps	Rough tracks	Softer springs · higher ride height · softer ARBs
Rolls heavily, feels tippy	Fast corners	Stiffer ARBs · stiffer springs · lower ride height
Twitchy at high speed	Straights	Slower steering ratio · front toe-in · less rear brake bias
Hits the rev limiter mid-straight	Straights	Lengthen the final drive
Engine bogs and lugs out of slow corners	Exit	Shorten the final drive
Too tight on an oval	Oval	Remove wedge
Too loose off oval corners	Oval	Add wedge

CONTROLLER ADJUSTMENTS

Chassis settings don't care what's in your hands; only the input-compensating ones change on a gamepad. Steering Ratio goes one notch slower than any recommendation, since the stick's short travel amplifies everything. Lock to Lock stays unchanged so you keep the full counter-steer range. Brake Pressure can go one notch lower if trail braking keeps locking tires, which widens the trigger's usable range. Coast lock a touch higher on lively RWD cars, because the accidental full lift is a trigger's signature error, and Power lock a touch lower on RWD, since trigger stabs are more abrupt than pedal rolls. Set the game's own sensitivity, deadzone, and speed-sensitive steering to a comfortable baseline before compensating in the car setup.

Habits: save known-good presets and clone before experimenting, one change at a time, and trust the lap timer over the seat of your pants. Pair this document with the per-car cards: this explains the knobs, the cards give each car's starting values. Slider guidance throughout describes position along each slider's travel, not the number the game displays.