



# 2023 CAMARO MODELS TRACK PREPARATION

The 2023 Camaro SS Coupe, Camaro Turbo 1LE, Camaro V6 1LE, Camaro V8 1LE, Camaro ZL1 Coupe and the extreme Camaro ZL1 1LE, have been built for track performance in sanctioned racing events. But before unleashing their acceleration, cornering and braking capability, there are several key procedures and steps that must be taken in order to properly experience their track dominance. For full details and information, see the 2023 Camaro Owner’s Manual and High Performance Owner’s Manual Supplement.

Please note: It is the driver’s responsibility to obey all applicable traffic laws at all times. This supplement is for the purpose of racing enthusiasts for sanctioned racing events. Track events or competitive driving may affect the vehicle warranty. See the warranty manual before using the vehicle for racing or other competitive driving.

## 1. ATTAIN THE RIGHT MILEAGE

### NEW VEHICLE BREAK-IN

*Models: Camaro SS Coupe, Camaro LT Turbo equipped with the 1LE Performance Package, Camaro LT V6 equipped with the 1LE Performance Package, Camaro SS V8 equipped with the 1LE Performance Package, Camaro ZL1 Coupe and Camaro ZL1 equipped with the 1LE Performance Package*

All Camaro models have a required break-in period during the first 1,500 miles (2414 km) that can help with the life of their performance.

PART/DRIVING BEHAVIOR	TIME PERIOD	ACTION
Tires	First 200 miles (322 km)	Drive at moderate speeds and avoid hard cornering
Brake linings	First 200 miles (322 km)	Avoid making hard stops (recommended every time brake linings are replaced)
Full-throttle starts and abrupt stops	First 500 miles (800 km)	Avoid full-throttle starts and abrupt stops
Exceeding 4000 rpm	First 500 miles (800 km)	Avoid exceeding 4000 rpm
Cruise control or driving at one constant speed	First 500 miles (800 km)	Avoid cruise control or driving at one constant speed
Letting the engine labor or lugging the engine	First 500 miles (800 km)	Avoid letting the engine labor or lugging the engine. With a manual transmission, shift to the next lower gear (this rule applies at all times, not just during the break-in period)
Recommended first oil change	First 500 miles (800 km)	Change the engine oil after reaching the first 500 miles
Track or competitive driving	First 1,500 miles (2414 km)	Do not participate in track events, sport driving schools or similar activities
Engine oil maintenance	First 1,500 miles (2414 km)	Check engine oil with every refueling and add if necessary (oil and fuel consumption may be higher than normal during the first 1,500 miles)  Please note: It is recommended that the first oil change occur at 500 miles.

For full details and information, see the vehicle’s Owner’s Manual.

## 2. SEASON THE BRAKES

### BRAKE BURNISH PROCEDURE

*Models: Camaro SS Coupe, Camaro LT Turbo equipped with the 1LE Performance Package, Camaro LT V6 equipped with the 1LE Performance Package, Camaro SS V8 equipped with the 1LE Performance Package, Camaro ZL1 Coupe and Camaro ZL1 equipped with the 1LE Performance Package*

1. Apply the brakes 25 times, starting at 60 mph (100 km/h) to 30 mph (50 km/h) while decelerating at 0.4 g. This is a medium brake application. Drive for at least 0.6 mi (1 km) between applying the brakes.
2. Repeatedly apply the brakes from 60 mph (100 km/h) to 15 mph (25 km/h) while decelerating at 0.8 g. This is a hard brake application, without activating the Antilock Brake System (ABS). Drive for at least 0.6 mi (1 km) between stops. Repeat until the brake pedal travel starts to increase. Depending on conditions, this should take no longer than 25 brake applications.
3. Cool down: Drive at 60 mph (100 km/h) for approximately 6 mi (10 km) without using the brakes.
4. Apply the brakes 25 times from 60 mph (100 km/h) to 30 mph (50 km/h) while decelerating at 0.4 g. This is a medium brake application. Drive for at least 0.6 mi (1 km) between applications.

Please note: During the burnishing procedure, the brake pads will smoke and produce an odor. The braking force and pedal travel may increase. After the procedure is complete, the brake pads may appear white at the rotor contact.

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## REPLACE THE TIRE DEFLECTOR AND FRONT DISC BRAKE SPLASH SHIELD

Model: Camaro SS Coupe only

Before any racing event, remove the tire deflectors in the front of the vehicle and replace the original control arm deflector and front disc brake splash shield with the tall deflector and small splash shield (found in the trunk). Racetrack driving with the original front disc brake splash shield and front tire deflector may result in brake pedal fade due to high rotor temperatures.

For full details on how to install the tall deflector and small splash shield, see the Camaro Owner's Manual (pages 206-208).

## 3. ADJUST THE FOUR CORNERS AND VEHICLE COMPONENTS

### TIRE PRESSURE AND WHEEL ALIGNMENT

Tire pressure specifications are listed in psi (kPa). Limit the vehicle weight to a maximum of the driver and one passenger, with no additional cargo.

MODEL	AXLE	ROAD COURSE COLD STARTING PRESSURES <sup>2</sup>	ROAD COURSE TARGET HOT PRESSURES <sup>2</sup>	DRAG STRIP COLD STARTING PRESSURES	SUSTAINED HIGH-SPEED COLD STARTING PRESSURES
ZL1 1LE Tire <sup>1</sup> Pressure Settings	Front	26 psi (180 kPa)	32-35 psi (220-240 kPa)	N/A	44 psi (300 kPa)
	Rear	26 psi (180 kPa)	32-35 psi (220-240 kPa)	N/A	44 psi (300 kPa)
ZL1 Coupe Tire <sup>1</sup> Pressure Settings	Front	28 psi (190 kPa)	35-37 psi (240-255 kPa)	32 psi (220 kPa)	44 psi (300 kPa)
	Rear	28 psi (190 kPa)	37-39 psi (255-270 kPa)	26 psi (180 kPa)	44 psi (300 kPa)
V8 1LE Tire <sup>1</sup> Pressure Settings	Front	28 psi (190 kPa)	35-37 psi (240-255 kPa)	N/A	44 psi (300 kPa)
	Rear	28 psi (190 kPa)	37-39 psi (255-270 kPa)	N/A	44 psi (300 kPa)
SS Coupe Tire <sup>1</sup> Pressure Settings	Front	30 psi (210 kPa)	36-38 psi (250-260 kPa)	32 psi (220 kPa)	44 psi (300 kPa)
	Rear	30 psi (210 kPa)	36-38 psi (248-262 kPa)	26 psi (180 kPa)	44 psi (300 kPa)
Turbo 1LE / V6 1LE Tire <sup>1</sup> Pressure Settings	Front	30 psi (210 kPa)	36-38 psi (250-260 kPa)	N/A	41 psi (280 kPa)
	Rear	30 psi (210 kPa)	36-38 psi (250-260 kPa)	N/A	41 psi (280 kPa)

<sup>1</sup> Do not use summer-only tires in winter conditions, as it would adversely affect vehicle safety, performance and durability. Use only GM-approved tire and wheel combinations. Unapproved combinations may change the vehicle's performance characteristics. For important tire and wheel information, go to <https://my.chevrolet.com/learnAbout/chevrolettires> or see your dealer for details.

<sup>2</sup> Value will vary based on driving style, track, temperature and weather conditions.

Please note: The Camaro ZL1, Camaro Turbo, Camaro V6, Camaro V8 and Camaro ZL1 models equipped with the 1LE Performance Package are equipped with high-performance summer-only tires. These tires have a special tread and compound that are optimized for maximum dry and wet road performance. This special tread and compound will have decreased performance in cold climates, and on ice and snow. It is recommended that winter tires be installed on the vehicle if frequent driving at temperatures below approximately 40° F (5° C) or on ice- or snow-covered roads is expected.

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## WHEEL ALIGNMENT

Wheel alignment settings should be set as follows for optimized road course usage.

MODEL	AXLE	CASTER (NOT ADJUSTABLE)		CAMBER		TOTAL TOE	STEERING WHEEL ANGLE	THRUST ANGLE
		LEFT	RIGHT	LEFT	RIGHT	(LEFT + RIGHT)		(LEFT - RIGHT/2)
ZL1 1LE Track Alignment Settings	Front	7.9°	7.9°	-2.7° ± 0.15°	-2.7° ± 0.15°	0.1° ± 0.05°	0.0° ± 3.5°	—
	Rear	—	—	-2.0° ± 0.15°	-2.0° ± 0.15°	0.1° ± 0.05°	—	0.0° ± 0.1°
ZL1 Coupe Track Alignment Settings	Front	6.9°	6.9°	-2.0° ± 0.15°	-2.0° ± 0.15°	0.1° ± 0.05°	0.0° ± 3.5°	—
	Rear	—	—	-1.5° ± 0.15°	-1.5° ± 0.15°	0.1° ± 0.05°	—	0.0° ± 0.1°
V8 1LE Track Alignment Settings	Front	6.9°	6.9°	-2.0° ± 0.15°	-2.0° ± 0.15°	0.1° ± 0.05°	0.0° ± 3.5°	—
	Rear	—	—	-1.5° ± 0.15°	-1.5° ± 0.15°	0.1° ± 0.05°	—	0.0° ± 0.1°
SS Coupe Track Alignment Settings	Front	7.4°	7.4°	-2.0° ± 0.15°	-2.0° ± 0.15°	0.1° ± 0.05°	0.0° ± 3.5°	—
	Rear	—	—	-1.25° ± 0.15°	-1.25° ± 0.15°	0.1° ± 0.05°	—	0.0° ± 0.1°
Turbo 1LE / V6 1LE Track Alignment Settings	Front	7.2°	7.2°	-2.0° ± 0.15°	-2.0° ± 0.15°	0.1° ± 0.05°	0.0° ± 3.5°	—
	Rear	—	—	-1.25° ± 0.15°	-1.25° ± 0.15°	0.1° ± 0.05°	—	0.0° ± 0.1°

## FRONT LICENSE PLATE/BRACKET REMOVAL

*Models: Camaro ZL1 Coupe and Camaro ZL1 with the 1LE Performance Package*

For track usage, the front license plate and bracket on Camaro ZL1 can be removed from the fascia to maximize airflow. Remove the license plate to access the four screws that attach the license plate bracket to the front fascia.

## WATER DEFLECTOR

*Models: Camaro ZL1 Coupe and Camaro ZL1 with the 1LE Performance Package*

If operating a Camaro ZL1 or ZL1 with the 1LE Performance on a road course or drag strip, remove the water deflector on the bottom side of the hood to maximize airflow and cooling. Remove the three bolts for track usage, then replace immediately after to protect the engine compartment from water intrusion (torque to 5.4 N•m, 40 lb. in.).

## UNDERBODY AIR DEFLECTOR TIRE DAM KIT

*Model: Camaro ZL1 Coupe and Camaro ZL1 with the 1LE Performance Package*

The Underbody Air Deflector Tire Dam Kit provided with Camaro ZL1 vehicles helps reduce the amount of aerodynamic lift on the front axle for optimum handling.

Please note: The Underbody Air Deflector Kit is installed at the time of Pre-Delivery Inspection (PDI) and is to remain on the car.

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#### 4. CHECK YOUR FLUIDS

*Models: Camaro SS Coupe, Camaro LT Turbo equipped with the 1LE Performance Package, Camaro LT V6 equipped with the 1LE Performance Package, Camaro SS V8 equipped with the 1LE Performance Package, Camaro ZL1 Coupe and Camaro ZL1 equipped with the 1LE Performance Package*

Be sure to follow all service procedures before driving your Camaro on the track or competitively.

FLUID/LUBRICANT	TO DO	WHEN
Engine Oil (0W-40 or 5W-40 that meets the dexos2™ specification. If this oil is not available, you can use Valvoline® SynPower™ MST 5W-40 or Mobil 1® 15-W-50 engine oil)  Engine Oil - ZL1 1LE only (Mobil 1 15-W-50)	Check the oil level and keep it at or near the upper mark that shows the proper operating range on the engine oil dipstick.	Often (before, during and after every track event or competitive driving session)  Please note: If you use the vehicle for racing or other competitive driving, the engine may use more oil than it would with normal use. Low oil levels can damage the engine. Be sure to check the oil level often during racing or other competitive driving and keep the level at or near the upper mark that shows the proper operating range on the engine oil dipstick.
Automatic Transmission Fluid – Camaro ZL1 and SS (DEXRON® ULV Automatic Transmission Fluid)	Change after track usage.	Every 15 hours
DOT-4 Brake Fluid	For track events or competitive driving, it is recommended that the brake fluid be replaced with a high-performance brake fluid that has a dry boiling point greater than 279° C (543° F). After conversion to the high-performance brake fluid, follow the brake fluid service recommendations outlined by the fluid manufacturer. Do not use silicone or DOT-5 brake fluids.	Before every track event or competitive driving session

Please note: Chevrolet recommends the use of TOP TIER™ Detergent Gasoline to keep the engine cleaner and reduce engine deposits. Visit [www.toptiergas.com](http://www.toptiergas.com) for a list of TOP TIER Detergent Gasoline marketers. Use premium unleaded gasoline meeting ASTM specification D4814 with a posted octane rating of 93. If unavailable, unleaded gasoline with a posted octane rating of 91 may be used but with reduced performance and fuel economy.

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## **5. ADJUST THE SUSPENSION**

Models: Camaro ZL1 equipped with the 1LE Performance Package.

### **ADJUSTABLE FRONT STRUTS**

The front strut top mount of Camaro ZL1 with the 1LE Performance Package can be positioned two ways. The original setting is in the street position, but it can be turned 180° to the track position for additional negative camber on the front. Rotating the front strut top mount will yield a change in front camber of approximately 1.7°.

To adjust the position:

1. Raise the vehicle so the tires are slightly off the ground.
2. From the bottom side of the strut top mount, remove the Allen bolt that secures the top mount alignment pin to the top mount.
3. Remove the three strut mount bolts and the alignment pin.
4. Using the Hex feature on the top of the mount, turn the top mount 180° until the TRACK CAMBER text is visible and the second set of top mount holes aligns with the strut tower holes.
5. Reinstall the top mount bolts and torque to 21.4 lb.-ft. (29 N•m).
6. Keep the top mount alignment pin and bolt for reinstallation when the struts are returned to the street position following the track event.
7. Verify and adjust the vehicle alignment specifications to optimize vehicle performance for the track event.
8. Verify and readjust the vehicle alignment as needed following the track event.

### **STRUT SPRING SEAT ADJUSTMENT**

The front struts of Camaro ZL1 with the 1LE Performance Package have a threaded spring seat that allows adjustment of the preload on the front springs. The vehicle corner weights and front trim height can be adjusted. The spring seat can be adjusted approximately 0.4 inches (10 mm) up or down from the nominal position. Each complete turn of the spring perch will change the vehicle height approximately 0.06 inches (1.4 mm).

Please note: Do not allow the spring seat to contact the black dust boot when adjusting in the maximum upward direction.

To adjust the lower spring seat:

1. Raise the vehicle so the tires are completely off the ground.
2. Loosen the lower spring seat bolt. Do not completely remove the bolt.
3. Turn the spring perch upward to increase spring preload, or downward to decrease spring preload.
4. Torque the spring seat bolt to 7.4 lb-ft (10 N•m).
5. Verify and adjust the vehicle alignment as needed following the spring seat adjustment.

### **ADJUSTABLE REAR STABILIZER BAR**

The rear stabilizer bar ends on ZL1 1LE have three attachment positions that allow the rear roll stiffness of the vehicle to be adjusted. The stabilizer bar stiffness increases approximately 15% using the rearward holes or decreases approximately 10% using the forward holes.

To adjust attachment position:

1. Raise and support the rear of the vehicle.
2. Remove the stabilizer bar link nut while holding the ball stud end.
3. Reposition the stabilizer bar link stud to the desired hole and tighten to 32 lb.-ft. (43 N•m). Use the same hole position for both sides of the vehicle.

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## CAMARO ZL1 WITH THE 1LE PERFORMANCE PACKAGE: SUSPENSION TUNING RECOMMENDATIONS

	CORNER ENTRY OVERSTEER	CORNER ENTRY UNDERSTEER	MID-CORNER OVERSTEER	MID-CORNER UNDERSTEER	CORNER EXIT OVERSTEER	CORNER EXIT UNDERSTEER
<b>REAR STABILIZER BAR ADJUSTMENT</b>	Move end link one position forward in the vehicle. This softens the rear stabilizer bar and moves the roll distribution forward.	Move end link one position rearward in the vehicle. This stiffens the rear stabilizer bar and moves the roll distribution rearward.	Move end link one position forward in the vehicle. This softens the rear stabilizer bar and moves the roll stiffness distribution forward.	Move end link one position rearward in the vehicle. This stiffens the rear stabilizer bar and moves the roll stiffness distribution rearward.	Move end link one position forward in the vehicle. This softens the rear stabilizer bar and moves the roll stiffness distribution forward.	Move end link one position rearward in the vehicle. This stiffens the rear stabilizer bar and moves the roll stiffness distribution rearward.
<i>Additional Notes:</i>	<i>Due to the corner entry stability of the vehicle, the rear stabilizer bar is not a significant tuning adjustment to adjust the corner entry attitude of the vehicle.</i>		<i>The rear stabilizer bar is very effective in tuning the mid-corner and corner exit behavior of the vehicle. Generally, this is the first tuning change to use in trying to correct the mid-corner and corner exit attitude of the vehicle.</i>			
<b>FRONT RIDE HEIGHT ADJUSTMENT</b>	Raise the front ride height. This raises the front kinematic roll center and works to stiffen the front roll resistance, which, in effect, moves the roll stiffness distribution forward.	Lower the front ride height. This lowers the front kinematic roll center and works to soften the front roll resistance, which, in effect, moves the roll stiffness distribution rearward.	Raise the front ride height. This raises the front kinematic roll center and works to stiffen the front roll resistance, which, in effect, moves the roll stiffness distribution forward.	Lower the front ride height. This lowers the front kinematic roll center and works to soften the front roll resistance, which, in effect, moves the roll stiffness distribution rearward.	Raise the front ride height. This raises the front kinematic roll center and works to stiffen the front roll resistance, which, in effect, moves the roll stiffness distribution forward.	Lower the front ride height. This lowers the front kinematic roll center and works to soften the front roll resistance, which, in effect, moves the roll stiffness distribution rearward.
<i>Additional Notes:</i>	<i>If adjusting the rear stabilizer bar has not provided enough vehicle handling balance change, a front ride height change is an effective way to further adjust the vehicle. This adjustment has very fine resolution and is a great method to make fine tuning changes.</i>				<i>This adjustment can have a very large effect on the corner exit behavior of the vehicle. If following a rear stabilizer bar adjustment further modification is needed, look at changing the front static ride height.</i>	
<b>TIRE PRESSURE ADJUSTMENT</b>	Adjust tire pressures so that the front pressure is 2 psi higher than the rear pressure.	Adjust tire pressures so that the rear pressure is 2 psi higher than the front pressure.	Adjust tire pressures so that the front pressure is 2 psi higher than the rear pressure.	Adjust tire pressures so that the rear pressure is 2 psi higher than the front pressure.	Adjust tire pressures so that the front pressure is 2 psi higher than the rear pressure.	Adjust tire pressures so that the rear pressure is 2 psi higher than the front pressure.
<i>Additional Notes:</i>	<i>Hot target tire pressures for the Goodyear Eagle F1 Supercar 3R are 32-35 psi. This provides the peak performance of the tire. It is best to try and make your tire pressure adjustments fall within this window if possible. Generally, all 4 tires should be at the same pressure, but can be adjusted in 1 to 2 psi increments to adjust the handling balance.</i>					
<b>CAMBER ADJUSTMENT</b>	Reduce front negative static camber, + 0.25°; or increase rear negative static camber, - 0.25°.	Increase front negative static camber, - 0.25°; or reduce rear negative static camber, + 0.25°.	Reduce front negative static camber, + 0.25°; or increase rear negative static camber, - 0.25°.	Increase front negative static camber, -0.25°; or reduce rear negative static camber, +0.25°.	Reduce front negative static camber, + 0.25°; or increase rear negative static camber, - 0.25°.	Increase front negative static camber, - 0.25°; or reduce rear negative static camber, + 0.25°.
<i>Additional Notes:</i>	<i>Target track alignment camber angles are -2.7° front camber and -2.0° rear camber. These were developed to provide the most even usage of front and rear tires and maximum grip during track driving. It is suggested to start with adjusting the front camber first as there is greater range and resolution in the front camber adjustment.</i>					
<b>TOE SETTINGS</b>	Increase front toe setting; adjust by +0.05° toe-in per side.	Reduce front toe setting; adjust by -0.05° toe-out per side.	Increase rear toe setting; adjust by +0.05° toe-in per side.	Reduce rear toe setting; adjust by -0.05° toe-out per side.	Increase rear toe setting; adjust by +0.05° toe-in per side.	Reduce rear toe setting; adjust by -0.05° toe-out per side.
<i>Additional Notes:</i>	<i>Toe settings are best done prior to an event or where access to alignment tools are available. The target toe settings are +0.05° toe-in, per side, on both the front and rear. Toe-in is best for straight line stability and it's advisable to avoid too much toe-out in the front or rear axle. Use this adjustment as one of the final adjustments in trying to reach the handling balance that you desire.</i>					

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## **6. CUSTOMIZE YOUR PERFORMANCE**

### **DRIVER MODE SELECTOR**

Models: Camaro SS Coupe, Camaro LT Turbo equipped with the 1LE Performance Package, Camaro LT V6 equipped with the 1LE Performance Package, Camaro SS V8 equipped with the 1LE Performance Package, Camaro ZL1 Coupe and Camaro ZL1 with the 1LE Performance Package

When maximum vehicle handling is desired for track use or competitive driving, Track Mode should be selected using the Driver Mode Selector switch (located on the center console, behind the shifter lever). When in Track Mode, the accelerator pedal is adjusted to give maximum control during the highest level of spirited driving. If the vehicle is equipped with Magnetic Ride Control™, it will be set to optimum level for vehicle responsiveness. If the vehicle is equipped with Active Exhaust, the exhaust valves will be open.

### **CUSTOM LAUNCH CONTROL**

Models: Camaro SS, Camaro ZL1 Coupe and Camaro ZL1 with the 1LE Performance Package. Custom Launch Control allows the Launch RPM, Slip Target (5%-15%) and Surface Type parameters for Launch Control to be modified.

To adjust Launch RPM:

- The vehicle must be in Track Mode
- Performance Traction Management (PTM) Mode must be enabled
- The steering wheel must be straight and the driver door closed
- The transmission must be in a gear other than R (Reverse). It will work in P (Park) or N (Neutral)
- The parking brake must not be engaged

Using the buttons on the right side of the steering wheel, scroll to “Options” on the Driver Information Center menu to select your Surface, Launch RPM and desired Slip Target. For full details and information, see the Camaro High Performance Owner’s Manual Supplement.

### **LINE LOCK**

Models: Camaro SS, Camaro ZL1 Coupe and Camaro ZL1 with the 1LE Performance Package.

**Line Lock allows for locking the front brakes independently of the rear brakes. This allows the rear tires to spin when the throttle is applied. To enter Line Lock, all of these conditions must be met:**

- The vehicle must be in Track Mode
- Performance Traction Management (PTM) Mode must be enabled
- The steering wheel must be straight and the driver door closed
- The vehicle must be in D (Drive) for automatic transmission or 1<sup>st</sup> (First) gear for manual transmission
- The parking brake must not be engaged
- The vehicle must be stopped on level ground and the accelerator pedal must not be applied

Using the buttons on the right side of the steering wheel, scroll to “Launch Control” on the Driver Information Center menu to select an Automatic or Custom launch. From there:

- Select Line Lock, then press the brake pedal firmly to move the bar graph to 100%
- Release the brake pedal. There are 15 seconds to complete the burnout and exit
- To release the brakes and roll out, press the tachometer symbol and SEL at the same time

For full details, see the Camaro High Performance Owner’s Manual Supplement.