

# 2024 CORVETTE TRACK PREPARATION

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## INTRODUCTION

Corvette Stingray with the STINGRAY Z51 Performance Package, the Corvette Z06 and the E-Ray have been designed and engineered to be a world-class sports cars for the track. But before unleashing its acceleration, cornering and braking capability, there are several key procedures and steps that must be taken. This guide includes an overview of requirements and recommendations. These are general guidelines and are not all encompassing. Use good judgment at all times to determine the appropriate adjustments and speeds for the track configuration and environmental conditions.

The Owner's Manual contains important restrictions, precautions and safety procedures. Always read and follow all of the instructions in the vehicle Owner's Manual.

**DANGER:** High-performance features are intended for use only on closed tracks by experienced and qualified drivers and should not be used on public roads. High-speed driving, aggressive cornering, hard braking, and other high-performance driving can be dangerous. Improper driver inputs for the conditions may result in loss of control of the vehicle, which could injure or kill you or others. Always drive safely.

Note: This supplement is for Corvette Stingray with Stingray Z51 Performance Package, Z06 and the E-Ray with ZER (PS4S tire). Vehicles without the STINGRAY Z51 package or E-Ray without PS4S tires should not be used for track events and competitive driving. Track events or competitive driving may affect the vehicle warranty. See the warranty manual before using the vehicle for track events or other competitive driving.

## SAFETY AND RESCUE DOCUMENTS

For your convenience, the same rescue sheets that are provided by Chevrolet to First responders is made available to you at the following website:

<https://www.gmstc.com/index.php/first-responders/chevrolet>

Chevrolet recommends keeping a copy of the rescue sheet in your vehicle when attending track days to provide to marshals to ensure you and your vehicle get the best and most efficient response to any situation.

## ATTAIN THE RIGHT MILEAGE

### NEW VEHICLE BREAK-IN

All Corvette models have a recommended break-in period during the first 1,500 miles (2414 km).

| PART/DRIVING BEHAVIOR                           | TIME PERIOD                 | RECOMMENDED 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                                                                                        |
| 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) |

## PREPARE THE BRAKES

**WARNING:** Some of the adjustments and procedures specified in this section may require specialized skill, training and equipment. Failure to perform these procedures properly could cause malfunction, potentially resulting in death, personal injury or damage to the vehicle or property. Do not attempt to perform these adjustments or procedures unless properly qualified.

### **SERVICE NOTE: DISCONNECT THE BATTERY BEFORE SERVICING THE HYDRAULIC BRAKE SYSTEM.**

Due to the new electro-hydraulic brake apply system, it is critical to disconnect the battery before servicing the brake system, including before bleeding the system, replacing the pads, or any other work on the hydraulic braking system. The battery must be disconnected to prevent the brake master cylinder from pressurizing the hydraulic system during its automated self diagnostic tests that can possibly occur when a door is opened or the key transmitter is activated.

Bleeding the brake system with the battery connected can also lead to the system diagnosing a leak or air in the braking system, potentially resulting in a fault and vehicle speed limitation.

### BRAKE FLUID

Replace existing brake fluid with a qualified DOT4 high performance brake fluid from a sealed container. Brake fluid with a dry boiling point >310 °C (590 °F) is qualified. If high performance brake fluid is used, replace it with GM approved brake fluid before driving on public roads. If high performance brake fluid is in the vehicle and the age of the brake fluid is over a month old or unknown, replace the brake fluid before track events and competitive driving. Do not use silicone or DOT-5 brake fluids. Check the fluid level before each competitive driving event.

Note: It is critical to disconnect the negative battery cable when any brake fluid flush procedures are performed. Flush the brake system, either manually bleeding or pressure bleeding is required. Vacuum bleeding is not recommended.  
Check the fluid level before each driving event

### BRAKE SYSTEM FLUSHING & BLEEDING

The J55, J56 and J57 brake systems require specific processes for bleeding and fluid flushing. These can be found in the service manual (information provided in the owner's manual).

Properly bleeding the brake system is required for proper operation of the electro-hydraulic brake system diagnostic procedures.

### BRAKE LEAK DETECTION

The electro-hydraulic braking system has advanced diagnostic capability to help detect hydraulic leaks, trapped air, and other performance issues. These diagnostics are active when the electro-hydraulic system is powered. In order to avoid inadvertently setting a leak fault, disconnect the battery before servicing the brake system.

If the vehicle sets a fault related to a brake system leak, it will set a Service Brake System indicator light and potentially limit vehicle speed to 100KPH/62MPH. Anytime a leak fault is set, the vehicle should be inspected carefully for evidence of a leak and any leak should be repaired immediately.

Once the leak has been repaired, or the system has been properly bled, the following procedure will confirm proper operation of the system, with no leaks or trapped air. This procedure will clear the fault if the vehicle is operating correctly.

#### BRAKE LEAK DETECTION FAULT C2A20

This fault indicates trapped air or a leak in the brake hydraulic circuit, and the DIC displays “Brake System Failure – Speed Limit 100KPH/62MPH”. If this fault is set during a brake bleed or other brake service procedure, the following process will confirm that the circuit is good once the brake system is properly bled. If this code persists in being set, there is a leak present that has not been properly diagnosed and must be repaired.

Ignition/Vehicle » Off – For greater than 10 min

Ignition » On (green light) / Engine » Off – For greater than 15 s – Brake Pedal Not Applied

Apply and hold the brake pedal. – For less than 120 s & full effort brake pedal apply

If the leak has been repaired, the Brake warning indicator malfunction will turn off

If the leak persists, the lamp will remain on and the vehicle needs to be serviced

#### BRAKE FADE WARNING ASSIST

The Brake Fade Warning Assist system monitors the performance of the brake system. If the system detects brake fade, or if the brake fluid is near the boiling point, the driver will be alerted. The Brake Fade Warning Assist system is designed for use with the factory-installed brake pads or GM-approved replacement pads. If the brake pads on the vehicle need to be replaced, use GM-approved brake pads. If this is not done, the brake fade warning system may not function properly.

##### STAGE 1

The Driver Information Center (DIC) displays a “Reduce Braking to Avoid Overheating” message, a chime sounds and brake pedal effort and travel is increased. When the message displays, the driver should back up braking points and reduce brake usage in order to reduce brake temperature. This will allow for continued lapping with no speed limitations.

##### STAGE 2

The Driver Information Center (DIC) displays a “Brakes Overheated Service Now” message, a chime sounds, and brake pedal effort and travel is further increased. This code indicates that the brake fluid temperature is excessive and is about to boil. The system limits vehicle speed to 100KPH/62MPH. The driver should immediately start a cool down lap if on the track. If this message displays, the vehicle needs to be serviced. The brake system needs to cool down, and the brake fluid must be immediately flushed with DOT4 for street use, or to a qualified DOT4 race fluid for track use. Boiled brake fluid is compromised and must be replaced.

To restore normal operation, if no GM service tool is available, the following should be completed:

##### Cool brakes

Inspect system for leaks (a boil can behave similarly to a leak), repair as necessary

Flush brake fluid that has experienced boil (follow proper bleeding procedures with battery disconnected)

Car must be parked for at least 10 minutes, key off

Perform at least three easy to moderate brake applies while driving

Brake System will measure itself during brake application, DIC message and brake warning indicators will extinguish when normal operation is restored.

## BRAKE BURNISHING

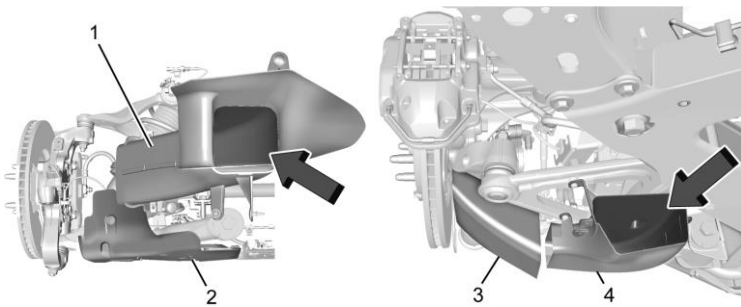
New brake pads must be burnished before racing or other competitive driving. When this procedure is performed as instructed, it will not damage the brakes. The brake pads will smoke and produce an odor. The braking force and pedal travel may increase. After the procedure, the brake pads may appear white at the rotor contact. Perform this procedure only on dry pavement, in a safe manner, and in compliance with all local and state ordinances/laws regarding motor vehicle operation.

**Refer to Specific vehicle section to ensure correct procedure is executed.**

## BRAKE COOLING KIT

Before any track event, high speed driving event, or competitive driving, the following should be completed:

- Ensure all brake cooling parts are correctly and securely installed.
- Install the rear lower control arm cooling ducts (4. below) per the instructions included with the kit. After any track event or competitive driving, remove the rear lower control arm cooling ducts. These parts are for track use only. Removing the ducts helps prevent debris from being channeled into the rear brakes during regular use of the vehicle.
- Inspect for and remove any blockage in the ducts.
- Inspect and replace any duct that has damage.



1. Front Brake Cooling Duct
2. Front Lower Control Arm Deflector
3. Rear Knuckle Mounted Cooling Duct
4. Rear Lower Control Arm Cooling Duct

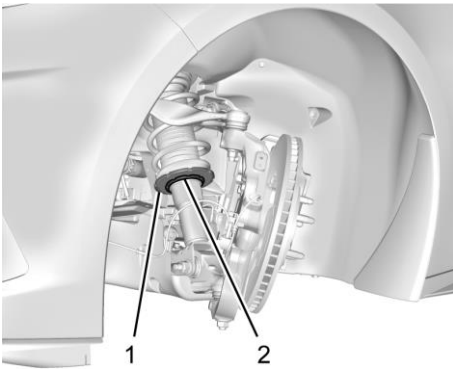
## ADJUST FOUR CORNERS AND ALIGNMENT

**WARNING:** Some of the adjustments and procedures specified in this section may require specialized skill, training and equipment. Failure to perform these procedures properly could cause malfunction, potentially resulting in death, personal injury or damage to the vehicle or property. Do not attempt to perform these adjustments or procedures unless properly qualified.

### SHOCK SPRING SEAT ADJUSTMENT, TIRE PRESSURES AND ALIGNMENT

The front shocks, on vehicles without hydraulic front lift and rear shocks, have threaded spring seats that allow adjustment of the vehicle ride height. The vehicle corner weights can be adjusted for track use. If the vehicle ride height is modified, it should be returned to normal ride height before street use. The spring seat can be adjusted approximately 0.8 in (20 mm) up or down from the nominal position. Each complete turn of the spring seat will change the vehicle height approximately 0.06 in (1.5 mm). When adjusting the seat to the upper limit, lift the dust boot and ensure the seat does not thread off the center support tube. Stop adjustment when threads are no longer visible. When adjusting the seat to the lower limit, leave approximately 0.4 in (10 mm) of thread visible for the lower lock nut to have full thread engagement.

To adjust the lower spring seat:



#### STEP 1

Raise the vehicle so the tires are completely off the ground.

#### STEP 2

Loosen the lower spring seat lock nut (2)

#### STEP 3

Thread the lower spring seat lock nut (2) downward off of the threads to its resting location on the shoulder of the center support tube.

#### STEP 4

While holding the center support tube holes, turn the spring seat (1) upward to raise the vehicle height, or downward to lower the vehicle height

#### STEP 5

Thread the lower lock nut (2) back on to the center support tube and torque it against the spring seat (1) to 18.4 lb.-ft. (25 Nm).

## WHEEL ALIGNMENT

**Refer to Specific vehicle section to ensure correct procedure is executed.**

Caution: Do not use power tools when removing or installing the fasteners. Damage to the threads may occur. Use hand tools only, and do not overtighten. Hand start the fasteners to ensure that the threads do not bind or cross thread.

The racing and competitive driving wheel alignment settings should be set as described here.

## TIRES AND WHEELS

### WHEEL LUG TORQUE

Prior to each track event and again before returning to public roads, tighten the wheel nuts with a torque wrench to the proper torque specification. Wheel nuts that are improperly or incorrectly tightened can cause the wheels to become loose or come off, resulting in a crash. See Capacities and Specifications section of the Vehicle Owners Manual for wheel lug exact torque specifications or tighten to 140 ft lb “cold”.

### CARBON FIBER WHEELS

When participating in Track Events or Competitive Driving with these wheels, a proper cool down without hot soaking the wheels is critical.

On a typical road course 3.2–6.5 km (2–4 miles) long per lap, one cool down lap without using the brakes will suffice. If the track being driven is shorter than 3.2 km (2 mi), perform two cool down laps without using the brakes.

If adequate cool down without using the brakes cannot be achieved (i.e., red flag on track, have to stop unexpectedly, etc.), the key is to not have one area of the wheels exposed to the “chimney effect” of the heat that rises off of a stationary hot brake rotor. This can be prevented by very low speed driving of the car such that the entire circumference of the wheel is exposed to the heat. Rolling the car back and forth in a small space is better than sitting still with hot brakes.

### TIRE PRESSURE/LOAD LIMITS

**Refer to Specific vehicle section to ensure correct pressures/limits executed.**

**WARNING:** Tracks/courses put high loads on tires operating at high speed, which can lead to tire failure if not inflated properly. Improper tire inflation pressure can put additional strain on the tires and can cause a sudden failure. Make sure the tires are in excellent condition and use the correct cold tire inflation pressure for the vehicle load and track/course.

**WARNING:** Track/course loads wear tires both on the tread and internal to the tire. When driven in track/course conditions, even if tread is not worn down to the treadwear indicator, tires must be replaced after the equivalent of two tanks of fuel or approximately 160 km (100 mi).

## FLUID LEVELS

### CHECK ENGINE OIL LEVEL

If the vehicle is used for track events and competitive driving, the engine may use more oil than it would with normal use. Low oil levels can damage the engine. Check the oil level often and maintain the proper level.

0W-40 dexos2™ engine oil is approved for both track and street use. 15W-50 full synthetic engine oil may also be used for track use, but after track use must be changed back to 0W-40 dexos2 for street use.

### DUAL CLUTCH TRANSMISSION FLUID

Transmission fluid and external filter should be changed after every 24 hours of track usage. If prompted by the transmission fluid life monitor that remaining fluid life is low, the fluid and filter should be changed as soon as possible.

Note: MY24 Corvettes no longer need an additional 2 qt (2 L) of DCT transmission fluid prior to track usage. They all come track ready from the factory.

### FRONT DRIVE UNIT FLUID (E-Ray specific)

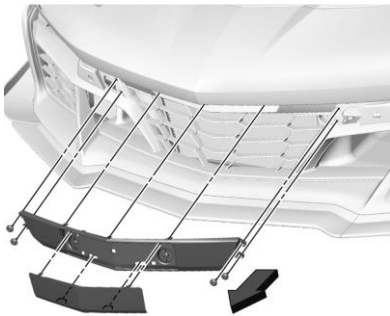
Front Drive Unit fluid should be changed after every 15 hours of track usage. This service is recommended to be done by an authorized dealer.

## POWERTRAIN COOLING AND FUEL

### POWERTRAIN COOLING

For vehicles with the optional front mesh screen heat exchanger guards (VWE), remove them for track events when the ambient temperature reaches 90 degrees F (32 degrees C) or higher. See your dealer for complete procedure.

For Z06 and E-Ray vehicles only, remove the front license plate and bracket (if installed) and remove the front aero covers before track use. See your dealer for complete procedure.



If reduced performance is experienced during track events or competitive driving, turning off the A/C will help to improve engine performance. Maintain a mixture of 40% DEX-COOL coolant and 60% clean, drinkable water to optimize engine performance.

## FUEL

Unleaded gasoline, rated at 93 octane or higher, is required.

## DRIVER MODE AND PTM SETTINGS (if equipped)

### DRIVER MODE SELECTOR

Track mode should be selected for track use or competitive driving. The outer ring of the Driver Mode Selector is located on the console under the wrist pad. It rotates to change the modes, which display in the instrument cluster. You can also set desired track settings for the steering wheel-mounted Z-mode button.

### ENGINE SOUND MANAGEMENT SETTING

Do not place the vehicle in Engine Sound Management – Stealth mode. Damage could result to exhaust valve actuators.

### COMPETITIVE DRIVING MODE

Competitive Driving mode allows full engine power, while StabiliTrak/ESC helps maintain directional control of the vehicle by selective brake application. In this mode, the TCS is off and Launch Control is available.

Adjust your driving style to account for the available engine power. In order to select this optional handling mode, the vehicle mode must be set to Sport or Track. If equipped with Performance Traction Management (PTM), then Competitive Driving mode is only available in Sport. Then, quickly press the traction control button on the center console two times. ESC COMPETITIVE MODE displays in the Driver Information Center (DIC).

### PERFORMANCE TRACTION MANAGEMENT (PTM)

Stingray Z51 with Magnetic Selective Ride Control™, Z06, and E-Ray, all incorporate Performance Traction Management (PTM), which integrates the Traction Control, StabiliTrak® and Selective Ride Control systems to provide consistent performance when cornering in track situations.

### TO UTILIZE PERFORMANCE TRACTION MANAGEMENT (PTM)

1. First, place vehicle in Track mode with Mode Select knob. PTM is not available in other drive modes.
2. Press the TCS/StabiliTrak button on the center console two times within two seconds. To select a PTM mode, turn the Mode Select knob to the desired setting.
3. PTM contains five modes. The below table outlines when to appropriately select the correct mode based on intended usage and driver confidence.

| PTM Mode | Intended Usage                                                | Corner Exit Control | Stability Control                  |
|----------|---------------------------------------------------------------|---------------------|------------------------------------|
| Wet      | Wet racetrack                                                 | Tuning 1            | Key up stability control           |
| Dry      | Drying or damp track. Stable chassis upon corner exit.        | Tuning 2            | Competitive mode stability control |
| Sport    | Used tires, refined balance of lap time vs chassis stability. | Tuning 3            | Competitive mode stability control |
| Race 1   | Used tires, low grip racetrack                                | Tuning 3            | No stability control               |
| Race 2   | Fastest lap time possible on new tires, high grip racetrack   | Tuning 4            | No stability control               |

Steering and suspension modes are adjustable in Z-mode for Performance Traction Management.

Note: For full details and information, see the vehicle Owner's Manual.

#### AUTOMATIC EMERGENCY BRAKING and FRONT PEDESTRIAN BRAKING

The 2024 Corvettes come equipped with Automatic Emergency Braking (AEB) and Front Pedestrian Braking.

To avoid receiving verbal alerts or unwanted automatic braking, Chevrolet recommend turning this feature off on the track.

To turn off AEB, in your center display, select Settings – Vehicle – Collision/Detection systems – Automatic Emergency Braking – Off followed by Selecting: Front Pedestrian Braking – Off

#### AFTER THE TRACK

After driving your Stingray with STINGRAY Z51 Performance Package, Z06 or E-Ray on the track, it is important to return the vehicle back to the original factory settings with the proper fluids before normal street driving.

##### STEP 1

Return the tire pressure settings to factory (see the Tire and Loading Information label located below the door latch with the door open).

##### STEP 2

Return to production trim height and return the wheel alignment settings to factory.

##### STEP 3

Replace oil (use only engine oil licensed to the dexos1™ specification of the proper SAE-viscosity grade).

#### **STEP 4**

Replace brake fluid (DOT-4 Hydraulic Brake Fluid).

Note: Remove the track only rear lower control arm brake duct.

#### **STEP 5**

Rotate the Driver Mode Selector out of Track mode.

#### **STEP 6**

Turn on Active Emergency Braking (optional and recommended)

Note: For full details and information, see the vehicle Owner's Manual.

Certain restrictions, precautions and safety procedures apply to your vehicle. Please read your Owner's Manual for complete instructions. All information contained in this guide is based on the latest information available at the time of printing and is subject to change without notice. Copyright 2020 General Motors. All

## STINGRAY Z51 SPECIFIC INSTRUCTIONS

### BRAKE BURNISH PROCEDURE

#### **Brake Burnishing Procedure for J55 (Stingray with STINGRAY Z51)**

1. Using the friction bubble in the Cluster Performance menu, apply the brakes 25 times starting at 100 km/h (60 mph) to 50 km/h (30 mph) while decelerating at 0.4 g. See Instrument Cluster 0 79. This is a medium brake application. Drive for at least 1 km (0.6 mi) between applying the brakes. This first step may be skipped if there are more than 320 km (200 mi) on the brake pads.
2. Apply the brakes 25 times starting at 100 km/h (60 mph) to 25 km/h (15 mph) while decelerating at 0.8 g. This is a hard brake application without activating the Antilock Brake System (ABS). Drive for at least 1 km (0.6 mi) between applications. Depending on conditions, some increase in brake pedal travel and brake pedal force may be experienced.
3. Cool down: Drive at 100 km/h (60 mph) for approximately 15 km (10 mi) without using the brakes.
4. Apply the brakes 25 times from 100 km/h (60 mph) to 50 km/h (30 mph) while decelerating at 0.4 g. This is a medium brake application. Drive for at least 1 km (0.6 mi) between applications.

As with all high performance brake systems, some amount of brake squeal is normal.

#### Alternative Closed Course Brake Burnishing Procedure for J55 (Stingray with Z51)

This brake burnish procedure should be run on vehicles with J55, J56, or J57 factory equipped brake systems.

This procedure should only be run on a track and only on dry pavement. Brake pedal fade will occur during this track burnish procedure and can cause brake pedal travel and force to increase. This could extend stopping distance until the brakes are fully burnished.

1. Start track lapping at lower speeds and lower braking efforts for three minutes of driving. Allow for increased braking distances due to reduced brake output.
2. After Step 1, increase speed and braking effort for the next six minutes of lapping, gradually ending up at 90% effort. Continue to allow for increased braking distance due to reduced brake output.
3. Cool the brakes by lapping with minimal light braking for six minutes.

### LOAD LIMIT

Limit vehicle load to the driver only, with no other cargo.

Inflate the front tires to 160 kPa (23 psi) and the rear tires to 165 kPa (24 psi). Drive at a maximum speed of 296 km/h (184 mph).

Road Course target hot pressures are 220–240 kPa (32–35 psi). Value will vary based on driving style, track, temperature, and weather conditions.

See Tire Pressure for High-Speed Operation in Vehicles Owners Manual for sustained high speed non-track use.

## WHEEL ALIGNMENT

To achieve the track alignment specified settings:

1. The upper control arm to body washers on all four corners will need to be relocated from between the body and the control arm to between the head of the bolt and the control arm.
2. Adjust the lower control arm cam bolt position to achieve the following specifications.

### FRONT

Caster: +8.0 degrees

Camber: -3.0 degrees

Total Toe: 0.1 degrees toe in

### REAR

Caster: 0 degrees

Camber: -2.5 degrees

Total Toe: 0.1 degrees toe in

Thrust Angle: 0 degrees

Note: After track use, reinstall washers between the body and the control arms. Reset to factory alignment.

## AERODYNAMICS

The Stingray Z51 is aerodynamically prepared straight from the factory. No need to make any changes.

## Z06 SPECIFIC INSTRUCTIONS

### BRAKE BURNISH PROCEDURE J56

#### **Brake Burnishing Procedure for J56 (Z06 Standard) Brakes (Note: Same as J55)**

1. Using the friction bubble in the Cluster Performance menu, apply the brakes 25 times starting at 100 km/h (60 mph) to 50 km/h (30 mph) while decelerating at 0.4 g. See Instrument Cluster 0 79. This is a medium brake application. Drive for at least 1 km (0.6 mi) between applying the brakes. This first step may be skipped if there are more than 320 km (200 mi) on the brake pads.
2. Apply the brakes 25 times starting at 100 km/h (60 mph) to 25 km/h (15 mph) while decelerating at 0.8 g. This is a hard brake application without activating the Antilock Brake System (ABS). Drive for at least 1 km (0.6 mi) between applications. Depending on conditions, some increase in brake pedal travel and brake pedal force may be experienced.
3. Cool down: Drive at 100 km/h (60 mph) for approximately 15 km (10 mi) without using the brakes.
4. Apply the brakes 25 times from 100 km/h (60 mph) to 50 km/h (30 mph) while decelerating at 0.4 g. This is a medium brake application. Drive for at least 1 km (0.6 mi) between applications.

As with all high performance brake systems, some amount of brake squeal is normal.

### BRAKE BURNISH PROCEEDURE J57

#### **Brake Burnishing Procedure for Z06 with Available J57 Carbon Ceramic Brakes**

Perform this procedure only on dry pavement, in a safe manner, and in compliance with all local and state ordinances regarding motor vehicle operation.

1. Using the friction bubble in the Cluster Performance menu, apply the brakes 25 times starting at 100 km/h (60 mph) to 50 km/h (30 mph) while decelerating at 0.4 g. This is a medium brake application. Drive for at least 1.6 km (1.0 mi) between applications. This first step may be skipped if there are more than 320 km (200 mi) on the brake pads.
2. Apply the brakes 20 times starting at 100 km/h (60 mph) to 25 km/h (15 mph) while decelerating at 0.8 g. This is a hard brake application. Drive for at least 1.6 km (1.0 mi) between applications.
3. Apply the brakes 12 times starting at 100 km/h (60 mph) to 8 km/h (5 mph) while decelerating at 0.8 g. This is a hard brake application. Accelerate as rapidly as possible without activating traction control between applications.
4. Cool down: Drive at 100 km/h (60 mph) for approximately 15 km (10 mi) without using the brakes.

As with all high performance brake systems, some amount of brake squeal is normal.

## Alternative Closed Course Brake Burnishing Procedure for J56 (Z06 Standard), and J57 (Z06 Carbon Ceramic) Brakes.

This brake burnish procedure should be run on vehicles with J55, J56, or J57 factory equipped brake systems.

This procedure should only be run on a track and only on dry pavement. Brake pedal fade will occur during this track burnish procedure and can cause brake pedal travel and force to increase. This could extend stopping distance until the brakes are fully burnished.

1. Start track lapping at lower speeds and lower braking efforts for three minutes of driving. Allow for increased braking distances due to reduced brake output.
2. After Step 1, increase speed and braking effort for the next six minutes of lapping, gradually ending up at 90% effort. Continue to allow for increased braking distance due to reduced brake output.
3. Cool the brakes by lapping with minimal light braking for six minutes.

## LOAD LIMIT

Limit vehicle load to the driver only, with no other cargo.

**Tracks with Combined High-Speed and High-Load Corners** (e.g., Nurburgring Nordschliefe, Spa Francorchamps, or similar)

Cold Tire Pressure Requirement: Inflate tires to no less than 210 kPa (30 psi) front and rear, cold.  
Hot Tire Pressure Target Range: 220 – 240 kPa (32–35 psi).

**Road/Street Courses** (e.g., Virginia International Raceway, Road Atlanta, or similar)

Cold Tire Pressure Requirement: Inflate tires to no less than 165 kPa (24 psi) front and rear, cold.  
Hot Tire Pressure Target Range: 220 – 240 kPa (32–35 psi).

See Tire Pressure for High-Speed Operation in Vehicles Owners Manual for sustained high speed non-track use.

## WHEEL ALIGNMENT

### Z06

To achieve the track alignment specified settings:

1. The upper control arm to body washers do not need to be removed.
2. Adjust the lower control arm cam bolt position to achieve the following specifications.

### FRONT

Caster: +8.0 degrees

Camber: -2.0 degrees

Total Toe: 0.1 degrees toe in

## REAR

Caster: 0 degrees

Camber: -2.0 degrees

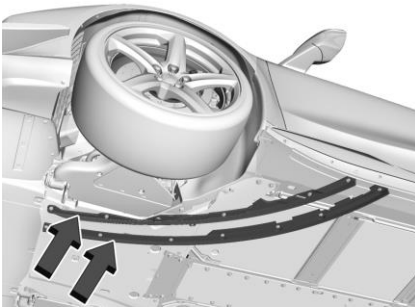
Total Toe: 0.1 degrees toe in

Thrust Angle: 0 degrees

Note: After track use, reinstall washers between the body and the control arms. Reset to factory alignment.

## AERODYNAMICS

### Underbody Strake Inspection (For Z06 Vehicles With Spoiler Regular Production Options (RPO) TOF or TOG)

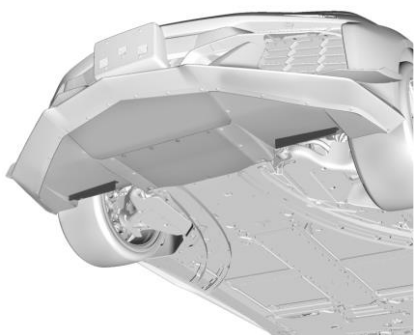


For optimal aero performance, ensure the front strakes are solidly attached to the underbody and damage free. If not, replace with service parts.

### Corvette Z06 Recommended Aerodynamic Configurations



Rear Spoiler With Tall Wickers Shown, Short Wickers Similar



Front Underwing Stall Gurney Flaps

Refer to the following table for setting up the Z06 for optimized aerodynamic performance. Street Driving targets the lowest aerodynamic drag, whereas Track Driving targets optimal downforce balance. Setup will vary based on the vehicle's front splitter, front underwing, and rear spoiler/wing configuration.

| RPO Code                    | Street Driving - Recommended Aerodynamic Configuration                           |                                                                             | Track Driving - Recommended Aerodynamic Configuration                                            |                                                                               |
|-----------------------------|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
|                             | Front                                                                            | Rear                                                                        | Front                                                                                            | Rear                                                                          |
| Z06                         | Front underwing stall Gurney flaps installed. Front fascia aero cover installed. | Short rear spoiler wickers installed. No rear lower control arm brake duct. | Remove front underwing stall Gurney flaps. Remove front fascia aero cover.                       | Install tall rear spoiler wickers. Install rear lower control arm brake duct. |
| Z06 and CFV/CFZ             | Front underwing stall Gurney flaps installed. Front fascia aero cover installed. | Short rear spoiler wickers installed. No rear lower control arm brake duct. | Front underwing stall Gurney flaps installed. Remove front fascia aero cover.                    | Install tall rear spoiler wickers. Install rear lower control arm brake duct. |
| Z06 and CFV/CFZ and TOG/TOF | No front underwing stall Gurney flaps. Front fascia aero cover installed.        | No rear lower control arm brake duct.                                       | No underwing stall Gurney flaps. Remove front fascia aero cover. Install four underbody strakes. | Install rear lower control arm brake duct.                                    |
| Z06 and Z07                 | No front underwing stall Gurney flaps. Front fascia aero cover installed.        | No rear lower control arm brake duct.                                       | No underwing stall Gurney flaps. Remove front fascia aero cover. Install four underbody strakes. | Install rear lower control arm brake duct.                                    |
| Z06 and 5V5                 | Front underwing stall Gurney flaps installed. Front fascia aero cover installed. | No rear lower control arm brake duct.                                       | Front underwing stall Gurney flaps installed. Remove front fascia aero cover.                    | Install rear lower control arm brake duct.                                    |

## E-RAY SPECIFIC INSTRUCTIONS

### TRACKING AN E-RAY

Pilot Sport 4S tires are required for track driving ability. The E-Ray all-season tires may be replaced with the Michelin Pilot Sport 4S tires (standard with ZER).

1. Install the Michelin Pilot Sport 4S tires onto the vehicle.
2. See the alignment section of this document to ensure proper alignment specifications.

### ERAY BRAKE BURNISH PROCEDURE

Perform this procedure only on dry pavement, in a safe manner, and in compliance with all local and state ordinances regarding motor vehicle operation.

1. Press the Charge+ button. The Charge+ feature allows the hybrid battery to be charged to 100% capacity, which in turn minimizes the regenerative capture influence on the brake burnish.
2. Drive at 100 km/h (60 mph) for 3.2 km (2.0 mi) to build up the hybrid battery state of charge to 100%. Retain in Charge+ for the duration of the burnish procedure.
3. Using the friction bubble in the Cluster Performance menu, apply the brakes 25 times starting at 100 km/h (60 mph) to 50 km/h (30 mph) while decelerating at 0.5 g. This is a medium brake application. Drive for at least 1.6 km (1.0 mi) between applications. This step may be skipped if there are more than 320 km (200 mi) on the brake pads.
4. Next, apply the brakes 20 times starting at 100 km/h (60 mph) to 25 km/h (15 mph) while decelerating at 0.8 g. This is a hard brake application. Drive for at least 1.6 km (1.0 mi) between applications.
5. Finally, apply the brakes 20 times starting at 100 km/h (60 mph) to 8 km/h (5 mph) while decelerating at 0.8 g. This is a hard brake application. Accelerate as rapidly as possible without activating traction control between applications.
6. Cool down: Drive at 100 km/h (60 mph) for approximately 15 km (10 mi) without using the brakes.

### ALTERNATIVE CLOSE COURSE BRAKE BURNISHING PROCEDURE FOR E-RAY

This procedure should only be run on a track and only on dry pavement. Brake pedal fade will occur during this track burnish procedure and can cause brake pedal travel and force to increase. This could extend stopping distance until the brakes are fully burnished.

1. Start track lapping at lower speeds and lower braking efforts for three minutes of driving. Allow for increased braking distances due to reduced brake output.

2. After Step 1, increase speed and braking effort for the next nine minutes of lapping, gradually ending up at 90% effort. Continue to allow for increased braking distance due to reduced brake output.
3. Cool the brakes by lapping with minimal light braking for six minutes.

#### LOAD LIMIT

Limit vehicle load to the driver only, with no other cargo.

**Tracks with Combined High-Speed and High-Load Corners** (e.g., Nurburgring Nordschliefe, Spa Francorchamps, or similar):

Cold Tire Pressure Requirement: Inflate tires to no less than 210 kPa (30 psi) front and rear.

Hot Tire Pressure Target Range: 220 – 240 kPa (32–35 psi).

**Traditional Road Courses** (e.g., Virginia International Raceway, Road Atlanta, or similar):

Cold Tire Pressure Requirement: Inflate tires to no less than 165 kPa (24 psi) front and rear.

Hot Tire Pressure Target Range: 220 – 240 kPa (32–35 psi).

**Tight Road Courses & Autocross** (e.g., Thunderhill West, Streets of Willow, Oregon Raceway Park, or similar):

Cold Tire Pressure Requirement: Target a 14 kPa (2 psi) front to rear stagger pressure split. Inflate tires to no less than these targets: Front: 165 kPa (24 psi), Rear: 180 kPa (26 psi).

Hot Tire Pressure Target Range: Target a 14 kPa (2 psi) front to rear stagger pressure split. Front: 207–220 kPa (30–32 psi), Rear: 220 – 234 kPa (32–34 psi).

See Tire Pressure for High-Speed Operation in Vehicles Owner's Manual for sustained high speed non-track use.

#### WHEEL ALIGNMENT

To achieve the track alignment specified settings:

1. The upper control arm to body washers on all four corners will need to be relocated from between the body and the control arm to between the head of the bolt and the control arm.
2. Adjust the lower control arm cam bolt position to achieve the following specifications.

##### FRONT

Caster: +8.0 degrees

Camber: -2.75 degrees

Total Toe : 0.1 degrees toe in

##### REAR

Caster: 0 degrees

Camber: -2.0 degrees  
 Total Toe : 0.1 degrees toe in  
 Thrust Angle: 0 degrees

Note: After track use, reinstall washers between the body and the control arms. Reset to factory alignment.

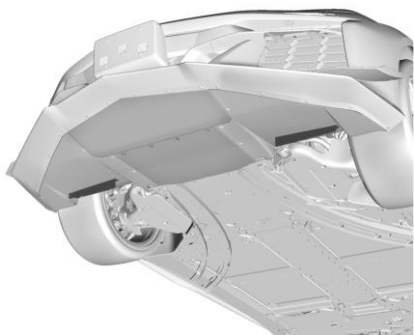
## AERODYNAMICS

Refer to the following table for setting up the E-Ray for optimized aerodynamic performance. Street Driving targets the lowest aerodynamic drag, whereas Track Driving targets optimal downforce balance. Setup will vary based on the vehicle's front splitter, and rear spoiler/wing configuration.

| RPO Code                  | Street Driving - Recommended Aerodynamic Configuration                           |                                                                             | Track Driving - Recommended Aerodynamic Configuration                            |                                                                                  |
|---------------------------|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
|                           | Front                                                                            | Rear                                                                        | Front                                                                            | Rear                                                                             |
| <b>E-Ray</b>              | Front underwing stall Gurney flaps installed. Front fascia aero cover installed. | Short rear spoiler wickers installed. No rear lower control arm brake duct. | Front underwing stall Gurney flaps installed. Front fascia aero cover installed. | Short rear spoiler wickers installed. Install rear lower control arm brake duct. |
| <b>E-Ray with CFV/CFZ</b> | Front underwing stall Gurney flaps installed. Front fascia aero cover installed. | Short rear spoiler wickers installed. No rear lower control arm brake duct. | Remove front underwing stall Gurney flaps. Remove front fascia aero cover.       | Install tall rear spoiler wickers. Install rear lower control arm brake duct.    |

## E-Ray Vehicles Equipped with Front Splitter Regular Production Options (RPO) CFV/CFZ

Remove the stall gurney flaps. These vertical flaps lie ahead of the front wheels.

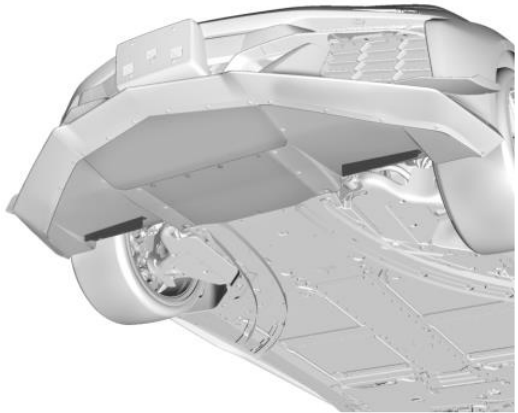


Install the rear spoiler tall wickers



## E-Ray Vehicles without RPO CFV/CFZ Front Splitter

Ensure the stall gurney flaps are installed. These vertical flaps lie ahead of the front wheels.



Install the rear spoiler short wickers

