2020 CORVETTE
TRACK PREPARATION

Corvette Stingray with the Z51 Performance Package has been designed and engineered to be a world-class sports car for the track. But before unleashing its acceleration, cornering and braking capability, there are several key procedures and steps that must be taken in order to properly experience its track prowess during sanctioned racing events. For full details and information, see the vehicle Owner's Manual.

Note: This supplement is for Corvette Stingray with Z51 Performance Package if used by enthusiasts for track events. 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.

1. 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)

2. PREPARE THE BRAKES

BRAKE FLUID

Replace existing brake fluid with a qualified high-performance brake fluid from a sealed container. Brake fluid with a dry boiling point >590 F (310 C) 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.

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.

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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.

STAGE 1	STAGE 2
The Driver Information Center (DIC) displays a "Reduce Braking to Avoid Overheating" message and brake pedal effort and travel is increased. When the message displays, the driver should decrease brake pedal pressure.	The Driver Information Center (DIC) displays a "Brakes Overheated Service Now" message that the brake fluid temperature is excessive and is about to boil. The system increases brake pedal effort and travel, and will also limit vehicle speed. The driver should immediately start a cooldown lap if on the track. If this message displays, take the vehicle to be serviced at your dealer.

BRAKE BURNISHING

New brake pads must be burnished before racing or other competitive driving.

BRAKE BURNISHING PROCEDURE

STEP 1	STEP 2	STEP 3	STEP 4
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. This first step may be skipped if there are more than 200 mi (320 km) on the brake pads.	Apply the brakes 25 times, starting at 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 applications. Depending on conditions, some increase in brake pedal travel and brake pedal force may be experienced.	Cooldown: Drive at 60 mph (100 km/h) for approximately 10 mi (15 km) without using the brakes.	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 applications.

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

ALTERNATIVE CLOSED COURSE BRAKE BURNISHING PROCEDURE

This brake burnishing procedure should only be run on vehicles with the J55 Z51 factory- equipped brake system. This procedure should only be run on a track and only on dry pavement. Brake pedal fade will occur during this track burnishing procedure, and can cause brake pedal travel and force to increase. This could extend stopping distance until the brakes are fully burnished.

STEP 1	STEP 2	STEP 3
Start track lapping at lower speeds and lower braking efforts for 3 minutes of driving. Allow for increased braking distances due to reduced brake output.	After Step 1, increase speed and braking effort for the next 6 minutes of lapping, gradually ending up at 90% effort. Continue to allow for increased braking distance due to reduced brake output.	Cool the brakes by lapping with minimal light braking for 6 minutes.

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BRAKE COOLING KIT

The dealer-installed brake cooling parts should be visually inspected prior to any track event, high-speed braking or competitive driving. Step 4 below (Rear Lower Control Arm Cooling Duct) is not dealer-installed for highway use but should be installed prior to track use. It should be removed after track use. Ensure all brake cooling parts are correctly and securely installed. Inspect for blockage in the front and rear brake cooling ducts prior to every event.

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

3. ADJUST FOUR CORNERS AND ALIGNMENT

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 preload on the coil springs. The vehicle corner weights can be adjusted for track use. If the vehicle trim height is modified, it should be returned to normal trim 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	STEP 2	STEP 3	STEP 4	STEP 5
Raise the vehicle so the tires are completely off the ground.	Loosen the lower spring seat lock nut.	Thread the lower spring seat lock nut downward off of the threads to its resting location on the shoulder of the center support tube.	While holding the center support tube holes, turn the spring seat upward to increase spring preload, or downward to decrease spring preload.	Thread the lower lock nut back on to the center support tube and torque it against the spring seat to 18.4 lb.-ft. (25 nm).

LOAD LIMIT

Limit vehicle load to the driver only, with no other cargo. Inflate the front tires to 23 psi (159 kPa) and the rear tires to 24 psi (165 kPa).
Road Course target hot pressures of 32–35 psi (220–240 kPa). Value will vary based on driving style, track, temperature and weather.

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WHEEL ALIGNMENT

The racing and competitive driving wheel alignment settings should be set as described here. To achieve the track alignment specified settings:

1. The upper control arm to body washers on all four corners will need to be moved from between the body and the control arm and relocated 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 (PER CORNER)	REAR (PER CORNER)
/ Caster: +8.0 degrees / Camber: -3.0 degrees / Toe (total): 0.1 degrees toe in	/ Caster: 0 degrees / Camber: -2.5 degrees / Toe (total): 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.

4. 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. If 0W-40 dexos2 oil is not available, 5W-30 dexos1™ full synthetic engine oil may be used for street use. If 5W-30 dexos1 is used, it must be changed to 0W-40 dexos2 or 15W-50 full synthetic engine oil for track 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.

Add an additional 2 qt (2 L) of DCT transmission fluid prior to track usage. It is not required to remove the additional 2 qt (2 L) of DCT fluid.

Any transmission level set or change should be performed at your dealer. The transmission fluid used in the dual clutch transmission is a specific transmission fluid. Use of unapproved fluid may cause damage to the transmission. See your dealer for the proper transmission fluid.

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5. 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.

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

Corvette models that are equipped with Z51 Performance Package and Magnetic Selective Ride Control™ 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 PTM
/ The vehicle must be in Track mode. / Quickly press the TCS/StabiliTrak button on the center console two times. / To select a mode, turn the Selective Ride Control/Performance Traction Management MODE SELECT knob. / PTM contains five modes. Mode 5 is Race with Active Handling off. It is for use by experienced drivers who are familiar with the track, requires the most driving skill and should be used in dry conditions only. StabiliTrak is off and engine power is available for maximum cornering speed.

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

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AFTER THE TRACK

After driving your Stingray with Z51 Performance Package 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	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6
Return the tire pressure settings to factory (see the Tire and Loading Information label located below the door latch with the door open).	Return the wheel alignment settings to factory.	Replace oil (use only engine oil licensed to the dexos1™ specification of the proper SAE-viscosity grade).	Replace brake fluid (DOT-4 Hydraulic Brake Fluid).	Rotate the Driver Mode Selector out of Track mode.	Return to production trim height.

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