

Taking It to the Limit: Performance Traction Management

 September 28, 2015

The performance of the 2016 ATS-V and CTS-V can be maximized for track events by using the Driver Mode Control and Performance Traction Management systems.

Driver Mode Control

Driver Mode Control changes the software calibrations of the suspension, steering and powertrain systems to adjust how the vehicle performs based on various driving preferences and road conditions. Owners should be made aware of these changes and how they affect vehicle performance.

There are four Driver Modes available: Tour, Sport, Snow/Ice, and Track. Track mode provides maximum vehicle handling performance and feedback. The Mode button on the center console enables drivers to select the different modes. (Fig. 10)



Fig. 10

Driver Mode Summaries				
MODE	TOUR (Default)	SPORT	SNOW/ICE	TRACK
Throttle Progression	Normal	Normal	Snow/Ice	Track
Transmission Shift Mode	Normal	Sport	Normal	Track
Steering (Assist Effort)	Tour	Sport	Tour	Track
Magnetic Ride Control	Tour	Sport	Tour	Track
Launch Control	Not Available	Not Available	Not Available	Available
Stability Control	Normal	Normal	Normal	Track
Performance Traction Management	Off	Off	Off	Available

Performance Traction Management

Performance Traction Management (PTM) integrates the traction, stability and chassis mode control systems, accessed through the Track mode, and modifies the engine power for enhanced performance when cornering.

To select PTM, once in Track mode, press the Traction Control Off button twice. The current mode is displayed on the Driver Information Center. (Fig. 11) Press the MODE button on the center console to select one of the five available PTM modes:

- WET (Active Handling On)
- DRY (Active Handling On)
- SPORT 1 (Active Handling On)
- SPORT 2 (Active Handling Off)
- RACE (Active Handling Off)

Each mode progressively requires more driving skill by reducing the amount of traction control and stability control intervention and maximizing available engine power.



Fig. 11

Launch Control

Launch Control is intended for use during closed course track events to help achieve high levels of vehicle acceleration in a straight line. It's automatically activated when the vehicle is in Track Mode and any of the five PTM Modes are activated, the vehicle is not moving, and the steering wheel is pointing straight.

To use Launch Control, firmly depress the brake pedal or clutch pedal (if equipped), select 1st gear (manual transmission) or Drive, rapidly press the accelerator pedal to wide open throttle, and then release the brake pedal or clutch pedal while maintaining wide open throttle.

The Launch Control feature will initially limit engine speed as the driver rapidly applies the accelerator pedal to wide open throttle.

Track Events

If a vehicle spends a day at the track, there are also several maintenance procedures that should be followed.

Axle Fluid – Axles must have 500 miles (885 km) before being used in track driving. The axle fluid temperatures may be higher after driving in severe conditions. It's recommended to change the fluid after the first track event, and then after every 24 hours of racing or competitive driving. The vehicle should not be driven as long or as fast the first time on the track.

Engine Oil – The supercharged 6.2L V8 engine (CTS-V) should use 0W-40 or 5W-40 oil that meets the dexos2 specification during track events.

Automatic Transmission Fluid (CTS-V) – Fill the transmission fluid to the track specific level prior to track use. If running a track session, check the transmission fluid level when the transmission fluid temperature is between 55-65°C (131–149°F).

Brake Fluid – For track events, it is recommended to use a high-performance brake fluid that has a dry boiling point greater than 279°C (534°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.

Brake Disc Splash Shield (CTS-V) – Brake cooling can be improved if the front brake disc splash shield (Fig. 12) and front tire deflector are removed. Only remove the front brake disc splash shield and front tire deflector when driving in track events. Removing the shield will require that the suspension bushings visible to the brake disc be protected with insulated thermal wrapping.

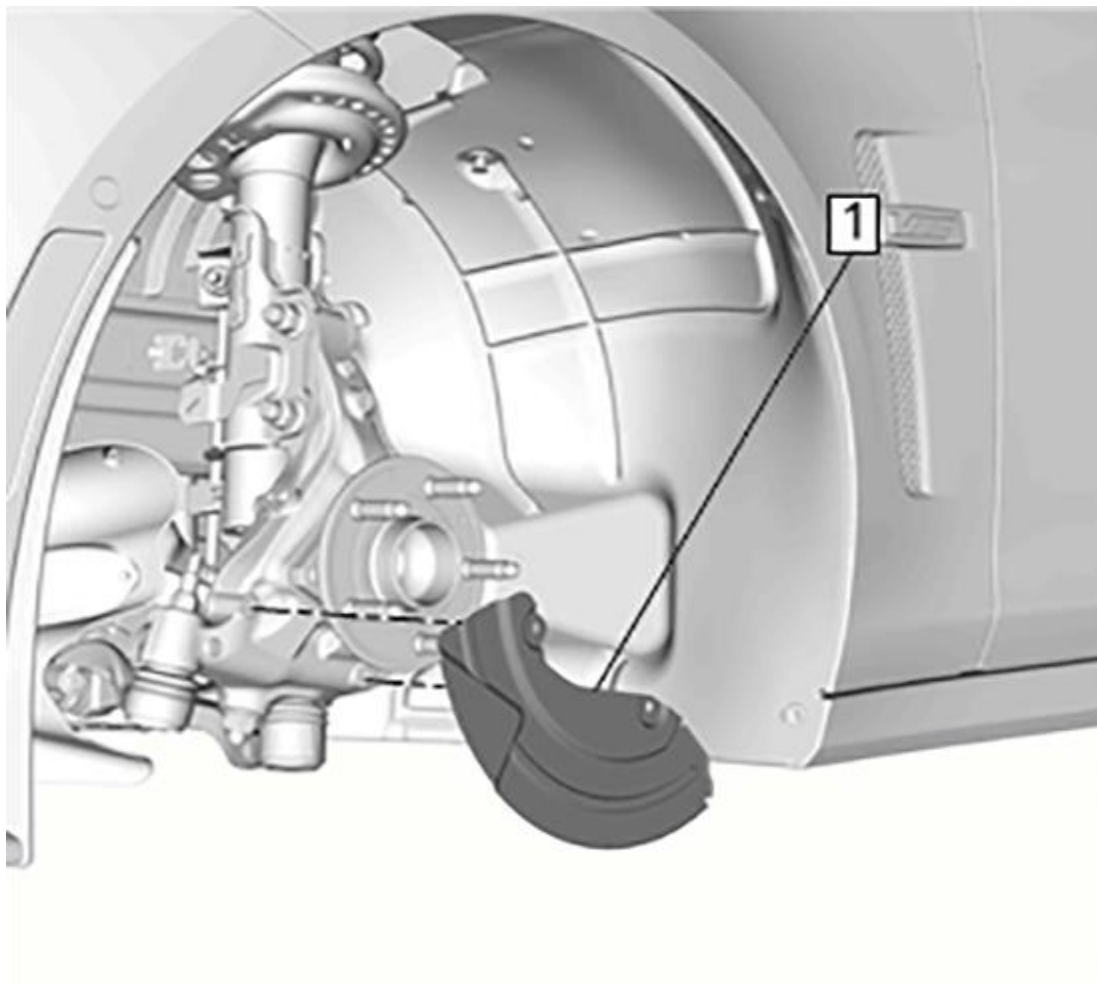


Fig. 12

Brake Burnishing – To prepare the V-Series brake systems for track events, complete the appropriate high performance brake burnishing procedure outlined in the Owner Manual. 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. Run this procedure in a safe manner and on dry pavement only.

Wheel Alignment – Wheel alignment specifications for track use are listed in the Owner Manual.

Tire Inflation – Tire pressure should be adjusted for various types of race courses. Refer to the Owner Manual for tire inflation pressure guidelines.

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