



## Tips & Tricks: 7th Generation Corvette Technology

The C7 introduced Corvette lovers to a new level of technology. From the well-publicized Performance Data Recorder to the various Modes available, those fortunate enough to have a new Stingray are finding new reasons to laud the Seventh Generation. Mid America Motorworks outlines some of the perks of the new generation in this article.

### Information Meets Entertainment

With the C7 Corvette, owners welcomed the addition of the Infotainment System, a system that gives you access to everything from standard radio features to settings, navigation and hands-free devices. A must-have in today's fast-paced culture, the Bluetooth Phone/Devices feature allows you to answer and place calls through the Corvette's audio system. You can also share your phone's address book for GPS navigation. There are even settings that allow you to listen to incoming text messages so you don't have to take your eyes off the road. To review the full options available with the Infotainment System, [click here](#).

### Your Mode Matters

Corvettes have come with different Mode settings since the C4 with select Ride Suspension. The C7 Corvette includes Modes for diagnostics, different weather conditions and even valet driving.

### Diagnostic Mode

If you feel like your Stingray isn't operating at 100%, check out the Diagnostic Mode. With the car powered off and the keys nearby, to enter Diagnostic Mode, press and hold the start button without your foot on the brake for 8-10 seconds. This mode is used by the service technicians when trouble-shooting electronic issues. This will activate all of the electronics that typically do not come on in accessory mode, such as the heads up display and all of the driver selection screens.

### Driving Modes

If you're like the rest of us at Mid America Motorworks, you drive your Corvette every chance you get. The Stingray makes that even easier with Driving Modes for everything the open road may bring.

- **Weather:** Probably the most self-explanatory of all the modes. It adapts the vehicle to road conditions by distributing the appropriate power to the rear wheels, which promotes more confident driving in rain or snow. Tailored Traction Control is at the heart of this mode. This Mode is great for many of the road conditions you encounter in inclement weather, from US-24 in the heart of the Rocky Mountains to Interstate 75 in Florida's Everglades.





- **Eco:** For those environmental (and fuel tank)-conscious Corvette lovers, the C7 features an Eco Mode that lets the LT1 V8 run only four cylinders. Using Active Fuel Management to deactivate a bank of the 6.2-liter, eight-cylinder engine can return more than 30 mpg. Eco Mode is best for flat, open roads like Interstate 15 from Los Angeles to Las Vegas through the Mojave National Preserve.

- **Tour:** Ideal for everyday driving, this mode offers quiet comfort (by relieving the stiffness from shock damping) during the start and stop of your daily commute. A customizable gauge cluster can display audio, navigation and phone data. This is perfect for your drive to and from work.

- **Sport:** As the name implies, this Mode works best when aggressive responsiveness and power are needed. Available Magnetic Selective Ride Control is stiffened but tempered (like the steering). The dashboard display changes, easily revealing RPMs, and the throttle note becomes more audible (in other words, LOUDER). Use this mode on the Tail of the Dragon in Deal's Gap, NC with all of its 318 curves packed into 11 miles.

- **Track:** Best used in autocross or on lapping days, this Mode is exclusively for driving on a track. With legitimate race settings that provide maximum responsiveness (through available Magnetic Ride damping and Performance Traction Management) and throttle progression, it also displays a lap timer on the dashboard.

### **Valet Mode**

If you have second thoughts about using a valet at hotels and restaurants, this one is for you. Valet Mode protects your car when you hand the keys over to the valet attendant. It automatically records the rear view of the car and engages the PDR. It also disables the audio system, locks the glove box, and locks the center console.

### **Performance Data Recorder**

The 2015 Corvette featured the first-ever in-car Performance Data Recorder, or PDR. Designed to record your country cruise or racetrack records, PDR captures real-time performance data, so you can playback and analyze your technique. It includes:

- A 720p high-definition camera mounted within the windshield header trim, which records the driver's point-of-view through the windshield, with audio recorded via a dedicated microphone in the cabin.
- A self-contained telemetry recorder. The system uses a dedicated GPS receiver that operates at 5 Hz, five times faster than the in-dash navigation system, for more precise positioning and corner traces. The recorder is also hard-wired into the Stingray's Controller Area Network (CAN) to access vehicle information, ranging from engine speed and transmission-gear selection to braking force and steering-wheel angle.
- A dedicated SD-card slot in the glove box for recording and transferring video and vehicle data.

The PDR system can record video with three data overlay options, each rendered in real time:

- **Track Mode** – shows the maximum level of data on the screen, including speed, rpm, g-force, a location-based map, lap time and more.
- **Sport Mode** – shows fewer details on the overlay, but includes key data including speed and g-force.
- **Touring Mode** – no data overlay; it simply records and displays video and audio of the drive.
- **Performance Mode** – records performance metrics, such as 0 to 60 mph acceleration, 1/4-mile speed and elapsed time, and 0-100-0 mph runs. The video can be viewed on the Corvette Stingray's eight-inch color touchscreen when the car is parked, or downloaded to a computer for further editing, and sharing video via social media sites.

### **Launch Control**

Launch Control assists Corvette drivers in accelerating from a standing start, which can shave seconds off your time at track days. The steps to enabling Launch Control are a little different for automatic and manual Corvette Z51s and non-Z51s.





### Non-Z51 Automatics

- Select or switch to TRACK mode.
- Press the button in the middle of the selector dial twice to show "Competitive Mode" on your driver's display.
- Press the brake down HARD (like a panic stop).
- Press the accelerator all the way to the floor smoothly and quickly. This will stabilize your RPMs between 2200–2500 RPMs. You can hold it there as long as you want, just make sure they are stabilized.
- Release the brake quickly. The computer will compensate for everything and give as little wheel spin as possible.

### Z51 Automatics

- Select or switch to TRACK mode.
- Press the button in the middle of the selector dial twice to put it in PTM mode. You can select any of the sub-modes in PTM.
- Press the brake down HARD (like a panic stop).
- Press the accelerator all the way to the floor smoothly and quickly. This will stabilize your RPMs between 2200–2500 RPMs. You can hold it there as long as you want, just make sure they are stabilized.
- Release the brake quickly. The computer will compensate for everything and give as little wheel spin as possible.

### Non-Z51 Manuals

- Selector switch to TRACK mode.
- Press the button in the middle of the selector dial twice to put it in PTM mode. You can select any of the sub-modes in PTM.
- Press the clutch all the way in and put it in 1st gear.
- Press the accelerator all the way to the floor smoothly and very fast to stabilize your RPMs around 4500 RPMs. Hold it there as long as you want, but make sure they are stabilized.
- Release the clutch quickly but smoothly. You may get a little chirp of tires, but the computer will compensate for everything and give as little wheel spin as possible.

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## Most Common C7 Problems & Fixes

### Bent Torque Tube

If you hear a rattling sound in the torque tube, it is most likely bent. Replace it to eliminate the noise.

### Satellite Navigation

The Satellite Navigation System goes haywire from time to time, a condition that can be treated by doing a simple reset. If the problem persists, you may need to head to the dealer. There have been reports of crimped wires causing malfunctions.

### Seat Memory Settings

Some owners have had trouble getting their driver settings to save. Thanks to another owner, we've learned that this is the best process:

- Start your Corvette and select "Settings" on the Infotainment screen.
- Scroll down to select "Vehicle;" then select "Comfort & Convenience."
- Select "Auto Memory Recall" and turn it Off.
- Back up one menu to select "Easy Exit Options" and turn this Off as well.
- Adjust your seat, steering wheel and mirrors to your preferred driving settings.
- At the same time, press the "Set" button and the "1" or "2" button. A beep will sound to confirm your settings.
- Move the steering wheel up and the seat back as far as it will go; then move the seat forward about a half-inch. At the same time, press the "Set" button and the "Exit" button. That same beep will indicate that your setting was saved.
- Go back to the Infotainment screen and turn "Auto Memory Recall" and Easy Exit Options" back on. The next time you get into your Corvette, the settings should work.



The best way to learn about all the new additions to the Corvette Stingray is to consult the [owner's manual](#).

### More to Come

These are just a few of the great innovations and quick fixes that apply to the latest Corvette generation. What are some that you've run into? Send us an email at

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