



## CHEVROLET CORVETTE

**For Release: Aug. 1, 2004**

### Vehicle Highlights

- All-new performance car in coupe and convertible body styles
- Standard: 6.0-L V-8 LS2 engine producing 400 horsepower and 400 lb.-ft. of torque (298 kw and 542 Nm)
- Three suspension systems, available F55 Magnetic Selective Ride Control, and Z51 Performance Package
- Anti-lock braking system, traction control, Active Handling System
- Extended mobility tires (run flat), Keyless Access and Start system, AM/FM/CD/MP3 audio system
- New options: OnStar, DVD-based navigation system, dual-mode head up display
- Rigid body structure provides exceptional handling and interior quietness
- Fresh design inside and out

### Model Lineup

	Engine	Transmissions		
	LS2 6.0L V-8	4-spd auto (Hydra-Matic 4L65-E)	6-spd man Tremec T56	6-spd man Tremec T56 with Z51
Corvette Coupe	s	o	s	o
Corvette Convertible	s	o	s	o

Key:	
Standard	s
Optional	o
Not available	-

## **SIXTH-GENERATION CORVETTE MELDS POWER, PASSION, PRECISION**

Marking the sixth generation of its legacy, the 2005 Chevrolet Corvette delivers more power, passion and precision to reach a new standard of performance car excellence.

The 2005 Corvette is more competition-influenced than any previous Corvette. The goal was a performance car that would be at home in virtually any environment. That means raw performance, improved ride comfort, a precisely built and technically sophisticated interior and contemporary new body.

"The sixth generation represents a comprehensive upgrade to the Corvette," said Dave Hill, Corvette chief engineer and GM Performance Cars vehicle line executive. "Our goal was to create a Corvette that does more things well than any other performance car."

The car features dramatic new styling, the new 6.0L V-8 engine that produces 400 horsepower and 400 lb.-ft. of torque (298 kw and 542 Nm), a revised suspension and more powerful brakes. It delivers extreme performance capabilities and offers value, style, quality and comfort.

The 2005 Coupe production begins in the summer of 2004, with the Convertible following in the fall of 2004. European sales begin in October, and other regions by early 2005. All models will be built in Bowling Green, Ky.

### **Exterior styling**

The Corvette combines classic cues with an expressive new design. While the styling team used the latest advanced computer-aided design techniques, they relied heavily on traditional hand sculpting. Sculptors pored over every millimeter of the car's surface. The aerodynamic development combined digital simulations, Corvette Racing experience and more than 400 hours of wind tunnel testing.

The driving force behind the exterior was to keep it fresh, yet distill the passion exemplified by the classic mid-year Corvettes of 1963-1967.

The new Corvette is 5 inches (127 mm) shorter and about 1 inch (25 mm) narrower than its predecessor. Larger wheels (18-inch in front, 19-inch in rear) are topped by dramatic fender forms. Exposed headlamps (not seen on Corvettes since 1962) combine with the grille to create a stronger "face" on the car. The fixed Xenon High-Intensity Discharge lamps provide superior lighting performance.

The Coupe's removable-roof panel is 15 percent larger, yet offers the same structural stiffness as C5's while weighing just 1 pound (0.45 kg) more. The tapered rear deck and fascia improve high-speed performance. The lean rear design sports round taillamps and center-exit exhaust.

The ability to keep lines and surfaces smooth was supported by technology. For example, the Keyless Access system replaces traditional mechanical door and hatch handles with solenoids and electronic actuators.

At 0.28 coefficient of drag, the C6 is the most aerodynamic Corvette ever, and has improved anti-lift characteristics that improve high-speed stability.

### **The Corvette Convertible**

The 2005 Corvette features an optional power-operated soft top. An easy-to-operate manual top remains standard. Both configurations use a five-layer fabric that conceals the underlying structure for a good top-up appearance, plus it helps preserve the car's excellent aerodynamics and reduces road noise.

Every option available on the Coupe can be had on the Convertible, including features new to the Corvette such as OnStar, XM Satellite Radio (continental U.S. only) and DVD navigation system.

OnStar is the leading provider of in-vehicle safety, security and information services in the United States and Canada. Using the GPS satellite network and wireless technology, OnStar features core safety services and OnStar Personal Calling that allows drivers to make and receive hands-free, voice-activated phone calls using a powerful three-watt analog system and external antenna for greater reception.

### **Power**

The 2005 Corvette features the new 6.0L V-8 LS2 engine based on GM's Gen IV small-block family. The LS2 is the most powerful standard small-block engine ever offered in Corvette, and features:

- All-new 319-T5 aluminum deep-skirt block casting with cast-in-place iron cylinder bore liners and cross-bolted main caps
- Cylinder head design derived from the C5 Z06
- Camshaft lift increased to take advantage of increased head flow
- Revised exhaust manifolds are 34 percent lighter
- Compression raised to 10.9:1
- More powerful engine controller incorporates all electronic throttle control (ETC) functions

With base curb weight starting at 3,179 pounds/1,442 kg (Coupe) and 3,199 pounds/1,451 kg (Convertible) the new Corvette is significantly lighter than its predecessor.

The car is capable of 186 mph (300 km/h), faster than any production Corvette in history. It reaches zero to 100 km/h (62 mph) in 4.2 seconds, and in 4.1 seconds with the optional Z51 Performance Package, and covers the quarter-mile in 12.6 seconds at 114 mph (183 km/h).

### **Shifting gears**

The Tremec six-speed manual features improved shifting characteristics thanks to numerous upgrades, including new synchronizers that reduce travel by 10 percent, and a redesigned shifter lever.

The Tremec is available with two sets of ratios. The more aggressive gear set is reserved for Corvette's Z51 Performance Package and is tailored with numerically higher gears to improve acceleration. Also, a numerically lower fifth gear gives the Z51 better fuel efficiency and a higher top speed than base models. To increase durability in sustained high-speed situations, the Z51 and the base European manual-transmission models have a transmission cooler.

The Hydra-Matic 4L65-E automatic transmission is an upgraded version of the C5's 4L60-E, strengthened and revised to accommodate the LS2's torque. It includes GM's advanced Performance Algorithm Shifting, which automatically selects the optimal gear for a given driving condition.

To beef up the internals, a five-pinion planetary gear set was added – replacing a four-pinion gear set. The extra gear reduces friction and loads carried by all the gears. For protection from the high temperatures that are generated by high speed, a four-plate oil cooler has been added.

### **Settle inside**

The passion of the exterior's design is reflected in an all-new interior. Even with the car's more compact exterior dimensions, the new interior has just as much usable room – including class-leading cargo space that can swallow two golf bags. Greatly improved materials, craftsmanship and functionality help deliver premium quality meant to enhance performance driving.

The theme was inspired by Corvette's dual-cockpit heritage, with a flowing, wraparound upper feature line. The result lends spaciousness to the passenger and a nestled cluster pod for the driver.

The instrument panel and doors are covered with cast-skin foam-in-place trim that looks like a leather-wrapped, padded

panel. It is warm and inviting and has double the life of conventional trim materials. Aluminum trim adds richness.

An AM/FM radio with CD player and MP3 capability is standard. New technology enhances conventional radio reception. An improved optional Bose audio system with an in-dash six-disc changer and XM Satellite Radio (continental U.S. only) add to the choices available to the audiophile owner.

A full-function OnStar system is available, and for the first time, Corvette offers onboard navigation as an option. Using a 6.5-inch (165 mm) color touch-screen display, the DVD-based system contains all the map data for the United States and Canada on one disc.

### **Chassis**

Overall vehicle weight is significantly reduced, despite mass-increasing features such as larger wheels and tires, more robust brakes and increased body acoustics. It also delivers a quieter, more pleasing ride.

The car retains the hydroformed steel rail backbone structure, which features cored composite floors, an enclosed center tunnel, rear-mounted transmission and aluminum cockpit structure

Suspension cradles, control arms, knuckles, springs, dampers, bushings, stabilizer bars and steering gear have all been redesigned. New Goodyear Extended Mobility Tires (EMT) take advantage of the latest sidewall design and compound technology for run-flat capabilities

Three suspension choices allow drivers to choose the setup that best suits their driving style. The standard suspension is tuned for a balance of ride comfort and precise handling. Corvette is now more poised at even higher handling levels, yet easier to drive

The optional F55 Magnetic Selective Ride Control suspension features magneto-rheological dampers able to detect road surfaces and adjust the damping rates to those surfaces almost instantly for optimal ride control. The system has been improved to deliver more differentiation between the system's "Tour" and "Sport" settings.

The Z51 Performance Package brings Coupe performance very close to the widely admired C5 Z06. The Z51 offers more aggressive dampers and springs, larger stabilizer bars, and larger cross-drilled brake rotors (13.4 inches/340 mm in front and 13 inches/330 mm in rear) for optimum track performance while still providing a comfortable ride.

With each suspension, three standard dynamic chassis control systems – anti-lock braking, traction control, and Active Handling – operate in concert. In all, the new dynamic chassis control systems are smarter, less intrusive and more adept

at making the total driving experience precisely what drivers have come to expect from their Corvette.

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**SPECIFICATIONS:**

(See General Motors of Canada for [Canadian product differences.](#))

<b>Overview</b>	
Models:	Chevrolet Corvette – Coupe and Convertible
Body styles / driveline:	two-door hatchback coupe with removable roof and soft-top convertible rear-drive, front-engine
Construction:	composite body panels, hydroformed steel frame with aluminum and magnesium structural and chassis components
Manufacturing location:	Bowling Green, Kentucky

<b>Engine</b>	<b>6.0L V-8 LS2</b>
Displacement (cu in / cc):	364 / 5967
Bore & stroke (in / mm):	4 x 3.62 / 101.6 x 92
Block material:	cast aluminum
Cylinder head material:	cast aluminum
Valvetrain:	OHV, 2 valves per cylinder
Fuel delivery:	SFI (sequential fuel injection)
Compression ratio:	10.9:1
Horsepower (hp / kw @ rpm):	400 / 298 @ 6000
Torque (lb-ft / Nm @ rpm):	400 / 542 @ 4400
Recommended fuel:	93 octane recommended, not required
Maximum engine speed (rpm):	6500
Estimated fuel economy:	
MPG (city / hwy / combined)	automatic: 18 / 25 / 21 manual: 19 / 28 / 23
MPIG (city / hwy / combined)	automatic: 22 / 35 / 26 manual: 21 / 37 / 26
L/100km (city / hwy / combined)	automatic: 12.8 / 8.1 / 10.7 manual: 13.2 / 7.6 / 10.7

<b>Transmissions</b>	<b>Hydra-Matic 4L65-E</b>	<b>Tremec T56 6-speed manual</b>	<b>Tremec T56 6-speed manual, w/ optional Z51 Sport Package</b>
Type:	four-speed automatic, with Performance Algorithm Shifting	6-speed manual	6-speed manual
Gear ratios (:1):			
First:	3.06	2.66	2.97
Second:	1.63	1.78	2.07
Third:	1.00	1.30	1.43

Fourth:	0.70	1.00	1.00
Fifth:	-	0.74	0.71
Sixth:	-	0.50	0.57
Reverse:	2.29	2.90	3.28
Final drive ratio:	std: 2.73; opt: 3.15	3.42	3.42

### Chassis/Suspension

Front:	short/long arm (SLA) double wishbone, cast aluminum upper & lower control arms, transverse-mounted composite leaf spring, monotube shock absorber
Rear:	short/long arm (SLA) double wishbone, cast aluminum upper & lower control arms, transverse-mounted composite leaf spring, monotube shock absorber
Traction control:	electronic traction control, Active Handling
Steering type:	speed sensitive, magnetic power-assisted rack-and-pinion
Steering ratio:	16.1:1
Steering wheel turns, lock-to-lock:	TBD
Turning circle, curb-to-curb (ft / m):	39 / 12

### Brakes

Type:	power-assisted disc with ABS, front and rear
Rotor diameter x thickness (in / mm):	front: 12.8 x 1.26 / 325 x 32 rear: 12 x 1 / 305 x 26  Z51 Performance Package: front: 13.4 x 1.26 / 340 x 32 rear: 13 x 1 / 330 x 26



<b>Wheels/Tires</b>	<b>Std. &amp; Magnetic Selective Ride Control</b>	<b>Z51 Sport Package</b>
Wheel size:	front: 18 inch x 8.5 inch rear: 19 inch x 10 inch	front: 18 inch x 8.5 inch rear: 19 inch x 10 inch
Tires:	Goodyear Eagle F1 GS Extended Mobility front: P245/40ZR18 rear: P285/35ZR19	Goodyear Eagle F1 SC Extended Mobility Asymmetric Tread front: P245/40ZR18 rear: P285/35ZR19
<b>Dimensions</b>		
<b>Exterior</b>		
Wheelbase (in / mm):	106 / 2686	
Overall length (in / mm):	175 / 4435	
Overall width (in / mm):	73 / 1844	
Overall height (in / mm):	49 / 1246	
Track (in / mm):	front: 62 / 1577 rear: 61 / 1542	
Base curb weight (lbs / kg):	Coupe: 3179 / 1442 Convertible: 3199 / 1451	
Weight distribution (% front / rear):	51 / 49	
<b>Interior</b>		
Seating capacity (front / rear):	2 / 0	
Interior volume (cu ft / L)	52 / 1475	
Head room (in / mm):	38 / 962	

Leg room (in / mm):	43 / 1093	
Shoulder room (in / mm):	55 / 1403	
Hip room (in / mm):	54 / 1363	
<b>Capacities</b>		
Cargo volume (hatchback/trunk area) (cu ft / L):	Coupe: 22 / 634	
	Convertible top up: 11 / 295 top down: 5 / 144	
Fuel tank (gal / L):	18 / 68.1	
Engine oil (qt / L):	5.5 / 5.2	

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### **The Next Generation of Corvette Accessories**

**DETROIT** – The sixth-generation 2005 Chevrolet Corvette can turn heads by simply standing still. Add to that an all-new generation of accessories and the result is a Corvette enthusiast's dream.

While designing the 2005 Corvette's expressive new muscular form, GM took it one step further and integrated accessories into the vehicle development. Corvette Chief Engineer and Vehicle Line Executive David Hill worked with the accessories team at the onset of the Corvette design process. "All Genuine Corvette Accessories are engineered to meet strict OEM quality standards," said Hill. "The result is an array of accessories with the best fit, best function and most tailored appearance for the Corvette." GM's design studio created a genuine Corvette accessory logo that will be featured on many of the new accessories.

It's all about personalization. Corvette owners can customize the appearance of their vehicles by alternating the standard ebony pieces with body-color trim pieces. Body-color accessories, including interior trim, a center high mounted stop lamp, license plate holders and exterior door handles, offer 2005 Corvette owners

an extra dose of vehicle personalization. There are also color-keyed interior options for the shift knob and boot, and park brake handle and boot. A 10-spoke wheel will be offered in multiple finishes and aluminum sill plates coordinate with the standard metal interior accents. "Such high-level integration with the vehicle ensures harmony between the vehicle and the accessories," said Vicki DeGrace, Corvette Accessory Program manager. "Genuine Corvette Accessories were designed to enhance the appearance and meet customer needs."

To increase storage space, GM has designed a storage tray for the coupe and a storage pouch that works in both the coupe and convertible. A windbreak reduces air turbulence when the Corvette is in top-down cruising mode.

"Genuine Corvette Accessories offer the peace of mind of a GM warranty – either 36 months/36,000 miles on installed parts, or 12 months/12,000 miles on over-the-counter sales," said DeGrace. "The advantages of Genuine Corvette Accessories are clear: most tailored appearance, OEM quality, and the GM warranty."

#### **Available at Chevrolet dealers**

For a complete list of Chevy Accessories and to find out about more ways to personalize the 2005 Corvette , please visit [www.chevyaccessories.com](http://www.chevyaccessories.com) or call toll-free 866-901-9001 to speak to one of GM's knowledgeable accessory agents. All Chevrolet accessories can be purchased through Chevrolet dealerships.

GM parts and accessories are sold under the GM, GM Goodwrench, GM Performance Parts and ACDelco brands through GM Service and Parts Operations. GM engines and transmissions are marketed through GM Powertrain.

General Motors (NYSE: GM), the world's largest vehicle manufacturer, designs, builds, and markets cars and trucks worldwide, and has been the global automotive sales leader since 1931. More information on GM can be found at [www.gm.com](http://www.gm.com).

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