For immediate release

CHEVROLET CORVETTE & CORVETTE Z06

New for 2009

- New 1LT convertible model
- 2LT convertible now with standard power top
- Two new custom interiors: Dark Titanium and Ebony
- Two new exterior colors: Cyber Gray Metallic and Blade Silver Metallic
- Bluetooth phone connection available
- Steering wheel audio controls standard on all models
- Variable steering ratio standard on all models
- "Crossed flags" emblem has new, bright surround
- Power hatch pull-down standard on coupe and Z06
- Z06 dry-sump oil system capacity increased to 10.5 quarts (9.9 L) same as ZR1
- New Z06 "spider"-design wheels in Sparkle Silver, Competition Gray or chrome
- Z06 sill plates with logo
- Z06 red and titanium interiors have color-matched lower instrument panel and door panels

Model Lineup

		Engines		Transmissions	
		6.2L V-8 (LS3)	7.0L V-8 (LS7)	6-spd manual	6-spd paddle shift automatic
Corvette Coup	е	S	_	S	0
Corvette Conve	ertible	S	_	S	0
Corvette Z06		_	S	S	_
Key					
Standard	S				
Optional	0				
Not available	_				

2009 CORVETTE: ENHANCEMENTS BRING MORE CHOICES, REFINEMENT TO CHEVY'S LEGENDARY SPORTS CAR

After a milestone year in 2008 that saw the introduction of the LS3 6.2L V-8 as the new standard engine, a custom, leather-wrapped interior and more upgrades, the Corvette powers into 2009 with a raft of enhancements that further distinguish it and give customers more choices – including a lower-priced convertible model.

Of course, that range of choices also includes the ZR1, with its 6.2L supercharged engine that produces 638 horsepower (476 kW). (Please see the separate Corvette ZR1 release for complete information on Chevy's world-class supercar.)

"The Corvette is an American icon with world-class credentials," said Ed Peper, Chevrolet general manager. "It's the car we all aspire to own and the 2009 edition, with more choices and features, only amplifies that craving."

The '09 Corvette lineup includes the Corvette coupe and Corvette convertible, each powered by the 430-horsepower (321 kW) LS3 V-8, and the incomparable Corvette Z06. Equipped with the 505-horsepower (377 kW) LS7 engine and built on a lightweight chassis, the Z06 is a street-going descendent of the championship-winning Corvette racing program.

New for 2009

Here is a rundown of the new features and content changes for the '09 Corvette lineup: Corvette 1LT convertible – Customers can slip into a Corvette convertible for a lower MSRP with this 1LT-equipped model. Additionally, a power top is now standard on 2LT convertible models.

Two new exterior colors – Cyber Gray Metallic and Blade Silver Metallic are added, while Machine Silver Metallic is discontinued. This brings the Corvette's exterior palette to nine colors.

Revised crossed flags emblem – The iconic Corvette crossed flags emblem is distinguished with a new, bright surround.

Two new custom leather-wrapped interiors – Dark Titanium and Ebony join Sienna and Linen as available selections.

Bluetooth capability – This option enables the Corvette to offer the convenience and safety of Bluetooth hands-free phone service.

Standard power hatch pull-down – This convenient feature is now standard on Corvette coupe and Z06 models.

Additionally, steering wheel audio controls and variable-ratio steering are standard on all models. Revisions also are incorporated to the hardware and software of the anti-locking braking, traction control and Magnetic Ride Control systems.

Several trim and content changes are incorporated on the Z06, too. They include:

 New, "spider"-design 10-spoke Z06 wheel available in four versions: Sparkle Silver, Competition Gray and chrome

- Color-keyed door and instrument panels with red and titanium interiors
- Power-operated pull-down hatch now standard
- Gray stitching on Ebony base seats (previously red)
- New door sill plates with the Z06 logo
- Acoustic package standard on all Z06 models

The Z06 also receives a larger-capacity dry-sump oiling system. It upgrades to the 10.5-quart (9.9 liters) system of the new ZR1. The previous oil system held eight quarts (7.5 liters).

The popular museum delivery option (RPO R8C) remains available for all Corvette models.

LS3 engine

The 6.2L LS3 small-block V-8 is the standard engine in coupe and convertible models. It is rated at 430 horsepower (321 kW)* and 424 lb.-ft. of torque (575 Nm)* with the standard exhaust system. An optional two-mode exhaust system brings a power rating increase to 436 horses (325 kW) and 428 lb.-ft. (580 Nm).

The LS3 features an aluminum cylinder block with cast iron cylinder liners. The cylinder bores measure 4.06 inches (103.25 mm) in diameter and combine with a 3.62-inch (92 mm) stroke to deliver a 376-cubic-inch (6.2L) displacement. Breathing is accomplished via high-flow cylinder heads. They're based on the large port/large valve design found on the LS7 engine, with larger-capacity, straighter intake ports. The design optimizes intake flow to the combustion chamber and the exhaust ports are also designed for better flow.

Complementing the large-port design of the heads are commensurately sized valves. The intake valve size is a large, 2.16 inches (55 mm). The intake valves feature lightweight hollow stems, which enable the engine's 6,600-rpm capability. The exhaust valves also are large, measuring 1.60 inches (40.4 mm) in diameter.

To accommodate the engine's large valves and enable more direct intake port flow, the intake-side rocker arms are offset 6 mm between the valve tip and the push rod. Actuating the valves is a camshaft with 0.551-inch (14 mm) lift.

Dual-mode exhaust system

Optional on coupe and convertible models is a dual-mode performance exhaust system. It gives the Corvette a more aggressive exhaust sound character that appeals to performance enthusiasts, as well as a boost in horsepower.

Similar in design and function to the system used on the Z06 and ZR1, the dual-mode exhaust uses vacuum-actuated outlet valves, which control engine noise during low-load operation, but open for maximum performance during high-load operation. It is not identical to the Z06 system; it uses a 2.5-inch-diameter exhaust, while the Z06 uses a three-inch system.

Transmissions and axle ratios

The Corvette is offered with a standard six-speed manual transmission or an optional six-speed automatic with paddle-shift control. When ordered with the Z51 Performance Package, the six-speed manual comes with a more performance-oriented gearing, including a "shorter" 2.97:1 first gear.

The shifting feel for both the six-speed manual transmission and paddle-shift six-speed automatic transmissions were improved in '08, with the manual transmission shifting improvements include a more positive and direct feel during gear changes, with better gate-to-gate location.

The six-speed paddle-shift automatic transmission on the coupe and convertible delivers quick shifts, with the '08 enhancements bolstering the feeling of performance and driver control when using the shifting paddles. A 2.73 performance axle ratio is available with the automatic transmission. It is included with the Z51 package.

Driving dynamics

Corvette coupe and convertible have a 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.

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 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. Cross-dilled brake rotors are included when this feature is selected, allowing customers to combine the larger brakes from the Z51 performance package with the comfort of Magnetic Selective Ride Control.

The Z51 Performance Package brings coupe and convertible performance very close to the widely admired previous generation Z06. The Z51 offers more aggressive dampers and springs, larger stabilizer bars, Goodyear Eagle F1 Supercar EMT tires, enhanced cooling 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 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.

Corvette design

Dramatic fender forms and exposed headlamps combine with the grille to create a strong visual identity for the Corvette, while the tapered rear deck and fascia improve high-speed performance. The lean rear design sports round taillamps and center-exit exhaust. The fixed Xenon high-intensity discharge headlamps provide superior lighting performance. With a 0.286 coefficient of drag, the coupe models are the most aerodynamic Corvettes ever.

The Corvette convertible now features a power-operated soft top with the 2LT package; an easy-to-operate manual top is standard on the new 1LT convertible. 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.

Interior details and technology

Corvette's interior is inspired by the car's dual-cockpit heritage. High-quality materials, craftsmanship and functionality help deliver premium quality meant to enhance performance driving. The instrument panel and doors are covered with cast-skin foam-in-place trim with the look of a leather panel. It is warm and inviting and has double the life of conventional trim materials.

An AM/FM/XM radio with CD player and audio input jack is standard. An optional Bose audio system with an in-dash six-disc changer adds to the choices available to the audiophile owner. Steering-wheel mounted audio controls are included on all models. XM Satellite Radio is standard.

A full-function OnStar system with Turn-by-Turn Navigation capability is standard and an onboard navigation system with voice recognition is available. Using a 6.5-inch (165 mm) color touch-screen display, the DVD-based system contains all the map data for the 48 contiguous states and most of Canada on two discs.

Corvette also features keyless access. When the owner is in close proximity to the door, the key fob's signal unlocks the door. The system's emergency key and other remotefunction controls are integrated in a single unit

Custom leather-wrapped interior package

Available on coupe, convertible, Z06 and ZR1 models is the custom leather-wrapped interior package. It offers a stylish, two-tone leather-appointed cabin with details that enhance the feeling of Corvette's craftsmanship. Details include:

- Leather-wrapped upper and lower instrument panel, door pads and seats
- Choice of new, exclusive colors: Dark Titanium, Ebony, Linen or Sienna, with unique color breakup
- Padded door panel armrests
- "Corvette" embroidered on passenger-side dash pad

- Embroidered crossed flags logo on headrests
- Unique center trim plate with Bias pattern.

Corvette Z06 details

With racing-inspired powertrain and suspension features, the Corvette Z06 delivers exceptional levels of capability and technology, making it one of the best performance values on the market.

Design – The Z06 has an unmistakable and aggressive appearance, with design cues that include:

- A wide front fascia with a large, forward-facing grille opening, a splitter along the bottom and wheel opening extensions along the sides to provide aerodynamic downforce
- A cold-air scoop in front of the hood that integrates an air inlet system for the engine
- The trailing edge of the front wheel opening is radiused to achieve improved drag, but protects the body finish with a tough molding, and a large air extractor is located behind the wheel
- A fixed-roof body style optimizes body rigidity and mass
- Wider rear fenders with flares cover the massive rear tires and a brake cooling scoop in front of the wheels visually balances the fender extractor
- A tall rear spoiler houses the CHMSL on the top of the rear fascia
- 10-spoke spider-design wheels (18-inch, front; 19-inch, rear)
- Four large stainless steel exhaust outlets
- Z06 badging on the carbon fiber front fenders

The aerodynamics of the Z06's exterior were shaped by the experiences of the Corvette racing program, where high-speed stability and cornering capability are paramount. And while the race cars use large rear wings, the Z06's elevated spoiler provides sufficient downforce to balance the road-worthy front splitter without adversely affecting aerodynamic drag. The Z06's Cd is 0.34.

For all its race-inspired functionality, the Z06 is designed to be a daily-driveable highperformance vehicle. To that end, comfort and convenience are held to a very high standard. High-Intensity Discharge lighting, fog lamps, leather seating, dual-zone air conditioning, cabin air filtration and head-up display (HUD) with track mode and g-meter are standard.

The Z06 gauge cluster displays the Z06 logo on the 7000-redline tachometer and has a readout on the oil pressure gauge to reflect the higher standard pressure of the dry-sump oiling system. The seats feature two-tone leather surfaces, with Z06-logo embroidery and contrasting stitching.

Z06 options include a Bose audio system with an in-dash six-CD changer, Competition Gray or chrome wheels, a telescoping steering wheel, heated seats, side-impact air bags, a navigation system with GPS and universal home remote.

LS7 engine – The Z06's LS7 7.0L engine delivers 505 horsepower (377 kW) in a 3,180-pound (1,442 kg) package – a combination that delivers 0-60 performance of 3.7 seconds in first gear, quarter-mile times of 11.7 seconds at 125 mph and a top speed of 198 mph (as recorded on Germany's Autobahn). It also provides maximum lateral acceleration of 1.04 g and 60-0 braking in 111.3 feet; it also circuited Germany's famed Nürburgring in a time of 7:43 from a standing start.

The LS7 reintroduced the 427-cubic-inch engine to the Corvette lineup. It is easily identified under the hood by red engine covers with black lettering. The LS7 shares the same basic Gen IV V-8 architecture as the Corvette's 6.2-liter LS3, but it uses a different cylinder block casting with pressed-in steel cylinder liners to accommodate the engine's larger diameter, 4.125-inch (104.8 mm) cylinder bores.

Internally, the LS7's reciprocating components make use of racing-derived lightweight technology, including titanium connecting rods and intake valves, to help boost horsepower and rpm capability. The rpm fuel shut-off limit is 7,100 rpm. The LS7's details include:

- Dry-sump oiling system
- Unique cylinder block casting with large, 104.8-mm bores and pressed-in cylinder liners
- Forged steel main bearing caps

- Forged steel crankshaft
- Titanium connecting rods with 101.6-mm stroke
- Cast aluminum flat-top pistons
- 11.0:1 compression
- High-lift camshaft
- Racing-derived CNC-ported aluminum cylinder heads with titanium intake valves and sodium-filled exhaust valves
- Low-restriction air intake system
- Hydroformed exhaust headers with unique "quad flow" collector flanges.

One of the clearest examples of the LS7's race-bred technology is its use of titanium connecting rods. They weigh just 464 grams apiece and besides being lightweight, which enhances high-rpm performance and rpm range, titanium makes the rods extremely durable.

The LS7's CNC-ported aluminum cylinder heads are designed to meet the high airflow demands of the engine's 7.0-liter displacement. A hydraulic roller camshaft with 0.588/0.593-inch valve lift is used to allow plenty of air to circulate in and out of the engine. To ensure optimal, uninterrupted airflow, the LS7's heads have straight, tunnel-like intake runners. Very large by production-vehicle standards – even racing standards – they are designed to maintain fast airflow velocity, providing excellent torque at low rpm and exhilarating horsepower at high rpm. The heads feature 70-cc combustion chambers that are fed by huge, 56-mm-diameter titanium intake valves. They are complemented by 41-mm sodium-filled exhaust valves.

To accommodate the large valve face diameters, the heads' valve seats are siamesed; and, taken from experience with the engines of C6.R race cars, the LS7's valve angles are held at 12 degrees – vs. 15 degrees for the LS2 – to enhance airflow through the ports.

The LS7 has a dry-sump oiling system designed to keep the engine fully lubricated during the high cornering loads the Corvette Z06 is capable of producing. An engine compartment-mounted 10.5-quart (9.9 liters) reservoir delivers oil at a constant pressure

to a conventional-style oil pump pick-up at the bottom of the engine. The pressurized oil feed keeps the oil pick-up continually immersed in oil at cornering loads exceeding 1 g.

Oil circulates through the engine and down to the oil pan, where it is sent back to the reservoir via a scavenge pump. The large-capacity reservoir, combined with a high efficiency air-to-oil cooler, provides necessary engine oil cooling under the demands of the engine's power output. With the dry-sump system, oil is added to the engine via the reservoir tank – which includes the oil level dipstick.

Drivetrain – The Corvette Z06's powertrain and drivetrain systems are matched to the LS7's performance capability. The light, four-into-one headers discharge into close-coupled catalytic converters and through two-mode mufflers. The mufflers each feature a vacuum-actuated outlet valve, which controls exhaust noise during low-load operation but opens for maximum power.

At the rear of the LS7 engine, a single-mass flywheel and lightweight, high-capacity clutch channel torque to the rear transaxle. The six-speed manual transmission has been strengthened to handle the LS7's increased torque load. The transmission includes a pump that sends transmission fluid to the front radiator for cooling. Upon its return, the fluid removes additional heat from the differential lube before returning to the transmission. The six-speed transmission connects to a limited-slip differential, with enlarged ring and pinion gears. Stronger axle half-shafts with tougher universal joints transmit power to the rear wheels.

Structure – The Z06 has a unique aluminum body structure for optimum stiffness and light weight for the fixed-roof body style. Perimeter rails are one-piece hydroformed aluminum members featuring cast suspension nodes, which replace many welded steel components on other Corvette models. Other castings, stampings and extrusions are combined into the innovative structure with state-of-the-art manufacturing technologies.

Advanced structural composites featuring carbon-fiber are bonded to the aluminum structure. The wider front wheelhouses, for example, are carbon composites and the passenger compartment floors combine carbon-fiber skins with an ultra-lightweight balsa wood core.

The Z06 has a new magnesium cradle that serves as the attachment point for the engine and some front suspension components. Magnesium is lighter than aluminum yet incredibly strong. The magnesium cradle helps improve the front-to-rear weight distribution, as do carbon-fiber front fenders and wheelhouses. Engineers also moved the battery from underhood to a position in the rear cargo area, behind one of the rear wheels.

The mass reductions are offset by some added performance enablers, including drysump lubrication, exhaust system with outlet valves, larger wheels and tires, larger brakes and larger roll stabilizers.

Suspension and brakes – The Z06 retains the 105.7-inch (2686-mm) wheelbase of other Corvette models, as well as the short-long arm suspension and transverse spring design, but it rides on all-new wheels, tires and brakes, as well as its own rear spring and roll stabilizer.

The firmer suspension works harmoniously with large 18×9.5 -inch cast-spun aluminum wheels and 275/35ZR18 tires in the front, and 19×12 -inch cast-spun aluminum wheels with 325/30ZR19 tires in the rear. The tires use the latest extended-mobility technology from Goodyear to provide a satisfactory ride, but still allow the vehicle to achieve lateral acceleration of more than 1 g. The extended-mobility tires eliminate the need – and weight – for a spare tire and jack or inflator kit, while also reducing the chance of a sudden loss of handling capability.

Complementing the suspension system and large rolling stock is an equally capable four-wheel disc brake system, consisting of 14-inch (355 mm) vented and cross-drilled front rotors and 13.4-inch (340 mm) vented and cross-drilled rear rotors.

The front rotors are acted upon by large, red-painted six-piston calipers that use six individual brake pads. Individual brake pads are used because they deliver more equalized wear compared to what would otherwise be a pair of very long single-piece pads. For the rear brakes, four-piston calipers with four individual brake pads are used.

A four-channel ABS system is standard, as is a very competent active handling system – complete with a Competitive Driving mode.

*SAE certified.

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SPECIFICATIONS

Overview			
Models:	Chevrolet Corvette Coupe, Convertible and Z06		
Body styles / driveline:	two-door hatchback coupe with removable roof; rear-wheel drive (Coupe and Convertible) two-door hatchback coupe with fixed roof; rear-wheel drive (Z06)		
Construction:	composite body panels, hydroformed steel frame with aluminum and magnesium structural and chassis components (coupe); composite and carbon-fiber body panels, hydroformed aluminum frame with aluminum and magnesium structural and chassis components (Z06)		
Manufacturing location:	Bowling Green, Ky.		

Engines	6.2L V-8 LS3	7.0L V-8 LS7 (Z06)	
Displacement (cu in / cc):	376 / 6162	427.6 / 7008	
Bore & stroke (in / mm):	4.06 x 3.62 / 103.25 x 92	4.125 x 4 / 104.8 x 101.6	
Block material:	cast aluminum	cast aluminum	
Cylinder head material:	cast aluminum	cast aluminum	
Valvetrain:	overhead valve, two valves per cylinder	overhead valve, two valves per cylinder	

Fuel delivery:	SFI (sequential fuel injection)	SFI (sequential fuel injection)	
Compression ratio:	10.7:1	11:1	
Horsepower (hp / kW @ rpm):	430 / 321 @ 5900* w/ std. exhaust 436 / 325 @ 5900* w/ opt. exhaust	505 / 377 @ 6300*	
Torque (lb-ft / Nm @ rpm):	424 / 575 @ 4600* w/ std. exhaust 428 / 580 @ 4600* w/ opt. exhaust	470 / 637 @ 4800*	
Recommended fuel:	premium recommended but not required	premium required	
EPA estimated fuel economy (city / hwy):	15 / 25 (automatic) 16 / 26 (manual)	15 / 24 (manual)	

Transmissions	six-speed manual; Base and Z06	six-speed manual, w/ opt. Z51 Performance Package	six-speed paddle-shift automatic
Application:	std	opt	opt
Gear ratios (:1):			
First:	2.66	2.97	4.03
Second:	1.78	2.07	2.36
Third:	1.30	1.43	1.53
Fourth:	1.00	1.00	1.15
Fifth:	0.74	0.71	0.85
Sixth:	0.50	0.57	0.67
Reverse:	2.90	3.28	3.06
Final drive ratio:	3.42	3.42	2.56

Chassis / Suspension Coupe and Convertible		Z06
Front:	short/long arm (SLA) double wishbone, cast aluminum upper & lower control arms, transverse- mounted composite leaf spring, monotube shock absorber	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	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	electronic traction control; Active Handling

Brakes	Coupe and Convertible	Z 06
Type:		

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	front: 14 x 1.3 / 355 x 32 rear: 13.4 x 1 / 340 x 26
Wheels & Tires		
Wheel size:	front: 18-inch x 8.5-inch rear: 19-inch x 10-inch	front: 18-inch x 9.5-inch rear: 19-inch x 12-inch
Tires:	Goodyear Eagle F1 Supercar (w/Z51) Extended Mobility front: P245/40ZR18 rear: P285/35ZR19	Goodyear Eagle F1 Supercar Extended Mobility front: P275/35ZR18 rear: P325/30ZR19

Dimensions		Coupe and Convertible	Z 06
Wheelbase (in / mm):		105.7 / 2685	105.7 / 2685
Overall length (in / mm):		174.6 / 4435	175.6 / 4460
Overall width (in / mm):		72.6 / 1844	75.9 / 1928
Overall height (in / mm):		49 / 1244	49 / 1244
Curb weight (lb / kg):		Coupe: 3217 / 1459 Conv.: 3222 / 1461	3180 / 1442
Interior			
Seating capacity		2	
Interior volume (cu ft / L):		52 / 1475 (all models)	
Headroom (in / mm):		38 / 962 (all models)	
Legroom (in / mm):		43 / 1092 (all models)	
Shoulder room (in / mm):		55 / 1397 (all models)	
Hip room (in / mm):		54 / 1371 (all models)	
Capacities			
Cargo volume (cu ft / L):	Coupe and Z06: 22 / 634 Convertible: 11 / 295 (top up); 7.5 / 212 (top down)		
Fuel tank (gal / L):	18 / 68.1		
Engine oil (qt / L): Coupe a Z06: 10.		nd Convertible: 5.5 / 5.2 5 / 9.9	

^{*} SAE certified.

Note: Information shown is current at time of publication. Please visit our GM Media web site at http://media.gm.com for updates.