

CORVETTE AND THE MARKETPLACE

The name alone is synonymous with performance. Corvette is the powerful sports car with a celebrated heritage. In fact, Corvette has become so ingrained into late-20th century Americana, it even has its own museum in Bowling Green, Kentucky.

Coming off of its high profile debut in January of 1997 and followed by the convertible in mid-year, the fifth-generation Corvette now unveils the third jewel of its performance crown: the hardtop. It's in response to customers asking for a simpler, no frills Vette which doesn't sacrifice powertrain performance. In its simplicity, the Corvette expands its price portfolio and thus, its customer base, yet it does so without forsaking the performance Corvette is legendary for.

The hardtop comes to market with great bloodlines. Corvette coupe and convertible were named *Motor Trend* Car of the Year for 1998 and the Corvette took North American Car of the Year honor in January of 1998 at the North American International Auto Show.

When it comes to the high performance sports car segment, Corvette delivers value in terms of power and technology.

New for 1999

The biggest news for Corvette entering the 1999 model year is the addition of the hardtop to the lineup. With its fixed-roof design, the hardtop offers customers a Corvette model that is basic in content and pure in performance.

CORVETTE HARDTOP

- The hardtop features a fixed roof with a slightly different silhouette than the Corvette coupe (page 2).
- Standard Z51 Suspension
 Package and 3.42 limited slip rear

axle (page 12).

- 6-speed manual transmission only (page 10).
- Standard Goodyear Eagle F1 Extended Mobility Tires (EMT) with 17-inch wheels, front and 18-inch wheels, rear (page 13).

CORVETTE MODELS AND CONTENTING

Interior

- Optional Head-Up Display (HUD) (page 4).
- Optional power telescoping steering column (page 5).

Exterior

- New exterior colors: Magnetic Red Metallic (premium extra-cost finish)
- Navy Blue Metallic (coupe and convertible only) (page 7)
- Optional Twilight Sentinel with Automatic Exterior Lamp Control (page 3).

ACTIVE HANDLING SYSTEM

• Optional Active Handling System (AHS) (page 11).





COMPETITORS

- BMW Z3
- Mercedes SLK
- Mitsubishi 3000GT VR4
- Porsche 911
- Porsche Boxster
- Toyota Supra Turbo

AWARDS

- Motor Trend Car of the Year for 1998
- North American Car of the Year for 1998
- CAR and DRIVER 10 Best Cars for 1998
- *Popular Science* "Best of What's New Grand Award," Cars Category (Corvette convertible)
- *Kiplinger's Personal Finance Magazine* Best Resale Value, Cars over \$35,000, December 1997
- Automobile Magazine 1998 Technology of the Year, LS1 5.7 V8 engine
- Ward's Auto World "Best Engines of 1998" award for new LS1 5.7 V8 engine

BUYER DEMOGRAPHICS

Male: 74% Married: 60% Median Income: \$100,000 Attended College: 89% College Graduate: 66% Post College Grada. 36%	Median Age:	45 Years
Median Income:\$100,000Attended College:89%College Graduate:66%Post College Grad.:36%	Male:	74%
Attended College:89%College Graduate:66%Post College Grad.:36%	Married:	60%
College Graduate: 66% Post College Grad.: 36%	Median Income:	\$100,000
Post College Grad.: 36%	Attended College:	89%
-	College Graduate:	66%
	Post College Grad.:	36%
Professional Mgr.: 60%	Professional Mgr.:	60%

CORVETTE MODELS AND CONTENTING

Corvette is now available in three models:

- Corvette hardtop
- Corvette coupe
- Corvette convertible.

CORVETTE HARDTOP

The new Corvette hardtop offers a comprehensive list of standard features that meet the needs and expectations of the high sport buying segment:

Interior

- Next Generation driver and passenger air bags*
- Air conditioning with CFC-free refrigerant
- Center console with cup holder, ashtray and lockable storage with cassette /CD storage provisions
- Tilt-Wheel[™] steering column
- Leather-wrapped sport steering wheel
- Electronic speed control
- AM/FM stereo with cassette player
- Scotchgard[™] protection (floor carpeting)
- Electric rear-window defogger
- Power door locks
- Power windows with driver and passenger Express-Down feature
- Bucket seats with leather seating surfaces
- Driver Information Center (DIC)
- Solar-Ray tinted glass
- Center cargo bin cover.

Exterior

- Daytime Running Lamps
- Fixed-roof design
- Dual, power heated outside rearview mirrors
- 17" front and 18" rear 5-spoke cast-aluminum wheels
- Fixed-mast radio antenna.

Functional

- 5.7 Liter LSI V8 engine with 345 horsepower
- 6-speed manual transmission[†]
- Heavy-duty 4-wheel antilock disc brake system (ABS)
- Traction Control
- Remote Function Actuation (RFA) includes a passive Remote Keyless Entry system
- PASS-Key II theft-deterrent system
- 4-wheel Independent Short/Long Arm Suspension
- Z51 Performance Handling Package**
- Goodyear Eagle F1 Extended Mobility
 Performance Tires (EMT)
- Speed-sensitive power rack-and-pinion steering
- Low tire-pressure warning system.

*Always wear safety belts and proper child restraints, even with Next Generation air bags. See the owner's manual for more safety information. '4-Speed automatic transmission not available on hardtop. **F45 Suspension Package not available on hardtop.

CORVETTE COUPE

Corvette coupe offers the same standard features as the hardtop, plus:

Interior

- 6-way power driver seat
- AM/FM stereo with cassette player and Bose speakers
- Outer cargo bin covers.

Exterior

- One-piece removable roof panel
- Integrated windshield and rear-window radio antennas.

Functional

- Electronically controlled 4-speed automatic transmission (6-speed manual transmission becomes optional)
- Z51 Performance Handling Package becomes optional
- 2.73 rear axle ratio replaces 3.42 ratio.

CORVETTE CONVERTIBLE

Corvette convertible offers the same standard features as Corvette coupe, plus:

Functional

• Easy-to-use manual convertible top with heated rear glass window and an integral trunk.

Exterior

• Power radio antenna.

THE CORVETTE LINEUP

Completing the three-phase launch of the all-new fifth-generation Corvette is the hardtop. Corvette coupe was actually unveiled in 1997 and Corvette convertible followed in '98. And for '99, the hardtop proudly takes to the streets.

The hardtop came to life in response to customer demand for a simpler, no frills Corvette. In its simplicity, Corvette expands its customer base — while maintaining the legendary sports car performance for which it is renowned.

SAFETY AND SECURITY

CORVETTE

As a world leader in automotive safety research, development and testing, General Motors has a long history of setting automotive safety milestones. Corvette is in the vanguard of that research. The impressive list of safety features found on the 1999 Corvette models exemplify GM's dedication to safety. And, with a comprehensive system emphasizing crash avoidance and occupant protection, Corvette owners get sports car performance with additional peace of mind.

CRASH AVOIDANCE FEATURES

- STANDARD 4-WHEEL ANTILOCK DISC BRAKE SYSTEM (ABS) automatically adjusts brake pressure to the front and rear wheels during hard braking situations, reducing wheel lockup and helping the driver maintain steering control.
- DAYTIME RUNNING LAMPS (DRL) illuminate the front turn signal/parking lamps, increasing the visibility of Corvette to other drivers. Parking brake must be disengaged for the system to activate.
- AUTOMATIC EXTERIOR LAMP CONTROL (INCLUDED WITH OPTIONAL TWILIGHT SENTINEL) makes the headlamps "pop up" and illuminates them along with all other exterior lamps to full intensity, when it detects low-light conditions. (Not available on hardtop.)
- BRAKE/TRANSMISSION SHIFT INTERLOCK, standard on Corvette models equipped with the automatic transmission, requires drivers to depress the brake pedal to shift out of Park.
- CLUTCH/STARTER SAFETY SWITCH, on Corvette models equipped with the optional six-speed manual transmission, requires drivers to depress the clutch pedal to engage the ignition.
- ELECTRONIC TRACTION CONTROL automatically activates if the sensors should detect rear-wheel spin. Traction Control works in conjunction with the ABS and electronic throttle control to help reduce tire slip and improve traction on many surfaces. An On-Off switch is included.



- OPTIONAL ACTIVE HANDLING SYSTEM (AHS) offers advanced vehicle stability technology. (See AHS Section, page 11).
- TIRE PRESSURE MONITOR alerts driver to low tire pressure conditions via readout on the Driver Information Center.
- NET OPTIONAL HEAD-UP DISPLAY (HUD) (not available on hardtop) projects key instrumentation readouts onto the windshield. allowing drivers to view information without without diverting their eyes to the instrument panel.

OCCUPANT PROTECTION FEATURES

- STANDARD NEXT GENERATION DRIVER AND **PASSENGER AIR BAGS*** are designed to supplement safety belts by helping restrain occupants in the event of a frontal impact.
- STANDARD THREE-POINT SAFETY BELT SYSTEM helps restrain Corvette passengers by distributing forces to aid in injury reduction.
- REINFORCED SAFETY-CAGE CONSTRUCTION surrounds occupants with a cocoon-like system of structural components. This structure consists of a reinforced roof bow (on Corvette coupe and hardtop models only) and door pillars and beams, which are designed to absorb the force of a collision and reduce the risk of intrusion into the passenger compartment.
- FRONT AND REAR CRUSH ZONES are designed to deform in a controlled manner in the event of a collision, helping to absorb impact while reducing intrusion into the passenger compartment.
- TUBULAR STEEL SIDE-DOOR GUARD BEAMS are designed to help protect occupants in the event of a side-impact collision. Energy-absorbing foam in the doors also enhances side-impact protection.
- · ENERGY-ABSORBING STEERING COLUMN AND **INSTRUMENT PANEL** are designed to absorb collision energy, helping reduce driver and occupant injury.
- OPTIONAL TWILIGHT SENTINEL (not available on hardtop) works with Automatic Exterior Lamp Control to delay shutoff of the headlamps, to offer exterior illumination after the ignition is turned off.

*Always use safety belts and proper child restraints, even with Next Generation air bags. See the owner's manual for more safety information.

INTERIOR FEATURES

Just as endearing as its legendary profile is the cockpit-style interior of Corvette, which sends a rush through anyone who gets behind the wheel. Corvette offers many standard interior features that are part of the reason why it's earned the reputation of "America's sports car." Corvette coupe boasts 24.8 cu. ft. of trunk space — more trunk room than you'd find in any passenger car short of a station wagon.

NAV

OPTIONAL HEAD-UP DISPLAY (HUD)

projects key instrumentation readouts onto the windshield, allowing drivers to view useful information without diverting their eyes to the instrument panel. The driver can view the speedometer, tachometer with shift light, water temperature, oil pressure, fuel level and turn signal while viewing the road ahead. A feature of the HUD is a performance filter which reflects a crisp, clear display for easy readability. Built in is a flashing "check gauges" warning to alert the driver to check the instrument panel for critical functions not displayed in the HUD. A simple touch of the reset button serves as acknowledgment of the warning and turns the signal off.

Another ease of use function of the HUD is the page switch feature, which allows the driver to cycle through the display choices:

- 1. Vehicle speed only
- 2. Vehicle speed and another gauge of the driver's choosing, (i.e., engine oil pressure, engine coolant temperature or fuel level)
- 3. Vehicle speed, tachometer and gauge
- 4. Speed and tachometer
- 5. Tachometer only.

The cluster pod for the HUD also contains a set of switches that allow for taller or shorter drivers to adjust the projection angle of the HUD, as well as a sliding dimmer switch to control brightness. The Head-Up Display is an available option on Corvette coupe and convertible and is not available on the

hardtop model.

is an optional, new-for-'99 feature which works in conjunction with the manual tilt feature to help the driver attain a driving position that is both comfortable and commanding. The power telescoping steering column setting may be programmed into the optional Memory Package. (Available setting on coupe and convertible only.)

Other interior enhancements over its predecessor include a **LOWER DOOR SILL HEIGHT** for easier entry and exit, as well as wider footwells for additional foot room (3.1" on the driver side, 6.3" on the passenger side).

In the coupe, access to the rear cargo area is also improved over the fourth-generation design. The new hatch glass and rear body are molded into a single piece, which opens out to the rear corners of the car. The hardtop and convertible also have a decklid that extends out to the corners.

OTHER INTERIOR FEATURES:

- ERGONOMICALLY DESIGNED ANALOG GAUGE INSTRUMENT CLUSTER, designed in direct response to the voice of the customer, affords at-a-glance instrumentation. Included are a speedometer, tachometer, fuel gauge, voltmeter, engine water temperature and oil pressure gauges.
- Two **ULTRAVIOLET INSTRUMENT PANEL LIGHTS** illuminate the graphics for definition and "read-ata-glance" clarity at night.
- DRIVER INFORMATION CENTER (DIC) displays individual readouts in any of four languages — English, French, German and Spanish. This display can also be used to configure a full range of programmable settings, including entry, Twilight Sentinel System (if equipped), alarms, warnings, messages and vehicle function display. Some of the basic warning displays include ABS active; low oil pressure or level; low coolant level; service vehicle soon; low or high and actual tire pressure; flat tire; Active Handling System (if equipped) status; and Traction Control system status. Other Driver Information Center messages include

change oil now; Change Oil Soon; speed control set; low fuel; door ajar; low washer fluid; and low brake fluid.

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- PASSIVE/ACTIVE REMOTE FUNCTION ACTUATION (RFA) SYSTEM is standard on all models. The passive mode will automatically lock and unlock the doors and turn on the interior lights when the transmitter is within 30 feet of the driver side. The buttons on the transmitter may also be used to actively unlock the vehicle or unlock the rear hatch from up to 60–100 feet away. RFA also includes a programmable Secure Return feature that will illuminate the interior, backup and turn signal lamps as the driver approaches the vehicle. Called the "halo effect," the feature completely surrounds the vehicle with an illuminating glow. The system also includes a driver-activated panic button on the key fob that automatically turns on all the lights (except headlamps) and sounds the horn for added security.
- Single, **REVERSIBLE KEY** starts the car and operates locking functions on the doors and all other locks. The ignition key inserts directly into an ignition switch on the instrument panel, not the steering column.
- SEAT-MOUNTED DRIVER AND PASSENGER SAFETY BELTS help maintain proper safety belt positioning when the seats are repositioned.
- SCOTCHGARD[™] PROTECTION helps protect carpeting from stains and makes cleanups easy.
- AIR CONDITIONING uses CFC-free refrigerant. Optional electric dual-zone air conditioning (not available on hardtop) provides separate temperature controls for the driver and passenger.
- **CENTER CONSOLE** houses the parking brake, a cup holder (for cups that hold up to 20 ounces), an ashtray and lockable storage space for cassettes, CDs and a portable phone.
- LOCKABLE, LIGHTED GLOVE BOX provides the owner with secure, convenient storage space.
- **PASS-KEY II THEFT-DETERRENT SYSTEM** helps prevent theft by disabling the ignition and fuel delivery systems for about three minutes if an incorrect key is used or when an attempt is made to bypass the ignition system.
- OPTIONAL MEMORY PACKAGE allows drivers to customize up to three different settings for exterior mirrors, radio presets, climate control and driver seat positions and power telescoping steering column position, if equipped. (Memory Package not





available on hardtop).

- DRIVER-SIDE DEAD PEDAL provides a comfortable rest for the left foot.
- TURN SIGNAL REMINDER CHIME alerts the driver if a turn signal is left on.
- **THREE STORAGE BINS** in the cargo area provide additional storage space for personal items.
- OPTIONAL PARCEL NET AND LUGGAGE SHADE (available on coupe only) help secure cargo items and camouflage the cargo area from exterior view.
- **REVISED SAFETY BELT BUCKLES**, which have been repositioned for easier use and user comfort.
- PASSENGER-SIDE GRAB HANDLE, located on the instrument panel, assists in vehicle entry and exit.

SOUND SYSTEMS

The Corvette music systems are the result of a collaborative effort between Bose and Delco Electronics. These systems feature the latest Delco Electronics AM/FM receiver and Bose speaker technologies* to provide Corvette owners with an outstanding listening experience.

The Delco AM/FM stereo features an "electronic brain" that remembers the tone control settings for each station and recalls them when the station is selected. Antennas, hidden in the windshield and rear-window glass on coupe models, provide excellent reception and aren't subject to damage in car washes. The convertible features a power antenna, which is also protected from car wash damage. The hardtop model offers a fixed-mast antenna.

Available systems on Corvette:

- ELECTRONICALLY TUNED DELCO AM/FM STEREO WITH CASSETTE PLAYER, seek-scan, digital clock and TheftLock (standard on hardtop).
- ELECTRONICALLY TUNED DELCO PREMIUM AM/FM STEREO WITH CASSETTE PLAYER, seek-scan, digital clock, TheftLock, automatic tone control and Bose speakers (standard on coupe and convertible; optional on hardtop).
- OPTIONAL ELECTRONICALLY TUNED DELCO PREMIUM AM/FM STEREO WITH CD PLAYER, seek-scan, digital clock, TheftLock, automatic tone control and Bose speakers (requires Bose speaker option for hardtop).

 OPTIONAL CARGO-AREA-MOUNTED DELCO CD CHANGER with a removable 12-disc cartridge is optional (requires Bose speaker option for hardtop).

*Bose speakers optional on hardtop.

SEATS

Corvette seating provides a standard, power driver six-way seat adjuster (optional on hardtop) for optimum comfort. An optional power six-way passenger-seat adjuster is available on both Corvette coupe and convertible models and not available on hardtop.



• STANDARD BUCKET SEATS with soft leather seating surfaces.



• **OPTIONAL SPORT BUCKET SEATS** with soft leather seating surfaces (not available on hardtop).

Interior colors for '99

- Black
- Light Gray*
- Firethorn Red*
- Light Oak.*

*Not available on hardtop.



<u>Exterior</u>/ Structural Features

The Corvette exterior defines high style not only in terms of automotive design, but in performance as well. Designed with an aggressive stance, Corvette still proudly boasts its legendary long hood/short deck design that is the hallmark of this American sports car. Its outstanding 0.29 coefficient of drag (coupe only) contributes to overall performance and fuel-efficiency rating.

FUNCTIONAL FEATURES

- Corvette coupe owners have a choice between a standard body-color removable roof panel; an optional transparent removable roof panel; or an optional roof package containing a combination of body-color and transparent removable roof panels.
- Standard, **HEATED, ELECTRIC MIRRORS** are functional and stylish.
- Optional **DUAL HALOGEN FOGLAMPS** provide visibility in inclement weather (not available on hardtop).
- Optional BODY-COLOR BODY-SIDE MOLDINGS add an attractive accent and help protect the doors from dings and dents.

EXTERIOR PAINT

Standard basecoat/clearcoat paint on Corvette resists fading and provides a high gloss shine for long-lasting exterior beauty. The clearcoat system is formulated to minimize the effects of acid rain and other environmental damage. Clearcoat finish is used with all colors.

- **BODY PANELS** remain unattached until late in the assembly process to help assure a quality paint appearance.
- Painting is preceded by a **HIGH-TECH CLEANING** in a "clean-room" atmosphere designed to be dust- and contaminant-free.
- WATERBORNE PAINT PROCESS is used to help reduce environmental emissions and to attain a clear, smooth appearance.

EXTERIOR COLORS (COUPE AND CONVERTIBLE)

Paint colors for '99:

- Magnetic Red Metallic (extra cost)
- Navy Blue Metallic.

Exterior colors (coupe and convertible):

- Black
- Nassau Blue Metallic
- Navy Blue Metallic
- Light Pewter Metallic
- Magnetic Red Metallic
- Torch Red
- Sebring Silver Metallic
- Arctic White.

Exterior colors (hardtop only):

- Black
- Nassau Blue Metallic
- Torch Red
- Arctic White
- Light Pewter Metallic.

MANUFACTURING

Every Corvette is manufactured at the Corvette Assembly Plant in Bowling Green, Kentucky. This advanced production facility uses computerized manufacturing techniques to help provide quality.

MANUFACTURING FEATURES

- ADVANCED TECHNOLOGY FRAME STRUCTURE employs metal inert gas (MIG) laser welding.
- MODULAR CONSTRUCTION, where complex sub-assemblies are built as single units away from the assembly line, improve overall quality and simplify the final build.
- **RIGOROUS WATER TESTING** on every Corvette before leaving the plant, to help ensure a leak-free vehicle is delivered to the dealership.





BODY STRUCTURE

The fifth-generation Corvette coupe chassis is substantially stiffer than its predecessor, allowing for a tight, structured, controlled ride and reduced vibration.

Other features:

- FULL-LENGTH PERIMETER FRAME with hydroformed side rails made from tubular steel adds to structural strength. These rails are joined by two bumper beams that are welded on, rather than bolted, for high strength.
- **HYDROFORMED SIDE RAILS** are shaped by a high pressure hydraulic press developed by GM. This process results in fewer parts than conventional designs for more efficient construction, lighter weight and a more structurally sound frame.
- INTEGRAL CROSS MEMBER provides the instrument panel with a firm foundation that helps reduce noise and vibration.
- BALSA WOOD CORE COMPOSITE SANDWICH FLOOR is lightweight, yet strong.
- FLEXIBLE SHEET-MOLDED COMPOUND BODY PANELS resist damage and corrosion. Rear quarter panels are bolted, not bonded, to the structure to help reduce collision repair.
- 5 MPH BUMPER SYSTEMS on both the front and rear fascias protect against minor parking lot dings.

CORVETTE CONVERTIBLE

Corvette convertible was designed as a true convertible from the beginning, not as a coupe with the top "cut off." The result is outstanding structural integrity and rigidity; a smooth flowing appearance; and seamless top operation.

Features include:

- **HEATED REAR GLASS WINDOW** helps provide clear vision in damp or icy weather conditions. The window provides the driver with a broad rearward view.
- INTEGRAL TRUNK has up to 13.9 cubic feet of useable room for storage. (11.1 cu. ft. with top down.)

- MANUAL CONVERTIBLE TOP is operated from the exterior of the vehicle.
- 5-BOW PRESSURIZED ROOF DESIGN eliminates the need for latches at the rear of the top, greatly enhancing ease of operation.
- CONVERTIBLE TOP FEATURES A BLACK HEADLINER with exterior color choices of Light Oak, Black or White.
- COMPOSITE TONNEAU COVER neatly stores the convertible top when folded. With a push of a button, the cover is released to reveal the folded top and the Express-Down power window feature is activated. Lowering the windows facilitates latching and unlatching the manually operated top to the windshield header.
- WATERFALL PANEL WITH HALLMARK CORVETTE LOGO echoes earlier Corvette designs by visually extending the body-color tonneau cover downward between the seats.

ENGINE



5.7 LITER V8 SFI ENGINE (LS1)

The standard 5.7 Liter V8 LS1 engine with Sequential Fuel Injection (SFI) is the latest in a long line of impressive powerplants in Corvette. It features a number of technological advancements that help make Corvette a true performance machine.

Power ratings for the 5.7L V8 engine are:

- 345 HORSEPOWER at 5600 rpm
- 350 LB.-FT. TORQUE at 4400 rpm.



Technical features for the 5.7L V8 engine are:

- The LS1 features an **ALUMINUM ENGINE BLOCK** that is both strong and lightweight. The "deep-skirt" design extends down past the bearing caps. Two bolts tie the main bearing caps directly to the engine block horizontally, and two more secure each cap vertically. This design helps give the engine outstanding durability, and reduces noise and vibration.
- LIGHTWEIGHT ALUMINUM CYLINDER HEADS feature replicated cylinder head ports to optimize airflow into the engine, contributing to overall performance.
- INTAKE MANIFOLD enhances airflow to the engine and is made of composite materials for reduced weight and enhanced performance.
- DUAL-WALL EXHAUST MANIFOLD, made of high strength stainless steel with an air gap between the walls, reduces cold-start emissions and helps reduce noise levels.
- LIGHTWEIGHT PISTONS AND HEAVY-DUTY CONNECTING RODS allow engineers to tune the engine performance for high rpm, achieving added power from the 5.7 Liter displacement.
- VALVETRAIN features in-line valves, rocker arms and pushrods for reduced stress and friction. This also contributes to the overall fuel economy and durability.
- **ROLLER TIMING CHAIN** with nylon tensioners enhances overall performance.
- COMPOSITE LIFT RESTRICTORS decrease mass and help optimize fuel economy.
- DUAL ELECTRONIC SPARK CONTROL SENSOR is located in the valley of the engine block for precise spark control.
- INTEGRATED AIR FUEL MODULE contributes to overall durability.
- MASS AIRFLOW SENSOR works with OBD II to help reduce emissions.
- **SEQUENTIAL FUEL INJECTION** aids combustion efficiency by optimizing fuel delivery.
- ELECTRIC THROTTLE CONTROL (ETC) allows precise tailoring of a specific throttle progression to meet the needs of a Corvette. ETC integrates electronic speed control, brake torque management and Traction Control into a single controller, for mass reduction and high durability. ETC is also an integral component of the Active Handling System

(if the car is so equipped).

• **DIRECT-MOUNT ACCESSORIES** make for fewer bolts, fasteners and attachment points, which helps reduce engine noise and enhance durability.

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- **GEROTOR OIL PUMP** provides low-temperature oil delivery and enhances performance by reducing parasitic loss.
- LIGHTWEIGHT OIL PAN features extended sumps that contain additional oil to ensure a good supply to the pickup tube for enhanced performance.
- ONE IGNITION COIL PER CYLINDER provides high energy ignition for optimal combustion, reduced emissions and enhanced durability.
- **10,000-MILE OIL CHANGE INTERVAL** allows for longer periods between oil changes and less environmental waste.
- PLATINUM-TIP SPARK PLUGS (first scheduled spark plug maintenance at up to 100,000 miles*) help extend intervals between servicing.
- EXTENDED-LIFE ENGINE COOLANT (first scheduled replacement at up to 5 years or 150,000 miles*) helps make maintenance easy.

*Maintenance needs vary with different uses and driving conditions. See owner's manual for more information.

SEQUENTIAL FUEL INJECTION, standard on Corvette, optimizes fuel economy and power output while also helping the LS1 V8 to meet today's stringent emissions control requirements.

- SFI's uses one injector nozzle per cylinder for optimum cylinder-to-cylinder fuel distribution.
- Each injector is fired sequentially and timed to the intake cycle for accuracy and metering control.
 (With non-SFI engines, fuel is injected once per engine revolution through all injectors at the same time. With SFI, timing is much more precise, improving performance across the board.)
- Mass airflow meter constantly measures the engine's air requirements, which vary according to changes in load, altitude and temperature. In an SFI system, the mass airflow meter is essential for accurate fuel delivery.
- The injector nozzle's design and optimum location produce an effective spray pattern that contributes to the engine's smooth idle and fuel-efficiency.



TRANSMISSIONS

Both available Corvette transmissions are rearmounted to help improve interior room for the driver and passenger, and to help provide balanced weight distribution.



4L60-E 4-SPEED Automatic Transmission with Overdrive

Standard on coupe and convertible, the Hydra-matic electronically controlled 4-speed automatic overdrive transmission delivers smooth, precise shift points. (Not available on hardtop.)

- **TORQUE MANAGEMENT SYSTEM** helps protect the powertrain by reducing the amount of energy and heat generated by frequent severe shifts such as those employed to "rock" a vehicle that is stuck in the snow.
- **FIRST-GEAR RATIO** (3.06:1) provides low-speed torque for excellent acceleration, while overdrive gear (0.70:1 ratio) offers excellent fuel economy at highway cruising speeds.
- TWO-PIECE CASE DESIGN with a unique 360-degree bellhousing completely encases the torque converter assembly for maximum stiffness, which helps to minimize noise and vibration.
- ALUMINUM TORQUE TUBE houses a metal composite drive shaft for reduced noise and enhanced durability.
- SHIFT STABILIZATION senses when the vehicle is operating on a grade, and determines the optimal performance gear.
- STANDARD, BRAKE/TRANSMISSION SHIFT INTERLOCK adds security by requiring the driver to depress the brake pedal to shift out of Park.



- SECOND-GEAR-START FEATURE provides an extra measure of security and control in slippery driving conditions. By moving the gear selector to the D2 position, the driver can reduce torque to the drive wheel, helping limit wheel slip during initial acceleration on slippery roads.
- EXTENDED-LIFE AUTOMATIC TRANSMISSION FLUID doesn't require service for up to 100,000 miles.*
- POWERTRAIN CONTROL MODULE (PCM) collects information about the operating condition of the 4L60-E and alerts the driver with a "Service Engine Soon" light if there is a deterioration that could cause the vehicle to exceed acceptable emissions levels.

*Maintenance needs vary with different uses and driving conditions. See owner's manual for more information.



6-SPEED MANUAL TRANSMISSION

A 6-speed manual transmission is standard on hardtop and optional on Corvette coupe and convertible. Designed for drivers who desire more "hands-on" control, the 6-speed manual transmission features a self-adjusting hydraulic clutch system that requires little effort to engage.

- 2.68:1 FIRST-GEAR RATIO provides high torque multiplication, for quick initial acceleration.
- OVERDRIVE FIFTH AND SIXTH GEARS lower the engine speed, helping produce quiet and economical highway cruising.
- SHIFT LEVER is automatically centered in the 3-4 gate's Neutral position to help minimize the chance of missed shifting.
- **SKIP-SHIFT FEATURE** requires upshifting from first to fourth gears, skipping second and third, under certain throttle conditions. This feature also helps optimize fuel economy.



- ALUMINUM TORQUE TUBE houses a metal composite drive shaft for reduced noise and enhanced durability.
- LIMITED-SLIP REAR AXLE features an aluminum case with hydraulic rear mounting for high durability.

ACTIVE HANDLING SYSTEM

Active Handling was introduced as a Corvette option mid-1998 model year. Corvette is one of the few sports cars in the world to offer such advanced stability technology. This comprehensive system operates in harmony with Corvette's antilock brake and Traction Control systems to selectively apply any of the four brakes to help the driver counteract and diffuse potentially dangerous handling situations, such as severe oversteer or understeer.

An example would be if a Corvette driver was cornering on a slippery road and the rear end loses traction and begins to swing out toward the front of the vehicle (sometimes called oversteer). The sophisticated sensors of Active Handling — which monitor yaw rate, steering angle, lateral acceleration and brake pressure, all in a fraction of a second — help the driver control the tendency of the car's rear end to swing out toward the front.

By monitoring these conditions, Active Handling will selectively apply one or more wheel brakes to help the driver stabilize the vehicle quickly. Even with Active Handling, however, there are situations where the system cannot overcome the laws of gravity and physics.

SYSTEM ACTIVATION

While the Active Handling System can be left active during everyday driving situations, the system allows the driver to choose any of the following settings:

ON — The Active Handling System is fully active, as are ABS and the Traction Control system.

OFF — All three systems — Active Handling, ABS and Traction Control — are inactive. (NOTE: ABS and Traction Control reactivate every time the ignition is turned on). Turning off the Active Handling System is accomplished by momentarily depressing the Active Handling switch. The Driver Information Center will notify the driver when the system is off, and the Traction Control system telltale will be illuminated.

CORVETTE

COMPETITION MODE — Designed for sanctioned racing use. Only Traction Control is turned off; Active Handling and ABS are still fully active. To access the COMPETITION MODE, the engine must be running, the vehicle stopped and the switch depressed for five seconds. The Driver Information Center will then display a "Competitive Driving" message, although the Traction Control system telltale will not illuminate.

The OFF and COMPETITION MODE settings can, in the appropriate setting, be important features on a high performance car like Corvette. In regulated competitive driving situations like autocrosses or sanctioned racing events,* minimal wheel spin and oversteer can be a good thing in the hands of an experienced driver. Chevrolet recommends Competition Mode be used only in an appropriate sanctioned racing environment.

*As with all sanctioned racing events, drivers should properly equip their vehicle with sanction-approved safety equipment.

ACTIVE HANDLING COMPONENTS

Following are the components that comprise Active Handling, their functions and the related benefits.

- ANTILOCK BRAKE AND TRACTION CONTROL SYSTEMS are used to activate the brakes as necessary. A hydraulic control unit applies or releases the brake(s) at each individual wheel, to help stabilize directional control.
- YAW RATE SENSOR detects the rotation around the vertical axis that passes through Corvette's center of gravity. More simply, visualize the car rotating around a pole stuck through the middle of the car. The yaw rate sensor detects the rate at which the vehicle is actually rotating, rather than what the steering angle sensor reports, which is the rate at which the driver is trying to steer.



- STEERING ANGLE SENSOR provides critical information to the computer on how much the driver is turning the steering wheel. The computer then compares this input to how much the car is actually turning, as reported by the yaw rate sensor. The Active Handling system compares input from the yaw rate sensor and the steering wheel sensor to help bring the car back into line.
- LATERAL ACCELEROMETER measures lateral acceleration — the amount of centrifugal force created by turning. Such input helps the system more accurately make braking corrections to match the cornering speeds and the traction available.
- DIFFERENTIAL PRESSURE SWITCH senses when the two split-brake system circuits become unbalanced. If either of the circuits (front or back) are not building correct pressure, the switch signals the controller, which turns off the Active Handling System and alerts the driver by illuminating the brake warning light in the instrument cluster.
- MASTER CYLINDER PRESSURE SENSOR measures how vigorously the brake pedal is being applied by the driver. When Active Handling activates, it takes the braking away from the driver momentarily. The sensor lets the system know how much braking pressure the driver is applying, and applies the brakes accordingly based on the brake pedal pressure.
- UNIQUE CONTROLLER/SOFTWARE is the computer that controls Active Handling along with the ABS and Traction Control systems. The computer on Active Handling-equipped cars features specific programming that is not included on models which have only ABS and Traction Control.

SUSPENSION

The suspension was designed with one overall goal in mind: great handling with a smooth ride. In keeping with this goal, the Corvette suspension geometry is designed to help allow ride and handling to work independently. Another key to Corvette ride and handling is the stiff chassis structure. The fifth generation's stiff underbody structure allows engineers to reduce structural variation and movement. The increased stiffness is a bonus to suspension engineers, who in the past compensated for structural movement



in their suspension design. The result of this stiff structure? Engineers can enhance ride-and-handling characteristics through suspension tuning.

Notable suspension features:

- STANDARD FULLY INDEPENDENT 4-WHEEL SHORT/LONG-ARM (SLA) SUSPENSION is similar to suspensions used in many race cars. This suspension is height-adjustable at the factory for consistent ride and handling. During production, each car is precisely adjusted according to its specific option content and vehicle weight to optimize ride and handling.
- FORGED-ALUMINUM FRONT UPPER CONTROL ARMS and cast-aluminum front/rear lower and rear upper control arms offer strength with low mass.
- A patented version of the **TRANSVERSE COMPOSITE LEAF SPRING DESIGN** contributes to the ride. Spring pads are located on the lower, longer arms at each corner. The composite springs run from one side of the car to the other, and are attached to the chassis via rubber-isolated mounts.
- Optional F45 SUSPENSION offers selective Real Time Damping, a technology that reads the road surface at each wheel and adjusts shock damping to achieve a stable, flat ride. F45 provides three settings — Tour, Sport and Performance — for a variety of ride qualities (not available on hardtop).
- **Z51 HANDLING PACKAGE** is designed for appropriate, sanctioned competitions, or for the driver who desires the ultimate in a suspension system. Tuned on road racing courses and autocross tracks, Z51 offers a top level of handling. Z51's highly controlled ride stems from stiffer springs, larger stabilizer bars and larger monotube shock absorbers than the standard suspension. Models equipped with an automatic transmission receive a 3.15 performance axle ratio. (Z51 is standard on hardtop and optional on coupe and convertible.)

STEERING

Magnasteer II steering, a variable-effort rack-andpinion power steering system, is standard on



Corvette. This high-tech system provides reduced effort at low speeds for easy parking and maneuvering, and higher efforts at high speeds for positive road feel and stability.

- MAGNASTEER II features smooth transitions between high effort and low effort for a natural, in-command feel of the road.
- 16.1:1 RATIO provides quick steering response.
- STEERING SYSTEM WAS INCORPORATED INTO THE OVERALL CHASSIS DESIGN from the onset, which allowed engineers to tune the system for enhanced effectiveness.
- LIGHTWEIGHT ALUMINUM POWER STEERING PUMP and intermediate shaft work together to help reduce mass and resist corrosion.

BRAKES

Corvette features a 4-wheel disc, 4-wheel antilock disc braking system. The design provides the consistent stopping power. Some things to keep in mind about antilock brakes:

- ABS helps maintain steering control during severe braking situations by minimizing wheel lockup on most slippery surfaces. All the driver has to do is maintain pressure on the brake pedal and steer the vehicle.
- ABS adjusts brake pressure by modulating the brakes several times per second, a rate even most skilled professional drivers cannot attain physically.
- The system modulates the brake-line pressure at the wheels. Drivers should not "pump" the brakes in emergency braking situations. Rather, they should maintain constant pressure on the brake pedal, allowing the system to work effectively.

Other Corvette Brake System Features:

- DUAL-PISTON FRONT BRAKES AND SINGLE-PISTON REAR BRAKES feature aluminum sliding-type calipers that are corrosion-resistant for enhanced durability. Front calipers feature the "Corvette" name cast into the outer aluminum surface.
- LIGHTWEIGHT CAST-ALUMINUM RACING-STYLE BRAKE PEDAL provides a sure footed feel.

NHEELS AND TIRES



CORVETTE (ALL MODELS):

CORVETTE

- Standard cast-aluminum wheel (17" front/18" rear)
- Optional magnesium wheel (17" front/18" rear)
- Standard P245/45ZR-17 front and P275/40ZR-18 rear Goodyear Eagle F1 Extended Mobility Tires (EMT).

HISTORY (BY MODEL YEAR)

1953 — Introduced in January, 1953 as a GM Motorama show car. First 300 production Corvette models assembled by hand; 235 cu. in. six-cylinder engine.

- 1955 First small block V8 introduced.
- 1956 All-new body style; optional removable hardtop.
- **1957** Engine improvements; 4-speed manual transmission and fuel injection are new options.
- 1958 Four-headlamp design introduced.
- 1961 Quad taillamps.
- 1963 All-new Sting Ray introduced with convertible and, for the first time, a coupe model; concealed headlamps debuted.
- 1965 Big block V8 engine option. 4-wheel disc brakes made standard.
- **1968** All-new body style; removable T-Tops on coupe models.
- 1970 Original LT1 small block V8 introduced.
- 1971 Special-purpose big block V8 produced 425 horsepower.
- 1975 Convertible model discontinued at end of year.
- **1977** Standard leather seats; 500,000th Corvette produced.
- **1978** Official Indy Pace Car replica and Silver Anniversary models offered.
- 1983 No Corvette models made for public sale;
 43 pilot models made for testing purposes.
- **1984** All-new design introduced; new suspension; electronic instrumentation.





- 1986 Convertible model reintroduced and served as Indy Pace Car; standard 4-wheel ABS; Vehicle Anti-Theft System (VATS).
- 1989 Standard 17" wheels; Selective Ride Control introduced; 6-speed manual transmission optional.
- **1990** ZR-1 with LT5 introduced; new cockpit design; driver air bag.
- 1991 All models feature rear appearance similar to 1990 ZR-1.
- 1992 Second-generation LT1 introduced; Acceleration Slip Regulation (ASR) introduced; one millionth Corvette produced.
- 1993 ZR-1 LT5 engine enhancements; 40th Anniversary Package; Remote Keyless Entry introduced.
- 1994 Front-passenger air bag; new cockpit design.
- **1995** Revised gill panel; last year of ZR-1; Corvette provides Indy Pace Car again.
- **1996** Grand Sport and Collector Edition; LT4 engine option introduced.
- 1997 All-new body and chassis; LS1 all-aluminum small block V8 introduced.
- 1998 All-new Corvette convertible introduced.

CHEVROLET INTERNATIONAL

The Corvette is sold in other countries besides the U.S. In many cases, changes are made in the vehicle's specifications to meet the unique demands of those markets and/or comply with local regulations. Additionally, these products sometimes fill a very different role in non-U.S. markets. If you need to know what the differences are, in specifications or marketing strategies, in any given country, please look in the Chevrolet International section of this web site to identify the right GM person to contact for that kind of information. Chevrolet Communications (U.S.) does not have those details.

CUSTOMER CARE

Chevrolet owners are covered by Genuine Customer Care, a comprehensive owner protection plan that includes the following:

BUMPER TO BUMPER WARRANTY

The GM 3-year/36,000-mile (whichever comes first), no-deductible, limited warranty covers repairs for all Chevrolet cars, including labor and parts, to correct any defects in material or workmanship occurring during the warranty period. Warranty features include air conditioning repair, tires, towing, no-cost warranty transfer and 6-year/100,000-mile (whichever comes first) sheet-metal rust-through protection. There also is emissions control system coverage, which varies by geographic location. The only item not covered by the warranty is normal maintenance.

COURTESY TRANSPORTATION

Retail customers who purchase or lease a 1999 Chevrolet Corvette are eligible for Courtesy Transportation when their vehicles are left at a participating dealership for repairs covered under the 3-year/36,000-mile Bumper to Bumper Limited Warranty. Courtesy Transportation, at participating dealerships only, may include shuttle service, expense reimbursement, or, if the repairs require leaving the vehicle overnight, a vehicle rental. Owners should see their dealer for details.

ROADSIDE ASSISTANCE*

Roadside Assistance service is provided through a toll-free 800 number, 24 hours a day, 365 days a year. Roadside Assistance advisors can assist with minor mechanical concerns over the phone or coordinate a variety of services through professional service providers.



Basic Care provides:

- Toll-free access 1-800-CHEV-USA
- Free towing to closest dealer for warranty repairs
- Basic over-the-phone technical advice
- Dealer services at reasonable costs (i.e., wrecker services, locksmith/key service, glass repair, etc.).

Courtesy Care applies for 3 years/36,000 miles and provides:

- Basic Care services
- Free locksmith/key service (when keys are lost on the road or locked inside)
- Free flat tire change service
- Free fuel delivery
- Free non-warranty towing
- Free jump start.

*Roadside Assistance membership is free. Some services may incur costs. Courtesy Care is available to retail, retail lease and corporate lease customers operating 1994 and newer Chevrolet vehicles for a period of 3 years/36,000 miles. All Courtesy Care services and associated costs must be prearranged by Chevrolet Roadside Assistance or dealer service management and must be driver-initiated. Basic Care and Courtesy Care are not part of or included in the coverage provided by the New Vehicle Limited Warranty. Chevrolet reserves the right to modify or discontinue Basic Care and Courtesy Care at any time. Owners should see their dealer for complete details of the Chevrolet Roadside Assistance Program.

GM MOBILITY PROGRAM

CORVET

Chevrolet recognizes the importance of mobility to everyone's life and, therefore, offers financial assistance to persons with disabilities through the General Motors Mobility Program. The program can provide up to \$1,000 reimbursement toward the cost of aftermarket mobility adaptive equipment for drivers or passengers, \$200 of which may be applied toward a siren director for drivers who are deaf or hard-of-hearing. For details and free resource information, call: 1-800-323-9935. (TTY users: 1-800-833-9935).

Important — We have tried to make this document as comprehensive and factual as possible. We reserve the right, however, to make changes at any time, without notice, in colors, materials, equipment, specifications, models and availability. Some information may have been updated since the time of printing in June, 1998.

A note about Next Generation air bags: Always use safety belts and proper child restraints, even with air bags. See the owner's manual for more safety information.

Some artwork contained within this text is for representation purposes only.



1999 CORVETTE FEATURE AVAILABILITY



	Corvette hardtop	Corvette coupe	Corvette convertible	
INTERIOR				
Air Bag – Driver and Passenger ¹	S	S	S	_
Air Conditioning – with CFC-Free Refrigerant	S	S	S	_
– Electronic Dual-Zone	NA	0	0	_
Console – Center with Cup Holder, Ashtray, Coin Tray and Cassette/CD Storage	S	S	S	_
Defogger – Electric, Rear-Window	S	S	S	
Door Locks – Power	S	S	S	_
Gauges, Analog – Speedometer, Fuel, Tachometer, Oil, Temperature and Volts	S	S	S	_
Low Tire Pressure Warning System	S	S	S	_
Luggage Shade and Parcel Net - Luggage-Area	NA	0	NA	-
Memory Package - "Remembers" Settings for Outside Mirrors, Radio, Heater/				_
Defroster/Air Conditioning and Driver Power-Seat ³	NA	0	0	
PASS-Key II Theft-Deterrent System	S	S	S	-
Remote Function Actuation System (includes Remote Keyless Entry)	S	S	S	-
Scotchgard [™] Protection (on floor carpeting)	S	S	S	-
Seat – 6-Way Power Driver	0	S	S	_
- 6-Way Power Passenger	NA	0	0	-
- Bucket, with Leather Seating Surfaces	S	S	S	
– Sport Bucket, Adjustable with Leather Seating Surfaces	-			-
(includes inflatable lumbar support and adjustable wings)	NA	0	0	
Speed Control – Electronic	S	S	S	- 1
Steering Column – Tilt-Wheel™	S	S	S	- 1
Stereo – AM/FM with Cassette Player and Bose Speakers	 O ⁴	S	S	-
– AM/FM with CD Player and Bose Speakers	0	0	0	-
– 12-Disc Remote CD Changer	0	0	0	-
– Bose Speakers	0	S	S	
Windows – Power with Driver and Passenger Express-Down Feature	S	S	S	-
EXTERIOR	5	5	5	
Convertible Top – Manual with Heated Rear Glass Window	NA	NA	S	-
Daytime Running Lamps	S	S	S	-
Foglamps – Dual Halogen	NA	0	0	- !
Mirrors – Outside Dual Body-Color Heated Remote Electric	S	S	S	-
Mildings - Body-Side	0	0	0	- 1
Roof Panel – Removable, Body-Color	NA	S	 NA	- [
Roof Panel – Removable, Transparent	NA	0	NA	-
Tires – Front, Goodyear Extended Mobility, P245/45ZR-17	S	S	S	- 1
	S	S	S	-
- Rear, Goodyear Extended Mobility, P275/40ZR-18 Wheels - Cast Aluminum, 17" Front/18" Rear	S	S	<u> </u>	-
FUNCTIONAL	3	3	3	
	0	0	0	
Active Handling System (AHS)	0	0	0	-
Brakes – Bosch 4-Wheel Antilock	S	S	S	-
- Power, Front and Rear Vented Disc	S	S	S	-
Engine – 5.7 Liter LS1 V8 SFI	S	S	S	_
Exhaust System - Aluminized Stainless-Steel	S	S	S	_
Low Tire Pressure Warning System	S	S	S	_
Suspension – 4-Wheel Independent SLA	S	S	S	_
- Z51 Performance Handling Package	S	0	0	_
– F45 Real-Time Damping	NA	0	0	_
Traction Control	S	S	S	_
Transmission – 4-Speed Electronically Controlled Automatic	NA	S	S	L
- 6-Speed Manual Twilight Sentinel with Automatic Exterior Lamp Control	S NA	0	0	_

S — Standard. O — Optional. NA — Not available. 1 Always use safety belts and proper child restraints, even with Next Generation air bags. See the owner's manual for more safety information. 2 Parcel net only on convertible model. 3 Requires electronic dual-zone air conditioning. 4 Standard without Bose speakers.

1999 CORVETTE SPECIFICATIONS







MODEL AVAILABILITY

Models	Corvette hardtop, Corvette coupe, Corvette convertible
EPA vehicle class	Two Seaters
Assembly	Bowling Green, Kentucky

DIMENSIONS & CAPACITIES (inches/millimeters, unless otherwise noted)

Exterior Dimensions	Corvette
Wheelbase	104.5/2655.5
Length (overall)	179.7/4565.6
Width (overall without mirrors)	73.6 /1869.6
Height (overall)	47.8/1214.1 (coupe) 47.7/1211.5 (convertible) 47.9/1216.7 (hardtop)
Tread — front	62.0/1575.6
Tread — rear	62.1/1575.6
Interior Front Dimensions	
Headroom	coupe – 37.9/955.0 convertible – 37.6/955.0 hardtop – 37.8/959.5
Legroom	42.7/1085.8
Shoulder room	55.3/1405.4
Hip room	54.2/1377.8
Capacities	
Passenger capacity	2
Passenger index (cu. ft./liters)	coupe – 51.4/1459.4 convertible – not applicable hardtop – 51.7/1467.9
Cargo capacity (cu. ft./liters)	coupe – 24.8/704.1 convertible – 13.9/394.7 (top up) 11.2/318.0 (top down) hardtop – 13.3/377.6
Fuel capacity (gal./liters approx.)	19.1/75.7
Curb weight (lbs./kg, est.)	coupe (with manual) - 3230/1465 (with auto) - 3253/1476; convertible (with manual) - 3231/1466 (with auto) - 3254/1476; hardtop (manual only) - 3174/1440
Engine oil (quarts/liters)	6.0/5.6 (with filter)
Engine coolant (quarts/liters)	11.5/10.9 (11.8/11.2 with manual transmission)

STEERING

Туре	Power-assisted, speed-sensitive, magnetic variable-effort power rack and steering
Ratio (overall)	16.1:1
Turns stop-to-stop	2.32
Turning diameter curb-to-curb (ft./m)	40.0/12.2
Turning diameter wall-to-wall (ft./m)	41.3/12.6



1999 CORVETTE SPECIFICATIONS



BRAKES

Туре	Power-assisted, fou	r-wheel vented disc with 4-wheel ABS
	U. S. Standard	METRIC
Gross lining, front/rear (without grooves)	22.6/8.7 sq. in.	145.8/56.1 sq. cm.
Effective area, front/rear	22.3/8.7 sq. in.	144/56 sq. cm.
Disc rotor diameter x thickness, front	12.6 x 1.26 in.	302.3 x 1981.2mm
Disc rotor diameter x thickness, rear	11.8 x 1.0 in.	302.3 x 1981.2mm
Total swept area, front/rear	263/158 sq. in.	1696/1018.0 sq. cm.

ENGINES

Туре	5.7 Liter (LS1) V8 SFI
Block	Cast aluminum
Cylinder head	Cast aluminum
Valve configuration	Overhead (OHV) intake manifold
Hydraulic lifters	Yes/Roller
Bore & stroke (in.)	3.90 x 3.62
(mm)	99.0 x 92.0
Cam drive	Chain
Redline (rpm)	6000
Displacement (liters/cid)	5.67/346
Compression ratio	10.1:1
Fuel induction	Sequential Fuel Injection (SFI)
Horsepower/kW @ engine rpm	345 @ 5600/257 kW @ 5600
Torque/N-m (lbft.)	350 @ 4400/475 N-m @ 4400
Exhaust system	Aluminized stainless steel
Tailpipe(s)	4, rear center exit
Ignition system	Coil near plug
Alternator (amps)	50 at idle; 120 maximum
Battery (SAE capacity rating) cca	600
Recommended fuel	Premium unleaded

TRANSMISSIONS

Models	Corvette hardtop	Corvette coupe/ Corvette convertible	Corvette coupe/ Corvette convertible
Transmission	6-speed manual (std.)	4-speed elec. automatic with overdrive (std.)	6-Speed Manual (opt.)
Layout	RWD, mounted ahead of rear axle	RWD, mounted ahead of rear axle	RWD, mounted ahead of rear axle
Gear ratios:			
1st	2.66	3.06	2.66
2nd	1.78	1.63	1.78
3rd	1.30	1.00	1.30
4th	1.00	0.70	1.00
5th	0.74	-	0.74
6th	0.50	-	0.50
Reverse	2.90	1.91	1.71
Final drive ratios	3.42	2.73 ¹	3.42

1 3.15 with optional Performance Ratio.

1999 CORVETTE SPECIFICATIONS





CHASSIS

Chassis	
Structure/frame	Integral perimeter frame with center backbone/all-welded steel body frame construction
Body material	Fiberglass-reinforced plastic
Suspension — front	
Туре	Independent SLA forged aluminum upper and pressure-cast aluminum lower control arms; forged-aluminum steering knuckle, transverse monoleaf spring and steel stabilizer bar, spindle
Offset	5 5 7 7 7
Stabilizer bar design type/diameter (mm)	Link/23.0 (25.4 with hardtop and optional Z51 Handling Package)
Suspension — rear	
Туре	Independent 5-link design with toe and camber adjustment, cast aluminum upper and lower control arms and knuckle, transverse monoleaf spring, steel stabilizer bar and tie rods, tubular u-jointed metal matrix composite driveshafts
Stabilizer bar design type/diameter (mm)	Ball joint link/19.1 (27.1 with hardtop and optional Z51 Handling Package)

MILEAGE/PERFORMANCE

Model	All			
Transmission Type	4-speed automatic*	6-speed	d manual [†]	
Mileage:	MPG litres/100 km	MPG	litres/100 km	
City	17 13.8	18	13.1	
Highway	25 9.4	28	8.4	
Combined	20 11.8	21	11.2	
Est. Cruising Range	mi. km	mi.	km	
City	325 523	344	553	
Highway	478 769	544	875	
Combined	382 615	401	645	

*Based on 1999 GM Engineer estimates. 'Based on 1999 GM Engineering estimates. 1999 EPA estimates not available at time of publication. The 1999 Corvette hardtop, coupe and convertible EPA estimates are projected to be the same.

TRAILERING INFORMATION

NOTE: Corvette models are not rated for trailering.

COEFFICIENT OF DRAG

Coupe	.29	
Convertible	.34	
Hardtop	.31	

WHEELS & TIRES

odel	All	
Wheel type	Cast-aluminum 5-spoke (standard)	
51	Magnesium 5-spoke (optional on coupe and convertible)	
Wheel size		
— front	17" x 8.5"	
— rear	18" x 9.5"	
Tire type	Extended Mobility (EMT) Goodyear Eagle F1 high performance	
Tire size		
— front	P245/45ZR-17	
— rear	P275/40ZR-18	
Spare size	Not applicable	

All specifications are preliminary and subject to change. Chevrolet Motor Division, June 1998.