'64 Corvette Sting Ray
The best way to describe the '64 Corvette Sting Ray: a sports car with a dual personality. Last year's classic was dubbed a designer's coup for the way it fused celebrated Corvette performance with penthouse luxury. And Corvette for '64 outdoes its predecessor with a dual personality plus. Both Sport Coupe and Convertible feature better-than-ever ride qualities, higher horsepower ratings for the two top engines, refined styling and interior comfort. Here's some insight into the ride side of Sting Ray's doubly pleasing makeup.

We had to go some to improve on such advanced engineering features as 4-wheel independent suspension, short-wheelbase chassis and rearward weight bias. But Sting Ray's ride has been definitely and impartially improved (that is, performance and comfort seekers profit equally). Front and rear, new variable-rate springs size up bumps as they take them on. This means they flex softly for wee bumps and offer more resistance to big ones. In addition, all shock absorbers have been recalibrated, and noise has been cut to a minimum by a host of innovations designed to reduce and isolate vibration. The end result is a firm but smooth, quieter ride for plying across town, plus improved open-road handling and performance characteristics. (More details on this shortly.)

But a sports car can be aesthetically pleasing, too. As a look at the refined countenance of the '64 Sting Ray Sport Coupe will prove. It's enough to puff up the pride of the most design-conscious enthusiast.

A subtle belt-line crest remains unchanged, sweeps three-sixty around the aerodynamic design. The gentle contour of the body panels is underlined by tasteful new rocker moldings. New, too, is the one-piece rear window with its slimline molding (even lady buffs get great hindsight without straining in their seats). Up front, power-operated retractable headlamps blend smoothly into the sculptured hood. The hood is newly styled with clean, uncluttered surfaces. Sting Ray Sport Coupe's uniquely designed doors still extend well beyond the roof line for easy ins and outs... kind treatment for fragile feminine coiffures.

That's a swift sketch of the '64 Sting Ray Sport Coupe. But maybe you have a yen for open-air going (and who doesn't?). Then shift your attention to the sweet lines of the new Sting Ray Convertible.

Fore and aft, note the trim wraparound bumpers and full-length windstops on the hood and rear deck. Observe, also, the subdued aluminum grille, distinctive new wheel covers with simulated knock-off hubs and the refreshing absence of needless chrome and other useless doodads. Next, add your finishing touch by selecting a neat soft top or removable hardtop. A tough choice—but no one will hit the roof if you order both, the hardtop at modest extra cost. Top down for taking sun or top up for taking weather, the '64 Sting Ray Convertible promises great times, sparkling performance. And with things like Ball-Race steering and a power team from a quartet of restless V8's and versatile transmissions, a Corvette delivers what it promises.

This Is the Way the Sting Ray Rides and Looks
Then there's Sting Ray's Inner Self—the pleasing way it makes things easy
Here's the Way Sting Ray Gets Its New Go...Casually Conquers the Corners and Turns

This is the tech side of the '64 Corvette, truly a tiger to be tamed. All four versions of the Corvette's celebrated V8 engine have a 327-cubic-inch displacement, 4-bore and 2.85:1 stroke. The 300-bhp standard engine features a single 4-barrel carb, 10.5:1 compression ratio, hydraulic valve lifter and a dual exhaust system. The 300-bhp power plant adds a large 4-barrel carburetor and larger intake valves. Both the new 365-bhp V8 and 375-bhp Fuel Injection V8 have a special camshaft, new cylinder heads with extra-large valves, domed aluminum pistons, an 11.9:1 compression ratio, a high-speed valve system with special valves, mechanical valve lifters, ribbed aluminum rocker covers and a 3-quart oil capacity (4-quart capacity on the 250- and 300-bhp engine).

The standard transmission is 3-Speed Synchro-Mesh. Ratios: 2.68:1 first; 1.48:1 second; 1.1:1 third; and 2.56:1 reverse. For a variety of engine and rear axle combinations, 4-Speed Synchro-Mesh is the answer. Ratios with 250- and 300-bhp V8's: 2.56:1 first; 1.91:1 second; 1.48:1 third; and 2.56:1 reverse. Close ratios with the 365-bhp and 375-bhp engines: 2.90:1 first; 1.61:1 second; 1.26:1 third; 1.1:1 fourth; and 2.27:1 reverse. With both 3- and 4-Speed Synchro-Mesh, there's a 10" semi-centrifugal diaphragm spring clutch with a lighter aluminum 300-degree clutch housing. And the floor-mounted shift: for 4-Speed transmission has a mechanism on the shift lever to prevent unintentional reverse engagement. The automatic Powerglide transmission, available with two engines, offers truly effortless driving. And you can select the Positraction axle ratio best suited to your choice of power teams.

Corvette Sting Ray for '64 features an improved ride—smooth but firm. It adds up to softer and quieter driving on normal in-town roads and flatter cornering for true sports car performances. Here's a rundown on the innovations that make the new ride possible, plus a description of Corvette's chassis and suspension.

- New variable-rate front coil springs and variable-rate rear spring. Amount of deflection decreases in proportion to the severity of the road shock encountered. - Recalibrated front and rear shock absorbers.

- New rubber jounce bumpers, front and rear, provide a progressive rate of cushioning. - Revised exhaust system components. New tuned mufflers reduce exhaust noise. - New loop-type tail pipe hanger affords additional vibration insulation and the front exhaust pipe hanger is now attached to the transmission rather than to a frame crossmember to further reduce vibration. - New rear engine mount. Stiffness of rubber has been reduced approximately one-half to lessen transfer of engine vibration to the frame. - New rubber body mounts for both the Sport Coupe and Convertible. - New transmission shift lever boot and extensive use of rubber in the shift lever linkage. Further isolates vibration and noise. - New special insulation between carpet and fiber glass panels in the front and rear compartment of the Sport Coupe body. Also, new insulating blankets on rear of front wheelhouses. Reduce noise and transmission of vibrations. - New rear end panel stiffener to muffle resonance.

The rear suspension features a three-link independent system at each wheel. A radius arm running from the frame to the rear spindle support, a control rod attached to the differential and wheel spindle, and the double universal-jointed tubular axle shaft combine to provide nearly vertical wheel movement. One new multi-leaf transverse spring with varied leaf length is bolted to the differential carrier and extends from rear wheel to rear wheel. It takes only vertical suspension loads. Braking, acceleration and lateral forces are transmitted by the radius arms, axles and control rods to the differential and the frame. The differential assembly is attached to the frame by a rubber cushioned bolted-in crossmember. Small movements of the differential are taken up by universal joints on the one-piece propeller shaft. For increased torsional rigidity and beam strength, the Convertible has a steel framework virtually surrounding the passenger compartment, while the Sport Coupe has overhead steel roof members as well.

You can add to tire and handling stability with Corvette's optional wider-dim aluminum wheels. Ventilated fin design for cooling; knock-off hubs for easy wheel and tire changing.

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Blue = Ball-Joint Steering Gear and Rear-Engaged Relay Linkage
Red = All-Wheel-Brakes, Front-Engaged Frame with High Arm Balance
Green = One-Piece Tubular Prop Shaft
Orange = Dual Exhaust System with Large Exhaust Pipes Channeled Through the Intermediate Frame Crossmember, Specially Tuned Aluminized Undercarriage Design with Crossmember Located Almost Under the Rear Axle
Tan = New Rubber Body Mounts
Indigo = Oil-Jet Front Independent Variable-Rate Coil Front Suspension
Magenta = Frame-Mounted Differential
Yellow = Tubular Rear Independent Rear Suspension with Transverse Variable-Rate Multi-Leaf Springs
Purple = Larger Diameter Rund выпуск, 17-Inch Diameter, 14-Inch Width Rims
More on the Sting Ray for '64

Engines—All engines have independent mechanism for each valve; temperature-controlled fan; precision-machined forged steel crankshaft; premium aluminum main bearings; full-pressure lubrication system; full-flow oil filter; automatic choke; and a 12-volt electrical system. Oil-wetted polyurethane air cleaner element. All-aluminum cross-flow radiator. Positive closed-type crankcase ventilation.


Exterior Features—Fiber glass reinforced plastic body with Magic-Mirror acrylic lacquer finish in seven solid colors: Tuxedo Black, Ermine White, Riverside Red, Silver Blue, Daytona Blue, Saddle Tan and Satin Silver. Three Convertible tops (white, black and beige) available with any body color. Doors have push-button handles and key locks.

Covered space for folding top behind seats.

Additional Optional Equipment—Back-up lights, sintered-metallic brake linings. Cast aluminum wheels with 6" rims and knock-off hubs. 36.5-gallon fuel tank (Sport Coupe only). Off-road exhaust system. Full-transistor ignition system (available only on 365- and 375-hp engines). Special performance equipment grouping (with 375-hp engine, 4-Speed transmission and Positraction) offers: special power brakes with finned drums, built-in cooling fans, front brake air scoops, special sintered-metallic linings, and forward-driving self-adjusting feature; dual-circuit brake master cylinder; heavy-duty stabilizer bar; heavy-duty front and rear springs and shock absorbers.

Dimensions—Wheelbase, 98". Overall length, 175.3". Overall height: Convertible with soft top up, 49.8"; Convertible with hardtop, 49.8"; Sport Coupe, 49.8". Cowl height to ground, 34.9". Door opening height to ground: Convertible, 45.6"; Sport Coupe, 46.8". Road clearance, 5.0". Overall width, 69.6". Tread: front, 56.3"; rear 57.0".

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