1982 CORVETTE PRESS KIT

CORVETTE HISTORY 1953-82
NEWSRELEASE

October 29, 1981
#8933

DETROIT, Mich.—The popular Chevrolet Corvette spans a history of only 28 years. But during that period some of the most exciting automotive names have been associated with the vehicle.

Harley Earl, Edward N. Cole, Maurice Olley, Zora Arkus-Duntov, William Mitchell and Lawrence Shinoda, to name a few.

Robert D. Lund, Chevrolet general manager and a vice president of General Motors, has called the Corvette mystique a key to Chevrolet's overall product image for more than a quarter of a century, particularly among young people and automobile enthusiasts throughout the world.

The Corvette received its first public exposure in 1953 when it appeared as a dream car in General Motors' famous Motorama auto show at New York City's Waldorf Astoria Hotel. It was an immediate hit. The Corvette name came from the sleek, fast submarine chaser and convoy escort vessel of World War II.

The original open roadster was done by a design team under the direction of Earl, then vice president in charge of GM's Styling Staff. He brought it to the attention of Cole, then chief engineer of Chevrolet Motor Division and later president of GM. Cole assigned Olley, a brilliant British engineer, to design a special chassis for the vehicle. The standard Chevrolet 115-horsepower, six-cylinder engine of the time was transformed into a 150-horsepower version for this new fiberglass-bodied sports car.

Although the public liked the original Corvette design, the car received only a lukewarm reception from sports car enthusiasts.

A Belgian-born and Berlin-educated engineer, Arkus-Duntov—along with Cole and Earl—set out to remedy the situation. During the next four years they totally transformed the Corvette. They incorporated several new features and, most importantly, dropped Cole's new Chevrolet V8 under the hood. In fuel-injected form it produced 283 horsepower—nearly double the 1953 output of the original L6 engine. Reception for both the 1956 and 1957 Corvettes by sports car enthusiasts and the general public was outstanding.

Cole, Mitchell, Arkus-Duntov and Chevrolet sales executive Joe Pike were members of a team that developed the next Corvette milestone car—the famous 1963 Corvette Sting Ray.

CORVETTE HISTORY 1953-82
NEWSRELEASE

October 29, 1981

#8933

The Sting Ray still stands as one of the outstanding sports car creations in American history, and is one of the most sought-after collector cars in the world. The vehicle brought to sports car lovers a closed coupe with teardrop-shaped roof, and, for the first time, a split rear window. The vehicle also featured hidden headlights and an ingenious independent rear suspension by Arkus-Duntov.

It was an instant sales success with some 20,000 units built in the 1963 model year—a production record.

The peak of the muscle-car era, 1965, saw four-wheel disc brakes added to Corvette along with a 396-CID V8 optional engine.

Then, just five years after the debut of the '63 Sting Ray, another major revamping of the 'Vette occurred in 1968. Mitchell's chief stylist, Shinoda, is generally credited with the styling concepts for both cars.

Other Shinoda creations include the Mako Shark I and II, the Cerv I and II, the Corvair Super Spyder, Monza GT and SS, the Astro I and the mid-engined Astro II.

A major Corvette milestone occurred March 15, 1977, when the 500,000th 'Vette came off the line at the St. Louis plant. The following year—the 25th anniversary year for Corvette—saw it named pace car of the 62nd annual Indianapolis 500 automobile race.

Because of lack of adequate expansion space at the St. Louis facility, plans were drawn to transfer Corvette production to a plant in Bowling Green, Kentucky. Twice the size of the St. Louis facility, the Bowling Green operation was designed to be one of the most modern and highly computerized automobile assembly plants in the world.

On July 31, 1981, the last Corvette was produced at the St. Louis plant. It was the 695,124th Corvette assembled since the first one was completed 28 years earlier.

General Motors' investment in this newer, more modern Corvette facility is clear evidence of Chevrolet's confidence that Corvette's future remains bright.■

1982 ENGINEERING NEWSRELEASE

October 29, 1981
#8934

CHEVROLET'S 1982 CORVETTE ENGINEERING FEATURES NEW CROSS-FIRE INJECTION, TRANSMISSION

Chevrolet's 1982 Corvette is more fuel-efficient, yet has increased horsepower plus improved emission control and driveability.

These improvements are from a combination of new Cross-Fire Injection (CFI), twin throttle-body electronic injectors and automatic transmission with fourth-speed overdrive.

The new model line—Sport Coupe and special Collector Edition Hatchback Sport Coupe—is equipped with a 5.7-liter (350 cu. in.) V8 engine rated at 200 horsepower. The engine delivers an estimated 15 miles per gallon in city driving, 26 highway. This compares with 1981, when the 5.7-liter engine was rated at 190 hp, and had EPA fuel ratings of 15 mpg city, 21 highway.

Cross-Fire Injection is a system of air and fuel control which includes two throttle-body injection units, both controlled by the microcomputer. The units are mounted independently on the intake manifold cover and supply the correct air-fuel mixture to the manifold. Tuned crossover runners in the manifold direct the mixture to cylinders on the opposite side of the engine. Thus, the name Cross-Fire Injection.

A special "swirl" plate is located directly below each throttle valve to aid in mixture distribution.

The on-board computer precisely meters fuel flow, which can be adjusted 80 times a second, compared with 10 times a second with the 1981 computer-controlled carburetor. This metering accuracy under all vehicle operating conditions, regardless of temperature, humidity or atmospheric pressure, contributes to greater engine output and to improved economy, emissions and driveability.

The new induction system eliminates the need for the charcoal air cleaner element, the mechanical choke, and other fuel-metering components, including idle-speed control. A positive fuel shut-off prevents engine "dieseling."

October 29, 1981
#8934

Unlike a carburetor, CFI provides a single metering circuit for coordinating the transition from idle to part throttle to wide-open-throttle operation.

The fuel system also features an electric motor-driven twin-turbine fuel pump, integral with the fuel tank metering unit. It supplies fuel at a positive pressure to the CFI units. A new in-line fuel filter contains a larger, more efficient paper filtering element. A new low-permeability fuel line minimizes evaporation losses. This fuel system aids cold start and is designed to prevent vapor lock.

The new automatic four-speed overdrive transmission's converter clutch engages in second, third and fourth gears. Overdrive further boosts highway mileage.

A higher first gear ratio (3.07:1) improves off-the-line performance.

A solenoid-operated door at the front of the hood opens during wide-open-throttle operation to duct fresh air directly into the air cleaner.

A new low-restriction exhaust system features a smaller and lighter wide-mouth catalytic converter. New insulated front pipes help reduce emissions by delivering hotter exhaust gas to the converter. ■

1982 CORVETTE NEWSRELEASE

October 29, 1981
#8935

OFFICIAL COLLECTOR EDITION CORVETTE AVAILABLE AS 1982 MODEL

The Chevrolet Corvette, one of the most collected sports cars in U.S. automotive history, features an official Collector Edition model in 1982.

Both Sport Coupe and Collector Edition Hatchback Coupe are equipped with Chevrolet's fabled small-block V8 with new Cross-Fire Injection (CFI), twin throttle-body injection, electronic fuel-metering system, and new four-speed overdrive automatic transmission. The results are improved performance, fuel economy, emission control and driveability.

"This year we've added economy and performance," says David R. McLellan, Corvette chief engineer. "And it's a harbinger of things to come. For the 1982 model is more than just the last of a generation, it's stage one of a two-stage production. We're doing the power team this year. Next year, we add complete new styling and other innovations."

So much for 1983. There's more than enough for the Corvette collector in 1982.

In fact, the official 1982 Corvette Collector Edition will be available the entire model year.

"It's a unique combination of color, equipment and innovation combined to produce one of the most comprehensive packages ever offered to the Corvette buyer," McLellan said.

Perhaps the most innovative is a new frameless glass hatch, complete with remote release.

The Collector Edition also includes:

- Exclusive silver/beige metallic color with distinctive decal treatment and pinstripes
- Specific cloisonné emblems, front, side and rear
- Specific aluminum wheels and center hub, similar to the popular 1967 Corvette alloy wheels
- Glass roof panels with special bronze color and solar screening

The Collector Edition has matching silver/beige metallic interior with multitone full-leather seats and door trim. The Collector Edition theme is extended to the steering wheel, horn, console and instrument cluster trim plates.

October 29, 1981
#8935

Rear-window defogger, power antenna and white-letter Eagle GT radial tires are part of the Collector Edition package.

Corvette's 5.7-liter (350 cu. in.) V8 engine has been outfitted with CFI, which computerizes fuel metering. Fuel flow can be adjusted 80 times a second, compared to about 10 times a second with the 1981 computer-controlled carburetor. And with CFI, the engine's power is increased from 190 in 1981 to 200 hp.

The new automatic four-speed overdrive transmission also improves both fuel economy and off-the-line performance. It also provides quieter highway cruise at lower engine revolutions. It has overdrive fourth gear and second, third, and fourth gear converter clutch engagement.

A new hood design ducts outside air directly into the air cleaner via a computer-controlled door.

The 1982 Corvette is being produced in new facilities at Bowling Green, Kentucky.■

BOWLING GREEN
NEWSRELEASE

October 29, 1981
#8936

1982 CORVETTES PRODUCED AT NEW BOWLING GREEN FACILITY

After 28 years in St. Louis, Corvette production has moved to Bowling Green, Kentucky.

"The new plant utilizes advanced automotive production techniques and the Corvette features advanced sports car technology—quite a parlay," says David R. McLellan, Corvette chief engineer.

"With new four-speed automatic transmission and Cross-Fire Injection 5.7-liter V8 engine, the 1982 Corvette has the most advanced economy, emission control and driveability in its 28-year history," McLellan said. "And it is being produced in a new facility designed to assure outstanding quality and appearance."

McLellan said the new paint process at the plant is the finest developed at GM. The 1982 Corvette finish has scored as high as 95 on a "glossmeter" and that compares to a mirror reading of 100 percent.

"One might even say the all-new paint surface is a reflection of things to come in the auto industry," McLellan said.

Each Corvette is given two coats of prime, followed by three coats of color for nonmetallics, and two coats of color and two clear coats for metallics.

The clear finish contains a new sun shield to help protect against paint oxidation caused by ultraviolet rays of the sun.

The plant has the capacity to apply two-tone paint to all models, and for in-line touch-up or repair of any paint defects.

There are 12 color choices, including nine metallic, and two-tone combinations of silver/dark claret, silver/charcoal, silver blue/dark blue and white/silver. Colors are separated by a multicolor accent stripe, and separate striping appears on the raised portion of the hood.

The paint booths are made of plate glass and stainless steel, giving painters a view of activities outside the booth. The design tends to reduce worker boredom and prevents a sense of isolation.

The paint area has its own special air filtration system. In the booths, the plant's Air-Flow system blows specially filtered air in from ceiling vents, driving fumes and excess paint downward through an open grate into a water-filled pit.

Excess paint floats on the water and is retrieved by a filter drainage system. The waste from the paint area fuels an after-burner jet, and the heat is collected by the Air-Flow system for recirculation.

October 29, 1981
#8936

Visitors entering the paint area are required to wear special lint-free coveralls, hats and shoe covers to keep the area clean. And air pressure within the paint area is slightly higher than in the rest of the plant, so when a door is opened, air blows out, keeping dust or other contaminants from entering.

The plant is built at the location of a 500,000-square-foot facility.

GM manufacturing and industrial engineers gutted the old facility and enlarged it to about one million square feet, building a new operation from the ground up. Employe consideration is evident in the 38,658 feet of conveyors that link the surface work areas, and in the hoists which make easy inspection of the Corvette underbody.

Overall plant performance is controlled in a dispatch room where electronic sensors monitor operations throughout most of the facility. A bank of computers keeps tabs on plant systems requiring maintenance.

The plant has complete Air-Flow computer control, providing cooling, heating, and filtering of air. If machinery in one area gives off excess heat, that heat can be gathered and stored or recirculated. The system switches quickly from natural gas, propane or electricity, making it easy to take advantage of fuel-price fluctuations. The plant operates on about 25 percent less fuel than would be required with conventional heating and air conditioning systems.

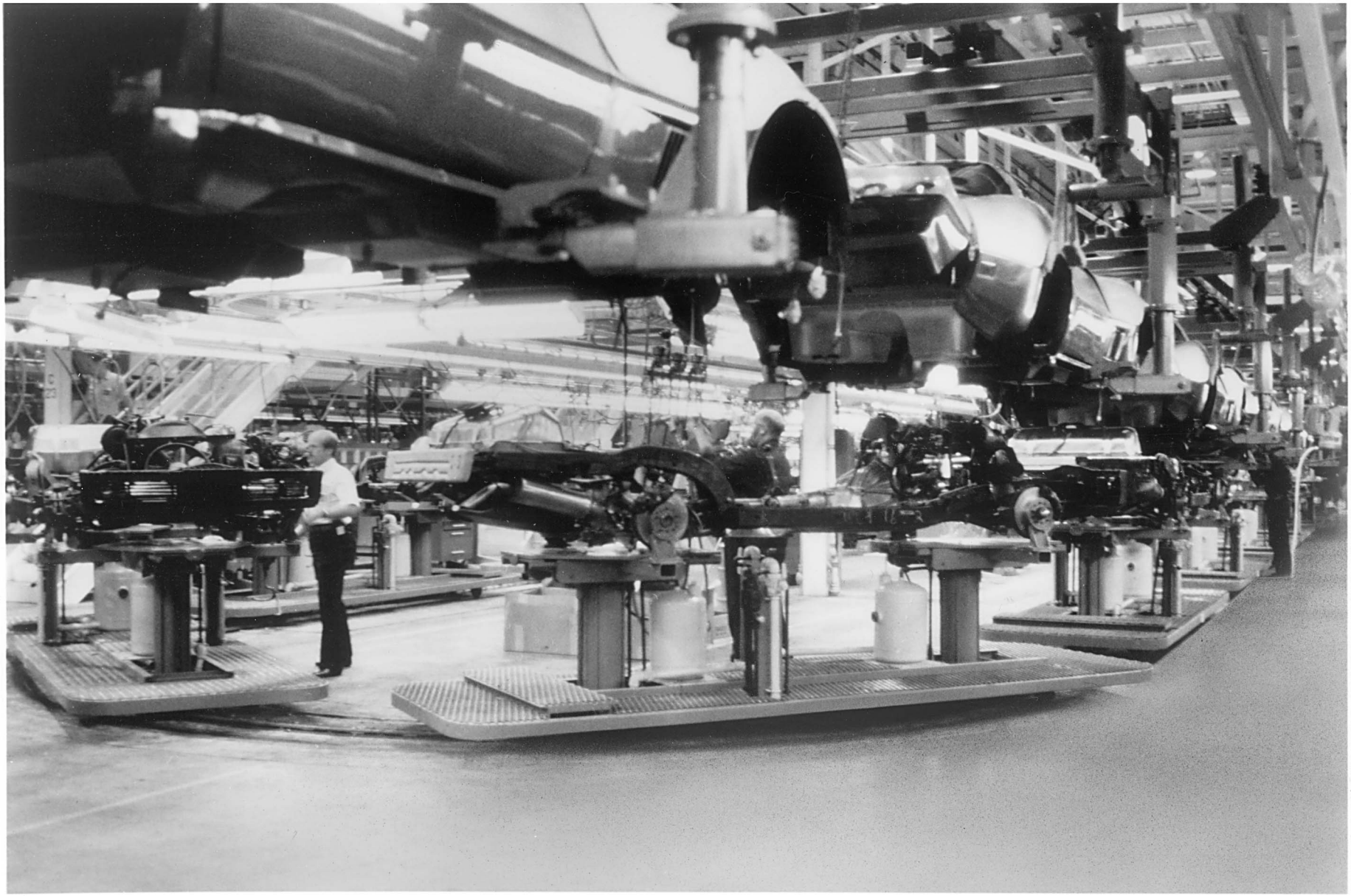
Corvette production began in Flint, Michigan, in 1953 and later the same year was moved to St. Louis. Nearly 700,000 Corvettes were built at the two locations. But the popularity of the Corvette dictated larger production facilities and the decision was made to open a new plant in Bowling Green, where the first Corvette rolled off the line June 1 of this year.

There are about 1,150 employes currently at the Bowling Green plant, the majority are veteran Corvette assemblers from St. Louis. All employes have undergone new training with continued emphasis on quality control.

Production is now about 15 per hour on a one-shift basis.

Chevrolet is commemorating the first year of production at Bowling Green and the final production of the current Corvette design with an official 1982 Collector Edition model.

The last "special" was in 1978 when 6,500 Limited Edition Corvettes, replicas of the Indy 500 pace car, were produced. Those quickly became extra value collector cars. The 1982 Collector Edition will be available throughout the model year. Production of the 1982 Collector Edition will not be limited.■



CHEVROLET'S 1982 CORVETTE . . . is being produced in a new climate-controlled plant at Bowling Green, Kentucky. New models are shown on a section of the 38,658 feet of conveyors that bring car bodies and chassis together. The plant's first Corvette rolled off the line on June 1, 1981. The Corvette features increased economy and performance from a new four-speed automatic transmission with overdrive and "Cross-Fire Injection" featuring twin throttle-body electronic fuel injection. Chevrolet's 5.7-liter V8 engine develops 200 hp and a combined city/highway rating of 19 miles per gallon. The Corvette is available in a standard Sport Coupe or Collector Edition Hatchback Coupe.

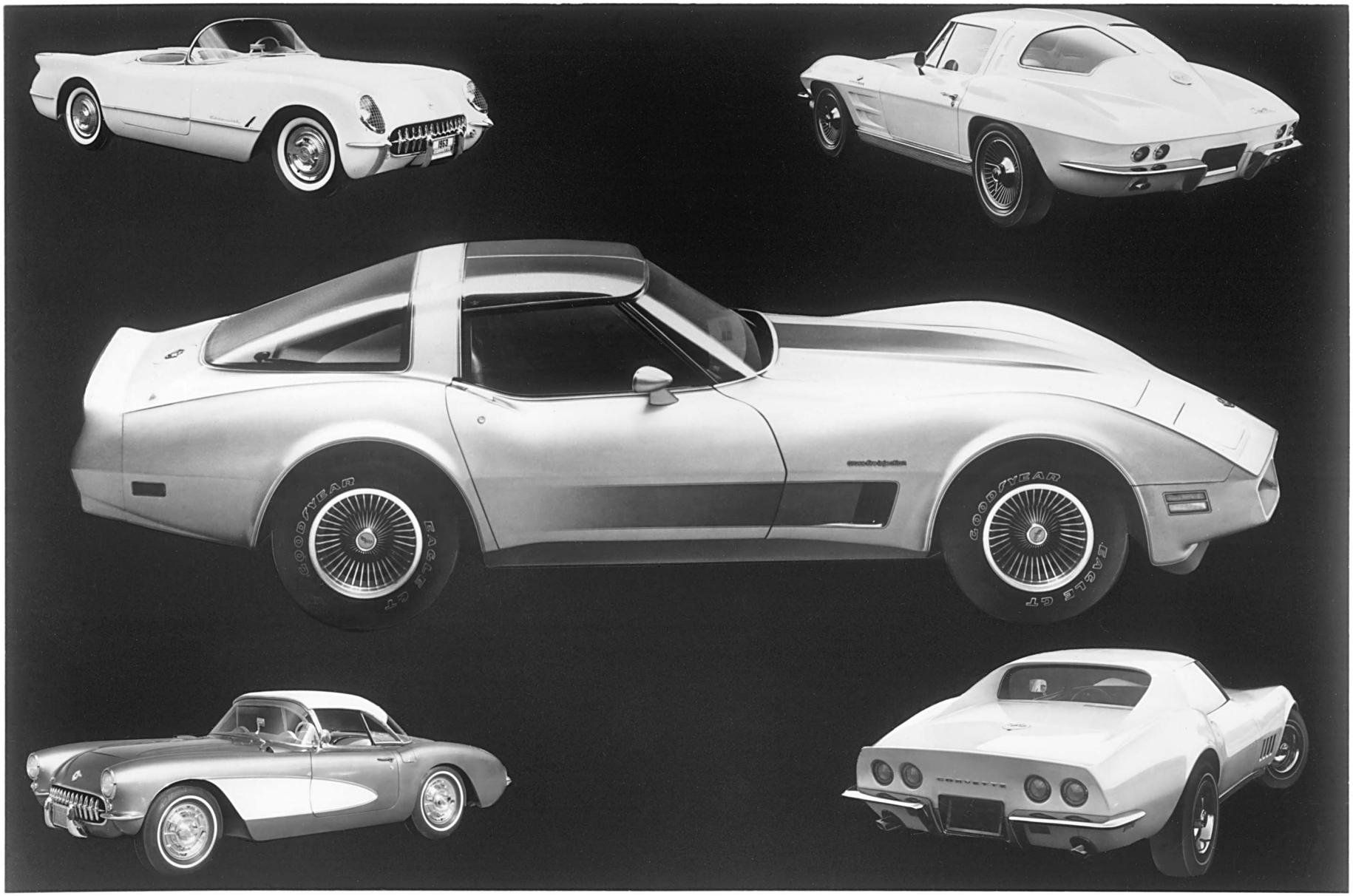
CHEVROLET PUBLIC RELATIONS CENTRAL OFFICE WARREN, MICHIGAN 48090

CHEVROLET'S 1982 CORVETTE . . . has improved economy and performance with new four-speed automatic overdrive transmission and "Cross-Fire Injection" (CFI) throttle-body fuel control (or metering) added to the 5.7-liter V8 engine. The new automatic transmission has fourth-gear overdrive for improved highway economy; and overdrive also contributes to quieter cruise speed, reducing component wear as a result of lower engine and driveline speeds. A converter clutch that engages in second, third or fourth gears also increases both city and highway economy. The "Cross-Fire Injection" throttle-body electronic fuel-control system includes two throttle-body injection units controlled by the on-board micro-computer. With computer control, the correct air/fuel mixture is available to the engine cylinders in all operating conditions. The system improves economy, performance and driveability. The Corvette is available in either a Sport Coupe model or a new Collector Edition Hatchback Coupe model.

CHEVROLET PUBLIC RELATIONS CENTRAL OFFICE WARREN, MICHIGAN 49090

CHEVROLET'S COLLECTOR EDITION 1982 CORVETTE . . . features a full glass hatchback and a number of appearance items. Included in the Collector Edition package are: a distinctive and exclusive silver beige metallic color with distinctive decal; special Collector Edition emblems front, side and rear; aluminum wheels and center hub; and glass roof panels with special bronze color and solar screening. And there is matching silver beige metallic interior with multitone full-leather seats and door trim; up-level carpeting; leather-wrapped theme-color steering wheel and horn button; and special dark beige console and instrument cluster trim plates. Rear-window defogger, power antenna and white-letter Eagle GT radial tires are also part of the special package. The Collector Edition is outfitted with a 200-hp, 5.7-liter V8 engine and four-speed overdrive automatic transmission.

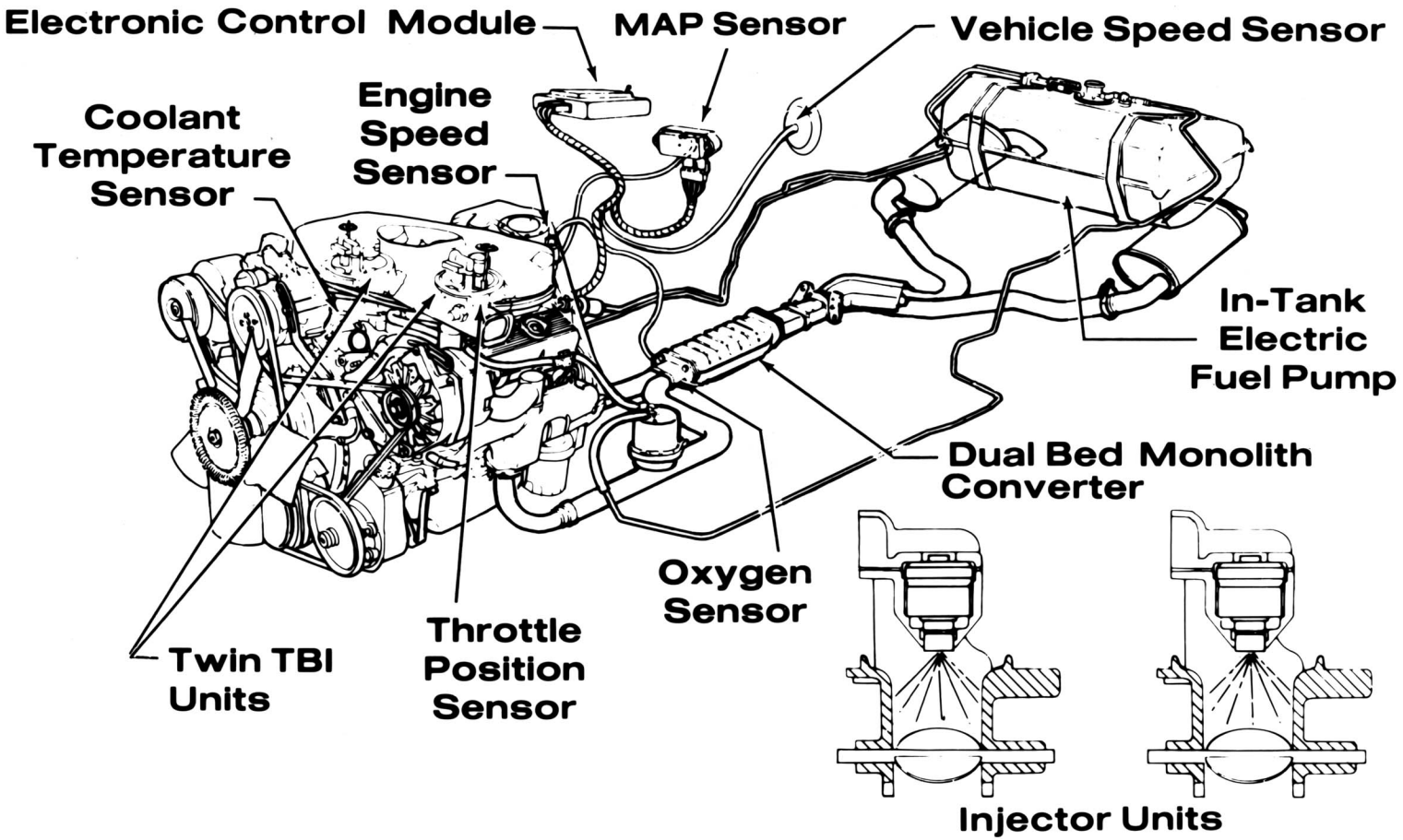
CHEVROLET PUBLIC RELATIONS CENTRAL OFFICE WARREN, MICHIGAN 48090



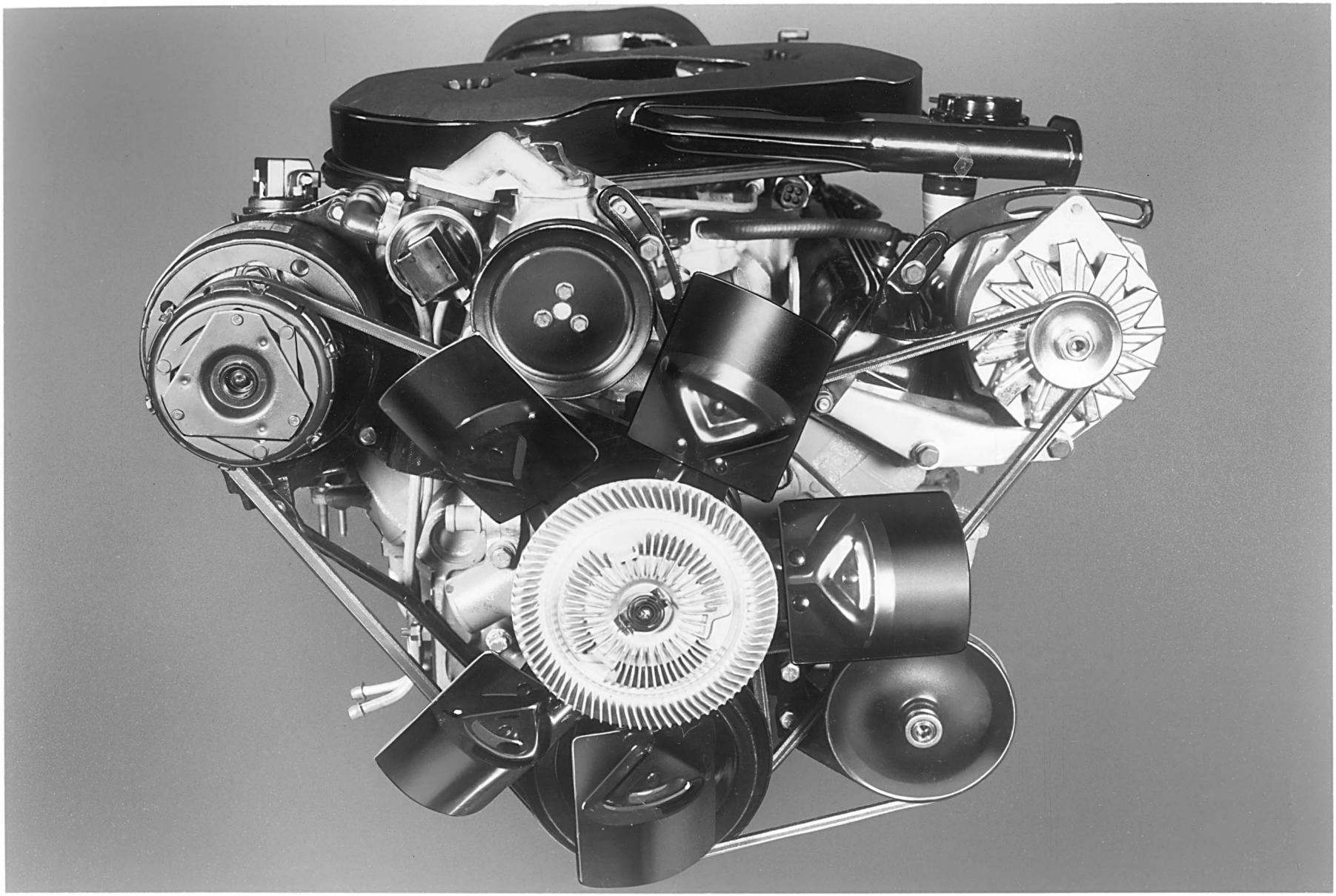
CHEVROLET'S CORVETTE—FROM 1953 TO 1982— . . . has pioneered U.S. sports car styling and engineering. And for 1982, there's additional interest for Corvette followers in a new Collector Edition featuring the first hatchback in Corvette history. The Collector Edition is in the center of the photo. Upper left is the first Corvette: a 1953 with 150 horsepower and "Blue Flame" six-cylinder engine. Upper right is the 1963, featuring the first "Sting Ray" with split rear window and fastback styling; and at the lower left is the 1957 model, classic for its clean lines and a favorite of the collectors. At right is the popular 1968 model. Chevrolet is commemorating the last of the current style in 1982 with the Collector Edition Hatchback, available the entire model year. The Collector Edition has hatchback styling, special paint and decal touches, plus a number of other features. It's powered by a 5.7-liter engine with new "Cross-Fire Injection" (CFI) featuring twin throttle bodies that are computer-controlled and a new automatic four-speed transmission with overdrive.

CHEVROLET PUBLIC RELATIONS CENTRAL OFFICE WARREN, MICHIGAN 48090

SYSTEM OVERVIEW



CHEVROLET'S 1982 CORVETTE . . . features "Cross-Fire Injection" (CFI) with twin throttle-body fuel metering, plus new easy-flow exhaust system. The illustration shows vital points of these improvements. "Cross-Fire Injection" is a system of air and fuel control which includes two throttle-body injection units controlled by the on-board microcomputer. The injector units are mounted on the intake manifold cover, and they supply the correct air/fuel mixture to the inlet manifold runners, which cross over to cylinders on the opposite side of the engine, accounting for the "Cross-Fire Injection" name. Fuel metering is improved, for the computer is capable of changing the CFI fuel flow as much as 80 times a second, compared with 10 times a second with the 1981 computer-controlled carburetor. This metering accuracy contributes to greater engine power and, teamed with the four-speed transmission, improves economy, driveability and performance. The new low-restriction exhaust system has a smaller and lighter wide-mouth catalytic converter.



CHEVROLET'S 1982 CORVETTE . . . features the 5.7-liter (350 cu. in.) V8 engine, improved for 1982 with "Cross-Fire Injection" (CFI). Horsepower is increased from 190 to 200 and miles per gallon from 17 to an estimated EPA combined 19 mpg. "Cross-Fire Injection" is a system of air and fuel control which includes two throttle-body fuel injection units controlled by the on-board microcomputer. The units are mounted on the intake manifold cover and supply the correct air/fuel mixture through tuned runners in the intake manifold to the cylinders on the opposite side of the engine. The computer can index air/fuel flow change up to 80 times a second, compared with 10 times a second with the 1981 computer-controlled carburetor. This metering accuracy contributes to greater engine output and, teamed with the four-speed transmission, improves economy, driveability and performance. The engine powers both the Sport Coupe and Collector Edition Hatchback Coupe. Four-speed automatic transmission with overdrive and torque-converter clutch is another improvement.