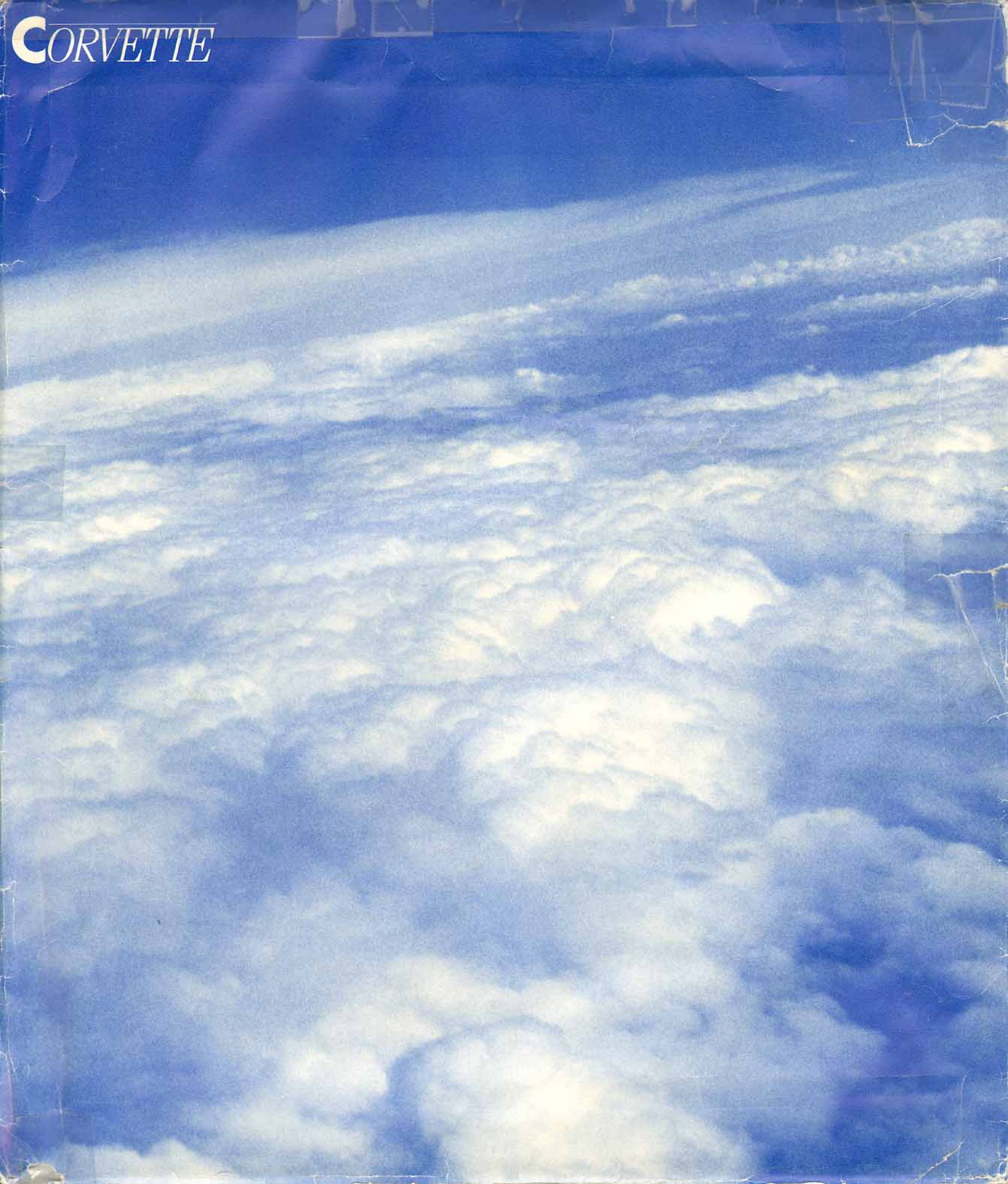
CORVETTE

CORVETTE

FIVE DOLLARS

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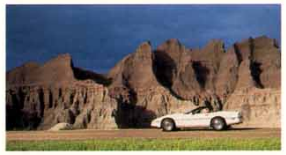
It's characteristically American—the urge to travel. As American as our ongoing affection for fine cars. How appropriate, then, to explore the country—ocean to ocean, forest and prairie, metropolis, village and town—from behind the wheel of a Corvette.



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From individual runners connecting air intake ports and cylinders to Bosch ABS II anti-lock braking to fiberglass skins, every system, every component is engineered to achieve a singular objective: making Corvette a world-class sports car. The proof is in the numbers: Test track performances of zero to 60 in 5.6 seconds, lateral acceleration of 0.91g.

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GTO, GTP, SCCA—pick a racing series that includes Corvette and chances are you'll see specially modified Corvettes in competition. Event after event, Corvette proves itself as much a success on the track as it is in the affections of those who love fine cars.

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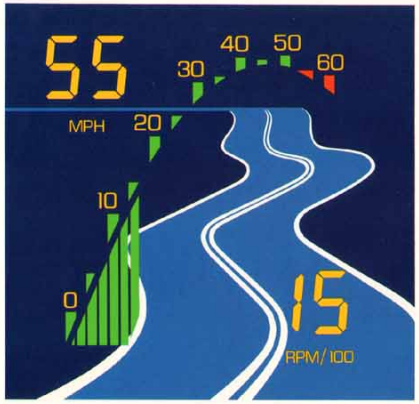
THE 1953 CORVETTE, THE BEGINNING OF A LONG, PROUD TRADITION, CREATED A SPORTS CAR THAT WAS BOLDLY AND DISTINCTLY AMERICAN.

There's always been something special about the American experience. A sense of optimism, perhaps; a spirit of independence, and the vitality born of hope. Generations of writers, analysts and, most especially, immigrants have testified to the promise that is America, a vision articulated more than 200 years ago by Hector St. John de Crèvecoeur, writing in his Letters From an American Farmer, published in 1782. To paraphrase: One…no sooner breathes our air than he forms new schemes …begins to feel a sort of resurrection…and embarks on designs he would never have thought of….

VITAL READOUTS INTERFACE WITH THE THRILL OF THE OPEN ROAD IN THIS ARTIST'S INTERPRETATION OF THE 1987 CORVETTE INSTRUMENT CLUSTER.



Thus, when the concept of "sports car" came home to America after World War II, it, too, begged for translation into the local idiom. Usually, something gets lost in such a redefinition, but, in typically American fashion, the term "sports car" gained in several respects.

First, it became a car that a tall person could get into without feeling forced into a torture machine. It was a vehicle that did not induce claustrophobia in city traffic. Yet this machine exuberantly greeted the long, level straights from the Mississippi to the Rockies as a welcome portion of the 3,000-mile New York to Los Angeles trip.

In other words, a car for a broad-shouldered, democratic country that spread its arms wide enough to encompass vast distances and embrace diverse peoples.

The answer, since 1953, to America's demand for a native sports car was and is Corvette.

To qualify for this lofty position, Corvette had to be—and not be—many things. It could not be a mere badge of the wealthy, so capricious it required the constant attentions of a mechanic to keep it running. Rather, it had to encourage sports car driving as an everyday habit. It could not be an arbitrary mechanical complexity assembled into an awkward, uncomfortable package as were so many of its European antecedents. Instead, it had to invite one to spend energy driving it, not fighting it. Additionally, it had to be dependable, ready to go and able to stay that way.

Most of all, America's sports car had to have nothing to apologize for. It had to hold its head (and reputation) up among the most prestigious from across the eastern ocean and, later, the western sea.

These were the desiderata when Corvette embarked upon its mission in 1953. Corvette did not begin by copying or playing catch-up. Rather, the '53 Corvette, like all its descendants, was a bold, original statement that openly and proudly proclaimed itself American.

The frontal stance: Wide-eyed, fearless, with a grillwork mouth of bared teeth. The lateral aspect: Strong curves, not delicate enough to become tenuous, but with the powerful grace of Paul Bunyan and Babe, his famous blue ox. At the last: The suggestion of a tailfin (where Corvette led, others followed).

Philosophically, Corvette hasn't changed in 34 years. Mechanically, everything has changed. Well, yes, the wheels are still round, but Corvette's march of technical progress has been constant and inexorable: The V8 engine of 1955, its mutation into the famous 283 cubic inches of 1957 with the Rochester fuel-injection option, on to the legendary 454, and down to the current 350 V8—5.7 Liter in more contemporary parlance—with Tuned-Port Fuel Injection, an engine that has earned the same respect and affection that the classic 283 with "Ram-Jet" Fuel Injection did 30 years ago.

And along the way: a 4-speed manual transmission in 1957, a fully independent rear suspension in 1963, disc brakes all around in 1965, a 3-speed Turbo Hydra-matic in 1968, the addition of Bosch ABS II anti-lock braking in 1986. And for 1987, every Corvette receives new aluminum cylinder heads.

However laudable the technical progress, though, people who form "new schemes" demand more. A sports car is also a work of art that must lead and elevate as it satisfies.

The original '53, marrying the long-hood tradition of in-line engines to tailfins reflective of recently discovered supersonic speed and the first swept-wing jet aircraft. The Sting Ray of 1963, in its convertible and "fastback" coupe models, summarizing the early maturity of sports car awareness—lean, low, sleek, and looking fast while standing at a curb. The voluptuous 1968 model as the full articulation of that consciousness. And beginning in 1984, the progressive, wind-cheating forward wedge taking sports car design into the future. As in its technical elements, Corvette styling has always been a proof of excellence.

Europe has been, and remains, many peoples and places separated by discrete boundaries, languages and customs. America is many things, too, but underneath it is a unity born of individual freedom. Corvette was born to suit the experience that is America—and let Europe take what view it would. Literally and figuratively, for 34 years, that view has primarily been of the taillights.

And throughout all, Corvette, in essence and in spirit, remains true to its mission: America's own sports car.

"FANTASTICO! EVEN IN TURIN NO ONE HAS FUEL INJECTION!"

Sì, è vero. But the really fantastic item about the new Corvette is not the fuel injection engine, the new *four-speed* gearbox,* the slingshot acceleration or the pasted-to-the-road stability. It is the fact that the Corvette, *above all other high-performance sports cars in the world*, is a true dual-natured vehicle. It is a genuine luxury car and a genuine sports car, both wrapped in one sleek skin.

This is something like a panther with a St. Bernard's disposition. Quite a trick, but *what a pet!* But, in case you may have polite doubts about the Corvette's uniqueness, we have an easy rebuttal: Drive one!

In point of fact, we have no further enticement. If you can spend half an hour in the deep-cushioned comfort of a Corvette's cockpit, if you can sample the crispness of its controls, the veracity of its 16-to-1 steering, the incredible crescendo of its performance—and remain unshaken—you are mighty close to being unique. Frankly, very few drivers escape the feeling that this is one of the authentic great moments of motoring—and those few are not warm to the touch! . . . *Chevrolet Division of General Motors, Detroit 2, Michigan.*

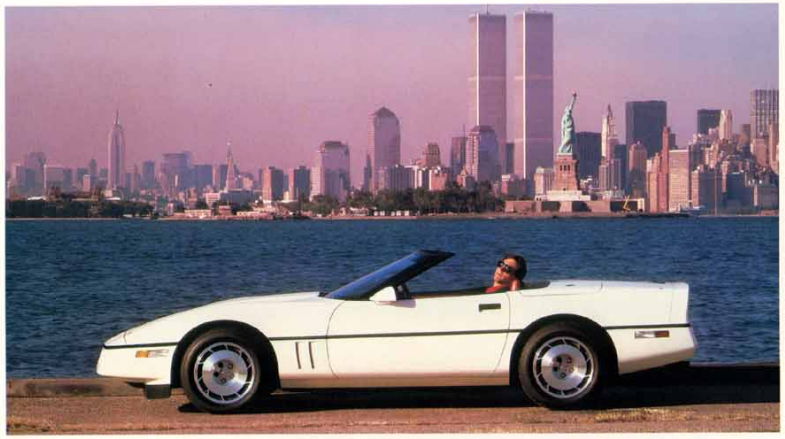
SPECIFICATIONS: 16-valve-sink V8 engine with single fuel-burned carburetor, 195 h.p. (four other engines range to 205 h.p. with fuel injection). Three-ratio three-speed manual transmission standard, with special Powerglide automatic drive* available on all but maximum-performance engines. Choice of removable hard top or power-operated fabric top.* Powerlift windows.* Instruments include 6000 r.p.m. tachometer, oil pressure gauge and ammeter. *Optional at extra cost.

CORVETTE
by Chevrolet

BY 1957, CORVETTE HAD ALREADY BEGUN TO ESTABLISH ITSELF AS AN INNOVATOR IN THE ENGINEERING ARENA. THIS ADVERTISEMENT ANNOUNCED THE ROCHESTER FUEL-INJECTION OPTION, A FIRST ON AN AMERICAN PRODUCTION CAR.

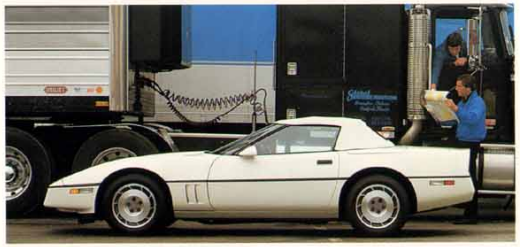
I ♥ NY

PRECEDING PAGE:
WELCOME TO MANHATTAN. HOME OF GLAMOUR, COMMERCE, FASHION. ALWAYS COSMOPOLITAN, ENDLESSLY FASCINATING—WHEN IT'S NEW YORK, ANYTHING GOES!



ONE LAST LOOK AT THE BIG APPLE. PROBABLY THE MOST FAMOUS URBAN SKYLINE IN THE WORLD. SERENELY REMOVED FROM THE HUSTLE OF THE STREETS. MISS LIBERTY STANDS BEFORE AMERICA, JUST AS SHE HAS FOR A HUNDRED YEARS.

AN AMERICAN INSTITUTION—THE TRUCK STOP, ALTHOUGH THIS ONE HAPPENS TO BE IN IOWA. THE RUMBLE OF THE BIG RIGS. THE BITTER COFFEE AND THE CAMARADERIE OF FELLOW TRAVELERS ARE THE SAME EVERYWHERE.



There are lots of ways to see America. The pioneers did it the slow way—by covered wagon. Jet pilots do it in a supersonic manner—two hours coast to coast at 70,000 feet.

But there's no better way to see America than by convertible. The Corvette Convertible, to be exact. In a leisurely trek from the concrete spires of Manhattan to the tinsel trappings of L.A.

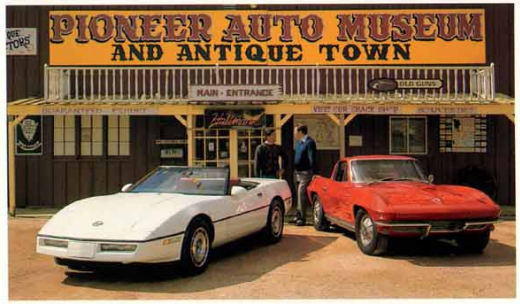
Top down.

Chasing blue sky and moonlight. In a machine that, more than any other, embodies the American dream.

Because it's a funny thing about Americans. We'd always rather be someplace else. Not arriving, really, just going. Traveling. Turning the magic place names—Susquehanna, Ogallala, Medicine Hat, Wall, Gila Bend—into places we've seen and heard and experienced for ourselves.

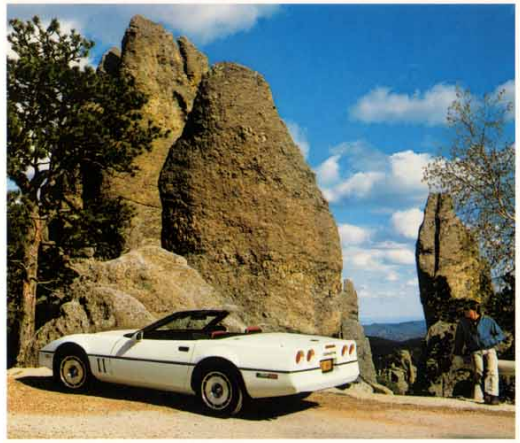
Have you ever noticed how the sky changes as you move across the country? From indigo to azure to ultramarine. Interrupted by hills and trees in the East. Gradually opening to horizon-to-horizon panoramas as you drive westward.

TODAY MEETS YESTERDAY IN AMISH COUNTRY NEAR LANCASTER, PENNSYLVANIA. DESPITE THE PRESSURES AND TEMPTATIONS OF CONTEMPORARY SOCIETY, THESE PEOPLE CLING TO A SIMPLE, CLOSE-KNIT WAY OF LIFE.



AN OLDER GENERATION CORVETTE AND THE CONTEMPORARY ROADSTER. EVEN IN MURDO, SOUTH DAKOTA, WHERE THEY LIKE TO COLLECT THINGS, PRIDE OF CORVETTE OWNERSHIP IS FULLY IN FORCE.

IN THE BADLANDS, WIND AND FROST AND RAIN HAVE CARVED OUT A MOONSCAPE OF STEEP CANYONS AND SHARP RIDGES AND GULLEYS AND SPIRES AND KNOBS. SOME OF THESE ROCKS DATE BACK 37 MILLION YEARS.



NEEDLES, SOUTH DAKOTA. NAMED FOR THE SHARP PEAKS THAT JUT UP FROM THE GRASSES OF THE GREAT PLAINS. HOME OF PRAIRIE DOGS AND BISON; HOST, BRIEFLY, TO CORVETTE.

AMERICA THE VAST, WHERE ROADS THAT STRETCH STRAIGHT TO THE HORIZON ARE AN IDEAL AND INVITING PROVING GROUND FOR THE POWER THAT PULSES THROUGH CORVETTE.

You'd think the sky is the sky everywhere. But people who've grown up under unbroken western vistas feel hemmed in when they travel eastward. And those who like their sky in bits and pieces gaze 360°, shiver a little and say, "There's too much sky," when they go out West.

In the Corvette Convertible you do more than travel under the sky. You become part of it. With nothing between you and the changing face of America... the pungence of freshly turned farmland... the wind blowing from Idaho to Indiana... the Rockies thrust up along the spine of the continent ... deserts spread over endless arid miles.

Before long the car assumes the aura of its occupant. Temperature and airflow set to particular preferences. Favorite traveling music modulated precisely. A sweater tossed aside.

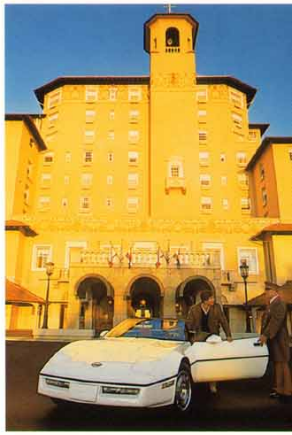
When you climb aboard after a brief rest stop, you simply assume everything will be as you left it. After all, you and the Corvette form a private world.

Private but never anonymous. Not in this car. From urban streetside to rural truck stop to western national park, the roadster draws a crowd. Murmurs of approval follow. Children dash excitedly from nose to spoiler as young couples grip hands and promise each other, "Someday." Everybody recognizes the Convertible. Most want to touch it as if a piece of The Dream might rub off. And as the machine speeds into the distance, admiration for its beauty mixes with the wish to be going anywhere in the envious glances of those left behind.

Maybe that's because America and cars

THE WILD WEST STARTS AT WYOMING. AND THERE STILL ARE REAL COWBOYS HOME ON THE RANGE.

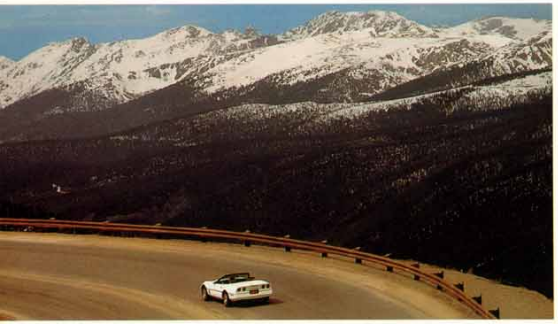
ELEGANCE REIGNS AT THE BROADMOOR IN COLORADO SPRINGS. THE PACE IS GENTLE. THE SERVICE IMPECCABLE. JUST AS IT HAS BEEN SINCE 1918.



IF SEDONA, ARIZONA, COUNTRY LOOKS FAMILIAR, IT'S PROBABLY BECAUSE YOU'VE SEEN IT BEFORE. EVEN IF YOU'VE NEVER BEEN THERE. MANY A POSSE CHASED MANY A DESPERADO THROUGH THESE VALLEYS AND CANYONS—ON THE SILVER SCREEN.

TAOS, VISITED BY THE CONQUISTADORES IN 1540, IN 1615, FIVE YEARS BEFORE THE PILGRIMS SET FOOT ON PLYMOUTH ROCK, THE SPANISH COLONIZED THIS AREA, LEAVING AN IMPRINT THAT REMAINS TO THIS DAY.

MOUNTAIN SWEEPERS AND CORVETTE WERE MADE FOR EACH OTHER. A CAR LOVER'S FANTASY COME TRUE.



and roads grew up together. Driving isn't an add-on here like it is in most of the world. It's an integral part of what this country is all about.

Somewhere about mid-Nebraska, when the map tells you you're still only halfway across, you realize in an empirical, seat-of-the-pants fashion just how immense America is. How much diversity there is in the landscapes. How many peoples and traditions have shaped and changed the nation we call home.

Yet there's timelessness to be found in America, too. The kind you discover on a high mesa at midnight, awed by the brilliance of a billion stars.

Silence.

Apt counterpoint to the now-quiet machine beside you. Corvette. An American original. Symbol of two essential strains of the national character—the passion for automobiles and the vagabond that seems to live in every American soul.

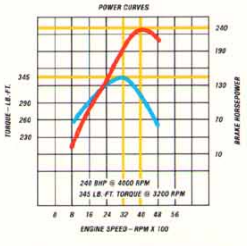
Soon the roadway beckons and not long after, you stand at the rim of the Pacific, this journey at an end.

Although...

A moment's reflection...a tug at the psyche...and you're reaching for a road map...

Issaquah, Manitowoc, Sweetwater, Red Wing, Greencastle, Manistique....

HOL-LY-WOOD...HOME OF SOUTHERN BELLES AND DANCING BEARS AND LIGHTS! CAMERA! ACTION! ON THIS SET, THE BIG STAR IS CORVETTE.



TORQUE SPECIFIES HOW HARD THE ENGINE TWISTS ON THE DRIVE SHAFT AS THIS CHART DEPICTS. CORVETTE'S PEAK TORQUE OF 345 INDICATES A BROAD USABLE POWER RANGE.

POWER TEAMS

To be the engine of a Corvette has always meant living up to high-performance aspirations. Of course, the definition of performance has changed markedly over the years—from the first three-carburetor six-cylinder of 1953, through the original V8 of 1955, and on through a series of horsepower behemoths, culminating in the 454.

The demands of the '80s are, once again, different and can be summarized in a single word: efficiency. That is, to extract maximum energy from a given measure of fuel, while minimizing energy loss. Fortunately, fuel crises and emissions controls constitute not the end of performance, but challenges to be met.

5.7 LITER V8 WITH TUNED-PORT FUEL INJECTION (TPI)

But first things first. Namely, the heart of Corvette performance—today's manifestation of the timeless small-block V8.

Displacing 5.7 liters (350 cu. in.), this engine features 90° V8 design, overhead valves and an over-square, short stroke configuration (bore 4.00, stroke 3.48) with a compression ratio of 9.5:1. Copper core spark plugs, low-friction roller valve lifters, ball-tip push rods, one-piece oil pan and crankshaft seal are included, as well as Electronic Spark Control (ESC) to tailor spark advance to the level of octane in the fuel.

From those basics, the Corvette's powerplant is modified to meet contemporary engineering requirements. Tuned-Port Fuel Injection for clean, complete combustion, for one example, and advanced aerodynamics for another.

Because a typical engine uses up a portion of its own power just sucking in air, Tuned-Port injection lets fluid dynamics do much of this work, leaving more energy available at the wheels. Corvette's system begins with a Bosch Mass Air Flow Sensor. This means a hot wire sensor holds an electronic finger to the wind to determine air mass by measuring temperature changes in the hot wire caused by different amounts of air passing over it.

This data is monitored more than 100 times each operating second and relayed to the Electronic Control Module (ECM) component of Corvette's Computer Command Control. Simultaneously, the ECM lays its hand on the engine to see whether it's cold, hot or in between. Then, the ECM meters the air/fuel mixture to suit the exact circumstances, from an oxygen-rich coastal highway to the oxygen-lean atmosphere of an 11,000-foot mountain pass.

That's where the tuned port runners take over, coordinating, or "tuning," the size, shape, and length of the cyclic waves of air moving through the induction system, "stuffing" the cylinders with air. Each runner, individually tuned to each cylinder, curves 180° from the gleaming cast-aluminum air plenum to meet its assigned cylinder on the opposite bank.

Concurrently, Electronic Spark Control, using a tiny piezo electric quartz sender in the cylinder block, senses the early stages of detonation caused by heat, humidity or low octane level. The ECM then retards spark a precise amount. The result is combustion optimized regardless of altitude, humidity, ambient temperature or other conditions.

For another contemporary response, aerodynamics. Certainly Corvette has a highly aerodynamic body (its drag coefficient registers a slippery 0.34). But Corvette also exploits aerodynamics in places where it doesn't show, specifically in the plumbing pathways that admit air into the engine. Notice there's no grille to interrupt air flow around the vehicle. Instead, a duct leading to a louvered plenum-type air cleaner behind the front facia supplies air to the engine. That helps keep the aero numbers impressively low.

Corvette's aluminum cylinder heads reduce the weight of the engine (less deadweight to move) even as the heads enhance engine cooling. Here "cooling" really means temperature management, for a consistent, even engine temperature translates into longevity, reliability in sustained high-RPM operation, and improved combustion.

To exhale, stainless steel headers carry waste from the engine to a dual exhaust system carefully engineered to fit the undercarriage configuration. The fact that the catalytic converter tucks up under the drive-shaft channel beam contributes to the low cowl and hood line of the car.

You can see many engineering considerations manifested in the appearance of the vehicle, but little things you can't see mean a lot, too. For example, ultraprecise machining and fitting of internal parts allow the use of lower viscosity 5W-30 oil. Again, less energy wasted on the way from the fuel tank to the wheels.

Many more details of this kind, even so basic a one as improved seals and gaskets to eliminate oil leaks, illustrate the kind of precision engineering that allows a production Corvette to compete in a grueling SCCA-sanctioned 24-hour endurance race.

HORSEPOWER AND TORQUE

A sports car should be fun to drive, not because it keeps the driver busy pumping a clutch pedal and rowing a gear lever, but because, like John Henry's hammer, it does what its driver tells it to.

The steep, rapid "torque rise" of Corvette's engine is just such a response. Think of it, if you like, as a powerful 10-speed cyclist who can go quickly from the lowest speed to the highest. Rapid torque rise means no lagging when leaving traffic lights, no vacillation about forward motion when shifting to the next higher gear. Yet, with maximum torque occurring as early as 3,200 RPM, the engine need not be run up to the redline for every upshift.

Horsepower comes from and relates to torque. 240 peak horsepower at 4,000 RPM and a peak 345 lbs.-ft. of torque at 3,200 RPM mean an engine with a broad usable RPM range.

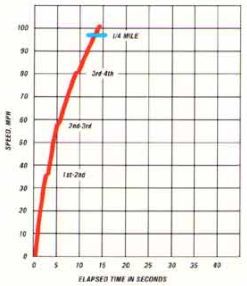
TRANSMISSIONS

This broad range combines with a choice of transmissions—standard automatic with 4th gear overdrive or the no-cost-option 4-speed manual. Both the automatic and the manual have oil-water heat exchangers and aluminum transmission housings. Aluminum contributes to rapid heat rejection (i.e., cooling). Efficiency of cooling protects the transmission oil from degradation; that helps protect the bearings, gears and synchronizers when a Corvette exercises its acceleration and race-track abilities.

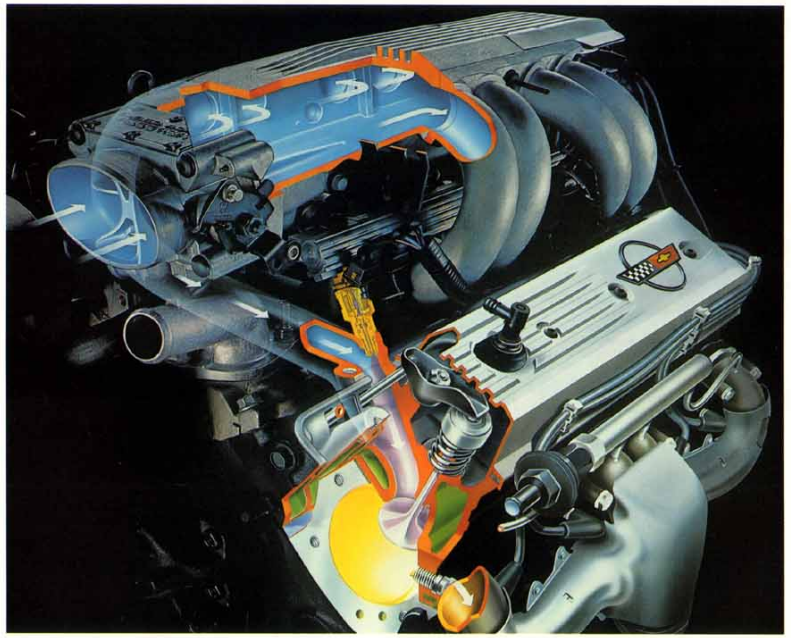
As with Corvette's other features, the transmissions presume driver control. While the standard automatic shifts itself as smoothly as a dancer executes an arabesque, the driver can dictate precise commands to the manual unit. With overdrive in the top three gears, the manual gives a choice of seven gear ratios so engine speed is optimized, whether powering through a curve, slogging through congested city traffic or following those long western straightaways right into the sunset.

Oh yes, the bottom line on Corvette performance: zero to sixty in 5.6 seconds, lateral acceleration of 0.91g*.

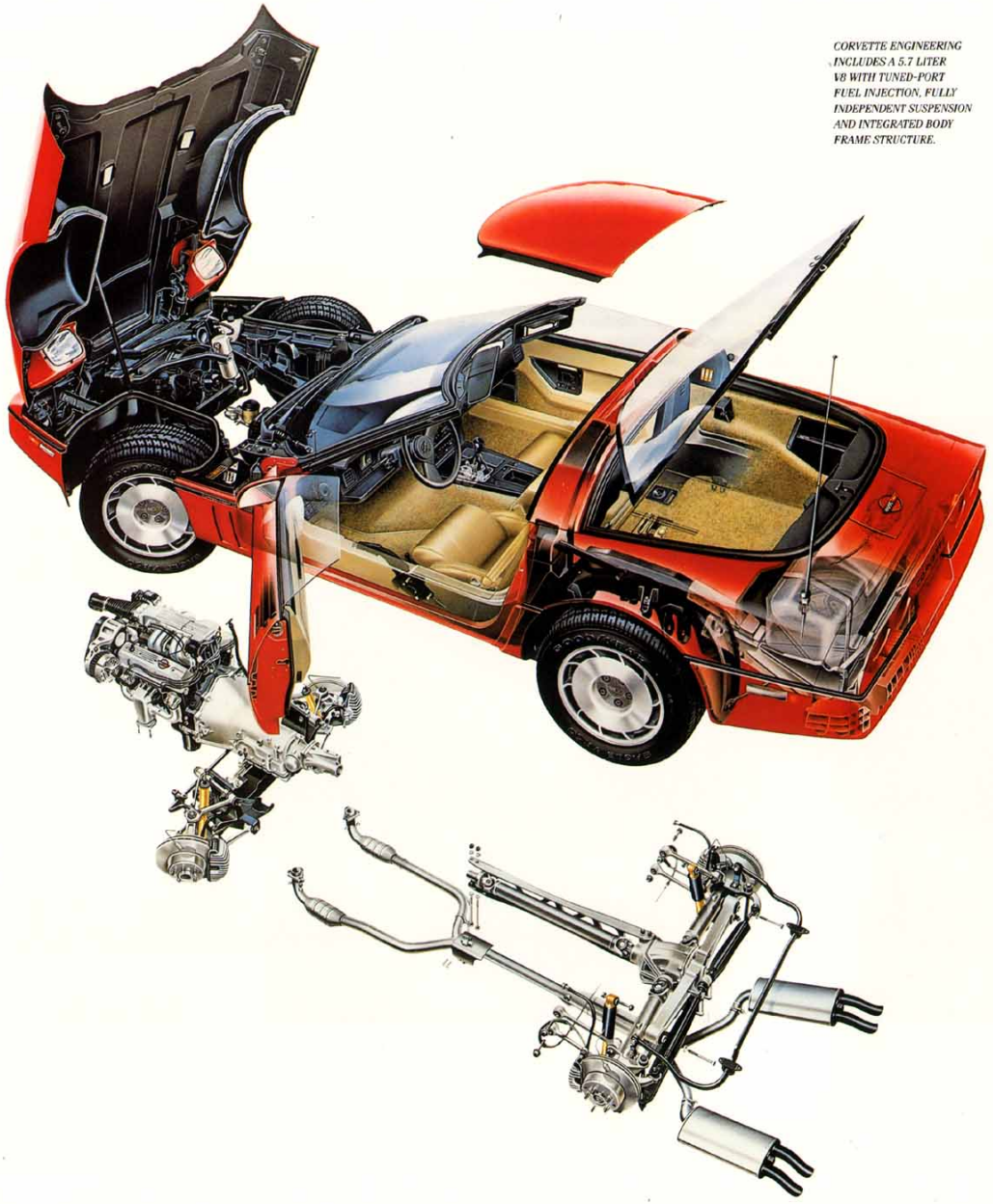
*Achieved on the test track by professional drivers. Corvette Coupe equipped with optional Z51 Performance Handling Package, 3.07:1 performance axle, 4-speed manual overdrive transmission, P255/50VR-16 tires.



AN ENGINE IS KNOWN BY HOW RAPIDLY IT CAN CONVERT ENERGY INTO MOTION OF A GIVEN VELOCITY. CORVETTE'S ACCELERATION FIGURES COMPARE FAVORABLY WITH THE BEST FROM THE REST OF THE WORLD.



THE HEART OF CORVETTE PERFORMANCE—THE 5.7 LITER V8 WITH TUNED-PORT FUEL INJECTION.



CORVETTE ENGINEERING INCLUDES A 5.7 LITER V8 WITH TUNED-PORT FUEL INJECTION, FULLY INDEPENDENT SUSPENSION AND INTEGRATED BODY FRAME STRUCTURE.

HANDLING

Engineering innovation for Corvette has shown the way to a true American sports car for more than 30 years.

"So what," the cheering fans ask, "is left for an encore?"

Answer: The Bosch ABS II anti-lock braking system, integrated with 4-wheel discs, a significant development in automotive technology.

ANTI-LOCK BRAKING SYSTEM

ABS II, developed for Corvette by Bosch, is a computer-controlled system. This state-of-the-art technology is applied automatically should the driver call for braking beyond normal tire/road interface capabilities.

Whenever braking begins, wheel sensors automatically inform the Bosch ABS II computer of the rotational velocity of the four wheels. This control unit "watches" each wheel, noting its rate of deceleration and comparing it to a calculated reference speed. Should a wheel begin to rotate too slowly—i.e., if it begins to lock up or develop too high a slip rate—the ABS II system momentarily releases brake pressure at that wheel. Front wheels are controlled individually, rear wheels as a single unit. When the sensor determines that the wheel is no longer approaching lockup, pressure is reapplied to maintain braking.

When called upon to do so, Bosch ABS II can adjust brake pressure as rapidly as 15 times per second, a rate even the most skillful professional driver cannot attain. When the pedal is pressed hard enough to activate the anti-lock function (pressure hard enough to cause normal brakes to lock up), the driver can feel ABS II pulsing.

The result: A system that prevents flat spotting of tires, while helping assure smooth stops in most types of road conditions. A system that allows the driver to apply the brakes without wheel lockup. A system that provides improved control even with one wheel on a soft shoulder and the other on firm pavement.

TIRES

In a Corvette, if pure science prevails to control going and stopping, absolute magic lives where the tires meet the road.

Naturally, the specifications are exacting: A tire that approaches 0.91g lateral acceleration on the skidpad. A tire that's V-rated. A tire designed to deliver impressive tread life, thus mastering the high-performance/longevity dilemma in favor of both criteria. Finally, a tire that's quiet at highway speeds.

Enter the Goodyear Eagle P255/50VR-16, developed through the joint efforts of Goodyear and GM engineers. A unidirectional steel-belted radial mounted on 16" x 8½" aluminum alloy wheels (16" x 9½" on Convertible).

Four patches of rubber designed to keep the car on the road in virtually any condition—in tight curves, during rapid deceleration—over surfaces as diverse as table-smooth interstates and potholed city streets.

SUSPENSION

How well those tire patches stay on the ground, while at the same time responding to shifts in the center of gravity as the car accelerates, maneuvers and stops, depends on how far the suspension system goes beyond the simple task of absorbing bumps.

To fulfill the multiple demands of weight and (inertia) management, Corvette employs upper and lower A-arms of forged aluminum up front and five coordinated links at the rear. These locate the wheels in the proper planes. Knuckles and struts are also forged from aluminum. Tied to transverse front and rear monoleaf springs, which are made of sophisticated filament-wound glass in an epoxy matrix, these components help assure minimal loss of traction during hard acceleration or braking.

Then there's roll to consider. As the car enters a turn, it naturally wants to lean. Here the monoleaf spring acts as a stabilizer bar. The reason is simple enough: Visualize the leaf spring trying to bend itself into an S shape as the body leans. It's the spring's resistance to bending into an S shape that helps minimize roll. That also means the actual stabilizer bars can be skinnier and lighter, which translates into less weight built into the car.

Steering? It's a rack-and-pinion setup that rides ahead of the front axle, helping lower the engine. The system responds with virtually no lag.

The sum of all this technology proves a bonus: a car as surefooted as a mountain goat and as agile as a cat, a car that provides not the false security of insulation but gives the genuine security of involvement with the capabilities of the car.

UNIFRAME

Yet another element is necessary, of course. A skeleton to suspend the wheels and tires, to contain the seating package, to cradle the engine and drive train.

In Corvette's case that means a uniframe or space frame, which for two reasons is special. (a) It's made of relatively thin sections of sheet steel spot-welded together, and (b) the fiberglass skins, in contrast to a conventional unitized body, are like the semi-monocoque system characteristically used in airplanes.

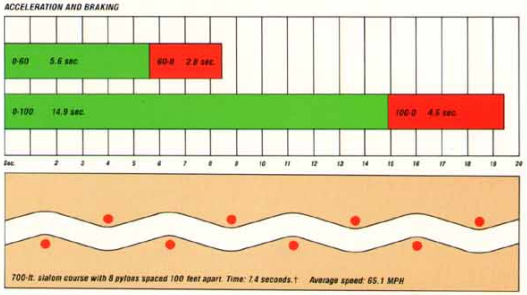
The concept involves marrying the uniframe or upper structure and the frame into a single unit. (In previous designs the birdcage was perched atop frame rails on rubber body mounts; the current generation Corvette has eliminated this heavy, bulky ladder-type frame.) Integrating the body/frame structure is more cost-efficient than older concepts. Even more important, it results in a stiffer, better structure underpinning the car.

THE 1987 CORVETTE COUPE WITH MANUAL TRANSMISSION ACHIEVES A LATERAL ACCELERATION OF 0.91G† ON THE SKIDPAD.

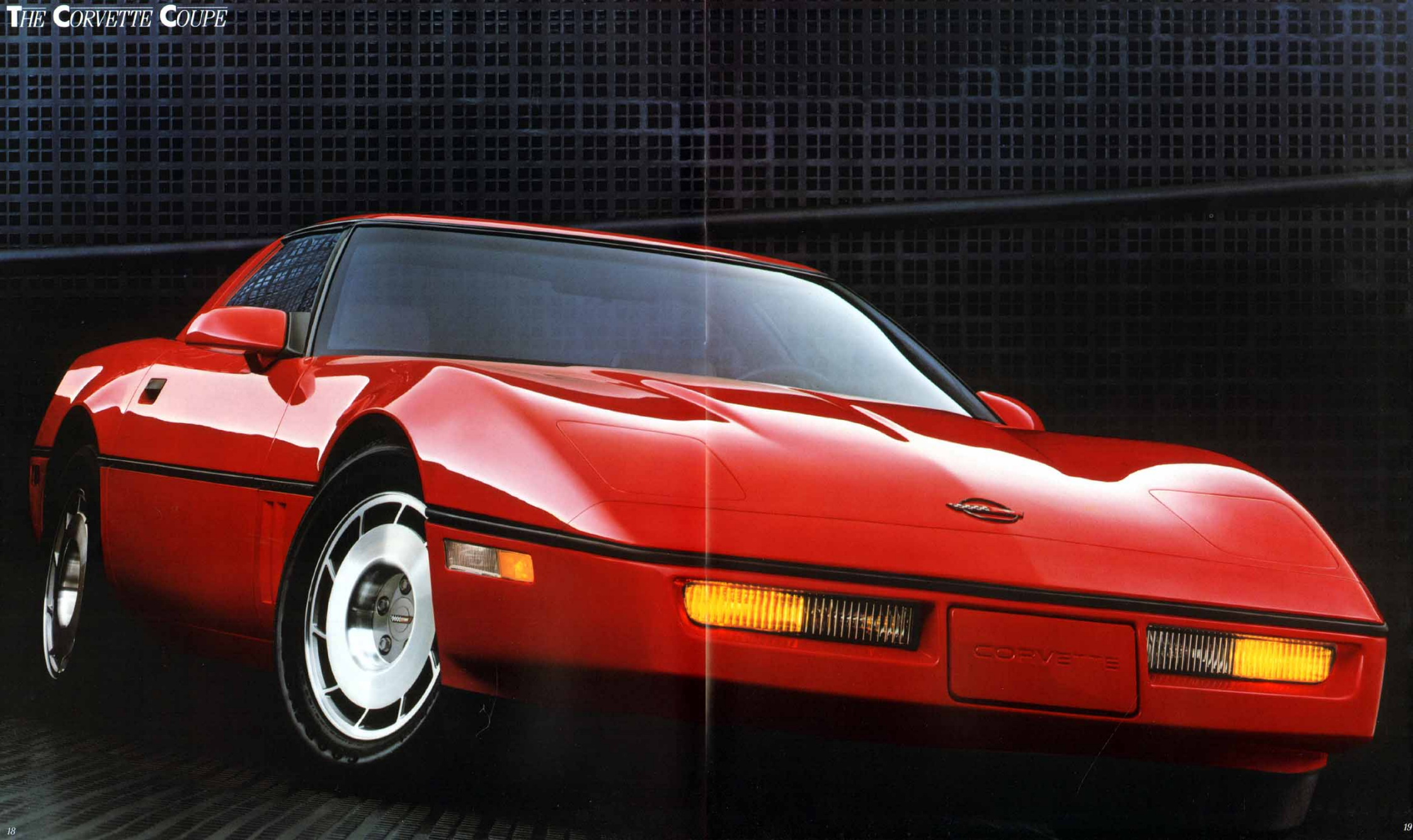
SHOWN BELOW: CORVETTE'S 5.7 LITER V8 ENGINE WITH TPI, GOODYEAR P255/50VR 16 TIRES. FOUR-WHEEL INDEPENDENT SUSPENSION AND BOSCH ABS II BRAKING COMBINE TO PRODUCE QUICK ACCELERATION AND SHORT STOPPING DISTANCES.

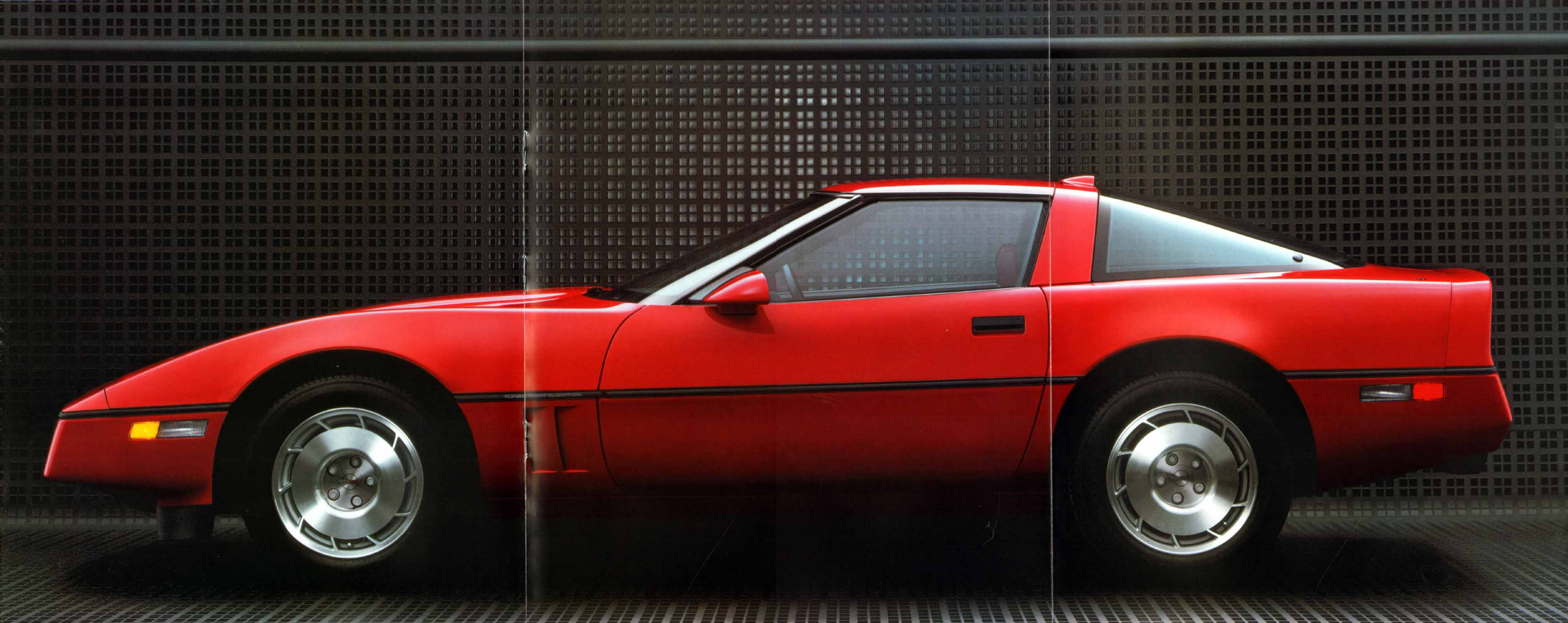
AT EVERY PYLON IN A SLALOM, THE G-FORCES SHIFT FROM ONE SIDE TO THE OTHER. CORVETTE'S SUSPENSION CONTROLS THE WEIGHT SHIFTS, AND ABS II ALLOWS USE OF THE BRAKES HALFWAY THROUGH A HIGH-SPEED CURVE.

ACCELERATION AND BRAKING



†Achieved on the test track by professional drivers. Corvette equipped with 4-speed manual overdrive transmission, optional Z51 Performance Handling Package and 3.07:1 axle ratio.


CORVETTE



Even before the shape was determined, the goal was clear.

Create a form that fully assimilates engineering mathematics with aesthetic values; that demonstrates, at one time, subtle brutality and sensitive balance; that clearly expresses the singular heritage and continuing purpose of the Corvette.

The stunning attainment of that objective is obvious in the palpable presence created by this vehicle. Line and nuance converge in a distinctive silhouette embodying the urgency of motion. The machine's snarling posture recalls performance and handling capabilities at a glance. As a car celebrating excitement, Corvette is a three-dimensional sculpture that is first and always, a work of art.

Like all good design, Corvette directs the eye to scan in definite sequence. The smooth contours of the refined bodywork. The aggressive quality of the crouching stance. The forward thrust of the wheel-oriented fuselage. The aerodynamic efficiency of the lowered nose. All in an expanding wedge that rises from front facia, over sweeping clamshell hood, past dramatically raked windshield and sloping roof line, to culminate in the sharp tail upper structure and four circular taillights that bespeak continuity with past Corvettes.

Note, too, the interplay of other elements. Integrated fog and cornering lamps. Hidden halogen headlights that tumble forward 162.5 degrees as they emerge. Frameless rear glass hatch. One-piece roof panel that lifts off to open Corvette to sun and stars.

All defined in an envelope with width sufficient to dominate, uninterrupted save for a single horizontal groove that houses the body side moldings while inviting the eye to follow the unbroken flow of the car.

A further word about ways in which the Corvette Coupe integrates design and engineering into a motorcar that celebrates both.

As a bottom breather, the engine is cooled by air taken in beneath the nose of the vehicle. With the forward movement of the car pumping air to the radiator, the car leads with bumper only, presenting a small frontal area that contributes to an impressive coefficient of drag. The high rear deck and integrated spoiler are similarly efficient, increasing downward pressure on the driven wheels, helping improve road adhesion and directional control. Vertical gill slashes located behind the front wheel cutouts reduce front-end lift while, at the same time, accenting the striding quality of Corvette's character with forceful grace.

Yet for all its refinement, Corvette is distinctly American, in the exuberance of its appearance, the enthusiasm of its performance and the fact that our experience demands a measure of comfort and practicality be built into the car.

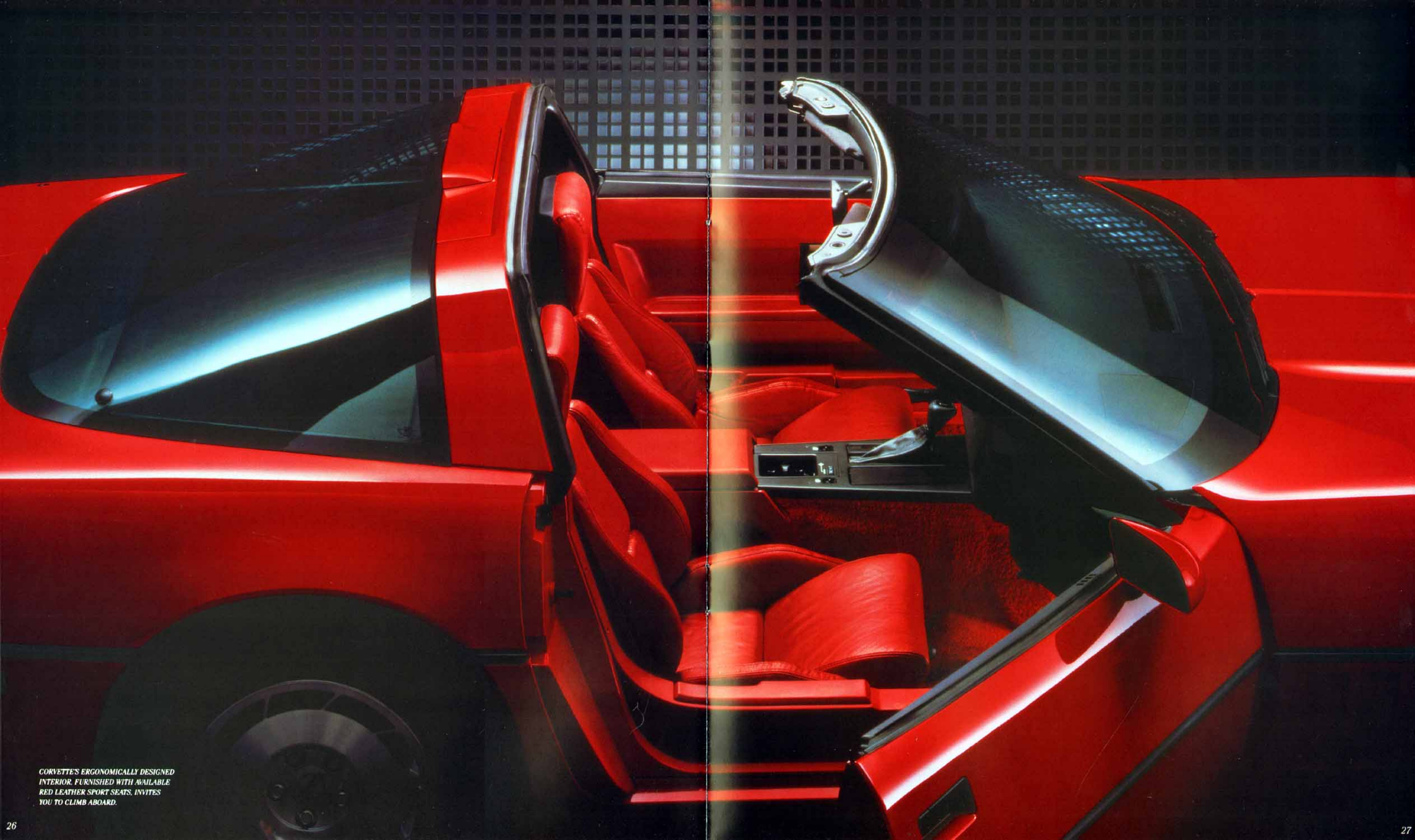
Accordingly, the package evolved from the inside outward, around the seating space for driver and passenger. In this total driving environment, segmented seat design supplies support in pressure areas, allowing the chairs to mold and conform to the contours of individual occupants. The application of sophisticated ergonomics, including a standard tilt-telescopic steering wheel, integrates man beautifully with machine.

Recognizing that the cockpit is a mobile workplace, Corvette provides advanced driver information systems. Besides relaying essential data from the complete electronic communications center, liquid crystal displays fulfill another of the essential criteria by which one may determine the success of the design function—their technical nature expresses the special character of the age in which we live.

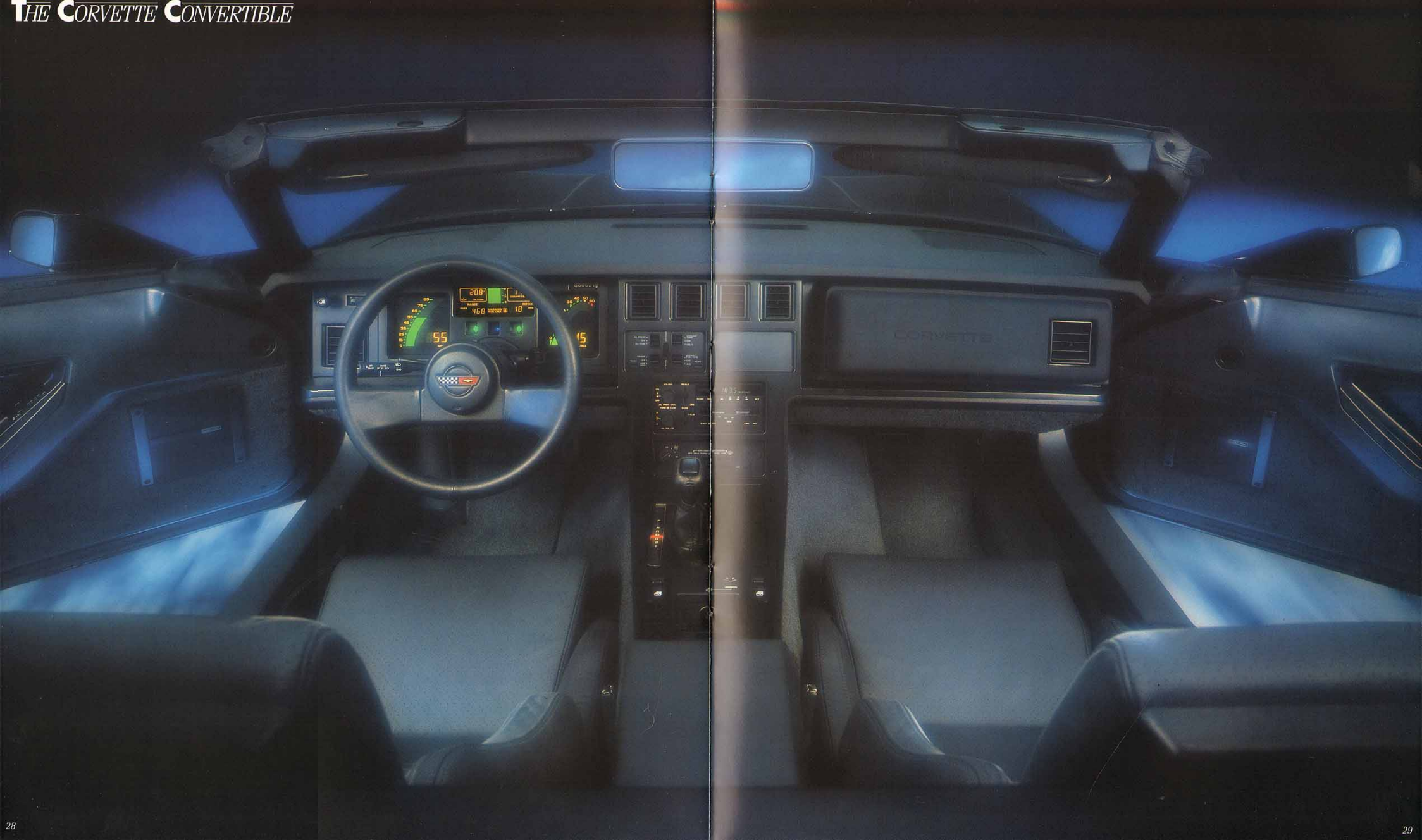
Above all, from every angle, Corvette is a car that begs to be driven. That fact, especially, testifies to the ultimate and successful marriage of form with function that has always been, and will continue to be, unmistakably Corvette.

CORVETTE CELEBRATES THE INTEGRATION OF ENGINEERING INNOVATION WITH DESIGN EXCELLENCE. EVERY LINE CONTRIBUTES TO THE CAR'S CHARISMA, CREATING A SHAPE THAT APPEARS TO STRIDE FORWARD EVEN WHEN CORVETTE IS STANDING AT THE CURB.

THE ELECTRONIC INSTRUMENT CLUSTER DISPLAYS 14 DIFFERENT READOUTS. KEEPING YOU IN CONSTANT CONTACT WITH AMBIENT CONDITIONS.



CORVETTE'S ERGONOMICALLY DESIGNED INTERIOR, FURNISHED WITH AVAILABLE RED LEATHER SPORT SEATS, INVITES YOU TO CLIMB ABOARD.


208
55
15
Corvette

Inspiration is a rare quality these days, in a world where artifice too frequently passes for substance.

Even more remarkable is the coalescence of disparate disciplines in a single form.

Enter the Corvette Convertible, demonstrating the results of inspiration in every component, system and line.

Here is a motorcar that attains the deft integration of advanced engineering technology with contemporary design principles. As appropriate to a roadster of this calibre, the comfort of driver and passenger is assigned utmost importance.

Yet for all its luxury and craftsmanship, the Corvette Convertible is no sterile exercise in styling or ergonomics. After all, this is a sports car—swift, free-spirited—combining all the Corvette virtues with the ability to open up completely to the rush of windy sunshine and the exhilaration of sky arching horizon-to-horizon overhead.

In reality, the appearance of the Corvette Convertible is something of a re-event. For the Corvette began as a ragtop, back in 1953. And it was offered as such, in a variety of body styles, for 22 years.

But times and driving needs change. So in 1975 the lid closed over the cockpit. Forever, or so it seemed.

Which makes this return to open-air driving, more than a decade later, both a memorable event and an excursion into prestige motoring.

For make no mistake. The Convertible is every bit as much a technological accomplishment as its companion, the Coupe.

Incorporating the Bosch ABS II anti-lock braking, four-wheel independent suspension, power rack-and-pinion steering, unidirectional Goodyear Eagle P255/50VR-16 tires, and 5.7 Liter V8 powerplant that make the Corvette a world-class sports car.

With modifications necessitated by the loss of the roof to retain both the structural integrity of the vehicle and its civilized ride. A large, rigid X-member stretching under the passenger compartment, for example, and fatter front and rear bracing. Sophisticated computer modeling also resulted in beefed up torque boxes; even stronger, spring-loaded wedge pins were specified for the doors.

Essential changes, to be sure, contributing significantly to the car's taut yet flexible ride and handling.

But only when the top is lowered can the personality of the Corvette Convertible fully emerge.

That's when you start to smile a lot as wind and thrill and sunlight completely rearrange your hair.

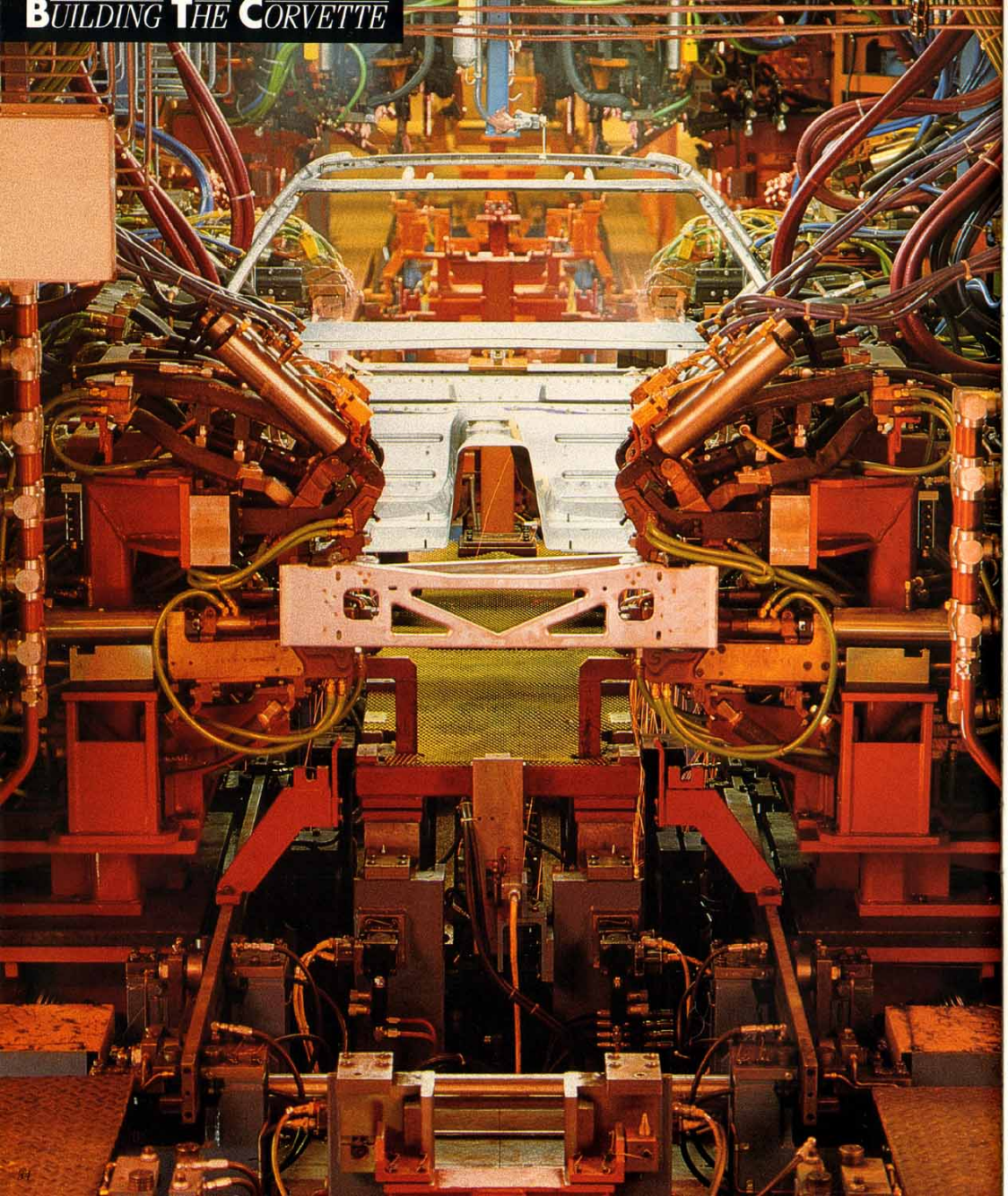
There's no unsightly boot or unkempt bulge to mar the passage of this roadster. The top stows neatly under a back panel which locks back in place. Completely flush with the distinctive Corvette silhouette.

Go ahead. Laugh out loud, if you like. This is the joie de motoring at its finest. Rewarding rumble of the engine...air swirling and streaming...light assuming substance as it flows down over the door sills and curls around your legs. As sounds, no longer isolated, spill over you, making you and the world and the vehicle—one.

The Corvette Convertible. An inspired motoring experience in America's premier sports car.

GO AHEAD. IMAGINE YOURSELF WRAPPED IN SOFT RED LEATHER. ISSUING INSTANTLY OBEYED COMMANDS AS YOU PILOT THE CORVETTE CONVERTIBLE THROUGH BREEZE AND SUNSHINE.

BUILDING THE CORVETTE



From the V8 engine with Tuned-Port Injection to the computerized Bosch ABS II anti-lock braking system to the sleek fiberglass shell, the 1987 Corvette is a showcase of engineering technology. This revolution extends to the Corvette production line, where the quality of assembly is the most crucial concern.

The Bowling Green, Kentucky, facility is one of the world's most modern automotive assembly plants. It encompasses a million square feet—23 acres under one huge roof. Only one car is manufactured—Corvette. Both Coupe and Convertible are built at this location. Just as outstanding as the complex itself are the people who work there. Each one—engineers, technicians, managers and assembly workers—is a dedicated craftsman, commited to excellence in the production of America's sports cars.

The key to the Corvette assembly operation is precision. Precision made possible by a match check frame which serves as a full-size blueprint against which structural parts are checked to within minute tolerance limits. Precision delivered by a two-stage robot welder which builds the Corvette uniframe automatically, applying 142 welds in 97 seconds.

Similarly advanced techniques are applied to the production of Corvette's solid fiberglass body. These methodologies provide smooth beauty while computerized instruments measure body panels to specified tolerances on three planes.

Then, the chassis, drive train and suspension are married to the body via a hydraulic "towveyer." This interlocking system is designed to assure that every contact point will have a perfect match.

To ensure such precision at all phases of assembly, the application of computer technology during Corvette production is among the highest in the industry. The alignment of suspension componentry is computer-measured. Computers are utilized for parts allocation, manpower distribution and inventory control. Computer-generated inspection tickets follow a new Corvette throughout the assembly process. The advanced technology even extends to computer-controlled robot painters that apply Corvette's consistently thick and brilliant finish. Meticulous wet and hand sanding is part of the paint process as well.

In addition to this high level of technology, there's something else evident when one visits the Corvette assembly facility, something less quantifiable that sets the Corvette factory and its people apart. Perhaps it's the knowledge that each individual's work is being compared to the best the world has to offer. Certainly it's the commitment to excellence only men and women can make. Maybe it's good, old-fashioned American pride. In any case, it's clear there's affection for this car that goes beyond normal boundaries. In fact, several ongoing programs help keep Corvette quality high. For example,

"The Morning Audit" brings salaried and hourly employes together to examine vehicles in detail and suggest quality improvements. After-work "Employee Awareness Groups" discuss procedures and conditions relating to production, keeping workers and the car they make in close contact. Then, four nights a week, rotating groups of employes take brand-new Corvettes home so they can experience what buyers of the vehicle do.

These are the kinds of efforts that are helping the Corvette team build one of the best production sports cars that advanced design and assembly methods can create.

BUILDING THE CORVETTE IS A COMPLICATED AND DEMANDING PROCESS. A FEW IMPORTANT PHASES ARE SHOWN HERE. CLOCKWISE FROM FACING PAGE: A TWO-STAGE WELDER BUILDS THE UNIFRAME. COMPUTERIZED INSTRUMENTS MEASURE BODY PANELS TO CLOSE TOLERANCES. WET AND HAND SANDING ARE PART OF PAINT APPLICATION. POINT-CHECK INSPECTION HELPS ENSURE THAT BODY PANEL ASSEMBLY MEETS DESIGN INTENT

STANDARD FEATURES

Corvette's comprehensive list of standard features includes items that are optional or not available on competitive sports cars costing much more. Whether it's working at the limit in sanctioned competition or cruising proudly through town, a distinguished combination of functional luxury and race-car performance has been achieved.

AIR CONDITIONING

A perfect driving environment is the goal. In addition to standard air conditioning, every Corvette is equipped with tinted glass, power windows, side window defoggers and convenient driver-side, door-mounted windshield wiper and washer controls.

RETRACTABLE HEADLAMPS

During daylight hours the retractable lamps are hidden beneath the low, sleek hood line. At night they flip forward 162.5 degrees, preserving the aerodynamic shape of Corvette.

ANTI-THEFT FEATURES

The core of the sophisticated Vehicle Anti-Theft System (VATS) is a special module with a resistor decoder and an ignition key with a pellet of specified resistance. Other equipment includes a special starter relay and lock cylinder.

When the key is placed in the ignition, lock cylinder contacts "interrogate" the resistance. The VATS module then decodes the key and, if compatible, closes the starter relay, which in turn allows the car to be started.

Code information cannot be retrieved from the VATS module with even the most sophisticated electronic techniques.

An anti-theft horn alarm circuit and starter interrupt are also standard on every 1987 Corvette.

ANTI-LOCK BRAKES

The standard Bosch ABS II anti-lock brake system uses an electronic sensor to monitor rates of wheel rotation during braking. If a wheel begins to lock up, the control unit releases braking pressure briefly, then reapplies it when traction is regained.

GOODYEAR VR50 TIRES

The standard tire and wheel combination features P255/50VR 16 Goodyear unidirectional steel-belted radial tires mounted on 16" aluminum alloy wheels with functional turbine-blade design and anti-theft nuts.

ROOF PANEL STORAGE (COUPE)

The removable one-piece roof panel combines the security of a closed car with the exhilarating effects of an open roadster. There is no T-bar. The roof is removed using a ratchet wrench designed for this application. The panel may then be stored within the car in a lockdown position.

HALOGEN FOG LAMPS

The integral halogen fog lamps make driving under adverse conditions easier. Operation is independent of the headlamps.

CLOTH BUCKET SEATS

The high-back cloth bucket seats are contoured to provide the feeling of individualized fit and comfort. Manual back angle adjustment is offered. Other interior features include a leather-wrapped steering wheel, dual rear lockable storage compartments* lighted visor vanity mirror.

TILT-TELESCOPIC STEERING WHEEL

Corvette adjusts to your driving style with a steering wheel that tilts and telescopes.

4-SPEED AUTOMATIC TRANSMISSION

Four-speed automatic overdrive transmission with lockup torque converter contributes to impressive performance plus low-RPM highway cruising.

4-SPEED MANUAL TRANSMISSION

If you prefer, choose the smooth-shifting manual 4-speed, with an electronic automatic overdrive feature in 2nd, 3rd and 4th gear, which is available at no extra cost. Gear ratios are chosen to deliver exceptional performance.

CORVETTE NEWS

A three-year complimentary subscription goes to every Corvette buyer. This publication keeps owners up to date on their favorite sports car.

*Coupe only.

CORVETTE'S AIR CONDITIONING ALLOWS YOU TO MAINTAIN A PERFECT DRIVING ENVIRONMENT.

RETRACTABLE HEADLAMPS FLIP FORWARD 162.5 DEGREES FROM BENEATH THE HOOD.

VATS EMPLOYS A DECODER AND IGNITION KEY WITH A PELLET OF SPECIFIED RESISTANCE.

GOODYEAR EAGLE GT P255/50VR 16 UNIDIRECTIONAL RADIAL TIRES.

THE REMOVABLE ONE-PIECE ROOF LIFT-OFF PANEL STORES IN A LOCKDOWN POSITION IN THE REAR COMPARTMENT, OPENING CORVETTE UP TO SUN AND STARS.

THE FOUR-SPEED MANUAL WITH ELECTRONIC OVERDRIVE IS AVAILABLE AT NO EXTRA COST.

THE FOUR-SPEED AUTOMATIC OVERDRIVE WITH LOCKUP TORQUE CONVERTER IS STANDARD.

CORVETTE SAFETY FEATURES
OCCUPANT PROTECTION

- Manual lap/shoulder safety belts for driver and passenger (driver's side includes visual and audible warning system)
- Energy-absorbing steering column
- Energy-absorbing instrument panel
- Energy-absorbing front seat-back tops
- Laminated safety windshield glass and tempered safety side and rear window glass (except Convertible plastic rear window)
- Safety interlocking door latches
- Passenger-guard inside door lock handles
- Safety armrests
- Integral head restraints, driver and right front passenger

ACCIDENT AVOIDANCE

- Side marker lights and reflectors
- Parking lamps that illuminate with headlamps
- Four-way hazard warning flasher
- Backup lights
- Center high-mounted stop lamp
- Directional signal control with lane-change feature
- Windshield and side window defroster, windshield washer and dual-speed wipers
- Inside rearview mirror with vinyl-bonded glass
- Dual electric remote outside rearview mirrors, convex on right-hand side
- Brake system with dual master cylinder and warning lights
- Starter safety switch
- Low-glare finish on instrument panel top, inside windshield moldings, wiper arm/blades, metallic steering wheel surfaces
- Illuminated heater and defroster controls
- Illuminated wiper controls on driver's door
- Tires with built-in tread wear indicators.

THEFT DETERRENCE

- Audible reminder for ignition key removal
- Theft-deterrent steering column lock
- Visible vehicle identification number
- Vehicle Anti-Theft System (VATS)
- Audio alarm system with starter-interrupt feature
- Locking roof panel with theft-deterrent mount (Coupe only)
- Theft-deterrent wheel lugs.

HALOGEN FOG LAMPS FACILITATE VEHICLE OPERATION IN INCLEMENT WEATHER.

AIRCRAFT-COCKPIT-STYLE HIGH-BACK CONTOUR SEATS WITH MANUAL BACK ADJUSTMENTS AND BOLSTERS TO PROVIDE SIDE SUPPORT ARE UPHOLSTERED IN ATTRACTIVE CLOTH.

THE STEERING WHEEL TILTS AND TELESCOPES TO YOUR PERSONAL SPECIFICATIONS.

See the Comprehensive Features Index inside the back cover for a complete list of standards.

OPTIONAL EQUIPMENT

LEATHER SPORT SEATS INCLUDE SIX-WAY POWER ADJUSTMENTS.

Tailor Corvette to your personal specifications by selecting optional equipment. The long list of available options includes:

Z51 PERFORMANCE HANDLING PACKAGE

Z51, Corvette's uncompromised performance package, features 16" x 9-1/2" wheels,* higher rated monoleaf fiberglass springs, Delco/Bilstein gas-pressurized shock absorbers, stabilizer bars and selected control-arm bushings, quicker steering ratio, engine oil cooler, radiator cooling boost fan and heavy-duty radiator. Available Corvette Coupe with manual transmission only. Recommended for specialized use.

Z52 SPORT HANDLING PACKAGE

For the serious enthusiast, the new Z52 package includes 16" x 9-1/2" wheels* (std. on Convertible), Delco/Bilstein gas-pressurized shock absorbers and quicker steering ratio. Z52 also features an engine oil cooler, radiator cooling boost fan and heavy-duty radiator. Available Coupe immediately. Convertible January 1987.

DELCO/BILSTEIN SHOCKS

A gas-charged Bilstein shock at each wheel contributes to a comfortable ride while providing excellent handling characteristics. Standard on Z51 and Z52 packages.

HEAVY-DUTY COOLING EQUIPMENT

These items, which are available separately, include an auxiliary cooling fan, engine oil cooler and heavy-duty radiator. Standard with handling packages or with manual transmission.

LEATHER SEAT TRIM

Leather may be specified as the covering on standard Corvette seats.

LEATHER SPORT SEATS

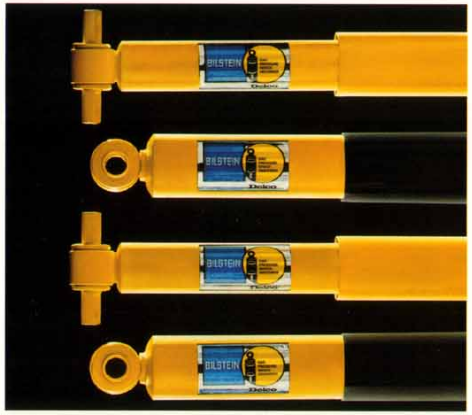
The Sport seat is upholstered in genuine leather and features power adjustments of upper side bolsters, lumbar support and back-angle adjustment. Six-way power seats are also available for either standard or Sport driver and passenger seats.

ELECTRONIC SPEED CONTROL

Electronic speed control includes a convenient resume-speed feature and a speed adjustment that allows you to change your speed in precise one-MPH intervals. Stalk-mounted control.

ELECTRONIC AIR CONDITIONING

This electronic-control system features easy-to-use color-coded push buttons and a digital temperature adjuster. Once set, the temperature is automatically maintained. An optional display registers outside air temperature, helping you monitor ambient weather and road conditions.



DELCO/BILSTEIN GAS-FILLED SHOCK ABSORBERS CONTRIBUTE TO RIDE AND HANDLING.

ELECTRONIC SPEED CONTROL INCLUDES A HANDY RESUME FEATURE.

ELECTRONIC AIR CONDITIONING FEATURES FINGERTIP PUSH-BUTTON CONTROL.

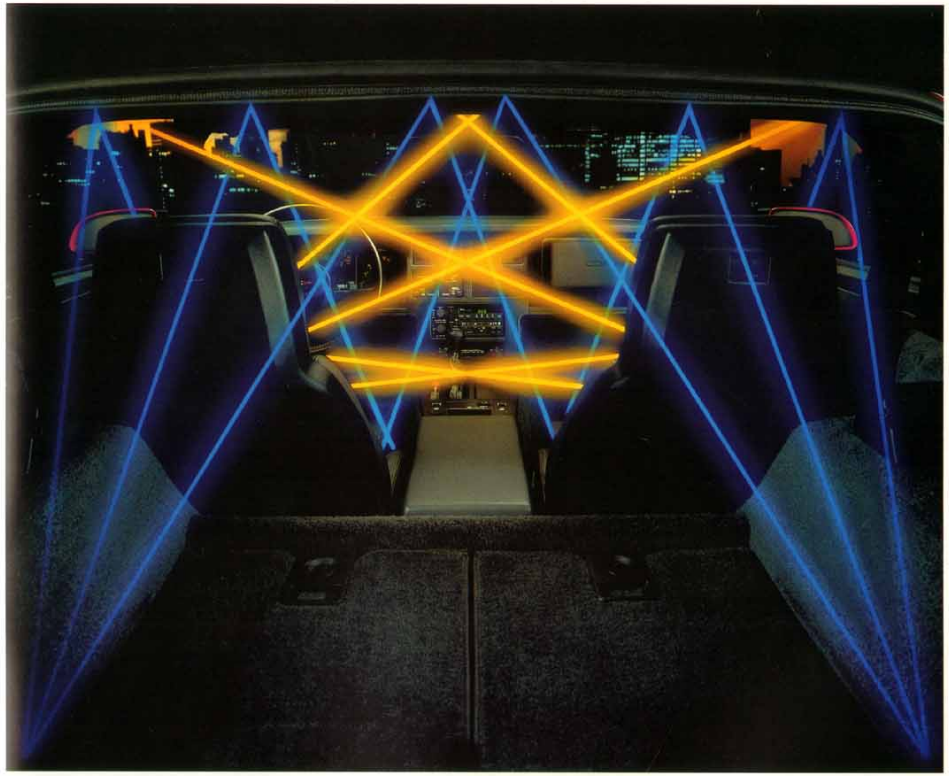
DELCO-BOSE SOUND SYSTEM FOR MUSIC THAT'S TUNED TO YOUR CORVETTE

The Delco-Bose stereo, available as a factory option in the 1987 Corvette, offers sound so real that it's been rated by experts as one of the best stereo systems available in a production automobile. Delco-Bose performance rivals the most expensive home stereos, because it is tailored exactly to the acoustics of Corvette.

The Delco-Bose Music System is composed of a receiver and four bass reflex amplifier/speaker enclosures engineered specifically for window placement, angle and density of glass, seating position and cockpit configuration. Even the textural composition of the upholstery and carpeting was considered. Each speaker has its own built-in equalizer network.

Other features of the system include: AM/FM stereo reception with automatic adjustment. Circuits adjust reception, assuring maximum sensitivity to weak stations without danger of overload on strong signals. Electronic tuning with Seek and Scan features. Seek button changes stations electronically. Scan button automatically samples all clear radio signals for five seconds each. Digital VF (Vacuum Fluorescent) readouts of time or radio frequency are featured. Dynamic Noise Reduction (DNR™) and Dolby® Sound Noise Reduction reduce high-frequency "hiss" on AM, FM and cassette tape. The integral tape player features auto-reverse and music search features. Also included: 100 watts of power. Four separate speaker enclosures. Separate treble and bass controls. Computer-balanced, wrap-around sound.

"Dolby" is a registered trademark of Dolby Laboratories.
*Tire chains should not be used on Corvettes with 9½" rear wheels because they may cause damage to this vehicle.



DELCO-BOSE MUSIC SYSTEM.

See the Comprehensive Features Index inside the back cover for a complete list of options.

ESCORT
VALVOLINE
Mobil 1
Goodrich
duraflame
DIABLO
CUSTOM ALIGNMENT
SCCA
MASTER
Hella
71
55
JENSEN
BRIDGESTONE
NELSON
MICHELIN

SHOWN PRECEDING PAGE:
CORVETTE IS THE CAR TO BEAT IN SCCA-SANCTIONED SHOWROOM STOCK COMPETITION. THESE 6-, 12- AND 24-HOUR ENDURANCE RACES OFFER PROOF OF CORVETTE'S WORLD-CLASS CREDENTIALS.

THE EXOTIC GTP-SERIES CORVETTE PUTS TECHNOLOGY TO THE TEST ON THE WORLD'S RACETRACKS. POWER IS SUPPLIED BY A TURBOCHARGED V6.

Capturing the checkered flag is a long-running Corvette tradition. It is a tradition upheld in spectacular fashion in a variety of racing events by the current-generation Corvette.

CORVETTE DOMINATES SCCA SHOWROOM STOCK RACING

Showroom-stock road racing, sanctioned by the Sports Car Club of America, has become one of the most popular forms of motorsport competition in the U.S.A. And it is everything the name implies. The cars are production vehicles, modified only with SCCA-mandated safety equipment. This kind of racing, in 6-, 12-, and 24-hour endurance events, puts stock automobiles to a true test of their performance capabilities on the racetrack. The specially modified Corvette finished 1-2-3 in all six SCCA races in 1985.

Last year SCCA officials decided Corvette had just too much of a performance advantage over its nearest competitor, the Porsche 944 Turbo. After all, Corvette specifications include the legendary 5.7 Liter V8 with Tuned-Port Fuel Injection, the confidence of a Bosch ABS II anti-lock braking system and the tenacious road-holding capability of four-wheel independent suspension mated to Goodyear Eagle VR50 16" tires.

Modified SCCA rules placed the 1986 Corvette in an unlimited production class. New competition included Ferrari 308 Quattrovalvole, Lotus Esprit Turbo and a reworked 944 Turbo that the Porsche folks built specifically to loosen Corvette's stranglehold on America's most prestigious, meaningful racing series.

The rules-shuffling hasn't been enough to overcome the proven performance thunder of a world-class champion. Corvette topped its competition again in 1986, and for 1987 it remains the car to beat.

THE PRODUCTION-BASED GTO-SERIES CORVETTE

GTO-series racing, sponsored by the International Motor Sports Association, is limited to production-based cars with engines displacing more than 3.0 liters. Except some cars are closer to production specifications than others.

While every other competitor in this fast-paced series, including Porsche and Toyota, discards its standard chassis in favor of a tube-type racing frame, Corvette doesn't have to. Corvette's stock uniframe (modified for racing) offers the lightweight strength required to compete successfully against some of the world's finest racing machines.

Under the hood of every GTO-series Corvette, a race-prepared version of the small-block V8 proves yet again that Corvette has what it takes to go the distance.

WHILE MOST COMPETITORS USE STOCK-APPEARING BODYWORK OVER TUBULAR RACE FRAMES, THE GTO-SERIES CORVETTE FEATURES A PRODUCTION CHASSIS, MODIFIED FOR RACING.

THE EXOTIC GTP-SERIES CORVETTE

The International Motor Sports Association's (IMSA) GTP series features all-out race cars. Once again, Corvette is participating with a specially prepared aerodynamic mid-engined car.

In its first 1986 outings, the GTP Corvette has earned pole positions and two overall victories, establishing itself as a formidable competitor. But that's not the real reason this racing Corvette exists.

Herb Fishel, Director, Chevrolet's Special Products Group, describes the role of the GTP this way:

> There are many similarities between production and pure performance machinery, particularly in the areas of design, construction and the application of high technology. Our intent is to turn the knowledge gained through on-track experience into viable applications for our production vehicles. Thus the rationale for the GTP Corvette.

In addition to a turbocharged V6 developing over 770 HP, the GTP features an aluminum honeycomb-type frame for high strength and light weight. Body panels are constructed of high-strength carbon fiber fabric bonded with epoxy resin, one of the strongest, lightest combinations of materials known.

This incorporation of advanced materials, engine technology and aerodynamics not only makes the GTP Corvette a contender on the world's racing circuits, it puts technology to the test so that it may be applied to future production Corvettes.

CORVETTE INDY:
THE SHAPE OF TECHNOLOGY TO COME

The critics agree. The shape of Corvette Indy introduces a new milestone in automotive design. Yet this prototype Corvette Indy is far more than a "dream car" created simply to impress crowds at auto shows.

Don Runkle, Chevrolet Chief Engineer, explains:

> Corvette Indy is Chevrolet's latest imagination vehicle for studying new engineering and design concepts. We do these cars as much for inspiration as experiment, because it gives our people a chance to turn their dreams into reality.

CORVETTE INDY POWER

As its name implies, Corvette Indy is powered by a version of the Indy engine, a 2650-cc dual overhead cam V8 designed for Indianapolis 500 competition. Features include four valves per cylinder, twin turbochargers and dual intercoolers.

4-WHEEL DRIVE

Full-time four-wheel drive is featured.

4-WHEEL STEERING

The steerable rear wheels, added to the conventional steering on the front wheels, provide enhanced maneuverability at low speeds and excellent high-speed handling.

DRIVE-BY-WIRE

In a system similar to those used by modern fighter aircraft, Corvette Indy replaces mechanical linkages with electronic controls for precise throttle response.

COMPUTER TRACTION CONTROL

On slippery roads, or when power is applied too abruptly, the traction control unit limits throttle, providing maximum usable torque.

ACTIVE SUSPENSION

The Corvette Indy is designed to demonstrate a radical new suspension system that employs microprocessor technology and hydraulic controls to eliminate conventional springs, shock absorbers and stabilizer bars.

The Corvette of tomorrow will take new shapes. The technology will move forward. And Corvette will always remain at the leading edge of automotive performance.

That's the whole idea behind Corvette. That, and a lot of driving fun.

CORVETTE INDY IS MORE THAN A STYLING EXERCISE. ITS ADVANCED TECHNOLOGY INCLUDES 4-WHEEL STEERING, COMPUTER-TRACTION CONTROL, AND "ACTIVE" SUSPENSION.

IMPORTANT: A WORD ABOUT THIS CATALOG

We have tried to make this catalog as comprehensive and factual as possible. However, since the time of printing, some of the information may have been updated. Also, some of the equipment shown or described throughout this catalog is available at extra cost. Your dealer has details and, before ordering, you should ask him to bring you up to date. The right is reserved to make changes at any time, without notice, in prices, colors, materials, equipment, specifications and models. Check with your Chevrolet dealer for complete information.

A WORD ABOUT ENGINES

Chevrolets are equipped with engines produced at facilities operated by GM car groups, subsidiaries or affiliated companies worldwide.

A WORD ABOUT UPDATED SERVICE INFORMATION

Chevrolet regularly sends its dealers useful service bulletins about Chevrolet products. Chevrolet monitors product performance in the field. We then prepare bulletins for servicing our products better. Now you can get these bulletins, too. Ask your dealer. To get ordering information, call toll-free 1-800-511-4123.

A WORD ABOUT ASSEMBLY, COMPONENTS AND OPTIONAL EQUIPMENT IN THIS CHEVROLET

The Chevrolet described in this catalog is assembled at a facility operated by General Motors. The vehicle incorporates thousands of different components produced by car groups and by various component divisions of General Motors and by various suppliers worldwide to General Motors. From time to time during the manufacturing process, it may be necessary, in order to meet public demand for particular vehicles or equipment, or to meet federally mandated emissions, safety and fuel economy requirements, or for other reasons, to produce Chevrolet products with different components or differently sourced components than initially scheduled. All such components have been approved for use in Chevrolet products and will provide the quality performance associated with the Chevrolet name.

With respect to extra-cost optional equipment, make certain you specify the type of equipment you desire on your vehicle when ordering it from your dealer. Some options may be unavailable when your car is built. Your dealer receives advice regarding current availability of options. You may ask the dealer for this information. GM also requests the dealer to advise you if an option you ordered is unavailable. We suggest that you verify that your car includes optional equipment you ordered or, if there are changes, that they are acceptable to you.

At your Chevy dealer's, financing or leasing your new Corvette can be as easy as saying GMAC.

LET'S GET IT TOGETHER...
BUCKLE UP

LITHO IN U.S.A. 4646 SEPTEMBER 1986

Corvette colors are carefully chosen and painstakingly applied. The fully automated paint system is one of the most advanced in the world. The entire paint operation is contained in a dust-free clean-room environment in which air pressure is maintained positive to keep foreign airborne contaminants out. Base coat/clear coat enamels are applied in a four-step process that results in vibrant finishes that display a deep, penetrating shine.

Silver Metallic

Medium Gray Metallic

Medium Blue Metallic

Yellow

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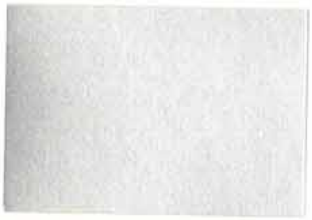


Silver Metallic

Medium Gray Metallic

Medium Blue Metallic

Yellow

White

Black

Gold Metallic

Silver Beige Metallic

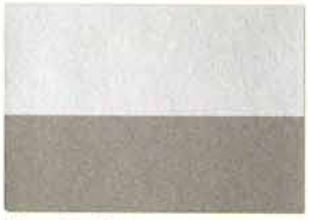
Copper Metallic

Medium Brown Metallic

Dark Red Metallic

Bright Red

Two-tones optional for Coupe only.



Silver Metallic/
Medium Gray Metallic

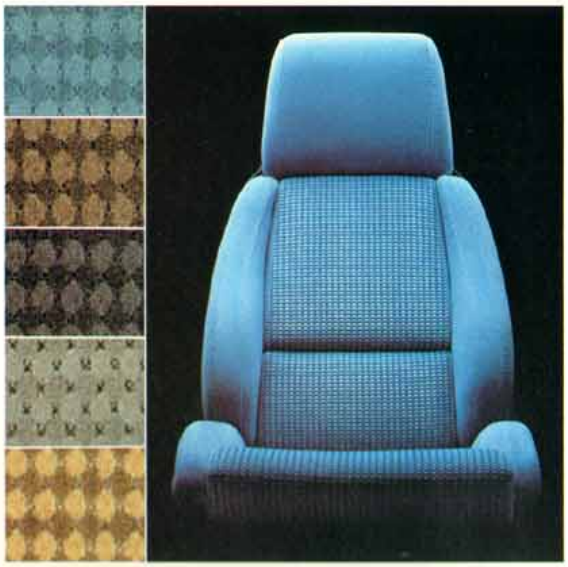
White/Silver Metallic

Medium Gray Metallic/Black

Silver Beige Metallic/
Medium Brown Metallic

The care and quality that characterize Corvette are evident in the richness of the fabrics. Choose the standard cloth, optional leather or ultimate optional leather adjustable Sport buckets and rediscover a finely crafted environment every time you drive.

Standard reclining seats feature integral head restraints and wool-pad comfort liner. Cloth upholstery is standard; leather is optional.*



Standard reclining seat. Available in Blue, Bronze, Graphite, Gray, Saddle cloth. Optional leather seat available in Red or above colors.

The optional adjustable Sport seats, which include integral head restraints and wool-pad comfort liner, are biomechanical support systems designed to cradle the human body. These fine seats are available in leather only. Both driver and passenger seats feature power adjustments in lumbar, backrest, and bolster areas, to provide a high degree of adaptability to practically every human form.*

Optional leather Sport seat. Available in Blue, Bronze, Graphite, Gray, Saddle, Red.

**Seat shell is made of molded man-made materials.*

STANDARD FEATURES

POWER TEAM/CHASSIS/ MECHANICAL

- Aluminum intake plenum, tuned crossover runner manifold
- Automatic transmission with overdrive fourth gear
- Cast alloy aluminum wheels, steel compact spare
- Center high-mounted stop lamp
- Computer Command Control
- Delco Freedom Plus II battery with sealed side terminals
- Electric engine coolant fan
- Electric in-tank, positive-displacement roller-vane fuel pump
- Exclusive monoleaf glass-epoxy composite transverse front and rear springs
- Forged aluminum front and rear suspension arms
- Full independent four-wheel suspension
- High Energy Ignition system
- Hydraulic roller valve lifters and exhaust valve rotators
- Limited-slip differential
- Magnesium engine valve covers
- Poly-vee single-belt engine accessory drive belt
- Power anti-lock disc brakes at all four wheels with 11.5" rotors and finned aluminum calipers
- Power rack-and-pinion steering
- P255/50VR-16 steel-belted radial ply black-wall tires (Goodyear Eagle VR50)
- Side lift jack
- Stainless steel exhaust manifolds and free-flow mufflers
- Sturdy uniframe body structure 100% galvanized and dip-painted
- Vehicle anti-theft system with encoded key
- 5.7 Liter V8 engine with TPI (Tuned-Port Fuel Injection) and aluminum cylinder heads.

EXTERIOR

- Automatic power antenna
- Body-color front and rear soft facia with integral front air dam
- Concealed wipers with integral washers in wiper arms
- Corrosion-resistant fiberglass body panels
- Designed-in body side molding
- Dual electric remote-controlled Sport mirrors
- Dual quartz-halogen fog lamps in grille opening
- Energy-absorbing bumper systems
- Frameless rear hatch glass with three remote releases (coupe)
- Front cornering lamps; rear cornering lamps
- Front fender louvers
- Full-tilting clamshell-type hood
- Power-operated quartz-halogen retractable headlamps
- Single removable roof panel (coupe)
- Tinted and flush-mounted glass
- Manual folding top with lightweight framework (convertible).

INTERIOR

- Acoustical insulation package
- Air conditioning
- Center console with shifter, coin tray, cigarette lighter and ashtray; power window, radio, air conditioning controls and electric mirror controls
- Contour cloth bucket seats with lateral support and back-angle adjustment
- Day/night rearview mirror with integral map lamps
- Deep-twist floor and stowage area carpet
- Driver information system. Includes instant MPH, average MPG and range in digital readouts
- AM/FM ETR™ stereo radio w/Seek and Scan, digital clock and four speakers*
- Headlamp-on reminder
- High-intensity interior lamps
- Illuminated RH visor vanity mirror
- Intermittent windshield wipers
- Leather-wrapped steering wheel
- Luggage compartment concealment roller shade (coupe)
- Manual inside hood release
- Power windows
- Rear underfloor storage compartments (2) (coupe)
- Side window defogger
- Soft-padded and carpeted door panels
- Tilt-Telescopic steering wheel
- Twin underhood lamps
- Ultracontemporary instrument panel featuring electronic liquid-crystal instrumentation with multi-colored analog and digital display. Readouts include: speedometer, 6,000-RPM tachometer, fuel level, oil pressure, oil temperature, voltmeter. Conventional readouts for odometer, turn signals and high-beam headlamps
- Underdash courtesy lamps.

*May be deleted for credit.

OPTIONAL EQUIPMENT

(AVAILABLE AT EXTRA COST)

FACTORY-INSTALLED OPTIONAL EQUIPMENT

- Air Conditioning, Electronic Control
- Axle: Performance Ratio (automatic transmission only)
- Defogger System. Includes rear window defogger and heated outside rearview mirrors (coupe only)
- Door Lock System, Power
- Engine Oil Cooler
- Heated Outside Rearview Mirrors (conv. only)
- Mirror, Driver's Side (illuminated visor vanity)
- Paint, Custom Two-Tone (coupe only)
- Radiator Cooling Boost Fan
- Radiator, Heavy-Duty
- Radio Equipment, Delco: Electronically tuned

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AM/FM stereo radio w/Seek and Scan, cassette tape and digital clock. Includes power antenna

Delco-Bose Music System, electronically tuned AM/FM stereo w/Seek and Scan, cassette tape and digital clock

- Radio Delete (for credit; deletes std. radio and speakers)
- Roof Panels: (coupe only)

Blue Tint, Transparent Lift-Off

Bronze Tint, Transparent Lift-Off

Dual Removable (transparent and fiberglass)

- Seat Equipment:

Leather reclining bucket seat* with integral head restraint

Seat, Power, Six-Way, Driver's side

Seat, Power, Six-Way, Passenger side (requires power driver's seat)

Leather reclining Sport bucket*

- Speed Control, Electronic. With resume speed
- Suspension Equipment: Z51 Performance Handling Package. Includes Delco/Bilstein shocks, P255/50VR-16 tires, selected special lower control arm bushings, heavy-duty front and rear springs and stabilizer bars, fast-ratio steering, power steering oil cooler, engine oil cooler, heavy-duty cooling, radiator boost fan and 16" x 9-1/2"† wheels front and rear. (Available coupe only, requires manual transmission, 3.07 axle.)
- Suspension Equipment: Z52 Sport Handling Package. Includes 16" x 9-1/2"† wheels front and rear, Delco/Bilstein shocks, fast-ratio steering, engine oil cooler, radiator cooling boost fan, heavy-duty radiator. (Available coupe immediately, convertible after January 1987.)
- Shock Absorbers: Delco/Bilstein
- Transmission: 4-speed manual with overdrive.**

*Seat shell is molded of man-made materials.

†Tire chains should not be used with 9-1/2" wheels because they may cause damage to the vehicle.

**No-cost option.

DEALER-INSTALLED ACCESSORIES

Cloth, Polishing

Compass

Guard, Splash

Lamp, Spotlight

ENGINE

5.7 Liter (350 Cu. In.) V8 with Tuned-Port Fuel Injection
Block: Cast iron alloy
Pistons: Impacted cast aluminum
Camshaft: Cast iron alloy
Valve lifters: roller-type
Bore: 4.00" Stroke: 3.48"
Horsepower: 240 net @ 4,000 RPM
Torque: 345 lb.-ft. @ 3,200 RPM
Recommended Fuel: Unleaded Premium
Fuel Anti-knock Index $\frac{(R+M)}{2}$: 93
Oil Filter System: Full flow
Crankcase Capacity (qt.): 4 (less filter)
Air Cleaner Type: Replaceable paper element, outside air pickup for cool, dense cylinder charge
Fuel Pump: Electric (in tank)
Fuel Tank Capacity (in gallons): 20
Exhaust System: Dual

TRANSMISSIONS

Standard 4-speed automatic with overdrive and high-stall torque converter.
RATIOS:
1st: 3.06:1
2nd: 1.63:1
3rd: 1.00:1
4th: 0.70:1
No-cost-option 4-speed manual with computer-controlled overdrive in 2nd, 3rd and 4th gears.
AXLE RATIOS:
Automatic: 2.59:1 (std. coupe, 2.73 std. conv.); 3.07:1 (opt.)
Manual: 3.07:1 (std.)

SUSPENSION—GENERAL

SHOCK ABSORBERS (front and rear)
TYPE: Base—Direct, double-acting hydraulic with pliacell expansion bags: Deflected-Disc. (std. on convertible)
Optional—gas pressurized.
MAKE: Base—Delco
Optional—Delco/Bilstein

SUSPENSION—FRONT

TYPE AND DESCRIPTION
Independent, forged aluminum upper and lower control arms and steering knuckle, transverse monoleaf spring and steel stabilizer, spindle offset.
Spring Type and Material: Monoleaf, filament-wound glass-epoxy composite.

SUSPENSION—REAR

TYPE AND DESCRIPTION
Independent 5-link design with toe and camber adjustment, forged aluminum control arms, knuckles and struts; transverse monoleaf spring steel tie-rods and stabilizer. Tubular U-jointed drive shafts.
Spring Type and Material: Monoleaf, filament-wound glass-epoxy composite.

BRAKES

DESCRIPTION
Aluminum caliper with nodular iron reaction bracket; pad reaction through bracket. Self-adjusting.
TYPE
Front: Disc with sliding-head caliper, low drag.
Rear: Disc with sliding-head caliper, low drag.
Special Valving: Proportioning—integral with master cylinder.
Power Brakes: Standard.
Anti-Lock Braking System: Electronic 4-wheel, 3-channel (standard).
Effective Area cm^2 (in^2): 174.0 (27.0) front; 117.9 (18.3) rear.
Gross Lining Area cm^2 (in^2): 174.0 (27.0) front; 117.9 (18.3) rear.
Swept Area cm^2 (in^2): 622 (96.5) front; 565 (87.5) rear.
Rotors, Outer Diameter: 11.5"

TIRES AND WHEELS—STANDARD

TIRES
Size (load range, ply): P255/50VR-16 B/W.
Type: High-speed steel-belted radial Eagle VR50 unidirectional (Goodyear).
Inflation Pressure (cold) for Max. Vehicle Load:
35 front and rear (PSI).
WHEELS
Type and Material: Left-right aluminum alloy road wheels with specific vent design.
Rim (size and flange type): 16 x 8.5 front; 16 x 8.5 rear. (16 x 9.5 front/rear on conv.)
ATTACHMENT
Type (bolt or stud): Stud.
Number and Size: Five hex nuts, one anti-theft.
Spare: P155/80D-16, 16 x 4 steel wheel.
Position: Horizontal under fuel tank.
TIRES AND WHEELS (optional Z51 and Z52 Handling Packages)
Size (load range, ply): P255/50VR-16 B/W.
Type: High-speed steel-belted radial Eagle VR50 unidirectional (Goodyear).
Wheel (type and material): Left-right aluminum alloy road wheels with specific vent design.
Rim (size and flange type): 16 x 9.5 front; 16 x 9.5 rear.*
Spare Tire and Wheel: T155/80D-16 (aluminum 16 x 4 wheel with Power Seat Option RPO AG9).

STEERING

Power: Standard.
Adjustable Steering Wheel: (Standard) Black-leather-wrapped two-spoke steering wheel; Tilt and Telescopic.
Turning Diameter: 40.4 ft.
Steering Type: Alloy rack-and-pinion.
Overall Ratio: 15.5:1 base;
13.0:1 Z51 and Z52 Handling Packages.

ELECTRICAL—SUPPLY SYSTEM

BATTERY
Make: Delco
Model: 75-630
Voltage: 12 volts

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Amps at 0°F Cold Crank: 630 cold-cranking amps (CCA)
Minutes, Reserve Capacity: 90
Location: Engine compartment directly behind left wheel opening.
ALTERNATOR
Type and Rating: 105 amps.
ELECTRICAL—Starting System
STARTER MOTOR
Current Drain at 0°F: 350 amps.
ELECTRICAL—Ignition System.
Type: High Energy Ignition.
Coil: Integral with distributor.
SPARK PLUG
Make: AC
Model: FR3LS
Gap: .81mm (0.035 in.)
BODY
STRUCTURE
Integral perimeter-frame birdcage forms unitized body structure.

ANTI-CORROSION TREATMENT
All-encompassing corrosion protection including extensive use of aluminum; galvanization; use of specially treated fasteners; austenitic stainless steel or specially coated brackets, clamps, clips and braces; use of aluminized steel.
MISCELLANEOUS INFORMATION
Type of Finish: High-solids acrylic enamel with final clear coat.
HOOD
Hinge Location: Front.
Hatch Type: Hinged clamshell hood.
Hatchback Lid: Features dual gas struts, electric release (each door and console glove box).
FRAME
All-welded steel-body-frame construction, 100% galvanized.
DIMENSIONS AND WEIGHTS
EXTERIOR

Width: 71.0"
Front Tread: 59.6"
Rear Tread: 60.4"
Wheelbase: 96.2"
Overall Length: 176.5"
Height: 46.7" (46.4" conv.)
Minimum ground clearance: 4.7"
INTERIOR
Head Room: 36.4" (36.5 " conv.)
Leg Room: 42.6"
Shoulder Room: 54.1"
Hip Room: 49.3"
Cargo Volume: 17.9 cu. ft. (6.6 cu. ft., conv.)
Curb Weight:
4-speed manual: 3,216 lbs., (3,279 lbs., conv.)
Automatic: 3,225 lbs. (3,239 lbs., conv.)
Includes standard equipment as designed with oils, lube, coolant and 20-gallon fuel tank filled to capacity.

**Tire chains should not be used with 9½-inch rear wheels because they may cause damage to this vehicle.*

SUSPENSION I—COMPONENTRY

At bottom, the suspension is a weight and energy management system. It must produce consistent reactions in circumstances that constantly change. It must transmit the weight of the car to the wheels, but must assure that shifts in the center of gravity/weight do not overwhelm the traction of the tires. It must absorb the energy developed when the car goes over bumps and irregularities, but it must not be so flexible that the wheels refuse to settle down after a bump or so rigid that the driver and passengers feel battered.

Engineers who work on Corvette have been seeking the optimum system for over 30 years. Throughout, they faced such questions as: How many pounds of weight shift should produce how much deflection at the springs? How many degrees of body roll should produce how many degrees of camber change? If shock absorbers telescope at a certain rate, should they extend at the same or at another rate? How to minimize "toe" changes at the rear wheels when accelerating? When braking? With driver only? With driver, passenger and luggage?

The Corvette resolution is a mixture of the standard (but what a standard!) and the unique. Up front, the suspension consists of upper and lower A-arms, the standard way in Formula race cars for years.

Despite their apparent simplicity, double A-arms are not the easy way. They involve more pieces, more connections and more physics (that's why so many cars don't use them). They demand more of the engineer—more commitment, more midnight oil. They cost more. Yet, when executed properly, a double A-arm system in this type of application is well worth the effort.

At the rear, Corvette uses its own, proprietary five-link system, a system not replicated on any other car. The foundation of the system is Corvette's composite-material (filament glass in epoxy matrix) spring that is attached behind the wheels. Next, upper and lower trailing arms (they "trail" rearward, from the body to the wheels) to locate the wheel in its fore-and-aft position and to control "wheel hop" when accelerating and "nose dive" when braking. Then, a light but strong aluminum cross member to locate the wheels in their side-to-side position, with additional tie-rods, one per side, to correct "toe" changes at the wheel as the suspension deflects ("toe" changes cause the rear wheels to create steering forces). The various elements join to the wheel carrier (hub) and body with resilient bushings that absorb a calculated percent of the energy they receive and transmit the remainder to the next piece.

SUSPENSION II—CAMBER, CASTER, TREAD AND TOE

Not so trivial trivia question: Why did horse-drawn freight wagons have dished wheels?

Answer: So the weight of the load would be carried to the middle of the iron tire surrounding a wheel, rather than beside it. In other words, the wagon wheels had camber.

This logical peculiarity of an old-time freight wagon illustrates the point that transferring weight from the body of a vehicle to the ground is not so simple as it may seem, and the complexities increase as the vehicle is faster and makes more maneuvers.

Try another trivia question: Why do the wheels of a child's red wagon wobble while those on a bicycle do not?

Answer: Because the weight is carried perpendicularly through the center of the wheels on the red wagon, while a bicycle frame directs weight ahead of the center of the wheel. In other words, a bicycle has caster.

Thus so commonplace a vehicle as a bicycle exploits sophisticated weight management to assure directional stability. So much more sophisticated, then, the system that manages four wheels on a heavier vehicle and achieves much higher speeds.

Consider what happens when a wheel goes over a bump. The old-fashioned beam front axle, still used on trucks, or the rigid "live" rear axle still used on most cars (but not Corvette) tips the opposite wheel up on edge, subtracting from its adhesion to the road.

An independent system allows each wheel to respond independently to bumps and keeps it perpendicular to the road surface as it does. But what about tread changes, particularly at the driving wheels?

Tread changes at the driving wheels shove the vehicle from side to side as they occur. However, this lateral displacement can be countered by making the rear wheels steer to a minute degree. That is, with toe control.

Trivia again: What is the primary reason cars have springs: to give them a soft ride, or to keep their wheels on the ground?

Answer: To keep their wheels on the ground.

As a wheel traverses a bump, its weight (mass) is accelerated upward at a certain speed (velocity). The momentum energy (mass times velocity) of the wheel could reach several hundred pounds. Without a spring to absorb this energy, a small bump could lift the car right off the ground.

Accordingly, everything possible should be done to reduce the weight of the elements that are not supported by the springs. Low unsprung weight means less momentum energy available to upset the car.

True or false: The center of gravity stays in the same place no matter what the car is doing.

False: The center of gravity shifts all over the place according to what the car is doing.

The weight will shift. That's physics. However, the weight shift and—more important—its consequences for traction can be controlled

(Continued other side.)

by the springs and suspension so that all tires allow the car to do what the driver wants.

Multiple choice: What function must occur exactly at the vertical center line of the wheel?

a.) Braking; b.) Steering; c.) Both the above

Answer: c.

Physics question: Can two objects occupy the same place at the same time?

Answer: No.

Then how can steering and braking occur in the same place?

Answer: By careful design.

Now, stop and think about caster, camber, tread and "toe," and consider how all these must be controlled so that the tires don't lose traction as the car shifts its attitude and center of gravity during maneuvers. Whether, and how well, a system works can be read in the exact specifications of a suspension system. However, they can be read more easily in the record of performance.

Corvette's suspension allows up to 0.91g of lateral acceleration.* That is, a Corvette stays on the road even when the sideways force on a tight curve reaches 3,000 pounds and when the deceleration force during braking goes above 1g and actually exceeds the weight of the car. If these numbers aren't enough, look at some others: the number of times specially modified Corvettes have won on the track.

TUNED-PORT FUEL INJECTION

Stoichiometric ratio—a good phrase that, useful to liven up party chatter. It refers to the proportion of ingredients that is optimum for a desired result.

The relevant stoichiometric ratio is the proportion of air to gasoline for optimum burning of the fuel. In a gasoline engine, the ratio is 14.7 parts of air to one part of gasoline, the parts being measured by weight. For maximum power, you run richer—about 12.5:1—to allow increased spark and more power. Since air weighs almost nothing per cubic foot while gasoline weighs several pounds, the fuel system must do some extremely precise mixing, even in normal conditions.

But many conditions are not normal. For a cold engine—one left overnight—more fuel is required for stoichiometry. For a hot engine, less fuel is required to maintain the 14.7:1 ratio. At higher elevations, the amount of fuel is adjusted to maintain stoichiometry with the thin air.

The Robert Bosch Company of West Germany pioneered mechanical fuel injection for gasoline and diesel engines and has been a world leader for 50 years. Corvette uses Bosch injectors and mass air meter to feed its 5.7 Liter V8 powerplant.

The system consists of an inlet air plenum, tuned runners and eight fuel injectors mounted next to the cylinders they serve. A ninth injector is used for enrichment during cold starting. Here, fuel is fed to a channel in the inlet manifold and metered to the cylinders through small, drilled holes.

Ready? Set? Go! The Electronic Control Unit reads engine speed from distributor signals and determines the right moment for the spark plugs to fire. Meanwhile, it also monitors signals from the mass air-flow meter to calculate the fuel required to maintain the stoichiometric ratio for the current operating condition. Engine cold? Keep the injectors open milliseconds longer for a rich mixture. Foot on the gas pedal (as shown by throttle position sensor movement)? Keep the injectors open longer for maximum power. Foot off the gas pedal and the engine decelerating to a traffic light? Shut off fuel to the injectors completely to eliminate "coast-down" emissions. Air density low due to altitude? Reduce the amount of fuel to the cylinders. Whatever the operating mode, whatever the conditions, Corvette's Tuned-Port Fuel Injection allows the engine to maximize the output of power.

*Achieved on the test track by professional drivers. Corvette Coupe equipped with 4-speed manual overdrive transmission, optional Z51 Performance Handling Package and 3.07:1 axle ratio.

THE HEARTBEAT OF AMERICA.
TODAY'S CHEVROLET.

THE HEARTBEAT OF AMERICA.
TODAY'S CHEVROLET.

CORVETTE