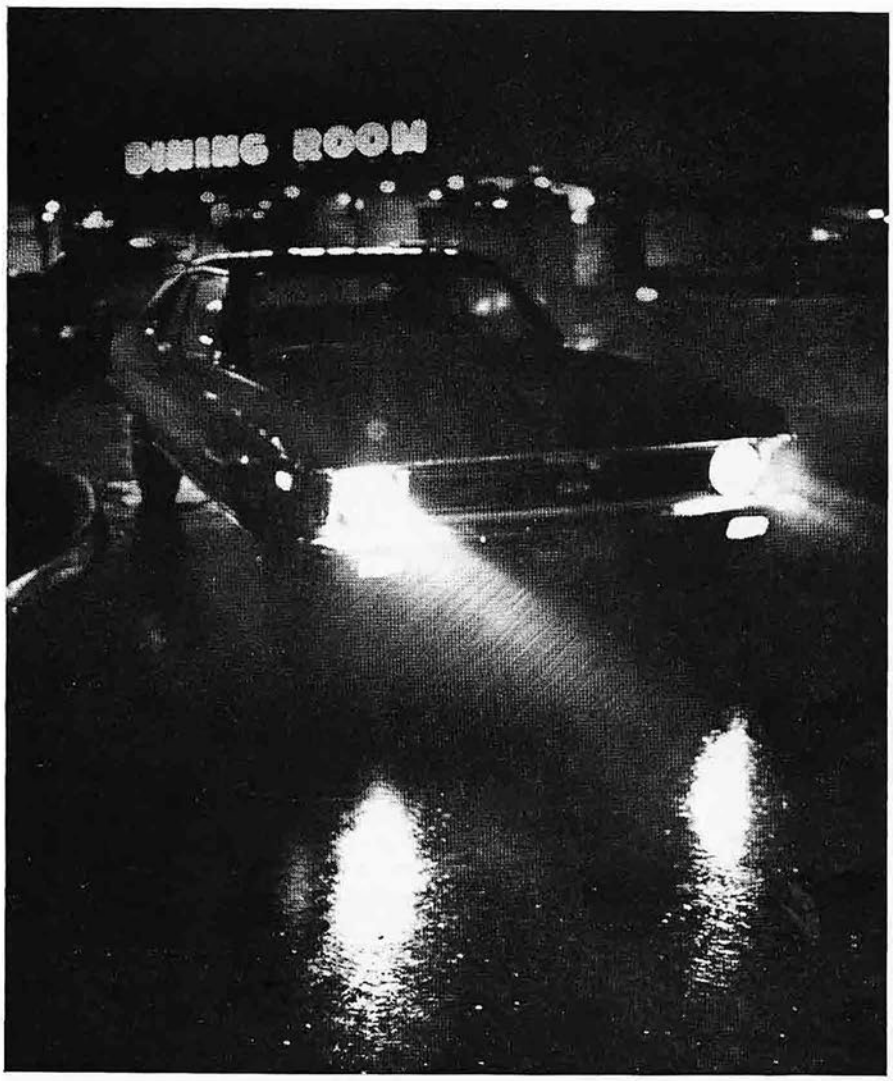
CAR and DRIVER ROAD TEST

Chevy II Nova SS

All docile and innocent . . . the vestal virgin-image pales slightly when you turn on the engine.



Don't think that GM doesn't know about it. As a matter of fact, that's probably why the 396 is offered in the first place—it's certainly why we tested it.

Inconspicuous to the point of being invisible—that's the Chevy II. It rivals the taxi cab as the omnipresent non-car. You don't even see it in traffic unless you search it out with Chevy II radar eyes. The Chameleon II, sneaking quietly along in the curb lane in a single color, doing a terribly earnest, terribly effective job of fading into the background.

They're seldom washed, Chevy IIs, and invariably have skinny black tires with hub caps like dog feeding dishes. The car that the concept of fleet cars was made for.

If you can isolate a '68 Chevy II, say a parked one that's been washed recently, take a look at it. Surprisingly, it's not too bad. It's got the current swoopy GM lines with kind of a half-hearted fastback and what looks like too little front overhang. Something like a drag race funny car. If the one you're looking at has *lots* of overhang it's probably a Chevelle. And, in fact, that's the reason for the abrupt increase in Chevy II sales this year. Signing the check for your econo-stone is a whole lot easier if the unpracticed eye of your neighbor will categorize it one rung higher on the Chevrolet status ladder.

As enthusiasts, our interest in standard Chevy II-istry is well off the bottom of the scale. We're willing to pretend it doesn't exist if you will. But also as enthusiasts, the thought of a sleeper makes sly smiles come over our faces and our eyeballs snap both right and left in a pure reflex action to check for the fuzz. The sleeper appeals only to the most secure and sophisticated performance car fancier. There are no admiring glances from onlookers to bolster the ego. The entire driver satisfaction is based on the inward confidence that you can put the hurt on a strutting GTO or Mopar before they even realize you're a threat. Making your point in one of these street discussions by putting a fender on somebody's Super Car is pure ecstasy, particularly when you do it with an innocuous car. And to our way of thinking, a Chevy II is innocuous beyond Noah Webster's wildest dreams.

That was the plan. Order up a Chevy II with the highest output 396, the 375-hp job, and have a ball. Now, those of you familiar with Chevrolet's engine line-up are well aware that the only similarity between the 375-hp 396 and the 325-hp 396 that was in the Camaro for the Sporty Car test (March) is the displacement. The major engine parts are all different. The 375-hp engine gets the heavy-duty block with 4-bolt main bearing caps, a forged crank with special heat treatment, connecting rods of a stronger alloy and forged, 11.0 to one compression ratio pistons. And that's only part of the story. To make the 50 additional horsepower this engine inherits Chevy's high performance cylinder heads with bigger ports and valves, a high capacity aluminum intake manifold with an 800 cfm Holley 4-bbl., and a mechanical lifter camshaft with more duration and lift.

A very serious engine to stuff into an unsuspecting Chevy II.

As you can imagine, serious Chevy IIs like this have limited appeal—in fact, no appeal at all to the normal Chevy II buy-

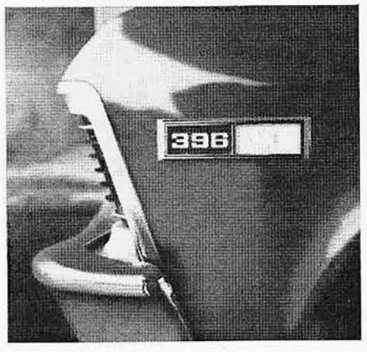
(continued)

er—so serious-engined Chevy IIs are not what you'd call numerous. When we asked Chevrolet for a test car they rocked back on their heels and explained that there was no way to program one into production so that we could have a new car before our deadline. If we were to have one at all, it would have to come out of their fleet. Searching turned up a cooling system test car in the engineering area which we could have as soon as its test schedule was complete. Fine with us. Detroit's Woodward Avenue is a perfect place to evaluate a sleeper so we would just stop by the Tech Center and pick up the car.

Our device turned out to be a bright red 2-door coupe with a black vinyl top. "Nova" and "SS" appeared in chrome plated script on its exterior erogenous zones. All docile and innocent we thought. Something a single working girl might own and faithfully wash every Saturday—taking *great* care about polishing the "Nova" and the "SS."

The vestal virgin-image paled slightly when we started the engine. The 375-hp Chevy IIs are built with a special low restriction dual exhaust system which has larger diameter tail pipes than the lower performance models and no resonators. That's the mechanical part, which, of course, from the outside looks no different. But the sound—there's the difference—a super low pitched rumble, sort of syncopated, that sets serious cars apart from Cadillacs and 6-cylinder stones. Every sleeper needs *that* for reassurance.

We weren't on the Motor City streets 10 minutes before we began to suspect that the Chevy II wasn't a sleeper after all. The mid-afternoon traffic included cars full of teen-agers making their way home or to work or wherever they go after school. Whatever they're doing they always keep a close watch on other cars. Every car is a potential adversary. Their whole, competitive, complicated, insecure teen-age lives require them to know every car in the world, and every engine and every combination thereof so nobody risks a run in with the heat for less than an interesting match. Big 427 Vettes will go against Hemi Mopars but ignore 390 Fairlanes completely. Older Pontiac hardtops, the Super Cars of the early Sixties, now look for other $500 cars to run with. Several times in the course of making our way across town we found ourselves first at the light beside a mag-wheeled Super Car containing two or three young males. The reaction was always the same. All eyes instantly checked out the 396 emblem beside the side marker light on the front fender. Then back to the rear wheels to see if we were running slicks. Finally a quick glance at the Chevy II's driver just to see what kind of a guy would drive such a serious car. When the light turned green the procedure was also uniform. They would gently ease off in a fashion indicating "I pass." A Hemi Dodge followed for several miles but turned off because we couldn't catch a red light. Adolescent types in the pre-drivers license age bracket walking along the sidewalk would hear the authoritative exhaust rumble, turn and focus on front fender and shout "396, 396." That kind of recognition



never happens in Fords of any kind and almost never in Plymouths or Dodges. It's the exact same response you get in a Corvette, the most tuned-in car in the U.S. Boy, were we wrong. Bolt a 396 sign on a Chevy II and it's no longer innocuous, it's no sleeper and it's not a non-car. It's a tuned-in machine. Not just with the kids, either. We were stopped by the fuzz in a residential section of Royal Oak after leaving a friend's house about 10 o'clock at night. "You look suspicious," was the explanation. "Don't drive on these streets anymore," was the warning. *They* apparently have well-defined ideas about muscular Chevy IIs also.

The final test was Ted's Drive-In, the well-known teeny-bopper, car-culture hangout on North Woodward Avenue. We rumbled down one row and after turning to go up the second the fuzz appeared and announced that if we didn't park immediately we'd have to leave.

It didn't make any difference that we were at least a generation removed from the regular customers. The car classified us. We noticed later that most other cars were allowed to drive through at least two rows before they were stopped. Now there's a clinical observation worthy of study by Chevrolet—not to mention that single working girl with her Saturday compulsion to wash cars.

Obviously, the sleeper we had expected was not only keeping *us* awake, but everybody else who saw it too. We were driving an easily recognized, big league super stocker and that's only slightly less fun. With that in mind, our scheduled test session at the drag strip was something to look forward to.

Understand that the Chevy II was a street car and not one set up for the strip. The 3.55 ratio rear gears are standard and quite a reasonable street set-up but you just get into fourth gear at the end of the quarter, which would never do for serious racers. Along with that are the hopelessly slippery UniRoyal E70-14 tires which squeal a lot but never seem to get a grip on the asphalt. You wouldn't expect a compact-sized car with an engine the size of Chevrolet's 396 to come anywhere near having acceptable weight distribution, but you're in for a surprise. Even with power steering and power brakes the Chevy II's front wheels carried only 55.1% of the total car weight—better than almost any performance car we've tested. It's all in vain, though, because with the standard tires you have to get launched so gently to avoid going up in smoke that the quarter mile elapsed times are far less than they should be. We recorded a best run of 14.5 seconds at 101.1 mph. A very impressive terminal speed—within one mph of the 427 Corvette we tested (May) but 0.4 seconds slower in ET, which is almost entirely the result of poor traction. Also interesting, from a performance point of view, is that in a series of back-to-back runs starting with a cool car the terminal speed dropped from 101 to 99 mph in four runs. To combat exhaust emission Chevrolet is now operating their engines at higher coolant temperatures and is using an air pump to promote afterburning in the exhaust manifold, both of which contribute to higher underhood temperatures and an appropriate drop in the density of inlet air as the engine warms up to operating temperature. A fresh air package

(Text continued on page 78; Specifications overleaf)

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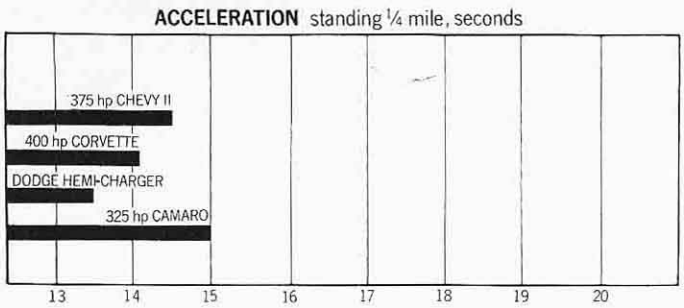
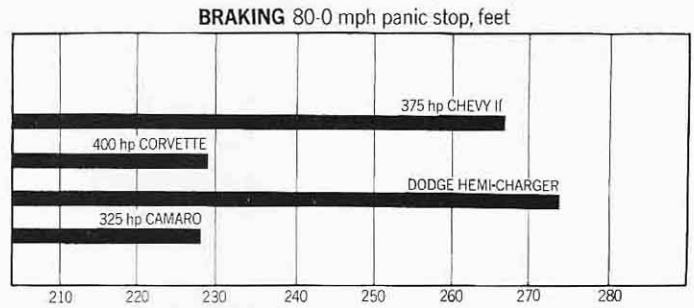
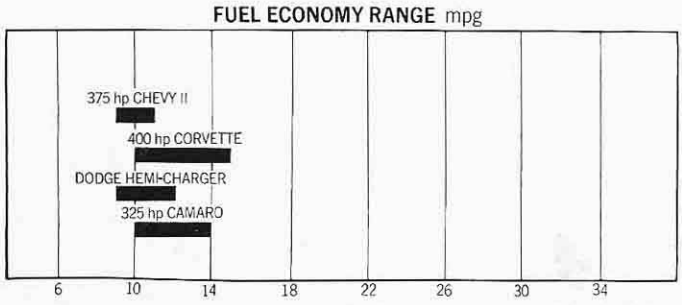
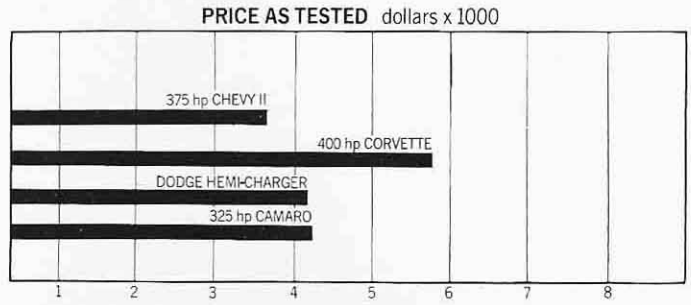
PHOTOGRAPHED AT THE CAR AND DRIVER TEST TRACK









CHEVY II NOVA SS

Manufacturer: Chevrolet Motor Division
General Motors Corporation
30003 Van Dyke
Warren, Michigan 48090

Vehicle type: Front-engine, rear-wheel-drive, 5-passenger coupe

Price as tested: $3687.95
(Manufacturer's suggested retail price, including all options listed below, Federal excise tax, dealer preparation and delivery charges; does not include state and local taxes, license or freight charges)

Options on test car:
375 hp engine ($500.30), close ratio 4-speed transmission ($184.35), limited-slip differential ($42.50), power assisted disc brakes ($100.10), fast ratio power steering ($84.30), custom interior ($221.00), AM pushbutton radio ($61.10), vinyl roof ($73.75), tinted glass ($30.55).

ENGINE

Type: V-8, water-cooled cast iron block and heads, 5 main bearings
Bore x stroke..4.094 x 3.76 in, 103.9 x 95.5 mm
Displacement.....396 cu in, 6500 cc
Compression ratio.....11.0 to one
Carburetion.....1 x 4 bbl Holley
Valve gear.....Pushrod operated overhead valves, mechanical lifters
Power (SAE).....375 bhp @ 5600 rpm
Torque (SAE).....415 lbs/ft @ 3600 rpm
Specific power output.....0.95 bhp/cu in, 57.7 bhp/liter

DRIVE TRAIN

Transmission.....4-speed all-synchro
Final drive ratio.....3.55 to one, limited slip

Gear	Ratio	Mph/1000 rpm	Max. test speed
I	2.20	8.6	55 mph (6400 rpm)
II	1.64	11.5	73 mph (6400 rpm)
III	1.27	14.9	95 mph (6400 rpm)
IV	1.00	18.9	121 mph (6400 rpm)

DIMENSIONS AND CAPACITIES

Wheelbase.....111.0 in
Track.....F: 59.0 in, R: 58.9 in
Length.....189.4 in
Width.....72.4 in
Height.....53.9 in
Ground clearance.....5.8 in
Curb weight.....3470 lbs
Weight distribution, F/R.....55.1/44.9%
Battery capacity.....12 volts, 61 amp/hr
Alternator cap.....444 watts, 37 amps
Fuel capacity.....18 gal
Oil capacity.....4 qts
Water capacity.....23 qts

SUSPENSION

F: Ind., unequal length wishbones, coil springs, anti-sway bar
R: Rigid axle, semi-elliptic leaf springs

STEERING

Type.....Recirculating ball, power assisted
Turns lock-to-lock.....3.1
Turning circle curb to curb.....41.5 ft

BRAKES

F:.....11.0 in vented disc, power assist
R:.....9.5 x 2.00 cast iron drum, power assist

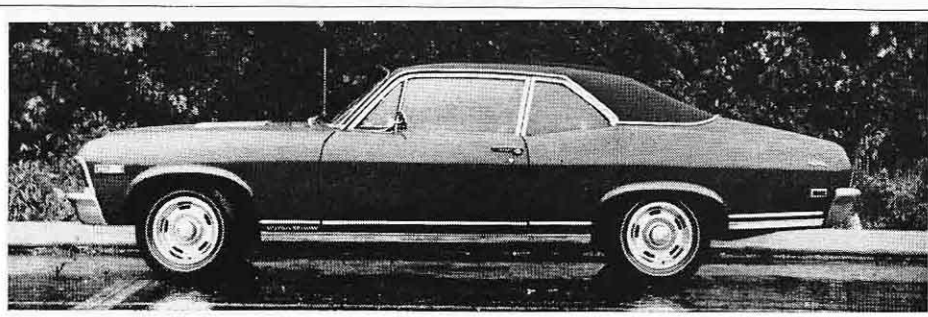
WHEELS AND TIRES

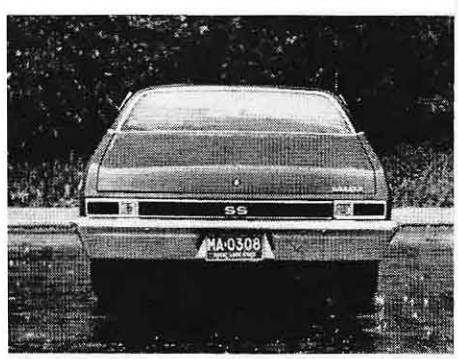
Wheel size.....14 x 5.0-in
Wheel type.....Stamped steel, 5-bolt
Tire make and size.....UniRoyal Tiger Paw E70 x 14
Tire type.....Tubeless, 4 PR
Test inflation pressures...F: 30 psi, R: 30 psi
Tire load rating.....1190 lbs per tire @ 24 psi

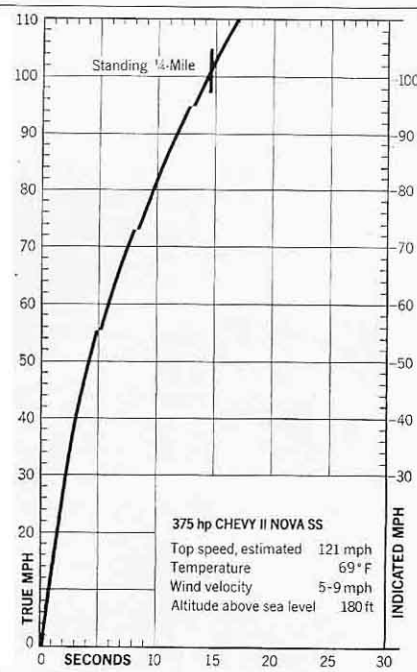
PERFORMANCE

Zero to	Seconds
30 mph	2.2
40 mph	3.2
50 mph	4.3
60 mph	5.9
70 mph	7.5
80 mph	9.7
90 mph	11.7
100 mph	14.3

Standing ¼-mile.....14.5 sec @ 101.1 mph
Top speed estimated.....121 mph
80-0 mph.....267 ft (0.80 G)
Fuel mileage.....9-11 mpg on premium fuel
Cruising range.....162-198 mi







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like that available on the Camaro would offer a significant improvement.

The test car was equipped with Chevrolet's flawless close-ratio 4-speed transmission and their standard Muncie linkage—which is quite the opposite of flawless. Since all the enthusiasts have been setting up a unified howl to protest the inadequacy of this linkage, Chevy engineers have been tinkering with the problem and with the help of one of Roger Penske's race mechanics have come up with a compromise solution. They've found that slightly mis-adjusting the linkage makes it more difficult to get caught in the reverse crossbar on a 1-2 shift—our major complaint. On the other hand, it's harder to find reverse when you want it too, but still, no worse than a standard Volkswagen. Our test car had the benefit of this trick adjustment. It's an improvement but not the ultimate solution.

In only one area of the Chevy II's performance could we find fault, and that was braking. It was a dismal failure. Oddly enough, it isn't entirely a fault of the brakes. The leaf spring rear suspension has to share the blame. We're not categorically denouncing leaf springs—with proper development they can be made to do a more than satisfactory job. But the Chevy II needs help. During any braking test the rear axle sets up a violent hop/tramp mode which brings a certain verisimilitude to a panic stop. No matter how sophisticated the Chevy II's disc front/drum rear braking system is, controlled stops in an acceptable distance are simply out of the question. Our best stop was 267 feet at 0.80G and some stops took nearly 300 feet from 80 mph. Chevrolet is not the only manufacturer with this problem and we're sure that they're all aware that it exists. We can only shake our heads in disbelief that any responsible, government-fearing corporation would make a car with this problem available to the public.

Since our normal road course wasn't available for this test, our handling evaluation was done with the prudence required by public road driving. Once again, the leaf spring rear suspension proved to be skitterish on rough surfaces so that the need for help was obvious. However, on smooth surfaces the Chevy II is a genuinely controllable machine with none of the gross understeer found in 396 Camaros. The only suspension change for the 396 is in front spring rate which is increased to 347 pounds-per-inch from the 278 used with the 327 cube engine. You would expect this change to increase understeer but the result was in no way detrimental. Of course power induced oversteer is a readily available commodity—much like a Corvette. Chevrolet anticipated our handling evaluation by setting a noticeable amount of negative camber in the front suspension. We don't feel this is necessary for good handling in the Chevy II and even suspect that it may have been the cause of the poorer-than-normal directional stability over irregularly surfaced roads.

The optional fast ratio power steering in the test car definitely deserves mention. It provides a very quick ratio—just over three turns lock-to-lock—which would be almost unbearable in a manual steering car and at the same time has superb road feel and response. This power steering is a giant step ahead of the Ford and Chrysler competitors.

Most endearing of the Chevy II's qualities was its amazing ease of operation. Those who have envisaged the 375-hp engine to be an ill-at-ease refugee from the race track are only half right—it goes like a racer but otherwise behaves with prep school manners. It starts readily (although a little reluctantly when hot) and has no more than a pleasantly lumpy idle. The stumble we've grown to expect in big carburetor/manual transmission cars, when opening the throttle for acceleration from low engine speeds, is almost imperceptible and the properly-adjusted mechanical valve lifters are undetectable.

Driving, frequently a task in a high performance car, was nearly effortless. The difficulty with most big engine/manual transmission cars is the disparity in effort between the clutch and all the rest of the driver controls. Chevrolet is normally the worst offender in this department, not because of clutch effort higher than competition but because the other controls are far lighter. Much to our surprise, all the controls—steering, brakes, shifter, accelerator, and clutch—were commensurate in effort on our test car. The entire credit for this startling bit of coordination goes to the experimental dual plate clutch which the Chevrolet engineers had installed into the test car to get the reaction of an unbiased critic. "Power assisted clutch," is the only suitable description from a driver's point of view. It's generally understood that dual plate clutches have increased capacity and life with a smaller diameter, and at the same time less pedal effort. It's just that Chevrolet is the first manufacturer to get the bugs worked out. Obviously the manufacturing cost is higher but it makes such an improvement in effort that we think it's worth nearly as much as power steering or power brakes. Unfortunately, you can't have it just yet. It's not scheduled for production until the '69 models, and then only with 350 cu. in. 4-bbl. engines and larger.

The Chevy II's instrument panel is a masterpiece in the great Chevrolet tradition. All the instruments: the speedometer, fuel gauge and optional clock, are grouped directly in front of the driver for quick, at-a-glance viewing. Sorry, but if you want to know anything else about what's happening inside your very special 375-hp 396 (made-of-all-very-exotic-pieces), you'll have to wait until one of the warning lights comes on—which simply serves notice that you should speak of your engine in the past tense. Not only is the panel hopelessly incomplete for a high performance car, but the heater controls must be operated by feel alone. They are unlighted and completely obscured by one of the fat steering wheel spokes anyway.

Padding on the instrument panel—free from decorative ridges and amply covering the most vulnerable area—was excellent. There *are* disadvantages to ample padding and these become obvious when trying to look around the rather far windshield pillars. Trying to see out does present a problem in a Chevy II. The seating position is very high which gives a good view of the road but in effect clips off the world just above eye level. This is particularly noticeable in the front corners where the roof makes a blind spot as it dips down to blend into the windshield pillars. The same holds true in the rear quarters. Vision directly to the rear also suffers, because of the short vertical height of the sloping rear glass.

The ventilation in the Chevy II is so good it's almost a miracle. If Chevrolet was that smart, all of its cars would be this good. Apparently the shape of the body is such that the vent windows operate very effectively and yet almost totally without noise. The system is complimented by foot vents which are operated by conveniently located knobs in the side panels just below the dash. The result is ventilation way above the compact car state of the art.

Chevrolet shies away from calling the Chevy II a compact car. Rather, it's considered to be a smaller size Chevrolet that competes with Falcons and Valiants and Darts. That's about the only context in which a name like Chevy II makes any sense at all. All of this is meant, obviously, to categorize an everybody's junior Chevrolet. The junior Chevy with the senior engine, like our 375-hp Nova SS, competes with *nobody's* compact—it's an instantly recognized and feared street cleaner that pushes you well up the youthful car-culture respect poll. With the exception of the clumsy rear suspension the car is so well coordinated that we never once had the overpowered-car feeling. In fact, unless you just plain need the cargo capacity we think a performance car any bigger suffers too great a penalty in maneuverability and weight.

The 396 Chevy II sure wasn't the invisible sleeper we had expected but it was every bit as wild as we hoped. ●