

LANSING'S FRONT-RUNNERS

OLDSMOBILE'S FRONT-WHEEL DRIVE HERITAGE

By Dennis Castele



Oldsmobile has always been General Motors' in-house innovator. Witness again the 1940 introduction of the HydraMatic transmission, the 1949 unveiling of the Rocket V8, the 1957 tri-carb J-2 engine option, and the 1962 introduction of the turbocharged aluminum 215-cubic-inch V8. Perhaps the greatest showroom shocker in Olds history came in the 1966 model year, with the dawning of the modern-day, front-wheel drive revolution.

The Oldsmobile Toronado had arrived. Stretched over a 119-inch wheelbase of personal luxury coupe and powered by a 385-horsepower Rocket V8 engine, the Toronado was more than just different. A talented blend of General Motors corporate and Oldsmobile division engineers began development work on front-drive back in the mid-1950s. Using a tough, chain-based power transfer system, a rugged torsion bar front suspension and a distinctive long-nose, short-deck styling package, the Toronado line was ahead of its time in more ways than one.

Upon introduction, the Olds front-wheeler offered an amazing blend of balanced performance for a car its size. A great deal of testing went into the XP-784 package, which ultimately became the Toronado. In the process, the tortuous roads of GM's Milford, Michigan, and Mesa, Arizona, proving grounds saw millions of front-drive test miles accumulated.

An even more interesting pre-production evaluation facility for the Toronado were the slopes of Pike's Peak. No less a chauffeur than Indy racer

America's front-wheel drive revolution began with the introduction of the Olds Toronado in 1966. Combined with a healthy Rocket V8, the early Toro's long-nose, short-deck styling gave the full-size machines a decidedly sporty flavor.

Bobby Unser was behind the wheel. Growing up in the shadow of the great Peak, Unser knew many back trails that were barely fit for mountain goats, but he'd drive the Toronado prototype up them all. Unser tortured this special '66 Toro test mule as only a lead-footed racer on Pike's Peak could. The only one that didn't come away a winner was the mountain.

Front-drive race cars also have a successful track record, including a big win at Indianapolis. Just after the turn of the century, Walter Christie built some awesome front-driven racers. In the 1920s and '30s, race car-building genius Harry Miller created several Indy winners using a front-wheel drive layout. In addition, the legendary Blue Crown Specials, successful in competition immediately before and just after World War II, also utilized a front-drive arrangement.

With generously proportioned passenger-car size and a smooth-shifting automatic transmission, the early Toronado didn't appear to be a candidate for the checkered flag. But the Toronado was to enter the record books as a winner. Through the Unser team's efforts, racing Toronados were entered in the Stock Car class in the annual USAC-sanctioned Pike's Peak Hill Climb. And in 1968, a team of Toros finished one-two-three at The Peak,

taking the first clean sweep in stock car action in the 46-year history of the event. The winning Olds was driven by Nick Sanborn of Cascade, Colorado.

Another interesting application of front-wheel drive came in the late 1960s on the nation's dragstrips. In startling exhibition performances, the thundering Hurst Hairy Oldsmobile smoked *all four tires* on its way down the quarter-mile. A 425-cubic-inch supercharged Olds Toronado V8, complete with a full Toro



The Toronado's entire powertrain package was engineered to fit underhood. In this "north-south" front-wheel drive layout, a special version of GM's THM automatic transmission sits alongside the Rocket V8 engine. The large flat cover at the rear of the assembly contains the system's extra-duty drivechain. This compact arrangement also allows a flat "tunnel-less" floor inside the car.

drivetrain, was stuffed into the engine bay of a specially prepared 4-4-2. The car's primary powerplant drove the restructured intermediate Olds' two front wheels. An identical 425 V8 powerplant was positioned facing backward, where the coupe's rear window would normally be, to drive the rear wheels.

"Gentleman" Joe Schubeck, among others, took the Olds' controls and delighted race fans from coast to coast.

The Toronado continued throughout that year as the domestic auto industry's full-size, front-drive marketing success. In 1979, the Toronado was downsized to become a vital part of the current Oldsmobile lineup.

For 1984 the Toronado offers a 4.1-liter, even-firing V6 as the standard powerplant, with a 5-liter gasoline V8 and 5.7-liter diesel V8 as options. The

Caliente package offers extra style and flair on high-line Toronado models.

Aside from its highly refined front-wheel drive features, the latest Toronado offers some unique options. The new voice information system, for example, differs considerably from other manufacturers' currently marketed devices. Sensors located throughout the car continually monitor operations. When a failure or warning condition is detected, stored information is reproduced from a microprocessor. The unit then alerts the driver to an on-board problem and indicates the magnitude of the problem, as well as what should be done about it. After a driver has taken the prescribed action, the computer continues to monitor the systems involved to update the driver concerning the effectiveness of the corrective action.

The minimal size of the controlling microprocessor is maintained by digitizing, or breaking into primary elements, human speech messages. This data is mathematically compressed and stored in the microprocessor until it's needed. When specific signals arrive, the digitized information is then recombined, or synthesized, into speech and broadcast through the Toronado's left-side radio speaker.

An electronic instrument panel with blue fluorescent displays is also a 1984 Toronado option. Readouts include digital speed, inside and outside temperatures, and a trip odometer that converts from standard to metric measure at the flip of switch. Fuel level and engine temperature readouts are graphically indicated with bar graphs. The panel's display brightness is



Olds backed their advanced front-wheel drive engineering with real-world performances. In a 1968 hillclimb contest, the rugged roads of Pike's Peak were conquered by a team of specially prepared Toronados that finished the event in the first three positions.



The 1984 Toronado is offered with this Caliente option and a choice of front-wheel drive powertrains, including diesel and gasoline engines.



Olds' Firenza ES is styled along international lines with blacked-out moldings and a minimum of bright metal trim. The sport mirrors are black, and black appliques on the sail-panel provide instant ES identification. Wide black fascia moldings on both the front and rear bumpers and black rocker panel moldings complete the subtle scheme. Offered in three body colors (silver, light royal blue or light maple metallic), the Firenza ES is available with either standard or deluxe interior trim. Polycast wheels are standard with the package.

In addition to the spectra red and silver offered in 1983, this year's sporty package is expanded to include a white and silver paint scheme. The Firenza GT shares the updated front-end appearance with all '84 Firenza models. Polycast sport wheels and black accents are also part of the GT package.



This phantom view of a late-model Firenza illustrates the transversely mounted front-wheel drive engine/trans module and the widely spaced MacPherson struts. Efficient packaging provides handling, performance and plenty of room inside.

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automatically controlled by an ambient light sensor.

Advanced electronics are also available on 1984 Oldsmobile Cutlass Ciera coupes and sedans. Customers can order an auto calculator device that's located in the new center console. The unit integrates with the instrument panel and provides trip functions, including estimates of distance to destination, time of arrival, average fuel economy and time and date reminders.

In addition, the on-board calculator also functions as a standard arithmetic calculator. All buttons are illuminated for use at night and a soft tone sounds when

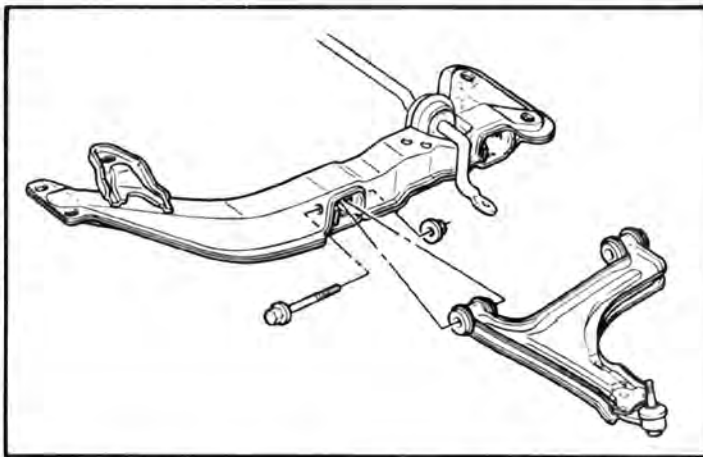
each button is depressed. When combined with the optional electronic instrument cluster and electronically-tuned radio, Ciera buyers have a full complement of modern electronics at their fingertips. All 1984 Olds models also offer an optional electronic cruise control unit incorporating a new acceleration feature.

With the addition of two new options for 1984, specialty vehicles continue to play an important part in Oldsmobile's new car line-up. Featuring several models with an international flair, the popular ES series is expanded to include a Firenza ES sedan, a Cutlass Ciera ES and the ES version of the Omega. At the

luxury end of Oldsmobile's current special-edition machines, a Toronado Caliente joins the established Cutlass Ciera Holiday coupe.

A long-time front-wheel drive leader, Oldsmobile continues to improve their systems by applying them in a wide variety of real-world applications. And Olds isn't finished yet. Today's emphasis on improved small-engine performance promises even more excitement to come. Efficient engineering, refined mechanical combinations, flexible powertrains and additional electronic marvels are sure to make motoring in a brand-new Olds a memorable experience.

For 1984, the Firenza's front suspension uses softer bushings for reduced road noise and improved impact feel. For performance use, the bushings used in earlier versions had more advantageous, higher durometer ratings.

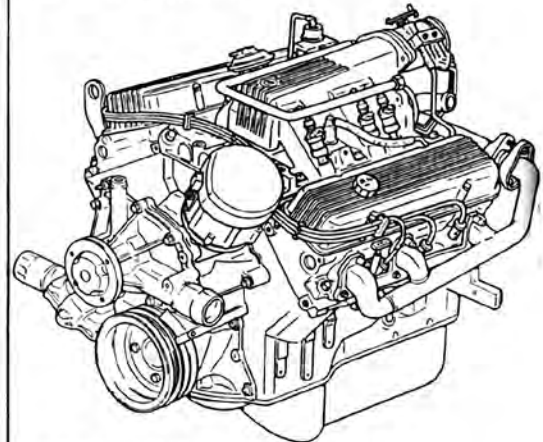


Also echoing the international theme, the Omega ES features an updated grille design and a similar blackout treatment applied to the moldings. Omega ES models share exterior color availability with the Firenza.



Larger 14-inch, steel-belted radial blackwall tires and a deck lid luggage carrier are included in the Cutlass Ciera ES package of standard equipment.

Accents to the international flavor for 1984 are added with black belt reveal and drip moldings and black door handle accents.



Available on 1984 Cutlass Ciera models, a responsive new 3.8-liter V6 gasoline engine features multi-point fuel injection. The quantity of injected fuel is determined by an electronic control module that reads engine speed, incoming air temperature, throttle position, coolant temperature and exhaust oxygen content.



Putting front-drive science to the extremes of real-world use is the performance plan here. Dale Atkins and Bill Brodrick are the driver and co-driver of the DART Performance Oldsmobile Omega SCCA Pro-Rally machine that gives new meaning to the term "off-road." This Olds Omega tree-bumper is one of the few American-made cars competing in this series of professional events.