

# **VOLVO** NEWS & INFORMATION

## VOLVO 1992

### TECH & SPEC

The following pages contain technical information about Volvo's 1992 models designed for the U.S. market. The information is accurate as of September 25, 1991. However, the manufacturer reserves the right to alter specifications at any time without notice.

#### NEW MODEL

960 SERIES: The introduction of the 960 series marks Volvo's return to the luxury/prestige market segment. Featuring an all new aluminum alloy inline six-cylinder engine, mated to an electronically controlled four-speed automatic transmission, Volvo's 960 will replace the 940 SE as the top-of-the-line model. The Volvo built B 6304F engine is rated at over 200 horsepower and develops nearly 80% of its maximum torque at a very low 1000 rpm. The design criteria for the 960 series drivetrain focused on qualities such as low vibration, quieter operation at all engine speeds, increased torque at low rpm, and improved fuel efficiency over present drive lines. The 960 series sedan features Volvo's multi-link independent rear suspension system, SIPS (Side Impact Protection System), electronic climate control, and three-memory power seats as standard equipment. Volvo's 960 series will be available in sedan and wagon versions.

940 GL: Volvo's most affordable 900 series model, the 940 GL sedan, will become Volvo's volume car for 1992. Powered by the durable 2.3 liter, single overhead cam, four-cylinder fuel-injected engine, the 940 GL sedan features Volvo's constant track live rear axle suspension system. Standard equipment includes Volvo's SIPS

(Side Impact Protection System), power sunroof, six-speaker audio system, automatic locking differential for improved wet-weather traction, and an integrated child cushion/armrest for the center rear-seating position. The 940 GL will replace the 940 GLE which was sold during 1991.

#### SUMMARY OF CHANGES BY MODEL

240 SERIES: Joining Volvo's entry level 240 series after a two-year absence, is the tastefully appointed 240 GL sedan. The 240 GL is equipped with many standard features including a sunroof, power/heated outside mirrors, rear hat-shelf audio speakers, power antenna and heated front seats. All 240s will be equipped with ABS brakes for 1992 as part of their standard equipment. Other enhancements to all 240 series models include: a new heat control valve for more efficient control and distribution of heat, a larger diameter front anti-sway bar for improved handling, and re-valued front and rear shock absorbers for enhanced ride comfort. The 240 series sedans and wagons feature a matte black grille and trim package while the 240 GL sedan carries a chrome grille and bright trim package.

740 SERIES: The Volvo 740 series gains numerous new safety features for 1992 including ABS as standard equipment on every variant. The most significant new development is Volvo's SIPS (Side Impact Protection System) designed to significantly reduce injuries in the event of lateral collisions. Also new, as standard features, are pyrotechnique seat belt pretensioners, an integral padded head rest for the front seats, and Volvo's automatic locking differential for enhanced wet-weather traction. Additional changes include a more powerful alternator and battery, and power remote-controlled outside mirrors. Volvo's proven 740s are available as normally aspirated sedans and wagons and in a turbo-charged wagon version. Manual transmissions will no longer be available on any 740 series models.

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940 SERIES: The 940 series will acquire additional safety features, for 1992 including: SIPS (Side Impact Protection System), pyrotechnique seat belt pretensioners, and a newly styled integral padded head rest for the front seats all contributing to the 940's occupant protection capabilities. All 940 series sedans are equipped with an integrated child cushion/armrest in the center rear seating position.

Completing the changes to the 940 are: a reduction of the diameter of the front anti-sway bar (from 23 mm to 21mm) for improved ride quality, a more powerful battery and alternator, and newly styled power seat control for 940 turbos. All 940 sedans and wagons are based on Volvo's predictable handling, constant track rear axle suspension system and include an automatic locking differential.

COUPE: Introduced in 1987, Volvo's Bertone designed coupe has been discontinued at the end of the 1991 model year.

## TECHNICAL HIGHLIGHTS

### B6304F ENGINE

This all new Volvo designed and built 201 hp engine is the first of a new family of modular engines. Its compact inline six-cylinder design uses double overhead camshafts and four valves per cylinder. Both the cylinder head and the engine block are aluminum alloy for light weight. By connecting all of the main bearing caps together in one solid lower casting, Volvo engineers have used a technique often found in racing engines to enhance engine strength. Delivering over 200 hp, the new Volvo engine is quiet, efficient, and very responsive to drive. A Bosch Motronic 1.8 engine management system handles fuel injection and ignition functions. The

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engine is designed to run on unleaded regular and delivers an impressive 18 MPG city, 26 MPG highway according to EPA test procedures.

#### AW40

The four-speed electronically controlled automatic transmission has been developed to work specifically with the B6304 engine. A switch allows the driver to select one of three driving modes: economy for best fuel mileage and comfort, sport for maximum performance, and winter for best traction in slippery situations. The transmission's unique programming also includes a "down-slope mode" which automatically determines when you are descending a hill and shifts to a lower gear to provide engine braking.

#### SIPS

Volvo's SIPS or Side Impact Protection System is a redesign of the main body structure to enhance its occupant protection capabilities in the event of a lateral or side impact. Side impacts are the second most frequent type of accident after frontal impacts. The government has set standards for side impact protection which will come into effect in a few years. Beginning this model year, all 740, 940 and 960 Volvos offer a system which can easily meet this safety level. Volvo's SIPS consists of reinforcements to the rocker panels, roof rails, B-pillars, and floor pan transverses which have been designed to spread side impact forces across as much of the car's structure as possible. The SIPS system resists intrusions and transfers forces across the width of the body. Volvo engineers have designed this system to help reduce injuries in side impact collisions with cars by 25%.

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### INTEGRATED CHILD SAFETY CUSHION

Volvo 940 and 960 series sedans will feature as standard equipment an integrated child safety cushion/armrest in the center rear seating position. Doubling as an armrest, the child safety cushion can quickly and easily be transformed into a comfortable seating position for children in the 50 to 80 lb. range. This novel design is convenient and is designed to work in conjunction with another safety-first feature - the rear center seat with lap/shoulder belt and head rest. The safety cushion is high enough to allow good visibility so children will enjoy using it.

### SUPPLEMENTAL RESTRAINT SYSTEM

Since model year 1990, 100% of all new Volvos sold in the U.S. have been equipped with Volvo's Supplemental Restraint System consisting of a driver's side air bag and knee bolster. Again for 1992, all U.S. Volvos will be so equipped. All 740, 940, and 960 models will also be equipped with pyrotechnique seat belt pretensioners on both front seat positions.

### ABS BRAKES

Anti-lock brakes will be standard equipment on all 1992 Volvos sold in the United States.

### AUTOMATIC LOCKING DIFFERENTIAL

Designed to aid traction when accelerating in slippery conditions, this differential unit works like other limited slip or locking differentials at low speeds. At speeds over 25 miles per hour, the unit automatically disengages itself to help assure  
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predictability at highway speeds. The automatic locking differential is standard on all 740 , 940 and 960 Volvos.

#### ANTI-THEFT RADIOS

All Volvo audio systems in 1992 models will be equipped with anti-theft code protection.