MAINTENANCE INFORMATION

1994 Volvo 960

1992-96 MAINTENANCE
Volvo Maintenance Information

960 Sedan
960 Wagon

* PLEASE READ THIS FIRST *

NOTE: For scheduled maintenance intervals and the related fluid capacities, fluid specifications and labor times for major service intervals, see SCHEDULED SERVICES article in this section. Warranty information and specifications for fluid capacities, lubrication specifications, wheel and tire size, and battery type are covered in this article.

MODEL IDENTIFICATION

VIN LOCATION

The Vehicle Identification Number (VIN) is located on the left side of the dash panel at the base of the windshield. The VIN chart explains the code characters.

VIN CODE ID EXPLANATION

Numbers preceding the explanations in the legend below refer to the sequence of characters as listed on VIN identification label. See VIN example below.

VIN (Y V 1 K S 9 5 1 U S 1 0 0 1 2 3 4)

1 - Manufacturing Country
Y * Sweden or Belgium
2 * Canada

2 - Manufacturer
V * Volvo

3 - Vehicle Type
1 * Passenger Vehicle

4 - Car Line Series
K * 960 Sedan
K * 960 Wagon

5 - Restraint System
S * 4-Door with Driver & Passenger Air Bag (1992-95)
S * 4-Door Driver W/Side & Passenger W/Side Air Bags (1996)
W * 5-Door with Driver & Passenger Air Bag (1992-95)
W * 5-Door Driver W/Side & Passenger W/Side Air Bags (1996)

6-7 - Engine
93 * B6254S 2.5L Inline 6 (1995 w/5-Speed Manual)
93 * B6254S 2.5L Inline 6 Motronic 4.4 SFI (1996 w/5-Spd Manual)
93 * B6254S 2.5L Inline 6 Motronic 4.4 SFI (1996 w/ AW 30-43 Auto)
MAINTENANCE SERVICE INFORMATION

SEVERE & NORMAL SERVICE DEFINITIONS

NOTE: Use the Severe Service schedule if the vehicle to be serviced is operated under ANY (one or more) of these conditions:

Service is recommended at mileage intervals based on vehicle operation. Service schedules are based on the following primary operating conditions:

Normal Service
* Driven More Than 10 Miles Daily
* No Operating Conditions From Severe Service Schedule

Severe Service (Unique Driving Conditions)
* Extended Idling Or Low Speed Operation
* Frequent Short Trips Of Less Than 7 Miles
* Extended Operation In Dusty Or Sandy Conditions
* Trailer Towing Operations
* Driving In Mountainous Conditions

CAMSHAFT TIMING BELT (IF EQUIPPED)

CAUTION: Failure to replace a faulty camshaft timing belt may result in serious engine damage.

The condition of camshaft drive belts should always be checked on vehicles which have more than 50,000 miles. Although some manufacturers do not recommend belt replacement at a specified mileage, others require it at 60,000-100,000 miles. A camshaft drive belt failure may cause extensive damage to internal engine components on most engines, although some designs do not allow piston-to-valve
contact. These designs are often called "Free Wheeling". Many manufacturers changed their maintenance and warranty schedules in the mid-1980’s to reflect timing belt inspection and/or replacement at 50,000-60,000 miles. Most service interval schedules in this manual reflect these changes.

Belts or components should be inspected and replaced if any of the following conditions exist:

* Cracks Or Tears In Belt Surface
* Missing, Damaged, Cracked Or Rounded Teeth
* Oil Contamination
* Damaged Or Faulty Tensioners
* Incorrect Tension Adjustment

Volvo recommends replacement of the camshaft timing belt at the following intervals:

**CAMSHAFT TIMING BELT REPLACEMENT INTERVAL TABLE**

<table>
<thead>
<tr>
<th>Application</th>
<th>Interval (Miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992-93 (1)</td>
<td>30,000</td>
</tr>
<tr>
<td>1994</td>
<td>50,000</td>
</tr>
<tr>
<td>1995-96</td>
<td>70,000</td>
</tr>
</tbody>
</table>

(1) - First (30,000 Mile) timing belt change to be done by Volvo dealer at no cost.

---

**SERVICE POINT LOCATIONS**

1. Data plate
2. Oil filler cap, engine
3. Engine oil dip-stick
4. Brake fluid reservoir
5. Washer fluid reservoir
6. Expansion tank, coolant
7. Radiator
8. Air cleaner
9. Power steering fluid reservoir
10. Battery

Fig. 1: Service Point Locations (1992-94)
Courtesy of Volvo Cars of North America.
**Engine compartment 960**

1. Expansion tank, coolant
2. Oil filter cap, engine
3. Engine oil dip-stick
4. Brake fluid reservoir
5. Battery
6. Data plate
7. Radiator
8. Power steering fluid reservoir
9. Air cleaner
10. Washer fluid reservoir
11. Main fuse box
12. Relay/fuse box

**WARNING!**
The cooling fan may start or continue to operate (for up to 6 minutes) after the engine has been switched off.

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**Fig. 2: Service Point Locations (1995–96)**
Courtesy of Volvo Cars of North America.

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**Fig. 3: OBD II Diagnostic Link Connector Location (1996)**
Courtesy of Volvo Cars of North America.

---

**ADDITIONAL SERVICE INFORMATION**
TIMING BELT REPLACEMENT

TIMING BELT REPLACEMENT TABLE

<table>
<thead>
<tr>
<th>Model Year</th>
<th>Part Number</th>
<th>20K</th>
<th>30K</th>
<th>40K</th>
<th>50K</th>
<th>60K</th>
<th>70K</th>
<th>90K</th>
<th>100K</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>271705-6</td>
<td>B</td>
<td>C</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>1993*</td>
<td>271705-6</td>
<td>D</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>271856-7</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995-</td>
<td>271876-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>E</td>
</tr>
</tbody>
</table>

* Late M/Y 93 960’s (from engine no. 131035) should have M/Y 94 timing belt (P/N 271856-7). See Parts Bulletin 21-13 and Tech DCS 21-02.

B = See SMB 137A, timing belt replaced at no cost to customer
C = See SMB 137A, SB 21-118, install torsion damper, replace timing belt at no cost to customer
D = Recommended timing belt replacement at no cost to customer
E = Recommended timing belt replacement
X = Required timing belt replacement


ELECTRONIC AIR PUMP SYSTEM (1995-96)

Body lubrication points

Fig. 4: Electronically Controlled Air Pump System (1995-96)
Courtesy of Volvo Cars of North America.
Fig. 5: Body Lubrication Points
Courtesy of Volvo Cars of North America.

REAR AXLE SERVICE POINTS

<table>
<thead>
<tr>
<th>No. Lubricating hint</th>
<th>Lubricant</th>
<th>No. Lubricating hint</th>
<th>Lubricant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Hood lock and latch</td>
<td>Oil</td>
<td>7 Window regulator locking device (on inside of door)</td>
<td>Oil, grease low temperature grease</td>
</tr>
<tr>
<td>2 Hood hinges</td>
<td>Oil</td>
<td>8 Front seat slide rail and latch</td>
<td>Oil, Low temperature grease or Volvo Teflon lock oil</td>
</tr>
<tr>
<td>3 Door stop and hinges</td>
<td>Oil</td>
<td>9 Door lock keyhole</td>
<td>Low temperature grease</td>
</tr>
<tr>
<td>4 Sun roof wind deflector</td>
<td>Oil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Door lock catch plate</td>
<td>Low temperature grease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Trunk lid lock keyhole and hinges</td>
<td>Low temperature grease</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 6: Rear Axle Service Points (Sedan and Wagon)
Courtesy of Volvo Cars of North America.

NOTE: All sedan and 1995–96 wagon models have an Independent Rear axle, the 1992–94 wagons have a solid axle.
VEHICLE LIFT POINTS

Fig. 7: Vehicle Lift Points (Typical)
Courtesy of Volvo Cars of North America.

NOTE: For more information regarding lifting and hoisting refer to the JACKING & HOISTING article in the WHEEL ALIGNMENT section.

INFORMATION LABEL LOCATIONS

Fig. 8: Information Label Locations
Courtesy of Volvo Cars of North America.

SERVICE LABOR TIMES
## SERVICE LABOR TIMES TABLE (HOURS)

<table>
<thead>
<tr>
<th>Application (1)</th>
<th>30,000 Mile Service</th>
<th>60,000 Mile Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5L Automatic</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>3.0L Automatic</td>
<td>6.3</td>
<td>7.7</td>
</tr>
</tbody>
</table>

(1) - To replace camshaft timing belt, add 1.3 hours.

---

## LUBRICATION SPECIFICATIONS

CAUTION: DO NOT use SAE 15W-40 oil in extremely low ambient temperatures.

### LUBRICATION SPECIFICATIONS TABLE

<table>
<thead>
<tr>
<th>Application</th>
<th>Fluid Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Coolant</td>
<td>50/50 Mix Ethylene Glycol and Distilled Water</td>
</tr>
<tr>
<td>Brake Fluid</td>
<td>DOT 4 Or DOT 4+ Brake Fluid</td>
</tr>
<tr>
<td>Engine Oil (1)</td>
<td>SAE 5W-30 API SH/CD</td>
</tr>
<tr>
<td>Ambient Temperature</td>
<td></td>
</tr>
<tr>
<td>Less Than 68°F (20°C)</td>
<td>SAE 10W-30 API SH/CD</td>
</tr>
<tr>
<td>-4°F To 100°F (-20° To 38°C)</td>
<td>SAE 15W-40 API SH/CD</td>
</tr>
<tr>
<td>Greater Than 14°F (-10°C)</td>
<td></td>
</tr>
<tr>
<td>Automatic Transmission</td>
<td></td>
</tr>
<tr>
<td>AW30/40</td>
<td>Dexron-IIE ATF</td>
</tr>
<tr>
<td>AW30/43</td>
<td>Dexron-IIE or Mercon ATF</td>
</tr>
<tr>
<td>Power Steering Fluid</td>
<td>Dexron-IIE or Mercon ATF</td>
</tr>
<tr>
<td>Rear Axle</td>
<td></td>
</tr>
<tr>
<td>Without Limited Slip</td>
<td>SAE 80W-90 API-GL-5 (2)</td>
</tr>
<tr>
<td>With Limited Slip</td>
<td>SAE 90 API-GL-5 (2)/(3)</td>
</tr>
<tr>
<td>Limited Slip Additive</td>
<td>Volvo Additive (1161129-0)</td>
</tr>
<tr>
<td>Wheel Bearings</td>
<td>NLGI Grade 2 Category GC-LB</td>
</tr>
<tr>
<td>Drive Shaft U-Joints</td>
<td>NLGI Grade 2 Category GC-LB</td>
</tr>
<tr>
<td>Steering Linkage (4)/(5)</td>
<td>NLGI Grade 2 Category GC-LB</td>
</tr>
<tr>
<td>Ball Joints (4)/(6)</td>
<td>NLGI Grade 2 Category GC-LB</td>
</tr>
<tr>
<td>Aux. Drive Belt Tensioner</td>
<td>Volvo Grease (1161246-2)</td>
</tr>
<tr>
<td>Tensioner Pulley Bushing</td>
<td>Grease (P/N 116246-2 or 116247-0)</td>
</tr>
<tr>
<td>Weatherstrip</td>
<td>Dielectric Silicone Grease</td>
</tr>
</tbody>
</table>

(1) - SAE 15W-40 or 20W-40 engine oil is recommended for extreme conditions or extended highway operation.
(2) - In Canada and cold climates use SAE 80W API GL-5.
(3) - Supplement with Volvo Additive (1161129-0)
(4) - Use low pressure grease gun to prevent seal damage.
(5) - Fill until lubricant squeezes out from the base of seals.
(6) - Fill ball joint until seal starts to swell.

---

## FLUID CAPACITIES

### FLUID CAPACITIES TABLE

<table>
<thead>
<tr>
<th>Application</th>
<th>Quantity (1)</th>
</tr>
</thead>
</table>
A/C R-12 Refrigerant
1992 .............................................. 33.5 Ozs.

A/C R-134a Refrigerant (2)
1993-96 ........................................... 31.8 Ozs.

Brake Master Cylinder .......................... 0.63 Qt. (0.6L)

Cooling System .............................. 10.5 Qts. (10.0L)

Engine Oil
With Oil Filter Change ...................... 5.9 Qts. (5.7L)
With Filter and Oil Cooler .................. 6.4 Qts. (6.1L)

Fuel Tank
1992-94
Sedan .................................. 21.1 Gals. (80.0L)
Wagon .................................. 19.8 Gals. (75.0L)
1995-96 (All) ............................ 20.8 Gals. (80.0L)

Rear Axle (3)
Sedan ..................................... 1.4 Qts. (1.3L)
Wagon ..................................... 1.7 Qts. (1.6L)

Automatic Transmission
Fluid & Filter Change
AW30/40 ................................... 3.2 Qts. (3.0L)
AW30/43 ................................... 3.2 Qts. (3.0L)

Overhaul
AW30/40 ................................... 7.9 Qts. (7.5L)
AW30/43 ................................... 7.9 Qts. (7.5L)

Power Steering ............................... 1.05 Qts. (1.0L)

(1) - Capacities are recommended or calculated levels. Always use dipstick (if available) to measure level.
(2) - Use of R-12 in a R134a system will result in SEVERE DAMAGE.
(3) - If equipped with limited slip differential add lubricant additive (Volvo P/N 1161129-0) first, then add new fluid.

WHEEL & TIRE SPECIFICATIONS

WHEEL & TIRE SPECIFICATIONS TABLE

<table>
<thead>
<tr>
<th>Wheel Size</th>
<th>Tire Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 x 6&quot; (Steel)</td>
<td>P195/65HR15</td>
</tr>
<tr>
<td>15 x 6&quot; (Aluminum)</td>
<td>P195/65HR15</td>
</tr>
<tr>
<td>16 x 6.5&quot; (Aluminum)</td>
<td>P205/55HR16</td>
</tr>
<tr>
<td>Optional Spare</td>
<td></td>
</tr>
<tr>
<td>15 x 6&quot; (Steel)</td>
<td>P195/65HR15</td>
</tr>
<tr>
<td>15 x 6&quot; (Aluminum)</td>
<td>P195/65HR15</td>
</tr>
<tr>
<td>16 x 6.5&quot; (Aluminum)</td>
<td>P205/55HR16</td>
</tr>
</tbody>
</table>

TIRE INFLATION

Tire specification label is located on the right front door.

TIRE INFLATION SPECIFICATIONS TABLE

<table>
<thead>
<tr>
<th>Tire Size/Application</th>
<th>psi (kg/cm²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>195/60R-15</td>
<td>(1)</td>
</tr>
<tr>
<td>195/65R-15</td>
<td>(1)</td>
</tr>
<tr>
<td>205/55R-16</td>
<td>(1)</td>
</tr>
<tr>
<td>Spare Tire</td>
<td>(1)</td>
</tr>
</tbody>
</table>
(1) - Check tire pressure label located on rear edge of right front door.

**WHEEL TIGHTENING**

Tighten all wheel lug nuts to 63 ft. lbs. (85 N.m) using pattern shown in Fig. 9.

**TIRE ROTATION PATTERNS**

![Tire Rotation Pattern & Lug Nut Torque Pattern](image)

**BATTERY SPECIFICATIONS**

**CAUTION:** When battery is disconnected, vehicles equipped with computers may lose memory data. When battery power is restored, driveability problems may exist on some vehicles. These vehicles may require a relearn procedure. See COMPUTER RELEARN PROCEDURES article in the GENERAL INFORMATION section.

Gasoline engine vehicles use batteries with a 66 amp hour rating.

**B.C.I. BATTERY GROUP APPLICATION TABLE**

<table>
<thead>
<tr>
<th>Application (1)</th>
<th>B.C.I. Group Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5L</td>
<td>(1)</td>
</tr>
<tr>
<td>2.9L</td>
<td>(1)</td>
</tr>
<tr>
<td>3.0L</td>
<td>(1)</td>
</tr>
</tbody>
</table>

(1) - See Owner’s Manual.

**CAUTIONS & WARNINGS**

**SUPPLEMENTAL RESTRAINT SYSTEM (AIR BAG)**

**NOTE:** See the AIR BAGS article in the ACCESSORIES/SAFETY EQUIPMENT Section.

Modifications or improper maintenance, including incorrect removal and installation of the Supplemental Restraint System (SRS), can adversely affect system performance. DO NOT cover, obstruct or change the steering wheel horn pad in any way, as such action could
cause improper function of the system. Use only plain water when cleaning the horn pad. Solvents or cleaners could adversely affect the air bag cover and cause improper deployment of the system.

WARNING: To avoid injury from accidental air bag deployment, read and carefully follow all warnings and service precautions. See appropriate AIR BAGS article in ACCESSORIES/SAFETY EQUIPMENT.

CAUTION: Disconnect negative battery cable before servicing any air bag system, steering column or passenger side dash component. After any repair, turn ignition key to the ON position from passenger’s side of vehicle in case of accidental air bag inflation

SUPPLEMENTAL RESTRAINT SYSTEM (SRS) AIR BAR WARNING

NOTE: For information on air bag DIAGNOSIS & TESTING or DISPOSAL PROCEDURES, see AIR BAGS article in the ACCESSORIES/SAFETY EQUIPMENT Section.

CAUTION: System circuit is grounded by 2 screws beneath the driver’s seat. DO NOT use these screws to ground any other accessory. DO NOT ground any other components near this system.

SIDE IMPACT PROTECTION SYSTEM (SIPS) - 1996 MODELS

NOTE: For information on air bag DIAGNOSIS & TESTING or DISPOSAL PROCEDURES, see AIR BAGS article in the ACCESSORIES/SAFETY EQUIPMENT Section.

AIR CONDITIONING SERVICING

CAUTION: Avoid breathing R-134a refrigerant and PAG lubricant vapors, exposure may irritate eyes, nose and throat. To remove R-134a from system use R-134a recycling equipment that meets SAE J2210 specifications. If accidental system discharge occurs, ventilate work area before resuming service.

WARNING: R-134a service equipment or vehicle A/C systems SHOULD NOT be pressure tested or leak tested with compressed air. Some mixtures of air/R134a have shown to be combustible at elevated pressures. These mixtures are dangerous and may cause fire and/or explosions. See AIR CONDITIONING SERVICE article in GENERAL INFORMATION section.

ANTI-LOCK BRAKE SYSTEM

The anti-lock brake system contains electronic equipment that can be susceptible to interference caused by improperly installed or high output radio transmitting equipment. Since this interference could cause the possible loss of the anti-lock braking capability, such equipment should be installed by qualified professionals.

On models equipped with anti-lock brake systems, ALWAYS observe the following cautions:

* DO NOT attempt to bleed hydraulic system without first referring to the appropriate ANTI-LOCK BRAKE SYSTEM article in the BRAKES Section.
* DO NOT mix tire sizes. As long as tires remain close to the original diameter, increasing the width is acceptable. Rolling diameter must be identical for all 4 tires. Some
manufacturers recommend tires of the same brand, style and type. Failure to follow this precaution may cause inaccurate wheel speed readings.

* Use ONLY recommended brake fluids. DO NOT use silicone brake fluids in an ABS-equipped vehicle.

**BATTERY WARNING**

WARNING: When battery is disconnected, vehicles equipped with computers may lose memory data. When battery power is restored, driveability problems may exist on some vehicles. These vehicles may require a relearn procedure. See COMPUTER RELEARN PROCEDURES article in GENERAL INFORMATION section.

**REPLACING BLOWN FUSES**

Before replacing a blown fuse, remove ignition key, turn off all lights and accessories to avoid damaging the electrical system. Be sure to use fuse with the correct indicated amperage rating. The use of an incorrect amperage rating fuse may result in a dangerous electrical system overload.

**BRAKE PAD REPLACEMENT**

WARNING: Use caution when checking and/or changing brake pads, some pads may contain asbestos which can irritate eyes and may cause other health hazards. A water based solution should be used to clean brake dust from wheel and brake components. DO NOT use compressed air to blow off brake dust.

**BRAKE SYSTEM**

CAUTION: If brake warning light comes on while driving it indicates a low fluid level or failure in one of the braking circuits. If the brake pedal can be depressed further than normal it is an indication that one of the brake circuits is not functioning. Stop vehicle and check brake reservoir fluid level. If level is below MIN mark, DO NOT drive vehicle. Have it towed to a repair shop. If level is between the MIN and MAX marks, proceed cautiously to a repair shop.

**BRAKE PAD WEAR INDICATOR**

Indicator will cause a squealing or scraping noise, warning that brake pads need replacement.

**CATALYTIC CONVERTER**

Continued operation of vehicle with a severe malfunction could cause converter to overheat, resulting in possible damage to converter and vehicle.

Any modification to the exhaust system on turbo models, which reduces exhaust backpressure, will lead to lean fuel mixtures and excessive spark advance. This could cause serious engine damage.

**COOLANT (PROPYLENE-GLYCOL FORMULATIONS)**

To avoid possible damage to vehicle use only ethylene-glycol based coolants with a mixture ratio from 44-68% anti-freeze. DO NOT use 100% anti-freeze as it will cause the formation of cooling system deposits. This results in coolant
temperatures of over 300°F (149°C) which can melt plastics. 100% anti-freeze has a freeze point of only -8°F (-22°C).

CAUTION: Propylene-Glycol Mixtures has a smaller temperature range than Ethylene-Glycol. The temperature range (freeze-boil) of a 50/50 Anti-Freeze/Water Mix is as follows:

- Propylene-Glycol: -26°F (-32°C) - 257°F (125°C)
- Ethylene-Glycol: -35°F (-37°C) - 263°F (128°C)

CAUTION: Propylene-Glycol/Ethylene-Glycol Mixtures can cause the destabilization of various corrosion inhibitors. Also Propylene-Glycol/Ethylene-Glycol has a different specific gravity than Ethylene-Glycol coolant, which will result in inaccurate freeze point calculations.

ELECTROSTATIC DISCHARGE SENSITIVE (ESD) PARTS

WARNING: Many solid state electrical components can be damaged by static electricity (ESD). Some will display a warning label, but many will not. Discharge personal static electricity by touching a metal ground point on the vehicle prior to servicing any ESD sensitive component.

ENGINE OIL

CAUTION: Never use non-detergent or straight mineral oil.

FUEL SYSTEM SERVICE

WARNING: Relieve fuel system pressure prior to servicing any fuel system component (fuel injection models).

HALOGEN BULBS

WARNING: Halogen bulbs contain pressurized gas which may explode if overheated. DO NOT touch glass portion of bulb with bare hands. Eye protection should be worn when handling or working around halogen bulbs.

RADIATOR CAP

CAUTION: Always disconnect the fan motor when working near the radiator fan. The fan is temperature controlled and could start at any time even when the ignition key is in the OFF position. DO NOT loosen or remove radiator cap when cooling system is hot.

RADIATOR FAN

WARNING: Keep hands away from radiator fan. Fan is controlled by a thermostatic switch which may come on or run for up to 15 minutes even after engine is turned off.

WHEELS & TIRES

Only wheels tested and approved by the manufacturer should be used on models equipped with Air Dam aerodynamic components.

WARRANTY INFORMATION

CAUTION: Always refer to customer’s copy of warranty information for
specific model application and/or coverage limitations.

BASIC WARRANTY (1992-95 MODELS)
Warranty coverage is 3 years or 50,000 miles, whichever occurs first.

MAJOR ASSEMBLY COVERAGE (1992-95 MODELS)
Warranty coverage is 3 years or 50,000 miles, whichever occurs first.

CORROSION PROTECTION WARRANTY
Painted body panels are warranted against perforation for a period of 5 years. Structural damage due to rust or corrosion is warranted for 8 years.

SUPPLEMENTAL RESTRAINT SYSTEMS & SEAT BELTS
Factory installed seat belts or restraint systems are warranted for a period of 5 years.

EMISSION SYSTEM WARRANTY
Manufacturer warrants that the vehicle emission control system was designed and installed to conform, at the time of sale, to all applicable U.S. emission standards. The warranty covers repairs resulting from any defect in material or workmanship which could cause the vehicle not to meet emission standards during the warranty period. The warranty period is 5 years or 50,000 miles. The following items are not warranted:

* Normal Scheduled Maintenance Of Emission Components
* Regular Maintenance Items
* Damage To Components Due To Accidents
* Damage Due To Contaminated Or Incorrect Fuels
* Any Component On A Vehicle With An Altered Odometer
* Damaged Caused By The Use Of Non-Genuine Parts

The following components are covered by Emission System or Emission Performance warranties:

* Ignition Cables
* Distributor Components
* Ignition Coil
* Power Stage
* Ignition Control Unit
* Spark Plugs
* Knock Sensor
* Engine RPM Sensor
* Fuel Pressure Regulator
* Mass Airflow Meter
* Fuel Injection Control Unit
* Fuel Injectors
* Idle Air Valve
* Coolant Temperature Sensor
* Throttle Position Sensor
* Throttle Potentiometer
* Series Resistor
* Oxygen Sensor
* Cold Start Injector
* Temperature Sensor
* Manifold Pressure Sensor
* Camshaft Sensor
* Evaporative Emission System
* Turbocharger System
* PCV System
* Air Intake System
* Catalytic Converter
* Exhaust Manifold
* Exhaust Pipe (Manifold-To-Catalyst)
* EGR System
* Miscellaneous Items Used In Above System

ROADSIDE ASSISTANCE

Included in the Warranty is a 24 Hour Roadside Assistance program, named Volvo ON-CALL.

NOTE: Volvo ON-CALL phone number is 1-800-63-VOLVO or 1-800-638-6586

FUSES & CIRCUIT BREAKERS

FUSE PANEL LOCATION

The fuse panel is located on the left side of the instrument panel. To gain access to the panel, remove the cover plate.

INTERIOR FUSE PANEL IDENTIFICATION (1992-94)

NOTE: The ABS System is protected by an additional 10 Amp fuse which is located under the instrument panel to the left of the steering wheel.
Fig. 10: Fuse Panel Identification (1992-94)
Courtesy of Volvo Cars of North America.

Fuse & Circuit Breaker Identification
1 - 10 Amp
   Left & Rear Parking Lights, License Plate Lights
2 - 10 Amp
   Right Parking Lights
3 - 15 Amp
   Left Headlight (High Beam)
4 - 15 Amp
   Right Headlight (High Beam)
5 - SRS Test Socket
6 - 15 Amp
   Left Headlight (Low Beam)
7 - 15 Amp
   Right Headlight (Low Beam)
8 - 15 Amp
   Front Fog Lamps
9 - 10 Amp
   Rear Fog Lamps
10 - 5 Amp
   Instrument/Panel Lights
11 - 15 Amp
   Back-up Lights, Turn Signals, Cruise Control
12 - 15 Amp
   Shift-Lock
13 - 25 Amp
   Heated Rear Window, Heated Door Mirrors
14 - 10 Amp
   Overdrive, Sunroof, Power Window Relays, Heated Seats, Seat Belt Reminder
15 - Not Used
16 - 30 Amp
   Heated Seats
17 - Not Used
18 - 5 Amp
   Radio/Cassette Tape Player
19 - 15 Amp (1992)
   ECC, Power Door Mirrors, Rear Washer/Wiper (Wagon), Power Seats, Cigar Lighter
15 Amp (1993)
   ECC, Power Door Mirrors, Rear Washer/Wiper (Wagon), Power Seats, Cigar Lighter, Ambient Air Temperature Sensor
20 - 25 Amp
   Windshield Wipers/Washers, Horn
21 - 5 Amp (1992)
   Transmission Mode Selectors, Diagnostic Socket, Cooling Fan, EGR Valve
   5 Amp (1993)
   Transmission Mode Selectors
22 - 5 Amp
   ABS
23 - 10 Amp
   Transmission Control
24 - 10 Amp
   Transmission/Engine Controls
25 - 25 Amp
   Hazard Warning Flashers, Central Locking System
26 - 10 Amp
   Clock, Interior Lights, Door Open Warning Lights, Cargo Space & Vanity Mirror Lights
27 - 15 Amp
   Brake Lights, Shift-Lock Release
28 - 30 Amp
   ECC, Air Conditioning
29 - 30 Amp
Power Antenna, Electrical Connector For Trailer
30 - 10 Amp
Fuel Pump (In-Tank), Electrically Heated Lambda-Sond
31 - 25 Amp
Fuel Injection, Main Fuel Pump, Ignition
32 - 10 Amp
Radio/Amplifier (If Equipped)
33 - 10 Amp
Radio/Cassette Tape Player
34 - 30 Amp (Circuit Breaker)
Power Windows, Power Sunroof
35 - 30 Amp (Circuit Breaker)
Power Seats

RELAY PANEL LOCATION (1992-94)

The relay panel is located in the center of the instrument panel. To gain access to the panel, remove the ash tray.

INTERIOR RELAY PANEL IDENTIFICATION (1992-94)

Fig. 11: Relay Panel Identification (1992-94)
Courtesy of Volvo Cars of North America.
INTERIOR FUSE PANEL IDENTIFICATION (1995-96)

NOTE: The ABS System is protected by an additional 10 Amp fuse which is located under the instrument panel to the left of the steering wheel.

Fig. 12: Fuse Panel Identification (1995-96) Courtesy of Volvo Cars of North America.

Fuse & Circuit Breaker Identification
1 - 25 Amp
   Heated Rear Window
2 - 20 Amp
   Central Locking, Anti-Theft Alarm
3 - 15 Amp
   Brake Light, Light Switch
4 - 10 Amp
   Ignition Switch, SRS (Air Bag)
5 - Spare
6 - 25 Amp
   Windshield Wiper/Washer, Headlight Wiper/Washer, Horn Relay
7 - 20 Amp
   Climate Control
8 - 15 Amp
   Power Seats, Power Mirrors, Instrument Lighting
   Ambient Temperature Sensor, Tailgate Wiper/Washer (Wagon)
   Audio System
15 Amp (1996)
   Radio, Remote Control Module (Keyless Entry)
10 - 15 Amp
   Cigarette Lighter, Horn
11 - 5 Amp
   Central Locking System, Transmission Mode Selector
   Interior Lighting Delay
12 - 5 Amp
   ABS
13 - 10 Amp (1995)
   Clock, Interior/Glove Compartment Lamps, Vanity Mirror
   Door Open Warning Light, Cargo Space Lighting,
   10 Amp
   Clock, Interior/Glove Compartment Lamps, Vanity Mirror
   Door Open Warning Light, Cargo Space Lighting,
   Remote Control Module (Keyless Entry),
   Electronic Start Inhibitor (Immobilizer)
13 - 10 Amp (1995)
   Horn
   5 Amp (1996)
   Anti-Theft Alarm, Data Link Connector (DLC)
15 - 20 Amp
   Power Antenna, Headlight Flasher, Trailer Harness
16 - 20 Amp
   Mobile Telephone (If Equipped), Parking Heater (If Equipped)
17 - 20 Amp
   Hazard Warning Flasher, Anti-Theft Alarm
18 - 15 Amp
   Audio Amplifier, Radio, Compact Disc Changer
19 - 15 Amp
   Back-up Lights, Turn Indicators, Cruise Control
20 - 15 Amp
   Light Switch, High/Low Beam Relay
21 - 5 Amp
   Seat Belt Reminder, Rear Window Defroster - Timer
   P-Shift Lock, Heated Mirrors
22 - 15 Amp
   Heated Driver’s Seat
23 - 15 Amp
   Heated Passenger’s Seat
24 - 15 Amp
   Rear Fog Lamp
25 - 30 Amp (Circuit Breaker)
   Power Seats
26 - 30 Amp (Circuit Breaker)
Power Windows, Power Sunroof

Relay Identification

Overload Relay
Fuel Pump Relay
Overload Relay

UNDER HOOD MAIN FUSE BOX IDENTIFICATION (1995-96)

Fig. 13: Underhood Main Fuse Box Identification (1995-96)
Courtesy of Volvo Cars of North America.

WARNING: Always disconnect battery ground cable before servicing "high-current fuses. It is recommended that "high-current" fuses be replaced by a qualified technician.
Maxi-Fuse Identification

1 - 50 Amp
   Heated Rear Window, Central Locking System, Hazard Flashers,
   Power Supply Relay "B".
2 - 50 Amp
   Audio, Power Seats, Climate Control, Compartment Lights,
   Power Antenna, Trailer Power, Fog Light Relay, Diagnostics
3 - 50 Amp
   Power Supply Relay "A"
4 - 50 Amp
   Fuel Supply Relay, Ignition Supply Relay
5 - 50 Amp
   ABS Unit
6 - 50 Amp
   Air Pump, Starter Solenoid, Horn
7 - 50 Amp
   Electric Cooling Fan
8 - 50 Amp
   Position/Parking Light Relay, Headlight Relay

UNDER HOOD FUSE/RELAY BOX IDENTIFICATION (1995-96)

Fig. 14: Underhood Fuse/Relay Box Identification (1995-96)
Courtesy of Volvo Cars of North America.

Fuse & Relay Identification

1 - 5 Amp
   Engine Control Module, Automatic Transmission Control Module
2 - 5 Amp (1995)
Air Pump System
5 Amp (1996)
   A/C Relay
3 - 5 Amp (1995)
   EGR Valve, Relay, Air Pump
5 Amp (1996)
   Oxygen Sensor (HO2S) Auxiliary Air System Relay, EVAP Valve, 
   Auxiliary Air System Solenoid, EGR Converter
4 - 15 Amp
   Fuel Pump
5 - 15 Amp
   Fuel Injection Valve, Mass Air Flow (MAF) Sensor, 
   Idle Air Control (IAC) System, Engine Control Module
6 - 15 Amp
   Automatic Transmission Control Module
7 - 25 Amp
   Ignition Coil, Heated Oxygen Sensor
8 - 25 Amp
   Fog Lamps
9 - Spare Fuse
10 - 15 Amp
   Positioning/Parking Lights (Left)
11 - 15 Amp
   Positioning/Parking Lights (Right)
12 - 15 Amp
   Left High-Beam
13 - 15 Amp
   Right High-Beam, High-Beam Indicator (Instrument Panel)
14 - 15 Amp
   Left Low-Beam
15 - 15 Amp
   Right Low-Beam
16 - 15 Amp
   A/C Compressor
17 - 15 Amp
   Horn
18 - Accessories (Various Amp)
   Optional Equipment

   Relay Identification

A - Air Pump Relay
B - Spare
C - Main Relay, Fuel System
D - Spare
E - Spare
F - A/C Compressor Relay
G - Fog Lamp Relay
H - Spare
J - Ignition Coil Relay
K - Starter Motor Relay
L - Fog Lamps Relay
M - Parking Lights Relay
N - Horn Relay

RELAY PANEL LOCATION (1995)

The relay panel is located in the center of the instrument panel. To gain access to the panel, remove the ash tray.

INTERIOR RELAY PANEL IDENTIFICATION (1995-96)
Fig. 15: Relay Panel Identification (1995-96)
Courtesy of Volvo Cars of North America.

Relay Identification

A - Timer Relay, Rear Window Defroster
B - Cruise Control Module
C - Alarm Relay
D - Central Locking Relay
E - Cruise Control Module
F - Alarm Relay
G - Central Locking Relay
I - Not Used
J - Not Used
K - Not Used
L - Intermittent Windshield Wiper Relay
M - Not Used
N - Not Used

NOTE: The Engine Cooling Fan has a separately mounted relay in the engine compartment.