
Warning Label Information

IMPORTANT

Before driving this vehicle, be certain that you have read and that you fully understand each and every step of the driving and handling information in this Operator's Manual. Be certain that you fully understand and follow all safety warnings. It is extremely important that this information is read and understood before the vehicle is operated.

IT IS IMPORTANT THAT THE FOLLOWING INFORMATION CONCERNING LABELS BE READ, UNDERSTOOD AND ALWAYS FOLLOWED.

The following types of labels are used throughout this manual:

NOTE! A note defines an operating procedure, practice, condition, etc., which is essential to proper operation of the vehicle.



CAUTION

A caution label directs the operator's attention to unsafe practices where personal injury is not likely but property damage could occur. The caution label is in **black** type on a **white** background with a **black** border.



WARNING

A warning label directs the operator's attention to unsafe practices which could result in personal injury or severe damage to the vehicle. The warning label is in **black** type on a **gray** background with a **black** border.



DANGER

A danger label directs the operator's attention to unsafe practices which could result in serious personal injury or death. The caution label is in **white** type on a **black** background with a **black** border.

Do Not Overload

This vehicle has been designed and assembled for a maximum gross vehicle weight rating (GVWR) and a maximum front and rear axle weights rating (FAWR and RAWR). The actual rating for this vehicle can be found on the label attached to the door frame on the driver's side. If any of these three ratings is exceeded and overloading occurs, instability, poor handling, failure of parts and accelerated wear can occur.



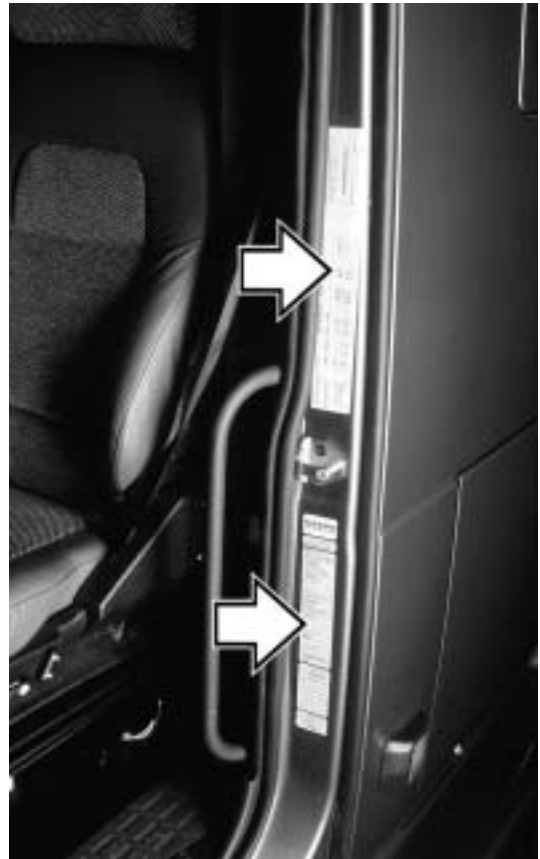
DANGER

Under no circumstances should the published GVWR, FAWR, and/or RAWR be exceeded. Failure to observe these precautions can lead to the loss of vehicle control, resulting in a crash causing serious personal injury or death.



DANGER

Do not exceed the load rating of the tires or the vehicle weight ratings. Overloading may result in tire failure causing loss of vehicle control, leading to an accident resulting in severe personal injury or death.



W0001210

Operating

Before driving this vehicle, locate the instruments and controls, and become thoroughly familiar with their operation. After starting and when driving, always check to make sure that the instrument readings are normal.

Identification and Certification Labels

There are two labels that are located on the rear, lower face of the driver side door frame. These should be part of the vehicle at all times.

The VIN is shown on the Vehicle Identification label. The VIN includes the vehicle make, model series, weight class, engine model, where the vehicle was built and the vehicle serial number. This label also shows the truck model designation, major component model and serial number, cab model and serial number, cab and chassis paint colors, and color numbers.

On the upper part of the door frame is the Certification label showing the axle and load ratings for the vehicle as it was built. Do not exceed these ratings by overloading.

NOTE! To deter tampering with the original build information, the information on the label will be destroyed if label is removed. If for any reason a label is damaged, contact your Volvo Truck dealer for a replacement.



W0001210

Noise Emission Control

A Noise Emission Control label is located on the left end of the dash. It is the Owner's responsibility to maintain the vehicle so that it conforms to EPA regulations.

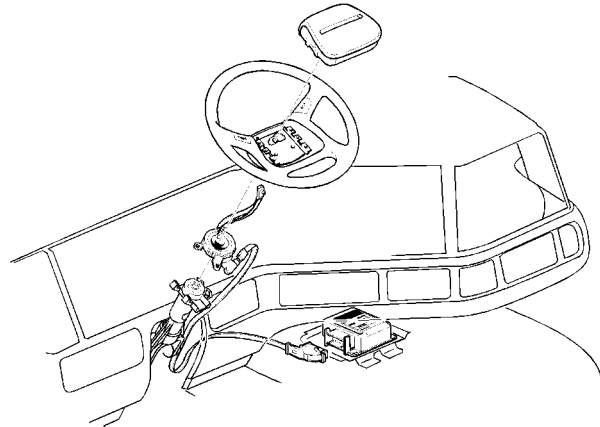
Refer to page 14 for a listing of what constitutes tampering with the Noise Emissions Control.



W0001458

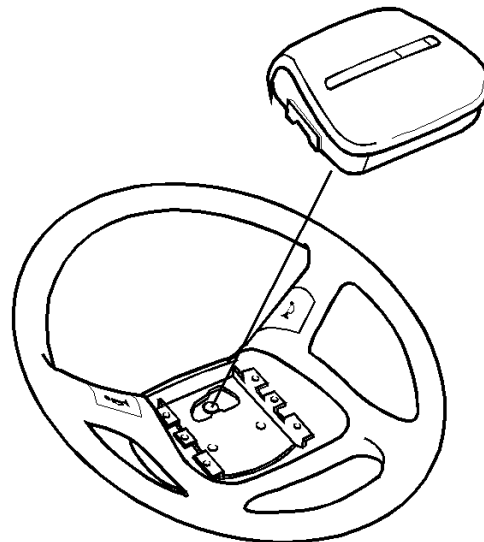
SRS System

The inflatable airbag is folded into the center of the steering wheel. It inflates in the event of a serious collision above a certain level, where the angle of impact, crash severity, speed and nature of the object involved in the collision all play a part in whether or not the airbag is activated.



T8006849

The system consists of a gas generator surrounded by the inflatable airbag. In the event of a sufficiently violent collision, a control unit activates the gas generator ignitor and the airbag inflates. To cushion the impact, the airbag deflates when compressed. This also releases some non-toxic smoke into the cab. The entire sequence, from inflation to deflation of the airbag, takes a few tenths of a second.



T8006855



WARNING

Never attempt to drive with a deployed airbag. With the bag hanging out of the hub of the steering wheel, the truck may be more difficult to steer. In addition, other safety systems may be damaged. Continuous exposure to the smoke and dust created during the deployment of the airbag can cause irritation to the skin and eyes.

2 — Δ INFO Telltale

The yellow Δ INFO telltale lights up to indicate a control system or component malfunction. In some cases, the engine power may be derated (see page 120). When the telltale comes on, stop at the first safe place where the problem can be checked.

When ignition is switched on, the telltale goes out unless a defect is detected.

NOTE! On vehicles equipped with a Volvo engine, the telltale is on for 3 to 5 seconds after the ignition key switch is turned on.

See page 119 for a listing on related messages that trigger this telltale.



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Suspension Level

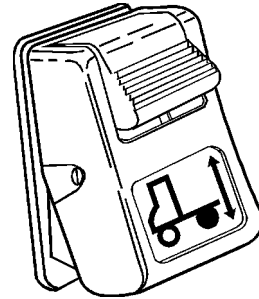


CAUTION

The vehicle must never be driven with the air springs deflated. Damage to air suspension parts will occur if springs are not inflated properly.

Tractors with rear air suspension have a control for deflating the air springs. Use this when uncoupling from trailers. See page 329 for correct operation when uncoupling.

The switch has a safety latch to prevent accidental engagement. Depress the latch and press in the bottom part of the switch to deflate the air springs. A telltale in the instrument cluster will light up when the switch is in the “on” position.



W3001341

Sliding Fifth Wheel

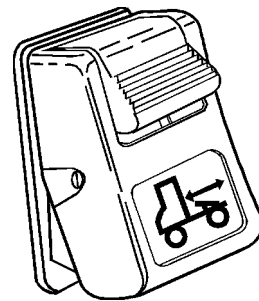


DANGER

The release must never be operated while the vehicle is operating on the road. Fifth wheel position adjustment must only be done when stationary. Damage to the fifth wheel, trailer kingpin and slider may occur if not operated properly and may lead to an accident, causing serious personal injury or death.

Tractors with a sliding fifth wheel mounting have an air operated release as standard equipment. The sliding fifth wheel is used for distributing loads more favorably between the front and rear axles to comply with varying state and provincial laws. See page 333 for correct operation.

Depress the latch and press in the bottom part of the switch to release the slider locks.



W3001346

138 Graphic Display

- 1 The **up/down buttons** are used to move the cursor in the list.
- 2 SELECT confirms the selection of ECU or *Reset all*.

- 3 During the time that each respective ECU is being called, the display shows the text:

Data transfer
in progress
please wait

- 4 No faults in the chosen system:

Press Esc to return to the previous menu.

No errors

- 5 Not responding to *Non spec. system*:

Press Esc to return to the previous menu.

Non spec. syst
MID (127)
Not responding

- 6 If the chosen system does not respond within 5 seconds the following message is shown (in this example the engine has been called):

Engine
MID 128
Not responding

Stop message

Red Δ STOP telltale

If the temperature of the transmission oil becomes too high, a flashing stop message is shown automatically with the text TOO HIGH. At the same time the red Δ STOP telltale under the display lights up and the warning signal sounds. Esc acknowledges the stop message.

For TOO HIGH to display with the Δ STOP telltale, the transmission oil temperature must be 285°F (140°C) for 30 seconds.



T3008861

184 Heating and Air Conditioning

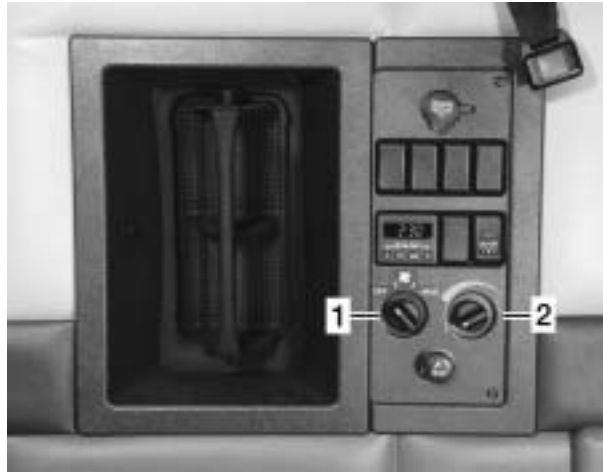
Sleeper Climate Unit With ATC

The ATC panel is located on the left side, behind the driver seat and contains a temperature control, fan speed control and other controls.

To use the heater, with the engine running and the air conditioning button on the main control panel in the off position, turn the fan speed control (1) and the temperature control (2) to the positions that give the desired temperature output.

To use the air conditioning, the engine must be running. Press in either the manual air conditioning button (with manual A/C, the fan switch must be at least on speed 1) or the ATC button on the main control panel in the dash. The ATC control unit for the sleeper climate system will keep the temperature output to where the temperature control was set. However, the fan speed may also have to be adjusted, increasing or decreasing air flow, to achieve correct cab temperature.

The air conditioning works together with the heater to give the desired temperature output. Use the temperature control (2) to adjust the output air temperature by turning the control counterclockwise (toward the blue field) for colder air and clockwise (toward the red field) for less cold air. Also use the fan speed control (1) to alter the amount of air flow.



W8002038

Panel in VN-420, 610 and 660



W8002014

Panel in VN-770

210 Cab Interior and Sleeper

The driver side storage bottom part can contain a refrigerator. If a refrigerator is not delivered with the vehicle, it is fully prepared for installing one at a later time.



W8001912

The passenger side storage upper part is prepared for TV and video. There is also general storage above. There is an optional 120 V electrical connection available for accessories.

Load limits are: 5 lb (2.5 kg) for the top shelf, 15 lb (7 kg) for the upper shelves and 33 lb (15 kg) for the TV shelf.



W8001862

The passenger side storage bottom part is a clothes cabinet. It is equipped with doors that latch closed when shut.



W8001867

Communication Equipment

CB Radio

There is an optional platform provided for a CB radio on top of the dash. The unit is held in place with a strap which can accommodate a variety of sizes. For electrical hook-up, see page 304.

The CB Radio can also be permanently mounted directly above the radio. When the optional switch panel is removed, a DIN standard radio mount is available.



W8001876

Telephone

There is room on the dash for a mobile telephone. This can be hooked up to the multiplex box.

If the vehicle is delivered with a multiplex box, the connecting end of the telephone coaxial cable should be located at the lower dash cover.



W3002427

Road Relay

The Road Relay is an engine communication tool that allows the driver to have fuel consumption, time and mileage readouts and also programmed reminders for service intervals. The Road Relay should be permanently mounted directly above the radio.

Collected data can be downloaded for use in a stationary computer where the data can be collected and compared over time.



W3002420

Winterfront

Volvo Trucks North America, Inc. does not recommend the use of winterfronts, shutters or any other shield in front of the grille or radiator package under normal circumstances.

Today's electronically controlled engines are designed to operate in cold temperatures without a winterfront. These devices, if not used properly, can cause higher exhaust temperatures, power loss, excessive fan usage, failure of the charge-air-cooler and a reduction in fuel economy.

Winterfronts are properly used in the wintertime during *very* cold weather with sustained temperatures below -15°F (-25°C). In these cases, coolant and inlet manifold temperatures must also be carefully monitored and controlled.

If a winterfront is used, it must conform to these specifications:

- The grille coverage should be such that airflow through to the charge-air-cooler is at a uniform rate over the entire area. This means that a single, small opening in the winterfront is not acceptable.
- Air passage must be distributed evenly across the grille and no more than 85% can be covered.

Please see your local Volvo Trucks dealer for Volvo recommended winterfronts.

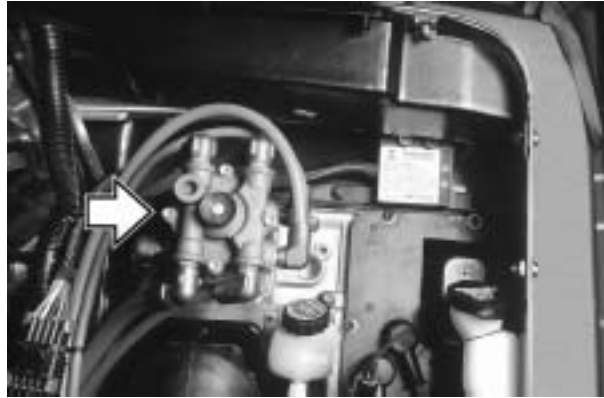
NOTE! If there is engine or related damage that can be traced to an improperly used winterfront, the warranty is no longer valid for those parts.



CAUTION

Failure to remove the winterfront when temperatures go above -15°F (-25°C) could cause severe damage to engine, charge-air-cooler and/or loss of fuel economy.

Both circuits are piped into a dual brake valve, which simultaneously applies front and rear axle service brakes during each brake application. In the event of a failure in either one of the circuits, the other circuit becomes the emergency circuit for applying the brakes.



W5000923



DANGER

The Master Warning Telltale and buzzer alerts of a dangerous situation. Air pressure is low and the remaining air volume may not be enough for repeated braking. The emergency brakes may engage, causing a wheel lock-up, loss of vehicle control and become a hazard to following vehicles. Bring the vehicle to a controlled stop. Failure to follow these precautions can result in loss of braking control and serious personal injury or death can occur as a result of a vehicle accident.



W3000638

Master Warning Telltale

An important feature of the brake system is that an automatic spring brake application does not take place as a result of an air loss in only one of the two circuits. In this case, brake control remains in the foot brake valve. In each air pressure gauge, there is a warning light connected to a low pressure switch that comes on if air pressure goes below 60 psi (420 kPa). At the same time, the buzzer will sound and the main warning telltale will come on. This pressure drop warns the operator to make a manual emergency stop before an automatic emergency stop is made.

On a vehicle without air fairings, the battery cover is also a base for the cab steps. To remove the cover, unhook the two rubber latches and lift the cover up and out.



DANGER

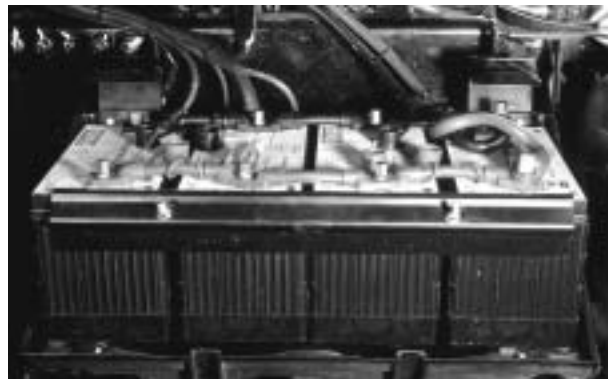
When installing the battery cover, make sure it is resting properly on the box before fastening the latches. Faulty installation may cause the cover to shift when the steps are used, which may lead to a fall, causing serious personal injury or death.



W3002421

There may be three or four batteries installed. Always make sure the batteries are fastened properly in the box.

When disconnecting battery terminals, always disconnect the main ground terminal first. When reconnecting, always connect the main ground terminal last.



W3002368


Wheels

General

Due to the size, equipment needed and the procedures used to change wheels, this should be done through the Volvo Truck dealer. By having an expert technician perform this procedure, personal injury and property damage may be avoided.

NOTE! When replacing the wheel equipment or tires, use the same size wheels or tires as originally manufactured. Changing the tire or wheel size will affect brake performance. If changing tire size, ABS and speedometer must be recalibrated.

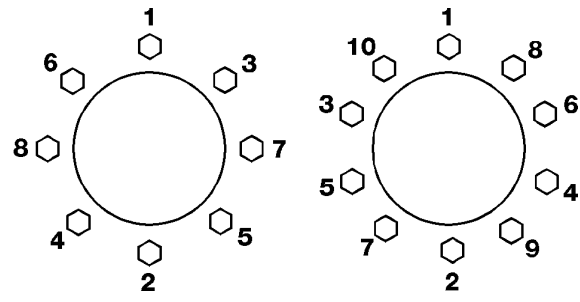
Check Tightening Wheel Nuts


DANGER

Failure to properly torque-tighten the wheel nuts can result in the breakage of wheel studs and the subsequent loss of wheels. Loss of vehicle control and serious personal injury or death could occur.

Check tighten *all* wheel nuts after the first 50 to 100 miles (80 to 160 km) and the first 50 to 100 miles (80 to 160 km) after each tire service. This applies to both single and dual wheels in connection with normal service but should be performed at least every six months.

This check tightening is particularly important when rims or brake drums are newly painted. Paint can flake off from these surfaces, causing the nuts to lose their grip and the wheel to loosen.



W7000774

8 and 10 stud wheelnut tightening sequence.