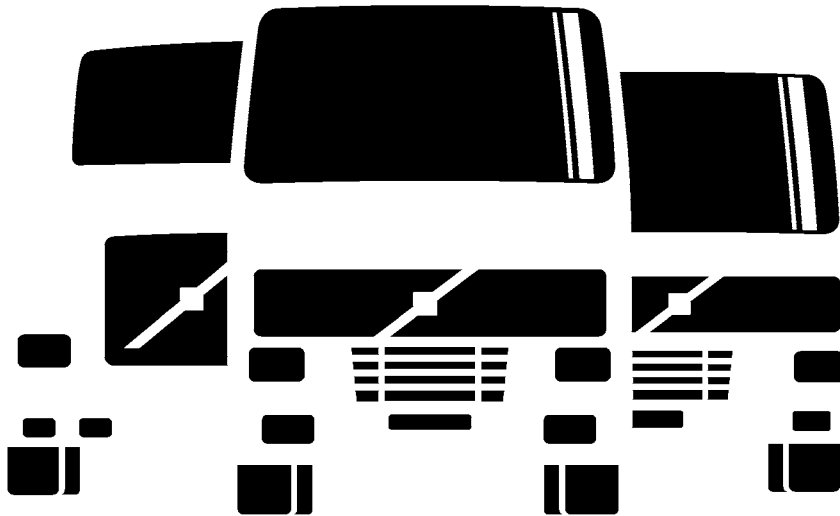


Service Manual Trucks

Group **820–500**

Hood
VHD



Foreword

The descriptions and service procedures contained in this manual are based on designs and methods studies carried out up to August 2000.

The products are under continuous development. Vehicles and components produced after the above date may therefore have different specifications and repair methods. When this is believed to have a significant bearing on this manual, supplementary service bulletins will be issued to cover the changes.

The new edition of this manual will update the changes.

In service procedures where the title incorporates an operation number, this is a reference to an S.R.T. (Standard Repair Time).

Service procedures which do not include an operation number in the title are for general information and no reference is made to an S.R.T.

The following levels of observations, cautions and warnings are used in this Service Documentation:

Note: Indicates a procedure, practice, or condition that must be followed in order to have the vehicle or component function in the manner intended.

Caution: Indicates an unsafe practice where damage to the product could occur.

Warning: Indicates an unsafe practice where personal injury or severe damage to the product could occur.

Danger: Indicates an unsafe practice where serious personal injury or death could occur.

Volvo Trucks North America, Inc.
Greensboro, NC USA

Order number: PV776-TSP141953

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Feedback

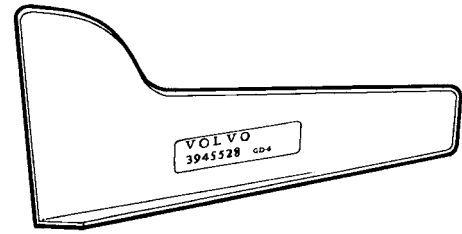
Operation Numbers

Tools

Special Tools

Following tools are available from Volvo Parts.

Note: The gap gauge may be ordered individually or as a Hood Alignment Kit, which contains the gap gauge and gauge blocks. The part number for the kit is 3946180.



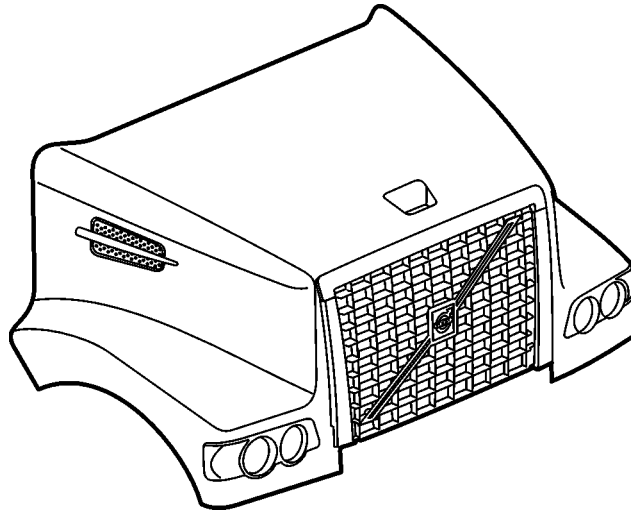
3945528

Hood gap gauge

Design and Function

Hood

General



WB002712

The hood on the VHD is the covering for the engine compartment. It houses a grille which covers the vehicle radiator, a grille for the engine air intake on both sides, and the vehicle headlight and turn signal light assemblies. It is shaped to smoothly transition from the front bumper to the cowl and wheel openings.

The hood is connected to the frame by a pivot assembly. The pivot assembly allows the hood to tilt forward to provide access to the engine compartment. The pivot assembly consists of several brackets which reduce the impact on the hood and its latch upon closing. Restraint cylinders and a tension spring limit the speed of the hood opening as well as the opening angle, to prevent damage to the pivot assembly and hood components.

The hood is held closed by a latching assembly on each side, similar to a hood latch found on automobiles. Latch assemblies under the hood reduce aerodynamic drag and increase the security of the vehicle. A handle, located in the cab, controls the latch, and is connected to the latch via a cable.

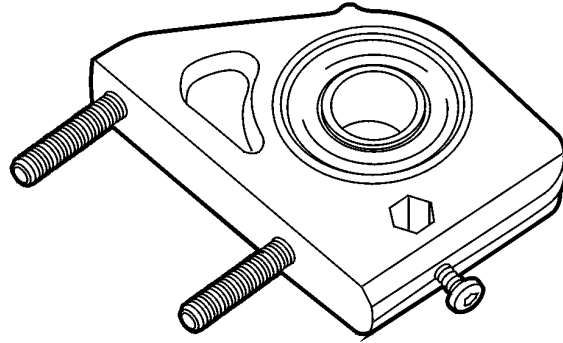
The hood is made of Sheet Molding Compound (SMC), a composite material which is exceptionally strong and lightweight. The hood is manufactured in several sections, which are then bonded together to form the entire unit. SMC appears similar to fiberglass. However, conventional fiberglass repair materials, such as fiberglass resin and other polyester-based materials, should not be used in repairing the hood. In time, the adhesion for these materials will be lost and the repair will fail. Only Fusor repair adhesives are approved and recommended for the bonding and repair of SMC.

The hood is hinged at the lower front edge. It has the ability to open a full 55° of tilt, providing full access to all engine compartment components. An integral hand hold is provided in the top of the hood near the front to allow it to be pulled open. Once the hood begins to open, its acceleration is limited by a tension spring mounted between the hood and the radiator bracket, and the restraint cylinders.

Hood Mounting

Pivot Block

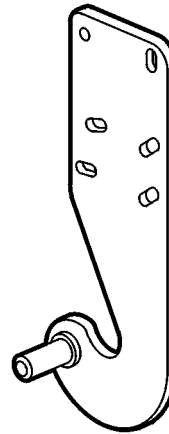
The pivot block serves as the connection point between the hood and the frame. The pivot block is mounted with studs through slotted holes in the front of each tow-eye bracket. The slotted brackets allow for vertical adjustment of the hood.



W8002740

J-bracket

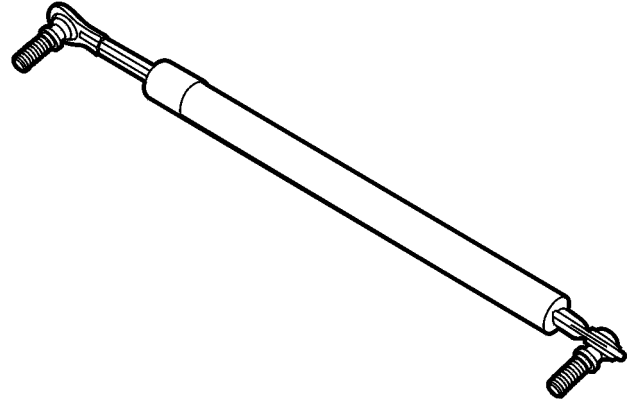
The hood is connected to the vehicle by a J-bracket that is bolted to the inside front of the hood. The J-bracket has a pin at its lower end which is the pivot point of the hood. The pivot pin fits into the hood pivot bracket that is mounted to the tow-eye bracket on the front edge of the frame.



W8002728

Restraint Cylinder

There are two restraint cylinders connected to the hood, just behind each upper corner of the front grille down to each tow-eye bracket. The cylinders are single-acting oil shocks that control the rate of opening of the hood in order to reduce the chance of damage to the hood and the mounting system.



W8002751

Tension Spring

The tension spring is mounted between the hood and the radiator bracket. The spring controls the rate of opening of the hood in order to reduce the chance of damage to the hood and the mounting system.



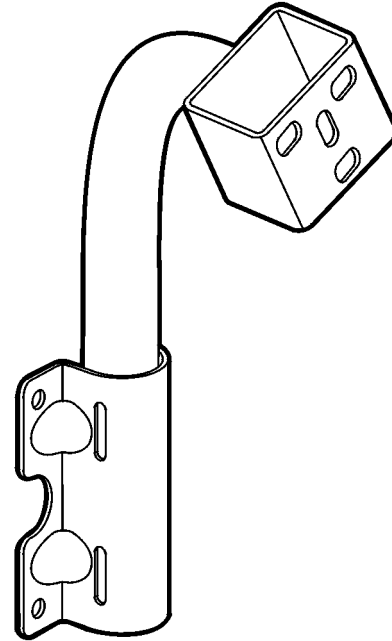
W8002780

Hood Latch

The hood on the VHD is held closed by an automotive type latch mechanism. The latch points for the hood are on each side of the hood directly above the front wheels. The latch is released by a pull handle inside the cab on the dash.

Latch Mounting Arm

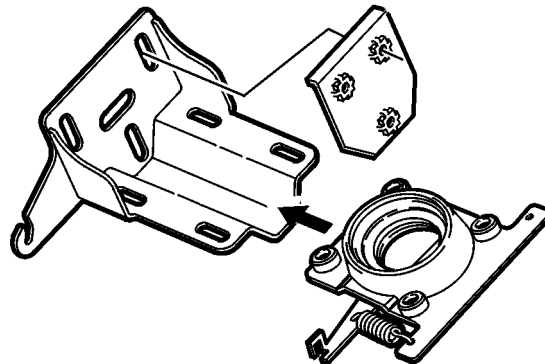
The latch mounting arm connects to the frame and supports the receiver cup latch mechanism. It is constructed of a steel tube and has a bracket on the top. The bracket has slotted bolt holes to allow mounting and adjustment of the latch mechanism.



W8002752

Latch Mechanism

The latch mechanism is an automotive type hood latch. When the hood is closed the hood mounted latch studs are inserted into the latch receiver cup. When the stud is in the receiver far enough the latch lever snaps into a slot above the stud to keep it from pulling out. The latch lever is a spring loaded lever that pivots at one end. The other end is connected to the release cable. When the hood release is pulled the latch lever is pulled out of the slot in the latch studs and a spring above the latch stud pushes the hood up so that the slots clear the lever.

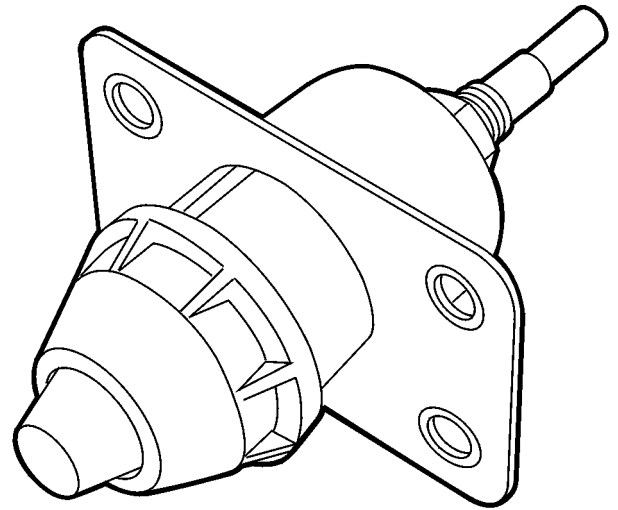


W8002749

Latch Stud

The latch stud is a pin that inserts into the latch mechanism. The pin is covered by a spring loaded shield. When the shield contacts the latch mechanism ring during hood closing, the latch ring forces the shield back against its spring, exposing the pin. The pin is forced into the ring by the momentum of the hood. As the pin enters the latch receiver, it moves the latch lever to the side. When the head of the pin has completely traveled past the latch lever, the lever snaps into place above the pin, preventing the pin from retracting out of the latch receiver.

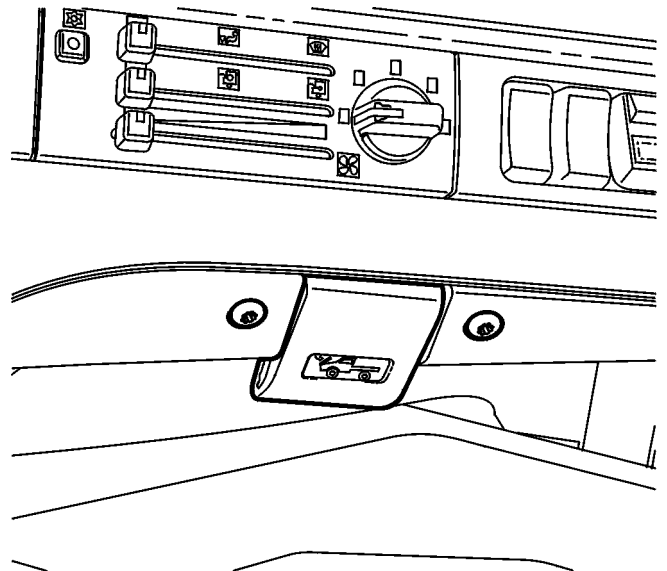
The spring loaded shield also functions to reduce the transmission of frame vibrations to the hood.



W8002739

Hood Release

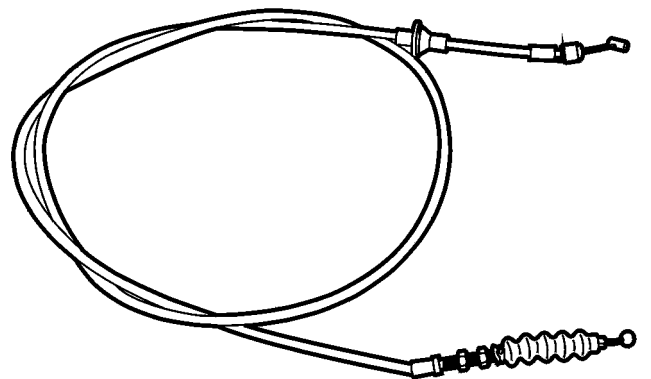
The hood release is a pull handle mounted in the vehicle dash. The cables that pull the latch lever back during hood latch release are attached to the hood release handle. As the handle is pulled, both release cables are pulled. This moves the latch levers away from the top of the latch stud, allowing the latch stud to pop out of the latch receiver cup. When the hood release is let go, the springs in the latch arms pull the latch levers back into place, which in turn pulls the hood release handle back to its normal position.



W8002715

Cable

The hood release cables connect between the latch lever and the hood release handle. The cables are braided steel cables that are covered by a plastic jacket. The latch mechanism end of the cable has a ball that fits into a slot in the latch arm. This end is held in place by a jam nut. The other end has a barrel that fits into a slot in the hood release handle. The cables pass through the bulkhead directly above the engine. A rubber grommet protects each cable from chafing at the pass through.



W8002750

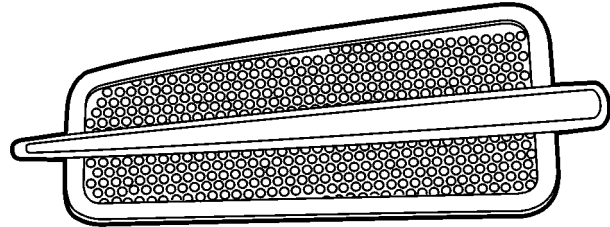
Engine Air Intake

The engine air intake is mounted in the side of the hood on the passenger's side. A water collection channel is incorporated around the air intake grille. This channel forces any water away from the engine air cleaner opening and into the integral drains.

Grille

A rubber grille is installed in the air intake on both sides of the hood. The grille prevents large objects from being drawn into the air intake plenum that could reduce air flow and cause eventual blockage.

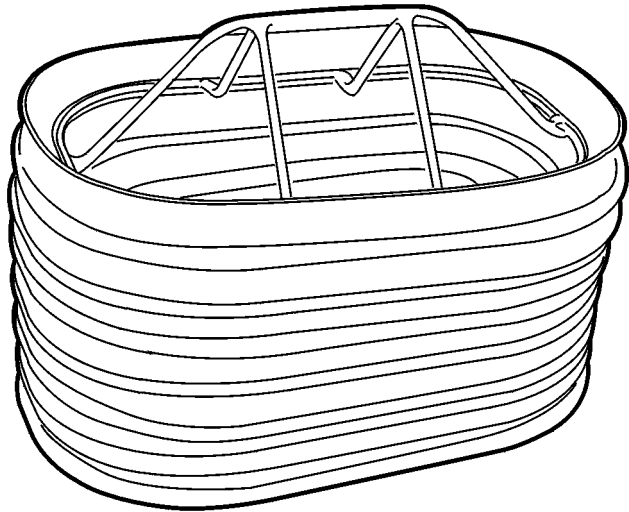
The grille can be removed by pulling it out by hand. Installation requires only pressing the grille until it snaps into place.



W8002746

Bellows

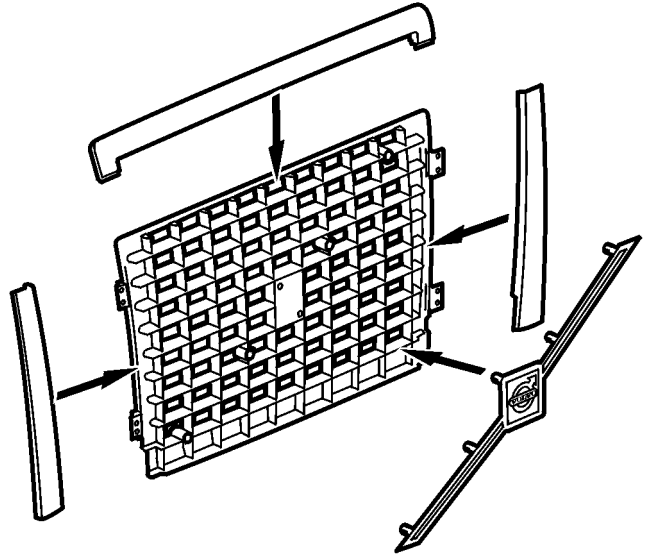
A bellows assembly is incorporated in the air intake path, between the hood and the air cleaner. This bellows expands and contracts with the relative motions of the hood and the engine air cleaner, so that no additional stresses are placed on the air cleaner mounting. It also reduces transmission of noise and vibration from the engine to the hood.



W8002738

Front Grille

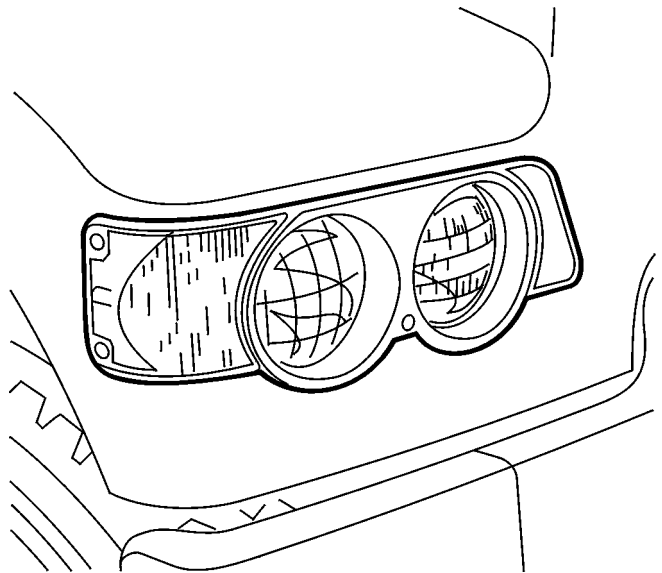
The front grille is smoothly fitted into the hood. The grille assembly consists of the grille, the grille bezel, the VOLVO slash, the VOLVO emblem, and an insect net. The grille is bolted to the hood, the hood needs to be raised before the grille can be removed. Once the grille assembly is removed, the emblem and slash can each be removed from it, if replacement is required.



W8002727

Headlights

The headlights and turn signal lights are integrally mounted in the front of the hood. The headlight assembly mounting bolts are accessible from inside the engine compartment when the hood is raised. The headlights are sealed beam units. An assembly consists of two headlights that mount to the outside of the hood, the turn signal light assembly and the chrome trim bezel. The headlight positioning adjustments are external to the cover panel.

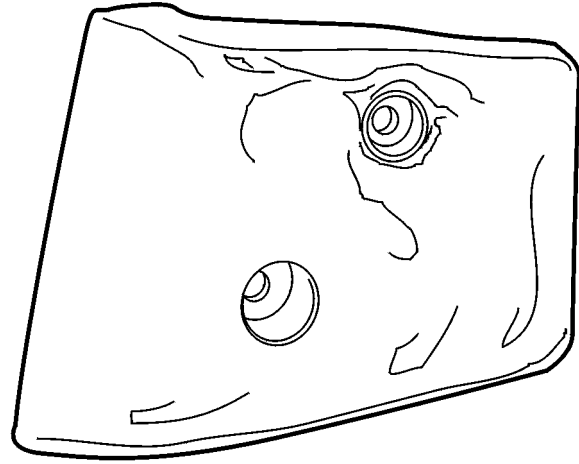


W8002711

Miscellaneous Components

Wear Block

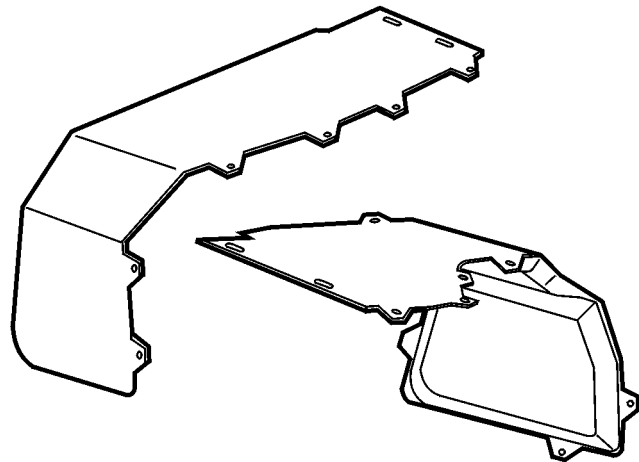
The upper corners of the cowl have a rubber wear block. This block is designed to prevent the hood from contacting the cowl and to help reduce noise and vibration transmitted to the cab.



W8002737

Insulation

The insulation is attached to the under side of the hood. This insulation reduces the engine noise transmitted outside the engine compartment. The insulation is required on vehicles with high rpm engines.

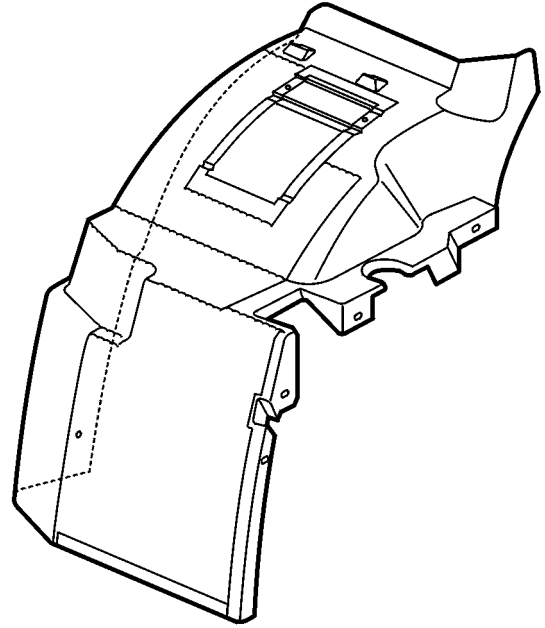


W8002722

Splash Shields

A system of splash shields protects the engine compartment and bulkhead from tire spray and road dirt. The splash shields are constructed of molded plastic and consist of two pieces on each side of the vehicle. The upper pieces are attached to the hood and the lower pieces are attached to the cab. When the hood is closed, the upper shields overlap the lower shields to form a barrier against water and dirt from the road. When the hood is open the upper shields are out of the way of the engine compartment to provide easier engine access.

The lower splash shields are grooved to reduce the impact of spray from other vehicles. They also have an access cover that is directly below the hood latch mechanism. This allows for maintenance on the latch mechanism without removing the entire splash shield. It also allows access to the latch lever in the event the latch is disabled and access to the engine compartment is required.



W8002765

Service Procedures

8211-03-02-01 Hood, Replacement

DANGER

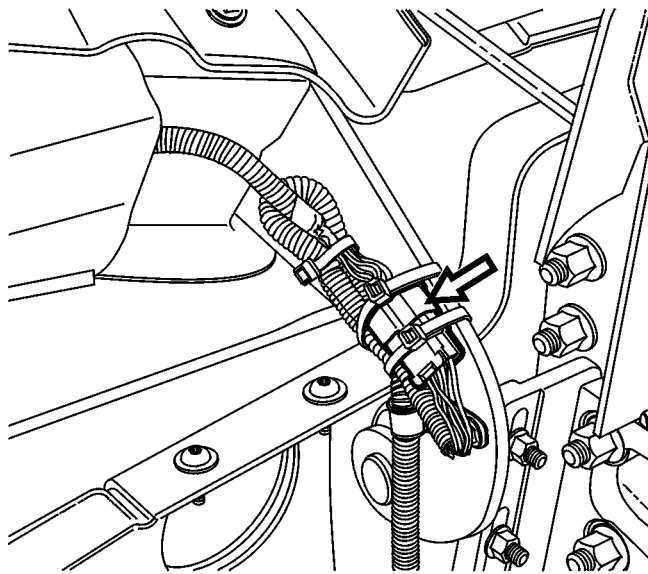
Before working on the vehicle, set the parking brakes, place the transmission in neutral, and block the wheels. Failure to do so can result in unexpected vehicle movement and cause serious personal injury or death.

WARNING

Never remove or replace the hood without assistance. Use a second person and a lifting device. Failure to follow this warning could result in personal injury and/or vehicle damage.

Removal

1

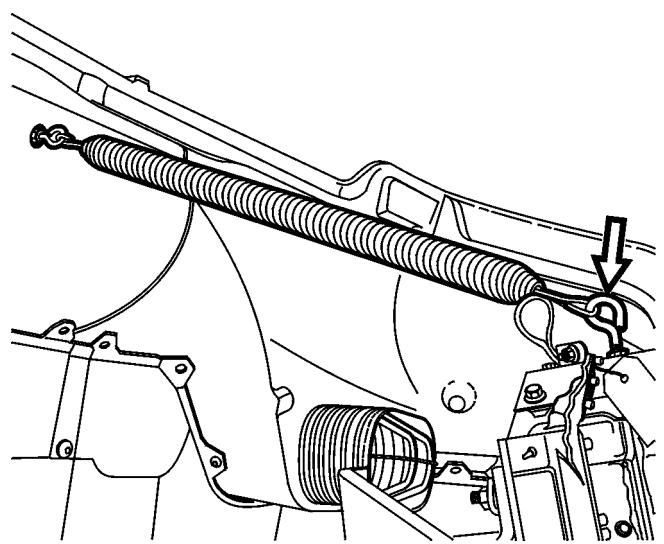


W8002690

(Headlight/turn signal wiring connector)

Locate and disconnect the wiring connector for the headlight/turn signal assembly and the wiring connector for the fog lamps (if equipped). These connectors are located near the front of the hood at the J-brackets.

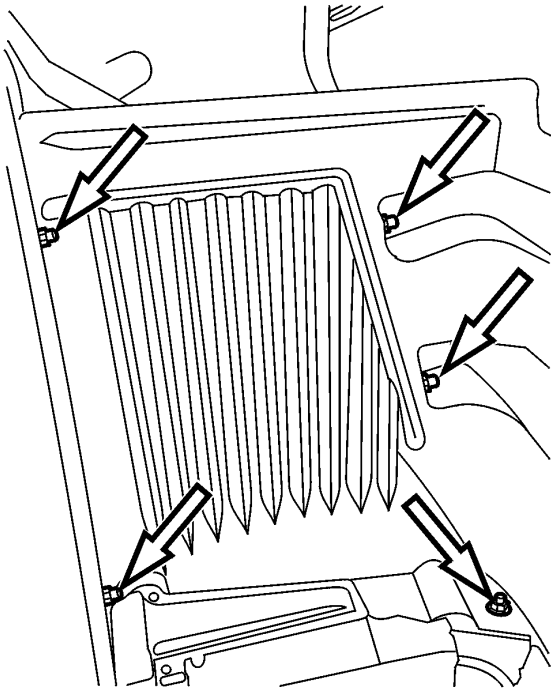
2



W8002691

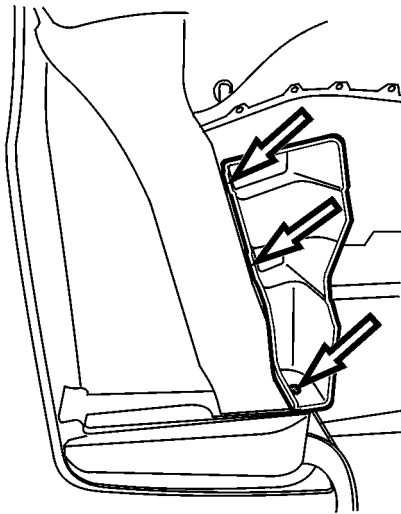
Remove the hood tension spring.

3



W8002693

(Axle forward)

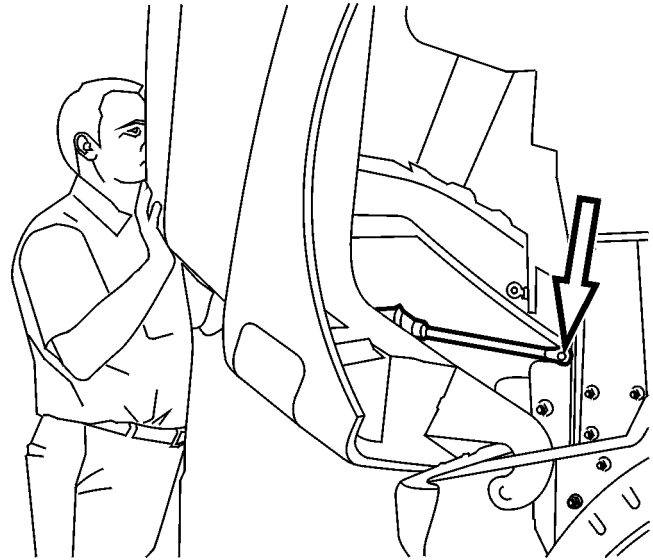


W8002747

(Axle back)

Remove the left and right side hood splash shield.

4



W8002692

With a technician supporting the hood, remove the hood restraint cylinders.

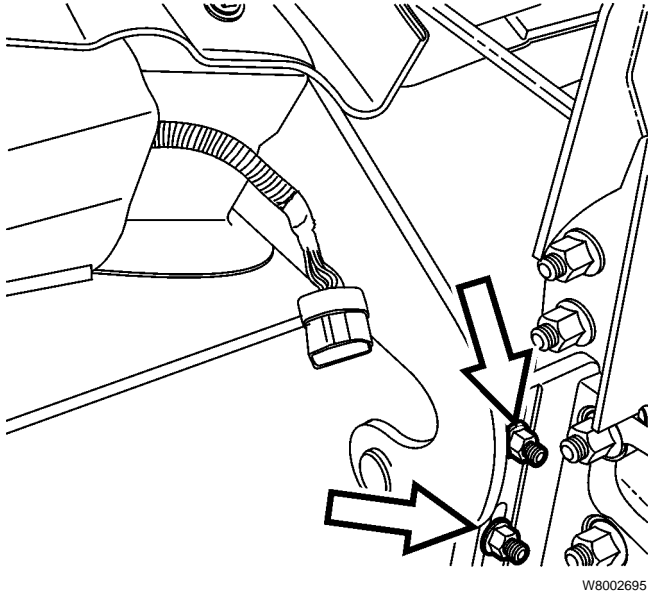
5



W8002694

With a technician on each side of the hood, tilt the hood up to about a 55° angle.

6



Remove the four nuts that attach the hood pivot brackets to the chassis.

7

With a technician on each side, carefully remove the hood from the vehicle.

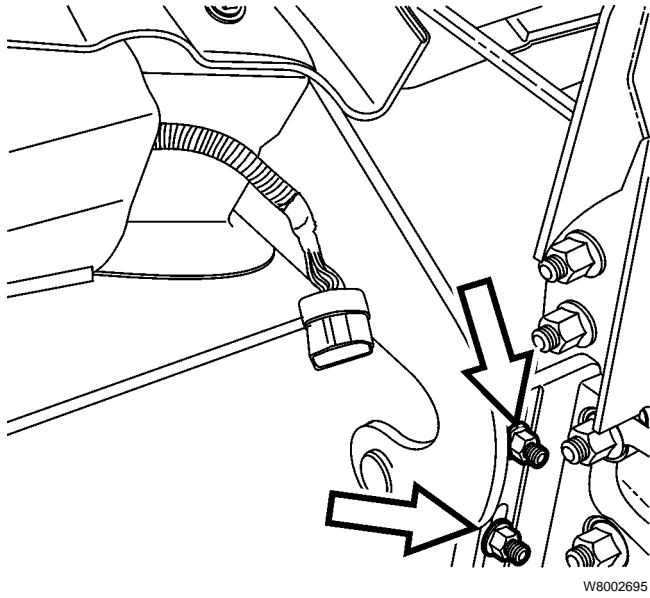
Installation

1



With a technician on each side, lift the hood and tilt it to approximately a 55° angle. Align the studs from the hood pivot bracket and install the hood.

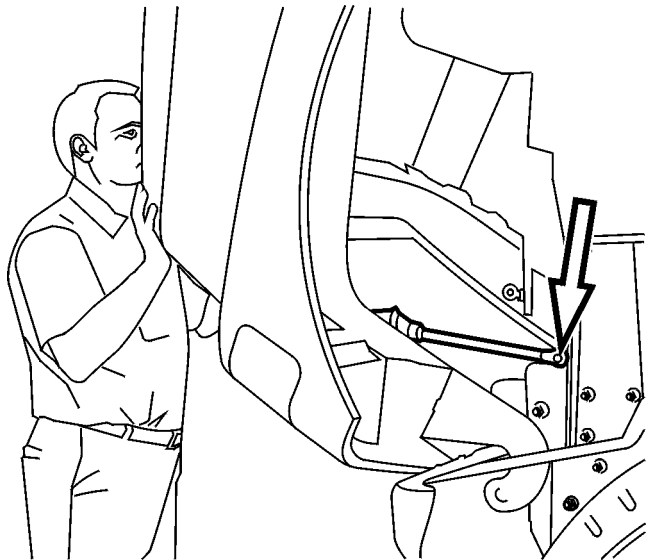
2



W8002695

Install the four nuts onto the hood pivot bracket studs and torque the nuts to 56 ± 10 Nm (41 ± 7 ft-lb).

3



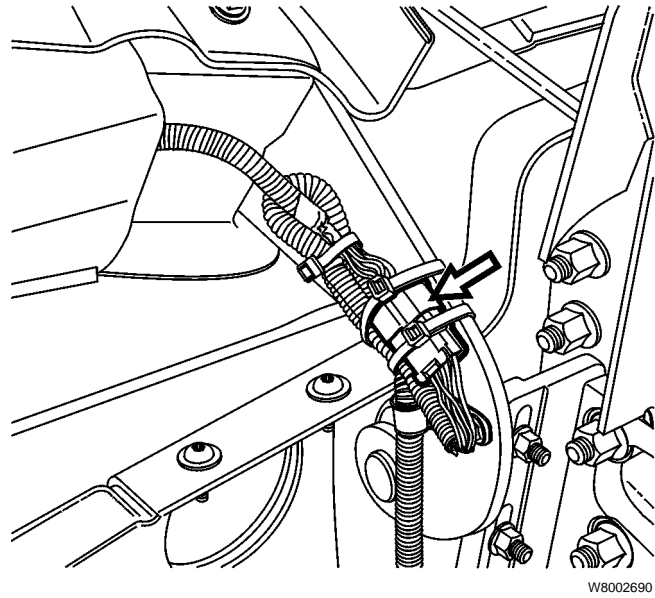
W8002692

With one technician supporting the hood, reinstall the hood restraint cylinders and tighten the bolts. Torque the bolts to 30 ± 4 Nm (22 ± 3 ft-lb).

4

Install the hood splash shields. Torque the bolts to 10 ± 1.5 Nm (7 ± 1 ft-lb).

5

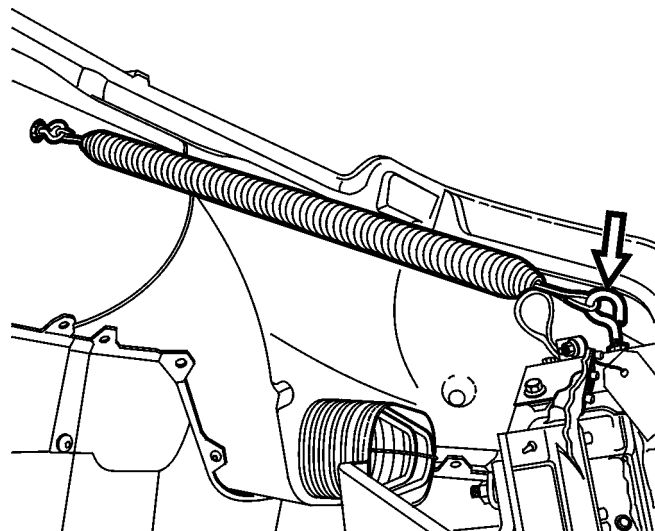


W8002690

(headlight/turn signal wiring connector)

Reconnect the headlight/turn signal wiring connector and, if equipped, the fog light wiring connector.

6



W8002691

Hook up the hood tension spring.

7

Check the hood adjustment and adjust the hood as necessary. Refer to "Hood, Adjustment" page 19 for detailed instructions on adjusting the hood.

8211-05-03-01 Hood, Adjustment

Note: This adjustment procedure should be performed if the hood has been replaced or if other repairs have been made that would affect the proper alignment of the hood. It should also be performed if the hood appears out of adjustment, or if it takes excessive force to cause the hood to latch.

DANGER

Before working on the vehicle, set the parking brakes, place the transmission in neutral, and block the wheels. Failure to do so can result in unexpected vehicle movement and cause serious personal injury or death.

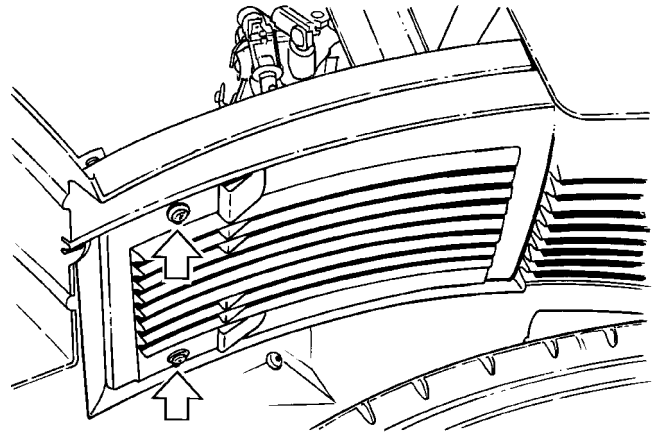
CAUTION

Possible component damage. If the hood was replaced or repairs were performed that could cause the hood to be misadjusted, it **MUST** be adjusted. Do **NOT** leave the hood latched without ensuring proper adjustment. Operation of the vehicle without proper hood adjustment could result in damage to the hood and its latching components.

1
If the vehicle is equipped with air suspension, build the pressure in the air system to 827 kPa (120 psi).

2
Remove the front bumper.
For front bumper replacement procedure, see service information in group 86.

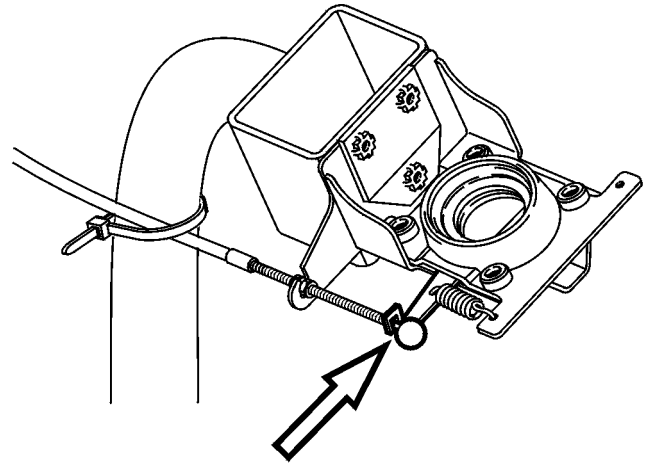
3



W8002297

Remove the inner fender access plates.

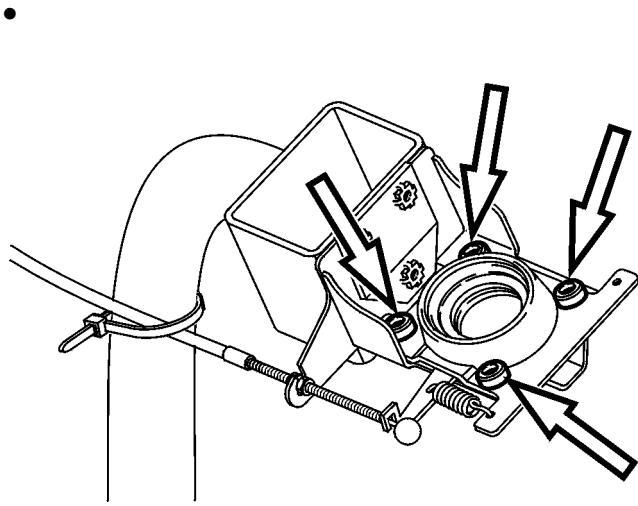
4



W8002696

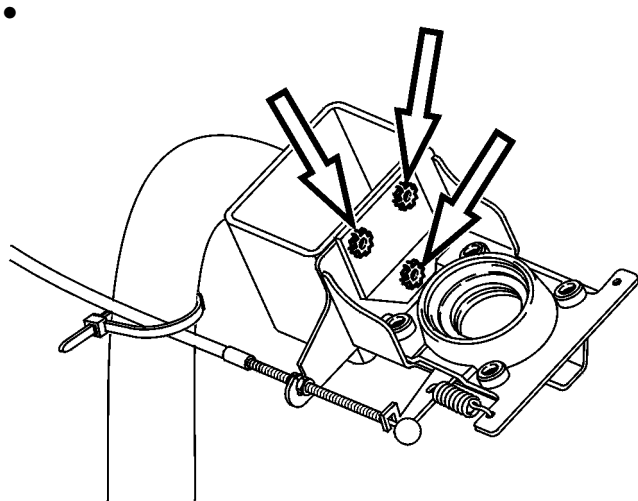
Disconnect the hood latch release cables.

5
Loosen all of the adjustment points:



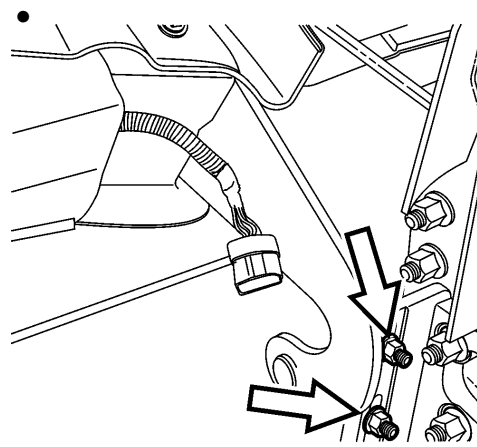
Cup latch (4 bolts on each side)

W8002697



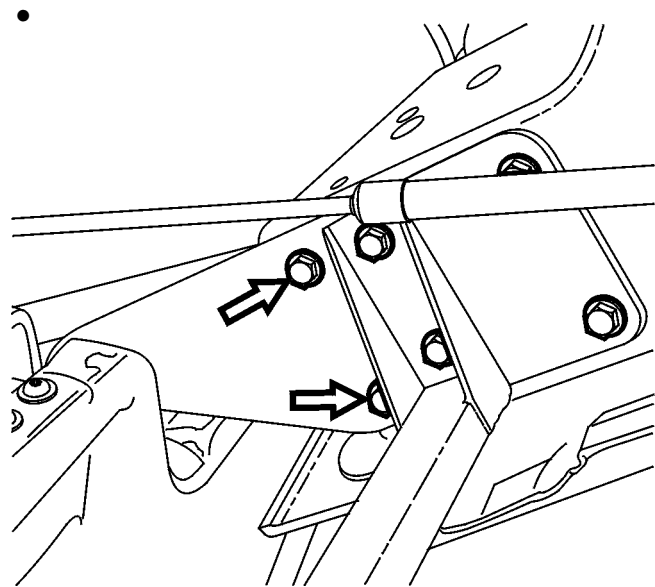
Latch mount assembly (3 bolts on each side)

W8002713



Pivot blocks (2 nuts on each side)

W8002695



J-brackets (6 bolts on each side)

W8002714

6
Position the 2 pivot blocks at the top or bottom of their slots and tighten.

7
Raise the latch mounting bracket assembly until it is level with the stationary mount bracket that is mounted to the framerail and tighten.

Note: The use of visegrips could aid in holding this bracket in place temporarily because it will be moved before the adjustment is complete.

8
Gently lower the hood to determine in which direction it needs to be shifted (left or right).

9

Raise the hood and adjust the cup latches accordingly.

Note: Slide the cup latch $\frac{1}{2}$ of the desired distance in the direction needed and tighten.

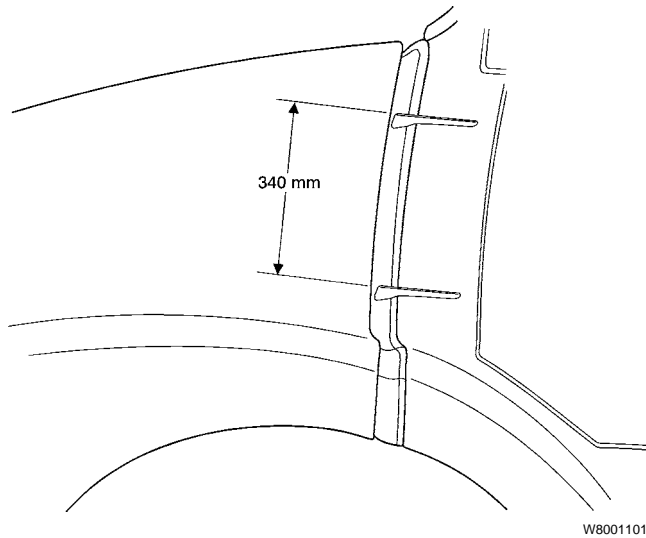
10

Gently lower the hood to assure that the latch studs will align with their latches, then latch the hood.

11

Loosen the latch mounting bracket assembly.

Note: If visegrips were used, remove them instead of having to loosen the mount bolt.

12

W8001101

Adjust the hood for proper height, depth, and clearance using tool 3945528. Check the gap at two places (approx. 340 mm (13 in.) apart) along the cowl on each side.

3945528

Manually adjust the hood by pushing up or down on the fender and either pushing and/or pulling on the front portion of the hood. When the hood has reached the correct clearances, tighten the latch mounting bracket assembly on either side and tighten the 2 accessible J-bracket bolts.

13

Unlatch and raise the hood from underneath, through the splash shield access hole.

14

Tighten the 5 remaining J-bracket bolts on either side of the hood.

15

Connect the 2 hood latch release cables and adjust if necessary.

16

Torque the latch mounting bracket bolt on each side to 56 ± 10 Nm (41 ± 7 ft-lb).

17

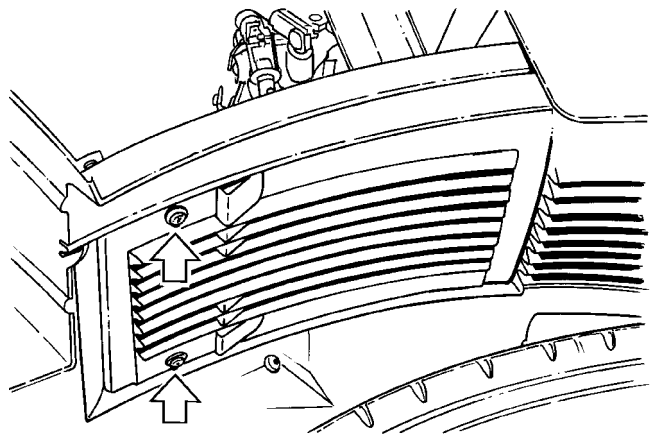
Torque the 6 J-bracket bolts on each side to 56 ± 10 Nm (41 ± 7 ft-lb).

18

Torque the 2 pivot block nuts on each side to 56 ± 10 Nm (41 ± 7 ft-lb).

19

Torque the 4 cup latch bracket bolts on each side to 28 ± 5 Nm (21 ± 4 ft-lb).

20

W8002297

Install the inner fender access plates.

21

Close the hood and ensure it latches properly.

22

Install the front bumper. For front bumper replacement procedure, see service information in group 86.

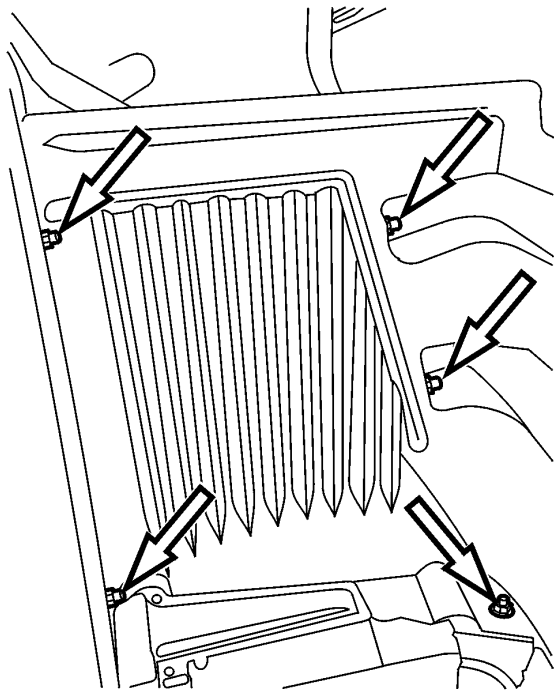
8214-03-02-01 Hood Restraint Cylinder, Re- placement



Before working on the vehicle, set the parking brakes, place the transmission in neutral, and block the wheels. Failure to do so can result in unexpected vehicle movement and cause serious personal injury or death.

Removal

1



(Axle forward)

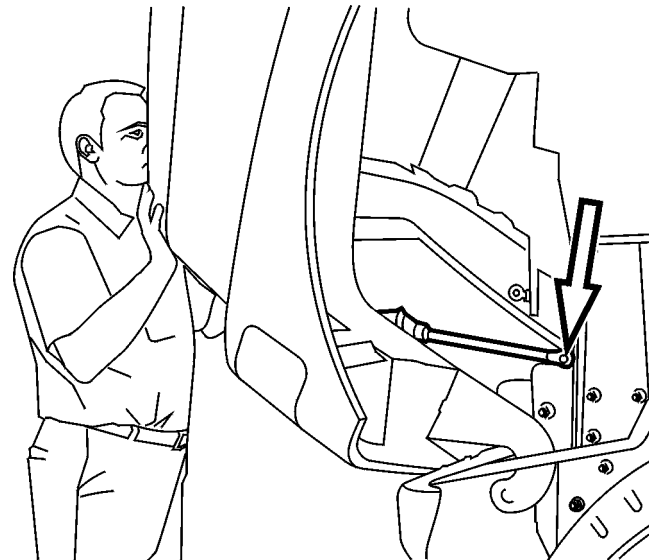
W8002693

(Axle back)

Remove the bolts and the studs from the hood splash shield. Remove the splash shield.

W8002747

2

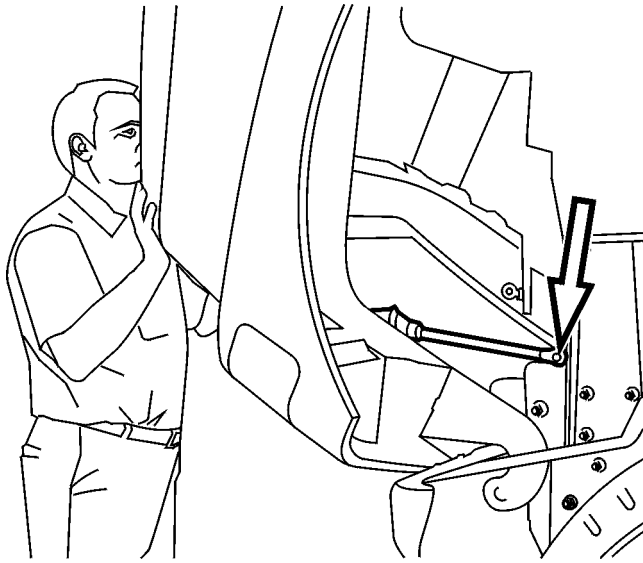


With a technician supporting the hood, remove the two nuts from the hood restraint cylinder. Remove the cylinder.

W8002692

Installation

1



W8002692

With a technician supporting the hood, install the new hood restraint cylinder and nuts.

2

Torque the nuts to 30 ± 4 Nm
(22 ± 3 ft-lb).

30 ± 4 Nm
(22 ± 3 ft-lb)

3

Install the hood splash shield and tighten the bolt and the 2 studs. Torque to 10 ± 1.5 Nm (7 ± 1 ft-lb).

10 ± 1.5 Nm
(7 ± 1 ft-lb)

8213-03-02-01

Hood Latch, Replacement



DANGER

Before working on the vehicle, set the parking brakes, place the transmission in neutral, and block the wheels. Failure to do so can result in unexpected vehicle movement and cause serious personal injury or death.

Removal

1

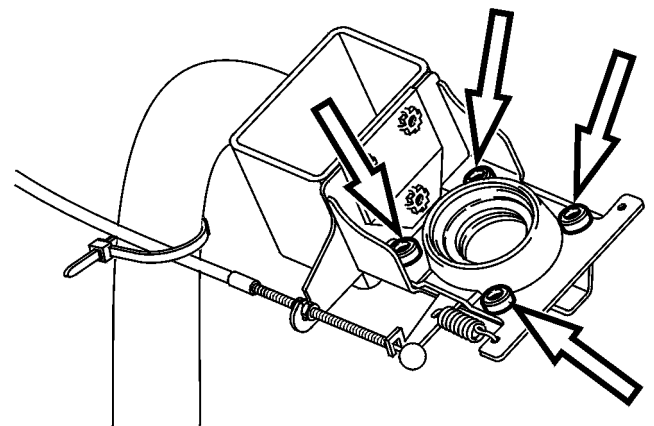
Unlatch and raise the hood.

Note: If the hood will not release from inside the vehicle, the splash shield access panel will need to be removed. Then the latch will need to be released manually.

2

Mark the exact location of the latch and disconnect the latch release cable.

3



W8002697

Remove the 4 hood latch mechanism mounting bolts. Remove the hood latch.

Installation

1

Install the hood latch and the hood latch mounting bolts. Torque the hood latch mounting bolts to 28 ± 5 Nm (21 ± 4 ft-lb).

28 ± 5 Nm
(21 ± 4 ft-lb)

2

Push the hood latch lever back and install the ball end of the hood release cable.

Note: Check the release cable adjustment and readjust if necessary.

3

Close the hood.

8213-03-02-02

Hood Latch Stud, Replacement



DANGER

Before working on the vehicle, set the parking brakes, place the transmission in neutral, and block the wheels. Failure to do so can result in unexpected vehicle movement and cause serious personal injury or death.

Removal

1

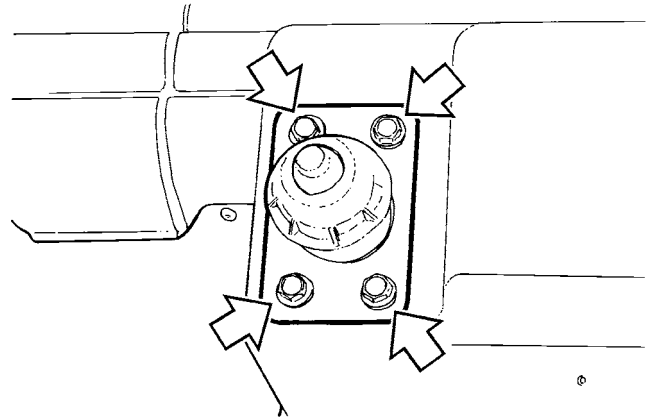
Access the hood latch stud by raising the hood or by removing the access cover underneath the splash shield.

2

Mark the exact location of the latch stud on the hood.

Note: If the receiver cup bracket bolts have been loosened, then the hood adjustment procedure must be performed after replacement of the latch mechanism is complete. See "Hood, Adjustment" page 19.

3



Remove the four bolts from the stud and remove the stud.

®

W8001117

Installation

1
Install the new hood latch stud using the four bolts. Torque the bolts to 28 ± 5 Nm (21 ± 3.7 ft-lb).
 28 ± 5 Nm (21 ± 3.7 ft-lb).

2
Close the hood and verify it is properly aligned. Perform the adjustment procedure if necessary. See "Hood, Adjustment" page 19.

3
If removed, install the access cover underneath the splash shield.

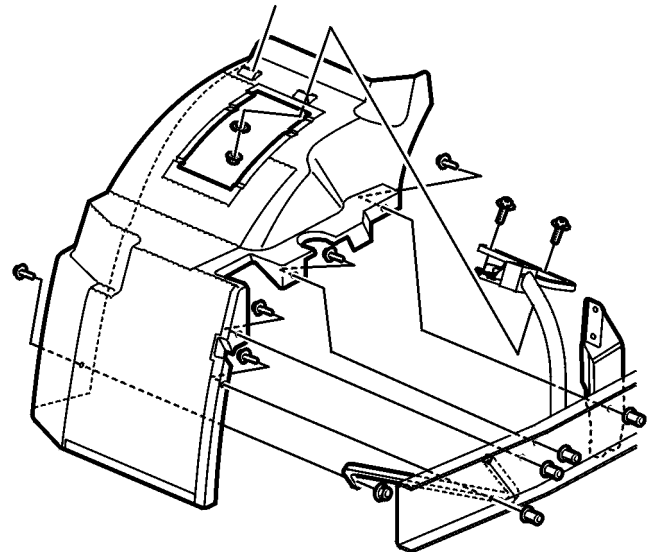
8214-03-02-02 Hood Latch Arm, Replacement



Before working on the vehicle, set the parking brakes, place the transmission in neutral, and block the wheels. Failure to do so can result in unexpected vehicle movement and cause serious personal injury or death.

Removal

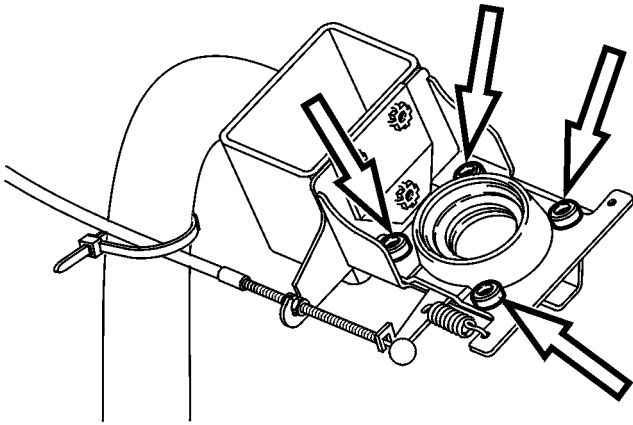
1



Remove the splash shield on the side that the hood latch arm is to be replaced.

W8002764

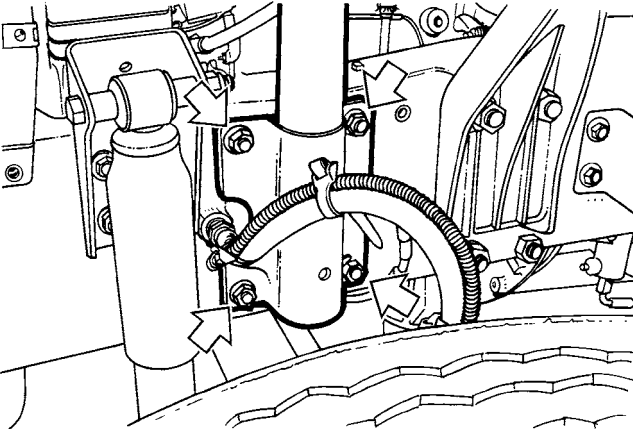
2



Remove the four bolts that attach the hood latch assembly to the hood latch arm.

W8002697

3



Remove the four bolts and nuts that attach the hood latch arm to the vehicle chassis.

W8001139

Installation

- 1
Install the new hood latch arm, bolts and nuts to the frame rail. Torque to 200 ± 33 Nm (148 ± 24 ft-lb).
- 2
Reinstall the hood latch assembly and mounting bolts. Torque to 28 ± 5 Nm (21 ± 4 ft-lb).
- 3
Reinstall the splash shield. Torque to 24 ± 4 Nm (18 ± 3 ft-lb).
- 4
Adjust the hood using the Hood adjustment procedure. See "Hood, Adjustment" page 19.

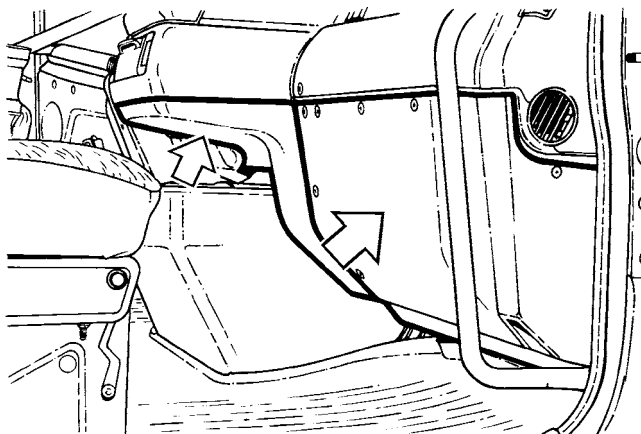
8214-03-02-03 Hood Release Cable, Replacement



Before working on the vehicle, set the parking brakes, place the transmission in neutral, and block the wheels. Failure to do so can result in unexpected vehicle movement and cause serious personal injury or death.

Removal

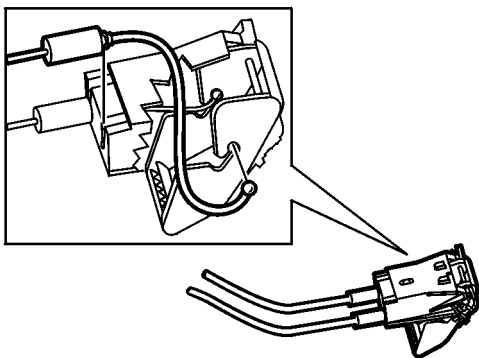
1



W8001131

Remove the passenger side and center lower dash panels.

2



W8002748

Remove the hood release cable from the hood release handle.

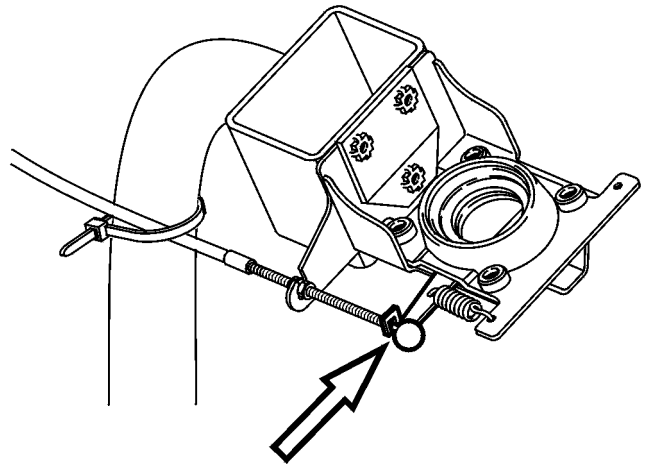
3

Cut the tie straps. Remove the hood release cable from the cab by pulling the cable through the bulkhead from outside the cab.

4

Raise the hood or remove the access cover underneath the splash shield.

5



W8002696

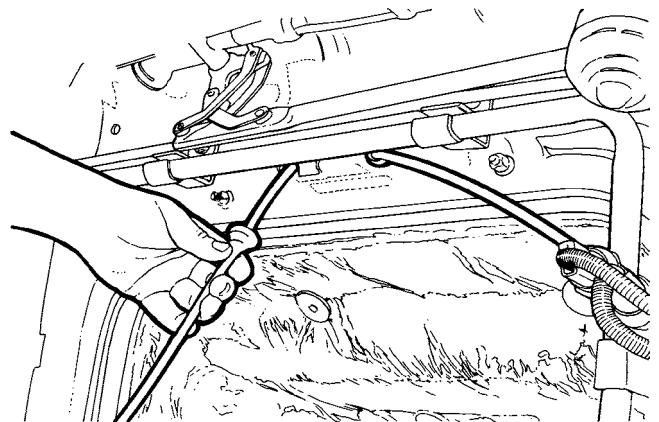
Loosen the jam nuts at the hood latch assembly and remove the cable.

Installation

1

Remove the rubber grommet from the bulkhead and slide the new cable into the rubber grommet.

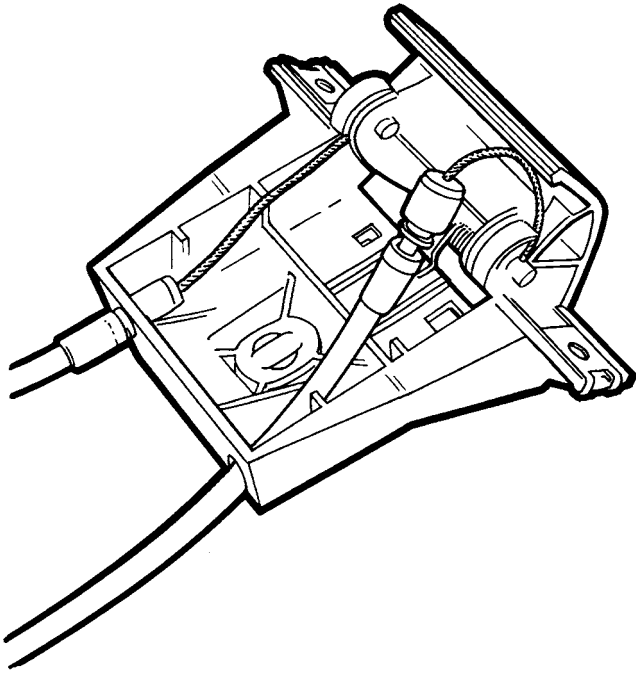
2



W8001120

Begin installing the cable by pushing it through the hole in the bulkhead from the outside. Push the grommet into place on the bulkhead.

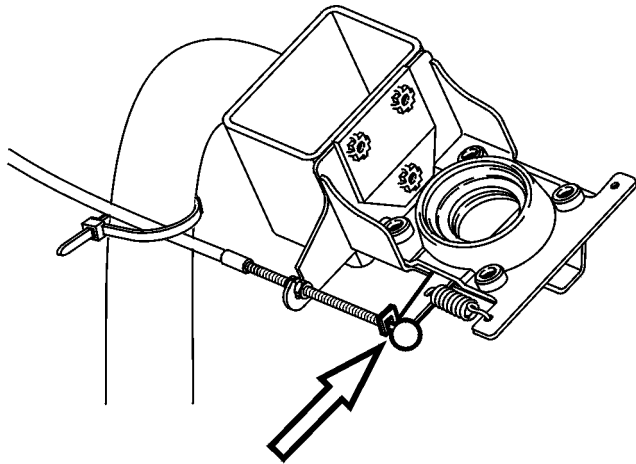
3



Attach the cable end to the hood release handle inside the cab.

W8001121

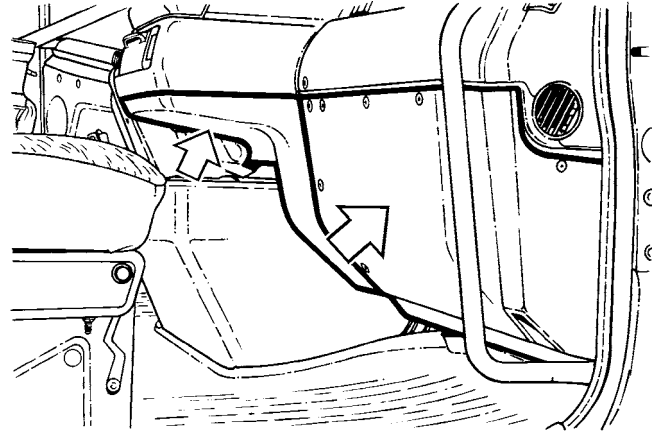
4



Attach the other end of the cable to the hood latch assembly. Adjust the cable and tighten the two jam nuts.

W8002696

5



W8001131

Reinstall the passenger side and center dash panels.

6

Close the hood or if removed, install the access cover underneath the splash shield.

8231-03-02-06 Grille, Replacement (Hood Mounted)



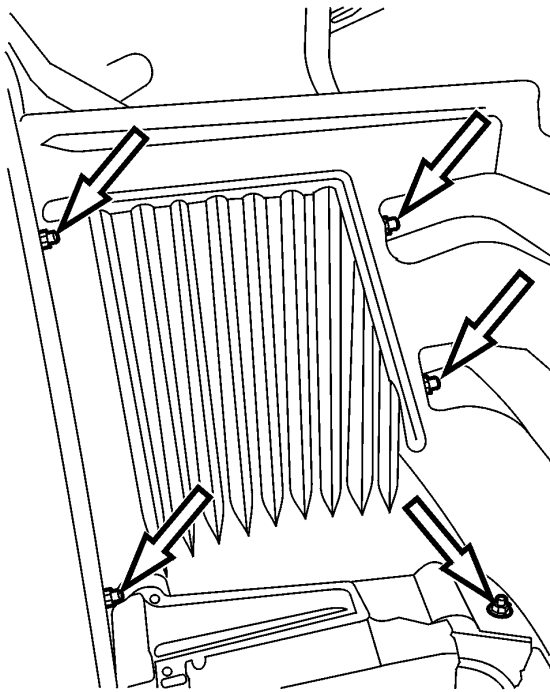
DANGER

Before working on the vehicle, set the parking brakes, place the transmission in neutral, and block the wheels. Failure to do so can result in unexpected vehicle movement and cause serious personal injury or death.

Removal

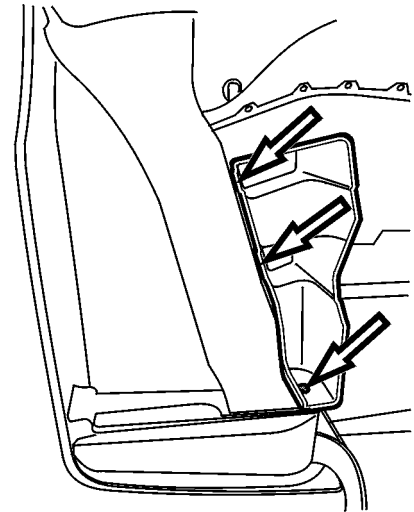
1
Raise the hood.

2



(Axle forward)

W8002693

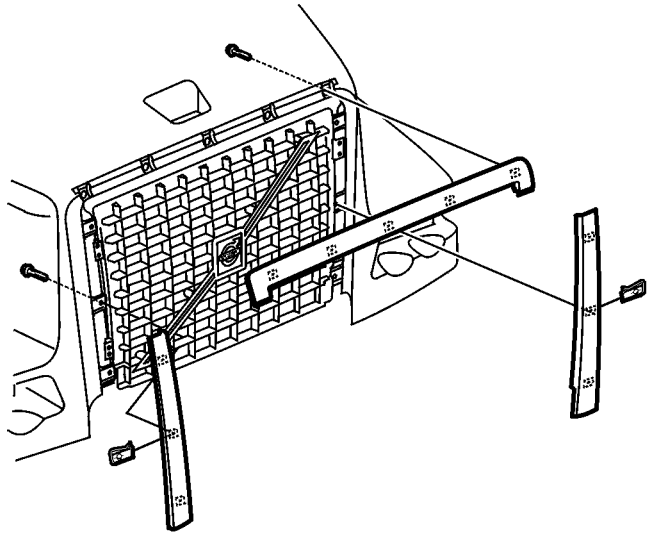


(Axle back)

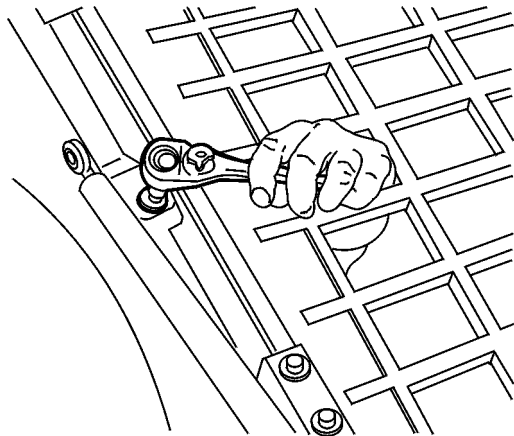
Remove the left and right hood splash shield.

W8002747

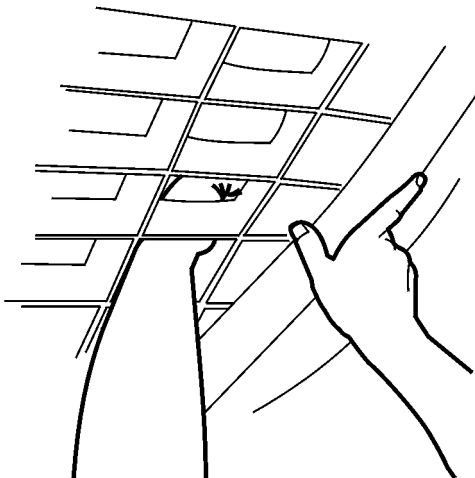
3



W8002770



W8002754



W8002755

Remove the left and right side grille chrome trim bezel.
Remove the top and bottom screws from the backside of the grille then remove the middle screw from the front.

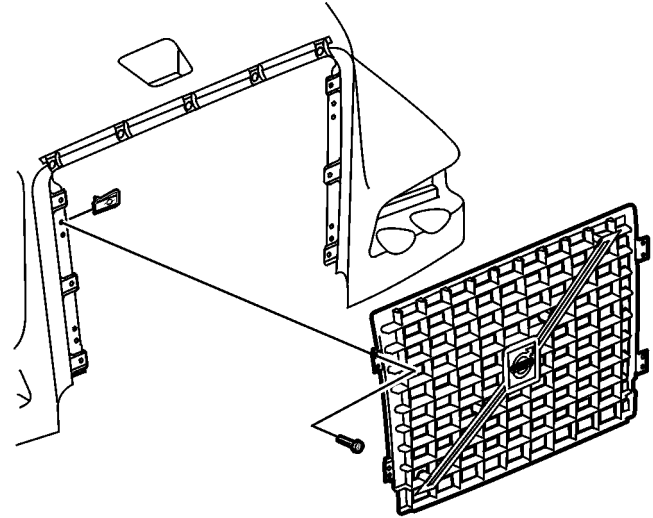
4

Remove the top center grille chrome trim bezel.

5

Close the hood.

6



W8002771

Remove the 8 mounting screws around the outside of the grille.

7

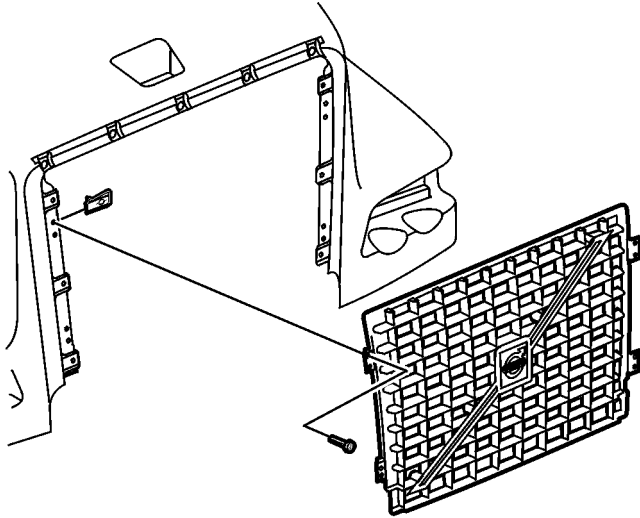
Remove the self tapping screw from the lower crossbar that connects to rubber strap.

8

Remove the grille from the hood.

Installation

1



Hold the grille in place and install the 8 mounting screws.
Torque the screws to 24 ± 4 Nm
(18 ± 3 ft-lb).

W8002771
 24 ± 4 Nm
(18 ± 4 ft-lb)

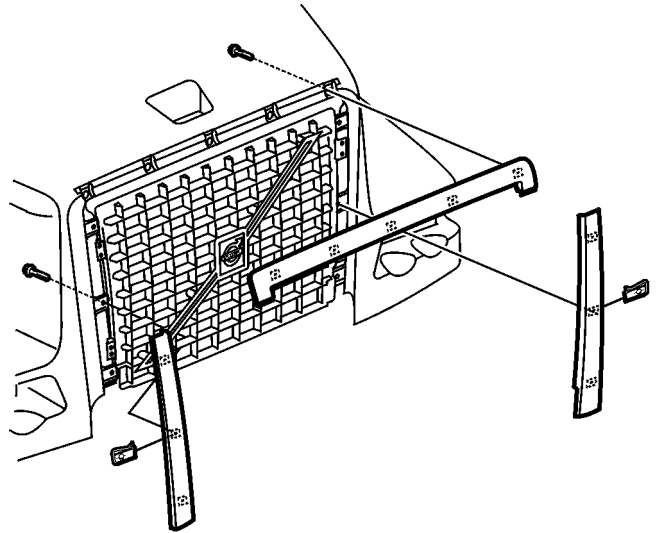
2

Raise the hood.

3

Install the screw into the lower cross-bar that connects to the rubber strap.

4



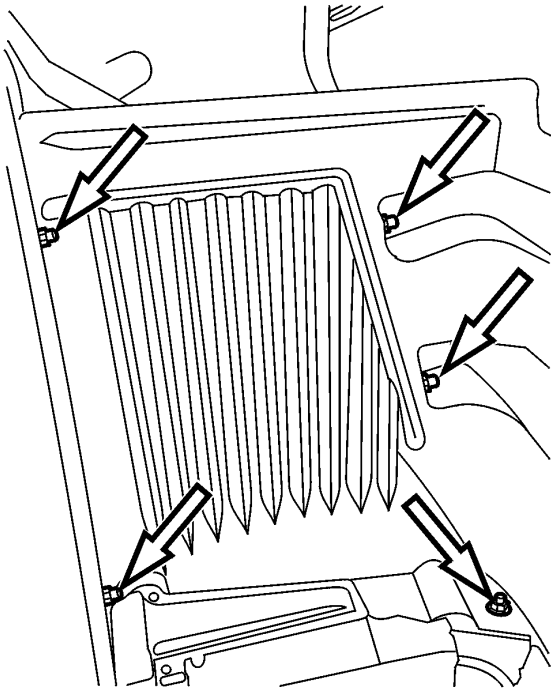
Install the top center grille chrome trim bezel.

W8002770
 10 ± 1.5 Nm
(7 ± 1 ft-lb)

Install the left and right side grille chrome trim bezel.

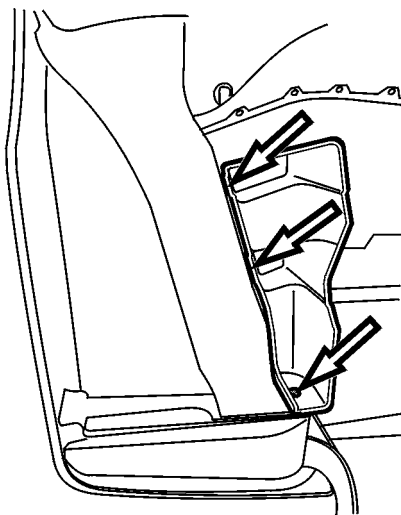
Torque the screws to 10 ± 1.5 Nm
(7 ± 1 ft-lb).

5



W8002693

(Axle forward)



W8002747

(Axle back)

Install the left and right side hood splash shields. Torque the screws to 10 ± 1.5 Nm (7 ± 1 ft-lb).

10 ± 1.5 Nm
(7 ± 1 ft-lb)

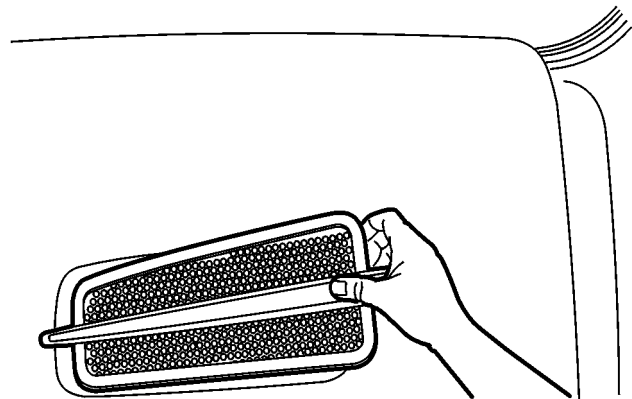
2563-03-02-01 Air Intake Grille, Replacement

! DANGER

Before working on the vehicle, set the parking brakes, place the transmission in neutral, and block the wheels. Failure to do so can result in unexpected vehicle movement and cause serious personal injury or death.

Removal

1



W8002725

Pull out the grille.

Installation

1

Check to be sure there are no foreign objects in the hood intake or behind the grille.

2

Place the grille in position and press it until it snaps into place. Make sure that the grille is fully seated in the groove.

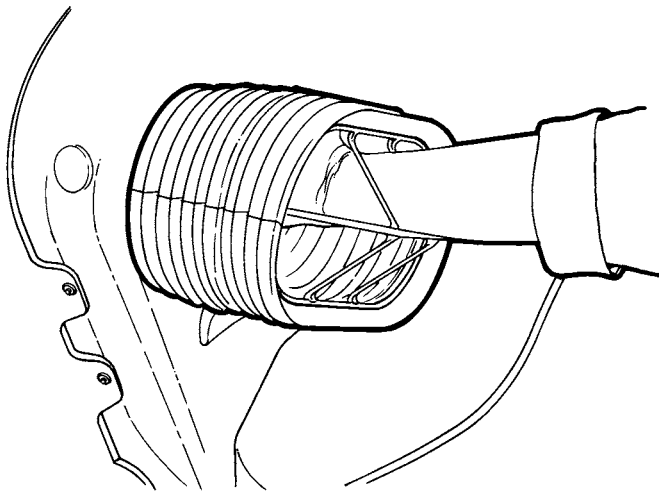
2564-03-02-01 Air Intake Bellows, Replacement



Before working on the vehicle, set the parking brakes, place the transmission in neutral, and block the wheels. Failure to do so can result in unexpected vehicle movement and cause serious personal injury or death.

Removal

1



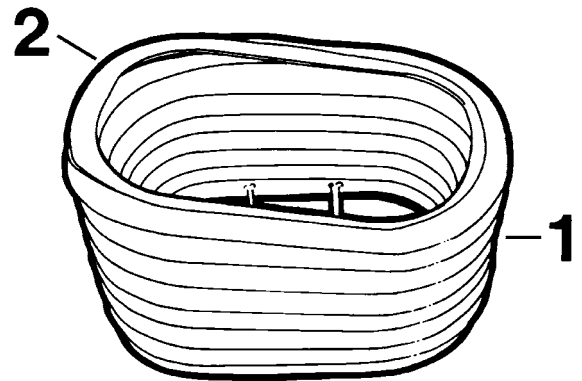
W8001106

Open the hood and reach into the bellows through the bellows guide. Pull the metal retaining ring out of its groove in the bellows.

2

Remove the bellows from the hood.

Installation



W8001107

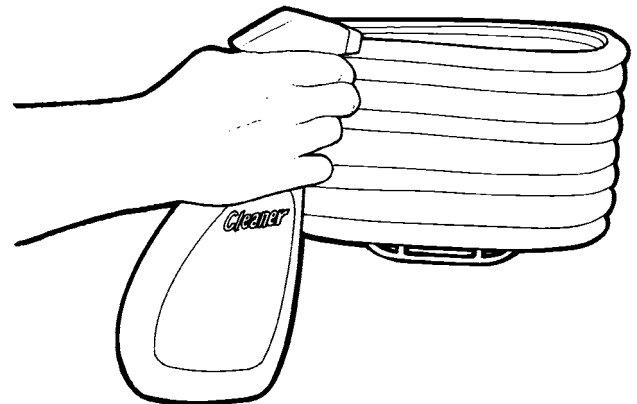
- 1 Air intake bellows
- 2 Retaining ring

Note: The bellows must be installed in the air intake in the first groove in the bellows. The retaining ring must also be installed in the first groove and should be in place prior to installation of the bellows assembly.

1

Install the retaining ring in the first groove of the bellows.

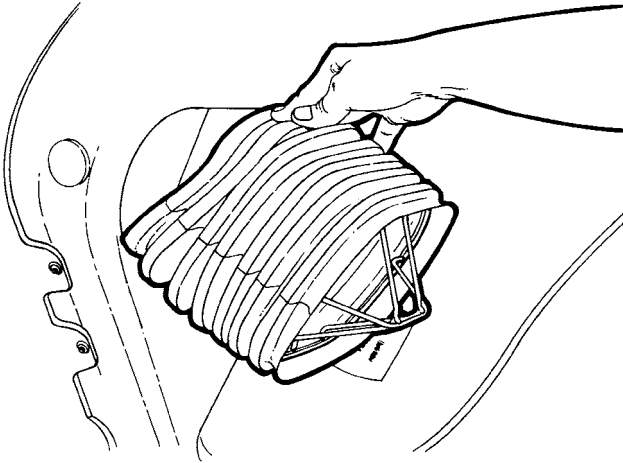
2



W8001111

Apply a soapy solution to the outside of the end groove of the bellows.

3



W8001128

Install the lower side of the bellows, and as much as possible of one end into the air duct of the hood. Bow the center of the retaining ring away from the hood, and push the upper edge of the bellows down into the air intake. Begin working the remaining portion of the bellows into its proper location inside the air intake.

4

Make sure the retaining ring is fully seated in the groove.

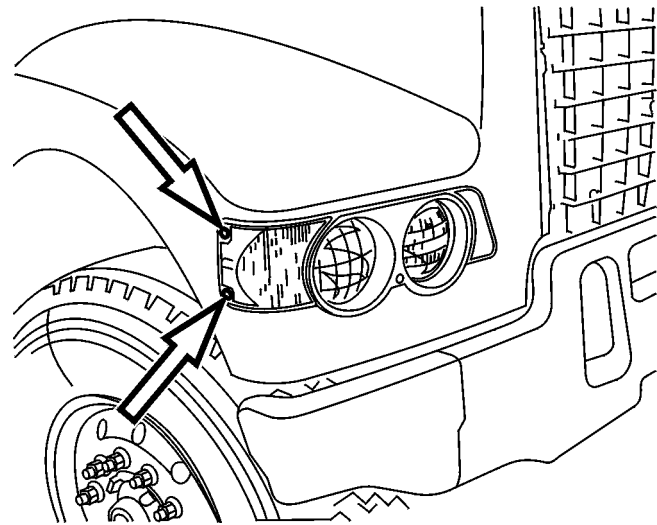
3523-03-02-02 Headlamp Bezel, Replacement

**DANGER**

Before working on the vehicle, set the parking brakes, place the transmission in neutral, and block the wheels. Failure to do so can result in unexpected vehicle movement and cause serious personal injury or death.

Removal

1



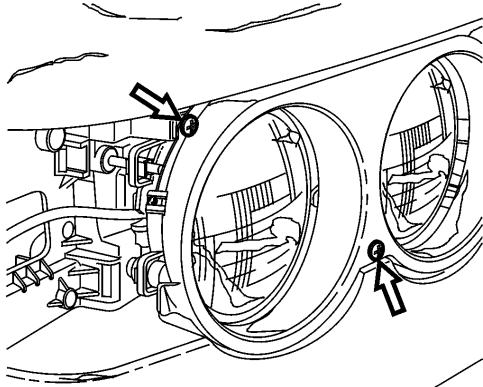
W8002698

Remove the 2 mounting screws that mount the turn signal assembly.

2

Pull the turn signal assembly straight out to the side. Twist the turn signal light socket until unlocked. Remove the turn signal assembly.

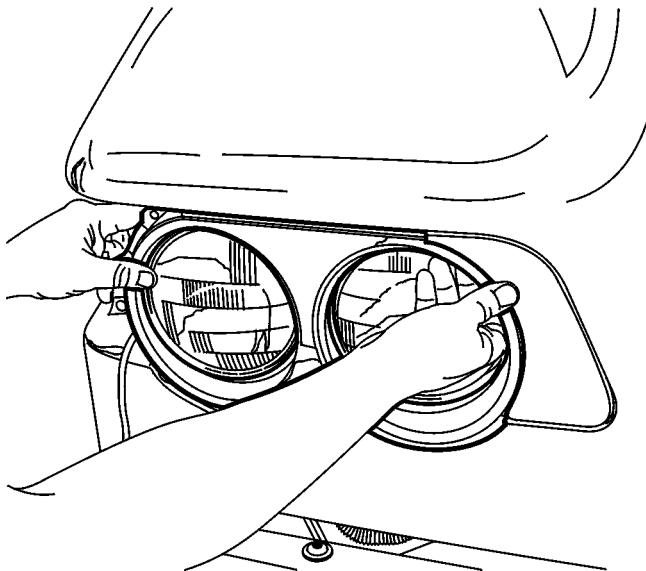
3



W8002699

Remove the 2 trim bezel mounting screws.

4



W8002716

Grab the side close to the grill and the center and pull the trim bezel straight out.

Installation

1

Position the bezel into place and push until the bezel tabs snap into position.

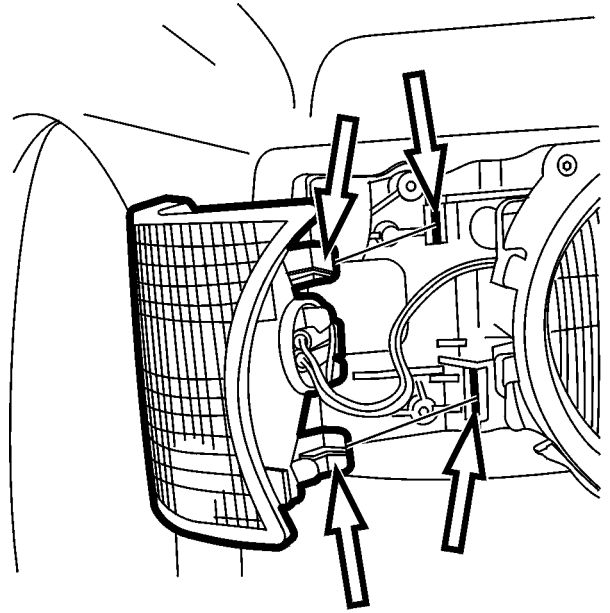
2

Tighten the 2 mounting screws.

3

Install the light socket into the turn signal assembly. Twist the light socket until it locks in place.

4



W8002700

Slide the turn signal assembly, from the side, onto the housing tabs.

5

Tighten the 2 mounting screws.

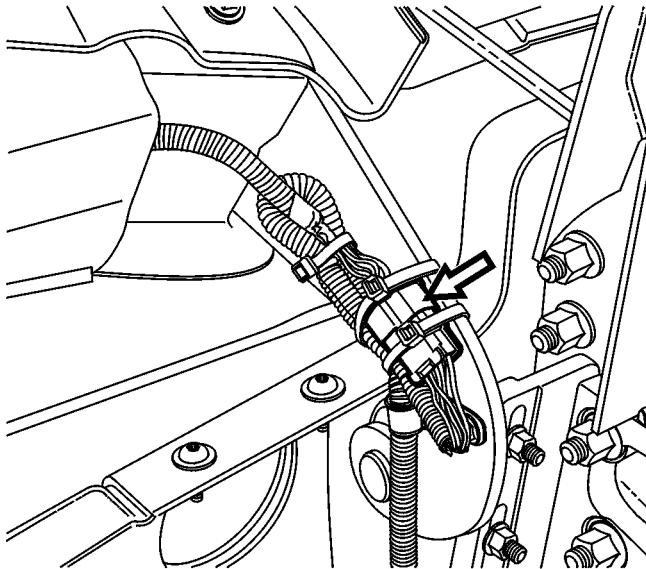
3521-03-02-01 Headlamp Assembly, Replacement



Before working on the vehicle, set the parking brakes, place the transmission in neutral, and block the wheels. Failure to do so can result in unexpected vehicle movement and cause serious personal injury or death.

Removal

1



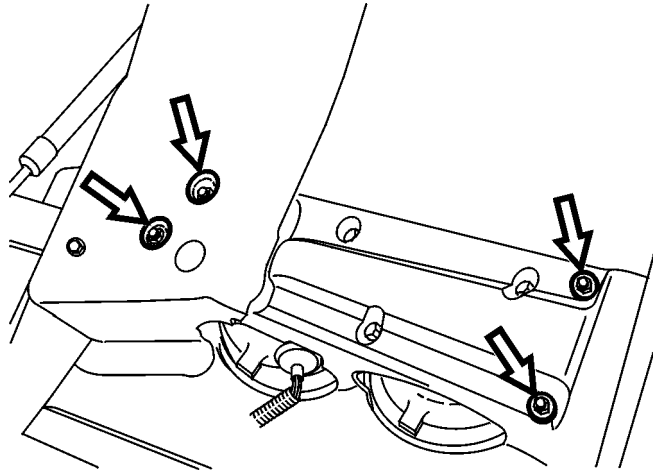
W8002690

Remove the headlight/turn signal wiring connector.

2

Remove the cover over the back side of the headlamp bucket.

3



W8002701

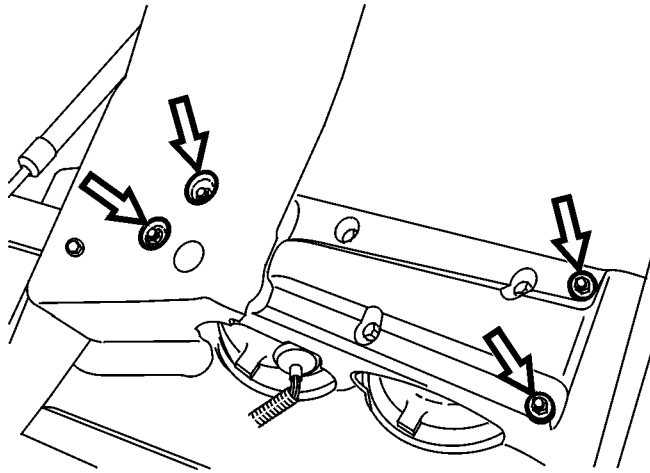
Secure the headlamp assembly from the front side and remove the 4 mounting nuts on the back side.

4

Pull the headlamp assembly straight forward from the bucket.

Installation

1



W8002701

Position the headlamp assembly into the headlamp bucket. Install all the 4 nuts on the studs and tighten. Torque to 3.5 ± 0.5 Nm (31 ± 4 in-lb).

3.5 ± 0.5 Nm
(31 ± 4 in-lb)

2

Install the cover on the back side of the headlamp bucket.

3

Connect the wiring connector.

Note: For headlamp adjustment refer to service information in group 35.

3522-03-02-01

Headlamp Lens, Replacement



DANGER

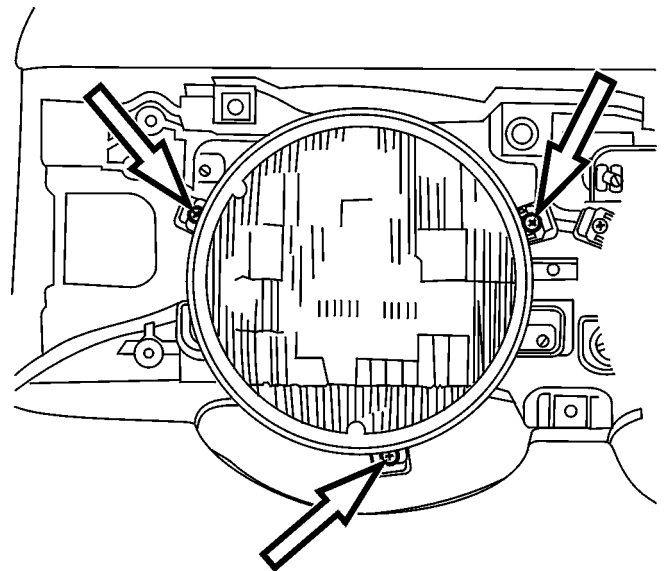
Before working on the vehicle, set the parking brakes, place the transmission in neutral, and block the wheels. Failure to do so can result in unexpected vehicle movement and cause serious personal injury or death.

Removal

1

Remove the chrome trim bezel, see "Headlamp Bezel, Replacement" page 34.

2



W8002702

Remove the 3 screws from the metal ring that holds the headlamp in place. Pull the headlamp straight forward.

3

Disconnect the wiring connector on the rear of the lamp and remove the headlamp.

Installation

1
Connect the wiring connector and position the headlamp.

2
Install the mounting metal ring and tighten the 3 mounting screws.

3
Install the chrome trim bezel, see "Headlamp Bezel, Replacement" page 34.

Note: For headlamp adjustment refer to service information in group 35.

3527-03-02-01

Turn Signal Lens, Replacement

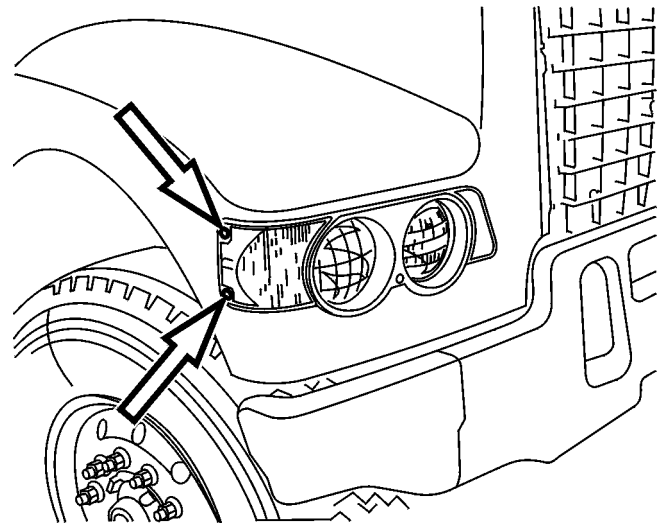


DANGER

Before working on the vehicle, set the parking brakes, place the transmission in neutral, and block the wheels. Failure to do so can result in unexpected vehicle movement and cause serious personal injury or death.

Removal

1



W8002698

Remove the 2 mounting screws that mount the turn signal assembly.

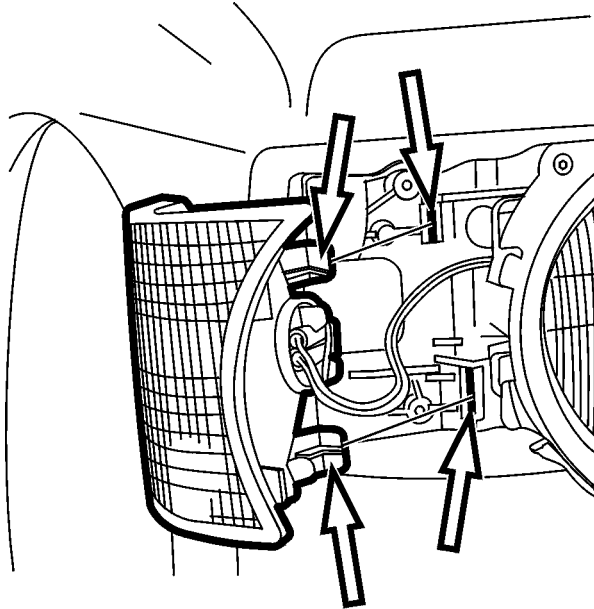
2

Pull the turn signal assembly straight out to the side. Twist the turn signal light socket until unlocked. Remove the turn signal assembly.

Installation

1
Install the light socket into the turn signal assembly. Twist the light socket until it locks in place.

2



W8002700

Slide the turn signal assembly, from the side, onto the housing tabs.

3
Tighten the 2 mounting screws.

8211-03-02-04

Hood Insulation, Replacement



DANGER

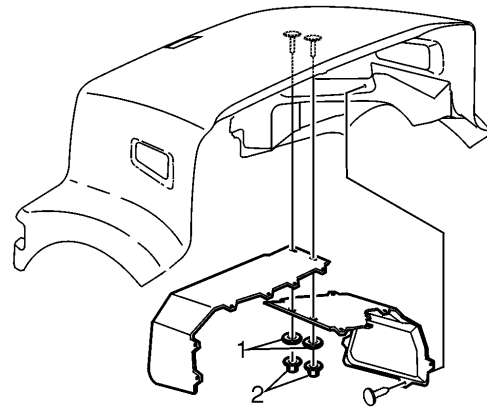
Before working on the vehicle, set the parking brakes, place the transmission in neutral, and block the wheels. Failure to do so can result in unexpected vehicle movement and cause serious personal injury or death.

Removal

1
Unlatch and raise the hood.

2
Remove the grille assembly, see "Grille, Replacement (Hood Mounted)" page 29.

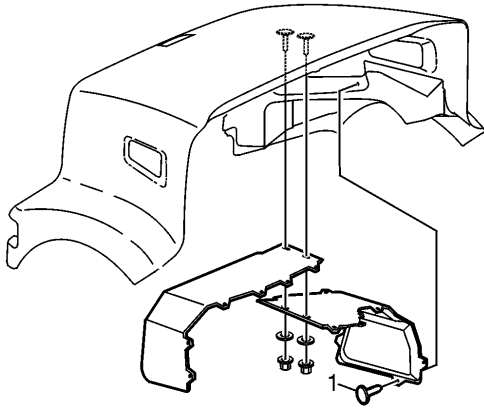
3



W8002721

Remove the 2 center hood stud nuts (2) and washers (1).

4



W8002772

! WARNING

Always wear appropriate eye protection to prevent risk of eye injury due to contact with debris or fluids.

Remove the 20 trim panel rivets (1) using the special tool J-38778.

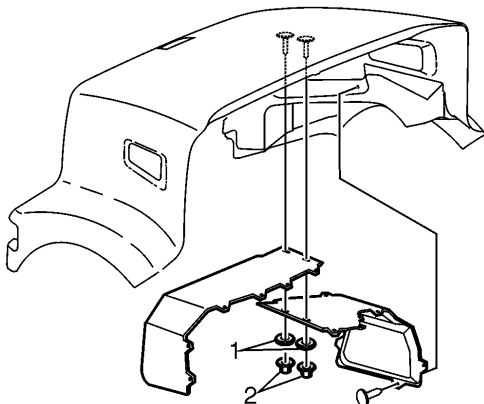
5
Remove the 2 pieces of the hood insulation from the vehicle.

6
Using a small center punch, push the remains of the trim panel retainers through the retaining holes.

Installation

1
Install the replacement insulation panels.

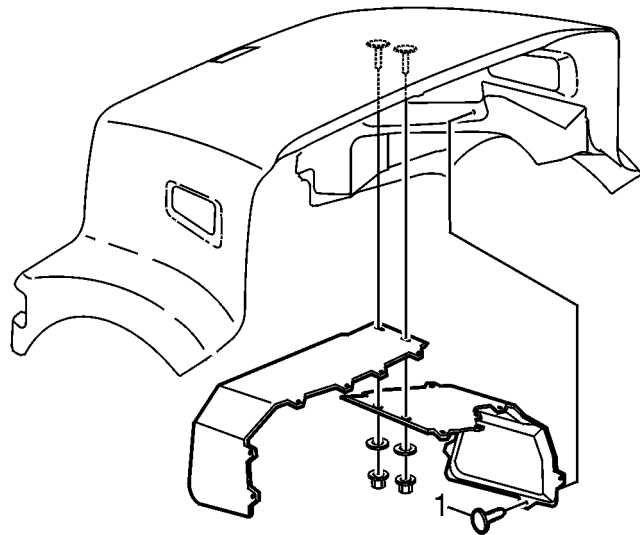
2



W8002721

Install the 2 center hood stud nuts (2) and washers (1).

3



W8002772

Align the rivet holes and install new rivets (1) around the outside edge of the insulation sections.

4
Install the grille assembly, see "Grille, Replacement (Hood Mounted)" page 29.

5
Shut and latch the hood.

Feedback

One of our objectives is that workshop personnel should have access to correct and appropriate service manuals where it concerns fault tracing, repairs and maintenance of Volvo trucks.
In order to maintain the high standards of our literature, your opinions and experience when using this manual would be greatly appreciated.
If you have any comments or suggestions, make a copy of this page, write down your comments and send them to us, either via telefax or mailing directly to the address listed below.

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USA

(336) 393-3170

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Comments/proposals

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Concerns Service Manual:

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