



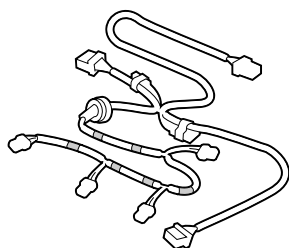
INSTALLATION INSTRUCTIONS

Accessory	Application	Publications No.
BACKUP SENSOR	PILOT	All 23598
		Issue Date MAY 2002

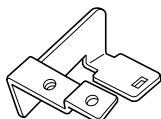
PARTS LIST

**Backup Sensor Attachment Kit :
P/N 08V67-S9V-100F**

Backup sensor harness



Control unit bracket



Flange bolt



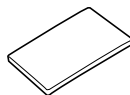
2 Clips



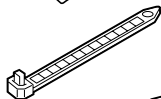
Fuse label



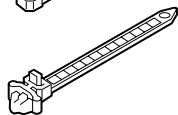
4 Cushion tapes



12 Wire ties
(4 not used)



4 Wire ties with clip



Double-sided adhesive tape

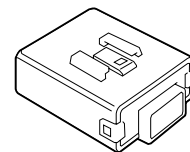


Switch

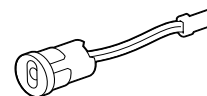


**Backup Sensor Kit:
P/N 08V67-S9V-100**

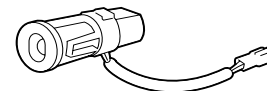
Control unit



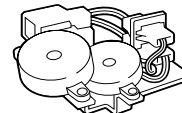
2 Corner sensors



2 Center sensors



Beeper



2 Retainer clips



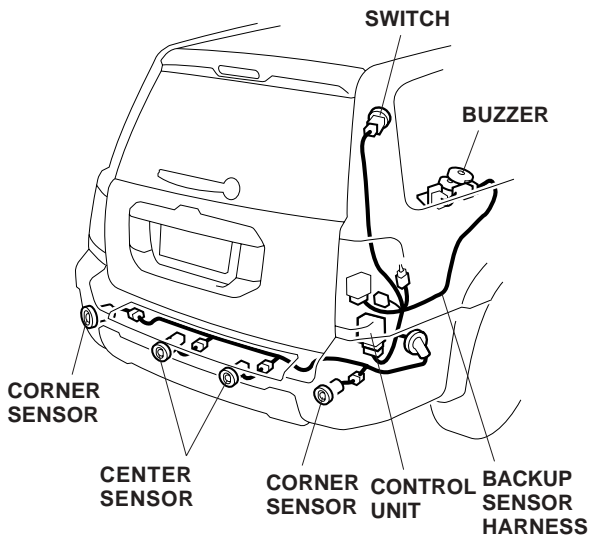
Owner's Manual



TOOLS AND SUPPLIES REQUIRED

- Phillips screwdriver
- Flat-tip screwdriver
- Small flat-tip screwdriver
- Ratchet
- 10 mm, 12 mm, and 14 mm Sockets
- Torque wrench
- Diagonal cutters
- Utility knife
- Pushpin
- Drill
- 20 mm and 26 mm Hole saw
- Masking tape
- Felt-tip pen
- Tape measure
- Isopropyl alcohol
- Shop towel
- Eye protection (safety goggles, face shield, etc.)
- 10 mm Combination wrench
- Blanket
- File

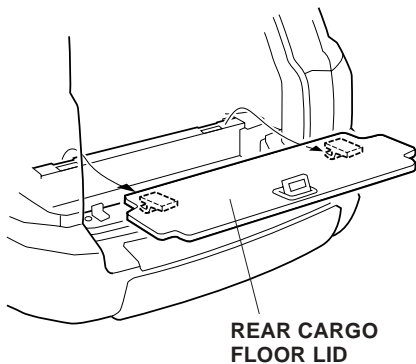
Illustration of the Backup Sensor Installed on the Vehicle



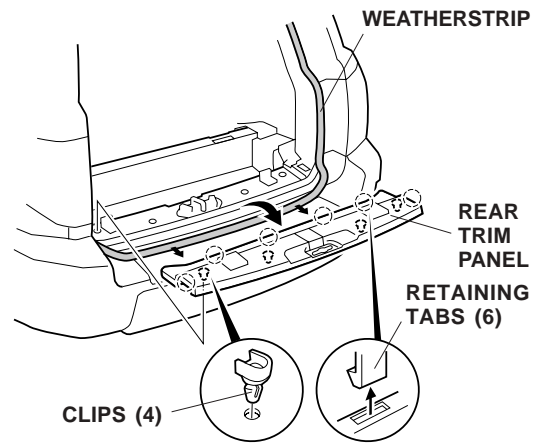
INSTALLATION

Customer Information: The information in this installation instruction is intended for use only by skilled technicians who have the proper tools, equipment, and training to correctly and safely add equipment to your vehicle. These procedures should not be attempted by "do-it-yourselfers."

1. Make sure you have the anti-theft code for the radio, then write down the frequencies for the preset buttons. If equipped, write down the navigation unit anti-theft code
2. Disconnect the negative cable from the battery.
3. Open the tailgate, and remove the rear cargo floor lid.

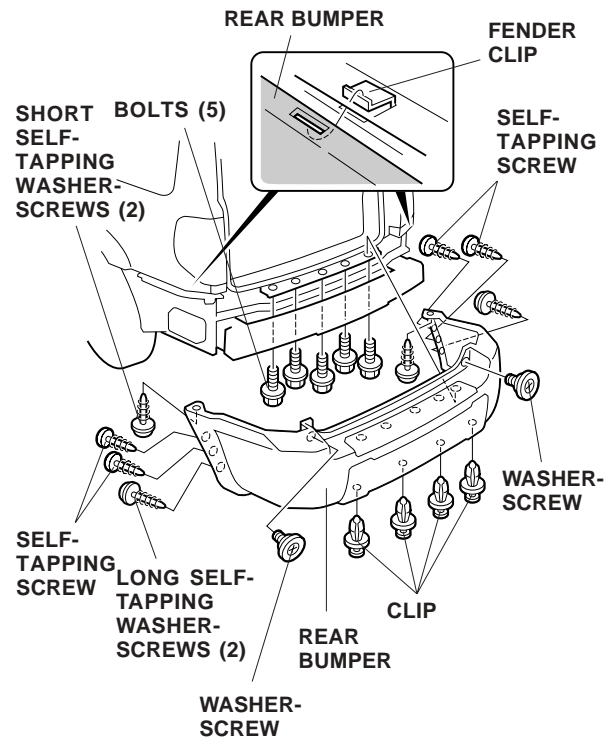


4. Remove the weatherstrip from the tailgate opening, and remove the rear trim panel (four clips and six retaining tabs).

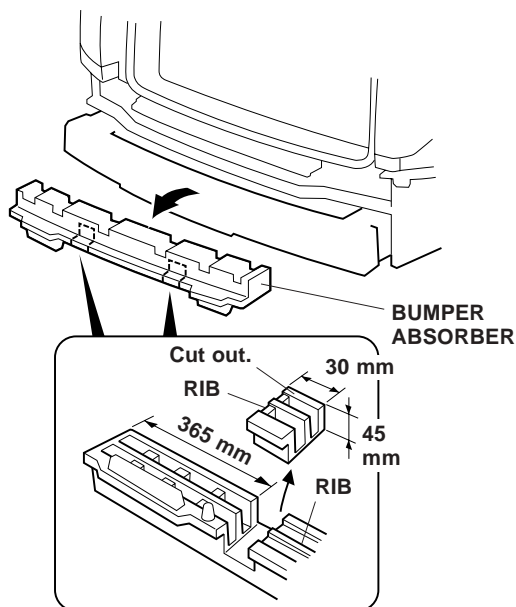


Installing the Sensors in the Bumper

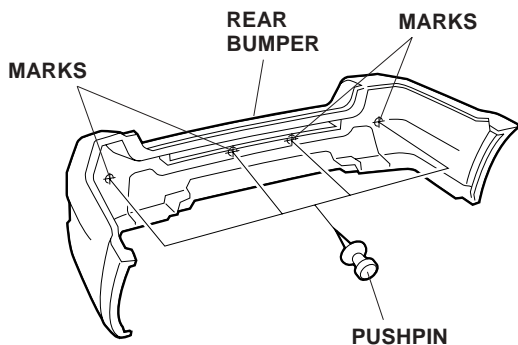
5. Remove the two short self-tapping washer-screws, four self-tapping screws, two long self-tapping washer-screws, two washer-screws, four clips and five bolts that secure the rear bumper. Slide the rear bumper out to release the two fender clips. Set the bumper on a blanket.



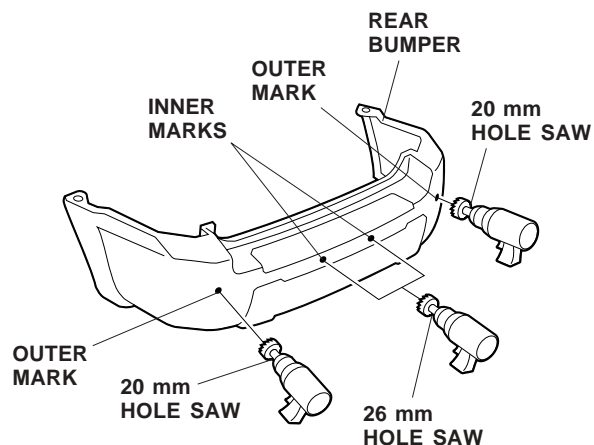
- Remove the bumper absorber. On the bottom edge of the bumper absorber, measure in about 365 mm and locate the rib. Using a utility knife, cut out the bottom of the bumper absorber in the areas shown.



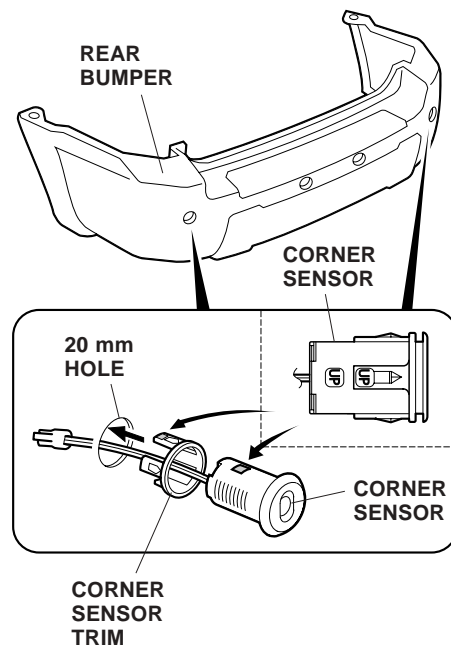
- On the inside of the rear bumper, locate the four marks. Using a pushpin, pierce through the rear bumper at each of the four marks.



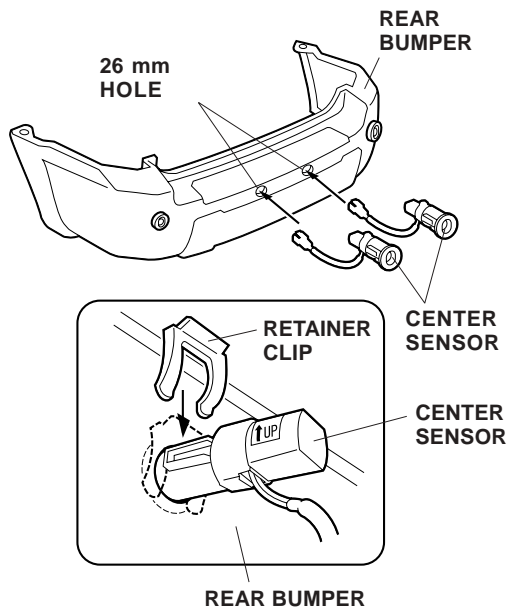
- While wearing eye protection, drill a 20 mm hole through each of the two outer marks, and a 26 mm hole through each of the inner marks. Remove any burrs from the edges of the holes.



- Separate the corner sensors from the corner sensor trims. Install the corner sensor trims first, and then install the corner sensors through the 20 mm holes you just made, with the "UP" mark facing up.

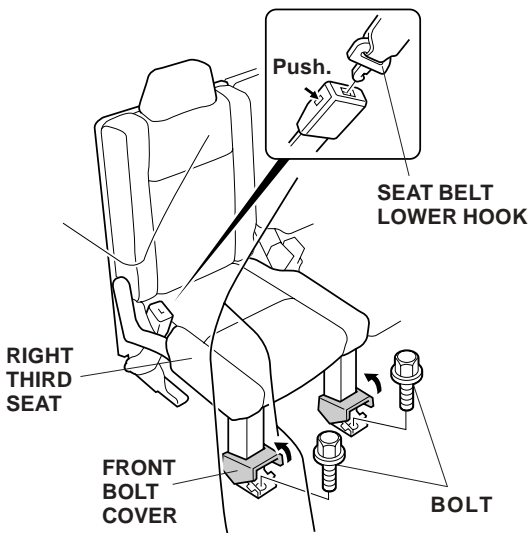


- Install the two center sensors into the 26 mm holes. Secure the center sensors with one retainer clip for each sensor.



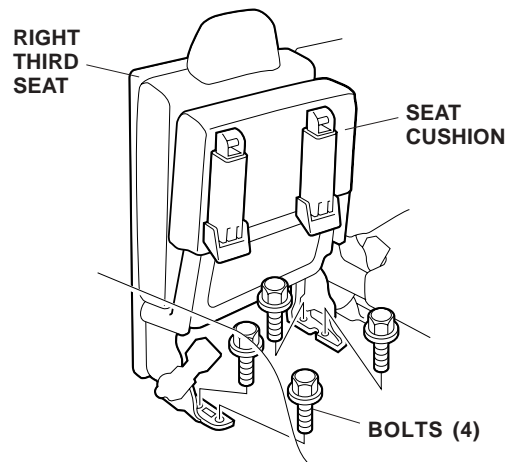
Routing the Backup Sensor Harness

- Using a small flat-tip screwdriver or the ignition key, release the seat belt lower hook from the right third seat.

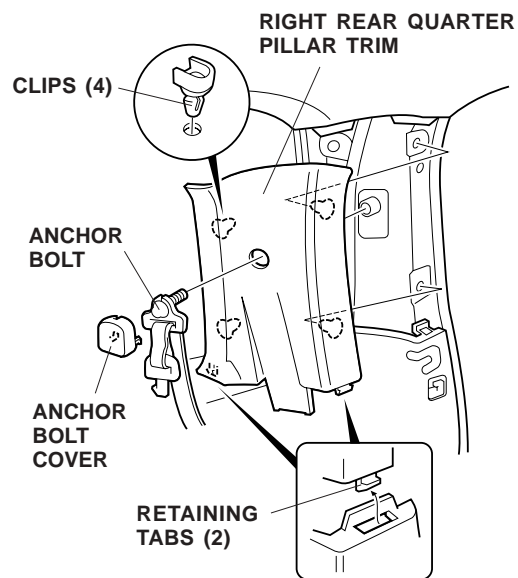


- Raise the front bolt covers of the right third seat, and remove the two bolts concealed under the covers.

- Raise the right third seat cushion, and remove the four bolts that fasten the rear right third seat to the floor. Remove the right third seat.

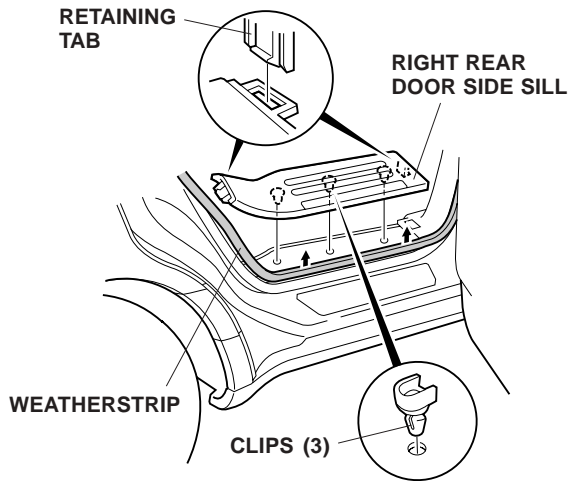


- On the right rear quarter pillar trim, remove the anchor bolt cover from the seat belt anchor, and remove the bolt that secures the seat belt anchor.

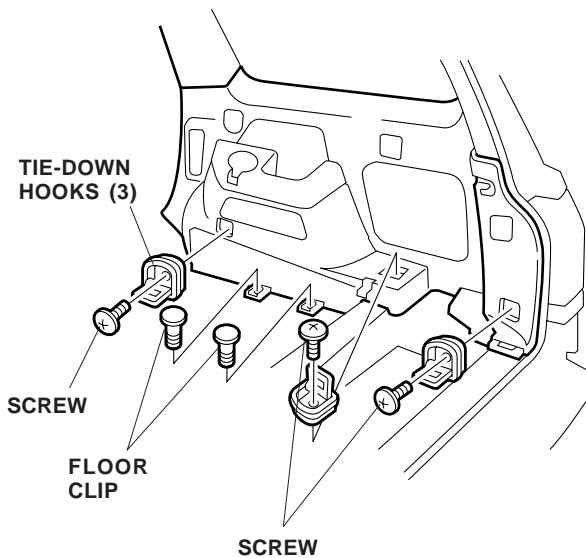


- Remove the right rear quarter pillar trim (four clips and two retaining tabs).

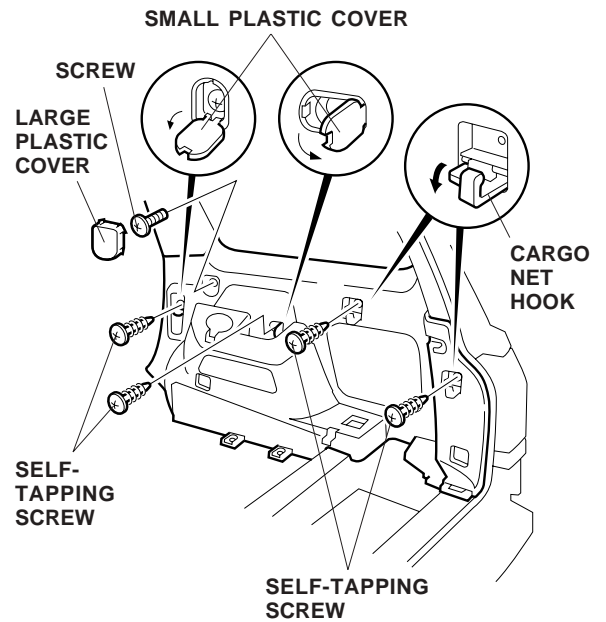
16. Remove the door weatherstrip around the right rear door side sill. Remove the right rear door side sill (three clips and one retaining tab).



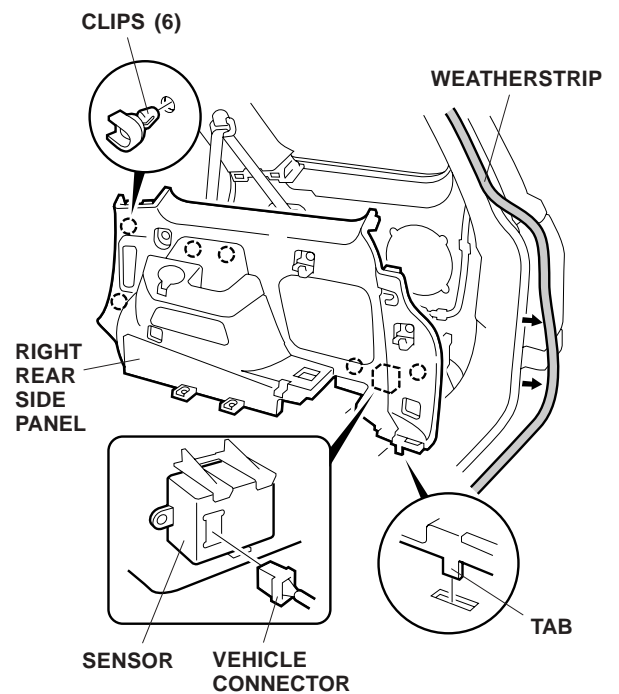
17. Remove the three tie-down hooks (one screw for each). Remove the two floor clips.



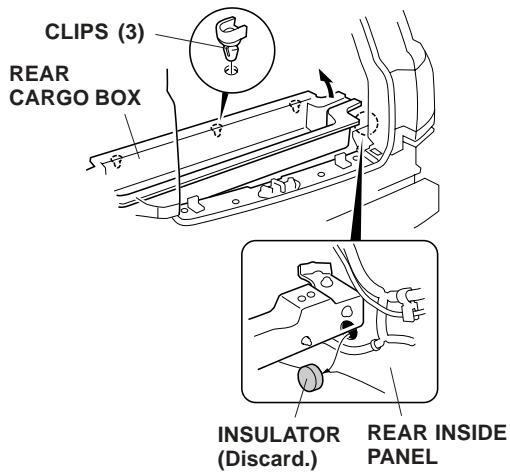
18. Remove the large plastic cover, and remove the screw concealed under the cover. Pry out the two small plastic covers, and remove the self-tapping screws. Tilt the cargo net hooks down, and remove the two self-tapping screws.



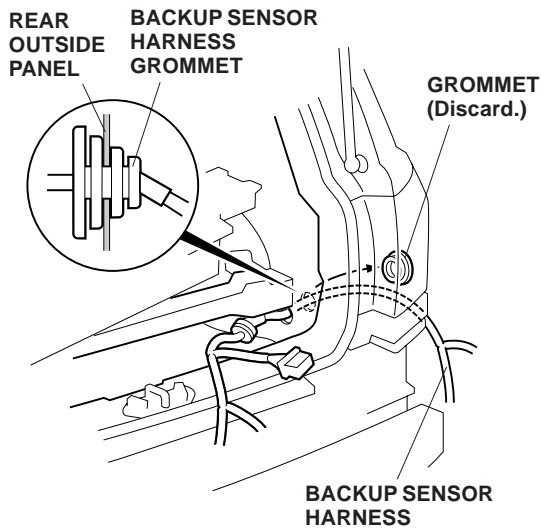
19. Remove the tailgate weatherstrip in the area shown. Remove the six clips, unplug the vehicle connector from the rear sensor, and remove the right rear side panel.



20. Lift the rear cargo box to release the three clips. While lifting the right side of the rear cargo box, remove and discard the insulator from the rear inside panel.

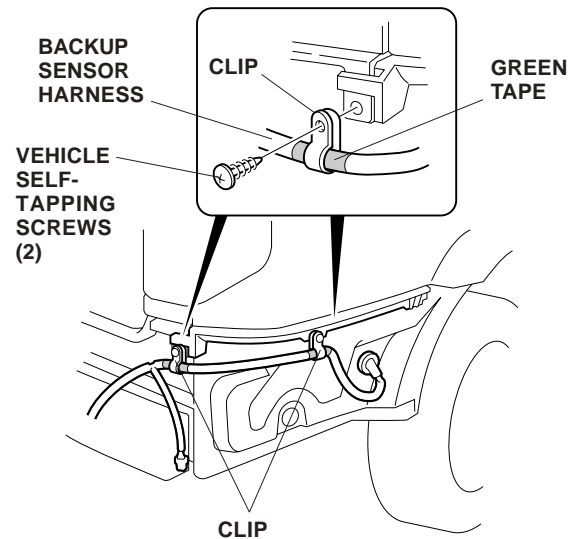


21. On the outside of the vehicle, remove and discard the front grommet from the rear panel.

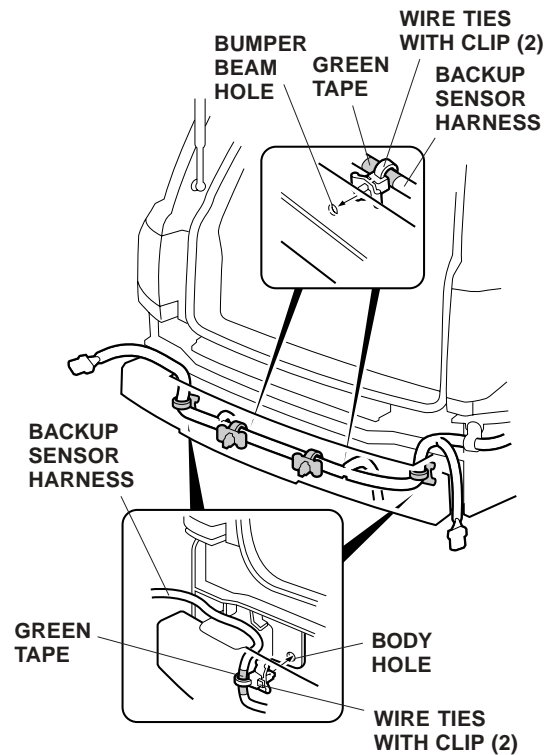


22. Pull the four backup sensor harness 2-pin connectors out through the grommet hole. Seat the backup sensor harness grommet in the grommet hole of the rear **outside** panel. Rotate the grommet so the wires face down.

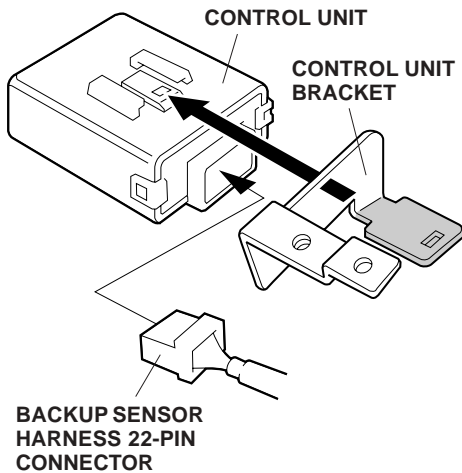
23. Attach the two clips to the backup sensor harness at the green tape. Remove the two self-tapping screws from the vehicle, and secure the clips with these self-tapping screws.



24. Attach the four wire ties with clip to the backup sensor harness where the green tape is located, then push the clips into the holes in the bumper beam and body frame.

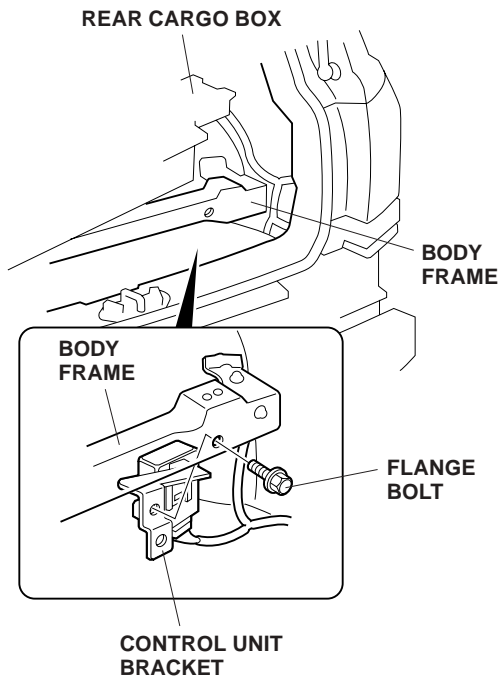


25. Slide the control unit bracket onto the control unit.

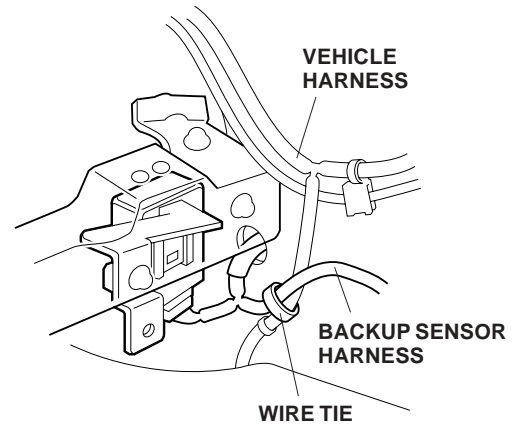


26. Plug the backup sensor harness 22-pin connector into the control unit.

27. Lift the right side of the rear cargo box, and position the control unit bracket on the body frame. Attach the control unit to the body frame using the flange bolt supplied.

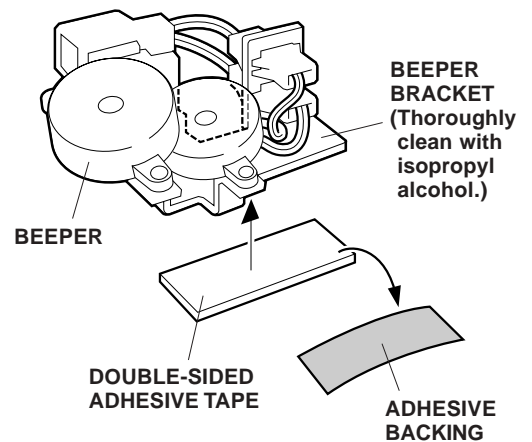


28. Secure the backup sensor harness to the vehicle harness with one wire tie in the area shown.

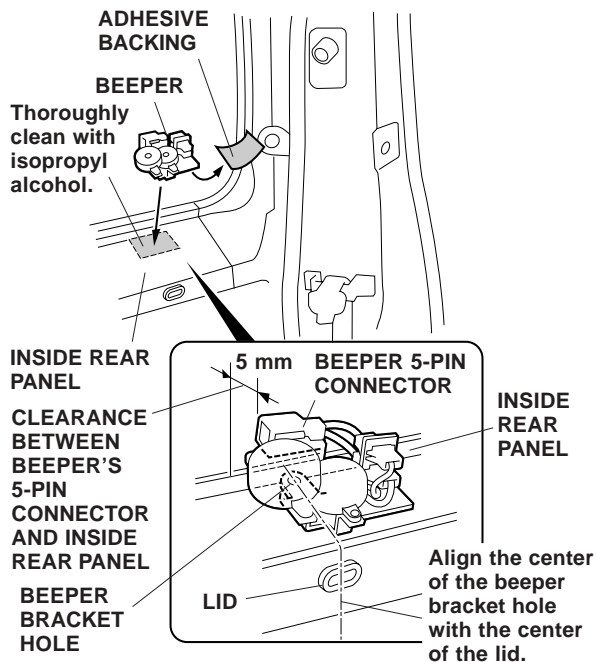


29. Reinstall the rear cargo box.

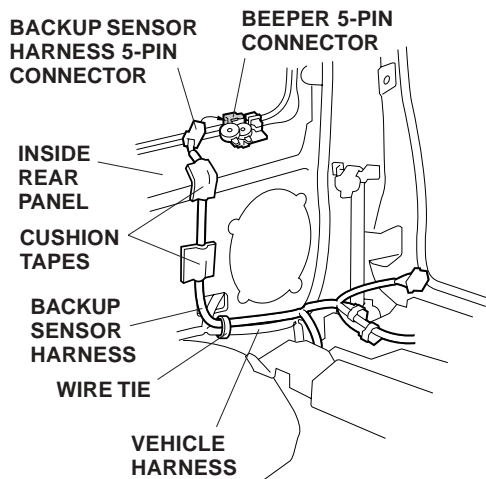
30. Using isopropyl alcohol on a shop towel, thoroughly clean the beeper bracket where the double-sided adhesive tape will attach. Remove one adhesive backing from the double-sided adhesive tape and attach the tape to the beeper bracket.



31. Using isopropyl alcohol on a shop towel, thoroughly clean the inside rear panel where the beeper will attach. Remove the adhesive backing from the double-sided tape on the beeper, and attach the beeper to the inside rear panel. You **must** have 5 mm of clearance between the 5-pin connector and the inside rear panel.

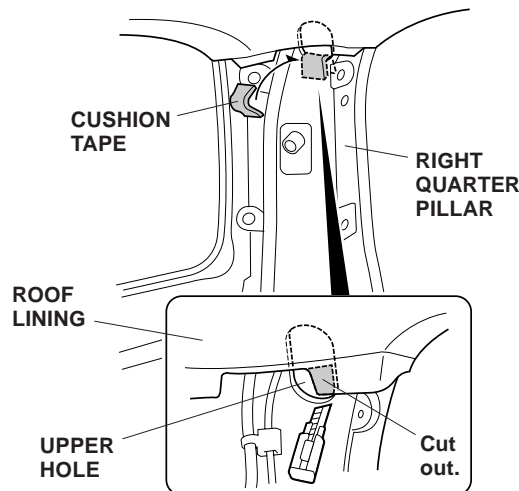


32. Plug the backup sensor harness 5-pin connector into the beeper 5-pin connector.

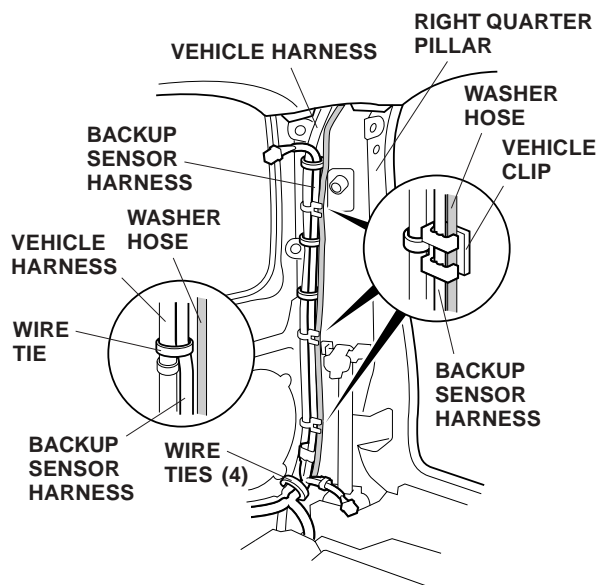


33. Secure the backup sensor harness to the inside rear panel and to the vehicle harness with two cushion tapes and one wire tie in the areas shown. Clean the areas where the cushion tapes will attach with isopropyl alcohol.

34. Using a utility knife, cut a small piece out of the roof liner, just enough to expose the upper hole in the right quarter pillar.

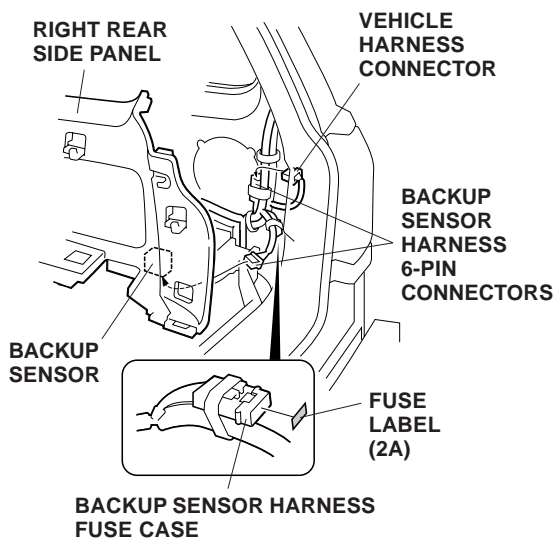


35. Using isopropyl alcohol, thoroughly clean the area around the upper hole, then attach the cushion tape to the edge of the upper hole as shown.
36. Route the 4-pin connector end of the backup sensor harness up along the vehicle harness on the right quarter pillar. Remove the washer hose from the three upper clips. Route the backup sensor harness through the clips, then reinstall the washer hose.

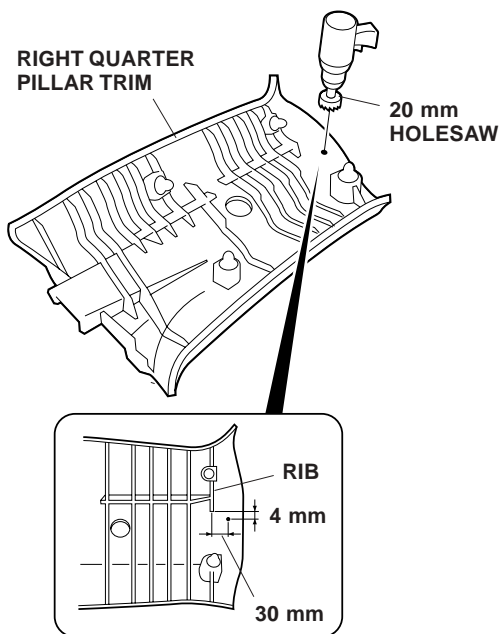


37. Secure the harnesses with four wire ties in the areas shown. Do not attach the wire ties to the washer hose.

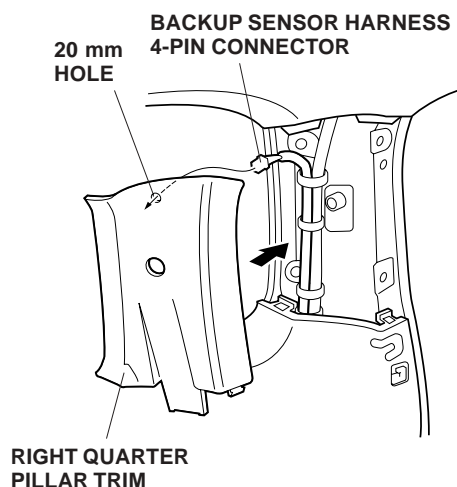
38. Attach the fuse label (BACKUP SENSOR 2A) to the fuse case on the backup sensor harness.



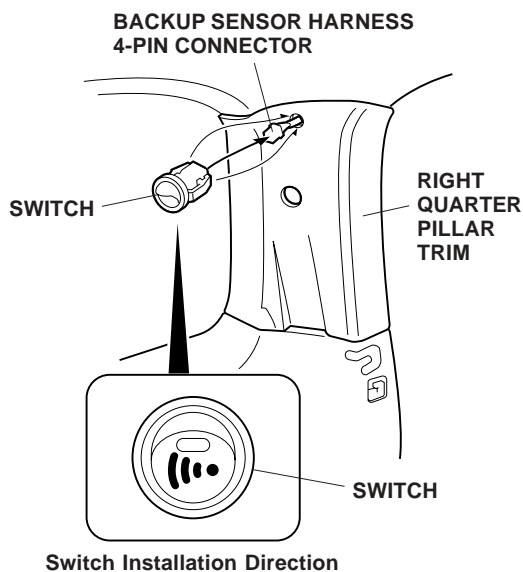
39. Plug the backup sensor harness 6-pin connectors into the sensor on the right rear side panel and into the vehicle 6-pin connector, then reinstall the right rear side panel. Check that all clips and retaining tabs are installed securely.
40. Using a tape measure and a felt-tip pen, measure and mark the right quarter pillar trim as shown. While wearing eye protection, drill a 20 mm hole through the mark you just made. Remove any burrs.



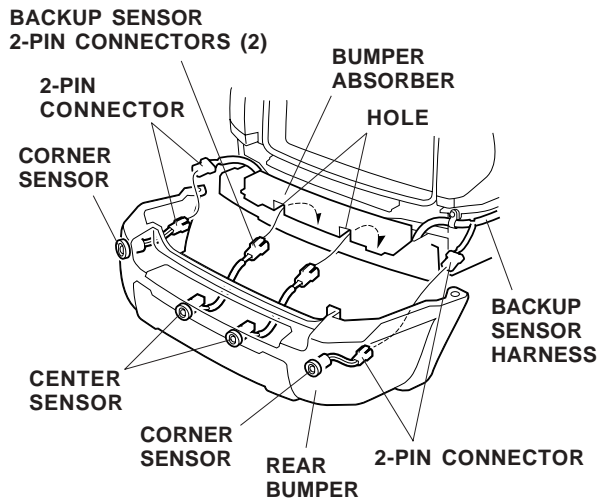
41. Pull the backup sensor harness 4-pin connector out through the 20 mm hole you made, then reinstall the right quarter pillar trim. Check that all clips and retaining tabs are installed securely.



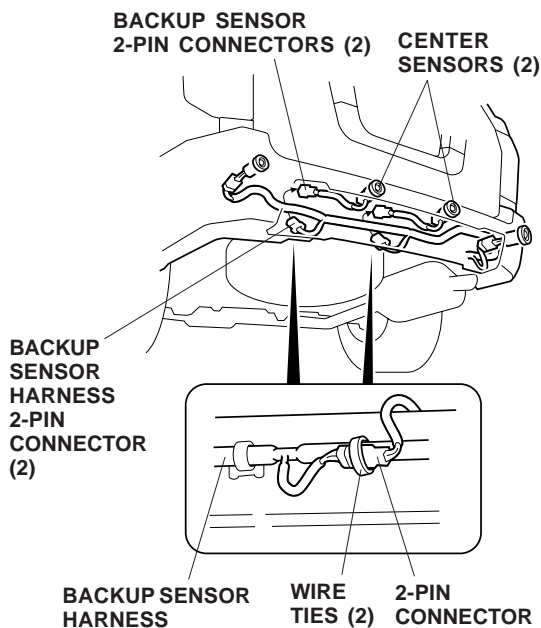
42. Plug the backup sensor harness 4-pin connector into the switch, then install the switch into the hole in the right quarter pillar trim in the direction shown.



43. Reinstall the bumper absorber. While holding the rear bumper close to the vehicle, route the 2-pin connectors from the backup sensors through the holes in the bumper absorber.



44. Connect the two outer 2-pin connectors of the backup sensor harness to the 2-pin connectors from the corner sensors. Reinstall the rear bumper. Check that all clips and retaining tabs are installed securely.



45. Connect the two inner 2-pin connectors from the backup sensor harness to the inner 2-pin connectors of the center sensors, then secure the 2-pin connectors to the backup sensor harness with two wire ties.

46. Check that all wire harnesses and cables are routed properly and that all connectors are plugged in.
47. Reinstall the third seat, torque the seat bolts to 41 to 53 N-m (30 to 39 lb-ft).
48. Reinstall all removed parts.
49. Reconnect the negative cable to the battery.
50. Enter the customer's radio anti-theft code, and reset the radio station presets. If equipped, enter the Navigation unit anti-theft code.
51. Reset the clock. (See Quick Start Guide.)
52. Check that the backup sensors work properly as described in the Owner's Manual supplied with the backup sensor kit.

NOTE: Whenever the battery is disconnected, the driver's window AUTO function is disabled.

53. Start the engine. Push down on the driver's window switch until the window is fully open.
54. Pull up on the driver's window switch to close the window completely, then hold the switch for 2 seconds.
55. Lower and raise the window to check operation of the driver's window AUTO function.
56. Do the PCM idle learn procedure.
 - Make sure all electrical items are turned off.
 - Start the engine. Hold the engine speed at 3,000 rpm with no load (in Park or Neutral) until the radiator fan comes on.
 - Let the engine idle for about 5 minutes with the throttle fully closed and with all electrical items off.

NOTE: If the radiator fan comes on during this step, the time when it is operating must not be included in the 5 minutes.