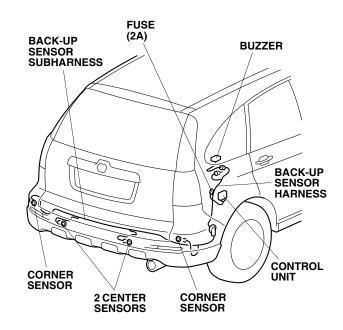


## TOOLS AND SUPPLIES REQUIRED

Phillips screwdriver Flat-tip screwdriver Ratchet 8 mm, 10 mm, and 14 mm Sockets Pushpin Felt-tip pen Drill 3 mm and 5 mm Drill bits 16 mm, 24 mm, and 26 mm Hole saws Scale Eye protection (safety goggles, face shield, etc.) 10 mm Combination wrench File **Diagonal cutters** Utility knife Plastic trim tool (T/N SILTRMTL 10) Blanket Isopropyl alcohol Shop towel T30 Torx bit

Illustration of the Back-up Sensors installed on the Vehicle

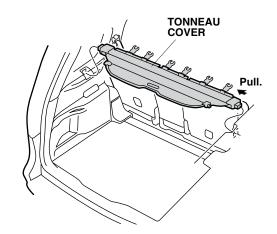


## INSTALLATION

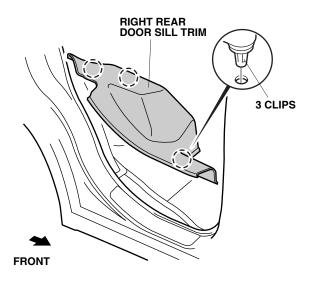
**Customer Information:** The information in this installation instruction is intended for use only by skilled technicians who have the proper tools, equipment, and training to correctly and safely add equipment to your vehicle. These procedures should not be attempted by "do-it-yourselfers."

NOTE: If you are also installing a trailer hitch, install the back-up sensor kit first.

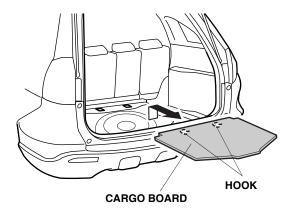
- 1. Make sure you have the anti-theft code for the radio and navigation system, then write down the radio presets.
- 2. Disconnect the negative cable from the battery.
- 3. If equipped, remove the tonneau cover.



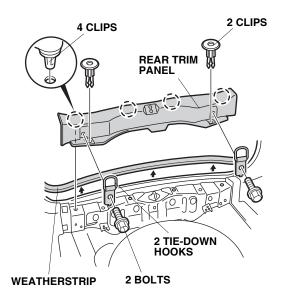
4. Remove the right rear door sill trim (three clips).



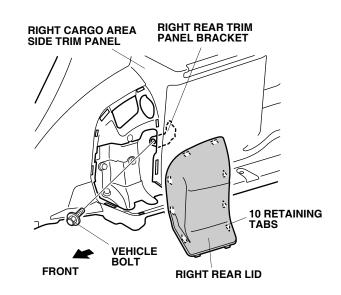
5. Remove the cargo board (two hooks).



6. Remove the weatherstrip from around the rear trim panel. Remove the rear trim panel (two bolts with tie-down hooks, two clips, and four clips).

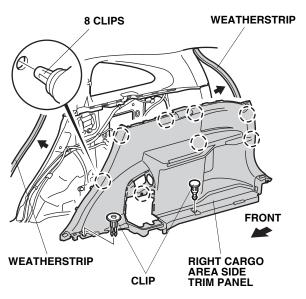


 Fold the rear seats forward, and remove the right rear lid from the right cargo area side trim (10 retaining tabs).

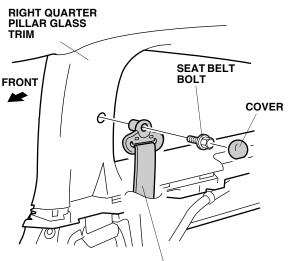


8. Remove the vehicle bolt from the right rear trim panel bracket.

9. Remove the rear door and tailgate weatherstrip from the right cargo area side trim panel.

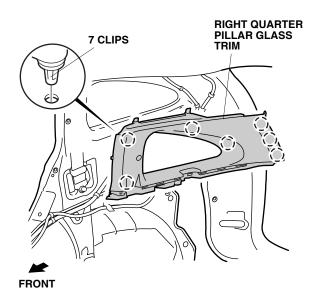


- 10. Remove the right cargo area side trim panel (10 clips).
- Remove the seat belt from the right quarter pillar glass trim (one cover and one seat belt bolt).
  NOTE: Torque the seat belt bolt to 32 N·m (24 lbf·ft).

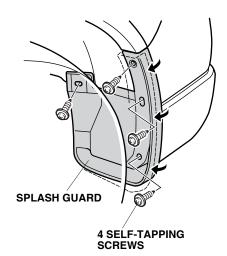


SEAT BELT

12. Remove the right quarter pillar glass trim (seven clips).

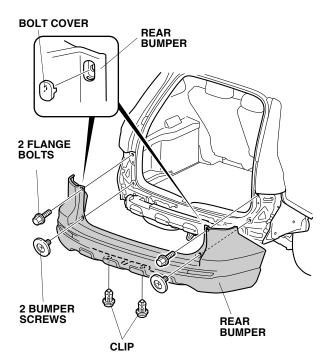


13. Remove the left rear splash guard (four self-tapping screws).

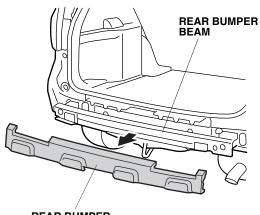


14. Remove the right rear splash guard (four self-tapping screws).

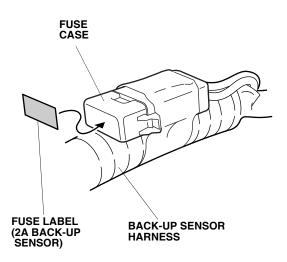
15. With the help of an assistant, remove the rear bumper (two bolt covers, two bolts, two flange bolts, and two clips). Place the rear bumper on a blanket.



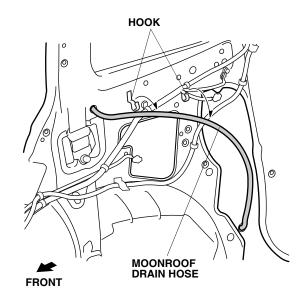
16. If equipped, remove the rear bumper absorber from the rear bumper beam.



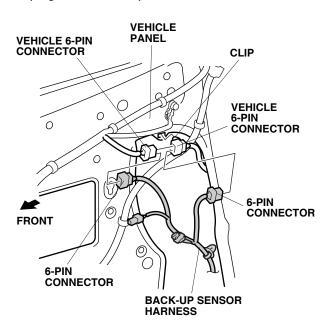
REAR BUMPER ABSORBER 17. Get the back-up sensor harness. Using isopropyl alcohol on a shop towel, thoroughly clean the area where the fuse label will attach. Attach the (2A BACK-UP SENSOR) label to the fuse case.



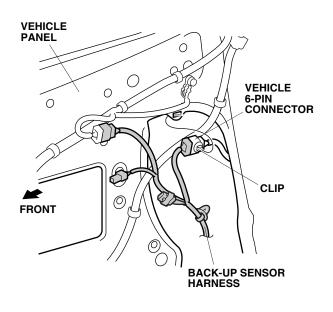
 If the vehicle is equipped with a moonroof, release the moonroof drain hose (two hooks).



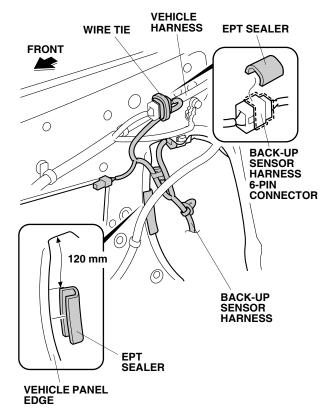
19. Inside the cargo area, remove the clip that secures the vehicle 6-pin connector to the vehicle panel, and unplug the vehicle 6-pin connector.



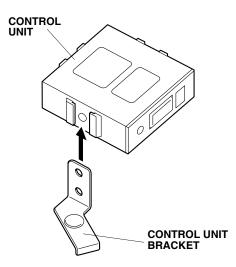
- 20. Plug the back-up sensor harness into the vehicle 6-pin connector. Plug the other vehicle 6-pin connector into the other back-up sensor harness 6-pin connector.
- 21. Reinstall the vehicle 6-pin connector clip to the vehicle panel.



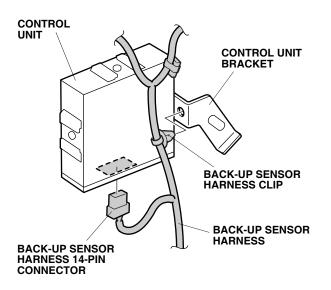
22. Wrap one EPT sealer around to the back-up sensor harness 6-pin connector, and secure the 6-pin connector to the vehicle harness with one wire tie.



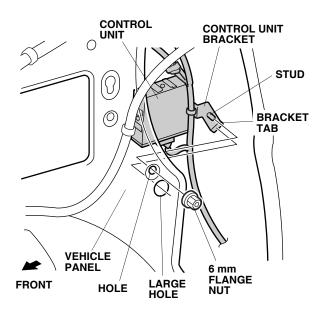
- 23. Using isopropyl alcohol on a shop towel, thoroughly clean the area where the EPT sealer will attach. Attach the EPT sealer to the edge of the vehicle panel in the area shown.
- 24. Slide the control unit bracket onto the control unit as shown.



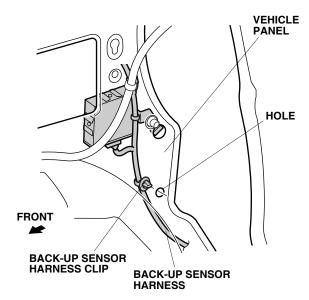
25. Plug the back-up sensor harness 14-pin connector into the control unit.



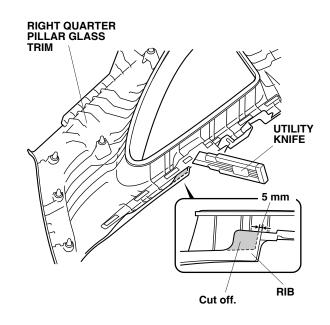
- 26. Attach the back-up sensor harness clip on the control unit bracket.
- 27. Insert the stud from the control unit bracket into the hole of the vehicle panel, make sure that the bracket tab is seated in the large hole. Secure the bracket to the vehicle panel using the 6 mm flange nut.



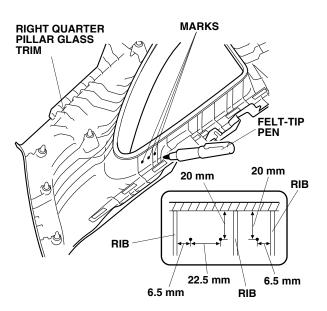
28. Install the back-up sensor harness clip into the hole in the vehicle panel.



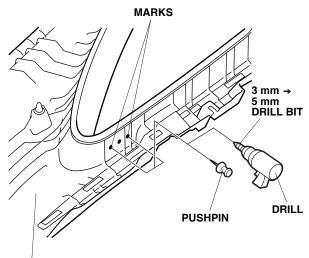
29. Using a utility knife, trim the right quarter pillar glass trim in the area shown.



30. Using a scale and a felt-tip pen, measure and mark the right quarter pillar glass trim in the area shown.



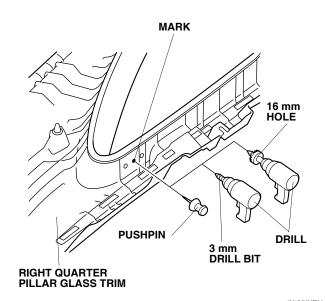
31. Using a pushpin, pierce the two outer marked positions of the right quarter pillar glass trim.



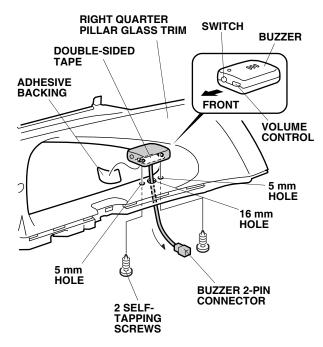
RIGHT QUARTER PILLAR GLASS TRIM

32. While wearing eye protection, drill the two pierced marks to 5 mm. First drill with a 3 mm drill bit, and finish with a 5 mm drill bit.

33. Using a pushpin, pierce the center marked position of the right quarter pillar glass trim.

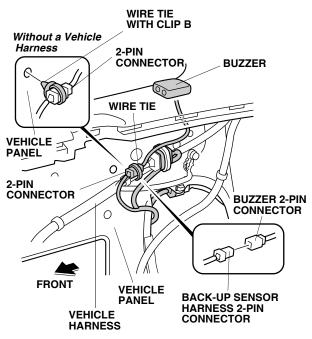


- 34. While wearing eye protection, drill the pierced center mark to 16 mm. First drill with a 3 mm drill bit, and finish with a 16 mm hole saw. Remove any burrs.
- 35. Using isopropyl alcohol on a shop towel, clean the right quarter pillar glass trim where the double-sided tape will attach. Remove the adhesive backing from the buzzer. Route the buzzer 2-pin connector through the 16 mm hole, and install the buzzer to the right quarter pillar glass trim with the two self-tapping screws. Install with the on/off switch and the volume control toward the front of the vehicle.

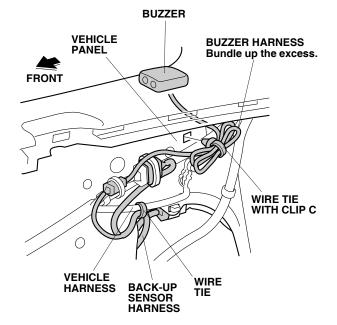


36. Reinstall the right quarter pillar glass trim.

37. Plug the back-up sensor harness 2-pin connector into the buzzer 2-pin connector.

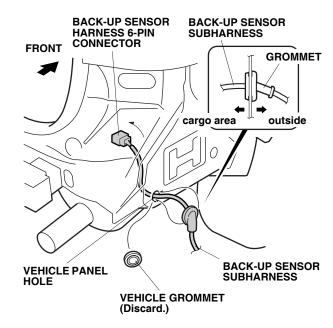


- 38. Secure the 2-pin connector:
  - With a vehicle harness, secure the 2-pin connector to the vehicle harness with a wire tie.
  - Without a vehicle harness, secure the 2-pin connector to the vehicle panel with one wire tie with clip B.
- 39. Secure the back-up sensor harness to the vehicle harness with one wire tie.

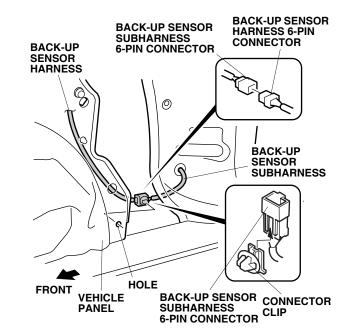


40. Bundle up the excess buzzer harness, and secure it to the vehicle panel with one wire tie with clip C.

41. At the right rear corner of the vehicle, remove the vehicle grommet.

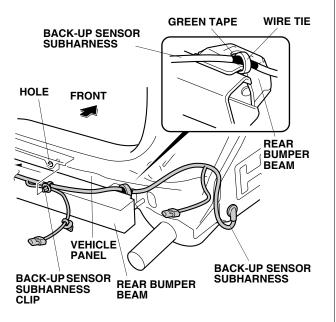


- 42. Route the back-up sensor subharness 6-pin connector through the hole where the vehicle grommet was removed, and seat the back-up sensor subharness grommet into the vehicle panel hole.
- 43. Install the connector clip to the back-up sensor subharness 6-pin connector.

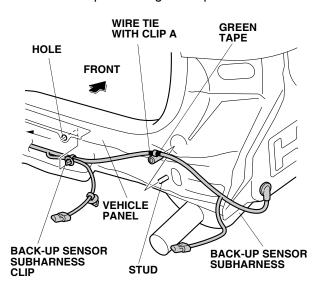


44. Plug the back-up sensor subharness 6-pin connector into the back-up sensor harness 6-pin connector, and install the connector clip. Secure the clip in the vehicle panel hole in the area shown. 45. Route the back-up sensor subharness as shown, and install the back-up sensor subharness clip into the vehicle panel hole.

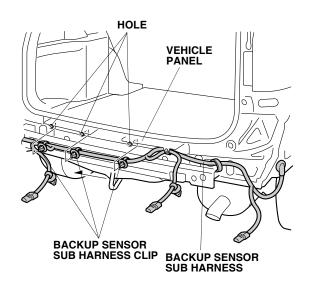
*With rear bumper beam:* Secure the subharness to the rear bumper beam with one wire tie at the green tape green.



*Without rear bumper beam:* Secure the subharness to the stud on the vehicle panel with one wire tie with clip A at the green tape.

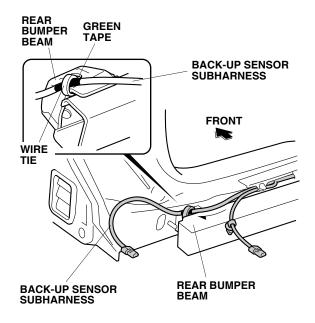


46. Route the back-up sensor subharness as shown. Install the back-up sensor subharness clips into the holes in the vehicle panel.



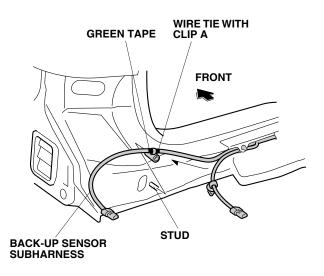
47. Route the back-up sensor subharness as shown.

*With rear bumper beam:* Secure the subharness to the rear bumper beam with one wire tie at the green tape green.

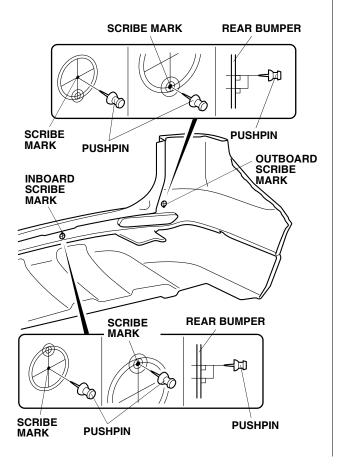


## Without rear bumper beam: Secure the

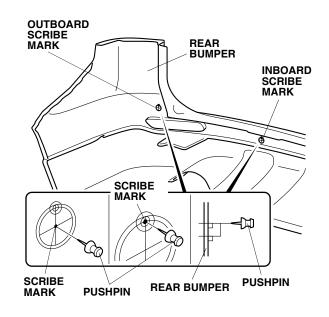
subharness to the stud on the vehicle panel with one wire tie with clip A at the green tape.



48. Inside the rear bumper on the *driver's side*, locate the two back-up sensor scribe marks. Using a pushpin, pierce the center and bottom of the outboard scribe marks, pierce the center and top of the inboard scribe marks. There are several marks on the inside of the rear bumper; make certain that you locate and pierce the proper preset marks.

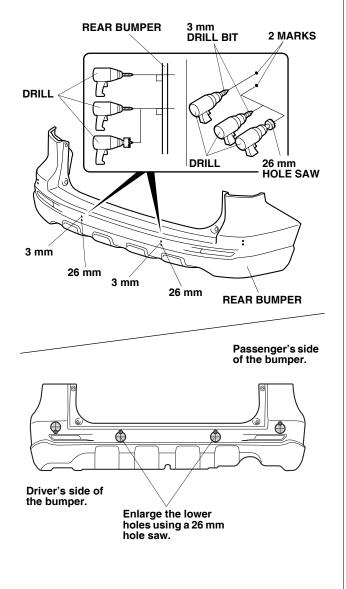


49. Inside the rear bumper on the *passenger's side*, locate the two back-up sensor scribe marks. Using a pushpin, pierce the center and top for both the outboard and the inboard scribe marks. There are several marks on the inside of the rear bumper; make certain that you locate and pierce the proper preset marks.



50. While wearing eye protection, drill a 3 mm hole at each of four pierced points you made in the center of the rear bumper.

NOTE: Drill from the painted side of the bumper inward.

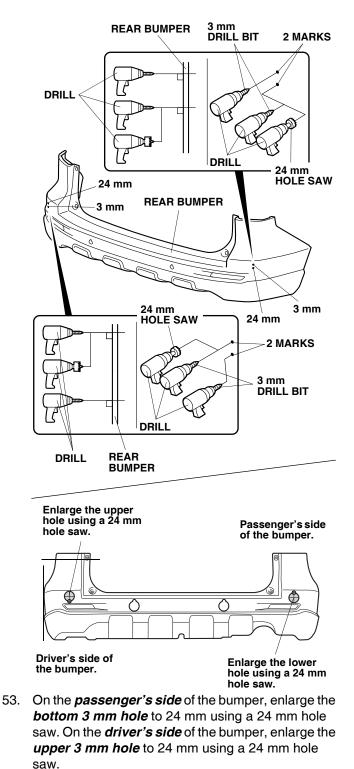


51. Enlarge the lower 3 mm holes using a 26 mm hole saw.

NOTE: Drill from the painted side of the bumper inward. Remove all burrs.

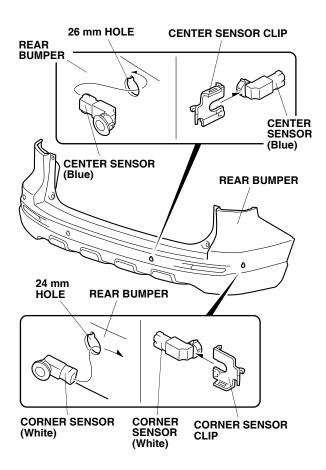
52. While wearing eye protection, drill a 3 mm hole at each of four pierced points you made in each corner of the rear bumper.

NOTE: Drill from the painted side of the bumper inward.

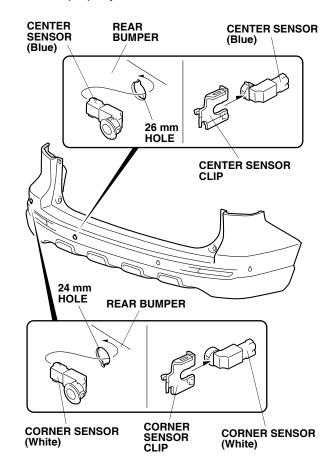


NOTE: Drill from the painted side of the bumper inward. Remove all burrs

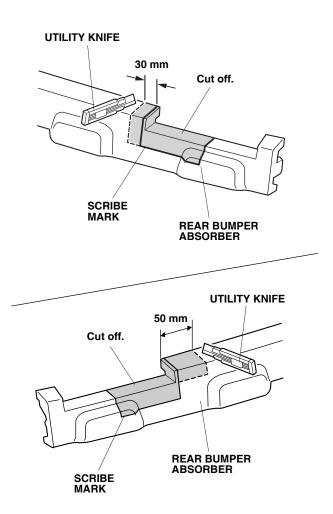
54. On the *passenger's side* of the rear bumper, install the corner sensor (white) and the center sensor (blue) to the rear bumper using one corner sensor clip, and one center sensor clip. Be sure the sensors are seated properly.



55. On the *driver's side* of the rear bumper, install the corner sensor (white) and the center sensor (blue) to the rear bumper using one corner sensor clip, and one center sensor clip. Be sure the sensors are seated properly.

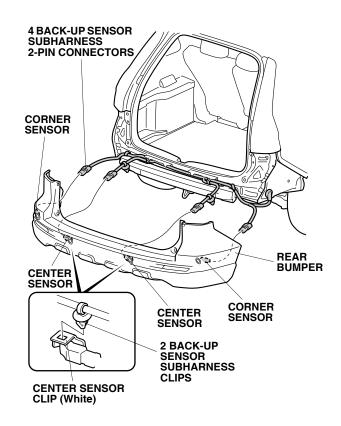


56. If the vehicle is equipped with a rear bumper absorber, use a utility knife to trim each end of absorber using the measurements and scribe marks shown.



57. Reinstall the rear bumper absorber to the rear bumper beam.

58. With the help of an assistant, bring the rear bumper near the vehicle, plug in the four back-up sensor subharness 2-pin connectors into the sensors, and attach the two subharness clips to the two center sensor clips. Reinstall the rear bumper.



- 59. Check that all wire harnesses are routed properly and that all connectors are plugged in.
- 60. Reinstall all removed parts.
- 61. Reconnect the negative cable to the battery.
- 62. Enter the anti-theft codes for the radio and navigation systems, then enter the customer's radio presets.
- 63. Reset the clock.
- 64. Check that the back-up sensors work properly as described in the Accessory User's Information Manual supplied with the back-up sensor attachment kit.