



**Technical Service  
BULLETIN**

September 17, 2003

Title:

**PRE-DELIVERY SERVICE (PDS)  
INFORMATION FOR HIGHLANDER**

Models:

'04 – '05 Highlander

REVISED

P0009-03

PRE-DELIVERY SERVICE

**TSB REVISION NOTICE:**

October 29, 2004: 2005 model year has been added to Applicable Vehicles; text has been revised in Item No. 4 "Initialization of Tire Pressure Warning System," Introduction and Reference sections.

October 8, 2003: Image in Item No. 4 "Initialization of Tire Pressure Warning System" on page 8 has been changed.

Previous versions of this TSB should be discarded.

**Introduction** The following items need to be performed during Pre-Delivery Service (PDS) on 2004 and 2005 model year Highlander vehicles.

**Applicable Vehicles**

- 2004 – 2005 model year **Highlander** vehicles.

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**Warranty Information**

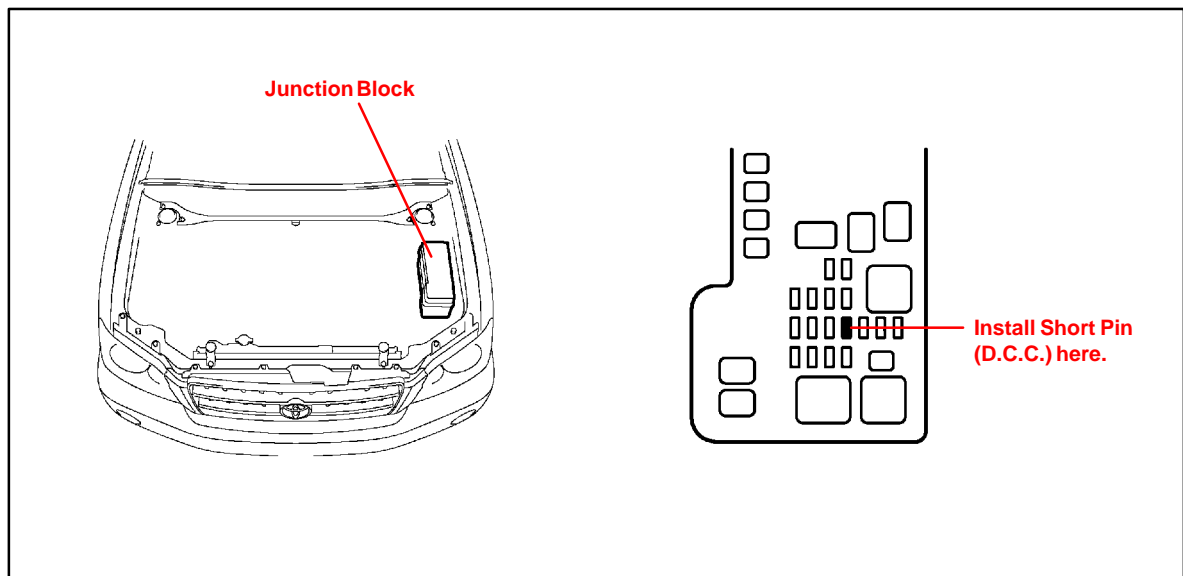
| OP CODE | DESCRIPTION                | TIME | OFP | T1 | T2 |
|---------|----------------------------|------|-----|----|----|
| N/A     | Not Applicable to Warranty | –    | –   | –  | –  |



**ITEM NO. 1: SHORT PIN INSTALLATION DURING PDS**

**Introduction** The Short Pin (D.C.C.) has been removed on the Highlander at the assembly plant to reduce parasitic current draw during transit and storage.

**Installation Procedure** The removed Short Pin is stored in the back of the Junction Block cover in the engine compartment. The Short Pin must be reinstalled during Pre-Delivery Service (PDS) at the dealership as shown below.

**NOTE:**

- Removing the Short Pin cuts off the power sources relating to the DOME, RADIO No. 1, ECU-B fuses.
- The Short Pin does not function as a fuse, so only install it in the position shown above.
- If the vehicle is stored at the dealership for a long time after installation of the Short Pin in PDS, please disconnect the negative battery terminal to prevent parasitic current draw from discharging the battery.

**ITEM NO. 2: INITIALIZATION OF MOON ROOF**

**Introduction** As a result of the removal of the Short Pin (D.C.C.), the “One-touch tilt up and down,” “One-touch slide open and close” and “Jam protection” functions of the moon roof will be inoperative due to loss of the moon roof position memory stored in the microcomputer.

Therefore, please initialize the moon roof after installing the Short Pin in its original location during Pre-Delivery Service (PDS) at the dealership.

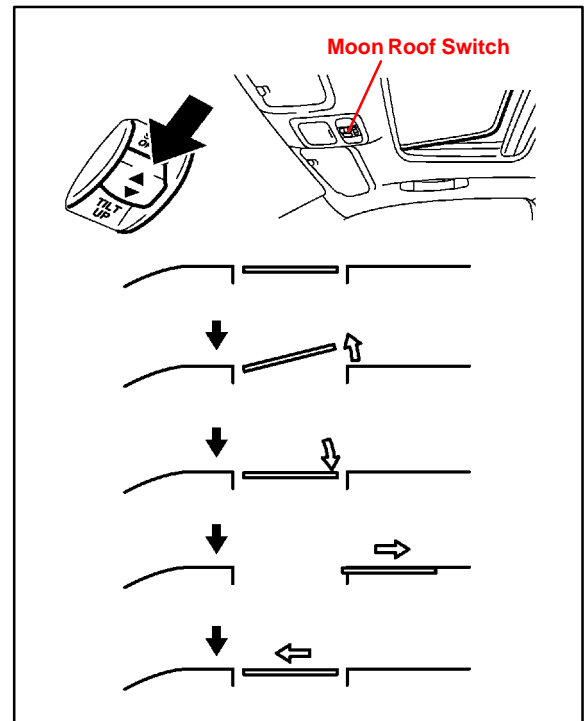
Also, anytime the battery terminal has been disconnected, initialize the moon roof after reconnecting the battery terminal.

**Initialization Procedure**

1. Turn the ignition switch to the “ON” position.
2. Push and hold the moon roof switch to the “TILT – UP” side until the following cycle of the moon roof operation is completed.

Closing → Fully tilt up → Fully tilt down → Fully slide open → Fully slide close.

3. After the cycle of operation above is completed, the initialization is completed.
4. Check for the “One-touch slide open and close” and “One-touch tilt up and down” functions by pushing the switch briefly to the “SLIDE – OPEN” and “TILT – UP” sides.

**NOTE:**

Jam protection function becomes effective through the above initialization procedure.

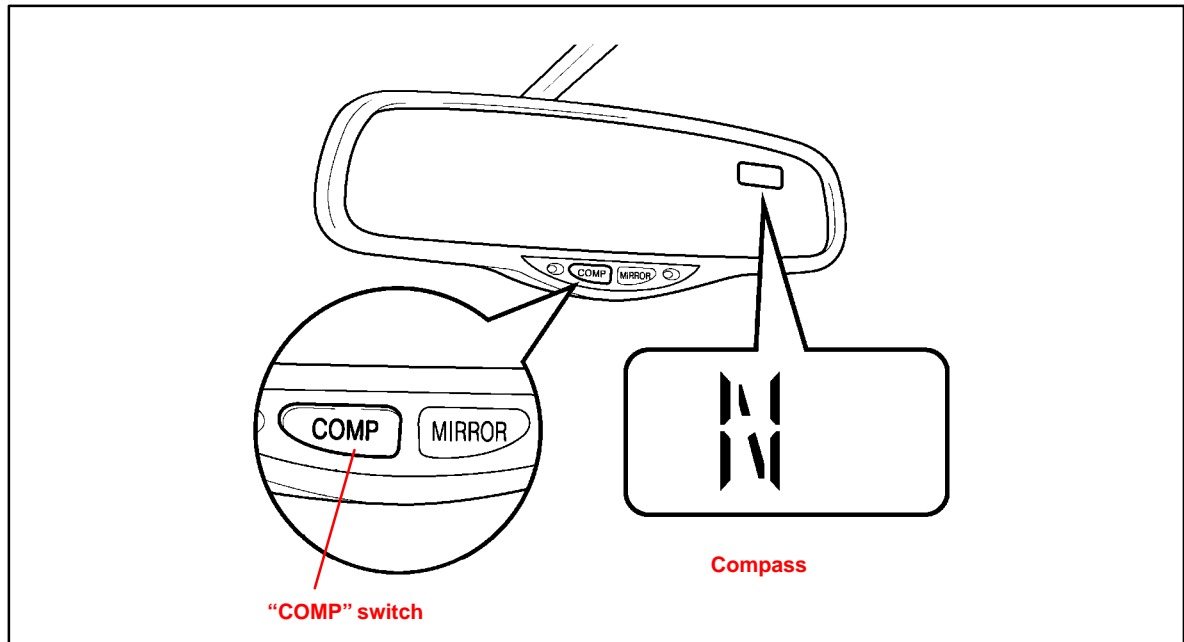
**ITEM NO. 3: INITIAL CALIBRATION OF COMPASS**

**Introduction** The optional electronic compass installed in the Highlander requires initial calibration during Pre-Delivery Service.

The compass indicates the direction that the vehicle is heading by detecting the direction and strength of the earth's magnetic field and processing this data using the compass sensor and microcomputer.

Detection of the direction and strength of the earth's magnetic field varies according to the area in which the vehicle is used and is affected by the residual magnetism of the vehicle. For this reason, the geographic direction displayed may also deviate from the actual direction determined by the earth's magnetic field.

Therefore, please perform the initial calibration of the compass in your dealership prior to delivery to the customers.

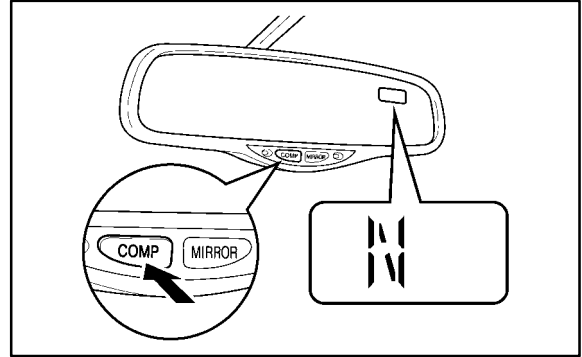


**ITEM NO. 3: INITIAL CALIBRATION OF COMPASS (Continued)**

**Initialization Procedure**

1. Turn the ignition switch to the “ON” position and check that the direction (N, NE, E, SE, S, SW, W, NW) appears on the compass display.

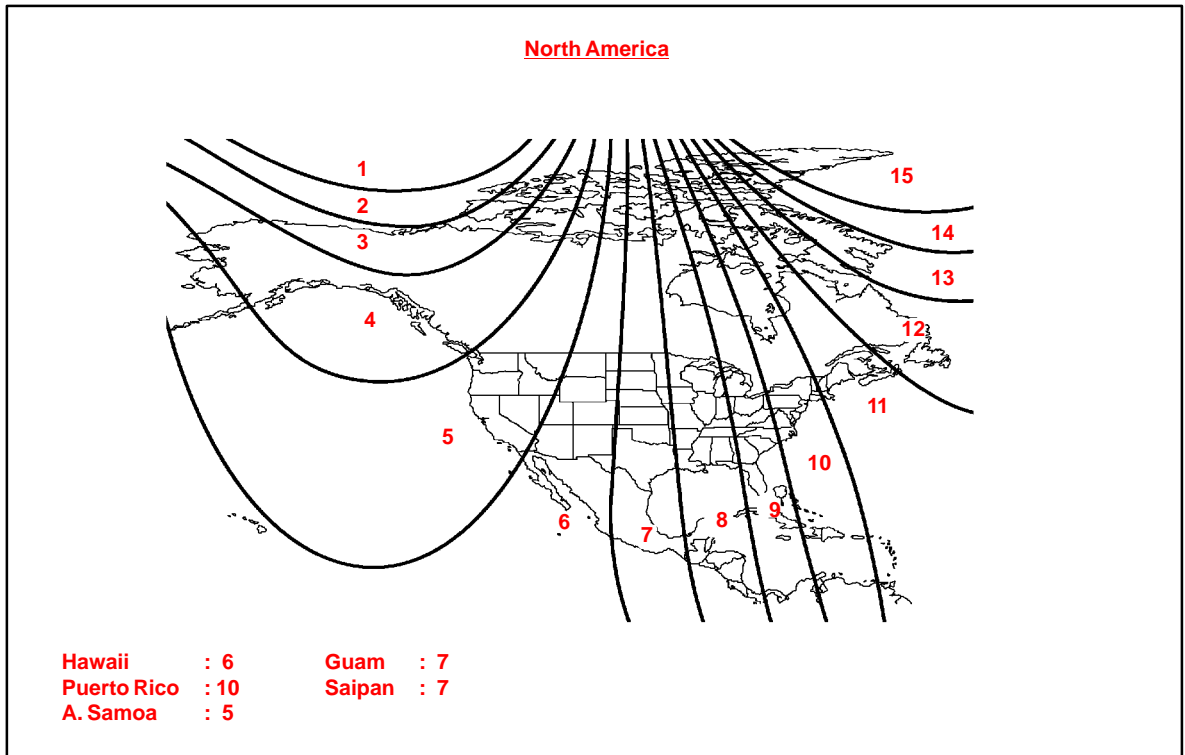
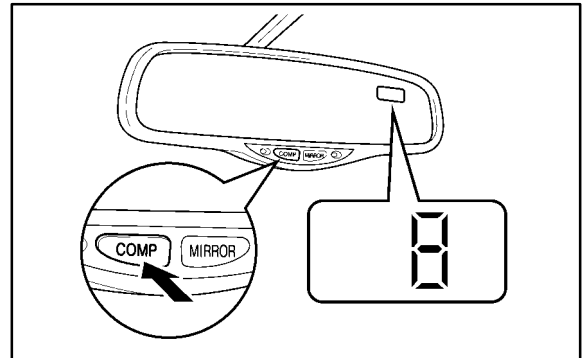
**NOTE:**  
Pushing the switch turns on or off the compass display.



2. Push the “COMP” switch for approximately 3 seconds until the zone number (1 – 15) appears on the display.

Then push the switch to select the number of the zone where the vehicle is located.

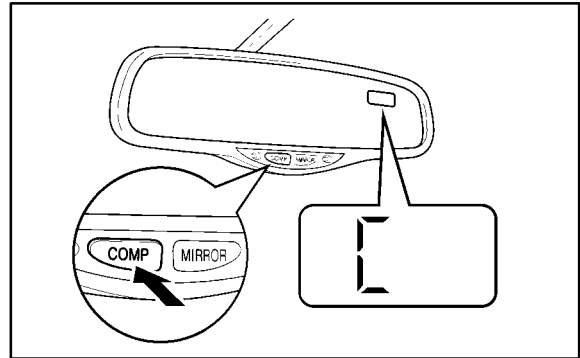
See the map for zone reference.



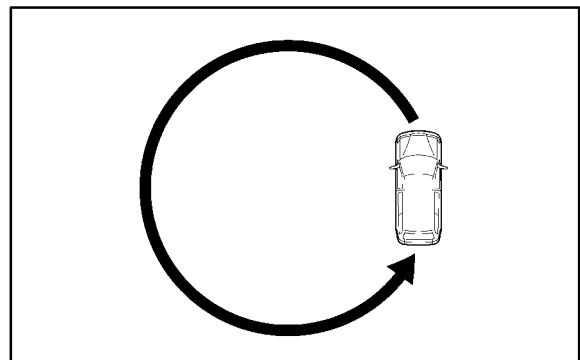
**ITEM NO. 3: INITIAL CALIBRATION OF COMPASS (Continued)**

**Initialization Procedure (Continued)**

3. Check that the direction appears several seconds after adjustment.
4. Start the engine and push the switch for approximately 6 seconds until "C" appears on the display.



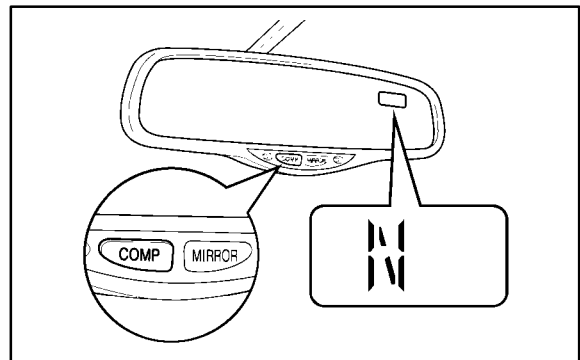
5. Drive the vehicle slowly in a circle at (5 mph) or lower until the direction is displayed. If there is not enough space to drive in a circle, drive around the block until the direction is displayed.



After driving in 1 to 3 circles using the above method, calibration is complete with the direction shown on the display.

**NOTE:**

- Do not perform calibration of the compass in a place where the earth's magnetic field is subject to interference by artificial magnetic fields (underground parking, under a steel tower, between buildings, roof parking, near a crossing, near a large vehicle, etc.).
- During calibration, do not operate electric systems (moon roof, power windows, etc.) as they may interfere with the calibration.



**ITEM NO. 4: INITIALIZATION OF TIRE PRESSURE WARNING SYSTEM**

**Introduction** While the vehicle is in motion, the Tire Pressure Warning System (TPWS) monitors the wheel speed signals that are output by the speed sensors for the brake control system. The system uses the resonance frequency method and the relative wheel speed method to detect low tire pressure in one or more of the tires. The resonance frequency method detects a change in the resonance of the tires that is caused by a low tire pressure based on the total value of the wheel speed signals that are output by the four speed sensors. The relative wheel speed method utilizes the changes in the wheel speeds that occur when the actual radius of a tire decreases due to a low tire pressure. These two methods refer to the normal tire pressure as the standard value when initializing.

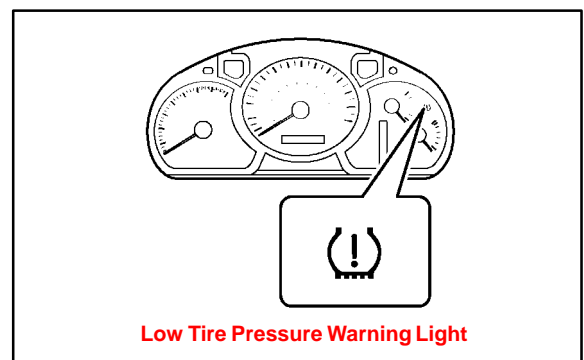
To operate the Tire Pressure Warning System under normal conditions, the ECU must be initialized with tires at normal tire pressure conditions.

Tire pressure is set high at the assembly plant for transport and storage to prevent tire flat spots. Therefore, after adjusting all tires to the standard air pressure, please perform initialization of the ECU at your dealership prior to delivery to customers.

- Initialization Procedure**
1. Adjust all tires to the standard air pressure.

|  |
|--|
| TIRE PRESSURE<br>kPa (kgf/cm <sup>2</sup> or bar, psi) |
| 210 (2.1, 30)  |

2. Turn the ignition switch to the “ON” position with the vehicle stopped. Check that the low tire pressure warning light blinks (twice per second).



**ITEM NO. 4: INITIALIZATION OF TIRE PRESSURE WARNING SYSTEM (Continued)****Initialization Procedure**  
(Continued)

3. Push and hold the tire pressure warning reset switch for 3 seconds until the low tire pressure warning light blinks 3 times in 6 seconds (once per two seconds). After that, make sure that the tire pressure warning light goes off.

**NOTE:**

If the low tire pressure warning light doesn't blink, release the tire pressure warning reset switch and press it again.

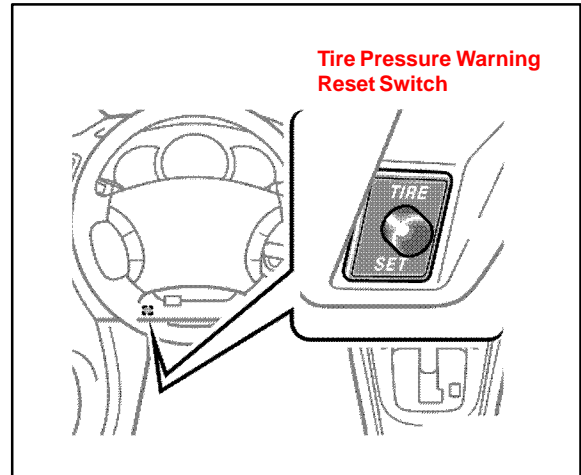
**REFERENCE:**

While TPWS initialization is in progress, the tire pressure is not being monitored.

Please explain to the customer during vehicle delivery that initialization of the Tire Pressure Warning System will be completed after driving the vehicle for 30 to 60 minutes and that the tire pressure is not monitored before the completion of the initialization.

**NOTE:**

If the low tire pressure warning light begins to blink (twice per second) while driving, return to step 2.



**ITEM NO. 5: FRONT LICENSE PLATE INSTALLATION**

**Introduction** The following procedure is recommended for front license plate installation on 2004 model year Highlander vehicles.

**Installation Procedure**

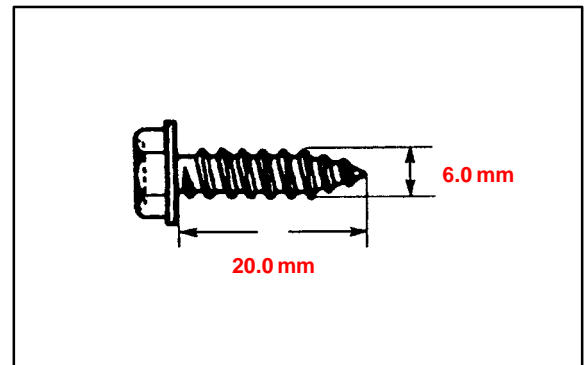
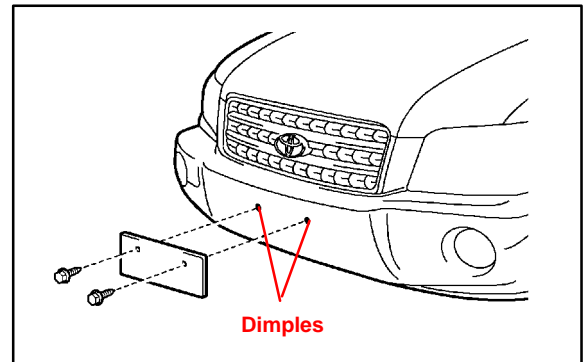
1. Align the installation holes of the front license plate with the dimples of the front bumper.
2. Using two self-tapping screws, install the front license plate on the front bumper.

**HINT:**

- Do NOT pre-drill holes in the dimples.
- Do NOT overtighten the self-tapping screws.

3. Use self-tapping screws of a non-corroding type with the following size for installation of the front license plate.

**Nominal Length: 20.0 mm (0.79 in.)**  
**Diameter: 6.0 mm (0.24 in.)**



**ITEM NO. 6: REMOVAL OF FRONT EMERGENCY TOWING EYELETS AND INSTALLATION OF TOWING EYELET HOLE COVERS**

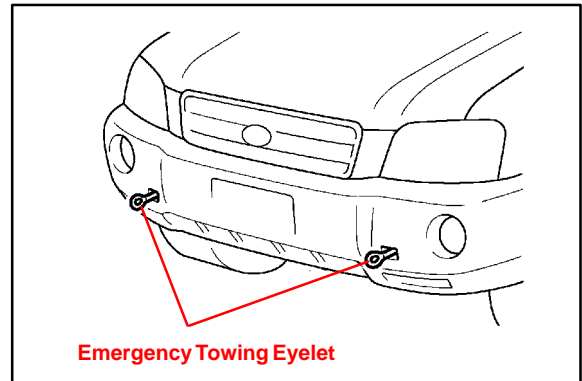
**Introduction** Please utilize the following procedures to remove the emergency towing eyelets and install the eyelet covers prior to customer delivery.

**Repair Procedure**

1. Remove the emergency towing eyelets from the front bumper by turning counterclockwise.

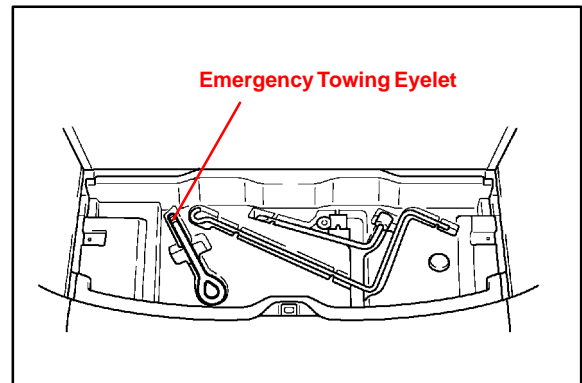
**HINT:**

If it is hard to loosen the emergency towing eyelet, use a steel bar.



2. Put one of two removed emergency towing eyelets on the back side of the right deck board in the luggage compartment.

Dispose of the other removed emergency towing eyelet.



3. Install the front towing eyelet hole covers, which are stored in the glove box, onto the front bumper.

