

**Part Number: PT398-60081**

**NOTE:** Part number of this accessory may not be the same as the part number shown.

**Conflicts**

Do not install into vehicles without Factory Alarm Systems.

**Recommended Sequence of Application**

Item #	Accessory	
1	XM	XM Radio
2	TVIP	V2 Glass Breakage Sensor (GBS) and/or V4 Remote Engine Starter (RES)

\*Mandatory

**Kit Contents**

Item #	Quantity	Description
1	1	Wire Harness

**Hardware Bag Contents**

Item #	Quantity	Description
1	1	GBS ECU
2	1	GBS ECU Bracket
3	1	M6 Custom Nut
4	1	M6 Bolt
5	10	Wire Ties
6	1	Foam Tape
7	1	GBS Microphone
8	2	Window Label for USA
9	2	Window Label for Mexico
10	1	Owner's Guide


**Additional Items Required For Installation**


Item #	Quantity	Description


**Recommended Tools**


Personal & Vehicle Protection	Notes
Safety Glasses	
Safety Gloves	(Optional)
Vehicle Protection	Blankets, Parts Boxes
Special Tools	Notes
Striker Tool (PPO only)	CAD-E IADS P/N ALL 02-016-01
Installation Tools	Notes
Phillips Screwdriver	#2, screwdriver or tip
Flatblade Screwdriver	Jeweler's
Nylon Panel Removal Tool	e.g. Panel Pry Tool #1 Toyota SST # 00002-06001-01
Torque Wrench	36 in•lbf (4.07 N•m)
Tape	Clear
Utility Knife	
Side Cutter	
Socket	10mm, Extension, 10mm Deep
Special Chemicals	Notes
Cleaner	3M™ Prep Sol-70
Glass Cleaner	Household Windex


**Legend**

 **STOP:** Damage to the vehicle may occur. Do not proceed until process has been complied with.

 **OPERATOR SAFETY:** Use caution to avoid risk of injury.

 **CAUTION:** A process that must be carefully observed in order to reduce the risk of damage to the accessory/vehicle and to ensure a quality installation.

 **TOOLS & EQUIPMENT:** Used in Figures calls out the specific tools and equipment recommended for this process.

 **REVISION MARK:** This mark highlights a change in installation with respect to previous issue.

Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure a quality installation

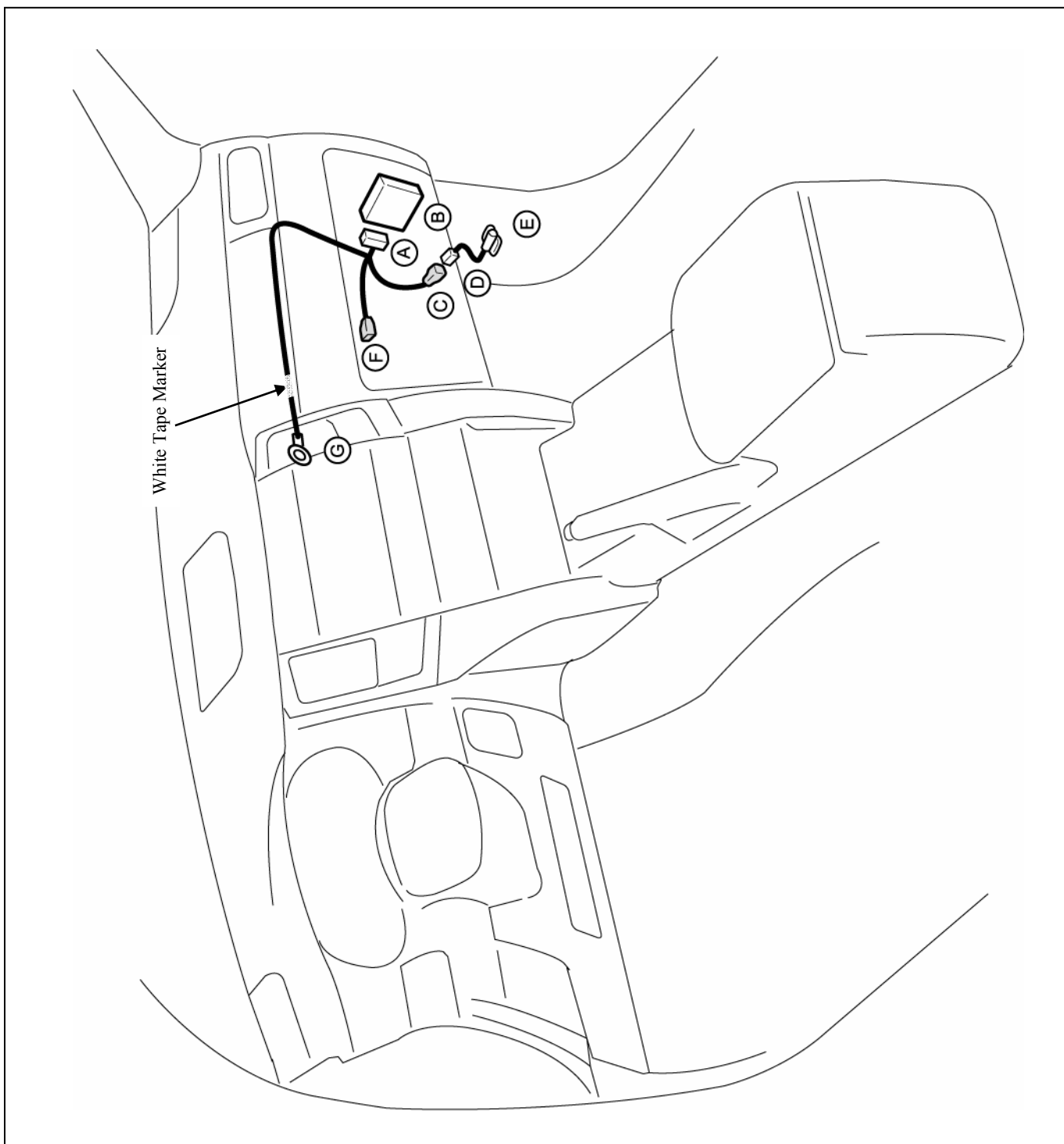
These guidelines can be found in the "Accessory Installation Practices" document.

This document covers such items as:

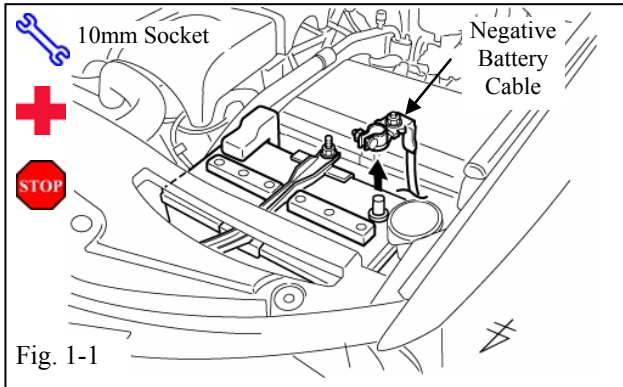
- Vehicle Protection (use of covers and blankets, cleaning chemicals, etc.)
- Safety (eye protection, rechecking torque procedure, etc.)
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.)
- Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.)

Please see your Toyota dealer for a copy of this document

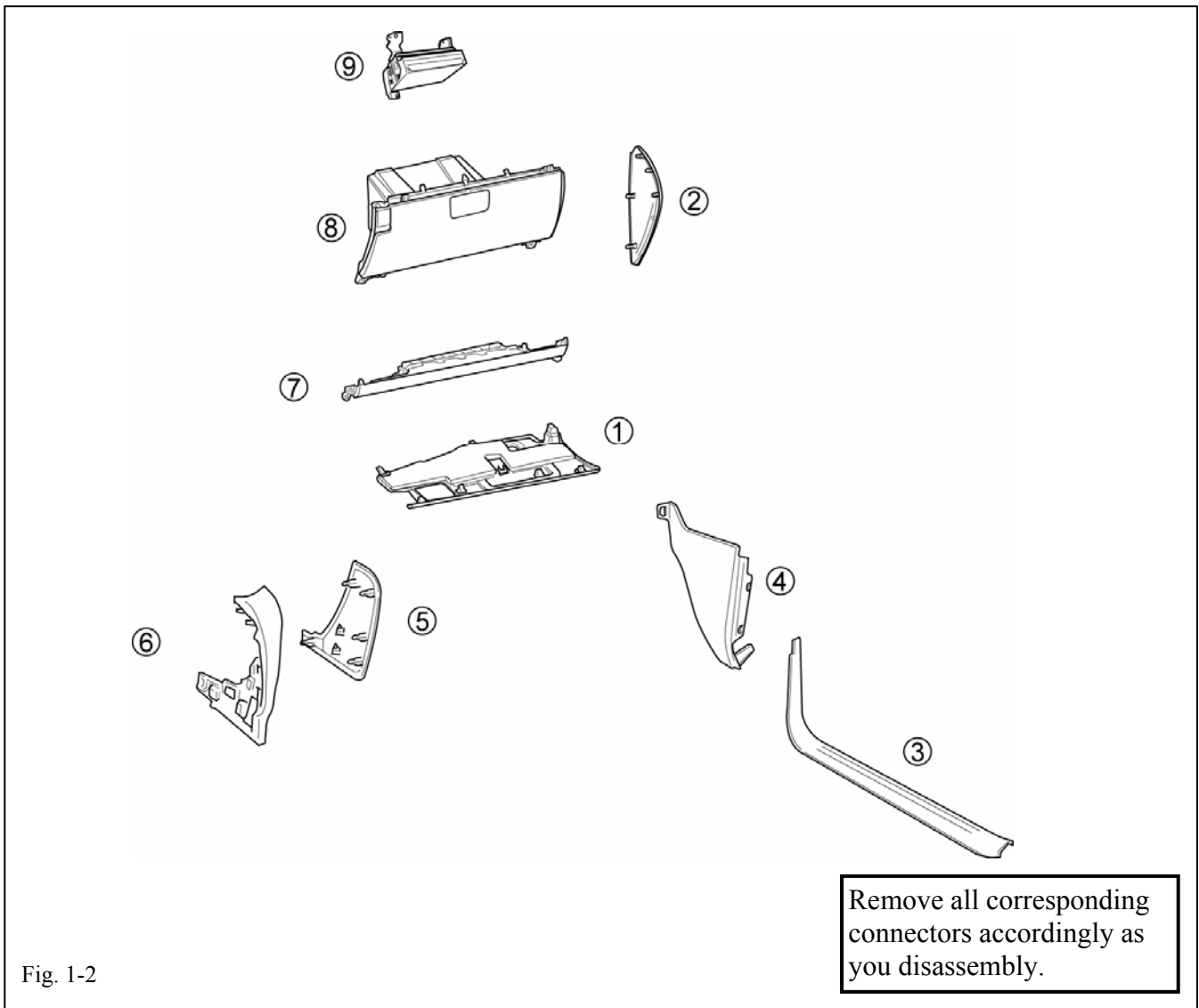
8P WHITE (to GBS ECU)	GBS ECU	2P WHITE (Male)	2P WHITE (female)	GBS MICROPHONE	3P WHITE (male)	GROUND WIRE TERMINAL							
Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ							

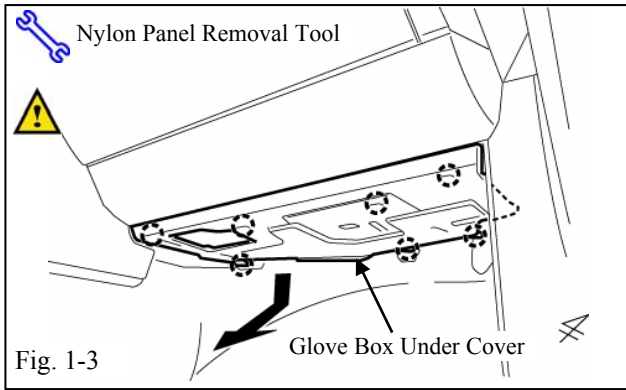


1. Vehicle Disassembly

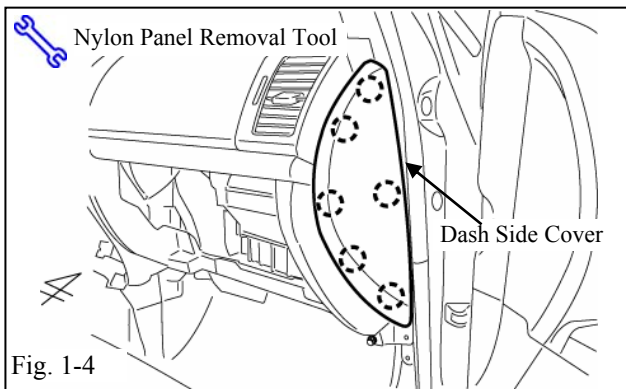


- +** (a) Automatic Vehicles should be placed in Park with the Parking Brake set.
  - (b) Remove the Negative Battery Cable. (Fig. 1-1)
    - (1) Protect the Fender before starting.
    - (2) Note the Battery Cable Position, as it will be re-installed in the same position.
- !**  
**STOP**
- +** **CAUTION:** Do not touch the positive terminal.

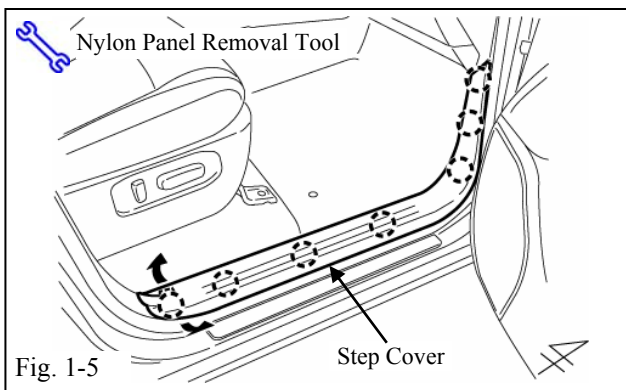




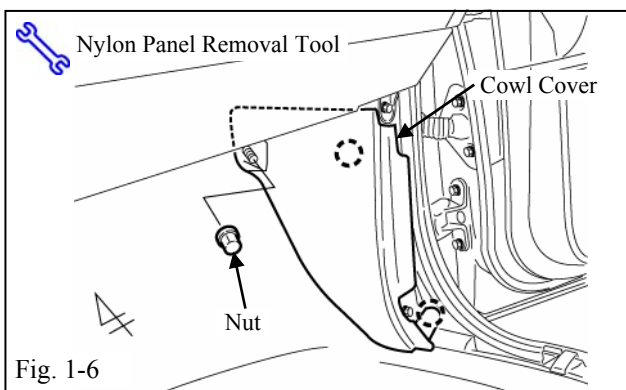
- (c) Remove the Glove Box Under Cover. (Fig. 1-3)
  - (1) Begin by protecting the Vehicle Interior with Blankets.



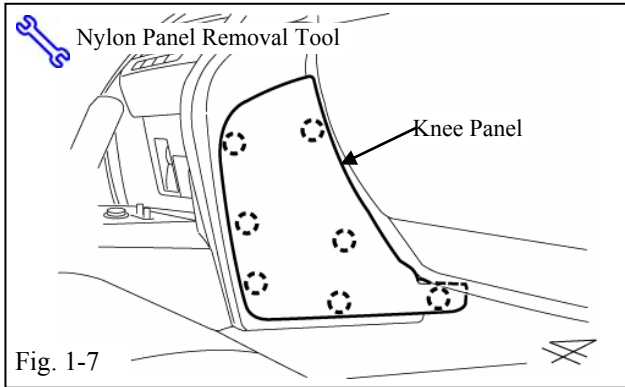
- (d) Remove the Passenger's Dash Side Cover. (Fig. 1-4)



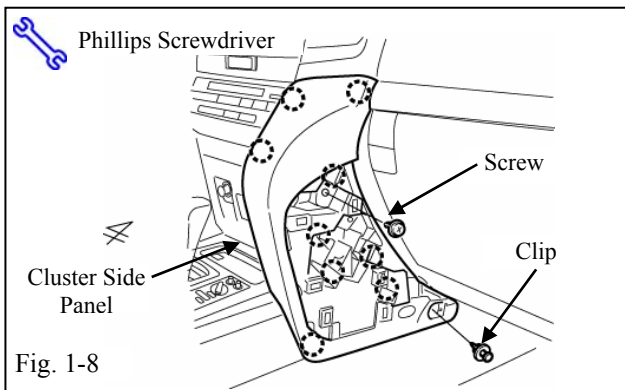
- (e) Remove the Passenger's Step Cover. (Fig. 1-5)



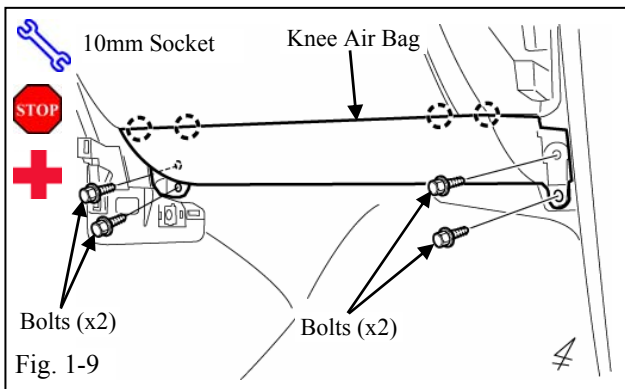
- (f) Remove the Passenger's Cowl Cover. (Fig. 1-6)
  - (1) Remove 1 Nut.



- (g) Remove the Passenger's Knee Panel.  
(Fig. 1-7)



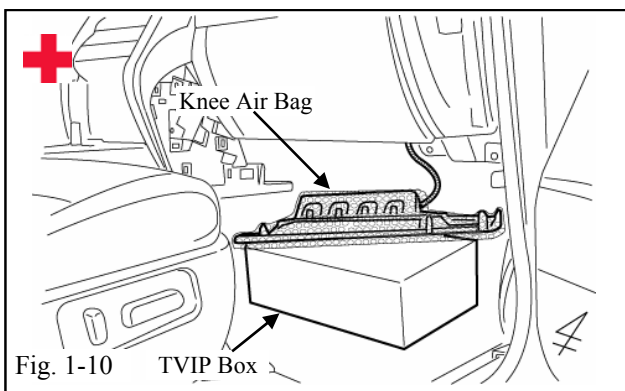
- (h) Remove the Passenger's Cluster Side Panel.  
(Fig. 1-8)  
(1) Remove 1 Screw and 1 Clip.



- (i) Remove the Passenger's Knee Air Bag.  
(Fig. 1-9)  
(1) Remove 4 Bolts.  
(2) Do not disconnect the Vehicle's Connector.



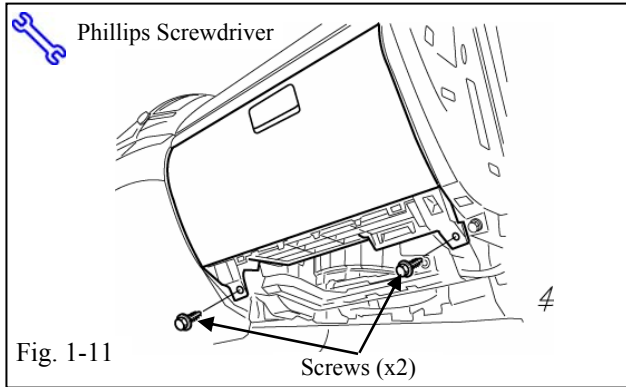
**CAUTION:** Sharp metal edges.



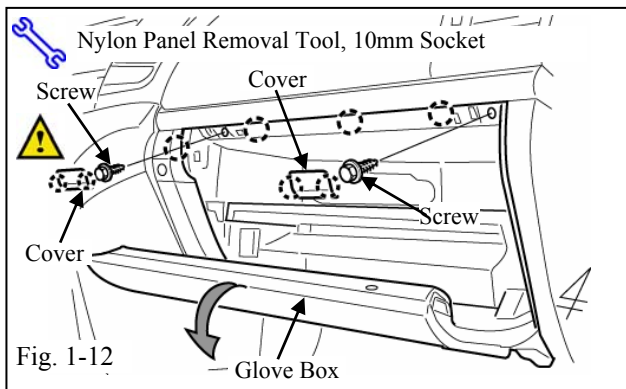
- (j) Wrap the Passenger's Knee Air Bag in a Blanket and use the TVIP Kit Box to support it. (Fig. 1-10)



**CAUTION:** Sharp metal edges.



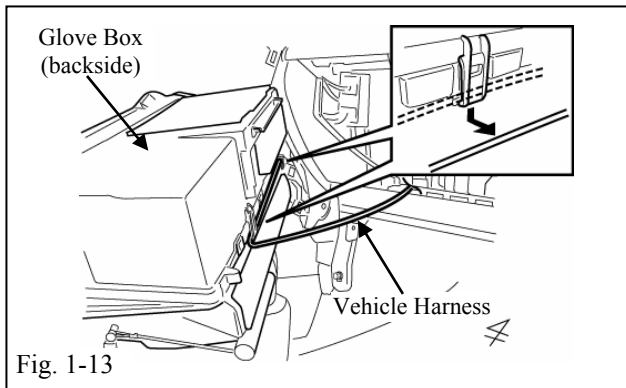
- (k) Remove 2 Screws from the bottom of the Glove Box. (Fig. 1-11)



- (l) Open the Glove Box Door, then remove 2 Bolts Covers from the upper of the Glove Box. (Fig. 1-12)
- (m) Dislodge the Glove Box. (Fig.1-12)
  - (1) Remove 2 Bolts.

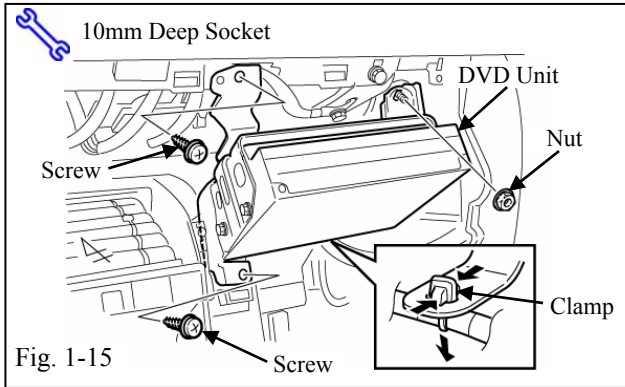


**NOTE:** Pull down and out to avoid damaging the Vehicle Clips or Dash Trim.



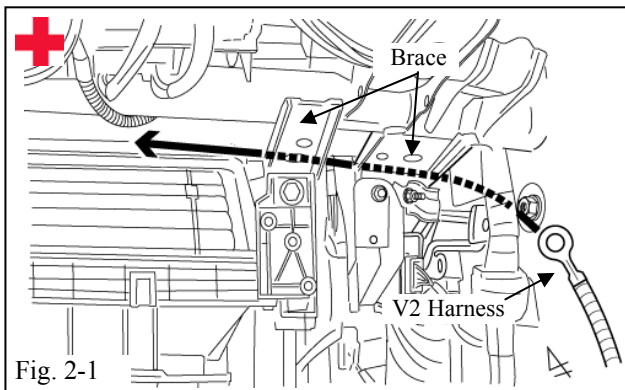
- (n) Remove the Vehicle Harness from the backside of the Glove Box, then remove the Glove Box. (Fig.1-13)
  - (1) Disconnect any Connectors.





FOR VEHICLE EQUIPPED WITH NAVIGATION SYSTEM ONLY. (step p)

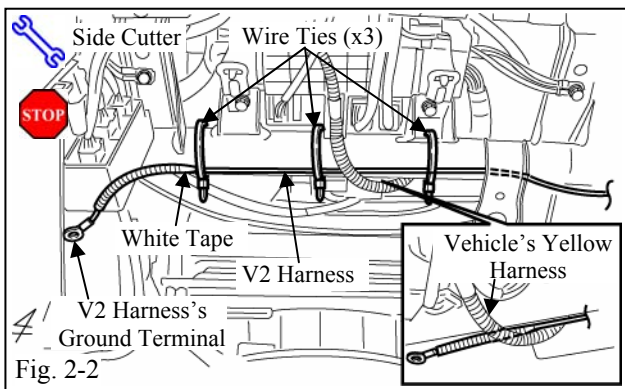
- (o) Remove the DVD Unit from the Glove Box Area. (Fig. 1-15)
  - (1) Remove 2 Screws and 1 Nut.
  - (2) Disconnect the Vehicles Cable Clamp.



**2. V2 Wire Harness Installation.**

- (a) Route the V2 Harness's left through the Glove Box Area as shown. (Fig. 2-1)

**+** CAUTION: Sharp metal edges.

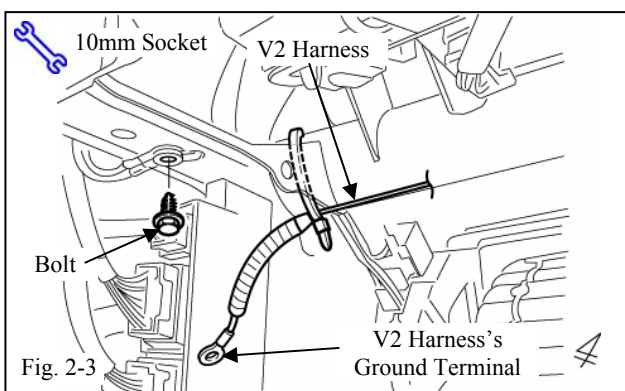


- (b) Route the V2 harness' Ground Terminal along the Reinforcement, toward the Center Console Area. (Fig. 2-2)

- (1) Be sure to route the V2 Harness between the Vehicle's Yellow Harness and the Reinforcement.

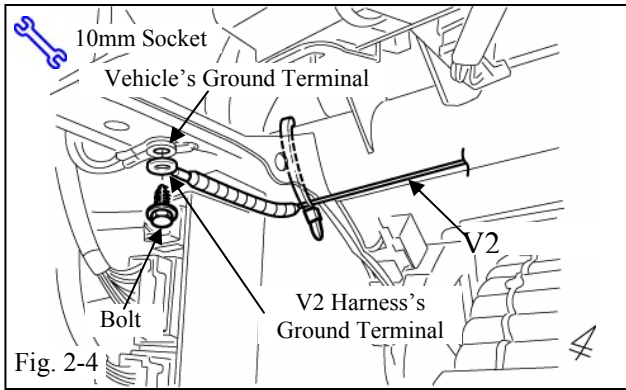
- (c) Secure the V2 Harness's White Tape Marker to the Reinforcement with 1 Wire Tie. (Fig. 2-2)

- (d) Secure the V2 Harness to the Reinforcement with 2 Wire Ties. (Fig. 2-2)

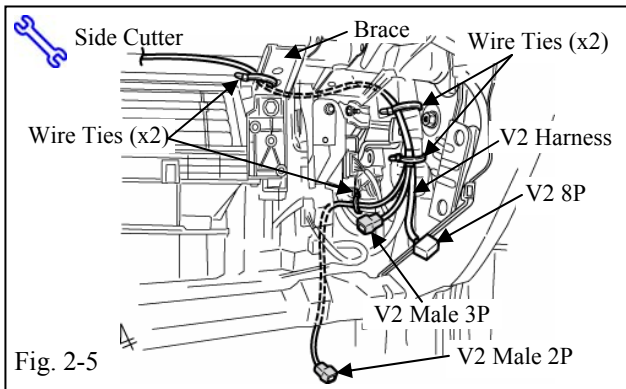


- (e) Locate and remove 1 Bolt from the Vehicle Ground Terminal in the upper left side of the Glove Box Area. (Fig. 2-3)

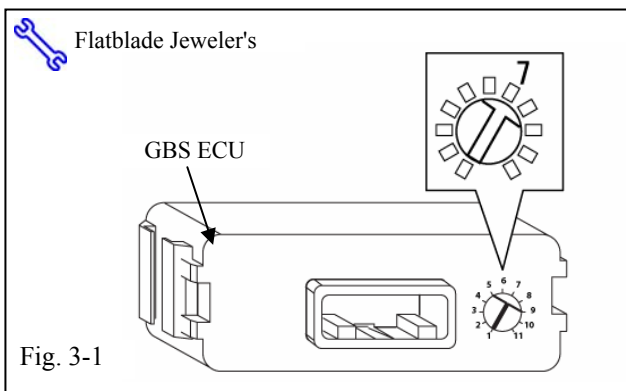
- (1) Do not discard the Bolt.



- (f) Use the existing Vehicle's Bolt to secure the V2 Harness's Ground Terminal with the Vehicle's Ground Terminal. (Fig. 2-4)
  - (1) Make sure that the Vehicle's Ground Terminal Pin seats properly.

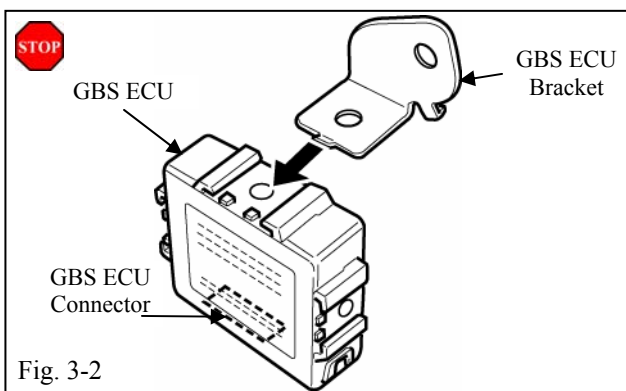


- (g) Route the V2 Harness toward the Passenger Side Cowl Area as shown, then secure the V2 Harness to the Vehicle Brace and the Vehicle Harness with 4 Wire Ties. (Fig. 2-5)



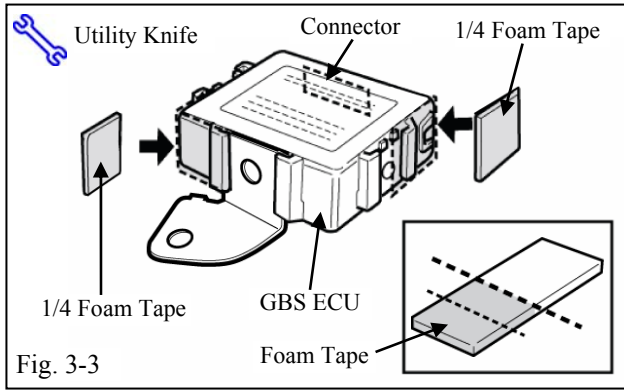
**3. GBS ECU Installation Preparation.**

- (a) Turn the sensitivity screw on the GBS ECU to the "7" Position. (Fig. 3-1)

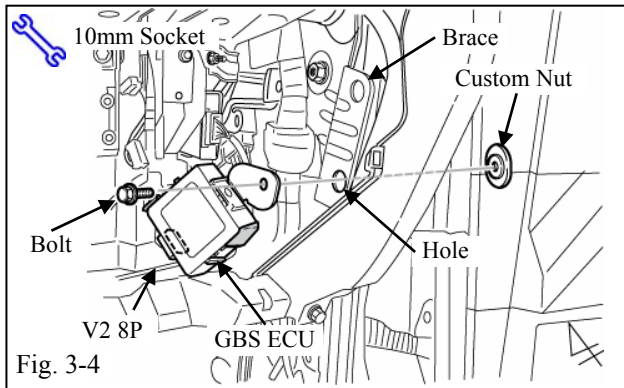


- (b) Insert the GBS ECU Bracket into the indicated bracket slot on the GBS ECU. (Fig. 3-2)
  - (1) Ensure the bracket is firmly attached to the ECU.

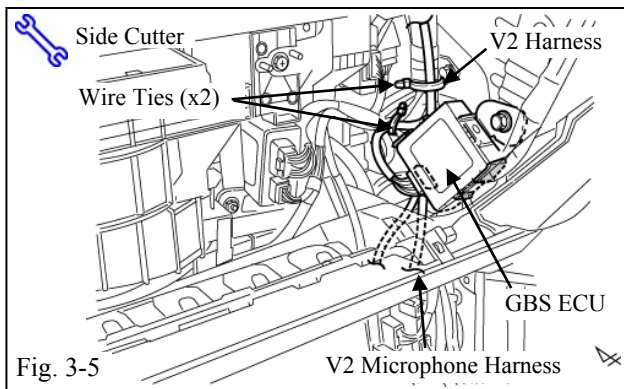




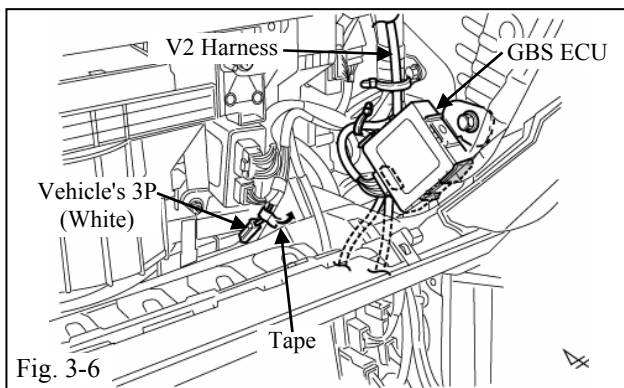
- (c) Cut and apply two 1/4 pieces of Foam Tape to the GBS ECU as shown. (Fig. 3-3)
  - (1) Do not discard the extra Foam Tape.



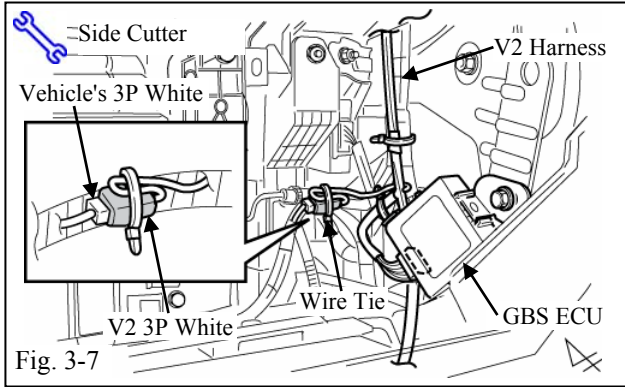
- (d) Connect the V2 Harness' White 8P Connector to the GBS ECU. (Fig. 3-4)
  - (1) Verify secure connection.
- (e) Using the Bolt and the Custom Nut from the kit, install the GBS ECU Bracket. (Fig. 3-4)



- (f) Secure the V2 Harness to the Vehicle Harness with 2 Wire Tie. (Fig. 3-5)

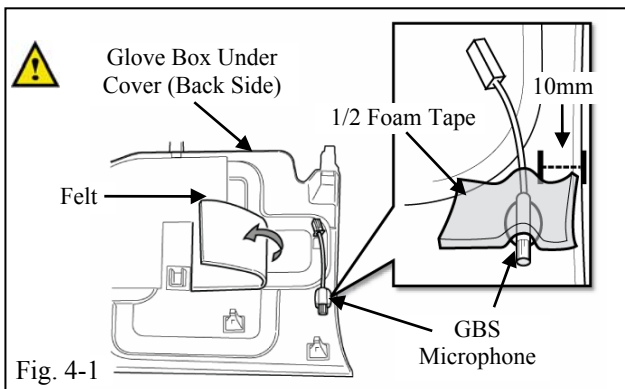


- (g) Locate the Vehicle's pre-wire White 3P Male Connector in the right side of the Glove Box Area. (Fig. 3-6)
- (h) Remove the Tape securing the 3P Connector. (Fig. 3-6)



- (i) Connect the Vehicle Harness's White 3P Male Connector to the V2 Harness's White 3P Female Connector. (Fig. 3-7)
  - (1) Verify secure connection.
- (j) Secure the 3P Connectors and excess the V2 Harness to the Vehicle Harness with 1 Wire Tie. (Fig. 3-7)

**4. GBS Microphone Installation.**

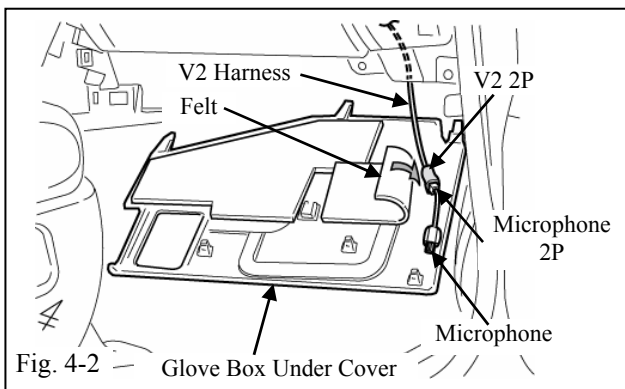


- (a) Using 3M™ Prep Sol-70 and Cleaning Method, clean the area indicated. (Fig. 4-1)
- (b) Attach the GBS Microphone to the backside of the Glove Box Under Cover as shown.



**CAUTION:** Do not touch the adhesive surface.

- (c) Use the extra Foam Tape from Fig. 3-3 to secure the Microphone as shown. (Fig. 4-1)
  - (1) Do not cover the Microphone opening.



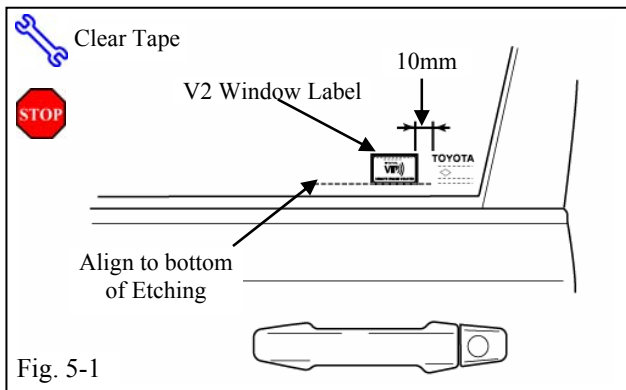
- (d) Re-install the vehicle parts except for the Glove Box Under Cover.
  - (1) Verify the panels fit together properly, with no uneven gaps.
  - (2) Reconnect any disconnected Connectors.
  - (3) Torque the Passengers Knee Air Bag to 7 ft•lbf (10 N•m)



- (e) Connect the V2 Harness's 2P Connector to the GBS Microphone's 2P Connector. (Fig. 4-2)
  - (1) Verify secure connection.
- (f) Refit the Felt to the Glove Box Under Cover. (Fig. 4-2)

5. Warning Label Installation.

- For US Vehicles use the English Labels and discard the Spanish Labels.
- For Mexico Vehicles use the Spanish Labels and discard the English Labels.



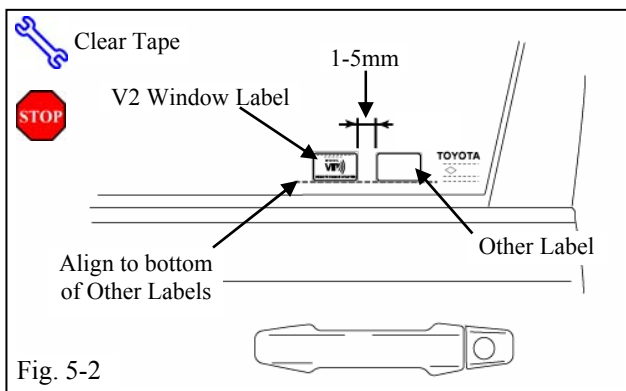
- (a) Using Household Windex, clean the inside of the Front Door Windows. (Fig. 5-1)
- (b) Place the Warning Labels on the inside of the Front Door Windows as shown. (Fig. 5-1)

- (1) Use a piece of clean adhesive tape to lift the Labels off their protective backing.



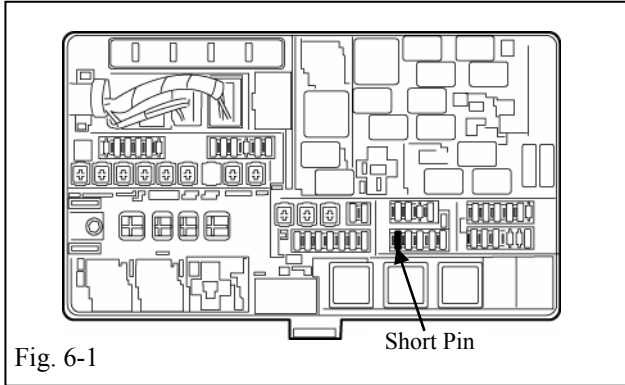
**CAUTION:** Do not touch the adhesive surface.

- (2) Line up the labels properly. Do not attempt to reposition the Labels once they are placed.



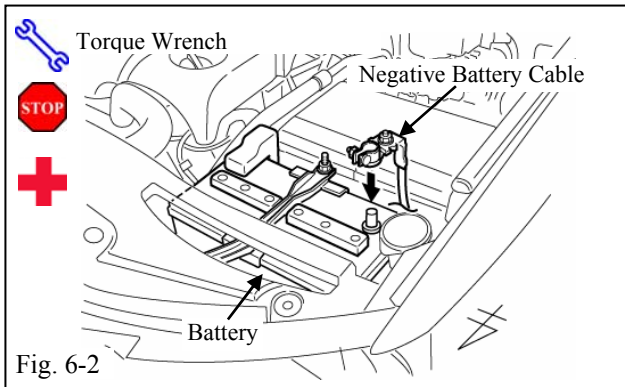
**NOTE:** If Labels are being installed with other Window Labels align them as shown in Fig. 5-2.

- (c) Place the GBS Owner's Guide, sealed in the bag, in the Glove Box.



6. Completing the Installation.


- (a) Verify that the Short Pin is installed.  
(Fig.6-1)
  - (1) If not install the Short Pin.



- (b) Position the Negative Battery Cable at the original factory position. (Fig. 6-2)
    - (1) Tighten the Nut to 36 in•lbf (4.07 N•m)
- CAUTION:** Do not touch the positive terminal.

- (c) Clean up and remove any trash.
- (d) Reset the Power Windows.
  - (1) Turn the Smart Key Ignition Button to the "ON" position.
  - (2) Push down the Power Window switches, and lower the windows halfway.
  - (3) Pull up the switches until the windows close.
  - (4) Continue holding up on the Switches for a minimum of 1 second.

**Accessory Function Checks**

	<b>Procedure</b>	<b>Look for:</b>
<b>Roll up all windows, and exit the vehicle with remote.</b>		
1	 <p>Take out the Smart Key and the Smart Card Key from the Vehicle. Place them 7 ft. (2 meters) or more away from the Vehicle.</p> <p>Lock the doors to start the system's arming process.</p>	<p>The turn signal lights flash once</p> <p>All doors lock.</p> <p>The Security LED lights up.</p>
2	<p>Wait 30 seconds.</p>	<p>Security LED starts flashing; the system is now armed.</p>

**Perform the following check in a temperature controlled environment (50°-90° F)**

3	<p>With the tip of a key, or Striker Tool pulled all the way out (PPO only), tap the center of the driver's door window to trigger the alarm.</p> <p>NOTE: Make sure that the Smart Key and Smart Card are at least 7 ft. (2 meters) away.</p>	<p>The horn sounds repeatedly.</p> <p>The headlights flash repeatedly.</p> <p>The turn signal lights flash repeatedly.</p> <p>The Security LED lights up.</p>
4	<p>Insert the key into the driver's door key cylinder and turn it toward the back of the vehicle to stop the alarm.</p>	



**NOTE: If the alarm does not trigger during functional verifications the Smart Key and Smart Card Key might be too close. Move them farther from the vehicle and test the system again.**

**NOTE: If the alarm does not trigger during the section test, increase the GBS sensitivity to the next setting and test again.**

**NOTE: If you do not disarm the system, the alarm will last 60 seconds. It is not necessary to check the alarm duration.**

**Vehicle Function Check**

	<b>Function</b>		<b>Function</b>
<input type="checkbox"/>	Head Light	<input type="checkbox"/>	ABS Light (if equipped) <i>If the warning light remains on, it may indicate a system malfunction.</i>
<input type="checkbox"/>	High Beams	<input type="checkbox"/>	Rear Wiper/Washer (if equipped)
<input type="checkbox"/>	Turn Signal Lights	<input type="checkbox"/>	Clock (if equipped)
<input type="checkbox"/>	Tail Lights	<input type="checkbox"/>	Accessory Power Socket (if equipped)
<input type="checkbox"/>	Stop Lights	<input type="checkbox"/>	Starter
<input type="checkbox"/>	Backup Lights	<input type="checkbox"/>	Audio/Video (if equipped)
<input type="checkbox"/>	Hazard Lights	<input type="checkbox"/>	Power Sliding Door (if equipped)
<input type="checkbox"/>	Marker Lights	<input type="checkbox"/>	Convenience Memory Settings (if equipped)
<input type="checkbox"/>	Dome/Courtesy Lights	<input type="checkbox"/>	Heated Seats (if equipped)
<input type="checkbox"/>	Panel/Switch Illumination	<input type="checkbox"/>	Massage Seats (if equipped)
<input type="checkbox"/>	Accessory Controls/Illumination (if equipped)	<input type="checkbox"/>	Rear Window Defogger (if equipped)
<input type="checkbox"/>	Key Sensor Buzzer	<input type="checkbox"/>	Power Side Mirrors (if equipped)
<input type="checkbox"/>	Fog Lights (if equipped)	<input type="checkbox"/>	Side Mirror Defogger (if equipped)
<input type="checkbox"/>	Daytime Running Lights (if equipped)	<input type="checkbox"/>	Front Windshield Defogger (if equipped)
<input type="checkbox"/>	Trunk/Tailgate/Bed Lights (if equipped)	<input type="checkbox"/>	Navigation System (if equipped)
<input type="checkbox"/>	Glove Box Light (if equipped)	<input type="checkbox"/>	Rear Sunshade (if equipped)
<input type="checkbox"/>	Cruise Control Light (if equipped)	<input type="checkbox"/>	Steering Wheel Audio Control (if equipped)
<input type="checkbox"/>	Seat Belt Warning Light <i>If the warning light remains on, it may indicate a system malfunction.</i>	<input type="checkbox"/>	Steering Wheel Column Adjusts Without Interference
<input type="checkbox"/>	Air Bag Warning Light <i>If the warning light remains on, it may indicate a system malfunction.</i>	<input type="checkbox"/>	Lamp Failure Sensor <i>If the warning light remains on, it may indicate a system malfunction.</i>



	Function		Function
<input type="checkbox"/>	Track/Skid Control Light (if equipped) <i>If the warning light remains on, it may indicate a system malfunction.</i>	<input type="checkbox"/>	Front Wiper/Washer
<input type="checkbox"/>	HVAC	<input type="checkbox"/>	Hood Latch Release
<input type="checkbox"/>	Power Locks (if equipped)	<input type="checkbox"/>	Passenger Air Bag Switch (if equipped)
<input type="checkbox"/>	Power Windows (if equipped)	<input type="checkbox"/>	Rollover Side Curtain Air Bag Switch (RSCA) (if equipped)
<input type="checkbox"/>	Power Seats (if equipped)	<input type="checkbox"/>	
<input type="checkbox"/>	Horn	<input type="checkbox"/>	
<input type="checkbox"/>	Gauges	<input type="checkbox"/>	

**Remove the short pin after Function Check.**

Check with your port/dealer to find out if this step is needed.

