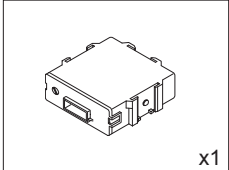
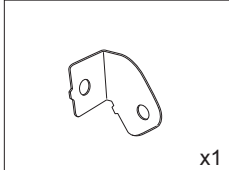
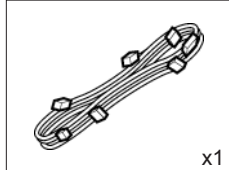
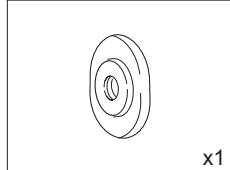
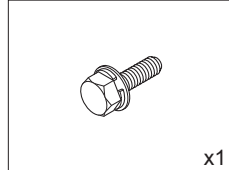
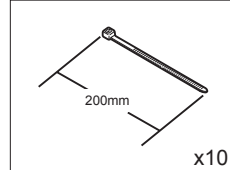
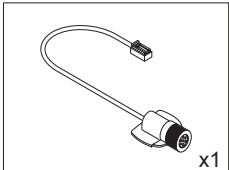
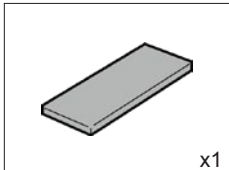
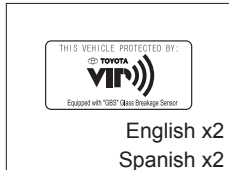



Part #: PT398-60081

Conflicts:

Kit Contents

<p>GBS ECU</p>  <p>x1</p> <p>08190-0C820</p>	<p>GBS ECU Bracket</p>  <p>x1</p>	<p>V2 Harness</p>  <p>x1</p>	<p>Custom Nut</p>  <p>x1</p>	<p>Bolt</p>  <p>x1</p> <p>91651-60618</p>	<p>Wire Tie</p>  <p>x10</p> <p>200mm</p>
<p>GBS Microphone</p>  <p>x1</p> <p>08192-6C810</p>	<p>Foam Tape</p>  <p>x1</p>	<p>V2 Window Label</p>  <p>English x2 Spanish x2</p> <p>(E) 08192-009A0 (S) PT398-42091</p>	<p>V2 Owner's Guide</p>  <p>x1</p>		

Service Part #'s

Additional Items

(may be required)

Item#	Description

Recommended Sequence of Application

Item#	Description








Recommended Tools

Personal & Vehicle Protection	Description
Safety Glasses	
Safety Gloves	(Optional)
Vehicle Protection	Blankets, Parts Boxes
Special Tools	
Striker Tool	CAD-E IADS P/N ALL 02-016-01
Installation Tools	
Screwdriver	#2 Phillips, Flat Blade Jeweler's
Nylon Panel Removal Tool	e.g. Panel Pry Tool #1 Toyota SST# 00002-06001-01
Side Cutters	
Socket	10mm, Extension
Utility Knife	
Torque Wrench	Battery: 48 in·lbf (5.4 N·m), GBS Bracket: 71 in·lbf (8 N·m) Passenger's Knee Airbag: 108 in·lbf (12 N·m)
Tape	Clear, Electrical
Special Chemicals	
Cleaner	VDC Approved Cleaner

Table of Contents

I. Preparation	1–4
1. Table of Contents	2
2. Wire Routing Overview	3
3. Disassembly Overview	4
II. Procedure	5–15
1. Preparation	5
2. Vehicle Disassembly	5
3. V2 ECU Preparation and Installation	9
4. V2 Harness Installation	11
5. Microphone Installation	13
6. Window Label Installation	14
7. Complete the Installation	15
III. Checklist	16–18
1. Accessory Function Checks	16
2. Vehicle Appearance Check	16
3. Vehicle Function Checks	17

Legend

-  Do not proceed until process has been completed.
-  Follow steps carefully to avoid damaging the Vehicle or Accessory
-  Use caution to avoid injury.
-  Used in Figures to call attention to specific tools recommended for the process.
-  Highlights a change in installation with respect to previous issue.
-  Indicates that torque is related to safety.
-  Wire Tie location and number.

Accessory Installation Practice (read before installation)

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.

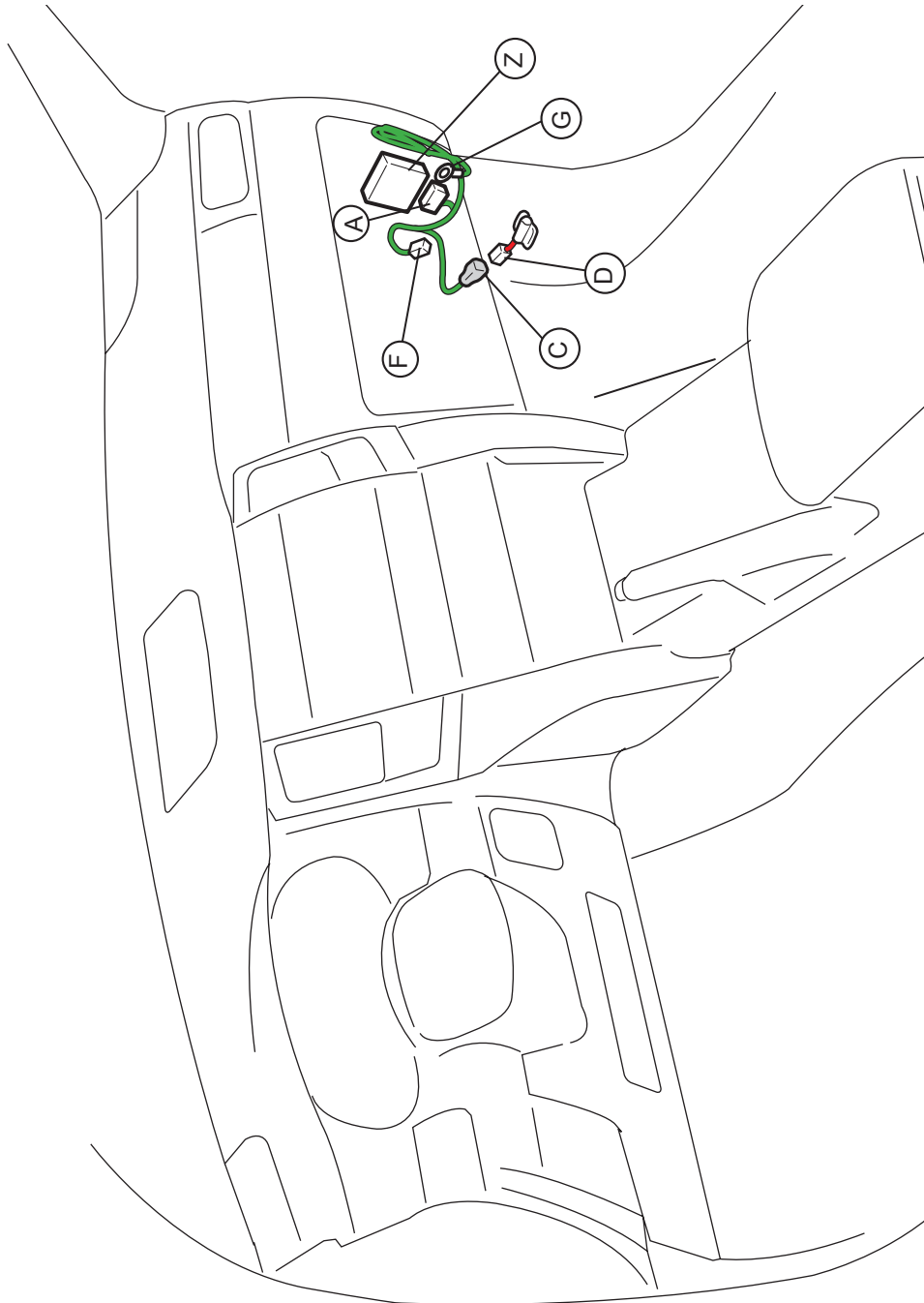
This document covers such items as:

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

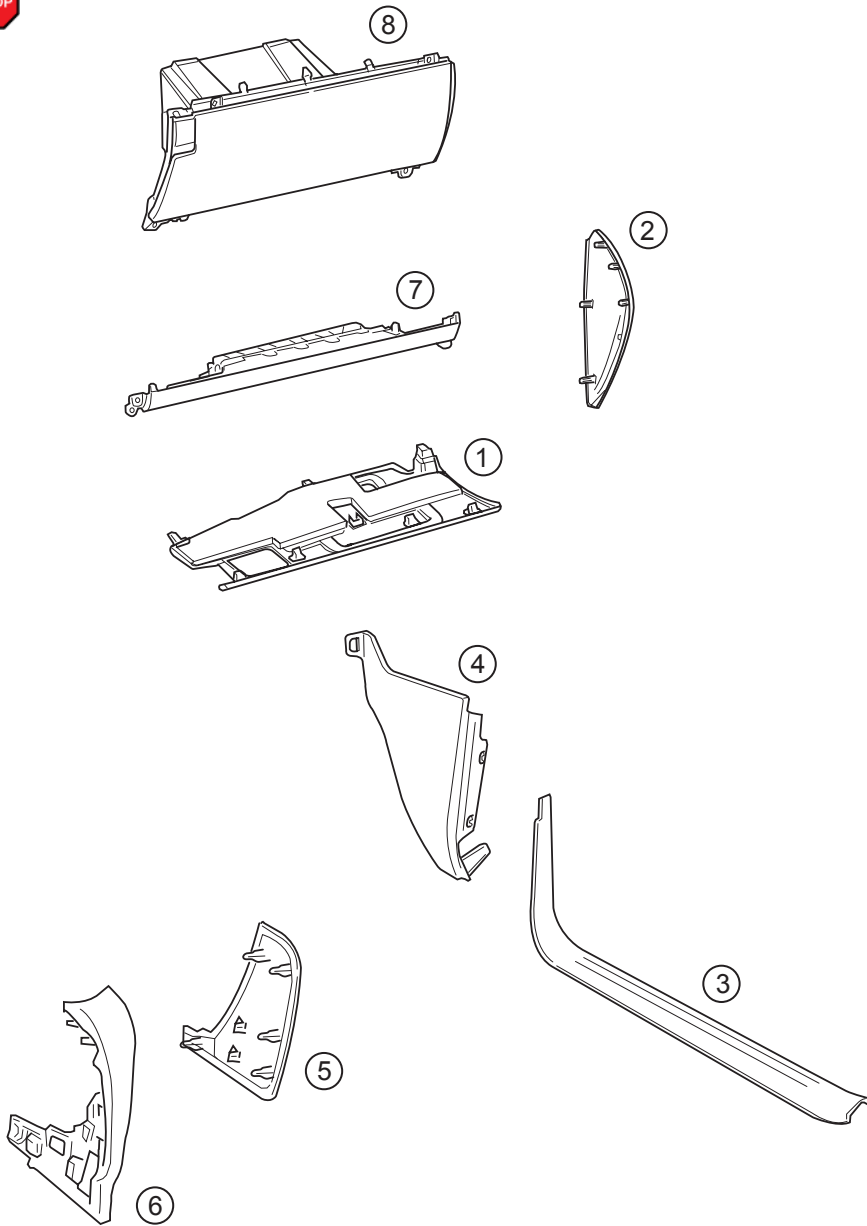
Please see your TOYOTA dealer for a copy of this document.

TVIP	Vehicle	Description
A	-	8P White (for GBS ECU)
C	-	2P White (for GBS MIC)
D	-	2P White
F		3P White
G		Ground Terminal
Z	-	GBS ECU

TOYOTA LAND CRUISER GBS
Wire Harness Outline*



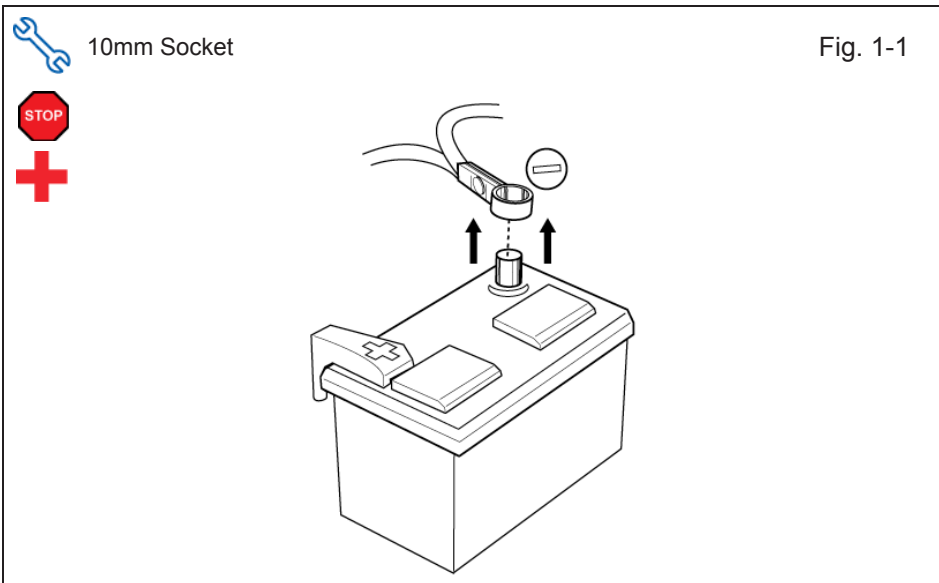
Disassembly Overview



1	Glove Box Under Cover
2	PS Dash Cover
3	PS Step Cover
4	PS Cowl Cover
5	PS Knee Panel
6	PS Cluster Side Panel
7	PS Knee Airbag
8	Glove Box



Disconnect all Corresponding Connectors.



1. Preparation.

- a. Place the Vehicle in Park with the Parking Brake set.

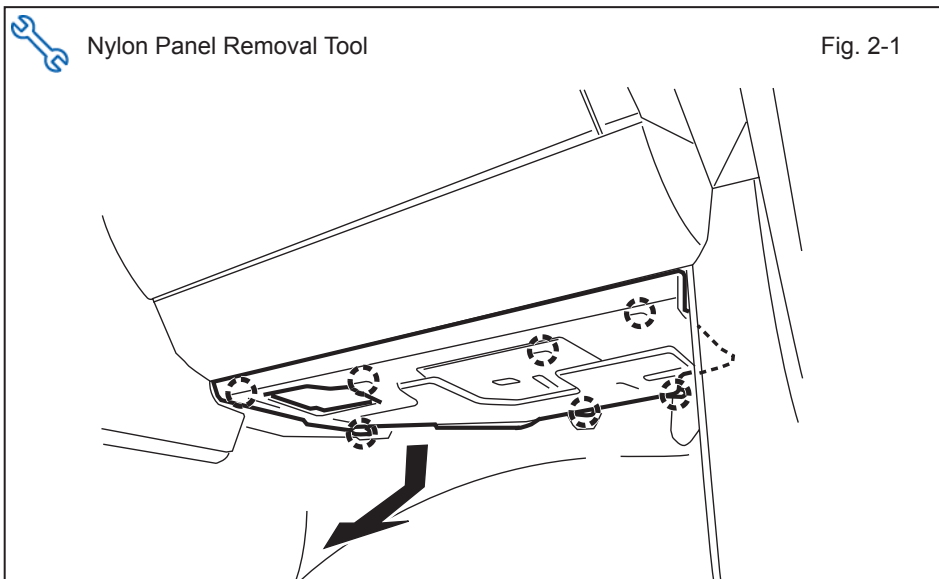


NOTE: Protect the Fender before starting.

- b. Disconnect the Negative Battery Terminal.
 - Note the Battery Cable Position as it will be re-installed in the same position.

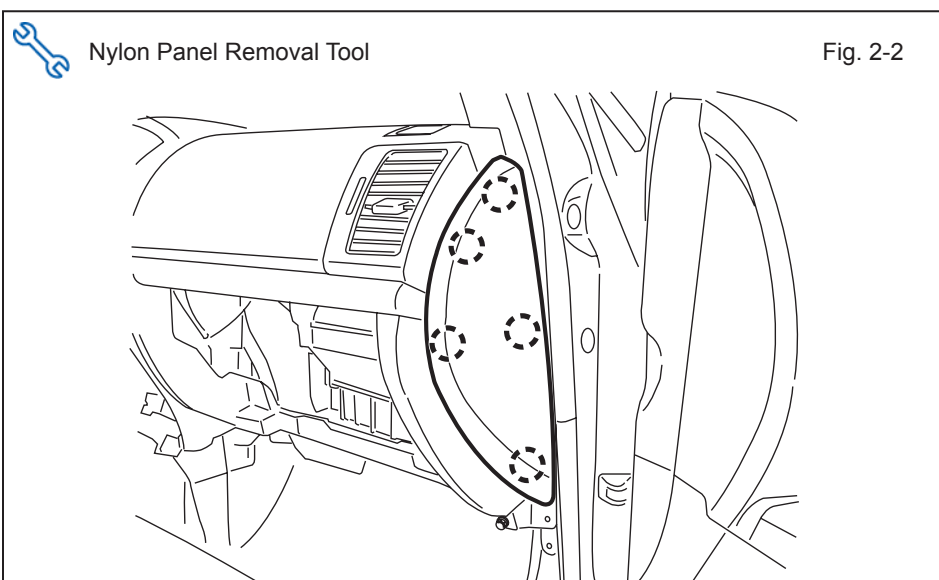


CAUTION: Do not touch the Positive Terminal.

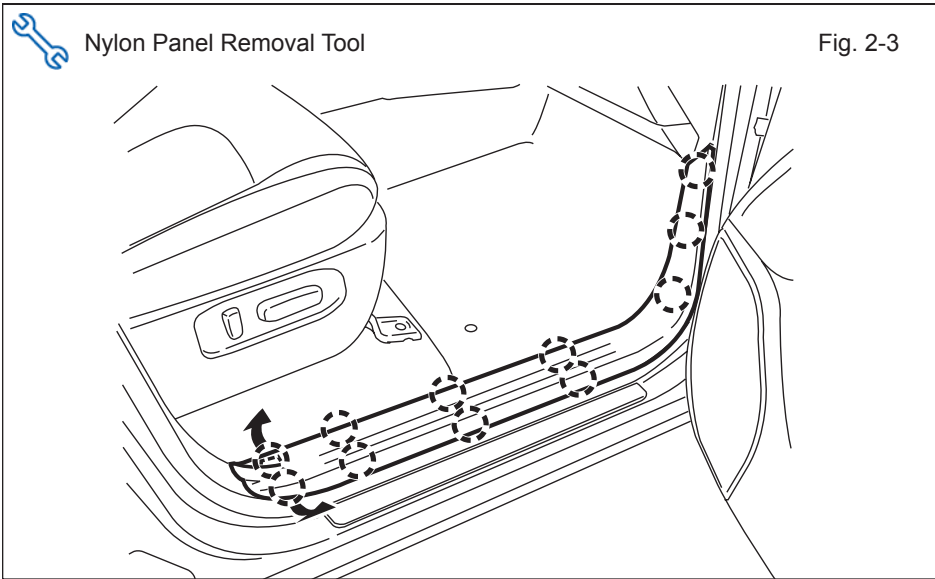


2. Vehicle Disassembly.

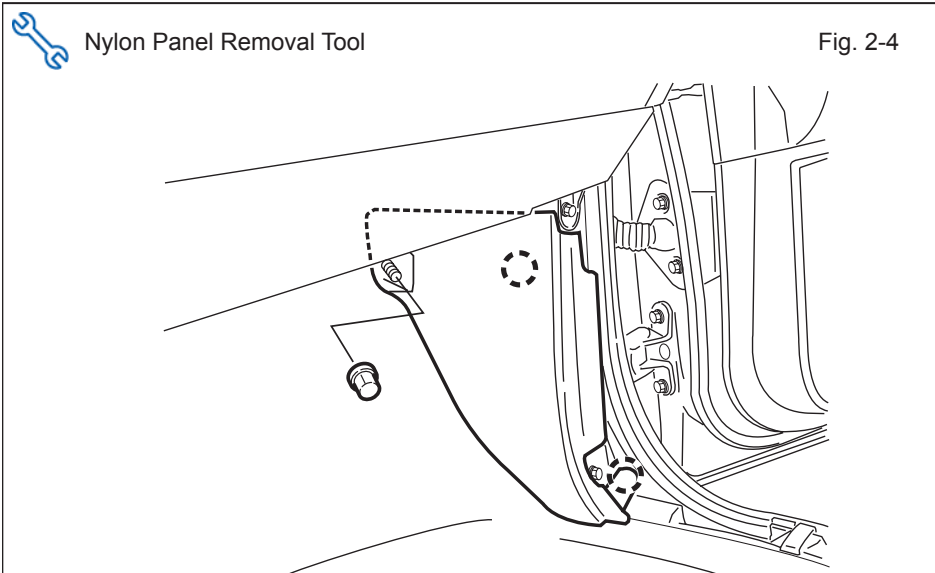
- a. Dislodge the Glove Box Under Cover.
 - Disconnect all connectors.



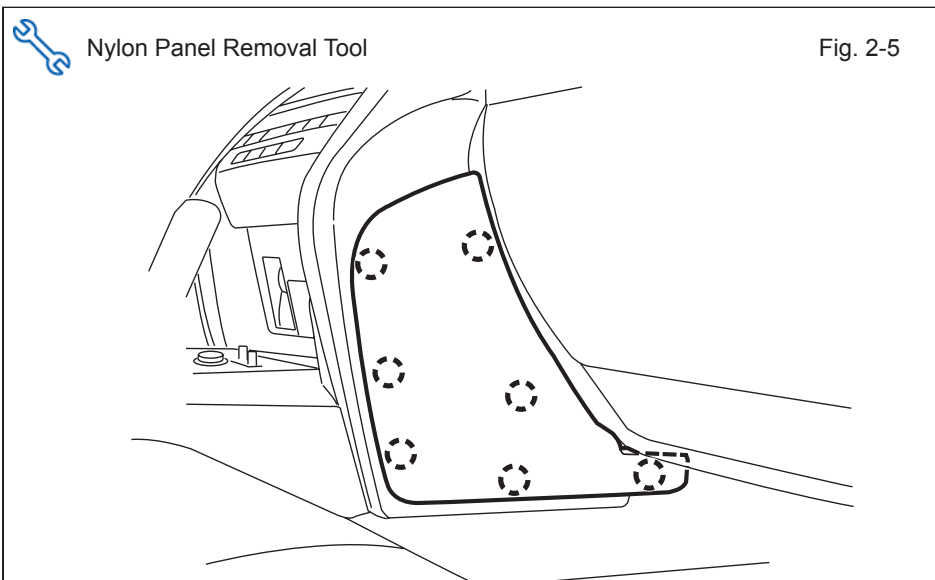
- b. Remove the Passenger's Side Dash Cover.
 - Apply protective Tape on pry area.



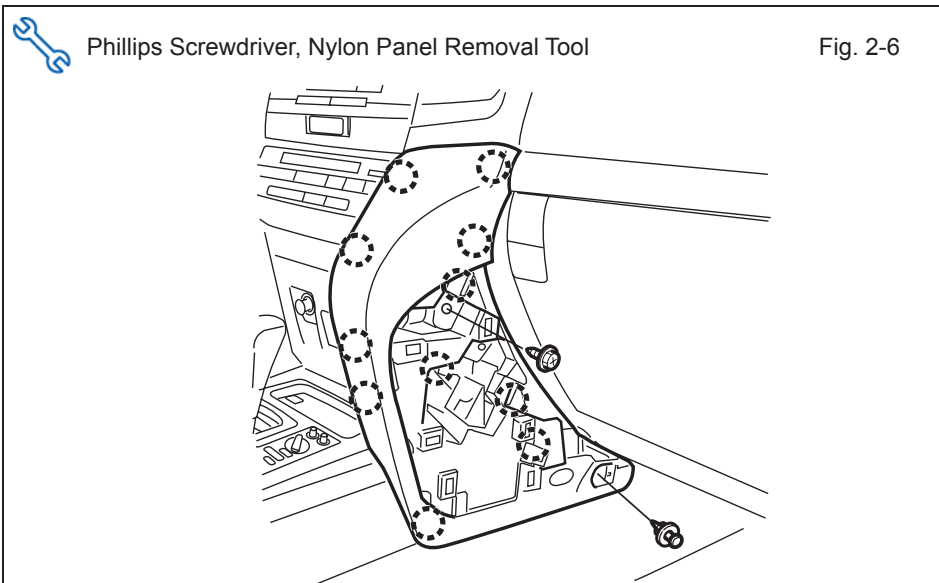
- c. Remove the Passenger's Side Step Cover.
 - Disconnect all Connectors.



- d. Remove the Passenger's Side Cowl Cover.
 - Remove 1 Nut.



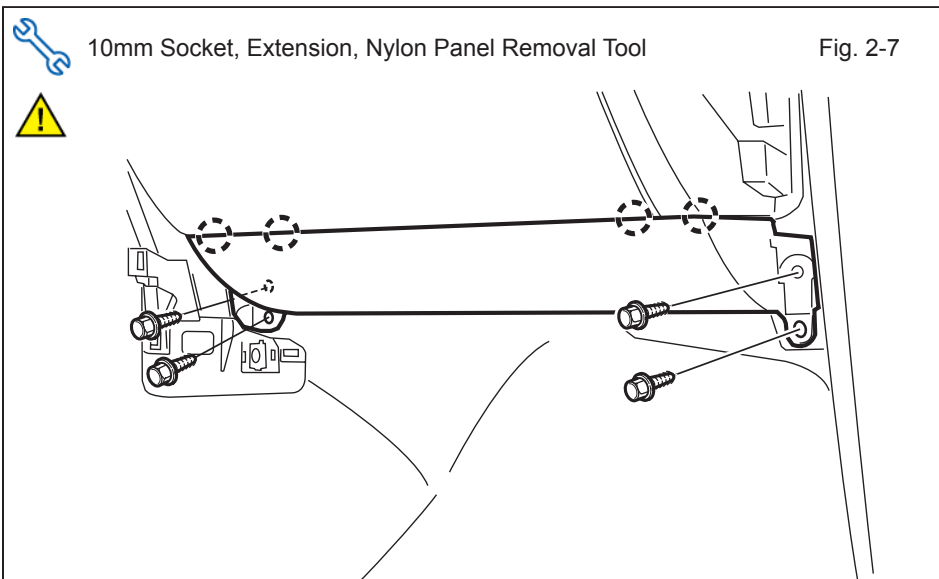
- e. Remove the Passenger's Side Knee Panel.



Phillips Screwdriver, Nylon Panel Removal Tool

Fig. 2-6

- f. Remove the Passenger's Cluster Side Panel.
- Remove 1 Screw and 1 Clip.



10mm Socket, Extension, Nylon Panel Removal Tool

Fig. 2-7

- g. Dislodge the Passenger's Knee Airbag carefully.
- Remove 4 Bolts.
 - Remove 4 Clips.



CAUTION: Do not disconnect the Vehicle's Airbag Connector.

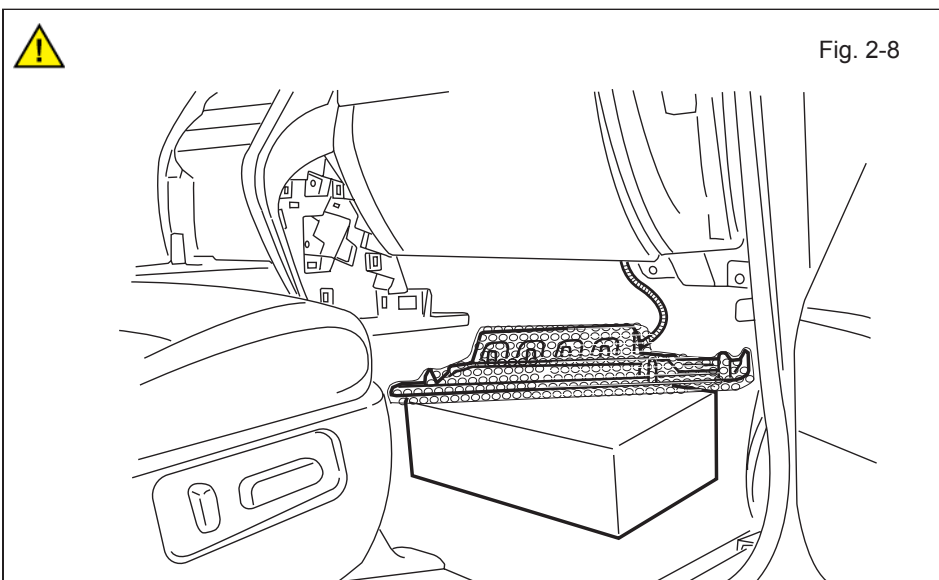
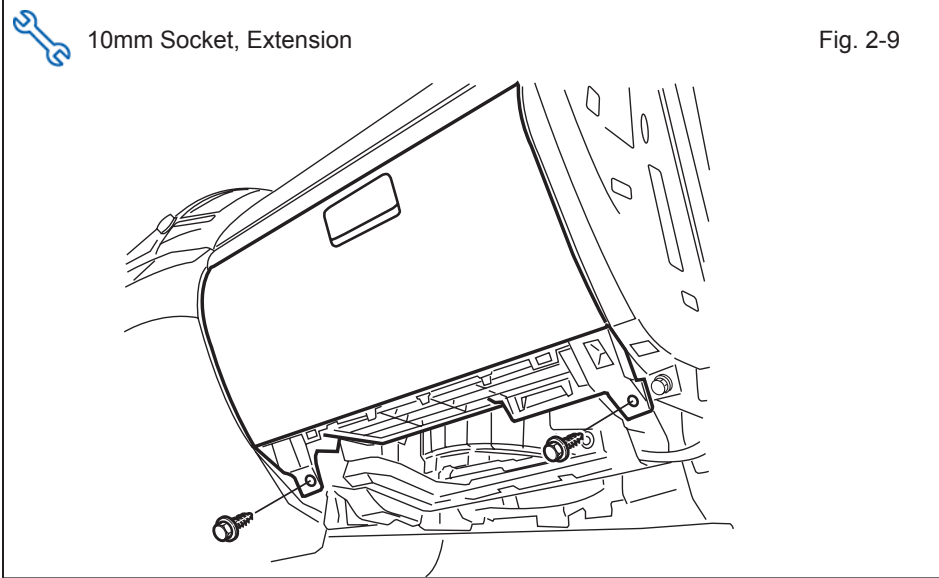


Fig. 2-8

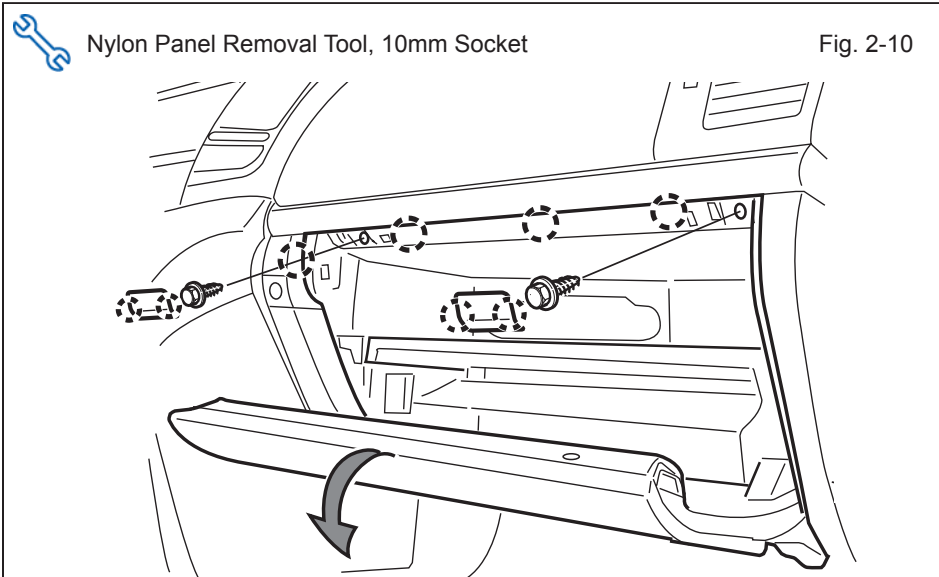
- h. Wrap the Airbag in a Blanket or the like and place it on top of the TVIP box.



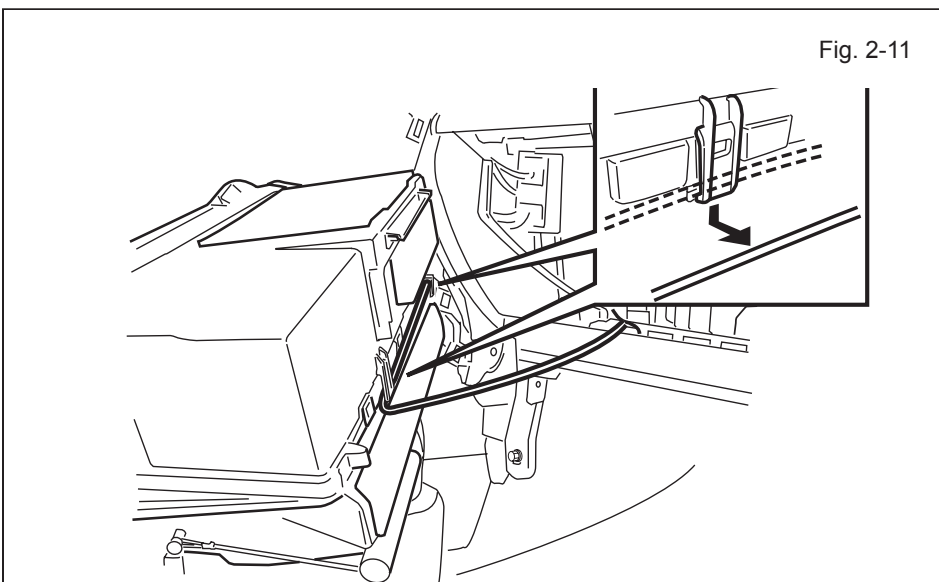
CAUTION: Prevent stress on the Airbag Harness.



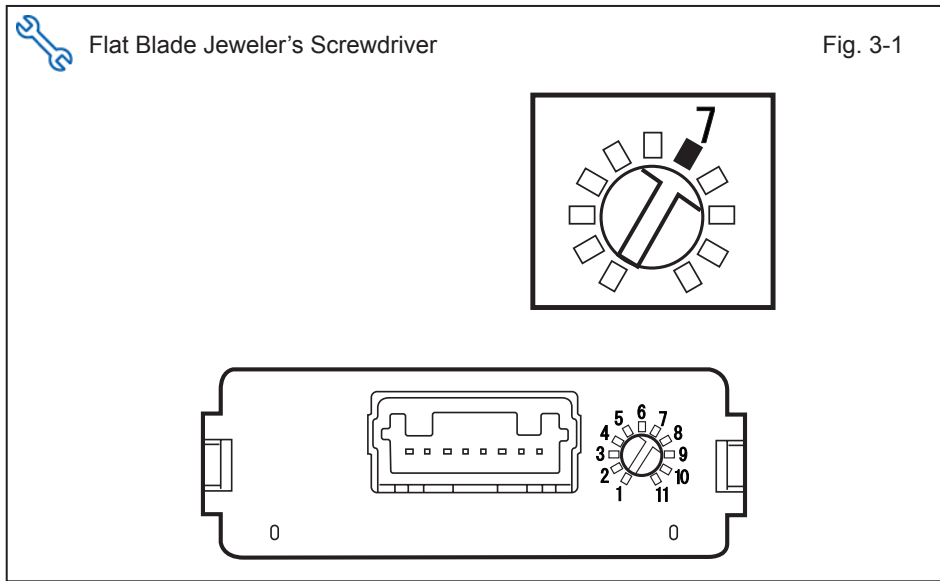
- i. Remove 2 Bolts from the bottom of the Glove Box.



- j. Open the Glove Box Door, then remove 2 Bolt Covers.
- k. Dislodge the Glove Box.
 - Remove 2 Bolts.

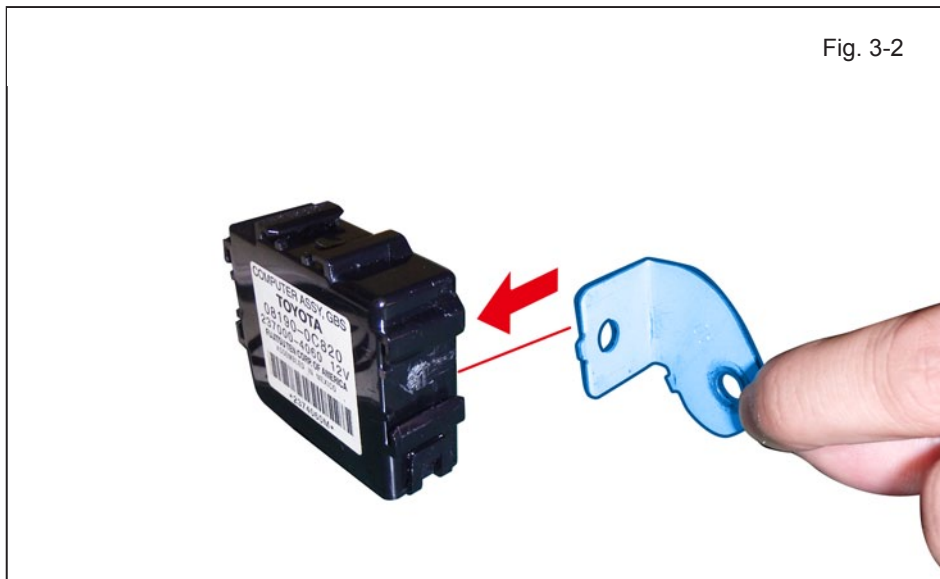


- l. Remove the Vehicle Harness from the backside of the Glove Box, remove the Glove Box.
 - Disconnect any Connectors.

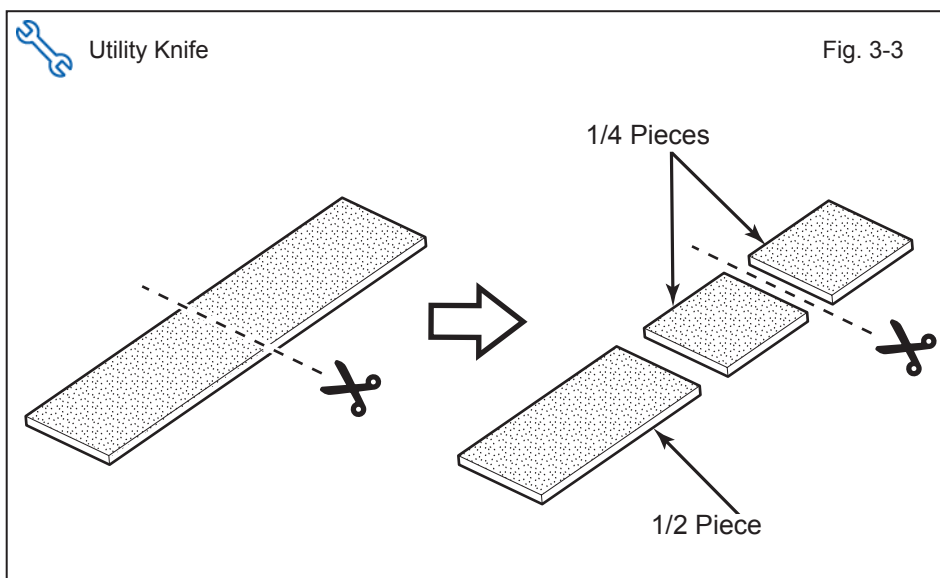


3. V2 ECU Preparation and Installation.

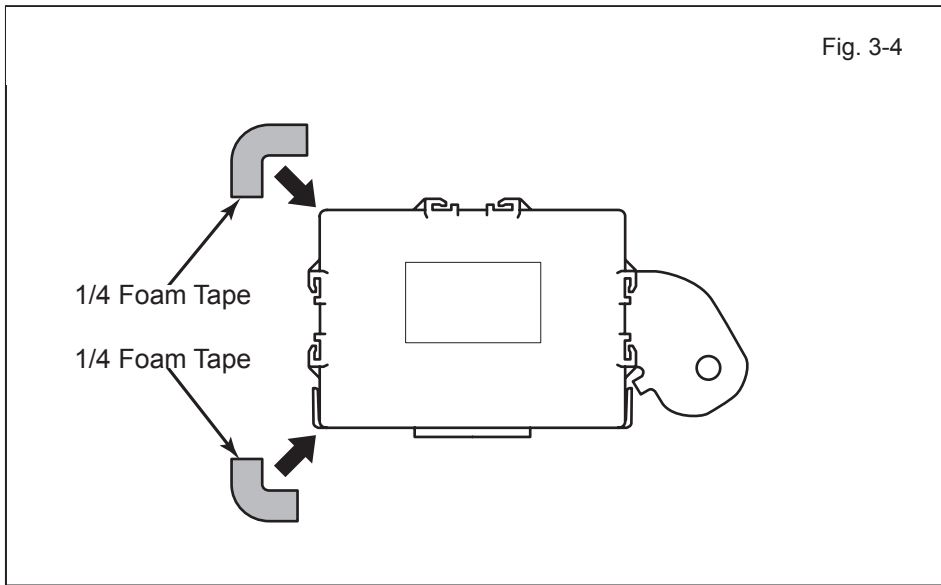
- a. Set the GBS Sensitivity Value to "7".



- b. Attach the GBS ECU Bracket to the GBS ECU as shown.



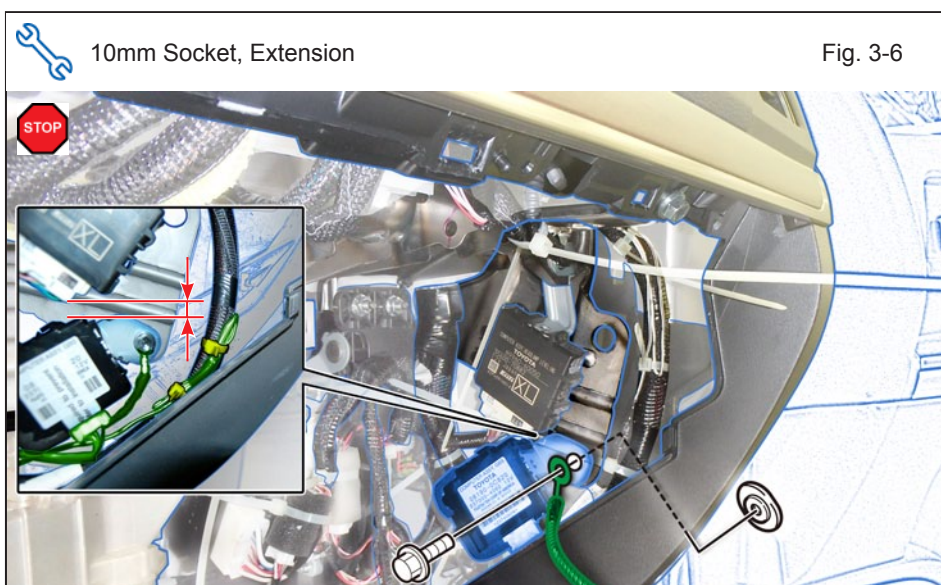
- c. Cut Foam Tape in Half.
- d. Cut 1/2 Foam Tape in Half to form 1/4 Pieces of Foam Tape.



- e. Apply 1/4 Pieces of Foam Tape along the GBS ECU's corners as shown.



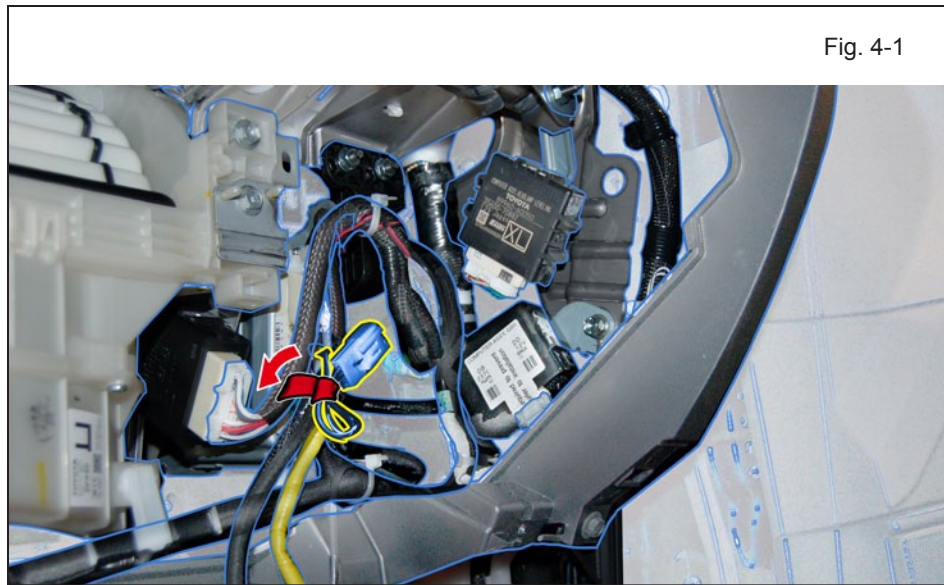
- f. Plug in the V2 White 8P Connector to the GBS ECU.



- g. Install the GBS ECU and the V2 Ground Wire Terminal using the Supplied Bolt and Custom Nut as shown.

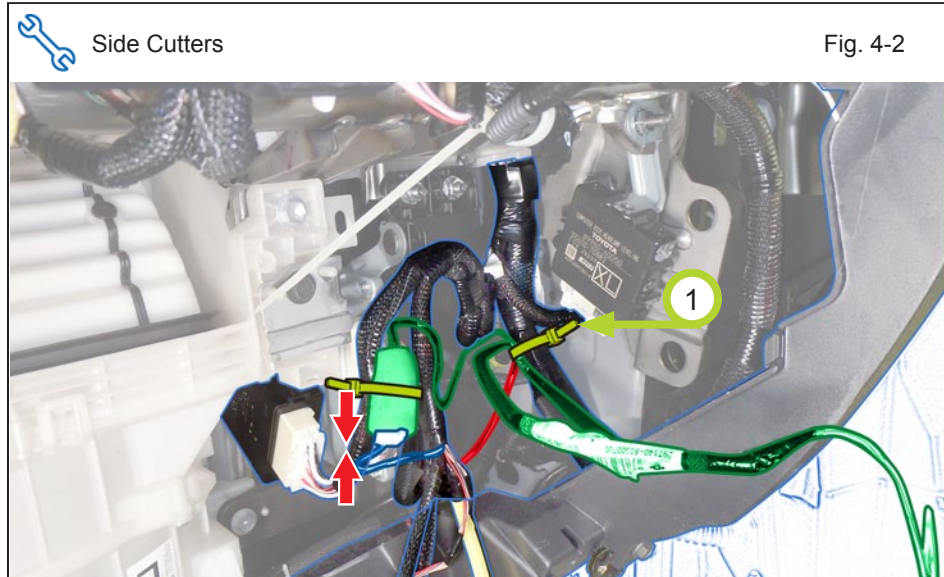
Torque: 8 N•m (71 in•lbf)

- STOP** NOTE: Make sure the ground wire is secured facing downward with no stress at crimp.
- STOP** NOTE: Make sure the Guide Pin is seated correctly to ensure the GBS ECU remains clear from the surrounding ECU as shown.
- STOP** NOTE: Verify that the Bolt is tightened securely.

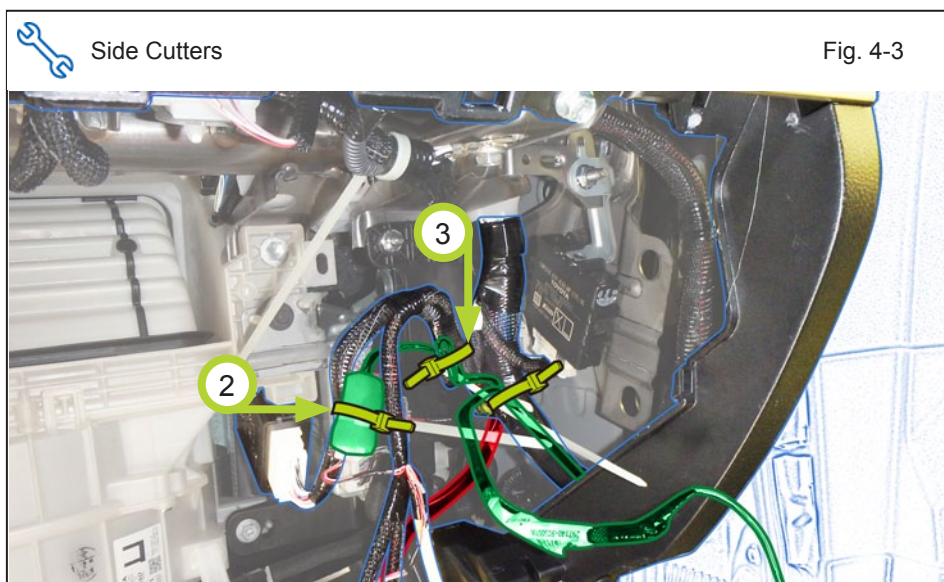


4. V2 Harness Installation.

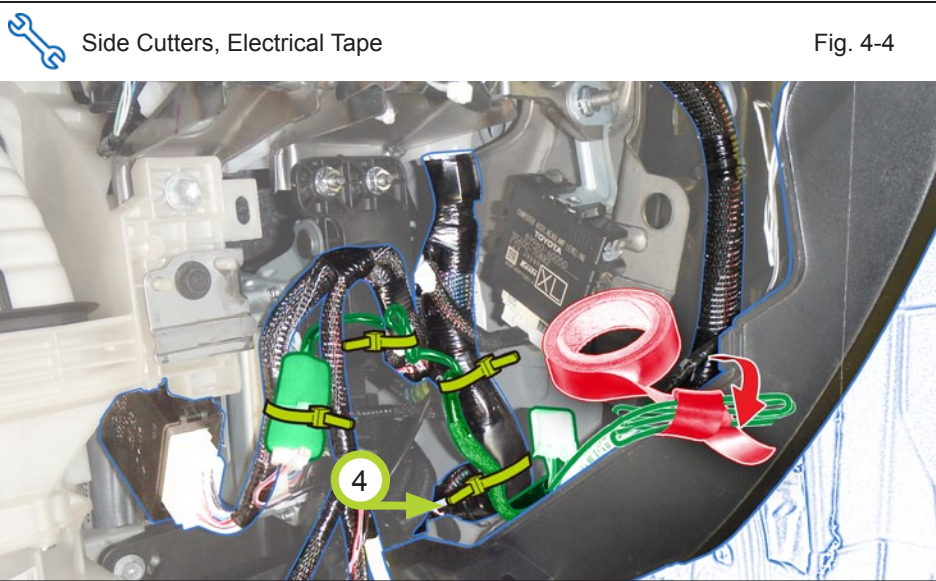
- a. Locate the Vehicle's 3P White Pre-Connector and remove the tape securing it.



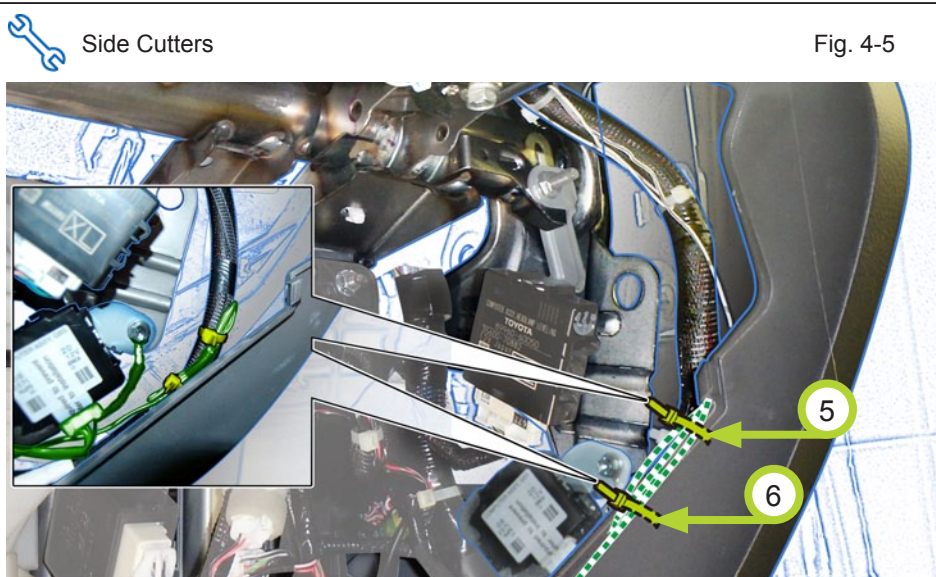
- b. Connect the V2 3P White Connector to the Vehicle's 3P Pre-Connector.
- c. Secure the V2 Harness to the Vehicle Harness with 1 Wire Tie.



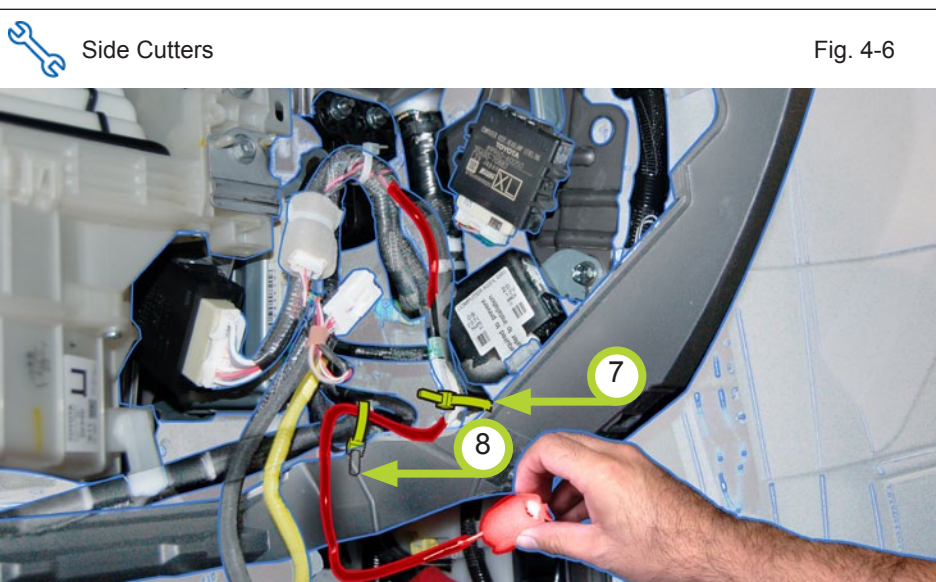
- d. Secure the 3P White Connectors to the Vehicle Harness with 1 Wire Tie.
- e. Secure the excess V2 Harness to the Vehicle Harness with 1 Wire Tie.



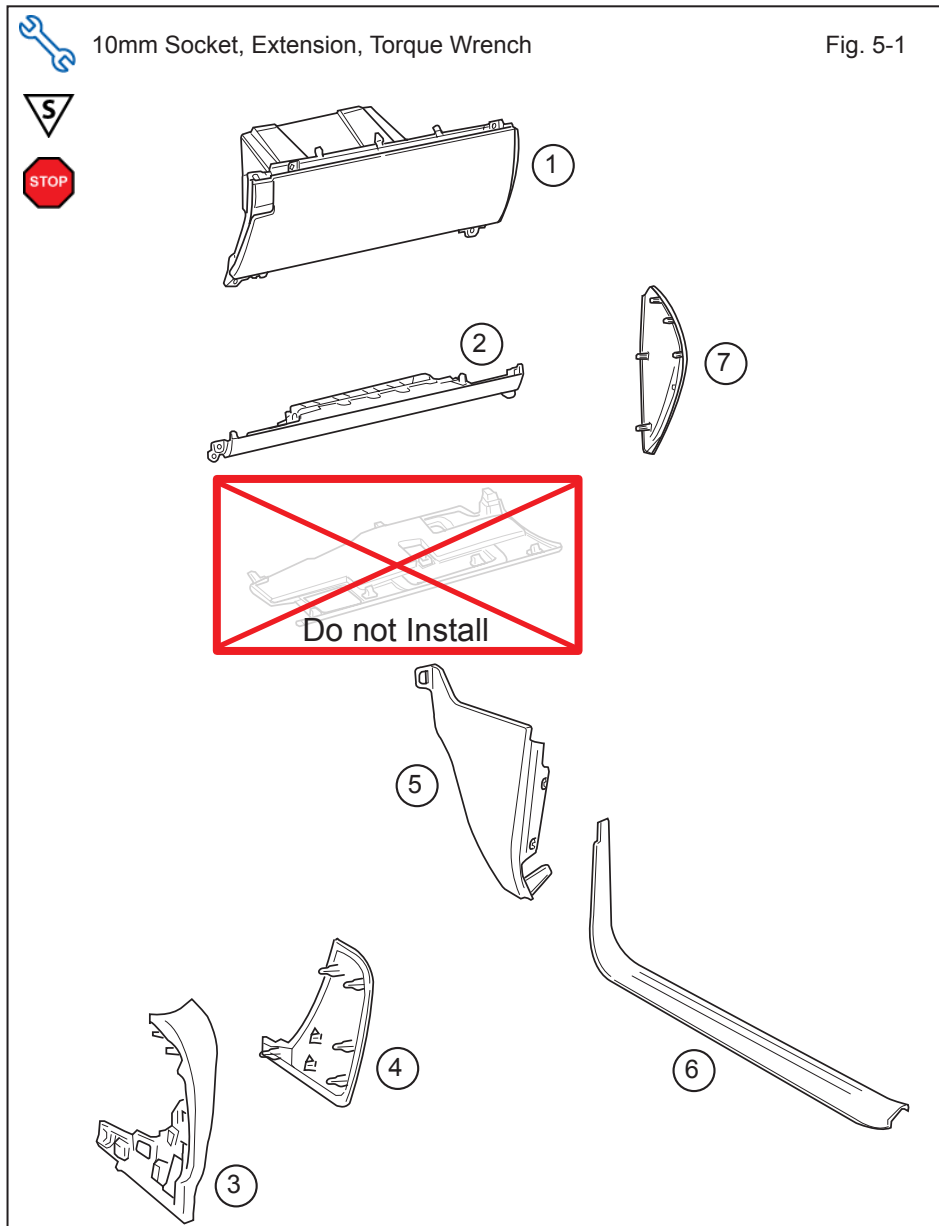
- f. Secure the V2 Harness to the Vehicle Harness using 1 Wire Tie.
- g. Secure the V2 excess Harness bundle using Electrical Tape.



- h. Secure the V2 excess Harness to the Vehicle Harness with 2 Wire Ties as shown.



- i. Secure the V2 Harness to the Vehicle Harness using 2 Wire Ties.



5. Microphone Installation.

- a. Reassemble the Vehicle except for Glove Box undercover.

STOP NOTE: When reinstalling Knee Airbag, make sure to securely tighten the Bolts.

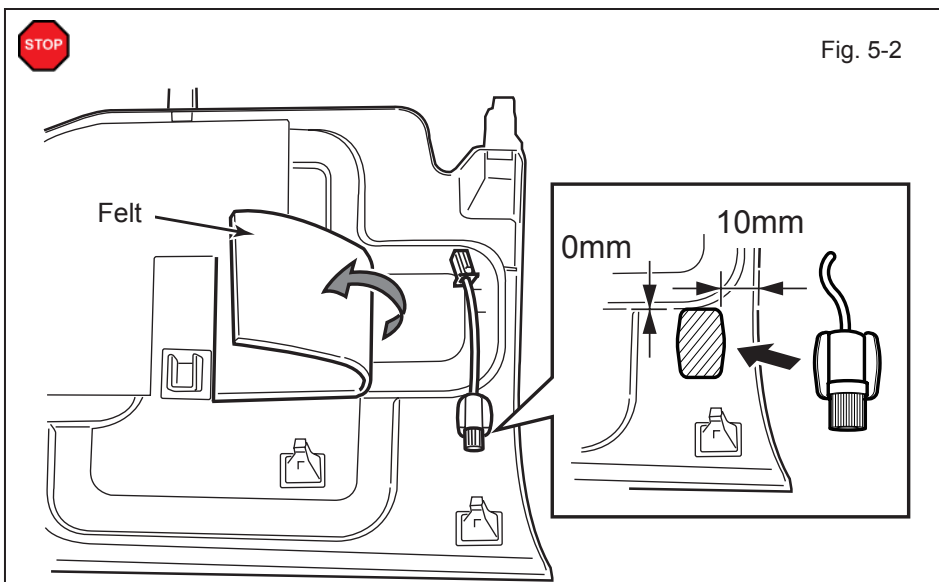
S Torque: 12 N•m (108 in•lbf)

STOP NOTE: Make sure that all Connectors are reconnected.

STOP NOTE: Verify that panels fit together properly, with no uneven gaps.

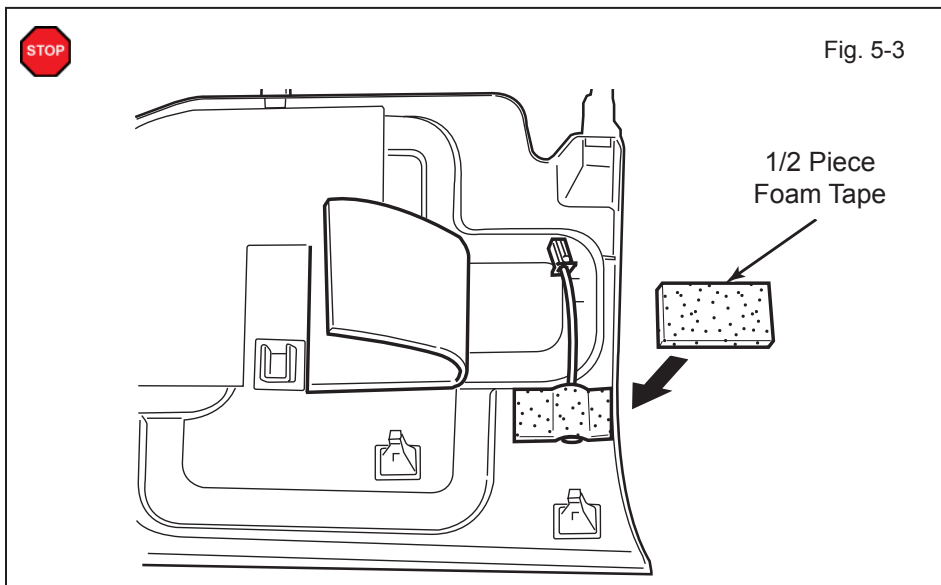
1	Glove Box
2	PS Knee Airbag
3	PS Cluster Side Panel
4	PS Knee Panel
5	PS Cowl Cover
6	PS Step Cover
7	PS Dash Cover

STOP Reconnect all Corresponding Connectors.



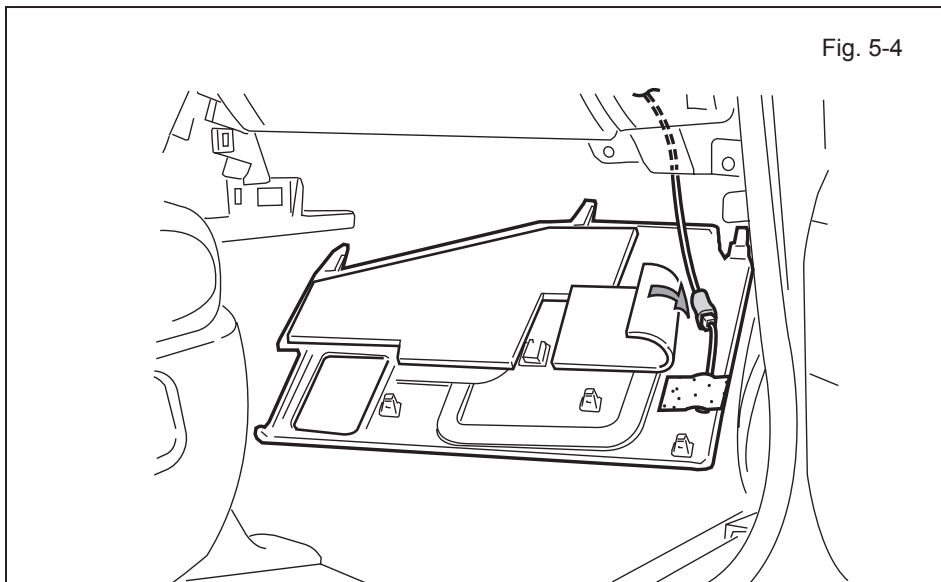
- b. Pull back the Felt.
- c. Using the VDC approved cleaner and Cleaning Method, clean the area indicated on the backside of the Glove Box Under Cover.
- d. Attach the GBS Microphone to the backside of the Glove Box Under Cover as shown.

STOP NOTE: Make sure to align GBS Mic in reference to the Illustration.



- e. Apply 1/2 Foam Tape to the GBS Microphone as shown.

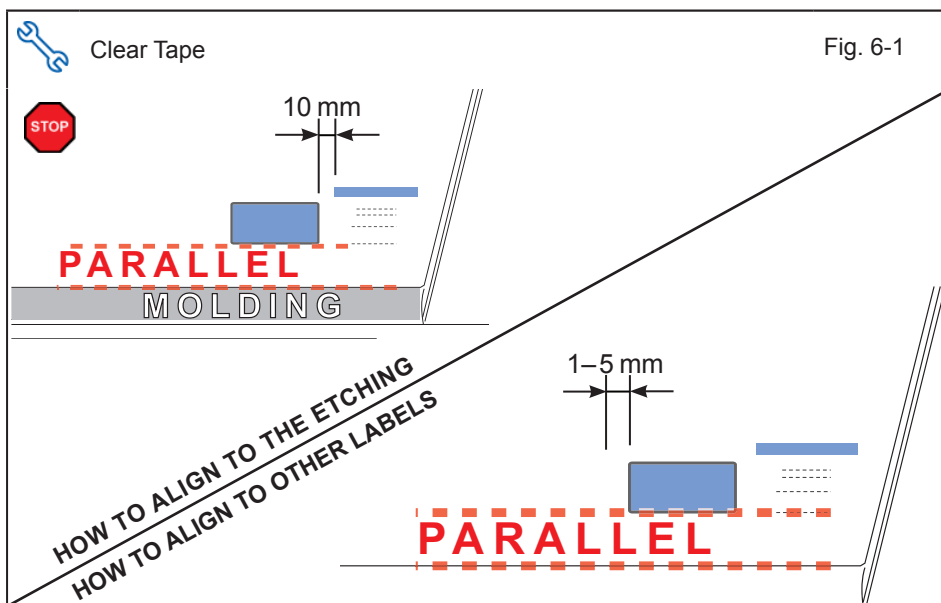
STOP NOTE: Make sure not to cover the Microphone's opening with the Foam Tape.



- f. Connect the V2 Harness's 2P White Connector to the GBS Microphone's 2P White Connector.
- g. Refit the Felt to the Glove Box Under Cover.
- Reconnect all connectors.
- h. Reinstall the Glove Box Under Cover.

6. Window 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. Use VDC Approved Cleaner to clean the inside of the Front Door Window.

- b. Use a piece of Clear Tape to lift the Label off its protective backing.

STOP CAUTION: Do not touch the adhesive surface.

- c. Attach the Label as shown.

STOP NOTE: Make sure to Align the Label according to Etching or Other Label.

REPEAT: Steps a-c with the other Front Door Window.

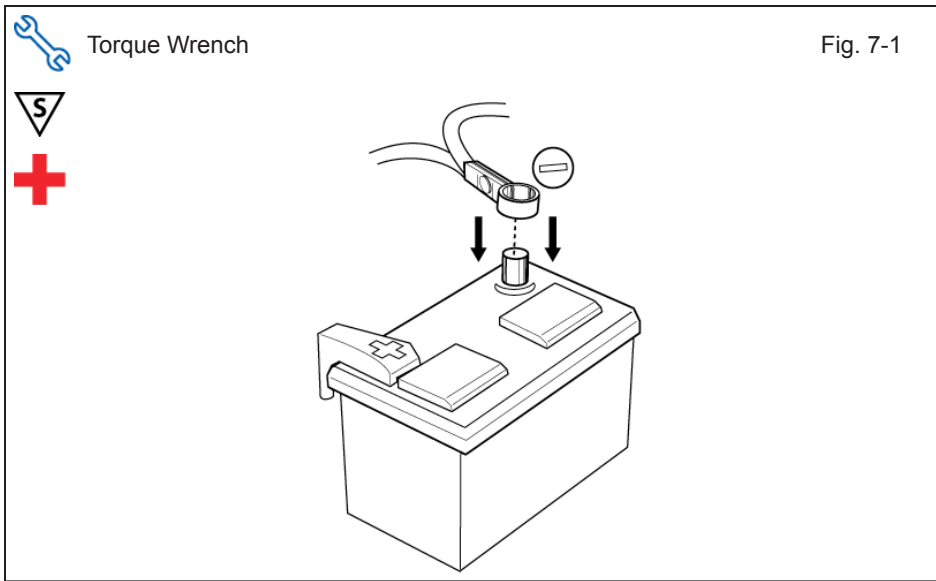


Fig. 7-1

7. Complete the Installation.

- a. Position the Negative Battery Cable at the original factory position.



Torque: 48 in•lbf (5.4 N•m)



CAUTION: Do not touch the Positive Terminal.

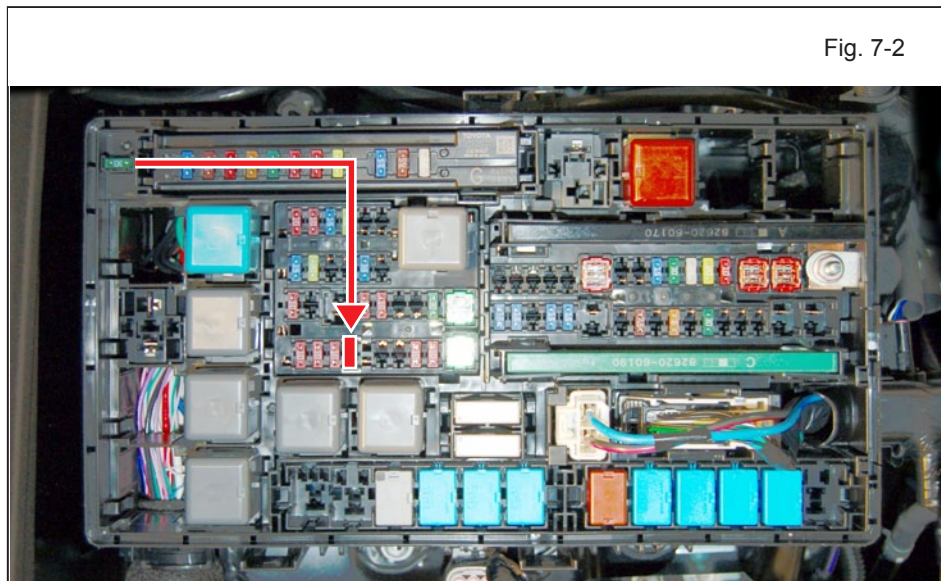


Fig. 7-2

- b. Install the D/C Cut Fuse (30A) in the location shown.
- c. Clean up and Remove trash.
- d. Sealed in its protective bag, place the Owner's Guide in the Glove Box.



STOP

Accessory Function Checks

Close the hood, roll up all windows, and exit the vehicle with the remote.



Take out the Smart Key and the Smart Card Key from the Vehicle. Place them 15 feet (4.5 meters) or more away from the Vehicle.

Perform		Look For
1	Press the Smart Key's Lock button to start the system's arming process.	The turn signal lights flash once. All doors lock. The Security LED lights up.
2	Wait 30 seconds.	Security LED starts flashing; the system is now armed.

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

3	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.	The horn sounds repeatedly. The headlights flash repeatedly. The turn signal lights flash repeatedly. The Security LED lights up.
4	Insert the key into the driver's door key cylinder and turn it toward the back of the vehicle to stop the alarm.	The horn stops sounding. All the lights stop flashing and/ or turn off. The Security LED lights up.



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 still 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 20 seconds. It is not necessary to check the alarm duration.

Vehicle Appearance Check

Perform		Look For
<input type="checkbox"/>	After accessory installation and removal of protective cover(s), perform a visual inspection of the vehicle.	Ensure no damage (including scuffs and scratches) was caused during the installation process. (For PPO installations, refer to TMS Accessory Quality Shipping Standard.)









Vehicle Function Checks

Function	Function
----------	----------

Enter the Vehicle

<input type="checkbox"/> Dome/Courtesy Lights	<input type="checkbox"/> Illuminated Door Sill
---	--

Start the Vehicle

<input type="checkbox"/> Panel/Switch Illumination	<input type="checkbox"/> Gauges
<input type="checkbox"/> Check Engine Light <i>If the warning light remains on, it may indicate a system malfunction.</i> 	<input type="checkbox"/> ABS Light (if equipped) <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> 	<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"/> Seat Belt Warning Light <i>If the warning light remains on, it may indicate a system malfunction.</i> 	<input type="checkbox"/> Tire Pressure Monitoring System (TPMS) <i>Prior to TPMS activation and Pre-delivery Service (PDS) of the Vehicle the TPMS light will blink when IG is turned on.</i> <i>After TPMS activation and PDS of the Vehicle the TPMS light will illuminate for a few seconds and go off when IG is turned on.</i> 
<input type="checkbox"/> Air Bag Warning Light <i>If the warning light remains on, it may indicate a system malfunction.</i> 	
<input type="checkbox"/> Cruise Control Light (if equipped) 	

Using a Mirror or Assistant check the following.

<input type="checkbox"/> Trunk/Tailgate/Bed Lights (if equipped)	<input type="checkbox"/> Tail Lights
<input type="checkbox"/> Brake Lights	<input type="checkbox"/> Daytime Running Lights (if equipped)
<input type="checkbox"/> Backup Lights	<input type="checkbox"/> Marker Lights
<input type="checkbox"/> Clearance Sonar (if equipped)	<input type="checkbox"/> Power Back Door/Hatch (if equipped)

Stop the Engine, Place the Vehicle's IG in the ON position.

<input type="checkbox"/> Hazard Lights	<input type="checkbox"/> Turn Signal Lights
<input type="checkbox"/> Head Light	<input type="checkbox"/> Fog Lights (if equipped)
<input type="checkbox"/> High Beams	<input type="checkbox"/> Accessory Controls/Illumination (if equipped)
<input type="checkbox"/> Power Side Mirrors (if equipped)	<input type="checkbox"/> Convenience Memory Settings (if equipped)
<input type="checkbox"/> Power Sliding Door (if equipped)	<input type="checkbox"/> Rear Sunshade (if equipped)

Function		Function	
<input type="checkbox"/>	Front Wiper/Washer	<input type="checkbox"/>	Rear Wiper/Washer (if equipped)
<input type="checkbox"/>	Power Sun/Moon Roof (if equipped)	<input type="checkbox"/>	Rollover Side Curtain Air Bag Switch (RSCA) (if equipped)
<input type="checkbox"/>	Clock (if equipped)	<input type="checkbox"/>	Navigation System (if equipped)
<input type="checkbox"/>	Audio/Video (if equipped)	<input type="checkbox"/>	USB Connections (if equipped)
<input type="checkbox"/>	Steering Wheel Audio Control (if equipped)	<input type="checkbox"/>	HVAC
<input type="checkbox"/>	Front Windshield Defogger (if equipped)	<input type="checkbox"/>	Rear Window Defogger (if equipped)
<input type="checkbox"/>	Side Mirror Defogger (if equipped)	<input type="checkbox"/>	Accessory Power Socket (if equipped)
<input type="checkbox"/>	Horn	<input type="checkbox"/>	Heated/Vented Seats (if equipped)
<input type="checkbox"/>	Glove Box Light (if equipped)	<input type="checkbox"/>	Trunk or Back Door/Hatch Cancel Switch (if equipped)
<input type="checkbox"/>	Passenger Side Foot Lamp		
<input type="checkbox"/>	Power Locks (if equipped)	<input type="checkbox"/>	Power Windows (if equipped)
<input type="checkbox"/>	Power Seats (if equipped)	<input type="checkbox"/>	Key Sensor Buzzer

Remove the D/C Cut (30A) Fuse after Function Check.
Check with your Port/Dealer to see if this step is necessary.

