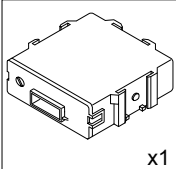
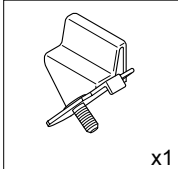
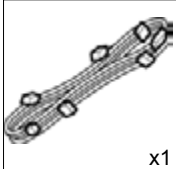
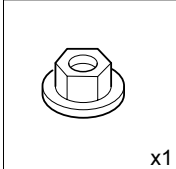
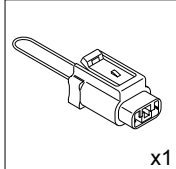
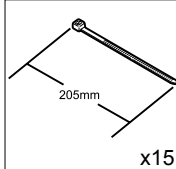
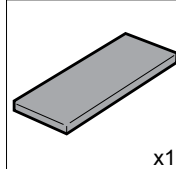
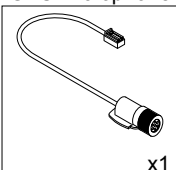
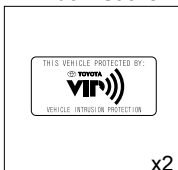
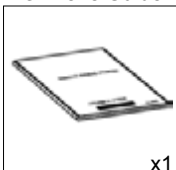


Part #: PT398-47120

Conflicts:

Will not program with Techstream Lite.

Kit Contents

<p>GBS ECU</p>  <p>x1</p> <p>08190-0C820</p>	<p>GBS ECU Bracket</p>  <p>x1</p>	<p>V5 Harness</p>  <p>x1</p>	<p>M6 Nut</p>  <p>x1</p>	<p>Jumper Connector</p>  <p>x1</p>	<p>Wire Tie</p>  <p>205mm</p> <p>x15</p>	<p>Foam Tape</p>  <p>x1</p>
<p>GBS Microphone</p>  <p>x1</p> <p>08192-6C820</p>	<p>Window Sticker</p>  <p>x2</p> <p>00107-VIPWS</p>	<p>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	
Techstream	Use latest version on TIS (Do not use Techstream Lite)
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	
Torque Wrench	Battery: 48 in•lbf (5.4 N•m), Ground Bolt: 61~87 in•lbf (6.9~9.8 N•m)
Tape	Clear, Electrical
Socket	10mm, extension
Special Chemicals	
Cleaner	VDC Approved Cleaner
Glass Cleaner	Household Glass Cleaner

Table of Contents

I. Preparation	1-4
1. Table of Contents	2
2. Wire Routing Overview	3
II. Procedure	5-27
1. Preparation.	5
2. Vehicle Disassembly.	10
3. GBS ECU Preparation.	11
4. V5 Harness Installation.	12
5. Microphone Installation.	20
6. Registration	21
7. Complete the Installation.	26
III. Checklist	28-31
1. Accessory Function Checks.....	28
2. Vehicle Function Checks.....	30

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.
-  Video available; click to play.
-  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.

c. Remove the Luggage Board.

d. Remove the DS Luggage
Side Board.

e. Remove the PS Luggage
Side Board.

f. Remove the Luggage Storage Box.

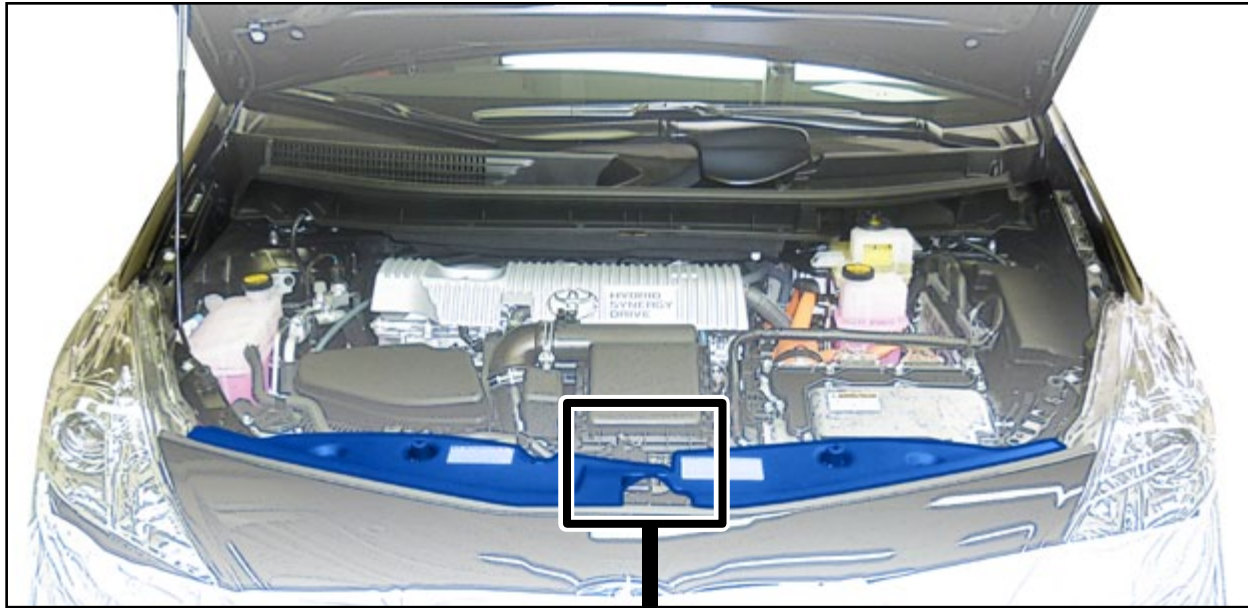
g. Remove the PS Luggage Side Storage Box.

h. Disconnect the Negative Battery Terminal.

- Protect the Fender.
- Note the Battery Cable Position as it will be re-installed in the same position.

 **CAUTION:** Do not touch the Positive Terminal.

Check if Hood Switch is installed



V4 is Installed

With Hood Switch

(Go to Section 2 on page 10)

V4 not Installed

Without Hood Switch

(Continue steps below)

Without Hood Switch

- i. Remove the Tape securing the Vehicle's Hood Switch Pre-Connector Harness.
 - Remove 3 Tapes.

j. Connect the Jumper Connector to the Vehicle's Hood Switch Pre-Connector.

k. Use 1 Wire Tie to secure the Hood Switch Connectors.

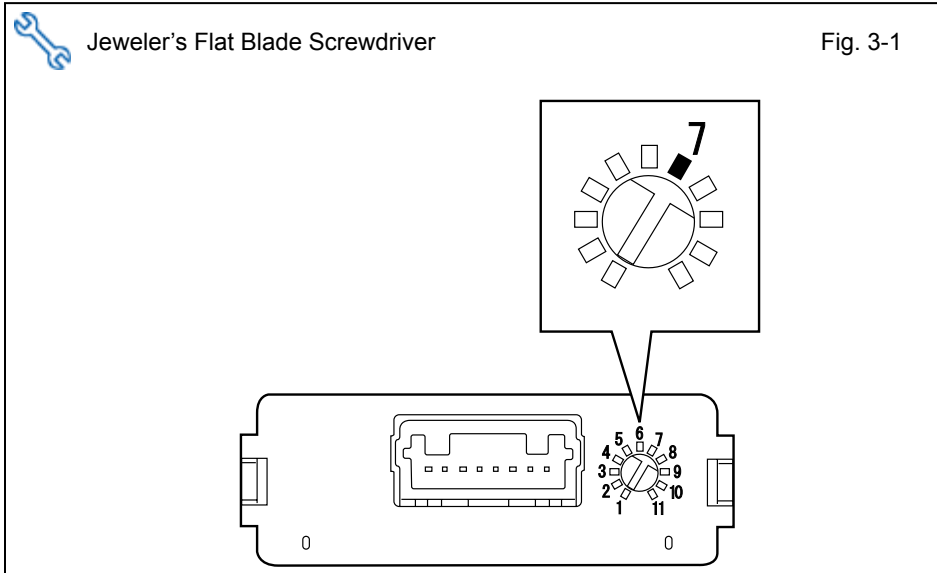
2. Vehicle Disassembly.

- a. Remove the Passenger's Side Step Cover.

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

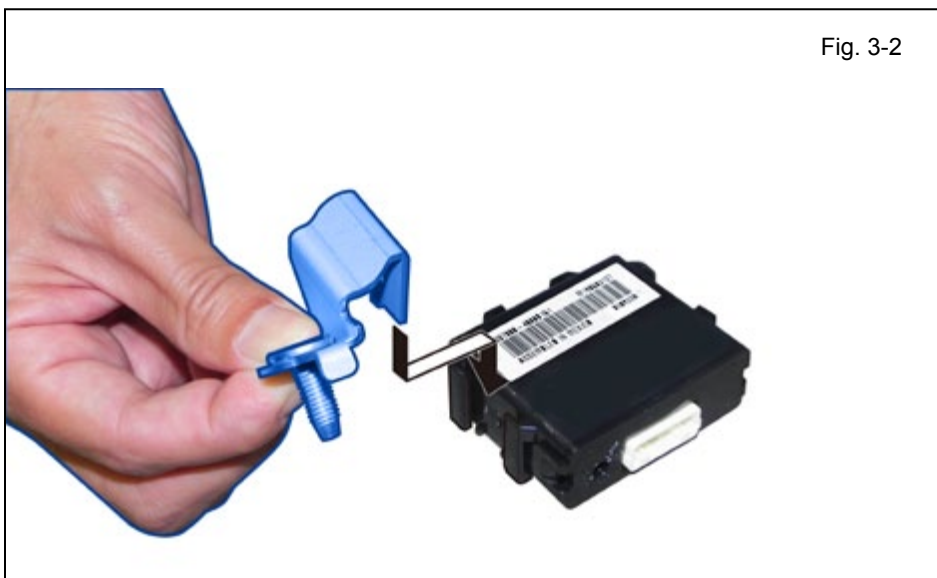
- c. Remove the Glove Box Under Cover.
 - Disconnect the Under Cover Light Connector.

- d. Disconnect the Dampener from the Glove Box.
- e. Remove the Glove Box.



3. GBS ECU Preparation.

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

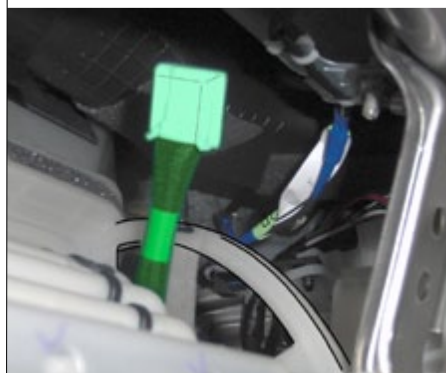


- b. Attach GBS ECU Bracket to the GBS ECU.

4. V5 Harness Installation.

- a. Route the V5 Harness toward the Glove Box area on the right side of the HVAC Unit.

- b. Route the V5 Harness behind the Vehicle's Brace and over the HVAC Unit.



NOTE: Make sure the V5 Harness is routed correctly.

- c. Place the GBS ECU on the Vehicle Brace in the Glove Box Area.



Note: Make sure to insert the GBS Bracket Stud into the Middle hole of the Vehicle Brace.

- d. Secure the GBS ECU using the supplied Nut.



Note: Make sure the Guide Pin is seated correctly and verify that the Nut is tightened securely.

- e. Plug in the V5 8P Connector to the GBS ECU.

- f. Route the V5 Harness toward the Center Cluster area.
- g. Secure the V5 Harness to the Vehicle Harness using 1 Wire Tie.
- h. Secure the V5 Harness to the Vehicle's Brace using 1 Wire Tie.



- i. Secure the V5 Harness to the Vehicle Brace using 1 Wire Tie.

- j. Remove the Vehicle's Ground Terminal Bolt.



NOTE: Do not remove the Vehicle's Ground Terminal.

- k. Secure the V5 Ground Terminal to the Vehicle using the same Bolt.



NOTE: Torque the Ground Bolt to 61~87 in•lbf (6.9~9.8 N•m). ||

- l. Secure the V5 Harness to the Vehicle Harness using 1 Wire Tie.

- m. Secure the V5 Harness to the Vehicle's Brace using 1 Wire Tie.

- n. Secure the V5 Harness's White Tape Marker next to the Vehicle Harness Clamp with 1 Wire Tie.
- o. Secure the V5 Harness to the Vehicle Harness using 1 Wire Tie.

- p. Route the V5 Harness toward the Passenger's Side Cowl Cover area.
- q. Secure the V5 Harness to the Vehicle Harness using 2 Wire Ties.



NOTE: Affix the V5 Connector horizontally on top of the Vehicle Harness as shown.

- r. Secure the V5 Harness to the Vehicle Harness using 1 Wire Tie.

V5 ONLY

s. Secure the V5 8P Connector to the Vehicle Harness using 1 Wire Tie.

t. Plug in the V5 White 8P Connector to the Vehicle's 8P Pre-Connector.

u. Secure the V5 Harness to the Vehicle Harness using 1 Wire Tie.

V5/V4 Add-on ONLY

v. Cut the Wire Tie securing the V4 Harness.

w. Disconnect the V4 White 8P Connector from the Vehicle's Connector Block.

x. Plug the V4 8P Connector to the V5 8P Connector.

V5 ONLY

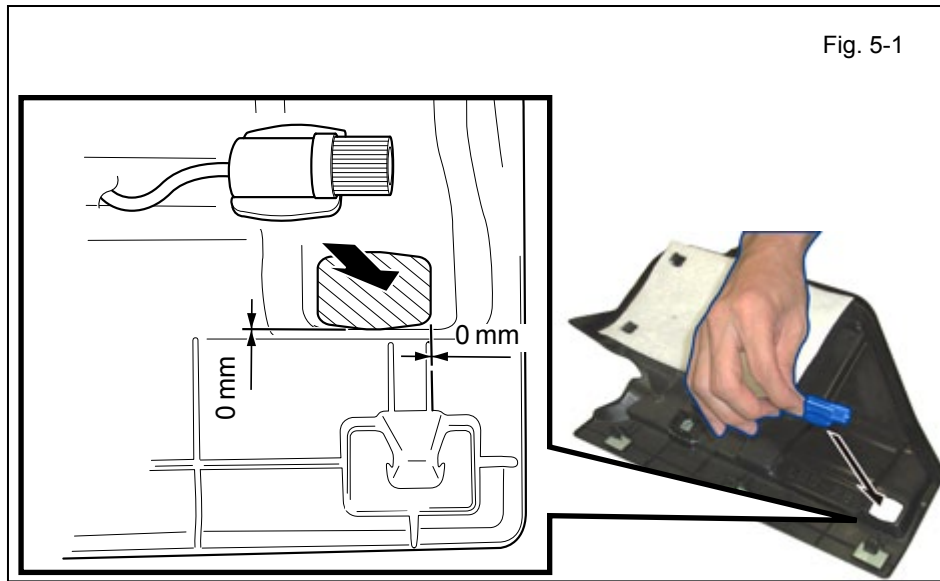
- ab. Secure the V5 2P Connector to the Vehicle Harness using 1 Wire Tie.
- ac. Secure the Vehicle Harness to the Vehicle Harness using 1 Wire Tie.

V5/V4 Add-on ONLY

- ad. Connect the V4 Black 2P Connector to the V5 Black 2P Connector.

- ae. Secure the V5 2P Connector to the Vehicle Harness using 1 Wire Tie.
- af. Secure the V4 Harness to the Vehicle Harness using 1 Wire Tie.



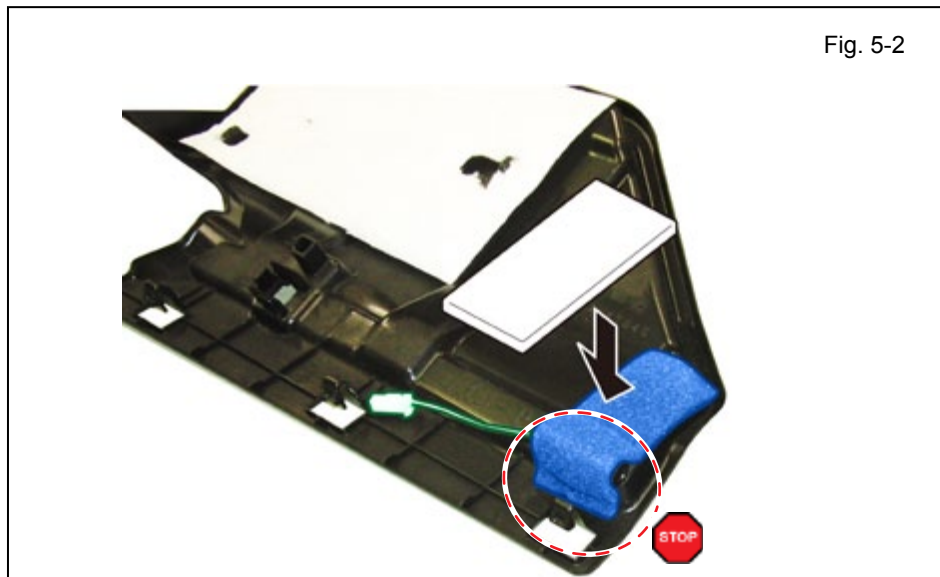


5. Microphone Installation.

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



NOTE: Make sure to align GBS Microphone to the Glove Box Under Cover.



- c. Apply 1 Foam Tape to the GBS Microphone as shown.



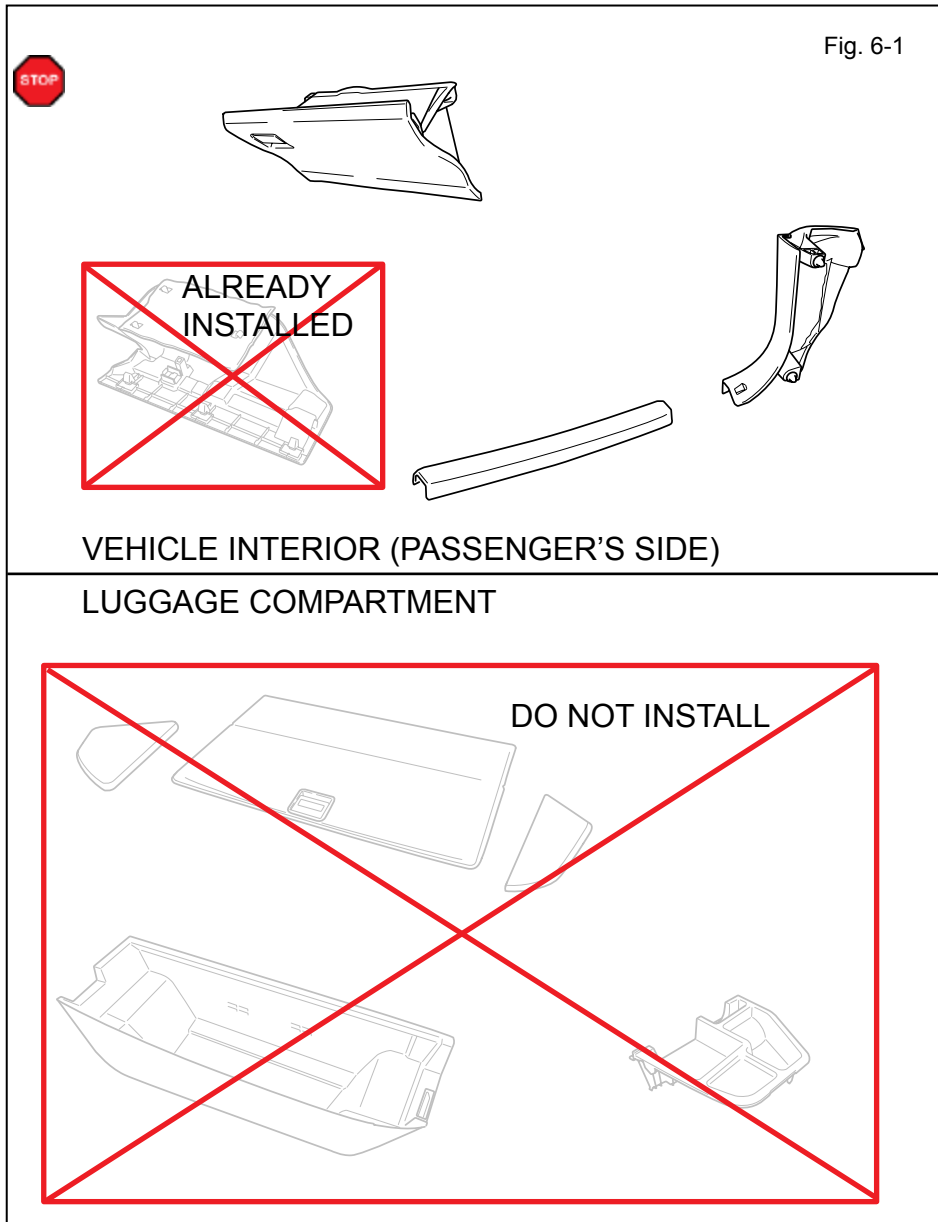
NOTE: Make sure not to cover the Microphone's opening with the Foam Tape.



NOTE: Make sure not to cover the Clip with the Foam Tape.

- d. Plug the GBS Microphone's 2P Connector to the V5 White 2P Connector.

- e. Connect the V5 Black 2P Connector to the Glove Box Under Cover's Black 2P Connector.
- f. Reinstall the Glove Box Under Cover.



6. Registration.

- a. Reassemble the Vehicle.



NOTE: Make sure that all Connectors are reconnected.



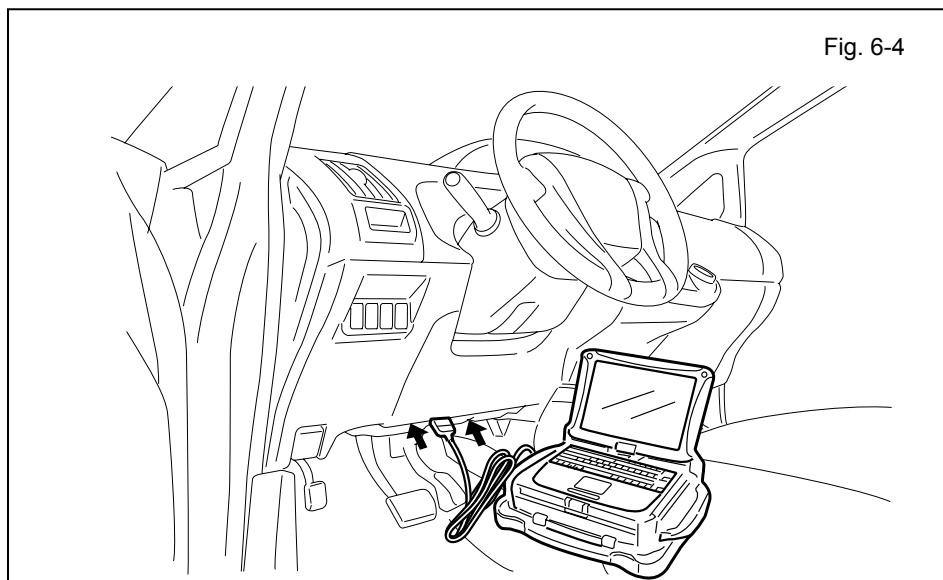
NOTE: Verify that all panels fit together properly, with no uneven gaps.

- b. Verify that the Short Pin is installed.
 - If not install now.

- c. Temporarily reconnect the Negative Battery Cable.



CAUTION: Do not touch the Positive Terminal.



CAUTION: Techstream Lite will not work for this section, use the Techstream Notebook ONLY.

- d. Connect the Techstream Notebook to the Vehicle's Diagnostic Port.
- e. With the Smart Key in your possession, press the Power Button twice to select the Ignition "ON" position.

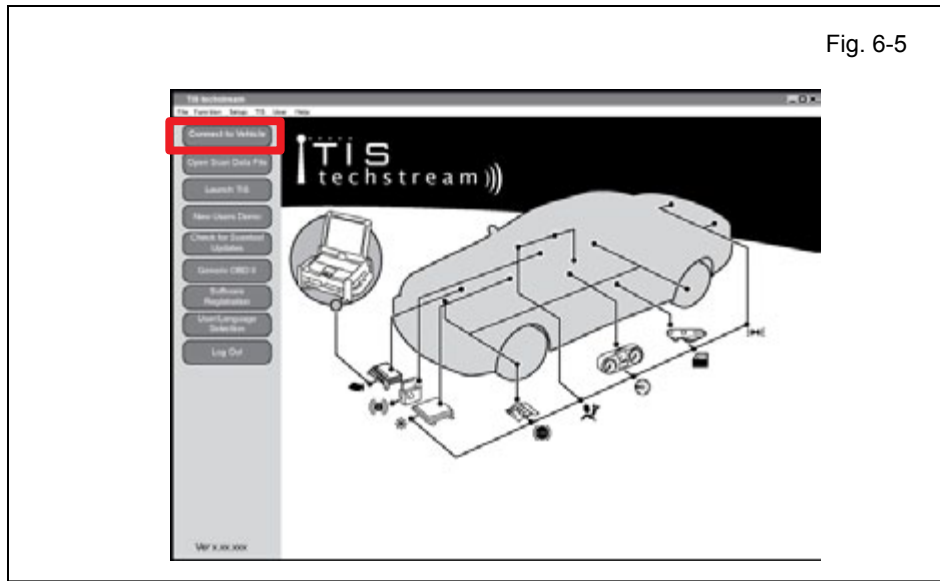


Fig. 6-5

- f. Start the TIS Techstream Application by clicking on the shortcut located on the Desktop.
- g. Click “Connect to Vehicle.”

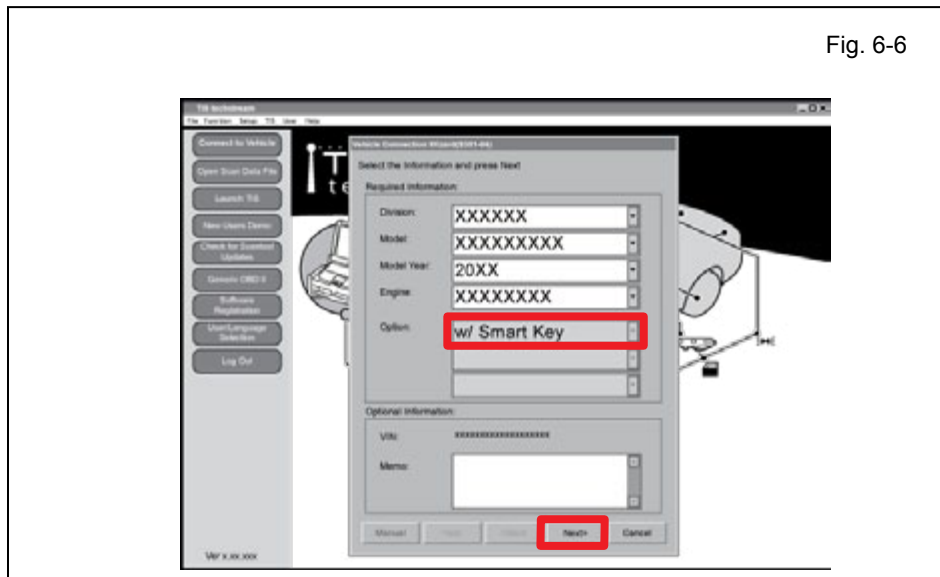


Fig. 6-6

- h. Confirm that the information displayed on the Vehicle Connection Wizard is correct for the vehicle. If not, verify that the Techstream is properly connected.
- i. Select “w/Smart Key.”
- j. Click “Next>.”

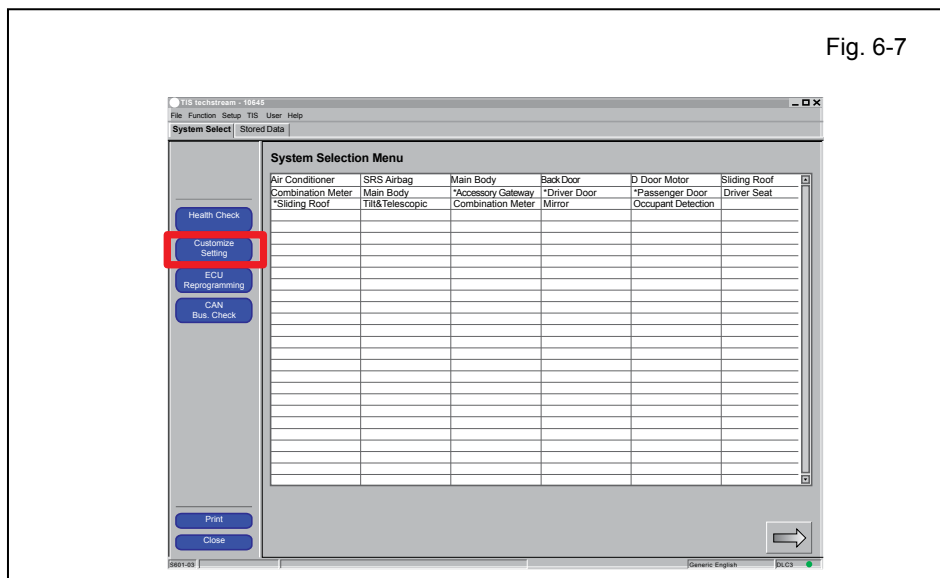
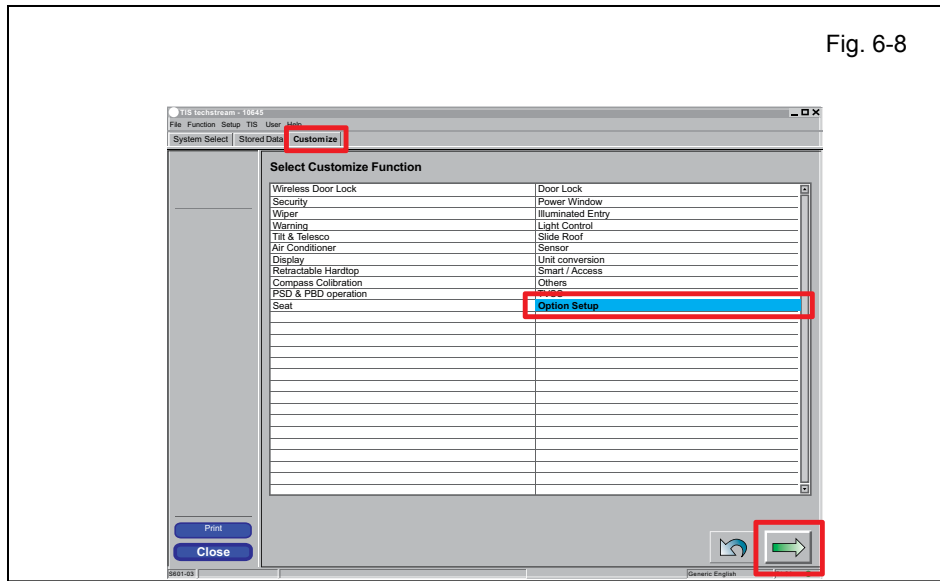

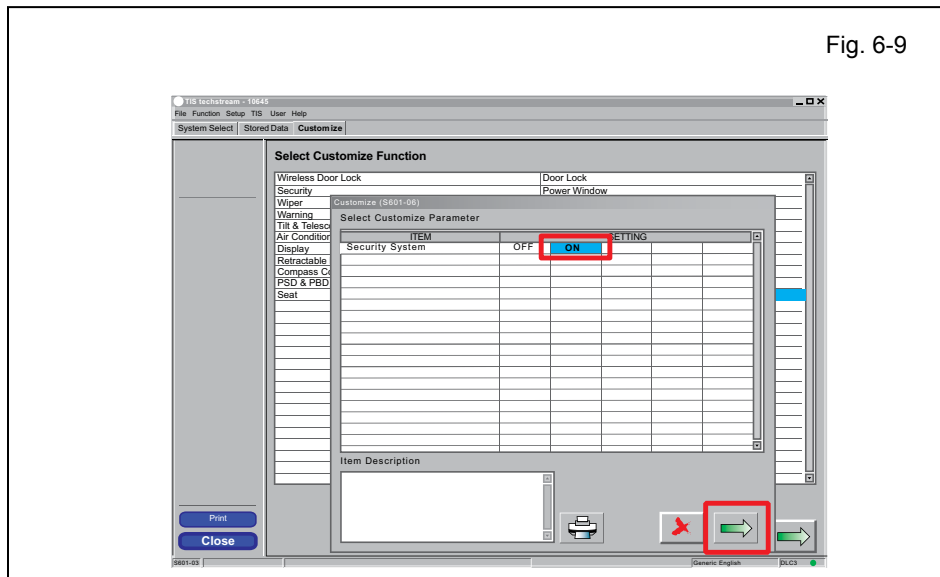


Fig. 6-7

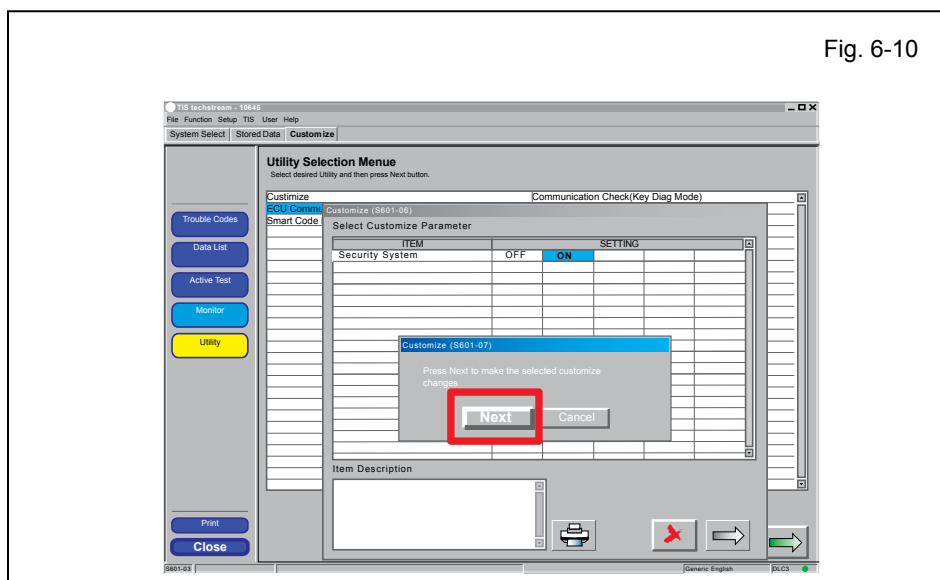
- k. Click “Customize Setting.”



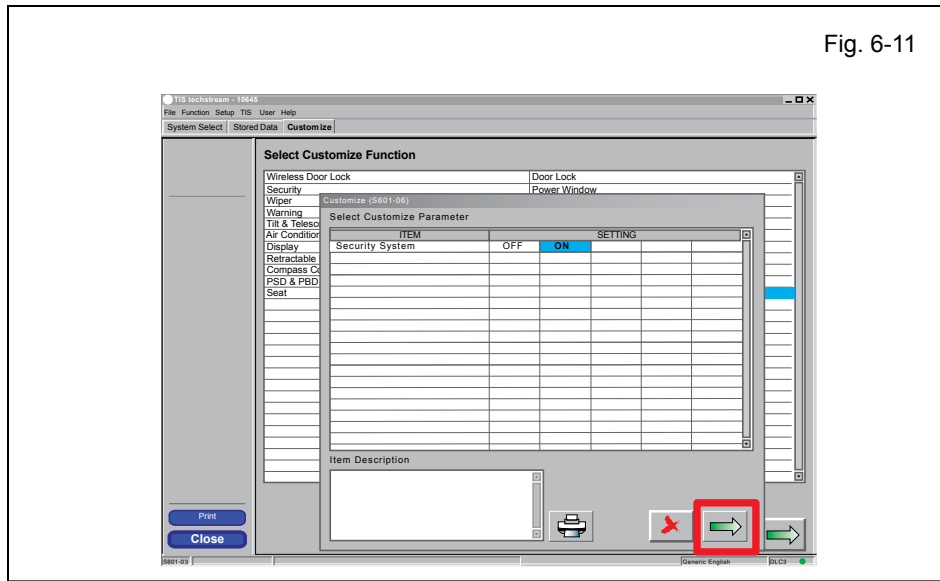
- l. Make sure that the “Customize” tab is selected.
- m. Select “Option Setup.”
- n. Click 



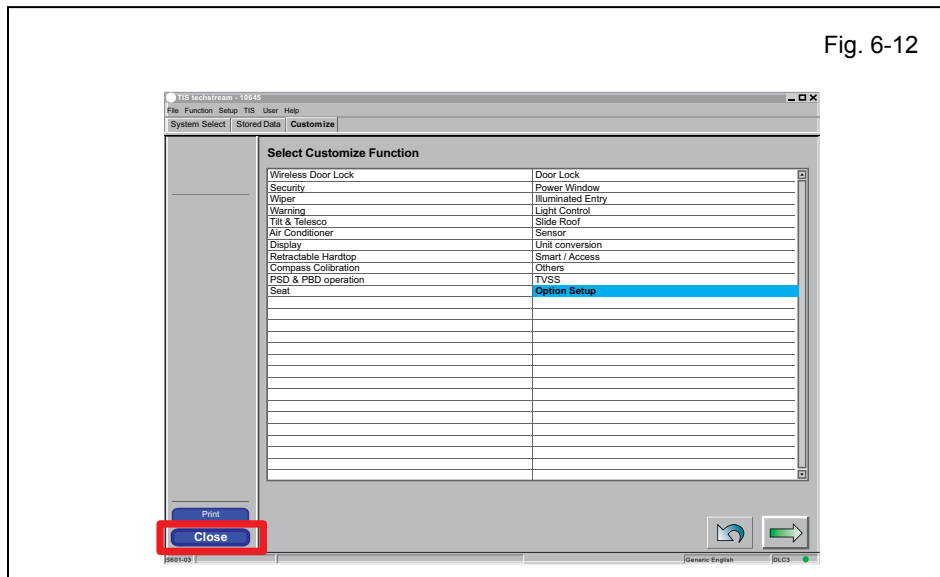
- o. Select “ON.”
- p. Click 



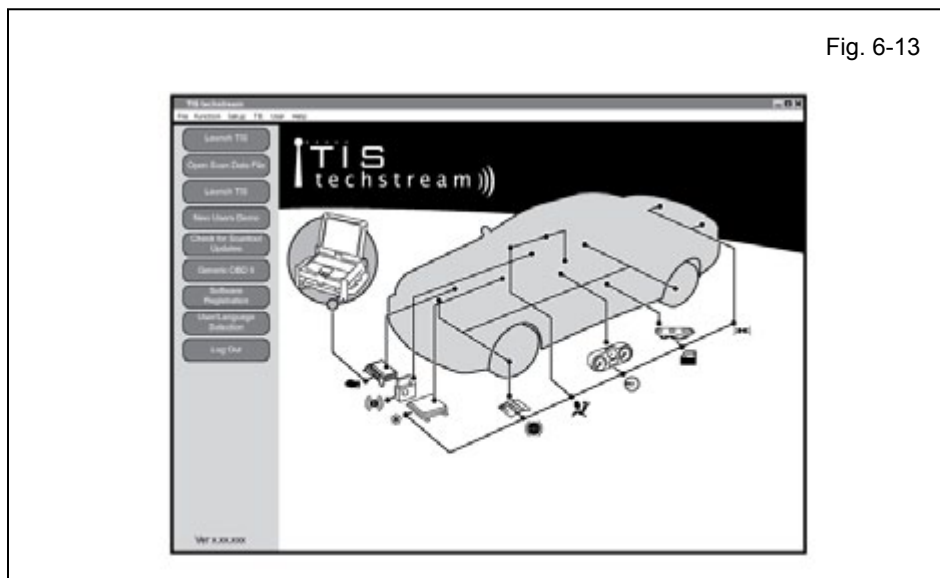
- q. Click “Next” to accept the changes to the Vehicle.



r. Click 



s. Click "Close."



t. Click 

7. Complete the Installation.

- a. Use Household Glass Cleaner to clean the inside of the Front Door Windows.
- b. Use a piece of Clear Tape to lift the Label off its protective backing.



CAUTION: Do not touch the adhesive surface.

- c. Attach the Label as shown.



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

REPEAT: steps a-c with the other Window.

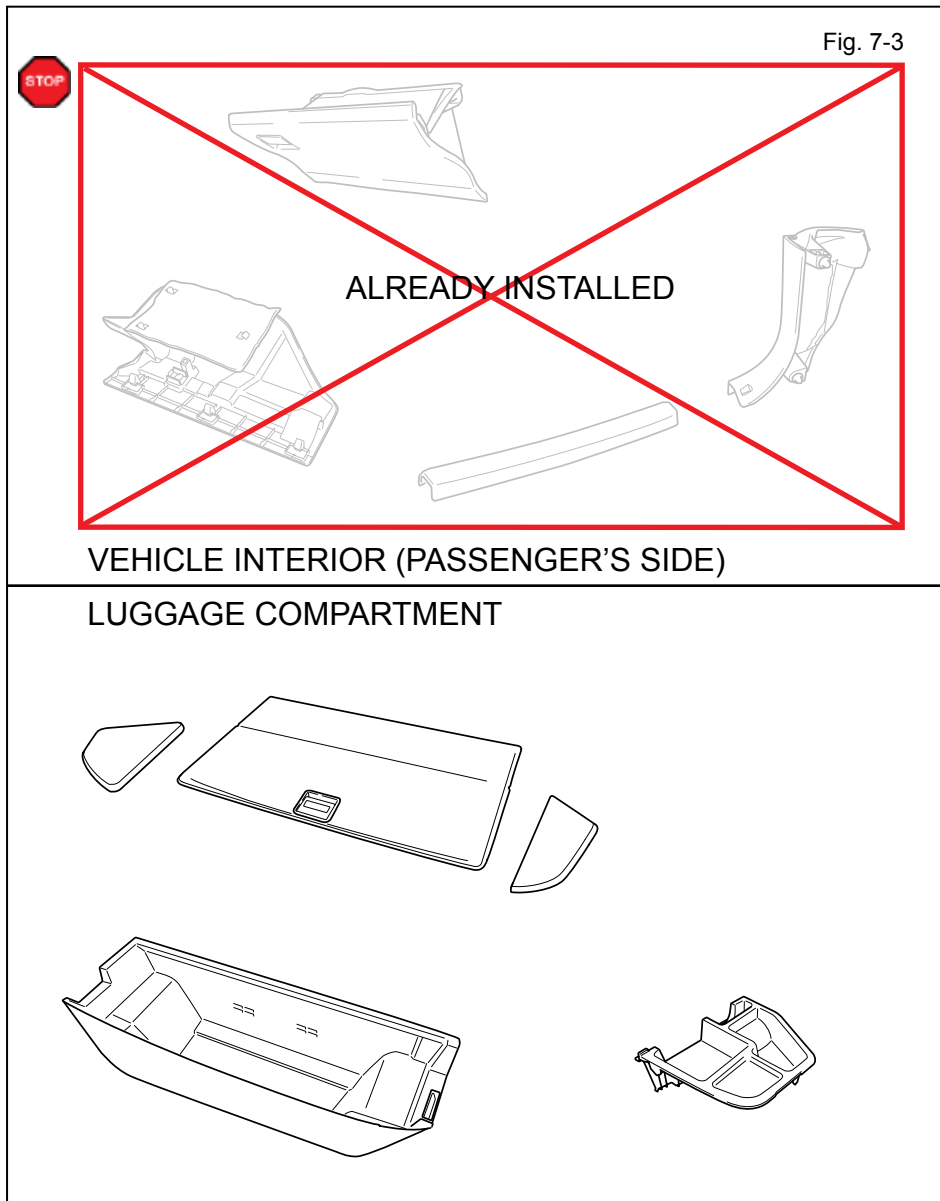
- d. Position the Negative Battery Cable at the original factory position.



- Tighten the Nut to 48 in•lbf (5.4 N•m)



CAUTION: Do not touch the Positive Terminal.



e. Finish reassembling the Vehicle.



VERIFY: That panels fit together properly, with no uneven gaps .



VERIFY: That all Connectors are plugged in.

f. Clean up and Remove trash.

g. Sealed in its protective bag, place the V5 Owner's Manual in the Glove box.

h. Reset the power windows.

- Turn the ignition "ON".
- Lower the Windows halfway.
- Pull up on the Power Window Switches until the windows close.
- Continue to hold up on the switches for a minimum of 1 Second.

i. Reset the Moon Roof. (if equipped)

- Turn the ignition "ON".
- Open the Moon Roof halfway.
- Push and hold the Moon Roof.
- Push and hold the Moon Roof Switch to close until the Moon Roof closes.
- Continue to hold the switch for a minimum of 1 Second.

CHECKLIST – these points **MUST** be checked to ensure a quality installation.

Accessory Function Checks

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 7 ft. (2 meters) or more away from the Vehicle.

Perform		Look For
1	Press and release the remote control 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.
3	Press and release the remote control's unlock button to disarm the system.	The turn signal lights flash twice. The driver's door unlocks. The Security LED stops flashing.

Open the driver's door, with the smart key in your possession, press the power button to "ON." Roll down all the windows, remove the key and exit the vehicle.

4	Arm and disarm the system with the remote again, then wait 30 seconds.	The doors automatically relock. The system automatically starts the arming process.
5	Press and release the remote control's unlock button again to stop the arming process.	Refer to step 3
6	Press the lock button on the driver's exterior door handle to start the arming process.	All doors lock. The Security LED lights up.
7	Wait 30 seconds.	Security LED starts flashing; the system is now armed.
8	Reach inside and manually unlock the driver's door to trigger an alarm.	The driver's door automatically relocks. The horn sounds repeatedly. The headlights flash repeatedly. The turn signal lights flash repeatedly. The Security LED lights up.
9	Manually unlock the driver's door again and hold it unlocked, open the door, then sit in the driver's seat.	The driver's door lock attempts to lock repeatedly. The horn continues to sound repeatedly. The headlights and turn signal lights continue flashing. The Security LED remains on.
10	The smart key in your possession, press the power button twice to "START" to stop the alarm.	The horn stops sounding. All the lights stop flashing and/or turn off. The Security LED turns off. The starter cranks and the engine starts.

Press the power button to turn the vehicle off, and then exit the vehicle.

11	With the door open, press the lock switch on the door to lock the doors, then close the door to start the system's arming process.	All doors lock. The Security LED lights up.
12	Wait 30 seconds.	Security LED starts flashing; the system is now armed.

CHECKLIST – these points **MUST** be checked to ensure a quality installation.

13	Reach inside and manually unlock the front passenger’s door to trigger an alarm.	The front passenger’s door automatically relocks. The horn sounds repeatedly. The headlights flash repeatedly. The turn signal lights flash repeatedly. The SECURITY LED lights up.
14	Press and release the remote control’s unlock button to stop the alarm.	The horn stops sounding. All the lights stop flashing. The Security LED stops flashing.
15	Press and release the remote control’s lock button to start the system’s arming process, then wait 30 seconds until the system is armed.	Refer to steps 1 and 2.
16	Unlock and open one of the rear passenger doors to trigger an alarm. (if available).	Refer to step 13.
17	Press and release the remote control’s unlock button to stop the alarm.	Refer to Step 14
18	Repeat the above steps with the other rear passenger door. (if available).	Refer to steps 1, 2, and 13.

Roll up all windows, remove the key and exit the vehicle.

19	Press and release the remote control’s lock button to start the arming process.	Refer to step 1.
20	Wait 30 seconds.	After 30 seconds, the Security LED starts flashing; the system is now armed.

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

21	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.
22	Insert the key into the driver’s door key cylinder and turn it toward the back of the vehicle to stop the alarm.	Refer to Step 14



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 Glass Breakage Test, increase the GBS sensitivity to the next setting and test again.



NOTE: If V4 (RES) is installed, make sure to perform V4 Function Checks as well.

CHECKLIST – these points **MUST** be checked to ensure a quality installation.








Vehicle Function Checks

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

Enter the Vehicle

<input type="checkbox"/> Dome/Courtesy Lights	<input type="checkbox"/> Steering Wheel Column Adjusts Without Interference
<input type="checkbox"/> Horn	

Start the Vehicle

<input type="checkbox"/> Starter	<input type="checkbox"/> Gauges
<input type="checkbox"/> Panel/Switch Illumination	<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)	

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)

CHECKLIST – these points **MUST** be checked to ensure a quality installation.

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"/>	Massage Seats (if equipped)	<input type="checkbox"/>	Heated/Vented Seats (if equipped)
<input type="checkbox"/>	Glovebox Light (if equipped)	<input type="checkbox"/>	Passenger Air Bag Switch (if equipped)
<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