

Part Number: PT398-48082

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

Conflicts

Do not install into vehicles with TDS or Vehicles without Immobilizer.

Recommended Sequence of Application

Item #	Accessory	

Kit Contents

Item #	Quantity	Description
1	1	Wire Harness
2	1	V5 ECU

Hardware Bag Contents

Item #	Quantity	Description
1	1	GBS ECU Mounting Bracket
2	1	GBS ECU
3	1	V5 ECU Mounting Bracket
4	1	M6 Self-Tapping Screw
5	1	GBS Microphone
6	5	Foam Tape Strips
7	10	Wire Ties
8	1	Splicing Connector
9	2	V5 Window Label ENGLISH
10	2	V5 Window Label SPANISH
11	1	V5 Owner's Guide
12	1	Warranty Card


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 Phillips
Flat blade Screwdriver	Jeweler's
Nylon Panel Removal Tool	e.g. Panel Pry Tool #1 Toyota SST # 00002-06001-01
Side Cutters	
Torque Wrench	36 in•lbf (4.07 N•m)
Utility Knife	
Tape	Clear
Socket	10mm, Extension
Pliers	
Special Chemicals	Notes
Cleaner	VDC Approved Cleaner
Glass Cleaner	Household Glass Cleaner


Legend


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

 **SAFETY TORQUE:** This mark indicates that torque is related to safety.

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.

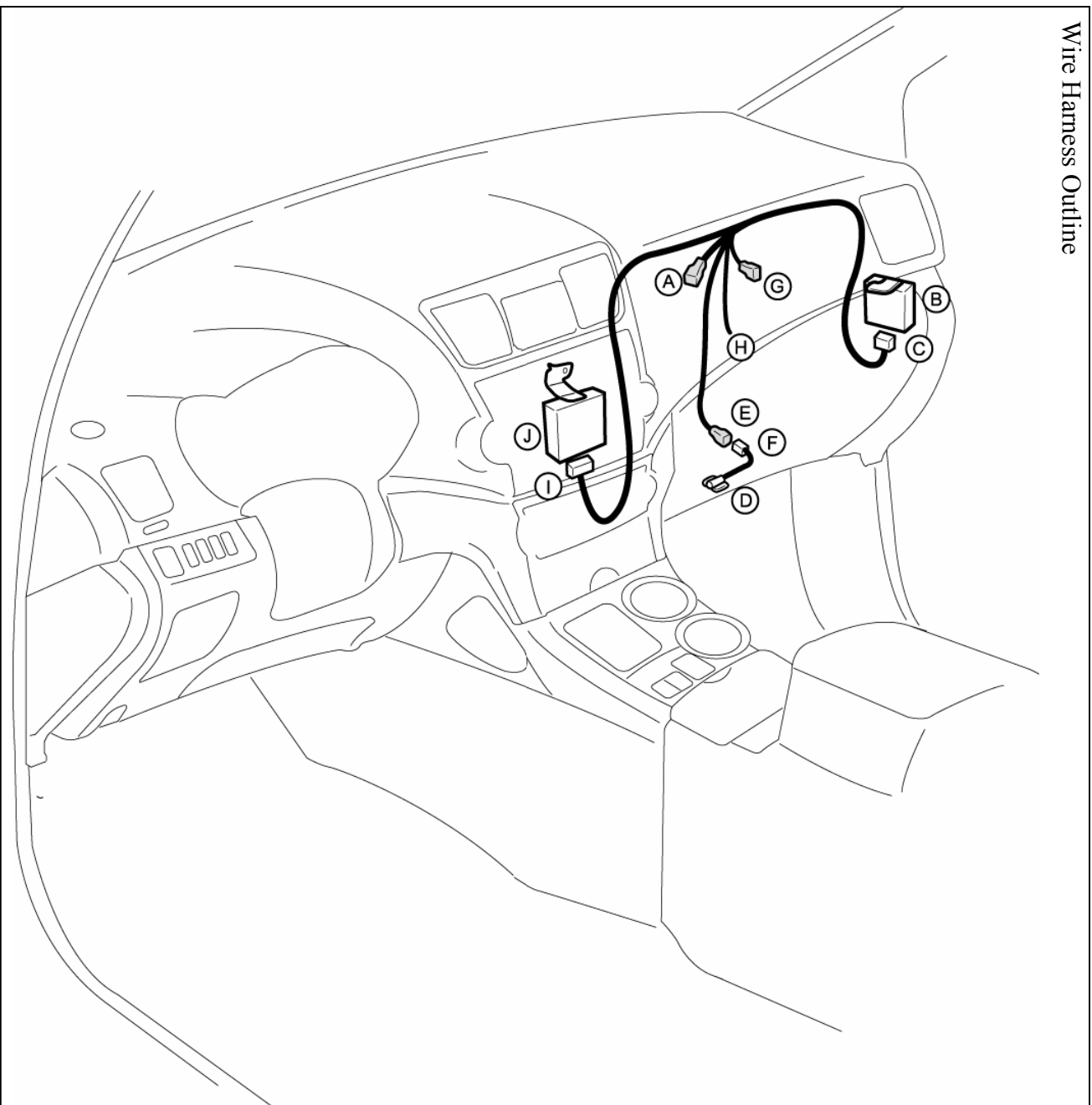
This document covers such items as:

- 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

(A)	4P WHITE <i>(Male)</i>
(B)	GBS ECU
(C)	8P WHITE <i>(for GBS ECU)</i>
(D)	GBS MICROPHONE
(E)	2P WHITE <i>(Male)</i>
(F)	2P WHITE <i>(female)</i>
(G)	2P WHITE
(H)	Wire <i>(White Wire)</i>
(I)	36P White <i>(for V5 ECU)</i>
(J)	V5 ECU

Wire Harness Outline



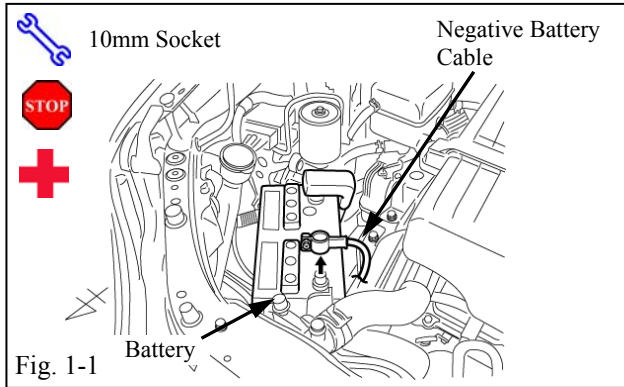
1. Vehicle Disassembly.

- +** (a) Vehicles with Automatic Transmission should be placed in Park and have the Parking Brake Set before disconnecting the Battery.

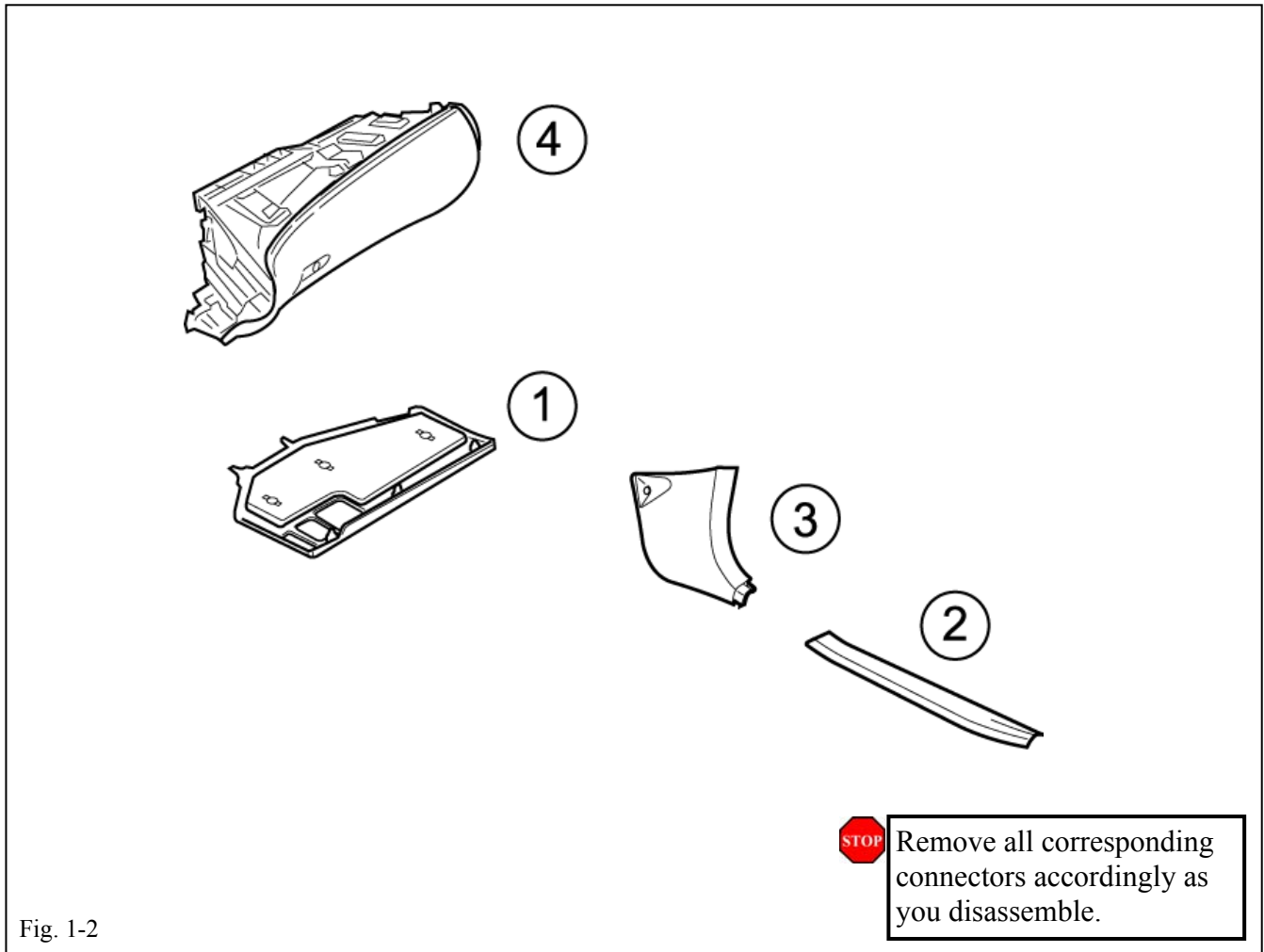
- (b) Remove the Negative Battery Cable. (Fig. 1-1)

- STOP** (1) Protect the Fender before starting.
- STOP** (2) Note the Battery Cable position, as it will be re-installed in the same position.

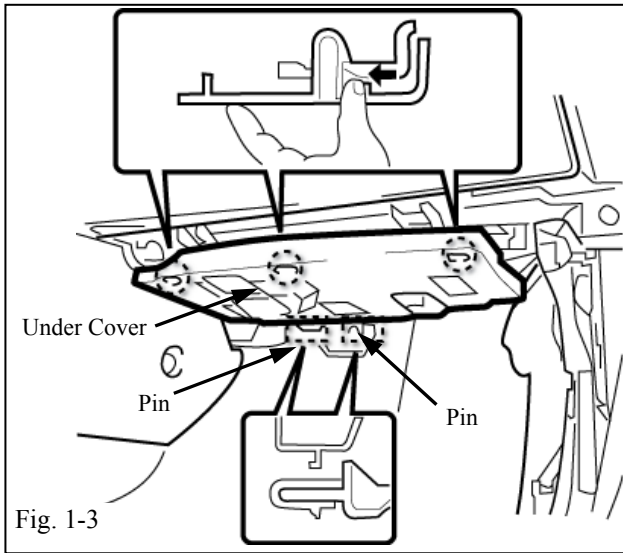
+ **CAUTION:** Do not touch the positive terminal.



Disassembly Overview



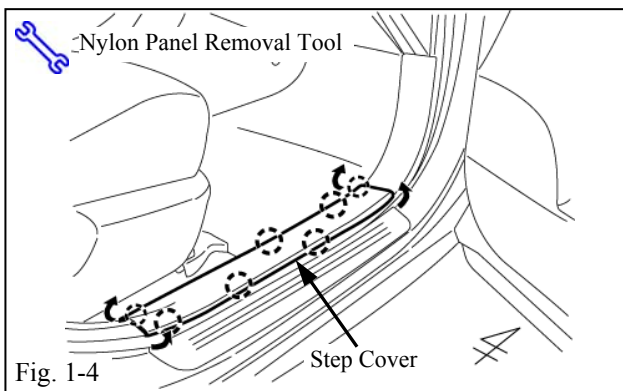
STOP Remove all corresponding connectors accordingly as you disassemble.



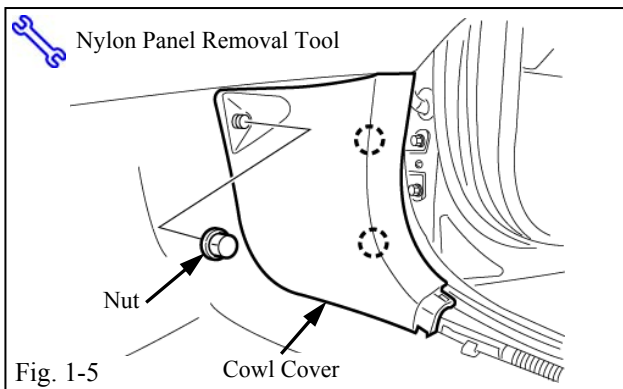
(c) Remove the Glove Box Under Cover.
(Fig. 1-3)

- (1) Disengage the 3 claws.
- (2) Pull out the 2 guides.

CAUTION: Removing the Under Cover without properly disengaging the Claws will break the Under Cover.

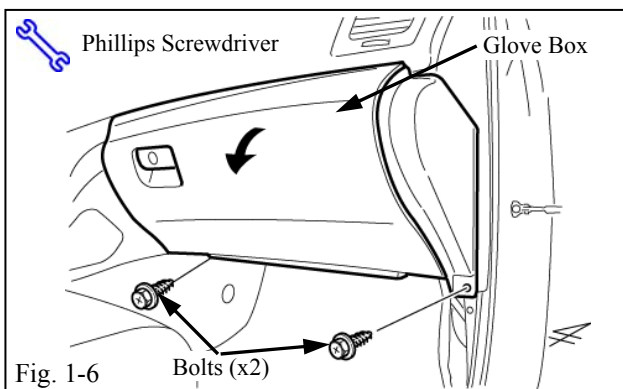


(d) Remove the Passenger's Step Cover.
(Fig. 1-4)

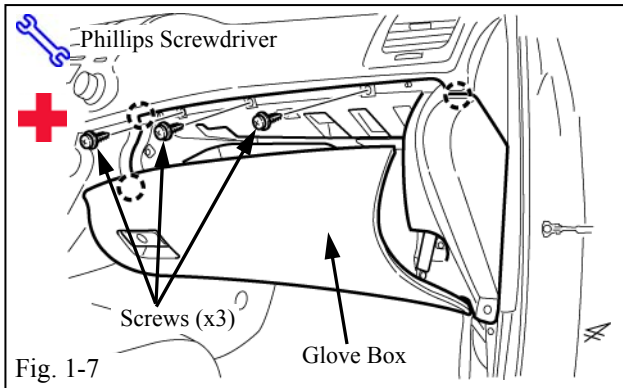


(e) Remove the Passenger's Cowl Cover.
(Fig. 1-5)

- (1) Remove 1 Nut.

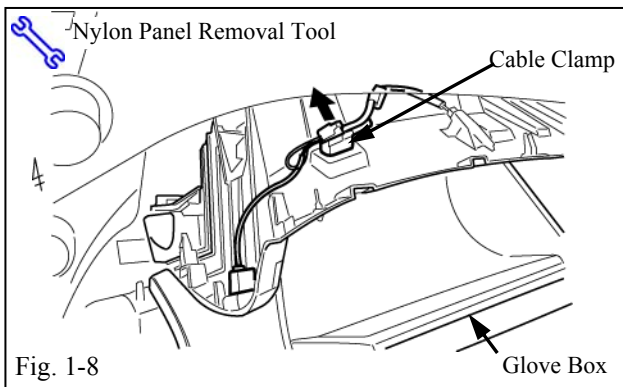


(f) Remove 2 Bolts from the Glove Box.
(Fig. 1-6)

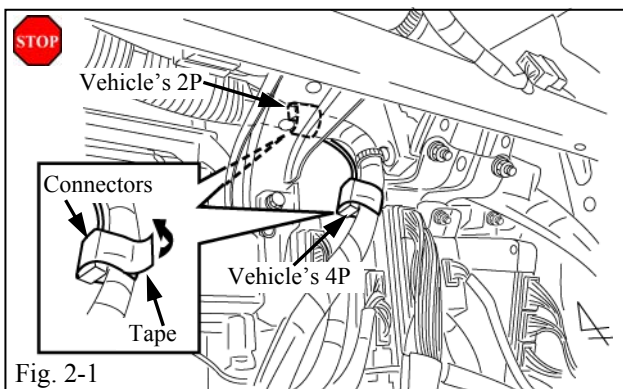


- (g) Open the Glove Box. (Fig. 1-7)
- (h) Remove 3 Screws from the Glove Box. (Fig. 1-7)
- (i) Dislodge the Glove Box. (Fig. 1-7)

+ **CAUTION:** Sharp metal edges.



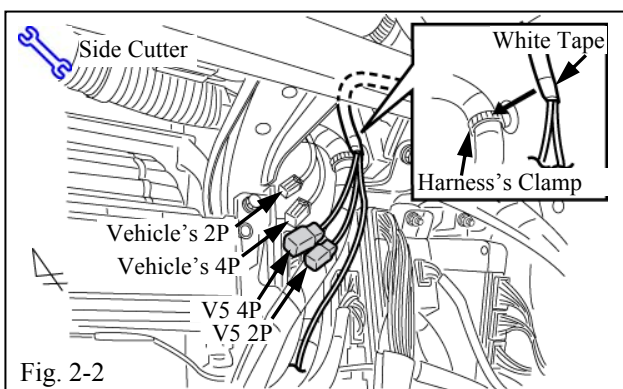
- (j) Disconnect all Connectors from the Glove Box. (Fig. 1-8)
- (k) Remove the Cable Clamp from the Glove Box. (Fig. 1-8)
- (l) Remove the Glove Box. (Fig. 1-8)



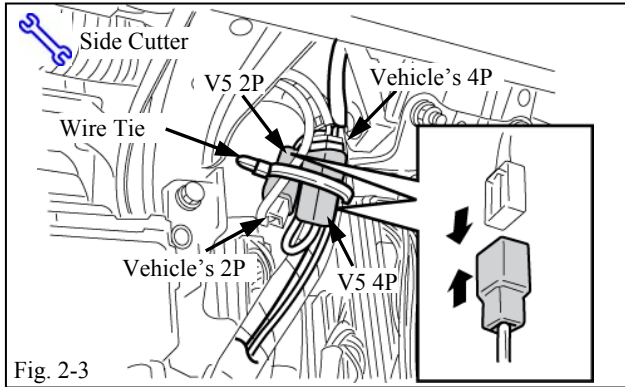
2. V5 Wire Harness Installation.

- (a) Locate and remove the Tape securing the Vehicle's 4P and 2P Pre-connectors on the upper right side of the Blower Motor Housing. (Fig. 2-1)

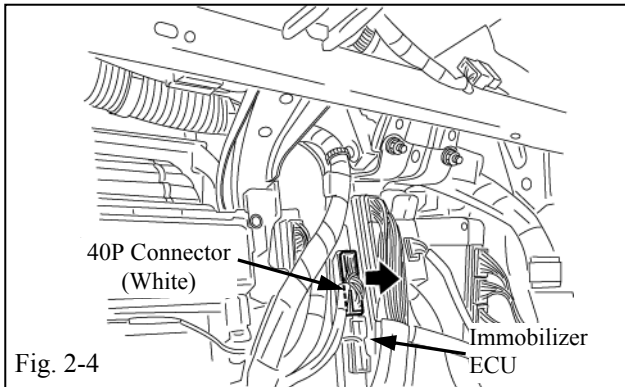
STOP **CAUTION:** There are 2 Vehicle 4P Pre-Connectors. Make sure to use the one directly above the Blower Motor Housing.



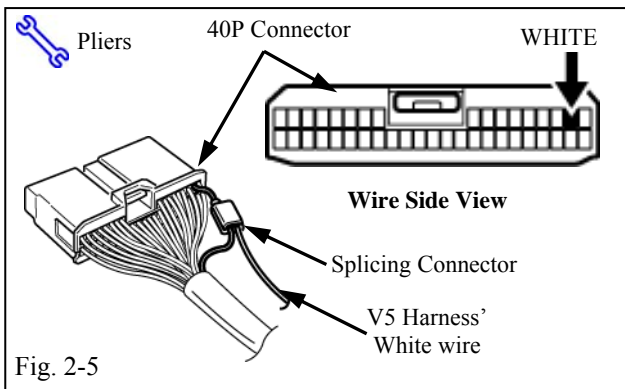
- (b) Route the V5 Harness above the Reinforcement Brace. Align the branch in the V5 Harness with the vehicle Harness Clamp. (Fig. 2-2)



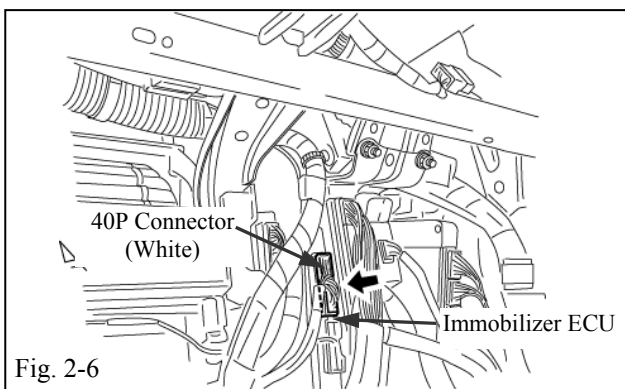
- (a) Connect the V5 Harness' 4P and 2P Connectors to the Vehicle Harness' 4P and 2P Pre-connectors. (Fig. 2-3)
- (b) Use 1 Wire Tie to secure the 2P and 4P Connectors to the Vehicle Harness. (Fig. 2-3)



- (c) Locate the Immobilizer ECU, then disconnect the White 40P Connector. (Fig. 2-4)



- (d) Connect the V5 Harness' White Wire to the 40P Connector's White Wire with a Splicing Connector. (Fig. 2-5)



- (e) Reconnect the 40P Connector to the Immobilizer ECU. (Fig. 2-6)

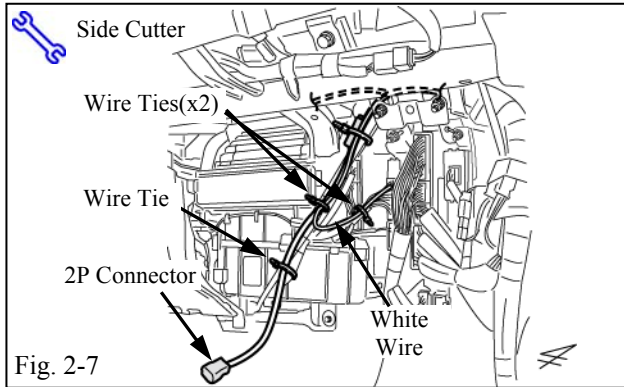


Fig. 2-7

- (f) Secure the V5 Harness' White Wire to the Vehicle Harness with 1 Wire Tie. (Fig. 2-7)
- (g) Route the V5 Harness downward to the Passenger's Floor, securing it to the Vehicle Harness with 1 Wire Tie. (Fig. 2-7)
- (h) Secure both the Main V5 Harness and the White Wire to the Vehicle Harness with 1 Wire Tie. (Fig. 2-7)

GO BACK TO THE V5 HARNESS' BRANCH PART.

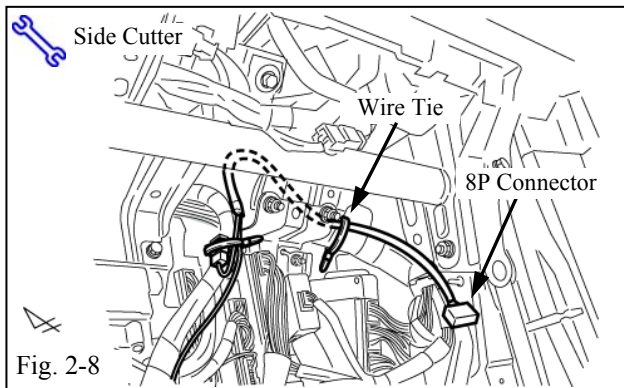


Fig. 2-8

- (i) Route the V5 Harness toward the right side of the Glove Box area securing it to the Vehicle Harness with 1 Wire Tie. (Fig. 2-8)

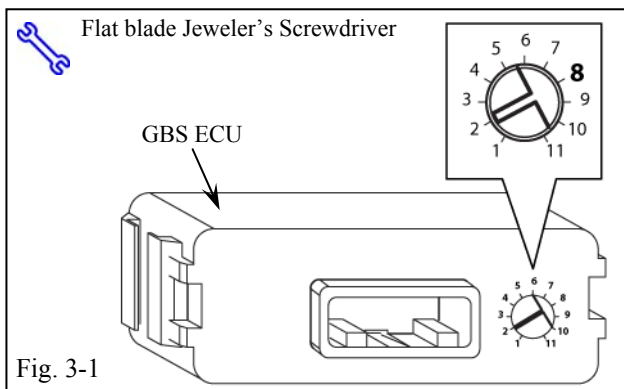


Fig. 3-1

3. GBS ECU Preparation and Installation.

- (a) Turn the sensitivity screw on the GBS ECU to the "8" position. (Fig. 3-1)
 - (1) Verify the sensitivity.

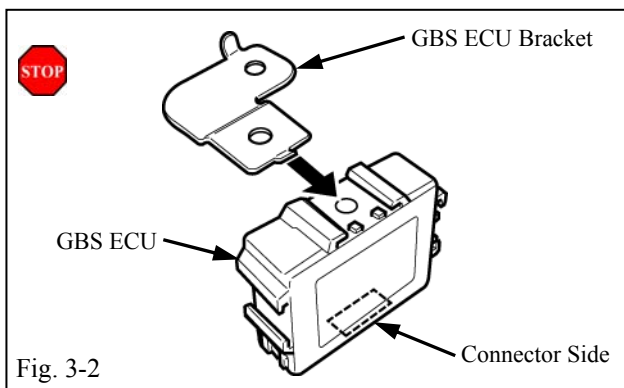
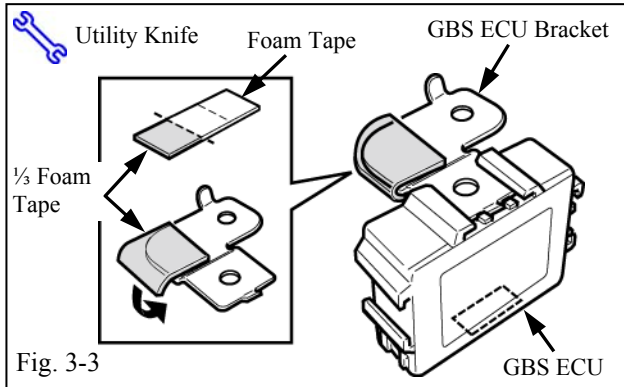
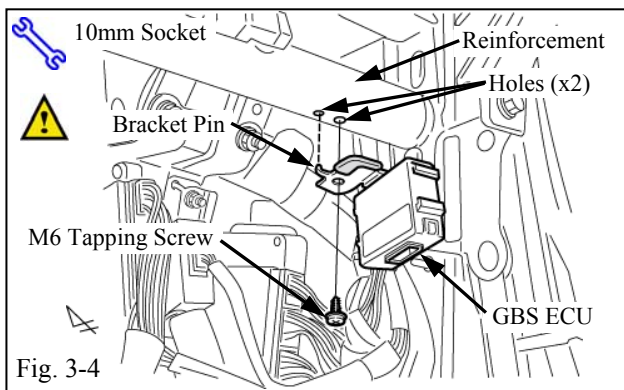


Fig. 3-2

- (a) 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.



- (b) Cut and apply 1/3 piece of the Foam Tape to the GBS ECU Bracket as shown. (Fig. 3-3)

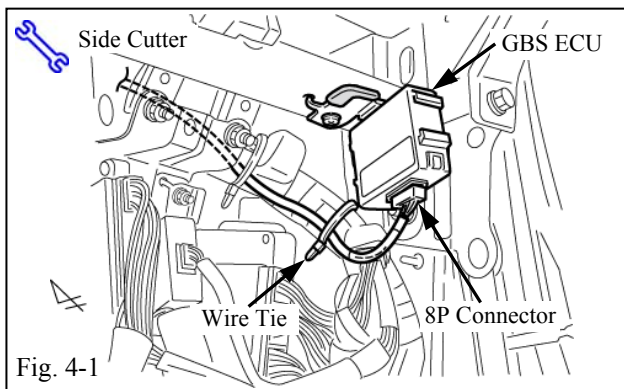


- (c) Use 1 M6 Tapping Screw to install the Bracket and GBS ECU to the Reinforcement of the upper right of the Glove Box area. (Fig. 3-4)

(1) Make sure that the bracket pin seats properly.



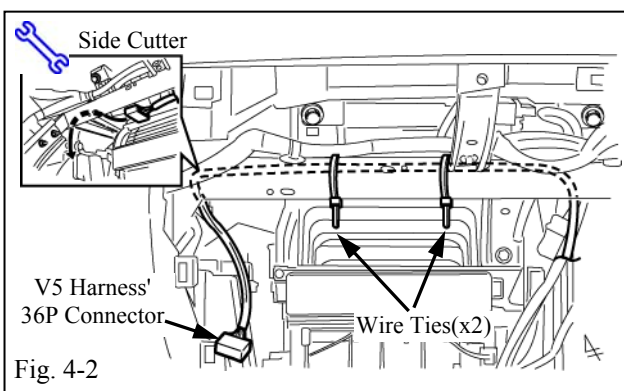
CAUTION: Do not over-tighten the screw.



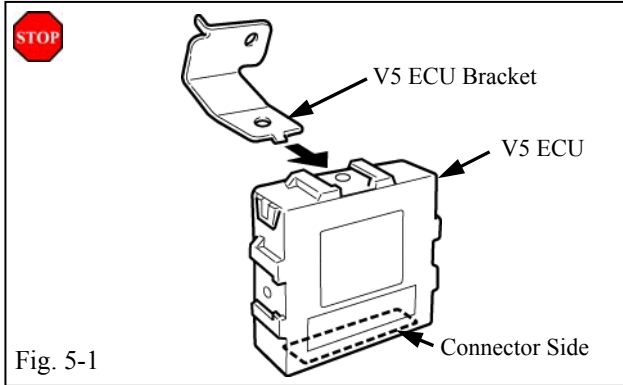
4. V5 Wire Harness Installation (Continued)

- (a) Connect the V5 Harness' 8P Connector to the GBS ECU. (Fig. 4-1)
- (b) Secure V5 Harness to the Vehicle Harness with 1 Wire Tie. (Fig. 4-1)

GO BACK TO THE V5 HARNESS' BRANCH PART.



- (c) Route the V5 Harness' 36P Connector toward the Center Cluster Area as shown. (Fig. 4-2)
- (d) Secure the V5 Harness to the Reinforcement with 2 Wire Ties. (Fig. 4-2)

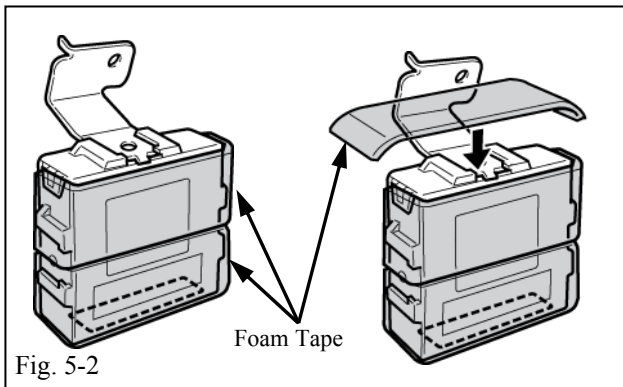


5. V5 ECU Preparation and Installation.

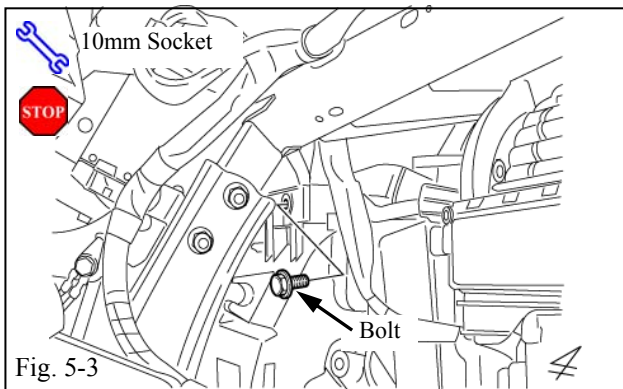
(a) Insert the V5 ECU Bracket into the indicated bracket slot on the V5 ECU. (Fig. 5-1)



(1) Ensure the bracket is firmly attached to the ECU.



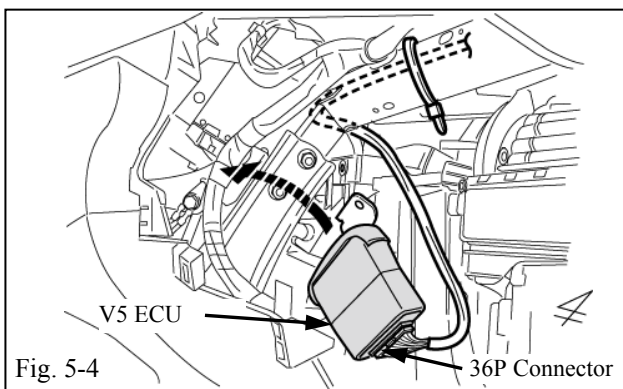
(a) Apply 3 pieces of the Foam Tape to the V5 ECU as shown. (Fig. 5-2)



(b) Remove 1 Bolt from the Heater Unit. (Fig. 5-3)



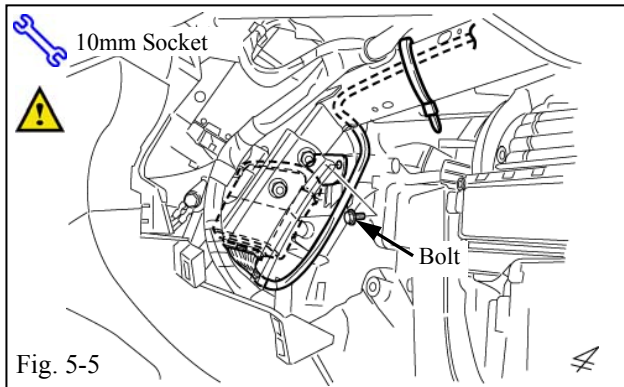
(1) Do not discard Bolt.



(c) Connect the V5 Harness's White 36P Connector to the V5 ECU. (Fig. 5-4)

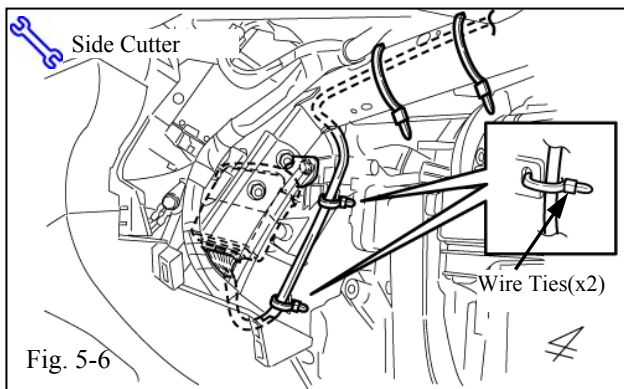
(d) Insert the V5 ECU through the opening between the Passenger Side Brace and the Heater Unit as shown. (Fig. 5-4)

If the V4 system is already installed before V5 installation, then remove the V4 ECU to avoid interference.



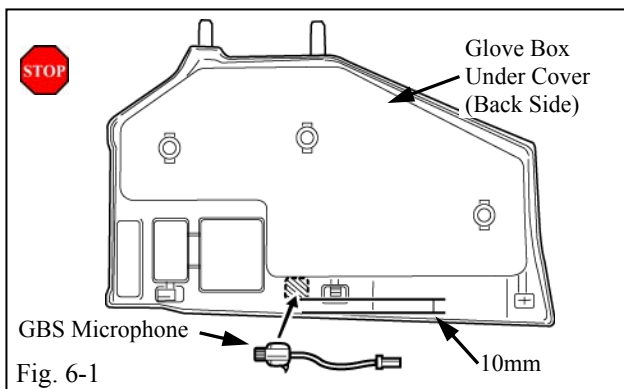
(e) Use the Vehicle Bolt from Fig. 5-3 to secure the V5 ECU. (Fig 5-5)

CAUTION: Do not over-tighten the bolt.



(f) Secure the V5 Harness with 2 Wire Ties. (Fig 5-6)

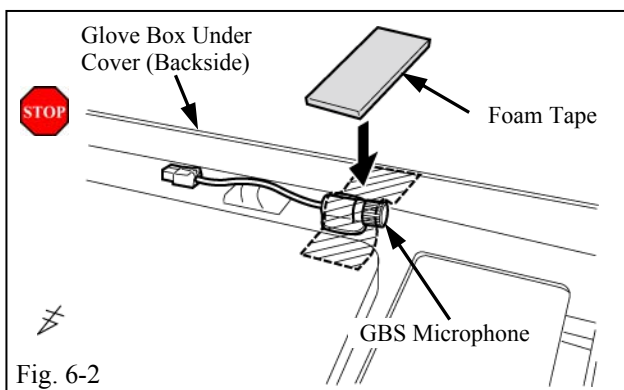
6. GBS Microphone Installation.



(a) Using the VDC approved cleaner and Cleaning Method, clean the area indicated on the backside of the Glove Box Under Cover. (Fig. 6-1)

(b) Attach the GBS Microphone to the backside of the Glove Box Under Cover as shown. (Fig. 6-1)

STOP (1) Do not touch the Microphone adhesive surface.

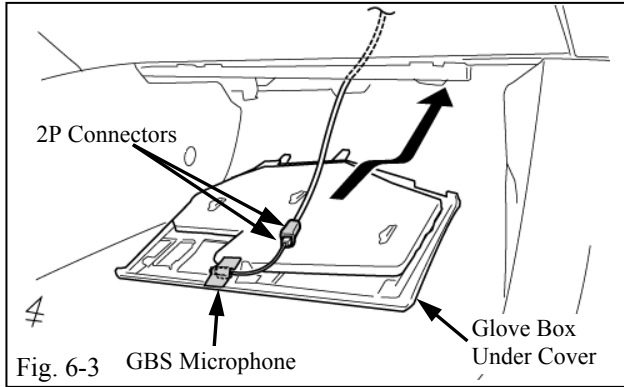


(c) Apply 1 piece of the Foam Tape onto the GBS Microphone as shown. (Fig. 6-2)

(1) Pull back the White Padding.

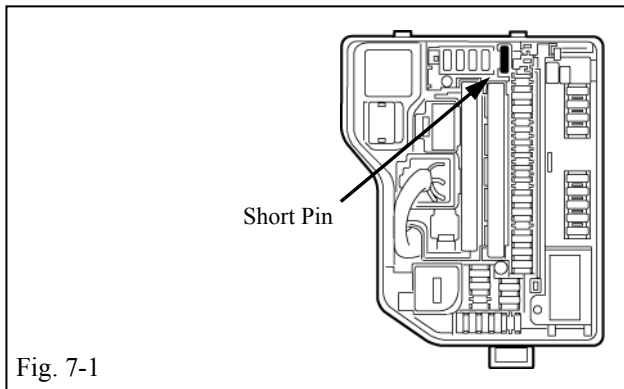
(2) Do not cover the Microphone opening.

STOP



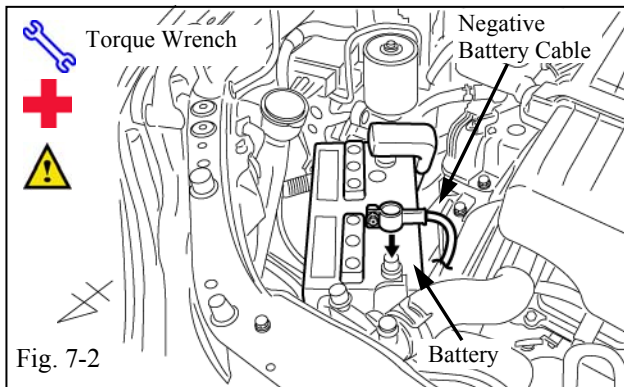
- (d) Re-install the Glove Box.
- (e) Connect the V5 Harness' White 2P Connector to the GBS Microphone's 2P Connector. (Fig. 6-3)
- (f) Re-install the Glove Box Under Cover. (Fig. 6-3)

7. Completing the Installation.



- (a) Complete the reassembly of the Vehicle.
- STOP** **VERIFY:** That all Connectors are reconnected.
- STOP** **VERIFY:** That panels fit together properly, with no uneven gaps.

- (b) Verify that the Short Pin is installed. (Fig. 7-1)
 - (1) If not, install now.



- (c) Position the Negative Battery Cable at the original factory position. (Fig. 7-2)
 - (1) Tighten the Nut to 36 in•lbf (4.07 N•m).



- CAUTION:** Do not touch the Positive Terminal.
- ||** (d) Sealed in its protective bag, place the Owner's Manual in the Glove box.
- (e) Clean up and remove any trash.
- (f) Reset the Power Windows

- (1) With the Remote Control Key in your possession, press the Power Button twice to select the Ignition "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.

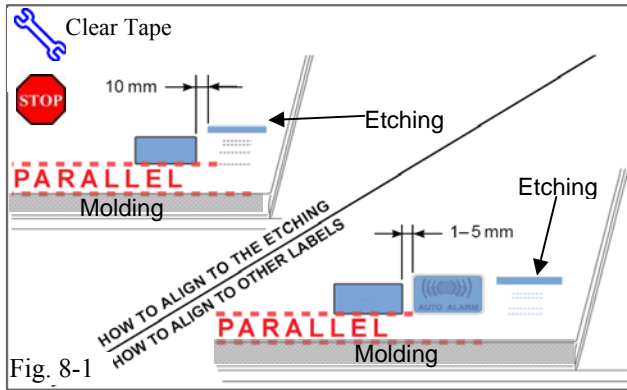
8. Warning Label Installation.



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) Use Household Glass Cleaner to clean the inside of the Front Door Window.

(b) Use a piece of Clear Tape to lift the Label from its protective backing.



CAUTION: Do not touch the adhesive surface.

(c) Attach the Window Label. (Fig. 8-1)



NOTE: Make sure to Align according to Etching or Other Labels.

REPEAT: steps a–c with the other Window.

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 flashing.

Open the driver's door, 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 60 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	Insert the key into the driver's door key cylinder and turn it toward the front of the vehicle 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, apply the Brake and press the power button on the dash 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 Ready Lamp turns on. (some Vehicles with start while others will idle on Battery)

Press the power button to turn the car 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.

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 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 10



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 Function Checks

Function	Function
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Enter the Vehicle

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

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) (if equipped) <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)

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"/>	HVAC
<input type="checkbox"/>	Steering Wheel Audio Control (if equipped)	<input type="checkbox"/>	Rear Window Defogger (if equipped)
<input type="checkbox"/>	Front Windshield Defogger (if equipped)	<input type="checkbox"/>	Accessory Power Socket (if equipped)
<input type="checkbox"/>	Side Mirror Defogger (if equipped)	<input type="checkbox"/>	Heated/Vented Seats (if equipped)
<input type="checkbox"/>	Massage 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

Remove the short pin after Function check.
 Check with your Port/Dealer to see if this step is necessary.

