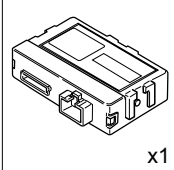
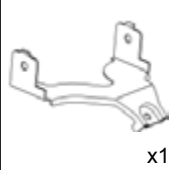
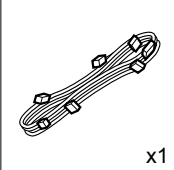
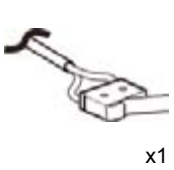










Part #: PT398-89140

Conflicts:

Will not program with Techstream Lite.

Kit Contents

<p>RES ECU</p>  <p>x1</p> <p>PT398-89100-NS</p>	<p>RES ECU Bracket</p>  <p>x1</p>	<p>RES Harness</p>  <p>x1</p>	<p>Hood Switch</p>  <p>x1</p> <p>PT398-89100-RS</p>	<p>Hood Switch Screw</p>  <p>x2</p> <p>90167-20001</p>	<p>M6 Bolt</p>  <p>x1</p> <p>91651-60618</p>	<p>Wire Tie</p>  <p>x30</p>
<p>Key Tag</p>  <p>English x2 Spanish x2</p> <p>(E) PT398-4209E (S) PT398-4209S</p>	<p>Window Label</p>  <p>English x2 Spanish x2</p> <p>(E) 08192-07810 (S) PT398-00071-SL</p>	<p>Engine Room Label</p>  <p>English x1 Spanish x1</p> <p>(E) PT398-00070-EL (S) PT398-00070-SL</p>	<p>Owner's Guide</p>  <p>x1</p>	<p>Foam Tape</p>  <p>x3</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)
Installation Tools	
Screwdriver	#2 Phillips, Phillips Jeweler's, 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); Hood Lock Assy : 66.4 in•lbf (7.5 N•m); Passenger's Knee Airbag : 88.5 in•lbf (10 N•m)
Utility Knife	
Tape	Clear, Electrical
Socket	10mm, extension
Pliers	Needle Nose
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	5–30
1. Hood Switch Installation	5
2. RES ECU Preparation	12
3. Disassembly (Passenger's Area)	12
4. V4 ECU and Wire Harness Installation (Passenger's Area)	17
5. Registration Preparation	23
6. Registration	24
7. Tags and Labels	29
8. Completing the Installation	30
III. Checklist	31–33
1. Accessory Function Checks	31
2. Vehicle Appearance Check	31
3. Vehicle Function Checks	32

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.

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.

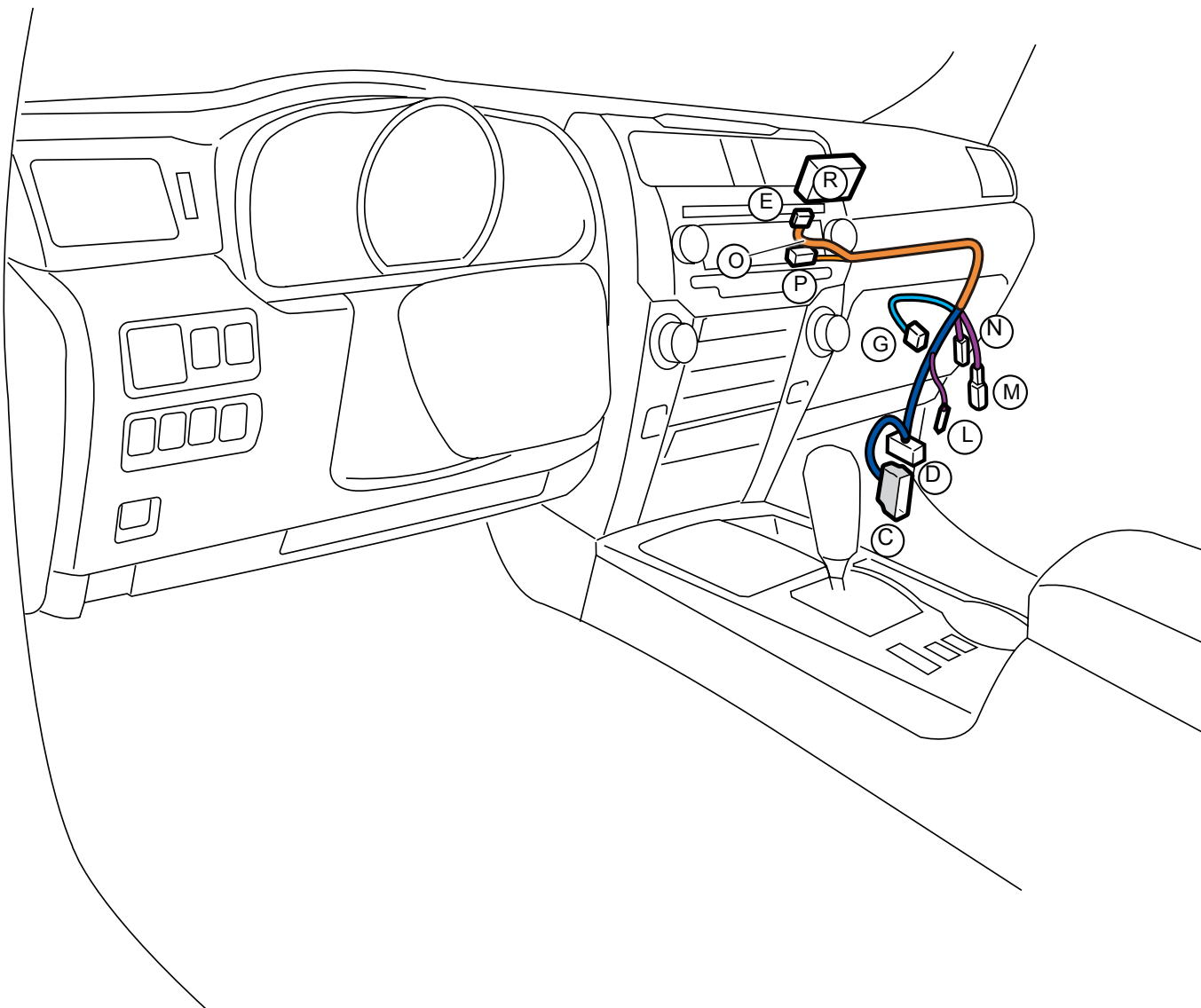
These guidelines can be found in the “Accessory Installation Practices” document.

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.

***Color of Harness on Overview corresponds with Colored Tape near Connectors on Harness.**

[illegible]

Disassembly Overview



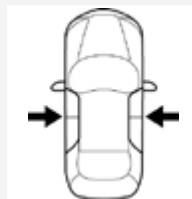
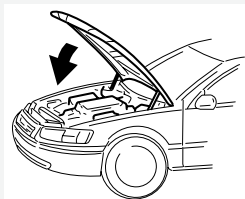
1	Engine Cover
2	Hood Lock Cover
3	PS Step Cover
4	PS Cowl Cover
5	Glove box Under Cover
6	PS IP Trim
7	Lower Glove box Trim
8	Center Console Trim
9	PS Glove box
Disconnect all Corresponding Connectors.	

1. Hood Switch Installation

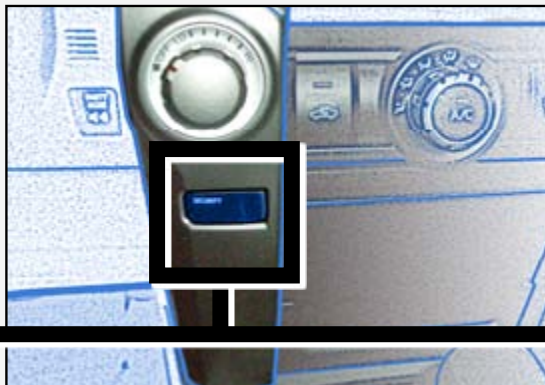
- a. Verify that the Short Pin is Installed.
 - If not Install now.

Confirm the following:

Before beginning, close the Hood and the Doors. Press the remote control's lock button.



Observe the Security LED on the console



Security LED turns ON solid for 30 seconds then starts blinking

WITH ALARM
(Vehicle has Hood Switch)

Security LED starts blinking immediately



WITHOUT ALARM
(Vehicle does not have Hood Switch)

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

Vehicles Without Hood Switch ONLY

- d. Remove the Engine Cover.
 - Remove 12 clips.

- e. Remove the 3 Bolts on the Hood Latch Cover.

- f. Remove the Hood Latch Cover.

g. Dislodge the Hood Latch Assembly.

- Remove 3 Bolts.

h. Remove the Hood Release Cable from the Hood Latch Assembly.

i. Dislodge the Spring on the Hood Latch Assembly.

- Do not discard the Spring.



Make sure to hold the Hood Switch by the sides.



Make sure the Hood Switch Lever is positioned properly.



If the Hood Switch is broken RES will not function.

- j. Install the Hood Switch with the Switch Lever underneath the Hood Lock Trigger Lever.



CAUTION: Make sure the Hood Switch Lever is under the Latch Lever.

- k. Tighten 2 Screws.

- I. Using 1 Wire Tie secure the V4 Hood Switch Harness to the Hood Latch Assembly.



- Rotate the Wire Tie Lock to the inside of Hood Latch Assembly.

- m. Disconnect and discard the Connector Cover from the Hood Switch Pre-Connector.

- n. Re-attach the Hood Latch Spring.
- o. Reattach the Hood Release Cable.

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

q. Affix the Hood Switch Connector to the Vehicle as shown.

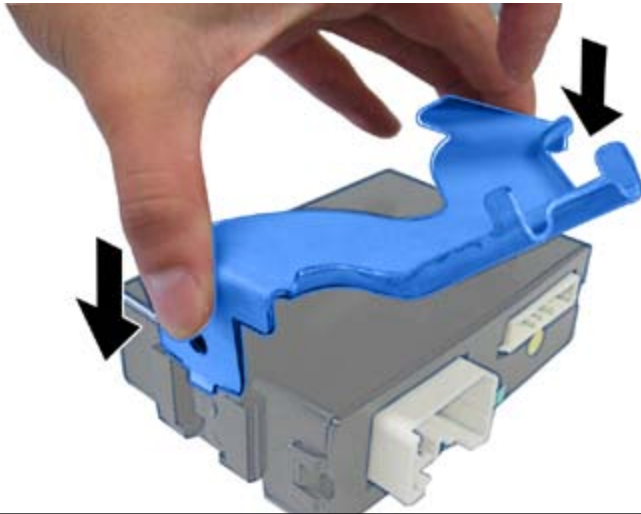
r. Reinstall the Hood Lock Assembly.



NOTE: Make sure to Torque the Bolts in the correct sequence.

① ② ③ 66.4 in•lbf (7.5 N•m)

Fig. 2-1



2. RES ECU Preparation

- a. Attach the RES Bracket to RES ECU.

3. Disassembly (Passenger's Area)

- a. Remove the PS Step Cover.

- b. Remove the PS Cowl Cover.
 - Remove 1 Nut.

- c. Remove the Glove Box Under Cover.
 - Dislodge the LED if present.

- d. Remove the PS IP Trim.



- e. Remove the Lower Glove Box Trim.
- f. Remove the Center Console Trim.
- g. Dislodge the PS Knee Airbag.
 - Remove 3 Bolts.



- h. Wrap the Airbag in a Blanket and place on the TVIP Box.

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

- j. Remove the 3 Screws from the Glove box.
 - Open the Glove box.
 - Remove 3 Covers.



k. Dislodge the Glove Box.

l. Dislodge 2 Harness Clamps.

m. Remove the Glove box light.

- n. Temporarily Re-install the Passenger's Knee Airbag.
 - Tighten 3 Bolts.



- b. Disconnect the V4 Harness 2P Connectors.
 - Discard the portion of the Harness with the 8P Connectors and Fuses.

- c. Secure the 2P Connector to the V4 Harness using Electrical Tape and wrap 1 Foam Tape over it.

- d. Route the V4 Harness over the Vehicle Brace.

- e. Plug the V4 24P Connector to the RES ECU.

- f. Secure the V4 Harness to the Vehicle Harness with 2 Wire Ties.

- g. Route the V4 Harness toward the Passenger's Cowl Area.
- h. Secure the V4 Harness to the Vehicle Harness with 4 Wire Ties.

Vehicles with USB ECU ONLY

- i. Remove the USB ECU.
 - Remove 2 nuts.

- j. Dislodge the Passenger's Side Junction Box (J/B).
 - Release 1 Clip.

- k. Locate the 7P Pre-connector on the backside of the Passenger's J/B.
- l. Plug the V4 7P Connector into the Vehicle's 7P Connector.
- m. Reinstall the J/B.
- n. Reinstall the USB ECU. (if equipped)

- o. Using 2 Wire Ties secure the V4 Harness to the Vehicle Harness.



- p. Disconnect the 64P Vehicle Connector from the Passenger's Cowl area.



NOTE: Some Vehicles may have two 64P Connectors present. Make sure you disconnect the correct one.

- q. Connect the V4 64P Connectors in between the Vehicle's 64P Connectors.



- r. Disconnect the 8P Vehicle Connector from the Passenger's Cowl area.

- s. Lift up the Terminal Retainer Clip.

- Do not pull out the Retainer.

- t. Insert the V4 White/Black Wire Terminal into the indicated location on the 8P Vehicle Connector.

- u. Close the Terminal Retainer.



- Make sure that the Terminal does not come out when pulled from the back.

- v. Reconnect the Vehicle's 8P Connector.

- w. Connect 2 Wire Ties together to make 1 long Wire Tie.

- x. Use the Double Wire Tie to secure the V4 64P Connector to the Vehicle Harness.
 - Route the Wire Tie created around the V4 64P Connector and Vehicle Harness as shown.
- y. Secure the V4 Harness to the Vehicle Harness using 2 Wire Ties.



NOTE: Do not secure the RES Diagnostic Connectors.

5. Registration Preparation

- a. Partially reassemble the Vehicle.



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



VERIFY: That all Connectors are plugged in.



CAUTION: Make sure to Torque the 3 Bolts of the PS Knee Airbag to 88.5 in•lbf (10 N•m).

- b. Verify that the Short Pin is Installed.
 - If not Install now.

6. Registration

- a. Open the Hood.
- b. Temporarily reconnect the Negative Battery Cable.

CAUTION: Do not touch the Positive Terminal.

Fig. 6-1

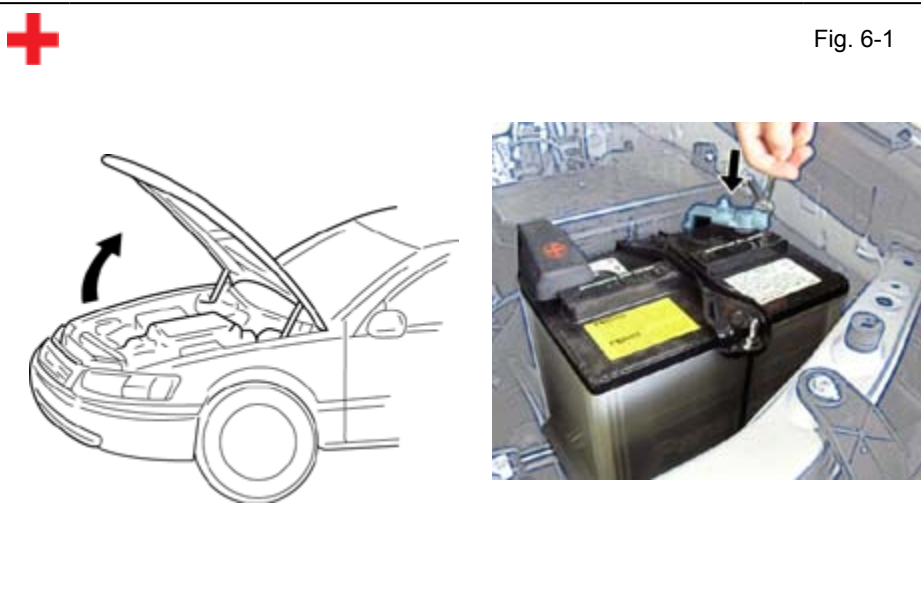


Fig. 6-2

- c. Locate the 1P RES Diagnostic Connectors in the PS Cowl Area and connect them.

NOTE: Once connected you will have 10 minutes to complete this section, steps d–ac.

- d. Close all doors.

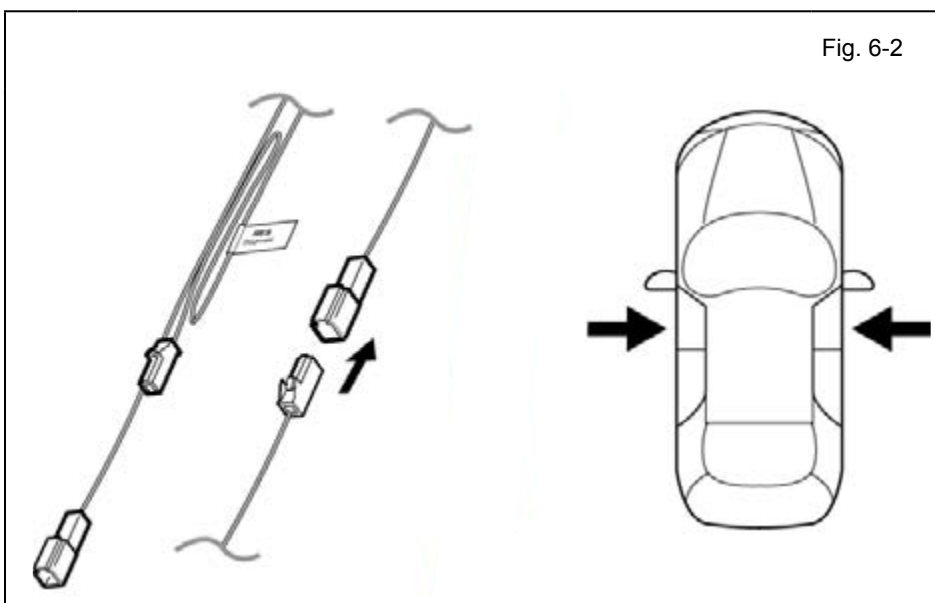
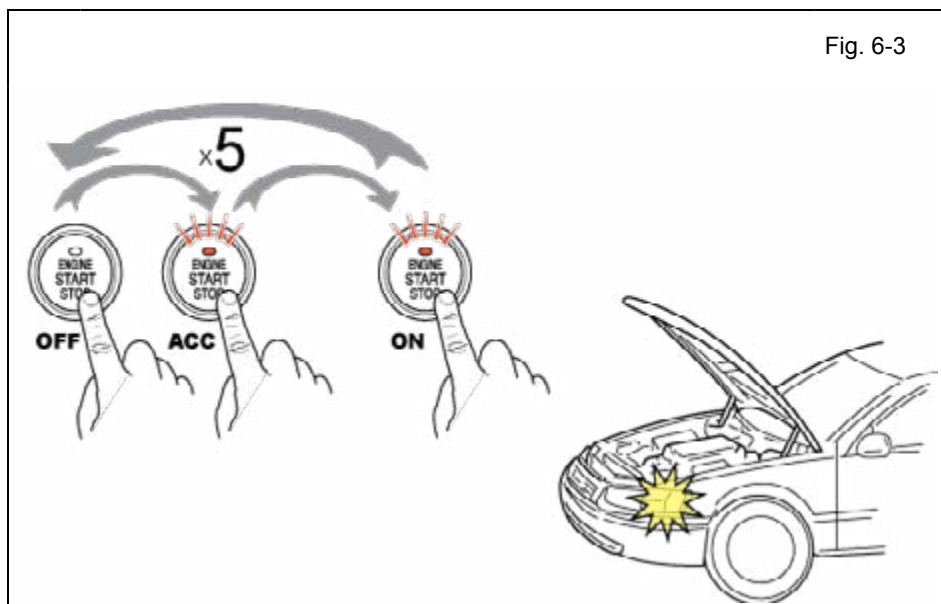


Fig. 6-3

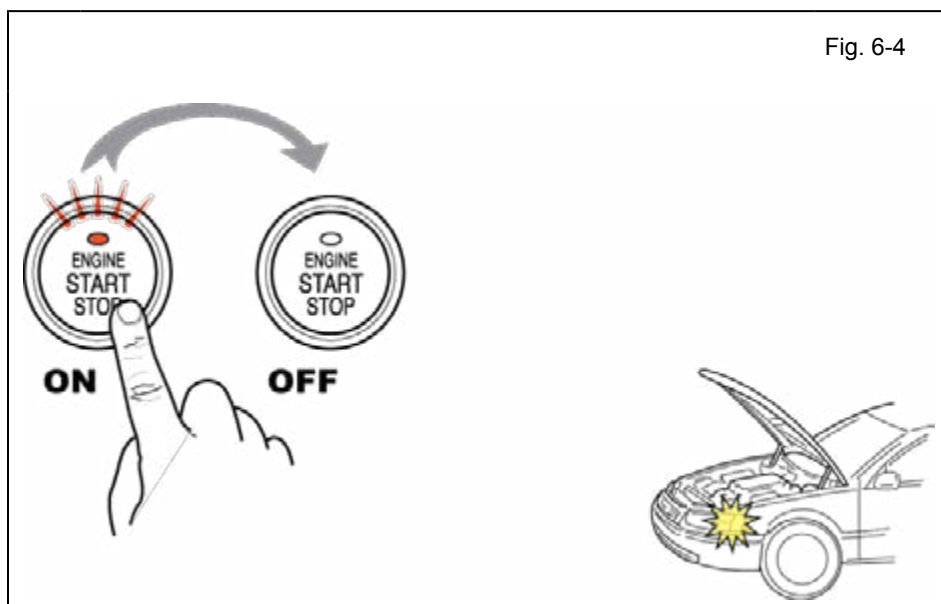


- e. Place the Vehicle in Park (P) position.
- f. Cycle the Engine Start/Stop Button from OFF to ON 5 times.

NOTE: One cycle consists of: OFF → Accessory → ON. This is equivalent to pressing the Engine Start/Stop Button 14 times.

LOOK: for the Hazard Lights to flash Once.

Fig. 6-4



- g. Start the Engine.
- h. After 10 seconds stop the Engine.

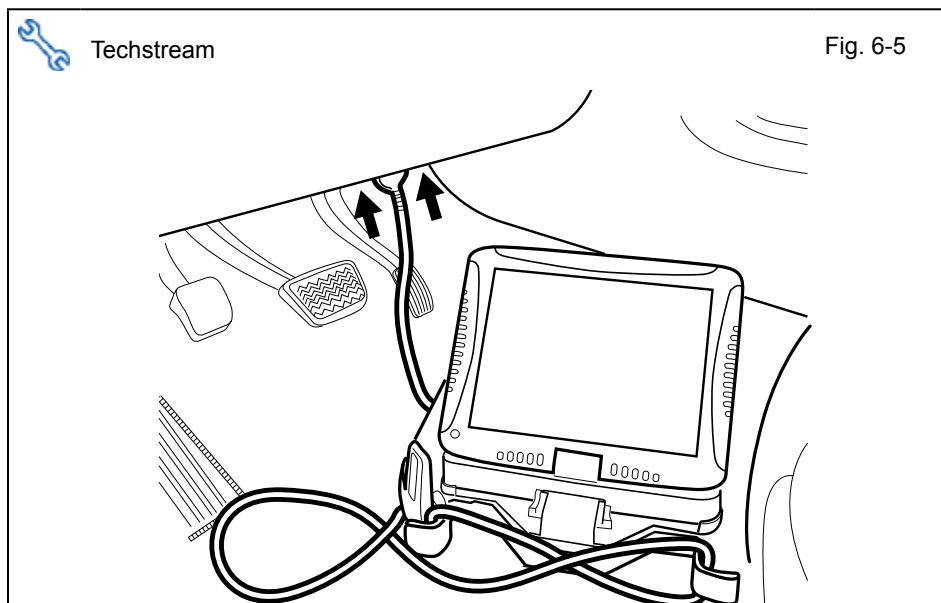
LOOK: For the Hazard Lights to flash Once.

IF THIS PROCEDURE FAILED

The Hazard Lights won't flash or flashes Three Times.

- Disconnect the V4 Harness's 1P RES Diagnostic Connectors.
- Start again from step c.

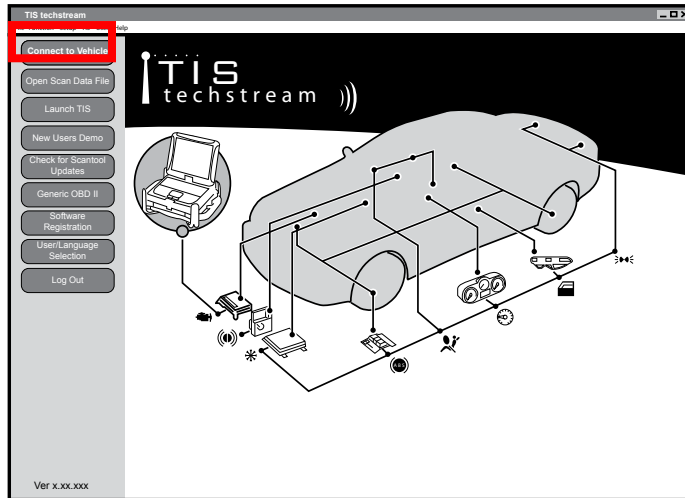
Fig. 6-5





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

- i. Connect the Techstream Notebook to the Vehicle's Diagnostic Port.
- j. With the Smart Key in your possession, press the Engine Start/Stop Button twice to select the Ignition "ON" position.

Fig. 6-6



- k. Start the TIS Techstream Application by clicking on the shortcut located on the Desktop.
- l. Click “Connect to Vehicle.”
- m. Confirm that the information displayed on the Vehicle Connection Wizard is correct for the vehicle. If not verify that the Techstream is properly connected.
- n. Select w/ Smart Key.
- o. Select w/ KDSS or w/o KDSS depending on the Vehicle's Specification.
- p. Click “Next>.”
- q. Select “Smart Key.”
- r. Click .

- s. Click on “Utility.”
- t. Select “ECU Communication ID Registration.”
- u. Click  .

- v. Click “Next>.”

- w. Select “Remote Engine Starter.”
- x. Click “Next>.”

CONFIRM: That the ECU Communication ID was completed successfully.

y. Click “Exit.”

IF THIS PROCEDURE FAILED

- Start again from step m.

z. Click 

aa. Exit the vehicle.

ab. Close the Hood.

ac. Look for the Hazard Lights to flash Twice.

IF THIS PROCEDURE FAILED

The Hazard Lights flash 3 Times.

- Disconnect the V4 Harness's 1P RES Diagnostic Connectors.
- Start again from step c.

- ad. After a successful Registration, disconnect the 1P RES Diagnostic Connectors.
- ae. Using Electrical Tape secure the Female Connector and Harness to the Vehicle Harness.

- af. Finish reassembling the Vehicle.



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



VERIFY: That all Connectors are plugged in.

7. Tags and Labels

- For US Vehicles use the English Tags and Labels, and discard the Spanish Tags and Labels.
- For Mexico Vehicles use the Spanish Tags and Labels, and discard the English Tags and Labels.
 - a. Attach the Key Tag.

REPEAT: step a with the other Smart Key.



- b. Use Household Glass Cleaner to clean the inside of the Front Door Window.
- c. Use a piece of Clear Tape to lift the Label from the protective backing.



CAUTION: Do not touch the adhesive surface.

- d. Attach the Label as shown.



NOTE: Align according to Etching or Other Label.

REPEAT: steps b–d with the other Front Door Window.

- e. Sealed in its protective bag, place the Owner's Manual in the Glove box.
- f. Using VDC approved cleaner and cleaning method, clean the area indicated on the underside of the Hood.
- g. Attach the Engine Room Warning Label as shown.



CAUTION: Do not touch the adhesive surface.

8. Complete the Installation

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



Torque: 5.4 N•m (48 in•lbf) ||



CAUTION: Do not touch the Positive Terminal.

- b. Clean up and Remove trash.

Accessory Function Checks

Close the hood, enter the vehicle and close all doors. Place the shift lever in the “P” (Park) position, set the parking brake and make sure the Vehicle is off.

	Perform	Look For
1	Press the remote control's lock button twice within 2 seconds, then press and hold the lock button for 3 seconds.	The hazard lights flash after 3 seconds. The engine starts. The hazard lights flash repeatedly for 10 seconds.
2	With the engine running, pull the hood release handle. NOTE: <i>Some Vehicles may require you to exit the Vehicle and pull up on the Hood.</i>	The engine stops. The hazard lights flash once. The security alarm triggers. (Only if equipped with OE Factory Alarm, not Genuine Accessory alarm, and only if armed)
3	Move the shift lever out of “P” (Park). Attempt to start the Vehicle using the remote.	The engine does not start.

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"/>	Steering Wheel Column Adjusts Without Interference
<input type="checkbox"/>	Horn	<input type="checkbox"/>	Hood Release Latch

Start the Vehicle

<input type="checkbox"/>	Starter	<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)		
<input type="checkbox"/>	Mayday ECU (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)

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"/>	Glove box 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.

