

Part Number: PT398-48111

Conflicts

Do not install into vehicles without RKE systems.

Recommended Sequence of Application

Item #	Accessory	

Kit Contents

Item #	Quantity	Description
1	1	Wire Harness
2	1	Gateway ECU Mounting Bracket
3	1	RES ECU Mounting Bracket

Hardware Bag Contents

Item #	Quantity	Description
1	1	RES ECU
2	1	Gateway ECU
3	1	Foam Tape
4	25	Wire Ties
5	2	M6 Tapping Screws
6	2	M2 x 14 Screws
7	2	Splicing Connectors
8	1	Bolt Cover
9	1	Hood Switch
10	4	Window Warning Labels English / Spanish
11	4	Transmitter Labels English / Spanish
12	4	Key Tag English / Spanish
13	2	Warning Labels for Engine Compartment English / Spanish
14	1	Owner's Manual

Additional Items Required For Installation

Item #	Quantity	Description
1	1	Black Electrical Tape

Recommended Tools

Personal & Vehicle Protection	Notes
Safety Glasses	
Safety Gloves	(Optional)
Vehicle Protection	Blankets, Parts Boxes
Special Tools	Notes
Installation Tools	Notes
Screwdriver	#2 Phillips, Phillips Jeweler's, Flat blade Jeweler's
Pick Tool	
Nylon Panel Removal Tool	e.g. Panel Pry Tool #1 Toyota SST # 00002-06001-01
Side Cutters	
Torque Wrench	36 in•lbf (4.06 N•m), 71 in•lbf (8.0 N•m), 88 in•lbf (9.94 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 complied with.



OPERATOR SAFETY: Use caution to avoid risk of injury.



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



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



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



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.

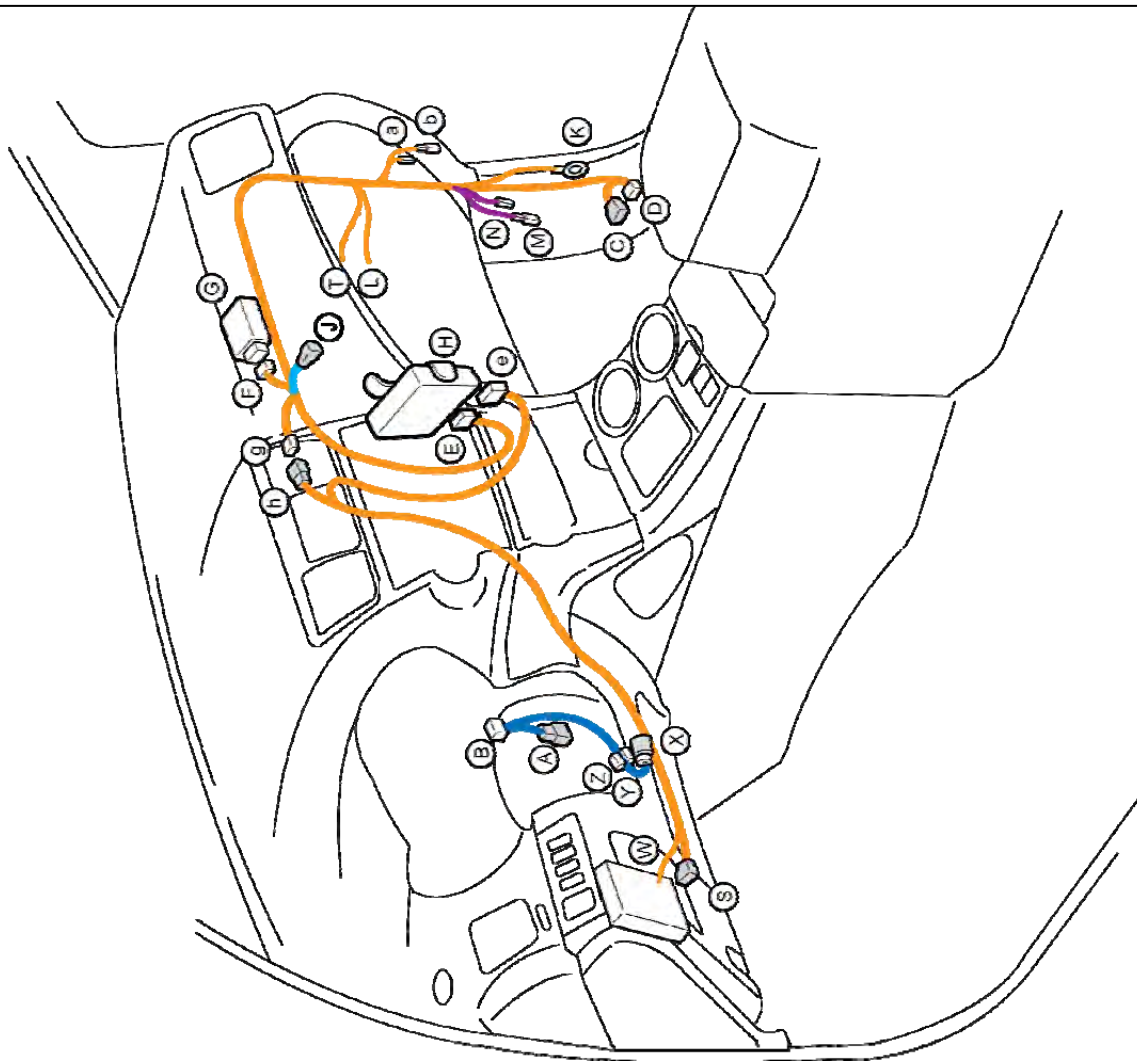
This document covers such items as:

- 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.)

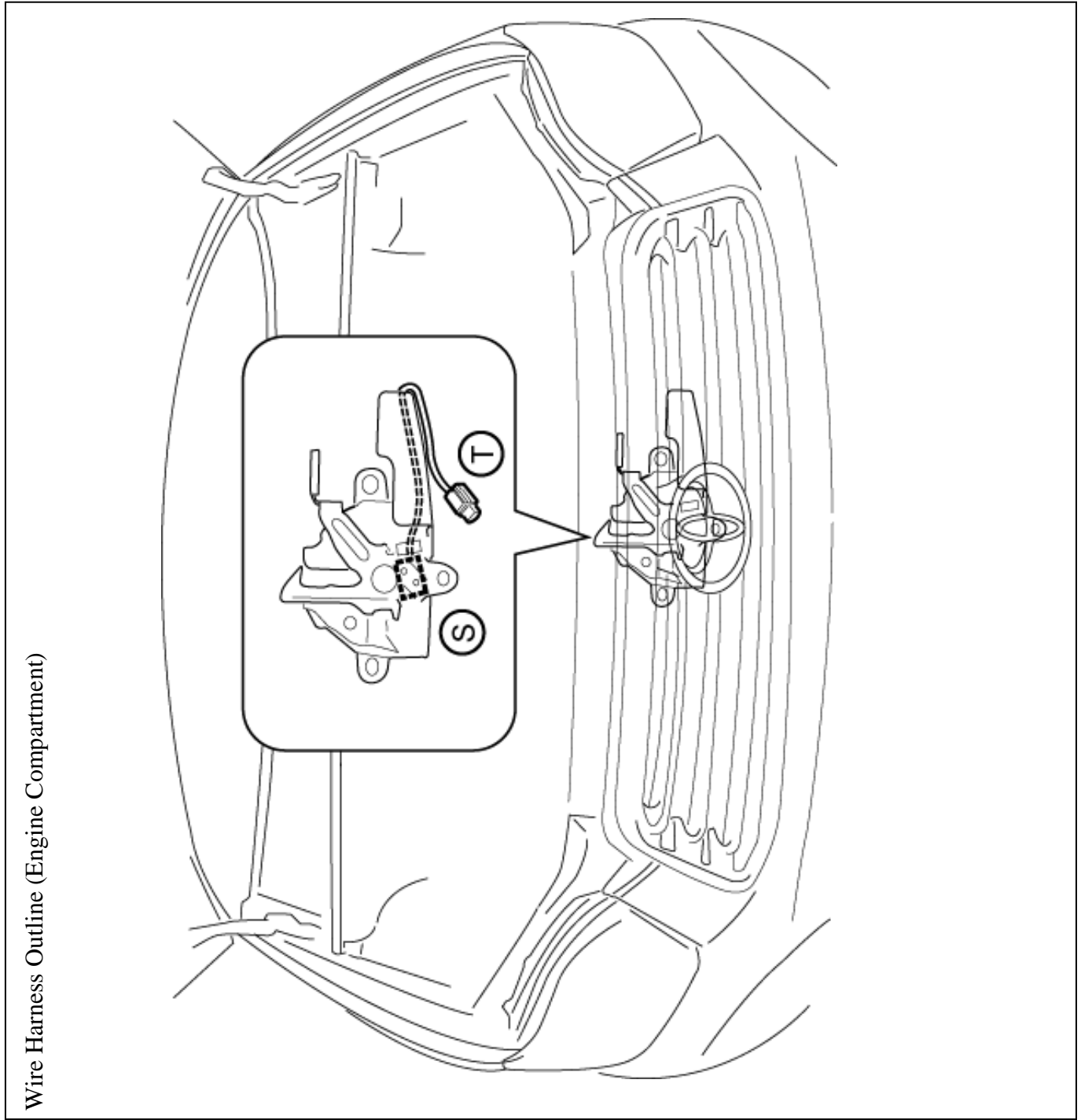
Please see your Toyota dealer for a copy of this document

TVIP	Vehicle	Description	TVIP	Vehicle	Description
A	D24	8P WHITE	T		WIRE (Blue Wire)
B	D24	8P WHITE	W	1M	WIRE TERMINAL (Black Wire)
C	DN3	20P BLUE	X		RELAY
D	DN3	20P BLUE	Y		FUSE 7.5A
E		20P WHITE (for RES ECU)	Z		FUSE 30A
F		5P WHITE (for Gateway ECU)	a		1P GRAY
G		Gateway ECU	b		1P GRAY
H		RES ECU	e		8P WHITE (for RES ECU)
J	D50	4P WHITE	g		4P BLUE
K		GROUND TERMINAL	h		4P BLUE
L		WIRE (Pink Wire) (Not Used)			
M		1P WHITE For Registration			
N		1P WHITE For Registration			
S		2P WHITE			

Wire Harness Outline (Passenger's Compartment)

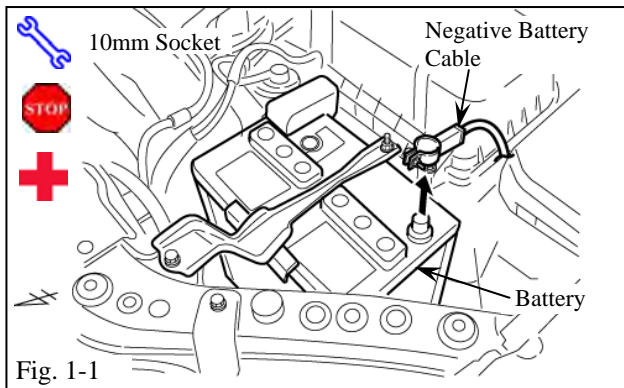


TVIP	Vehicle	Description											
		HOOD SWITCH (For Vehicle without Factory Security System)	2P BLACK										
			A8										
		(S)	(T)										



1. Vehicle Disassembly.

- +** (a) Place the Vehicle in Park and set the Parking Brake.



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

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

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

Disassembly Overview

(Vehicle Interior)

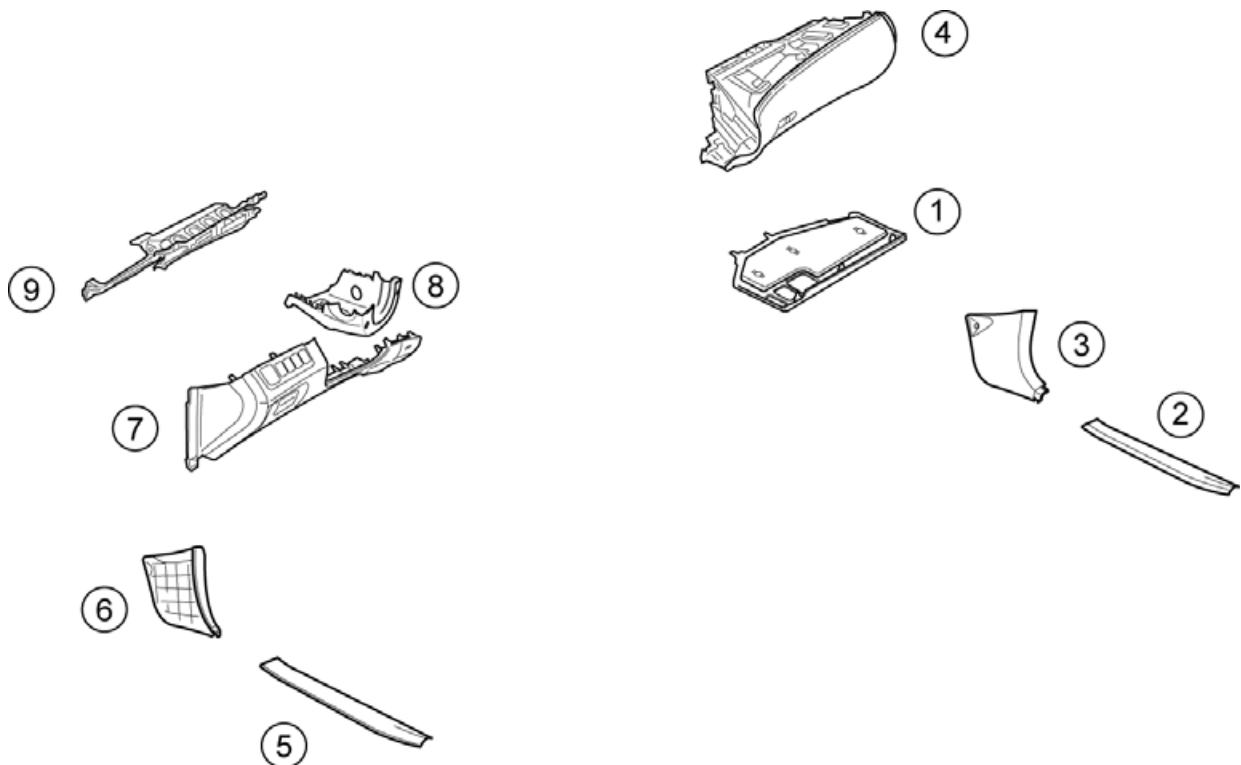
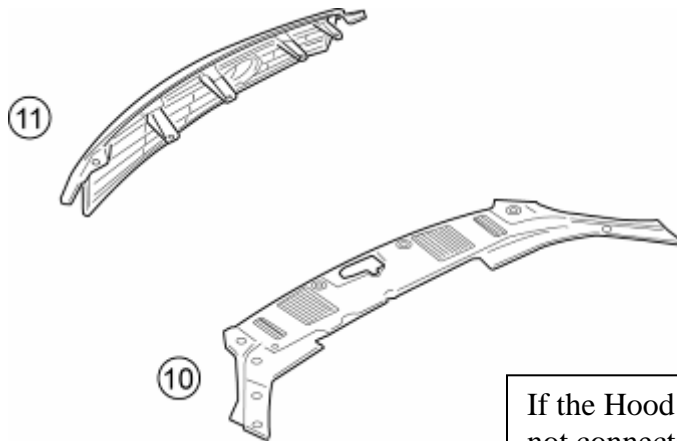


Fig. 1-2

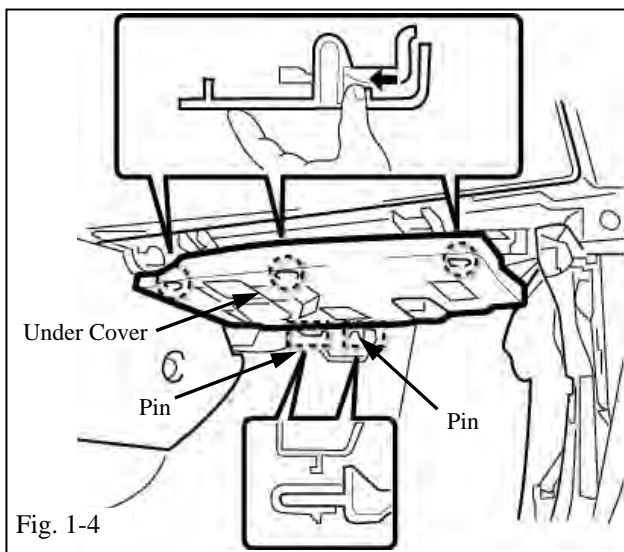
Remove all corresponding connectors accordingly as you disassemble.

(Engine Compartment)



If the Hood Switch's 2P connector is not connected, you must remove these vehicle parts. (See Page 10 for how to identify Vehicles that need Hood Switch Installation)

Fig. 1-3

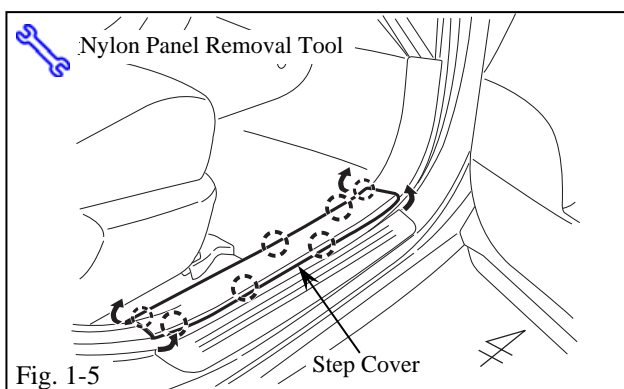


(c) Remove the Glove Box Under Cover.
(Fig. 1-4)

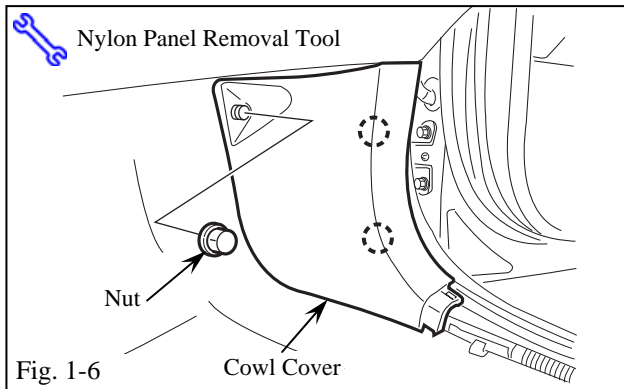
- (1) Disengage the 3 claws.
- (2) Pull out the 2 guides.



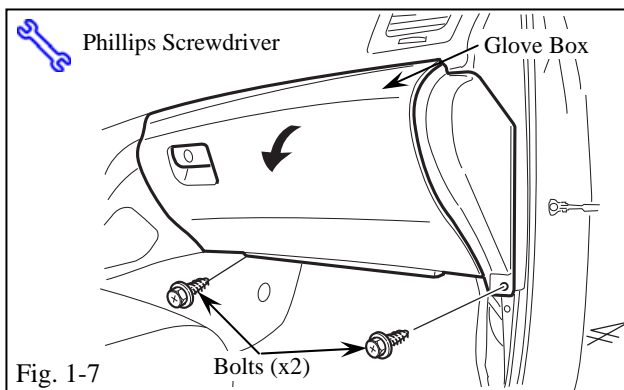
CAUTION: Removing the Under Cover without properly disengaging the Claws will break the Under Cover.



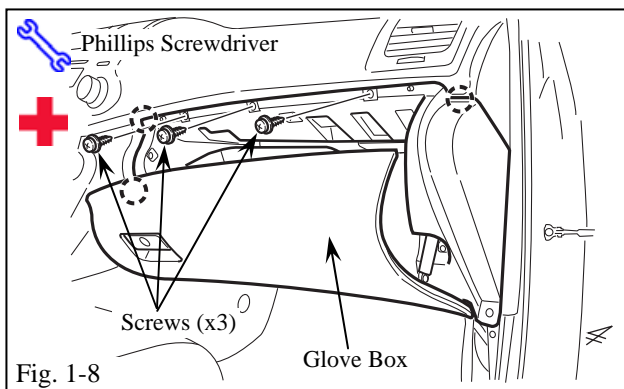
(d) Remove the Passenger's Step Cover.
(Fig. 1-5)



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

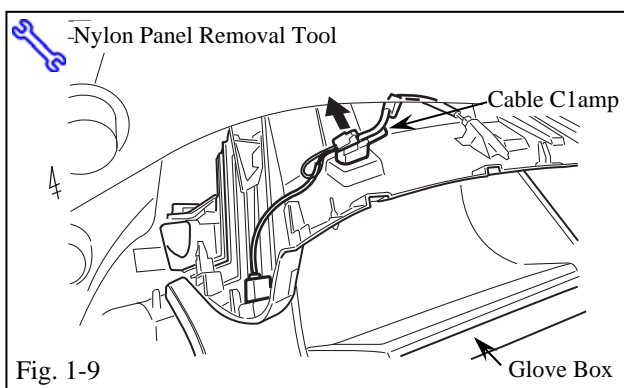


- (f) Remove 2 Bolts from the Glove Box, then open the Glove Box Door. (Fig. 1-7)

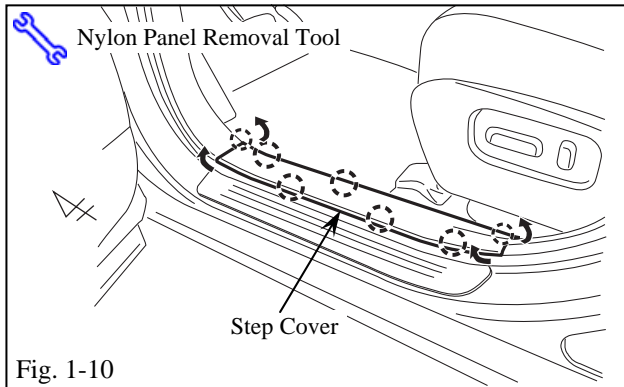


- (g) Remove 3 Screws from the Glove Box. (Fig. 1-8)
- (h) Dislodge the Glove Box. (Fig. 1-8)

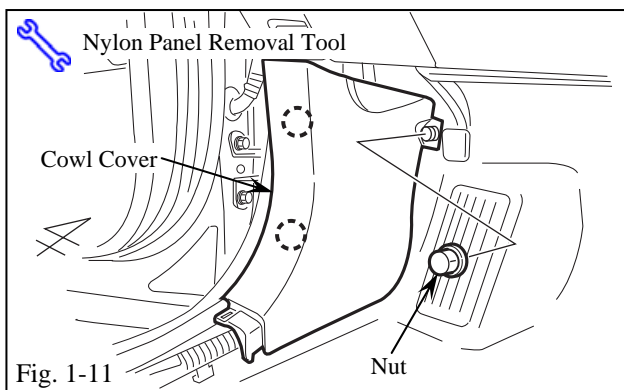
+ CAUTION: Sharp metal edges.



- (i) Disconnect all Connectors from the Glove Box. (Fig. 1-9)
- (j) Remove the Cable Clamp from the Glove Box. (Fig. 1-9)
- (k) Remove the Glove Box. (Fig. 1-9)

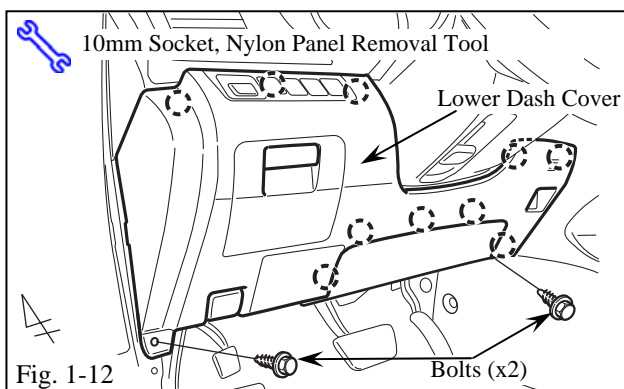


- (l) Remove the Driver's Step Cover. (Fig. 1-10)



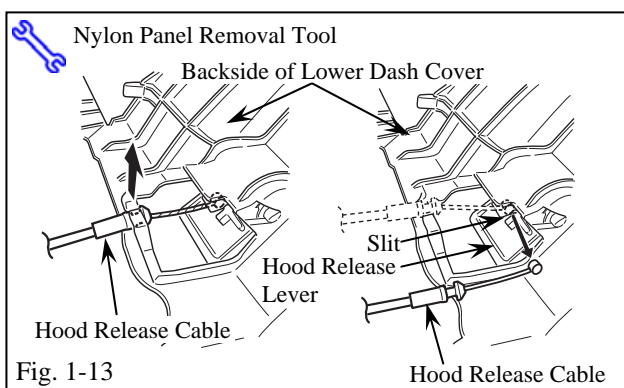
- (m) Remove the Driver's Side Cowl Cover.
(Fig. 1-11)

- (1) Remove 1 Nut.



- (n) Remove the Lower Dash Cover. (Fig. 1-12)

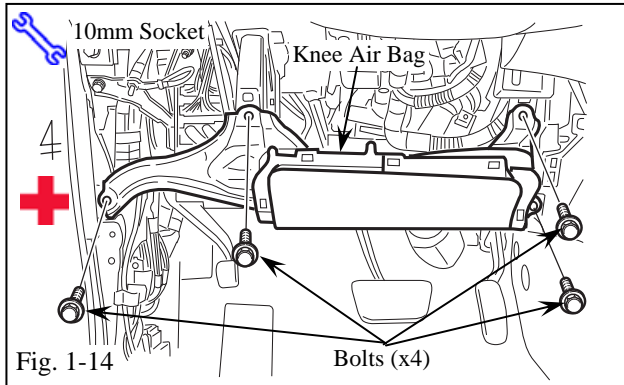
- (1) Remove 2 Bolts.



- (o) Pull up the Hood Release Cable from the
backside of the Lower Dash Cover.
(Fig. 1-13)

- (p) Pull out the Hood Release Cable from slit in
the Hood Release Lever. (Fig. 1-13)

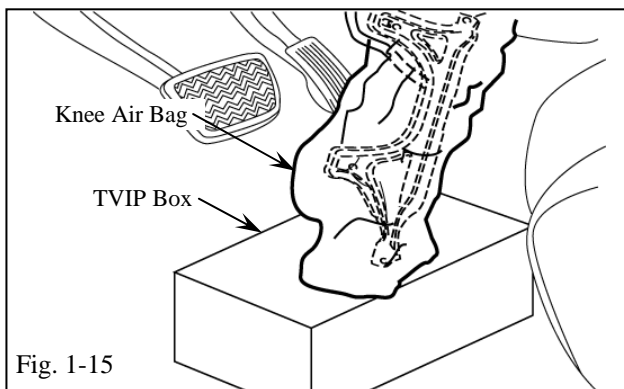
- (1) Do not bend the Hood Release Cable.



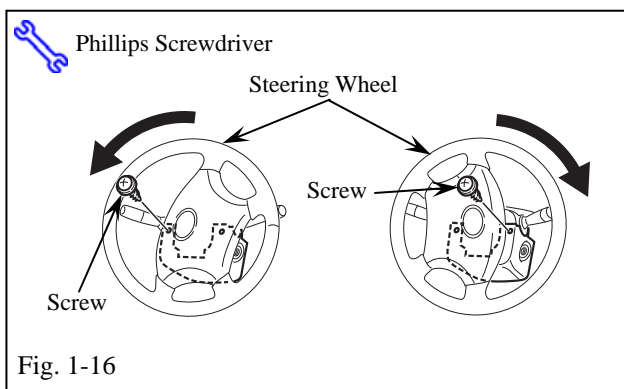
(q) Remove the Knee Air Bag Assembly.
(Fig.1-14)

(1) Remove 4 Bolts.

+ CAUTION: SHARP METAL EDGES.



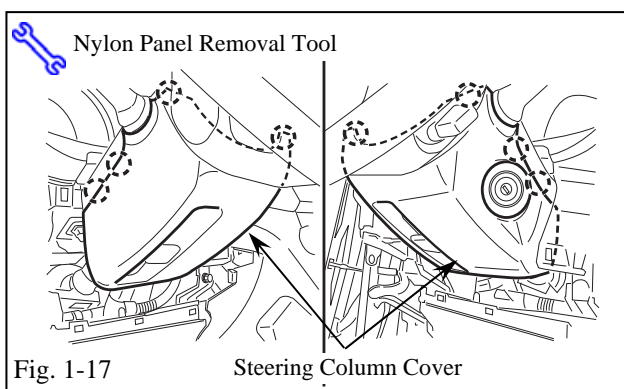
(r) Wrap the Metal Substructure in a blanket and use the TVIP Kit Box to support it.
(Fig. 1-15)



(s) Remove 2 Screws that secure the Lower Steering Column Cover. (Fig. 1-16)

(1) Insert the Key into the Ignition and turn it to "ON".

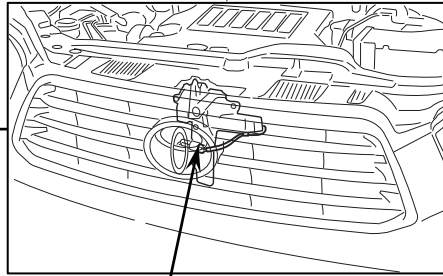
(2) Turn the Steering Wheel left then right to gain access to 2 Screws securing the Cover.



(t) Remove the Lower Steering Column Cover.
(Fig. 1-17)

Confirm the following:

[1] Does the Vehicle have a Hood Switch Installed?



Hood Switch Pre-wire
2P Connector

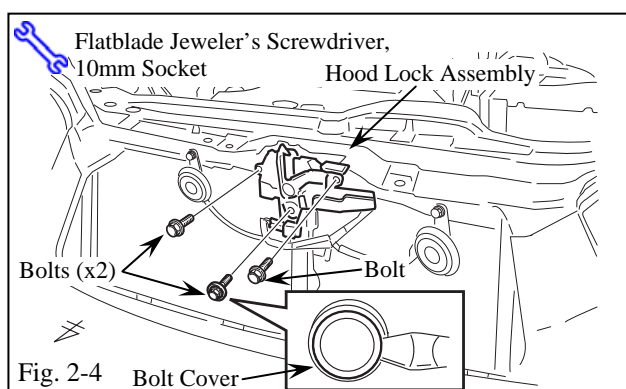
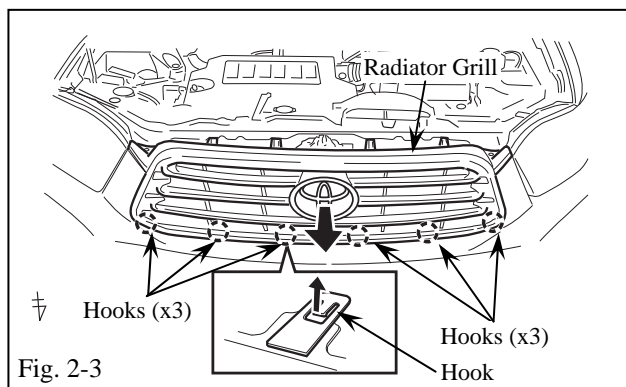
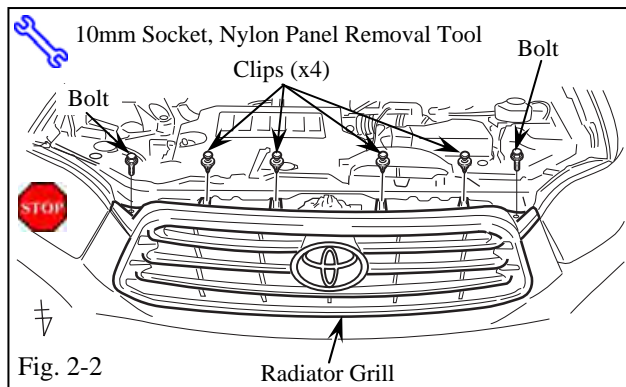
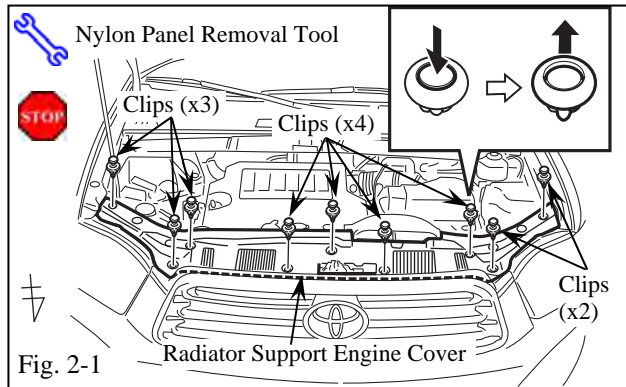
If the Hood Switch
2P Connector is connected,
the Hood Switch is already
installed.

If the Hood Switch 2P
Connector is not connected,
install the Hood Switch.

[2] Does not need
Hood Switch Installation.
**Skip to Section 3 V4 Wire Harness
Preparation. (pg. 13)**

[2] You must install Hood Switch.
**Use Section 2 Hood Switch
Installation. (pg. 10 - 13)**

CONTINUED



2. Hood Switch Installation. (steps a - s)

(a) Remove the Radiator Support Cover.
(Fig. 2-1)

- (1) Protect the Fenders before starting.
- (2) Push the center of the clip, then pull out and remove 9 Clips.

(b) Remove 2 Bolts and 4 Clips from the Radiator Grill. (Fig. 2-2)

- (1) Protect the Bumper with masking tape before starting.

(c) Remove the Radiator Grill. (Fig. 2-3)

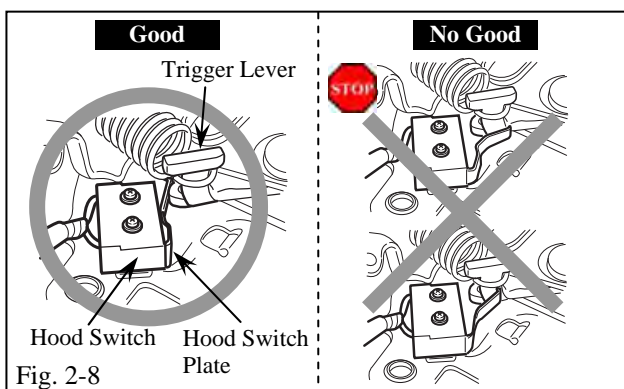
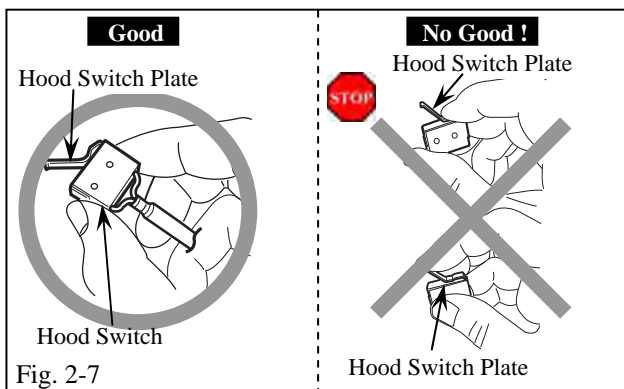
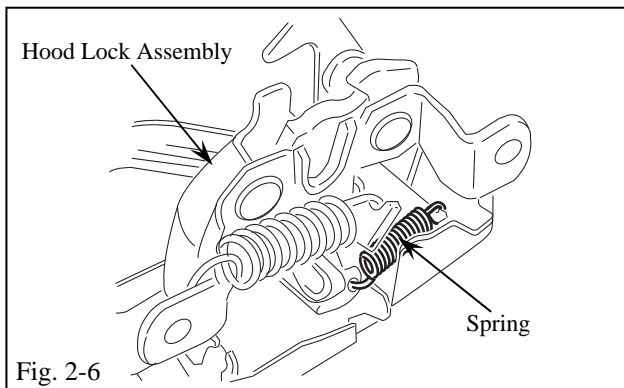
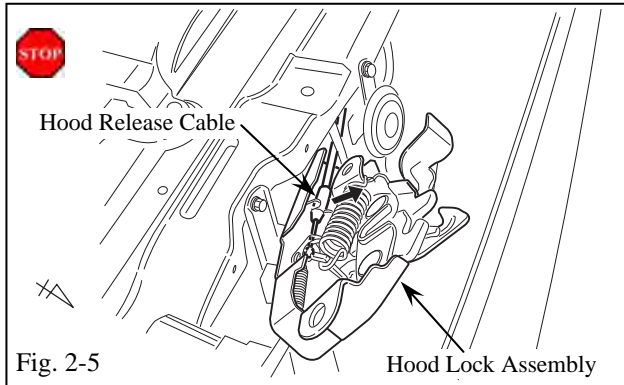
- (1) Pull up and release 6 Hooks.

(d) Remove the Plastic Bolt Cover from the Hood Lock Assembly. (Fig. 2-4)

- (1) Discard the bolt cover.

(e) Loosen the Hood Lock Assembly.
(Fig. 2-4)

- (1) Remove 3 Bolts.



(f) Disconnect the Vehicle Hood Release Cable from the Hood Lock Assembly.(Fig. 2-5)

(1) Do not bend the Hood Opener Cable.

(g) Remove the Hood Lock Assembly. (Fig. 2-5)

(h) Remove the Spring from the Hood Lock Assembly. (Fig. 2-6)

(1) Take care not to bend the Spring during removal.



CAUTION: Carefully read before hood switch installation.

(i) Grip and hold both sides of the Hood Switch body. (Fig. 2-7)

(1) Do not hold or press down the Hood Switch Plate by its top part or by its sloped part.

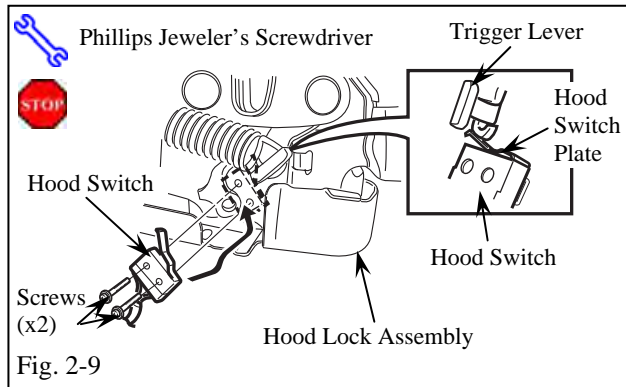
(2) If the Hood Switch is broken or deformed, the vehicle will not be able to start with Remote Engine Starter.

(j) When installing the Hood Switch to the Hood Lock Assembly. The Hood Switch Plate goes under the Hood Lock Trigger Lever. (Fig. 2-8)

(1) The Hood Switch Plate must not press against the edge of the Hood Lock Lever.

(2) The Hood Switch Plate must not go over the Hood Lock Trigger Lever.

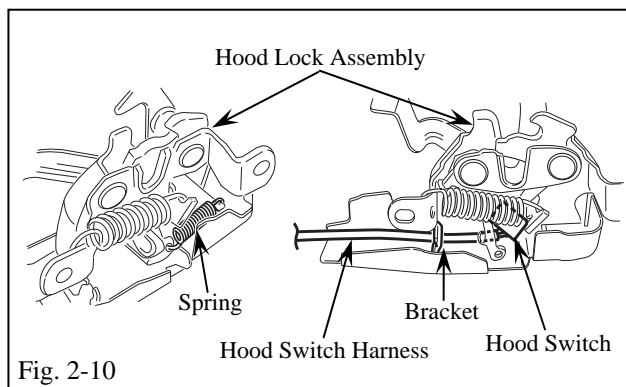
(3) If the Hood Switch is broken or deformed, the vehicle will not be able to start with Remote Engine Starter.



(k) Position the Hood Switch Plate so that it makes contact with the Hood Lock Trigger Lever underneath as shown. (Fig. 2-19)

(l) Using 2 Screws from the kit, install the Hood Switch. (Fig. 2-19)

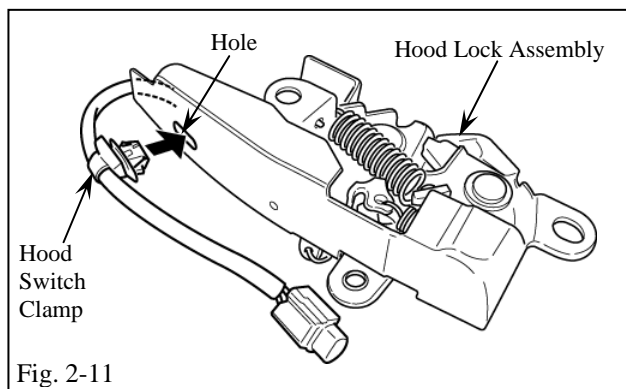
(1) Verify the screws are tightened securely.



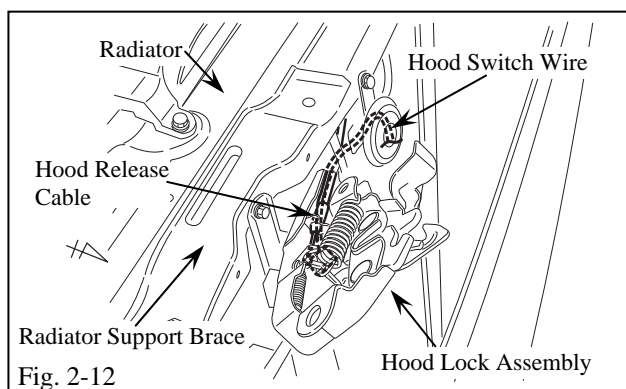
(m) Reinstall the Spring. (Fig. 2-10)

(n) Route the Hood Switch Harness as shown. (Fig. 2-10)

(1) The Hood Switch Harness under the bracket in the Hood Lock Assembly.



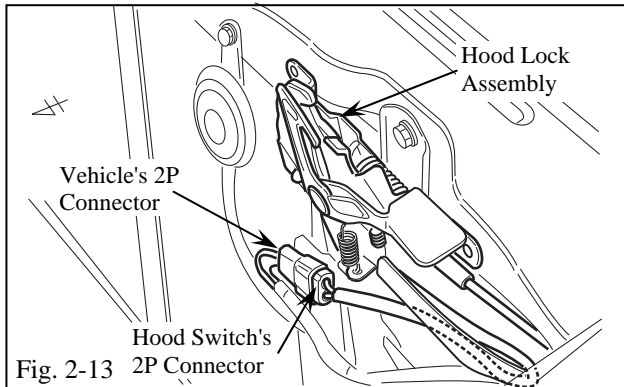
(o) Secure the Hood Switch Clamp to the hole of the Hood Lock Assembly as shown. (Fig. 2-11)



(p) Hood Lock Assembly. (Fig. 2-12)

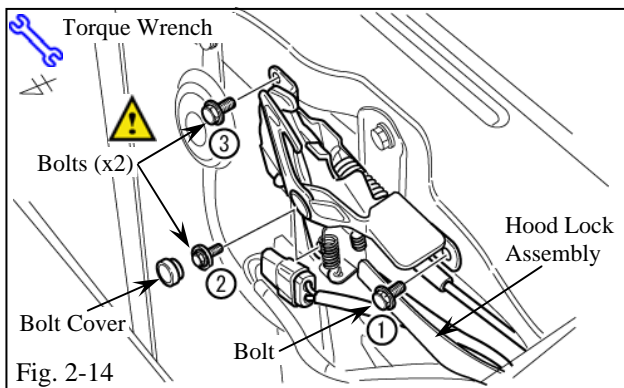
(1) Fit the Braided Cable Ball into the Hood Lock Lever.

(2) Affix the Shielding Cable of the Hood Release Cable to the Hood Lock Assembly by pressing it down into the notch in the Hood Lock Assembly.



- (q) Connect the Hood Switch Black 2P connector to the Vehicle's Black 2P connector.(Fig. 2-13)

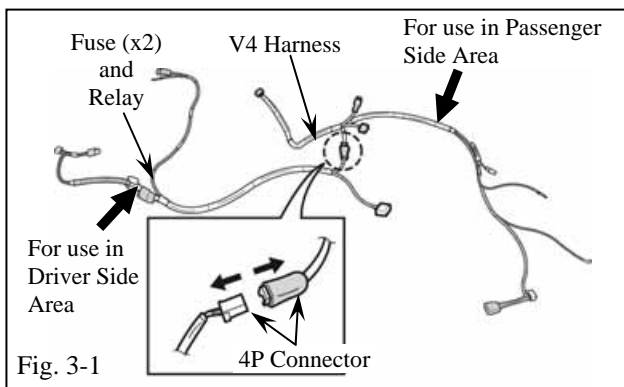
(1) Verify secure connection.



- (r) Reinstall the Hood Lock Assembly.
(Fig. 2-14)

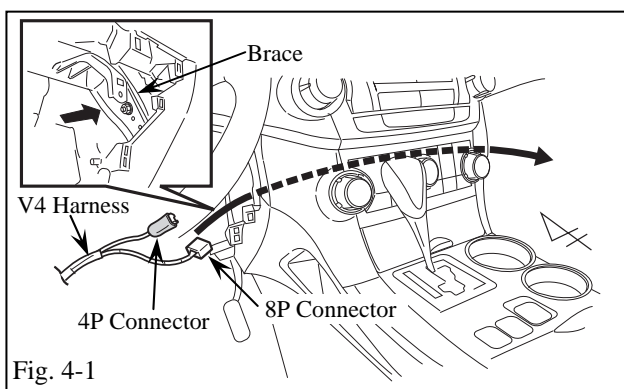
(1) Torque the bolts from the Driver's side to the Passenger's side to 71 in•lbf (8.0 N•m)

- (s) Reinstall the Bolt Cover using the Cover supplied in the Kit. (Fig. 2-14)



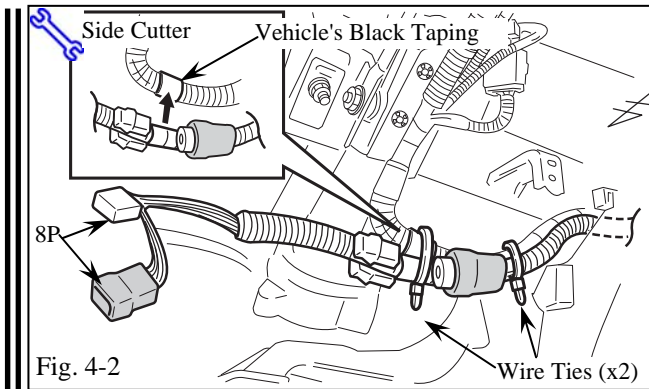
3. V4 Wire Harness Preparation.

- (a) Locate and disconnect the Blue 4P connector on the V4 Wire Harness.
(Fig. 3-1)

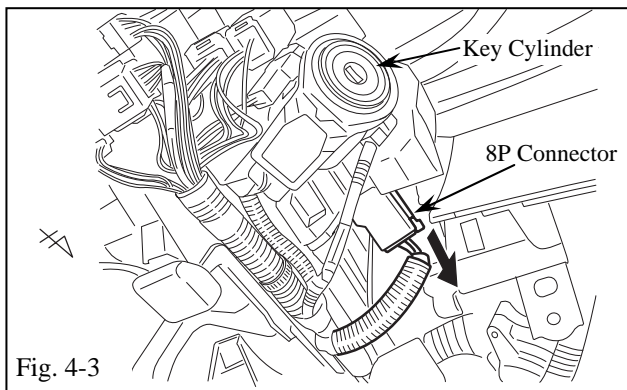


4. V4 Wire Harness Installation. (Driver's Side)

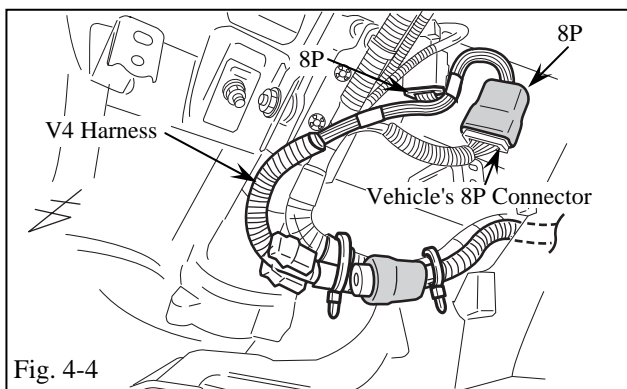
- (a) Pass the V4 Harness' White 8P Connector and Blue 4P Connector from the Driver's Side Area to Passenger's Side Area.
(Fig. 4-1)



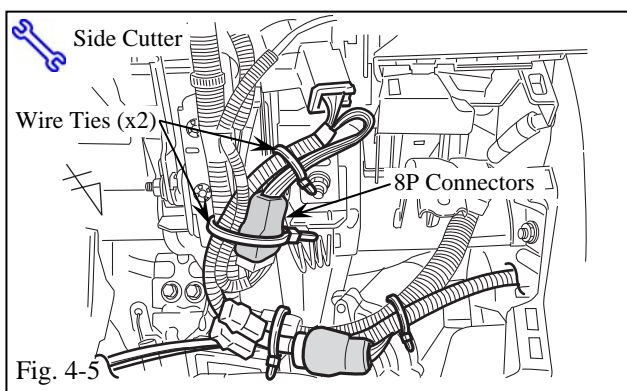
- (b) Locate the Vehicles Black Taping. Secure the V4 Harness to the Vehicles Black Taping Area as shown with 1 Wire Tie. (Fig. 4-2)
- (c) Use 1 Wire Tie to secure the V4 Harness to the Vehicle Harness. (Fig. 4-2)



- (d) Locate and disconnect the Vehicle Harness' White 8P Connector near the Key Cylinder Area. (Fig. 4-3)



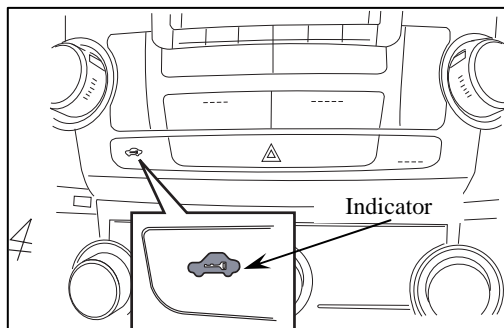
- (e) Plug in the V4 Harness' White 8P Connectors in between the Vehicle Harness's White 8P Connector and the Ignition Switch Connector. (Fig. 4-4)
- (1) Verify secure connection.



- (f) Use 1 Wire Tie to secure the 8P Connectors to the Vehicle Harness. (Fig. 4-5)
- (g) Use 1 Wire Tie to secure the V4 Harness to the Vehicle's Harness. (Fig. 4-5)

Confirm the following:

[1] Does the Vehicle have an Immobilizer Indicator?



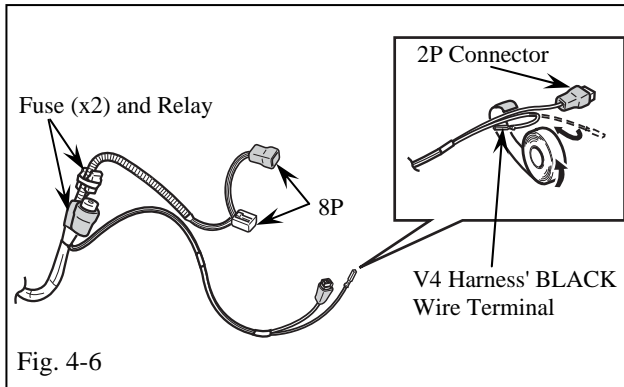
YES

[2] You must install Driver's Side
J/B Area.
Use Section 4 steps. k - cc

NO

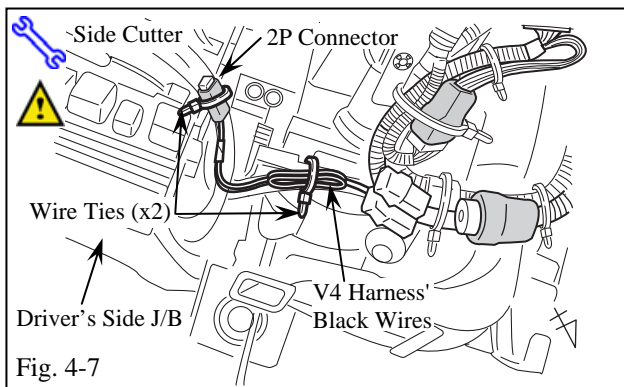
[2] Does not need Driver's Side
J/B Area installation.
Use Section 4 steps. h - j

CONTINUED



**FOR VEHICLES WITHOUT
IMMOBILIZER LED (steps h-j)**

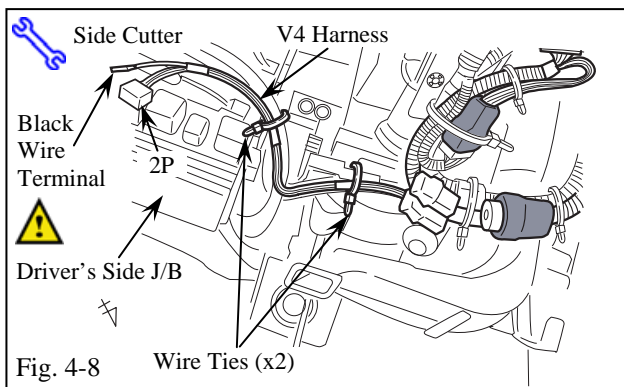
- (h) Secure the V4 Harness' Black Wire Terminal with Electrical Tape as shown. (Fig. 4-6)



CAUTION: Fully extend the Telescopic Steering Column.

- (i) Bundle up the V4 Harness' Black Wires and use 1 Wire Tie to secure to the vehicle harness. (Fig. 4-7)
- (j) Use 1 Wire Tie to secure the V4 Harness' White 2P Connector to the Vehicle Harness. (Fig. 4-7)

Go to step dd.

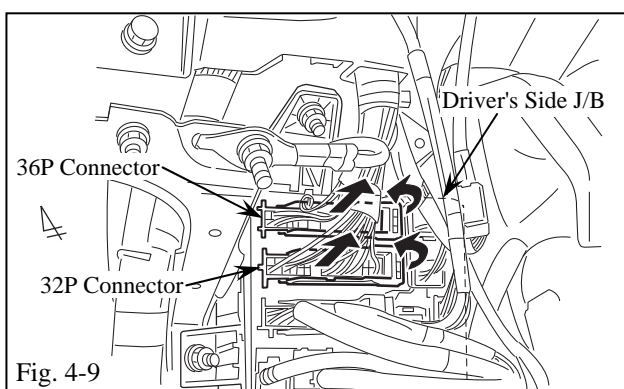


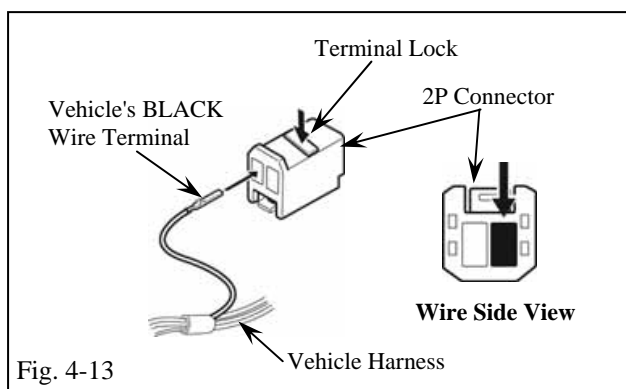
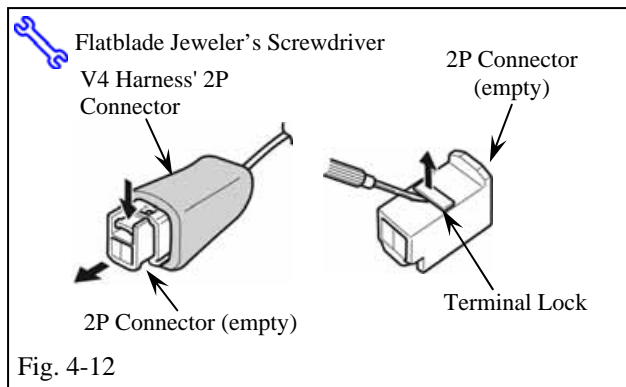
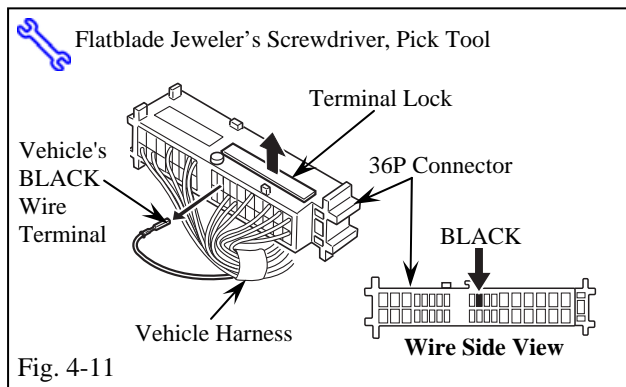
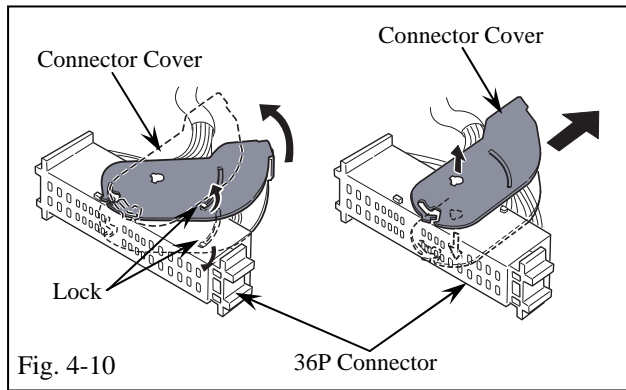
**FOR VEHICLES WITH IMMOBILIZER
LED (steps k-cc)**



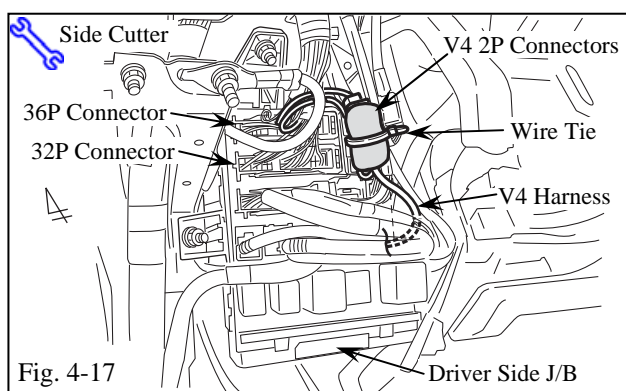
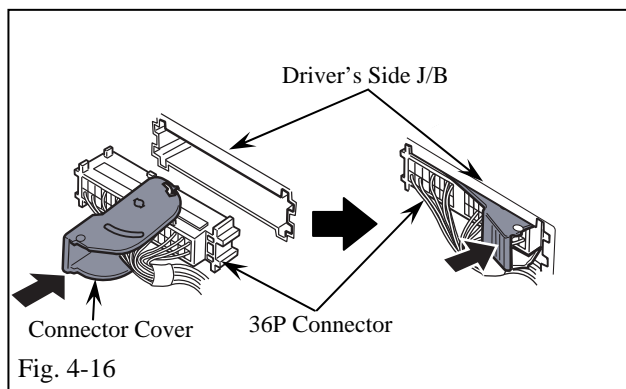
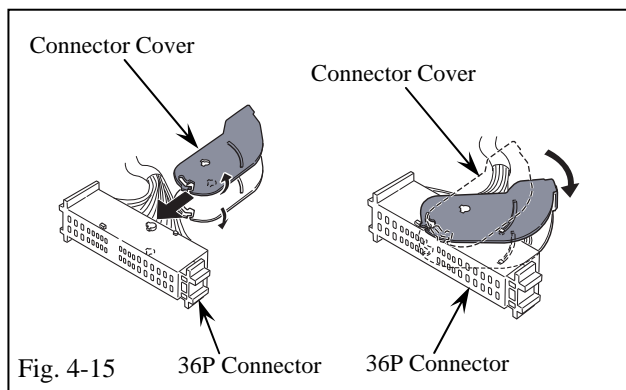
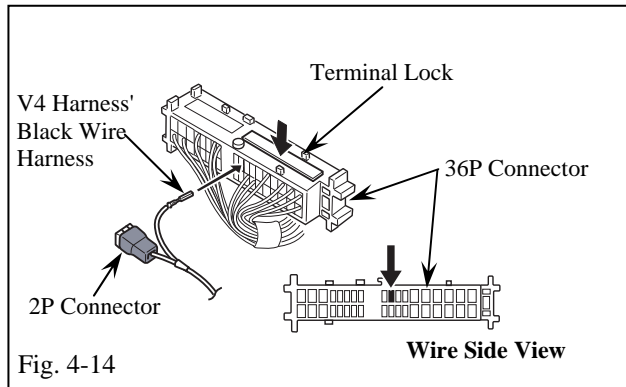
CAUTION: Fully extend the Telescopic Steering Column.

- (k) Route the V4 Harness Black Wires toward the Driver's Side J/B Area. (Fig. 4-8)
- (l) Use 2 Wire Ties to secure the V4 Harness Black Wires to the Vehicle Harness. (Fig. 4-8)
- (m) Disconnect the 36P Connector from the Driver's Side J/B. (Fig. 4-9)
- (1) Disconnect the 32P Connector for easier access to the 36P connectors. (optional)





- (n) Release the lock on both sides of 36P Connector, turning the Connector Cover counterclockwise to 90 degree. (Fig. 4-10)
- (o) Remove the Connector Cover. (Fig. 4-10)
- (p) Release the Terminal Lock on the 36P Connector. (Fig. 4-11)
 - (1) Do not remove the terminal lock.
- (q) Locate the Vehicle Harness' Black Wire. (Fig. 4-11)
- (r) Using the Pick Tool or the like, release and pull out the terminal for the Black Wire. (Fig. 4-11)
- (s) Disconnect the V4 Harness' Empty White 2P Connector as shown. (Fig. 4-12)
- (t) Release the Terminal Lock on the Empty 2P Connector. (Fig. 4-12)
 - (1) Do not remove the terminal lock.
- (u) Insert the Vehicle's Black Wire Terminal into the V4 Empty 2P Connector as shown. (Fig. 4-13)
 - (1) Verify the terminal is inserted and seated properly.
- (v) Close the Terminal Lock (Fig. 4-13)



(w) Insert the V4 Harness' Black Wire Terminal into the Vehicle's 36P Connector as shown. (Fig. 4-14)

(1) Verify the terminal is inserted and seated properly.

(x) Close the Terminal Lock. (Fig. 4-14)

(y) Reinstall the Connector Cover onto the 36P Connector, then turn the Connector Cover clockwise 45 degree. (Fig. 4-15)

(z) Push the 36P Connector into the Driver's Side J/B as shown. (Fig. 4-16)

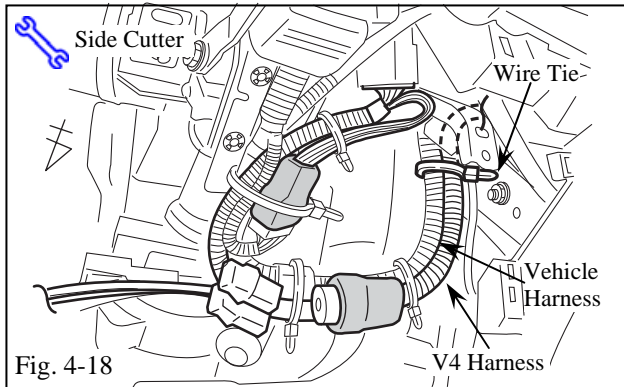
(aa) Lock the Connector back in place by pressing on the Cover. (Fig 4-16)

(1) Verify secure connection.

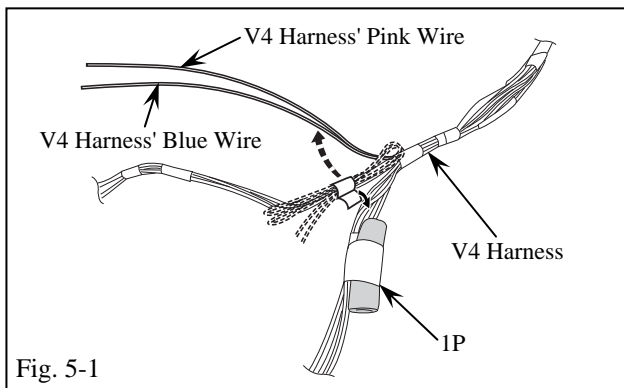
(2) Reconnect the other connector if removed.

(bb) Connect the V4 Harness' 2P Connectors.

(cc) Secure the 2P Connectors to the Vehicle Harness with 1 Wire Tie. (Fig. 4-17)

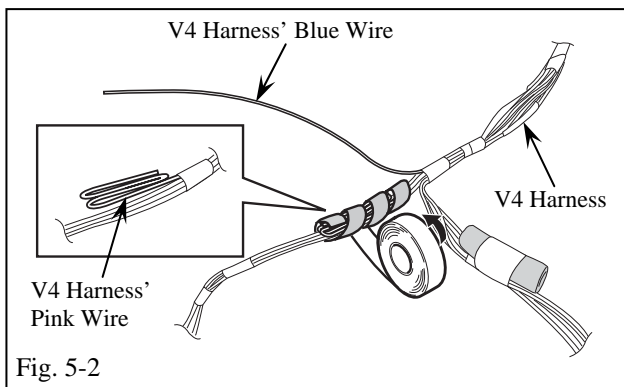


(dd) Use 1 Wire Tie to secure the V4 Harness to the Vehicle Harness. (Fig. 4-18)

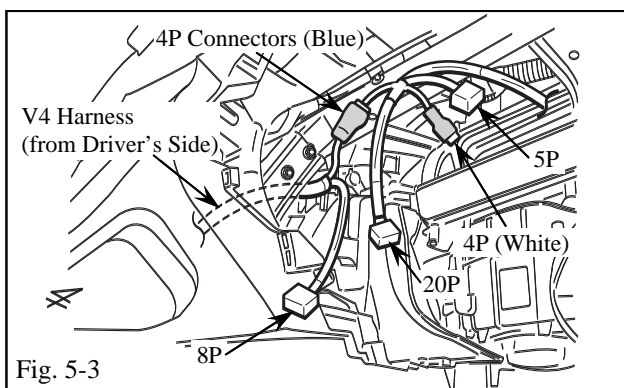


5. V4 Harness Preparation and Installation. (Passenger's Side)

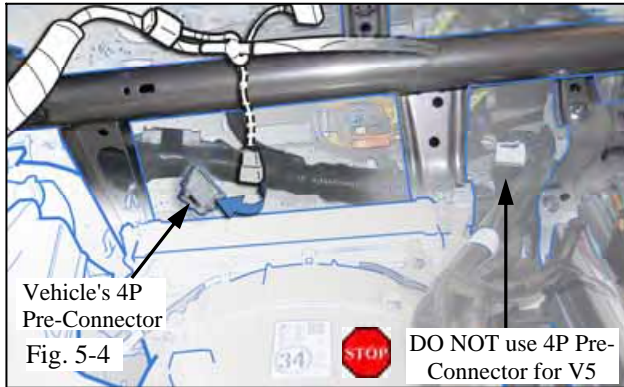
(a) Remove the Tape securing the V4 Harness' Pink and Blue Wires. (Fig. 5-1)



(b) Bundle up the excess V4 Harness' Pink Wire and secure it to the V4 Harness with Electrical Tape as shown. (Fig. 5-2)

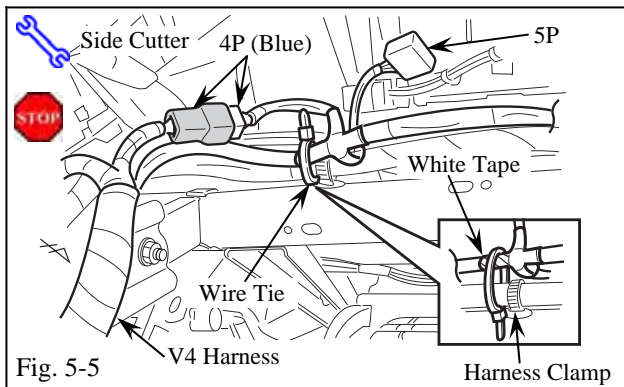


(c) Reconnect V4 Harness' Blue 4P Connectors in Glove Box Area. (Fig. 5-3)

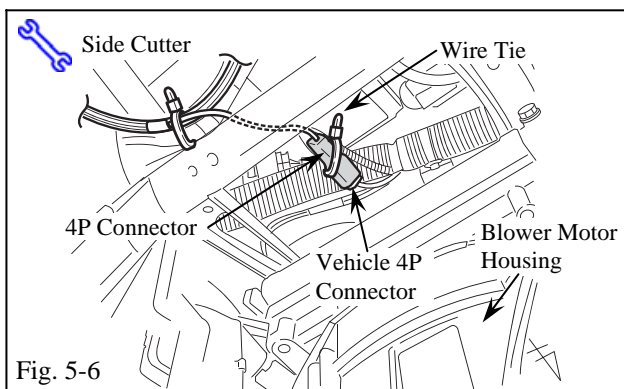


- (d) Route the V4 White Male 4P Connector between the Vehicle Brace and Air Bag Assembly as shown. (Fig. 5-4)
- (e) Locate the Vehicle's pre-wire White 4P Connector above the Blower Motor Housing, and connect it to the V4 Harness' 4P Connector. (Fig. 5-4)

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

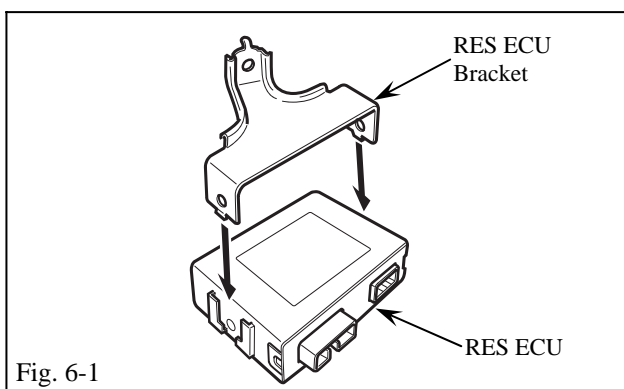


- (f) Secure the left side of the V4 Harness' White Taped Marker to the left side of the Vehicle Clamp with 1 Wire Tie. (Fig. 5-5)

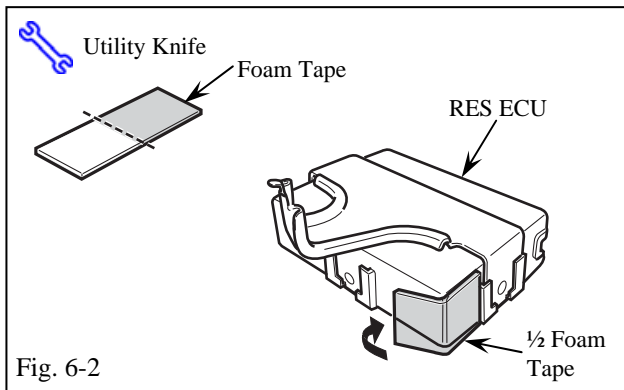


- (g) Secure the 4P Connectors to the Vehicle Harness with 1 Wire Tie. (Fig. 5-6)

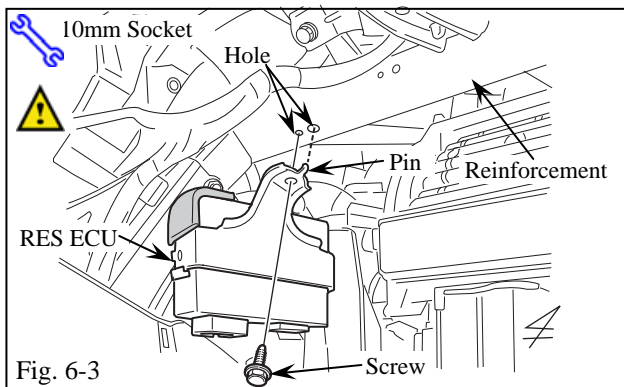
6. RES ECU and Gateway ECU Preparation and Installation.



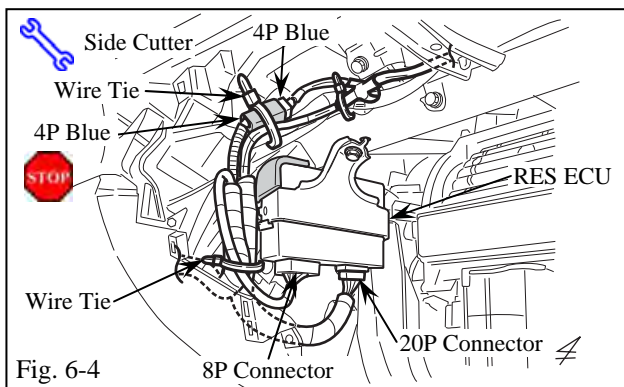
- (a) Insert the RES ECU Bracket into the indicated Bracket Slots on the RES ECU. (Fig. 6-1)
 - (1) Ensure the bracket is firmly attached to the ECU.



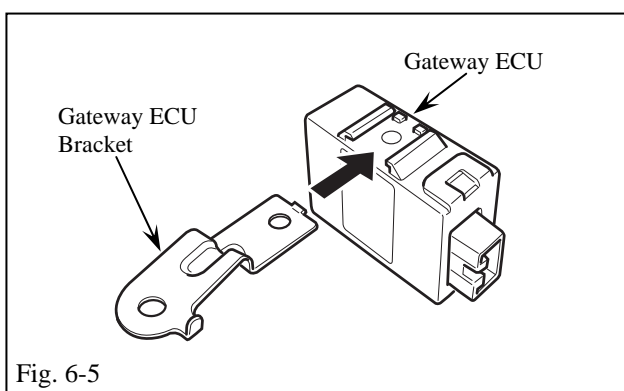
- (b) Cut 1 piece of Foam Tape in half. Apply it to the RES ECU as shown. (Fig. 6-2)
- (1) Do not discard the extra foam tape.



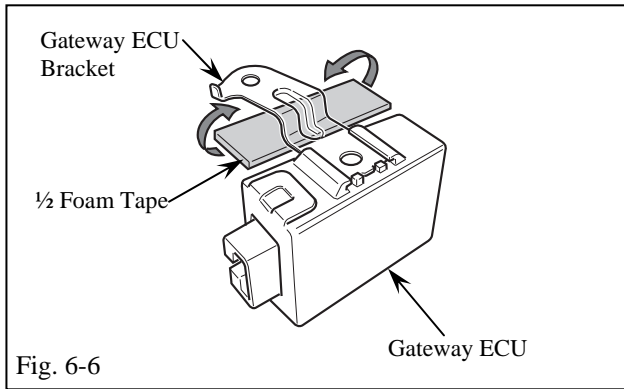
- (c) Using the Screw from the Kit, install the RES ECU Bracket. (Fig. 6-3)
- (1) Make sure that the bracket pin seats properly.
- (2) Do not over tighten the Screw.



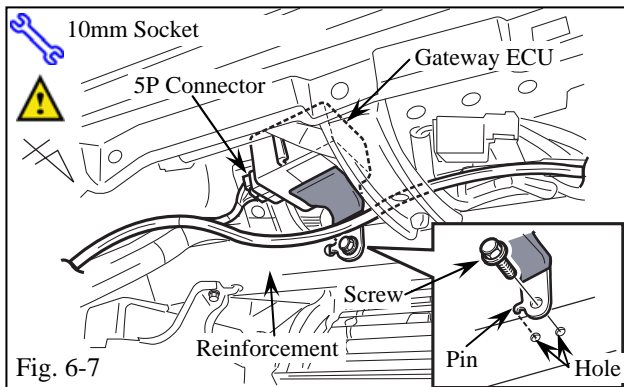
- (d) Connect the V4 Harness' White 8P and 20P Connectors to the RES ECU. (Fig. 6-4)
- (e) Using 1 Wire Tie to secure the V4 Harness to the Vehicle Harness as shown. (Fig. 6-4)
- (1) Verify that there is no tension on the V4 Harness' 8P Connector.
- (f) Using 1 Wire Tie to secure the Blue 4P Connector to the V4 Harness. (Fig. 6-4)
- (g) Route the V4 Harness toward the right side of the Glove Box. (Fig. 6-4)



- (h) Install the Gateway ECU Bracket into indicated bracket slot on the Gateway ECU. (Fig. 6-5)
- (1) Ensure the bracket is firmly attached to the ECU.



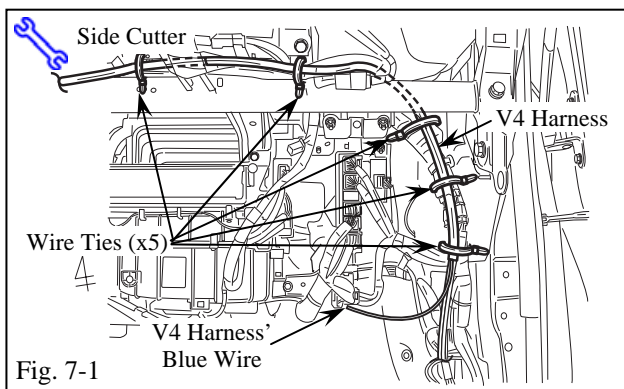
- (i) Using the extra 1/2 of Foam Tape from Fig. 6-2 apply it to the Gateway ECU Bracket as shown. (Fig. 6-6)



- (j) Using the Screw from the Kit, install the Gateway ECU Bracket. (Fig. 6-7)

- (1) Make sure that the bracket pin seats properly.
- (2) Do not over tighten the Screw.

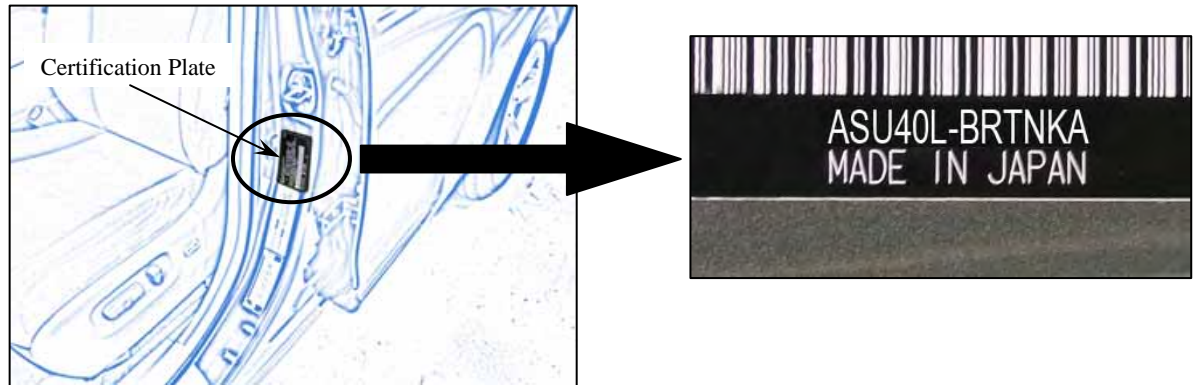
- (k) Connect the V4 Harness' White 5P Connector to the Gateway ECU. (Fig. 6-7)



7. V4 Harness Installation. (Continued)

- (a) Route the V4 Harness toward the Passenger's Side Cowl Area securing it to the Vehicle Harness with 5 Wire Ties. (Fig. 7-1)

Confirm the following:



[1] Confirm the Certification Plate on the Driver's side of the Vehicle's Body.

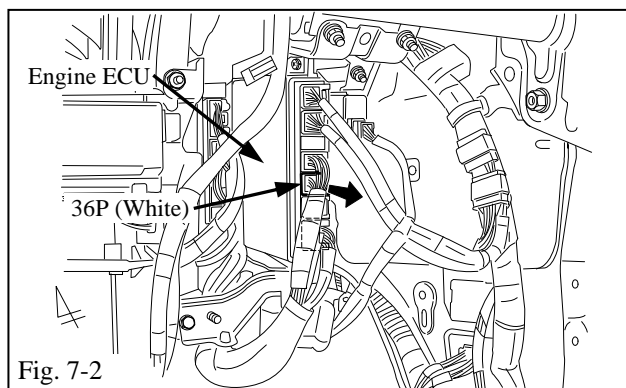
"ASU40L-ARTNKA" ONLY

All other Codes

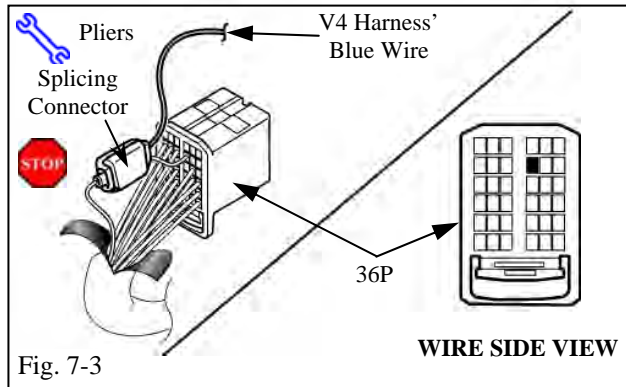
[2] Use Section 7 steps b - c

[2] Use Section 7 steps d - e

**-FOR "ASU40L-ARTNKA" VEHICLES ONLY.
(steps b – c)**



(b) Locate the Engine ECU to the right side of the Blower Motor and disconnect the 36P Connector (4th Connector from the top) (Fig. 7-2)



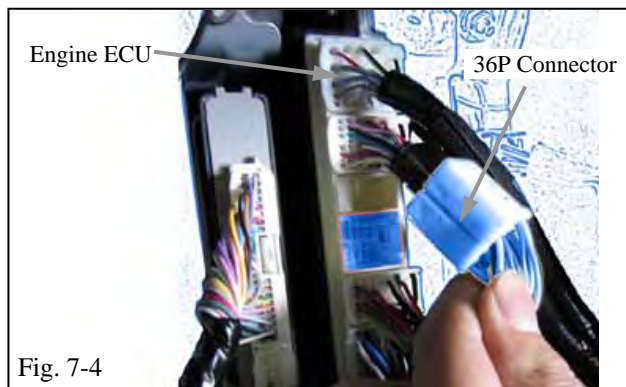
- (c) Use a Splicing Connector to secure the V4 Harness' Blue Wire to the Wire on the 36P Vehicle Connector as shown. (Fig. 7-3)



VERIFY: That the Wire is spliced properly.

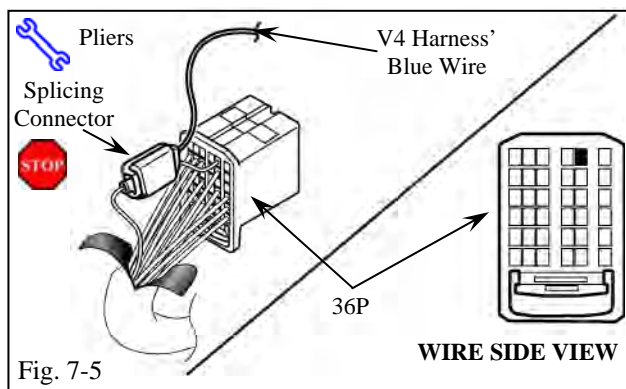


CAUTION: There are 2 Vehicle 36P Connectors. Make sure the configuration of the connector shape design. (Fig. 7-3)



-FOR ALL OTHER VEHICLES. (steps d – e)

- (d) Locate the Engine ECU to the right side of the Blower Motor and disconnect the 36P Connector (3rd Connector from the top). (Fig. 7-4)



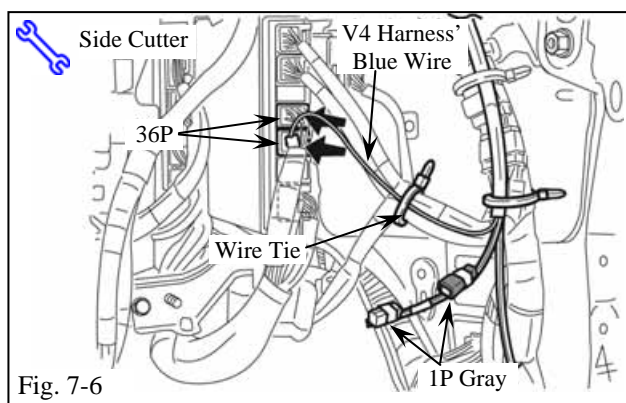
- (e) Use a Splicing Connector to secure the V4 Harness' Blue Wire to the Wire on the 36P Vehicle Connector as shown. (Fig. 7-5)



VERIFY: That the Wire is spliced properly.



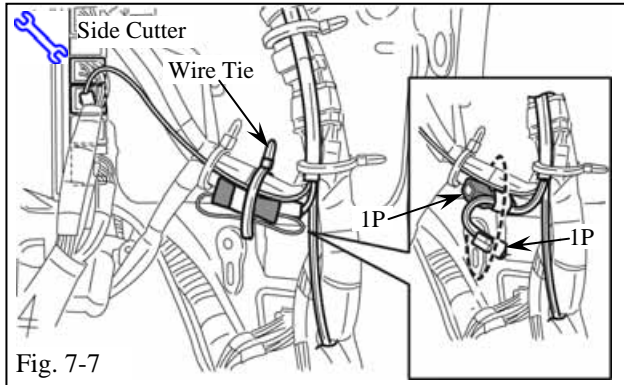
CAUTION: There are 2 Vehicle 36P Connectors. Make sure the configuration of the connector shape design. (Fig. 7-5)



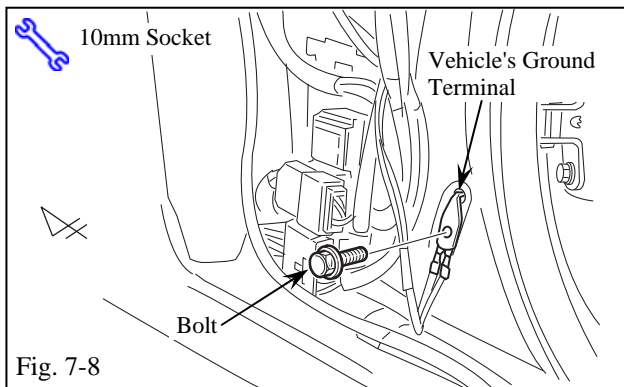
- (f) Reconnect the 36P Vehicle Connectors to the Engine ECU. (Fig. 7-6)

(1) Verify secure connection.

- (g) Secure the V4 Harness Blue Wire to the Vehicle Harness with 1 Wire Tie. (Fig. 7-6)

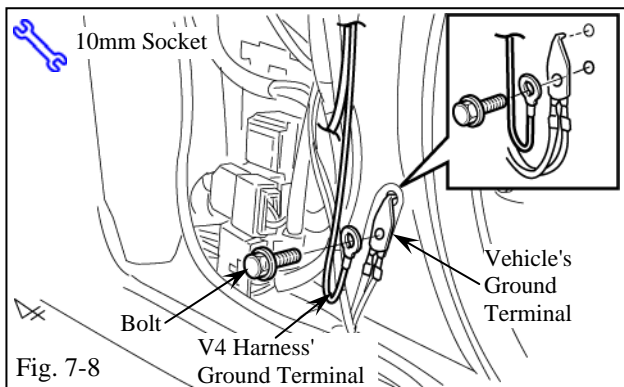


- (h) Bundle up the V4 Harness's Gray 1P Connectors and secure it to the Vehicle Harness with 1 Wire Tie. (Fig. 7-7)



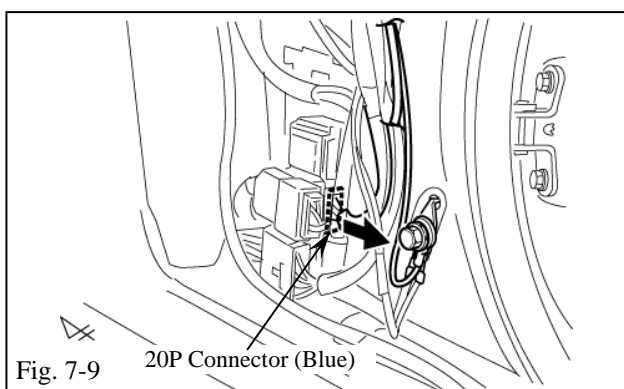
- (i) Remove 1 Bolt securing the Vehicle's Ground Terminal from the Passenger's Side Cowl Area. (Fig. 7-8)

(1) Do not discard the bolt.

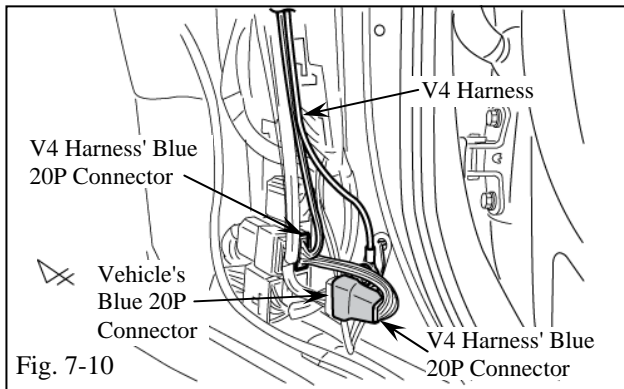


- (j) Use the existing Vehicle's Bolt to secure the V4 Harness' Ground Terminal with the Vehicle's Ground Terminal. (Fig. 7-8)

(1) Make sure that the vehicle ground terminal pin seats properly.

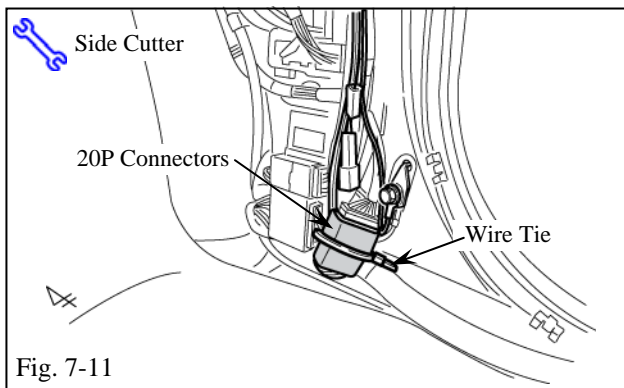


- (k) Locate and disconnect the Vehicle's Blue 20P Connector from the Passenger's Side Cowl Area. (Fig. 7-9)

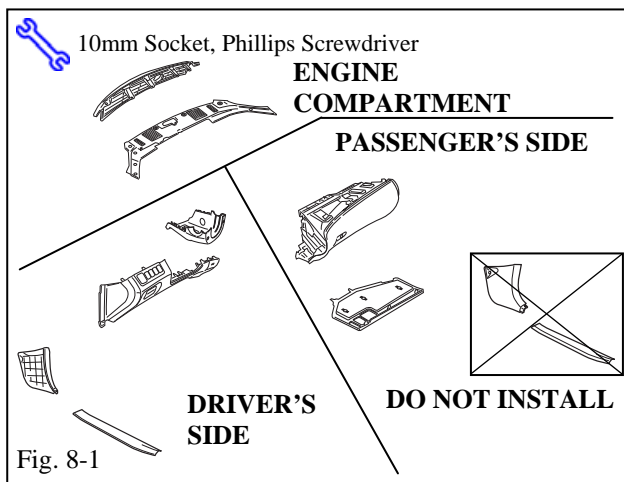


- (l) Plug in the V4 Harness' Blue 20P Connectors in between the Passenger's Side Connector Block and Vehicle's Blue 20P Connector. (Fig. 7-10)

- (1) Verify secure connection.



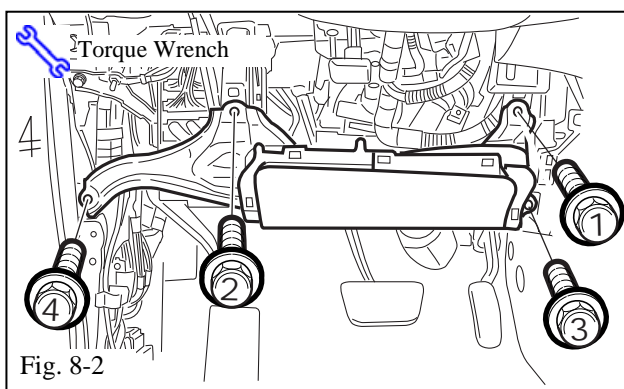
- (m) Use 1 Wire Tie to secure the 20P Connectors to the Vehicle Harness. (Fig. 7-11)



8. Partial Reassembly.

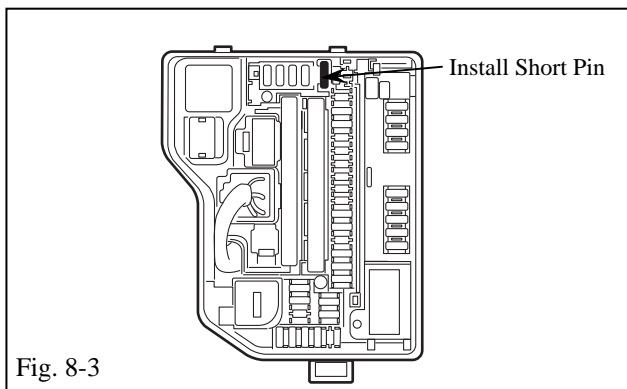
- (a) Reassemble the Vehicle, except for the Passenger's Cowl Cover and Step Cover. (Fig. 8-1)

- (1) Reconnect any disconnected connectors.
- (2) Verify the panels fit together properly, with no uneven gaps.



- (b) When installing the Driver's side airbag install and tighten the bolts in the specified order. (Fig. 8-2)

- (1) Tighten to 88 in•lbf (9.94 N•m).

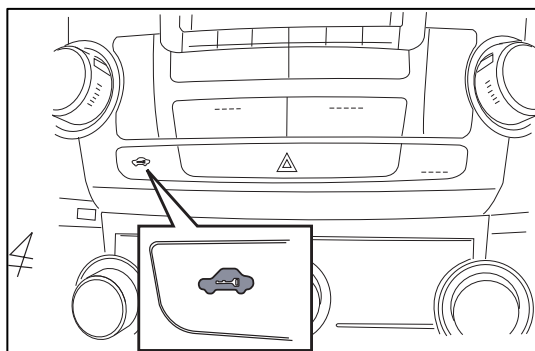


(c) Verify the Short Pin is installed. (Fig. 8-3)

(1) If not install the Short Pin.

Confirm the following:

[1] Does the Vehicle have an Immobilizer Indicator?



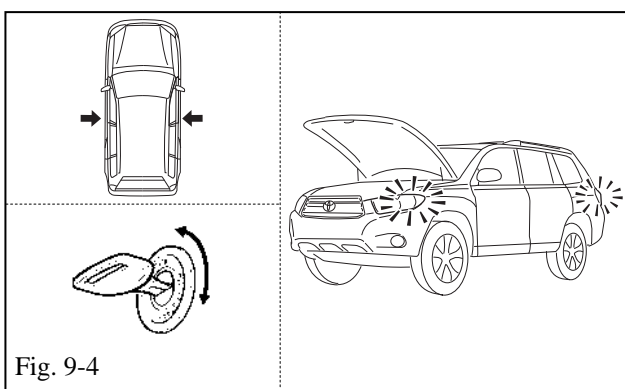
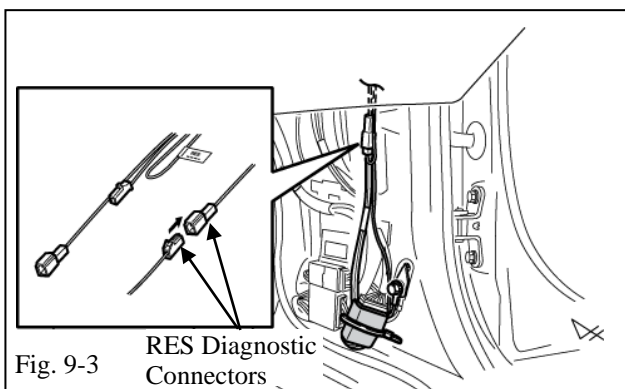
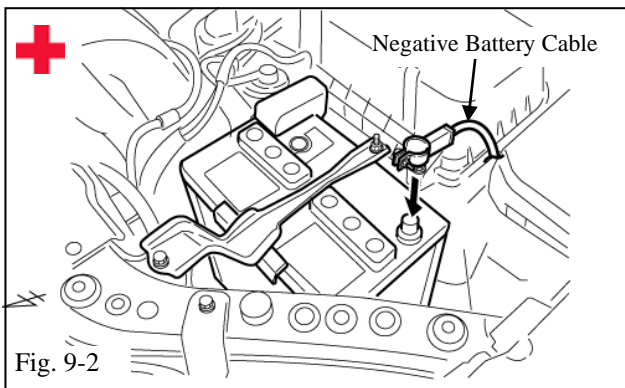
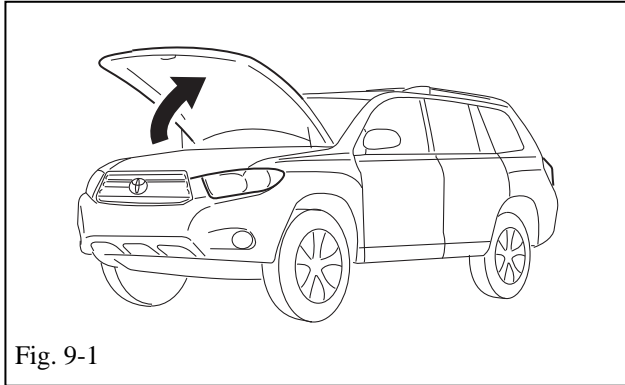
YES

[2] **Registration Section 10**
Go to page 31
(Vehicle with Immobilizer)

NO

[2] **Registration Section 9**
steps a-m
(Vehicle without Immobilizer)

CONTINUED



9. Registration

(Vehicles WITHOUT Immobilizer ONLY)

(steps a-m)

**REFER TO ADDENDUM I FOR
ADDITIONAL INFORMATION.**

(a) Open the Hood. (Fig. 9-1)

(b) Temporarily reconnect the Vehicle's
Negative Battery Cable. (Fig. 9-2)



CAUTION: Do not touch the Positive Terminal.

(c) Locate and remove the Tape securing the
V4 Harness's 1P RES Diagnostic
Connectors in the Passenger's Side Cowl
Area and connect them. (Fig. 9-3)



**ONCE CONNECTED YOU WILL HAVE 10
MINUTES TO COMPLETE STEPS d-l.**

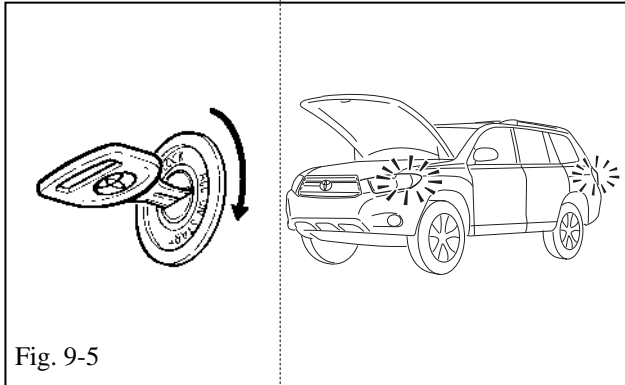
(d) Close all doors. (Fig. 9-4)

(1) Do not close Hood.

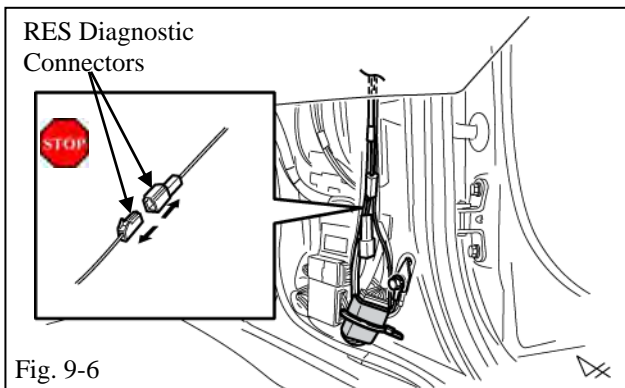
(e) Insert the key into the ignition and turn it
from "OFF" to "ON" 5 times. (Fig. 9-4)

(1) The Hazard Lights Flash Once.

(2) Turn the key to the "OFF" position.

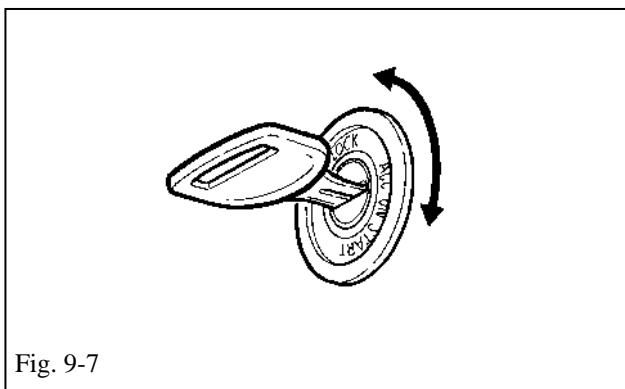


- (f) Start the Engine. (Fig. 9-5)
- (g) After 10 seconds stop the Engine. (Fig. 9-5)
 - (1) The Hazard Lights Flash Once.

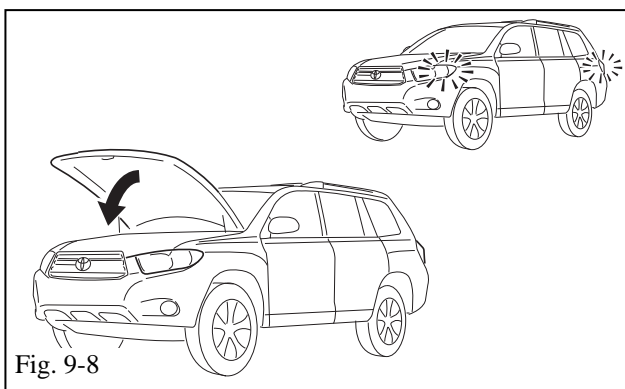


If this procedure failed, the Hazard Lights won't Flash or Flashes Twice.

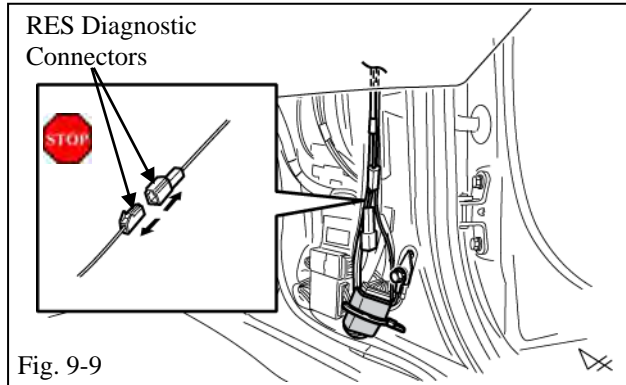
- Disconnect the V4 Harness's White 1P Connectors in the Passenger's Side Cowl Area. (Fig. 9-6)
- Start again from step c.



- (h) Insert the key into the ignition and turn it from "OFF" to "ON" 5 times. (Fig. 9-7)
- (i) Remove the Key from the Ignition.

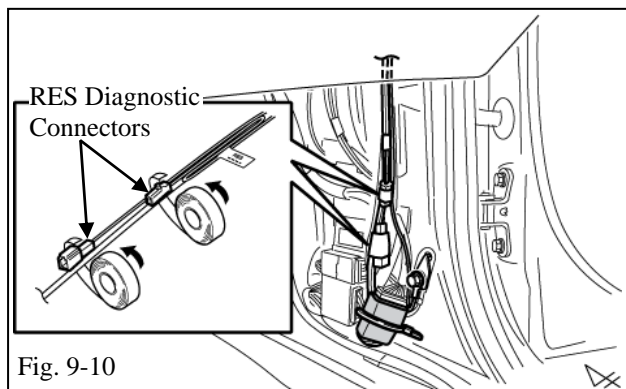


- (j) Close the Hood. (Fig. 9-8)
 - The Hazard Lights Flash Once. Registration is complete.

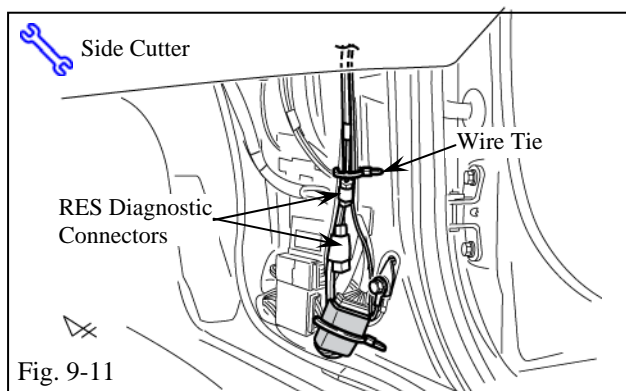


If this procedure failed, the Hazard Lights flash 3 times.

- Disconnect the V4 Harness' White 1P Connectors in the Passenger's Side Cowl Area. (Fig. 9-9)
- Start again from step c.



- (k) After a Successful Registration disconnect the V4 Harness's White 1P Connectors (Fig. 9-10)
- (l) Secure the V4 Harness and 1P Connectors with Electrical Tape as shown. (Fig. 9-10)



- (m) Secure the V4 Harness to the Vehicle Harness with 1 Wire Tie. (Fig. 9-11)

Go to Section 11 (page 35).

10. Registration

(Vehicles WITH Immobilizer ONLY)

(steps a-z)

REFER TO ADDENDUM I FOR ADDITIONAL INFORMATION.

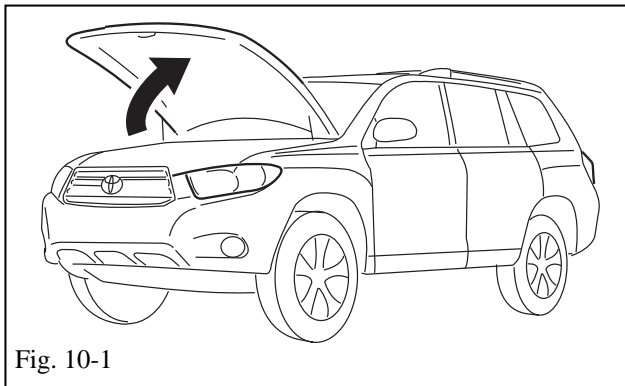


Fig. 10-1

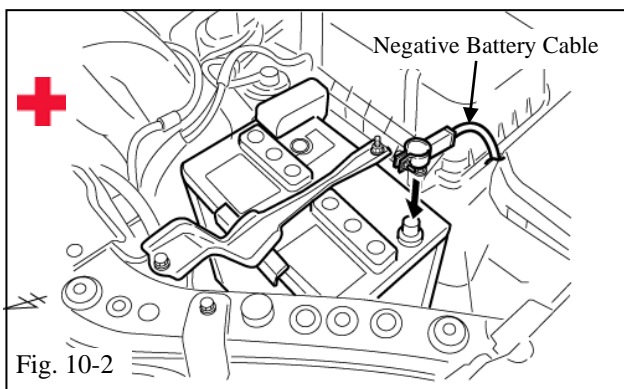


Fig. 10-2

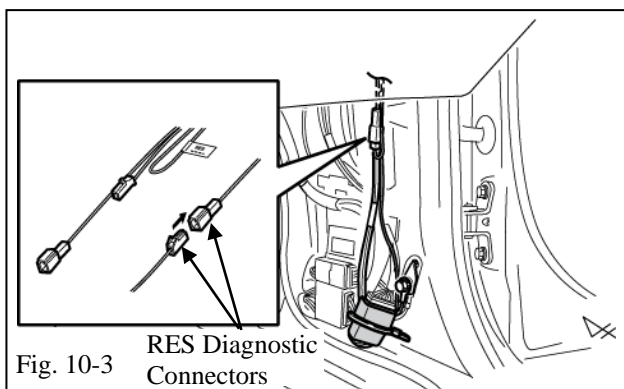


Fig. 10-3

RES Diagnostic
Connectors

(a) Open the Hood. (Fig. 10-1)

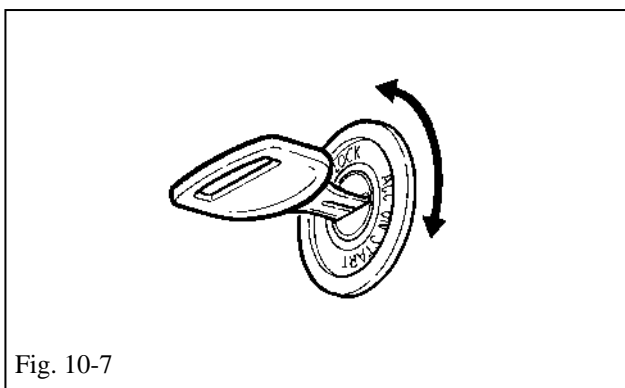
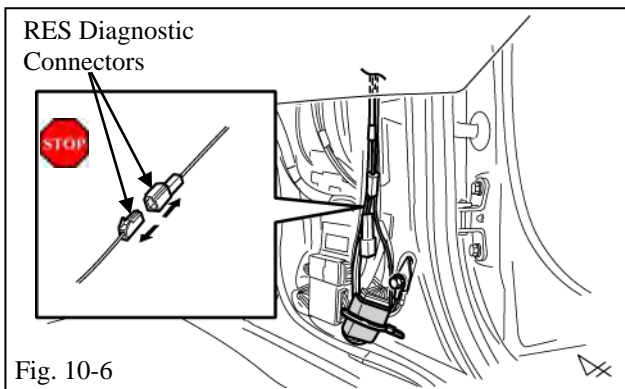
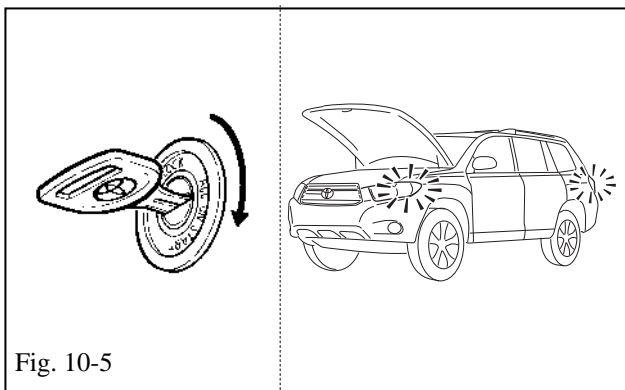
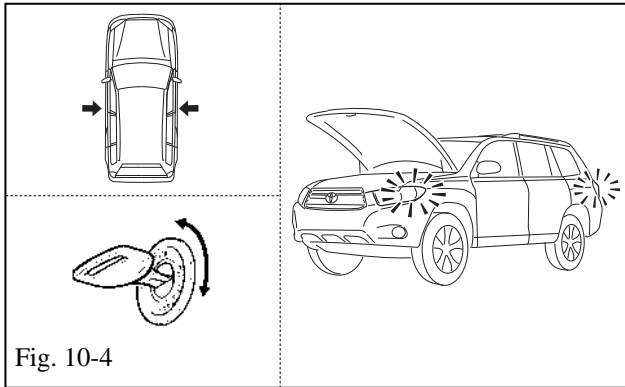
(b) Temporarily reconnect the Vehicle's Negative Battery Cable. (Fig. 10-2)

+ CAUTION: Do not touch the Positive Terminal.

(c) Locate and remove the Tape securing the V4 Harness' White 1P Connectors in the Passenger's Side Cowl Area and connect them. (Fig. 10-3)



ONCE CONNECTED YOU WILL HAVE 10 MINUTES TO COMPLETE STEPS d-w.



- (d) Close all doors. (Fig. 10-4)
 - (1) Do not close the Hood.
- (e) Insert the key into the ignition. (Fig. 10-4)
- (f) Turn it from "OFF" to "ON" 5 times. (Fig. 10-4)
 - (1) The Hazard Lights Flash Once.
- (g) Turn the key to the "OFF" position.
- (h) Start the Engine. (Fig. 10-5)
- (i) After 10 seconds stop the Engine (Fig. 10-5)
 - (1) The Hazard Lights Flash Once.



If this procedure failed, the Hazard Lights won't Flash or Flashes Twice.

- Disconnect the V4 Harness' White 1P Connectors in the Passenger's Side Cowl Area. (Fig. 10-6)
- Start again from step c.

- (j) Turn the Key to the "ON" position and back to the "OFF" position. (Fig. 10-7)
- (k) Remove the Key from the ignition switch.

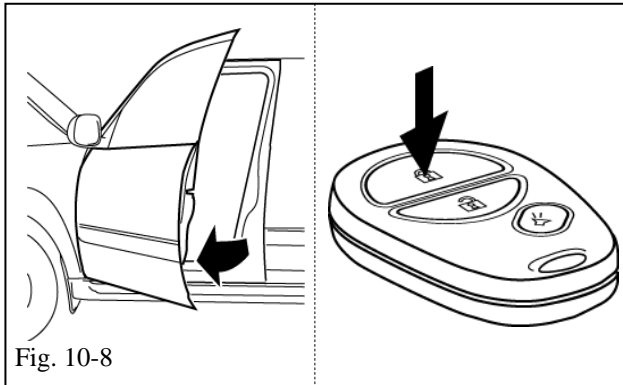


Fig. 10-8

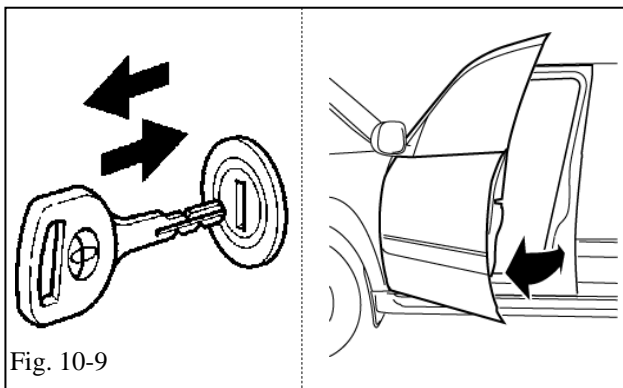


Fig. 10-9

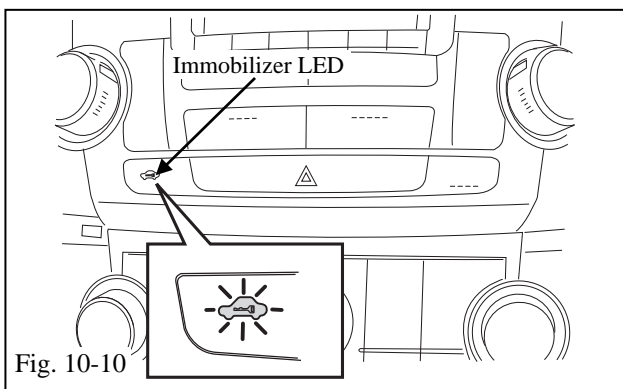


Fig. 10-10

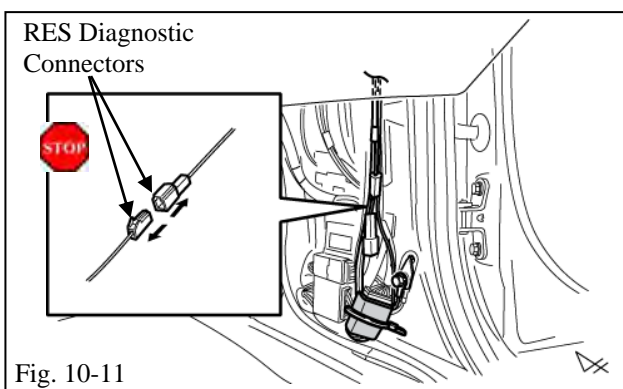


Fig. 10-11

(l) Open the Driver's Door. (Fig. 10-8)



ONCE OPEN, YOU HAVE 20 SECONDS TO COMPLETE STEPS m-q.

(m) Using the Remote, press the Lock Button twice within 2 seconds. (Fig. 10-8)

(n) Press and hold the lock button for 4 seconds. (Fig. 10-8)

(o) Insert the Key into the ignition. (Fig. 10-9)

(p) Remove and insert the Key into the ignition 6 times. (Fig. 10-9)

(q) Turn the Key to the "ON" position.

(r) Close the Driver's Door. (Fig. 10-9)

(s) Open, and close the Driver's Door 7 times. (Fig. 10-9)

(1) Complete this step within 35 seconds.

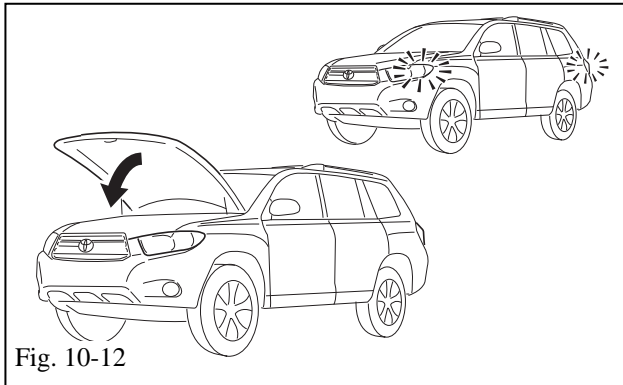
(t) If registration was successful, the Immobilizer LED will light up for 1 second, and turn off. (Fig. 10-10)

(u) After the light is off for 1 second, the LED will light up again and stay on until the Key is removed from the ignition. (Fig. 10-10)



If this procedure failed, registration has failed.

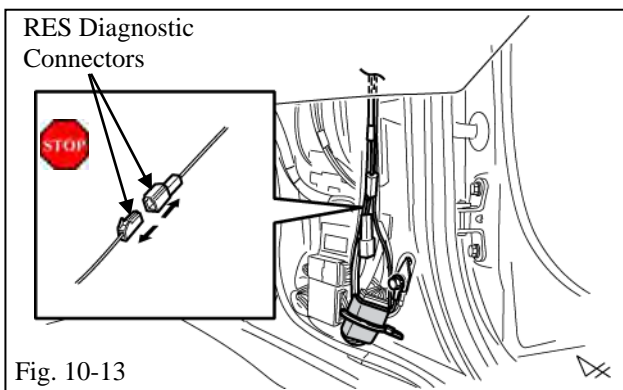
- Disconnect the V4 harness' White 1P Connector from the Passenger's Side Cowl Area. (Fig. 10-11)
- Start again from step c.



(v) Remove the Key from the Ignition.

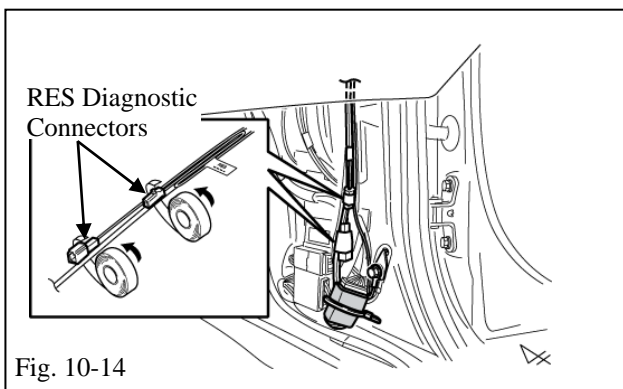
(w) Close the Hood. (Fig. 10-12)

- (1) The hazard lights flash twice. Registration is complete.



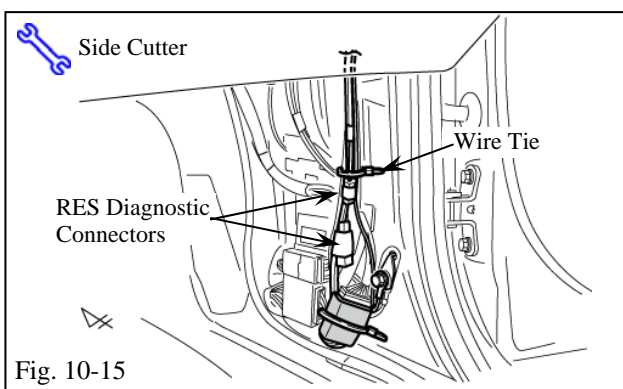
If this procedure failed, the Hazard Lights flash 3 times.

- Disconnect the V4 Harness' White 1P Connector in the Passenger's Side Cowl Area. (Fig. 10-13)
- Start again from Step c.



(x) After a Successful Registration disconnect the V4 Harness' White 1P Connectors (Fig. 10-14)

(y) Secure the V4 Harness and 1P Connectors with Electrical Tape as shown. (Fig. 10-14)

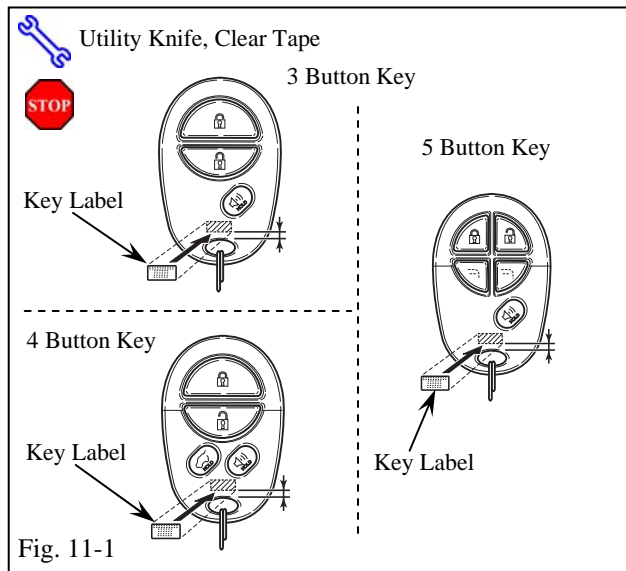


(z) Secure the V4 Harness to the Vehicle Harness with 1 Wire Tie. (Fig. 10-15)

11. Tags and Labels Installation.

STOP For US Vehicles use the English Tags and Labels, and discard the Spanish Tags and Labels.

STOP For Mexico Vehicles use the Spanish Tags and Labels, and discard the English Tags and Labels.



(a) Remove 2 of the Remote Controls from their protective bag.

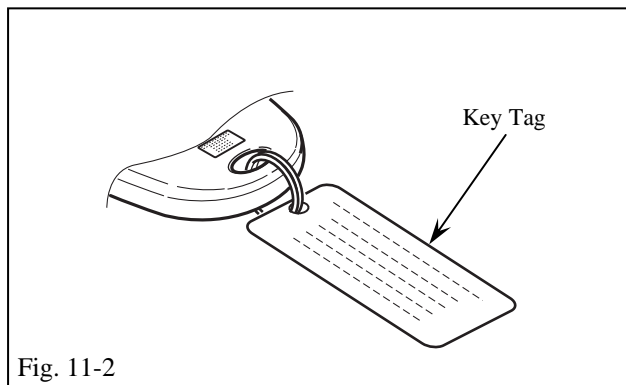
(1) Use a utility knife, to cut a slit in each bag.

(b) Using VDC approved cleaner and Cleaning Method, clean the area indicated on the Remote Controls. (Fig. 11-1)

(c) Attach the Key Label to the Remote Controls as shown. (Fig. 11-1)

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

STOP CAUTION: Do not touch the label's adhesive surface.



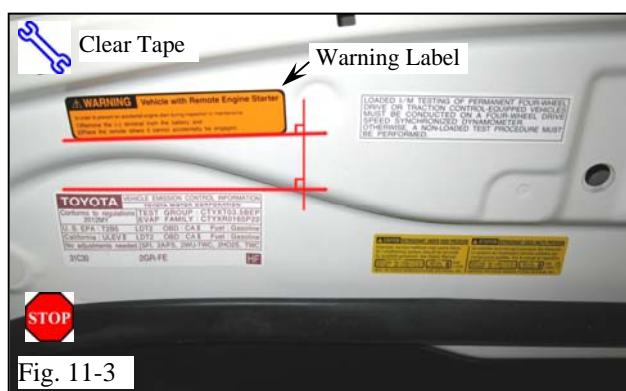
(d) Attach the Key Tags to the Vehicle Remote Controls. (Fig. 11-2)

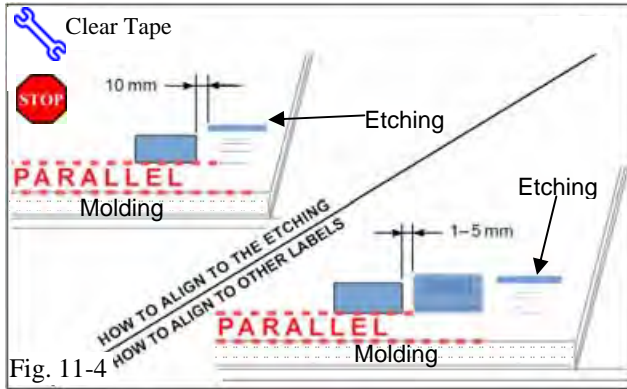
(e) Using the VDC approved cleaner and Cleaning Method, clean the area indicated on the Engine Compartment Cover. (Fig. 11-3)

(f) Attach the Warning Label to the Engine Compartment as shown, parallel to the other label. (Fig. 11-3)

(1) Use a piece of clean adhesive tape to lift the label off its protective backing.

STOP CAUTION: Do not touch the label's adhesive surface.





- (g) Use Household Glass Cleaner to clean the inside of the Front Door Windows.
- (h) Use a piece of Clear Tape to lift the Label from the protective backing.



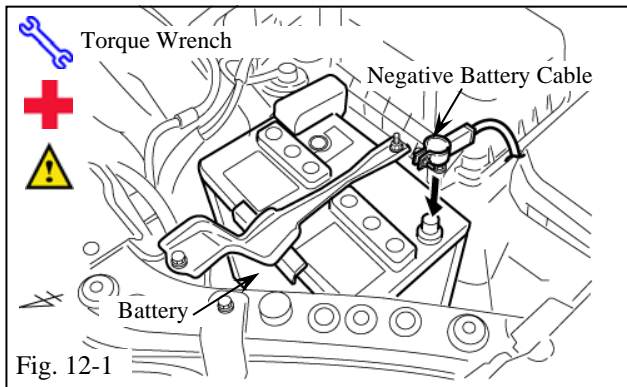
CAUTION: Do not touch the adhesive surface.

- (i) Attach the Label as shown. (Fig. 11-4)



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

REPEAT: steps g-i with the other Window.



12. Completing the Installation.

- (a) Complete the reassembly of the vehicle.
 - (1) Verify the panels fit together properly, with no uneven gaps.



- (b) Position the Negative Battery Cable at the original factory position. (Fig. 12-1)



- (1) Tighten the nut to 36 in•lbf (4.06 N•m)



CAUTION: Do not touch the Positive Terminal.

- (c) Clean up and remove any Trash.
- (d) Sealed in its protective bag, place the Owner's Guide in the Glove Box.
- (e) Reset the Power Windows.
 - (1) Turn Ignition Key to the "ON" position.
 - (2) Push down the Power Window Switches, and lower the windows halfway.
 - (3) Pull up the switches until the windows close.
 - (4) Continue holding up on the switches for a minimum of 1 second.

Accessory Function Checks

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 20 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 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 Latch Release

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)		

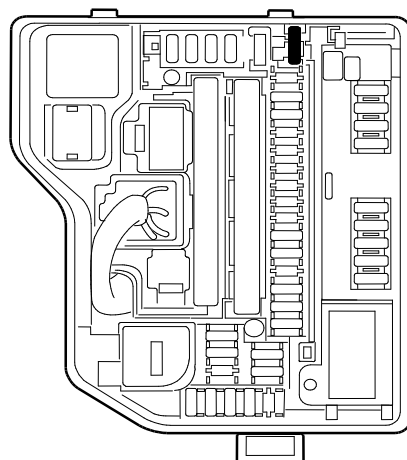
Stop the Engine, Place the Vehicle's IG in the ON position.

<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)

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.



REMOTE ENGINE STARTER (RES) REGISTRATION PROCEDURE
-----For vehicles w/o Smart Entry and w/Immobilizer-----

1. OPEN the Hood
2. VERIFY that the Short Pin is in the Appropriate location (*disconnect the Battery if you need to move the Short Pin*)
3. Temporarily **CONNECT** the Negative Battery Terminal
4. OPEN the Passenger Front Door
5. LOCATE the 1P RES Diagnostic Connectors in the Right Kick Panel.
6. CONNECT the 1P RES Diagnostic Connectors together
7. CLOSE all Doors (LEAVE THE HOOD OPEN)
8. INSERT a MASTER (Black) Immobilizer Key into the Ignition Switch (*use this key for the entire process*)
9. TURN the Key from LOCK to ON five (5) times, ending in the ON position
10. LOOK for the Hazard Lights to flash ONCE
11. TURN the Ignition Switch to the OFF position
12. START the Engine and allow to idle for at least 10 seconds
13. TURN the Ignition Switch to the OFF position.
14. LOOK for the Hazard lights to flash ONCE. *If they do not flash or they flash TWICE, disconnect the 1P RES Diagnostic Connectors and start over from Step 6.*
15. TURN the Key to the ON position and back to the OFF position
16. REMOVE the Key from the Ignition Switch
17. OPEN the Driver's Door
18. Using a Remote Control, **PRESS** the LOCK button TWICE and then a THIRD time and HOLD it for 4 seconds
19. INSERT the key into the Ignition Switch.
20. REMOVE and **INSERT** the Key 6 times.
21. TURN the Key to the ON position.
22. CLOSE the Driver's Door
23. OPEN and **CLOSE** the Driver's Door seven (7) times, ending in the CLOSED position. THIS STEP NEEDS TO BE COMPLETED WITHIN 35 SECONDS OF INSERTING THE KEY INTO THE IGNITION (step 21)
24. LOOK for the IMMOBILIZER LED to turn on for one (1) second then go OFF
25. WAIT one (1) second
26. LOOK for the IMMOBILIZER LED to turn ON again and stay on
27. REMOVE the Ignition Key.
28. LOOK for the IMMOBILIZER LED to turn OFF
29. CLOSE the Hood
30. LOOK for the Hazard lights to flash TWICE to confirm Registration. If the Hazard lights flash THREE times Registration was NOT successful (Start over from step 6)
31. UNPLUG the 1P RES Diagnostic Connector.

TIPS FOR REMOTE ENGINE STARTER (RES) REGISTRATION
PROCEDURE

1. **SLOW DOWN** this is the best thing you can do. The procedure is difficult and long but there is plenty of time to do everything. When turning the key, inserting the key or pressing the remote make your action rhythmic like a clock. Slow and deliberate.
2. **READ** these instructions and the instructions supplied in the *Vehicles V4 Installation Instructions* completely before attempting Registration.
3. **ASK** someone else to read these steps to you while you perform the procedure. This will help you remember what needs to be done next without having to look back at the Instructions.
4. **PROBLEMS** if you've failed to Register the Vehicle several times RESET the Vehicle. Start by disconnecting the RES Diagnostic Connectors. Then disconnect the Vehicle Battery. Next turn the Vehicles Ignition Switch to ON and then back to OFF.
Now **TAKE A BREAK** let you and the Vehicle de-stress for about 10 minutes. This will allow the RES ECU's to completely RESET and give you a fresh start to try Registration.

REMOTE ENGINE STARTER (RES) REGISTRATION PROCEDURE
-----For vehicles w/o Smart Entry and w/o Immobilizer-----

1. **OPEN** the Hood
2. **VERIFY** that the Short Pin is in the Appropriate location (disconnect the Battery if you need to move the Short Pin)
3. Temporarily **CONNECT** the Negative Battery Terminal
4. **OPEN** the Passenger Front Door
5. **LOCATE** the 1P RES Diagnostic Connectors in the Right Kick Panel.
6. **CONNECT** the 1P RES Diagnostic Connectors together
7. **CLOSE** all Doors (LEAVE THE HOOD OPEN)
8. **INSERT** a Key into the Ignition Switch
9. **TURN** the Key from LOCK to ON five (5) times, ending in the ON position
10. **LOOK** for the Hazard Lights to flash ONCE
11. **TURN** the Ignition Switch to the OFF position
12. **START** the Engine and allow to idle for at least 10 seconds
13. **TURN** the Ignition Switch to the OFF position.
14. **LOOK** for the Hazard lights to flash ONCE. If they do not flash or they flash **TWICE**, disconnect the 1P RES Diagnostic Connectors and start over from Step 6.
15. **TURN** the Key from LOCK to ON five (5) times, ending in the ON position
16. **TURN** the Ignition Switch to the OFF position
17. **REMOVE** the Key from the Ignition Switch
18. **CLOSE** the Hood
19. **LOOK** for the Hazard lights to flash ONCE to confirm Registration. If the Hazard lights flash THREE times Registration was NOT successful (Start over from step 6)
20. **UNPLUG** the 1P RES Diagnostic Connector.

TIPS FOR REMOTE ENGINE STARTER (RES) REGISTRATION PROCEDURE

1. **SLOW DOWN** this is the best thing you can do. The procedure is difficult and long but there is plenty of time to do everything.
When turning the key, inserting the key or pressing the remote make your action rhythmic like a clock. Slow and deliberate.
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