

**Part Number: PT398-12090**

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

**Conflicts**

Do not install into Manual Transmission Vehicle or Vehicles without RKE system.

**Recommended Sequence of Application**

Item #	Accessory	Description
1	TVIP V5	RS3200 Plus
2	TVIP V4	Remote Engine Starter (RES)

\*Mandatory

**Kit Contents**

Item #	Quantity	Description
1	1	Wire Harness (Main)
2	1	Wire Harness (Hood Switch)
4	1	RES ECU Mounting Bracket
5	1	Butyl Tape

**Hardware Bag Contents**

Item #	Quantity	Description
1	1	RES ECU
2	1	Gateway ECU
3	1	Gateway ECU Mounting Bracket
4	1	Hood Switch
5	2	Harness Clamp
6	2	Screws (for Hood Switch)
7	2	M6 Screw
8	1	Splicing Connector
9	1	Foam Tape (x2)
10	35	Wire Ties
11	4	Window Label <i>English/Spanish</i>
12	2	Engine Compartment Warning Label <i>English/Spanish</i>
13	4	Key Tags <i>English/Spanish</i>
14	4	Key Label <i>English/Spanish</i>
15	1	Owner's Manual


**Additional Items For Installation** (may be required)


Item #	Quantity	Description
1	1	<b>Phase 4 ECU</b> (PT398-03110-RP) <b>NOTE:</b> Refer to Page 4 to determine if you will need this part.
1	1	Black Electrical Tape


**Recommended Tools**


Personal & Vehicle Protection	Notes
Safety Glasses	
Safety Gloves	(Optional)
Vehicle Protection	Blankets, Part Boxes
Special Tools	Notes
Cable Wire Routing Tool	
Installation Tools	Notes
Phillips Screwdriver	#2 or tip, Jewelers
Flat Blade Screwdriver	Jewelers
Socket	10mm, Extension, 10mm Deep
Nylon Panel Removal Tool	e.g. Panel Pry Tool #1 Toyota SST # 00002-06001-01
Side Cutters	
Wrench	10mm (ratchet type)
Utility Knife	
Pliers	
Torque Wrench	·For Battery 36 in•lbf (4.07 N•m) ·For Hood Lock Assembly Center: 66.4 in•lbf (7.5N•m) Side: 70.8 in•lbf (8.0N•m)
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.

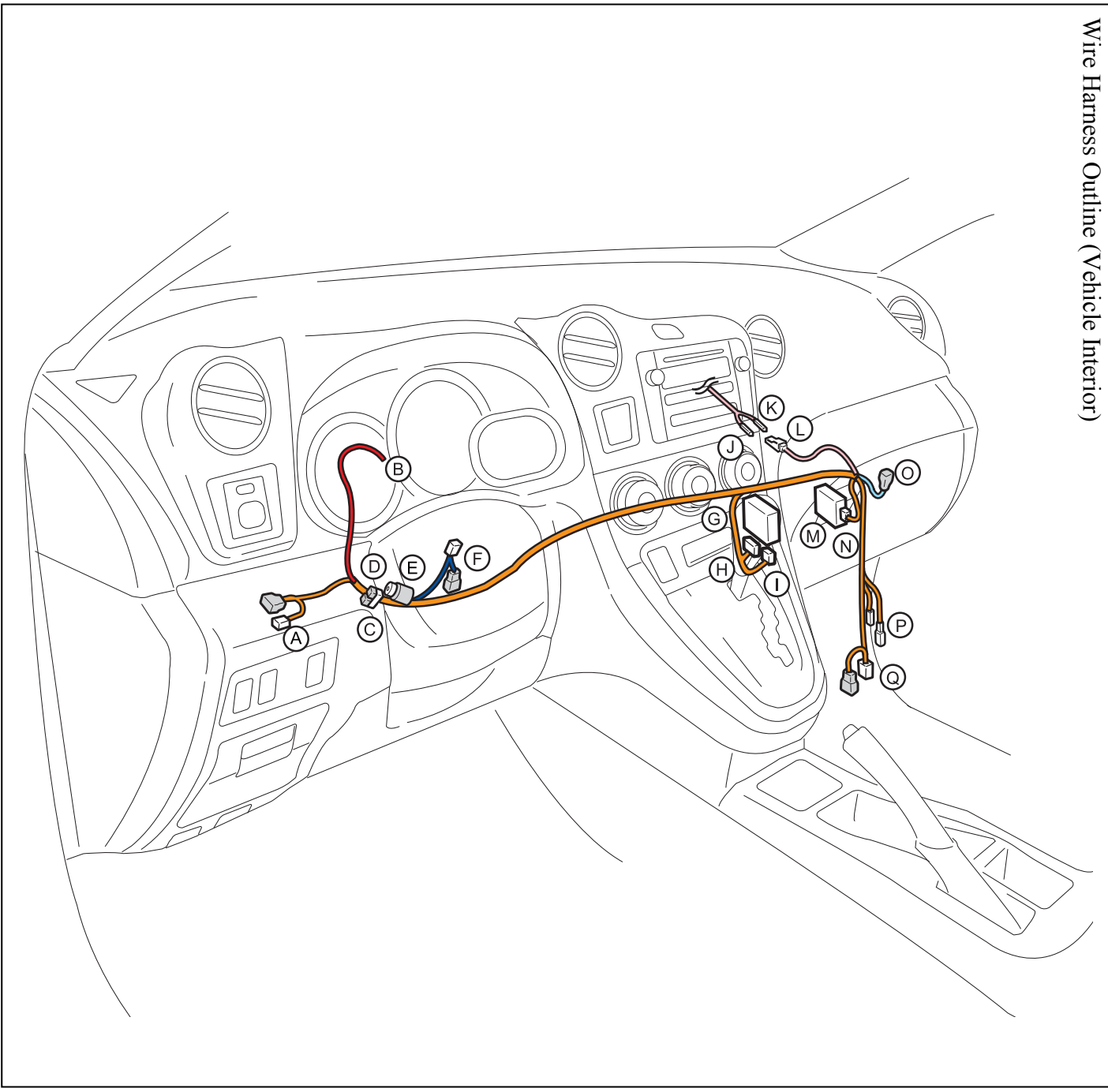
These guidelines can be found in the "Accessory Installation Practices" document. This document covers such items as:

- 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.

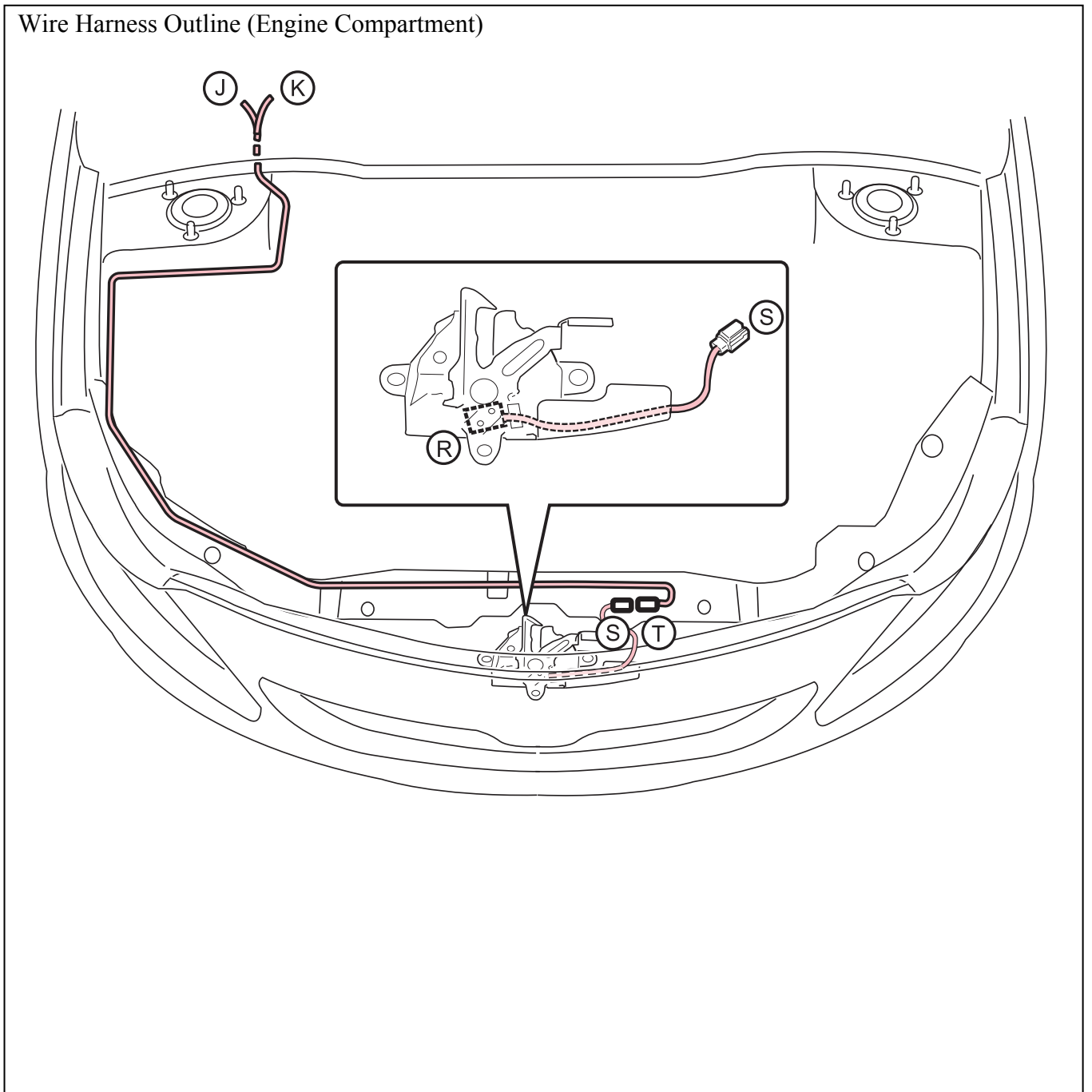
(A)	14P WHITE
(B)	WIRE TERMINAL (Red Wire)
(C)	White Tape
(D)	FUSE
(E)	RELAY
(F)	8P WHITE
(G)	RES ECU
(H)	20P WHITE (for RES ECU)
(I)	8P WHITE (for RES ECU)
(J)	WIRE TERMINAL (GREEN/RED Wire)
(K)	WIRE TERMINAL (WHITE/BLACK Wire)
(L)	2P WHITE (for HOOD Switch)
(M)	Gateway ECU
(N)	5P WHITE (for Gateway ECU)
(O)	2P WHITE (Male)
(P)	1P WHITE (for Registration)
(Q)	13P WHITE

Wire Harness Outline (Vehicle Interior)



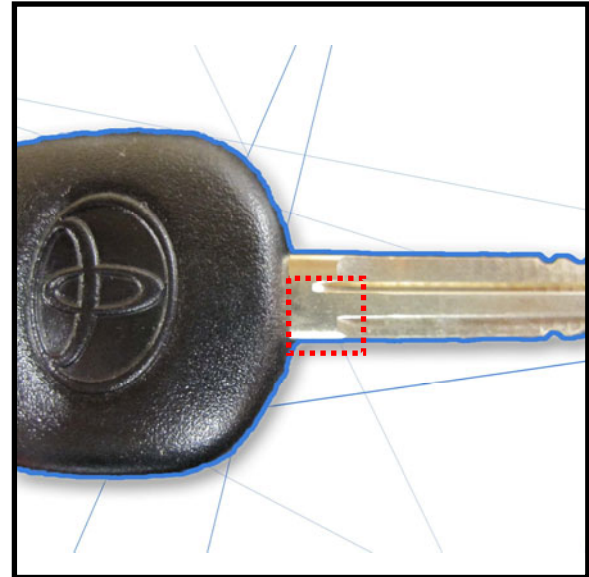
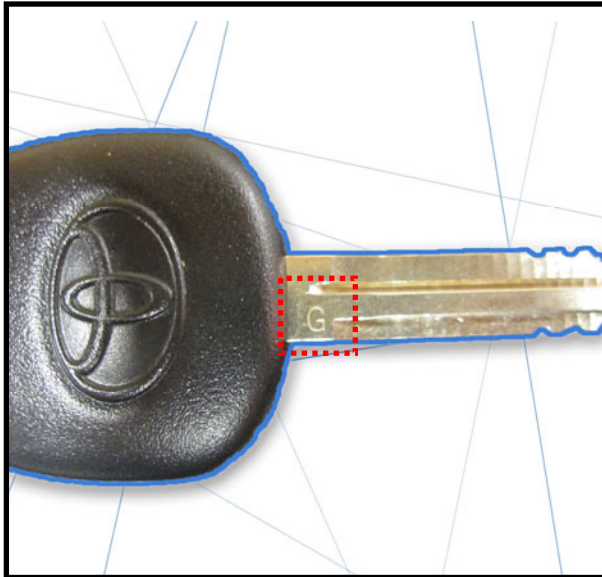
WIRE TERMINAL (GREEN/RED Wire)	WIRE TERMINAL (WHITE/BLACK Wire)	HOOD Switch	2P BLACK (Female)	2P BLACK (Male)									
(J)	(K)	(R)	(S)	(T)									

Wire Harness Outline (Engine Compartment)



## Confirm the Vehicle's Master Key:

**NOTE:** There are 2 different Kit Configurations and Registration Procedures for this Vehicle.  
You must first identify which Vehicle you have by looking at the Vehicle's Master Key.



### If the Vehicle's KEY has "G" engraved on it

- You MUST remove the RES ECU PN: PT398-42080 from Kit PN: PT398-12090 and replace it with Service PN: PT398-03110-RP (see Pg. 5 for information on this)
- You MUST Use the Phase 4 registration. (see registration section pg. 35)

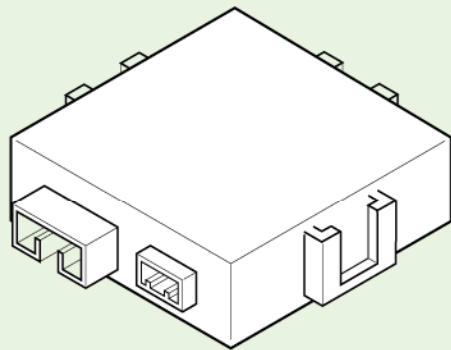
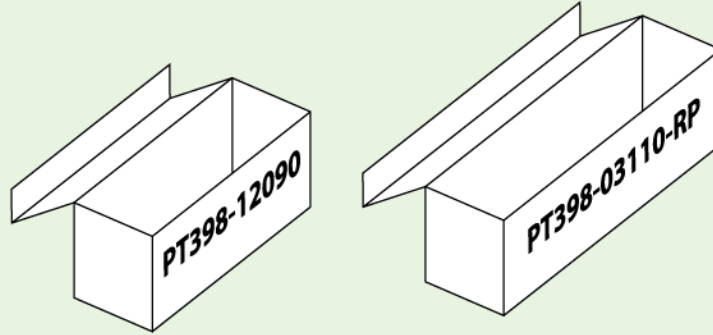
### If the Vehicle's KEY does not have "G" on it

- You can use Kit PN: PT398-12090 as is, proceed to page 6.
- You MUST Use the Phase 3 registration. (see registration section pg. 31)

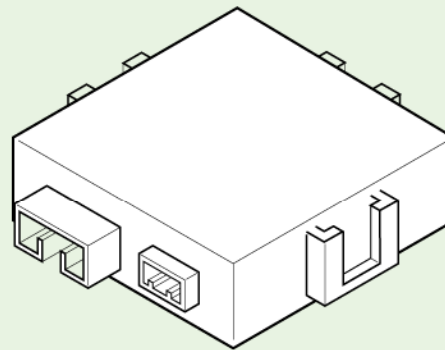
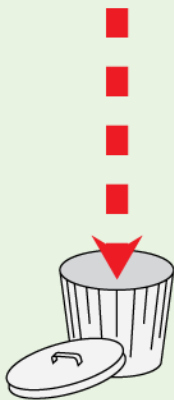
**Matrix Phase 4  
Kit Conversion ONLY**

- (a) Remove the ECU PN PT398-42080.
- (b) Discard the ECU ONLY.

**CAUTION:** Do not discard any other items from the kit.



PT398-42080



PT398-03110-RP

- (c) Add the Service part ECU PN: PT398-03110-RP.
- (d) Install into the Vehicle as Instructed in the Installation Instructions.

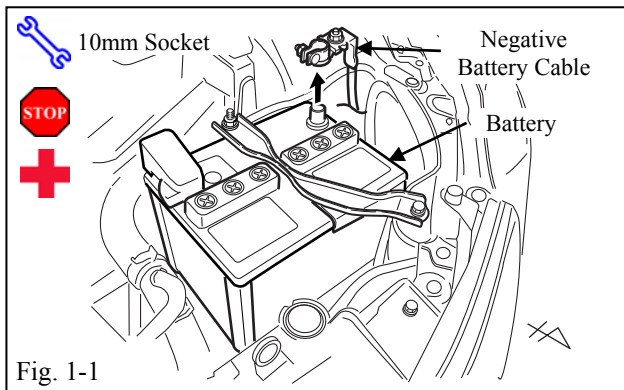


Fig. 1-1

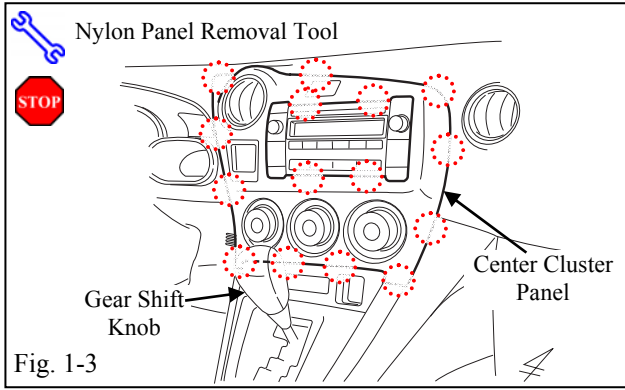
**1. Vehicle Disassembly.**

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

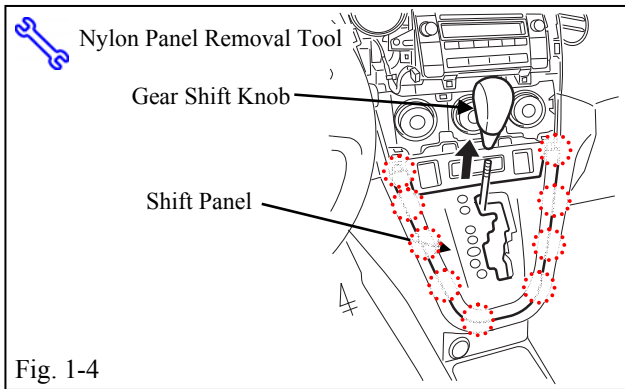
1	Center Cluster Panel
2	Gear Shift Knob
3	Shift Panel
4	Console Box Top Cover
5	Floor Console Front Panel
6	Floor Console Box
7	Driver's Center Cluster Under Cover
8	Passenger's Center Cluster Under Cover
9	Center Cluster Under Panel
10	Driver's Cluster Panel
11	Lower Dash Cover
12	Metal Substructure
13	Column Under Cover
14	Driver's Cluster Panel
15	Meter Cluster Trim
16	Meter Panel
17	Passenger's Step Cover
18	Passenger's Cowl Cover
19	Glove Box
20	Engine Cover

Fig. 1-2



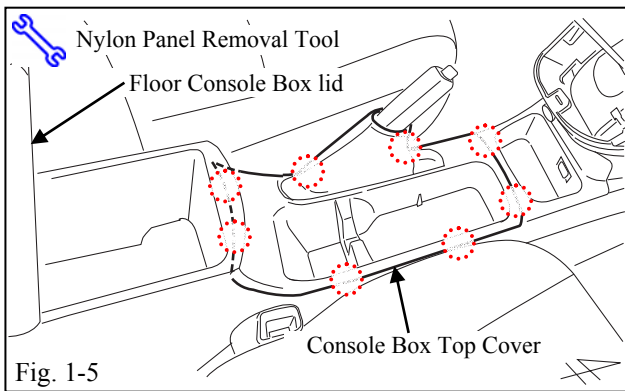
(c) Remove the Center Cluster Panel. (Fig. 1-3)

(1) Begin by protecting the Vehicle Interior.



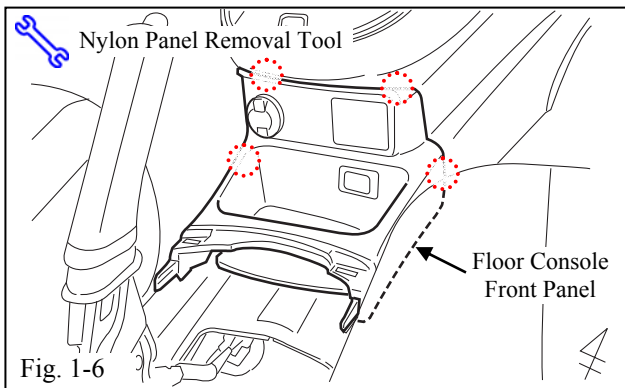
(d) Remove the Gear Shift Knob. (Fig. 1-4)

(e) Remove the Shift Panel. (Fig. 1-4)

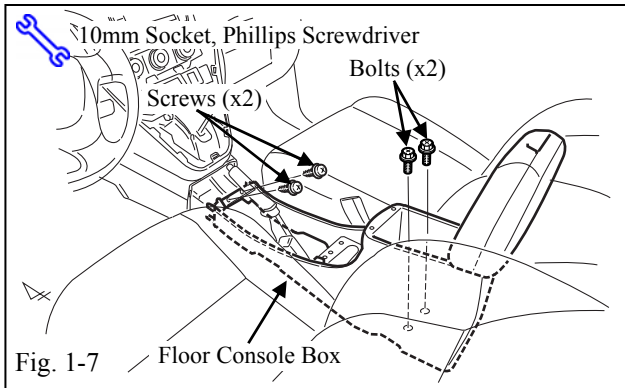


(f) Remove the Console Box Top Cover. (Fig. 1-5)

(1) Open the Floor Console Box Lid.

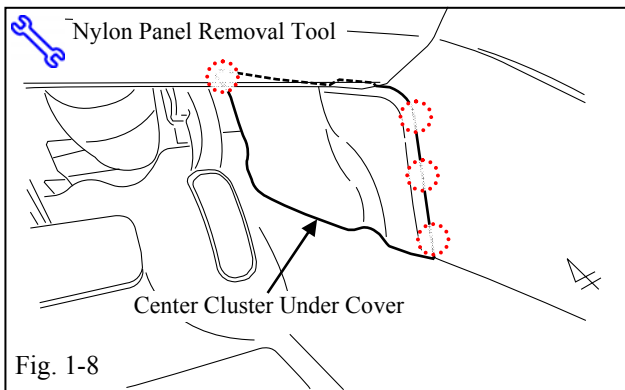


(g) Remove the Floor Console Front Panel. (Fig. 1-6)

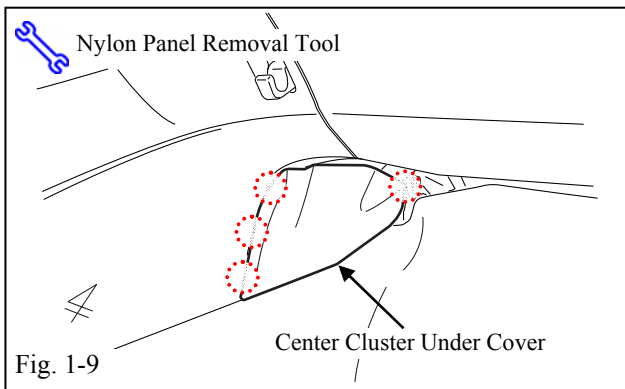


(h) Remove the Floor Console Box. (Fig. 1-7)

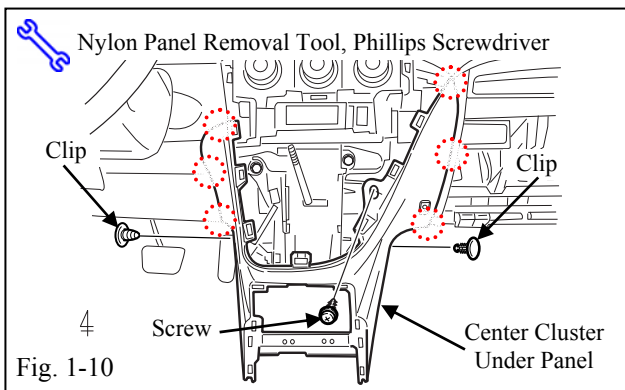
(1) Remove 2 Bolts and 2 Screws.



(i) Remove the Driver's Center Cluster Under Cover. (Fig. 1-8)



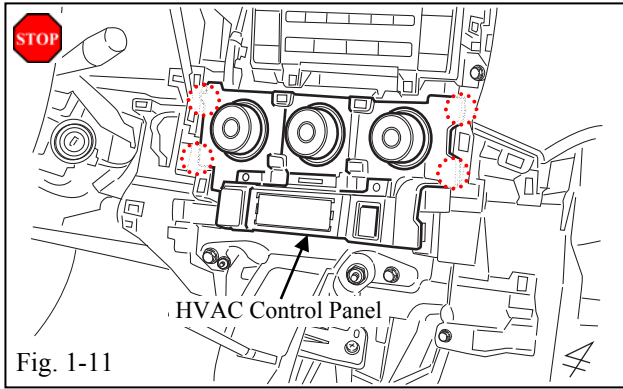
(j) Remove the Passenger's Center Cluster Under Cover. (Fig. 1-9)



(k) Remove the Center Cluster Under Panel. (Fig. 1-10)

(1) Remove 1 screw and 2 Clips.

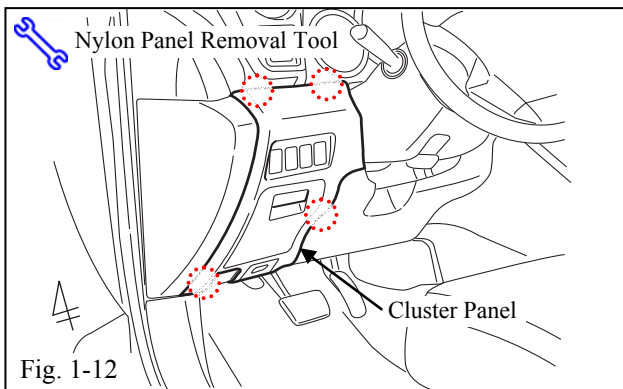




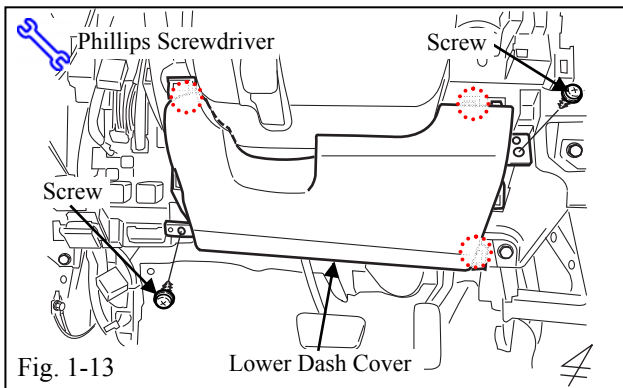
(l) Loosen the HVAC Control Panel from the Dash Panel. (Fig. 1-11)



(1) Do not remove the HVAC Control Panel.

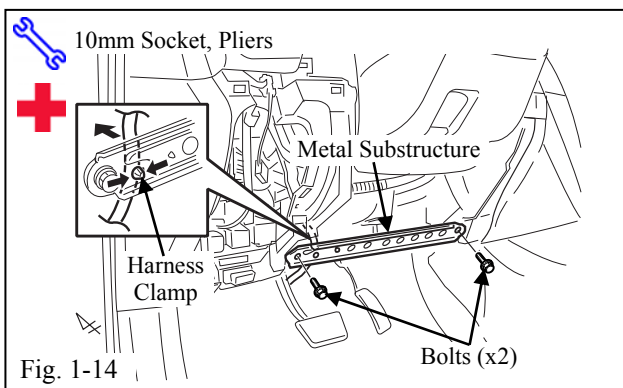


(m) Remove the Driver's Cluster Panel. (Fig. 1-12)



(n) Remove the Lower Dash Cover. (Fig. 1-13)

(1) Remove 2 Screws.



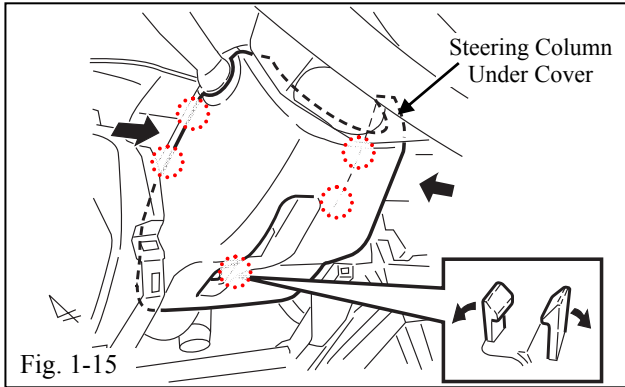
(o) Remove the Vehicle's Harness Clamp. (Fig. 1-14)

(p) Remove the Metal Substructure. (Fig. 1-14)

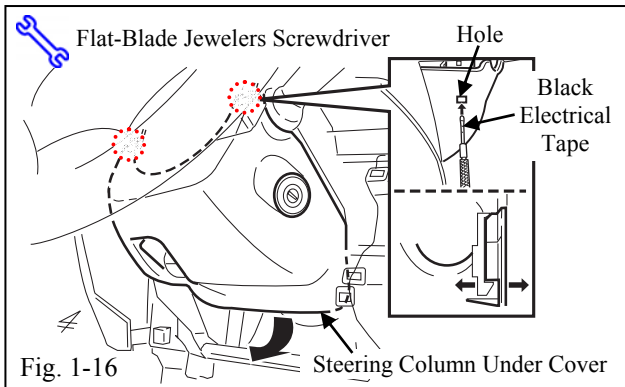
(1) Remove 2 Bolts.



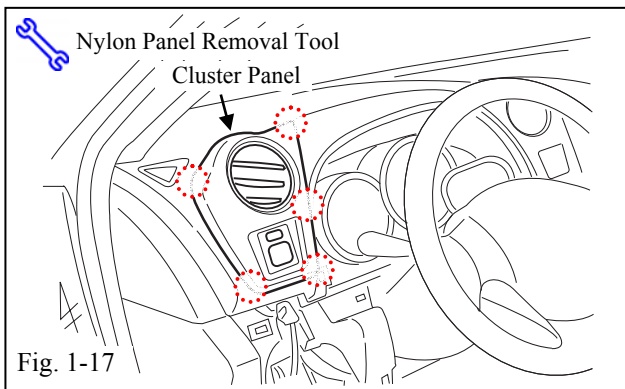
**CAUTION:** Sharp metal edges.



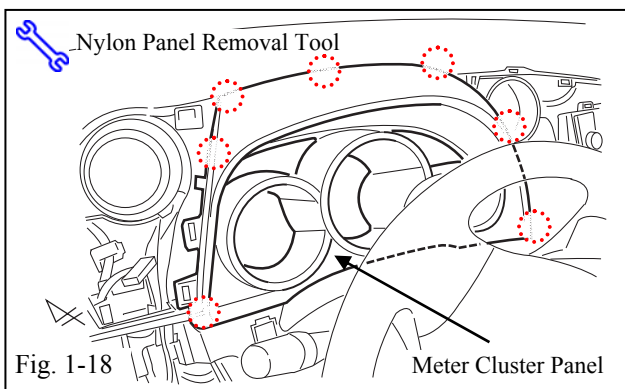
- (q) Loosen the Steering Column Under Cover as shown. (Fig. 1-15)
  - (1) Insert fingers into the opening of the Tilt Lever of the Steering Column Under Cover to disengage the 1 Claw.
  - (2) Push the right and left side of the Steering Column Under Cover, and disengage the 4 Claws.



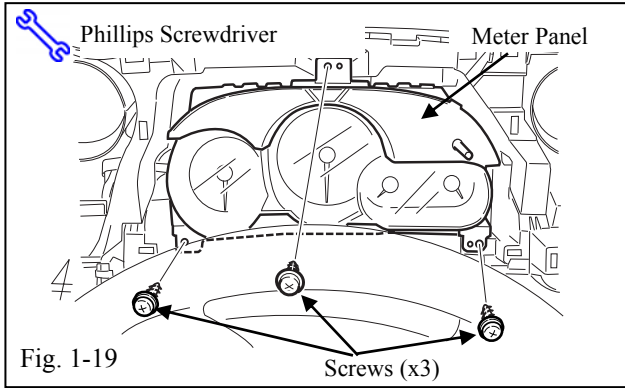
- (r) Remove the Steering Column Under Cover as shown. (Fig. 1-16)
  - (1) Insert the key into the Ignition and turn it to ON.
  - (2) Turn the Steering Wheel from Left to Right to gain access to the Clip Access holes.
  - (3) Wrap the tip of the Flat Blade Jewelers Screwdriver in the Black Electrical Tape.
  - (4) Insert it in the rectangular hole of the Steering Column Under Cover front, and release the inside 2 claws.



- (s) Remove the Driver's Cluster Panel. (Fig. 1-17)

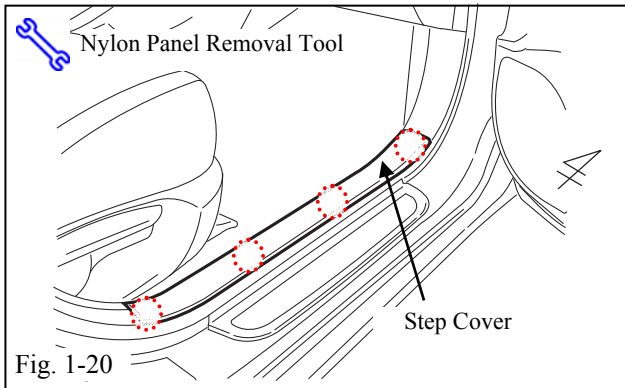


- (t) Remove the Meter Cluster Trim. (Fig. 1-18)

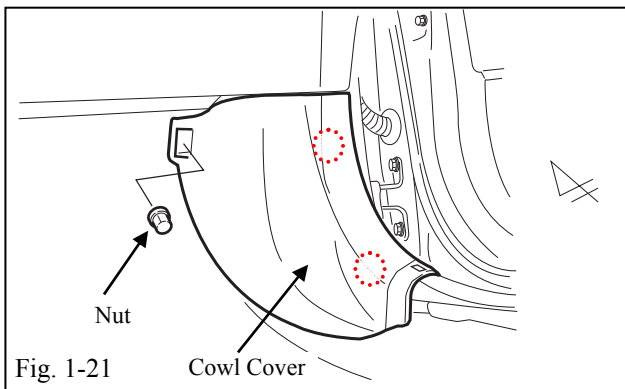


(u) Remove the Meter Panel. (Fig. 1-19)

(1) Remove 3 Screws.

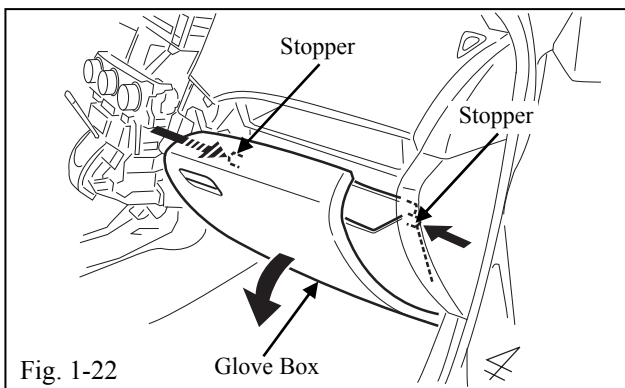


(v) Remove the Passenger's Step Cover.  
(Fig. 1-20)

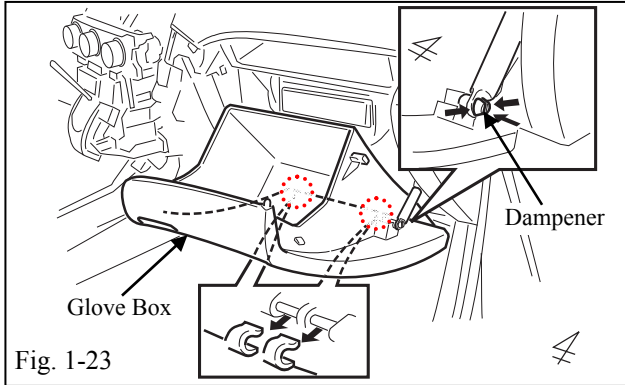


(w) Remove the Passenger's Cowl Cover.  
(Fig. 1-21)

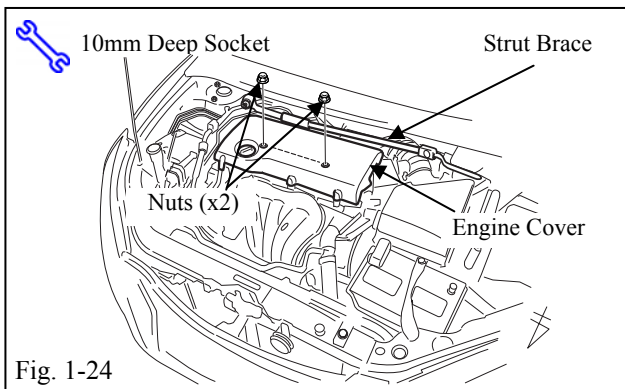
(1) Remove 1 Nut.



(x) Open the Glove Box Door, push the right  
and the left side of the Stopper inward.  
(Fig. 1-22)

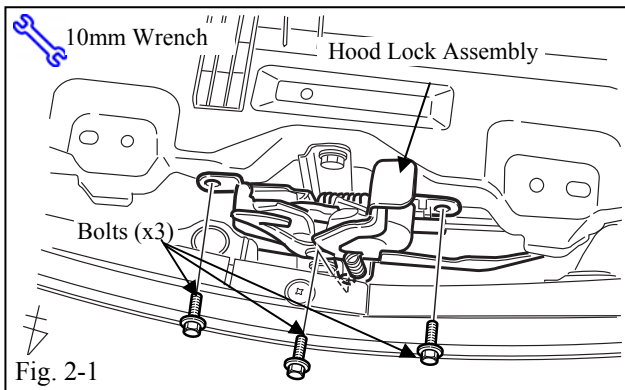


- (y) Remove the Glove Box. (Fig. 1-23)
  - (1) Release the Dampener from the Glove Box.



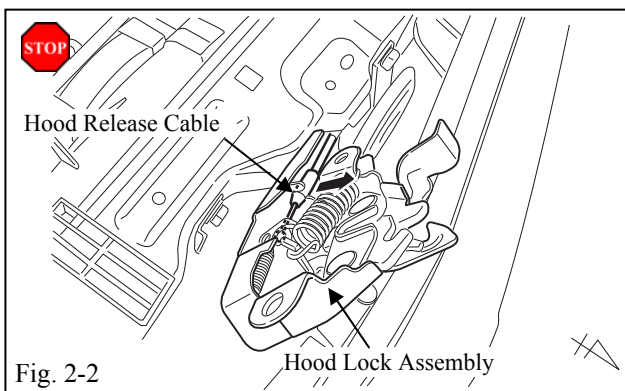
**IF THE VEHICLE IS EQUIPPED WITH STRUT BRACE (Step y)**

- (z) Remove the Engine Cover to gain access routing the V4 Harness. (Fig. 1-24)
  - (1) Remove the 2 Nuts.
  - (2) Do not discard the Nuts.

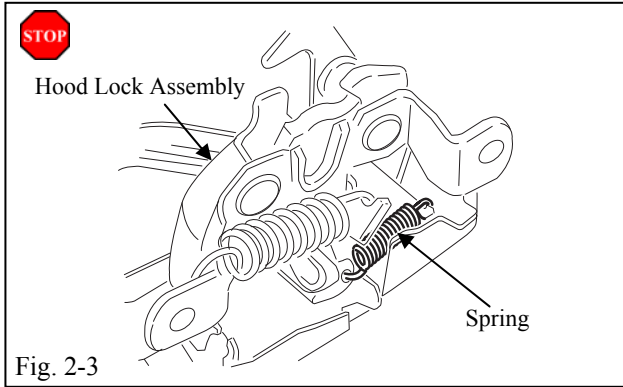


**2. Hood Switch Installation.**

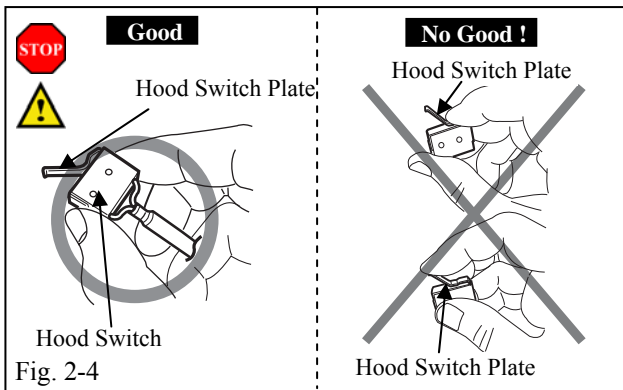
- (a) Dislodge the Hood Lock Assembly in the Engine Compartment. (Fig. 2-1)
  - (1) Remove 3 Bolts.



- (b) Remove the Hood Release Cable from the Hood Lock Assembly. (Fig. 2-2)
  - (1) Take care not to bend the Hood Release Cable during removal.

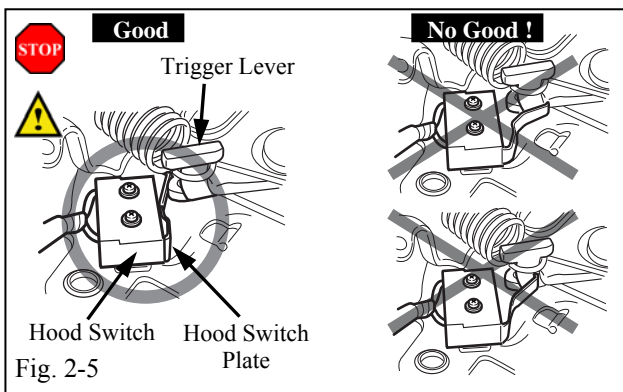


- (c) Remove the Spring from the Hood Lock Assembly. (Fig. 2-3)
- (1) Take care not to bend the Spring during removal.

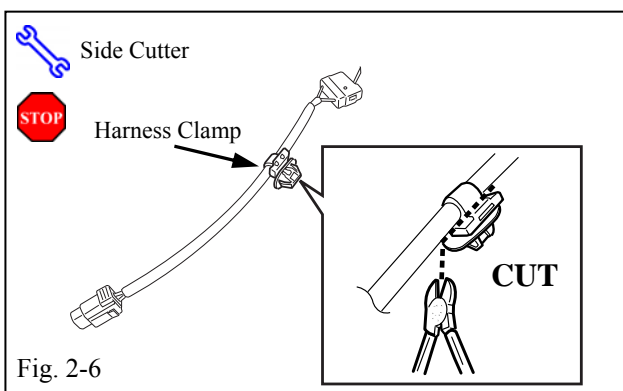


**CAUTION:** Carefully read before installing the Hood Switch.

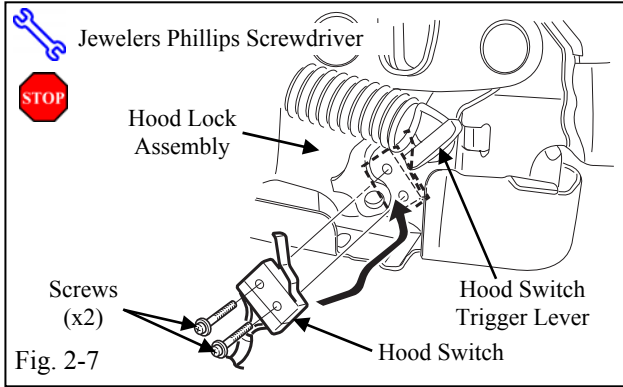
- (d) Grip and hold both sides of the Hood Switch body. (Fig. 2-4)
- (1) Do not hold or press down the Hood Switch Plate by its Top Part or by its Sloped Part. Otherwise the Hood Switch Plate will be deformed.
  - (2) If the Hood Switch is broken or deformed, the vehicle will not be able to Remote Start.



- (e) When installing the Hood Switch to the Hood Lock Assembly, the Hood Switch Plate comes under the Hood Lock Trigger Lever. (Fig. 2-5)
- (1) The Hood Switch Plate must not press against the edge of the Hood Lock Lever.
  - (2) The Hood Switch Plate must not go on top of the Hood Lock Trigger Lever.
  - (3) If the Hood Switch is broken or deformed, the vehicle will not be able to Remote Start.

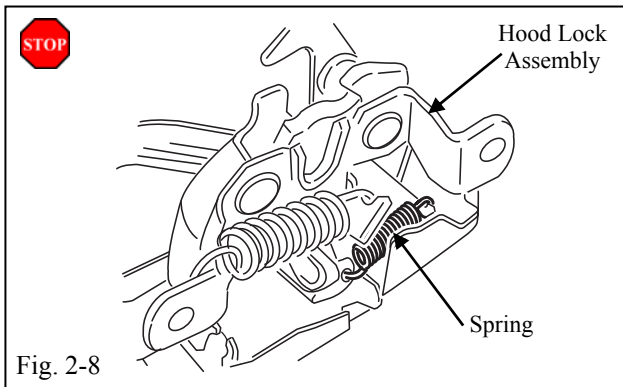


- (f) Cut the Harness Clamp on Hood Switch's Wire Harness. (Fig. 2-6)
- (1) Do not cut the Protective Tube or any Wires.



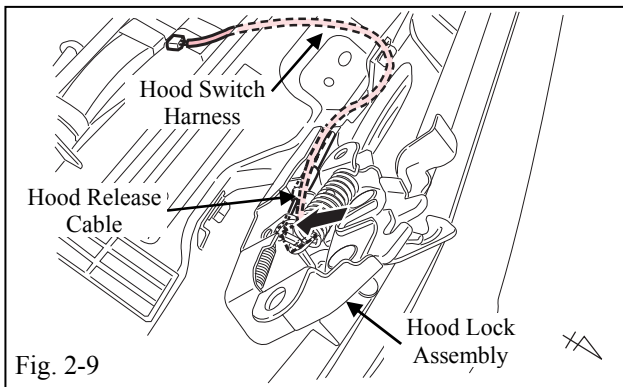
**STOP**

- (g) Position the Hood Switch Plate so that it makes contact with the Hood Lock Trigger Lever underneath as shown. (Fig. 2-7)
- (h) Using 2 Screws from the kit, install the Hood Switch. (Fig. 2-7)
  - (1) Verify the Screws are tightened securely.

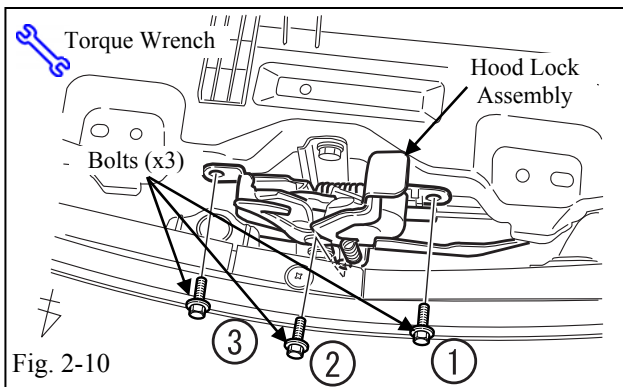


**STOP**

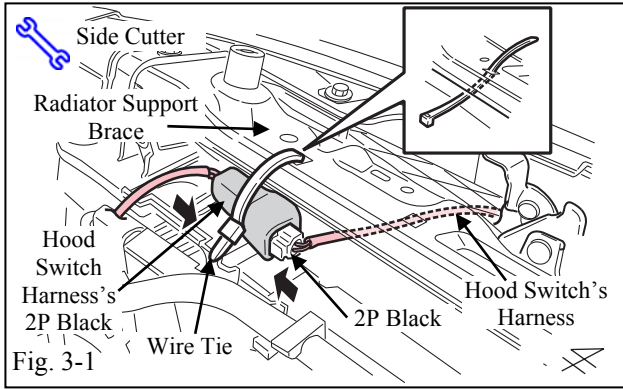
- (i) Reinstall the Spring to the Hood Lock Assembly. (Fig. 2-8)
  - (1) Take care not to bend the spring during reinstalling.



- (j) Connect the Hood Release Cable to the Hood Lock Assembly. (Fig. 2-9)
  - (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.

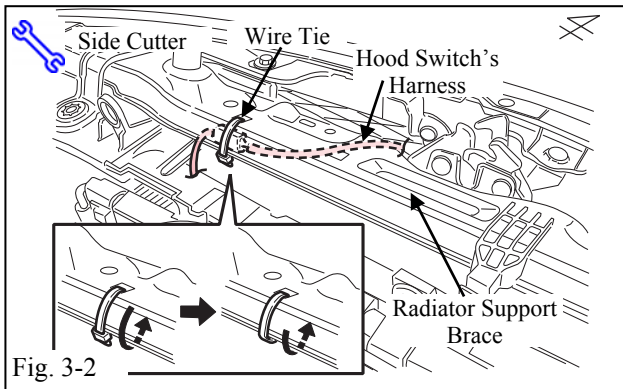


- (k) Secure the Hood Lock Assembly to the Vehicle Brace with 3 Bolts (Fig. 2-10)
  - (1) Tighten these Bolts from driver's side to passenger side.
  - (2) Tighten the Bolts to,
    - Center: 66.4 in•lbf (7.5 N•m)
    - Side: 70.8 in•lbf (8.0 N•m)

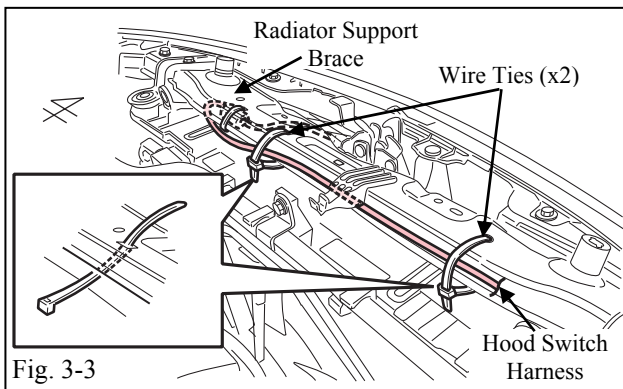


**3. Hood Switch Wire Harness Installation.**

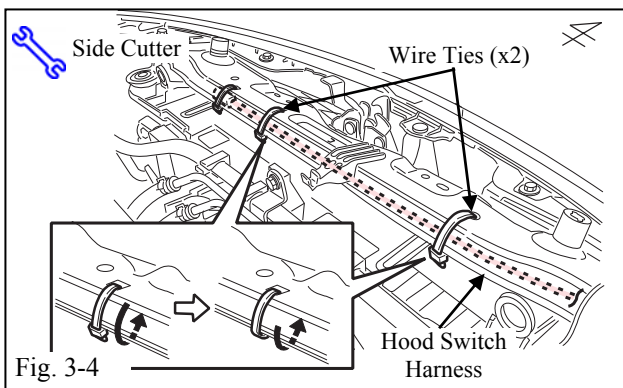
- (a) Connect the Hood Switch's Black 2P Connector and the Hood Switch Harness's Black 2P Connector. (Fig. 3-1)
- (b) Secure the 2P Connectors to the Radiator Support Brace with 1 Wire Tie. (Fig. 3-1)
  - (1) The Wire Tie should be placed as shown.



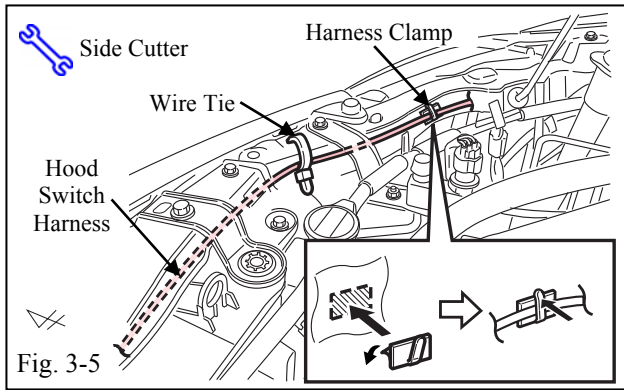
- (c) Rotate the Wire Tie as shown. (Fig. 3-2)



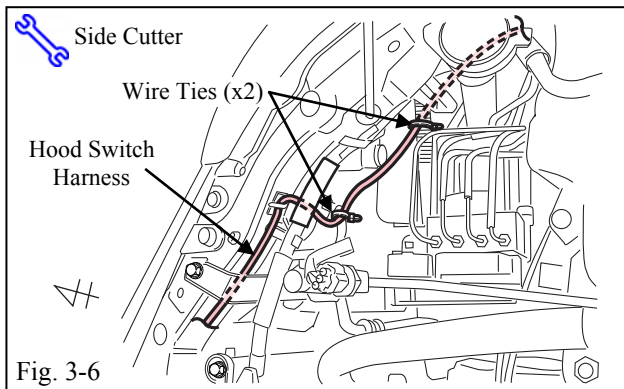
- (d) Route the Hood Switch Harness along with Radiator Support Brace. (Fig. 3-3)
- (e) Tighten 2 Wire Ties loosely. (Fig. 3-3)



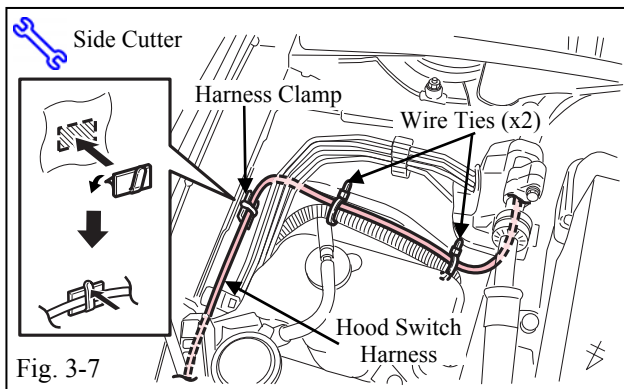
- (f) Push the Hood Switch Harness under the Radiator Support Brace. (Fig. 3-4)
- (g) Tighten 2 Wire Ties. (Fig. 3-4)
- (h) Rotate the Wire Ties as shown. (Fig. 3-4)



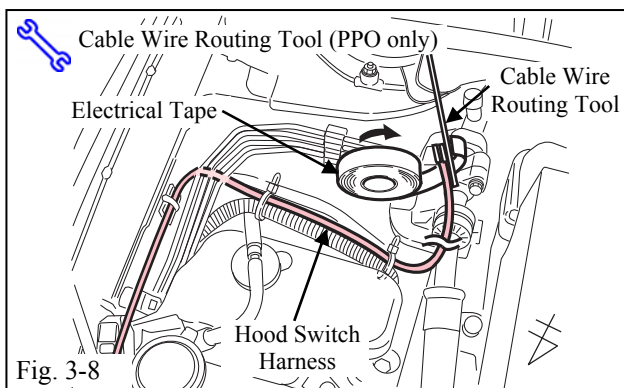
- (i) Route the Hood Switch Harness toward the Engine Compartment Wall. (Fig. 3-5)
- (j) Secure the Hood Switch Harness to the Engine Compartment Wall with 1 Wire Tie and 1 Harness Clamp. (Fig. 3-5)



- (k) Route the Hood Switch Harness as shown. (Fig. 3-6)
- (l) Secure the Hood Switch Harness to the Vehicle Harness with 2 Wire Ties. (Fig. 3-6)

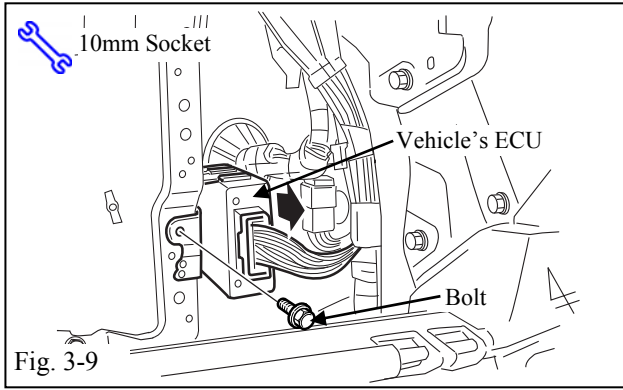


- (m) Route the Hood Switch Harness toward the Engine Compartment Wall. (Fig. 3-7)
- (n) Secure the Hood Switch Harness to the Engine Compartment Wall with 1 Harness Clamp. (Fig. 3-7)
- (o) Secure the Hood Switch Harness to the Vehicle Harness with 2 Wire Ties. (Fig. 3-7)



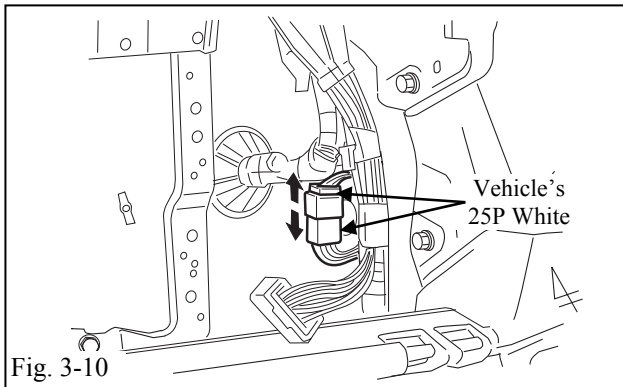
- (p) Secure the Hood Switch Harness and the Cable Wire Routing Tool or like with the Electrical Tape. (Fig. 3-8)



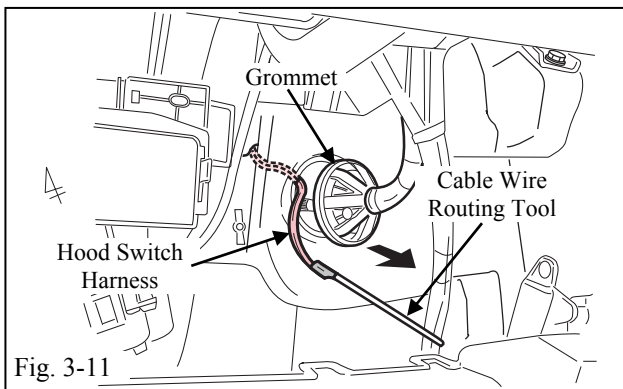


(q) Remove the Vehicle's ECU in the Glove Box area. (Fig. 3-9)

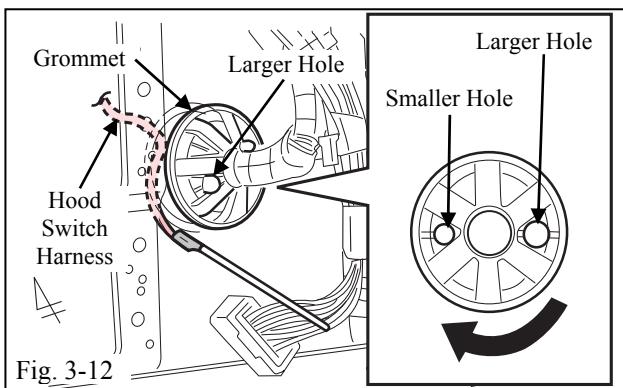
- (1) Disconnect the Vehicle's White Connector.
- (2) Remove the 1 Bolt.
- (3) Do not discard the Bolt.



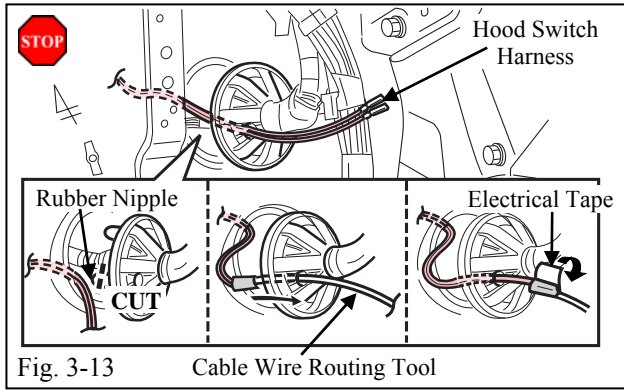
(r) Disconnect the Vehicle's White 25P Connectors to gain access to the Grommet. (Fig. 3-10)



- (s) Dislodge the Grommet to gain access to the Cable Wire Routing Tool or like with the Hood Switch Harness. (Fig. 3-11)
- (t) Pull the Cable Wire Routing Tool and the Hood Switch Harness into the Passengers Compartment through the opening. (Fig. 3-11)



(u) Rotate the Grommet clockwise until the Large Grommet Hole is accessible. (Fig. 3-12)



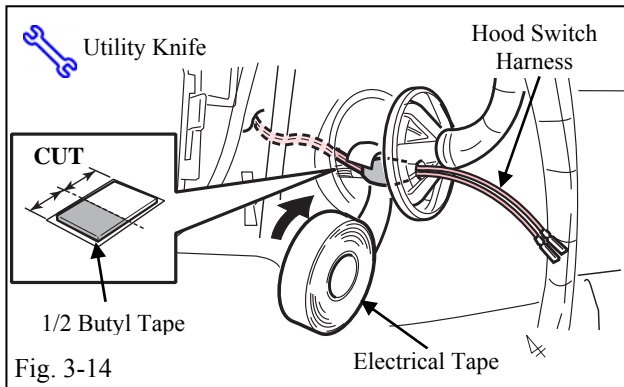
(v) Locate and cut the Large Rubber Nipple on the Grommet. (Fig. 3-13)



**CAUTION:** Do not cut smaller Rubber Nipple.

(w) Pull The Cable Wire Routing Tool into Passenger Compartment through the Large Grommet Hole. (Fig. 3-13)

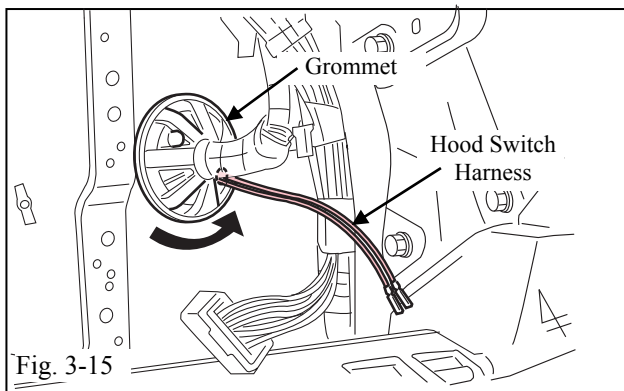
(x) Remove the Tape securing the Cable Wire Routing Tool and the Hood Switch Harness. (Fig. 3-13)



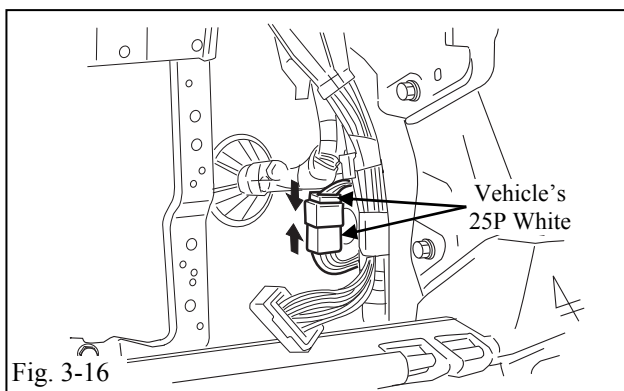
(y) Use 1/2 Butyl Tape to fill the opening of Grommet. (Fig. 3-14)

(1) Discard the excess Butyl Tape.

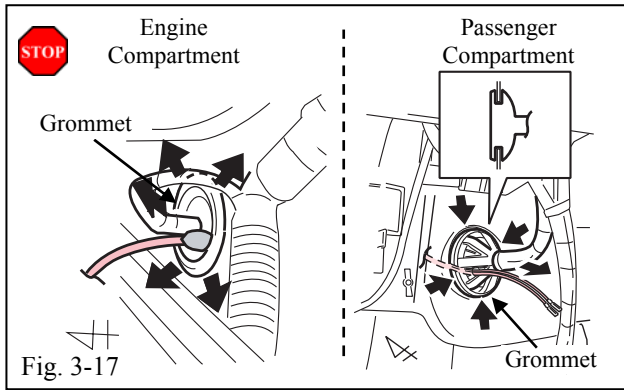
(z) Wrap the Grommet with the Electrical Tape as shown. (Fig. 3-14)



(aa) Re-rotate the Grommet counterclockwise to the original position. (Fig. 3-15)

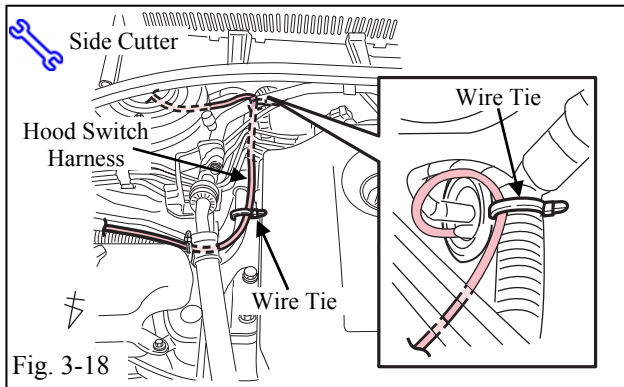


(bb) Reconnect the Vehicle's White 25P Connectors. (Fig. 3-16)

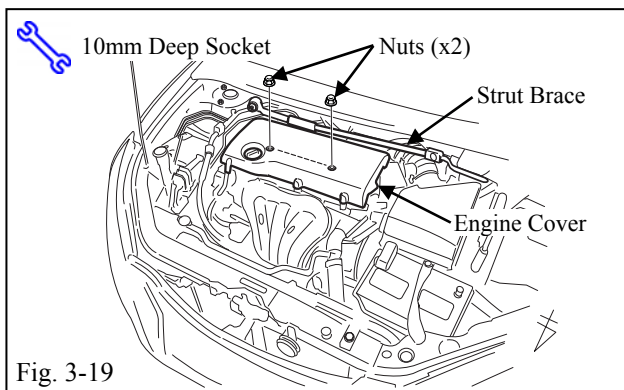


(cc) From the Engine Compartment, lightly pull the Vehicle Harness, and fit the Grommet into the Firewall of the Engine Compartment. (Fig. 3-17)

**STOP** **VERIFY:** That the Grommet is installed properly. If the Grommet does not fit into the Firewall water will come into the Passenger Compartment.



(dd) Secure the Hood Switch Harness to the Vehicle Harness in the Engine Compartment with 2 Wire Ties. (Fig. 3-18)

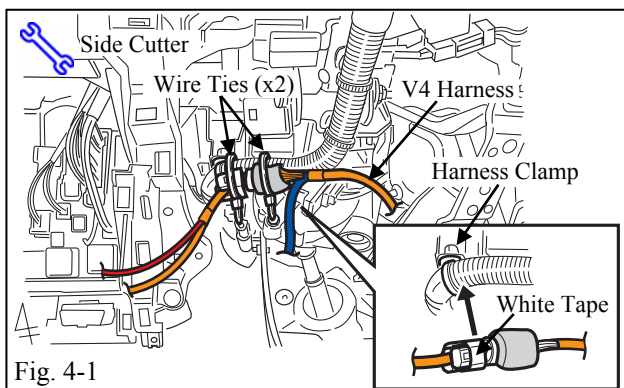


**IF THE VEHICLE IS EQUIPPED WITH STRUT BRACE (Step ee)**

(ee) Install the Engine Cover. (Fig. 3-19)

(1) Tighten 2 Nuts.

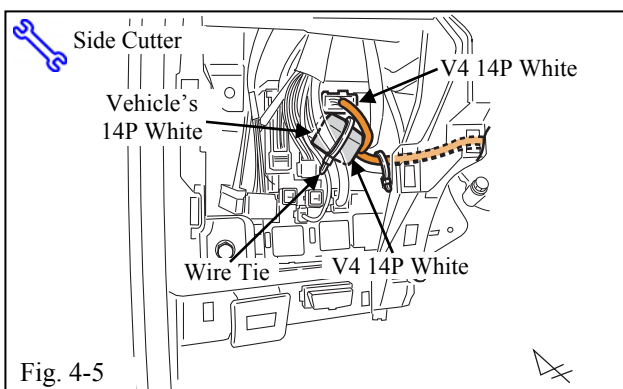
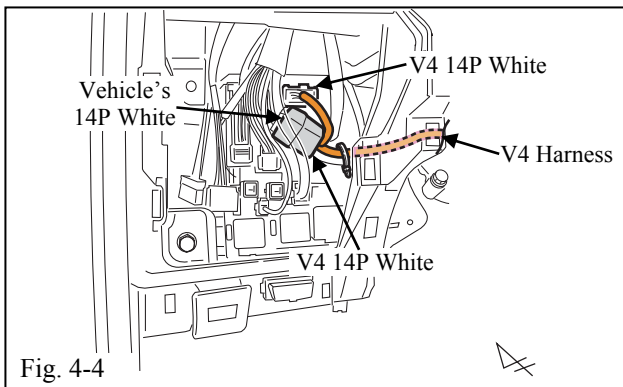
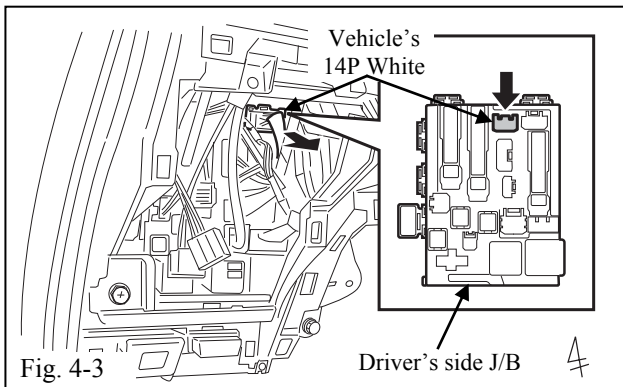
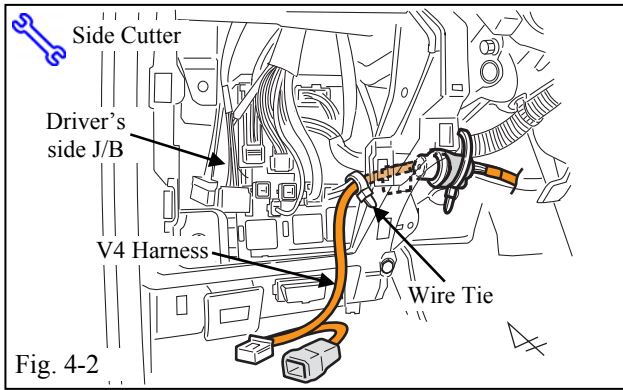
**GO TO THE DRIVER'S SIDE AREA.**



**4. V4 Wire Harness installation.**

(a) Secure the V4 Harness's White Tape on the Fuse to the Vehicle's Harness with 1 Wire Tie. (Fig. 4-1)

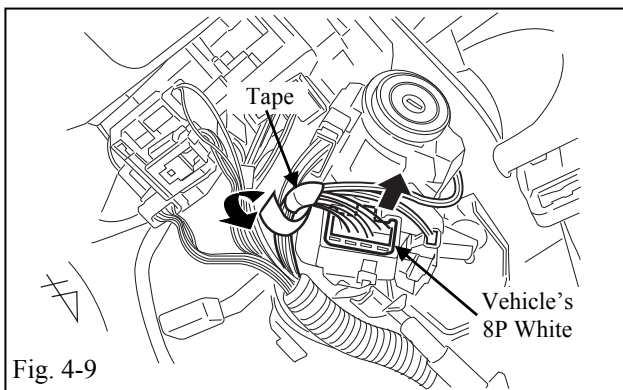
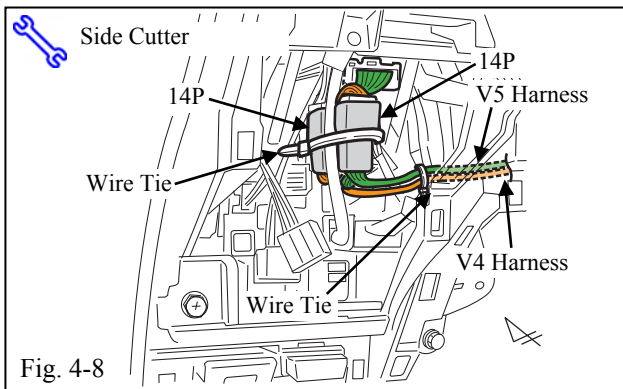
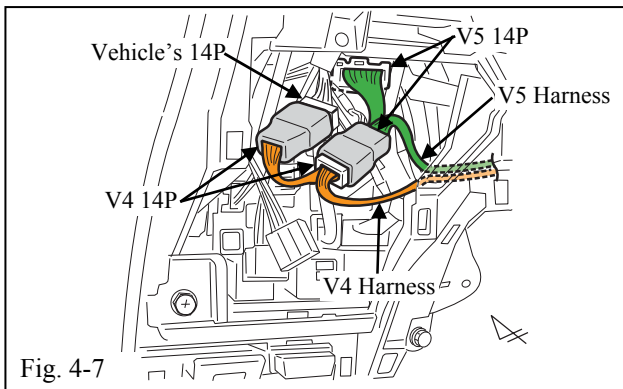
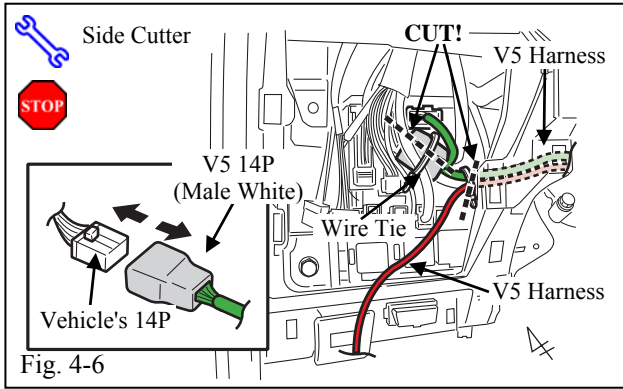
(b) Secure the V4 Harness's Relay to the Vehicle's Harness with 1 Wire Tie. (Fig. 4-1)



**• V4 Only**

-If vehicle is equipped with V5 Harness, skip to step h.

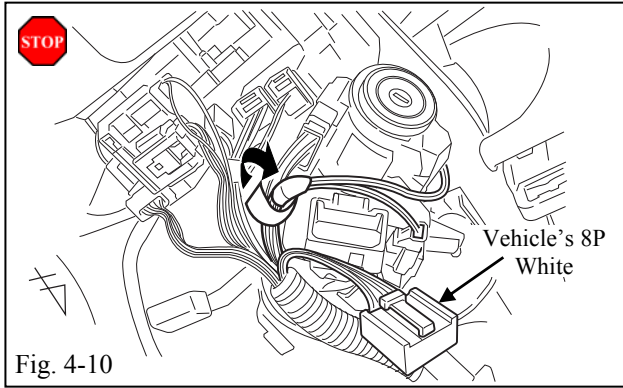
- (c) Route the V4 Harness toward the Driver's side J/B area. (Fig.4-2)
- (d) Secure the V4 Harness to the Vehicle Harness with 1 Wire Tie. (Fig. 4-2)
- (e) Disconnect the Vehicle Harness's White 14P Connector from the Driver's side J/B. (Fig. 4-3)
- (f) Insert the V4 Harness's White 14P Connector in between the Vehicle's White 14P Connector. (Fig. 4-4)
- (g) Secure the 14P Connectors to the Vehicle's Harness with 1 Wire Tie. (Fig. 4-5)



• **V4 onto V5**

**-Add on Installation, steps h-l.**

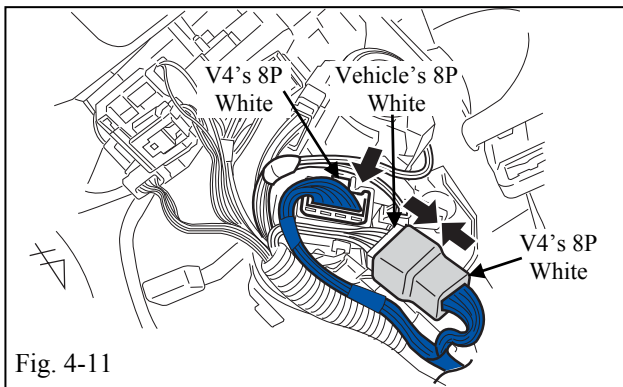
- (h) Cut the 2 Wire Ties as shown. (Fig. 4-6)
  - (1) Do not cut any wires.
- (i) Disconnect the Vehicle's 14P Connector from the V5 14P Connector. (Fig. 4-6)
- (j) Connect the V4's 14P Connectors in between the V5 Connector and the Vehicle Connector that were disconnected in step i. (Fig. 4-7)
- (k) Secure the 14P Connectors to the Vehicle Harness with 1 Wire Tie. (Fig. 4-8)
- (l) Secure both the V4 and V5 Harnesses to the Vehicle Harness with 1 Wire Tie. (Fig. 4-8)
- (m) Remove the Tape securing the Vehicle Harness's White 8P Connector and the Black 2P Connector. (Fig. 4-9)
- (n) Disconnect the Vehicle Harness's White 8P Connector from the Key Cylinder. (Fig. 4-9)



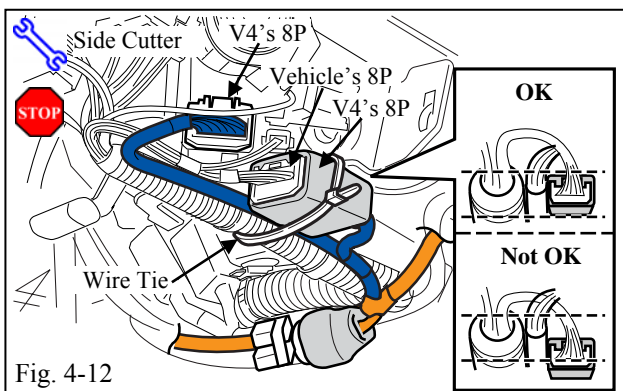
(o) Secure the Vehicle Harness with the Electrical Tape as shown. (Fig. 4-10)



(1) Do not secure the White 8P Connector Harness with the Tape.



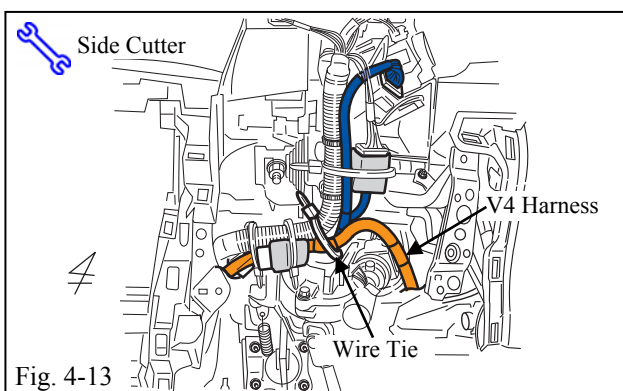
(p) Plug in the V4 Harness's White 8P Connectors between the Vehicle Harness's White 8P Connectors from the Key Cylinder. (Fig. 4-11)



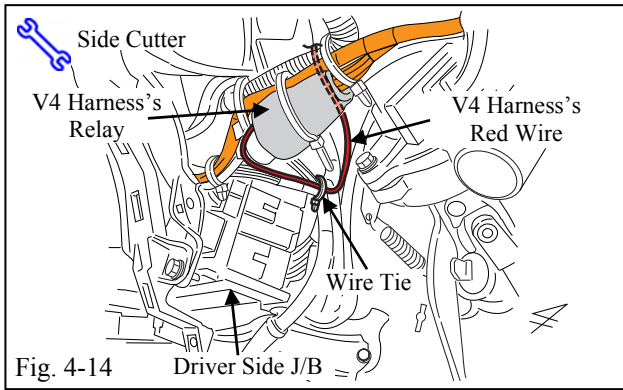
(q) Secure the 8P Connectors to the Vehicle Harness with 1 Wire Tie. (Fig. 4-12)



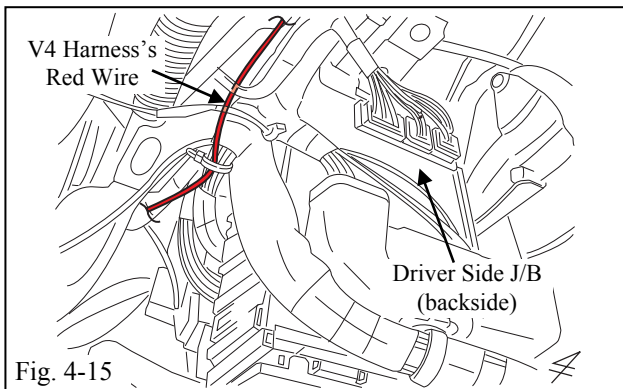
**VERIFY:** That the Connectors are aligned as shown. Otherwise, Steering Column Under Cover will NOT be installed due to the interference.



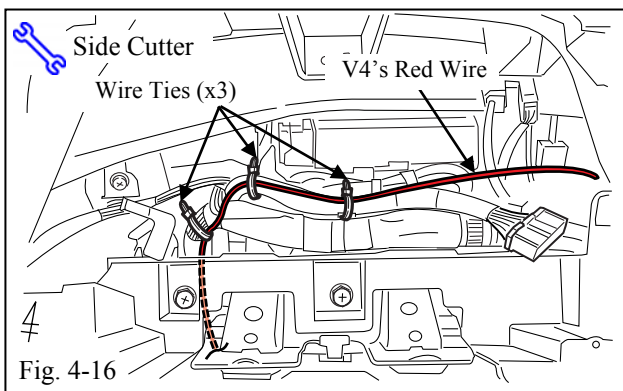
(r) Secure the V4 Harness to the Vehicle Harness with 1 Wire Tie. (Fig. 4-13)



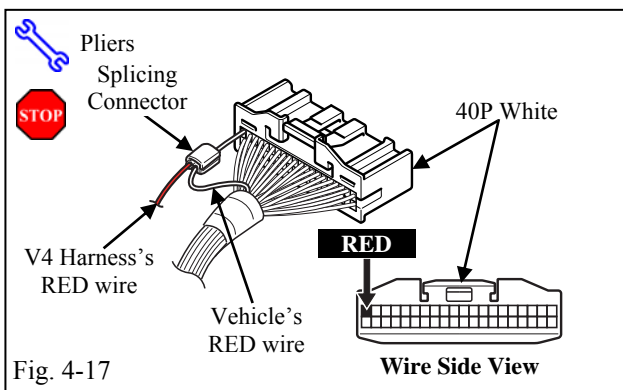
- (s) Use 1 Wire Tie, secure the V4 Harness's Red Wire to the Vehicle Harness on the right side of the Driver side J/B. (Fig. 4-14)



- (t) Route the V4 Harness's RED Wire upward into the Meter area. (Fig. 4-15)



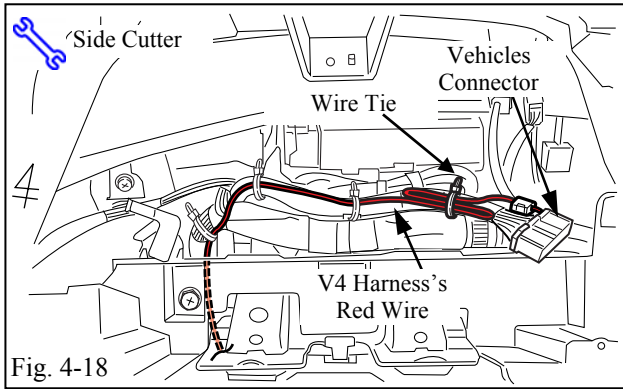
- (u) Secure the V4's Red Wire to the Vehicle Harness with 3 Wire Ties in the Meter area. (Fig. 4-16)



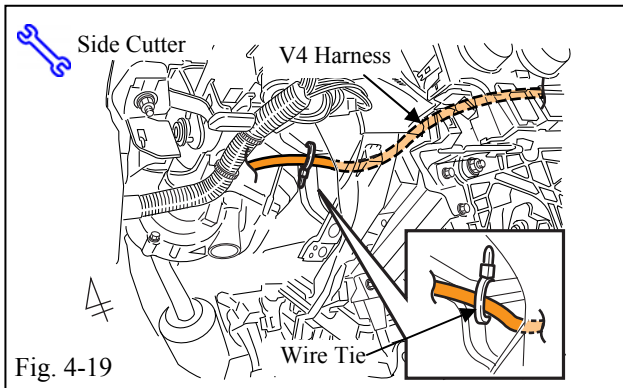
- (v) Locate the Vehicle Harness's White 40P Connector in the Meter area. (Fig. 4-17)
- (w) Attach the V4 Harness's Red Wire with 1 Splicing Connector as shown. (Fig. 4-17)



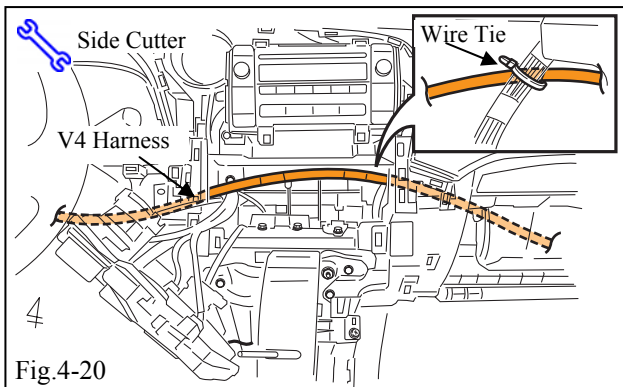
**VERIFY:** That the Wire is spliced properly.



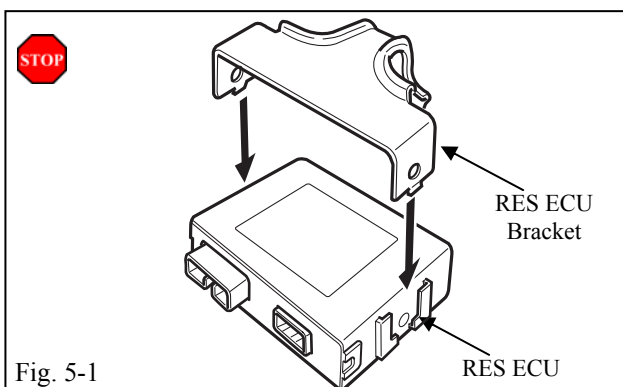
- (x) Secure the excess Red Wire to the Vehicle Harness with 1 Wire Tie. (Fig. 4-18)




- (y) Route the V4 Harness toward the Passenger's side through the Vehicle's Brace. (Fig. 4-19)
- (z) Secure the V4 Harness with 1 Wire Tie to the Vehicle's Brace. (Fig. 4-19)



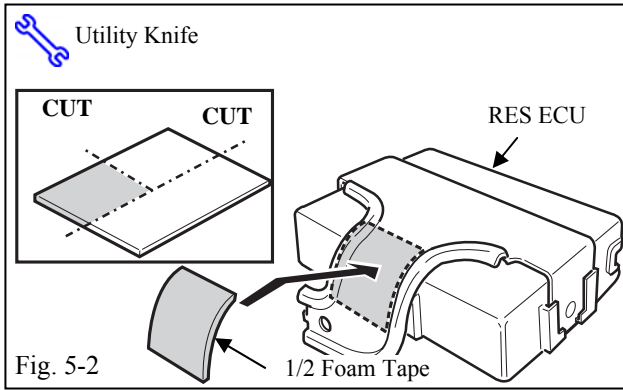
- (aa) Secure the V4 Harness to the Vehicle Harness with 1 Wire Tie in the Passenger's area. (Fig. 4-20)



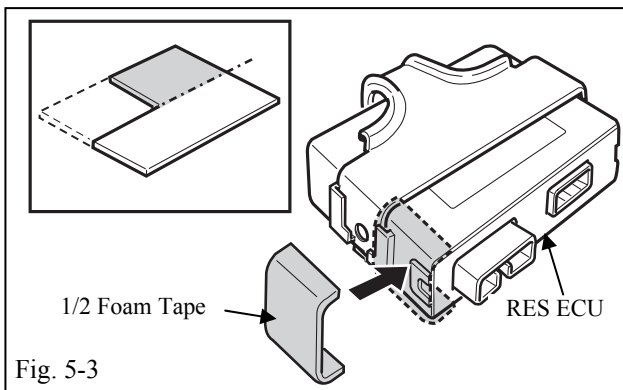
**5. RES ECU Preparation and Installation.**

- (a) Install the RES ECU Bracket into the indicated Bracket Slots of the RES ECU. (Fig. 5-1)
-  (1) Ensure the Bracket is firmly attached to the ECU.

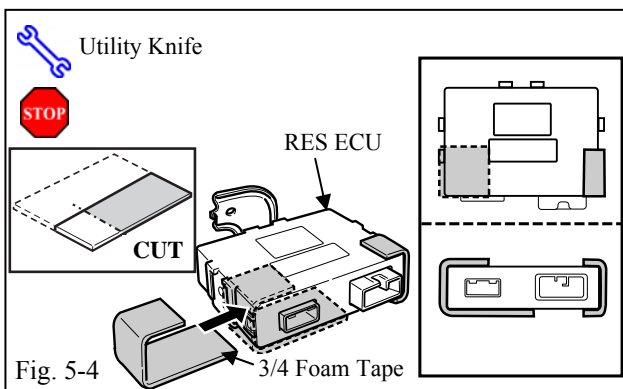




- (b) Cut the Foam Tape into 2 pieces.
- (c) Use 1/2 of 1 Foam Tape, attach it to the RES ECU Bracket. (Fig. 5-2)



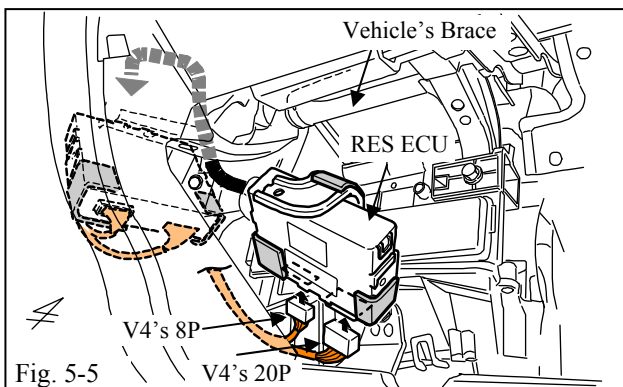
- (d) Using the other 1/2 Foam Tape, attach that to the RES ECU. (Fig. 5-3)



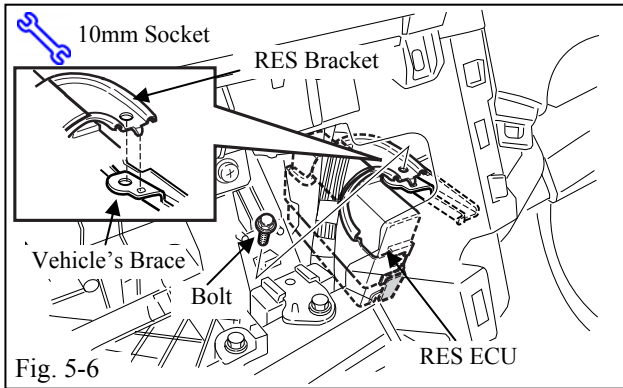
- (e) Apply 3/4 Foam Tape to the RES ECU as shown. (Fig. 5-4)



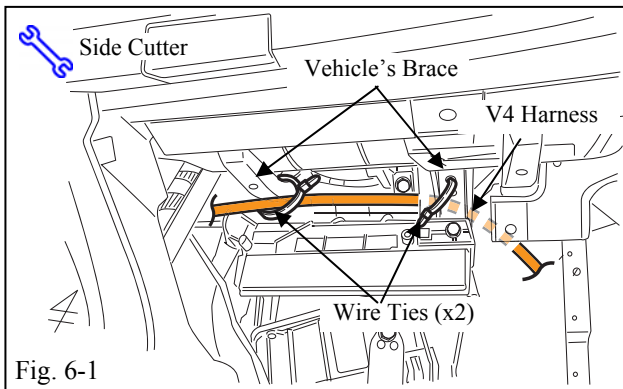
- (1) Don't discard the 1/4 Foam Tape remaining.



- (f) Connect the V4 Harness's 8P and 20P Connectors into the RES ECU. (Fig. 5-5)
- (g) Place the RES ECU behind the Vehicle's Brace in the Passenger's side area as shown. (Fig. 5-5)

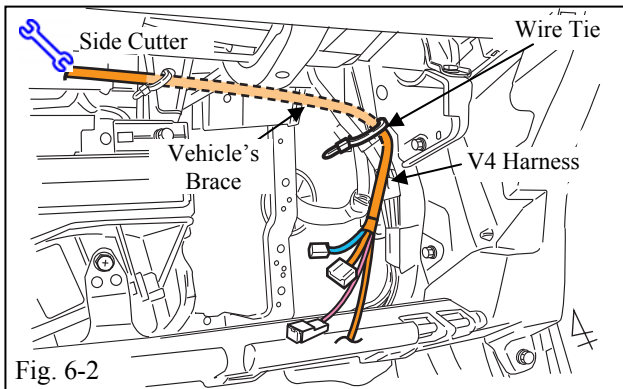


- (h) Using 1 Bolt from the kit, install the RES Bracket on the Vehicle's Brace. (Fig. 5-6)
  - (1) Make sure that the pin seats properly.

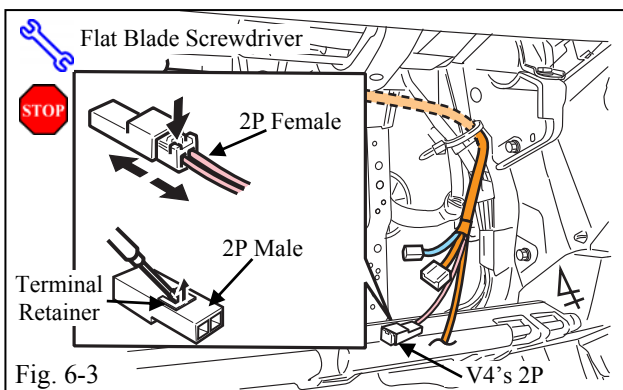


**6. V4 Harness installation. (Continued)**

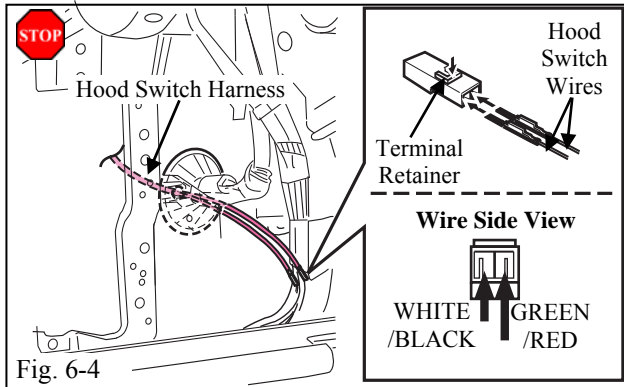
- (a) Route and secure the V4 Harness with 2 Wire Ties as shown. (Fig. 6-1)



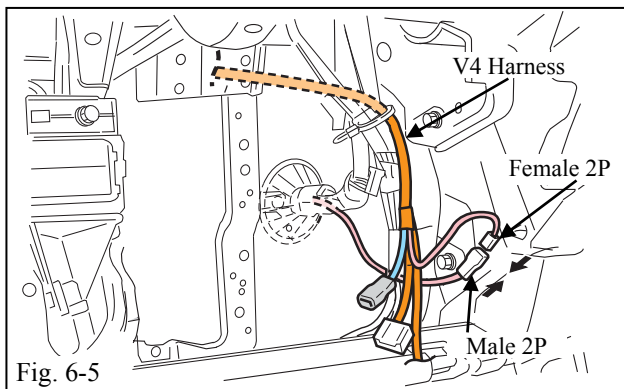
- (b) Secure the V4 Harness to the Vehicle Harness with 1 Wire Tie. (Fig. 6-2)



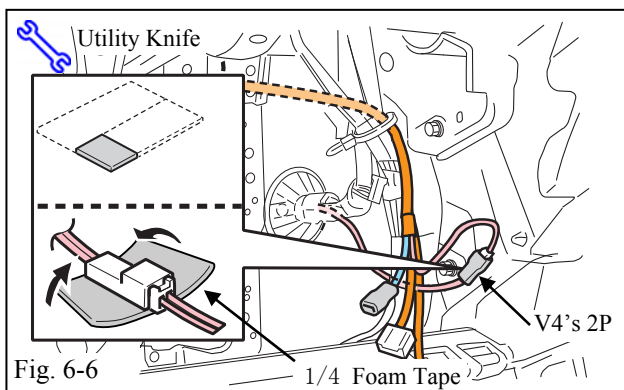
- (c) Disconnect the White 2P Male Connector Plugged into the V4 Harness. (Fig. 6-3)
- (d) Using a Jeweler's Flat Blade Screwdriver, release the Terminal Retainer on the back of the empty 2P Connector. (Fig. 6-3)
  - (1) Do not pull out the retainer.



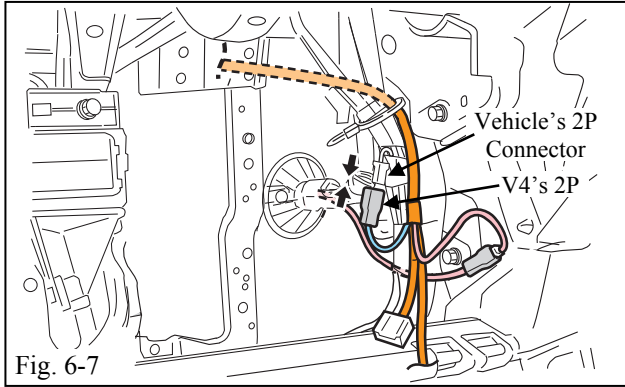
- (e) Locate the Hood Switch Harness in the Glove Box area. (Fig. 6-4)
- (f) Insert the Terminal at the end of the Hood Switch Harness's GREEN/RED Wire into empty 2P Connector's right side opening. (Fig. 6-4)
  - (1) Turn the connector so the wires face you and the Terminal Retainer is on top.
  - (2) Verify the correct wire is chosen.
- (g) Insert the Terminal at the end of the Hood Switch Harness's WHITE/BLACK Wire into empty 2P Connector's left side opening. (Fig. 6-4)
  - (1) Turn the connector so the wires face you and the Terminal Retainer is on top.
  - (2) Verify the correct wire is chosen.
- (h) Close the retainer.(Fig. 6-4)
  - (1) The Terminals should not come out when pulled lightly. If they come out push them in further.



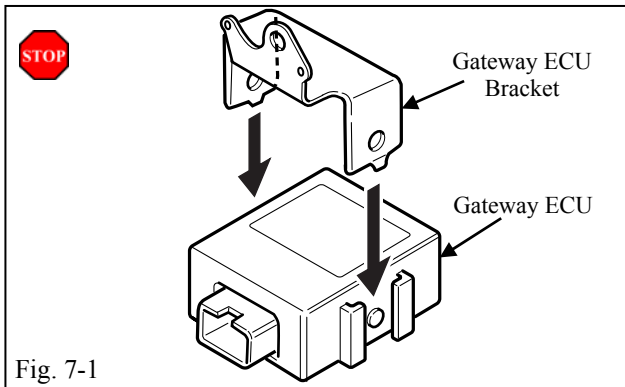
- (i) Re-connect the 2P Connectors. (Fig. 6-5)



- (j) Using the remaining 1/4 of Foam Tape, wrap the 2P Connectors. (Fig. 6-6)

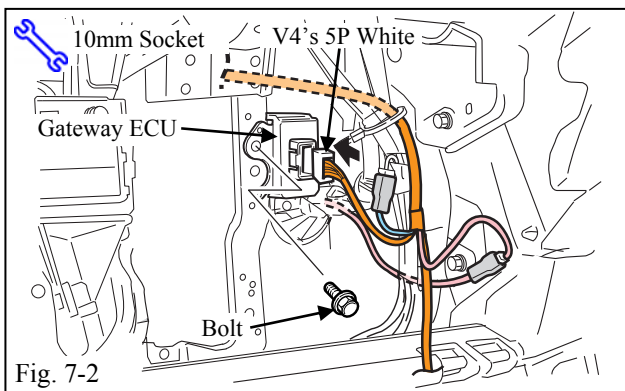


- (k) Locate the Vehicle Pre-wire White 2P Connector. (Fig. 6-7)
- (l) Connect the V4 Harness's White 2P Connector to the Vehicle's 2P Pre-wire White 2P Connector. (Fig. 6-7)

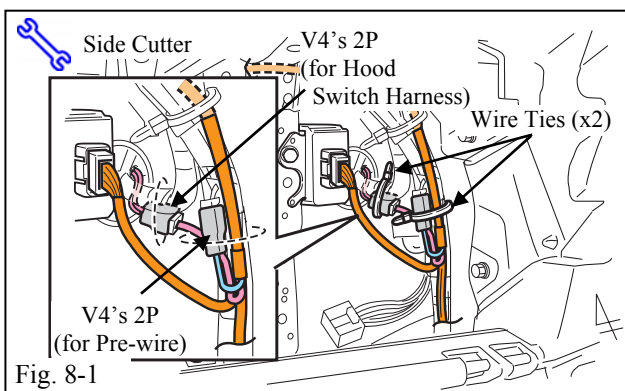


**7. Gateway ECU Preparation and Installation.**

- (a) Install the Gateway ECU Bracket into the indicated Bracket Slots on the Gateway ECU. (Fig. 7-1)
  - (1) Ensure the Bracket is firmly attached to the ECU.

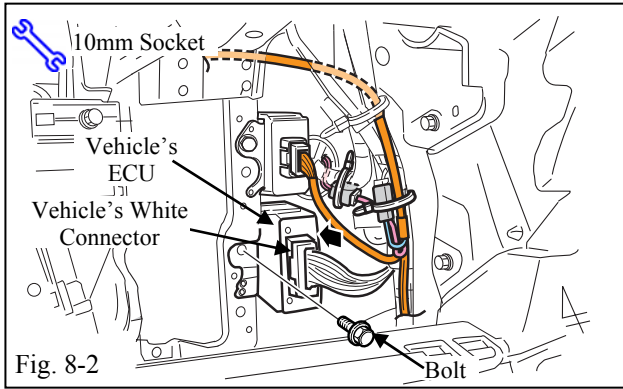


- (b) Using 1 Bolt from the kit, install the Gateway ECU to the Vehicle's Brace. (Fig. 7-2)
  - (1) Make sure that the Bracket Pin seats properly.
- (c) Route the V4 Harness's White 5P Connector behind the Vehicle's Pre-wire Connection, and plug into the Gateway ECU. (Fig. 7-2)

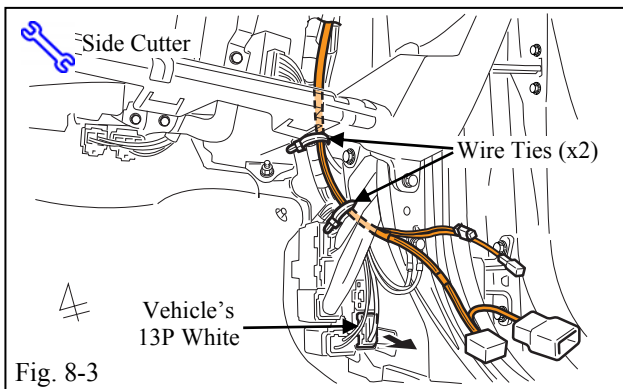


**8. V4 Harness Installation (Continued).**

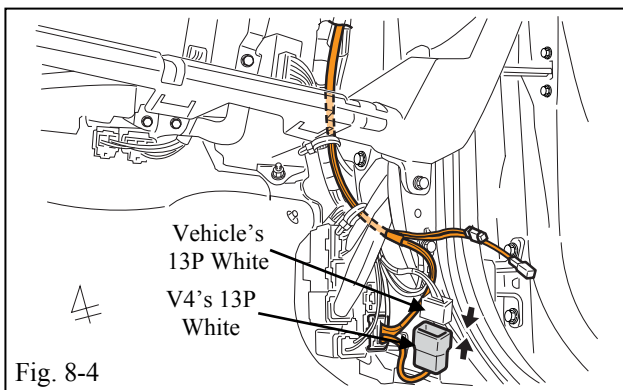
- (a) Secure the Pre-wire Connectors, and the Hood Switch Harness's Connector to the Vehicle's Harness with 2 Wire Ties. (Fig. 8-1)
- (b) Route the V4 Harness toward the Passenger's Cowl area. (Fig. 8-1)



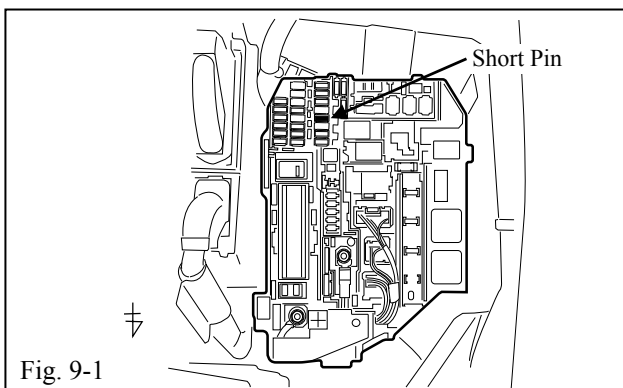
- (c) Reinstall the Vehicle's ECU. (Fig. 8-2)
- (d) Connect the Vehicle's White Connector to the Vehicle's ECU. (Fig. 8-2)
  - (1) Verify secure connection.



- (e) Route the V4 Harness as shown securing it to the Vehicle Harness with 2 Wire Ties. (Fig. 8-3)
- (f) Locate and disconnect the Vehicle's White 13P Connector from the Passenger's Side Cowl area. (Fig. 8-3)



- (g) Plug in the V4 Harness's White 13P Connectors in between the Passenger's Side Connector Block and the Vehicle's White 13P Connector. (Fig. 8-4)

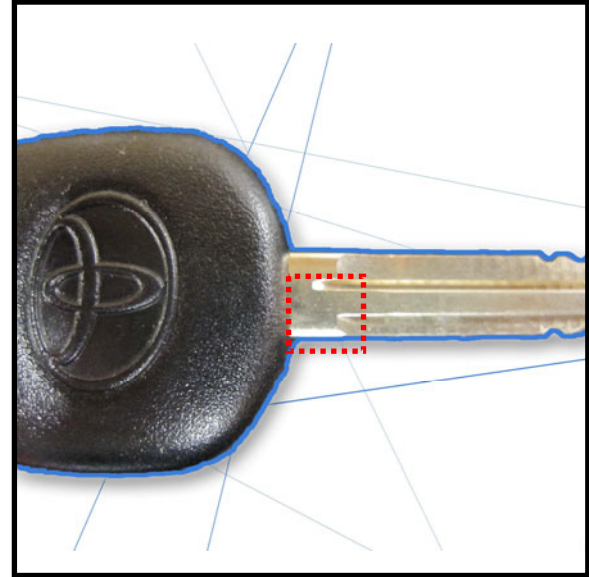
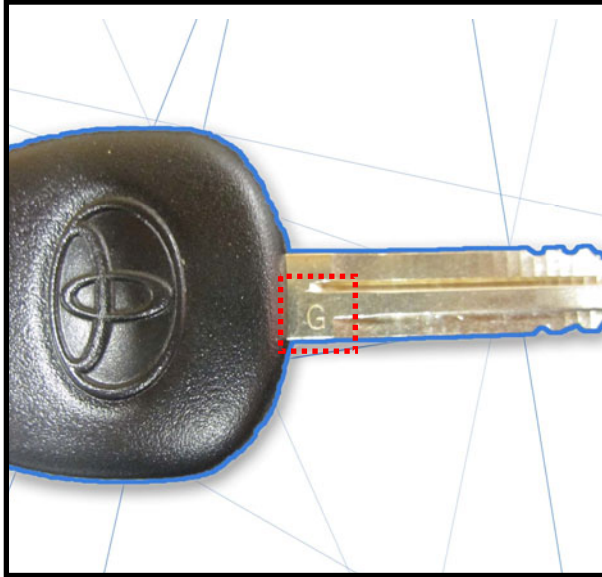


**9. Partial Reassembly**

- (a) Reassemble the Vehicle, except for the Passenger's Cowl Cover, and the Step Cover.
  - (1) Reconnect any disconnected connectors.
- (b) Verify that the Short Pin is installed. (Fig. 9-1)
  - (1) If not, install the Short Pin.

## Confirm the Vehicle's Master Key:

**NOTE:** There are 2 different Kit Configurations and Registration Procedures for this Vehicle. You must first identify which Vehicle you have by looking at the Vehicle's Master Key.

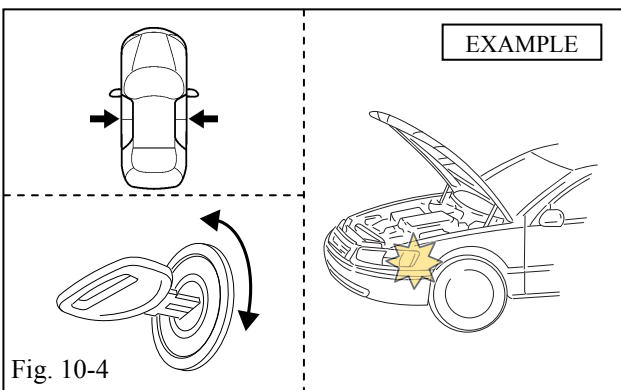
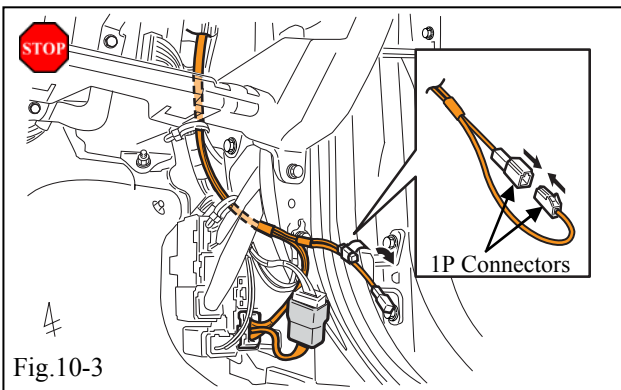
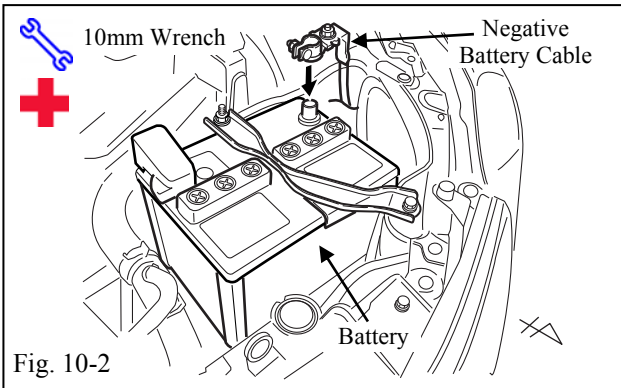
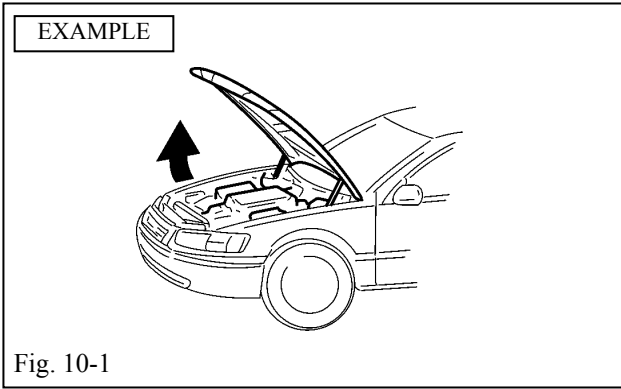


### If the Vehicle's KEY has "G" engraved on it

- Make sure that you removed the RES ECU PN: PT398-42080 and replaced it with Service PN: PT398-03110-RP (see Pg. 5 for information on this)
- You MUST Use the Phase 4 registration. (see registration section pg. 35)

### If the Vehicle's KEY does not have "G" on it

- You can use this kit as is.
- You MUST Use the Phase 3 registration. (see registration section pg. 31)



10. Phase 3 Registration (steps a-y)  
(Vehicles with Immobilizer)

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

**STOP** 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.

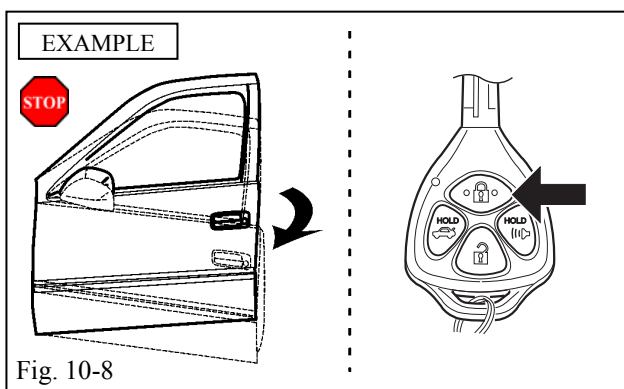
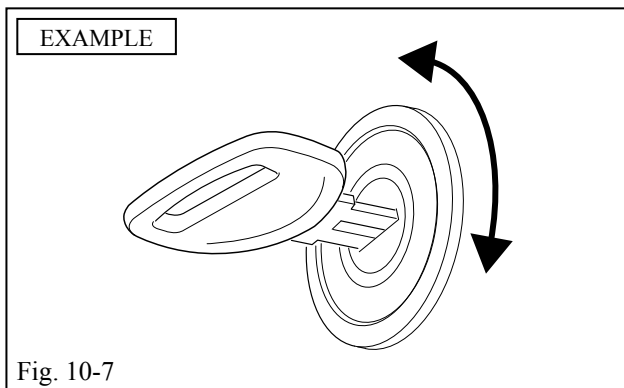
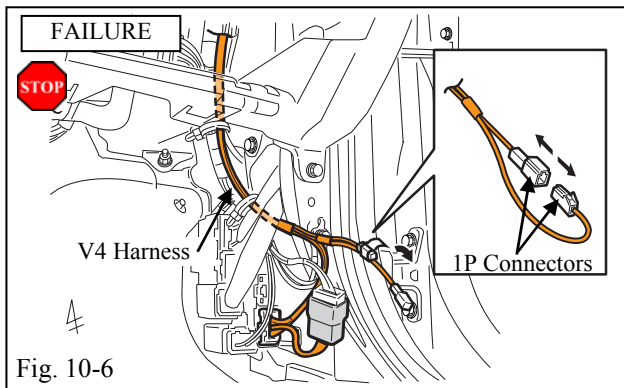
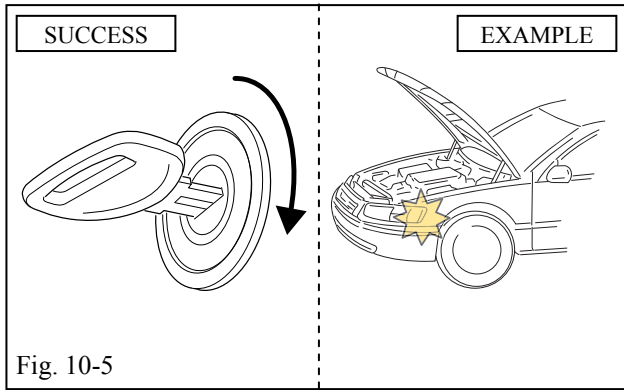
(e) Insert the Key into the Ignition. (Fig. 10-4)

(f) Turn it from "OFF" to "ON" 5 times.

(Fig. 10-4)

**LOOK:** for the hazard lights to 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)
- LOOK:** for the hazard lights to flash Once.



If this procedure failed, the Hazard Lights flash 2 times.

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

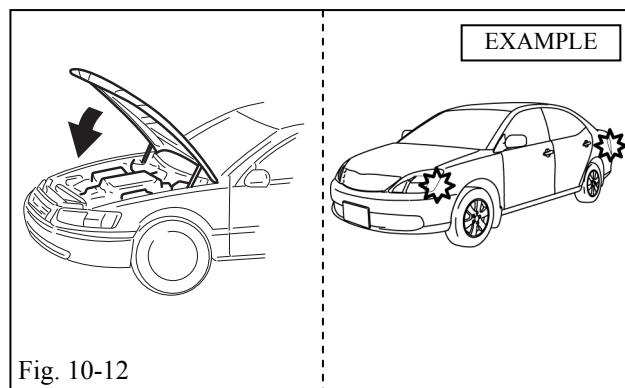
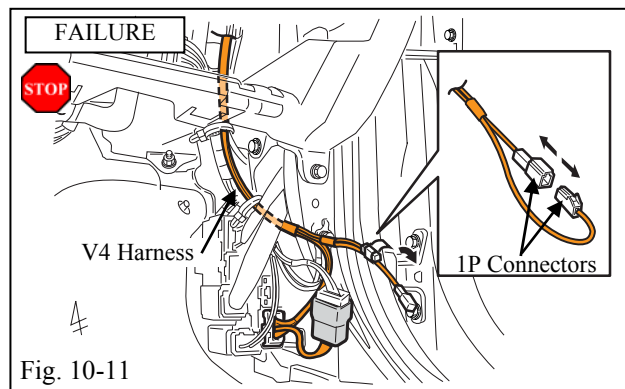
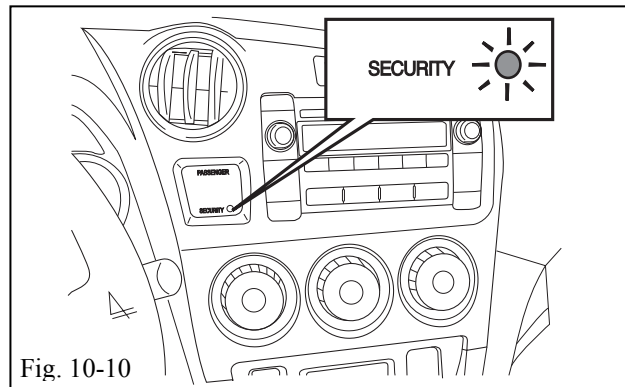
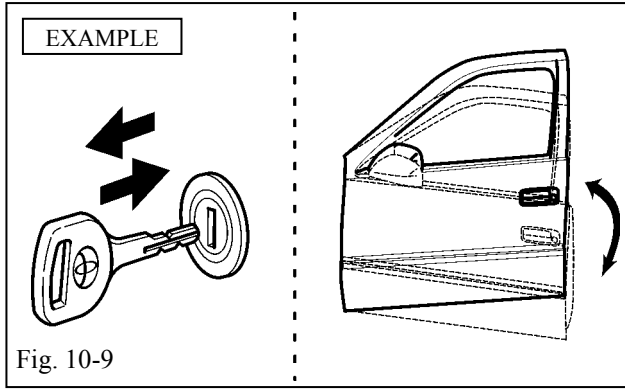
- (j) Turn the Key to the "ON" position and back to the "OFF" position. (Fig. 10-7)
- (k) Remove the Key from the Ignition Switch.



- (l) Open the Driver's Door. (Fig. 10-8)
- ONCE OPEN, YOU HAVE 20 SECONDS TO COMPLETE STEPS m-o.**

- (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) Close the Driver's Door. (Fig. 10-9)
- (r) Open, and close the Driver's Door 7 times. (Fig. 10-9)
  - (1) Complete this step within 35 seconds.

**LOOK:** for the Immobilizer LED to turn On for 1 Second and then turn Off.

- (s) After 1 second, the LED will light up again and stay on. (Fig. 10-10)
- (t) Remove the Key from the Ignition.

**LOOK:** for the Immobilizer LED to turn off.

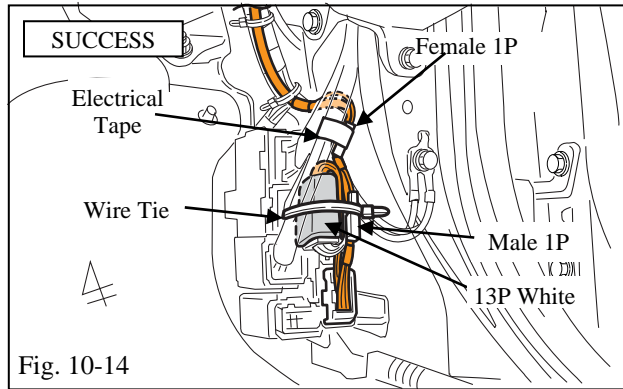
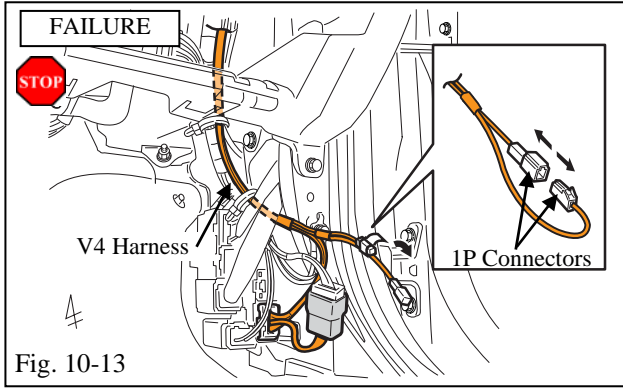


If this procedure failed, registration has failed.

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

- (u) Exit the Vehicle.
- (v) Close the Hood. (Fig. 10-12)

**LOOK:** for the hazard lights to flash twice.



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

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

- (w) Disconnect the V4 Harness's White 1P Connectors. (Fig. 10-14)
- (x) Secure the V4 Harness's Female 1P Connector and V4 Harness to the Vehicle's Harness with Electrical Tape as shown. (Fig. 10-14)
- (y) Secure the V4 Harness's Male 1P Connector and the 13P Connectors to the Vehicle Harness with 1 Wire Tie. (Fig. 10-14)

**Skip to Section 12 on page 39.**

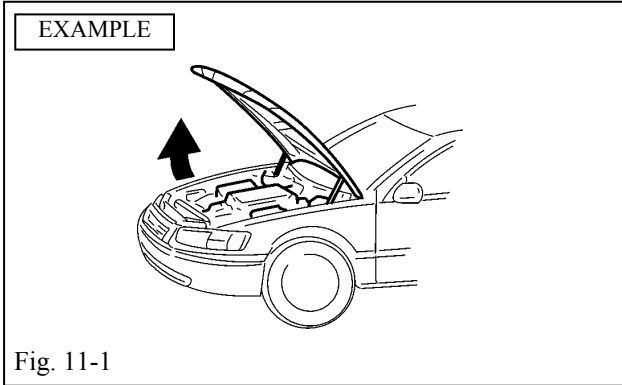


Fig. 11-1

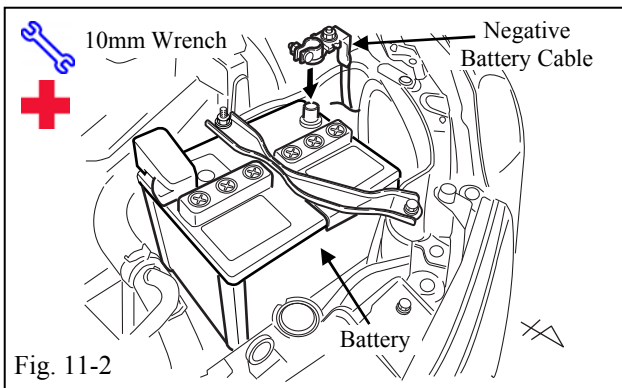


Fig. 11-2

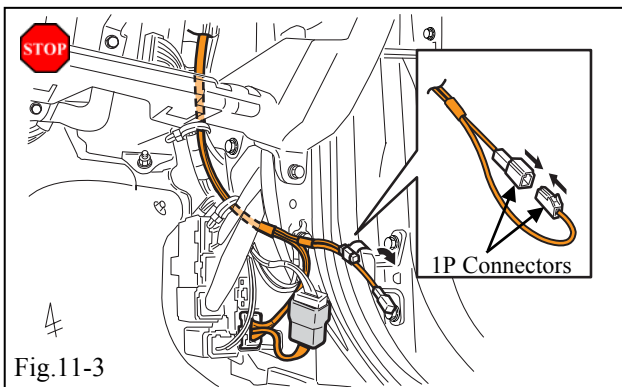


Fig. 11-3

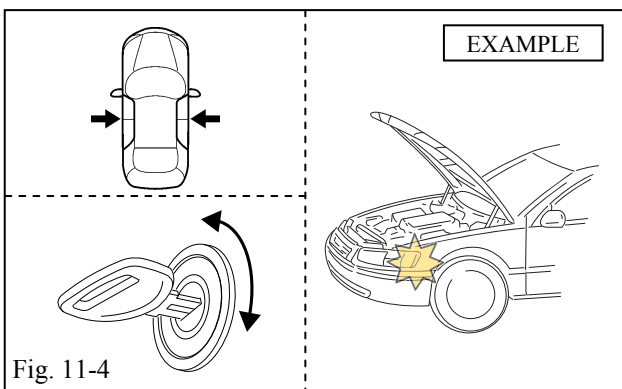


Fig. 11-4

**11. Phase 4 Registration (steps a-z)**  
**(Vehicles with Immobilizer)**

(a) Open the Hood. (Fig. 11-1)

(b) Temporarily reconnect the Vehicle's Negative Battery Cable. (Fig. 11-2)



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

(c) Locate and remove the Tape securing the V4 Harness's White 1P Connectors in the Passenger's Side Cowl Area and connect them. (Fig. 11-3)



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

(d) Close all doors. (Fig. 11-4)

(1) Do not close the Hood.

(e) Insert the key into the ignition. (Fig. 11-4)

(f) Turn it from "OFF" to "ON" 5 times. (Fig. 11-4)

**LOOK:** for the hazard lights to flash Once.

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

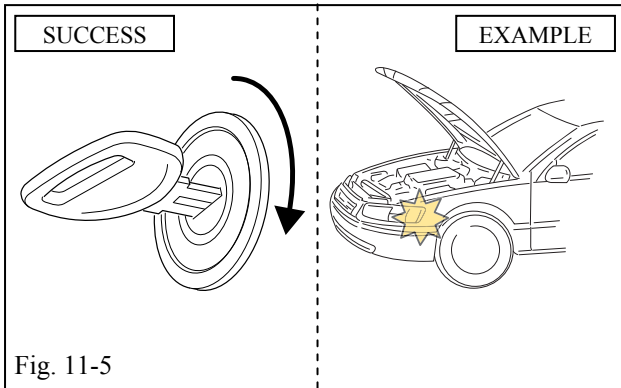


Fig. 11-5

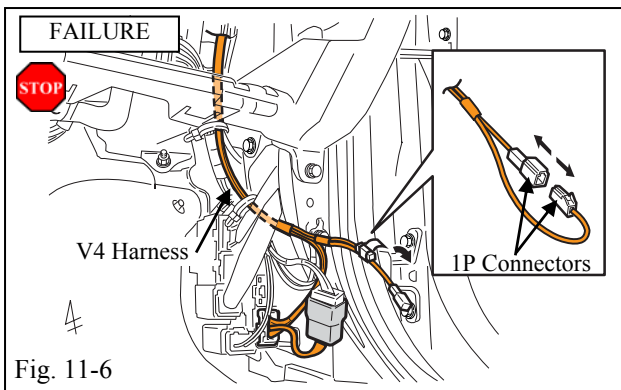


Fig. 11-6

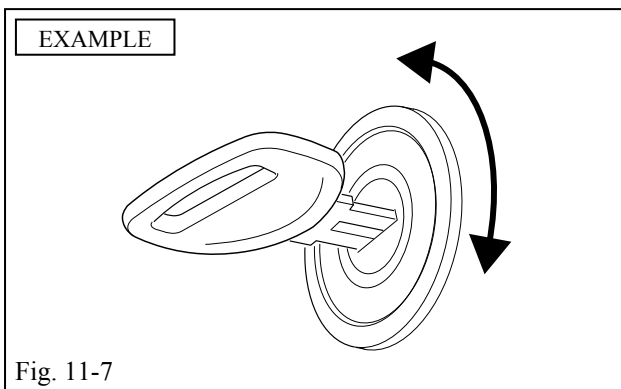


Fig. 11-7

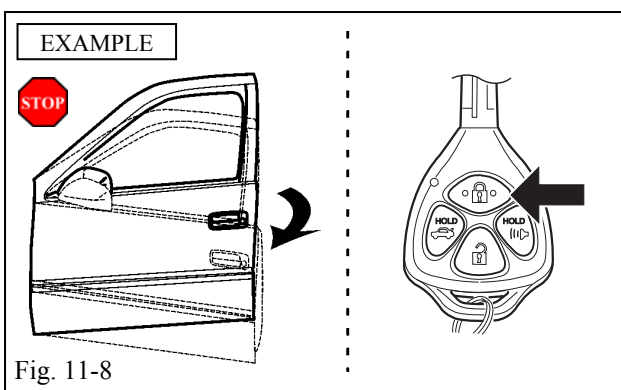


Fig. 11-8

- (h) Start the Engine. (Fig. 11-5)
  - (i) After 10 seconds stop the Engine. (Fig. 11-5)
- LOOK:** for the hazard lights to flash Once.

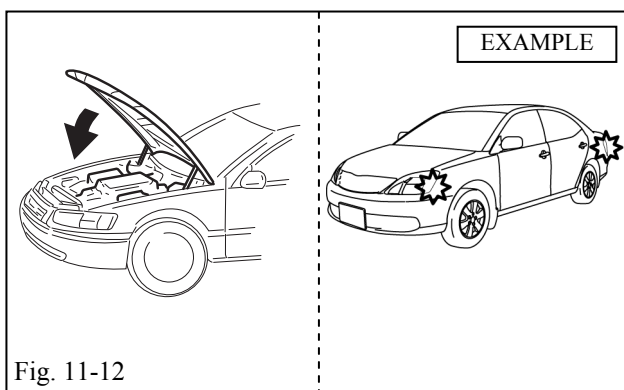
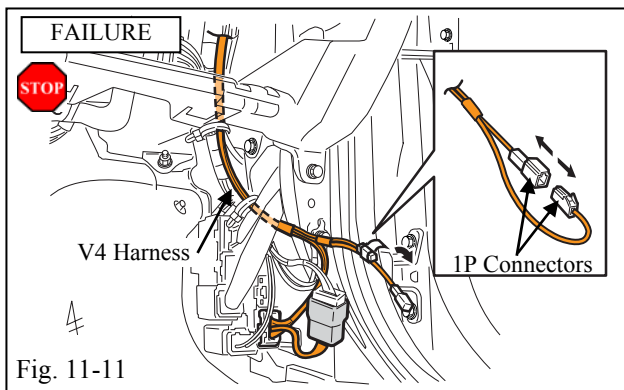
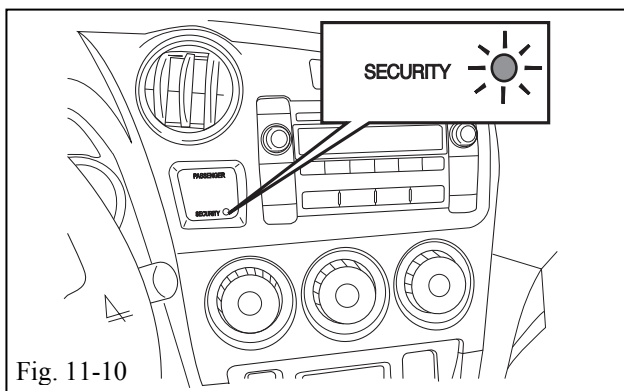
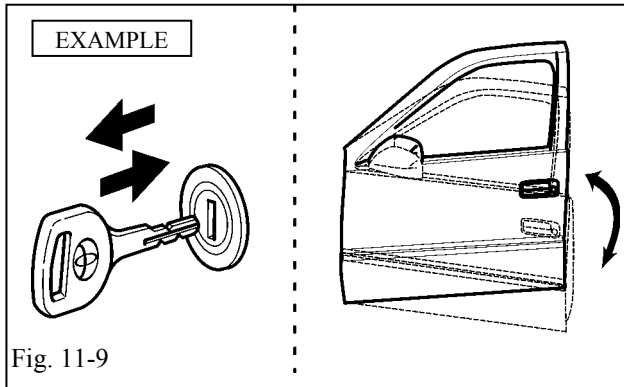
If this procedure failed, the Hazard Lights won't flash or will flash 2 times.

- Disconnect the V4 Harness's White 1P Connectors in the Passenger's Side Cowl Area. (Fig. 11-6)
- Start again from step (c).

- (j) Turn the Key to the "ON" position and back to the "OFF" position. (Fig. 11-7)
- (k) Remove the Key from the ignition switch.

- (l) Open the Driver's Door. (Fig. 11-8)
- ONCE OPEN, YOU HAVE 20 SECONDS TO COMPLETE STEPS m-p.

- (m) Using the Remote, press the Lock Button twice within 2 seconds. (Fig. 11-8)
- (n) Press and hold the lock button for 4 seconds. (Fig. 11-8)



- (o) Insert the Key into the ignition. (Fig. 11-9)
- (p) Remove and insert the Key into the ignition 6 times. (Fig. 11-9)
- (q) Turn the Key to the "ON" position.
- (r) Close the Driver's Door.
- (s) Open and close the Driver's Door 7 times ending in Close position. (Fig. 11-9)
  - (1) Complete these steps within 35 seconds.

**LOOK:** for the Immobilizer LED to turn On for 1 Second and then turn Off

- (t) After 1 second, look for the LED to turn on and stay on. (Fig. 11-10)
- (u) Remove the Key from the Ignition Switch.

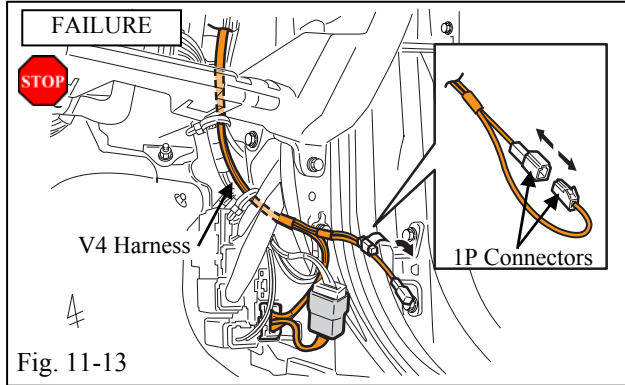
**LOOK:** for the Immobilizer LED to turn off.

If this procedure failed, registration has failed.

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

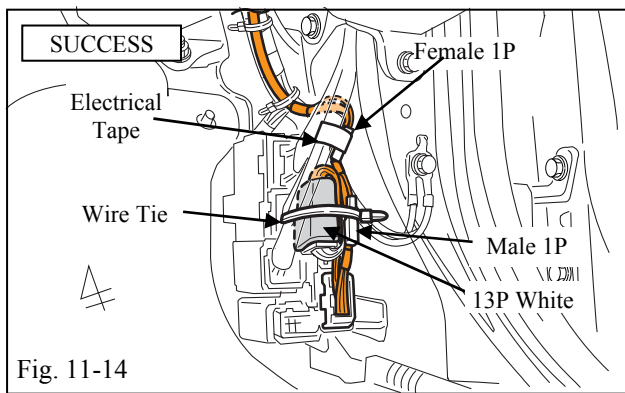
- (v) Exit the Vehicle.
- (w) Close the Hood. (Fig. 11-12)

**LOOK:** for the hazard lights to flash twice.



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

- Disconnect the V4 Harness's White 1P Connector in the Passenger's Side Cowl Area. (Fig. 11-13)
- Start again from step (c).



- (x) Disconnect the V4 Harness's White 1P Connectors.
- (y) Secure the V4 Harness's Female 1P Connector and V4 Harness to the Vehicle's Harness with Electrical Tape as shown. (Fig. 11-14)
- (z) Secure the V4 Harness's Male 1P Connector and the 13P Connectors to the Vehicle Harness with 1 Wire Tie. (Fig. 11-14)

**12. Tags and Label Installation.**



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



- For Mexico Vehicles use the Spanish Tag and Labels and discard the English Tags and Labels.

- Remove 2 of the Remote Controls from their protective bag.

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

- Using VDC approved cleaner and Cleaning Method, clean the area indicated on the Remote Controls. (Fig. 12-1)

- Attach the Key Labels to the Remote Controls as shown. (Fig. 12-1)

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



**CAUTION:** Do not touch the adhesive surface.

- Attach the Remote Engine Starter Key Tags to the Remote Controls. (Fig. 12-2)

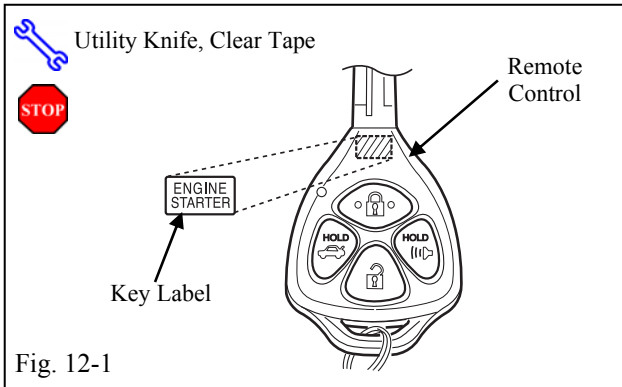


Fig. 12-1

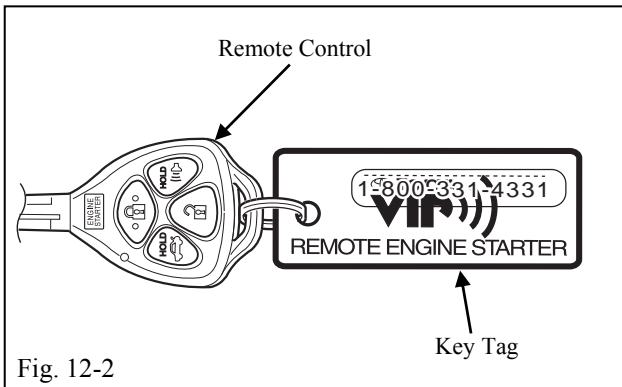


Fig. 12-2

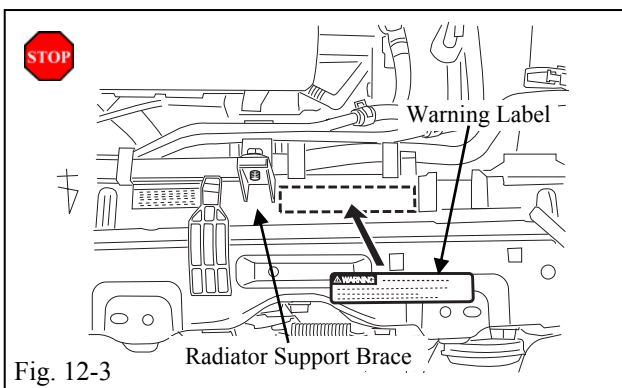


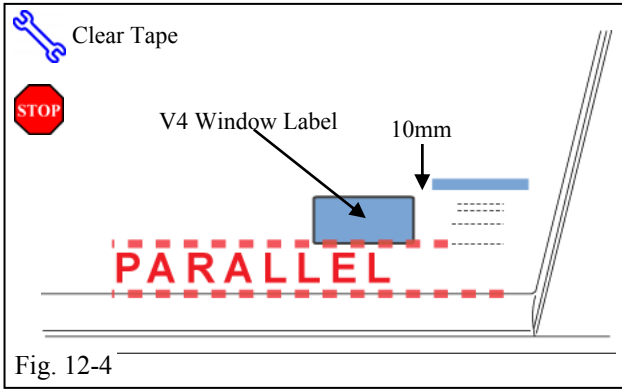
Fig. 12-3

- Using VDC approved cleaner and Cleaning Method, clean the area indicated on the Radiator Support Brace. (Fig. 12-3)

- Attach the Warning Label to the Radiator Support Brace as shown. (Fig. 12-3)



**CAUTION:** Do not touch the adhesive surface.



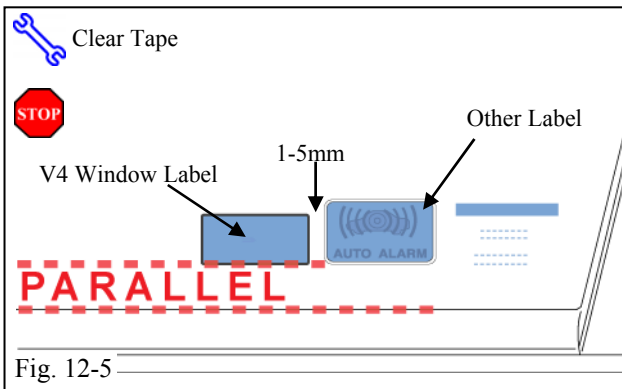
(g) Using Household Glass Cleaner, clean the inside of the Front Door Windows.  
(Fig. 12-4)

(h) Place the Window Labels on the inside of the Front Door Windows as shown.  
(Fig. 12-4)

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

**STOP** **CAUTION:** Do not touch the adhesive surface.

- (2) Line up the Labels properly. Do not attempt to reposition the Labels once they are placed.



**STOP** **NOTE:** If Labels are being installed with other Window Label's align them as shown in Fig. 12-5.

### 13. Completing the Installation.

(a) Complete the reassembly of the vehicle.

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

(b) Position the Negative Battery Cable at the original factory position. (Fig. 13-1)

- (1) Tighten the Nut to 36 in•lbf (4.07 N•m)

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

(c) Clean up and remove any trash.

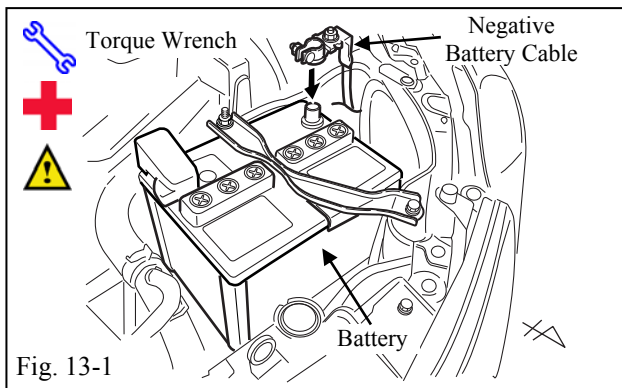
(d) Place the Owner's Manual, left in its protective bag, in the Glove Box.

(e) Reset the Power Windows.

- (1) Turn Ignition Key to the "ON" position.
- (2) Push down the Power Window Switches of each door, and lower the windows halfway.
- (3) Pull up the switches until the windows close and hold switches up for a minimum of 1 second.

(f) Reset the Power Moon Roof. (if equipped)

- (1) Turn Ignition Key into the "ON" position.
- (2) Open the Moon Roof halfway.
- (3) Push and hold the Moon Roof Switch to close until the Moon Roof closes and continue to hold the switch 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. <b>NOTE:</b> Some Vehicles may require you to exit the Vehicle and pull up on the Hood	The engine stops. The hazard lights flash once. The security alarm triggers. (if equipped)
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	

**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.

