

**Part Number: PT398-00100**  
**PT398-00100-AA**

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

**Conflicts**

Do not install into vehicles without RKE system.

**Recommended Sequence of Application**

| Item # | Accessory |                        |
|--------|-----------|------------------------|
| 1      | TVIP/RES  | Any TVIP or RES system |
| 2      | XM Radio  |                        |

**Kit Contents**

| Item # | Quantity | Description                                  |
|--------|----------|--|
| 1      | 1        | Wire Harness                                 |
| 2      | 1        | RES ECU Mounting Bracket                     |
| 3      | 1        | RES ECU Mounting Plate                       |
| 4      | 1        | Gateway ECU Bracket (See Page 2 for details) |

**Hardware Bag Contents**

| Item # | Quantity | Description  |
|--------|----------|--|
| 1      | 1        | RES ECU  |
| 2      | 1        | Gateway ECU  |
| 3      | 2-4      | Small Foam Tape Strips (1 per.) (See page 2 for details) |
| 4      | 1        | Large Foam Tape Strips (2 per)                           |
| 5      | 25       | Wire Ties  |
| 6      | 2        | M6 Flange Nut  |
| 7      | 4        | Window Warning Labels (English/Spanish)                  |
| 8      | 4        | Key Labels (English/Spanish)                             |
| 9      | 4        | Key Tags (English/Spanish)                               |
| 10     | 2        | Engine Room Warning Labels (English/Spanish)             |
| 11     | 1        | Owner's Manual   |


**Additional Items Required For Installation**


| Item # | Quantity | Description   |
|--------|----------|---|
| 1      | 1        | Hood Switch Kit (08586-oc920) for vehicles without factory alarm. (1 V4 Hood Latch, 2 Nut Covers)     |
| 2      | 1        | V4 Adapter Kit (PT398-34112)<br><b>NOTE:</b> Refer to Page 18 to determine if you will need this kit. |
| 3      | 1        | Black Electrical Tape   |


**Recommended Tools**


| Personal & Vehicle Protection | Notes  |
|-------------------------------|--|
| Safety Glasses                |  |
| Safety Gloves                 | (Optional)   |
| Vehicle Protection            | Blankets, Parts Boxes, etc.                                  |
| Special Tools                 | Notes  |
| Terminal Tension Blade        | Toyota SST # 00002-025BL-01 Or Sumitomo P/N 319-0000         |
| Installation Tools            | Notes  |
| Screwdriver                   | #2 Phillips, Flat blade, Jeweler's                           |
| Nylon Panel Removal Tool      | e.g. Panel Pry Tool #1 Toyota SST # 00002-06001-01           |
| Side Cutters                  |  |
| Torque Wrench                 | 36 in•lbf (4.7 N•m), 71 in•lbf (8 N•m), 88.5 in•lbf (10 N•m) |
| Utility Knife                 |  |
| Tape                          | Clear  |
| Wrench                        | 10mm   |
| Socket                        | 10mm, Extension  |
| Special Chemicals             | Notes  |
| Cleaner                       | VDC Approved Cleaner   |
| Glass Cleaner                 | Household Glass Cleaner                                      |


**Legend**


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

 **OPERATOR SAFETY:** Use caution to avoid risk of injury.

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

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

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

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

Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure a quality installation.

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

This document covers such items as:

- Vehicle Protection (use of covers and blankets, cleaning chemicals, etc.)
- Safety (eye protection, rechecking torque procedure, etc.)
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.)
- Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.)

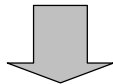
Please see your Toyota dealer for a copy of this document.



**CAUTION: This kit will only work for Phase 3 Vehicles.**

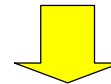


If the Vehicle is Phase 4 you will need to use PT398-34110. See below for how to identify Phase 3 and Phase 4



**If the Vehicle's Key does not have "G" engraved on it**

1. You can use this kit and installation instructions.



**If the Vehicle's Key has "G" engraved on it:**

1. You **MUST** use Kit PN: PT398-34110
2. Please order the correct kit and use the corresponding instructions.



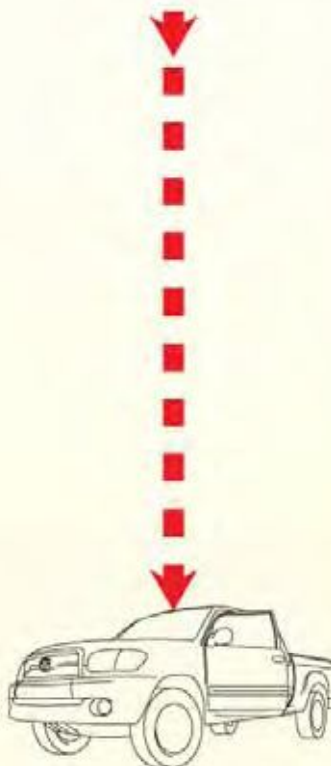
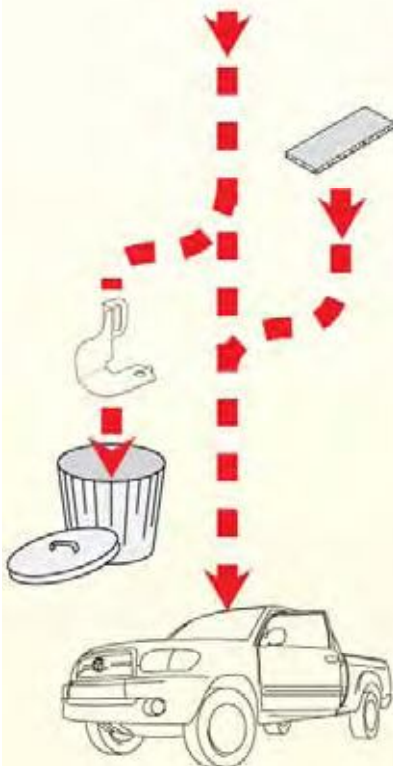
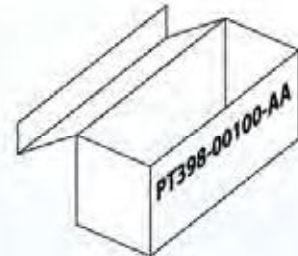
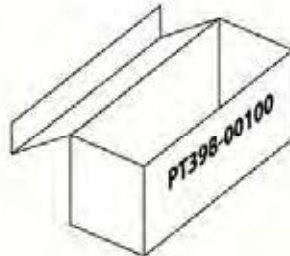
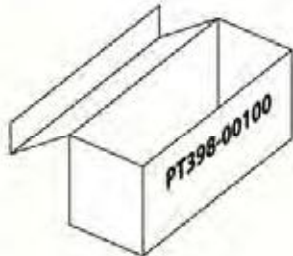
**CAUTION: There are three kits available for the 10MY Tundra.**



Two of the Kits have the same part number but different contents. The third Kit has a -AA part number.

PT398-00100

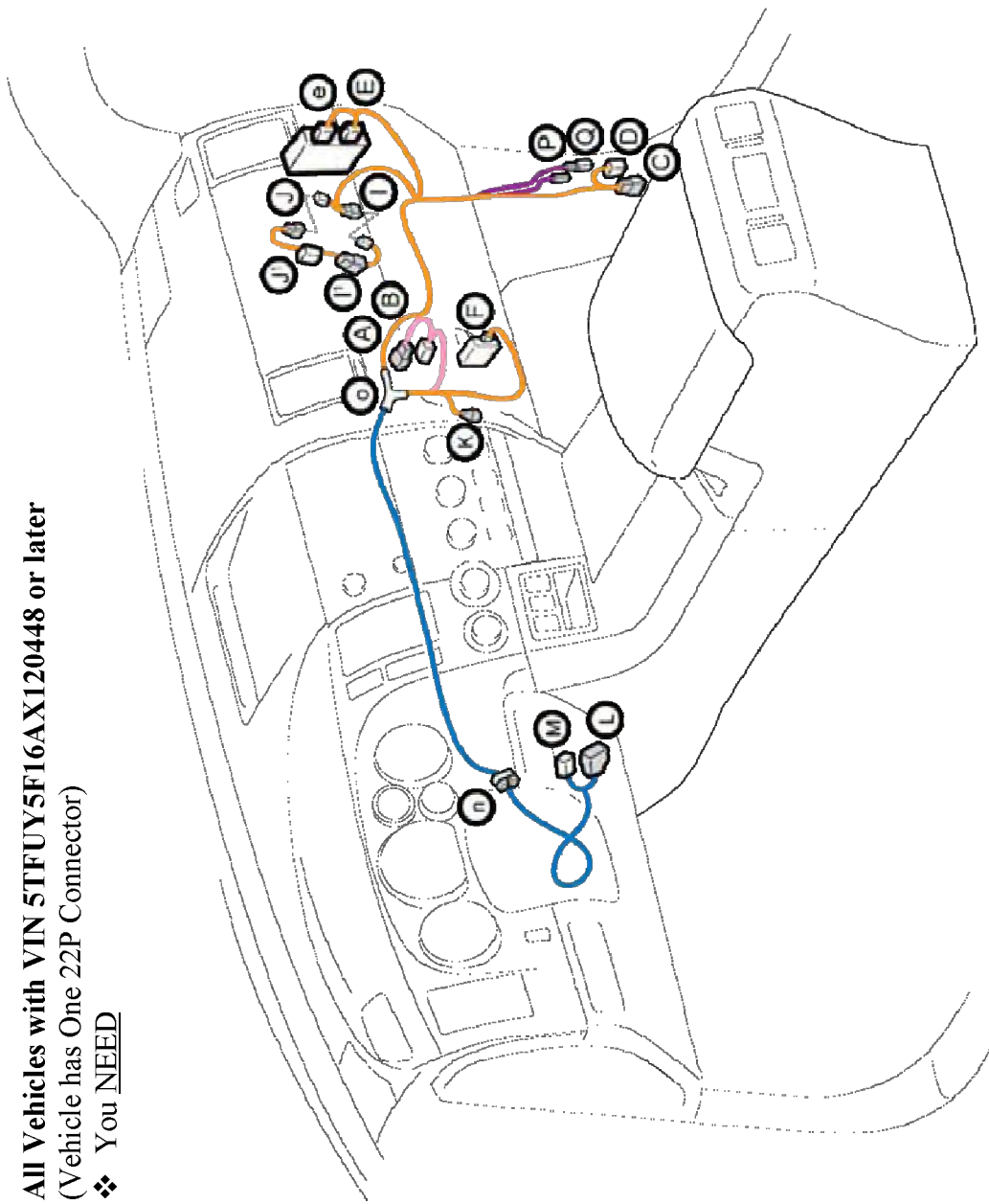
PT398-00100-AA



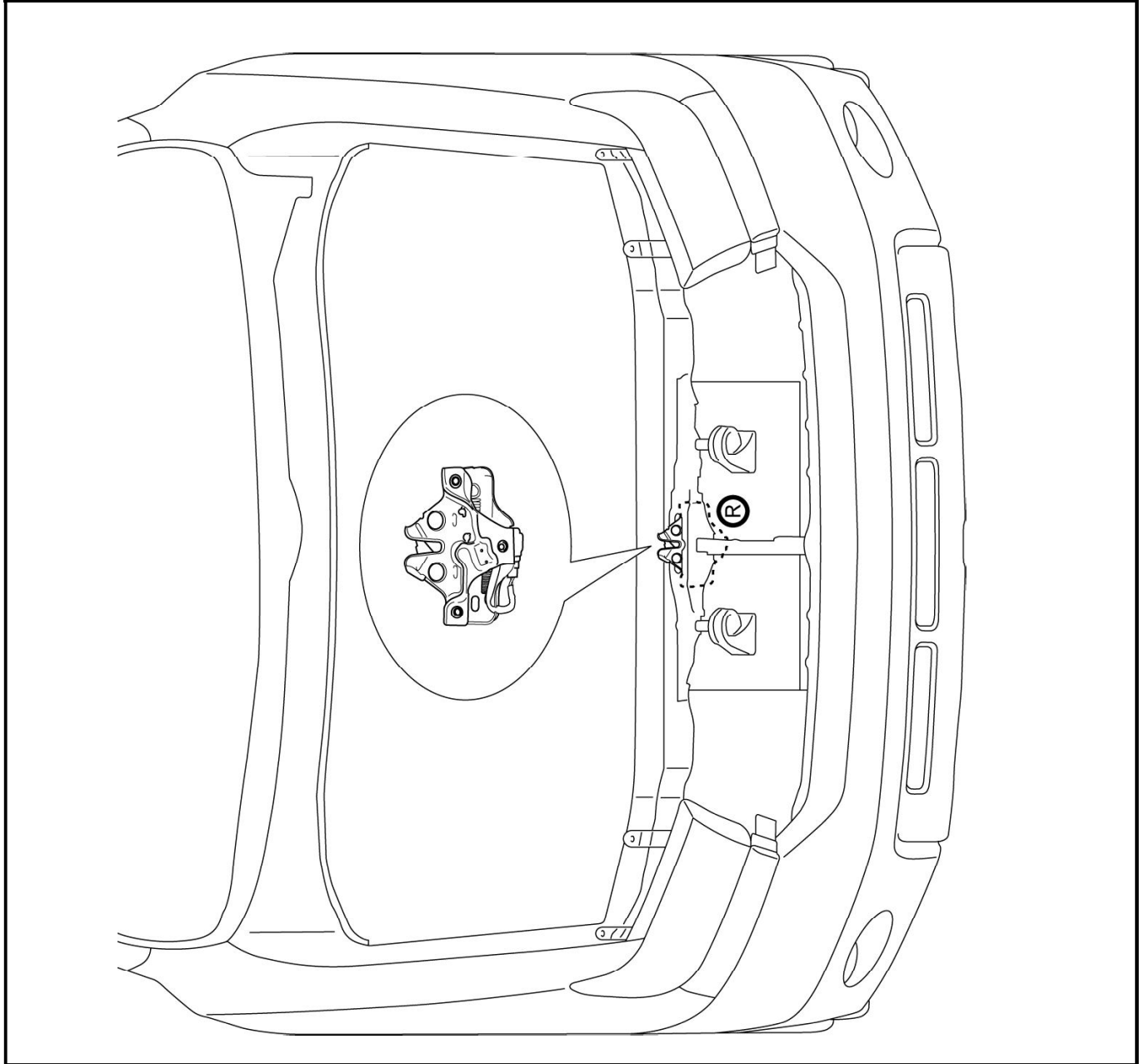


| TVIP      | Vehicle | Description                          |
|-----------|---------|--------------------------------------|
| <b>A</b>  |         |                                      |
| <b>B</b>  | J44     | 10P WHITE                            |
| <b>C</b>  |         |                                      |
| <b>D</b>  | AJ4     | 20P WHITE                            |
| <b>E</b>  |         | 20P WHITE<br><i>for RES ECU</i>      |
| <b>e</b>  |         | 8P WHITE<br><i>for RES ECU</i>       |
| <b>F</b>  | -       | 5P WHITE<br><i>for Gateway ECU</i>   |
| <b>I</b>  |         | 5P BLACK                             |
| <b>I'</b> |         | 22P BLACK<br><i>(V4 Adapter Kit)</i> |
| <b>J</b>  |         | 5P BLACK                             |
| <b>J'</b> |         | 22P BLACK<br><i>(V4 Adapter Kit)</i> |
| <b>K</b>  | J59     | 3P WHITE                             |
| <b>L</b>  |         |                                      |
| <b>M</b>  | J9      | 8P WHITE                             |
| <b>N</b>  |         | V4 Fuse Box<br>7.5watt (x2)          |
| <b>o</b>  |         | White Tape Marker                    |
| <b>P</b>  | -       | 1P WHITE<br><i>for RES Diagnosis</i> |
| <b>Q</b>  | -       | 1P WHITE<br><i>for RES Diagnosis</i> |

**All Vehicles with VIN 5TFUY5F16AX120448 or later**  
 (Vehicle has One 22P Connector)  
 ❖ You NEED



| TVIP | Description   |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|
| R    | Hood Latch w/switch for Vehicles without Factory Security Systems |  |  |  |  |  |  |  |  |  |  |  |  |  |
|      |   |  |  |  |  |  |  |  |  |  |  |  |  |  |



**1. Vehicle Disassembly. (Driver's Side)**

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

**STOP** **ELECTRONIC TILT ADJUST ONLY:** Fully extend the Steering Wheel's Tilt and Telescope positions.

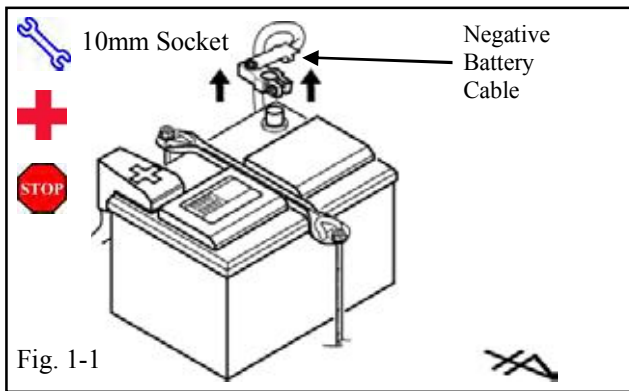


Fig. 1-1

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

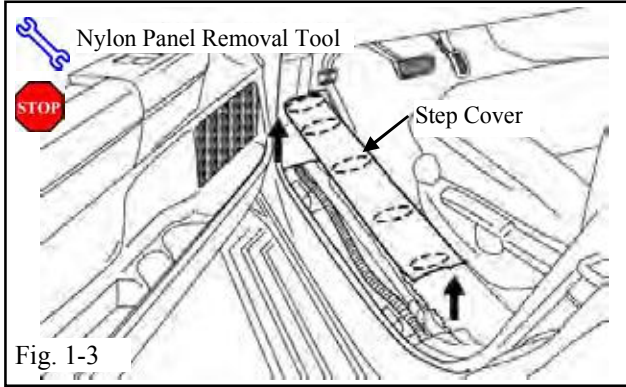
- STOP** (1) Protect the Fender before starting.
- STOP** (2) Note the Battery Cable position, as it will be re-installed in the same position.

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

|    |                             |
|----|-----------------------------|
| 1  | DS Step Cover               |
| 2  | DS Cowl Cover               |
| 3  | Lower Dash Cover            |
| 4  | Lower Steering Column Cover |
| 5  | PS Step Cover               |
| 6  | PS Cowl Cover               |
| 7  | Glove Box Under Cover       |
| 8  | PS Dash Side Cover          |
| 9  | PS Airbag Trim              |
| 10 | Glove Box                   |
|    |                             |
|    |                             |
|    |                             |

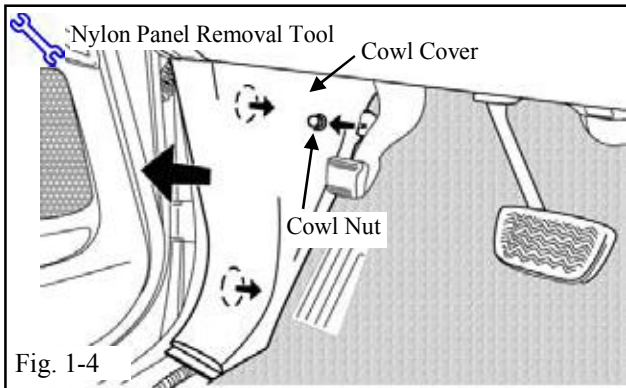
**STOP** Remove all corresponding connectors accordingly during the process.

Fig. 1-2



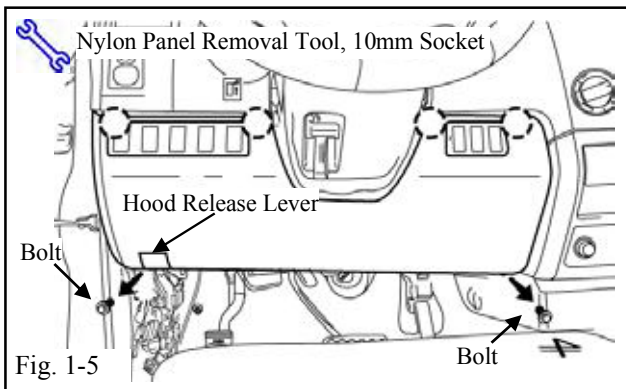
(c) Remove the Driver's Side Step Cover. (Fig. 1-3)

- (1) Begin by protecting the Vehicle Interior with Blankets.



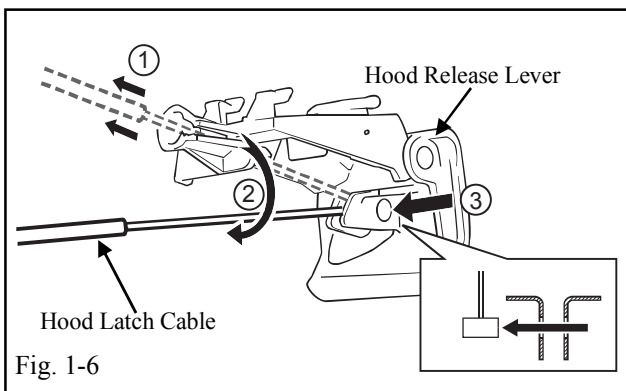
(d) Remove the Driver's Side Cowl Cover. (Fig. 1-4)

- (1) Remove 1 nut.



(e) Dislodge the Lower Dash Cover. (Fig. 1-5)

- (1) Remove 2 bolts.
- (2) Disconnect all connectors.



(f) Remove the Hood Latch Cable from the Hood Latch Lever. (Fig. 1-6)

(g) Remove the Lower Dash Cover.



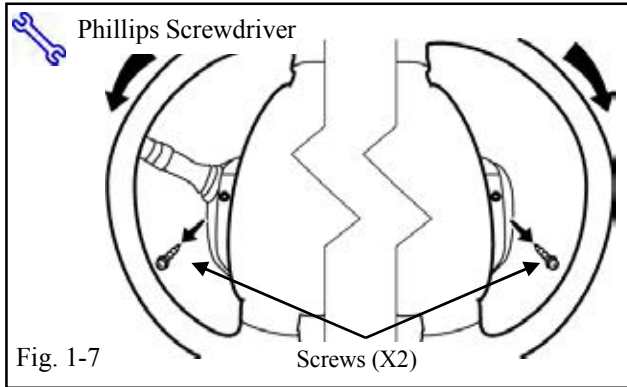


Fig. 1-7

(h) Remove the 2 Screws that secure the Lower Steering Column Cover. (Fig. 1-7)

- (1) Insert the key into the Ignition and turn it to "ON."
- (2) Turn the Steering Wheel left then right to gain access to the 2 screws securing the Cover.

**FOR USE ON VEHICLES WITH MANUAL TILT ADJUST (steps i-j)**

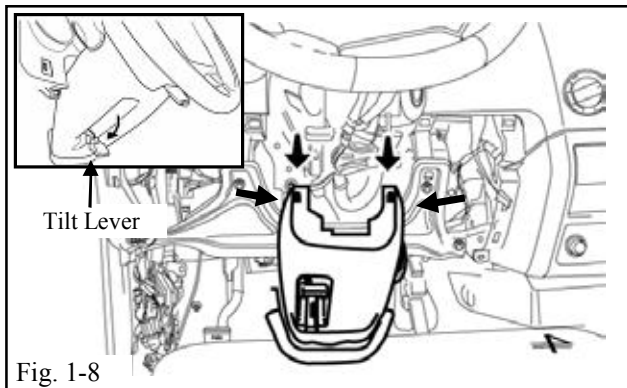


Fig. 1-8

- (i) Release the Tilt Lever. (Fig. 1-8)
- (j) Press inwards on each side of the Steering Column Cover while pulling downward to remove the cover. (Fig. 1-8)

**FOR USE ON VEHICLES WITH ELECTRONIC TILT ADJUST (steps k-l)**

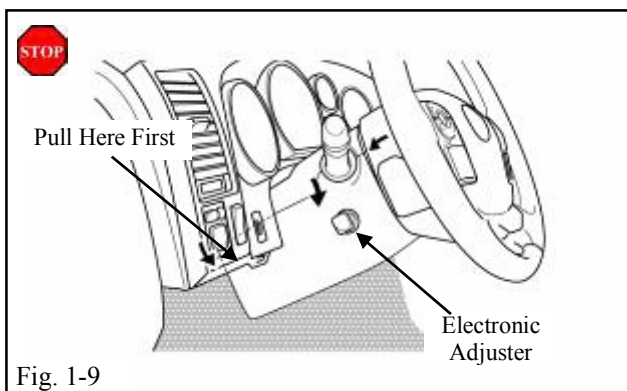


Fig. 1-9

- (k) Press in on each side and pull down on the lower section of the Lower Steering Column Cover to release it from the Top Section. (Fig. 1-9)
- (l) Pull out on the Top Left Corner of the Steering Column Cover to clear the Electronic Steering Column Adjuster Knob. (Fig. 1-9)



**CAUTION:** Avoid scratching the vehicle.

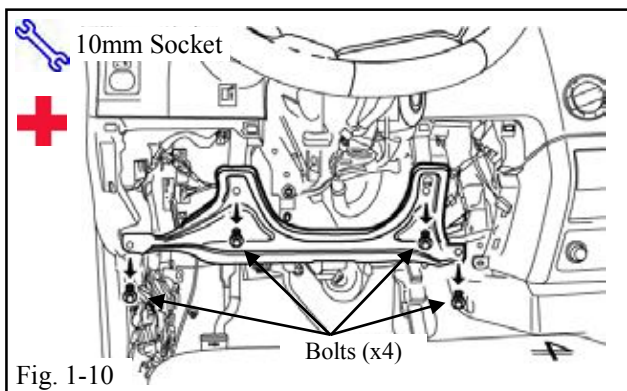


Fig. 1-10

(m) Dislodge the Driver's Side Knee Airbag. (Fig. 1-10)

- (1) Remove 4 Bolts.
- (2) Remove the Vehicle's Diagnostic Connector.



**CAUTION:** Sharp metal edges.

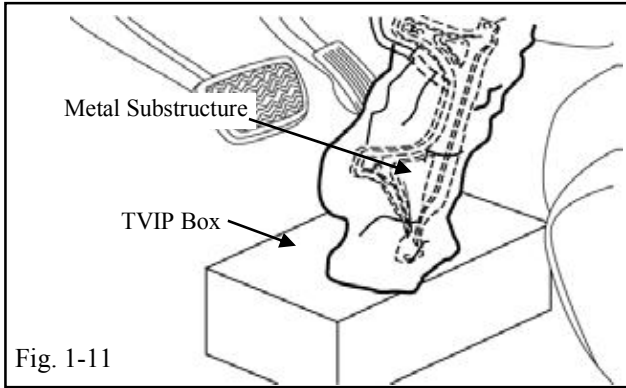


Fig. 1-11

- (n) Wrap the Airbag in a blanket and place on a box to avoid tension on the harness.  
(Fig. 1-11)

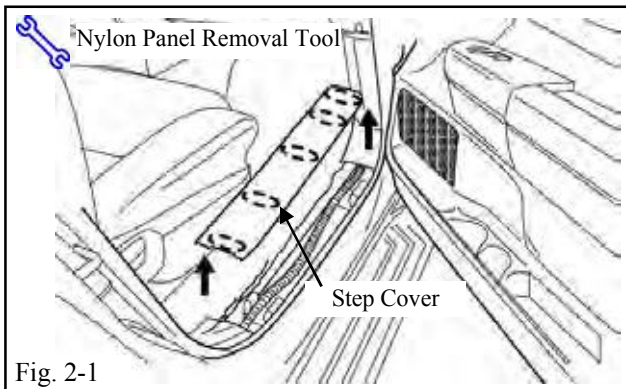


Fig. 2-1

**2. Vehicle Disassembly. (Passenger's Side)**

- (a) Remove the Passenger's Step Cover.  
(Fig. 2-1)

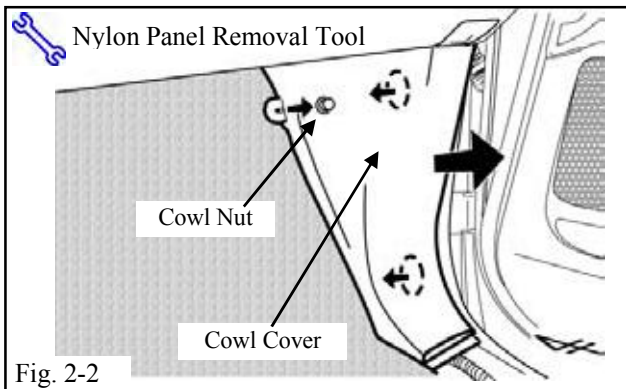


Fig. 2-2

- (b) Remove the Passenger's Cowl Cover.  
(Fig. 2-2)

(1) Remove 1 Nut.

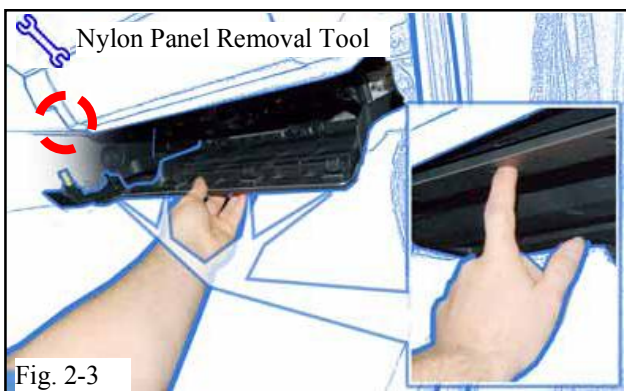
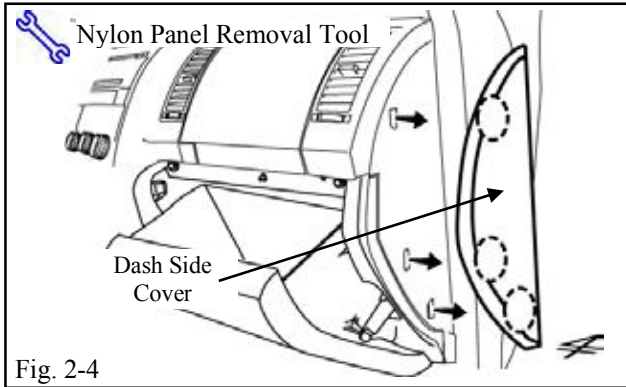
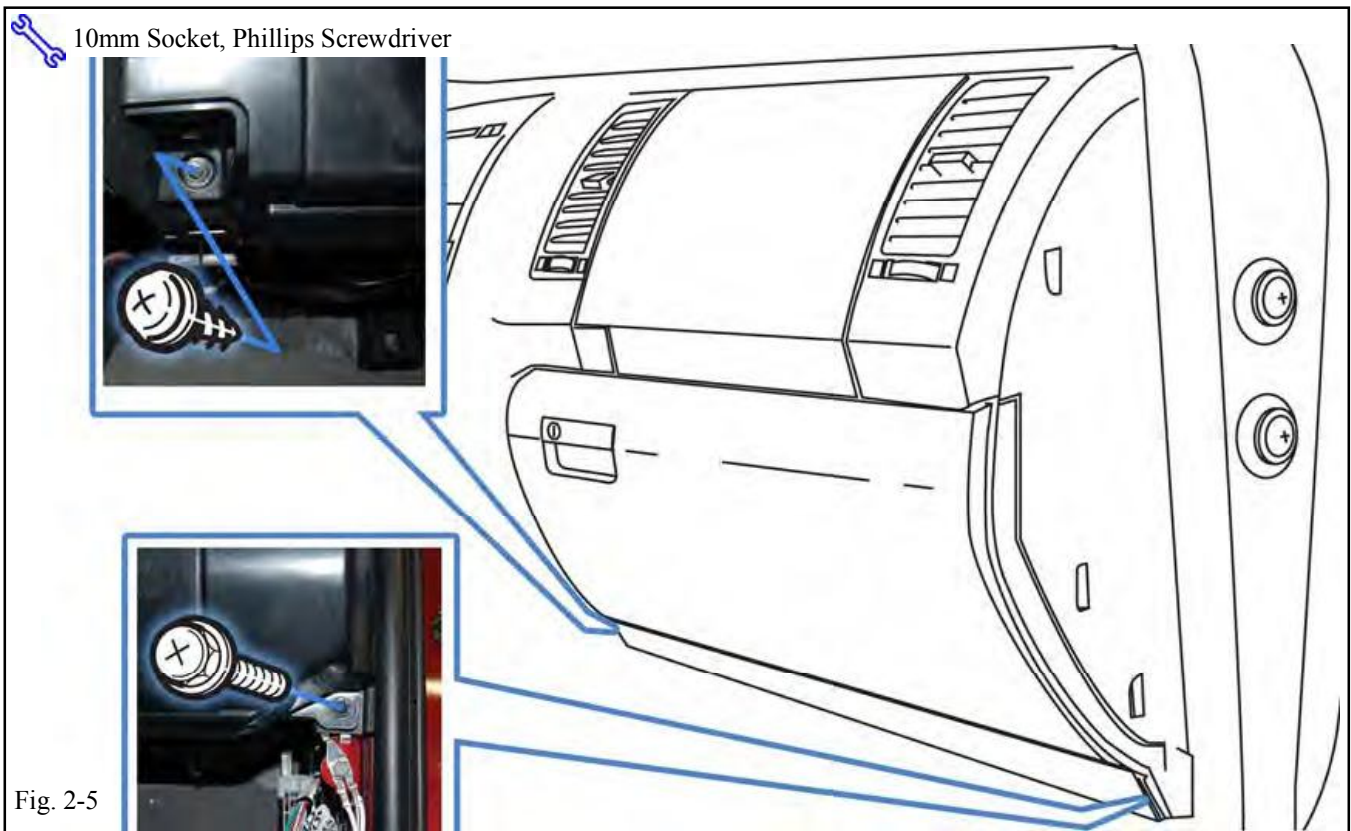


Fig. 2-3

- (c) Remove the Glove Box Under Cover.  
(Fig. 2-3)



- (d) Open the Glove Box. (Fig. 2-4)
- (e) Remove the Passenger's Dash Side Cover. (Fig. 2-4)
- (f) Close the Glove Box.



- (g) Remove 1 Screw and 1 Bolt from the Passenger's Side Knee Airbag Brace Trim. (Fig. 2-5)
- (h) Remove the Passenger's Side Knee Airbag Brace Trim. (Fig. 2-6)



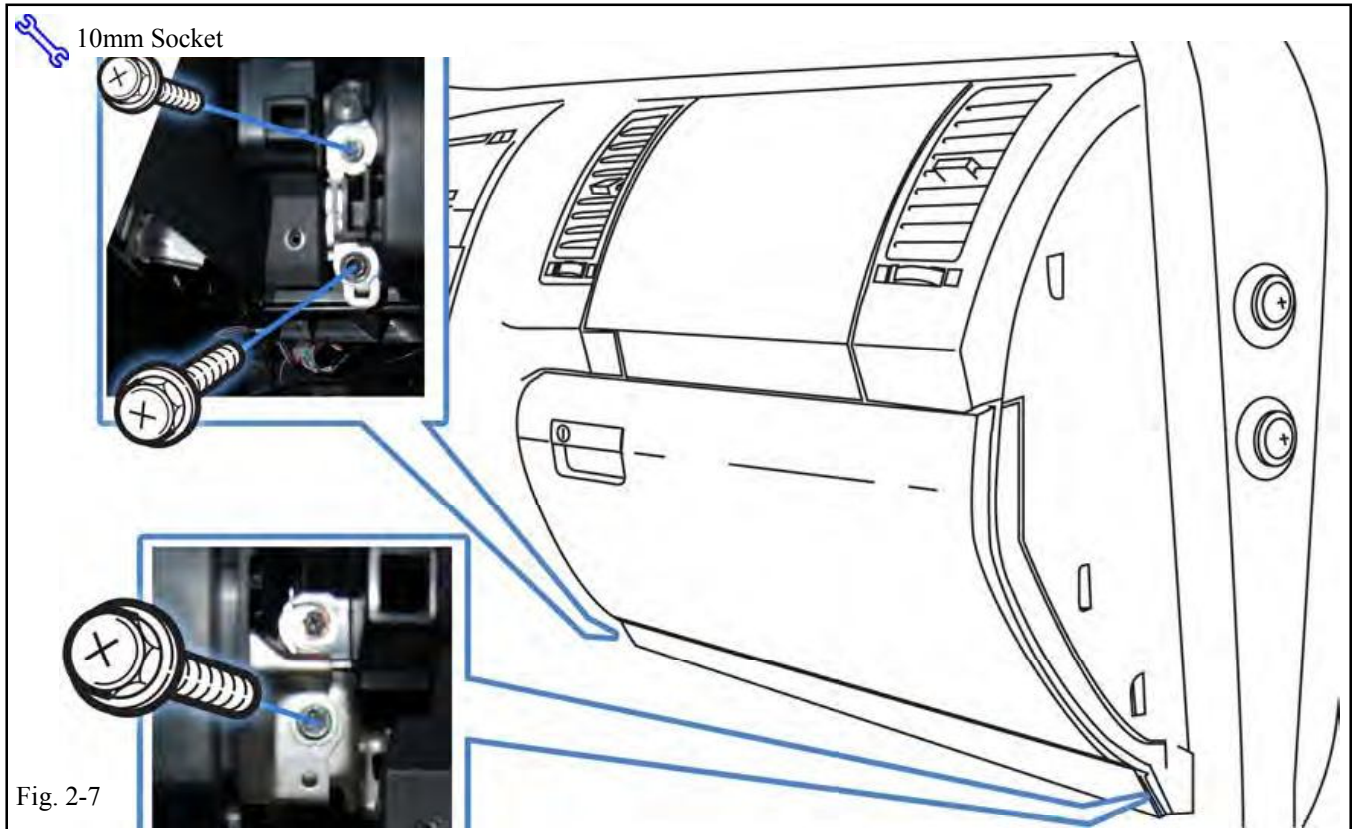


Fig. 2-7

- (i) Dislodge the Passenger's Knee Airbag. (Fig. 2-7)
  - (1) Remove 3 Bolts.
- (j) Wrap the Airbag in a blanket and place on a box to avoid tension on the harness. (Fig. 2-8)

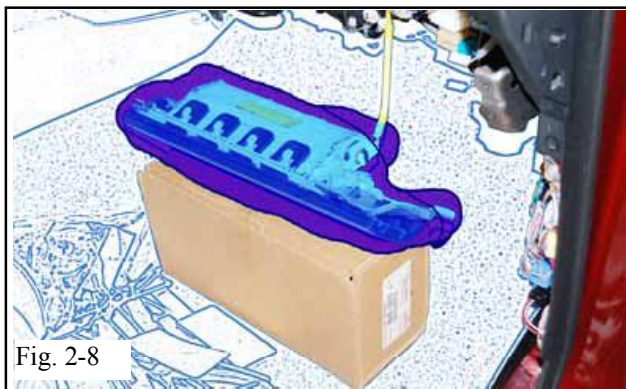


Fig. 2-8

- (k) Remove 1 Screw and 1 Bolt from the bottom of the Glove Box. (Fig. 2-9)
  - (1) Close the Glove Box.

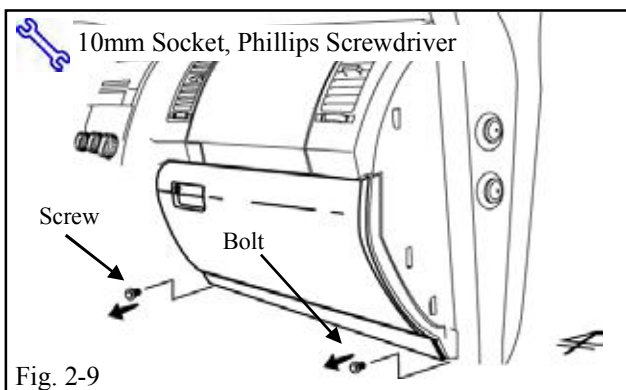
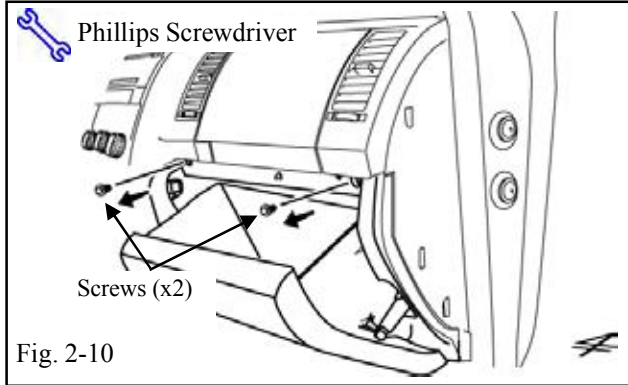
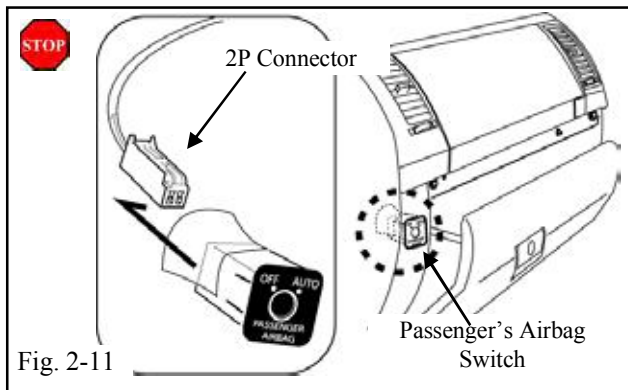


Fig. 2-9



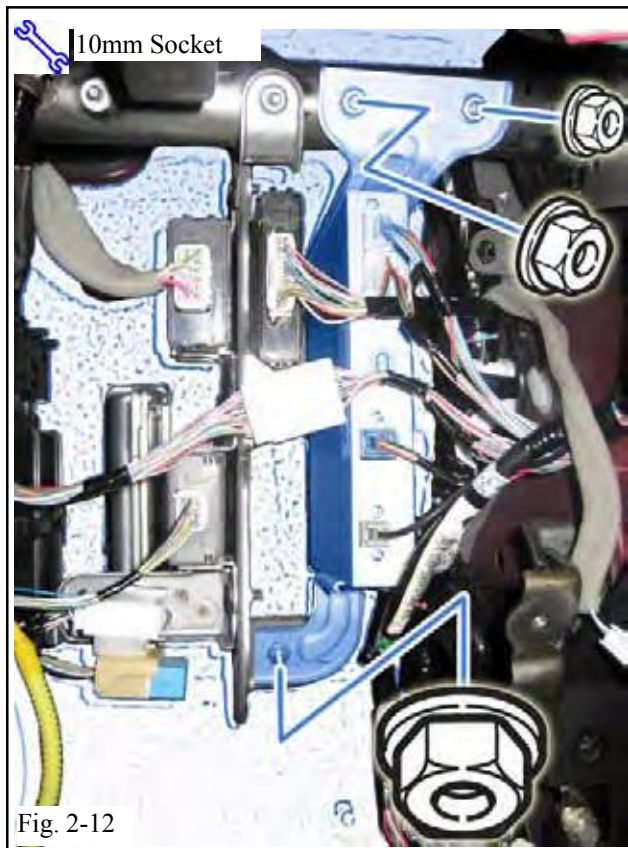
- (l) Remove the Glove Box. (Fig. 2-10)
  - (1) Open the Glove Box.
  - (2) Remove 2 Screws.

**FOR USE ON B-CAB VEHICLES (step m)**

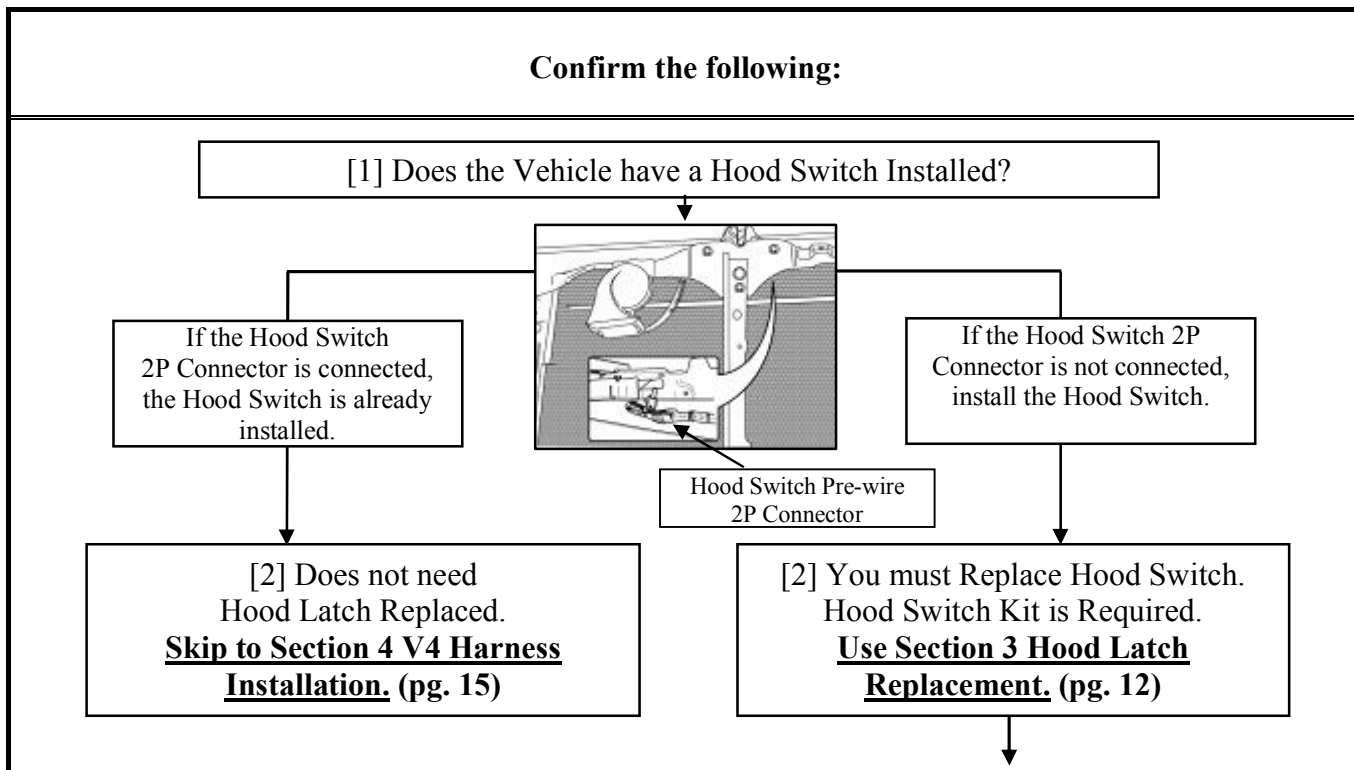


**STOP CAUTION:** Verify that the negative battery terminal is disconnected.

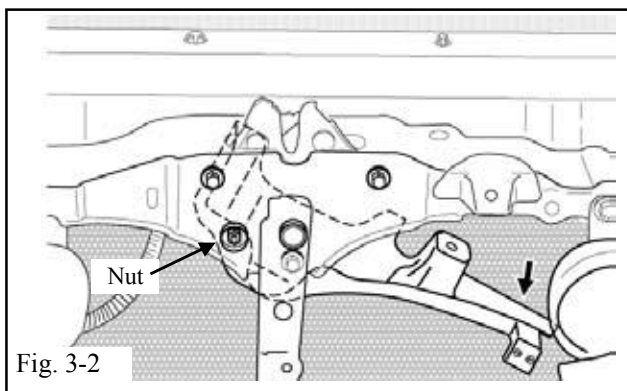
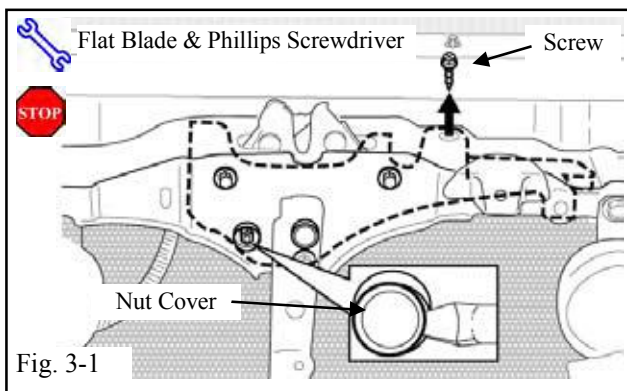
(m) Disconnect the Vehicle 2P Connector from the Passenger's Airbag Switch. (Fig. 2-11)



- (n) Remove the Vehicle's ECU. (Fig. 2-12)
  - (1) Remove 3 Nuts.



**3. Hood Latch Replacement. (steps a-o)**

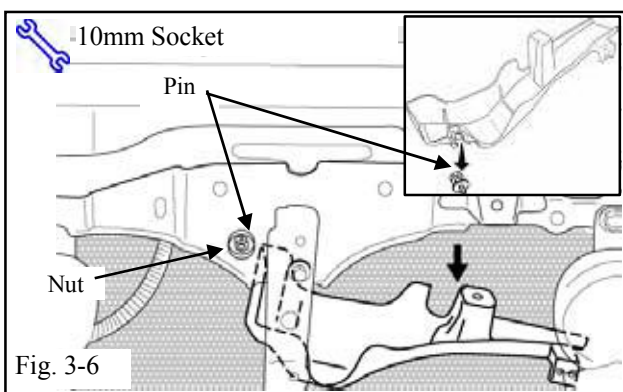
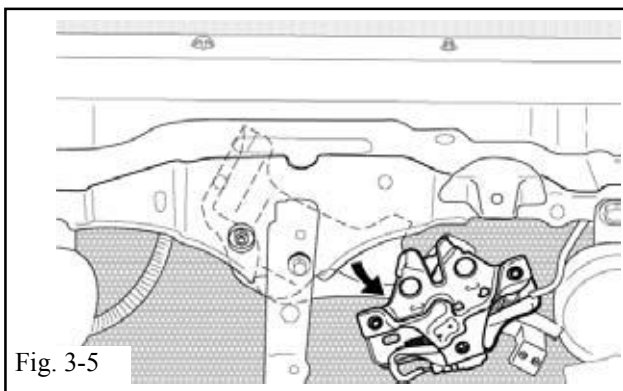
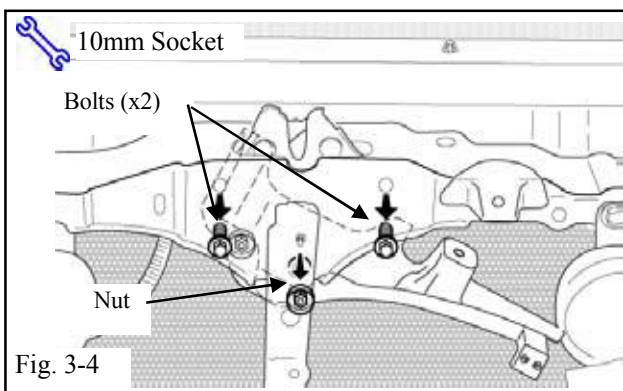
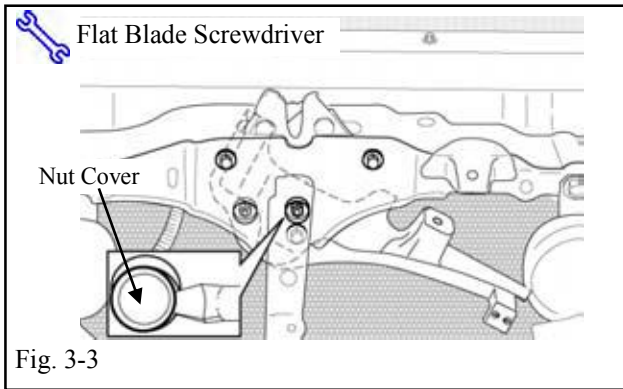


(a) Loosen the Plastic Cover from the Hood Latch Unit. (Fig. 3-1)

**CAUTION:** Protect the Radiator.

- (1) Remove 1 Screw from the Top.
- (2) Remove the Nut Cover.
- (3) Discard the Nut Cover.

(b) Angle the Plastic Cover downward. (Fig. 3-2)



(c) Remove 1 Nut Cover. (Fig 3-3)

(1) Discard the Nut Cover.

(d) Remove the 2 Bolts and 1 Nut from the Hood Latch. (Fig 3-4)

(e) Slide the Hood Latch out. (Fig. 3-5)

(f) Remove the Plastic Cover. (Fig. 3-6)

(1) Push the Cover up to release it from the Pin.

(g) Remove the Pin. (Fig. 3-6)

(1) Remove 1 Nut.

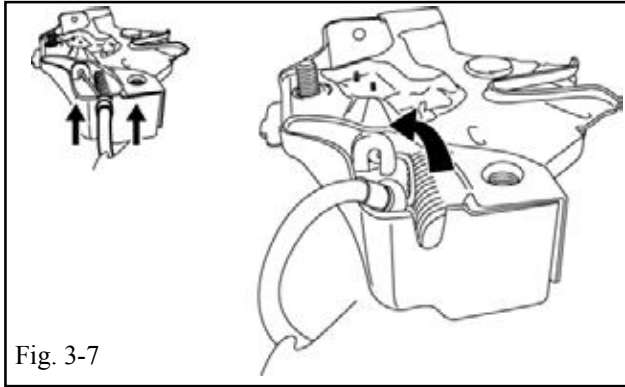


Fig. 3-7

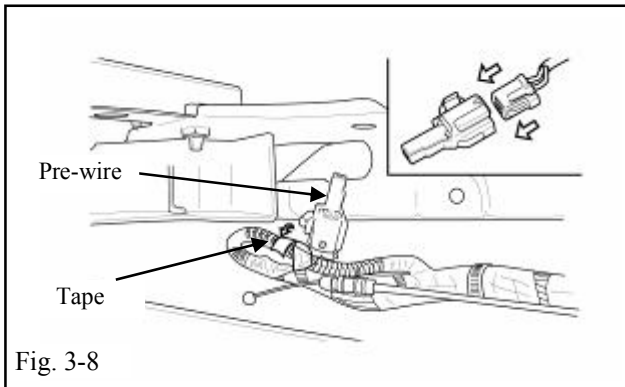


Fig. 3-8

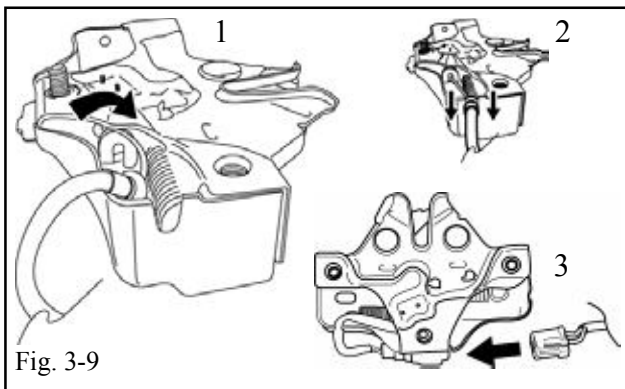


Fig. 3-9

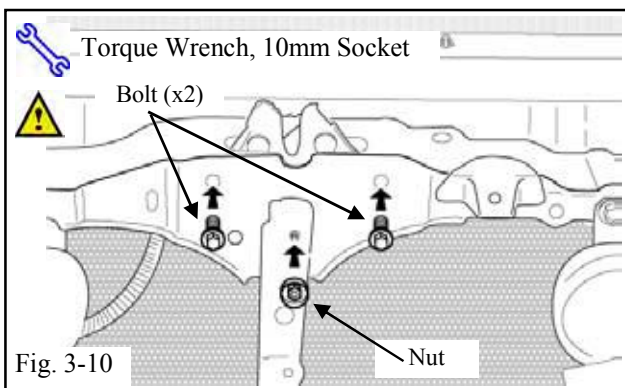
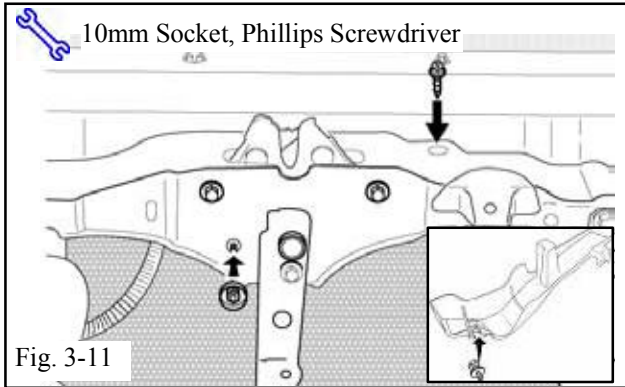


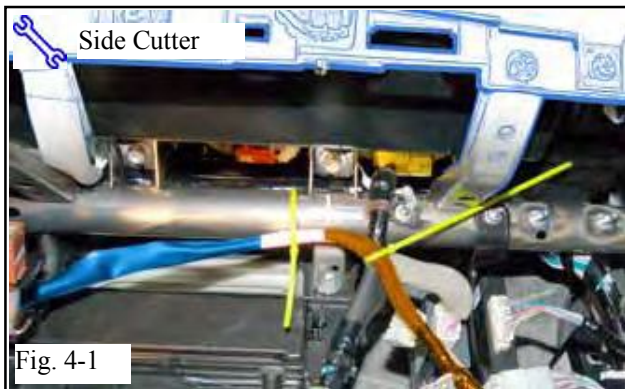
Fig. 3-10

- (h) Disconnect the Vehicle Hood Latch from the Hood Latch Cable. (Fig. 3-7)
  - (1) Pull the Cable upwards and out of the notch in the Vehicle Hood Latch Casing.
  - (2) Use the Braided Cable to guide the Ball out of the Vehicle Hood Latch.
  - (3) Discard the Vehicle Hood Latch.
  
- (i) Locate the Hood Switch Pre-wire, Black 2P Connector, and remove the tape securing it. (Fig. 3-8)
- (j) Remove the Connector Cover from the Hood Switch Pre-wire. (Fig. 3-8)
  - (1) Discard the Connector Cover.
  
- (k) Connect the V4 Hood Latch to the Vehicle Hood Latch Cable. (Fig. 3-9)
  - (1) Use the Braided Cable to guide the Ball into the V4 Hood Latch Lever.
  - (2) Affix the Cables Shielding to the V4 Hood Latch Case by pressing it down into the Notch in the Case.
- (l) Connect the Black 2P Hood Switch Pre-wire to the V4 Hood Latch. (Fig. 3-9)
  - (1) Verify that the connector is secured.
  
- (m) Install the V4 Hood Latch. (Fig. 3-10)
  - (1) Make sure to tighten the Nut and Bolts to 71 in•lbf (8.0 N•m).
  - (2) Replace the Nut Cover with 1 Nut Cover supplied in the kit.





- (n) Insert the Pin into the plastic cover. (Fig. 3-11)
- (o) Reinstall the Plastic Cover. (Fig. 3-11)
  - (1) Replace the Nut Cover with 1 Nut Cover supplied in the kit.



**4. V4 Harness Installation. (Passenger's Side)**

- (a) Secure the White Tape Marker to the Vehicle Brace with 1 Wire Tie. (Fig. 4-1)
- (b) Secure the V4 Harness to the Vehicle Harness with 1 Wire Tie. (Fig. 4-1)



- (c) Disconnect the Vehicle's 10P Connector from the Vehicle ECU located on the right side of the HVAC Center Duct. (Fig. 4-2)



- (d) Plug the V4 Harness's 10P Connectors in between the Vehicle Harness's 10P Connector and the Vehicle ECU. (Fig. 4-3)

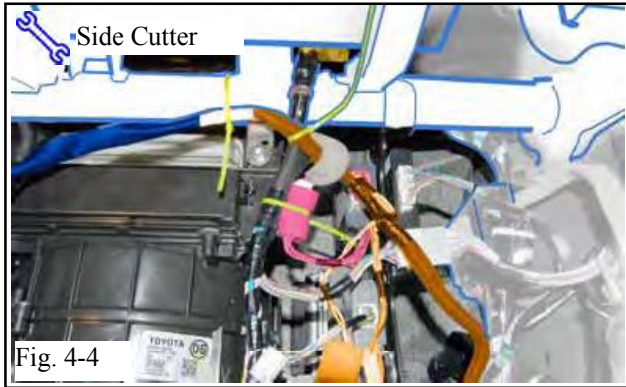


Fig. 4-4

(e) Secure the 10P Connectors to the Vehicle Harness with 1 Wire Tie. (Fig. 4-4)

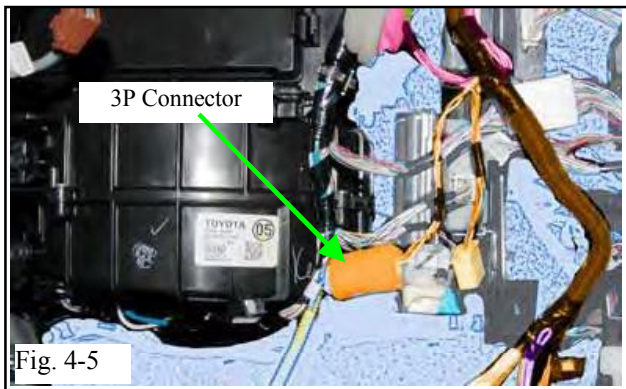


Fig. 4-5

(f) Locate the Vehicle's Pre-wire White 3P Male Connector on the right side of the HVAC Center Duct. (Fig. 4-5)  
 (g) Connect the V4 Harness's 3P Connector to the Vehicle's White 3P Male Connector. (Fig. 4-5)

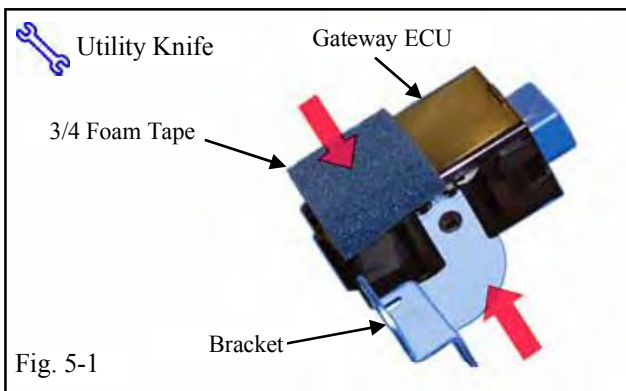


Fig. 5-1

**5. Gateway ECU Preparation and Installation.**

**For kits w/Part number PT398-00100-AA ONLY**

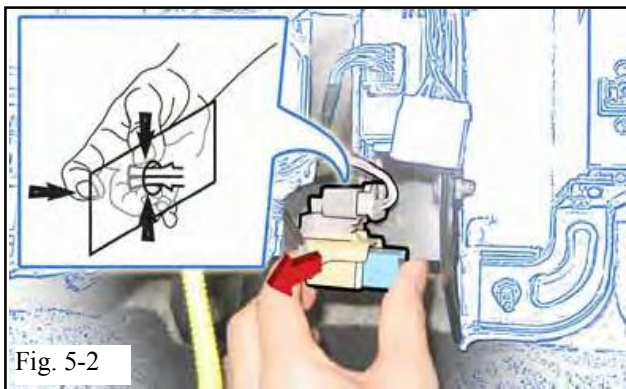
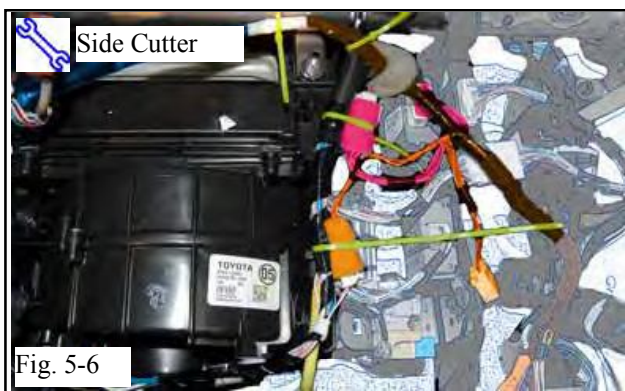


Fig. 5-2

(a) Apply 3/4" small piece of Foam Tape to the Gateway ECU as shown (Fig. 5-1)  
 (b) Attach the Gateway ECU Bracket to the Gateway ECU as shown (Fig. 5-1)  
 (c) Disconnect the Vehicle's Cruise Control Prox from the Vehicle's ECU Brake (Fig. 5-2)



(d) Remove the Bolt from the Vehicle (Fig. 5-3)

(e) Install the Gateway IEC into the Connector facing outward. (Fig. 5-4)

(f) Use the Vehicle's Bolt to secure the IEC.

(g) Attach the Vehicle Connector Block in the Gateway IEC Bracket. (Fig. 5-4)

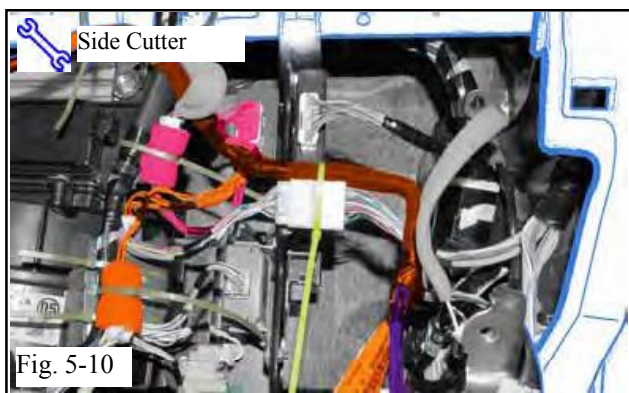
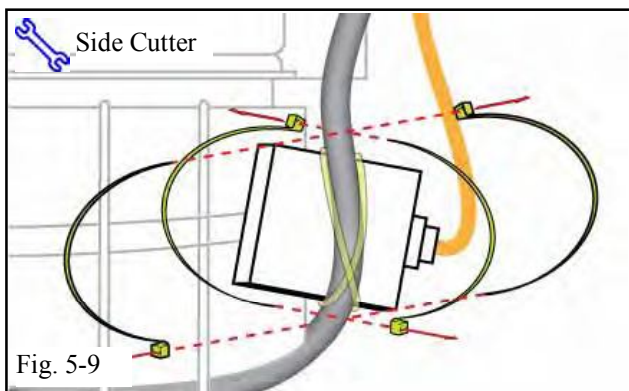
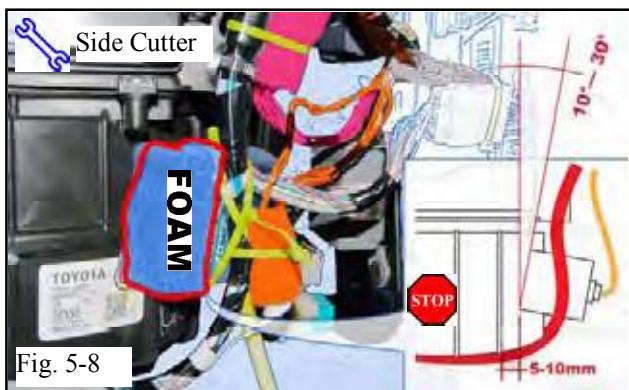
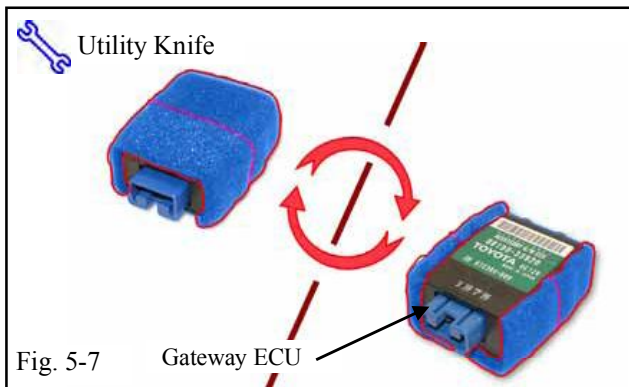
(h) Position the Connector in the same position as it was in the IEC when it was removed. (Fig. 5-4)

(i) Connect the V4 Harness's SP Connector in the Gateway IEC.

(j) Secure the SP Connector and the V4 Harness to the Vehicle Harness with Wire Tie. (Fig. 5-5)

**For kits w/Part Number PT398-00100 ONLY**

(k) Connect the V4 Harness to the Vehicle



TOYOTA some kits with the part number will have a Gateway ECU Bracket and 3 Small Foam Pads. For this kit you will discard the Bracket and add 1 Small Foam Pad.

Other Kits will have 1 Small Foam Pad and no Bracket. These kits can be directly installed.

(1) Apply 2 small pieces of Foam Pad to the Gateway ECU. (Fig. 5-8)

(2) Connect the V4 Harness to Connector to the Gateway ECU. (Fig. 5-8)

(3) Plug the Gateway ECU into the Vehicle Harness and the Blower Motor as shown. (Fig. 5-8)

(4) Place 1/2 Piece of small Foam Pad on the side of the Gateway ECU. (Fig. 5-8)

**STOP**

CAUTION: Make sure that the Gateway ECU is positioned correctly and tilted between 10° to 30° clockwise from V4.

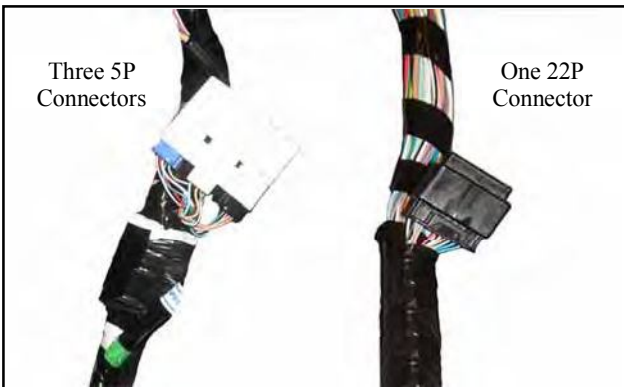
(5) Secure the ECU using 2 sets of 2 wire ties secured in an "X" pattern to the Vehicle Harness. (Fig. 5-9)

(6) Use a minimum of 4 Wire Ties connected between Vehicle Harness and V4.

(o) Secure the V4 Harness to the Vehicle Connector with 1 Wire Tie. (Fig. 5-10)

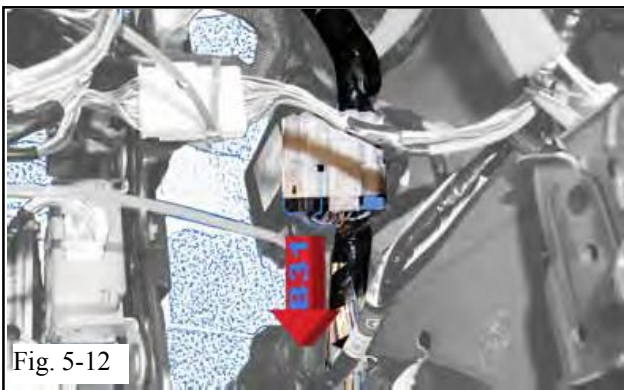


- (p) Carefully remove the Tape securing the Connector Block upper portion of the Passenger's Side Cowl Area. (Fig. 5-11)
- (q) Dislodge any Pre-wire Connectors from the Vehicle Harness.



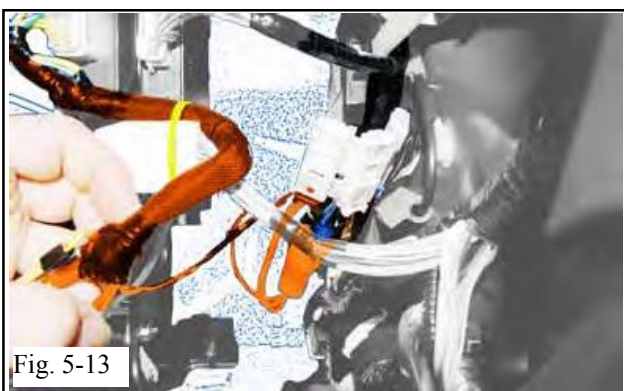
**VERIFY:** the Vehicles VIN and the type of Connectors in the Connector Block.

- If the Vehicle's VIN is prior to 5TFUY5F16AX120448 there are Three 5P Connectors in the Connector Block **proceed with the instructions below (steps r-s).**
- If the Vehicle's VIN is 5TFUY5F16AX120448 or later there will be One 22P Connector in the Connector Block **perform (steps t-x) on pages 22-23 with V4 ADAPTER KIT (PT398-34112).**



**FOR VEHICLES WITH THREE 5P CONNECTORS ONLY ( step r-s)**

- (r) Disconnect the Black 5P (B 31) Connector. (Fig. 5-12)



- (s) Plug in the V4 Harness's Black 5P Connectors in between the Vehicle Harness's 5P Connectors. (Fig. 5-13)



Fig. 5-11



Fig. 5-12



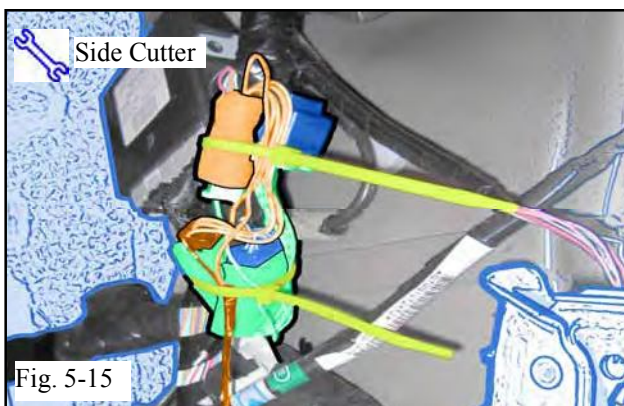
Fig. 5-13

**FOR VEHICLES WITH ONE 22P CONNECTOR ONLY (steps t-x) MUST USE V4 Adapter Kit (PT398-34112)**

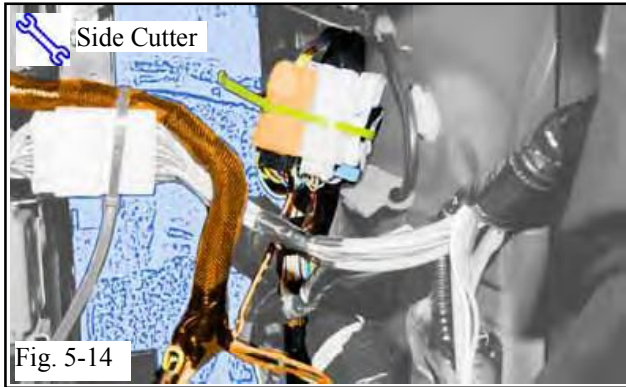
- (t) Carefully remove the Tape securing the Vehicle's 22P Connector. (Fig. 5-11)
- (u) Remove the Connector Block from the Vehicle's 22P Connector. (Fig. 5-12)
- (v) Connect the Vehicle's 22P Connector to the V4 Adaptor's 22P Connector. (Fig. 5-13)



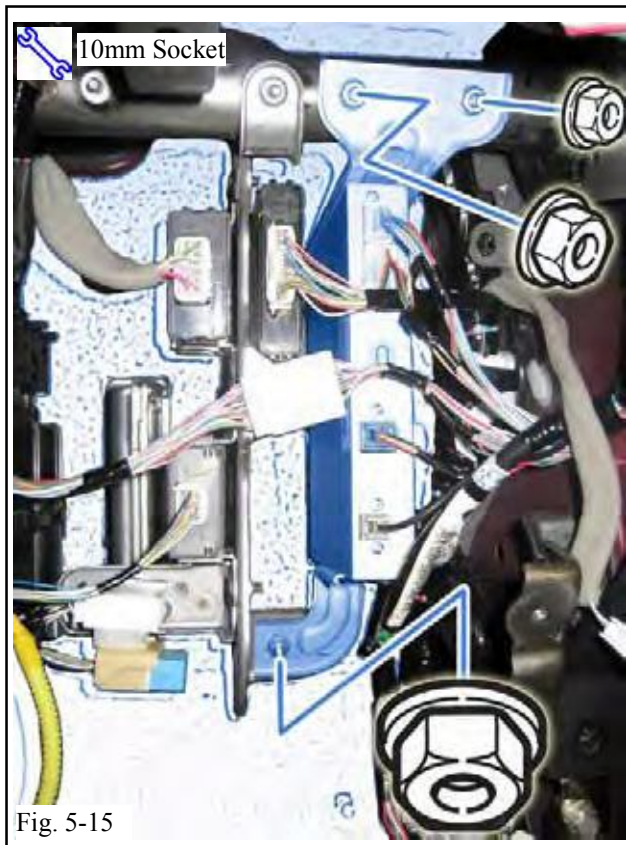
(w) Connect the 5P Adaptor Connectors in between the V4's 5P Connectors. Then connect the V4 Adaptor's 22P Connector to the Vehicle's Connector Block. (Fig. 5-14)



(x) Secure the 5P Connectors and the 22P Connectors to the Vehicle's Harness using 2 Wire Ties. (Fig 5-15)

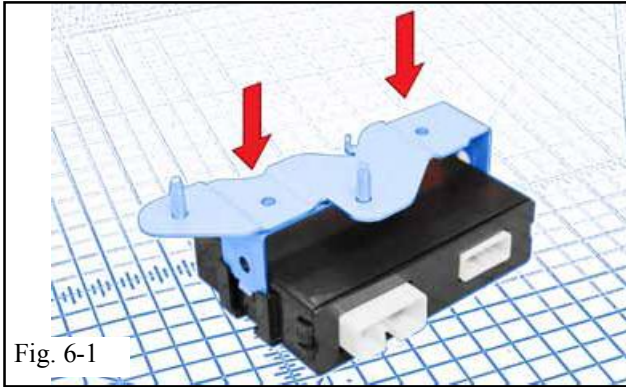


- (y) Use 1 Wire Tie to secure the Connectors and the Harness to the Vehicle Harness. (Fig. 5-14)
- (z) Re-tape any Pre-wire Connectors to the Vehicle Harness.



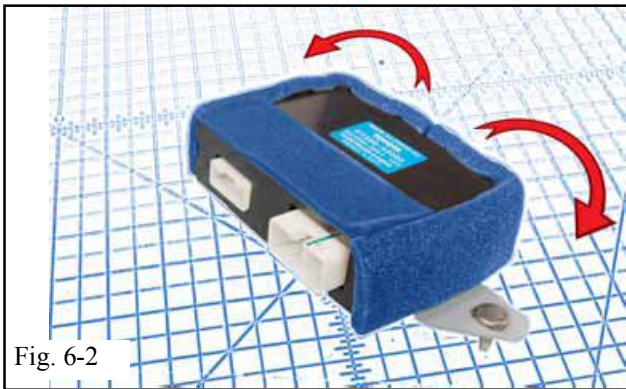
- (aa) Reinstall the Vehicle's ECU. (Fig. 5-15)





**6. RES ECU Preparation and Installation.**

(a) Attach the RES ECU Bracket to the RES ECU as shown. (Fig. 6-1)

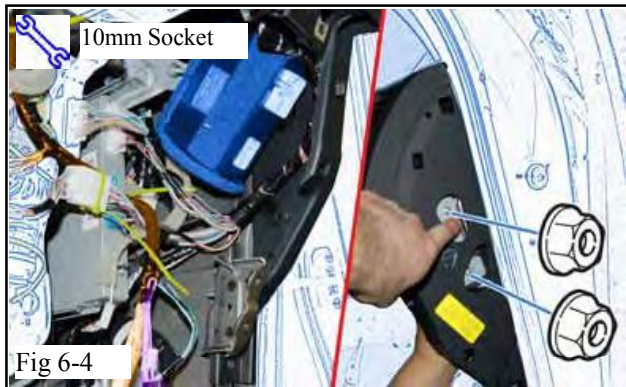


(b) Attach 2 pieces of Large Foam Tape to the sides of the RES ECU as shown. (Fig. 6-2)

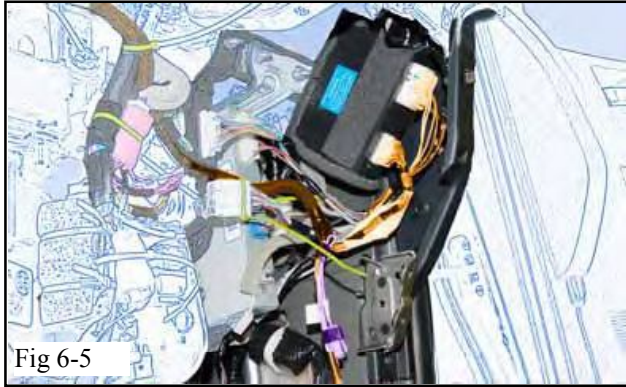
(c) Attach 1 Small Foam Tape on top of the RES ECU. (Fig. 6-2)



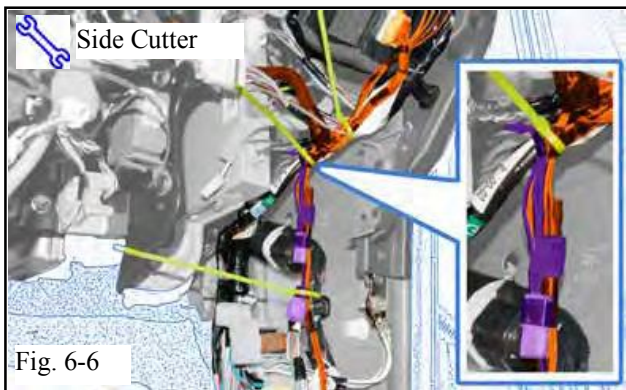
(d) Insert the V4 RES ECU Mounting Plate through the Hole on the side of the Dash. (Fig. 6-3)



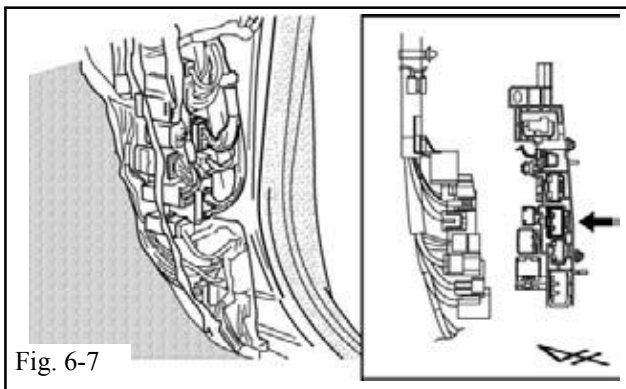
(e) Install the RES ECU as shown using 2 Nuts from the Kit. (Fig. 6-4)



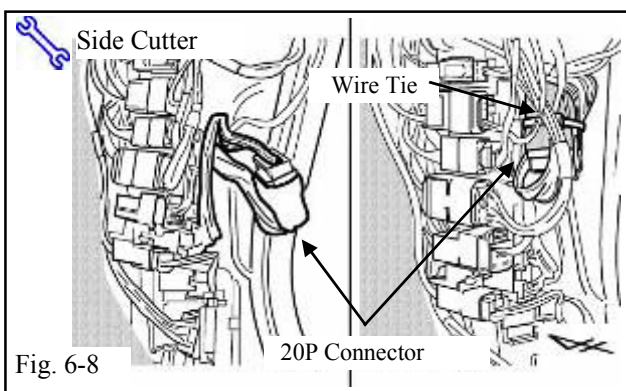
- (f) Connect the V4 Harness's 8P and 20P Connectors to the RES ECU. (Fig. 6-5)



- (g) Route the V4 Harness as shown securing it to the Vehicle Harness with 3 Wire Ties. (Fig. 6-6)



- (h) Disconnect the Vehicle's White 20P Connector from the J/B located in the Passenger's Side Cowl Area. (Fig. 6-7)



- (i) Plug in the V4 Harness's White 20P Connectors in between the Vehicle Harness' 20P Connector and the J/B. (Fig. 6-8)
- (j) Secure the 20P Connectors to the Vehicle Harness with 1 Wire Tie. (Fig. 6-8)

---

**GO BACK TO THE V4 HARNESS'S WHITE TAPE MARKER.**

---

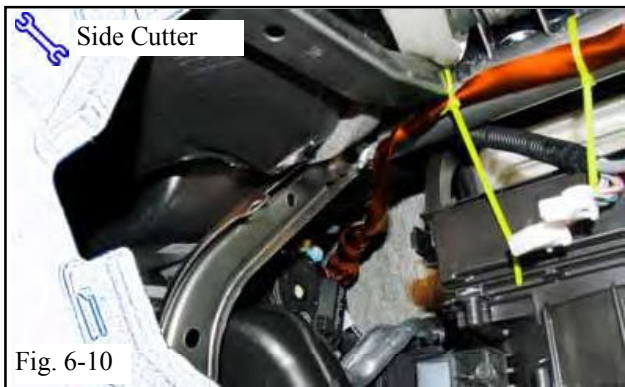


---

**USE ONLY FOR VEHICLES WITH iPod Interface ECU (step k)**

---

- (k) Dislodge the iPod Interface ECU. (Fig. 6-9)
  - (1) Remove 1 Nut.



- (l) Route the V4 Harness behind the Center Brace towards the Driver's Side Area. (Fig. 6-10)
- (m) Use 2 Wire Ties to secure the V4 Harness to the Reinforcement in the Glove Box Area. (Fig. 6-10)

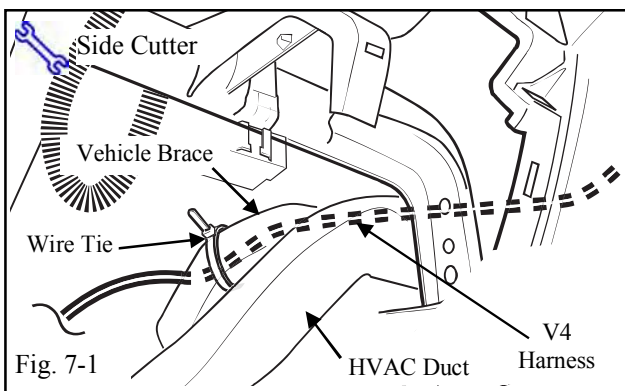


---

**USE ONLY FOR VEHICLES WITH iPod Interface ECU (step n)**

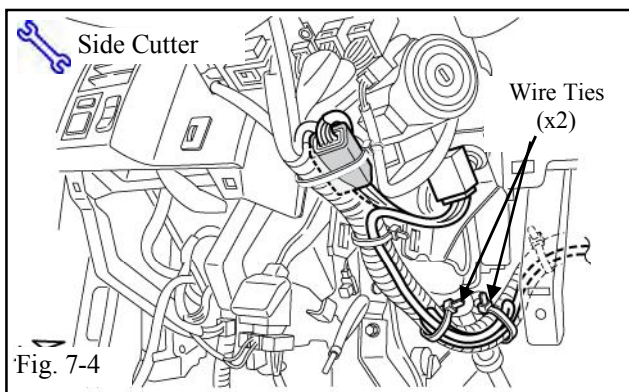
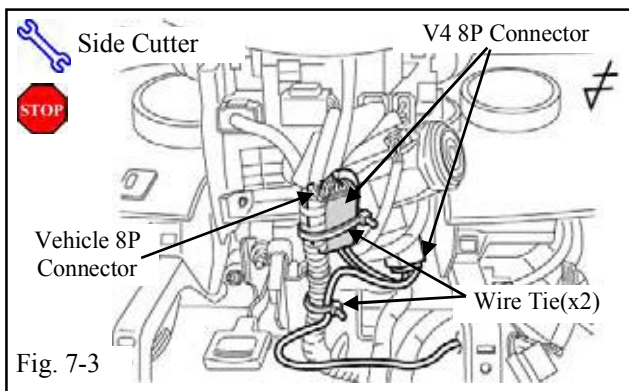
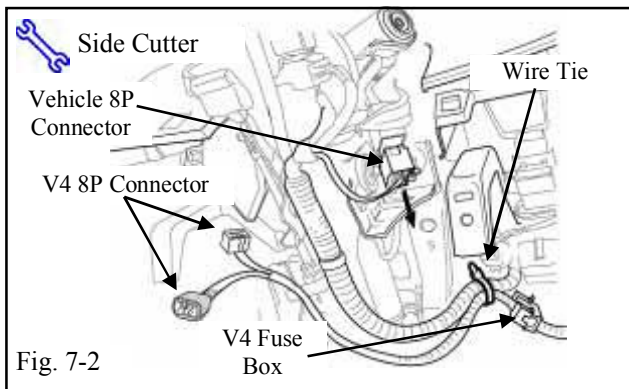
---

- (n) Re-secure the iPod Interface ECU. (Fig. 6-11)



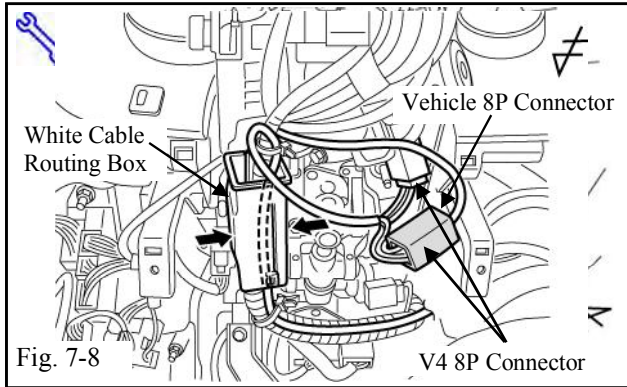
**7. V4 Harness Installation. (Driver's Side)**

- (a) Route the V4 Harness toward the Steering Column. (Fig. 7-1)
- (b) Secure the V4 Harness to the Foam Tape wrapped Vehicle Brace with 1 Wire Tie. (Fig. 7-1)



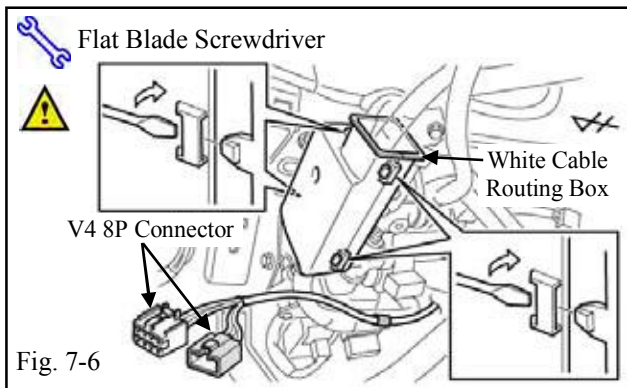
**USE ONLY FOR VEHICLES WITH MANUAL STEERING TILT (steps c-h)**

- (c) Secure the V4 Harness to the Vehicle Harness with 1 Wire Tie as shown. (Fig. 7-2)
- (d) Locate and disconnect the Vehicle's White 8P Ignition Connector. (Fig. 7-2)
- (e) Plug in the V4 Harness's 8P Connectors in between the Vehicle Harness's 8P Connector and the Ignition Switch Connector. (Fig. 7-3)
- (f) Use 1 Wire Tie to secure the 8P Connectors to the Vehicle Harness. (Fig. 7-3)
  - (1) Verify secure connection.
- (g) Use 1 Wire Tie to secure the V4 Harness to the Vehicle Harness. (Fig. 7-3)
- (h) Fold the excess V4 Harness in half and use 2 Wire Ties to secure the V4 Harness to the Vehicle Harness. (Fig. 7-4)



**USE ONLY FOR VEHICLES WITH ELECTRONIC STEERING TILT. (steps i-q)**

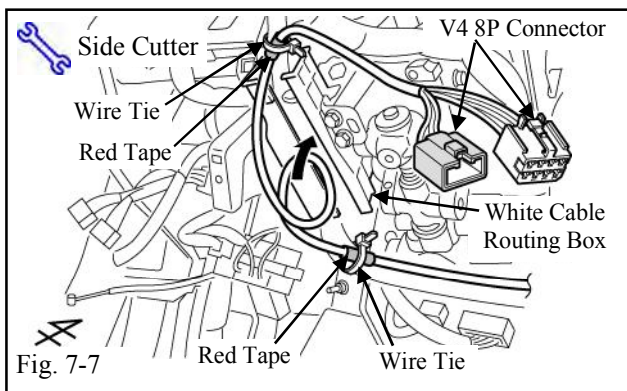
- (i) Secure the V4 Harness to the Vehicle Harness with 2 Wire Ties as shown. (Fig. 7-5)



- (j) Open up the White Cable Routing Box. (Fig. 7-6)

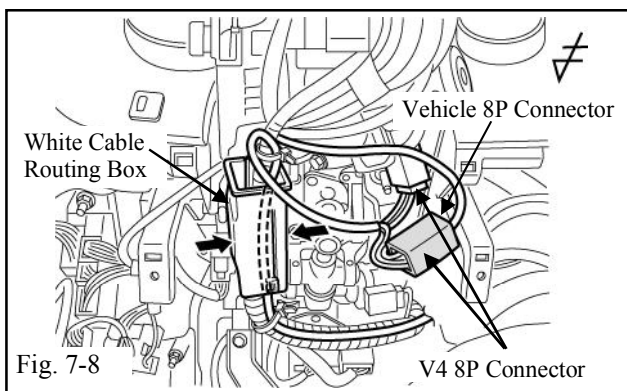


**NOTE:** Do not damage the clips excessively. They will discolor slightly but should not be broken.

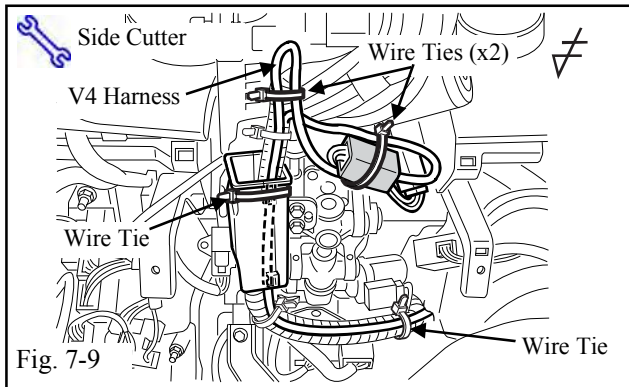


- (k) Locate and secure the V4 Harness's 2 Red Tape Markers to the Vehicle Harness using 2 Wire Ties as shown. (Fig. 7-7)
- (l) Loop the V4 Harness once inside of the White Cable Routing Box. (Fig. 7-7)

- (m) Close the White Cable Wire Routing Box. (Fig. 7-8)

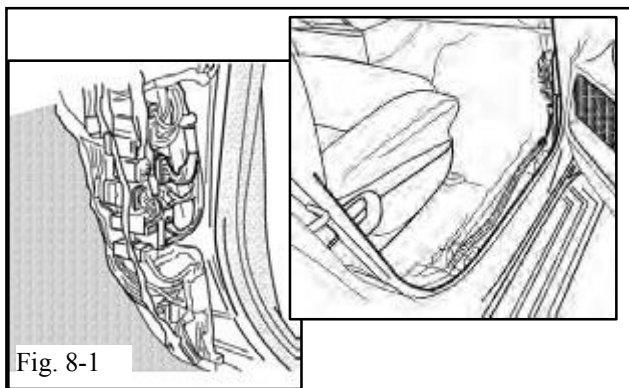


- (n) Locate and disconnect the Vehicle's White 8P Ignition Connector. (Fig. 7-8)
- (o) Plug in the V4 Harness's 8P Connectors in between the Vehicle Harness's 8P Connector and the Ignition Switch Connector. (Fig. 7-8)



- (p) Use 1 Wire Tie to secure the 8P Connectors to the Vehicle Harness. (Fig. 7-9)
- (q) Use 2 Wire Ties to secure the V4 Harness to the Vehicle Harness. (Fig. 7-9)
- (r) Use 1 Wire Tie to secure the White Cable Routing Box as shown. (Fig. 7-9)

**8. Partial Reassembly.**

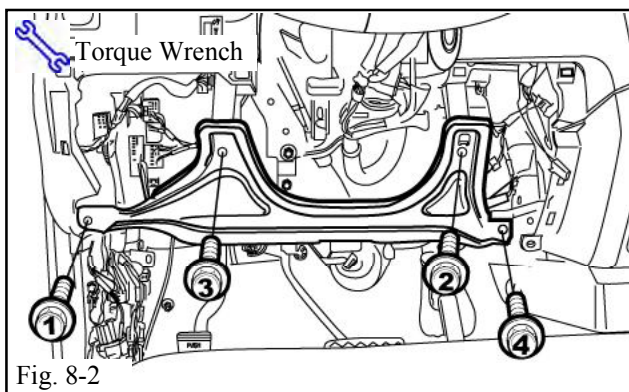


- (a) Reassemble the Vehicle, except for the Passenger's Cowl Cover and Step Cover. (Fig. 8-1)

**NOTE:** When reinstalling the Passenger's Side Knee Airbag, make sure to tighten the Bolts to 88.5 in•lbf (10 N•m).

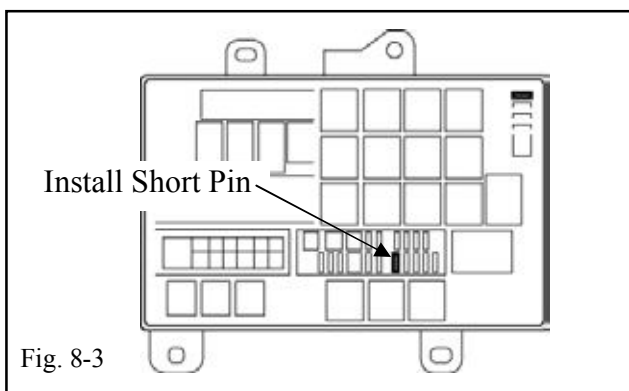
**STOP VERIFY:** That Panels fit together properly, with no uneven gaps.

**STOP VERIFY:** That all Connectors are reconnected.



- (b) When installing the Driver's side Knee Airbag, install the bolts in the specified order. (Fig. 8-2)

**STOP** (1) Tighten the bolts to 88.5 in•lbf (10 N•m)



- (c) Install the Short Pin. (Fig. 8-3)

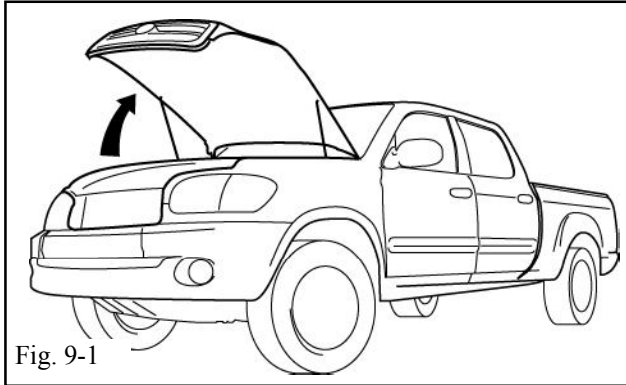


Fig. 9-1

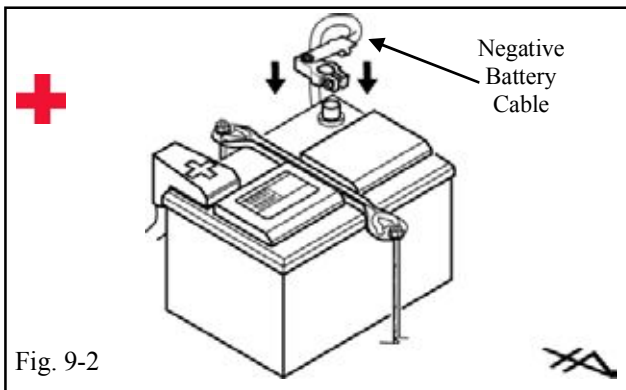


Fig. 9-2

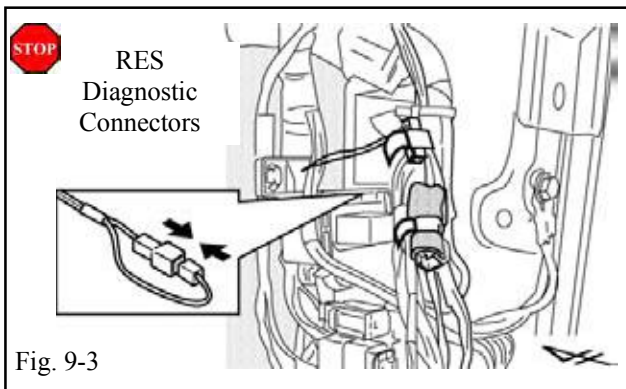


Fig. 9-3

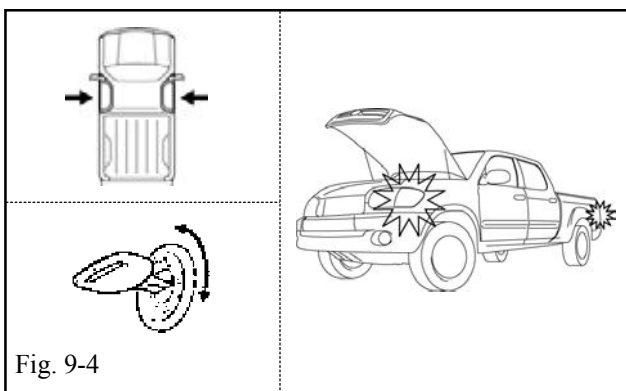


Fig. 9-4

**9. Registration (Vehicles without Immobilizer) (steps a-n)**  
**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)

**STOP** **ONCE CONNECTED, YOU WILL HAVE 10 MINUTES TO COMPLETE STEPS d-n.**

(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 1 time.

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

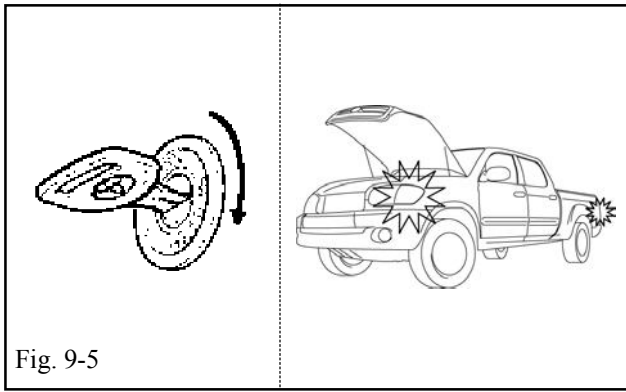


Fig. 9-5

- (g) Start the Engine. (Fig. 9-5)
- (h) After 10 seconds stop the Engine. (Fig. 9-5)
  - (1) The hazard lights flash 1 time.

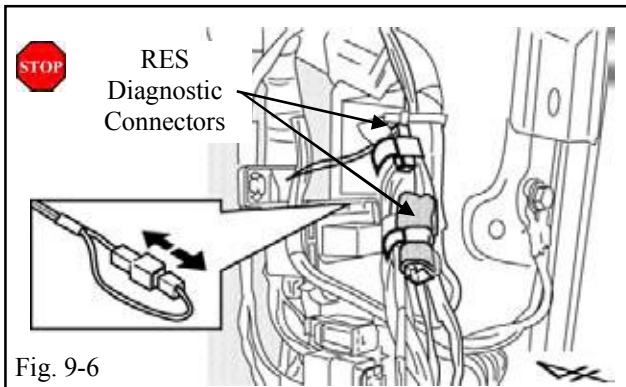


Fig. 9-6



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. 9-6)

- Start again from step c.

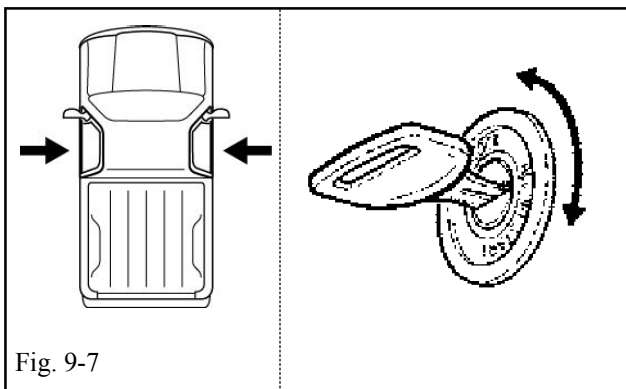


Fig. 9-7

- (i) Verify that all doors are closed. (Fig. 9-7)
  - (1) Do not close the Hood.
- (j) Insert the key into the ignition and turn it from "OFF" to "ON" 5 times (ending at OFF). (Fig. 9-7)
- (k) Remove the Key from the Ignition Switch and Exit the vehicle.

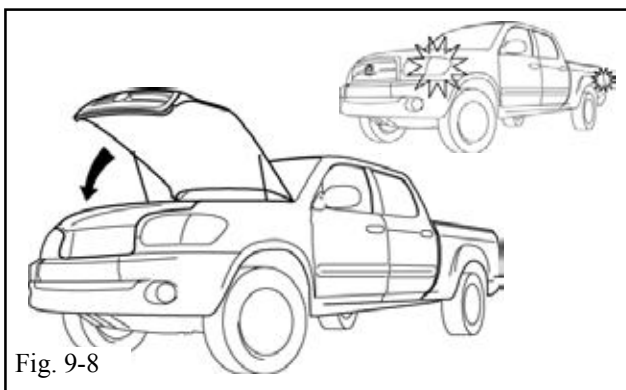
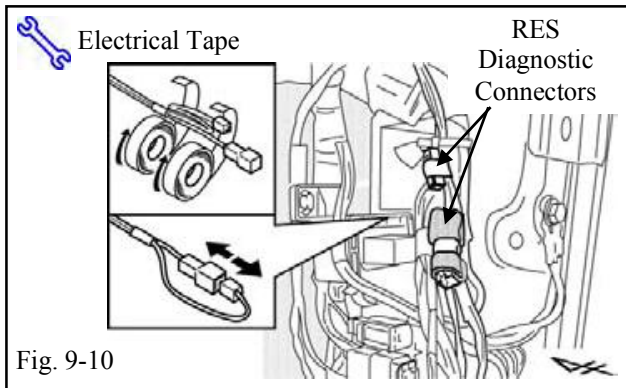
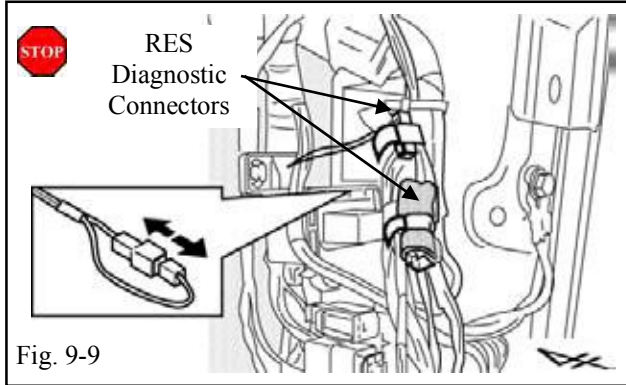


Fig. 9-8

- (l) 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's White 1P Connectors in the Passenger's Side Cowl Area. (Fig. 9-9)

- Start again from step c.

(m) After a Successful Registration disconnect the V4 Harness's White 1P Connectors. (Fig. 9-10)

(n) Secure the V4 Harness and 1P Connectors with Electrical Tape as shown. (Fig. 9-10)

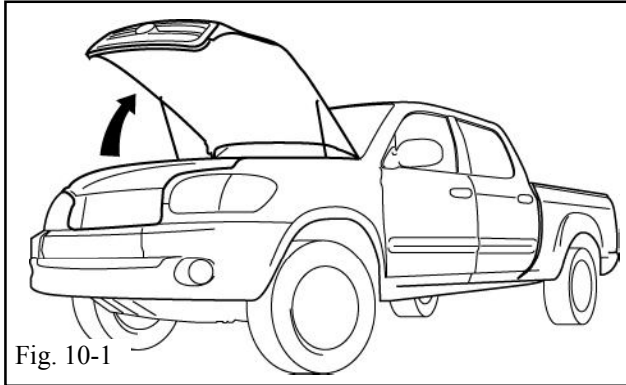


Fig. 10-1

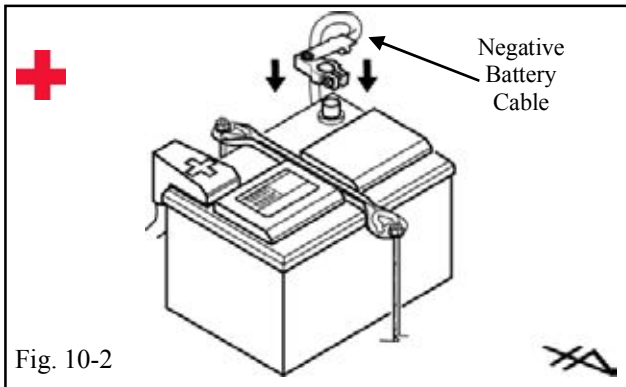


Fig. 10-2

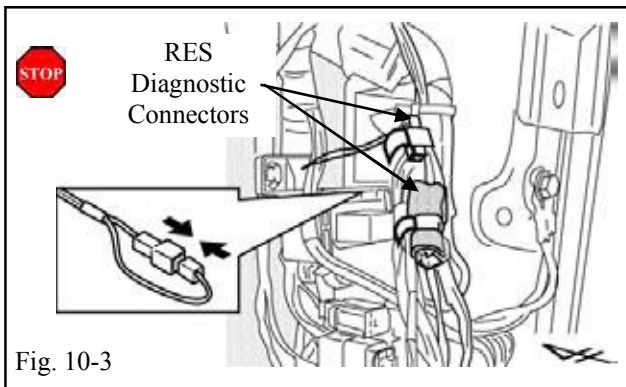


Fig. 10-3

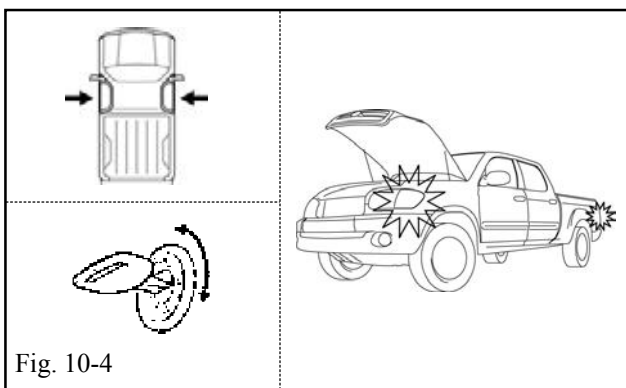


Fig. 10-4

**10. Registration (Vehicles with Immobilizer)**  
**(steps a-x)**  
**Refer to Addendum I for additional information.**

(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'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)

(1) The hazard lights flash 1 time.

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

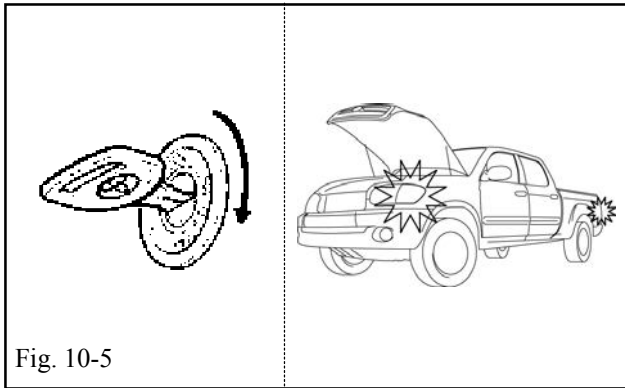


Fig. 10-5

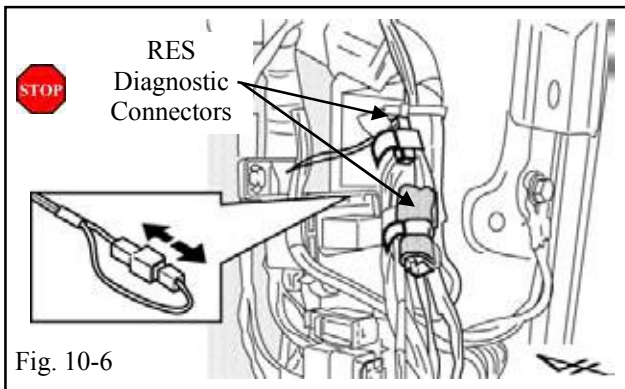


Fig. 10-6

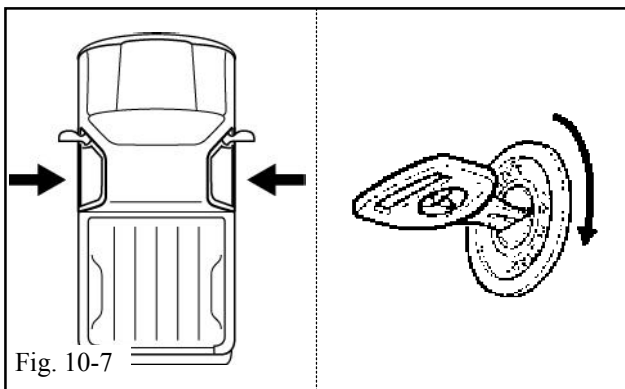


Fig. 10-7

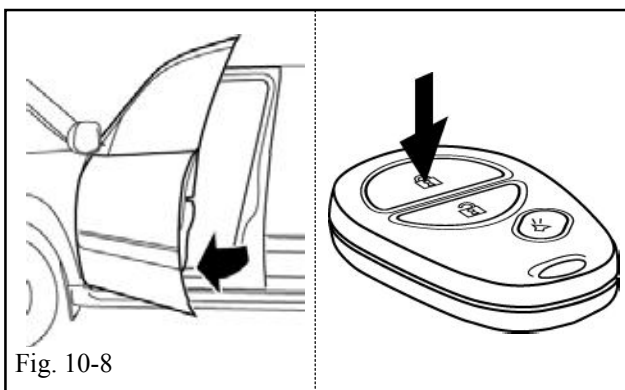


Fig. 10-8

- (h) Start the Engine. (Fig. 10-5)
- (i) After 10 seconds stop the Engine. (Fig. 10-5)
  - (1) The hazard lights flash 1 time.



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. 10-6)

- Start again from step c.

- (j) Verify that all doors are closed. (Fig. 10-7)
  - (1) Do not close the Hood.
- (k) Insert the Key into the ignition and turn it to the "ON" position. (Fig. 10-7)
- (l) Turn the Key to the "OFF" position and remove it from the ignition. (Fig. 10-7)

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



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

- (n) Using the Remote, press the Lock Button twice within 2 seconds. (Fig. 10-8)
- (o) Press and hold the lock button for 4 seconds. (Fig. 10-8)

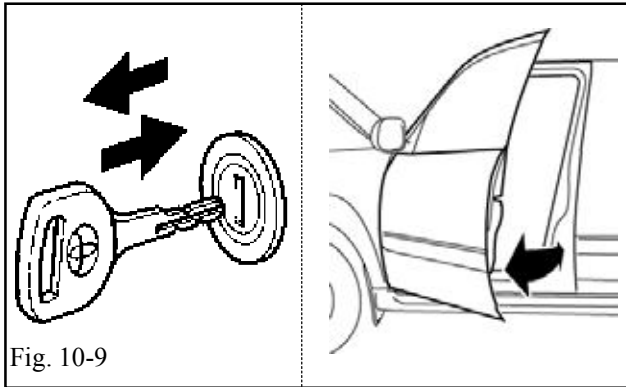


Fig. 10-9

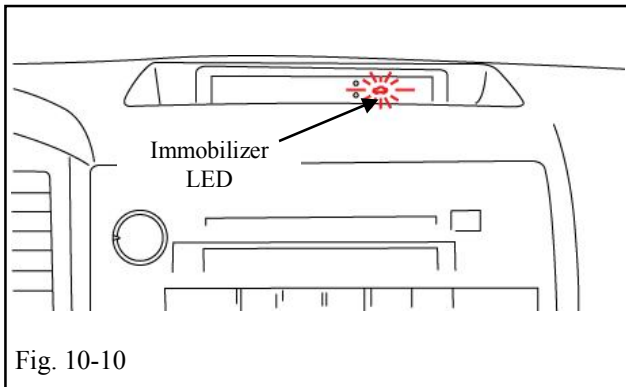
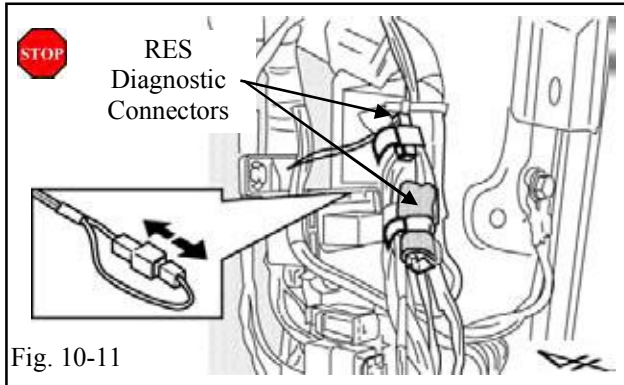


Fig. 10-10

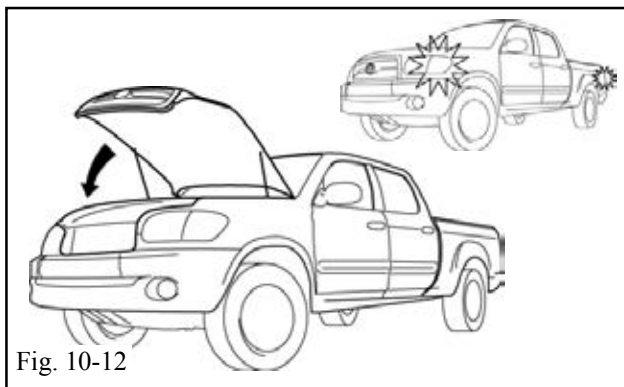
- (p) Insert the Key into the ignition. (Fig. 10-9)
- (q) Remove and insert the Key into the ignition 6 times. (Fig. 10-9)
- (r) Close the Driver's Door. (Fig. 10-9)
- (s) Open and close the Driver's Door 7 times ending in Close position. (Fig. 10-9)
  - (1) Complete these steps within 35 seconds.
  
- (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)
- (v) Remove the Key from the Ignition Switch and Exit the vehicle.



If this procedure failed, registration has failed.

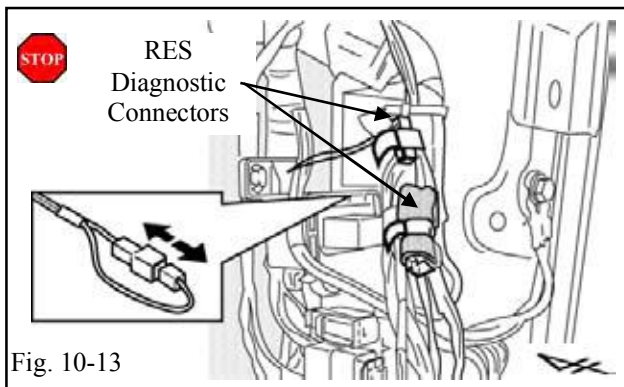
Disconnect the V4 harness's White 1P Connector from the Passenger's Side Cowl Area. (Fig. 10-11)

- Start again from step c.



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

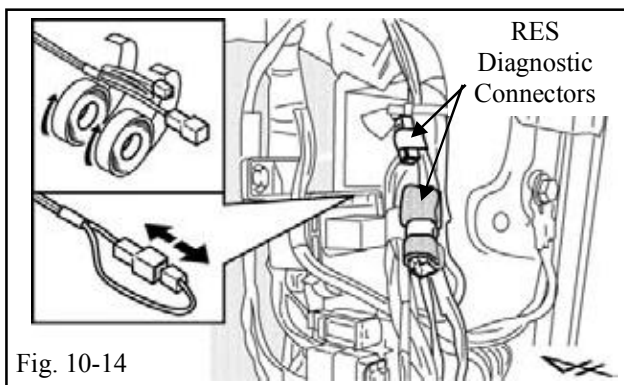
- (1) The hazard lights flash twice. Registration is complete.



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

Disconnect the V4 Harness's 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's White 1P Connectors (Fig. 10-14)

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

**11. Tags and Label Installation.**

For US Vehicles use the English Labels and Dispose of the Spanish Labels.

For Mexico Vehicles use the Spanish Labels and Dispose of the English Labels.

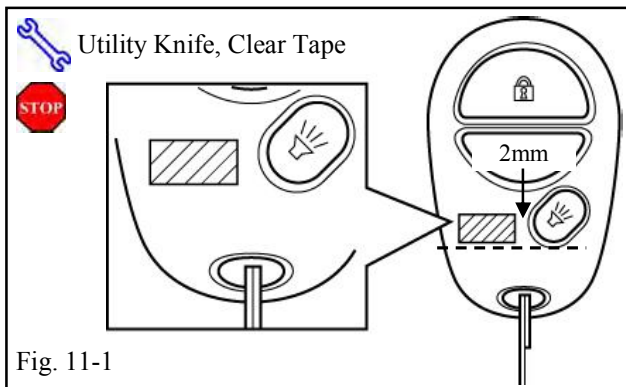
- (a) Remove 2 of the Remote Controls from their protective bag.

- (1) Use a Utility Knife, to cut a slit in each bag.

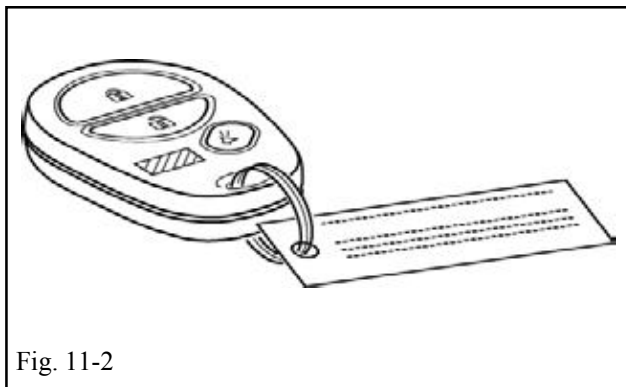
- (b) Using VDC approved cleaner and Cleaning Method, clean the area indicated on the Remote Controls. (Fig. 11-1)

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

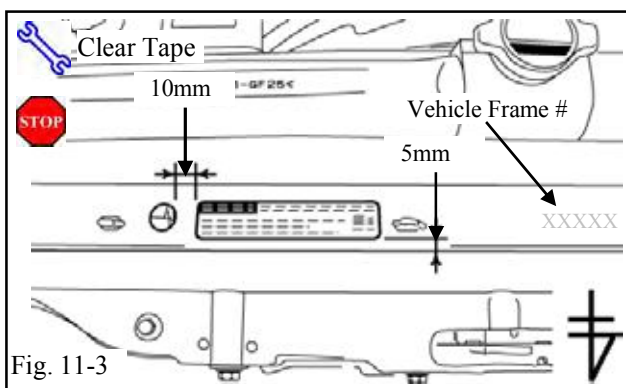
- (1) Use a piece of Clean Adhesive Tape to lift the labels off their protective backing.



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



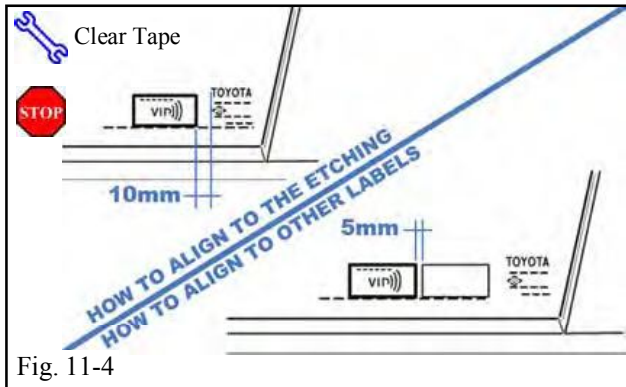
- (d) Attach the Remote Engine Starter Key Tags to the Vehicle Remotes. (Fig. 11-2)



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

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

- (f) Attach the Warning Label to the Engine Compartment on the Left Hand Side as shown. (Fig. 11-3)



- (g) Use Household Glass Cleaner to clean the inside of the Front Door Windows. (Fig. 11-4)
- (h) Use a piece of Clear Tape to lift the Label off its 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. (Fig. 11-4)

**REPEAT:** steps g-i with the other Window.

**12. Completing the Installation.**

- (a) Complete the reassembly of the vehicle.



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



**VERIFY:** That all Connectors are reconnected.

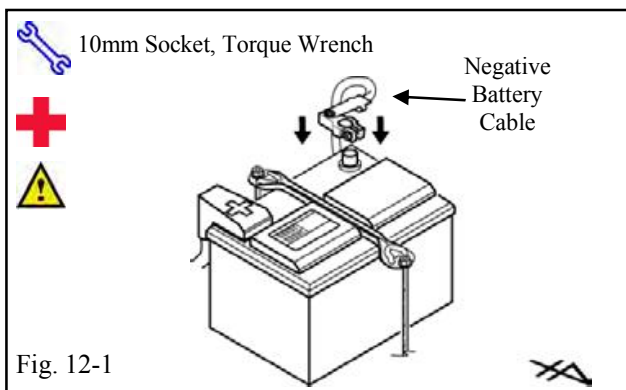
- (b) Position the Negative Battery Cable at the original factory position. (Fig. 12-1)

- (1) Tighten the Nut to 36 in•lbf (4.7 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 Manual 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.<br>The engine starts.<br>The hazard lights flash repeatedly for 20 seconds. |
| 2       | With the engine running, pull the hood release handle. (some Vehicles may require you to exit the Vehicle and pull up on the Hood) | The engine stops.<br>The hazard lights flash once.   |
| 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)<br><i>If the warning light remains on, it may indicate a system malfunction.</i>   |
| <input type="checkbox"/> | Lamp Failure Sensor<br><i>If the warning light remains on, it may indicate a system malfunction.</i>      | <input type="checkbox"/> | Track/Skid Control Light (if equipped)<br><i>If the warning light remains on, it may indicate a system malfunction.</i>    |
| <input type="checkbox"/> | Seat Belt Warning Light<br><i>If the warning light remains on, it may indicate a system malfunction.</i>  | <input type="checkbox"/> | Tire Pressure Monitoring System (TPMS).<br><br><i>Prior to TPMS activation and Pre-delivery Service (PDS) of the Vehicle the TPMS light will blink when IG is turned on.</i><br><br><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<br><i>If the warning light remains on, it may indicate a system malfunction.</i>  |                          |   |
| <input type="checkbox"/> | Cruise Control Light (if equipped)    |                          |   |

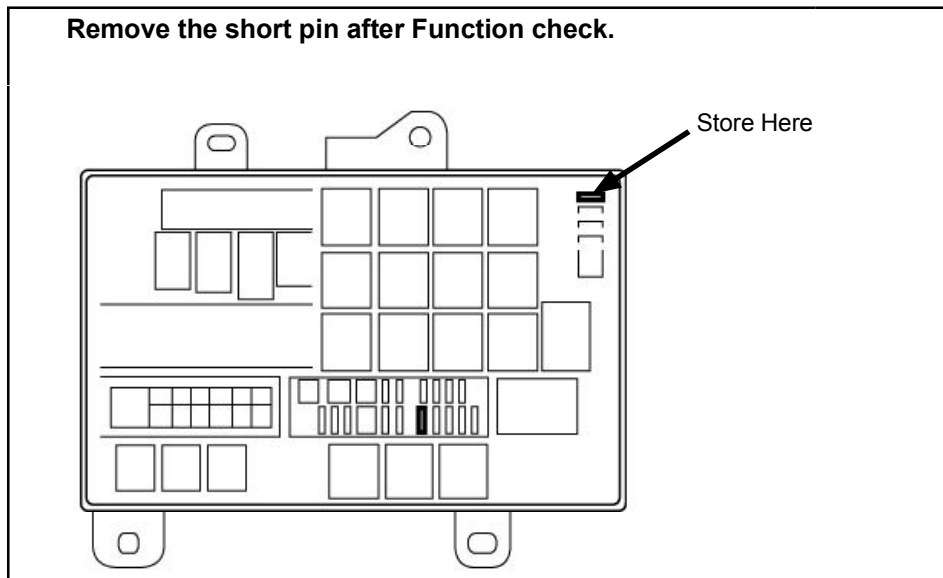
**Using a Mirror or Assistant check the following.**

|                          |   |                          |                                      |
|--------------------------|---|--------------------------|--------------------------------------|
| <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"/> |   |

| 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)                  |                          | 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   |



**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) 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.
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/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. **CLOSE** the Driver's Door
22. **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)**
23. **LOOK** for the IMMOBILIZER LED to turn on for one (1) second then go OFF
24. **WAIT** one (1) second
25. **LOOK** for the IMMOBILIZER LED to turn ON again and stay on
26. **REMOVE** the Ignition Key.
27. **LOOK** for the IMMOBILIZER LED to turn OFF
28. **CLOSE** the Hood
29. **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)*
30. **UNPLUG** the 1P RES Diagnostic Connector.

