Part Number: PT398-12091

Conflicts

Do not install into vehicles without RKE, or with Factory Security.

Recommended Sequence of Application

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

Kit Contents

Item #	Quantity	Description
1	1	Wire Harness

Hardware Bag Contents

Hardware Dag Contents					
Item #	Quantity	Description			
1	1	V5 ECU			
2	1	V5 ECU Mounting Bracket			
3	1	GBS ECU			
4	1	GBS ECU Mounting Bracket			
5	1	Status Monitor			
6	1	Bolt			
7	1	Nut			
8	15	Wire Ties			
9	1	Key Tag ENGLISH			
10	1	Key Tag SPANISH			
11	2	Window Label ENGLISH			
12	2	Window Label SPANISH			
13	1	Warranty Card			
14	1	Owner's Guide			

Additional Items For Installation (may be required)

Item #	Quantity	Description
1	1	Black Electrical Tape

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

Recommended Tools

Personal & Vehicle	Notes
Protection	
Safety Glasses	
Safety Gloves	(Optional)
Vehicle Protection	Blankets, Parts Boxes
Special Tools	Notes
Striker Tool (PPO only)	CAD-E IADS P/N
	ALL 02-016-01
Installation Tools	Notes
Phillips Screwdriver	#2 Phillips
Flat Blade Screwdriver	Jewelers
Nylon Panel Removal Tool	e.g. Panel Pry Tool #1 Toyota SST # 00002-06001-01
Side Cutters	
Torque Wrench	36 in•lbf (4.07 N•m)
Tape	Clear
Socket	10mm, Extension
Pliers	Clip Clamp Pliers
Special Chemicals	Notes
Cleaner	3M [™] Prep Sol-70
Glass Cleaner	Household Glass Cleaner

Legend



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



 $\underline{\text{\bf OPERATOR SAFETY:}}$ Use caution to avoid risk of injury.



<u>CAUTION:</u> 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.

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.

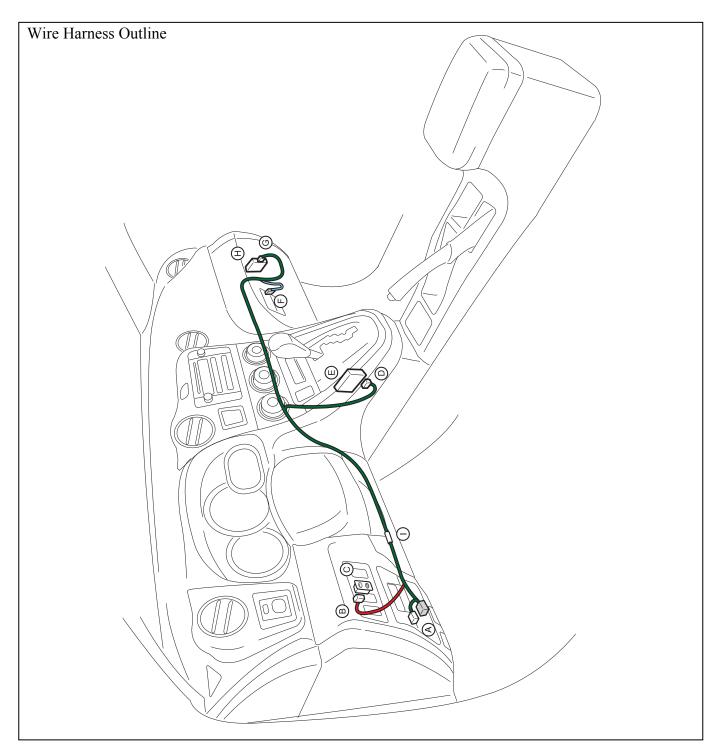
This document covers such items as:

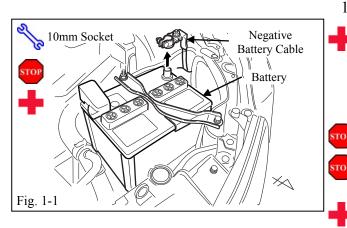
- •Vehicle Protection (use of covers and blankets, cleaning chemicals, etc.)
- •Safety (eye protection, rechecking torque procedure, etc.)
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.)
- •Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.)

Please see your Toyota dealer for a copy of this document

TOYOTA MATRIX
2009 - TVIP V5
Preparation RS3200 PLUS

14P WHITE (Male)	4P Black (for Status Monitor)	Status Monitor	36P White (for V5 ECU)	V5 ECU	2P WHITE (Male)	8P WHITE (for GBS ECU)	GBS ECU	White Tape Marker			
3	(B)	\odot	(1)	\Box	(F)	(G)	\equiv	\odot			



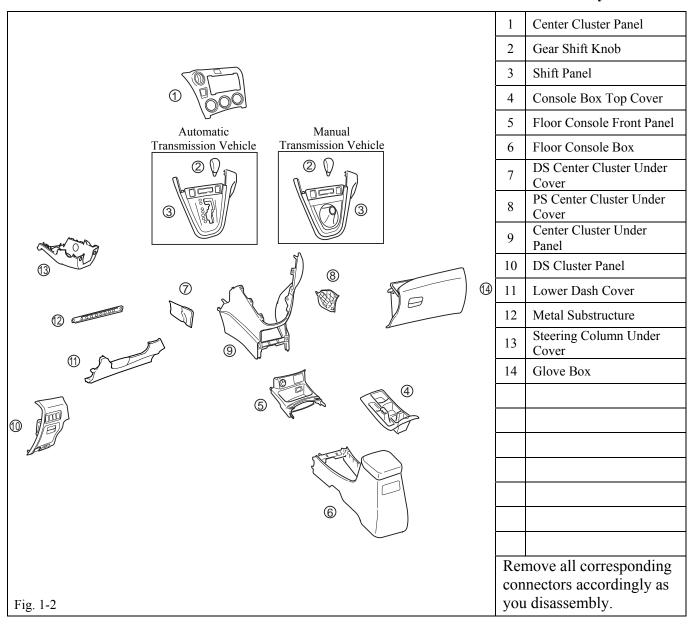


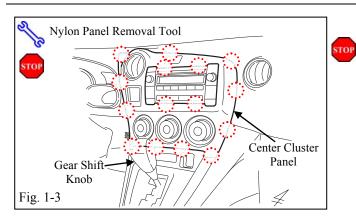
1. Vehicle Disassembly.

- (a) Automatic vehicles should be placed in Park with the Parking Brake set.
- (b) Remove the Negative Battery Cable. (Fig. 1-1)
 - (1) Protect the Fender before starting.
 - (2) Note the Battery Cable position, as it will be re-installed in the same position.

CAUTION: Do not touch the positive terminal.

Disassembly Overview

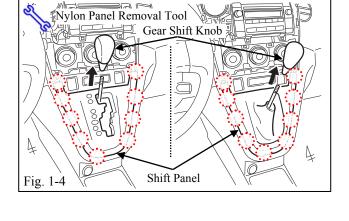




- (c) Remove the Center Cluster Panel. (Fig. 1-3)
 - (1) Begin by protecting the Vehicle Interior.



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



- Nylon Panel Removal Tool

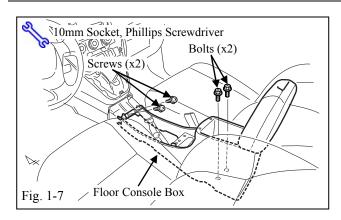
 Floor Console Box lid

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

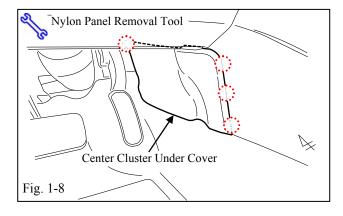
- Nylon Panel Removal Tool

 Floor Console
 Front Panel

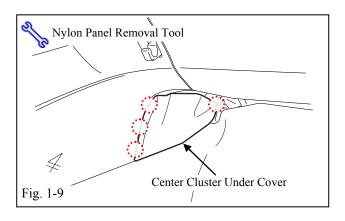
 Fig. 1-6
- (g) Remove the Floor Console Front Panel. (Fig. 1-6)
 - (1) Disconnect any Connectors.



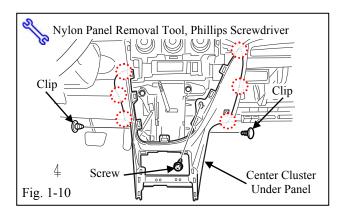
- (h) Remove the Floor Console Box. (Fig. 1-7)
 - (1) Remove 2 Bolts and 2 Screws.



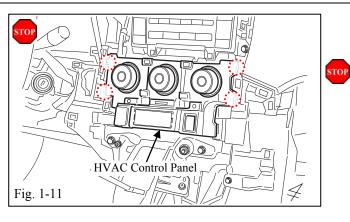
(i) Remove the Driver's Center Cluster Under Cover. (Fig. 1-8)



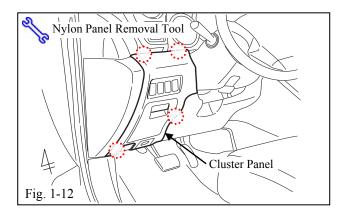
(j) Remove the Passenger's Center Cluster Under Cover. (Fig. 1-9)



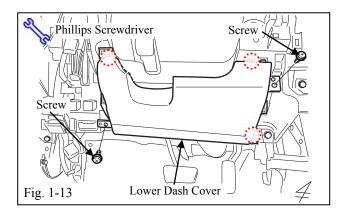
- (k) Remove the Center Cluster Under Panel. (Fig. 1-10)
 - (1) Remove 1 screw and 2 Clips.



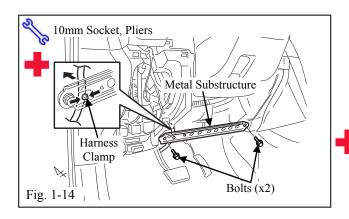
- (l) Loosen the HVAV Control Panel from the Dash Panel. (Fig. 1-11)
 - (1) Do not remove the HVAC Control Panel.



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



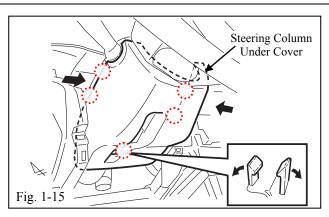
- (n) Remove the Lower Dash Cover. (Fig. 1-13)
 - (1) Remove 2 Screws.



- (o) Remove the Vehicle's Harness Clamp. (Fig. 1-14)
- (p) Remove the Metal Substructure. (Fig. 1-14)
 - (1) Remove 2 Bolts.

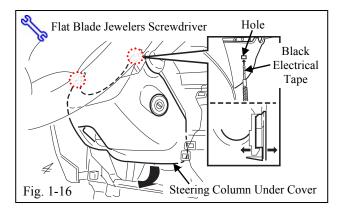
CAUTION: Sharp metal edges.

Issue: A 12/11/07

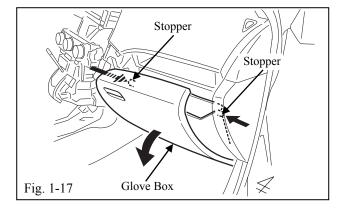


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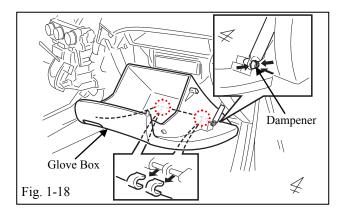
- (q) Loosen the Steering Column Under Cover as shown. (Fig. 1-15)
 - (1) Insert fingers into the opening of the Tilt Lever of the Steering Column Under Cover to disengage 1 Claw.
 - (2) Push the right and left side of the Steering Column Under Cover, and disengage the 4 Claws.



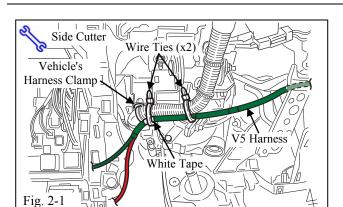
- (r) Remove the Steering Column Under Cover as shown. (Fig. 1-16)
 - Insert the key into the Ignition and turn it to ON.
 - (2) Turn the Steering Wheel from Left to Right to gain access to the Clip Access holes.
 - (3) Wrap the tip of the Flat Blade Jewelers Screwdriver in the Black Electrical Tape.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



(s) Open the Glove Box Door, push the right and the left side of the stopper inward. (Fig. 1-17)



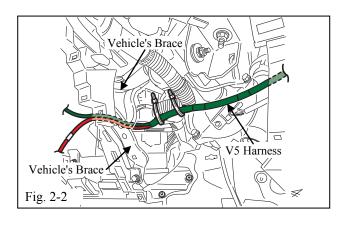
- (t) Remove the Glove Box. (Fig. 1-18)
 - (1) Release the Dampener from the Glove Box.



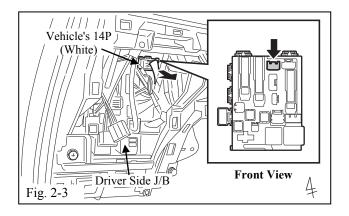
MATRIX

2. V5 Wire Harness Installation.

- (a) Secure the V5 Harness's White Tape Marker to the right side of the Vehicle's Harness Clamp with 1 Wire Tie as shown. (Fig. 2-1)
- (b) Secure the V5 Harness to the Vehicle Harness with 1 Wire Tie. (Fig. 2-1)

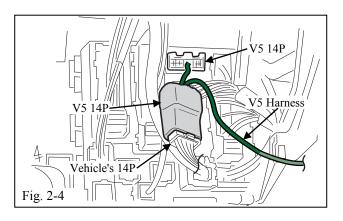


(c) Route the V5 Harness's white 14P Connectors and Black 4P Connector behind the Vehicle's Brace toward the Driver Side J/B. (Fig. 2-2)



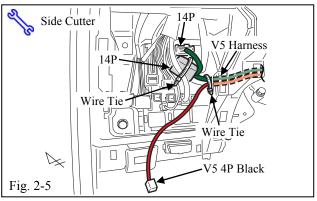
• V5 Only

- If vehicle is equipped with V4 Harness already, skip to step h.
- (d) Locate and disconnect the Vehicle's White 14P Connector from the Driver Side J/B. (Fig. 2-3)

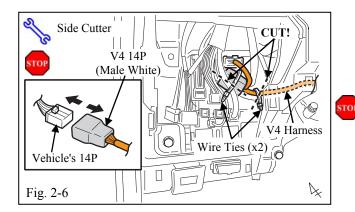


(e) Plug in the V5 Harness's White 14P Connectors between the Vehicle Harness's White 14P Connector and the Driver Side J/B Connectors. (Fig. 2-4)

CONTINUED



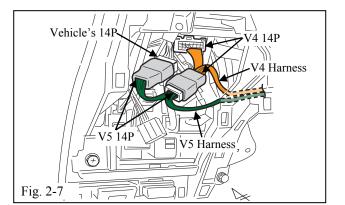
- (f) Secure the 14P Connectors to the Vehicle Harness with 1 Wire Tie. (Fig. 2-5)
- (g) Secure the V5 Harness to the Vehicle Harness with 1 Wire Tie. (Fig. 2-5)



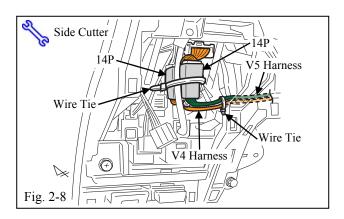
• V5 onto V4

-Add On installation, steps h - l.

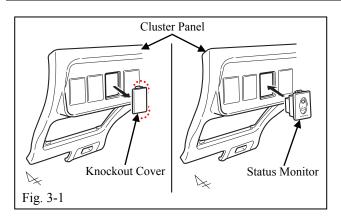
- (h) Cut the 2 Wire Ties securing the 14P Connectors and the V4 Harness. (Fig. 2-6)
 - (1) Do not cut any wires.
- (i) Disconnect the Vehicles 14P Connector from the V4 Harness's White 14P Connector. (Fig.2-6)



(j) Connect the V5's 14P Connectors inbetween the V4 Connector and the Vehicle Connector that was disconnected in step i. (Fig. 2-7)

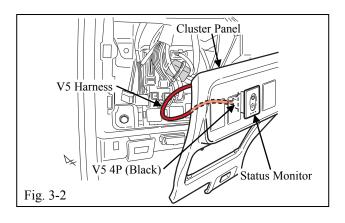


- (k) Secure the 14P Connectors to the Vehicle Harness with 1 Wire Tie. (Fig. 2-8)
- (1) Secure both the V4 and V5 Harnesses to the Vehicle Harness with 1 Wire Tie. (Fig. 2-8)



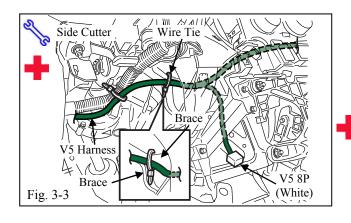
3. Status Monitor Installation.

- (a) Remove the Knockout Cover from the Driver's Cluster Panel as shown. (Fig. 3-1)
- (b) Insert the Status Monitor (with Microphone) as shown. (Fig. 3-1)

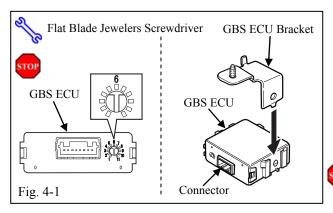


- (c) Connect the V5 Harness's Black 4P Connector to the Status Monitor (with Microphone). (Fig. 3-2)
 - (1) Verify secure connection.

GO BACK TO THE V5 HARNESS'S WHITE TAPE MARKER.

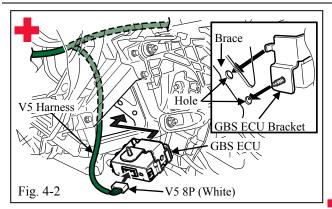


- (d) Route the V5 Harness through the opening between the Vehicle's Brace, then secure it to the Vehicle Brace with 1 Wire Tie. (Fig. 3-3)
- CAUTION: Sharp metal edges.



4. GBS ECU Preparation and Installation.

- (a) Turn the sensitivity screw on the GBS ECU to the "6" position. (Fig. 4-1)
- (b) Insert the GBS ECU Bracket into the indicated bracket slot on the GBS ECU.(Fig. 4-1)
 - (1) Ensure the bracket is firmly attached to the ECU.



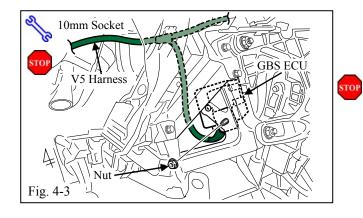
(c) Connect the V5 Harness's White 8P Connector to the GBS ECU. (Fig. 4-2)

(1) Verify secure connection.

(d) Put the GBS ECU through the Vehicle Brace opening and into the Center Cluseter area as shown. (Fig. 4-2)

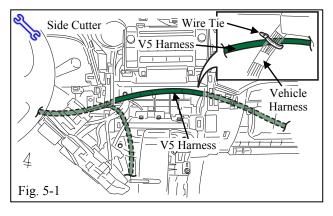
(1) Make sure that the Bracket Pin seats properly.

CAUTION: Sharp metal edges.

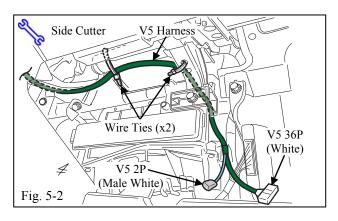


(e) Secure the GBS ECU Bracket with 1 Nut. (Fig. 4-3)

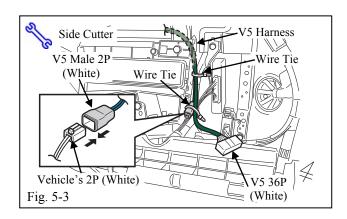
(1) Do not over-tighten the Nut.



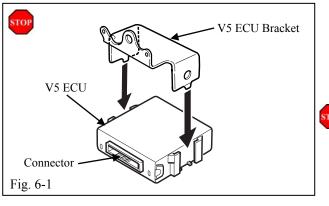
- 5. V5 Wire Harness Installation (continued).
 - (a) Route the V5 Harness toward the Passenger side area as shown. (Fig. 5-1)
 - (b) Secure the V5 Harness to the Vehicle Harness with 1 Wire Tie. (Fig. 5-1)



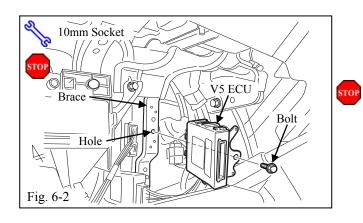
(c) Route the V5 Harness along the Reinforcement in the Glove Box area, then secure it to the Vehicle's Brace with 2 Wire Ties. (Fig. 5-2)



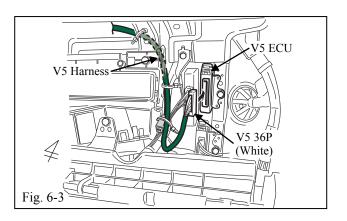
- (d) Locate the Vehicle's pre-wire White 2P Female Connector in the right side of the Blower Motor. (Fig. 5-3)
- (e) Connect the Vehicle's pre-wire White 2P Female Connector to the V5 Harness's White 2P Male Connector. (Fig. 5-3)
- (f) Secure the V5 Harness and 2P Connector to the Vehicle Harness with 2 Wire Ties.(Fig. 5-3)



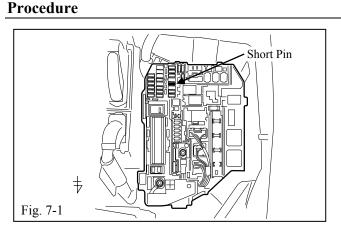
- 6. V5 ECU Preparation and Installation.
 - (a) Insert the V5 ECU Bracket into the indicated bracket slot on the V5 ECU.(Fig. 6-1)
 - (1) Ensure the bracket is firmly attached to the ECU.



- (b) Use 1 Bolt from the kit to install the V5 ECU to the Vehicle's Brace as shown. (Fig. 6-2)
 - (1) Do not over-tighten the Bolt.



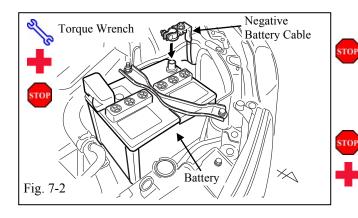
(c) Connect the V5 Harness's White 36P Connector to the V5 ECU. (Fig. 6-3)



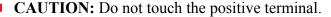
MATRIX

7. Complete the Installation.

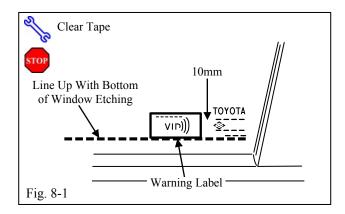
- (a) Verify that the Short Pin is installed. (Fig. 7-1)
 - (1) If not install the Short Pin.



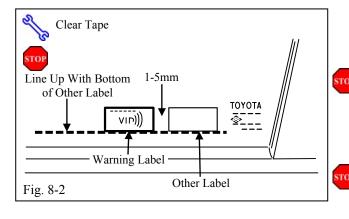
- (b) Complete the reassembly of the vehicle.
 - (1) Verify the panels fit together properly, with no uneven gaps.
- (c) Position the Negative Battery Cable at the original factory position. (Fig. 7-2)
 - (1) Tighten the Nut to 36 in•lbf (4.07 N•m).

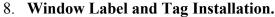


- (d) Clean up and remove any trash.
- (e) Reset the Power Windows.
 - (1) Turn Ignition Key to the "ON" position.
 - (2) Push down the Power Window Switches, and lower the windows halfway.
 - (3) Pull up the switches until the windows close.
 - (4) Continue holding up on the switches for a minimum of 1 second.
- (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.
 - (4) Continue to hold the switch for a minimum of 1 second.



MATRIX



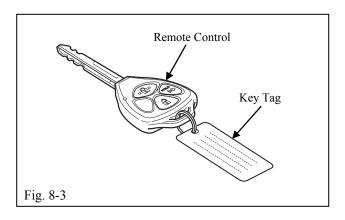


- For US Vehicles use the English Labels and the Tag, and discard the Spanish Labels and the Tag.
- For Mexico Vehicles use the Spanish Labels and the Tag, and discard the English Labels and the Tag.
- (a) Using Household Glass Cleaner, clean the inside of the Front Door Windows.(Fig. 8-1)
- (b) Place the Window Labels on the inside of the Front Door Windows as shown.(Fig. 8-1)
 - (1) Use a piece of clean adhesive tape to lift the Labels off their protective backing.

CAUTION: Do not touch the adhesive surface.

(2) Line up the Labels properly and place on the Glass. Do not attempt to reposition the Labels once they and place.

NOTE: If Labels are being installed with other Window Label's align them as shown in Fig. 8-2.



- (c) Attach the Key Tag to the Remote Control Key's Ring. (Fig. 8-3)
- (d) Place the V5 Owner's Guide and Warranty Card, sealed in the bag, in the Glove Box.

Checklist - these points MUST be checked to ensure a quality installation.

Accessory Function Checks

	Procedure	Look for:
1	Press and release the remote control lock button to start the system's arming process.	The turn signal lights flash once All doors lock. The Security LED lights up.
2	Wait 30 seconds.	Security LED starts flashing; the system is now armed.
3	Press and release the remote control's unlock button to disarm the system.	The turn signal lights flash twice. The driver's door unlocks. The Security LED flashing.

Open the driver's door, insert the key into the ignition switch and turn it to "ON". Roll down all the windows, remove the key and exit the vehicle.

		-
4	Arm and disarm the system with the remote again, then wait 60 seconds.	The doors automatically relock. The system automatically starts the arming process.
5	Press and release the remote control's unlock button again to stop the arming process.	Refer to step 3.
6	Insert the key into the driver's door key cylinder and turn it toward the front of the vehicle to start the arming process.	All doors lock. The Security LED lights up.
7	Wait 30 seconds.	Security LED starts flashing; the system is now armed.
8	Reach inside and manually unlock the driver's door to trigger an alarm.	The driver's door automatically relocks. The horn sounds repeatedly. The headlights flash repeatedly. The turn signal lights flash repeatedly. The Security LED lights up.
9	Manually unlock the driver's door again and hold it unlocked, open the door, then sit in the driver's seat.	The driver's door lock attempts to lock repeatedly. The horn continues to sound repeatedly. The headlights and turn signal lights continue flashing. The Security LED remains on.
10	Insert the key into the ignition switch and turn it to "START" to stop the alarm.	The horn stops sounding. All the lights stop flashing and/or turn off. The Security LED turns off. The starter cranks and the engine starts.

Turn the key back to "LOCK", remove it, and then exit the vehicle.

11	With the door open, press the lock switch on the door to lock the doors, then close the door to start the system's arming process.	All doors lock. The Security LED lights up.
12	Wait 30 seconds.	Security LED starts flashing; the system is now armed.
13	Reach inside and manually unlock the front passenger's door to trigger an alarm.	The front passenger's door automatically relocks. The horn sounds repeatedly. The headlights flash repeatedly. The turn signal lights flash repeatedly. The Security LED lights up.
14	Press and release the remote control's unlock button to stop the alarm.	The horn stops sounding. All the lights stop flashing. The Security LED turns off.
15	Press and release the remote control's lock button to start the system's arming process, then wait 30 seconds until the system is armed.	Refer to steps 1 and 2.
16	Unlock and open one of the rear passenger doors to trigger an alarm. (if available).	Refer to step 13.
17	Press and release the remote control's unlock button to stop the alarm.	Refer to Step 14
18	Repeat the above steps with the other rear passenger door. (if available).	Refer to steps 1, 2, and 13.

Roll up all windows, remove the key and exit the vehicle.

20	Press and release the remote control's lock button to start the arming process.	Refer to step 1.
21	Wait 30 seconds.	After 30 seconds, the Security LED starts flashing; the system is now armed.

Perform the following check in a temperature-controlled environment. (50°-90° F)

22	With the tip of a key, or Striker Tool pulled all the way out (PPO only), tap the center of the driver's door window to trigger the alarm.	The horn sounds repeatedly. The headlights flash repeatedly. The turn signal lights flash repeatedly. The Security LED lights up.
23	Insert the key into the driver's door key cylinder and turn it toward the back of the vehicle to stop the alarm.	The horn stops sounding. All the lights stop flashing and/or turn off. The Security LED turns off. The starter cranks and the engine starts.

NOTE: If the alarm does not trigger during functional verifications, increase the GBS sensitivity to the next setting.

NOTE: If you do not disarm the system, the alarm will last 20 seconds. It is not necessary to check the alarm duration.

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Checklist - these points MUST be checked to ensure a quality installation.

Vehicle Function Check

Function	Function
Head Light	ABS Light (if equipped) If the warning light remains on, it may indicate a system malfunction.
High Beams	Rear Wiper/Washer (if equipped)
Turn Signal Lights	Clock (if equipped)
Tail Lights	Accessory Power Socket (if equipped)
Stop Lights	Starter
Backup Lights	Audio/Video (if equipped)
Hazard Lights	Power Sliding Door (if equipped)
Marker Lights	Convenience Memory Settings (if equipped)
Dome/Courtesy Lights	Heated Seats (if equipped)
Panel/Switch Illumination	Massage Seats (if equipped)
Accessory Controls/Illumination (if equipped)	Rear Window Defogger (if equipped)
Key Sensor Buzzer	Power Side Mirrors (if equipped)
Fog Lights (if equipped)	Side Mirror Defogger (if equipped)
Daytime Running Lights (if equipped)	Front Windshield Defogger (if equipped)
Trunk/Tailgate/Bed Lights (if equipped)	Navigation System (if equipped)
Glove Box Light (if equipped)	Rear Sunshade (if equipped)
Cruise Control Light (if equipped)	Steering Wheel Audio Control (if equipped)
Seat Belt Warning Light If the warning light remains on, it may indicate a system malfunction.	Steering Wheel Column Adjusts Without Interference
Air Bag Warning Light If the warning light remains on, it may indicate a system malfunction.	Lamp Failure Sensor If the warning light remains on, it may indicate a system malfunction.

Checklist - these points MUST be checked to ensure a quality installation.

	Function	Function
	Track/Skid Control Light (if equipped) If the warning light remains on, it may indicate a system malfunction.	Front Wiper/Washer
	HVAC	Hood Latch Release
	Power Locks (if equipped)	Passenger Air Bag Switch (if equipped)
	Power Windows (if equipped)	Rollover Side Curtain Air Bag Switch (RSCA) (if equipped)
$ \Box$	Power Seats (if equipped)	Tire Pressure Monitoring System (TPMS).
	Horn	Prior to TPMS activation and Pre-delivery Service (PDS) of the Vehicle the TPMS light will blink when IG is turned on.
	Gauges	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.
	Power Moon Roof (if equipped)	

Remove the short pin after Function Check. Check with your port/dealer to find out if this step is needed.

