Part #: PT398-76190

Conflict

Recommended Sequence of Application

Item# Quantity		Description		

*Mandatory

Kit Contents

Item#	Quantity	Description
1	1	GBS ECU 08190-0C820
2	1	GBS Wire Harness

Hardware Bag Contents

Item#	Quantity	Description
1	10	Wire Tie
2	2	Foam Tape
3	1	GBS Microphone 08192-6C810
4	2	V2 Window Label English 08192-009A0
5	2	V2 Window Label Spanish PT398-42091
6	1	V2 Owner's Guide

Additional Items Required For Installation

Item#	Quantity	Description
1	1	Bracket and Bolt PT591-76190

Recommended Tools

Personal & Vehicle Protection	Description
Safety Glasses	
Safety Gloves	(Optional)
Blankets, Parts Boxes	Blankets, Parts Boxes
Special Tools	
Striker Tool (for UV Glass)	CAD-E IADS P/N ALL 02-016-01
Striker Tool (for Acoustic Glass)	CAD-E IADS P/N LS 18-0004
Installation Tools	
Screwdriver	#2 Phillips
Nylon Panel Removal Tool	e.g. Panel Pry Tool #1 Toyota
	SST# 00002-06001-01
Side Cutters	
Socket	10mm, extension
Torque Wrench	Battery: 48 in•lbf (5.4 N•m), ECU: 88.5 in•lbf (10 N•m)
Таре	Clear
Special Chemicals	
Cleaner	VDC Approved Cleaner
Glass Cleaner	Household Glass Cleaner

Legend



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



OPERATOR SAFETY: Use caution to avoid risk of injury.



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



TOOLS AND 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.



WIRE TIE LOCATION: Wire Tie location number.



PREVIOUS WIRE TIE LOCATION: This mark indicates a previously installed Wire Tie.

Accessory Installation Practice (read before installation)

Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure a quality installation. These guidelines can be found in the "Accessory Installation Practices" document.

This document covers such items as:

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

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

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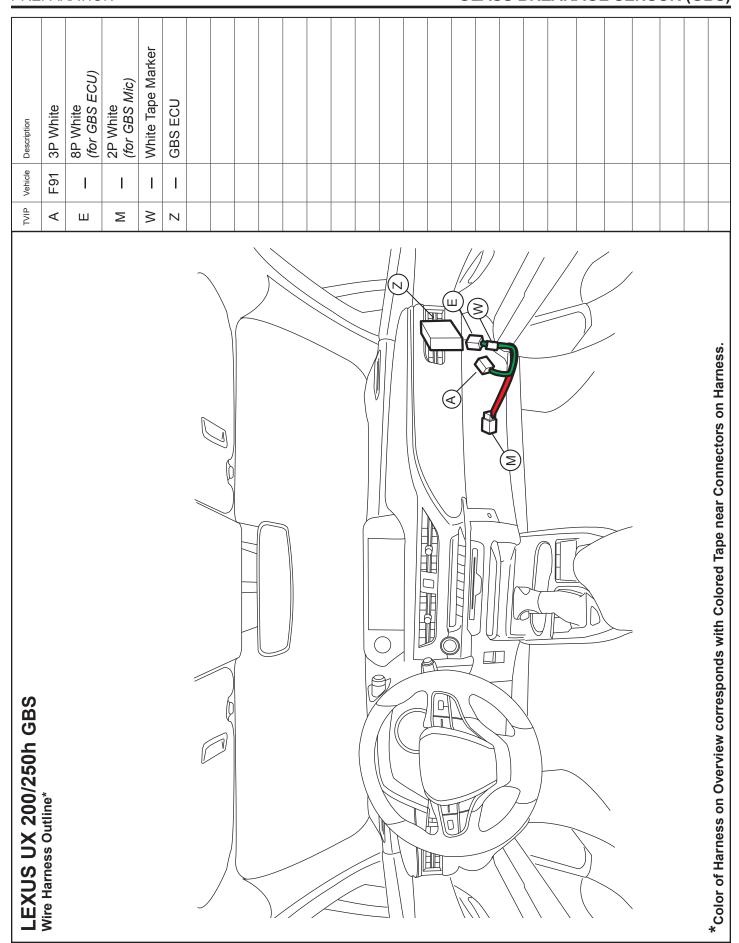
TVIP V2 GLASS BREAKAGE SENSOR (GBS)

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PREPARATION



PREPARATION



CAUTION: There are two Sensitivity Values for the GBS ECU.

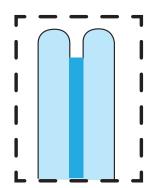


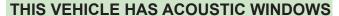
You must first determine which Glass your vehicle has.

Perform the Following.

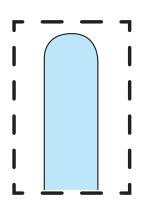
- a. Roll down the Driver's window partway.
- b. Look at the edge of the window.





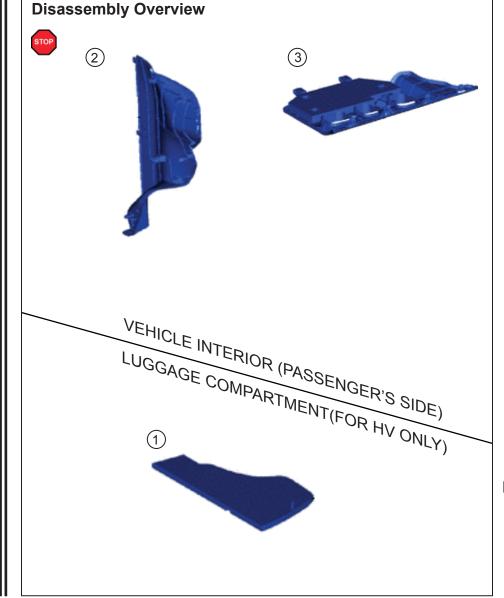


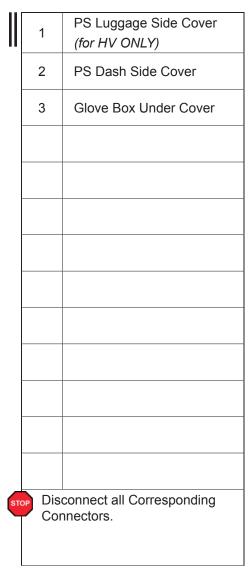
You will need to use sections highlighted in Green for this Vehicle.

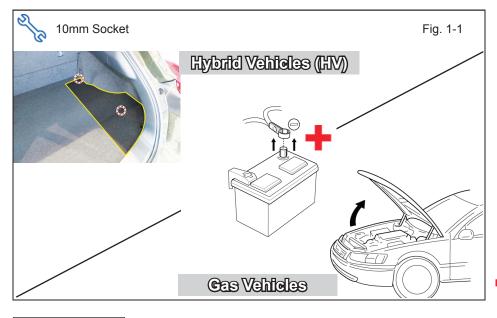


THIS VEHICLE HAS UV WINDOWS

You will need to use sections highlighted in Grey for this Vehicle.



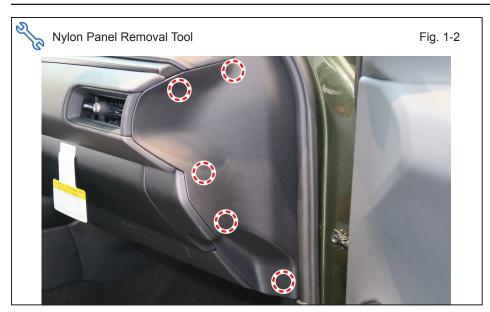




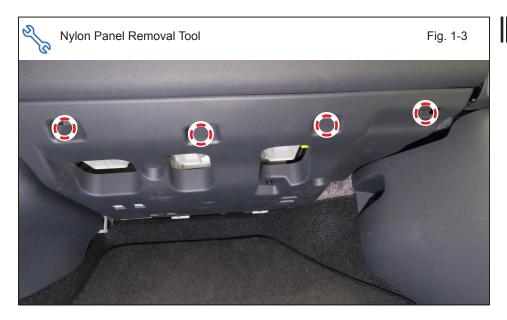
1. Vehicle Disassembly.

- a. Place the Vehicle in Park with the Parking Brake set.
- For Hybrid Vehicles the battery is in the Luggage Compartment.
 - b. Remove the PS Luggage Side Cover (for HV only).
- For Gas Vehicles the battery is in the Engine Compartment.
 - Disconnect the Negative
 Battery Terminal by removing the 10mm nut.
 - Note the Battery Cable Position as it will be re-installed in the same position.

CAUTION: Do not touch the Positive Terminal.



d. Remove the Passenger's Side Dash Cover.



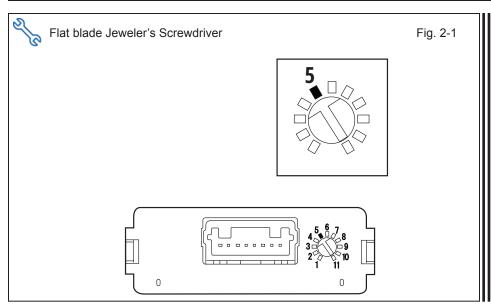
e. Dislodge the Passenger Side Under Cover.



- f. Disconnect the Foot Lamp Connector.
- g. Remove the Passenger Side Under Cover.

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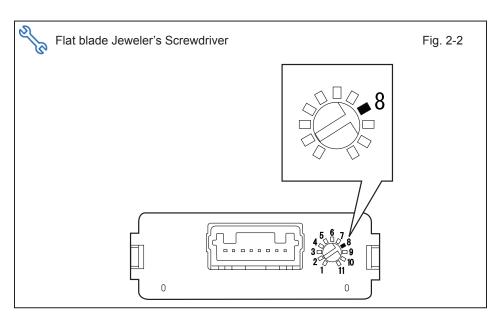


2. GBS ECU Preparation.

Vehicles with UV windows ONLY.

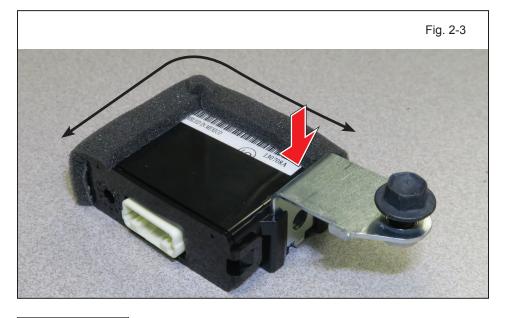


a. Set the GBS Sensitivity Value to 5. (Fig. 2-1).



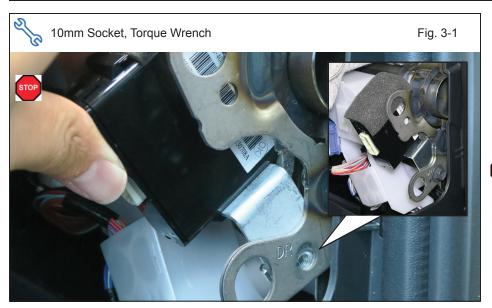
Vehicles with Acoustic windows ONLY.

b. Set the GBS Sensitivity Value to 8. (Fig. 2-2).



- Attach separately supplied GBS ECU Bracket to the GBS ECU.
- d. Attach 1 Foam Tape to the GBS ECU as shown.

PROCEDURE



3. V2 Harness and GBS ECU Installation.

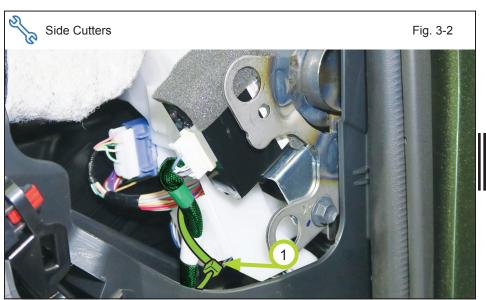
a. Install the GBS ECU using separately supplied M6 bolt.

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Torque: Tighten the Nut to 10 N•m (88.5 in•lbf).



NOTE: Make sure that Guide Pin is seated correctly



- b. Plug in the V2 White 8P Connector to the GBS ECU. (Fig. 3-2)
- Secure the V2 Harness White Tape Marker to the lid of connector case using 1 Wire Tie (#1). (Fig. 3-2)

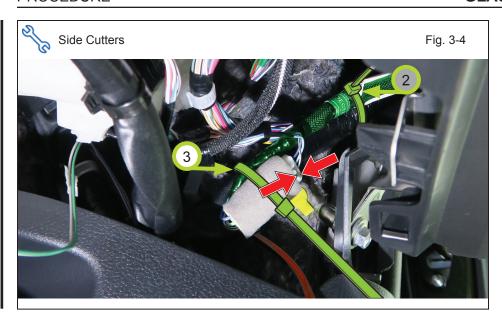


CAUTION: Ensure Wire Tie (#1) is not over tightened, which may cause the lid to break.

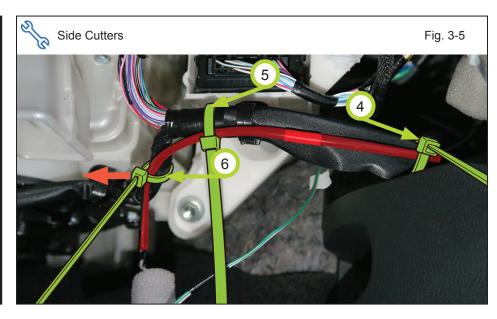


 d. Secure the V2 Harness to the Vehicle wire harness with 1 Wire Tie (#2). (Fig. 3-3)

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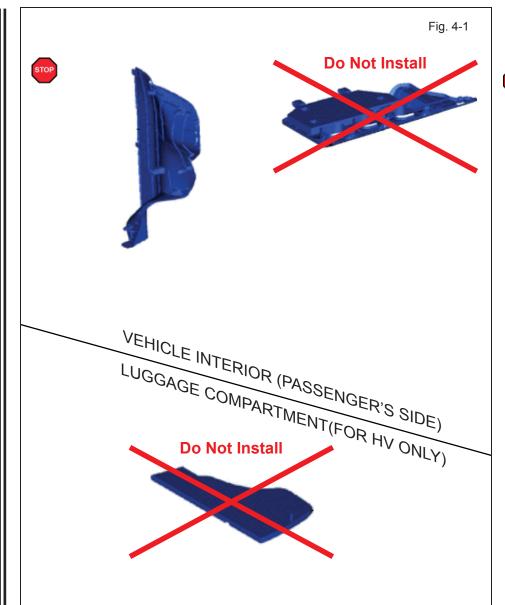
- e. Connect the V2 3P White Connector to the Vehicle's 3P Pre-Connector.
- f. Secure the 3P White Connector to the Vehicle Harness with 1 Wire Tie (#3).



- g. Secure the V2 Harness to the Vehicle Harness using 1 Wire Tie (#4). (Fig. 3-5).
 - Secure the V2 Harness to the Vehicle Harness using 2 Wire Ties (#5, #6). (Fig. 3-5).
- h. Cut out all excess Wire Tie length.



NOTE: Keep the cut end of Wire Tie #6 pointed inboard or up to prevent contact with foot light wire.

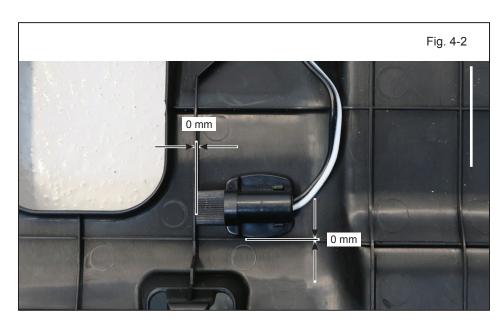


4. Microphone Installation.

a. Partially reassemble the Vehicle.



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



- Using the VDC approved cleaner and Cleaning Method, clean the area indicated on the backside of the Glove Box Under Cover.
- c. Attach the GBS Microphone to the backside of the Glove Box Under Cover as shown.



NOTE: Make sure to align GBS Microphone to the edge of the Glove Box Under Cover opening.



d. Apply 1 Foam Tape to the GBS Microphone as shown.



NOTE: Make sure not to cover the Microphone's opening with the Foam Tape.

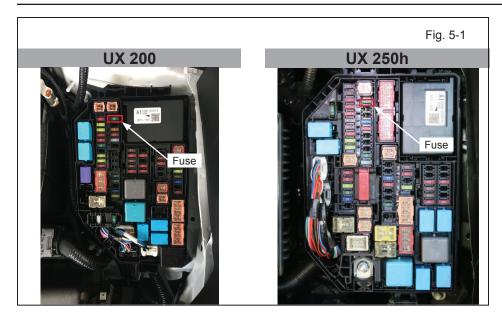


- e. Connect the V2 White 2P Connector to the GBS Microphone's Connector.
- f. Reconnect the Foot Lamp connector to the under cover.



g. Reinstall the Glove Box Under Cover.

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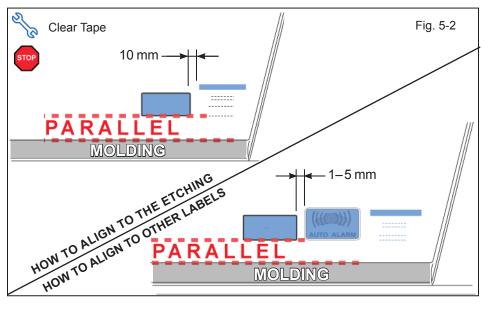


5. Complete the Installation.

 Verify that a 30 AMP D/C Cut Fuses is installed.

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· If not, install now.



- For US Vehicles use the English Labels and discard the Spanish Labels.
- For Mexico Vehicles use the Spanish Labels and discard the English Labels.
 - Use Household Glass Cleaner to clean the inside of the Front Door Window.
 - c. Use Clear Tape to lift the Label off its protective backing.



CAUTION: Do not touch the adhesive surface.

 Attach the GBS Label to the left of the last label currently installed.



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

REPEAT: steps a-c with the other Front Door Window.

- For Hybrid Vehicles the battery is in the Luggage Compartment.
- For Gas Vehicles the battery is in the Engine Compartment.
 - e. Position the Negative Battery Cable at the original factory position.

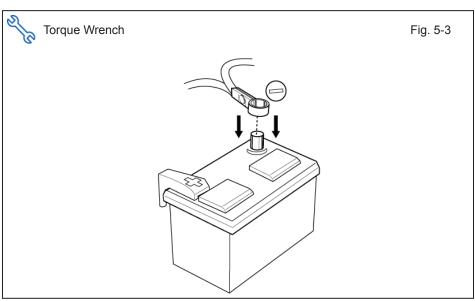


Torque: Tighten the 10mm Nut to 48 in•lbf (5.4 N•m).



CAUTION: Do not touch the Positive Terminal.

- f. Clean up and Remove trash.
- g. Sealed in its protective bag, place the GBS Owner's Guide in the Glove Box.



CHECKLIST – these points MUST be checked to ensure a quality installation. GLASS BREAKAGE SENSOR (GBS)

Accessory Function Checks

Roll up all windows, and exit the vehicle with the remote.



NOTE: Ensure trunk and hood are closed before performing strike test.

Take out the Smart Key and the Smart Card Key from the Vehicle. Place them 7 ft. (2 meters) or more away from the Vehicle.

Perform		Look For		
1	Verify Parts.	Removed items have been discarded & replaced items are in place.		
2	Lock the doors to start the system's arming process.	The turn signal lights flash once. All doors lock. The Security LED lights up.		
3	Wait 30 seconds.	Security LED starts flashing; the system is now armed.		

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



NOTE: Ensure the Striker Tool to be used for each glass type.

For UV Glass : CAD-E IADS P/N ALL 02-016-01 For Acoustic Glass : CAD-E IADS P/N LS 18-0004

4	With the tip of a key, or Striker Tool pulled all the way out (PPO only), tap the center of the driver's door windows to trigger the alarm.	The horn sounds repeatedly. The headlights flash repeatedly. The turn signal lights flash repeatedly. The Security LED lights up.
5	Press the unlock button on the smart key to stop the alarm.	The horn stops sounding. All the lights stop flashing and/ or turn off. The Security LED lights up.



If the alarm does not trigger during functional verifications the Smart Key and Smart Card Key might be too close. Move them farther from the vehicle and test the system again.

NOTE: If the alarm still does not trigger during the section test, increase the GBS sensitivity to the next setting and test again.

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

Vehicle Appearance Check

Perform	Look For
After accessory installation and removal of protective cover(s), perform a visual inspection of the vehicle.	Ensure no damage (including scuffs and scratches) was caused during the installation process. (For PPO installations, refer to TMS Accessory Quality Shipping Standard.)

CHECKLIST – these points MUST be checked to ensure a quality installation. GLASS BREAKAGE SENSOR (GBS)

Vehicle Function Checks

	Function			Function	
En	Enter the Vehicle				
		Dome/Courtesy Lights		Horn	
Sta	rt the \	/ehicle			
		Panel/Switch Illumination		Gauges	
		Check Engine Light If the warning light remains on, it may indicate a system malfunction.		ABS Light (if equipped) 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.		Track/Skid Control Light (if equipped) If the warning light remains on, it may indicate a system malfunction.	
		Seat Belt Warning Light If the warning light remains on, it may indicate a system malfunction.		Tire Pressure Monitoring System (TPMS).	
		Air Bag Warning Light If the warning light remains on, it may indicate a system malfunction.		Prior to TPMS activation and Pre-delivery Service (PDS) of the Vehicle the TPMS light will blink when IG is turned on. After TPMS activation and PDS of the Vehicle the	
		Cruise Control Light (if equipped)		TPMS light will illuminate for a few seconds and go off when IG is turned on.	
Us	Using a Mirror or Assistant check the following.				
		Trunk/Tailgate/Bed Lights (if equipped)		Tail Lights	
		Brake Lights		Daytime Running Lights (if equipped)	
		Backup Lights		Marker Lights	
		Clearance Sonar (if equipped)		Power Back Door/Hatch (if equipped)	
Stop the Engine, Place the Vehicle's IG in the ON position.					
		Hazard Lights		Turn Signal Lights	
		Head Light		Fog Lights (if equipped)	
		High Beams		Accessory Controls/Illumination (if equipped)	
		Power Side Mirrors (if equipped)		Convenience Memory Settings (if equipped)	
		Power Sliding Door (if equipped)		Rear Sunshade (if equipped)	

CHECKLIST – these points MUST be checked to ensure a quality installation. GLASS BREAKAGE SENSOR (GBS)

	Function		Function
	Front Wiper/Washer		Rear Wiper/Washer (if equipped)
	Power Sun/Moon Roof (if equipped)		Rollover Side Curtain Air Bag Switch (RSCA) (if equipped)
	Clock (if equipped)		Navigation System (if equipped)
	Audio/Video (if equipped)		HVAC
	Steering Wheel Audio Control (if equipped)		Rear Window Defogger (if equipped)
	Front Windshield Defogger (if equipped)		Accessory Power Socket (if equipped)
	Side Mirror Defogger (if equipped)		Heated/Vented Seats (if equipped)
	Massage Seats (if equipped)		
•		,	
	Glove Box Light (if equipped)		Trunk or Back Door/Hatch Cancel Switch (if equipped)
	Passenger Side Foot Lamp		
-		,	
	Power Locks (if equipped)		Power Windows (if equipped)
	Power Seats (if equipped)		Key Sensor Buzzer

Remove a 30A D/C Cut Fuse after Function checks. Check with your Port/Dealer to see if this step is necessary.



