LEXUS LS 500/500h PREPARATION

Part Number: PT398-50180

Conflicts

Recommended Sequence of Application

ltem#	Quantity	Description

Kit Contents

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

Hardware Bag Contents

ltem#	Quantity	Description
1	1	GBS ECU Bracket
2	2	Foam Tape
3	10	Wire Ties
4	1	M6 NUT
5	1	GBS Microphone 08192-6C810
6	2	GBS Window Label English PT398-60084-AA
7	2	GBS Window Label Spanish PT398-60085-AA
8	1	GBS Owner's Guide

Additional Items Required For Installation

ltem#	Quantity	Description							

Recommended Tools

Personal & Vehicle Protection	Description
Safety Glasses	
Safety Gloves	(Optional)
Blankets, Parts Boxes	
Special Tools	
Striker Tool	CAD-E IADS P/N LS 18-0004
Installation Tools	
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	Battery: 48 in•lbf (5.4 N•m)
Таре	Clear
Pliers	45°Angled Needle Nose
Utility Knife	
Offset Wrench	10mm
Socket	10mm, extension
Special Chemicals	
Cleaner	VDC Approved Cleaner

Legend



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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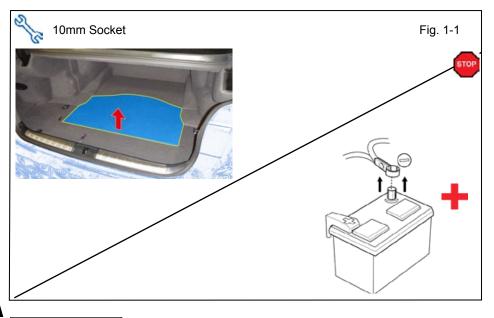
IN	ErA	RATIO	JN								GL	ASS) RK	EA.	NAG	JĽ	SEN	5 0F	(G	D 3)
Vehicle Description		 BP White (for GBS ECU) 	2P White (for GBS MIC)	 White Tape Marker 	- GBS ECU															
	5																			
TVIP	٩	ш	Σ	≥	N															
	LEAUS LS 500/5000 Wire Harness Outline*																			

LEXUS LS 500/500h PROCEDURE

TVIP V2 GLASS BREAKAGE SENSOR (GBS)

Disassembly Overview
VEHICLE INTERIOR(PASSENGER'S SIDE)
LUGGAGE COMPARTMENT

1	Luggage Board
2	Glove Box's Side Cover
3	PS Under Cover
4	PS Step Cover
5	PS Cowl Cover
	1



1. Vehicle Disassembly.

- a. Place the Vehicle in Park with the Parking Brake set.
- b. Remove the Luggage Board.
- c. Disconnect the Negative Battery Terminal.
 - Note the Battery Cable Position as it will be re-installed in the same position.
- **CAUTION:** Do not touch the Positive Terminal.

CAUTION: After disconnecting battery, do not close Trunk.

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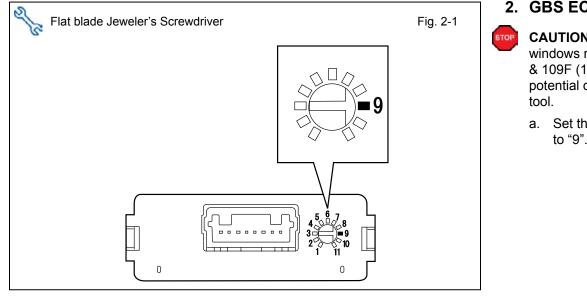
d. Remove the Glove Box's Side Cover.

e. Dislodge the Passenger Side Under Cover.

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

h. Remove the Passenger Side Step Cover.

- i. Remove the Passenger Side Cowl Cover.
 - Remove the Nut.



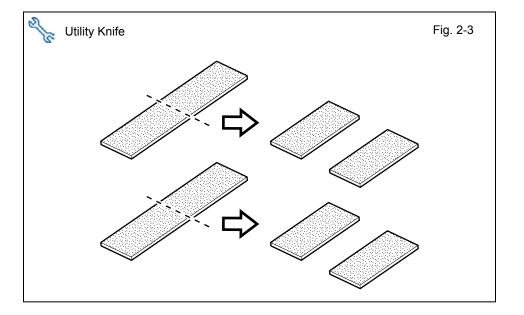
2. GBS ECU Preparation.

CAUTION: The front side windows must be between 60F & 109F (15.5C & 43C) to prevent potential damage from striker tool.

a. Set the GBS Sensitivity Value to "9".



b. Attach the GBS ECU Bracket to the GBS ECU as shown.



c. Cut the 2 Foam Tapes in half.

- Fig. 2-4
- d. Attach 1/2 Foam Tape to the GBS ECU as shown.

3. GBS ECU and Harness Installation.

a. Route the GBS Harness 8P Connector behind the Vehicle's Brace.

b. Connect the GBS Harness White 8P Connector to the GBS ECU.

- c. Install the GBS ECU using the supplied Nut.
- d. Rotate GBS ECU toward the rear of the Vehicle.

NOTE: Make sure the Guide Pin is seated correctly and verify that the Nut is tightened securely.

- e. Secure the GBS Harness's White Tape Marker to the Vehicle Harness using 1 Wire Tie.
- f. Route the GBS Harness branch with 10P Connector down toward the passenger side Cowl Area.

 g. Secure the GBS Harness branch with 10P Connector to the Vehicle Harness using 2 Wire Ties.

h. Connect the GBS Harness White 10P Connector to the Vehicle's 10P Connector as shown. 10P Connector tab is on inboard side of vehicle.

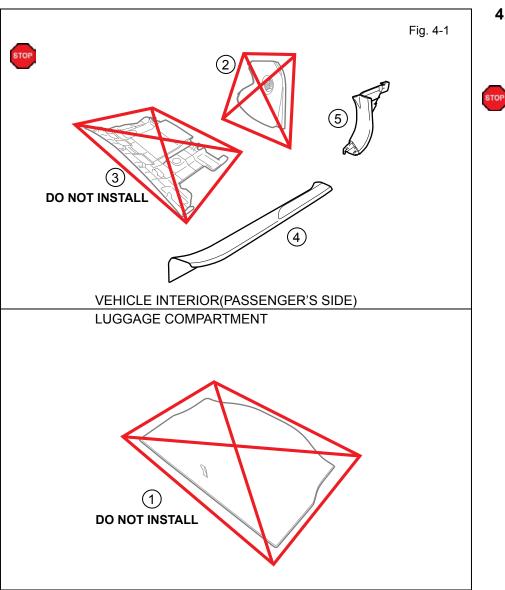
 \wedge

i. Secure the GBS Harness to the Vehicle Harness using 1 Wire Tie.

j. Secure the GBS Harness branch with 2P Connector to the Foot Lamp Harness using 2 Wire Ties.

k. Wrap the GBS Harness with wire tie using 1/2 Foam Tape as shown.

LEXUS LS 500/500h PROCEDURE



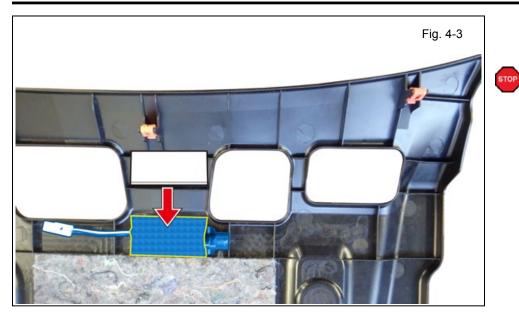
4. Microphone Installation.

- a. Reassemble the Vehicle except for the Under Cover and Glove Box's Side Cover.
- **VERIFY:** That Panels fit together properly, with no uneven gaps.

- VDC Approved Cleaner
 Fig. 4-2

 Image: Fig. 4-2
 Image: Fig. 4-2
- b. Using the VDC approved cleaner and cleaning method, clean the area indicated on the backside of the Under Cover.
- c. Attach the GBS Microphone to the backside of the Under Cover as shown.
- **NOTE:** Make sure to align GBS Microphone to the edge of the Under Cover ribbing.

LEXUS LS 500/500h PROCEDURE



d. Apply the 1/2 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 GBS White 2P Connector to the GBS Microphone's Connector.
- f. Reconnect the Foot Lamp connector to the under cover.
- g. Secure the GBS Harness to the Under Cover using 1/2 Foam Tape as shown.

h. Reinstall the Under Cover and Glove Box's Side Cover.

CAUTION: Ensure weather stripping is fully outboard before reinstalling Under Cover and Glove Box's Side Cover.

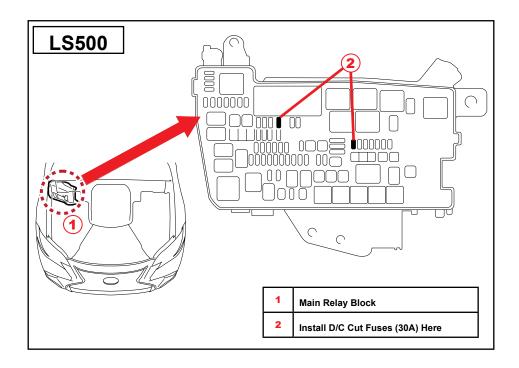
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5. Complete the Installation.

- a. Verify that the two 30 Amp D/C Cut Fuses are installed.
 - If not, install now.

2

1	Main Relay Block					
2	Install D/C Cut Fuses (30A) Here					



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b.

TVIP V2

Use Household Glass

Cleaner to clean the inside of the Front Door Windows.

c. Use a piece of Clear Tape to lift the Label off its protective

CAUTION: Do not touch the

d. Attach the Label as shown.

NOTE: Make sure to Align the

Label according to Etching or

REPEAT: steps d-f with the other

backing.

adhesive surface.

Other Label.

Window.

ଥ Fig. 5-2 Clear Tape 10 mm PARALLEL STOP HOW TO ALIEN TO THE ETCHING HOW TO ALIEN TO OTHER LABELS 1-5 mm STOP PARALLEL MOLDING

Position the Negative Battery e. Fig. 5-3 **Torque Wrench** Cable at the original factory position. S, Torque: 5.4 N•m (48 in•lbf) CAUTION: Do not touch the Positive Terminal. f. Clean up and remove trash. Sealed in its protective bag, g. place the Owner's Guide in the Glove Box.

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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.

CHECKLIST - these points MUST be checked to ensure a quality installation

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	Lock the doors 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.								
P	Perform the following check in a temperature controlled environment (60°- 109°F)										
	2	With the tip of a key, or Striker Teel pulled	The bern equade repeatedly								

3	With the tip of a key, or Striker Tool pulled all the way out (PPO only), tap the cen- ter of the driver's door windows to trigger the alarm. Repeat test on passenger side window. NOTE: Only strike the outside surface of the Window.	The horn sounds repeatedly. The headlights flash repeatedly. The turn signal lights flash repeatedly. The Security LED lights up.
4	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.)

 $CHECKLIST- these \ points \ \textbf{MUST} \ be \ checked \ to \ ensure \ a \ quality \ installation$

Vehicle Function Checks

		Function			Function	
En	Enter the Vehicle					
		Dome/Courtesy Lights			Illuminated Door Sill (if equipped)	
Start the Vehicle						
		Panel/Switch Illumination			Gauges	
		Check Engine Light If the warning light remains on, it may indicate a system malfunction.	CHECK		ABS Light (if equipped) If the warning light remains on, it may indicate a system malfunction.	(ABS)
		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.	λD
		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.		(PDS) of the Vehic when IG is turned	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	link
		Cruise Control Light (if equipped)			TPMS light will illuminate for a few seconds and go off when IG is turned on.	

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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)

2018-

CHECKLIST – these points MUST be checked to ensure a quality installation

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)		USB Connections (if equipped)
Steering Wheel Audio Control (if equipped)		HVAC
Front Windshield Defogger (if equipped)		Rear Window Defogger (if equipped)
Side Mirror Defogger (if equipped)		Accessory Power Socket (if equipped)
Horn		Heated/Vented 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 the two 30A D/C Cut Fuses after Function checks.

Check with your Port/Dealer to see if this step is necessary.