

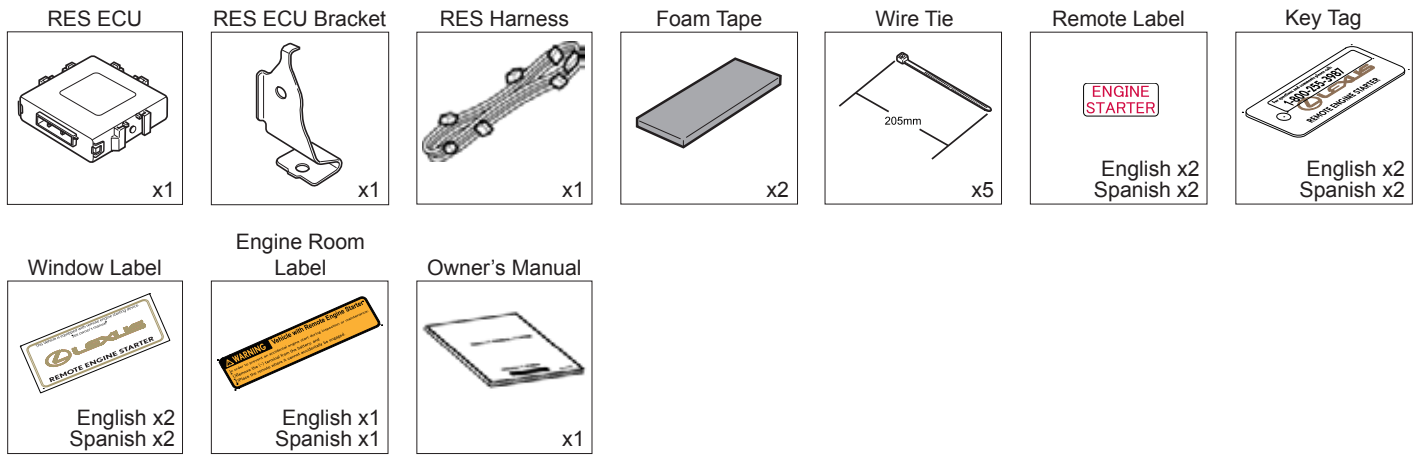
Part #: PT398-24101

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

**Conflicts:**

Do not install into Vehicles without Remote Keyless Entry System.

**Kit Contents**



**Additional Items**

(may be required)

Item#	Description

**Recommended Sequence of Application**

Item#	Description
1	TVIP V2 Glass Breakage Sensor
2	TVIP V4 Remote Engine Starter

**Recommended Tools**

Personal & Vehicle Protection	Description
Safety Glasses	
Safety Gloves	(Optional)
Vehicle Protection	Blankets, Parts Boxes
<b>Special Tools</b>	
Techstream	Software Version 4.20 or later
<b>Installation Tools</b>	
Screwdriver	#2 Phillips
Nylon Panel Removal Tool	e.g. Panel Pry Tool #1 SST# 00002-06001-01
Side Cutter	
Torque Wrench	Battery: 36 in•lbf (4.07 N•m), Passenger's Knee Airbag: 88.5 in•lbf (10 N•m) HVAC Unit: 88.5 in•lbf (10 N•m)
Tape	Clear, Electrical, Protective
Socket	10mm, extension
<b>Special Chemicals</b>	
Cleaner	VDC Approved Cleaner
Glass Cleaner	Household Glass Cleaner

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**Legend**

-  Do not proceed until process has been completed.
-  Follow steps carefully to avoid damaging the Vehicle or Accessory
-  Use caution to avoid injury.
-  Used in Figures to call attention to specific tools recommended for the process.
-  Highlights a change in installation with respect to previous issue.
-  Indicates that torque is related to safety.
-  Video Available; click to play.

**Accessory Installation Practices (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.

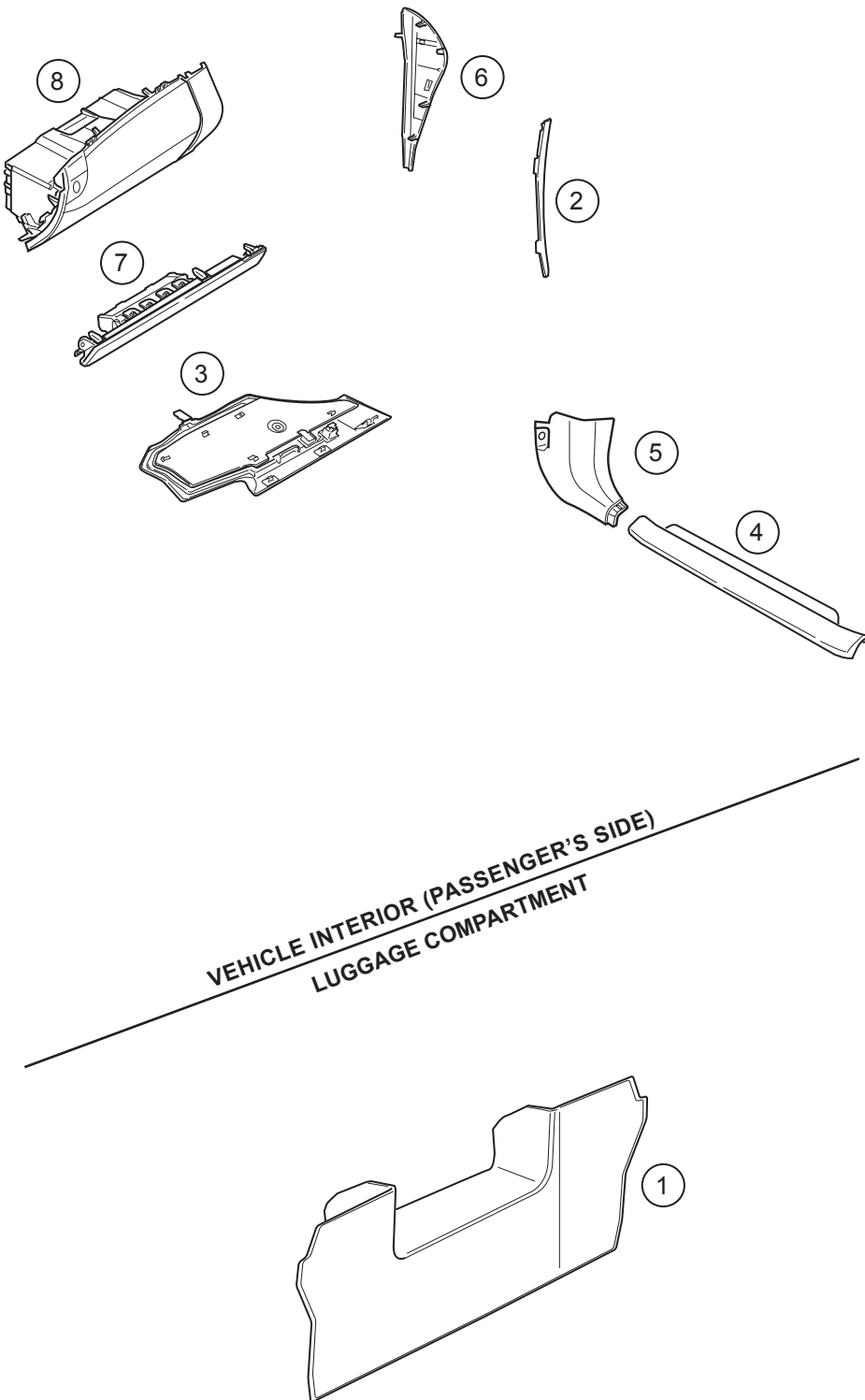
This document covers such items as:

- 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.



**Disassembly Overview**



1	Luggage Cover
2	PS Dash Side Trim
3	Glovebox Under Cover
4	PS Step Cover
5	PS Cowl Cover
6	PS Dash Side Cover
7	PS Knee Airbag
8	Glovebox



Disconnect all Corresponding Connectors.



- e. 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.

## 2. Vehicle Disassembly. (Vehicle Interior)

- a. Remove the Passenger's Dash Side Trim.

- b. Remove the Glovebox Under Cover.
  - Release the Harness Clamp.



- c. Remove the Passenger's side Step Cover.



- Use Protective Tape.

- d. Remove the Passenger's side Cowl Cover.

- Remove 1 Nut.

- e. Remove the Passenger's Dash Side Cover.



- Use Protective Tape.

- f. Remove Protective Tape.



- g. Dislodge the Passenger's Knee Airbag carefully.
  - Remove 3 Bolts.



**CAUTION:** Do not disconnect the Vehicle's Connector.

- h. Wrap the Airbag in a Blanket.
- i. Place the Knee Airbag on the TVIP box to prevent stress on the Airbag Wire.

- j. Remove 2 Screws from the bottom of the Glovebox.



- k. Open the Glovebox Door,  
then Remove 2 Screws.

- l. Remove the Glovebox.
  - Remove the Vehicle's Harness  
Clamp from the left backside of  
the Glovebox.

- m. Temporarily install the  
Passenger's Knee Airbag.



### 3. RES ECU Preparation and Installation.

- a. Attach the RES ECU Mounting Bracket to the RES ECU.

- b. Attach 2 pieces of Foam Tape to the RES ECU as shown.

- c. Remove the Bolt from the HVAC Unit.



- Do not discard the Bolt.



- d. Connect the V4 Harness's White 24P Connector to the RES ECU.
- e. Install the RES ECU to the HVAC Unit with the Vehicle's Bolt.



- Make sure to tighten the Vehicle's Bolt to 88.5 in•lbf (10 N•m).

#### 4. V4 Harness Installation.

- a. Route the V4 Harness toward the Passenger's Cowl Area.
- b. Secure the V4 Harness's White Tape Marker to the Vehicle harness with 1 Wire Tie.



- c. Secure the V4 Harness to the Vehicle Harness with 1 Wire Tie.
  - Rotate the cut edge of the Wire Tie behind the harness.

- d. Secure the V4 Harness to the Vehicle Harness with 1 Wire Tie.

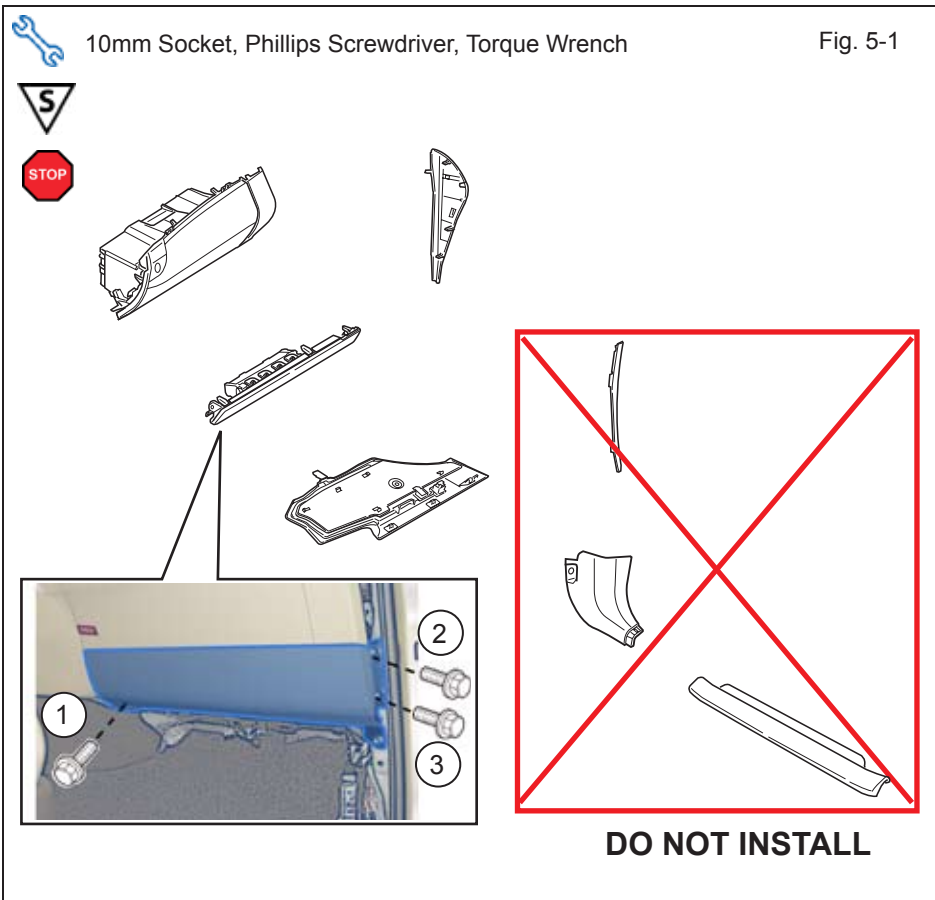
**V4 ONLY**

- e. Connect the V4 Harness's White 8P Connector to the Vehicle's 8P Pre-Connector in the Passenger's Side Cowl Area's Connector Block.

**V4/V2 ADD-ON ONLY**

- f. Find the V2 Harness's White empty 8P Connector in the Passenger's Side Cowl area.
- g. Connect the V4 Harness's White 8P Connector to the V2 Harness's 8P Connector.





## 5. Registration Preparation.

- a. Partially reassemble the Vehicle.

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

**STOP** **NOTE:** When reinstalling the Knee Airbag, install 3 Bolts in the correct order as shown.

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

**STOP** **VERIFY:** That all Connectors are plugged in.

- b. Verify that the Short Pin is Installed.
- If not Install now.

## 6. Registration.

- a. Open the Hood.
- b. Temporarily reconnect the Negative Battery Cable.



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

- c. Locate the 1P RES Diagnostic Connectors in the Passenger's Cowl Area and connect them.

**NOTE:** Once connected you will have 10 minutes to complete this section, steps d–x.

- d. Close all doors.

- e. Place the Shifter in Park (P).
- f. With the Remote Control Key in your possession, cycle the Smart Key Ignition Button from OFF to ON 5 times.

**NOTE:** One cycle consists of: OFF → Accessory → ON. This is equivalent to pressing the Smart Key Ignition Button 14 times.

**LOOK:** for the Hazard Lights to Flash once.



- g. Start the Engine.
- h. After 10 Seconds stop the Engine.

**LOOK:** For the Hazard Lights to flash Once.

### **IF THIS PROCEDURE FAILED**

The Hazard Lights flash Three Times.

- Disconnect the V4 Harness's 1P RES Diagnostic Connectors.
  - Start again from step c.
- 
- i. Connect the Techstream Notebook to the Vehicle's Diagnostic Port.
  - j. With the Remote Control Key in your possession, press the Power Button twice to select the Ignition "ON" position.
- 
- 
- k. Start the TIS Techstream Application by clicking on the shortcut located on the Desktop.
  - l. Click "Connect to Vehicle."



- m. Confirm that the information displayed on the Vehicle Connection Wizard is correct for the Vehicle. If not verify that the Techstream is properly connected.
- n. Select “Others” for option.
- o. Click “Next>.”

p. Select “Smart Access.”

q. Click  .

r. Click on “Utility.”

s. Select “ECU Communication ID Registration.”

t. Click  .





u. Click “Next>.”

v. Select “Remote Engine Starter.”

w. Click “Next>.”

**CONFIRM:** That the ECU Communication ID was completed successfully.

x. Click “Exit.”

**IF THIS PROCEDURE FAILED**

- Start again from step m.



y. Click 

- z. Exit the vehicle.
- aa. Close the Hood.
- ab. Look for the Hazards to flash twice.

### **IF THIS PROCEDURE FAILED**

The Hazard Lights flash 3 Times.

- Disconnect the V4 Harness's 1P RES Diagnostic Connectors.
- Start again from step c.

### **V4 ONLY**

- ac. After a successful Registration, disconnect the 1P RES Diagnostic Connectors.
- ad. Using Electrical Tape secure the 1P Connectors to the V4 Harness.



- ae. Secure the V4 Harness to the Vehicle Harness with 2 Wire Ties.

**V4/V2 ADD-ON ONLY**

- af. After a successful Registration, disconnect the 1P RES Diagnostic Connectors.
- ag. Using Electrical Tape secure the 1P Connectors to the V4 Harness.

**V4/V2 ADD-ON ONLY**

- ah. Secure the V4 Harness to the Vehicle Harness with 2 Wire Ties.



## 7. Tags and Labels.

- For US Vehicles use the English Tags and Labels, and discard the Spanish Tags and Labels.
- For Mexico Vehicles use the Spanish Tags and Labels, and discard the English Tags and Labels.
  - a. Using VDC approved cleaner and cleaning method, clean the area indicated on the Underside of the Hood.
  - b. Attach the Engine Room Warning Label as shown.



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

- c. Using VDC approved cleaner and cleaning method, clean the indicated area on the key.
- d. Use a piece of Clear Tape to lift the label off its protective backing.



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

- e. Attach the Key Label as shown.
- f. Attach the Key Tag.

**REPEAT:** steps c–f with the other Key.

- g. Use Household Glass Cleaner to clean the inside of the Front Door Windows.
- h. Use a piece of Clear Tape to lift the Label from the protective backing.



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

- i. Attach the Label as shown.



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

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

## 8. Complete the Installation.

- a. Finish reassembling the Vehicle.



**VERIFY:** When reinstalling the Dash Side Trim, put the Dash Side Trim underneath the Weather Strip.



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



**VERIFY:** That all Connectors are plugged in.

- b. Position the Negative Battery Cable at the original factory position.

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



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

- c. Clean up and remove trash.
- d. Sealed in its protective bag, place the Owner's Guide in the Glovebox.
- e. Reset the Power Windows.
- Turn the ignition "ON."
  - Lower the Windows halfway.
  - Pull up on the Power Window Switches until the windows close.
  - Continue to hold up on the switches for a minimum of 1 Second.
- f. Reset the Moon Roof.
- Open the Moon Roof halfway.
  - Push and hold the Moon Roof Switch to close until the Moon Roof closes.
  - Continue to hold the switch for a minimum of 1 Second.

## Accessory Function Checks

Close the hood, enter the vehicle and close all doors. Place the shift lever in the “P” (Park) position, set the parking brake and make sure the Vehicle is off.

Perform		Look For
1	Press the remote control's lock button twice within 2 seconds, then press and hold the lock button for 3 seconds.	The hazard lights flash after 3 seconds. The engine starts. The hazard lights flash repeatedly for 20 seconds.
2	With the engine running, pull the hood release handle.	The engine stops. The hazard lights flash once. The security alarm triggers. (if equipped)








**Vehicle Function Checks**

Function	Function
----------	----------

**Enter the Vehicle**

<input type="checkbox"/> Dome/Courtesy Lights	<input type="checkbox"/> Steering Wheel Column Adjusts Without Interference
<input type="checkbox"/> Horn	

**Start the Vehicle**

<input type="checkbox"/> Starter	<input type="checkbox"/> Gauges
<input type="checkbox"/> Panel/Switch Illumination	<input type="checkbox"/> ABS Light (if equipped) <i>If the warning light remains on, it may indicate a system malfunction.</i> 
<input type="checkbox"/> Lamp Failure Sensor <i>If the warning light remains on, it may indicate a system malfunction.</i> 	<input type="checkbox"/> Track/Skid Control Light (if equipped) <i>If the warning light remains on, it may indicate a system malfunction.</i> 
<input type="checkbox"/> Seat Belt Warning Light <i>If the warning light remains on, it may indicate a system malfunction.</i> 	<input type="checkbox"/> Tire Pressure Monitoring System (TPMS).  <i>Prior to TPMS activation and Pre-delivery Service (PDS) of the Vehicle the TPMS light will blink when IG is turned on.</i>  <i>After TPMS activation and PDS of the Vehicle the TPMS light will illuminate for a few seconds and go off when IG is turned on.</i> 
<input type="checkbox"/> Air Bag Warning Light <i>If the warning light remains on, it may indicate a system malfunction.</i> 	
<input type="checkbox"/> Cruise Control Light (if equipped) 	

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

<input type="checkbox"/> Trunk/Tailgate/Bed Lights (if equipped)	<input type="checkbox"/> Tail Lights
<input type="checkbox"/> Brake Lights	<input type="checkbox"/> Daytime Running Lights (if equipped)
<input type="checkbox"/> Backup Lights	<input type="checkbox"/> Marker Lights
<input type="checkbox"/> Clearance Sonar (if equipped)	

**Stop the Engine, Place the Vehicle's IG in the ON position.**

<input type="checkbox"/> Hazard Lights	<input type="checkbox"/> Turn Signal Lights
<input type="checkbox"/> Head Light	<input type="checkbox"/> Fog Lights (if equipped)
<input type="checkbox"/> High Beams	<input type="checkbox"/> Accessory Controls/Illumination (if equipped)
<input type="checkbox"/> Power Side Mirrors (if equipped)	<input type="checkbox"/> Convenience Memory Settings (if equipped)
<input type="checkbox"/> Power Sliding Door (if equipped)	<input type="checkbox"/> Rear Sunshade (if equipped)

Function		Function	
<input type="checkbox"/>	Front Wiper/Washer	<input type="checkbox"/>	Rear Wiper/Washer (if equipped)
<input type="checkbox"/>	Power Sun/Moon Roof (if equipped)	<input type="checkbox"/>	Rollover Side Curtain Air Bag Switch (RSCA) (if equipped)
<input type="checkbox"/>	Clock (if equipped)	<input type="checkbox"/>	Navigation System (if equipped)
<input type="checkbox"/>	Audio/Video (if equipped)	<input type="checkbox"/>	HVAC
<input type="checkbox"/>	Steering Wheel Audio Control (if equipped)	<input type="checkbox"/>	Rear Window Defogger (if equipped)
<input type="checkbox"/>	Front Windshield Defogger (if equipped)	<input type="checkbox"/>	Accessory Power Socket (if equipped)
<input type="checkbox"/>	Side Mirror Defogger (if equipped)	<input type="checkbox"/>	Heated/Vented Seats (if equipped)
<input type="checkbox"/>	Massage Seats (if equipped)		
<input type="checkbox"/>	Glovebox Light (if equipped)	<input type="checkbox"/>	Passenger Air Bag Switch (if equipped)
<input type="checkbox"/>	Power Locks (if equipped)	<input type="checkbox"/>	Power Windows (if equipped)
<input type="checkbox"/>	Power Seats (if equipped)	<input type="checkbox"/>	Key Sensor Buzzer

