

# Advanced Drive Performance Enhancements

**Service Category** ADAS/AD

**Section** Advanced Driver Assistance System

**Market** USA

Toyota Supports  
ASE Certification 

## Applicability

| YEAR(S)     | MODEL(S) | ADDITIONAL INFORMATION |
|-------------|----------|------------------------|
| 2022 - 2023 | LS500H   |                        |

### REVISION NOTICE

**August 25, 2026 Rev2:**

- The Introduction, Required Tools & Equipment, and Software Update Procedure sections have been updated.

**June 28, 2024 Rev1:**

- The Introduction, Required Tools & Equipment, and Software Update Procedure sections have been updated.

Any previous printed versions of this bulletin should be discarded.

## Introduction

Some 2022 – 2023 model year LS 500h AWD vehicles are equipped with Lexus Advanced Drive. This system provides driving support through automated steering, acceleration, and braking under specific operating conditions within controlled access highways. Lexus Advanced Drive utilizes an array of sensors and cameras, high-definition maps, and the vehicle navigation system to provide hands-free (SAE level: 2) driving assistance for engaged drivers. Updates to enhance Lexus Advanced Drive operation or to add features/functions are delivered to the vehicle directly through the Lexus Enform multimedia head unit (version 4.00 or earlier). The updates include the following:

- Enhancements to the detection and response of vehicle merging into the preceding lane.
- Enhancements to Advance Drive to driver hand-over at lower speeds.
- Expanded speed range for system operation.

## Advanced Drive Performance Enhancements

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### Introduction (continued)

Some 2022 – 2023 model year LS 500h AWD vehicles are equipped with Lexus Advanced Drive. This system provides driving support through automated steering, acceleration, and braking under specific operating conditions within controlled access highways. Lexus Advanced Drive utilizes an array of sensors and cameras, high definitions maps, and the vehicle navigation system to provide hands-free (SAE level: 2) driving assistance for engaged drivers. Updates to enhance Lexus Advanced Drive operation or to add features/functions are delivered to the vehicle directly through the Lexus Enform multimedia head unit (earlier than version 5.00). The updates include the following:

- Updates the Advanced Drive messages and displays.
- Reduces the frequency of prompts to hold the steering wheel in certain circumstances (e.g., facial recognition impact reduced when wearing a medical mask).
- Increases scenarios where lane change assist can be used.
- Adjusts the speed to help avoid blind spots of other vehicles in adjacent lanes.
- Enhances peripheral recognition using LiDARs.
- Reduces lane change assist activation when standard construction cones or barrels are detected.
- Alerts driver to nearby vehicles at certain highway entrance merging areas during low-speed driving.
- Alerts driver when approaching a much slower vehicle ahead.
- Increases the maximum Advanced Drive set speed to 85 mph.

## Advanced Drive Performance Enhancements

### Introduction (continued)

Some 2022 – 2023 model year LS 500h AWD vehicles are equipped with Lexus Advanced Drive. This system provides driving support through automated steering, acceleration, and braking under specific operating conditions within controlled access highways. Lexus Advanced Drive utilizes an array of sensors and cameras, high definitions maps, and the vehicle navigation system to provide hands-free (SAE level: 2) driving assistance for engaged drivers. Updates to enhance Lexus Advanced Drive operation or to add features/functions are delivered to the vehicle directly through the Lexus Enform multimedia head unit (earlier than version 5.01). The updates include the following:

- Adjusts the emergency support brake activation timing.
- Adjusts the conditions to warn for merging vehicles at low speed.
- Increases scenarios where lane change assistance can be used.

The release notes text below will be displayed to the customer:

“Adjusts the emergency support brake activation timing. Adjusts the conditions to warn for merging vehicles at low speed. Increases scenarios where lane change assistance can be used.”

Follow the Software Update Procedure section in this bulletin to complete these updates.

### Warranty Information

| OP CODE | DESCRIPTION     | TIME | OFP         | T1 | T2 |
|---------|-----------------|------|-------------|----|----|
| EL9074  | Software Update | 1.3  | 86111-50371 | 87 | 74 |

#### APPLICABLE WARRANTY

- This repair is covered under the Lexus Comprehensive Warranty. This warranty is in effect for 48 months or 50,000 miles, whichever occurs first, from the vehicle's in-service date.
- Warranty application is limited to customer's request for support in downloading latest version of Lexus Advance Drive. The download process and applicability are outlined in this service bulletin.

## Advanced Drive Performance Enhancements

### Required Tools & Equipment

| REQUIRED EQUIPMENT            | SUPPLIER | PART NUMBER  | QTY |
|-------------------------------|----------|--------------|-----|
| Techstream ADVi*              | ADE      | TSADVUNITECP | 1   |
| Techstream Lite               |          | TSLP3DLR01   |     |
| Techstream Lite (Green Cable) |          | TSLP2DLR01   |     |

\*Essential SST.

#### NOTE

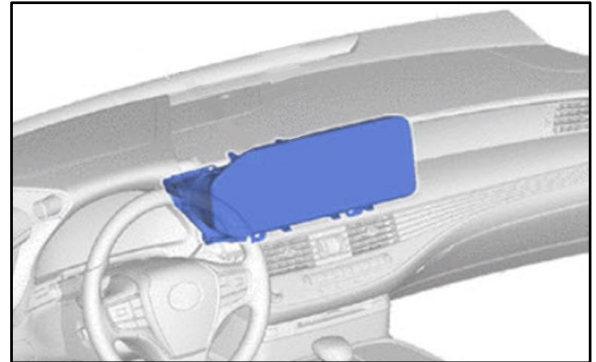
- Only ONE of the Techstream units listed above is required.
- GTS+ Software version 2026.03.002.02 or later is required.
- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787 or by visiting *TIS – Diagnostics – Tools & Equipment – Techstream Order Portal*.

### Software Update Procedure

#### Determine Head Unit Generation

- Is the vehicle equipped with a Lexus Premium Audio (17+) head unit (available in 2022 model year vehicles).
  - **YES** — [Go to Section 1 – Lexus Premium Audio \(17+\) Head Unit Software Update](#) section.
  - **NO** — Continue to step 2.

**Figure 1. Lexus Premium Audio (17+) Head Unit**



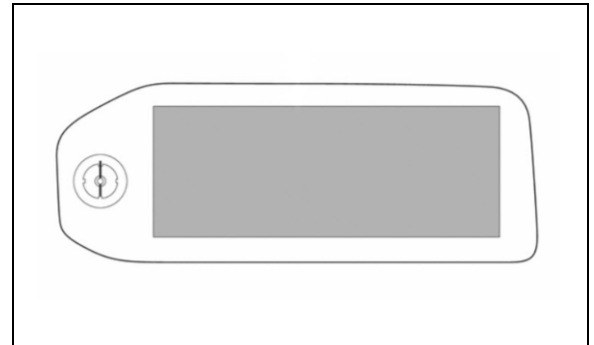
## Advanced Drive Performance Enhancements

### Software Update Procedure (continued)

#### Determine Head Unit Generation (continued)

2. Is the vehicle equipped with a Lexus Audio Multimedia (21MM) head unit (available starting in 2023 model year vehicles).
  - **YES** — Go to [Section 2 – Lexus Audio Multimedia \(21MM\) Head Unit Software Update](#) section.
  - **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

**Figure 2. Lexus Audio Multimedia (21MM) Head Unit**



#### Section 1 – Lexus Premium Audio (17+) Head Unit Software Update

1. BEFORE downloading the latest version of Lexus Advanced Drive, confirm the vehicle has a strong cellular signal as the update is done via Over the Air (OTA), NOT Techstream.

**NOTE**

Move the vehicle outside if the building is causing a weak cell signal. The download can take up to one hour. Ensure you are parked in a safe location.

2. Turn the vehicle ON (key ON engine ON).

**CAUTION**

If the update is being performed indoors, ensure that the exhaust extraction vents have been attached.

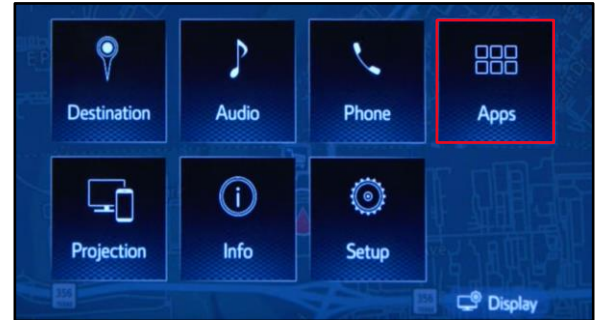
## Advanced Drive Performance Enhancements

### Software Update Procedure (continued)

#### Section 1 – Lexus Premium Audio (17+) Head Unit Software Update (continued)

3. Select Apps on the multimedia home screen.

Figure 3.

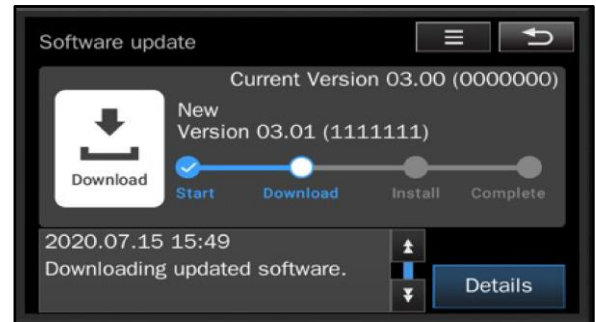


4. Navigate to the Services page within the Enform App Suite and select the SWUapl icon.

5. Once synced, select Next to go to the Terms of Service page.

6. Select Agree; this will start the download process.

Figure 4. Download Process



#### NOTE

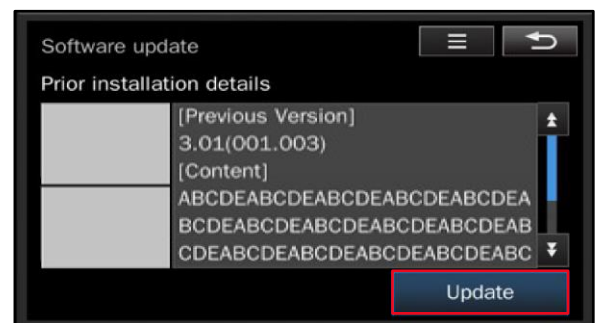
- This can take several minutes.
- Steps 5 and 6 are ONLY required during the first OTA update.

7. Once the download has completed, confirm the current and NEW versions of the software match the below table and select Update to start the installation.

Table 1. Software Version Information

| TYPE           | CURRENT VERSION             | NEW VERSION    |
|----------------|-----------------------------|----------------|
| Advanced Drive | Earlier than 5.00 (0030004) | 5.01 (0050003) |

Figure 5.



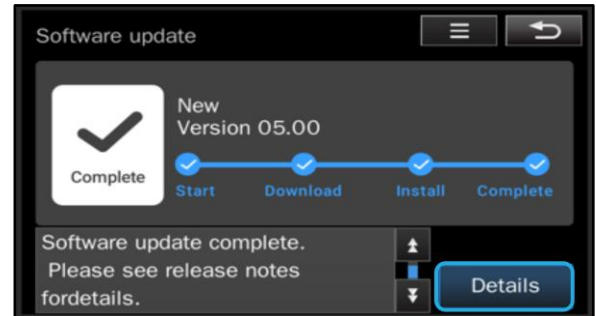
## Advanced Drive Performance Enhancements

### Software Update Procedure (continued)

#### Section 1 – Lexus Premium Audio (17+) Head Unit Software Update (continued)

8. Once the installation is complete, the bottom notification window will show “Software update complete” as shown in Figure 6.
9. Cycle the ignition to IG-OFF and back to IG-ON.
10. Using GTS+, perform a Health Check to confirm there are NO system issues or DTCs present once the download is complete.

Figure 6.



#### Section 2 – Lexus Audio Multimedia (21MM) Head Unit Software Update

1. BEFORE downloading the latest version of Lexus Advanced Drive, confirm the vehicle has a strong cellular signal as the update is done via Over the Air (OTA), NOT Techstream.

**NOTE**

Move the vehicle outside if the building is causing a weak cell signal. The download can take up to one hour. Ensure you are parked in a safe location.

2. Turn the vehicle ON (key ON engine ON).

**CAUTION**

If the update is being performed indoors, ensure that the exhaust extraction vents have been attached.

## Advanced Drive Performance Enhancements

### Software Update Procedure (continued)

#### Section 2 – Lexus Audio Multimedia (21MM) Head Unit Software Update (continued)

3. Go into the Lexus App in Android or Apple device.

#### NOTE

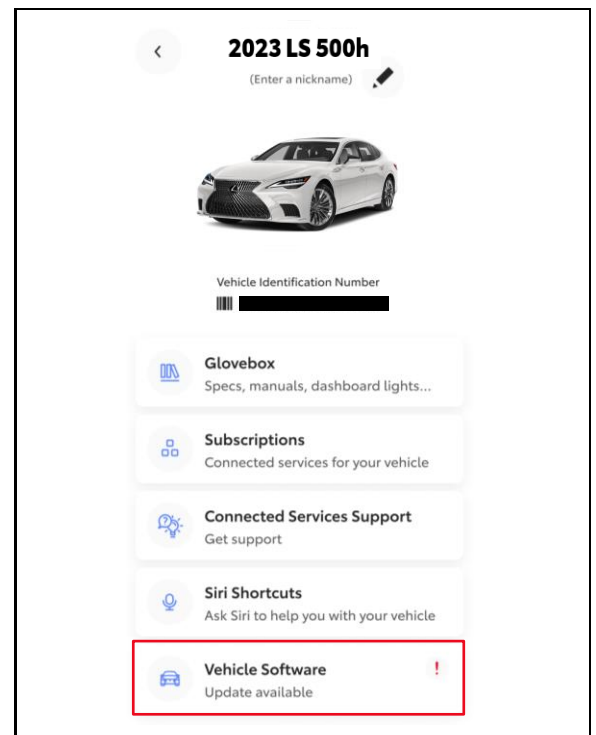
There should be a notification from the app like the one shown in Figure 7. If there is no notification, follow the next steps to check in the app for current software update.

Figure 7.



4. Select Vehicle Software.

Figure 8.





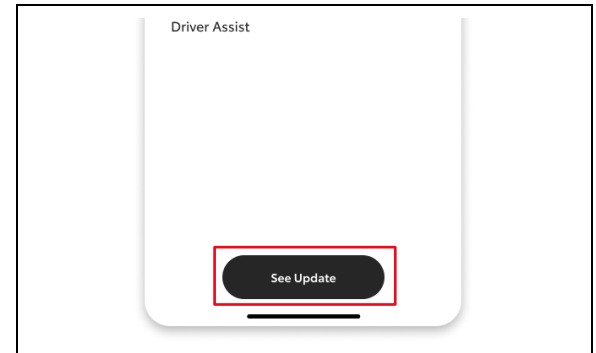
## Advanced Drive Performance Enhancements

### Software Update Procedure (continued)

#### Section 2 – Lexus Audio Multimedia (21MM) Head Unit Software Update (continued)

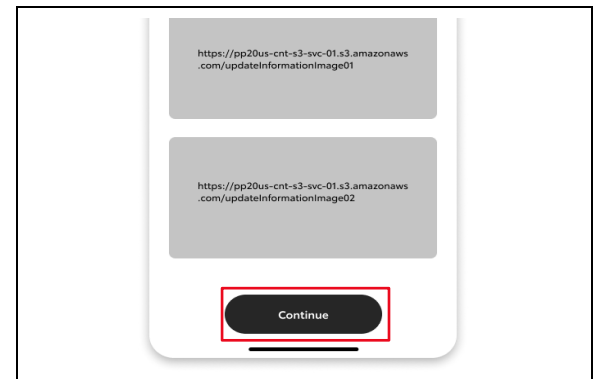
5. If an update is available, select See Update.

**Figure 9.**



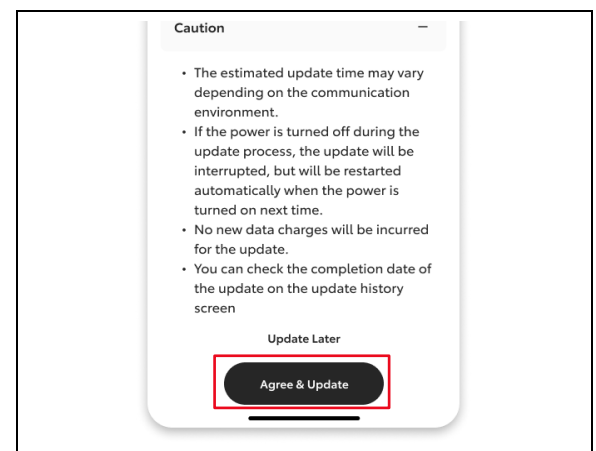
6. Continue through Terms of Service and Release Notes pages by selecting Continue.

**Figure 10.**



7. To start the update process, Select Agree & Update.

**Figure 11.**



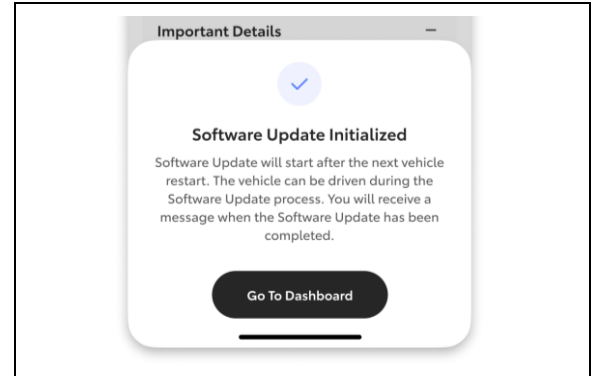
## Advanced Drive Performance Enhancements

### Software Update Procedure (continued)

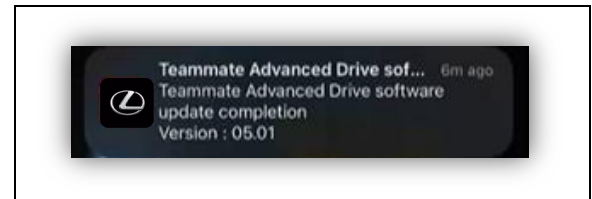
#### Section 2 – Lexus Audio Multimedia (21MM) Head Unit Software Update (continued)

8. The following message will appear as shown in Figure 12, “Software Update Initialized Software will start after the next vehicle restart. The vehicle can be driven during the Software Update process. You will receive a message when the Software Update has been completed.”

**Figure 12.**



**Figure 13. Message Notifying of the Software Update Completion**



9. Go to the Toyota App and verify the software is up to date by selecting Vehicle Software.

**Figure 14.**

