Navigation System Firmware Improvement (Generation 6)

Service Category	Audio/Visual/Telematics

Section	Navigation/Multi Info Display	**Market**	USA

Lexus Supports
ASE Certification

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2011 – 2012	CT200H	
2010 – 2012	ES350, HS250H, IS F, IS250, IS250C, IS350, IS350C, LS460, LS600H, LX570, RX350, RX450H	
2010 – 2011	GS350, GS450H, GS460	
2010 – 2013	GX460	
2012	LFA	
2010	SC430	

REVISION NOTICE

October 2, 2014 Rev1:

- The Required Tools & Equipment and Repair Procedure sections have been updated.

Any previous printed versions of this bulletin should be discarded.

SUPERSESSION NOTICE

The information contained in this bulletin supersedes SB No. L-SB-0147-11.

- The Required Tools & Equipment and Repair Procedure sections have been updated.

Service Bulletin No. L-SB-0147-11 is Obsolete and any printed versions should be discarded. Be sure to review the entire content of this bulletin before proceeding.

Navigation System Firmware Improvement (Generation 6)

Introduction

> **NOTE**
> Do NOT perform a map update until this bulletin has been performed.

Certain 2010 – 2013 model year Lexus models may exhibit one or more of the following conditions:

- Steering wheel volume controls are intermittently inoperative.
- Navigation system region code intermittently will reset to region US9.
- XM NavTraffic® will not function properly after renewing XM traffic subscription.
- Slow response from Bluetooth® address book voice commands.
- Black screen condition after shifting from Reverse to Park.
- Air conditioning screen may not appear when changing blower speed.
- iPod® scrolling speed is slow.
- Display constantly shows "*Calculating*" on right side of screen while driving on freeway.
- Slow response at times from navigation system even at startup.
- GPS coordinates shown instead of destination address.
- Display locks up and appears unresponsive after periods of time.
- Touch screen (if equipped) functions are slow to respond.

Navigation firmware has been updated to allow updating map to version 10.1 or later. Updated navigation system software has also been developed to remedy these conditions. Use the following procedure to address these conditions.

Warranty Information

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
EL9014	Navigation OS Update	0.3	86271-0E010	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 occurrence of the specified condition described in this bulletin.

> **NOTE**
> This should be a <u>labor</u> claim only since navigation software is downloaded from TIS.

Navigation System Firmware Improvement (Generation 6)

Required Tools & Equipment

REQUIRED EQUIPMENT	QTY
PC with Windows® XP, Windows® 7, or Windows® 8 Operating System	1

SPECIAL SERVICE TOOLS (SST)	PART NUMBER	QTY
Navigation Update Tool Kit*	95079-00003-KIT	1
GR8 Battery Diagnostic Station*	00002-MCGR8	1

> **NOTE**
>
> Additional SSTs may be ordered by calling 1-800-933-8335.

* Essential SST.

Repair Procedure

Loading Navigation System Firmware onto Navigation Update Tool

> **NOTE**
>
> Navigation Update Tool MUST have the latest "Navigation Programs Installer" before performing this bulletin. For installation procedure, refer to Service Bulletin No. L-SB-0072-14, "HDD Navigation Program Setup."

1. Turn on PC.

2. Log into the Technical Information System (TIS).

3. Download the appropriate *Vehicle Navigation Software Update* from TIS.

   A. Click on the *TIS* tab.

   B. Click on the *Diagnostics* tab.

   C. Click on the *Tools & Equipment* tab.

   D. Click on the *Navigation* tab under *Tools*.

   E. Click on the appropriate Generation 6 *Vehicle Navigation Software Update* under *Available Software Updates*.

> **NOTE**
>
> If the TIS division is NOT set to Lexus (under the *My Account* area), the *Navigation* tab will NOT display. Navigation Update is a Lexus ONLY TIS option at this time.
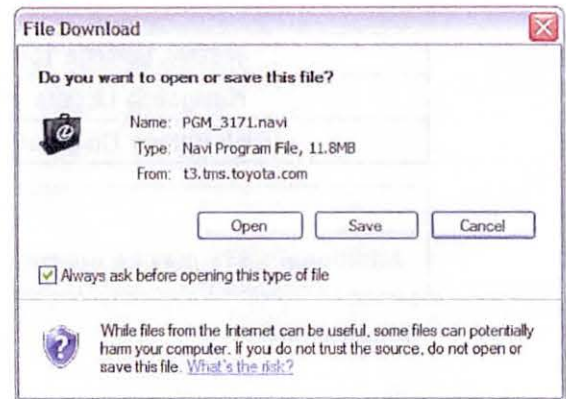
Navigation System Firmware Improvement (Generation 6)

Repair Procedure

Loading Navigation System Firmware onto Navigation Update Tool (Continued)

4. Click *Open* to begin the download.

Figure 1.

> **NOTE**
>
> The file is large and may take up to 10 minutes to download.

File Download

Do you want to open or save this file?

Name: PGM_3171.navi
Type: Navi Program File, 11.8MB
From: t3.tms.toyota.com

[Open] [Save] [Cancel]

☑ Always ask before opening this type of file

While files from the Internet can be useful, some files can potentially harm your computer. If you do not trust the source, do not open or save this file. What's the risk?

5. Once the file is downloaded, prepare the vehicle for use with the Navigation Update Tool. Cover the GPS antenna in a manner where GPS satellite tracking is NOT present during the navigation software update process.

> **HINT**
>
> Park vehicle in a structure that blocks the GPS signal, or cover the GPS antenna with a metal panel.

6. Connect the Navigation Update Tool to the PC using the USB cable.

   A. Make sure the USB cable is secured in **both** the PC and Navigation Update Tool USB ports.

   B. Confirm that the Navigation Update Tool is powered correctly.

   C. Turn the power ON.

   D. Click *Continue*.

Navigation System Firmware Improvement (Generation 6)

Repair Procedure

> **Loading Navigation System Firmware onto Navigation Update Tool (Continued)**

7. Verify that both the transfer mode display light (green) and power supply display light (blue) are lit, then click *Continue*.

Figure 2.

Navigation Programs Installer

Navigation Unit Update

ALL USB Devices must be removed before starting.

Disconnect Navigation Update Tool, if previously connected.

Reconnect ONLY Navigation Update Tool.

Cancel | Continue

8. The software will perform a connection check with the Navigation Update Tool. In the event an error is shown, please recheck the USB connection.

Figure 3.

Navigation Programs Installer

Navigation Unit Update

Checking Navigation Update Tool Connection.

Do not turn off PC or Navigation Update Tool.

Please Wait

Required time: Approx. 30 seconds

Navigation System Firmware Improvement (Generation 6)

Repair Procedure

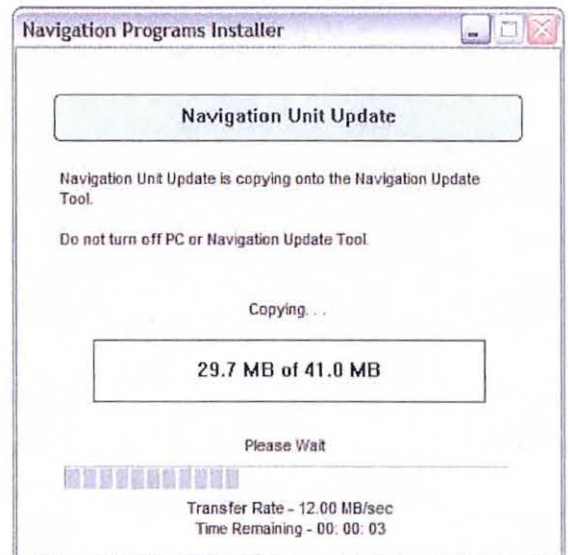### Loading Navigation System Firmware onto Navigation Update Tool (Continued)

9. Navigation Firmware is ready to be loaded onto the Navigation Update Tool, click *Continue*.

Figure 4.

Navigation Programs Installer

Navigation Unit Update

Preparing to install the Navigation Unit Update onto the Navigation Update Tool.

The following Navigation Unit Update file will be loaded:

Generation No.	Model	Program Version
06	VN_L_US	3370

Press Continue to load the Navigation Unit Update

Cancel   Continue

10. Navigation Firmware will now load onto the Navigation Update Tool.

Figure 5.

Navigation Programs Installer

Navigation Unit Update

Navigation Unit Update is copying onto the Navigation Update Tool.

Do not turn off PC or Navigation Update Tool.

Copying. . .

29.7 MB of 41.0 MB

Please Wait

Transfer Rate - 12.00 MB/sec
Time Remaining - 00: 00: 03
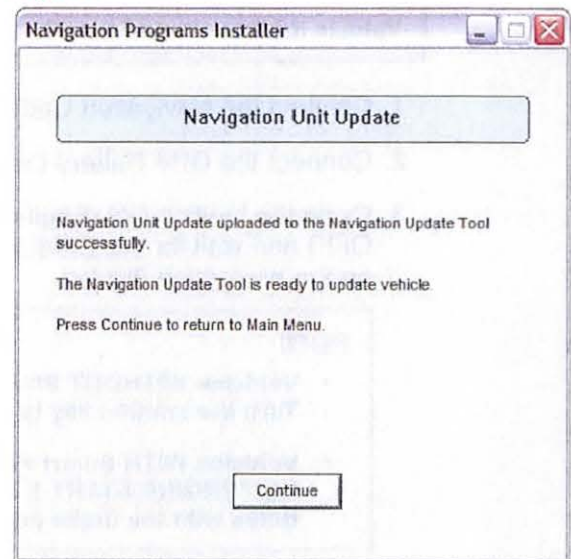
Navigation System Firmware Improvement (Generation 6)

Repair Procedure

Loading Navigation System Firmware onto Navigation Update Tool (Continued)

11. Once the Navigation Firmware is successfully loaded onto the Navigation Update Tool, click *Continue* to finish the installer.

Figure 6.

12. Disconnect the navigation tool from the PC.

Navigation System Firmware Improvement (Generation 6)

Repair Procedure (Continued)

Loading Navigation System Firmware into Vehicle Navigation System

> **NOTE**
> Vehicle ignition should be OFF before starting this procedure.

1. Connect the Navigation Update Tool to the vehicle (tool MUST be disconnected from the PC).

2. Connect the GR8 Battery Diagnostic Station to the vehicle.

3. Cycle the ignition ON (Engine/Hybrid/EV system OFF) and wait for the *Caution* screen to appear on the navigation display.

   > **NOTE**
   > - Vehicles WITHOUT Smart Key system: Turn the ignition key to the "ON" position.
   >
   > - Vehicles WITH Smart Key system: Press the "ENGINE START STOP" switch two times with the brake pedal released.

Figure 7.

CAUTION

Drive safely and obey traffic rules.
Watching this screen and making selections while driving can lead to a serious accident.
Some map data may be incorrect.
Read safety instructions in Navigation Manual.

Show Map
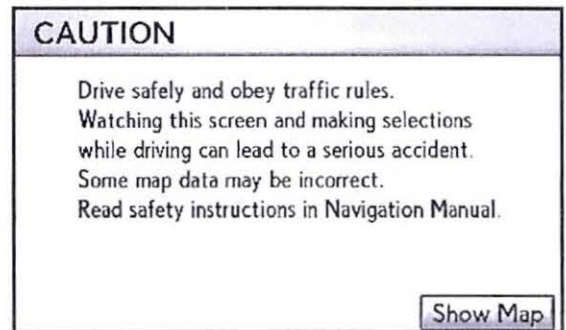
4. Select *Show on Map*.

Figure 8.

5. Hold down the *Menu* button on the Remote Touch interface and turn the light switch from OFF to tail light position 3 or more times until the navigation system enters the diagnostic mode.

   For touch screen vehicles (ES 350, IS 250C/350C, GS 350/450h/460, GX 460, LS 460/460L, LS 600hL, LX 570, SC 430):
   Press the *INFO* switch and turn the light switch from OFF to tail light position 3 or more times until the navigation system enters the diagnostic mode.
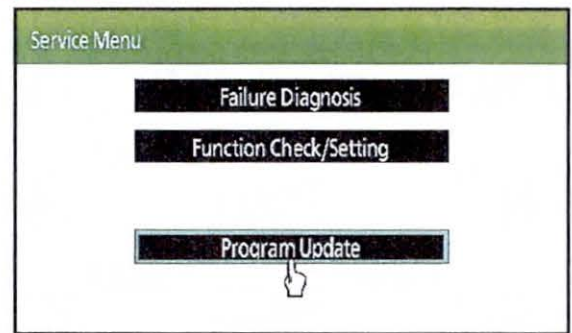
Navigation System Firmware Improvement (Generation 6)

Repair Procedure

Loading Navigation System Firmware into Vehicle Navigation System (Continued)

6. Select *Program Update* from the Service Menu.

Figure 9.

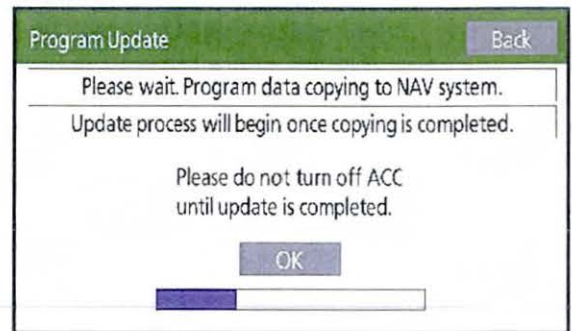| Service Menu |
| --- |
| Failure Diagnosis |
| Function Check/Setting |
| Program Update |

7. Select *OK*.

> **NOTE**
>
> **Load time for the program update is between 5 and 15 minutes.**

Figure 10.

Program Update	Back
Press "OK" to begin update.	
A program update is available.	
Please do not turn off ACC until update is completed.	
OK	

Figure 11.

Program Update	Back
Please wait. Program data copying to NAV system.	
Update process will begin once copying is completed.	
Please do not turn off ACC until update is completed.	
OK	

Navigation System Firmware Improvement (Generation 6)

Repair Procedure

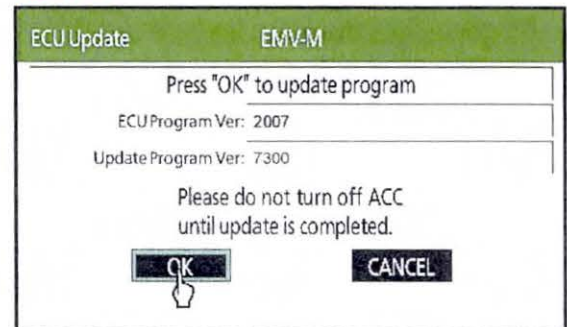### Loading Navigation System Firmware into Vehicle Navigation System (Continued)

8. When the *ECU Selection* screen appears, confirm the Current version is less than the New version. If yes, then press *Select*. If no, then select *End* and go to step 11.
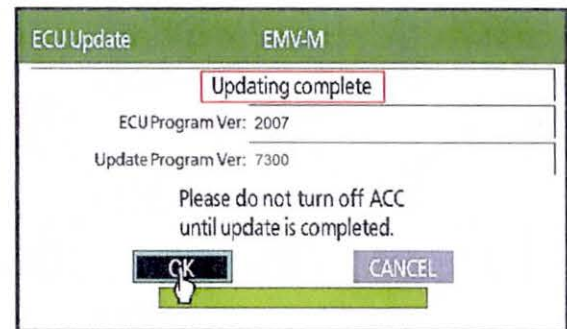
Figure 12.
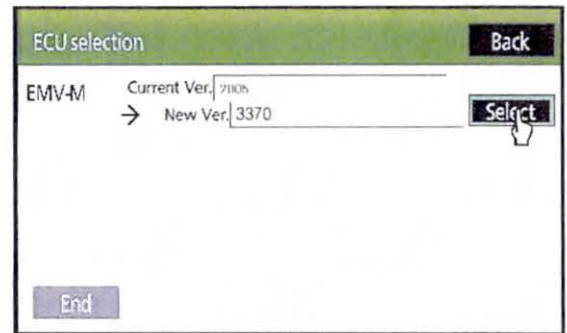
9. When *EMV-M* screen is shown select *OK*.

Figure 13.

10. After about 1 minute, if the update was successful the display will indicate "*Updating complete*" at the top of the screen. Select *OK* to continue.

Figure 14.

Navigation System Firmware Improvement (Generation 6)

Repair Procedure

Loading Navigation System Firmware into Vehicle Navigation System (Continued)

11. Confirm the current version matches one of those shown below. Select *End* to complete the procedure.

MODEL	CURRENT VERSION
HS 250h LFA RX 350 (2010 MY) RX 350 (TMMC, 2011 – 2012 MY) RX 450h (2010 MY)	C361
CT 200h RX 350 (TMK, 2011 – 2012 MY) RX 450h (TMK, 2011 – 2012 MY)	C471
ES 350 IS 250/350 IS 250C/350C IS F GX 460 LS 460/460L LS 600hL LX 570	C781
GS 350 GS 450h GS 460	C861
SC 430	C661

Figure 15.

ECU selection   Back

EMV-M   Current Ver. 2007
      →   New Ver. 3370   Select

End

Figure 16.

Program Update Complete

Please turn off ACC and restart.

> **NOTE**
>
> If Current Version does NOT match one of those listed above, switch the vehicle OFF and start again at step 1 of this bulletin.

12. Cycle the Ignition OFF to finish the updating procedure.

13. Cycle the ignition ON (Engine/Hybrid/EV system OFF) and verify normal navigation system operation.

> **NOTE**
>
> - Vehicles WITHOUT Smart Key system: Turn the ignition key to the "ON" position.
>
> - Vehicles WITH Smart Key system: Press the "ENGINE START STOP" switch two times with the brake pedal released.
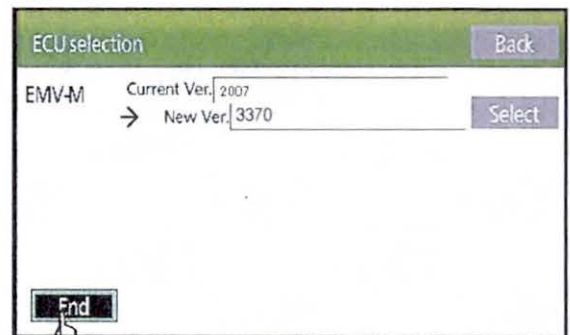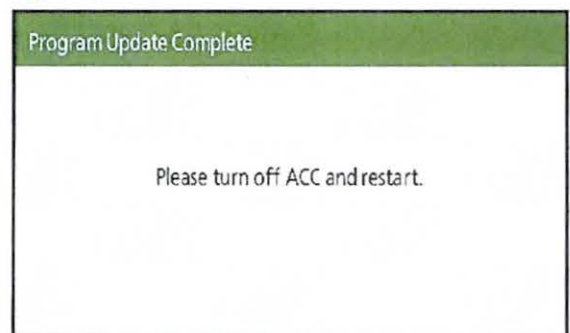
Navigation System Firmware Improvement (Generation 6)

Repair Procedure

Loading Navigation System Firmware into Vehicle Navigation System (Continued)

14. Remove items that block the GPS antenna, or move to an area where GPS satellite reception is present.

15. Refer to TIS, *Diagnostics – Tools & Equipment – Navigation – Reference Documents* for the latest Navigation Map Update bulletin.