



# Technical Journal

TITLE:  
**Sensus Navigation. IAM 2.1 software upgrade to allow map upgrade via USB**

<b>REF NO:</b> TJ 31762.4.0	<b>ISSUING DEPARTMENT:</b> Technical Service	<b>CAR MARKET:</b> United States and Canada	
<b>PARTNER:</b> 3 US 7510 Volvo Car USA		<b>ISSUE DATE:</b> 2017-06-16	<b>STATUS DATE:</b> 2017-06-27
<b>FUNC GROUP:</b> 3972	<b>FUNC DESC:</b> Road navigation	Page 1 of 5	

“Right first time in Time”

## Attachment

File Name	File Size
SENSUS RTI IAM.JPG	0.0195 MB

## Vehicle Type

Type	Eng	Eng Desc	Sales	Body	Gear	Steer	Model Year	Plant	Chassis range	Struc Week Range
124							2012-2015		0151001-0184738	201120-201419
134							2011-2015		0000194-0318592	201020-201419
136							2012-2015		0118001-0202917	201120-201419
155							2015-2015		0001147-0214070	201035-201419
156							2011-2015		0175379-0677509	201046-201419

## CSC Customer Symptom Codes

Code	Description
DO	Audio other/Audio unit (complete) does not work
FC	Audio other/Other audio problems
XD	Audio other/Audio unit display does not work
7N	Navigation/Other navigation problems
EO	Navigation/Does not work
IC	Navigation/Updates of information slow/does not work
IP	Navigation/Error message on screen



## VST Operation Number

VST Operation Number	Description
36002-3	Software control module downloading (2:nd)
36004-2	Software control module downloading

## DTC Diagnostic Trouble Codes

Control Module	Code	Fault Type
CEM	U015600	Intermittent
DIM	U015600	Intermittent
CCM	U015600	Intermittent

Rows beginning with \* are modified

Note! If using a printed copy of this Technical Journal, first check for the latest online version.

## Text

### DESCRIPTION:

\* Chassis range for type 134 corrected

VIDA = Vehicle Information and Diagnostics for Aftersales.

DICE = Diagnostic Communication Equipment

IAM = Integrated Audio Module

ICM = Infotainment Control Module

AUD = Audio Amplifier

There is a new process for upgrading maps on cars with Sensus (IAM2.1) navigation.

Map updates for Sensus navigation systems in MY2011-2015A cars (identified as shown in attached picture) can now be downloaded online and transferred to the car via a USB flash drive in the same way as current models.

**Updating maps via DVDs is no longer possible.**

This Technical Journal informs the technician how to perform the software upgrade.

### SERVICE:

To allow map upgrades via USB, the IAM software must be upgraded to the latest status.

Before starting the IAM software upgrade, secure following:

- The Volvo USB stick must be formatted to FAT32. The 64GB Volvo USB stick formatted to exFAT or NTFS will not work.
- Make sure that the Volvo USB Stick and USB port in the car works by trying to play .mp3 files from the Volvo USB stick in the car.
- Battery support / Power supply connected to the car. See SPJ 25673 and 31145.
- Read out DTC's and check network status.

If there are any DTC's related to communication or if any control unit is red on the network, resolve these issues first and don't start to download software.

Note! IAM or AUD may show as red on the network but if you can play music from a USB stick then it is OK.



- Leave the FM radio on during the entire software loading process to make sure the system is awake.
- If possible, use USB cable connection to the DICE and not Bluetooth. USB cable P/N 9513002 (5 m) or 9513003 (1 m). The USB connection is more reliable than Bluetooth.

*IAM Upgrade* Software Product numbers:

**S60/V60/XC60:** SP 31285187

**XC70/S80:** SP 30775609

**\*If there are issues with downloading software to the IAM or ICM, refer to TJ 26525 for the ICM recovery procedure.**

Once the IAM is upgraded, proceed to *Map data upgrade with USB* to upgrade the maps.

\*Note: Once this IAM upgrade is performed, the customer will be able to upgrade their vehicle's maps on their own as well. Instructions can be found at [http://volvo.custhelp.com/app/answers/detail/a\\_id/9701/](http://volvo.custhelp.com/app/answers/detail/a_id/9701/)

### **Map data upgrade with USB**

Map data is available for download by using the links found in SPJ 29181. Downloading from the website to the USB is the same as with current model vehicles.

The USB flash drive used for the map upgrade *must* meet the following requirements:

- 32GB
- USB 2.0
- FAT32 format
- No files other than the map data on the drive

Note: A *PNY Attache 3* 32GB USB 2.0 flash drive was used during testing and performed well.

Once the map data is loaded to the flash drive, it can be inserted in the vehicle's USB port. A pop-up message will indicate "New Software Found." Follow the prompts to begin the upgrade.

The upgrade will take approximately 2hrs 50min if done continuously. Ensure that the vehicle battery charge level is maintained during the upgrade by using an appropriate battery charger (preferred) or by running the engine (not preferred).

If the vehicle is shut off during the map upgrade, the upgrade will resume from where it left off at the next ignition cycle.

If the IAM Software upgrade was successful and you download the new map data to a USB stick but the infotainment system doesn't successfully load the new map data from the USB flash drive, the flash drive is probably not formatted correctly or does not meet one or more of the specifications listed above.

When the upgrade completes there will be a pop-up message on the ICM display indicating it is finished. At this point, leave the flash drive in the car's USB port, close and lock the car for 3+ minutes to allow the system to go to sleep. Then open the car and remove the USB stick before re-starting.



### **VEHICLE REPORT:**

Yes, please submit a Vehicle Report if the service solution described in this TJ is unsuccessful. Use concern area "Vehicle Report" and sub concern area "Support needed", use function group 3972.

**To view TJ attachment continue to next page. This TJ has one attachment.**

