Technical Service Bulletin

91 Rear Seat Entertainment software update for potential vehicle battery draw concern and improved functionality

91 16 73 2043660/3 September 14, 2016. Supersedes Technical Service Bulletin Group 91 number 16-41 dated April 27, 2016 for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
A4	2016 - 2019	All	Not Applicable
Q7	2016 - 2019	All	Not Applicable

Condition

REVISION HISTORY		
Revision	**Date**	**Purpose**
3	-	Revised *Condition* (Added System update freezes) Revised *Technical Background* (Added new update information) Revised *Service* (Removed section about leaving the power on)
2	4/27/2016	Revised *Technical Background* (Completely revised) Revised *Service* (Completely revised)
1	3/23/2016	Initial publication

One of the following conditions is present in a vehicle equipped with Rear Seat Entertainment (RSE) tablets:

- The customer has various complaints about the RSE system and would like to update the software of the RSE tablets.

- The vehicle cannot be started after it has been off for several days, and there are no indications in the battery history log of battery drain originating from a control unit on the CAN bus.

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- A system update has been initiated but the system freezes at the Android update screen for many hours (Figure 1).
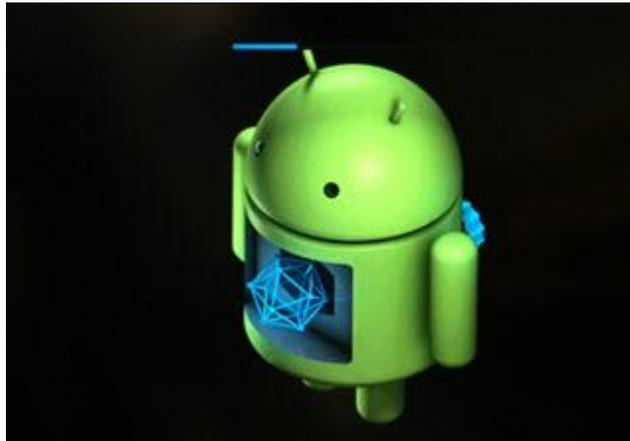

Figure 1. *Android System Update Screen.*

Technical Background

Periodically, software updates are made available for the RSE systems to fix various concerns and to improve the user experience. The March 2016 update (010008) implemented a fix that can prevent one of the RSE units from staying awake while the ignition is off, which can potentially draw the vehicle battery down. The latest update, 010200 (available as of August 2016), has the following improvements:

- Audio will be heard from both tablets during screen mirroring.

- Listen mode for sharing media will automatically run in the background after listen mode is activated.

- General updates: Improved system stability and security.

Past Improvements from the April 2016 010101 update:

- Improved media playback compatibility.

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- Improved stability and compatibility with Audi RSE remote app.

- The RSE III music player will now always prefer to connect to the Audi MMI via Bluetooth (Not Google Music).

- Improved music player priority handling (for users with multiple music playback apps).

- When throwing movies from one RSE III to another, the movie will always continue at the same position.

Past Improvements from the March 2016 010008 update:

- Improve system operation when vehicle is turned off. The system will not properly enter sleep mode.

Tip: Most system updates include updates to the critical firmware including boot or recovery software. As a result the firmware may freeze during the update (Figure 1). This is completely normal and is no cause for replacement. If the system freezes during the update, then a full battery discharge is required to allow the firmware update to be completed.

Production Solution

N/A

Service

The Android system software will need to be updated via an internet connection. The update can be performed with the tablets inside or outside of the vehicle. It is recommended that the update is performed outside of the vehicle with the tablets plugged into a wall charger, using a micro USB cable and charger (a standard micro USB smartphone cell phone charger can be used).

1 **Before proceeding, ensure that the following conditions are true:**

- The tablets have a battery charge level of 100% and can remain connected to a power source while the update is completed. This is critical. Once the installation starts, the tablet may NOT charge during this

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process. If the tablet has less than 100% charge then it may die during the installation process. It is recommended that the tablets reach 100% charge level before the installation process is started.

- **IF UPDATING THE TABLETS INSIDE OF THE VEHICLE:**

  The vehicle is attached to a battery charger, or the vehicle can be powered on for at least one hour (the engine should be left running to prevent battery drain). Depending on the Wi-Fi download speeds, the car may need to be on for a much longer period of time. Updating the tablets while installed inside the car is not recommended for slow Wi-Fi connections.

- **IF UPDATING THE TABLETS OUTSIDE OF THE VEHICLE:**

  Plug a good working micro USB cable and charger into the side of both the tablets (Figure 2). The charger should support at least a 1A supply (Figure 3) to the tablet. (Do not plug the USB cable into a PC or laptop; the cable must be plugged into a wall outlet). Most modern Android cell phones have chargers that support this higher current supply, whereas a flip phone chargers do not. Optionally, an Apple charger connected with a micro USB cable can be used. All Apple iPhone wall chargers have a minimum of 1A current supply.

Figure 2. Micro USB charge port.

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Figure 3. USB Smartphone charger with 1A current supply capability.

- An active Wi-Fi hotspot with high speed internet must be available. An active Wi-Fi hotspot is required because the update is performed over the internet. The system cannot be updated via SD card or any other type of media.

- Note that the update may take longer if the Wi-Fi has poor download speeds. Typically, the "Guest" Wi-Fi access in a dealer showroom is not fast enough to allow this update. *If a slow Wi-Fi is being used, performing this update is NOT recommended.*

Note that if the vehicle's hotspot is being used, and the customer's subscription is not on the six-month Audi trial, the subscription will have a limited amount of data. For subscriptions actively on the six-month Audi trial, LTE data is unlimited from the vehicle Wi-Fi hotspot. For reference, future updates can consume as much as

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0.8GB of data, but this initial update can be as large as 600MB or as little as 15MB, depending on the starting software level.

2. Check the software version of each RSE tablet from the main menu by selecting *Settings>>Device Settings>>About Tablet>>Custom build version* (Figure 4 - Figure 7).

   The version of the custom build is displayed in following format, where the "010006" denotes the system software level:

   RSEIII.010006.XXXXXXX_XXXX

   If the software level is less than 010200:

   - A software update is available. Proceed to the next step.

   If the software level is 010200:

   - The software is already up-to-date as of August 2016. A newer update may be made available at a later date.
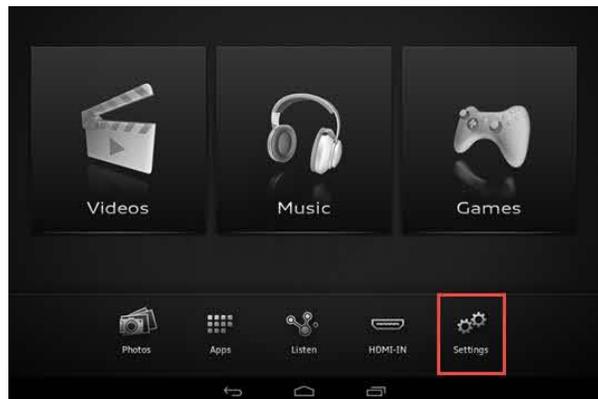
Figure 4. *Settings option in main menu.*
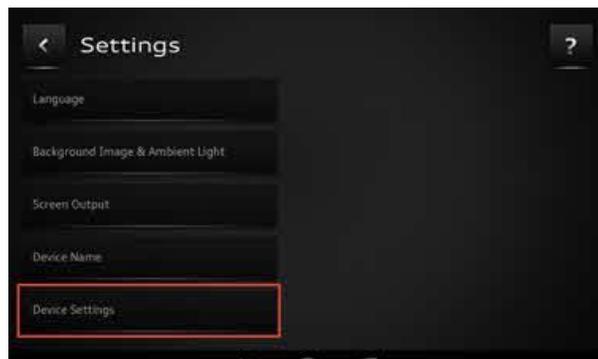
Figure 5. *Device settings.*
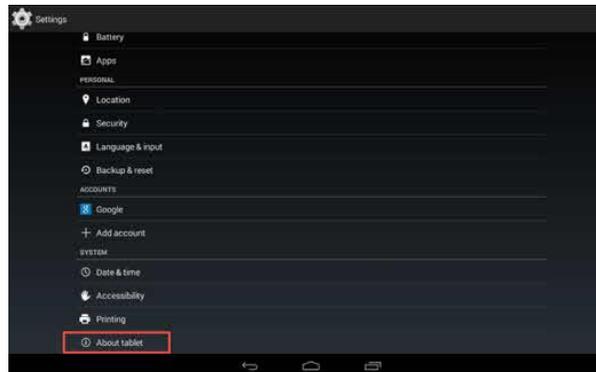
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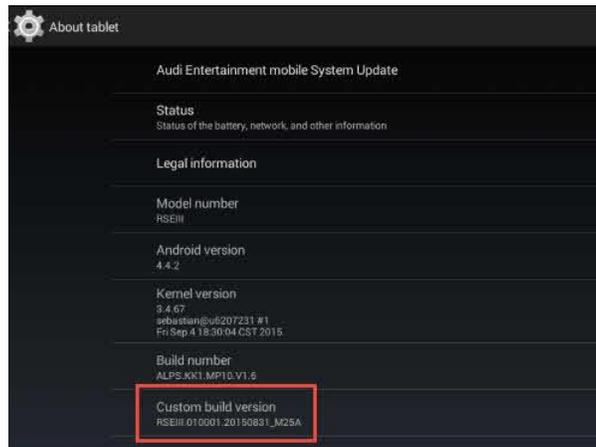

Figure 6. About tablet.

Figure 7. Custom build version.

3. To perform the software update, go to the top of the screen and select: *Audi Entertainment Mobile System Update>>Check Now* (Figure 8).

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Figure 8. Check for System Update.

4. If an update is available, an information screen will appear with the new version number, change log, and release date (Figure 9). Select the *Download* option to begin the download of the update. Depending on the size of the update and the speed of the Wi-Fi connection, it can take a few minutes to several hours to download the update. In most cases, it only takes a few minutes.
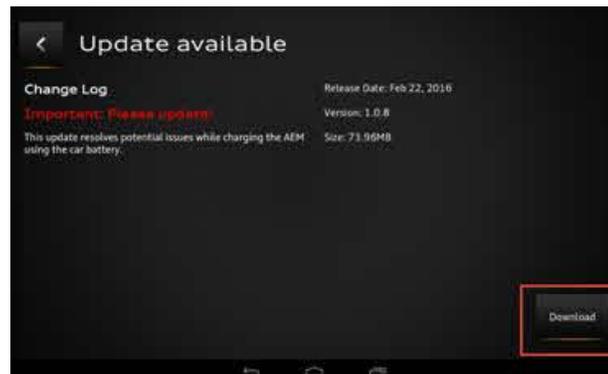

Figure 9. Update available.

5. After the update file has been downloaded to the RSE tablet, the option to start the install will be provided. Select *Install now* (Figure 10). Depending on the size of the update, it can take a few minutes to up to an hour to complete the update.
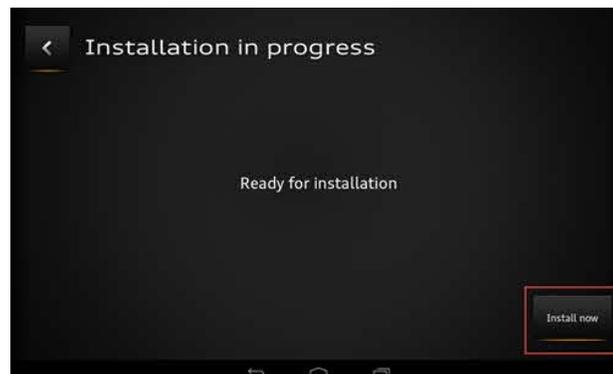

Figure 10. Install now.

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Once the update is installed, the Android tablet will restart and complete the update (Figure 11). It is critical that the tablet does not lose power at this point. If the battery of the tablet drains completely, it is possible the tablet will become useless and need a factory reset. If this happens, contact TAC.
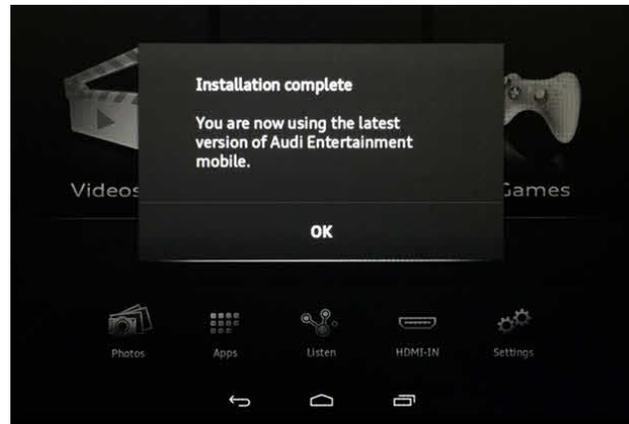

Figure 11. Installation complete.

⚠️**Note:** If the installation freezes at "Andy the Android" and does not progress (Figure 12), then unplug the tablet from its power source. If the tablet is docked in the vehicle, then carefully undock the tablet and turn off the vehicle. Then, *allow the tablet to fully discharge (keep screen on)*. Test to see if the tablet has fully discharged by pressing the power button. If the tablet has fully discharged, the white LED light under the tablet will turn on and off briefly and the screen will remain blank. After discharging, plug the tablet back into the wall or dock it back into the vehicle (turn ignition on). Then turn the tablet back on and allow the installation to start again. Keep the tablet connected to the charger or vehicle while the
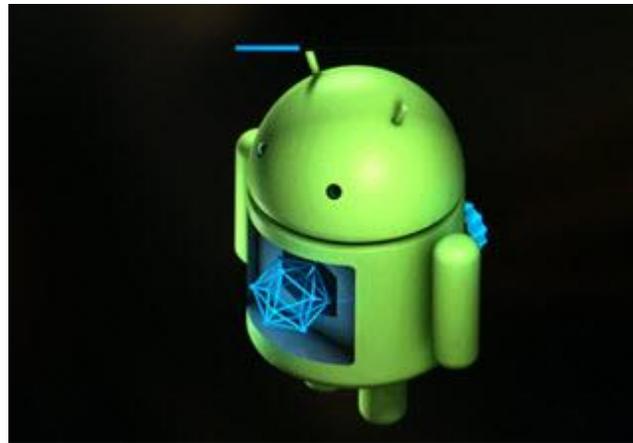

Figure 12. Android System Update Screen

installation completes. Repeat this process if

the installation fails or freezes a second time.

Warranty

Claim Type:	12i		
Service Number:	9104		
Damage Code:	0039		
Labor Operations:	Update software of two RSE tablets	9104 9999	25 TU
Diagnostic Time:	GFF	No allowance	0 TU
	Road test prior to service procedure	No allowance	0 TU
	Road test after service procedure	No allowance	0 TU
	Technical diagnosis at dealer's discretion (Refer to Section 2.2.1.2 and Audi Warranty Online for DADP allowance details)		
Claim Comment:	As per TSB #2043660/3		

All warranty claims submitted for payment must be in accordance with the *Audi Warranty Policies and Procedures Manual*. Claims are subject to review or audit by Audi Warranty.

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Additional Information

All parts and service references provided in this TSB (2043660) are subject to change and/or removal. Always check with your Parts Department and service manuals for the latest information.