



SIB 65 16 23

2023-03-20

AUDIO FAILURE – NO COMMUNICATION WITH RAM

MODEL

F44 (2 Series Gran Coupe)	F90 (M5 Sedan)	F91 (M8 Convertible)	F92 (M8 Coupe)
F93 (M8 Gran Coupe)	F95 (X5 M Sports Activity Vehicle)	F96 (X6 M Sports Activity Coupe)	F97 (X3 M Sports Activity Vehicle)
F98 (X4 M Sports Activity Coupe)	G01 (X3 Sports Activity Vehicle)	G02 (X4 Sports Activity Coupe)	G05 (X5 Sports Activity Vehicle)
G06 (X6 Sports Activity Coupe)	G07 (X7 Sports Activity Vehicle)	G09 (XM Sports Activity Vehicle)	G12 (7 Series Sedan)
G14 (8 Series Convertible)	G15 (8 Series Coupe)	G16 (8 Series Gran Coupe)	G20 (3 Series Sedan)
G22 (4 Series Coupe)	G23 (4 Series Convertible)	G26 (4 Series Gran Coupe)	G29 (Z4 Roadster)
G30 (5 Series Sedan)	G32 (640i xDrive Gran Turismo)	G42 (2 Series Coupe)	G80 (M3 Sedan)
G82 (M4 Coupe)	G83 (M4 Convertible)	G87 (M2)	I20 (iX Sports Activity Vehicle)
U11 (X1 Sports Activity Vehicle)			

SITUATION

Customer states there is no audio playback (telephony, navigation, radio) and system sounds (PDC, turn indicators, acoustic signals) may also have failed.

CAUSE

Various issues that may cause the Receiver Audio Module (RAM) to stop operating.

CORRECTION

To avoid replacing the RAM unnecessarily, the RAM and accompanying systems must be diagnosed before replacement.

PROCEDURE

For the Situation identified above, proceed as follows.

1. If all audio sources in the entertainment system are without audio playback (including telephony, navigation announcements, radio) including failure of output system sounds such as Park Distance Control (PDC), turn indicator, acoustic signal then:

a. Perform a measurement of the power supply:

A correct voltage supply and ground connection to the RAM must be ensured. Make sure to check ALL power supplies and ground points.

b. Perform a measurement of the Ethernet Wake-up signal:

Measurement of the ETH_WUP signal should be made directly at the RAM in the event of an error. It must be possible to measure at least 12 volts at the moment of switch-on. This voltage should last for approx. 0.5 seconds (500 milliseconds) before falling below 1 volt.

The RAM is switched on with this signal. If no voltage can be measured on the Ethernet Wake-up signal at the RAM, check the BDC/BCP connection to the RAM and repair it if necessary.

c. If the tests above are OK:

Carry out a battery reset for more than 30 minutes and check if RAM operation has been restored. If effective, program/encode the vehicle to the latest Integration Level before a possible replacement of the RAM and re-evaluate the RAMs operation.

2. All audio sources in the entertainment system without audio playback. However, system sounds such as the Park Distance Control (PDC), turn indicators and acoustic signal can still be heard.

a. Ethernet connection test:

Check the ethernet connection between the head unit and the RAM and, if necessary, repair the Ethernet connection (OABR). This includes checking the plug connections, pins and wiring at both the head unit and RAM.

b. If the previous check was OK:

Carry out a battery reset for more than 30 minutes and check if RAM operation has been restored. If effective, program/encode the vehicle to the latest Integration Level before a possible replacement of the RAM and re-evaluate the RAMs operation.

Note: If there is a permanent communication fault with the head unit at the same time, the source of fault must be determined in the head unit first. The RAM failure is probably a consequential effect.

Specific Note for the I20: Special tool and A-pillar paint finish protection instructions are included in the “Moving the hood to the service position” repair instruction.

CLAIM INFORMATION

This Service Information Bulletin provides technical, diagnosis, and repair-related information.

Damage and/or issues caused by outside influences are not covered under the BMW limited warranties.

Diagnosis (See below)

Labor Operation	Description	Labor Allowance
00 00 006	Carrying out vehicle test (Main work)	Refer to AIR
Or:		
00 00 556	Carrying out vehicle test (Plus work)	Refer to AIR
And:		
61 21 528	Supporting voltage of the vehicle electrical system / recharging vehicle battery	Refer to AIR
And, as needed:		
61 00 006*	Performing vehicle diagnosis – test module (Work time)	WT
Or		
00 58 500*	Diagnosis Worktime Flat Rate (See below)	WT
And, as needed:		
61 20 900	Disconnecting and connecting battery ground lead (Associated work)	Refer to AIR

Work time labor operation codes 61 00 006 and 00 58 500 are not considered Main labor operations.

If you are using a Main labor code for another repair, use the Plus code labor operation 00 00 556 instead of 00 00 006, or exclude (including 61 21 528) when the Vehicle Test is included in another repair.

For the i20 Only Hood Procedure: Sublet – Bulk Materials (RO and Claim Comments Required)

Sublet Code 4	Up to \$0.50	Reimbursement for the repair-related bulk material (Yellow plastic adhesive tape, do not use the BMW part numbers for claim submission)
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Sublet reimbursement calculation for claiming the applicable repair-related bulk material (BMW part number) is at the dealer net price amount for the proportional quantity used (up to 2 ft/61 cm) plus your center's handling.

Enter this material cost in sublet and itemize the amount on the repair order and in claim comment section.

Eligible and Covered Work/Repairs

When used to repair a verified defect in materials or workmanship, the information provided in this bulletin is covered under the terms of the BMW limited warranty that applies for repairs that qualify.

To submit a claim, please follow the established and applicable warranty policy and procedures that apply to the repair being performed.

RAM: Programming and Encoding - Vehicle Control Units

During this workshop visit, the affected vehicle may show one or more programming and encoding Technical Campaign repairs open, the programming and encoding procedure may only be invoiced one time.

Select one of these open Technical Campaigns to perform and submit for the portion of the repair for updating the vehicle's software to the required I-level or higher.

Please be sure to perform any additional before and/or after work (including attaching labels) as required by the open campaigns on the vehicle. Close any remaining open programming and encoding Campaign repairs as outlined in the corresponding Service Information Bulletin.

Only if the above situation does not apply, the BMW software update procedure is then:

Covered under the terms of the BMW New Vehicle Limited Warranty for Passenger Cars and Light Trucks or the BMW Certified Pre-Owned Program with the above diagnosis that applies as described below.

Defect Code:	6512810200	RAM, receiver audio module Software error / internal device fault
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Refer to AIR for the corresponding flat rate unit (FRU) allowances.

Labor Operation	Description	Labor Allowance
61 00 730	Program/encode control unit(s), includes deleting the fault memory	Refer to AIR

Programming and Encoding – Additional Work (RO and Claim Comments Required)

This procedure automatically reprograms and encodes any vehicle control modules that do not have the latest software I-level.

If one or more control modules fail during the reprogramming procedure, claim the required consequential repair work procedures to address this issue (including performing the IRAP Control Unit Recovery first as required, refer to the SIB in AIR) under the Defect Code in this bulletin with the labor operations in AIR that apply.

Please explain the additional work procedures that were performed (The why and the what) on the repair order and in the claim comments.

For covered repairs that address control module failures that occurred prior to performing this reprogramming procedure, claim this work with the Defect Code and labor operations (including the diagnosis that applies*) in AIR that apply.

*Based on which one applies to your center, please refer to **SI B01 01 20** or **B01 07 20** for the applicable procedure for documenting, claiming, and explaining, on the RO and in the claim comments, your diagnosis work time (WT), job/repair work time (WT), and the vehicle repairs your center performed, unless otherwise required by State law.

FEEDBACK REGARDING THIS BULLETIN

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Technical Feedback	To submit feedback for the technical topic of this bulletin: Submit your feedback in the rating box at the top of this bulletin
Warranty Feedback	To submit feedback for the CLAIMS section of this bulletin: Submit an IDS ticket to the Warranty Department, or use the chat available in the Warranty Documentation Portal
Parts Feedback	To submit feedback for the PARTS section of this bulletin: Submit an IDS ticket to the Parts Department

