SIB 51 21 19 2019-08-16

ACTIVE AIR FLAP FAULT DIAGNOSIS AND REPAIR

This Service Information Bulletin (Revision 2) replaces SI B51 21 19 **dated August 2019.**

What's New:
• Model

MODEL

Engineering Designation	Model Description	Production Date
G01	X3 Sports Activity Vehicle	Up to August, 2019
G02	X4 Sports Activity Coupe	Up to August, 2019
G12	7 Series Sedan (Pre-LCI)	Up to March, 2019
G30	5 Series Sedan	Up to August, 2019
G32	640i xDrive Gran Turismo	Through June, 2019

SITUATION

A check control message or MIL (Malfunction Indicator Lamp) may be illuminated, with faults stored related to the upper and/or lower active air flap(s).

CAUSE

Potential causes include:

- Faulty upper air flap actuator (G01, G02, G12, G30, G32)
- Faulty lower air flap assembly (G01, G02, G12, G30, G32)
- Software error in the DME affecting the upper flap (G01, G02 only)

CORRECTION

Depending on the root cause, vehicle model, and location of flap (upper or lower), the vehicle may require any, or a combination repair of one or more corrections:

- Updated air flap actuator
- Updated air flap assembly
- Software update

PROCEDURE

Follow the diagnostic suggestions below exactly as written, to accurately determine which repair is required for each specific vehicle.

Note: Reference your vehicle faults to the corresponding box below on the left. Follow the corresponding correction in the box to the right.

A. Electrical Active air flap fault code(s) (All models listed in this SIB)	Correction A:
This correction is to be used for all situations where the following fault codes are stored: 138402 279B00 138220 13820D	**1. Replace the upper air flap actuator only, using the actuator suggested using ETK/AIR.** **Refer to attachment 1 "Upper air flap actuator replacement instructions".**

13820E	 Note: Do not replace the complete upper air flap assembly. The actuator of the upper air flap should be replaced without a complete upper flap assembly, and retested. 2. Retest the active air flap system using test plan “Radiator Blind (ABL-DIT-AT1214_BX8_KJ)”. **Does the functional test discover errors?** **NO:** No additional repair is necessary. **YES:** Follow the test plan instructions. Replace the complete upper flap assembly if the test plan instructs to do so.
B. Vehicle has upper active air flap fault code(s) stored **(All models listed in this SIB)**	**Correction B:**
This correction is to be used for all upper air flap fault codes not outlined in correction A.	**1. Replace the upper air flap actuator only, using the actuator suggested using ETK/AIR.** 2. Retest the active air flap system using test plan “Radiator Blind (ABL-DIT-AT1214_BX8_KJ)”. **Does the functional test discover errors?** **NO:** No additional repair is necessary. **YES:** Follow the test plan instructions. Replace the complete upper flap assembly if the test plan instructs to do so. **Refer to attachment 1 “Upper air flap actuator replacement instructions”.**  Note: Do not replace the complete upper air flap assembly. The actuator of the upper air flap should be replaced without a complete upper flap assembly, and retested.
C. Upper Active air flap fault code(s)	**Correction C:**

(G01/G02 ONLY) 21B043 138207 Note: This column should only be used for G01/G02 with FCs 21B043 **AND** 138207 stored. • No additional active air flap faults can be stored • For additional/different faults, see the above column for diagnosis	Note: This correction is only valid for G01/G02 with both faults shown to the left. See above column for all other vehicle/fault combinations. 1. Is the vehicle I-Level below S15A-18-11-500? **YES**: Program the vehicle using the latest version of ISTA to reach at least 18-11-500. • Afterwards, continue to step 2. **NO: Continue to step 2.** **2. Perform a functional test of the active air flap system using test plan** "Radiator Blind (ABL-DIT-AT1214_BX8_KJ)". **Does the functional test discover errors?** **NO:** No additional repair is necessary. **YES: Replace the upper air flap actuator only, using the actuator suggested using ETK/AIR. Afterwards, continue to step 3.** **Refer to attachment 1 "Upper air flap actuator replacement instructions".** Note: Do not replace the complete upper air flap assembly. The actuator of the upper air flap should be replaced without a complete upper flap assembly, and retested. 3. Retest the active air flap system using test plan "Radiator Blind (ABL-DIT-AT1214_BX8_KJ)". **Does the functional test discover errors?** **NO:** No additional repair is necessary. **YES:** Follow the test plan instructions. Replace the complete upper flap assembly if the test plan instructs to do so.
D. Vehicle has lower active air flap fault code(s) stored	**Correction D:**

This correction is to be used for all lower air flap fault codes.	1. Replace the complete lower active air flap assembly following ISTA repair instructions. Note: Failures of the lower active air flap will require a **complete air flap replacement.**
General information for any repairs to G12 or G30:	
Model Year 2017 G12 Model Year 2017 G30 Model Year 2018 G30 PHEV	In situations where only 1 active air flap is to be repaired/replaced, the current vehicle I-Level must be checked. Is the vehicle's current I-Level S15A-16-07-500 or higher? **YES:** Repair/replacement of only 1 active air flap is permitted. **NO:** Repair/replacement of only 1 active air flap is NOT permitted. Both active air flaps must be replaced together.

Note: Due to complexity, actuator replacement is only permitted for **upper** air flap assemblies.

Failures of the lower active air flap will require a **complete air flap replacement.**

For any vehicle that returns for active air flap faults after following this bulletin, a TSARA assistance case should be submitted.

PARTS INFORMATION

Refer to ETK/AIR for specific parts required based on vehicle model, root cause, and results of the diagnosis listed above.

WARRANTY INFORMATION

Covered under the terms of the BMW New Vehicle Limited Warranty for Passenger Cars and Light Trucks.

Defect Code:	**5164041200**	**Air flap/cooling flap, top (radiator grille) permanently failed**
	Or:	
	5171348300	**Air flap/cooling flap, bottom switches incorrectly/does not switch**
Labor Operation:	**Labor Allowance:**	**Description:**
00 00 006	Refer to AIR	Performing vehicle test (with vehicle diagnosis system – checking faults) (Main work)
Or:		
00 00 556	Refer to AIR	Performing vehicle test (with vehicle diagnosis system – checking faults) (Plus work)
And:		

61 21 528	Refer to AIR	Connect an approved battery charger/power supply (indicated in AIR as Charging battery)	

If you are using a Main labor code for another repair, use the Plus code labor operation 00 00 556 instead 00 00 006

And, additionally for the:

e-Vehicles-

Labor Operation:	Labor Allowance:	Description:
61 25 910	Refer to AIR	Recharging high-voltage battery unit (to high voltage charging socket)

And, as necessary:

Labor Operation:	Labor Allowance:	Description:
61 00 006	Work time (WT)	Performing vehicle diagnosis – test module

Work time labor operation code 61 00 006 is not considered a Main labor operation; however, it does require an individual punch time and an explanation on the repair order and in the claim comments section.

And, as required:

Labor Operation:	Labor Allowance:	Description:
51 64 700	Refer to AIR	Replacing **top** flap control (after vehicle diagnosis)
Or:		
51 64 705	Refer to AIR	Replacing **bottom** flap control (after vehicle diagnosis)
Or:		
51 64 715	Refer to AIR	Replacing **top and bottom** air flap control (after vehicle diagnosis)

And, as applicable, for the:

G01/G02 only, when the Vehicle i-Level is below S15A-18-11-500-

Labor Operation:	Labor Allowance:	Description:
61 00 730	Refer to AIR	Programming/encoding control unit(s)

Refer to AIR for the corresponding flat rate unit (FRU) allowances.

During the same workshop visit, if a vehicle also requires another Technical Campaign or repair that also includes programming and encoding the control units, the programming procedure may only be invoiced one time**.**

Programming and Encoding - Vehicle Control Units (RO and Claim Comments Required)

The programming procedure automatically reprograms and encodes all vehicle control modules which do not have the latest software i-level. If one or more control module failures occur during this programming procedure:

> Please claim this consequential control module-related repair work under the defect code listed in this bulletin with the applicable AIR labor operations.

Please explain this additional work (The why and what) on the repair order and in the claim comments section.

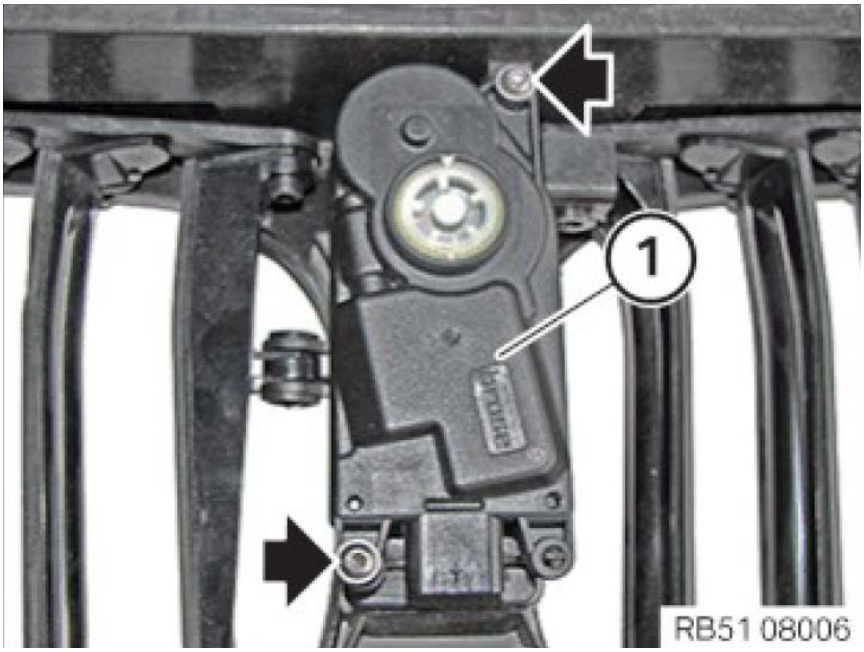
For control module failures that occurred prior to performing this programming procedure:

> When covered under an applicable limited warranty, claim this control module-related repair work using the applicable defect code and labor operations (including diagnosis) in AIR.

Supporting Materials

picture_as_pdf B512119 Attachment 1 Upper air flap actuator replacement instructions.pdf

1. Remove the upper active air flap, following the repair instructions within ISTA for the specific vehicle by VIN.
2. Remove screws (see arrows) from upper active air flap actuator (1) as shown below:



3. With the active air flap actuator removed, manually open the flaps.
4. Install the replacement active air flap actuator.
5. Install screws, tightening to the following specifications:
   G01/G02-3nm
   G12, G30, G32- 2nm
6. Reinstall the upper air flap following ISTA repair instructions.