SIB 51 21 19 2020-09-23

ACTIVE AIR FLAP FAULT DIAGNOSIS AND REPAIR

This Service Information Bulletin (Revision 8) replaces SI B51 21 19 **dated September 2020.**

What's New (Specific text highlighted):
• Warranty

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) (Including ALPINA)	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) **This correction is to be used for all situations where the following fault codes are stored:** 138402 279B00 138220 13820D	**Correction A:** **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)

This correction is to be used for all upper air flap fault codes not outlined in correction A.

Correction B:

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) (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

Correction C:

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.

- For additional/different faults, see the above column for diagnosis

- 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

This correction is to be used for all lower air flap fault codes.

Correction D:

4. Perform a functional test of the active air flap system using test plan “Radiator Blind (ABL-DIT-AT1214_BX8_KJ)”.

Note: With the introduction of ISTA 4.23.x, the active air flap functional test plan diagnostics have been improved.

General information for any repairs to G12 or G30 produced before July, 2016:

If one faulty flap is found to be defective, BOTH upper and lower active air flap ASSEMBLIES must be replaced together.

Vehicles produced before July, 2016 are not permitted to have merely a flap actuator replaced. A complete

assembly must be replaced.

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

Part Number	Description	Quantity
Refer to ETK	Air flap control (drive), active, upper (see below)	1
Or:		
Refer to ETK	Air flaps, upper (assembly)	1
And/or:		
Refer to ETK	Air flaps, lower (assembly)	1

- **Important:** If the **Air flap control (drive), active, upper** is the issue and it **is available separately** (per ETK), then only replace the upper flap drive to correct this issue.
- **Only in conjunction with parts:** When applicable, if ETK/EPC item identifies additional part(s) that must also be replaced/installed in-conjunction with performing a covered repair, these required additional items are also covered under the terms of this extended limited warranty.
- Also refer to ETK/EPC and the repair instructions for onetime-use fasteners/screws and other information regarding repair-related gaskets, seals, fluid and/or lubricants that also need to be replaced/used and claimed.

WARRANTY INFORMATION

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

Beyond the New Vehicle Limited Warranty, additional extended upper and lower active air flap coverage may also apply, please refer either to SI B01 01 19 (10 years/120,000 miles) or B01 12 19 (15 years/150,000 miles) as applicable.

Defect Code:	**5174031200**	**Air flap control active above (actuator) permanently failed (Including combined top and bottom active air flap repairs)**
:	**Or:**	
	5171431200	**Bottom active air flap control (actuator) permanent failure**

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Labor Operation	Description	Labor Allowance
00 00 006	Performing vehicle test (with vehicle diagnosis system – checking faults) (Main work)	Refer to AIR
Or:		
00 00 556	Performing vehicle test (with vehicle diagnosis system – checking faults) (Plus work)	Refer to AIR
And:		
61 21 528	Connect an approved battery charger/power supply (indicated in AIR as Charging battery)	Refer to AIR

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

And, as necessary:

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

And, as required for the:

G01, G02 and G12 (excluding the ALPINA B7)

Labor Operation	Description	Labor Allowance
51 64 700	Replacing **top flap control (including the drive only**, if available and applicable) (after vehicle diagnosis)	Refer to AIR
Or:		
51 64 705	Replacing **bottom flap control** (after vehicle diagnosis)	Refer to AIR
Or:		
51 64 715	Replacing **top (including the drive only**, if available and applicable) **and bottom** air flap control (after vehicle diagnosis)	Refer to AIR

Or, as required for the:

G30 and G32 (excluding the ALPINA B7)

Labor Operation	Description	Labor Allowance
51 74 610	Replace **upper air flap control active** (after vehicle diagnosis)	Refer to AIR
Or:		
51 74 600	Replace the **upper air flap** (after vehicle diagnosis)	Refer to AIR
Or:		
51 74 602	Replace **upper air flap and air duct** (after vehicle diagnosis)	Refer to AIR
Or:		
51 74 601	Replacing **bottom air duct (lower)** (after vehicle diagnosis)	Refer to AIR
Or:		

51 74 620	Replace **upper air flap control active and air duct lower** (after vehicle diagnosis)	Refer to AIR

Or, for the:

G12 (ALPINA B7 Model only)

Labor Operation	Description	Labor Allowance
51 99 000	A. Work time for replacing **top flap control (including the drive only**, if available and applicable) (after vehicle diagnosis)	16 FRU
Or:		
51 99 000	B. Work time for replacing **bottom flap control** (after vehicle diagnosis)	12 FRU
Or:		
51 99 000	C. Work time for replacing **top (including the drive only**, if available and applicable) **and bottom air flap control** (after vehicle diagnosis)	16 FRU

And, additionally for

Vehicle's equipped with an ACC Sensor that require a Bottom Air Flap replacement:

Labor Operation	Description	Labor Allowance
66 99 000	Work time to prepare the lower active flap for the re-install of the ACC sensor (with 51 64 705, 51 64 715, ALPINA repair B or ALPINA repair C)	3 FRU
And:		
66 31 502	Adjusting ACC sensor	Refer to AIR

Work time labor operation codes 61 00 006, 51 99 000 and 66 99 000 are not considered a Main labor operation.

As applicable to your center, please refer to **SI B01 01 20 or B01 07 20** for claiming your diagnosis work time, job/repair work time (WT), WT and repair-related explanation procedures.

And, as applicable, for the:

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

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

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

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

Update the vehicle to the required I-level or higher by performing and submitting for one of the open Technical Campaigns instead.

Please be sure to also perform any additional work (before and/or after) the campaign repairs require and/or close the remaining open programming and encoding Technical Campaign repairs as outlined in the corresponding Service Information Bulletin.

Only if the above situation does not apply, when applicable, the programming and encoding procedure is then covered under the terms of the BMW New Vehicle Limited Warranty for Passenger Cars and Light Trucks or the corresponding additional extended coverage that is also noted in this bulletin.

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 (including performing the IRAP Control Unit Recovery procedure first as required, refer to the SIB in AIR) 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:

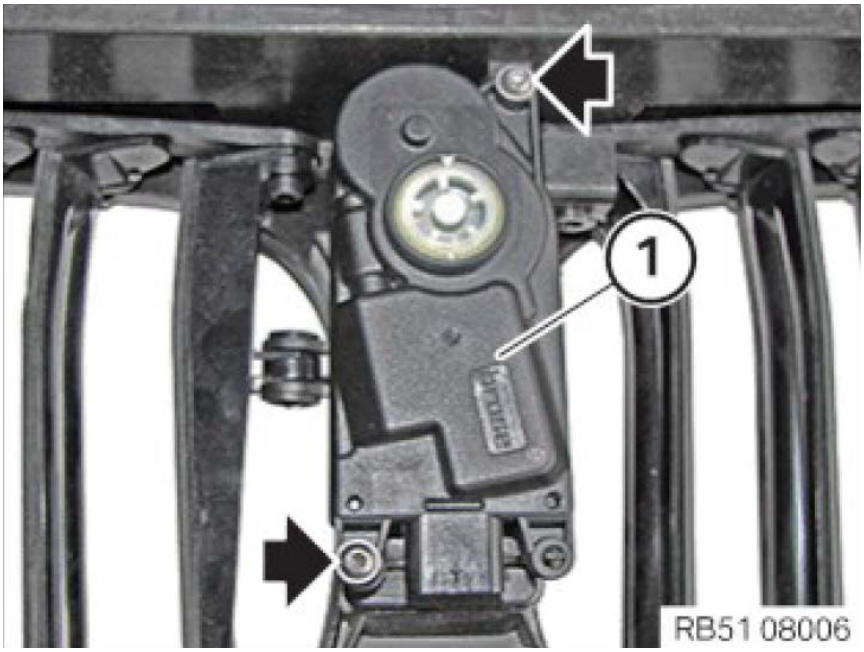
When covered under an applicable limited warranty, claim the applicable test plan and the corresponding control module-related repair work using the applicable defect code and labor operations in AIR (including diagnosis with separate punch times).

QUESTIONS REGARDING THIS BULLETIN

Technical inquiries	Submit feedback at the top of this bulletin
Warranty inquiries	Submit an IDS ticket to the Warranty Department
Parts inquiries	Submit an IDS ticket to the Parts Department

Supporting Materials
picture_as_pdf B512119 Attachment 1.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.