



## SIB 66 21 19

2020-01-10

### LDW (LANE DEPARTURE WARNING): STEERING WHEEL VIBRATION NOT STRONG

This Service Information Bulletin (Revision 2) replaces SI B66 21 19 **dated December 2019**.

#### What's New (Specific text highlighted):

- Model

## MODEL

E-Series	Model Description	Production Date	Affected Option Code
G01	X3 Sports Activity Vehicle	Up to July 1, 2019	5AS – Driving Assistant or 5AT – Driving Assistant Plus, but without option 710 – M Leather Steering wheel
G02	X4 Sports Activity Coupe		

Note: There was a technical change implemented for the LDW vibration system. Starting with Model Year 2020 vehicles, the vibration actuator is no longer installed in the steering wheel (the function is now performed by the EPS). Therefore, this SI does not apply to vehicles (MY 20) produced from the production date listed above.

## SITUATION

Lane Departure Warning (LDW) steering wheel vibration is perceived as being not strong enough, even with the strongest setting selected via the iDrive menu.

## CAUSE

Software in the vibration actuator and /or steering wheel component.

## CORRECTION

- Perform a software update dependent on the current integration level (I-level)
- Perform Test Plan AT6131\_BDC11LRE,  
and /or
  - Remove actuator insulation
- Replace the vibration generator

## PROCEDURE

1. Verify that the Intelligent Safety setting for vibration level is set to “strong”.
2. Duplicate the issue via a test drive.
3. Determine the current I-level of the vehicle via the Key Read or AIR.

a. If it is lower (older) than S15A-19-03-500, program and encode the vehicle before moving to step 4

b. If it is at S15A-19-03-500 or higher, proceed as outlined below

4. Before performing the test plan for the first time, do the following:

a. Disconnect the ICOM

b. Allow the vehicle to enter sleep mode

c. Vehicle must sleep for 5 minutes

Note: Vehicle is asleep when the illumination of the hazard light button backlighting goes out.

5. Connect the ICOM and start new session.

6. Using text search, find test plan by searching "Steering wheel module".

a. Path: Vehicle management/ Trouble shooting/ Text search

7. Select test plan titled "steering wheel electronics" from the result list.

a. Test plan titled when open "AT6131\_BDC11LRE"

b. Display test plan and perform option for "checking vibration actuator"

c. Run this test plan at least 8 times in succession

8. Take vehicle for test drive and verify functionality.

9. If the above steps failed to improve functionality, then-

a. Remove the vibration actuator insulation and steering wheel rubber coating where the actuator is mounted. Refer to the images below.

b. Battery reset for 5 mins

c. Replace the vibration actuator

d. Perform step 7 and 8 again

e. Test drive and verify functionality

10. This image shows the rubber material coating on the steering wheel removed where the vibration actuator is mounted.



11. Image shows the vibration actuator with the insulation removed.

**Always connect a BMW-approved battery charger/power supply (SI B04 23 10) when performing programming.**

## **PARTS INFORMATION**

**Per Procedure step # 9 only:**

Obtain and confirm the part numbers for your specific vehicle by entering the chassis number in either ETK or AIR which takes into account specific equipment and/or options.

Part Number	Description	Quantity
Refer to ETK	Vibration generator	1

Other small parts such as one-time screws, nuts and seals, which must be replaced according to the ISTA repair instructions/ETK, must be selected from the Electronic Parts Catalogue according to the respective vehicle type and invoiced under the corresponding repair defect code.

## **WARRANTY INFORMATION**

Covered under the terms of the BMW New Vehicle Limited Warranty for Passenger Cars and Light Trucks unless otherwise applicable for the programming and encoding procedure as noted below.

<b>Defect Code:</b>	<b>6137141500</b>	<b>Vibration motor/vibration agitator in steering wheel permanent malfunction</b>
<b>Labor Operation</b>	<b>Description</b>	<b>Labor Allowance</b>
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 of 00 00 006.

And, if the:

**Vehicle I-level is lower (older) than 19-03-500**

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

**Note:** 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, the BMW software solution portion is then covered as described in this bulletin.

Or, if the:

**Vehicle I-level is already at 19-03-500 or higher**

<b>Labor Operation</b>	<b>Description</b>	<b>Labor Allowance</b>
61 00 006	Performing vehicle diagnosis – test module (AT6131_SP18LRE per the instruction above)	Work time (WT)
And:		

61 31 233

Removing / replacing vibration actuator for LDW

Refer to AIR

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

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

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 IRAP recovery procedure (when applicable as required)/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 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).