FAULT CODE 804417 CAUSED BY THE REMOTE KEY

MODEL

G01 (X3 Sports Activity Vehicle)	G02 (X4 Sports Activity Coupe)	G05 (X5 Sports Activity Vehicle	G07 (X7 Sports Activity Vehicle)
G12 (7 Series Sedan)	G14 (8 Series Convertible)	G15 (8 Series Coupe)	G20 (3 Series Sedan)
G29 (Z4 Roadster)	G30 (5 Series Sedan)	G32 (6 Series Gran Turismo)	

Produced with original Integration level 18-03-5xx.

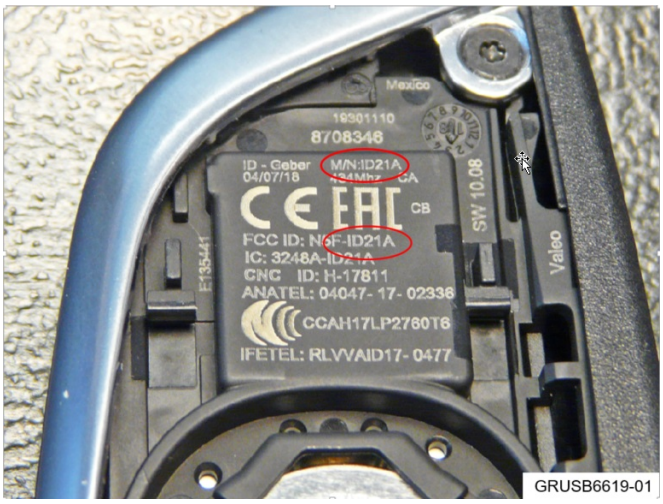
SITUATION

When a short test is performed as part of a workshop visit for an unrelated situation, the following fault code is found stored in the Body Domain Controller (BDC) memory:

• "0x804417 - Motion sensor (MEMS) in key: failure"

MEMS is the chip for the motion sensor in the vehicle remote and/or display key, to prevent vehicle thefts. Keys with MEMS were introduced in all listed vehicles as of the factory I-level 18-03-5xx.

CAUSE



MEMS sensor in the remote key transmitter version 2.1.

Remote keys can be differentiated between version 2.1 and the earlier version 2 by removing the back cover.

Carefully check the ID printed in various places (circled). G05 basic remote key shown; other models similar.

The fault code can sometimes be created erroneously. In the case of a fault memory entry, it is not evident whether the fault is erroneous or actual.

CORRECTION

Follow the procedure below to determine if the MEMS contains an actual fault, or if is simply an erroneous fault.

PROCEDURE

Test sequence:

1. No other vehicle remote key is within 5 yards.
2. Vehicle is unlocked.
3. Deactivate Comfort Access via the iDrive menu path--> Auto -> Settings -> Doors/vehicle access -> Comfort Access -> Deselect:
4. • Unlock when approaching
5. • Lock when walking away

6. Move at least 5 yards away from the vehicle.
7. Lock the vehicle using the remote key's lock button.
8. Leave the key on a stationary surface so that it remains motionless for at least 3 minutes.
9. After 3 minutes, bring the key to within 1 yard of the side of the vehicle, but do not open/unlock.
10. Set the key down motionless for 3 more minutes (e.g., at rear of hood, on roof, etc.)
11. After at least 3 minutes, attempt to unlock the vehicle via Comfort Access at the door handle. Do not move the remote key.
12. • Unlocking should NOT occur if the MEM is functioning properly
13. Move the key. Attempt to unlock the vehicle via Comfort Access.
14. • If the vehicle unlocks, the MEMS is functioning properly

Conclusions:

- • If the vehicle unlocked before the key was moved at Step 9, repeat the test.
- • If the vehicle can still be opened before the key was moved (at Step 9), it is likely that the MEMS in the key is faulty. Replace the remote key.
- o Refer to Repair Instructions 66 12… "Teach in radio remote control/radio remote control with display (BMW display key)"

1. If another remote key is available during this workshop session, repeat the test sequence to confirm proper MEM operation.
2. Clear the fault code memory.

PARTS INFORMATION

In case of a faulty MEM in the remote key and/or display key, obtain the part number for the replacement remote key(s) by entering the chassis number in ETK which takes into account specific equipment and/or options.

Part Number	Description	Quantity
Refer to ETK	Remote key	1
Refer to ETK	Display key, if applicable	1

WARRANTY INFORMATION

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

Select the "Defect Code" below that applies to the type of remote key being replaced.

Defect Code:	**6135621500**	**Radio remote control/key fob transmitter (ID transmitter), basic, no display permanent malfunction**
	Or:	
	6612051200	**Radio remote control (ID transmitter) including display permanently failed**
Labor Operation:	**Labor Allowance:**	**Description:**
00 00 006	Refer to AIR/KSD2	Performing "vehicle test" (with vehicle diagnosis system – checking faults) (Main work)
Or:		
00 00 556	Refer to AIR/KSD2	Performing "vehicle test" (with vehicle diagnosis system – checking faults) (Plus work)
And:		
61 21 528	Refer to AIR/KSD2	Connect an approved battery charger/power supply (indicated in KSD2 as "Charging battery")

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, additionally for the:

e-Vehicles

Labor Operation:	**Labor Allowance:**	**Description:**
61 25 910	Refer to AIR/KSD2	Recharging high-voltage battery unit (to high voltage charging socket)

And, as necessary:

And:		
66 10 000	Work time (WT)	Work time to check the Motion Sensor (MEMS) function as outlined in the Procedure

Refer to AIR/KSD2 for the corresponding flat rate unit (FRU) allowances.

Work time labor operation code 66 10 000 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.