



SIB 66 10 20

KAFAS04 (CAMERA-BASED DRIVER ASSISTANCE SYSTEMS) LIMITATIONS

2020-04-23

MODEL

E-Series	Model Description	Production Date	Affected Option Code
F91	M8 Convertible	Start Of Production	5AV – Active Guard Or 5AS – Active Driving Assistant Or 5DF – Active Cruise Control Or 5AU – Active Driving Assistant Prof
F92	M8 Coupe		
F93	M8 Gran Coupe		
F95	X5 M Sport Activity Vehicle		
F96	X6 M Sport Activity Coupe		
G12	7 Series Sedan (LCI)	From March 1, 2019	5DF – Active Cruise Control Or 5AU – Active Driving Assistant Prof
G14	8 Series Convertible	Start Of Production	
G15	8 Series Coupe		
G16	8 Series Gran Coupe		
G20	3 Series Sedan		
G29	Z4 Roadster		

SITUATION

Various functions of the KAFAS (without radar installed) are not operating up to customer expectations.

Some possible customer concerns are listed below:

- Vehicle brakes without apparent reason and then does not accelerate
- Vehicle does not apply the brake, although it is obvious it should brake, or it even accelerates
- KAFAS system deactivates independently, due to system limitations that are not clear to the customer
- KAFAS system cannot be activated due to system limitations that are not clear to the customer
- When accelerating from a standstill, the vehicle does not automatically start in "Follow mode".
- Road signs are sporadically not detected
- Lane departure warning sporadically fails to function

For the situations described in this service information bulletin that pertain to normal system limitations, ISTA diagnosis does not show any other relevant fault codes stored.

The only exceptions are these fault codes:

- 800AC8 – Permanent calibration error
- 800ABF – KAFAS camera field of view temporarily interrupted

Note: If other fault codes are stored for Driving Assistance Systems, the information in this service information does not apply. Complete the test plans linked to the other fault codes stored and follow their recommendations.

CAUSE

Limitations of the Camera-Based Assistance System (KAFAS).

CORRECTION

Various possible limitations of the KAFAS system are described in detail in the owner's manual section titled "Driver Assistance System" or "Intelligent Safety" for the vehicle. Those limitations correspond to the ones shown below in the section "Information".

INFORMATION

The situations described above may all be caused by known limitations of the system such as:

- Dirty windshield
- Incomplete calibration process
- Unsuccessful calibration
- Restricted visibility- weather conditions or parked vehicles
- Missing lamps on target vehicle
- Non-standard vehicle exterior surfaces
- Insufficient ambient lighting
- Abrupt motion of target vehicle

There are two categories of system limitations – those that can be eliminated and those that are beyond control. The following table details possible limitations and what, if anything, can be done to eliminate or explain them.

Limitation	Recommendation	Notes
Obstructed camera view	Remove obstruction	Clean windshield Replace wipers
Calibration incomplete	Complete the calibration	Calibration is a lengthy process. Features may be non-functional during calibration. No faults stored during calibration period. Calibration needed after windshield replacement.
Calibration failed	Diagnose with ISTA	Check installation of KAFAS such as: <ul style="list-style-type: none"> • KAFAS proper installed within mounting tabs • Mounting bracket aligned & secured correctly to windshield • Viewing area is clean
Tire size within BMW specification	Refer to tire size table (Driver's B-pillar tire placard) for specific vehicle	Possible situation: <ul style="list-style-type: none"> • Non-approved tires lead to inconsistent behavior, causing KAFAS to turn off • Correct tire size • Reset calibration via ISTA
Chassis modification (raised or lowered suspension)	Perform the following: If the I-level is <19-07-500 – program w/current ISTA If the I-level ≥19-07-500 – vehicle test; fault 800AC8 – Permanent calibration	I-level 19-07-500 activates height detection function in KAFAS allowing system to detect > 6% deviation from the value programmed. This activates CCM-ID 311 "High Beam Assistant". Also, refer to calibration details above. Possible situations: <ul style="list-style-type: none"> • After updating, fault code 800AC8 stored – Drive vehicle to self-calibrate KAFAS. Extended drive cycle may be required. • Perform test plan for fault 800AC8
Visibility impaired / affected	Weather &/or Lighting conditions - Inform customer	Possible situations: <ul style="list-style-type: none"> • Heavy (strong) rain • Snowfall • Ice • Fog • Low or blinding sun (strong back light)

		<ul style="list-style-type: none"> • Tunnel entries/exits (abrupt transitions light/dark)
Non-typical surrounding vehicles	Inform customer	Possible situations: <ul style="list-style-type: none"> • Rear of vehicle poorly illuminated • Extinguished taillights • Custom rear body shape • Carried load (e.g., log truck) • Open trailers • Open tailgates
Surrounding vehicle/pedestrian actions	Inform customer	Possible situations: <ul style="list-style-type: none"> • Sudden lane change • Sudden movement in traffic • Too close to/on highway

WARRANTY INFORMATION

This Service Information bulletin serves to provide Technical information to aid in understanding of the situation described above.