


“Collision Warning Failed” or “Pedestrian Warning Failed” CCM Display
MODEL

F06 – 6 Series Grand Coupe	F07 – 5 Series Grand Turismo	F10 – 5 Series Sedan	F12 – 6 Series Coupe
F13 – 6 Series Convertible	F15 – X5	F16 – X6	F22 – 2 Series Coupe
F23 – 2 Series Convertible	F25 – X3	F26 – X4	F30 – 3 Series Sedan
F31 – 3 Series Sports Wagon	F32 – 4 Series Coupe	F33 – 4 Series Convertible	F34 – 3 Series Grand Turismo
F36 – 4 Series Grand Coupe	F48 – X1	F80 – M3	F82 – M4 Coupe
F83 – M4 Convertible	F85 – X5 M	F86 – X6 M	I01 – i3 BEv
I01 – i3 Rex	With option:	5AS – Driving Assistant	Or
5AT – Driving Assistant Plus			

SITUATION

While driving, a Check Control Message (CCM) is displayed advising of the following:

- Front collision warning failed
- Pedestrian detection failed

The following fault code is stored in the KAFAS (Camera-based Driver Assistance System):

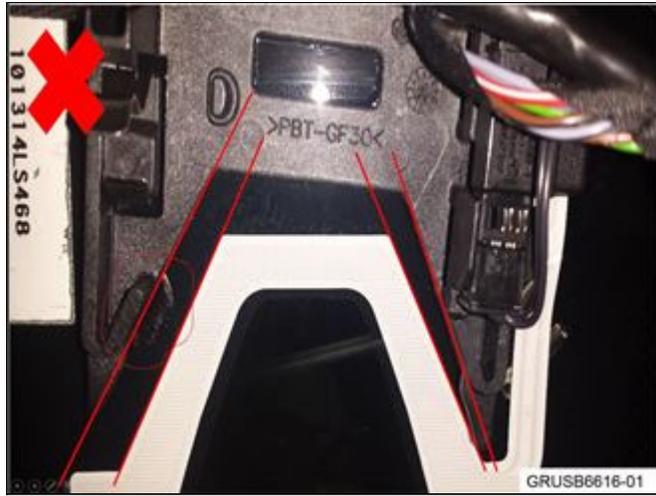
0X800AC4 – Camera calibration failed

CAUSE

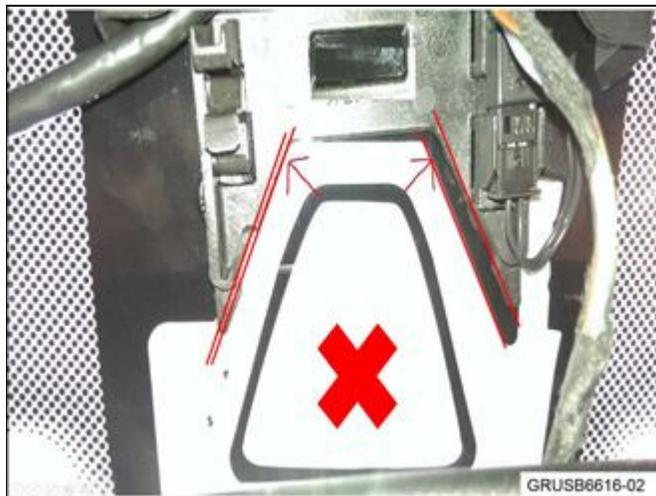
The KAFAS camera is not properly mounted and secured to the mounting bracket on the windshield;

And/ or:

The mounting bracket glued to the windshield is not installed correctly. The pictures below show both incorrect and correct installation.



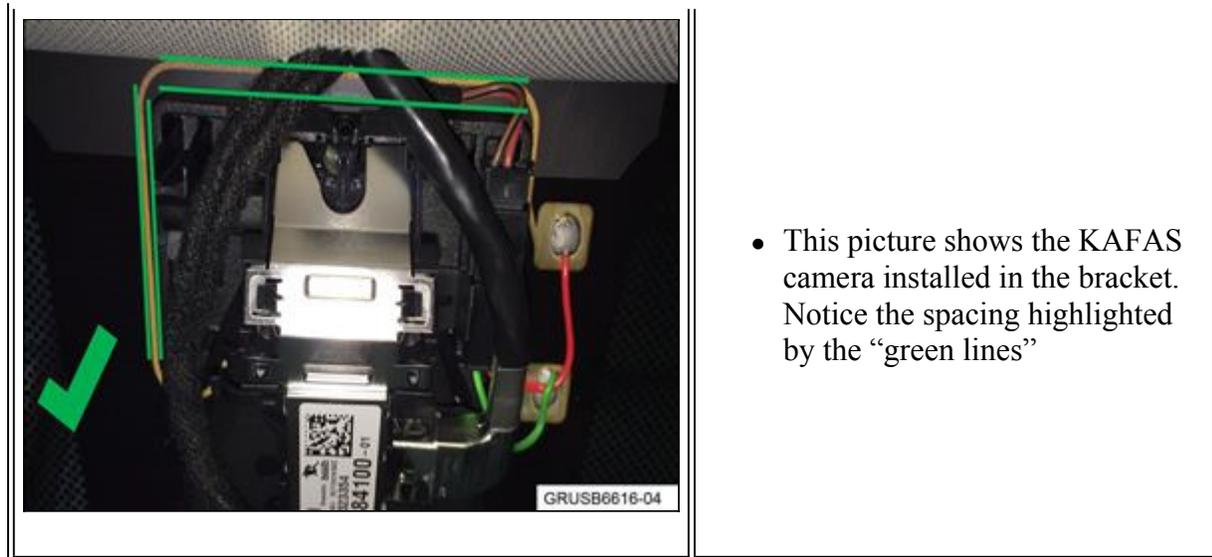
- KAFAS camera mounting bracket not secured correctly to the windshield. Notice the spacing between the white outline and the bracket.



- Here is another example of KAFAS camera bracket improperly secured to the windshield.



- This picture shows the KAFAS camera bracket properly secured to the windshield. Notice the spacing between the white outline and the bracket.



- This picture shows the KAFAS camera installed in the bracket. Notice the spacing highlighted by the “green lines”

CORRECTION

Possible solutions:

- Verify the KAFAS camera is installed (seated) properly in its bracket
- Replace the KAFAS camera
- Replace the windshield

PROCEDURE

1. Duplicate the issue.
2. Perform a vehicle test and complete test plan for all related fault code(s) stored.
3. Inspect the KAFAS camera’s field of view:
 - Is the “field of view” of the camera blocked (dirt, cables from RLS, etc.)?
 - Is the “camera” properly mounted in its mounting bracket?

What was your finding for “both”?

YES – Go to step 6.

NO – Continue with step 4.

4. Inspect the KAFAS camera mounting bracket (holder)
 - Verify proper KAFAS camera mounting bracket bond alignment to the windshield? See pictures in “CAUSE”.

Was a problem found with the bond alignment of the mounting bracket to the windshield?

YES – Replace the windshield. Refer to repair instructions 51 31 011 – Replace windscreen and continue from step 6.

NO – go to step 5.

5. Replace the KAFAS camera as per repair instructions 66 51 030.
 - Delete the fault memory and continue to step 7.
6. A new calibration process must be started. Perform test plan ABL_DIT_AS6650_KAFASL7 and when prompted, select “Yes” for windshield replaced.
 - Test plan can be found as follows: Service Function/ Driver Assistance/ Camera based driver assistance system/ Calibration of the camera based driver assistance systems.
 - Clear fault code memory.

The following criteria and conditions must be followed and met in order to properly perform the calibration/initialization procedure and test drive:

- **Duration - Approx. 20 mins.**
- **Speed - mainly above 20 mph**
- **Roadway type - Straight**
- **Lane markings - clear visible, on both sides**
- **Speed limit signs - clearly visible**

Calibration is completed when the Speed Limit Info is displayed or the SARA button turns green.

Note: The calibration test drive should not be done in rain, snow, night time, sunrise or sunset. These condition(s) will extend the time needed for the KAFAS camera to successfully calibrate.

7. After calibration is completed, let the vehicle sleep for 5 mins.
8. Perform another road test to verify functionality of the KAFAS camera system.

For information on programming and coding with ISTA/P, refer to CenterNet / Aftersales Portal / Service / Workshop Technology / Vehicle Programming.

Always connect a BMW approved battery charger / power supply ([SI B04 23 10](#)).

Initializing the Rain/Light Sensor (F15, F16, F48 and I01)

These vehicles do not require this initialization procedure to be performed after the windshield is

replaced.

WARRANTY INFORMATION

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

Defect Code:	66 51 02 15 00	Repair A or B
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A. Checking KAFAS Camera “Field of View” and Performing the Calibration Process

Labor Operation:	Labor Allowance:	Description:
00 00 006	Refer to KSD2	Performing “vehicle test” (with vehicle diagnosis system – checking faults)

And:

All except I01 (i3 BEV) and I01 (i3 Rex)

Labor Operation:	Labor Allowance:	Description:
61 21 528	Refer to KSD2	Connect an approved battery charger/power supply(indicated in KSD2 as “Charging battery”)

Or, for the:

I01 (i3 BEV) and I01 (i3 Rex)

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

And:

Labor Operation:	Labor Allowance:	Description:
61 00 006	Work time (WT)	Performing vehicle diagnosis – test module
And/or:		
66 99 000	Work time (WT)	Duplicating the issue as necessary: Including test drive, checking view/mounting and un-obstructing the “field of view”
And:		

61 99 000	5 FRU	Perform test plan ABL_DIT_AS6650_KAFASL7/ (New) Calibration of the camera based driver assistance systems
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Or:

B. Replacing the KAFAS Camera

Labor Operation:	Labor Allowance:	Description:
00 00 006	Refer to KSD2	Performing “vehicle test” (with vehicle diagnosis system – checking faults)

And:

All except I01 (i3 BEV) and I01 (i3 Rex)

Labor Operation:	Labor Allowance:	Description:
61 21 528	Refer to KSD2	Connect an approved battery charger/power supply(indicated in KSD2 as “Charging battery”)

Or, for the:

I01 (i3 BEV) and I01 (i3 Rex)

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

And:

Labor Operation:	Labor Allowance:	Description:
61 00 006	Work time (WT)	Performing vehicle diagnosis – test module
And/or:		
66 99 000	Work time (WT)	Duplicating the issue as necessary: Including test drive, checking and un-obstructing the “field of view” or inspecting the KAFAS camera’s mounting.

And:		
66 51 531	Refer to KSD2	Replace KAFAS camera (after diagnosis)

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

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

Work time labor operation codes 61 00 006/66 99 000 are not considered a Main labor operations; however, they do require an individual punch time and an explanation on the repair order and in the claim comments.

Work time labor operation code 61 99 000 is not considered a Main labor operation. Also, since the “work time” FRU allowance to be claimed is specified, a separate punch time is not required.

Or:

Defect Code:	66 51 02 37 00	Repair C
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C. Replace Windshield and Performing the Calibration Process

Labor Operation:	Labor Allowance:	Description:
61 00 006	Work time (WT)	Performing vehicle diagnosis – test module
And/or:		
66 99 000	Work time (WT)	Duplicating the issue: Including test drive and inspecting the KAFAS camera’s mounting.

Work time labor operation codes 61 00 006/66 99 000 are not considered a Main labor operations; however, they do require an individual punch time and an explanation on the repair order and in the claim comments.

And:

Labor Operation:	Labor Allowance:	Description:
51 31 011	Refer to KSD2	Replacing windshield

If you are using a Main labor code for another repair, use the Plus code labor operation 51 31 511 instead.

For the F06, F07, F10, F12 and F13: Labor operations 51 31 011/511 includes connecting an approved battery charger/power supply, performing a vehicle test and initializing the rain/light sensor

And, additionally:

For the F22, F23, F25, F30, F31, F32, F34, F36, F80, F82 and F83

Labor Operation:	Labor Allowance:	Description:
61 35 994	Refer to KSD2	Additional job with rain/light sensor (Removing and installing/ initializing the rain/light sensor) (includes connecting an approved battery charger/power supply, performing a vehicle test)

Or:

Third-party Windshield Replacements

Sublet Code 3	Sublet at cost	Reimbursement for a third-party windshield replacement under sublet (see below)
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Invoice this sublet work on the repair order at the actual cost charged with no handling or markup. The sublet amount must also include any discounts or allowances.

The appropriate charge for “necessary repair-related paint work procedures” is determined by comparing the charge to the corresponding amount at your warranty rates.

Prior to performing the repair, calculate your center’s repair cost and then obtain outside repair estimate(s) for price comparison purposes.

It is your center’s responsibility to review the estimate to ensure the amount requested is customary, fair and reasonable.

Itemize the sublet amount on the repair order and in claim comment section.

And:

All, except for the F15, F16, F48 and I01

Labor Operation:	Labor Allowance:	Description:
00 00 006	Refer to KSD2	Performing “vehicle test” (with vehicle diagnosis system – checking faults)

And:		
61 21 528	Refer to KSD2	Connect an approved battery charger/power supply(indicated in KSD2 as “Charging battery”)
And:		
61 35 679	1 FRU	initializing the rain/light sensor (after vehicle diagnosis)

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

And:

Performing the New Calibration Process

Labor Operation:	Labor Allowance:	Description:
61 99 000	5 FRU	Perform test plan ABL_DIT_AS6650_KAFASL7/ (New) Calibration of the camera based driver assistance systems

Work time labor operation code 61 99 000 is not considered a Main labor operation. Also, since the “work time” FRU allowance to be claimed is specified, a separate punch time is not required.

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

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