
Blind Spot Assist inoperative

Topic number	LI54.71-P-056477
Version	2
Design group	54.71 Lane assist
Date	02-25-2014
Validity	Model series 164 with code 234 (Blind Spot Assist): Model series 212 with code 234 (Blind Spot Assist) or code 237 (Active Blind Spot Assist), code 800 or code 801 or code 802 Model series 218 with code 234 (Blind Spot Assist) or code 237 (Active Blind Spot Assist), code 800 or code 801 or code 802
Reason for change	Part number
Reason for block	

Complaint:

Blind Spot Assist inoperative.

Cause:

Water ingress into the rear short-range radar sensors.

Notes on diagnosis:

Model series 164 with code 234 (Blind Spot Assist):

- Malfunctions on the engine compartment CAN (CAN C) are possible
- In control units on the CAN C, CAN communication errors may be logged with the rear short-range radar sensors (IRS-HLA B29/4 and IRS-HRA B29/5 control units).
- Diagnostic communications with control units on the CAN C may not be possible.

Model series 212/218 up to code 800 (Model year 2010) with code 234 (Blind Spot Assist):

- Malfunctions on the sensor CAN (CAN S) are possible
- In the radar sensors control unit (N62/1), CAN communication errors may be logged with the rear short-range radar sensors (B29/6 and B29/7).
- Communications with control units on the CAN S may not be possible.

Model series 212/218 as of code 801 (Model year 2011) with code 234 (Blind Spot Assist):

- Malfunctions on the front end CAN (CAN G) are possible
- Control units on the CAN G may exhibit CAN communication errors with the rear short-range radar sensors (IRS-HLA B29/4 and IRS-HRA B29/5 control units).
- Diagnostic communications with control units on the CAN G may not be possible.

Model series 212/218 with code 237 (Active Blind Spot Assist):

- Malfunctions on the sensor CAN (CAN S) are possible
- In the video and radar sensor system control unit (N62/2), CAN communication errors may be logged with the rear short-range radar sensors (B29/6 and B29/7).
- Communications with control units on the CAN S may not be possible.

Remedy:

1. Remove rear bumper.
2. Remove rear short-range radar sensors, check connector/contact for corrosion and repair if necessary.
3. Make additional holes or cutouts in the brackets for the rear short-range radar sensors (see attachments).
4. Install short-range radar sensors with additional silicone sealing (see parts ordering note).

5. Install rear bumper.

Attachments	
File	Designation
Bohrungen Halter 212.pdf	<p>Model series 212/218, reworking brackets of rear short-range radar sensors (shown on left bracket)</p> <p>A - Left bracket in rear bumper</p> <p>B - Drill holes with diameter of 6 mm in the marked areas and deburr. 1 - 2 holes in this area. 2 - NO holes in the area of the flange. 3 - 5 holes in this area. 4 - NO holes in the area of the flange. 5 - 2 holes in this area.</p> <p>C - Reworked bracket.</p> <p>Note: Rework the right bracket in the same way.</p>
Zuschnitt Halter W164.pdf	<p>W164, reworking brackets of rear short-range radar sensors (shown on left bracket)</p> <p>A - Overview of lateral support brackets for rear bumper with bracket for short-range radar sensor.</p> <p>B - Scribe and cut out marked areas according to dimensions specified. Deburr cut edges.</p> <p>C - Reworked bracket.</p> <p>Note: Rework the right bracket in the same way in mirror image.</p>
Zuschnitt Halter X164.pdf	<p>X164, reworking brackets of short-range radar sensors (shown on left bracket)</p> <p>A - Overview of lateral support brackets for rear bumper with bracket for short-range radar sensor.</p> <p>B - Scribe and cut out marked areas according to dimensions specified. Deburr cut edges.</p> <p>C - Reworked bracket.</p> <p>Note: Rework the right bracket in the same way in mirror image.</p>

Symptoms
Overall vehicle / Networking / CAN/FlexRay communication / Malfunction
Overall vehicle / Networking / Diagnosis/software / Not diagnosable
Communication/information / Warning and control system / Blind spot assist / No display
Communication/information / Warning and control system / Blind spot assist / Display without obvious cause

Communication/information / Warning and control system / Blind spot assist / Warning message in instrument cluster

Communication/information / Warning and control system / Blind spot assist / Nonfunctional

Control unit/fault code		
Control unit	Fault code	Fault text
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	552000	Event:Engine compartment CAN databus:CAN bus OFF
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	552110	Event:No CAN message was received from control unit N80 (Steering column module).
N62/1 (Radar sensors control unit) (RDU_212) (E (212),CLS (218))	650600	CAN communication with component 'B29/7 (Right rear bumper radar sensor)' has a malfunction.
IRS-HLA-Outer left rear intelligent radar sensor system (IBSMR4) (M (164),GL (164))	582105	Event:No CAN message was received from control unit N93 (Central gateway control unit).
IRS-HLA-Outer left rear intelligent radar sensor system (IBSMR4) (M (164),GL (164))	582109	Event:No CAN message was received from control unit A1 (Instrument cluster).
IRS-HLA-Outer left rear intelligent radar sensor system (IBSMR4) (M (164),GL (164))	582106	Event:No CAN message was received from control unit N93 (Central gateway control unit).
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	552100	Event:No CAN message was received from control unit N47-5 (ESP control unit).
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	552103	Event:No CAN message was received from control unit N93 (Central gateway control unit).
IRS-HLA-Outer left rear intelligent radar sensor system (IBSMR4) (M (164),GL (164))	582101	Event:No CAN message was received from control unit N47-5 (ESP control unit).
N62/1 (Radar sensors control unit) (RDU_212) (E (212),CLS (218))	650200	CAN communication with component 'B29/7 (Right rear bumper radar sensor)' has a malfunction.
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	55210A	Event:No CAN message was received from control unit N73 (EIS [EZS] control unit).
IRS-HLA-Outer left rear intelligent radar sensor system (IBSMR4) (M (164),GL (164))	582100	Event:No CAN message was received from control unit N47-5 (ESP control unit).
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	552207	Event:CAN signal 'Blind spot assist' from control unit A1 (Instrument cluster) is implausible.
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	55210E	Event:No CAN message was received from control unit ME motor electronics.

N62/1 (Radar sensors control unit) (RDU_212) (E (212),CLS (218))	650700	CAN communication with component 'B29/7 (Right rear bumper radar sensor)' has a malfunction.
IRS-HLA-Outer left rear intelligent radar sensor system (IBSMR4) (M (164),GL (164))	58210B	Event:No CAN message was received from control unit A40/3 (COMAND control unit).
IRS-HLA-Outer left rear intelligent radar sensor system (IBSMR4) (M (164),GL (164))	582110	Event:No CAN message was received from control unit N80 (Steering column module).
IRS-HLA-Outer left rear intelligent radar sensor system (IBSMR4) (M (164),GL (164))	582107	Event:No CAN message was received from control unit N93 (Central gateway control unit).
N62/1 (Radar sensors control unit) (RDU_212) (E (212),CLS (218))	680600	CAN communication with component 'B29/6 (Left rear bumper radar sensor)' has a malfunction.
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	552203	Event:CAN signal 'Turn signals' from control unit N80 (Steering column module) is implausible.
IRS-HLA-Outer left rear intelligent radar sensor system (IBSMR4) (M (164),GL (164))	582108	Event:No CAN message was received from control unit N93 (Central gateway control unit).
N62/1 (Radar sensors control unit) (RDU_212) (E (212),CLS (218))	680100	CAN communication with component 'B29/6 (Left rear bumper radar sensor)' has a malfunction.
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	552107	Event:No CAN message was received from control unit N93 (Central gateway control unit).
IRS-HLA-Outer left rear intelligent radar sensor system (IBSMR4) (M (164),GL (164))	58210A	Event:No CAN message was received from control unit N73 (EIS [EZS] control unit).
N62/1 (Radar sensors control unit) (RDU_212) (E (212),CLS (218))	581100	CAN communication with component 'B29/6 (Left rear bumper radar sensor)' has a malfunction.
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	552102	Event:No CAN message was received from control unit N47-5 (ESP control unit).
IRS-HLA-Outer left rear intelligent radar sensor system (IBSMR4) (M (164),GL (164))	58210C	Event:No CAN message was received from control unit ME motor electronics.
N62/1 (Radar sensors control unit) (RDU_212) (E (212),CLS (218))	650800	CAN communication with component 'B29/7 (Right rear bumper radar sensor)' has a malfunction.
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	552101	Event:No CAN message was received from control unit N47-5 (ESP control unit).
IRS-HLA-Outer left rear intelligent radar sensor system (IBSMR4) (M (164),GL (164))	58210D	Event:No CAN message was received from control unit ME motor electronics.
N62/1 (Radar sensors control unit) (RDU_212) (E (212),CLS (218))	650900	CAN communication with component 'B29/7 (Right rear bumper radar sensor)' has a malfunction.

IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	552204	Event:CAN signal 'Wheel speeds' from control unit N47-5 (ESP control unit) is implausible.
IRS-HLA-Outer left rear intelligent radar sensor system (IBSMR4) (M (164),GL (164))	582104	Event:No CAN message was received from control unit N93 (Central gateway control unit).
N62/1 (Radar sensors control unit) (RDU_212) (E (212),CLS (218))	680700	CAN communication with component 'B29/6 (Left rear bumper radar sensor)' has a malfunction.
IRS-HLA-Outer left rear intelligent radar sensor system (IBSMR4) (M (164),GL (164))	58210E	Event:No CAN message was received from control unit ME motor electronics.
N62/1 (Radar sensors control unit) (RDU_212) (E (212),CLS (218))	681000	null
N62/1 (Radar sensors control unit) (RDU_212) (E (212),CLS (218))	680200	CAN communication with component 'B29/6 (Left rear bumper radar sensor)' has a malfunction.
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	55210F	Event:No CAN message was received from control unit N80 (Steering column module).
N62/1 (Radar sensors control unit) (RDU_212) (E (212),CLS (218))	650100	CAN communication with component 'B29/7 (Right rear bumper radar sensor)' has a malfunction.
IRS-HLA-Outer left rear intelligent radar sensor system (IBSMR4) (M (164),GL (164))	582103	Event:No CAN message was received from control unit N93 (Central gateway control unit).
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	55210B	Event:No CAN message was received from control unit A40/3 (COMAND control unit).
N62/1 (Radar sensors control unit) (RDU_212) (E (212),CLS (218))	680900	CAN communication with component 'B29/6 (Left rear bumper radar sensor)' has a malfunction.
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	552109	Event:No CAN message was received from control unit A1 (Instrument cluster).
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	55210C	Event:No CAN message was received from control unit ME motor electronics.
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	552104	Event:No CAN message was received from control unit N93 (Central gateway control unit).
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	552205	Event:CAN signal 'Trailer fitted' from control unit N10/8 (Rear SAM control unit) is implausible.
N62/1 (Radar sensors control unit) (RDU_212) (E (212),CLS (218))	690900	Sensor CAN bus : CAN bus OFF fault
IRS-HLA-Outer left rear intelligent radar sensor system (IBSMR4) (M (164),GL (164))	582102	Event:No CAN message was received from control unit N47-5 (ESP control unit).

IRS-HLA-Outer left rear intelligent radar sensor system (IBSMR4) (M (164),GL (164))	58210F	Event:No CAN message was received from control unit N80 (Steering column module).
N62/1 (Radar sensors control unit) (RDU_212) (E (212),CLS (218))	651000	null
N62/1 (Radar sensors control unit) (RDU_212) (E (212),CLS (218))	690800	Sensor CAN bus : CAN bus OFF fault
N62/1 (Radar sensors control unit) (RDU_212) (E (212),CLS (218))	680800	CAN communication with component 'B29/6 (Left rear bumper radar sensor)' has a malfunction.
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	552108	Event:No CAN message was received from control unit N93 (Central gateway control unit).
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	552206	Event:CAN signal 'Reverse gear engaged' from control unit ISM is implausible.
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	55210D	Event:No CAN message was received from control unit ME motor electronics.
N62/1 (Radar sensors control unit) (RDU_212) (E (212),CLS (218))	551100	CAN communication with component 'B29/7 (Right rear bumper radar sensor)' has a malfunction.
IRS-HLA-Outer left rear intelligent radar sensor system (IBSMR4) (M (164),GL (164))	580500	Communication fault with component B29/4 (Left rear bumper intelligent radar sensor)
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	552105	Event:No CAN message was received from control unit N93 (Central gateway control unit).
N62/1 (Radar sensors control unit) (RDU_212) (E (212),CLS (218))	690200	Sensor CAN bus : CAN bus OFF fault
IRS-HLA-Outer left rear intelligent radar sensor system (IBSMR4) (M (164),GL (164))	582000	Event:Engine compartment CAN databus:CAN bus OFF
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	552002	Event:No CAN message received from component B29/4 (Left rear bumper intelligent radar sensor).
IRS-HRA-Outer right rear intelligent radar sensor system (IBSMR1) (M (164),GL (164))	552106	Event:No CAN message was received from control unit N93 (Central gateway control unit).

Parts							
Part number	ES1	ES2	Designation	Quantity	Note	EPC	Other make part
A 000 905 02 10			Radar sensor	2	For model series 164 with code 234 (Blind Spot Assist)	X	

					For model series 212 with code 234 (Blind Spot Assist) and code 801 or code 802 (Model year 2011) Q-status >9		
A 000 905 01 10			Radar sensor	2	For model series 212 / 218 with code 237 (Active Blind Spot Assist) and code 800 or code 801 or code 802 For model series 212 / 218 with code 234 (Active Blind Spot Assist) and code 800	X	

Work units				
Op. no.	Operation text	Time	Damage code	Note
54-1975	REPLACE REAR SENSOR UNIT OF BLIND SPOT ASSIST, QUANTITY:..... (BUMPER REMOVED)		54H13 72	
88-8802	REMOVE/INSTALL REAR BUMPER COMPLETE		54H13 72	

WIS-References			
Document number	Title	Note	Allocation
AR54.71-P-0100EW	Remove/install sensors for Blind Spot Assist	Model series 212/218	Remedy
AR88.20-P-2200EW	Remove/install rear bumper	Model series 212/218	Remedy
AR88.20-P-2200GZ	Remove/install rear bumper	Model series 164	Remedy

Validity		
Vehicle	Engine	Transmission
212.002	*	*
212.003	*	*
212.005	*	*
212.020	*	*
212.021	*	*
212.023	*	*
212.024	*	*
212.025	*	*
212.041	*	*
212.047	*	*
212.048	*	*
212.052	*	*

212.053	*	*
212.054	*	*
212.055	*	*
212.056	*	*
212.057	*	*
212.059	*	*
212.072	*	*
212.073	*	*
212.074	*	*
212.077	*	*
212.080	*	*
212.082	*	*
212.087	*	*
212.088	*	*
212.089	*	*
212.090	*	*
212.091	*	*
212.093	*	*
212.095	*	*
212.097	*	*
212.098	*	*
212.147	*	*
212.148	*	*
212.154	*	*
212.202	*	*
212.203	*	*
212.205	*	*
212.220	*	*
212.221	*	*
212.223	*	*
212.224	*	*
212.225	*	*
212.247	*	*
212.248	*	*
212.254	*	*
212.255	*	*
212.256	*	*
212.257	*	*
212.259	*	*
212.272	*	*
212.273	*	*
212.274	*	*
212.277	*	*

212.280	*	*
212.282	*	*
212.287	*	*
212.288	*	*
212.289	*	*
212.291	*	*
212.293	*	*
212.298	*	*
218.303	*	*
218.323	*	*
218.326	*	*
218.355	*	*
218.359	*	*
218.373	*	*
218.374	*	*
218.375	*	*
218.376	*	*
218.391	*	*
218.392	*	*
218.393	*	*
218.394	*	*
218.903	*	*
218.923	*	*
218.959	*	*
218.973	*	*
218.974	*	*
218.975	*	*
218.976	*	*
218.991	*	*
218.992	*	*
218.993	*	*
GL (164)	*	*
M (164)	*	*

Full model designation breakdown

Vehicle	Engine	Transmission
164.120	642.940	722.902
164.121	642.820	722.902
164.122	642.940	722.902
164.124	642.820	722.902
164.125	642.820	722.902
164.128	629.912	722.903

164.156	272.967	722.906
164.172	273.963	722.904
164.175	113.964	722.901
164.177	156.980	722.907
164.182	272.945	722.999
164.186	272.967	722.906
164.195	272.973	722.550
164.822	642.940	722.902
164.823	642.822	722.903
164.824	642.820	722.902
164.825	642.820	722.902
164.828	629.912	722.903
164.871	273.923	722.904
164.886	273.963	722.904
212.002	651.924	711.653
212.002	651.924	716.656
212.002	651.924	722.646
212.002	651.924	722.908
212.002	651.924	725.011
212.003	651.924	711.670
212.003	651.924	722.646
212.003	651.924	722.908
212.003	651.924	725.011
212.005	651.925	711.653
212.005	651.925	716.656
212.005	651.925	722.694
212.005	651.925	722.996
212.005	651.925	725.011
212.020	642.850	722.902
212.021	642.852	711.670
212.021	642.852	722.903
212.021	642.852	725.011
212.023	642.852	711.670
212.023	642.852	722.903
212.023	642.852	725.011
212.024	642.850	711.670
212.024	642.850	722.902
212.024	642.850	725.011
212.025	642.850	711.670
212.025	642.850	722.902
212.025	642.850	725.011
212.025	642.856	711.670
212.025	642.856	722.902

212.025	642.856	725.011
212.041	271.958	722.695
212.047	271.860	722.618
212.047	271.860	722.997
212.048	271.860	711.655
212.048	271.860	716.612
212.048	271.860	722.696
212.048	271.860	722.997
212.052	272.923	716.636
212.052	272.923	722.998
212.053	272.980	722.906
212.054	272.952	711.654
212.054	272.952	722.999
212.055	276.952	722.906
212.056	272.980	722.906
212.057	272.983	722.906
212.059	276.952	722.906
212.072	273.971	722.904
212.073	278.922	722.909
212.073	278.922	725.011
212.073	278.922	725.032
212.074	157.981	722.931
212.074	157.981	722.965
212.077	156.985	722.930
212.080	276.952	722.960
212.082	651.924	722.965
212.087	272.977	722.960
212.088	276.952	722.960
212.089	642.856	722.962
212.090	273.970	722.961
212.091	278.922	722.967
212.091	278.922	725.021
212.093	642.858	722.966
212.093	642.858	725.021
212.095	276.952	724.206
212.097	651.924	722.965
212.098	651.924	724.208
212.147	271.860	722.618
212.147	271.860	722.997
212.148	271.860	711.655
212.148	271.860	722.696
212.148	271.860	722.997
212.154	272.952	711.654

212.154	272.952	722.999
212.202	651.924	711.653
212.202	651.924	716.656
212.202	651.924	722.646
212.202	651.924	722.908
212.202	651.924	725.011
212.203	651.924	711.670
212.203	651.924	722.646
212.203	651.924	722.908
212.203	651.924	725.011
212.205	651.925	711.653
212.205	651.925	716.656
212.205	651.925	722.694
212.205	651.925	722.996
212.205	651.925	725.011
212.220	642.850	722.902
212.221	642.852	711.670
212.221	642.852	722.903
212.221	642.852	725.011
212.223	642.852	711.670
212.223	642.852	722.903
212.223	642.852	725.011
212.224	642.850	711.670
212.224	642.850	722.902
212.224	642.850	725.011
212.225	642.850	711.670
212.225	642.850	722.902
212.225	642.850	725.011
212.247	271.860	722.618
212.247	271.860	722.997
212.248	271.860	711.655
212.248	271.860	716.612
212.248	271.860	722.696
212.248	271.860	722.997
212.254	272.952	711.654
212.254	272.952	722.999
212.255	276.952	722.906
212.256	272.980	722.906
212.257	272.983	722.906
212.259	276.952	722.906
212.272	273.971	722.904
212.273	278.922	722.909
212.273	278.922	725.011

212.273	278.922	725.032
212.273	278.922	725.033
212.274	157.981	722.931
212.277	156.985	722.930
212.280	276.952	722.960
212.282	651.924	722.965
212.287	272.977	722.960
212.288	276.952	722.960
212.289	642.856	722.962
212.291	278.922	722.967
212.291	278.922	725.021
212.293	642.858	722.966
212.293	642.858	725.021
212.298	651.924	724.208
218.303	651.924	722.908
218.303	651.924	725.011
218.323	642.852	722.903
218.323	642.852	725.011
218.323	642.853	722.903
218.323	642.853	725.011
218.326	642.852	722.903
218.326	642.852	725.011
218.355	276.952	722.906
218.359	276.952	722.906
218.359	276.952	725.011
218.373	278.922	722.909
218.373	278.922	725.011
218.374	157.981	722.931
218.375	157.981	722.931
218.376	157.981	722.971
218.391	278.922	722.967
218.391	278.922	725.041
218.392	157.981	722.971
218.393	642.854	722.966
218.393	642.858	722.966
218.394	642.858	722.966
218.903	651.924	722.908
218.903	651.924	725.011
218.923	642.852	722.903
218.923	642.852	725.011
218.923	642.853	722.903
218.923	642.853	725.011
218.959	276.952	722.906

XENTRY

218.959	276.952	725.011
218.973	278.922	722.909
218.973	278.922	725.011
218.974	157.981	722.931
218.975	157.981	722.931
218.976	157.981	722.971
218.991	278.922	722.967
218.991	278.922	725.041
218.992	157.981	722.971
218.993	642.854	722.966
218.993	642.858	722.966