

## Message in instrument cluster "ESP Malfunction - Service Required"

Topic number	LI42.47-P-048216
Version	7
Design group	42.47 Adaptive Brake (ABR)
Date	02-28-2013
Validity	Model series 221 up to 11/2010 Model series 216 up to 11/2010
Reason for change	Part number
Reason for block	

### Complaint:

Message in instrument cluster "ESP Malfunction - Service Required" and/or "BAS Malfunction - Service Required" while vehicle is stationary.

After ignition OFF/ON, or while the vehicle is stationary with the engine running, the ESP warning lamp (yellow triangle) flashes and the transmission cannot be shifted out of "P".

The vehicle may lock by itself.

With the ignition ON and the vehicle stationary, a speed of 260 km/h is displayed in the instrument cluster (A1) (IC) after approx. 2 min. The trip counter and main odometer are incremented.

### Note:

At least two of the following codes

- 5102 and/or
- 5112 and/or
- 5122 and/or
- 5132

must be present in the ESP control unit (ESP CU) (N47-5).

### Cause:

An implausible wheel speed sensor (DZS) signal is detected by the ESP CU.

### Remedy:

- Update of the software in the ESP control unit
- Replacement of all 4 wheel speed sensors

Symptoms
Chassis/suspension / Brake system / Service brake / Brakes, Display / Goes on
Chassis/suspension / Brake system / Brakes/traction regulation system / Antilock Brake System ABS / Display message / Antilock braking system - visit workshop
Chassis/suspension / Brake system / Brakes/traction regulation system / Electronic Stability Program ESP / Display message / Display text, yellow/white / Electronic stability program - visit workshop
Chassis/suspension / Brake system / Brakes/traction regulation system / Electronic Stability Program ESP / Display message / Display text, yellow/white / Electronic stability program not available
Chassis/suspension / Brake system / Brakes/traction regulation system / Brake assist system BAS / Display message / Brake assist - visit workshop

Chassis/suspension / Brake system / Brakes/traction regulation system / Brake assist system BAS / Display message / Brake assist - not available

Control unit/fault code		
Control unit	Fault code	Fault text
ABR-Adaptive Brake (SBC3)	5132	L6/4 (right rear speed sensor):Carry out visual inspection.
ABR-Adaptive Brake (SBC3)	5102	L6/1 (left front speed sensor):Carry out visual inspection.
ABR-Adaptive Brake (SBC3)	5112	L6/2 (right front speed sensor):Carry out visual inspection.
ABR-Adaptive Brake (SBC3)	5122	L6/3 (left rear speed sensor):Carry out visual inspection.

Parts							
Part number	ES1	ES2	Designation	Quantity	Note	EPC	Other make part
A 221 905 00 01			Front axle rpm sensor	2	NOT 4MATIC Alternatively A221 905 57 00	X	
A 221 905 61 00			Front axle rpm sensor	2	4MATIC ONLY	X	
A 221 905 02 01			Rear axle rpm sensor	2	For veh. built >= - 09/2009 (model series 221 (except Guard)) - 09/2010 (model series 216) - 09/2010 (model series 221 Guard) And all hybrids (221.#95)	X	
A 221 905 04 01			Rear axle rpm sensor	2	For veh. built < - 09/2009 (model series 221 (except Guard)) - 09/2010 (model series 216) - 09/2010 (model series 221 Guard) Alternatively A221 905 60 00	X	

WIS-References			
Document number	Title	Note	Allocation
AR42.30-P-0712	Remove/install left or right front rpm sensor		Remedy
AR42.40-P-0820	Remove/install left or right rear axle rpm sensor		Remedy

Validity		
Vehicle	Engine	Transmission

216.371	*	*
216.376	*	*
216.377	*	*
216.379	*	*
216.386	*	*
221.022	*	*
221.028	*	*
221.054	*	*
221.056	*	*
221.070	*	*
221.071	*	*
221.077	*	*
221.080	*	*
221.084	*	*
221.086	*	*
221.087	*	*
221.122	*	*
221.128	*	*
221.154	*	*
221.156	*	*
221.170	*	*
221.171	*	*
221.176	*	*
221.177	*	*
221.179	*	*
221.180	*	*
221.184	*	*
221.186	*	*
221.187	*	*

Full model designation breakdown		
Vehicle	Engine	Transmission
216.371	273.961	722.904
216.376	275.953	722.649
216.377	156.984	722.907
216.377	156.984	722.930
216.379	275.982	722.649
216.379	275.982	722.932
216.386	273.968	722.904
216.386	273.968	722.961
221.022	642.930	722.902
221.028	629.911	722.903

221.054	272.946	722.999
221.056	272.965	722.906
221.070	273.922	722.904
221.071	273.961	722.904
221.077	156.984	722.907
221.077	156.984	722.930
221.080	642.932	722.962
221.084	273.924	722.961
221.086	273.968	722.961
221.087	272.975	722.960
221.122	642.930	722.902
221.128	629.911	722.903
221.154	272.946	722.999
221.156	272.965	722.906
221.170	273.922	722.904
221.171	273.961	722.904
221.176	275.953	722.649
221.177	156.984	722.907
221.177	156.984	722.930
221.179	275.982	722.649
221.180	642.932	722.962
221.184	273.924	722.961
221.186	273.968	722.961
221.187	272.975	722.960