

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

Topic number	LI42.47-P-047541
Version	4
Design group	42.47 Adaptive Brake (ABR)
Date	02-20-2013
Validity	Model series 221 - 4MATIC up to 09/2010 Model series 216 - 4MATIC up to 09/2010
Reason for change	Part number
Reason for block	

### Complaint:

Message in instrument cluster "ESP Malfunction - Service Required" and/or "BAS Malfunction - Service Required".

#### Note:

The ESP control unit (N47-5) (ESP CU) contains either code 5100 and/or code 5110.

### Cause:

Code 5100 - The ESP CU has detected an open circuit in the line from the left front rpm sensor (DZS).

Code 5110 - The ESP CU has detected an open circuit in the line from the right front rpm sensor (DZS).

#### Note:

During previous work on the vehicle, the line of the rpm sensor may have been routed incorrectly.

Because of this, the line may be stretched while driving (steering etc.).

### Remedy:

Replacement of both front rpm sensors.

#### Note:

When replacing the left front rpm sensor, the bracket (A221 421 11 94) must additionally be installed (in production as of 12/2007).

The line from the left rpm sensor must be clipped into the right-hand holder of the bracket on the suspension strut. Make sure that the line of the rpm sensor is routed correctly and that the line is correctly clipped in the bracket on the suspension strut.

Attachments	
File	Designation
Korrekte Montageposition der Leitung des vorderem linken Raddrehzahlsensor pdf.pdf	Illustration of clipped line

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)	5100	L6/1 (left front speed sensor):Test wiring/ plug connection.
ABR-Adaptive Brake (SBC3)	5110	L6/2 (right front speed sensor):Test wiring/ plug connection.
ABR-Adaptive Brake (ABRXT)	510000	L6/1 (left front speed sensor):Test wiring/ plug connection.
ABR-Adaptive Brake (ABRXT)	511000	L6/2 (right front speed sensor):Test wiring/ plug connection.

Parts							
Part number	ES1	ES2	Designation	Quantity	Note	EPC	Other make part
A 221 905 61 00			Front axle rpm sensor	1	4MATIC ONLY There is only one part number for the front rpm sensor	X	
A 221 421 11 94			Bracket	1	Bracket on left suspension strut (In production since 12/2007)	X	

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

Validity		
Vehicle	Engine	Transmission
216.386	*	*
221.080	*	*
221.084	*	*
221.086	*	*
221.087	*	*
221.180	*	*
221.184	*	*
221.186	*	*
221.187	*	*

Full model designation breakdown		
Vehicle	Engine	Transmission
216.386	273.968	722.904
216.386	273.968	722.961
221.080	642.932	722.962
221.084	273.924	722.961
221.086	273.968	722.961
221.087	272.975	722.960
221.180	642.932	722.962
221.184	273.924	722.961
221.186	273.968	722.961
221.187	272.975	722.960