

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

|                   |  |
|-------------------|--|
| Topic number      | LI42.47-P-048216   |
| Version           | 6  |
| Design group      | 42.47 Adaptive Brake (ABR)                                       |
| Date              | 10-02-2012   |
| Validity          | Model series 221 up to 11/2010<br>Model series 216 up to 11/2010 |
| Reason for change | Part number added  |
| 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<br>Alternatively A221 905 57 00  | X   |                 |
| A 221 905 55 00 |     |     | Front axle rpm sensor | 2        | 4MATIC ONLY<br>Alternatively A221 905 58 00   | X   |                 |
| A 221 905 02 01 |     |     | Rear axle rpm sensor  | 2        | For veh. built >/=<br>- 09/2009 (model series 221 (except Guard))<br>- 09/2010 (model series 216)<br>- 09/2010 (model series 221 Guard)<br>And all hybrids (221.#95)  | X   |                 |
| A 221 905 04 01 |     |     | Rear axle rpm sensor  | 2        | For veh. built <<br>- 09/2009 (model series 221 (except Guard))<br>- 09/2010 (model series 216)<br>- 09/2010 (model series 221 Guard)<br>Alternatively A221 905 60 00 | X   |                 |

### Work units

| Op. no. | Operation text   | Time | Damage code | Note                          |
|---------|--|------|-------------|-------------------------------|
| 42-9873 | REPLACE RPM SENSORS (BOTH) OF 1ST AXLE FOR ESP (AFTER CHECK) |      | 43A08 73    | 43A08 - left<br>43N08 - right |
| 42-9878 | REPLACE RPM SENSORS (BOTH) OF 2ND AXLE FOR ESP (AFTER CHECK) |      | 43A09 73    | 43A09 - left<br>43N09 - right |

| 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      |

# XENTRY

|         |         |         |
|---------|---------|---------|
| 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 |