

## Display message with battery symbol in instrument cluster and fault code B16A601 in signal acquisition and actuation module (SAM) control unit (N 10/1) active and/or stored

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|-------------------|------------------------------------------------|
| Topic number      | LI54.10-N-071048                               |
| Version           | 1                                              |
| Function group    | 54.10 Battery, power supply, voltage converter |
| Date              | 02-26-2020                                     |
| Validity          | Model 447                                      |
| Reason for change |                                                |
| Reason for block  |                                                |

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### Complaint:

Display message with battery symbol in instrument cluster and fault code B16A601 in signal acquisition and actuation module (SAM) control unit (N10/1) active and/or stored.

Information: In some instances, the display messages "STOP" and "See operator's manual" may be shown together with the red battery symbol in the instrument cluster.

### Cause:

- Loose ground or positive line fo the on-board electrical system battery (G1)

and / or

- Check Q-diode in signal acquisition and actuation module (SAM) control unit (N10/1) may yield an incorrect result

Information: Only on vehicles with code MJ8 (ECO start / stop function) and with production date between 02/28/2018 and 02/11/2019

### Remedy:

NOTE: The following operation steps must be complied wiht at all times

1. Check ground or positive line of on-board electrical system battery (G1) and further attachment point form the ground line for firm seating (see AR54.10-S-0005E and if necessary AR54.10-S-0017E).

Information: Tighten ground and / or positive line to specified torque if necessary.

2. Perform SCN coding of the signal acquisition and actuation module (SAM) control unit (N10/1) (see AR54.21-S-0015E).

Information: Perform only for vehicles with code MJ8 (ECO start / stop function) and with production date between 02/28/2018 and 02/11/2019

# XENTRY TIPS

3. Delete fault memory (see AD00.00-S-2000-04S).
4. Disconnect diagnostic unit.

| Symptoms                                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Overall vehicle / Power supply / Alternator / Function / Does not charge                                                                                                                       |
| Overall vehicle / Power supply / Battery/On-board electrical system / Battery/on-board electrical system indicator lamp / Battery charge indicator/consumer shutoff / Illuminates red          |
| Communication/information / Information display / Displays / Multifunction display / Function / Malfunction                                                                                    |
| Communication/information / Information display / Displays / Multifunction display / Multifunction display, error messages / Implausible messages despite properly functioning message systems |
| Communication/information / Information display / Indicator lamp / Malfunction                                                                                                                 |
| Communication/information / Information display / Indicator lamp / lit                                                                                                                         |
| Communication/information / Information display / Displays / Multifunction display / Multifunction display, error messages / Due to faulty reporting system                                    |
| Overall vehicle / Power supply / Battery/On-board electrical system / Battery function / Battery discharges                                                                                    |
| Overall vehicle / Power supply / Battery/On-board electrical system / Battery function / Battery cannot be charged                                                                             |
| Overall vehicle / Power supply / Battery/On-board electrical system / Battery/on-board electrical system display message / Battery/Alternator - Serviced Required                              |
| Communication/information / Information display / Displays / Multifunction display / Multifunction display, error messages / Drivetrain - Stop vehicle, turn off engine (red warning message)  |

| Control unit/fault code                                |            |                                                                                                                                 |
|--------------------------------------------------------|------------|---------------------------------------------------------------------------------------------------------------------------------|
| Control unit                                           | Fault code | Fault text                                                                                                                      |
| N10/1 - Signal acquisition and actuation module CBC447 | B16A601    | The battery clamp of the starter battery has become detached or is defective. There is a general electrical fault. (SHM_FL205)  |
| N10/1 - Signal acquisition and actuation module CBC447 | B16A601    | The battery clamp of the starter battery has become detached or is defective. There is a general electrical fault. (SHM_FR205)  |
| N10/1 - Signal acquisition and actuation module CBC447 | B16A601    | The battery clamp of the starter battery has become detached or is defective. There is a general electrical fault. (EC166)      |
| N10/1 - Signal acquisition and actuation module CBC447 | B16A601    | The battery clamp of the starter battery has become detached or is defective. There is a general electrical fault. (LRSM447)    |
| N10/1 - Signal acquisition and actuation module CBC447 | B16A601    | The battery clamp of the starter battery has become detached or is defective. There is a general electrical fault.              |
| N10/1 - Signal acquisition and actuation module CBC447 | B16A601    | The battery clamp of the starter battery has become detached or is defective. There is a general electrical fault. (IBS166)     |
| N10/1 - Signal acquisition and actuation module CBC447 | B16A601    | The battery clamp of the starter battery has become detached or is defective. There is a general electrical fault. (OHCM447LIN) |
| N10/1 - Signal acquisition and actuation module CBC447 | B16A601    | The battery clamp of the starter battery has become detached or is defective. There is a general electrical fault. (ASBMU14V1)  |
| N10/1 - Signal acquisition and actuation module CBC447 | B16A601    | The battery clamp of the starter battery has become detached or is defective. There is a general electrical fault. (ASBM_DA)    |

| Operation numbers/damage codes |
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# XENTRY TIPS

| Op. no. | Operation text                                                               | Time | Damage code | Note                                                                                                                                                                                                                                                                                                                                                |
|---------|------------------------------------------------------------------------------|------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 54-0641 | CHECK COMPONENTS OF BATTERY SYSTEM:..... AS PER FAULT CODE                   | ZM   |             |                                                                                                                                                                                                                                                                                                                                                     |
| 54-1120 | REMOVE/INSTALL ON-BOARD ELECTRICAL SYSTEM BATTERY                            | 0.3  |             |                                                                                                                                                                                                                                                                                                                                                     |
| 54-1011 | PERFORM QUICK TEST                                                           | 0.2  |             |                                                                                                                                                                                                                                                                                                                                                     |
| 54-0650 | MAINTAIN ON-BOARD ELECTRICAL SYSTEM VOLTAGE (FOR TESTING AND DIAGNOSIS WORK) | 0.1  |             |                                                                                                                                                                                                                                                                                                                                                     |
| 54-0992 | CODE CONTROL UNIT..... (AFTER QUICK TEST)                                    | 0.1  |             | Information: Perform only for vehicles with code MJ8 (ECO start/stop function) and with production date between 02/28/2018 and 02/11/2019                                                                                                                                                                                                           |
|         |                                                                              |      | 54013 38    | Battery clamp loose Information: Only if a loose ground or positive line is detected on the on-board electrical system battery (G1) as the reason for the customer complaint.<br>The listed damage code is not to be considered as an acceptance of costs. The general guidelines in the Warranty Manual apply.                                     |
|         |                                                                              |      | 5452E FR    | Front SAM control unit - On-board electrical system energy management faulty<br>Information: Only on vehicles with code MJB (ECO start/stop function) and with production date between 02/28/2018 and 02/11/2019.<br>The listed damage code is not to be considered as an acceptance of costs. The general guidelines in the Warranty Manual apply. |

## WIS-References

| Document number    | Title                                        | Note                                                                                                                                      | Allocation |
|--------------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------|
| AD00.00-S-2000-04E | Connect STAR DIAGNSIS, read out fault memory |                                                                                                                                           | Remedy     |
| AR54.10-S-0005E    | Remove/install battery                       |                                                                                                                                           | Remedy     |
| AR54.10-S-0017E    | Remove/install ground line of battery        | Information: Use document as reference for tightening ground line on body to specified torque, if necessary.                              | Remedy     |
| AR54.21-S-0015E    | SCN coding of control units                  | Information: Perform only for vehicles with code MJ8 (ECO start/stop function) and with production date between 02/28/2018 and 02/11/2019 | Remedy     |

# XENTRY TIPS

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| Validity                  |        |              |
|---------------------------|--------|--------------|
| Vehicle                   | Engine | Transmission |
| Vito/Metris 447 - 447.601 | *      | *            |
| Vito/Metris 447 - 447.603 | *      | *            |
| Vito/Metris 447 - 447.605 | *      | *            |
| Vito/Metris 447 - 447.701 | *      | *            |
| Vito/Metris 447 - 447.703 | *      | *            |
| Vito/Metris 447 - 447.705 | *      | *            |