

Xentry Battery Tester results disagree with workshop assessment

Topic number	LI54.10-P-071499
Version	1
Function group	54.10 Battery, power supply, voltage converter
Date	08-10-2020
Validity	118, 177, 247, 167, 205, 213, 217, 222, 238, 253, 257, except code U98 (LITHIUM-IONEN-STARTERBATTERIE (LISB))
Reason for change	
Reason for block	

Complaint:

The result from the XENTRY battery test does not match the current state of the battery.

Cause:

The XENTRY battery tester uses the stored on-board electrical system data in the SAM module to access the health of the 12 volt battery. The XENTRY battery test may not take into account a single discharge event because the SAM cannot record the data if the battery is discharged.

Note: A discharged battery is not necessarily defective. A discharged battery may be recovered with no permanent damage.

Remedy:

1) If the battery is discharged, charge battery. Review WS54.00-P-0037B for minimum charger specifications.

Note the amperage difference between trickle (maintainer) chargers of at least 16A and quick chargers of at least 30A.

Review AP54.10-P-5449U. Note when battery is sufficiently charged the charger current is less 5A.

2) While charging the battery analyze the vehicle data to determine root cause of discharge using the following data points:

A) Review FSAM on-board electrical data conspicuous records

NOTE: For guidance on use of the on-board electrical data please review the AKUBIS video titled "New on-board electrical system diagnosis shown on BR 166". The video can be accessed through WIS by following the path WSM--> content by model series --> passenger cars --> ML-Class --> Model 166 --> group 54 --> New on-board electrical system diagnosis.

B) Customer description

C) Midtronics test

Determine if root cause is due:

- vehicle technical issue?

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- customer behavior?
- defective battery?

3) If battery still does not accept charge, or if battery is determined to be defective, create a PTSS case.

Must include with case:

- A) Amperage setting of charger and time battery was on charger
- B) Xentry Battery Tester results
- C) Voltage of battery taken with multimeter: Do not connect charger while taking measurements
- D) SAM control unit log
- E) Midtronics tester results
- F) Workshop analysis of conspicuous SAM data
- G) Root cause analysis for battery discharge based on the above documents (technical, customer, or defective battery)

NOTE: For expedited results when creating a case write customer complaint as "Xentry Battery Tester implausible".

Symptoms
Overall vehicle / Power supply / Battery/On-board electrical system / Battery function / Battery discharges