

Xentry Battery Tester results do not match with workshop

Topic number	LI54.10-N-080207
Version	2
Function group	54.10 - Battery, power supply, voltage converter
Date	2/20/26
Validity	907
Reason for change	change to validity

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 or EZS cannot record the data if the battery is discharged.

Note: A discharged battery does not necessarily need to be replaced. A discharged battery may be recovered with no permanent damage.

Remedy

1) If the battery is discharged, charge the battery. Review WS54.00-P-0127B 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-S-5449A. 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:

- 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.
- Review GF54.10-D-1050TSA regarding what can cause deep discharge protection to not end a battery draw.
- Review SI54.10-S-0024A for proper battery care
- Please inspect for any aftermarket components or wiring connected to the vehicle, specifically but not limited to the starter batter, fuse and relay module, or electronics in driver's seat base

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-Review SAM on-board electrical data conspicuous records

- NOTE: This data can be found via SAM N10 -> Actual Values -> On-board electrical system -> On-board electrical system data

3) If battery still does not accept charge AND the vehicle does not fall within the parameters of improper maintenance, then create a TIPS case.

IMPORTANT - If the improper maintenance/use is found during diagnosis, DO NOT open a TIPS case. If a TIPS case is opened, it will be marked 1 star and directed to your assigned FSE for review.

TIPS Case must include with the case:

- Amperage setting of charger and time battery was on charger
- XENTRY Battery Tester results
- Voltage of battery taken with multimeter: Do not connect charger while taking measurements
- Control unit log for the N10 SAM
- Workshop analysis of conspicuous data
- Root cause analysis for battery discharge based on the above documents (technical, customer, etc.)
- Images of aftermarket components or wiring connected to the vehicle

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

WIS-References		
Document number	Title	Note
AP54.10-S-5449A	Overview - Check condition of 12 V battery	
GF54.10-D-1050TSA	Engine off energy management, function	Deep Discharge Protection Overview
WS54.00-P-0127B	Charger Specifications	
SI54.10-S-0024A	Service Information: Battery care	

Disclaimer

NOTE: The information contained in this document is intended for use by trained, professional technicians with the knowledge to properly and safely perform diagnosis and repairs on Mercedes-Benz vehicles, using Mercedes-Benz approved tools and equipment. It informs service technicians about conditions that could occur in certain vehicles and provides information that could assist in proper vehicle diagnosis, service, or repair. It does not indicate that a defect is present in any vehicle referenced in this document nor does it imply warranty coverage. DO NOT assume that a symptom or condition, or a described cause of a symptom or condition, affects any particular vehicle or groups of ve-

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icles, or that a described repair applies to any particular vehicle or groups of vehicles. There can be multiple causes resulting in the same or similar symptoms or conditions described in this document, and trained professional service technicians must use their diagnostic skills to make evaluations on a case-by-case basis. The information contained in this document does not guarantee warranty coverage nor does it extend the vehicle's warranty in any way.

Symptoms
Overall vehicle > Power supply > Battery/On-board electrical system > Battery function > Damage
Overall vehicle > Power supply > Battery/On-board electrical system > Battery/on-board electrical system indicator lamp > Battery charge indicator/consumer shutoff > Illuminates white
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 > Quiescent current/consumer shutoff > Does not switch off
Overall vehicle > Power supply > Battery/On-board electrical system > Battery/on-board electrical system display message > Low voltage Charge battery

Operation numbers/damage codes				
Op. no.	Operation text	Time	Damage code	Note