

Vehicle does not start / Vehicle cannot be unlocked - starter battery may be discharged

Topic number	LI54.10-P-071596
Version	1
Function group	54.10 Battery, power supply, voltage converter
Date	08-07-2020
Validity	BR167
Reason for change	
Reason for block	

Complaint:

- Vehicle does not start / Vehicle cannot be unlocked
- Display message in instrument cluster "Battery - Start Engine - see Operator's Manual"

Attachments	
File	Description
Beispiel_Buswachhalter.pdf	Example for reading bus keepawake event from electrical system data
Beispiel Kl. 15 EIN_de.pdf	Example for terminal 15 ON
example terminal 15 active.pdf	Example for terminal 15 ON
example_BUS_keep_awake.pdf	Example for bus keepawake event

Cause:

Bus keepawake control units are flagged up by event code U116000 "A bus keepawake control unit has been detected" in the electronic ignition switch (EZS) control unit.

If prolonged CAN activity (40 mins or longer) is evident in the on-board electrical system data, but this is Not flagged by the EZS, go directly to cause 3.

Cause 1. The ESP control unit is keeping the CAN bus awake.

Affected software: A1679020202, A1679025704, A1679026603, A1679021403, A1679028301

Cause 2. Concerns All vehicles with code 631/632/640/641/642

LED Head Light Module control unit is keeping the bus awake.

Affected software: A2479026401

XENTRY TIPS

Cause 3. Only concerns vehicles with CAN activity lasting 40 minutes or longer, and without DTC U116000 in the EZS

The EZS control unit itself is keeping the bus awake

Remedy:

Remedy 1. Flash the ESP with the latest software release

Invoice under damage code 43181-72

Remedy 2. Concerns only vehicles with code 631/632/640/641/642

Flash LED Head Light Module control unit with the latest software release.

Invoice under damage code 82B01- 73

Remedy 3. Replace the EZS.

Invoice under damage code 8000N-54

Remedy 4. Continue with the analysis (create a PTSS case)

The following information is required for the analysis:

- Control unit event log of electronic ignition lock, EZS (N73)
- Control unit event log of SAM-F (N10/6)
- Up-to-date no-load current measurement

For all causes, discuss the following questions with the customer:

- Were there any messages in the instrument cluster?
- Did this behavior occur once only, or has it occurred before?

If so, when (approximately)?

- Was the vehicle parked in a particular location or with high traffic levels?
- Has the vehicle been modified or are there any installations in the vehicle?

Symptoms
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 / Low voltage Charge battery
Overall vehicle / Power supply / Battery/On-board electrical system / Battery/on-board electrical system display message / Charging

Parts						
Part number	ES1	ES2	Designation	Quantity	Note	EPC

XENTRY TIPS

A 001 982 81 08		80 Ah starter battery	1		X
A 001 982 82 08		92 Ah starter battery	1		X

Operation numbers/damage codes				
Op. no.	Operation text	Time	Damage code	Note
54-1011	PERFORM QUICK TEST			Use the damage code for the component causing the damage!
54-0640	CHECK BATTERY SYSTEM (AFTER QUICK TEST)			Use the damage code for the component causing the damage!
54-1109	CHECK CONDITION OF BATTERY			Use the damage code for the component causing the damage!
54-1126	REPLACE BATTERY (AFTER CHECK)			Use the damage code for the component causing the damage!
54-0650	MAINTAIN ON-BOARD ELECTRICAL SYSTEM VOLTAGE (FOR TESTING AND DIAGNOSIS WORK)			Use the damage code for the component causing the damage!
54-0991	PROGRAM CONTROL UNIT (AFTER QUICK TEST)			Use the damage code for the component causing the damage!
54-0992	CODE CONTROL UNIT..... (AFTER QUICK TEST)			Use the damage code for the component causing the damage!
54-0645	CHECK NO-LOAD CURRENT CONSUMPTION			Use the damage code for the component causing the damage!
54-2536	REPLACE ELECTRONIC IGNITION LOCK CONTROL UNIT (AFTER QUICK TEST)			Use the damage code for the component causing the damage!

WIS-References			
Document number	Title	Note	Allocation
AR54.10-P-1129LW	Battery - Check condition		Cause
AR54.10-P-1130LW	Charge battery		Remedy
AR54.21-P-0038ME	Remove/install electronic ignition lock control unit		Remedy