

# Technical Service Bulletin



## 27 Battery: Vehicle's 12V battery is drained, documentation requirements before replacement

27 23 56 2069747/3 June 6, 2023. Supersedes Technical Service Bulletin Group 27 number 23-52 dated April 13, 2023, for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
All Audi Vehicles	2019 – 2024	All	Not Applicable

## Condition

REVISION HISTORY		
Revision	Date	Purpose
3	-	Revised service (added info about transcription with ODIS)
2	04/13/2023	Revised service (removed method 1)
1	03/23/2023	Initial publication

### Customer states:

- The vehicle doesn't start due to a drained 12V battery (A).
- The ignition in the vehicle can't be turned on due to a drained 12V battery (A).

### Workshop findings:

- Multiple low voltage DTCs are stored throughout the vehicle.
- The vehicle's 12V battery (A) tests as defective using the GRX-3000 tool.

## Technical Background

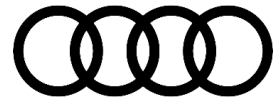
In order to determine the root cause of the drained battery, additional information from the vehicle is required.

## Production Solution

Not Applicable.

## Service

**Please ensure that the battery is not drained due to an external influence:**



- Keeping the ignition on for a prolonged amount of time.
- Parking the vehicle for a prolonged amount of time without a battery maintainer being attached (>90 days).
- Non-OEM accessories being attached to the vehicle that may use electrical power while the vehicle is parked.
- Replacement of drained or damaged batteries due to external influence is not applicable to warranty and claims regarding such cases may be denied.

## NOTICE

Please ensure that the vehicle batteries are at an acceptable state of charge when the vehicle arrives at the service center.

- If the vehicle is parked for a prolonged amount of time (for example, waiting for parts), periodic (at least monthly) checks should be performed regarding the battery's state of charge.
- If the battery's state of charge is below 80%, the battery should be recharged immediately.

Any time a 12V battery (A) needs to be replaced, the following procedure must be performed before installing the new 12V battery (A):

Please connect a 12V battery charger.



*In some cases, the battery may be too low to allow the battery charger to start up. In such cases, the charger can be started by "jumpstarting" it by connecting jumper cables from a good battery to the damaged battery for a moment while the charger is connected. (The jumper cables only have to be touched to the poles as the vehicle charger needs to see an initial voltage to start up. They can be taken off as soon as the vehicle charger starts charging.)*

Please perform the following test plan in ODIS:



- 1 GFF -> 19 -  
Diagnostics interface for databus -> Guided Functions -> Reading history data

The screenshot shows the Audi diagnostic software interface. On the left, a 'Control module list (75 entries)' table is visible. A red arrow points to the entry for 'Data Bus OBD Interface (0019 - Data Bus OBD Interface)' with event count '2'. Another red arrow points to the '0017' entry for 'Instrument cluster (0017 - Instrument cluster)'. A 'Guided Functions' window is open in the foreground, displaying a list of functions for the 'Data Bus OBD Interface'. A red arrow points to the '0019 - Read history data' function. The background shows a vehicle status bar with '11.86 V' and a sidebar with various diagnostic modes.

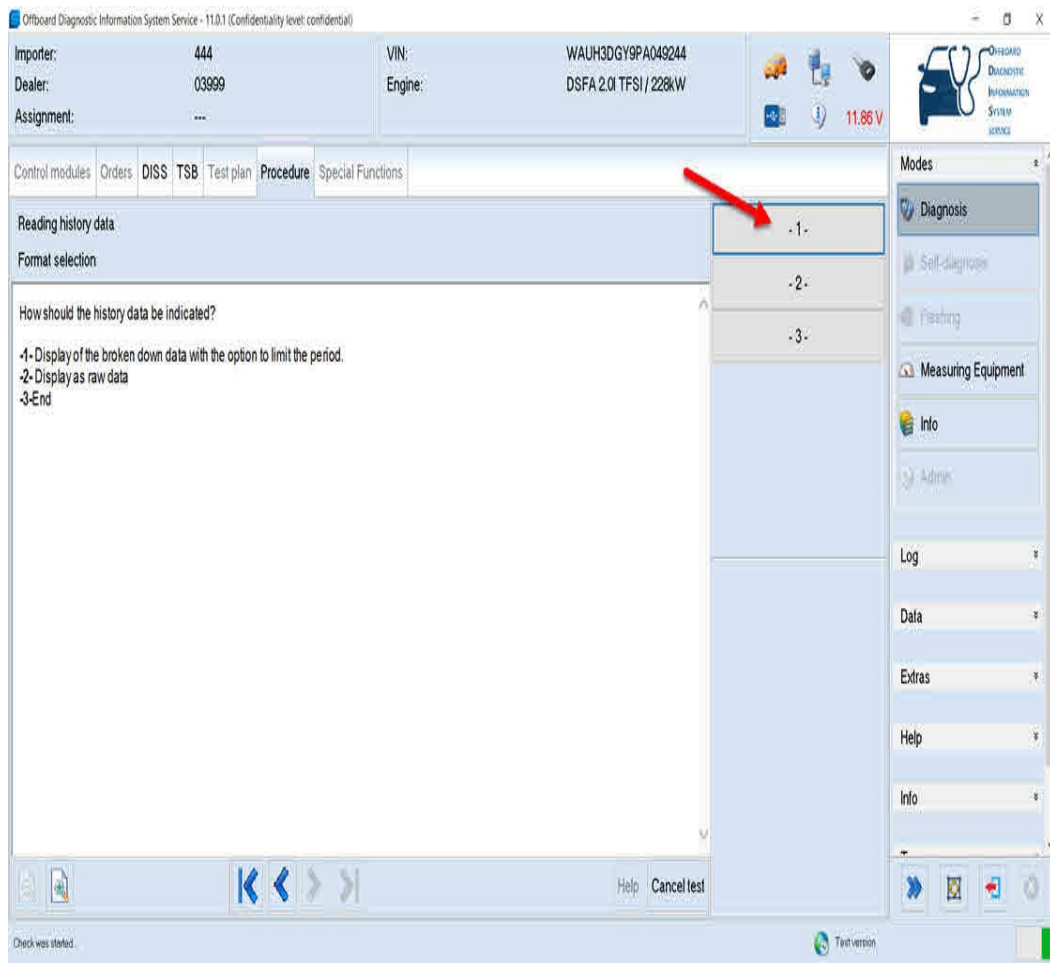
Address	Event	Name
0017	1	Instrument cluster (0017 - Instrument cluster)
0018	0	Auxiliary/parking heating (Not yet identified)
0019	2	Data Bus OBD Interface (0019 - Data Bus OBD Interface)
0021	0	Battery management 2 (Not yet identified)
0022	0	All-wheel drive electronics (0022 - All-wheel drive electronics)
0023	1	Brake boost (0023 - Brake Boost) (SWAS)
002B	0	Steering column lock (002B - Electronic steering column lock)
0036	0	Seat adjustment, driver side (0036 - Driver's seat adjustment)
003C	1	Lane change assistance (003C - Lane change assistance)
0030	0	Special function (Not yet identified) (...)
0042	0	Driver's door electronics (0042 - Driver's Door Electronics) (8Y0959593L 0350 TSG FS)
0044	0	Power Steering (0044 - Power steering) (5W0907145G 10M0 R4SGFN1MOR37)

Guided Functions - Data Bus OBD Interface:

- 0019 - Adapt 12-volt battery
- 0019 - Check bus sleep mode
- 0019 - Read activations
- 0019 - Read data bus sleep inhibitor
- 0019 - Read history data
- 0019 - Start/stop data reading
- 0019 - Transport mode activating/deactivating
- 0019 - Check control module configuration (SVM)
- 0019 - Output Diagnostic Test Mode (DTM) generator voltage 15V
- 0019 - Display data bus participants
- 0019 - Showroom mode
- 0019 - Component Locations, Control module information
- 0019 - Data Bus On Board Diagnostic Interface, Component protection (basic)
- 0019 - Event memory check / erase
- 0019 - Identification
- 0019 - Read measuring values
- 0019 - Replace control module
- J1158 - Steering Wheel Touch Recognition Control Module, replace
- J367 - Battery Monitoring Control Module, replace
- J453 - Multifunction Steering Wheel Control Module, replace

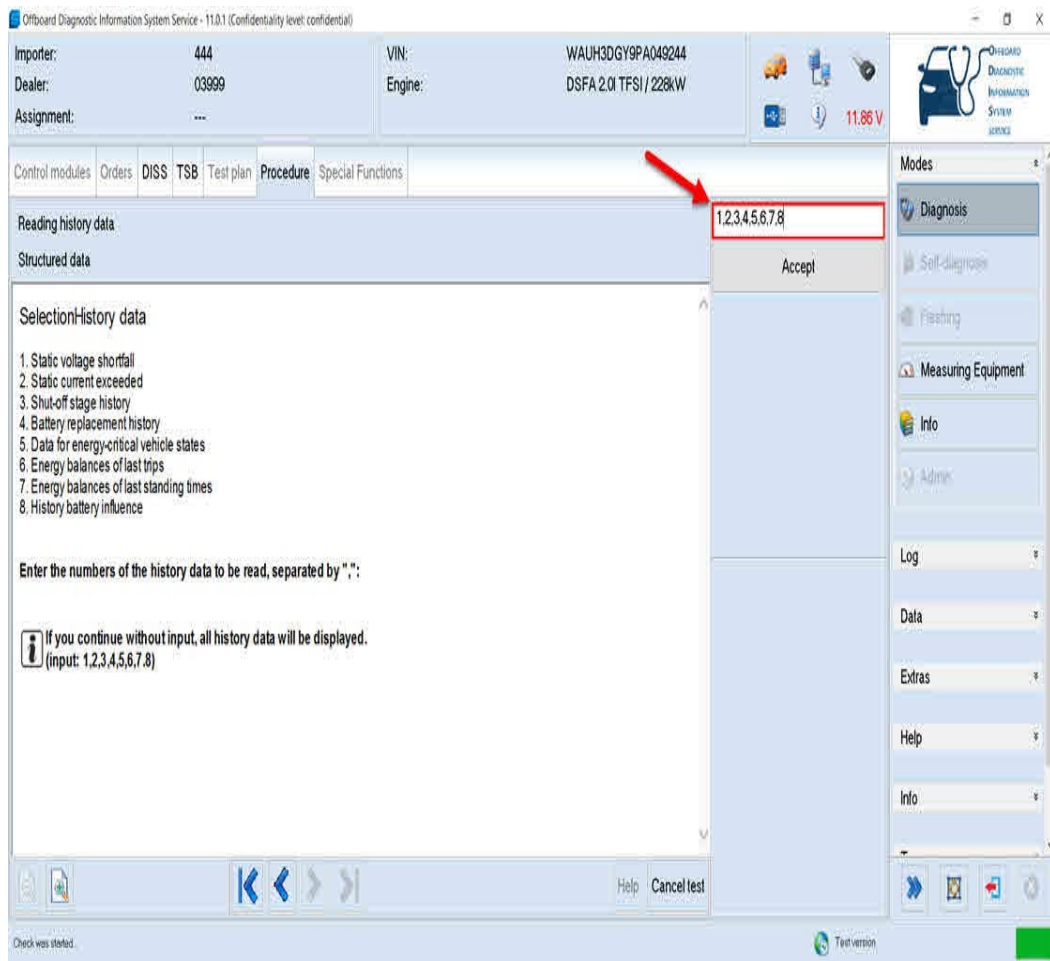


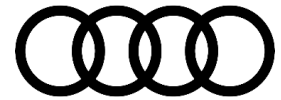
- 2 On the screen "Format selection", select option *-1- Display of the broken down data with the option to limit the period*





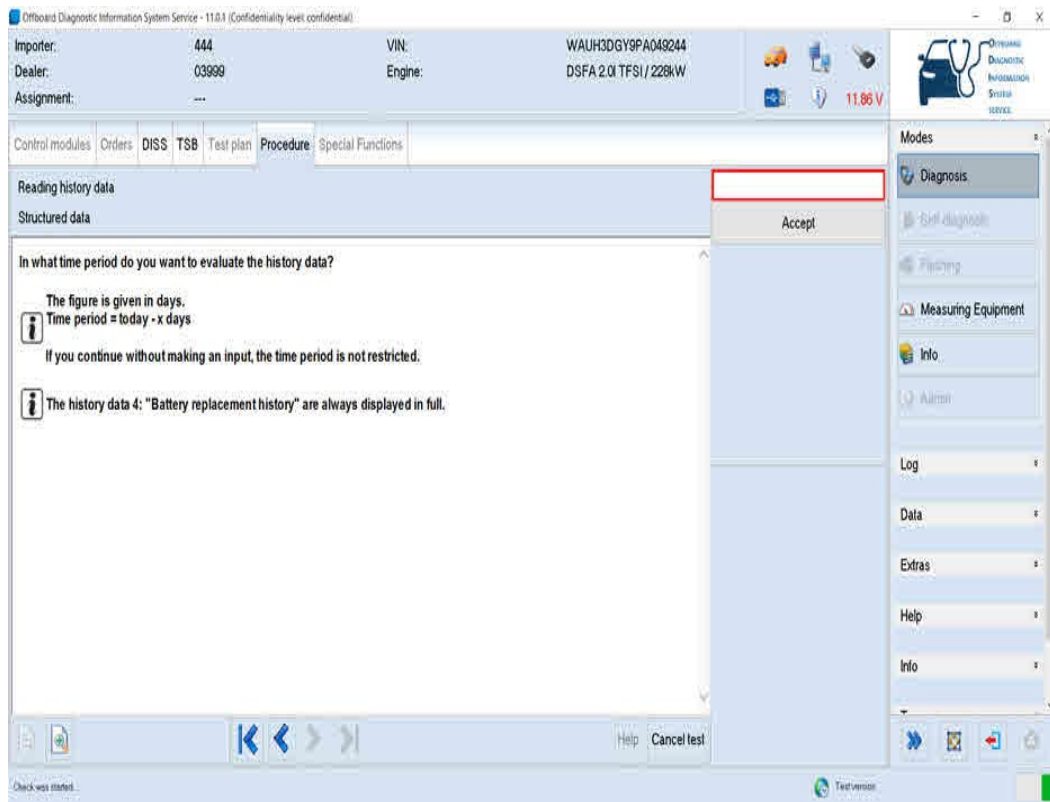
- 3 On the screen  
"Structured data", enter  
1,2,3,4,5,6,7  
,8 and then  
*accept*





- 4 On the next screen “Structured data”, enter the amount of days of history data that should be printed out.

Remark:  
Selecting a range that is too large may cause the test plan to fail. In such a case, retry with a smaller range.



ODIS will now output the battery history data on the screen and store it to the GFF log.

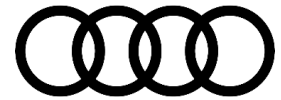
For example, that data may help you to determine if the drained battery may be caused by misuse or external influence, for example:

- Section 5 – Energy critical conditions
- Displays certain parameters when the vehicle wasn't able to be started due to a low 12V battery, like if the transmission was in Park during the time the vehicle was discharging the battery, if any lights were on during that time, if the ignition was left on, etc.
- Section 7 – Energy balance standing
- Displays the time and battery discharge that the vehicle was parked. According to the owner's manual, the customer is responsible to service (charge) the 12V battery after one month of the vehicle not being driven.

Should an entry here show a duration of last standing time of more than ~750h, combined with a large battery discharge and under-voltage time under section 1, the defective battery may be due to external influence.

## Warranty

Please claim the GFF time required to perform this TSB on the claim requiring the battery replacement.



## Additional Information

All parts and service references provided in this TSB (2069747) are subject to change and/or removal.

©2023 Audi of America, Inc. All rights reserved. The information contained in this document is based on the latest information available at the time of printing and is subject to the copyright and other intellectual property rights of Audi of America, Inc., its affiliated companies, and its licensors. All rights are reserved to make changes at any time without notice. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, nor may these materials be modified or reposted to other sites, without the prior expressed written permission of the publisher.