48 V mild-hybrid and 12 V battery report

Land Rover Defender (L663) 48 V mild hybrid diesel, model year 2023 · 65,275 km · VIN SAL·951 · read 2026-11-07 14:30 UTC · read-only, nothing was changed or cleared

Worth watching

- 12 V battery and charging: fault P065B-16 Generator Control - Circuit Range/performance. - Circuit Voltage Below Threshold (stored, not active now)
- 12 V battery service counter shows 8 days: the battery was most likely replaced, or its monitor reset, about a week ago. That fits the 6 incomplete emission readiness monitors; they complete after normal driving

In range

- 12 V battery voltage 14.70 V
- 12 V battery state of charge 85 %
- DC/DC 12 V output 14.8 V
- 48 V battery pack voltage 46.1 V
- 48 V battery state of charge 50 %
- 48 V cell voltage spread 5 mV
- DC/DC converter is charging the 12 V system (about 49 A at 14.8 V) with no fault codes
- 48 V battery and DC/DC converter fault memories are empty

Engine emissions check (standard OBD)

Item	Result
Engine warning light	**Off**
Stored / pending / permanent emission fault codes	**0 / 0 / 0**
Readiness monitors	**All 6 incomplete (typical after a battery change or fault-code clear)**
Engine speed at idle	**664 rpm**
Coolant temperature	**44 °C (warming up)**

12 V battery and charging (gateway power management)

Value	Reading
12 V battery voltage	**14.70 V**
12 V battery state of charge	**85 %**

12 V state of charge target	**87 %**
12 V battery current (+ = charging)	**4 A**
12 V battery temperature (estimated)	**10 °C**
Charging voltage set point	**14.90 V**
12 V generator current	**52 A**
Lowest state of charge recorded	**55 %**
Minimum battery voltage during last crank	**8.88 V**
Estimated cold-cranking voltage at present charge	**8.44 V**
Battery positive charge	**42.5 Ah**
Battery discharge	**13.5 Ah**
12 V battery time in service (since fitted / reset)	**8 days**
Total distance	**65,275 km**

Fault code	Description	Status
P065B-16	Generator Control - Circuit Range/performance. - Circuit Voltage Below Threshold	stored, confirmed

48 V battery (battery energy control module)

Value	Reading
48 V battery state of charge	**50 %**
48 V battery pack voltage	**46.1 V**
48 V pack voltage (second measurement)	**46.4 V**
48 V battery current	**0 A**
Highest cell voltage	**3.304 V**
Lowest cell voltage	**3.299 V**
Battery contactor opening events (A)	**0**
Battery contactor opening events (B)	**0**

Fault memory: no fault codes stored.

DC/DC converter (48 V to 12 V charging)

Value	Reading
48 V bus voltage at the converter	**46.0 V**
12 V output voltage	**14.80 V**
12 V output current	**49 A**
Converter internal temperature	**30 °C**

Converter supply voltage	**14.75 V**

Fault memory: no fault codes stored.

Notes

- All readings were taken remotely through the AI Mechanic Gateway PRO with the engine at idle; values change with load, temperature and time since the last drive.
- The battery control module was initialised.
- The DC/DC converter was replaced by the garage and initialised.
- P065B-16 is stored but not failing now. A low-voltage event (for example during a battery change) can set it. Suggested: confirm the battery work history, clear the code, drive, and re-check that it does not return.
- The belt starter generator module did not answer at the address tried in this session and is not included.
- Read-only session: no resets or fault clearing were carried out.