

Issue no. 04/2018: Alternator not working

If the battery charge indicator in the vehicle lights up, it's always a clear sign of a fault in the power supply. One possible cause is that the alternator has stopped supplying electricity. If error messages appear immediately following repairs in the alternator environment, the problem may be due to work that wasn't carried out correctly.

These are the most common causes of failure:

- If the electrical circuit isn't interrupted when a new alternator is installed and the plus cable (B+) comes

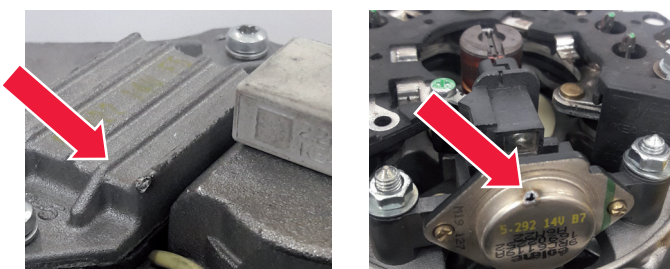
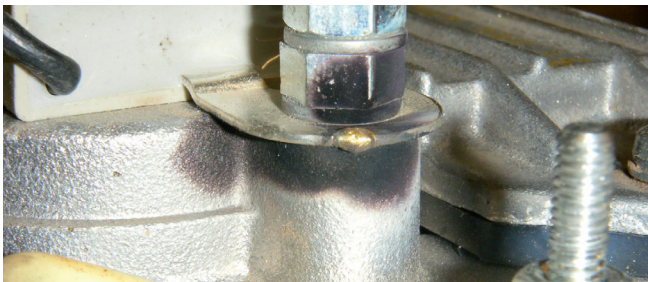


Figure 1: Burning marks caused by a short circuit at the connections (above) and regulator (left and right)

into contact with the regulator housing, for example, this can result in a short circuit and complete failure of the alternator.

- If the terminal D+ and B+ cable connections are reversed when a new alternator is connected, the excitation diodes and voltage regulator can become damaged during operation.
- If the battery is disconnected while the engine is running, the excitation diodes can become damaged or destroyed by excessively high currents.

Continuous operation at the alternator's thermal and/or mechanical limit (due to extremely dirty diode plates, inadequate supply of cooling air, or high load demand at low speed, for example) can also cause damage to the alternator.



Figure 2: Terminal designation on the alternator: W = speed signal, D+ = battery charge indicator, and B+ = battery plus

IMPORTANT: Always interrupt the electrical circuit (disconnect the battery earthing cable) before performing any work on the alternator. Labeling the connections and cables when removing the alternator is also recommended to avoid mix-ups.