

Instructions for testing and checking an alternator

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Testing an alternator with a measuring device

Voltage metering takes place by the following tool:

- 1x measuring device with 10 – 20V measuring range

**Instructions for checking a defective alternator.
Testing the voltage by using a multimeter.**

Prior to any alternator repair works, it is essential to make sure that it is actually defective. This process requires a simple voltmeter, no matter whether an analog or digital measuring device. Now, the suitable voltage range is set covering a measuring range of 10 – 15 V. The engine will be started and 2 measurements will be taken. One measurement will be carried out when the engine is idling, the other one with an engine speed of 4000 rpm. This always implies a check of the voltage on the battery.

If the alternator charges properly, the charge indicator lamp will have to go out after starting the engine, and a charging voltage of 13.8V – 14.6V has to be applied on the battery. Voltage should be ensured in both measuring cycles mentioned above; otherwise, the alternator is defective.

Too low charging voltage during the testing process can be caused by several factors, e. g., the following parts might be defective: regulator, slip ring, carbons, diodes, winding.

If, however, the alternator makes noises during operation, this will point to defective bearings or a defective freewheel pulley.