

Issue no. 06/2019: Alternators with an S terminal

A battery temperature sensor can prevent the vehicle's battery from overheating and becoming damaged. Depending on their application, some alternators are fitted with an additional connection for this sensor. This is the case with MAHLE alternators MG 207 and MG 283.



Figure 1: Battery temperature sensor

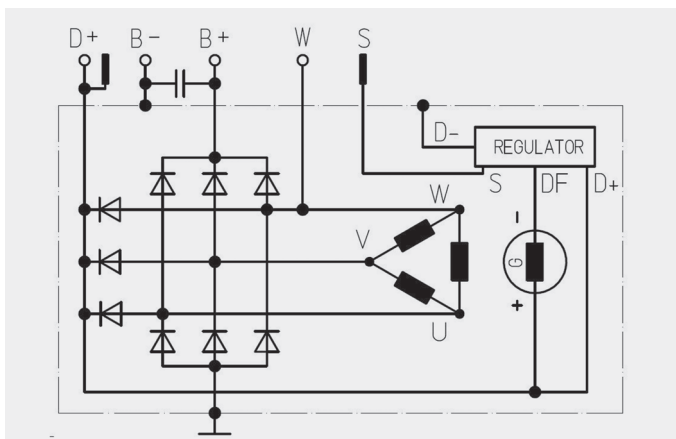


Figure 2: Wiring diagram of an alternator with connections for the battery sensor (S), speed signal (W), continuous plus (B+) and ground (B-), and battery charge indicator (D+)

The battery temperature sensor measures the temperature of the battery and reduces the charging voltage as soon as a defined value is reached. However, if the sensor is connected incorrectly or not connected at all, the alternator won't generate any charging voltage, which means the battery won't charge.

The sensor is connected to the alternator via the S terminal. When installing an alternator, you should therefore check whether it has one of these terminals. If you don't, you'll notice when you start the engine, because the battery charge indicator will light up. When this happens, the new alternator is often incorrectly assumed to be defective.

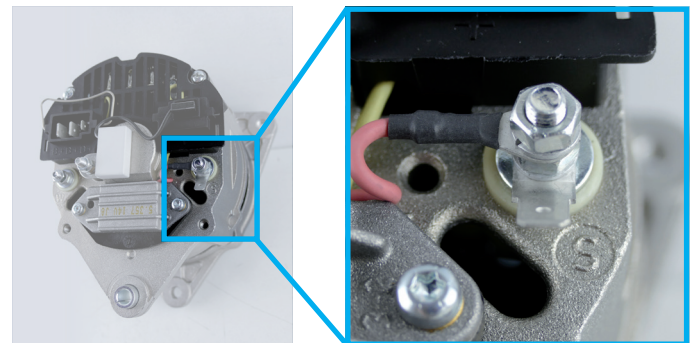


Figure 3: Alternator with an S terminal

→ **IMPORTANT!** When fitting an alternator with an S terminal, ensure that the sensor is installed correctly! Labeling the connections and cables when removing an alternator is also recommended to avoid mix-ups.

» See also Issue no. 04/2018: Alternator not working