

## Relay

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### Function

A relay is an electromagnetic power supply switch. When current runs through the coil (the relay is actuated) the relay contact is closed and there is therefore free flow through the contact (or the other way around if it is circuit breakers). Note that the relay contact assembly always is shown without current.

#### Fault finding:

Check connector(s): Inspect the connector(s) and if necessary clean or fix them to make sure the connection is good.

#### Check relay:

Turn off ignition. Remove relay from relay box.

Connect the input of the coil to battery voltage and the output of the coil to ground, the relay should click. If not replace relay.

Check the switch of the relay. Measure the resistance between the input of the switch and the output. When switch is closed the resistance should be  $< 1$  ohm. When switch is open the resistance should be infinite. If not replace relay.

#### Check supply voltage:

Turn off ignition. Remove relay from relay box.

Turn ignition on. Connect a test lamp between the input terminal of the coil or the input terminal of the switch in the relay box and the negative terminal of the battery. Both times the tester should lit. If not check wiring and if present fuse(s) and second relay.

#### Check connection to ECU:

Turn off ignition. Remove relay from relay box and remove connector from ECU.

Measure the resistance between the output terminal of the coil in the relay box and the corresponding terminal in the ECU connector. It should be  $< 1$  ohm. If not check wiring.