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Your Vehicle: 2010 Audi Q7 Quattro (4LB) V6-3.0L DSL Turbo (CATA)



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## Testing and Inspection

### Voltage Supply Relay, Checking

Observe all safety precautions: => [ [Safety Precautions](#) ] [See: Service Precautions\Safety Precautions](#)

View clean working conditions: => [ [Clean Working Conditions](#) ] [See: Service Precautions\Clean Working Conditions](#)

Prior to repair work, perform a preliminary check to verify the condition. Refer to => [ [Preliminary Check](#) ] [See: Testing and Inspection\Scan Tool Testing and Procedures\Preliminary Check.](#)

Use only gold-plated terminals when servicing any component with gold-plated electrical harness connector terminals.

For wiring diagrams, component locations, and connector views, Refer to the applicable wiring diagram.

### Special tools, testers and auxiliary items required

- ✘ Multimeter
- ✘ Wiring diagram

### Test requirements

- ✘ The [engine control module](#) fuses OK
- ✘ Battery voltage at least 12.5 volts
- ✘ All electrical consumers switched off
- ✘ Vehicles with automatic transmission, shift selector lever in park or neutral
- ✘ A/C switched off
- ✘ Ground connections between engine/transmission/chassis OK

α Ignition switched off

## Test procedure

- Remove the [engine control module](#) power supply relay.

## Checking the supply voltage

- Using a multimeter, measure the voltage of the [engine control module](#) power supply relay circuit (socket 1/30).

Specified value: battery voltage.

If the specified value was not obtained:

- Check the power supply circuit to the [engine control module](#) power supply relay for an open circuit or a short circuit.
- Check the wiring connections for damage, corrosion, loose or broken terminals.
- Repair as necessary.
- Switch the ignition on.
- Using a multimeter, measure the voltage of the [engine control module](#) power supply relay ignition circuit (socket 3/86).

Specified value: battery voltage.

If the specified value was not obtained:

- Check the ignition circuit to the [engine control module](#) power supply relay for an open circuit or a short circuit.
- Check the wiring connections for damage, corrosion, loose or broken terminals.

## Checking wiring

- Remove the [engine control module](#). Refer to the service manual for removal and installation procedures.
- Using a multimeter, measure the resistance of the circuit between the power supply relay and the [engine control module](#). Refer to the applicable wiring diagram.

Specified value: 1.5 ohms Max.

If the specification was not obtained:

- Check the wires for a short circuit to each other, a short to battery voltage, and a short to ground.
- Check the electrical harness connector for damage, corrosion, loose or broken terminals.
- Repair as necessary.

If no malfunction is found in the wiring and voltage supply was OK:

- Replace the [engine control module](#) power supply relay.

## Final procedures

After repair work, the following work steps must be performed in the following sequence:

1. Check the DTC memory. Refer to => [ Diagnostic Mode 03 - Read DTC Memory ] [See: Testing and Inspection\Scan Tool Testing and Procedures\Diagnostic Modes 01 - 09.](#)
2. If necessary, erase the DTC memory. Refer to => [ Diagnostic Mode 04 - Erase DTC Memory ] [See: Testing and Inspection\Scan Tool Testing and Procedures\Diagnostic Modes 01 - 09.](#)
3. If the DTC memory was erased, generate readiness code. Refer to => [ Readiness Code ] [See: Testing and Inspection\Monitors, Trips, Drive Cycles and Readiness Codes.](#)

