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

Intake Flap Motor and Intake Flap Motor 2, Checking

Intake Flap Motor and Intake Flap Motor 2, 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: 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 ignition switched off.

Start diagnosis

- Disconnect the Intake Flap Motor (V157 / V275) electrical harness connector.

Checking voltage

- Switch the ignition on.
- Using a multimeter, measure voltage supply between connector terminals 1 to 3 for voltage.

Specified value: approx. 5 V.

If the specified value was not obtained:

- Check the wiring for a short circuit to each other, Battery positive, Ground or high resistance.
- Check the wiring connections for damage, corrosion, loose or broken terminals.
- If necessary, repair the faulty wiring connection.

If the specified value was obtained:

- Using a multimeter, measure voltage supply between connector terminals 4 to 5 for voltage.

Specified value: 4.35 V (+/-.8 V).

If the specified value was not obtained:

- Check the wiring for a short circuit to each other, Battery positive, Ground or high resistance.
- Check the wiring connections for damage, corrosion, loose or broken terminals.
- If necessary, repair the faulty wiring connection.

If the specified value was obtained:

- Using a multimeter, measure voltage supply between connector terminals 2 to 3 for voltage.

Specified value: approx. 5.01 V.

If the specified value was not obtained:

- Check the wiring for a short circuit to each other, Battery positive, Ground or high resistance.
- Check the wiring connections for damage, corrosion, loose or broken terminals.
- If necessary, repair the faulty wiring connection.

If no malfunction is detected in the wiring and the voltage readings were correct:

- Replace the Intake Flap Motor (V157 / V275). Refer to the service manual for removal and installation procedures.

If no malfunction is detected in the wiring and the voltage readings were Not correct:

Checking wiring

If the manufacturers test box is being used, perform the following step.

- Install the test box.

If the manufacturers test box is not being used, perform the following step.

- Remove the Engine Control Module (ECM) (J623). Refer to the Repair Manual.
- Using a multimeter, check the Intake Flap Motor (V157 / V275) electrical harness connector to the Engine Control Module (ECM) (J623) electrical harness T105 connector for resistance.

Intake Flap Motor (V157) electrical harness connector terminal	Engine Control Module (ECM) (J623) electrical harness connector T105 terminals or test box socket
1	60
2	100
3	59

4	4
5	25

Zoom Sized for Print

Intake Flap Motor (V275) electrical harness connector terminal	Engine Control Module (ECM) (J623) electrical harness connector T105 terminals or test box socket
1	60
2	81
3	59
4	67
5	88

Zoom Sized for Print

Specified value: 1.5 ohms Max.

If the specification was not obtained:

- Check the wiring for a short circuit to each other, Battery positive, Ground or high resistance.
- If necessary, repair the faulty wiring connection.
- Check the electrical harness connector for damage, corrosion, loose or broken terminals.

If no malfunction is detected in the wiring and the voltage readings were Not correct:

- Replace the Engine Control Module (ECM) (J623). Refer to the service manual for removal and installation procedures.

Final procedures

After the 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: 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: Scan Tool Testing and Procedures\Diagnostic Modes 01 - 09.
3. If the DTC memory was erased, generate readiness code. Refer to => [Readiness Code] See: Monitors, Trips, Drive Cycles and Readiness Codes.