Fault code 0657

Servo motor for central vents

Diagnostic conditions

- Ignition on
- Battery voltage OK (11.4 to 14.5 V)
- Internal function test completed on air-conditioning system regulator control module

Possible causes of fault

- No or incorrect basic setting
- Short circuit to ground
- Open circuit/short circuit to B+
- Servo motor flap stiff
- Servo motor faulty
- Front air-conditioning system regulator faulty

Affected pins

Air-conditioning system regulator control module, front: Plugs A and E

- Plug A: Pin 1 'Passenger blower (servo motor for central vents)'
- Plug A: Pin 9 'Passenger blower (servo motor for central vents)'
- Plug A: Pin 14 'Passenger blower (feedback signal lead, servo motor for central vents)'
- Plug E: Pin 1 '5 V reference voltage'
- Plug E: Pin 8 'Ground signal'

Diagnosis/troubleshooting

Work instruction		Display OK	If not OK
1	Carry out calibration using the 9588 Porsche System Tester II, then: - Erase fault memory - Satisfy diagnostic conditions - Read out fault memory again	Fault code 0657 is not entered → End	Fault code 0657 is entered again ⇒ Step 2

Work instruction			Display OK	If not OK
2	Perform visual inspection	♦ Check flap for stiff operation ♦ Check plug contacts and peripheral equipment for signs of damage	⇒ Step 3	Repair component(s)
3	Check wires between control module and servo motor for short circuit to B+	♦ Switch off ignition ♦ Remove plugs A, B, C and E from air-conditioning system regulator and plug from servo motor for central vents ♦ Pull off plug 4 (disconnection point Climatronic) ♦ Switch on ignition ♦ Measure respective voltage between ground and: ♦ Plug E, pins 1 and 8, plug A, pins 1, 9 and 14	< 0.3 V ⇒ Step 4	Repair/replace wiring harness → End
4	Check wires between control module and servo motor for short circuit to ground	♦ Switch off ignition ♦ Measure respective resistance between ground and: ♦ Plug E, pins 1 and 8, plug A, pins 1, 9 and 14	∞ Ω ⇒ Step 5	Repair/replace wiring harness → End

Work instruction			Display OK	If not OK
5	Check for short circuit between lines	♦ Disconnect plugs on all servo motors ♦ Measure resistance between individual lines from air-conditioning system regulator and servo motor ♦ Between plug E, pin 1 and servo motor plug, pins 2, 3, 5, 6 ♦ Between plug E, pin 8 and servo motor plug, pins 1, 2, 5, 6 ♦ Between plug A, pin 1 and servo motor plug, pins 1, 2, 3, 6 ♦ Between plug A, pin 9 and servo motor plug, pins 1, 2, 3, 5	∞ Ω ⇒ Step 6	Repair/replace wiring harness → End
6	Check wiring between control module and servo motor for open circuit	♦ Measure resistance between plug E, pin 1 and servo motor plug, pin 1 ♦ Plug E, pin 8 and servo motor plug, pin 3 ♦ Plug A, pin 1 and servo motor plug, pin 5 ♦ Plug A, pin 9 and servo motor plug, pin 6 ♦ Plug A, pin 14 and servo motor plug, pin 2	< 5 Ω ⇒ Step 7	Repair/replace wiring harness → End
7	Check internal resistance of servo motor	♦ Measure resistance between pins 1 and 3 of servo motor	approx. 5 kΩ ⇒ Step 8	⇒ Step 9
8	Check servo motor power supply	♦ Push plugs A and E on air-conditioning system regulator ♦ Push plug on servo motor ♦ Switch on ignition ♦ Measure voltage between pin 1 and pin 3 of servo motor	approx. 5 V ⇒ Step 9	⇒ Step 10

Work instruction		Display OK	If not OK
9	As an experiment, replace the servo motor for the central vents, then: ♦ Erase fault memory ♦ Satisfy diagnostic conditions ♦ Read out fault memory again	Fault code 0657 is not entered → End	Fault code 0657 is entered again ⇒ Step 10
10	Replace air-conditioning system regulator	→ End	