

15 Engine

Complaint:

Battery boils over or gases severely

Cause:

Short-circuit of exciter diode, regulator has full excitation (may only occur intermittently).

Remedy:

15-5100 Testing generator with regulator in vehicle (section B).

Complaint:

Charge Indicator lamp lights up when Ignition switched off and engine not running

Cause:

Short-circuit of positive diode(s).

Remedy:

15-5100 Testing generator with regulator in vehicle (sections F or G).



Complaint:

Charge Indicator lamp does not light up when Ignition switched on

Cause:

Open circuit or contact resistance in pre-excitation current circuit.

Remedy:

1. 15-5100 Testing generator with regulator in vehicle.
 2. Test generator charge indicator/warning lamp.
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Complaint:

Charge Indicator lamp shows constant bright light when engine running

Cause:

Short-circuit of negative or exciter diodes, shorting to ground of stator winding, open circuit of exciter diodes.

Remedy:

15-5100 Testing generator with regulator in vehicle (sections F or G).



Complaint:

Charge indicator lamp glows when idling and becomes brighter when engine speed increases

Cause:

Open circuit of positive diode(s).

Remedy:

15-5100 Testing generator with regulator in vehicle (sections F or G).

Complaint:

Charge Indicator lamp lights up when idling and becomes weaker as engine speed increases

Cause:

Open circuit of stator winding or of negative diode(s).

Remedy:

Replace generator.



Complaint:

Regulating voltage is greater than specification (13–14.5 V)

Cause:

Regulator faulty.
Open circuit of exciter diode(s).

Remedy:

15–5100 Testing generator with regulator in vehicle (sections B or C).

Complaint:

Regulating voltage is less than specification (13 V)

Cause:

Fault in charging system (regulator, generator, wiring harness)

Remedy:

15–5100 Testing generator with regulator in vehicle (sections A, B or C).

Complaint:

Charging current (A) is below specification

Cause:

Fault in exciter current circuit, short-circuit or open circuit of diodes or short-circuit of stator winding.

Remedy:

15-5100 Testing generator with regulator in vehicle.

Complaint:

Charging current (A) reaches specification although no load exists

Cause:

Regulator has full excitation.

Remedy:

15-5100 Testing generator with regulator in vehicle (sections B or C).



It is essential to observe specified generator speeds for testing the charging current.

Complaint:

Generator does not charge, model 124 with engine 103

Cause:

Failure of generator because of salt or dirt deposits on regulator.

Remedy:

Replace regulator. At the same time, remove air intake cover and hose for external air intake so that no more air is inducted from the wheelhouse. External air induction no longer fitted as of 02/86.

54 Equipment, Instruments

Complaint:

"Economy" gauge is sluggish or does not indicate

Cause:

Membrane of vacuum unit on automatic transmission leaking. Oil in vacuum line and in instrument.

Remedy:

Replace instrument. Clean vacuum line. Install vacuum unit with fabric-reinforced membrane (see also Group 27).

Complaint:

Battery discharges after vehicle parked for long periods

Cause:

Cause of fault may be an incorrectly connected or faulty component.

Remedy:

54-1030 Carry out no-load current test



Complaint:

Engine cuts out, electrical system has no voltage

Cause:

Cable at terminal block X4, X4/1 terminal 30 in interior at fuse box loose.

Remedy:

Tighten cable at terminal block X4, X4/1.



Complaint:

When engine running, bulb failure indicator lamp does not go out although no lamps are switched on.

Cause:

1 Up to 03/85 the sockets for the windscreen washer level indicator lamp and the bulb failure indicator lamp were mixed up in isolated cases with the result that the lamp in the wrong display field lights up when the windscreen washer fluid level drops.

Remedy:

1 Exchange sockets for bulb failure and windscreen washer level indicator lamps in instrument cluster and adjust washer fluid to correct level.

Complaint:

Bulb failure indicator lamp does not go out when engine running and lighting switched on although no lamp is faulty.

Cause:

Bulb with incorrect output installed.

Poor contact primarily at:

- lamp monitoring unit connector (widened contacts, cold solder points).
- front turnsignal lamp connectors (widened contact).
- Taillamps (spring pretension at contacts of bulbs).

Remedy:

1 Lamps of the same output must be installed on the left and right.

2 Check contacts at bulbs and at lamp monitoring unit and eliminate any contact resistance; bend in contacts if necessary or replace faulty parts.

Complaint:

Generator wiring harness chafing on frame side member

Cause:

Generator wiring harness not correctly laid at frame side member.

Remedy:

Disconnect wiring harness at terminal block (X4/10); first of all remove battery. Isolate chafing point (renew wiring harness if necessary). Push a corrugated hose approx. 100 mm long, part no. 001 546 11 30 over the chafing point, fix in place and secure with a new cable strap, part no. 114 997 02 90.

Complaint:

Bulb failure indicator lamp lights up when using two-way radio on vehicles with two-way radio or telephone.

Cause:

Two-way radio signal affecting lamp monitoring unit.

Remedy:

Install radio interference-suppressed lamp monitoring unit (part no. 126 542 02 32).

Complaint:

Unsteady needle on fuel gauge, oil pressure gauge and coolant temperature gauge when ignition switched on.

Cause:

Production fault at manufacturer's.

Remedy:

Install new gauge.

Complaint:

Molsture or water in fuse and relay box

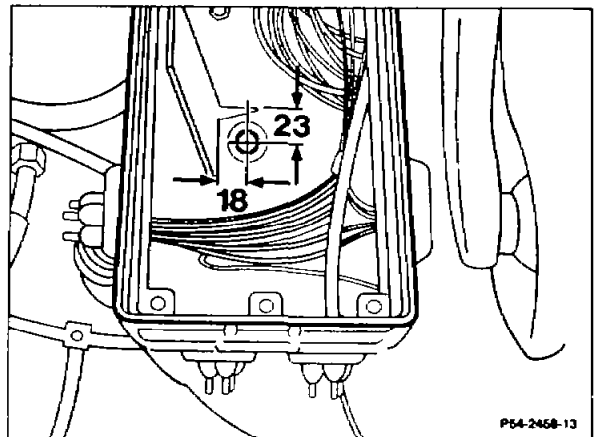
Cause:

Leak at the rubber grommets or at the cover of the fuse and relay box.

Remedy:

Remove fuse carrier and dry fuse box; replace any damaged parts.

Drill 6 mm dia. hole as shown in sketch.
Examine all rubber grommets and fuse box cover for leaks, seal if necessary with sealant or new rubber gasket.



Complaint:

Battery discharges after vehicle parked for short time, model 124.023 with catalytic converter and 124.120 as of 08/85 with air conditioner or automatic climate control

Cause:

Incorrect relay installed for auxiliary fan series resistor (K10); consequently, the electromagnetic clutch of engine fan is constantly engaged even when the key is removed from the steering lock.

Remedy:

Remove changeover contact relay (K10) and install a double-contact relay for auxiliary fan magnetic clutch (K8) with black cover, part no. 001 542 53 19.

Complaint:

Engine cuts out intermittently, runs again or only runs when started and then cuts out

Cause:

TD terminal of tachometer has intermittent short-circuit and fuel pump relay is not activated.

Remedy:

Detach connector from tachometer; if this eliminates fault, replace tachometer.
