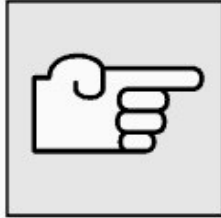
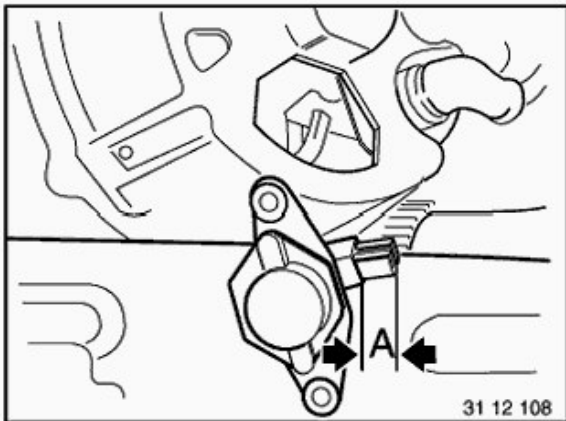


Test requirements:

- Correct connections on charged battery
- Correct connections on alternator and starter motor
- Good ground connection between engine and body
- Tightened drive belt

**Connect DIS Tester.**

- Measurement
- Checking alternator



If charge indicator lamp is permanently lit:

Remove voltage regulator and check carbon brushes, replace if necessary.

Replace alternator regulator switch.

Note:

Minimum length of carbon brushes "A" = 5 mm.



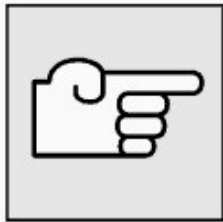
If charge indicator lamp goes out while engine is running:

Check control voltage.

Regulator switch must be replaced if control voltage is not achieved.

Replace alternator regulator switch.

Instructions for alternator disassembly.



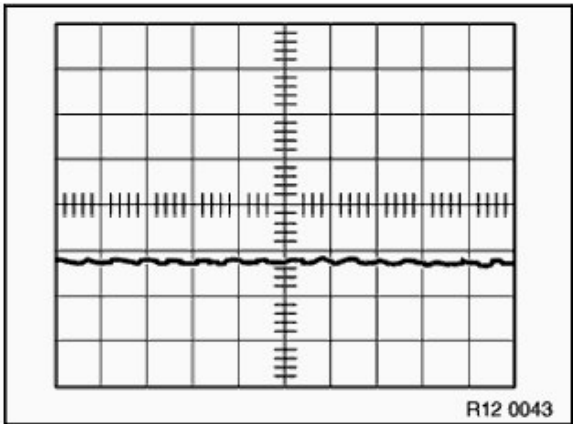
From E46/E39 with multifunction regulator.

Recognizable: Plug connection on regulator.

Connect DIS Tester.

- Function selection
- Complete vehicle
- Drive
- Voltage and current regulation
- Voltage and current generation
- Work through test modules

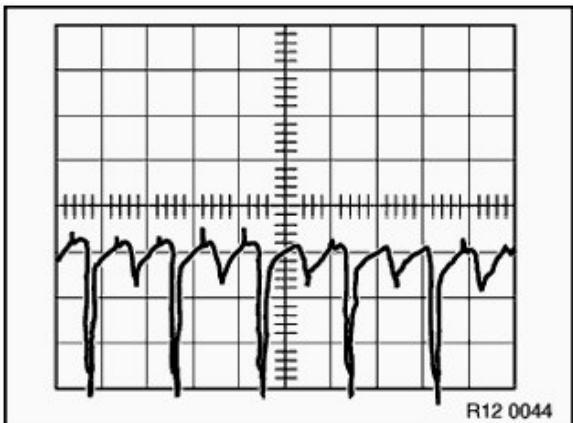
Oscillogram for a fault-free alternator:



Oscillogram for a faulty alternator:

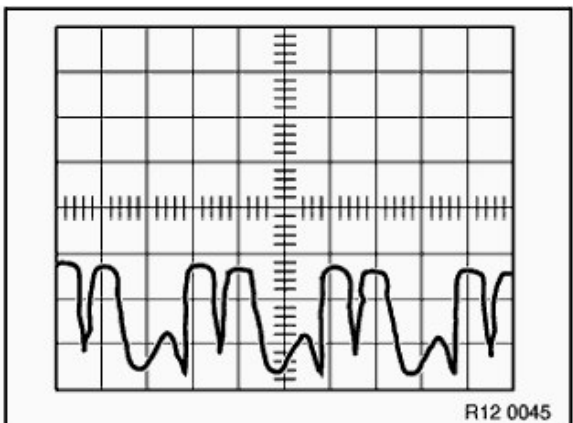
One phase interrupted.

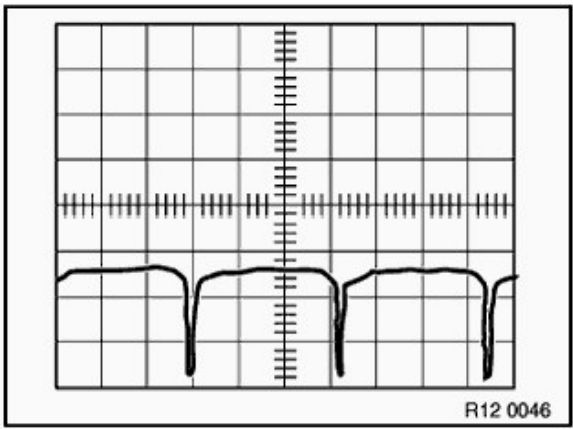
Repair/exchange alternator.



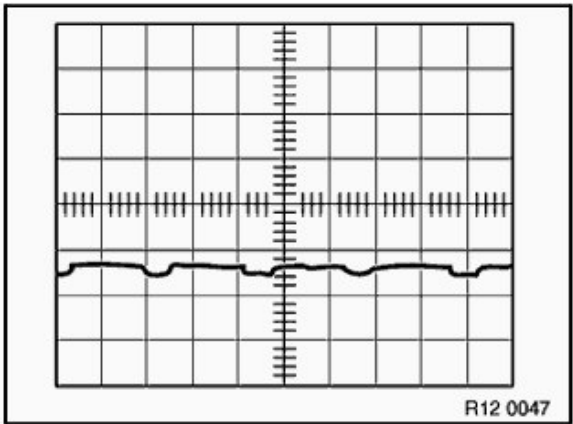
Interturn fault.

Repair/exchange alternator.

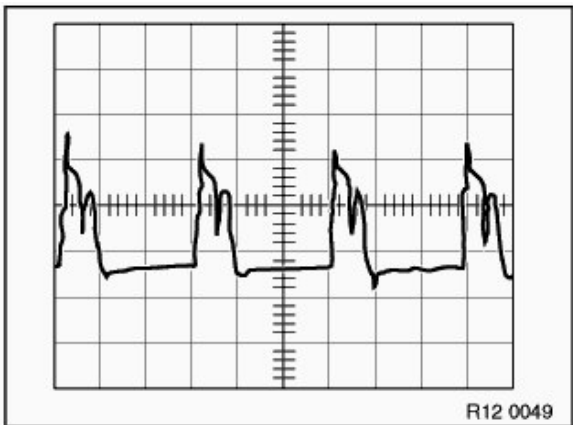




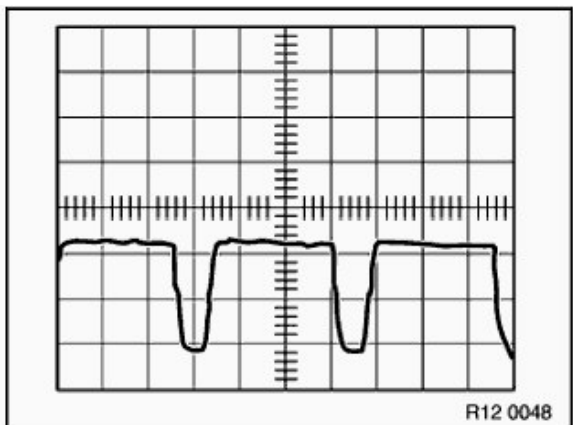
Open circuit in negative diode.
Repair/exchange alternator.



Short circuit in positive diode.
Repair/exchange alternator.



Open circuit in positive diode.
Repair/exchange alternator.



Open circuit in exciter diode.
Repair/exchange alternator.