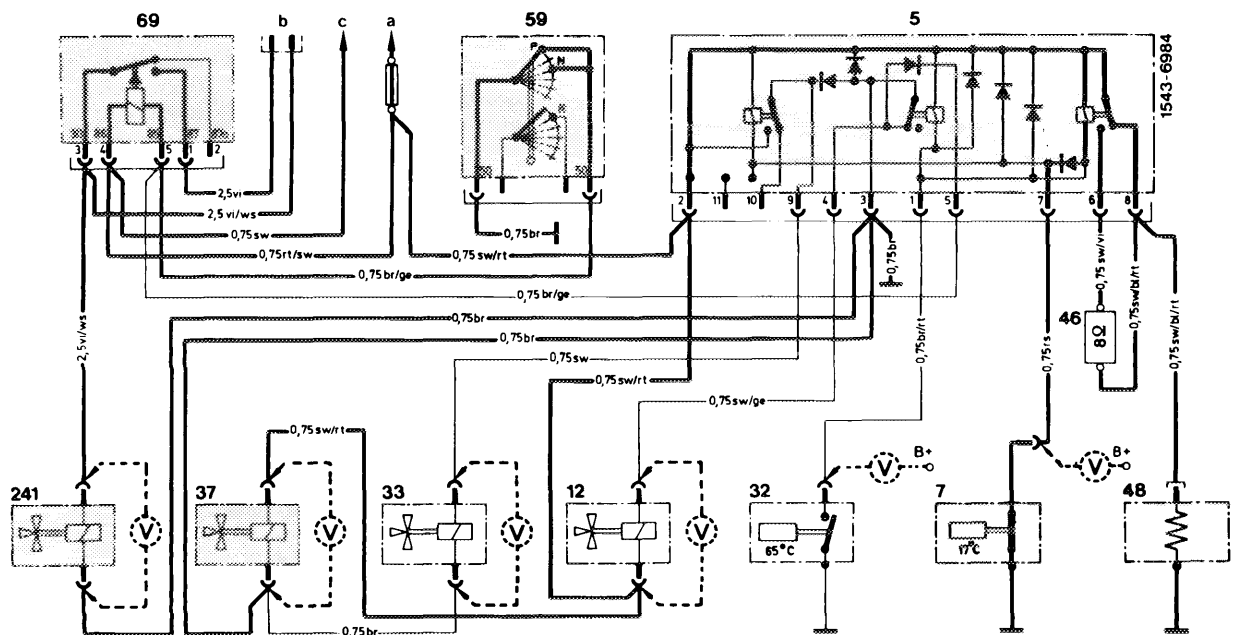


A. (J) 1976

Test conditions: All fuses in order, engine at operating temperature, run engine at idle.

Wiring diagram (drawn with ignition switched off below 17 °C engine oil temperature)

Choke cover-stepped heater, automatic choke, positive and negative venting of float chamber



- | | | |
|---------------------------------|--|--|
| 5 Relay box | 33 Switchover valve air injection (blue) | 48 Choke cover |
| 7 Temperature switch 17 °C | 37 Switchover valve float chamber positive ventilation (green) | 59 Starter lockout and back-up lamp switch |
| 12 Switchover valve EGR (brown) | 46 Resistor 8 ohms | 241 Switchover valve automatic choke (white) |
| 32 Temperature switch 65 °C | | |

Color code

- | | | | |
|-------------|------------|-------------|--|
| bl = blue | rs = pink | vi = purple | a Fuse no. 4 |
| br = brown | rt = red | ws = white | b Coupler to main conductor
Cable color purple – starter terminal 50
Cable color purple/white – starter switch terminal 50 |
| ge = yellow | sw = black | | c Warning switch catalyst temperature |

Testing choke cover-stepped heater

Connect voltmeter at output of resistor (46) and connect to ground. Disconnect plug connection of electric line to temperature switch 17 °C (7) and connect to ground.

Voltmeter indicating 7–8 volts.

Voltmeter not indicating 7–8 volts.

Test relay box (5)

Connect voltmeter at input of resistor (46) and to ground.

Connect plug connection of temperature switch (7) to ground. Voltmeter should indicate 7–8 volts.

If no voltage is measured, renew relay box (5).

Testing choke cover-stepped heater

Connect voltmeter at output of resistor (46) and to ground.

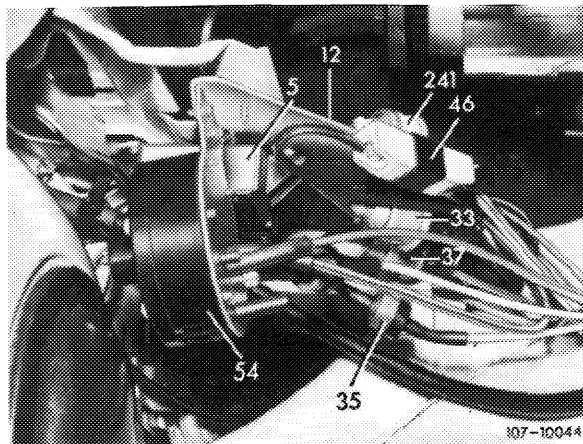
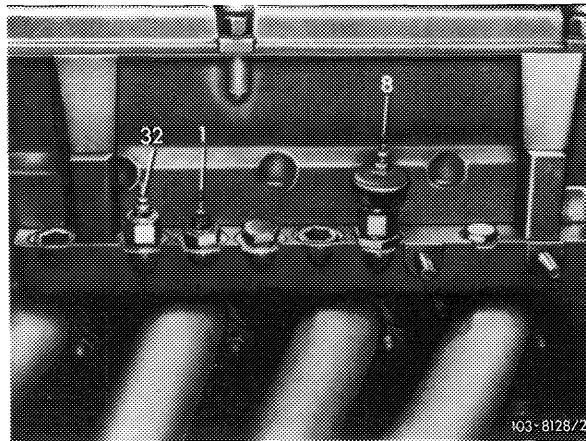
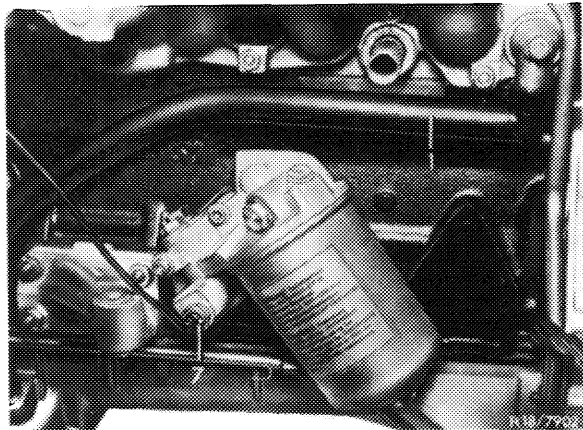
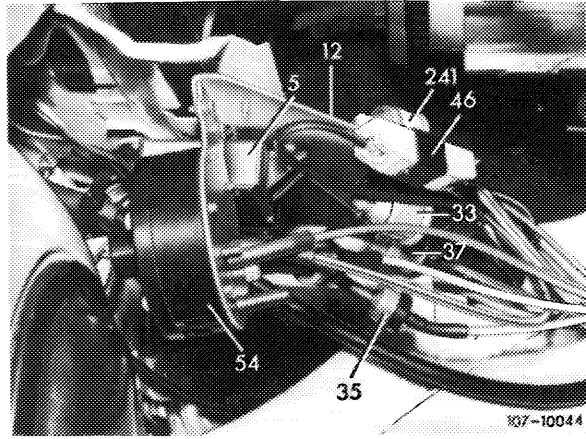
Pull plug from temperature switch 65 °C.

Voltmeter indicating approx. 12 volts.

Voltmeter not indicating approx. 12 volts.

Renew relay box (5).

End of test



B. (S) 1976

Test conditions: All fuses in order, engine at operating temperature, run engine at idle.

Wiring diagram (drawn with ignition switched off, below 17 °C engine oil temperature)

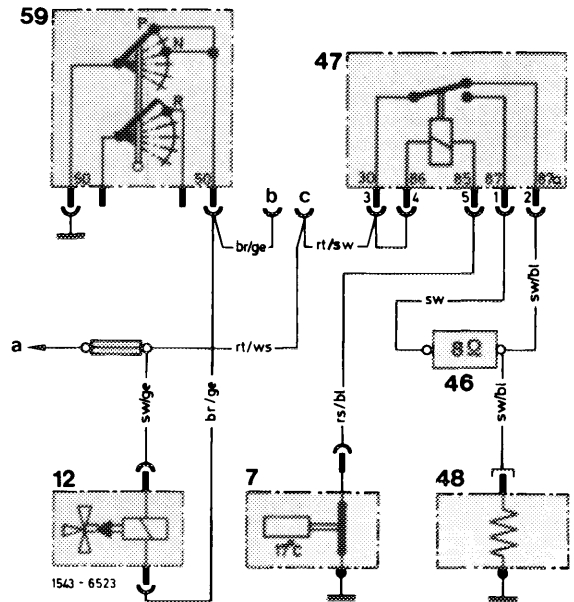
Choke cover-stepped heater, EGR

Color code

bl = blue rs = pink vi = purple
 br = brown rt = red ws = white
 ge = yellow sw = black

- a Fuse no. 3 (15/54)
- b Relay starter terminal 85
- c Relay starter terminal 86

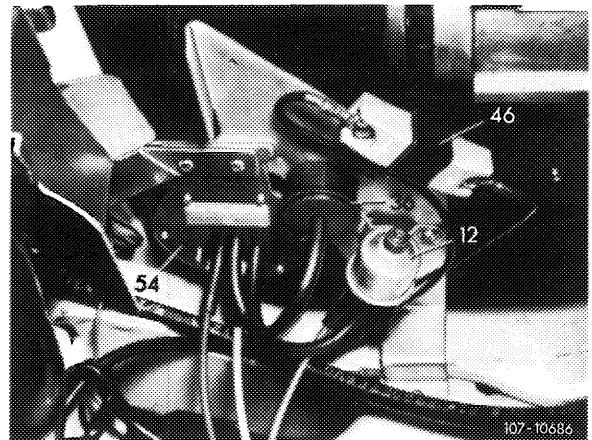
- 7 Temperature switch 17 °C
- 12 Switchover valve EGR (brown)
- 46 Pre-resistor 8 ohms
- 47 Relay pre-resistor choke cover
- 48 Choke cover
- 49 Starter lockout and back-up light switch



Testing choke cover-stepped heater	
Connect voltmeter to output of resistor (46) and to ground. Disconnect plug connection of electric line to temperature switch 17 °C (7) and connect to ground.	
Voltmeter indicating 7–8 volts.	Voltmeter not indicating 7–8 volts.

Test relay pre-resistor choke cover (47)

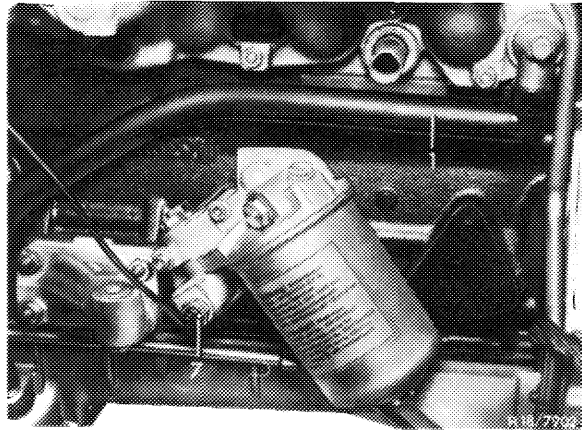
Connect voltmeter one after the other to both connections of pre-resistor choke cover (46) and to ground.



Connect plug connection of temperature switch 17 °C (7) to ground. Voltmeter should indicate approx. 7–8 volts once.

If no voltage of 12 volts is measured, test choke cover.

If less than 7–8 volts are measured, test pre-resistor or renew relay.



Testing choke cover-stepped heater

Connect voltmeter to output of resistor (46) and to ground.

Pull plug from temperature switch 65 °C.

Voltmeter indicating approx. 12 volts.

Voltmeter not indicating approx. 12 volts.

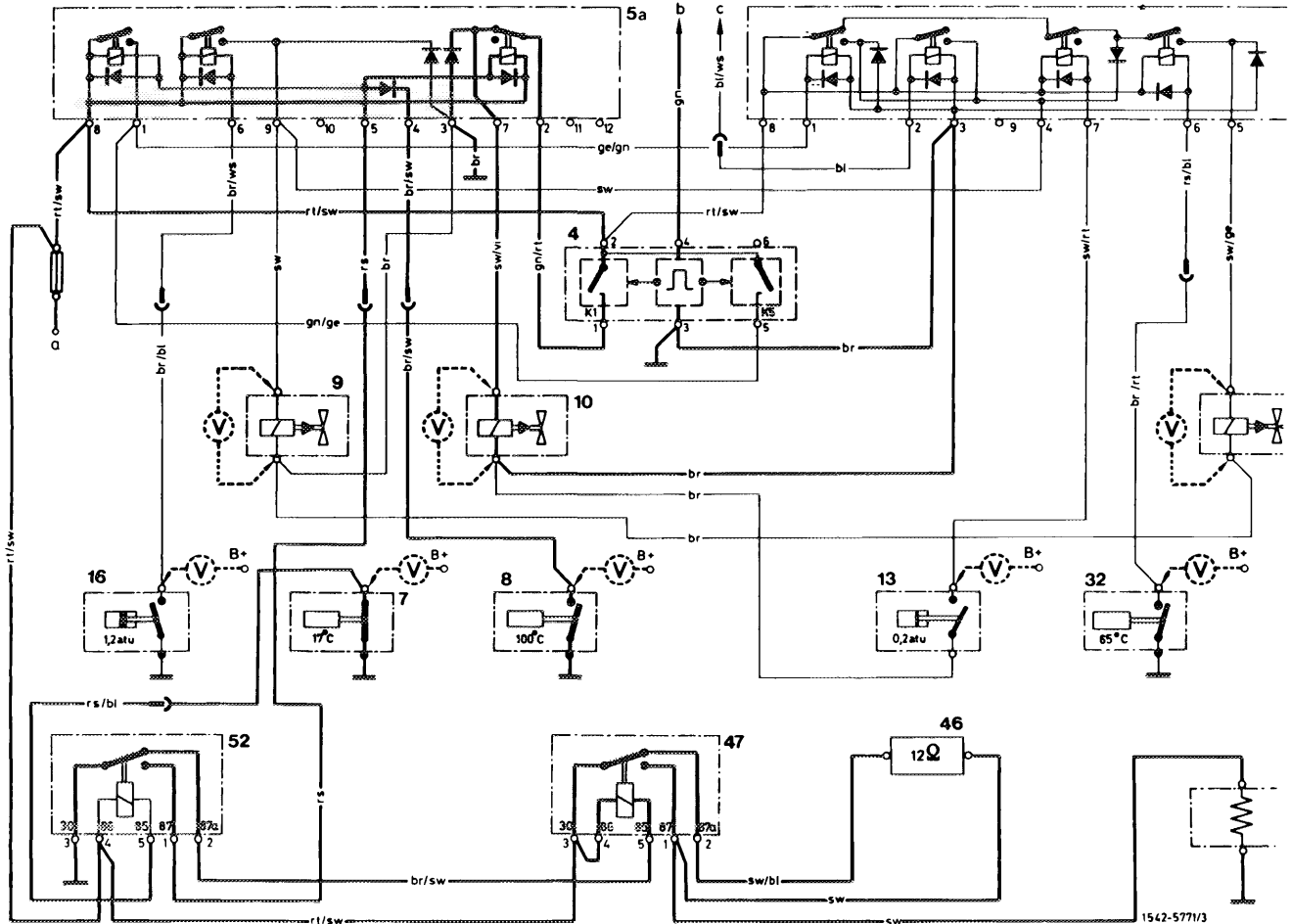
If less than 7–8 volts are measured, test pre-resistor or replace relay.

End of test

Test conditions: All fuses in order, engine at operating temperature, run engine at idle.

Wiring diagram (drawn with ignition switched off, below 17 °C engine oil temperature)

Choke cover-stepped heater, throttle valve lift



- | | | |
|--|---|-----------------------------------|
| 4 Rpm relay with 2 speeds
1800/2000/min and 3000/3400/min | 9 Switchover valve ignition | 46 Resistor choke cover |
| 5 Relay box (8-pole) | 10 Switchover valve throttle valve lift | 47 Relay resistor choke cover |
| 5a Relay box (12-pole) | 12 Switchover valve EGR | 48 Choke cover |
| 7 Temperature switch 17 °C | 13 Vacuum switch 0.2 bar | 52 Relay temperature switch 17 °C |
| 8 Temperature switch 100 °C | 16 Oil pressure switch 1.2 bar | |
| | 32 Temperature switch 65 °C | |

Color code

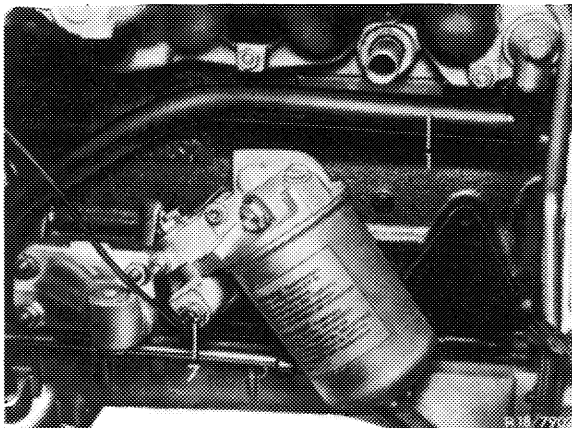
- | | | | |
|-------------|------------|-------------|--|
| bl = blue | gn = green | sw = black | a Fuse no. 3 |
| br = brown | rs = pink | vi = purple | b Double cable connector terminal 1 ZV |
| ge = yellow | rt = red | ws = white | c Relay air conditioner terminal 87a |

Testing choke cover-stepped heater

Disconnect plug connection of electric line to temperature switch 17 °C (7) in oil filter housing and connect to ground.

Relay (47 and 52) audibly switching.

Relay (47 and 52) not switching.

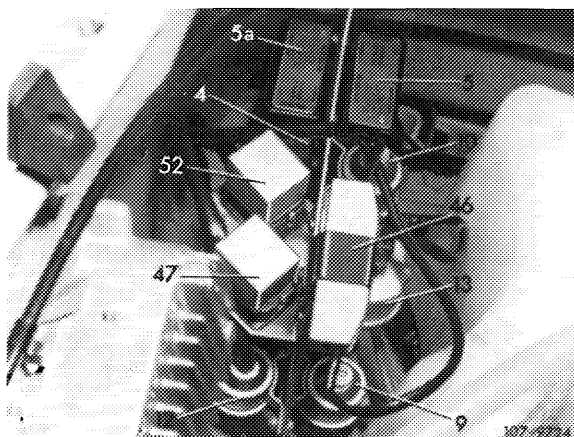


Test relay for resistor of choke cover (47) (front relay, short cable)

Connect voltmeter to output of resistor (46) and to ground. With the ignition switched on, the voltmeter should indicate approx. 13 volts. If there is no voltage, renew relay (47).

Loosen plug connection of electric line to temperature switch 17 °C and connect to ground. Voltmeter should indicate approx. 5 volts. If there is no voltage, renew resistor.

If approx. 13 volts are measured, exchange choke cover on carburetor and repeat test.



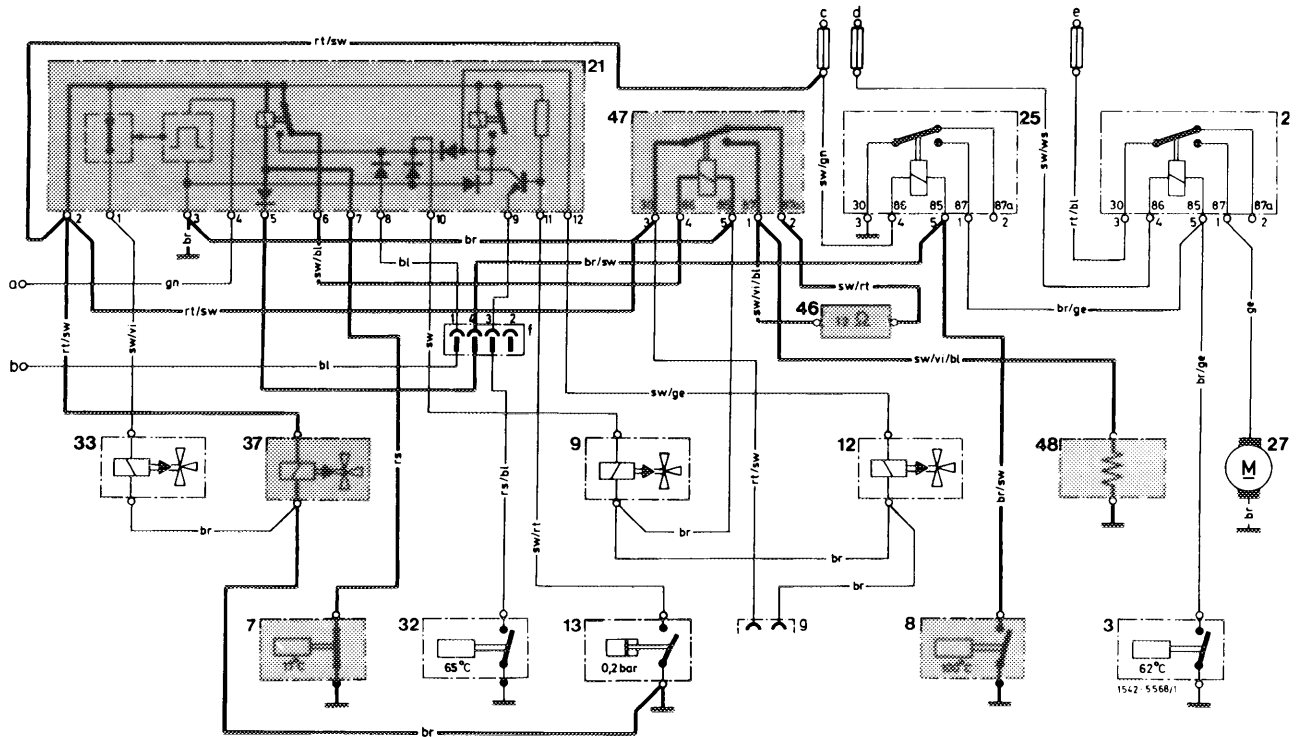
End of test

D. (USA) 1974 California

Test conditions: All fuses in order, engine at operating temperature, run engine at idle.

Wiring diagram (drawn with ignition switched off, below 17 °C engine oil temperature)

Choke cover-stepped heater, fuel evaporation control system



- | | | |
|-----------------------------|--|---|
| 3 Temperature switch 62 °C | 21 Switchbox | 33 Switchover valve air injection |
| 7 Temperature switch 17 °C | 25 Relay disconnection temperature switch 62 °C/100 °C | 37 Switchover valve fuel evaporation control system |
| 8 Temperature switch 100 °C | 26 Relay auxiliary fan | 46 Resistor choke cover |
| 9 Switchover valve ignition | 27 Auxiliary fan | 47 Relay resistor choke cover |
| 12 Switchover valve EGR | 32 Temperature switch 65 °C | 48 Choke cover |
| 13 Vacuum switch | | |

Color code

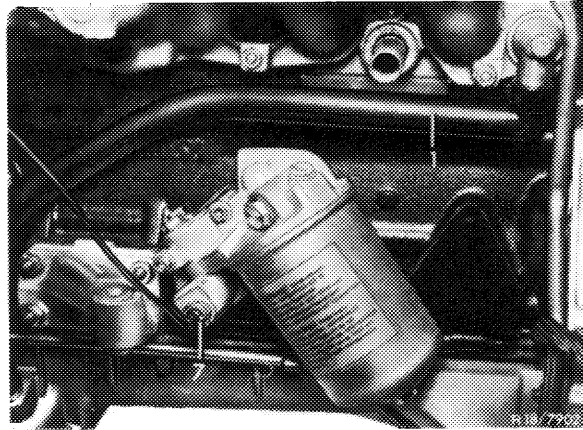
- | | | | |
|-------------|------------|-------------|--|
| bl = blue | gn = green | sw = black | a To two-point cable connector terminal 7 (TD) |
| br = brown | rs = pink | vi = purple | b Switch air conditioning system |
| ge = yellow | rt = red | ws = white | c Fuse no. 3 (15/54) |
| | | | d Fuse no. 4 (15/54) |
| | | | e Auxiliary fuse box for auxiliary fan |
| | | | f 4-point plug on relay holder |
| | | | g 2-point coupler, tied-up |

Testing choke cover-stepped heater

Disconnect plug connection of electric line to temperature switch 17 °C (7) in oil filter housing and connect to ground.

Relay (47) audibly switching.

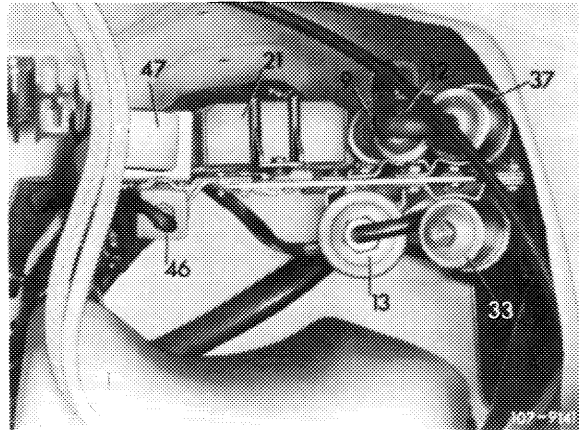
Relay (47) not switching.



Test relay in switchbox (21)

Pull coupler from relay for resistor of automatic choke and connect voltmeter to terminal 1 and 3. Loosen plug connection of electric line to temperature switch (7) and connect to ground.

With the ignition switched on, the voltmeter should indicate approx. 13 volts. If no voltage is measured, renew switchbox (21).



Test relay for resistor of choke cover (47)

Connect voltmeter to output of resistor (46, upper connection) and to ground. With the ignition switched on, the voltmeter should indicate approx. 13 volts. If no voltage is measured, renew relay (47).

Loosen plug connection of electric line to temperature switch (7) and connect to ground. Voltmeter should indicate approx. 5 volts. If no voltage is measured, renew resistor.

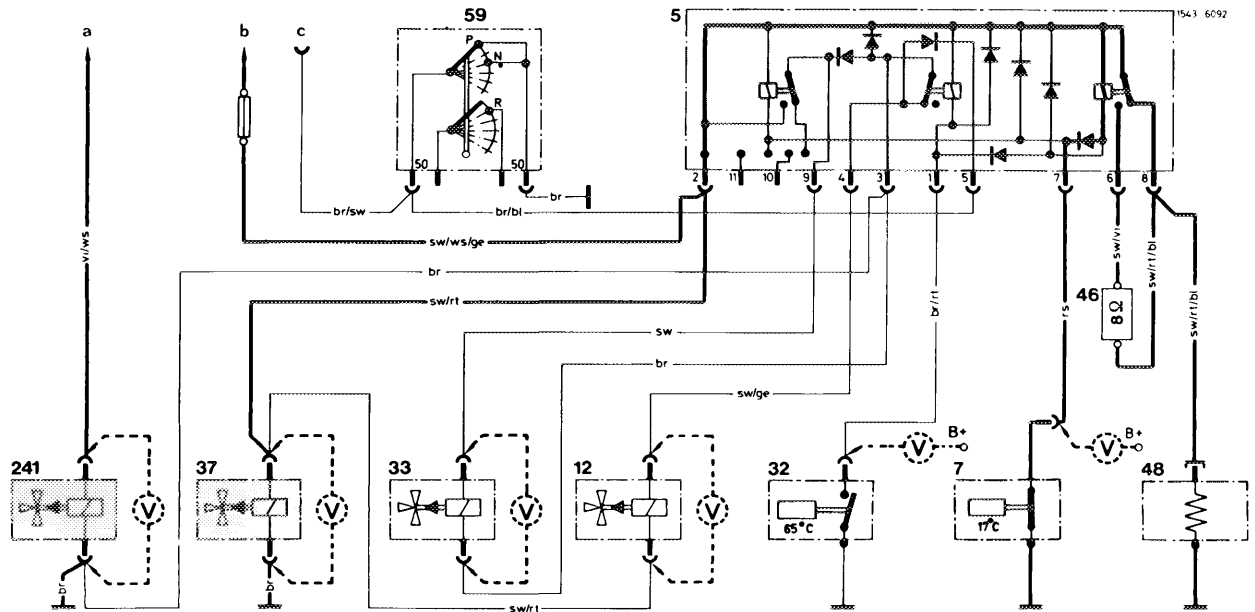
If approx. 13 volts are measured, exchange choke cover on carburetor.

End of test

Test conditions: All fuses in order, engine at operating temperature, run engine at idle.

Wiring diagram (drawn with ignition switched off, below 17 °C engine oil temperature)

Choke cover-stepped heater, automatic choke, tank breather

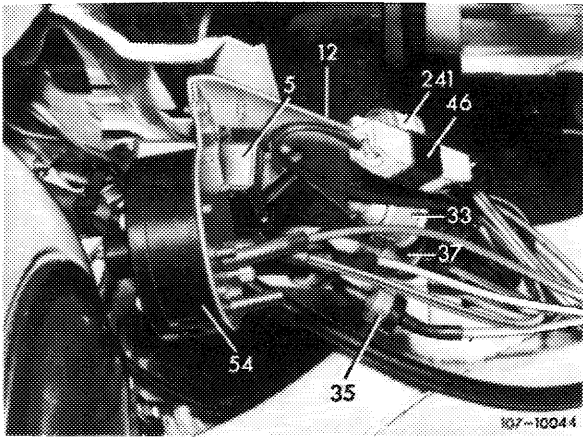


- | | | |
|---------------------------------|---|--|
| 5 Relay box | 33 Switchover valve air injection (blue) | 48 Choke cover |
| 7 Temperature switch 17 °C | 37 Switchover valve float chamber positive vent (green) | 49 Starter lockout and back-up light switch |
| 12 Switchover valve EGR (brown) | 46 Resistor 8 ohms | 241 Switchover valve automatic choke (white) |
| 32 Temperature switch 65 °C | | |

Color code

- | | | | |
|-------------|------------|-------------|--|
| bl = blue | rs = pink | vi = purple | a Terminal 50 starter |
| br = brown | rt = red | ws = white | b Fuse no. 3 |
| ge = yellow | sw = black | | c Terminal 30 emergency starter switch |

<p>Testing choke cover-stepped heater</p> <p>Connect voltmeter to output of resistor (46) and to ground. Disconnect plug connection of electric line to temperature switch 17 °C (7) and connect to ground.</p>	
<p>Voltmeter indicating 7–8 volts.</p>	<p>Voltmeter not indicating 7–8 volts.</p>

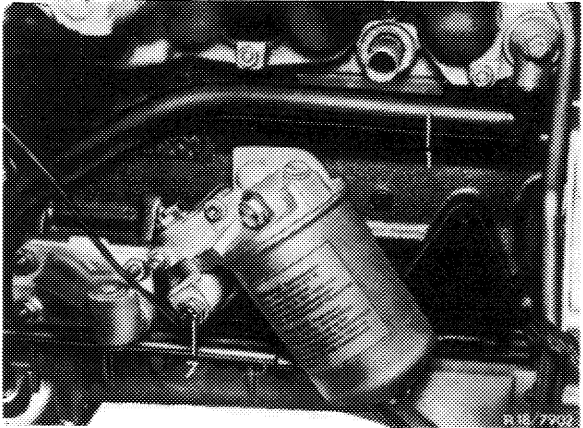


Test relay box (5)

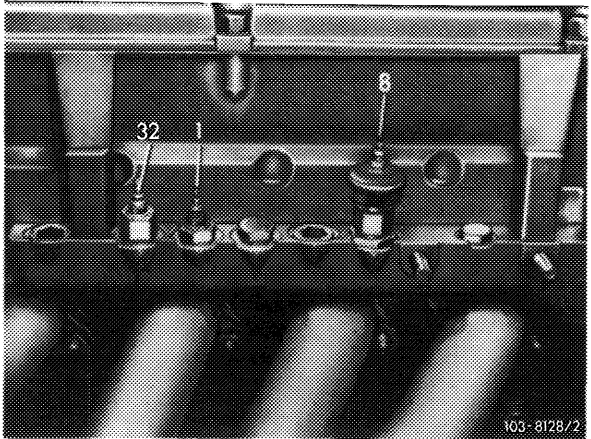
Connect voltmeter to input of resistor (46) and to ground.

Connect plug connection of temperature switch to ground. Voltmeter should indicate 7–8 volts.

If no voltage is measured, renew relay box (5).



<p>Testing choke cover-stepped heater</p> <p>Connect voltmeter to output of resistor (46) and to ground.</p> <p>Pull plug from temperature switch 65 °C.</p>	
<p>Voltmeter indicating approx. 12 volts.</p>	<p>Voltmeter not indicating approx. 12 volts.</p>



Renew relay box (5).

End of test

