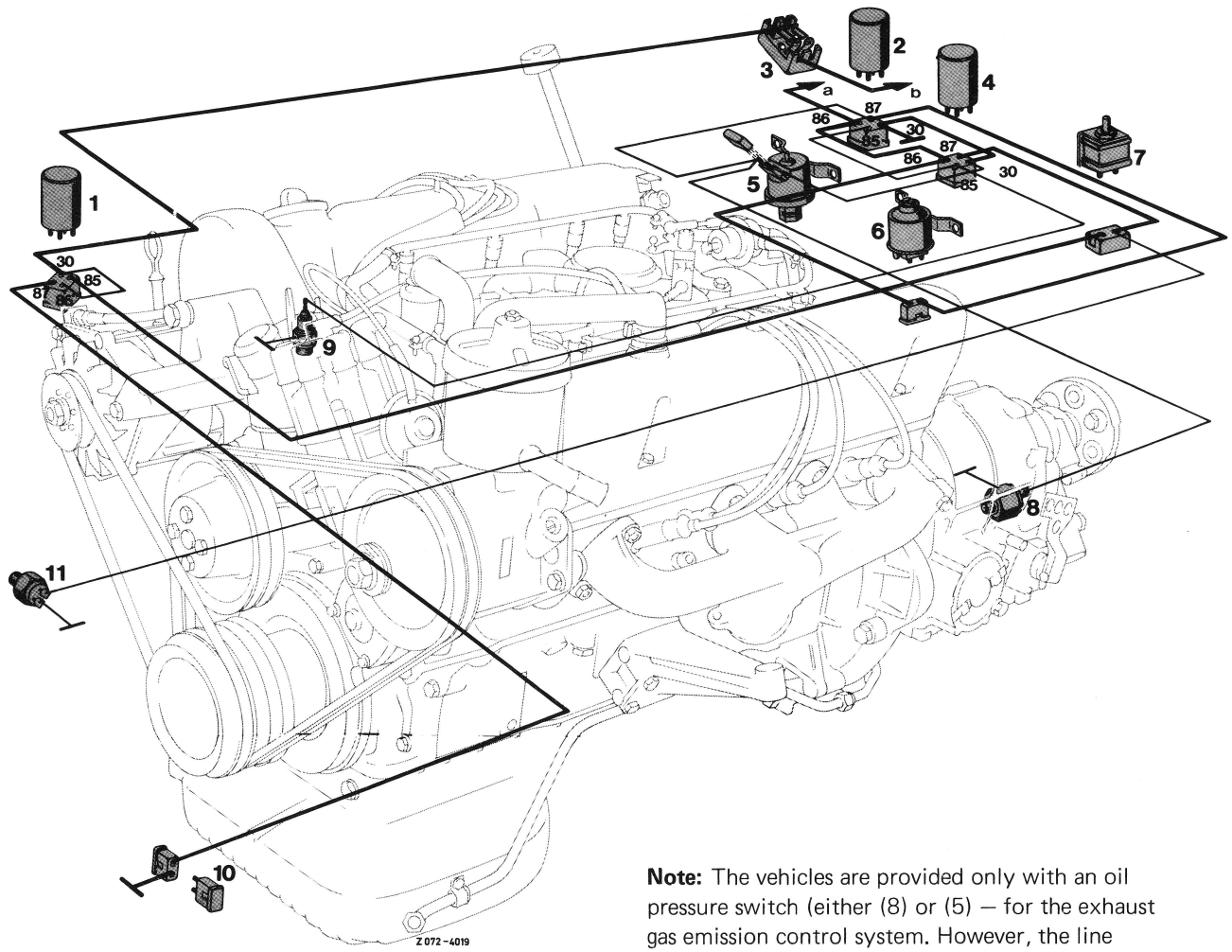
M 116



Note: The vehicles are provided only with an oil pressure switch (either (8) or (5) – for the exhaust gas emission control system. However, the line assembly is provided with both electrical connections.

Fig. 1
Wiring diagram sedan (saloon)

1 Relay for supplementary fan
2 Relay for two-way valve
3 Fusebox for supplementary fan
4 Relay for separating supplementary fan from ignition adjustment
5 Oil pressure switch version 2
6 Two-way valve
7 Safety switch
8 Oil pressure switch version 1
9 Temperature switch 100°C
10 Connection for supplementary fan
11 Temperature switch 62°C
a To fuse No. 6
b To coupling of heater operating unit

To keep exhaust gas emissions as low as possible, the firing point in the lower drive range at normal cooling water temperature is adjusted in the direction of retard.

In addition, the fuel will be shutoff under thrust conditions (driving downhill etc.).

Ignition Timing

The vacuum line from the valve connection to the vacuum box of the ignition distributor is provided with a two-way valve (1) (Fig. 2).

Adjustments to **retarded ignition** are made when the two-way valve is deenergized and the vacuum from the valve connection acts through the valve against the diaphragm in the vacuum box of the ignition distributor.

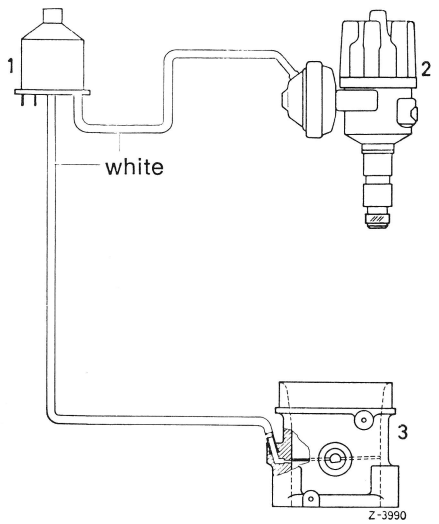


Fig. 2
Connection of vacuum lines

1 Two-way valve
2 Ignition distributor
3 Throttle valve

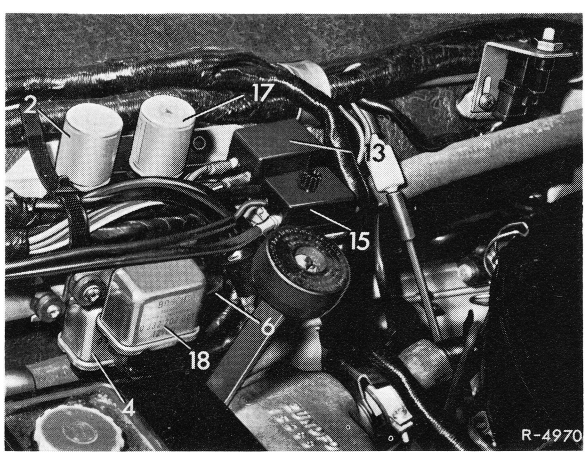


Fig. 3
Arrangement on types 111.026 and 111.027

2 Relay two-way valve
4 Relay for disconnecting supplementary fan from ignition adjustment
6 Two-way valve
13 Fuse for window lifter
15 Fuse for radio and antenna
17 Relay for window lifter
18 Relay for window lifter

The **ignition is advanced,** when the two-way valve is connected to ground and the diaphragm of the vacuum box is connected to the ambient air. The ignition distributor is then adjusted in the direction of advance by approx. 15° by means of the spring in the vacuum box.

Note: With the ignition switched on, the two-way valve is continuously energized. The two-way valve and thereby the ignition timing is actuated by two switches:

1. By an oil **pressure switch** (8) on the automatic transmission (Fig. 5). The oil pressure switch is closed above 50–65 km/h (2.0 + 0.3 atü) and makes a ground connection to the two-way valve (ignition advanced). The oil pressure switch is open (ignition retarded) below 47–35 km/h ($1.5 \,^{+0.3}_{-0.2}$ atü).

2. By a **100° C temperature switch** (9) in thermostat housing (Fig. 6). The switch is closed above 100° C cooling water temperature and actuates the two-way valve (6) via relay (2) (ignition advance).

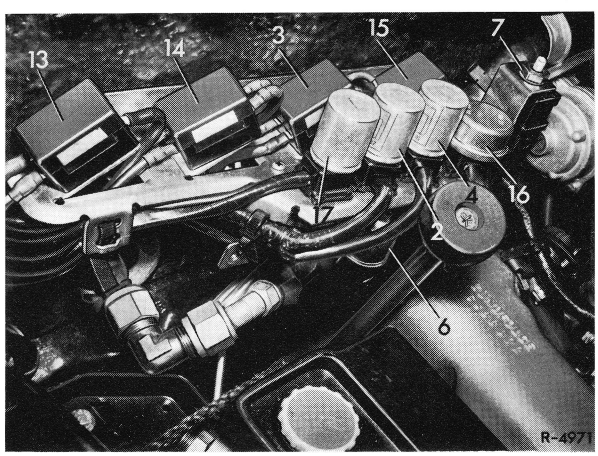


Fig. 4
Arrangement on type 109.056

2 Relay two-way valve
3 Fuse for fan and cooling system
4 Relay for disconnecting supplementary fan from ignition timing
6 Two-way valve
7 Safety switch
13 Fuse for window lifter
14 Fuse for rear window and slide roof
15 Fuse for radio and antenna
16 Delaying switch for interior lighting
17 Relay for window lifter

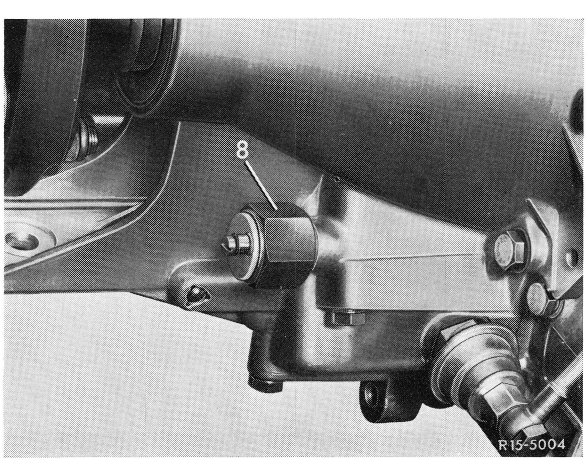


Fig. 5
8 Oil pressure switch

Fuel Shutoff

No fuel will be injected under thrust conditions, when the following operating conditions are simultaneously met:

1. Accelerator pedal in idling speed position

When the throttle valve switch is correctly set, the contact between terminals 12 and 17 is open.

2. Engine speed above 1,500 rpm

Speed control by electronic control unit.

The fuel shutoff will be cancelled, when under thrust conditions and at a cooling water temperature of above + 70° C the speed is below 900 rpm.

At a cooling water temperature of –20° C the fuel shutoff will be cancelled already at 1,470 rpm. The restarting speed between the two temperature limits increases in linear relationship.

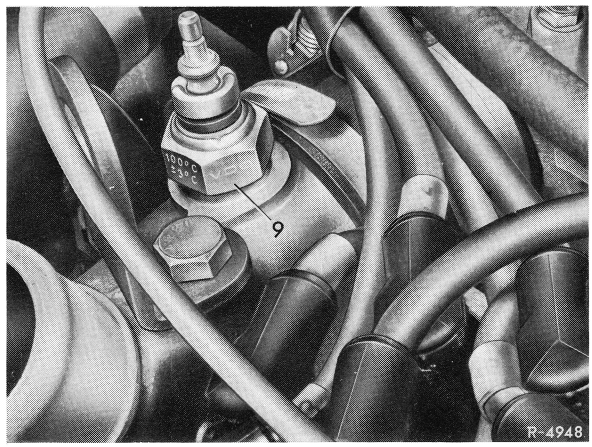


Fig. 6
9 Temperature switch 100°C