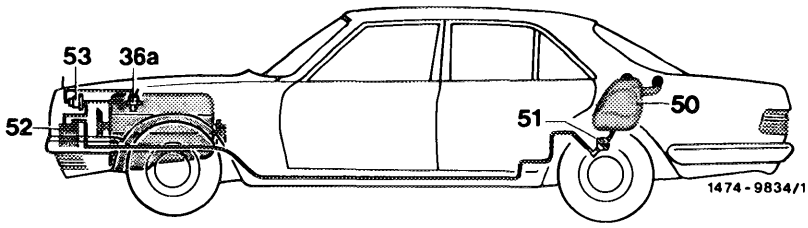
(AUS) (J) (USA) starting 1981 and CAT/RÜF

Function diagram

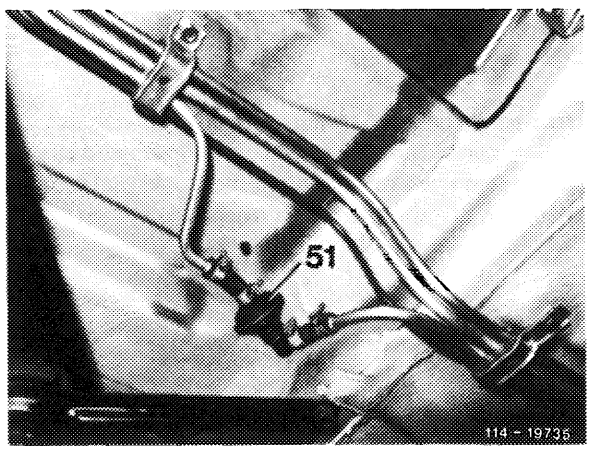
36a Thermovalve
(AUS) 40 °C, black
(J) (USA) CAT/RÜF 50 °C, red
50 Fuel tank
51 Vent valve
52 Charcoal canister
53 Purge valve



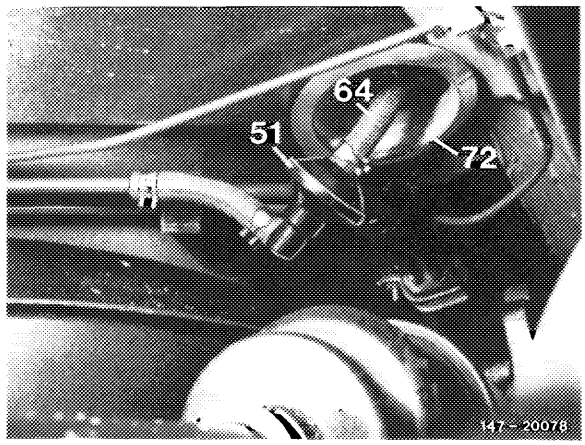
The fuel evaporation vapors are flowing from fuel tank (50) through vent valve (51) to charcoal canister (52). There, depending on operating conditions of engine, they will be stored or drawn off by the intake manifold vacuum via purge valve (53). In intake manifold, the evaporation vapors are uniformly distributed to all cylinders and burnt in engine.

Vent valve (51)

Vent valve is installed underneath vehicle and makes sure that a gauge pressure of 30–50 mbar is established in fuel tank. Fuel evaporation vapors will then be considerably reduced in quantity.

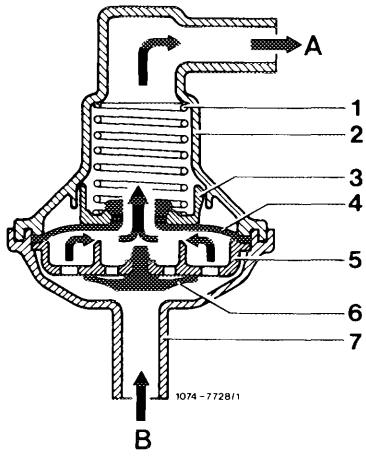


Model 107



Model 126

If the pressure in fuel tank attains a gauge pressure of 30–50 mbar, vent valve (4) will open so that the fuel evaporation vapors can flow toward charcoal canister.

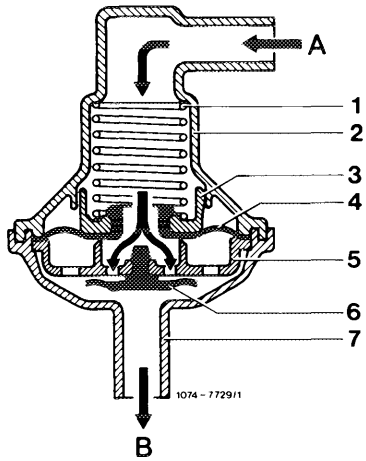


Vent valve to charcoal canister opened

1 Compression spring
2 Valve housing
3 Spring retainer
4 Negative vent valve
5 Valve plate
6 Positive vent valve
7 Connection

A Charcoal canister
B Fuel tank

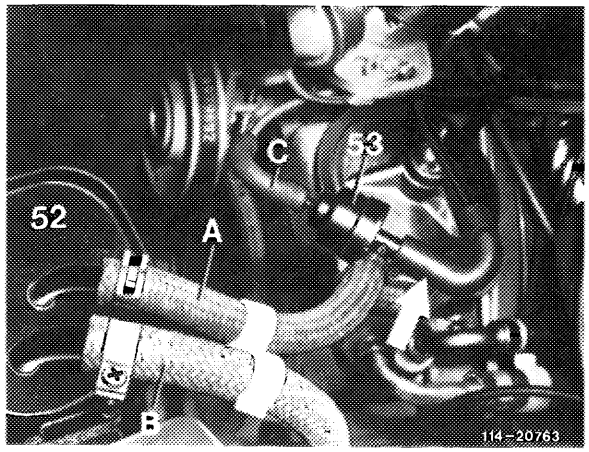
When the fuel cools down, its volume is getting smaller and will be balanced by the intake of air or fuel evaporation vapors from charcoal canister via positive vent valve (6) starting at a vacuum of 1–16 mbar. The positive vent valve (6) closes when the vacuum in fuel tank drops below 1 mbar.



Vent valve open to fuel tank

Charcoal canister (52)

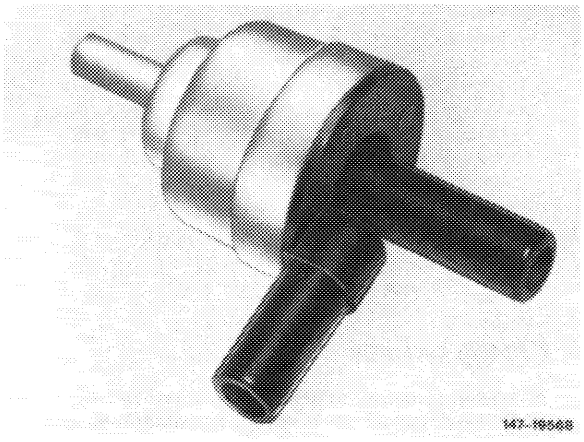
Located in engine compartment on lefthand radiator shell. Floor of charcoal canister is permeable to air (perforated sheet metal). When the stored fuel vapors are drawn off, the charcoal is regenerated.

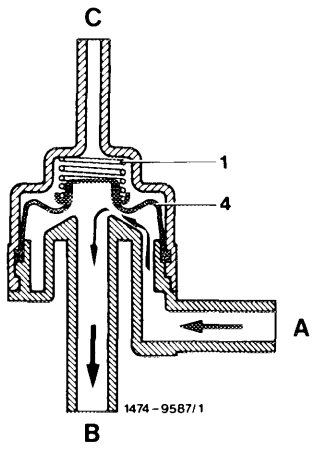


A Draw-off line to throttle valve housing
B Fuel tank negative vent

Purge valve (regenerating valve) (53)

The purge valve (regenerating valve) is installed in draw-off line (A and arrow) from charcoal canister to throttle valve housing. It is vacuum-controlled and opens in dependence of coolant temperature and throttle valve position.





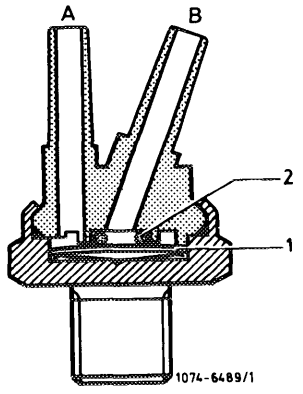
Purge valve (regenerating valve) opened

1 Compression spring
4 Diaphragm
A Connection charcoal canister
B Connection throttle valve housing
C Vacuum connection

Thermovalve (36a)

(AUS) 40 °C, color code black
(J) (USA) CAT/RÜF 50 °C, color code red

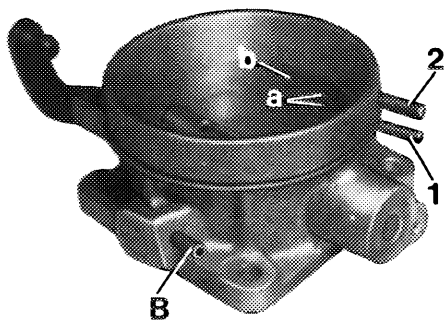
The thermovalve is installed in measuring sensor box of cylinder head and opens at approx. 40 °C or approx. 50 °C coolant temperature.



1 Bimetall plate
2 O-ring
A To purge valve (regenerating valve)
B To throttle valve housing

Throttle valve housing

Throttle valve housing has two draw-off bores (a) one above the other for drawing fuel evaporation vapors from charcoal canister. Both draw-off bores (a) are jointly entering a duct. This duct leads to connection (2). Connection (1) serves for vacuum activation of purge valve (regenerating valve).



(AUS)

1 Vacuum connection to purge valve (regenerating valve)
2 Draw-off connection purge valve (regenerating valve)

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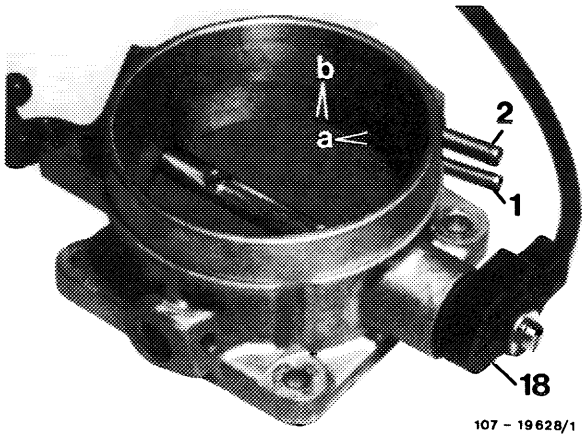

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(J) (USA) CAT/RÜF

1 Vacuum connection to purge valve (regenerating valve)
2 Draw-off connection purge valve (regenerating valve)