

## 14-100 Test program

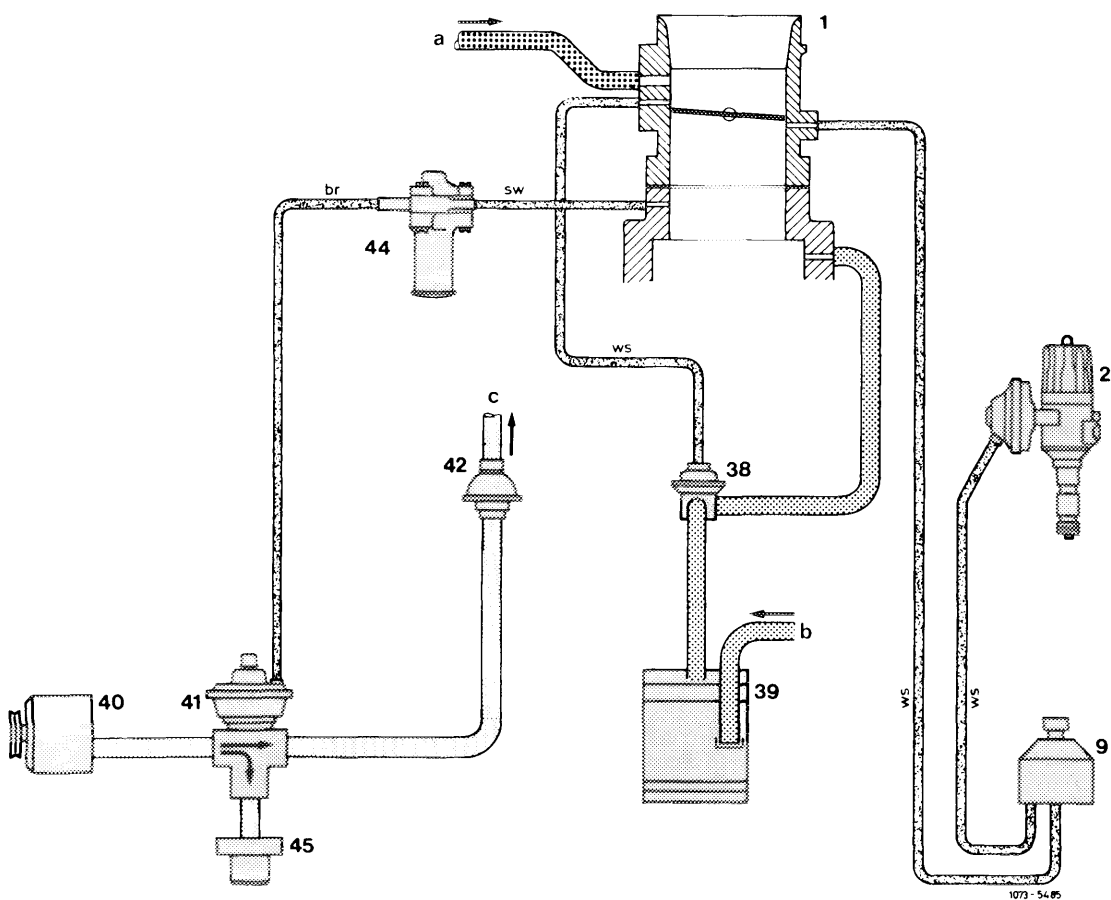
California version 1974

For complaints such as: Poor warming-up characteristics of engine, poor idle speed, engine not accelerating or splashing during acceleration, check emission control system for function.

Test conditions: Engine at operating temperature, run engine at idle speed.

Test the following: Ignition switchover, EGR, air injection and fuel evaporation system.

### Function diagram



- |                             |                         |
|-----------------------------|-------------------------|
| 1 Throttle valve housing    | 40 Air pump             |
| 2 Ignition distributor      | 41 Diverter valve       |
| 9 Switchover valve ignition | 42 Check valve          |
| 38 Purge valve              | 44 Vacuum control valve |
| 39 Charcoal canister        | 45 Air filter           |

- a EGR line  
 b Connection fuel tank  
 c Air injection line to cylinder head

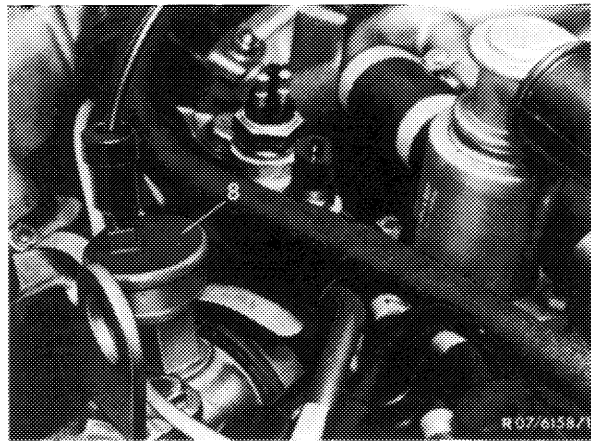
- br = brown  
 sw = black  
 ws = white

### Testing ignition switchover

Pull plug from temperature switch 100 °C (8) and connect to ground.

Engine speed increasing.

Engine speed not increasing.

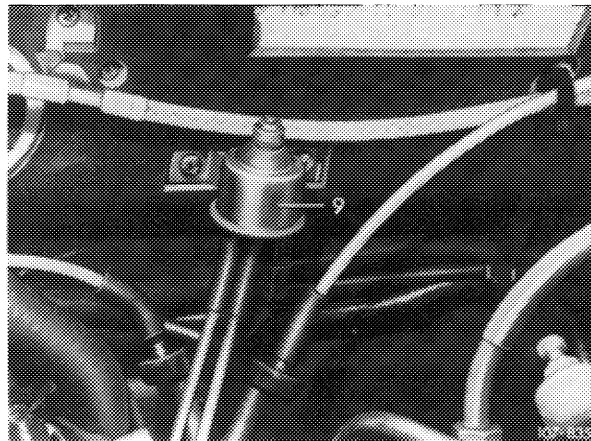
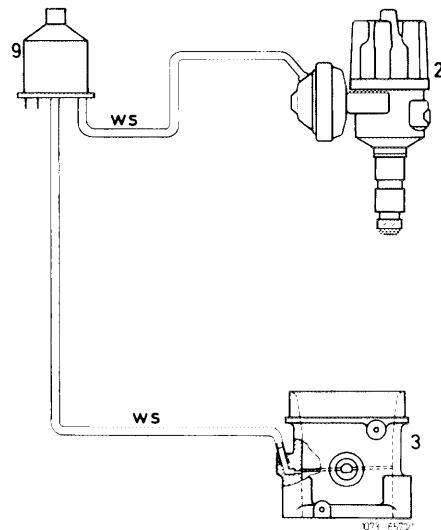


### Testing vacuum lines

The vacuum line from throttle valve housing (3) leads to center connection of switchover valve (9), that of vacuum control unit of ignition distributor (2) to outer connection of switchover valve (9).

### Testing vacuum

Pull vacuum line from center connection of switchover valve (9) and keep closed with finger. If vacuum is evident, plug vacuum line in again. If no vacuum is evident, blow out vacuum draw-off connection on throttle valve housing with compressed air.



### Testing relay (code number 5) for switchover valve

Connect test lamp to connecting plug of switchover valve (9) and plug of temperature switch (8) to ground. Relay is in order if test lamp lights up.

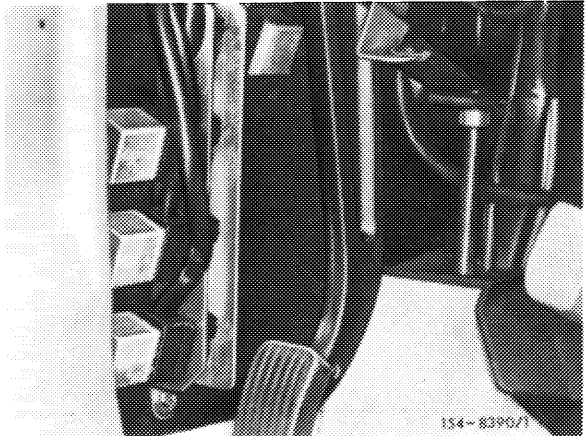
Replace switchover valve (9).

If test lamp is not lighting up, replace relay.



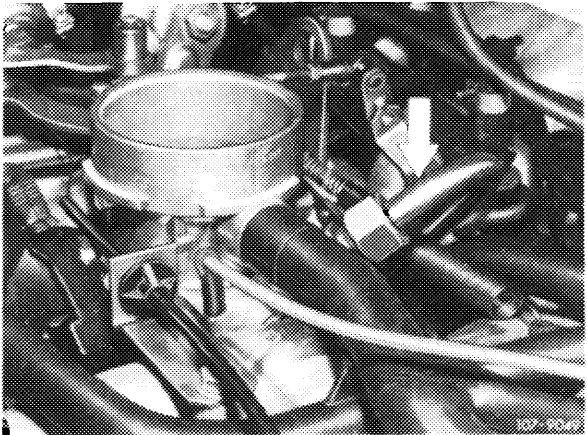
<b>Testing ignition switchover</b>	
Switch on air conditioning system.	
Engine speed increasing.	Engine speed not increasing.

Replace relay (code number 5) if clutch of refrigerant compressor is attracted.

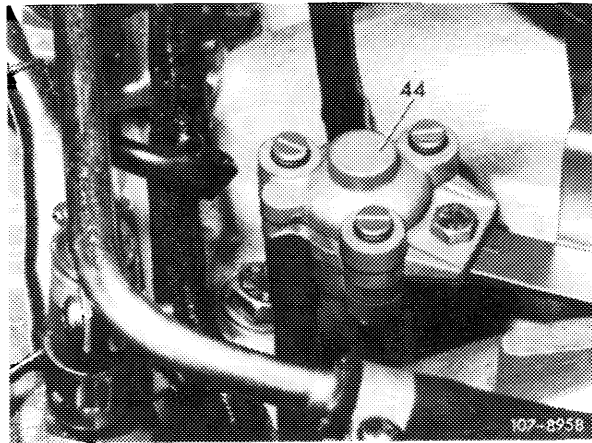


<b>Testing EGR</b>	
Remove air filter and put aside.	
<b>Note:</b> Do not pull off plug for temperature sensor air (testing of CO values).	
Do not mount air filter.	
Exhaust gas flows from EGR line into throttle valve housing.	No exhaust gas flow.

Check tapping connection of exhaust pipe, EGR line and connection on throttle valve housing.

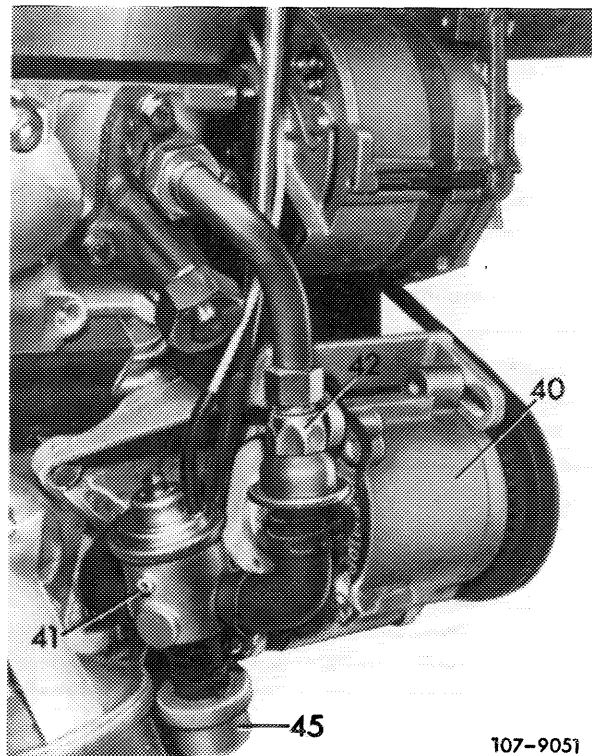


<p><b>Testing air injection</b></p> <p>Pull brown vacuum line from vacuum control valve (44). Increase engine speed to above approx. 2000/min and release regulating linkage.</p> <p>Do not mount air filter.</p>	
At connection of vacuum control valve (44) a vacuum should be available for a short period.	No vacuum available.



Replace vacuum control valve (44).

<p><b>Testing air injection</b></p> <p>Connect CO measuring instrument and read exhaust gas value. Pull brown vacuum line from vacuum control valve (44) and connect to vacuum line of control unit (actuator) of cruise control.</p>	
CO value increasing.	CO value not increasing.



**Testing diverter valve (41)**

Remove air filter (45) from purge valve and check whether air flows out of hose.

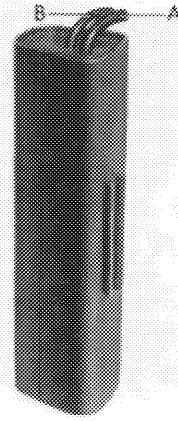
If no air flows out, replace diverter valve (41).

### Testing fuel evaporation control system

Pull draw-off hose from connection "B" of charcoal canister and close opening of hose with finger. Slowly increase engine speed to above approx. 2000/min.

Vacuum available,  
vacuum increases at  
increasing speed.

No vacuum.



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### Testing draw-off line for intake pipe

Loosen hose for charcoal canister on purge valve (38) and blow through valve in direction of intake pipe with compressed air. Replace purge valve (38).

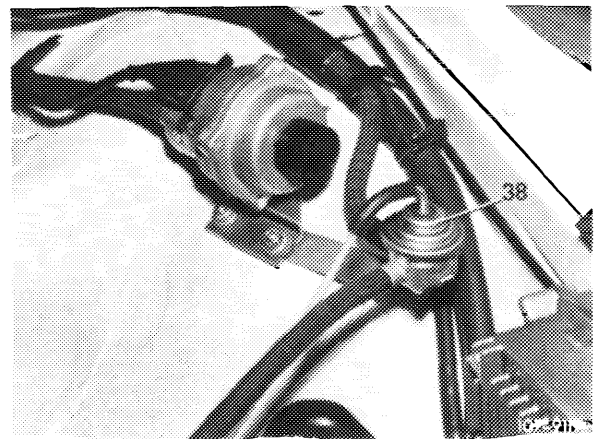
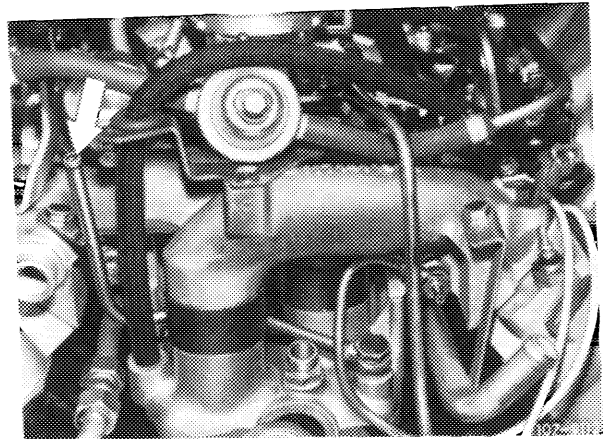
If vacuum is not increasing at higher speed:

### Test vacuum at purge valve (38)

Pull black vacuum line from purge valve (38). Connect vacuum gauge or keep opening of hose closed with finger. Slowly increase engine speed. A light vacuum should be available at idle. Vacuum should increase with increasing speed.

If a vacuum shows up, replace purge valve (38).

If there is no vacuum, blow through vacuum line to throttle valve housing with compressed air.



End of test.