

CO-setting (Stromberg)

Before adjusting the CO setting:

- Change the engine oil.
- 2 Check the condition of the spark plugs.
- 3 Check the HT leads.
- 4 Check the valve clearance.
- 5 Check the position of the camshaft (timing) .
- 6 Check the ignition timing.
- 7 Check the idling speed.
- 8 Check the float chamber ventilation.
- 9 Check the oil level in the carburettor dashpot damper.
- 10 Check the air preheater/air cleaner.
- 11 Check the delay valve.
- 12 Check the radiator fan.
- 13 Check the fuel shut-off valve.
- 14 Check the fast-idling speed (engine at normal running temperature).
- 15 Check the operation of the choke modulator by blanking off the filter aperture.
- 16 Check that the secondary CO adjusting screw is screwed fully home.

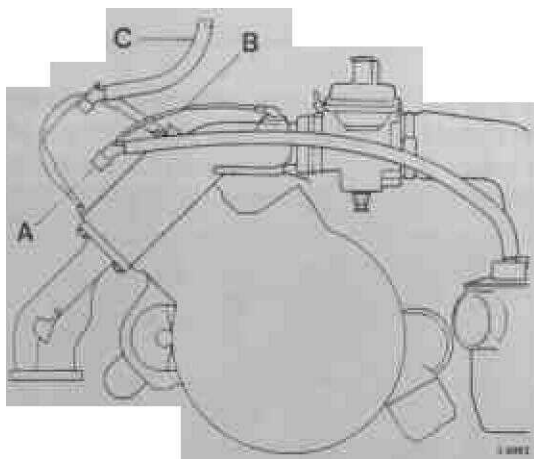
Note

To minimize the possible effect on the readings caused by various engine and exhaust emission control components, the CO setting on cars with Sweden specifications (and Switzerland, as from 1983 models) should be carried out at an engine speed of 2000 r/min. On Europe spec, cars, the setting should be made at idling speed.

CO-setting at 2 000 r/min

- 1 Run the engine to normal temperature, connect a tachometer and set the speed to 2000r/min.
- 2 Disconnect the crankcase ventilation as follows:
 - A Disconnect the hose from the valve cover.
 - B Plug the end of the small-bore hose.
 - C Connect the evacuation hose to the valve cover.

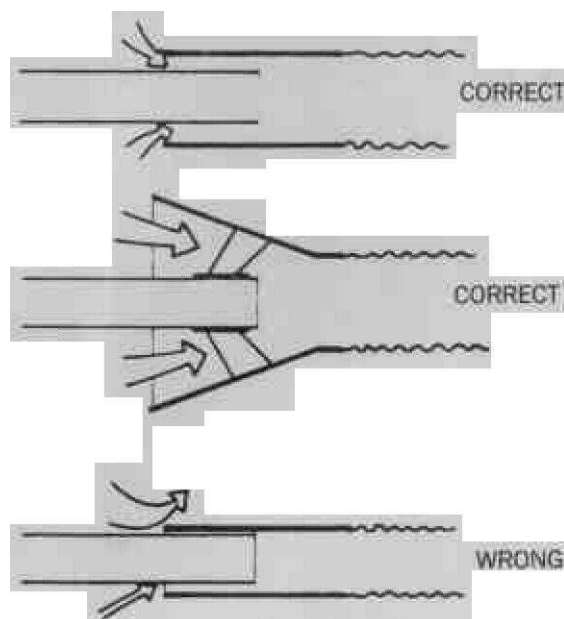
Evacuate the crankcase gases from the outlet in the valve cover by connecting the other end of the hose to the evacuation hose of the building's extraction **system**, at a point downstream of the CO-meter probe, to ensure that the readings will not be affected.



Note

When connecting exhaust extraction equipment in conjunction with running the engine inside the workshop, avoid excessive depressurization of the exhaust system, as this may affect readings, e.g. of the CO content.

To prevent excessive extraction pressure, use an extraction hose with an open coupling.



Secondary CO adjusting screw (single carb.)

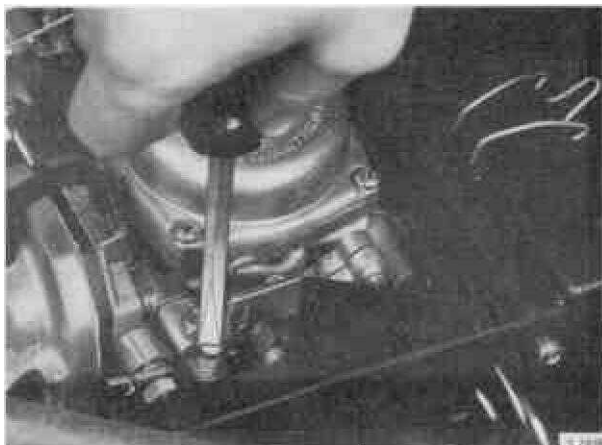
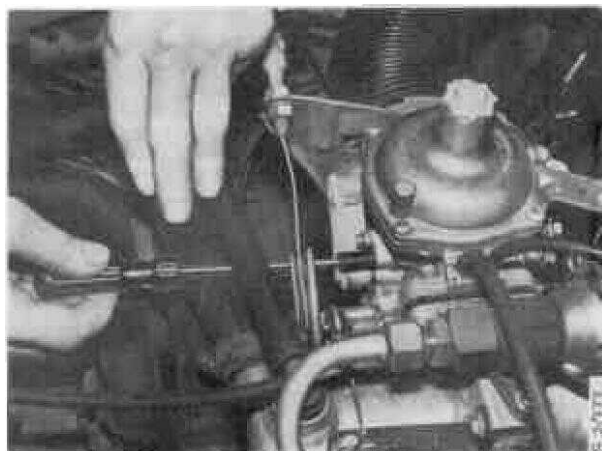
Carburettors equipped with a secondary CO adjusting screw for use at idling speed are fitted to

single-carburettor cars as from engine no. 18191, Conventional adjustment of the CO content should be carried out as before at 2,000 r/min.

Note

In its normal setting, the secondary adjusting screw should be screwed right home, to the end of its travel. If during subsequent checking of the CO value at idling speed the value exceeds the specified maximum(4.5%), the CO content can be reduced using the secondary adjusting screw.

- 3 Disconnect the vacuum line from the distributor and blank off the end of the hose.
- 4 Plug the end of the vacuum hose to the EGR valve (where applicable).
- 5 Connect the CO meter and tachometer.
- 6 Switch on the daylight driving lights.
- 7 Read the CO value immediately after the radiator fan cuts in. If the reading is within the specified limits, reset the idling speed to 850 r/min.



Idling adjustment screw Europe specification as from year model 1984

CO-setting at 2 000 r/min

(Hoses to vacuum control unit, crankcase ventilation and EGR valve disconnected.)

Single carburettor:

1.75 ±0.25%

Twin carburettors:

1.010.25%

For adjustment, remove the dashpot damper pistons and then turn needle adjusting screws by means of tool 8393035. Support the vacuum piston by means of the sleeve of the tool to prevent the rubber diaphragm from being damaged.

Rotate clockwise to Increase CO-value
(needle raised).

Rotate counter-clockwise to reduce CO-value
(needle lowered).



- 8 Remove the plugs and connect the crankcase ventilation, the EGR hose and the vacuum hose to the distributor.
- 9 Set the idling speed to 850 ± 50 r/min and check the CO-value.

Maximum CO reading at idling speed

Sweden 4.5%

Europe 3.5%

CO setting at 850 r/min (Idling speed)

- 1 Run the engine until it reaches its normal running temperature, so that the CO reading can be made just after the fan has cut in. The reading must be made with the headlights switched off.

Connect the CO meter and tachometer.

- 2 Check the idling speed, adjust as necessary and then read off the CO value.

Refer to the 'Technical data' section for the correct CO reading at 850 r/min

To adjust: Remove the damper piston (or pistons) and then use tool 83 93 035 to turn the needle adjusting screw. Use the sleeve of the tool to support the vacuum piston, to prevent damage to the diaphragm.

Turn the screw clockwise to increase the reading (needle raised).

Turn the screw counter-clockwise to reduce the reading (needle lowered).

- 3 Disconnect the CO meter and tachometer.

CO setting

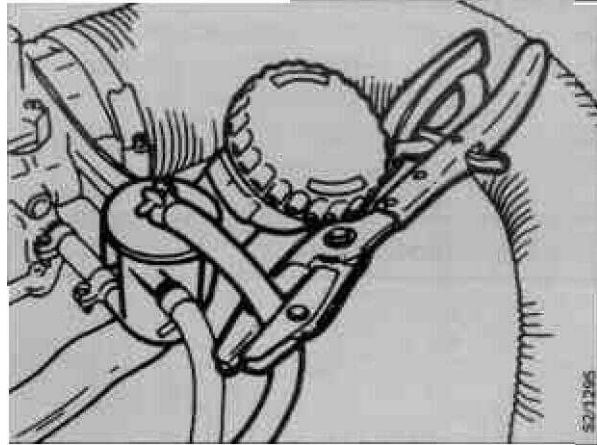
Before adjusting the CO setting:

- Change the engine oil.
- 2 Check the spark plugs.
 - 3 Check the HT leads.
 - 4 Check the valve clearances.
 - 5 Check the position of the camshaft (timing).
 - 6 Check the ignition timing.
 - 7 Check the float chamber ventilation.
 - 8 Check the oil level in the damper cylinder.
 - 9 Check the air preheater/air cleaner.

- 10 Check the delay valve (for vacuum control unit on distributor)
- 11 Check the radiator fan.
- 12 Check the fuel shut-off valve.

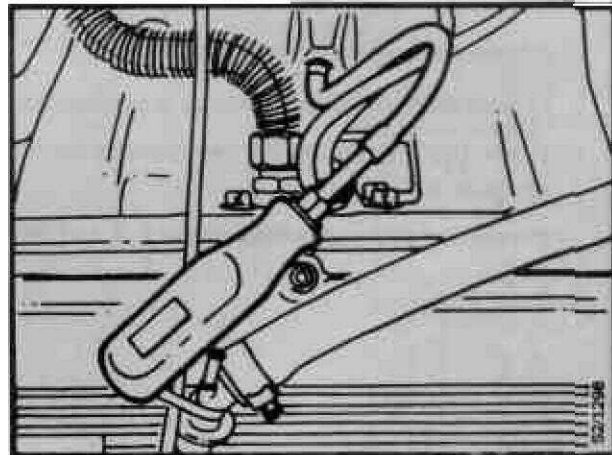
If the car has been taken into the workshop after having been outdoors at ambient temperatures below -10 C (14 F) and the fuel is thus cold, proceed as follows:

- Pinch closed the fuel return line at the carburettor until adjustment of the CO emission has been completed.
- Run the engine with the bonnet (hood) closed until the radiator fan has cut in.



To check

- 1 Run the engine to normal temperature and connect a tachometer.
- 2 Disconnect the crankcase ventilation as follows:
 - a Disconnect the nipple from the valve cover.
 - b Plug the small-bore hose.



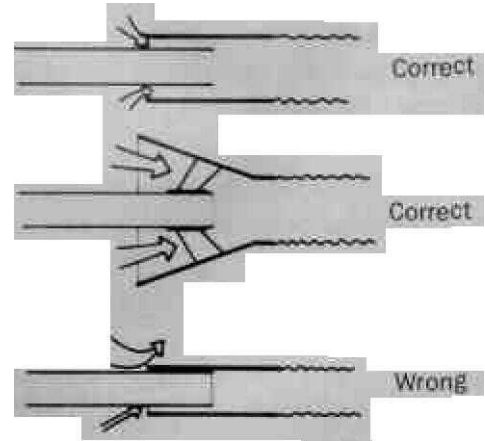
c Connect an evacuation hose to the valve cover.

Evacuate the crankcase gases by connecting a hose from the opening in the valve cover to the evacuation hose of the building's extraction system, at a point downstream of the CO meter sensor.

Note

When connecting exhaust extraction equipment for running the engine in the workshop, make sure that the resultant depression in the exhaust system is not too high, as this may affect the readings of the CO content.

To prevent excessive suction, use an extraction hose with an open coupling.



- 3 Disconnect the vacuum hose from the EGR valve and plug the hose.
- 4 Disconnect the vacuum hose from the vacuum control unit on the distributor and plug the hose.
- 5 Connect the CO meter.
- 6 Adjust the engine speed to 2 000 r/min.
- 7 Ensure that the choke control is pushed in.
- 8 Read the CO value immediately after the radiator fan cuts in.

CO setting value at 2 000 r/min: 1.7 ±0.3%

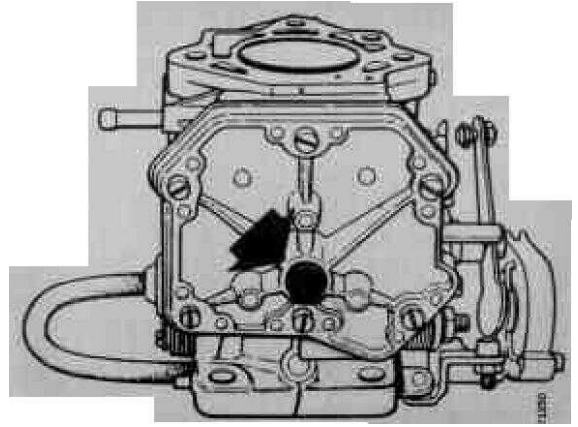
To adjust the CO setting

Adjust the CO emission by means of the adjusting screw on the float chamber cover.

The screw is sealed with a plastic plug. Prise out the plug with a screwdriver and fit a new plug after making the adjustment.

- Turn the screw clockwise (in) to reduce the CO content.
- Turn the screw anti-clockwise (out) to increase the CO content.

Use an 8-mm socket.



Caution

Do not use uninsulated tools, as there is a risk of short-circuiting unprotected electrical connections on the alternator and starter motor.

After adjusting the CO value

- 1 Adjust the idling speed to 850 ± 50 r/min.
- 2 Adjust the fast idling speed (at normal temperature) to 1350 ± 50 r/min.

Fault tracing when CO reading too high

- 1 Check the calibration of the CO meter.
- 2 With the engine at idling speed, disconnect the crankcase ventilation hose. If a lower CO reading is now obtained, this will be because of fuel in the engine oil. Change the oil and read off the CO content again.

- 3 Adjust the basic setting by removing the vacuum piston (or pistons) and making sure that the needle shoulder is level with the bottom of the vacuum piston.

Before refitting the components, clean the piston and carburettor. Read off the CO content again.

- 4 Check the setting of the air preheater valve (see section 232).
- 5 Check that items 2 to 6 inclusive under "Before adjusting the CO setting" have been carried out correctly; if not, run through the procedure again.

Note

Do not take CO readings when the engine temperature is above normal, as this will result in faulty readings.

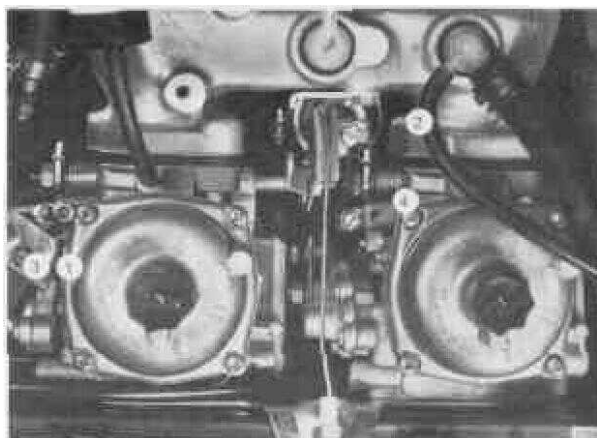
Adjusting screws (twin carburetors)

1 Vent valve, float chamber, front carburettor

The setting is fixed and adjustment is not normally necessary. In the event of any adjustment being made, this will affect the settings of adjusting screws 2, 3 and 4. These must therefore be readjusted in the given order.

2 Synchronizing the throttle valves

This is carried out in conjunction with checking the idling speed and CO-setting. Any adjustment will affect the settings of adjusting screws 3 and 4, which must also subsequently be readjusted in the given order.



Adjusting screws, 1983 models and earlier

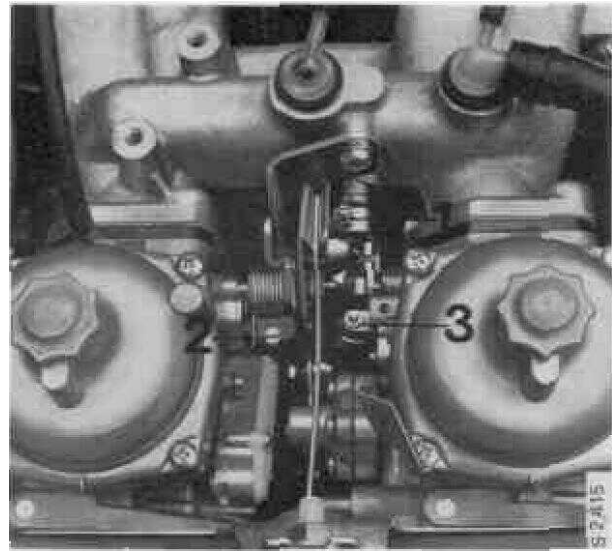
- 1 Vent valve, float chamber, front carburettor
- 2 Synchronizing the throttle valves
- 3 Idling setting
- 4 Vent valve, float chamber, rear carburettor

3 Idling setting

If any adjustment is made it will affect the setting of adjusting screw 4, which should also be checked.

4 Vent valve, float chamber, rear carburettor

Adjust if adjusting screw 1, 2 or 3 has been altered.



Europe specification cars as from 1984 models

1 Synchronizing the throttle valves

2 Idling setting

3 Vent valve, float chamber, rear carburettor

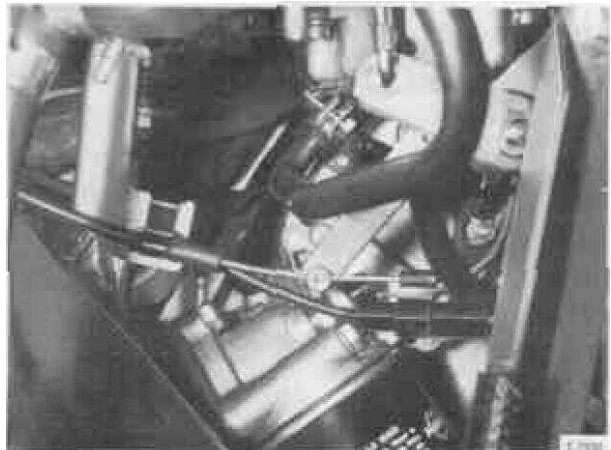
Choke cable

Removal of choke cable, earlier models

- 1 Detach the choke cable and the sheath from the carburettor(s). Note the run of the cable. Free the cable from the clips in the engine compartment.

Note

The end of the cable is covered by a rubber protective piece to prevent injury to hands when working with the controls.



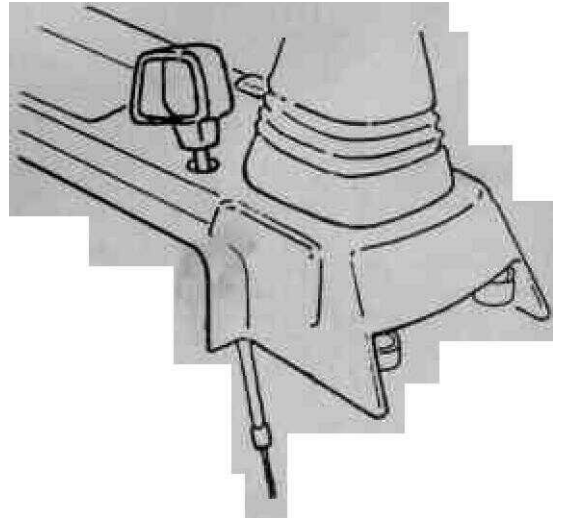
- 2 Loosen and lift up the gear lever cover and then disconnect the cable and sheath from the gear lever housing.
- 3 Withdraw the cable from the bulkhead grommet and then remove it.

Refit in the reverse order.



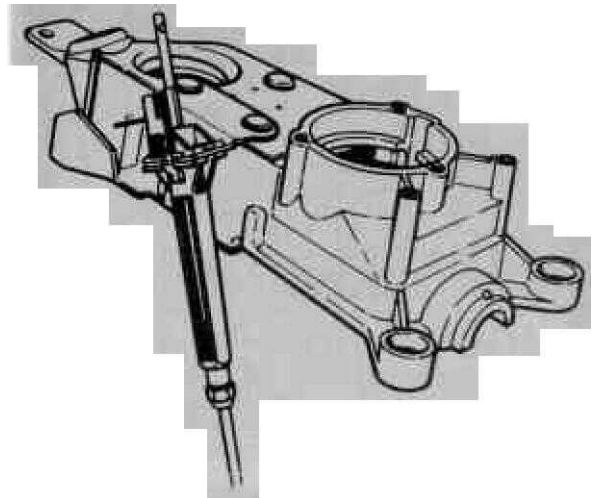
Removal of choke cable, later models

- 1 Disconnect the cable and sheath at the carburettor (or carburettors). Note the cable run. Free the cable from its clips in the engine compartment.
- 2 Unscrew the choke control handle.



Choke control as from 1982 models.

- 3 Slacken the screws in the cover of the gear lever housing and raise it so that the cable and sheath can be disconnected from the housing.
- 4 Disconnect the wiring.
- 5 Free the cable at the bulkhead grommet and withdraw it.



Refit in the reverse order.