






Chapter 4 Part A: Carburettor fuel system

Contents

Accelerator pedal - removal and refitting	8	Fuel pump - cleaning	4
Air cleaner air temperature control - description and testing	3	Fuel pump - testing, removal and refitting	5
Air cleaner assembly - removal and refitting	2	Fuel tank - removal and refitting	6
Air cleaner element renewal	See Chapter 1	General information and precautions	1
Carburettor overhaul - general information	17	Idle speed and mixture adjustment	See Chapter 1
Choke control cable - removal, refitting and adjustment	9	Throttle cable - adjustment, removal and refitting	7
Ford VV carburettor - adjustment	See Chapter 1	Weber 2V carburettor - adjustment	13
Ford VV carburettor - removal and refitting	12	Weber 2V carburettor - removal and refitting	16
Ford VV carburettor automatic choke components - removal, checking and refitting	11	Weber 2V carburettor automatic choke unit - adjustment	14
Ford VV carburettor manual choke unit - removal, checking and refitting	10	Weber 2V carburettor automatic choke unit - removal, checking and refitting	15

Degrees of difficulty

Easy , suitable for novice with little experience 	Fairly easy , suitable for beginner with some experience 	Fairly difficult , suitable for competent DIY mechanic 	Difficult , suitable for experienced DIY mechanic 	Very difficult , suitable for expert DIY or professional 
---	--	--	---	--

4A

Specifications

Fuel pump

Type	Mechanically-operated by eccentric on camshaft
Delivery pressure	0.24 to 0.38 bar (3.5 to 5.5 lbf/in ²)

Carburettor

Type	Ford variable venturi (VV) or Weber 2V
Application:	
1.1 litre OHV engine	Ford VV
1.1 litre CVH engine	Ford VV
1.1 litre HCS engine	Weber 2V TLDM
1.3 litre OHV engine	Ford VV
1.3 litre HCS engine	Weber 2V TLDM
1.3 litre CVH engine	Ford VV
1.4 litre CVH engine	Weber 2V DFTM
1.6 litre CVH engine (except XR3 models):	
Up to 1986	Ford VV
1986 on	Weber VV TLD
1.6 litre CVH engine (XR3 models)	Weber 2V DFT
Choke type:	
All models up to 1984	Automatic
1.1 and 1.3 litre engines, 1984 on	Manual
1.4 and 1.6 litre engines, 1984 on	Automatic

Ford carburettor specification

Idle speed (Cooling fan on):	
Manual transmission	750 to 850 rpm
Automatic transmission	850 to 950 rpm
Idle mixture CO content	1.0 to 2.0%

4A•2 Carburettor fuel system

Weber carburettor specification

Weber 2V DFTM:

Idle speed (cooling fan on)	750 to 850 rpm
Idle mixture CO content	1.25 to 1.75%
Throttle kicker speed	1250 to 1350 rpm
Fast idle speed	2600 to 2800 rpm
Choke pull-down	2.7 to 3.2 mm
Float height	7.5 to 8.5 mm

	Primary	Secondary
Venturi diameter	21 mm	23 mm
Air correction jet	200	165
Emulsion tube	F22	F60
Idle jet	42	60
Main jet	102	125

Weber 2V TLD:

Idle speed (cooling fan on):	
Manual transmission	750 to 850 rpm
Automatic transmission	850 to 950 rpm
Idle mixture CO content	1.0 to 2.0%
Throttle kicker speed	1050 to 1150 rpm

Fast idle speed:	
Manual transmission	1850 to 1950 rpm
Automatic transmission	1950 to 2050 rpm

Choke pull-down:	
Manual transmission	4.0 to 5.0 mm
Automatic transmission	3.5 to 4.5 mm
Float height	28.5 to 29.5 mm

	Primary	Secondary
Venturi diameter	21 mm	23 mm
Air correction jet	185	125
Emulsion tube	F105	F71
Main jet:		
Manual transmission	117	127
Automatic transmission	115	130

Weber 2V DFT:

Idle speed (cooling fan on)	750 to 850 rpm
Idle mixture CO content	1.0 to 1.5%
Fast idle speed	2600 to 2800 rpm
Choke pull-down	5.2 to 5.8 mm
Choke phasing	1.5 to 2.5 mm
Float height	34.5 to 35.5 mm

	Primary	Secondary
Venturi diameter	24	25
Air correction jet	160	150
Emulsion tube	F30	F30
Idle jet	50	60
Main jet	115	125

Weber 2V TLDM:

Idle speed (fan on)	700 to 800 rpm
Idle mixture (CO content)	0.5 to 1.5%
Fast idle speed:	
1.1 litre	2800 rpm
1.3 litre	2500 rpm
Float height	28.0 to 30.0 mm

	Primary	Secondary
Venturi diameter	26	28
Main jet:		
1.1 litre	92	122
1.3 litre	90	122
Emulsion tube	F113	F75
Air correction jet:		
1.1 litre	195	155
1.3 litre	185	130

Fuel requirement

Fuel octane rating:

All except HCS engines
 HCS engines

97 RON (four-star)
 97 RON (four-star) or 95 RON (unleaded)

Torque wrench settings

	Nm	lbf ft
Carburettor to manifold	17 to 21	12 to 15
Fuel pump	16 to 20	11 to 14
Inlet manifold	16 to 20	11 to 14
Exhaust manifold	14 to 17	10 to 12
Exhaust downpipe to manifold	35 to 40	25 to 29
U-bolt clamps	35 to 40	25 to 29
Downpipe to front section connecting flange	35 to 47	25 to 34

1 General information and precautions

The fuel system on all models with carburettor induction is composed of a centrally mounted fuel tank, a fuel pump, a carburettor and an air cleaner.

The fuel tank is mounted under the floor pan beneath the rear seats. The tank is ventilated, has a simple filler pipe and a fuel gauge sender unit.

The fuel pump is a mechanical diaphragm type actuated by means of a pushrod bearing on an eccentric cam on the camshaft. The pump is a sealed unit and cannot be dismantled.

The carburettor may be either a Ford variable venturi (VV) type or one of four versions of the Weber 2V type, depending on model.

The air cleaner has a thermostatically or waxstat-controlled air inlet, supplying either hot air from the exhaust manifold heat box or cold air from the front of the engine compartment. On the thermostatically-controlled type, a flap valve within the air cleaner unit regulates the air inlet temperature according to operating conditions in conjunction with a vacuum diaphragm unit and a heat sensor unit. On the waxstat air cleaner, being progressively introduced from 1986 onwards the air cleaner operates in the same way as the thermostatically-controlled type, but the flap valve is controlled by a wax capsule. The capsule is mounted in the inlet spout and operates the flap valve by expansion and contraction of the wax which varies according to temperature.



2.2 Disconnecting the crankcase ventilation hose at the air cleaner body



Warning: Many of the procedures in this Chapter entail the removal of fuel pipes and connections which may result in some fuel spillage. Before carrying out any operation on the fuel system refer to the precautions given in Safety First! at the beginning of this manual and follow them implicitly. Petrol is a highly dangerous and volatile liquid and the precautions necessary when handling it cannot be overstressed

2 Air cleaner assembly - removal and refitting

Removal

- 1 Disconnect the battery negative terminal.
- 2 Disconnect the crankcase ventilation hoses which are accessible from above, from the air cleaner body (see illustration).
- 3 Disconnect the cold air inlet hose from the end of the air cleaner spout where applicable (see illustration).
- 4 Where fitted, on CVH engines, pull out the crankcase emission valve from the underside of the air cleaner body.
- 5 Undo the retaining screws or bolts on the air cleaner lid and lift the unit off the carburettor.
- 6 On 1.1 and 1.3 litre HCS engines, unclip the fuel trap from the side of the air cleaner casing.
- 7 According to model, disconnect the vacuum hose and the remaining crankcase ventilation hose(s) as applicable, then remove the air cleaner from the engine.



2.3 Cold air inlet hose removal from air cleaner spout

Refitting

8 Refitting is a reversal of removal.

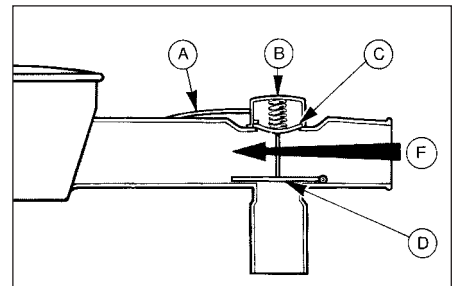
3 Air cleaner air temperature control - description and testing

Thermostatically-controlled air cleaner

1 On all pre-1986 models and certain models from 1986 onwards, the air cleaner is thermostatically-controlled by a vacuum operated system to provide air at the most suitable temperature for combustion with minimum emission levels.

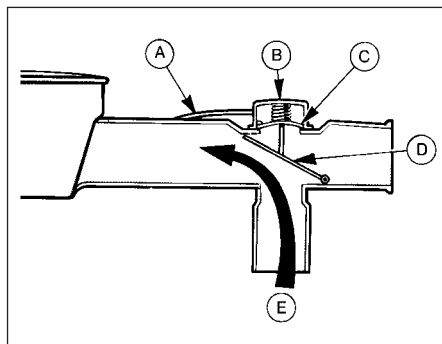
2 This is accomplished by drawing in cold air from an inlet at the front of the car, and hot air from a collector box on the exhaust manifold and blending them. The proportion of hot and cold air is varied by the position of a flap valve in the inlet spout which itself is controlled by a vacuum diaphragm. The vacuum pressure is regulated by a heat sensor located within the air cleaner body to ensure that the appropriate degree of inlet manifold vacuum is applied to the flap valve, thus maintaining the air temperature within the preset limits.

3 To check the thermostatic control of the air cleaner the engine must be cold. First observe the position of the flap valve which should be fully closed prior to starting the engine (see illustration). The flap valve can be observed using a mirror after disconnecting the inlet hose.



3.3 Thermostatically controlled air cleaner operation under low vacuum conditions

- A Vacuum hose to heat sensor
- B Vacuum diaphragm
- C Diaphragm
- D Flap valve closed
- F Cold air inlet



3.4 Thermostatically-controlled air cleaner operation under high vacuum conditions

- A Vacuum hose to heat sensor
- B Vacuum diaphragm
- C Diaphragm
- D Flap valve open
- E Hot air inlet

4 Start the engine and check that the flap valve opens fully at idle speed to allow only hot air from the manifold to enter the air cleaner (see illustration).

5 Should the flap valve remain in the closed position once the engine is started, then the diaphragm unit or the heat sensor is at fault and should be tested to isolate the defective unit.

6 Make sure that all vacuum lines are secure and free from leaks as a final check.

7 To check the operation of these components a vacuum pump is required. If one is available proceed as follows, if not, have the tests carried out by a dealer.

8 Detach the diaphragm-to-heat sensor vacuum line at the sensor end and connect a vacuum pump to the diaphragm unit. Apply a vacuum up to 100 mm (4.0 in) of mercury and retain this whilst checking the flap valve.

9 If the flap valve is now open, then the heat sensor is faulty and must be renewed. If the valve remains shut, the diaphragm unit is faulty and a new air cleaner will have to be obtained, as the diaphragm unit is not available separately.

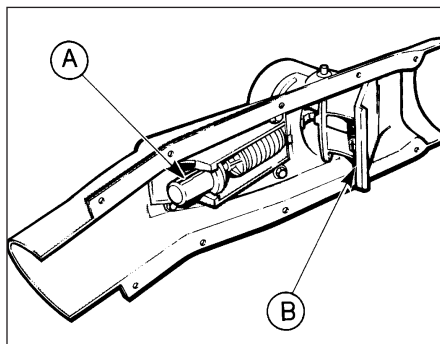
10 After the checks, disconnect the vacuum pump and reconnect the vacuum line and inlet hose.

Waxstat-controlled air cleaner

11 From 1986 onwards the waxstat type air cleaner is being progressively introduced to replace the thermostatically-controlled type used previously.

12 The waxstat air cleaner performs the same hot and cold air blending operation using a flap valve as described previously, but the flap valve is controlled by a wax capsule and is not dependent on manifold vacuum.

13 When the engine is cold the wax in the capsule contracts and the flap valve is pulled back to shut off the cold air inlet. As engine ambient temperature rises the wax expands and the flap is opened to admit only cold air into the air cleaner.



3.15 Waxstat type air cleaner components in air cleaner spout

- A Wax capsule
- B Flap valve

14 To test the unit the engine must initially be cold.

15 Remove the manifold-to-air cleaner hot air hose and observe the position of the flap valve which should be open to allow only hot air to enter (see illustration).

16 Refit the hose and warm up the engine to normal operating temperature.

17 Remove the hot air hose again and check the position of the flap valve. With the engine at normal operating temperature the flap should be closed to admit only cold air into the air cleaner.

18 If this is not the case the waxstat is defective and the air cleaner must be renewed as the waxstat is not available separately.

19 Refit the hot air hose on completion of the checks.

4 Fuel pump - cleaning

Note: Refer to the warning at the end of Section 1 before proceeding.

1 On certain early models the fuel pump has a detachable cover allowing access to the internal filter for cleaning. If this type of pump is fitted (identified by a raised cover secured with a screw) the filter can be cleaned as follows.

2 Place a piece of rag around the pump body to catch the fuel which will drain out when the cover is removed.

3 Unscrew and remove the single cover screw and lift off the cover (see illustration).

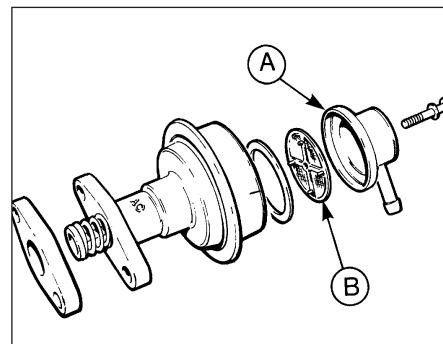
4 Take out the rubber sealing ring and the filter screen from inside the cover.

5 Clean the screen by brushing it in clean fuel, then fit it into the cover, noting the projections on some screens which centralise it.

6 Fit the sealing ring. If it is not in good order, renew it.

7 Locate the cover on the pump body. On some pumps, the cover is correctly installed when the notch in the cover engages in the groove in the pump body.

8 Screw in the retaining screw, but do not overtighten it provided it is making a good seal.



4.3 CVH engine fuel pump filter components

- A Pump cover
- B Filter

5 Fuel pump - testing, removal and refitting

Note: Refer to the warning at the end of Section 1 before proceeding.

Testing

1 The fuel pump may be quite simply tested by disconnecting the fuel inlet pipe from the carburettor and placing its open end in a container.

2 Disconnect the LT lead from the negative terminal of the ignition coil to prevent the engine firing.

3 Actuate the starter motor. Regular well-defined spurts of fuel should be seen being ejected from the open end of the fuel inlet pipe.

4 Where this is not evident and yet there is fuel in the tank, the pump is in need of renewal. The pump is a sealed unit and cannot be dismantled or repaired.

Removal

5 On OHV and HCS engines, the fuel pump is mounted on the cylinder block and is actuated by a lever which is in direct contact with an eccentric cam on the camshaft.

6 On CVH engines, the fuel pump is mounted on the cylinder head and is actuated by a pushrod from an eccentric cam on the camshaft.



5.7 CVH engine fuel pump removal



5.9 Removing the fuel pump push-rod

7 To remove the pump, disconnect and plug the fuel inlet and outlet hoses (and on HCS engines, the fuel return hose) at the pump and then unbolt it from the engine (see illustration). Note the fuel hose connections to ensure correct reconnection on refitting.

8 Retain any insulating spacers and remove and discard the flange gaskets.

9 On CVH engines, withdraw the push-rod (see illustration).

Refitting

10 Refitting is a reversal of removal, but use new flange gaskets. If crimped type hose clips were used originally, these will have been destroyed when disconnecting the fuel hoses. Renew them with conventional nut and screw type clips. Ensure that the fuel hoses are correctly reconnected as noted before removal (see illustration).

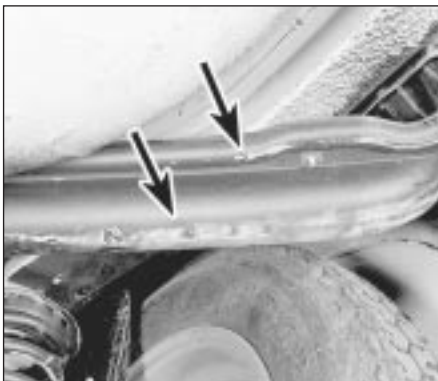
6 Fuel tank - removal and refitting



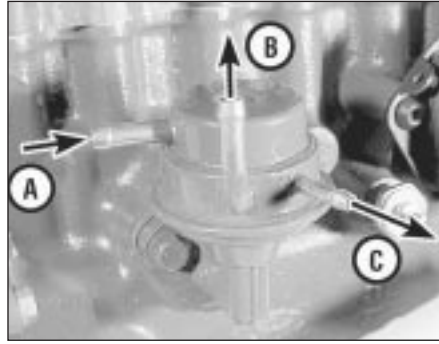
Note: Refer to the warning at the end of Section 1 before proceeding.

Removal

1 The fuel tank will normally only need to be removed if it is severely contaminated with sediment or other substance, or requires repair.



6.5 Fuel tank filler and vent pipe locations (arrowed)



5.10 Fuel pump connections on 1.1 and 1.3 litre HCS engines

- A Inlet from tank
- B Outlet to carburettor
- C Return to tank

2 As there is no drain plug incorporated in the tank, the best time to remove it is when it is nearly empty. If this is not possible, syphon as much fuel as possible from the tank into a container which can be sealed, but before doing so, observe the following precautions:

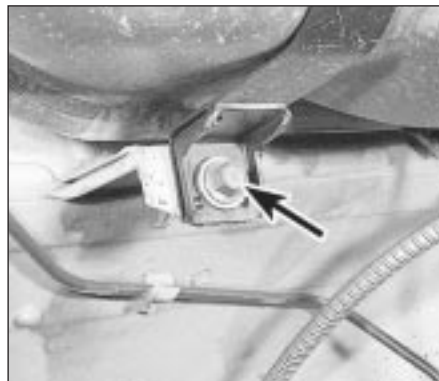
- a) Disconnect the battery, negative lead first.
- b) Do not smoke or bring naked lights near.
- c) Avoid placing the vehicle over an inspection pit as the fuel vapour is heavier than air.

3 With the rear of the vehicle raised and supported securely, disconnect the flexible hose connection between the sections of rigid fuel line at the front face of the tank (see illustration). On some models dual pipelines are used, the second one being a fuel return line which returns excess fuel from the carburettor.

4 Disconnect the electrical leads from the tank sender unit.

5 Brush away all adhering dirt and disconnect the tank filler pipe and vent pipes from the tank pipe stubs (see illustration). Additionally, on 1986 models onwards, disconnect the filler vent pipe.

6 Support the tank and unscrew the bolts from the support straps (see illustration).



6.6 Fuel tank support strap bolt (arrowed)



6.3 Fuel tank flexible hose connections at front of tank

7 Lower the tank until the fuel hoses can be detached from the sender unit and from their retaining clips. On 1986 models onwards disconnect the small bore vent pipe located on the top face of the tank (see illustration). Lower the tank fully and remove it from under the car.

Refitting

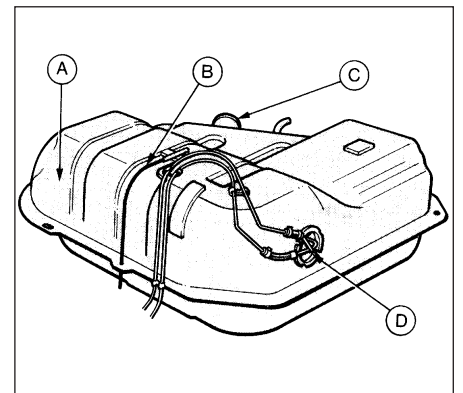
8 If the tank is to be cleaned out, repaired or renewed, remove the sender unit. To do this, unscrew the unit in an anti-clockwise direction using the special tool (23-014) or a suitable lever engaged behind the tabs.

9 If the tank contains sediment or water, clean it out by shaking vigorously using paraffin as a solvent. After several changes, rinse out finally with petrol.

10 If the tank is leaking, leave repair to a specialist company. Attempting to weld or solder the tank without it first having been steamed out for several hours is extremely dangerous.

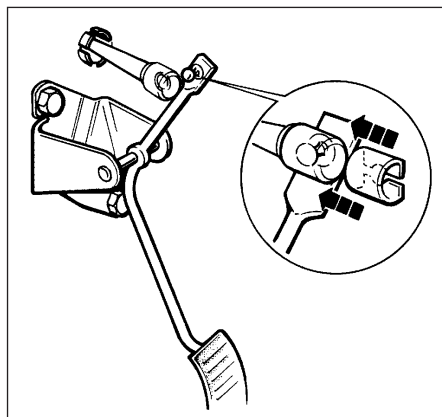
11 Refit the sender unit using a new sealing ring.

12 Refit the tank into the vehicle by reversing the removal operations. Check all connections for leaks after the tank has been partly filled with fuel.



6.7 Fuel tank assembly

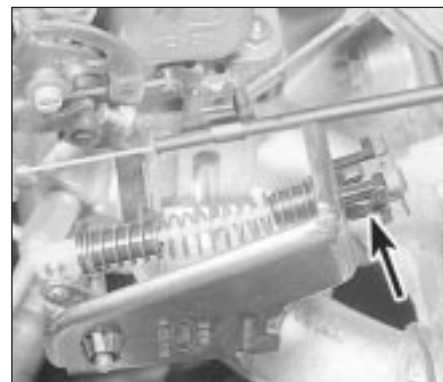
- A Fuel tank
- B Vent pipe
- C Fuel filler stub
- D Fuel gauge sender unit



7.8 Throttle cable attachment at pedal end



7.11a Prise out the throttle cable retaining clip . . .



7.11b . . . then release the cable retainer (arrowed)

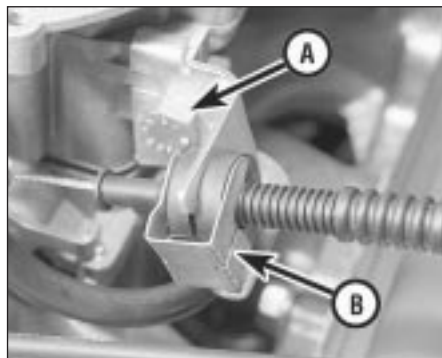
7 Throttle cable - adjustment, removal and refitting

Adjustment

- 1 Disconnect the battery earth lead.
- 2 On manual transmission models remove the air cleaner unit, as given in Section 2.
- 3 Get an assistant to sit in the driving seat and fully depress the accelerator pedal, then whilst it is depressed turn the cable adjuster at the carburettor or throttle cable mounting bracket connection to the point at which the linkage is just fully open.
- 4 Release the accelerator pedal then fully depress and release it again and check that when depressed the throttle is fully opened. Readjust if necessary.
- 5 On completion refit the air cleaner and reconnect the battery earth lead.

Removal

- 6 Disconnect the battery earth lead.
- 7 Working within the vehicle, remove the fascia lower insulation panel.
- 8 Disconnect the cable from the upper end of the accelerator pedal arm. Do this by sliding off the spring clip to release the cable end from the ball-stud (see illustration).



7.11c Throttle cable support bracket on 1.3 litre HCS engine

A Securing bolt B Securing clip

- 9 Working under the bonnet, release the cable from the bulkhead.



It is easier to release the cable if an assistant can punch the cable grommet out from inside the vehicle.

- 10 Remove the air cleaner (manual transmission models only).

11 The cable must now be detached from its bracket on the carburettor or, on automatic transmission models, from the throttle cable mounting bracket on the right-hand side of the engine. Prise out the clip then depress the four lugs on the retainer simultaneously so that the retainer can be slid out of its bracket. Take care not to damage the outer cable. On 1.1 and 1.3 litre HCS engine models, pull the securing clip from the support assembly, and release the cable from the bracket (see illustrations).

12 Disconnect the end of the cable from the ball-stud by sliding back the spring retaining clip (see illustration).

Refitting

13 Fit the new cable by reversing the removal procedure, then adjust as described previously in this Section.



7.12 Release the cable end fitting spring retaining clip

8 Accelerator pedal - removal and refitting

Removal

- 1 The pedal can be removed once the throttle cable has been disconnected from it as described in Section 7.
- 2 Undo the two pedal support bracket retaining bolts and remove the pedal.

Refitting

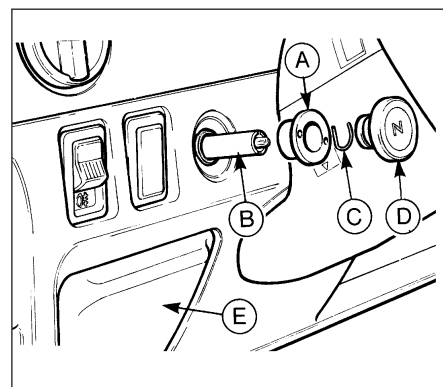
- 3 Refitting is the reversal of removal but on completion check the throttle cable adjustment as described in Section 7.

9 Choke control cable - removal, refitting and adjustment

Pre-1986 models

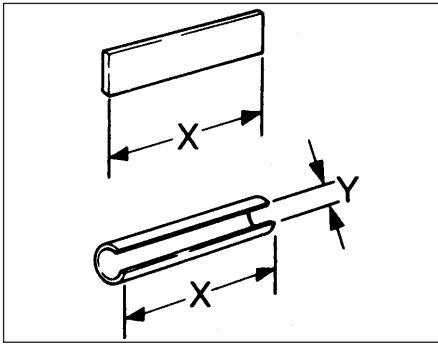
Removal

- 1 Disconnect the battery earth lead.
- 2 For improved access, remove the air cleaner unit (Section 2).

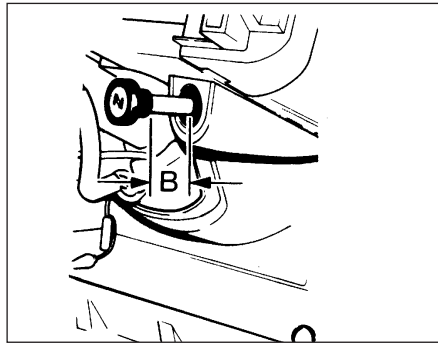


9.4 Choke cable attachments at fascia - pre-1986 models

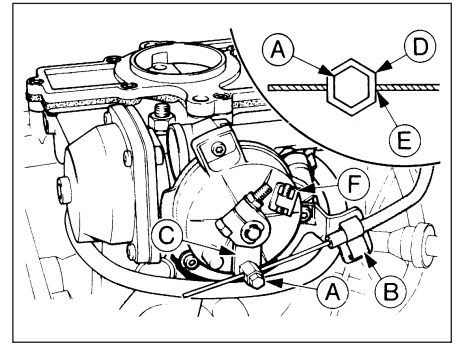
A Bezel D Knob
B Switch lever E Coin box
C Knob retaining clip



9.9 Choke cable adjustment spacer dimensions - pre-1986 models
X = 37.0 to 37.5 mm
Y = 12.0 mm minimum



9.10 Choke knob pulled out for adjustment with spacer (B) in position - pre-1986 models



9.11 Choke cable adjustment at carburettor - pre-1986 models
A Cable clamp bolt
B Outer cable retaining clip
C Operating lever
D Cable clamp
E Point 22 mm from cable end
F Full choke stop

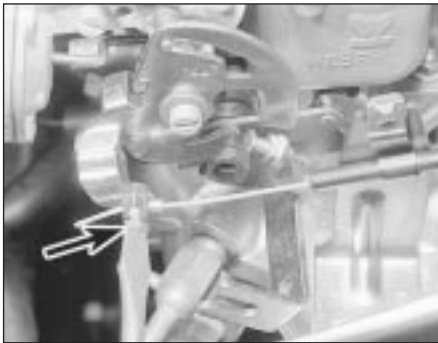
3 At the carburettor end of the cable, loosen the cable clamp bolt, detach the outer cable securing clip at the choke control bracket and disconnect the cable.

4 Working inside the car, remove the coin box from the lower fascia panel (beneath the choke control knob) (see illustration).

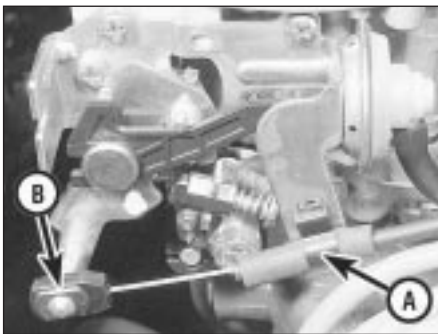
5 Remove the clip retaining the cable control knob and withdraw the knob from the switch lever.

6 Remove the control switch bezel and then, reaching up underneath the fascia withdraw the switch from the underside of the panel (through the coin box aperture).

7 The choke cable can now be pulled through the engine bulkhead and the switch removed.



9.17a Releasing the choke cable clamp bolt (arrowed)



9.17b Choke cable outer cable clamp (A) and end fitting (B) on 1.3 litre HCS engine

Refitting

8 Refitting is the reversal of removal, but in conjunction with the following adjustment procedure.

Adjustment

9 From either a flat strip of metal or preferably metal tubing make up a spacer as shown (see illustration).

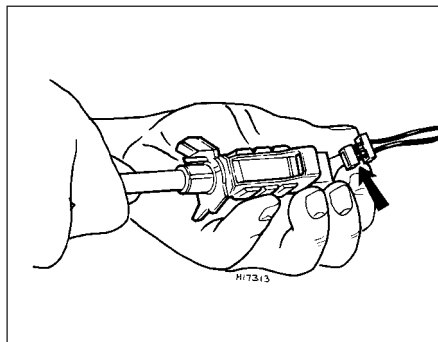
10 Pull out the choke and locate the spacer behind the choke knob. Ensure that the spacer remains in position throughout the procedure (see illustration).

11 At the carburettor end, mark the inner cable at a point 22 mm (0.86 in) from the end using pencil or tape (see illustration). On some cables the cable may be kinked for reference at this point or a ferrule may be fitted.

12 Insert the cable in the cable clamp until the mark or ferrule is against the edge of the clamp. Tighten the clamp bolt.

13 Pull the outer cable so that the operating lever on the choke is against the "full choke" stop on the housing. Secure the outer cable to its bracket, in this position, using the retaining clip.

14 Remove the spacer and check that the operating lever contacts the "choke off" stop and "full choke" stop on the housing when the choke knob is pushed in and pulled out respectively. On completion of the adjustment



9.19 Removing choke assembly warning light wire - 1986 models onwards

ensure that there is a small clearance between the lever and the "off stop" when the choke knob is pushed in.

1986 models onwards

Removal

15 Disconnect the battery earth lead.

16 Remove the air cleaner as described in Section 2.

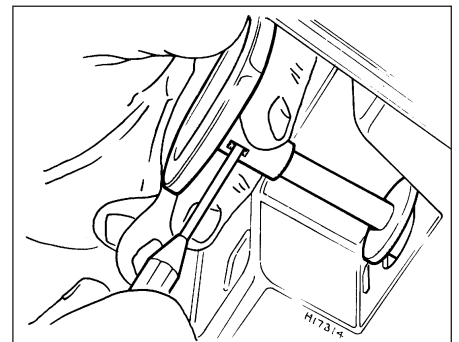
17 At the carburettor end of the cable, loosen the cable clamp bolt, detach the outer cable securing clip at the choke control bracket and disconnect the cable. On 1.1 and 1.3 litre HCS engine models, release the outer cable securing clamp and unhook the cable end fitting from the choke lever (see illustrations).

18 Working inside the car remove the steering column shrouds for access to the cable.

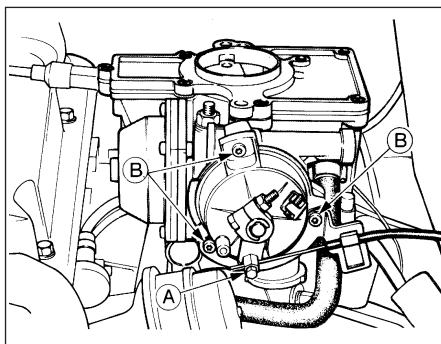
19 From behind the fascia disconnect the warning light wire from the choke control assembly (see illustration).

20 Using a small probe, depress the locking pin on the underside of the choke knob collar and remove the knob (see illustration).

21 Unscrew the choke control retaining collar and withdraw the cable from under the fascia.



9.20 Using a small probe to release choke knob locking pin - 1986 models onwards



10.4 Choke cable clamp bolt (A) and lever housing retaining screws (B) - Ford VV carburettor

Pull the cable through the bulkhead and remove it from inside the car.

Refitting

22 Refitting is the reversal of removal, but in conjunction with the following adjustment procedure.

Adjustment

23 With the cable in position in the facia and routed through the bulkhead, push the choke knob fully in and engage the inner cable end with the clamp at the carburettor.

24 Pull the cable through the clamp up to the cable ferrule, then tighten the clamp bolt.

25 Pull out the choke knob to the full choke position and also hold the choke lever on the carburettor in the full choke position. Secure the cable to the bracket with the clip.

26 Check that with the knob pulled fully out the choke lever contacts the full choke stop on the carburettor and returns fully to the choke off position when the knob is pushed in. On models fitted with the Ford VV carburettor, ensure that there is a small clearance between the choke lever and the choke off stop when the choke knob is pushed fully in.

10 Ford VV carburettor manual choke unit - removal, checking and refitting



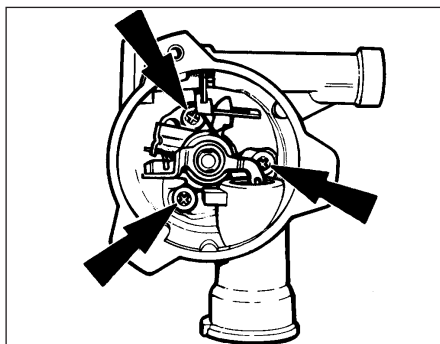
Note: A new gasket will be required on refitting.

Removal

1 Disconnect the battery negative lead.
2 Remove the air cleaner (Section 2).
3 Slacken the choke cable clamp bolt at the choke lever, detach the outer cable securing clip at the bracket and remove the cable from the carburettor.

4 Using a suitable Torx type key or socket bit, undo the three lever housing retaining screws and withdraw the lever housing, together with the choke cable bracket from the carburettor (see illustration).

5 Carefully unscrew the three Torx screws which secure the main choke unit to the carburettor and withdraw the choke unit together with the gasket (see illustration).



10.5 Choke unit retaining screw locations - Ford VV carburettor

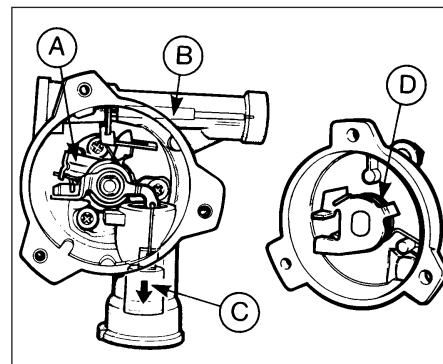
Checking

6 With the choke removed clean the unit inside by gently blowing out dust and any dirt with an air line or foot pump.

7 Using a small screwdriver or thin rod, raise the pull-down piston and allow it to drop under its own weight, checking that it falls smoothly to the lower limit of its travel (see illustration).

8 Repeat this check but with the choke linkage lever held in various positions. If the piston binds in any position throughout its total travel, try cleaning the unit once more with an air line, nothing else, then repeat the checks. Under no circumstances attempt to ease a sticking piston with lubrication of any kind otherwise the calibration of the piston will be affected and its operating characteristics radically altered. Check also that the choke control spring leg is seated in its slot in the choke lever (see illustration). If not, carefully slip it back into place. Check the operation of the piston once more and if it still sticks, renew the choke unit and lever housing as an assembly.

9 Check the choke metering rod by carefully moving the needle bracket through its full range of travel using a small screwdriver (see illustration). As with the pull-down piston, the check should be made with the linkage lever held in various positions. Ensure that the rod



10.7 Manual choke and lever assembly - Ford VV carburettor

- A Choke linkage
- B Tapered needle (metering rod)
- C Pull-down piston
- D Spring-loaded lever

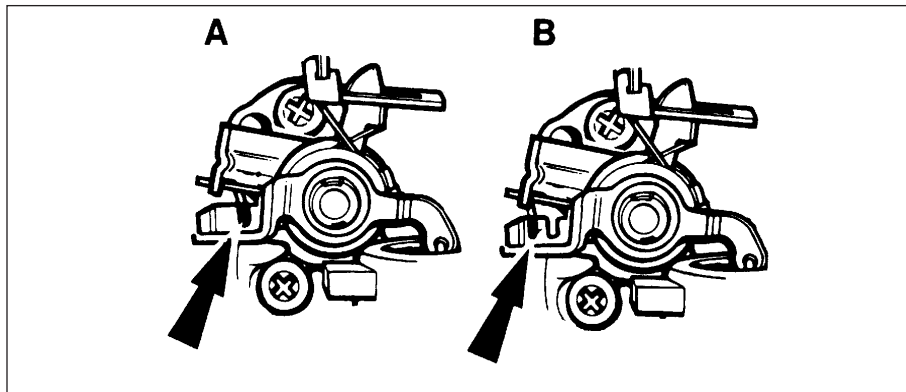
does not bind in any position throughout its total travel. If binding does occur it may be lightly lubricated with "Ballistol Spray" which should be available from main Ford dealers. Do not use any other lubricant otherwise a sludge build-up may occur, and do not allow overspray to contact the pull-down piston or linkage. If the metering rod is partially or completely seized, lubrication will not help and the choke unit and lever housing should be renewed as an assembly.

10 If both the metering rod and the pull-down piston are satisfactory but binding was noticed when moving the linkage lever, then the central shaft should be lightly lubricated from the rear of the choke unit using the "Ballistol Spray".

Refitting

11 To refit the choke unit first position a new gasket onto the carburettor mating face, locate the choke unit and fit the retaining screws.

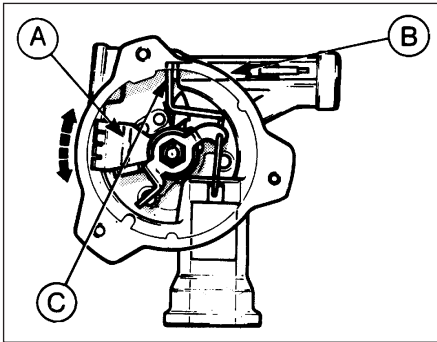
12 When refitting the lever housing, align the new gasket with the screw holes and with the tab of the gasket positioned as shown. With



10.8 Correct position of choke control spring leg - Ford VV carburettor

A Correctly located

B Incorrectly located



10.9 Checking choke operation - Ford VV carburettor

A Linkage lever
B Metering rod
C Needle bracket

the linkage lever at its mid travel position, fit the lever housing ensuring that the linkage lever engages with the springloaded arm in the lever housing (see illustrations).

13 Secure the lever housing and choke cable bracket with the three retaining screws.

14 Reconnect the choke cable and adjust it as described in Section 9.

15 Refit the air cleaner (Section 2), reconnect the battery, then adjust the idle speed and mixture settings (Chapter 1).

11 Ford VV carburettor automatic choke components - removal, checking and refitting



Bi-metal housing

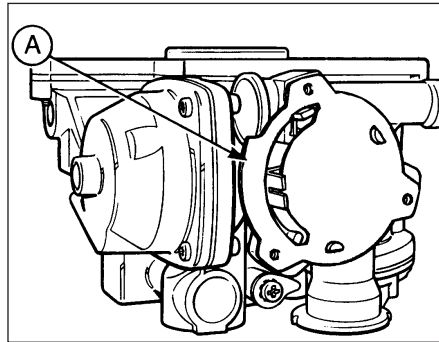
Note: A new gasket will be required on refitting.

Removal

- 1 Disconnect the battery negative lead.
- 2 Remove the air cleaner as described in Section 2.
- 3 Release any pressure in the cooling system by loosening the pressure cap (see Chapter 1), then detach the inlet and outlet hoses at the automatic choke unit. Clamp the hoses or position them with their ends facing upwards to minimise coolant leakage.



11.5 Removing the automatic choke bi-metal housing



10.12a Correct location of choke lever housing gasket with tab (A) positioned as shown - Ford VV carburettor

4 Mark the bi-metal housing-to-choke body joint with quick-drying paint to ensure correct realignment on reassembly.

5 Unscrew and remove the three bi-metal housing retaining screws and withdraw the housing and gasket (see illustration).

Refitting

6 Refitting is a reversal of the removal procedure.

7 Use a new gasket between the main body and the bi-metal housing.

8 When fitting the bi-metal housing, engage the bi-metal coil with the linkage lever centre slot, then loosely fit the three retaining screws, starting with the lower one (see illustration).

9 Before tightening the retaining screws, align the paint mark on the bi-metal body with the choke body marking (see illustration).

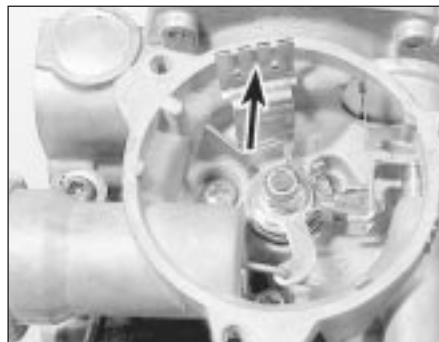
10 Refit the air cleaner as described in Section 2 and top-up the cooling system as described in Chapter 1.

Automatic choke unit

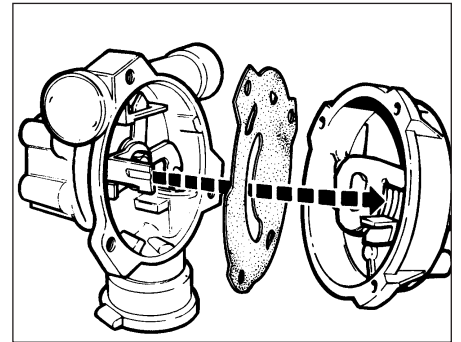
Note: A new gasket will be required on refitting.

Removal

- 11 Remove the bi-metal housing as described previously in this Section.
- 12 Carefully remove the three screws within the choke housing body and withdraw the unit from the carburettor together with the gasket.



11.8 Automatic choke linkage lever centre slot (arrowed)



10.12b Fitting lever housing to choke unit - Ford VV carburettor

Checking

13 Carry out the checks described for the manual choke unit in Section 10.

Refitting

14 If a new choke unit is to be fitted, it will first be necessary to tap out the securing screw holes for the bi-metal housing. The thread can be tapped out using the retaining screws which are of the thread-cutting type.

Do not cut the threads with a standard tap.

15 Refit the choke housing body to the carburettor using a new gasket, then refit the bi-metal housing as described previously in this Section.

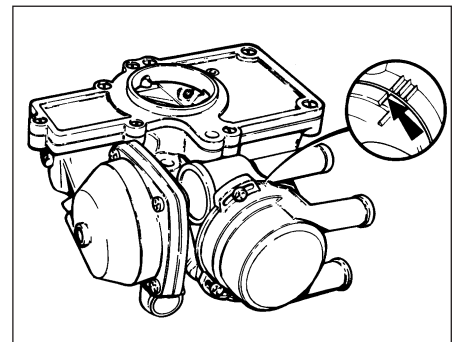
12 Ford VV carburettor - removal and refitting



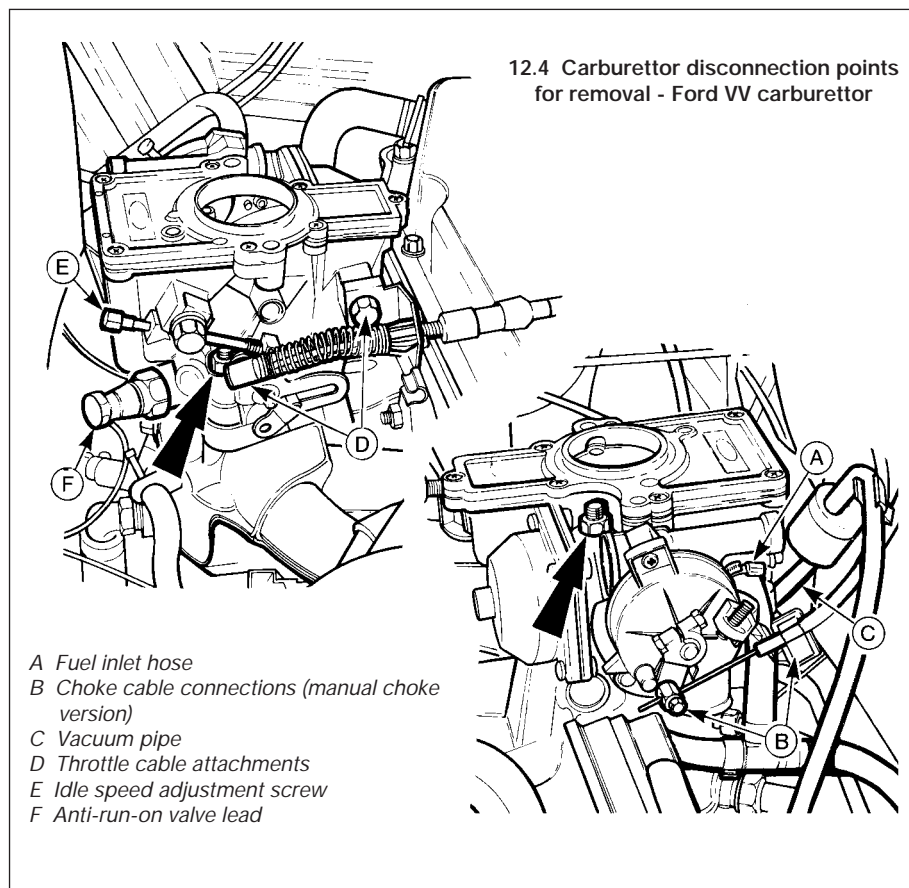
Note: Refer to the warning at the end of Section 1 before proceeding. A new gasket must be used on refitting.

Removal

- 1 Disconnect the battery negative lead.
- 2 Remove the air cleaner (Section 2).
- 3 On automatic choke carburettors, if the engine is still hot, depressurise the cooling system by carefully releasing the pressure cap (see Chapter 1). Disconnect the coolant hoses from the automatic choke housing and clamp or plug them to prevent coolant loss.



11.9 Alignment marks on choke unit and bi-metal housing Ford VV carburettor



- 4 Detach the anti-run-on valve lead at the carburettor end (see illustration).
- 5 On manual choke models disconnect the choke cable from the lever and the outer cable from its clamp on the support bracket.
- 6 Disconnect the distributor vacuum pipe.
- 7 Disconnect the throttle cable by pulling the spring clip to release the end fitting from the ball-stud and then unscrewing the cable bracket fixing bolt.
- 8 Disconnect and plug the fuel inlet and, where fitted, the return hose from the carburettor. If crimped type hose clips are used, cut them off and fit screw type clips at reassembly.
- 9 Unscrew the two carburettor mounting flange nuts and lift the carburettor from the inlet manifold. Remove the idle speed screw if necessary for access to the nuts.

Refitting

- 10 Refitting is a reversal of removal, but make sure that a new flange gasket is used on perfectly clean mating surfaces.
- 11 On manual choke models readjust the choke cable on reconnection, as described in Section 9.
- 12 When reconnecting the vacuum pipe make sure that the fuel trap is correctly positioned.
- 13 When refitting the fuel inlet hose ensure that it is positioned in such a way that no part

of the hose is closer than 11 mm (0.4 in) to the automatic choke coolant hoses. If this is not done fuel vaporisation can occur under certain conditions.

- 14 On automatic choke models recheck the coolant level.
- 15 On completion restart the engine and check the idle speed and mixture adjustments, as given in Chapter 1.

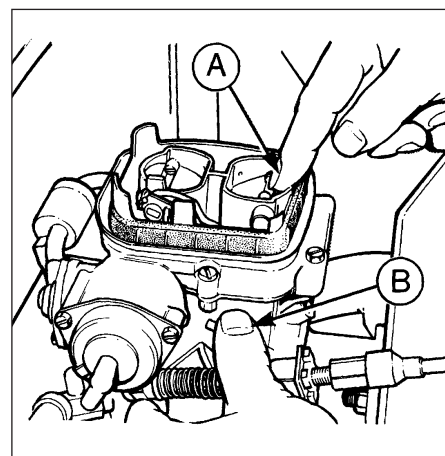
13 Weber 2V carburettor - adjustment

Idle speed and mixture adjustment

- 1 Refer to Chapter 1.

Fast idle speed (XR3 models)

- 2 Remove the air cleaner as described in Section 2.
- 3 Have the engine at normal operating temperature, with a tachometer connected in accordance with the manufacturer's instructions.
- 4 With the engine switched off, partially open the throttle by moving the cable at the carburettor. Close the choke plates with the fingers and hold them closed while the throttle is released. This has the effect of setting the choke mechanism in the high cam/fast idle position (see illustration).

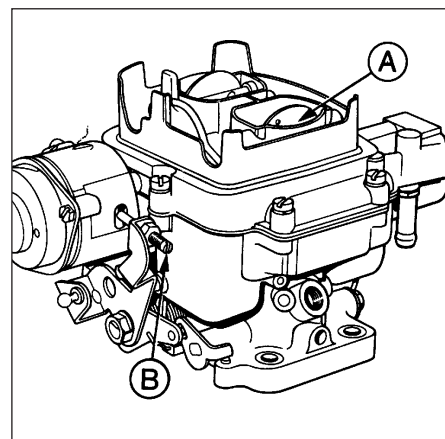


13.4 Weber 2V carburettor choke linkage position for fast idle adjustment - XR3 models
 A Choke plates held closed
 B Throttle held partially open

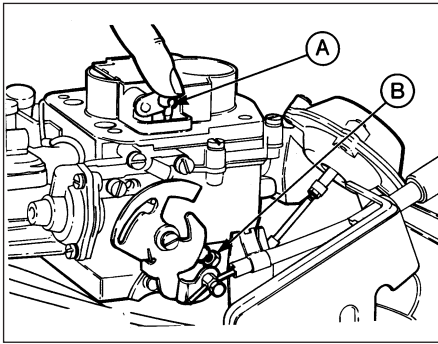
- 5 Release the choke valve plates and without touching the accelerator pedal, start the engine by just turning the key. Record the engine speed shown on the tachometer and compare the figure with that specified.
- 6 Where necessary turn the fast idle screw in or out to adjust the fast idle speed (see illustration).
- 7 Refit the air cleaner.

Fast idle speed (1.4 litre models)

- 8 Adjust the engine idle speed and mixture settings as previously described, then switch off the engine. Leave the tachometer connected from the previous operation.
- 9 Undo the four bolts securing the air cleaner to the carburettor, disconnect the hot and cold air inlet hoses and lift off the air cleaner. Position the air cleaner clear of the carburettor, but leave the crankcase breather hoses and the vacuum supply hose connected.

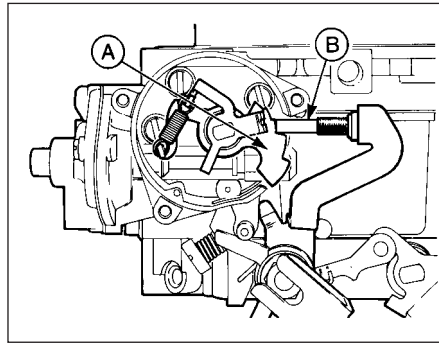


13.6 Weber 2V carburettor fast idle adjustment - XR3 models
 A Choke plates in open position
 B Fast idle adjustment screw



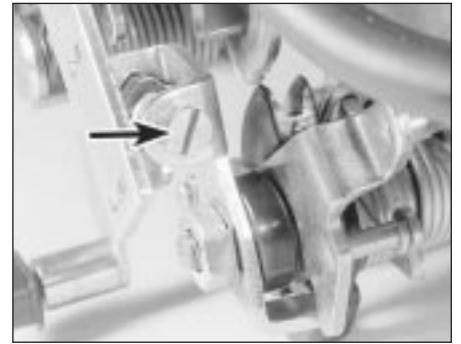
13.11 Weber 2V carburettor fast idle adjustment - 1.4 litre models

- A Choke plates held open
B Fast idle adjustment screw



13.16 Weber 2V carburettor fast idle adjustment - 1.6 litre models

- A Fast idle cam
B Fast idle adjustment screw positioned on third step of cam



13.23 Weber 2V carburettor fast idle adjustment screw (arrowed) - 1.1 and 1.3 litre HCS engine models

10 Pull the choke knob fully out and start the engine.

11 Using a finger on the linkage lever as shown, hold the choke plate open and note the fast idle speed (see illustration).

12 If adjustment is necessary turn the fast idle adjusting screw until the specified speed is obtained.

13 On completion refit the air cleaner and disconnect the tachometer.

Fast idle speed (1.6 litre models - 1986 onwards)

14 Remove the air cleaner as described in Section 2.

15 Have the engine at normal operating temperature with a tachometer connected in accordance with the manufacturer's instructions.

16 With the engine stopped, open the throttle linkage slightly by hand and close the choke plate until the fast idle adjusting screw lines up with the third (middle) step of the fast idle cam (see illustration). Release the throttle so that the fast idle screw rests on the cam. Release the choke plate.

17 Without touching the accelerator pedal, start the engine by just turning the key.

18 Note the fast idle speed and if adjustment is necessary, turn the fast idle adjusting screw until the specified speed is obtained.

19 On completion refit the air cleaner and disconnect the tachometer.

Fast idle speed (1.1 and 1.3 litre HCS engine models)

20 Adjust the engine idle speed and mixture settings as previously described, then switch off the engine. Leave the tachometer connected from the previous operation.

21 Remove the air cleaner assembly as described in Section 2.

22 Hold the choke valve fully open, start the engine and check the engine speed.

23 Adjust as necessary on the fast idle speed screw (see illustration).

24 Turning the screw anti-clockwise increases the fast idle speed, turning it

clockwise decreases the speed.

25 On completion, stop the engine, remove the test equipment and refit the air cleaner.

Throttle kicker (1.4 litre models)

26 Remove the air cleaner as described in Section 2. Plug the vacuum supply from the manifold.

27 Have the engine at normal operating temperature with a tachometer connected in accordance with the manufacturer's instructions.

28 With the engine running and the idle speed and mixture correctly adjusted, manually operate the throttle kicker by lifting the operating lever upwards. Note the increase in engine speed.

29 If the increased speed is outside the figure given in the Specifications, remove the tamperproof plug from the top of the kicker body and adjust the unit to give the specified speed.

30 Remove the tachometer and refit the air cleaner on completion.

Throttle kicker (1.6 litre models - 1986 onwards)

31 The throttle kicker is only fitted to models with automatic transmission.

32 Have the engine at normal operating temperature, with the idle speed and mixture correctly adjusted and with a tachometer connected.

33 Disconnect the wiring multi-plug from the radiator cooling fan thermostatic switch in the thermostat housing, and bridge the two contacts in the plug using a suitable length of wire. This is necessary so that the cooling fan runs continuously during adjustment.

34 Disconnect the vacuum supply at the throttle kicker and also disconnect the vacuum supply to the throttle kicker electrically-operated vacuum switch, at the manifold take-off. Using a new hose connect the kicker directly to the manifold.

35 Start the engine and record the rpm.

36 If the engine speed is outside the figure given in the Specifications, remove the

tamperproof plug from the top of the kicker body and adjust the unit to give the specified speed.

37 On completion refit the vacuum connections in their original positions, reconnect the fan motor multi-plug and refit the air cleaner.

14 Weber 2V carburettor automatic choke unit - adjustment



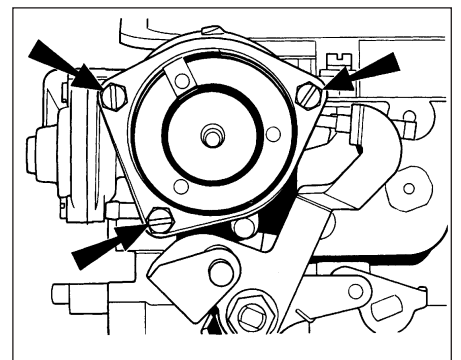
XR3 models

1 Remove the air cleaner as described in Section 2.

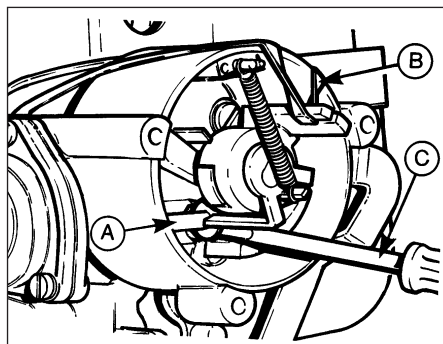
2 Disconnect the electrical lead to the automatic choke.

3 Unscrew and remove the three screws which hold the automatic choke housing cover in position (see illustration). Withdraw the cover and bi-metal coil, followed by the internal heat shield.

4 The choke plate vacuum pull-down should now be adjusted. To do this, fit a rubber band to the choke plate lever, open the throttle to allow the choke plates to close and then secure the band to keep the plates closed (see illustration).



14.3 Weber 2V carburettor automatic choke housing cover screw locations - XR3 models

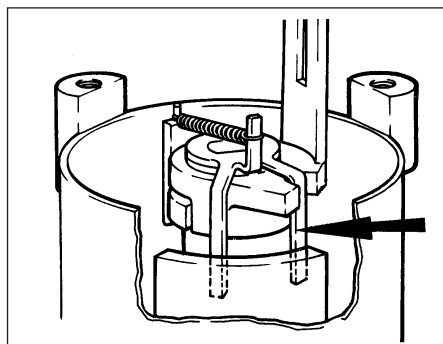


14.4 Weber 2V carburettor vacuum pull-down check - XR3 models

A Diaphragm connecting push-rod
B Rubber band holding choke plates closed
C Screwdriver

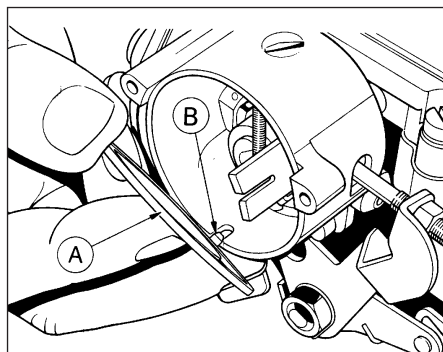
5 Using a screwdriver, push the diaphragm open to its stop and measure the clearance between the lower edge of the primary choke plate and the air horn using a twist drill or other gauge rod. Where the clearance is outside that specified, remove the plug from the diaphragm housing and turn the screw, now exposed, in or out as necessary (see illustration).

6 Refit the plug and remove the rubber band.



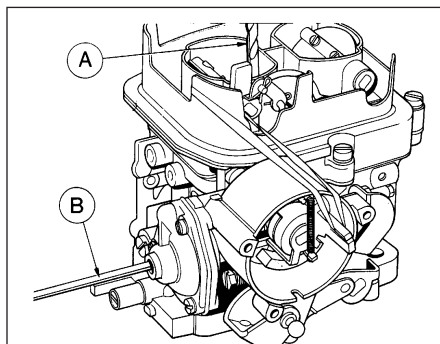
14.9 Weber 2V carburettor choke phasing adjustment - XR3 models

Bend tag (arrowed) to achieve specified clearance



14.10 Weber 2V carburettor heat shield reassembly - XR3 models

A Heat shield
B Locating peg engaged with housing notch



14.5 Weber 2V carburettor vacuum pull-down adjustment - XR3 models

A Twist drill
B Adjusting the pull-down setting

7 The choke phasing must now be checked and adjusted. Hold the throttle partially open and set the fast idle screw so that the fast idle screw is located on the centre step of the cam. Release the throttle so that the cam is held in this position (see illustration).

8 Push the choke plates downward until the step on the cam jams against the fast idle screw. Now measure the clearance between the lower edge of the primary choke plate and the air horn using a twist drill or gauge rod of suitable diameter.

9 Where necessary, bend the tag to adjust the clearance (see illustration).

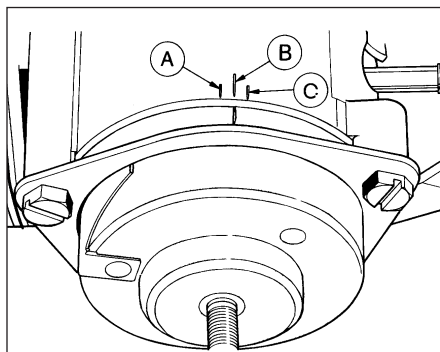
10 Refit the heat shield, making sure that the locating peg is correctly engaged in the notch in the housing (see illustration).

11 Offer up the cover and engage the bi-metal coil with the slot in the choke lever which projects through the cut-out in the heat shield.

12 Screw in the retaining screws finger tight and then rotate the cover to set the cover mark opposite the centre index line (see illustration).

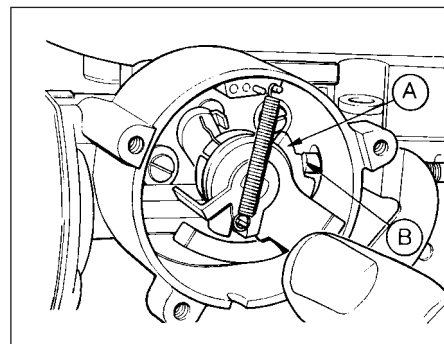
13 Reconnect the lead to the choke.

14 Refit the air cleaner.



14.12 Weber 2V carburettor choke housing alignment marks - XR3 models

A Rich position
B Index mark
C Weak position



14.7 Weber 2V carburettor choke phasing check - XR3 models

A Fast idle cam
B Fast idle adjustment screw positioned on centre step of cam

1.6 litre models - 1986 onwards

15 Remove the air cleaner (Section 2).

16 Release any pressure in the cooling system by loosening the pressure cap (see Chapter 1), then detach the water inlet and outlet hoses at the automatic choke unit. Clamp the hoses or position them with their ends facing upwards to minimise coolant leakage.

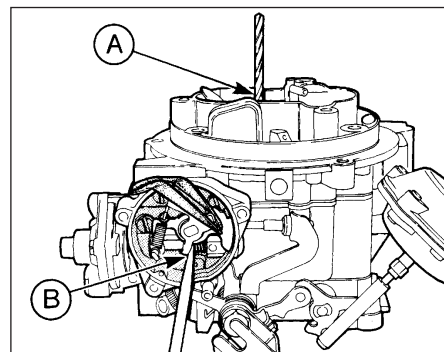
17 Undo the three screws and detach the choke bi-metal coil housing followed by the internal heat shield.

18 Fit a rubber band to the choke plate lever, open the throttle to allow the choke plate to close, and then secure the band to keep the plate closed (see illustration).

19 Using a screwdriver, push the diaphragm open to its stop and measure the clearance between the lower edge of the choke plate and the air horn using a twist drill or other gauge rod. Where the clearance is outside that specified, remove the plug from the diaphragm housing and turn the screw, now exposed, in or out as necessary.

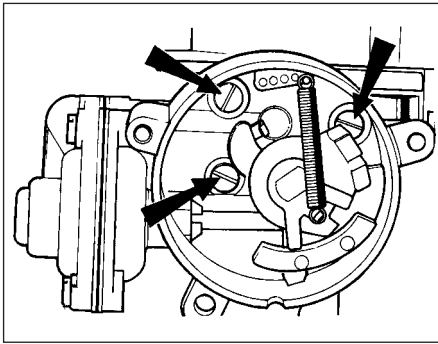
20 Fit a new diaphragm housing plug and remove the rubber band.

21 Refit the heat shield, making sure that the locating peg is correctly engaged in the notch in the housing.



14.18 Weber 2V carburettor vacuum pull-down adjustment - 1.6 litre models

A Twist drill
B Diaphragm pushed fully open with rubber band holding choke plate closed



15.5 Weber 2V carburettor choke housing retaining screw locations - XR3 models

- 22 Place the bi-metal coil housing in position with the coil engaged with the slot in the choke lever which projects through the cut-out in the heat shield.
- 23 Screw in the retaining screws finger tight and then rotate the housing to set the mark opposite the dot punch mark on the choke body. Secure the housing.
- 24 Reconnect the hoses and refit the air cleaner.
- 25 Check and if necessary top-up the cooling system as described in Chapter 1.

15 Weber 2V carburettor automatic choke unit - removal, checking and refitting



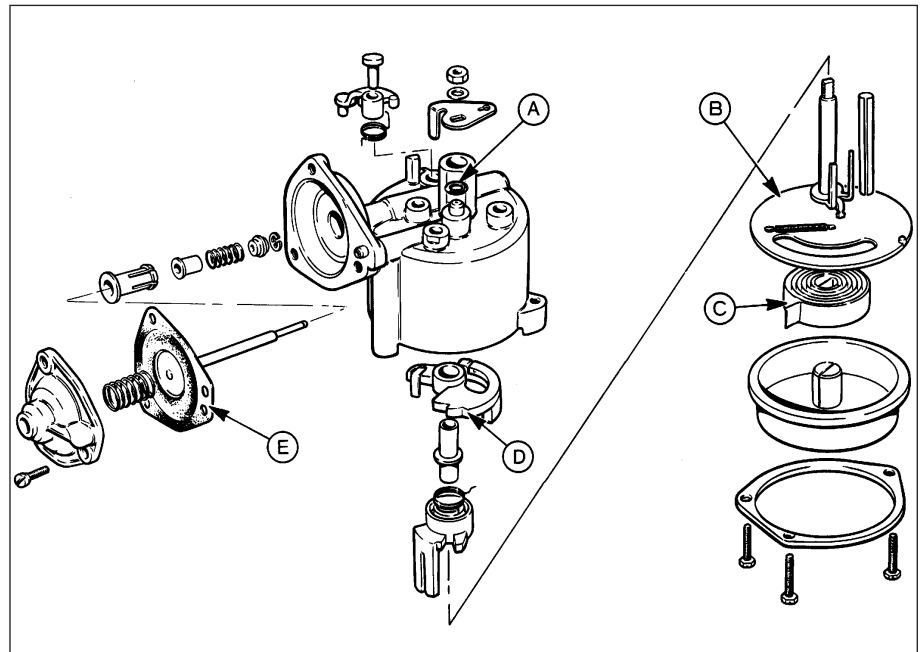
XR3 models

Removal

- 1 Remove the air cleaner (Section 2).
- 2 Disconnect the electrical lead to the automatic choke.
- 3 Undo the three choke housing cover retaining screws, withdraw the cover and bi-metal coil, followed by the internal heat shield.
- 4 Undo the six carburettor upper body retaining screws, hold the fast idle operating lever clear of the choke housing and lift off the upper body.
- 5 Undo the three screws securing the choke housing to the upper body, disconnect the link rod and remove the choke housing (see illustration).
- 6 Undo the three screws and remove the vacuum pull-down housing cover, then withdraw the spring, diaphragm and operating rod assembly (see illustration).
- 7 Extract the circlip on the end of the vacuum pull-down operating rod and slide off the rod components.
- 8 Make a note of the exact position of the choke mechanism return and tension springs then undo the shaft nut, withdraw the shaft from the choke housing and remove the linkages and cams.

Checking

- 9 Clean and inspect all the parts for wear, damage, cracking, or distortion. Pay particular



15.6 Exploded view of the Weber 2V carburettor automatic choke unit - XR3 models

A Housing O-ring
B Heat shield

C Bi-metal coil
D Fast idle cam

E Pull-down diaphragm

attention to the condition of the pull-down diaphragm and the choke housing O-ring seal. Renew any parts as necessary.

Refitting

- 10 Reassemble the choke mechanism shaft, linkages, cams and tension springs with reference to illustration 15.6 and the notes made during removal. Secure the shaft with the retaining nut.
- 11 Assemble the components to the vacuum pull-down operating rod and secure with the circlip.
- 12 Locate the vacuum pull-down diaphragm and operating rod to the choke housing and with the diaphragm laying flat on the housing face refit the cover and secure with the three screws.
- 13 Place the O-ring seal on the choke housing, then connect the housing to the link rod.
- 14 Position the housing on the carburettor upper body and secure with the three screws.
- 15 Refit the upper body to the carburettor.
- 16 Before refitting the housing cover and bi-metal coil, refer to Section 14 and adjust the vacuum pull-down and choke phasing, then fit the cover and bi-metal coil as described.

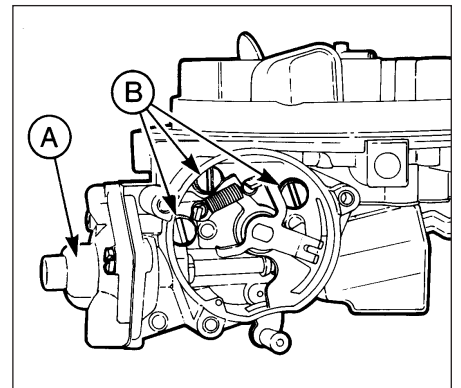
1.6 litre models - 1986 onwards

Removal

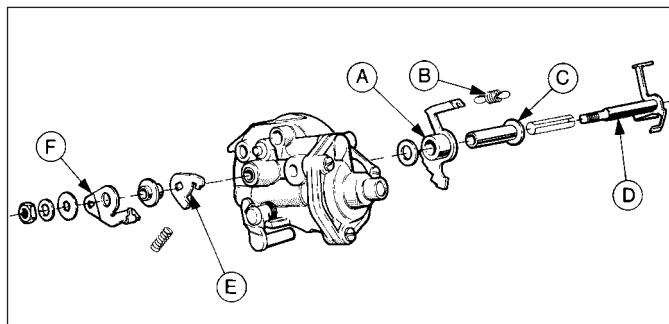
- 17 Remove the air cleaner as described in Section 2.
- 18 Release any pressure in the cooling system by loosening the filler cap, then detach the water inlet and outlet hoses at the

automatic choke unit. Clamp the hoses or position them with their ends facing upwards to minimise coolant leakage.

- 19 Disconnect the lead at the anti-run-on valve solenoid.
- 20 Disconnect the fuel supply and return hoses at the carburettor. If crimped type hose clips are used, cut them off and use screw type clips at reassembly.
- 21 Undo the six carburettor upper body retaining screws and remove the upper body. Note that four of the screws are of the Torx type and a suitable key or socket bit will be needed for removal.
- 22 With the upper body removed, undo the three screws and remove the choke bi-metal coil housing followed by the internal heat shield.



15.23 Weber 2V carburettor pull-down housing cover (A) and choke housing retaining screws (B) - 1.6 litre models



15.25 Exploded view of the Weber 2V carburettor automatic choke unit - 1.6 litre models

- | | |
|-------------------------------|----------------------------|
| A Upper choke operating link | D Connecting rod and lever |
| B Fast idle cam return spring | E Pull-down link |
| C Connecting rod sleeve | F Actuating lever |

23 Undo the three screws securing the choke housing to the upper body, disconnect the link rod and remove the choke housing (see illustration).

24 Undo the three screws and remove the vacuum pull-down housing cover, then withdraw the spring, diaphragm and operating rod assembly.

25 Make a note of the exact position of the choke mechanism return and tension springs, then undo the nut and remove the connecting rod, levers and link from the choke housing (see illustration).

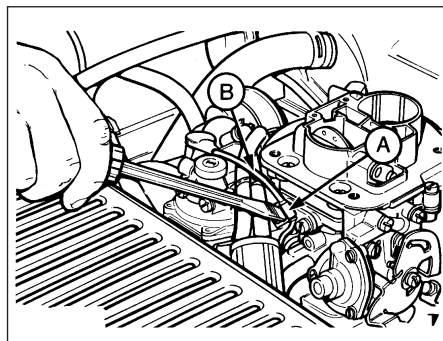
Checking

26 Clean and inspect all the parts for wear, damage, cracking or distortion. Pay particular attention to the condition of the pull-down diaphragm and the choke housing O-ring seal. Renew any parts as necessary.

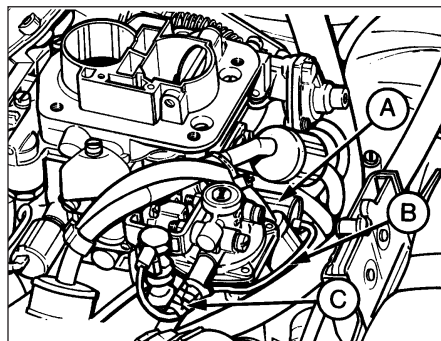
Refitting

27 Reassemble the choke mechanism connecting rod, levers, link and springs with reference to illustration 15.25 and the notes made during removal. Secure the assembly with the retaining nut.

28 Locate the vacuum pull-down diaphragm and operating rod in the choke housing. With the diaphragm lying flat on the housing face,

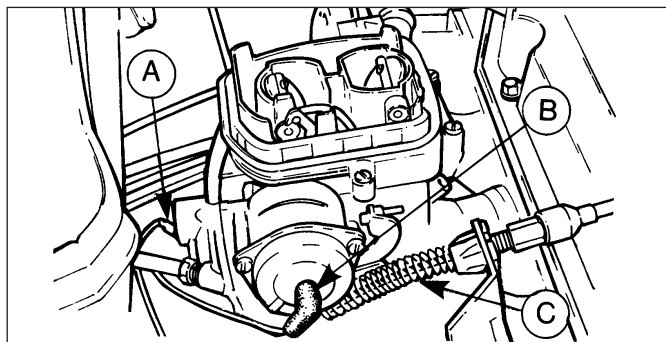


16.10a Removing the metal clip (A) securing the anti-run-on valve lead (B) - 1.4 litre models



16.10b Correct routing of the anti-run-on valve lead - 1.4 litre models

- | | |
|---------------------|-----------------------------|
| A Anti-run-on valve | C Lead taped to vacuum hose |
| B Lead | |



16.3 Weber 2V carburettor disconnection points - XR3 models

- | | |
|--------------------------|------------------|
| A Anti-run-on valve lead | C Throttle cable |
| B Electric choke lead | |

refit the cover and secure with the three screws.

29 Locate the O-ring seal on the choke housing, then connect the housing to the link rod.

30 Position the housing on the carburettor upper body and secure with the three screws.

31 Refit the upper body to the carburettor.

32 Before refitting the bi-metal coil housing refer to Section 14 and adjust the vacuum pull-down, then fit the coil housing as described.

16 Weber 2V carburettor - removal and refitting

Note: Refer to the warning at the end of Section 1 before proceeding.

XR3 models

Removal

- 1 Disconnect the battery negative lead.
- 2 Remove the air cleaner as described in Section 2.
- 3 Disconnect the electrical leads at the electric choke and anti-run-on valve (see illustration).
- 4 Disconnect the vacuum pipe at the carburettor outlet.

5 Disconnect the throttle cable by releasing the spring clip securing the end fitting to the ball-stud, and unscrew the cable bracket fixing bolts.

6 Disconnect the fuel inlet and return hoses, noting their respective positions, and plug them after removal. If crimped type clips are used, cut them off and use screw type clips when refitting.

7 Undo the four mounting flange nuts and washers and withdraw the carburettor from the inlet manifold.

Refitting

8 Refitting is the reverse sequence to removal, but use a new flange gasket and ensure that the mating surfaces are perfectly clean. Make sure that the vacuum pipe fuel trap is correctly positioned, and on completion check the idle speed and mixture settings as described in Chapter 1.

1.4 litre models

9 The procedure is identical to that just described for XR3 models except that a manual choke is fitted and the choke inner cable must be released by slackening the linkage clamp bolt.

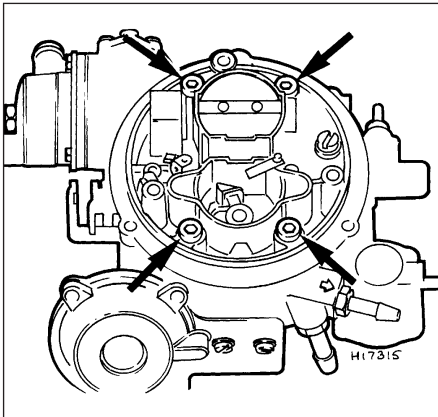
10 Additionally when refitting, observe the following points.

- a) Adjust the choke cable as described in Section 9.
- b) Where applicable, the lead for the anti-run-on valve should be removed from the metal clip which secures it to the carburettor body, re-routed as shown, and taped to the vacuum hose (see illustrations). The metal clip should be discarded, and the securing screw refitted to the carburettor body, ensuring it is fully tightened.

1.6 litre models - 1986 onwards

Removal

- 11 Disconnect the battery negative lead.
- 12 Remove the air cleaner as described in Section 2.
- 13 If the engine is still hot, depressurise the cooling system by carefully releasing the pressure cap (see Chapter 1).



16.19 Weber 2V carburettor mounting through-bolt locations - 1.6 litre models

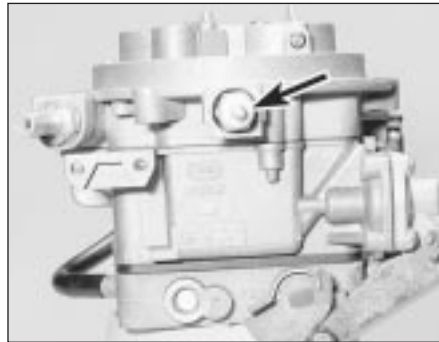
- 14 Disconnect the coolant inlet and outlet hoses at the automatic choke and clamp or plug their ends to prevent coolant loss.
- 15 Disconnect the throttle cable by releasing the spring clip securing the end fitting to the ball-stud, then unscrewing the cable bracket fixing bolts.
- 16 Disconnect the fuel inlet and return hoses, noting their respective positions, and plug them after removal. If crimped type clips are used, cut them off and use screw type clips when refitting.
- 17 Disconnect the distributor vacuum pipe and the throttle kicker vacuum pipe on automatic transmission models.
- 18 Disconnect the electrical lead at the anti-run-on valve solenoid.
- 19 Using a suitable Torx type key or socket bit, unscrew the four mounting through-bolts from the top of the carburettor and remove the unit from the manifold (see illustration).

Refitting

20 Refitting is the reverse sequence to removal, but use a new flange gasket and ensure that the mating faces are perfectly clean. On completion top-up the cooling system as described in "Weekly checks" and check the idle speed and mixture settings as described in Chapter 1.



16.27 Lifting off the carburettor - 1.1 and 1.3 litre HCS engines



16.25 Anti-run-on valve solenoid (arrowed) - 1.1 and 1.3 litre HCS engines

1.1 and 1.3 litre HCS engine models

Removal

- 21 Disconnect the battery negative terminal.
- 22 Remove the air cleaner as described earlier.
- 23 Disconnect the throttle and choke cables as described in the relevant Sections.
- 24 Disconnect the fuel inlet hose. If crimped connections are used cut them off and renew them with screw type clips.

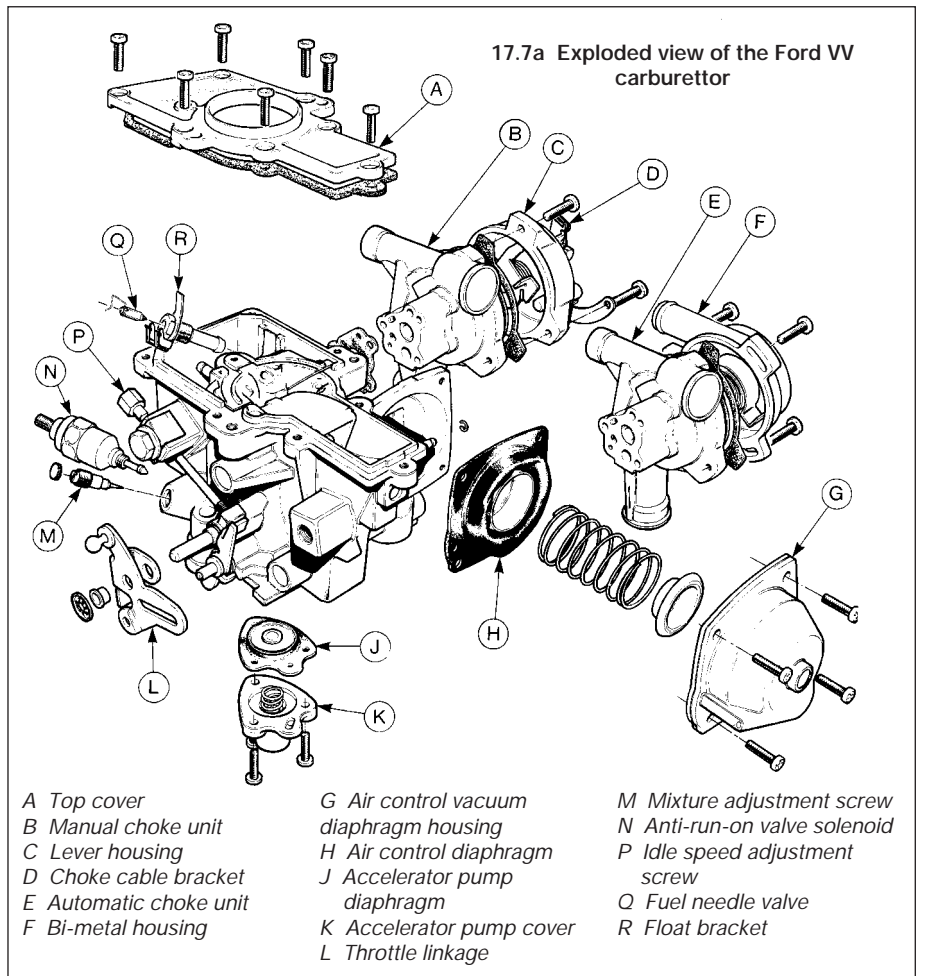


16.26 Removing a Torx through-bolt - 1.1 and 1.3 litre HCS engines

- 25 Disconnect the lead at the anti-run-on valve solenoid (see illustration).
- 26 Remove the four Torx type through-bolts securing the carburettor to the inlet manifold (see illustration).
- 27 Lift off the carburettor (see illustration).

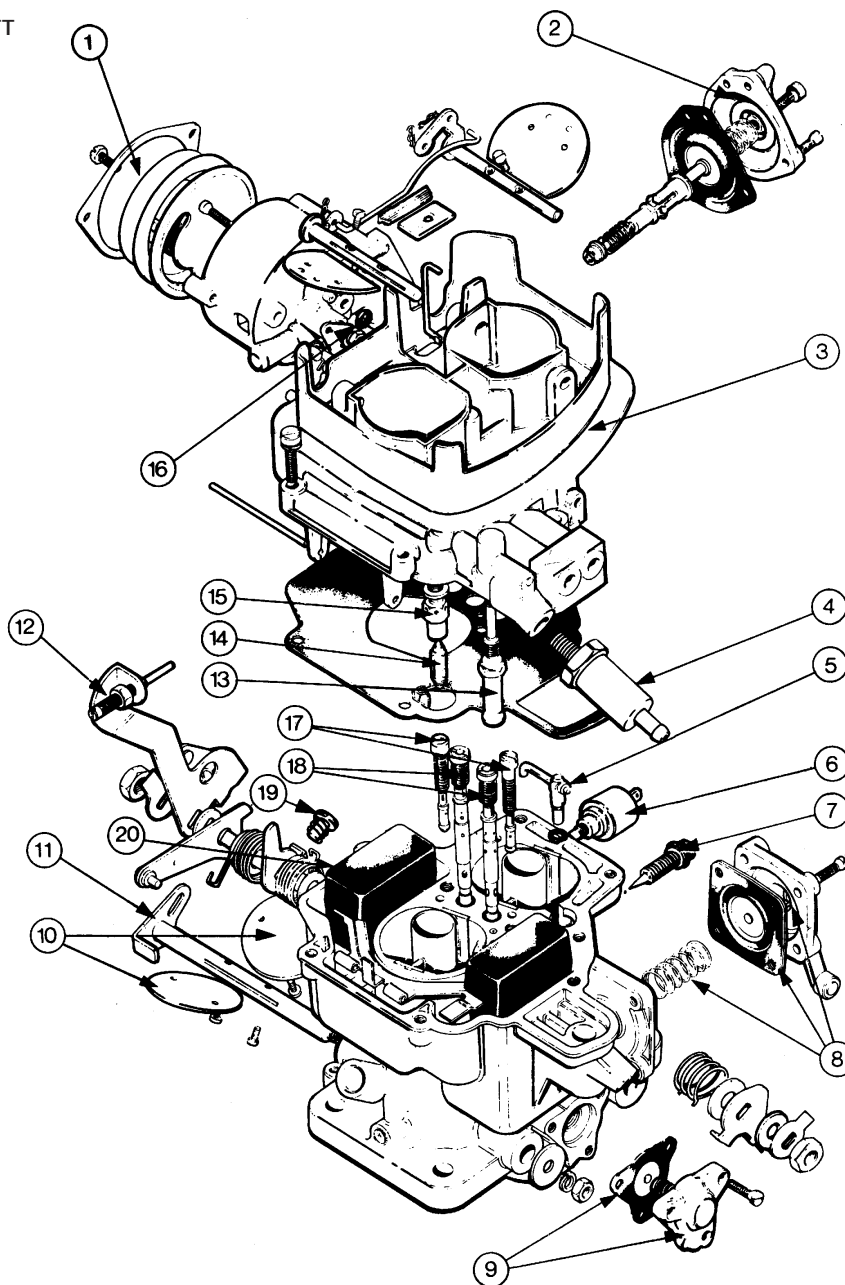
Refitting

- 28 Refit in reverse order using a new flange gasket.
- 29 On completion check the idle speed and mixture settings as described earlier.



17.7b Exploded view of Weber 2V DFT carburettor - XR3 models

- 1 Choke housing cover
- 2 Vacuum pull-down assembly
- 3 Upper body
- 4 Fuel filter
- 5 Accelerator pump discharge tube
- 6 Anti-run-on valve solenoid
- 7 Mixture adjustment screw
- 8 Accelerator pump assembly
- 9 Power valve assembly
- 10 Throttle valve plates
- 11 Secondary throttle spindle
- 12 Fast idle adjustment screw
- 13 Fuel return connection
- 14 Fuel inlet needle valve
- 15 Needle valve housing
- 16 O-ring
- 17 Idle jets
- 18 Combined emulsion tube, air correction and main jets
- 19 Idle speed adjustment screw
- 20 Float



17 Carburettor overhaul - general information



Faults with the carburettor are usually associated with dirt entering the float chamber and blocking the jets, causing a weak mixture or power failure within a certain engine speed range. If this is the case, then a thorough clean will normally cure the problem.

If a carburettor fault is suspected, always check first (where possible) that the ignition timing is correct, and that the spark plugs are in good condition and correctly gapped. Also

check that the throttle cable is correctly adjusted, and that the air cleaner element is clean.

If careful checking of all the preceding points produces no improvement, the carburettor should be removed for cleaning and possible overhaul.

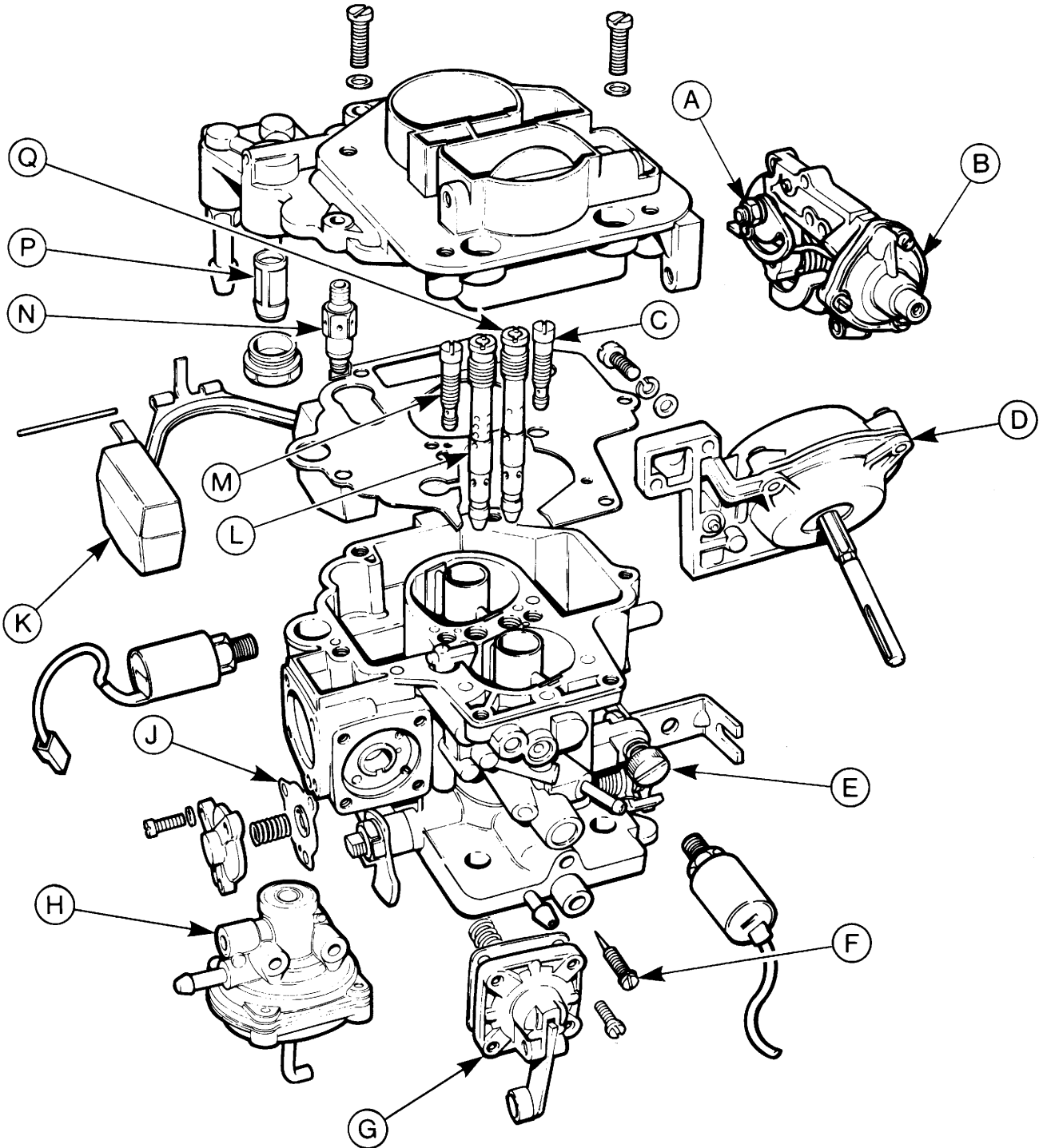
Complete overhaul of a carburettor is seldom required. It will usually be found sufficient to use a suitable carburettor cleaning agent to remove any fuel deposits and/or dirt. Follow the instructions supplied with the cleaning agent - most products can be used without removing the carburettor from the vehicle.

Blocked jets or internal passages can be cleaned using an air line.

If the carburettor is worn or damaged, it should either be renewed or overhauled by a specialist, who will be able to restore the carburettor to its original calibration.

Carburettor overhaul kits are available from a Ford dealer, but it is worth checking on the cost of a reconditioned or new unit before contemplating overhaul. Exploded views of the carburettors are provided as a guide for those wishing to carry out overhaul (see **illustrations**).

17.7c Exploded view of Weber 2V DFTM carburettor - 1.4 litre models

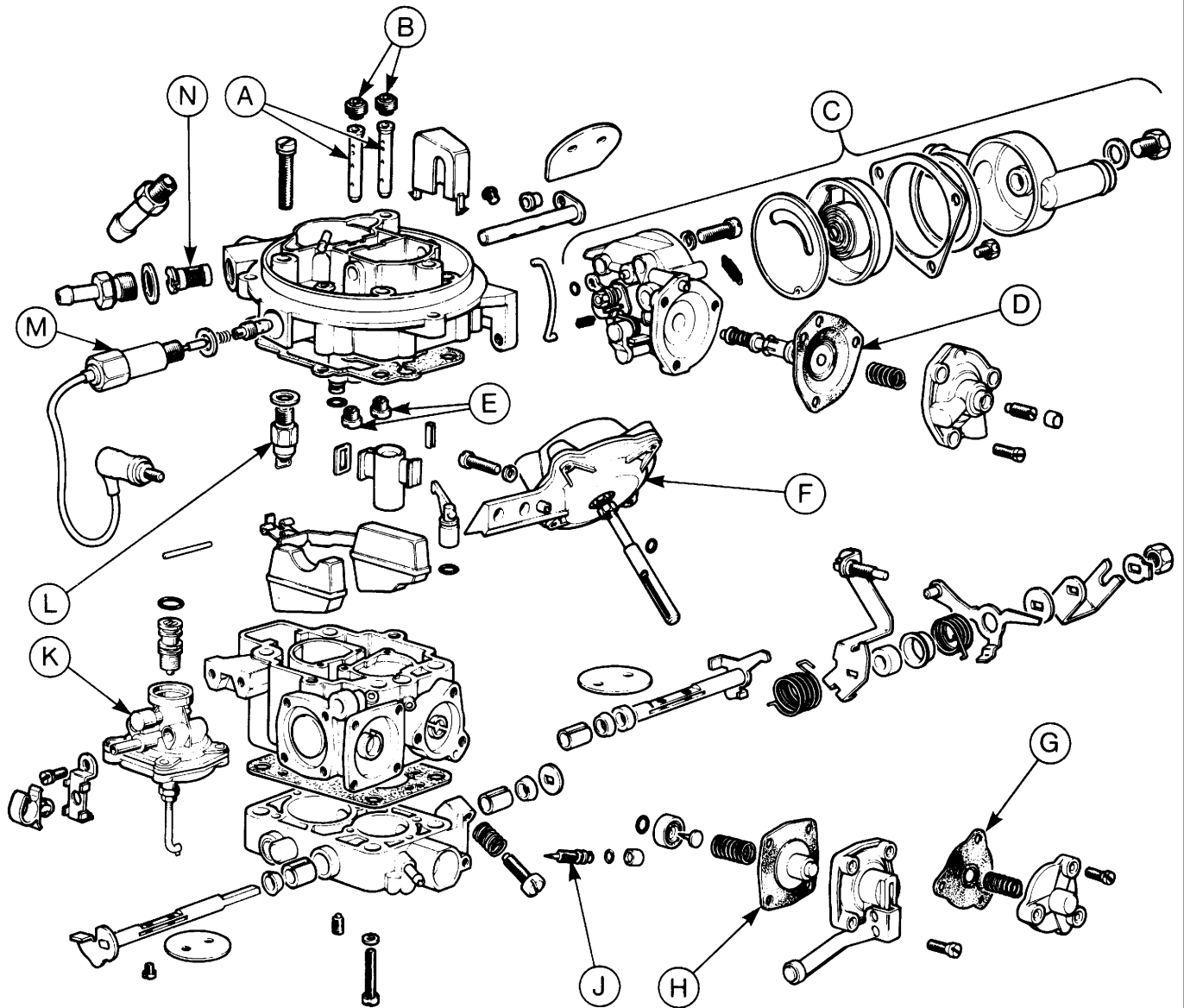


A Manual choke assembly
 B Vacuum pull-down unit
 C Secondary idle jet
 D Secondary venturi vacuum unit
 E Idle speed adjustment screw

F Mixture adjustment screw
 G Accelerator pump assembly
 H Throttle kicker
 J Power valve diaphragm
 K Float

L Primary emulsion tube
 M Primary idle jet
 N Needle valve
 P Fuel inlet filter
 Q Secondary emulsion tube

17.7d Exploded view of Weber 2V TLD carburettor - 1.6 litre models



A Emulsion tubes
 B Air correction jets
 C Automatic choke assembly
 D Vacuum pull-down diaphragm
 E Main jets

F Secondary venturi vacuum unit
 G Power valve diaphragm
 H Accelerator pump diaphragm
 J Mixture adjustment screw

K Throttle kicker (automatic transmission models)
 L Needle valve
 M Anti-run-on valve solenoid
 N Fuel inlet filter