

2.1 Undo the three retaining screws . . .



2.2a . . . then lift up the air cleaner assembly, and disconnect the intake air temperature sensor wiring connector . . .



2.2b . . . and the thermac valve vacuum pipe

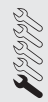
2 Lift up the assembly, then disconnect the wiring connector from the air temperature sensor, and the inlet manifold vacuum pipe from the thermac valve (see illustrations).

3 Remove the air cleaner assembly, and recover its sealing ring from the throttle body flange.

**Refitting**

4 Refitting is the reverse sequence to removal, ensuring that the sealing ring is correctly located on the throttle body flange.

**3 Air cleaner air temperature control system** - information, testing and component renewal



**General information**

1 The system is controlled by a thermac valve/switch mounted in the air cleaner assembly; when the engine is started from cold, the switch is closed, to allow inlet manifold depression to act on the air temperature control valve in the inlet duct. This raises a vacuum diaphragm in the valve assembly, and draws a flap valve across the cold air inlet, thus allowing only (warmed) air from the exhaust manifold to enter the air cleaner.

2 As the temperature of the exhaust-warmed air in the air cleaner rises, a bi-metallic strip in the thermac switch deforms, opening the switch to shut off the depression in the air temperature control valve assembly. The flap is lowered gradually across the hot air inlet until, when the engine is fully warmed-up to normal operating temperature, only cold air from the front of the inlet duct is entering the air cleaner.

**Testing**

3 To check the system, allow the engine to cool down completely, then unclip the inlet duct from the air cleaner body; the flap valve in the duct should be securely seated across the hot air inlet. Start the engine; the flap should immediately rise to close off the cold air inlet, and should then lower steadily as the engine warms up, until it is eventually seated across the hot air inlet again.

4 To check the thermac switch, disconnect the vacuum pipe from the control valve when the engine is running, and place a finger over the pipe end. When the engine is cold, full inlet manifold vacuum should be present in the pipe, and when the engine is at normal operating temperature, there should be no vacuum in the pipe.

5 To check the air temperature control valve, unclip the inlet duct from the air cleaner body; the flap valve should be securely seated across the hot air inlet. Disconnect the vacuum pipe, and suck hard at the control valve stub; the flap should rise to shut off the cold air inlet.

6 If either component is faulty, it must be renewed as described below.

**Component renewal**

**Thermac switch**

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

8 Release the lid retaining clips, then remove the lid and withdraw the air cleaner filter element.

9 Disconnect the vacuum pipe (see illustration), then bend up the tags on the switch clip. Remove the clip, then withdraw the switch and its seal.

10 Refitting is the reverse sequence to removal, ensuring that the switch mating surfaces are clean, and that the switch and seal are correctly located before fastening the clip.



3.9 Disconnecting the vacuum pipe from the thermac valve

**Air temperature control valve**

11 Disconnect the vacuum pipe from the valve, then unclip the inlet duct from the air cleaner and remove it from the engine compartment.

12 The air temperature control valve can be renewed only with the complete inlet duct assembly. If a new inlet duct assembly is being fitted, undo the three screws securing the hot air inlet adapter plate to the bottom of the duct, and transfer the adapter plate to the new duct (see illustration).

13 Clip the duct into position in the air cleaner, and reconnect the vacuum pipe.

**4 Accelerator cable** - removal, refitting and adjustment



**Removal**

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

2 Remove the engine management ECU as described Section 13.

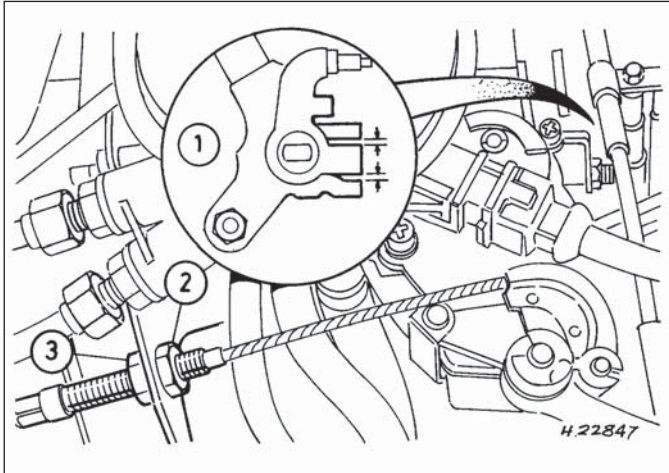
3 Slacken the accelerator cable locknuts, and free the outer cable from its mounting bracket. Release the inner cable from the throttle cam.

4 Work back along the outer cable, releasing it from any relevant retaining clamps and ties, and from the engine compartment bulkhead.

5 Working from inside the car release the heater duct from underneath the driver's side of the facia panel, to gain access to the upper end of the accelerator pedal.



3.12 Removing the air cleaner intake duct adapter



4.8 Accelerator cable adjustment - fuel-injected models

- 1 Throttle lever-to-lost motion link clearance should be equal  
 2 Adjuster locknut  
 3 Adjuster nut on each side

6 Remove the accelerator cable retaining clip, then release the cable from the upper end of the accelerator pedal. Return to the engine compartment, and withdraw the cable from the bulkhead.

### Refitting and adjustment

7 Refitting is the reverse sequence to removal, ensuring that the cable is correctly routed. Prior to tightening the cable locknuts, the cable should be adjusted as follows.

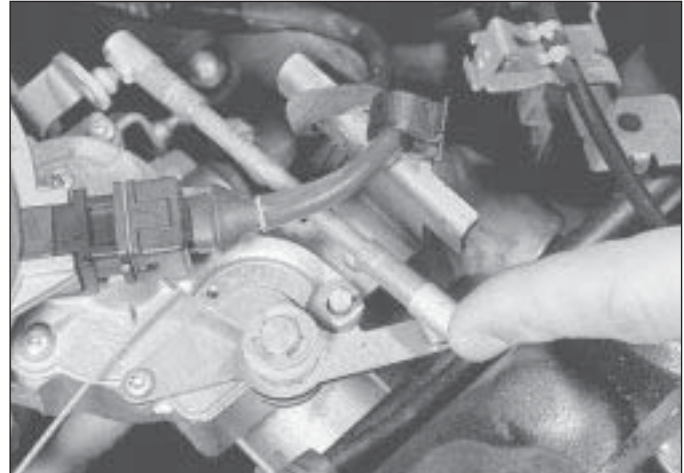
8 With the pedal fully released, position the locknuts so that there is equal clearance present on each side of the throttle lever at the lost motion link and no slack in the cable (see illustration). Have an assistant fully depress the pedal, and check that the throttle cam opens fully, then check that it returns to the at-rest position when released.

9 To adjust the cable, switch on the ignition and position the stepper motor by moving the cam only to open, and fully close the throttle (see illustration). Note that it is essential for accurate positioning of the stepper motor that the accelerator pedal switch contacts remain closed, so that the ECU recognises the throttle movement as a command, and indexes the stepper motor.

10 Slacken the adjuster locknut, then tighten the adjuster nut until the clearance is equal on each side of the throttle lever at the lost motion link, tighten the locknut without disturbing this setting (see illustration). Recheck the adjustment, and switch off the ignition.

### 5 Accelerator pedal - removal and refitting

Refer to Part A, Section 4.



4.9 To adjust the accelerator cable, index the stepper motor . . .

### 6 Fuel system - depressurisation

**Note:** Refer to the warning note in Section 1 before proceeding.



**Warning:** The following procedure will merely relieve the pressure in the fuel system - remember that fuel will still be present in the system components, and take precautions accordingly before disconnecting any of them.

1 The fuel system referred to in this Section is defined as the tank mounted fuel pump, the fuel filter, the fuel injector and the pressure regulator in the injector housing, and the metal pipes and flexible hoses of the fuel lines between these components. All these contain fuel which will be under pressure while the engine is running and/or while the ignition is switched on. The pressure will remain for some time after the ignition has been switched off, and must be relieved before any of these components are disturbed for servicing work.

2 Disconnect the battery negative lead.



4.10 . . . then adjust the locknut and adjuster nut as described in text

3 Place a suitable container beneath the relevant connection/union to be disconnected, and have a large rag ready to soak up any escaping fuel not being caught by the container.

4 Loosen the connection or union nut (as applicable) slowly to avoid a sudden release of pressure, and position the rag around the connection to catch any fuel spray which may be expelled. Once the pressure is released, disconnect the fuel line, and insert suitable plugs to minimise fuel loss and prevent the entry of dirt into the fuel system.

### 7 Fuel system - pressure check

**Note:** The following procedure is based on the use of the Rover pressure gauge and adapter (service tool number 18G1500).

1 Depressurise the fuel system as described in Section 6, then release the retaining clip and disconnect the flexible fuel feed hose at its union to the metal fuel pipe which is secured to the engine compartment bulkhead, just behind the throttle body assembly; the feed pipe is the lower of the two.

2 Connect the gauge into the fuel line between the hose and pipe, and check that it is securely retained.

3 Reconnect the battery and start the engine; the pressure should be steady at the specified regulated injection pressure. Stop the engine and watch the gauge; the pressure drop in the first minute should not exceed 0.7 bars.

4 If the regulated pressure recorded was too high, the pressure regulator must be renewed; this means renewing the complete injector housing assembly.

5 If the pressure first recorded was too low, or if it falls too quickly, check the system carefully for leaks. If no leaks are found, first