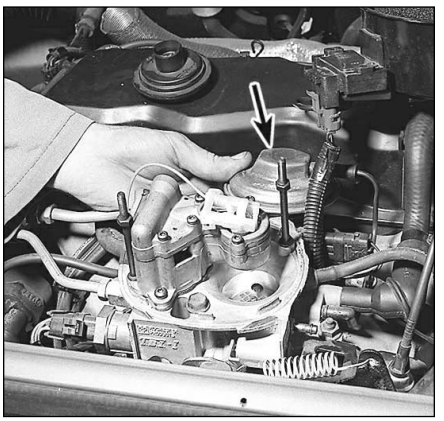
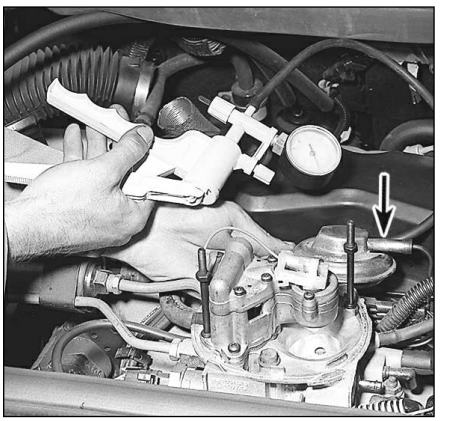
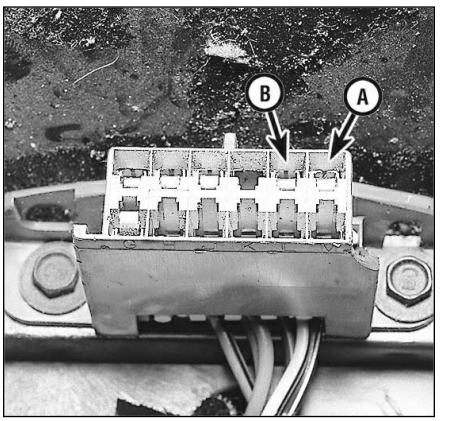


37.3 With the engine cold, reach up inside the EGR housing (arrow) from underneath with your fingers and push up on the diaphragm - moderate pressure should move it upward



37.6 With the engine running, hook a vacuum pump up to the EGR at the intake vacuum fitting (arrow) and apply vacuum - the engine should sputter and die



38.6 When checking the ignition timing, connect a jumper wire between terminals A and B of the diagnostic (ALCL) connector

13 Replace the cap and rotor if defects are discovered. **Note:** *It is common practice to install a new cap and rotor whenever new spark plug wires are installed*.

14 When installing a new cap, remove the wires from the old cap one at a time and attach them to the new cap in the exact same location- do not simultaneously remove all the wires from the old cap or firing order mix-ups may occur.

37 Exhaust gas recirculation (EGR) valve checking

Refer to illustrations 37.3 and 37.6

1 The EGR valve is located on the intake manifold between the rocker arm cover and the throttle body on the rear side of the four-cylinder engine and between the intake duct and the exhaust crossover pipe on the left end of the V6 engine.

2 Usually, when a problem develops in this emissions system, it is due to a stuck or corroded valve.

3 With the engine cold to prevent burns, reach underneath the EGR valve and manually push on the diaphragm inside the housing **(see illustration)**. You should be able to move the diaphragm with moderate pressure.

4 Disconnect the intake vacuum hose from the port on top of the EGR valve and attach a vacuum pump to the port.

5 Start the engine and allow it to reach normal temperature.

6 With the engine running, apply vacuum to the EGR valve with the vacuum pump **(see illustration)**.

7 The engine should sputter and die.

8 If the EGR valve fails either of the above tests, it must be replaced (Chapter 6).

38 Ignition timing check and adjustment

Refer to illustrations 38.6, 38.9 and 38.14

Note: *It is imperative that the procedures included on the Vehicle Emissions Control Information label be followed when adjusting the ignition timing. The VECI label includes all information concerning preliminary steps to be performed before adjusting the timing, as well as the timing specifications. The following procedure is typical of the timing procedure for both four-cylinder and V6 engines, but it not necessarily the only one which might be outlined on the VECI label. If the procedure outlined on the VECI label of your vehicle is different, follow it.*

1 Set the parking brake and block the drive wheels.

2 Start the engine and allow it to reach normal operating temperature.

3 Verify that the check engine light on the dashboard is off.

4 Switch the engine off when it's warmed up.

5 Remove the panel in the console between the seats by loosening the two retaining screws.

6 Ground the diagnostic connector in the console with a paper clip between terminals A and B **(see illustration)**.

7 The check engine light should begin flashing.

8 Connect the timing light in accordance with the manufacturer's instructions. Be careful not to tangle the wires in moving engine parts.

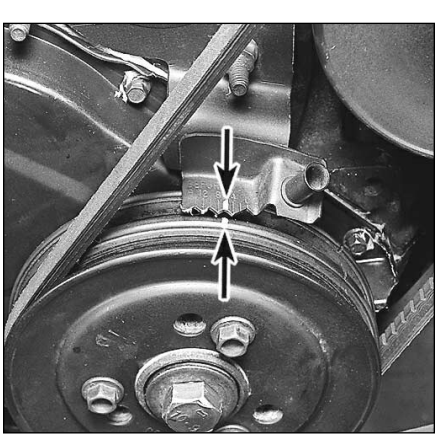
9 Clamp the timing light inductive pickup around the no. 1 spark plug wire, start the engine and point the timing light at the crankshaft timing marks located on the edge of the crank pulley **(see illustration)**. The stationary timing plate on the face of the timing chain cover has eight marks at two degree increments. When a stroboscopic timing light is pointed at the crank pulley and the stationary timing plate while the engine is running, the notch on the pulley will appear to be stationary and in close proximity to one of the marks on the plate. Record your reading.

10 Unclamp the timing light inductive pickup from the no. 1 spark plug wire and attach it to the no. 4 plug wire. Repeat the above step and record your second reading.

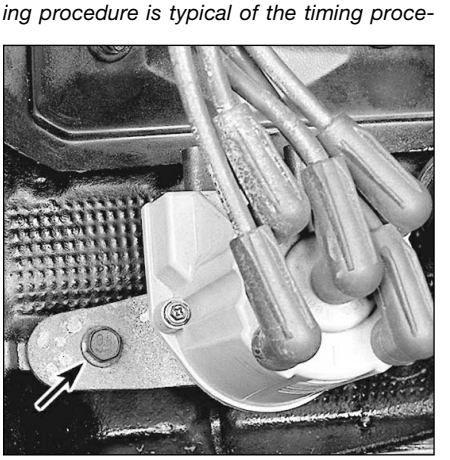
11 Add the timing figures you got for both cylinders and divide that sum by 2.

12 If the average of the two cylinders is not within the specified timing on your vehicle's VECI label, it must be reset.

13 Put the inductive pickup back on spark



38.9 Aligned timing marks on the pointer and pulley



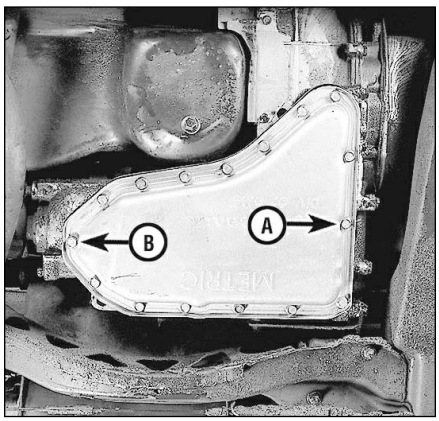
38.14 The distributor hold-down bolt (arrow) should be loosened just enough to rotate the distributor slightly

plug wire no. 1.
14 Loosen the distributor hold-down bolt **(see illustration)** and rotate the distributor slightly to bring the timing within the figure specified on the VECI label. If the average of cylinders no. 1 and no. 4 was lower than that specified on the VECI label, rotate the distributor counterclockwise. If the average was too high, rotate it clockwise.
15 When the timing mark on the crankshaft pulley is at the specified number of degrees before TDC, tighten the distributor hold-down bolt.
16 Recheck the timing to make sure that it wasn't disturbed by tightening the distributor hold-down bolt.
17 Check the timing for the no. 1 and no. 4 cylinders again.
18 Add your readings together and divide by 2 again. Compare the average to the specified timing on the VECI label. It should be within specification. If it isn't, repeat the above procedure until it is.
19 Remove the paper clip from the diagnostic connector. Verify that the check engine light is off.
20 Replace the diagnostic connector cover panel in the console.

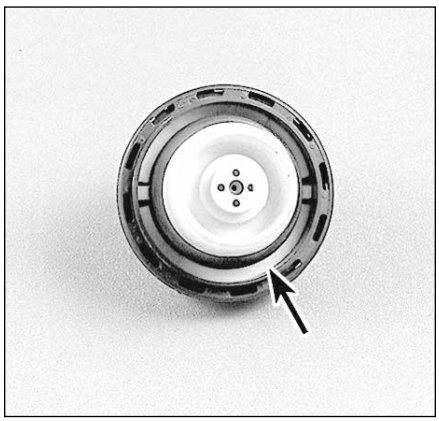
39 Automatic transaxle fluid and filter change

Refer to illustrations 39.5

1 Before beginning work, purchase the specified type and amount of transmission fluid (see Recommended lubricants, fluids and capacities), a gasket and a filter.
2 In order to remove any sediment buildup, the automatic transaxle fluid should be drained immediately after the vehicle has been driven. **Warning:** *Because fluid temperatures can exceed 350 degrees in a hot transaxle, protective gloves should be worn when performing the following procedure*.
3 Raise the vehicle and support it on jackstands.
4 Place a drain pan under the transaxle oil pan.
5 Remove all bolts from the oil pan except bolts A and B **(see illustration)**. **Note:** *A special bolt will be required to remove a Turbo 125C oil pan assembled with RTV sealant. This special bolt can be made from an oil pan bolt by grinding down a section of the shank diameter to approximately 3/16-inch just below the bolt head* .
6 Remove bolt A and install the special bolt in its place.
7 Loosen bolt B. With a rubber mallet, strike the oil pan corner. **Caution:** *Do not try to pry the oil pan loose from the case as damage to the pan flange or case will occur.*
8 Remove the special bolt and allow the fluid to drain.
9 Remove the remaining bolt and detach the oil pan. Remove the old filter and O-ring seal.
10 Inspect the oil pan and filter for foreign material such as metal particles, clutch facing material, rubber particles and engine coolant. If any of the above are found, the transaxle should be inspected and, if necessary, overhauled by a dealer or transmission shop.
11 Clean the gasket mating surface of the transaxle case. Remove all traces of old gasket. If the pan was previously assembled with RTV sealant, use a sharp edge plastic scraper to remove any old sealant. Use a clean rag to dry the case.
12 Clean the oil pan and flanges with solvent and blow it dry with compressed air, if available, or a clean rag. Make sure no RTV sealant is left in the pan or on the flanges.
13 Install the new filter and O-ring seal. Coat the seal with petroleum jelly.
14 Install the oil pan, using a new gasket. Tighten the oil pan bolts to the specified torque. 1984 models built with the 125C transmission may use RTV sealer or gaskets on the oil pan and side cover. If the transmission has the new style oil pan or side cover and bolts with conical washers, it must be installed with a gasket. If the old style pan or side cover is used, it can also be installed with a gasket.
15 Lower the vehicle.
16 Fill the transaxle with the proper quantity and type of fluid (see *Recommended lubricants, fluids and capacities*) through the filler tube. Use a funnel to avoid spills. Add a little at a time and check the indicated level on the dipstick continually (Section 4). Allow the fluid time to drain into the transaxle oil pan.
17 With the vehicle on level ground, place the gear selector in Park and apply the parking brake.
18 Start the engine without depressing the accelerator pedal (if possible). Run it at a slow idle. Don't race it.
19 Move the gear selector through all gear positions.
20 Move the gear selector to Park and, with the engine running at idle, check the fluid level. It should be in the cross-hatched area on the dipstick. **Caution:** *Do not overfill the transaxle. Overfilling causes foaming and loss of fluid through the vent and may damage the transaxle.*



39.5 Remove all the automatic transaxle oil pan bolts except bolts A and B (arrows)



40.2 Examine the gasoline filler cap for corrosion and damage and make sure the sealing ring (arrow) is unbroken

21 Look under the vehicle for leaks around the transaxle oil pan mating surface.
22 Push the dipstick firmly back into its tube and drive the vehicle far enough to reach normal operating temperature in the transmission. This should take approximately 15 miles of highway driving or slightly less in the city.
23 Park the vehicle on a level surface and check the underside of the transaxle for leaks.
24 Check the fluid level on the dipstick with the engine idling and the transaxle in Park. The level should now be at the upper end of the crosshatched area on the dipstick. If it isn't, add fluid to bring the level to this point. Again, do not overfill.

40 Fuel system check

Refer to illustration 40.2

Warning 1: *Gasoline is extremely flammable, so take extra precautions when you work on any part of the fuel system. Don't smoke or allow open flames or bare light bulbs near the work area, and don't work in a garage where a natural gas-type appliance (such as a water heater or a clothes dryer) with a pilot light is present. Since gasoline is carcinogenic, wear latex gloves when there's a possibility of being exposed to fuel, and, if you spill any fuel on your skin, rinse it off immediately with soap and water. Mop up any spills immediately and do not store fuel-soaked rags where they could ignite. When you perform any kind of work on the fuel system, wear safety glasses and have a Class B type fire extinguisher on hand.*
Warning 2: *Before removing the fuel filter the fuel system pressure must be relieved (Chapter 4).*
1 If you smell gasoline while driving or after the vehicle has been sitting in the sun, inspect the fuel system immediately.
2 Remove the gas filler cap and inspect it for damage and corrosion. The gasket should have an unbroken sealing imprint **(see illustration)**.