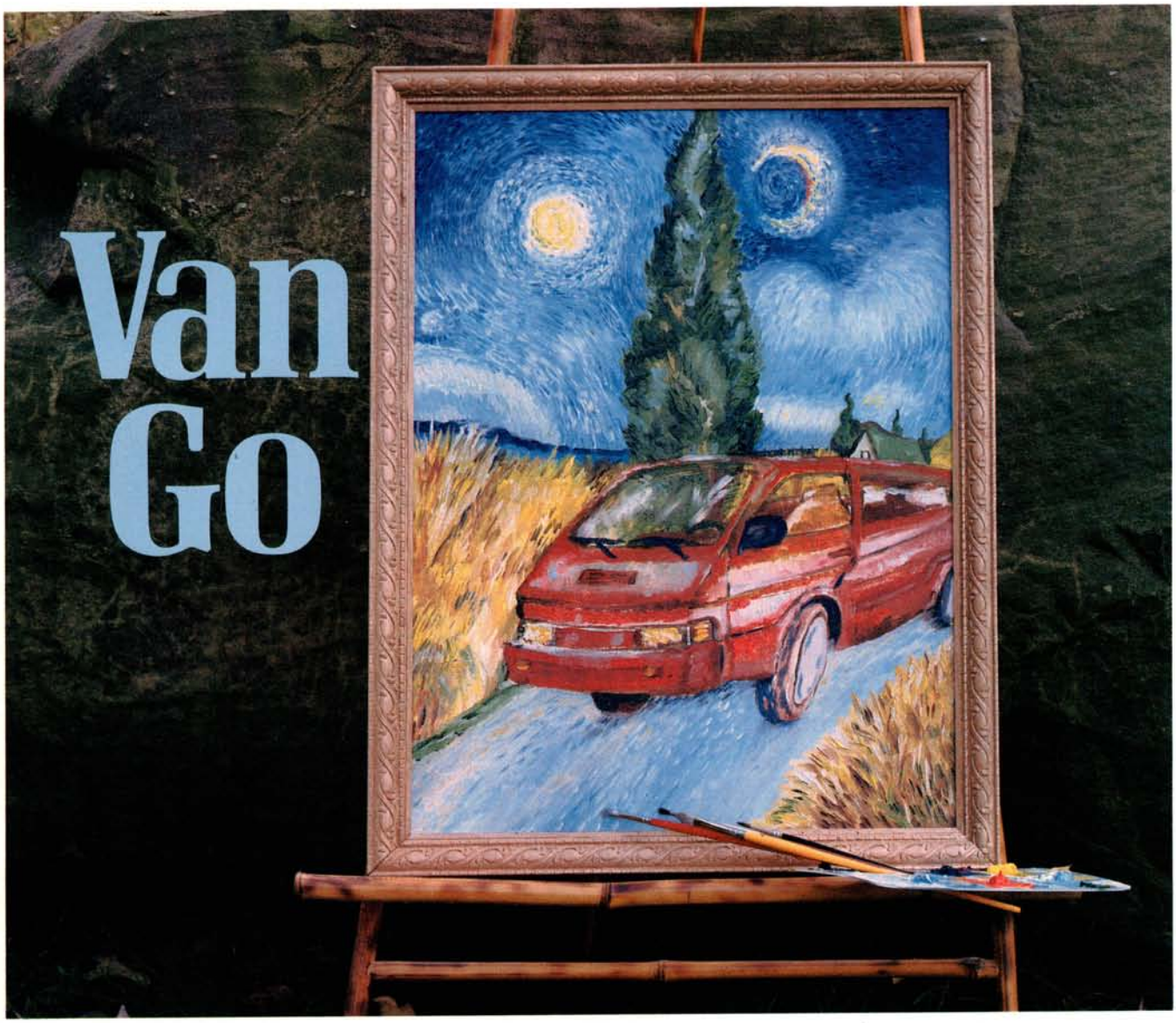


Van Go

If you haven't been paying close attention (and maybe Nissan hopes you haven't), you might think that the new and heavily promoted Nissan Quest is Nissan's first venture into the very competitive minivan class. The Quest is actually Nissan's fourth entry in the minivan wars.

The Nissan Stanza Wagon, Van, and Axxess all preceded the Quest and laid the groundwork for its introduction. Each of these earlier vehicles tried in a different way to attract buyers looking for practical transportation to cart around children and assorted possessions.

We'll be concentrating on Nissan Van models in this maintenance overview. To begin with, what can you say about a vehicle that never had its own name? Names like "Axxess" and "Quest" seem to imply rather lofty design aspirations, while "Van" does little more than describe what the vehicle is. Nissan called this model the "Prairie" in the home market.

Nissan sold the no-name Van in this country from 1987 to 1990. No new Vans were produced during the 1989 model year, so leftover 1988 models were sold during this period. Production numbers weren't very large when production resumed for 1990. Nissan techs we spoke with don't remember seeing any 1990 models for service in our part of the country. The Van was dropped from the Nissan lineup at the end of the 1990 model year.

Volatile Personality

Much like the troubled French painter we have jokingly referred to in the title of this article, some Nissan Vans have also shown an appetite for self destruction. Oil leaks caused by leaking valve cover gaskets lead to a risk of an engine fire on 1987 models. Nissan addressed this problem with a factory recall and an improved gasket to prevent further oil leakage.

High engine compartment heat also caused rapid deterioration of many rubber engine components and once again increased the risk of an engine compartment fire. Nissan also tackled this problem with a recall in late 1990 that called for the replacement of just about every piece of hose in the power steering and cooling systems as well as several other parts.

Most Vans should have received these important modifications by now. To be safe, make a habit of checking for the recall stickers during any Van maintenance service. If you do come across a Van that has not been properly updated, inform the owner at once.

Splice and Dice

When we weren't busy doing recalls, Vans kept us busy fixing electrical problems, lots of electrical problems. Unfortunately, most of these electrical nightmares were one of a kind in nature. Solving one mystery very seldom helped solve the next.

Vans, especially the fancy GXE models, are loaded with wiring and electronics that are responsible for everything from the front and rear air conditioning system to the sliding rear sunroof.

Electrical components aren't always where you might expect them to be because they are mounted wherever there's a little extra room. There are lots of very long wires running from one end of the Van to the other. Finding a pinched or broken part of a wire that's more than 10 feet long can be tough.

Besides protecting the cooling and power steering systems, the 1990 factory recall also includes several modifications to protect the engine wiring harness from chafing and damage caused by contact with sharp body panels. These modifications should eliminate many of the intermittent electrical problems that used to drive us nuts.

Pricing Strategies

One thing that might have doomed the Van from the start was its relatively poor serviceability. The front engine, rear wheel drive layout puts the engine right between the two front seat occupants. Any service job in this area involves lots of disassembly and reassembly and is going to take longer than it would on a normal vehicle.

Unless your shop operates under an "all cars, same low price" pricing strategy, the extra time it takes to do these jobs is going to get passed on to the customer in the form of higher service costs.

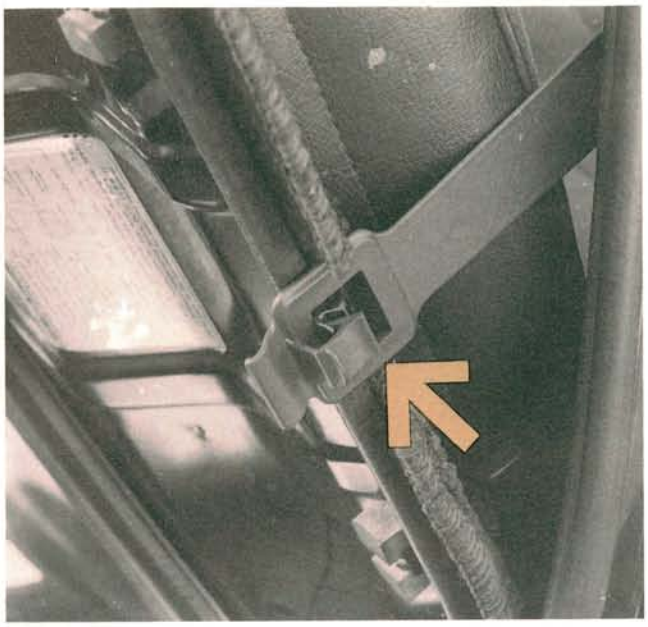
To take some of the sting out of these higher prices, try bundling a group of maintenance services under a single package price. Brake, suspension, and exhaust work is no more difficult on a Van than similar work on a Nissan pickup. Bundling may allow you to make up for some of the time spent under the engine cover.

— By Karl Seyfert

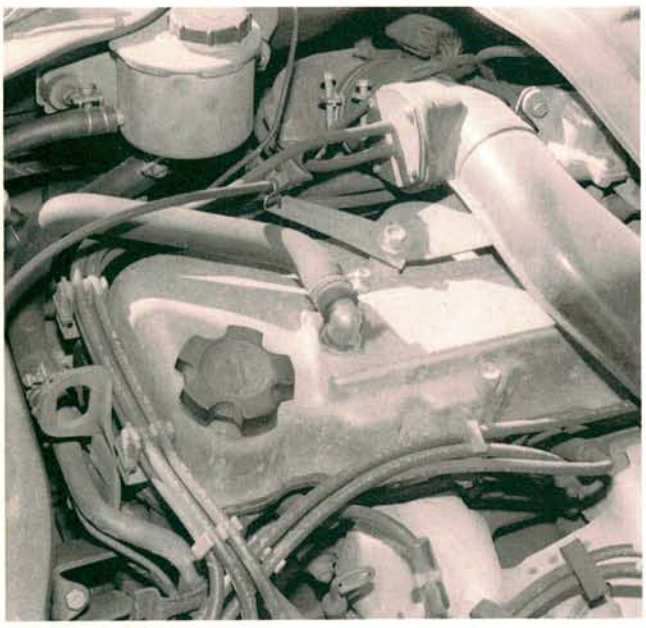
1 Unlike most front engine minivans, no maintenance other than headlight and wiper blade replacement can be performed from the front of the Van. Everything important must be serviced by working from either inside or below the vehicle. Adjust your labor estimates to reflect the extra time this requires.

2 Check the recall sticker before doing anything other than an oil change on a Nissan Van. If you don't find a 90V-136 recall sticker either on the driver's door jam or near the emissions label on the engine cover, have the customer contact a Nissan dealer to determine which updates are needed.

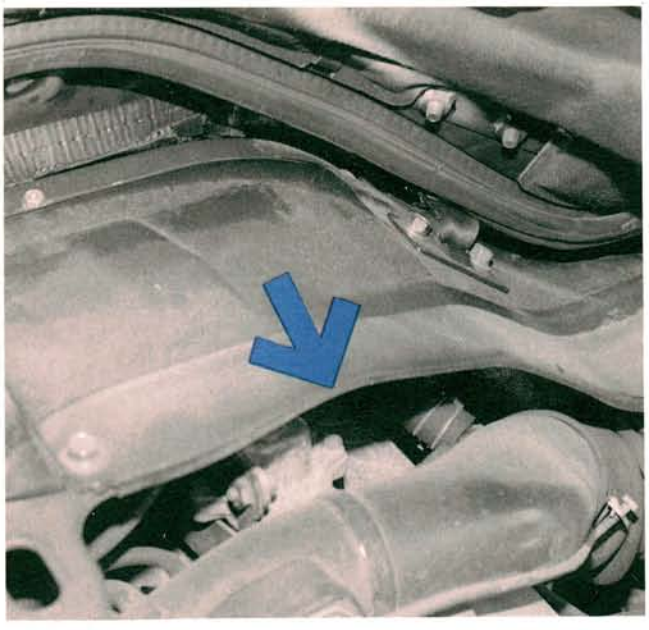
3 Just checking the oil level requires some work. Three latches under the carpeting keep the engine cover closed and keep the driver's seat firmly anchored in place. Two latches are located in front of the driver's seat, the third is near the left front corner of the passenger seat.



4 To raise the engine cover, slide the driver's seat all the way back so it will clear the steering wheel, then lift the front of the engine cover and driver's seat assembly. Tilt the cover rearward, then keep the cover open by attaching the plastic strap that's mounted to the shoulder belt bolt.



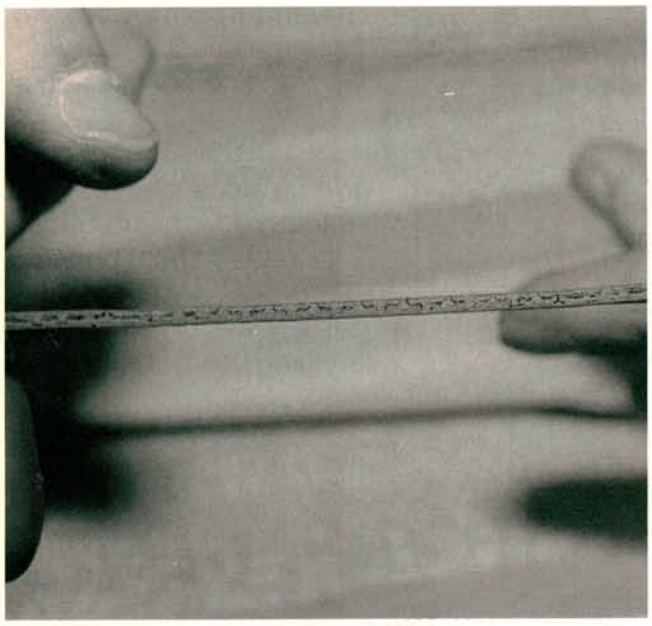
5 The Van's eight spark plug Z24 engine was used in Nissan pickups for many years. The biggest difference is that it's buried here. Engine oil and coolant can be added without much bother, but maintenance procedures like valve adjustments and spark plug changes require further disassembly.



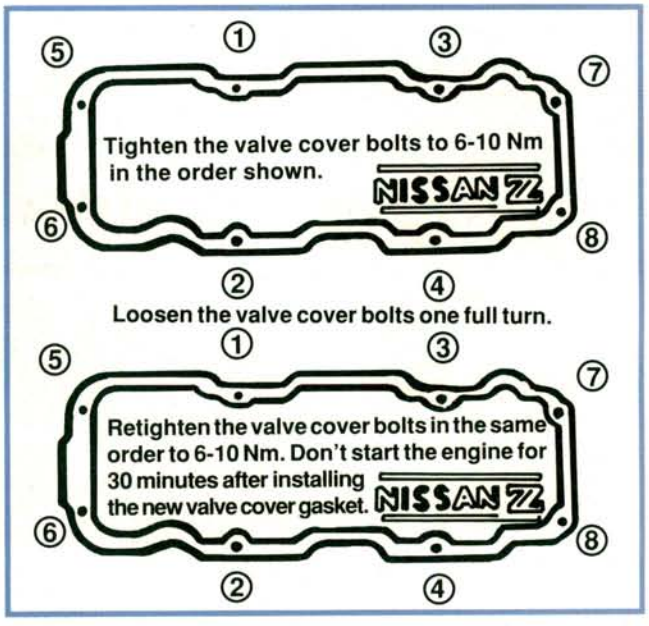
6 Remove the large metal reinforcing plate at the rear of the engine compartment (arrow) for extra room during valve cover removal or other maintenance work. To make more elbow room on the right side of the engine, remove the passenger seat and the large reinforcing plate that runs underneath it.

7 Turn back the carpeting to reach this small access plate behind the left rear corner of the passenger seat. Removing this plate gives you a view of the back side of the throttle housing. If you're double jointed, the automatic transmission dipstick can also be reached through this opening.

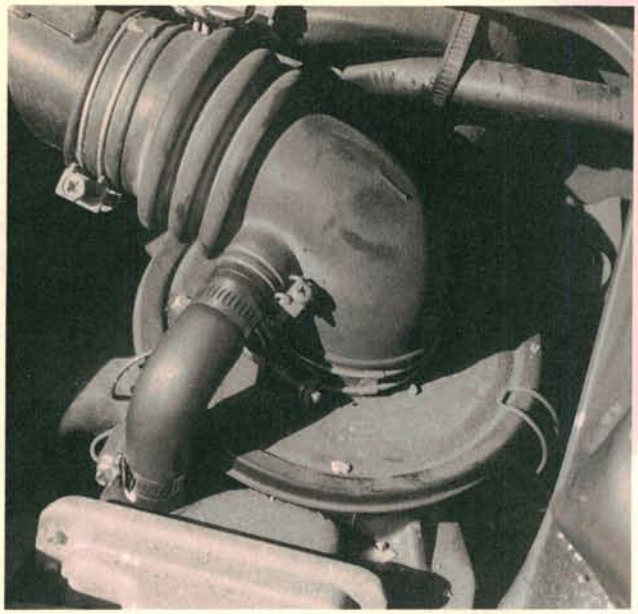
8 Move the passenger seat all the way forward, then remove the large metal access cover to service the coolant reservoir and fuel filter. Spilled fuel in this enclosed area is a fire risk. Relieve the fuel system pressure and clamp off the fuel line before changing the fuel filter.



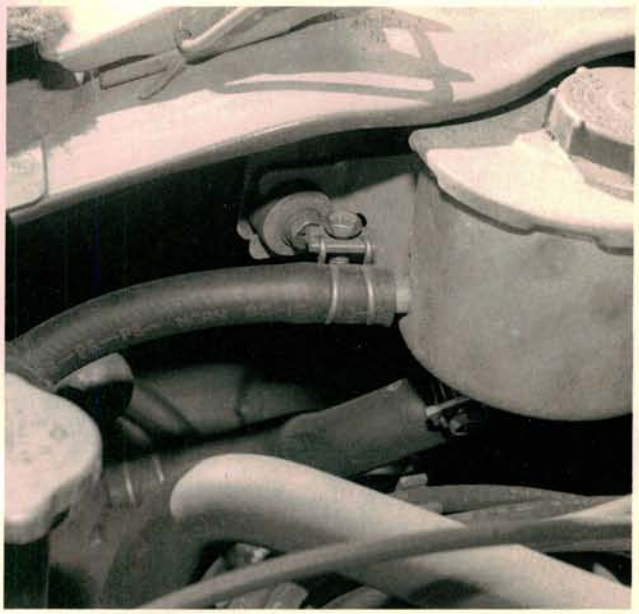
9 Leaking paper valve cover gaskets caused some engine fires on early Nissan Vans and resulted in the Van's first factory recall. The reinforcing material visible in this new style gasket prevents gasket splitting, and keeps the gasket in place under the valve cover.



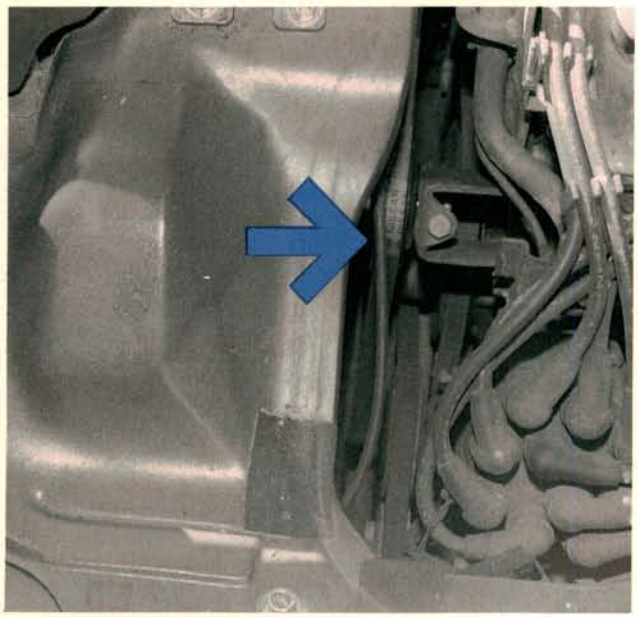
10 The valve cover bolt torquing procedures and torque specifications have also been revised. Use no sealer on the gasket and follow the procedure shown above. Factory part numbers have changed as the valve cover gasket design has changed. The latest gasket design is P/N 13270-17010.



11 The canister style air filter element is located under the driver's seat and looks like it escaped from a shop vac. The inlet hose and engine wiring harness both pass through an opening in the frame (arrow). The hose may push the harness against the frame opening, causing intermittent electrical problems.

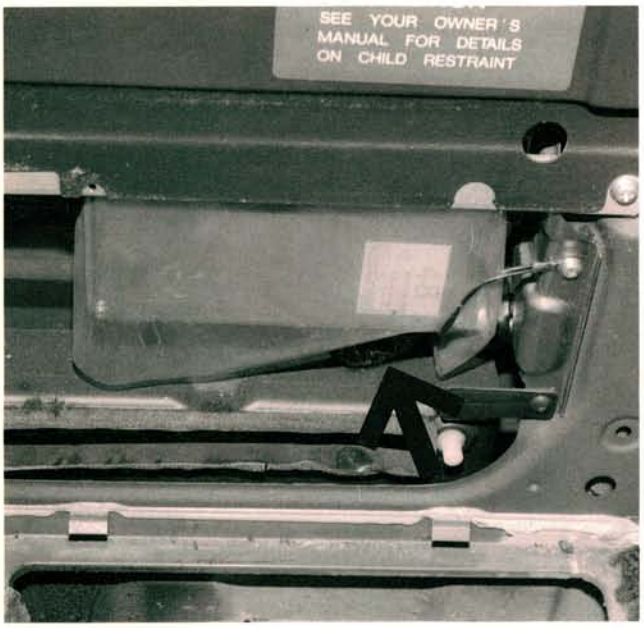


12 The most recent factory recall concentrated on the replacement of the cooling system and power steering hoses and other rubber parts. High heat loads under the engine cover put an extra strain on these parts. Always check hoses and other rubber parts for cracks or leaks during maintenance work.



13 A failed radiator cooling fan clutch may cause a howling or squealing noise at temperatures below freezing on 1987-88 Vans. An updated cooling fan clutch was installed during the 90V-136 recall to increase airflow through the engine compartment and lower operating temperatures.

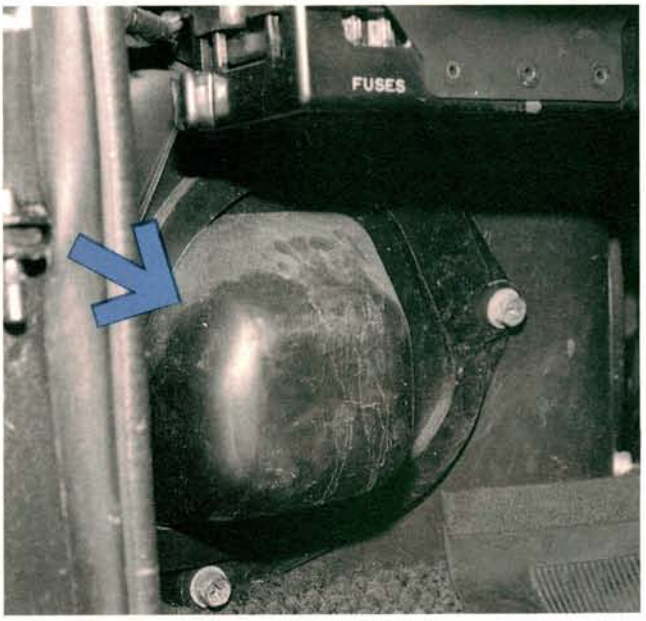
14 Locate the battery symbol on the left side of the rear passenger compartment, then remove the access plate under the carpeting to reach the battery. The battery tray is open to the elements from below. Clean the battery terminals and fusible links regularly to prevent the corrosion damage seen here.



15 The ECU is mounted directly above the battery, behind the passenger compartment trim panel. Voltage drops shouldn't be a problem with such close mounting. However, mounting the ECU against an external body panel exposes the ECU terminals to the same corrosion risks faced by the battery.

16 Leaks in the Van's front and rear air conditioning system are the ozone layer's worst nightmare. Poor system performance may also be caused by a failure of the electrically controlled switching valve that regulates the flow of refrigerant through the system's two condensers and three evaporators.

17 Brake fluid is the only fluid level that can be checked or adjusted without removing one of the engine access panels. Use the slotted opening in the left end of the dash board to determine the master cylinder reservoir level.



18 Replace the halogen headlight bulbs from inside the passenger compartment by removing the plastic covers (arrow). The fuse panel is tucked under the driver's side of the dash. Most electrical system relays are grouped along the right side of the dash. A wiring diagram is a must for diagnosis.