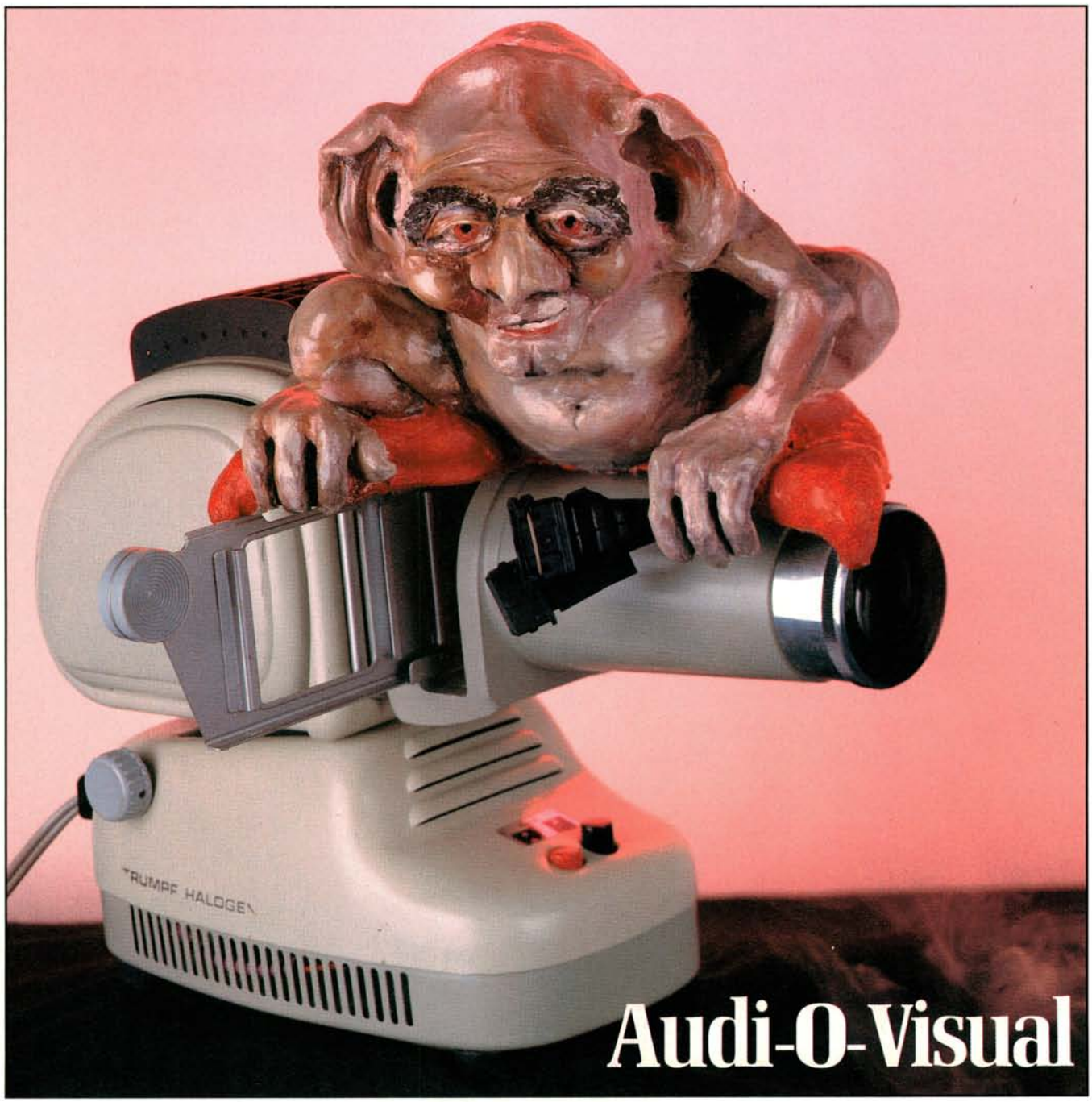


Audi-O-Visual

Dim the lights please. We're almost ready to begin our Audi-O-Visual presentation. Our subject this month is electrical troubleshooting on Audi vehicles.

Some vehicles have developed a well-deserved reputation among technicians for having a less than friendly relationship with electricity. Depending on who you talk to, Audis may or may not fall into this category.

One of the technicians we spoke with while researching this article was hard-pressed to think of any serious electrical problems that he had seen recently on Audis. Two other helpful techs from our area rattled off at least a half dozen tips faster than we could write them down, all the while claiming that they really didn't have that many electrical problems with Audis.

It all comes down to how you define a problem. If you know what to look for, you're probably not going to consider it to be much of a problem. If you haven't got a clue, it's going to look like a much bigger problem.

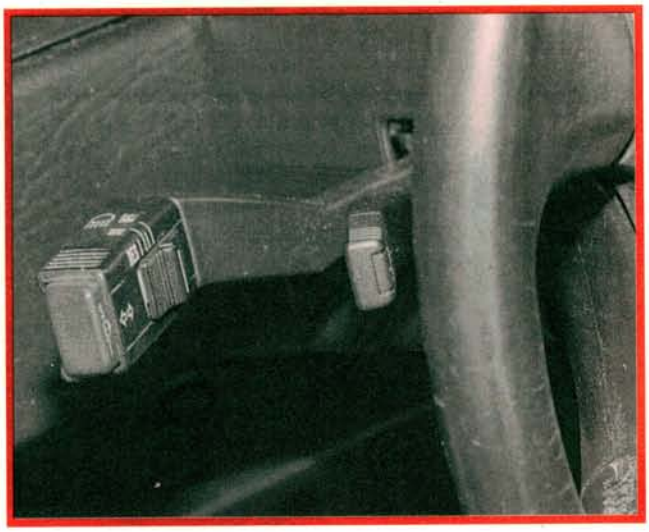
Mr. Gremlin is ready with the slide projector. We hope the ten tips in this abbreviated Audi-O-Visual presentation will help you make short work of your next Audi electrical "problem."

— by Karl Seyfert

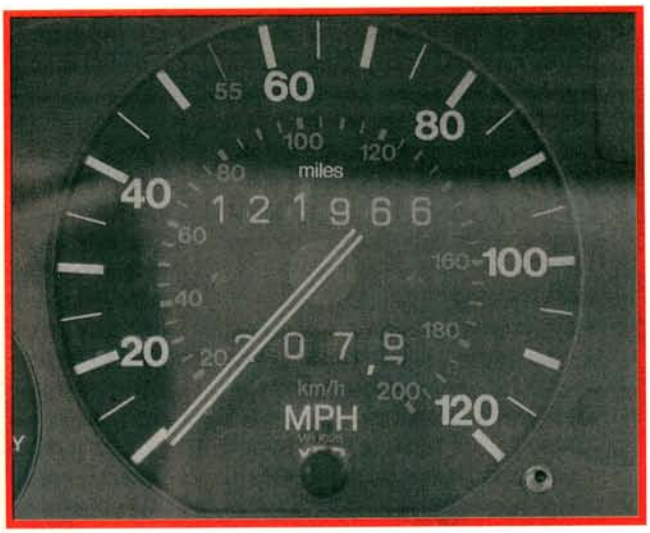
Audi-O-Visual

1 If the automatic climate control has developed a mind of its own or has quit working entirely, pull the connectors down from the left side of the center console. Loose terminal connections may cause a voltage drop at this automatic climate control connector. Separate the connectors and look for blackened, melted plastic. These terminals were previously repaired by bypassing the connectors. The preferred repair method is to replace the damaged terminals, then install new connector plugs.

2 Repeated opening and closing of the driver's door may cause the power seat wiring to break. This can cause some bizarre malfunctions of the seat memory system. The driver's seat may automatically head for the full reclining position when the car is first started. Peel back the accordion pleated wire boot and locate the broken wire(s). If you're going to splice in a new piece of wire, start the splice inside the door on one end and under the dash on the other end. Solder and heat shrink all joints.

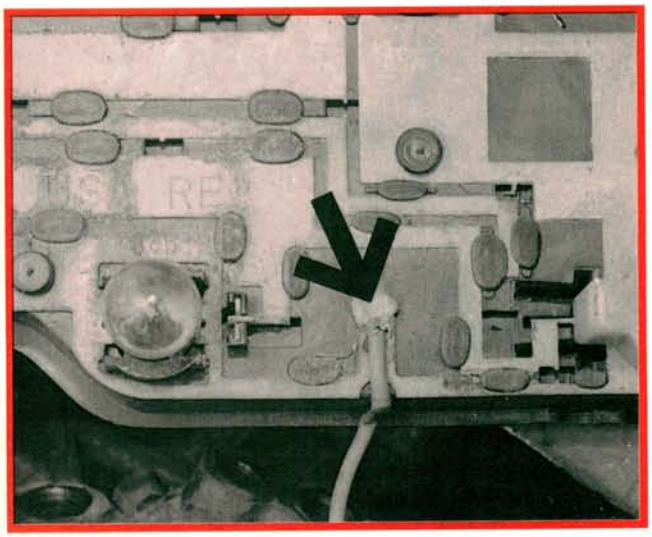


3 The steering column combination switches can cause problems on later model Audis. Replacing the switch isn't difficult as long as you remember a few important safety precautions. Since you'll need to remove the steering wheel to replace the combination switch, the air bag system must be disarmed first. Remove the steering column cover, then locate and disconnect the orange air bag connector. After the air bag is removed, place it out of the way with the horn pad facing upward.

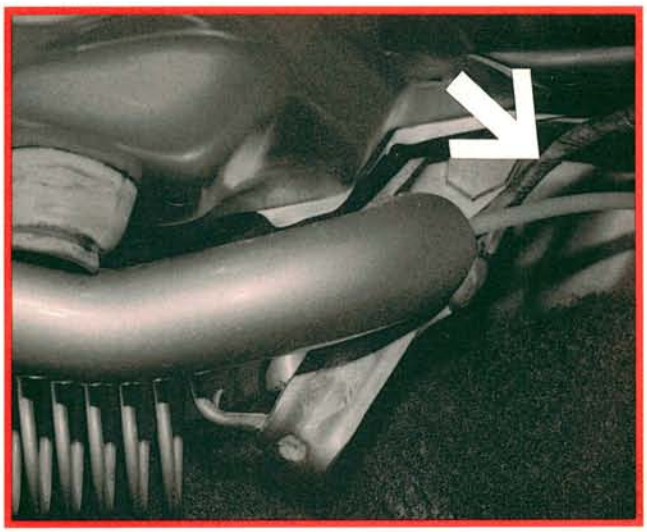


4 A cracked dashboard printed circuit board may cause intermittent speedometer operation on 1989 Audi 100 and 200 models. This may also cause engine stalling when coming to a stop. The fuel system control unit loses the speed sensor signal input, so it doesn't know that it needs to adjust the idle speed control. Tap on the instrument panel. If the speedo needle jumps, the circuit board is damaged. Don't use a soldering iron that puts out more than 30 watts to repair the circuit board.

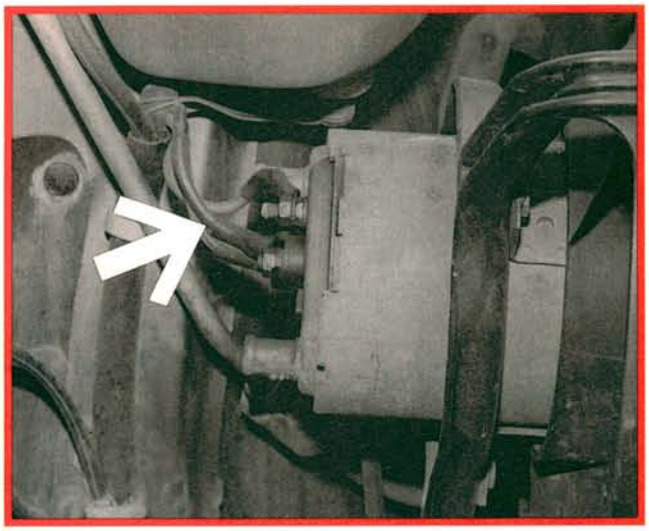
5 If you're working on an Audi with strange running problems, check the fuse box. The owner may have removed one of the wrong fuses, thinking it was a spare. The fuses that run along the outside edge of the fuse box are not spares. The spare fuses are mixed in with the other fuses, near the center of the fuse panel. Later models have better labeling but it's still possible to grab the wrong fuse if you aren't paying attention. Pulling the wrong fuse on some models will kill the distributor advance.



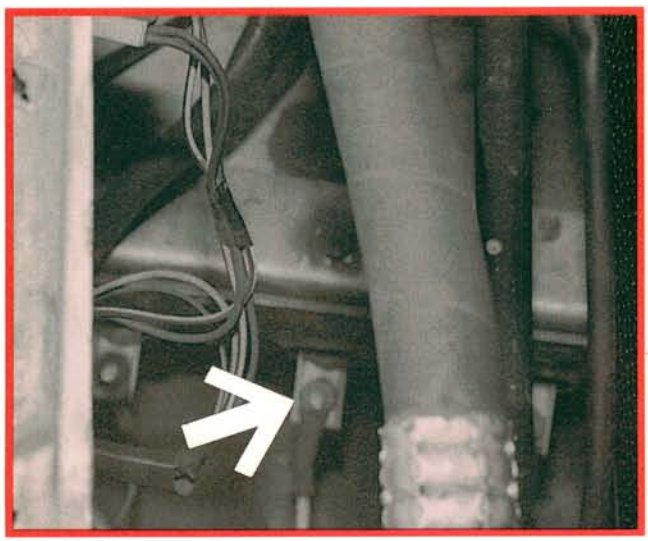
6 The tail light grounds on first generation 5000 models are a notorious problem area. Both tail light assemblies share a ground that's located a long distance away from both assemblies. The tail and backup lights will quit working if enough corrosion has built up at the ground connection or the tail light harness connectors. Poor grounds can be repaired by soldering a length of wire to the tail light ground circuit, then grounding the wire on a threaded body stud a little closer to the housing.



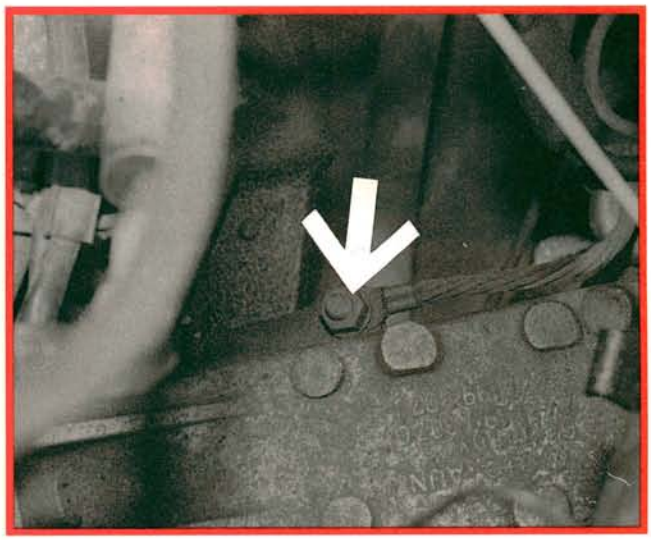
7 Just like the driver's door, repeated opening and closing of the trunk may cause the wires inside the trunk lid harness to break. Inoperative tail, brake, backup and license plate lights may be caused by broken wires inside the harness. Blown fuses may be caused by two broken wires shorting against each other. The wires may break at either end of the trunk lid tube, but seem to break more frequently near the hinge. Cut the damaged section out of the harness, then fish the new wire into place.



8 A seized radiator cooling fan may burn up the wiring harness between the fan motor and the firewall. This happens more often on turbo models because the fan runs more often. The fan circuit is not fused and is powered at all times. Heat from the fan wiring often damages the wiring for other circuits along the way. The harness can be repaired if you have the time to find all of the damage. Better yet, check the fan motor operation and add an inline fuse before damage occurs.



9 The cooling fan resistor block is usually to blame if the radiator cooling fan on a second generation Audi 5000 runs at high speed at all times and sounds like an airplane taking off. Remove the upper radiator shroud at the front of the radiator to reach the resistor block. The resistor is located in front of the bottom of the A/C condenser. This area is not very well sealed from the outside, so the resistor receives more than its fair share of road salt and slush.



10 Poor engine grounds may be the root cause of many electrical problems. On 5000 models, clean and tighten the main engine ground connections at the left motor mount. The ground wire between the cylinder head and the firewall is often left dangling during valve cover gasket replacements. The main ground connections for the fuel system are located on the right side of the engine, near the throttle housing. The battery is under the rear seat, so all connections must be clean and tight.