

Winning Tech Tips have been selected by the editors of *Import Service* and the CARQUEST technical staff. Winning entrants will receive \$100 and a special jacket from CARQUEST.

A cash prize of \$2,500 and three months of CARQUEST Tech-Net service will be awarded to the entrant who submits the best Tech Tip of 1993. The first runner-up receives a CARQUEST store credit of \$1,000.

So tear out those Tech Tip cards and start mailing your Tech Tips. We'll print the best ones each month. Everyone will benefit from the shared information.

ISUZU PARTS SUBSTITUTIONS

It pays to consider non-traditional sources when replacement parts are not available from your customary parts sources. While recently working on an Isuzu diesel, we had a hard time finding a replacement for the lubricating oil line that runs from the block to the rear of the alternator. The Isuzu dealer and several parts stores didn't stock the oil line and it looked like we were going to have to wait for delivery while the part was special ordered.

After some research, we found the oil line we needed at the local John Deere tractor dealer. The Isuzu diesel engine we were working on is also used in the John Deere Bobcat. We also found that many other Isuzu diesel parts were stocked at the same Deere dealer.

When we have trouble finding a part, we make it a habit to check for possible alternate uses of the engine in industry. This has prevented a lot of unnecessary down time due to back ordered parts.

Mick Hamilton
Hamilton Repair
Ocala, Florida

BOUNCING SUBARU TACH NEEDLE

Past experience has taught us that a bouncing tachometer needle on an older Subaru usually means that the distributor shaft bushings are worn. However, we recently repaired a 1985 Subaru with a bouncing tach needle, and the problem was in the alternator rather than the distributor.

The cause of the bouncing tach was damaged diodes inside the alternator. The damaged diodes allowed alternating current voltage spikes to enter the vehicle's electrical system. After replacing the alternator, the tachometer needle operation returned to normal.

Thomas White
Six Star Automotive
Aurora, Colorado

TOYOTA HORN CONTACTS

A worn horn contact behind the steering wheel may cause an inoperative horn on many Toyotas. Over time, the combination switch's spring loaded brass contact becomes so worn that it no longer makes contact with the brass contact ring on the steering wheel. The brass contact can be repaired, sparing the customer the cost of a new combination switch.

To repair the brass contact, break a glass electrical fuse into two pieces. Clean the glass out of one of the fuse end caps, then slip the fuse end cap over the worn brass horn contact. Now clean and lube the steering wheel contact ring and reassemble the steering wheel. I've been using this repair technique for years and haven't had one comeback.

Doug Buckner
Doug and Bob's Auto Repair
Payson, Arizona

RADIO INTERFERENCE

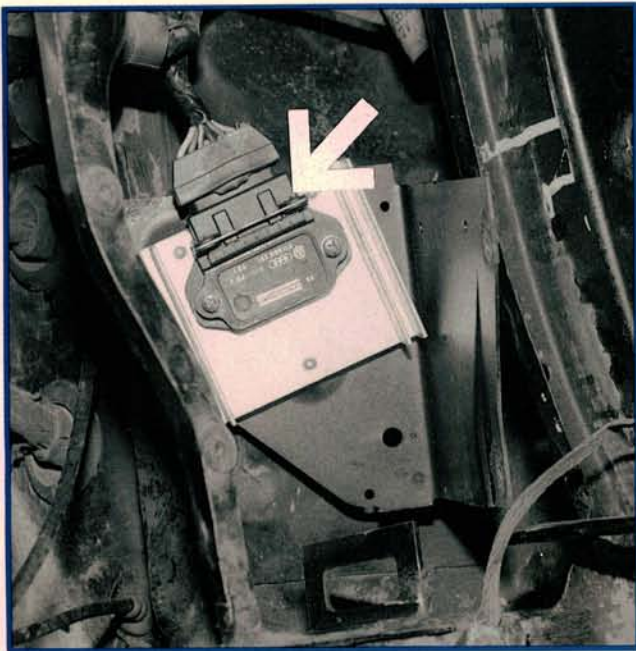
Radio interference or weak signal reception can often be corrected by installing a modified radio chassis ground wire:

- Remove about $\frac{3}{8}$ inch insulation from one end of a 14 or 16 gauge stranded copper wire.
- Remove the radio antenna lead from the radio terminal.
- Insert the wire end into the radio antenna terminal. Do not braid the copper wire strands together.
- Reinsert the radio antenna lead. This will hold the extra ground wire in place.
- Do not allow the copper wire strands to contact the center tip of the antenna lead. This will ground the antenna and you will have no radio reception.
- Ground the other end of the copper wire to a good body ground under the dash. This will join the radio chassis, antenna, antenna coaxial cable, and the vehicle on a common ground.

Vance Albertson
Saratoga Honda
Saratoga, New York

CORRODED VW CONNECTORS

Many water cooled Volkswagen models (Rabbit, Scirocco, Jetta, Quantum) mount the ignition module, fuel injection control unit, and frequency valve control unit in the air plenum area under a plastic water drain tray. As these cars age, corroded electrical connectors are a frequent source of trouble in this area. Problems including poor starting, erratic idle,



and no-starts can often be traced to these corroded connectors.

Applying either silicone dielectric or white grease to the grommets and connectors on a regular basis will ensure good electrical connections and fewer problems. If the terminals inside the connectors are already corroded, clean them thoroughly and replace any badly damaged terminals before applying the protective grease.

Jim Crotty
Palo Alto German Car
Palo Alto, California

HONDA HEADLIGHTS

Chafed or broken wires inside the wiring harness to the headlamps may cause problems with the pop up headlamps on 1986-89 Honda Accord models. Symptoms may include inoperative headlamps, failure to change from low to high beams, blown fuses, and other peculiar symptoms.



Raise the pop up headlights, then open up the protective outer wiring harness sheath below the headlights. Opening and closing the headlights hundreds of times eventually causes the wires to crack and break. Repair any damaged wiring, insulate the repair, then close up the wiring harness sheath. Route the headlight wiring harness so the headlights can open and close without pinching the wiring harness.

Bart Guiney
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