

Here are the editors' choices for this month's **Tech Tips**. Each of these contributors will receive an assortment of spark plugs, filters, wiper blades, spray chemicals, and cleaners from **Champion Spark Plug Company**.

Congratulations! Keep those tips coming.

REPLACING RABBIT ALTERNATOR

Replacing the alternator on 1981-84 Volkswagen Rabbits equipped with air conditioning can be difficult due to the tight fit in the engine compartment. Even if you manage to get the alternator unbolted, it's almost impossible to remove it from the car without major surgery.

I've found a shortcut that may help. I remove the grille. Then I remove the right front headlight assembly, including the headlight bucket. I also remove the windshield washer bottle. Then, with the alternator unbolted, I can gently move the air conditioner high pressure line just enough to allow me to remove the alternator. Reassemble in reverse order.

Tom Rausch
St. Matthews Imports
Louisville, Kentucky

ENDING CREEPER MADNESS

Occasionally, I need to work beneath a car on a creeper. I used to remove the nuts and bolts and then pile them near the creeper. Too often, however, I found myself scattering the pile when I moved the creeper. This turned an otherwise easy job into a bolt hunt. To end this creeper madness, I bought a large, two-foot magnet. I attach the magnet to the underside of the car and use it to hold all those loose nuts and bolts until I'm ready to reinstall them. It's a real time saver.

Chuck Foreman
Clark's Motor Works
St. Joseph, Missouri

JAGUAR MYSTERY NOISE

We received a number of complaints about a mystery noise in Jaguar XJ-6 models. It occurred during acceleration and customer descriptions of the noise ranged from a high pitched squeal, a piercing whistle, a grinding noise, and even an air noise from the right front tire.

Driveability was not an issue, and everything checked out fine under the hood. We had great difficulty reproducing the noise. Finally, a 1986 Sovereign arrived with these noise symptoms. We discovered that the air horn from the air filter had come loose and was rubbing against the headlight bucket. Repositioning the air horn as far back as possible eliminated the noise. We now do this fix on all XJ6 models.

Alfred Berry III
Mostly European
Northwood, New Hampshire

SAAB 99/900 ROUGH OR LOW IDLE

When diagnosing Saab 99 or 900 models with the eight-valve CIS engine for a rough or low idle, inspect fuel system pressures and the ignition system first. If these are both normal, remove the rubber air intake boot from the throttle housing. Inspect the area around the throttle plate for a gummy residue. If it's heavy enough, the residue may block the idle air bypass passages and block the passage of air around the throttle plate.

Clean the inside of the throttle housing with a clean rag soaked in carburetor cleaner. Reinstall the hose and re-check the idle speed. Adjust idle speed at the bypass screw. Make sure the throttle stop screw hasn't already been tampered with.

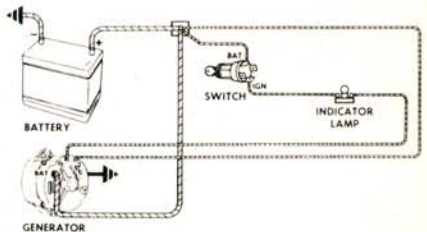
John P. Walker
Behm Motors
Shiocton, Wisconsin



Troubleshooting The Charging System

Before we condemn the voltage regulator as the culprit, let's do a complete check on the charging system to make sure it is functioning properly. But first, here are some safe shop practices you can use before and during the system check.

Be sure the key is off before you disconnect the battery cable, voltage regulator or alternator. If this isn't done, a high voltage "spike" might destroy other electronic components—and an increase in charging output will almost certainly ruin a good alternator. The simplest way to check the alternator's output is to hold a metal blade near the unit. If there is no magnetic field, the alternator won't produce any current.



Check to see if there is a voltage drain. When everything is "off"—ignition, lamps and accessories—there should be no current draw. A small amount of current may still exist to maintain on-board computer memory or the clock. Remove one battery cable. Then connect a volt meter or ammeter in series between the post and cable. The meter reading will indicate that voltage is being drained from the battery. Now it's easy to see which circuit is drawing power from the battery. Just pull each fuse and watch the meter.

When replacing electronic components, watch out for the "bargain-priced" units. They may look the same—but there is a big difference. Cheaper units use a plastic printed circuit in place of a costlier ceramic circuit board. What you get is considerably shorter life. Quality electronic units are manufactured with a special high temperature plastic case to withstand underhood temperatures. Bargain units use a standard plastic that softens when heated, allowing it to ease out from under the mounting bolts.

Remember, quality NAPA Echlin products afford you longer life and the very best in performance.

