

TECH TIPS

Here are the editors' choices for this month's **Tech Tips**. Each of these contributors will receive an SDM5B five-piece bolster screwdriver set from **Matco Tools**.

Congratulations! Keep those tips coming!

SAAB CLUTCH TOOL

Here's a handy tool for **keeping Saab pressure plates compressed during a clutch job**. First I figure the length of cable needed with a piece of vacuum hose laid on an old pressure plate. Then I cut a piece of old hood release cable with a wound steel spring casing to that length, plus an additional inch or so. This leaves me enough additional cable to place a small bend on the end of the cable to facilitate its removal. The cable is strong enough to do the job, but is flexible and easy to use. [Editor's note: Please see our article on Saab clutch replacement this month.]

Keith D. Lawyer
Auto Technik
Honolulu, Hawaii

NISSAN INLINE SIX-CYLINDER TIMING CHAIN TENSIONER

Removal of the cylinder head on Nissan inline six-cylinder engines requires the use of a timing chain wedge to prevent the timing chain tensioner from moving when the camshaft gear is removed. If the wedge is accidentally moved, the tensioner will move out too far. This usually means removing the engine timing chain cover to reposition the tensioner.

If this happens to you, try this before removing the cover. Carefully mark the position of the distributor. Remove the distributor and the oil pump. With these two out of the way, the tensioner spring and plunger should be visible through the distributor hole. Insert a long screwdriver into the hole and push the plunger and spring back into position. Now slide the timing gear and chain back into position on the camshaft. It may take a few

tries to reposition the distributor and oil pump so they are properly aligned.

Stephen J. Phillips
The Repair Shoppe
North Plainfield, New Jersey

OIL CAN CLUTCH BLEEDER

When bleeding clutch slave or master cylinders, it is often difficult and time consuming to remove all the air. Rather than using a pressure bleeder, I use a standard pint-sized pump oiler with a clear plastic tube attached to its nozzle to reverse bleed the system. First, I thoroughly clean the bleeder screw on the slave cylinder. Then I reinstall it, but leave it about two turns loose. Then I pump in fresh fluid using my improvised reverse bleeder. No fluid is spilled or wasted and all air is pushed back to the master cylinder where it's vented.

Mike Martin
Martin's Automotive Repair
Post Falls, Idaho

OVERFULL MASTER CYLINDERS—HONDA ACCORDS

When you compress the front caliper pistons during a brake job on 1984-85 Honda Accords, make sure you either siphon some of the brake fluid from the master cylinder, or open the caliper bleeders first. As the pads wear, people will keep topping off the master cylinder reservoir. Then, when you fully compress the caliper pistons during a brake job, more fluid is forced back to the master cylinder reservoir than it can hold.

The real problems come when this brake fluid overflows the reservoir. It will not only damage painted surfaces, but may run into the backside of the alternator, ruining it.

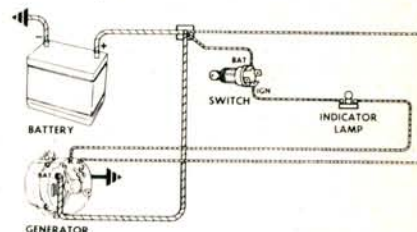
Steven Kirgan
The Honda Men
Copiague, New York



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.

