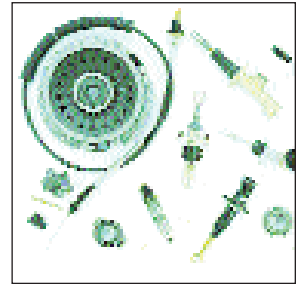


Tech Tips



Tech Tip winners are selected monthly by the editors of Import Service and the Beck/Arnley technical staff.

Authors of published *Tech Tips* will receive \$100 from Beck/Arnley. A cash prize of \$2500 will also be awarded to the entrant submitting the best *Tech Tip* of 2000. Use the attached *Tech Tip* card, or submit your *Tech Tips* online at www.gemini-comm.com.

Dead Volvo in the Morning

Find a Volvo with a dead battery first thing in the morning, but you can't find a battery drain to account for it? For some 850 models, the PSAIR fan cycles on and off all night, but not necessarily when you're checking for current draw. Replace the relay (P/N 3523871) under the car at the front corner of the driver's side to fix the problem. This relay also controls the engine-cooling fan.

Howard Hawks
Volvotech
Kent, Washington

Shifting Shakeup

Don't you hate it when you overlook the basics? We had a 1991 Maxima in for a vibration between 50 and 60 mph. The vibration was weirdly intermittent, coming and going without any cause the owner or we could discover. When we rebalanced the tires with several new weights, the imbalance seemed to return in another spot fairly quickly. Finally suspecting there was the stub of a valve stem or something inside the tire, I took it off the rim only to find fix-a-flat fluid there. The stuff would slosh around randomly in the tire, shifting its weight.

Shawn M. Portrait
Family Auto Clinic
Rowley, Massachusetts

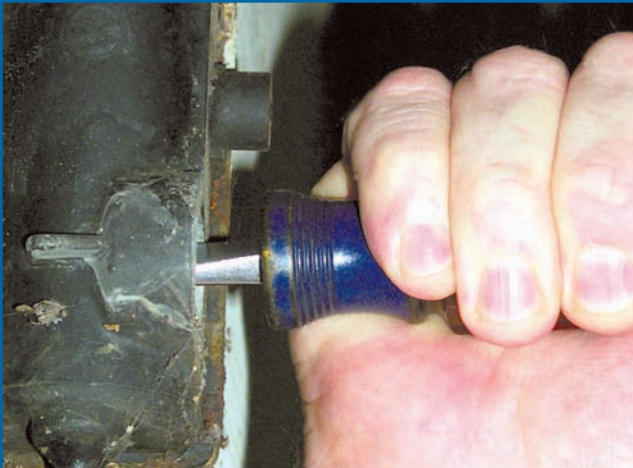
Editor's Note: Most fix-a-flat liquids work by partially dissolving or softening the inside rubber. That means most of them and the vapors they give off are highly flammable. If you suspect that's what inside a tire, shut off anything that sparks nearby before you release the pressure, including any smokes. There have reportedly been a number of serious shop fires from these products.



Sweating It Out

You know how notorious those plastic plugs are, the plugs for draining radiators on Japanese cars? They get hard and brittle with age and heat and then like to break off just inside the radiator, and they're usually in a place you can't reach with a drill or an easy-out. Fortunately there is a very easy way to solve this problem: Use your oldest, junkiest stubby screwdriver. Simply heat the end of the blade a dull red-hot and plunge it into the stump of the drain plug. It will melt its way through the plastic until residual water in the radiator cools it rapidly, leaving the remains of the stump tightly molded around the screwdriver tip. Removal is as easy as turning the handle!

Donald Lewis
Don's Automotive Repair
Austin, Texas



It's an unpleasant surprise when the plastic butterfly snaps off the radiator drain cock. To remove the broken piece from the radiator, heat the tip of a stubby screwdriver and stab right into the plastic stump.

Rack Heads-Up

Be careful replacing a steering rack on a car with air bags. Set the wheels straight before removing the original rack, and center the replacement rack before you mount it. Otherwise you may allow subsequent damage to the ribbon cable in the steering column when the driver turns the wheel. This ribbon cable is the steering wheel connection to the combination switch.

Kent Kaminski
Silver Star Automotive
Aurora, Colorado



Punching holes in a perfectly good fender cover may not seem like the best possible idea, but compare that to what it might cost to remove a few visible scratches from the elegantly painted fender of a more expensive car.

Antenna Armor

If you have to replace an antenna on a fairly good late-model car, it's worth keeping in mind that a single slip of a wrench can cost more to repair than a set of tires, what with fancy metal-flake clearcoat paints. I figured it was worth at least as much as tailoring a fender cover for the purpose. Here's how to do it: Use a one-inch gasket punch to cut a hole in the fender cover where the antenna mast will come through. You can slip this over the antenna to protect all the adjacent area. I also use a magnetic tray with mine. It holds the fender cover where I want it as well as providing a handy place for the antenna nut and other small metal parts and the various wrenches and other tools you'll use.

Brad Petersen
Petersen Automotive
Escondido, California

Filing a Jag Switch

Jaguars, and perhaps other cars too, with slow electric windows often respond favorably to this treatment: Disconnect the battery and pull up the window switches. Then insert a small double-sided file into the hole. Pressing the switch button so the contacts close on the file, take a stroke or two to clean off the surfaces.

Wayne Petty
Wayne's Autoworks
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