

TECH TIPS

Here are the editors' choices for this month's **Tech Tips**. Each month, we select the best tips from our mail bag, and award prizes from different manufacturers. Each of our winners this month will receive an eight piece **SDM 80B screwdriver set** compliments of **Matco Tools**. Thanks for writing. Keep up the good work.

PORSCHE TRANSMISSION NOISES

Some 1987 Porsche 911 Carreras may have a mysterious noise coming from the transmission/clutch area that can be very difficult to find.

The backside of the clutch release arms used on some of these cars wasn't machined, and can scrape against the throwout bearing. One possible fix is to adjust total clutch travel to 140-150 mm, measured from the clutch pedal upright position to the floorboard. Most of the time this will cure the problem without affecting clutch operation. One or two of the more stubborn cases has been fixed by loosening the four engine-to-trans mounting bolts and jostling the trans about before retorquing the bolts to 29 ft-lb.

If all else fails, you may have no choice but to remove the engine/trans and replace the old fork with a new machined fork.

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HYUNDAI PARKING PAWL

Recently, I had a 1986 Hyundai Excel towed to my shop with the drive wheels locked in all ranges. After starting the car and moving the automatic transmission gear selector several times to DRIVE, the car went into drive and moved normally. But when I tried reverse gear, the front wheels locked again.

At first it seemed like a problem with the final drive unit, since the car would remain locked up, even in neutral. But there seemed to be no power transmission to the front wheels at all, even though I could feel the transmission drop into each gear selected. Still, the vehicle drive wheels were locked up. I removed the transmission pan and valve body for a closer inspection, and discovered the problem.

The actuator rod for the parking pawl has two press-formed ridges that act as a stop for the parking pawl activator wedge and spring. Over time these ears had been worn away by the wedge. This allowed the spring to press the wedge too far forward. Without the press-formed ears to pull the wedge back, the transmission remained in PARK, even when the selector lever was moved.

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DEAD BMW SPEEDOMETER

An inoperative electronic speedometer on 1984 and later 3-series BMW cars may be caused by water that has collected in the vehicle speed sensor wiring harness. The moisture bridges the harness connectors to the speed sensor.

To check for this, raise the vehicle. Then unplug the speed sensor harness connector at the differential housing (lower arrow). If water pours out of the speed sensor harness connector, look for a hole in the insulation in the area of the harness near the rear sway bar (upper arrow). The harness passes above the rear sway bar on its way to the front of the car, and can rub on the sway bar. This wears a hole in the harness insulation.

This hole catches water in wet weather. Draining the water out of the harness will bring the speedometer back to life, but probably only for a short time. For a more lasting repair, dry out the wiring, clean the harness terminals, and seal the hole in the harness with shrink tubing. Then reroute and support the harness away from the sway bar.

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