

Innovative Leak Detection

Vehicle: 1994 Chevrolet Suburban with 85,000 miles
Problem: Coolant leak

Whenever a repair involves disassembly of the engine, transmission or other major component, making sure the repair is “good-to-go” is usually on the mind of the technician as the job is being buttoned-up. With engine compartments getting more crowded every year, it’s even more important to know that the repair was done correctly before you close the hood and send it down the road. Every year, it seems that it takes more time to do similar repairs from years ago because vehicle design has become more complex. Regardless, it’s always good practice to verify the repair during the button-up process.

Recently, I was doing a dye check inspection with a black light on a Chevy Suburban to find the source of a coolant leak. The source of the leak was in the back of the engine, and the repair would require removal of the transmission. After presenting the estimate and getting customer approval, we started by removing the transfer case and transmission. It was obvious that the cause of the coolant loss were the two freeze-out or core plugs in the back of the engine. They were both rotted clean through in the corners and their failure was not in doubt.



After replacing the plugs, however, I was a little cautious about putting the vehicle back together because I wondered if the new core plugs did, in fact, “seat square” and more importantly would not leak. I started to go for the pressure tester to see what a load of 15 psi would do, but then I spotted my new Robinair Model 75700 Coolant Exchange machine. Why not hook that up and flush the coolant with the transmission out? The 75700 is designed to work with the engine off and this was clearly the best way to go. Not only would it pressurize the system, but it would also push coolant through, creating some turbulence, thereby duplicating actual coolant system operation.

I quickly hooked up the correct adapters for the upper radiator hose, filled the machine with coolant and within a matter of 15 minutes verified that the repair was in fact, “good-to-go.” This gave

me much greater confidence in the repair as I reinstalled the transmission and transfer case. I knew, without a doubt, that this vehicle was essentially “down-the-road” before it was even off the lift.

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