## Shoving Uber to the Curb

Steve, a member of the Blue Ridge VCOA Chapter, has a love hate relationship with his 2006 XC90 T5. Steve read one of my articles in Rolling and contacted me regarding his 90's "no-start" problem. The XC90 would start every morning and Steve would begin his journey joyously listening to Abba on the stereo, windows down, sunroof open with a cool breeze scented with honeysuckle wafting into the car. At his destination, with the car safely ensconced in a parking space, Steve went about his business. Upon re-entering the XC90, Steve hesitantly inserted the key into the ignition and twisted it to position III, to start. Dead!!!! Dead!! What to do call the wife and plead for a ride home or call Uber. Six or eight hours later, Steve would return to the parking lot, twist the key and the XC90 would spring to life, just purring. The XC90 was possessed; it taunted him for a several years. No one would ride with him, not even the dogs.

Seems Steve spent a small fortune chasing this gremlin, all kinds of "specialists" examined the car, tried to pull non-existent codes. Parts were replaced with wild abandon; including an ignition switch, 40 amp starter relays, two starters plus other stuff I do not know about. No doubt several thousand dollars plus for parts and labor.

About a week ago, I received an email from Steve inquiring what to do because he'd been stranded again; three months after a starter was installed. Another call to the wife followed by an Uber ride home, followed by grousing to the dogs, because the wife had quit listening long ago.

This time the advice he'd received suggested replacing the halo around the ignition key receptacle. Alternately, Steve considered a gallon of gas and a book of matches as the final exorcism; he wanted to get on with his life, perhaps get a Subaru, anything else that would constitute reliability and re-establish communication with the wife. Steve thought, never another Volvo.

My response was that these gremlins are usually simple things and most technicians tended to over analyze the problem and overlook the obvious.

I suggested a separate starting relay be installed in parallel with the Volvo's starting circuit. If and when the primary circuit failed, with the ignition in the II position, activating the parallel starting circuit would bring the XC90 to life. I offered to design the circuit and supervise Steve as he set this up.

Yesterday afternoon Steve pulled the XC90 into my driveway whilst I was working on a recalcitrant jet ski and said, "I'm here." I said okay. Popped the hood and took a hard look into the engine compartment. It was clean, the oil was fresh. Steve, unlike most people, took care of his equipment. There was evidence of salt corrosion on aluminum parts, no doubt from winter driving, including a few trips his wife's and my hometown, Rochester, NY.

Steve showed me his inventory of spare parts, including relays, a relay socket and an almost new starter. The XC90 was on its third starter. It took 30 minutes to fabricate the parallel starting circuit and another hour to install it.

Steve was crawling beneath the car hooking up a wire to the starter relay. I observed the starter on the T5 faced the radiator and likely took a winter time salt road spray bath. The electrical connector to the solenoid was pretty well weathered and I believe no longer made good physical electrical connection with the starter solenoid. I conjectured the corroded spade connector was the source of intermittent problem; it'd get hot (expand) and lose physical connection, not pass current, cool (contract) to reestablish electrical continuity and actuate the solenoid. We fixed the spade terminal and completed the parallel starting circuit installation, then tested it. Upon activation, the XC90 sprang to life.

Later, I said, "Steve, you'll never need to activate the parallel starting circuit because I am confident we fixed the problem." Regardless, if Steve encounters a no-start event, he doesn't need to call Uber or forbid, walk home; just activate the parallel starting circuit. Sometimes a workaround is all you need to establish reliability and relieve driver anxiety. Now, perhaps, the dogs and the wife will accompany him in the XC90. Steve's keeping the low mileage Volvo, his confidence in it restored.

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