

How We Found “J.P.”, Our Junkyard Prius – A Detective Story

In mid-2002, while musing about our need for a newer vehicle at some point, since our current one was built in 1982, we were debating the relative merits of several options. It's important to use the form of transport that best suits your needs, whether it's walking or a full-sized passenger van. But in our case, with just the two of us, living in the often frozen North, we mostly needed a car for bad weather commuting, hauling small back-seat, trunk, or car-top loads, and the occasional longer “road trip”. We were interested in the all-electric Think “City” for the 25 mile round-trip to town, especially if we could nurse the old gas guzzler (a 25 mpg, 4-cylinder, BMW 318i) along as a Winter “beater”. But the “City's” U.S. introduction got delayed, thanks to some financial intervention by Ford, and it was on to plan “B”. Our second choice, which could actually replace our old BMW, was a gas-electric hybrid. The hybrids were new to the market, but our research led to the firm conclusion that the Toyota Prius was right for our needs. Having decided that, we wondered how we'd ever be able to afford one. Well, maybe in a few years we'd find one used.

Two weeks later, while using a borrowed pickup truck to haul a load of rusty metal roofing to the scrapyard, Larisa drove us past an automotive recycling business. I literally did a double-take as I looked out my window and said, “Pull over, that's a Prius!” Sitting out front was a perfect-looking car with “\$5500, As Is” soaped across the windshield. We walked around it to look it over, then went inside to ask what was up with all the parts in the back seat and trunk. The proprietor told his secretary to give us the keys to “that Prius (pronounced Pree-zuss) out front”. I guessed that he'd never heard of one, but he bought it at an insurance auction in Wisconsin since it was only a year old and it looked so good. He did know that it ran partly on electricity, that its high-voltage batteries were dangerous (he said that he heard about mechanics dying from touching the wrong wires), and that its inverter was “shot”. But he said that he might be able to find a used one online. He offered to check his computer while we took a closer look inside the car.

The inverter and all the parts removed to get to it were in the back. And Larisa immediately pointed out the bent metal tabs that apparently held the inverter's wiring harness under the hood. Was this a clue? When we reentered the office we were told that a used inverter from a rear-ended Prius was available from a parts dealer in Florida for “only” \$750, but it was late on a Friday and he was gone for the weekend. We said we'd talk it over and get right back to him. He said that he'd gotten the car only the day before, and we weren't the first to look at it, so hurry back.

Considering the price and condition, even with the broken parts and probable labor cost to fix it, we contacted a well-off friend who already owned a Prius, asking if he was really serious about wanting to see more folks driving these things. He was, and offered us a short-term loan. So we drove back and made the purchase, on the condition that they tow it out to our house. That night, since we had discovered paperwork in the glovebox with the previous owner's name, address, and phone number, we simply called him for more details. He explained that he loved the car, driving it 100 miles round-trip each workday for over 300 days. After 30,000 miles on the cheap, stock Bridgestones, the poor tires were nearly bald. He scheduled tire replacement with the dealership in Appleton, Wisconsin, but an ice storm hit the area before the appointment. On his way to work he slid into the right-side guardrail in a broad left turn, grinding into all of the sheet metal on that side. Then, nearly stopped,

the car caught the rail and spun clockwise, mashing the left front corner into the opposing guardrail.

After spending around \$7500 on body repairs and replacing the left front wheel and tire, the dealership couldn't get the car to start. After a week or so of head scratching over puzzling diagnostic error codes, they called in a Toyota Master Tech from California. He didn't mess around. He replaced the inverter with one from a new car on the lot and it started up just fine. So he proudly declared the inverter "toast", and with the added replacement cost over \$3500 the dealership called it a lost cause, with the owner's insurance company auctioning the remains. We had more clues!

The next day the car got delivered to the end of our driveway, 500 feet away and 50 feet above our home. After test-coasting down to the house I took the suspect inverter into the house for dismantling. As a kid that's what I did with every new toy I got. Some went back together and some didn't, but I always learned more in the process! After unscrewing the cover the interior looked bullet-proof, with massive heatsinks and epoxy-bedded parts. Keeping things stupidly simple (the K.I.S.S. principle) I pulled out my trusty old \$50 Radio Shack digital multimeter (don't leave home without it!) and checked all 28 wires going out of the unit for conductivity. My experience with low-voltage wiring and computer hardware told me that corrosion and faulty connections are the first things to look for. 3 wires showed no connection to the wiring harness even though they looked perfect. So, 15 minutes later when the wires were repaired, I started reassembly. And 45 minutes after that Larisa noted that the Prius was driving up and down the driveway with a grinning Bob inside. The grin indicated that, with a year-old Prius selling for \$18,500, we had just saved \$13,000. The detective work was done, but the story must still be fully explicated.

Apparently, when the car smashed its left front end, the fuse box on that side pushed into the inverter's wiring harness (remember the bent metal tabs?) and pulled the 3 wires slightly out of position. This severed connections with the onboard computers, also rendering any diagnostic readings nonsensical. So we drove back to the auto recycler and canceled the order for the used inverter. Then we bought 4 new tires and ordered the missing 12-volt accessory battery that we temporarily replaced with an old garden tractor battery.

The following Thursday we drove to town 12 miles away, getting nearly 80 mpg, and went to our part-time jobs at the local natural foods co-op. I was doing checkout that day and feeling mighty fine! I kept thinking, "How did I get this lucky?" and, "Be careful what you wish for..." My next set of customers was what I deemed to be a Christian fundamentalist couple who always shopped together. She'd pick the items after much spousal consultation, always wearing a long plain dress in a sort of "prairie style", never speaking at the checkout. He'd do all the talking and the financial dealings.

But today she was smiling broadly at me as she cheerfully bagged her groceries. When I met her gaze she first asked if my name was Bob. When I replied in the affirmative she added that Jesus had spoken to her about me that morning and had a message for me! I didn't know what to make of that but went along for the ride. She said that Jesus just wanted to say that he loved me. I was thinking, "How quaint" as I thanked her and we parted ways.

But then it came to me, that's the answer to my question! Taking the cue from her spiritual experience and the auto recycler's mispronunciation, (and risking the offense of you, the reader) I had stumbled upon the "Jesus Prisu"! I still call it "J.P."

Case closed. And thank you, it's been a great car, as cars go!