

We've been Robbed!

Crime comes to the EV Industry

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As a sign of how things have progressed with electric vehicles, now criminals are after them. Sometime on the evening of July 3, 2009, thieves broke into the conversion facility at Electric Blue Motors in Flagstaff, Arizona. They stole inventory used in converting gas cars to electric. Some of the items were even mounted in the cars! Missing are batteries, motors, controllers, DVD players, computers and electronic instruments. Fortunately, Electric Blue's component inventory is housed in a different facility and was not affected.

Crime is a statistic until it happens to you

Flagstaff is a nice little town of 50,000 people located in the northern part of Arizona. The



Grand Canyon is nearby and the mild climate at 7,000 feet lures people from all over the world. It is home to Northern Arizona University. A few of the visitors to our town like it so much they decide to stay. There is a feeling among the residents that it is a special place. The crime rate is pretty low. In the rare instances when we read in the paper about crime in our town, we usually know the people affected and the crimes are very real for us. The things that were

stolen from us belong to real people who are hurt by their loss.

Two of these real people are Paul and Sue. Paul and Sue have dreams of opening a conversion shop of their own in Phoenix. Their VW Cabriolet is to be their demo car. The thieves have set back Paul and Sue's plans. They smashed the dashboard to remove the DVD player. They removed the electric motor, the transmission adapter plate, motor hub, spacer plate, motor mount, motor controller and some batteries. These items have taken weeks of effort to put together.



Before: motor and batteries installed



After: an empty engine bay

George has plans to do a nation scale electric car project. He imported a prototype car from China for us to engineer the conversion components. The thieves found the keys to the car and opened it. They took a pipe wrench and smashed the dashboard to remove the DVD player. They also took a pallet of Thundersky 200AH Lithium batteries, a pallet of 40AH AGM batteries, and the power steering pump that were destined for this car. Luckily, they didn't touch anything under the hood, including the AC drive.



Getting the replacement dashboard parts from China will set back the project several weeks.

Nick Negrete, one of our engineers lost his laptop in the incident. While the laptop is only worth a few hundred dollars, the software and the work product on the computer is worth many times that.



Some aspects of the theft were puzzling. The thieves used the tools in the shop to remove some of the components from the cars but didn't take any of them. The tools would have been easy enough to take and pawn. So, why not take them? In one of the cars, they took 5 Deka Dominator gel cells from a battery box, but left the motor. They went to our inventory area and took a Karmann Ghia transmission adapter plate. Considering that they went to great effort to remove all the motor components from Paul and Sue's Cabriolet, it makes you wonder if the thieves have a thing for electric VWs.

Solving the crime in the real world

We have been operating electronics businesses in Flagstaff for over 15 years and thankfully have had very little experience with crime. We hoped that when we called 911 that they would immediately dispatch **Marg Helgenberger** along with the whole **CSI** team. As you might expect, the reality in a small town is different.

When we called 911 they politely referred us to the Flagstaff police regular number since it wasn't a matter of life and death. Since it was July 4th, there was an automated attendant answering the police phone with the usual menu: press 1 if you want to speak in English, press 2 if you want to speak in Espanol and so on. After selecting the option to speak to an officer, we were connected to the same dispatcher who referred us to the regular number. She very professionally took down the whos, wheres, whys and hows, asked if anyone was in danger and said an officer would be dispatched shortly. Sure enough, 20 minutes later Officer Gilleland arrived.

Officer Gilleland surveyed the carnage and decided he needed backup. In the meantime, he took statements from everybody present and started to do some of the detective work. The reality of this officer doing his work was in many ways more impressive than what you see on **CSI**. In a normal day, he has to do a lot more than the specialists on **CSI**. He might have to issue a traffic ticket, or break up a domestic disturbance, or provide first responder assistance in a traffic accident. But for us, this day, he was a crime scene investigator.

Some of the methods he used in his investigation were familiar: taking statements, dusting for prints, taking pictures and so on. But what was surprising was the role that DNA testing has taken on. More about that shortly.

The process for taking prints is relatively simple. First, powder is applied with a very light weight brush. Where a fingerprint is present, the powder adheres, otherwise it just falls off. Next, some clear tape, like packing tape, is applied over the powder. When the tape is peeled off, the powder is adhered to the tape. The tape is applied to a shiny white card reminiscent of photo paper.



Officer Gilleland taking prints

Being a small town, Flagstaff doesn't have the resources to scan and identify the finger prints, so the cards are sent to the lab at the Department of Safety, our state Highway Patrol. There, they are compared to a database of known felons, prisoners, and drivers licenses. If no match is found, then they are sent to the FBI. Unlike **CSI**, where the process is done in time to catch the criminal by the end of the show, in real life it takes weeks or months.



Fingerprints on a car door with tape on them

DNA testing has progressed to the point where it is becoming preferred to fingerprints because it

has the ability to identify a person (or multiple people) who have simply touched something. Officer Gilleland started taking DNA samples after he took the fingerprints. Shortly thereafter, Detective Tewes arrived. After being briefed on the situation by Officer Gilleland and talking to

us, he began to also take DNA samples. The DNA is found in all the bodily fluids including the perspiration and oils on the skin. The DNA sample is captured on a cotton swab, like you might find at a doctor's office, wetted with a fluid. The fluid aids the transfer of the sample. Simply rubbing the swab on a surface will then pick up DNA. Several of the tools and car doors were tested in this way.



Detective Tewes preparing a swab



It takes some rubbing to get a sample

Samples will be taken from all the employees of the company so that their DNA can be identified and excluded as being of interest. The DNA samples are taken by just putting the cotton swab in the mouth and rubbing it on the inside of the cheek. After the samples are taken, they are put in a small box and sent to the Department of Public Safety lab in Phoenix where they are compared to a database, much like the ones used for the fingerprints. Regrettably, the analysis process takes some months because of a big backlog at the DPS lab.

Where We Go From Here

The components that were taken obviously can and will be replaced. However, if we can get them back in reasonable time, a lot of effort and expense can be saved. We are offering a substantial reward for the return of the components. The thieves are knowledgeable about the parts they took and they are ONLY usable for electric cars. The EV community is a small one. If the components are not returned, they will be used eventually in a car. Judging by what was taken, that car will likely be a VW. All of our adapter plates have our name on them. Please let us know if you see one.

Also, the batteries taken will not be enough to complete a car, so someone will have to buy a small, odd number of 200AH Thundersky lithium cells. We will ask the sellers of these cells to watch for a small sale of these cells.

We hope to make it difficult for the thieves to unload their stolen property by putting out the word to the EV community. A complete list of the stolen property is available on our website www.electricbluemotors.com. We will also be watching EBAY and Craigslist for these items.

We will get past this and the customers will get their cars converted as promised. We will not be discouraged. Please use our story as a cautionary tale and take reasonable steps to do what you can to avoid having this happen to you.

If you have any information, please contact Detective John Tewes at the Flagstaff Police department 928-679-4112 or me at 928-600-3925.