



### Get a Good Wiring Harness the First Time!

There are a bunch of companies out there that make wiring harnesses to simplify the task of installing fuel injection in your vehicle or transplanting a fuel injected engine into another vehicle. These harnesses are designed to connect the engine control module (ECM) to the engine. In a nutshell, they connect the injectors and all the sensors to the ECM. We sell a lot of these and we also use many of them in our shop for our fuel injection conversion and engine swap projects.

Arizona TPI is a dealer for Painless Performance Products but that's not why we almost exclusively use their wiring harnesses. When we have a project in the shop we've got to get it done. The customer usually wants the car back in a certain time frame and, in the business we're in, there are plenty of problems that can crop up that can impact our schedule. The last thing we need is a poorly made wiring harness creating problems for us and impacting our schedule.

That's why we're a dealer for Painless. Each of their harnesses is made of the finest components available and each is fully tested before it leaves the factory to ensure it's right. That saves us time and headaches.

As many of you know, we also do diagnostic and repair work. We often get vehicles in our shop where the owner has done an engine swap or converted to fuel injection but just can't get the engine running right. It's amazing how many times the problem turns out to be a faulty wiring harness manufactured by one of Painless' competitors. A particularly frequent offender resides in a neighboring state of Painless' home state of Texas and can't be more than a couple of hundred miles away.

The most common problem we see is a connector where the wires are not placed in the correct positions. It's really simple to fix these kinds of problems but it can take hours to figure out what the

problem is. Even for us, and we do this kind of thing all the time!

We have a customer that had purchased a wiring harness from a Painless competitor and had also had us program a custom PROM for his application. He told me that our PROM must be at fault since he had gotten two replacements to the original wiring harness and had also replaced the computer. He sent us the PROM and we checked it and it was OK. After we explained our experience with inferior wiring harness manufacturers he sat down with a schematic and discovered that a connector had the position of two wires switched. He fixed that problem which made the car run much better but it still wasn't right. He finally purchased a Painless harness and now the car runs great!

One of the comments that we get is that the Painless harnesses are expensive. But what is expensive? When you go through three harnesses and two computers and your car still doesn't run right, that's expensive! And then you end up buying a Painless wiring harness to solve your problem in the end anyway? Why not just buy the best wiring harness available in the first place and save yourself a lot of headaches! Call us for details.

### Goodguys in Scottsdale

Arizona TPI had a booth at the Goodguys end-of-year event at West World in Scottsdale last weekend. The Goodguys 10<sup>th</sup> annual Southwest Nationals was a huge success! The weather was just what the Scottsdale Chamber of Commerce had ordered and the turnout of cars and spectators was fantastic!

The polo field at West World was completely packed with beautiful cars. We recognized a lot of cars that had been through our shop and got some great ideas for future projects.

Thanks to all of you who stopped by our booth to say hello!

### Transmissions

One of the things we don't do in our shop is transmission work. It's pretty specialized and, at this point, we don't get enough requests to keep a full-time transmission technician busy. But we do have the need to have transmissions repaired. Also, because we are often adding horsepower to customer's vehicles, we also need to get their transmissions upgraded to support the extra power.

When we're in need of expert transmission work, we turn to Nate Iverson at Solid Shift Transmission in Mesa. Nate has done a number of performance transmission rebuilds for us when we need an extra strong transmission to go behind one of our high performance engines. He knows all the tricks and the right parts to make your transmission bullet-proof.

I spoke with Nate the other day and he was rebuilding a transmission for a diesel pickup truck that had all the performance add-ons. He told me that when he was done, the transmission would handle 1,500 Lb/Ft of torque. You know those diesels can put a huge strain on a transmission but it sounds like this transmission will stand up to about anything!

Nate talks about Kevlar bands and five-pinion planetary sets and a bunch of other stuff that I'm not sure I understand. What I do know is that he knows how to build a strong transmission! The other thing I know about Nate is that his work is fully guaranteed and his customer service is excellent.

Nate can repair any problems you might be having with your transmission. He can also rebuild it so it can handle as much horsepower as your engine can make. If you want to purchase a new, high performance transmission, he can build one to your specifications. And, these transmissions can be shipped anywhere!

To find out more, contact Nate at Solid Shift Transmissions at 480-986-3600.