



More LT-1 Engine Swap Information

Last month, we talked about a problem with the ECM for an early ('92-'93) LT-1 engine. The problem turned out to be a very common 0122727 ECM that was mislabeled by the rebuilder as the much less common 16159278 ECM which only came in the '92 and '93 LT-1 Corvettes. These two computers look identical and use the exact same connectors. Unfortunately, they're not interchangeable and using the wrong ECM will burn up the ECM.

Because the 16159278 was only used for two years it's hard to find and, in truth, it's replacement in '94 with the 16188051 ECM was a blessing since the newer ECM was more sophisticated, much faster and much more reliable. And, it's much more plentiful too!

Because the early LT-1's were only made for two years, many of the parts have been discontinued and, at a minimum have become very difficult to find. In fact, Painless Performance has discontinued it's 60501 and 60504 wiring harnesses, designed for the '92-'93 LT-1's because some of the parts used in the harnesses are no longer available.

So, you've got an early LT-1 and want to put it in a '57 Chevy. What do you do for a wiring harness? The best solution is to use the Painless 60502, or the 60505 if you need an extra long harness. These wiring harnesses are designed for the '94 and '95 LT-1 engines but work great with the '92 and '93 engines when used with the 16188051 ECM from the later LT-1 engines. And, it's more reliable!

But the early LT-1's don't have a mass airflow (MAF) sensor and the later LT-1's do. A lot of people like the MAF-less look, especially in a hotrod or show car. So do you need to use a MAF sensor with an early LT-1 and the later model ECM and the Painless 60502 harness? The answer is that none of the LT-1's require a mass airflow sensor to function properly. We can program later model LT-1 ECM's to only use the manifold absolute pressure (MAP)

sensor to operate the engine. You can cut the MAF wiring from your wiring harness although we suggest that you tape it back in the wire loom in case you decide to use a MAF sensor in the future.

So now you're thinking what if I have a '96 or '97 LT-1 with the OBDII ECM. Can I use this ECM with the '96 or '97 LT-1 and still use the Painless 60502 wiring harness? Again, the answer is yes. The '96 and '97 ECM's are expecting three or four oxygen sensors depending on the application. These ECM's use one oxygen sensor for each bank of cylinders to monitor whether the engine is running rich or lean. They also expect an oxygen sensor after the catalytic converter or one after each of the cats if the donor car came equipped with dual exhaust and two catalytic converters. These engines also came equipped with a crank sensor that the earlier LT-1's didn't have.

The secondary oxygen sensors are only to monitor the condition of the catalytic converters. We can program the ECM so that it doesn't look for the secondary oxygen sensors.

The crank sensor on these vehicles is used to determine whether the engine has a cylinder miss which you might decide is useful information. To retain this, it is a simple matter of adding the crank sensor wiring to the Painless 60502 harness. We can do this for you or show you how to do it yourself. Another option is to program this functionality out of the ECM.

The later model LT-1 ECM's check for a lot of things such as burned out (or missing) warning lights on the dash, All of which can set a trouble code and turn on your check engine light. If you're contemplating installing an LT-1 engine in your vehicle your life will be made much easier if you have some custom programming done to the ECM. Give us a call or stop by the shop and we can discuss your options with you!

Good Guys in Scottsdale

It's that time of year again! The weather is finally getting nice here in the Phoenix area after a long hot summer. That means an end to getting scorched when getting into a car that's been sitting outdoors and it also means we can spend all that money we'll be saving on air-conditioning bills on more car parts! Also, it's great weather to attend some of the great car shows around town!

We're excited about having a booth again this year at the Good Guys show at West World in Scottsdale on November 16th, 17th, and 18th. As most of you know, this is a huge event. The organizers of the event are expecting at least 2,500 cars in the car show with about 50,000 people attending and more than 150 exhibitors. There's also a big swap meet where you can find deals on parts and accessories.

We've been attending this show as a spectator for a long time and last year Arizona TPI had a booth there for the first time in a long time. What a great experience! We ran into a number of our customers and made a lot of new acquaintances!

The great thing about the Good Guys show is the number and quality of cars that you'll find. Last year we noticed cars from all over Arizona as well as California, Nevada, Utah, New Mexico and more. And, of course, the weather at this time of the year in Arizona just can't be beat!

For those of you who haven't been to an event like this, it's a great way to spend a day. The car owners are generally happy to talk about their cars so if your thinking about starting a project or you're in the middle of a project, you can get lots of valuable information from these folks. You can also get a lot of great ideas just walking around and looking at all the amazing cars.

Come on out to the Good Guys show and drop by our booth and say hi. We're looking forward to seeing you!