



### More Power With a BBK Throttle Body!

An easy way to add 10, 15 or more horsepower to your vehicle is to install a high-flow throttle body. Arizona TPI is a dealer for BBK Performance Products which makes an excellent line of performance throttle bodies.

We like the BBK throttle bodies because they are beautifully machined from 356-T6 aluminum alloy and because they use ball bearings on the throttle shaft. Stock throttle bodies usually employ bronze bushings that wear out quickly. Ball bearings provide a very smooth feel and the throttle body will last a very long time.

BBK throttle bodies increase the diameter of the air passages into the engine, thus allowing more air to enter the engine. As we've mentioned in previous newsletters, the more air that can enter the engine the more power that engine will make.



58MM BBK Throttle Body for an '89 to '92 Tuned Port Engine.

As an example, let's look at the TPI and LT1 engines. Both have a similar throttle body which uses two 48-millimeter air passages or throttle bores, as they are usually called.. For both of these engines, BBK makes a throttle body with 52-millimeter throttle bores for mild-performance applications. BBK also makes a throttle body for more aggressive applications, that has two 58-millimeter throttle bores.

As you can probably imagine, increasing the bore size of the two passages by 10 millimeters in a throttle body such as this makes a substantial

difference in the amount of air that can flow through the throttle body at wide open throttle. In fact, a stock TPI throttle body flows about 600 cubic feet per minute where the 52 millimeter BBK unit flows about 750 CFM and the 58-millimeter flows about 1,000 CFM.

Of course, with these larger throttle bodies, the mounting flange on the plenum will typically have ports that match the original throttle body. When we install these throttle bodies, we normally use the gasket supplied with the throttle body to scribe a line where the throttle bores will sit when the throttle body is mounted to the engine. We can then grind the mounting flange so that the ports match the throttle bores in the new throttle body.

We've been discussing the throttle bodies for TPI and LT1 applications here as an example. Arizona TPI also stocks BBK throttle bodies for most GM V-8 vehicles including the LS1 and LS2 Camaros and Corvettes as well as the Vortec trucks.



85MM BBK Throttle Body for '98-'03 Camaros & Firebirds, '04 GTO's and '99-'02 GM Trucks.

A high-flow throttle body may increase the horsepower output of a completely stock engine by 10 or more horsepower. However, on a modified engine, they can account for much more!

If you're looking for an easy way to add a little extra horsepower to your vehicle, give us a call. A BBK throttle body might be just what you need!

### LT-1 Computer Problems

Recently, our friends at Painless Performance Products asked us to take a look at an ECM that was giving them trouble. An individual had purchased a Painless harness for the '92-'93 LT-1 engines and had hooked everything up according to the instructions. As soon as he applied power, smoke came from the ECM which, of course, is bad. As most of you probably know, smoke is installed in the circuitry at the factory and is released, along with a distinctive odor, when an internal problem occurs. The smoke indicates that the circuitry needs to be replaced. Quite a good system, actually.

Anyway, this individual went on to "smoke" two more ECM's and then contacted Painless. Since we work on ECM's all the time, they asked us to take a look at the ECM to see if we could figure out what was going wrong. Of course, they were concerned that there was a problem with their harness although in all the time we've installed and sold Painless harnesses we've never encountered a single problem. We wish we could say the same for their competitors' products!

After some investigation we found that, although the ECM was clearly labeled by the re-builder as a 16159278, the correct ECM for the Painless harness, it was, in fact, a 01227727!

The 16159278 ECM was only used in the '92 and '93 Corvettes with the early LT-1 engine and the 01227727 was used in many different applications. The thing is, these two ECM's appear identical. They use the same connectors and everything. The only way we could determine the difference was to take the ECM apart and compare it to a known 16159278 and a known 01227727.

Painless discontinued the early LT-1 harness because certain connectors are no longer available. If you have one of these early LT-1's you can easily upgrade to the '94 and later LT-1 harness and computer. Ask us how!