

## Modification recommendations to a Supercharged 3800 car

First of all, not all cars are the same, some you can get more aggressive with and some you cannot. Fuel quality and octane will have an effect on your mod list and what pulley you should be running.

The following mods and pulley size apply to most 97-00 Grand Prix GTPs. Our Stage 1 Performance Package comes with a drop in K&N filter, ZZP 1.0 pcm, Modular Pulley system (MPS), shorter belt, UBend delete, Autolite 104 spark plugs, and a 180° thermostat. This combo of mods will allow you to run a 3.5" pulley which will make about 9psi of boost. If you want more power, our Stage 2 Performance Package comes with a ZZP or Wizair intake instead of the drop in filter, and a ZZP 3" downpipe instead of the UBend delete. The extra mods allow a 3.4" pulley instead of the 3.5" that the Stage 1 Performance Package comes with. There are some cars that we recommend a larger pulley for because they are more prone to knock, the following cars should run a pulley size .1 larger:

04+ Impala/Monte SS  
97+ Regal GS  
00+ Bonneville SSEi  
04+ GTP  
00+ Park Ave Ultra.

The next easy bolt-on mods are the Front and Rear Power Log. Freeing up the flow of the exhaust will reduce boost and reduce Knock Retard.

A larger throttle body can be added at any time, however it will make more and more power based on how much power your engine makes. More power, needs more airflow. We have a couple options for the Series II cars, Ported stock throttle bodies (72mm) and then our Northstar Throttle body conversion (75mm). To take full advantage of the Northstar kit, you would need the inlet of the supercharger to be ported to match.

A Phenolic spacer can be added at any time, it is a great mod that creates a heat barrier between the lower intake and the supercharger, this lowers charge temperature, reduces KR and helps the and keeps the blower (and fuel rail) cooler with less chance of heat soak.

Electronic upgrades like our Alternator Voltage Booster are a great mod, even for a stock vehicle. It plugs in line with your alternator and increases the entire cars voltage by .6 volts. Our Alternator Power Cable (upgrades the alternator to fuse box wire) is another great anytime mod, even for a stock vehicle. The Fuel Pump Rewire kit (which increases the voltage to the fuel pump) is a good mod when you get down to a 3.2" or smaller pulley.

The next big step is a Camshaft or Intercooler. A camshaft will free up the flow of the engine which will drop your boost and allow you to run smaller pulleys, the more aggressive the cam, the more pulleys you can drop. The VS cam is a cam that is 1 step up from the factory cam, it should pass emissions and if your stock valve springs have less than 100,000 miles on them you can continue to use them. However it is beneficial (by increasing your shift RPMs) to replace them with at least 90#

valve springs and steel retainers. This cam can use the factory timing chain and dampener and will allow you to run a pulley size .2 smaller. The XP cam has a noticeable lobe at idle and won't easily pass emissions, it will require 136#, or 140# valve springs, modified retainers, Rollmaster double timing chain, extra thick front cover gasket and machined oil pump cover. This cam will allow you to drop .3 pulley size. The NIC cam is a very aggressive camshaft that requires the same mods as the XP but can be difficult to tune. The XPZ cam is our largest cam available for a supercharged application but it requires our Aluminum heads to take full advantage of it.

An Intercooler will cool the boost which will make the air more dense which will result in less boost so you can run a smaller pulley as well for more power. We have two intercooler options, our Short Stack Intercooler and our Stage 2 Intercooling system. The Short Stack is 1" thick and will cool the outlet temps by around 80° and the Stage 2 will drop temps 140+ degrees. The Short Stack will allow you to run a pulley size .3 smaller, and the Stage 2 will allow you to run a pulley size .5 smaller. The short stack will require injector spacers because it raises the blower 1", however the Stage 2 ic will require modified fuel rails or billet fuel logs instead because it raises the blower 2".

The stock injectors are generally good down to a 3.1" pulley. When you want to run below that, you will need either the Lucas 42# injectors or the Siemens 60# injectors. Both are a great option, the 42s are good for 380whp supercharged and 400whp turbo and the 60s are good for up to around 550whp supercharged and 600whp turbo.

When you have an aftermarket cam and intercooler, this is when we recommend upgrading to headers over our Power Logs.

The final supercharged mod would be ported heads, we offer 2 options, we have our CNC Ported heads, and we also have our ZZP cast aluminum heads.