

# Fine Tuning

HOW TO GET  
THE MOST OUT  
OF YOUR MUFFLER

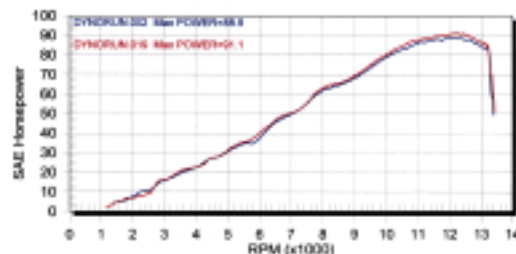
BY STEVE LITA ■ PHOTOS BY BOB FEATHER

THINGS SURE ARE DIFFERENT NOW. BACK in the day, you had to wrestle with removing carbs, drilling pilot screw plugs, and re-jetting via trial and error to get the fuel/air mixture just right. All accompanied by that not-so-delicate aroma of gasoline, which stuck with you for days when you got it on your hands.

Now, I know it's a bad sign when I find I'm old enough to say things like "back in the day." Fast-forward to modern times and our pipe install on an '04 Triumph Speed Four. We installed the pipe and an FI module with no wrestling, no drilling, no nasty aroma. Where's the fun in that?

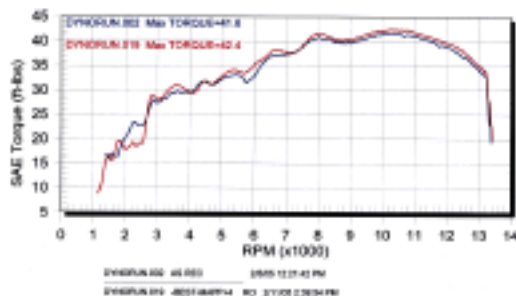
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## The Best Tune

**B**y itself, a Dynojet Power Commander III will not add more power to a stock bike. However, it's an invaluable tool for tuning the fuel curve after you've added some power-making bolt-ons (like a free-flowing air filter and exhaust). The nice thing about the PCIII is that it comes with much of your homework already done for you.

Each unit has a standard stock/zero-value map (making no value changes to the factory calibration), so you can get the bike running right after installation. Then, you can make changes to the fuel curve with the three small buttons on the box that control low-, mid-, and high-rpm mapping. But these three buttons are not fine-tuning tools — they can only lean or richen the entire range by certain percentages.

The PCIII comes with a CD that has several popular maps you can try, if your modifications correspond to the descriptions. The latest software and maps are also available online at [www.powercommander.com](http://www.powercommander.com) — but be aware that some of these maps are submitted by users, not by the company. The best calibration for your bike will come from an authorized Dynojet Tuning Center, where the tuning is custom-tailored at each critical map point based on load and throttle position. In essence, you can look at this as a Good, Better, Best approach to tuning. ■

The PCIII has a fixed wire harness with male and female connectors that are installed between the factory wire harness and injectors. It also includes a 9v power supply cable so you can power up the PCIII to program it before you start the engine.



## SOURCES

Power Commander  
#512-411 \$332  
DYNOJET RESEARCH  
2191 Mendenhall Dr.  
Dept. RB  
North Las Vegas, NV 89031  
800/992-4993  
[www.powercommander.com](http://www.powercommander.com)

Flange-On C2  
Aluminum Canister  
#005-420406 \$359.95  
TWO BROTHERS RACING  
401 South Grand Ave.  
Dept. RB  
Santa Ana, CA 92705  
800/211-2767  
[www.twobros.com](http://www.twobros.com)

ORIENT EXPRESS  
81 Hanse Ave., Dept. RB  
Freeport, NY 11520  
516/546-5232  
[www.orientexpress.com](http://www.orientexpress.com)

We'd decided to hop-up our Triumph test mule with a slip-on can from Two Brothers, and then re-curve the fuel injection with a Dynojet Power Commander III (PCIII). Our friends at Orient Express in Long Island, New York, did the installation. As a Dynojet Authorized Tuning Center, the shop has done plenty of jobs like this. They also shared a few tech tips for those with "black-box-phobia" (see sidebar).

The PCIII is a completely tunable module that intercepts and alters the signal from the stock ECU. Installation of the PCIII is a snap — it took more time to remove the tank and seat than it did to connect the module, route the wires, and mount the unit.

The Two Brothers slip-on is a quality piece finished in polished aluminum. Installation was easy, though it required one small alteration. We had to cut the rear flange on the stock head pipe down to just .5" long, which is easily done with a Sawzall or saber saw.

Truth be told, these mods didn't produce a huge increase in horsepower and torque, probably because of several factors. First, you may recall that Triumph tweaked and tweaked the

fuel injection on the Speed Four long after the bike was released to the public. As a result, the bike already produces near-maximum power in its stock configuration. We also felt that adding a full exhaust system would have produced more measurable power, but such a system wasn't available at the time.

In the end, we got the best results after the technicians at Orient Express spent a lot of time custom-tailoring a fuel map for us on the dyno. They recalibrated each point on the fuel map while incrementally raising the rpm and load. As a result, we gained a little over 2 hp and just 1 ft-lb. of torque. This tuning process could cost several hundred dollars in labor, but will also produce the best results and smoothest fuel curve.

Power aside, the bike looks great and has a nice, meaty roar that's sure to wake the neighbors. Bottom line: If you own a bike like the Speed Four and you want a bit more bark, this hop-up is for you. Just be prepared to spend some money on parts, installation, and tuning.



**1** First, remove the seat and tank, and disconnect the factory fuel injector wire harness by squeezing the spring clip on each connector. You don't need to remove the clips.



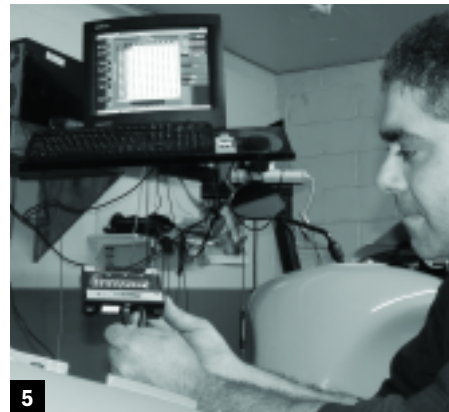
**2** The male ends on the PCIII harness snap into the Triumph harness, and the female ends clip onto the injectors. Start on the far left of the engine with the orange-wired PCIII connector.



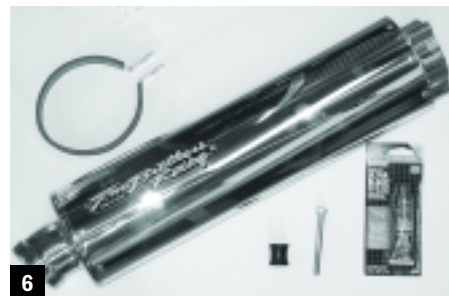
**3** Tap the gray wire from the PCIII to the yellow wire on the throttle-position sensor with the supplied Scotchlok connector.



**4** Next, attach the ground cable directly to the negative battery post, and attach the PCIII to the inner rear fender with Velcro.



**5** We downloaded maps from the Dynojet CD, which contains a zero-value map and several modified maps for use with power mods. Our PCIII is ready to go.



**6** The Two Brothers slip-on can comes complete with a spacer and a tube of sealant.



**7** The stock Triumph muffler is much larger and heavier than the Two Brothers unit.



**8** We started by modifying the head pipe with an air-powered saber saw. We trimmed the rear flange down to .5", first removing the right rear footpeg bracket to make room to work.



**9** Next, apply high-temp RTV to the stock gasket, which will be reused later.



**10** Then slip the original gasket back into place on the shortened flange.



**11** Now you can slip on the Two Brothers can. It should be held in place loosely with the original three bolts. After that, we replaced and tightened the rear footpeg bolts.



**12** The exhaust clamp is then bolted to the stock footpeg bracket with the provided spacer. Be sure to remove the plastic protective sheet on this clamp before you start the bike.



**13** Finally, evenly tighten the three flange bolts at the end of the can, and clean the can thoroughly with rubbing alcohol – you don't want to leave greasy fingerprints permanently etched into the finish.



**14** Our exhaust upgrade sounds grrreat. The bike barks when given a handful of throttle. RB

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