

Richard's **DUCATI** ST2 pages - fuel injection

Information on this page last updated 2/16/02.

In general these chips are the electronic equivalent of re-jetting a carburetor, usually re-mapping the fuel injection to be somewhat richer than stock. Several companies sell these including [FIM](#) (Fuel Injected Motorcycles) and [Fast By Ferracci](#). I am currently using an FIM UM161 chip that was designed for use with a variety of slip-on silencers. Note that this is an updated chip - the original was an FIM 164 and that has been discontinued and replaced by the 161. [Advanced Motorsports](#) were kind enough to work a deal with FIM to swap my 164 for a new 161 at no cost. The FIM chip provides greatly improved throttle response and it appears to allow the bike to run cooler as well.

I have on the shelf an FBF stage 2 chip that was designed for use with high-compression pistons and free-flowing silencers. I found that it ran too rich and in general it just did not feel as nice as the FIM. Without a dyno I cannot really perceive any difference in power between the two chips although the FIM seems to provide both slightly better economy and throttle response. In other words, both manufacturers seem to make decent products, but I prefer the FIM on my bike. I have also heard good reviews from folks that use the Ducati Performance chip and these sell for something like \$40 which is much cheaper than either of the chips I have.

With any chip, it is best to set the trim screw to tune the chip to your particular bike. This is done using a CO meter, I bought a Gastester meter from [R.D. Enterprises](#) for about \$115. The factory manual calls out 1.5% CO to meet emissions regulations but goes on to say best power is realized when full-throttle CO is in the 4-6% range. I had set mine to 4% at idle but it seemed rich and I got poor mileage. I now have it set between 2% and 3% which seems like a good setting. Any lower and I start to get excessive backfiring on overrun. The setting is done via the small potentiometer next to the EPROM inside the computer box.

The CO can be measured from the silencer outlet and this will yield a value representing some average of the two cylinders. The exhaust system has a collector that allows the gasses from both cylinders to mix before being split up again on the way to the individual silencers. This will be fine so long as you think the two cylinders have been balanced properly. If you are not sure, I recommend setting the balance as described on my [TPS and throttle adjustment](#) page.

If you are reading this you will likely also love to read the writeup on how the fuel injection system works at [Sigma Performance](#).

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