



YOSHIMURA PIM2 FAQ SHEET V1.0.48

WARNING!

THIS PRODUCT IS INTENDED FOR USE ONLY IN CLOSED COURSE RACING OR OTHER OFF ROAD COMPETITION AND NEVER ON PUBLIC ROADS OR HIGHWAYS

1. What is the Yoshimura R&D PIM2?

The PIM2 features an advanced interface and programming algorithm that is designed for and by advanced tuners, but has a simple and easy-to-use and learn interface that one could quickly make adjustments and finely tune their high performance vehicle. The improved features, new for the PIM2, allow for an easy to tune module. Fuel map resolution allows for changes at 500RPM and 10% throttle position increments.

The PIM2 is now programmable via a desktop or laptop with a USB cable. Tuning can be done quickly and accurately either on a dynamometer or as trackside support. An optional Data Box may be purchased separately which allows the user to record data while the vehicle is running to obtain a preset target Air Fuel ratio.

2. Why do I need a PIM2?

The PIM2 allows the user to make adjustments across the fuel map to compensate for modifications and alterations to the vehicle, such as an exhaust system, air filter, throttle body, or other internal engine modifications.

Maintaining a correct air/fuel ratio is IMPERATIVE to safe engine operation as well as extracting maximum performance from your vehicle. The factory ECU is programmed for a wide range of operating conditions and is typically running a safer air/fuel ratio to compensate for various fuel grades and quality as well.

3. How hard is it to install? Do I need to solder anything or cut up the factory harness?

Typical installation will take between 20-35min. All plugs and connectors are designed to plug into factory connections or splice in to existing wires with no soldering required.

4. Can I install the PIM2 myself?

Any qualified technician who is familiar with the vehicle electronics can install the PIM2 and wiring harness on the vehicle will be able to perform this installation.

5. Do I need a laptop to program the PIM2?

Though a laptop/notebook is not required, it is definitely helpful to be able to have a unit that is mobile so that you can move it around the vehicle if need be and also bring with you to track events. A desktop will work as well; just keep in mind that you'll have to have a USB cable connecting your vehicle to the computer.

6. Do I have to tune the PIM2 on a dynamometer?

No, the PIM2 can be tuned without a dynamometer using our optional Data Box which records real-time air/fuel ratio as the bike is running. Tuning on a dynamometer is always recommended, but final adjustments may be needed during running conditions.

7. Is there a map that I can use to save some time tuning?

Yes, the PIM2 is shipped with 2 maps already in the unit; one for a Yoshimura system with an open core and one for a Yoshimura system with a spark arrester.

Additional maps are available online at www.yoshimura-rd.com. There you can quickly and easily download new maps for your PIM2. We will be constantly striving to provide more maps for various applications and configurations. Please check back on our website at www.yoshimura-rd.com for new map files.

8. What if there isn't a map available for my system?

The PIM2 allows the user a wide range of adjustability to compensate for changes in airflow and engine performance characteristics. A qualified technician or tuner can generate a map tuned to your specific configuration.

9. Do I have to turn the vehicle on or plug in a power source to tune it?

No, the box can be powered via the USB cable from your computer and tuning can be done without additional power to the PIM2.

10. Is the Data Box a “closed-loop” system?

No, the Data Box is not a “closed-loop” system.

The Data Box records information from air/fuel ratio sensor mounted in the exhaust pipe as the vehicle is running and stores that information in a data map. Once the information is retrieved from the Self Mapping tab in the program, the changes that are recommended may be applied in whole or just sections at a time.

11. What is a "closed-loop" system?

A "closed-loop" system, in fuel injection terminology, indicates a system where readings are taken with various sensors to determine running conditions and parameters. This information then is processed in the ECU or Fuel Computer, and adjustments are made to correct parameters in effort to maintain a range of operation.

For example, in a typical system the ECU sends a signal to the injectors maintaining a controlled rate of fuel injection which the ECU will try to maintain at 13.5:1. An air/fuel ratio sensor in the exhaust determine the air/fuel ratio of 13.9:1, calculates the correction factor needed to return to the target air/fuel ratio, and makes the change to the ECU automatically.

12. Why is the Data Box not a "closed-loop" system?

The design of air/fuel ratio sensors and their processing units have limitations and there is a slight delay between what the sensor is reading, to what is processed and changed. For off-road applications where throttle position and RPM changes are rapid and frequent, accurate readings and measurements are difficult to record. For this reason, the Data Box will record the recommended values. These values will only be applied once the user has confirmed the changes and manually applied them to the map.

13. My bike is not listed, are you going to make one for my bike?

Yoshimura R&D is continually expanding our product line to include any and all popular models in effort to further enhance the high performance support we offer to the industry. Please check back to see if we've developed new applications for your vehicle.