



Electronics Installation



Hyper Racing utilizes factory electronics. We convert the wiring harness for use in a race car by eliminating unnecessary components used on the motorcycle. Your converted wiring harness is mostly plug and play. The connectors are different shapes and colors, and have corresponding plugs on the engine. It is not difficult for someone with no electrical background to install a wiring harness. There are a few items that do need further explanation, and will be explained in this section.

For the 05-06 ZX-6R Kawasaki and the 08 and up R6 we do have an extensive connector identification sheet on our website. Go to www.hyperracing.com then to the Tech Department/600cc engine tech/Electronics-Wiring to view this sheet.

1. **Starter Relay.** The starter relay has two posts on it. One post gets connected to the positive terminal of the battery (with wire 8 ga. or larger). The other post gets connected to the starter motor (with the stock starter wire, or other 8 ga. or larger). If these two wires are switched, the harness will not receive any power. Most starter relays label the two posts "B" and "M." The "B" designates the wire going to the positive battery terminal and the "M" designates the wire going to the motor (starter). On a starter relay that is not labeled, the battery post often has a thin piece of silver colored metal bending up and on top of the terminal, where as the starter wire post will not.
2. **Grounds.** Proper grounding of the engine electronics is critical. We find many of the electrical problems we diagnose are a result of improper grounding. What has worked well for us is to mount all of the grounds to the same point on the engine. It is best to bolt the grounds in the same location the stock ground cable was located on the motorcycle. From this point, connect your wiring harness ground, Power Commander ground, fuel pump ground (on harnesses without a chassis harness), as well as a wire (8 ga. or larger) connecting to the negative battery terminal. Some engines may have a small ground coming out of the harness at the valve cover. Do not try to connect this to your collective ground on the back of the engine. This ground is meant to ground the valve cover, not the harness. Also, do not ground any electronics to the valve cover. The valve cover is separated from the head with a rubber (non-conductive) gasket. A ground post on the valve cover will not support the grounding requirements of most electronic systems and their components.
3. **Power Commander.** The Power Commander installs very easily. For models that have sub-harnesses for the fuel injector connectors, simply unplug the large plug for your injector sub-harness, plug the Power Commander into the properly mating plugs, hook up the ground, and the installation is complete. For models that do not have an injection sub-harness, the Power Commander plugs into each individual injector connector, and then to the injector itself. In other words, the Power Commander installs between the wiring harness and the fuel injectors. On this type of Power Commander, there are four sets of plugs, one for each injector. They are all color coded and get hooked up as follows:

Cylinder #1 -Orange



Electronics Installation



Cylinder #2 -Yellow
Cylinder #3 -Green
Cylinder #4 -Blue

Be sure to connect the throttle position sensor lead properly, if your Power Commander has a separate lead for the TPS. Refer to the Power Commander instructions or call the shop for more info.

4. **Switch Wiring.** If you purchased a Hyper FIT system with our Deluxe Chassis Harness, wiring to your switches is quite simple. The chassis harness will plug into your engine harness. The chassis harness will then get wired to your switches per the wiring diagram in the Hyper Racing Catalog. If your harness does not have a chassis harness connector and rather 4-5 loose wires, wire your switches according to the wiring diagrams located in the reference section in the back of this manual.
5. **Accessories.** Wiring accessories (electronic wing adjuster, fan, Mychron, tachometer, gauge lights, etc.) can be done with wire and ring terminals. Typically, accessories are wired up by tying into the ignition switch, or by jumping from the ignition switch to an accessory control switch. Anything wired off of the hot side of the ignition switch will always receive voltage as long as the battery and wiring harness are hooked up. Anything mounted off of the cold side of the ignition switch will only receive voltage when the ignition switch is on.