



# ZX10RArcher.com

ECU Flash Information

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# Introduction

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## ***What is ECU Flashing?***

ECU flashing is removing the electronic control unit, or ECU, from your motorcycle and sending it to an individual or company in order to be modified. Typically this is done to help increase the performance of your motorcycle and enable or change features on the motorcycle. This is done by careful editing of the values contained on the ECU from the manufacturing facility where your bike was assembled.



## ***Why Flash Your ECU?***

In order to meet strict emissions and sound certifications here in the USA, Kawasaki had to limit the power made on the bike to meet those limits imposed on them. Although the bike is capable of more power, it's electronically limited in using that power. Elsewhere in the world, the bike isn't limited and makes more power in its stock form there than it does here stateside. You paid for that horsepower that they advertise here stateside, yet hold you back from having and using. This flash removes those limitations and gives that power, that's rightfully yours, back to you. You paid for it, you should be able to use it!



## ***How is This Accomplished?***

First, your ECU needs to be removed from your bike and then sent to me. I prefer it is sent by traceable methods (Fed Ex, UPS, USPS). I personally prefer USPS as they arrive earlier in the day, giving me a higher percentage chance of completing your ECU and sending it back to you that day. After I receive it, I verify with you, via phone or email, what changes you want made. After that, I connect your ECU to my computer by way of a specialized interface and make what changes need to be made.



## ***Any Other Questions?***

If you have any additional questions about the general process, I'd be glad to answer them. You can contact me with any of the information listed on the cover page of this informational guide.







### **Results of Both Changes Made Together**

On all of the testing performed, both first person and by others who have purchased the flash, the average gain is roughly 15 HP peak over a stock, unflashed bike. On the top end of there are gains of 20+ HP in some areas. Most of the power increase comes from 11K RPMs to redline although there were some smaller gains earlier on in the powerband as well.

From a 100% stock 2012 ZX-10R to fitting it with my flash with my slip on fuel mapping and a Brock's Performance Alienhead 2 slip on exhaust, we gained 20 peak horsepower with the largest gain being 30 HP at 13K RPMs. Consistent gains of 5-10HP were seen throughout the dyno chart. Dyno was performed on the same dyno, by the same tech in similar conditions less than a week apart.



### **Other Changes**

There are other added benefits of the flash.

- Removal of the electronic top speed limiter
- Removal of the O2 sensor (more for overseas bikes; US bikes do not have an O2 sensor)
- Removal of the FI code/light that comes up if you disconnect or remove the exhaust servo motor.  
- When putting on aftermarket exhaust, the servo cables can be disconnected leaving a motor underneath the seat. Removing it (saving weight and space) causes a "check engine light" to display on the dash despite nothing being wrong. This eliminates that light from coming on.
- Removal of the fuel cut on the bike; easing on-off-on throttle transitions
- Increasing the rev limiter on the bike; the bike continues to make power up to approximately 13,500 RPMs,
- Enable on the fly adjustability of traction control settings. On the stock ECU you have to come to a flash to turn off the TC. With the flash, you can turn it off while moving.
- Enable the bike to retain its last TC setting when shut off. I like riding with my TC off. With the stock ECU, if you have it off and shut the bike off, when you turn it back on it will reengage the TC setting. This makes it stay to whatever you set it at when the bike is shut down.
- Removal of the FI code/light that comes up if you remove the Pair valve. Other flashers cannot do this through software nor can I. To address this shortcoming, I developed a 100% plug and play connector to prevent your FI light from coming on! Say you want to add block off plates to help with an auto tune system you've installed or if you just want to cut down on the exhaust popping while decelerating, this will let you remove your pair valve by just plugging it into your bike harness in place of the pair valve. This is included free with your ECU flash if requested. Otherwise it is available for \$15.00 shipped if you decide later down the road you want it.



### **Fueling Changes**

No changes are made to the stock fuel values unless you want them to be. Although, I do have two separate maps developed on my bike; one for an M4 slip on and another for a Grave full titanium exhaust. **Additional tuning is recommended with these maps!** You will not run excessively rich or dangerously lean with these maps. Just to get the most out of the bike, additional tuning by a professional is recommended as each bike varies from one to another as do the tuning environmental conditions (elevation, average temp, average humidity, etc) as well as the gasoline used. Additional tuning on top of my fueling has resulted in an average gain of 3-5HP **ON TOP** of what my flash and fuel mapping unlocks for you.



### **In-House Dyno Tuning**

As of March 1<sup>st</sup>, 2014 in-house dyno tuning is no longer available.

## Quality Control

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### **Verification of the ECU Flash**

The software used, performs its own internal checks to ensure the ECU flash has been completed successfully and reports back with its status. Rather than accepting this solely, I go through the ECU after powering it down and letting it completely discharge. I reconnect to the ECU and verify visually all settings and values have changed in accordance to your request. Again, not satisfied, I take this one step further...



### **Real World Testing**

After verifying via software and visually the changes took effect, I connect your ECU to my bike to ensure all the functions work correctly. Depending on the weather, I also take your ECU on a short ride (don't worry, mileage is stored in the cluster, not the ECU) to ensure all the functions operate correctly, performance is acceptable and all the values for additional setting changes such as traction control and rev limiter are in place. After this, I remove it from the bike and package it and send it back to you.



### ***My Promise to You***

I know you're trusting me with a lot to perform the ECU flashing for you. I honestly do appreciate your business and treat each one of my customers like an individual and hope to develop a rapport with each one of you. If you have any questions down the road you can feel free to ask me or possibly if a friend buys a bike, that you maybe suggest my flashing services to them. I also ask that if you have the time, please drop me a note and let me know how the flash worked out for you, your impression with my services and your overall experience and any suggestions or recommendation you may have. In return, I promise to meet and exceed your expectations. If something isn't right, I will make it right for you.



## Closing Comments

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### ***Pricing Information***

There are two prices for the flash; \$75 for just the derestriction flash with no fueling changes being made and \$100 with a slip on or full exhaust map loaded. Those prices include return shipping from me.

Shipping from me includes 1-2 day (overnight in most cases) shipping, \$1000 insurance, tracking number and signature confirmation.



### ***Shipping Information***

As stated prior, I prefer you send the ECU to me with traceability, I.E. a service with a tracking number. This is just so I can schedule time to be home to ensure I receive your ECU and can get to work on it immediately. Also to help ensure same day turnaround, please select early morning confirmed delivery for whichever shipping method you choose. I prefer USPS as it's the fastest, most flexible and cheapest option available. As long as I receive the ECU prior to 230PM central standard time, I can complete and send the ECU back out that same day. If I don't receive by my cutoff time, I cannot guarantee I will be able to turn it around the same day, though I will still try to do so.

After your ECU has been shipped back to you, a custom report showing what changes were made to your ECU will be sent to you via your PayPal email address as well as your tracking number. Once you receive your ECU its plug-and-play; install it, turn the key and twist the throttle!