



KAWASAKI TWINS

Instruction manual with visual guide for
Kawasaki Twin Cyl (KZ400/440/750)



Your kit includes:

- (1) Ignition Coil (dual fire coil).
- (2) Ignition module.
- (3) Encoder wheel with one aluminum standoff, one brass collar, and one washer.
- (4) Aluminum coil bracket.

You will need a wire crimper and basic tools to install ignition kit.

We recommend using shrink tubing or our flexible wire covering to protect the sensitive wires from damage.

We also recommend using a depth gauge or dial caliper to verify TDC or be familiar with timing marks on the flywheel.

A test light is also recommended to find switched power from the cycle.

Basic installation involves:

- Replace the standard ignition with the new ignition.
- Install new coil using provided bracket or other suitable sturdy mount.
- Hook up the ignition wiring (leaving the coil connector unhooked until after timing is set).
- Set #1 cylinder to TDC and calibrate timing using the encoder wheel.

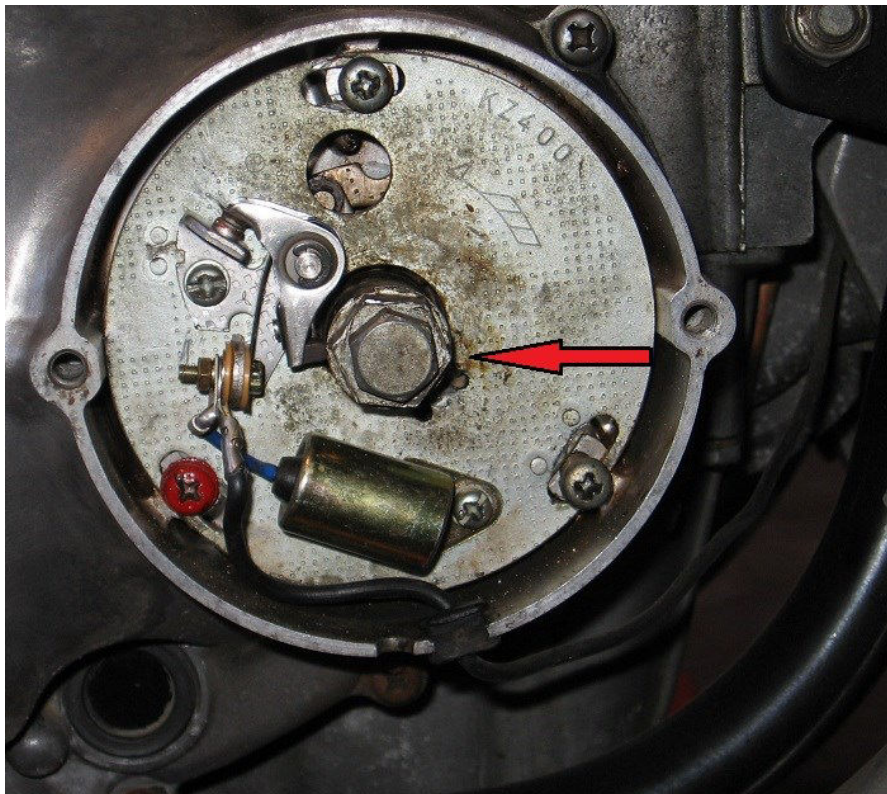
This job should be easy for most people with a basic understanding of ignitions and engines. If you have questions email c5@c5ignitions.com or call/text 920-403-0555 so we can assist you.

Step 1.

Disconnect your battery.

Locate the points housing at the right side of your engine and remove the cover. Carefully remove the points plate, unplug the wires, and remove them. Notice the two bolts at the center of the plate. The smaller bolt holds the advance assembly to your engine. The larger bolt is used to rotate your engine. You can use this larger bolt now, and set the #1 cylinder at TDC (Top Dead Center) or do it later. Simply rotate this larger nut until the timing marks indicate TDC or use a dial caliper to verify.

Remove the small headed bolt to pull out the stock timing advancer. You will NOT use this with the new ignition system.



Step 2

Preparation and installation of new ignition.

Screw on the new ignition using the three stock screws. Slide the aluminum stand off into the center.

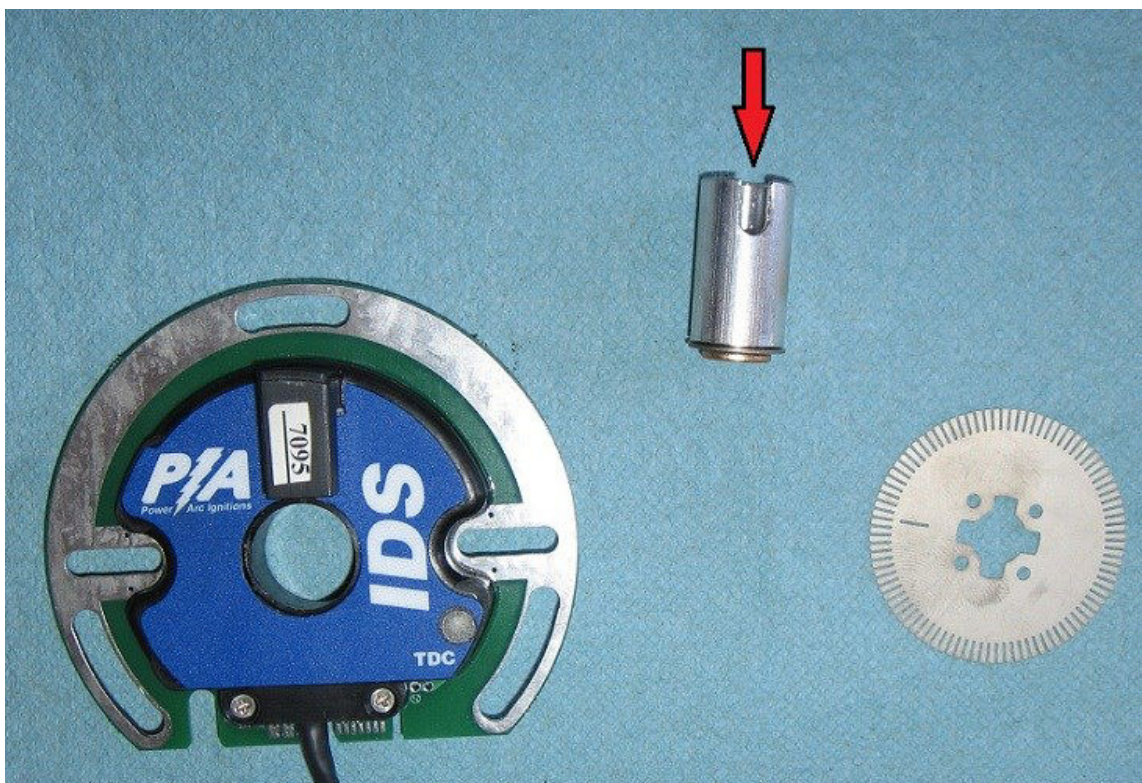
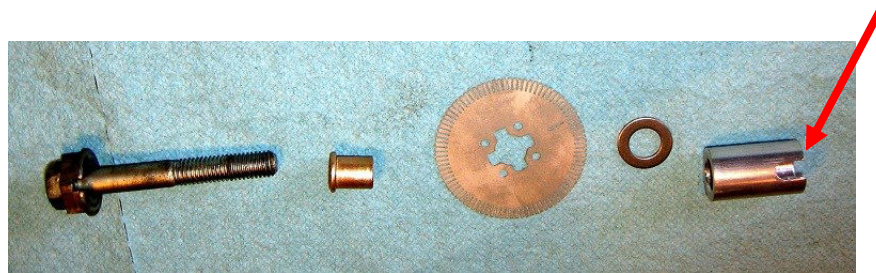
Carefully rotate the stand off until the slot aligns with the pin sticking out of the engine.

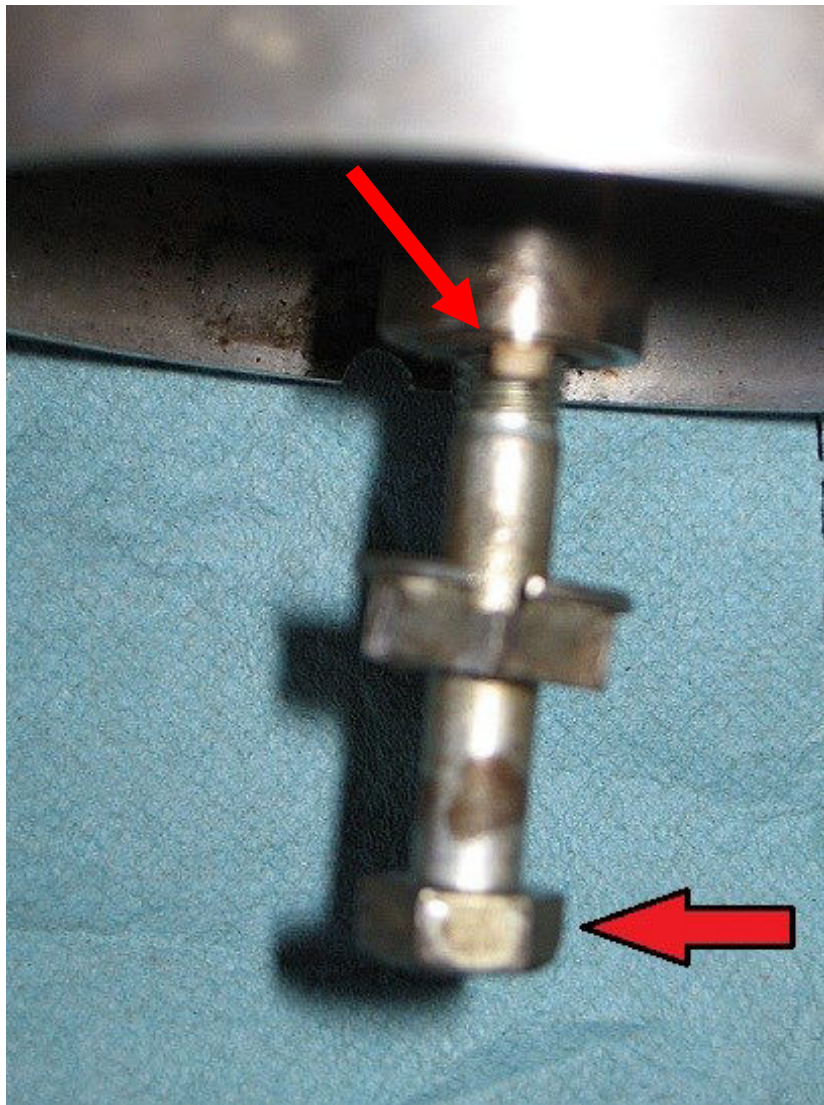
See the arrow in the photo. If you do not align these, you will not be able to correctly install the ignition encoder!

After carefully positioning the encoder disc under the optical reader, insert your STOCK bolt and larger nut using the washer and brass colored bushing. You have one EXTRA washer to use as a shim for adjusting the height of the encoder wheel in case you need it.

Make sure encoder is not rubbing on the ignition or optical reader. **DO NOT TIGHTEN ENCODER YET.**

If the encoder is spaced evenly you can route your wires up the frame tube toward the coil and prepare to wire up the ignition.





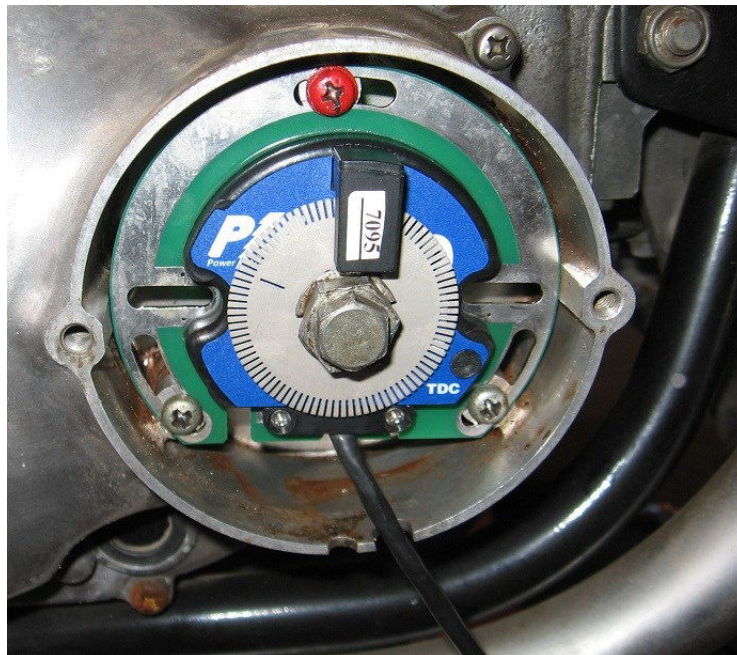
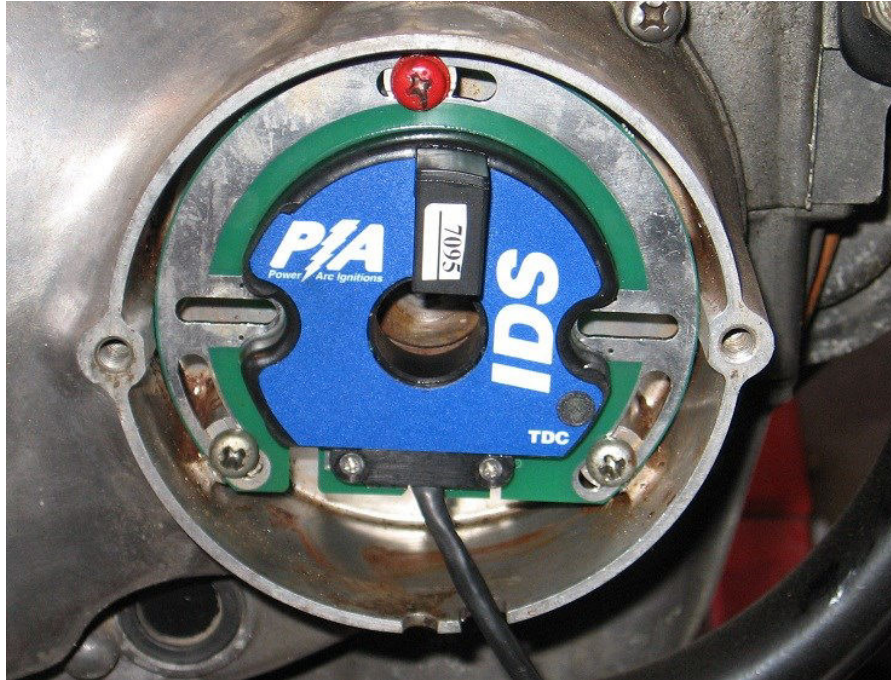
We are showing you the small pin that is used to rotate the engine using the LARGE HEADED NUT.

On your new aluminum stand off we've cut a groove that must be aligned with this pin.

This is easy to understand but critical that you feel it drop into place. Your ignition will not assemble correctly if you don't have this installed correctly.

Install a grommet where your wiring exits or seal with a small piece of foam or silicone to keep water out of the ignition area.

When possible we recommend using factory wire holders and add shrink tubing or flexible wire protectors in areas where the wires may rub.



Step 3

Before setting the timing and tightening the encoder, you must first set the engine at Top Dead Center (TDC) or the ignition will not fire at the correct time.

It would be advisable to purchase or make a dial caliper tool for finding the exact position, or use the timing marks on the flywheel. If you would like to purchase a tool or find out how to make one, please contact us sales@c5ignitions.com



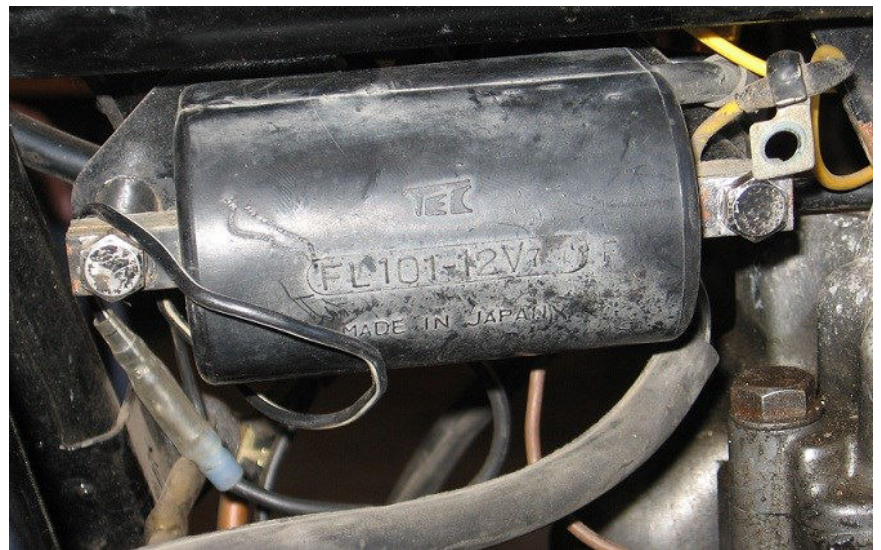
Step 4

Remove your stock coil and install the new multi fire coil in its place.

You do not have to modify anything but we do recommend you make sure no wires are rubbing. KZ400-440 coils fit under fuel tank in stock location. KZ750 fit best using horn mount in front of the frame.

You can use the stock power lead to your coil (which is switched power) but we always recommend checking to make sure this is switched power before hooking up your ignition or coil. You do not want power to your coils when your ignition or kill switch is turned off.

DO NOT install power to your coil at this time! You must first hook up power to the ignition and set the timing. The coil power will be the last item to connect.



Step 5

Installing electrical components with a solid connection is critical. If you do not have the correct crimper we suggest you purchase one. We sell them if you cannot find one locally.

We suggest routing the ignition wires in the stock position, which is up the right side frame rail.

Hook up the ignition and set the timing **BEFORE** hooking up power to the ignition coil.

Colors are for the following:

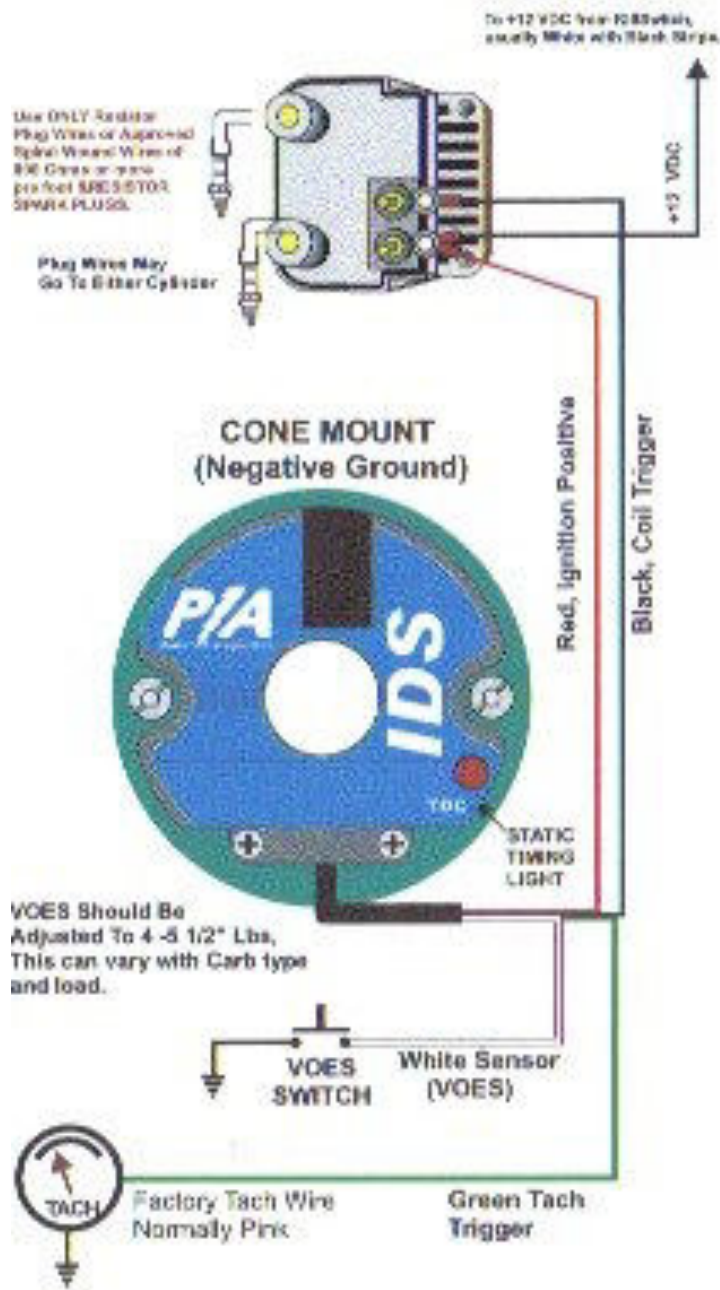
Red wire = goes to one of the coil posts and from the same coil post to +12 VDC ignition switch.

Do not connect the red wire to the coil until timing is set. You want power to our ignition module but not to the coil until you are ready to run the bike.

Black wires= Goes to the other terminal of your coil (ground).

Green wire= Electric Tach (if you add one). If not used, tape it up so it cant touch any other wires.

White wire=This would activate a milder timing curve so if you do not plan on using it, then connect this wire to a solid frame ground. If you forget to attach it, the bike will run slower!!



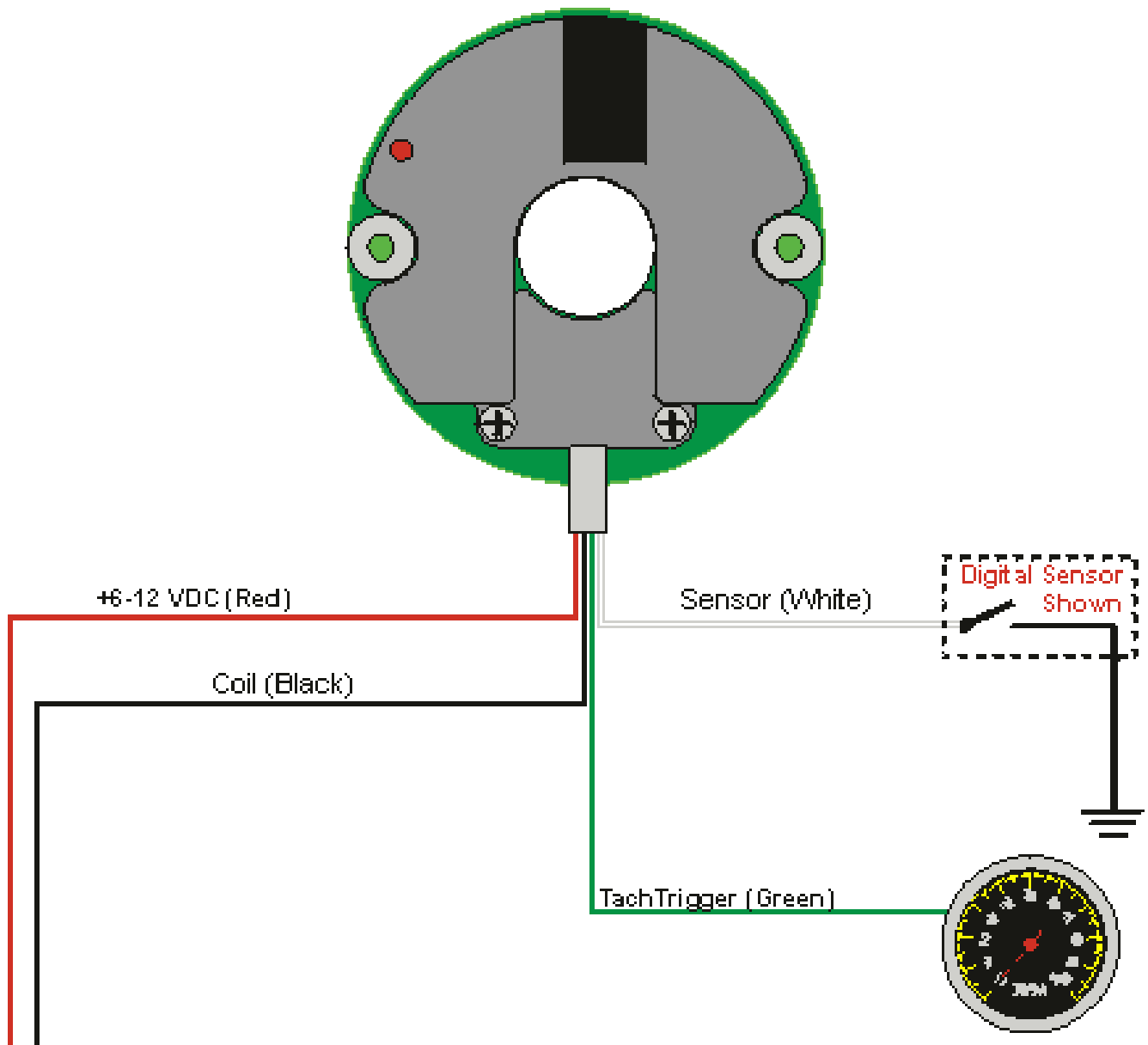
Spark Plug Wire Guidelines

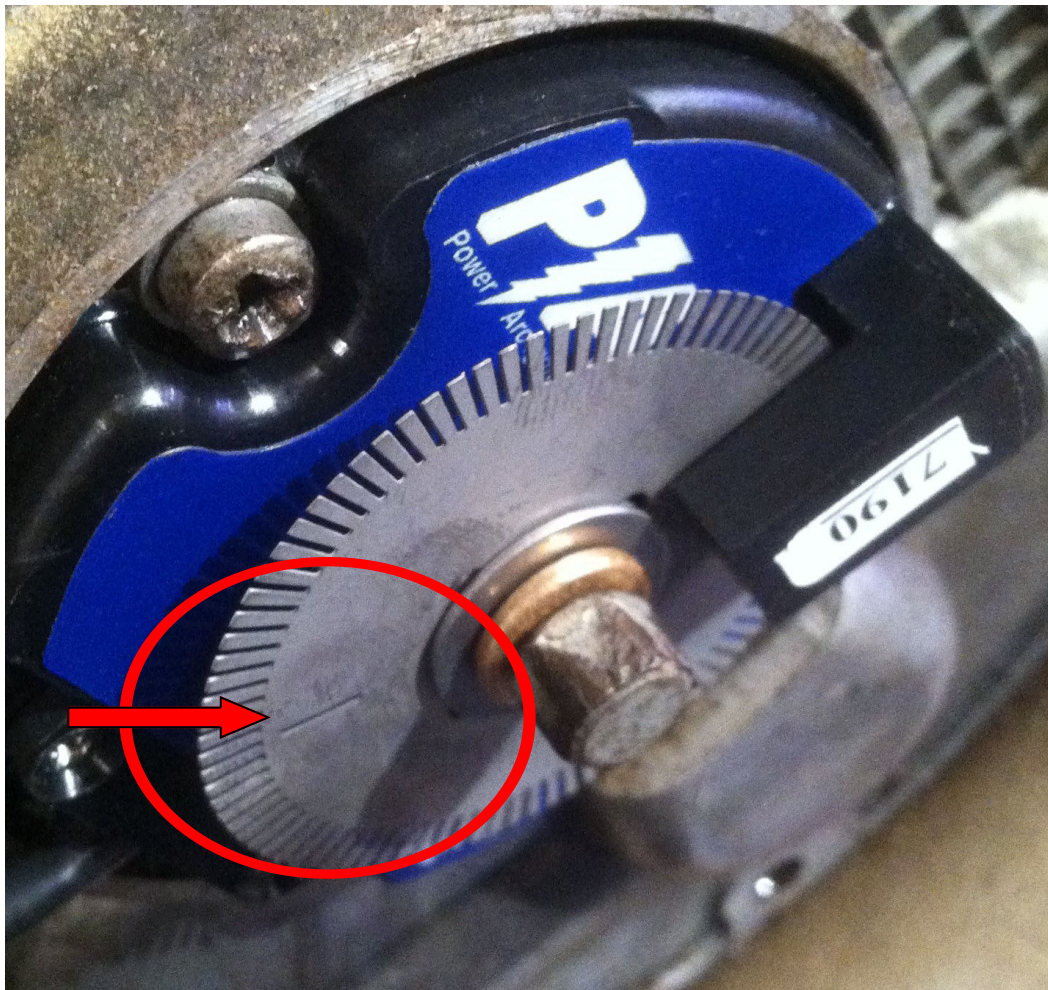
1. Use only resistor (carbon core) spark plug wires or approved spiral wound spark plug wires & resistor spark plugs.
2. Do not use spiral wound suppression of less than 800 Ohms or more per foot.
3. Failure to observe these precautions may cause ignition malfunction and could damage the ignition module or coil.

Coil Hookup Guidelines

1. Use of coils other than PA coils will result in loss of Multi-Spark capabilities.
2. Do not touch the Black coil output wire to +12 vdc.
3. A total of 2.8 ohms is the minimum allowable coil resistance.
4. Do not hook up coils with power (12 vdc) applied to the coils & ignition module.

With the Kawasaki system, you will connect the white wire to ground. If you want to have the option of a less aggressive curve (say for big hills or carrying a passenger) simply connect it to a switch. When the white wire is grounded, it will be in the most powerful curve. Ungrounding the white wire causes the ignition to use a different ignition curve (more “retarded”) to help reduce engine knocking under a load. You can always add a switch later, but don't forget to GROUND the white wire.





Step 6

You can clearly see the small slot in the encoder wheel. When this slot passes under the reader, the LED light will come on and your timing will be set.

Before you set the encoder verify your engine is still at TDC (top dead center) or check the timing mark you created in step #2. This is a wasted spark ignition so it doesn't matter which cylinder you used to find TDC.

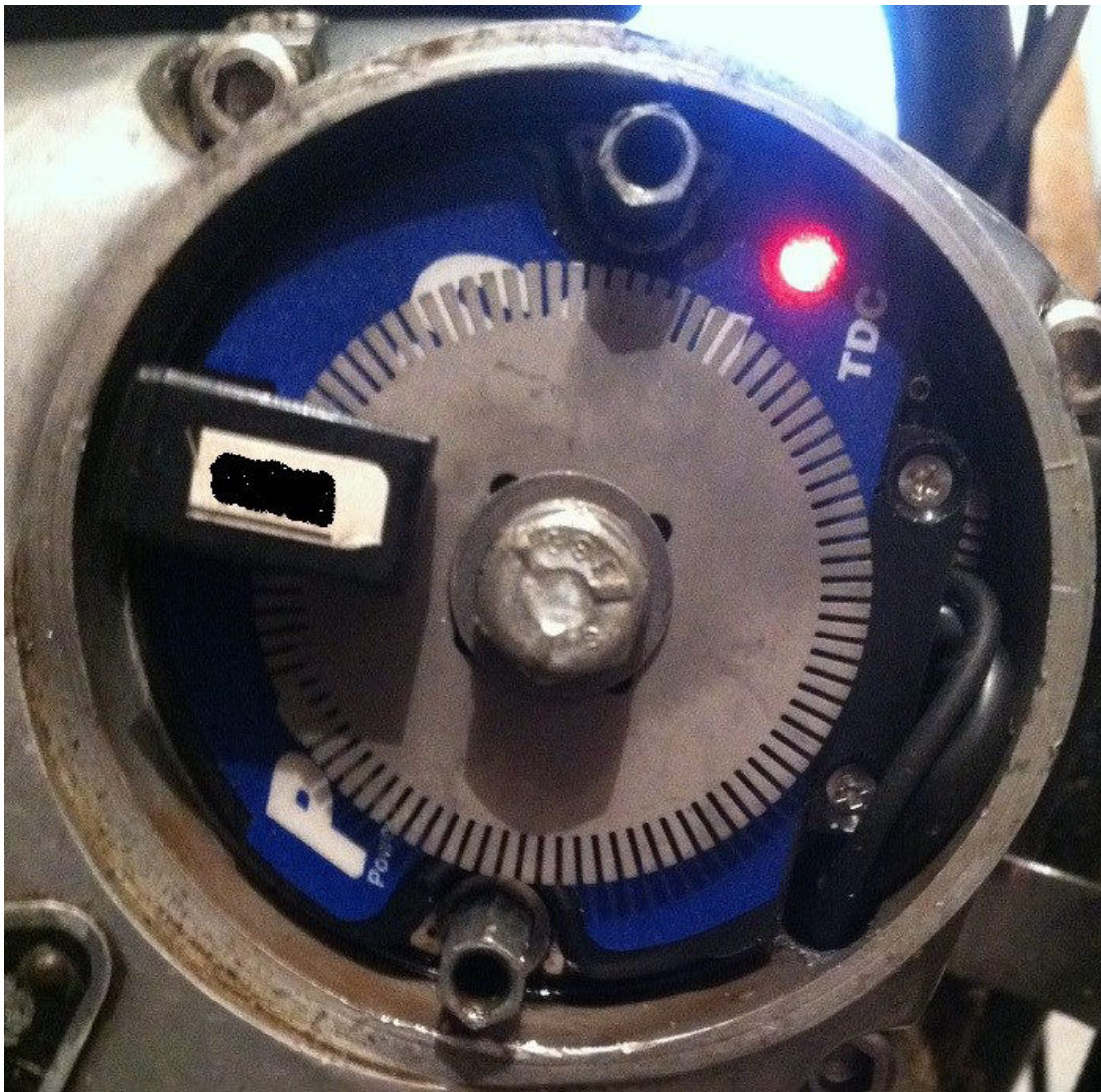
Reconnect your battery.

Carefully rotate the encoder counterclockwise until the **static timing light comes on**. This will happen when the single encoder slot passes under the optic reader.

See photos below. When the light comes on, tighten the bolt using pink 222MS locking agent. Do not over tighten or you may strip the threads.

Here is a picture of the ignition with the LED light on. Now hook up the red wire to your coil post and make sure you have your new spark plug wires securely in place.

Start your engine and go have fun!



We notice improved starting effort and often no longer need to “feed it throttle” when starting. Customers typically notice faster warm ups due to the multi-spark function of the ignition coil. If you regularly ride in wet weather apply a small amount of silicone where the wires exit the points area. The encoder is stainless steel and shouldn’t corrode under normal riding conditions.

We have put forth great effort to design and build a quality product. We encourage suggestions or improvements to the kit and/or instructions.

Happy & Safe Riding.

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