

# The Gonzo Project

## Gonzo DIY TCI

Revised 6.23.20 J.Parker

Suzuki GN250 TCI Igniter



For any questions about the Gonzo Box

Please post on the  
development/help thread  
Ggonzo Help and Development

Five Wire connection  
Uses stock TCI coil and Pickup

Much smaller than the stock TCI box  
TCI box is cheap enough to keep a spare  
under the seat.

The electronics mount on the battery box, a  
much cooler and less vibration prone area  
vs. the end of the camshaft.

Provides 20+ degrees Electronic advance

Crank Signaled No variations due to cam  
chain stretch or steampunk advancer errors.  
Timing setting stays put.

Adaptable to  
Stock TCI Bikes  
70-79 Points bikes  
PMA equipped bikes

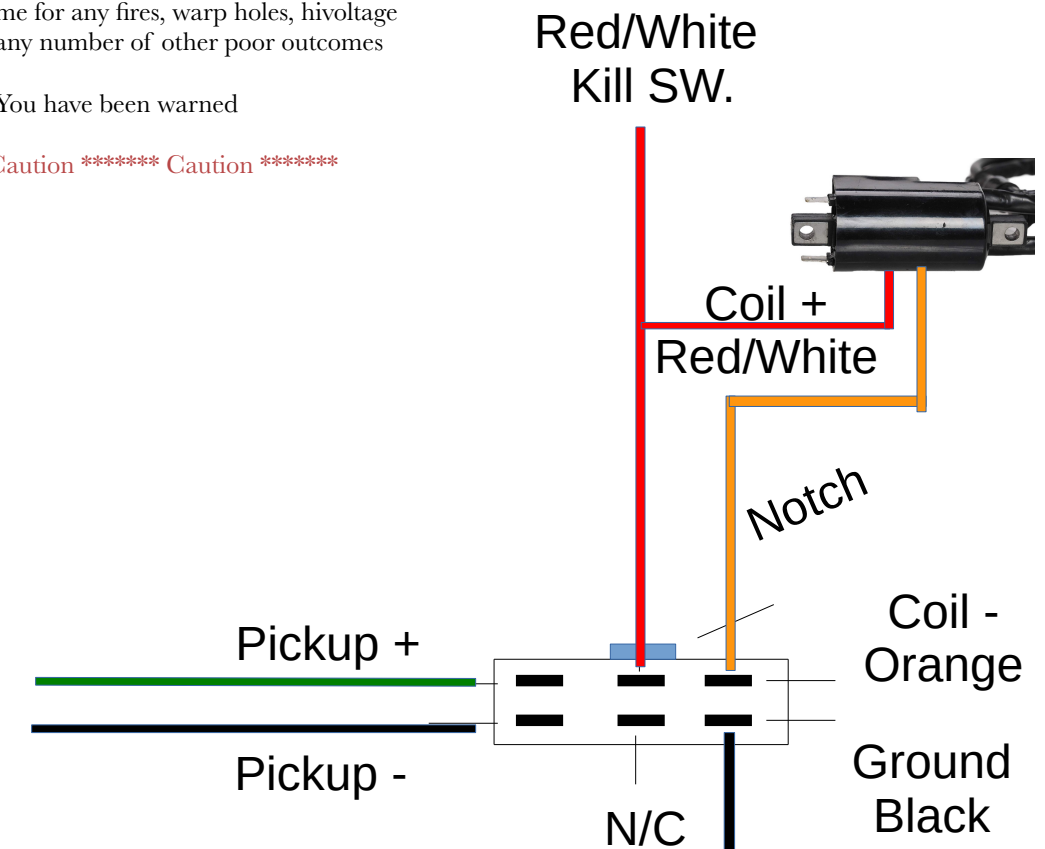
\*\*\*\*\* Caution \*\*\*\*\* Caution \*\*\*\*\*

Even viewing this drawing can be dangerous to your  
health

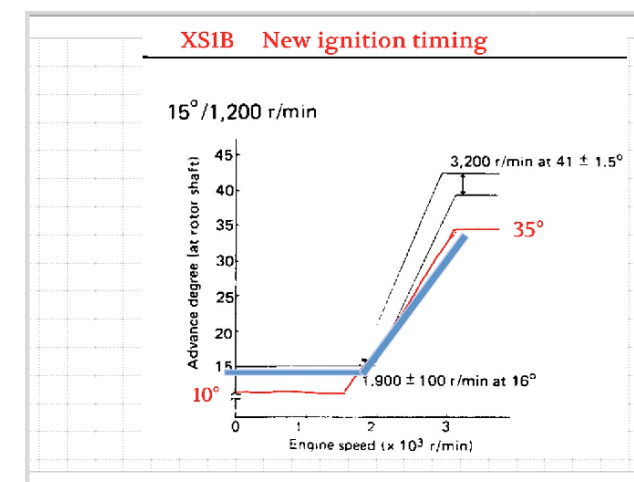
Do not blame me for any fires, warp holes, hivoltage  
arcs and / or any number of other poor outcomes

You have been warned

\*\*\*\*\* Caution \*\*\*\*\* Caution \*\*\*\*\*



gonzo Ignitor



Initial Timing set to F  
mark (15 Degrees)  
Max advance 35 Degrees  
Safer with todays fuels  
and high speed  
Interstates

This is a DIY project.

Replacing the TCI Box  
Requires  
Crimping Connectors  
Mounting the TCI

And the most important thing

A Chance to screw something up

Really Good.

You Have been warned.

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## Yamaha TCI Replacement

Uses a magnet on the alternator rotor to signal when to fire the coil. A tci igniter box senses the magnet passing a pair of coils , one retarded and one advanced, and then ungrounds the coil to produce a spark. The spark coils on these bikes are different. Both plugs are fired by one coil in a wasted spark arrangement.

The big advantage of this system is the elimination of the points, the mechanical advance unit and more precise timing on the end of the crankshaft eliminating slack in the camshaft chain affecting timing.

The big disadvantage is the the TCI box. Subject to component failures, bad soldering and voltage spikes from the 1960's era alternator. Things were bad enough when they were recent but now that new ones are not available repairing this system is sketchy at best.

.The stator for an 80 up will have the pick ups mounted on it. The pick up will be the black oval thing on the stator. It has a wire bundle coming out with the other stator wire bundle. This bundle has 3 wires. These wires hook to the TCI box with a 3 wire plug that goes into the harness..

Your rotor is 40 years or older  
Highly recommended to have your Rotor Rewound.

Highly recommended to Replace the Brushes

Check your wiring from the alternator to your harness.  
Replace any questionable wiring or connectors  
This wiring lives in a harsh environment.

The ground wire from the Gonzo needs to go to a good ground.

Check your voltage on the Red/White from the Kill Switch.

# 1980-83 TCI Bikes Install Notes

Be sure and hook up a timing light before cranking engine.

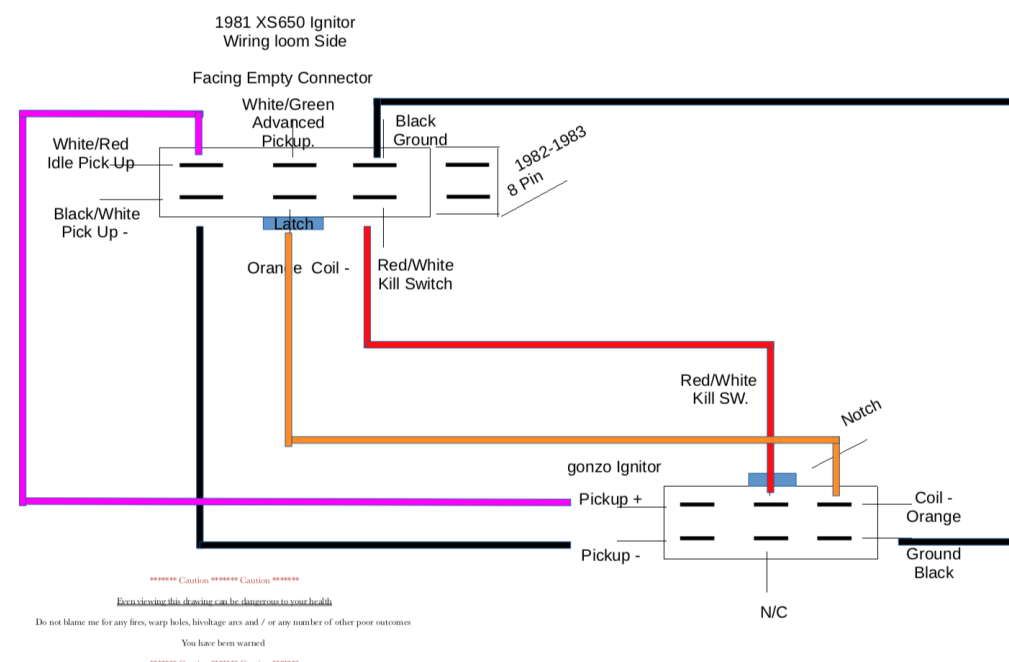
Ensure the timing mark on the rotor lines up on the F mark and once running ensure the max advance is less than 40 degrees

If the timing is off or the engine backfires try reversing the pickup leads

These boxes are inexpensive China imports and the long term durability will be determined as testing continues.

## Tools

A good crimping tool is necessary to make the pigtail .  
Hugh's Hand Built has a good one.



## 1980-83 TCI Replacement The Parts

GN250 CDI (It's really a TCI)

Optional Replacement Coil  
MP08 Honda Coil

Wiring (for 80-81TCI Bikes)  
6 Pin Female Connector  
6 Pin Male Connector

Wiring (for 82-83TCI Bikes)  
6 Pin Female Connector  
8 Pin Male Connector  
Wire

Make The Pigtail

Install The Gonzo

Plug In

Set timing

Maximum Advance

