



NAMZ Custom Cycle Products, Inc

1440 Ulmer Avenue
Oreland, PA 19075

Technical Support is available Monday-Friday, 9am-5pm EST via email at tech@namzccp.com.

Part Number: N-EFI-01



Fitment: (universal)

N-EFI-01: NAMZ Complete Stand Alone EFI System with exclusive, plug-n-play engine management harness, proprietary twist grip assembly & Thundermax ECM for Twin Cam Engines with OEM (throttle-by-wire) throttle body part # 27200002 or aftermarket equivalent ONLY.

What this kit will provide:

- This kit is intended to provide a complete stand-alone, Electronic Fuel Injection engine management system with throttle-by-wire for a Twin Cam engine.

What this system will **NOT** do:

- This system is **ONLY** for engine management! If you are building a custom bike, you will to purchase a complete bike wiring harness for all other normal functions like lighting, switches, gauges, etc.
- This system **WILL NOT** provide cruise control whatsoever.

What you will need:

- This system is designed to work on an OEM throttle body, part # 27200002 or aftermarket equivalent on a Twin Cam engine with crank position sensor ONLY.
- A fuel tank with a Big Twin or XL fuel pump.
- A non-CAN/Bus fuel gauge or speedometer with a built-in fuel gauge that can connect/read the fuel sending unit from your pump for a proper fuel reading.
- OEM style ignition coil, (HD# 31696-07A) & speed sensor, (HE# 74402-05B).
- There are (4) wires that need to be connected in the kit, 12+ power, ground, fuel pump and kill switch
- Once you are ready to tune your ECM, direct all calls or emails directly to Thunderheart as they will service the ECM as they do for any of there other ECM kits.

NOTE: Every harness is handmade here in Pennsylvania & tested before it leaves our building.

What is included in this kit?

- Engine management harness
- Twist grip sensor
- Thundermax ECM

Recommended tools:

- Wire cutter & universal crimp tool
- 10mm open end wrench
- 7/8" - 20mm open end wrench
- P1 phillips head screwdriver

WARNING!

This product should be installed by a professional motorcycle technician or reputable shop/ dealership.

Improper installation may result in chatengine damage or an electrical short.

Installation instructions:

1. Start by finding a good spot to mount the Thundermax ECM. This will help you with how/where to route the wiring harness once connected to the ECM.

NOTE: Keep in mind that the O2 sensors included in the Thundermax ECM kit connect directly into the ECM using so you need to make the O2 sensor wiring is long enough.

2. Once the wiring harness is connected to the ECM, route the wiring up towards the throttle body. This is where most of the connections will be made.
3. Start by connecting the engine temp sensor on the rear side of the front cylinder, the TMAP sensor on the throttle body, the front & rear ACR or automatic compression releases (if you have them, disregard if you do not) front injector connector (white/yellow stripe wire) & rear injector connector (green/gray stripe wire), ignition coil and TCA or throttle control actuator.

NOTE: Use supplied cable ties to keep wiring away from the engine as best as possible even though we use fiberglass insulation on the harness.

4. Install the supplied twist grip sensor by routing wires into the right side end of the handlebar, sliding TGS into the notches on the bar and being careful to protect the male terminals that are installed on the end of the harness.

NOTE: Before you install the male connector onto the twist grip sensor wiring harness, be sure to locate the (red, white, black) wiring bundle with BLUE tape around it, this is sensor #1. (See wiring diagram on page 2)

5. When you have your fuel tank with pump ready, connect our fuel pump wire, (labeled **orange/gray stripe** wire) to your fuel pump. This is the POWER for the pump, the other wires on the pump are fuel sending (to gauge), dirty ground and a clean ground. (consult an OEM service manual for the pump you are using)
9. The (labeled **white/black stripe** wire) should be hooked up to your engine stop switch. This is the output from a switch, button or key switch, the input side of the switch should be a protected switched 12+ power wire. When the switch is turned off, the bike stops running. When turned on, the fuel pump will prime.

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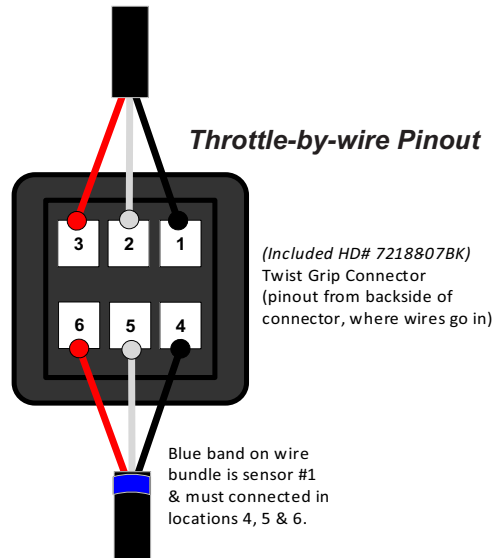
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10. The (labeled red & black wires) come with terminated ring terminals and should be connected to the battery, red going to 12-volt (+) positive and black to 12-volt (-) negative.
 11. Once all of the wires are connected as described in the instructions, the battery is connected to the bike and there is enough fuel in the tank, you can press the on/off button or turn on the key switch to see if the fuel pump primes.
- NOTE:** Depending on the amount of fuel you have in the tank, check your fuel gauge to be sure it is reading properly.
12. If the pump primes and shuts off on it's own, you are all set to move into the Tundermax instructions that come with this kit.
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NOTE: Please do not contact us with ECM or tuning questions as we will only refer you to contact Thundermax directly, we only make the wiring harness and twist grip assembly.

NOTE: We **STRONGLY** recommend having an OEM service manual to do this job properly, it is not for the faint of heart and should be done by a qualified mechanic or technician with the proper tools.

NOTE: Though this kit is virtually 100% plug-n-play with the exception of the engine stop switch wire, fuel pump power wire and installing the connector onto the twist grip harness, it still requires the proper connections and the use of a fuel gauge to be complete.



Engine Management Harness Connector Pinout

