THUNDER MAX

E F I   m a d e   s i m p l e .

Get Complete EFI Engine Management!

Does Your EFI Bike Pop? Spit? Backfire? Start Hard? Run Hot? Would you like to have full control of your EFI system, freedom to make major or minor adjustments without a master's degree in electronics and computers? ***Here is a simple solution—ThunderMax with AutoTune!*** The ThunderMax is a completely new product that replaces the factory module, not an add-on box or signal modifier. The ThunderMax is purpose-built to deliver uncompromising performance but you don't have to be a rocket scientist to program it or make adjustments.

Just how easy is it? Installation is a straightforward replacement of the factory module and oxygen sensors[*1]. The ThunderMax SmartLink software contains hundreds of base maps that cover over 80% of popular factory and aftermarket combinations, dyno-developed by Zipper's on real motorcycles. Choosing a map is a quick and easy process thanks to SmartLink's sorting filters; loading a map takes less than a minute. After that, you're ready to start the motorcycle. Once running, let the bike warm up at idle to operating temperature while the Smartlink software automatically dials in idle and warm-up settings for that particular engine and you're ready to ride! During your ride, every time you ride, the ThunderMax AutoTune module analyzes the air/fuel ratio read by the wide-band oxygen sensors at warp speed after every cylinder fire and makes any necessary adjustments to the injector pulse width to achieve the desired air/fuel ratio while compensating for variations in injectors, fuel pressure or exhaust flow. With every tank of fuel, at any temperature or elevation. That's it! All you have to do is ride.

As simple as we've made it to install and use, don't be fooled into thinking that this not one of the most sophisticated systems you can buy for your Harley®. Using the supplied SmartLink software, you can adjust or monitor virtually every parameter of the system:

- **Closed Loop AFR Targets**
- **Idle Speed**
- **Rev Limit**
- **Igniting Timing**
- **Speedometer Calibration**
- **Decel Pop Control**
- **Read Diagnostic Codes**

- **Running Statistics / Logs**
- **Accel Pump Simulation**
- **Start Fuel Pulse**
- **Engine Temp Alarm**
- **Injector Size Compensation**
- **Live Engine Tuning*2**
- **Live Monitoring**

- **Live Recording**
- **Digital Tech Compatible**
- **Nitrous Compatible**
- **Supercharger Compatible**
- **Warm-up Settings**
- ***And Many More!***

The ThunderMax makes sense in the long run as the system can grow and change as your engine does—just load a new map! ThunderMax software, firmware and maps updates are accessible 24/7 with an Internet connection so you're only a mouse-click away from the latest available data. The ThunderMax is designed and manufactured right here in the USA and backed by a 3-year warranty!

DESCRIPTION	PART NO.
ThunderMax EFI Module w/AutoTune modular combo, f. '01up Big Twin equip. w/ Delphi EFI	# 309-360
ThunderMax EFI Module w/AutoTune for '07-'08 Sportster® Models	# 309-365
ThunderMax EFI Module w/AutoTune for EFI V-Rod® Models	# 309-366
ThunderMax EFI Module Only (Open Loop Operation)	# 309-340
ThunderMax AutoTune Module kit, modular style (Adds Closed-Loop Operation)	# 309-350
ThunderMax AutoTune Module kit, original style (for pre-2007 ThunderMax modules[*3])	# 309-302

*1 - 2006 and earlier bike require installation of oxygen sensor bungs in exhaust pipes
*2 - Live tuning requires SmartLink Advanced Software (dealer version)
*3 - Requires firmware version 3.2 or higher

Complete ThunderMax EFI Systems

ThunderMax Marelli EFI Conversion Kit

Stop cussing that early EFI system, just replace it! It's no secret that the earlier Magnetti-Marelli EFI used on Evolution® and '99-'01 TC88 baggers has 'issues'—hard starting, erratic idle, harder yet to tune….if these are issues with your MM bike, this kit will solve them! We've taken our ThunderMax EFI electronics and throttle body (with the help of some specially made parts) and developed this conversion kit for bikes with the earlier systems. This kit allows you to retain the original wiring harness and gas tank, while upgrading to the same components used in our popular high performance Muscle series EFI engine kits.

Instant starting! Consistent idle! Superb performance! It's all here in this kit, and our ever-growing library of high-resolution base maps and optional AutoTune means tuning (if needed at all!) will be quick and easy. Includes detailed installation instructions and SmarTune software. Available with OE 44mm, 50mm or 54mm throttle bodies. ***You'll fall in love with your bike all over again!***

ThunderMax Marelli Conversion Kit	Part No.
'99-'01[1] TC 44mm Conversion kit (88"-95")	# 517-098
'99-'01[1] TC 50mm Conversion kit (95"-103")	# 117-050
'99-'01[1] TC 54mm Conversion kit (107"-up)	# 117-054
'95-'98[2] EV 50mm Conversion kit (80"-up)	# 117-051
'95-'98[2] EV 54mm Conversion kit (107"-up)	# 117-055
AutoTune for Marelli conversion kit[3]	# 309-302

*1 - 2000 models require adding a VSS wire to the ECM harness (instructions included)
*2 - 1995-96 models require adding a ground wire to the ECM harness (instructions included)
*3 - Data port plug 12v power wire must be rewired for use with AutoTune (instructions included)

309-302

ThunderMax EFI System for Jims 120" Engine

Got your eye on that JIMS/Screamin' Eagle® 120" engine? Here's the quick and easy way to simplify installation and tuning on an EFI bike! We've developed a ThunderMax EFI system with AutoTune just for the JIMS 120. Our ThunderMax 54mm throttle body/manifold and air cleaner system ensures enough airflow for this engine to reach its full potential. Just install the IAC, TPS, fuel rail assembly and injectors from your original system to the ThunderMax throttle body and the ThunderMax ECM and you're ready to go (kits for 2006-up bikes include 4.89/gps injectors, kits for '99-'01 models include a fully dressed throttle body). Our high resolution ThunderMax ECM with AutoTune takes the hassle out of AFR tuning. ***Just ride the bike! It really is that easy!***

Description	Part No.
'06-up[1] T-Max EFI system w/AT f/JIMS 120	# 117-250
'02-'05 T-Max EFI system w/AT f/JIMS 120	# 117-252
'99-'01 T-Max EFI system w/AT f/JIMS 120	# 117-254

*1 - Does not fit 2008 Touring models

Zipper's Performance Products • 6655-A Amberton Dr. • Elkridge, MD 21075 • www.ZippersPerformance.com

ThunderMax Nitrous Assist Dry System

Give Your Twin Cam® Some N.A.D.S.!

If you want to quickly add a lot of Horsepower to your ride here is the -biggest bang for the buck- you can buy! ThunderMax N.A.D.S. (Nitrous Assisted Dry system) for EFI Twin Cam® bikes! N.A.D.S. is a complete bolt-on "dry" system that requires no secondary fuel source for a clean, simple installation (ThunderMax ECM required). Nitrous distribution is ingeniously handled thru Smartlink software and ThunderMax for accurate control and distribution of fuel, nitrous and spark timing retard at the specific time you want the system to spray.

No bulky fuel pumps or fuel lines required! The additional fuel the nitrous requires is introduced through the existing fuel injectors. N.A.D.S. kits include a specially designed air cleaner backing plate equipped with an arming switch, nitrous solenoid, injector nozzle and Zipper's high-flow air filter.

Installation is simple, requiring installation of the air cleaner back plate assembly and bottle kit with mounts designed to fit your bike. Wiring the system in amounts to plugging two wires from the supplied harness into open ports in the ECM plug, and plugging the harness into the data port plug. After that, link to your ThunderMax and program your system settings and limits. Fill the bottle, turn on the arming switch and hang on tight!

ThunderMax ECM (shown) Not Included

Adjustments to your minimum rpm and vehicle speed nitrous activation points, along with fuel enrichment, ignition timing retard and nitrous delivery delay are configured within your ThunderMax ECM's SmartLink software. These menus are designed to allow the user to easily set up safe limitations for your engine.

This system has been thoroughly tested as a bolt on kit for all Twin Cam® 88 and 96 cubic inch engines using high flow air filters and mufflers. Show polished bottle and brackets kits are available to mount the 12-oz bottle to the chassis of Dyna®, Softail® and touring models.

Note: Installation on modified or larger than 96" displacement engines will require larger injectors and custom mapping for proper and safe operation of this system

Nitrous Setup

Nitrous	
⦿ Enable	○ Disable

Strategy	Engine RPM
0 id	3008 rpm
Vehicle Speed	Fuel Enrichment
35 MPH	32 pct
Delivery Delay	Ignition Timing
3 msec	2 deg
	OK

- *Installation is quick and easy!*
  The **N.A.D.S.** sysem is 95% pre-built and takes about 30 minutes to install!

- *Compatible with ThunderMax Open or Closed Loop Systems (sold seperatly)*

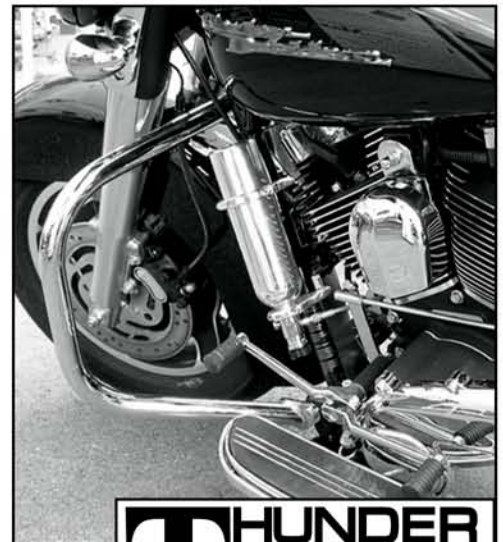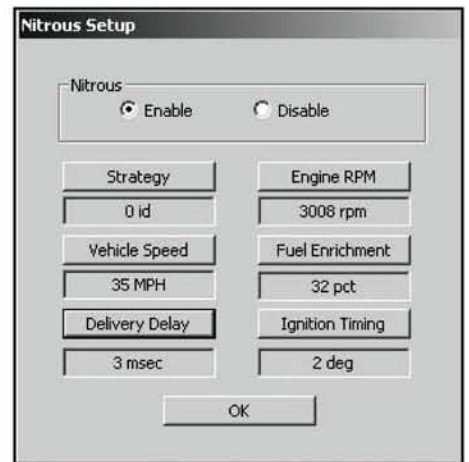- *No bulky fuel pumps, fuel lines, or sandwhich plates required!*

- *Includes:* Backing plate, High-Flow ThunderBird air filter, arming switch, nitrous solenoid, and injector nozzle

- *Brackets available to mount the show polished 12-oz bottle to Softails®, Dynas® & FLs®*

- *Designed for 88"-96" EFI TC Engines*

DESCRIPTION	PART NO.
N.A.D.S. Backplate/Solenoid Kit (Main Component)	**#109-210**
N.A.D.S. FL (Touring) Model Bottle/Bracket Kit	**#109-220**
N.A.D.S. Softail® Model Bottle/Bracket Kit	**#109-230**
N.A.D.S. Dyna® Model Bottle/Bracket Kit	**#109-240**
N.A.D.S. 12oz Bottle Only	**#109-250**

THUNDER MAX

ThunderMax Digital Speedometer

Have 10 Minutes? Then you have time to install the Digital Performance Speedometer Module on your bike. Installation requires no special tools... just one fastener and one connector! The Digital Performance Speedometer Module brings multiple high performance features to your fingertips.

The ThunderMax Digital Speedometer takes place of your stock speedometer and performs normal speedo-odometer functions, and a whole lot more! Using information from the ThunderMax ECM, the thunderMax Digital Speedometer becomes your own Information Command Center!

309-400

- Simple, two-button programming
- Speed/Tach/Odometer, trip functions, programable shift light
- Calculates HP, 0-60 time, fuel mileage and range
- Displays engine "vitals"
- Alarms for speed, head temp and battery voltage
- Illumination automatically adjusts f/day or night viewing
- Direct replacement f/'04up EFI bikes w/ 5" speedo console
- Displays live front/rear air/fuel ratios if bike is equipped with ThunderMax EFI and ThunderMax AutoTune module

DESCRIPTION	PART NO.
ThunderMax Digital Speedometer (Black Face)	#309-400
ThunderMax Digital Speedometer (White Face)	#309-405

Additional Accessories

A. Bench-Top 12 Volt Power Supply

Allows for off-motorcycle, bench-top programming with the ThunderMax EFI controller.

Power Supply Includes
- Power Supply
- Switch Box
- Adapter Plug for ECM

A

B. ThunderMax USB/Serial Port Adapter

If your laptop or PC does not have a serial port, this inexpensive adapter will instantly add a serial port to your computer for communicating with the ThunderMax EFI controller.

- Supports 1.0 and 2.0 USB ports
- Windows 98/2000/ME/XP friendly
- Includes driver installation software

B

C. Weld-In Oxygen Sensor Bungs

For exhaust systems w/out installed 02 sensor bungs. Weld-In. *Sold each. Two Required*

C

D. 12 Ft ThunderMax Communication Cable

Longer than the standard ThunderMax Communication Cable, this 12 foot long version allows for module programming from a distance. Ideal for ThunderMax installations and on-bike programming. Also suitable for use with the Bench-Top 12 Volt Power Supply.

DESCRIPTION	PART NO.
A. ThunderMax Bench-Top 12 Volt Power Supply	#309-325
B. ThunderMax USB/Serial Port Adapter	#372-000
C. Weld-In Oxygen Sensor Bungs	#272-200
D. 12ft ThunderMax Communication Cable	#309-322

D