



# MSD

## LS PRODUCT GUIDE

ATOMIC EFI | IGNITION CONTROLS | LAUNCH CONTROLS | STARTERS | COILS & BRACKETS | SPARK PLUG WIRES | RACE ACCESSORIES

[MSDPERFORMANCE.COM](http://MSDPERFORMANCE.COM)



# ATOMIC™ EFI LS



## Do-It-Yourself Electronic Fuel Injection

MSD is breaking new ground in electronic fuel injection with the next generation of Atomic EFI – the all new Atomic LS system. Where the Atomic TBI consolidated electronics and sensors into the throttle body itself, the LS platform incorporates the electronics into the fuel rails of the system! There's no bulky ECU to mount and therefore no wires to route to and from – it's all on the engine, hidden in plain sight.

**PATENT  
PENDING**

There's no need for a PC, complicated software or tuning experience. Simply bolt it on, plug it in, answer a few car-guy questions using the supplied handheld controller and start the engine. The Atomic LS will begin learning and tuning your LS engine as soon as you fire it up. Advanced adjustments can be made to air/fuel targets, pump squirt, ignition timing and much more. The self tuning Atomic LS system will give you the performance and driveability you expect from your LS engine.

MSD has a variety of advanced programming features that are simple to navigate using the handheld programmer. These unique features allow you to get the most performance and benefits from your new Atomic EFI system.

### Master Kits

**LS2/LS3 Kit, PN 2950\***

**LS7 Kit, PN 2960\***

**LS Truck Kit, Early Model**

with 3-bolt throttle body, **PN 2957\***

**LS Truck Kit, Later Model**

with 4-bolt throttle body, **PN 2958\***

**NOTE:** Fuel pump, hoses and injectors are NOT supplied.

### Install Kits

If you're working with an LS1/LS6 engine and intake combination, different fuel rail brackets and injector connectors will be required to install the PN 2950 Master Kit. This install kit will provide the proper brackets and injector connectors.

**Installation Kit for LS1/LS6 Intake Systems, PN 2955\***

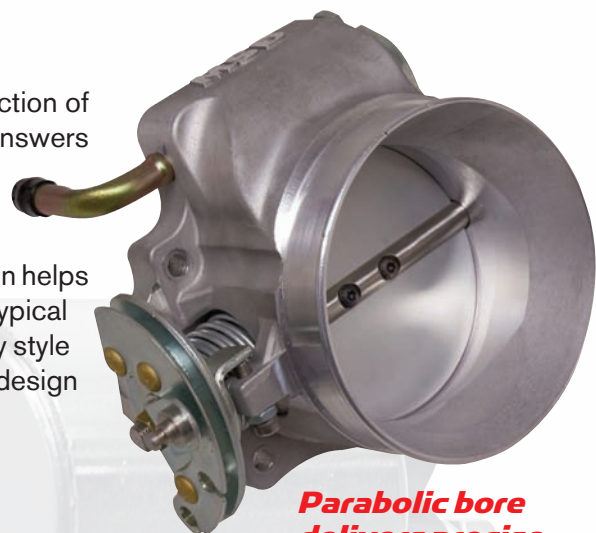
*\*Must be used with Master Kit, PN 2950.*

- **Integrated electronic/fuel rails significantly reduces the amount of wiring**
- **No PC and self-learning technology eases the installation and setup**
- **Improves the aesthetics of the engine bay with less wires and NO ECU to mount**
- **Supports up to 1,000 horsepower**
- **Accepts Mechanical and Electronic Throttle Control\* Systems**  
*(ETC System, Available Early 2014)*
- **Single WB02 included and a second sensor can be added**
- **Recognizes 24- or 58-tooth crank trigger wheels**
- **Boost/Nitrous compatible (Supports Wet Nitrous systems only)**
- **Adjustable temperature outputs to activate two cooling fans**
- **Advance or retard the ignition timing up to 10°**
- **Select a rev limit through fuel or ignition cut-off**
- **Compatible with OE Variable Cam Timing Control**

## Atomic™ LS Throttle Body

When you run an LS engine, performance begins with the introduction of air into the intake manifold. MSD's new 90mm LS Throttle Body answers the need for a high quality throttle body with a cable driven throttle mechanism that bolts to most factory and aftermarket intakes.

MSD invested the time and resources to develop a cast throttle body assembly in order to achieve a unique parabolic bore. This design helps deliver excellent driveability characteristics during part throttle that typical billet straight bore throttles just can't deliver. We incorporated factory style bearings and seals on the throttle blade to achieve a very robust design that can withstand temperature swings seen in street applications.



**Parabolic bore delivers precise driveability during part throttle**

**Atomic LS 90mm Throttle Body, PN 2940\***  
**TPS/IAC Kit for LS Throttle Body PN 2940, PN 2942**

## Atomic™ LS Accessories

The Atomic LS is the best way to get your engine running and these Covers will help make the engine look as good as it runs! These cast aluminum coil covers are completely integrated with the Atomic LS, providing a clean way to hide the LS coils while enhancing the look of the LS engine. Covers are available in red, black and unfinished aluminum that can be customized to fit the look of your engine compartment.\*\*

### Fuel Rail Covers:

**Red Finish, PN 2973**  
**Black Finish, PN 2974**  
**Un-Finished, PN 2975**

### Coil Cover Kits:

**Red Finish, PN 2970**  
**Black Finish, PN 2971**  
**Un-Finished, PN 2972**

\*\*Covers shown are for illustration purposes only and are not available for purchase.



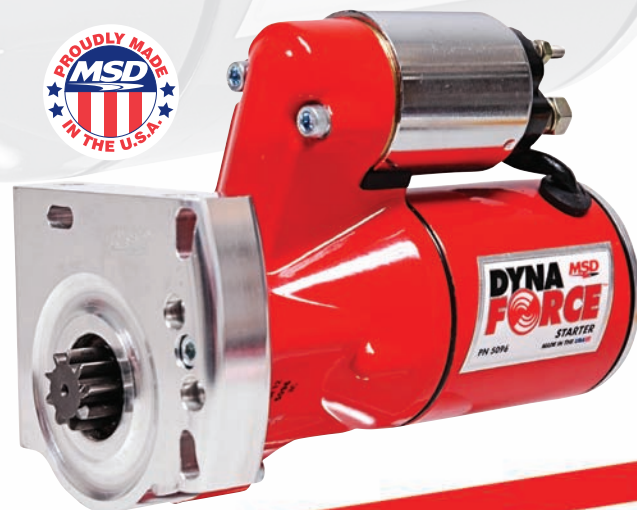
## MSD DynaForce Starter

You may have all the spark energy you need, but if your starter won't spin the engine, you're not going anywhere. MSD's DynaForce Starters will crank your engine over to get it fired up every time! Our Dynaforce Starters are designed to crank the highest compression engines on a hot day in Death Valley. Not that too many cars are sitting in Death Valley, but it's good to know that you have the oomph to make it happen.

MSD DynaForce Starters are made to crank. A 3.4 horse motor spins a reduction set of gears with a 4.4:1 ratio to deliver incredible torque. The armature is supported by ball bearings and we plate the internal contacts and disc to reduce arcing while improving continuity.

**DynaForce Starter for GM LS1-LS7, PN 5096\***

*Will not fit many late model Pontiac LS applications.*



\*Not legal for sale or use on pollution controlled vehicles.





## 6 LS Ignition Control for Carb'd Engines

The 6LS and 6LS-2 Ignition Controllers are perfect for all the enthusiasts that want to build a carburetor equipped LS engine. While it may seem blasphemous to some, putting a carburetor on a GM Gen-III V-8 is a great option for those wanting the advantages of the aluminum small block without the headaches of wiring a factory EFI system.

These controllers allow you to program much more than just a timing map. Additional features include a launch rev limiter ("2-Step") to get you off the line, max rev limiter for the top end protection, and a step retard in case you add a nitrous shot. Best of all, with the Pro-Data+ software, there is no need to hire a tuner, the average guy can do it with his own laptop! The boxes plug in to factory coil harnesses for a painless installation. Only a handful of connections are required; the coils, crank sensor, MAP sensor and the cam sensor. You'll have your carb'ed LS running in no time!

**LS1/LS6 (24 tooth trigger), PN 6010\*\***

**LS2/LS7 (58 tooth trigger), PN 6012\*\***

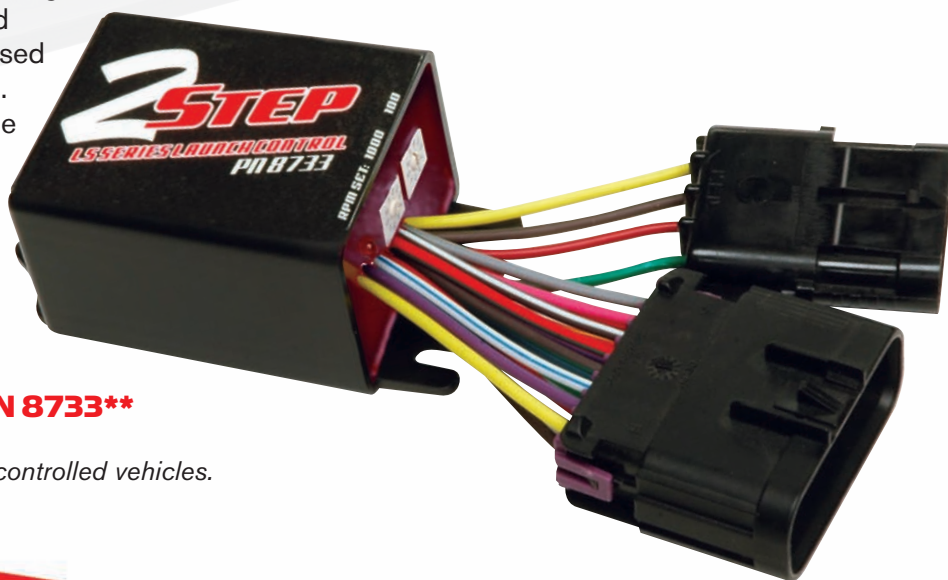
## 2-Step Launch Control

If you own an LS there is a good chance you'll want to show it off on occasion. The best way to impress is with a good launch from the starting line (along with a win).

Getting a production engine to hold steady for a consistent, hard launch used to be a problem - MSD has a solution. The LS 2-Step connects directly to the factory wiring harness and allows a lower rpm limit to be set. With this wired in to your clutch, brake, or even a button in the cockpit, the result will be a more consistent launch to make your LS even more impressive.

**2-Step Launch Control, PN 8733\*\***

**\*\*Not legal for sale or use on pollution controlled vehicles.**



# Multiple Spark Coil Kits

MSD makes coil sets to complete your LS's ignition transformation. These are smart coils that fit to each cylinder just like GM originals. MSD took it a step up with added power and multiple sparks plus, up to 30% more spark energy. There are three types of MSD coils that cover most of GM's models.



**CARB**  
APPROVAL  
PENDING



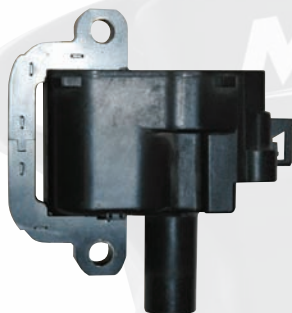
	<b>Singles</b>	<b>8-Pack</b>
<b>LS1/LS6 Engines,</b>	<b>PN 8285</b>	<b>PN 82858</b>
<b>LQ Truck Series,</b>	<b>PN 8286</b>	<b>PN 82868</b>
<b>LS2/LS7 Engines,</b>	<b>PN 8287</b>	<b>PN 82878</b>

## Identifying your coils

GM used a variety of coils on these engines, so the best way to identify the coil you need is through visual comparison. We've tried to break our three coils down to the most common applications:

### MSD PN 82858 replaces:

'98-'04 GM Car w/VIN G  
'98-'03 Trucks w/VIN E and D  
Connector and plug wire on same side.



### MSD PN 82868 replaces:

'99-'06 GM 4.8L, 5.3L, 6.0L  
'03-'06 Hummer 6.0L  
VIN Z, N, T, V, U, B and P  
Connectors on opposite ends.



### MSD PN 82878 replaces:

'05-'09 Cars 5.3L, 6.0L, 7.9L w/VIN M and C  
'05-'09 Trucks 5.3L, 6.0L w/VIN M, U and H



The 8th digit in the VIN is the engine code.





## LS Coil Brackets

While few would think to question the LS-series' technical abilities, many auto enthusiasts agree its looks leave a little to be desired. MSD is helping to dress-up the top of the LS and make it look as good as it performs. These replacement coil mounts bolt into the stock location with no modification. The machined aluminum practically begs to accent the engine and lets you get rid of that ugly stamped metal from the factory.



LS1/LS6 OE or MSD Coils PN8285, **PN 8215**  
LS2/LS7 OE or MSD Coils PN 8287, **PN 8216**

## 8.5mm Super Conductor Spark Plug Wires

If getting the most out of your engine's ignition system is important to you, then MSD Super Conductor Spark Plug Wires are a must. The 8.5 mm Super Conductors were designed by MSD engineers to perform as the ultimate wires for top level racing teams and now they are available for your LS.

	Red	Black
Universal Sets .....	<b>PN 32079</b>	<b>PN 32073</b>
LS Cars .....	<b>PN 32819</b>	<b>PN 82313</b>
LS Trucks .....	<b>PN 32829</b>	<b>PN 32823</b>
8.1L w/Heat Guard .....	<b>PN 39849</b>	

Universal sets are extra long wires with two style boots - designed for coil relocation kits.



## Front Drive Distributor

MSD's Pro-Billet Front Drive distributor is the solution for racers that want to run a traditional ignition control. The MSD Front Drive distributor is belt-driven from a pulley installed on the camshaft. For increased strength and durability a 9mm belt is used which is wider than any other drive assembly. The distributor head is CNC-machined from billet aluminum and is secured to a strong precision bracket. This system is an extremely accurate way to distribute the spark energy from your MSD Ignition!

### LS Front Drive Distributor, PN 8712\*\*

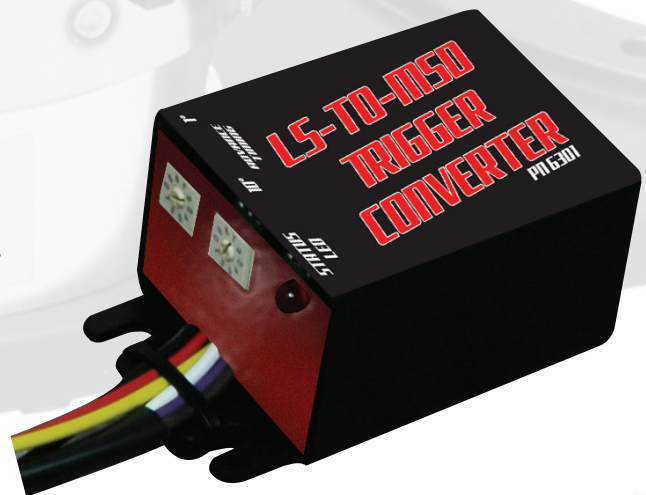
*Note: Must be used with a belt drive.*



## Trigger Signal Converter

MSD's front drive distributor traditionally needs a crank trigger wheel to generate a signal, but that's no longer necessary! The LS to MSD Trigger Converter makes it a breeze to trigger your standard MSD ignition controller on an LS engine. This device plugs into the factory crank sensor of an LS engine and converts the original trigger signal into a 4 pulse, 12-volt square wave signal to trigger an MSD Ignition Control such as a Power Grid Ignition Control. This is the best option for anyone that plans to use a front drive distributor!

### LS to MSD Signal Converter, PN 6301\*\*



**\*\*Not legal for sale or use on pollution controlled vehicles.**







MSDPERFORMANCE.COM  
TECH LINE: 915-855-7123

FRM 31809