MSD Coil Power Booster for Ford 4.6L/5.4L Mod Motors '99-On PN 8740

ONLINE PRODUCT REGISTRATION: Register your MSD product online. Registering your product will help if there is ever a warranty issued with your product and helps the MSD R&D team create new products that you ask for! Go to www.msdperformance.com/registration

Parts Included:

- 1 Coil Power Boost ECU
- 1 Harness (2-Pin Coil)

Parts Bag:

- 4 Vibration Mounts
- 4 Mounting Screws
- 4 Lock Washers
- 4 Nuts

Note: The **Coil Power Booster** is equipped with a low-RPM rev limiter for staging purposes. This limiter does not modify or override the stock high-RPM rev limiter.

FEATURES

The **Coil Power Booster** is designed for Ford Modular Engines with Coil-on-Plug ignitions. It increases the peak current at the ignition coil and it also increases the spark energy at the plug gap. Increased spark energy reduces cycle-to-cycle variability under high cylinder pressures - such as those encountered when using a power adder. The **Coil Power Booster** has a built-in Two-Step which can help achieve consistent launches and quick 60-foot times. The Launch rev-limiter RPM adjustments are made via two rotary switches. The adjustment range is from 1,000 - 10,900 rpm, in 100 and 1000 rpm increments, an LED will illuminate when the launch rev limit is not active and will blink when the launch rev limiter is active.

Note: It is recommended to have the service manual for your vehicle.

Caution:

Prolonged use of the low RPM limiter may cause the Check Engine Light to turn on and can cause damage to catalytic converters.

MOUNTING

The **Coil Power Booster** should be mounted in a position where the rotary dials are accessible for adjustments. Hardware is supplied to mount the unit, but first confirm the wiring harnesses reach their intended connection points before securing it into place.

WIRING		
8-WIRE CONNECTOR		
TAN (8)	Signal Connections	
8-WIRE CONNECTOR		
RED	Common 12V power connection for all eight coils.	
4-WIRE CONNECTOR		
BLACK	Connect to a good engine ground or the negative terminal of the battery.	
BLUE	Activation Wire. When grounded, the launch RPM limit feature will be active and the LED on the unit will blink.	
WHITE/BLUE	Activation Wire. When switched to 12 volts, the launch RPM limit feature will be active and the LED on the unit will blink.	
GREEN	Coil Power Boost Activation wire. Connect to a good engine ground for continuous operation or switched ground for on-demand operation.	

WIRING

- 1. Connect the 4-pin harness to the MSD Coil Power Booster.
- 2. Connect the Black wire to a good engine or chassis ground, or to the negative terminal of the battery.
- 3. Disconnect the 2-pin connectors from each of the eight ignition coils.
- 4. Connect all eight of the 2-pin male connectors, from the MSD harness, into the factory coil harness female connectors.
- 5. Leave the 8 coils disconnected.
- 6. On the MSD unit, connect the 8-pin connector, with the single Red wire, to the MSD coil harness connector that has eight Black wires.

Note: Ensure that all 8 coils remain disconnected prior to performing the next step.

- 7. Turn the key to the On position DO NOT START THE ENGINE. Check the LED on the MSD unit:
- LED On This confirms that the MSD harness configuration is correct and you can move to step 8 (Figure 1).
- LED Off The MSD harness connection needs to be changed in order to match the OEM layout. Turn the key Off and swap both 8-pin harness connectors relative to their current positions. (See note in Figure 1).
- 9. Connect all eight of the female 2-pin connectors, from the MSD harness, to the ignition coils.

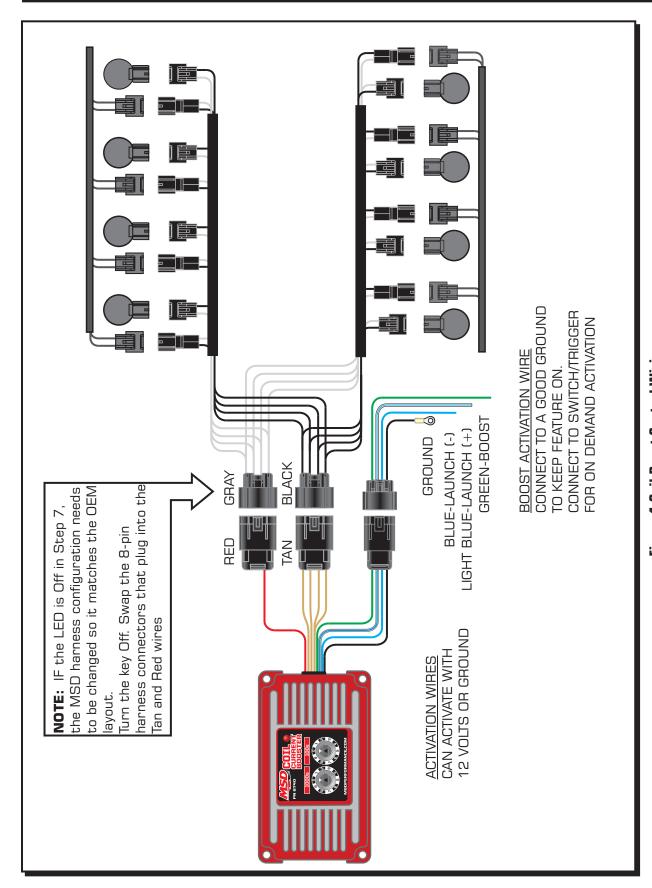


Figure 1 Coil Boost Control Wiring

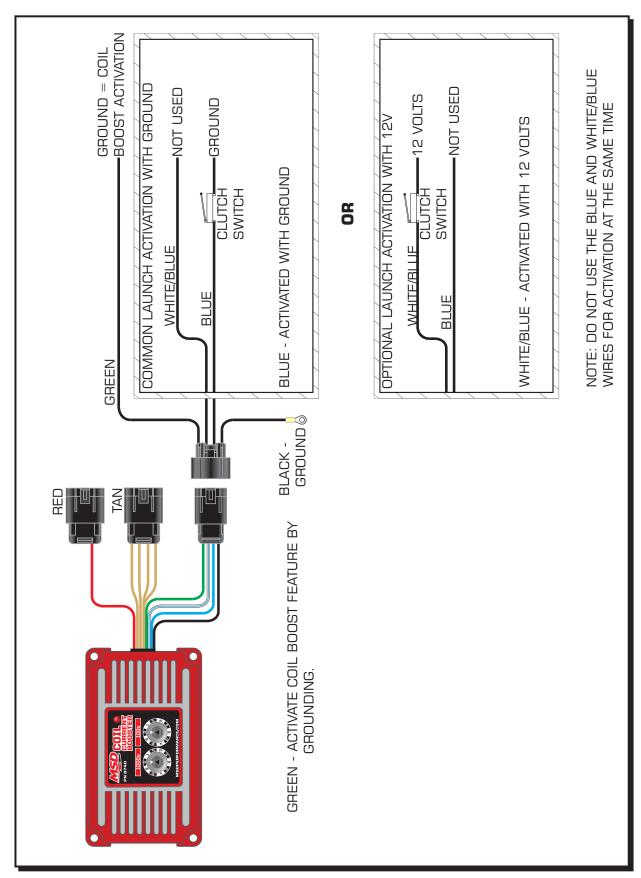


Figure 2 Connecting the Launch RPM Limiter and Coil Power Boost Activation Wires

VERIFY LAUNCH RPM LIMITER OPERATION

With the engine running, activate the clutch switch or momentary limiter activation switch. If connected correctly, the LED will blink when the switch is activated and remains on when it is not activated. To verify RPM Limiter operation, set the limit at a lower rpm, such as 3,000, and test the system by gradually opening the throttle until the limiter becomes active.

TROUBLE SHOOTING:

MODE	LED STATUS
Normal	Solid ON
Launch Mode	Blink slow, 4 times per second (4 Hz)
Fault	Blink fast, 8 times per second (8 Hz), and OFF for a second. Potential cause: One or more of the coil wires are not connected properly to the Coil Power Booster.

ACTIVATION

Launch Mode: Engine speed is at least 7/8 below the rev-limiter setting and the Blue wire is grounded or the White/Blue wire is powered with 12 Volts.

Normal Mode: Both Blue and White/Blue wires are disconnected.

Power Boost Mode: The Green wire is grounded and the unit is not in Launch Mode.

If the engine has trouble starting or running, check the following:

- Ground
- Coil connections
- The two 8-pin connectors may be in the wrong position and should be swapped and tested again.



TECH NOTES

Service

In case of malfunction, this MSD component will be repaired free of charge according to the terms of the warranty. When returning MSD components for warranty service, **Proof of Purchase** must be supplied for verification. After the warranty period has expired, repair service is based on a minimum and maximum fee.

All returns must have a Return Material Authorization (RMA) number issued to them before being returned. To obtain an RMA number please contact MSD Customer Service at 1 (888) MSD-7859 or visit our website at www.msdperformance.com/rma to automatically obtain a number and shipping information.

When returning the unit for repair, leave all wires at the length in which you have them installed. Be sure to include a detailed account of any problems experienced, and what components and accessories are installed on the vehicle. The repaired unit will be returned as soon as possible using Ground shipping methods (ground shipping is covered by warranty). For more information, call MSD at (915) 855-7123. MSD technicians are available from 7:00 a.m. to 5:00 p.m. Monday - Friday (mountain time).

Limited Warranty

MSD warrants this product to be free from defects in material and workmanship under its intended normal use*, when properly installed and purchased from an authorized MSD dealer, for a period of one year from the date of the original purchase. This warranty is void for any products purchased through auction websites. If found to be defective as mentioned above, it will be repaired or replaced at the option of MSD. Any item that is covered under this warranty will be returned free of charge using Ground shipping methods.

This shall constitute the sole remedy of the purchaser and the sole liability of MSD. To the extent permitted by law, the foregoing is exclusive and in lieu of all other warranties or representation whether expressed or implied, including any implied warranty of merchantability or fitness. In no event shall MSD or its suppliers be liable for special or consequential damages.

*Intended normal use means that this item is being used as was originally intended and for the original application as sold by MSD. Any modifications to this item or if it is used on an application other than what MSD markets the product, the warranty will be void. It is the sole responsibility of the customer to determine that this item will work for the application they are intending. MSD will accept no liability for custom applications.

FRM34202 Created 01/17 Printed in U.S.A