

# MSD INSTALLATION INSTRUCTIONS

## MSD Coil-Near-Plug Smart Coil

PN 8289 / PN 8289-8 / PN 82893 / PN 82893-8

**ONLINE PRODUCT REGISTRATION:** Register your MSD product online and you'll be entered in our monthly 8.5mm Super Conductor Spark Plug Wire give-away! Registering your product will help if there is ever a warranty issue with your product and helps the MSD R&D team create new products that you ask for! Go to [www.msperformance.com/registration](http://www.msperformance.com/registration).

**IMPORTANT:** Read the instructions before attempting the installation.

**Parts Included, PN 8289 / PN82893:**

1 - Coil  
1 - Parts Bag

**Parts Included, PN 8289-8 / PN 82893-8:**

8 - Coils  
1 - Parts Bag

**WARNING:** During installation, disconnect the battery cables. When disconnecting the battery, always remove the Negative cable first and install it last.

MSD's smart coils are designed with a universal mounting bolt pattern. The bolt spacing is compatible with LS-style passenger car coil mounts, such as the ones on Holley's LS valve covers.

### SPECIFICATIONS

Peak Voltage - 50,000 Volts @ 7.0 ms  
Peak Output - 190 mJ @ 7.0 ms  
Max Battery Voltage - 17.0 Volts  
Mating Connector - Delphi P/N 12162825  
Connector Pin - Delphi P/N 12124075

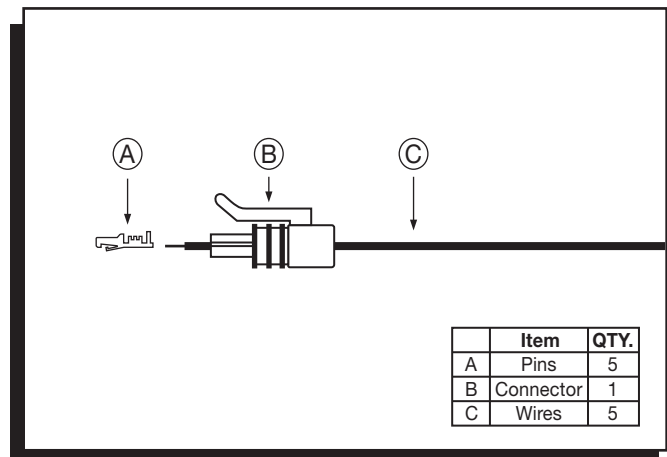


Figure 1 Connector Assembly.

### WIRING

The connectors for the coils must be assembled and wired. Connector assembly procedure is stated below, and wiring for connector is mentioned on the following page along with recommended wire gauges.

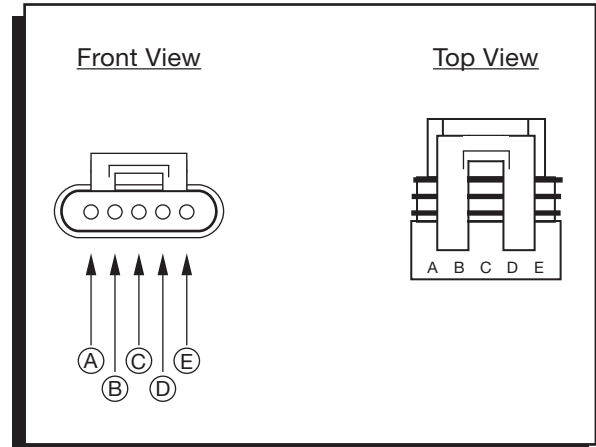
Connector assembly (Figure 1):

- Feed wire through the back of the housing and out the front side
- Crimp pins onto the wire
- Pull back on the wires to seat in the connector cavities

Note: The following pin designations mentioned in each of the five connector pins refers to Holley's HP and Dominator EFI systems.

The connector cavities are labeled for the corresponding pins (Figure 2). Each pin must be wired to the location mentioned below. For Holley system pin call outs refer to the wiring instructions of EFI system being used.

- **Pin A** - Coil Trigger. Connects to individual ECU EST Outputs. EST A goes to cylinder 1, EST B to cylinder 2, etc. This uses a 5 Volt signal to trigger the coil.
- **Pin B** - Coil Trigger Ground. All grounds can be tied together and go to Pin B14 ("EST Ground Output").
- **Pin C** - Ground to cylinder head. This ground must go to the cylinder head that the coil is discharging to. It is recommended to tie each cylinder bank together. Do not connect any other grounds to this point. Recommended gauge to use is an 16-18 gauge for each coil then tie them to a single 10-12 gauge wire.
- **Pin D** - Battery Ground. This is a high current ground that should go to the battery or a ground stud that is directly connected to the battery. Recommended gauge wire is 16-18 then tie to a single 10-12 gauge wire.
- **Pin E** - High current switched +12 Volt Power. Do not connect directly to the battery. It is recommended to install to a 40 Amp relay source. Again use 16-18 gauge wire for each coil, then tie to single 10-12 gauge wire.



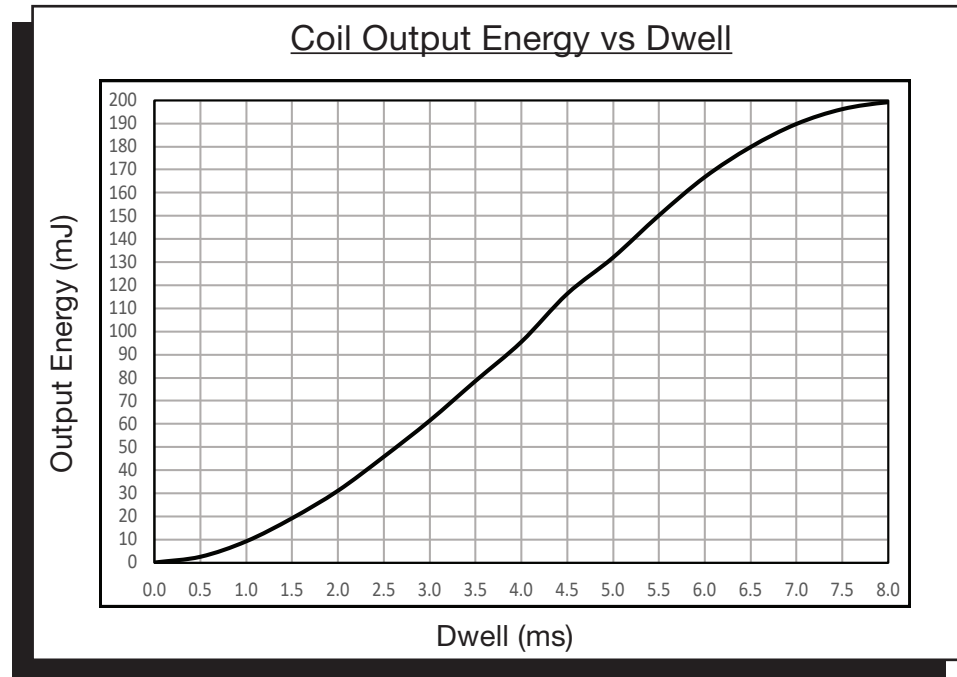
**Figure 2 Connector Pin Diagram.**

## **DWELL SETTING**

Note: In order to determine the correct dwell setting, first determine your engines HP per cubic inch. To do this divide the engines horsepower by engine displacement in cubic inches. Once determined, follow the dwell setting recommendations below.

- For street cars below 1.5 HP per cubic inch, dwell should be set to 4.0 milliseconds.
- For cars that exceed 1.5 HP per cubic inch, dwell should be set to 4.5 milliseconds.
- For long duration racing, such as road racing or off-road, dwell can be set to 5.0 milliseconds.
- For short duration racing, such as drag racing, dwell can be set to 7.0 milliseconds.

**A graph showing energy output vs dwell is shown on the next page (Figure 3).**



**Figure 3 Energy Output Graph.**

### 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.msperformance.com/rma](http://www.msperformance.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 (888) 258-3835. 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.