



# INSTALLATION INSTRUCTIONS

## MSD Pro-Billet Front Drive Distributor

With Adjustable Hall-Effect Sync Pickup

Chevrolet Small Block, PN 85101 - Big Block, PN 85201

**ONLINE PRODUCT REGISTRATION:** Register your MSD product online. 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).

### Parts Included:

1 - Distributor Assembly	1 - 7/16" Washer	1 - Wire Retainer
4 - Socket Cap Screws. 1/4" - 20	1 - Cam Adapter	1 - Coil Wire Retainer
1 - 1/4" Washers	1 - Timing Belt	2 - Wire Retainer Screws
1 - 12-Point 7/16"-20 Bolt	1 - Timing Belt Pulley	

**Note:** MSD currently offers distributors plugs for Chevrolet engines: PN 8513.

## ASSEMBLY

Prior to installation, it is recommended to position engine at your desired timing.

1. Install the distributor assembly using the four supplied socket head cap screw and washers (Figure 1).
2. Install the camshaft pulley with the supplied cam adapter, washer and 12-point bolt (Figure 2). Note that the threads are reversed. Coat the threads of the bolt with 30-weight motor oil or ARP moly lube. Torque it to 90 lb-ft with motor oil or 70 lb-ft with the ARP lube. Loop the belt over the timing belt pulley.
3. With number one cylinder at the desired timing, position the rotor so it is aligned with the terminal that will be number one in the firing order. This is recommended to get the rotor phasing close enough to run the engine. Rotor phasing should be checked and adjusted with the engine running.
4. With the rotor tip aligned, adjust the tension of the distributor drive belt. This is adjusted with the three bolts on the back of the housing (Figure 3). Squeeze the belt in the middle until there is about one inch between the belt with light pressure.

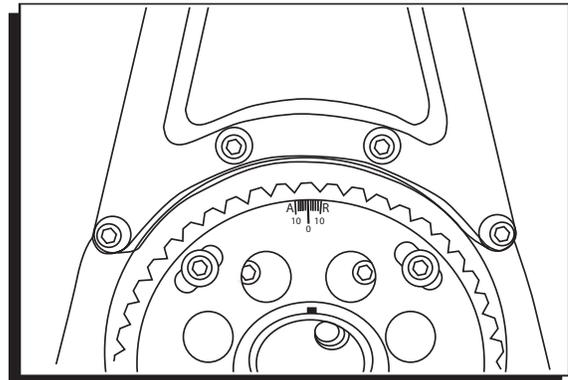


Figure 1 Installing the Distributor Bracket.

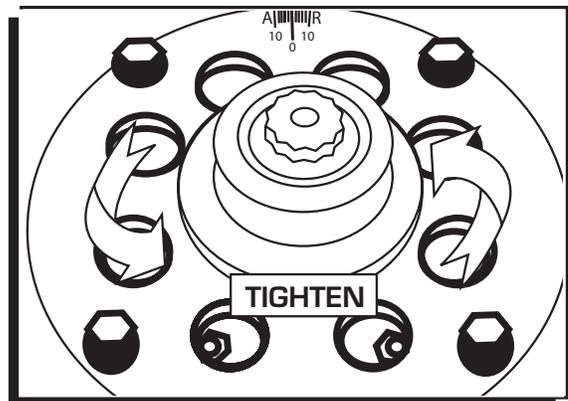


Figure 2 Installing the Timing Belt Pulley.

## ROTOR PHASING

Rotor phasing can be adjusted by loosening the collar clamp with a 3/16" Allen wrench and rotating the head assembly. NOTE: The head assembly and Cam Sync housing rotate independently but are adjusted by loosening the same collar (Figure 4). It is recommended to modify a distributor cap (PN 8408) by drilling a hole near the terminal so you can see exactly where the rotor tip is in relation to the cap

terminal when the ignition fires. When re-tightening the collar, allow both gaps on the collar to be similar size. (Figure 5). See the supplied Tech Bulletin concerning Rotor Phasing for more details.

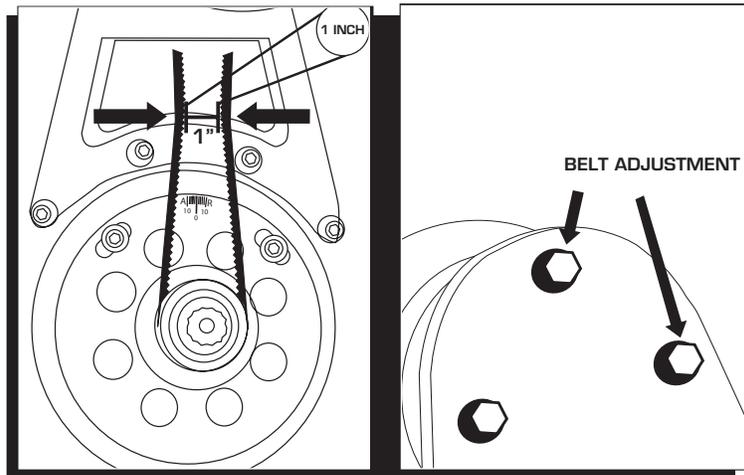


Figure 3 Adjusting the Belt Tension.

### CAM SYNC PHASING

The Hall-Effect Pickup is designed to provide an aftermarket ECU with a sync signal. This signal must be advanced more than the corresponding Cylinder #1 ignition trigger signal. The amount of advance or lead depends on the EFI system being used. Always check with the EFI manufacturer to determine the amount of advance required for the cam sync signal.

Cam Sync phasing can be adjusted by loosening the collar clamp with a 3/16" Allen wrench and rotating the Cam Sync housing. NOTE: The head assembly and Cam Sync housing rotate independently but are adjusted by loosening the same collar (Figure 4). When re-tightening the collar, allow both gaps on the collar to be similar size (Figure 5).

### LED OPERATION

The LED is On whenever the magnet is **not** in front of the pickup. The LED turns Off when the magnet passes over the center of the pickup (for approximately 40°).

### HALL EFFECT SENSOR SPECIFICATIONS

Input: 5 – 18 Volts continuous

Output: Within 1.5 volts, of supply voltage, on the red wire (Signal Hi) and 0.3 volt above ground (Signal Lo).

Protected from reverse polarity, short circuit, and over voltage.

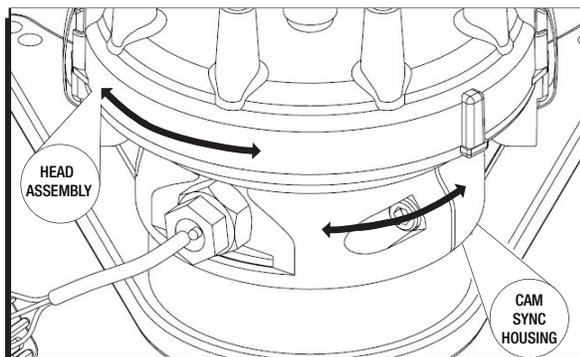


Figure 4 Rotor or Cam Sync Phasing.

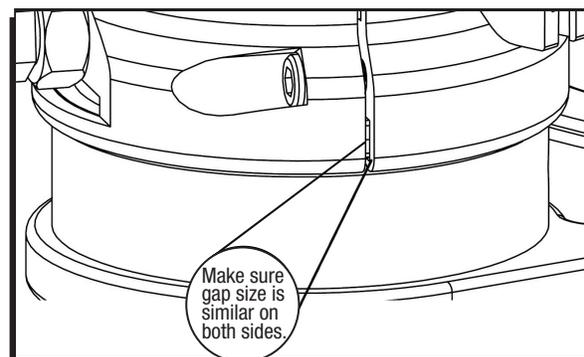
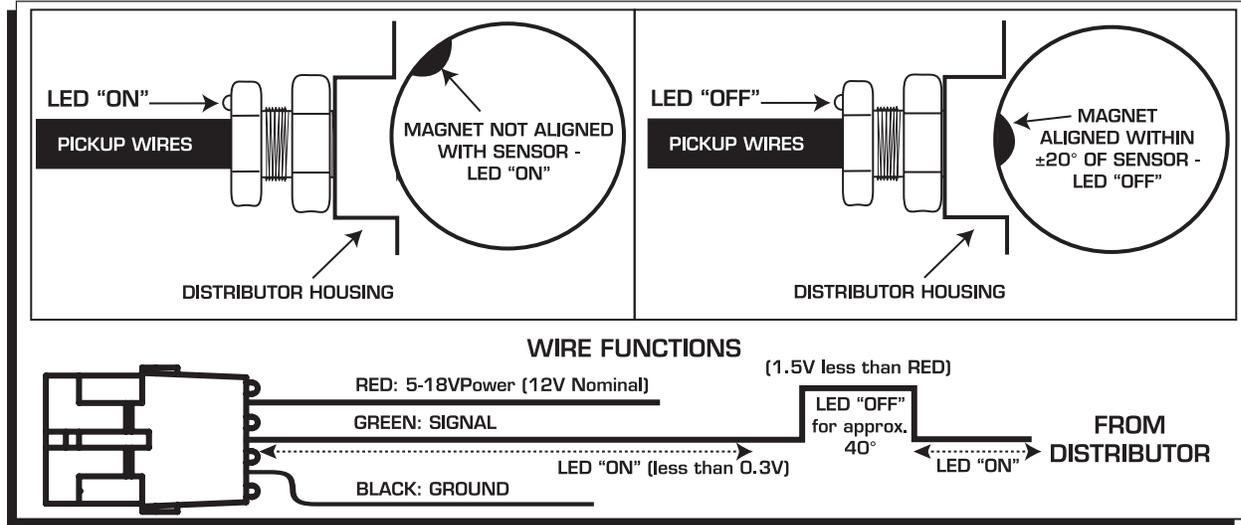


Figure 5 Retightening Collar Gap.

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**Figure 6 Installing Hall-Effect Pickup.**

### Replacement Parts

Cap	PN 8408
Rotor	PN 8457
Hall-Effect Pickup	PN 2348

### Replacement Belt

Belt	PN 8722

### 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) 258-3835 or visit our website at [www.msdpower.com/rma](http://www.msdpower.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.

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\*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.