

MSD Billet Crank Trigger Distributors PN 84697, PN 8558 and PN 84698 (GM DRCE Block)

Note: Read these instructions completely before attempting the installation.

Parts Included:

- 1 MSD Distributor Assembly
- 2 O-Rings
- 1 Tube of Gear Lubricant
- 1 Gasket
- 1 Rotor Phasing Tech Brief

Replacement Parts:

Rotor and Base, PN 8457 Cap, PN 8408 GM DRCE Bronze Gear, PN 84711 Chevrolet Bronze Gear: Standard (0.500" ID), PN 8471 Oversized (+0.006"), PN 8472

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

Note: A Crank Trigger must be used with this distributor. An MSD Billet Hold-Down Clamp, PN 8110, is recommended.

REMOVING THE DISTRIBUTOR

- 1. Remove the existing distributor cap without disconnecting any of the spark plug wires.
- 2. With the cap off, rotate the engine or until the rotor is aimed at a fixed point on the engine or firewall. Note this position by making a mark (Figure 1).
- 3. Place the distributor cap back on and note which plug wire the rotor is pointing to. MARK THE SPARK PLUG WIRES and remove the distributor cap.
- 4. Loosen the distributor hold-down clamp and slide the clamp out of the way.
- 5. Lift the distributor out of the engine. Note that the rotor rotates as you lift the distributor out. This due to the helical cut gear and should be taken into consideration when installing a new distributor.

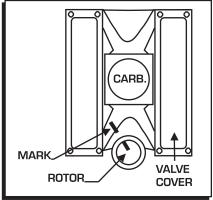


Figure 1 Marking the Rotor Location.

PREPARING THE DISTRIBUTOR

O-RING SEALS

The MSD Billet Distributor features two O-ring grooves in the bottom lands of the housing to seal the oil gallery. These O-rings should only be installed if the block has been modified as shown in Figure 2.

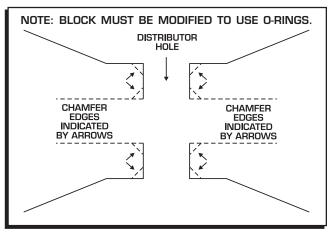


Figure 2 Modified Block to Accept the O-Ring Seals.

ADJUSTABLE SLIP COLLAR

The MSD PN 8558, Distributor features an adjustable slip collar. This collar provides an adjustment to accomodate variations in block height, modified intakes or heads. It is recommended to check the slip collar setting before installation. MSD offers a special tool, the 3-In-1 Distributor Set Up Tool, PN 8599, to make these adjustments accurately. If the tool is not available, follow this procedure.

- 1. Loosen the slip collar and insert the distributor into the engine until it bottoms out against the oil pump drive.
- 2. After it bottoms out, raise the distributor 0.010" 0.030" then slide the slip collar down into the position and tighten it.

CHECKING THE OIL PUMP TO DISTRIBUTOR SHAFT OVERLAP

The proper overlap between the distributor shaft and the oil pump shaft is very important. The tongue of the distributor shaft should fit into the groove of the oil pump shaft by at least 1/4". To check this:

- 1. Measure the distance between the base of the slip collar to the tip of the distributor shaft (Figure 3).
- 2. Using a straight edge, measure the distance from the intake manifold distributor flange to the top of the oil pump intermediate shaft (Figure 3).
- 3. Take the two measurements and subtract them. The difference is the overlap. If there is not enough clearance or too much clearance, a different oil pump shaft is required.

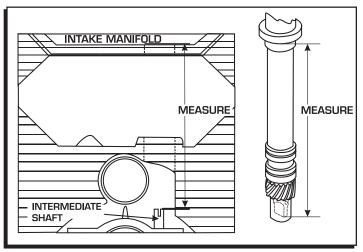


Figure 3 Checking Oil Pump Shaft to the Distributor Shaft Overlay.

CHECKING GEAR MESH

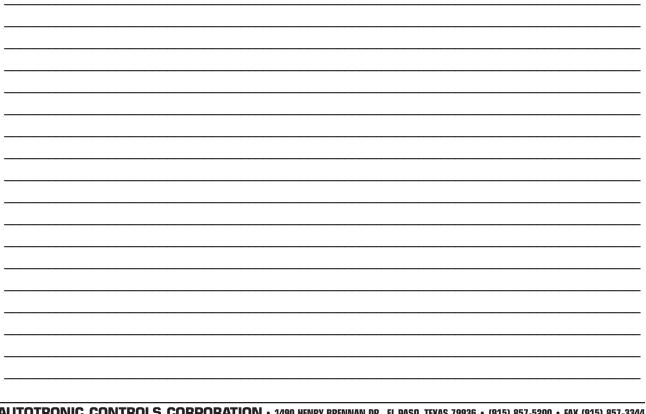
It is recommended to check for proper gear mesh between the cam gear and distributor gear. To do this, coat the distributor gear with moly grease and install the distributor. Next, crank the engine over several times. Before pulling the distributor out, make sure the rotor is in the position that lines up with the original removal mark. Then pull the distributor out and inspect the gear pattern shown on the grease. The proper mesh will leave an even pattern in the middle of the gear. Adjust the slip collar to obtain the correct mesh.

INSTALLING THE DISTRIBUTOR

1. With the slip collar adjustment set, install the gasket and O-rings (if necessary).

Note: Do not use the O-rings unless the block has been modified as in Figure 2.

- 2. Apply a liberal amount of the supplied lubricant to the distributor gear.
- 3. Install the distributor making sure that the rotor comes to rest pointing at the fixed mark. If the distributor will not fully seat with rotor pointing to the marked position, you may need to rotate the oil pump shaft until the rotor lines up and the distributor fully seats.
- 4. Position and tighten the hold-down clamp onto the distributor.
- 5. Install the distributor cap. It is recommended to use a drop of Blue Loctite to the distributor cap hold down bolts.
- 6. Install the spark plug wires one at a time to ensure correct location.
- 7. It is recommended to check and confirm correct rotor phasing. The supplied tech breif explains rotor phasing in detail.



Notes

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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 service, Proof of Purchase must be supplied for warranty verification. After the warranty period has expired, repair service is charged based on a minimum and maximum charge.

Send the unit prepaid with proof of purchase to the attention of: **Customer Service Department**, **Autotronic Controls Corporation**, **12120 Esther Lama**, **Suite 114**, **El Paso**, **Texas 79936**.

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 after receipt, COD for any charges. (Ground shipping is covered by warranty). All units are returned regular UPS unless otherwise noted. For more information, call the MSD Customer Service Line (915) 855-7123. MSD technicians are available from 8:00 a.m. to 5:00 p.m. Monday - Friday (Mountain Time).

Limited Warranty

Autotronic Controls Corporation warrants MSD Ignition products to be free from defects in material and workmanship under normal use and if properly installed for a period of one year from date of purchase. If found to be defective as mentioned above, it will be replaced or repaired if returned prepaid along with proof of date of purchase. This shall constitute the sole remedy of the purchaser and the sole liability of Autotronic Controls Corporation. To the extent permitted by law, the foregoing is exclusive and in lieu of all other warranties or representations whether expressed or implied, including any implied warranty of merchantability or fitness. In no event shall Autotronic Controls Corporation be liable for special or consequential damages.

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