

MSD Dual Mag Pickup HVC Pro-Billet Distributor
Ford 351W - PN 83932,
SB Chrysler - PN 83933, Toyota - PN 83934,
Chevrolet R07 - PN 83935

1 - Distributor

- ## 1 - Wire Retainer

- 1 - Coil Wire Retainer 1 - O-Ring (Ford/Chrysler/Toyota Only)

- ## 2 - Retainer Screws

Distributor Gear

- ## Distributor Gear

- ## HVC Distributor Reluctor Removal

- Tool, PN 83492

Note: The HVC Pro-Billet Distributor is NOT supplied with a gear. See page 2 for gears.

IMPORTANT

The MSD HVC Pro-Billet Distributors are designed for professional racing applications. Take the time to read these instructions thoroughly before installing the distributor. They are also designed to be completely serviced as outlined in these instructions.

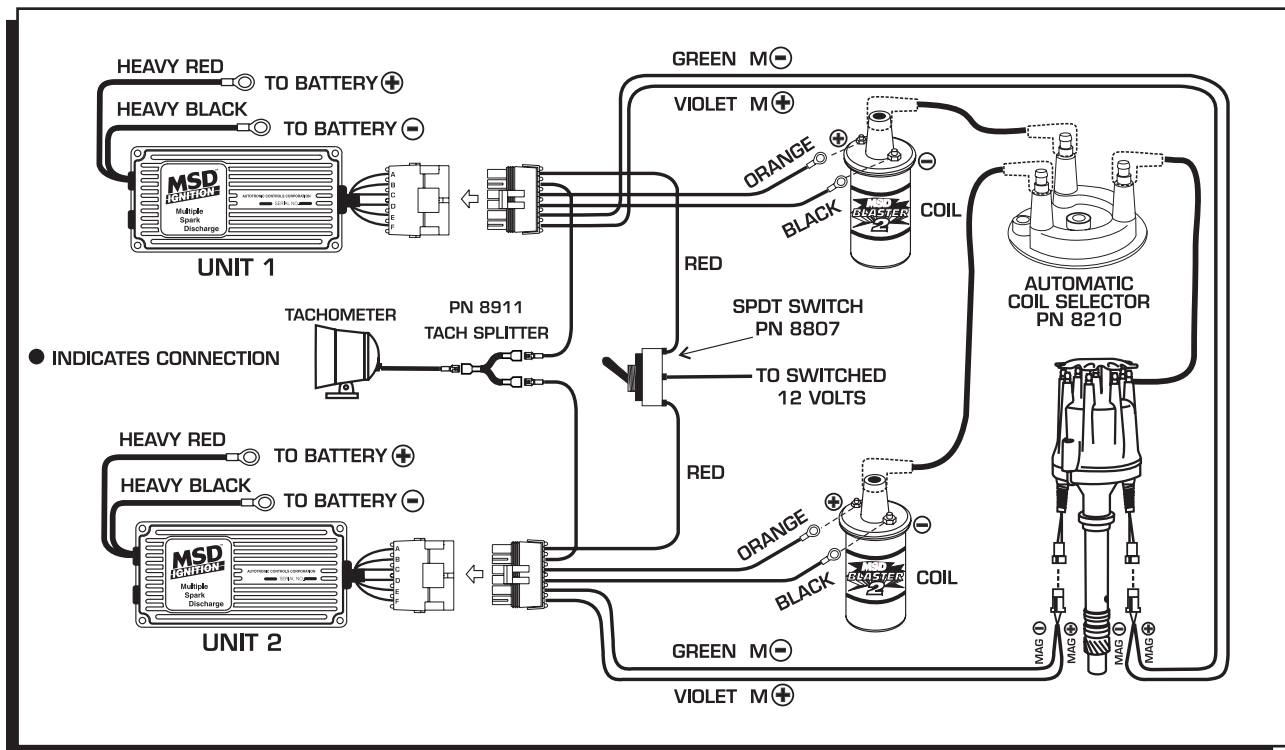


Figure 1 Wiring a Complete Redundant System.

SERVICE

MSD designed the HVC Pro-Billet Distributor to be completely serviceable. Replacement parts are listed below.

SERVICE PARTS:

Rotor - PN 8484

Reluctor Installation/Removal Tool - PN 83492

Finished Reluctor - PN 8349

Unfinished Reluctor - PN 83491

Bronze Gears

Chevrolet

Standard - PN 8471

+0.006" - PN 8472

+0.009" - PN 84722

+0.012" - PN 84723

+0.015" - PN 84724

Ford Windsor

Standard - PN 8585

Chrysler

Standard - PN 8525

+0.006" - PN 8526

Toyota

N/A: Contact TRD for information



Figure 2 Unfinished Reluctor, PN 83491.

An unfinished reluctor, PN 83491 is available (Figure 2). This reluctor does not have the individual cylinder paddles machined. Individual cylinder timing values can be determined on the dyno using our electronic controls. These values can then be machined into the reluctor.

SERVICE PROCEDURE

LOWER HOUSING

To replace the distributor bearings and seals, the lower housing must be disassembled. Both disassembly and re-assembly require the lower housing to be heated for proper clearance. Review the following procedure before starting the service. Figures 5 and 6 show exploded views of the four distributors available.

1. Remove distributor cap.
2. Remove the reluctor. Use the installation/removal tool PN 83492 to prevent the shaft from turning (Figure 3). Remove the reluctor attaching bolt using a 5/16", 12pt deepwell socket.
3. Remove the two bolts that retain the pickups.
4. Remove the four bolts retaining the upper housing and take it off.
5. Remove the distributor gear and any spacers if so equipped.
6. The upper bearing is an interference fit and needs to be heated to be removed. Place the lower housing and shaft assembly in an oven at 300°F for approximately 30 minutes. When heated, the shaft and bearing assembly should slide out of the aluminum housing. A slight tap on the shaft may be necessary.
7. If distributor is equipped with a lower bearing remove it while the housing is hot. If equipped with a lower bushing, it can be replaced if necessary.
8. Remove and replace the two seals in the housing. The new seals install with their flat sides facing each other. Lubricate the seals with grease (Figure 4).
9. Place the lower housing in an oven at 250° for approximately 30 minutes.

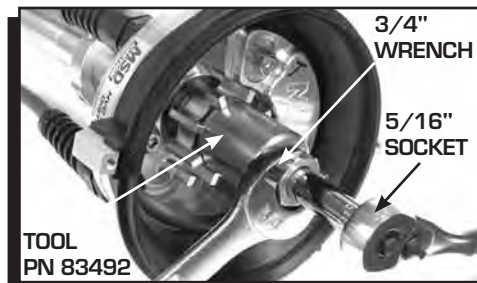


Figure 3 Removing the Reluctor.

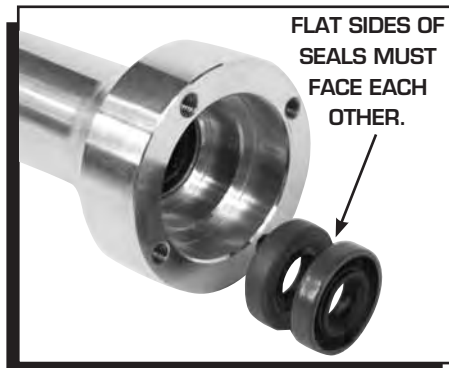


Figure 4 Installing New Seals.

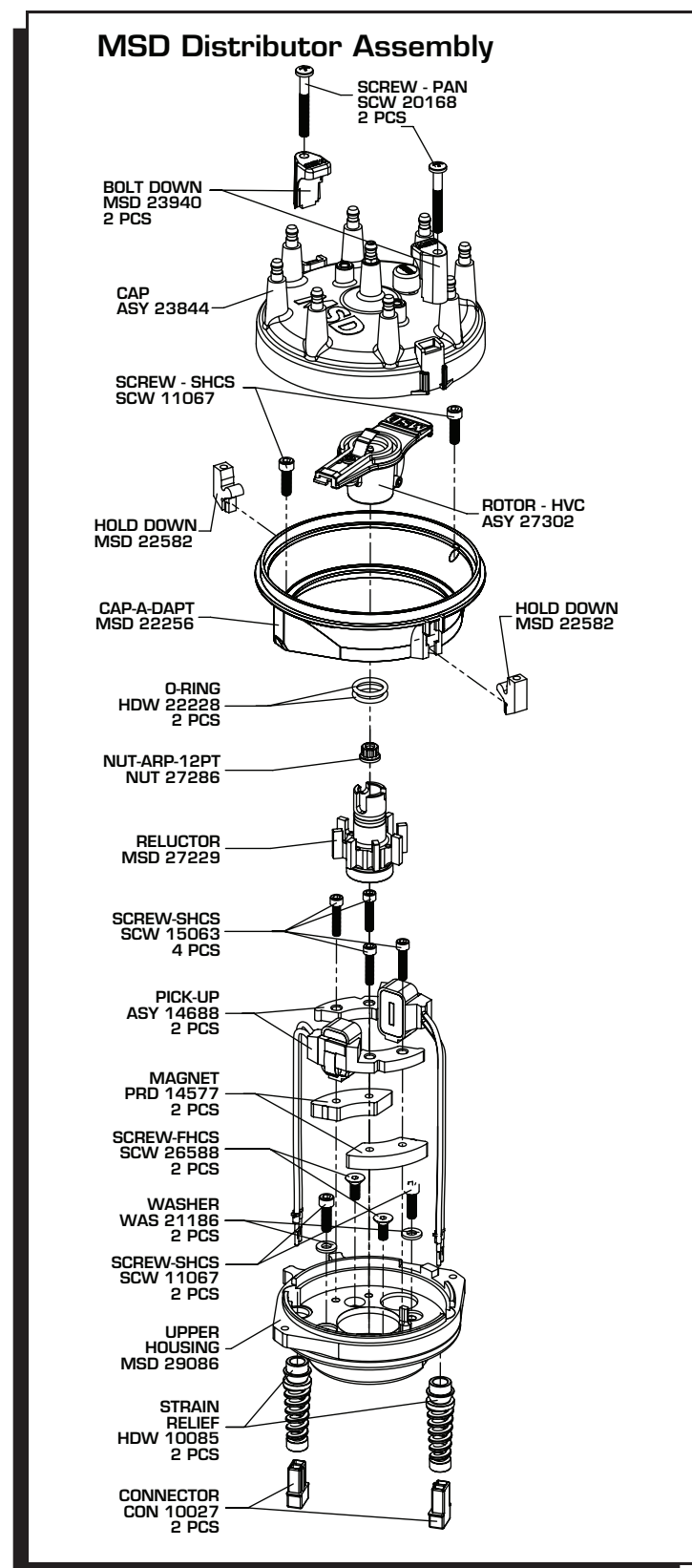


Figure 5 Upper Housing Exploded Views.

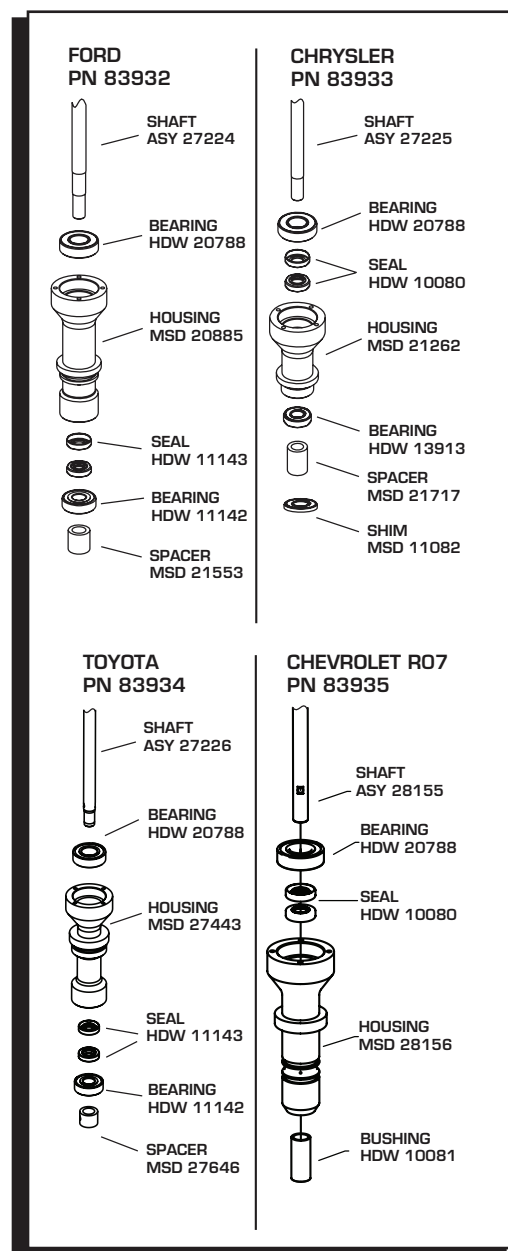


Figure 6 Lower Housing Exploded Views.

10. While the lower housing is heating, install the new bearing on the shaft (Figure 7).
11. Install the shaft assembly into the lower housing. It is fully seated when the bearing protrudes approximately 0.005" – 0.010" out of the housing (Figure 8). If the clearance is more, the housing may have cooled too much before the bearing was fully installed.
12. Install the gear.
 - a. Chevrolet – Check clearance between gear and housing. It should be greater than 0.015". If under 0.015" the bearing may not be seated correctly (Figure 9).
 - b. Ford – Install gear spacer. Press on gear leaving 0.005" clearance between it and the spacer.
 - c. Mopar R5 – Install gear spacer and shim. Check clearance between gear and spacer. It should be between 0.005"-0.010". If under 0.005" the bearing may not be seated correctly.
 - d. Toyota – Install gear spacer with roll pin. Press on gear until it stops against the spacer.
13. Assemble the upper housing.
14. Install Pickup screws.
15. Install reluctor using special tool PN 83492. Apply moly lube to the nut and torque to 10 lb-ft. (Figure 5).
16. Adjust pickup phasing and tighten the pickup bolts.



Figure 7 Installing the New Bearing.

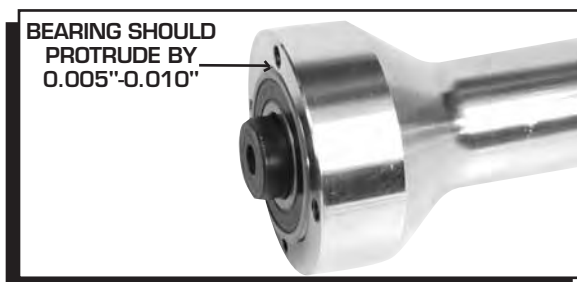


Figure 8 Checking Bearing to Housing Clearance.

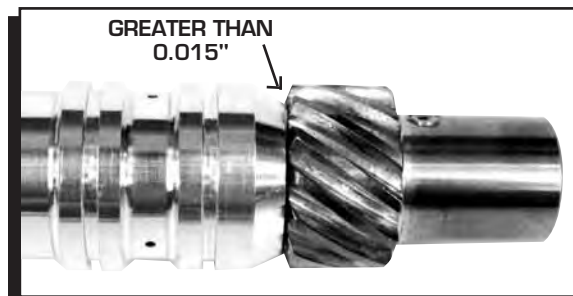


Figure 9 Checking Gear to Housing Clearance.

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.msdisignition.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 Ignition at (915) 855-7123. MSD technicians are available from 7:00 a.m. to 6:00 p.m. Monday - Friday (mountain time).

Limited Warranty

MSD IGNITION 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 Ignition. 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 Ignition. 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 Ignition 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 Ignition. Any modifications to this item or if it is used on an application other than what MSD Ignition 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 Ignition will accept no liability for custom applications.