INSTALLATION INSTRUCTIONS

Pro Cap for the MSD Pro Mag
PN 7455

Parts Included:

1 – Pro Cap, PN 7408
1 – Adapter Ring
1 – Rotor, PN 7423
1 – Rounded Rotor Tip
2 – O-Rings
2 – Plastic Hex Head Rotor Screws
4 – 8-32 x 1.25 Socket Head Cap Screws
4 – 10-32 x 1.25 Pan Phillips Screws
1 – Billet Housing
1 – Wire Retainer
4 – Self Tapping Screws
3 – Truss Head Phillips Screws
8 – Belleville Washers
3 – Stainless Washers

This Cap is designed to be used with MSD Pro Mags that are equipped with a Ford style cap (4" terminal diameter) and rotor. If you have a Pro Mag 12 that has the small diameter distributor cap on it, the unit must be sent to MSD to be modified to accept a Pro Cap.

Note: Blue Loctite or an equivalent thread locking compound is recommended for this installation.

ROTOR TIP INSTALLATION

A modified Rotor Tip is supplied with the Pro Cap Kit, PN 7455, and the Pro Cap Rotor, PN 7423. This Rotor Tip must be used when the ignition timing of the Pro Mag is being retarded. The modified Rotor Tip has a 90° corner on one side and a rounded edge on the opposite side. Installation of the Tip depends on the rotation of the Pro Mag. The rounded edge of the rotor must point in the direction of the mag's rotation (the rounded edge is always the leading side). Note that there is also an arrow designating the rotation stamped on both sides of the new Tip.

The reason for this modification is because voltage will travel to and from the sharpest point of the rotor tip. By rounding the leading edge of the Tip, the voltage will jump from the sharp point (trailing edge) of the tip which will be closer to the spark plug wire terminal when the timing is retarded. This will produce proper spark distribution even when the timing is retarded (which alters the rotor phasing).

The Figures show the Rotor Tip installation.

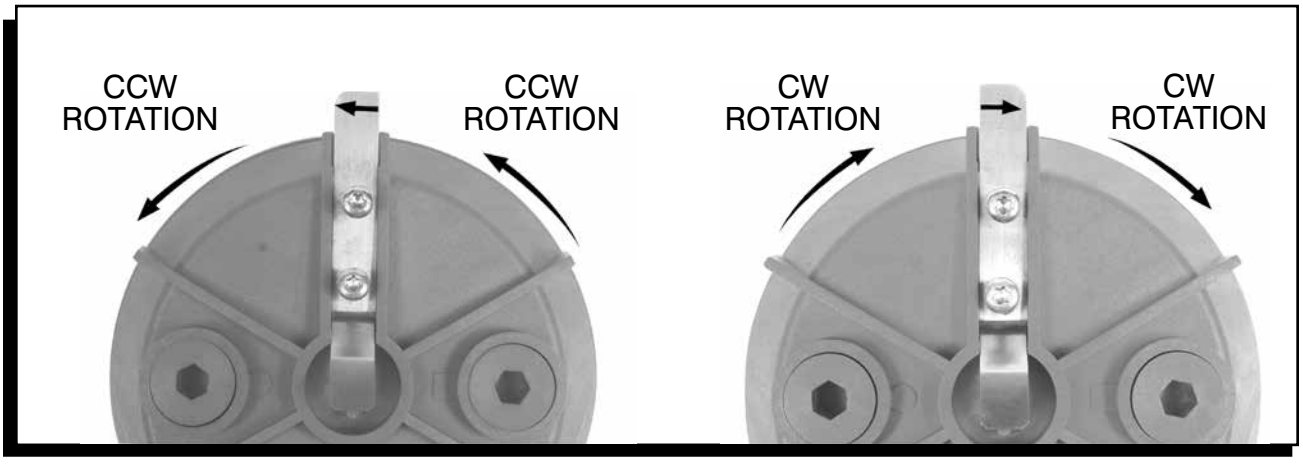

Figure 1 Installing the Rotor Tip.

INSTALLATION

1. Remove the existing distributor cap, rotor, rotor drive and spacer ring (Figure 2).

Figure 2 Removing the Original Cap, Rotor and Drive.

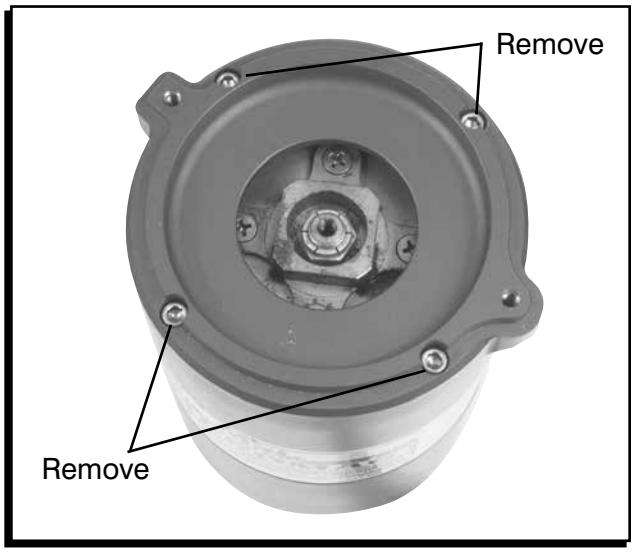

Figure 3 Removing the Cover and Billet Housing.

2. Remove the four Allen bolts and pull the upper billet aluminum housing off the generator (Figure 3).

3. Install the new billet base with the existing four screws with a small amount of Blue Loctite on the threads (Figure 4).Tighten the screws in a criss-cross pattern.

4. Install the new adapter ring to the generator using the three new Truss head Phillips screws and flat washers. Position the adapter ring so the screws are in the middle of the adjustment slots (Figure 5). This gets the rotor phasing close enough to fire the engine to properly set the phasing.

Note: It is recommended to check the rotor phasing after the installation.

5. Apply Loctite to the threads of the rotor drive screw. Make sure the belleville washer is in place and install the rotor drive.

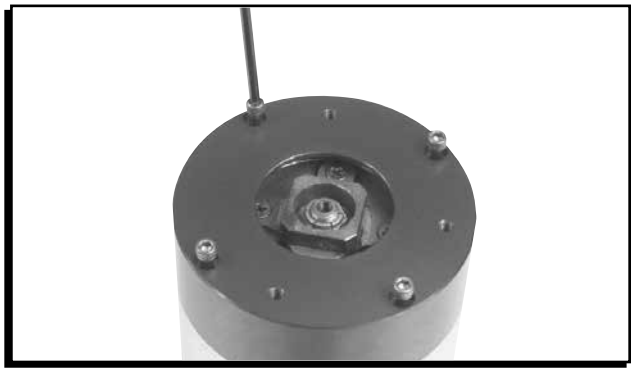

Figure 4 Installing the New Billet Housing.

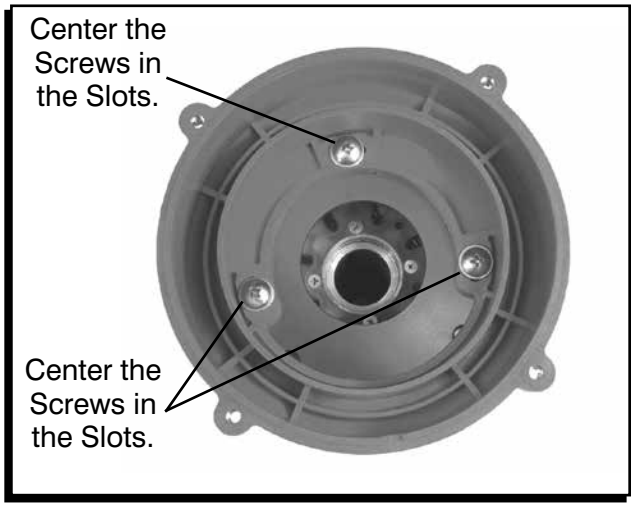

Figure 5 Installing the Adapter Ring.

6. Install the rotor making sure that it is placed correctly on the mount and the alignment dowels are seated before installing the rotor hold down screws. Install one O-ring on each of the over-molded rotor screws for increased spark isolation as well as a belleville washer (Figure 6). Torque screws to 30-32 in-lbs.

7. Install the distributor cap with the four Phillips screws and belleville washers. Connect the spark plug wires to their corresponding posts.

8. Install the wire retainer over the wires and secure it with the supplied self tapping screws (Figure 7). Depending on the style spark plug boots used, the retainer may not sit flush on the posts of the cap.

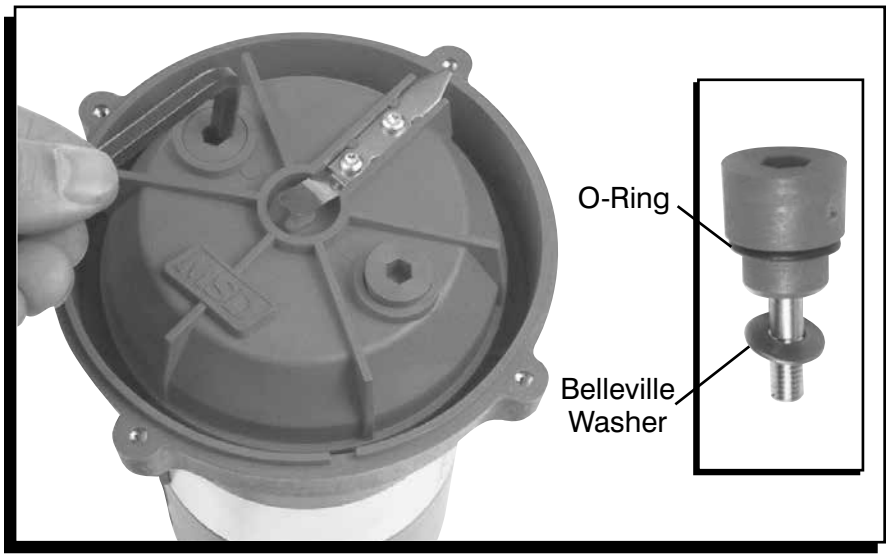

Figure 6 Installing the Rotor.

Figure 7 Installing the Wire Retainer.

INSTALLATION INSTRUCTIONS

DISTRIBUTOR CAP MAINTENANCE

Like any part of your vehicle, the cap and rotor should be inspected periodically for signs of wear or carbon tracking.

- Inspect the condition of the rotor tip. The rotor tip should be secure and appear in good shape. Over time the tip will show obvious signs of wear and deterioration. The center of the rotor tip should not be burned or appear pitted.

- Check for signs of Carbon Tracking. Carbon tracking can be caused by a crack in the cap or rotor and could cause a misfire, usually under load when the most voltage is needed to jump the gap of the spark plug. Carbon tracking appears as small traces that are left when the spark jumps to a different (easier) path to ground.

- Moisture can affect the transfer of the spark voltage and energy. Make sure the inside of the cap is clean and dry. Ionization, the build up of conductive gases (ozone) inside the cap, acts as a conductor and can cause spark scatter.

- In some high humidity areas, it may be necessary to vent the cap to prevent moisture and eventual buildup of corrosion and ozone gases inside the cap. To vent the cap, drill three or four ¼" holes in the spacers below the rotor.

- Replacement Parts: Cap, PN 7408
  Rotor, PN 7423
  Base, PN 7456