



## INSTALLATION INSTRUCTIONS

# 75 SERIES BILLET HEI DISTRIBUTORS

### GENERAL INFORMATION

Mallory 75 Series Distributors are similar to GM HEI distributors, but with many advantages over the OEM design, including:

- Billet aluminum housing with ball bearings and/or self-lubricating bushings to support the centerless ground 1/2" shaft.
- Fully adjustable mechanical advance (0 – 28°).
- High performance mechanical advance curve (24° all in @ 3200 rpm).
- Fully adjustable vacuum advance.
- Mallory designed and manufactured HYFIRE module with a built-in adjustable rev limiter (5000-9500 rpm).
- Indexed housing allows cap to be mounted four different ways to provide more clearance in tight engine compartments.
- High performance cap and rotor (with brass inserts) are manufactured in-house by Mallory from glass-filled polyester for higher strength and better electrical properties.
- High performance coil (Part No. 29215, included in distributors with part numbers ending in "C") combined with the Mallory module provide 8500+ rpm capability (rpm may be lower when used with other coils).
- Available for many V8 engines including Chevy, Ford, Pontiac, Buick, Olds, Chrysler, and AMC.

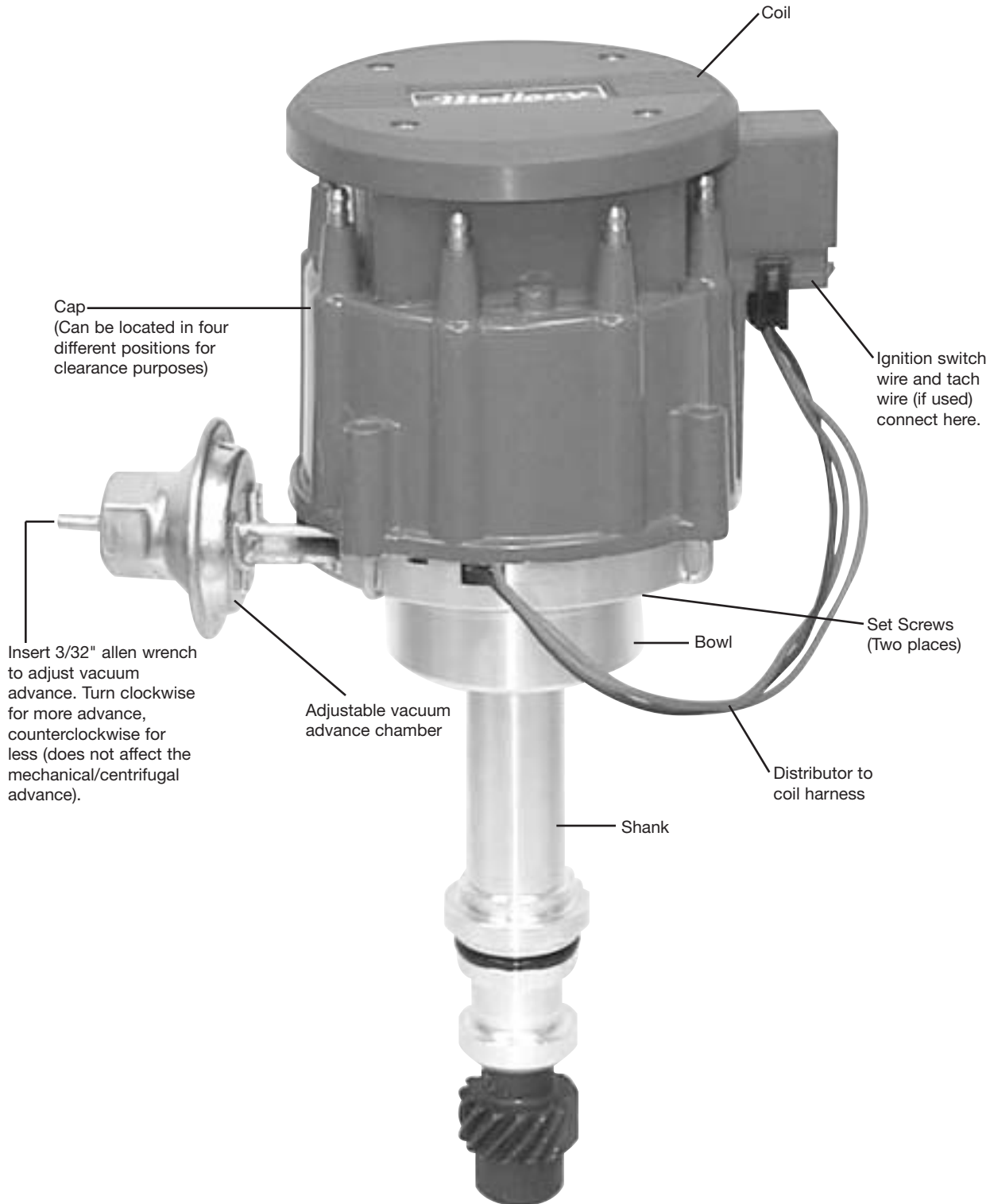
### INSTALLATION

1. Remove the distributor from the box and check for any shipping damage.
2. Remove the cap and rotor from the new distributor and check the gap between the pickup and the reluctor with feeler gauges. The gap should be between .015" and .030". If the gap is wrong, loosen the two pickup screws and adjust the gap.
3. Adjust the rev limiter (see Page 6 for instructions). Replace the rotor.
4. If the old distributor is still in the engine, remove the cap and note which spark plug wire the rotor is pointing at. Trace that spark plug wire to the spark plug and determine which cylinder it is.
5. Remove the old distributor.
6. Install the new distributor (without the cap) with the rotor pointing in approximately the same direction as the old distributor. If the distributor will not seat properly, remove the distributor and use a long screwdriver to rotate the oil pump drive in the engine.
7. Place the new cap on the new distributor. The cap will fit four different ways. Determine which of the four positions works best in your application.
8. Note which cap terminal the rotor is pointing toward. Run a spark plug wire from that terminal to the cylinder determined in Step 4.
9. Connect the rest of the spark plug wires to the new cap in the same order as the old cap.
10. Install the distributor hold-down clamp so that it is snug, but the distributor can still be rotated with a little effort.
11. Install the coil onto the cap and connect the wire harness from the distributor to the coil.
12. If you are replacing an existing HEI distributor, the wiring harness from the ignition switch can now be plugged into the coil. If you are replacing something other than an HEI distributor, a 1/4" female tab connector can be used to connect the wire from the ignition switch to the coil. See Figure 3.

**FIGURE 1**

**MALLORY 75 SERIES BILLET HEI DISTRIBUTOR**

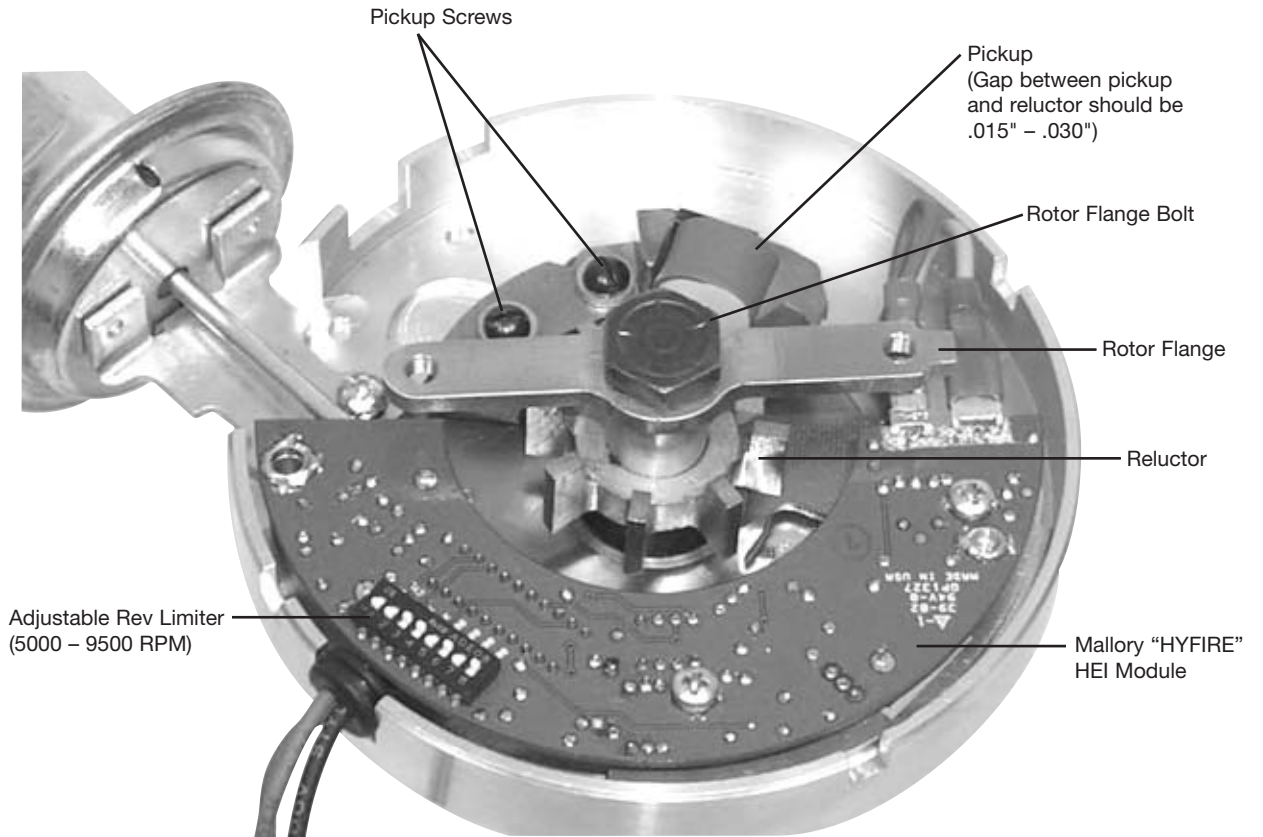
(Olds V8 version shown with Mallory 29215 Coil)



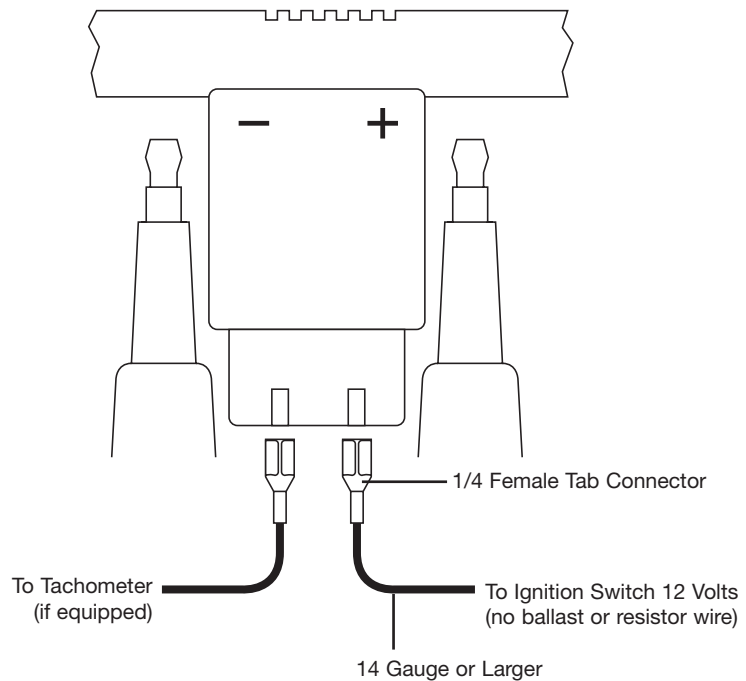
**FIGURE 2**

**VIEW WITH CAP AND ROTOR REMOVED**

NOTE: Distributor shown rotates counter-clockwise. Components in clockwise rotation distributors (such as Chevy V8) are mounted in slightly different positions.



**FIGURE 3**



**WARNING:**

The wire from the ignition switch must not be a resistor type wire or contain a ballast resistor. If your car has a ballast resistor, remove it or put a jumper wire across it. If your car uses a resistor wire for the ignition (many pre-1975 vehicles do), you must run a different wire to the distributor from the ignition key (or fuse box) so that full battery voltage reaches the distributor. The distributor

will operate with a ballast or resistor wire, but performance will be greatly reduced. To determine if your car has a resistor wire, check the voltage of the wire at the coil with the engine running. If the voltage is within 1.5 volts of the battery voltage, the wire is not a resistor type. If the voltage is not within 1.5 volts of battery voltage, you must run a new wire to the distributor.

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**SETTING THE INITIAL TIMING**

Connect a timing light to the engine. Do not connect the vacuum advance at this time. Start the engine and allow it to warm up a few minutes at idle. If the engine will not start or idle smoothly, try rotating the distributor (in either direction) to get the timing closer to optimum. If the engine will not start, the firing order may be incorrect, or the rotor may not be aligned correctly. Consult a repair manual for more information.

Check the initial timing with the timing light. The engine must be at idle (under 1200 rpm). Set the initial timing between 5° and 12° BTDC and tighten the clamp.

With the vacuum advance line still disconnected and plugged, take the vehicle for a test drive. Listen carefully while under full throttle in high gear. If you hear knocking or pinging, reduce the initial timing by 2 degrees at a time until you no longer hear the engine pinging or knocking. If you do not hear pinging or knocking, increase initial timing by 2 degrees at a time until you hear it, then reduce timing by 2 degrees. Initial timing should never be less than 0 degrees or more than 16 degrees. If the engine seems to run best outside this range, something else is wrong. Find the problem before continuing.

**ADJUSTING THE VACUUM ADVANCE**

The vacuum chamber is adjusted at the factory to produce 12° of additional advance at steady speeds. This may be too much for some engines. Connect a vacuum line from the vacuum chamber to a ported vacuum source on the carburetor. Take the vehicle for another test drive. Drive the vehicle at a steady speed in high gear on a highway that is level or slightly inclined. If surging or pinging is noticed, the amount of vacuum advance must be reduced. Pull the vacuum line off the vacuum chamber. Insert a 3/32" allen wrench into the chamber nipple and turn the adjustment screw counterclockwise two turns. Reconnect the hose and take another test drive. Reduce the vacuum advance further if necessary to eliminate surging or pinging.

**ADJUSTING THE AMOUNT OF MECHANICAL ADVANCE (IF NECESSARY)**

The distributor mechanical (centrifugal) advance mechanism is adjusted at the factory to limit the mechanical advance to 24°. In most cases, this will work fine. However, in some rare cases, it may be beneficial to change the factory setting. The adjustment range is zero to 28°. If the limit is changed, it may be necessary to change the initial timing as well.

To access the mechanical advance, remove the distributor cap, rotor, rotor flange bolt and rotor flange. Remove the module. Using a small puller, remove the reluctor. Do not lose the small pin that locates the reluctor. Remove the two set screws. Lift out pickup plate assembly (See Figure 4). See Page 7 for instructions on adjusting the mechanical advance limit.

**CHANGING THE MECHANICAL ADVANCE RATE**

The advance springs installed at the factory produce an advance curve that starts at 1200 rpm and is all-in by 3200 rpm. If a faster or slower advance curve is required, a spring kit (PN 29014) can be purchased from Mallory dealers.

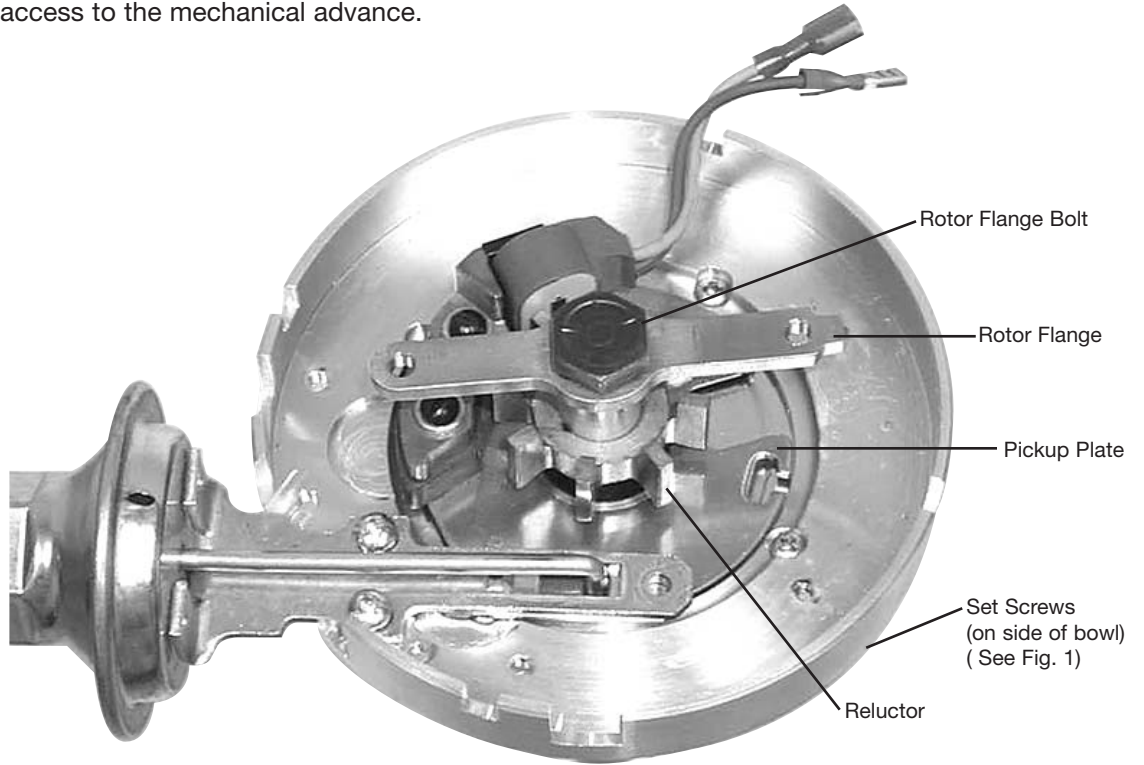
**REPLACING THE MALLORY MODULE WITH AN OEM STYLE MODULE**

While the use of stock/OEM type modules will reduce the spark energy and eliminate the rev limiter, in an emergency, an OEM style HEI module can be used. Cut the wire harness off of another module and attach as shown in the photo on Figure 5.

**FIGURE 4**

**ACCESSING THE MECHANICAL ADVANCE**

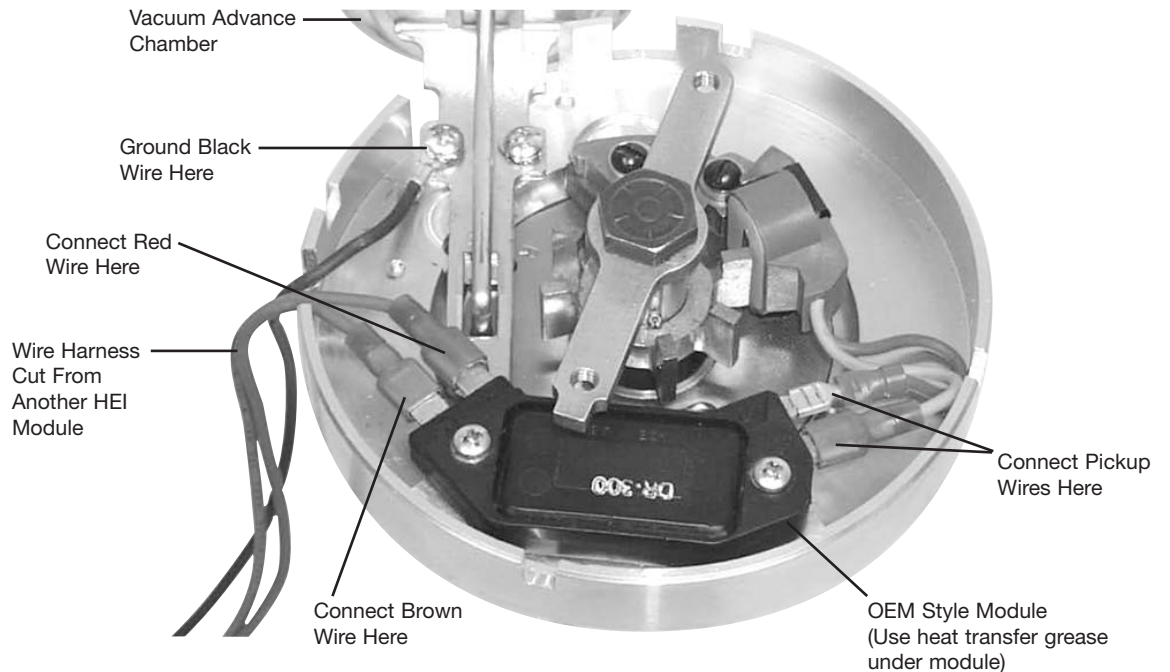
NOTE: Removing the rotor flange, reluctor, module and pickup plate allows access to the mechanical advance.



**FIGURE 5**

**INSTALLING A STANDARD HEI MODULE**

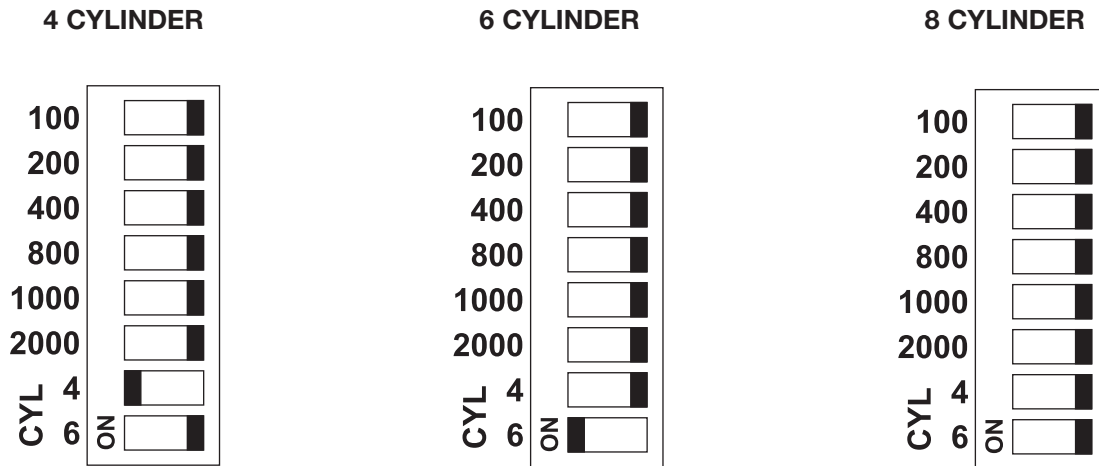
NOTE: Distributor shown rotates counter-clockwise. Components in distributors with clockwise rotation (such as Chevy V8) are mounted in slightly different positions.



## ADJUSTING THE REV LIMITER

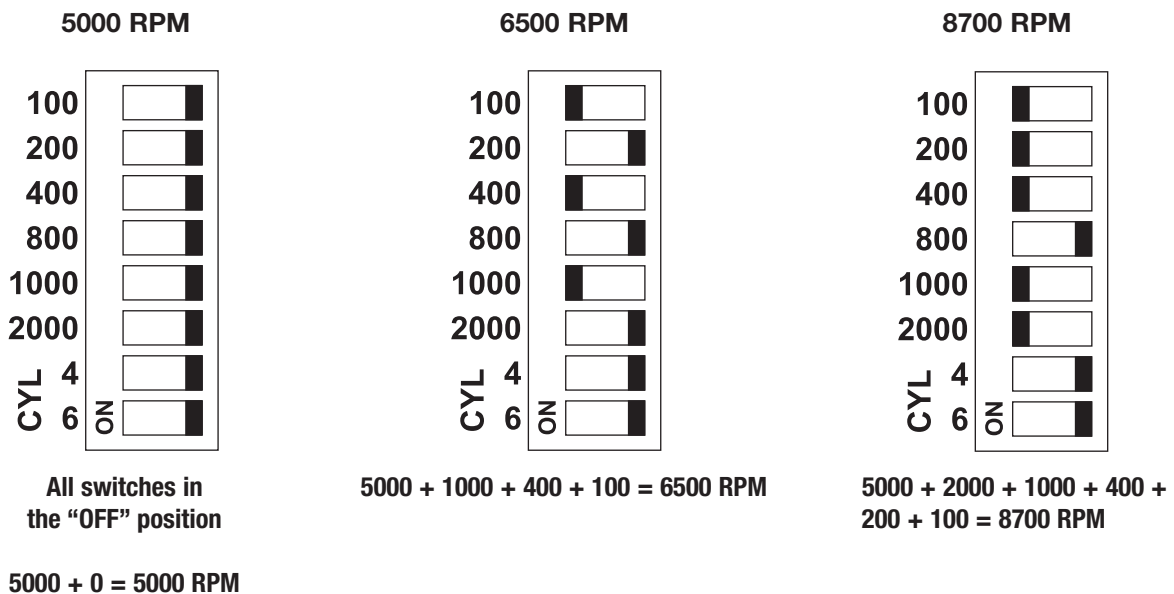
The rev limiter is built into the HYFIRE HEI module and is adjustable from 5000 to 9500 rpm in 100 rpm increments. The rev limiter also has settings for 4 and 6 cylinder engines in case the module is transferred to a 4 or 6 cylinder distributor.

Select the number of cylinders using the two bottom switches:



Select the rev limit using the top six switches. The minimum rpm (with all switches in the “off” position) is 5000 rpm. For higher rpm limits, add the value of the switches in the “on” position to 5000.

Examples:



# ADJUSTMENT PROCEDURE FOR YH MECHANICAL ADVANCE ASSEMBLY

NOTE: Check local laws before changing advance limit or advance rate.

The advance rate indicates how fast the advance comes in. To change the advance rate, you must change springs. An advance curve kit (Part No. 29014) is available. The kit includes a selection of springs, degree keys, and detailed instructions.

The advance limit is the total amount of advance provided by the mechanical advance. To adjust the advance limit, loosen the adjustment screws and rotate the adjustment plate. Adjustment range is 0° to 28°.

