

# MAGNETIC BREAKERLESS IGNITION MODULE

## PART NO. 609

**APPLICATION:** YLM and YTM Series Distributors; 50 Series Mechanical Advance Distributors; 57 Series Vacuum Advance Distributors; 82 Series Mechanical Advance Billet Competition Distributors; COMP 9000® 87 Series Vacuum Advance Distributors; COMP 9000® 89 Series Mechanical Advance Distributors; Magnetic Breakerless Ignition Conversions.

### INSTALLATION PROCEDURE

#### Step 1

Remove the distributor cap and rotor (NOTE: On Series Nos. 82, 87 and 89 Distributors, also remove the adapter shield). Unplug the old module (female connector) from the distributor wire harness. Cut the female connector off the end of the wires from the old module assembly and push the wires through the grommet. See Figure 1.

#### Step 2

##### *YLM and YTM Series, and 50 Series Distributors*

Loosen (do not remove) the two nuts on the side of the distributor housing.

##### *Series 57 and 87 Distributors*

Remove the small E-clip that holds the vacuum advance linkage on the drive pin on the steel plate. Lift the vacuum advance linkage off the drive pin.

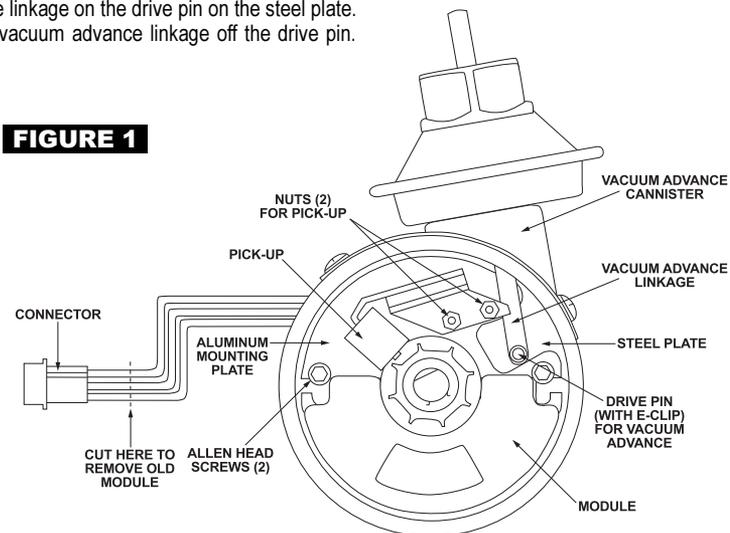
Remove the Allen head screw or screws (there may be one or two) that hold the old module assembly to the steel plate. The old module assembly should be loose. If the old module assembly is not loose, remove the two magnetic pickup nuts on the old module assembly. See Figure 1.

##### *Series 82 and 89 Distributors*

Remove the two Allen head screws that hold the old module assembly to the steel plate. The old module assembly should be loose. If the old module assembly is not loose, remove the two magnetic pickup nuts on the old module assembly. See Figure 1.

#### Step 3

Lift the old module assembly up and out of the distributor housing.



#### Step 4

Loosen the two magnetic pickup nuts on the new module assembly. See Figure 2.

**NOTE (57, 82, 87 and 89 Series Distributors):** If you had to remove the two magnetic pickup nuts that hold the pickup to the old module assembly (Step 2), remove the two magnetic pickup nuts on the new module assembly and press the two studs out of the new module assembly. Discard these nuts and studs.

#### Step 5

Install the new module assembly in the reverse order from the way the old module assembly was removed (Steps 2 and 3).

#### Step 6

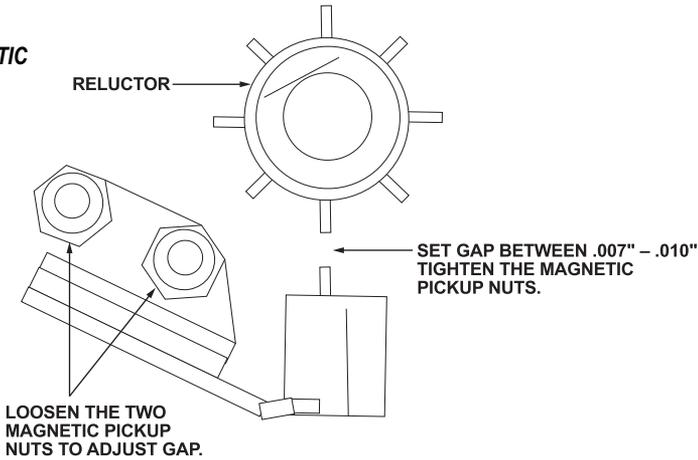
Set the magnetic pickup gap between 0.007-0.010" when tooth on the reluctor is pointing directly at the center of the metal pole on the magnetic pickup. A 0.0074" polyester gauge is provide to help in setting the magnetic pickup gap. Tighten the two nuts that hold the magnetic pickup to the new module assembly. See Figure 2.

#### Step 7

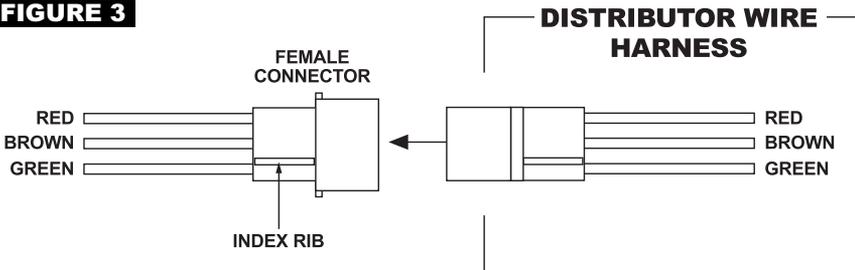
Slide the three wires from the module assembly through the grommet, to outside the distributor housing. Put the three wires in the female connector: GREEN WIRE in hole #1; BROWN WIRE in hole #2; RED WIRE in hole #3; Plug the female connector into the distributor wire harness. See Figure 3.

**FIGURE 2**

**TO SET MAGNETIC PICKUP GAP:**



**FIGURE 3**



## REVIEW WIRING PROCEDURE

**IMPORTANT:** Make sure that your vehicle is equipped with an ignition ballast resistor (or loom resistance wire) in the wire between the ignition switch and the coil (+) terminal. One easy way to find the ignition ballast resistor is to check the service manual for your vehicle. You can test your ignition system voltage while the engine is at idle at the coil (+) terminal. If the measured voltage is within 1-volt of battery voltage, an ignition ballast resistor must be installed in the wire from the ignition switch.

**Example:** Vehicles with a Ford TFI or Delco HEI require adding an ignition ballast resistor in the wire from the ignition switch. If you find your vehicle is not equipped with an ignition ballast resistor, install a Mallory Ignition Ballast Resistor Part No. 700 in series in the wire from the ignition switch. Failure to use an ignition ballast resistor will result in the eventual destruction of the module.

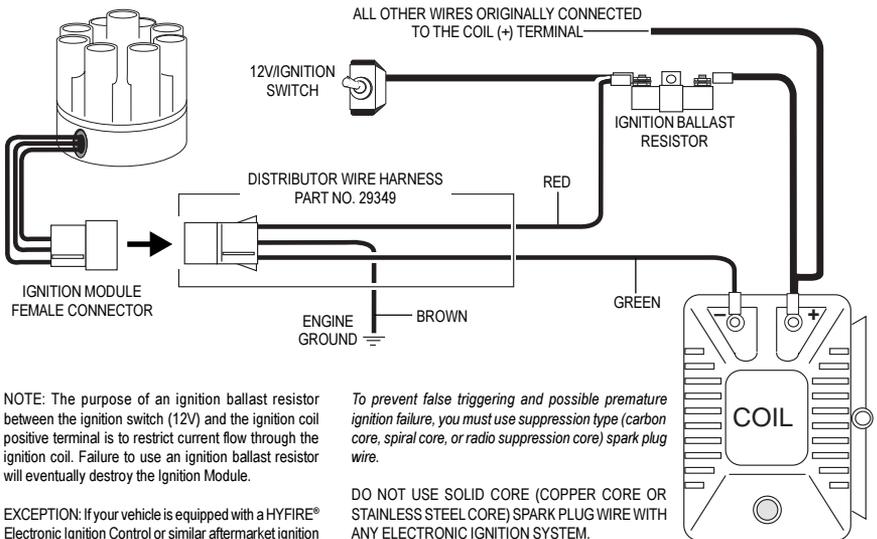
**Exception:** If your vehicle is equipped with a HYFIRE® Electronic Ignition Control or similar aftermarket ignition control, use ignition ballast resistors and wiring procedures as stated in the instructions for the particular ignition control.

## DISTRIBUTOR WIRE HARNESS

- RED Power/voltage for the module  
Connect to ignition switch
- GREEN Ignition trigger  
Connect to coil (-) terminal
- BROWN Ground for the module  
Connect to engine block ground

**NOTE:** If your vehicle is equipped with a HYFIRE® Electronic Ignition Control or similar aftermarket ignition control, use ignition ballast resistors along with wiring procedures included with your ignition control.

**FIGURE 4 WIRING WITH BALLAST RESISTOR**



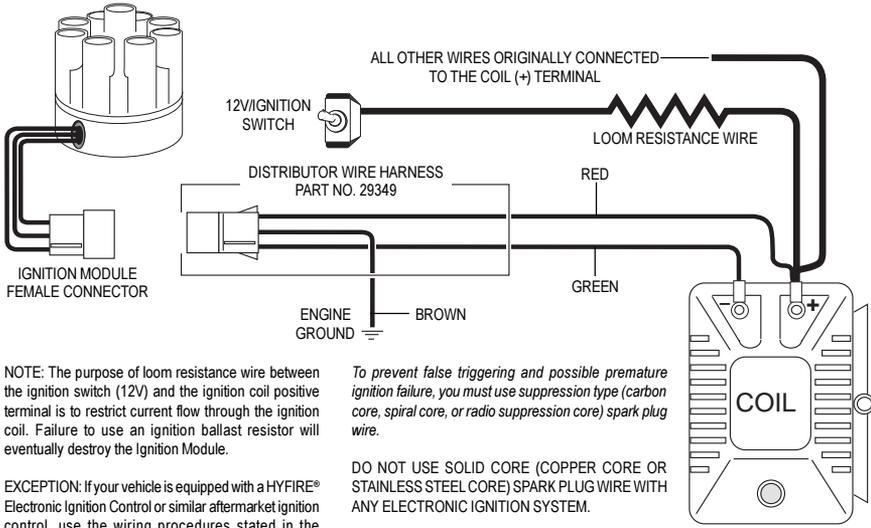
**NOTE:** The purpose of an ignition ballast resistor between the ignition switch (12V) and the ignition coil positive terminal is to restrict current flow through the ignition coil. Failure to use an ignition ballast resistor will eventually destroy the Ignition Module.

**EXCEPTION:** If your vehicle is equipped with a HYFIRE® Electronic Ignition Control or similar aftermarket ignition control, use the wiring procedures stated in the instructions included with the ignition control

To prevent false triggering and possible premature ignition failure, you must use suppression type (carbon core, spiral core, or radio suppression core) spark plug wire.

DO NOT USE SOLID CORE (COPPER CORE OR STAINLESS STEEL CORE) SPARK PLUG WIRE WITH ANY ELECTRONIC IGNITION SYSTEM.

## FIGURE 5 WIRING WITH LOOM RESISTANCE WIRE



**NOTE:** The purpose of loom resistance wire between the ignition switch (12V) and the ignition coil positive terminal is to restrict current flow through the ignition coil. Failure to use an ignition ballast resistor will eventually destroy the Ignition Module.

**EXCEPTION:** If your vehicle is equipped with a HYFIRE® Electronic Ignition Control or similar aftermarket ignition control, use the wiring procedures stated in the instructions included with the ignition control.

*To prevent false triggering and possible premature ignition failure, you must use suppression type (carbon core, spiral core, or radio suppression core) spark plug wire.*

**DO NOT USE SOLID CORE (COPPER CORE OR STAINLESS STEEL CORE) SPARK PLUG WIRE WITH ANY ELECTRONIC IGNITION SYSTEM.**