INSTALLATION INSTRUCTIONS

MAGNETIC BREAKERLESS DISTRIBUTOR

This product is applicable to pre-1966 California and pre-1968 federally certified passenger cars. It is also applicable to non-emission controlled trucks and similar vehicles. It is not applicable or intended for use on any emission controlled vehicles operated on highways or roads, unless otherwise noted.

IMPORTANT: Before installing the Magnetic Breakerless Ignition System, make sure that the vehicle is equipped with an ignition ballast resistor (or loom resistance wire) in the wire between the ignition switch and the coil (+) terminal. Check a service manual for your vehicle to locate the ignition ballast resistor (or loom resistance wire). If your vehicle is not equipped with an ignition ballast resistor, install a Mallory Ignition Ballast Resistor Part No. 700 in the wire between the ignition switch and the coil (+) terminal. Failure to use an ignition ballast resistor will result in the eventual destruction of the Ignition Module. Exception: If your vehicle is equipped with a HYFIRE® Electronic Ignition Control or similar aftermarket ignition control, use the wiring procedures as stated in the instructions for the ignition control.

WARNING: Mallory's Magnetic Breakerless Ignition System is not compatible with positive ground or 6-volt vehicle electrical systems.

Parts Included in this kit: 1 Magnetic Breakerless Distributor 1 Distributor Wire Harness

GENERAL INFORMATION

Advance Curve:

Most Magnetic Breakerless Distributors with part numbers that end in 01 have 24˚ (crankshaft degrees) of mechanical advance (between 3,000 and 3,200 RPM). Listed below are exceptions:

CHRYSLER SB V8	20 AT 3,000 RPM
FLAT HEAD FORD V8	16 AT 3,600 RPM

Ignition Coils:

The Magnetic Breakerless Ignition system is designed to work with most stock ignition coils and aftermarket high performance ignition coils. For optimum performance in applications without a Mallory HyFire or comparable ignition, use a Mallory coil 29219, 29450 or 30450.

Spark Plug Gaps:

For street applications, use your engine manufacturers specifications. For racing applications, start with your engine manufacturers specifications, then experiment with and closely monitor various gaps to achieve maximum performance.

Electric Welding:

Unplug the distributor wire harness before welding on the vehicle.

Spark Plug Wires:

YOU MUST USE suppression type (carbon core; spiral core; radio suppression core) spark plug wire. We recommend spiral core ignition wire, such as Mallory PRO SIDEWINDER® Ignition Wire. Suppression type spark plug wires prevent false triggering and the possibility of premature ignition or accessory failures. ***DO NOT USE solid core (copper core; stainless steel core) spark plug wire with any electronic ignition system or accessory.*** Solid core spark plug wire causes radio frequency interference (ignition noise; static). Radio frequency interference causes false triggering (preignition; spark scatter) and premature ignition or accessory failures.

OLD DISTRIBUTOR REMOVAL

Step 1

Disconnect the trigger wire from the coil (ñ) terminal.

Step 2

Locate the spark plug wire on the original distributor cap that the engine timing is set from. See a service manual for these locations. Mark the distributor cap and the distributor housing, in line with this spark plug wire position on the distributor cap.

Step 3

Turn the engine crankshaft in the direction of rotation until the timing mark lines up with the top dead center (TDC) mark on the timing tab. See a service manual for these locations. ***NOTE: Removing the spark plugs may make it easier to turn the crankshaft.***

Step 4

Remove the distributor cap from the distributor. Do not remove the spark plug wires or coil wire at this time. The rotor blade should point to the mark made on the distributor housing (from Step 2). If it is not, turn the engine crankshaft in the direction of rotation one full turn (repeating Step 3) until the timing mark lines up (again) with the TDC mark on the timing tab.

NOTE: Once you are finished with Step 4, DO NOT turn the crankshaft until the new distributor is installed.

Step 5

Note the direction the rotor is pointing. If you are replacing a vacuum advance distributor, note the direction the vacuum chamber is pointing. Remove the distributor hold down clamp and remove the distributor from the engine.

MAGNETIC BREAKERLESS DISTRIBUTOR INSTALLATION

Step 1
Prepare the distributor by removing the distributor cap.

Step 2
Place the distributor in the engine with the rotor pointing in the same general direction as the original distributor.

If equipped with vacuum advance, place the distributor in the engine with the rotor and vacuum chamber pointing in the same general direction as the original distributor.

If the old distributor did not have a vacuum chamber, place the distributor in the engine with the rotor pointing in the same general direction as the original distributor did, and point the vacuum chamber in a direction that will allow movement for timing purposes.

NOTE: The distributor must be fully seated into the engine. It may be necessary to turn the oil pump drive, or turn the engine crankshaft in the direction of rotation two full turns until the timing mark lines up (again) with the TDC mark on the timing tab, to allow the distributor to seat fully.

Step 3
Rotate the distributor housing in the opposite direction of rotor rotation until the nearest tooth of the reluctor is pointing directly at the center of the metal pole on the magnetic pickup. This will generally put timing close enough for starting purposes. Put the distributor hold down clamp in place and tighten slightly, leaving it loose enough to turn the distributor. Make a mark on the distributor housing where the rotor points.

Step 4
Install the distributor cap. Remove the spark plug wire on the original distributor cap that the engine timing is set from, and install it onto the distributor cap post above the mark on the distributor housing where the rotor had pointed. Continue installing each remaining spark plug wire, one at a time, from the original distributor cap to the distributor cap in the same sequence.

NOTE: It may be necessary to purchase and install distributor boots and terminals for the spark plug wires to correctly fit the distributor cap.

WIRING PROCEDURE

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. 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. There are three wires coming from the distributor that must be connected using the distributor wire harness furnished (see Figures 1 and 2).

RED WIRE: If you are using loom resistance wire, connect to the coil (+) terminal.
If you are using a ballast resistor, connect to 12 volt side of ballast resistor.

GREEN WIRE: Connect to the coil (-) terminal.

BROWN WIRE: Connect to engine block ground. Clean away any grease, oil and paint from the mounting surface before the connection is made.

NOTE: If a HYFIRE® Electronic Ignition Control or other aftermarket ignition control is being used, connect the distributor according to the instructions supplied with the ignition control.

ADDITIONAL CONNECTIONS

Vacuum advance applications: Connect original vacuum hose to the distributor vacuum chamber. Replace hose if cracked, damaged, or if it is not long enough. If the previous distributor was not equipped with vacuum advance, connect a vacuum hose to a ported vacuum outlet on the carburetor.

Tachometer operation: Connect wire or wires as recommended by the actual tachometer manufacturer.

STARTING ENGINE

CAUTION: Be sure all tools, wires and miscellaneous objects are clear of moving engine parts and extreme heat before staring the engine.

Step 1
Recheck all wires and connections to make sure they are correct. Check and clean, or replace spark plugs. If replacing spark plugs, use types recommended by the engine manufacturer.

Vacuum advance applications: Disconnect the vacuum hose to distributor vacuum chamber at the carburetor and temporarily plug this carburetor fitting.

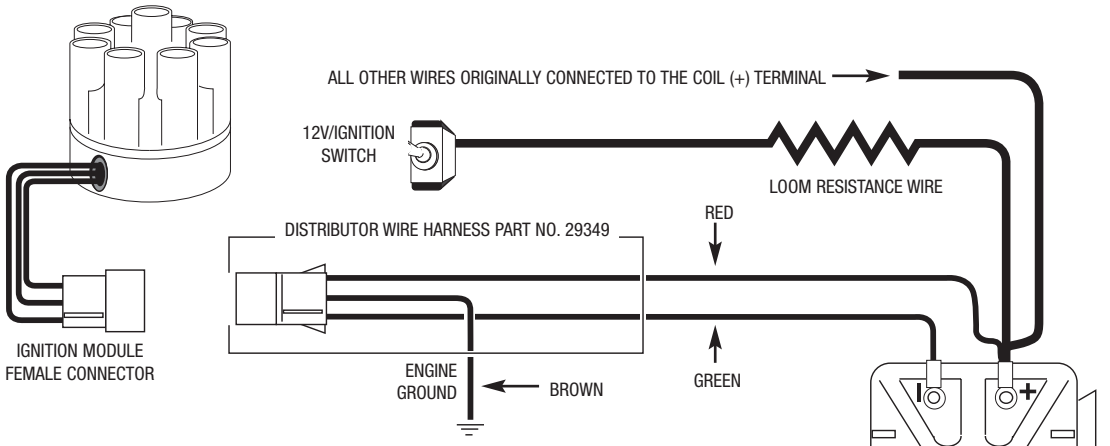
Step 2
Connect a timing light. Find the area with the best view of the timing marks.

Step 3
Start the engine. If it fails to start, rotate the distributor in small increments clockwise or counterclockwise until engine starts. Do not exceed more than ten degrees of distributor housing rotation in either direction.

Step 4
Set timing as recommended by engine manufacturer, then tighten distributor hold down clamp. Make sure timing is still correct. If timing has moved, repeat this procedure.

Step 5
Vacuum advance applications: Reconnect the vacuum hose between the distributor vacuum chamber and the carburetor.

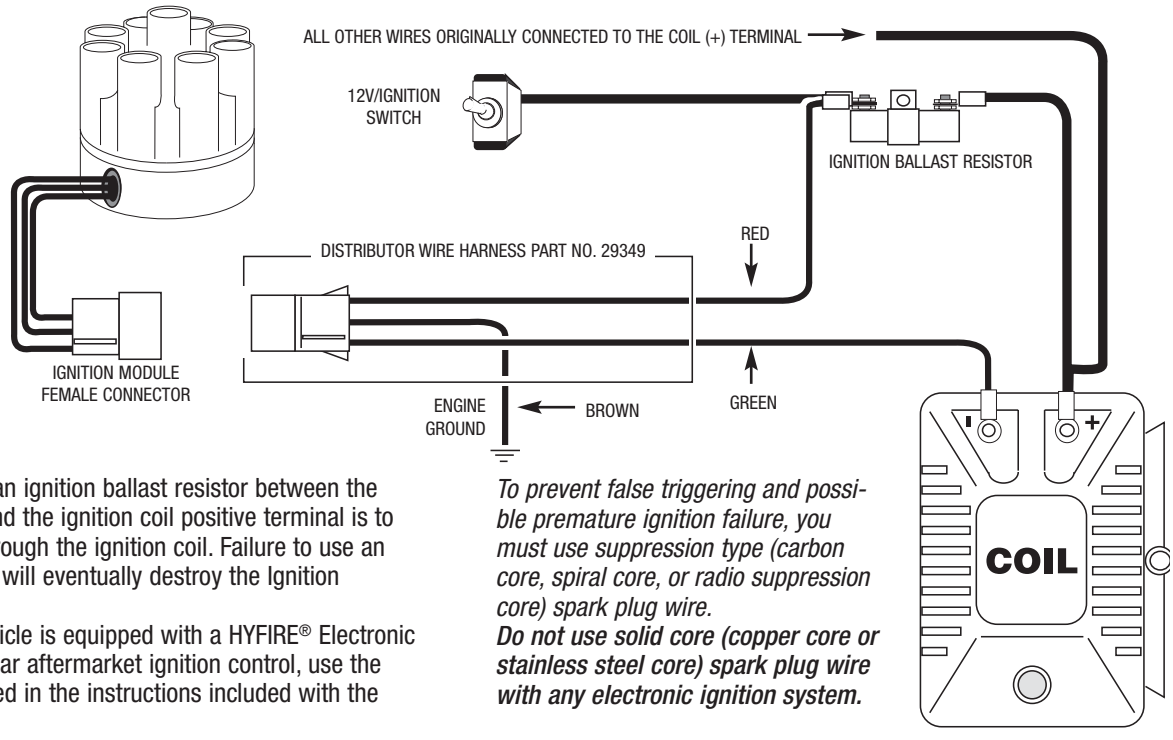
FIGURE 1 **WIRING DIAGRAM USING OEM PRIMARY (LOOM) RESISTANCE WIRE**



NOTE: The purpose of 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 resistance wire 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.

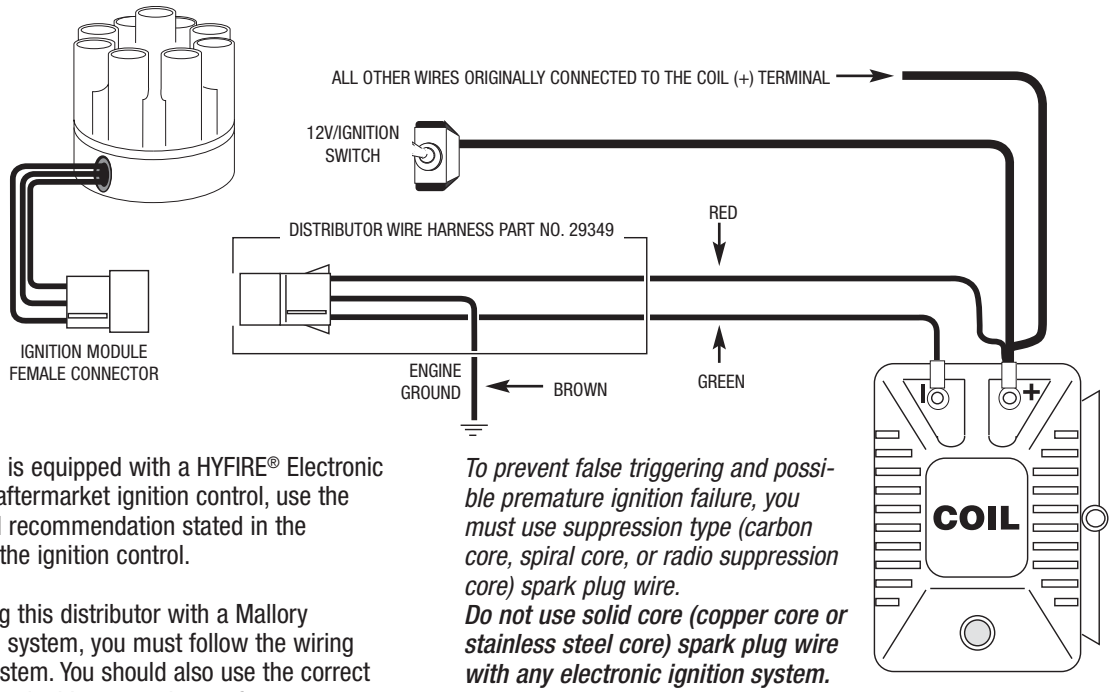
FIGURE 2 **WIRING DIAGRAM USING IGNITION BALLAST RESISTOR**



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 3 **WIRING DIAGRAM USING MALLORY COIL 29219, 29450,30450 ONLY**



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

SPECIAL NOTE: When using this distributor with a Mallory HYFIRE® or similar ignition system, you must follow the wiring diagram for the ignition system. You should also use the correct coil as recommended by the ignition control manufacturer.

The diagrams shown above are for use when the vehicle is equipped with just a distributor and coil.

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.

AUTOMOTIVE DISTRIBUTOR SERVICE PARTS							
	Module	Cap	Rotor	Cap/Rotor Kit	Harness	Vacuum Adv.	Wire Retainer
8 Cylinder Applications With Standard Cap							
42 Series	609	208M	307M		29349	29332	29314
50 Series	609	209M	309	2091M	29349		
57 Series	609	209M	310	2091M	29349	29332	
8 Cylinder Applications With Flat Cap							
50 Series	609	221	318		29349		
57 Series	609	221	318		29349	29332	
(Note- 32-48 Ford- Use cap 221A instead)							
8 Cylinder Applications With COMP 9000 Cap							
87 Series	609	29745	29736		29349	29333-L (LH) 29333-R (RH)	29744
6 Cylinder Applications With Standard Cap (Except Semi-Even and Odd-Fire Engines)							
50 Series	609	270	309		29349		
57 Series	609	270	310		29349	29332	
4 Cylinder Applications With Standard Cap (Except Mini Bowl)							
50 Series	609	271	309	2094M	29349		
57 Series	609	271	310	2094M	29349	29332	
MARINE DISTRIBUTOR SERVICE PARTS							
8 Cylinder Applications With Standard Cap							
YLM Series	609	209D	309		29349		
8 Cylinder Applications With Flat Cap							
YLM Series	609	221B	318		29349		
6 Cylinder Applications With Standard Cap (Except Semi-Even and Odd-Fire Engines)							
YLM Series	609	270B	309		29349		
4 Cylinder Applications With Standard Cap (Except Mini Bowl)							
YLM Series	609	271B	309		29349		

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