



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
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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, use a Mallory PROMASTER® Coil Part No. 29440 or 29625, or Mallory Chrome Electronic Ignition Coil Part No. 29216.

Spark Plug Gaps:

For street applications, use your engine manufacturer's specifications. For racing applications, start with your engine manufacturer's 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 (-) 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.

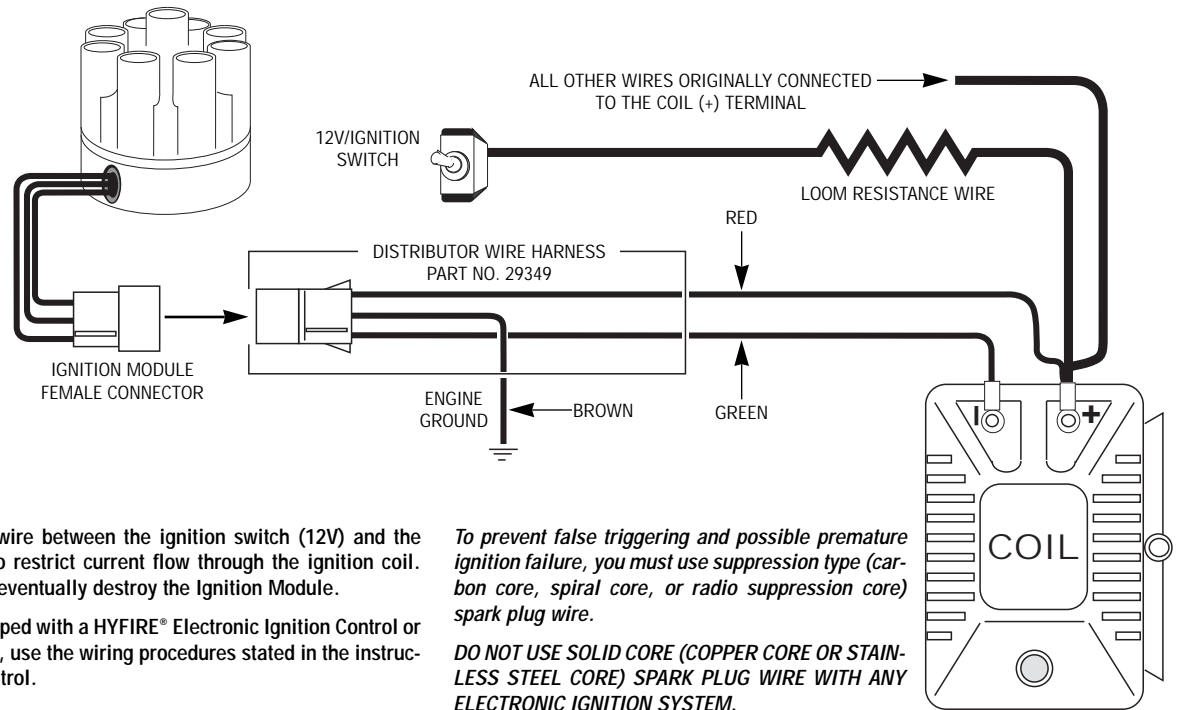
NOTE: Once you are finished with Step 4, DO NOT turn the crankshaft until the new distributor is installed.

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.

AUTOMOTIVE AND MARINE MAGNETIC BREAKERLESS DISTRIBUTOR TUNE-UP PARTS			
AUTOMOTIVE	DISTRIBUTOR CAP	ROTOR (EXCEPT 57 SERIES)	ROTOR 57 SERIES ONLY
8 CYL. (STACK CAP)	PN 209	PN 309	PN 310
8 CYL. (FLAT CAP)	PN 221	PN 318	-
MARINE	(YLM SERIES ONLY)		
8 CYL. (STACK CAP)	PN 209D	PN 309	
8 CYL. (FLAT CAP)	PN 221B	PN 318	
MAGNETIC BREAKERLESS IGNITION MODULE, ALL MODELS: PART NO. 609			
DISTRIBUTOR WIRE HARNESS, ALL MODELS: PART NO. 29349			

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



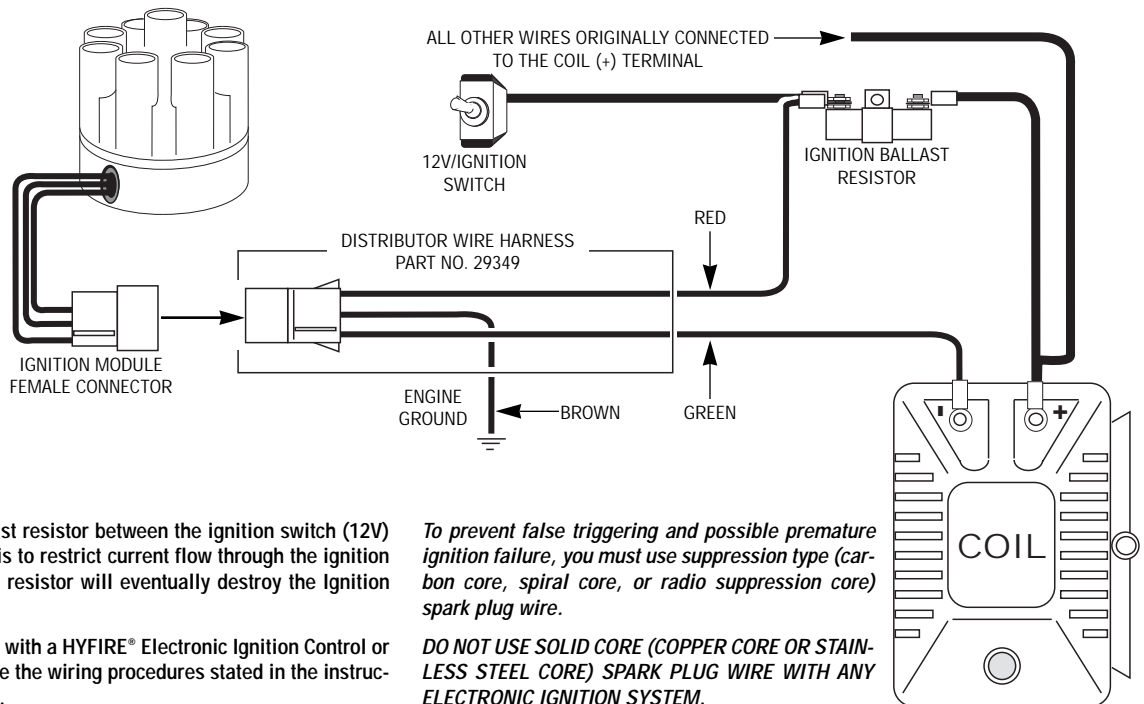
NOTE: The purpose of resistance wire between the ignition switch (12V) and the ignition coil positive terminal is to restrict current flow through the ignition coil. Failure to use resistance wire will eventually destroy the Ignition Module.

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.

WIRING DIAGRAMS USING AFTERMARKET ELECTRONIC IGNITION CONTROLS

FIGURE 3

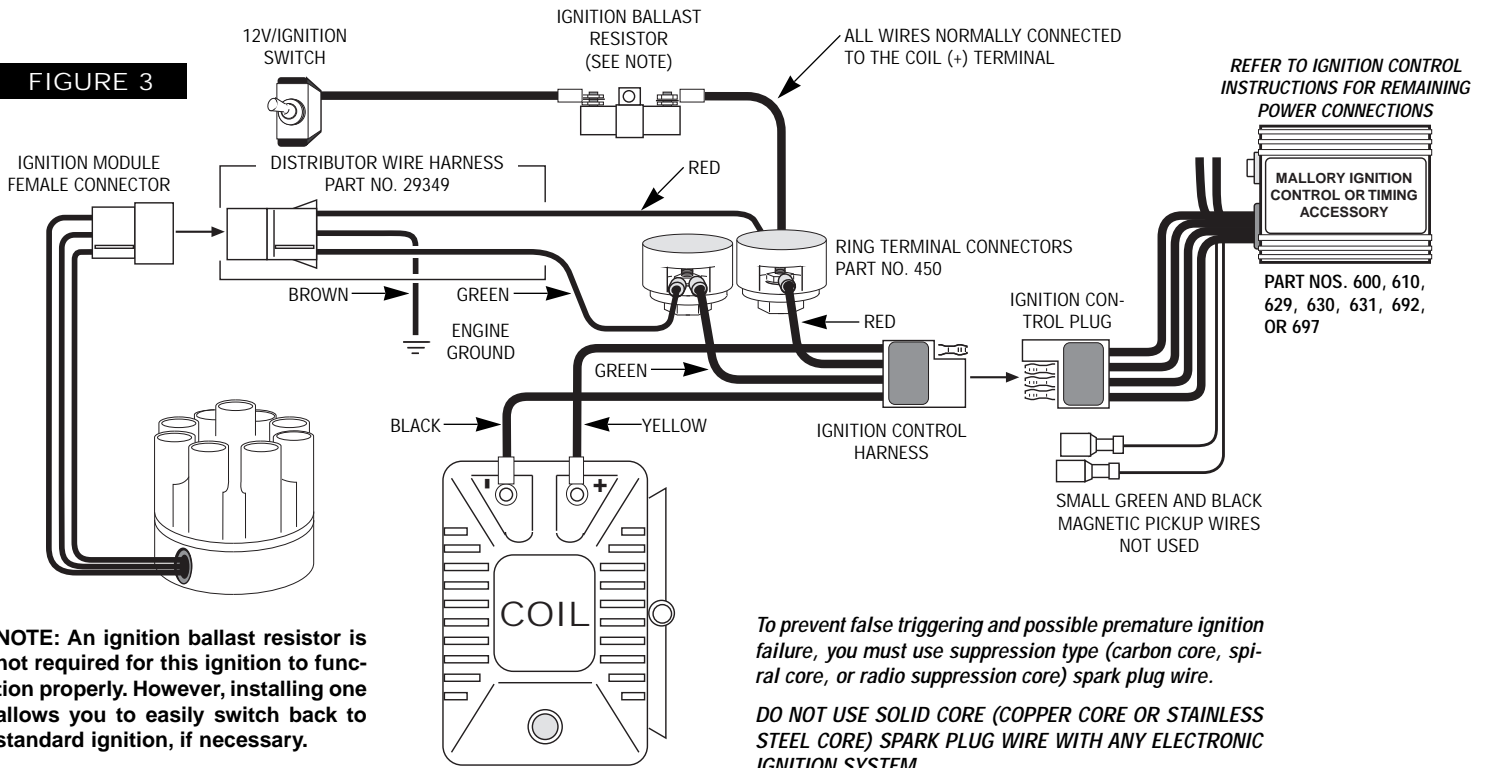
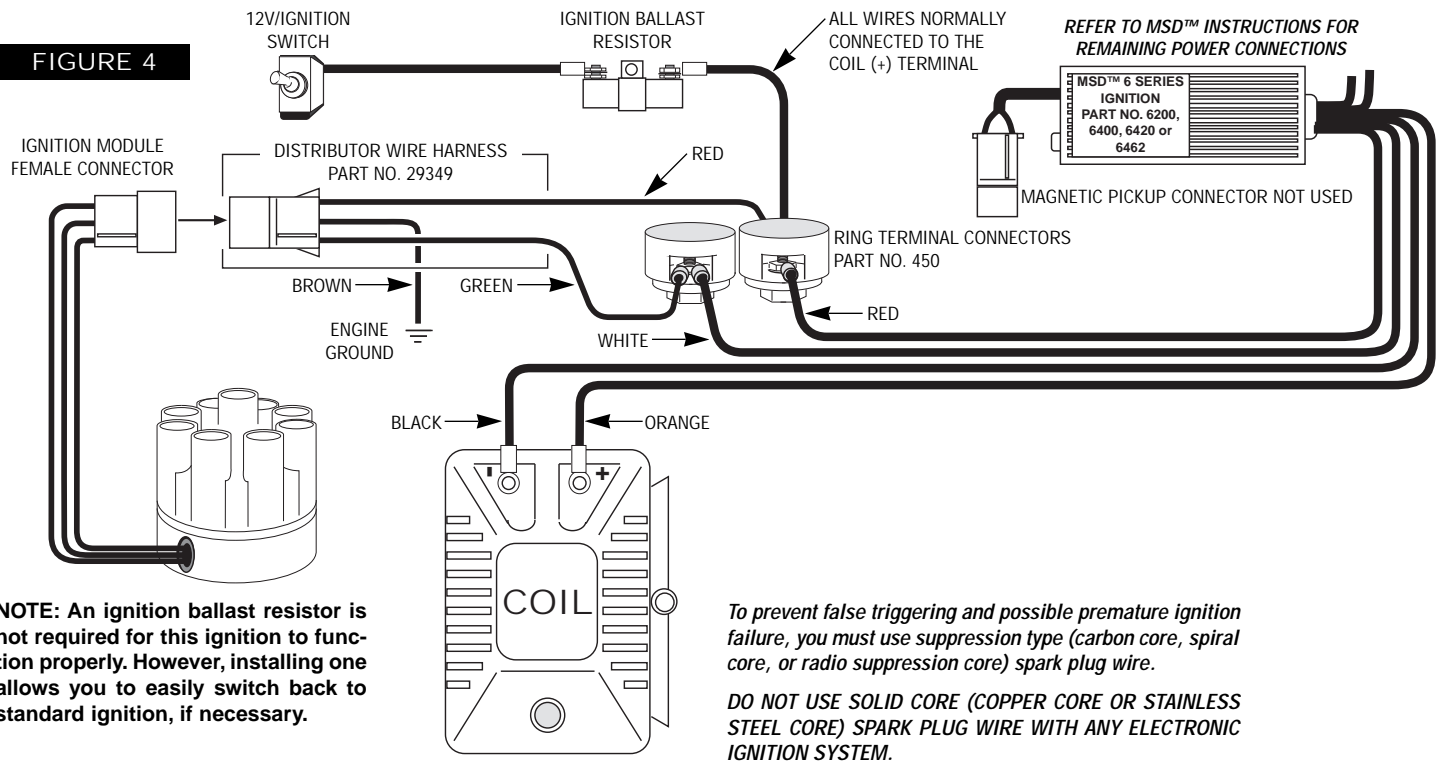


FIGURE 4



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 starting 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.

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To the original retail purchaser of a Mallory, Inc. product, Mallory, Inc., subject to the conditions incorporated in this Limited Warranty, warrants that its products are free from defects in material and workmanship for the period of Ninety (90) days from the date of the original retail purchase. Notwithstanding anything to the contrary herein, Mallory, Inc., subject to the conditions incorporated in this Limited Warranty, warrants that its electronic ignition products are free from defects in material and workmanship for the period of One (1) Year from the date of the original retail purchase.

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