



INSTALLATION INSTRUCTIONS

E-SPARK™ BREAKERLESS CONVERSION KIT FOR MALLORY POINT DISTRIBUTORS

NOTE: This product is legal in California only for racing vehicles which may never be operated upon a highway.

IMPORTANT

All kits listed below must be used with an ignition ballast resistor (or loom resistance wire) to prevent module failure. If your vehicle is not equipped with a ballast resistor or loom resistance wire, Mallory Ballast Resistor (Part No. 700) or Mallory Coils 29219, 29450 or 30450 (which are internally ballasted) may be used.

APPLICATIONS

Part No. 61010M For **Left-Hand Rotation** 27 Series Mallory 8 cylinder point automotive vacuum advance equipped distributors which use a standard stack cap (Part no. 209).

Part No. 61011M For **Right-Hand Rotation** 27 Series Mallory 8 cylinder point automotive vacuum advance equipped distributors which use a standard stack cap (Part no. 209).

Refer to the Mallory Catalog's distributor application section if you need a to determine your distributor's rotation.

PARTS INCLUDE IN THIS KIT:

- 1 E-Spark™ Plate Assembly
- 1 Wire Harness
- 1 Rotor/Shutter Wheel Assembly (PN 322)
- 1 Wire Connector
- 1 Grommet
- 1 Rubber Plug
- 1 Thrust Button

WARNING

You must install the E-Spark™ Conversion Kit exactly as shown in these instructions. After the kit is installed—and before you start the engine—check all wiring again. Mis-wiring will cause the E-Spark™ Ignition to fail immediately.

INSTALLATION

Step 1

Rotate the engine to the #1 cylinder firing position. Remove the distributor cap and note the position of the rotor. You will need to reference this when you reinstall the distributor. Remove the distributor from the engine.

Step 2

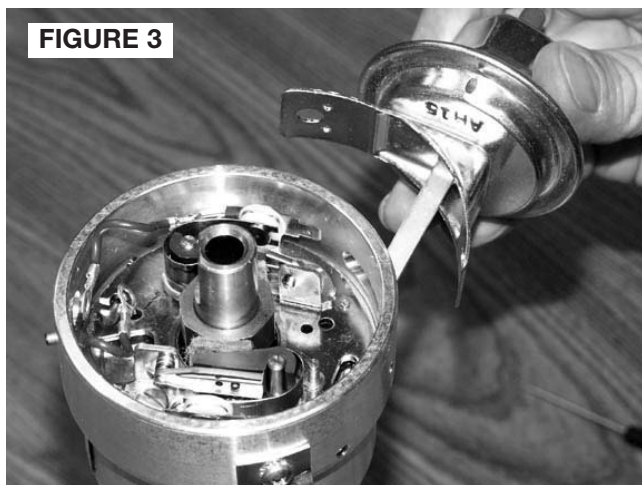
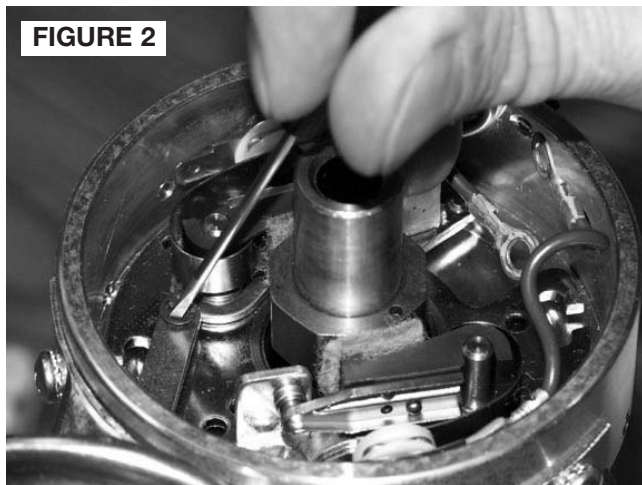
Remove the rotor, and then remove the condenser and bracket. Remove the insulators (Figure 1).



FIGURE 1

Step 3

Remove the e-clip from the vacuum advance arm (Figure 2). Remove the 2 screws holding the vacuum advance chamber from the outside of the distributor housing and remove the vacuum chamber (Figure 3). You will re-install it later so do not discard it.



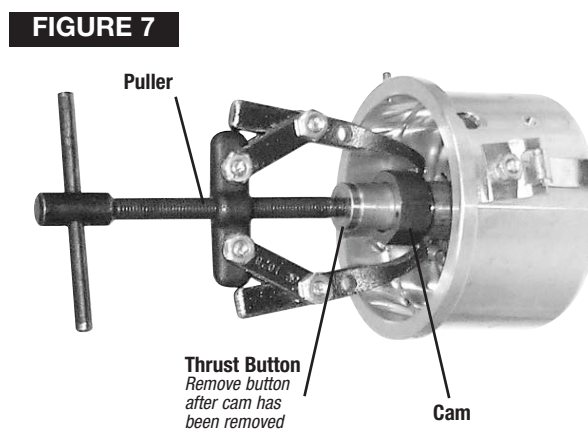
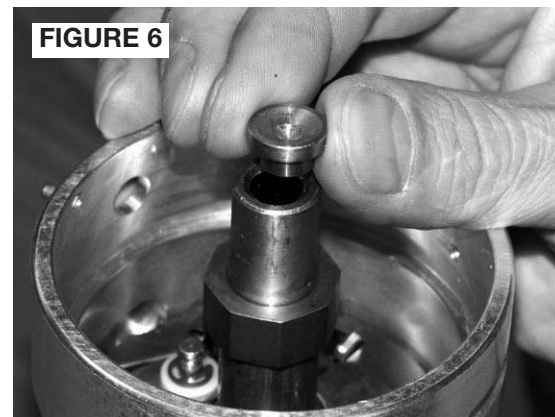
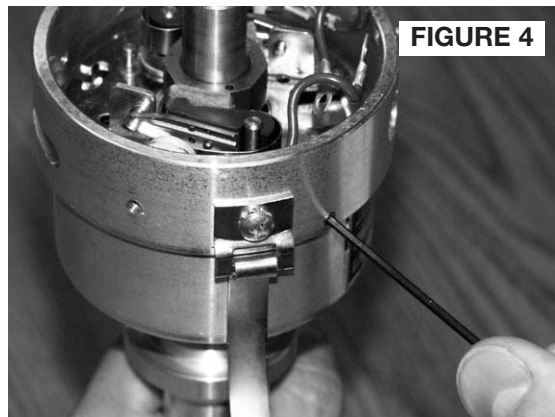
Step 4

Using a 5/64" Allen wrench, loosen the 2 set screws that hold the point plate assembly into the distributor housing (Figure 4). You do not need to remove them completely. Lift the point plate assembly out of the housing (Figure 5).

Step 5

Place the thrust button into the end of the distributor shaft (Figure 6). Using a 2 or 3 arm puller and remove the point cam from the rotor sleeve (Figure 7).

WARNING - Do not try to remove the cam by prying on it with a screwdriver(s). This will damage the advance assembly.



Step 6

This step requires you to drill a 3/8" hole in the distributor housing to accommodate the new wiring harness. Measure 1" from the existing insulator hole and the same distance down from the top of the housing and mark the distributor housing. You will be slightly offset from the cap locating pin. With a paper towel inside the housing for shavings, drill the 3/8" hole now (Figure 8).

Step 7

Clean out any remaining metal shavings left from the drilling operation using a vacuum, brush, etc. Do not wash out the housing with the shaft assembly in place or you will wash the lubrication out of the centrifugal advance and cause it to fail. If necessary, you can remove the shaft as an assembly then clean out the housing.

Step 8

Lower the new plate assembly into the housing (Figure 9). Use the vacuum advance arm to determine the position. Tighten the 2 set screws, reinstall the vacuum advance with the 2 external screws. Reinstall the e-clip. Use Figure 10 for reference.

Step 9

Install the supplied grommet into the new hole you drilled (Figure 11) and route the wiring as shown in Figure 10.

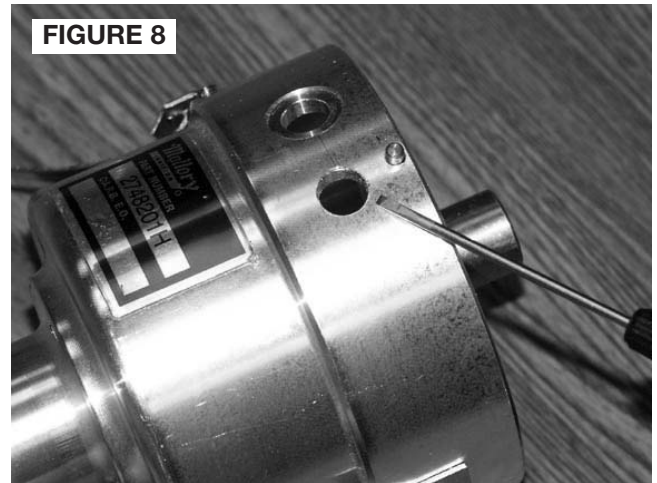


FIGURE 8



FIGURE 9

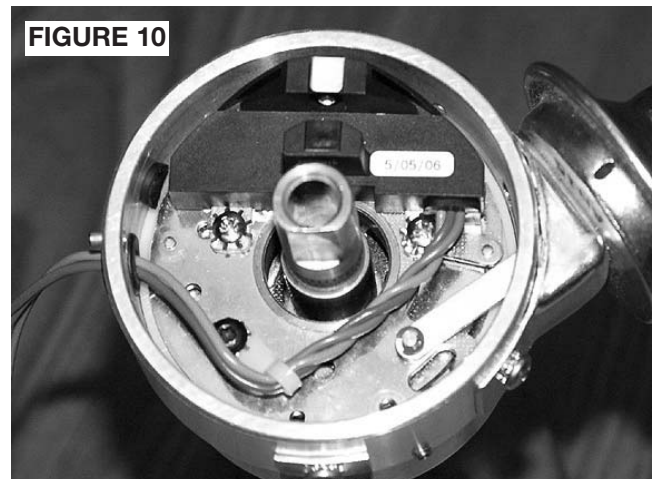


FIGURE 10

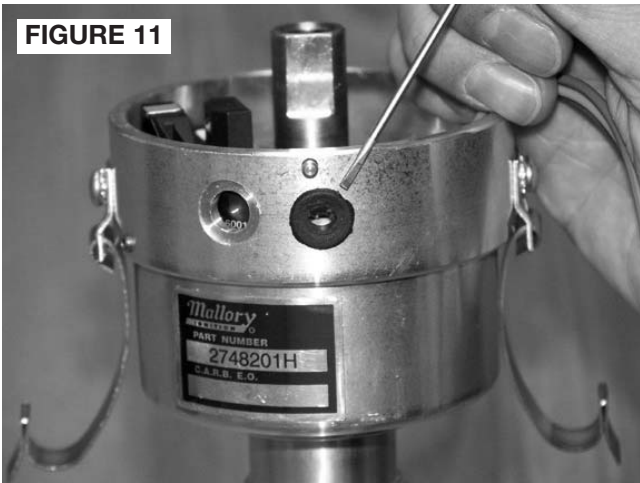


FIGURE 11

Step 10

Insert the rubber plug into the existing grommet hole (Figure 12). This is a tight fit and you may need to pull it through. Once it is in position, cut the bushing off flush on the inside (Figure 13).

Step 11

Install the wire grommet. Lubricate the wires with light oil. Run the wires through the grommet and out of the distributor housing (see Figure 14).



FIGURE 12

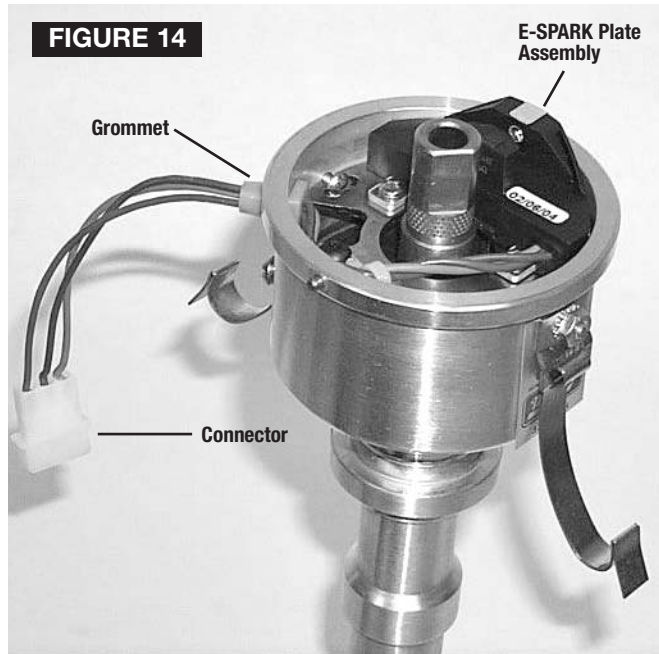


FIGURE 14



FIGURE 13

Step 12

Install the connector onto the wires. Be sure the wires are in the correct positions (see Figure 15).

Step 13

Install the rotor shutter assembly. Make sure the rotor/shutter does not rub on the module or wires.

Step 14

Reinstall the distributor using the rotor for a reference. Reinstall the cap.

Step 15

Connect the wire harness to the connector. Connect the 3 wires to the correct locations, as shown in Figures 16 and 17.

Step 16

Set the ignition timing. Start the engine and recheck timing.

FIGURE 15

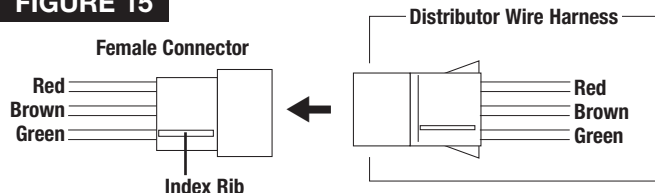


FIGURE 16 EQUIPPED WITH EXTERNAL BALLAST RESISTOR

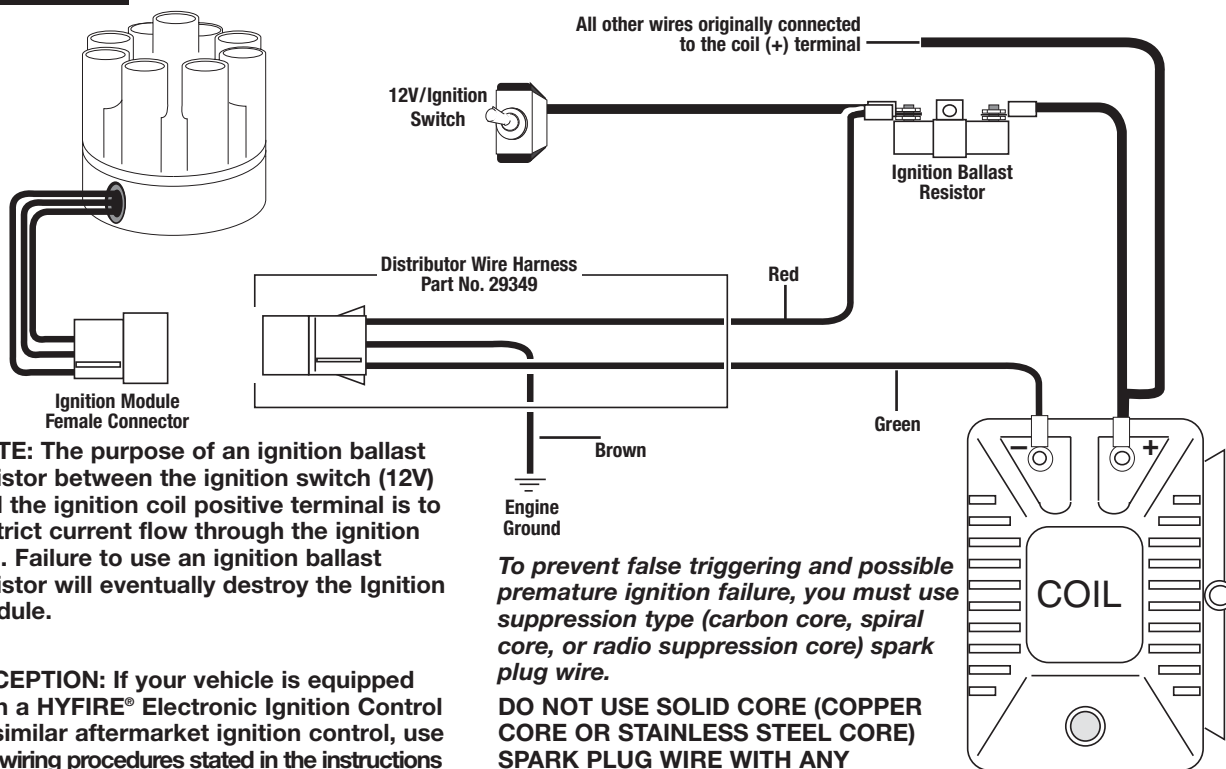
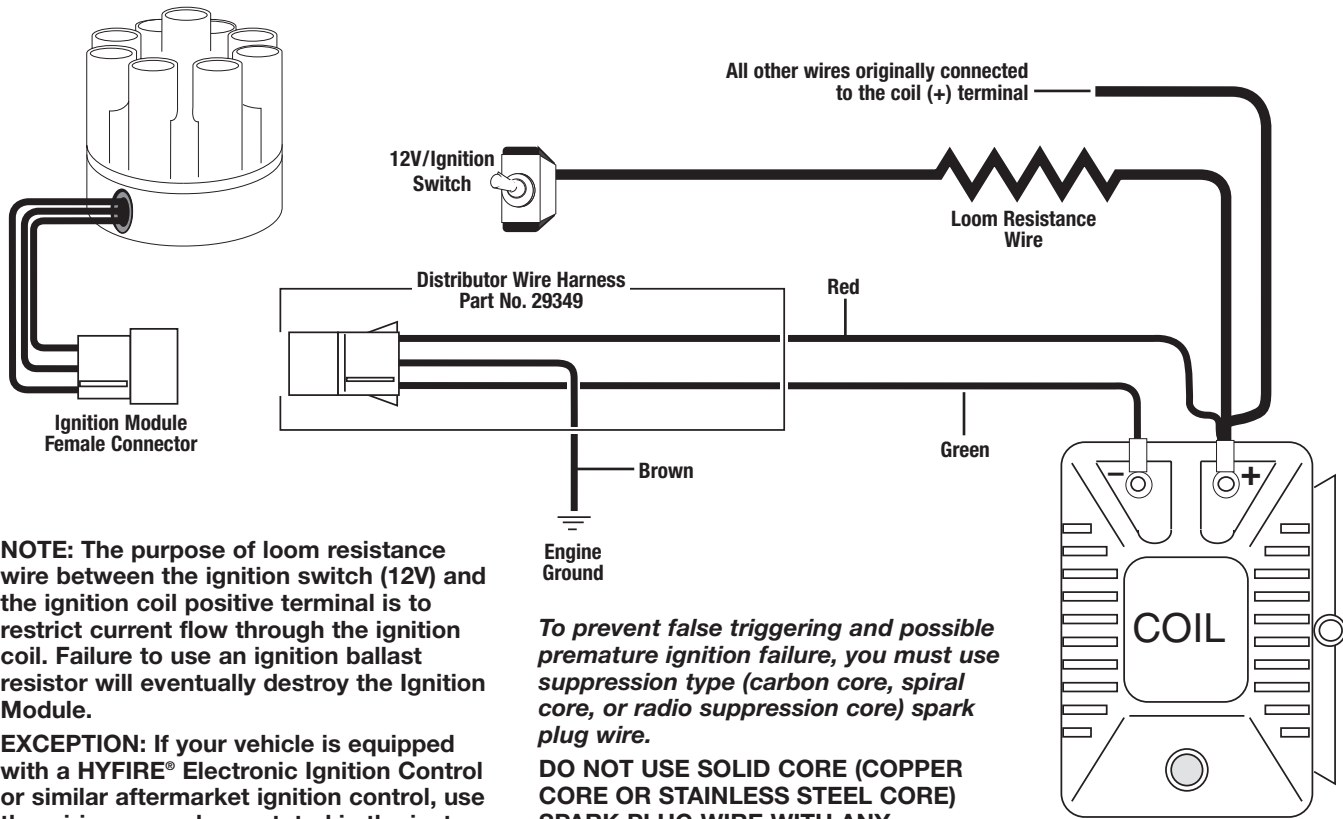


FIGURE 17 EQUIPPED WITH LOOM RESISTANCE WIRE



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.

FIGURE 18 EQUIPPED WITH 29219, 29450, OR 30450 COILS ONLY

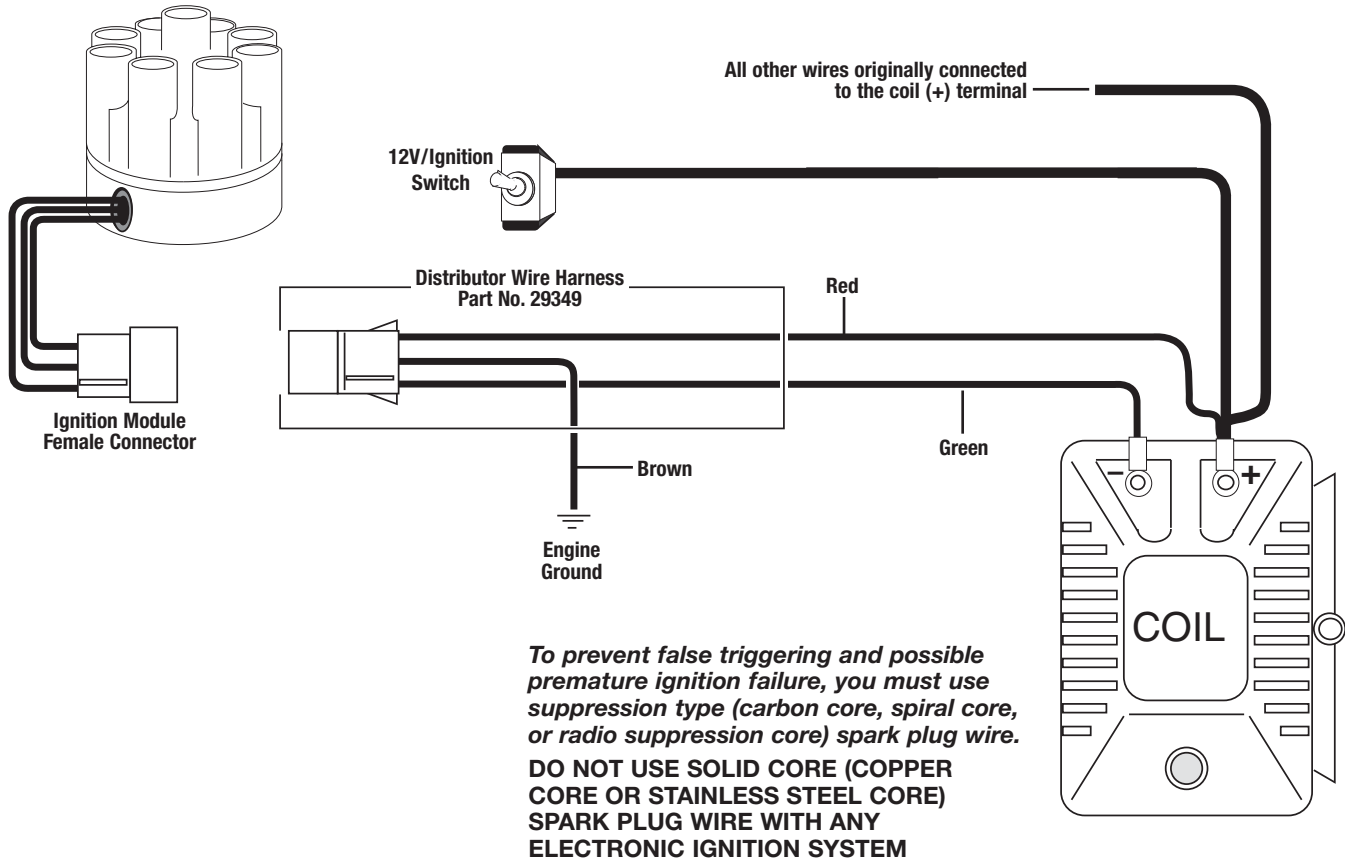
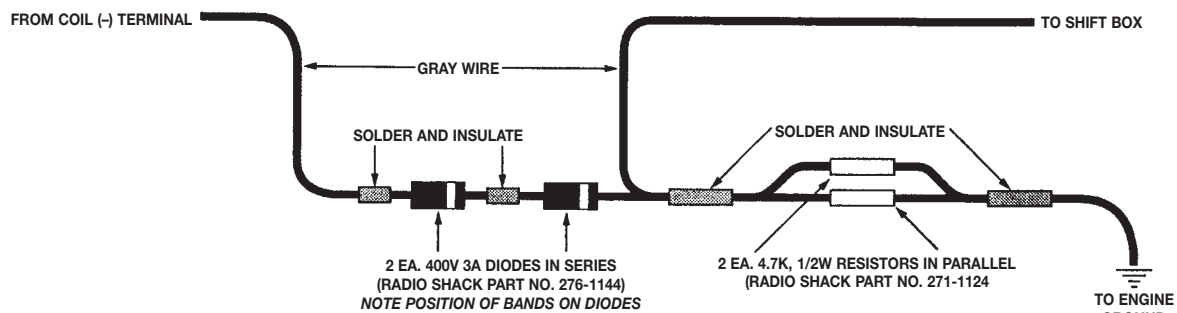


FIGURE 19 FOR MARINE USE ONLY

After installing your Mallory Electronic Distributor, the Electronic Shift Assist (ESA) circuit in your boat must be function tested. Shifting into or out of gear can be difficult or impossible if the ESA circuit is malfunctioning or missing. If you encounter shifter related problems with your boat after installing any Mallory distributor, contact the Mallory Technical Service Department at 216.688.8300.

All Mallory Marine Electronic Ignition Systems in Outboard Marine Corp (OMC) applications with a shift box require the gray wire from the coil to the shift box be modified as follows:

The gray wire from the coil (-) terminal triggers the shift box. The gray wire should be cut or disconnected at the coil terminal so that the components shown here can be inserted. Solder all connections and confirm correct operation, then insulate well, especially if the boat is being used in salt water.



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