

# MSD<sup>®</sup> IGNITION INSTALLATION INSTRUCTIONS

## ADJUSTABLE TIMING CONTROL PN 8680

**IMPORTANT:** Read the Instructions before attempting installation.

### Parts Included:

- |                             |                                  |
|-----------------------------|----------------------------------|
| 1 - Timing Control, PN 8680 | 1 - Control Knob                 |
| 1 - 3/8" Bushing            | 1 - 2-Pin Weathertight Connector |
| 4 - Self Tapping Screws     |                                  |

**WARNING:** During installation, disconnect the battery cables. When disconnecting the battery, always remove the Negative cable first and install it last.

**Note:** The MSD PN 8680 Timing Control **must be used** with an MSD Ignition Control. It is recommended to install the MSD Ignition first.

## MOUNTING

The Timing Computer may be mounted in the engine compartment as long as it is away from direct engine heat sources. Make sure all of the wires reach their connections before mounting the unit. Use the Control as a template and mark the mounting holes. Remove the unit and drill the mounting holes using an 1/8" drill bit. Four self tapping screws are supplied to mount the unit. Note: Before mounting the unit, install the supplied grommets and sleeves as shown in Figure 1.

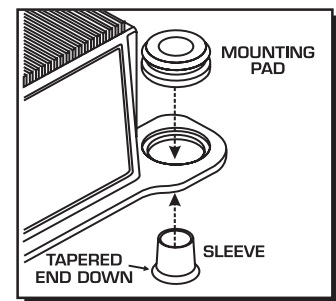


Figure 1 Installing the Vibration Mounts.

## PROGRAMMING

The Timing Control is programmed for 8-cylinder operation using the Points (White wire) input. If installing the PN 8680 on a 4 or 6-cylinder or are using a magnetic pickup to trigger the ignition, the Control must be programmed as follows. Locate the Cylinder Select cover on the side of the unit and remove the single Phillips screw (Figure 2).

**Number of Cylinders:** The Red loop and the Blue loop are responsible for cylinder programming. The chart in Figure 2 shows which loop(s) to cut.

**Trigger Selection:** If using a magnetic pickup trigger, the White loop must be cut (Figure 2).

**Note:** After cutting a loop, position the wire ends away from each other so they cannot make contact.

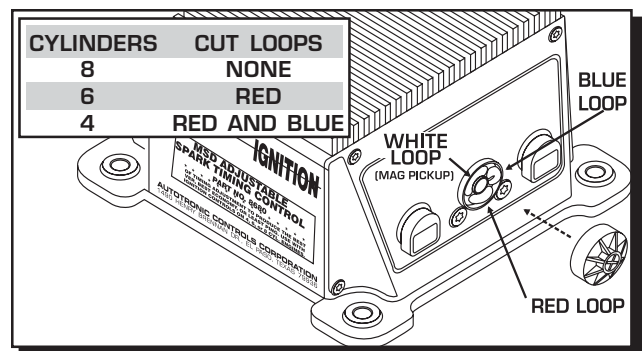


Figure 2 Selecting the Number of Cylinders.

## WIRING

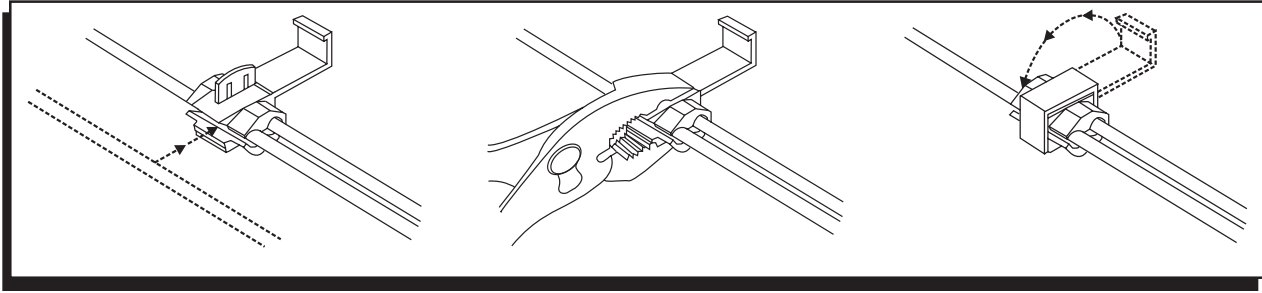


Figure 3 How to use the Supplied Wire Splice Device.

### WIRE FUNCTIONS

<b>Yellow</b>	This is the trigger output wire. It connects to the White wire of an MSD 6 Series Ignition or "Points" terminal of a 7 Series Ignition.
<b>Red</b>	This wire is responsible for turning the Timing Control on and off. It connects to a switched 12 volt source. It can be spliced into the small red wire of the MSD.
<b>Black</b>	This is the ground wire and must be connected to a good engine or chassis ground

### TRIGGER WIRES

<b>Violet Green</b>	These wires connect to the magnetic pickup of the distributor or crank trigger. The Violet is positive (+) and the Green wire is negative (-). When this connector is used the White wire is not.
<b>White</b>	This is the trigger input wire for breaker points or ignition amplifier. When this wire is used, the magnetic pickup wires (violet and green) are not.

### Control Knob

The Black and Gray wires with the 2-Pin Weathertight connector are the Control Knob wires. After the Timing Control is mounted, the Harness should be routed to the unit. The Control Knob should be mounted within easy reach of the driver. Before mounting the Control Knob, make sure the wiring harness reaches the unit.

If the harness must be routed through the firewall, drill a 3/8" hole and use the supplied grommet to route the wires through. Install the supplied 2-Pin Weathertight connector to the wires after all of the routing is finished (Figure 4). **The position of the wires in the connector is not important.**

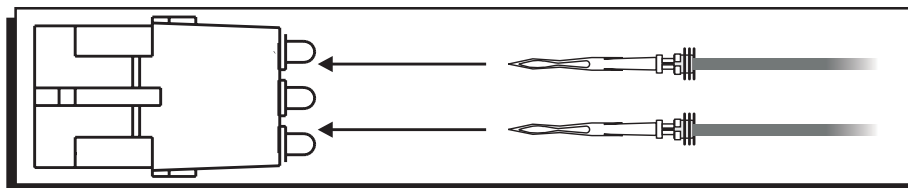


Figure 4 Installing the Weathertight Connector.

### Operating the Control

After installation, it is recommended to check the timing. Before starting the vehicle, turn the Control Knob to the full 15° mark. This is the stock timing setting. As the Knob is turned counterclockwise, the timing retards. As detonation occurs, slowly retard the timing until the "pinging" noise is not audible. Adjust the timing as driving conditions change.

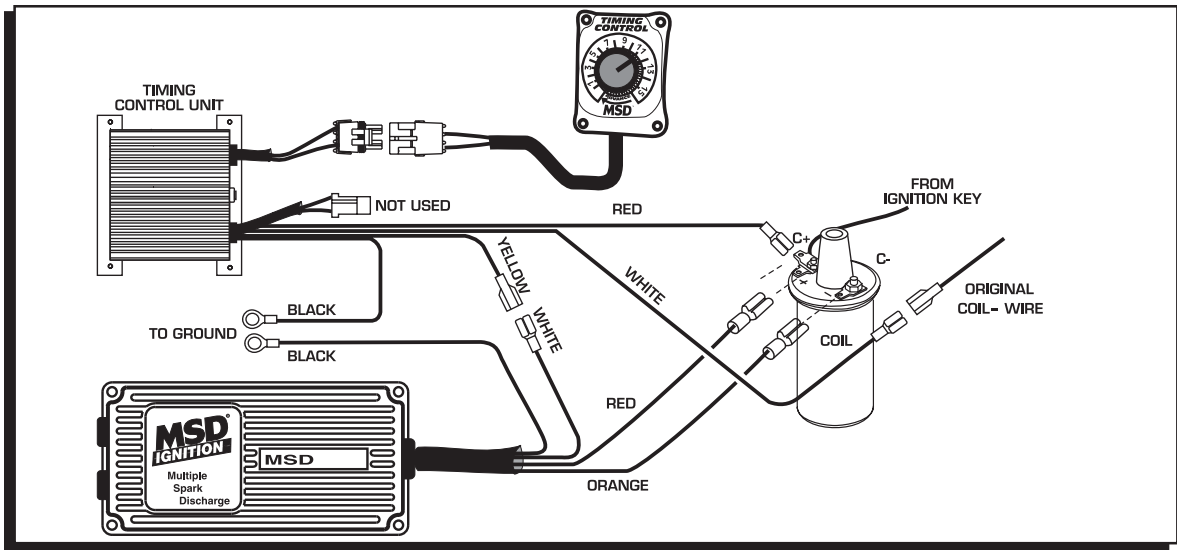
**Resetting the Timing**

It is possible to set the Timing Control up to where you can retard and advance the timing 7.5° each. To do this, position the Control Knob in the center (approximately 7.5°) then reset the timing to factory specifications.

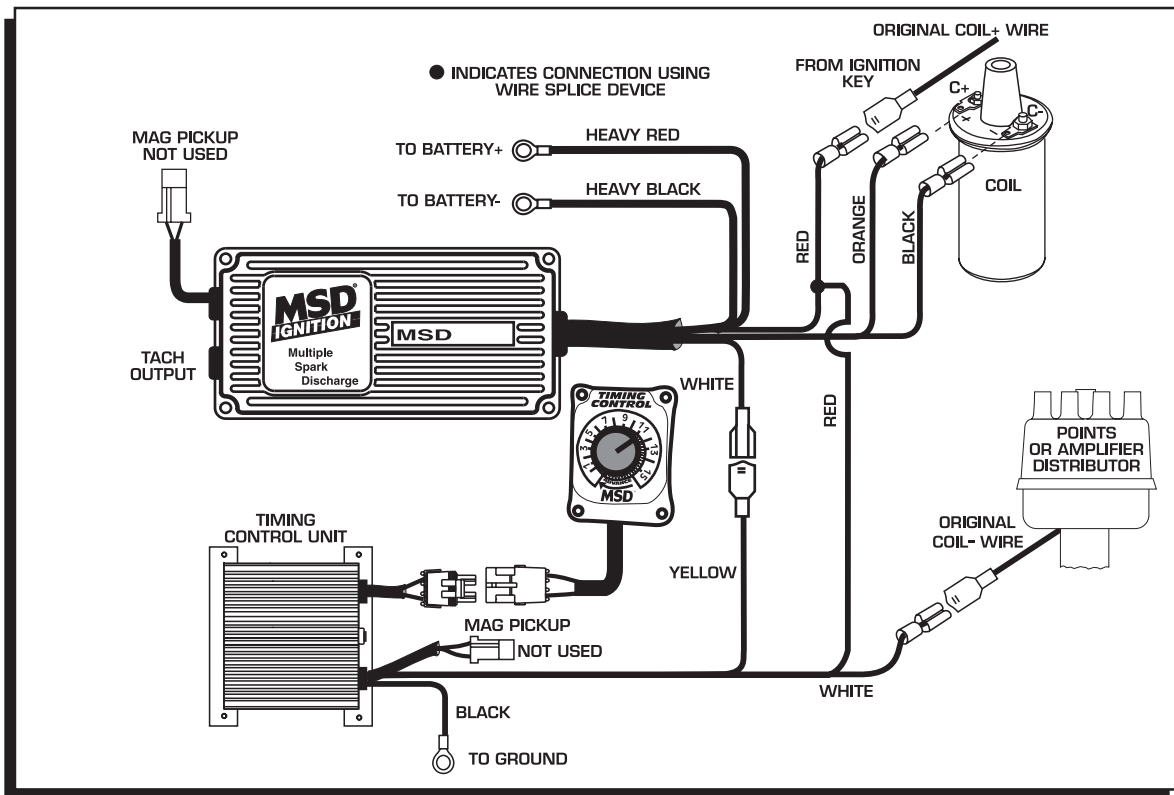
**DIAGRAMS**

The following wiring diagrams show common installations.

**Note:** The MSD 6 and 7 Series Ignitions share the same wire colors.



**Figure 5** Wiring to a Points or Amplifier Ignition with an MSD 5 or Blaster Ignition using the Points Trigger.



**Figure 6** Wiring to Points or Amplifier Ignition with an MSD 6 Series.

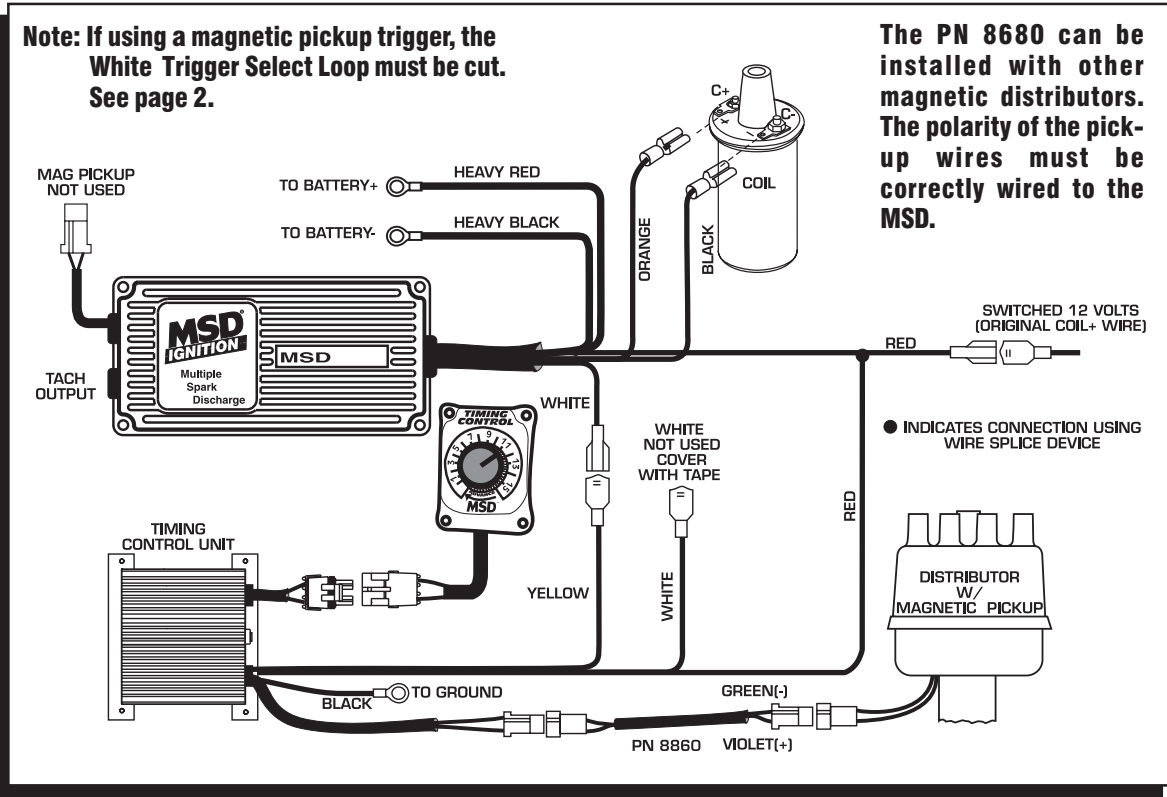


Figure 7 Wiring to Magnetic Pickup Trigger with an MSD 6 Series.

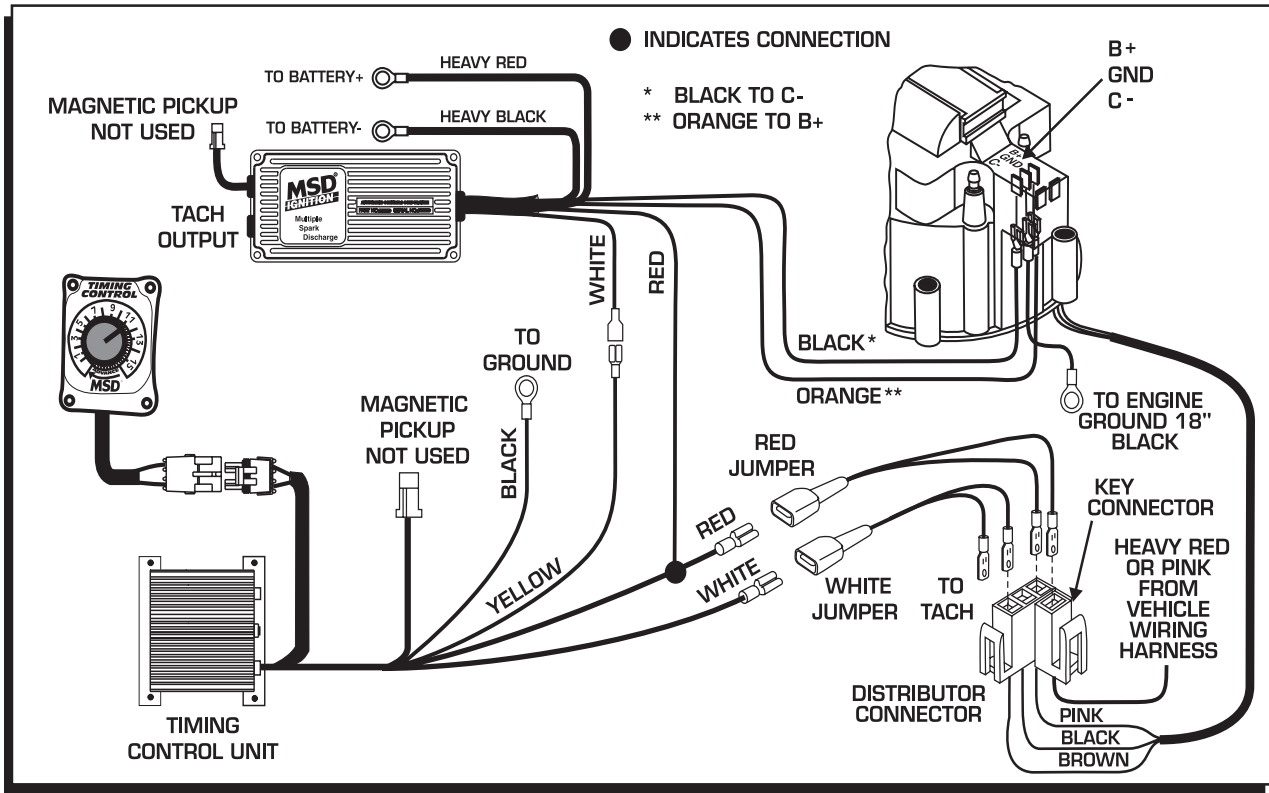


Figure 8 Installation to a GM HEI with a 5 or 7-Pin Module (Points Trigger).

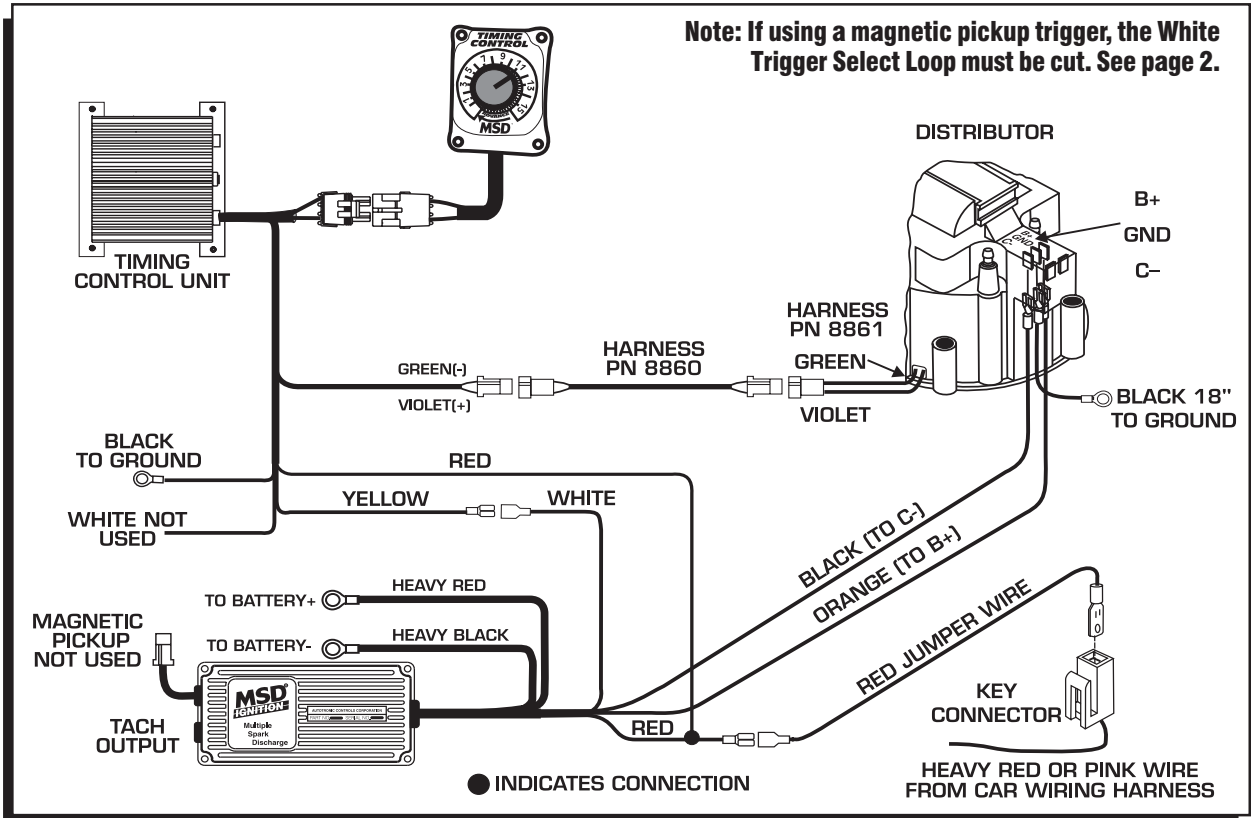


Figure 9 Installation to a GM HEI with a 4-Pin Module (Magnetic Trigger)

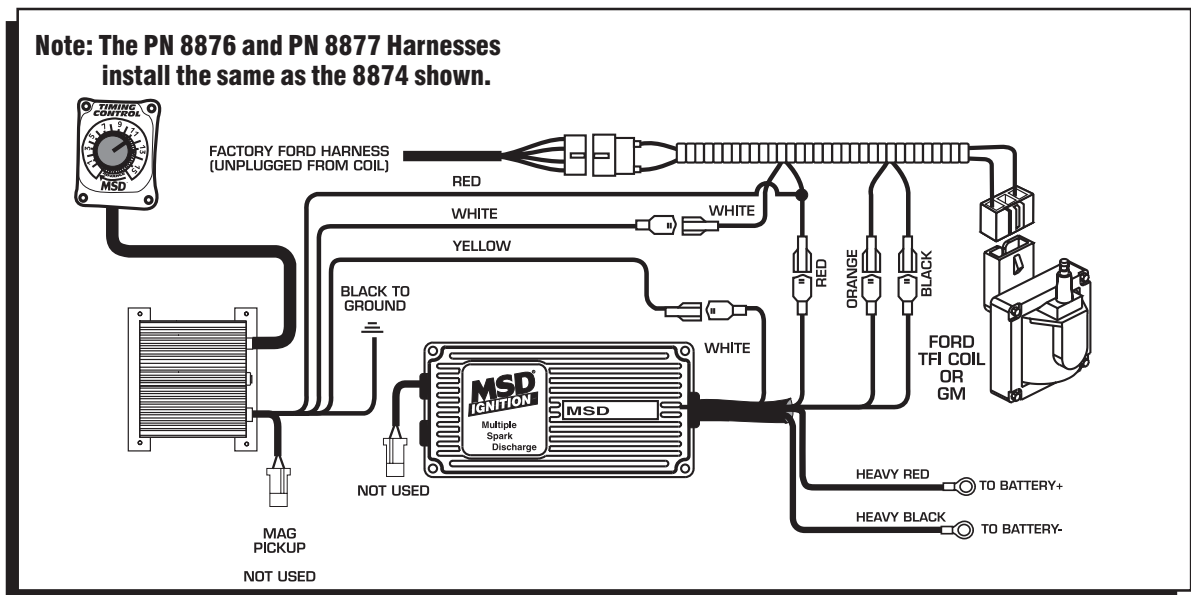


Figure 10 Wiring with an MSD PN 8874, 8876 or 8877 Harness.

Note: The MSD 6 and 7 Series Ignitions share the same wire colors.

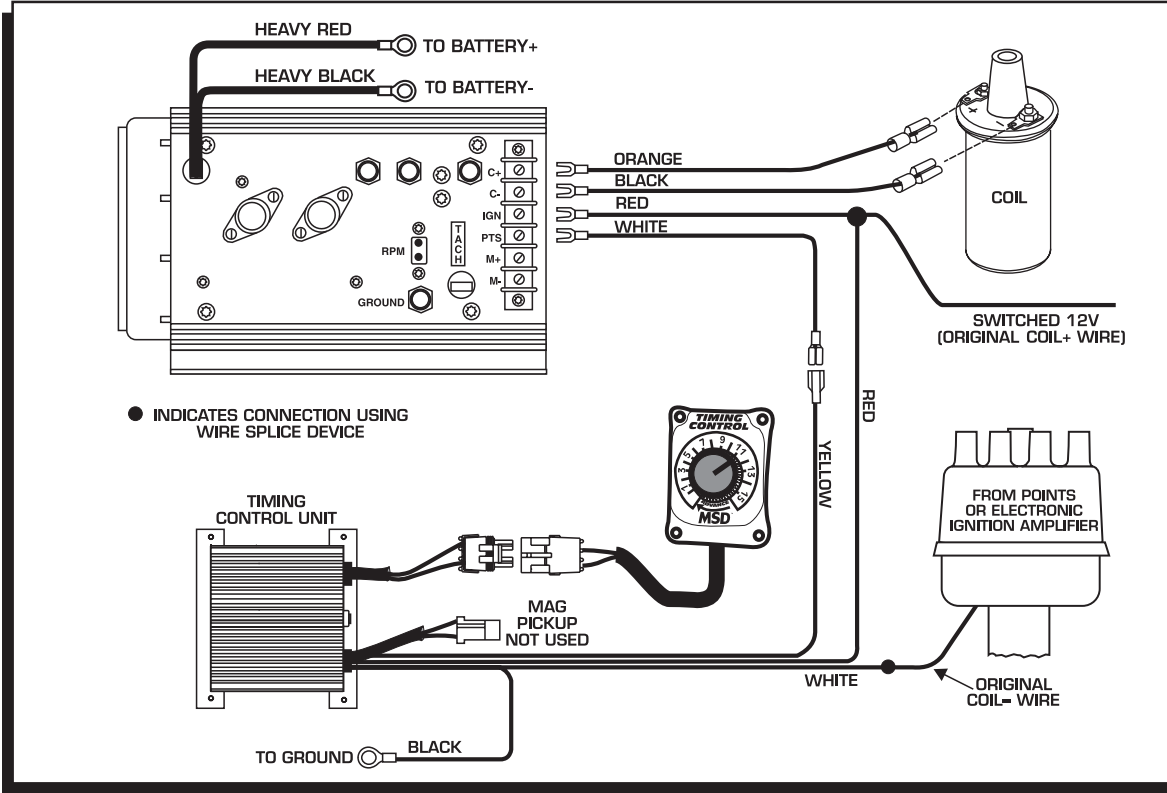


Figure 11 Wiring to Points or Amplifier with an MSD 7 Series.

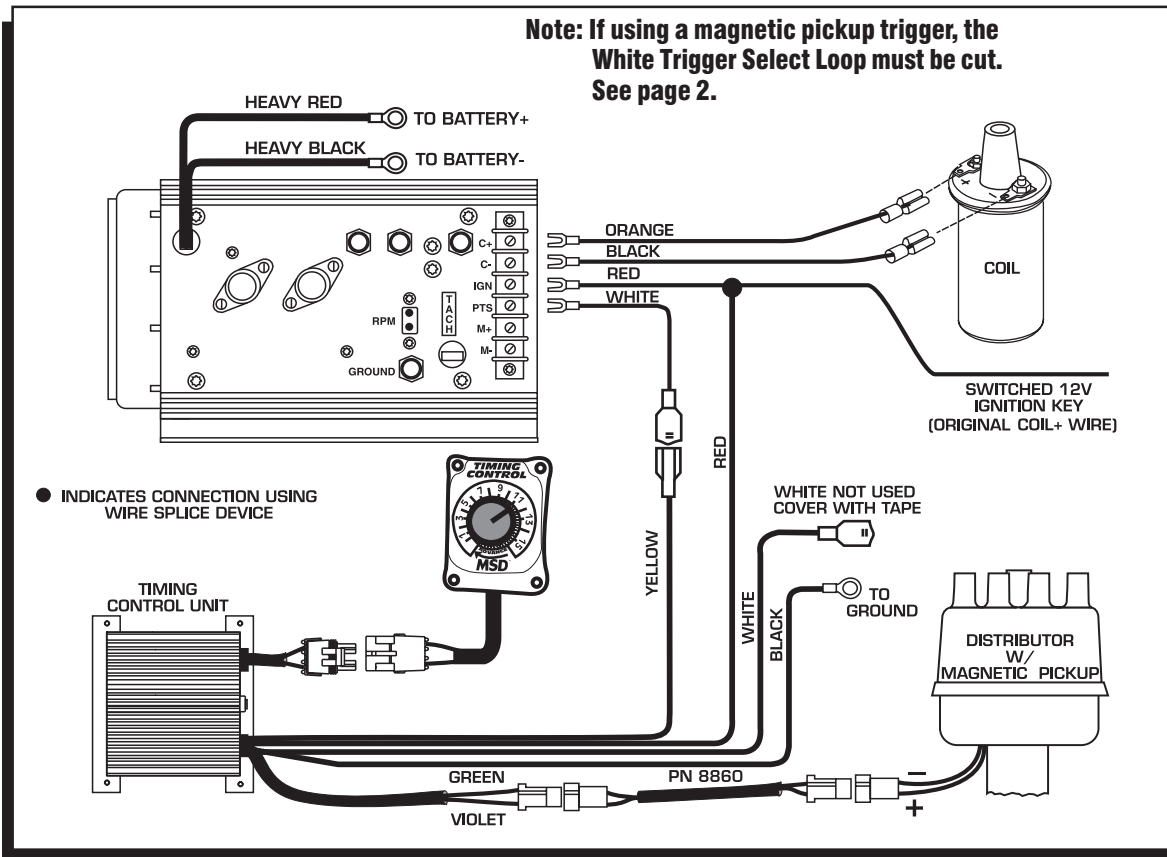


Figure 12 Wiring to Magnetic Pickup with an MSD 7 Series.



