

INSTALLATION INSTRUCTIONS

MSD Universal Boost Timing Master Part No. 5462

Parts Included In This Kit

- | | |
|---------------------------------|-----------------------------|
| 1 - Boost Timing Master PN 5462 | 1 - Control Knob |
| 1 - 3/8" Snap Bushing | 1 - 2 Pin Connector |
| 1 - BTM Cable Assembly | 1 - 60" Violet Wire |
| 1 - White Wire Jumper | 1 - Red Wire Jumper |
| 3 - Male Fastons | 3 - Blue Wire Splice Device |
| 2 - T-Tap Splice Device | 4 - Self Tapping Screws |
| 1 - Instruction Manual | |

CHECK THE INITIAL TIMING AND WRITE THE FIGURE HERE. _____ **This is the ORIGINAL TIMING.**

MOUNTING THE BOOST TIMING MASTER

After selecting a mounting location away from the engine and exhaust manifolds, use the Boost Timing Master as a template and drill four 1/8" holes. Mount the unit using the four self-tapping screws supplied in the parts kit. Make sure that the cables will reach the Boost Timing Master Ignition cables and their connections. Connect a 1/8" hose from a manifold vacuum line or boost pressure line to the spigot on the side of the unit.

INSTALLING THE CONTROL KNOB

Mount the Timing Control Knob where it can easily be reached by the driver. Run the cable assembly from the knob to the mounting location of the Boost Timing Master. If the cable assembly must pass through the firewall, drill a 3/8" hole and insert the 3/8" snap bushing that is supplied in the parts kit. Run the cable through the bushing and insert the two pins on the cable assembly into the 2-pin connector supplied in the parts kit (See Figure 1). It doesn't matter which pin goes in which hole but make sure you do this after passing the cable through the snap bushing.

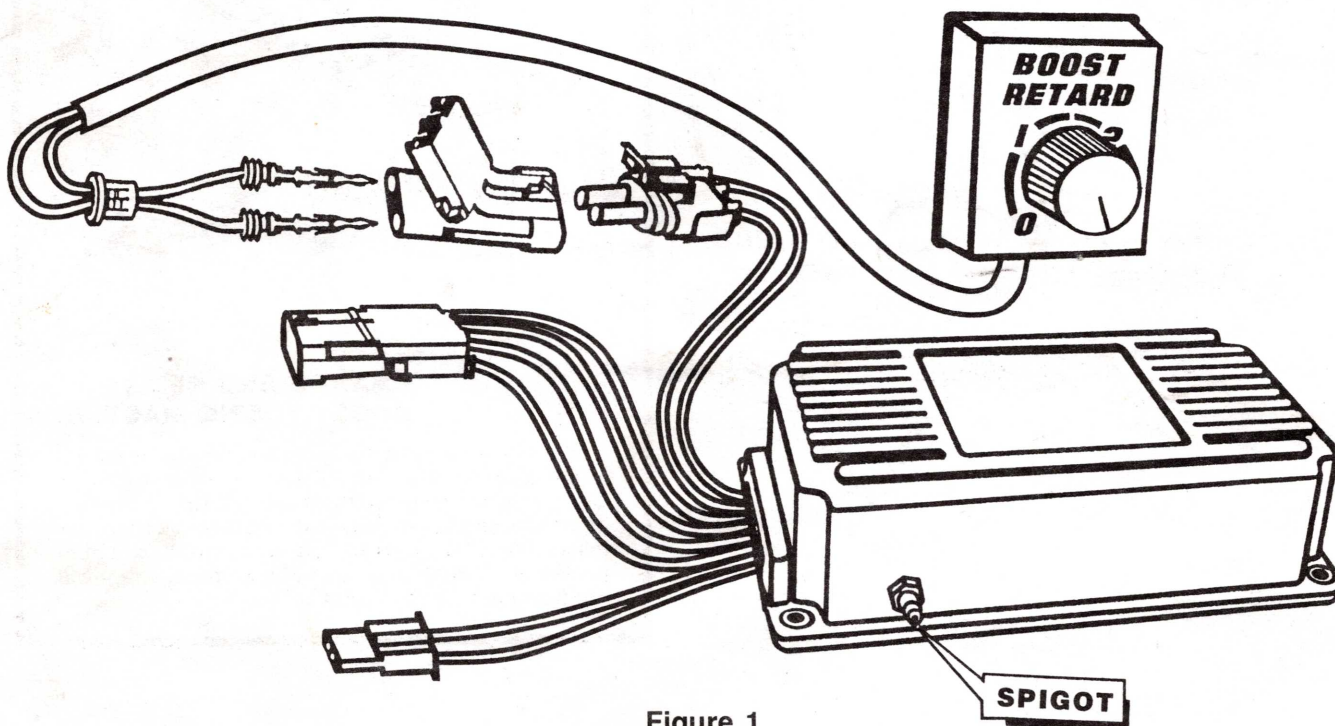
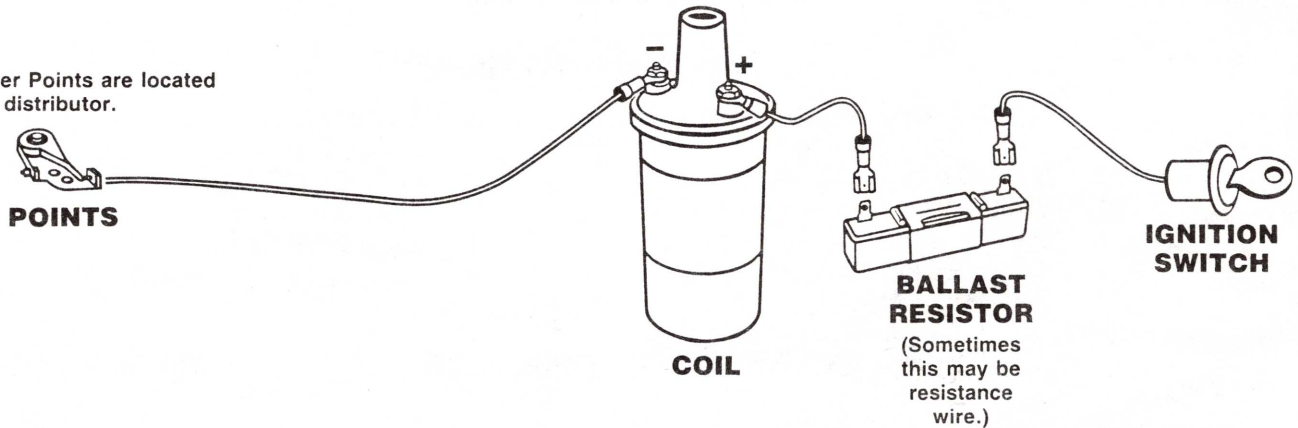


Figure 1

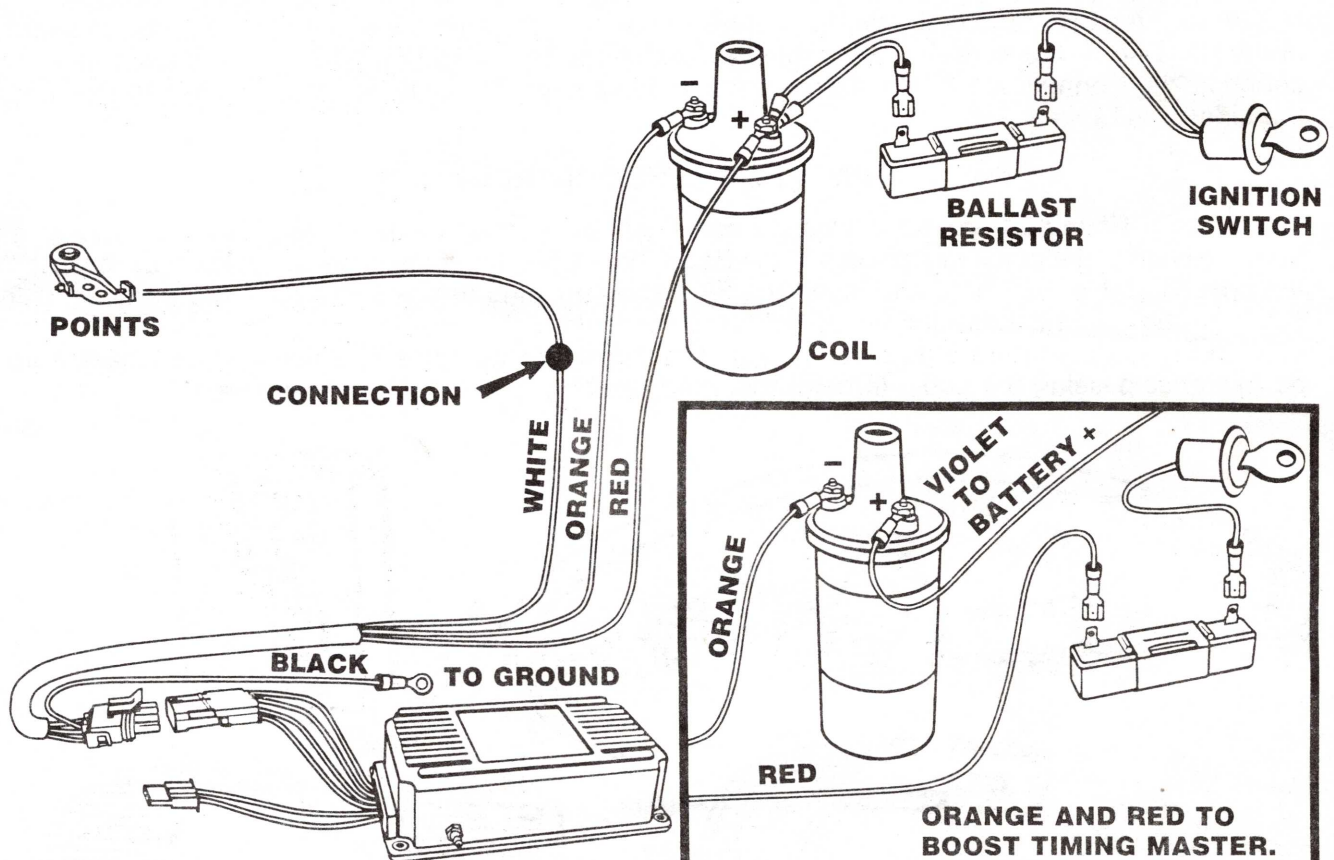
DIAGRAMS - TYPICAL IGNITION SYSTEMS

STANDARD POINTS SYSTEM

The Breaker Points are located inside the distributor.



STANDARD POINTS WITH MSD BOOST TIMING MASTER



The resistance may be bypassed if necessary as shown in this diagram. The VIOLET wire (supplied) is the ONLY wire connected to the POSITIVE side of the Coil and it is connected directly to the POSITIVE Battery terminal. The BTM ORANGE wire is the ONLY wire connected to the NEGATIVE side of the Coil. (Current will not flow until the MSD BTM is "turned on".)

GM 1986 to Present HEI with a Double Coil Connector System

This system is identified by the two coil connectors: **Gray** and **Black**.

Connect the MSD BTM Cable Assembly as follows:

1. Cut the **WHITE** wire that connects the distributor to the **Black** coil connector.
2. Install the insulated male fastons (supplied in the parts kit) onto the two ends of the cut **WHITE** wire.
3. Plug the MSD BTM Cable Assembly **ORANGE** wire into the **WHITE** wire going to the **BLACK** coil connector.
4. Plug the MSD BTM Cable Assembly **WHITE** wire into the **WHITE** wire going to the distributor.
5. Install the T-Tap Splice Connector onto the **PINK** wire and plug the 6" White adapter cable into the Tap Splice Connector (see Figure 4). Plug the MSD BTM Cable Assembly **RED** wire into the 6" White adapter (tape to prevent shorting).
6. Attach the **BLACK** wire to vehicle ground.

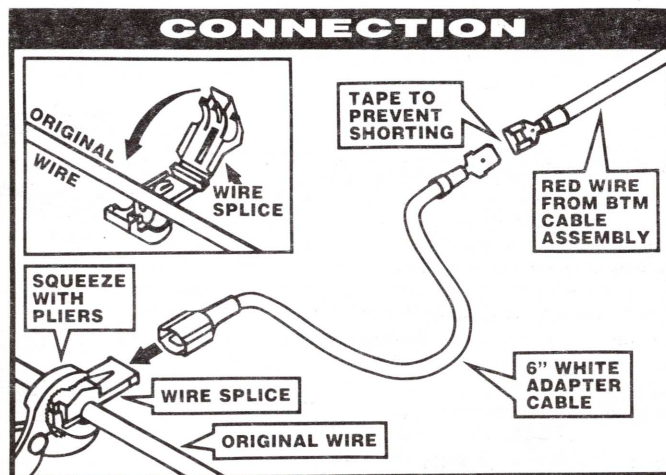


Figure 4

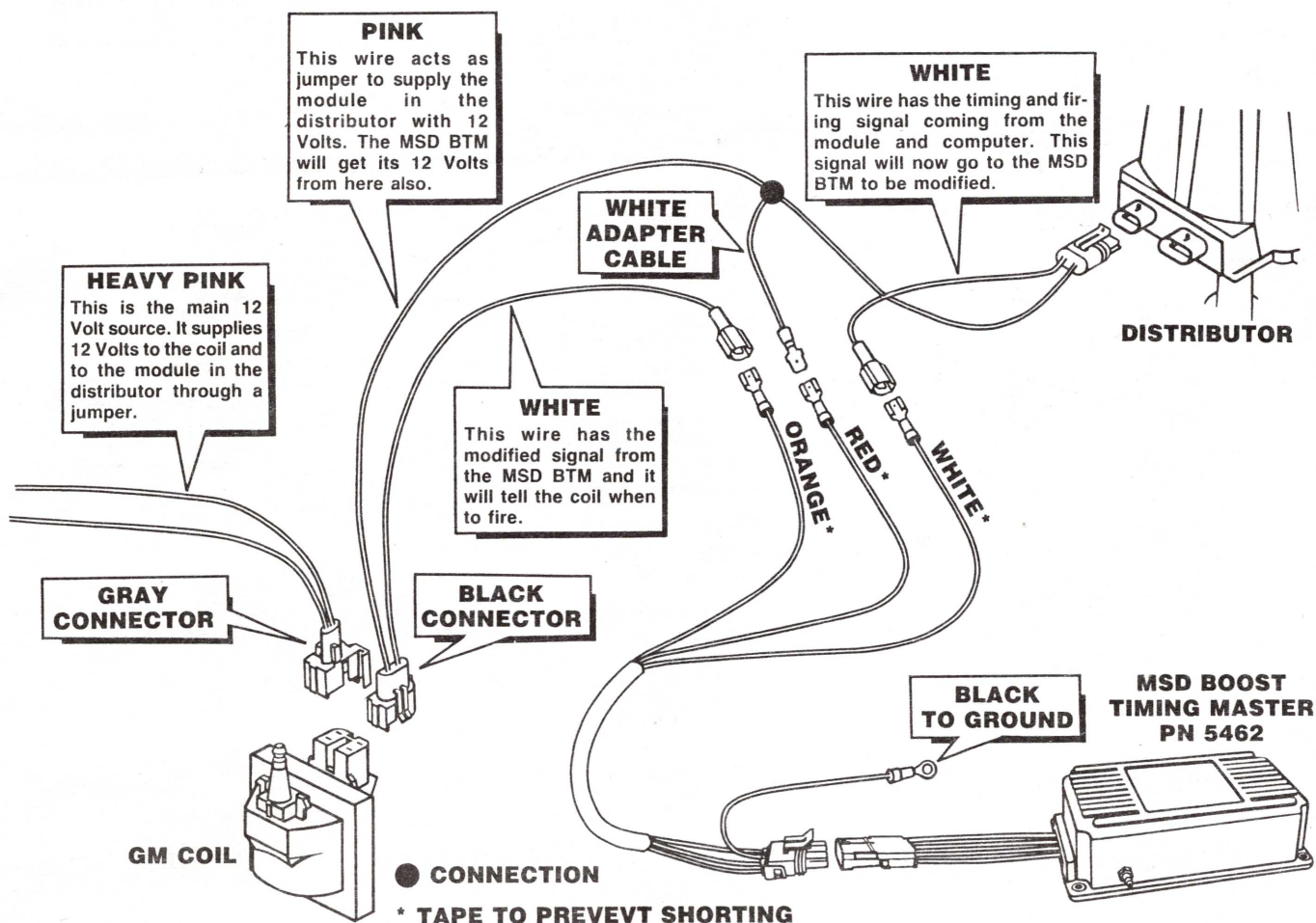


Figure 5

USING THE BOOST TIMING MASTER WITH AN MSD 6 SERIES IGNITION UNIT

The two previous samples can be enhanced by adding an MSD 6 Series Ignition Unit. An installation can be easily accomplished by following the instructions for the application and MSD 6 Series Ignition Unit in the installation instructions for the MSD 6 Series Ignition Unit.

Ford TFI 1984 And Later With An MSD 6 Series Ignition Unit

Use the parts provided in the MSD 6 Series Ignition Unit and follow the instructions on page 20 of the MSD 6 Series Ignition Unit installation instructions. The MSD Boost Timing Master is going to tell the MSD Series Ignition Unit when to fire.

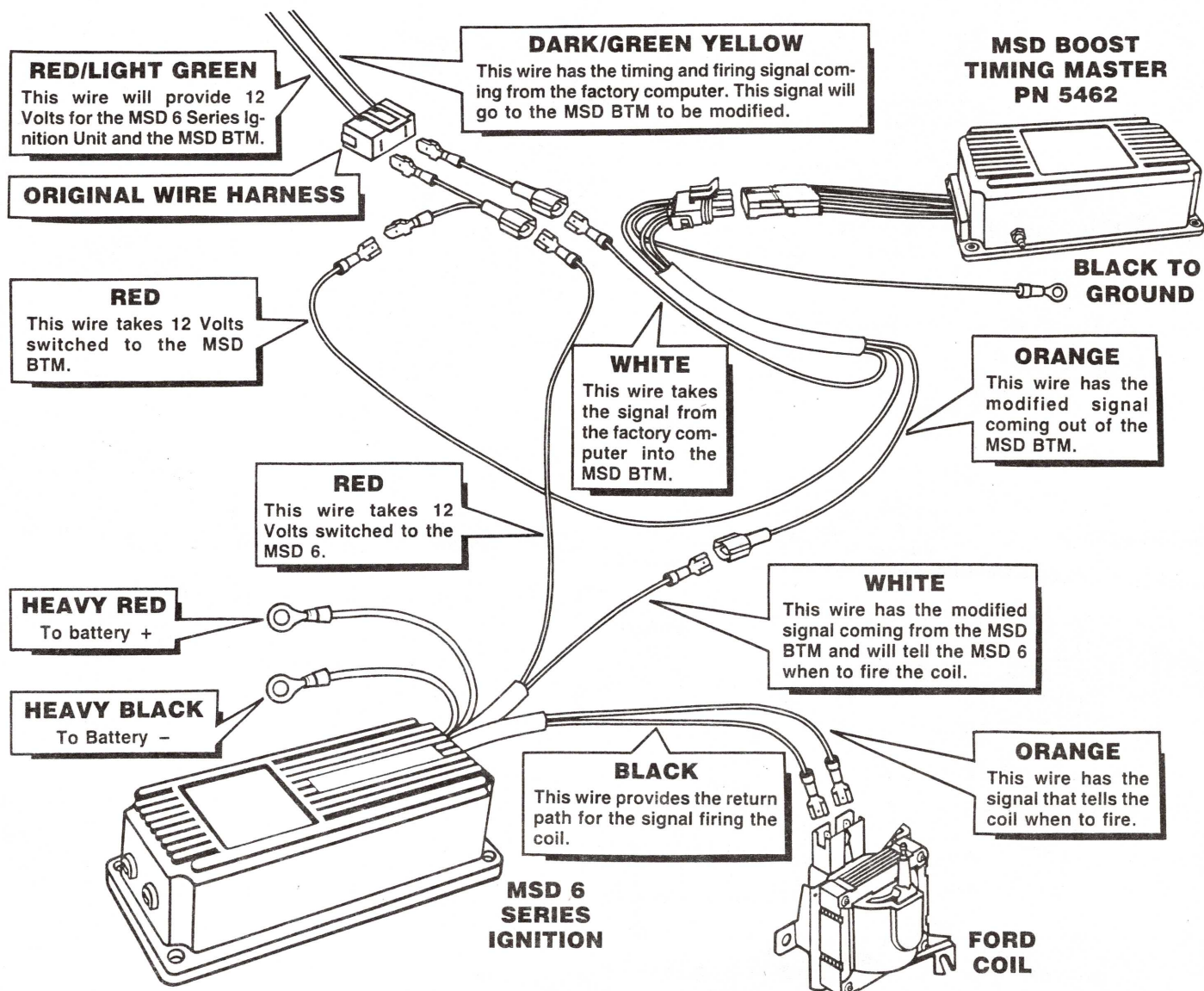


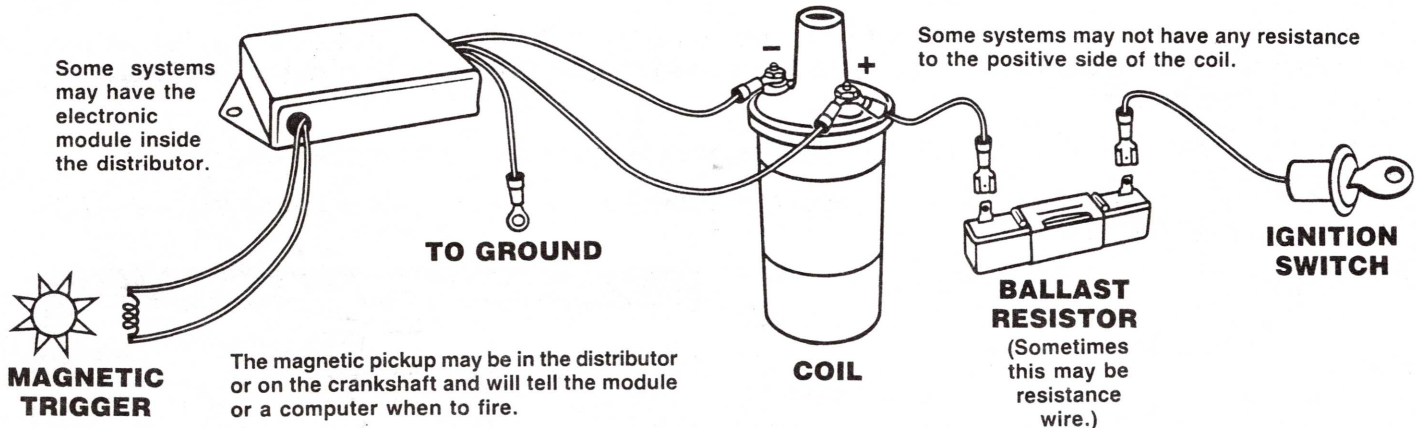
Figure 6

In the example above, the Red Jumper with two leads is not cut as explained in the MSD 6 Series Ignition Instructions.

The Ignition Coil has only two wires on it; MSD 6 Series Ignition Unit **BLACK** on Coil -; **ORANGE** on Coil +.

ELECTRONIC IGNITION SYSTEM

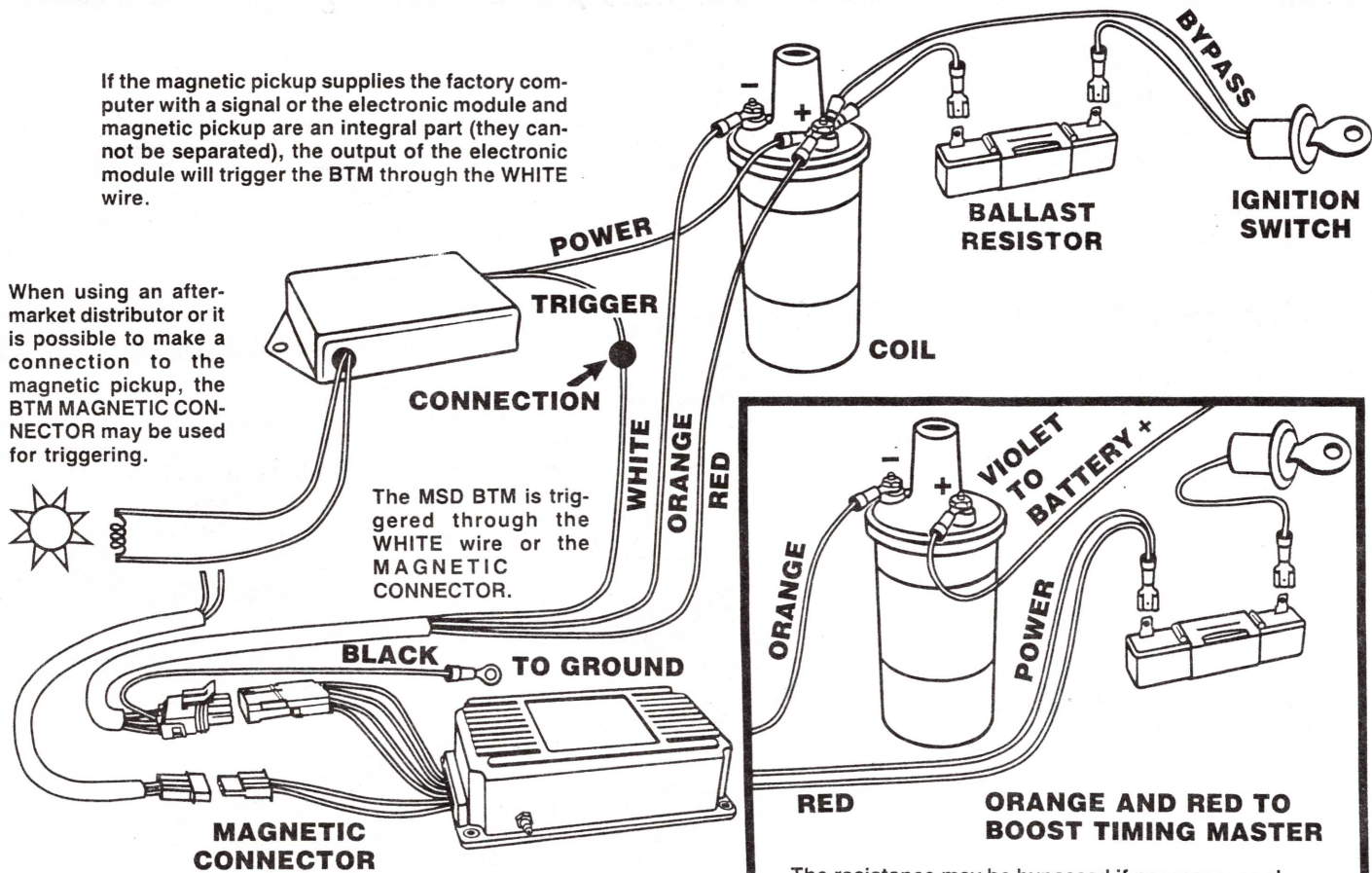
Below is a general diagram of an electronic ignition system. The physical appearance of the components may vary from one manufacturer to another, but the function of the components will be the same.



ELECTRONIC IGNITION SYSTEM WITH MSD BOOST TIMING MASTER

If the magnetic pickup supplies the factory computer with a signal or the electronic module and magnetic pickup are an integral part (they cannot be separated), the output of the electronic module will trigger the BTM through the WHITE wire.

When using an after-market distributor or it is possible to make a connection to the magnetic pickup, the BTM MAGNETIC CONNECTOR may be used for triggering.



The chart below shows polarity for different magnetic distributors that can be used to trigger the BTM through the MAGNETIC CONNECTOR.

POLARITY	MSD BTM	MSD DIST.	FORD DIST.	GM DIST.	CHRYSLER DIST.
+	VIOLET	ORANGE	ORANGE	WHITE	WHITE/ORANGE
-	GREEN	VIOLET	VIOLET	GREEN	BLACK

The resistance may be bypassed if necessary as shown in this diagram. Any wires that were on the POSITIVE side of the COIL will be removed and will remain connected to the ignition switch through the resistance. The ONLY wire on the POSITIVE side of the COIL will be the supplied VIOLET wire. The BTM ORANGE wire is the ONLY wire on the NEGATIVE side of the COIL. (Current will not flow until the MSD BTM is "turned on".)

SAMPLE APPLICATIONS

The following are samples of popular installations.

Ford TFI 1984 And Later

Follow the procedure shown below for Ford vehicles with the TFI (Thick Film Ignition). This system is identified by the square coil with a single connector. Connect the MSD Boost Timing Master Cable Assembly in the following manner:

1. Cut the DARK GREEN/YELLOW wire between the coil connector and original wire harness.
2. Install the insulated male fastons (supplied in the parts kits) onto the ends of the cut DARK GREEN/YELLOW wire.
3. Plug the MSD BTM Cable Assembly WHITE wire into the DARK GREEN/YELLOW wire going to the original wire harness.
4. Plug the MSD BTM Cable Assembly ORANGE wire into DARK GREEN/YELLOW wire going to the coil connector.
5. Install the T-Tap Splice Connector onto the RED/LIGHT GREEN wire and plug the 6" White adapter cable into the Tap Splice Connector (see Figure 2). Plug the MSD BTM Cable Assembly Red wire into the 6" White adapter cable (Tape to prevent shorting).
6. Connect the MSD BTM Cable Assembly BLACK wire to a GROUND.

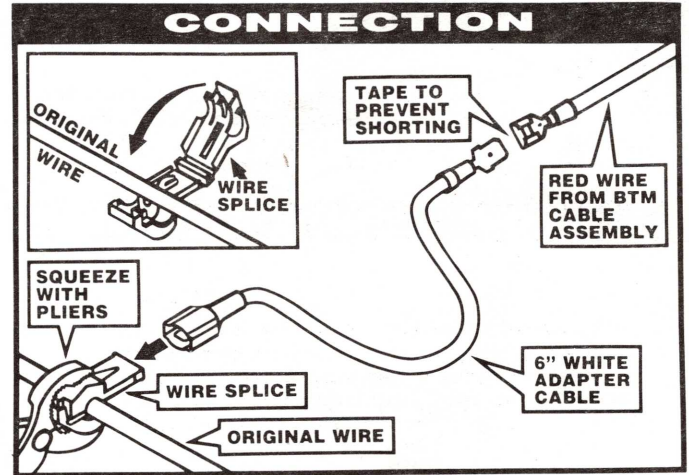


Figure 2

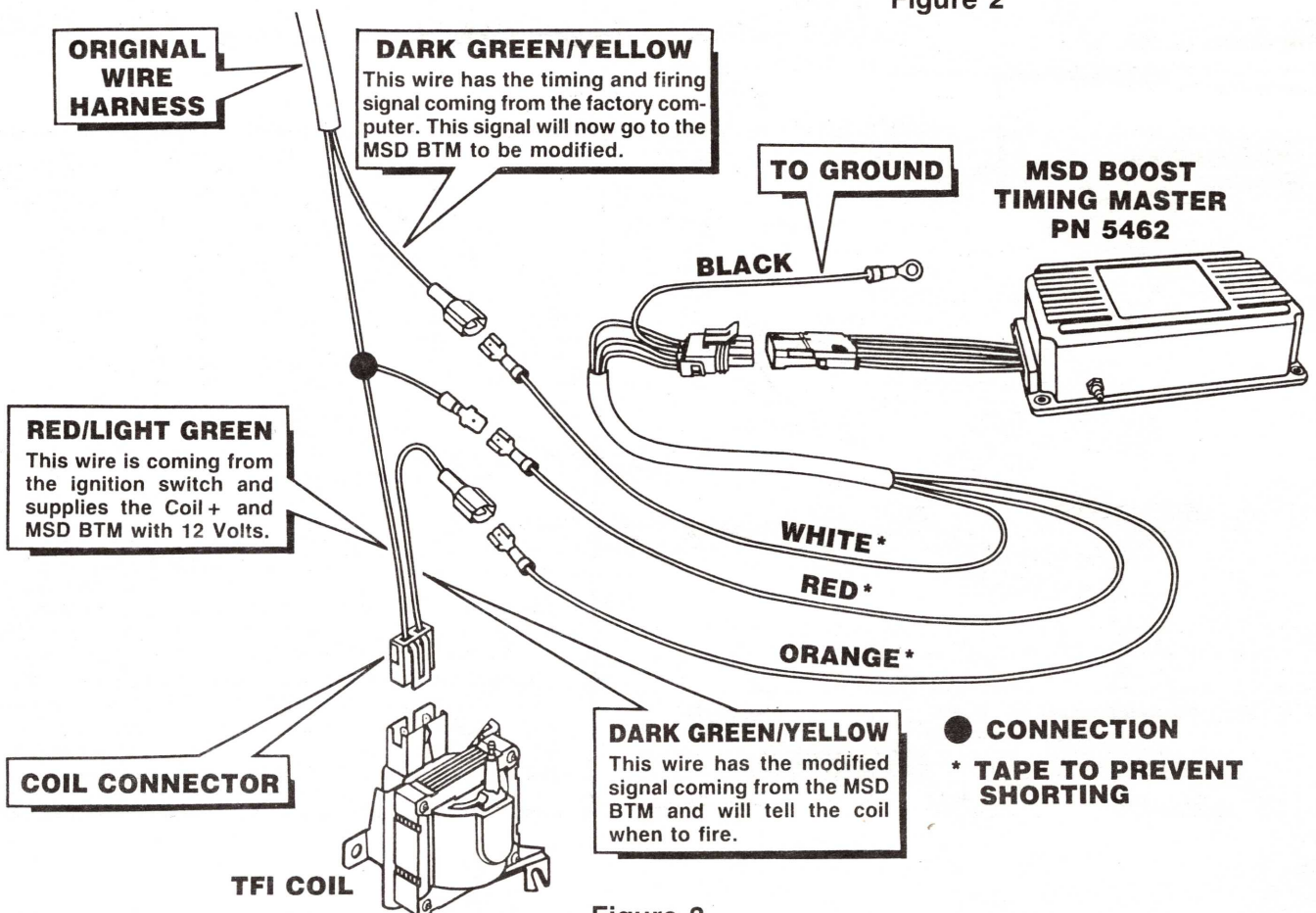


Figure 3

1986 To Present HWI with a Double Coil Connector System with an MSD 6 Series Unit

Use the steps outlined on page 27 of the MSD 6 Series Ignition Unit Instructions for Figure A, Figure B and parts provided with the MSD 6 Series Ignition Unit to prepare the MSD 6 Series Unit and the factory harnesses. In preparing the factory harnesses notice that only the **GRAY CONNECTOR** will be used to provide the means to connect the MSD 6 Series Ignition Unit **ORANGE** and **BLACK** wires to the coil. The **HEAVY PINK** wire that is cut off of this connector will be the **12 Volts Switched** source for this installation. The **BLACK CONNECTOR** will **NOT** be connected back to the coil.

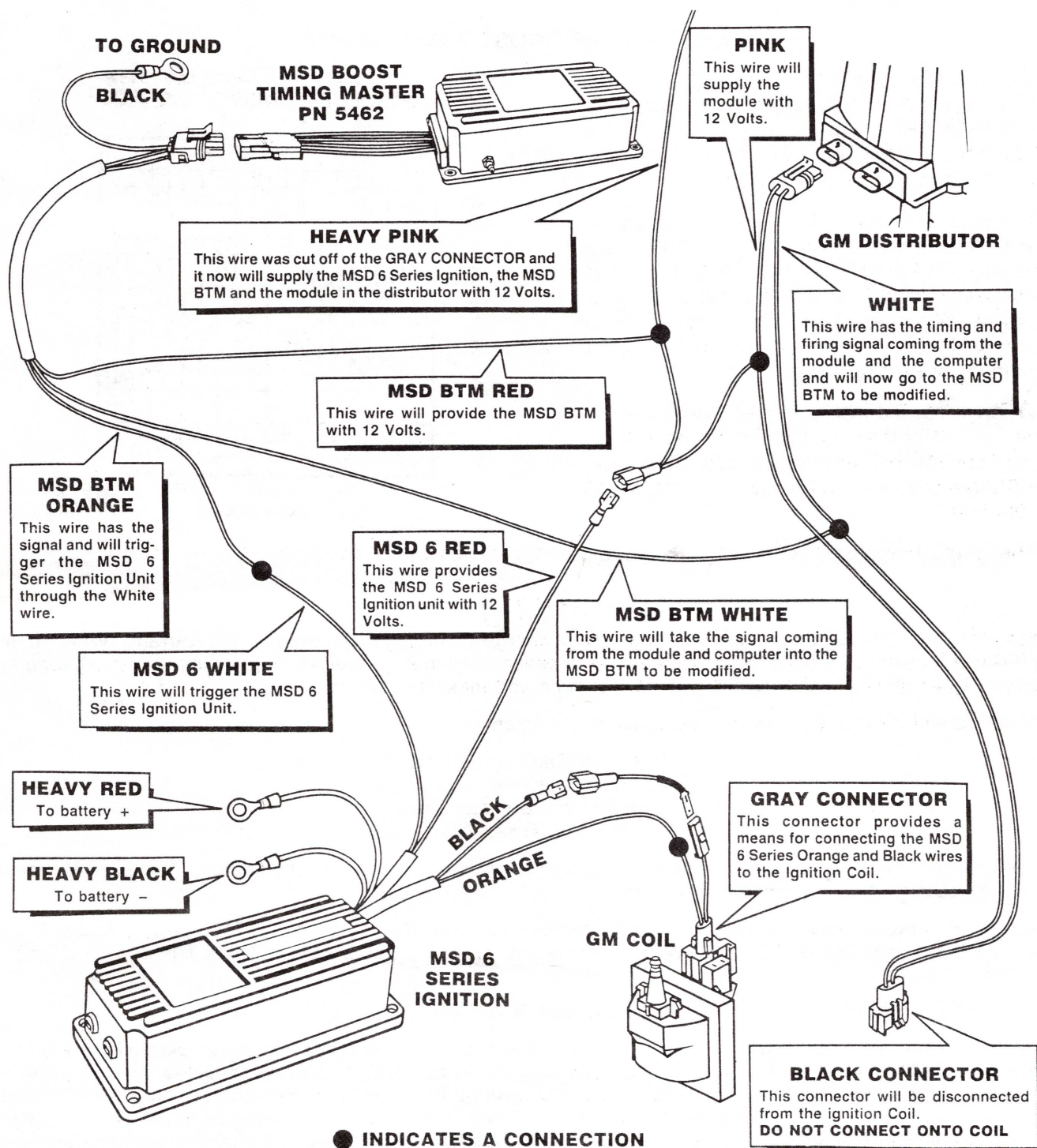


Figure 7

TACHOMETER OPERATION

The installation of an MSD Boost Timing Master may require rerouting the tachometer trigger wire. Most tachometers are triggered off of the negative side of the coil. When following the procedures for installing an MSD Boost Timing Master, the trigger wire will be removed from the negative side of the coil. If the tachometer becomes inoperative, find the wire that triggers the tachometer and connect it back onto the negative side of the ignition coil.

Follow the installation instructions for an MSD 6 Series Ignition Unit in **SECTION IX - TACHOMETER OPERATION** for tachometer instructions when installing an MSD 6 Series Ignition Unit and an MSD Boost Timing Master.

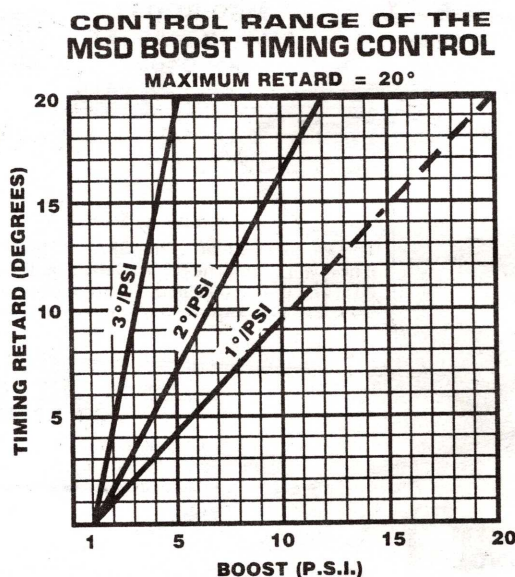
OPERATING THE BOOST TIMING MASTER

After installing the Boost Timing Master, turn the Timing Control Knob fully counter clockwise and CHECK THE INITIAL TIMING. Reset to the ORIGINAL TIMING by moving the distributor (see your notation on front page).

The Boost Timing Master is designed to provide a variable ignition retard which retards the ignition timing depending upon the amount of boost pressure generated. The unit allows you to adjust the amount of retard from 0 to 3 degrees for each PSI of boost pressure, up to maximum of 20 degrees.

When encountering higher altitudes, low octane fuel, or heavier loads, the Boost Timing Master control knob can be adjusted to increase performance and to decrease the amount of detonation.

The graph below shows the control range and the sensitivity of the Boost Timing Master.



SERVICE

In case of malfunction, this unit will be repaired free of charge according to the terms of the warranty. When returning this unit for service, proof of purchase must be supplied for warranty verification. After the warranty period has expired, repair service is charged between a minimum and maximum charge.

Send the unit prepaid with proof of purchase to the attention of:

Customer Service Department
Autotronic Controls Corporation
1490 Henry Brennan Drive
El Paso, Texas 79936

The repaired unit will be returned as soon as possible after receipt, COD for any charges. Be sure you include a detailed account of any problems experienced.

Should you have any questions or problems concerning the installation of this or any MSD product, call the MSD Direct Tech Line at (915) 855-7123. MSD Technicians are available from 8:00 a.m. to 5:00 p.m. Monday-Friday (mountain time).

Limited Warranty

Autotronic Controls Corporation warrants MSD Ignition products to be free from defects in material and workmanship under normal use and if properly installed for a period of one year from date of purchase. If found to be defective as mentioned above, it will be replaced or repaired if returned prepaid along with proof of date of purchase. This shall constitute the sole remedy of the purchaser and the sole liability of Autotronic Controls Corporation. To the extent permitted by law, the foregoing is exclusive and in lieu of all other warranties or representations whether expressed or implied, including any implied warranty of merchantability or fitness. In no event shall Autotronic Controls Corporation be liable for special or consequential damages.

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