

COMMON QUESTIONS AND ANSWERS

Q. The engine will not start or runs rough. What is the problem?

A. Perform Power and Ground Checks. Check all connections to insure that they are tight, and in the proper location. Check all grounds; if a distributor ground wire was removed make sure that it was reattached properly. Make sure that the red Ignitor II wire is supplied with a full 12 volts. The Ignitor II is designed to sense high current levels, and shut off before damage occurs. Check all wires for shorts, correct polarity and that the ignition coil's primary resistance level is acceptable.

Q. . The vehicle will start, but then die. After waiting it will start again. What is wrong?

A. Perform Power and Ground Checks. The Ignitor II may have a "Low Voltage Problem." If the voltage supplied to the red Ignitor II wire is insufficient, the system may run for a period of time, and then shut down as the voltage drops due to engine heat. The period may vary from minutes to hours depending on available voltage and wiring condition. To remedy this condition refer to steps 2-4 of the wiring instructions.

Q. How do I check for a "Low Voltage Problem" or determine if I am getting adequate voltage?

A. Perform Power and Ground Checks. Also, to quickly test for a "Low Voltage Problem" or for adequate voltage, remove the Ignitor II red wire from the coil positive terminal. Attach a jumper wire from the battery positive terminal to the Ignitor II red wire. Try to start the vehicle. If the vehicle starts with this test refer to steps 2-4 of the wiring instructions for further information.

Q. How do I check my coil for primary resistance?

A. Remove all wires from the coil. Set the ohmmeter to the lowest scale. Attach one lead of the meter to the positive coil terminal. Attach the other lead to the negative coil terminal.

Q. May I modify the length of the wires?

A. Yes, you may cut the wires to any length your application requires. You may also add lengths of wire if needed (20-gauge). Make sure that all wire splices are clean and the connections are tight.

Q. Will the Ignitor II work with aftermarket capacitive discharge boxes?

A. Yes, the Ignitor II is compatible with most CD boxes in the same respect as points. Use the CD box wiring instructions for point systems and treat the Ignitor II black wire as a point wire. The Ignitor II red wire should be attached to the 12-volt power source.

Q. Will the electronic shift assist in an OMC boat work with the Ignitor II?

A. The Ignitor II will work with all OMC stern-drive applications, when our "diode fix" is used. If you've purchased a kit that didn't include the "diode fix" diagram, call our tech line.

12-VOLT NEGATIVE GROUND INSTRUCTIONS

FOR PART NUMBERS:

91541	91542	91543	91545	91548
91549	91561	91562	91568	91585A
92541	91567A			



Ignitor® II
ELECTRONIC IGNITION
12-VOLT NEGATIVE GROUND INSTRUCTIONS

PRESTOLITE DISTRIBUTORS

GENERAL INFORMATION

1. **IMPORTANT:** Read all instructions before starting installation.
2. **DO NOT USE WITH SOLID CORE SPARK PLUG WIRES.**
3. The Ignitor II ignition can be used in conjunction with most ignition coils rated at 0.45 ohms or greater.
4. All external resistors must be removed to achieve optimum performance from the Ignitor II ignition system.
5. The Ignitor II is compatible as a trigger for most electronic boxes.

PRIOR TO INSTALLATION TURN IGNITION SWITCH OFF OR DISCONNECT THE BATTERY.

1. Some magnet sleeves have green or blue tape, **DO NOT REMOVE IT.**
2. 91541, 91542, 91561, and 91562 Ignitor kits only: Two types of rotors are used in Prestolite distributors. These are shown below. The Ignitor only works with the type of rotor shown on figure "A". If the rotor is of the type shown in figure in figure "B" a new cap and rotor will have to be purchased.



Ignitor #	91541, 91542		91561, 91562	
	Cap	Rotor	Cap	Rotor
Prestolite	3-129	4-93	3-127	4-93
Borg Warner	C207	D181	C205	D181
Echlin (Napa)	AL165	AL150	AL155	AL150
Standard (SMP)	AL149	AL168	AL480	AL168

3. Remove distributor cap and rotor from distributor. Do not disconnect spark plug wires from cap. Examine cap and rotor for wear or damage. Replace as needed.
4. Remove the point wire from the coil negative terminal.
5. Remove the screws retaining the breaker plate and remove the complete breaker plate assembly from the distributor housing.

6. The Ignitor does not require any modifications to distributor. Therefore the points, condenser, dust cap and hardware can be used as backup.
7. Clean all dirt and excess oil from the breaker plate and point cam.
8. Install the Ignitor II plate into the distributor housing.
 - Line up hole or cutout on the Ignitor plate to the wire exit hole in the distributor housing.
 - 91548 kit only: Line up "X" mark on the Ignitor II plate to the wire exit hole on distributor housing.
 - 1585A kit only: Line up "O" mark on the Ignitor plate to the wire exit hole on the distributor housing.
 - Fasten the Ignitor plate into place using the original screws.
9. Insert wires through hole in the distributor housing and pull wire grommet into place. **CAUTION:** Care must be taken to insure wires do not interfere with moving parts.
10. Some magnet sleeves have green or blue tape, **DO NOT REMOVE IT.**
11. There are two types of magnet sleeves.
 - Figure 1, Install magnet sleeve over distributor shaft, onto point cam. Rotate sleeve until a slight locating position is felt before applying pressure. With magnet sleeve lined up on point cam, press down firmly insuring sleeve is fully seated.
 - Figure 2, Install magnet sleeve over distributor shaft, press rotor down into the magnet sleeve and onto distributor shaft. **NOTE:** Rotor is indexed to the sleeve by the locating ears, make sure rotor is completely seated on distributor shaft. An o-ring may be included in the hardware kit. Install the o-ring between the point cam and the magnet sleeve.
12. Install distributor cap. Make sure all spark plug wires are securely attached. **Warning! DO NOT USE WITH SOLID CORE SPARK PLUG WIRES.**
13. See wiring Instructions.

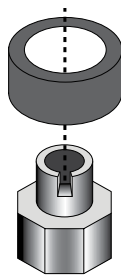


FIGURE 1

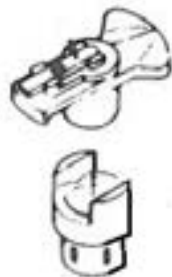


FIGURE 2

WIRING INSTRUCTIONS

1. The Ignitor II ignition can be used in conjunction with most ignition coils rated at 0.45 ohms or greater. For optimum performance purchase and install the Flamethrower II high performance coil.
2. Attach the black Ignitor II wire to the negative coil terminal. Attach the red Ignitor II wire to the positive coil terminal. (See Figure 3)

A. Recommended Installation: Many vehicles came equipped with ballast resistor or resistance wire. To achieve optimum performance from the Ignitor II ignition system, we recommend removal of these components.

- To remove a ballast resistor, (normally white ceramic blocks 3 to 4 inches long), disconnect all wires on both ends of the ballast resistor. Remove the resistor from the vehicle and splice the disconnected wires together at a single point.
- To remove a resistance wire, trace the coil power wire, which was previously connected to the positive coil terminal, back to the fuse block. Bypass this wire with a 12-gauge copper stranded wire.

B. Alternative Installation: The Ignitor II can also be installed in applications retaining the ballast resistor or resistance wire.

- Attach the Ignitor II black wire to the negative coil terminal. Attach the Ignitor II red wire to the ignition side of resistance, or any 12 volt ignition power source.

3. Check to insure that the polarity is correct, and that all connections are tight.
4. Re-connect the battery.
5. Perform the Power and Ground tests. Refer to the Power and Ground test procedure.
6. Start the engine and allow it to reach normal operating temperature. Check ignition timing, and adjust to the desired setting.

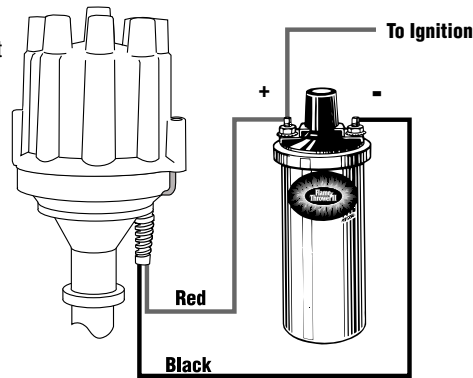


FIGURE 3
(WITHOUT EXTERNAL RESISTOR)

POWER & GROUND TESTS

It is imperative that the power and grounds be checked as part of the installation procedure. After installing the Ignitor module and the distributor and with the distributor in the engine, use a digital multi-meter to measure the resistance from the aluminum plate holding the module to battery (-), the net resistance must be less than 0.2 ohms. (Set meter to lowest ohms setting). The net resistance is the meter reading minus the resistance of the meter leads. If the net resistance is greater than 0.2 ohms, the source of the faulty ground must be found and fixed. Usually the source of the bad ground is easily found by holding one probe on an original location and moving the second probe toward the static probe. Where the resistance drops identifies the source.

Maximum resistance from Ignitor plate to battery negative terminal.	0.2 ohms
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EXAMPLE:

Resistance from Ignitor plate to battery negative (-) terminal.	0.4 ohms
Resistance of meter leads	0.2 ohms
After subtracting meter lead resistance, your net resistance is:	0.2 ohms

VOLTAGE TEST

1. (Do not disconnect wires from Ignition coil). Place ignition switch in the "off" position.
2. Connect a jumper wire from negative (-) terminal of the coil to a good engine ground.
3. Connect the voltmeter red lead to the positive (+) terminal of the coil and the black lead to a good engine ground.
4. Turn the ignition switch to the "on" position and note voltage reading on the voltmeter. Quickly read the voltage and turn ignition "OFF". Leaving ignition "ON" for an extended period could result in permanent damage to the Ignitor.
5. SEE CHART BELOW FOR SPECIFICATIONS.

Note: Low voltage can be caused by poor connections, poor contacts in the ignition switch, ballast resistor, and or a resistance wire in the wiring harness (Factory Installed).

	Minimum	Maximum
Ignition Switch "ON"	8.0V	N/A
Cranking	8.0V	N/A
Engine Running	N/A	16.0V