

## Ignitor COMMON QUESTIONS AND ANSWERS

Q. What is the first thing I should check if the engine would not start?  
 A. Make certain all wires are connected securely to the proper terminals.

Q. The engine will not start or runs rough. Are there any tests I can do?  
 A. Yes, remove the red ignitor wire from the coil. Connect jumper wire from the positive side of the battery to the red ignitor wire just removed from the coil. If the engine starts, then you have a low voltage problem. Remember this is just a test. Not intended for permanent installation.

Q. How can I fix a low voltage problem?  
 A. First, if you have an external ballast resistor or resistance wire, connect the red ignitor wire to the ignition wire prior to the ballast resistor or resistance wire. Second, if you do not have an external resistor you must connect the ignitor red wire to a 12-volt source that is controlled by the ignition switch.

Q. Should I remove the starter bypass wire?  
 A. No, the starter bypass wire is needed to provide voltage while starting (cranking).

Q. What type of coil do I need?  
 A. The Ignitor is compatible only with a "points type" coil. Eight cylinder engines require a minimum of 1.5 Ohms of resistance in the primary circuit. Four & six cylinder engines require a minimum of 3.0 Ohms of resistance (primary).

Q. How do I check my coil for resistance?  
 A. First you need an ohmmeter. Remove all the wires from the coil. Attach the ohmmeter to both the positive and negative terminals. The reading should be 1.5 Ohms or greater for eight cylinder engines and 3.0 Ohms or greater for six cylinder engines. (Your local auto parts store can do this for you if you don't have an ohmmeter)

Q. What do I do if my coil does not have enough resistance?  
 A. You may purchase and install a ballast resistor from your local auto parts store. You may also choose to purchase a Flamethrower 40,000-volt coil, which provides resistance internally. Note: Many vehicles come with ballast resistor or resistance wire. These applications do not need an additional resistor.

Q. What happens if you leave the ignition switch on when the engine is not running?  
 A. This can cause your coil to overheat, which may cause permanent damage to the coil and the ignitor.

Q. May I modify the length of the wires?  
 A. Yes, you can cut the wires to any length your application may require. You may also add length of wire if needed (20-gauge wire). Please make sure all wire splice are clean and connections are secure.

Q. Will the shift interrupter on an OMC stern drive boat work with the ignitor?  
 A. The ignitor is compatible with all OMC stern drive applications, when equipped with a "diode fix". If you purchased a kit that does not include the "diode fix" diagram, call our tech line.

Q. How can I get additional help?  
 A. Call our tech line (909-599-5955) for any further instructions or questions.

FLAMETHROWER COIL APPLICATIONS					
System Voltage	Cylinders	Primary Resistance	Recommended Flamethrower Coils		
			Black	Chrome	Epoxy
12V	8	1.5 ohms	40011	40001	40111
12V	4 & 6	3.0 ohms	40511	40501	40611
Agricultural & Industrial					
12V	1,2,3,4, & 6	2.8 ohms	28010 or 40511, 40501, 40611		
12V	8	1.5 ohms	40011	40001	40111
<b>NOTE: REMOVE OR BYPASS EXTERNAL BALLAST RESISTOR OR RESISTANCE WIRE WHEN INSTALLING THE RECOMMENDED FLAME-THROWER COIL.</b>					

**LIMITED WARRANTY**

Pertronix, LLC. Warrants to the original Purchaser of its solid-state ignition system (product) that the Ignitor, magnet assembly and wiring (components) shall be free from defects in material and workmanship for a period of (30) months from the date of purchase.

If within the period of the foregoing warranty Pertronix finds, after inspection, that the product or any component thereof is defective, Pertronix will, at its option, repair such products or component or replace them with identical or similar parts PROVIDED that within such period Purchaser:

- Promptly Notifies PerTronix, in writing, of such defects.
- Delivers the defective products product or component to Pertronix (ATTN: Warranty) with proof of purchase date; and
- Has installed and used the product in a normal and Proper manner, consistent with Pertronix printed instructions.

THE FORGOING LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED, INCLUDING AND IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PURPOSE. THE FURNISHING OF A REPAIR OR REPLACEMENT COMPONENTS SHALL CONSTITUTE THE SOLE REMEDY OF PURCHASER AND THE SOLE LIABILITY OF PerTronix WHETHER ON WARRANTY, CONTRACT OR FOR NEGLIGENCE, AND IN NO EVENT WILL PerTronix BE LIABLE FOR MONEY DAMAGES WHETHER DIRECT OR CONSEQUENTIAL.



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### CAUTION!!! Please read the following important information....

- DO NOT USE SOLID CORE SPARK PLUG WIRES.** Use carbon or suppression type spark plug wires.
- Leaving the ignition "ON" with the engine "OFF" for an extended period could result in permanent damage to the Ignitor.
- The Ignitor is compatible only with a "resisted style" coil. Eight cylinder engines require a minimum of 1.5 ohms of resistance. Six & four cylinder engines require a minimum of 3.0 ohms of resistance.
- If your Ignition coil has the recommended primary resistance, remove or bypass all external resistors. Do not remove resistors if the coil primary resistance is **lower** than specified.
- NOTE:** 1957 to 1974 FORD and GM application may have a resistance wire in the harness from the factory.
- The Ignitor is compatible as a trigger for most electronic boxes.

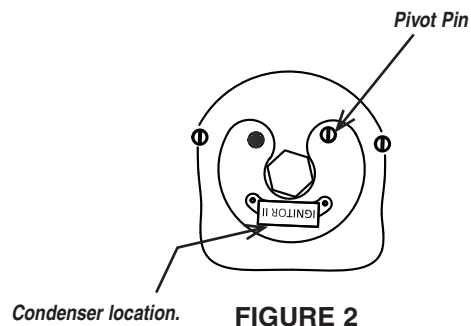
### PRIOR TO INSTALLATION TURN IGNITION SWITCH OFF OR DISCONNECT THE BATTERY

#### DISTRIBUTOR DISASSEMBLY

- Remove distributor cap and rotor from distributor. Do not disconnect the spark plug wires from the cap. Examine parts for excessive wear. Replace as needed.
- Disconnect the point wire from the negative (-) side of the coil.
- Remove and retain the point wire, point and condenser. Installing the Ignitor does not alter the internal configuration of your distributor. Therefore, the point, condenser and hardware can be used as backup.
- Clean all dirt and excess oil from the breaker plate and point cam.

#### IGNITOR INSTALLATION FOR

- PART NUMBER 1168LS & 2163LS,** Position the Ignitor plate over the point pivot pin and eccentric adjustment screw, rotate eccentric screw as needed to line up screw hole to breaker plate. Confirm that the Ignitor plate is flat and fits without modifications. Fasten the plate into place using the original point screw.
- No air gap adjustment required.
- PART NUMBERS: LU-146LS,** The condenser may be soldered to the breaker plate on some distributors. Flex the condenser back and forth to remove the condenser. Position the Ignitor plate over point pivot pin and line up hole on adapter plate to screw hole on the breaker plate. **See figure 2.** Confirm that the Ignitor plate is flat and fits without modifications. Fasten the plate into place using the original point screw.



**FIGURE 2**  
LU-146LS

- **PART NUMBERS LU-168LS & LU-169LS**, Adjust the distributor timing micro adjustment to roughly the middle of the travel. Position the Ignitor plate over point pivot pin and line up hole on adapter plate to screw hole on the breaker plate. Confirm that the Ignitor plate is flat and fits without modifications. Fasten the plate into place using the original point screw. No air gap adjustment required.
- **PART NUMBER: LU-241LS**, Remove the module from the adapter plate, Position the adapter plate over the point screw holes on the breaker plate. Note: Both point screw holes will be used to secure adapter plate to the breaker plate. Confirm that the Ignitor plate is flat and fits without any modification. Fasten the plate in place using the screws provided. Install the module onto the adapter plate and secure using the nuts and washers provided. No air gap adjustment required.
- **PART NUMBER MR-148LS**, Remove the screws retaining the breaker plate and remove the complete breaker plate assembly from the distributor housing. Position the Ignitor plate into distributor housing. Line up cutout on the Ignitor plate to the wire exit hole in the distributor housing. Fasten the plate in place using the original screws. No air gap adjustment required.
- **PART NUMBER 1662LS & 1762LS**, Position the adapter plate over the point screw holes on the breaker plate. Note: Both point screw holes will be used to secure adapter plate to the breaker plate. Confirm that the Ignitor plate is flat and fits without any modification. Fasten the plate in place using provided screws.
- **1762LS ONLY:** The original grommet must be modified for use with the Ignitor. Cut from above each wire down into the grommet, making two parallel cuts. (See figure 2).
- Remove both point wires from grommet, and insert both Ignitor wires in the same manner.
- **PART NUMBER 1763LS**, Position the Ignitor plate over point pivot pin and line up hole on adapter plate to screw hole on the breaker plate. Confirm that the Ignitor plate is flat and fits without modifications. Fasten the plate into place using the original point screw. No air gap adjustment required.

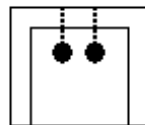


Figure 2

- **PART NUMBER 2563LS**, Position the Ignitor plate over the condenser mounting point of the breaker plate. There are both single and dual screw condenser mounting configurations (See Figure 3). The Ignitor plate fits over both types. Confirm that the Ignitor plate is flat and fits without any modification. Fasten the plate in place using the provided screw or screws. **NOTE:** IAP Series distributors require the removal of the point adjustment eccentric screw.
- No air gap adjustment required.
- Distributor ground wire needs to be re-connected when the Ignitor is installed.
- **CAUTION:** Care must be taken to insure wires do not interfere with moving parts. Use the provided zip tie to secure wires to the original bracket.
- Reuse the original grommet by cutting an exit hole for both wires. Insert the wires through the new hole.

Fig. 3



- **PART NUMBER 1241LS**, Position the Ignitor plate over the condenser screw hole and one of the point screw holes. Confirm that the Ignitor plate is flat and fits without any modifications. Attach the ground wire to the plate using one of the provided screws. Attach the other end of the ground wire to the perimeter breaker plate screw. Use the provided feeler gauge to set the module to cam air gap. Use the second screw to hold the plate firmly in place. Insert the Ignitor red and black wires through the hole in the base of the distributor housing. Install grommet over the Ignitor wires and into distributor housing.
- Set air gap to 0.020" (Min 0.010" to Max 0.035").
- 5 **NOTE: A MAGNET SLEEVE IS NOT REQUIRED WITH LOBE SENSOR KITS.**
- 6 **CAUTION:** Care must be taken to insure wires do not interfere with moving parts. Use the provided zip tie to secure wires to the original bracket.
- 7 Install distributor rotor and cap. Note: Ignitor Kit #LU-146LS includes a new rotor. Make sure all spark plug wires are securely attached. **Warning! DO NOT USE WITH SOLID CORE SPARK PLUG WIRES.**
- 8 **Go to Wiring Instructions.**

Applicable Ignitor Part Numbers:			
1168LS	1241LS	MR-148LS	1662LS
1762LS	1763LS	2163LS	2563LS
LU-146LS	LU-168LS	LU-169LS	LU-241LS

- Note: Some hardware kits include a spacer ring, do not use it, it's not needed.
- Air gap is not adjustable (Excluding Ignitor 1241LS - Air Gap 0.030" (Min 0.010, Max 0.035))

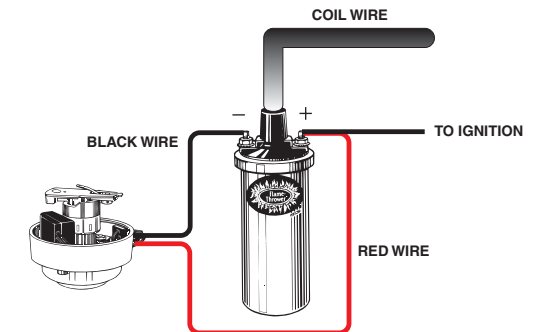
## WIRING INSTRUCTIONS

A BALLAST RESISTOR OR RESISTANCE WIRE MAY OR MAY NOT BE INCLUDED IN THE ORIGINAL EQUIPMENT.

1. Connect the Ignitor black wire to the negative (-) terminal of the ignition coil.
2. For installations that do not use a primary ballast resistor or resistance wire, connect the Ignitor red wire to the positive (+) terminal of the ignition coil. (See Figure A)
3. For installations that use a primary ballast resistor or resistance wire, connect the Ignitor red wire to the ignition switch side of the ballast resistor or resistance wire. (See Figure B).
4. Reconnect battery and make sure all wires are connected.
5. The engine can now be started. Let the engine run for a few minutes and then set the timing in the conventional manner.

**FIGURE "A"**

USE FIGURE "A" ONLY WHEN INSTALLING THE RECOMMENDED COIL.



**FIGURE "B"**

USE FIGURE "B" WHEN USING THE STOCK COIL WITH THE BALLAST RESISTOR OR RESISTANCE WIRE.

