

## 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 primary resistance.

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 (909-547-9058) for any further instructions or questions.

| FLAME-THROWER COIL APPLICATIONS |                |           |                    |                                |        |       |
|---------------------------------|----------------|-----------|--------------------|--------------------------------|--------|-------|
| Use with:                       | System Voltage | Cylinders | Primary Resistance | Recommended Flamethrower Coils |        |       |
|                                 |                |           |                    | Black                          | Chrome | Epoxy |
| Ignitor                         | 12-Volt        | 4 & 6     | 3.0 ohms           | 40511                          | 40501  | 40611 |
| Agricultural & Industrial       |                |           |                    |                                |        |       |
| Ignitor                         | 12-Volt        | 4 & 6     | 2.8 ohms           | 28010 or 40511, 40501, 40611   |        |       |

**NOTE:**

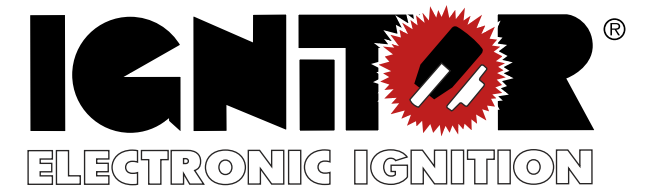
- REMOVE OR BYPASS EXTERNAL BALLAST RESISTOR/RESISTANCE WIRE WHEN INSTALLING THE RECOMMENDED FLAME-THROWER COIL.

| FOR PART NUMBERS: |       |      |       |      |      |
|-------------------|-------|------|-------|------|------|
| 1843              | 1847V | 1863 | 1867A | 2841 | 2842 |
| 1847A             | 2845  | 2847 | 2848  | 2866 |      |
|                   |       |      |       |      |      |
|                   |       |      |       |      |      |

| LIMITED WARRANTY  |  |
|---|--|
| <p>Pertronix, Inc. 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.</p> <p>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:</p> <ol style="list-style-type: none"> <li>Promptly Notifies PerTronix, in writing, of such defects.</li> <li>Delivers the defective products product or component to Pertronix (ATTN: Warranty) with proof of purchase date; and</li> <li>Has installed and used the product in a normal and Proper manner, consistent with Pertronix printed instructions.</li> </ol> <p>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.</p> |  |



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## 12-Volt Negative Ground Instructions

### BOSCH DISTRIBUTORS

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

- DO NOT USE SOLID CORE SPARK PLUG WIRES.** Use suppression or carbon type spark plug wires.
- Warning!!!** Leaving the ignition switch "ON" with the engine "OFF" for an extended period could result in permanent damage to the Ignitor.
- Four & Six cylinder engines require a minimum of 3.0 ohms of primary resistance. **NOTE:** 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 3.0 ohms**.
- Note:** Most GM & Ford applications from 1957 to 1974 use a Resistance Wire. Go to [www.pertronix.com](http://www.pertronix.com) for additional information or call Technical Support @ 909-547-9058 for additional assistance.
- See back page for coil recommendations.**
- The Ignitor is compatible as a trigger for most electronic boxes.

### DISTRIBUTOR DISASSEMBLY

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

- Remove the distributor cap and rotor. Do not disconnect spark plug wires. Examine cap and rotor for wear or damage. Replace as needed.
- Disconnect the point wire from the negative (-) side of the coil. Remove the point wire, point, and condenser.
- The Ignitor does not require any modification to 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

#### PART NUMBERS: 1847A, 2845, 2847, 2848

- Install Ignitor into distributor in the same manner as points. Secure in place using provided hardware.
- Insert wires through hole in distributor housing, and pull wire grommet into place. Make sure wires do not interfere with any moving part.
- 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.
- Air gap is **NOT** adjustable.

### PART NUMBERS: 1843

- **Remove module from adapter plate before proceeding.**
- Install Ignitor adapter plate into distributor in the same manner as points. Secure in place using provided hardware. Be sure Ignitor plate is lying flat. Secure the Ignitor plate using the provided hardware.
- Place the Ignitor module on the adapter plate studs. Secure module with provided lock washers, 8-32 nut and allen screw.
- Insert wires through hole in distributor housing, and pull wire grommet into place. Make sure wires do not interfere with any moving part.
- 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.
- **Note:** If the original ground strap was removed (vacuum advance, retard type distributors only), it must be re-installed to properly ground breaker plate to distributor housing.
- Air gap is **NOT** adjustable.

### PART NUMBERS: 1847V & 2842

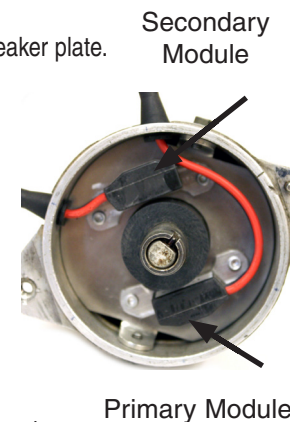
- **Remove module from adapter plate before proceeding.**
- Install Ignitor adapter plate into distributor in the same manner as points. Secure in place using provided hardware. Be sure Ignitor plate is lying flat. Secure the Ignitor plate using the provided hardware.
- Place the Ignitor module on the adapter plate studs. Secure module with provided lock washers, 8-32 nut and allen screw. **DO NOT TIGHTEN NUTS COMPLETELY AT THIS TIME.**
- 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. **NOTE:** The bottom edge of the module should be level with the bottom of the magnet sleeve. If the module is not high enough, place the module spacer plate in between the adapter plate and the module.
- Use the plastic feeler gauge provided to set the air gap between the module and the magnet sleeve. Note: If the plastic feeler gauge is not provided, use a regular feeler gauge to set air gap, the air gap can be set anywhere between 0.010" to 0.050". Once the proper air gap is achieved tighten module securely to adapter plate.
- Insert the Ignitor black and red wires into opening in the side of the distributor housing. Verify the grommet is seated properly. Adjust wire length in the distributor through the grommet to insure ample clearance. Make sure all wires are clear of moving parts.
- **Note:** If the original ground strap was removed (vacuum advance, retard type distributors only), it must be re-installed to properly ground breaker plate to distributor housing.

### PART NUMBERS: 1863, 1867A & 2841:

- **Remove module from adapter plate before proceeding.**
- Install Ignitor adapter plate using the same screw holes the points used. Be sure Ignitor plate is lying flat. Secure the Ignitor plate using the screw provided.
- Place the Ignitor module on the adapter plate studs. Secure module with the lock washers and small patten 8-32 nuts provided. **DO NOT TIGHTEN NUTS COMPLETELY AT THIS TIME.**
- 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.
- Use the provided plastic feeler gauge to set the air gap between the module and the magnet sleeve. **Note:** If the plastic feeler gauge is not provided, use a regular feeler gauge to set air gap, the air gap can be set anywhere between 0.010" to 0.050". Once the proper air gap is achieved tighten module securely to adapter plate.
- **Note:** If the original ground strap was removed (vacuum advance, retard type distributors only), it must be re-installed to properly ground breaker plate to distributor housing.
- Insert the Ignitor black and red wires into opening in the side of the distributor housing. Verify the grommet is seated properly. Adjust wire length in the distributor through the grommet to insure ample clearance. Make sure all wires are clear of moving parts.

### PART NUMBERS: 2866

- Using original screws install new Ignitor breaker plate.
- Primary module wires exit through "1A" exit hole and it triggers cylinders 1-3-2.
- Secondary module wires exit through "1B" exit hole and it triggers cylinders 5-6-4. Note: Primary module is located furthest from the wire exit holes (SEE DIAGRAM).
- 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.
- Air gap is **NOT** adjustable.
- 5. Install distributor rotor and cap. Make sure all spark plug wires are securely attached. **DO NOT USE SOLID CORE SPARK PLUG WIRES.** Use suppression or carbon type spark plug wires.
- 6. **See Wiring Instructions.**



### 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.

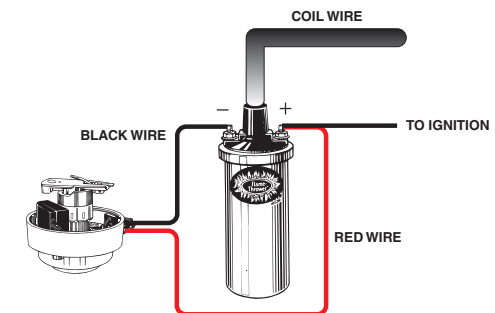


FIGURE "B"

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

