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.

Q. How can I receive additional help?
A. Check our web site for current trouble shooting tips and up to date technical information. Log on to www.pertronix.com. You may also contact our tech line at (909-547-9058)

LIMITED WARRANTY

PerTronix, Inc. warrants to the original purchaser of its products that the Ignitor II 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:

1. Promptly Notifies PerTronix, in writing, of such defects.
2. Delivers the defective products product or component to Pertronix (ATTN: Warranty) with proof of purchase date; and
3. 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.

PERTRONIX PERFORMANCE PRODUCTS

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Flame-Thrower®

VW & ALPHA ROMEO DISTRIBUTOR INSTALLATION INSTRUCTIONS

Ignitor® II ELECTRONIC IGNITION

GENERAL INFORMATION

1. See our website (www.pertronix.com) for latest product information. ***IMPORTANT:*** Read all instructions before starting installation.
2. ***WARNING!!! DO NOT USE WITH SOLID CORE IGNITION WIRES.***
3. All external resistors must be removed to achieve optimum performance from the Ignitor II ignition system.
4. The Ignitor II is compatible with coils that have a minimum of 0.45 ohms of primary resistance.

DISTRIBUTOR REMOVAL

1. Crank the engine until the first cylinder in the firing order is at TDC "Top Dead Center" on its compression stroke. The timing indicator should point to TDC or 0.
2. Remove the distributor cap, and make sure that the rotor is pointing towards the contact on the distributor cap for the first cylinder in the firing order.
3. Disconnect the battery negative (-) cable.
4. Disconnect all wires and hoses attached to the distributor.
5. Remove the distributor hold down.
6. Remove the distributor and drive shaft spring.
7. VW's only: Verify that the distributor driveshaft slot is perpendicular to the engine case seam. See figure A.
8. Check the original distributor for excessive wear, or potential problems.
9. Remove the distributor hold-down clamp from the original distributor for use with the new distributor.

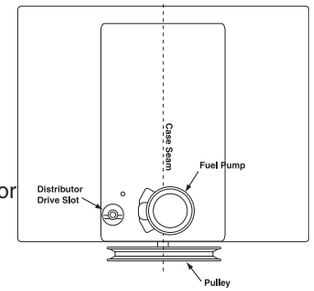


Figure A

DISTRIBUTOR INSTALLATION

1. Install the original distributor hold-down clamp onto the new distributor housing. The clamp should sit flat against the distributor collar.
2. Remove the Flame-Thrower distributor cap.

3. Turn the distributor drive tang so that it lines up with the distributor drivshaft slot.
4. Install the distributor driveshaft spring.
5. Set the distributor into the engine. The distributor hold-down should sit completely flat on engine block.
6. Place the distributor cap onto the housing.
7. Turn the housing so that the terminal, that represents the first cylinder in the firing order, lines up with the rotor contact terminal.
8. Tighten the hold down and slightly tighten the distributor clamp. Once the ignition timing is adjusted the distributor clamp should be tightened completely. ***Note:*** Hold down clamp must be free of paint and corrosion, this will insure that a proper ground is made to the engine block.
9. Clip down the distributor cap and install the spark plug wires in the proper firing order. Beginning with the number one cylinder move clockwise 1 - 4 - 3 - 2. ***WARNING!!! DO NOT USE WITH SOLID CORE SPARK PLUG WIRES OR COIL WIRE.***

NON VACUUM ADVANCE DISTRIBUTOR

10. Locate and remove the vacuum hose that was previously attached to the vacuum advance canister. Plug off the vacuum port.

VACUUM ADVANCE DISTRIBUTOR

11. Locate and temporarily plug the end of the vacuum hose that was previously attached to the vacuum advance canister. After setting initial timing the hose will be unplugged and attached to the vacuum advance on the distributor.

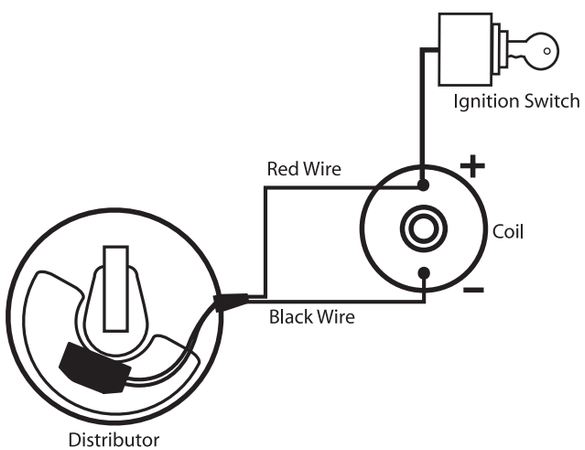
FINAL ADJUSTMENTS

1. Start the engine and set the initial timing.
2. Tighten the distributor clamp.

WIRING

The *Flame-Thrower* distributor can be used in conjunction with most Ignition coils rated at 0.45 ohms or greater. For optimum perfor mance purchase and install a 0.6 ohm *Flame-Thrower II coil* or 0.45 ohm HV high performance coil.

1. Determine the proper wire length, and attach the provided terminals. (Use a designated wire crimping tool to achieve an adequate connection)
2. Attach the **Red** wire to the coil positive terminal or a 12-volt ignition source. **Note:** Original ignition wire must be connected to the (+) positive side of the Ignition coil.
3. Attach the **Black** wire to the coil negative terminal.
4. Check to insure correct polarity and that all connections are tight.
5. Reconnect the battery negative cable.



FINAL ADJUSTMENTS

1. Plug vacuum port to vacuum advance canister before setting initial timing.
2. Start the engine and set the initial timing.
3. Tighten the distributor hold down clamp.
4. Connect the vacuum hose to the vacuum advance canister.

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

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