



# INSTALLATION INSTRUCTIONS

## Vertex® Electronic Distributor (2 Wire Unit with Ground)

(Note: These instructions are for units manufactured on or after November 12, 2007)

This product is applicable to pre-1966 California and pre-1968 federally certified passenger cars. It is also applicable to non-emission controlled trucks and similar vehicles. It is not intended for use on any emission-controlled vehicles operated on highways or roadways, unless otherwise noted.

### **Caution/Important information:**

Please read and understand all of the information provided in these instructions before attempting the installation. Verify that there is **no** ballast resistor or loom resistance wire in the path of the Vertex® distributor. The ignition module inside the distributor **does not** require ballast, and will work improperly if one is installed!

### **General Information:**

**Rotation-**The rotation of your original distributor should be the same as your new Vertex® distributor. To verify this, remove the distributor cap of your existing distributor, and crank the engine to see which way the rotor turns. It should turn the same direction as the arrow on the top of the Vertex® distributor cap.

**Distributor Firing Order-**Wire position numbers in the Vertex® cap indicate the sequence of firing of the distributor. These are not to be interpreted as the firing order of the engine. **Be sure to examine the Vertex® cap closely when installing ignition wires in order to maintain the proper engine firing order.**

**Advance Curve:** Most Vertex® distributors have 24 degrees (crankshaft) of mechanical advance (between 2200 and 2400 RPM).

**Spark Plug Gap:** For street applications, use your engine manufacturer's specification. The Vertex® Electronic distributor is not designed for racing applications. We recommend the Vertex® Magneto for all racing applications.

**Spark Plug Wires:** The Vertex® distributor is designed to be operated with suppression type spark plug wires to prevent false triggering and premature ignition failures. Taylor's 8mm Spiro-Pro Ignition Wire is recommended. **Do not use a solid core ignition wire with this distributor!** When installing the spark plug wires, cut the wire flush with the end of the insulation. There should be no protruding center conductor.

**Electric Welding:** Always disconnect the distributor wiring harness before welding on the vehicle.

**Important Note:** The Vertex® electronic distributor is a self contained unit, and use of additional ignition timing controls, multi-spark discharge systems, or other ignition units is not recommended, and will void the Vertex® warranty.

### **Distributor Wire Harness Connections:**

**Red Wire-** Provides +12 Volts DC to the trigger assembly inside of the Vertex® Electronic Distributor. The 12 Volts DC provided to this terminal must be present in both the CRANK (start) and RUN (on) positions of the ignition switch only.

**White Wire-** Provides a signal for driving an electronic tachometer.

**Black Wire-** Provides ground to engine block

### **Old Distributor Removal:**

**Step 1-**Disconnect the coil trigger wire coming from the distributor to the negative (-) side of the ignition coil at the coil terminal. Disconnect the wire supplying current to the positive side (+) of the ignition coil. There may be two wires on this terminal, one from the ballast resistor and one from the starter solenoid. The ballast resistor should have one wire left, the one to the ignition switch. Mark this wire for future reference. Remove the old ignition coil and ballast resistor, as they are no longer needed. Identify the ignition (spark plug) wire used to time the engine. It is usually #1 cylinder. Mark this wire location on the distributor housing and the distributor cap.

**Step 2-**Rotate the engine crankshaft in the direction of proper rotation until the timing mark on the harmonic balancer lines up with the indication on the timing tab for Top Dead Center (TDC).

**Step 3-**Remove the distributor cap (do not remove the spark plug wires from the old distributor yet) and observe the position of the rotor blade. The blade of the rotor should line up with the mark placed on the old distributor housing (step 1). If the blade is not lined up with the mark (180 degrees out) then repeat step 2 until the timing marks are aligned again. Once you have completed step 3, do not rotate the crankshaft again until the new distributor is correctly installed.

**Note: Ensure the vehicle ignition switch is in the off position and battery is disconnected before proceeding further.**

**Step 4-**Note the direction that the rotor blade is pointing, remove the distributor hold down clamp and remove the distributor from the engine. Clean the distributor mounting surface ensuring there is no grease, dirt or paint to interfere with the installation of the new Vertex® Electronic Distributor.

**Vertex® Electronic Distributor-Motor Installation:**

**Step 1-**Using a piece of tape, mark the position of the number one electrode of the Vertex® Electronic Distributor cap on the distributor housing. Remove the distributor cap from the Vertex® Electronic Distributor.

**Step 2-**Install the Vertex® Distributor on the engine with the rotor lined up with the number one electrode mark on the distributor housing. If the distributor shaft drives the oil pump, ensure the distributor shaft fully engages the oil pump. **Note: it may be necessary to turn the oil pump shaft to effect proper alignment. Do not force the distributor onto the oil pump shaft or damage to the distributor and/or oil pump may result.** Installation of the Vertex® Electronic Distributor may require indexing number one cylinder to a different electrode, positioning the cap to get the ignition wires in a desired direction. In this case, rotate the distributor housing until the ignition wires are pointed in the desired direction. Noting the position of the rotor, rotate the housing until the rotor is directly pointing to the nearest electrode. Connect the number one spark plug wire to the terminal that the rotor is pointing to.

**Step 3-**Secure the Vertex® Electronic Distributor with the distributor hold-down clamp.

**Step 4-**Record the terminal number identified as the number one spark plug wire.

**Spark Plug Wires to Distributor Cap Installation:**

**Step 1-**The Vertex® distributor cap is drilled and designed for 8mm diameter ignition wire. Make sure you are using a suppression core or spiral wound wire. **Do not use a solid core spark plug wire with this unit!** If you are using your existing spark plug wires, we suggest you number each wire with its corresponding cylinder number with a piece of tape. Also, make sure when using your existing wires that they will be long enough after cutting off the distributor boot end to accommodate use in the Vertex® distributor cap. Note: when using 8mm ignition wires, observe the following steps to prepare the wire.

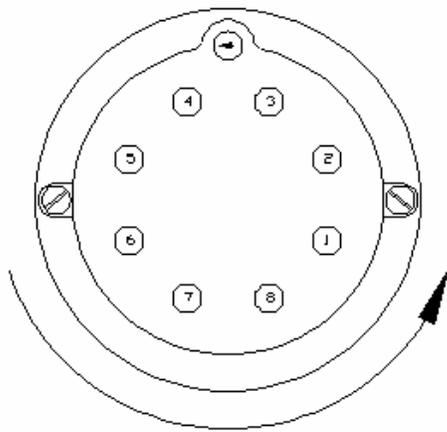
- a) Cut and trim flush the end of the ignition wire to be inserted.
- b) Pull the insulation of the wire with a sliding motion along the length of the wire toward the end to be inserted into the cap. This will tend to stretch out the insulation, reducing the diameter enough to allow easy insertion into the cap.
- c) Spray the end to be inserted with silicone lubricant and insert the lubricated end into the cap with a slow twisting motion. It may help if you remove the retaining screw entirely so that you can see when the wire is completely seated. When the wire is visible through the retaining screw hole, then install the retaining screw.

**Step 2-**Use figure 1 and the table below to properly sequence the ignition wires to the cap.

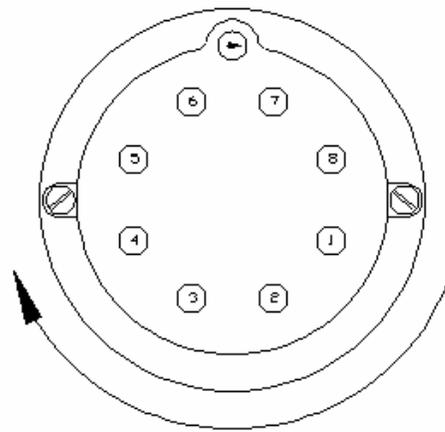
- a) The number one cylinder wire is inserted into distributor cap terminal marked one (or the terminal recorded in the previous section).
- b) The next cylinder in the firing order is inserted into distributor cap terminal marked two (or the next terminal in order if you did not start from terminal number one).
- c) Continue this pattern until all ignition wires are inserted properly into their corresponding number in the firing sequence.

**Step 3-**Plug all vacuum lines previously connected to the old distributor.

| Distributor Firing Order (numbers on cap) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Write Engine Firing order here            |   |   |   |   |   |   |   |   |



Counter-clockwise rotation as viewed from top of distributor

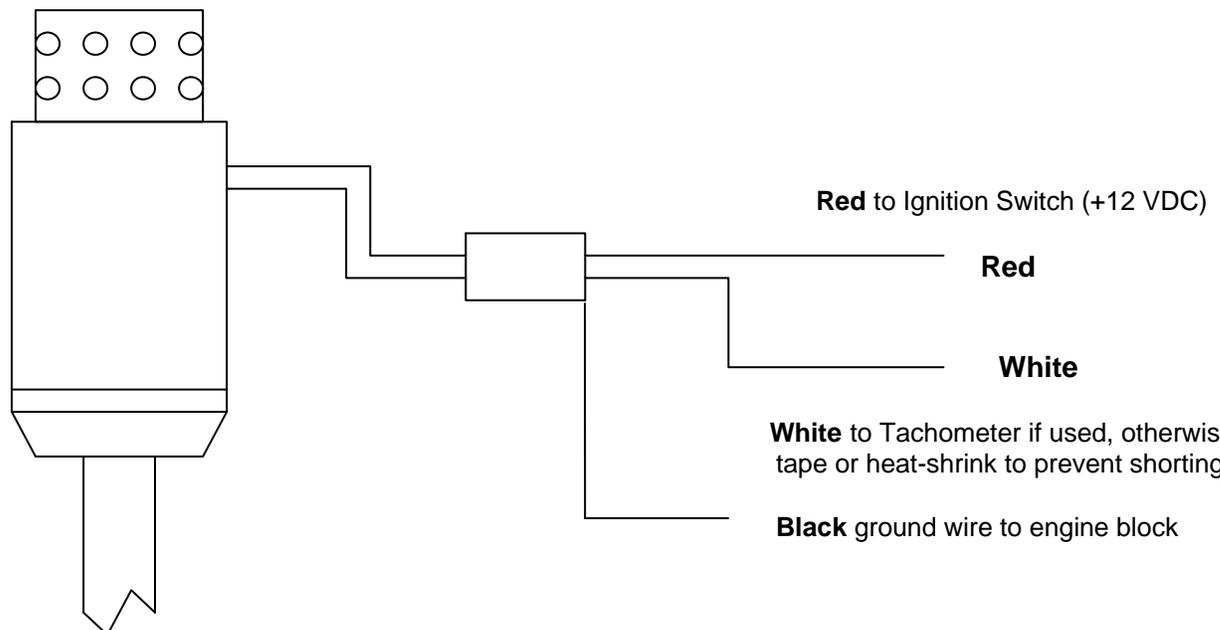


Clockwise rotation as viewed from top of distributor

**WIRING:** There are 2 primary wires and 1 ground wire to connect in order to install the Vertex® electronic distributor. The **RED** wire is the +12 Volt source wire. This connects (without a ballast resistor) to the ignition switch. Verify that this wire has +12 Volts in the “ON” position and the “START” position. There should NOT be +12 Volts on this wire when it is in the “ACCESSORY” or “OFF” position.

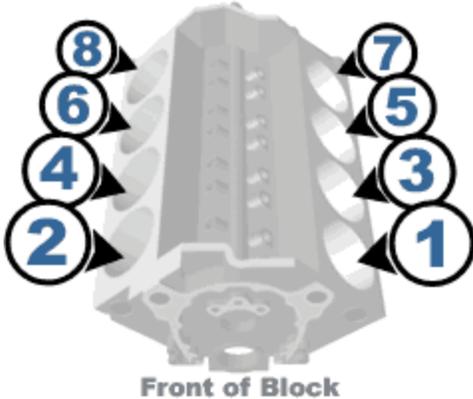
The **WHITE** wire is used only if an electronic tachometer is installed. If no tachometer is installed, tape or heat-shrink the white wire to prevent it from touching ground or 12 Volts.

The **BLACK** wire is used strictly as a ground and should be mounted to the engine block or similar engine surface which will provide a clean contact and grounding surface.



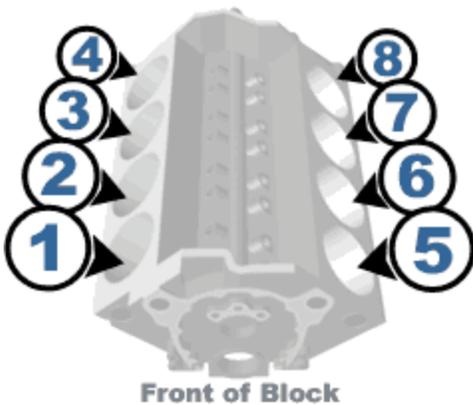
## V-8 Ignition Firing Order and Distributor Rotation

### CHEVROLET



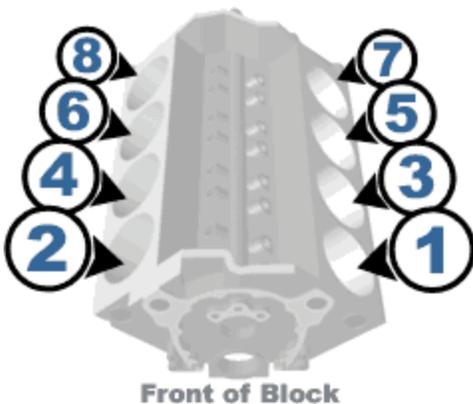
- Chevrolet Small Block 267/283/305/327/350/400  
Clockwise Rotation: 1-8-4-3-6-5-7-2
- Chevrolet Big Block 396 thru 454 (includes 348/409)  
Clockwise Rotation: 1-8-4-3-6-5-7-2
- Pontiac (most 1955-81 V-8 engines)  
Counter Clockwise Rotation: 1-8-4-3-6-5-7-2
- Oldsmobile 307/330/350/400/403/425/455  
Counter Clockwise Rotation: 1-8-4-3-6-5-7-2
- Buick 300/340/350/400/430/455  
Counter Clockwise Rotation: 1-8-4-3-6-5-7-2

### FORD



- Ford 260/289/302 (5.0L) Up to and including 1984  
Counter Clockwise Rotation: 1-5-4-2-6-3-7-8
- Ford 302 HO (5.0L), 351W (5.8L), 351C: 302 HO from 1984 on  
Counter Clockwise Rotation: 1-3-7-2-6-5-4-8
- Ford 332/352/390/427/428  
Counter Clockwise Rotation: 1-5-4-2-6-3-7-8
- Ford 429/460/514  
Counter Clockwise Rotation: 1-5-4-2-6-3-7-8
- Ford Flathead 1949-53 239/255  
Clockwise Rotation: 1-5-4-8-6-3-7-2

### CHRYSLER



- Small Chrysler 273/318/340/360 A Engines  
Clockwise Rotation: 1-8-4-3-6-5-7-2
- Big Chrysler 361/383/413/400/426/440 B/RB Engines  
Counter Clockwise Rotation: 1-8-4-3-6-5-7-2
- 392 Hemi  
Clockwise Rotation: 1-8-4-3-6-5-7-2
- 426 Hemi  
Counter Clockwise Rotation: 1-8-4-3-6-5-7-2

### Helpful Hints:

- 1) When installing or replacing a Vertex® Distributor cap make certain the high-tension lead is properly inserted into the hole provided for it. If the lead becomes damaged or is improperly installed, the distributor may become damaged.
- 2) Do not drive or force the gear of the Vertex® spindle into engine or onto oil pump shaft as internal damage to the distributor and engine may occur.
- 3) Do not operate distributor unless all ignition (spark plug) wires are properly attached to spark plugs. Operating the unit without all wires connected can lead to failure of the distributor coil, or module.
- 4) Do not bundle or tape spark plug wires together as this builds up parallel inductance and can cause cross firing. Keep wires separated by non-metallic (suggest nylon) wire separators.
- 5) Vertex® Distributors are often supplied with original-equipment type drive gears. It may be desirable to replace this gear with either a steel or bronze gear if a steel billet camshaft has been installed. Installation of a reverse drive gear will be necessary if a reverse drive camshaft is used.
- 6) **DO NOT USE SOLID CORE, COPPER CORE OR STAINLESS STEEL (SPARK PLUG) WIRES WITH ANY ELECTRONIC IGNITION SYSTEM.**

## WARRANTY INFORMATION

At Taylor Cable we take every measure to manufacture our products to meet the highest quality specifications and standards available. However, from time to time it is possible that a product made may be or become defective in use. If such should occur, Taylor Cable will make every attempt within a reasonable request and under our warranty guidelines to make the warranty replacement process as smooth as possible.

### LIMITED WARRANTY:

Taylor Cable Products, Inc. warrants solely to the original purchaser and not to any subsequent purchaser, and only as installed on the original vehicle, for which all Vertex® Magneto products are to be free from defects in materials and workmanship for a period of ninety (90) days from the date of purchase when properly installed. Direct burns, misuse, misapplication under the intended product use, or improper installation by the customer are NOT covered under this warranty.

If failure should occur, return defective product, with proof of purchase, along with product warranty, to an authorized Taylor dealer for verification and replacement under this warranty.

This warranty is limited to the repair or replacement of the defective product at the sole discretion of Taylor Cable Products, Inc. to the extent permitted by law. You may also have other rights by law which varies from state to state.

Taylor Cable shall not be responsible for implied, expressed, incidental or consequential damages, such as labor cost for removal or installation, loss of vehicle use, inconvenience or commercial loss. Taylor Cable Products, Inc. is not responsible for injury, property damages, or other damages arising directly or indirectly from the actual or alleged defect in material and/or workmanship. Taylor Cable neither assumes nor authorizes anyone to assume for it any other warranty.



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