



**Ignitor® II**  
ELECTRONIC IGNITION

## **BILLET SLIP COLLAR DISTRIBUTOR INSTALLATION INSTRUCTIONS**

### **LIMITED WARRANTY**

PerTronix, LLC. warrants to the original Purchaser of its Flame-Thrower billet distributor that the product shall be free from defects in material and workmanship (normal wear and tear excluded) for a period of 12 months mechanical and 36 months electrical 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 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 FOREGOING LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

THE FURNISHING OF A REPAIR OR REPLACEMENT COMPONENT OR 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.

### **GENERAL INFORMATION**

1. **IMPORTANT:** Read all instructions before starting installation.
2. Flame-Thrower Billet distributors come with hardened steel distributor gears which should not be used in applications with a billet camshaft. Consult camshaft manufacturer for distributor gear compatibility.
3. **WARNING!!! DO NOT USE WITH SOLID CORE IGNITION WIRES.**
4. Engines that have been decked, had significant cylinder head milling or oil pump modification should be checked for oil pump bind and proper distributor gear mesh prior to installation.

### **DISTRIBUTOR REMOVAL**

1. Crank the engine until the number 1 cylinder is positioned at top dead center on compression stroke. The timing indicator should point to 0.
2. Remove the distributor cap, and make sure that the rotor is pointing towards 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 by lifting up on the distributor housing while slightly turning the rotor.
7. Check the distributor gear for signs of excess wear, or potential problems.

### **DISTRIBUTOR INSTALLATION**

**NOTE:** Billet slip collar distributors are factory set for standard deck height engines. If your application requires a taller installed height, refer to the "ADJUSTING THE SLIP COLLAR" section on page 2 of this manual.

1. Remove the Flame-Thrower billet distributor cap.
2. Install the distributor gasket over the gear, and up to the distributor collar. Use a small amount of gasket adhesive to help hold the gasket in place.
3. Lubricate the distributor gear and distributor shaft with clean engine oil.
4. Turn the shaft so that when the distributor is placed into the engine, the rotor position matches that of the original distributor. As the distributor drops down, the rotor will turn slightly as it engages with the camshaft gear. Adjust for this rotation by turning the rotor a few degrees prior to the gear engagement. Several attempts may be necessary to achieve the proper rotor position. The distributor collar should sit completely flat on the intake manifold or block.
5. Place the distributor cap onto the housing.
6. Turn the housing so that the terminal, that represents the first cylinder in the firing order, lines up with the rotor.
7. Install the distributor hold down and tighten the hold down bolt slightly. insure that the distributor is grounded properly thru the hold down bracket. Once the ignition timing is adjusted the hold down bolt should be tightened completely.
8. Tighten the cap into place and install the spark plug wires in the proper firing order.



440 East Arrow Highway  
San Dimas, CA 91773  
909-599-5955  
www.pertronix.com

9. Locate the vacuum hose that was previously attached to the vacuum advance canister. This hose should originate at a ported vacuum source. Remove the vacuum hose and plug the vacuum port.

### ADJUSTING THE SLIP COLLAR

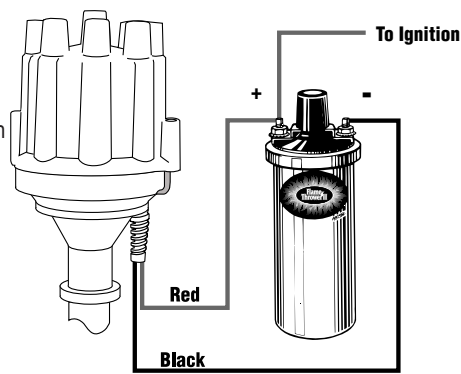
**NOTE:** Non Standard deck height engines require adjustment of the slip collar for proper distributor gear mesh and oil pump drive engagement. Follow the steps outlined below to insure proper distributor installation.

1. Loosen the slip collar set screws and main clamp socket head screw. The collar should move freely on the distributor housing.
2. Remove the distributor gasket from the distributor housing.
3. install the distributor into the engine until it bottoms out on top of the oil pump drive shaft. Press down firmly on the distributor body to insure its fully seated.
4. While holding the slip collar firmly against the intake manifold. Tighten the slip collar socket head screw and set screws.
5. Remove the distributor and install the provided 0.060" gasket.
6. Coat the distributor gear with moly grease.
7. Re-install the distributor in the same method as outlined in the section titled "DISTRIBUTOR INSTALLATION" on page 1 of this manual.
8. Tighten the distributor hold down.
9. Crank the engine over a few revolutions and remove the distributor in the same method as outlined in the section titled "DISTRIBUTOR REMOVAL" on page 1 of this manual.
10. Look at the marks left in the moly grease on the gear. Proper alignment should leave an even pattern across the middle of the gear.
11. If additional adjustment is necessary, repeat step #3 and while holding the slip collar flat against the manifold. Move the distributor body up by the desired amount. Tighten the slip collar socket head screw and set screws.
12. Re-install the distributor in the same method as outlined in the section titled "DISTRIBUTOR INSTALLATION" on the this manual.

### WIRING

The Flame-Thrower billet distributor can be used in conjunction with most ignition coils rated at 0.45 ohms or greater. For optimum performance purchase and install a Flame-Thrower II or HV high performance coil.

1. Many vehicles came equipped with ballast resistors or resistance wires. To achieve optimum performance we recommended removal of these components.
2. Determine the proper wire length, and attach the provided terminals. (Use a designated wire crimping tool to achieve an adequate connection)
3. Attach the **Red** wire to the coil positive terminal or a 12-volt ignition source.
4. Attach the **Black** wire to the coil negative terminal.
5. Check to insure correct polarity and that all connections are tight.
6. Reconnect the battery negative cable.



### FINAL ADJUSTMENTS

1. **WARNING!!! DO NOT USE WITH SOLID CORE SPARK PLUG WIRES.**
2. Start the engine and set the initial timing.
3. Tighten the distributor hold down.

### MECHANICAL ADVANCE ADJUSTMENTS

1. To adjust the mechanical advance curve, select the appropriate springs from the chart below. The
2. Flame-Thrower billet distributor is factory equipped with the silver springs.
3. Remove the cap and rotor.
4. Remove the existing springs and install the desired springs.
5. Reinstall the rotor and cap.

		R.P.M.										
		500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500
<b>Copper</b>		0	5	16	24	24	24	24	24	24	24	24
<b>Silver</b>		0	0	3	10	16	22	24	24	24	24	24
<b>Bronze</b>		0	0	0	3	7	10	14	18	22	24	24

**Crankshaft Degrees**

The Flame-Thrower billet distributor comes with three different sets of advance limiters. These allow the maximum mechanical advance to be limited to 20, 16 or 12 degrees.

1. Choose the desired advance limit from the chart below.
2. Remove the distributor cap and rotor.
3. Remove the advance springs.
4. Install one advance limiter on each inner advance pin. (See Figure 1)
5. Reinstall the advance springs.
6. Reinstall the rotor and cap.
7. The advance limiters can be mixed resulting in unique variations of the original advance curve. When combined with mixed advance springs and limiters the mechanical advance can have a maximum of 78 different advance curves.

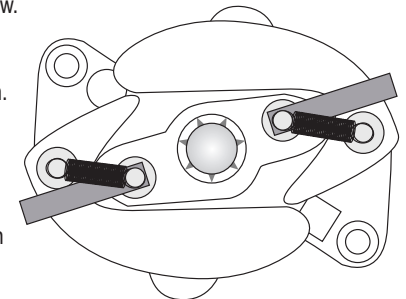


FIGURE 1

LIMITER	TOTAL MECHANICAL ADVANCE
6	12 DEGREES
8	16 DEGREES
10	20 DEGREES

