



HEI RACE DISTRIBUTOR INSTALLATION INSTRUCTIONS

LIMITED WARRANTY

PerTronix, Inc. warrants to the original Purchaser of its Flame-Thrower HEI products that the product shall be free from defects in material and workmanship (normal wear and tear excluded) for a period of 12 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 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

GENERAL INFORMATION

1. **Important:** Read all instructions before starting installation.
2. For Racing use only.
3. Flame-Thrower Race HEI distributors come with machined steel distributor gears which should not be used in applications with a billet camshaft. Consult camshaft manufacturer for distributor gear compatibility.
4. Check the Ignition base timing before removing original distributor to insure proper re-installation.
5. **Note:** If converting from a point style ignition, all primary Ignition resistance should be removed. New HEI style spark plug wires will be necessary.

DISTRIBUTOR REMOVAL

1. Turn the engine over until it is at top dead center on a compression stroke.
2. Disconnect the negative battery cable.
3. Disconnect the vehicle wiring harness, and distributor wiring harness from the distributor cap.
4. Remove the distributor cap, leaving the spark plug wires attached. Set the cap and wires out of the way.
5. The rotor should be pointing to where the number one terminal of the distributor cap would be. If not, then the engine is not at top dead center.
6. Once TDC is achieved, the vehicle should not be moved, nor the engine turned over until the installation is complete.
7. If converting from point type distributor, label the wires attached to the coil terminals and disconnect them. Remove the coil, and coil bracket from the engine.
8. Remove the vacuum hose attached to the vacuum canister. Trace the vacuum hose to where it begins. Remove the hose and cap the vacuum source.
9. Remove the distributor hold down bolt and hold down.
10. Remove the distributor by lifting up on the distributor housing while slightly turning the rotor.
11. Check the distributor gear for signs of excess wear, or potential problems.



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DISTRIBUTOR INSTALLATION

1. Disconnect the *Flame-Thrower™* wire harness from the distributor cap. Remove the cap from the distributor housing.
2. Install the distributor gasket over the gear, and up to the distributor collar (gasket not required on Oldsmobile application). A small amount of gasket adhesive will help to hold the gasket in place as the distributor is installed.
3. Lubricate the *Flame-Thrower™* distributor gear with a liberal amount of engine oil.
4. Turn the distributor shaft until the rotor is in the same position that was noted with the old distributor.
5. Place the distributor into the engine. As the distributor drops down, the rotor will turn 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.
6. Set the distributor cap on the distributor housing. Turn the distributor housing until the number one terminal on the cap lines up with the rotor. Fasten the cap to the housing.
7. Install the distributor hold down and tighten the hold down bolt slightly. Once the ignition timing is adjusted the hold down bolt should be tightened completely.
8. Starting with the number one spark plug wire, move the spark plug wires from the original distributor cap to the *Flame-Thrower™* cap one by one.
9. If converting from a point type ignition, new HEI style spark plug wires should be used (Check with your dealer for the *Flame-Thrower™* spark plug wires).
10. Connect the *Flame-Thrower™* wire harness and vehicle wiring into the distributor cap.
11. If converting from a point type ignition, remove any resistance wire, or ballast resistor that may have been previously used.
 - If a resistance wire is present: replace the wire with a 12-gauge copper stranded wire. Most resistance wires begin at the engine compartment side of the fuse block.
 - If a ballast resistor is present: remove the wires attached to both sides of the resistor. Connect all of the wires removed together at a single point. Isolate the connection from any grounds.
 - Plug the Ignition switch wire into the position marked **BAT** on the distributor cap.
12. If a tachometer is used: Connect the tachometer wire into the position marked **TACH** on the distributor cap.
13. Re-connect the battery.
14. Check to insure that all spark plug wires are secure and in the correct place.
15. Start the engine, and check the base timing.
16. Check the vehicle manufacture specifications for the correct timing. Rotate the distributor housing to achieve the indicated timing specifications.
17. Once the timing is properly adjusted, turn the ignition switch off and tighten the distributor hold down.

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MECHANICAL ADVANCE

1. To adjust the mechanical advance curve, select the appropriate springs from the chart below. The Flame-Thrower distributor is factory equipped with the silver springs.
2. Remove the cap and rotor.
3. Remove the existing springs and install the desired springs.
4. Re-install the rotor, Note: If the Flame-Thrower distributor is used in a high R.P.M. application, replace the metallic rotor retaining screws with the provided Teflon screws and washers. Do not over tighten the Teflon screws.
5. Reinstall the rotor and cap.

Spring	R.P.M.						
	500	1000	2000	3000	4000	5000	6000
Copper	4°	12°	19°	24°	24°	24°	24°
Silver	0°	8°	12°	16°	19°	21°	24°
Natural	0°	6°	10°	14°	17°	20°	21°

Crankshaft Degrees

TROUBLESHOOTING

If the vehicle fails to start after installing the Flame-Thrower distributor;

- Check to insure that all directions have been followed correctly.
- Make sure that all connections are correct, and tight.
- If converting from a point type ignition, make sure that all primary resistance is removed from the circuit.
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For additional assistance call the Pertronix Tech Line at 909-599-5955

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