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Pertronix 1589

PerTronix 1589 Ignitor Electronic Ignition Conversion Kit User Manual

For Prestolite 8-Cylinder Distributors

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of the PerTronix 1589 Ignitor Electronic Ignition Conversion Kit. This kit is designed to replace traditional mechanical points in Prestolite 8-cylinder distributors, offering enhanced performance and reliability.

The PerTronix Ignitor system converts your distributor to a reliable electronic ignition, eliminating the need for mechanical points and condensers. It delivers increased voltage to the spark plugs, which can result in improved engine efficiency, better fuel economy, and extended spark plug life. Its advanced technology uses rotating cobalt magnets paired with a Hall Effect integrated circuit, ensuring precise timing without the wear and tear of moving parts. The robust, maintenance-free design is epoxy molded, making it impervious to dirt, oil, grease, and moisture.

Key Features:

- Seamless upgrade to electronic ignition without an additional control box.
- Doubles voltage to spark plugs for enhanced horsepower and fuel economy.
- Epoxy molded construction for durability and resistance to dirt, oil, grease, and moisture.
- Provides stable, adjustment-free timing with improved accuracy over traditional points.
- Utilizes Hall Effect integrated circuit technology, eliminating moving parts and wear.

2. SETUP AND INSTALLATION

The PerTronix 1589 Ignitor is designed for straightforward installation into your existing Prestolite 8-cylinder distributor. Follow these general steps for proper setup. Always refer to your vehicle's specific service manual for distributor removal and reinstallation procedures if necessary.

2.1. Pre-Installation Checks

• Ensure the engine is cool and the ignition is off. Disconnect the battery's negative terminal.

- Verify that your distributor is a Prestolite 8-cylinder model compatible with the PerTronix 1589 kit.
- Inspect the distributor for any excessive shaft play or wear that could affect timing accuracy.
- Confirm your ignition coil is compatible. The Ignitor is compatible with most point-type ignition coils.

2.2. Component Identification



Figure 1: PerTronix 1589 Ignitor Electronic Ignition Conversion Kit. This image displays the main components of the kit: the metal base plate with the integrated electronic module and wiring, and the black reluctor collar.



Figure 2: Close-up view of the reluctor collar. This component is crucial for precise timing and must be seated correctly on the distributor shaft.

2.3. Installation Steps

- 1. **Remove Existing Components:** Carefully remove the distributor cap, rotor, mechanical points, and condenser from the distributor. Keep any screws or clips for reassembly if applicable.
- 2. **Install Ignitor Module:** Mount the PerTronix Ignitor module onto the distributor base plate, ensuring it is securely fastened. The module is designed to fit precisely where the points were located.
- 3. **Install Reluctor Collar:** Slide the provided reluctor collar onto the distributor shaft. It is critical that this collar is pushed all the way down until it is firmly seated. Improper seating can lead to misfires or the engine not running on all cylinders. Apply even, firm pressure.

4. Wiring Connections:

- Connect the red wire from the Ignitor module to the positive (+) side of the ignition coil.
- Connect the black wire from the Ignitor module to the negative (-) side of the ignition coil.
- Ensure all connections are clean and secure.
- 5. **Reassemble Distributor:** Reinstall the rotor and distributor cap. Ensure the cap is seated correctly and secured with its clips.
- 6. **Reconnect Battery:** Reconnect the negative terminal of the battery.
- 7. **Initial Timing Adjustment:** While the Ignitor provides stable timing, an initial timing check and adjustment may be required after installation to optimize engine performance. Use a timing light to set the ignition timing according to your vehicle manufacturer's specifications.

Important Note: The proper seating of the reluctor collar is paramount for correct operation. If the engine experiences misfires or runs poorly after installation, re-check the reluctor collar's position.

3. OPERATING INSTRUCTIONS

Once correctly installed, the PerTronix 1589 Ignitor operates automatically, providing a consistent and powerful spark to your engine.

- Engine Start-up: The electronic ignition system will provide a strong spark for reliable engine starting.
- **Stable Timing:** The Hall Effect integrated circuit ensures precise and stable timing across the engine's RPM range, eliminating the timing fluctuations common with mechanical points.
- **Increased Spark Energy:** The system delivers double the voltage to the spark plugs compared to traditional points, resulting in a more complete combustion and improved engine performance.

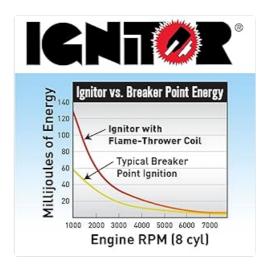


Figure 3: Comparison of Ignitor with Flame-Thrower Coil versus Typical Breaker Point Ignition energy output. This graph illustrates the significantly higher and more consistent energy delivered by the Ignitor system across various engine RPMs.

4. MAINTENANCE

One of the primary advantages of the PerTronix 1589 Ignitor Electronic Ignition Conversion Kit is its maintenance-free design.

- No Points to Adjust: Unlike mechanical points, the Ignitor module does not require periodic adjustment or replacement.
- No Condenser to Replace: The electronic system eliminates the need for a condenser.
- **Durable Construction:** The epoxy-molded design protects the internal components from dirt, oil, grease, and moisture, ensuring long-term reliability without requiring cleaning or lubrication.

Regularly inspect the wiring connections for corrosion or damage and ensure the distributor cap and rotor are in good condition.

5. TROUBLESHOOTING

If you encounter issues after installing the PerTronix 1589 Ignitor, review the following common troubleshooting steps.

Problem	Possible Cause	Solution
Engine cranks but does not start.	 Incorrect wiring. Reluctor collar not seated properly. Faulty ignition coil. No power to the ignition system. 	 Verify red wire to coil (+), black wire to coil (-). Ensure reluctor collar is pushed all the way down on the distributor shaft. Test ignition coil for proper resistance and function. Check for 12V at the coil (+) terminal when ignition is on.
Engine misfires or runs rough.	 Reluctor collar not seated properly. Incorrect ignition timing. Worn spark plugs or plug wires. Distributor cap or rotor damage. 	 Re-check reluctor collar seating. Adjust ignition timing with a timing light. Inspect and replace spark plugs and wires if necessary. Examine distributor cap and rotor for cracks or carbon tracking.
Engine runs, but performance is poor.	Incorrect ignition timing.Incompatible ignition coil.	 Verify and adjust ignition timing. Ensure coil resistance is within specifications for electronic ignition systems.

6. SPECIFICATIONS

The following are technical specifications for the PerTronix 1589 Ignitor Electronic Ignition Conversion Kit.

Feature	Detail
Model Number	1589
Compatibility	Prestolite 8-Cylinder Distributors
Ignition Type	Electronic (Hall Effect)
Voltage Output	Doubles voltage to spark plugs compared to points
Construction	Epoxy molded, resistant to dirt, oil, grease, moisture
Timing	Stable, adjustment-free timing (after initial setup)
CARB E.O. Number	D-57-22 (Legal in all 50 states and Canada)
Item Weight	2.4 ounces
Product Dimensions	6.13 x 4.75 x 1.5 inches

Electronic Ignition Conversions

FEATURE COMPARISON	<i>lgnitor</i>	<i>lgnitor I</i> I	ignitor M
Fits entirely inside the distributor. No "Black Box" to clutter the engine compartment	✓	✓	✓
Stable timing No need for adjustment	✓	✓	✓
Epoxy molded module makes module impervious to dirt, oil, grease and moisture	✓	✓	
Hall Effect integrated circuit No points to burn no moving parts to break	✓	✓	✓
Surface Mount Technology	✓	✓	✓
Legal in all 50 states and Canada (C.A.R.B. E.O. #D-57-22)	✓	✓	✓
Compatible with most point type ignition coils	✓	✓	
Adaptive dwell control maintains peak energy throughout the entire RPM		✓	√
High RPM timing correction		√	✓
Engine Start-up energy boost		✓	√
Reverse polarity and over current protection		✓	✓
Compatible with low resistance ignition coils		√	√
Thermal Clad construction			✓
Integrated adjustable REV Limiter with LED feedback			✓
Multi-spark ignition system eliminates the need for CD boxes			✓

Figure 4: Electronic Ignition Conversions Feature Comparison. This table highlights the features of the Ignitor (Model 1589), Ignitor II, and Ignitor III systems, showing that the Ignitor (Model 1589) fits entirely within the distributor, offers stable timing, is epoxy molded, uses a Hall Effect circuit, and is CARB legal.

7. WARRANTY AND SUPPORT

The PerTronix 1589 Ignitor Electronic Ignition Conversion Kit typically comes with a limited warranty.

- Warranty Period: A 30-month limited warranty is generally offered for this product. Please refer to the product packaging or the official PerTronix website for the most current and detailed warranty information.
- Claim Process: For warranty claims or technical support, please contact PerTronix directly through their official website or customer service channels. Provide your product model number (1589) and proof of purchase.

For further assistance or specific technical questions, it is recommended to visit the official PerTronix website or consult with a certified automotive technician.

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Related Documents - 1589



PerTronix Ignitor Electronic Ignition System Installation and Warranty

This document provides installation instructions and limited warranty information for the PerTronix Ignitor electronic ignition system, designed for 12-volt positive ground applications. It covers compatibility, wiring, troubleshooting, and warranty terms.

Planul de usario di la belifica ful harifon	Full Nutrition Blender User Manual - Model SC-1589 User manual for the Full Nutrition Blender, Model SC-1589. Provides instructions on how to use, safety precautions, troubleshooting, and maintenance for the blender.
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HMD Puise Bedierungsanleitung	HMD Pulse Bedienungsanleitung: Ihr umfassender Leitfaden Entdecken Sie die HMD Pulse Bedienungsanleitung für detaillierte Informationen zur Einrichtung, Nutzung, Sicherheit und Fehlerbehebung Ihres HMD Pulse Smartphones. Optimieren Sie Ihr mobiles Erlebnis.
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