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> Speedmaster PCE415.1002.02 Gilmer Drive Kit Instruction Manual

## Speedmaster PCE415.1002.02

# Speedmaster PCE415.1002.02 Gilmer Drive Kit

Instruction Manual

Model: PCE415.1002.02

## INTRODUCTION

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This manual provides essential information for the proper installation, operation, and maintenance of your Speedmaster PCE415.1002.02 Gilmer Drive Kit. This kit is designed for specific automotive applications, ensuring efficient power transfer for your engine's accessories.

Please read all instructions carefully before proceeding with installation or use. Retain this manual for future reference.

### Important Safety Information

**WARNING:** This product is intended for racing applications only. It is not designed or approved for street use. Improper installation or use can lead to serious injury, damage to the vehicle, or failure of the component. Professional installation is highly recommended.

## PRODUCT OVERVIEW

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The Speedmaster PCE415.1002.02 Gilmer Drive Kit is a high-performance pulley system designed to replace standard V-belt or serpentine belt systems. It provides a positive, non-slip drive for engine accessories, commonly used in racing environments where consistent power delivery is critical. This kit is compatible with Chevy SBC 350 engines utilizing a long water pump (LWP) configuration.

## Kit Components

- **Pulley Style:** Gilmer
- **Pulley Material:** Aluminum
- **Pulley Finish:** Anodized Black
- **Crankshaft Pulley:** Included
- **Water Pump Pulley:** Included
- **Alternator Pulley:** Included

- **Belt:** Included (Gilmer style, 1.500 in. width)



*Image: The complete Speedmaster Gilmer Drive Kit, showing the crankshaft pulley, water pump pulley, alternator pulley, and the wide Gilmer belt. All components are finished in anodized black aluminum.*

## SETUP AND INSTALLATION

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Proper installation is crucial for the performance and longevity of your Gilmer Drive Kit. It is highly recommended that installation be performed by a qualified automotive technician with experience in performance engine modifications.

### Pre-Installation Checklist:

- Ensure the engine is cool and disconnected from the battery.
- Verify all kit components are present and undamaged.
- Confirm compatibility with your specific Chevy SBC 350 engine and long water pump configuration.
- Gather necessary tools, including torque wrench, pulley puller/installer, and appropriate sockets/wrenches.

### Installation Steps:

1. **Remove Existing Drive System:** Carefully remove the existing belts and pulleys from the crankshaft, water pump, and alternator. Refer to your vehicle's service manual for specific removal procedures.
2. **Install Crankshaft Pulley:** Mount the new Gilmer crankshaft pulley onto the crankshaft. Ensure it is seated correctly and secured according to manufacturer specifications.
3. **Install Water Pump Pulley:** Attach the Gilmer water pump pulley to the water pump. Verify proper alignment with the crankshaft pulley.
4. **Install Alternator Pulley:** Install the Gilmer alternator pulley onto the alternator shaft. Ensure it is securely fastened and aligned with the other pulleys.
5. **Install Gilmer Belt:** Carefully route the Gilmer belt around all installed pulleys. Ensure the belt teeth engage properly with the pulley grooves.
6. **Tension the Belt:** Adjust the alternator or tensioner (if applicable) to achieve the correct belt tension. Gilmer belts typically require less tension than V-belts but proper tension is critical to prevent slippage and premature wear. Consult a service manual or a professional for specific tensioning guidelines.
7. **Verify Alignment:** Double-check the alignment of all pulleys. Misalignment can cause excessive belt wear, noise, and component failure.
8. **Final Inspection:** Before starting the engine, ensure all fasteners are tightened to their specified torque values. Check for any obstructions or potential rubbing points.



*Image: A detailed view of the Gilmer crankshaft pulley, highlighting its tooth design for positive belt engagement.*



*Image: A close-up of the Gilmer water pump pulley, showing its robust construction and anodized black finish.*

## OPERATING CONSIDERATIONS

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Once installed, the Speedmaster Gilmer Drive Kit operates by providing a direct, non-slip connection between the crankshaft and engine accessories (water pump, alternator). This positive drive system eliminates belt slippage, which is common with traditional V-belts at high RPMs or under heavy loads. This results in more consistent and efficient power

delivery to the accessories, crucial for maintaining optimal engine performance in racing conditions.

While Gilmer drive systems are known for their reliability, it is important to monitor their performance, especially during initial break-in and after any significant engine modifications.

## MAINTENANCE

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Regular inspection and maintenance will ensure the longevity and optimal performance of your Speedmaster Gilmer Drive Kit.

### Recommended Maintenance Schedule:

- **Before Each Race/Event:**
  - Inspect the Gilmer belt for any signs of wear, cracking, fraying, or missing teeth.
  - Check the pulleys for any damage, nicks, or excessive wear on the teeth.
  - Verify belt tension. The belt should be taut but not excessively tight.
  - Ensure all mounting bolts for the pulleys and accessories are secure.
- **Periodically (e.g., every 20-30 hours of operation or annually):**
  - Clean the pulleys and belt to remove any accumulated dirt, oil, or debris. Use a mild degreaser if necessary, ensuring it does not harm rubber components.
  - Re-check all fastener torques.
  - Inspect accessory bearings (water pump, alternator) for any signs of play or noise, as worn bearings can affect pulley alignment and belt life.

Replace any worn or damaged components immediately to prevent further damage to the system or engine.

## TROUBLESHOOTING

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This section addresses common issues that may arise with your Gilmer Drive Kit.

Symptom	Possible Cause	Solution
Excessive Belt Noise (Whining/Squealing)	Incorrect belt tension (too tight or too loose) Pulley misalignment Worn or damaged belt/pulleys Contamination (oil, grease) on belt/pulleys	Adjust belt tension to specifications. Check and correct pulley alignment. Inspect and replace worn components. Clean belt and pulleys thoroughly.
Premature Belt Wear	Pulley misalignment Incorrect belt tension Foreign objects caught in the system Damaged pulley teeth	Verify and correct pulley alignment. Adjust belt tension. Inspect and remove debris. Replace damaged pulleys.
Belt Slippage (unlikely with Gilmer, but possible)	Severely worn belt teeth Extreme contamination (e.g., heavy oil saturation) Incorrect belt length/tension	Replace belt. Clean system and address source of contamination. Verify correct belt part number and tension.

## SPECIFICATIONS

Attribute	Value
Part Number	PCE415.1002.02
Pulley Style	Gilmer
Pulley Material	Aluminum
Pulley Finish	Anodized Black
Crankshaft Pulley Included	Yes
Water Pump Pulley Included	Yes
Alternator Pulley Included	Yes
Belt Included	Yes
Belt Style	Gilmer
Belt Width	1.500 in.
Item Weight	7.1 pounds
Product Dimensions	11.42 x 5.51 x 5.32 inches
Country of Origin	China

## WARRANTY AND SUPPORT

The Speedmaster PCE415.1002.02 Gilmer Drive Kit is backed by a **12-Month Limited Worldwide Warranty**. This warranty covers defects in materials and workmanship under normal use and service for a period of 12 months from the date of purchase.

For warranty claims, technical support, or inquiries regarding your Speedmaster product, please contact Speedmaster customer service through their official website or authorized distributors. Please have your product model number (PCE415.1002.02) and proof of purchase available when contacting support.

Speedmaster is committed to providing high-quality automotive components and support to its customers.