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› Standard Motor Products V316 PCV Valve User Manual

Standard Motor Products V316

Standard Motor Products V316 PCV Valve

INSTRUCTION MANUAL

Model: V316 | Brand: Standard Motor Products

1. Introduction

This manual provides essential information for the proper installation, operation, and maintenance of your Standard Motor Products V316 PCV Valve. The Positive Crankcase Ventilation (PCV) valve is a crucial component of your vehicle's emission control system, designed to relieve crankcase pressure and prevent harmful emissions from escaping into the atmosphere.

Standard Motor Products is a leading manufacturer of premium replacement parts, ensuring high quality and reliable performance for your automotive needs.

2. Product Specifications

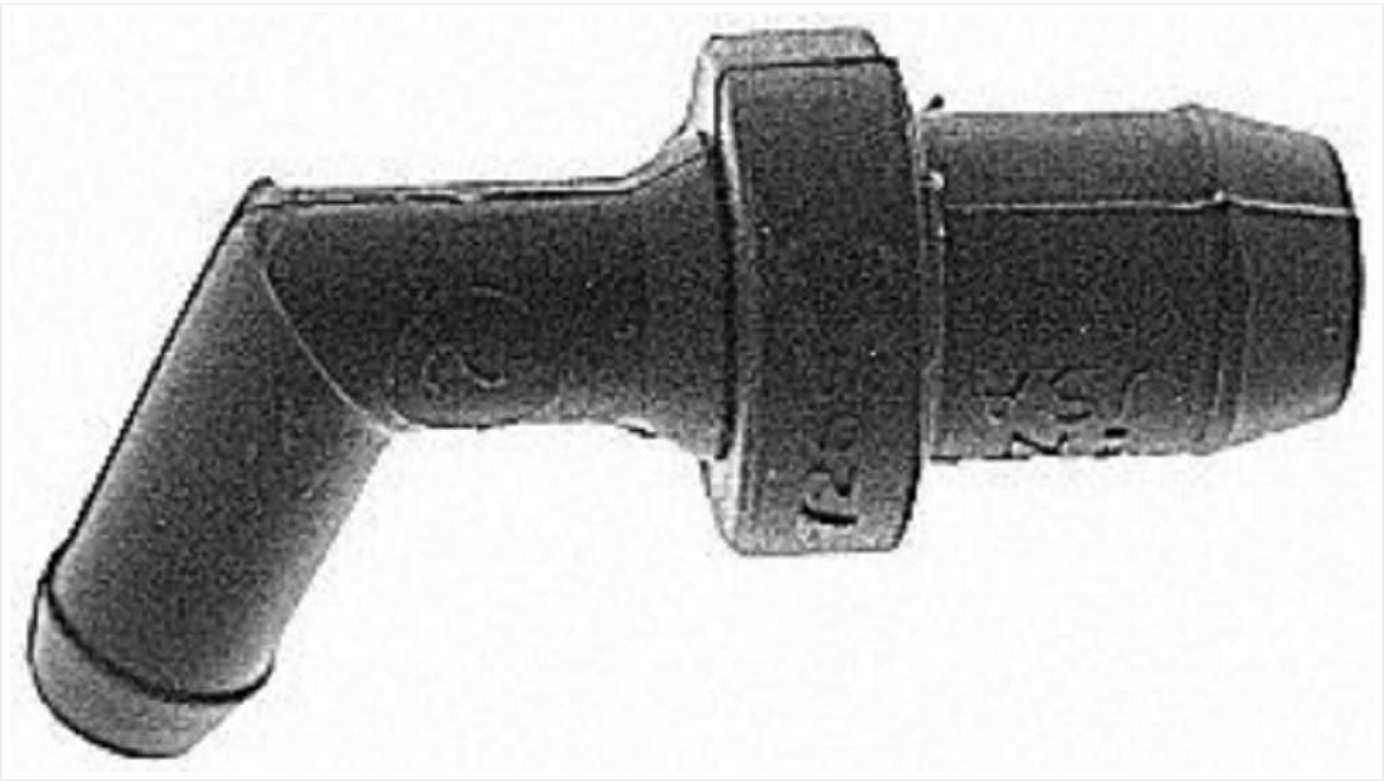


Figure 2.1: Standard Motor Products V316 PCV Valve. This image shows the black, angled PCV valve, designed for efficient crankcase ventilation.

Key Product Details

Feature	Detail
Part Number	V316
Brand	Standard Motor Products
Material	Metal
Item Dimensions (L x W x H)	1.5 x 1.16 x 2.88 inches
Item Weight	0.01 ounces (0.022 Pounds package weight)
Exterior Finish	Machined
Inlet Connection Type	Press
Outlet Connection Type	SAE
Number of Ports	2
Valve Type	PCV
UPC	091769224486

3. Installation Guide

Installing a PCV valve typically involves a straightforward process, but it is crucial to consult your vehicle's specific service manual for precise instructions and location of the PCV valve. Always ensure the engine is cool before beginning any work.

Safety Precautions:

- Wear appropriate personal protective equipment, including safety glasses and gloves.
- Ensure the vehicle is parked on a level surface with the parking brake engaged.
- Disconnect the negative terminal of the battery before starting work to prevent accidental electrical shorts.
- Allow the engine to cool completely to avoid burns from hot engine components.

General Installation Steps:

1. **Locate the PCV Valve:** Refer to your vehicle's service manual for the exact location of the PCV valve. It is commonly found on the valve cover or intake manifold.
2. **Disconnect Hoses:** Carefully disconnect any hoses or tubes connected to the PCV valve. These may be secured with clamps.
3. **Remove Old Valve:** The old PCV valve may be threaded in, pressed in, or held by a grommet. Twist and pull, or use a wrench if threaded, to remove it. Note its orientation.
4. **Inspect Grommet/Seal:** Inspect the grommet or seal where the PCV valve sits. If it is cracked, hardened, or damaged, replace it to ensure a proper seal.
5. **Install New Valve:** Insert the new Standard Motor Products V316 PCV Valve into the opening, ensuring it is fully seated and oriented correctly. If it's a press-fit, apply gentle, even pressure.
6. **Reconnect Hoses:** Reconnect all hoses and secure any clamps. Ensure all connections are tight to prevent vacuum leaks.
7. **Reconnect Battery:** Reconnect the negative battery terminal.
8. **Test:** Start the engine and check for any unusual noises or vacuum leaks.

Note: If you are unsure about any step, it is recommended to seek assistance from a qualified automotive technician.

4. Operating Principles of a PCV Valve

The PCV system is designed to remove harmful blow-by gases from the engine's crankcase. During combustion, some gases escape past the piston rings and enter the crankcase. Without proper ventilation, these gases can build up pressure, contaminate the engine oil, and lead to sludge formation and seal damage.

The PCV valve is a one-way valve that regulates the flow of these crankcase gases into the engine's intake manifold, where they are re-burned. This process helps to reduce emissions and maintain engine cleanliness. The valve's internal mechanism adjusts the flow based on engine vacuum, allowing more flow during high vacuum (idle/deceleration) and less during low vacuum (acceleration).

5. Maintenance and Inspection

Regular inspection and timely replacement of the PCV valve are essential for optimal engine performance and emission control. A clogged or faulty PCV valve can lead to various engine problems.

Inspection Frequency:

- Consult your vehicle's service manual for recommended inspection and replacement intervals. Typically, PCV valves are inspected every 30,000 to 50,000 miles and replaced as needed.
- Inspect the PCV valve and its hoses for cracks, clogs, or deterioration during routine maintenance.

Signs of a Failing PCV Valve:

- Increased oil consumption
- Engine oil leaks

- Rough idle or stalling
- Check Engine Light illumination
- Excessive smoke from the exhaust
- Sludge buildup in the engine

If you observe any of these symptoms, it is advisable to inspect or replace your PCV valve promptly.

6. Troubleshooting Common Issues

PCV Valve Troubleshooting Guide		
Symptom	Possible Cause	Solution
Engine runs rough or stalls at idle	Clogged or stuck-open PCV valve, vacuum leak in PCV hose	Inspect and clean/replace PCV valve. Check PCV hoses for cracks or disconnections.
Increased oil consumption / Oil leaks	Clogged PCV valve leading to excessive crankcase pressure	Replace PCV valve. Check for damaged engine seals.
Engine knocking or pinging	Lean air/fuel mixture due to vacuum leak from PCV system	Inspect PCV valve and hoses for leaks.
Excessive smoke from exhaust	PCV valve stuck open, allowing too much oil vapor into combustion chamber	Replace PCV valve.

For persistent issues, it is recommended to consult a certified automotive mechanic.

7. Support and Contact Information

For technical assistance, warranty claims, or further information regarding your Standard Motor Products V316 PCV Valve, please contact Standard Motor Products directly. Please have your product model number (V316) and any relevant purchase information ready when contacting support. You can find contact details on the official Standard Motor Products website:www.smpcorp.com

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question