Master Flow PVM105

Master Flow PVM105 Replacement Motor for Power Vents (EGV5/ERV4/ERV5) Instruction Manual

Model: PVM105

Introduction

This manual provides comprehensive instructions for the installation, operation, and maintenance of your Master Flow PVM105 Replacement Motor. This motor is designed for use with Master Flow power vents including models EGV5, ERV4, ERV5, PR-1, PR-2, PG1, PG2, MD105, MD105D, H122D, PR1, CPR1D, PR1D, CPR2D, PR2D, and PR2DHT. Please read these instructions carefully before beginning any work to ensure safe and proper installation.

Important Safety Information

WARNING: Risk of Electric Shock. Always disconnect power at the main breaker before installing or servicing this unit. Failure to do so can result in serious injury or death.

- Always wear proper personal safety equipment, including safety eyewear and work gloves.
- Follow all applicable building codes and the National Electrical Code (U.S. only).
- Electrical work must be performed by a qualified person. Contact a qualified electrician if you are unfamiliar with electrical codes or installations.
- Ensure all wires are properly insulated and secured to prevent contact with each other or metal surfaces.

Package Contents

Your Master Flow PVM105 Replacement Motor package includes:

- 1 x Master Flow PVM105 Replacement Motor (with integrated capacitor)

Note: Motor casing color may vary.

Specifications

Feature	Detail
Brand	Master Flow
Model Name	Replacement Motor for Power Vents
Item Model Number	PVM105
Voltage	120 Volts
Horsepower	0.08 Horsepower
Material	Metal
Product Dimensions	9 x 7 x 5.7 inches
Item Weight	4.9 Pounds
Compatible Power Vents	EGV5, ERV4, ERV5, PR-1, PR-2, PG1, PG2, MD105, MD105D, H122D, PR1, CPR1D, PR1D, CPR2D, PR2D, PR2DHT Series

Installation Instructions

This replacement motor is designed for easy installation without removing the entire power vent unit. Follow these steps carefully:

Tools Required:

- 4mm Allen wrench
- 7/16 inch socket wrench
- Voltage meter
- Screwdriver
- Wire strippers/cutters (if needed)
- Safety glasses and work gloves

Step-by-Step Installation:

1. **Disconnect Power:** Locate the circuit breaker for the power vent and turn off the power. Verify power is off using a voltage meter.
2. **Access Wiring:** Remove the thermostat cap from the junction box. Carefully expose the wiring within the box.
3. **Disconnect Old Motor Wiring:** Disconnect the wires connecting the old motor to the house wiring. Note the connections (e.g., black to black, white to white). The video demonstrates disconnecting a blue wire nut.
4. **Disconnect Conduit:** Disconnect the flexible conduit from the existing junction box.
5. **Remove Fan Blade:** Using a 4mm Allen wrench, loosen the set screw that secures the fan blade to the motor shaft. Carefully remove the fan blade and set it aside.
6. **Remove Old Motor:** Using a 7/16 inch socket wrench, remove the three fasteners securing the old motor to the housing bracket. The motor will then be free.
7. **Prepare New Motor:** Take the new Master Flow PVM105 motor. Fish the motor's wires through the flexible conduit, ensuring the side without the connector is used for feeding through.
8. **Install New Motor:** Position the new motor and secure it to the housing bracket using the three fasteners and a 7/16 inch socket wrench.

9. **Reattach Fan Blade:** Carefully slide the fan blade onto the new motor shaft. Align the flat side of the motor shaft with the set screw on the fan blade hub. Tighten the set screw with a 4mm Allen wrench.
10. **Reconnect Conduit:** Reattach the flexible conduit to the junction box, ensuring a secure connection.
11. **Reconnect Electrical Wiring:** Reconnect the motor wires to the house wiring. Typically, black wires connect to black wires, and white wires connect to white wires. Secure connections with wire nuts. Ensure all wires are tucked neatly into the box.
12. **Replace Thermostat Cover:** Place the thermostat cover back onto the junction box, ensuring the opening for temperature adjustment is correctly aligned.
13. **Restore Power:** Turn the power back on at the main breaker. The power vent should now operate.

Visual Guide: Master Flow Power Vent Motor Replacement

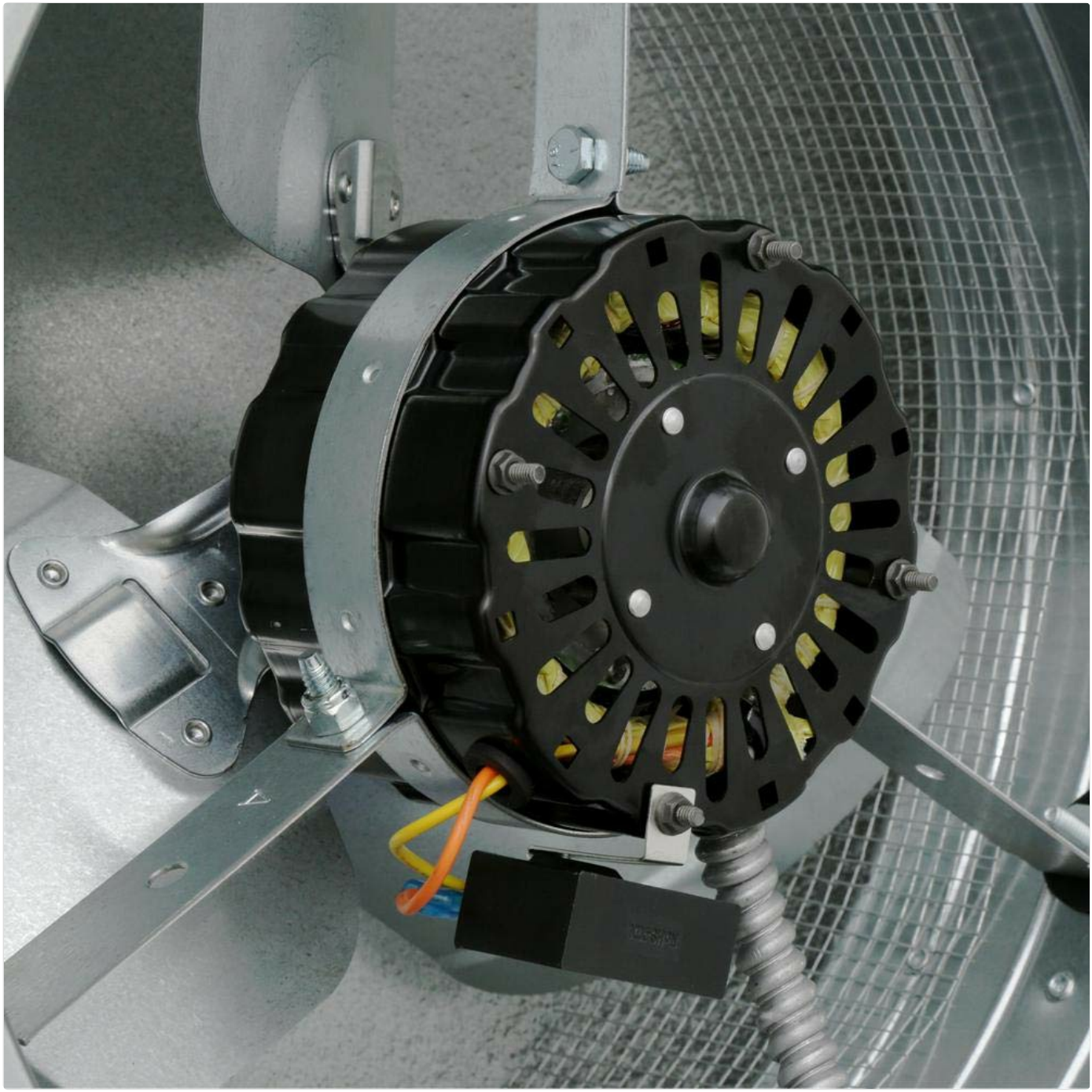
Your browser does not support the video tag.

This video demonstrates the step-by-step process for replacing the Master Flow Power Vent Motor, including safety precautions, wiring disconnection, motor removal, and new motor installation. It provides a visual aid for the instructions detailed above.

Product Images:

Front view of the Master Flow PVM105 Replacement Motor, showing the motor body and attached capacitor.

Side view of the Master Flow PVM105 Replacement Motor, highlighting the shaft and mounting points.



The Master Flow PVM105 Replacement Motor shown installed within a power vent unit, demonstrating its placement and connection to the fan blades.

Operation

The Master Flow PVM105 Replacement Motor operates automatically in conjunction with your power vent's thermostat. Once installed and power is restored, the motor will activate the fan when the attic temperature reaches the thermostat's set point, helping to reduce heat buildup in the attic.

- Ensure the thermostat is set to your desired temperature for optimal attic ventilation.
- The motor is a PSC (Permanent Split Capacitor) type, offering higher efficiency compared to standard shaded pole motors.

Maintenance

Regular maintenance helps ensure the longevity and efficient operation of your power vent system. Always disconnect power before performing any maintenance.

- **Annual Inspection:** Annually inspect the motor and fan blades for any signs of wear, damage, or debris accumulation.
- **Cleaning:** Gently clean any dust or debris from the motor housing and fan blades using a soft brush or cloth. Do not use water or liquid cleaners directly on the motor.
- **Lubrication:** The motor is typically sealed and does not require lubrication. Refer to the specific power vent unit's manual for any additional lubrication requirements for other components.
- **Wiring Check:** Periodically check all electrical connections for tightness and signs of corrosion.

Troubleshooting

Problem	Possible Cause	Solution
Motor does not start	No power to the unit; faulty thermostat; loose wiring connection; motor failure.	Check circuit breaker; verify thermostat setting and function; inspect all wiring connections; if all else fails, motor may need replacement (if not recently replaced).
Motor runs but fan does not spin	Fan blade set screw loose; obstruction in fan blades.	Disconnect power, tighten fan blade set screw; remove any obstructions.
Unusual noise during operation	Loose fan blade; debris in fan; motor bearing issue.	Disconnect power, check fan blade tightness and for debris; if noise persists, motor may be failing.

If you encounter issues not listed here or if troubleshooting steps do not resolve the problem, contact Master Flow customer support or a qualified technician.

Warranty Information

For detailed warranty information regarding your Master Flow PVM105 Replacement Motor, please refer to the documentation included with your purchase or visit the official Master Flow website. Warranty terms and conditions may vary.

Customer Support

If you have any questions, require technical assistance, or need to order replacement parts, please contact Master Flow customer service. Contact information can typically be found on the product packaging or the official Master Flow website.