



[Manuals.plus](#) /

› [Honeywell](#) /

› [Honeywell PA404A1033 Pressure Trol HVAC Control User Manual](#)

## Honeywell PA404A1033

# Honeywell PA404A1033 Pressure Trol HVAC Control User Manual

Model: PA404A1033

[Overview](#)   [Setup](#)   [Operation](#)   [Introduction](#)   [Safety Information](#)   [Product](#)  
[Maintenance](#)   [Troubleshooting](#)   [Specifications](#)   [Warranty & Support](#)

## 1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of the Honeywell PA404A1033 Pressuretrol Controller. This device is designed for use in 24, 10, 240, or 277 volt control circuits, as well as self-powered (millivoltage) applications, to monitor and control pressure within HVAC systems. Please read this manual thoroughly before attempting to install or operate the unit. Retain this manual for future reference.

## 2. SAFETY INFORMATION

**WARNING:** Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury, or death. Read and understand these instructions completely before installing or servicing this product.

- All wiring must comply with local electrical codes and ordinances.
- Disconnect power supply before wiring connections to prevent electrical shock or equipment damage.
- This device should be installed by a qualified HVAC technician.
- Do not exceed the specified electrical ratings of the device.
- Ensure proper grounding to prevent electrical hazards.

## 3. PRODUCT OVERVIEW

The Honeywell PA404A1033 Pressuretrol Controller is a robust device designed for precise pressure monitoring in various HVAC applications. Its durable construction and reliable performance make it suitable for demanding environments.

## Key Features:

- Operating range: **2-15 PSI**
- Switch type: **SPST (Single-Pole, Single-Throw)**, breaks on pressure rise.
- Electrical ratings: **8 Amps at 120 V, 5.1 Amps at 240 V.**
- Color: Gray Enamel Case.
- Certification: UL Listed.

## Product Dimensions and Weight:

- Dimensions: 3.2 x 3.7 x 5.2 inches
- Weight: 1.05 pounds



Figure 1: Honeywell PA404A1033 Pressuretrol Controller. This image shows the gray enamel case of the control unit with its various connection points and adjustment screws visible.

## 4. SETUP AND INSTALLATION

Installation of the Honeywell PA404A1033 Pressuretrol Controller should only be performed by a qualified professional. Ensure all local codes and safety regulations are followed.

### General Installation Steps:

1. **Power Disconnection:** Before beginning any installation, ensure that the main power supply to the HVAC system is

completely disconnected to prevent electrical shock.

2. **Mounting:** Mount the Pressuretrol controller in a suitable location, typically near the pressure source it will monitor. Ensure it is securely fastened and protected from excessive vibration or physical damage.
3. **Pressure Connection:** Connect the pressure sensing line from the HVAC system to the Pressuretrol's pressure port. Use appropriate fittings and ensure a leak-free connection.
4. **Electrical Wiring:** Wire the controller according to the specific wiring diagram provided with your HVAC system and the Pressuretrol. Pay close attention to voltage requirements (24V, 10V, 240V, or 277V) and ensure correct polarity. Refer to the electrical ratings for current limits.
5. **Adjustment:** Once installed and wired, adjust the operating pressure range (2-15 PSI) as required for your specific application. This typically involves turning an adjustment screw or dial on the unit.
6. **Testing:** After installation and adjustment, restore power and carefully test the system to ensure the Pressuretrol operates correctly and safely within the desired pressure parameters.

## 5. OPERATION

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The Honeywell PA404A1033 Pressuretrol Controller operates automatically to maintain desired pressure levels within your HVAC system. Once properly installed and adjusted, it will monitor the system pressure and activate or deactivate connected equipment based on its setpoint.

### Operating Principle:

- The device continuously senses the system pressure.
- When the sensed pressure rises above the setpoint, the SPST switch will open (break), interrupting the control circuit.
- When the pressure falls below the setpoint (and differential), the switch will close, completing the control circuit.
- This action controls devices such as pumps, fans, or alarms to regulate pressure within the specified 2-15 PSI operating range.

Regular monitoring of your HVAC system's performance is recommended to ensure the Pressuretrol is functioning as expected.

## 6. MAINTENANCE

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The Honeywell PA404A1033 Pressuretrol Controller is designed for reliable, long-term operation with minimal maintenance. However, periodic checks can help ensure its continued performance and extend its lifespan.

### Recommended Maintenance:

- **Visual Inspection:** Periodically inspect the unit for any signs of physical damage, corrosion, or loose connections.
- **Pressure Line Check:** Ensure the pressure sensing line is free from kinks, blockages, or leaks. A compromised line can lead to inaccurate readings.
- **Electrical Connections:** Verify that all electrical connections are secure and free from corrosion. **Always disconnect power before checking electrical connections.**
- **Calibration Check:** If system performance indicates potential issues, have a qualified technician verify the calibration of the Pressuretrol against a known accurate pressure gauge.
- **Cleaning:** Keep the exterior of the unit clean and free from dust and debris. Do not use harsh chemicals or abrasive cleaners.

For any complex maintenance or repairs, contact a qualified HVAC service professional.

## 7. TROUBLESHOOTING

This section provides guidance for common issues you might encounter with the Honeywell PA404A1033 Pressuretrol Controller. For problems not listed here or if issues persist, contact a qualified service technician.

Problem	Possible Cause	Solution
Controller not responding to pressure changes.	<ul style="list-style-type: none"><li>No power to the unit.</li><li>Incorrect wiring.</li><li>Blocked or leaking pressure sensing line.</li><li>Faulty internal switch.</li></ul>	<ul style="list-style-type: none"><li>Check power supply and circuit breaker.</li><li>Verify wiring against the system diagram.</li><li>Inspect and clear the pressure line; repair leaks.</li><li>Contact a technician for replacement if internal switch is faulty.</li></ul>
System pressure not being maintained.	<ul style="list-style-type: none"><li>Incorrect pressure setpoint.</li><li>Controller differential set too wide/narrow.</li><li>External system issue (e.g., pump failure, valve malfunction).</li></ul>	<ul style="list-style-type: none"><li>Adjust the pressure setpoint to the desired range.</li><li>Consult a technician to adjust the differential if applicable.</li><li>Inspect other components of the HVAC system.</li></ul>
Unit appears damaged or corroded.	<ul style="list-style-type: none"><li>Environmental exposure.</li><li>Physical impact.</li></ul>	<ul style="list-style-type: none"><li>Ensure proper environmental protection.</li><li>Replace the unit if damage affects functionality or safety.</li></ul>

## 8. SPECIFICATIONS

Detailed technical specifications for the Honeywell PA404A1033 Pressuretrol Controller:

Feature	Detail
Model Number	PA404A1033
Manufacturer	Park Supply of America
Part Number	PA404A 1033
Operating Range	2-15 PSI
Switch Type	SPST (Single-Pole, Single-Throw), breaks on pressure rise
Electrical Rating (120V)	8 Amps
Electrical Rating (240V)	5.1 Amps
Control Circuits	24, 10, 240, or 277 volt; self-powered (millivoltage) applications
Item Weight	1.05 pounds

Feature	Detail
Product Dimensions (L x W x H)	3.2 x 3.7 x 5.2 inches
Color	Gray Enamel Case
Included Components	Controller
Certification	UL Listed
Batteries Required?	No
Date First Available	April 28, 2005

## 9. WARRANTY & SUPPORT

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### Warranty Information:

According to product information, this Honeywell PA404A1033 Pressuretrol Controller is sold with **No Warranty**. Please verify warranty terms with your retailer at the time of purchase.

### Customer Support:

For technical assistance, installation questions, or troubleshooting beyond the scope of this manual, please contact Honeywell customer support or a certified HVAC professional.

You can typically find contact information on the official Honeywell website or through your product supplier.

