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## LUX PSDH121B

# Lux Pro PSDH121B Non-Programmable Thermostat User Manual

Your guide to installation, operation, and maintenance.

## PRODUCT OVERVIEW

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The Lux Pro PSDH121B is a non-programmable thermostat designed specifically for heat pump systems. It supports 2 heat and 1 cool stages, providing reliable temperature control for your home. This model features a large, easy-to-read backlit display and simple temperature adjustment controls.



Front view of the Lux Pro PSDH121B Non-Programmable Thermostat, showing the digital display and control buttons.

## KEY FEATURES

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- **Quick Setup:** Designed for easy installation and immediate use.
- **Long-Lasting:** Constructed with durable materials for extended reliability.
- **Test Mode:** Temporarily disables the compressor delay for testing purposes.
- **Temperature Limits:** Allows setting high and low temperature boundaries.
- **Vertical or Horizontal Orientation:** Flexible mounting options to suit your space.
- **Large Backlit Display:** Ensures clear visibility of temperature readings and settings.
- **Mode and Fan Control:** Intuitive controls for system mode (Heat, Cool, Off, Emer) and fan operation (Auto, On).
- **Simple Temperature Adjustment:** Easy-to-use UP and DOWN buttons for setting desired temperature.
- **Calibration Control:** Allows for fine-tuning of temperature readings.
- **Temperature Swing Adjustability:** Offers 9 levels of temperature swing for customized comfort.
- **Compressor Delay:** Features a selectable 2 or 5 minute compressor delay.
- **Fahrenheit or Celsius Selection:** User-selectable temperature display unit.



Diagram illustrating key features such as horizontal/vertical mount, dual power, large backlit display, and 5-year warranty.

## SYSTEM COMPATIBILITY

The LUX PSDH121B thermostat is designed for use with single-stage heat pump systems that include auxiliary and/or emergency heat. These systems are typically known as 2-stage heat, 1-stage cool heat pump systems.

### Compatible Systems:

- Heat Pump without Auxiliary Heat (24V)
- Heat Pump with Auxiliary Heat (24V)

### Not Compatible With:

- 24V Cooling Only Systems
- Line Voltage (120-240V) Systems

- Portable Space Heaters
- Plug-in Air Conditioners

## System Compatability

### Heat (24V)

- ✓ -Heat Pump w/o Auxliliary Heat
- ✓ -Heat Pump w/ Auxliliary Heat



### NOT COMPATIBLE WITH:

- X - 24V Cooling
- X - Line voltage (120-240V)
- X - Portable Space Heaters
- X - Plug-in Air Conditioners

Visual representation of compatible and incompatible HVAC systems for the PSDH121B thermostat.

## INSTALLATION AND SETUP

### Package Contents:

## What's in the box?

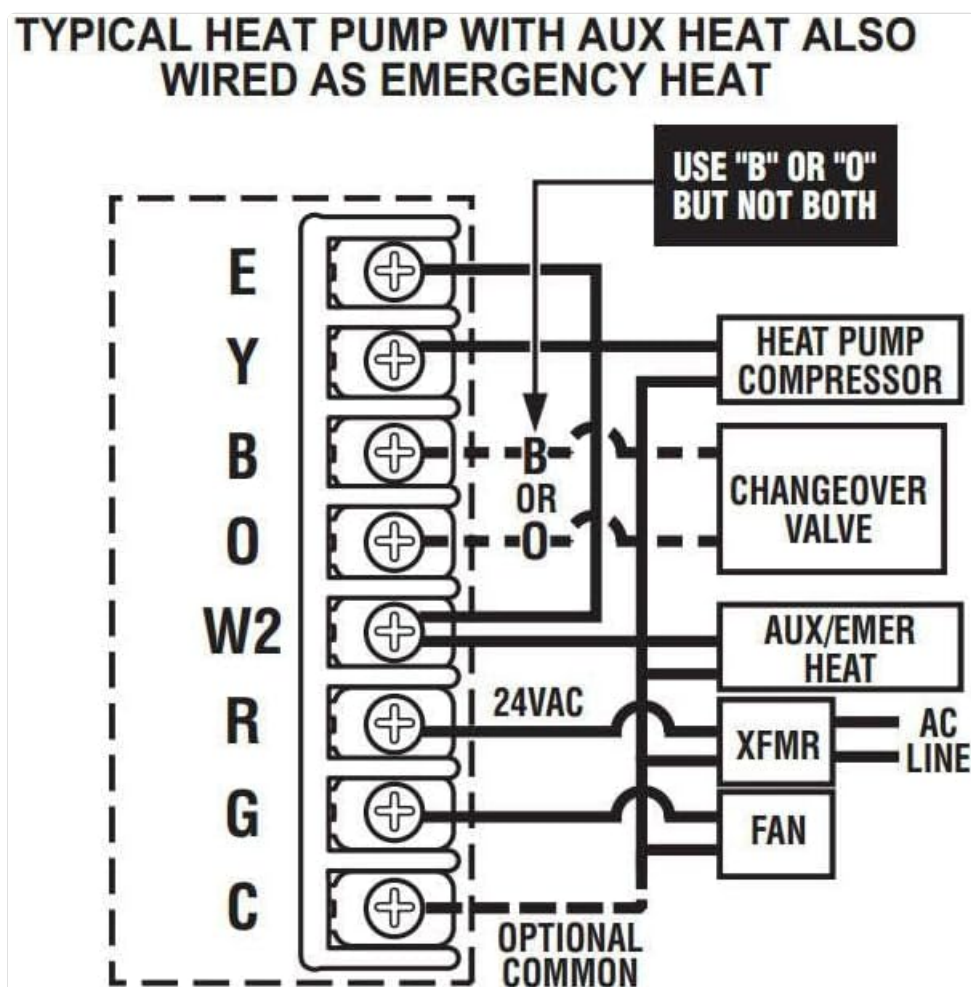
- 2 ST screws
- 2 wall anchors
- Wire label
- Instruction manual



The package includes the Lux Pro PSDH121B Thermostat, 2 ST screws, 2 wall anchors, a wire label, and this instruction manual.

## Wiring Diagram:

Refer to the following diagram for typical wiring of a heat pump system with auxiliary heat, also wired as emergency heat. Ensure to use either "B" or "O" terminal, but not both, depending on your heat pump's changeover valve type.



Detailed wiring diagram for connecting the PSDH121B thermostat to a typical heat pump system with auxiliary/emergency heat.

## Mounting:

The thermostat can be mounted in either a vertical or horizontal orientation. Use the provided screws and wall anchors for secure installation.

## OPERATING INSTRUCTIONS

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### Adjusting Temperature:

Use the **UP** (▲) and **DOWN** (▼) arrow buttons located below the display to increase or decrease the desired temperature setting.

### Selecting System Mode:

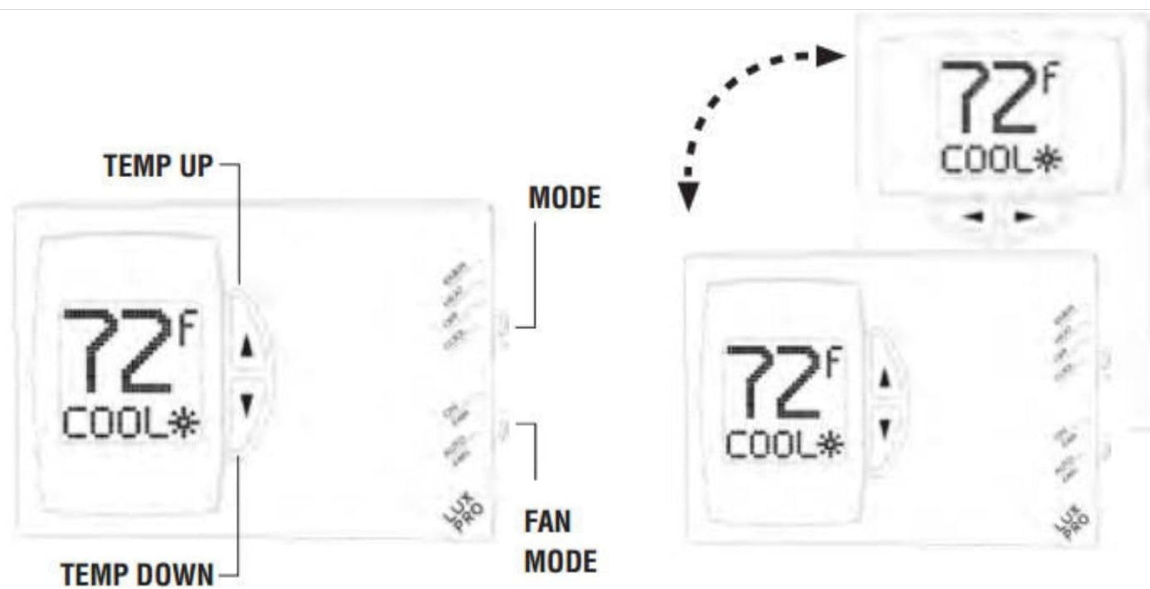
The system mode switch allows you to select between different operating modes:

- **COOL:** Activates the cooling function.
- **OFF:** Turns off both heating and cooling.
- **HEAT:** Activates the heating function.
- **EMER (Emergency Heat):** Activates the emergency heating system, typically used when the primary heat pump is not functioning.

### Selecting Fan Mode:

The fan mode switch controls the fan operation:

- **AUTO:** The fan runs only when the heating or cooling system is actively operating.
- **ON:** The fan runs continuously, regardless of heating or cooling calls.



Patent # 6,951,306

## Customizable settings for your needs

Illustration of the temperature adjustment buttons and mode/fan switches on the thermostat.

### MAINTENANCE

#### Battery Replacement:

The thermostat requires 2 AA batteries for operation. When the battery indicator appears on the display, replace the batteries promptly to ensure continuous operation. To replace, gently pull the thermostat body away from the wall plate to access the battery compartment.

#### Cleaning:

Wipe the thermostat's exterior with a soft, damp cloth. Do not use abrasive cleaners or solvents.

### TROUBLESHOOTING



Problem	Possible Cause	Solution
No display or blank screen	Dead batteries or no power.	Replace batteries. Check circuit breaker for HVAC system.
System not responding to thermostat settings	Incorrect wiring, system mode, or fan mode.	Verify wiring connections. Ensure correct system mode (Heat/Cool/Emer) and fan mode (Auto/On) are selected.
Temperature reading seems inaccurate	Thermostat location or calibration issue.	Ensure thermostat is not exposed to direct sunlight or drafts. Use calibration control if available (refer to advanced settings).
Heat pump short cycles or runs too frequently	Compressor delay setting or temperature swing.	Adjust compressor delay (2 or 5 minutes) or temperature swing settings to allow for longer cycles.

## SPECIFICATIONS

Brand	LUX
Model Name	PSDH121B-010-FBA
Product Dimensions	1"D x 3.5"W x 4.7"H
Controller Type	Push Button
Color	White
Specific Uses For Product	Heat Pump
Temperature Control Type	Digital
Connectivity Technology	Wired
Included Components	PSDH121B-010 Mechanical Non-Programmable Thermostat
Power Source	Ac/dc
Item Weight	0.09 Pounds (1.44 ounces)
Voltage	24 Volts
Material	Plastic

Display Type	Digital
Screen Size	2 Inches
Control Method	Touch (Buttons)
Mounting Type	Wall Mount
Backlight	Yes
Batteries Required	2 AA batteries
UPC	021079031214
Manufacturer	EME Delaware
Date First Available	May 5, 2005

## WARRANTY AND SUPPORT


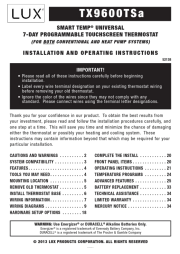




### Warranty Information:

The Lux Pro PSDH121B Thermostat comes with a 5-year limited warranty. For detailed warranty terms and conditions, please refer to the documentation included with your product or contact LUX customer support.

### Customer Support:

For technical assistance, troubleshooting, or warranty claims, please contact LUX customer support. Visit the official LUX website for contact information and additional resources.

*Note: Always ensure to consult a qualified HVAC professional for complex installations or repairs.*

	<p><a href="#">LUX TX700U Universal Thermostat: Installation Guide &amp; Features</a></p> <p>Comprehensive installation manual and guide for the LUX TX700U Universal Thermostat, covering setup, programming, wiring, and operation for various HVAC systems. Learn about system compatibility, cautions, installation steps, front panel controls, setup options, temperature programming, and emergency heat functions.</p>
	<p><a href="#">LUX TX9600TSa Smart Temp Universal 7-Day Programmable Touchscreen Thermostat: Installation and Operating Instructions</a></p> <p>This manual details the installation, operation, features, and troubleshooting for the LUX TX9600TSa Smart Temp Universal 7-Day Programmable Touchscreen Thermostat, compatible with conventional and heat pump systems.</p>
	<p><a href="#">LUX TX700U Universal Thermostat Installation Manual</a></p> <p>This installation manual provides comprehensive guidance for setting up and configuring the LUX TX700U Universal Thermostat, covering system compatibility, programming options, wiring, and essential setup procedures for various HVAC systems.</p>
	<p><a href="#">LUX TX500E Programmable Thermostat Installation and Operation Manual</a></p> <p>Comprehensive guide for installing, operating, and programming the LUX TX500E programmable thermostat. Covers compatibility, features, installation steps, wiring diagrams, system configuration, advanced features, programming, maintenance, technical support, and warranty information.</p>
	<p><a href="#">LUX TX500E Programmable Thermostat: Installation, Operation, and Wiring Guide</a></p> <p>Comprehensive guide for the LUX TX500E Programmable Thermostat, featuring installation steps, operating instructions, programming features, wiring diagrams, and technical support information from LUX Products Corporation.</p>
	<p><a href="#">LUX DMH110b Lighted Non-Programmable Thermostat Installation and Operating Instructions</a></p> <p>Comprehensive installation and operating instructions for the LUX DMH110b Lighted Non-Programmable Thermostat. Covers system compatibility, features, tools, removal, mounting, installation, wiring, system configuration, operation, advanced features, battery replacement, warranty, and technical support.</p>