

## White-Rodgers 1F83H-21PR

# White-Rodgers Emerson 1F83H-21PR Heat Pump Programmable Thermostat User Manual

Model: 1F83H-21PR

## 1. INTRODUCTION

---

This manual provides detailed instructions for the installation, operation, and programming of your White-Rodgers Emerson 1F83H-21PR Heat Pump (2H/1C) Programmable Thermostat. This digital thermostat features a 4.5-inch backlit display, offering programmable choices for 7-day, 5+1+1 day, or non-programmable operation. It is designed for 24-volt heat pump systems with dual fuel options and includes system switches for Heat, Off, Cool, Aux/Emer, and Fan switches for Auto, On. Additional features include keypad lockout and temperature limits.

**Note: This thermostat is not compatible with electric baseboard heat or certain other specialized HVAC systems.**

## 2. SAFETY INFORMATION

---

Always read and understand all instructions before installing or operating this thermostat. Improper installation or operation could result in electrical shock or equipment damage. All installation and wiring should be performed by a qualified HVAC technician or electrician in accordance with local codes and ordinances.

**Proposition 65 Warning: This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).**

## 3. PACKAGE CONTENTS

---

Verify that your package contains the following items:

- White-Rodgers Emerson 1F83H-21PR Thermostat Unit

- 2 AA Batteries (included)
- User Manual (this document)
- Mounting Hardware (screws and wall anchors)

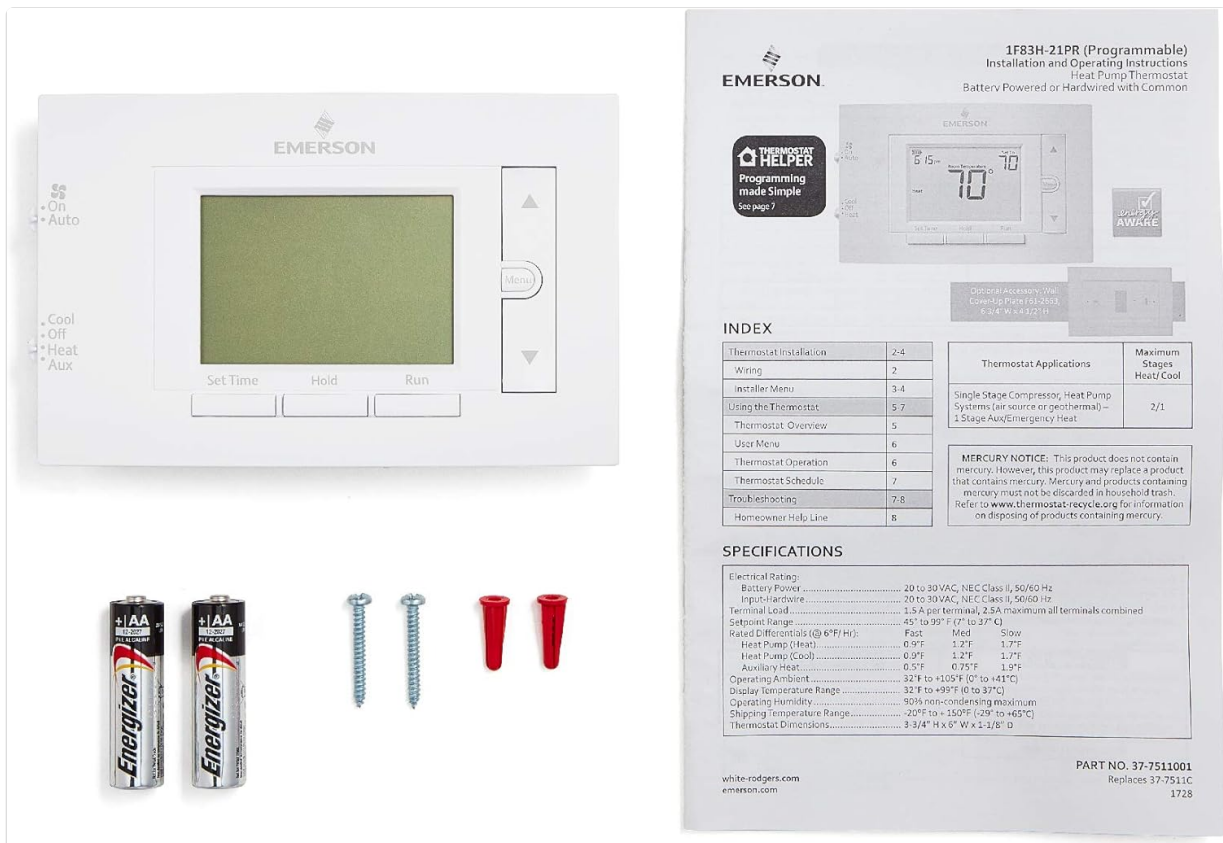


Image 3.1: Thermostat unit with included batteries, mounting screws, and documentation.

## 4. PRODUCT FEATURES

- **Large, Clear Display:** Easily readable in various lighting conditions with a backlight button.
- **Selectable Programming:** Choose between 7-day, 5-1-1 day, or non-programmable modes.
- **Easy Installation:** Features a built-in level indicator, pluggable terminals, and a streamlined configuration menu.
- **Advanced Features:** Includes keypad lockout for preventing unauthorized changes and temperature limits for energy management.
- **Dual Fuel Standard:** Compatible with dual fuel systems without requiring additional sensors.
- **Dual Power Options:** Can be powered by hardwire (24 Volts) and/or batteries.

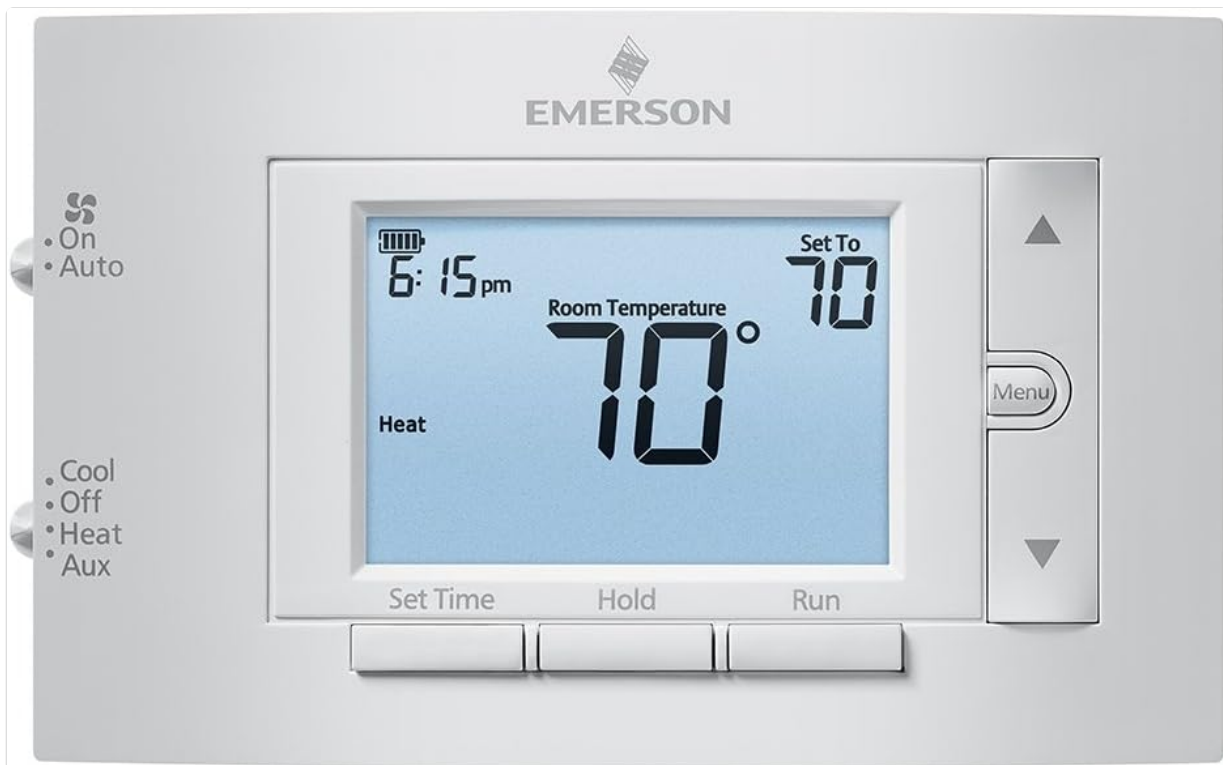


Image 4.1: Front view of the thermostat, highlighting the large display and control layout.

## 5. SETUP AND INSTALLATION

For detailed installation instructions, including wiring diagrams and mounting procedures, please refer to the dedicated Installation Manual (PDF) provided with your product or available for download from the manufacturer's website. A general overview is provided below:

1. **Power Disconnection:** Before beginning any installation, ensure that power to your HVAC system is turned off at the main breaker or fuse box.
2. **Remove Old Thermostat:** Carefully remove your old thermostat from the wall. Take a picture of the wiring connections for reference before disconnecting any wires.
3. **Mounting:** Use the included mounting hardware to secure the new thermostat's backplate to the wall. The built-in level indicator assists with proper alignment.
4. **Wiring:** Connect the HVAC system wires to the corresponding terminals on the new thermostat. The terminals are labeled R, C, W2, E, Y, O/B, G, L. Refer to your system's specific wiring diagram and the Installation Manual for correct connections.
5. **Battery Installation:** Insert the two AA batteries into the designated compartment.
6. **Attach Thermostat:** Secure the thermostat front panel to the mounted backplate.
7. **Power Restoration:** Restore power to your HVAC system.
8. **Initial Configuration:** Follow the on-screen prompts for initial setup, which may include setting the date, time, and system type.

## 6. OPERATING INSTRUCTIONS

The thermostat features a clear digital display and intuitive buttons for operation.

### 6.1. System Switch

The System Switch controls the overall mode of your HVAC system. Available settings are:

- **Cool:** The system operates in cooling mode.
- **Off:** The HVAC system is turned off.
- **Heat:** The system operates in heating mode.
- **Aux/Emer:** Activates auxiliary or emergency heat for heat pump systems.

## 6.2. Fan Switch

The Fan Switch controls the operation of your system's fan. Available settings are:

- **Auto:** The fan runs only when the heating or cooling system is actively operating.
- **On:** The fan runs continuously, regardless of whether the heating or cooling system is active.

## 6.3. Temperature Adjustment

Use the **Up** and **Down** arrow buttons located on the right side of the thermostat to adjust the desired temperature setting. The current room temperature and the set temperature will be displayed on the screen.

# 7. PROGRAMMING

---

The 1F83H-21PR thermostat offers flexible programming options to suit your schedule and energy saving preferences.

## 7.1. Setting Time and Day

Press the **Set Time** button to enter the time and day setting mode. Use the arrow buttons to adjust the hour, minute, and day of the week. Press **Run** to save and exit.

## 7.2. Programmable Modes (7-Day, 5+1+1 Day)

This thermostat supports 7-day programming (individual programs for each day) or 5+1+1 day programming (weekday program, separate Saturday program, separate Sunday program). Refer to the full User Manual (PDF) for detailed steps on setting up your desired program schedule, including wake, leave, return, and sleep periods.

## 7.3. Non-Programmable Mode

If you prefer not to use programming, the thermostat can be set to a non-programmable mode. In this mode, the thermostat will maintain the manually set temperature until it is changed again. Consult the User Manual (PDF) for instructions on how to select this mode.

## 7.4. Hold Function

Press the **Hold** button to temporarily or permanently override the programmed schedule. The thermostat will maintain the current temperature setting until the hold is canceled or a new hold temperature is set. Press **Run** to cancel the hold and resume the program.

# 8. MAINTENANCE

---

## 8.1. Battery Replacement

The thermostat uses two AA alkaline batteries. When the battery indicator on the display shows low battery, replace both batteries immediately to ensure continuous operation. The thermostat retains its programming for a short period during battery replacement, but it is recommended to replace them quickly.

1. Gently pull the thermostat front panel away from the wall plate.
2. Remove the old AA batteries.
3. Insert two new AA alkaline batteries, ensuring correct polarity (+/-).
4. Snap the thermostat front panel back onto the wall plate.

## 8.2. Cleaning

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

## 9. TROUBLESHOOTING

If you experience issues with your thermostat, review the following common problems and solutions. For more complex issues, refer to the comprehensive User Manual (PDF) or contact customer support.

Problem	Possible Cause	Solution
Display is blank	Dead batteries or no power from hardwire.	Replace batteries. Check circuit breaker for HVAC system.
System not responding to settings	Incorrect wiring, system switch in 'Off' position, or lockout engaged.	Verify wiring connections. Ensure system switch is in 'Heat' or 'Cool'. Check for keypad lockout.
Temperature inaccurate	Thermostat location, drafts, or sensor issue.	Ensure thermostat is not in direct sunlight or near heat sources/drafts.
Programming not working	'Hold' function active or incorrect program setup.	Press 'Run' to cancel 'Hold'. Review programming steps in the User Manual.

## 10. SPECIFICATIONS

Feature	Specification
Brand	White-Rodgers (Emerson Climate Technologies)
Model Name	80 Series
Model Number	1F83H-21PR
Product Dimensions	6"D x 1.13"W x 3.75"H
Controller Type	Hand Control
Special Features	Lockable, Low Battery Indicator, Low Voltage, Programmable, Temperature Display
Color	White
Specific Uses	Heat Pump (2H/1C)
Temperature Control Type	Digital

Feature	Specification
Power Source	Battery Powered (2 AA included) and/or Hardwire
Voltage	24 Volts
Display Type	LCD
Screen Size	4.5 Inches
Control Method	Button Control
Mounting Type	Wall Mount
Backlight	Yes
Operating Temperature Range	32°F to 105°F (0°C to 40°C)
Setting Temperature Range	45°F to 99°F (7°C to 37°C)

## 11. WARRANTY AND SUPPORT

---

For warranty information and customer support, please refer to the documentation included with your product or visit the official White-Rodgers or Emerson Climate Technologies website. You may also contact their customer service department for assistance with installation, operation, or troubleshooting.

**Online Resources:**

- Installation Manual (PDF): [Download Here](#)
- User Manual (PDF): [Download Here](#)