Emerson NP110

Emerson NP110 Non-Programmable Single Stage Thermostat User Manual

Model: NP110

Introduction

This manual provides detailed instructions for the installation, operation, maintenance, and troubleshooting of your Emerson NP110 Non-Programmable Single Stage Thermostat. Please read this manual thoroughly before installation and use to ensure proper function and safety.
The Emerson NP110 is designed for single-stage heating, cooling, and heat pump (without auxiliary heat) systems. It offers precise temperature control and a simple, non-programmable interface.

Safety Information

- Always turn off power to the heating/cooling system at the main fuse or circuit breaker panel before installing or servicing the thermostat.
- This thermostat operates on 24V AC. Do not use it with line voltage (120V/240V) systems.
- Installation should be performed by a qualified technician if you are unsure about the wiring process.
- Ensure all wiring connections are secure to prevent short circuits or electrical hazards.
- Keep the thermostat away from direct sunlight, heat sources, and drafts, as these can affect temperature readings.

Package Contents

Verify that all components are present in the package:

- Emerson NP110 Thermostat Unit
- Mounting Screws and Wall Anchors (x2)
- Terminal Wire Label Stickers
- Installation Instructions (this manual)

- AAA Batteries (x2)



Image: Contents of the Emerson NP110 thermostat package, showing the thermostat unit, mounting screws, and the installation guide.

Setup and Installation

1. Turning Off Power

Before beginning installation, ensure the power to your heating and cooling system is completely turned off at the main circuit breaker or fuse box. This is crucial for your safety.

2. Removing Old Thermostat

1. Carefully remove the cover of your old thermostat.
2. Take a picture of the existing wiring connections for reference.
3. Label each wire with the corresponding terminal letter using the provided wire label stickers.
4. Disconnect the wires from the old thermostat terminals.
5. Unscrew and remove the old thermostat base from the wall.

3. Mounting the New Thermostat

1. Separate the front cover of the NP110 thermostat from its base.
2. Position the new thermostat base on the wall where the old thermostat was located. Use a level to ensure it is straight.
3. Mark the drilling locations through the mounting holes on the base.
4. Drill pilot holes if necessary and insert the wall anchors.
5. Secure the thermostat base to the wall using the provided mounting screws.

4. Wiring the Thermostat

Connect the labeled wires to the corresponding terminals on the NP110 thermostat base. Refer to the wiring diagram below for common configurations. Ensure wires are securely fastened.

Common Wiring Terminals

Terminal	Description

Terminal	Description
R	24V AC (Heating Power)
C	24V Common (Optional, for continuous backlight)
W	Heat Relay
Y	Cooling Relay
G	Fan Relay

Note: If your old thermostat had different terminals or you are unsure, consult a professional HVAC technician.

5. Installing Batteries and Attaching Cover

Insert the two AAA batteries into the battery compartment on the back of the thermostat cover, observing the correct polarity (+/-). Once wired and batteries are in place, carefully snap the thermostat cover onto the base.



Image: The Emerson NP110 thermostat mounted on a wall, displaying the current temperature and set temperature.

Operating Instructions

Thermostat Overview



Image: A detailed view of the Emerson NP110 thermostat's display, showing temperature readings and the up/down arrows for adjustment.

The Emerson NP110 features a clear digital display and simple slide switches for mode selection.

- **Digital Display:** Shows the current room temperature and the set temperature.
- **Up/Down Arrows:** Used to adjust the desired set temperature.
- **Fan Switch (On/Auto):** Controls the fan operation.
- **System Switch (Cool/Off/Heat):** Selects the operating mode.

Setting the Temperature

To adjust the desired temperature:

1. Use the **Up** arrow button to increase the set temperature.
2. Use the **Down** arrow button to decrease the set temperature.
3. The display will show the new set temperature briefly, then revert to the current room temperature.

Selecting System Mode

Use the **System** slide switch to choose the operating mode:

- **Cool:** The thermostat will activate the cooling system when the room temperature rises above the set temperature.
- **Off:** The heating and cooling systems are turned off. The fan can still be operated manually.
- **Heat:** The thermostat will activate the heating system when the room temperature falls below the set temperature.

Fan Operation

Use the **Fan** slide switch to control the fan:

- **Auto:** The fan runs only when the heating or cooling system is actively operating. This is the most energy-efficient setting.
- **On:** The fan runs continuously, regardless of whether the heating or cooling system is active. This can help with air circulation.

Backlight Feature

The display backlight improves visibility in low light conditions. To activate or deactivate the backlight feature:

1. Set the SYSTEM switch to the **HEAT** position.
2. Press the **UP** and **DOWN** arrow buttons simultaneously for two seconds. The display will show "-L" and "FF" (off) alternately.
3. Press **UP** or **DOWN** to change "FF" to "ON".
4. Move the SYSTEM switch to **OFF** to exit the feature.

When set to "ON", the backlight will illuminate for a few seconds after any button is pressed, then automatically turn off.

Your browser does not support the video tag.

Video: A brief overview of the Emerson NP110 thermostat, demonstrating its simple, non-programmable features and ease of use. This video highlights the basic temperature adjustment, fan settings, and system mode selection.

Maintenance

- **Battery Replacement:** Replace the two AAA batteries annually, or immediately when the low battery indicator appears on the display.
- **Cleaning:** Clean the thermostat's exterior with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- **Airflow:** Ensure that there are no obstructions around the thermostat that could block airflow to the internal temperature sensor.

Troubleshooting

Problem	Possible Cause	Solution
No display or blank screen	Dead batteries; No power to HVAC system.	Replace AAA batteries; Check circuit breaker/fuse for HVAC system.
Heating/Cooling system not responding	System switch in "Off" position; Incorrect wiring; Blown fuse in HVAC system.	Set system switch to "Heat" or "Cool"; Verify wiring connections; Consult HVAC technician.
Temperature reading seems inaccurate	Thermostat exposed to direct sunlight, drafts, or heat sources.	Relocate thermostat if possible; Ensure no obstructions to sensor.
Fan runs continuously in "Auto" mode	Fan switch set to "On"; Wiring issue.	Set fan switch to "Auto"; Check G wire connection.

If problems persist after attempting these solutions, contact customer support or a qualified HVAC professional.

Specifications

- **Model:** NP110
- **Compatibility:** Single-stage heating, cooling, and heat pump (without auxiliary heat) systems.
- **Power Source:** 2 AAA Batteries (included) or 24V AC (C-wire optional for continuous backlight).

- **Temperature Control Range:** 45°F to 90°F (7°C to 32°C)
- **Temperature Accuracy:** +/- 1°F (+/- 0.5°C)
- **Dimensions:** Approximately 1.5 x 6 x 4 inches (H x W x D)
- **Display Type:** LCD
- **Color:** White
- **Material:** Plastic



Image: The Emerson NP110 thermostat with its approximate dimensions (width 5.5 inches, height 3.875 inches) indicated, providing a visual reference for size.

Warranty Information

The Emerson NP110 Non-Programmable Single Stage Thermostat comes with a 3-year limited warranty from the date of purchase. This warranty covers defects in materials and workmanship under normal use and service. For full warranty details and terms, please refer to the official product documentation or contact Emerson customer support.

Customer Support

For technical assistance, troubleshooting, or warranty claims, please contact Emerson customer support:

- **Online Support:** Visit the official Emerson website for FAQs and support resources.
- **Phone Support:** Refer to the contact information provided in your product packaging or on the Emerson website.

You can also refer to the officialInstallation Manual (PDF) for additional details.

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