

## Honeywell Home CT51N

# Honeywell Home CT51N Standard Heat/Cool Manual Thermostat User Manual

Model: CT51N

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## 1. INTRODUCTION

The Honeywell Home CT51N1008 Standard Heat/Cool Manual Thermostat provides a straightforward method for controlling your home's heating and cooling systems. This mercury-free thermostat is designed for ease of use, allowing precise temperature adjustments. It is compatible with central oil heating, electric furnaces, and central electric cooling options.



Figure 1: Front view of the Honeywell Home CT51N Thermostat, showing the temperature scale and control switches.

## 2. KEY FEATURES

- Mercury-free design.
- Precise temperature control for both heating and cooling systems.
- Standard heat/cool manual operation.
- Requires a 4-wire hookup.
- Compatible with central oil heating, electric furnaces, and central electric cooling.
- Designed for use in single transformer systems only.
- Works with heat pumps without auxiliary heat.

## 3. SETUP AND INSTALLATION

**Important:** Before beginning installation, ensure power to the heating and cooling system is turned off at the main fuse or circuit breaker panel to prevent electrical shock or equipment damage.

### 3.1 Mounting Location

Install the thermostat on an inside wall, approximately 5 feet (1.5 meters) above the floor. Avoid locations near windows, doors, or heat sources (lamps, sunlight, fireplaces, etc.) that could affect temperature readings.

### 3.2 Wiring Instructions

1. Turn off power to the heating/cooling system.
2. Remove the old thermostat cover and note the wire connections. Label each wire with the terminal designation (e.g., R, W, Y, G) before disconnecting.
3. Mount the new thermostat base plate to the wall using the provided screws.
4. Connect the wires to the corresponding terminals on the CT51N thermostat. This thermostat typically requires a 4-wire hookup. Refer to your system's specific wiring diagram if unsure.
5. Ensure all connections are secure.
6. Attach the thermostat cover to the base plate.
7. Restore power to the heating/cooling system.

This thermostat is designed for single transformer systems only. Do not use with multi-transformer systems.



Figure 2: Dimensions of the Honeywell Home CT51N Thermostat, measuring approximately 2.88 inches wide, 1.38 inches deep, and 4.75 inches high.

## 4. OPERATING INSTRUCTIONS

The Honeywell Home CT51N thermostat features simple manual controls for temperature and fan operation.

### 4.1 System Switch (Heat/Off/Cool)

- **Heat:** Select this setting for heating operation. The system will turn on when the room temperature falls below your set temperature.

- **Off:** This setting turns off both heating and cooling systems.
- **Cool:** Select this setting for cooling operation. The system will turn on when the room temperature rises above your set temperature.

#### 4.2 Fan Switch (Auto/On)

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

#### 4.3 Temperature Setting

Adjust the temperature slider to your desired temperature. The thermostat will maintain the room temperature at this setting based on the selected system mode (Heat or Cool).



Figure 3: The Honeywell Home CT51N Thermostat seamlessly integrated into a contemporary room setting.

## 5. MAINTENANCE

The Honeywell Home CT51N thermostat requires minimal maintenance.

- **Cleaning:** Periodically wipe the exterior of the thermostat with a soft, damp cloth to remove dust and

dirt. Do not use abrasive cleaners or solvents.

- **No Batteries:** This thermostat does not require batteries for operation.

## 6. TROUBLESHOOTING

If you experience issues with your thermostat, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
System does not turn on (heating or cooling)	No power to the system; System switch in 'Off' position; Incorrect wiring	Check circuit breaker/fuse; Ensure system switch is set to 'Heat' or 'Cool'; Verify wiring connections are secure and correct.
Temperature reading seems inaccurate	Thermostat located near heat source or draft; Internal sensor obstruction	Relocate thermostat if possible; Ensure no objects are blocking airflow to the thermostat.
Fan does not run in 'On' mode	Fan motor issue; Wiring problem	Check fan wiring; Consult an HVAC professional if the fan motor is suspected.
System runs continuously or not at all	Faulty thermostat; Wiring issue	Verify wiring; If problem persists, the thermostat may need replacement.

If these steps do not resolve the issue, contact a qualified HVAC technician for assistance.

## 7. SPECIFICATIONS

Specification	Detail
Brand	Honeywell Home
Model Name	CT51N
Controller Type	Hand Control
Special Feature	Low Voltage
Color	White
Specific Uses For Product	Heat Pump
Temperature Control Type	Heating and Cooling
Connectivity Technology	N/A (Manual)
Included Components	Thermostat and instruction manual
Power Source	System Power (No Batteries Required)
Item Weight	3.2 ounces
Product Dimensions	2.88 x 1.38 x 4.75 inches
Material	Plastic

Specification	Detail
Display Type	Manual
Mounting Type	Wall Mount
UPC	085267271196
Item Model Number	CT51N1007

## 8. WARRANTY AND SUPPORT

### 8.1 Warranty Information

This Honeywell Home CT51N thermostat comes with a 1-year limited warranty. Please retain your proof of purchase for warranty claims.

### 8.2 Customer Support

For technical assistance, troubleshooting beyond this manual, or warranty inquiries, please refer to the contact information provided with your product packaging or visit the official Honeywell Home support website.