



# M5445x Thermostat

## OVERVIEW

The ION M54450 thermostat is a wireless networked thermostat. This thermostat is simple to install and is a direct replacement for many 24 VAC

based thermostats. The M54450 maintains local HVAC control, even if network communication is lost.

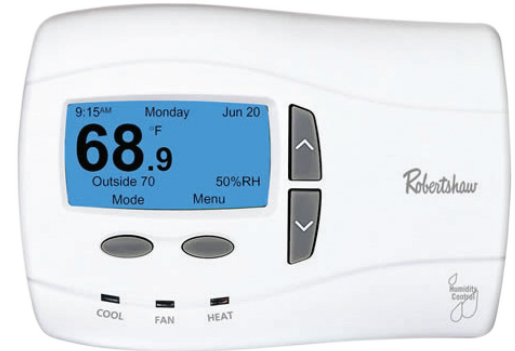
The smart thermostat communicates with the ION Gateway wirelessly then connects to the ION Server in the cloud. Property managers can view all their thermostats, set-points and temperature readings through the ION dashboards and make adjustments to all units or individually. The tenants can be given access to their individual thermostat through a web-based portal or mobile application.

### Compatibility

- Heat Runtime
- Cool Runtime
- Humidity
- Heat Set-point
- Temperature
- Cool Set-point

## FEATURES

- The ION M54450 is a programmable thermostat that communicates wirelessly to the ION dashboard for remote control and visualization.
- Device provides an optional radio interface to ION wireless relay module for control of electric baseboard heaters, hydronic HVAC systems, etc.
- Easy to install and the radio can download the configuration upon power up.
- Collects room temperature, humidity, heat set point limit, heat run time, cool set point, cool set point limit and cool run time.
- Device allows property managers to set individual heat set point limits and cool set point limits for each thermostat or globally for all thermostats. In addition, they property manager can set the thermostat from heat mode to cool mode and vice versa.
- Thermostat is compatible with the ION secure wireless 2.4 GHz mesh network. The thermostat simultaneously acts as a router for the wireless
- network, enhancing the mesh network.
- By using a key press sequence the installer can force a radio transmission and receive a LED sequence feedback on radio connectivity in real time.
- Type of packet data reported:
  - ◆ Data packet (60 minute interval default)
  - ◆ Health Packet (120 minute interval default)
- Non-volatile memory maintains last reading in the event of a power failure.
- Two year warranty.



## ORDERING INFORMATION 9/2015

Model	Description
M54450-HP	Thermostat & Radio-Single Stage-No Humidity (requires a 24 VAC power supply)
M54450-HPH	Thermostat & Radio-Single Stage-With Humidity (requires a 24 VAC power supply)
M54450-MIN	Thermostat & Radio-For use with Wireless Relay Only-No Humidity (requires a 24 VAC power supply)
M54451-HPH	Thermostat & Radio-Multi-Stage-With Humidity (requires a 24 VAC power supply)



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## Technical Specifications

### TECHNICAL SPECIFICATIONS

Input voltage 24 volt AC 50/60 Hz (18-30 VAC)  
 Relay rating 24 volts AC at 1 amp max per relay

**Equipment compatibility**

Accuracy +/- 1.0 degree F  
 1 Stage Heat/1 Stage Cool or  
 3 Stage Heat/2 Stage Cool (depending on model)  
 Temperature control range 45- 90 degrees F  
 Adjustable backlight

**Regulatory approvals**

US Complies with FCC CFR Part 15  
 European RADIO EN 300 328:v1.7.1  
 European EMC EN 301 489-17:V2.1.1  
 European SAFETY EN 60950-1:2005 (Ed. 2.0)

**Radio**

20 dBm output power  
 High sensitivity -106 dBm  
 16 channels (802.15.4 Channel 11 to 26)  
 2.4 GHz ISM band

**Environmental**

Operating temperature 0 to 30 degree C  
 Storage temperature -25 to 50 degrees C

**Installation indicators**

Button press to test successful radio connection  
 Two LEDs (green and red or fan and heat) to indicate successful radio connection

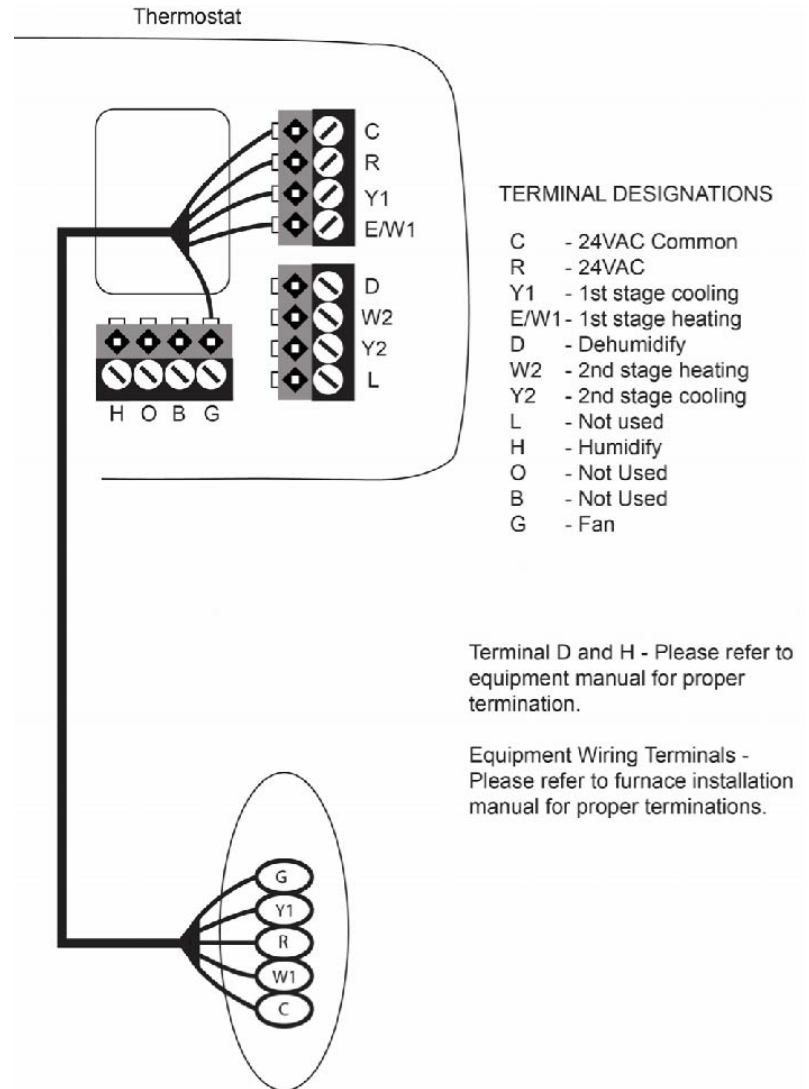
**Physical**

(H x W x D) 5.375 x4.0 x 1.125 inch  
 Color white  
 Weight / shipping weight < 9 oz. / 1 lbs.

**Warranty**

Two Years

### WIRING & INSTALLATION INSTRUCTIONS



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