

Verdant VX-TW-KT-W

Verdant VX Series Wireless Energy Management Thermostat

MODEL: VX-TW-KT-W

Brand: Verdant

Introduction

The Verdant VX Series Wireless Energy Management Thermostat is designed for robust, reliable, and efficient climate control, particularly suited for properties with varying occupancy patterns such as hotels. This thermostat integrates an LCD display and a built-in occupancy sensor to optimize heating and cooling costs.

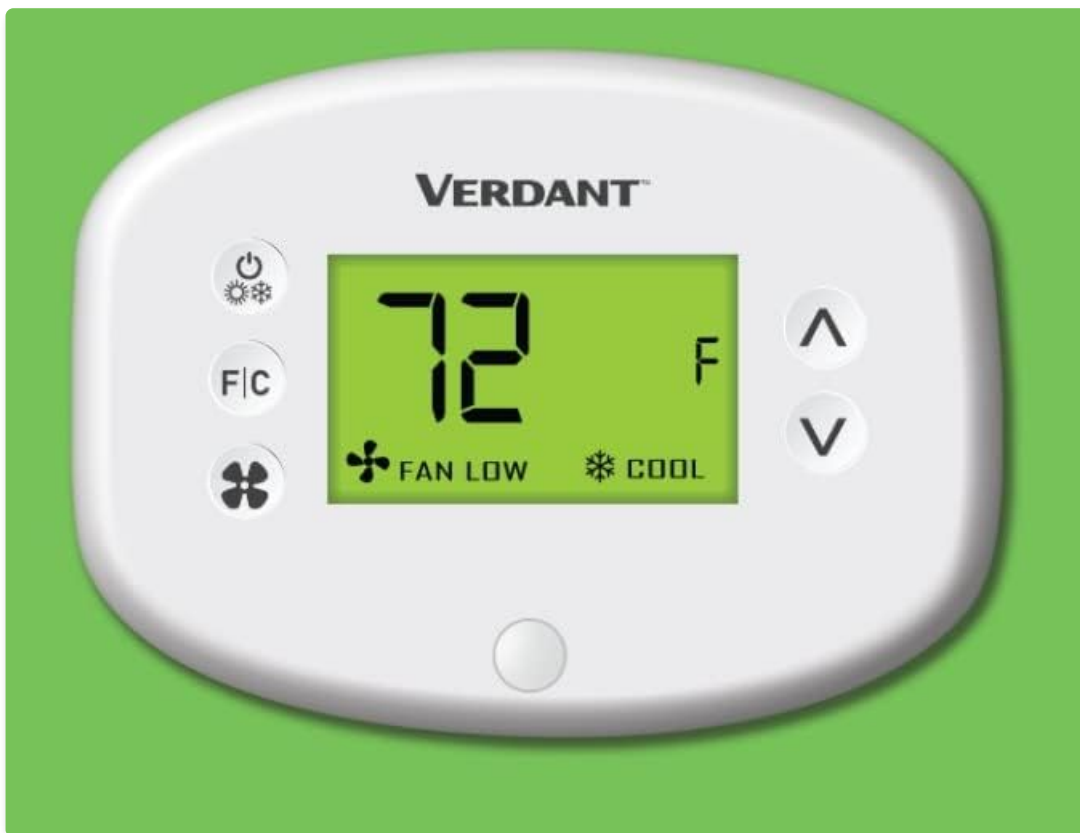


Figure 1: Front view of the Verdant VX Series Thermostat.

Key features include its ability to control PTAC, VTAC, and Hot Water Heat pump units, a quick installation time, and advanced energy-saving functionalities. It is trusted by numerous establishments for its performance and value.

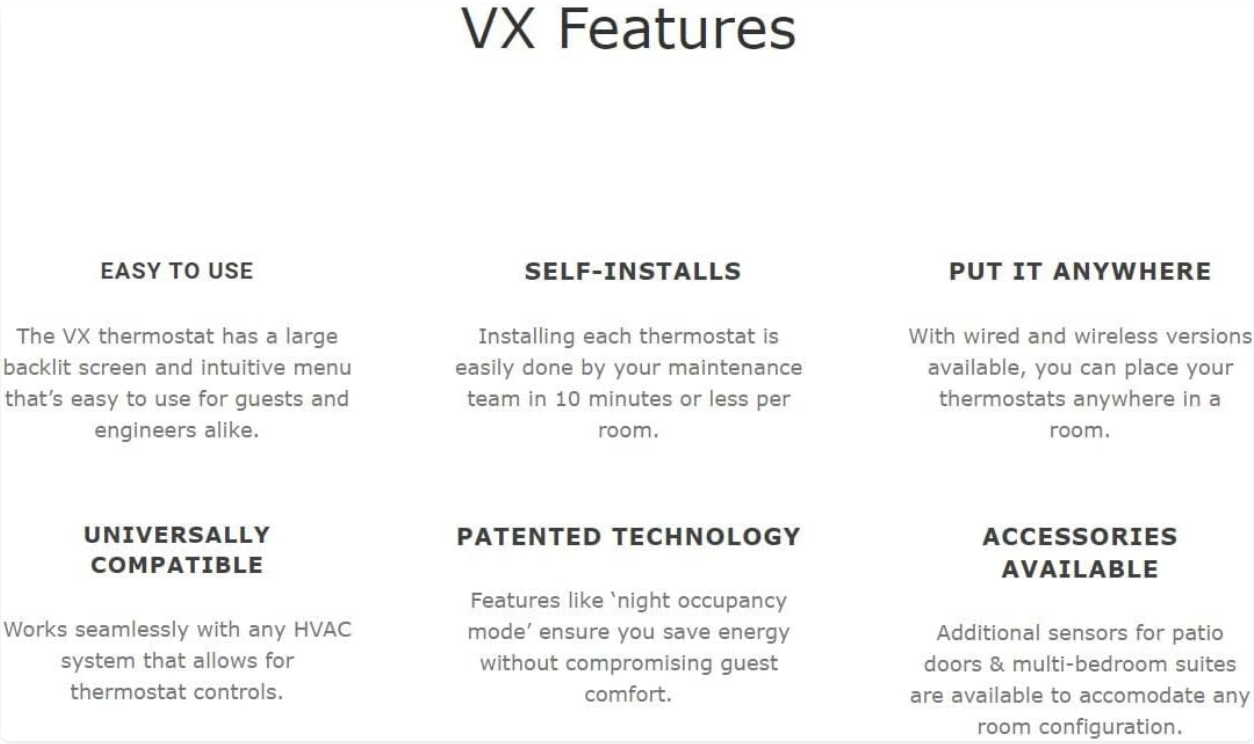


Figure 2: Overview of Verdant VX Thermostat features.

- **High-Quality Control:** Capable of managing PTAC, VTAC, and Hot Water Heat pump units.
- **Rapid Installation:** Designed for approximately 10-minute installation time.
- **Energy Efficiency:** Reduces heating & cooling costs by up to 40% through smart management.
- **User-Friendly Interface:** Features button control and an LCD display for ease of use.
- **Wireless Connectivity:** Utilizes RF technology for flexible placement and control.
- **Occupancy Sensing:** Built-in motion detector for intelligent energy management.

Setup

Proper setup ensures optimal performance and energy savings. The Verdant VX Series thermostat is designed for straightforward installation.

Included Components:

- Mounting Plate (Thermostat Base)
- Faceplate
- Mounting Hardware
- Wireless Transmitter (AC-CC)
- Amana/LG Converter Clip

Installation Overview:

The thermostat is designed for wall mounting. Ensure you have the necessary tools and follow the detailed wiring instructions provided in the full product manual. The wireless nature of the thermostat allows for flexible placement within the room, communicating with the HVAC system via RF technology.

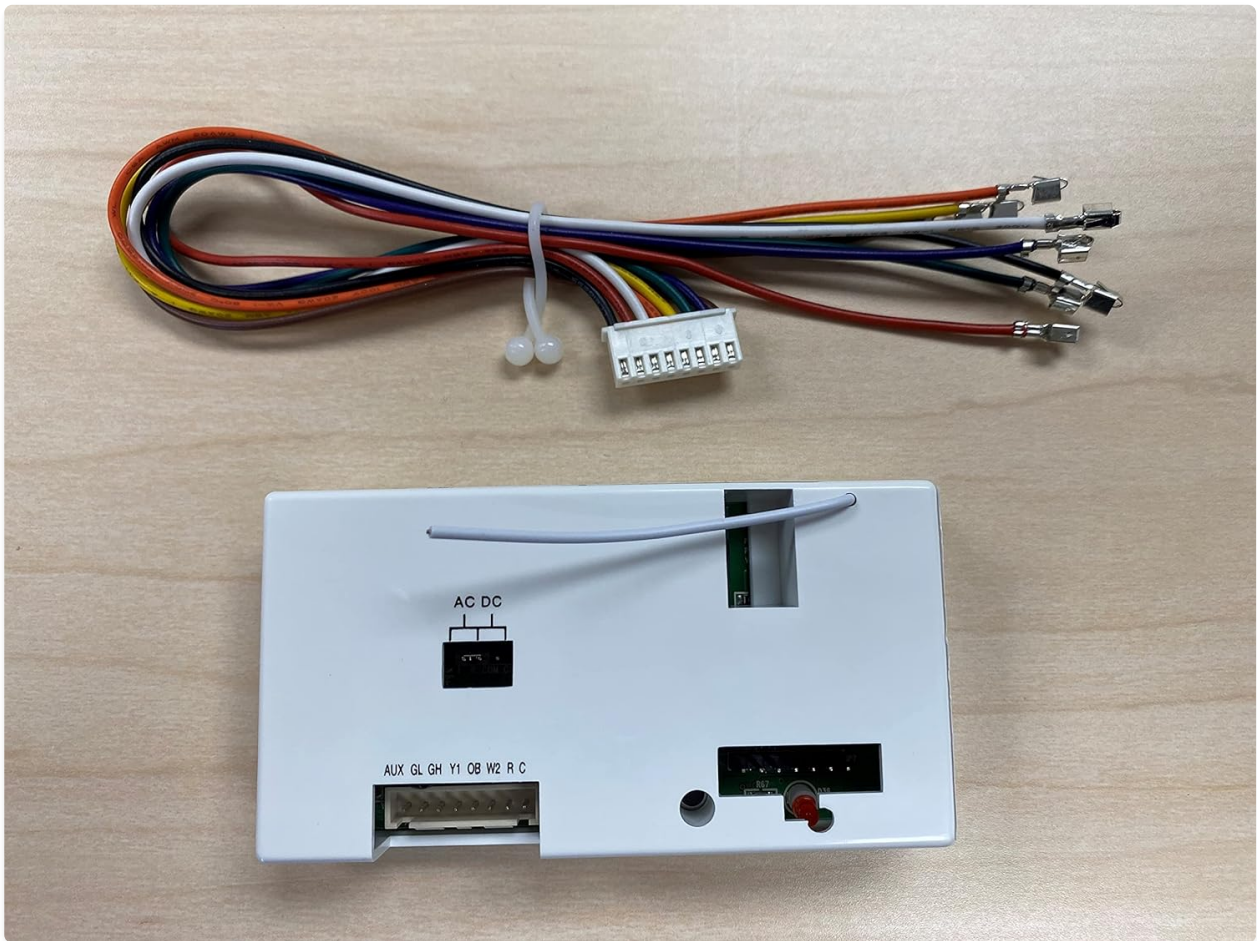


Figure 3: Thermostat wiring components for installation.

Operating Instructions

The Verdant VX thermostat features intuitive button controls and a clear LCD display for easy operation.

Basic Controls:

- **Power Button:** Located on the top left, press to turn the thermostat on or off.
- **Temperature Adjustment:** Use the up (^) and down (v) arrow buttons on the right to set your desired temperature. The set temperature will be displayed on the LCD.
- **F/C Button:** Located on the middle left, press to switch the temperature display between Fahrenheit (F) and Celsius (C).
- **Fan Button:** Located on the bottom left, press to cycle through fan speeds (e.g., Auto, Low, High).

Modes:

The thermostat automatically manages heating and cooling based on your set temperature and the built-in occupancy sensor. The display will indicate whether the unit is currently heating (sun icon) or cooling (snowflake icon).

Official Product Videos:

No official "Seller" videos demonstrating product operation are available at this time. Please refer to the detailed instructions in this manual for comprehensive guidance.

Energy Management Features

The Verdant VX Series thermostat is equipped with advanced energy management capabilities to reduce operational costs.

VX Series Energy Management Thermostat

Model: VX3-TW-KT-W
Wireless Energy Management
Thermostat

- > Unparalleled Energy Savings
- > Uncompromising Guest Comfort
- > Can Be Hard-Wired In The Field (Optional)
- > Compatible With Hilton Connected Room, IHG® Studio, and other Smart Home Platforms
- > Online Management Capabilities¹

The Verdant VX Series Thermostat delivers unprecedented energy savings without compromising guest comfort.


An integrated occupancy sensor allows for energy saving when rooms are unoccupied. Energy saving presets eliminate guesswork and make it easy to adjust the energy saving settings.

A patented "Night Occupancy" feature ensures comfort while guests are sleeping.

Built-in wireless mesh-networking enables optional online management features.

Fully configurable settings allow for customization of energy savings to fit any situation.

- ▢ **Temperature Setback** automatically adjusts the temperature when rooms are unoccupied to save energy.
- ▢ **Temperature Recovery** allows for setting a maximum time permitted for establishing a comfortable room temperature.
- ▢ **Setback Optimization** monitors the temperature recovery rate and optimizes setback temperatures.
- ▢ **Setback Limits** control the maximum and minimum room temperature when a room is in setback mode.
- ▢ **Set Point Limits** prevent guests from setting the room temperature to extreme, energy-wasting levels.

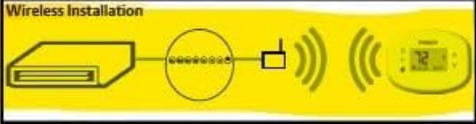


Typical HVAC Applications

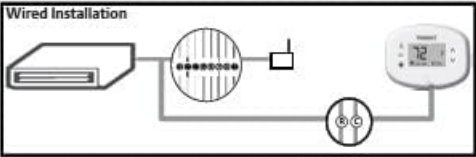
- PTAC with Electric Heat
- FCU 2-Pipe, 2 Fan, with Electric Heat
- Heat Pump, 2 Fan, with Electric Heat
- FCU, 2/4-Pipe, ECM Fan
- PTHP with Electric Heat
- FCU 4-Pipe, 3 Fan
- WSHR, 2 Fan, with Electric Heat
- VRF Systems (Part # VX-RSW-W)

	Thermostat	HVAC Controller
Case Dimensions (Imperial)	4.02" x 5.51" x 0.83"	4.84" x 2.36" x 1.02"
Case Dimensions (Metric)	102mm x 140mm x 21.3mm	123mm x 70mm x 26mm
Screen Dimensions (Imperial)	3.63" x 2.13"	N/A
Screen Dimensions (Metric)	92mm x 54mm	N/A
Operating Voltage	2 "AA" Cell Batteries (24V)	24VAC / 12VDC
Control Inputs/Outputs		Fan High (CH)
		Fan Low (CL)
		Compressor (C)
		Heat Pump (HW)
		Heat (W)
		AUX1
		AUX2
		RS485 Output 1
		RS485 Output 2
		12VDC Input
		12VDC Output
Occupancy Sensor Beam Width (Angular degrees)	±42° (94°)	N/A
Wireless Frequency	902-928MHz	902-928MHz
Temperature Accuracy (Fahrenheit)	±1°F	N/A
FCC ID	321VOC-08	321V-2X-U
IC	8410A-W0008	8410A-230V

Wireless Installation



Wired Installation





FCC THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.

PURSUANT TO PART 15.21 OF THE FCC RULES, ANY CHANGES OR MODIFICATIONS TO THIS EQUIPMENT NOT EXPRESSLY APPROVED BY VERDANT ENVIRONMENTAL TECHNOLOGIES, INC. MAY VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

US PATENTS: 8,369,894; 8,141,791; 7,918,400; 7,841,542; 7,838,803; 8,040,437; 7,232,075; 7,185,829; 7,156,518; 7,152,800; 7,145,110; 7,058,477; 7,050,026; 7,038,912; 6,982,117; 6,789,739; 6,786,421; 6,618,555; 6,581,846; 6,578,770. CANADIAN PATENTS: CA2615080; CA2633113; CA2633121; CA2633200. OTHER PATENTS PENDING.

Verdant Energy Management Solutions reserves the right to make changes, without notice, in design or components as progress in engineering and manufacturing methods may warrant. Product appearance may vary. © Verdant Energy Management Solutions, 2021.

¹Requires a network access license for each thermostat (Part Number: XMF) and one "Online Connection Kit" (Part Number: OL-KT). Additional fees apply.
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Figure 4: Benefits of the Verdant Energy Management System.

- **Built-in Occupancy Sensor:** The integrated motion detector automatically adjusts temperature settings when a room is unoccupied, preventing energy waste.
- **Night Occupancy Mode:** A patented technology that ensures energy savings without compromising guest comfort by intelligently managing temperatures during periods of inactivity.
- **Reduced HVAC Costs:** By optimizing temperature control based on occupancy, the thermostat can

significantly reduce heating and cooling expenses, potentially by up to 40%.

Maintenance

Regular maintenance ensures the longevity and efficient operation of your Verdant VX thermostat.

- **Cleaning:** Gently wipe the thermostat's surface with a soft, damp cloth. Avoid abrasive cleaners or solvents.
- **Battery Replacement:** While the thermostat is designed for long-term use, if it uses backup batteries (check your specific model's detailed manual), replace them annually or when the low battery indicator appears.
- **Sensor Cleaning:** Ensure the occupancy sensor lens (small circular button at the bottom) is clean and unobstructed for accurate detection.

Troubleshooting

If you encounter issues with your thermostat, try the following common troubleshooting steps:

Problem	Possible Cause / Solution
No display / No power	Check power connections. Ensure the thermostat is properly seated on its mounting plate.
Incorrect temperature reading	Ensure the occupancy sensor is clean and not obstructed. Avoid placing near heat sources or direct sunlight.
HVAC unit not responding	Verify wiring connections. Check the mode setting (Heat/Cool). Ensure the set temperature is appropriate for the desired action.
Fan not operating	Check fan speed setting. Ensure the thermostat is powered on.

For persistent issues, refer to the comprehensive troubleshooting guide in the full product manual or contact customer support.

Specifications

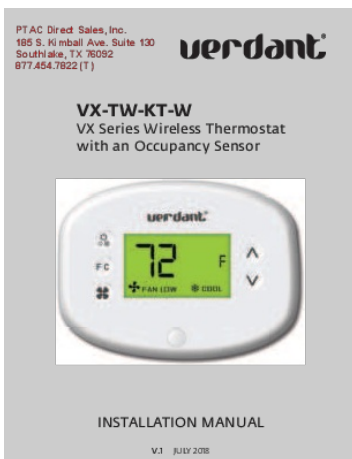
Attribute	Value
Brand	Verdant

Attribute	Value
Model Name	VX Series Wireless
Controller Type	Push Button
Special Feature	Motion Detector
Color	White
Specific Uses For Product	Heat Pump
Connectivity Technology	RF
Item Weight	6.4 ounces
Material	Plastic
Shape	Round
Display Type	LCD
Control Method	App, Touch
Mounting Type	Wall Mount
Backlight	Yes
Manufacturer	Verdant
Product Dimensions	1 x 5.5 x 2 inches
Item model number	VX-TW-KT-W
Country of Origin	Canada

Warranty and Support

Verdant is committed to providing excellent customer service and product reliability.

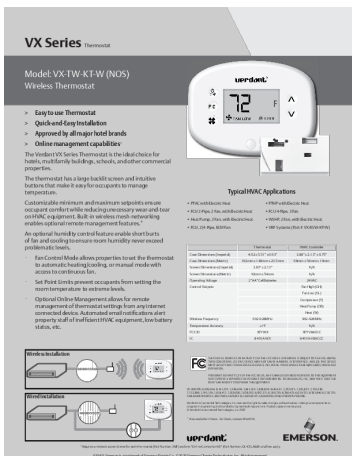
- **Technical Support:** The Verdant VX Series thermostat comes with free lifetime technical support. For assistance, please contact Verdant customer service.
- **Protection Plans:** Extended protection plans are available for purchase to provide additional coverage beyond the standard manufacturer's warranty. Options include 3-Year and 4-Year Protection Plans, as well as a monthly Complete Protect plan.



[Verdant VX Series Wireless Thermostat Installation Manual](#)

Installation manual for the Verdant VX Series Wireless Thermostat with Occupancy Sensor, detailing setup, configuration, and operation for optimal energy management in hospitality environments.

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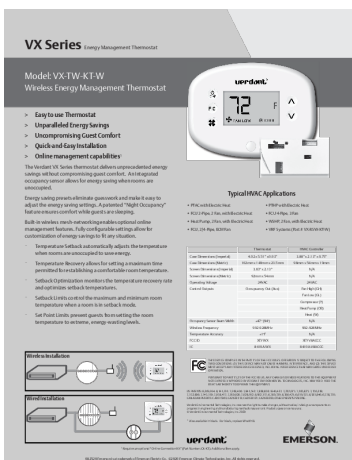


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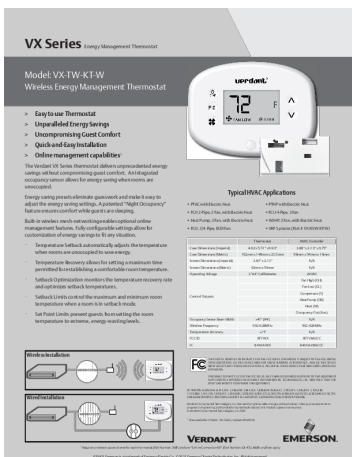


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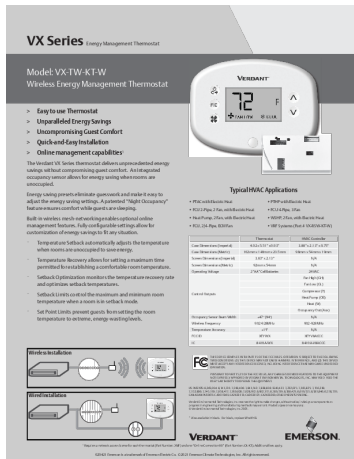


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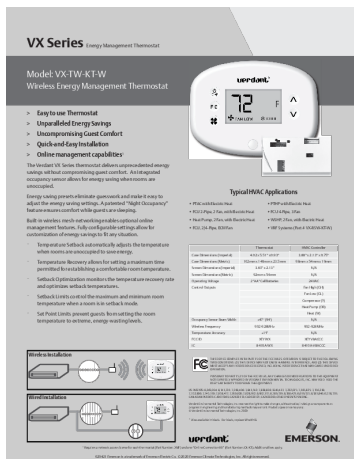


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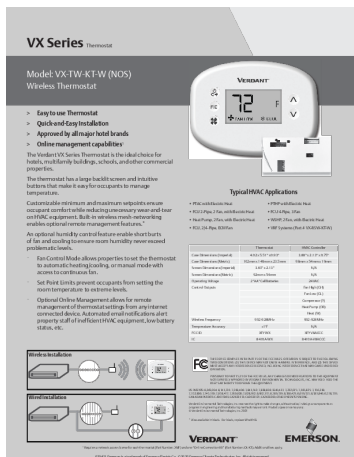
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[Verdant VX Series VX-TW-KT-W Wireless Energy Management Thermostat](#)

Explore the Verdant VX Series VX-TW-KT-W Wireless Energy Management Thermostat, offering unparalleled energy savings, guest comfort, and easy installation with online management capabilities. Ideal for various HVAC applications.

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Management Thermostat Easy-to-use Thermostat Unparalleled Energy Savings
Uncompromising Guest Comfort Quick-and-Easy Installation Auxiliary output that
allows for integration with make-up air units, lighting, an...

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