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Venstar T8900

Venstar T8900 ColorTouch Thermostat User Manual

Model: T8900

INTRODUCTION

The Venstar T8900 ColorTouch Thermostat is an advanced climate control solution designed for modern homes. It features a vibrant touchscreen display, smart programming capabilities, and Wi-Fi connectivity for remote access. This manual provides detailed instructions for installation, operation, and maintenance of your T8900 thermostat.



Image: The Venstar T8900 ColorTouch Thermostat, showcasing its high-resolution display with a vibrant green field and blue sky background, indicating a comfortable room temperature of 72 degrees Fahrenheit.

KEY FEATURES

- Controls humidification & dehumidification, compatible with gas/electric, heat pump, and electric units up to 4-stages of heat and 2-stage cool.
- Built-in 2.4Ghz wireless B/G/N WiFi antenna, supporting WEP and WPA/WPA2.
- Flexible programming: 7, 5/2, 1-day, or non-programmable with a 365-day vacation calendar. Up to 4 time periods per day (Morning, Day, Evening, Night).
- Full color touchscreen with customizable wallpaper and screen savers, featuring a 4.3" diagonal viewing area.
- Three advanced security levels with a customizable 4-digit passcode for full screen lock.
- Energy Watch feature tracks heating, cooling, and auxiliary heat hours for energy usage monitoring.
- Optional auxiliary heat lockout based on outdoor temperature and Emergency Heat switch for heat pump mode.
- Display supports English, Spanish, and French languages.
- Service filter and service UV lamp indicators.
- All programming and setpoints are stored in non-volatile memory, ensuring data retention during power failures.

PRODUCT OVERVIEW

Familiarize yourself with the main components and screen layouts of your Venstar T8900 thermostat.

Compatibility

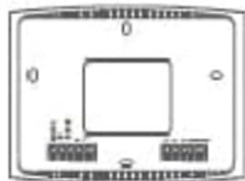
Venstar ColorTouch® Wi-Fi Thermostat is designed to work with 24V systems requiring both the R & C wires. This includes gas, electric, oil, forced air, variable speed, heat pump and radiant heat. It can control:

- Heating: one, two and three stages (W1, W2, W3)
- Cooling: one and two stages (Y1, Y2)
- Heat pump: with auxiliary and emergency heat (Y, W1, O/B)
- Fan (G)
- Power (C, R)
- Humidifier or dehumidifier (HUM, DEHUM)
- Dual fuel systems (heat pump with furnace)
- Whole-home humidifiers and dehumidifiers

Contents



Thermostat



Thermostat
Base



Drywall Anchors
and Screws



This Quick Start
Manual

Image: A detailed diagram illustrating the various elements of the Venstar T8900 thermostat's interface, including the backlit ColorTouch display, connectivity symbols, buttons (Warmer, Cooler, Fan, Mode, Menu, Home/Away, Back, Scrolling), and menu structures.

Home Screen Elements:

- **Connectivity Symbol Table:** Indicates Wi-Fi connection status.
- **Outdoor Temperature:** Displays outdoor temperature if an optional accessory is used.
- **Drop Down Sensor Button:** Accesses sensor information.
- **SD Card Slot:** For firmware updates and photo galleries.
- **Warmer/Cooler Buttons:** Adjust temperature setpoints.
- **Fan Button:** Controls fan operation.
- **Mode Buttons:** Select heating, cooling, or auto modes.
- **Menu Button:** Accesses main menu.
- **Date & Time:** Displays current date and time.
- **Home/Away Button:** Toggles between home and away settings.

INSTALLATION

Compatibility

The Venstar ColorTouch Wi-Fi Thermostat is designed for use with 24V systems that require both R and C wires. It is compatible with a wide range of HVAC systems, including:

- Heating: One, two, and three stages (W1, W2, W3)
- Cooling: One and two stages (Y1, Y2)
- Heat pump: With auxiliary and emergency heat (Y, W1, O/B)
- Fan (G)
- Power (C, R)
- Humidifier or dehumidifier (HUM, DEHUM)
- Dual fuel systems (heat pump with furnace)
- Whole-home humidifiers and dehumidifiers

Installation Instructions

Wire Connections

If the terminal designations on your old thermostat do not match those on the new thermostat, **refer to the chart below or the wiring diagrams that follow.**

Wire from the old thermostat terminal marked	Function	Install on the new thermostat connector marked
G or F	Fan	G
Y1, Y	Cooling	Y1
W1, W	Heating	W1/O/B
Rh, R, M, Vr, A	Power	R
C	Common	C
O/B	Rev. Valve	W1/O/B*
W2	2nd Stage Heat	W2
Y2	2nd Stage Cooling	Y2
W3	3rd Stage Heat	W3
OUT -	Outdoor Sensor	SENSOR
OUT +	Outdoor Sensor	SENSOR

* O/B is used if your system is a Heat Pump.

Image: A visual representation of the Venstar T8900's system compatibility and a list of included items: Thermostat, Thermostat base, Drywall Anchors and Screws, and This Quick Start Manual.

Contents

The product package typically includes the following items:

- Venstar T8900 Thermostat
- Thermostat Base
- Drywall Anchors and Screws
- Quick Start Manual

Wire Connections

Before connecting wires, ensure power to your HVAC system is turned off at the circuit breaker. Refer to the table below for proper wire terminal designations. If your old thermostat's terminal designations do not match, consult a professional or the full installation manual.

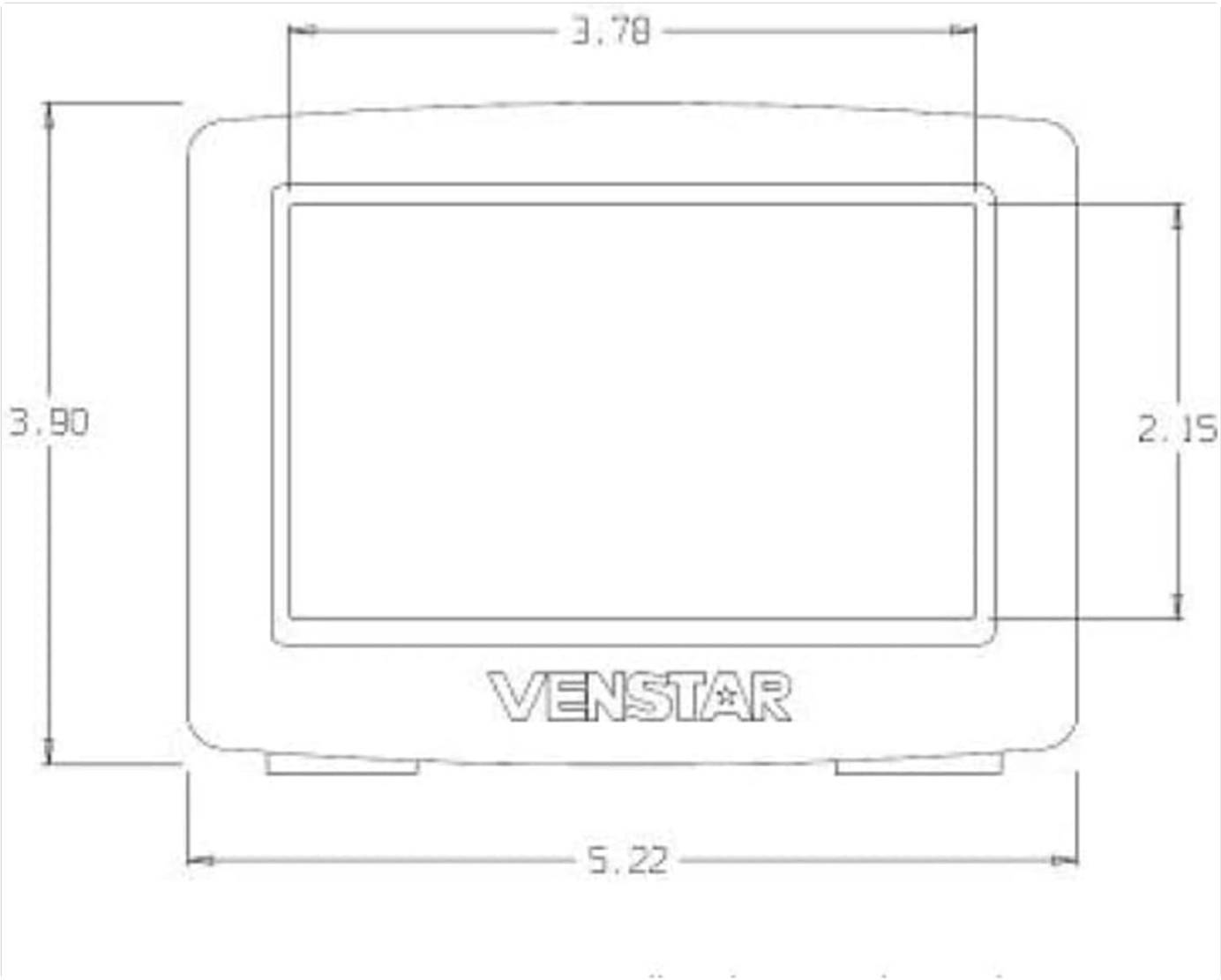


Image: A table detailing the wire connections for the Venstar T8900 thermostat. It lists common wire functions and their corresponding terminals on both old thermostats and the new T8900, including notes for heat pump systems.

Wire Connection Guide

Wire from old thermostat terminal marked	Function	Install on the new thermostat connector marked
G or F	Fan	G
Y1, Y	Cooling	Y1
W1, W	Heating	W1/O/B
Rh, R, M, Vr, A	Power	R
C	Common	C
O/B	Rev. Valve	W1/O/B*
* O/B is used if your system is a Heat Pump.		

Wire from old thermostat terminal marked	Function	Install on the new thermostat connector marked
W2	2nd Stage Heat	W2
Y2	2nd Stage Cooling	Y2
W3	3rd Stage Heat	W3
OUT -	Outdoor Sensor	SENSOR
OUT +	Outdoor Sensor	SENSOR
* O/B is used if your system is a Heat Pump.		

SETUP

Initial Power-Up and Configuration

1. After installation and power restoration, the thermostat will guide you through initial setup.
2. Follow the on-screen prompts to set the date, time, and language (English, Spanish, French options available).
3. Configure your system type (Gas/Electric, Heat Pump) as prompted. Incorrect settings can damage your system.

Wi-Fi Connectivity

Connecting your T8900 to Wi-Fi enables remote control via the mobile app and integration with smart home assistants.

1. From the main menu, navigate to the Wi-Fi settings.
2. Select your home Wi-Fi network from the list of available networks.
3. Enter your Wi-Fi password using the on-screen keyboard.
4. Once connected, the Wi-Fi symbol on the home screen will indicate a successful connection.
5. Download the dedicated mobile app (compatible with iOS and Android) to control your thermostat remotely.

OPERATING INSTRUCTIONS

Adjusting Temperature

On the home screen, use the **Warmer** and **Cooler** buttons to adjust the desired temperature setpoint.

Changing Modes

Press the **Mode** button to cycle through available operating modes:

- **Heat:** Thermostat will only heat to maintain the setpoint.
- **Cool:** Thermostat will only cool to maintain the setpoint.
- **Auto:** Thermostat automatically switches between heating and cooling to maintain the setpoint range.
- **Off:** HVAC system is turned off.

Fan Operation

Press the **Fan** button to select fan operation:

- **Auto:** Fan runs only when heating or cooling is active.
- **On:** Fan runs continuously.

Programming Schedules

The T8900 allows for 7-day, 5/2-day, or 1-day programming with up to four time periods per day.

1. Press the **Menu** button and navigate to the "Schedule" or "Program" section.
2. Select your desired programming type (7-day, 5/2-day, or 1-day).
3. For each day and time period (Morning, Day, Evening, Night), set your desired heating and cooling temperatures.
4. Save your changes. The thermostat will now automatically adjust temperatures based on your schedule.

MAINTENANCE

Filter and UV Lamp Indicators

The T8900 provides indicators to remind you when to service your air filter and UV lamp (if applicable).

- When the "Service Filter" or "Service UV Lamp" indicator appears, it's time to inspect or replace the respective component.
- After servicing, reset the indicator through the thermostat's menu settings.





Firmware Updates

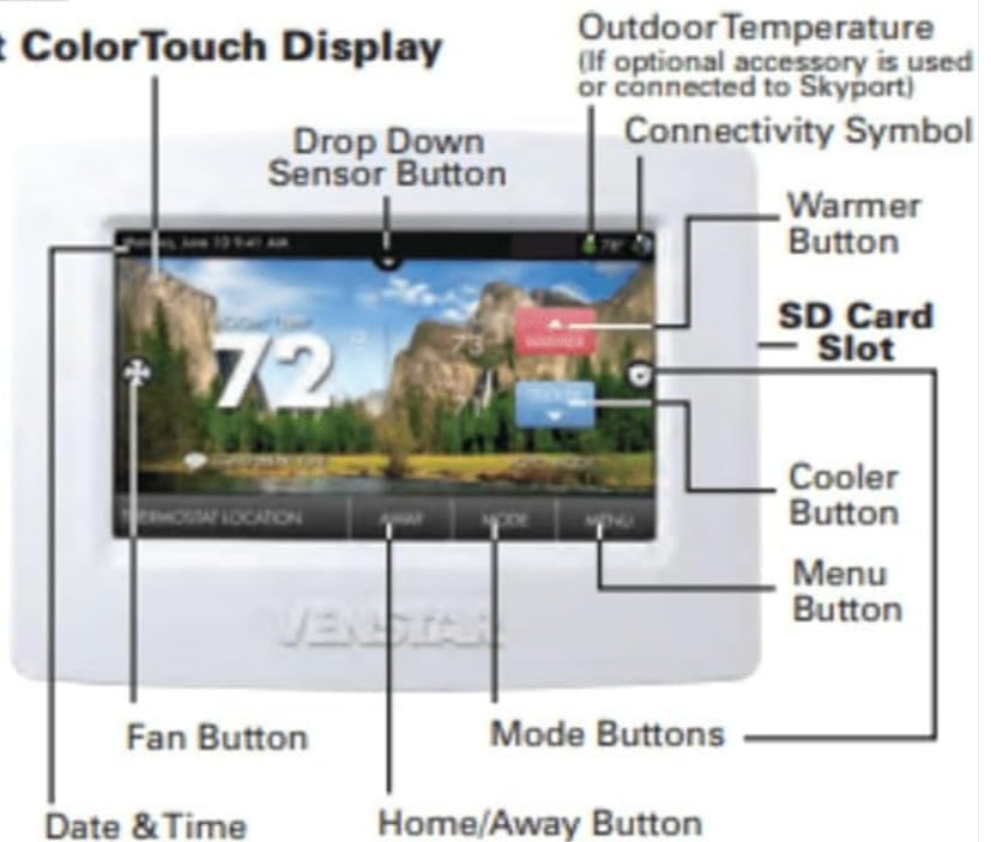
Periodically check for firmware updates to ensure your thermostat has the latest features and improvements. Updates can often be performed via Wi-Fi or using an SD card.

Get To Know Your Thermostat

Home Screen

Backlit ColorTouch Display

Connectivity Symbol Table	
	Not connected to Wi-Fi
	Connected to local access point w/IP address without Skyport enabled
	Connected to local access point w/IP address, but not yet connected to Skyport
	Connected to Skyport



Main Menu Screen



Sub Menu Screen

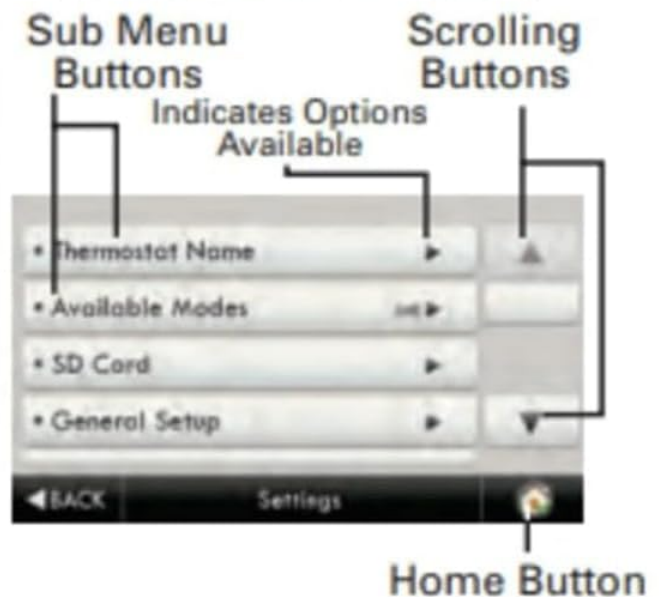


Image: A visual guide demonstrating how to update the thermostat firmware using the ColorTouch Desktop Application, which prepares firmware for transfer via an SD card when internet access is unavailable.

TROUBLESHOOTING

If you encounter issues with your Venstar T8900 thermostat, refer to the common problems and solutions below.

Common Troubleshooting Issues


Problem	Possible Cause	Solution
Thermostat screen is blank.	No power to the thermostat.	Check circuit breaker for your HVAC system. Ensure C-wire is properly connected.
Cannot connect to Wi-Fi.	Incorrect password, weak signal, or router issue.	Double-check Wi-Fi password. Move thermostat closer to router if possible. Restart your router.
Temperature not changing.	System mode incorrect, fan setting, or programming conflict.	Verify thermostat is in Heat or Cool mode, not Off. Check fan setting. Review programmed schedule for conflicts.
Thermostat is unresponsive.	Temporary software glitch.	Perform a soft reset by turning off power at the circuit breaker for 30 seconds, then restoring power.

SPECIFICATIONS

- **Model Name:** T8900
- **Brand:** Venstar
- **Controller Type:** Amazon Alexa, Google Assistant, Push Button
- **Special Features:** Auto Changeover, Fan Control, Filter Indicator, Geofence Technology, Programmable
- **Color:** White
- **Specific Uses:** Air Conditioner, Dehumidifier, Furnace, Heat Pump, Humidifier
- **Temperature Control Type:** Heating, Cooling
- **Connectivity Technology:** Wi-Fi (2.4Ghz B/G/N)
- **Included Components:** Anchor Bolt, Installation manuals, Thermostat
- **Item Weight:** 11.2 ounces
- **Shape:** Rectangular
- **Screen Size:** 4.3 Inches (diagonal)
- **Control Method:** App, Remote, Touch
- **Backlight:** Yes
- **Product Dimensions:** 6 x 3.9 x 1 inches (L x W x H)








Related Documents - T8900



[Venstar T8900 Commercial Digital Thermostat: Owner's Manual & Installation Guide](#)

This comprehensive Owner's Manual and Installation Guide details the Venstar T8900 Commercial Model Digital Thermostat. It covers installation procedures, operational features like touch screen control and humidity management, advanced settings, Wi-Fi connectivity, and troubleshooting for commercial HVAC systems.

	<p>Venstar T7800 ColorTouch Digital Thermostat: Owner's Manual & Installation Guide</p> <p>Owner's manual and installation guide for the Venstar T7800 ColorTouch High Resolution, Touch Screen Digital Thermostat. Covers setup, features, scheduling, installation, troubleshooting, and warranty. Note: Manual reflects firmware rev. 4.04.</p>
	<p>Venstar T7900 ColorTouch Residential Thermostat: Owner's Manual & Installation Guide</p> <p>Comprehensive owner's manual and installation guide for the Venstar T7900 ColorTouch Residential Thermostat. Learn about features, setup, Wi-Fi connectivity, scheduling, and troubleshooting.</p>
	<p>Venstar ColorTouch Wi-Fi Thermostat: Quick Start & Setup Guide</p> <p>A comprehensive quick start and setup guide for the Venstar ColorTouch Wi-Fi Thermostat, covering installation, wiring, configuration, and Wi-Fi setup for remote access and smart home integration.</p>
	<p>Venstar T2900SCH Commercial School Programmable Thermostat Owner's Manual</p> <p>Comprehensive owner's manual for the Venstar T2900SCH Commercial School Programmable Thermostat, detailing features, operation, programming, and advanced setup for efficient HVAC management in educational environments.</p>
	<p>Venstar ColorTouch T8850 Commercial Digital Thermostat - Owner's Manual & Installation Guide</p> <p>Owner's Manual and Installation Guide for the Venstar ColorTouch T8850 commercial digital thermostat. Features include a high-resolution touch screen, Wi-Fi connectivity, scheduling, and energy management. Learn installation, setup, and operation.</p>