

# T8000

## Touch Screen Thermostat

### Product Bulletin

T8000 Touch Screen Thermostats are designed to control heating and cooling through air conditioning unit in Commercial, Industrial and Residential Installation.

Typical applications include the control of fan coil units, packaged terminal air conditioners and combination of heating and cooling equipment. As part of the system, T8000 controls a two-way or three-way valve and a multi-speed line voltage fan.

T8000 features with large LCD screen display and displays the status of work mode (cooling, heating, air venting), fan speed, indoor temperature and set temperature etc.

Capacitance touch screen enhances the fluency on operation. Keypad includes: Power on/off (⏻) Mode selection (M), Fan Speed Selection (⚙️), Clock/Timer (🕒) and two Adjustment buttons (⬆️ & ⬆️)



#### ■ Touch screen

- Capacitance touch screen enhances the fluency on operation

#### ■ Backlit Liquid Crystal Display (LCD)

- Offer Easy-to-Read Real-time control status of the environment, graphical messages with constant backlight that brightens during user interaction

#### ■ 6 Function Keys

- All-in-One location function keys, simplified user to change the setpoint and parameter
- Molded Industrial Standard Graphical Symbol

#### ■ Appearance

- Attractively-Style Twin-Ring Streamline ABS Plastic Cover and Base
- All-in-One Enclosure Design without Protrusion of Power Circuit

#### ■ Energy Saving

- Features with Unoccupied Function
- Requires no batteries; EEPROM retains the last events and parameter settings after a loss of power

#### ■ Installation, Service and Maintenance

- Quick Replacement to reduce to Downtime of Service Maintenance

## Function

Item	Description	T8200- TBE0-9JR0	T8200- TBE0-9JS0	T8200- TFE0-9JR0	T8200- TFE0-9JS0
<b>Application</b>	2-pipe heating or cooling	■	■	---	---
	4-pipe heating and cooling	---	---	■	■
<b>User-interface</b>	Touch Screen	■	■	■	■
	Backlight	■	■	■	■
	EN/Icon	■	■	■	■
	°C / °F Changeable	■	■	■	■
<b>Energy Saving</b>	Ventilation Mode	■	■	■	■
	Setpoint Limit	■	■	■	■
	Occupied contact with NO/NC options	---	■	---	■
	Unoccupied setpoints	---	■	---	■
	Low fan in unoccupancy	---	■	---	■
	Auto Changeover	---	---	■	■
<b>Other Functions</b>	Timer On/Off	■	■	■	■
	Display setpoint only	■	■	■	■
	Anti-freezing	■	■	■	■
	Key Lock	■	■	■	■
	Display temperature calibration	■	■	■	■
	Remote temperature sensor	■	---	■	---
	Restart after power failure	■	■	■	■
	Timer Function	■	■	■	■
<b>Certificate</b>	CE	■	■	■	■

## Product Overview

T8000 touch screen thermostat with 4-basic models cover all types of FCU standalone applications. There are models for 2-pipe cooling or heating, 4-pipe cooling and heating designed to work with ON/OFF Valve actuators. On-board high accuracy NTC sensor allows precision comfort control over occupied space area.

The T8000 thermostats come with 12-hours timer that allows user to schedule On-Time or Off-Time for the fan coil depending on user needs.

88 x 88mm size suitable for 75 x 75 x 35mm wall box installation.

### **Model T8200-TBE0-9JS0**

The Model T8200-TBE0-9JS0 is line voltage, LCD display (with Backlit) fan coil unit thermostat that design for cooling or heating in a 2-pipe fan coil unit with ON/OFF valve actuator. Integrated with System On/Off button allows user to shutdown the T8000 and cutoff the output power for fan (cutoff the Output power for Valve Actuator). Simply pressing the fan speed button, allows user selection of Auto-High-Med-Low fan speed. All fan output by relay that can withstand max. of 5Amp (Res). operating current.

Additional Dry-contact for Occupancy mode that allows better comfort control and to achieve energy cost saving.

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With remote temperature sensor. While remote sensor is connected, the built-in sensor will be disable automatically.

### **Model T8200-TFE0-9JS0**

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With remote temperature sensor. While remote sensor is connected, the built-in sensor will be disable automatically.

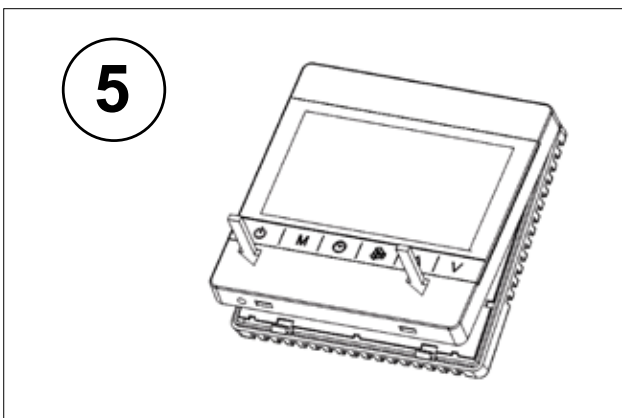
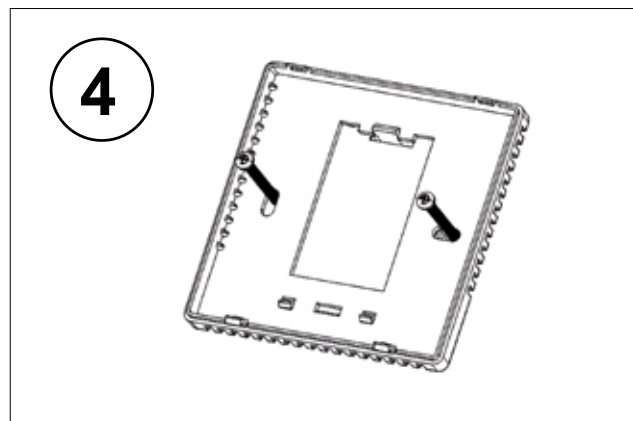
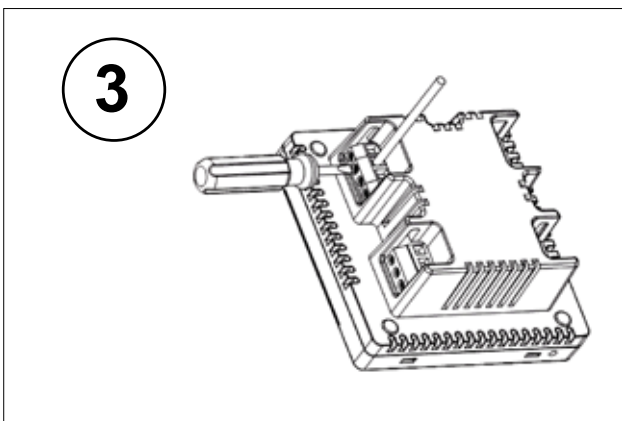
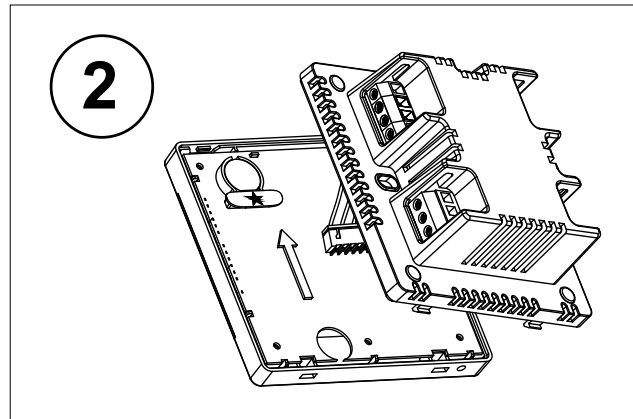
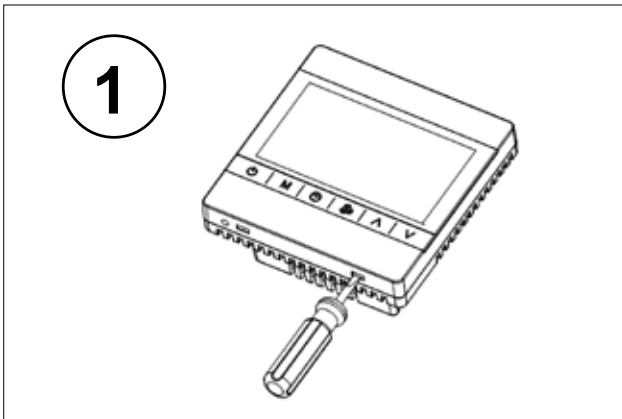
## Repair and Replacement

If the thermostat fails to operate within its specifications, replace the unit. To order the replacement, refer to the Order Information section.

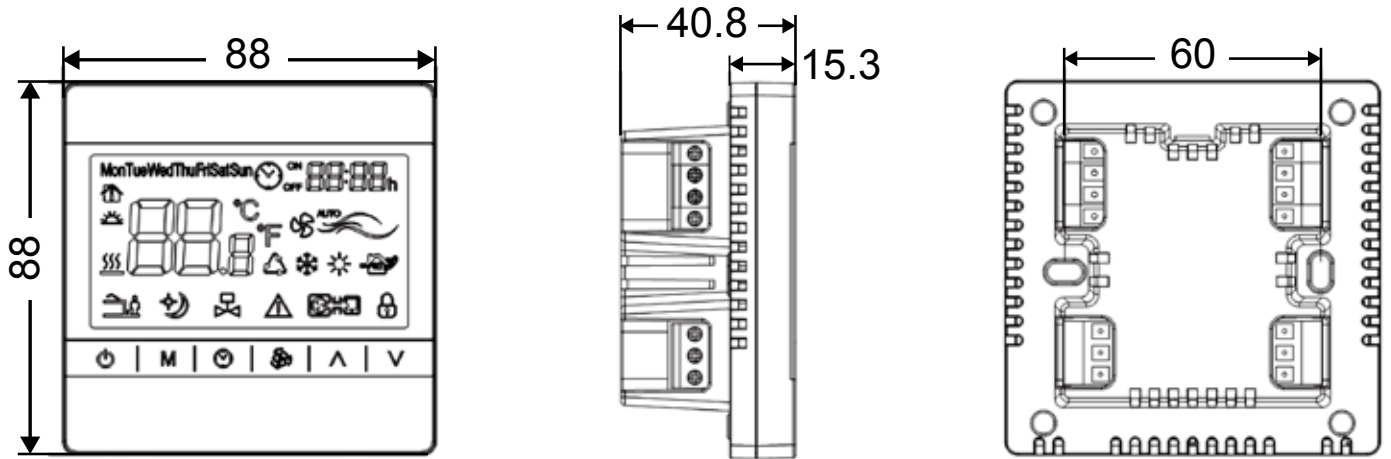
To order the replacement T8000 Series thermostat, contact the nearest Johnson Controls® representative. Specify the desired product code number from "Ordering Codes" Table.

## Installation

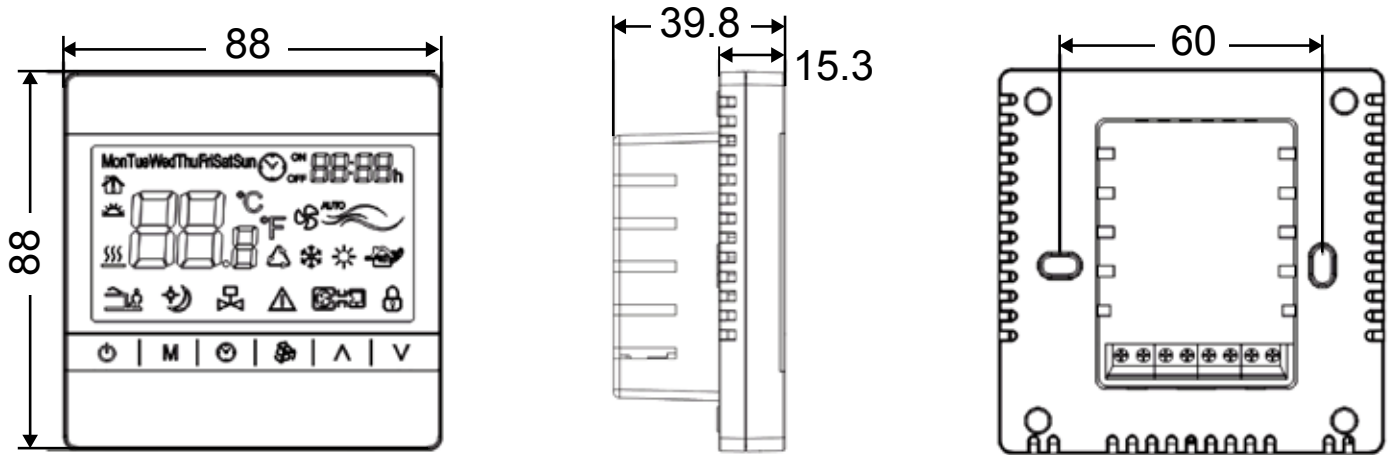
T8000 thermostats are suitable for 75 x 75 x 35 mm wall box installation.



## Dimensions

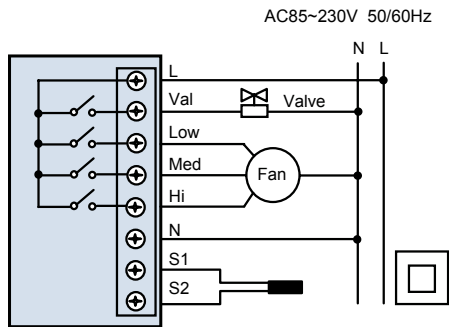


**T8200-TFE0-9JR0 / T8200-TFE0-9JS0**

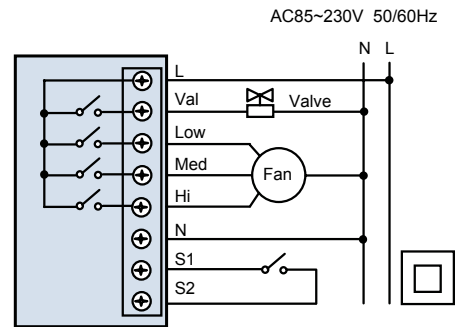


**T8200-TBE0-9JR0 / T8200-TBE0-9JS0**

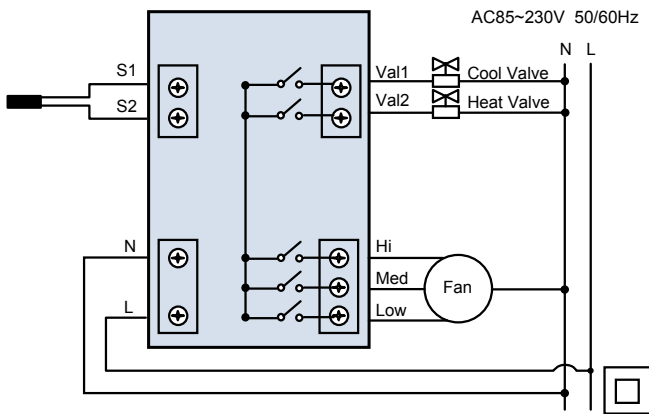
# Wirings



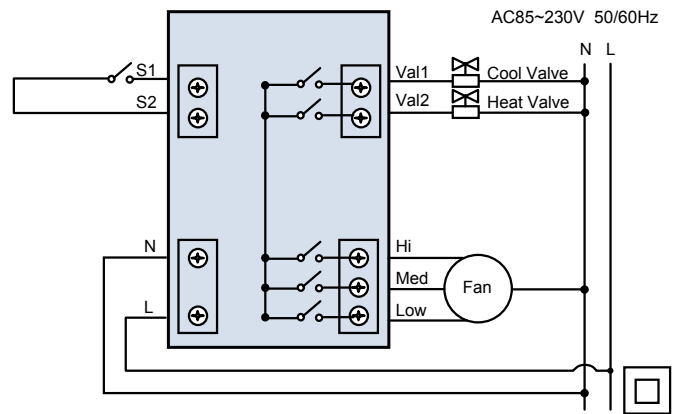
T8200-TBE0-9JR0



T8200-TBE0-9JS0



T8200-TFE0-9JR0



T8200-TFE0-9JS0

## Ordering Codes

T	8	2	0	0	-	T	x	E	0	-	9	J	x	0
														<b>0 = Reserve</b>
														<b>Function</b>
														<b>S</b> = For FCU (with unoccupied function)
														<b>R</b> = For FCU (with remote sensor)
														<b>Logo</b>
														<b>J</b> = with Johnson Controls Logo
														<b>Color:</b>
														<b>9</b> = White
														<b>-</b>
														<b>Control</b>
														<b>0</b> = ON/OFF
														<b>E</b> = Reserve
														<b>Application</b>
														<b>B</b> = 2-pipe heating or cooling
														<b>F</b> = 4-pipe heating and cooling
														<b>Temperature Scale</b>
														<b>T</b> = °C or °F optional
														<b>-</b>
														<b>Fan Control</b>
														<b>0</b> = Auto-Hi-Me-Lo
														<b>System</b>
														<b>0</b> = ON/OFF
														<b>2</b> = Version
														<b>8</b> = Touch Screen

**IMPORTANT:**

The power supply to the thermostat must include overload protection. Failure to include overload protection may result in damage to the thermostat.

## Technical Specifications

	<b>T8200-TBE0-9JR0</b> 2-pipe Cooling / Heating FCU Thermostat with Remote Sensor	<b>T8200-TBE0-9JS0</b> 2-pipe Cooling / Heating FCU Thermostat and Occupancy contact	<b>T8200-TFE0-9JR0</b> 4-pipe Cooling and Heating FCU Thermostat with Remote Sensor	<b>T8200-TFE0-9JS0</b> 4-pipe Cooling and Heating FCU Thermostat and Occupancy contact
<b>Actuator Models</b>				
<b>Power Requirements</b>	AC85-230V, 50/60 Hz			
<b>Accuracy</b>	±1 °C			
<b>Display Range</b>	0 to 55 °C			
<b>Setpoint Range</b>	5 to 35 °C			
<b>Unoccupied Mode</b>	---	External Voltage-Free Contact Input Signal	---	External Voltage-Free Contact Input Signal
<b>Remote Sensor</b>	NTC 10K, 1.5 m, Max. 20m (0.7 -1.0 mm <sup>2</sup> )	---	NTC 10K, 1.5 m, Max. 20m (0.7 -1.0 mm <sup>2</sup> )	---
<b>Termination</b>	Screw terminals			
<b>Valve Control</b>	1 x Single-Pole, Single Throw (SPST), 5A (Max.); Relay Output	1 x Single-Pole, Single Throw (SPST), 5A (Max.); Relay Output	2 x Single-Pole, Single Throw (SPST), 5A (Max.); Relay Output	2 x Single-Pole, Single Throw (SPST), 5A (Max.); Relay Output
<b>Fan Control</b>	3 x Single-Pole, Single Throw (SPST), 5A (Res.) at 250 VAC (Max.); Relay Output for Hi-Med-Low Fan			
<b>Ambient Operating Conditions</b>	0 to 45 °C 90% Non-condensing RH			
<b>Ambient Storage Conditions</b>	-10 to 60 °C 90% Non-condensing RH			
<b>Housing Material</b>	PC: UL 94-V0			
<b>Protection Class</b>	IP20			
<b>Dimensions in mm</b>	88 x 88 mm			
<b>Shipping Weight</b>	approximately: 214 g			
<b>CE Compliance</b>	Johnson Controls, Inc., declares that this product is in compliance with the essential requirements and other relevant provisions of the EMC Directive 2004/108/EC and Low Voltage Directive 2006/95/EC.			

\* When connected, the On/Off switch does not disconnect power to the unit; it only turns off or on the LCD and functions.