



# CHV-TSTAT-FCU

## Heating and Cooling Fan-Coil Thermostat

Supplemental Guide

Crestron Electronics, Inc.

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# Contents

- Introduction ..... 1
- Set Up the Thermostat** ..... **2**
  - Enter Setup Mode ..... 2
  - Navigate Setup Mode ..... 2
  - Configure the Thermostat ..... 3



# Introduction

After installation, set up the Crestron® CHV-TSTAT-FCU. Refer to the information that follows for an overview of the setup procedure.

For more installation information on the CHV-TSTAT-FCU, refer to the [CHV-TSTAT-FCU DO Guide \(Doc. 7914\)](#) at [crestron.com/manuals](http://crestron.com/manuals).

# Set Up the Thermostat

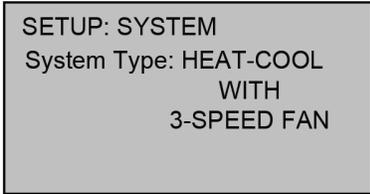
A qualified technician should set up the thermostat locally. Navigate through the setup screens and make the changes necessary for the HVAC system.

In most cases, default functionality is sufficient to run the system.

## Enter Setup Mode

Simultaneously press and hold the **MODE** and **VIEW** buttons until the **SETUP: SYSTEM** screen is displayed.

**NOTE:** Simultaneously press and hold the **MODE** and **VIEW** buttons again to exit Setup mode.



SETUP: SYSTEM  
System Type: HEAT-COOL  
WITH  
3-SPEED FAN

## Navigate Setup Mode

When the device is in Setup mode, press the **MODE** button to advance to the next screen, press the **VIEW** button to scroll vertically through the setup options on the screen, and press the Up (▲) and Down (▼) buttons to change the value for the selected item.

# Configure the Thermostat

## SETUP: SYSTEM Screen

```
SETUP: SYSTEM
System Type: HEAT-COOL
              WITH
              3-SPEED FAN
```

```
SETUP: SYSTEM

Fan Spd Enables:  L M H
Fan Spd Staging:  Y
```

```
SETUP: SYSTEM

2nd stg call mode:  HEAT
2nd stg min fan:   MED
```

Use the **Fan Spd Enables** option to select the fan speeds that are available on the system.

Setting **Fan Spd Staging** to **Y** allows the fan speed to be dynamically increased based upon current demand. If **N** is selected, the fan speed is fixed.

Set **2nd stg call mode** to **HEAT** or **COOL** to control a two-stage system. This mode will execute second stage heating or cooling calls through the O terminal on the device. Set **2nd stg call mode** to **NONE** when a two-stage system is not in use.

Use the **2nd stg min fan** option to control the fan speed at which the second stage of the two-stage system is called. If the option is set to **MED**, for instance, then the thermostat will call for second stage cooling or heating when the fan speed reaches the medium setting. The second stage remains called if the fan reaches speeds faster than the speed set here.

**NOTE:** A two-stage system can be used only if the O and B terminals are not currently wired for a different application.

#### SETUP: SYSTEM PERF Screen

SETUP: SYSTEM PERF	
Heat Anticipator:	<input type="text" value="3"/>
Cool Anticipator:	3
Intrstg Differential:	1.5°
Accumulated Stging:	1

Use the **Heat Anticipator** and **Cool Anticipator** to control the steady-state regulation band size. A higher setting increases the band size.

The **Intrstg Differential** and **Accumulated Stging** settings are for future use. Modifying the settings will not affect the device's operation.

#### SETUP: HUM OPTS Screen

SETUP: HUM OPTS	
Show Hum Mode Pg:	<input type="text" value="Y"/>
Show Hum View Pg:	Y
Cold Weather Comp	Y

SETUP: HUM OPTS	
Invert Hum Output:	<input type="text" value="Y"/>
Call FAN in HUM:	Y

Setting **Show Hum Mode Pg** to **Y** shows the Humidifier page when the **MODE** button is pressed.

Setting **Show Hum View Pg** to **Y** shows the humidity details when the **VIEW** button is pressed.

Setting **Cold Weather Comp** to **Y** adjusts the thermostat to prevent condensation on the windows when the outdoor temperature is cold.

**Invert Hum Output** inverts the humidity relay logic. Selecting **Y** inverts the output so that the relay is energized when the humidity level is above the desired setpoint. Selecting **N** keeps a standard output so that the relay is energized when the humidity level is below the desired setpoint.

Use **Call FAN in HUM** to activate or disable the fan during calls to the humidifier.

### SETUP: DEVICE OPTS Screen

SETUP: DEVICE OPTS	
Network ID:	2A
LCD Contrast:	5
Short Cycle Prot:	180s

The **Network ID** must match the NET ID specified in the system program. Use the **LCD Contrast** to change the contrast of the LCD screen.

Set the **Short Cycle Prot** to prevent the HVAC unit from quickly cycling on and off, which can damage the HVAC system. Set the number of seconds to determine the amount of time between HVAC power cycles.

### SETUP: SCREEN OPTIONS Screen

SETUP: SCREEN OPTIONS	
Disp Global Page:	Y
Disp Outdoor Page:	Y
Disp Rem Func Pg1:	Y
Disp Rem Func Pg2:	Y
Reverse SMODE Dir:	Y

Setting **Disp Global Page** to **Y** displays the Global Update page when the **MODE** button is pressed.

Setting **Disp Outdoor Page** to **Y** enables viewing of the outdoor temperature when the **VIEW** button is pressed.

Setting **Dis Rem Func Pg1** and **Pg 2** to **Y** enables viewing of the sensor state when the **VIEW** button is pressed.

Setting **Reverse SMODE Dir** to **Y** reverses the direction that the **System Mode** selection scrolls across the screen when the Up (▲) or Down (▼) arrows are pressed.

### SETUP: DISP OPTIONS Screen

SETUP: DISP OPTIONS	
Temperature Units:	F
Temp Disp Offset:	0 <sup>0</sup>
Dual Setpoint Auto:	N
Main Scn Lwr Obj:	NA
Use 0.5 Deg C Step:	Y

The **SETUP: DISP OPTIONS** screen allows adjusting of both the displayed and the regulated temperatures.

The **Temperature Units** option allows selection of Fahrenheit (**F**) or Celsius (**C**).

**Temp Disp Offset** alters the main display's temperature output by the number of degrees selected.

**Dual Setpoint Auto** allows two setpoints to be established when operating in auto mode. When operating in Dual Setpoint Auto mode, press the **MODE** button while the temperature setpoints are flashing to toggle between the two.

The **Main Scn Lwr Obj** displays the reading for the slab sensor (**sb**), outdoor sensor (**od**), or humidity (**HM**).

The **Use 0.5 Deg C Step** option allows the setpoint to be changed in 0.5-degree increments.

### SETUP: OTHER SETTINGS Screen

SETUP: OTHER SETTINGS	
Auto DdBand Deg:	5 <sup>0</sup>
Disable Auto Mode:	N

Use **Auto DdBand Deg** to determine the minimum separation between heat and cool setpoints.

**Disable Auto Mode** removes the auto option from the **System Mode** screen.

### SETUP: SENSORS Screen

SETUP: SENSORS		
SENSOR	TEMP	HUM
INTERNAL:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
REMOTE 1:	<input type="checkbox"/>	<input type="checkbox"/>
REMOTE 2:	<input type="checkbox"/>	<input type="checkbox"/>

The **SETUP: SENSORS** screen allows defining which sensors are used to report temperature and humidity to the thermostat.

### SETUP: H-SENSORS Screen

SETUP: H-SENSORS		
	TRIM	%RH
INTERNAL:	9	0
REMOTE 1:	-9	0
REMOTE 2:	0	0

The **SETUP: H-SENSORS** screen allows the sensor values to be fine-tuned.

### SETUP: SENSOR DBG Screen

SETUP: SENSOR DBG						
	SNR	MIN	MAX	AVG	OOB	CRC PER
R1T	0F	0F	0F	0%	100%	100%
R1H	0%	0%	0%	100%	0%	100%
R2T	0F	0F	0F	0%	100%	100%
R2H	0%	0%	0%	100%	0%	100%
RUN				R1 TIMING: 76		
				R2 TIMING: 76		
						100%

Press **VIEW** to run sensor debugging.

### SETUP: SERVICE/TEST Screen

SETUP: SERVICE/TEST	
Heat Call:	<input type="checkbox"/> OFF
Cool Call:	OFF
Humidifier Call:	OFF
Fan Call:	OFF

The **SETUP: SERVICE/TEST** screen allows testing of the HVAC system directly from Setup mode. Set the **Heat Call**, **Cool Call**, **Humidifier Call**, or **Fan Call** to **ON** to test the HVAC system.

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