



User Guide

ComfortSense® 8500 Commercial Programmable Thermostat Series

507631-03
11/2018

Supersedes 507631-02

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Thermostat

The ComfortSense® 8500 is a commercial, electronic, 7-day, communicating and touchscreen thermostat. Models are available with or without CO₂ sensing capabilities. For use with Emergence® commercial rooftop units equipped with Prodigy®.

Home Screen

Temperature Dial

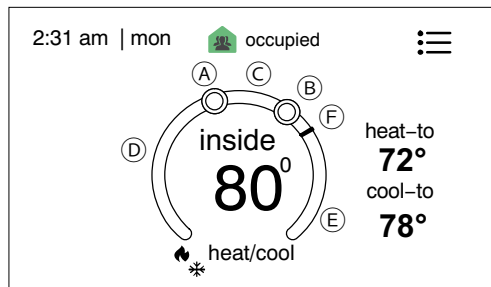


Figure 1. Temperature Dial Feature

- This is the heating set point indicator on the dial. This object is red in color.
- This is the cooling set point indicator on the dial. This object is blue in color.
- This is the location where no heating or cooling demand is active. In figure 1, the example would be any temperature between 72°F and 78°F.
- When there is an active call for heating, this area of the dial will fade back and forth from white to red.
- When there is an active call for cooling, this area of the dial will fade back and forth from white to blue.
- The yellow line indicates the actual room temperature.

Other Screen Elements

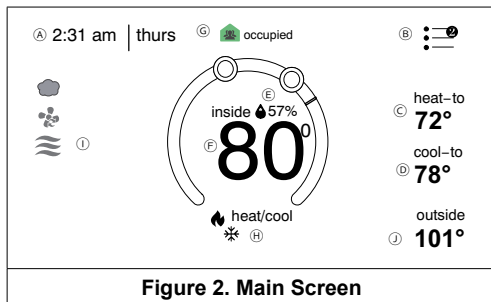


Figure 2. Main Screen

- Displays current time and day of the week.
- Menu** - Select the screen here to access notification and setting screens. A red circle with a number inside of it indicates a notification. Go to **menu** > **notifications** to view active notifications.
- Select the **heat-to** area to adjust the heating temperature set point (see “Figure 3. Temperature Setting Detail Screen”). Use the - and + icons to adjust the temperature setting.
- Select the **cool-to** area to adjust the cooling temperature set point (see “Figure 3. Temperature Setting Detail Screen”). Use the - and + icons to adjust the temperature setting.

NOTE: The temperature dial will change from white to red when heating is active. The temperature dial will change from white to blue when cooling is active.

NOTE: If the following symbol ~ appears under heat-to or cool-to locations then this indicates the system is off-line. In addition the current operational state (H) will not appear on the screen below the inside temperature display.

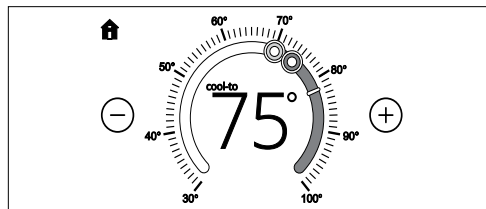


Figure 3. Temperature Setting Detail Screen

- The current indoor humidity percentage is displayed here along with a humidity icon (rain drop). The icon changes based on the humidity level in the building or space.
- This is where the current indoor temperature is displayed.
- Indicates whether the system is in **occupied**, **unoccupied** or **off-line** modes. By selecting the area, you can change back and forth from occupied to unoccupied. When an occupancy sensor is installed the ComfortSense 8500 will detect whether there is movement or not and will change the occupied and unoccupied status automatically. See “Table 1. Occupied and Unoccupied Icons” on page 4” for icon examples.

Table 1. Occupied and Unoccupied Icons

Occupied	
Unoccupied	

- h. Indicates the system mode of operation when in occupied mode. When the system is in unoccupied mode, this option does not appear on the home screen. While in occupied mode, selecting the heat/cool area at the bottom of the screen will bring up the select mode screen.

Options are heat/cool or schedule 1, 2, 3, holiday and off. Selecting a schedule will follow the schedule setup under **menu > edit schedule**.

NOTE: *Edit Schedule will only appear on the-home page menu if set if the thermostat is in stand-alone mode and schedules is set to ON under the technician settings menu.*

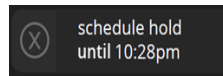
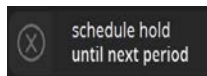
- i. Indicates the system operational status. Consult your service technician or refer to the installation and setup guide for this product.
- j. Outside temperature display. This information is obtained from the roof top unit. By default this is set to OFF. It can be set to ON by going to **menu > owner settings > display > show outdoor temp.** to ON.

Schedule Overrides

- **With NCP:** When operating in schedule mode and the owner manually adjusts the temperature, a pop-up display will appear indicating **hold**. Selecting **hold** will display a message indicating **set points will hold until the duration of the hold ends** with the option to either **cancel** or **hold**.



- **Stand-Alone:** If system is stand-alone mode and either **schedule hold until next period** or **schedule hold until "specific time"** is displayed. Selecting that notification will manually cancel the current hold functions immediately.

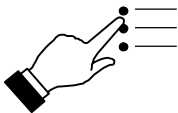


Menu

Select the three lines in the upper right-hand corner of the screen to access the menu.

Accessing the Menu

Select the menu option from the home screen.



Options are:

- Notifications
- Performance report
- Edit schedule
- Owner settings
- Technician settings

NOTE: *The Performance Report and Edit Program functions are only available on models without zoning.*

Edit schedule is also only available when local scheduling function is set to ON under the technician settings menu.

Notifications

When a system error or reminder occurs, a pop-up screen will appear indicating the condition.

- Error code notification pop-ups can be dismissed by selecting the **ok** button. Contact the contractor to resolve the issue.
- For notifications, select either clear or set a future reminder.

Any active history for notifications are listed under **menu > notifications**. Select the down arrow icon next to the notification to expand for further details. Select the contractor info option for assistance.

Reminders (when enabled)

NOTE: *Reminders and routine system check-up are setup by your technician under the technician settings menu.*

Performance Report

This will display the total number of hours each month that the system has been running. Example would be for mar (March) 23H or 23 hours. To return to the menu screen, select the house icon in the upper left-hand corner of the screen.

Edit Schedule

This feature is only available when local scheduling function is set to ON under technician settings.

To run the schedule, return to the home screen. Select **heat/cool** and the **select mode** screen will appear. Select **schedule**. See "Figure 4. Editing and Renaming Schedules" on page 6.

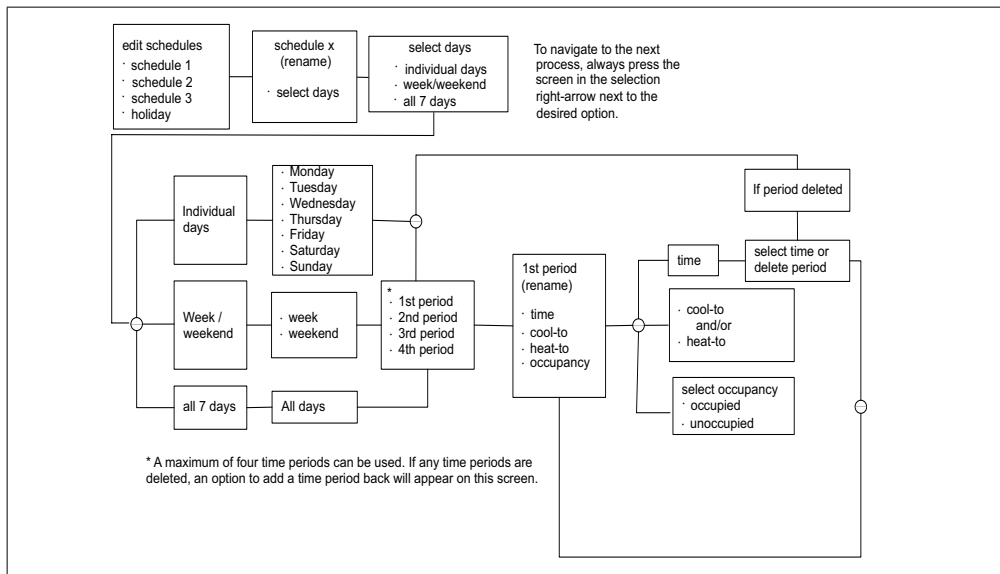


Figure 4. Editing and Renaming Schedules

Owner Settings

Options are Humidity, General, Display and Fan.

Table 2. Owner Settings		
Setting Selection	Function	Description
Humidity <i>(Available in stand-alone mode only)</i>	Adjusting dehumidification set point	Dehumidification set point is adjustable between 5% to 95%. Default is 45%.
General	About	Displays information concerning model number, serial number, hardware, software revisions and contractor contact information.
	Screen lock	Options are ON or OFF. Default is OFF. When set to ON, a pin has to be entered to access functions. Default pin is 864. Pin can be changed under menu > technician settings > change owner pin.
	Date & time	Options for selecting 12 or 24-hour clock, daylight savings, time and date.
	Language	Languages available are English, Spanish and French

Table 3. Owner Settings (continued)

Setting Selection	Function or Sub-Menu		Descriptions
Display	Show outdoor temp		Option is ON or OFF.
	Screen options	Screen brightness	A horizontal bar is provided to adjust from minimum to maximum brightness. Scale is 20% to 100%.
		Screen saver options	Selectable options are: <ul style="list-style-type: none"> • Screen goes black when not in use. • Screen brightness dims when not in use. A horizontal bar is provided to adjust from minimum to maximum brightness. Scale is 20% to 100%.
	Temperature scale		°F for Fahrenheit or C° for Celsius
Fan (Only available in stand-alone and smart hub enabled modes)	Fan options are AUTO and ON. Default is AUTO.		<p>ON - Fan is on continuously.</p> <p>AUTO - Fan follows current mode of operation.</p> <p>NOTE: Fan control is only available to the owner when RTU fan on/auto user control setting is turned on under technician settings.</p>