



User Guide

Color Touchscreen
Programmable Commercial
Thermostat

ComfortSense® 7500 (13H15)

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Features

The ComfortSense® 7500 Series thermostat is an electronic 7-day, universal, multi-stage, programmable, touchscreen thermostat.

- supports commercial package rooftop units economizer control
- dehumidification measurement and control, equipment maintenance reminders, worry-free memory storage feature, menu-driven touch-screen display.
- Dehumidification measurement and control
- Humiditro® EDA capability
- Dew point adjustment control

Temperature Dial Indicator

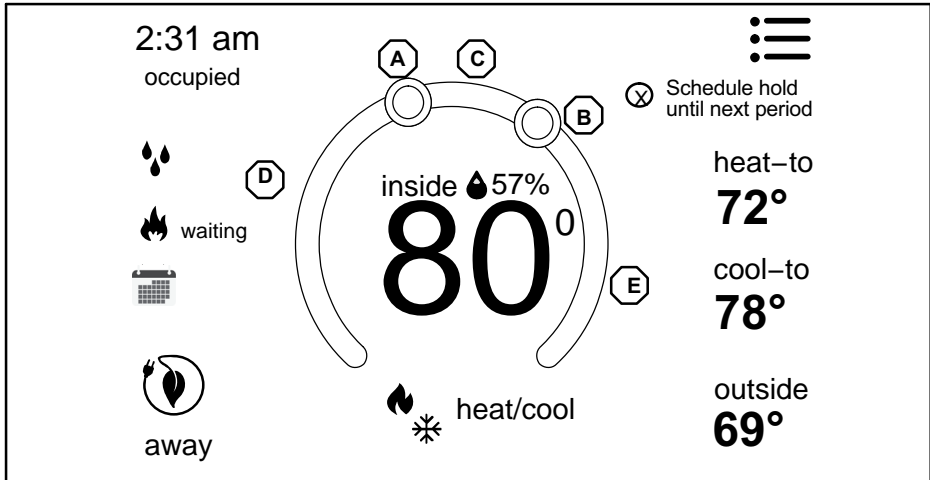


Figure 1. Temperature Dial Feature

- A** This is the maximum **heat position indicator** on the dial. This object will be red in color.
- B** This is the maximum **cool position indicator** on the Dial. This object will be red in color.
- C** This is the location where no system demand will be active. In figure 1, the example would be any temperature between 73°F and 77°F.
- D** When there is an active call for heating, this area of the dial will fade back and forth from white to red.
- E** When there is an active call for cooling, this area of the dial will fade back and forth from white to blue.

Home Screen

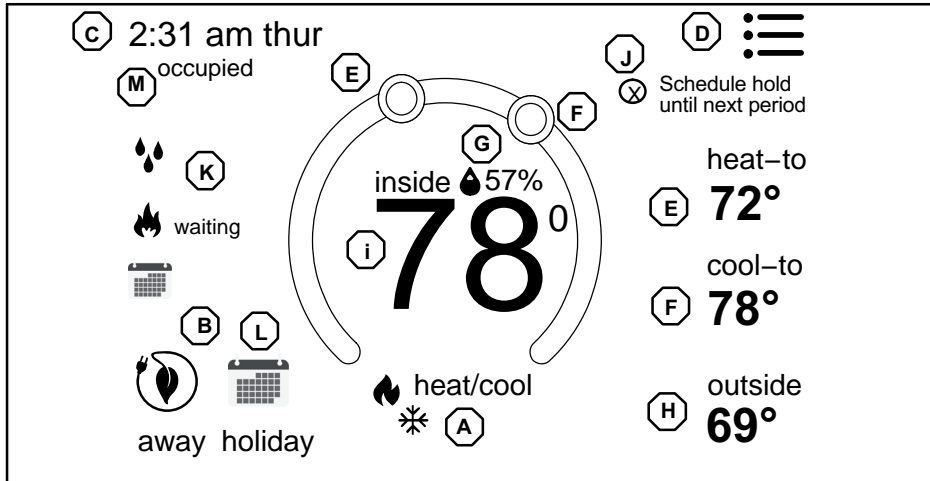
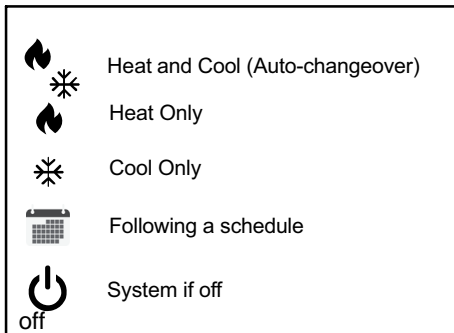


Figure 2. Home Screen

Press the screen anywhere - the first press turns on the backlight.

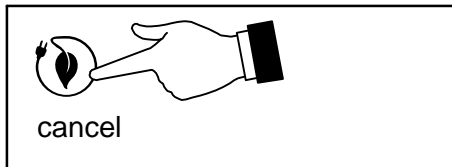
A OPERATING MODE - press to access the screen that will list available modes. Selectable modes are heat/cool, heat only, cool only, off, schedule 1, schedule 2, and schedule 3. In addition fan operation can be set to on, auto or circulate.



B AWAY - Selecting AWAY will allow the user to set the heating and/or cooling mode temperatures when away from home.

Pressing either heat-to or cool-too will bring up a screen to adjust either heating and/or cooling and set the temperature to the desired setting when away from home

Press **cancel** to exit this screen and return to the home screen and normal system operations.


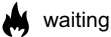


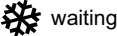




C Displays current time.

D Menu - This will allow access to **notifications, performance report, schedules and settings**

- E** This allows you to set the **heat-to** (if enabled) temperature. Selecting the **heat-to** or temperature dial position indicator will take you to the temperature setting detail screen. The temperature dial will change from white to red when heating is active.
 - F** This allows you to set the **cool-to** (if enabled) temperature. Selecting the **cool-to** or temperature **dial position indicator** will take you to the temperature setting detail screen. The dial will change from white to blue when cooling is active.
 - G** Indicates the current indoor humidity percentage in the home along with a humidity icon (rain drop). The icon changes based on the humidity level in the home as well.
 - H** This location could display the **outdoor** air temperature. What is displayed in that location depends on what sensor is installed and configured through the thermostat user interface. If neither is installed, then this area will be blank.
 - I** Displays the current indoor temperature.
 - J** Indicates the schedule is on hold until the next time period or permanent.
1. Place the schedule on hold by pressing on either the **heat-to** or **cool-to** location on the screen. If an adjustment is required for the temperature setting, this can be done now.
 2. To continue press twice on any blank area of the screen.
 3. From the override setting screen, the options are **1 hour**, **2 hour** or **Permanent**. Make selection and then press **set**.
 4. For the 1 or 2 hour setting the home screen will indicate **schedule hold until *time indicated*** (i.e., 11:57 pm). To exit schedule hold, press ⊗.
 5. For the permanent setting the screen will indicate **schedule hold permanent**. To exit schedule hold, press ⊗.
- K** System Status Icons - Equipment operation information appears along the left side of the home screen to indicate humidification, transitioning operating mode, waiting (compressor delay) emergency heat and transitioning next schedule setting.

Table 1. System Status Icons

	Dehumidifying icon is displayed when dehumidifying is occurring. Pressing on the icon will display dehumidifying next to the icon.
	Red flame with the word waiting next to it indicates the next mode of operation will be heating. Waiting indicates there is a compressor delay which is by default 5 minutes. It can temporary be turned off for one cycle through the install setting > compressor protect screen.
	Red flames indicates the system is heating.
	Red flame with a plus indicates the system is running in emergency heat mode.
	Snow flake indicates the next mode of operation will be cooling. Waiting indicates there is a compressor delay which is by default 5 minutes. It can temporary be turned off for one cycle through the install setting > compressor protect screen.
	Blue flames indicates the system is cooling.
	Transitioning to next schedule setting

- L Holiday Mode - Selecting this option allows for overriding schedules for holidays and special days. When in this mode the thermostat will not follow regular schedules. This override can be setup for up to four days. Go to **menu > user settings > edit schedules** and select **Holiday**. To exit Holiday mode, press the **cancel** button on the home screen.
- M Indicates whether in occupied or unoccupied mode.

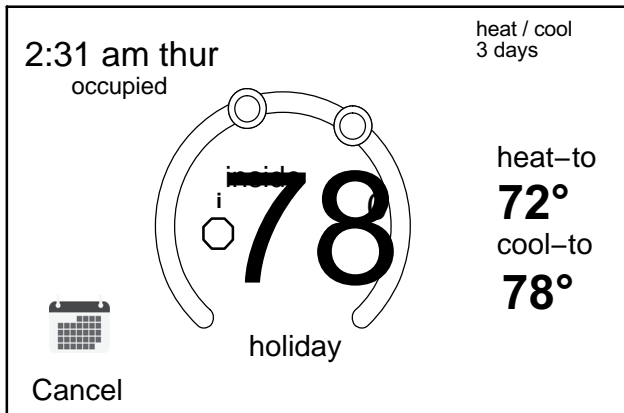


Figure 3. Holiday Screen

Selection Mode

Press any in the area indicated below to select how the system will operate.

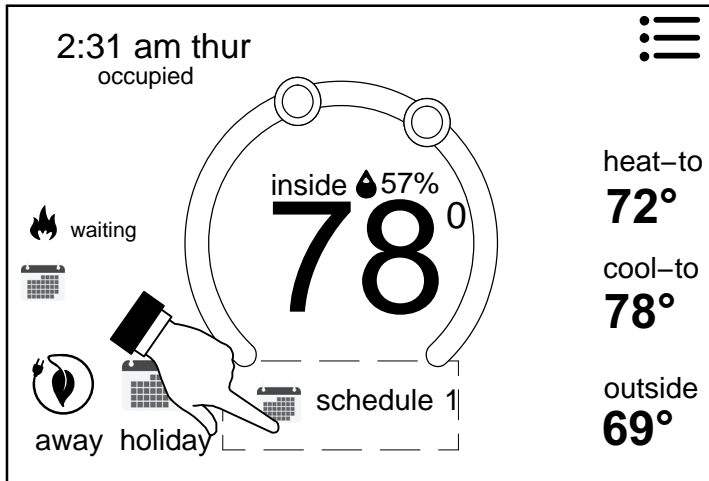


Figure 4. Home Screen (Accessing Mode Screen)




OPERATING MODES

1. **HEAT/COOL** allows the thermostat to switch between heating and cooling automatically.
2. **HEAT ONLY** allows only heating demand.
3. **COOL ONLY** allows only cooling demand.
4. **OFF** indicates system has been turned off
5. **EMERGENCY HEAT** allows heat pump system to use a secondary heat source to come on and reach the desired user temperature setting faster.
6. **SCHEDULES (1 and 2), FAN-ON, AUTO and CIRCULATE** (see *Edit Schedules* on page 15 for customizing schedules).
7. **ON, AUTO and CIRCULATE** - Select by pressing the desired fan operation ON, AUTO and CIRCULATE. When selected a green check mark will be indicated.

If FAN mode AUTO, ON or CIRCULATE was selected during scheduling for the current period, the thermostat will indicate the current fan mode in the information display (FAN ON or FAN CIRC).

In the CIRCULATE mode, the user can cycle the fan for a programmed period time of active time per hour during periods of equipment inactivity (i.e., heating or cooling equipment not running).

Table 2. Fan Operation

	on	Fan is NOT following the schedule and runs continuously until it is changed from the select mode .
	auto	Fan will follow the fan setting in the selected schedule.
	circulate	Fan is following schedule and cycles during periods of equipment inactivity. Circulate off time is dependent on user settings.

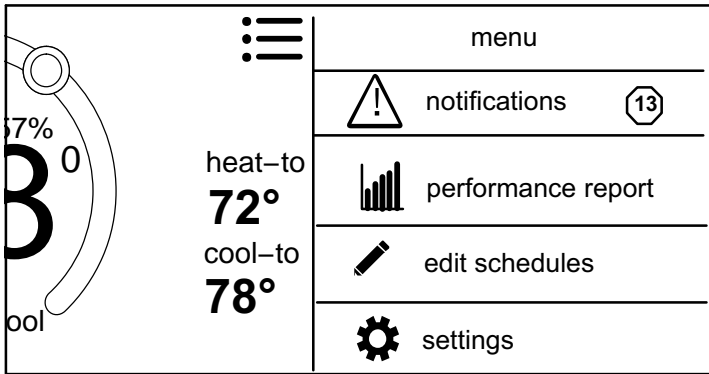


Figure 5. User Menu Screen

NOTIFICATIONS

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

- Error code notification pop-up can be dismissed by pressing the back button. Contact the dealer to resolve the issue.

- For notification, press either clear or set a future reminder. Any active history for notifications (critical errors or reminders will be listed under settings > notification. If critical errors occur, they will also be displayed under **notifications** as illustrated in figure 6. Press the contractor info option for assistance.

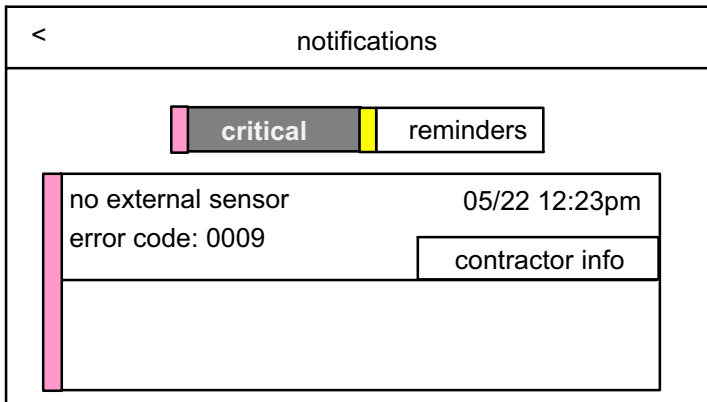


Figure 6. Notifications - Critical

When reminders occur, they will also be displayed under **notifications** as illustrated in figure 7. Press the clear or remind later to redisplay active reminder for 1 day, 1 week, 1 month, 3 months or a custom date.

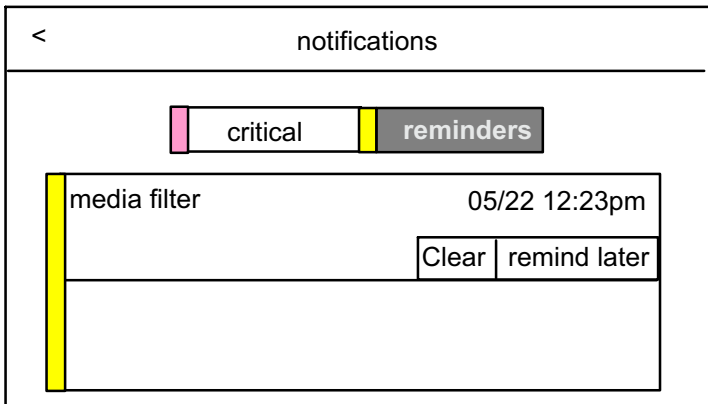


Figure 7. Notifications - Reminders

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, press the house icon in the upper left-hand corner of the screen.

EDIT SCHEDULES

NOTE: See Selection Mode on page 10 to run a specific schedule.

From the HOME screen press the MENU and press **edit schedules** option.

The edit schedules screen will allow section of up too three separate schedules. On the edit schedules screen, each schedule can be renamed and edited. See Figure 9 for editing schedules.

<	edit schedules	
	schedule 1	>
	schedule 2	>
	holiday	>
	add schedule	

Figure 8. Edit Schedules Screen

***NOTE:** If a fan mode is selected under the **select mode** screen, it will over-ride any fan setting in individual schedules.*

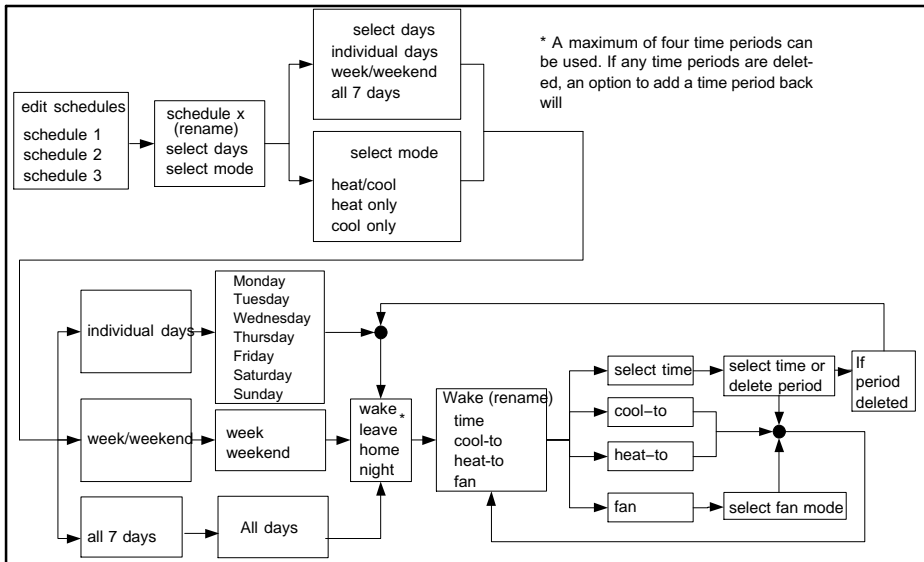


Figure 9. Renaming and Editing Schedules

SETTINGS (USER)







<	user settings	
	fan	>
	heat/cool	>
	dehumidify	>
	reminders	>
	general	>
	display	>

Figure 10. Edit Schedules Screen

Table 3. User Settings (Fan)

Setting Selection	Function	Description
fan	on, auto and circulate	See table 2 for detail description.

Table 4. User Settings (Heat/Cool or Cool Only)

Setting Selection	Function	Description
heat / cool (either heat pump, gas or electric heating is selected)	normal	Heats home to desired temperature setting. Options are on or off .
	comfort	If system is two-stage heating or cooling, then 2 nd stage is lock in unit demand is satisfied.
	emergency heat	Bypasses the first stage of heating (any stage[s] of heat pump heating) and goes directly to the heat stage used for maximum heating to more quickly warm a very cold space.
	setpoint range	Heating limits with a default of 90°F. Range is 45°F to 90°F Cooling limits with a default of 45°F. Range is 45°F to 99°F
cool only (option only appears if no heating equipment is available or configured)	setpoint range	Cooling limits with a default of 45°F. Range is 45°F to 99°F

Table 5. User Settings (Reminders)

Setting Selection	Function	Description
<p>reminders - Items on this list are by default disable.</p>	media filter (air filter)	<p>Options for each reminder is disabled, 3mon, 6mon, 12mon, 24mon or a custom duration by specific date can be set.</p> <p>Once set a “expires on xx/xx/xx (date) will be displayed next to the function.</p>
	uv lamp	
	humidity pad	
	routine system check up	
	metal insert for pure air	
	custom reminder 1*	
	custom reminder 2*	
<p>*Custom reminders 1 or 2 may have been renamed by the installer.</p>		

Table 6. User Settings (General)

Setting Selection	Function	Description
general - provides information about the thermostat and settings for screen lock, date & time and language.	about	Displays information concerning thermostat model number, serial number, hardware and software revisions.
	screen lock	<p>Setting options are unlocked, partially, and locked.</p> <p>To set partially lock, create a three digit code. Partially lock restricts access to accessing the menu.</p> <p>To set locked, create a three digit code. Lock restricts access to accessing anything on the screen.</p> <p><i>NOTE: Partially Lock and Locked is set for one instance only. Either would need to be set each time it is desired to partially locked or locked the screen.</i></p> <p><i>Master default code is 864.</i></p>
	date & time	Settings for 24-hour clock (military), daylight savings, set time and date.
	language	Languages available are english, spanish, portuguese and french.
occupancy	pre occupancy	Options are 0 through 3 hours with a default of 0 hour. This selection opens the dampers early, either 1, 2 or 3 hours.
	post occupancy	Options are 0 through 3 hours with a default of 0 your. This selection keeps the dampers open, either 1, 2 or 3 hours.

Table 7. User Settings (Display)

Setting Selection	Function	Description
<p>display - Allows the user to control some information that is displayed on the home screen.</p>	Outdoor temperature display	None or sensor
	screen saver	<p>Options are enable and disable. Default is enabled. When enable only the time, inside temperature and outside temperature (if outdoor sensor is installed and enabled) is displayed on the screen. Touching the screen will restore all other details.</p> <p>The backlight setting is also on the same screen. Options are continuous on or energy save. Default is continuous on.</p>
	screen brightness	A horizontal bar is provided to adjust from minimum to maximum brightness.
	temperature scale	°F (Fahrenheit or C° (Celsius)
	clean screen	This will disable the touchscreen for 30 seconds.

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