



**LENNOX**

## User Guide

Color Touchscreen  
Programmable Commercial  
Thermostat

**ComfortSense® 7500**

Model: C0STAT06FF1L  
Cat# 13H15  
507505-01  
10/2015  
Supersedes 7/2015

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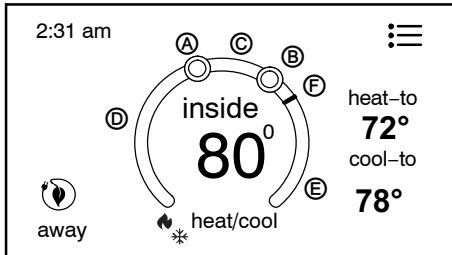
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### Features

The ComfortSense® 7500 Series thermostat (C0STAT06FF1L) is an electronic 7-day, universal, multi-stage, programmable, touchscreen thermostat.

- supports commercial package rooftop units
- Smooth Set Recovery starts system operation early to achieve setpoint at start of program period
- 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

## Temperature Dial Indicator



**Figure 1. Temperature Dial Feature**

- A.** This is the **heating set point indicator** on the dial. This object will be red in color.
- B.** This is the **cooling set point indicator** on the Dial. This object will be blue 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.
- F.** The yellow line indicates the actual room temperature on the temperature dial.

Home Screen

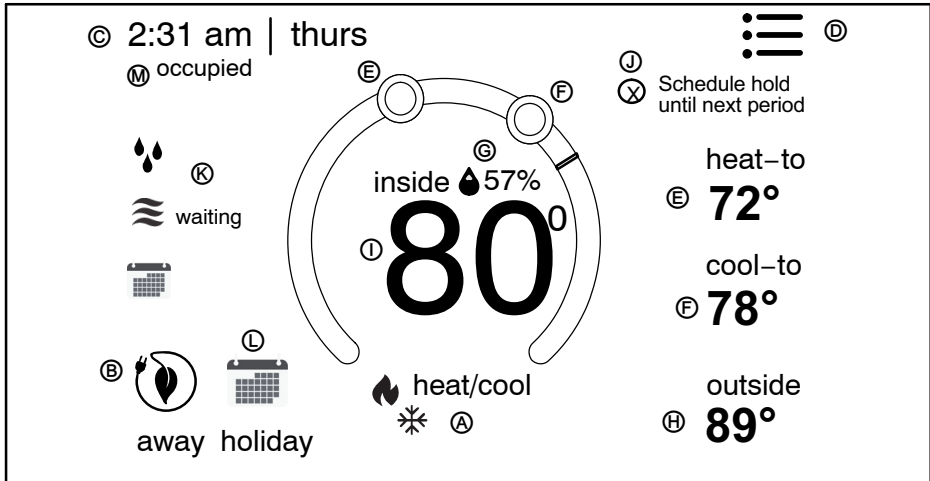


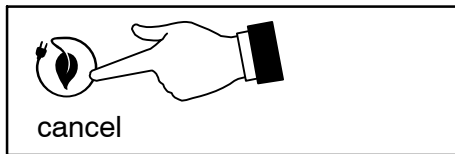
Figure 2. Home Screen

Touch the screen anywhere - the first touch turns on the backlight.

**A. OPERATING MODE** - Touch the screen here to see a list of available operating modes. Selectable modes are **heat/cool**, **heat only**, **cool only**, **off**, **emergency heat**, **schedule 1**, **schedule 2** and **holiday**. In addition, fan operation can be set to **on**, **auto** or **circulate**.

**B. AWAY** - Touch the screen here to set the desired heating and/or cooling mode temperatures when you will be away from home.

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

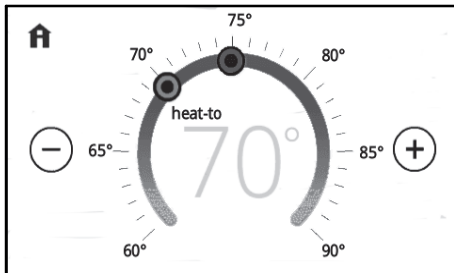


**C.** Displays current time.

**D. Menu** - Touch the screen here to access **notifications**, **performance report**, **schedules** and **settings** screens.

**E.** Touch the **heating set point indicator** to set the **heat-to** (if enabled) temperature. Touching either the **heating set point indicator** or **heat-to** will display the **temperature setting detail** screen (see figure 3). Use the - and + icons to adjust the temperature setting. The temperature dial will change from white to red when heating is active.

**F.** Touch the **cooling set point indicator** to set the **cool-to** (if enabled) temperature. Touching either the **cooling set point indicator** or **cool-to** will display the **temperature setting detail** screen (see figure 3). The temperature dial will change from white to red when heating is active. Use the - and + icons to adjust the temperature setting. The temperature dial will change from white to blue when cooling is active.



**Figure 3. Temperature Setting Detail Screen**

**G.** 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 home.





- H.** When an outdoor temperature sensor has been installed and configured through the thermostat user interface, the outdoor air temperature is displayed here along with the word **outdoor**. If the sensor has not been installed and configured, this area will be blank.
- I.** The current indoor temperature is displayed here.
- J.** This icon and the text that follows it indicate that the schedule is on hold either until the next time period or permanently.
1. Place the schedule on hold by touching 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 touch 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 touch **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, touch ⊗.
5. When a permanent hold has been selected,

the thermostat will not return to the schedule program unit the hold is released. The screen will display **schedule hold permanently**. To exit a permanent schedule hold, touch ⊗.

- K. System Status Icons** - Equipment operation information appears along the left side of the home screen to indicate the current system status: humidification, transitioning operating mode, waiting (compressor delay), emergency heat and transitioning next schedule setting.

**Table 1. System Status Icons**

	Icon is displayed when dehumidification mode is energized. When the icon is touched, the word <b>dehumidifying</b> appears.
 waiting	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 <b>setting &gt; compressor protect</b> screen.
	The red flame icon is displayed when the system is in <b>heating mode</b> .
	The red flame icon with a plus sign indicates that the system is running in <b>emergency heat</b> mode.

 waiting	<p>The snow flake icon indicates that the next mode of operation will be cooling. The word waiting next to the icon indicate that system operation is waiting for the completion of the 5-minute default compressor delay.</p>
	<p>The blue flame icon is displayed when the system is <b>cooling mode</b>.</p>
	<p>The <b>schedule</b> icon indicates that the system is transitioning to the next scheduled temperature setting. This icon will only appear if smooth setback recovery is enabled during installer setup. When enabled, the system will begin recovery up to two hours before the programmed time to reach the programmed temperature at the programmed event time. The system will recover 12°F per hour for gas/ electric heating and 6°F per hour for first-stage compressor-based cooling. When smooth set back recovery is disabled, the control will start recovery at the programmed time set in the schedule.</p>



- 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, touch the **cancel** button on the home screen.
- M. Indicates whether in occupied or unoccupied mode when running a regular schedule. This will be displayed when running schedule 1 or 2 and holiday. Under edit schedules, either occupied or unoccupied can be set under the day time event (occ1, unocc1, occ2 and unocc2).

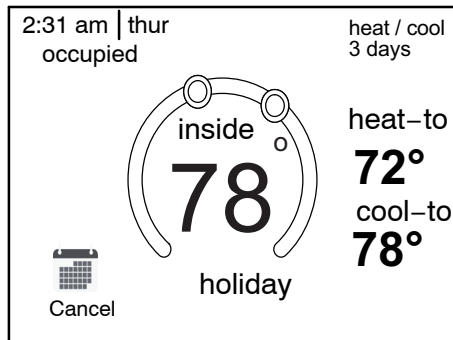


Figure 4. Holiday Screen

## Mode Screen Selection

Touch the screen in the area indicated below to access the system mode screen.

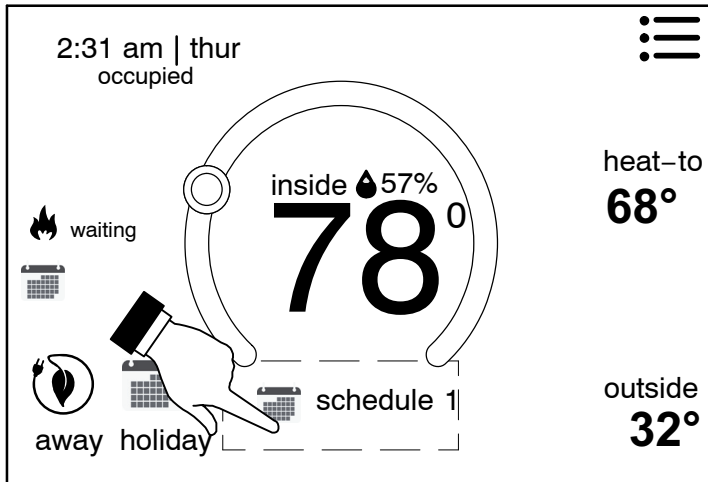


Figure 5. Home Screen (Accessing Mode Screen)

## SELECT MODE




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 (up to two schedules and holiday)** (see *Edit Schedules* on page 16 for customizing schedules).
7. **ON, AUTO** and **CIRCULATE** - Select by touching the desired fan operation ON, AUTO and CIRCULATE. A green check mark indicates the selected setting.

## FAN OPERATION

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

In the **CIRCULATE** mode, the user can cycle the fan for a programmed period of operation each hour during periods when the heating or cooling equipment is not running.

**Table 2. Fan Operation**

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

## Menu

Touch the three lines in the upper right-hand corner of the screen to access the **menu**. Selectable options under **menu** are **notifications**, **performance report**, **edit schedules** and **settings**.

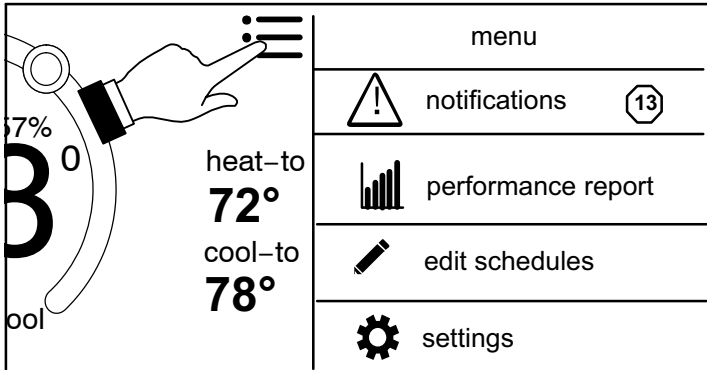


Figure 6. User Menu Screen

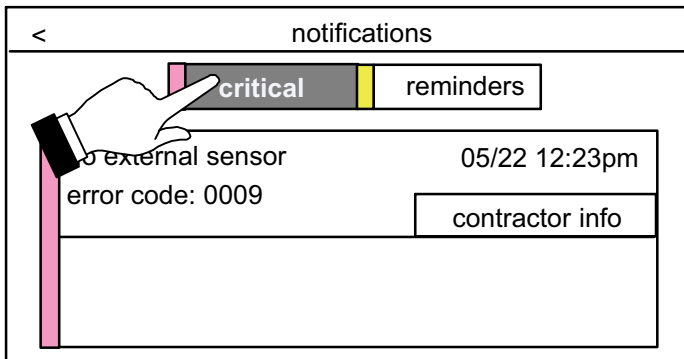
## **NOTIFICATIONS**

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 touching the back button. Contact the dealer to resolve the issue.
- For notification, touch 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 7. Touch the contractor info option for assistance.



**Figure 7. Notifications - Critical**

Reminders are displayed under **notifications** as illustrated in figure 8. Choose to either clear the reminder or remind later to receive another notification after 1 day, 1 week, 1 month, 3 months, or on a specific date.

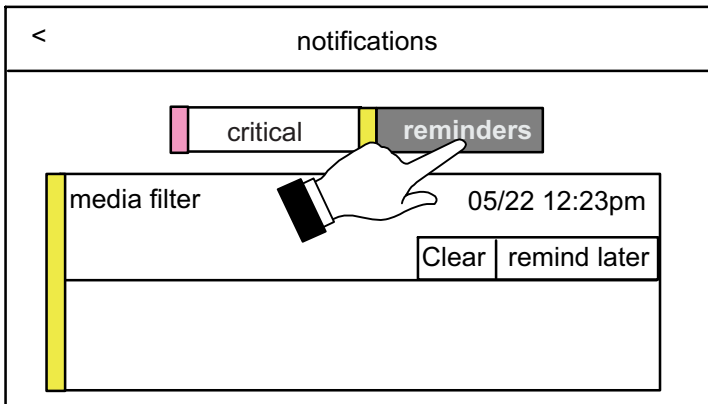


Figure 8. Notifications - Reminders

**Table 3. Reminders**

<b>Error Code</b>	<b>Screen Text</b>	<b>Message Type</b>	<b>Action to Clear / Recovery Condition</b>
12	replace media filter	reminder	Touch either <b>done</b> to clear the reminder or <b>remind later</b> button.
13	replace UV lamp		
14	replace humidity pad		
15	routine system check-up		
16	replace metal insert for pure air		
17	user editable		
18	user editable		

## PERFORMANCE REPORT

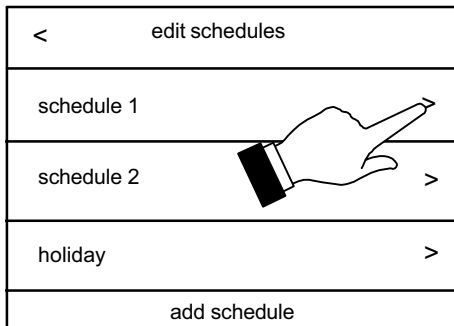
Select **performance report** to display the total number of hours that the system has been running each month. Touch the house icon in the upper left-hand corner of the screen to return to the menu screen.

## EDIT SCHEDULES

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

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

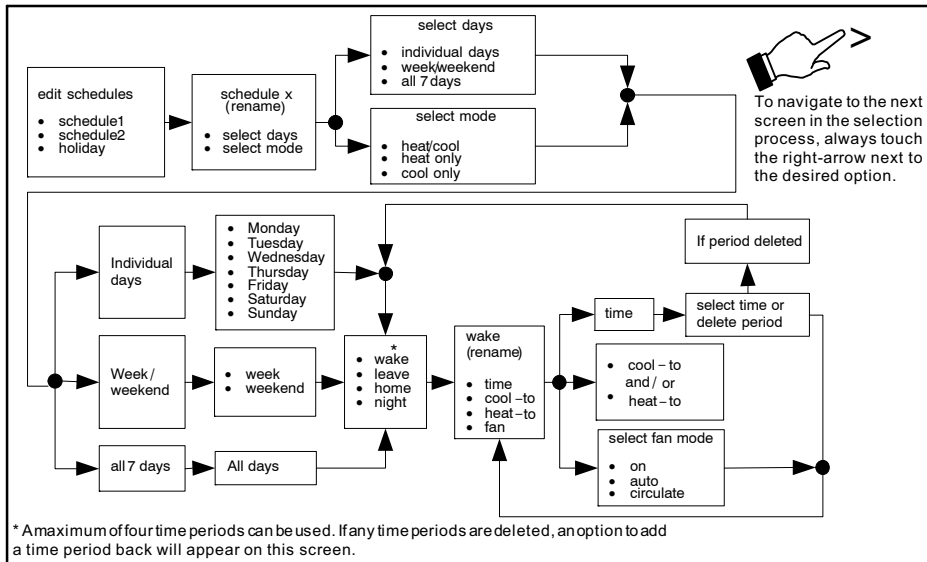
The edit schedules screen provides access to as many as three separate schedules. Each schedule can be renamed and edited. See Figures 9 and 10.



**Figure 9. 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 10. Renaming and Editing Schedules**

## USER SETTINGS







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

Figure 11. User Settings

Table 4. User Settings (Fan)

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

**Table 5. User Settings**

Setting Selection	Function	Description
<b>heat / cool</b> (either heat pump, gas or electric heating is selected)	normal	Heats home to desired temperature setting. Options are <b>on</b> or <b>off</b> .
	comfort	If system is two-stage heating or cooling, then 2 <sup>nd</sup> stage is locked 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.
	set point 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
<b>cool only</b> (option only appears if no heating equipment is available or configured)	set point range	Cooling limits with a default of 45°F. Range is 45°F to 99°F

**Table 6. User Settings**

<b>Setting Selection</b>	<b>Function</b>	<b>Description</b>
<b>humidity</b> - Allows section of dehumidification. Option only available if enabled in installer settings.	dehumidify	Options are On and OFF. Allows dehumidity adjustment setting between 45% to 60%. Default is 50%.
<b>reminders</b> - Items on this list are by default disable.	media filter (air filter)	Options for each reminder is disabled (default), 3mon, 6mon, 12mon, 24mon or a custom duration by specific date can be set.  Once set a “expires on xx/xx/xx (date) will be displayed next to the function.
	humidity pad	
	routine system check up	
	uv lamp	
	metal insert for pureair	
	custom reminder1*	
	custom reminder2*	
*Custom reminders 1 or 2 may have been renamed by the installer.		

**Table 7. User Settings**

Setting Selection	Function	Description	
<b>general</b> - provides information about the thermostat, contractor. Also settings for screen lock, date & time and language.	about	Displays information concerning thermostat model number, serial number, hardware and software revisions. Also listed will be information concerning contractor contact information.	
	screen lock	Setting options are unlocked, partially, and locked. To set <b>partially</b> lock, create a three digit code. Partially lock restricts access to accessing the menu. To set <b>locked</b> , create a three digit code. Lock restricts access to accessing anything on the screen. <b>NOTE:</b> <i>Partially (Locked) and Locked settings are for one instance only. Either lock must be set each time you wish to partially lock or completely lock the screen. If the custom access code is forgotten, the master code to unlock the screen is 864.</i>	
	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 hour. This selection keeps the dampers open, either 1, 2 or 3 hours.

**Table 8. User Settings**

Setting Selection	Function	Description
<p><b>display</b> - Allows the user to control some information that is displayed on the home screen.</p>	<p>Outdoor temperature display or discharged air display (what is displayed here depends on sensor used and configured by installer.</p>	<p>Options are off or sensor.</p>
	<p>screen saver</p>	<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 <b>backlight</b> setting is also on the same screen. Options are continuous on or energy save. Default is continuous on.</p>
	<p>screen brightness</p>	<p>A horizontal bar is provided to adjust from minimum to maximum brightness.</p>
	<p>temperature scale</p>	<p>°F for Fahrenheit or C° for Celsius</p>
	<p>clean screen</p>	<p>This will disable the touchscreen for 30 seconds.</p>

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