Comfort Control² HD Thermostat
featuring Serial Communications

Homeowner's Guide



Comfort Control² System™

Message to the Homeowners

Your premium Comfort Control^2 HD Communicating Thermostat is designed to give you and your family the indoor comfort you desire. It's easy to use, energy-efficient and reliable. It communicates with your climate-control system to ensure your comfort level is where you want it.

Introduction to your Comfort Control^2 HD Communicating Thermostat

Your Thermostat is designed to control and communicate with your climate control system including your heat pump, furnace, air handler and/or air conditioner. This thermostat has the ability to share information throughout the home-comfort system so that you will have optimal comfort throughout your home.

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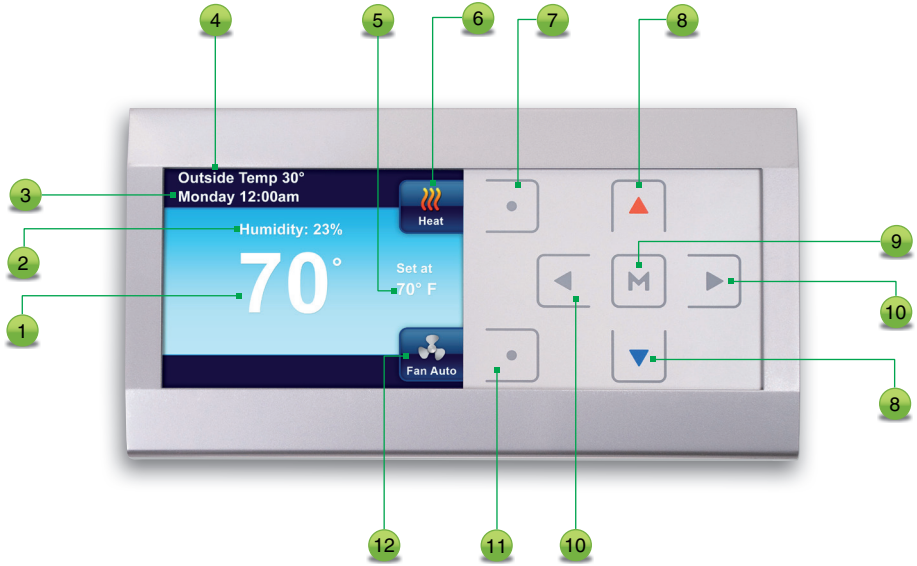
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Thermostat Home Screen Display and Controls



1. The **indoor temperature**
2. The relative indoor **humidity**
3. The **day** of the week and the **time**
4. The **outside** temperature if outdoor sensor is connected
5. The desired temperature or **setpoint**
6. Indicates **system** setting or 

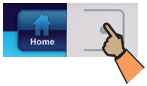
.
7. This button selects system settings **Cool**, **Heat**, **EM**, **Auto**, or **Off**. In the menus, this button is used to display the Home screen
8. ▲ and ▼ move the temperature up and down.
   Also used to navigate through menus
9. M is used to enter any menu function of the thermostat
10. ◁ and ▷ used to move through the menu settings.
    Also, the ◁ is used to exit the temperature hold function
11. This button selects the fan operation **On** or **AUTO**. Also the **Enter** button in the thermostat menus used to save entries and display previous menu.
12. Indicates **Fan** mode or 

.

Navigating through your thermostat menus

Your thermostat features a simplified easy to understand menu structure. Navigating through any menu in your thermostat uses the same approach.

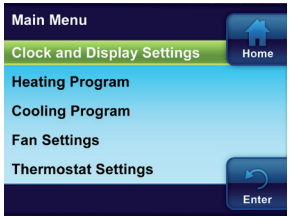
- Press M to enter the Main Menu
- Highlight a menu item using the ▲ or ▼ buttons
- Enter the item by pressing M
- Use the ◁ or ▷ and the ▲ or ▼ to change menu items and settings
- Press the **Home** button to display the Home Screen.

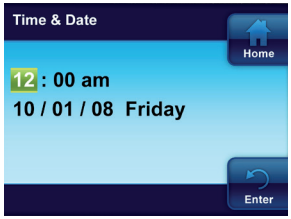


- Press the **Enter** button to save any changes you have made and display the previous menu.



- **If no button is pressed for two minutes, you will return to the home screen without saving changes.**





- Press M to enter the Main Menu

Set the Current Time and Date

- On the Main Menu, highlight and enter **Clock and Display Settings**.
- Highlight and Enter **Time & Date**.
- Set the time and date using the ▲ or ▼ buttons.
- Press ▷ to highlight Minute, AM/PM, Month, Day or Year.
- The thermostat will automatically assign the correct day of the week after the date is set.
- Press the **Enter** button when finished.

Note: If system power is lost for more than eight hours, the clock will have to be reset. Programming and configuration settings will be saved.



Choose the System Setting

- From the Home screen, press the button as shown to choose the system setting.



Energy Saving Factory Pre-Program

Your thermostat is programmed from the factory with the energy saving settings shown below for every day of the week. If this program meets your needs, simply select either **Cool**, **Heat** or **Auto** using the **System** button and press ◁ to begin program operation.

Factory Pre-Programmed Heating and Cooling Schedule

	Wake Up (Morning)		Leave for Work (Day)		Return Home (Evening)		Go to Bed (Night)	
Heating Program	6:00 AM	70°F	8:00 AM	62°F	5:00 PM	70°F	10:00 PM	62°F
Cooling Program	6:00 AM	75°F	8:00 AM	83°F	5:00 PM	75°F	10:00 PM	78°F

If you want to change the heating and/or cooling programs in your thermostat, see the **"Programming Your Thermostat"** section.

System Setting

Press the System button to choose whether you want your system to be in Cool, Heat, EM or Auto mode.



Thermostat controls only the cooling system.



Thermostat controls only the heating system.



Heating and Cooling systems are off.



Emergency setting available only when the thermostat detects a heat pump in the system. When selected, system will use only the backup heat.

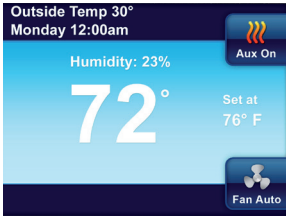


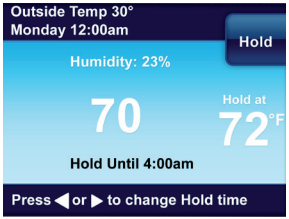


Auto Changeover is used where both heating and cooling may be required during the same day. AUTO allows the thermostat to automatically select heating or cooling depending on the indoor temperature and the selected heat and cool temperatures. This thermostat will not allow you to program a conflict between Heating and Cooling setpoints.

For example: In the morning heating is required. During the day, the temperature gets warmer and you want the air conditioner to run. The thermostat will automatically change the system mode from heating to cooling.

The temperature you desire in your home can be changed by pressing ▲ or ▼.





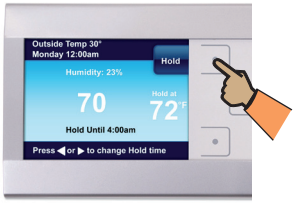
Auxiliary Heating (Heat pumps only)

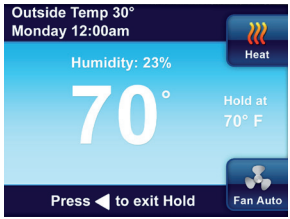
If you have a heat pump, your system will automatically activate Auxiliary Heating when the outside temperature is too cold for the heat pump to efficiently heat your home. When Auxiliary Heating is called for, the display will show **"Aux"** with the **Heat** icon

Temporary Temperature Hold

You can temporarily adjust the temperature in your home at any time while your thermostat is running a program by pressing either the ▲ or ▼. Your thermostat will maintain this desired temperature for four hours (default). The display will show **"Hold at"** by the desired temperature, and **"Hold Until"** with the time the temporary hold will end. The display will also briefly show **"Press ◁ or ▷ to set the Hold Time"**. While this message is displayed, you can change the time that you wish to have the Hold end.

Press the ◁ button to cancel a temporary hold. The desired temperature will display the current program setting.





Permanent Temperature Hold

If you desire, you can set your thermostat to permanently hold a temperature. This feature will bypass any programs you may have set in your thermostat and maintain a single constant temperature.

To use Permanent Hold, change the temperature with the ▲ or ▼ and press the **Hold** button. When your thermostat is in Permanent Hold, the **"Hold at"** will be displayed by the desired temperature.

Press the ◁ button to exit permanent hold and display the current program setting.



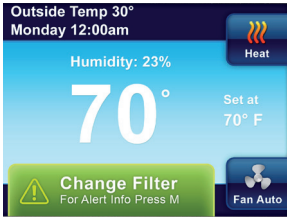




Choosing the Fan Setting (On or Auto)

Fan Auto This is the most commonly used setting. The fan will turn on only when the heating or cooling system is running.

Fan On You can choose to have the fan running continuously by selecting **Fan On**. When this is selected, the fan will run at the speed (**High**, **Medium**, or **Low**) selected in the Fan Settings menu.



Maintenance Reminders

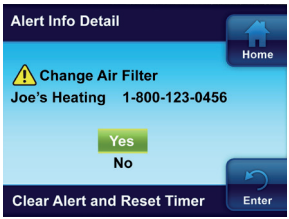
Your thermostat can automatically provide reminders when the air filter, humidifier pad, or UV lamp needs to be replaced. Each of these reminders are turned on or off and the reminder time period set from the appropriate item in the **Thermostat Settings Menu**.

Maintenance reminders are:







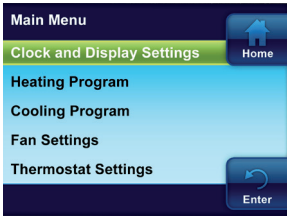


When a reminder appears, it can be turned off by entering the Alert Information Detail menu on the Main Menu.

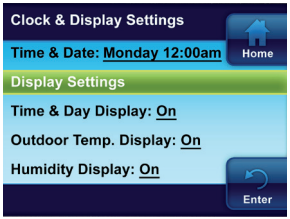
Select **Yes** to **"Clear Alert and Reset Timer"**.

Clock and Display Settings Menu

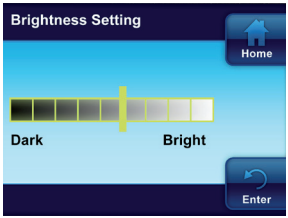
In addition to setting time and day on this menu, you can use the **Display Settings** menu to adjust the screen brightness, choose the background color, select the keypad backlight, and the auto dimmer. Other choices select what will be displayed on the Home screen, Time & Day, Outdoor Temp Display, Humidity Display and Alert Message Area.



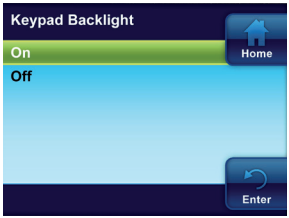
On the **Main Menu**, highlight and Enter **Clock and Display Settings**



Highlight and Enter **Display Settings**



Brightness



Keypad Backlight. When selected **On**, the light on the keypad will be on to give the keypad better visibility. If selected **Off**, the keypad light will turn on for a short time when a button is pressed and then turn off again.

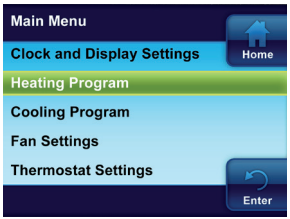


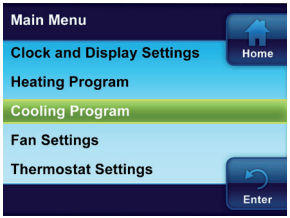
Theme



Auto Dimmer. When selected **On**, the display will change to a darker background during the hours of 10:00 PM to 5:00 AM when no buttons are pressed. If selected **Off**, the display will remain at the same brightness.

Heating Program/Cooling Program

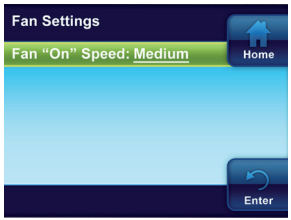




On the **Main Menu**, highlight and enter **Heating** or **Cooling Program**. See Programming Your Thermostat section.

Fan Setting Menu

This menu selects the speed that the fan will run when selected On with the Fan button.



On the **Main Menu**, highlight and enter **Fan Settings**

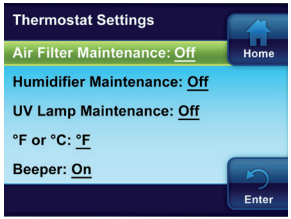


Enter **Fan "On" Speed.**

Default is **"Medium".** Select fan speed of medium, low or high.

Thermostat Settings Menu

Additional thermostat operating settings are found in the Thermostat Settings Menu.

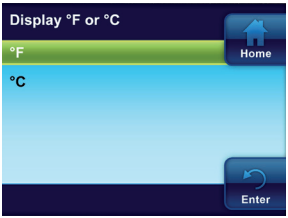


On the **Main Menu** highlight and enter **Thermostat Settings**



Air Filter Maintenance/UV Lamp Maintenance Humidifier Maintenance – Default for each is **Off**. When set to **On**, a maintenance reminder will appear on the home screen when the system has run for the selected amount of time. The length of time for the maintenance reminder can be selected to a setting of 1 to 12 months.

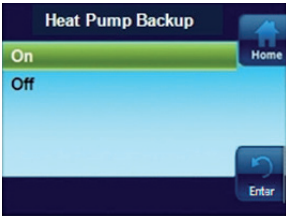
Use ▲ or ▼ to select On or Off. When On is selected, set time of maintenance period using ◁ and ▷.



°F or °C – Default is **°F**. Select temperature display to be Fahrenheit or Celsius.



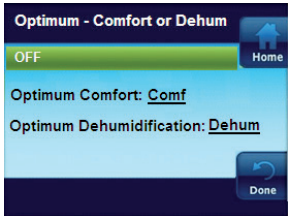
Beeper – Default is **On**. Turns audible prompt on to indicate when a button is pressed.



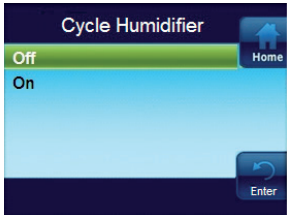
Heat Pump Backup – Default is **"On"**. While on Aux heat or Emergency heat, if a loss of gas heat is detected, enables the heat pump heat.



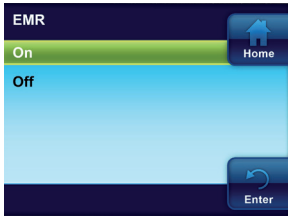
Auto Humidity Reduction – Default is **OFF**. When selected **"High"** or **"Low"** provides the ability to minimize or reduce the window condensation by reducing the humidity setpoint when the outside temperature is cold.



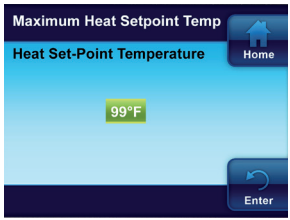
Optimum – Comfort or Dehum – Default is **OFF**. When **"Comf"** option is selected the temperature is altered by the humidity to reflect the true comfort. When **"Dehum"** option is selected humidity reduction is maximized by continuing to cool below the temperature setpoint.



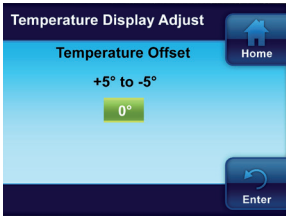
Cycle Humidifier – Default is **OFF**. When selected **"On"** will cycle the humidifier on for 10 minutes and off for 10 minutes. This feature helps reduce water usage.



EMR (Energy Management Recovery)
Default is **On**. With EMR selected **On**, the heating or cooling system will start early so the temperature in your home is at the desired temperature at the beginning of the program period. If set to **Off**, the system will not start until the beginning of the program period.



Maximum Heat Setpoint Temp. – Default is **99°**.
Minimum Cool Setpoint Temp. – Default is **45°**.
These settings are the highest temperature limit in **Heat** mode or the lowest temperature limit in **Cool** mode. Select a setting of **98°** to **45°** for the maximum heating temperature or **46°** to **99°** for the maximum cooling temperature

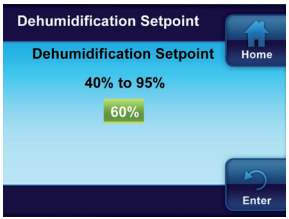


Temperature Display Adjust – Default is **0°**. Your thermostat was accurately calibrated at the factory. However, this option allows you to change the temperature displayed to match other thermostats in your home.



Humidity Setpoint – Humidity setpoint is the percent humidity that the heating system and humidifier will attempt to maintain in heating mode.

Default for Humidity Setpoint is **45%**. Adjust the humidity



De-Hum Setpoint – The Dehumidification setpoint is the percent of humidity that the cooling system will try to reach. Dehumidification is accomplished through control of the compressor and speed of the circulator blower.

Default for De-Hum Setpoint is **60%**. Adjust the dehumidification setpoint to a value from 40% to 95%.



Planning your Program

Your thermostat can be programmed in different profiles.

- **Entire Week** (Every day will have the same program)
- **Monday-Friday** (Monday-Friday will have the same program)
- **Saturday-Sunday** (Saturday-Sunday will have the same program)
- **Individual Days** (Each day will have a separate program)

Each day, or group of days, has four different time periods: **Morning, Day, Evening and Night**. Both the Heating and Cooling Programs are programmed the same way.

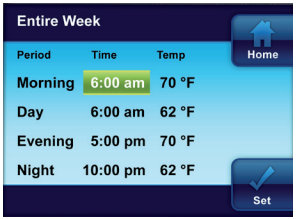
Keep the following guidelines in mind when planning your program:

- In Heating, lower temperatures will save energy.
- In Cooling, higher temperatures will save energy.
- If you plan on using auto-changeover, do not program your heating temperatures higher than your cooling temperatures.

Entering the Heating & Cooling Programs

(Entire Week program illustrated below)





Entering Heating Program

- On the **Main Menu**, highlight and enter **Heating Program**
- Highlight and enter **Entire Week**
- Press ▲ and ▼ to change the highlighted Time or Temperature to your desired settings
- Press ◁ or ▷ to highlight the next time or temperature
- Set all times and temperatures for all periods
- When you have completed setting all times and temperatures, press **Enter** to save and display the **Heating Program** menu. A checkmark appears to indicate the portion of schedule you have programmed

Entering Cooling Program

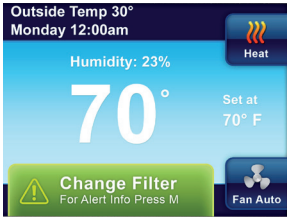
After entering Heating Program, press ▷ to highlight **"Switch to Cool Program"** and press M, or enter **Cooling Program** on the **Main Menu**.

Enter Cool program using same procedure.

If programming **Monday – Friday** and **Saturday – Sunday**, follow the above procedure.



Using Individual Days allows you to change the program settings of a single day or days. Highlight a day and press M to mark the box. Mark additional days you wish to have programmed the same. Press **Set** to begin entering the program for the selected day or days.





Alert Info Detail

If the thermostat senses trouble with a component of your system (the heat pump, air handler, furnace or air conditioner), or a maintenance reminder appears, an alert will be displayed on the Home screen. Details of any alert can be found on the **Alert Info Detail** menu in the **Main menu**. Your installing dealer contact information may also be displayed on this screen.

There are two levels of alerts;

Maintenance Reminder. The maintenance reminder can be cleared and the timer reset by selecting **"Clear Alert Message and reset timer"** by pressing the ▷.

Critical System Warnings. If a Red system alert appears, contact your qualified service technician to have your system serviced.



Reset Operation

If a voltage spike or static discharge blanks out the display or causes erratic operation of your thermostat, you can reset it.

To reset the thermostat, press ▲, ▼, and System button at the same time.

Note

When the thermostat is reset, the Thermostat Settings, time and date, and programming schedule will be reset to the factory defaults. Refer to the customized settings for your thermostat recorded on the back cover of this manual. Use this manual to help restore the desired settings before they were reset. For your convenience, the factory default settings are shown.

Record of Thermostat Options Selected

For your quick reference, below are the options selected by your installing dealer to optimize your equipment settings and your personal home comfort preferences. (Contractor to fill in value or check box. N/A = Not Applicable for your equipment or application.)

Thermostat Options Configuration Menu					Factory Settings
Air Filter Maintenance	___Months				Off
UV Lamp Maintenance	___Months				Off
Humidifier Pad Maintenance	___Months				Off
Temperature Display	☐ °F	☐ °C (Fahrenheit/Celsius)			°F
Beeper	☐ On	☐ Off (Button Input Confirmations			On
Energy Management Recovery	☐ On	☐ Off			On
Maximum Heat Setpoint Temp.	___(98° to 45°)				99°
Minimum Cool Setpoint Temp.	___(46° to 99°)				45°
Humidity Display Adjust	___% (1 to 20%)		☐ Hi (+)	☐ Lo (-)	0%
Temperature Offset	___(0, 1, 2, 3, 4, 5°)		☐ Hi (+)	☐ Lo (-)	0°
Continuous Fan Speed	☐ High	☐ Medium	☐ Low (Fan-On Setting)		Medium
Keypad Backlight	☐ On	☐ Off			On

If you need help adjusting the programmed time or temperatures in your thermostat, please call the **Homeowner Help Line** at 800-284-2925

For All Other Service, Please Call:
Installing Dealer: _____
Phone: _____
Date Installed: _____

Part No. 37-7308A

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