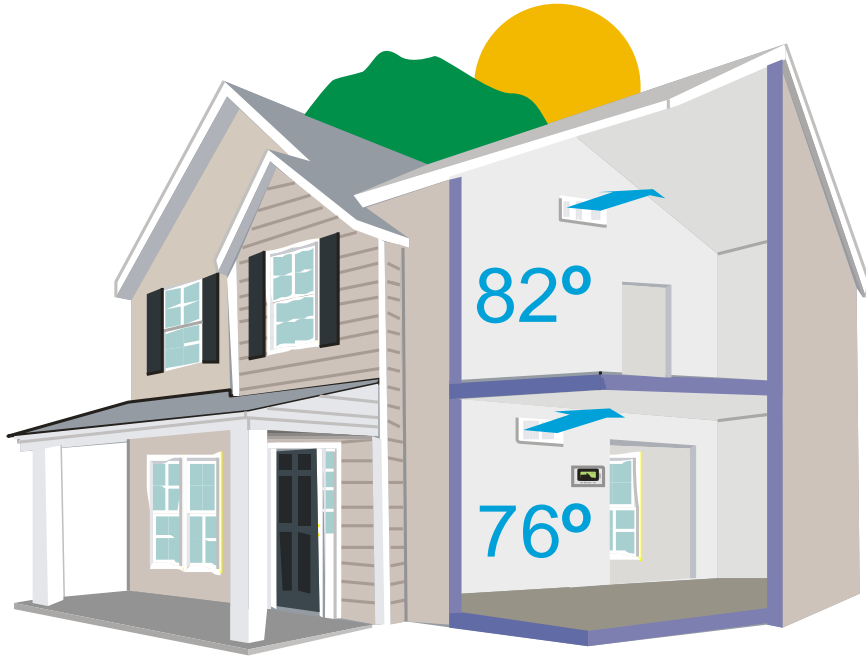


Automatically Controls Heating, Cooling and Airflow in Two-Story Homes and Provides Upstairs and Downstairs Comfort in All Seasons without the Use of a Zoning Panel.

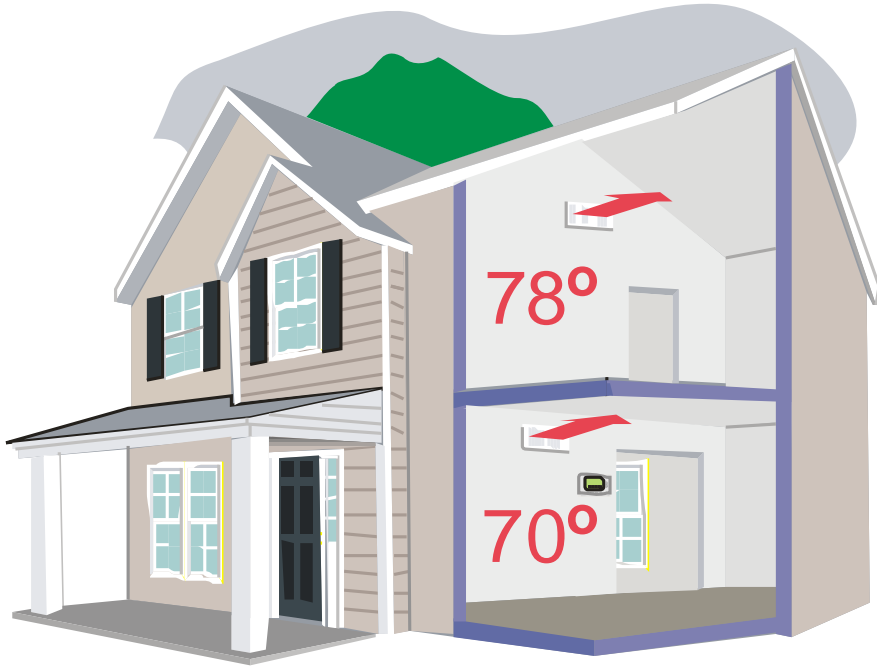


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eControls



- During the cooling season the upstairs is warmer than the downstairs due to the higher thermal load and rising heat.
- A conventional thermostat can control heating and cooling calls but the airflow to the upstairs is fixed by the ducting system.
- Setting the cooling setpoint on a conventional thermostat low enough to make the upstairs comfortable, over-cools the downstairs and wastes energy.



- During the heating season the downstairs is colder than the upstairs due to the warming effects of sun exposure and rising heat.
- Just as in cooling, a conventional thermostat can control heating and cooling calls but the airflow to the downstairs is also fixed by the ducting system.
- Setting the heating setpoint on a conventional thermostat high enough to make the downstairs comfortable, over heats the upstairs and wastes energy.

Separate HVAC systems for upstairs and downstairs.

- Can provide comfortable upstairs and downstairs.
- Bedrooms can be conditioned efficiently.
- Too expensive-- twice the cost.
- Twice the space.
- Twice the service.



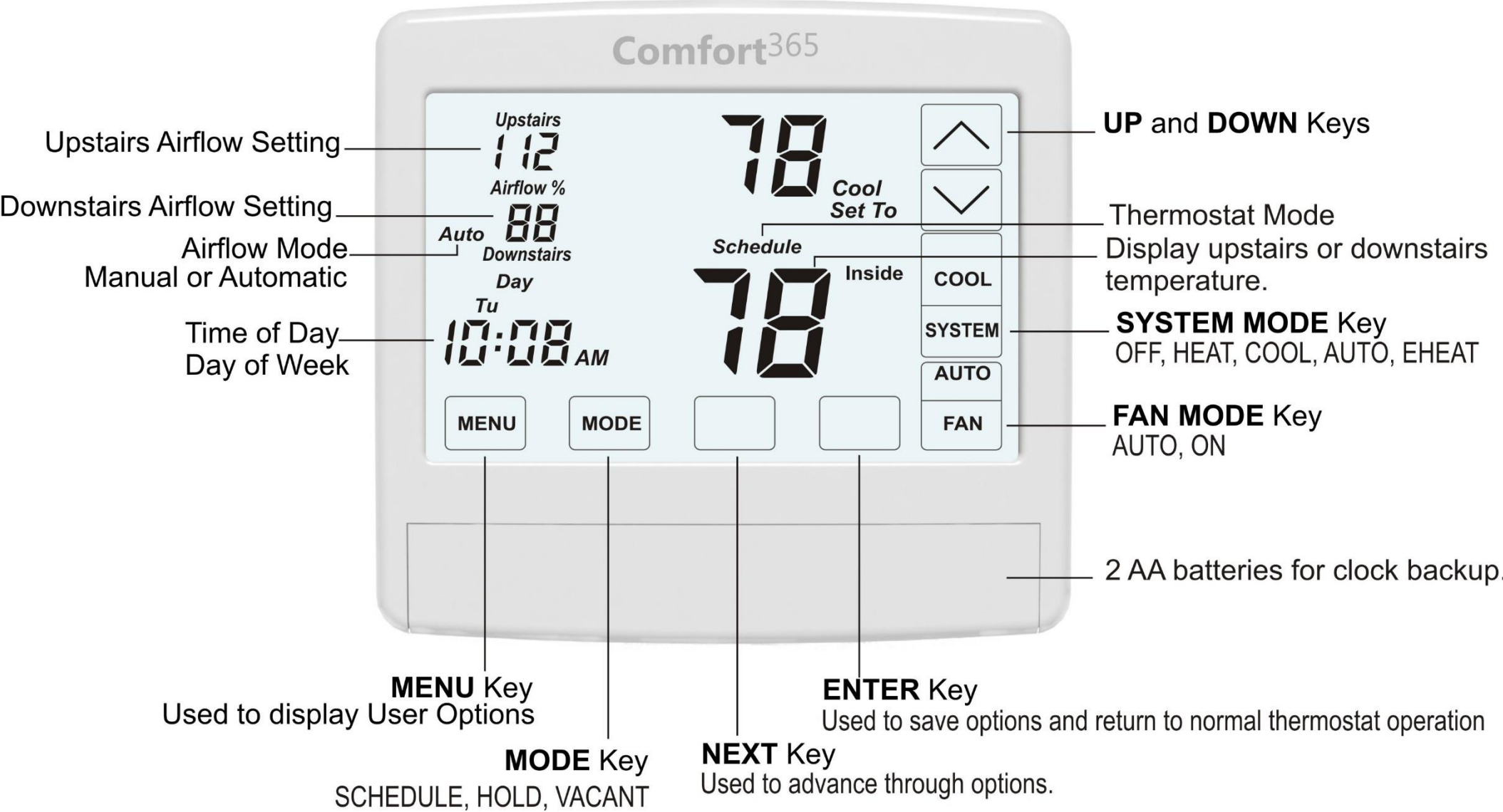
Zoning system.

- Can provide comfortable upstairs and downstairs.
- Bedrooms can be conditioned efficiently.
- More expensive than Comfort365.
- More time to install.
- May require a bypass duct and damper.
- May require a discharge air temperature sensor.
- Uses 2 builder model thermostats compared to the Comfort365 touch thermostat.



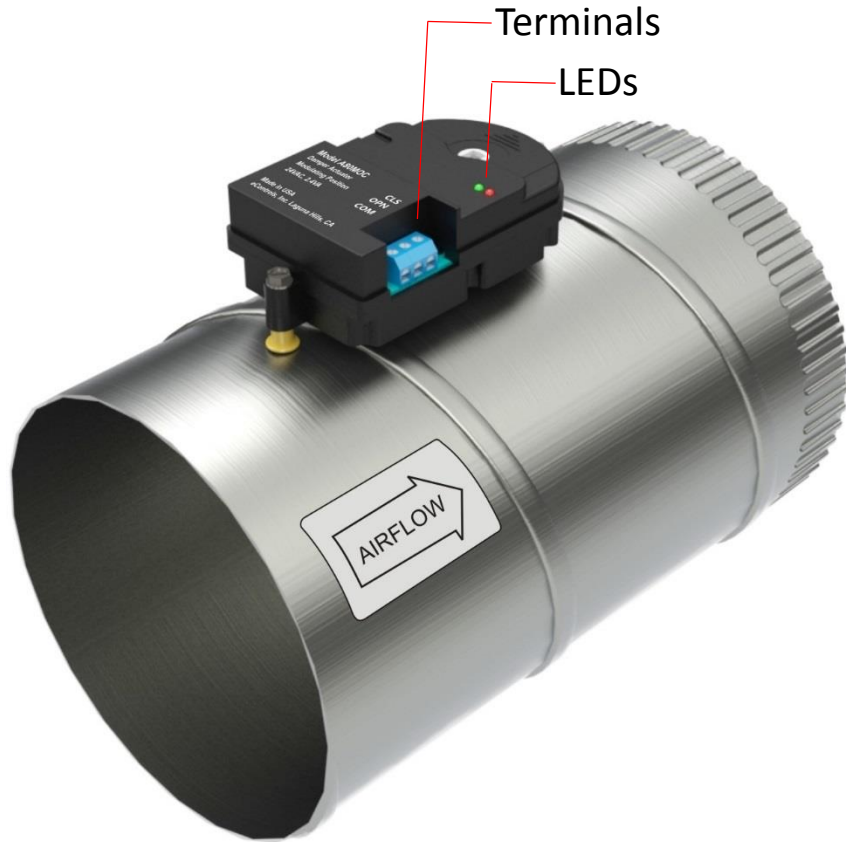


- Monitors the upstairs temperature sensor and automatically adjusts the upstairs and downstairs airflow to provide uniform comfort.
- Nighttime option uses the upstairs temperature sensor to control heating and cooling calls and increases the upstairs airflow.
- Manually adjust the airflow on occasions when more airflow is needed upstairs or downstairs.
- Modulating dampers accurately control airflow.
- Use one or two upstairs temperature sensors.





Model Number	Description
C365T11	Wired version for Gas/electric equipment, 1 heat/1 cool.
C365T21	Wired version for Gas/electric or heat pump equipment, 2 heat/1 cool.
C365T21WF	Wired version for Gas/electric or heat pump equipment, 2 heat/1 cool with WiFi access.



- Modulating actuator accurately controls airflow.
- No internal gasket to restrict air flow.
- LEDs indicate when damper is fully open or closed.
- Use one or more dampers to construct the upstairs or downstairs zones.
- Low power-- 2.4VA operating, 1VA holding.
- Round or rectangular dampers with wired or wireless actuators.
- Tested to over 9 million operations.



Model Number Description

R80CT-XX Damper, Round, Modulated, 3-Wire Control, 8 to 20-inch Diameter (XX).



RT80CT-WxH Damper, Round, Modulated, 3-Wire Control, 4 to 20-inch Width (W) by 4 to 20-inch Height (H).



- Use One or Two Upstairs Temperature Sensors.
- Temperatures are averaged when two Upstairs Temperature Sensors are used.
- Sensors wire in parallel when two sensors are used.
- Sensors use euro-style switch cover plate.

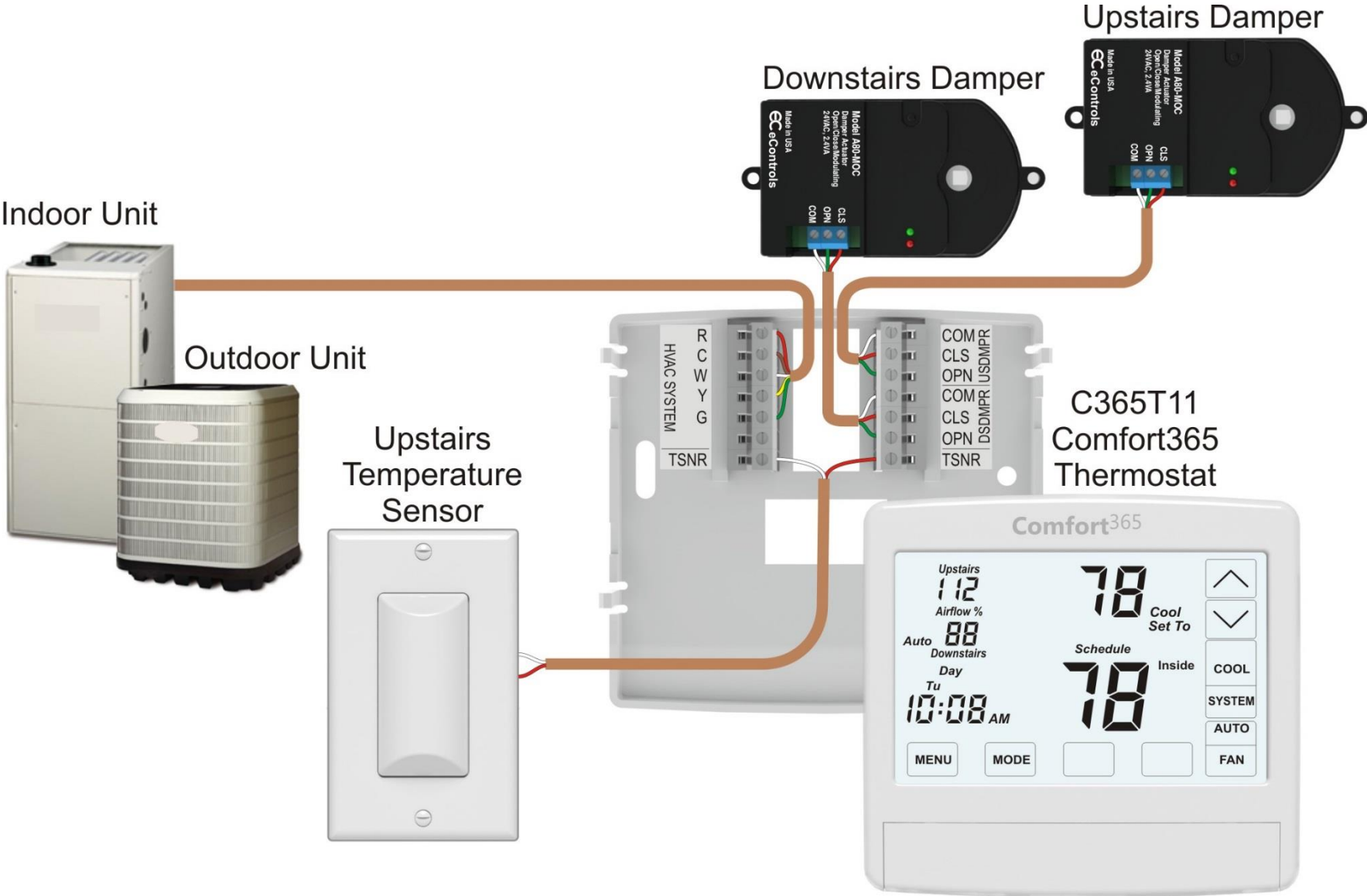
Model Number	Description
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TS5-10	For single sensor installations.
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TS5-20	For dual sensor installations.
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TS5-10W	For single sensor installations. Includes switch cover plate.
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TS5-20W	For dual sensor installations. Includes switch cover plate.
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Zoning System without Bypass

Zone Damper



Zone Damper



Zone Thermostat



Zone Thermostat



Zoning Panel



Comfort365 System

Upstairs Damper



Downstairs Damper



Comfort365 Thermostat



Upstairs Temperature Sensor



- The Comfort365 saves about 23% compared to a simple zoning installation.
- If pressure regulating zone dampers are used, savings will be more than 23%.
- Installation and wiring is simpler.
- Large, touch screen thermostat compared to two builder model thermostats.

Zoning Installation with Bypass

Zone Damper



Zone Damper



Bypass Duct and Bypass Damper



Zone Thermostat



Zone Thermostat



Zoning Panel



Discharge Air Temperature Sensor



Comfort365 System

Upstairs Damper



Downstairs Damper



Comfort365 Thermostat



Upstairs Temperature Sensor



- The Comfort365 saves about 42% compared to zoning installation with bypass.
- Installation and wiring is much simpler.
- Large, touch screen thermostat compared to two builder model thermostats.

Zoning System with WiFi

Zone Damper



Zone Damper



Zone Thermostat
With WiFi



Zone Thermostat
With WiFi



Zoning Panel



Comfort365 System

Upstairs
Damper



Downstairs
Damper



Comfort365 WiFi Thermostat

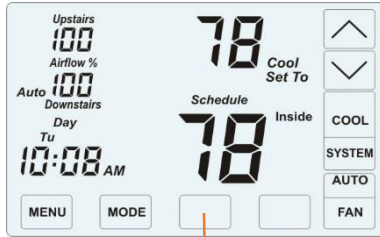


Upstairs Temperature
Sensor

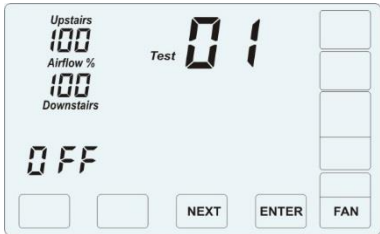


- The Comfort365 saves about 52% compared to a zoning installation using two WiFi Thermostats.
- Installation and wiring is simpler.
- Large, touch screen thermostat compared to two builder model thermostats.
- Easy upgrade to WiFi.

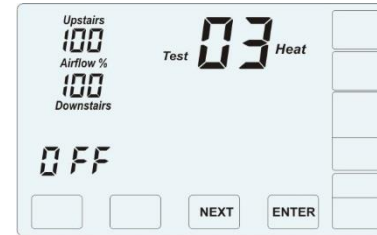
Description	Range	Default
Equipment Type (except C365T11)	Gas/Electric or Heat Pump	Gas/Electric
Compressor Stages	0 or 1	1
Heating Stages.	0 or 1	1
Fan Operation.	GA(Up) or EL(Down)	GA
Compressor Minimum Off Time (minutes).	0 to 9	2
Heating Minimum Off Time (minutes).	0 to 9	0
Minimum Run Time (minutes).	0 to 9	2
On-Off Temperature Differential	0, 1 or 2	1
0 Cooling On 1° above setpoint, Off at setpoint. Heating On 1° below setpoint, Off at setpoint.		
1 Cooling On 1° above setpoint, Off .5° below setpoint. Heating On 1° below setpoint, Off .5° above setpoint.		
2 Cooling On 1° above setpoint, Off 1° below setpoint. Heating On 1° below setpoint, Off 1° above setpoint.		
Smart Pre-Time Recovery.	On or Off	Off
Vacant Heating Setpoint.	44 to 75	50
Vacant Cooling Setpoint.	74 to 95	90
Calibrate Sensors.	+/- 5	0
Airflow Update Time	1 to 20 minutes	2
Night Level LCD Backlight	On or Off	On
Airflow Control On or Off	On or Off	On
User May Select Manual Airflow Control.	On or Off	On
Maximum Upstairs Airflow in Heating.	100 to 160%	150%
Maximum Upstairs Airflow in Cooling.	100 to 160%	140%
Maximum Downstairs Airflow in Heating.	100 to 160%	150%
Maximum Downstairs Airflow in Cooling.	100 to 160%	140%
Maximum Temperature Difference Between Upstairs and Downstairs.	0 to 10	2
Factory restore		



Hold for 7 seconds.



- To start the test, hold the key shown for 7 seconds.
- Press NEXT to turn the indoor fan on.
- Check for airflow upstairs and downstairs.
- Press NEXT to turn the fan off and start the heating test.



- Press NEXT to turn the heating on.
- Check that heating is on.
- Press the UP key to set the upstairs airflow to determine the maximum allowable upstairs airflow in heating.
- Press the DOWN key to set the downstairs airflow to determine the maximum allowable downstairs airflow in heating.
- Press NEXT to start the cooling test.
- Press NEXT to turn the cooling on.
- Check that cooling is on.
- Press the UP key to set the upstairs airflow to determine the maximum allowable upstairs airflow in cooling.
- Press the DOWN key to set the downstairs airflow to determine the maximum allowable downstairs airflow in cooling.

Press to change the upstairs and downstairs airflow using the UP and DOWN keys

Press to display or change the opposing system setpoint temperature.

Press to set time of day.

Change setpoint temperatures or airflow.

Press to change the system to Off, heat, cool or auto heat/cool.

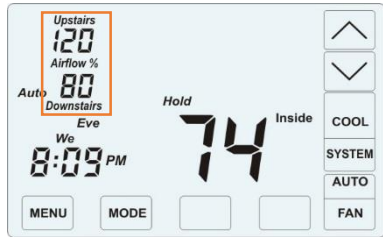
Press to access the User menu to set or view the schedule and other options.

Press to change the fan mode. Automatic or On.

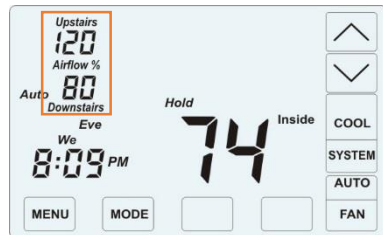
Press to select thermostat mode Schedule, Hold or Vacant.

Keys used to access the Installer option menu and test menu and navigate setting options.

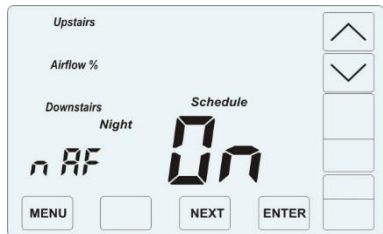




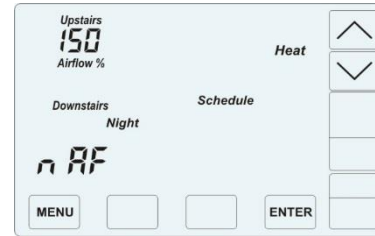
- Press the area shown to override the automatic airflow control for 180 minutes.
- Use the UP and DOWN keys to set the desired airflow.



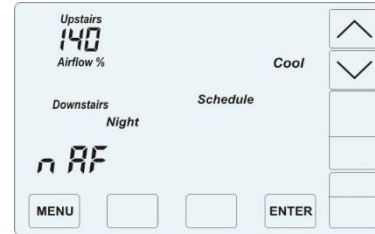
- To terminate the airflow override, press the area shown and then press the MODE key.



- Press the MENU key repeatedly to display the night airflow option. Use the UP and DOWN keys to turn the option on or off.
- The Night airflow option uses the upstairs temperature sensor to control heating and cooling calls and increases the upstairs airflow.



- Press the MENU key again and use the UP and DOWN keys to set the nighttime upstairs airflow in heating.



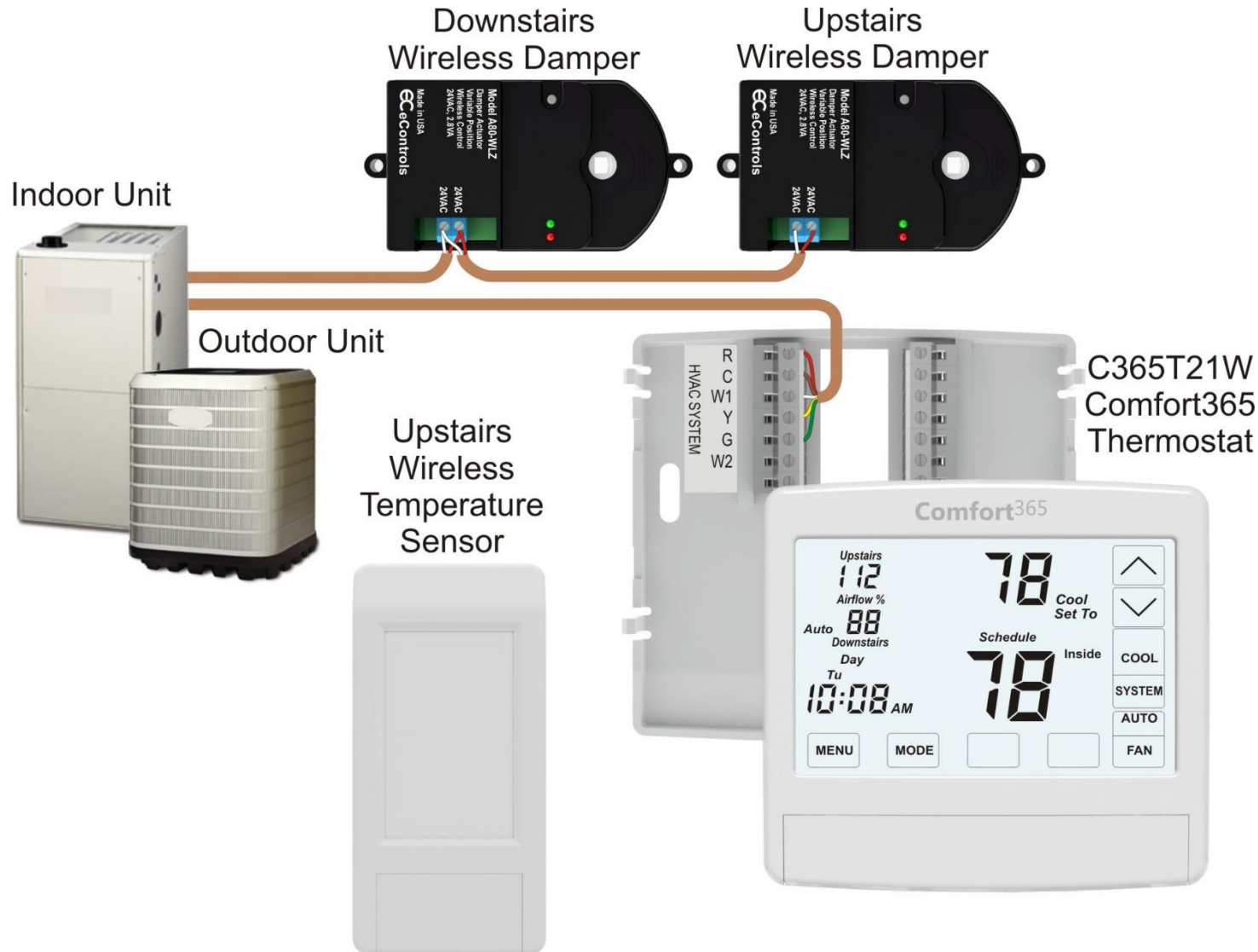
- Press the MENU key again and use the UP and DOWN keys to set the nighttime upstairs airflow in cooling. Press ENTER to save the settings.



- Press the MENU key again to display the option that disables the touch screen for 30 seconds for cleaning. Press ENTER to start the clean screen option or press NEXT to return to normal operation.



- During cleaning the display counts down to 0 and returns to normal thermostat operation.



- Uses existing wiring between thermostat and equipment.
- C365 thermostat positions dampers using wireless signals and requires no wiring from the Comfort365 thermostat to the dampers.
- Dampers are powered by 24VAC from the equipment R and C or a 24VAC transformer.
- Upstairs wireless temperature sensor is battery powered and requires no wiring.
- Optional wireless damper can be used for fresh air control.

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eControls

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