

TELUS Gardens Residential In-Suite HVAC System

In your suite, there is a colour touchscreen thermostat in the Living Room, the Family Room (if equipped), as well as each bedroom. The purpose of this document is to outline how the HVAC system works and how to use the thermostats. Below is a diagram of the thermostat, as well as a description for what everything on the display is. (See Figure 1)

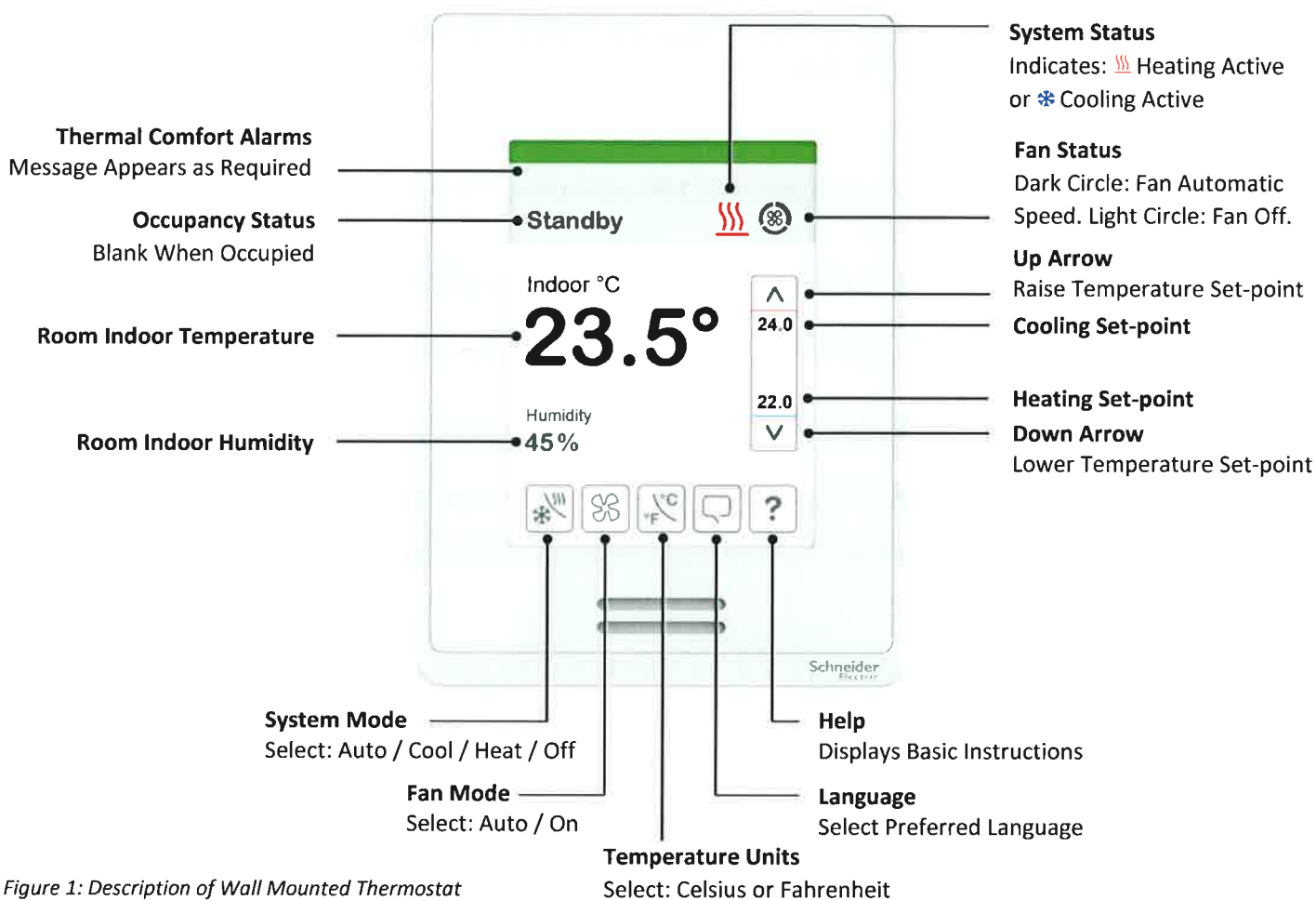


Figure 1: Description of Wall Mounted Thermostat

The system is capable of both heating and cooling in all zones when they system is in Auto mode. While each zone is capable independent heating or cooling, the system is either in heating or cooling. In other words, one room cannot be in heating while the other in cooling. The zone temperature that is furthest from set-point will determine whether the system goes into heating or cooling.

There are two set-points (or desired temperature values) both the heating and cooling set-point. When the temperature is above the cooling set-point the system will go into cooling. When the system is below the heating set-point, the system will go into heating. If the temperature is between the set-points, the system will neither heat nor cool the space. This is represented visually in Figure 2.

Zone Conditions	System Status	
Room temperature above cooling set-point	❄️	System Cooling
Room temperature between heating and cooling set-points		System Dead-band (between heating and cooling)
Room temperature below heating set-point	🔥	System Heating

Figure 2: System Status and Zone Conditions

Changing the set-point

When the system is in Auto mode, there are two set-points, the heating set-point and the cooling set-point. Both of these set-points can be changed individually. To change either of the set-points, follow the steps below.

1. Tap either the **Up Arrow** or the **Down Arrow**. Display will indicate the heating or the cooling set-point depending on the system status.
2. Tap the **System Mode** button to toggle between heating or cooling set-point adjust.
3. Use the **Up Arrow** or the **Down Arrow** to set the temperature as desired

Please note there is a minimum difference of 1.5°C between the heating and cooling set-points to prevent the system from short cycling between heating and cooling.

System Modes

Sometimes it may be desirable to operate the system in different modes. This can be changed by pressing the System Mode button. This modes are as follows.

- Auto:** System will provide heating or cooling to maintain the room temperature at the appropriate set point. This is the recommended mode.
- Cooling:** System will provide cooling only to maintain the room temperature at the cooling set-point. Use this mode to disable heating.
- Heating:** System will provide heating only to maintain temperature at the heating set-point. Use this mode to disable cooling.
- Off:** System is off, and no heating or cooling will be provided to the zone. Use this mode to disable the system.

If the thermostat is in either Heating Mode or Cooling Mode, there will only be one set-point displayed.

Fan Modes

The fan button has no effect on the operation of the fan. The fan speed is proportional to the difference between the set-point and the zone temperature. When the zone is at or near set-point the fan will run more slowly to reduce noise. If the zone is further away from set-point the fan will run more quickly to move more air around to more effectively heat or cool the space. If the zone is not calling for heating or cooling, the fan is off.

LEED Thermal Comfort Verification Alarms

Comfort alarms will be generated and displayed along the top of the screen, if the zone conditions are outside these the recommended parameters. The alarms are to provide tips for the user to increase their thermal comfort in the suite.

Comfort Alarm 1: Connectivity Issue. Consult your maintenance department if alarm persists

Comfort Alarm 2: Humidity Alarm. The humidity should be between 30% and 60% RH.

Comfort Alarm 3: Temperature Alarm. The temperature for an occupied space should be between 20°C and 24°C (68°F and 75.2°F)

Comfort Alarm 4: Humidity & Temperature Alarm. Both the humidity and the temperature are outside of the recommended range.

Tips: When the space is unoccupied, reduce the Heating Set-point by 4°C and increase the Cooling Set-point by 4°C. This will help to reduce energy consumption. Use exhaust fans to reduce room humidity. Run washroom fan for a minimum of 1 hour after a shower. Range Hood fan should be turned on during cooking.