

LaForce HVAC System Operation

Building Equipment-

A steam converter makes hot water that is circulated throughout the building by electric pumps. An air handler located in the attic provides 100% fresh air to all spaces. There is a heat recovery coil in this unit which pre-heats the incoming outdoor air. It does so by flowing the warmer exhaust air through a coil filled with a glycol mixture and pumping that warmed glycol to another coil in the fresh air stream, thus warming the cold outdoor air. Chilled water is made in MBH and piped underground to LaForce for distribution in the building. If MBH has power or chiller issues, LaForce will not have cooling water.

All rooms have a fan unit in front of each window. This fan unit uses hot water or chilled water to heat or cool the space.

Cooling/Heating control-

Enabling heating to the building uses a slightly complicated algorithm to turn on the heating pumps. But basically, with outdoor temperatures that are less than 55 degrees, the heat will be enabled. If outdoor temps stay below 65 for a day or so, the heat will also be enabled until they rise above 65 degrees, at which point the heat shuts off.

The process of switching between using hot water or chilled water is done manually, this is done in the spring and fall. Because of this manual process, Facilities tries to do this switch only once a season. It's a guess as to the correct date this should occur. Typically, Facilities will look for sustained outdoor air temperatures that stay above 60 degrees daily before switching to using chilled water and cooling mode. (**NOTE:** A 70- degree day in early April will most likely **not** have the cooling season enabled for the season)

Once cooling is enabled for the season, the outdoor air temperatures will need to be above 62 before the chiller starts. At that point, cooling will be enabled to the building.

Occupant comfort control-

LaForce users must push the occupancy pushbutton on their room thermostats to put the room into an occupied state. The occupied state will last 12 continuous hours.

Once in an occupied state, the room heating/cooling fan (located near the windows) will keep the room at a desired room set point.

Occupants can adjust their heating/cooling set point by using a slide hidden under the cover on the right side of the thermostat. The scale is accurate (and admittedly hard to read) but gives the occupant a means to control their desired set point.

During the summer cooling season, users can adjust their set point from a low of 75 degrees F to 82 degrees F. For the winter heating season, the set point can be adjusted from a low of 65 Degrees F to 72 degrees F.

The fan unit near the window has a switch to select a fan speed or turn off the fan motor. Please do not turn this off. Select a speed that "feels" good to you. We suggest low during heating season so there will be less of a chance of feeling cooler air blowing from the unit. Choose medium or high if needed during cooling season.

If the occupancy button is not pushed, the room will be in an unoccupied state. The heating and cooling set points will then be 65 degrees and 82 degrees respectively.

NOTE: The hallway western lounge spaces on the 2nd, 3rd, and 4th floors as well as the kitchen and bathrooms on the 5th floor, will be in occupied mode if any room on that floor is in an occupied mode.

If a room is in an occupied state, the windows should be shut and locked. Locking the window provides a tighter seal around the window which keeps cold drafts from blowing in.

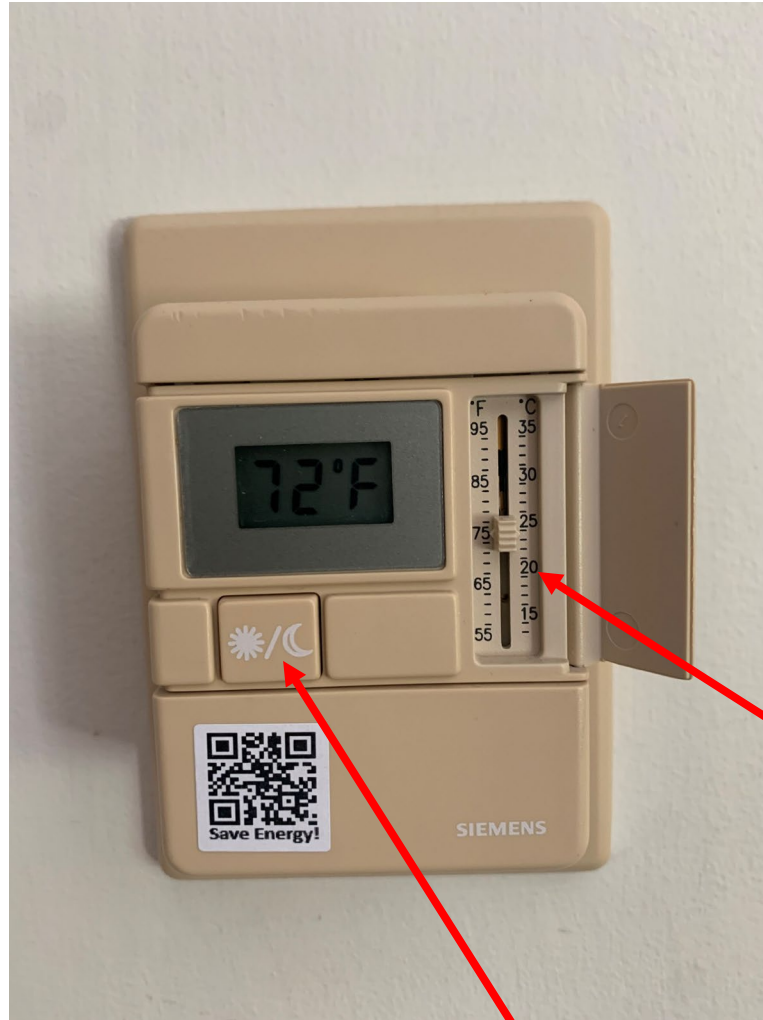
LaForce dorm room thermostat control



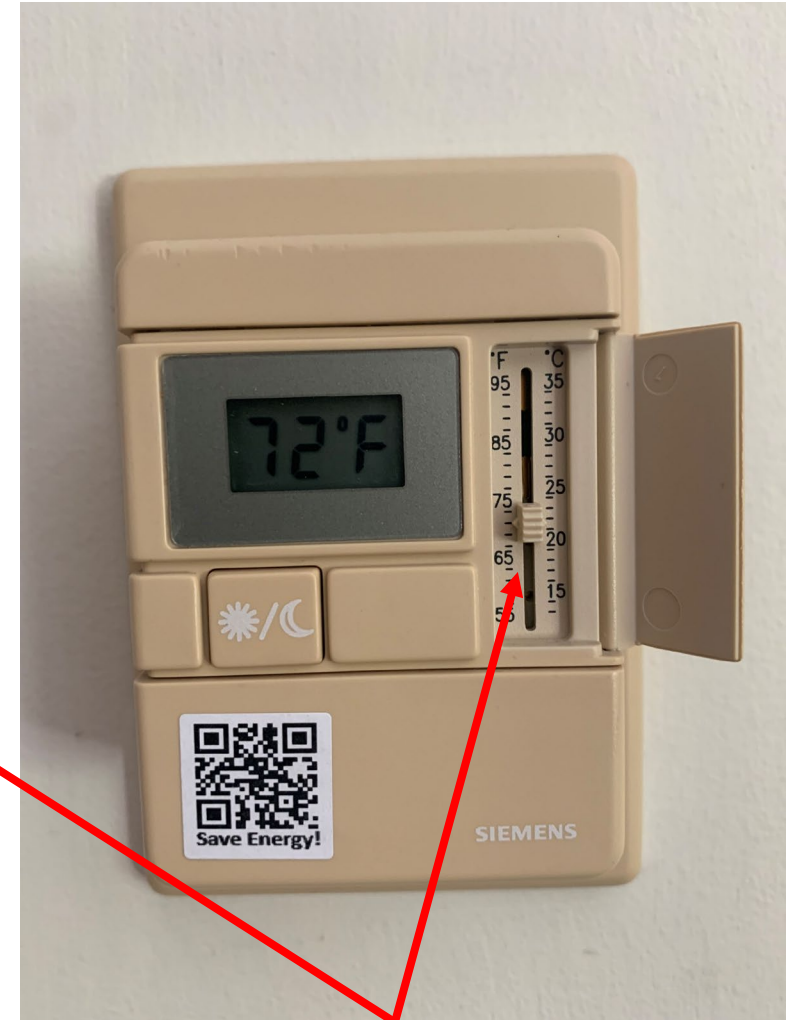
This switch has no function.

The location of most thermostats is on the wall immediately as you enter the room.

Notice that the set point adjustment slide door is closed.



Occupancy button, push this button to put the room into an occupied mode for 12 hours. Pushing the button at any time will reset the counter to 12 hours.



The slide is hidden behind the cover. Note: there is a Celsius and Fahrenheit scale. This thermostat is set at 71 degrees F. It will put the set point when in cooling mode to 75 degrees, and if in heating mode, the set point will be 71 degrees. This slide may need to be adjusted to a more moderate temperature.

Heating fan placement and how to find the fan switch.



Two examples of the placement of the heating fan. One in between the windows in the common space, and one in a dorm room, directly under the window.

The windows need to be latched shut (not just shut, but locked) during cold weather. The window frames are made of steel and the marble top of the windowsill conducts cold air into the room. Latching the window closed will help with this transfer of cold air tremendously.

Flip this cover up to access the fan switch.

Air from the room is drawn through vents at the bottom of the unit and exhausted through the grills at the top of the unit. Restricting the airflow at either of these locations with blankets, pillows, clothes, burrows, etc. will only reduce the heating capability of the unit and potentially leave your room cold.





Low is a good position to leave the fan switch for heating season. You can play around with higher settings, but if the fan runs too hard, it can blow colder air than desired. For cooling seasons, a higher fan speed may be desirable.



If the switch is in the OFF position, it will not heat or cool the room.