

Trinchero Family Estates Building: Operation User's Guide

Heating Ventilating and Air Conditioning Controls

The building air handlers operate in accordance to a pre-programmed software time clock. They currently operate between 7 a.m. and 5 p.m. Monday through Friday. There are two air handlers: one serves the office area, the other the seminar room. There are radiators throughout the building; the hot water that feeds them is 140 degrees F. The boiler for the HW system runs anytime the outside air is below 70 degrees. The on/off times and set-points are adjustable from the central energy management department. The phone number to call for this is **530-752-8231**. If there are service issues with the system contact the online Facilities Service Request Center by calling **530-752-1655**.

Thermostats:

The air handlers, which provide cooling as needed and always provide minimum outside air, are set by the Energy Management Office. The thermostats are all set for 70 degrees heating and 75 degrees cooling which is the campus standard. The thermostat display can also be operated in the areas they serve allowing some adjustment within campus designated set-points and allow system to be used during unoccupied hours (night, weekends, holidays, etc.). The button with the person inside the house is the unoccupied hour override. The override period is two hours.

There is also a night low-limit and a night high-limit so that if the space gets too cold or too hot during off-hours, the air handlers will cycle on. It is anticipated that the night low-limit will never be used because the radiators do not shut off when it is cold outside. The air handlers come on whenever any zone they serve exceeds 80 degrees.



Radiator Controls:



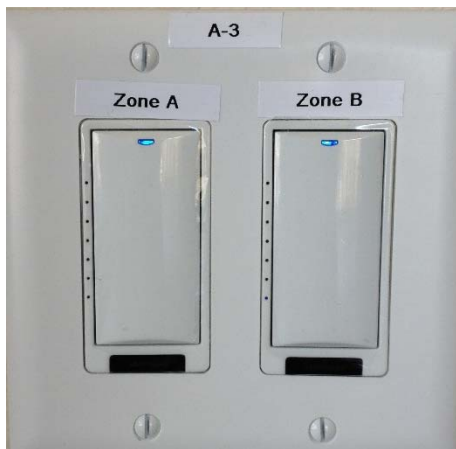
All radiators are provided heated water from the boiler based on the integrated building heating, ventilating and air conditioning building management system per set points as noted above. Each radiator on the perimeter has its own integral thermostat that the occupant can adjust.

Each individual office radiators have an individual control which is the white dial control on the office's radiator panel. These turn temperature for that specific radiator higher or lower as desired.

Lighting Controls

The lighting in the spaces is mostly turned on through motion sensors, usually located at the ceiling level. These sensors have a walk-through feature: if someone occupies a room for only a few seconds, the lights will come on and then shut off after three minutes. If the detector senses an occupant in the space for more than a minute or so, then the lights will turn off twenty minutes after its last detection of occupancy. In the offices, one set of bulbs is turned by the occupancy sensor. To go to the second stage of illumination, the occupant must push the switch. The occupant can turn off the lights at his discretion, or the lights will turn off automatically after its last detection of occupancy. The west and south offices' lights have dimming capabilities so that the lights dim if there is adequate light coming into the room from the outside.

Lighting controls for lobby:

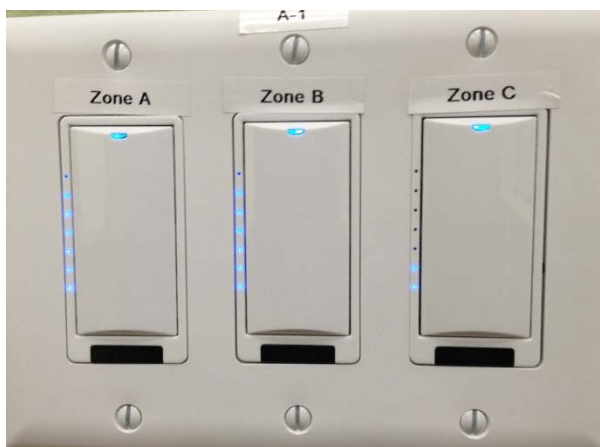


The occupancy sensor for the lobby is ceiling mounted. Lights are currently programmed to automatically come on with occupancy. A photo cell is tied to switching so it will automatically dim lights adjacent to windows. The switch closer to the windows is designated as Load 2 for programming. Room side switch is identified as Load 1 in the programming. The Digital Configuration Tool remote can be used to change load identification and operation functions.

Tapping the top of a switch when load is OFF will turn the area on to the last identified lighting level. Tapping the top when load is already ON will turn lights to full bright. Holding down the top of either switch will allow for gradual rising of light level to full brightness. Holding down the bottom half of the switch will gradually dim or ramp down lighting levels.

Sconces in the lobby are traditional toggle switch operation as are the track lights.

Lighting controls – seminar room:



The seminar room has three zones all of which operate similar to lobby main switches as described above.

The override to turn off is a quick push to that bank of lights. Override is currently programmed for 20 minutes.

Lighting controls – open office:

Open Office has 5 button switches. Blanks to either side are for future flexibility. The large button on the left operates similar to the lobby lights in that pushing and holding the button will allow dimming up



or down depending upon the top or bottom of this rocker button. The top right button will turn on or off the block of lights on the right side of the room – under the skylights. Second button down turns off the center section and the third button operates the left side of the room. The bottom button on the right turns all off. If you do a quick double tap on one of these left ‘scene’ buttons, the blue LED begins to flash on that scene button as well as the large rocker button to the left. You have 5 seconds to dim the rocker button to affect only that particular area/scene.

There are photocells in this room to take advantage of daylight from the skylights and this will serve to automatically dim the first bank of lights. Turning on/off the appropriate scene button will override the photocell for 2 hours.

Lighting control for individual offices:

Each individual open office has three buttons. The top is actually the occupancy sensor and not a button. The bottom two buttons can be programmed for various operations of the rooms lights. Current programming has the left button to manually turn on lights and the right side to turn all lights off. If you hold the left button down it will gradually brighten the lights instead of just simply turn ‘all on’, which is achieved with a quick push. By holding down the right button, you can gradually dim the lights. Again a quick push will shut them off.

There are also photo cells in these rooms which will dim the outer light fixture based upon available daylight at the windows.





Miscellaneous rooms:

File and Janitor rooms have similar switches to the individual offices without photocells for daylight controls.

Restrooms have separate switches for above sink and center of room lights – these are occupancy sensor controlled as well as being able to turn off and on.

The mechanical room, data room, and electrical rooms have simple toggle on/off switches.

Lighting Control Panel in electrical room:

Currently, the building is only using three relays in this panel out of the eight available. Programming of lights can be done at the panel or with remote. The panel has a few overrides: white switch on each switch which is a mechanical override as well as the program override. Center red button should be blinking if all working well. Solid red or no light indicates process problem. Justin Jacobs has been trained on the adjustment of this panels for seasonal changes to the time clock.

Exterior lights are programmed on this panel for sunset to sunrise operation. Program has twenty minute buffer forward and back. Note all exterior building lights have their own photocells and will turn off outside of programmed time if sufficient light is available.

Justin Jacobs has been given the Digital Configuration Tool remote for the system and will be able to adjust loads and programming of switching if required.

Alarm systems

Building Security:

Security system is operational and connected to the campus. Foundation Plant Services office management will provide you with the alarm code as appropriate. If there are issues with the security system, contact the online Facilities Service Request Center or call 752-1655.



Fire Alarm Controls:

If fire alarm activates, it will notify campus fire for response. False alarm troubleshooting shall be done by alarm shop. If there are issues with the fire alarm system, contact the online Facilities Service Request Center or call 752-1655.

