Understanding the Heating/Cooling Systems

Vanderbilt University currently uses two primary methods of heating and cooling. The two types of fan coil systems available are two-pipe and four-pipe. The two- or four-pipe designation refers to the water distribution system serving the climate control equipment in a building.

• A two-pipe system includes only one supply line and only one return line to the unit. With a two-pipe system, the entire building is in either heating mode or cooling mode. Buildings automatically switch from heating to cooling or from cooling to heating based on a pre-set thermostat that reads the outside temperature.

• A four-pipe system has supply and return piping. The four-pipe system includes a distribution system that contains both hot water supply with return lines and a chilled water supply with return lines. That means four-pipe systems can supply heat to one room while cooling another.

There are differing levels of control by building. There are halls where the resident(s) may turn the fan off or set the speed to low, medium, or high. In some buildings temperature control is available. In a few halls the fan runs continually to keep air moving in the space. The chart below describes what's offered in each residence hall. For additional help or information, contact your Area Maintenance Supervisor.

	Two-Pipe	Four-Pipe	Fan Speed Control	Temperature Control†	Continuous Running Fan
Alumni Lawn: Barnard, Cole, Tolman, McGill, Vanderbilt	X		X		
Blakemore		X	X	X	
Branscomb Quad: Lupton, Scales, Stapleton, Vaughn	X				
Branscomb Quad: End Rooms		X		X	
Carmichael Towers	X				X
The Commons: Crawford, Ingram, Murray, Stambaugh, Sutherland		X	X	X	
The Commons: East, Memorial, North, West	X		X	X	
The Commons: Gillette		X	X	X	
Highland Quad: Morgan, Lewis*		X	X	X	X
Highland Quad: Mayfield, Chaffin**			X	X	
McTyeire	X		X	X	
Warren|Moore		X		X	X

†Fan must be on to control the temperature.
*Most units run continuously, but there are some that can be turned off.
**Mayfield has water-source heat pumps, and Chaffin units are electric. Both have programmable thermostats that run on battery power. When the batteries die, the thermostats and A/C units will not operate.

VANDERBILT UNIVERSITY
Office of Housing & Residential Education