



# Unilux Vertical Fan Coil User Manual



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# General Information

## About Fan Coils

Vertical stack fan coil units are used in many high-rise HVAC applications. They deliver excellent comfort to individual zones allowing suite owners to select their own comfort settings.

Fan coils consist of two critical components – a fan and a coil. The hot or cold water in your coil conditions air to be warm or cool. The fan circulates air in your suite. The fan draws air in through the access panel in your suite and redistributes air through wall-mounted grilles.

**DO NOT block the supply or return air grilles in any way, including with furniture.**

The thermostat controls all fan coil features. You can change temperature settings and switch between heating and cooling. The fan has 3 speeds and an automatic setting that you can control as well.

## Thermostat Manuals

Find the detailed operation manual for your thermostat at [www.uniluxvfc.com/resources](http://www.uniluxvfc.com/resources).

## Building Integration

Your vertical fan coil unit integrates with your building-wide hot/cold water system. A boiler and/or chiller, heats or cools water that's run through the coil in your fan coil with an extensive pipe network.

Buildings can be equipped with 2-pipe systems for heating or cooling capabilities. This means your building will switch from heating to cooling and back again. Your unit senses the water temperature so it will not provide heating if hot water is not present. Similarly, it will not provide cooling if cold water is not present.

Some buildings have 4-pipe systems for year-round heating and cooling.

If there is an issue with your heating and cooling, it may be caused by the building's system.

## Integrated Heat & Energy Recovery Ventilators

Building codes require constant fresh air be supplied to suites through a heat recovery ventilator (HRV) or energy recovery ventilator (ERV).

These systems bring fresh outside air to into the suite and transfer heat or humidity and heat from the stale air being exhausted. Due to the need for a constant supply of fresh air, units with an ERV or HRV have a constant low speed fan that is always running.

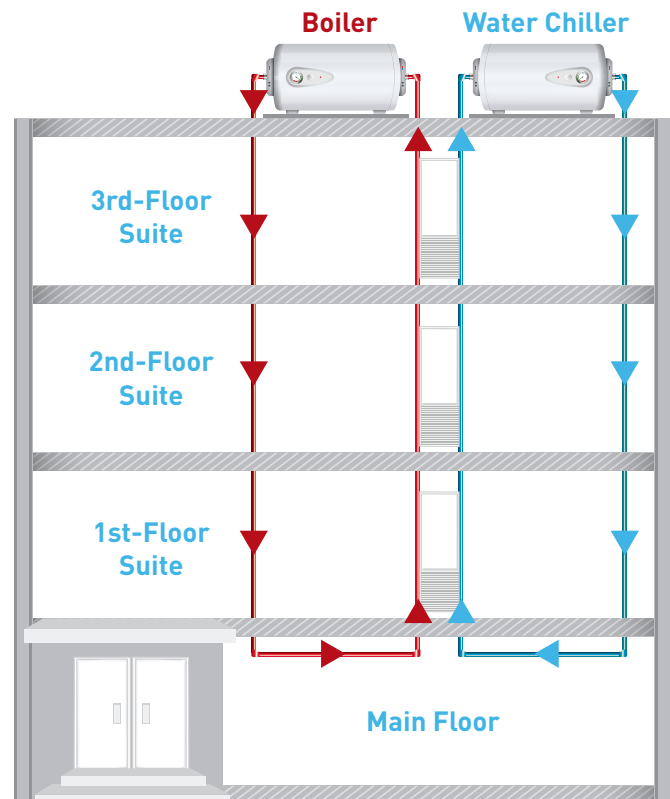
## Drain Pan Overflow Sensor

While cooling, the warm humid air from your suite causes water to condense on the cold coil. This condensate water accumulates in a drain pan connected to a building drainage system.

Sometimes condensate water will not drain properly. The drain-pan overflow sensor on your unit detects when the water level is too high and turns off the flow of cold water to the coil and stops the fan.

## Freeze Protection Sensor

This sensor detects incoming air temperatures to help prevent the coil from freezing. If the air entering the system drops below 4°C/40°F, the unit enters freeze protection mode. This circulates hot water through the coil and shuts down the fan to reduce cold air flow.



# Operation

## Power On/Off

The vertical fan coil is equipped with an on/off power switch that controls the main power supply to the fan coil. This main power switch is located on the control box inside the fan coil cabinet. There is also a dedicated switch on your breaker panel to control the main power supply.

- Turn the main power supply on to control the thermostat and provide heating, cooling and ventilation.
- Turn the main power supply off to perform any maintenance.
- The fan coil can be turned off using the thermostat, however, this DOES NOT turn off the main power supply to the fan coil.

## Heating

During the heating months, hot water is circulated through your coil. You can adjust all heat settings with your thermostat. Increase or lower the temperature with your thermostat. Circulate more hot air through your suite by increasing the fan speed.

## Cooling

During the cooling months, cold water is circulated through your coil. You can adjust all cooling settings with your thermostat. Increase or lower the temperature with your thermostat. Circulate more cool air through your suite by increasing the fan speed.

## Ventilation/Fan

Control your ventilation settings year-round with your thermostat. Your fan is programmed with 3 speeds (low, medium & high) and an automatic setting. Select your ideal setting with your thermostat.

The automatic setting speeds up or slows the fan down depending on the temperature difference between the set point and the current room temperature. Auto is the most efficient and effective fan setting for home comfort.

## Thermostat Control

Please refer to your thermostat user manual for instructions on setup and operation.





# Maintenance

## Homeowner Maintenance

Properly maintain your vertical fan coil for long-lasting home comfort and to minimize potential performance issues. Homeowners may perform basic maintenance however; we strongly recommend that fan coils are professionally maintained twice per year. Contact Unilux VFC Parts & Service for our full line of service programs.

## Warnings & Safety Considerations

Your fan coil operates using components that require electricity and water under high pressure – potentially very hot water. Before using or maintaining your fan coil, it is very important that you understand all of the safety warnings located inside the cabinet.



### Water Hazard

Indicates a potential hazard due to water which could result in flooding.



### Sharp Blades Hazard

Indicates a potential hazard due to sharp revolving blades which could result in cuts or amputation.



### Hot Water Hazard

Indicates a potential hazard for burning due to extremely hot water.



### Freeze Hazard

Do NOT leave windows or doors open when the outside air temperature is at or below freezing. Freezing air will freeze the water in your unit's coil, potentially causing flooding and water damage.



### Electrical Hazard

Indicates a potential electrical hazard which could result in electrical shock and/or fire.

## Change Your Supply Air Filter

Supply air filters sit behind the access panel and trap dust, dirt and pet dander from entering your fan coil. Changing filters improves indoor air quality and helps maintain your unit. We recommend changing supply air filters every 2-3 months.

Open your access panel and slide the filter up in the tracks to remove. Replace it with a new Unilux filter. To browse and order air filters for your Unilux VFC, check out [www.uniluxvfdirect.com](http://www.uniluxvfdirect.com).

Unilux Model	Filter Size
350	13.5" x 20"
450	13.5" x 20"
600	13.5" x 20"
800	17" x 20"
1000	17" x 20"
1200	17" x 20"

## Professional Maintenance

Fan coils should be serviced by a qualified service technician every 6 months. This ensures the fan coil is in good working order and prevents deterioration. Professional technicians should inspect all of the components below and follow safe plumbing and electrical practices.

### Drain Pan

Vacuum the pan to remove all debris. Check the pan for leaks and test the drain. Pour a cup of water into it. If it drains quickly, it's okay. If it doesn't drain, snake the drain with a flexible tool.

### Hydronic Coil

Inspect and vacuum the coil at the start and end of heating season when the coil is dry. Vacuuming the coil clears dirt and debris, which improves indoor air quality and helps prevent the drain pan from clogging.

### Copper & Stainless-Steel Tubing & Hoses

Inspect copper tubing and hose connections to the risers. Fix any water trickle immediately.

### Integrated ERV or HRV

Inspect the ERV/HRV cabinet, core and filters. Clean the filters and cabinet with warm soapy water.

HRV core: Vacuum, clean with warm soapy water and rinse.

ERV core - Vacuum. **Water will damage your ERV core.**

### Motorized Valves

Inspect motorized valves to ensure proper operation. Ensure you have clean running water passing through the unit.

### Motors & Blowers

Inspect the main supply air fan to ensure proper operation. Clean the blower during inspection to remove dust and dirt. This helps prevent the wheel from becoming unbalanced. Do not dislodge the balancing weights on the wheel while cleaning.

### Insulation

Inspect the insulation on the walls of the unit for wear and tear as well as mould growth. If mould exists, a remediation expert should be consulted.

# Troubleshooting

If you're experiencing issues with your fan coil, try these quick troubleshooting techniques. In the event of a leak, contact property management immediately.

If the issue persists, please contact our Parts & Service Department.



## Leaks

Is there water pooling in the fan coil or entering your unit?

YES

Turn the fan coil off and contact building management immediately.

NO



## Unit Is Not Functioning

Is there power in your suite?

NO

The unit requires electricity to operate. Wait for power to be restored.

YES

Is the thermostat on?

YES

Set the thermostat to heat or cool as desired. Set fan to auto.

NO

Is the switch on your breaker panel switch on?

YES

Contact Parts & Service Department.  
1-800-397-3680

NO

Turn the breaker switch on.



## No Heating or Cooling

Is there anything blocking the air intake or outlets?

YES

Remove the blockages.

NO

Check thermostat settings. Set heat or cool as desired. Set the fan to auto. Set temperature as desired.  
Note: If you have a programmable thermostat, see the thermostat to P Hold and adjust settings noted above.



## Still Not Functioning As Desired

Contact property management or our Parts & Services Department.

Note: The unit is equipped with a switch that will not allow the unit to operate if there is potential of water leaking.

# Parts, Service & Upgrades

Our full-service Parts & Service Department is available to help you with any maintenance questions or concerns. Please contact them for service inquiries or replacement parts and accessory services.

Check out our online parts store to find new air filters, access panels, thermostats and more. Visit:

[www.uniluxvfdirect.com](http://www.uniluxvfdirect.com)

[info@uniluxvfdirect.com](mailto:info@uniluxvfdirect.com)

1-800-397-3680