



Home Owner's Operation & Maintenance Guide



For All Bulldog Heat Pumps



BULLDOG OPERATION & CONTROL

The Bulldog Heat Pump uses the best of two HVAC technologies combined in one package. It provides the lowest cost for heating using a hot water fan coil and the highest efficiency for cooling by using a water-cooled air conditioner.

Unlike conventional single family dwelling heating systems that burn fossil fuels to heat the space, the Bulldog Heat Pump can use the waste heat in one part of the building to heat another part of the building. This gentle and efficient method of heating provides steadier control of the temperature of the space in heating providing a more comfortable environment. For this reason, it is best to set one temperature on your thermostat for your space regardless of periods of un-occupancy. If you prefer to sleep with cooler temperatures it is best to limit the set back to 3 degrees Fahrenheit.

In cooling, it is best to maintain a constant temperature all day or if necessary, limit the set back to 3 degrees Fahrenheit at night for greatest comfort and efficiency.

The gentle and efficient nature of the Bulldog Heat Pump also means it is efficient and best to operate your fan in the "ON" position. This ensures a minimum of air circulation and produces greater comfort as it minimizes air stratification. That is when hotter air rises to the ceiling and

cold air falls to your feet. The energy consumption for running the fan continuously is as low as 46 watts on small units and up to 80 watts on large units.¹

Since each suite in the building is connected to another, what you do with the temperature in your suite affects your neighbours. Turning your Bulldog Heat Pump off or setting the temperature really low or really high will put strain on the other heat pumps in the adjacent suites. In addition, due to the gentle and efficient nature of the Bulldog Heat Pump, restoration of the space to normal temperatures will take much longer. This wastes energy.



When you maintain your suite temperature steady or minimize the variation to 3 degree Fahrenheit you allow the building's automatic controls to move the heat more efficiently within the building, reducing the need to add supplementary heat or to remove excess heat. This reduces the overall cost of maintaining the building and that saves condo owners money.

¹ Value calculated based on 60% air flow on low speed. Results may vary based on heat pump size.

Bulldog Heat Pump Quick Reference Guide

Keep fan on all the time

Move fan selector switch under thermostat cover from the Auto position to the ON position. Fan will run at low speed all the time providing minimum air circulation.

Keep temperature set point constant

Set all time of day changes to the same temperature in both heating and cooling modes on the thermostat. This allows the building controls to move heat around in the building saving energy for the Condo Corp and you.

Limit set back to 3°F (2°C) if setback is necessary

Set the temperature no more than 3°F or 2°C from normal set point for heating or cooling during all time of day changes.



MAINTENANCE

WARNING:

To prevent injury or death due to electrical shock or contact with moving parts, disable the unit using the disconnect and isolate the supply /return using the isolation valves before servicing.

INSPECT FILTERS:

Establish a regular maintenance schedule. Clean filters frequently and replace as required. A vacuum can be used to clean filters, as well as the surface of coil components.

To remove the filter from the unit lift the filter up and pull it out of the unit at the bottom. Replace the old filter by sliding the top edge of a new filter up into the rack, then pushing in the bottom of the filter until it drops into place.

CHECK FAN MOTORS ANNUALLY:

All Bulldog Heat Pumps are permanently lubricated when shipped from the factory. Do not oil fan motors.

CONDENSATE LINE:

Visually inspect the condensate line to make sure the condensation collection is free flowing. Remove/clear any blockages.

VISUAL INSPECTION:

Visually inspect units and give special attention to hose assemblies. Note any signs of deterioration or cracking and repair leaks immediately.

WARNING:

The following checks must be made by a qualified HVAC Technician. Do not attempt to do yourself.

AMPERAGE CHECK ON COMPRESSOR AND FAN MOTOR:

Current draw on this equipment should not exceed normal full load or rated load amps by more than 10 percent of the values noted on the unit nameplate.

SAFETY CONTROL RESET:

All BULLDOG Heat Pumps include high and low pressure switches to prevent the machine from operating under abnormal conditions of temperature or water flow. If multiple pressure alarms occur in 24 hours, the compressor operation will be permanently locked out until the unit is reset, or power is disconnected for 20 seconds.

NOTE: If the heat pump must be reset more than twice, check the unit for a dirty air filter, abnormal entering water temperature, inadequate water flow (delta T method), or internal malfunctions that may be causing high or low pressure conditions. If the unit continues to alarm, contact your local Rep and ensure the problems are resolved before continuing use of the unit.

ΔT Method: The normal water temperature differential for a BULLDOG Heat Pump is 8-15°F (4.4-8.3°C) in heating and 10-15°F (5.5-8.3°C) in cooling.

For Technical Support:

Before calling your local Bulldog Representative technical support, please have the model and serial number of the unit ready.

For Parts:

For replacement parts, please call your local Bulldog Representative with the model and serial number of the unit.





CGC Group of Companies, Inc.

www.cgc-group.com

1-150 Britannia Rd East, Mississauga, Ontario, Canada L4Z 2A4

1-888-220-5551