User Guide for the Hi-Velocity HV System

Thank you for purchasing the finest in home comfort systems. We are confident that you will enjoy years of trouble free service and comfort from your Hi-Velocity System.

The Hi-Velocity System is quite different from a conventional furnace. It's main difference is that the supply duct work is all "small diameter". The system has been pre-engineered and works on the principle of pressure rather than air velocity.

The Hi-Velocity System can be designed to provide heating, cooling, filtration, ventilation, and humidification. It can also provide just a portion of these which is dependent upon the application.

Sequence of Operation

On the Hi-Velocity HV System, the fancoil unit has a two speed fan/motor assembly. On the main access door there may be one or two control dials, one which is labelled "**Constant Fan Control**", and the other which is labelled "**Heating Fan Control"**.

The **"Constant Fan Control"** is enabled when there is no demand for heating or cooling from the thermostat. This control will enable you to adjust the fan speed to your own comfort level. It is optional and can be turned off if not desired.

The **"Heating Fan Control"** enables the fan speed to be adjusted on a demand for heat from the thermostat *(not applicable to heat pumps)*. In most cases it is recommended to keep this control set on the high setting, and only needs to be adjusted if longer heat cycles are desired, or if you wish to tone down the airflow from the system.

Notes:

- Reducing the amount of air flow on the heating fan will reduce the amount of heat delivered from the fancoil.
- It is not recommended to turn down control dials more than half of their full setting, as this can be hard on the motor over a long period of time.
- On some thermostats there is a "fan switch" which can be set in the "auto" or "on" position. It is recommended to have the switch set in the "auto" position. If the "fan switch" is in the "on" position it will override both dial controls so they cannot be adjusted.
- In cooling mode, the fancoil will automatically switch to full high speed and bypass both constant and heating fan controls to supply maximum airflow and is not adjustable.

Timer Chip (flashing red light)

The printed circuit board within the fancoil contains a timer circuit. On some systems *(when applicable)* this timer will cycle the pump on potable water systems to flush the water through the system and prevent any water stagnation. The timer circuit is equipped with a red flashing light in the center of the circuit board. It is normal for the red light to be flashing as it shows power is being supplied to the unit.

Maintenance

Only the air filter requires maintenance on a regular basis. Ensure that there is always a filter in place, and check every month to ensure that the filter is clean. The amount of time between filter changes/cleaning will be dependent upon the living habits of the homeowner. **Please note that a dirty filter will reduce air flow and system performance.**

It is also recommended to have a service contractor perform a system check in both spring and fall for the cooling and heating season.

System Efficiency/Performance

The following steps should be taken to increase the overall system performance, and decrease system costs.

1) There is great benefit with using the constant fan control. This will reduce the amount of stratified air *(hot and cold spots)* within the home, giving you more even temperatures between floors, as well as providing constant air filtration. The amount of power actually used with this constant fan operation is about the same as a 100w light bulb.

2) Try to maintain your house temperature within a 5 degree temperature range. Residential heating/cooling systems are designed to maintain a set temperature within the home. A big misconception that people have is to turn off their air conditioning/heating when they leave the home, and "crank" it up/down when they get home thinking that this is efficient. For a residential heating/cooling system to bring up/down the temperature drastically like this *(as an example lets say more than 5 degrees)*, the system will have to run much longer than it would have throughout the day, therefore consuming more power and making it much more inefficient.

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