

**OCTOBER 31ST 2024** 

#### VOLUME 04

## Furnace Maintenance

Now that the cold weather is upon us, our furnaces are more relied upon to maintain a comfortable temperature within the home and to protect the home from potential damage to the water supply.

When the furnace malfunctions, any one of its three (3) components may be causing the problem. Source, Distribution System or Thermostat.

We have put this Newsletter together to assist families to perform preventative maintenance and to perform initial basic inspections to their furnaces if the furnace has failed.

#### **REMEMBER:**

These instructions are BASIC procedures that the homeowner can perform. At no time should the home owner attempt to service the electrical or gas components of a furnace.



Believe it or not many trouble calls we respond to are a result of common problems that many homeowners oversee or simply are not aware about.

- 1. The Power supply shut off switch looks identical to a normal light switch. Many times this switch accidently gets shut off.
- 2. Furnace filters are clogged. It is easy to forget about changing the filter, yet a clogged filter will in fact shut down the furnace.
- 3. Thermostats get hit off the wall or are tilted off-level. The thermostat must be mounted flush and level on the wall for proper operation.

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#### Special points of interest:

- Digital Thermostats vs Mercury Thermostats.
- Filters
- Dangerous sources of Temporary Heat

## Preventative Maintenance

Preventative Maintenance is every homeowners responsibility.

Preventative Maintenance is something that should be conducted on a regular basis for both heating and cooling. Avoiding this can result in a malfunction when the unit is needed most and as we all know, our furnaces usually malfunction during the night when getting help is difficult.

Therefore, in addition to the preventative maintenance on the furnaces, we are going to

discuss how to prepare a Home Safety Plan and Kit to assist families in the event that your furnace does in fact go fail

## Preventative Maintenance of your Furnace

Furnaces require a continuous source of return air in order to function properly. There are two sets of vents in your home.

Heat and Cooling Vents supply the home with warm air in the winter and cool air in the summer if you have air conditioning.

Return air vents— pulls air from the home back to furnace to heat it and supply the home with warm air through the heat vents.

Your filters are important in this operation because it helps to clean the air before heating it and putting it back in the home as warm air. This is why it is important to change your filters regularly.

Make sure you purchase the right size of filter. The size is identified on the outside edges of any filter and they can be purchased at any hardware store. Canadian Tire or Walmart.

In a pinch, filters can be vacuumed to be used until new ones can be purchased.

A true sign that your furnace is starving for air is when the furnace "Cycles on and Off" but will not ignite or blow any heat.

When you replace filters it is

also important to make sure the filter is inserted with the ARROW on the filter pointing toward the furnace.

This is for proper airflow through the filter. Compare it with the air filter being removed.



Furnace Filter showing size and ARROW

#### **Condensation Tube**

Some newer furnaces come with a condensation tube (a clear rubber tube or a white plastic pipe running from the furnace along the floor.

This tube should be running to a floor drain or drain line to allow condensation to be drain away from the furnace system. It should **NOT** be pinched or kinked in any way. A **clogged** condensation line can cause the furnace to stop working (furnace will not ignite or blow air). Check the tube to ensure water is running through it freely and not kinked or pinched.

Some furnaces have a conden-

sation pump attached to the condensation hose. It is also important to make **sure this** devise is plugged in and functioning.

This devise is used to pump condensate away from the furnace to a drainage location



Condensate Pump

## **Thermostats**



Mercury Thermostat

Thermostats come in many styles but they all have the same function.

To monitor temperature in the room and either activate heat or cooling to regulate the temperature to the adjusted setting.

HOWEVER:

There are important things about the thermostat that

home owners need to remember

Our homes use two types of thermostats to control our furnaces and air conditioners.

1. Mercury Thermostats
This type of thermostat operates using a small amount of mercury in a glass tube which acts as the switch to turn the furnace on or off. As the

room temperature changes it causes the glass tube attached to it to move left or right. If you have this style of thermostat, it is very important to make sure the thermostat remains both Level and Fastened to the wall or it will not function properly or at all because it relies on the mercury to be able to roll back and forth in the tube.

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#### **Digital Thermostats**

The other style of thermostat is a the

Digital Thermostat:

These are becoming more frequently used by home owners as a way to conserve on gas or propane. They are programmable to allow the thermostat setting to be lowered when no one is home or in the evening and raised while occupants are normally home.

They operate off the voltage in the thermostat wires and have a battery back up in the event of a power failure. They are an effective means of energy conservation and are becoming a standard installation practice. With new technology they now have thermostats that can be monitored and programmed from your mobile device. These thermostats can be costly but pay for themselves through their cost saving effectiveness. Home owners wanting to change to this style of thermostat should consult with a heating expert to determine which style or model is best for them.

These thermostats can range in price from \$60 to \$250.

Regardless of what style you have in your home, they should never be covered with clothing or furniture. If your furnace stops functioning. Your thermostat should be a device that you set and forget.

If you find that you are always having to raise the temperature to provide more heat, there is likely something else causing the problem. This is when your home should be inspected to determine if and where heat is escaping.



Digital Thermostat

## **Exterior Venting**

Another important item to monitor and maintain is the exterior exhaust vents from the furnace. In the winter months, these lines can become blocked with snow and ce because of the warm air being exhausted from the furnace into the cold air. During the summer they can be-

come blocked with leaves, debris and dirt from wind, rodents and children.

This blockage will also cause the furnace to shut down. Home owners should keep an eye on these exterior pipes to make sure they are always free and clear.

If you notice ice forming on

these pipes, contact the maintenance department if you need assistance removing it.

Remember:

Children should be reminded not to insert anything into these pipes and to avoid playing around them at all times.



# If your Furnace Fails during the night.

The best preventative measure to ensure your furnace will run efficiently is to have it serviced and cleaned annually. Having your furnace serviced could help to identify major components that are potentially breaking down. It also allows the homeowner time to make arrangements to have these items replaced in ad-

vance rather than finding out

in the middle of the night.

IF YOUR FURNACE FAILS

Check the items as discussed in this info newsletter.

If all basics items fail to get your furnace to activate contact the Housing On-Call line at 633-3959

Having an alternate source of heat is always a good idea. Electric Portable heaters are inexpensive and good to have as an emergency source. Propane heaters should NEVER be used as a source of temporary heat in a home.

In some circumstances, such as a break down over the weekend or a power failure it may result in a temporary relocation to a family member's home.

If you suspect your furnace is

faulty, making abnormal noises, or cycling off and on continuously. Contact the housing on-call line to report it.

Remember as a home owners, we all have the responsibility to make sure preventative measures are taken to avoid inconveniences.

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# FWFN HOUSING ON-CALL 633-3959

#### List of Qualified Contractors for Furnace Repair:

LDR Heating 476-6109

Isberg Heating 475-3450

Task Energy 627-4189

Reliance 1-866-529-8509

#### INTERNET HELP

There are many Internet sites that help explain the procedures for changing your filter. Going to www.youtube.com and typing in Changing your furnace filters will take you to many videos on this topic.

There are also videos on the other topics that have been discussed in this info newsletter such as the operation of a thermostat and drain lines from the condensate pump.

#### Remember:

Some videos demonstrate specific details of **Troubleshooting** a furnace.

Do not attempt any servicing of the internal components of your furnace. This area contains both electrical and gas components which should only be inspected and serviced by a certified technician.



https://youtu.be/6JV6zSP75tA