



## Question

### WHAT IS A BTU?

## Answer

The standard energy measurement is the BTU (British Thermal Unit). Each BTU unit is determined by the amount of thermal energy required to raise the temperature of one pound of water by one degree Fahrenheit. To specify the BTU power of an appliance, we need to calculate its fuel consumption per hour, multiplied by the fuel's BTU value.

## Question

### HOW MUCH FUEL DOES A GAS STOVE CONSUME AND HOW MUCH DOES IT COST TO OPERATE?

## Answer

The consumption and cost of operation may vary depending on the region, the gas utility company, or the type of fuel. Following is an example of how to calculate the approximate cost of operating a 25,000 BTU stove at the maximum flow rate.

#### Natural gas:

One cubic meter (1m<sup>3</sup>) of natural gas produces an average of 35,301 BTU. At the maximum flow rate, a 25,000 BTU stove will consume 0,708m<sup>3</sup>\* of natural gas per hour (i.e. 25,000/35,301). If natural gas is priced at 0,365\$\* per cubic meter, it would cost 0,26\$\* per hour to operate the stove at its highest setting. The same calculation applies for the minimum flow rate.

#### Propane (LP):

One litre of propane produces an average of 29,059 BTU. At the maximum flow rate, a 25,000 BTU stove will consume 0,86 litre of propane per hour (i.e. 25,000/29,059). If propane is priced at 0,45\$\* per litre, it would cost 0,39\$\* per hour to operate the stove at its highest setting. The same calculation applies for the minimum flow rate.

\*Costing and consumption are approximate values and may vary depending on the region, the gas utility company, and the way in which one operates a stove.

## **Question**

### **DO DROLET GAS STOVES WORK WITHOUT ELECTRICITY?**

## **Answer**

Yes. All Drolet gas stoves use a “millivolt” generator. No electrical power is needed. The only accessory that relies upon electricity to function is the blower. The wall thermostat and the remote control operate independently from any outside electrical current and therefore would not be affected by a power failure.

## **Question**

### **HOW DO GAS STOVES TURN ON AND OFF?**

## **Answer**

All Drolet gas stoves are very user friendly. Each stove is equipped with an easy-to-access control knob that enables you to turn the stove on and off. You simply have to push a button to turn the stove on. Likewise, you turn the stove off by setting the control knob at “OFF”. You can adjust the intensity of the stove from low to high with the control knob. A remote control can be installed, which allows you to operate your Drolet gas stove from the comfort of your couch. A wall thermostat is also available on option. The wall thermostat will turn the stove on and off to keep the room temperature constant, according to the setting you have chosen.

## **Question**

### **DO I NEED A FLOOR PROTECTION AROUND AND UNDER MY STOVE?**

## **Answer**

Gas stoves do not need a specific floor protection. You can install your stove directly on a wood floor, a carpet, or any other flooring material generally used in houses. Carpets made of long fabric are not recommended.

## **Question**

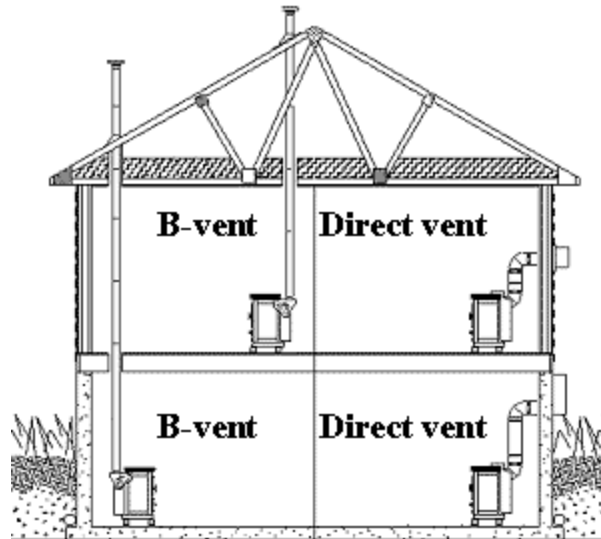
### **WHAT IS THE DIFFERENCE BETWEEN “DIRECT VENT”, “B-VENT”, AND “VENT-FREE» GAS STOVES?**

## **Answer**

Those are three different terms that represent three different ways of “venting” a gas stove, that is, to supply combustion air to the stove and evacuate combustion gases out of the house.

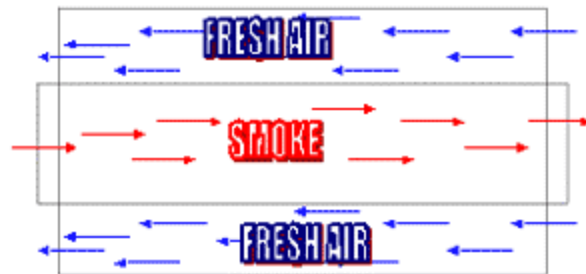
## B-VENT:

This is the traditional type “B”, rigid pipe used to evacuate combustion gases. It can also be a certified flexible aluminum liner of the same diameter, inserted into an existing masonry chimney or a prefab chimney. A “B-vent” gas stove draws air from inside the house through ports located on the firebox. Usually, a fresh air source is provided as close as possible to the stove to insure a constant supply of oxygen in the room, which is necessary to achieve a good combustion and an adequate draft. A fresh air source will also prevent negative pressure problems that can be caused by air moving equipment, such as a heat exchanger, a bathroom fan, or a range hood.



## DIRECT VENT:

This is a sealed installation. Direct vent pipes have a double wall. The main pipe draws air from outside the house to the firebox while the centre pipe expels the combustion gases and moisture outside. (See picture below). It requires no chimney and it is an independent, sealed and safe evacuation system.



## VENT-FREE:

«Vent-free» stoves use the room's oxygen for combustion and expel combustion gases ( $H_2O$ ,  $CO_2$ ,  $CO$ ,  $NO_2$ ,  $O_2$ ) inside the house. These types of stoves require no chimney. However, their use is illegal in Canada and in the following states: Alaska, Massachusetts, Montana, Minnesota, Colorado, Utah, and California. Wisconsin restricts installation in homes built after 1980.

## **Question**

### **DO I NEED A CHIMNEY THAT GOES THROUGH THE CEILING AND UP ON THE ROOF OF MY HOUSE?**

## **Answer**

No. This is the advantage of direct vent gas stoves. All you need is the proximity to an outside wall. Not only does this make the installation more flexible, but it also keeps the cost down. If you still wish to vent your stove through the ceiling and up on the roof, it can be done easily with most models, either with a B-Vent or direct vent installation. Certain restrictions apply with regards to where you can position the termination cap on the outside wall. You must carefully consult the instructions in your owner's manual.

## **Question**

### **WHAT TYPE OF EXHAUST SYSTEM DO I NEED TO INSTALL MY GAS STOVE AND WHERE CAN I BUY IT?**

## **Answer**

#### **Direct vent gas stoves**

Direct vent gas stoves are safety tested with a specific brand of pipe. Therefore, it is not possible to install a direct vent gas stove with any type of exhaust system. The brand (manufacturer) of the pipe chosen must have been specifically approved for your Drolet gas stove. For instance, Drolet models "SGS", "SGS II", and Jurassien are all approved with the following brands of pipe:

- Secure Vent (manufactured by Security Chimney International)
- Simpson Dura Vent
- Drolet (manufactured by Flexmaster)

#### **B-Vent gas stoves**

B-Vent gas stoves can simply be installed with a type "B" pipe for gas appliances. There is no restriction as to the brand (manufacturer) of the pipe.

## **Question**

### **CAN I INSTALL MY GAS STOVE IN A MOBILE HOME ?**

## **Answer**

All Drolet direct vent gas stoves are approved for installation in mobile homes, since they are air-tight and draw their combustion air from outside the house.

## Question

### CAN I BURN WOOD IN MY GAS STOVE?

## Answer

No. Gas stoves are designed to burn gas only. Burning wood would damage the stove and could be very dangerous.

## Question

### WHERE CAN I FIND A CERTIFIED TECHNICIAN TO INSTALL MY GAS STOVE?

## Answer

There are many companies specializing in the installation of heating equipment, including gas burning stoves. Your dealer may have its own installation service or may be able to refer a qualified installer for your region. If your dealer cannot put you in contact with an installer, consult your local directories and look for companies specializing in "plumbing, heating, and ventilation". Companies that provide installation and maintenance services for gas furnaces can often install all kinds of gas burning equipment, including gas stoves. Drolet has a database with the name of many installers across Canada. [Contact us](#). We may be able to refer a qualified installer for your region.

## Question

### WHY IS THERE A SOOT BUILD UP ON THE LOGS AND ON THE GLASS?

## Answer

#### Possible causes and solutions:

#### 1- You are not burning the right type of gas.

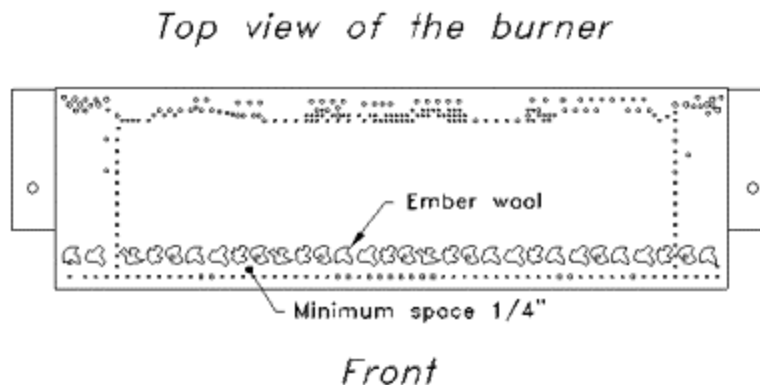
**Solution:** Each stove is configured to operate with either natural gas or LP (propane). The certification label located at the back of your stove shows what type of gas is to be used. It is very important to use the proper type of gas with the stove. It is possible, if needed, to convert the stove to the desired type of gas. To do that, you need to purchase a conversion kit. To obtain the product code for the conversion kit applicable to your stove, please consult our "parts" section. The conversion work MUST be performed by a certified technician.

#### 2- The decorative logs are obstructing the flame. The logs then cool off the flame, making the combustion process incomplete.

**Solution:** It is very important to position the logs properly on the burner. Your owner's manual gives you a positioning plan for the logs. Follow the instructions carefully. Make sure that the logs are not obstructing the flame. In our most recent log sets, there is a number from 1 to 5 under each log to help you understand the positioning plan in the owner's manual.

### 3- There is too much ceramic wool (embers) on the burner's ports.

**Solution:** The ceramic wool must be placed as close as possible to the burner's ports without obstructing them. Below is a drawing showing you how to position the ceramic wool on the burner.



### 4- The venting system is either leaking, obstructed, or improperly installed.

**Solution:** All the joints between the pipes that compose the venting system must be sealed. The exterior termination cap must be constantly free of any element that could block it, such as snow, ice, bird nests, etc. Furthermore, the venting system must be installed within the parameters set out in the owner's manual.

For instance, some models of gas stoves require that the pipes respect a minimum height before going through the wall.

## Question

### WHY IS THE PILOT NOT IGNITING?

#### Answer

##### Possible causes and solutions:

#### 1- The gas is not reaching the pilot's head.

**Solution #1 :** First, make sure that the taps on the gas line are fully open. Secondly, if you are using LP (propane), verify that there is fuel in the tank. Finally, make sure that the control knob on the stove's valve is on the "pilot" position.

**Solution #2 :** The pilot orifice may be blocked with combustion residues. As part of your yearly maintenance program, it is recommended to have the pilot orifice cleaned by a certified technician. The pilot orifice may have to be replaced.

## 2- There is a defect with the ignition system.

**Solution** : Verify that the igniter inside the stove produces a spark when you press the red piezo button. If you do not see any spark, have a certified technician verify the connection between the igniter and the piezo button to make sure it is adequate.

## 3- The gas inlet pressure is too low.

**Solution** : Have the inlet pressure verified and adjusted by a certified technician. The inlet pressure requirement is indicated on the certification label located at the back or under your stove.

## Question

### WHY DOES THE PILOT LIGHT GO OUT UPON RELEASING THE PILOT BUTTON?

## Answer

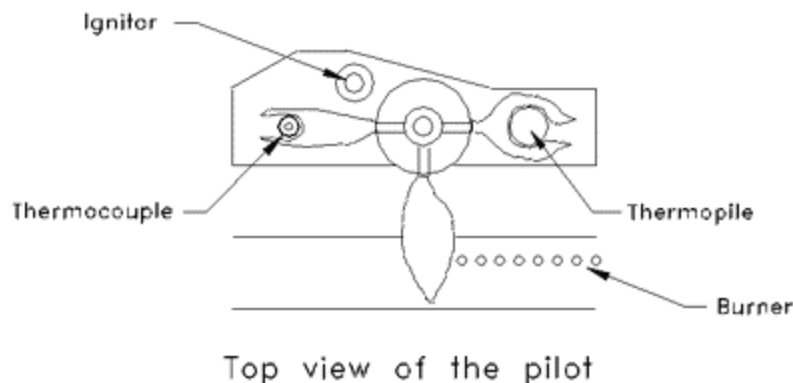
### Possible causes and solutions :

1- The valve's control knob has not been kept pushed in the pilot position long enough to heat up the thermocouple.

**Solution** : Make sure that you keep the valve's control knob pushed in the pilot position for at least 10 seconds

2- The pilot flame is not adjusted properly.

**Solution** : The pilot produces three flames (see drawing below). One of them must surround the thermopile. A second flame must cover the thermocouple. A third flame goes toward the front of the burner. If the flames do not surround the thermocouple or the thermopile, have a certified technician make the appropriate adjustments to the flame.



### **3- Some connections may be missing or defective.**

**Solution :** Verify all connections. If some of them appear to be missing or loose, have a certified technician verify the stove.

### **4- The thermocouple may be defective.**

**Solution :** The thermocouple should produce between 14 and 24 millivolts. A certified technician can easily verify the current produced by the thermocouple and if needed, replace the thermocouple.

## **Question**

### **WHY IS THE BURNER NOT IGNITING?**

#### **Answer**

##### **Possible causes and solutions :**

#### **1- The control knob on the valve is not in the « ON » position.**

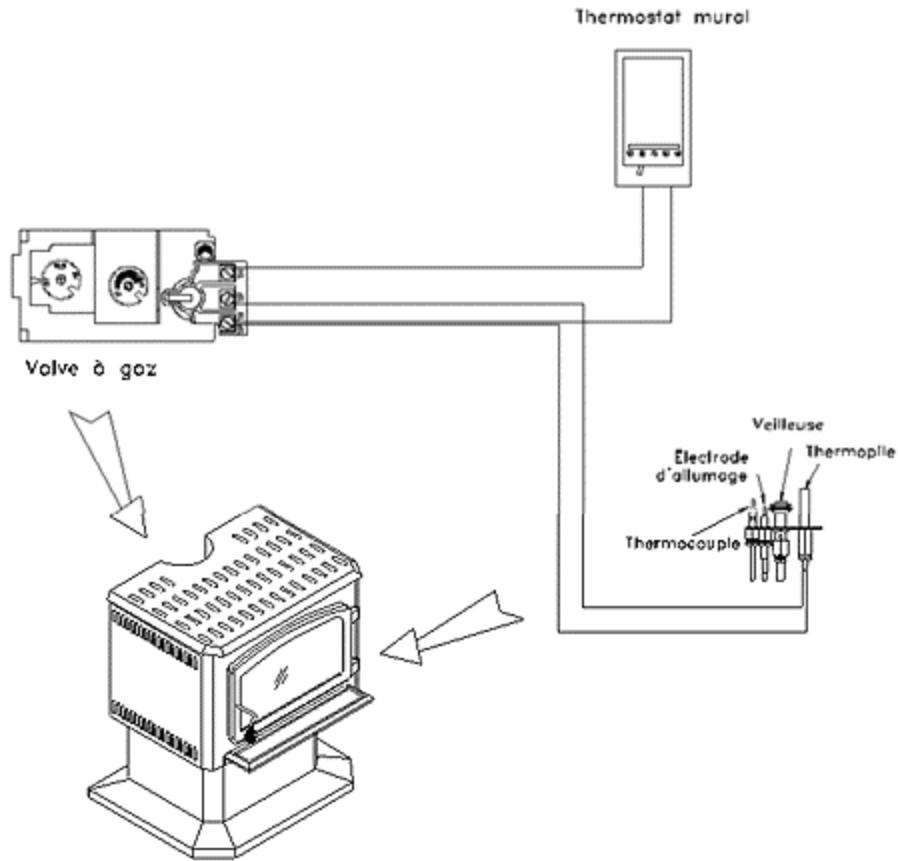
**Solution :** The valve's control knob has three different settings: "OFF", "PILOT", and "ON". When the pilot light is on, you need to turn the valve's control knob clockwise from the "PILOT" position to the "ON" position. The fire will spread over the burner in a few seconds.

#### **2- The gas inlet pressure is too low.**

**Solution :** The lack of sufficient gas pressure may keep the burner from lighting up. A certified technician can measure the inlet gas pressure and adjust it according to the requirements on the certification label located at the back of the stove.

#### **3- The blue wire between the "TH" and "TP-TH" ports may be missing, or the connections for the wall thermostat or remote control options may be defective (this applies to "millivolt" valves only). In addition, the wire linking the thermopile to the "TP-TH" and "TP" ports may not be properly connected.**

**Solution :** "Millivolt" valves have connection ports that enable you to install a wall thermostat or a remote control. If those options are not installed, there should be a blue wire (called "jumper") linking the "TH" and "TP-TH" ports. Therefore, if you are not using a wall thermostat or a remote control, make sure that the blue wire is there and that it is properly connected. On the other hand, if you are using a wall thermostat or a remote control with your stove, make sure that those options are properly connected to the "TH" and "TP-TH" ports as per the instructions in your owner's manual. Lastly, the thermopile wire must be properly connected to the "TP-TH" and "TP" ports. Otherwise, the burner will not ignite.



#### 4- The gas valve is defective.

Solution: Only a certified technician can verify if the valve is defective or not. To obtain the valve number applicable to your stove, consult our parts section.

### Question

#### WHY DOES THE BURNER OR PILOT FLAME GO OUT?

### Answer

#### Possible causes and solutions :

**1- The exhaust system may be obstructed. Wind may also have activated the safety mechanism.**

**Solution :** The exterior termination cap on your exhaust system must constantly be free of any element that could block it, such as snow, ice, bird nests, etc. Sometimes, wind may cause a turbulence zone that will cause the burner and the pilot to shut off. If your burner or pilot flame has gone out during a very windy day, there may be nothing wrong with your stove. Simply re-

light the stove.

**2- The thermal switch was activated. This applies to B-Vent stoves only.**

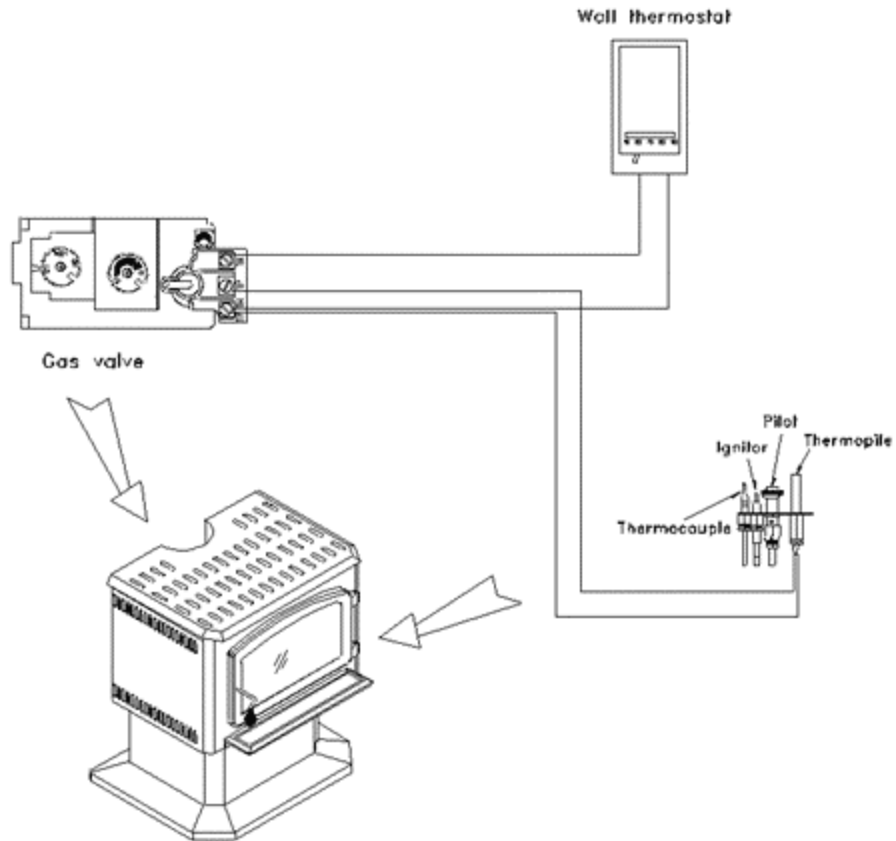
**Solution :** B-Vent gas stoves have a thermal switch. This is part of a safety mechanism to prevent the accumulation of combustion gas in the exhaust system. Gas can be temporarily accumulated in the exhaust system as a result of wind blows. If it is the case, you can restart the stove without any problem. Combustion gas can also be accumulated in the exhaust system as a result of an improper draft. For B-Vent stoves to have a proper draft, they must have a sufficient supply of oxygen. It is highly recommended that your stove be located in an area where fresh air can be supplied to the stove when needed. A fresh air supply will also compensate for oxygen used up in the room by air moving equipment, such as a bathroom fan, a range hood, or a heat exchanger.

**Question**

**IS IT POSSIBLE TO INSTALL A WALL THERMOSTAT OR A REMOTE CONTROL ON MY GAS STOVE?**

**Answer**

YES, provided that your stove is equipped with a "millivolt" gas valve model S.I.T. Nova 820 or Honeywell # VS8420E8001. Consult the owner's manual to find out what type of valve is on your stove. Drolet models SGS, SGSII, and Jurassien all have a millivolt thermostatic valve. Excel-Fire and Ultra-Flame stoves manufactured after 1999 also have a millivolt thermostatic valve. To verify the possibility of adding a wall thermostat or a remote control, you can also remove the valve's cover and look for the "TP", "TH", and "TP-TH" ports located on the valve (see drawing below). If you can locate those connectors, your stove can receive the wall thermostat or remote control options.



## Question

### WHY IS THE WALL THERMOSTAT NOT FUNCTIONING?

## Answer

### Possible causes and solutions :

1- The room temperature is higher than the thermostat setting.

**Solution :** The wall thermostat will maintain the room's temperature according to the temperature you have set on the thermostat. It will turn on the appliance when the room is colder than the thermostat's setting. However, as long as the room's temperature is higher than the thermostat's setting, the stove will not start. If you want the stove to operate, increase the temperature setting on the thermostat.

2- The blue wire (jumper) has not been removed from the « TH » and « TP-TH » ports.

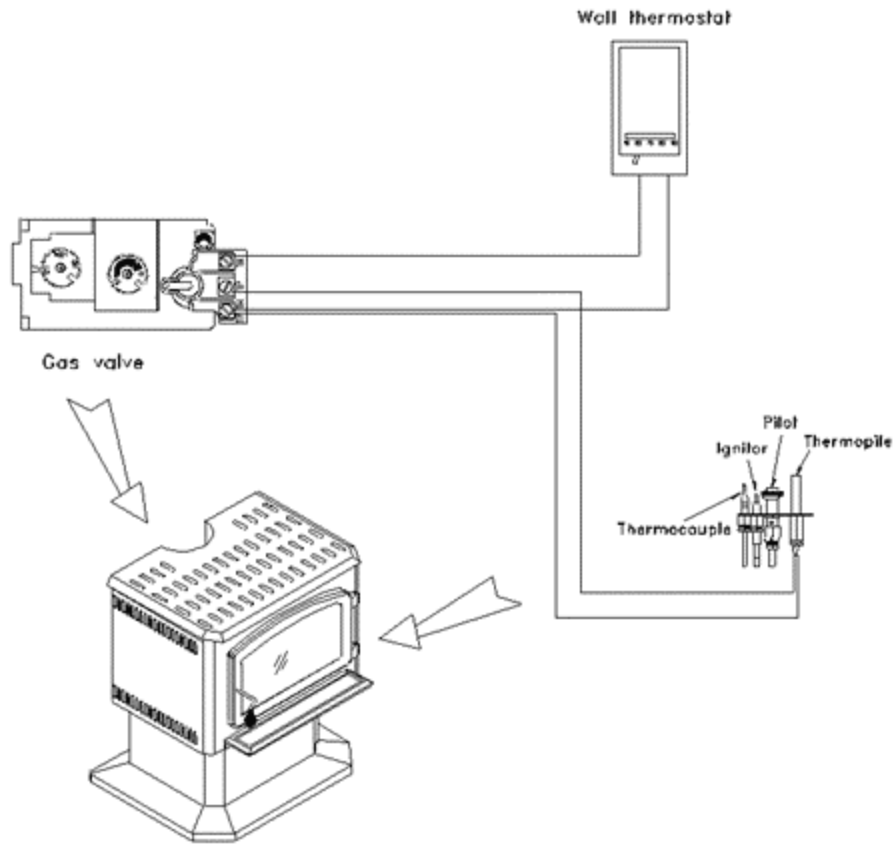
**Solution :** There is a blue wire that links the "TH" and "TP-TH" ports on your valve. The blue wire needs to be there only if you are not using the wall thermostat or remote control option. The blue wire should be removed upon the installation of the thermostat or remote control option. Consult your owner's manual.

### 3- The thermopile is too weak

**Solution :** The thermopile power is measured in “millivolts”. Have a certified technician verify the thermopile’s power. It may have to be replaced. To get the part number of the thermopile, consult our parts section.

### 4- The diameter of the wire linking the thermostat to the gas valve is too small.

**Solution :** Consult the chart below. The longer the distance between the valve and the thermostat, the larger the diameter of the wire needs to be.



DISTANCE	WIRE SIZE
20 ft	18GA
30 ft	16GA
40 ft	14GA
50 ft	12GA

## **Question**

**IS IT POSSIBLE TO CONVERT MY STOVE FROM NATURAL GAS TO PROPANE (LP) OR FROM PROPANE (LP) TO NATURAL GAS?**

## **Answer**

Yes, it is possible to convert your stove in order to use a different type of gas. You need to purchase a conversion kit that fits your model of stove. To get the part number of the proper conversion kit, consult our parts section. You must have a certified technician to perform the conversion.