



Fire Pits

Owning a fire pit is an exciting investment. With a little knowledge of safety and operation, you can make it even better!

Did you know?

Propane is an odorless gas. A rotten egg smell is added to it to alert people to its presence if there is a leak.

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Safety

Propane fire pits are a gas appliance and a gas system. Please follow these simple safety steps.

- ✓ Only use your fire pit in a well-ventilated area. Failure to use your fire pit in a well-vented area can lead to:
 - A buildup of carbon dioxide
 - A buildup of unburnt gas that can lead to explosion.
- ✓ Only use approved material in the burner pan. Going to the home improvement store to buy a bag of rocks can be very dangerous. As the rocks heat, any moisture trapped inside of them turns to steam causing the rocks to explode.

Gas Fire Pit Systems

Gas fire pits are a simple system, when used properly, are a safe way to enjoy the ambiance and warmth of a fire without all the work. To have a fire, you need a fuel source: the gas, and an ignition source, such as a lighter. Some fire pits have built-in electric lighters, but we will cover that later.

Propane Tank



Standard Propane Tank

Most fire pits take a standard 20lbs grill tank. The upright tanks are readily available and can be refilled or swapped out at many locations. The standard 20lbs tank is made to be used upright and should never be laid on its side. This is because the emergency vent system on the tank will not function correctly if it is laid down.

Horizontal Tanks

Horizontal tanks are made for fire pits with a low table height. They are designed to lay on their side and still vent properly.



Regulator and Hose

The regulator and hose screw onto the tank and burner. It reduces the pressure coming out of the tank and transfers the gas from the tank to the burner. These items are extremely reliable and rarely need replacing.



Gas Valve

The fire pit valve is how the flame height is controlled. Some gas valves have a safety device called a thermocouple. A thermocouple must be heated to allow gas to continue to flow. This means that if the flame blows out in the fire box where the thermocouple is located, the thermocouple will cool and stop gas flow. The thermocouple safety device is one of the most misunderstood parts of a fire pit and is the reason that many owners believe their pit will not light. The lighting process for a fire pit with a thermocouple is explained in detail later in this document. Trouble shooting for fire pits is at the end of the document.



Burner

Burners come in many shapes and sizes. The burner is where the gas is dispensed to fuel the flame. In other words, this is where the magic happens. You can choose to cover your burner completely or leave it exposed, it is your choice. The deeper the burner is covered, the more the gas will burn in a random pattern.



Fire Box

Some burner assemblies have a firebox. If your fire pit is equipped with a firebox, the heat conductor part of the thermocouple safety device. You may also find a flame pilot light and electric lighter located in the firebox..

Never cover the top of your firebox. This will insulate the heat and prevent the thermocouple from working properly.

Allow some space around your firebox for the pilot light to breathe. Too much material around a firebox can cause the pilot to go out and the pit to shut off unexpectedly.



Lighter Style

Fire pits are lit in one of two ways, a traditional lighter or a built-in electric spark. Electric light fire pits can also be lit with a traditional lighter.



Standard



Electric

Preparing to Light the Fire

To make a fire, you always need fuel and an ignition source. Before you try to light your fire, check for fuel and check your ignition source. Let's get started.

1. Hook Up the Fuel Tank

Hook the correct gas source up to your fire pit. This is usually a 20lbs propane tank.

1. Screw the regulator connection all the way onto the tank till it is tight.
2. Open the gas valve.

2. Check for Fuel Flow

Non-Thermocouple Equipped Pit

You can tell your pit does not have a thermocouple if it does not have a firebox. See page three for an image of a firebox.

For a short amount of time, turn the gas valve on using the knob or key. Can you hear a slight hiss or smell the gas?

Yes – Proceed to check your spark.

No – Recheck your connection to the tank.

Try another propane tank; yours may be empty. If you are uncertain, you can get an inexpensive tank gauge from a home improvement store or online. There is an image of the gauge for your reference on the last page.

Thermocouple Equipped Pit

A thermocouple-equipped pit will not use a gas key and will have a valve similar to a gas grill on the side. Rotate the valve 90 degrees until it clicks. Push the valve into the pilot light position for a few seconds. Can you hear a slight hiss or smell the gas.

Yes – Proceed to check your spark.

No – Check the position of the valve and make sure it is in the light position. You may need to read the instruction next to the valve for a more complete understanding.

Recheck your connection to the tank.

Try another propane tank. Yours may be empty. If you are uncertain, you can get an inexpensive tank gauge from a home improvement store. There is a picture of the gauge on the last page for reference.

3. Check Your Ignition Source

Do not check your ignition source if you smell gas. Wait for the smell to dissipate before continuing on.

Traditional Lighter

Ignite the lighter as recommended by the manufacturer. If it works, you are ready to get started.



Electric Lighter

Press the ignition button on the electric lighter. You should hear a repetitive clicking sound. This is the sound of the spark from the electric lighter. The sound is the same as an electric light grill or gas stove. If you do not hear the clicks, check the polarity of the battery or replace the batteries. Batteries are located behind the ignition button or in the etank cabinet on the back side of the ignition button.

| Brand | Typical Battery Location |
|------------------|--|
| Tropitone® | Inside the tank cabinet, behind the button, unscrew a round cap. AA or 9v depending on the model. Be sure to check polarity. |
| Garden Classics™ | On the outside of the fire pit, unscrew the ignitor button. AA or AAA. Be sure to check polarity |
| Casual Comfort™ | On the outside of the fire pit, unscrew the ignitor button. AA or AAA. Be sure to check polarity |



Light the Fire


Traditional Lighter, No Thermocouple

1. Turn on the gas at the propane tank.
2. Create a flame with the lighter and hold the flame as close as possible to the burner.
3. Turn the gas valve on the fire pit on to allow gas to flow.
4. The lighter will light the gas as it flows through the burner.
5. Adjust the height of the flame.
6. Enjoy!
7. When turning the fire pit off, it is good practice to turn off both the fire pit gas valve, and the gas valve at the tank.

Electric Lighter with Thermocouple

1. Take your time. Remember that your fire pit has a safety device (thermocouple) that must heat up for your fire pit to perform as expected.
2. Turn on the gas at the propane tank.
3. Press the electric lighter button.
4. Do you hear it spark?
 - a. Yes – Continue to the next step.
 - b. No – Replace the battery.
5. Turn the gas valve on the fire pit 90 degrees to the light position and press the knob of the valve in, to override the thermocouple. You will know if you are in the correct position if you can noticeably push the valve in further than any other position of the valve.
6. As soon as the pit lights you can release the electric ignitor and do not release the pressed knob of the gas valve. Keep the gas valve knob pressed for 15 to 20 seconds to allow the thermocouple to warm.
7. Release the gas valve. Did the flame stay on?
 - a. Yes – proceed to the next step.
 - b. No – Start back at step 3. The thermocouple did not warm enough to allow the gas to flow.
 - c. If you still have difficulty, please go to the troubleshooting section
8. Adjust the flame to your desired level.
9. Enjoy!
10. When turning the fire pit off, it is good practice to turn off both the fire pit gas valve, and the gas valve at the tank.

Troubleshooting

| Concern | Why? | Solutions |
|---|--|--|
| I cannot connect the gas line to my horizontal tank | Horizontal tanks have welded guards over the valve that make alignment critical when connecting a horizontal tank | <ol style="list-style-type: none"> 1. Angle the connection back toward the tank to gain the necessary clearance. 2. Not all tanks are made the same. If it still does not fit add a propane tank gauge as shown on page 7.  |
| I do not hear gas when I test for fuel | Gas is not flowing from the supply to the burner | <ol style="list-style-type: none"> 1. Check to make sure you are using a tank with gas 2. An overfilled horizontal tank will not work. A horizontal 20lbs tank should not weigh more than 37lbs full 3. Make sure the tank is turned on. You can read the top of the valve if your uncertain which way to turn it 4. On thermocouple equipped fire pits, there is only one position that allows you to push the valve in and override the thermocouple. This position is usually 90 degrees from the full off position. If you do not have the valve in this position, you will not be able to push the valve in and allow the flow of gas 5. Reset the valve. Turning a tank on to fast can set off a safety. Turn off the gas, disconnect the pit. Make sure the firepit is turned off. Reconnect everything and turn the propane tank on slowly. |
| I do not hear a spark when I test my electric ignitor | Either the battery is dead or the electrode is too far away from the ground. | <ol style="list-style-type: none"> 1. Replace the battery. Make sure that the polarity of the replacement battery is correct. Plus to plus, negative to negative. The ignitor will not work correctly if the polarity is not correct. 2. The electrode is in the firebox. If the battery is fresh and the spark is not traveling far enough to jump from the electrode to the ground, bend the electrode towards the ground, pilot light until the spark is able to jump. |
| My thermocouple equipped fire pit will not stay lit on start-up | <ol style="list-style-type: none"> 1. Your tank is running out of or ran out of gas 2. The pilot light is not being held down long enough to heat the thermocouple 3. The thermocouple attachment point on the back of the control valve is loose | <ol style="list-style-type: none"> 1. Check to make sure your tank is full and the valve is on. 2. Follow the lighting instructions for the thermocouple equipped pit and hold the gas valve down in the light position for at least 20 seconds. 3. Snug the screw on the back of the control valve with pliers or a wrench. See the thermocouple screw image on the next page for location. |
| My fire pit was working great and just turned off. | <ol style="list-style-type: none"> 1. Your tank is low on gas or has run out 2. The pilot light went out in the firebox, and the thermocouple cooled off and shut the gas off | <ol style="list-style-type: none"> 1. Check your tank and make sure you have gas. An inexpensive inline gauge is a good way to check. See the image on the next page. 2. Move some of the fire pit material away from the firebox so the pilot flame can breathe and stay lit. See the image on the next page for location. |
| I smell gas after my fire pit has been lit for several minutes. | Unburnt gas is leaking | <ol style="list-style-type: none"> 1. Replace your propane tank. Many tanks in the exchange program have leaky valves. 2. Make sure the regulator and hose are tightly attached to the tank. 3. If you continue to smell, gas discontinue use immediately and contact our Solutions Center for help. solutions.center@leadersfurniture.com |

Images

Propane Tank Gauge

Can be purchased online or at a home improvement store



Thermocouple Bolts

The thermocouple bolt is on the back of the control valve. It can be seen and accessed through the door the propane tank slides in.



Firebox

A firebox is located on the top of the fire pit in the fire bowl. Move material back to allow the pilot light to breathe and stay lit

