

Match Lit with Flame Sense

Installation & Operation Instructions



INSTALLATION

We suggest that our products be installed by professionals that are locally licensed by the authority having jurisdiction in gas piping.



SERVICE

We suggest that our products be serviced by a professional certified in the US by the National Fireplace Institute (NFI) as NFI Gas Specialists.

⚠ WARNING: FOR OUTDOOR USE ONLY.

Installation and Service must be performed by a qualified installer, service agency, or the gas supplier.

⚠ DANGER FIRE OR EXPLOSION HAZARD

If you smell gas:

- Shut off gas to the appliance.
- Extinguish any open flame.
- If odor continues, leave the area immediately.
- After leaving the area, call your gas supplier or fire department.

Failure to follow these instructions could result in fire or explosion, which could cause property damage, personal injury, or death.

⚠ WARNING

If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury, or loss of life.

⚠ DANGER



CARBON MONOXIDE HAZARD

This appliance can produce carbon monoxide which has no odor.

Using it in an enclosed space can kill you.

Never use this appliance in an enclosed space such as a camper, tent, car or home.

⚠ WARNING

Do not store or use gasoline, or other flammable vapors and liquid, in the vicinity of this or any other appliance.

An LP-cylinder not connected for use shall not be stored in the vicinity of this or any other appliance.

Installer: Leave this manual with the appliance. | **Consumer:** Retain this manual for future reference

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Product Specific Information	The installation must conform with local codes, or in the absence of local codes with the National Fuel Gas Code, ANSI Z223.1 • NFPA 54; National Fuel Gas Code; Natural Gas and Propane Installation Code, CSA B149.1; or Propane Storage and Handling Code, CSA B149.2, as applicable.
6) Parts List	
7) Installation	
8) Fire Pit Operation	
9) Troubleshooting	
10) Maintenance	The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psi (3.5 kPa)
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1) General Information

Instructions are also available at theoutdoorplus.com

Please carefully follow the instructions in this manual to prevent personal injury or property loss. Instructions are updated as needed. It is the installer's responsibility to periodically review instruction for applicable updates.

The steps listed as:

WARNINGS: Contains information critical to the safe installation and operation of the fire pit.

WARRANTY REQUIREMENT: Must be strictly followed to qualify for product warranty.

Warranty will be void if not followed.

IMPORTANT: Are notes and insights to help ensure product satisfaction and serviceability.

WARNING: It is the installer's responsibility to ensure a safe installation and to educate the end user as to proper operation. Leave this manual with the end user.

WARNING: Never alter product or configuration in any way.

WARNING: NOT FOR REMOTE CONTROL USE: This family of product is not for use with any type of remote or start-up timer control.

WARNING: We suggest that our products be installed by professionals that are locally licensed by the authority having jurisdiction in gas piping. We suggest that our products be serviced annually by a professional certified in the US by the National Fireplace Institute (NFI) as NFI Gas Specialists or in Canada by WETT (Wood Energy Technical Training). Installer must follow all instructions carefully to ensure proper performance and safety. The Outdoor Plus Company is not responsible for your actions.

WARNING: Product is not intended to be a starter for wood or any other combustibles.

WARNING: Product is not for use with small LP Tanks and must utilize permanent fixed piping for fuel supply.

WARNING: It is the responsibility of the installer to follow:

- The *National Fuel Gas Code, ANSI Z21.97-(2017)/NFPA 54* or *International Fuel Gas Code*.
- The *National Electrical Code, ANSI/NFPA 70*.
- Local Codes

WARNING: Only use gas/fuel type specified for this fire pit see label on the fire pit control Box. Verify correct gas/fuel type and pressure. Never use an alternative fuel to include bio-fuel, ethanol, lighter fluid or any other fuel.

Gas pressure and type should be checked prior to use and installation.

- Natural Gas Fire Pit:

Supply Pressure: Minimum: 3.5" W.C.; Maximum: 7.0" W.C.

- LP Gas:

Supply Pressure: Minimum: 8.0" W.C.; Maximum: 11.0" W.C.

2) Selecting the Location

WARNING: All fire pits, match lit kits, spark ignition, safety pilot and electronic ignition systems are designed and intended for outdoor use only.

WARNING: All fire pits must have a gas shutoff on the outside of the exterior of the fire pit to allow for emergency shut off and maintenance.

WARNING: Select a location where the fire pit can be attended during operation. Never leave an operating fire pit unattended or by someone not familiar with its operation or emergency shut off locations.

WARNING: Both children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid burns and clothing ignition.

WARNING: Young children should be carefully supervised when they are in the area of fire pit.

WARNING: Clothing or other flammable materials should not be placed on or near fire pit.

WARNING: Fire pits create very high temperatures - Combustibles must be located far enough away that there is no risk of ignition.

IMPORTANT: It is recommended that material such as granite, marble or other dense stone be kept away from heat and especially flame due to risk of cracking. Manufacturer is not responsible for damage.

Fire Pit Clearances – See Figures 1 and 2 On Last Pages

Under Valve Box When Applicable	2" For Drainage
Sides Surrounding Fire Pit	48" From Structure or Combustibles
Overhead Clearance	Min. 96" Overhead Clearance

- Select a location with good drainage.
- Choose a location that allows easy access for installation and maintenance of the fire pit.
- Pick a location that allows sufficient horizontal room to enjoy the fire pit while allowing a safe distance from the heat and flame.

3) Construction of the Enclosure

WARNING: All fire pits must have a gas shutoff on the outside of the exterior of the fire pit to allow for emergency shut off and maintenance.

WARNING: Always use proper materials and construction for gas supply, power and enclosure.

WARNING: The enclosure must incorporate 1 vent on at least two opposing sides (2 vents total) at a minimum size of 18 sq. inches of total free area each (Example: 3"x 6" or larger). Installation of the vents in the mid to lower area of the enclosure is recommended. Ventilation allows for heat and or residual fuel to escape. Failure to properly vent enclosure may result in the fire-pit overheating or explosion. Some enclosures may require more ventilation based on material, size, and extended use. The vent may work as a drain as well when installed at bottom sidewall to prevent water build up.



Vents

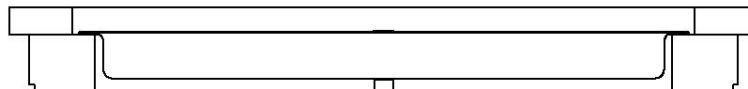
WARNING: The interior void space of the enclosure surrounding the valve box cannot be filled with any material (gravel, crushed rock, concrete, etc.)- It is a requirement to have a minimum of 2" under the valve box for proper ventilation and drainage.

WARNING: Select materials that are non-combustible in both initial installations as well as over time.

WARNING: The fire pit assembly should be recessed a minimum of 2.25" from the top of the enclosure to protect flame from being blown out. Some areas may require more- 4 to 6" is not uncommon.

WARRANTY REQUIREMENT: The enclosure must be constructed on a stable surface. The weight of the fire pit must be supported by the pan and not by any control/valve box. For electronic ignition models the control/valve box must be above grade with adequate drainage to prevent water damage to the controls inside the box.

- Make sure that the structure is level. We recommend the use of the installation collar (optional) that may be mortared into the surround.
- The Outdoor Plus recommends that the pan lip is recessed on trough (linear), and large round products as illustrated below. The Outdoor Plus cannot guarantee the lip on all of our products will be perfectly flat and will not warp due to heat.



IMPORTANT: Product must be accessible for service.

4) Installation of a Fire Pit

Installation

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WARNING: We suggest that our products be serviced annually by a professional certified in the US by the National Fireplace Institute (NFI) as NFI Gas Specialists.

WARNING: Confirm this appliance is built for gas used – natural gas or LP. Do not use natural gas appliance with LP or LP appliance with natural gas. Refer to the label on the appliance.

WARNING: To prevent damage, unhook fire pit from gas supply for pressure leak tests.

WARNING: Fuel line sizing is the responsibility of the installer and must be able to supply the stated maximum btu for the product.

WARNING: Burn Testing- It is the responsibility of the qualified installer to test for gas leaks at all connections.

WARNING: When filling the pan with lava rock and/or decorative glass, the instructions in Section 5 must be followed.

WARNING: Gas Plumbing Connections: Use only joint compound or tape that is resistant to all gases. Apply joint compound to all male pipe fittings only- DO NOT use on FLARED fittings. Be sure to tighten every joint securely.

WARNING: For systems with an extended or detached valve box the area in which the valve box is installed must conform with all installation requirements to include but not limited to location, construction, venting and local codes. Failure to do so may result in personal injury property damage or explosion.

WARRANTY REQUIREMENT: Warranty is void if product is altered.

- Refer to cut sheets on our Web-Site for important dimensional information for your fire pit.
- Plan your project well in advance to comply with all instruction and codes and allow for access and serviceability of the product.
- Purge gas lines of air.
- Perform all leak test with leak detector or leak reactant.
- Verify correct gas type and pressure.
- Perform leak test on main gas supply. Repair leaks as necessary.
- Shut Off Gas Supply and Power to fire-pit.
- Connect fire-pit to main gas supply.
- Turn on gas supply and perform leak test on all inlet connections. Repair as needed.
- Position fire pit safely with access to all gas connections for testing.
- Light fire pit. It may take several cycles to purge air from the lines.
- Once fire pit is lit perform leak test on all gas connections. Repair as needed.
- Turn off fire pit and allow to cool.
- Apply media as described in (Section 5).
- Turn on fire pit again and perform leak test with media correctly installed. If gas leak is detected verify correct media application and repair as needed.
- If trimmer valve is installed adjust flame to desired height. (Never alter the product configuration)
- Set fire pit in properly constructed enclosure (Section 3).
- Verify correct operation and lighting.
- Review safety manual with end user and instruct not to change/ modify fire pit or media.
- Leave manual with end user.



5) Media

⚠ WARNING: FOR GLASS MEDIA USAGE WITH LP GAS- WHEN USING APPROVED DECORATIVE GLASS TO COVER BURNER APPLY ONLY ENOUGH TO HIDE BURNER. APPLYING OVER 1/2" MAY CREATE BACK PRESSURE AND GAS LEAKAGE FROM AIR MIXER RESULTING IN LP POOLING UNDER FIRE PIT.

⚠ WARNING: FOR GLASS MEDIA USAGE WITH LP GAS- THE UNIT MUST BE TESTED WITH MEDIA OVER BURNER FOR CONFIRMATION OF NO BACK PRESSURE CREATING GAS TO LEAK OUT OF AIR MIXER VENTURI HOLES. THIS MAY HAVE TO BE DONE PRIOR TO PLACING IN ENCLOSURE IF NO ACCESS DOOR.

WARNING: The fire pit is designed to use approved media correctly installed over the burner to achieve proper combustion.

WARRANTY REQUIREMENT: Never install a mesh or screen under the media.

IMPORTANT: Media affects flame pattern greatly. It is possible to create an unusual flame pattern that could damage your enclosure. Enclosure damage from an open flame fire feature is not covered under any warranty

Lava Rock & Glass Application

Please follow the instructions below to add the finishing touch to your fire pit.

Lava Rock Only Application

- 1) Install your fire pit per instructions.



- 2) Apply lava rock ONLY deep enough to cover ring and pan- less than 2" above fire ring.



Decorative Glass Application

- 1) Install your fire pit per instructions.



- 2) Fill Pan with glass. Cover Burner with 1/8 to 1/4" of glass. Do not over fill with glass. All LP installations must be checked for back pressure with media installed. Failure to do so may result in personal injury or property damage.



6) Parts List

- 1) Match Lit with Flame Sense Fire Pit
- 2) Lava Rock
- 3) Instructions

7) Installation

Installation

We suggest that our products be installed by professionals that are locally licensed by the authority having jurisdiction in gas piping.

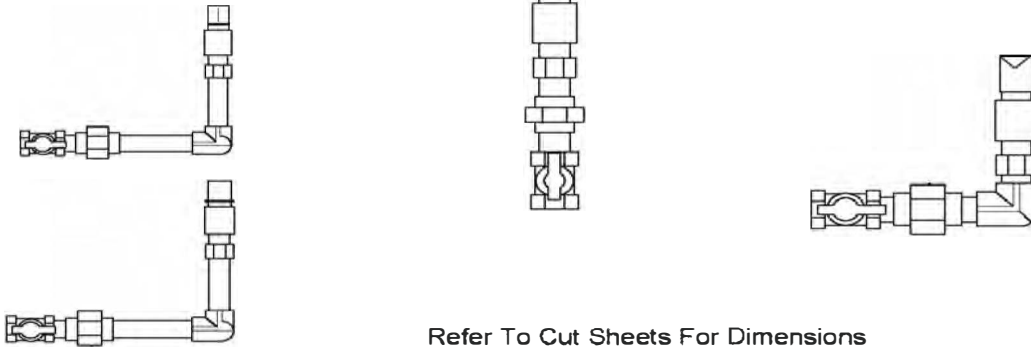
WARNING: Product certification is void if product configuration is altered.

1. Read and follow all instructions.
2. Provide access panel for burner valve.
3. Mount product in your enclosure per Section 3.
4. Connect fuel supply to inlet of valve.
5. Leak test all fittings and connections.
6. For LP models check back pressure with media installed. This may need to be done with the pit outside of the enclosure.

Approximate Standard Product Configuration

Other Configurations available upon request - Configurations may change without notice

Match Lit 8"



Refer To Cut Sheets For Dimensions

8) Fire Pit Operation

WARNING: Before use, be sure to test all gas connections for leaks. Do not use fire pit if there is any evidence of leaking gas. If leaking gas suspected, turn off the main gas supply and repair immediately.

WARNING: Do not use the enclosure as a seating area. Wind and gusty conditions will affect the flame in an unpredictable manner. If conditions exist that are not safe for patrons turn the fire pit off.

WARNING: Do not use fire pit if any part has been submerged under water. Immediately call a qualified service technician to inspect the fire pit.

WARNING: Never use any material that is non-porous and holds moisture such as gravel, pebbles, river rock, etc. This material, when heated will cause the trapped moisture to boil and fracture unexpectedly. This material is not sufficiently porous to allow heated steam to readily escape which can break and cause personal injury or damage.

WARNING: Solid fuels shall not be burned in the fire pit. Leaves, sticks, wood, paper, clothing, food material, should be kept away from the fire pit. Fire pit is not for cooking. Make sure that there is no vegetation or other objects over the top or sides of the fire pit that could interfere with safe operation. See clearances in section 2 Selecting the Location.

WARNING: If lava rock is wet, allow fire pit to burn for 45 minutes prior to coming within 15 feet of the fire pit.

WARNING: When fire pit is not in operation turn off gas valve.

WARRANTY REQUIREMENT: When not in use the fire pit must be covered at all times.

IMPORTANT: Initial Start-up: It may be necessary to purge air in gas lines after system installation.

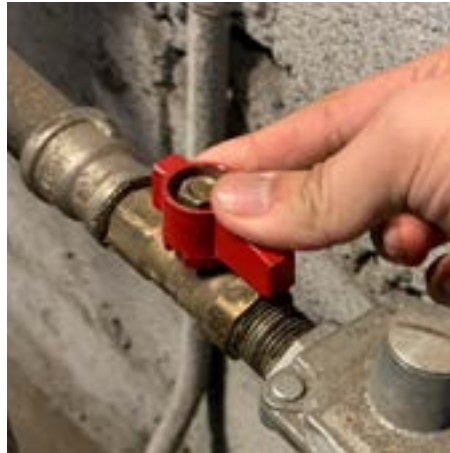
8) Fire Pit Operation Continued

Please read all warnings prior to operation of fire pit.

This product is not for use with small tanks. It is intended to be connected to fixed piping systems only.



1. STOP! Read the safety information and warnings on pages 2 & 3 prior to operating the fire feature.



2. Turn gas supply valve to fire pit to the ON position. Ensure the ON/OFF Knob is in center/middle position with the arrows aligned.



3. Push in the ON/OFF knob to activate the gas valve and allow the gas to flow.



4. While depressing and holding the valve knob, take a kitchen lighter and safely ignite the gas coming out of the pilot.



5. Once lit, continue to push in valve knob for 20 seconds to heat the thermocoupling.



6. Turn the ON/OFF knob counter-clockwise to light main burner. NOTE: If the burner fails to light, wait 5 minutes for gas to clear, then repeat steps 2-6.

SHUTDOWN PROCEDURE

1. Turn "off" fire pit by slightly pressing and turning valve clockwise to "OFF" position, Figure 9.1.
2. Slightly push in the ON/OFF knob and turn clockwise to extinguish pilot, Figure 9.2.
3. Turn off main gas valve to fire pit.
4. After fire pit has cooled, cover fire pit.

9) Troubleshooting

Below are some potential causes and countermeasures to the symptoms indicated in bold. Please contact your retailer or certified technician for service & repair.

Below are some potential causes and countermeasures to the symptoms indicated in bold. If still unable to resolve issue, please contact your retailer or certified technician.

Problem	Possible Causes	Solutions
Pilot Will Not Light	Air in gas line	New install - may take several attempts Check gas level of LP tank
	No gas flow - gas not ON or line obstruction	Confirm gas is ON upstream Possible debris in line: insulation, dirt, plastic, etc.
	Pilot orifice dirty or clogged	Remove orifice and clean (Section 10)
Pilot will not stay lit when control knob released	Knob not being held in long enough	Thermocouple must have time to heat up. Hold the knob in for 30 seconds after pilot lights.
	Small pilot flame: pilot orifice dirty or clogged	Remove pilot orifice and clean
	Dirty thermocouple	Clean using soft brush (Section 10)
	Faulty thermocouple or valve	Replace thermocouple or valve
Burner will not stay lit	Gas pressure improper	Confirm proper gas pressure (See Section 1 - Important Information for Installers)
	Burner obstructed	Confirm no water or debris in burner
	Improperly applied or too much media	Re-apply media (Section 8)
	Too windy	Use when less windy or with our wind guard
Low flame when turned to High	Gas pressure improper	Confirm proper gas pressure (See Section 1 - Important Information for Installers)
	Propane (LP) - Improper lighting procedure	Fire pit valve must be OFF when tank is turned ON. Turn ON tank slowly to allow pressure to equalize
	Lack of gas	Check gas level of LP tank
	Supply hose is pinched	Reposition supply hose as necessary
	Natural Gas (NG) - undersized gas supply line	Gas pipe, flex line, shutoff valve, etc. must be sized to deliver fire pit input pressure & BTU requirement
Flame is creating large amount of soot	Propane (LP) - mesh spider guard or venturis are blocked with debris - grass, dirt, etc.	Thoroughly clean spider guard - (Section 10)
Noise when lit	Whistling - flex line bent too sharp	Re-route flex line to reduce bend
	Propane (LP) - Humming regulator	Not a defect - normal occurrence on hot days due to internal vibrations in regulator

10) Maintenance

WARNING: Any guard or protective device removed for servicing must be replaced prior to operating the fire pit.


WARNING: Installation and repair should be done by a qualified service person. Fire pits should be inspected prior to use and at least annually by a qualified service person.

WARNING: Ensure gas and power (if applicable) are shut off and fire pit is cool before servicing.

- Keep fire pit covered at all times when not in use.
- In some areas of the country spiders or insects have been known to build nest and or lay eggs in the venture holes of the air-mixer for LP units. This can cause fuel to fill the fire feature cavity and result in personal injury or property damage. Periodical inspection by a qualified service technician of the air-intake is required to ensure your fire feature performs properly.
- Keep any debris out of fire pit- clean as needed.
- Ring Cleaning: (1 x YR) If flames exhibit any abnormal shapes or behavior, or if burner fails to ignite properly, then the burner holes may require cleaning. The appliance can be cleaned by carefully removing the media to allow access to burner. Use a brush to carefully remove dust, spider webs, and loose particles from base, logs, and fire ring itself. If evidence of damage, fire ring must be replaced with fire ring specified by manufacturer.
- Thermocouple cleaning of soot: Once every six months or as needed. Remove lava rock & glass around pilot, then the blowout box lid. Clean thermocouple of any soot using soft brush. Be careful not to damage hot wire element. Place lava rock or glass back as explained in Section 8 – Adding Approved Media. See Figure 10.2.1 & 10.2.2.
- Visually inspect the pilot. The pilot flame should cover 3/8 inch to 1/2 inch of the thermocouple, Cleaning of the pilot orifice may be required by removing pilot hood and removing the orifice.

Service

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NATIONAL FIREPLACE INSTITUTE
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11) Replacement Parts



Flame Sense Gas Valve **OPT-FSGV**



Flame Sense Thermocoupling **OPT-FSTC**



Flame Sense On/Off Cover **OPT-FSOC**



Propane Orifice **OPT-FSLPO**



Flame Sense Pilot Hood **OPT-FSPH**



Flame Sense Pilot **OPT-FSPL-NG**
OPT-FSPL-LP



Natural Gas Orifice **OPT-FSNGO**

12) Warranty

Limited Warranty

The Outdoor Plus Company (TOP) warranties fire pits against manufacturing defects that prevent safe and correct function as follows:

» **Burner Rings: Lifetime Warranty**

» **Stainless Steel Pan, Electronics, Gas Valves, Pilot Assembly: Commercial – 6 Months; Residential – 12 Months**

This commences from the date of original sale / shipment from The Outdoor Plus.

This warranty is for parts and in-house (TOP) labor. The defective product must be sent back to TOP with a Return Merchandise Authorization (RMA) issued by TOP for that specific product and any other additional information for the nature of the defect or warranty claim.

The warranty does not cover items that have been damaged by overheating, modification, abuse, or improper storage. Also any labor involving installation or maintenance with the unit is not covered.

This warranty excludes claims for consequential, indirect-collateral expenses arising from product defects or warranty recovery.