

FLAMEDESIGNZ

www.TheBestFirePit.com

EcoBurner™ 1.0 **Manual Lit and 3V Ignition System** **Owner's Manual** **Installation and Operation Instructions**

INSTALLER: Leave this manual with the appliance.
CONSUMER: Retain this manual for future reference.

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The EcoBurner™ has gone through rigorous testing procedures to ensure that it is the most economical and visually appealing fire feature burner available on the market. It consumes less fuel than a traditional fire ring system and produces a taller dancing flame in comparison. The EcoBurner™ is constructed of heavy duty components and will withstand the elements better than a standard fire ring which is composed of an inferior stainless alloy that is in reality not stain/rust proof. Rest assured, once you have installed an EcoBurner™ we guarantee you will love the results.



WARNING: FOR OUTDOOR USE ONLY

Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage. Read the installation, operating, and maintenance instructions thoroughly before installing or servicing this equipment.



Warning: - Do not store or use gasoline or other flammable vapors and liquids in vicinity of this or any other gas appliance.

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



Danger: If you smell gas:

1. Shut off gas to appliance.
2. Extinguish any open flame.
3. If odor continues, keep away from the appliance and immediately call the gas supplier or fire department.

General Information

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 instructions for applicable updates.

WARRANTY REQUIREMENT: All instructions must be strictly followed to qualify for product warranty. Warranty will be void if not followed.

Warning: We strongly recommend 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 U.S. 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. Flame DesignZ, LLC is not responsible for your actions.

Warning: This manual contains information critical to the safe installation and operation of the fire feature.

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: FOR REMOTE CONTROL USE: To prevent accidental start-up from unwanted RF signals it is the responsibility of the end user to turn off power to electric outlet for the remote control receiver when the fire feature is not in use via wall switch or breaker.

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

Warning: It is the responsibility of the installer to follow ALL LOCAL CODES concerning the installation and operation of the fire feature. In the absence of local codes, please follow:

- Fixed piping system: *The National Fuel Gas Code, ANSI Z223.1/NFPA 54 or International Fuel Gas Code.*
- Electrical ground: *The National Electrical Code, ANSI/NFPA 70*

Warning: Only use gas/fuel type specified for this fire feature. See label on the fire feature instruction manual or control box for gas/fuel type. Verify correct gas/fuel type and pressure. Never use an alternative fuel to include bio-fuel, ethanol, lighter fluid or any other fuel.

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

- Natural Gas Fire feature:

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

- LP Gas:

Supply Pressure: Minimum: 10.0" W.C., Maximum: 11.0" W.C. Outlet Pressure: 10.0" W.C

Selecting a Location for Your Fire Feature

Warning: For electronic ignition models there must be an electrical shut off (wall switch or breaker) on the exterior of the fire feature or on adjacent wall to allow for emergency shutdown and maintenance.

Warning: All fire features must have a gas shut off on the outside of the exterior of the fire feature to allow for emergency shut off and maintenance.

Warning: Select a location where the fire feature can be attended during operation. Never leave an operating fire feature unattended or attended 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 feature.

Warning: Clothing or other flammable materials should not be placed on or near fire feature.

Warning: Fire features 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 6-10" from flame due to risk of cracking. Manufacturer is not responsible for damage.

Fire Pits

Clearances -

- 6" under valve box when applicable and an additional 2" for drainage.
- The side of fire feature should 36" from any structure or combustibles.
- Overhead clearance should be 120".
- Select a location with good drainage.
- Choose a location that allows easy access for installation and maintenance of the fire feature.
- Pick a location that allows sufficient horizontal room to enjoy the fire feature while allowing a safe distance from the heat and flame.

Fireplaces

Clearance Requirements Clearance:	Dimension	Measured From:
A: Sidewall	11" (203mm)	Side of Fireplace Opening
B: Ceiling	36" (914mm)	Top of Fireplace Opening
C: Mantel Height	(min.) 18" (457mm)	Top of Fireplace Opening
D: Mantel Depth	(max.) 12" 304mm)	From Wall
E: Alcove Width	57"(1148mm)	Wall to Wall (Minimum)
F: Alcove Depth	36" (914mm)	Front to Back Wall (Maximum)

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

Construction of the Enclosure

Warning: For electronic ignition models there must be an electrical shut off (wall switch or breaker) on the exterior of the fire feature or on adjacent wall to allow for emergency shutdown and maintenance. Verify correct 110VAC or 24VAC Supply.

Warning: All fire features must have a gas shut off on the outside of the fire feature to allow for emergency shut off and maintenance.

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

Warning: The enclosure using LP gas must incorporate 1 vent on at least two opposing sides (2 vents total) at a minimum size of 18 sq. inches 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 feature overheating or explosion. Overheating could lead to heat damage to internal components. 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.

Warning: The interior void 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 6" under the valve box for proper ventilation.

Warning: Select materials that are non-combustible.

Warning: The fire feature 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 insert must be supported by the pan and not by any control/valve box. For 3V systems 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. Blocks, bricks or L-brackets can be used to build a support ledge for the insert plate or pan.

Fire Feature Installation

Warning: We strongly recommend 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 U.S. 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. Flame DesignZ, LLC is not responsible for your actions.

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 feature 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 BTU's for the product. Natural gas 3.5" to 5.0" WC pressure and 10" to 11" WC pressure for propane.

Warning: Burn Testing 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 the Media Section 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 to 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.

Warning: If using an LP bottle, position at safe distance away from flame.

Warning: Do not place LP bottle inside enclosure.

Warning: Use only your hand to turn the gas key valve. Never use tools. If the key valve will not turn by hand, don't try to repair it. Call a qualified technician. Force or attempted repair may cause a fire or explosion.

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

WARRANTY REQUIREMENT: Warranty is void if valve is tampered with.

1. Purge gas lines of air.
2. Perform all leak tests with leak detector or leak reactant.
3. Verify correct gas type and pressure.
4. Perform leak test on main gas supply. Repair leaks as necessary.
5. Shut off gas supply and power to insert.
6. Connect insert to main gas supply. If using flex line avoid sharp bends with flex line to prevent whistling.
7. Turn on gas supply and perform leak test on all inlet connections. Repair as needed.
8. On electronic ignition systems with optional transformer, plug into a weatherproof outlet.
9. Position insert safely with access to all gas connections for testing.
10. For electronic ignition models, turn on power to the outlet.
11. Light or turn on insert. It may take several cycles to purge air from the lines.
12. Once insert is lit, perform leak test on all gas connections. Repair as needed.
13. Turn off insert and allow to cool.
14. Set insert in properly constructed enclosure.
15. Verify correct operation and lighting.
16. Review safety manual with end user and instruct not to change/modify fire feature or media.
17. Leave manual with end user.

Media

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

Lava Rock & Glass Application

Please follow the instructions below:

1. Pour Lava Rock, Granules or Glass AROUND the burner.
2. Using your hands push the media towards the jets making sure not to get small pieces of media in the jets. Only cover the jets with large enough pieces of glass or lava rock to not fall inside.
3. For inserts with an electronic ignition system, do not cover pilot assembly with media as this may interfere with it's the operation.

Parts List

1. **EcoBurner™**
2. Aluminum Plate or Pan
3. Installation Kit – Key Valve with key, Flex line, 12” Chrome Key
4. Instruction Manual
5. Optional 3V Ignition System

Fire Feature Operation

Warning: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

Warning: If using an LP bottle, position at safe distance away from flame.

Warning: Wind and gusty conditions will affect the flame in an unpredictable manner. If conditions exist that are not safe for patrons, turn the fire feature off.

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

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 feature. Leaves, sticks, wood, paper, clothing, food material, should be kept away from the fire feature. Make sure that there is no vegetation or other objects over the top or sides of the fire feature that could interfere with safe operation. See clearances in Section: "Selecting a Location".

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

Warning: When fire feature is not in operation turn off gas valve.

WARRANTY REOUIREMENT: When not in use, the fire feature must be covered at all times.

MANUAL LIGHTING INSTRUCTIONS

1. STOP! Read the safety information above.
 - a. Turn key valve to the on position then to the OFF position for gas leak check.
2. Wait (5) minutes to clear out any gas. Then smell for gas. If you smell gas, STOP!

- | |
|--|
| <ol style="list-style-type: none">1. Shut off gas to appliance.2. Extinguish any open flame.3. If odor continues, keep away from the appliance and immediately call the gas supplier or fire department. |
|--|

If you do not smell gas, proceed to next step.

3. Turn key valve to the ON position while igniting lighter simultaneously to ignite the gas.

Warning: If the flame will not stay lit after several tries, turn the key valve to the OFF position and call your service technician or gas supplier.

Warning: Never leave lit fire feature unattended.

TO TURN OFF GAS APPLIANCE

1. Turn the key valve to the OFF position.
2. Carefully verify flame is OUT.
3. After cooling, cover the fire feature.

3V LIGHTING INSTRUCTIONS

1. Before operating appliance ensure the manual gas shutoff valve is open.
2. Prior to turning appliance on visually inspect fire feature to ensure debris such as leaves or other combustible material has not collected inside the feature which could burn and emit embers once the fire feature is turned. Also ensure any person standing close to the fire feature is aware you will be turning it on.
3. Turn on fire feature with remote or switch.
4. Pilot will spark repeatedly and pilot gas valve will open.
5. Within 10 seconds of power application, pilot flame will ignite.
6. Within 10 seconds of pilot flame ignition, burner element will ignite.

TO TURN OFF 3V APPLIANCE

1. Turn fire feature off with remote or switch.
2. Carefully verify flame is OUT.
3. After cooling, cover the fire feature.

Maintenance

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

Warning: Installation and repair should be done by a qualified service person. Fire features should be inspected prior to each use, and inspected at least once annually by a qualified service person.

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

- Keep fire feature covered at all times when not in use.
- Keep any debris out of fire feature and clean as needed.
- In some areas of the country spiders or insects have been known to build nests and or lay eggs in the jets. This can interfere with the operation of the burner and result in personal injury or property damage. Periodic inspection by a qualified service technician is required to ensure your fire feature performs properly.
- Jet Cleaning: Once a year, if the flames exhibit any abnormal shapes or behavior, or if burner fails to ignite properly, then the jet holes may require cleaning. The appliance can be cleaned by carefully removing the logs and media to allow access to the burner. Use a paperclip and carefully insert into jet to remove dust, spider webs and loose particles from the jet.
- Use a brush to carefully remove dust, spider webs and loose particles from the media and logs and burner itself. If there is evidence of damage, the **EcoBurner™** must be replaced with an **EcoBurner™** as specified by the manufacturer.
- Thermocouple Cleaning of Soot: Every six months or as needed. Remove lava rock & glass around pilot, then the blowout box lid (screen around the pilot). Clean thermocouple of any soot using soft brush. Be careful not to damage the hot wire element. Place lava rock or glass back as explained in the Section "MEDIA".

Troubleshooting - Manual lit

Below are some potential causes and countermeasures to the symptoms listed:

No Flame

1. Make sure the key valve is on. Turn key counterclockwise.

Low or Weak Flame

1. Verify correct gas pressure.

One or more jets will not light.

1. Check jets for obstruction.

Fire feature is making a whistling sound.

1. Make sure that the flex line is the correct size and that there are no kinks in the line.

Please contact your retailer or certified technician for service & repair if these suggestions do not solve the issue.

Troubleshooting 3V System

Below are some potential causes and countermeasures to the symptoms below.

No Pilot Flame (Pilot sparks but won't light.)

1. Air is in the gas line. If this is a new install it may take several attempts to purge the air. See the Section "Installation of Fire feature".
2. Debris is in the gas line. Clear the gas line.
3. Gas pressure is improper. Confirm proper gas pressure. See the Section "General Information".
4. Pilot orifice is dirty. Remove the pilot head and clean. See the Section "Maintenance".
5. Improperly applied media. See the Section "Media".
6. Wind conditions might be too severe.

No Main Burner (Pilot Lights)

1. Gas pressure is improper. Confirm proper gas pressure. See the Section "General Information".
2. Small pilot flame. Remove the pilot head and clean orifice. See the Section "Maintenance".
3. Dirty flame sensor. Clean using soft brush. See the Section "Maintenance".
4. **EcoBurner™ 1.0** Obstructed. Confirm there is no debris or water in the burner. See the Section "Maintenance".

Main Burner Turning On and Off Intermittently

1. Small pilot flame. Remove the pilot head and clean orifice. See the Section "Maintenance".
2. Improperly applied media. See the Section "Media".
3. Gas pressure is improper. Confirm proper gas pressure. See the Section "General Information".
4. Flame sensor is defective. Change the pilot assembly.
5. Wind conditions might be too severe.

Fire feature is making a whistling sound.

1. Make sure that the flex line is the correct size and that there are no kinks in the line.

Contact your authorized dealer for replacement parts.

Please contact your retailer or certified technician for service & repair if these suggestions do not solve the issue.

Warranty

FLAME DESIGNZ, LLC LIMITED WARRANTY

Flame DesignZ, LLC warrants its products to be free from defective material and workmanship for the period of time indicated below for each product line. The warranty time periods listed below are from the original date of purchase. Flame DesignZ, LLC agrees to repair or replace, at its sole discretion, a defective product if returned to Flame DesignZ, LLC within the warranty period and accompanied by proof of purchase. This warranty does not extend to any Flame DesignZ, LLC products which have been subject to misuse, neglect, accident, incorrect wiring or to use in violation of operating instructions furnished by us, nor extend to any units altered or repaired for warranty defect by anyone other than Flame DesignZ, LLC. This warranty does not cover any incidental or consequential damages and is in lieu of all other warranties expressed or implied and no representative or person is authorized to assume for us any other liability in connection with the sale of our products. Some states do not allow limitations on how long an implied warranty lasts, and/or the exclusion or limitation of incidental or consequential damages so the above limitations and exclusions may not apply to the original CUSTOMER. This warranty gives you specific rights and you may also have other rights, which vary, from state to state. If you have any questions concerning this warranty call 303-426-0682.

Burners:

All burners are warranted for 8 years on parts and craftsmanship of the insert. Warranty is void if the burner has not been covered and proper maintenance has not been performed.

3V IGNION SYSTEM LIMITED WARRANTY

Warranty period is two (2) years from the date of sale or one (1) year from the date of installation, whichever occurs first.

For replacement parts, please contact Flame DesignZ, LLC at the following:

FLAMEDESIGNZ

www.TheBestFirePit.com

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Federal Heights, Colorado

80260, USA

(303) 426 - 0682