



## Fire Feature Owner's Manual

### **WARNING: FOR OUTDOOR USE ONLY**

#### **ATTENTION**

**INSTALLER:** PLEASE LEAVE THESE INSTRUCTIONS WITH THE CONSUMER.

**CONSUMER:** PLEASE READ & RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE AND BEFORE INSTALLING OR OPERATING.

#### **WARNING**

- Improper installation, adjustment, alteration, service, or maintenance can cause injury, death, or property damage.
- Read the installation, operation, and maintenance instructions thoroughly before installing, operating, or servicing this equipment to reduce risk of fire, burn hazard, or other injury.
- This manual should be retained for your information.
- Do not operate this fire feature without having read this manual.
- All gas installations must be performed by a qualified technician or authorized service agent.
- NOTE: This fire feature is not intended for commercial use.

#### **WARNING**

- Do not store or use gasoline or other flammable vapors and liquids in vicinity of this or any other appliance.
- An LP gas cylinder not connected for use shall not be stored in the vicinity of this or any other appliance.
- Never operate with a LP gas cylinder inside.

#### **WARNING**

##### **WHAT TO DO IF YOU SMELL GAS WHEN NOT IN OPERATION:**

- Shut off gas to fire feature.
- Extinguish any open flame.
- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier. Follow your gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

#### **CARBON MONOXIDE HAZARD**

- This fire feature will produce carbon monoxide which has no odor.
- As with any gas appliance, harmful carbon monoxide is produced during the combustion process that should not be allowed to accumulate in a confined space.
- Please note since hot air rises above this fire feature while in operation, covered locations must be avoided.
- Using this fire feature in an enclosed space can cause death.
- Never use this fire feature in an enclosed space such as a camper, tent, car, or home.
- Do not locate this fire feature where an overhang or awning may cover it.

# GENERAL SAFETY & INSTALLATION WARNINGS

- Safe operation of this fire feature depends upon its proper installation.
- A qualified professional installer and service technician must perform adjustments and service of the burner.
- Proper location and proper use is essential to insure safe and continued trouble-free operation.
- Any non-approved alterations made to the fire feature will void the product's warranty.

**NOTE:** The manufacturer cannot be held responsible for damage or injury caused by improper use of this fire feature.

**IMPORTANT:** Consult the AHJ (Authority Having Jurisdiction) or local contractor of any uncertainty in regards to installation.

**IMPORTANT:** Have an ABC Fire Extinguisher accessible at all times. Never attempt to extinguish a grease fire with water or other liquids.

**FIRE FEATURE INSTALLATION:** This gas burner must be installed in accordance with all local codes. If installation is planned in an area with no local codes, the burner must be installed in accord with the National Fuel Gas Code ANSI Z223.1 and storage and handling of liquefied petroleum gases, ANSI/NFPA 58 or CSA B149.1 natural gas and propane installation code or the International Fuel Gas Code.

## **⚠ CALIFORNIA PROPOSITION 65 WARNING**

The burning of gas fuel generates some by-products which are on the list of substances which are known by the State of California to cause cancer or reproductive harm. California law requires businesses to warn customers of potential exposure to such substances. To minimize exposure to these substances, always operate the unit according to the use and care manual, ensuring you provide good ventilation when operating.

## **⚠ MASSACHUSETTS RESIDENTS:**

All gas products must be installed using a "Massachusetts" licensed plumber or gasfitter. A "T" handle type manual gas valve must be installed in the gas supply line to this burner.

## **⚠ WARNING**

- 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 use the burner, firepit, or the surrounding area as a storage area for flammable materials or propane canisters. Keep area clear and free from combustible materials, gasoline, and other flammable vapors and liquids. Failure to do so can result in death, explosion, or fire.

**⚠ BEWARE OF SPIDERS**

- **CAUTION:** BURNER TUBES MUST BE INSPECTED AND CLEANED BEFORE EACH USE.
- Spiders and small insects occasionally spin webs or make nests in the burner tubes. These webs can lead to a gas flow obstruction, which could result in a fire in and around the burner tubes.
- Frequent inspection and cleaning of the burner tubes is necessary.

**⚠ WARNING**

- This fire feature should be inspected before use and at least annually by a qualified service person.
- More frequent cleaning may be required as necessary.
- Control compartment, burners, media, and circulating air passages of the fire feature must be kept clean.

**⚠ WARNING**

- Fire Risk/Burn Risk: This fire feature is HOT. DO NOT TOUCH. SEVERE BURNS MAY RESULT. CLOTHING COULD IGNITE.
- CAREFULLY SUPERVISE children in areas where fire features are located during and after operation.
- Alert children and adults to hazards of high temperatures.
- Clothing or other flammable materials should not be near the fire feature.

## FIRENADO BURNER BTU RATINGS

### NATURAL GAS

NATURAL GAS SPIRAL ROUND BURNER	6" BTU's	12" BTU's	18" BTU's	24" BTU's2	30" BTU's	36" BTU's2	48" BTU's
	88,000	92,000	147,000	296,000	435,000	443,000	593,000

## FIRE FEATURE INSTRUCTIONS

### **WARNING: FOR OUTDOOR USE ONLY**

If designing and building your own fire feature, please read and follow the instructions below. In addition to the information below, you must check your local codes and consult the local authority having jurisdiction.

- Do not operate in a building, garage or any other enclosed areas. This could result in carbon monoxide buildup which could result in injury or death.
- Ensure your burner is positioned safely away from anything that can catch fire.
- This fire feature is not approved to be installed in or on any recreational vehicles and /or boats. This is for single family/residential use only.
- When determining a suitable location take into account concerns such as exposure to wind, proximity to traffic paths and keeping any gas supply lines as short as possible.

When selecting a location, there must be the following clearances:

Fire Pit Clearances	Up to 200K BTUs
Sides Surrounding Fire feature from Structures or Combustibles	36"

- Use **non-combustible** materials and construction for gas supply, power, and enclosure.
- The determination of whether a material is combustible or non-combustible construction is made by the local fire marshal, building inspector or the local safety authority having jurisdiction.
- When building a custom fire feature, **ADEQUATE VENTILATION** is **REQUIRED**. Vents should be placed on opposing sides of the fire feature to allow cross ventilation. Ventilation should be placed near the bottom of the cavity for propane installations or near the top of the cavity for natural gas installations. Consult your local codes and the local authority having jurisdiction in regards to venting your cavity. Keep the ventilation openings of the enclosure free and clear from any debris.
- **DO NOT** obstruct the flow of combustion and ventilation air to this burner.
- Keep any electrical supply cords and types of hoses away from any heated surfaces and/or sharp and aggressive edges.
- Use your fire feature only on a firm level surface. This burner is not designed for recreational vehicles, and should not be installed on a boat or marine craft.
- Keep the burner protected from adverse weather, including rain and winds.
- Double check factory installed seals.
- When your burner is installed, you should be able to access the gas supply line including the gas piping or hose, gas regulator, gas cylinder and any shut off valves. Allow clear access to the entire gas supply hose and regulator.
- Many backyards have areas that are partially closed off, such as balconies and pergolas. In some cases, it is hard to decide whether these partially enclosed areas should be classified as indoor areas, particularly in terms of permanent (non-closable) ventilation. Consult the AHJ (Authority Having Jurisdiction) or local contractor of any uncertainty. This fire feature shall not be located under overhead construction.
- **Please read all instructions before installing or operating your burner to prevent injury and burner damage.**
- All gas appliances will get hot during use. Use extreme caution when operating.
- Do not touch hot surfaces.
- Close supervision is necessary when this or any appliance is used near children. Keep children away from the burner during operation and until the burner has cooled off.

- Do not store any LP cylinder or tank not connected for use with the burner, in the area of this burner, inside or around the firepit, or any other appliance. Never store an LP cylinder or tank indoors, or within the reach of children.
- Never test the burner for gas leaks using a lighted match or any other open flame; see section on Leak Testing.
- The use of accessories, regulators, or components not recommended by the burner manufacturer may cause injuries and will void warranty.
- Never lean over the surface when lighting or operating the burner.
- To prevent injuries, do not use accessories that are not recommended by the manufacturer.
- Never use the burner in windy conditions.
- Children should not be left alone or unattended in an area where any appliance is in use. They should never be allowed to touch, sit or stand on any part of the burner or firepit..
- Wear proper clothing when operating this burner. Loose-fitting or hanging garments should never be worn while using the burner.
- Do not leave the burner unattended while in use.
- Never Place a “cover” over the fire feature or burner while gas is on. Gas build-up will occur and a potential explosion may occur when ignited. Never cover a hot firepit. Always wait until it has completely cooled before covering. When gas is on, never leave unattended, for the flame may blow out.
- When the gas valve is in the “Off” position, remove valve key so that children cannot place the gas in the “On” position.
- If gas should “blow out” turn the gas to the “OFF” position and wait 10 minutes until excess gas dissipates then place to the “On” position and re-ignite.
- Be cautious after burner has been placed in the “Off” position that children do not touch the fire feature on any part, as they fire feature will have residual heat built up in the materials.
- Fire pits are not designed for cooking food on. Refrain from using fire pit as a method of cooking.

## GAS SAFETY AND INSTALLATION WARNINGS

- All gas connections should be made by a professional qualified technician and in accordance with local codes and ordinances. The installation must conform with local codes.
- Do not twist the gas supply hose.
- Before each use, visually inspect the gas supply hose for cracks, cuts or excessive wear. Replace the hose if necessary. Check for gas leaks before each use.
- Gas Specifications: Be sure the gas supplied to the burner conforms with the burner you purchased. A Natural Gas burner requires natural gas to operate.
- Never connect the burner to an unregulated gas supply line. Burners operated without a regulator are unsafe and will not be serviced until installed properly and safely. Unsafe operation without a gas regulator will void the warranty of the burner.
- Fuel hoses are trip hazards.

CHECK TO ENSURE THAT THE GAS SUPPLY HOSE DOES NOT COME IN CONTACT WITH ANY HOT SURFACE, SHARP OR ROUGH EDGES, OR OUTDOOR KITCHEN CONSTRUCTION. DO NOT KINK THE GAS LINE WHEN INSTALLING.

**IMPORTANT:** Never connect the burner to an unregulated gas supply. The installation of this burner must conform with local codes. A licensed contractor or local gas company representative must perform all natural gas connections. Ensure that the service supplying the burner is fitted with a shut off valve conveniently positioned near the burner and giving ease of access. The burner 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 0.5 psi (3.5 kPa). The burner and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system.

When making the connection from the gas valve to the firepit ring, a good practice is to have your local gas professional cap off the fitting where the burner will connect to the gas line. This allows a safer and more reliable gas leak test for all the points from the valve to the firepit ring union. Once these points are tested and free of leaks, the cap can then be removed and the burner installed to finish the leak testing procedure below for the burner to line connection.

### **GAS LEAK WARNING**

- Finding and/or fixing a gas leak is NOT a “DO-IT-YOURSELF” procedure – ONLY USE A PROFESSIONAL.
- NEVER USE THE BURNER WITHOUT FIRST LEAK TESTING THE GAS CONNECTIONS INCLUDING ALL OF THE VALVES, FITTINGS, LINES ETC. (ANY GAS CONNECTION SHOULD BE CHECKED)
- WARNING: DO NOT USE OPEN FLAME TO CHECK FOR LEAKS. USE OF AN OPEN FLAME COULD RESULT IN A FIRE, EXPLOSION AND BODILY HARM.
- DO NOT SMOKE WHILE PERFORMING A LEAK TEST. Any open flame will ignite the gas.
- To prevent fire or explosion hazard, perform leak test outdoors only.
- Check to ensure that flexible hoses do not have any cuts and wear that may affect the safety before each use. Only the factory supplied hose and regulator must be used. Use only replacement regulator and hose assemblies specified by Firenado.

## CHECKING FOR GAS LEAKS

Perform a leak test before each use whether the gas supply has been disconnected or not. In addition, whenever the gas is connected to the regulator or whenever any part of the gas system is disconnected or replaced, perform a leak test. As a safety precaution, remember to always leak test your burner outdoors in a well-ventilated area. Never smoke or permit sources of ignition in the area while doing a leak test. Do not use a flame, such as a lighted match to test for leaks. Use a solution of soapy water.

- Prepare a leak testing solution of soapy water by mixing in a spray bottle one part liquid soap to one part water.
- Make sure the gas valve is in the OFF position.
- Turn on the gas.
- Apply the leak-testing solution by spraying it on joints of the gas delivery system. **This includes all valves, pipe connections, joints, lines and every point from the gas source to the burners.**
- Blowing bubbles in the soap solution and/or there is a faint gas smell (typically gas has an egg smell) indicates that a leak is present. **Do not attempt to ignite the burner.**
- Turn the valve back to the full OFF position.
- Stop a leak by tightening the loose joint and/or resealing with thread sealant or Teflon tape, removing sealant or tape in the event of a flared connection or by replacing the faulty part with a replacement part recommended by the manufacturer. Do not attempt to repair the cylinder valve if it is damaged. The cylinder must be discarded to a proper LP tank location and then replaced.
- If you are unable to stop a leak turn the valve back to the full OFF position and shut off the gas supply to the burner.
- Call an authorized gas appliance service technician or an LP gas dealer.
- Do not use the burner until the leak is corrected.

### Drainage/Venting at the bottom of the Fire feature:

Venting of the Fire Feature: Without proper venting at the bottom of your fire feature, Gas will collect in the bottom and could cause a hazardous situation. When building a fire feature such as a firepit , **ADEQUATE VENTILATION is REQUIRED.** Vents should be placed on opposing sides of the fire feature to allow cross ventilation. Ventilation should be placed near the bottom of the cavity as well as near the top of the cavity. Consult your local codes and the local authority having jurisdiction in regards to venting your cavity. See below for more information on ventilation:

**Fire Glass Media over the Fire Pit Ring:** Do not install a thick layer of fire glass over your firepit ring as it can smother the flames and prevent the gas from escaping out of the firepit. A layer of fire glass media no more than a 1/2" inch thick on top of the burner required. The less media on top of the burner element, the less obstruction there is to prevent the Gas from being ignited at the top of the fire feature.

# FIRE FEATURE OPERATION

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

- **Natural Gas:** Supply pressure: Minimum 3.5" W.C.; Maximum 5.0" W.C.

- Before use, test all gas connections for leaks. Do not use fire feature if there is any evidence of leaking gas. If leaking gas is suspected, turn off main gas supply and have repaired immediately by a qualified technician.
- Wind and gusty conditions will affect the flame in an unpredictable manner. If conditions exist that are not safe, do not use the fire feature. Do not use if any part of the fire feature has been submerged under water. Immediately call a qualified service technician to inspect the fire feature.
- Never use any material that is non-porous and holds moisture, such as gravel, pebbles, river rock, etc. When heated, these materials will cause the trapped moisture to boil and fracture unexpectedly. Heated steam cannot easily escape since these materials are not sufficiently porous. These materials can break and cause personal injury or damage.
- Keep leaves, sticks, wood, paper, clothing, food material, and other solid fuels away from the fire feature. Ensure that there are no objects over the top or sides of the fire feature that could interfere with safe operation.
- When not in use, the fire feature must be covered at all times.
- If lava rock is wet, burn the fire feature on low for 20 minutes and then on high for 25 minutes before coming within 15 feet of the fire feature.
- When the fire feature is not in use, turn off the gas valve.
- Before initial start-up, it may be necessary to purge air in gas line after system installation.



## FIRE FEATURE START-UP

- **Unpacking the Unit:** A final inspection of your product occurs at the factory to ensure a quality product is packaged. Please re-check for possible shipping damage immediately after unpacking your burner. If the burner is found to have some damage, contact your dealer immediately as often the shipping carrier will have a timeframe to report damage. Please also save the packaging material the product came with as that is at times inspected by the shipping carrier. Double check all factory connections for leaks!
- **First Time Operation:** Before lighting the burner, inspect the gas supply hose. If there is evidence of cuts, wear, or abrasion, it must be replaced prior to use. Always keep your face and body as far away from the burner as possible when lighting. Always perform a gas leak test before each use.
- Prior to using your burner, verify that all of the following are correct:
  - The burner tube is free of any debris or obstruction.
  - Installation of the proper gas type and regulator settings.
  - The proper gas connection is complete.
  - Check for gas leaks.
  - Minimum clearances are maintained.
  - All packaging has been removed.
  - All parts and components are properly in place.
  - An installer-supplied manual gas shut-off valve is fully accessible.
  - LP hose is clean and inspected for cuts, wear, abrasion, or leaks. Replace if necessary.
- **Caution: Never operate the burner unattended. The surface is extremely hot and someone can touch the hot surface and be seriously injured. All gas appliances should be attended at all times.**
- If you smell gas prior to lighting and gas is turned off, read “WHAT TO DO IF YOU SMELL GAS” on page 1.
- Ensure there is no debris in fire feature.
- With gas turned on, place long handled lighter or match on top of the fire feature.
- Slowly turn “ON” gas valve
- After burner lights, remove flame.
- Adjust flame to desired height.
- If burner does not light, turn valve off. Allow gas to clear, then repeat previous steps.
- If the burner does not light after several attempts, immediately close all gas valves and consult an authorized service technician.
- Do not alter the fire feature design.
- Never leave fire feature attended by an adult that is not familiar with emergency shut-down.
- Do not place flammable materials on or near the fire feature.
- Children must be supervised when they are near the fire feature.
- Inspect the fuel supply connection (including all quick disconnect hoses) before use. Replace hose if there is evidence of abrasion or wear.
- Do not alter or change hose and regulator. Proper hose and regulator must always be used.
- Only use “U.S. Department of Transportation” approved LP Gas cylinders.
- LP Gas cylinder supply system must be properly vented.
- Turn off LP Gas cylinder when not in use.

## FIRE FEATURE SHUTDOWN

- Turn “OFF” gas valve.
- Turn OFF LP Gas cylinder if applicable.
- After cooling, cover fire pit.

## LIMITED WARRANTY

Firenado Stainless Steel burners and pans are warrantied against manufacturing defects under normal use and service for a period of **10 years**.

Installation, repair and maintenance work should be performed by an authorized service technician. Work by unqualified persons could be dangerous and will void the warranty. All Natural and LP Gas appliances must have a qualified installer complete the installation for the warranty to be in effect. The incorrect installation of the Firenado gas appliance will void the warranty.

Firenado shall not be liable under this or any implied warranty for incidental or consequential damages and Firenado liability is limited to the purchase price of the appliance only. This warranty gives you specific legal rights, and you may also have other rights, which may vary from state to state. This warranty is applicable in the United States and Canada only. No one else is authorized to perform any obligations under this warranty

Improper Maintenance, excessive humidity, chlorine, fertilizers, lawn pesticides, chemicals, and salt can affect the Stainless Steel components and for these reasons, the warranties DO NOT COVER DISCOLORATION, SURFACE RUST, OR RUST, unless there is a loss of structural integrity / rust through of the appliance components. This warranty covers defects in material and workmanship.

Consumers are responsible for all labor and shipping cost associated with warranty parts. All warranty claims are subject to manufacturer review. Please make sure to have your sales receipt information and product serial number located on the outside left side panel of the appliance. All replacement parts can be purchased through your local stocking dealer.

## Fire Feature Ventilation

# WARNING

Failure to adequately vent your fire feature could result in an explosion or fire.

When building or installing a fire feature, it is necessary to provide adequate ventilation. This is necessary for not only proper combustion, but also to prevent a buildup of gas. Vents must be placed on opposing sides to allow for cross ventilation. Each vent must have at least **18 square inches** of ventilation per side. This allows for heat and/or residual fuel to escape.

Your local contractor and/or your local code authority can determine adequate ventilation for each installation. Stainless Steel vent panels are available from your dealer.

The following information is important to consider when adhering to your local code requirements.

**LP / Propane Gas:** LP gas is heavier than air and will settle to the lower levels of the outdoor kitchen. It is imperative to provide adequate cross ventilation for the area where gas can accumulate at these lower levels of the fire feature. Never operate fire feature with an LP gas cylinder inside.

**NG / Natural Gas:** Natural gas is lighter than air and will rise to the higher levels of the outdoor kitchen. It is imperative to provide adequate cross ventilation for the areas where gas can accumulate at these higher levels.

**ALL GAS CONNECTION POINTS SHOULD BE TESTED FOR LEAKS AFTER INSTALLATION PRIOR TO FIRE USE OF THE GAS APPLIANCE.**