

Mill Series Fire Pits

OWNER'S MANUAL

Rev A, February 2020

This owner's manual is valid for model numbers: FP-404018-MILL, FP-484818-MILL





WARNING: FOR OUTDOOR USE ONLY



CODE AND SUPPLY REQUIREMENTS: When an appliance is for connection to a fixed piping system, 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, OR International Fuel Gas Code.



WARNING

Do not store or use gasoline or other flammable vapors and liquids 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.



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.



CAUTION

IF YOU SMELL GAS:

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



This appliance is designed as an "attended appliance". Adults must be present when the unit is operating. DO NOT leave this unit burning when unattended. If this product is left burning unattended it may cause damage or serious injury.



PROPOSITION 65 WARNING

ATTN CALIFORNIA RESIDENTS: This product includes parts that may contain materials known to the state of California to cause cancer, birth defects, or reproductive defects. For more information please visit www.starfiredirect.com/prop-65.



CAUTION:

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.

NOTE TO INSTALLER: Owner's Manual must be left with the consumer for future reference.

NOTE TO CONSUMER: Owner's Manual must be saved for future reference.

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IMPORTANT SAFETY INFORMATION

CAUTION: INSTALLATION, MODIFICATION AND REPAIR MUST BE DONE BY A QUALIFIED, PROFESSIONAL INSTALLER.

Be sure you understand all safety precautions and warnings contained in this manual.

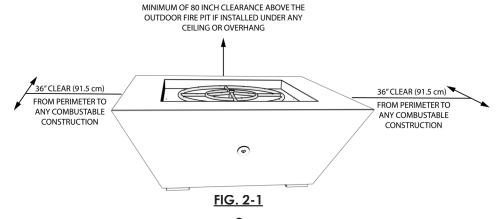
- 1. CHECK STATE AND LOCAL CODES TO DETERMINE IF THE OUTDOOR FIRE PIT IS PERMITTED IN YOUR LOCALITY BEFORE INSTALLATION.
- 2. FOR OUTDOOR USE ONLY. THIS UNIT MUST BE INSTALLED AT LEAST 36" FROM PERIMETER OF FIRE PIT TO ANY COMBUSTIBLE WALLS, OR MATERIAL.
- When shutting the unit down-be sure to TURN THE CONTROL VALVE FULLY OFF.
- 4. WARNING: CARBON MONOXIDE POISONING MAY LEAD TO DEATH. DO NOT MODIFY THIS OUTDOOR FIRE PIT OR ITS CONTROLS, EXCEPT AS PROVIDED FOR IN THIS MANUAL.

Any other change may be dangerous. Improper installation or use of your Outdoor Fire Pit can cause serious injury or death from fire, burns, explosions or carbon monoxide poisoning.

Clearances to Combustible Construction:

Sidewalls: 36" (1.5 m) from perimeter of unit (Figure 1)
Ceiling: 80" (1.5 m from top of unit to ceiling or overhang
Flooring: 0" - Can be installed on deck, slab, floor, etc.

The dimensions shown in Figure 1 are <u>MINIMUM CLEARANCES</u> to maintain when you install this Outdoor Fire Pit. <u>THERE MUST BE AT LEAST 36" of clearance from the perimeter of the unit</u> to any combustible sidewalls, ceilings, or materials.



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IMPORTANT SAFETY INFORMATION

- A. YOUNG CHILDREN SHOULD BE CAREFULLY SUPERVISED WHEN THEY ARE IN THE AREA OF THIS APPLIANCE.
- B. DO NOT sit or place any part of the body or combustible materials on the Fire Pit surround. Children and adults should be alerted to the hazard of high surface temperatures and should stay away to avoid burns or clothing ignition.
- C. Every time you use your Fire Pit make sure that the area around the Fire Pit is clear of flammable items such as gasoline, yard debris, wood, etc.
- D. WARNING: HOT WHILE IN OPERATION AND FOLLOWING OPERATION. Children must be carefully supervised when in the vicinity of this appliance. Serious injury may occur. DO NOT throw trash, paper, or other flammable materials onto your Fire Pit. DO NOT leave in operation when unattended. WARNING: DO NOT operate this Fire Pit in the rain.
- E. <u>SOLID FUEL MUST NOT BE BURNED</u> in the Fire Pit.
- F. **DO NOT** continue using if you smell unusual odors or have headaches, nausea or are dizzy.
- G. **DO NOT** store any combustible materials, gasoline, or any other flammable vapors/liquids around the area of your Fire Pit. Provide adequate clearance for servicing and operation.
- H. **DO NOT hang or place clothing or any flammable material on or near your Fire Pit.**Matches, paper, garbage, or any other material must not be thrown on top of the lava rock, fire glass, logs, or burner, or into the flame.
- I. DO NOT use this appliance if any part of it has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.
- J. Installation and repair should be done by a qualified service person.
- K. The appliance should be inspected before use and at least annually by a qualified service person. More frequent cleaning may be required as necessary. It is imperative that the control compartment, burners and circulating air passageways of the appliance be kept clean.
- L. The burner must be replaced prior to the appliance being put into operation if it is evident that the burner is damaged. Contact Starfire Direct at 866-578-8538 for a replacement burner.
- M. **DO NOT use this fire pit in high wind.** Wind may cause flame to lay over and to discolor the copper. Wind may also cause flame to extinguish. Your fire pit may not be equipped with an automatic gas shut off. In the event that your flame is extinguished, you must know how to manually shut off the gas to this appliance.

PRE-INSTALLATION AND PREPERATION SAFETY GUIDELINES

- A. Before installing this Outdoor Fire Pit, check "Minimum Clearance to Combustibles" (Fig. 1 on page 2). MINIMUM CLEARANCES must be maintained when you install this Outdoor Fire Pit. THERE MUST BE AT LEAST 36" (91.5 cm) from the perimeter of the fire pit to any combustible sidewall, or material and AT LEAST 80" to ceiling.
- B. The Outdoor Fire Pit is for outdoor use only. **DO NOT** install or use this appliance inside a building, garage, or any other enclosed area including recreational vehicles and/or boats. **This unit must be installed in such a manner that proper air ventilation is maintained without obstruction at all times, and during all weather conditions.**
- C. CHECK GAS TYPE (natural gas or propane): The gas supply you intend to use must be the same as that intended for use with this fire pit. If the gas supply is different, you MUST have the Fire Pit converted to the gas type you intend to use, by a qualified, professional installer. If you are unsure, contact your dealer for assistance.
- D. DO NOT USE IF GAS PRESSURE IS LOWER THAN THE MINIMUM REQUIREMENT OR EXCEEDS THE MAXIMUM.
- E. **FOR NATURAL GAS:** The minimum inlet gas supply pressure for purposes of input adjustment is <u>5 inches</u> (127mm) water column and maximum inlet gas supply pressure is <u>10 inches</u> (254 mm) water column.

FOR PROPANE: The minimum inlet gas supply pressure for purposes of input adjustment is <u>8 inches</u> (203 mm) water column and the maximum inlet gas supply pressure is <u>13 inches</u> (330 mm) water column.

DO NOT ÍNSTALL THIS UNIT IF MINIMUM PRESSURE IS NOT AVAILABLE OR IF MAXIMUM PRESSURE IS EXCEEDED.

The table below displays BTU ratings for the corresponding burner sizes and shapes. 'RND'=Round Burner, 'H'=H-Burner, 'L'=Linear Burner

	BTU Rating	Burner Size & Shape	
	50,000	24"L	
	75,000	18"H, 36"L	
	90,000	12"RND	
	100,000	24"H, 48"L	
	125,000	18" RND, 30"H, 60"L	
ĺ	150,000	24"RND, 36"H, 72"L	

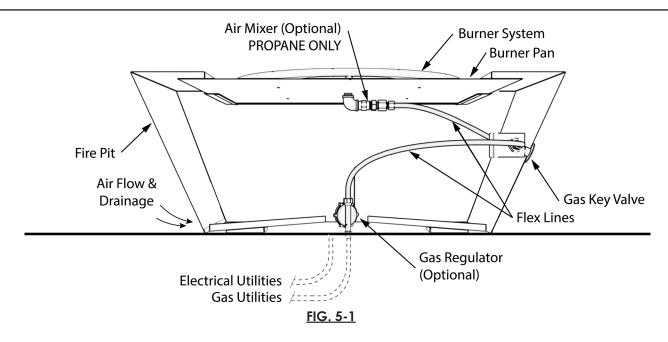
BTU Rating	Burner Size & Shape
175,000	30"RND, 42"H
200,000	48"H, 96"L
250,000	36"RND, 120"L
300,000	42"RND
400,000	48"RND

- F. Gas piping system must be sized to provide minimum inlet pressure at the maximum flow rate (BTU/hr). Undue pressure loss will occur if the pipe is too small or the run is too long.
- G. For installations at elevations above 2,000 ft., contact your local dealer or gas supplier before installing as input ratings will be reduced approximately 4% for each 1,000 ft. above sea level. Refer to the National Fuel Gas Code. **Contact the dealer for the required orifice**.
- H. If the Outdoor Fire Pit is connected to Natural Gas, its main gas valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of Y2 psi (3.5kPa).
- I. If the Outdoor Fire Pit is connected to Natural Gas, it must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than Y2 psi (3.5kPa).
- J. INSTALLER NOTE: This unit should be installed so that it can be removed at a later date for service.
- K. GAS SUPPLY PLUMBING REQUIREMENTS Apply only joint compounds that are resistant to all gasses on all male pipe fittings. Make sure to tighten every joint securely. Do not use pipe joint compound to connect flare fittings.
- A

SAFETY NOTICE: An external on/off valve in the gas line is required for safety when your Outdoor Fire Pit is not in use. It also provides for convenient maintenance and repair.

HARD LINE FIRE PIT AND BURNER INSTALLATION INSTRUCTIONS

NOTE: These instructions are only for permanent gas line (hard line) installation. If your fire pit is a LPT series, skip to Pg. 6, LPT burner system installation instructions.



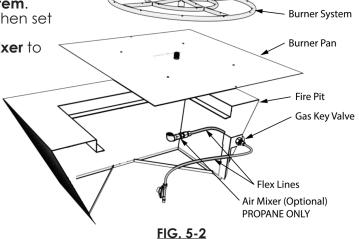
- Place Fire Pit over Gas/Electrical Utilities. 1.
- The flex lines attached to the Gas Key Valve have been pre-tightened. However, it is good 2. practice to make sure these lines didn't come loose during shipping. Using two adjustable wrenches, make sure they are nice and tight.
- One of the flexible gas lines will have a FLR x FIP fitting hand tightened at the end. Remove 3. this fitting and attach to the gas line.

REMEMBER: Use "Pipe Joint Compound" or "Yellow Gas Tape" on all NPT fittings. **NEVER USE ON COMPRESSION THREADS!**

- 4. Using two adjustable wrenches, tighten the end of the first flexible gas line to the compression fitting.
- 5. Using two adjustable wrenches, tighten the end of the second flexible gas line to the compression fitting on the bottom side of the Burner System. Make sure all fittings are tight and secure, then set the **Burner System** into the **Fire Pit**.

PROPANE ONLY: Add optional Air Mixer to system as illustrated in Fig. 5-1.

- See the appropriate page for installation 6. & operation instructions for your specific ianition method.
 - Manual Match Lit - Page 7 Spark Ignition Page 8 AWEIS (Electronic) Page 9



LPT FIRE PIT AND BURNER INSTALLATION INSTRUCTIONS

NOTE: These instructions are only for liquid propane tank (LPT) series fire pits. If your fire pit is a permanent gas line (hard line) series, see Pg. 5, NG burner system installation instructions.

- Place Fire Pit in desired location and remove LPT Cover Plate, taking care not to damage threads when removing and installing Thumb Screws.
- Carefully position Liquid Propane Tank inside Fire Pit enclosure.
- 3. The flex lines attached to the **Gas Key Valve** have been pre-tightened. However, it is good practice to make sure these lines didn't come loose during shipping. Using two adjustable wrenches, make sure they are tight.

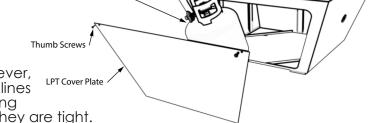


FIG. 6-1

Burner System

4. One of the flexible gas lines will have a **FLR x FIP** fitting hand tightened at the end. Remove this fitting and attach to the **Liquid Propane Tank**.

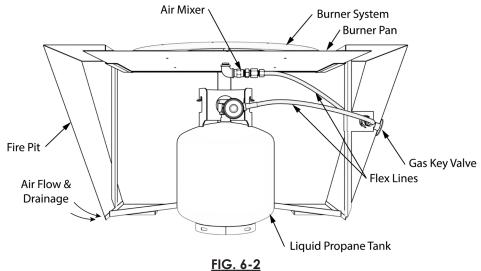
REMEMBER: Use "Pipe Joint Compound" or "Yellow Gas Tape" on all NPT fittings. **NEVER USE ON COMPRESSION THREADS!**

- 5. Using two adjustable wrenches, tighten the end of the first flexible gas line to the compression fitting.
- 6. Using two adjustable wrenches, tighten the end of the second flexible gas line to the compression fitting on the bottom side of the **Burner System**. Make sure all fittings are tight and secure, then set the **Burner System** into the **Fire Pit**.

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NOTE: Add **Air Mixer** to system as illustrated in Fig. 6-2.

- 7. See the appropriate page for installation & operation instructions for your specific ignition method.
 - Manual Match Lit Page 7
 Spark Ignition Page 8
 AWEIS (Electronic) Page 9



IGNITION SAFETY INFORMATION

We recommend that before you install your Fire Pit you familiarize yourself with the control valve layout. This will help you to be confident operating the Fire Pit when fully installed (see figures below for typical control positions).

FOR YOUR SAFETY, READ BEFORE LIGHTING

CAUTION



IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.



WARNING

BEFORE LIGHTING, smell all around the Outdoor Fire Pit area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor. IF YOU SMELL GAS FOLLOW THE INSTRUCTIONS ON PAGE 1.



WARNING

DO NOT use this appliance if any part has been under water. Immediately call a qualified, professional service technician to inspect the Outdoor Fire Pit and to replace any part of the control system and any gas control that has been under water.

OPERATING INSTRUCTIONS MANUAL MATCH LIT SYSTEMS ONLY



READ IGNITION SAFETY INFORMATION BEFORE LIGHTING

IGNITING THE FIRE PIT

- 1. Enter the included valve key into the key valve opening.
- 2. Using a long safety lighter, hold an open flame above the outside edge of the burner ring.
- 3. Slowly turn the valve key towards the "ON" position.
- 4. Once fire ring is lit, remove safety lighter and turn key valve up or down for desired flame height.

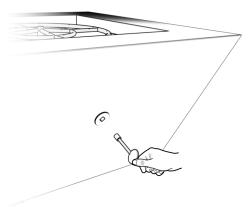


FIG. 7-1

SHUTTING OFF THE FIRE PIT

1. To turn off, insert valve key into the key valve opening and rotate to the off position.

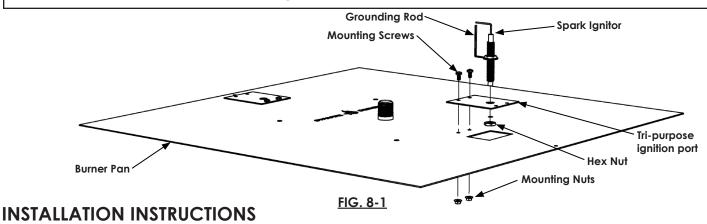
CAUTION



DO NOT turn the main gas valve knob to the "ON" position FOR 5 MINUTES after shutting the unit off.

SPARK IGNITION INSTALLATION & OPERATION

NOTE: These instructions are for reference only. For more detailed information, please check the instructions included with the spark ignition kit.



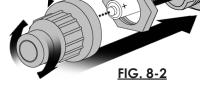
- 1. Unscrew and remove the bottom igniter hex nut. Adjust the top hex nut and grounding rod so they rest in the middle of the spark igniter.
- 2. Feed wire through the designated port in burner pan. Adjust position so grounding rod and spark igniter tips are 1/4 inch apart. Slide spark igniter wire through bottom igniter hex nut. Using a wrench, hold the top igniter hex nut in place while using a second wrench to tighten the bottom igniter hex nut. Secure grounding wire to any metal part of the burner pan to complete the electric flow.
- 3. Unscrew push button from the spark module. Unscrew the module nut from the spark module. Insert threaded end of spark module port through fire pit hole. You may need to drill through your fire pit wall or an igntion plate. Thread the module nut back onto the spark module with the fire pit in between.



DO NOT OVER TIGHTEN!

Insert the AAA battery and install push button back on and tighten firmly together.

4. From inside the fire pit, connect the spark igniter wire and the ground wire to the back of the spark



Spark Module



READ IGNITION SAFETY INFORMATION BEFORE LIGHTING

IGNITING THE FIRE PIT

- 1. Enter the included valve key into the key valve opening.
- 2. Press and hold the push button.
- 3. Slowly turn the valve key to the "ON" position until flame ignites.



If flame does not immediately ignite, turn the gas off and wait five minutes before attempting to light the fire pit.



SHUTTING OFF THE FIRE PIT

1. To turn off, insert valve key into the key valve opening and rotate to the off position.

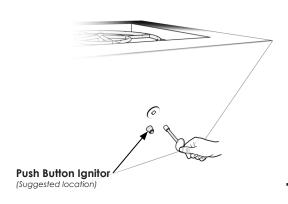


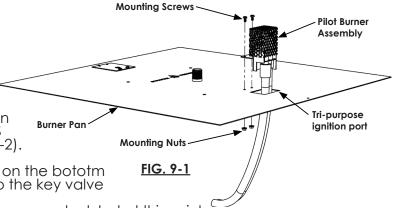
FIG. 8-3

AWEIS INSTALLATION & OPERATION

NOTE: These instructions are to be used for reference only. For more detailed information, please check the instructions included with the AWEIS kit.

INSTALLATION INSTRUCTIONS

- 1. Apply gas approved pipe joint compound to the gas stub and thread the flex line, connecting the gas stub to the key valve as illustrated in Fig. 9-2.
- 2. Using two adjustable wrenches, tighten the fitting on the top side of the AWEIS to the burner system fittings (See Fig. 9-2).
- 3. Thread the flex line fitting into the port on the bototm of the AWEIS, connecting the AWEIS to the key valve





NOTE: It is highly recommended to perform a gas leak test at this point.



The All Weather Electronic Ignition System operates on 24 Volts AC power ONLY. DO NOT Attempt to Power using 110 Volts AC Power! Damage WILL RESULT

Acceptable Input Voltages to Supplied 24 Volt AC Transformer 110 / 210 / 220 / 240 / 480 Volt AC

Recommended Wire Size

12 gauge wire (solid or stranded) for all installations

- 4. Using wire nuts, connect the two wires from the AWEIS to the two wires from the electrical conduit stub as shown in Fig. 9-2.
- 5. Insert the pilot burner assembly through the tri-purpose ignition port on the burner pan and attach as shown in Fig. 9-1.
- 6. On the side of the AWEIS there are two connections for the Pilot Burner Assembly. The white 'quick connect' is the electrical connection and the brass plumbing fitting is the gas connection. Make these connections now, as shown in Fig. 9-2.

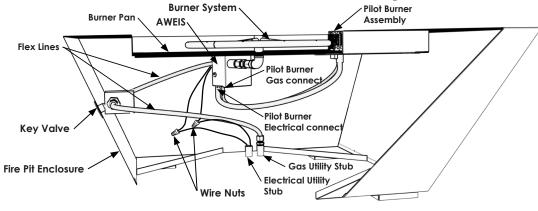


FIG. 9-2

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READ IGNITION SAFETY INFORMATION BEFORE LIGHTING

IGNITING THE FIRE PIT

- 1. Ensure that the key valve is in the "ON" position.
- 2. Turn fire feature on by turning on the electrical device used to power the fire feature.

SHUTTING OFF THE FIRE PIT

1. Turn fire feature off by turning the electrical device used to power the fire feature.

MAINTENANCE AND CARE



CAUTION:

Always remove any debris from the burn area.

Clean Monthly. Starfire Direct recommends cleaning products with powder coated surfaces with soap and water. Cleaning with harsh chemicals will drastically reduce the lifespan of the powder coat finish. To clean products with a brushed stainless steel finish, avoid products containing chlorine or chloride. Do not use steel wool, steel brushes or abrasive scrubbing pads. Wipe the surface with a soapy microfiber cloth, then a clean water damp microfiber cloth. If a directional grain is present, always wipe in the direction of the grain.

Cover when not in use: Starfire Direct recommends covering the fire pit when it is not in use, to protect surface finish and keep clean of debris. Starfire Direct manufactures custom covers for each fire pit model. You can contact Starfire Direct's sales team at 866-578-8538 to place an order.



CAUTION: Allow fire pit to cool before covering.

Note: This fire pit is made to order with steel, stainless steel or aluminum based on the original order. In harsher environments such as desert heat and sea salt air accelerated aging can occur.

Professional Inspection. This fire pit must be inspected by a qualified serviceman regularly to ensure that all gas connections are tight and check for any leaks, cracked hoses, or burner clogs. Frequency of inspections is dependent on usage.

WARRANTY

Starfire Direct warrants this fire pit against manufacturing defects that prevent safe and correct operation of the product for a period of one year from the date of delivery.

The defective product must be shipped back with an RMA (Return Merchandise Authorization) issued by Starfire Direct for that specific product which states the nature of the defect or warranty claim. Product to be returned should be packed carefully-Starfire Direct is not responsible for damage on returned items. The original purchase information will be required. RMAs are only valid for 30 days from the date of issue and will not be processed if received after the expiration date. The RMA number must be indicated on the outside of the return package and a copy of the RMA in the package with product.

Our warranty does not cover items that have been damaged by over heating, modification, abuse, improper storage, installation, or maintenance. This warranty excludes claims for incidental or consequential damage and indirect-collateral expenses arising from product defects or warranty recovery. Starfire Direct is not responsible for damage incurred from use during high wind or excess heat; the full cost of repairs or exchanges for such scenarios are the financial responsibility of the owner. Starfire Direct is not responsible for the actions including negligence of the installer. Should the buyer decide to return a fire pit, Starfire Direct is not responsible for the cost of shipping.

Starfire Direct is NOT responsible for local codes and/or if any of our products are not approved for installation. Please check with your local building department or governing agencies for proper approvals before purchasing.

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