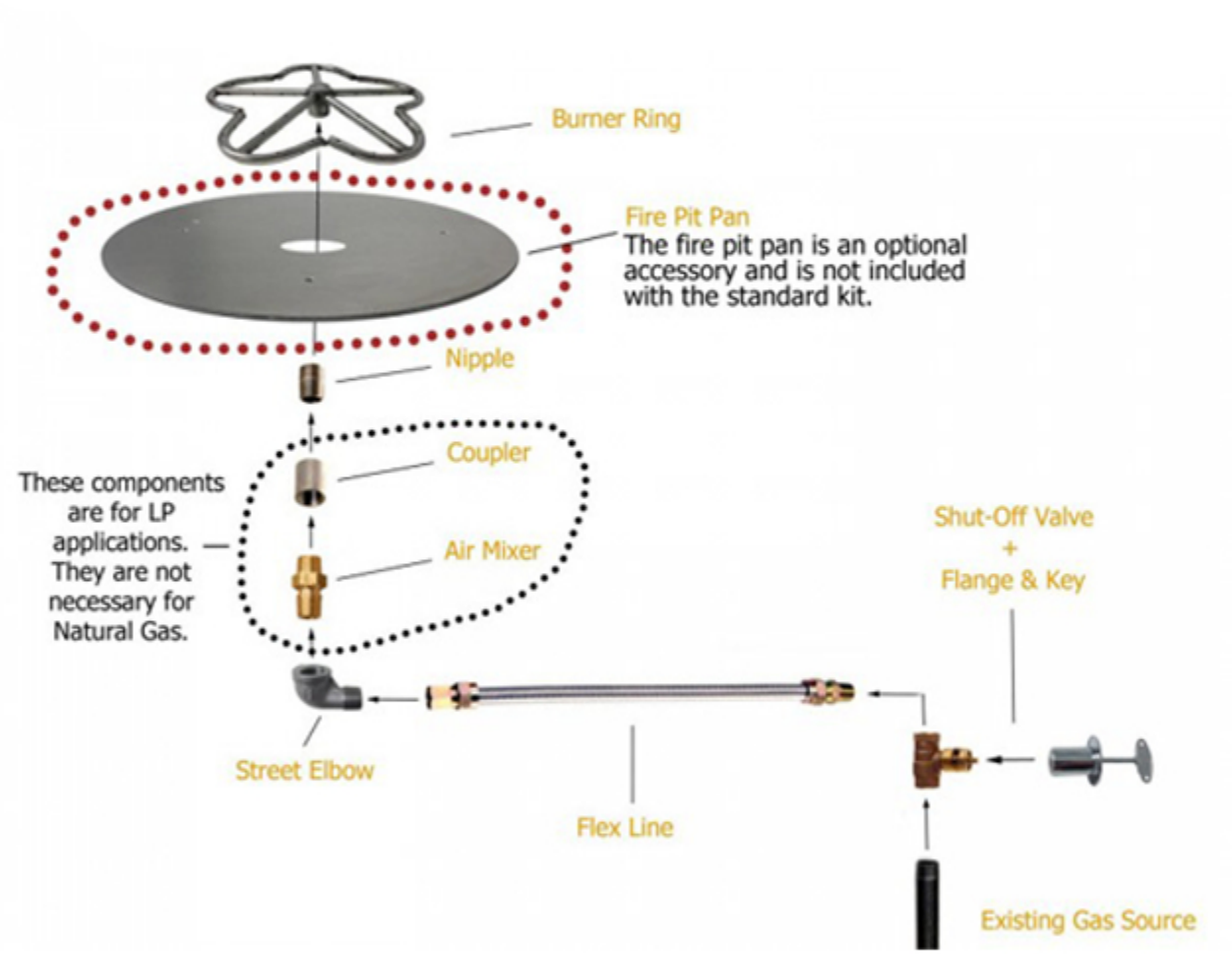
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Standard Burner Kit Installation



Your kit may not include all of these components

Read the attached instructions carefully.
The above diagram is intended to aid installation.

Have you considered?



- **Gas Supply** - Before you begin designing your fire pit, first determine your gas supply
  - Both Natural Gas and Propane may be used - Supply Pressure and BTU ratings need to be regulated for both
  - **For Natural Gas:** Supply Pressure should be set between 3.5" - 7" Water Column
  - **For Propane*:** Supply Pressure should be set between 8" - 11" Water Column
  - *If using a 20 lb. propane tank, consider the maximum BTU output of a tank that size ranges from about 90,000 - 125,000 BTU† and a regulator must be used
  - †The BTU rating of the 20 pound tank limits your burner options to sizes that are rated for 125,000 or fewer BTU



- **Fire Pit Burner** - The shape and size of your fire pit burner can be choosed after determining your gas supply
  - Choose a burner kit based off of the inside dimension of your enclosure - the fire pit pan will be 6" larger than the burner to provide at least 3" between the edge of the burner and the inside edge of the pit



- **Fire Pit Pan** - Included as an option with all of our fire pit kits
  - A pan can be flat or "bowl" style in order to accommodate your construction - it should be installed at least 3-4" below the top surface of your enclosure
  - The burner pan separates the air mixer from the burner in propane applications, but in all constructions it helps with water drainage and ventillation



- **Flange Extension** - In many cases, the shut-off valve will be located inside the fire pit - if you're using a key valve and your enclosure walls are thicker than 3" it may be necessary to use a flange extension and a longer key*
  - An external shut off valve is not required with this kit, but may be an option for added safety



- **Ventilation** - For all fire pit burners, adequate ventilation is required
  - The recommended amount of ventilation is 36in² - or (2) 18in² vents on two opposing sides to create proper airflow



- **Installation Collars** - Are designed to simplify the installation of a fire pit pan
  - Our flexible installation collars can bend for round enclosures, and can be anchored in with concrete screws



- **Fire Media** - Is the final step to finishing a gas fire pit
  - Both lava rock and fire glass may be used to complete your fire pit, the choice between the two is purely aesthetic

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This is a Safety Alert Symbol

When you see this symbol on the fire pit insert, or in this manual, look for one of the following signal word panels alerting you to the potential for personal injury, death or major property damage.

IMPORTANT Necessary instructions

WARNING

FOR OUTDOOR USE ONLY

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

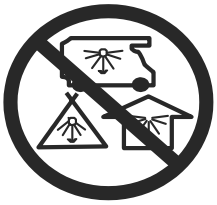
- **Do not store or use gasoline or other flammable vapors and liquids in vicinity of this or any other appliance.**
- **An LP-cylinder not connected for use shall not be stored in the vicinity of this or any other appliance.**

DANGER

If you smell gas:

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

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.

The content of this manual may be revised without prior notice. Please consult with your Hearth Products Controls representative to obtain the most current version.

NATIONAL FIREPLACE INSTITUTE NFI

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1 Important Safety Information

- Hearth Products Controls Company recommends that our products are installed by professionals locally licensed by the authority having jurisdiction in gas piping. All installation instructions must be followed to ensure proper performance and safety. Hearth Products Controls Company assumes no responsibility for problems relating to the installation.
- To qualify for warranty, all instructions must be strictly followed. Otherwise, warranty may be void. Never alter product or configuration in any way.
- Annual servicing should be handled by professionals certified in the US by the National Fireplace Institute (NFI) as NFI Gas Specialists or in Canada by WETT (Wood Energy Technical Training).
- It is the installer's responsibility to ensure a safe installation and to educate the end-user regarding the features, safety recommendations and proper operation of this product.
- Please reference page 1 for all warnings.

INSTALLER:
Leave this manual with the appliance.

END USER:
Retain this manual for future reference.

Technical Support

For information and support contact your Hearth Products Controls dealer.

1 Important Safety Information

Symbol Legend

This is a Safety Alert Symbol
When you see this symbol on the fire pit insert, or in this manual, look for one of the following signal word panels alerting you to the potential for personal injury, death or major property damage.

IMPORTANT Necessary instructions



1 Important Safety Information

Please reference page 1 for all warnings.

Important Safety Information for Installers

Leave this manual with the end-user and instruct them to retain it for future reference. Instructions and product updates are also available at **www.hpcfire.com** under the Support tab.

Installers must carefully follow the instructions in this manual to prevent personal injury or property loss. These instructions contain information critical to the safe installation and operation of the fire pit.

- Instructions are updated as needed. It is the responsibility of the installers to check for product updates and installation manual updates at **www.hpcfire.com/support.html** prior to installation.
- It is the responsibility of the installer to follow:
  - The National Fuel Gas Code, ANSI Z223.1/NFPA 54 or International Fuel Gas Code.
  - The National Electrical Code, ANSI/NFPA 70.
  - Local codes
- Only use gas/fuel type specified for this fire pit as noted on the fire pit control box label. 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 installation and use.
  - **Natural Gas:** Supply Pressure: Minimum: 3.5 inches W.C.; Maximum: 7.0 inches W.C.
  - **LP Gas:** Supply Pressure: Minimum: 8.0 inches W.C.; Maximum: 11.0 inches W.C.

Important Safety Information for End-Users

- Never leave an operating fire pit unattended or with someone not familiar with its operation or emergency shut-off locations.
- Both children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid burns and clothing ignition.
- Young children should be carefully supervised when they are in the area of fire pit.
- Keep the appliance area clear and free from combustible materials, gasoline, and other flammable vapors and liquids.

2 Selecting the Fire Pit or Fireplace Location

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. HPC is not responsible for damage resulting from failure to follow these recommendations.**

- Select a location that
  - ensures above-grade installation of the fire pit.
  - offers good drainage.
  - allows easy access for installation and maintenance of the fire pit.
  - provides sufficient horizontal room to enjoy the fire pit while allowing a safe distance from the heat and flame.
- Fire pits and fireplaces create very high temperatures. For clearances refer to table 3.1. Clothing or other flammable materials should not be placed on or near fire pit.

Clearances around Fire Pit

Fire Pit Clearances	Up to 65K	201k to 400k
Sides Surrounding Fire Pit From Structure or Combustibles	36" (12" for noncombustible)	48" (12" for noncombustible)
Overhead Clearance above Product	84"	120”

Table 3.1 – Fire Pit Clearances

3 Overhead Structures and Sidewall Clearance Requirements

It's important to review the clearance requirements below for any type of overhead structure such as pergola, roof, overhang, screens, arbor, etc. or a sidewall to ensure that the distances are met. Table 4.1, 4.2

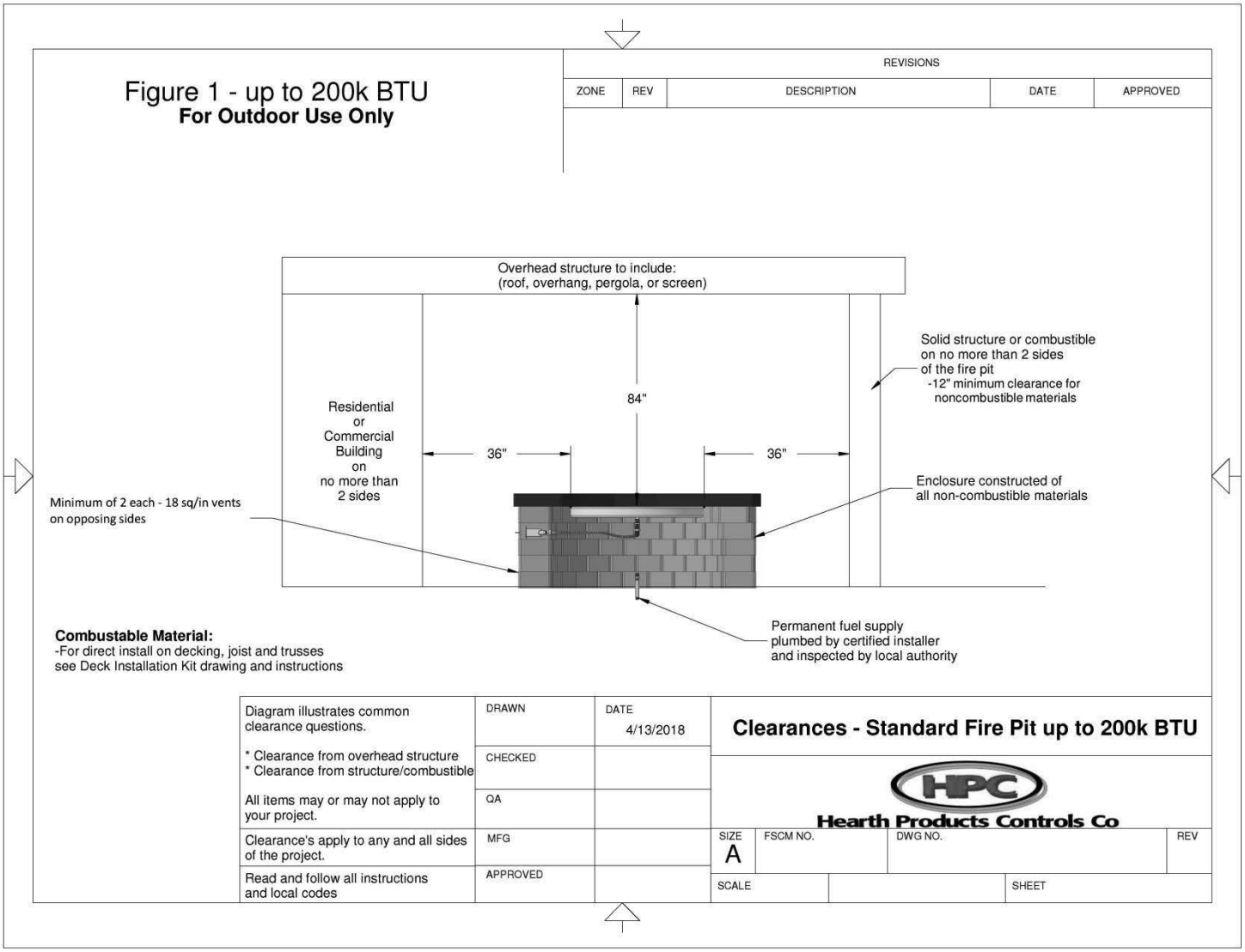


Table 4.1 – Clearances for standard fire pit up to 200k BTU

3 Overhead Structures and Sidewall Clearance Requirements

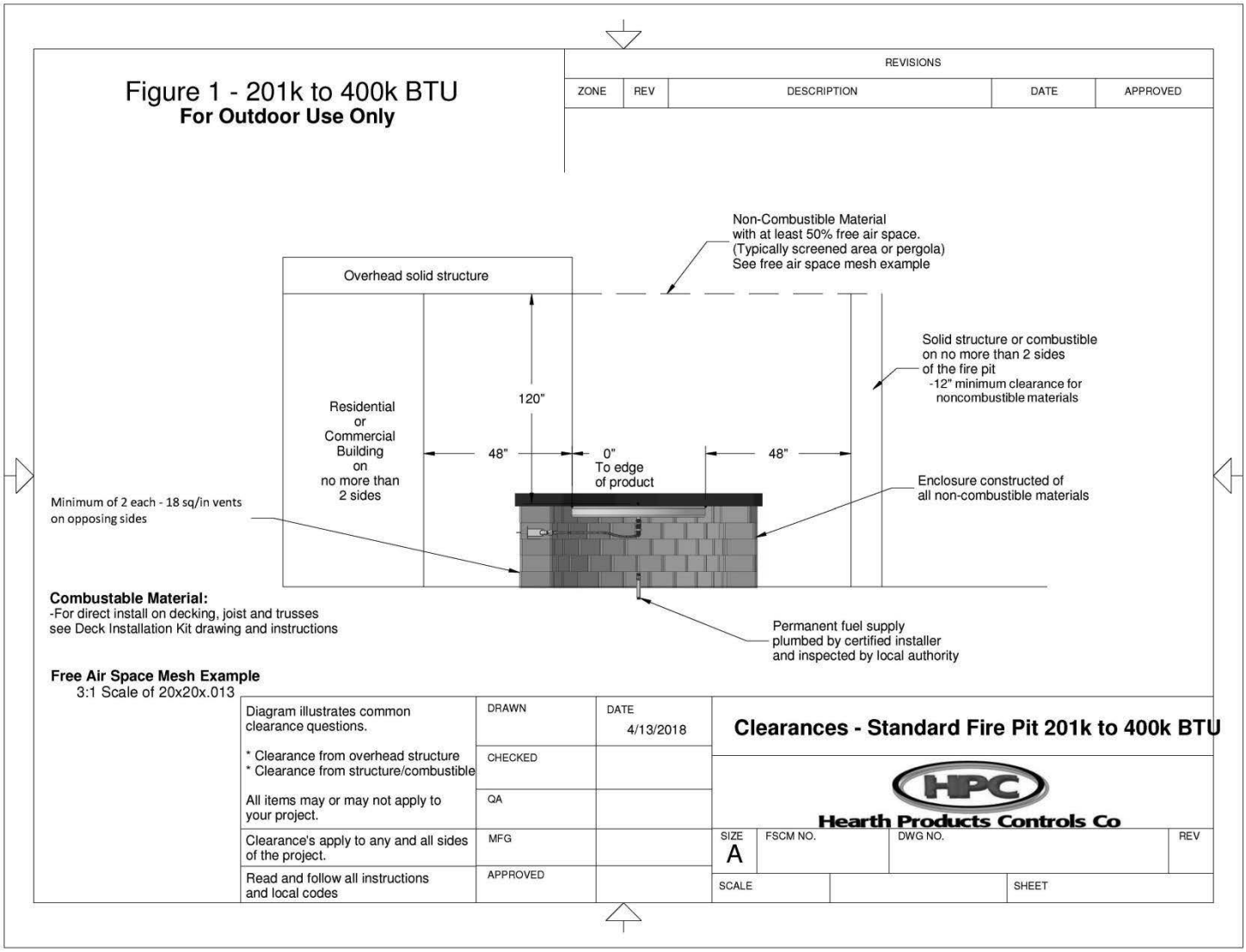


Table 4.2 – Clearances for standard fire pit 201k to 400k BTU

4 Fire Pit and Fireplace Enclosures Requirements

Location and design



Figure 5.1 – Pan lip recessed on a trough.

- The enclosure must be installed above-grade and allow for drainage to prevent water damage to fire pit.
- Refer to cut sheets on our website for important dimensional information for your fire pit. Visit **www.hpcfire.com**
- The assembled burner should be recessed a minimum of two inches from the top of the enclosure to protect flame from being blown out.
- The enclosure must be constructed on a stable surface and be level. HPC recommends the use of the installation collar (optional) that may be mortared into or sandwiched between layers of the enclosure.
- HPC recommends that the pan lip is recessed on a trough (linear), and large round enclosures, Figure 5.1. **NOTE:** HPC cannot guarantee the lip on all of our products will be perfectly flat and will not warp due to heat.
- The product must be accessible for service.

4 Fire Pit and Fireplace Enclosures Requirements

Construction materials

- Use non-combustible materials and construction for gas supply, power and enclosure.
- The interior void space of the enclosure surrounding the valve box cannot be filled with any material (gravel, crushed rock, concrete, etc.).

Venting

- The enclosure must incorporate at least two vents to allow heat and or residual fuel to escape. Failure to properly vent the 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 also work as a drain when installed at bottom sidewall to prevent water build up.
- Vent specifications:
  - A minimum of two vents (18 square inches for each vent) on opposing sides of the enclosure totaling 36 inches of free area each are required (example: 3-inch x 6-inch or larger). Or, multiple vents uniformly made throughout the enclosure totaling 36 square inches or more of free area are acceptable.
  - Installation of the vents in the mid-to-lower area of the enclosure is recommended.

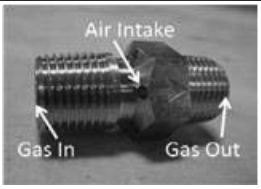
Fuel line

- Fire pits and fireplaces must have a gas shutoff on the outside of the exterior of the fire pit or fireplace to allow for emergency shut off and maintenance. The gas shutoff should not be used to adjust flame height.
- The installer is responsible for using the correct fuel line sizing that is able to supply the stated maximum BTU for the product—refer to product label on the fire pit for specifications

5 Installing the Fire Pit or Fireplace

WARNING

LP AIR MIXER/ORIFICE: CONFIRM "GAS OUT" IS TOWARDS THE PAN. INSTALLING BACKWARDS WILL CAUSE A SERVERE GAS LEAK AND RISK OF EXPLOSION. A PAN WITH A LP AIR MIXER MUST BE CONFIGURED IN A WAY TO MINIMIZE FUEL SETTLING BELOW THE PAN. FAILURE TO DO SO MAY RESULT IN PERSONAL INJURY OR EXPLOSION.



INSTALLATION

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

IMPORTANT **To prevent damage, unhook the fire pit or fireplace from the gas supply for pressure leak tests.**

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

IMPORTANT ***Gas Plumbing Connections:*** **Use joint compound or tape that is resistant to all gases. Apply joint compound only to all male pipe fittings.** ***DO NOT use on flex line flared fittings.*** **Be sure to tighten every joint securely.**

Installation Steps:

1. Set assembled burner in properly constructed enclosure, read **Section 4 – Fire Pit Enclosure Requirements**.
2. Position assembled burner following safety recommendations with access to all gas connections for testing. Read **Section 2 – Selecting the Fire Pit Location** for more details.
3. Shut off gas supply to fire pit or fireplace.
4. Connect assembled burner to main gas supply. Warning: avoid sharp bends with flex line to prevent whistling.
5. Turn on gas supply, purge gas lines of air and perform leak test on all inlet connections. Repair as needed.
6. Light fire pit or fireplace. It may take several cycles to purge air from the lines. Read **Section 7 – Operating the Fire Pit**.
7. Once fire pit or fireplace is lit, perform leak test on all gas connections. Repair as needed.
8. Turn off fire pit or fireplace and allow it to cool.
9. Apply media as described in **Section 6, Adding Approved Media**. When filling the pan with lava rock and/or decorative glass, the instructions in Section 8 must be followed.
10. Turn on fire pit or fireplace again and perform leak test with media correctly installed. If gas leak is detected verify correct media application and repair as needed.
11. Verify correct operation and lighting.
12. Review safety manual with end-user. Instruct end-user that fire pit or media must not be changed or modified.

IMPORTANT **For Penta Burner, flame will be smaller with no media on the burner.**

6 Adding Approved 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

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

- Never install a mesh or screen under the media.
- 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.
- The use of concrete logs is not recommended.

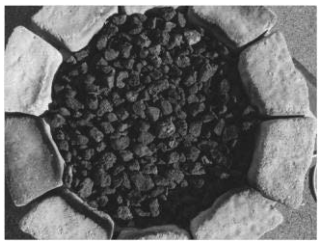
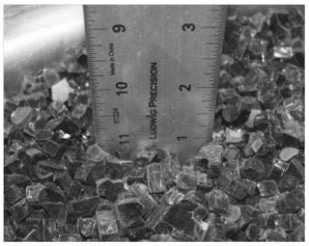
6 Adding Approved Media

Application of Approved Media

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

or fire place. Particular attention needs to be on the pilot assembly area.

Incorrect media installation will cause the pilot flame to suffocate and turn off pit or delay main burner ignition.

Lava Rock Only Application	Decorative Glass Application
1) Install your assembled burner per instructions. 	**1)** Install your assembled burner per instructions. 
2) Apply lava rock ONLY deep enough to cover ring. 	**2)** Fill pan with media. Cover burner with 1/4 to 1/2 inches of glass. Do not overfill pan 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. 

7 Operating the Fire Pit or Fireplace

- Before use, be sure to test all gas connections for leaks. Do not use fire pit or fireplace if there is any evidence of leaking gas. If leaking gas suspected, turn off the main gas supply and repair immediately.
- 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 off the fire pit or fireplace.
- The hose should be inspected before each use of the fire pit or fire place and replaced prior to use if there is evidence of excessive abrasion or wear or if the hose is damaged. The replacement hose assembly shall be that specified by the manufacturer.
- Do not use the fire pit or fireplace if any part has been under water. Immediately call a qualified service technician to inspect the fire pit.
- 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.
- 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. Clothing or other flammable materials should not be hung from the appliance or placed on or near the appliance. Keep the appliance area free from gasoline, and other flammable vapors and liquids.
- Fire pit or fireplace 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 Fire Pit Location**.
- If lava rock is wet, allow the fire pit to burn for 45 minutes prior to coming within 15 feet of the fire pit.
- When the fire pit or fireplace is not in operation, turn off gas valve.
- When not in use, the fire pit must be covered at all times.

7 Operating the Fire Pit or Fireplace

Start-up

1. STOP! Read the safety information on "If you smell gas", **Section 1 – Important Safety Information**.
2. Confirm there is no debris in the fire pit (as mentioned in warnings) including water.
3. Place long handled lighter or match while burning on top of the fire pit.
4. Slowly turn "ON" gas valve. See Figure 7.1
5. After burner lights remove lighter or match.
6. Adjust flame to desired height.

NOTE: If burner does not light turn valve off and allow gas to clear then repeat steps 3-6.

7. Ensure fire pit or fireplace, children and patrons are supervised by a responsible adult that is familiar with emergency shut down.
8. Flammable materials should not be placed on or near the fire pit.

DANGER

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

Shutdown

1. Turn "OFF" gas valve.
2. Once fire pit is cooled, use appropriate cover to protect fire pit.



Figure 7.1 – Match-Lit test start-up

8 Maintaining the Fire Pit or Fireplace

- Any guard or protective device removed for servicing must be replaced prior to operating the fire pit.
- 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.
- Ensure gas is shut off and fire pit is cool before servicing.
- Keep fire pit covered at all times when not in use and free of debris.
- In some areas of the country, spiders or insects have been known to build nests and/or lay eggs in the venturi 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. Periodic inspection by a qualified service technician of the air-mixer is required to ensure your fire feature performs properly.
- **Burner Cleaning: One time a year.** 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 logs and 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 the manufacturer.

Service

NATIONAL FIREPLACE INSTITUTE NFI

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

9 Troubleshooting

Table 9.1, below indicates some potential causes and counter measures to the symptoms indicated in bold. Please contact your retailer or certified technician for service and repair.

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.

Problem	Possible Causes	Solution
Burner will not light	Air in gas line	Bleed air from gas line by slowly opening valve
		Propane (LP) - check gas level in tank
	No gas flow - gas not ON or line obstruction	Confirm gas is ON upstream
		Possible debris in line - insulation, dirt, plastic, etc.
Burner will not stay lit	Gas pressure improper	Confirm proper gas pressure (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 (See page 23, Figure 12.1)
Low flame when turned to High	Gas pressure improper	Confirm proper gas pressure (Section 1 – Important Information for Installers)
	Propane (LP) - Improper lighting procedure	Fire pit valve must be OFF when tank is turned ON. Turn tank ON slowly to allow pressure to equalize, then turn ON fire pit
	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) - venturis are blocked with debris- grass, dirt, etc	Thoroughly clean venturis holes
Noise when lit	Whistling - flex line bent too sharp	Re-routing flex line to reduce bend
	Propane (LP) - Humming regulator	Not a defect - normal occurrence on hot days due to internal vibrations in regulator

Table 9.1 – Troubleshooting

10 Compatible Accessories

- **Wind guards** – Clear glass wind guards protect flames from being blown out in windy conditions as well as personal belongings from being blown into the fire. Available in round, linear and square shapes. See Figure 10.1.
- **Fire pit cover** – Hearth Products Controls has decorative copper covers and heavy-duty vinyl covers for your fire pit that will protect it from rain, snow, and moisture. See Figure 10.2.

For a complete list of accessories, visit **www.hpcfire.com**



Figure 10.1 – Wind guard



Figure 10.2 – Fire pit cover

11 Replacement Parts

Please contact your dealer for parts – if unsure please contact HPC or visit our website at **www.hpcfire.com** and we will be happy to help you

12 Warranty

Limited Warranty

Hearth Products Controls Company (HPC) warranties fire pits against manufacturing defects that prevent safe and correct function as follows:

- Stainless Steel burner: Commercial-1 year; Residential-5 year
- Cold Rolled Steel burner: Commercial-6 months; Residential-1 year

This commences from the date of original sale / shipment from HPC FOB Dayton, Ohio. This warranty is for parts and in-house (HPC) labor. The defective product must be sent back to HPC with a Return Merchandise Authorization (RMA) issued by HPC 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.

Hearth Products Controls

Fire-inspired since 1975.

3050 Plainfield Road
Kettering, Ohio 45432

For detailed product information, go to **www.hpcfire.com**

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Common Gas Fire Pit Issues

Gas Fire Pit Troubleshooting Chart

Issue:	Cause:	Solution:
Flame Height Will Not Stay Lit	• Improper Gas Pressure • Improperly Applied Media	• Adjust Supply Pressure at the Fire Pit **(Section 1)** Natural Gas: 3.5" to 7" Water Column Propane (LP): 8" to 11" Water Column • Adjust BTU by Properly Sizing Gas Line **(Section 4)** Fuel line sizing is the responsibility of the installer and must be able to supply the stated maximum BTU for the product •Add or Remove Media **(Section 5)** Enough to cover the burner, no more
Soot Build-Up Blue Flame	• Improper Fuel/Oxygen Ratio	• Install Air Mixer Correctly **(Section 7)** Burner > Close Nipple > Coupler > Air Mixer (Arrow Up) • Increase Ventilation **(Section 3)** At least two vents on opposing sides at a minimum size of 18 sq/ inches each. • Refer to Flame Height Solution on Supply Pressure/BTU/Media
Whistling Noise	•Flex Line Routing •Improper Gas Pressure •Improper Gas Line Size	• Remove Sharp Bends in Flex Line **(Section 7)** • Use Larger Gas Valve Valve/Fittings should be able to accommodate the supply pressure/BTU needed for the burner • Refer to Flame Height Solution on Supply Pressure/BTU
Will Not Light	•Air in Gas Line •Debris in Gas Line •Improper Gas Pressure	• If New Install, May Take Several Attempts to Purge Air **(Section 4)** • Confirm Gas Line is Clear (insulation, dirt, plastic, excessive pipe sealer, etc.) • Refer to Flame Height Solution on Supply Pressure/BTU

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Fire Pits Direct Kick Ass Grills Fireplace Remote Controls Skytech Fireplace Remotes Teak Furniture Classics

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