

# **COPPER AND CAST STONE FIRE BOWLS AND FIRE PITS**

**INSTALLATION, MAINTENANCE & WARRANTY GUIDELINES**

**Manual Burner Systems**



## FOR YOUR SAFETY – READ BEFORE OPERATING

THIS PRODUCT MUST BE INSTALLED AND SERVICED BY AUTHORIZED PERSONNEL, INCLUDING LICENSED CONTRACTORS. FAILURE TO FOLLOW THESE INSTRUCTIONS EXACTLY MAY RESULT IN FIRE, EXPLOSION, PERSONAL INJURY, DEATH, DAMAGED EQUIPMENT, AND PROPERTY DAMAGE.

### WHAT TO DO IF YOU SMELL GAS

- Do not store or use any gasoline or other flammable vapors and/or liquids in the vicinity of this or any other burner assembly.
- If you smell gas, immediately shut off gas to the burner assembly.
- Extinguish any open flame near the burner assembly.
- If odor continues, move away from the area and immediately call your gas supplier.

This manual should remain with the homeowner or parties responsible for the operation of the unit.

## FOR USE WITH NATURAL OR LIQUID PROPANE GAS ONLY DO NOT USE SOLID FUELS

### WARNING AND SAFETY INFORMATION

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#### CODE REQUIREMENTS

Installation must be in accordance with all local codes and/or the latest edition of the National Fuel Gas Code, ANSI Z223.1.

Installation in Canada must be in accordance with the latest CAN/CGA-B149.1 or.2.

Please see your local municipality for any and all grounding or bonding requirements.

#### OPERATING CONDITIONS

In order to ensure successful and safe operation, the unit should be inspected before each use and at least annually by a qualified service person. More frequent cleaning may be required as necessary depending on environmental conditions. It is imperative that the burner assembly and circulating air passageways of the unit be kept clean and free of debris at all times.

This system is not designed to operate in wind conditions exceeding 10MPH.

DO NOT use this unit if any part of the burner assembly has been under water or is soaked heavily. Immediately call a licensed contractor to inspect the unit and to replace any part of the burner assembly that has been under water.

Should overheating occur or the gas supply fail to shut off, turn off the manual gas control valve to the burner assembly.

#### WARNING:

HOT! DO NOT TOUCH. FIRE RISK/ BURN RISK. SEVERE BURNS MAY RESULT. CLOTHING IGNITION MAY RESULT. KEEP CHILDREN AWAY. CAREFULLY SUPERVISE CHILDREN. CLOTHING OR OTHER FLAMMABLE MATERIALS SHOULD NOT BE HUNG FROM THE UNIT NOR PLACED ON OR NEAR THE UNIT.

## TABLE OF CONTENTS

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<b>WARRANTY .....</b>	<b>4</b>
<b>SYSTEM REQUIREMENTS.....</b>	<b>5</b>
Gas Requirements .....	5
Installation Requirements.....	6
<b>SYSTEM COMPONENTS .....</b>	<b>7</b>
Planter Only Bowls.....	7
Fire Only Bowls .....	7
Fire Pits/ Linear Burner Inserts.....	8
<b>INSTALLATION GUIDE.....</b>	<b>9</b>
Bowl Mounting .....	9-10
Plumbing (drainage/gas/equipment pad.....	11
Bowl Connections .....	12-14
Linear Burner Connections .....	15
<b>OPERATION &amp; SAFETY.....</b>	<b>16</b>
Initial Start-Up Procedures .....	16
Basic System Operation .....	17
Trouble Shooting .....	17
<b>GENERAL CARE &amp; MAINTENANCE .....</b>	<b>18</b>
Planter Bowls.....	18
Fire Bowls and Fire Pit / Linear Burner Features.....	18
Cleaning and Care for Hammered Copper Bowls .....	18
Cleaning, Care and Sealing for Cast Stone Features.....	19
Repair for Cast Stone Features.....	19
Seasonal Care .....	20

**READ THIS INSTRUCTION GUIDE IN ITS ENTIRETY PRIOR TO  
COMMENCING INSTALLATION**

## Fire + Water Elements – Product Warranty

### 1-Year Limited Residential Warranty

Pebble Technology International® (PTI) will attempt to repair any unit, when used as intended, which has proven to be defective in workmanship or material, preventing the proper operation of the unit when reported within one year of the date of purchase. This warranty is for factory defective parts only and does not cover any costs related to removal or install of replacement parts or the entire unit. For warranty consideration, contact the original dealer and provide proof of purchase, date of purchase, and the date of installation. The dealer will contact PTI to obtain instructions regarding the warranty request. If the unit is deemed defective and cannot be repaired, PTI will replace it with a new or refurbished unit. This warranty applies only to residential use of the unit. The customer is responsible for shipping costs, which may be reimbursed by PTI should the unit be deemed defective.

IF NECESSARY, THE UNIT MUST BE REMOVED AND REPLACED ONLY BY A LICENSED PROFESSIONAL IN THE PLUMBING AND/OR ELECTRICAL TRADE. DO NOT ATTEMPT TO REMOVE AND REPLACE THE UNIT YOURSELF. THIS CAN BE DANGEROUS AND WILL VOID YOUR WARRANTY.

PTI will not be responsible for any asserted defect, which has resulted from accidents, chips or cracks caused by mishandling and/or impact with other objects or surfaces taking place at any time after buyer takes delivery of the unit, over-heating, freeze/thaw, misuse, abuse, repair or alteration. Under no circumstances, will PTI be liable for incidental or consequential damage resulting from defective units, improper installation, or improper removal. PTI is not responsible for any injury or mishap related to misuse, abuse or lack of judgment in choosing fire display locations.

**Cementitious Based Components:** Non-structural hairline cracks along with shade/color variation are considered an inherent part of any cementitious product, not a manufacturing defect. Hairline cracks can occur at any time during the life of the product due to temperature changes and expansion and contraction of concrete. Hairline cracks are defined as cracks that do not threaten the integrity or stability of the product, nor prevent the continued and normal use of the product. These hairline cracks are not covered by the warranty.

Calcium buildup and efflorescence are naturally occurring byproducts that are deposited on the surface of cementitious products. These can usually be cleaned and are typically harmless to the cementitious structure, only presenting a cosmetic issue. The effects of these surface deposits are not covered by the warranty.

**Metallic Based Components:** Improper chemical balance of pool water may cause corrosive conditions to metal water features. PTI will not warrant products exposed to such conditions. Additionally, finishes offered (such as powder coating) are affected by factors like UV exposure and pool water chemistry and are therefore not encompassed by this warranty. Some components (such as brass fittings) may need to be replaced over time, as they will degrade when in contact with a dissimilar metal (i.e. copper). This circumstance is naturally occurring and is therefore not covered by the warranty. These components are designed to be replaced and this design feature helps to preserve the life and integrity of the copper.

**Terms and Conditions:** This warranty does not apply to any damages caused by: (1) any failure resulting from unreasonable use or abuse, (2) unsatisfactory material choices by you or the installer, (3) accidental damage or element damage such as water or rain, (4) improper installation, or (5) damage incurred during shipping and/or delivery of unit. If unit is suspected of being damaged during shipment or delivery, buyer must notify PTI within 48 hours of delivery for a damage claim to be filed. Failure to notify PTI within the required time-period may result in no damage claim recovery to buyer. PTI is not responsible for the application of local codes and/or if the unit is not approved for installation. Please check with your local building department or governing agencies for prior approval before purchasing. PTI is not responsible for the actions and omissions, including negligence, of the installer. Installation workmanship and any materials used in installation are not covered under this warranty. Variations in handmade products are normal and not to be considered a warrantable issue. PTI will not warranty fire products in which a burner unit purchased from another supplier has caused damage.

This warranty is your sole warranty and sets forth your exclusive remedy, with respect to a defective fire and water feature. All other warranties, expressed or implied, whether of merchantability, fitness for purpose or otherwise, are expressly disclaimed by PTI. PTI reserves the right to make changes to the warranty program.

### Contact Us

Pebble Technology International  
8435 N. 90th Street, Suite 6  
Scottsdale, AZ 85258  
800.937.5058  
[fireandwaterinfo@pebbletec.com](mailto:fireandwaterinfo@pebbletec.com)

## SYSTEM REQUIREMENTS

### WARNING:

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Read the installation, operation and maintenance instructions thoroughly before installing or servicing this equipment. Do not install near any combustibles such as wood structures, fuels, clothing, fabrics, or dry vegetation. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and gas control which has been under water. Leaking LP-gas may cause a fire or explosion if ignited, causing serious bodily injury or death. A LP gas regulator should never be installed under the Linear Fire Pit. It should be installed by a gas expert in a remote location away from the heat source. Check with your gas supplier to verify required gas flow and pressures are available at the location of your installation. In many cases utility companies will install large meters at no charge to accommodate larger flows. Propane, as for the purpose of this standard means a hydrocarbon product meeting the CGSB Specification CAN/CGSB-3.14. Call manufacturer for set-up on high altitude installations.

### GAS REQUIREMENTS:

The required gas pressure and flow should be measured in line and while flowing, not static.

Natural Gas: 7" WC (0.25 psi) max. pressure

Propane (LP): 11" WC (0.4 psi) max. pressure

Gas supply line should be 3/4" Schedule 40 black steel gas pipe to the fire feature. A larger diameter main supply line may be needed for multiple burner applications. *NOTE: Check with your gas supplier to verify gas flow and pressure available at the location of your installation. In many cases, utility companies will install larger meters at no charge to accommodate larger flows. Please account for any additional gas appliances plumbed off the same gas lines and how that may affect the operation of the fire feature.*

Gas Flow Requirements - Bowls only	
Number of bowls	BTU/per hour
1 bowl system	60,000 – 80,000 BTU/HR
2 bowl system	120,000 – 160,000 BTU/HR
3 bowl system	180,000 – 240,000 BTU/HR
4 bowl system	240,000 – 320,000 BTU/HR

GAS FLOW REQUIREMENTS - Fire Pits Only	
Burner Length	BTU/ per hour
36" Long Burner	120,000 BTU/HR

## INSTALLATION REQUIREMENTS: Fire Bowls and/or Fire Pits

- **Installation must be performed by a licensed contractor.** All aspects of installation must be in accordance with all local codes and/or the latest edition of the National Fuel Gas Code, ANSI Z223.1.
- Adhere to recommended CSA/AGA clearances: sides 4ft and overhead 6ft.
- Do not install near any combustibles (side or overhead) such as wood structures, fuels, clothing, fabrics or dry vegetation.
- Install fire features well out of the way of pedestrian traffic. For installation on or over non-combustible floors only.
- The gas plumbing must be installed underground.
- Install 90° elbow at flexible gas hose gas connection at each bowl for proper installation. *CAUTION:* When connecting the flexible gas hose to the burner assembly, do not make tight radius bends or kinks in the hose.
- With all gas connections tight, position burner assembly so that it sits level in the bowl. Rotate as required so that the gas hose is not kinked.
- Manual burners are not allowed for commercial installation.
- The manual gas valve shall be located where they can be easily accessible such that the gas can be shut off quickly in case of an emergency.
- Maintain good piping practices by keeping pipe length and elbows to a minimum to eliminate unnecessary pressure drop. (Do not use any corrugated flexible gas line other than what is provided by Pebble Technology with the system kit and in the designated locations).
- Insides of gas lines must be clean and free from any dirt, debris or contamination.
- Gas lines shall be purged of air and all contaminants prior to hook-up and operation of any fire feature.
- Natural Gas systems require drainage.
- Connect inlet and outlet gas hoses supplied by Pebble Technology. Make sure all connections are tight and do not leak using a leak detection method. Keep hoses away from underside of Support Plate. They must be kept away from hot under surface of the burner.

### IMPORTANT:

**Do not kink or make sharp radius bends on flexible gas hose. Make sure gas hoses are not touching the underside of Support Plate.**

## SYSTEM COMPONENTS

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Components required for installation. Check to make sure all components are included in the correct quantities. This installation guide covers all bowl shapes, fire pit, linear burner and manual burner assemblies.

### PLANTER ONLY BOWLS

#### COMPONENTS INCLUDED WITH PURCHASE

##### Hammered Copper

- Mounting surface is integrated
- Planter only bowl
- 4" ABS clean-out cap

##### Cast Stone

- Planter only bowl
- 4" ABS clean-out cap

#### COMPONENTS NOT INCLUDED WITH PURCHASE

- (4) Stainless steel surface anchor hardware including washers
  - Use 1/4" or 5/16" for Hammered Copper bowls
  - Use 5/16" or 1/2" for Cast Stone bowls
- Fine wire mesh or window screen is recommended to cover drain tube
- Outdoor silicone sealant
- PVC cement glue & primer

### FIRE ONLY BOWLS

#### COMPONENTS INCLUDED WITH PURCHASE

##### Hammered Copper

- Mounting surface is integrated
- Manual burner assembly
- Support plate
- Flexible gas hose
- Fire only bowl

##### Cast Stone

- Manual burner assembly
- Support plate
- Flexible gas hose
- Fire only bowl

#### COMPONENTS NOT INCLUDED WITH PURCHASE REQUIRED FOR INSTALLATION

- (4) Stainless steel surface anchor hardware including washers
  - Use 1/4" or 5/16" for Hammered Copper bowls
  - Use 5/16" or 1/2" for Cast Stone bowls
- Gas line connection 1/2" NPT black steel 90° elbow fitting
- MANUAL ONLY: 1/2" MPT x 3/8" FPT adapter, hex black steel
- PVC cement glue & primer
- Nipple black steel 3/8" x close
- Gas key switch (valve) (*fire pits only come with key*)

## SYSTEM COMPONENTS

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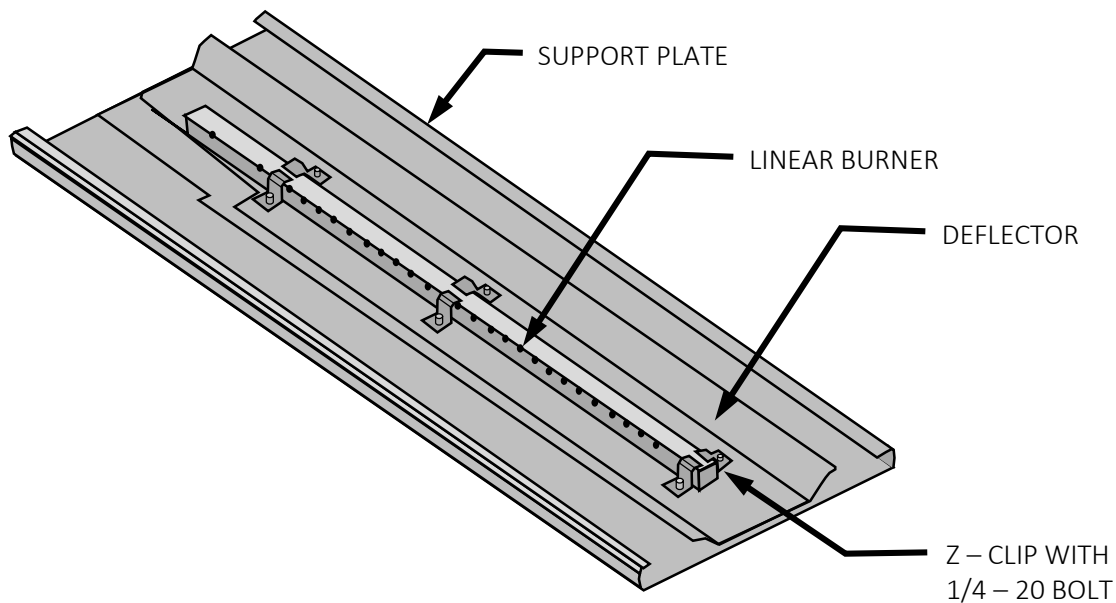
### FIRE PIT / LINEAR BURNER INSERTS

#### COMPONENTS INCLUDED WITH PURCHASE

- Flexible gas hoses
- Manual burner assembly
- Gas key switch (valve)
- Fire Pit (as ordered)

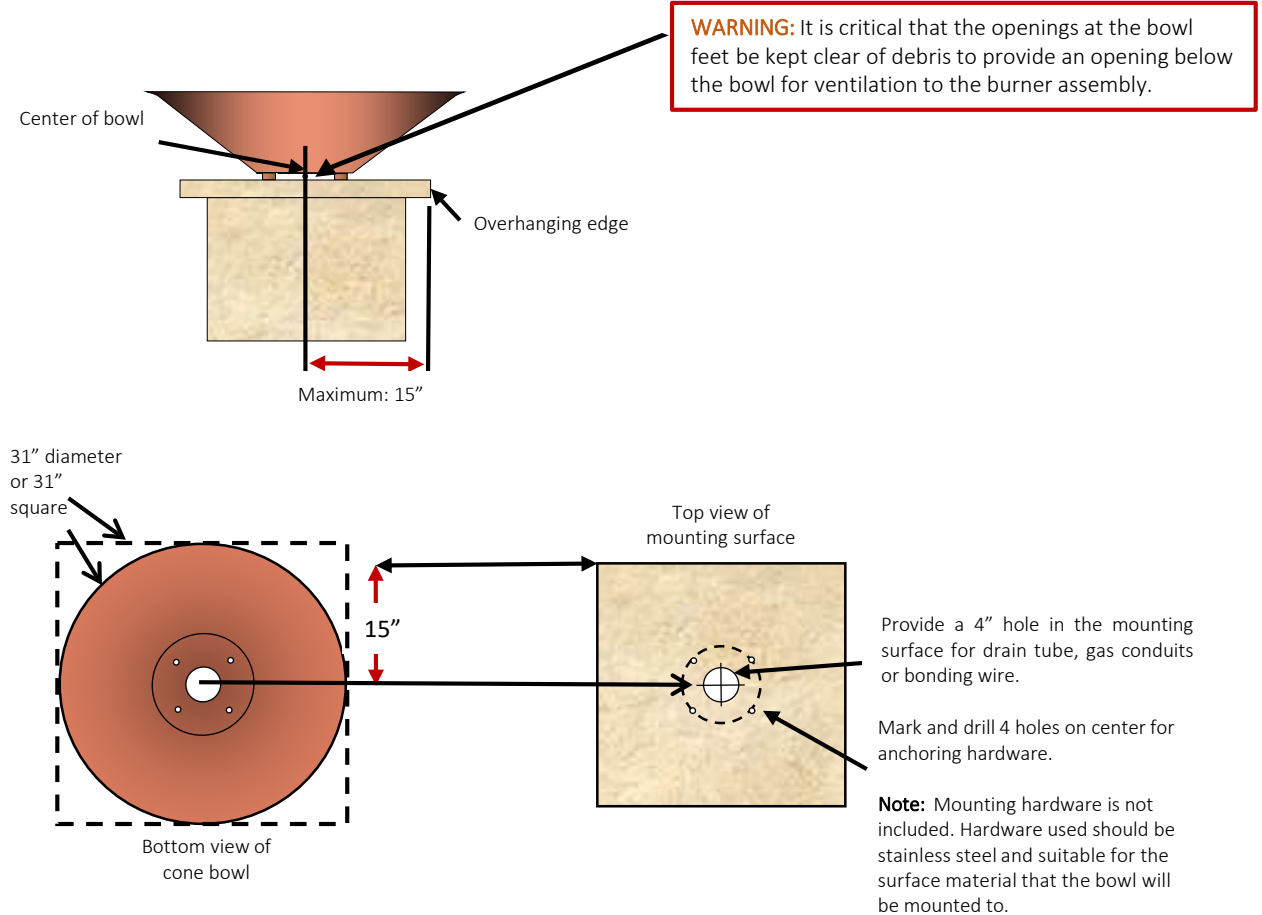
#### COMPONENTS NOT INCLUDED WITH PURCHASE REQUIRED FOR INSTALLATION

- Galvanized mounting L-Brackets
- Gas line connections 1/2" NPT black steel tube
- Gas line connections 1/2" NPT black steel 90° elbow fittings

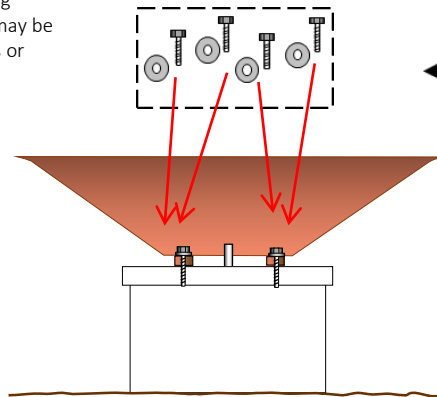




### HAMMERED COPPER BOWLS

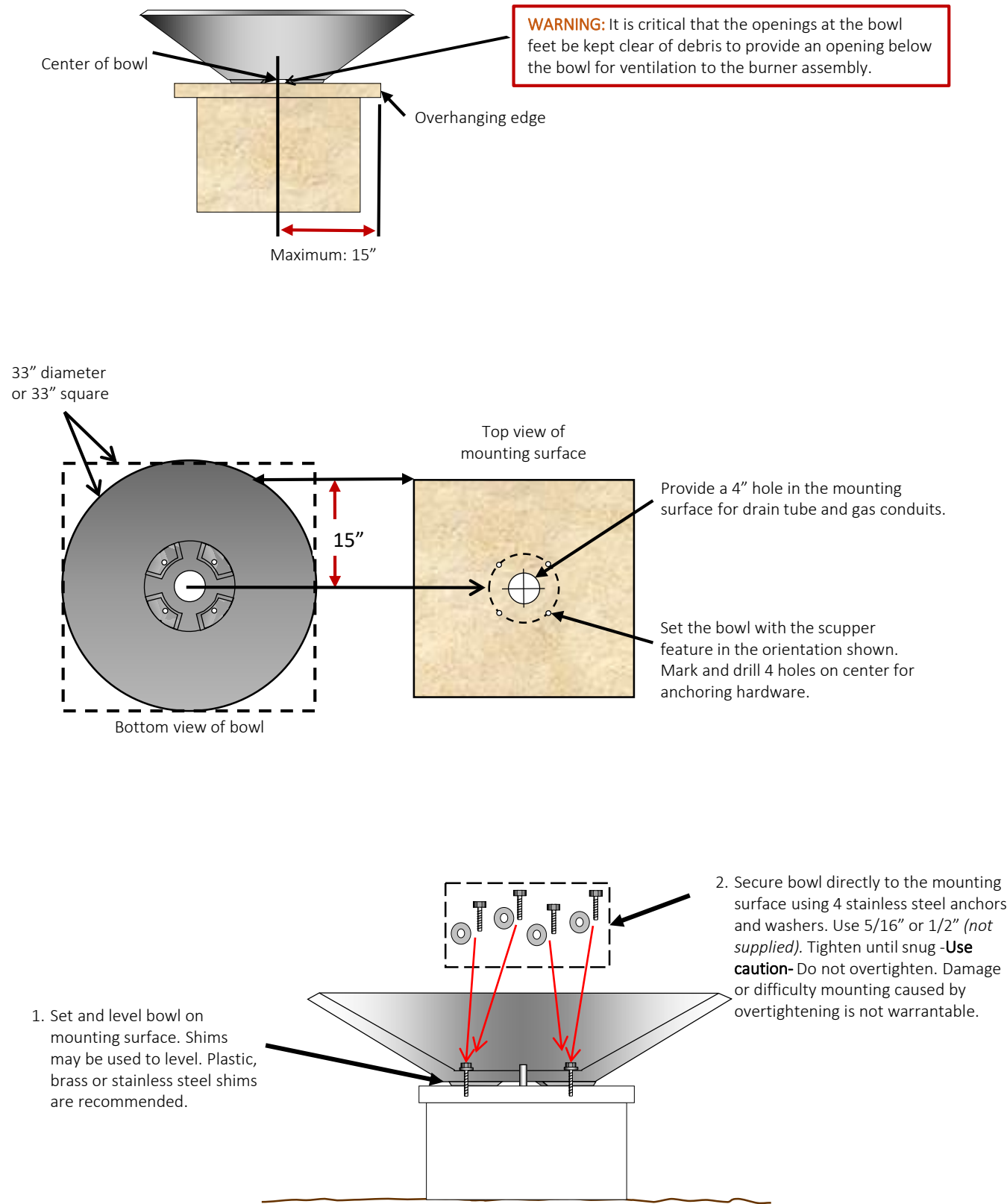


1. Level the bowl on mounting surface. If needed, shims may be used to level. Plastic, brass or stainless steel shims are recommended.

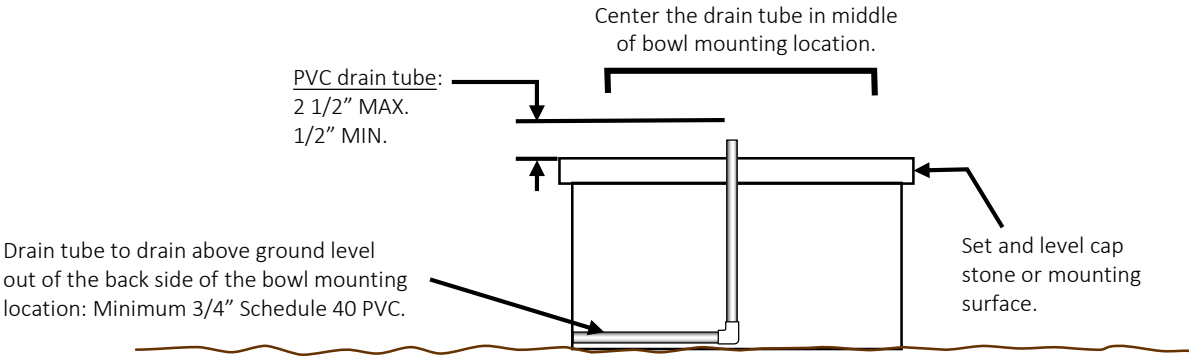


2. Position bowl accordingly and secure to mounting surface with 4 stainless steel anchors and washers. Use 5/16" or 1/2" (not supplied). Tighten until snug -**Use caution**- Do not overtighten, as copper is soft and will bend easily. Damage or difficulty mounting caused by overtightening is not warrantable.

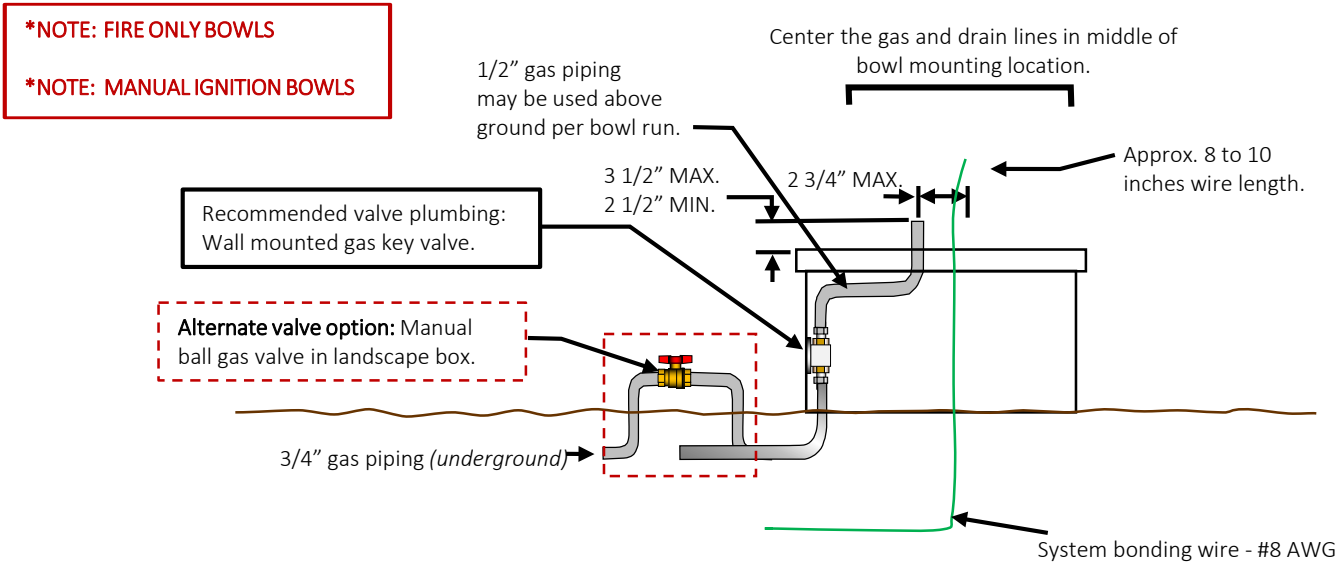
CAST STONE BOWLS



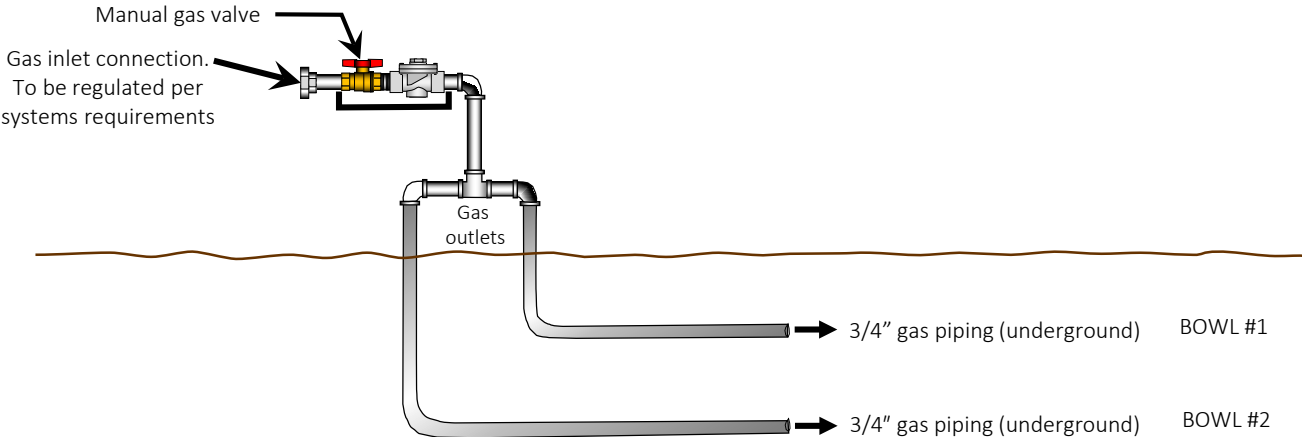
DRAINAGE



GAS



EQUIPMENT PAD – GAS



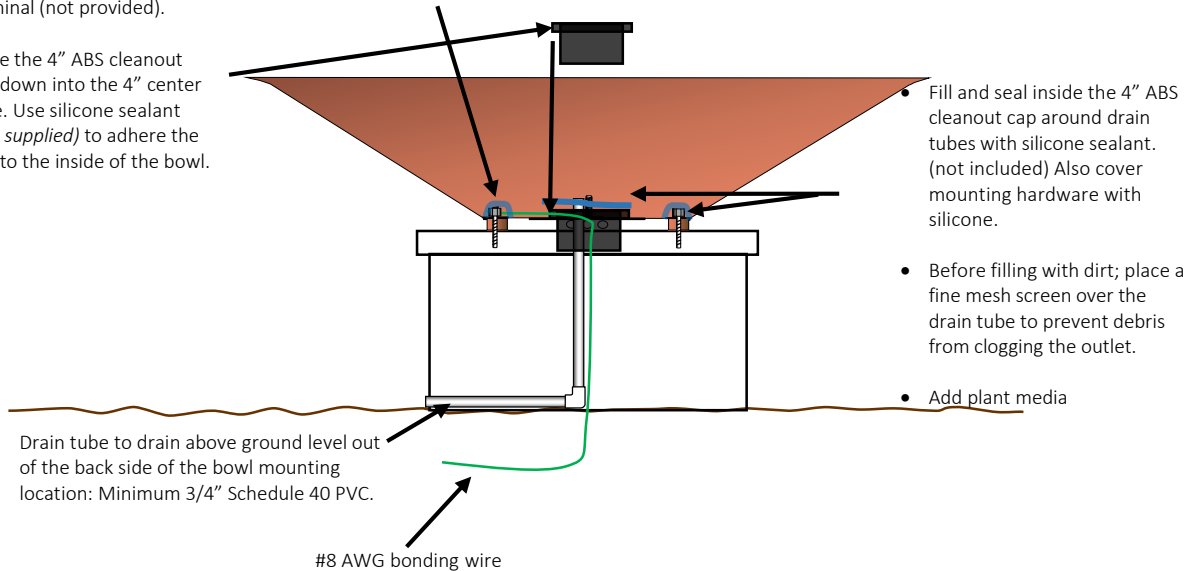
## INSTALLATION GUIDE – BOWL CONNECTIONS

### COPPER PLANTER ONLY

**\*NOTE: PLANTER ONLY BOWLS**

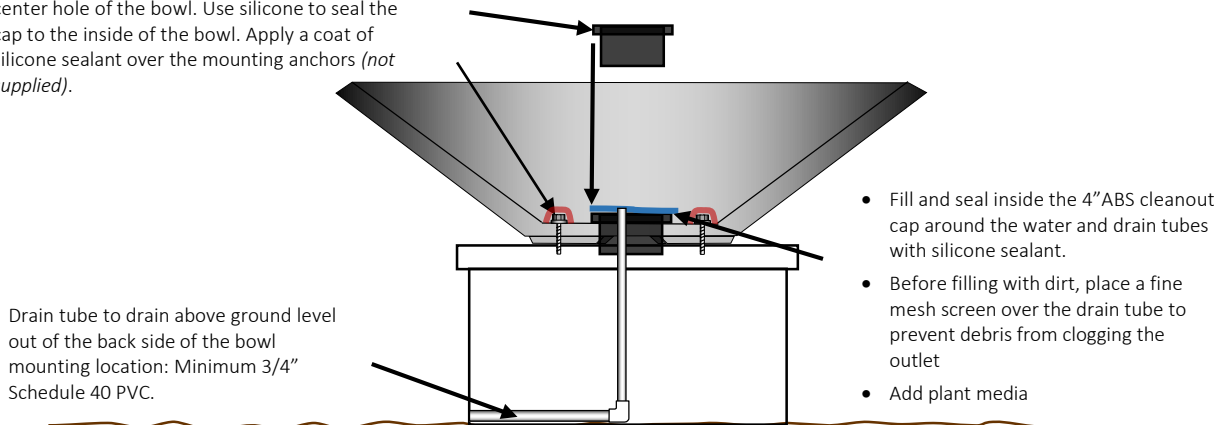
- Mount bowl as per instructions on page 11. On one anchor, connect system bonding wire (#8 AWG) between bowl and mounting hardware using a copper terminal (not provided).

- Place the 4" ABS cleanout cap down into the 4" center hole. Use silicone sealant (*not supplied*) to adhere the cap to the inside of the bowl.



### CAST STONE PLANTER ONLY

- Place the 4" ABS cleanout cap down into the 4" center hole of the bowl. Use silicone to seal the cap to the inside of the bowl. Apply a coat of silicone sealant over the mounting anchors (*not supplied*).



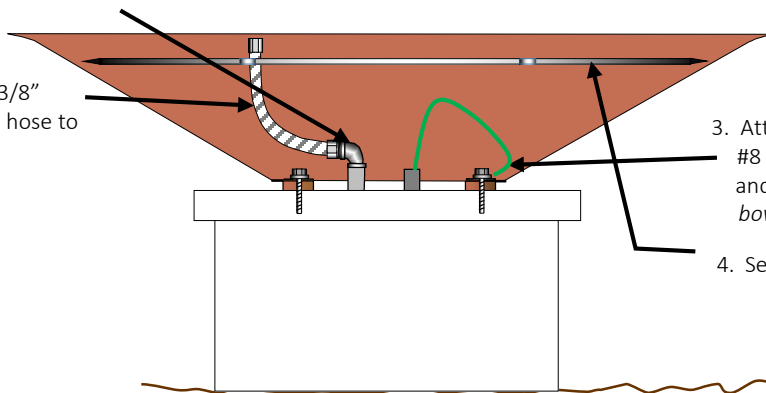
## COPPER FIRE ONLY BOWLS

**\*NOTE: FIRE ONLY BOWLS**

**\*NOTE: MANUAL IGNITION BOWLS**

1. Install a 1/2" NPT black steel 90° elbow fitting and a 1/2" x 3/8" NPT adapter. Product warranty voided if not installed properly inside the bowl and above the finish surface

2. Connect the provided 3/8" corrugated flexible gas hose to supply line.

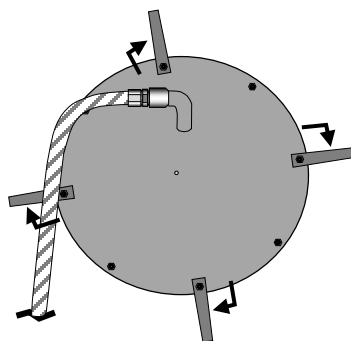


3. Attach a copper terminal and connect #8 AWG bonding wire between bowl and mounting hardware. *(for copper bowl only)*

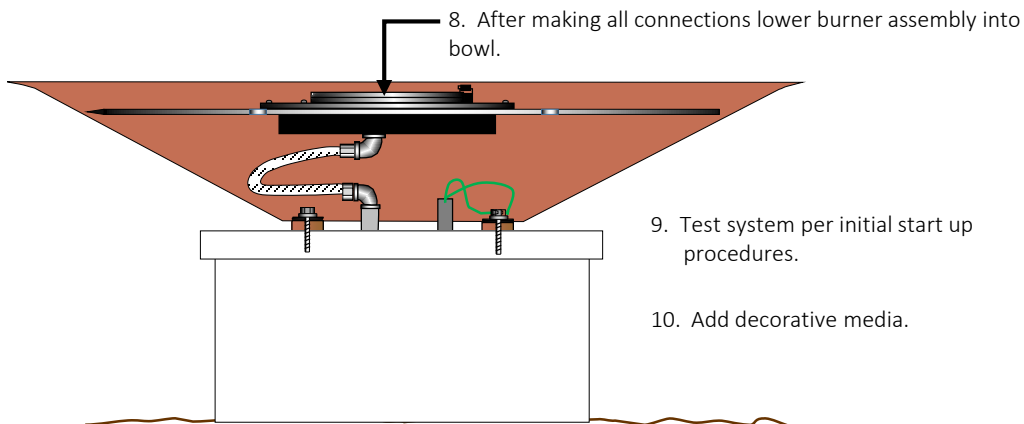
4. Set and level support plate.

## BURNER ASSEMBLY SET-UP

5. Open the four (4) support tabs attached to the burner plate to extend out at a right angle.
6. Tighten the nuts with the tabs in the extended position so the burner assembly will rest on the support plate.
7. Purge gas line then connect flexible gas hose to burner assembly



Manual Burner Assembly



8. After making all connections lower burner assembly into bowl.

9. Test system per initial start up procedures.

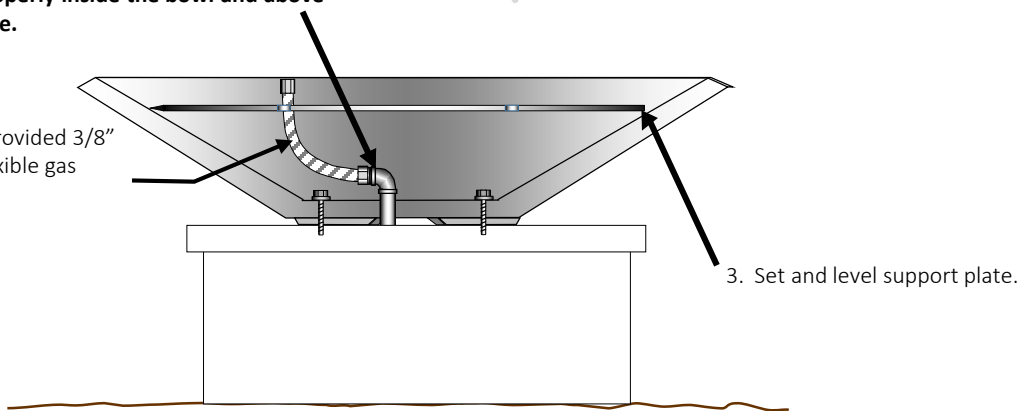
10. Add decorative media.

## CAST STONE FIRE ONLY

**\*NOTE: Fire only bowls**  
**\*NOTE: Manual Ignition bowls**

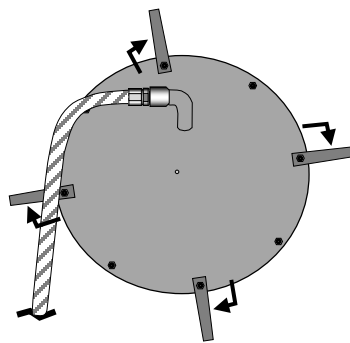
1. Install a 1/2" NPT black steel 90° elbow fitting and a 1/2" x 3/8" NPT adapter. **Product warranty void if not installed properly inside the bowl and above the finish surface.**

2. Connect the provided 3/8" corrugated flexible gas hose.



## BURNER ASSEMBLY SET-UP

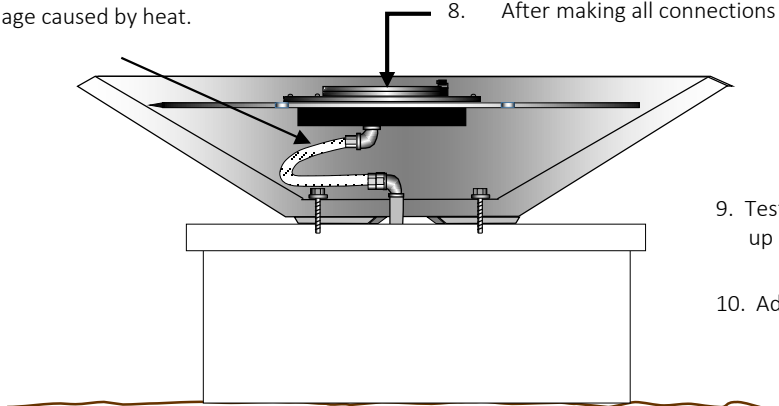
4. Open the four(4) support tabs attached to the burner plate to extend out at a right angle.
5. Tighten the nuts with the tabs in the extended position so the burner assembly will rest on the support plate.
6. Connect flexible gas hose to burner



Manual Burner Assembly

7. Position gas line as low as possible in the bowl to prevent damage caused by heat.

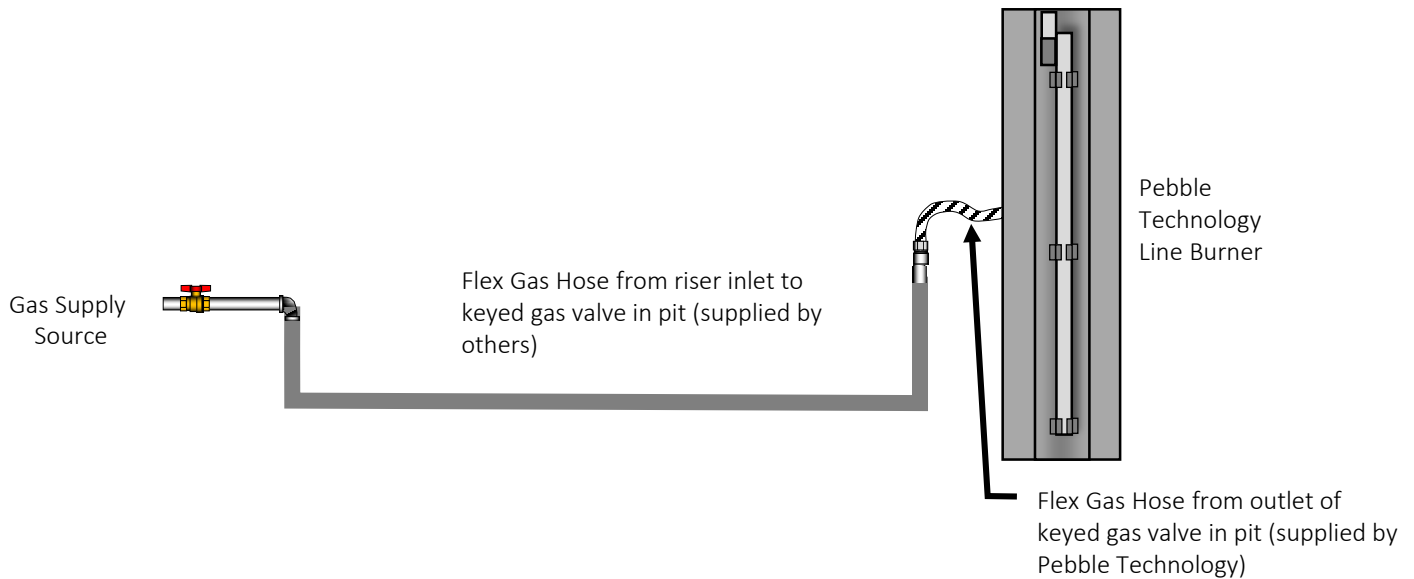
8. After making all connections lower burner assembly into bowl



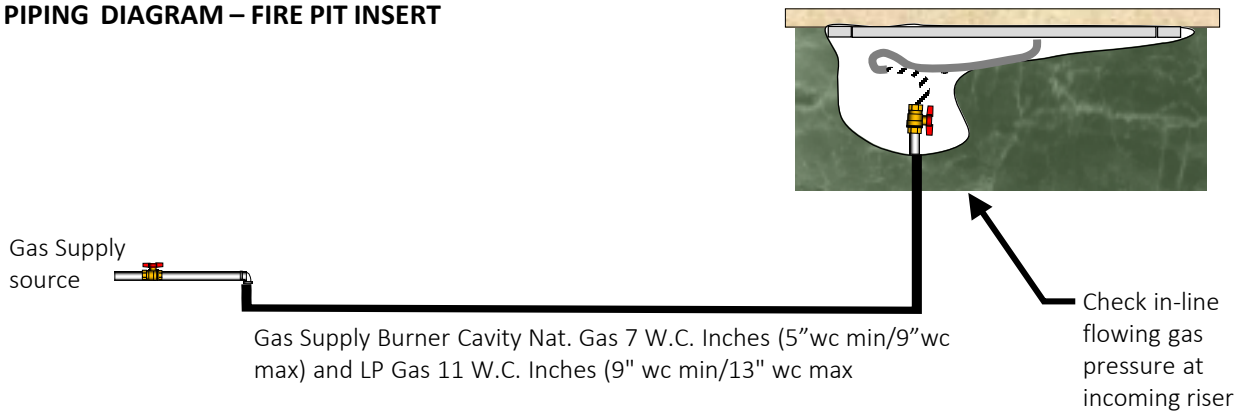
9. Test system per initial start up procedures.

10. Add decorative media.

### COMPONENT OVERVIEW FOR LINEAR INSERTS 3FT.



### PIPING DIAGRAM – FIRE PIT INSERT



#### Gas line pipe sizing

**Note:** Pipe sizes listed in this document are for reference only. All gas line pipe should be sized based upon distance from the source to the burner, number of elbows and BTU of burner. Use the reference charts from the latest version of the NFPA 54 code book or equivalent sizing charts as your guide.

### INITIAL START UP PROCEDURES

#### PLANTER BOWL

- Cover the drainage hole with a mesh screen so debris and dirt do not fall into the drainage tube
- Fill with dirt and use as any normal planter

#### ALL FIRE BOWLS AND FIRE PITS

##### WARNING:

Fire features are for outdoor use only. Use only fire approved decorative media to cover the support plate and burner assembly. High temperature rated lava and tumbled lava/ceramic stone are all acceptable media for natural gas systems and propane. Fire glass is ONLY acceptable for natural gas systems. PTI offers lava rock and fire glass that is approved for fire applications. For optimal performance, 2"–4" sized lava rock and 1/2"–3/4" fire glass is recommended. Use caution when using other suppliers' media as pieces may pop or explode when exposed to heat. *(Media with fine or small particles is not recommended)*

*NOTE: Install decorative media on top of the support plate and burner assembly. Be sure the decorative media is not packed too tightly around the burner.*

*NOTE: Do not use fire glass with propane systems. For natural gas systems, use of a mesh screen is necessary to maintain fire glass above the support plate. When using lava rock smaller than 1/2", use of a mesh screen is necessary.*

*NOTE: Do not add decorative media until after all testing and flame height adjustments are satisfactorily complete.*

#### FIRE BOWL AND FIRE PITS— MANUAL OPERATION

- Purge air from gas line at each fire feature using the following instructions:
  - Close manual gas valve
  - Disconnect gas hose from burner assembly
  - Open manual gas valve and hold gas hose outside fire feature while purging air
  - When you smell gas, close manual gas valve and reconnect gas hose to burner assembly
  - Make certain all gas connections are tight and that there are no leaks using a leak detection method
- Test and balance flame height
  - Open the manual gas valve near the fire feature to turn on the flow of gas
  - Use stick lighter to ignite gas and light flame
  - Check flame height and make adjustments at the gas valve to achieve a balanced flame across all fire features. Flame height should be adjusted to 6" – 10". Excess flame height can result in overheating of the burner and potentially damage the unit
  - Do not adjust manual gas valve too low as this can cause the flame to be unstable resulting in possible flame out
  - To ensure a stable flame, maintain the required gas pressure and flow to the burner assembly
- Add decorative media after all testing and adjustments are complete



## BASIC SYSTEM OPERATION

**Caution:** Before turning on a fire feature make sure that the area is clear of people, animals or any objects that are combustible. If you smell gas or there are other indications of a gas leak, immediately turn off the manual gas valve, leave the area and do not operate the fire feature. Immediately call your utility gas supplier to inspect the fire feature.

### **FIRE BOWL AND FIRE PITS – MANUAL OPERATION**

- Open the manual gas valve near the fire feature to turn on the flow of gas
- Use a stick lighter to light flame
- Check flame height and make adjustments at the manual gas valve to achieve a balanced flame across all fire features
- Do not adjust manual gas valve too low as this can cause the flame to be unstable resulting in possible flame out
- To ensure a stable flame, maintain the required gas pressure and flow to the burner assembly
- Do not store or use gasoline or other flammable materials in the vicinity of the fire feature
- Do not leave flame on while unsupervised
- Do not operate in windy or rainy conditions
- Fire feature should be operated only by a responsible adult
- Before any inspection of the bowl, always turn off gas and make sure the fire feature is cool
- **If you experience problems with the fire feature call a licensed contractor**
- To turn off the fire feature, close the manual gas valve to the fully closed position

## TROUBLE SHOOTING

Prior to beginning any trouble shooting procedures, ensure all gas components of the system are off.

**All procedures should be performed by a licensed contractor.**

While trouble shooting the unit, look for heat or water damage to the burner assembly which may be caused by improper installation or inadequate ventilation and drainage.

### **Burner assembly will not turn on**

- No gas supply: check that all manual gas valves are in the proper position. If applicable, make sure the propane tank is full.
- Unit may overheat due to improper ventilation. Clear ventilation passageways. Check for heat damage, replace parts as needed.
- Excessive weather conditions such as rain, wind, snow and dust may affect operation. Wait for weather conditions to clear. Clear debris and eliminate moisture before attempting to operate the unit again.
- Check gas pressure. If pressure is too low or high, it can result in an unstable flame, which can cause the burner assembly to work improperly. Check with gas supplier that the proper regulator is installed.
- Check gas flow. If flow is too low or high, it can result in an unstable flame, which can cause the burner assembly to work improperly.
- Regulate gas flow by adjusting the manual gas valve. If problems persist, check with gas supplier that the proper regulator is installed.

### **Main burner does not shut off**

- Confirm manual gas valve shut off is fully closed.
- If multiple gas valves were installed, check all valves.

For unresolved issues, call service provider. To purchase replacement parts, call PTI at 800-937-5058

## GENERAL CARE & MAINTENANCE

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General care of the unit is required to maintain proper operation and extend the life of the product. Inspect and clean the unit on a regular basis. Frequency of use will increase the amount of maintenance needed.

### PLANTER BOWLS

- Periodically check that the drainage tube is not clogged and can still drain adequately.

### FIRE BOWLS

- Periodically clean the burner assembly with a wet cloth to remove carbon build-up.
- Periodically inspect the underside of the burner assembly for any signs of damage from excessive heat and warped parts, etc.
- Check that all gas connections are tight, clean and sealed.
- Keep base of bowl and ventilation passageways clear of debris.

### FIRE PIT / LINEAR BURNER FEATURES

- Periodically clean the burner assembly with a wet cloth to remove carbon build-up.
- Periodically inspect the underside of the burner assembly for any signs of damage from excessive heat (e.g., melted wires, carbon build up, warped parts, etc.)
- Check that all gas connections are tight, clean and sealed.
- Keep base of burner cavity and ventilation passageways clear of debris.
- The unit should be cycled frequently (especially after rain). The Burner Assembly will not work in snow and ice conditions. Fire Features should be covered or removed for storage in snow and ice conditions.
- The unit should not be operated in high wind conditions. High winds can limit the cooling air required for cooling the Burner Assembly.
- Gas should be securely shut-off during non-use.

### CLEANING AND CARE FOR OIL-RUBBED HAMMERED COPPER BOWLS

Hammered copper bowls exposed to the outdoor environment and pool chemicals can patina over time. To restore the original finish, follow these cleaning instructions.

#### Items needed:

- Grade #000 steel wool
- 500 grit black wet sandpaper
- Dish soap
- A multi-surface wax
- Clean soft cloth: use clean microfiber or soft lint free rags
- Water hose
- Bucket for cleaning solution

#### Cleaning instructions:

- Mix dish soap and water in a bucket.
- Using the grade #000 steel wool and soapy water, clean the outside of the bowl.
- Wet the 500 grit sandpaper and lightly sand the bowl.
- After sanding, rinse the bowl with clean water. Make sure to spray off the decking and other nearby surfaces to prevent any staining.
- Apply multi-surface wax to the bowl in a circular motion and wipe off with a clean cloth.

## **CLEANING, CARE AND SEALING FOR CAST STONE FEATURES**

The cast stone bowl comes with a hand applied penetrating sealer. Over time the bowl may become dirty or the sealant may fade due to exposure to the outdoor elements. To clean or restore the finish, follow the instructions outlined below. It is recommended that the bowl be sealed every 1-2 years to protect and maintain the finish. Call PTI at 800-937-5058 to purchase a Cast Stone Sealant Kit.

### **Items needed:**

- 220 grit sandpaper
- Scotch-Brite® pad
- Clean soft cloth: use clean microfiber or soft lint free rags
- Mild cleaner such as dish soap, Simple Green®, or Windex®. Avoid abrasive cleaners such as Comet®, bleach, or ammonia-based products
- Water hose
- Bucket for cleaning solution and rinse water
- Rubber/latex gloves for sealer application

### **Cleaning instructions:**

- Clean the bowl using a mild cleaner and soft cloth.
- If there is persistent dirt or a haze on the bowl, a Scotch-Brite® pad or 220 grit sandpaper can be used to clean the surface.
- Do a final wipe down with a clean, wet cloth.

### **Sealing instructions:**

- Clean the bowl following the instructions above. Allow enough time for the bowl to fully dry before applying the sealer.
- Follow instructions included with cast stone Sealant Kit. The sealer is a 1-part penetrating sealant.
- Put on rubber/latex gloves. Apply the sealer in a circular motion with a microfiber cloth. Ensure the surface is wiped clean and there are no drips, runs or streaks on the finish.
- We recommend 2-3 coats, allowing 15 minutes between coats. Allow more time between coats in cooler temperatures.

## **REPAIR FOR CAST STONE FEATURES**

If the cast stone bowl has been chipped or damaged, the finish can be repaired and restored. Call PTI at 800-937-5058 to purchase a Cast Stone Repair Kit.

### **Items needed in addition to the Cast Stone Repair Kit:**

- 220 grit sandpaper
- Scotch-Brite® pad
- Blue painter's tape
- Putty knife
- Mixing stick
- Rubber/latex gloves

### Repair instructions:

- Clean the bowl following the cast stone cleaning instructions above.
- Use blue painter's tape to mask off the area that is to be repaired.
- Following mixing instructions included with Cast Stone Repair Kit. The paste should have the consistency of toothpaste.
- Apply the paste with the putty knife or by hand to the damaged areas. Leave the paste high as it will shrink as it dries. NOTE: The paste needs to have a raised profile when dry so it can be sanded smooth and flush with the finish surface.
- Let dry for at least 1-2 hours. Allow more time in cooler temperatures.
- Once dry, sand smooth and flush with the 220 grit sandpaper.
- Clean the bowl following the cast stone cleaning instructions above.
- Reseal the repaired area of the bowl following the cast stone sealing instructions above. NOTE: We recommend resealing the whole bowl to achieve a more uniform finish.

### Items needed:

- Soft bristle brush
- Scotch-Brite® pad
- Dish soap
- Solution of 8 oz. of white vinegar, 2 tsp of salt, and 1 oz. of lemon juice
- Buckets for cleaning solutions
- Water hose
- A multi-surface wax protectant (spray version)
- Clean soft cloth: use clean microfiber or soft lint free rags

### Cleaning instructions:

1. To clean light patina stains mix dish soap with water. Use a rag with solution to wipe away light patina and excess dirt from the polished copper surface.
2. To remove stains and heavier patina, mix a solution of 8 oz. of white vinegar, 2 tsp of salt and 1 oz. of lemon juice in a mixing bucket. Apply the cleaning solution to the surface using a rag. Allow 1-3 minutes to let the solution penetrate the copper. If stains persist, increase concentration of solution by adding more salt and lemon juice.
3. Wipe off the cleaning solution.
4. Use a soft bristled brush or a fine Scotch-Brite® pad to clean the patina from the polished copper surface. Start with very light pressure and work in a circular motion. (The brush or pad may be wetted with cleaning solution).
5. Wipe the polished copper surface with a clean dry rag. With a clean wet rag, immediately wipe and rinse any remaining cleaning solution from the polished copper surface. Be careful not to allow dirty water to run down the wall, into the pool or on the deck. Take necessary precautions to minimize the amount of run-off water that may stain or damage any nearby materials.
6. Wipe dry and allow the surface to dry.
7. Spray the polished copper surface slightly with the multi-surface wax and wipe off immediately with a cloth. Do not allow the surface wax to dry before wiping.
8. Repeat all steps as needed to maintain the desired look of the polished copper surface.

### SEASONAL CARE

Seasonal shut down of the Fire + Water Elements product is recommended if there is a part of the year in which you do not use your features, or if you live in an area where dust, wind, snow or freezing conditions occur. In cold climates, you may need to cover the features to prevent damage from ice and snow. Additionally, summer storms can deposit dust and debris on the functional surfaces. Always clean out the features before use to prevent any debris from affecting the functionality of the system. Make sure water valves leading to water features are off or the pump system is disabled. Please contact your pool care professional for assistance if needed.