



Hearth Products Controls Co

Document and keep for your records: You may remove the label from the package and tape here.  
Model #:  
Serial #:  
BTU: Voltage:

# Electronic Ignition Fire Pit Insert

## EI Series


### Installation & Operation Instructions

(On / Off and High / Low Models)  
For Commercial and Residential Use

**Select Models**  
Certified to  
ANSI Z21.97-2014  
CSA 2.41-2014



**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.



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

**⚠ 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.

 <b>DANGER</b>	<b>CARBON MONOXIDE HAZARD</b> 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.
	

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

# Index:

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**Attention:**  
**High / Low Models**  
For the HPC Fire App,  
the default security  
code is:  
**2 3 4 5**

## 1. Parts List

- Fire Pit Insert
- Gas Input Flex Line- 24"
- Installation and Operation Instructions
- High / Low Models Only- Remote Control (Bluetooth) & Antenna Extension Cable

## 2. General Information

Instructions are also available at [hpcfired.com](http://hpcfired.com)

- **IMPORTANT: Please carefully follow the instructions in this manual to prevent personal injury or property loss. Instructions are updated as needed. It is the installer's responsibility to periodically review instruction for applicable updates. These instructions contain information critical to the safe installation and operation of the fire pit.**
- To qualify for warranty, instructions must be strictly followed. Warranty may be void if not followed. Never alter product or configuration.
- It is the installer's responsibility to ensure a safe installation and to educate the end user as to proper operation. Leave this manual with the end user.
- We suggest that our products be installed by professionals that are locally licensed by the authority having jurisdiction in gas piping. We suggest that our products be serviced annually by a professional certified in the US by the National Fireplace Institute (NFI) as NFI Gas Specialists or in Canada by WETT (Wood Energy Technical Training). Installer must follow all instructions carefully to ensure proper performance and safety. Hearth Products Controls Company is not responsible for your actions.
- 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
- **Control Options: On / Off Models:** Use of wall switch, optional remote control (#578-C), automatic shut-off timer or whole house system.  
**High / Low Models:** Bluetooth technology only allows use with supplied remote control or a smartphone or tablet. **IMPORTANT:** Because of this, High / Low Models CANNOT be controlled with a whole house system.

### GAS Key Points:

- Only use gas/fuel type specified for this fire pit, refer to label on the fire pit control box. 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 use and installation.
  - **Natural Gas Fire Pit:**  
Supply Pressure: Minimum: 3.5" W.C.; Maximum: 7.0" W.C.
  - **LP Gas:**  
Supply Pressure: Minimum: 8.0" W.C.; Maximum: 11.0" W.C.

**IMPORTANT:** High / Low Models- if pressure is low, this will reduce flame height on HIGH setting, possibly resulting in little to no flame variation.

- If not using supplied flex line, ensure any flex line that may be used from the permanent main fuel supply to the product is rated to the stated max BTU of the product and certified to ANSI Z21.75\*CSA 6.27.
- The EI Series is not for use with small LP Tanks and must utilize permanent fixed piping for fuel supply.

**ELECTRICAL Key Points:**

- Verify correct 110VAC- 1 amp or 24VAC- 4 amp power supply. All electronic applications should utilize a GFCI protected circuit.

- **IMPORTANT: 24VAC powered fire pit inserts:**

A Class II 24VAC, 4 amp, 100W transformer must be used to power the fire pit and able to be switched on and off from a remote location to allow for easy access or emergency.

**24VAC Wire Sizing: Wire Lengths 75ft or less:      14 gauge**  
**Wire Lengths 76ft or more:                              12 gauge**

### 3. Selecting the Location

- All fire pit inserts and systems are designed and intended for outdoor use only.
- Pick a location that allows sufficient horizontal room and safe egress to enjoy the fire pit while allowing a safe distance from the heat and flame.
- **IMPORTANT:** Deck Installation- If installing fire pit on a wood or composite deck it is required to use the Deck Insulation Kit(s) and locally bought paver stones. Kit includes basalt material and instructions. #FPI-DECK39SQ; #FPI-DECK20SQ. Also refer to drawing- Deck Insulation Kit- Install.
- Select a location where the fire pit can be attended during operation. Never leave an operating fire pit unattended or by someone not familiar with its operation or emergency shut off locations. Young children should be carefully supervised when they are in the area of fire pit.
- There must be an electrical shut off (wall switch or breaker) on the exterior of the fire pit or on adjacent wall to allow for emergency shutdown and maintenance.
- Fire pits create very high temperatures - Combustibles must be located far enough away that there is no risk of ignition.
- Select a location with good drainage and allows easy access for installation and maintenance of the fire pit.

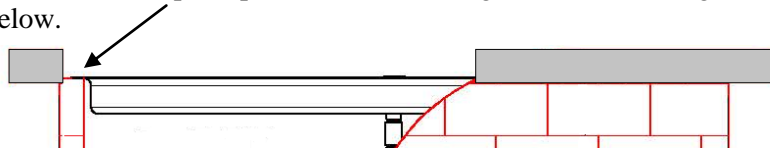
**CLEARANCES AROUND FIRE PIT:**

Fire Pit Clearances	Up to 200k BTU	201k ~ 400k BTU
Under valve box when applicable for drainage	2"	2"
Sides surrounding fire pit from structure or combustibles	36"	48"
Overhead clearance above product	84"	Non-combustible screen only.

**For more information please refer to Clearance Drawings- see the last two pages.**

## 4. Construction of the Fire Pit Enclosure

- Use non-combustible materials for construction of enclosure, gas supply and power.
- Adequate drainage for enclosure must be provided to prevent water damage to fire pit.
- The fire pit insert should be recessed a minimum of 2" from the top of the enclosure to protect flame from being blown out.
- 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. Manufacturer is not responsible for damage.
- The enclosure must be constructed on a stable surface. The weight of the fire pit must be supported by the pan and not by any control/valve box. Make sure that the structure is level.
- HPC recommends that the pan lip is recessed on trough (linear), and large round products as illustrated below.



- HPC cannot guarantee the pan lip on all of our products will be perfectly flat and will not warp due to heat.
- Fire pit insert must be accessible for service.

### GAS Key Points:

- Fire pit must have a gas shutoff on the exterior of the fire pit to allow for emergency shut off and maintenance. The gas shutoff should NOT be used to adjust flame height.
- Fuel line sizing is the responsibility of the installer and must be able to supply the stated maximum BTU for the product- refer to product label on fire pit.

### VENTING Key Points:

- **IMPORTANT: The minimum requirement is the enclosure incorporate 1 vent on at least 2 sides (2 vents total) at a minimum size of 18 sq. inches of total free area each (Example: 3"x 6" or larger) to ensure that heat and residual gas can escape.** We prefer the enclosure incorporate 4 vents total (minimum 18 sq. inches each side) to reduce the risk of thermal shutdown on the EI Series- some enclosures may require more ventilation based on material, size and extended use. Installation of the vents in the mid to lower area of the enclosure is recommended. Failure to properly vent enclosure may result in the fire pit overheating or explosion. Continuous overheating could lead to heat damage to internal components. The vent may work as a drain as well when installed at bottom sidewall to prevent water build up.
- The interior void space of the enclosure surrounding the valve box cannot be filled with any material (gravel, crushed rock, concrete, etc.)- It is a requirement to have a minimum of 2" under the valve box for proper ventilation and drainage.
- When installing insert inside a non-HPC copper or concrete bowl, ventilation should be below bowl. If bowl is mounted on top of a column, a 6" hole is recommended to allow gas supply, electrical and water plumbing to clear.
- **OVERHEATING:** The fire pit will automatically close gas valve if temperature exceeds 190° F inside valve box to prevent component damage. Turn main power to the fire pit off and on to reset. To correct overheating, ensure enclosure has adequate ventilation - see "Construction of Enclosure".

## 5. Installation of Fire Pit

- Gas supply Line Testing: To prevent damage, unhook fire pit from gas supply during any pressure leak tests of the gas supply line.
- **IMPORTANT:** Burn Testing- It is the responsibility of the qualified installer to test for gas leaks at all connections. Perform all leak tests with leak detector or leak reactant.
- **IMPORTANT:** Gas Plumbing Connections: Use only joint compound or tape that is resistant to all gases. Apply joint compound to all male pipe fittings only- **DO NOT use on flex line flared fittings.** Be sure to tighten every joint securely.
- Refer to cut sheets on our website for important dimensional information for your fire pit- visit [hpcfire.com](http://hpcfire.com)
- Electronic ignition fire pits come with a sheet of insulation between pan and valve box to protect internal components from heat damage. This may need to be trimmed on smaller enclosures for proper fit. Please do not remove insulation.

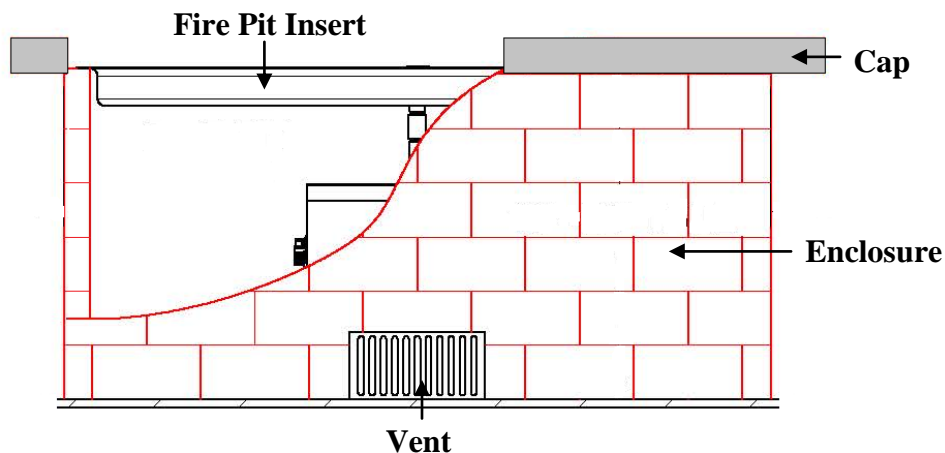
### **Installation**

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

### **Installation Steps:**

1. Confirm gas supply to fire pit is OFF.
2. Connect fire pit to main gas supply using supplied flex line- avoid sharp bends to prevent whistling.
3. Turn on gas supply, purge gas lines of air and perform leak test on all inlet connections. Repair as needed.
4. Connect proper 110VAC or 24VAC electrical power following all local codes.
5. Position fire pit safely with access to all gas connections for testing.
6. Light fire pit. It may take several cycles to purge air from the lines.
7. Once fire pit is lit, perform leak test on all gas connections. Repair as needed.
8. Turn off fire pit and allow cooling.
9. Apply media as described in Section 6. When filling the pan with lava rock and/or decorative glass, these instructions must be followed.
10. Turn on fire pit again and perform leak test with media correctly installed. If gas leak is detected verify correct media application and repair as needed.
11. High / Low Models: Attach antenna extension cable as explained on following page.
12. Set fire pit in properly constructed enclosure (Section 4).
13. Verify correct operation and lighting.
14. Review safety manual with end user and instruct not to change/ modify fire pit or media.
15. Leave manual with end user.
16. Please apply the Start Up and Shutdown decal next to control box in an obvious position.

### **Enclosure example of landscape block, brick or stone construction:**



**Other enclosure material options are metal, concrete, copper, veneer, etc.**

## High / Low Models: Antenna Extension Cable Mounting

### Antenna Removal- (If extension not attached)

#### 1. Antenna

- a) Locate antenna on valve box inside fire pit enclosure. Remove antenna where attached to valve box using fingers on knurled part of antenna ferrule base.

**NOTE:** If needed use needle nose pliers and gently grasp the knurled ferrule base of the antenna and loosen finishing with fingers.

#### 2. Antenna Extension Cable

**NOTE:** Before starting, straighten antenna extension cable it will make it easier to work with during assembly.

- a) Attach female end of antenna extension cable to valve box finger tight. On hex part, use a 5/16" open end wrench to snug up the attachment of cable to valve box.

\*\*\* Do Not Overtighten

#### 3. Antenna Attachment

- a) Attach antenna to extension cable and firmly tightening with fingers. Antenna should rotate with mild resistance without coming loose.

#### 4. Bracket Attachment

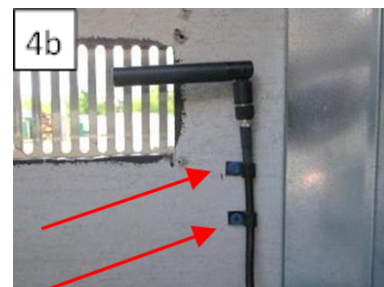
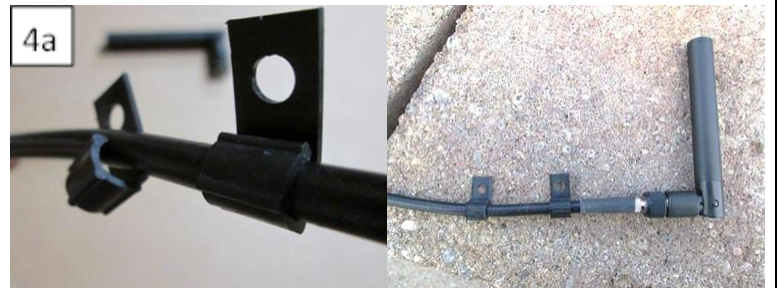
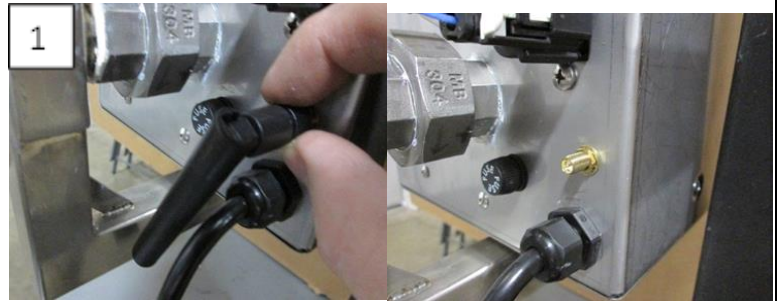
- a) Clip on the two nylon attachment brackets to the cable near the antenna. Position the brackets based on the desired location to be attach to the interior of your fire pit enclosure.

**NOTE:** The optimum location for signal strength is near the vent facing in the general area where the remote will be used. The exposed tip of the antenna at the vent to be approximately 1/2" or more (4b).

- b) Place the cable brackets with the antenna at the position where attachment will be. Mark those two spots on the surface through the attachment bracket holes
- c) Drill two holes into the enclosure using a 3/16" masonry drill bit or equivalent bit depending on the type of material you are attaching to.
- d) Assemble the antenna cable assembly to the interior wall or surface of the fire pit using two Tapcon or equivalent fasteners.

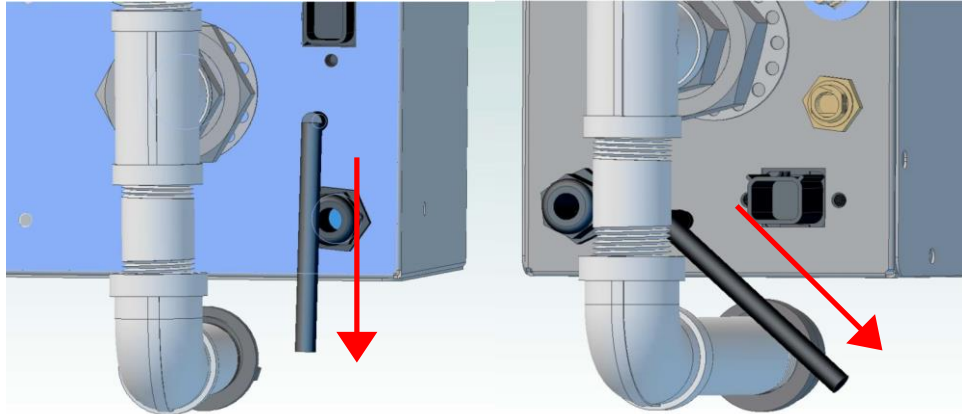
#### 5. Antenna Adjustment

- a) With the antenna now mounted you have some limited adjustment with this. Be cautious when rotating and repositioning the antenna so not to break or damage.



## High / Low Models: Antenna Extension Cable Mounting (cont'd)

If using the antenna extension cable is not possible, remove from fire pit insert and reinstall antenna. For best results the antenna should be pointed down as much as possible depending on the configuration and the onsite conditions. Be careful not to damage the antenna during installation or service.



Valve Box Side  
Mount –  
Round, Square,  
Rectangular Inserts

Valve Box Vertical Mount -  
Linear Inserts

## 6. Media Application

**⚠ 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.**

- The fire pit is designed to use approved media correctly installed over the burner to achieve proper combustion.
- Never install a mesh or screen under the media.
- Never use any material that is non-porous and holds moisture such as gravel, pebbles, river rock, etc. This material is not sufficiently porous to allow heated steam to readily escape which can break and cause personal injury or damage.
- 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.

## Lava Rock & Glass Application

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

- 1) Install your fire pit per instructions.



- 2) Apply lava rock ONLY deep enough to cover ring and pan- less than 2" above fire ring.



### For Electronic Ignition

- 3) **Blow Out Box:** Do not cover vents with lava rock- leave open. Do not allow any rock to block flame opening.



- 4) **Blowout Box:** Do not cover blowout box vents or opening with lava rock or glass. Incorrect media installation will cause the pilot flame to suffocate and turn off pit or delay main burner ignition.

### Decorative Glass Application

- 1) Install your fire pit per instructions.



- 2) Fill Pan with glass. Cover Burner with 1/8 to 1/4" of glass. Do not over fill 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.



### For Electronic Ignition

- 3) **Blowout Box:** Do not cover blowout box vents or opening with lava rock or glass. Incorrect media installation will cause the pilot flame to suffocate and turn off pit or delay main burner ignition.



**DO NOT COVER VENTS!**



**DO NOT COVER PILOT OPENING!**



## 7. Fire Pit Operation

- Before use, be sure to test all gas connections for leaks. Do not use fire pit if there is any evidence of leaking gas. If leaking gas suspected, turn off the main gas supply and repair immediately.
- Both children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid burns and clothing ignition.
- Do not use the enclosure as a seating area. Wind and gusty conditions will affect the flame in an unpredictable manner. Please turn the fire pit OFF if condition exist that is not safe for patrons.
- Do not use fire pit if any part has been submerged under water. Immediately call a qualified service technician to inspect the fire pit.
- 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. Fire pit 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 3- Selecting the Location.
- If lava rock is wet, allow fire pit to burn for 45 minutes prior to coming within 15 feet of the fire pit.
- When fire pit is not in operation turn off power via wall switch or breaker.
- When not in use the fire pit must be covered at all times.

### Start Up:

**Initial Start-up:** Several “on/off” cycles may be necessary to purge air in gas lines after system installation. Fire pit will lockout after 15 attempts to light pilot: Please power OFF then ON to restart.

### Sequence of Operation:

1. The igniter will be powered (glow red) for 5 seconds before pilot valve opens.
2. The igniter will only be powered the initial 15 seconds of the 30 second pilot cycle. This sequence will repeat up to 15 times (~15 minutes) before going into lockout. To reset, turn “OFF” power then back “ON” again.
3. Pilot flame will ignite and warm thermocouple- it may take 30 seconds at times for thermocouple to get hot. If thermocouple is not hot in 60 seconds, system will shut down then go back to Step 1.
4. Once thermocouple is hot, main valve will open allowing main burner to ignite.
5. If pilot flame is blown out at any time, system will shut down, and then automatically restart (Step 1).

• **The following sections explain operation of:**

A. On / Off Models    B. High / Low Models- Remote Control    C. High / Low Models- Smartphone Control

A. **ON / OFF MODELS-** Please operate as follows.

### **EI FIRE PIT START UP**

1. **STOP! Read the safety information on “What to Do If Smell Gas” (Pg. 1).**
2. Confirm there is no debris in the fire pit (as mentioned in warnings) including water.
3. Turn “ON” electrical power and gas to fire pit.
4. Using wall switch or remote to turn “ON” fire pit - this may take several cycles to purge any air.
5. To reset after lockout, power unit down, wait 5 minutes, then restart.
6. Once the fire pit has ignited **DO NOT** leave unattended.

**This product is not for use with small tanks. It is intended to be connected to fixed piping systems only.**

## EI FIRE PIT SHUTDOWN

1. Turn “OFF” fire pit using remote or wall switch.

**IMPORTANT: FOR REMOTE CONTROL USE, YOU MUST ALSO TURN OFF POWER TO ELECTRICAL OUTLET OR GAS TO FIRE PIT TO PREVENT ACCIDENTAL START.**

2. Once fire pit is cooled, use appropriate cover to protect fire pit.



**B. HIGH / LOW MODELS- HPC Remote Control**, after turning ON gas to fire pit operate as follows:

1. **Remote Sync** – The remote should arrive already sync'd to the fire pit.

a. To sync the remote to a fire pit:

1. Ensure power is off to fire pit.
2. Depress the low and off button simultaneously and hold until the remote flashes rapidly (8 to 10 seconds)
3. Release the low and off buttons
4. Apply power to the fire pit within 10 seconds – Fire pit will accept a new remote for the first 2 minutes it is on.
5. Allow the remote to finish flashing which could take up to 30 seconds
6. Your remote should operate the fire pit
7. NOTE: If Steps 5 or 6 fail, please repeat Steps 1 ~ 7. Also confirm antenna placement- see Pg. 6

2. **Normal Remote Operation**

- a. Power On/Off – 2 Flash
- b. High – 4 Flash
- c. Low – 3 Flash

**High**

**Low**



**LED-** for flash count

**Power On / Off**

d. Poor Communication - 10 Flash (Move closer or change positions.)

e. Remote Response Time – When not in use for more than 30 seconds the remote will go into a sleep mode to save battery life. If remote is in sleep mode it may take a few extra seconds for a command to be executed.

3. **Remote Range** – The remote should operate within a 20 foot distance from your fire pit reliably. Further distances may be achieved depending on your particular application. Antenna extension cable is available when needed.

a. Metal objects negatively affect communication between the remote device and your fire pit. Things such as metal enclosures, metal grates and metal mesh for stone veneer or in some cases metal furniture may interfere with communication between your remote device and the fire pit.

4. **For lost remote** – If the remote is misplaced, the fire pit may still be turned on by the following method.

- a. Apply power for 5 seconds; turn off for at least 5 seconds. (Repeat 3 times- all times +/- 1 second).
- b. Next time unit is powered up it will turn ON. Fire pit can still be turned off with the remote. Once power is removed start over with Step a.

**IMPORTANT:** If power to the fire pit is turned “Off” then immediately turned back “On” the system will go into lockout mode. To reset, turn off, wait 5 minutes, then turn on.

**C. HIGH / LOW MODELS- Smartphone Control**, after turning ON gas to fire pit operate as follows:  
(Also see [hpcfire.com](http://hpcfire.com) for more information)





Hearth Products Controls Co.  
EI App Instructions

### App Setup and Usage


**Note:**

- The content of the app or the design is subject to change. Support for apps may be discontinued without notice, depending on the content provider's policy.
- Adult use only.

**Attention:**

- When pairing a device with the fire pit, only one Bluetooth connection can be used. Turn Bluetooth "OFF" to allow other devices to connect to the fire pit.

**Setting up the App:**

1. Download the HPC Fire App from the  Apple store or Google Play.
2. If power is already applied, disconnect power for 20 seconds and reconnect power.
3. Open the HPC Fire App, see Fig.1.
4. From the setup screen, enter 6 characters.
5. Enter a password and confirm the password.
6. Select your language, and press "Continue".
7. Enable the Bluetooth.
8. Select search for devices, see Fig.2.
9. Select the Remote Igniter.
10. Enter the default security code 2345 and press "Connect", see Fig.3. Repeat until App is connected to the fire pit.

**Note: If App will not pair with the fire pit, disconnect power for 20 seconds, and then repeat the install steps above.**

Fig.1

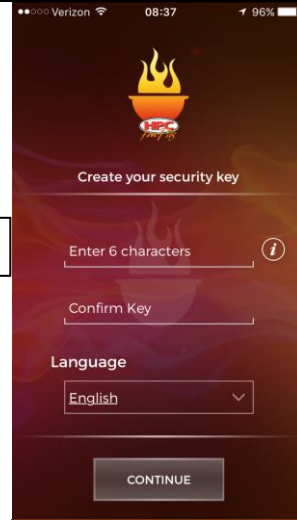


Fig.2

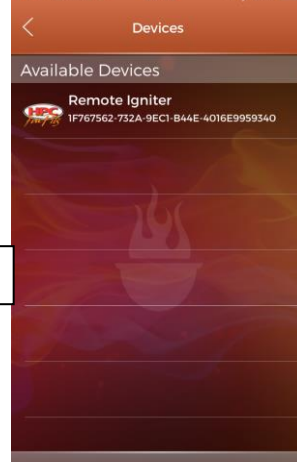
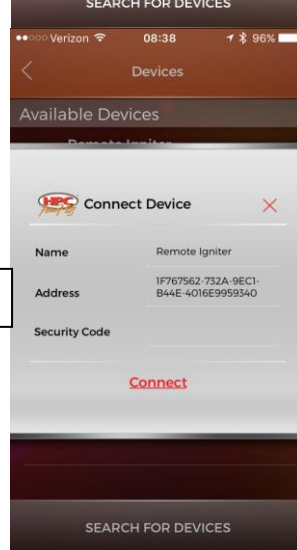
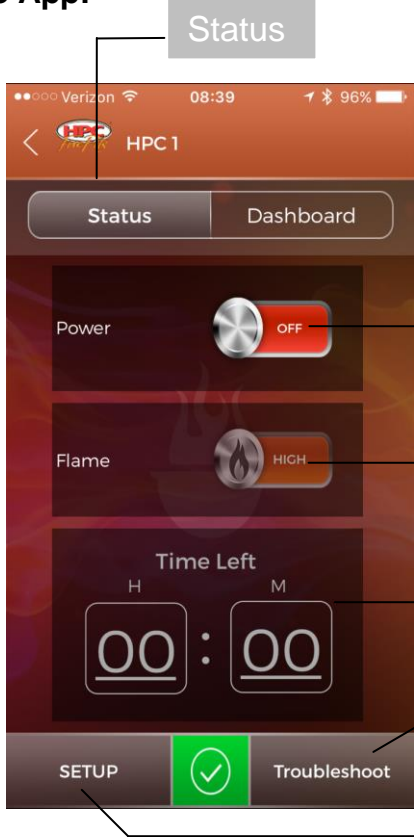


Fig.3



**Using the App:**



Status

Power ON/OFF: Answer 2 safety questions when powering on unit.

Flame – HIGH/LOW

Timer – amount of time left before shut-off.

Troubleshoot Guide – tap the “link to online help.”

Setup –  
 1. Timer ON/OFF and set the timer.  
 2. Customize the fire pit’s name.  
 3. Customize the security code.

Dashboard



Igniter Indicator

Temperature Indicator

Timer – amount of time left before shutoff.

Website link to HPCFire.com

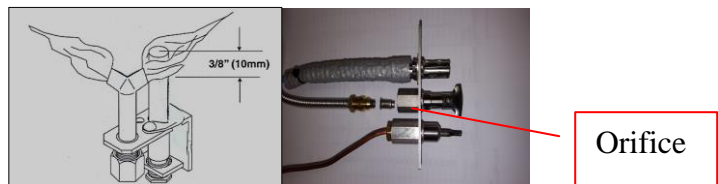
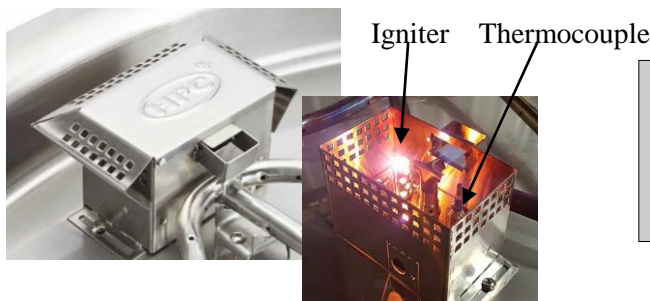
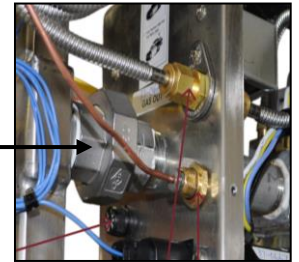
### Service



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

## 8. Maintenance

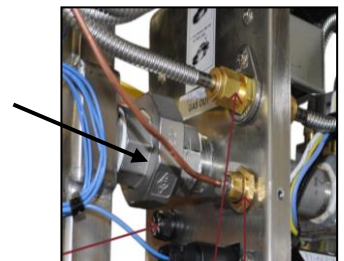
- **IMPORTANT:** Union Fitting- Please do not loosen manifold union fitting- for factory assembly purposes only. If removing valve box, remove at pan nipple by spinning the valve box / manifold assembly counter clockwise (CCW).
- Any guard or protective device removed for servicing must be replaced prior 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 and power 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 nest and or lay eggs in the venture 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. Periodical inspection by a qualified service technician of the air-intake is required to ensure your fire feature performs properly.
- Burner Cleaning: (1 x YR) 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 manufacturer.
- Thermocouple Cleaning of Soot: (1 x 6 mos. or as needed) Remove lava rock or glass around pilot, then the blow out box lid. Clean thermocouple of any soot using soft brush. Be careful not to damage hot wire element. Place lava rock or glass back as explained in Section 7.
- Always ensure that the union fitting is tight. If loose, torque until there is no leak. (Recommend to 80ft.lbs.)
- Visually inspect the pilot- The pilot flame should cover 3/8" to 1/2" of the thermocouple as shown below. Cleaning of orifice may be required by removing pilot hood (CCW) and removing orifice as shown below.



## 9. Troubleshooting

Below are some potential causes and countermeasures to the symptoms indicated in **bold**. Please contact your Dealer or certified technician for service and repair.

- **IMPORTANT:** Union Fitting- Please do not loosen manifold union fitting- for factory assembly purposes only. If removing valve box, remove at pan nipple by spinning the valve box / manifold assembly counter clockwise (CCW).



### Fire Pit Won't light

- |                                   |  |
|-----------------------------------|--|
| 1. No power to unit.              | Confirm breaker, wall switch, and remote are on.   |
| 2. Remote not synced to fire pit  | Re-sync remote (High / Low Models only)  |
| 3. Remote batteries weak          | Change batteries   |
| 4. Hi Limit Temp. Switch Tripping | Inadequate venting - see proper venting in "Construction of Enclosure"<br>Power OFF then back ON to reset. |
| 5. Igniter element damaged        | Change igniter element   |
| 6. Damaged wires                  | Inspect wires to igniter - confirm insulation is in good condition and connections are tight               |

### No Pilot Flame (Igniter Glows)

- |                          |  |
|--------------------------|--|
| 1. Air in gas line       | If new install, may take several attempts to purge air     |
| 2. Debris in gas line    | Confirm gas line is clear (insulation, dirt, plastic etc.) |
| 3. Gas Pressure Improper | Confirm proper gas pressure (Section 1)                    |
| 4. Pilot Orifice Dirty   | Remove pilot head and clean (Section 8)                    |

### No Main Burner (Pilot Flame Present)

- |                             |  |
|-----------------------------|--|
| 1. Gas Pressure Improper    | Confirm proper gas pressure. (Section 1)                   |
| 2. Small Pilot Flame        | Remove pilot head and clean orifice (Section 8)            |
| 3. Dirty Thermocouple       | Clean using soft brush (Section 8)                         |
| 4. Fire Ring Obstructed     | Confirm no debris or water in ring. Always cover fire pit! |
| 5. Improperly applied Media | See Section 6  |

### Main Burner Turning Off/On Frequently

- |                             |   |
|-----------------------------|---|
| 1. Small Pilot Flame        | Remove pilot head and clean orifice (Section 8) |
| 2. Improperly applied Media | See Section 6                                   |
| 3. Gas Pressure Improper    | Gas pressure too low (Section 1)                |
| 4. Thermocouple Defective   | Change thermocouple                             |

**Attention:**  
**High / Low Models**  
For the HPC Fire  
App, the default  
security code is:  
**2 3 4 5**

### Error Codes

The EI fire pit insert will indicate an error code through LED flash count or display on smart phone / tablet.  
Error codes are displayed as follows:


**On / Off Models:** Control Module LED flash count- module inside of valve box.

**High / Low Models:** Remote Control LED flash count or display on smart phone / tablet.

#### Flash Count (Remote Control or control module)

- |    |  |
|----|--|
| 1  | Ignition Failure   |
| 2  | Over temperature detected - More venting is required.  |
| 3  | Thermocouple Error   |
| 4  | Hardware fault pilot/main valve – Call for service.  |
| 5  | Flame at start up – Call for Service   |
| 6  | HSI igniter is open – Call for Service. Fire pit pilot can still be lit with a lighter and fire pit will turn on.<br>Use appropriate caution when using this method. |
| 7  | Connection lost between ignition board / wireless transceiver – Call for Service   |
| 8  | Remote is not sync'd to fire pit – Attempt to resync.  |
| 10 | No Communication – Move closer or change position to improve signal  |

**See following three pages for more detailed troubleshooting charts.**

 Hearth Products Controls Co. Remote Electronic Ignition System (EI)- Troubleshooting Chart							
Error Code Location: - HI / LO Models: Remote Control- LED flash count Smart Device HPC Fire App- Listed in Error Log - ON / OFF Models: Control Module inside Valve Box- LED Flash Count							
Error Code	Description	Component Check	Symptom	Possible Issue	Solutions		
1	Ignition Failure	<b>Thermocouple-T/C</b> (Flame Sensor) <u>Good Condition</u> 3/8" of T/C tip in flame	Weak or NO Pilot Flame-T/C cold	No gas to fire pit	Confirm Gas is connected and shutoff valve is ON Shutoff valve is fully ON, proper gas pressure and gas line size to fire pit.Ⓢ		
				Pilot gas tube connection leaking at Pilot Assembly	Retighten connection Ⓢ		
				Pilot Orifice Clogged	Remove and clean orifice Ⓢ		
				T/C tip dirty- possibly soot	Clean tip with brush		
				T/C connection loose at valve box	Retighten connection Ⓢ		
				T/C copper tubing kinked or broken	Replace T/C Ⓢ		
				Igniter (Hot Surface) <u>Good Condition</u> Glowes for ~10 seconds	Weak glow, NO glow	Igniter damaged, wire damaged or plug disconnected at valve box **Issue may start as Error 6	Replace igniter assembly; reconnect plug Ⓢ
				<b>Control Module or Gas Valve</b> <u>Good Condition</u> Igniter glows, Valve clicks (open)		Module or valve- loose or damaged electrical circuit inside valve box **Issue may start as Error 4	Inspect electrical circuit- repair as needed. Ⓢ

Ⓢ THESE TASKS SHOULD BE PERFORMED BY A SERVICE PROFESSIONAL CERTIFIED FOR GAS APPLIANCES

2	Over Temperature Detected	Control Module <u>Good Condition</u> Internal Module temp. < 185 deg F	Enclosure internal cavity TOO HOT	Enclosure Venting NOT sufficient- too small or blocked	Confirm proper venting- refer to Install Instructions; Clean vents as needed
				Unwanted fire in Enclosure cavity increasing heat- gas leak or air mixer backpressure (LP)	Confirm no gas leaks or air mixer back pressure *
				Very large size lava rock on burner	Apply base coat of HPC standard lava rock (#657), reapply large lava as top coat
				Too much glass or lava rock on burner	Reapply only enough to cover burner
<b>If No Problem Found and error repeats, please contact Dealer or Service Professional</b>					
3	Thermocouple (Flame Sensor)	Thermocouple Hardware <u>Good Condition</u> 8 ~ 15mV to Module	Good Pilot Flame- T/C NO voltage	T/C connection loose at valve box	Retighten connection *
				T/C copper tubing kinked or broken at pilot assembly	Replace T/C *
<b>If No Problem Found and error repeats, please contact Dealer or Service Professional</b>					
4	Hardware Fault- Pilot Valve or Main Valve	Gas Valve <u>Good Condition</u> Valve clicks (open)- flame present	No Pilot flame, No Main flame	Valve: Disconnected or damaged electrical circuit inside valve box **Common wire issue- may result in Error Code 1	Inspect electrical circuit- repair as needed. *
				<b>If No Problem Found and error repeats, please contact Dealer or Service Professional</b>	
5	Flame at Start Up	Module or Gas Valve <u>Good Condition</u> NO flame at start	Unwanted pilot flame at start up	Control Module or Gas Valve malfunction.	Replace as needed *
				<b>If No Problem Found and error repeats, please contact Dealer or Service Professional</b>	
6	Igniter is Open	Igniter <u>Good Condition</u> Glowes for ~10 seconds	NO glow	Ignitor damaged, wire damaged or disconnected at valve box **Plug disconnected- may result in Error Code 1	Replace igniter assembly or reconnect plug at valve box *
				<b>If No Problem Found and error repeats, please contact Dealer or Service Professional</b>	

\* THESE TASKS SHOULD BE PERFORMED BY A SERVICE PROFESSIONAL CERTIFIED FOR GAS APPLIANCES

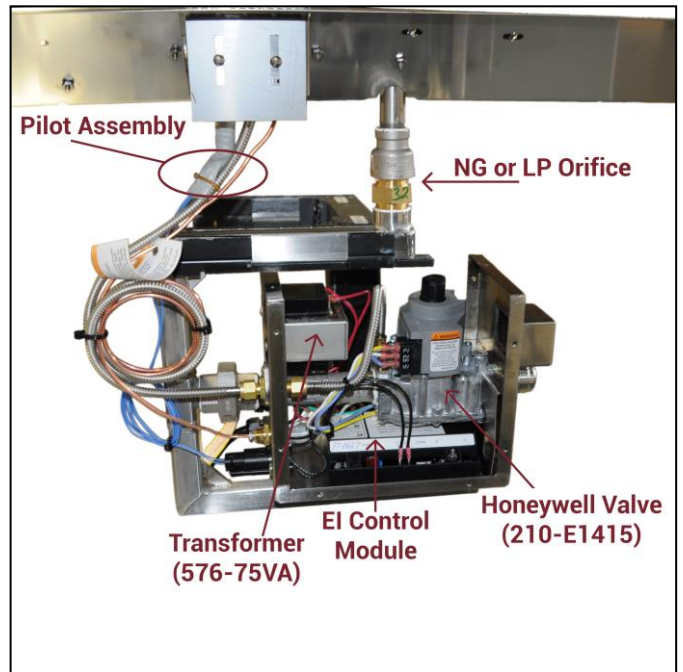
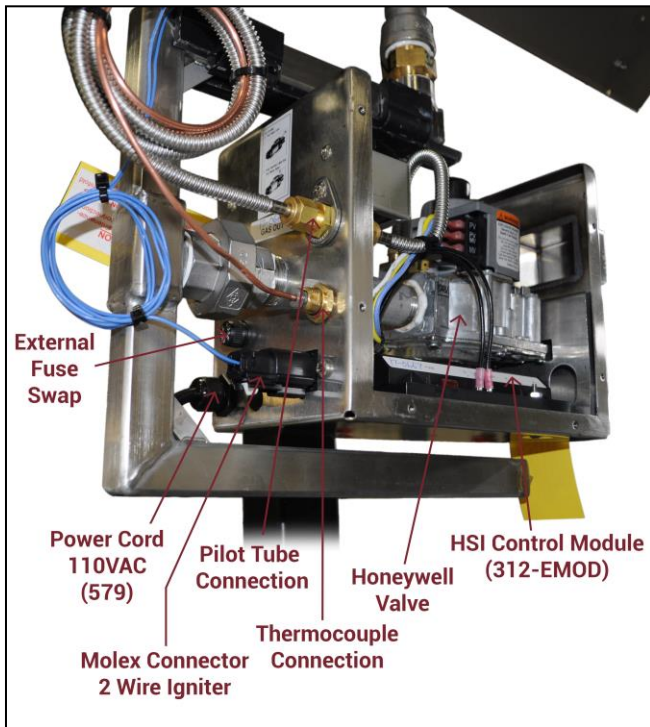


7	Lost Connection- Control Module to Transceiver (HI / LO Models Only)	Communication Cable- Module to Transceiver	Remote or App- No Response  <b>If No Problem Found and error repeats, please contact Dealer or Service Professional</b>	Communication cable- disconnected or damaged inside valve box	Inspect electrical connections- repair as needed.
8	Remote Control or App- not paired with Fire Pit (HI / LO Models Only)	Remote Control or App	NO response to Remote Control or App	Pairing sequence- a loss of power during pairing or incorrect buttons pressed	Repeat pairing sequence- refer to Install Instructions
		Antenna Good Condition Antenna facing Enclosure Vent; < 20 feet distance	NO response to Remote Control or App	Antenna connection loose	Replace Remote batteries or charge Smart Device  Tighten any loose connections
9	This Code Not Used	Fire Pit Enclosure / Antenna Matching Good Condition < 20 feet distance	NO response to Remote Control or App	Each enclosure is unique with amount of stone, metal, size or overall denseness. Expect better response in various locations around enclosure.	Relocate antenna to perimeter of enclosure by vent with optional 60" minicoax extension- Part # AEK-60HI/LO *
		Remote Control or App	NO response to Remote Control or App	Power OFF to Fire Pit	Turn ON power
10	Remote Control or App- Out of Range (HI / LO Models Only)	Remote Control or App	NO response to Remote Control or App	Remote Control or Smart Device batteries weak	Replace Remote batteries or charge Smart Device
		Antenna Good Condition Antenna facing Enclosure Vent; < 20 feet distance	NO response to Remote Control or App	Antenna connection loose	Tighten any loose connections
10	Remote Control or App- Out of Range (HI / LO Models Only)	Fire Pit Enclosure / Antenna Matching Good Condition	NO response to Remote Control or App	Antenna not in optimum position	Relocate antenna; Best if aligned with Enclosure Vent
		Remote Control or App	NO response to Remote Control or App	Each enclosure is unique due to amount of stone, metal or overall denseness. Expect better response in various locations around enclosure.	Relocate antenna to perimeter of enclosure with optional 5' minicoax extension- Part # AEK-60HI/LO *
<b>If No Problem Found and error repeats, please contact Dealer or Service Professional</b>					

\* THESE TASKS SHOULD BE PERFORMED BY A SERVICE PROFESSIONAL CERTIFIED FOR GAS APPLIANCES

# 10. Replacement Parts

Please contact your Dealer for repair components.



EI Series Replacement Components	
Part Number	Item
On / Off and High/Low Models	
311-T/C	Thermocouple- 36"
312-HSIP/SS-36	Hot Surface Igniter
312-EIMOD	Control Module
576-75VA	Transformer
579	120vac Power Cord
Please Buy Local	Fuse (5A)- common fast acting
On / Off Models Only	
210-EI415	Gas Valve
High / Low Models Only	
312-REMOTE	Remote Control
312-W/T	Transceiver
312-ANTENNA	Antenna
AEK-60HI/LO	Antenna Extension (60")
312-2STAGE415	Gas Valve (2-stage)

Pilot Assembly: On / Off & High / Low Models		
Part Number	Fire Pit Size	Gas
HSIP-36SS	50k ~ 275k Btu	NG
HSIP-36SS-300NG	300k Btu	NG
HSIP-36SS-400NG	400k Btu	NG
HSIP-36SS-50 / 225LP	50k ~ 225k Btu	LP
HSIP-36SS-250 / 400LP	250k ~ 400k Btu	LP

## 11. Warranty

### Limited Warranty

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

- **Electronics, Gas Valve: Commercial-1yr; Residential- 3 yr.**
- **Pilot Assembly: Commercial-1 yr.; Residential-2 yr.**
- **Stainless Steel Pan, Fire Ring, & Valve Box: Commercial-1yr.; Residential 5yrs.**

This commences from the date of original sale / shipment from HPC FOB Dayton, Ohio.

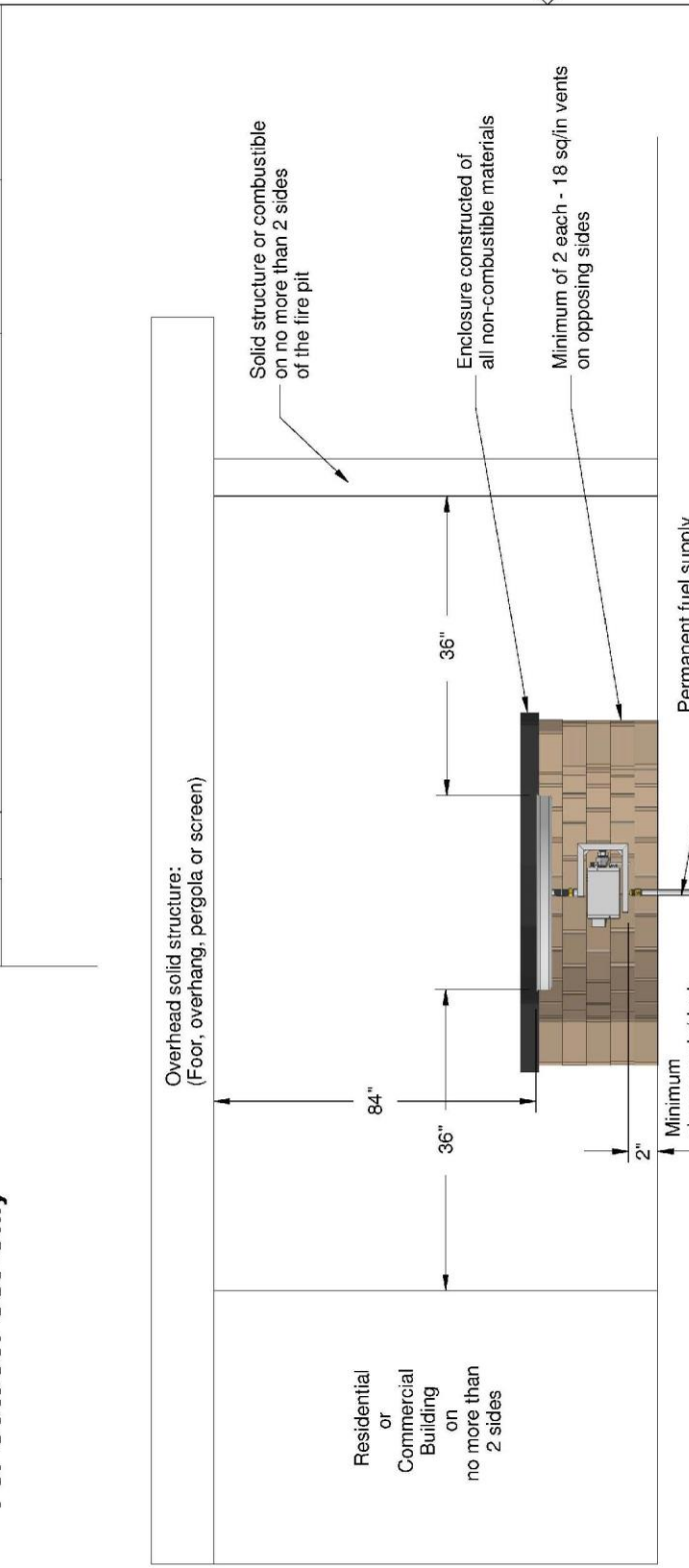
This warranty is for parts and in-house (HPC) labor. The defective product must be sent back to HPC with a Return Merchandise Authorization (RMA) issued by HPC for that specific product and any other additional information for the nature of the defect or warranty claim.

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.

**Figure 1 - Up to 200k BTU  
For Outdoor Use Only**

REVISIONS		
ZONE	REV	DATE



**Combustible Material:**  
-For direct install on decking, joist and trusses  
see Deck Installation Kit drawing and instructions

**Note:**

- 50% free air space minimum. HPC is not responsible for screen that melts.
- For non-combustible screening a 20 x 20 x .013 wire mesh thickness or courser. (More open space)
- For all other non-combustible coverings an on-site estimate of free air space will be necessary.

**Free Air Space Mesh Example**

3:1 Scale of 20x20x.013

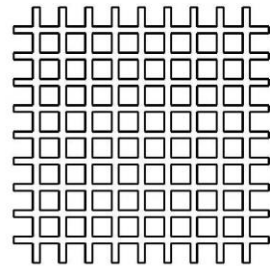

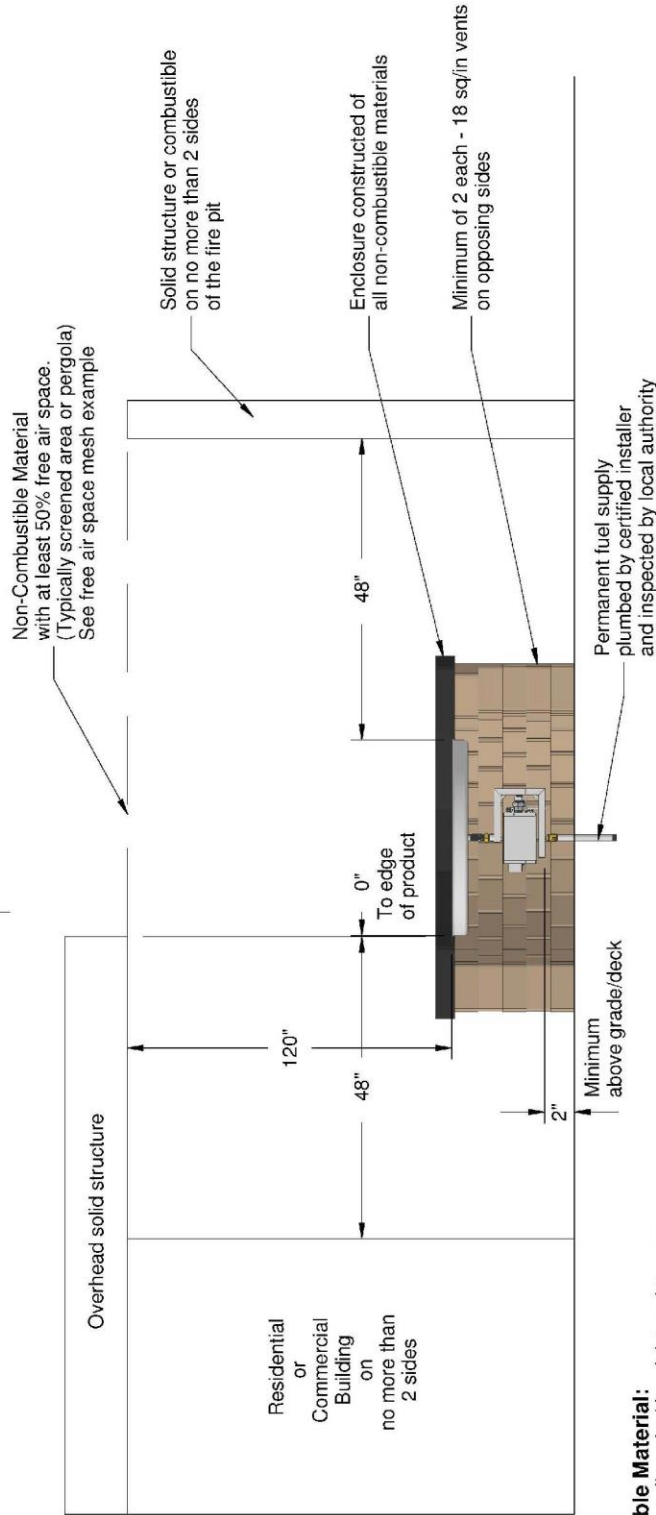


Diagram illustrates common clearance questions. * Clearance from overhead structure * Clearance from structure/combustible	DRAWN	DATE	<b>Clearance's - Standard Fire Pit up to 200k btu</b>
All items may or may not apply to your project.	CHECKED	4/24/2017	
Clearance's apply to any and all sides of the project.	QA		 <b>Hearth Products Controls Co</b>
Read and follow all instructions and local codes	MFG		
	APPROVED		SIZE
			A
			FSCM NO.
			DWG NO.
			REV
			SCALE
			SHEET



**Figure 2 - 201k to 400k BTU  
For Outdoor Use Only**

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



**Combustible Material:**

-For direct install on decking, joist and trusses see Deck Installation Kit drawing and instructions

**Note:**

- 50% free air space minimum. HPC is not responsible for screen that melts.
- For non-combustible screening a 20 x 20 x .013 wire mesh thickness or courser. (More open space)
- For all other non-combustible coverings an on-site estimate of free air space will be necessary.

**Free Air Space Mesh Example**

3:1 Scale of 20x20x.013

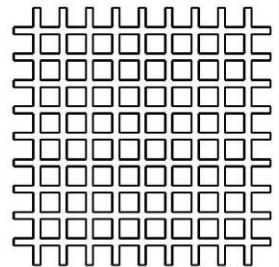



Diagram illustrates common clearance questions.	DRAWN	DATE	<p><b>Clearance's - Standard Fire Pit 201k to 400k btu</b></p>  <p><b>Hearth Products Controls Co</b> DWG NO.</p>
* Clearance from overhead structure * Clearance from structure/combustible	CHECKED	4/24/2017	
All items may or may not apply to your project.	QA		SIZE
Clearance's apply to any and all sides of the project.	MFG		A
Read and follow all instructions and local codes	APPROVED		SCALE
			SHEET

