

www.EcoFireFeatures.com

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HWI FIRE PIT

(Thermocouple / Hot Wire Ignition System)

This fire pit uses a revolutionary electronic control module (TCI Module) combining proven thermocouple technology with reliable hot-wire ignition.



WARNING: FOR OUTDOOR USE with pilot cage If used indoors you must remove the Pilot Cage

WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury, or loss of life.

Do not store gasoline or other flammable vapors and liquids in vicinity of this or any other appliance.

What to do if smell gas:

- Do not try to light appliance.
- Do not touch any electrical switch; do not use any phone in vicinity.
- Immediately call your gas supplier from your neighbor's phone. Follow gas supplier's instructions.
- If you cannot reach gas supplier, call the fire department.

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

WARNING: REMOTE CONTROL USE: TO PREVENT ACCIDENTAL START UP FROM UNWANTED RF SIGNALS, IT IS THE RESPONSIBILITY OF THE END USER TO TURN OFF POWER TO ELECTRICAL OUTLET FOR THE REMOTE CONTROL RECEIVER WHEN FIRE PIT IS NOT IN USE. THIS SHOULD BE DONE VIA WALL SWITCH OR BREAKER.

We require that our products be installed and serviced by professionals who are certified in the U.S. by NFI (National Fireplace Institute) or in Canada by WETT (Wood Energy Technical Training). Installer

must follow all instructions carefully to ensure proper performance and safety. Any Hearth Product Control Company is not responsible for your actions.

IMPORTANT: Confirm your gas type matches the requirement for this fire pit- see label on fire pit control box.

Gas Pressure: This should be checked prior to use:

• **Natural Gas Fire Pit:**

Supply Pressure: Minimum: 5.0" W.C.; Maximum: 7.0" W.C.

Outlet Pressure: 3.0" to 5.0" W.C.

Manifold Pressure: Nominal 3.5" W.C.

• **LP Gas:**

Supply Pressure: Minimum: 10.0" W.C.; Maximum: 14.0" W.C.

Outlet Pressure: 10.0" to 12.0" W.C.

Manifold Pressure: Nominal 11.5" W.C.

It is the responsibility of the installer to follow all local and state codes concerning the installation and operation of the fire pit.

INSTALLATION PREPARATION

Please carefully follow the steps below when: 1) Selecting the Location. 2) Construction of the Enclosure. 3) Installation of the HWI Fire Pit. The steps listed as **WARRANTY REQUIREMENT** must be strictly followed to qualify for product warranty. **Warranty will be void if not followed.**

SELECTING THE LOCATION

WARNING: HWI FIRE PITS ARE DESIGNED FOR OUTDOOR USE ONLY. HEARTH PRODUCTS CONTROLS CO. MUST BE NOTIFIED OF ANY OTHER USE.

WARNING: FIRE PITS CREATE VERY HIGH TEMPERATURES- IT IS VERY IMPORTANT THAT COMBUSTIBLES BE KEPT AT SAFE DISTANCES.

- **WARRANTY REQUIREMENT:** For installation of 110vac or 24vac powered control systems, it is required to install a wall switch or breaker for the fire pit electrical outlet away from the enclosure to prevent unwanted ignition of the fire pit.
- **WARRANTY REQUIREMENT:** The fire pit location must accommodate a gas shut off outside of fire pit enclosure. The gas line should be a minimum of 3/4" or larger based on fire pit size.
- To enjoy your fire pit, select a well-drained location that allows for sufficient clearance from combustible materials.
- Choose a location that allows easy access for installation and maintenance of the fire pit. Make sure that trees and shrubbery are well clear around and above the fire pit.
- Pick a location that allows sufficient horizontal room to enjoy the fire pit while allowing a safe distance from the heat and flame.
- 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. **Wooden or solid surfaces such as granite or marble must be located far enough away that they do not reach a temperature of more than 100 degrees F plus ambient air temperature. Example:** If surrounding air temperature is 70, the wood surface temperature must stay at or below 170 degrees F.

HWI Fire Pit Clearances

Under Valve Box	6"
Sides Surrounding Fire Pit	14"
Above Fire Pit	96"

CONSTRUCTION OF THE ENCLOSURE

WARNING: THERE MUST BE AN ELECTRICAL (WALL SWITCH OR BREAKER) AND GAS SHUTOFF ON THE EXTERIOR OF THE FIRE PIT TO ALLOW FOR EASY ACCESS FOR SHUTDOWN OR IN THE CASE OF AN EMERGENCY.

WARNING: ALWAYS USE PROPER MATERIALS AND CONSTRUCTION FOR GAS SUPPLY, POWER, AND ENCLOSURE.

- **WARRANTY REQUIREMENT:** The enclosure must be constructed on a stable surface. The weight of the fire pit must be supported by the pan- not by the control box. Make sure that the fire pit is high enough that the control valve box is above the grade to prevent water damage to the controls inside the box. **NEVER** install a HWI fire pit below ground level. Drainage must be provided for the enclosure to prevent water accumulation leading to damage to components in the valve box.
- **WARRANTY REQUIREMENT:** The enclosure must incorporate 1 vent on at least two sides at a minimum size of **18 sq. inches each** (Example: 3"x 6" or larger) to allow heat within the enclosure to escape. Failure to do so will result in the fire pit automatically shutting down when internal valve box temperature reaches 175° F. This could lead to heat damage to internal components. **Some enclosures may require more ventilation based on material, size, and extended use.** This vent may work as a drain as well when installed at bottom sidewall to prevent water build up.
- **WARRANTY REQUIREMENT:** 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 6"** under the valve box for proper ventilation.
- Select materials that are non-combustible in both initial installations as well as over time.
- Make sure that the structure is level. We recommend the use of the installation collar (optional) that may be mortared into the surround.

INSTALLATION OF THE HWI FIRE PIT ASSEMBLY

WARNING: CONFIRM THIS APPLIANCE IS BUILT FOR GAS USED- NATURAL GAS OR LP. DO NOT USE NATURAL GAS APPLIANCE WITH LP OR LP APPLIANCE WITH NATURAL GAS. REFER TO LABEL ON THIS APPLIANCE.

WARNING: TO PREVENT DAMAGE, UNHOOK FIRE PIT FROM GAS SUPPLY FOR PRESSURE LEAK TESTS GREATER THAN 1/2LBS PRESSURE.

- **WARRANTY REQUIREMENT:** The HWI fire pit should be supported by the pan when placed into enclosure. The control box should not support weight of assembly.
- **WARRANTY REQUIREMENT:** The fire pit assembly should be **recessed a minimum of 4"** from the top of the enclosure to protect flame from being blown out. Some areas may require more- 8" is not uncommon.
- **WARRANTY REQUIREMENT:** All fire pits come with a 13" x 13" 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 USE THIS AT ALL TIMES.**
- **WARRANTY REQUIREMENT:** When filling the pan with lava rock and/or decorative glass, the instructions on Pg. 5 must be followed.
- The main gas should already be plumbed to the location of the fire pit area. The 24" flex line coming from the fire pit should be connected to the main gas line. Tighten the flex line fittings to the gas supply stub and to the fire pit. **Avoid sharp bends with flex line to prevent whistling.**
- Turn on main gas supply and check all fittings in and around fire pit for leaks using a leak reactant, leak detector or soapy water. If leaks are found, shut off gas supply repair leaks and retest.
- The 3' power cord can be either tied into the main power supply for use with wall switch or plugged into remote receiver to use remotely. **POWER MUST BE TURNED OFF TO ELECTRICAL OUTLET WHEN NOT IN USE.**

HWI FIRE PIT OPERATION

WARRANTY REQUIREMENT: WHEN NOT IN USE, THE FIRE PIT MUST BE COVERED AT ALL TIMES TO PREVENT DAMAGE TO ELECTRONIC COMPONENTS.

WARNING: 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 IS SUSPECTED, TURN OFF THE MAIN GAS SUPPLY AND REPAIR IMMEDIATELY.

WARNING: WHEN FIRE PIT IS NOT IN OPERATION, POWER TO ELECTRIC OUTLET MUST BE TURNED OFF VIA WALL SWITCH OR BREAKER.

WARNING: NEVER USE ANY MATERIAL THAT IS NON-POROUS AND HOLDS MOISTURE LIKE 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.

WARNING: LEAVES, STICKS, WOOD, PAPER, CLOTHING, FOOD MATERIAL, SHOULD ALWAYS BE KEPT AWAY FROM THE FIREPIT. MAKE SURE THAT THERE IS NO VEGETATION OR OTHER OBJECTS OVER THE TOP OR SIDES OF THE FIRE PIT THAT COULD INTERFERE WITH SAFE & PROPER OPERATION.

WARNING: IF LAVA ROCK IS WET, ALLOW FIRE PIT TO BURN FOR 45 MINUTES PRIOR TO COMING 15 FEET WITHIN FIRE PIT.

Fire Pit Start Up:

Initial Start-up: Several “on/off” cycles may be necessary to purge air in gas lines after system installation.

Sequence of Operation:

1. Hot wire igniter will be powered (glow red) for 5 seconds before pilot valve opens.
2. 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.
3. Once thermocouple is hot, main valve will open allowing main burner to ignite.
4. If pilot flame is blown out at any time, system will shut down, then automatically restart (Step 1).

NOTE: IF POWER TO FIRE PIT IS TURNED “OFF” THEN IMMEDIATELY TURNED BACK “ON” WHILE MAIN BURNER IS “ON”, THE SYSTEM WILL GO INTO LOCKOUT MODE IF THERMOCOUPLE DOES NOT COOL PRIOR TO 30 SECONDS AS A SAFETY FEATURE. TO RESET, TURN “OFF” POWER THEN BACK “ON” AGAIN.

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 fire pit (as mentioned in warnings) including water.
3. Turn “ON” electrical power and gas to fire pit.
4. Using wall switch or remote, turn “ON” fire pit- this may take several cycles to purge any air.
5. Once fire pit has ignited, **DO NOT** leave unattended.

OVERHEATING: The fire pit will automatically close gas valve if temperature exceeds 175° F inside valve box to prevent component damage. When unit cools below 175° F, the unit will automatically restart. To correct overheating, ensure enclosure has adequate ventilation- see “Construction of Enclosure”.

FIRE PIT SHUTDOWN

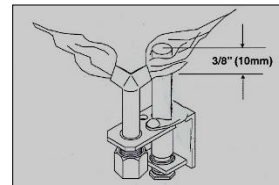
1. Turn “OFF” fire pit using remote control or wall switch.

IMPORTANT: 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.

Fire Pit Maintenance:

- 1) **Keep fire pit covered at all times when not in use.**
- 2) Keep any debris out of fire pit- clean as needed.
- 3) **Ring Cleaning:** 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.
- 4) **Thermocouple Cleaning of Soot:** Remove lava rock & glass around pilot, then blow out box. Clean thermocouple of any soot using soft brush. Be careful not to damage hot wire element. Place lava rock or glass back as explained on Pg. 5.
- 5) 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 head.



Lava Rock & Glass

Please follow the instructions below to add the finishing touch to your fire pit. Remember the deeper your lava rock or glass the more risk of reducing if not smothering the flame. Particular attention needs to be on the pilot assembly area- if thermocouple is covered, this will cause the pit to shut down due to smothering pilot flame.

Lava Rock Only Application

- 1) Install your fire pit per instructions.



- 2) Apply lava rock ONLY deep enough to and hide fire ring and pan- less than 2” slightly above ring.

Decorative Glass Application

- 1) Install your fire pit per instructions.



- 2) Add base layer of lava rock as filler to enhance flame. Height should be above fire ring- use **smaller** pieces of rock supplied on top of ring.

Application



3) **IMPORTANT:** Do not cover blowout box with lava rock- leave open. Do not allow any rock to touch the thermocouple.

3) Apply top coat of glass to lava rock, again just deep enough to hide lava rock and pan.



Thermocouple: Do not cover blowout box opening with lava rock or glass- this must remain open. This will cause the pilot flame to suffocate and turn off pit.



HWI Fire Pit Trouble Shooting

Below are some potential causes and countermeasures to the symptoms indicated in bold. If still unable to resolve issue, please contact your retailer or certified technician.

Hot Wire Will Not Glow

1. No power to unit.
2. Blown fuse in module.

Confirm breaker, wall switch, and remote are on (120Vac)
Change 5A fuse located on module in valve box.



Fuse

3. Hi Limit Temp. Switch Tripping
4. Hot wire element damaged

This will occur after fire pit has burned for a while- see proper venting in “Construction of Enclosure” (Pg. 2)
Change hot wire element.

5. Damaged wires. Inspect wires to hot wire- confirm insulation is in good condition.

No Pilot Flame (Hot Wire 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 found (Pg. 2)
- 4. Pilot Orifice Dirty Remove pilot head and clean orifice.

No Main Burner (Pilot Lights)

- 1. Gas Pressure Improper Confirm proper gas pressure found (Pg. 2)
- 2. Small Pilot Flame Remove pilot head and clean orifice.
Should be 3/8" flame on thermocouple (Pg. 4)
- 3. Dirty Thermocouple Clean using soft brush (Pg. 4)
- 4. Fire Ring Obstructed Confirm no debris or water in ring (Always cover fire pit!)

Main Burner Turning Off/On Frequently

- 1. Small Pilot Flame Remove pilot head and clean orifice.
Should be 3/8" flame on thermocouple (Pg. 4)
- 2. Too much Media over blow out box. This will suffocate flame
See Pg. 5 for application of Lava Rock or Glass
- 3. Gas Pressure Improper Gas pressure too low (Pg. 2)
- 4. Thermocouple Defective Change Thermocouple

Limited Warranty

Moderustic Inc warranties HWI fire pits against manufacturing defects that prevent safe and correct function as follows:

- **Electronics, Gas Valve, & Pilot Assembly: Commercial-6mos; Residential- 1 yr.**
- **Stainless Steel Pan, Fire Ring, & Valve Box: Commercial-1yr.; Residential 3yrs.**

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.