PALOFORM 2

Burner conforms to: ANSI Z21.97/CSA 2.41 - 2017 "Outdoor Decorative Gas Appliances" CSA-2.17-2017 "Gas-fired Appliances For Use at High Altitudes"





We recommend that our fire pits be installed and serviced by professionals that are certified in the U.S. by NFI (National Fireplace Institute)



- If you smell gas:
- 1. Shut off gas to the appliance.
- 2. Extinguish any open flame.
- 3. If odor continues, leave the area immediately.
- 4. After leaving the area, call your gas supplier or fire department.

Failure to follow these instructions could result in fire or explosion, which could cause property damage, personal injury, or death.



Installation and service must be performed by a qualified installer, service agency, or gas supplier



WARNING

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



CARBON MONOXIDE HAZARD

This appliance can produce carbon monoxide which has no odor. Using it in an enclosed space can kill you. Never use this appliance in an enclosed space such as a camper, tent, car or home.



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.

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

WARNINGS:

IMPORTANT: This appliance should be inspected before use and at least once annually by a qualified service person.

More frequent cleaning may be required as necessary. It is imperative that the control compartment, burners and circulating air passageways of the appliance be kept clean.

DANGER: Carbon monoxide poisoning can lead to death!

CARBON MONOXIDE POISONING: Early signs of carbon monoxide poisoning resemble the flu, with symptoms including headache, dizziness, or nausea. If you experience these signs, the Fire Pit may not be working properly. Get fresh air at once! Have the Fire Pit serviced. Some people are more affected by carbon monoxide than others, including pregnant women, people with heart or lung disease or anemia, those under the influence of alcohol, and those at high altitudes.

NATURAL GAS AND PROPANE:

To assist in detecting leaks, an odorant has been added to natural gas and propane. However, this odorant can fade, and gas may be present even though no odor exists. Make certain you read and understand all warnings. Keep this manual for reference. It is your guide to safe and proper operation of this appliance. WARNING: Any modification to this appliance or its controls can be dangerous.

Installation and repair must be done by a qualified service person. The appliance should be inspected before use and at least once annually by a qualified service person. More frequent cleaning may be required as necessary. It is imperative that control compartment, burner ports and ventilation passageways of the appliance be kept clean.

- 1. This appliance, as supplied, is only for use with the type of gas indicated on the rating plate.
- 2. When this appliance is connected to a fixed piping system, the installation must conform to local codes, or in the absence of local codes, to the National Fuel Gas Code, ANSI Z223.1/NFPA 54, or the International Fuel Gas Code.
- Keep the appliance area clear and free from combustible materials, gasoline and other flammable vapors and liquids
- 4. Do not burn solid fuel in this appliance. Do not use this appliance to cook food or to burn paper or other objects.
- 5. <u>Children and adults should be alerted to the hazards</u> of high surface temperatures and should stay away to avoid burns or clothing ignition.
- 6. <u>Clothing or other flammable materials should not be</u> <u>hung from the appliance, or placed on or near the</u> <u>appliance.</u>

- 7. Young children should be carefully supervised when they are in the area of the appliance.
- 8. Do not use the 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 any gas control which has been under water.
- 9. Inspect the appliance before each use.
- Turn the appliance off and let cool before servicing, installing, repairing or covering. <u>Any guard or other</u> protective device removed for servicing the appliance <u>must be replaced prior to operating the appliance</u>. <u>Only a qualified service person should install, service,</u> <u>or repair the appliance.</u>

HIGH ALTITUDE INSTALLATION

The appliance is certified for installations up to 4500' (1372 m) above sea level. At this altitude range, no changes to the appliance are required. Please contact Paloform for information regarding installation above 4500' (1372 m).

LOCAL CODES

The installation of this appliance must conform with local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1 • NFPA 54; National Fuel Gas Code; Natural Gas and Propane Installation Code, CSA B149.1; or Propane Storage and Handling Code, CSA B149.2, as applicable.



DIMENSIONS & SPECIFICATIONS





Zero Clearance Below

MINIMUM CLEARANCES TO COMBUSTIBLES

ATTENTION:

Gas installation and connection must be performed by a certified technician. Follow all local codes.

Please ensure that you
are in compliance with
the requirements of your
jurisdiction before undertaking
the installation of your fire pit
as local code may supersede
the recommendations in this
manual.

CAUTION:

Use only approved pipe appropriate to your installation requirements and local code. Use pipe of the appropriate size to allow proper gas volume to fire pit burner. If pipe is too small, undue loss of pressure will occur. Refer to specs on p 4.

GAS INSTALLATION REQUIREMENTS

Gas lines must be installed in accordance with local codes. At minimum, this will require a manual gas valve at the point-ofuse to allow for maintenance. Some jurisdictions require manual gas shut-offs that are visible and/or accessible at all times.

The gas line should be installed underground and routed to the opening at the base of the fire pit. See illustration on p 3.

Propane (LP) fire pits are designed to be connected to permanent fixed piping. Connecting to portable tanks is not recommended.

We recommend installing a sediment trap and a plugged 1/8" NPT tap for test gauge hook-up, upstream from the appliance.

A sediment trap prevents moisture and contaminants from entering the fire pit controls. If a sediment trap is not installed or is installed incorrectly, the unit may not work properly.

Install the sediment trap in supply line as shown below. Locate sediment trap where it is within reach for cleaning and trapped matter is not likely to freeze.

APPROVED FLEXIBLE GAS CONNECTOR



The fire pit includes an approved stainless steel flexible gas connector that can connect to standard pipe fittings. Apply pipe joint sealant lightly to male pipe threads (MPT). Do not use pipe joint sealant on the flare fittings on the gas connectors.

CHECKING GAS CONNECTION

WARNING: Test all gas piping and connections for leaks after installing or servicing. Correct all leaks immediately.

WARNING: Never use an open flame to check for a leak. Apply a mixture of liquid soap and water to all joints. Bubbles forming on joints while the gas is running indicate a leak. Correct all leaks immediately.

Test Pressures in Excess Of 1/2 psi (3.5 kPa) This appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of $\frac{1}{2}$ psi (3.5 kPa).

Test Pressures Equal To or Less Than 1/2 psi (3.5 kPa) This appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than $\frac{1}{2}$ psi (3.5 kPa).

ATTENTION:

Electrical supply must be installed by a certified technician and must comply with local codes.

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ELECTRICAL REQUIREMENT:

120V 15A outdoor receptacle dedicated circuit with GFCI protection and wall switch

ELECTRICAL INSTALLATION REQUIREMENTS

The electronic ignition on this fire pit is controlled by the flow of electricity to the unit. When the electrical circuit is turned on, the fire pit will ignite; when the circuit is turned off, the fire pit will turn off.

- Wire should be routed underground to a GFCI-protected outdoor receptacle installed inside the fire pit vessel. See diagram on p 3.
 - Receptacle to be hard-wired to a standard wall switch. See diagram below.

Please ensure that you are in compliance with the requirements of your jurisdiction before undertaking the installation of your fire pit as local code may supersede the recommendations in this manual.



NOTE:

Wall switches/timers may be installed on walls or bollards. Switches must be line voltage, on/off only.

CAUTION:

To prevent unwanted startup, the power to the fire pit must be locked out when not in use. Alternately, the gas supply can be turned off.

WARNING:

Installation must be done by a licensed technician.

Failure to position parts in accordance with diagrams and instructions in this manual and/or failure to use parts specifically approved for use with this appliance may result in property damage or personal injury.

Do not remove the data plates attached to the Outdoor Fire Pit Burner. These plates contain important information.

Before operating the appliance, check all around the appliance area and on the surrounding floor for the smell of gas - some gas is heavier than air and may settle on the floor in the event of a leak.

IF YOU SMELL GAS, follow the safety instructions on p 1 of this manual.

CONNECTING BURNER TO THE GAS SUPPLY

- 1. Make sure the power to the receptacle is off and that the manual gas valve on the gas line is in the full "off" position.
- 2. Place the burner assembly on a flat surface close to the fire pit vessel opening. If using the fire pit top surface, use cardboard or other means to protect the fire pit vessel from damage. Make sure the burner assembly is level and stable.
- 3. Connect the Burner Assembly to the gas/propane supply using the supplied flex connector. Avoid tight bends in the flex connector as this may cause unwanted noise. Use joint compound or tape that is resistant to all gases. Apply joint compound all male pipe fittings only. DO NOT use thread sealant on flare fittings. Be sure to tighten every joint securely.
- 4. Connect barrel connector of the 24 VAC power adapter into fire pit and plug into the electrical receptacle.
- 5. Remove the pilot cover so that the pilot is visible.
- 6. Turn on the gas supply, purge the gas line of air and perform leak test on all inlet connections. Repair if needed.

TEST FIRE & LEAK TEST: INITIAL LIGHTING INSTRUCTIONS

- 1. Staying clear of the area above the burner, turn on the power to the fire pit. The pilot will begin to spark and the gas valve to the pilot will open. It may take several seconds to light for the first time as the remaining air bleeds from the gas line.
- 2. Once the pilot flame lights the main gas valve will immediately open and the fire pit will ignite.

NOTE: When there is no media covering the burner, flame will be small; flame may not spread to the entire burner. Fan or blow the flame towards unlit burner ports until all burner ports are lit.

- 3. Leak test all gas connections and repair if necessary.
- 4. Turn the burner on and off several times and check for predictable functioning.
- 5. Turn off the power to the fire pit to turn it off. Allow the burner to thoroughly cool.
- 6. Place the burner into the vessel as per the diagram on p 3.
- 7. Carefully follow Burner Media & Decorative Topping instructions on p 9 and p 10.

BURNER MEDIA & DECORATIVE TOPPING

Refer to the diagrams on this page and p 9.

Paloform fire pits use a layer of burner media (crushed tempered glass for natural gas; volcanic lava pebble for propane); and a second layer of decorative topping (various). The correct placement of the media and topping is critical to the proper functioning of the fire pit. Failure to use both layers may result in damage that will not be covered under warranty.

INSTALLING BURNER MEDIA & DECORATIVE TOPPING

- 1. When placing granular media, do not obstruct the pilot lighting port! <u>Use burner</u> media and toppings supplied by Paloform only!
- Fill the burner pan evenly with the correct burner media for the fuel type. The burner media should completely cover the burner tube to a thickness of 1/2" 3/4" (12 18 mm). The top surface of this layer should be flattened and leveled.
- 3. Evenly distribute decorative topping (river stones, crushed glass or lava rock) on top of burner media. An uneven or excessively thick layer of topping can result in an uneven flame. Depending on topping type, this layer can be 1 1-1/2" (25 37 mm)
- 4. The topping placement will affect the flame pattern. Fire emerging too close to the vessel can lead to damage. Adjust topping so that the fire is not emerging more than 1-1/2" (37 mm) past the extents of the burner.
- 5. Light the fire pit by turning on the power. Observe the flame pattern. Extinguish the fire pit, let cool and adjust toppings as necessary.



CAUTION:

New Lava Rock may pop or crackle when first heated. This should subside after 30 minutes to one hour or more of operation. Maintain safe distance during this time.



BURNER MEDIA & DECORATIVE TOPPING cont'd



WARNINGS:

Failure to follow these instructions exactly may result in fire or explosion causing property damage, personal injury or loss of life.

Before operating the appliance, check all around the appliance area and on the surrounding floor for the smell of gas - some gas is heavier than air and may settle on the floor in the event of a leak. IF YOU SMELL GAS, follow the safety instructions on page 1 of this manual.

This appliance is equipped with an ignition device that automatically lights the pilot. Do not try to light the pilot manually.

The main gas valve in this appliance is not serviceable and does not have any control knobs or switches to operate. Do not remove the heat shields covering the valve and electronic devices. Do not try to repair or modify the valve, as doing so may result in a fire or explosion. Call a qualified service technician if you have any safety concerns.

Do not use this appliance if any part of it has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control that has been under water.

Improper installation, adjustment, alteration, service or maintenance can result in injury or property damage. For assistance or additional information, consult a qualified installer, service agency or the gas supplier.

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this appliance.

BEFORE LIGHTING: Ensure there is nothing covering any part of the burner or topping tray (p 3), nor within the combustible clearances of the fire pit (p 5). If you are utilizing a tempered glass screen, ensure nothing is obstructing the open top of the screen.

LIGHTING INSTRUCTIONS

To light the fire pit, turn on the electrical power. This will initiate the ignition sequence.

- You will hear the rapid clicking sound of the spark igniter, which will then light the pilot.
- Once the pilot is lit, you will hear a more distinctive click as the main burner opens. This will ignite the main burner.

To turn off the fire pit, turn off the electrical power.

• Turning off the power will immediately close the main valve and extinguish the fire pit. It may take several seconds before the flame is completely out.

IMPORTANT: Preventing accidental ignition

Electronic ignition fire pits have the convenience of lighting at the flick of the switch. However, this means that accidental ignition is possible if proper precautions are not taken. To eliminate the possibility of accidental ignition, turn off the gas at the source and/or lock out the power at the breaker panel when the fire pit is not in use.

Turn off the gas supply to the appliance and turn off power before servicing.

CAUTION: ALWAYS HANDLE WITH CARE

Tempered glass is fragile and can chip easily. Nothing must be placed on top of the glass screen or prevent free flow of air above the fire pit burner.

INSTALLATION

- 1. The Kodo glass screen is mounted on two glass standoffs per side and secured with set screws.
- 2. Loosen set-screws on each stand-off so that the glass can slide freely between the jaws.
- 3. Carefully place the glass panel into the glass clamps taking care not to contact the fireplace body. Centre the glass panel within the fireplace opening.
- 4. Turn the set screws until they come into contact with the glass and slowly tighten them until they are snug enough so that the glass is firmly fixed and wil not easily move. Do not overtighten!
- 5. Clean glass with regular glass cleaner.



CLEANING AND MAINTENANCE

COVERING YOUR FIRE PIT

Paloform fire pits are designed to withstand rain and the elements under normal weather conditions.

- You do not need to use a cover on a day-to-day basis during "use" season.
- Do not cover the fire pit if it is wet. Allow it to dry before using a cover.
- An all-weather cover is only recommended for winterization; seasonally, when the fire pit is not in use for extended periods; and during periods of extreme weather conditions.
- Note that concrete and corten steel age and form natural patinas over time.

WARNING: Turn off gas before servicing fire pit.

We recommend that a qualified service technician perform the following checkups at the beginning of each fire pit season.

If any irregularities are apparent with operation, refer to Troubleshooting guide, p 14.

BURNER ELEMENT AND PILOT

Inspect the burner at regular intervals at least twice a year. Keep the burner and pilot area clean by vacuuming or brushing. Make sure the burner porting and burner air openings are free of obstructions at all times. Remove pilot cover to inspect pilot.

Remove topping from top of burner ring and Inspect area around the burner. Remove any foreign material with a brush or vacuum cleaner.

PILOT FLAME

The flames from the pilot should be visually checked as soon as the unit is installed, and periodically during normal operation. The pilot flame must always be present when the fire pit is in operation. The pilot flame has two distinct flames: one engulfing the flame sensor and the other reaching to the main burner.





WARNING:	OBSERVED PROBLEM		POSSIBLE CAUSE		REMEDY
Turn off appliance and let cool before servicing. Only a qualified service person should service and repair this appliance.	Burner shuts off/relights intermittently.	1.	Wind or gusts in excess of 16 km/h (10 mph).	1.	Protect pilot from wind with decorative topping - sides of pilot housing may be covered. DO NOT BLOCK IGNITION PORT. In the case of consistently windy conditions, a protective glass barrier may be necessary.
		2. 3.	Air present in gas line Not enough air to pilot	2. 3.	Ensure gas line is thoroughly bled Ensure ventilation holes/gaps are not obstructed
	Unit is smoking / sooting excessively. (Note: It is natural and unavoidable for	1.	Poor fuel quality	1.	Contact local natural gas company
IMPORTANT: Operating unit where impurities in air exist may create odors. Cleaning supplies, paint, paint remover, cigarette smoke, cements and glues, new carpet or textiles, etc., create fumes. These fumes may	appliance sets to produce moderate levels of carbon (soot) where flames contact the media.)	2. 3.	Excessive flame impingement or blockage Improper fuel/air mixture	2. 3.	Separate the stones to allow more flame passage Remove any foreign items from the flame pattern and/or check for proper orifice sizing
mix with combustion air and create odors. These odors will disappear over time.	Burner is excessively noisy (Note: The movement and combustion of gas will create low, unavoidable levels of noise.)	1. 2.	Passage of air/gas across irregular surfaces Excessive gas pressure on natural gas units	1. 2.	Relieve any tight bends or kinks in gas supply line Check/reset gas regulator pressure
	Gas odor even when power is off	1. 2.	Gas leak. See Warning statement above. Main gas valve defective.	1. 2.	Locate and correct all leaks. Replace gas valve
	Unit produces unwanted odors	1.	Gas leak. See Warning statement below.	1.	Locate and correct all leaks.



Shut off gas supply. Do not try to light any appliance. Do not touch any electrical switch; do not use any phone in the vicinity of the appliance.

Immediately call your gas supplier from a safe distance. Follow your gas supplier's instructions.

WARNING:	OBSERVED PROBLEM		POSSIBLE CAUSE		REMEDY
Turn off appliance and let cool before servicing. Only a qualified service person should service and repair this appliance.	When power is turned on, nothing happens	1.	No power to unit	1. 2. 3. 4.	controls, power adapter and power source
	When power is turned on, there is a spark at pilot but no ignition	1. 2. 3. 4.	shutoff valve closed Air in gas lines when installed Pilot is clogged Pilot valve lead is loose/	1. 2. 3. 4.	manual shutoff valve Purge air from the supply line Clean pilot (see <i>Cleaning and</i> <i>Maintenance, p 13</i>) or replace pilot assembly
	Burner does not light after pilot is lit	1. 2.	disconnected Burner orifice is clogged Inlet gas pressure is too low	1. 2.	Clean burner orifice Contact local gas or propane
		3. 4.	Flame sensor or Main Valve lead loose/disconnected Ignition Control Board failure	3. 4.	supplier Reconnect / replace lead Replace Board
	Delayed burner ignition	1.		1.	Remove burner media/debris from Lighting Port
	Burner flame is too low or too high	1.	Incorrect gas supply or pressure	1.	Check for proper gas supply pressure
		2.	Blocked burner orifice or burner ports	2.	Free burner orifice and burner ports of any burrs, paint, or othe blockage
		3.	Improper burner orifice size	3.	Verify proper burner orifice sizing (see <i>p</i> 4)

		Natural Gas	Propane
1	Pilot Cover	LIN-EPC	same
1a	Pilot Shroud	LIN-EPC	same
2	LIN-36 Burner Tube	LIN-36-ASSY	same
2a	Air Shutter	-	-
3	Orifice	FIT-ORI-26	FIT-ORI-43
4	Media Tray	LIN-36-ASSY-A	same
5	Burner Tray	LIN-36-ASSY-B	same
6	Control Box Brackets	LIN-36-ASSY-C	same
7	Pilot Assembly	PIL-E-410	PIL-E-410LP
8	Control Box	see p. 15	same
9	Flex Connector	CON-SS-5MM-24	same
10	Burner Media (not shown)	Crushed Glass 6 kg	Lava Pebbles 5.5 L
11	Topping Media (not shown)	Various	Various
12	Surround (see p. 3)	KOD72-10	same
13	Metal Cover	see p. 3	same
14	Power Adapter 120V-NA (not shown)	E-POW-24VAC	same
15	Fabric Cover (optional)	COV-KOD72-LC	same

WARNING: Failure to position parts in accordance with diagrams or failure to use parts specifically approved for this appliance may result in property damage or personal injury.

REPLACEMENT PARTS ARE AVAILABLE FROM PALOFORM



		Natural Gas	Propane
1	CIR Control Box Cover	CIR-E-BOX	same
1a	CIR Control Box Housing	CIR-E-BOX	same
2	Dual Solenoid Valve	E-VAL-BASO	w/ LP reg. spring
3	3/8"x1-1/2" - Nipple	-	-
4	3/8" Bulkhead Union	-	-
5	3/8" Union	-	-
6	Pilot Assembly	PIL-E-410	PIL-E-410LP
7	Shrink-fit Cord Grip	-	-
8	Ignition Control Board	E-BOARD-CC9	same
9	3/8" Flare Adapter	-	-
10	3/8" Close Nipple	-	-
11	Barrel Connector	part of wiring harness	-
12	Wiring Harness (not shown)	E-WIR-KIT	same









ANCHORING - CONCRETE FOOTING

ANCHORING - WOOD DECK



ANCHORING - WOOD DECK cont'd



ANCHORING - WOOD DECK cont'd



RETAIN FOR WARRANTY

MODEL: (circle)	Kodo 72			
	Natural Gas			
	Propane			
SERIAL NO:				
DATE PURCHASED:				

Paloform's priority is to meet or exceed your expectations with our products and service—we take pride in our products and unequivocally stand behind them. If your product has issues, we will work with you to make things right.

This said, fires pit's are mechanical appliances that are installed in uncontrolled and unpredictable environments. For this reason it is critical that your unit be inspected by a qualified service technician regularly, dependent on use and site conditions, but at minimum once per year. This will ensure that it receives the type of general cleaning and maintenance that will maximize its performance and lifespan. Furthermore, there are various "wear" components which have a limited lifespan due to the fact that their function is to sustain extreme conditions. Over the functional life of your fire pit, you can expect that parts such as pilots, control devices and valves, may need to be replaced periodically. Materials such as cast concrete and Corten Steel are expected to weather naturally over their lifetime and changes in appearance are normal and do not constitute failure in the materials.

WARRANTY - This product is warranted to the original owner, subject to proof of purchase:

Paloform warrants the components and materials in your appliance to be free from manufacturing and material defects for a period of one year from date of delivery. During this time, if any of the components in the appliance are found to be defective in materials or workmanship, Paloform will, at its option, replace or repair the defective components at no charge to the original owner. Paloform will also pay for reasonable labor cost incurred in replacing or repairing such components. Any products presented for warranty repair must be accompanied by a dated proof of purchase.

This Warranty will be void if:

- the appliance is not installed by a qualified installer in accordance with installation instructions.
- the appliance is not operated and maintained according to the operating instructions supplied with the appliance, including
 regular inspections by a qualified technician
- the appliance is damaged by accident, neglect, misuse, abuse, alterations, negligence of others, including the installation thereof by unqualified installers, incidental or consequential damage
- the appliance is partially or totally submerged under water for any length of time

This Warranty does not cover normal wear and tear, including but not limited to extraordinary environmental factors such as salt-saturated environments or extreme weather events.

All service work must be performed by an qualified service technician.

This warranty is expressly in lieu of other warranties, express or implied, including the warranty of merchantability of fitness for purpose and of all other obligations or liabilities. Paloform does not assume for it any other obligations or liabilities in connection with sale or use of the appliance. In states or provinces that do not allow limitations on how long an implied warranty lasts, or do not allow exclusion of indirect damage, those limitations of exclusions may not apply to you. You may also have additional rights not covered in the Limited Lifetime Warranty. Paloform reserves the right to investigate any and all the claims against this Warranty and decide upon method of settlement. For information about this warranty contact:

Paloform 888.823.8883 info@paloform.com