OPERATING INSTRUCTIONS AND OWNER'S MANUAL

PORTABLE BUDDY RADIANT HEATER



Model # MH11BFLEX

PORTABLE PROPANE HEATER FOR RECREATIONAL AND EMERGENCY INDOOR USE

FOR US SALE EXCEPT MASSACHUSETTS

Use only Mr. Heater branded accessories (See page 12 for WARNING information)

LANGUAGES INCLUDED:

ENGLISH



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

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. WHAT TO DO IF YOU SMELL GAS

- Do not try to light appliance.
- Extinguish any open flame
- Shut off gas to appliance

Service must be performed by a qualified installer, service agency.

This is an unvented gas-fired portable heater. It uses air (oxygen) from the area in which it is used. Adequate combustion and ventilation air must be provided. Refer to page 2.

READ INSTRUCTIONS CAREFULLY: Read and follow all instructions. Place instructions in a safe place for future reference. Do not allow anyone who has not read these instructions to assemble, light, adjust or operate the heater.

MARNING:

Early signs of carbon monoxide poisoning resemble the flu, with headache, dizziness and/ or nausea. If you have these signs, heater may not be working properly. Get fresh air at once!

Have heater serviced.

MARNING

Every time hose or tank is connected to unit, connection must be checked for leaks in one or more ways: Apply soapy water to connection, look for bubbles, listen for hiss of escaping gas, feel for extreme cold, smell for rotten egg odor. Do not use if leaking!

AWARNING:

FIRE OR EXPLOSION HAZARD If you smell gas:

- 1. Do not attempt to light appliance.
- 2. Extinguish any open flame.
- 3. Disconnect fuel supply.
- 4. Leave the area immediately.
- 5. Allow gas to dissipate 5 minutes before relighting the appliance.

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
Failure to follow these instructions could result in fire or explosion, which could cause property damage, personal injury, or death.

∴WARNING:

Any changes to this heater or its controls can be dangerous.

∆WARNING:

If the recreational enclosure does not have a window or roof vent, DO NOT USE THIS HEATER INSIDE.

This heater is equipped with a SAFETY SYSTEM designed to turn off the heater if not enough fresh air is available.

WARNING:DO NOT TAMPER WITH THE SAFETY SYSTEM!

If heater shuts off, do not relight until you provide fresh air. If heater keeps shutting off, have the heater serviced. Keep burner and control compartment clean.

NOTICE:

Not for use in a "dwelling home" in California.

MARNING:

CARBON MONOXIDE
POISONING MAY CAUSE
DEATH OR INJURY
When used without
adequate combustion and
ventilation air, heater may
give off excessive CARBON
MONOXIDE, an odorless,
poisonous gas.

This is an unvented gasfired heater. The heater uses air (oxygen) from the area in which the heater is used. Adequate combustion and ventilation air must be provided. Refer to GENERAL SAFETY INSTRUCTIONS for more specific requirements regarding adequate combustion and ventilation air (page 3).

AFETY INSTRUCTIONS

ODOR FADE WARNING WARNING: ASPHYXIATION HAZARD

- Do not use in unventilated areas.
- The flow of combustion and ventilation air must not be obstructed.
- Proper ventilation air must be provided to support the combustion air requirements of the heater being used.
- Refer to the specification section of the heater's manual, heater dataplate, or contact the factory to determine combustion air ventilation requirements of the heater.
- Lack of proper ventilation air will lead to improper combustion.
- Improper combustion can lead to carbon monoxide poisoning leading to serious injury or death. Symptoms of carbon monoxide poisoning can include headaches, dizziness and difficulty in breathing.

GENERAL SAFETY INSTRUCTIONS THIS IS A HEATING APPLIANCE. DO NOT OPERATE THIS APPLIANCE WITHOUT THE FRONT GRILL INSTALLED. DO NOT ATTEMPT TO

WITHOUT THE FRONT GRILL INSTALLED. DO NOT ATTEMPT TO WARM OR COOK FOOD ON THIS HEATER.

- Do not use non-approved attachments on this heater.
- Due to high temperatures, the appliance should be located out of traffic and away from combustible materials.
- Some carpets or linoleum surfaces may discolor if heater is placed directly on these floor coverings.
- Children and adults should be alerted to the hazard of high surface temperatures and should stay away to avoid burns or clothing ignition.

- Do not leave this heater unattended while it is in operation. Keep children and pets away from the heater at all time.
- Do not place clothing or other flammable material on or near the appliance.
- Do not operate heater in any moving vehicle.
- Only disposable cylinders marked with the proper fuel type approved for the appliance, can be used.
- This heater can also be used in a recreational enclosure with a window or roof vent. It may also be used outdoors.
- This heater requires a vent area of 11 square inches (example 5.5" x 2" opening) at the ceiling and at floor level for adequate ventilation during operation. Do not use other fuel burning appliances inside.
- A propane-fired portable heater used for emergency home use shall not be set at an input setting in excess of 5,000 BTU/HR (1,466 W) when located in a bathroom and shall not be set at an input setting of more than 10,000 BTU/HR (2,931 W) when located in a bedroom. DO NOT USE THIS HEATER IN THE BATHROOM OR BEDROOM!
- GAS PRESSURE AT HEATER IS
 REGULATED AND FIXED AT 1 psi
 WHEN USING A REMOTE HOSE
 CONNECTION DO NOT REGULATE
 OR REDUCE PROPANE TANK SUPPLY
 PRESSURE TO HEATER!
- REGULATOR IN HEATER MUST ALWAYS BE IN PLACE DURING OPERATION.
- If the wire guard is removed for servicing, it must be replaced prior to operating the heater.
- The appliance should be inspected before each use. Frequent cleaning may be required. The control compartments, burner and circulating air passageways of the appliance must be kept clean, see MAINTENANCE.
- DO NOT use this heater if any part has been under water. Immediately call a qualified service technician to inspect the heater and to replace any part of the control system and any gas control, which has been under water.

Specifications	
Model No.	MH11BFLEX
Gas Type	Propane (LP)
Input (Btu/Hr)	8,000-11,000
Minimum Ambient Temperature	-18°C/ 0°F
Clearance To Combustibles	
Тор	30"
Front	24"
Sides	24"
Rear	0"

 When used without adequate combustion and ventilation air, this heater may give off excessive CARBON MONOXIDE, an odorless, poisonous gas.

WARNING: Early signs of carbon monoxide poisoning resemble the flu, with headache, dizziness, and/or nausea. If you have these signs, the heater may not be working properly. Get fresh air at once! Have heater serviced.

Some people - pregnant women, persons with heart or lung disease, anemia, those under the influence of alcohol, those at high altitudes - are more affected by carbon monoxide than others.

 When heater is placed on the ground, make sure the ground is level and keep any objects at least 24 inches from the front of the heater. THIS HEATER IS EQUIPPED WITH A TIP OVER SWITCH THAT WILL SHUT THE HEATER OFF IF THE HEATER TIPS OVER HOWEVER, DO NOT LEAVE HEATER UNATTENDED OR WHERE CHILDREN MAY CAUSE THE HEATER TO TIP OVER. NEVER OPERATE THE HEATER WHILE SLEEPING!

FUEL GAS ODOR

Propane (LP) gas and natural gas have man-made odorants added specifically for detection of fuel gas leaks.

If a gas leak occurs you should be able to smell the fuel gas. Since propane (LP) gas is heavier than air you should smell for the gas odor low to the floor. ANY GAS ODOR IS YOUR SIGNAL TO GO INTO IMMEDIATE ACTION!

 Do not take any action that could ignite the fuel gas. Do not operate any electrical switches. Do not pull any

power supply or extension cords. I not light matches or any other sou of flame. Do not use your telepho Get everyone out of the building a away from the area immediately. Close all propane (LP) gas tank or cylinder fuel supply valves, or the r fuel supply valve located at the me you use natural gas. Propane (LP) gas is heavier than ai and may settle in low areas. Wher have reason to suspect a propane gas leak, keep out of all low areas Use your neighbor's phone and ca your fuel gas supplier and your fire department. Do not re-enter the building or area. Stay out of the building and away from the area until declared safe be the firefighters and your fuel gas supplier. FINALLY, let the fuel gas service pe and the firefighters check for escap gas. Have them air out the building and area before you return. Proper trained service people must repair leaks, check for further leakages, athen relight the appliance for you. ODOR FADING - NO ODOR DETECTED Some people capact small wall. So

- power supply or extension cords. Do not light matches or any other source of flame. Do not use your telephone.
- Get everyone out of the building and
- cylinder fuel supply valves, or the main fuel supply valve located at the meter if
- Propane (LP) gas is heavier than air and may settle in low areas. When you have reason to suspect a propane (LP)
- Use your neighbor's phone and call your fuel gas supplier and your fire
- from the area until declared safe by
- FINALLY, let the fuel gas service person and the firefighters check for escaped gas. Have them air out the building and area before you return. Properly trained service people must repair any leaks, check for further leakages, and

DETECTED

- Some people cannot smell well. Some people cannot smell the odor of the man-made chemical added to propane (LP) gas. You must determine if you can smell the odorant in these fuel gases.
- Learn to recognize the odor of propane (LP) gas. Local propane (LP) gas dealers will be more than happy to give you a scratch and sniff pamphlet. Use it to become familiar with the fuel gas odor.
- Smoking can decrease your ability to smell. Being around an odor for a period of time can affect your sensitivity to that particular odor. Odors present in animal confinement buildings can mask fuel gas odor.
- The odorant in propane (LP) gas is colorless and the intensity of its odor can fade under some circumstances.
- If there is an underground leak, the movement of gas through the soil can filter the odorant.

- Propane (LP) gas odor may differ in intensity at different levels. Since propane (LP) gas is heavier than air, there may be more odor at lower levels.
- Always be sensitive to the slightest gas odor. If you continue to detect any gas odor, no matter how small, treat it as a serious leak. Immediately go into action as discussed previously.

ATTENTION - CRITICAL POINTS TO REMEMBER!

- Propane (LP) gas has a distinctive odor. Learn to recognize these odors. (Reference Fuel Gas Odor and Odor Fading sections above.
- Even If you are not property trained in the service and repair of the heater, ALWAYS be consciously aware of the odors of propane (LP) gas.
- If you have not been properly trained in repair and service of propane (LP) gas then do not attempt to light heater, perform service or repairs, or make any adjustments to the heater on the propane (LP) gas fuel system.
- A periodic sniff test around the heater or at the heater's joints; i.e. hose, connections, etc., is a good safety practice under any conditions. If you smell even a small amount of gas, CONTACT YOUR FUEL GAS SUPPLIER IMMEDIATELY. DO NOT WAIT!

GENERAL INFORMATION

This heater is safe for indoor use in small recreational enclosures having means for providing combustion air and ventilation, such as enclosed porches, cabins, fishing huts, trailers, tent trailers, tents, truck caps and vans. It may be used for emergency indoor heating when connected to a disposable 1 lb. propane cylinder.

Note: The heater is to be used outdoors, but may experience nuisance shutoffs due to certain wind conditions.

If burner material is visibly flaming, turn heater off and call a qualified service technician.

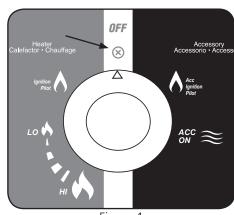


Figure 1

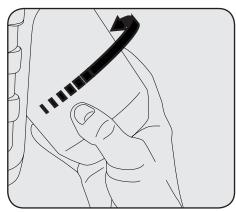


Figure 2

WARNING: Always inspect propane cylinder and heater propane connections for damage, dirt, and debris before attaching propane cylinder. Do not use if head of cylinder is damaged, punctured or deteriorated.

✓ WARNING: Do not operate heater between the "PILOT" and "LO" positions. Poor combustion and higher levels of carbon monoxide may result. It is acceptable to run the unit between the "HI" and "LO" positions.

<u>CAUTION</u>: Do not try to adjust heating levels by using the propane tank shut off valve.

- The protective grill on the front of this heater is coated with a special hightemperature resistant paint. When the heater is used for the first time, the grill may give off noticeable smoke or fumes. This is normal and will not occur during subsequent uses. The fumes are not harmful.
- Operating time will vary depending on the heater setting and the supply cylinder size. Up to 1.5 to 3.5 hours on a 1 lb. cylinder. Up to 36 to 72 hours on a 20 lb cylinder (based on "HI" and "LO" settings). Due to the properties of LP gas, runtimes can be significantly reduced when operating continuously at temperatures below 20°F. Use of a 20 lb. tank is recommended in these conditions.
 - **NOTE:** For burn time of an accessory, refer to the accessory manual.
- When moving heater when lit or bumping heater setting it down, the tip over switch may shut off heater. If this happens, re-light.
- Due to natural operation of small tanks, condensation may build up on tank and drip on surface under heater.

HEATER LIGHTING / OPERATING INSTRUCTIONS FOR USE WITH DISPOSABLE 1 LB. PROPANE CYLINDERS:

ALWAYS ATTACH OR DETACH
CYLINDER OUTDOORS AWAY FROM
FLAMES, OTHER IGNITION SOURCES,
AND ONLY WHEN HEATER IS COOL
TO TOUCH. NEVER SMOKE WHEN
ATTACHING OR REMOVING PROPANE
CYLINDER OR MAKING REMOTE
CONNECTIONS!

- The LP-gas cylinder(s) used must be constructed and marked in accordance with the specifications for LP-gas cylinders of the U.S. Department of Transportation (DOT).
- Use only VAPOR WITHDRAWAL propane supply. If there is any question about vapor withdrawal, ask your propane dealer.
- Use only 16.4 oz. (1 lb.) disposable cylinders that mate with No. 600 valve connection.

- This heater consumes oxygen from the room in which it is installed. To assure complete combustion, an adequate fresh air supply to the room, See
 General Safety Instructions, Page 3.
- Heater and attached cylinder must be in an upright position during operation.

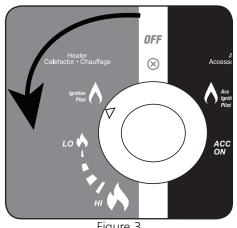
IMPORTANT: The heater must not be exposed to flammable vapors or liquids during lighting.

- 1. Make sure control knob is in "OFF" position. See Figure 1.
- Swivel regulator at the rear of the heater outward for easy tank installation. Screw 1 lb. disposable LP-gas supply cylinder clockwise (from bottom) into portable heater until hand-tight. See Figure 2. Do not use thread sealant on this connection.
- Check cylinder connection for leaks with soapy water at the threaded connection under the domed plastic cover where the cylinder screws into the regulator. DO NOT USE ANY EXPOSED FLAME TO CHECK FOR LEAKS. DO NOT OVERTIGHTEN. SEE WARNING! ON DOMED PLASTIC COVER.
- 4. Push control knob down slightly and rotate **counterclockwise** to Heater "Ignition/PILOT" position. See Figure 3.
- 5. Push and hold control knob down while holding down ignition button until pilot is lit. See Figure 4.
- Release ignition button and continue to hold down control knob down for 30-60 seconds and release. (If pilot does not sustain flame, return to step #4.
- 7. With pilot lit, push control knob down and rotate to LO/HI setting position.

Shutdown Instructions

- To shut off heater, slightly push down and turn Control Knob clockwise to "OFF" position.
- Do not operate, store or remove cylinder near flammable items or ignition sources.

LP-GAS CYLINDERS MUST BE
DISCONNECTED FROM HEATER WHEN
NOT IN USE!



igure 3



Figure 4

HEATER LIGHTING / OPERATING INSTRUCTIONS FOR USE WITH HOSE CONNECTED TO A REMOTE CYLINDER, MAXIMUM SIZE 20 LBS:

- This Heater may be used in a recreational enclosure with a remote refillable propane cylinder ONLY when the cylinder is located outdoors and the Heater is used with Mr. Heater Hose No. F273701, F273702 or F272702 and fuel filter F273699. Fuel filter must be replaced annually. (NOTE: Do not operate without the fuel filter as fuel contamination may damage the heater.) Or use F273704 Buddy series hose. Fuel filter not required.
- Inspect the hose before each use
 of the heater. If there is excessive
 abrasion or wear, or the hose is cut,
 replace prior to using the heater with
 one of the Mr. Heater Hose No's.
 shown above.
- The LP-gas cylinder(s) used must be constructed and marked in accordance with the specifications for LP-gas cylinders of the U.S. Department of Transportation (DOT).
- Use only VAPOR WITHDRAWAL propane supply. If there is any question about vapor withdrawal, ask your propane dealer.
- The propane cylinder must include a listed overfilling protection device as well as a collar to protect the cylinder valve.
- This heater consumes oxygen from the room in which it is installed. To assure complete combustion, an adequate fresh air supply to the room, See
 General Safety Instructions, Page 3.
- Heater must be in an upright position during operation.

- **IMPORTANT:** The heater must not be exposed to flammable vapors or liquids during lighting.
- Make the control knob is in "OFF" position. See Figure 1 on previous page.
- Swivel regulator outward for easy hose installation. Screw hose connector into regulator on heater and screw connector on other end of hose into LP-gas supply cylinder valve. Tighten all hose connections. DO NOT use thread sealant on any of these connections.
- 3. Mr. Heater strongly recommends using disposable fuel filter **F273699** to trap any oil substances when connected to a remote cylinder that can make heater inoperable.
- 4. Open valve at LP-gas supply cylinder.
- 5. Check all hose connections for leaks with soapy water at the threaded connection under the domed plastic cover where the hose connector screws into the regulator and at LP-gas supply cylinder. DO NOT USE ANY EXPOSED FLAME TO CHECK FOR LEAKS. DO NOT OVERTIGHTEN. SEE WARNING! ON DOMED PLASTIC COVER.
- Push control knob down slightly and rotate counterclockwise to Heater "Ignition/PILOT" position. See Figure 3 on previous page.
- 7. Push and hold control knob down while holding down ignition button until pilot is lit.
- 8. Release ignition button and continue to hold down control knob down for 30-60 seconds and release. (If pilot does not sustain flame, return to step #4.
- 9. With pilot lit, push control knob down and rotate to LO/HI setting position.

Shutdown Instructions

- 1. To shut off heater, shut off propane at supply tank, allow heater to use-up propane in supply line until heater shuts off, then slightly push down and turn control knob clockwise to "OFF" position.
- When not in use, the gas must be turned off at the LP-gas supply cylinder. As stated before allow heater to use up propane in supply line until heater shuts off. When the LP-gas supply cylinder is not disconnected from the heater, the heater and the cylinder must be stored outdoors, in a well ventilated space, out of reach of children, and must not be stored in a building, garage or any other enclosed area.
- Indoor storage of the heater is permissible only if the cylinder is disconnected and removed from the heater. Cylinders must be stored outdoors out of the reach of children and must not be stored in a building, garage or any other enclosed area.

CAUTION: After turning heater off, wire guard will remain hot. Allow to thoroughly cool before storing.

⚠DANGER: NEVER bring a refillable propane cylinder indoors. A fire or explosion can occur causing property damage, serious injury or death!

Pulse Ignition

The Pulse Ignition Button is located to the left of the control knob. Refer to Figure 4 on page 5.

Open the battery cover located inside the accessory compartment to install the "AAA" battery (included). See Figure 5.

Accessory Mode Pre-Lighting

NOTE: Only approved Mr. Heater accessories may be used with this heater. Accessories are also available to use with this heater. They may be attached to the guick connect fitting in the side compartment of the heater with the hose included with the accessory.

IMPORTANT: Quick connect fitting is designed for GAS OUTLET ONLY.

To pre-light accessory:

IMPORTANT: These steps explain how to provide a gas supply to the accessory. Refer to the Lighting Instructions in the manual provided with your accessory to ignite the accessory.

- 1. Make sure control knob is in "OFF" position. See Figure 1 on previous page.
- 2. Attach accessory hose onto the quick connect fitting in the side compartment of heater. See Figure 5.
- 3. Check hose connection for leaks with soapy water at the threaded connection where the hose connector screws into the regulator. DO NOT USE ANY EXPOSED FLAME TO CHECK FOR LEAKS. DO NOT OVERTIGHTEN.
- 4. Push control knob down slightly and rotate clockwise to Accessory "Ignition/PILOT" position. See Figure 6.
- 5. Push and hold control knob down while holding down ignition button until pilot is lit.
- 6. Release ignition button and continue to hold down control knob down for 30-60 seconds and release. (If pilot does not sustain flame, return to step
- 7. With pilot lit, push control knob down and rotate to ACC. "ON" setting position.
- 8. Proceed to the lighting instructions included with your accessory.

To shut down the accessory:

- 1. To shut off accessory, shut off heater gas supply first, then turn accessory control knob to "OFF" position.
- Do not operate, store or remove cylinder near flammable items or ignition sources.

Refer to owner's manual included with accessory for more detailed operation and maintenance instructions.

Maintenance

- Always keep the heater area clear and free from combustible materials, gasoline and other flammable vapors and liquids.
- Keep the vent areas (slots in the bottom and top of the heater) clear at

IMPORTANT: The heater and its surroundings should be kept clean and free of dust.

- Visually inspect the pilot flame and burner periodically during use. The pilot flame should be blue in color (not yellow) and will extend to the thermocouple. The flame will surround the thermocouple just below the tip. See Figure 7.
- A slight yellow flame may occur where the pilot flame and main burner flame meet. The burner should be bright orange (with a slight blue color around the border, a red-orange haze that is visible on the burner material is acceptable) and without a noticeable flame.
- A blue flame that rolls out at the top of the burner material indicates an accumulation of dust, lint or spider webs inside the housing assembly and main burner assembly. If the pilot is yellow or the burner has a noticeable flame, cleaning may be required.
- It is necessary to periodically check the burner orifice and burner venturi to make sure that they are clear of things such as insect nests and spider webs that may accumulate over time. A clogged tube can lead to a fire.
- Use the following procedure to inspect the casing assembly and main burner assembly.

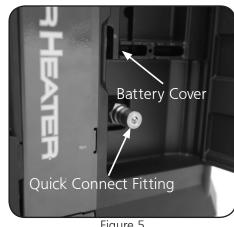


Figure 5

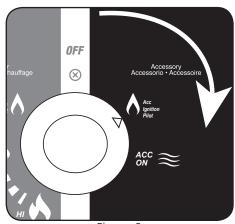
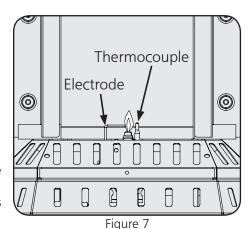


Figure 6



7

MAINTENANCE

Cleaning Instructions (Refer to Exploded Parts on Page 10):

IMPORTANT: Allow heater to thoroughly cool before performing any maintenance.

- I. Remove disposable 1 lb. cylinder from heater or turn OFF gas supply at remote cylinder valve, and disconnect hose from heater.
- 2 Inspect interior of housing for accumulation of dust, lint or spider webs. If necessary, clean interior housing with a vacuum cleaner or apply air pressure. Do not damage any components within the housing assembly when you are cleaning.
- Inspect and clean pilot (mounted to bracket) by using a vacuum or apply air pressure.
- 4 The exterior of the heater can be cleaned with a damp cloth. Avoid the direct use of any aerosol or spray-on cleaners. Do not use abrasive materials or cleaners on the decals or control knob.

IMPORTANT: Users should not attempt to repair or change any parts of the heater. All repairs must be performed by a qualified LP Gas Service Dealer or at the factory.

OFFSEASON

- If the heater is to left "OFF" for a considerable period of time, the propane (LP) gas supply to the heater should be turned off as close to the gas source as possible. In the case of portable use, the gas should be turned off at the propane (LP) gas supply cylinder.
- If the heater is put into storage, make sure to disconnect the propane (LP) gas cylinder.
- When the LP-gas cylinder is not disconnected from the heater, the heater and cylinder must be located outdoors, in a well-ventilated space, out of the reach of children, and must not be stored in a building, garage, or any other enclosed area.
- Storage of the heater indoors is permissible only if the cylinder is disconnected and removed from the heater. Cylinders must be stored outdoors, in a well-ventilated space, out of the reach of children, and must not be stored in a building, garage, or any other enclosed area.

⚠WARNING: Never use needles, wires or similar cylindrical objects to clean the pilot to avoid damaging the calibrated ruby that controls the gas flow through the pilot orifice.