



OPERATIONS MANUAL
5 LITER LPG GAS
TANKLESS WATER HEATER
CAMPER SERIES

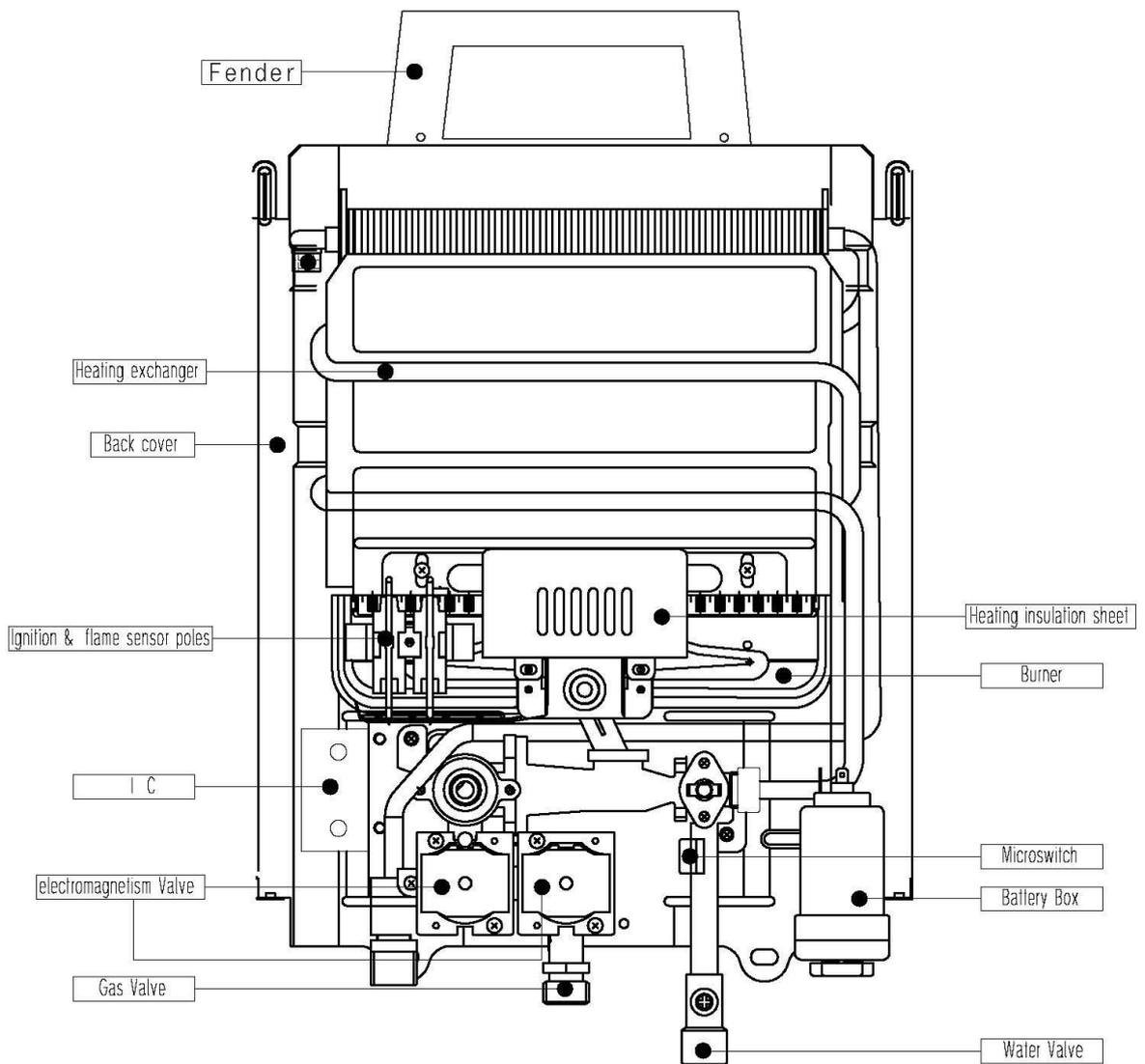


MODEL # AGL-5

Table of Contents

- Inner Structure_____ 1
- Use and Care Introduction_____ 2
- The Purpose and Benefits of the L5_____ 3
- Getting Started_____ 4
- Installation/Use_____ 5
- Adjustment_____ 6
- Troubleshooting_____ 7

1. Inner Structure



2. Use & Care Manual-L5

The purpose of this manual is; to provide the installer with the basic directions and recommendations for the proper installation and adjustment of the water heater, and two, to the owner operator, to explain the features, operation, safety precautions, maintenance and troubleshooting of the water heater. This manual also includes a parts list.

It is imperative that all persons who are expected to install, operate, or adjust this water heater read the instructions carefully so they may understand how to perform these functions. If you do not understand these instructions or any terms within, seek professional advice.

Any questions regarding the operation, maintenance service or warranty of this water heater should be directed to DRAKKEN INDUSTRIES , LLC directly by calling toll free at 888.818.4328 or via email at info@drakkenusa.com.

DO not destroy this manual. Please read carefully and keep in a safe place for future reference.

WARNING: If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.

DANGER!

NATURAL GAS AND LIQUEFIED PRETROLEUM MODELS

Both LP and natural gas have an odorant added to aid in the detecting a gas leak. Some people may not physically be able to smell or recognize this odorant. If you are unsure or unfamiliar with the smell of LP or NG, ask the gas supplier. Other conditions such as “odorant fade”, which causes the odorant to diminish in intensity, can also hide or camouflage a gas leak.

- Water heaters utilizing LP gas are different from natural gas models. A natural gas water heater will not function safely on LP gas and vice versa
- No attempt should ever be made to convert the water heater from NG to LP gas. To avoid possible equipment damage, personal injury, or fire, do not connect the water heater to a fuel type not in accordance with the data plate.
- LP gas must be used with great caution. It is heavier than air and will collect first in lower areas making it hard to detect at nose level.
- Before attempting to light the water heater, make sure to look and smell for gas leaks. Use a soapy solution to check all gas fittings and connections. Bubbling at a connection indicates a leak that must be corrected. When smelling to detect a gas leak, be sure to sniff near the floor also.
- Gas detectors are recommended in LP and NG applications and their installation should be in accordance with the detector manufacturer’s recommendations and/or local laws, rules, regulations or customs.

ADDITIONAL WARNINGS

1. Do not leave unattended
2. The exhaust gas and top of the unit is HOT! Do not place hands or any foreign object near the top of the heater.
3. Do not use in high wind conditions
4. If the smell of gas is detected, turn off the gas valve at the tank immediately! Do not use flame for leak detection.
5. Use only Liquid Propane
6. Use only outdoors
7. Do not over tighten the gas regulator connection to the unit with a wrench. This may cause a crack in the gas regulator.

3.The Purpose and Benefits the L-5

The **IHeat AGL-5** is a portable liquid propane fired water heater capable of delivering 1 to 1.4 gallons of hot water almost anywhere. The unit has standard 1/2"NPT pipe fittings and an adapter for using a standard garden hose for inlet water supply.

The AGL-5 is a small work horse. People around the world use similar units to heat the water in their homes, safely, and reliably.

Gas is supplied from a standard 20 pound propane cylinder (not included) such as used with outdoor grills. A regulator with hose is furnished with the heater.

A shower nozzle with on/off switch and multiple spray patterns is included.

Ignition is automatic and powered by 2"D"cell batteries(not included).Burners come on when water flows, and off when the water is shut off. No pilot light!

Additional safety feature of an automatic 20 minute shutoff timer that is reset each time operation stops or the shower head is turned off and back on.

The ideal operating use of the appliance is with water pressure between 20-80 PSI.

4. Getting Started

1. Check box for damage. Damages caused in shipment must be reported immediately
2. Make sure you have all the parts:

a. Heater Body



b. Gas Regulator and Shower Nozzle/Hose Set



3. Install vent shield as shown with two Phillips screws found in the hardware package for a more permanent fixture. Or, you can simply slide it into its slots for a more temporary placement.
4. Attach a garden hose adapter to the fitting marked "Water Input" (far right 1/2" connection). Use "Teflon" tape or other approved sealing method on the threads for a secure, water tight fit. Check to make sure the screen inside the water inlet is in place and clean and then attach your water input/garden hose.
5. Install gas supply line and regulator to the unit. **DO NOT OVER TIGHTEN. OVER TIGHTING MAY CRACK THE GAS REGULATOR CAUSING A GAS LEAK!** Check for any gas smell before ignition! Make sure it is screwed all the way on.
6. Attach shower nozzle to the fitting marked "Water Outlet" (middle 1/2" connection). Connect using hand pressure **ONLY**. If installing in an existing water system, connect the hot water line directly to the 1/2" NPT fitting.
7. Install two "D" cell batteries in the compartment on the bottom left of the heater. Check that batteries are facing the correct direction.
8. Use the top tab on the unit to suspend from a screw adequate to holding 15 pounds. Place at a comfortable height without putting stress on the gas hose. If the unit is to be permanently mounted, use screws to attach the bottom tab firmly. **DO NOT USE SUSPENDED FROM THE HANDLE!**
9. Attach gas regulator with hose to LP tank. Use hand pressure only on the plastic connector. **LEAVE GAS TANK VALVE IN THE "OFF" POSITION"**

Before going to the USE section:

Check around area for flammables, especially gasoline or other vapors which may ignite. The exhaust and top of the unit will get **HOT!** Make sure there are no foreign objects around the unit or have fallen into top.

5. USE

Starting

1. Turn on incoming water supply. Ensure that you have adequate water pressure of between 20-80 PSL.
2. Turn shower nozzle to its off position
3. Turn the gas valve on the cylinder all the way open.
4. Set the water regulator knob on the face of the unit to its highest setting – All the way to the left.

5. Set the gas regulator knob on the face of the unit to the half way mark.
- 6. Turn the spray nozzle to the “on” and adjust to the desired water pattern on the shower head.**
7. There will be a series of audible clicks and the burner will ignite. (Should the burner not ignite after 5 seconds, shut off and go to the “Trouble Shooting” section.)
8. After use, open the drain valve (ribbed cylindrical stem next to the water input valve) to ensure draining of water.

WARNING: If the outside temperature is around or below freezing (32 degrees F, 0 degrees c), ensure that the drain valve is opened and water drained from the unit after each use to avoid internal damage to the water regulator. You will also need to unhook the outgoing water line to ensure that any water in the heat exchanger is drained. Failure to properly drain your unit will cause water damage which may or may not be reparable. Please check the warranty information by contacting American Heat at 1-888-818-4328 for more information on freezing issues.

6. ADJUSTMENT

The temperature of the outgoing water is dependent on the temperature of the incoming water balanced with the amount of heat applied. Use extreme caution in setting the outlet water temperature.

Temp and Flow Adjustment

Looking up at the bottom of the unit, you will see 2 oval holes in the case. The hole that is furthest on the right looks up at the water regulator where you will see two Philip head screws. Take the screw that is furthest on the right in about a 1/4 or 1/2 turn. This will enable the unit to operate on a lower water pressure by restricting flow.

1. With the water regulator set to high, and the gas regulator set to low, feel the outgoing water. This is the lowest setting available.
2. To initially raise the outgoing temperature, slowly turn the gas valve towards maximum. Adjust slowly and check the temperature often. There will be a slight delay between increasing the gas supply and the increase in water temperature.
3. Should the outlet water temperature need to be higher, slowly reduce the water flow regulator until desired temperature is reached.

THE UNIT WILL PRODUCE TEMPERATURES CAPABLE OF SCALDING!

DO NOT RETURN TO STORE:

Call DRAKKEN directly toll free at 888-818-4328 or via email at info@drakkenusa.com you encounter a problem!

7. TROUBLE SHOOTING

Unit will not start-there are no audible clicks at startup:

- a. The first thing to check is to ensure that the incoming water on the “right” side of the unit. If the incoming and outgoing are reversed, the unit will not work. The incoming is on the far right and the outgoing is in the middle.
- b. Check to make sure you have fresh batteries and they are installed in the correct position.
- c. Number one reason that the unit does not ignite is that there is not enough water pressure. You need to make sure that you have a minimum of 20 PSI of sustained water pressure.
- d. A wire has become disconnected inside the unit during shipping. Make sure the gas is OFF .The front cover is help by four screws, two top, two bottom. The knobs pull off. All the wiring is done with push together plastic connectors. They are all visible without further dismantling of the unit. It should be obvious when a wire has become disconnected.

NOTE: Before attempting to remove the cover, call technical support at 888-818-4328

- e. It is possible that some debris or epoxy might have entered the water regulator. Check to see if the filter screen on the water inlet is clear of debris. You can also reverse the hookup by taking your water source and hooking it up to the water outlet side and back flushing the system.

Propane gas cylinders sometimes are contaminated with air, especially new tanks upon their first filling. Cycle the unit on and off by using the shower head switch several times (5) to purge the air from the gas

Should a unit fail to light or stay lit after 10 cycles, Call technical support at 888-818-4328

Unit starts and then shuts off:

- a. The unit requires a minimum of about 2 liters per minute and a minimum of about 25 PSI* Note, water pressure is at the lower end of operating parameters. You will need a sustained water pressure of approximately 40-60 PSI for adequate use if you are using a 12/15/120 volt pump. See adjustment in previous section.
- b. High wind
- c. Out of, or low on gas. Propane gas cylinders sometimes are contaminated with air, especially new tanks upon their first filling. Cycle the unit on and off by using the shower head switch several times (5) to purge the air from the gas.
- d. One of the ignition sensors is bent and/or too close to the burner. Look to ensure that the ignition pins and the heat sensor are completely vertical and they do a 90 degree to the back of the box. If they are not straight (i.e. a 45 degree angle) then

you can straighten them with pliers. Please call technical support at 888-818-4328 for assistance with this matter.

- e. The thermocouple is either too high or too low to complete the circuit. Check to ensure that the thermocouple is flush with the hole in the heat exchanger. Please call technical support at 888-818-4328 for assistance with this matter.
- f. **The gas sensor wire might have come loose or is no longer connected. Please call technical support at 888-818-4328 for assistance with this matter.**

The water does not get hot enough:

- a. You are operating the unit above 6,000 feet. While it has been field tested up to 7,200 feet, we only recommend using it below elevations of 5,500-6,000 feet.
- b. Look into the viewer panes (3 teardrop shaped windows on the front cover) to see if there is a blue flame. If the flame is yellow there could be a cracked gas regulator.
Do Not Attempt to use the unit and call American Heat directly.

Water is flowing, but there is no hot water coming out:

- a. Ensure that you have incoming water supply and the outgoing water supply hooked up properly. Your water supply should be attached to your incoming connection (located on the far right) and the shower head should be attached to the outgoing water (located as the center connection)
- b. Ensure that you have adequate water pressure of at least 20 PSI, sustained.
- c. Ensure that you have adequate gas in your propane bottle and that the LP regulator is threaded all of the way on to the unit.
- d. Fresh batteries are required for ignition spark. Make sure batteries are aligned in the proper polarity(=/-)

The unit does nothing

- a. Ensure that you have your water source hooked up to the water inlet side (far right connection) and the shower handle is hooked up on the water outlet side (far right connection)
- b. Ensure that you have an adequate supply of propane
- c. Ensure that you have fresh batteries

If you are still having troubles or are on a modified water system, please call technical support at 888-818-4328