



⚠ WARNING

FIRE OR EXPLOSION HAZARD

If you smell gas:

1. Do not attempt to light the appliance, and ensure that it is in the OFF position.
2. Extinguish any nearby flames.
3. Shut off the cylinder fuel supply valve if equipped. If using a disposable fuel cylinder, disconnect it.
4. Leave the area immediately.
5. Allow the gas to dissipate for 5 minutes.
6. If the gas smell has cleared from the area, the appliance, and the fuel supply, follow steps 1-5 again and have the appliance serviced.

Failure to follow these instructions may result in fire or explosion, causing property damage, personal injury, or death.

Improper installation, use, adjustment, alteration, service, or maintenance can cause injury or property damage. Refer to this manual for guidance. For assistance or additional information, consult a qualified installer, service agency, or gas supplier.

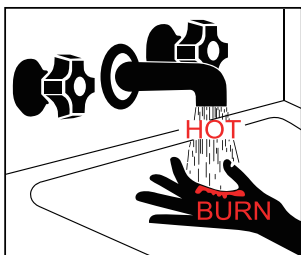
Keep this appliance away from all combustible materials. Minimum clearance requirements: Rear: 20 inches, Sides: 40 inches, Top: 40 inches.

Turn the gas off at the cylinder valve after use. Disconnect and remove the cylinder before storing this appliance indoors.

*Please retain this instruction manual for future reference.

Do not store or use gasoline or other flammable vapors and liquids near this or any other appliance.

⚠ DANGER



Water temperatures over 125°F (52°C) can cause severe burns instantly or even death from scalds.

Children, the disabled, and the elderly are at the highest risk of being scalded.

Always consult the instruction manual before adjusting the temperature on the water heater.

Always check the water temperature before bathing or showering.

www.ranein.net

service@ranein.net

You're All Set!

Thank you for purchasing your new Ranein RO4K-Y Portable Tankless Water Heater. This convenient, safe, and high-efficiency product allows you to enjoy endless hot water.

We highly recommend taking the time to read through all safety and installation procedures in this manual before installing your new portable water heater.

Always remember, we're here for you via our online helpdesk located at

www.ranein.net

Read This Manual

Inside, you will find many helpful hints on how to use and maintain your water heater properly. A little preventive care on your part can save you time and money over the life of your water heater. You'll find answers to common problems in the Troubleshooting Guide. If you review the chart of Troubleshooting Tips first, you may not need to call for service.

Read the Safety Information

To ensure your safety and the safety of others, we have included important safety warnings throughout this manual. All safety messages will follow the safety symbol and the words:

"CAUTION", "DANGER", "WARNING", or "NOTICE".

These words mean:

⚠ CAUTION

A potentially hazardous situation that may result in minor or moderate injury.

⚠ DANGER

An imminently hazardous situation that will result in death or serious injury.

⚠ WARNING

A potentially hazardous situation that could result in death or serious injury and/or damage to property.

⚠ NOTICE

Attention is called to observe a specified procedure or maintain a specific condition.

CATALOGS

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Important Safety Information: Read All Instructions Before Using

Be sure to read and fully understand the entire Use and Care Manual before attempting to install or operate this water heater. Doing so may save you time and money. Pay particular attention to the Safety Instructions. Failure to follow these warnings could result in serious injury or death. If you have difficulty understanding the instructions in this manual or have any questions, STOP and seek assistance from a qualified service technician or your local gas utility.



⚠ DANGER

Proper Installation of the Water Heater

Failure to properly install the water heater outdoors as outlined in the Installation Instructions in this manual can result in unsafe operation. To avoid the risk of fire, explosion, or asphyxiation from carbon monoxide, never operate this water heater unless it is installed correctly and has an adequate air supply for safe operation.

⚠ WARNING

Gasoline, along with other flammable materials and liquids (such as adhesives, solvents, paint thinners, etc.), and the vapors they produce, are extremely dangerous. Do NOT handle, use, or store gasoline or any other flammable or combustible materials near the water heater or any other appliance. Be sure to read and follow the labels on the water heater, as well as the warnings in this manual. Failure to do so can result in property damage, bodily injury, or death.

Vapors from flammable liquids can explode and ignite, causing death or severe burns.

Do not use or store flammable products, such as gasoline, solvents, or adhesives, in the same room or area as the water heater.

Keep flammable products:

1. Far away from the heater
2. In approved containers
3. Tightly closed
4. Out of children's reach

The water heater has a main burner flame. The main burner flame:

1. Can come on at any time and any where
2. Will ignite flammable vapors

Vapors:

1. Cannot be seen
2. Are heavier than air
3. Go a long way on the floor
4. Can be carried from other rooms to the main burner flame by air currents

Installation:

Do not install the water heater where flammable products will be stored or used unless the main burner flame is at least 18 inches above the floor. This will reduce, but not eliminate, the risk of vapors being ignited by the main burner flame.

Read and follow the water heater warnings and instructions. If the owner's manual is missing, contact the retailer or manufacturer.

⚠ DANGER

Liquefied Petroleum Gas Models

- Propane gas has an odorant added to help detect gas leaks. Some people may not physically be able to smell or recognize this odorant. If you are unsure or unfamiliar with the smell of propane gas, 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. Always check for leaks using a commercial leak detector or soapy water.
- Gas detectors are recommended for propane gas applications, and their installation should be in accordance with the detector manufacturer's recommendations and/or local laws, rules, regulations, or customs.
- To avoid possible equipment damage, personal injury, or fire, do not connect the water heater to a fuel type that does not match the specifications on the portable tankless water heater data plate. These portable tankless water heaters are designed only for propane gas and are not certified for any other fuel type.
- Propane appliances should not be installed in an unventilated place (for example, in a basement) if such installation is prohibited by federal, state, and/or local laws, rules, regulations, or customs.
- Propane 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, always check for gas leaks by looking and smelling for gas. Use a soapy solution to check all gas fittings and connections. Bubbling at a connection indicates a leak that must be corrected. When checking for gas leaks by smell, be sure to sniff near the floor as well.
- It is recommended to use multiple methods, such as a soapy solution and gas detectors, to detect leaks in gas applications.

Notice: If a gas leak is present or suspected:

- **DO NOT attempt to locate the source of the leak yourself.**
- **DO NOT attempt to ignite the water heater.**
- **DO NOT operate any electrical switches or devices.**

⚠ WARNING

California Proposition 65:

This appliance contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

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

⚠ WARNING

1. Do not leave the water heater unattended.
2. The exhaust gas and the top of the portable tankless water heater are HOT! Do not place hands or any foreign objects near the top of the heater.
3. This water heater is intended for use with non-potable water (such as for a portable shower). Do not connect it to potable water, as it poses health risks if used for heating water for human consumption.
4. This water heater is for point-of-use applications (dishwashing, washing, showering, etc.) and for temporary water heating. It is not designed for permanent inlet water connections or water distribution systems supplying multiple outlets. It is not suitable for drinking or cooking.
5. Do not use in high wind conditions.
6. If the smell of gas is detected, turn off the gas valve at the cylinder immediately! Do not use a flame to detect leaks.
7. Use only propane gas.
8. Use only outdoors.
9. The minimum environmental temperature for safe storage and operation must be above 32°F. Operating below this temperature may damage the water heater and create dangerous conditions.
10. **ONLY USE IN OUTDOOR AREAS. CARBON MONOXIDE HAZARD: USING THIS APPLIANCE IN AN ENCLOSED SPACE CAN CAUSE DEATH. DO NOT USE IN CARAVANS, TENTS, MARINE CRAFT, CARS, MOBILE HOMES, OR SIMILAR LOCATIONS.**

Intended Purpose and Benefits of the Ranein

The Ranein tankless water heater is a propane gas-fired, portable, tankless water heater capable of delivering 0.44 to 1.58 gallons of hot water almost anywhere. The portable water heater features standard 5/8"-18UNF NPT pipe fittings and includes an adapter for connecting a standard garden hose for the inlet water supply.

Gas should be supplied from a maximum 20lb propane cylinder (not included). A CSA-certified regulator and hose are included with the appliance.

A shower head with an on/off switch and multiple spray patterns is also included. Ignition is automatic, powered by two size D batteries (not included). The burner will ignite when water is flowing and will shut off when the water flow stops. There is no pilot light!

The ideal operating water pressure is between 10-110 PSI (70-760 kPa).

Product Breakdown & Features

- **Water-Controlled Automatic Ignition:** The ignition circuit is activated when water pressure is between 10-110 PSI (70-760 kPa), ensuring easy and convenient

operation.

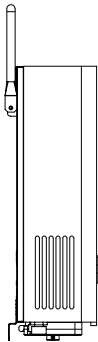
- **Auto Cut-Off Protection:** In the event of flameout, the auto cut-off protection immediately shuts off the gas supply, reducing the risk of gas leakage.
- **Removable Drain Plug:** The removable drain plug helps avoid damage to the water pipe and regulator caused by freezing water*.
- **Anti-Dry Combustion Protection:** The portable tankless water heater will automatically shut off the gas supply if water stops flowing through the unit.

*Be sure to read the maintenance section on draining the portable tankless water heater entirely to prevent freeze-related issues.

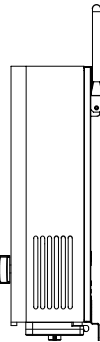
Technical Specifications

| | | | |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------|
| Fuel Type | Propane Gas | Model | RO4K-Y |
| Btu/hr | 41000 | Colour | Frosted gray |
| Dimensions | 14.7"x11.4"x4.6" | | |
| Max Water Pressure | 110.0PSI/760kPa | Inlet Gas Pressure | 11"w.c.(2.74kPa) |
| Ignition | Electric pulse,size D battery powered (No electrical connection required) | | |
| Protections | Auto-cut off water control,automatic ignition, anti-dry combustion protection,over-pressure overheating and flameout protection. | | |
| Pipe Fittings | 1/2"BSP for gas inlet,water inlet and water outlet | | |

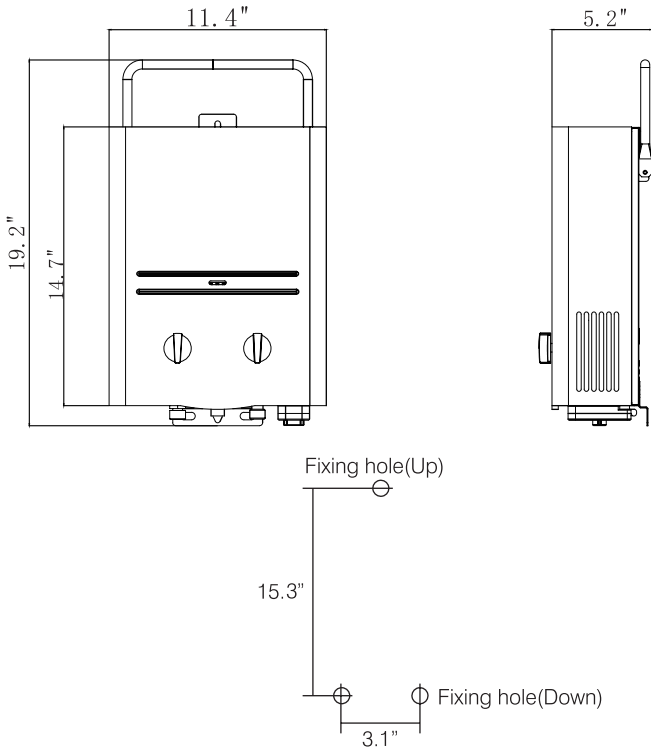
Left side



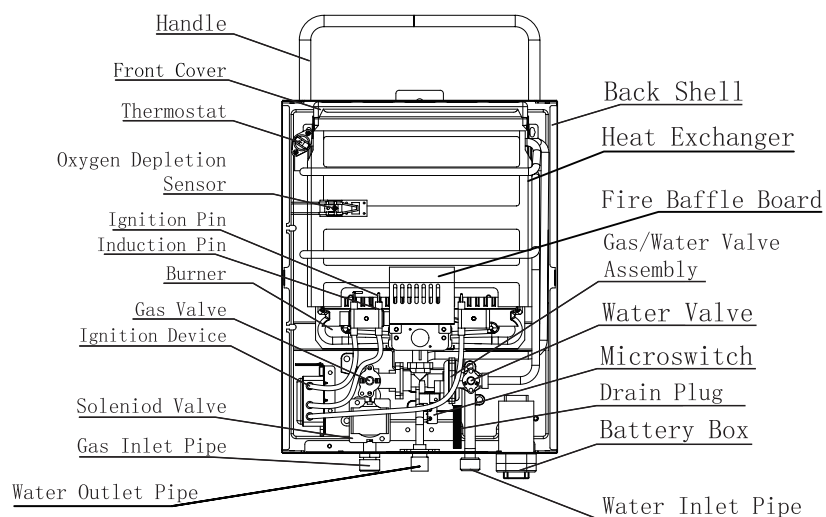
Right side



Product Dimensions



Construction & Components



For parts replacement, please find below for obtaining replacement parts.

Parts Replacement

Parts Ordering

⚠ WARNING

For your safety, DO NOT attempt to disassemble, repair, or replace any portion of this unit.

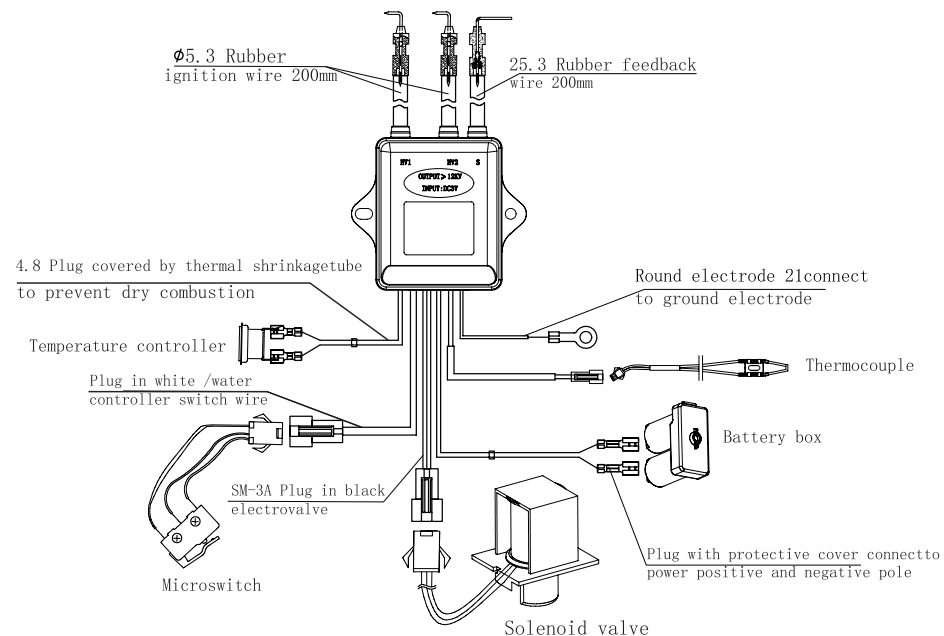
Refer all repairs, service, and/or adjustments to a qualified serviceman. Address all parts orders to the distributor or manufacturer where the water heater was purchased. All parts orders should include:

1. The model and serial number of the water heater from the rating plate.
2. A description of the part (as shown above).

⚠ CAUTION

Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

THIS CONNECTION IS FOR LOW-VOLTAGE BATTERY ONLY. DO NOT CONNECT TO 120 OR 240 VOLTS AC.



Getting Started

1. Check the carton box for damage. Damages caused during shipment must be reported immediately. Please contact us on our support page at www.ranein.net.
2. Make sure you have all the parts.
3. If using a standard garden hose, attach the 3/4" GHT garden hose adapter to:

⚠ NOTICE

Included parts and accessories may vary depending on the country and regulations. (Please refer to the alphabetical letter below on page 12 to ensure all items are included.)

- Ranein outdoor portable tankless gas water heater
 - ON/OFF switch shower head with 5 feet gray hose and black snap-on connector
 - CSA-certified gas regulator with 5 feet hose
 - Gas compression fitting (fixed to gas inlet already)
 - 1/2" BSP female × 3/4" GHT male, 1/2" BSP female × 3/4" GHT female garden hose adapter
 - Hardware pack
- Check the fitting marked "Water Inlet." Ensure the filter inside the water inlet is in place and clean. Then, attach your water inlet/garden hose.
4. To prevent gas leakage, the gas regulator is pre-installed from the factory. You can connect the gas supply line directly to the portable tankless water heater. Always remove and reinstall the gas regulator with a wrench if necessary. DO NOT OVER-TIGHTEN. OVER-TIGHTENING MAY CRACK THE GAS REGULATOR, CAUSING A GAS LEAK. Check for gas leakage before operation.
 5. Attach the shower hose to the fitting marked "Water Outlet." Do not over-tighten.
 6. Install two size D batteries in the compartment on the bottom left of the heater. Check that the batteries are facing the correct direction.
 7. Use the top tab on the portable tankless water heater to suspend it from a mounted screw. Place it at a comfortable height without putting stress on the gas hose.
 8. Connect the gas regulator and gas inlet brass fitting with wrenches, applying torque between 20-28 N/m.
 9. In accordance with the specifications for LP gas cylinders from the U.S. Department of Transportation (DOT) or the Standard for Cylinders, Spheres, and Tubes for the Transportation of Dangerous Goods and Commission (CAN/CSA B339), as applicable.
 10. Place the dust cap on the cylinder valve outlet whenever the cylinder is not in use.

Only LP gas supply cylinders to be used must be:

- Constructed and marked in accordance with the specifications for LP gas cylinders of the Tubes for Transportation of Dangerous Goods and Commission (CAN/CSA B339), as applicable.
- Provided with a listed overfilling prevention device.
- Provided with a cylinder connection device compatible with the connection.

Install the type of dust cap on the cylinder valve outlet that is provided with the cylinder valve. Other types of caps or plugs may result in propane leakage.

11. With low discharge frequency, exhaust gas will mix with the air in the combustion chamber when the battery voltage from the unit is low. The water heater will make a loud combustion sound and produce a yellow flame once the mixed gas in the combustion chamber is ignited.

NEVER use a returned or defective unit. Please contact Ranein for a brand new replacement. We provide a 48-hour turnaround for defective units at no cost and a 1-year warranty for all Ranein products. For any questions, repairs, or parts replacements, please contact us with your order and address information at service@ranein.net.

LEAVE THE GAS CYLINDER VALVE IN THE "OFF" POSITION.









⚠ WARNING

GAS HOSE ADAPTER

THE Ranein PORTABLE TANKLESS WATER HEATERS HAVE 5/8"-18UNF ADAPTER ALREADY ATTACHED TO THE GAS INLET ON THE WATER HEATER.

ALWAYS CHECK FOR GAS LEAKS BEFORE USING HEATER.

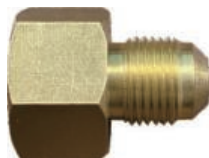
In The Box

| Item | Description | Identification | Quantity |
|------|---------------------------------------------------|---------------------------------------------------------------------------------------|----------|
| A | Ranein outdoor portable tankless gas water heater |  | 1 piece |
| B | Shower head |  | 1 set |
| C | Gas regulator with 5 feet hose |  | 1 set |
| D | 3/4" NPT Female to 1/2" NPT Female Thread |  | 1 set |
| E | 1/2" BSP female × 5/8" GHT male |  | 1 piece |
| F | Hardware pack |  | 1 set |
| G | Hanging panel |  | 1 set |
| H | chain |  | 1 set |

Installation Instructions

How to Use the Garden Hose

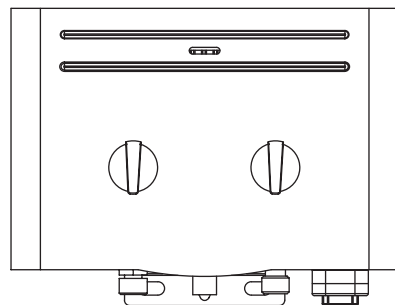
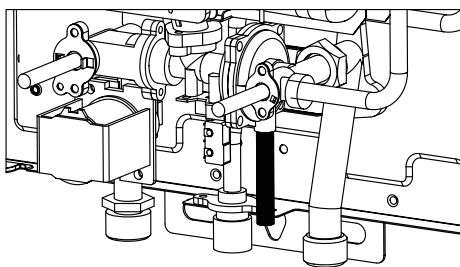
1. Garden Hose



1/2" BSP female x 5/8" GHT male

⚠ NOTICE

MAKE SURE TO PUT THE RUBBER GASKET IN ALL FITTINGS BEFORE CONNECTION.

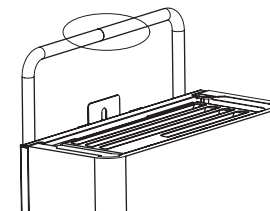
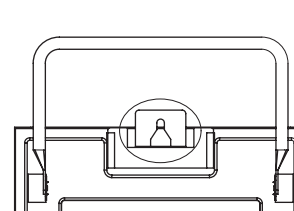


2. Preparation

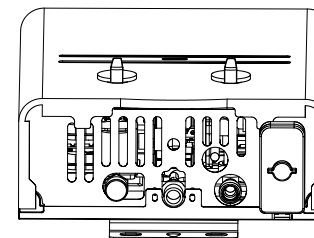
ONLY USE IN OUTDOOR AREAS. CARBON MONOXIDE HAZARD — USING THIS APPLIANCE IN AN ENCLOSED SPACE CAN CAUSE DEATH. DO NOT USE NEAR CARAVANS, TENTS, MARINE CRAFT, CARS, MOBILE HOMES, OR SIMILAR LOCATIONS.

- Use the appliance only with LP (propane) gas and the regulator valve assembly supplied.
- Installation must conform to local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA 54, or the Propane Installation Code, CSA B149.1, or the Propane Storage and Handling Code, CSA B149.2.
- Reinforcement of the wall is required where the wall should be strong enough to hold the water heater. The mounting location for the water heater should allow for easy access and operation.

- Take the appliance out of the carton box and remove the foam and plastic bag. Position the upper mounting bracket and partially install the center mounting screw. Hang the upper bracket on the screw or temporarily hang it by the handle.



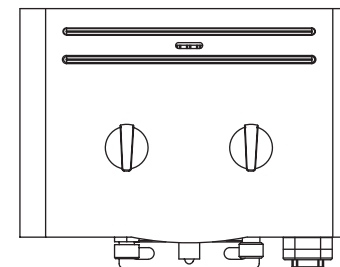
- Install 2 size D batteries (NOT included) in the battery box at the bottom of the appliance. Check that the batteries are facing the correct direction.



- Use shifting wrenches to attach the supplied gas regulator (with brass connector already attached) to the appliance. Connect it to the bottom of the appliance marked "Gas Inlet." Do not over-tighten. Over-tightening may cause a gas leak! Ensure that you use the supplied washers on all connectors and check for any gas smell. Please connect with torque force between 20-28 N/m.

Before ignition, as per instructions, make sure the gas inlet connector and water inlet connector are screwed all the way in.

Tighten the fittings with wrenches on both the brass adapter fitting on the appliance and the brass connector at the end of the hose.



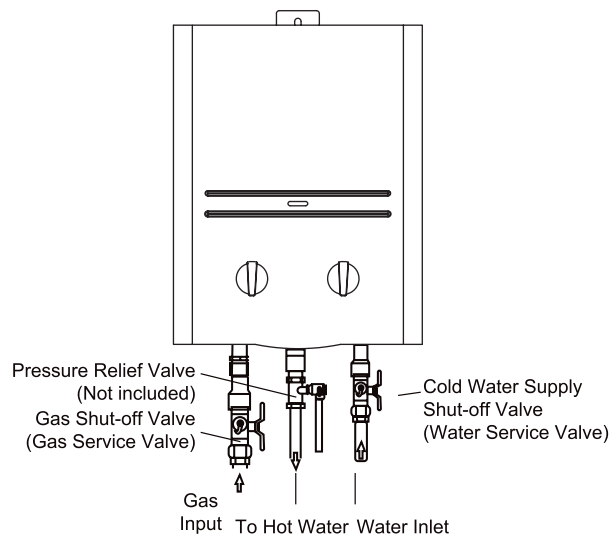
- Attach the water output device (showerhead) to the fitting marked "Water Outlet." DO NOT OVERTIGHTEN! Make sure to insert the supplied rubber gasket at the connections. Tighten by hand only.
- Only use the gas regulator and hose supplied with this appliance.
- A new pressure relief valve, complying with the standard for relief valves and automatic gas shut-off devices for hot water supply systems (ANSI Z21.22/CSA 4.4), must be installed at the hot water outlet connection of the water heater during installation. Local codes shall govern the installation of any relief valve. The relief valve is NOT included with the gas water heater.

Water Supply Installation

1. Install a COLD water shut-off valve near the inlet line on the water heater. This valve will be used for servicing and draining purposes.
2. Before attaching the water line to the water heater, open the shut-off valve and run the water until all contaminants (sand, debris, air, caulking, etc.) are purged.
3. Install a service valve at the end of the COLD water supply line and connect it to the water inlet on the water heater.
4. Open the shut-off valve in the COLD water inlet line to check the water flow through the water heater.

⚠ WARNING

If overheating occurs or the gas supply fails to shut off, turn off the manual gas control valve to the appliance.



- Place at a comfortable height without putting stress on the gas hose.
- Before opening the LP cylinder valve, check the coupling nut for tightness. When the appliance is not in use, turn off the LP cylinder valve on the supply cylinder.
- Never use an LP cylinder if it is visibly rusted, damaged, or out of date.
- Clean and inspect the hose before each use of the appliance. If there is evidence of abrasion, wear, cuts, or leaks, the hose must be replaced before operating the appliance.

⚠ WARNING

THE PORTABLE TANKLESS WATER HEATER IS CAPABLE OF PRODUCING SCALDING WATER TEMPERATURES! USE CAUTION!

Connecting, Disconnecting From Gas Cylinder And Storage

This appliance shall only be connected to a 20 lb LP-gas cylinder with a POL cylinder valve certified to CAN/CSA-B339. The cylinder must conform to the specifications for Cylinders, Spheres, and Tubes for the Transportation of Dangerous Goods (CSA B339).

Compatible Cylinder Sizes:

- Size 1: Ø12 5/16" × H17 5/16"
- Size 2: Ø11 13/16" × H17 7/16"

Always use the cylinder in an upright position for vapor withdrawal. Connect the certified gas regulator (QCC-1) to the LP gas supply cylinder by hand. Use a wrench to connect the regulator hose to the gas inlet fitting on the appliance.



Connecting to Cylinder:
Connect the gas regulator to the gas cylinder, tightening it using the two-finger support posts.



Disconnecting from Cylinder:
Disconnect the gas regulator from the gas cylinder by loosening it using the two-finger support posts.

Please inspect the hose before each use of the appliance. If there is evidence of excessive abrasion, wear, or cuts, the hose must be replaced before operating the appliance. The replacement hose assembly must be the one specified by the manufacturer.

⚠ WARNING

Never use an open flame to test for gas leaks, as this can result in death, personal injury, and/or property damage. The water heater and its gas connections **MUST** be leak tested at normal operating pressures before the unit is placed in operation.

Turn on the gas shut-off valve to the water heater. Use a soapy water solution to test for leaks at all the connections and fittings. If bubbles appear, it indicates a gas leak that must be corrected. Contact a qualified service technician.

The gas must be turned off at the LP gas supply cylinder when the water heater is not in use.

When the LP gas supply cylinder is not disconnected from the water heater, both the water heater and the cylinder must be stored outdoors, in a well-ventilated space, and out of the reach of children. Do not store them in a building, garage, or any other enclosed area.

Storage of the water heater indoors is permissible only if the cylinder is disconnected and removed from the water 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.

⚠ NOTICE

Should overheating occur or the gas supply fail to shut off, turn off the manual gas control valve to the water heater.

- Do not store a spare LP gas cylinder under or near this appliance.
- Never fill the cylinder beyond 80 percent full.
- If the information in A and B above is not followed exactly, it could result in a fire, causing serious injury or death.

Before Going To The Use Section

Check the area for flammable materials, especially gasoline or other vapors that may ignite. The exhaust and top of the portable tankless water heater will get **HOT!**

Ensure there are no foreign objects around the portable tankless water heater or that have fallen onto the top.

Use And Starting

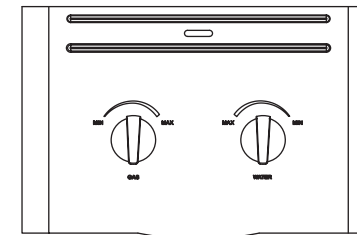
⚠ WARNING

This model is intended for recreational and portable use only. This model **CANNOT** be permanently mounted or plumbed in any way.

The water heater must not be exposed to flammable vapors or liquids during operation.

1. Turn on the incoming water supply. Ensure that you have adequate water pressure between 10-110 PSI (70-760 kPa) for ideal operation.
2. Turn your water output device to its "off" position.
3. Turn the gas valve on the cylinder all the way open.
4. IF THE SMELL OF GAS IS DETECTED, TURN OFF THE GAS VALVE IMMEDIATELY!
5. Set the water control knob on the right to Maximum
6. Set the gas control knob on the left to Minimum.

Gas flow adjustment knob
("Min" position is lowest
temperature)

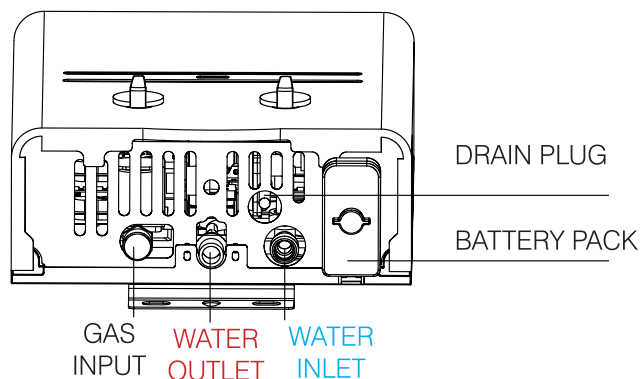


Water flow adjustment
knob("MAX" position is
maximum flow)

7. Turn on your water output device to the "on" position and adjust to the desired water flow.
8. There will be a series of audible clicks, and the burner will ignite. Please note: The water heater must not be exposed to flammable vapors or liquids during ignition. If the burner does not ignite after 5 seconds, turn off the unit and refer to the "Troubleshooting" section.
9. Upon completion of use or storage, open the drain valve (the ribbed cylindrical stem next to the water input valve) to ensure complete drainage of water.
10. Turn off your gas supply.

⚠ WARNING

If the outside temperature is around or below freezing (32°F / 0°C), ensure that the drain plug is opened and water is drained from the portable tankless water heater after each use to avoid internal damage to the heat exchanger. 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 portable tankless water heater will cause water damage, which may or may not be repairable.



Before Operating the Drain Plug, Ensure the Following:

1. Ensure that the water heater is disconnected from the gas supply.
2. Ensure that the water heater is disconnected from the water supply (turn off the cold water inlet switch).
3. Turn the shower switch to "ON".
4. Ensure that the shower hose is disconnected from the water heater.

Adjustment:

The temperature of the outgoing water depends on the temperature of the incoming water, balanced with the amount of heat applied. Use extreme caution when setting the outlet water temperature.

1. With the water knob set to Max, and the gas knob set to Min, feel the outgoing water. This is the lowest setting available.
2. To raise the outgoing temperature initially, 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.

Common Issues With Solutions

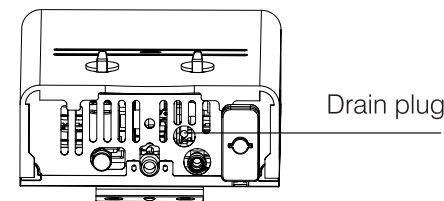
| Issue | Indication | Solution |
|-------------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Water pressure too high | If water pressure is over 110 PSI/760kPa, the water-out valve will release water and lower the pressure | Increase the valve pressure limit according to local water supply pressure |
| Water pressure too low | If water pressure is below 3.6 PSI/25kPa, the water heater cannot be ignited | Use the water heater later when pressure becomes higher |
| Low battery | The power of battery will become less after use for some time, thus the water heater cannot be ignited | Change Batteries |
| Over heat protection | Water heater automatically shuts off when water temperature is 176°F (80°C) | Re-start water heater later when water becomes cooler |

Please Protect Your Water Heater from Freeze Damage!

During periods of non-use, when the temperature inside and outside the water heater is the same, the water will expand when the temperature reaches 32°F (0°C), potentially causing the water pipe to break. This is a normal phenomenon and not a quality issue. To prevent freeze damage, open the drain plug to drain any residual water from the water heater, and then screw it tightly if the environment where the water heater is installed drops below 32°F (0°C). This will help protect the water heater from cold damage.

⚠ WARNING

To drain the residual water completely, please keep the water heater in a vertical position while draining the water.



Care and Maintenance

Properly maintaining your water heater will ensure years of dependable, trouble-free service. It is recommended that a periodic inspection of the burner and top exhaust be carried out by service personnel qualified in gas appliances.

Repairs may be necessary if any components have come loose or are no longer connected. It is suggested that a routine preventive maintenance program be established and followed by the user.

*It is recommended to perform maintenance once a year.

Inspect the area around the water heater to ensure a safe operating environment.

Keep the area around the water heater clear and free from combustible materials, gasoline,

and other flammable vapors and liquids. Do not obstruct the flow of combustion and ventilation air. Ensure the unit has not been damaged. If any damage or denting is present, contact a service technician to verify proper operation.

Check for any abnormal sounds during normal operation of the water heater.

Check the burner flames through the visible flame window to ensure proper combustion during the operation of the water heater:

1. Burner with pure blue flame: Indicates proper ventilation and adequate combustion.
2. Burner with yellow/red flame: Indicates insufficient combustion, inadequate air intake, or a blockage at the appliance bottom.
3. Burner with a lift-flame: Indicates over gas pressure or high wind conditions.
4. Max gas but small flame: Indicates insufficient gas pressure.

Check all piping for gas and/or water leaks. Refer to page 5 of this manual for instructions on leak testing.

Clean the air intake monthly. To clean the panel surface, dust it off and use a kitchen cleaner when it feels dirty.

DO NOT operate the water heater if you feel something is wrong with the unit.

DO NOT allow children to operate or otherwise handle the unit.

DANGER

Before disconnecting the water supply, make sure no one will be exposed to the danger of hot water being released.

The water may be hot enough to create a scald hazard. The water should be directed into a suitable drain to prevent injury or property damage.

DANGER

Hotter water increases the risk of hot water scalds.

DANGER

Failure to perform the recommended routine preventive maintenance can affect the proper operation of the water heater, potentially leading to carbon monoxide hazards, excessive hot water temperatures, and other dangerous conditions.

If You Need Service

For all questions, adjustments, repairs, or replacement of spare parts, please contact us at:

Email: service@ranein.net

Troubleshooting

Portable tankless water heater will not start – there are no audible clicks at startup:

1. Ensure the incoming water is connected to the "right" side of the portable tankless water heater. If the incoming and outgoing connections are reversed, the heater will not work. The incoming water should be on the far right, and the outgoing is in the middle.
2. Make sure the batteries are fresh and properly installed in the correct position.
3. A common cause of ignition failure is insufficient water pressure. You need a minimum of 3.6 PSI (25 kPa), sustained. Municipal water typically provides enough pressure.

Adjustment:

1. Debris or epoxy may have entered the water inlet pipe. Check to ensure the filter screen on the water inlet is clear. You can also reverse the hookup by connecting the water source to the water outlet side and backflushing the system.
2. New propane cylinders, especially after the first filling, may be contaminated with air. Cycle the portable tankless water heater by turning off and on your output flow. If the heater fails to ignite or stay lit after 10 cycles, please contact us at:
Email: service@ranein.net.

Portable tankless water heater starts, then shuts off:

1. The portable tankless water heater requires a minimum flow rate of about 0.44 gallons per minute (1.5 liters) and a minimum water pressure of about 3.6 PSI (25 kPa).
Note: Water pressure is at the lower end of the operating parameters. For adequate use, you will need a sustained water pressure of approximately 35-65 PSI (240-450 kPa) if you are using a 12/18/120-volt pump.
2. Propane gas can sometimes be contaminated with air, especially in new tanks after their first filling. Cycle the portable tankless water heater on and off by using the showerhead switch several times to purge the air from the gas line. If this doesn't clear the air, the tank must be purged.
3. Check if any of the ignition sensors are bent or too close to the burner. Ensure the ignition pins and the heat sensor are completely vertical and positioned at a 90-degree angle to the back of the box. If they are not straight (e.g., at a 45-degree angle), use pliers to straighten them.
4. The thermocouple might be too high or too low to complete the circuit. Ensure the thermocouple is flush with the hole in the heat exchanger.

5. The gas sensor wire (which looks like a black ground wire on the gas regulator) flange might have come loose or is no longer connected.
6. Ensure the valve on the propane tank is fully open.
7. Fresh batteries are required for the ignition spark. Make sure the batteries are aligned with the proper polarity (+/-).

The water does not get hot enough:

1. You are operating the portable tankless water heater above 2,000 feet (600 meters). We only recommend using it below elevations of 2,000 feet.
2. Look through the viewer panes (middle horizontal windows on the front cover) to see if there is a blue flame. If the flame is yellow, there may be a cracked gas regulator. Do not attempt to use the portable tankless water heater.

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

1. Ensure that the incoming and outgoing water supplies are connected properly. Your water supply should be attached to the incoming connection (located on the far right), and the showerhead should be attached to the outgoing water connection (middle connection).
2. Ensure that you have a sustained water pressure of at least 3.6 PSI (25 kPa) for proper operation.
3. Ensure that you have adequate gas in your propane bottle and that the LP regulator is fully threaded onto the portable tankless water heater.
4. Fresh batteries are required for the ignition spark. Make sure the batteries are installed correctly, following the proper polarity (+/-).

The portable tankless water heater does nothing:

1. Ensure that your water source is properly connected to the water inlet side (far right connection) and that the shower handle is connected to the water outlet side (middle connection).
2. Ensure that you have an adequate supply of propane.
3. Ensure that you have fresh batteries installed correctly.

Ranein – Enjoy Outdoor Life!

Limited Warranty Information

Ranein hereby warrants that this product will be free from defects in material and workmanship when installed and operated in accordance with Ranein's installation and operating instructions. This limited warranty applies to the original purchaser and subsequent owners, and no other warranties, express or implied, are provided except those stated in this limited warranty. No agent, employee, or representative of Ranein has the authority to bind Ranein to any representations or warranties regarding the product that are not included in this limited warranty. No agent, employee, or representative of Ranein has the authority to bind Ranein to any representations or warranties regarding the product that are not included in this limited warranty.

Except as expressly set forth herein, THERE ARE NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ANY GOODS SOLD HEREUNDER. THE BUYER'S EXCLUSIVE REMEDY IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE PRODUCT, AT RANEIN'S DISCRETION. RANEIN SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Item Period of Coverage

Heat Exchanger 1 Year

All Other Parts 1 Year

Free Accessories (Showerhead, hose, regulator, etc.) 30 Days

Coverage is void if the unit is used in a hot water circulation loop, installed in series with a circulation system, or if an on-demand recirculation system is not incorporated.

The owner is responsible for all other costs incidental to repair, including labor, shipping, delivery, and permits. Proof of purchase is required. Products repaired under this Limited Warranty will be covered for the remainder of the original warranty period.

This Limited Warranty becomes null and void if any of the following conditions are found to be a contributing factor to product failure:

1. Abuse, misuse, alteration, neglect, or misapplication;
2. Improper or inadequate maintenance;
3. Inadequate water quality;
4. Installation in a corrosive or otherwise destructive environment;
5. Freeze damage;
6. Scale buildup;
7. Incorrect gas or water pressure;

8. Acts of force majeure (e.g., natural disasters, fires, or other uncontrollable events)

This product is not intended for use as a pool or spa heater.

Shipping Policy for Warranty-Related Issues Within the first 30 days of purchase, Ranein will cover all ground shipping costs for warranty-related issues, excluding Alaska (AK), Hawaii (HI), Canada, and any locations outside the continental U.S. After the first 30 days of purchase, Ranein will cover all shipping costs to the customer for warranty-related issues, excluding AK, HI, Canada, and any locations outside the continental U.S. After the first 30 days of purchase, the customer is responsible for all shipping costs to Ranein, regardless of reason or circumstance. Shipping will be via ground equivalent with a provider of Ranein's choosing.

Customers in AK, HI, Canada, and locations outside the continental U.S. are responsible for all shipping costs, regardless of reason or circumstance.

Return Goods Authorization (RGA) Requirement All products being shipped to Ranein for any reason must have a Return Goods Authorization (RGA) number issued before shipping. Failure to obtain an RGA number before shipping may result in loss of the product. Ranein is not responsible for replacement due to loss or damage if these steps are not properly followed.

To request an RGA number, please contact Ranein before shipping your product.