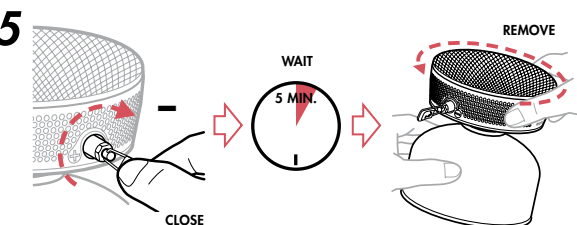
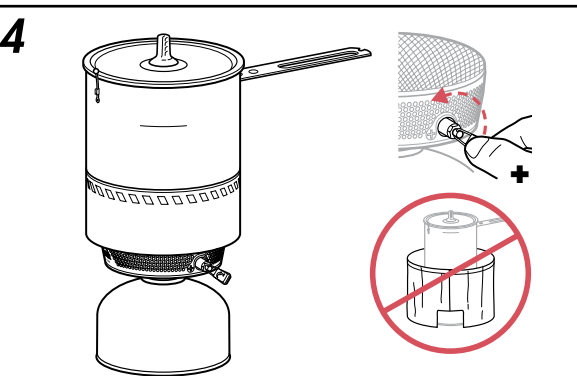
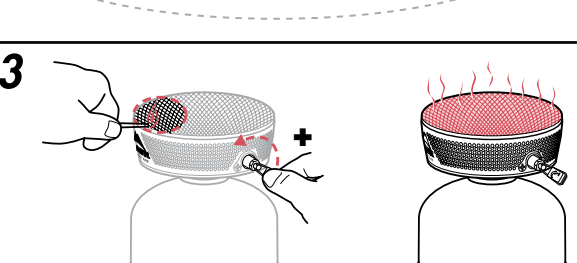
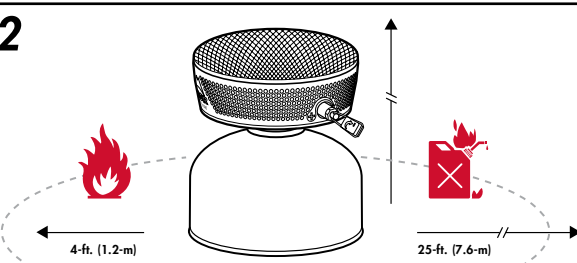
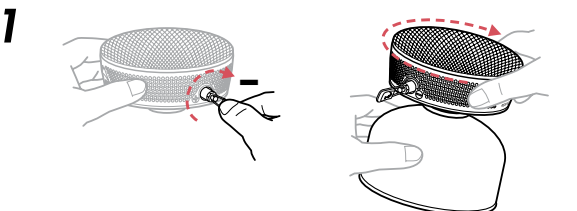
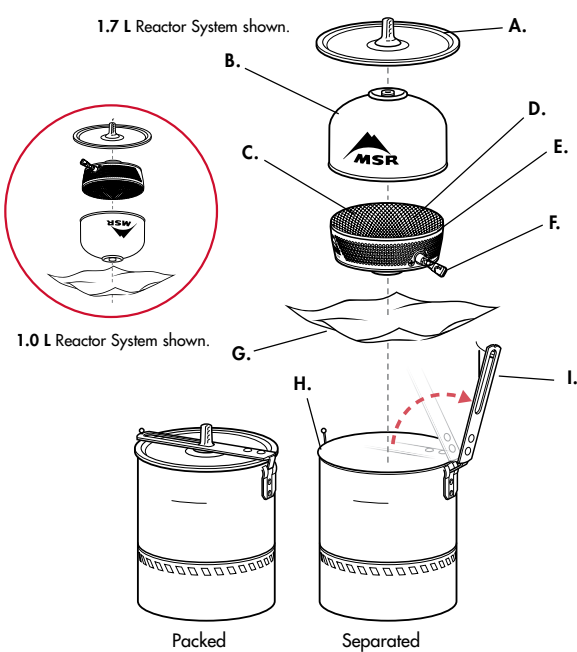


# INSTRUCTION MANUAL



## REACTOR® 1.0, 1.7 & 2.5 L STOVE SYSTEMS

Retain these instructions for future reference.



**Nominal Heat Input Rate:**  
 9,000 BTU/h.

**Nominal Heat Input Rate:**  
 2.52 kW  
 203 g/h.

Stove Orifice Size: 0.27 mm [2]  
 NOTE: Nominal Heat Input Rate varies depending on test procedures of the particular standards agency.

**⚠ DANGER**



**FOR OUTDOOR USE ONLY**

**CARBON MONOXIDE HAZARD**

**This stove can produce carbon monoxide, which has no odor.**

**Using it in an enclosed space can kill you.**

**Never use this stove in an enclosed space such as a camper, tent, vestibule, car, or home.**

**FIRE OR EXPLOSION HAZARD**

**If you smell gas:**

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

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

**FOR YOUR SAFETY**

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



**CARBON MONOXIDE, FIRE, EXPLOSION HAZARD**

There are serious hazards associated with using this stove and fuel. Accidental fire, explosion, and misuse can cause death, serious burns, and property damage. You are responsible for your own safety and the safety of those in your group. Please use good judgment and read these instructions for use carefully. Familiarize yourself with the stove before connecting it to its gas container. Keep these instructions for future reference.

**⚠ DANGER** This stove is a lightweight, compact device made for OUTDOOR USE ONLY to boil water or cook food. Never use it for any other purpose. Use of stove within any enclosure, or for a purpose other than boiling water or cooking food can cause fire, burns, severe injury or death. Cooking outdoors is more hazardous than cooking as you normally would at home. Please consult with your local outdoor retailer to learn more about cooking outdoors. Seek qualified instruction before you venture outdoors. This stove uses a liquid pressurized gas (LPG) container that is highly flammable and explosive. This stove shall only be used with an 80% isobutane / 20% propane gas cartridge certified to EN 417. It may be hazardous to attempt to fit other types of gas containers. Follow this safety information:

- Check that the seals between the stove and the gas container are in place and in good condition before connecting the stove to the cylinder. Do not use this stove if it has damaged or worn seals.
- Gas containers must be changed in a well ventilated location outside and away from any sources of ignition, such as naked flames, pilot lights, electric fires and away from other people.
- Listen and smell for leaking gas. Leaking gas is a serious hazard. LPG is invisible and odorless, and strong odorant additives can fade over time. Leaks are not always detectable by smell. Do not use this stove if it is leaking, damaged, or does not operate properly.
- Check that the stove and fuel container connection is secure and tight. If the connection does not look or feel secure, or if you hear or smell leaking gas and cannot stop the flow of gas, do not use stove or fuel container. Move it to a well-ventilated area away from any ignition source to locate and stop the leak.
- Check for leaks using soapy water. Do not try to detect leaks using a flame. Use of a leaking stove can cause fire, burns, severe injury or death.
- Never use fuel canisters that weigh more than 8 oz. (227 g) and never use canisters more than 4 inches (~10 cm) high, because oversized canisters increase stove instability.
- Use MSR canister stand when using canisters with a diameter less than 4 inches (~10 cm).
- Keep stove and fuel container away from other heat sources. Never use any kind of windscreen. If you expose the fuel container to high heat, it will explode or leak and you can be killed or seriously burned.
- Follow all warnings on fuel container regarding use and storage. Canister can be checked for remaining fuel by assembling and attempting to light stove.
- Do not store or use gasoline or other liquids with flammable vapors in the vicinity of this or any other stove.
- Do not disassemble stove beyond what is described in these instructions. DO NOT MODIFY THIS STOVE. Disassembly or modification of stove in any manner not consistent with these instructions voids warranty and can result in an unsafe situation where fire, burns, severe injury or death can occur. No user-serviceable parts.
- Do not use stove if parts are missing or broken, or with replacement parts not specific to your stove model. Use of stove with missing or broken parts, or with replacement parts not specific to your stove model, can result in an unsafe situation where fire, burns, severe injury or death can occur.
- Because of the compact nature of the Reactor® stove system and its resulting height, the Reactor stove system may tip more easily than stove systems of lesser height. To mitigate tipping: (1) use stove only with Reactor cookware, (2) never leave the stove unattended, (3) keep children and pets far away from stove, (4) always use stove on a solid, stable and even surface, and (5) never use stove in a manner inconsistent with these instructions or contrary to its intended use. Tipping of the Reactor stove system can result in an unsafe situation where fire, burns, severe injury or death can occur.

**⚠ DANGER** Do not use this stove: (1) before reading and fully understanding this Instruction Manual; (2) if you are not prepared or comfortable attending to a burning and/or hot stove at all times; (3) if you observe leaking fuel; or (4) if you observe any condition with the stove system or in the surrounding environment that would make operation of an open flamed device dangerous. Failure to follow these directions can cause an unsafe situation leading to fire, burns, severe injury or death.

### THERMAL TRIP MECHANISM

The Reactor® stove is designed with an internal Thermal Trip mechanism, which will shut the stove off if it becomes overheated. Overheating may result from the use of non-Reactor cookware, storage above 120°F (49°C), damage to the burner unit, or improper lighting. If stove becomes inoperable, immediately discontinue use and return stove to an authorized MSR dealer.

### REACTOR® STOVE SYSTEM OPERATING INSTRUCTIONS

#### STOVE PARTS

- |                  |                  |                   |               |
|------------------|------------------|-------------------|---------------|
| A. Lid           | D. Burner Screen | F. Flame Adjuster | H. Pot        |
| B. Fuel Canister | E. Burner Rim    | G. PackTowl       | I. Pot Handle |
| C. Stove         |                  |                   |               |

**1. CONNECT STOVE AND CANISTER** 1. Close Flame Adjuster (F). Turn Flame Adjuster clockwise. 2. Finger-tighten stove onto top of the canister until connection is secure.

**⚠ DANGER** Never overtighten stove onto canister. Overtightening may damage stove or fuel canister, causing fuel to leak. Leaking fuel can cause fire, burns, severe injury or death.

Use extreme caution when using stove in temperatures below freezing. In freezing temperatures O-rings can stiffen and leak fuel. Always check for fuel leaks before and after lighting stove. Use of a leaking stove can cause fire, burns, severe injury or death.

Keep children away from stove and fuel. Cascade Designs, Inc. recommends no less than 10 feet (~3 meters). Never leave a burning or hot stove unattended. An unattended stove can lead to fire and/or a situation where children, pets, or the unwary can be burned, injured, or killed.

**2. STOVE SET UP** 1. Clear cooking area of combustible materials and flammable liquids or vapors. 2. Place stove assembly on a solid, stable, even surface. Use an MSR® canister stand when using small fuel canisters (dia. < 4 in./10.2 cm).

**⚠ DANGER** Keep combustibles at least 4 feet (1.2 meters) away from the top and sides of a burning stove, or a stove that you are in the process of lighting. Keep flammable liquids and vapors at least 25 feet (7.6 meters) away from the top and sides of a burning stove, or a stove that you are in the process of lighting. This stove can ignite nearby combustible materials, flammable liquid and vapors, creating a situation where fire, burns, severe injury, or death can result.

Never attempt to light stove if Flame Adjuster is left open. If Flame Adjuster is left open, close it immediately and thoroughly ventilate area before lighting stove. Failure to ventilate area can result in an explosion that can cause fire, burns, severe injury, or death.

**3. TURN STOVE ON** 1. Hold lit match or lighter over top of Burner Screen (D), directly above the MSR logo. 2. Open Flame Adjuster until fuel begins to flow. Turn Flame Adjuster counterclockwise about 3 full turns. 3. Confirm that stove has ignited. A blue flame may be visible. Stove will become RED HOT in 5 to 30 seconds, depending on wind and temperature. If fuel does not ignite within 10 seconds, close the Flame Adjuster, wait 15 seconds, and repeat substeps 1-3 above.

**⚠ DANGER** Carefully follow all instructions when attempting to light stove. Never attempt to light stove near the Flame Adjuster or with cookware in place. Attempting to light stove other than specified may cause stove to overheat, creating a situation where fire, burns, severe injury or death can result. This stove contains a device designed to protect the user against misuse. If the stove is misused, the device will activate, permanently shutting down the stove (see Thermal Trip Mechanism). If stove becomes inoperable, immediately discontinue use and return stove to an authorized MSR dealer. Never place your head or body above stove while lighting or cooking. Placement of head or body above stove is an unsafe practice that can cause fire, burns, severe injury or death.

**4. USE STOVE TO COOK** 1. Add food or liquid to Pot (H). Never exceed MAX. FILL (1.0 and 1.7 liter pots only). 2. Place Pot onto stove by aligning it with Burner Rim (E). 3. Turn Flame Adjuster to adjust heat.

**⚠ DANGER** Never move a burning or hot stove. Always extinguish stove and cool for at least 5 minutes before moving. Moving a burning or hot stove can cause fire, burns, severe injury or death. Never place and operate two or more stoves together. Never operate stove with empty or dry cookware. Never use non-Reactor cookware, reflectors, or diffusers. Misuse of stove can result in the fuel canister exploding and causing fire, burns, severe injury or death.

**5. TURN STOVE OFF, PACK UP SYSTEM** 1. Close Flame Adjuster Valve when done cooking. Turn clockwise about 2.5 turns until full stop. 2. After Burner Screen stops glowing, wait 5 minutes for stove to cool. 3. Move stove assembly away from any ignition sources and unscrew canister. A small amount of gas may escape when unscrewing stove. 4. Pack up system:

**Reactor 1.0 L:** Place PackTowl® towel (G) in bottom of Pot and then canister upside down, then stove upside down. Align Flame adjuster with pour spout.

**Reactor 1.7 L:** Wrap dry PackTowl around stove and place upright in bottom of Pot. Place upright canister on top. Place lid on Pot. Fold handle on top of lid.

**NOTE:** Ensure stove assembly is dry before long-term storage. Corrosion can occur when stored wet.

**⚠ DANGER** Always disconnect stove from fuel canister before storing. Failure to disconnect stove from canister before storing may cause fuel to leak and cause fire, burns, severe injury or death. Always store fuel canisters in a well-ventilated location away from any possible heat or ignition source, such as water heaters, stoves, pilot lights, or furnaces, or where temperatures exceed 120 °F (49 °C). Storing fuel canisters near any heat or ignition source or in temperatures exceeding 120 °F (49 °C) can result in the canister exploding and causing fire, burns, severe injury or death.

Stove service must only be done by an individual authorized by Cascade Designs, Inc. If you have any questions about these instructions, your stove, replacement parts, or repairs, please contact Cascade Designs.

Limited Warranty details at [msrgear.com/warranty](http://msrgear.com/warranty)

For Troubleshooting Solutions, visit: [msrgear.com/reactor-stove-systems](http://msrgear.com/reactor-stove-systems)



MOUNTAIN SAFETY RESEARCH®

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