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› Sengoku HeatMate HMN-110 Kerosene Heater User Manual

## HeatMate HMN-110

# Sengoku HeatMate HMN-110 Kerosene Heater User Manual

Model: HMN-110

## 1. IMPORTANT SAFETY INFORMATION

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Read all instructions carefully before operating this heater. Failure to follow these instructions may result in fire, explosion, injury, or death.

- **Fuel Type:** Use only **K-1 Kerosene**. Never use gasoline, diesel, or other fuels, as this can cause fire or explosion.
- **Ventilation:** Operate only in well-ventilated areas. Ensure adequate fresh air supply to prevent carbon monoxide buildup. Do not use in small, unventilated rooms.
- **Clearance:** Maintain a minimum clearance of 3 feet (91 cm) from combustible materials (furniture, drapes, clothing, etc.) from the top and front of the heater, and 1 foot (30 cm) from the sides.
- **Placement:** Place the heater on a stable, level, non-combustible surface. Do not operate in doorways, hallways, or areas with strong drafts.
- **Movement:** Always extinguish the heater and allow it to cool completely before moving it. Do not move the heater while it is operating or hot.
- **Supervision:** Never leave an operating heater unattended. Keep children and pets away from the heater.
- **Safety Features:** This heater is equipped with an automatic safety shut-off and a tip-over switch. Do not bypass or tamper with these safety devices.
- **Storage:** Store kerosene in a separate, approved container in a well-ventilated area outside living spaces, away from heat sources and direct sunlight.
- **Carbon Monoxide:** Consider installing a carbon monoxide detector in areas where the heater is used.



**PRECAUCIÓN**

EL USO INDEBIDO PUEDE CAUSAR CONTAMINACIÓN Y PROBLEMAS DE SALUD.  
**PARA REDUCIR EL PELIGRO:**  
 SOLO USE KEROSENO 1-K.  
 OPERE SOLO CON LA TUBERÍA RECOMENDADA DE LA LLAMA.  
 TRAS ENCENDER EL CALENTADOR, ASEÑTE CORRECTAMENTE EL QUOTIDIANO.  
 NO OPERE EL CALENTADOR A UN AJUSTE DE MECHA MENOR QUE EL MÍNIMO.  
 MANTENGA LA MECHA Y EL CALENTADOR LIMPIOS.  
 VEA LAS INSTRUCCIONES DE OPERACIÓN Y LIMPIEZA EN EL MANUAL.  
 SIEMPRE OPERE EL CALENTADOR CON LAS PUERTAS DE LA HABITACIÓN ABIERTAS ACATE TODOS LOS CÓDIGOS PERTINENTES AL USAR EL CALENTADOR.  
 CONSERVE EL MANUAL DE INSTRUCCIONES.

NO RETIRE NI ESTORPE LAS ETIQUETAS DE ESTE CALENTADOR IMPORTANTE. LEA Y COMPRENDA LAS INSTRUCCIONES ANTES DE OPERAR EL CALENTADOR. CONSERVE LAS INSTRUCCIONES COMO REFERENCIA PARA EL FUTURO. SIEMPRE PRESTE ATENCIÓN AL DISPOSITIVO MIENTRAS FUNCIONA ANQUE EL CALENTADOR ANTES DE DORMIRSE. PARA EVITAR POSIBILIDADES DE EXPLOSIÓN, NO USE EL CALENTADOR EN ÁREAS DONDE HAYA VAPORES INFLAMABLES O MUCHO POLVO.  
 \* MANTENGA LOS MATERIALES COMBUSTIBLES COMO MUEBLES, CORTINAS Y ROPA A UN MÍNIMO DE TRES (3) PIES DE LA PARTE SUPERIOR Y DELANTERA DEL CALENTADOR. NO ARQUE LA LÍNEA EN ÁREAS DE TRÁFICO COMO PASILLOS O UMBRALES DE PUERTAS, NI EN LUGARES EXPUESTOS A CORRIENTES DE AIRE. NO DEJE NUNQUA QUE SE ENFRIEN MATERIALES COMBUSTIBLES SI EL LUGAR ESTÁ FUNCIONANDO. SI ESTÁ CALIENTE, NO USE EL CALENTADOR EN UN VEHÍCULO EN MOVIMIENTO, PUES PODRÍA DEGRADARSE EL COMBUSTIBLE. \* GUARDE EL QUOTIDIANO EN UN ENVASE AZUL DISEÑADO PARA TAL PROPÓSITO Y MARCADO CON LA PALABRA INGLESA "KEROSENE". \* GUARDE EL ENVASE EN UN LUGAR BIEN VENTILADO FUERA DE LA CASA. NO SIMPRE USE ENVASES QUE HAN SIDO USADOS PARA ALMACENAR OTROS COMBUSTIBLES COMO GASOLINA, DILUYENTE O ALCOHOL. PELIGRO INCLUIDO EL USO DE PEQUEÑAS CANTIDADES DE LÍQUIDOS VOLÁTILES TALES COMO GASOLINA PUEDE CAUSAR UN INCENDIO INCONTROLABLE.  
 \* PELIGRO DE CONTAMINACIÓN: USE ESTE CALENTADOR SOLO EN ÁREAS BIEN VENTILADAS SI EL AIRE SE CALIENTA O TORNA SOPCANTE. MANTENGA ABIERTA UNA PUERTA QUE SE A OTRA HABITACIÓN Y ANQUE EL CALENTADOR.  
 \* USE ESTANDARDO SOLO SEGUN LOS REGLAMENTOS, ORDENANCIAS Y CÓDIGOS ESTATALES Y LOCALES. CONSULTE AL DEPARTAMENTO DE EDIFICACIONES O OTRO APTORIDAD PERTINENTE PARA DETERMINAR EL USO CORRECTO DEL CALENTADOR.  
 ALGUNOS ESTADOS EXIGEN LO SIGUIENTE:  
 1. SIEMPRE SE DEBE SUPERVISAR EL FUNCIONAMIENTO DEL CALENTADOR.  
 2. SE PROHIBE EL USO DE CALENTADORES EN VENTILACION INADECUADA.  
 3. DEBE HABER UN EXTINTOR DE INCENDIOS CERCA DEL ÁREA DE USO.  
 4. DEBE HABER UN DETECTOR DE HUMO EN EL ÁREA DE USO.  
 5. LAS PERSONAS CON TRASTORNOS CIRCULATORIOS O RESPIRATORIOS DEBEN CONSULTAR A SU MEDICO SOBRE EL USO DEL CALENTADOR.  
 EN LAS INSTRUCCIONES DE OPERACIÓN ENCONTRARÁ MAS DETALLES.

Sengoku Works, Ltd.  
 Modelo CTN-110  
 Max. 10,000 BTU/hora  
 Capacidad del tanque: 1.2 galones  
 Altura máx. mecha: 1/2" (13mm)  
 Num. de mecha: OS-65B K259

**CAUTION**

- DO NOT REMOVE OR DEFACE ANY LABELS ON THIS HEATER. IMPORTANT- READ AND UNDERSTAND INSTRUCTIONS BEFORE OPERATING THIS HEATER. RETAIN INSTRUCTIONS FOR FUTURE REFERENCE. THIS DEVICE MUST NOT BE OPERATED WHILE UNATTENDED. ALWAYS EXTINGUISH HEATER BEFORE SLEEPING. NEVER USE HEATER IN AREAS WHERE FLAMMABLE VAPORS OR HIGH DUST CONDITIONS ARE PRESENT TO AVOID POSSIBILITY OF EXPLOSION.
- KEEP EASILY COMBUSTIBLE MATERIAL SUCH AS FURNITURE, DRAPERIES AND CLOTHING AT LEAST THREE (3) FEET FROM THE TOP AND FRONT OF HEATER. DO NOT PLACE HEATER IN HIGH TRAFFIC AREAS SUCH AS DOORWAYS OR HALLWAYS NOR IN WINDY OR DRAFTY LOCATIONS. DO NOT MOVE, HANDLE, SERVICE OR REFUEL WHILE HEATER IS OPERATING OR IS STILL HOT. DO NOT USE THIS HEATER IN A MOVING VEHICLE. MOTION CAN CAUSE FUEL SPILLAGE.
- STORE KEROSENE IN A BLUE CONTAINER INTENDED FOR AND CLEARLY MARKED "KEROSENE". STORE IN A WELL VENTILATED AREA OUTSIDE THE LIVING AREA. NEVER USE CONTAINERS THAT HAVE BEEN USED FOR OTHER FUELS SUCH AS GASOLINE, PAINT THINNER OR ALCOHOL. DANGER. USE OF EVEN SMALL AMOUNTS OF VOLATILE FLUIDS SUCH AS GASOLINE CAN CAUSE UNCONTROLLED FIRE.
- RISK OF POLLUTION. USE THIS HEATER ONLY IN WELL-VENTILATED AREAS. KEEP DOOR TO AN ADJACENT ROOM OPEN. IF AIR GETS HOT OR STUFFY, TURN HEATER OFF.
- TO BE USED ONLY IN ACCORDANCE WITH STATE AND/OR LOCAL REGULATIONS, ORDINANCES AND CODES. CONSULT YOUR LOCAL BUILDING DEPARTMENT OR OTHER RECOGNIZED AUTHORITY TO DETERMINE IF YOUR INTENDED USE IS PERMITTED. CERTAIN STATES REQUIRE THE FOLLOWING:  
 1. THIS HEATER MUST NOT BE OPERATED UNATTENDED.  
 2. THE USE OF UNVENTED HEATERS IN SLEEPING AREAS IS PROHIBITED.  
 3. A FIRE EXTINGUISHER MUST BE IN CLOSE PROXIMITY TO THE HEATER.  
 4. A SMOKE DETECTOR MUST BE IN THE AREA.  
 5. PERSONS WITH CIRCULATORY OR RESPIRATORY DISORDERS SHOULD CONSULT A PHYSICIAN BEFORE USE. SEE OPERATING INSTRUCTIONS FOR DETAILS.

SENGOKU WORKS, LTD.  
 MODEL CTN-110  
 MAX. 10,000 BTU/hour  
 TANK CAPACITY: 1.2 gallons  
 MAX. WICK HEIGHT: 1/2" (13mm)  
 WICK NO. OS-65B K259



MADE IN CHINA CTN-G S

SERIAL No.  
 B - 056659

51507-SH

Image: Rear view of the heater displaying important safety warnings and the fuel tank access.



Image: Side view of the heater showing the ignition lever, fuel level indicator, and additional safety warnings.

## 2. PRODUCT OVERVIEW

The Sengoku HeatMate HMN-110 is a portable kerosene heater designed for efficient heating in various environments. It provides reliable warmth for indoor spaces like homes, garages, and basements, as well as outdoor applications such as camping.

- **Heating Capacity:** 10,000 BTU, capable of heating areas up to 380 square feet.

- **Extended Operation:** Equipped with a 1.2-gallon kerosene tank, allowing for up to 14 hours of continuous heat.
- **Portability:** Compact and easy-to-carry design for versatile use.
- **Safety Features:** Includes an automatic safety shut-off, tip-over switch, and protective safety grills.
- **Easy Ignition:** Features a convenient push-button start.



Image: Front view of the Sengoku HeatMate HMN-110 Kerosene Heater.

# STAY COZY ANYWHERE, ANYTIME



**110  
RADIANT HEATER**



**14 HOURS  
UNINTERRUPTED  
WARMTH**



**USER-FRIENDLY  
DESIGN**



Image: The heater emphasizing its long run time and user-friendly design.

## 3. SETUP

### 3.1 Unpacking

Carefully remove the heater from its packaging. Inspect for any damage that may have occurred during shipping. Retain packaging for future storage or transport.

### 3.2 Fueling the Heater

1. Ensure the heater is turned off and completely cool.
2. Remove the fuel tank from the heater.
3. Fill the fuel tank with **only K-1 Kerosene**. Do not overfill.
4. Carefully replace the fuel tank into the heater.
5. For first-time use or after refilling, allow the wick to saturate with kerosene for at least **one hour** before attempting to light the heater. This ensures proper fuel delivery and prevents wick damage.

### 3.3 Placement

Place the heater on a firm, level, non-combustible surface. Ensure it is positioned away from walls, furniture, and other combustible materials, adhering to the minimum clearances specified in the safety section.

## 4. OPERATING INSTRUCTIONS

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### 4.1 Starting the Heater

1. Ensure the wick is fully saturated with kerosene (refer to Section 3.2).
2. Push the ignition lever down firmly. The igniter will glow and light the wick.
3. Observe the flame through the viewing window. The flame should be even and blue at the base, transitioning to orange at the top.
4. If the heater does not light within 20-30 seconds, release the lever, wait a few moments, and try again. If issues persist, refer to the Troubleshooting section.
5. It is recommended to start the heater outdoors or in a garage to allow initial odors to dissipate.

### 4.2 Adjusting the Flame

Use the EZ flame adjuster to raise or lower the wick, controlling the heat output. A higher wick produces more heat, while a lower wick reduces it. Avoid setting the flame too high, which can cause excessive soot, or too low, which can lead to incomplete combustion and odor.

### 4.3 Shutting Down the Heater

To turn off the heater, push the shut-off lever. The wick will retract, extinguishing the flame. The heater also features an automatic safety shut-off that activates if the unit is tipped over or if oxygen levels become too low.



*Image: The heater in use outdoors, demonstrating its portability.*



*Image: The heater providing warmth inside a tent, illustrating its indoor/outdoor versatility.*

## 5. MAINTENANCE

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Regular maintenance ensures optimal performance and extends the life of your heater. Always ensure the heater is cool and disconnected from any fuel source before performing maintenance.

### 5.1 Wick Maintenance (Burning Off Resin)

To prevent resin buildup and maintain wick health, perform a "burn-off" after every 4-5 uses or approximately every 3 tanks of fuel:

1. Transfer the heater outdoors or to a well-ventilated garage.
2. Allow the fuel tank to run completely dry while the heater is operating. This will burn off accumulated resin from the wick.
3. Once the heater has cooled, open the cage and remove the vertical tube heater.
4. Gently feel the wick. If it feels brittle or hard, it may need further conditioning or replacement.
5. To condition the wick, moisten it with a small amount of fresh kerosene using a brush. Gently work the fuel into the wick with your fingers to soften it.
6. Ensure the wick can move smoothly up and down.

## 5.2 Wick Replacement

If the wick is damaged, excessively brittle, or consistently fails to light properly, it requires replacement. Follow these general steps:

1. Ensure the heater is cool and empty of fuel.
2. Remove the black lever knob by pulling it straight off.
3. Remove the glass tube.
4. Unscrew the five screws around the bottom of the burner assembly.
5. Carefully lift and set aside the top burner assembly (it may still be connected by wires).
6. Rotate the outer wick tube to disengage the pins from the lifting forks.
7. Slide the old wick assembly out. Clean any residue from the fixed vertical cone.
8. Install the new wick, aligning the black line on the wick with the outer shell. Ensure the holding barbs fully penetrate and seat the wick perfectly for an even flame.
9. Reassemble the heater in reverse order. Ensure all components are securely fastened.
10. After replacement, fully lubricate the wick with kerosene and test its smooth movement.
11. Fill the tank and allow the new wick to saturate for at least one hour before lighting.

## 6. TROUBLESHOOTING

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Problem	Possible Cause	Solution
Heater does not light or takes too long to light.	Wick not fully saturated. Wick is brittle or has resin buildup. Igniter malfunction.	Allow wick to saturate for at least one hour after fueling. Perform wick burn-off or replace wick (refer to Section 5.1, 5.2). Contact customer support if igniter is faulty.
Strong kerosene odor during operation.	Improper fuel type. Incomplete combustion (wick too low). Odor during start-up/shut-down.	Ensure only K-1 Kerosene is used. Adjust wick to a proper flame height. Perform start-up and shut-down outdoors or in a garage.
Uneven or flickering flame.	Wick not seated correctly. Wick damage.	Check wick seating (refer to Section 5.2). Replace wick if damaged.
Heater shuts off unexpectedly.	Tip-over switch activated. Low oxygen sensor activated. Out of fuel.	Ensure heater is on a stable, level surface. Ensure adequate ventilation. Refill fuel tank.

## 7. SPECIFICATIONS

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<b>Brand</b>	HeatMate
<b>Model Name</b>	HMN-110
<b>Fuel Type</b>	Kerosene (K-1)
<b>Heating Capacity</b>	10,000 BTU
<b>Heating Coverage</b>	Up to 380 sq ft
<b>Fuel Tank Capacity</b>	1.2 Gallons
<b>Maximum Run Time</b>	Up to 14 hours
<b>Product Dimensions (LxWxH)</b>	22" x 13" x 20"
<b>Item Weight</b>	Approx. 10.22 kg (22.5 lbs)
<b>Safety Features</b>	Automatic Safety Shut-off, Tip-over Switch, Protective Grills
<b>Indoor/Outdoor Usage</b>	Indoor, Outdoor

# PERFECT FOR ANY SPACE

SAFE FOR INDOORS, GARAGES, POORLY INSULATED ROOMS, AND OUTDOORS.



ELEGANT & EFFECTIVE



SAFETY YOU CAN TRUST



LIGHTWEIGHT DESIGN

Image: The heater with its key dimensions indicated.

## 8. WARRANTY AND SUPPORT

This product comes with a manufacturer's warranty. For specific warranty terms, conditions, and duration, please refer to the warranty documentation included with your purchase. For technical support, replacement parts, or further assistance, please contact HeatMate customer service.

*Note: Specific contact information for support is not provided in this manual. Please refer to the product packaging or the manufacturer's official website for current contact details.*

