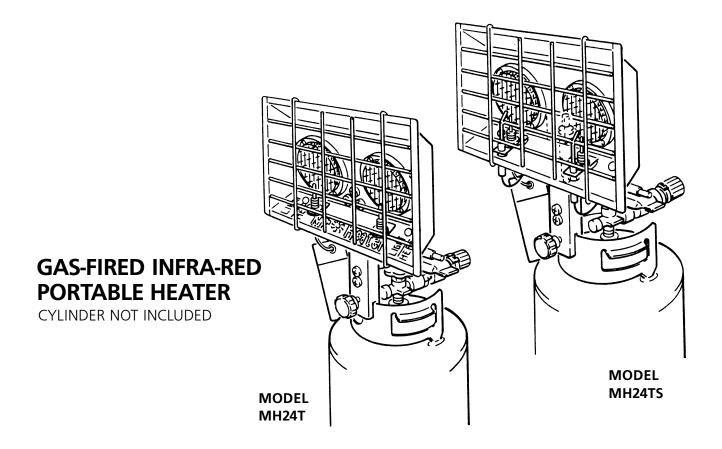


# OPERATING INSTRUCTIONS AND OWNER'S MANUAL

Model #

MH24T MH24TS

**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.



**WARNING:** If the information in this manual is not followed exactly, a fire or 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 service agency.
- DO NOT LEAVE HEATER UNATTENDED OR IN OPERATION WHILE SLEEPING

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 3.

#### WARNING:

♠ YOUR SAFETY IS IMPORTANT TO YOU AND TO OTHERS, SO PLEASE READ THESE INSTRUCTIONS BEFORE YOU OPERATE THIS HEATER.

#### **GENERAL HAZARD WARNING:**

- ⚠ FAILURE TO COMPLY WITH THE PRECAUTIONS AND INSTRUCTIONS PROVIDED WITH THIS HEATER, CAN RESULT IN DEATH, SERIOUS BODILY INJURY AND PROPERTY LOSS OR DAMAGE FROM HAZARDS OF FIRE, EXPLOSION, BURN, ASPHYXIATION, CARBON MONOXIDE POISONING, AND/OR ELECTRICAL SHOCK.
- ① ONLY PERSONS WHO CAN UNDERSTAND AND FOLLOW THE INSTRUCTIONS SHOULD USE OR SERVICE THIS HEATER.
- ⚠ IF YOU NEED ASSISTANCE OR HEATER INFORMATION SUCH AS AN INSTRUCTIONS MANUAL, LABELS, ETC. CONTACT THE MANUFACTURER.

#### WARNING:

**(1)** CARBON MONOXIDE CAN KILL YOU

USING A PORTABLE GAS CAMPING HEATER INSIDE A TENT, RV, CAMPER, VEHICLE, SHELTER OR OTHER ENCLOSED AREAS CAN PRODUCE DEADLY CARBON MONOXIDE

#### **WARNING:**

⚠ NOT FOR HOME OR RECREATIONAL VEHICLE USE

### **WARNING:**

⚠ FIRE, BURN, INHALATION, AND EXPLOSION HAZARD. KEEP SOLID COMBUSTIBLES, SUCH AS BUILDING MATERIALS, PAPER OR CARDBOARD, A SAFE DISTANCE AWAY FROM THE HEATER AS RECOMMENDED BY THE INSTRUCTIONS NEVER USE THE HEATER IN SPACES WHICH DO OR MAY CONTAIN VOLATILE OR AIRBORNE COMBUSTIBLES, OR PRODUCTS SUCH AS GASOLINE, SOLVENTS, PAINT THINNER, DUST PARTICLES OR UNKNOWN CHEMICALS.

#### **WARNING:**

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The State of California requires the following warning:

COMBUSTION BY-PRODUCTS PRODUCED WHEN

USING THIS PRODUCT CONTAIN CARBON MONOXIDE,

A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA

TO CAUSE CANCER AND BIRTH DEFECTS (OR OTHER

REPRODUCTIVE HARM).

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#### **HOOK-UP INFORMATION**

- 1.1 Heater model MH24T and MH24TS are packaged completely assembled. Propane cylinders are not included with heater models.
- **1.2** Remove heater assembly from carton.
- **1.3** Place the slots of the black collar mounting bracket assembly onto the collar of the bulk tank (see Fig. 1)

## **CAUTION:**

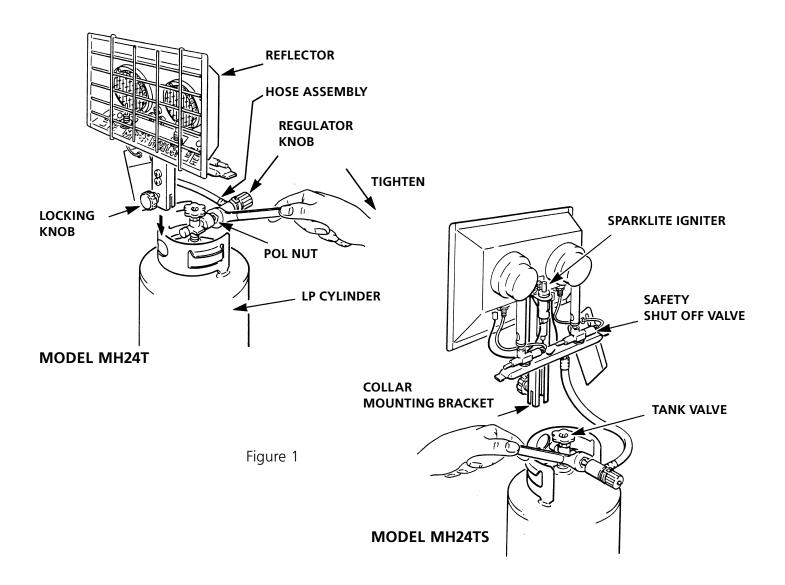
BE SURE THE LOCKING KNOB ON THE COLLAR MOUNTING BRACKET ASSEMBLY IS OUTSIDE THE COLLAR ON THE BULK TANK. Tighten the black knob against collar of tank.

- 1.4 Check reflector of the heater (See Fig. 1) and the collar mounting bracket assembly with the three #6-32x1/2 screws and #6-32 Keps hex nuts. Be sure screws and nuts are secure and tight.
- **1.5** Make sure tank valve is in "OFF" position (clockwise).

- **1.6** Make sure regulator knob is in "OFF" position by turning knob clockwise to off.
- **1.7** Carefully screw POL nut directly into bulk tank valve finger tight, turning counterclockwise; then with a 7/8" open end wrench tighten the POL fitting, hard.
- 1.8 Always connect the heater to bulk tank in the outdoors or in a well ventilated area. NEVER connect heater to bulk tank near an open flame.
- **1.9** Use only LP-gas cylinders constructed for use with propane only (HD-5) and marked in accordance with the specifications for LP-gas cylinders of the U.S. Department of Transportation (DOT Spec. 39).
- 1.10 Read pages 3 and 4 before lighting heater.

#### **⚠ WARNING**

Never touch heater while in operation to avoid injury. Move heater by grasping the propane cylinder carefully.



### ODOR FADE WARNING

### **WARNING**

#### **1** Asphyxiation Hazard

- Do not use this heater for heating human living quarters.
- 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.
   Symptom of carbon monoxide poisoning can include headaches dizziness and difficulty in breathing.

#### 1. GENERAL INFORMATION

- **A.** The Mr. Heater MH24T and the MH24TS are high pressure propane appliances and are designed to be connected to a bulk propane tank. Every unit is tested during manufacturing and shipped fully assembled except for bulk tank.
- **B.** These heaters are equipped with two automatic Safety Shutoff Valves. The gas flow will automatically stop to the heater burner if that heater burner fails to operate for any reason.
- C. Maximum safety and convenience have been built into the Hi-Med-Lo-Off Control Valve/Regulator. The following table lists the approximate BTU's consumed and the operating hours you can reasonably expect from bulk propane cylinders.
- D. Model MH24TS is equipped with "Sparklite" igniters for convenient heater lite-off.

Burners	rs Valve BTU Input		Approximate Hours of Operation		
Operating	Position		11 Lb. Cylinder	20 Lb. Cylinder	
1	Hi	14,000	17	30	
1	Med	2,000	20	35	
1	Lo	8,000	28	52	
2	Hi	28,000	9	15	
2	Med	24,000	10	18	
2	Lo	16,000	15	28	

Figure 2

#### 2. FOR SAFE OPERATION

A. READ INSTRUCTIONS CAREFULLY: Read and adhere to these instructions. Do not allow anyone who <u>has not read</u> the instructions to assemble, light, adjust or operate the heater.

### **MARNING**

KEEP THE HEATER OUT OF THE REACH OF CHILDREN

- B. PROPANE IS VERY FLAMMABLE: In the event of a leak, propane will accumulate and the possibility of a fire is present. Propane gas is scented and its strong odor is readily detectable. Never strike a match or bring any flame or create an electric spark in an enclosure when you smell propane gas. Ventilate the area thoroughly, move the heater outside, find and correct the source of the leak before attempting to light any appliance. If you are unsure of these instructions evacuate immediately and call for help.
- **C. GAS LEAKAGE:** If the leak cannot be corrected, do not tamper with the heater; follow the shut down <u>instructions</u> and return the heater to the dealer or address given on last page.

#### WARNING

DO NOT USE THIS HEATER ON BULK TANKS OF GREATER CAPACITY THAN 20 POUNDS LPG (50 POUNDS WATER CAPACITY).

- D. LEAK DETECTION: Before each use of the heater check all fittings and connections with a soap solution to be sure there are no leaks. Be sure the POL fitting is wrench (7/8") tightened into the On-Off valve on the propane cylinder. NEVER, NEVER USE ANY FLAME FOR LEAK TEST.
- E. CONNECTING HEATER TO PROPANE CYLINDER: Always connect the heater to the bulk cylinder in the outdoors or in a well ventilated area. Use a 7/8" open end wrench. **NEVER** connect this heater to a cylinder near an open flame.
- **F. USE OF HEATER:** Always operate the heater with the propane cylinder in an upright position on a level noncombustible surface. **NEVER** place the cylinder on its side when operating the heater.
- G. ATTEND HEATER: Do not leave heater unattended while it is in operation.
- H. ALWAYS LIGHT HEATER WITH MATCH OR "SPARKLITE" IGNITER: NEVER attempt to light the heater with a spark lighter.
- I. DO NOT TAMPER: Should the heater not perform properly, such as little or no heat when operating in the "Hi" position, or for any other reason, DO NOT ATTEMPT TO REPAIR OR TAMPER with the heater. Any tampering could make the use of the heater unsafe and dangerous. Return the heater to the dealer or the address given on last page for repair or replacement.
- J. FOR STORAGE: The heater Hi-Med-Lo-Off regulating valve should always be turned to "Off" when the heater is not in use. Allow at least 15 minutes for cooling before handling and storing. Detach propane cylinder from heater before storing. DO NOT store propane cylinders near open flame or heat.
- K. DO NOT TRANSPORT OR MOVE APPLIANCE WHILE IN OPERATION OR WHILE HEATER IS ATTACHED. FOLLOW SHUTDOWN AND STORAGE INSTRUCTIONS TO TRANSPORT OR MOVE THIS APPLIANCE.

#### 3. VENTILATION

- A. WARNING: This heater is an unvented appliance and MUST be used ONLY in a well ventilated area. NEVER attempt to operate the heater inside any vehicle, camper or enclosure.
- B. Any combustion process requires and consumes oxygen, and will produce carbon monoxide. THIS HEATER MUST BE USED WITH ADEQUATE VENTILATION. Do not use in a tightly enclosed area. Two openings directly to the outdoors MUST be provided. One HIGH and one LOW, preferably on opposite sides of the enclosure. EACH OPENING SHALL HAVE A MINIMUM FREE AREA OF 36 SQUARE INCHES (6" X 6"). Structures of tight construction or tents using fire retardant materials will require larger openings. If any additional fuel burning appliances are operated, ALWAYS provide additional ventilation. Increase the area of each opening by at least 2 square inches for each 1,000 BTU's per hour of additional input rating.
- C. WARNING: Provide ample ventilation. This heater consumes air (oxygen). Do not use this heater in unventilated structures to avoid endangering your life. Provide additional ventilation for any additional fuel-burning appliances and additional occupants.

# 4. MINIMUM CLEARANCE FROM COMBUSTIBLE MATERIALS

- **A.** When operating, the heater surfaces are extremely hot. Keep sleeping bags, clothing, and all combustible materials clear of the heater by at least the distances shown in figure 3.
- **B. WARNING:** To avoid injury or property damage never allow clothing, tents or other combustible material within 24" of the heater. This heater must be located at least 32" above the floor level when in use. Never operate the heater when sleeping.
- **C. WARNING:** Never direct the heat output of this heater toward any propane tank within 20 feet.

BTU/HR			CLEARANCES T	o cov	/IBUST	IBLES
MODEL NO.			FROM C.L. OF HTR. TO FLOOR	SIDES	REAR	CEILING
MH24T and MH24TS	28,000	Vertical	32"	24"	24"	36"

Figure 3

#### 5. ASSEMBLY PROCEDURE

- **A.** Make sure the regulator knob on the heater is "off" by turning knob clockwise to the "OFF" position.
- **B.** Carefully screw POL nut directly into bulk 20 lb. propane cylinder, counterclockwise. REMEMBER This is a left hand thread see Figure 1. Make sure the heater is in a vertical upright position and directed away from the collar of the bulk tank. Use a 7/8" open end wrench to tighten the POL fitting left hand thread see Fig. 1.

#### 6. LIGHTING INSTRUCTIONS

- A. Before attempting to light the heater, check all fittings and connections with a soap solution. NEVER USE A MATCH TO CHECK FOR LEAKS. Should a gas leak occur, do not attempt to repair or use heater. Return the heater to your dealer or the address given on back page.
- B. Fuel This heater must be used only with a vapor withdrawal LP gas bulk cylinder. THE BULK TANK MUST BE EQUIPPED WITH A STANDARD POL VALVE.

#### **MARNING**

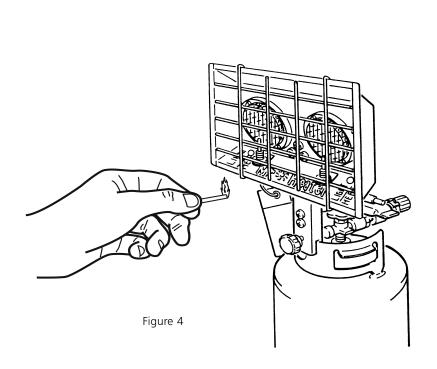
USE HD.5 PROPANE GAS ONLY. DO NOT USE ANY OTHER TYPE FUEL. SEE YOUR PROPANE DEALER IF YOU HAVE ANY QUESTIONS REGARDING FUEL.

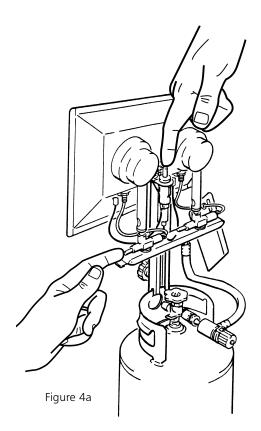
- C. Turn the heater's "Hi-Med-Lo-Off" regulator knob to "Med" (counterclockwise).
- D. To light a burner, MH24T Model, place a lit match across the mesh screen where you see "light here" on reflector. (See fig. 4) THEN push in valve button on Safety Shutoff Valve. After the burner is lit, continue to hold valve button in for 30 seconds, then release the button slowly. CAUTION: DO NOT PUSH IN VALVE BUTTON BEFORE INSERTING LIT MATCH. Repeat step "D" for each burner.
- E. To light a burner, MH24TS Model, push in valve button on Safety Shutoff Valve and at the same time push down on "Sparklite" Igniter button. Repeat push down of "Sparklite" Igniter button until burner ignites. After burner is lit, continue to hold valve button in for 30 seconds, then release the button slowly. Repeat step "E" for each burner of the MH24TS Heater. See fig. 4a.
- **F.** If burner does not light within 30 seconds, turn the heater's regulator knob to "off" (clockwise) and allow at least five minutes for gas to dissipate before attempting to relight.

- G. NOTE: Should the orifice become clogged as indicated by low volume of gas when operating on "Hi" with a full cylinder, or should the heater fail to operate properly for any reason, return the heater to the dealer or the address given on back page for repair or replacement DO NOT ATTEMPT TO REPAIR OR TAMPER WITH HEATER.
- **H.** Adjust heat output by turning knob to desired position.
- I. COOKING: DO NOT USE THIS HEATER FOR COOKING.

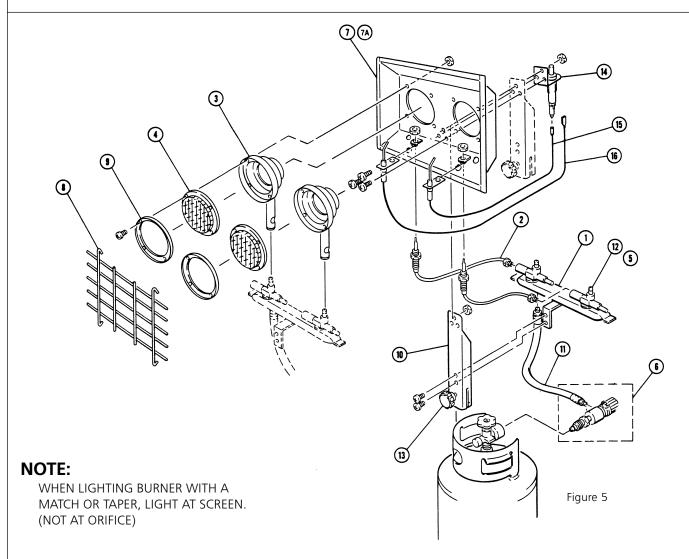
# 7. SHUTDOWN AND STORAGE INSTRUCTIONS

- A. The bulk propane tank "on-off" valve should ALWAYS be completely turned "OFF" when the heater is not in use.
- **B.** When shutting off the heater, turn the regulator knob on the heater to "OFF" (clockwise). (See Figure 4 and 4a)
- CAUTION: After turning unit off, heater will remain extremely hot. Allow at least 15 minutes for cooling before handling and storing. Detach heater from bulk tank before handling and storage. REMEMBER – POL fitting is a left-hand thread.
- **D.** HEATER STORAGE: Always remove the propane cylinder from the heater when not in use. Always store propane cylinders in a cool, well ventilated place away from any flame or heat and in a location not used for habitation. DO NOT STORE PROPANE TANK WITHIN 60 FT. OF OPEN FLAME OR HEAT.
- **E.** See Figure 6 for spare parts list.





Mr. Heater • Gas-Fired Infra-Red Portable Heater • Model #MH24T and #MH24TS



# REPLACEMENT PARTS LIST FOR HEATER MODELS MH24T AND MH24TS

REF.#	ITEM#	DESCRIPTION
1	73610	Manifold Assembly, 2 Valve Orifice and Thermocouple
2	F273117	Thermocouple Lead – 12" Lone
3	73122	Plenum Assembly Complete
4	F273164	Grid Screen Assembly
5	73214	Bolt – 1/4-20 with Seal Washer
6	F273606	Replacement Regulator with Soft Nose POL
7	75603	Reflector (MH24T Only)
7A	75603S	Reflector (MH24TS) only)
3	75602	Wire Face Guard
9	75607	Metal Ring
10	75628	Collar Mounting Bracket
11	73658	Hose Assembly (11" Long)
12	73213	Replacement Safety Shutoff with Orifice
13	75613	Locking Knob
14	73234	Igniter/Sparklite
15	73233	Spark Electrode/Bottom
16	73231	Spark Electrode/Side

ALL WARRANTY CLAIMS REQUIRE PROOF OF PURCHASE

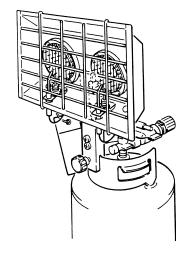


# OPERATING INSTRUCTIONS AND OWNER'S MANUAL

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Model #

MH24T MH24TS



# **WARNING:**

USE ONLY MANUFACTURER'S REPLACEMENT PARTS. USE OF ANY OTHER PARTS COULD CAUSE INJURY OR DEATH. REPLACEMENT PARTS ARE ONLY AVAILABLE DIRECT FROM THE FACTORY AND MUST BE INSTALLED BY A QUALIFIED SERVICE AGENCY.

#### PARTS ORDERING INFORMATION:

**PURCHASING:** Accessories may be purchased at any Mr. Heater local dealer or direct from the factory

#### FOR INFORMATION REGARDING SERVICE

Please call Toll-Free 800-251-0001 • www.mrheater.com
Our office hours are 8:30 AM – 5:00 PM, EST, Monday through Friday.
Please include the model number, date of purchase, and description of problem in all communication.

#### LIMITED WARRANTY

The company warrants this product to be free from imperfections in material or workmanship, under normal and proper use in accordance with instructions of The Company, for a period of one year from the date of delivery to the buyer. The Company, at its option, will repair or replace products returned by the buyer to the factory, transportation prepaid within said one year period and found by the Company to have imperfections in material or workmanship.

If a part is damaged or missing, call our Technical Support Department at 800-251-0001.

Address any Warranty Claims to the Service Department, MR. HEATER INC., 4560 W. 160TH ST., CLEVELAND, OHIO 44135. Include your name, address and telephone number and include details concerning the claim. Also, supply us with the purchase date and the name and address of the dealer from whom you purchased our product.

The foregoing is the full extent of the responsibility of the Company. There are no other warranties, express or implied. Specifically there is no warranty of fitness for a particular purpose and there is no warranty of merchantability. In no event shall the Company be liable for delay caused by imperfections, for consequential damages, or for any charges of the expense of any nature incurred without its written consent. The cost of repair or replacement shall be the exclusive remedy for any breach of warranty. There is no warranty against infringement of the like and no implied warranty arising from course of dealing or usage of trade. This warranty will not apply to any product which has been repaired or altered outside of the factory in any respect which in our judgment affects its condition or operation.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights, and you may have other rights which vary from state to state.

Mr. Heater Inc. reserves the right to make changes at any time, without notice or obligation, in colors, specifications, accessories, materials and models.

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