



OPERATING INSTRUCTIONS AND OWNER'S MANUAL

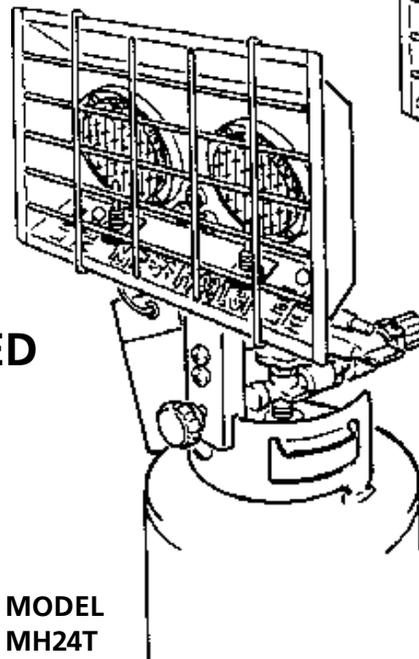
Model #

MH24T
MH24TS

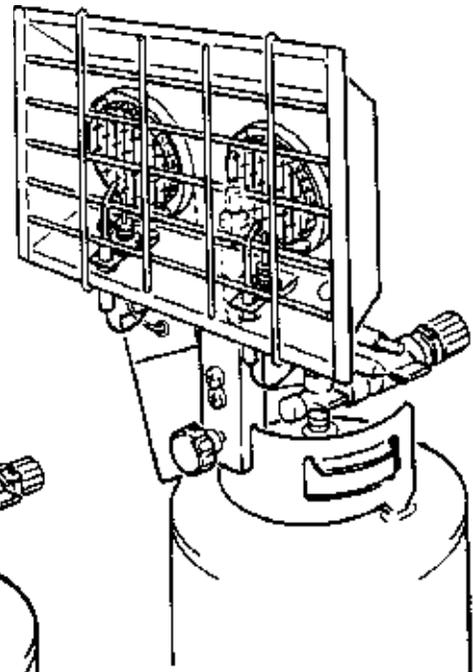
READ INSTRUCTIONS CAREFULLY: Read and follow all instructions. Place instructions in a safe place for future reference. Do not allow anyone who has not read these instructions to assemble, light, adjust or operate the heater.

GAS-FIRED INFRA-RED PORTABLE HEATER

CYLINDER NOT INCLUDED



**MODEL
MH24T**



**MODEL
MH24TS**

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.
-  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:

 **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:

 **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.

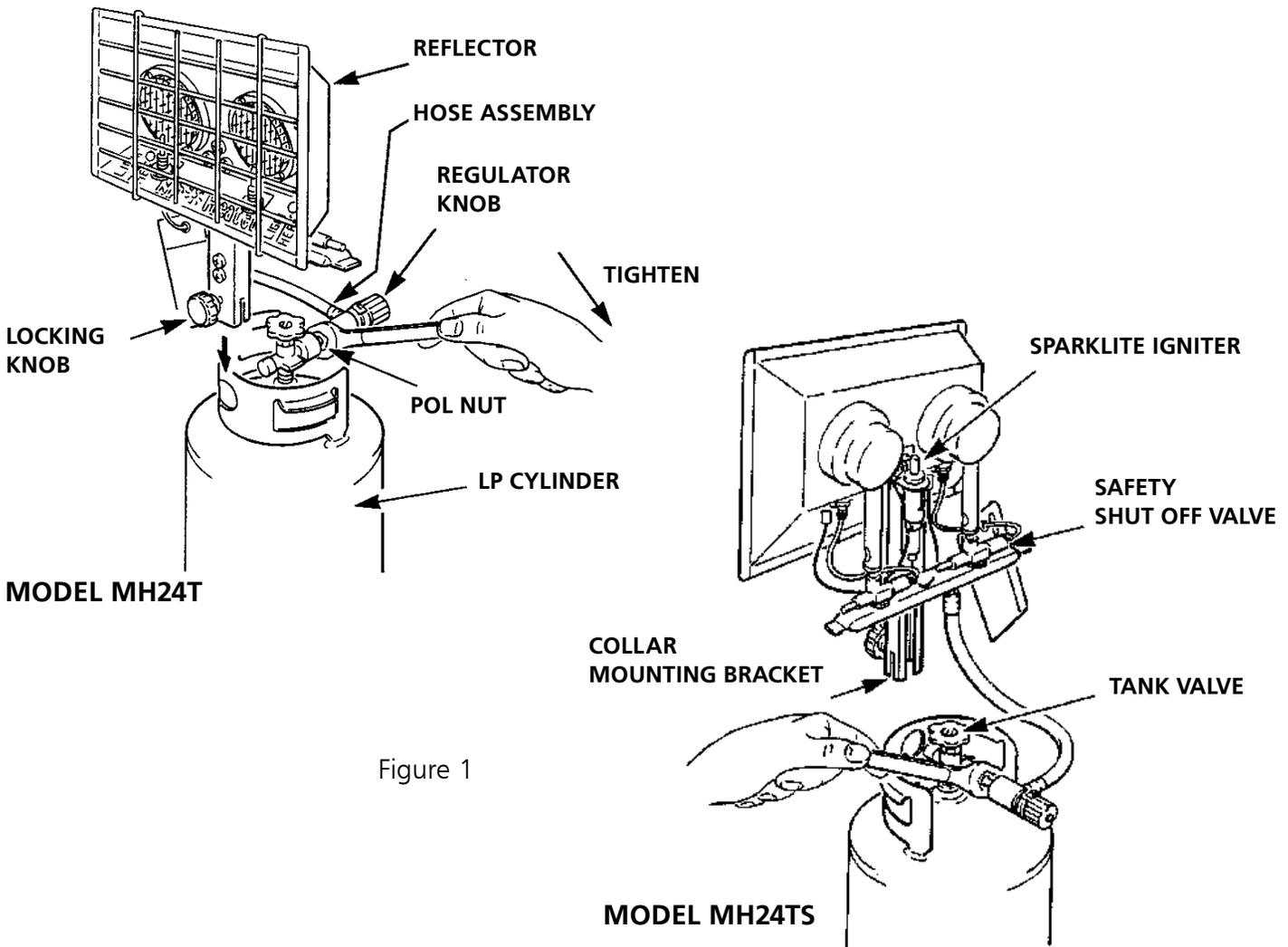


Figure 1

ODOR FADE WARNING

WARNING

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.

FUEL GAS ODOR

LP gas and natural gas have man-made odorants added specifically for detection of fuel gas leaks.

If a gas leak occurs you should be able to smell the fuel gas. Since Propane (LP) is heavier than air you should smell for the gas odor low to the floor. ANY GAS ODOR IS YOUR SIGNAL TO GO INTO IMMEDIATE ACTION!

- Do not take any action that could ignite the fuel gas. Do not operate any electrical switches. Do not pull any power supply or extension cords. Do not light matches or any other source of flame. Do not use your telephone.
- Get everyone out of the building and away from the area immediately.
- Close all propane (LP) gas tank or cylinder fuel supply valves, or the main fuel supply valve located at the meter if you use natural gas.
- Propane (LP) gas is heavier than air and may settle in low areas. When you have reason to suspect a propane leak, keep out of all low areas.
- Use your neighbor's phone and call your fuel gas supplier and your fire department. Do not re-enter the building or area.
- Stay out of the building and away from the area until declared safe by the firefighters and your fuel gas supplier.
- FINALLY, let the fuel gas service person and the firefighters check for escaped gas. Have them air out the building and area before you return. Properly trained service people must repair any leaks, check for further leakages, and then relight the appliance for you.

ODOR FADING - NO ODOR DETECTED

- Some people cannot smell well. Some people cannot smell the odor of the man-made chemical added to propane (LP) or natural gas. You must determine if you can smell the odorant in these fuel gases.
- Learn to recognize the odor of propane (LP) gas and natural gas. Local propane (LP) gas dealers will be more than happy to give you a scratch and sniff pamphlet. Use it to become familiar with the fuel gas odor.
- Smoking can decrease your ability to smell. Being around an odor for a period of time can affect your sensitivity to that particular odor. Odors present in animal confinement buildings can mask fuel gas odor.
- **The odorant in propane (LP) gas and natural gas is colorless and the intensity of its odor can fade under some circumstances.**
- If there is an underground leak, the movement of gas through the soil can filter the odorant.
- Propane (LP) gas odor may differ in intensity at different levels. Since Propane (LP) gas is heavier than air, there may be more odor at lower levels.
- **Always be sensitive to the slightest gas odor.** If you continue to detect any gas odor, no matter how small, treat it as a serious leak. Immediately go into action as discussed previously.

ATTENTION - CRITICAL POINTS TO REMEMBER!

- Propane (LP) gas has a distinctive odor. Learn to recognize these odors. (Reference Fuel Gas Odor and Odor Fading sections above.)
- Even If you are not property trained in the service and repair of the heater, ALWAYS be consciously aware of the odors of propane (LP) gas and natural gas.
- If you have not been properly trained in repair and service of propane (LP) gas then do not attempt to light heater, perform service or repairs, or make any adjustments to the heater on the propane (LP) gas fuel system.
- A periodic sniff test around the heater or at the heater's joints; i.e. hose, connections, etc., is a good safety practice under any conditions. If you smell even a small amount of gas, CONTACT YOUR FUEL GAS SUPPLIER IMMEDIATELY. DO NOT WAIT!

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 Operating	Valve Position	BTU Input	Approximate Hours of Operation	
			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 has not read the instructions to assemble, light, adjust or operate the heater.

 **WARNING**
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 instructions 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. **FOR OUTDOOR USE ONLY.** Any combustion process requires and consumes oxygen, and will produce carbon monoxide.
- 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.

BTU/HR. RATING		NORMAL OPERATING PROCEDURE	CLEARANCES TO COMBUSTIBLES			
MODEL NO.	GAS PROPANE		FROM C.L. OF HTR. TO FLOOR	SIDES	REAR	CEILING
MH24T and MH24TS	28,000	Vertical	32"	24"	24"	36"

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.

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.

WARNING

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.

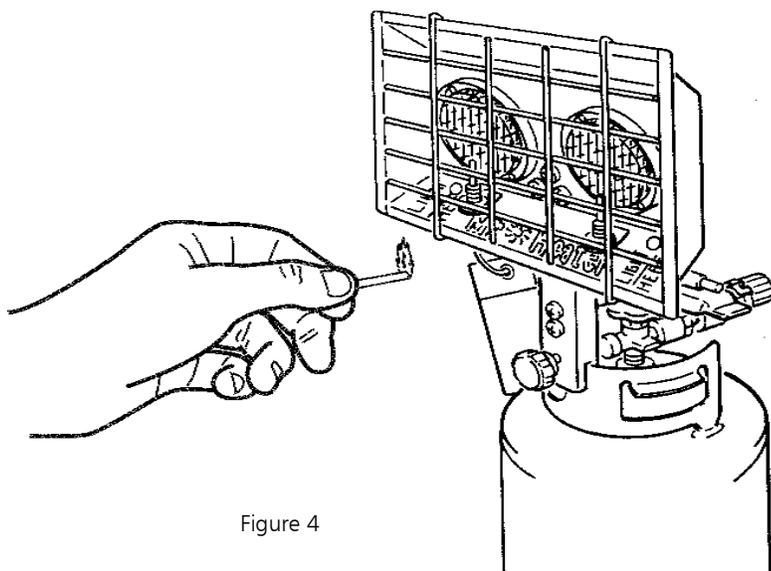


Figure 4

- 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)
- C. 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.

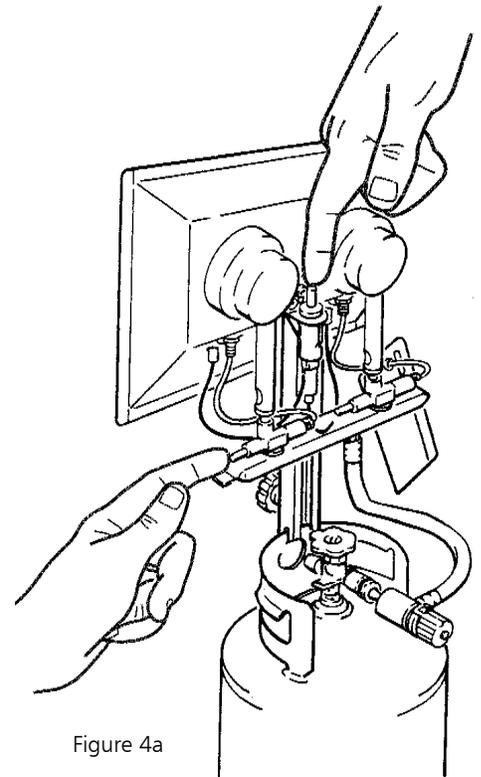


Figure 4a

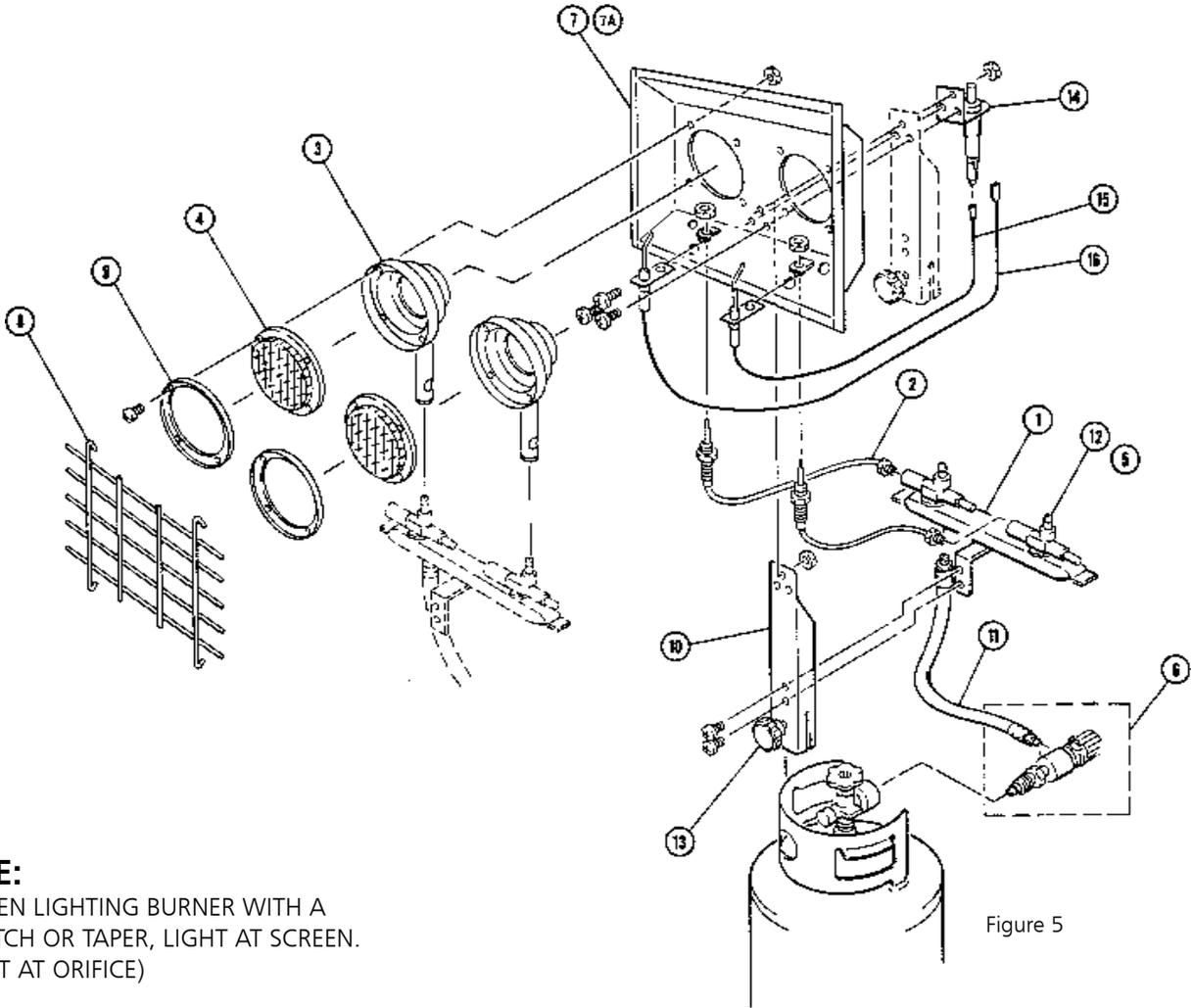


Figure 5

NOTE:

WHEN LIGHTING BURNER WITH A MATCH OR TAPER, LIGHT AT SCREEN. (NOT AT ORIFICE)

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
4	F273164	Grid Screen Assembly
6	F273606	Replacement Regulator with Soft Nose POL
7	73244P	Plenum/Reflector Assembly (MH24T Only)
7A	73244PS	Plenum/Reflector Assembly (MH24TS Only)
8	75602P	Wire Face Guard
9	75607P	Metal Ring
10	73938	Collar Mounting Bracket
11	73658	Hose Assembly (11” Long)
12		Replacement Safety Shutoff with Orifice (Reference Only)
13	75613	Locking Knob
14	73234	Igniter/Sparklite
15	73233	Spark Electrode/Bottom
16	73231	Spark Electrode/Side

Figure 6

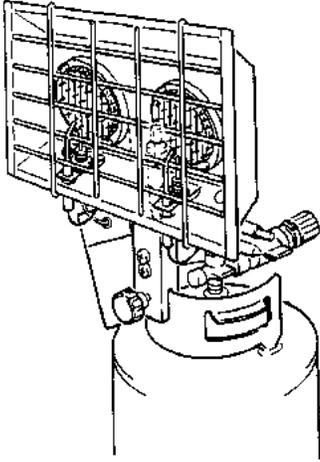
ALL WARRANTY CLAIMS REQUIRE PROOF OF PURCHASE



OPERATING INSTRUCTIONS AND OWNER'S MANUAL

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

Mr Heater, Inc. warrants its heaters and accessories to be free from defects in material and workmanship for a period of 1 year from date of purchase. Mr Heater, Inc. will repair or replace this product free of charge if it has been proven to be defective within the 1-year period, and is returned at customer expense with proof of purchase to Mr Heater, Inc. within the warranty period.

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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