

Please read and save these instructions. Read through this owner's manual carefully before using product. Protect yourself and others by observing all safety information, warnings, and cautions. Failure to comply with instructions could result in personal injury and/or damage to product or property. Please retain instructions for future reference.



40-60K BTU LIQUID PROPANE HEATER

FOR CUSTOMER SERVICE

Technical Question?

CALL 1-866-458-2472
customerservice@oem-tools.com

UNPACKING

After unpacking the unit, inspect carefully for any damage that may have occurred during transit. Check for loose, missing, or damaged parts. If any damage is observed, a shipping damage claim must be filed with the carrier. DO NOT use the OEMTOOLS™ 40-60K BTU Liquid Propane Heater if broken, bent, cracked or damaged parts (including labels) are noted. Any Liquid Propane Heater that appears damaged in any way, operates abnormally or is missing parts should be removed from service immediately. If you suspect that the Liquid Propane Heater was subjected to shock load (a load that was dropped suddenly, unexpectedly, etc.), immediately discontinue use until it has been checked by a factory authorized service center.



⚠ WARNING

The following safety information is provided as a guideline to help you operate your Liquid Propane Heater under the safest possible conditions. Any tool or piece of equipment can be potentially dangerous to use when safety or safe handling instructions are not known or not followed. The following safety instructions are to provide the user with the information necessary for safe use and operation. Please read and retain these instructions for the continued safe use of your heater. Failure to follow instructions listed below may result in serious injury. In addition, make sure that anyone who uses the equipment understands and follows these safety instructions as well.

Explanation of Safety Signal Words

⚠ WARNING: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION: Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

Thank you very much for choosing an OEMTOOLS™ Product!

For future reference, please register your new tool at www.oem-tools.com and complete the owner's record below:

Model: _____ **Purchase Date:** _____

Save the receipt, warranty and these instructions. It is important that you read the entire manual to become familiar with this product before you begin using it. This product is designed for certain applications only. OEMTOOLS™ cannot be responsible for issues arising from modification. We strongly recommend that this product is not modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the product until you have first contacted customer service to determine if it can or should be performed on the product.



40-60K BTU LIQUID PROPANE HEATER

IMPORTANT INSTRUCTIONS AND SAFETY RULES

1. Know your product. Read this manual carefully. Learn the product's applications and limitations, as well as potential hazards specific to it.
2. Keep work area clean and well lit. Cluttered or dark work areas invite accidents.
3. Keep children away. All children should be kept away from the work area. Never let a child handle tools or equipment without strict adult supervision.
4. DO NOT operate this product if under the influence of alcohol or drugs. Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, DO NOT attempt to operate.
5. Use safety equipment. Eye protection should be worn at all times when operating this tool. Use ANSI approved safety glasses. Everyday eyeglasses are NOT safety glasses. Dust mask, non-skid safety shoes, hard hat or hearing protection should be used in appropriate conditions.
6. Wear proper apparel. Loose clothing, gloves, neck-ties, rings, bracelets or other jewelry may present a potential hazard when operating this product. Keep all apparel clear of the product.
7. DO NOT overreach. Keep proper footing and balance at all times when operating this product.
8. Check for damage. Check your heater regularly. If part of the heater is damaged, it should be carefully inspected to make sure that it can perform its intended function correctly. If in doubt, discontinue use of the heater.
9. Keep away from flammables. DO NOT attempt to operate this product near flammable materials or combustibles. Failure to comply may cause serious injury or death.
10. Store this product out of the reach of children and untrained persons. This product may be dangerous in the hands of untrained users.
11. Keep this product dry and clean.
12. Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one tool may become hazardous when used on another tool.
13. Service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
14. When servicing a product, use only identical replacement parts. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of injury.
15. Maintain a safe working environment. Keep the work area well lit. Make sure there is adequate surrounding workspace. Keep the work area free of obstructions, grease, oil, trash, and other debris. DO NOT use this product in a damp or wet location.
16. Maintain labels and nameplates on this product. These carry important information. If unreadable or missing, contact OEMTOOLS™ for a replacement.
17. Keep this product dry, clean, and free from brake fluid, oil, and grease.
18. Avoid accidental fire and/or explosion. DO NOT smoke near this product.
19. The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.
20. We believe the information contained herein to be reliable. However, general technical information is given by us without charge and the user shall employ such information at their own discretion and risk. We assume no responsibility for results or damages incurred from the use of such information in whole or in part.
21. The manufacturer declines any and all responsibility for property damage or injury if said damage is the result of unskillful handling by the operator or of failure to observe the basic safety rules set forth in the instruction manual.
22. The procedures documented in this manual are to serve as guidelines for the use of this equipment.
23. The use of this equipment is simple and straightforward if you follow the instructions. When operating this equipment, use common sense, and only use this heater for its intended purpose.
24. Only persons who can understand and follow these instructions should use this heater.



40-60K BTU LIQUID PROPANE HEATER

PRODUCT DESCRIPTION

The OEMTOOLS™ 24822 40-60K BTU Liquid Propane Heater is a portable and efficient heating solution for areas up to 1,250 square feet.

PRODUCT SPECIFICATIONS

BTU Rating	40,000 to 60,000 BTU/Hr. (11.7 – 17.5 kW)
Input Voltage	115V, 60 Hz
Amperage	2A
Ignition	Direct Spark
Primary Flame Control	Thermocouple Operated Gas Valve
Fuel	Propane / LP Gas
Fuel Orifice Port No.	18
Fuel Orifice Port Size	0.0196" (0.5 mm)
Fuel Consumption	1.8 – 2.7 Lbs./Hr.
Average Air Temp Rise	200° F (111° C)
Heating Area	1,250 Sq. Ft.
Dimensions	16" (L) x 7.5" (W) x 12" (H)

CONTENTS

40-60K BTU Liquid Propane Heater, Regulator Hose Assembly

SPECIFIC SAFETY INSTRUCTIONS AND WARNINGS

▲ 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.

▲ WARNING: ASPHYXIATION HAZARD: This is an unvented portable heater that uses oxygen from the surrounding area. Adequate ventilation air must be provided. Use of this product in a poorly ventilated area may cause serious bodily injury or death from asphyxiation or carbon monoxide poisoning.

1. DO NOT use in unventilated areas. Proper ventilation is needed to support the combustion air requirements of the heater.
2. The flow of combustion and ventilation must not be obstructed.
3. Common symptoms of carbon monoxide poisoning include: headache, dizziness, and difficulty breathing.
4. NOT for use with duct work.

▲ WARNING: This product contains and/or generates chemicals known to the state of California to cause cancer or birth defects or other reproductive harm.

▲ WARNING: Never use this product in a space which may contain volatile or airborne combustibles (eg. gasoline, solvents, paint thinner, dust particles or other chemicals), as this poses a risk of fire or explosion.

▲ WARNING: DO NOT store gasoline or other flammable vapors/liquids in the vicinity of this heater or any other appliance.

▲ WARNING: If you smell gas:

1. DO NOT attempt to use this product.
2. Extinguish any open flame.
3. Shut off gas to this heater.
4. Vacate the building or workspace.
5. Close all propane or fuel cylinder supply valves, or main fuel supply located at the meter if you use natural gas.
6. Call your local fire department and gas supplier.
7. Stay out of the building and stay away from the area until declared safe by firefighters and gas supplier. Allow the building to properly air out prior to reentry.
8. Properly-trained professionals must repair any gas leaks before attempting to use this product.

▲ WARNING: Not for home or recreational vehicle use.

▲ WARNING: For use with propane (LP) gas only.

GENERAL SAFETY: Keep this manual for future reference.

1. To avoid burns, DO NOT let bare skin touch hot surfaces. Use the handle when moving this heater. Keep combustible materials, such as furniture, pillows, bedding, papers, clothes and curtains at least 3 feet (0.9 m) from the heater to avoid fire. Never block the air intake.
2. Always operate on a clean, flat surface capable of supporting the weight of the Propane Heater at capacity. Failure to stabilize may cause the Propane Heater to fall or malfunction during operation, leading to injury and property damage.
3. Always unplug this appliance when not in use.
4. Always connect to a properly grounded outlet.
5. DO NOT operate the heater with a damaged cord or plug, or after the heater has malfunctioned or has been dropped.
6. DO NOT operate the heater if the Hose Regulator Assembly has been damaged, or if you suspect damage.



40-60K BTU LIQUID PROPANE HEATER

7. DO NOT attempt to repair or modify the propane heater.
8. DO NOT operate on wet surfaces or allow moisture/liquids to contact the propane heater.
9. DO NOT use outdoors; for indoor use only.
10. DO NOT use for living quarters.
11. DO NOT use this heater in elevated locations, such as on shelves, raised platforms, etc.
12. DO NOT cover the power cord with rugs, runners or any other materials.
13. DO NOT run the power cord through a high traffic area.
14. DO NOT allow foreign objects to enter the ventilation; this may cause fire.
15. DO NOT attach duct work to this heater.
16. If safety questions remain after thoroughly reading this manual and safety guidelines, contact your local fire safety authority for more information.
5. Use only vapor withdrawal propane supply. If there is any question about vapor withdrawal, consult your propane supplier.
6. Provide adequate ventilation.
7. DO NOT use heater in occupied dwellings.
8. Allow clearance from combustible materials:
 - a. Outlet: 8 ft.
 - b. Sides: 2 ft.
 - c. Top: 6 ft.
 - d. Rear: 2 ft.
 - e. Place at least 10 ft. from canvas or plastic tarps.
9. Keep heater at least six (6) feet from propane cylinder(s). DO NOT point the heater at propane cylinder(s) within 20 ft.
10. Always wear protective gloves when handling propane or heater.

PROPANE GAS INFORMATION

Propane gas is odorless; an odor-making agent is added to propane to help users detect a propane leak. The odor-making agent may fade, and gas may be present even without an odor.

Make certain you read and understand all warnings. This manual is a guide to safe and proper operation of this propane heater.

1. Install and use this heater with care, in accordance with the operation and warning guidelines. Follow all local ordinances and codes, and refer to the Standard for Storage and Handling of Liquefied Petroleum Gas, ANSI/NFPA 58 and the Propane Gas Installation Code CAN/CGA B149.2.
2. Use only the electrical voltage and frequency specified on the model plate. The electrical connections and grounding of the heater must follow the National Electric Code, ANSI/NFPA 70 or the Canadian Electrical Code, Part 1.
3. Electrical Grounding Instructions - This appliance is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle.
4. Use only the hose and factory preset regulator provided with this heater. DO NOT alter propane cylinders or regulator hose assembly.
1. Some people are unable to smell the odor of the man-made chemical added to propane (LP) or natural gas. Before using this product, you need to determine if you are able to smell the odorant used in these fuel gases.
2. Local propane (LP) gas dealers will provide a scratch-and-sniff pamphlet to help you become familiar with the odor used with fuel gas.
3. Smoking and the presence of animals can affect your sensitivity to odors.
4. Odorant in propane (LP) gas and natural gas is colorless and the odor (or intensity of the odor) can fade over time.
5. If there is an underground leak, soil can filter the odorant.
6. Propane (LP) gas is heavier than air; the odor may be more intense at lower levels.
7. Always be sensitive to the slightest gas odor. If you continue to detect the odor, treat this as a serious leak. See warnings discussed previously for propane (LP) gas leak procedure.



40-60K BTU LIQUID PROPANE HEATER

PROPANE GAS CRITICAL POINTS

1. Propane (LP) gas has a distinctive odor. Learn to recognize these odors.
2. DO NOT attempt to repair fuel leaks yourself. Remove yourself from the building/area and contact the appropriate professionals.
3. Periodically perform a sniff test around the heater and heater joints to determine if there is a propane (LP) gas leak. Any leak is serious; **CONTACT THE APPROPRIATE PROFESSIONALS IMMEDIATELY.**
4. 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.

PROPANE CYLINDER CAPACITY AND SIZE REQUIREMENTS

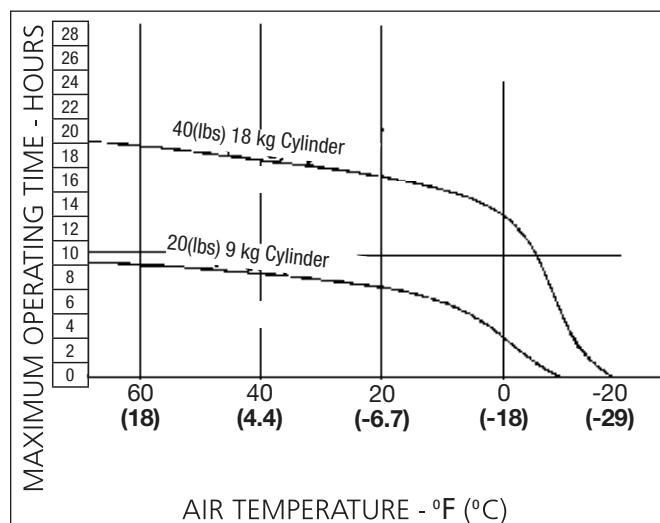
Utilize the chart below to determine the appropriate size of the cylinder required.

1. Select the lowest air temperature expected (X or Horizontal Axis).
2. Select the longest desired operation time (Y or Vertical Axis).
3. The intersection of these points will determine the cylinder. Use the closest curve to determine.

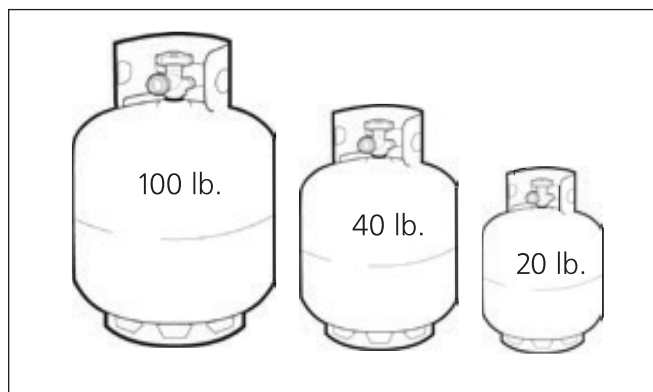
For proper combustion, all heaters need:

1. Full fuel cylinder
2. Proper air circulation
3. No frost on cylinder

60,000 BTU Heater Cylinder Requirements



PROPANE VAPORIZATION RATE



Propane Heater Cylinder Selection Chart

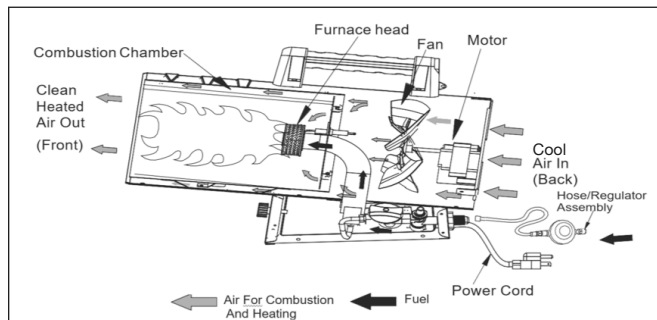
Lbs. of Propane In Cylinder	Max Continuous BTU Output/Hour at Various Temperatures		
	0	20	40
100	113,000	167,000	214,000
90	104,000	152,000	200,000
80	94,000	137,000	180,000
70	83,000	122,000	160,000
60	75,000	109,000	140,000
50	64,000	94,000	125,000
40	55,000	79,000	105,000
30	45,000	66,000	85,000
20	36,000	51,000	69,000
10	28,000	38,000	49,000



40-60K BTU LIQUID PROPANE HEATER

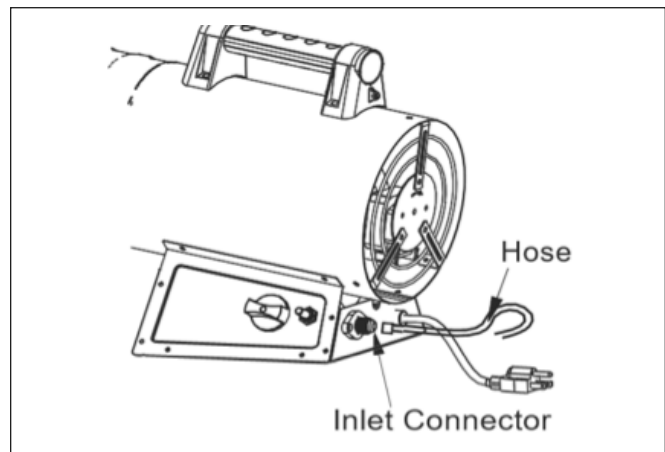
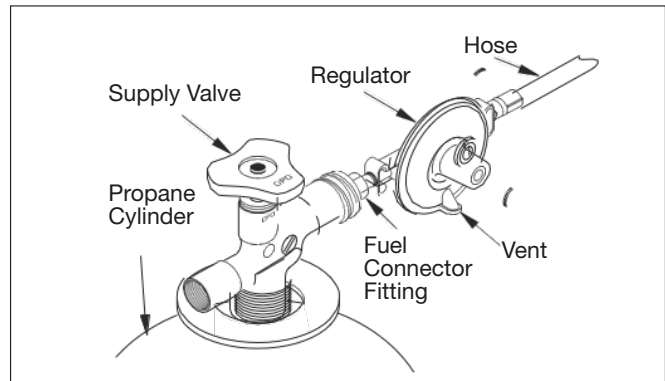
SYSTEM DESCRIPTION

1. **Fuel System Description:** The regulator hose assembly attaches to the propane gas supply. The propane gas is transferred to the heater through the automatic control valve.
2. **Ignition System Description:** The spark transformer and spark plug light the main burner.
3. **Safety Control System Description:** The system will shut down if the flame goes out.



PREPARING FOR OPERATION

1. Remove all items from the packaging. Check the heater and regulator for any signs of shipping damage. If damaged, do not attempt to operate and promptly contact the dealer.
2. Provide an appropriate propane supply system.
3. Remove the protective plastic cover cap from the brass fitting of the hose.
4. Connect the fuel connector fitting of the regulator hose assembly to the propane cylinder.
5. Turn the nut on the male propane fitting counterclockwise into the female output on the cylinder valve. Tighten firmly using a wrench. Ensure the regulator vent is pointing down to protect from weather damage.
6. Remove the protective plastic cover cap from the brass fitting on the inlet connection located below the air intake.
7. Connect the hose to the inlet connection. Tighten firmly using a wrench.
8. Open the cylinder gas valve and check all gas connections with a soap and water solution.



OPERATING PRECAUTIONS

As discussed previously within the Propane Gas Information Section, propane is heavier than air. If there is a propane leak, the gas will sink to the floor where it mixes with the surrounding air, which may lead to explosion if ignited. To avoid propane leaks and establish safe gas-handling habits, please thoroughly read the Propane Gas Information Section. Clarify any questions or concerns with a local propane dealer. Understanding propane (LP) gas systems and use is imperative to the use of this product.

This is a direct-fired heater—this system converts (approx.) 100% of the fuel into direct heat. While this heater converts nearly 100% of the propane into heat, the heater will still release small amounts of carbon monoxide as a by-product. It is necessary that the operator provides adequate ventilation while this heater is in use; if the heater lacks proper ventilation, carbon monoxide will accumulate to potentially fatal levels.



40-60K BTU LIQUID PROPANE HEATER

Symptoms of carbon monoxide poisoning include:

- Headache
- Dizziness
- Burning eyes and nose
- Nausea
- Dry mouth and sore throat

DO NOT ignore these symptoms; early symptom identification can save lives. If any of the symptoms are noticed, immediately follow the instructions to turn the heater off. Vacate the workspace and open doors or windows to allow the CO to dissipate before reentry.

A forced air heater requires air to be pushed through the heater. This heater was designed with a fan to push air through the system; therefore, this heater should not be modified in any fashion. Never attempt to modify the heater to bypass the safety control system.

The operator is responsible for informing all occupants of the workspace of the safety precautions and hazards associated with using a forced air propane heater.

ADJUSTING HEATER TILT ANGLE

1. Rotate the Adjustable Tilt Fastener counterclockwise until loose.
2. Pull the Supporting Plate downward to desired height.
3. Rotate the Adjustable Tilt Fastener clockwise to tighten.

OPERATION

1. Thoroughly read the product safety instructions above to ensure proper installation, ventilation and safety measures are met.
2. Place heater on a clean, stable and level surface.
3. Plug the power cord into a three-prong, grounded extension cord (UL/CSA Listed)
 - a. <100 Foot Extension Cord – 16 AWG
 - b. 101 to 200 Foot Extension Cord – 14 AWG
4. Plug the extension cord into a 120V/60Hz, three-hole, grounded outlet. The motor will start and the fan will rotate, forcing air out of the heater.
5. Fully open the propane cylinder valve (please read and understand the Propane Information Section prior to operation).

6. Press and hold the Fuel Valve Button. The heater will ignite within a few seconds.
 - a. Troubleshooting – If the heater fails to ignite, the hose may have air in it. Keep the fuel valve button pressed for 20 seconds. Release the fuel valve button and wait 20 seconds for unburned fuel to exit the heater.
7. 30 seconds after ignition, the automatic fuel control system is activated.

TURNING THE HEATER OFF

1. Tightly close the propane supply valve on the propane cylinder.
2. Within a few seconds, the heater will burn the remaining gas left in the supply hose.
3. Unplug the heater.
4. Allow the heater to cool before transporting to storage.

STORAGE

1. Store propane cylinder(s) in a safe manner. Refer to chapter 5 of Standard for Storage and Handling of Liquefied Petroleum Gases, ANSI/NFPA 58 and the Propane Installation Code CAN/CGA B149.2. Always store propane cylinder(s) outside.
2. Replace the protective plastic covers over the brass fittings on the inlet connector and the regulator hose assembly.
3. Store the heater and regulator hose assembly in a dry, clean and safe place. DO NOT store the regulator hose assembly within the heater combustion chamber. DO NOT sharply kink the hose for storage.
4. Allow the heater to cool completely prior to storage.

MAINTENANCE

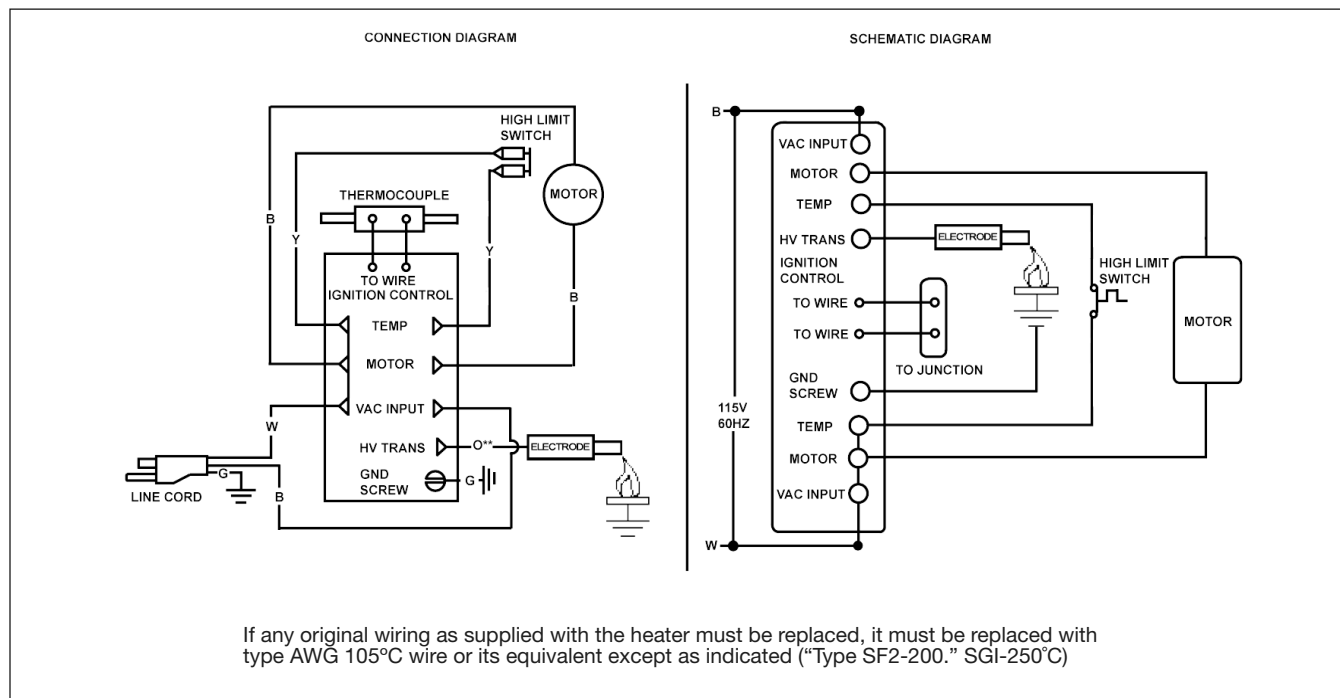
⚠ WARNING: Never service the heater while it is connected to a propane supply, in operation, or still hot. Severe burns and electrical shock can occur.

1. Keep the heater clean. Remove all dust and debris before each use. If the dirt or dust is difficult to remove, use a damp cloth to wipe clean.
2. Inspect the heater before each use. Inspect connections and hoses for leaks. DO NOT attempt to operate if a leak is suspected.
3. Have a qualified service agency inspect the heater annually.



40-60K BTU LIQUID PROPANE HEATER

Wiring Diagram



ANSI Z83.7-2011
CSA 2.14-2011
CSA File No. 265642





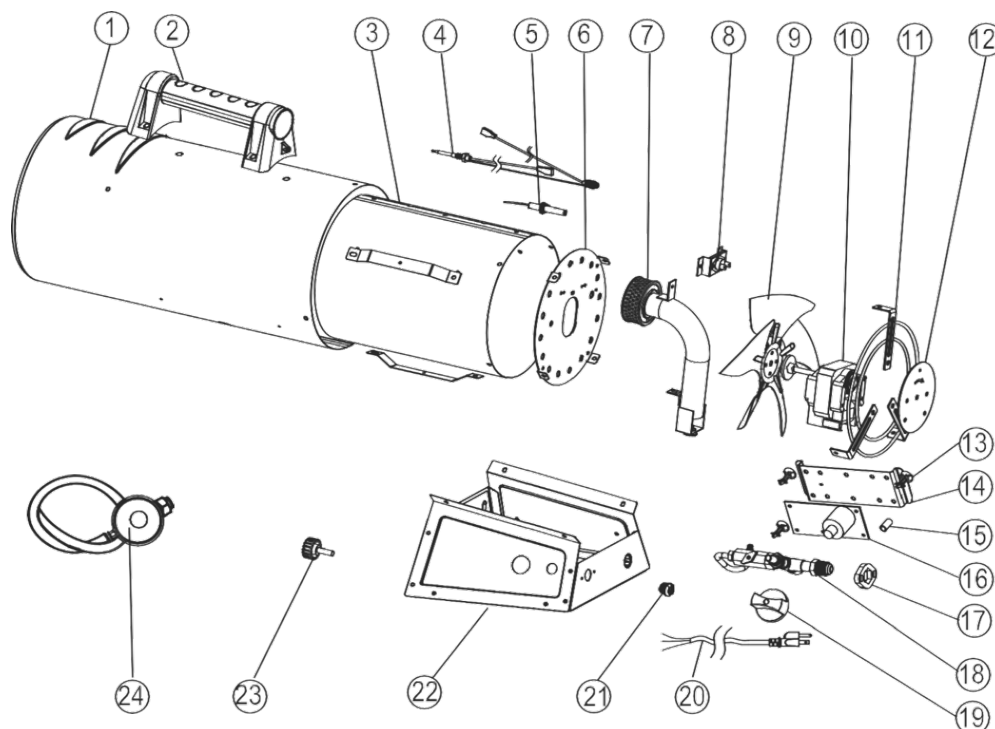
40-60K BTU LIQUID PROPANE HEATER

PARTS LIST

FIGURE	DESCRIPTION	QUANTITY
1	Outer Cylinder	1
2	Handle	1
3	Middle Cylinder Assembly	1
4	Thermocouple	1
5	Spark Plug	1
6	Flame Holder Assembly	1
7	Head Assembly	1
8	Self-Reset Thermostat Assembly	1
9	Fan Blade	1
10	Motor	1
11	Back Grill	1
12	Motor Mounting Bracket	1
13	Wiring Board Bracket	2
14	Control Plate Base	1
15	Support Plate	1
16	Wiring Board	1
17	Inlet Nozzle Fixed Bracket	1

FIGURE	DESCRIPTION	QUANTITY
18	Deflation Valve Assembly	1
18a	Copper Valve Body	1
18b	Ball Valve Body Assembly	1
18c	Copper Pipe Assembly	1
18d	Spray Nozzle	1
19	Temperature Control Knob	1
20	Power Cord and Plug	1
21	Cord Lock	1
22	Base Assembly	1
22a	Front Plate	1
22b	Back Plate	1
22c	Left Rear Plate	1
22d	Base Plate	1
22e	Supporting Plate	1
23	Adjustable Tilt Fastener	1
24	Hose Regulator Assembly	1

PARTS DIAGRAM



Note: Not all components of the 40-60K BTU Liquid Propane Heater are replacement items, but are illustrated as a convenient reference for location and position in the assembly sequence. The manufacturer and/or distributor have provided the parts list and assembly diagram in this manual as a reference tool only. Neither the manufacturer nor distributor makes any representation or warranty of any kind to the buyer that he or she is qualified to make any repairs

to the product, or that he or she is qualified to replace any parts of the product. In fact, the manufacturer and/or distributor expressly states that all repairs and parts replacements should be undertaken by certified and licensed technicians, and not by the buyer. The buyer assumes all risk and liability arising out of his or her repairs to the original product or replacement parts thereto, or arising out of his or her installation of replacement parts thereto.



40-60K BTU LIQUID PROPANE HEATER

OEMTOOLS™ ONE YEAR WARRANTY

For up to one year from the date of purchase of this OEMTOOLS™ product, if you find any defect in material or workmanship, through normal usage, return it to the place of purchase, or to OEMTOOLS™ for repair or replacement at our discretion. In order to obtain this service, send the product and proof of purchase, transportation pre-paid, to OEMTOOLS™ Q.A. Dept, 3580 E. Raines Road #3, Memphis, TN 38118. We will not be responsible for lost or damaged goods during transportation; please insure your package. If our inspection verifies the defect, we will either repair or replace the product at our election, or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

OEMTOOLS™ does not provide warranty for products labeled other than OEM or OEMTOOLS™. OEMTOOLS™ will not provide any warranty for products subjected to abnormal use. Abnormal use includes, but is not limited to, abuse, accident, alteration, neglect, and unauthorized or unreasonable use or repairs. This warranty does not cover bits, blades, files, batteries, or calibration. We recommend that you maintain your tools and sharpen or replace blades, bits, files, and batteries as necessary. OEMTOOLS™ reserves the right to make any changes in construction or design at any time without any obligation in incorporating such changes to tools or equipment previously sold.

OEMTOOLS™ makes every effort to ensure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of one year from the date of purchase. This warranty does not apply to damage due directly or indirectly to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear or to lack of maintenance.

We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

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