LAVOR

SIMPLY STRONGER

INDUSTRIAL FAN FORCED HEATER

IFH-175

USER MANUAL

CONTENTS

ABOUT THIS DOCUMENT

This manual has been compiled by Lavorwash Pty Ltd and is an integrated part of the product with which it's enclosed and should be kept with it for future reference. Please read all of the information supplied in this User Manual before operating this product.

This manual describes the purpose for which the product has been designed and contains all the necessary information to ensure its correct and safe use. We recommend that you read the information supplied before carrying out any maintenance or repair. By following all the general safety instructions contained in this manual you will help to ensure operator safety and extend the potential life span of the equipment.

All photographs and drawings in this manual are supplied by Lavorwash Pty Ltd to help illustrate the operation of the product. Whilst every effort has been made to ensure accuracy of information contained in this manual our policy of continuous improvement determines the right to make modifications without prior warning.

Contact your nearest Lavorwash Pty Ltd if you are unsure about any information included in this manual or require any additional information about the safe use, operation, maintenance, or repair of this equipment.

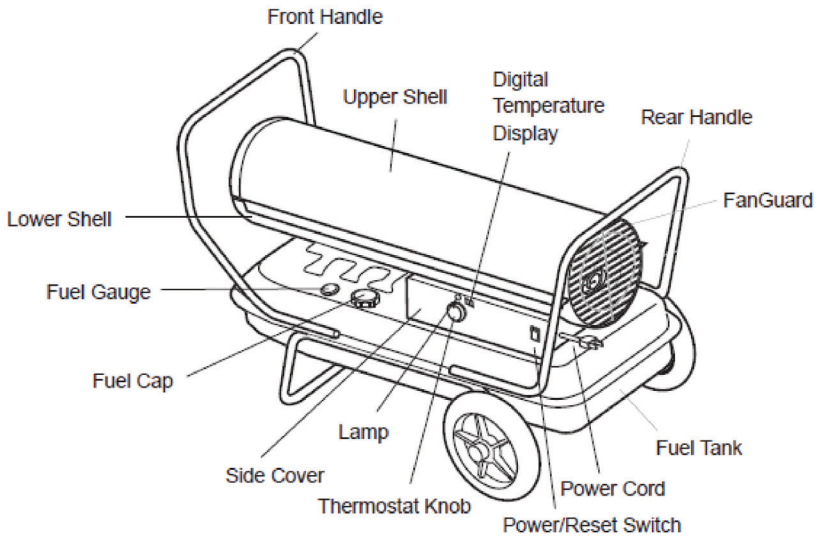
INTRODUCTION

- The LAVOR IFH-175 Industrial Fan Forced Heater generates 175,000 BTU (51kW) of infrared heat, making it ideal for heating large, well-ventilated spaces such as garages and warehouses.
- Suitable for use with diesel and kerosene.
- Features a durable 50L steel fuel tank with an economical average fuel consumption of 5 liters per hour.
- Includes an LED thermostatic control with automatic cut-off, ensuring cost savings through reduced energy and fuel consumption.
- Equipped with a timed ventilation system to efficiently cool the combustion chamber.
- Designed with a tough, powder-coated housing for enhanced protection against the elements and challenging work environments.

SPECIFICATIONS

Voltage ~ Frequency:	230V ~ 50Hz
Power:	242W
Power Cable / Plug:	10A AU Style Plug
Heat Output:	175,000 BTU/Hr (51kW)
Average Heating Area:	290m²/h
Fuel Consumption:	5L/Hr
Fuel Type:	Diesel / Kerosene
Fuel Tank Capacity:	50L
Maximum Run Time:	10Hrs
Assembled Dimensions (LXWXH):	1003mm x 590mm x 635mm
Weight:	27.2kg

EQUIPMENT IDENTIFICATION



SAFETY GUIDELINES

Please read and ensure that you understand all of the operating instructions, safety precautions and warnings in this Instruction Manual before operating or maintaining this equipment. Save this user manual and keep it with the equipment for future reference. An accident can often be avoided by recognizing a potentially hazardous situation before it occurs, and by observing the appropriate safety procedures.

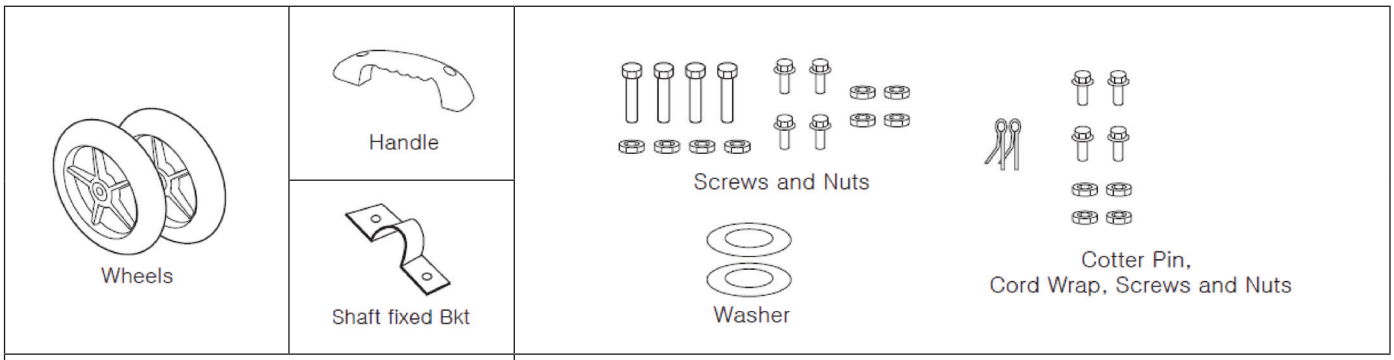
Never use this equipment or modify it in any way that has not been specifically recommended by the manufacturer. Ensure that the heater is maintained, cleaned and serviced regularly and stored in a suitable environment. Check the equipment for any signs of damage before use. Contact a qualified electrician for advice on any issues relating to electrical safety in your working environment.

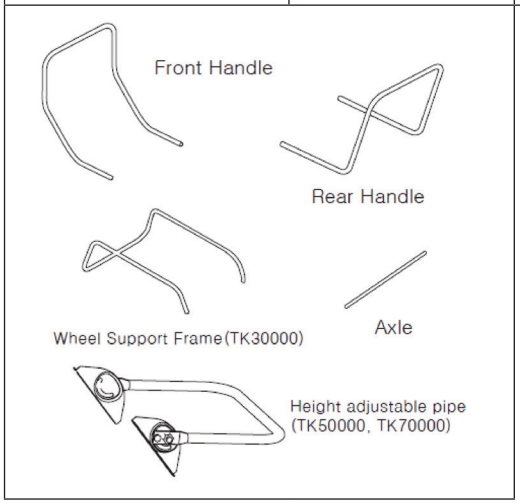
GENERAL SAFETY

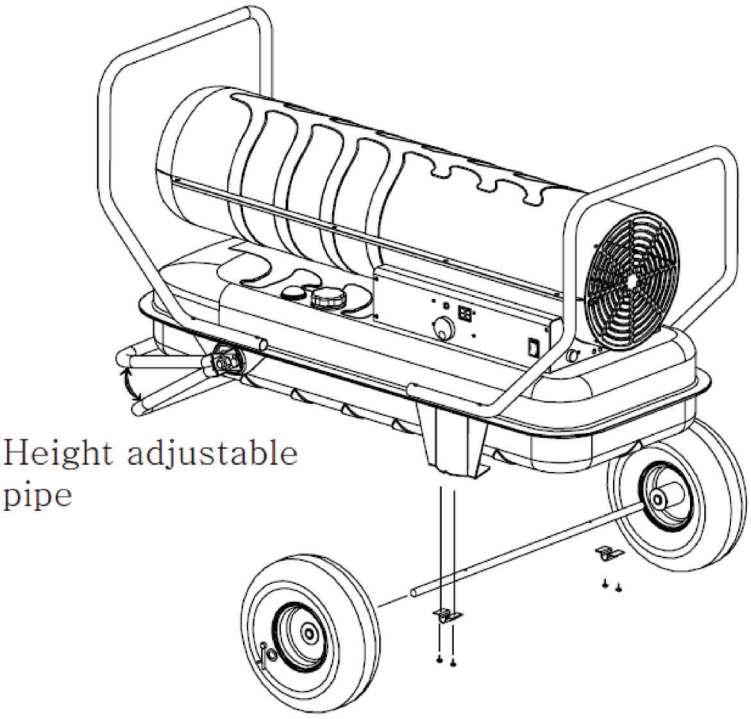
- Never leave the heater unattended while in operation.
- Improper use of this heater may lead to serious injury or death caused by burns, fire, explosion, electrical shock, and/or carbon monoxide poisoning.
- Use this heater exclusively in well-ventilated areas to ensure safety and proper operation.
- People with breathing problems should consult aphysician before using the heater.
- Carbon Monoxide Poisoning: Early signs of carbon monoxide poisoning resemble flu-like symptoms such as headaches, dizziness, and/or nausea. If you have these symptoms, your heater may not be working properly. Some people are more affected by carbon monoxide than others. These include pregnant women, those with heart or lung problems, anemia, or those under the influence of alcohol, or at high altitudes.
- Have the heater serviced regularly.
- Never use this heater in living or sleeping areas.
- Never use fuels such as gasoline, benzene, paint thinners, or other oil compounds in this heater.
- Never operate this heater in areas where flammable vapors are present, as it poses a serious fire or explosion hazard.
- Never refill the heater's fuel tank while heater is operating or still hot. This heater is **EXTREMELY HOT** while in operation.
- Keep all combustable materials away from heater.
- Never move or handle the heater while it is still hot.
- Never transport the heater with fuel in its tank.
- When used with an optional thermostat or if equipped with one, the heater may start automatically at any time.
- Always place the heater on a stable and level surface.
- Always keep children and animals away from the heater.
- Use only the electrical power (voltage and frequency) specified on the heater's model plate. Always use a three prong, grounded outlet and extension cord.
- Always install the heater in a location where it is not directly exposed to water spray, rain, dripping water, or wind.
- Always unplug the heater when it is not in use.

WARNING:
No responsibility is accepted for incorrect use of this equipment. Incorrect use can result in damage to the equipment and danger to the user. Warranty will be void in the event of incorrect use. The warnings, cautions and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

ASSEMBLY







FEATURES	IFH-175
Wheel Support Frame	Yes
Wheels	Yes
Shaft fixed Bracket	Yes
Front Handle	Must be Assembled
Rear Handle	Must be Assembled
Axle	Yes
Handle	No
Screws	No
Screws and Nuts	Yes
Cotter Pin and Washer	Yes

TOOLS REQUIRED:

- **Medium Phillips screwdriver (2.75 inches).**
- **M5 open-end or adjustable wrench.**
- **Long nose pliers.**

ASSEMBLY INSTRUCTIONS:

1. Slide the axle through the wheel support frame. Install the wheels on the axle, ensuring the extended hub of the wheel points toward the wheel support frame.

2. Place flat washers and a cotter pin on the axle ends. Use long nose pliers to bend the cotter pin and secure it in place.

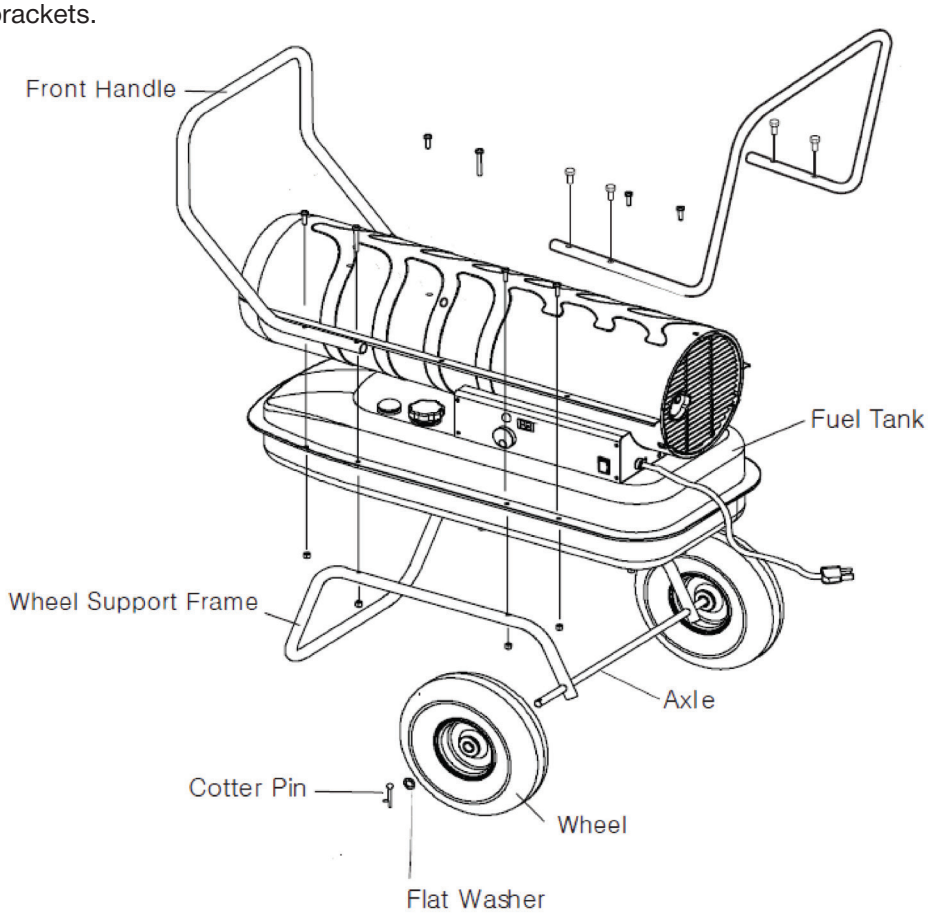
3. Position the heater on the wheel support frame, ensuring the air inlet end (rear) of the heater is above the wheels. Align the holes on the fuel tank flange with the holes on the support frame.

4. Place the handle on top of the fuel tank flange. Insert screws through the handle, fuel tank flange, and wheel support frame as shown in Figure 8. Attach nuts finger-tight after inserting each screw.

5. Once all screws are inserted, firmly tighten all nuts.

Important: *Do not operate the heater without the support frame fully assembled and securely attached to the fuel tank.*

This model comes pre-assembled with handles and an adjustable pipe. Assembly is only required for the wheels with shaft brackets.



OPERATION

FUEL GUIDELINES

- For optimal performance, only use Diesel Fuel or 1-K kerosene in this heater. 1-K kerosene is refined to virtually eliminate contaminants such as sulfur, which can cause unpleasant odors, like a rotten egg smell, during operation.

- Be aware that alternative fuels do not burn as cleanly as 1-K kerosene. If alternative fuels are used, ensure adequate fresh air ventilation to offset any additional contaminants introduced into the heated space.

Note: Kerosene should be stored only in a blue container marked “kerosene.” Never store kerosene in a red container, as red signifies gasoline.

- NEVER store kerosene inside a living space. Store it in a well-ventilated area outside the living area.
- NEVER use volatile fuels such as gasoline, benzene, alcohol, white gas, camp stove fuel, paint thinners, or other oil compounds in this heater. These fuels are highly flammable and could cause a fire or explosion.
- NEVER store kerosene in direct sunlight or near heat sources.
- NEVER use kerosene that has been stored from one season to the next, as kerosene deteriorates over time. Old kerosene will not burn properly in this heater.

OVERVIEW OF HEATER DESIGN

Fuel System:

- This heater is equipped with an electric air pump that forces air through an air line connected to the fuel intake, and then through a nozzle in the burner head. When air flows in front of the fuel intake, it causes fuel to rise from the tank and spray into the burner nozzle.

- The air and fuel mixture is then atomized into a fine mist and sprayed into the combustion chamber.

SureFire Ignition System:

- An electronic ignitor sends voltage to a specialized spark plug, which ignites the fuel-air mixture in the combustion chamber.

Air System:

- A heavy-duty motor powers a fan that forces air into and around the combustion chamber. The air is heated and released from the front of the heater, creating a steady flow of warm air.

THE SAFETY SYSTEM

Temperature Limit Control:

This heater includes a Temperature Limit Control to automatically turn off the heater if the internal temperature rises to an unsafe level.

If the control activates and shuts off your heater, it may require servicing.

Once the temperature falls below the reset threshold, you can restart the heater.

Electrical System Protection:

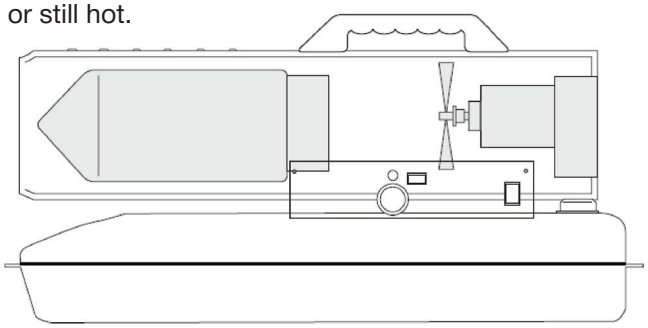
- The heater's electrical system is safeguarded by a fuse mounted on the PCB Assembly. This protects the electrical components from damage.
- If the heater fails to operate, inspect and replace the fuse as needed.

Flame-Out Sensor:

- A photocell monitors the flame in the combustion chamber during operation.
- If the flame goes out, the sensor automatically shuts off the heater for safety.

FUELING INSTRUCTIONS

- NEVER fill the heater's fuel tank in living spaces; always fill the tank outdoors.
- Avoid overfilling the tank, and ensure the heater is placed on a level surface.
- NEVER refill the fuel tank while the heater is operating or still hot.



Important: First Ignition
When lighting the heater for the first time, do so outdoors. This will allow any oils or residues from manufacturing to burn off safely.

FRESH AIR VENTILATION
Provide a fresh air opening of at least three (3) square feet (2,800 sq. cm) for every 30,000 kcal/Hr. rating.

TO START HEATER

1. Fill the fuel tank with kerosene or diesel
2. Securely attach the fuel cap.
3. Plug the power cord into a three-prong, grounded extension cord (at least six feet long).
Extension Cord Wire Size Requirements:
6 to 10 feet (1.8 to 3 meters): Use 18 AWG conductor.
11 to 100 feet (3.4 to 30.53 meters): Use 16 AWG conductor.
101 to 200 feet (30.8 to 61 meters): Use 14 AWG conductor.

4. Turn the THERMOSTAT CONTROL KNOB to the desired setting and push the power switch to the "ON" position. The power indicator lamp will light, and the heater will start.

If the heater does not start:
Adjust the thermostat to a higher setting. If it still doesn't start, turn the power switch off and then back on. Refer to the Troubleshooting Chart if necessary.

Note: The heater's major electrical components are protected by a safety fuse mounted on the PCB board. If the heater fails to start, check and replace the fuse as necessary. Ensure the power source is supplying the correct voltage and frequency.

TO SHUT DOWN HEATER

1. Turn the power switch to "OFF."
2. Unplug the power cord.

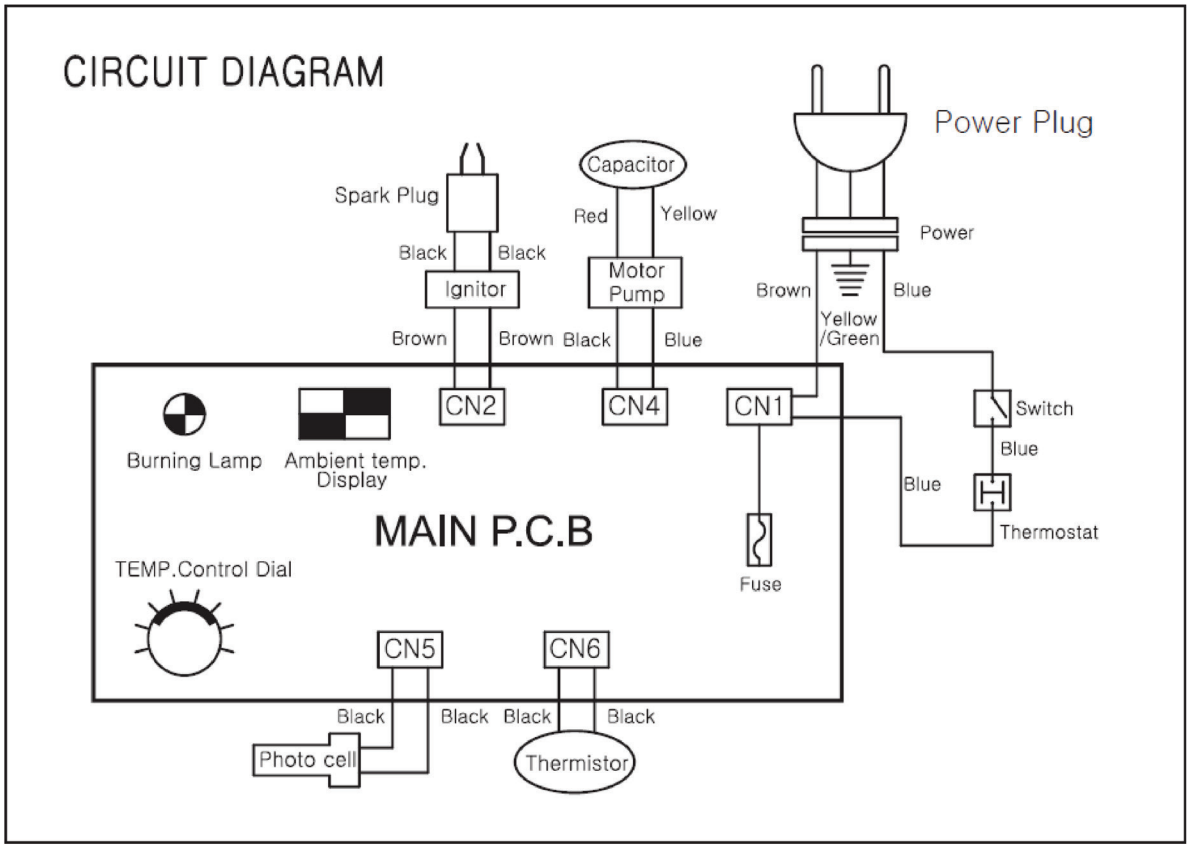
TO RESTART HEATER
1. Wait 10 seconds after stopping the heater.
2. Follow the steps under "To Start Heater."

IMPORTANT STORAGE NOTES

- Fully reinstall the plug into the tank hole to ensure a complete seal.
- Store the heater in a location free from dust and corrosive fumes.
- Keep the heater in its original box with the original packing material.
- Always store the USER'S MANUAL with the heater for future reference.

WARNING! Do not turn the mains switch off or disconnect the heater from the mains supply to stop the heater or until the cooling cycle is complete. Turning the mains switch off, or removing the plug from the mains supply to stop the heater or before the cooling cycle is complete may cause overheating, possible damage to the heater and will void the warranty.

CIRCUIT/WIRING DIAGRAM



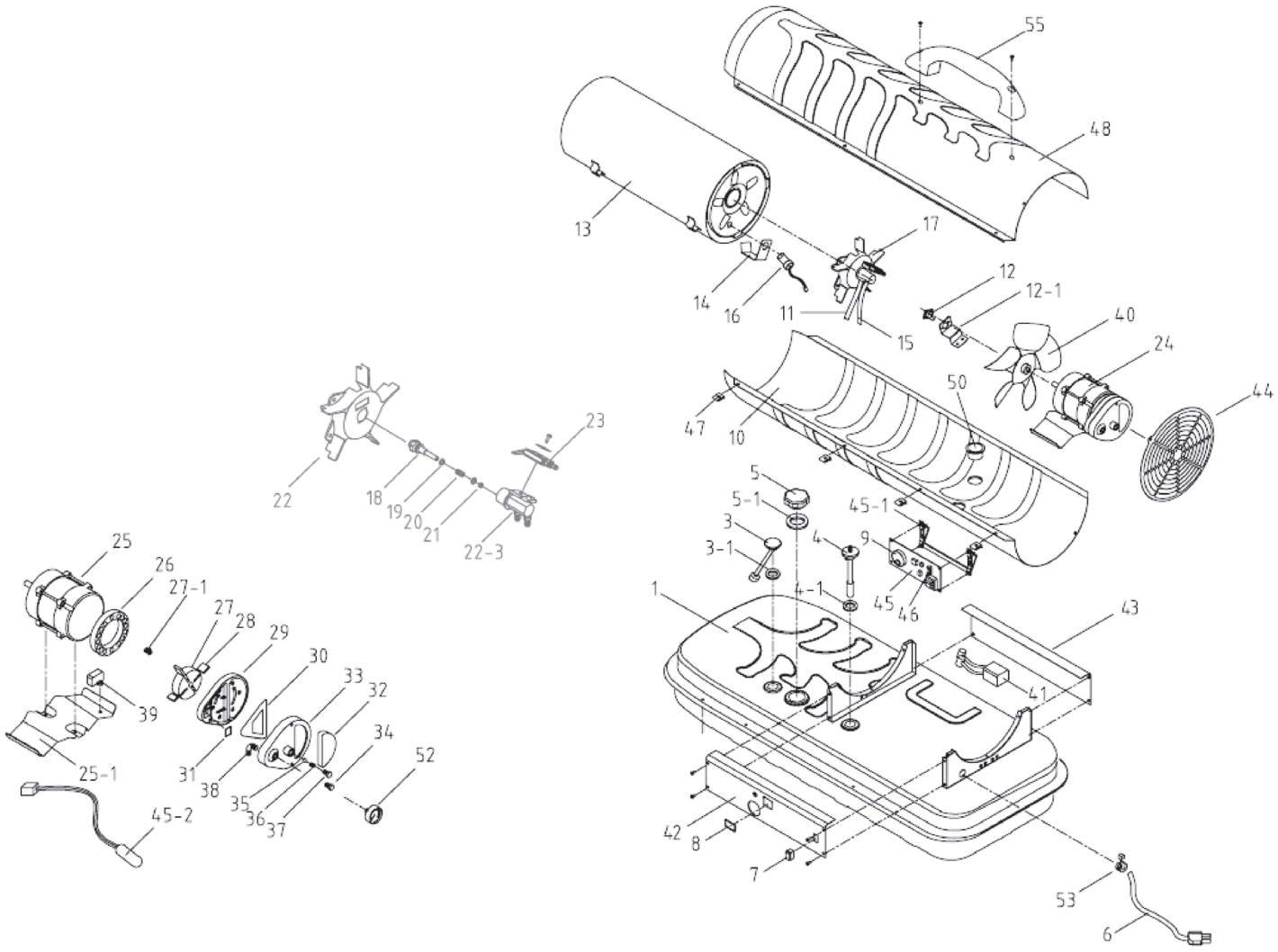
MAINTENANCE

Component:	Frequency:	Procedure:
Fuel Tank	Clean every 150-200 hours of operation or when necessary	Empty and rinse with fresh fuel.
Nozzle	Clean or replace once per season or when necessary	Contact Lavorwash Pty Ltd.
Photocell	Clean once per season or when necessary	Contact Lavorwash Pty Ltd.
Fuel Filter	Clean or replace twice per season or when neccesary	Clean the fuel filter with clean fuel.
Ignition Device	Clean or replace every 1000 hours of operation, or when necessary	Contact Lavorwash Pty Ltd.
Fan Blades	Clean when necessary	Contact Lavorwash Pty Ltd.

TROUBLESHOOTING / ERROR CODES

ERROR CODE	CAUSE	SOLUTION
E1	**Fire Frame Sensor Error:**	
	1. No Fuel in the tank 2. Dirty Photocell Lens 3. Dirty Air Output, Air Intake or Lint Filter 4. Dirty Nozzle 5. Water in Fuel Tank or Dirty Fuel Filter 6. Defective Ignitor 7. Wrong Pump Pressure 8. Bad Photocell 9. Poor electrical connection between ignitor and Main PCB Assembly 10. Ignitor Wire not attached to Spark Plug	1. Fill tank with Fuel 2. Clean Photocell Lens 3. See Air Intake and Lint Filters 4. See Nozzle 5. See Fuel Filter 6. Replace Ignitor 7. See Pump Pressure Adjustment 8. Replace Photocell 9. Check electrical components (See wiring diagrams, Page 13) 10. Attach IgnitorWire to Spark Plug
E2	**Room Temperature Detective Sensor Error:**	
	1. Poor electrical connection between Temper Detective Sensor and Main PCB 2. Defective Temper Detective Sensor 3. Thermostat setting too low	1. Check electrical connections (See wiring diagrams, Page 13) 2. Replace the Sensor 3. Turn Thermostat Control Knob to a higher setting
LO		
	1. Temperature below -9°C	1. Normal Condition
Hi		
	1. Temperature above 50°C	1. Power Off
Lamp Flickering		
	1. Error occured while working	1. Reoperate after reset

PARTS DIAGRAM



PARTS LIST

#	DESCRIPTION	#	DESCRIPTION
1	Fuel Tank Ass'y	36	Spring
2		37	Adjust Screw
3	Fuel Gauge Ass'y	38	Elbow Nipple
3-1	Fuel Gauge Packing	39	Capacitor
4	Fuel Filter Ass'y	40	Fan Ass'y
4-1	Fuel Filter Packing	41	Ignitor
5	Fuel Cap	42	Right Side Cover
5-1	Fuel Cap Packing	43	Left Side Cover
6	Power Cord	44	Fan Guard(Steel)
7	Power Switch		Fan Guard(Plastic)
8	Window Display	45	Main P.C.B Ass'y
9	Thermostat Control Knob	45-1	Main P.C.B Bracket
10	Lower Shell	45-2	Thermistor
11	Air Line	46	Fuse
12	Thermostat Limit Control	47	Clip Nut
12-1	Thermostat Bracket	48	Upper Shell
13	Combustion Chamver	49	Upper cover
14	Photocell Bracket	50	Bushing Grommet(s)
15	Fuel Line	50-1	Bushing Grommet(L)
16	Photocell	51	
17	Burner Head Ass'y	52	Air Pressure Gauge
18	Nozzle	53	Cord Bushing
19	Nozzle seal Washer	54	
20	Nozzle Seal Spring	55	Handle
21	Nozzle Sleeve	56	Front Handle
22	Burner Head	57	Rear Handle
22-1	Nipple(s)	58	Wheel Support Frame
22-2	Nipple(l)	59	Wheel Axle
22-3	Nozzle Rod	59-1	Washer
23	Spark Plug	59-2	Pin
24	Motor and Pump Ass'y	60	Wheel
25	Motor (Round)	61	
	Motor (Square)	62	
25-1	Motor Base(Round)	63	Adjustable Pipe Support
	Motor Base(Square)	64	Pipe Support Bracket
26	Pump Body	65	Wheel Support Bracket
27	Rotor	66	Shaft Fix Bracket
27-1	Insert		
30	Blade		
31	End Pump Cover		
32	Filter Kit(Output Filter)		
33	Lint Filter		
34	Intake Filter		
35	End Filter Cover		

ENERGY RELATED PRODUCT (ErP) DIRECTIVE INFORMATION

Model:	IFH-175 - Industrial Fan Forced Heater		
Indirect Heating Functionality:	No		
Direct Heat Output:	175,000BTU / 51kW		
Fuel:	Diesel / Kerosene		Space Heating Emissions:
			Nox
Select Fuel Type:	Liquid		46mg/kWhinput (GCV)

Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Heat Output					**Useful Efficiency (NCV)**			
Nominal heat output	Pnom	51	kW		Useful efficiency at nominal heat output	$\eta_{th,nom}$	93.6	%
Minimum heat output (indicative)	Pmin	N/A	kW		Useful efficiency at minimum heat output (indicative)	$\eta_{th,min}$	N/A	%
Auxiliary electricity consumption					**Type of heat output/room temperature control (select one)**			
At nominal heat output	elmax	0.05	kW		single stage heat output, no room temperature control			No
At minimum heat output	elmin	0.05	kW		two or more manual stages, no room temperature control			No
In standby mode	elSB	N/A	kW		with mechanic thermostat room temperature control			No
					with electronic room temperature control			Yes
					with electronic room temperature control plus day timer			No
					with electronic room temperature control plus week timer			No
					other control options (multiple selections possible)			No
					room temperature control, with presence detection			No
					room temperature control, with open window detection			No
					with distance control option			No
					with adaptive start control			No
					with working time limitation			No
					with black bulb sensor			No
Permanent pilot flame power requirement								
Pilot flame power requirement (if applicable)	Ppilot	N/A	kW					

Contact Details	**Lavorwash Australia Pty Ltd** **Number:** 13 000 LAVOR (52867) **Email:** sales@lavorwash.com.au **Address:** 7/76 Rushdale Street, Knoxfield Victoria 3180 **Website:** www.lavorwash.com.au

LIMITED WARRANTY STATEMENT

Lavorwash Pty Ltd (hereafter referred to as “LAVOR”) warrants its customers that its products will be free from defects in workmanship or materials. Upon suitable notification, LAVOR will correct any defects by repairing or replacing any parts or components of the product determined to be faulty or defective.

This warranty will be considered void if the equipment has been subjected to improper installation, storage, alteration, abnormal operations, improper care, service, or repair

Warranty Period

LAVOR will cover both the parts and labour expenses required to correct defects during the specified warranty periods outlined below.

All warranty periods commence from the date of purchase from an authorized LAVOR dealer. If the end user cannot provide proof of purchase, the date of purchase will be assumed to be three months after the initial sale to the distributor.

1 Year
IFH-175 - 175,000 BTU Industrial Fan Forced Heater

90 Days
All replacement parts purchased outside of warranty period

Important: *All parts used in the repair or replacement of warranty-covered equipment will be covered for a minimum of 90 days or for the remainder of the original warranty period, whichever is longer, starting from the original date of purchase.*

Warranty Repair

Should LAVOR confirm the existence of a defect covered under this warranty, the defect will be addressed through repair or replacement by LAVOR.

Packaging & Freight Costs

The Customer is responsible for packaging and returning the equipment to LAVOR for assessment

After inspection, if no defect is found or if the equipment is determined not to be covered under the LAVOR warranty terms, the customer will be responsible for any labour and return transportation costs incurred. These costs will be discussed and agreed upon with the customer before the equipment is returned.

* Lavorwash Pty Ltd reserve the right to void any warranty for damages identified as being caused through misuse

Warranty Limitations

LAVOR will not accept responsibility or liability for repairs carried out by unauthorized technicians or engineers. LAVOR’s liability under this warranty is limited to the cost of correcting defects in LAVOR products.

LAVOR will not be liable for any incidental or consequential damages (such as loss of business or the hire of substitute equipment) resulting from the defect or the time required to correct it. This written warranty is the sole express warranty provided by LAVOR for its products.

Any implied warranties of merchantability are limited to the duration of this limited warranty for the equipment in question.

LAVOR assumes no responsibility for cable wear due to flexing or abrasion. The end user is responsible for routinely inspecting cables for potential wear and addressing any issues before cable failure occurs.

Claiming Warranty Coverage

The end user must contact Lavorwash Pty Ltd on 13 000 LAVOR (52867)

Step 1 - Reporting the Defect

Contact LAVOR or sales representative with the following information:

- Model number
- Serial number (usually located on the specification plate)
- Date of purchase

Contact LAVOR on 13 000 LAVOR (52867) for instructions on how to return the equipment for assessment.

Step 2 - Returning the Equipment

It is the customer's responsibility to ensure that the equipment is securely and appropriately packaged for collection, along with a copy of the original proof of purchase. Please note that LAVOR cannot accept responsibility for any damage to the equipment incurred during transit. Any claims related to damage caused by third-party couriers will be handled in accordance with the terms and conditions outlined in their road haulage association directives.

NOTE: Lavorwash Pty Ltd will be unable to process any warranty requests without a copy of the original proof of purchase.

Step 3 - Assessment and Repair

Upon receipt, the equipment will be assessed by an authorized LAVOR engineer to determine whether it is defective, in need of repair, and covered under the warranty policy. To qualify for warranty coverage, all equipment must have been used, serviced, and maintained as specified in the user manual.

If the repair is not covered under the warranty, a quotation for the repair, including labour costs and return delivery, will be provided to the customer (typically within 7 working days).

NOTE: If the repair quotation is not accepted, LAVOR will invoice for 1 hour of labour at $100 + GST per hour, in addition to return carriage costs (plus GST).

In cases where no fault can be found with the equipment, or, if incorrect operation of the equipment is identified as the cause of the problem, a minimum of 1 hour labour at $100 + GST per hour plus carriage costs will be required before the equipment will be despatched back to the customer.

Any equipment repaired or replaced under warranty will normally be ready for shipment back to the customer within 7 working days upon receipt of the equipment at an authorised LAVOR Repair centre (subject to part availability). Where parts are not immediately available LAVOR will contact you with a revised date for completion of the repair.

General Warranty Enquiries

For any further information relating to Lavorwash Pty Ltd warranty cover please call 13 000 LAVOR (52867) or send your enquiry via email to sales@lavorwash.com.au

Disclaimer:
The information provided in this document is, to the best of our knowledge, true and accurate. However, all recommendations and suggestions are made without guarantee. Since conditions of use are beyond our control, LAVOR disclaims any liability for loss or damage arising from the use of this data or suggestions.

Furthermore, no liability will be accepted if the use of any product, in accordance with this data or suggestions, infringes upon any patent. LAVOR reserves the right to modify product specifications and warranty statements without prior notice. All images included are for illustrative purposes only.

ENVIRONMENTAL PROTECTION

Recycle any packaging and unwanted materials responsibly, rather than disposing of them as waste. All tools, accessories, and packaging should be sorted, taken to a recycling centre, and disposed of in an environmentally friendly manner.

When the product becomes unserviceable or reaches the end of its working life, ensure that any fluids (if applicable) are drained into approved containers. Dispose of the product and its fluids in accordance with local regulations.

WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE) STATEMENT

Information on Disposal for Users of Waste Electrical & Electronic Equipment

The symbol on the product(s) and accompanying documents indicates that used electrical and electronic products should not be disposed of with general household waste.

For proper treatment, recovery, and recycling, please take the product(s) to designated collection points, where they will be accepted free of charge.

Dispose of this product at the end of its working life in compliance with the Waste Electrical and Electronic Equipment (WEEE) regulations. For recycling information regarding this equipment, contact your local solid waste authority. Proper disposal of this product helps conserve valuable resources and prevents potential negative effects on human health and the environment, which could result from inappropriate waste handling.

Please contact your local authority for details on your nearest designated collection point. Penalties may apply for the incorrect disposal of this waste, in accordance with your national legislation.

LAVOR
SIMPLY STRONGER

LAVOR - IFH-175
USER MANUAL
175,000BTU - Industrial Fan Forced Heater

IFH-175

www.lavorwash.com.au

IMPORTANT! SAFETY FIRST!

Before attempting to use this product please read all the safety precautions and operating instructions outlined in this manual to reduce the risk of fire, electric shock or personal injury.