HEAT WAGON, INC
INDIRECT FORCED AIR DIESEL CONSTRUCTION HEATERS
INSTRUCTIONS AND PARTS LIST

MODELS

180,000 BTU/HR	290,000 BTU/HR
HVF 180	HVF 300

⚠ 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.

RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE

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C SA® US

11060012300

2. APPLIANCE DESCRIPTION

Mobile space heater with:
closed combustion chamber and gas exhaust duct (indirect-fired heaters)

3. TECHNICAL SPECIFICATIONS

Model #	HVF180	HVF300
Firing rate (BTU/hr)	180,000	287,350
Air Flow Rate (ft?/min)	1594	2650
Range of fuel oils	Diesel / Kerosene / #1-2 Fuel Oil	Diesel / Kerosene / #1-2 Fuel Oil
Fuel Consumption (gal/hr)	1.29	2.06
Fuel Nozzle	1.00 60° H	1.50 80° W
Efficiency (%)	87.1	88.5
Noise Level at 2m (dB(A))	73	73
Voltage (V)	115V 60Hz 1ph	115V 60Hz 1ph
Electrical Power (W)	460	800
Current Rating (A)	7.0	12.5
Weight (lb)	167	267
Lenght (in)	55	66
Width (in)	24	27
Height (in)	31	37
Flue Diameter (in)	6	6
Tank Capacity (gal)	14	26
Fuel Pressure (psi)	175	175
Air Lock Setting	2	5.5

4. INSTALLATION INSTRUCTIONS

4.1. General instructions

THE INSTALLATION OF THE EQUIPMENT SHALL BE IN ACCORDANCE WITH THE REGULATION OF AUTHORITIES HAVING JURISDICTION AND CSA B139.
The heater must be operated only by properly trained personnel. The manufacturer's instructions must be followed.
The heater must be installed and operated so that people are not exposed to dangers deriving from exhaust gases, from the hot air flow and in such a way that no fire risks exist.
It is forbidden to install the heater in the surroundings of flammable materials, combustible products, or in places where explosion risk exist.
When an indirect-fired heater connected to a flue pipe is used in a closed room, provide a minimum opening area of 1 square foot per US gallon capacity at the unit level.
When an indirect-fired heater not connected to a flue pipe is used in a closed room, provide a minimum opening area of 3 square feet per US gallon capacity at the unit level and a continuous, natural air circulation through windows and doors.
For the use of the heater the general and special fire safety regulations in force in all fields of applications must be followed. In any case the following minimum safety clearances from materials or objects in the surroundings of the heater must be ensured:

Sides: 2 ft (610 mm) Air inlet: 2 ft (610 mm)
Top: 5 ft (1520mm) Air outlet: 10 ft (3050 mm)
Flue pipe: 3 ft (915 mm)

Floors and ceilings must be made of fireproof materials in the place where the heater is operated.
The air inlet and outlet must never be blocked for any reason.
Install the heater on a flat, level floor in a steady position.

4.2 Assembling the heater

Before operating the heater, assemble axle, wheels and lower support following the diagram below:

5. INSTRUCTIONS FOR USE

5.1 Start-up

The heater is factory set for operation without room thermostat.
If operation with room (remote) thermostat is desired, remove the socket cover (Fig. 1 nr. 1) and insert the thermostat plug into the socket.
Fill the tank with proper fuel.
Connect the supply plug to a 115V ~ 60 Hz single phase earthed socket. The green lamp indicates that the heater is powered.
WARNING: THE APPLIANCE MUST BE GROUNDED

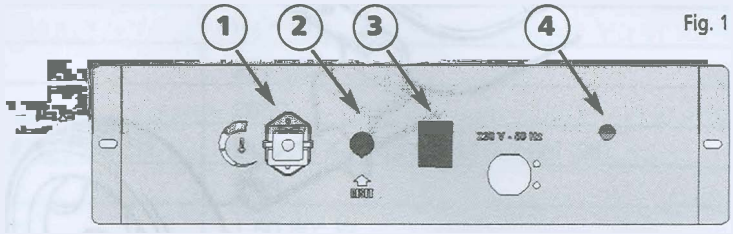
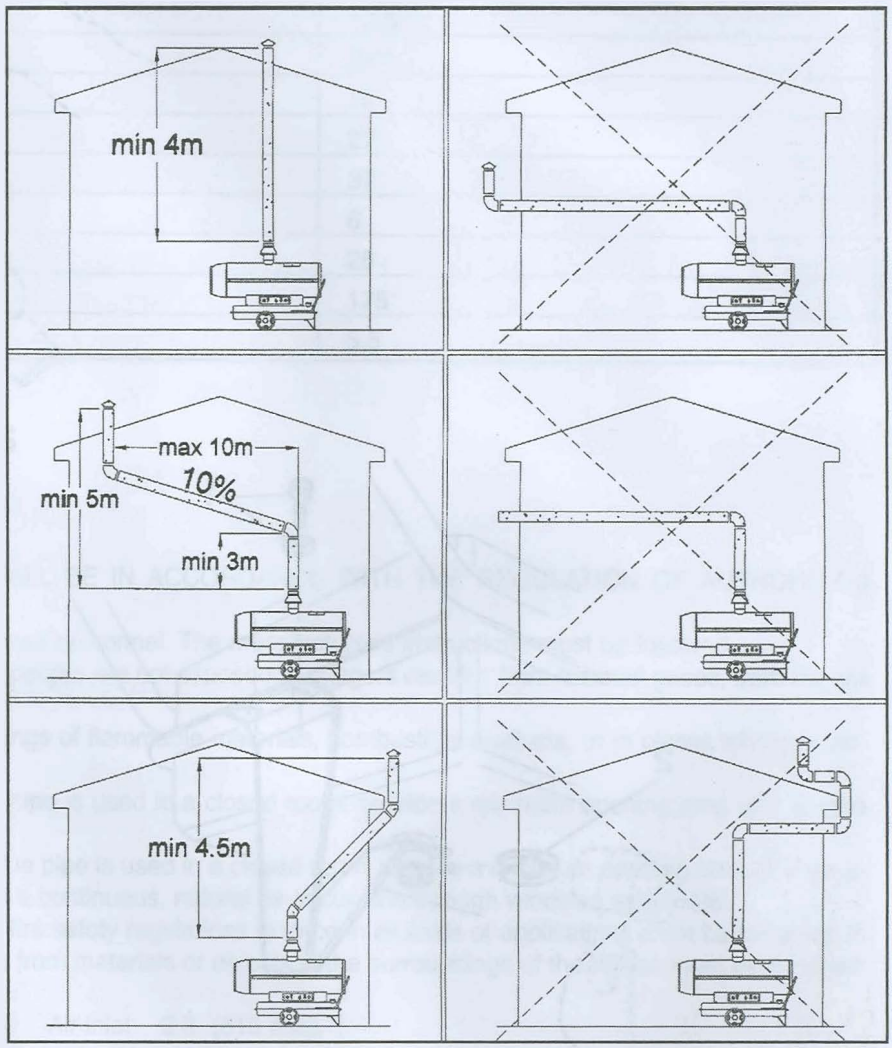


Fig. 1

1- Remote thermostat socket
2- RESET pushbutton
3- ON/OFF switch
4- Power lamp

• Connect the heater to a chimney or to a exhaust duct. To get a proper draft (at least 0,04 water inches) in the chimney the exhaust gas path must rise. Avoid any elbows and bends in the first part of the exhaust ducts for at least 9 feet. For operation of heater in closed rooms without flue refer to the instructions for installation (par. 4)
• If a room (remote) thermostat is used, set maximum temperature on it.
• Turn switch to position "ON"
• Set the desired temperature on room thermostat.



5.2. Reset after lockout – Safety air pressure switch

The heater is equipped with a Reset pushbutton. When the heater locks out, the red lamp on the pushbutton (fig. 1 n°2) lights up. In this case push the Reset button (see also clause 7 "Troubleshooting") to restart the heater.
The heater is also equipped with an air pressure switch that controls the airflow pressure and locks the heater out in the event of an overheating. If this occurs, detect and eliminate the cause of overheating before using the heater again. Have the heater inspected by a qualified technician if required. See point above for resetting.

5.3. Shut down.

Set switch to "OFF" to shut the flame off. The fan will go on rotating for about 1 min 45 sec to cool the heater down. The fan motor will automatically stop at the end of the aftercooling time, then the unit can be disconnected from mains.

Never disconnect the supply plug to stop the heater while in operation
The heat accumulation could damage the components: allow the cooling sequence to be carried out

5.4 Outdoor use

If the heater is used outdoors, follow the general installation instructions detailed above (see point 4). Moreover, the heater should not be directly exposed to the weather. Provide proper protection from rain, snow, wind, humidity etc. the use of a vent cap is also required.

6. MAINTENANCE

Before carrying out any maintenance operation, disconnect the power plug.
Maintenance must be carried out by qualified personnel (see also par. 7)
The appliance must be thoroughly cleaned once a year to ensure good combustion and long life.
Clean periodically
the oil spraying nozzle and its filter;
the oil pump filter
the main fuel filter cartridge
the ignition electrodes
the fan blades
the inside of the appliance, using compressed air
the flame sensor with a mild detergent
the combustion chamber, to keep it free from soot

Periodically check cables and electrical connections
Check the oil filter and replace if necessary.

7. TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
Heater does not start	No power	Check main distribution board and power supply line
	Faulty cable/connections	Check/have cable replaced by a qualified electrician
	Burnt fuse	Check and replace if required
	Room thermostat set too low	Set remote thermostat on a higher temperature
	Room thermostat socket cap not inserted	Insert cap into the thermostat socket
	Heater in lock-out state	Reset by disconnecting power, then reconnect power.
Heater starts, flame ignites but then heater locks out	Dirty or faulty flame sensor	Clean or replace
	Faulty burner control unit	Contact service personnel
Heater starts, flame does not ignite and then heater locks out	Clogged nozzle	Clean using compressed air only or replace if necessary
	Flame sensor receives an external light signal during ignition sequence	Check for external lights (sun, lamps, etc.)
	Faulty burner control unit	Contact service personnel
	No fuel	Fill tank
	Ignition fault, dirty or incorrectly spaced electrodes	Clean electrodes, contact service personnel if required
Heater starts, but combustion is not good	Dirty or blocked nozzle	Clean using compressed air only or replace if necessary
	Clogged filters	Clean or replace
	Leaks in fuel circuit	Check and eventually replace
	Oil pump provides low pressure	Contact service personnel
	Insufficient combustion air	Wrong air lock setting
	Insufficient ventilation air	Contact service personnel
Heater stops as the air pressure switch opens	The appliance has overheated due to restricted inlet air flow.	See point 5.2.
	Faulty air pressure switch	Contact service personnel