



342 N. Co. Rd. 400 East
Valparaiso, IN 46383
219-464-8818 • Fax 219-462-7985
www.heatwagon.com

Installation and Maintenance Manual

Please retain this manual for future reference.

P4000

***Construction
Heater***



For your safety: Do not use this heater in a space where gasoline or other liquids having flammable vapors are stored.

IMPORTANT INFORMATION! READ FIRST

The heater is designed for use as a construction heater under ANSI Z83.7a-1993. The primary purpose of construction heaters is to provide temporary heating of buildings under construction, alteration, or repair and to provide emergency heat. Properly used, the heater provides safe, economical heating. Products of combustion are vented into the area being heated.

The heater **IS NOT** designed as an Unvented Gas Fired Room Heater under ANSI-Z21.11.2 and **SHOULD NOT** be used in the home.

ANSI A119.2(NFPA 501C)-1987 Recreational Vehicle Standard prohibits the installation or storage of LP-gas containers even temporarily inside any recreational vehicle. The standard also prohibits the use of Unvented Heaters in such vehicles.

NFPA-58 1989 STANDARD FOR THE STORAGE AND HANDLING OF LIQUEFIED PETROLEUM GASES

Use of the heater must be in accordance with this Standard and in compliance with all governing state and local codes. Storage and handling of propane gas and propane cylinders must be in accordance with NFPA 58 and all local governing codes.

We cannot anticipate every use which may be made for our heaters. **CHECK WITH YOUR LOCAL FIRE SAFETY AUTHORITY IF YOU HAVE QUESTIONS ABOUT LOCAL REGULATIONS.**

Other standards govern the use of fuel gases and heat producing products in specific applications. Your local authority can advise you about these.

FOR YOUR SAFETY

DO NOT USE THIS HEATER IN A SPACE WHERE GASOLINE OR OTHER LIQUIDS HAVING FLAMMABLE VAPORS ARE STORED OR USED.

CONSTRUCTION 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 instruction manual, labels, etc. Contact your local Heat Wagon dealer or the manufacturer.

W A R N I N G

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.

Not for home or recreational vehicle use!

Installation and Maintenance Manual Model P4000 Construction Heater

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WARRANTY

All new Heat Wagon and Sure Flame heaters and fans are guaranteed against defective materials and workmanship for one (1) year from invoice date.

Warranty repairs may be made only by an authorized, trained and certified Heat Wagon dealer. Warranty repairs by other entities will not be considered. Warranty claims must include model number and serial number.

LIMITATIONS

Warrant claims for service parts (wear parts) such as spark plugs, igniters, flame rods will not be allowed. Diagnostic parts such as voltage meters and pressure gauges are not warrantable.

Evidence of improper fuel usage, fuel pressures outside of manufacturer's specification, poor fuel quality, and improper electric power, misapplication or evidence of abuse may be cause for rejection of warranty claims.

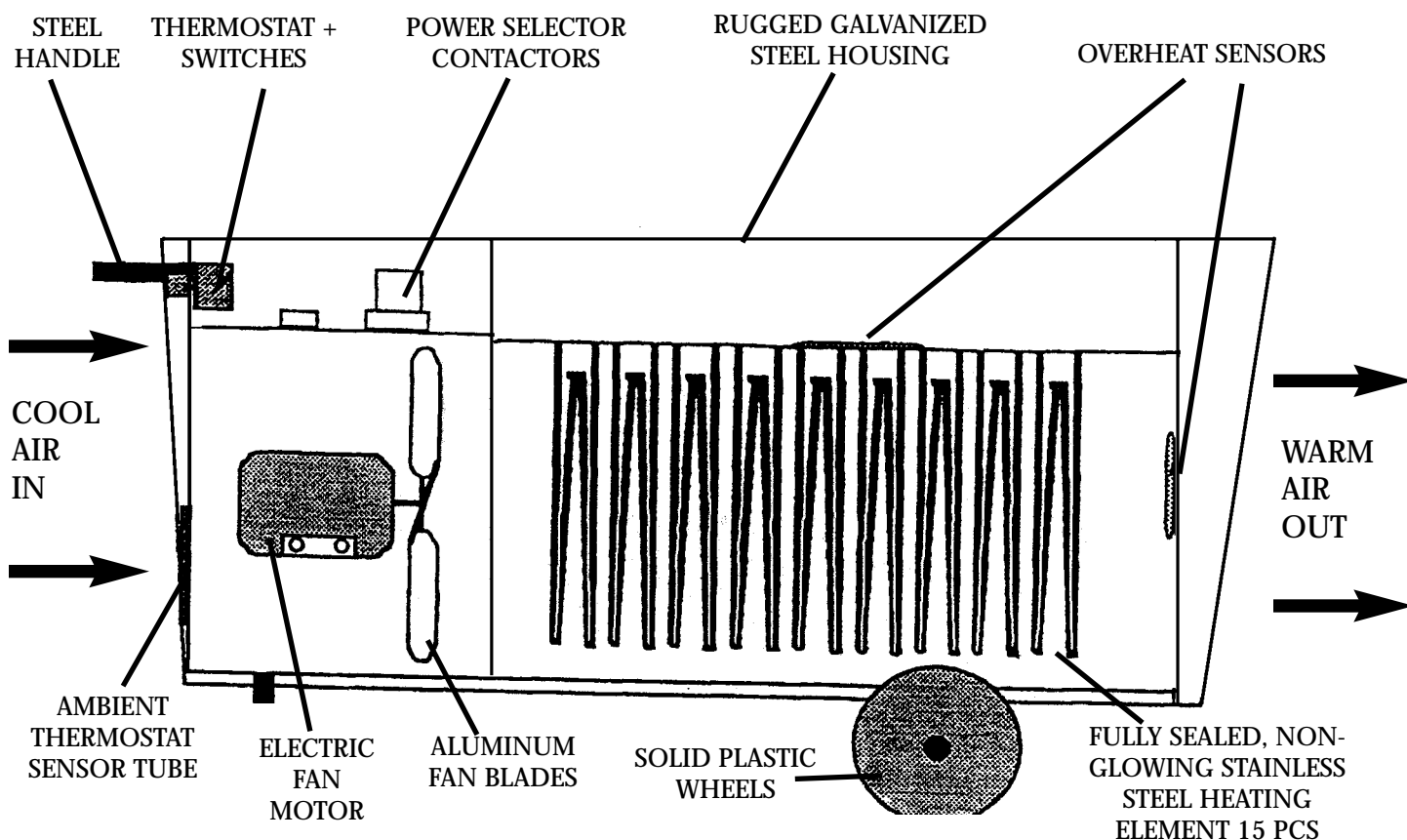
Travel time, mileage and shipping charges will not be allowed. Minor adjustments of heaters are dealers' responsibility. Defective parts must be tagged and held for possible return to the factory for 60 days from date of repair. The factory will provide a return goods authorization, (RGA) for defective parts to be returned.

No warranty will be allowed for parts not purchased from Heat Wagon.



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Principal of Operation



SPECIFICATIONS

Model No. P4000

| | |
|------------------------------------|-----------------------------------|
| Heat Output (Three stage selector) | 51,200/102,400/136,500 BTU/Hr |
| Watts | 16,000/32,000/40,000 |
| Electrical Rating: | 480V 60Hz 3Ø, Amp draw 50 Amps 3Ø |
| Ambient Thermostat | Temp.Range 32 to 100°F, 0-40°C |
| Dimensions | 46"L x 20"W x 25"H |
| Weight | 130 lbs |

STORAGE

Store heater in a dry, clean and safe place out of reach of children and unqualified persons.

MAINTENANCE

WARNING

Never service the heater while it is plugged in, running or hot. Severe bodily injury or electric shock may occur. Only qualified persons are allowed to open heater for service.

1. Keep heater clean. Use pressurized air to blow fan blades clean. NOTE: Use moderate pressure to avoid damage to fan blades.
2. Inspect heater before and after each use.
3. The bearings of the fan motor must be lubricated according to instructions on the motor.

OPERATION

REVIEW AND UNDERSTAND ALL WARNINGS IN THIS MANUAL. THEY ARE ESSENTIAL FOR SAFE USE OF THE HEATER. FOLLOW ALL LOCAL CODES.

To start heating:

1. Place the heater on a stable and level surface. Make sure that no explosive or combustible fumes or dust are present. See that the heater is not exposed to water spray, rain, or dripping water.

Minimum clearances from combustible materials:

Outlet 6 feet Sides 1 foot Top 2 feet Rear 2 feet
Floor: combustible

2. Connect power cord of heater into 480 volt 60 hertz three phase power source.
The power outlet has to be equipped with a circuit breaker!
See paragraph "Technical Specifications" in this manual for correct Amp rating.
3. Set the remote thermostat to a temperature above the ambient room temperature by turning the knob. NOTE: The heater will start only if the thermostat "calls for heat" meaning that it is set to higher than prevailing ambient temperature.
4. Select the power range by means of the switches marked S1....S3
S1 on = 16 kW = 51,200 BTUH (S2 & S3 off)
S1 & S2 on = 32 kW = 102,400 BTUH (S3 off)
S1 & S2 & S3 on = 40 kW = 136,500 BTUH

The heater will now operate automatically, controlled by the thermostat.

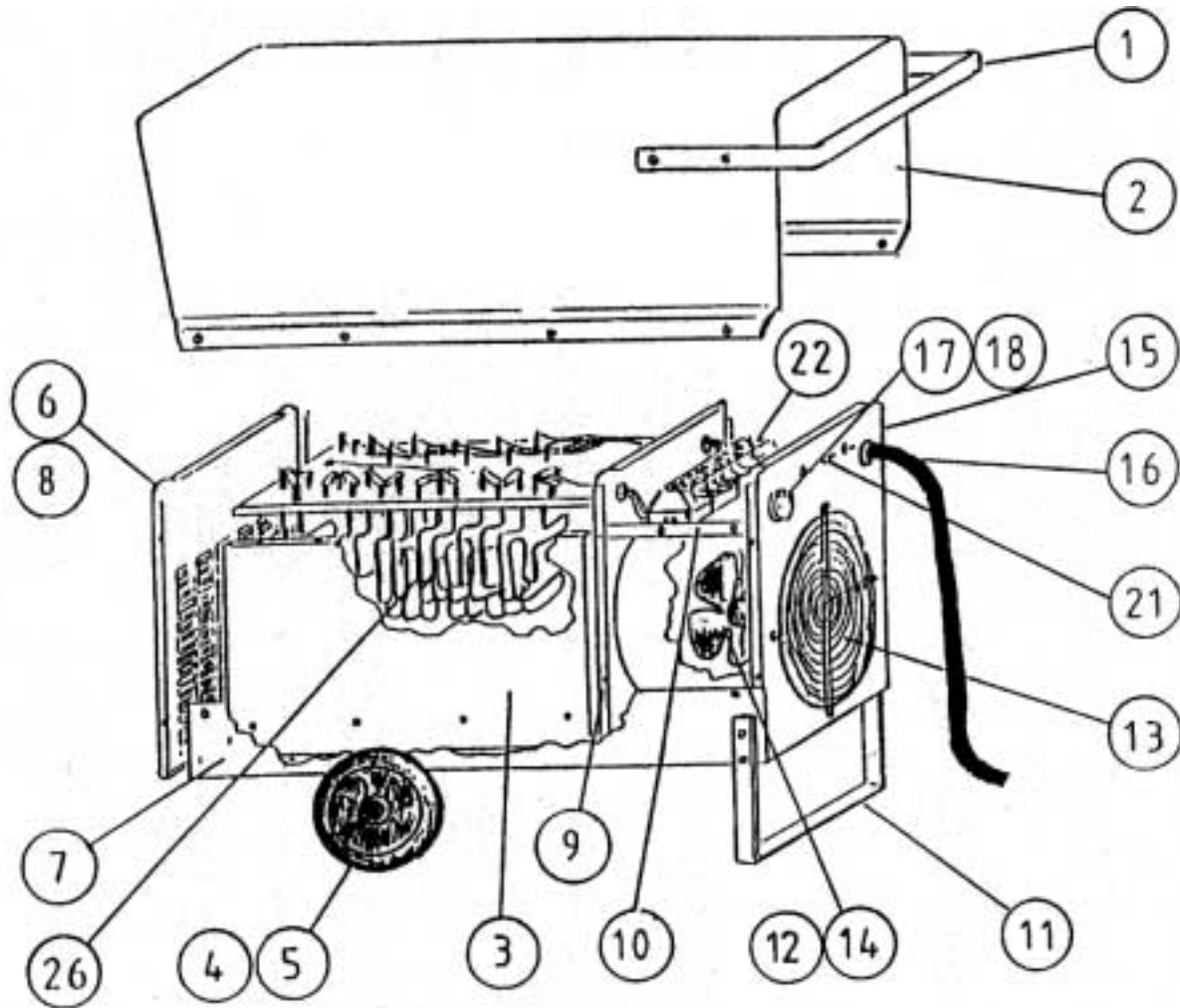
To stop heating

1. Turn all switches to off.

Allow fan to run until it stops automatically, controlled by the thermostat.

2. Unplug the power supply cable after the fan has stopped downcooling the heater.

NOTE: The heater is equipped with an overheat limit switch which may cause the heater to stop. Check and remove the cause for overheating before re-starting.



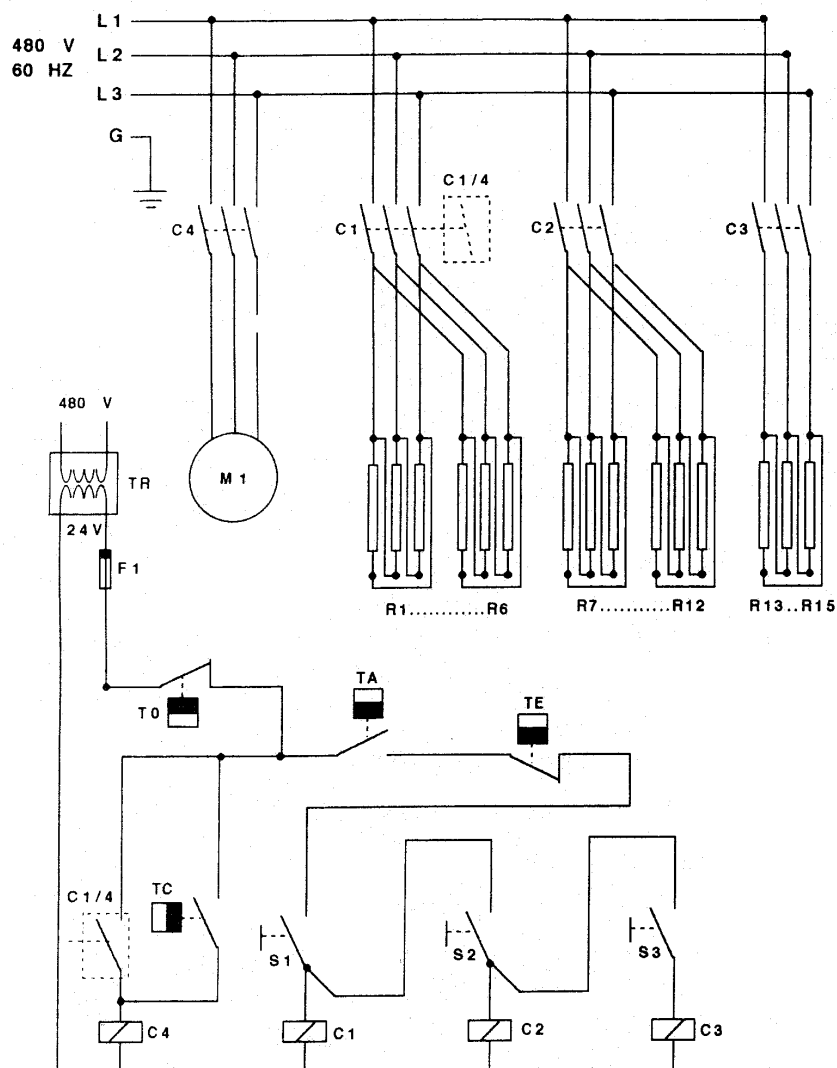
| Item | Part No. | Description |
|------|------------|--------------------------|
| 1 | HWP 400001 | HANDLE |
| 2 | HWP 400002 | HOOD |
| 3 | HWP 400003 | HEAT EXCHANGE CHAMBER |
| 4 | HWP 400004 | WHEEL ASSEMBLY |
| 5 | HWP 400005 | WHEEL SHAFT |
| 6 | HWP 400006 | FRONT PANEL |
| 7 | HWP 400007 | BOTTOM FRAME |
| 8 | HWP 400008 | GUARD THERMOSTAT |
| 9 | HWP 400009 | BRACKET |
| 10 | HWP 400010 | CONTACTOR MOUNTING PLATE |
| 11 | HWP 400011 | REAR LEG |
| 12 | HWP 400012 | FAN BLADE |
| 13 | HWP 400019 | FAN GUARD GRILL |
| 14 | HWP 400014 | FAN MOTOR |
| 15 | HWP 400015 | REAR PANEL |

| Item | Part No. | Description |
|------|------------|--------------------|
| 16 | HWP 400016 | STRAIN RELIEVER |
| 17 | HWP 400017 | AMBIENT THERMOSTAT |
| 18 | HWP 400018 | THERMOSTAT KNOB |
| 21 | HWP 400021 | SWITCHES |
| 22 | HWP 400022 | CONTACTORS |
| 26 | HWP 400026 | HEATING ELEMENT |

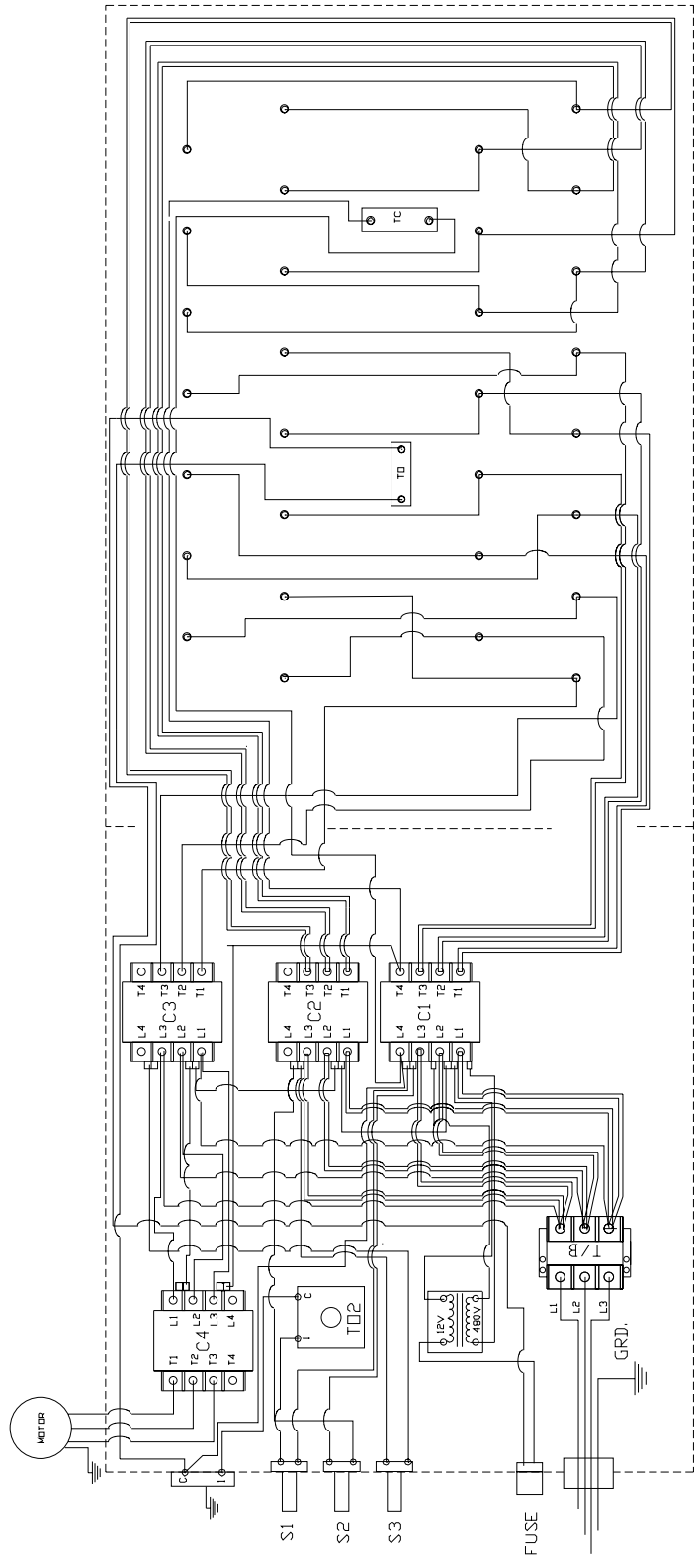
See wiring diagram for electric parts

| Parts Not Shown | | |
|-----------------|------------|-----------------------------------|
| | HWP 400020 | WIRE BUSHING |
| | HWP 400027 | CONNECTION HATCH |
| | HWP 400028 | FUSE |
| | HWP 36615 | TERMINAL BOARD (QTY. 3 NEEDED) |

480 Volt 60 Hz 3 PH



| | | | |
|----|----------------------------------|----------|-------------------------------------|
| TR | Transformer | S2 | Control Switch (For Output +16KW) |
| F1 | Fuse | S3 | Control Switch (For Output +8KW) |
| M1 | Fan Motor | C1 | Contactor & Coil (For Output 16KW) |
| TO | Overheat Limit Switch | C2 | Contactor & Coil (For Output +16KW) |
| TA | Ambient Thermostat | C3 | Contactor & Coil (For Output +8KW) |
| TE | Outlet Air Thermostat | C4 | Fan Contactor |
| TC | Unit Cooldown Thermostat | C 1/4 | Pole 4 of Contactor C1 |
| S1 | Control Switch (For Output 16KW) | R1...R15 | Heating Elements 2.7 KW Each |



| | |
|-----------------|------------|
| HEAT WAGON | MODEL |
| DATE OF DRAWING | FROM TO |
| P40CWD | 1994 CURR. |