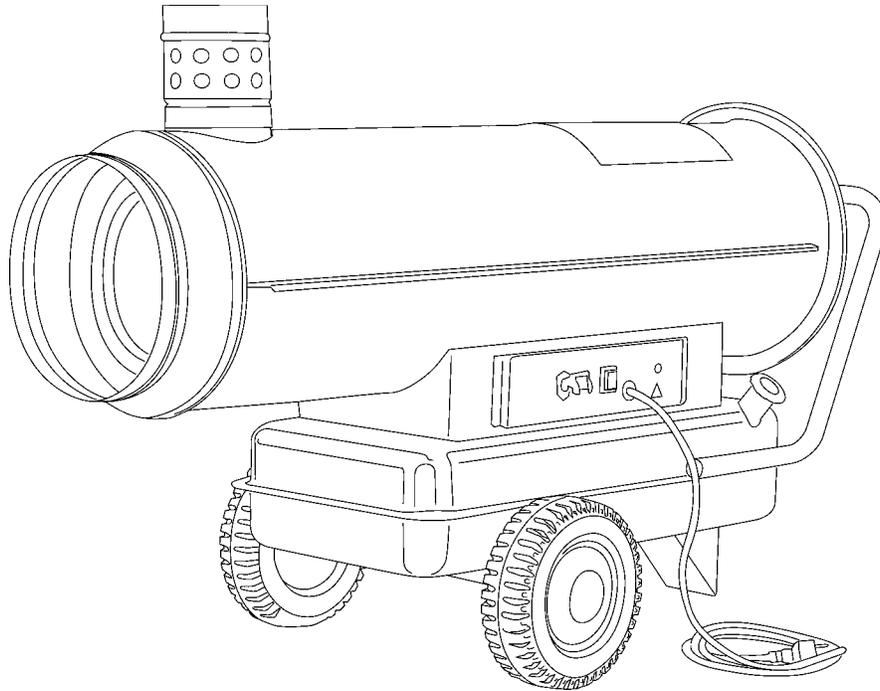




OPERATING INSTRUCTIONS AND OWNER'S MANUAL

Model #
HS180ID
HS300ID

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.



INDIRECT FIRED PORTABLE HEATER

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.
- Service must be performed by a qualified service agency.

This is an unvented 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:

⚠ 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).

WARNING:

READ THE INSTRUCTIONS GIVEN IN THIS MANUAL BEFORE USING THE APPLIANCE.

- THE ELECTRICAL SYSTEM TO WHICH THE APPLIANCE IS CONNECTED MUST COMPLY WITH ALL SAFETY REGULATIONS IN FORCE. A RESIDUAL CURRENT CIRCUIT BREAKER MUST BE PROVIDED ON THE MAIN DISTRIBUTION BOARD.
- UNPLUG THE HEATER BEFORE ATTEMPTING ANY SERVICE OR MAINTENANCE.
- ALWAYS CHECK THE POWER SUPPLY CABLE BEFORE USE. IT MUST NOT BE BENT, CRUSHED, OR ANYWAY DAMAGED.
- THE POWER SUPPLY CABLE MUST BE REPLACED ONLY BY QUALIFIED PERSONNEL.
- ONLY USE AN ORIGINAL H07RN-F POWER CABLE WITH WATERPROOF PLUG.
- DO NOT TOUCH THE EXHAUST GAS OUTLET. DANGER OF BURNS!

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SPECIFICATIONS

MODEL #	180	300
Thermal power (BTU/hr)	181,000	289,000
Air Flow Rating (ft ³ /min)	1475	2650
Oil 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)	110V 60Hz 1ph	110V 60Hz 1ph
Electrical Power (W)	460	800
Current Rating (A)	7.0	12.0
Weight (lb)	167	267
Length (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

APPLIANCE DESCRIPTION

Mobile space heater with:

- closed combustion chamber and gas exhaust duct (indirect-fired models)
- open combustion chamber (direct-fired models)

INSTALLATION INSTRUCTIONS

General instructions

- 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 the heater is used in a closed room, ensure a minimum volume of 28,300 ft³ for the HS180ID model and 53,000 ft³ for the HS300ID model and a continuous natural air circulation through windows and doors. For a good combustion, provide approximately 47 cfm air flow from outside.
- 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:

Clearances:

Sides: 2.5 ft	Air inlet: 2.5 ft
Top: 6 ft	Air outlet: 12 ft

- Floors and ceilings must be made of fireproof materials in the room 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.
- It is forbidden to connect direct-fired heaters to air ducts.

Maintenance and checks

- Depending on the operational conditions, usually every year, the heater should be checked by qualified personnel.
- Prior to start-up, the user must check for any evident non-compliance with rules of use, safety and protection.

INSTRUCTIONS FOR USE

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, No.1) and insert the thermostat plug into the socket.
- Fill the tank with proper fuel.

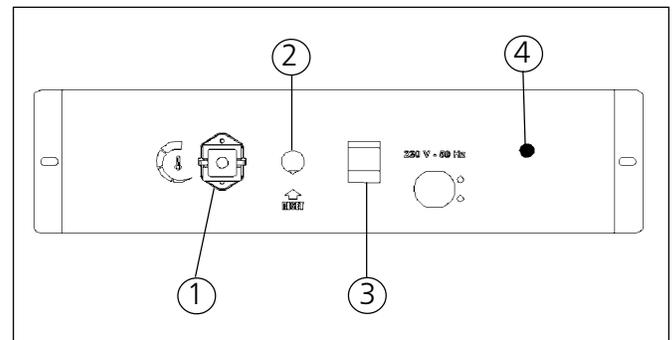
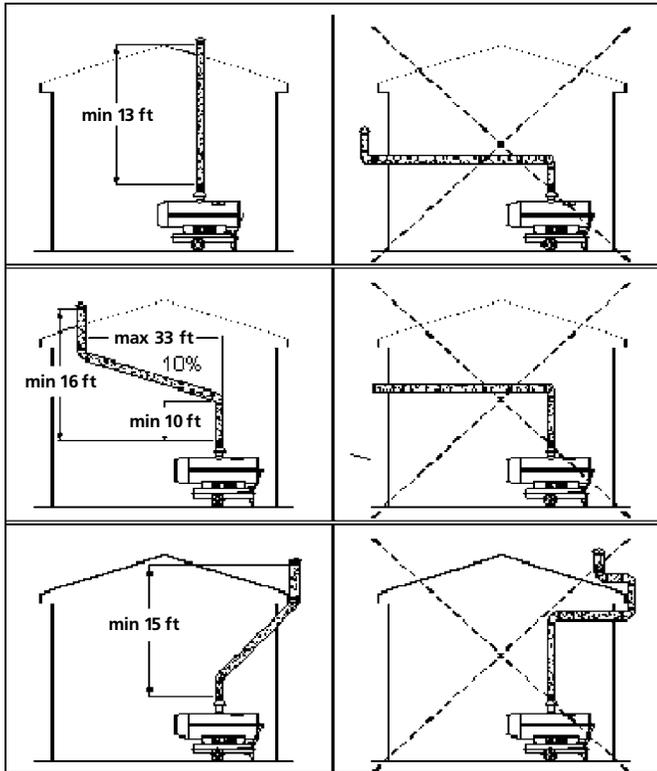


Figure 1

- Connect the supply plug to a 110V ~ 60 Hz single phase earthed socket. The green lamp indicates that the heater is powered.
- **WARNING: THE APPLIANCE MUST BE GROUNDED**

- Indirect fired heaters: connect the heater to a chimney or to an exhaust duct. To get a proper draft (at least .04 in WC) 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 10 ft. For operation of heater in closed rooms without flue refer to the instructions for installation (par. 4)
- If a room thermostat is used, set maximum temperature on it.
- Turn switch to position "ON"
- Set the desired temperature on room thermostat.



WARNING!

Heaters equipped with heated nozzle do not start immediately or may stop for some seconds after start. This is normal and should not be considered a faulty condition.

Reset after lockout and Reset of safety thermostat

- The heater is equipped with a Reset pushbutton. When the heater locks out, the red lamp on the pushbutton (fig.1, No.2) lights up. In this case push the Reset button (see also the par. "Troubleshooting") to restart the heater.
- The heater is also equipped with a manual reset safety thermostat fixed in contact with the combustion chamber, that can be reached through the inspection cover. To reset the thermostat: unplug the heater, open the inspection cover and push the reset button on the thermostat body.

Shut down.

- Set switch to "OFF" to shut the flame off. The fan will go on rotating for about 1'45" 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.

WARNING!

Never disconnect the supply plug to stop the heater while in operation

The large amount of heat produced could damage the components or activate the safety thermostat and therefore make the unit not function

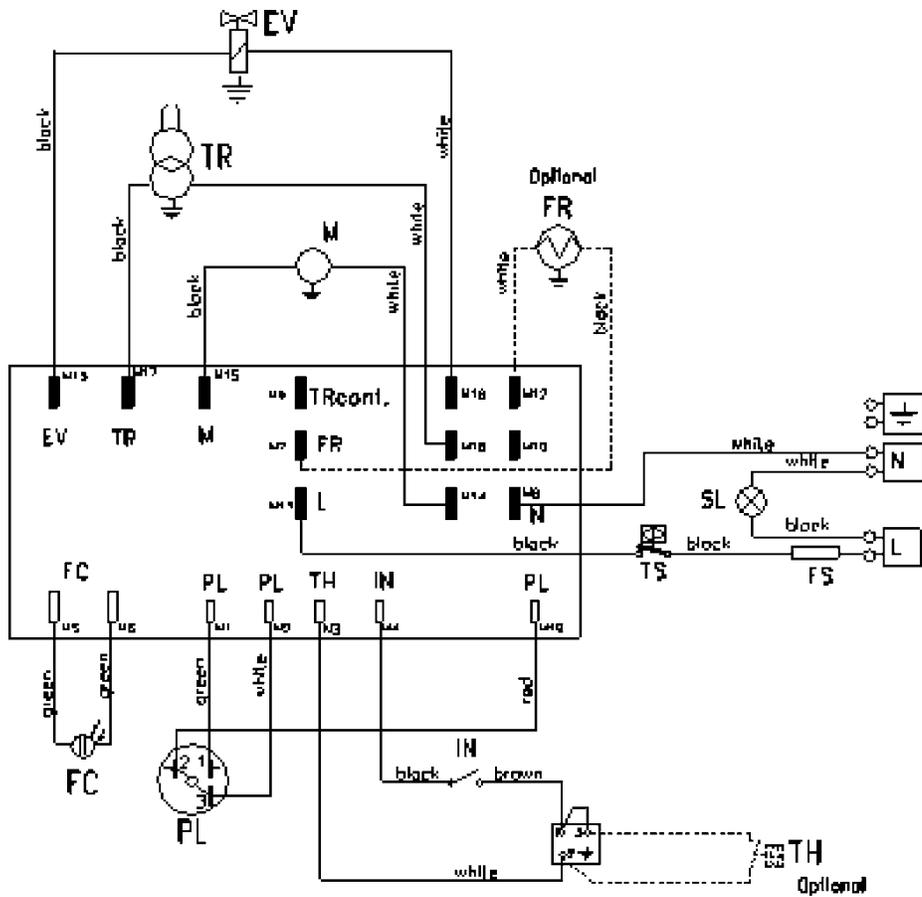
MAINTENANCE

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

TROUBLESHOOTING

TROUBLE	CAUSE	SOLUTION
Heater does not start	<ul style="list-style-type: none"> • No power • Faulty cable/connections • Burnt fuse • Room thermostat set too low • Thermostat socket cap not inserted • The safety thermostat has been activated 	<ul style="list-style-type: none"> • Check main distribution board and power supply line • Check/have cable replaced by a qualified electrician • Check and replace if required • Set room thermostat on a higher temperature • Insert cap into the thermostat socket • Reset the safety thermostat
Heater starts, flame ignites but then heater locks out	<ul style="list-style-type: none"> • Dirty or faulty flame sensor • Faulty burner control unit 	<ul style="list-style-type: none"> • Clean or replace • Contact service personnel
Heater starts, flame does not ignite and then heater locks out	<ul style="list-style-type: none"> • Clogged nozzle • Flame sensor receives an external light signal during ignition sequence • Faulty burner control unit • No fuel • Ignition fault, dirty or incorrectly spaced electrodes 	<ul style="list-style-type: none"> • Clean or replace • Check for external lights (sun, lamps, etc.) • Contact service personnel • Fill tank • Clean electrodes, contact service personnel if required
Heater starts, but combustion is not good	<ul style="list-style-type: none"> • Dirty or blocked nozzle • Clogged filters • Leakes in fuel circuit • Oil pump provides low pressure • Insufficient combustion air • Insufficient ventilation air 	<ul style="list-style-type: none"> • Clean or replace • Clean or replace • Check and eventually replace • Contact service personnel • Wrong air lock setting • Contact service personnel
Heater stops due to safety thermostat	<ul style="list-style-type: none"> • The appliance has overheated • Faulty safety thermostat 	<ul style="list-style-type: none"> • Contact service personnel • Contact service personnel

WIRING DIAGRAM



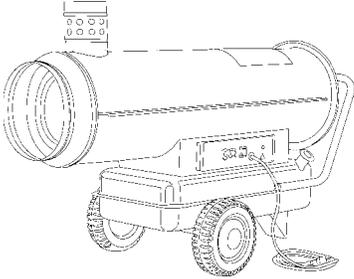
EV	Fuel Solenoid Valve
TR	Ignition Transformer
M	Motor
SL	Warning Lamp
TS	Safety Thermostat
FS	Fuse
FC	Flame Sensor
PL	Reset Button
IN	Switch
TH	Room Thermostat (Optional)
FR	Heated Filter (Optional)

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OPERATING INSTRUCTIONS AND OWNER'S MANUAL

Model #
HS180ID
HS300ID



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/HeatStar local dealer or direct from the factory

FOR INFORMATION REGARDING SERVICE

Please call Toll-Free 800-251-0001 • www.enerco-mrheater.com

Our office hours are 8:30 AM – 5:00 PM, EST, Monday through Friday.

Email to: techservice@enerco-mrheater.com

Please include the model number, date of purchase, and description of problem in all communication.

LIMITED WARRANTY

The company warrants this product to be free from imperfections in material or workmanship, under normal and proper use in accordance with instructions of The Company, for a period of one year from the date of delivery to the buyer. The Company, at its option, will repair or replace products returned by the buyer to the factory, transportation prepaid within said one year period and found by the Company to have imperfections in material or workmanship.

If a part is damaged or missing, call our Technical Support Department at 800-251-0001.

Address any Warranty Claims to the Service Department, Enerco Group, Inc., 4560 W. 160TH ST., Cleveland, Ohio 44135. Include your name, address and telephone number and include details concerning the claim. Also, supply us with the purchase date and the name and address of the dealer from whom you purchased our product.

The foregoing is the full extent of the responsibility of the Company. There are no other warranties, express or implied. Specifically there is no warranty of fitness for a particular purpose and there is no warranty of merchantability. In no event shall the Company be liable for delay caused by imperfections, for consequential damages, or for any charges of the expense of any nature incurred without its written consent. The cost of repair or replacement shall be the exclusive remedy for any breach of warranty. There is no warranty against infringement of the like and no implied warranty arising from course of dealing or usage of trade. This warranty will not apply to any product which has been repaired or altered outside of the factory in any respect which in our judgment affects its condition or operation.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights, and you may have other rights which vary from state to state.

Enerco Group, 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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