

NEVER LEAVE THE HEATER UNATTENDED WHILE BURNING!



OPERATING INSTRUCTIONS AND OWNER'S MANUAL

MODEL#
HSP400ID-G

READ INSTRUCTIONS CAREFULLY: YOUR SAFETY IS IMPORTANT TO YOU AND TO OTHERS. 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.

PORTABLE INDUSTRIAL NATURAL GAS/ PROPANE INDIRECT 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 service agency.

⚠ WARNING: Improper adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual for correct installation and operational procedures. For Assistance or additional information consult a service agency.

⚠ WARNING: This is an unvented gas-fired portable heater. It uses air (oxygen) from the area in which it is used. Provisions for adequate combustion and ventilation air must be provided. Refer to "FRESH AIR AND VENTILATION" on page 6.

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⚠ IMPORTANT: READ THIS OWNER’S MANUAL CAREFULLY AND COMPLETELY BEFORE TRYING TO ASSEMBLE, OPERATE, OR SERVICE THIS HEATER. IMPROPER USE OF THIS HEATER CAN CAUSE SERIOUS INJURY OR DEATH FROM BURNS, FIRE, EXPLOSION, ELECTRICAL SHOCK, AND/OR CARBON MONOXIDE POISONING.

⚠ GENERAL HAZARD WARNING:
ONLY PERSONS WHO CAN UNDERSTAND AND FOLLOW THE INSTRUCTIONS SHOULD USE OR SERVICE THIS HEATER.

⚠ 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.

⚠ DANGER: CARBON MONOXIDE POISONING MAY LEAD TO DEATH. USING A PORTABLE HEATER IN AN ENCLOSED AREA CAN PRODUCE DEADLY CARBON MONOXIDE.

⚠ WARNING: NOT FOR HOME OR RECREATIONAL VEHICLE USE

CARBON MONOXIDE POISONING:
Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness, or nausea. If you have these signs, the heater may not be working properly. Get fresh air at once! Have heater serviced. Some people are more affected by carbon monoxide than others. These include pregnant women, persons with heart or lung disease or anemia, those under the influence of alcohol, and those at high altitudes.

⚠ WARNING: Fuels used in liquefied propane gas appliances, and the products of combustion of such fuel, can expose you to chemicals including benzene, which is known to the state of California to cause cancer and cause birth defects or other reproductive harm, for more information go to www.P65Warnings.ca.gov

⚠ WARNING: This product can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information visit www.P65Warnings.ca.gov

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CONTACT INFORMATION

RETAIN THIS MANUAL FOR FUTURE REFERENCE.
 FOR QUESTIONS, PROBLEMS, MISSING PARTS BEFORE RETURNING TO RETAILER PLEASE CALL WITH MODEL NUMBER AND SERIAL NUMBER OF HEATER:
 866-447-2194

MONDAY-FRIDAY 8-5 EASTERN TIME
 OR E-MAIL USING THE HEATSTAR WEBSITE:
WWW.HEATSTARBYENERCO.COM

In order to provide the best service possible HEATSTAR is now giving you more ways to get in touch with us. Find informational videos at:

 YouTube: youtube.com/heatstarTV

HEATSTAR’S full line of product are now at:
WWW.HEATSTARBYENERCO.COM

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SPECIFICATIONS

Heat Input (Max) (kBTU/hr)	399	
Fuel Types	Natural Gas (NG)	Propane (LP)
Fuel Consumption	0.4 MCF (NG)	18.53 lb./hr (LP)
Heating Area (Sq. Ft.)	9,875	
CFM Output/Static Pressure	4,032/1.08" WC	
Inlet Pressure	Minimum: 7" WC	Minimum: 11" WC
	Maximum: 10" WC	Maximum: 14" WC
Outlet Pressure	3.5" WC	
Max. Outlet Temperature	257 °F	
Power Supply	1 Phase, 120V, 60Hz, 13.4A	
Dimensions (L" x W" x H")	68 x 27 x 60	
Dry Weight (lb)	406	

If you need assistance or heater information such as a instructions manuals, labels, etc. contact the manufacturer.

CLEARANCES TO COMBUSTIBLES

Clearances between these HEATSTAR PRO indirect heaters and adjacent combustible material (which is part of the building or its contents) shall not be less than:

Top: 5ft (1.5m)

Sides: 5ft (1.5m)

Front: 8.5ft (2.5m)

Back: 5ft (1.5m)

THEORY OF OPERATION

By opening the supply circuit, the gas arrives to the pressurised nozzle, where it is nebulised and mixed to the combustive air in the combustion chamber. A spark triggers combustion while the exhaust fumes are expelled from the chimney. A series of sensors constantly checks the correct operation of the heater, stopping the cycle in the case of a fault. The fan, located at the rear of the heater, cools the combustion chamber and the flue gas pass, transferring heat from the latter into the environment.

PRECAUTIONS

Caution: When using Thermostat, heater can start unexpectedly. Turn heater off when unattended.

WARNING:

- Do not use to heat homes or residential buildings; for use in public buildings, refer to national regulations.
- This heater is not suitable for use by persons (including children) with reduced physical, sensory or mental capacities or with lack of experience or knowledge unless supervised by a person responsible for their safety. Children must be supervised to make sure they do not play with the heater. Keep animals at a safe distance from the heater.
- Improper use of this heater may cause damage or endanger the life of people, injuries, burns, explosions, electric shock or poisoning. The first symptoms of suffocation by carbon monoxide are similar to those of flu with headache, light-

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headedness and/or nausea. These symptoms could be caused by the faulty functioning of the heater. IF THESE SYMPTOMS OCCUR, GO OUTDOORS IMMEDIATELY and have the heater repaired by technical support.

- All cleaning, maintenance and repair operations that involve access to dangerous parts (such as replacing a damaged power cable) must be performed by the manufacturer, by their technical support centre, or by a person with a similar qualification, in order to prevent any risk, even if disconnection from the mains is required.

Please observe the following precautions when operating your HEATSTAR product.

1. The manufacturer declines any liability for damage to property/persons deriving from improper use of the heater.
2. Comply with all local laws and regulations in force when using the heater.
3. For correct use of the heater and to preserve the fuel, follow all local laws and the regulations in force.
4. Fuel tanks must be kept at a minimum distance from the heater, in accordance with current standards.
5. Check that the firefighting equipment is available and suitable to the potential of the heater.
6. The appliance must only be used as a hot air heater (heating mode) or fan (ventilation mode, for models that include this functionality). Follow these instructions scrupulously.
7. Only power the heater by using the type of fuel expressly specified and with current having the voltage and frequency indicated on the data plate applied on the heater.
8. The electric power line of the heater must be equipped with an grounding system, residual current device, and cut-off switch.
9. Check correct grounding.
10. Only use extensions with suitable section, with grounding wire.
11. The heater must function on a levelled, stable and fire-proof surface, in order to prevent fire hazards.
12. It is strictly prohibited to use the appliance in basements or rooms below ground level.
13. Never handle or conduct maintenance on the heater when it is hot, connected to the power supply or in operation.
14. Keep animals at a safe distance from the heater.
15. Only use in well-ventilated areas. Set-up a suitable opening in line with current standards, with the purpose of introducing fresh air from outdoors.
16. Never use the heater in frequently used rooms, camping vans, caravans, motorhomes.
17. The heater must not be used in places where explosive dusts, fumes, gases, fuels, solvents, paints or other highly flammable vapours are present.
18. Recommended safety distances between the heater and flammable substances: front output 2.5 m (8.5 ft.); on the side, at the top and at the back = 1.5 m (5 ft.).
19. Heaters used near tarpaulins, curtains or other similar covering materials must be kept at a safe distance. It is advised to use fire-proof covering material.
20. If the power supply cable is damaged, it must be replaced by an authorized technical support center to prevent any risk.
21. The air vent (rear side) and/or the air outlet vent (front side) cannot be totally or partially obstructed for any reason.
22. Only use original kits to direct the air coming in and/or going out (where applicable).
23. If the heater does not switch on or switch-on is faulty, consult the "TROUBLESHOOTING" section.
24. The heater must never be moved, handled or subjected to any maintenance operations while running.
25. In any condition of use or non-use of the appliance, make sure that the flexible gas hose is not damaged (crushed, bent, twisted, taut).

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26. If the smell of gas is perceived, switch the appliance off immediately, close the gas cylinder, disconnect the mains plug and then contact technical support.
27. When it is controlled by a thermostat, the heater can turn on at any time.
28. When it is not used, disconnect the heater from the mains plug, close the gas supply, disconnect the gas hose from the heater and plug the gas inlet on the heater.
29. Use original spare parts when replacing the burner, strictly complying with indications regarding capacity, type of nozzles and pump pressure. An increase in burner power could damage the heater.
30. Only use a soft cloth to clean the heater (do not use detergents). Do not use water for this operation.
31. Ask the technical support service to check that the heater is working properly at least once a year and/or as required.

UNPACKING

WARNING: The packaging material is not a toy. Keep the plastic bag out of the reach of children; danger of suffocation!

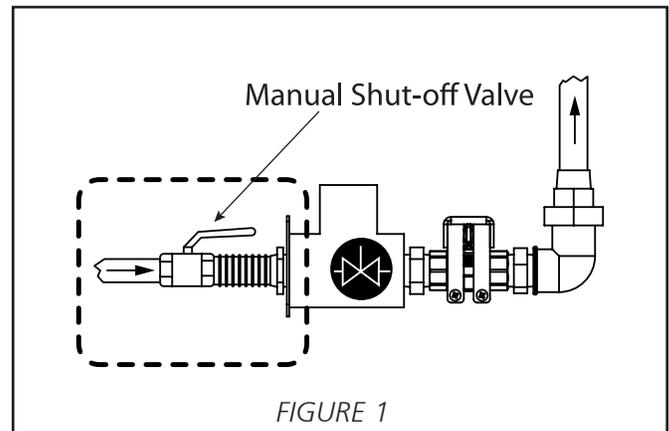
1. Remove all protective material which may have been applied to the heater for shipment.
2. The heater is placed on a platform. Lift it delicately using hooks and chains. Use the holes on the structure to lift the heater.
3. Check the heater for possible shipping damage. If any damage is found immediately contact the manufacturer at 866-447-2194.

UNIT INSTALLATION

WARNING: Closely follow all the operations described in this paragraph. Installation must only be carried out by qualified personnel.

GAS SUPPLY CONNECTION

CAUTION: Gas supply connection to the manifold installed on the heater must only be performed by qualified personnel and in compliance with local laws. Pipes and valves of appropriate section must be used. We recommend using a manual shut-off valve and a flexible joint to be positioned between the gas manifold and main supply piping. Refer to Figure 1.



CAUTION: If the heater is connected to natural gas, installation must be compliant with local laws and, in case of no specific regulations, refer to the national regulation on gas fuel ANSI Z223.1/NFPA 54 and to the natural gas and propane gas installation regulation CSAB149.1.

CAUTION: Before any switch-on, make sure the heater is correctly configured. Gas supply must be in line with the heater configuration.

IF PROPANE GAS (L.P.G.) IS CONNECTED BY USING A SUPPLY CYLINDER, STRICTLY COMPLY WITH THE FOLLOWING:

⚠ WARNING:

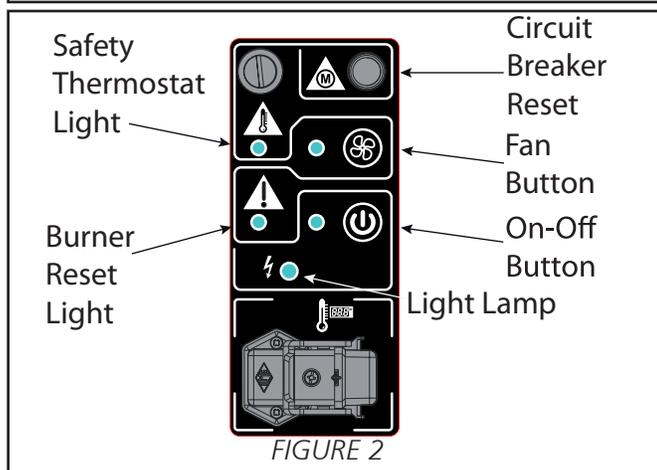
- INSTALLATION MUST BE COMPLIANT WITH LOCAL LAWS AND, IN CASE OF NO SPECIFIC REGULATIONS, REFER TO THE NATIONAL REGULATION ON GAS FUEL ANSI Z223.1/NFPA 54 AND TO THE NATURAL GAS AND PROPANE GAS INSTALLATION REGULATION CSAB149.1.

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- 5.1.2. TO DETERMINE THE SUPPLY CYLINDER CAPACITY, WE RECOMMEND CONSULTING YOUR PROPANE GAS (L.P.G.) SUPPLIER AND USING QUALIFIED PERSONNEL.
- 5.1.3. WHEN THE HEATER IS NOT BEING USED, ALWAYS CLOSE THE GAS SUPPLY BY USING THE SPECIFIC VALVES. THE GAS CYLINDER MUST ALSO BE CLOSED, DISCONNECTED AND STORED IN A SAFE LOCATION ACCORDING TO THE STANDARDS AND REGULATIONS IN FORCE, SAFE FROM POSSIBLE RISKS.

ELECTRICAL CONNECTION

WARNING: When you connect the power supply plug, check the light lamp with "spark icon". See Figure 2. In case the lamp stays OFF, you must remove the plug, rotate it 180° and reconnect.



CAUTION: The electric power line of the heater must be equipped with an grounding system, residual current device, and cut-off switch.

The standard supply of the heater includes all the control and safety devices essential for its proper operation: electric panel, burner, manually reset safety thermostat are already connected.

During installation, prepare the power supply connection with cables having an appropriate cross-section in compliance with national standards in force and the technical data label applied to the heater.

NOTE: CHECK THE ELECTRIC CONNECTIONS BEFORE STARTING THE HEATER.

DUCT ADAPTERS

The heater comes with a dual 12" duct adapter attached. A single 16" duct adapter is available as an additional accessory as shown in Table 1 below.

ADDITIONAL ACCESSORIES

Table 1 details additional accessories approved for use with the heater. Instructions for assembly and operation of accessories are included in accessory's packaging.

TABLE 1: ADDITIONAL ACCESSORIES CHART	
Description	Part Number
Air Recycle Kit	F105128 24"x25' Duct & 24" Clamp
	F105127 Adapter Ring
Digital Thermostat	F105106
Analog Thermostat	F105108
Single Duct Adapter 16"	F105126

FLUE GAS EXHAUST CONNECTION

Thermal efficiency and correct operation of the heater are directly linked to the correct draught of the flue gas exhaust chimney. It is recommended not to make elbows, which may get clogged, or reductions in the cross-section of the flue gas exhaust chimney. If the heater is not connected to an external flue gas exhaust chimney, it must be provided with an essentially vertical steel flue gas exhaust and a draught regulator, respecting the specifications provided in this technical manual.

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⚠️WARNING: In case of gas supply circuit pressure test, it is required to close the manual closing valve, isolating the heater and gas manifold from the rest of the system.

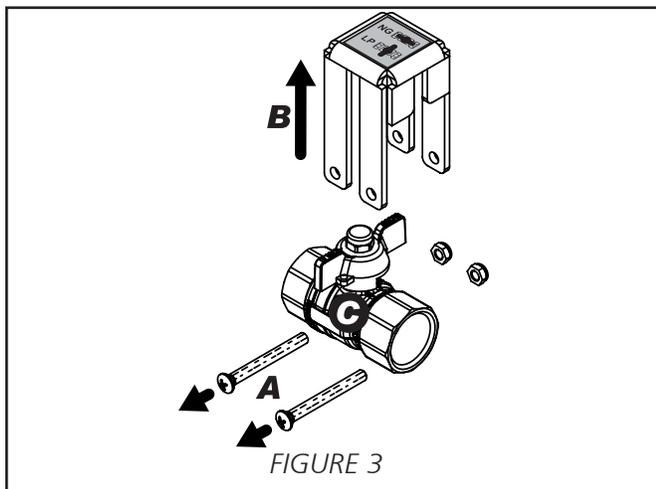
HEATER CONFIGURATION

The heater is pre-set by the manufacturer, and the configuration is shown on the data label applied on the product. The heater may be configured to operate with propane gas (L.P.G.) or natural gas.

The manual gas selection valve is used to select the correct gas supply configuration. Rotating the manual gas selection valve by 90 degrees changes from natural gas to propane gas (L.P.G.) and vice-versa. The manual gas selection valve is normally locked by a safety device, in order to prevent accidental tampering. This safety device must be removed by qualified personnel, strictly following the instructions provided in this manual.

To rotate the manual gas selection valve knob, follow the steps below:

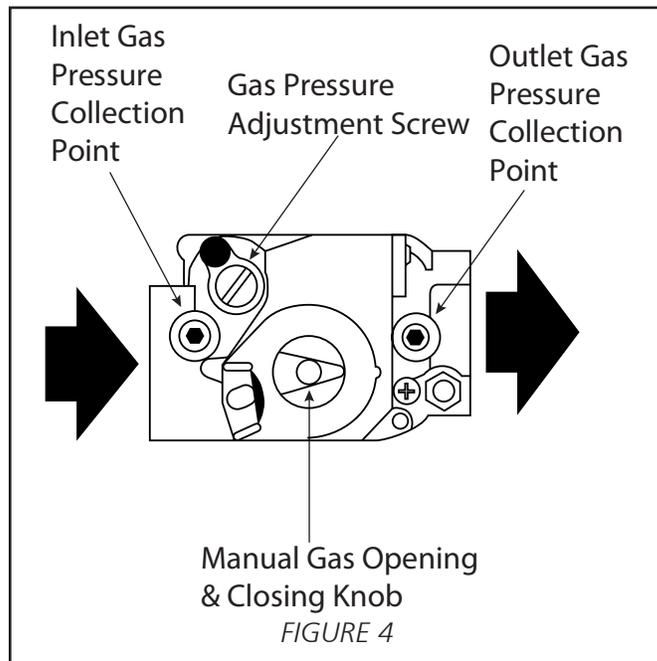
1. Unscrew and remove the two screws (A) locking the valve fastening and remove the safety device. See Figure 3.



2. Select the type of gas desired by rotating the knob by 90 degrees.
3. Replace the safety device and fasten with the screws removed earlier.

If required, check the correct burner gas supply pressure:

1. Unscrew the screw outlet gas pressure collection point and connect an appropriate pressure gauge. See Figure 4.



2. Rotate the gas pressure adjustment screw until obtaining the value of 3.5" W.C..
3. Remove the pressure gauge and retighten the outlet gas pressure collection point screw, making sure there are no gas leaks.

OPERATION

BEFORE SWITCHING HEATER ON

Before any attempt of starting the heater is made, familiarize yourself with warnings, specifications and precautions page 2 - 5.

- Check that minimum safety clearances from combustibles, listed in "CLEARANCES TO COMBUSTIBLES" on page 3, is achieved in all directions.
- Make sure that flue gas is adequately ventilated from the chimney.
- Attach a duct to the outlet if directed venting of output clean hot air is desired. Ducting can be installed with the specific clamp or quick coupling. Refer to "ACCESSORY CHART" on page 20 for the correct Duct adapter.
- Check that your electrical supply and any extension cable can meet the requirements listed in the specifications table.

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SWITCH-ON

1. Check the presence of gas inside the supply circuit.
2. Connect the heater to the electrical supply.
3. Adjust the air damper of the burner according to your needs. See Figure 5.

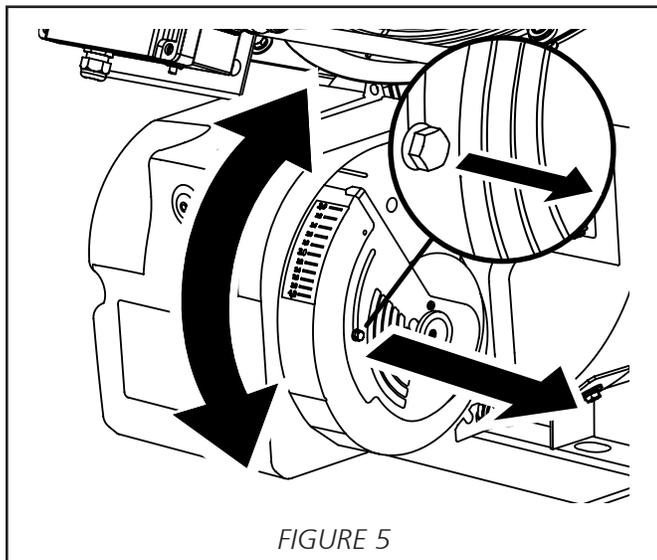


FIGURE 5

START-UP IN HEATING MODE

Press the on-off button (the burner starts first and after about one minute ventilation starts). Refer to the Control Panel in Figure 2.

NOTE: THE HEATER HAS A SENSOR THAT CONSTANTLY MONITORS THE OUTLET AIR TEMPERATURE [FOR NORMAL OPERATION, THE OUTLET AIR TEMPERATURE MUST BE BELOW 125°C (257°F). IF THE OUTLET AIR TEMPERATURE EXCEEDS 125°C (257°F), THE HEATER TURNS OFF THE BURNER AND REACTIVATES COMBUSTION AFTER A FEW SECONDS.

START-UP IN VENTILATION MODE

Press the fan button. See Figure 2.

SWITCHING OFF THE HEATER:

IMPORTANT: Never unplug the heater to switch it off or before it is completely off.

The heater turns off by pressing the "OFF" button. The burner box will turn off, and the fan will continue running to cool off the burner box.

Do not unplug the heater until this cooling cycle has totally ended. When the outlet air temperature drops below 50°C (122°F), the fan turns off and the luminous signal of the button turns on to indicate the presence of voltage (stand-by condition).

RESETTING THE HEATER

The appliance stops when an anomaly occurs.

RESETTING THE BURNER: If the burner is blocked, the indicator light on the control panel turns on. Refer to Figure 2. Identify and remove the cause of the block. To reactivate the burner, press the reset button on it for at least 10 seconds. See Figure 6.

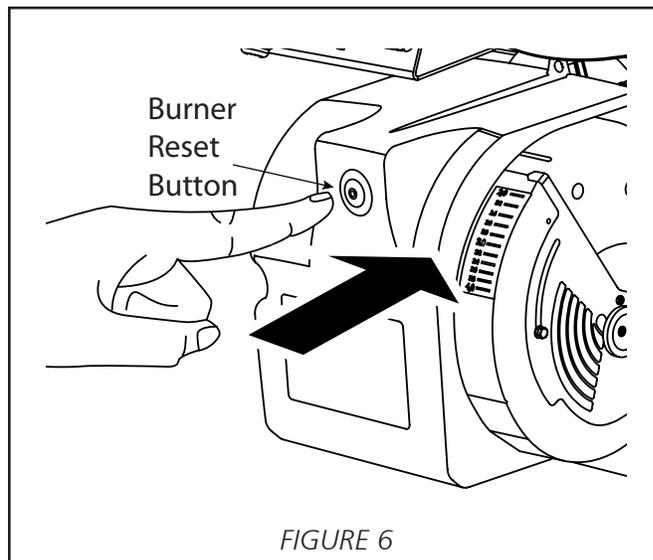


FIGURE 6

RESETTING THE SAFETY THERMOSTAT: Safety thermostat operation is identified by an indicator light. Refer to Figure 2. Identify and remove the cause that triggered the safety thermostat. Press the reset button located at the back of the heater all the way.

RESETTING THE CIRCUIT BREAKER: Identify and remove the cause of activation of the circuit breaker. Press the reset button to release it. See Figure 2.

THE EXTERNAL THERMOSTAT SOCKET

The heater can only work automatically when a control device, such as a thermostat or a timer, is connected to the heater. **F105106**, a 33ft digital Thermostat, and **F105108**, a 33ft analog thermostat are both approved for use by the manufacturer with the heater. Connection to the heater is made by removing the thermostat socket cap and connecting the room thermostat to the socket. If no room thermostat will be connected the cap must be inserted into the socket.

TRANSPORTATION

Before any handling, the heater must be switched off following the proper procedure on page 8, and disconnected from the electrical and gas supply. Wait for the heater to cool.

Before handling, make sure that the support used to move the heater is capable of bearing its weight (the weight is displayed on the technical specification of the appliance). Do not attempt to lift or move the heater without the aid of suitable equipment (this operation must be carried out with the utmost attention to avoid personal harm or damage to the heater).

STORAGE

IN ORDER TO KEEP THE HEATER IN THE BEST POSSIBLE CONDITIONS, WE RECOMMEND FOLLOWING THE PROCEDURE BELOW:

- Place the heater in a dry place away from potential external damage.

MAINTENANCE

⚠ WARNING:

Never service heater while it is plugged in, operating or hot. Severe burns or electrical shock can occur.

Periodic maintenance is recommended to keep the heater in good condition, avoiding possible failures or faults as far as possible.

CLEANING THE FAN

Use compressed air for routine cleaning of the fan, blowing the air through the rear grille.

CLEANING THE BURNER

Read and understand the specific manual to clean the burner.

CLEANING THE COMBUSTION CHAMBER

It is recommended to clean the combustion chamber and flue gas duct at least once a year or when required to avoid problems regarding chimney draught and combustion. The combustion chamber is cleaned through the five inspection openings on the front of the heater.

Closely follow this sequence to perform cleaning (keep the screws and washers with care):

1. Remove the air ducting cone by removing the screws which secure it to the heater. See Figure 7.

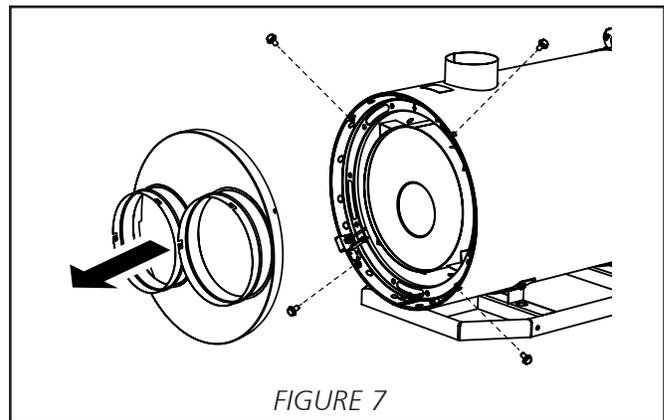


FIGURE 7

2. Remove the plates, which close the inspection openings, by removing the screws. See Figure 8.

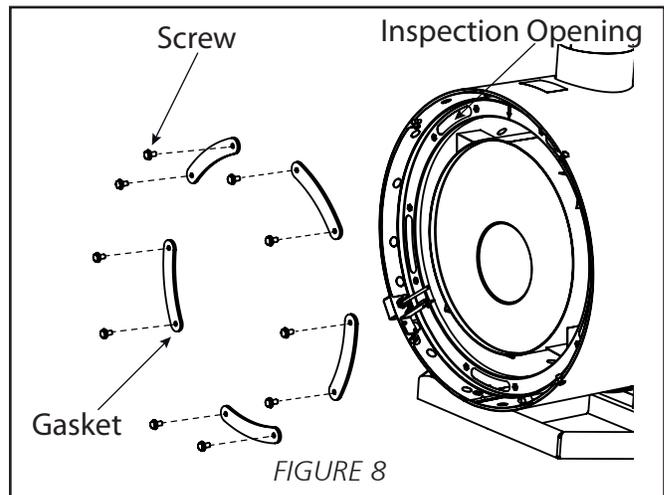


FIGURE 8

3. Remove the gaskets installed and do not reuse them. Only use new and original gaskets. See Figure 11.
4. Spray high pressure water inside the chamber through the inspection openings. Refer to Figure 11. When washing, move the nozzle in various positions so the water reaches all the slots of the combustion chamber.
5. Lift the combustion chamber from the back to empty as much water as possible from inside the chamber (this operation must be carried out with the utmost attention to avoid personal harm or damaging the heater).
6. Reassemble the heater performing the sequence of operations in the opposite order, replacing the gaskets with original spare parts.

NOTE: BEFORE SWITCHING THE HEATER BACK ON, MAKE SURE AS MUCH WATER AS POSSIBLE HAS BEEN ELIMINATED FROM INSIDE THE COMBUSTION CHAMBER TO AVOID SERIOUS DAMAGE.

NEVER LEAVE THE HEATER UNATTENDED WHILE BURNING!

⚠️WARNING: BEFORE STARTING ANY MAINTENANCE OR REPAIRS, DISCONNECT THE POWER CABLE AND MAKE SURE THAT THE HEATER IS COLD.

TABLE 4: PREVENTATIVE MAINTENANCE SCHEDULE

COMPONENT	MAINTENANCE FREQUENCY	MAINTENANCE PROCEDURE
Safety Thermostat	Yearly check and/or when required	Contact a technical service center. Service of these components should only be performed by a qualified serviceman. Qualified service professionals may contact the manufacturer for a service manual.
Nozzle	Replace yearly and/or when required	
Electrical System	Yearly check and/or when required	
Fan	Yearly check and/or when required	
Motor	Yearly check and/or when required	
Combustion chamber	Yearly check and/or when required	

TROUBLESHOOTING

OBSERVED SYMPTOM	POSSIBLE CAUSE	REMEDY
The heater does not start or does not remain on	No power supply	<ul style="list-style-type: none"> • Check that there is electric power • Check that the heater is connected to the correct power supply • Contact an authorized technical support center or HEATSTAR customer service
	Interrupted power cable	<ul style="list-style-type: none"> • Contact an authorized technical support center or HEATSTAR customer service
	Electronics need to be reset or are faulty	<ul style="list-style-type: none"> • Reset the heater • Contact an authorized technical support center or HEATSTAR customer service
	Incorrect setting of the room thermostat (if applicable)	<ul style="list-style-type: none"> • Set the room thermostat to a temperature higher than the temperature of the working environment
	No gas supply	<ul style="list-style-type: none"> • Check that there is gas supply • Correct the gas supply setting
	Foreign substances in the fuel system	<ul style="list-style-type: none"> • Contact an authorized technical support center or HEATSTAR customer service
The heater generates smoke during operation	Foreign substances in the fuel system	<ul style="list-style-type: none"> • Contact an authorized technical support center or HEATSTAR customer service
	Obstructed inlet air vent	<ul style="list-style-type: none"> • Remove all possible obstructions from the rear grille
The heater does not turn off	Faulty electronic system	<ul style="list-style-type: none"> • Contact an authorized technical support center or HEATSTAR customer service

PARTS ORDERING INFORMATION:

PURCHASING: Accessories may be purchased at any HEAT STAR local dealer or direct from the factory

FOR INFORMATION REGARDING SERVICE

Please call Toll-Free 866-447-2194 • www.heatstarbyenerco.com

Our office hours are 8:00 AM – 5:00 PM, EST, Monday

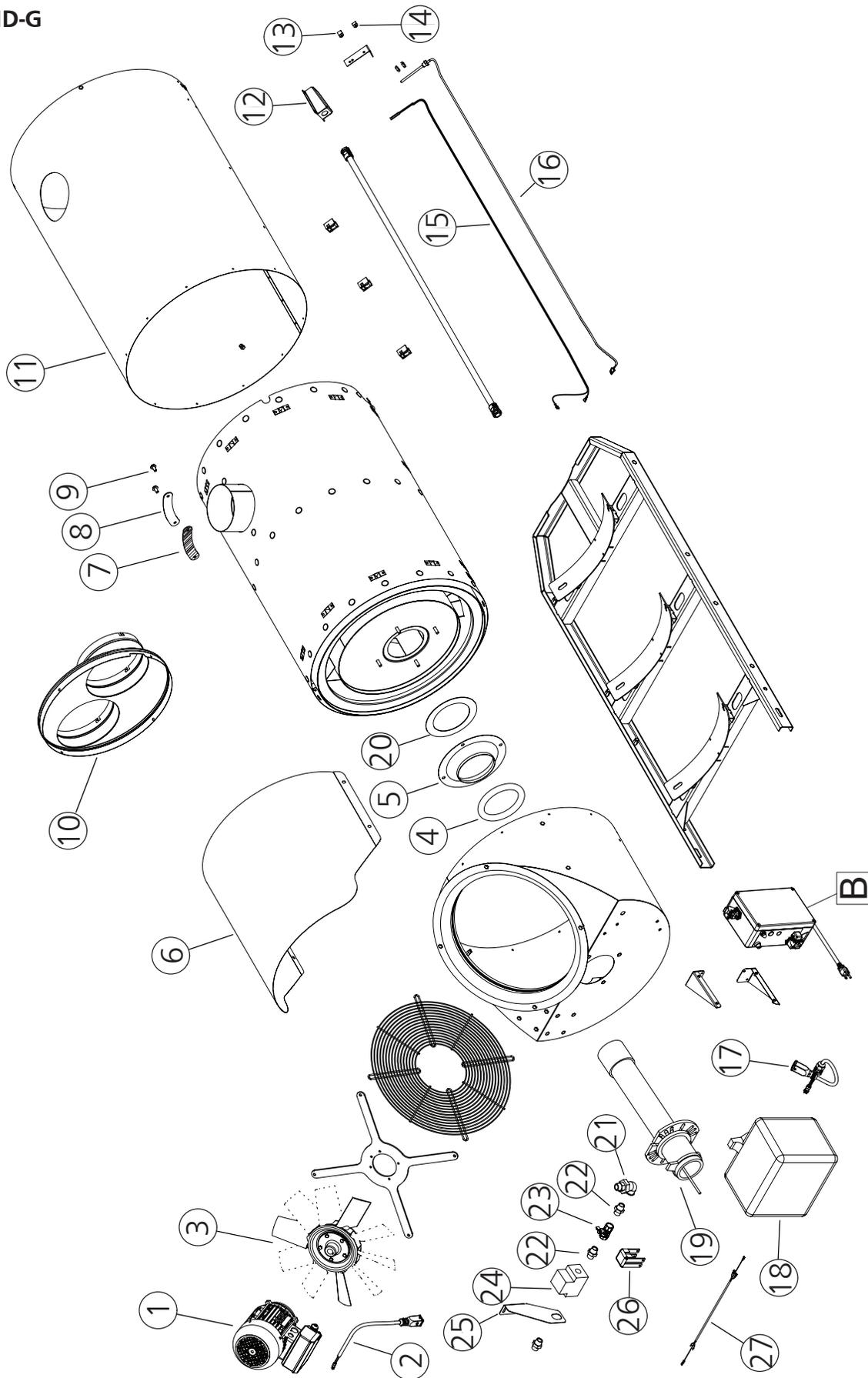
through Friday. Please include the model number, date of purchase, and description of problem in all communication.

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NEVER LEAVE THE HEATER UNATTENDED WHILE BURNING!

PARTS LIST AND DIAGRAM
HSP400ID-G



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PARTS LIST AND DIAGRAM
HSP400ID-G

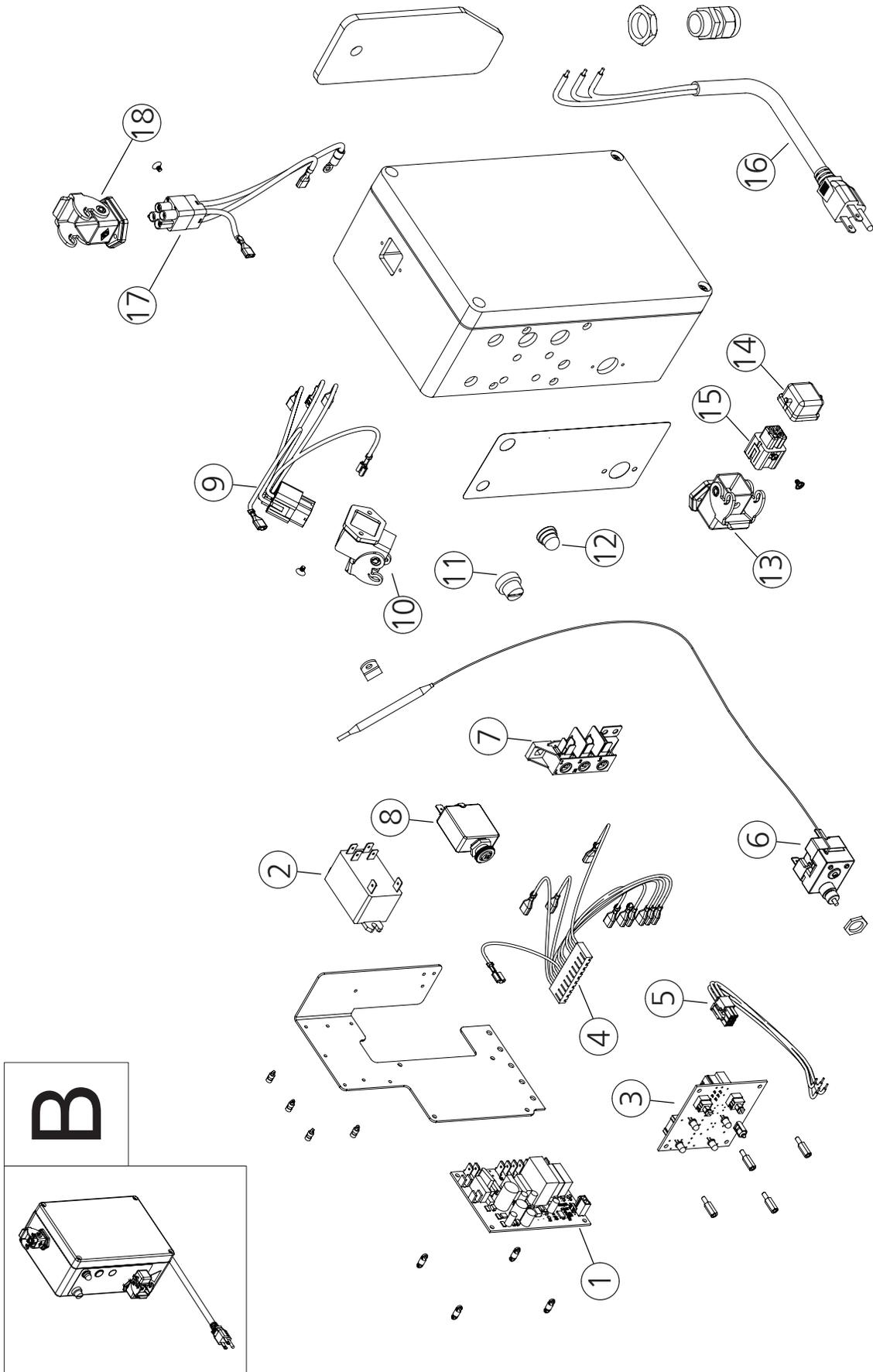
#	P/N	PART DESCRIPTION
1	51328	MOTOR
2	51329	MOTOR POWER CORD
3	51278	FAN
4	51334	FIBER ROPE GASKET
5	51335	FLANGE
6	51336	COVER
7	51337	BARREL GASKET
8	51338	BARREL FLANGE
9	51339	SCREW
10	51340	DUCT ADAPTER
11	51341	OUTER SHELL
12	51110	T-STAT HOUSING
13	51343	CLIP
14	51344	CLIP
15	51096	T-STAT AND WIRE
16	51350	NTC SENSOR WIRE
17	51353	BURNER POWER CORD
18	51279	BURNER
19	51280	BURNER HEAD
20	51356	COMPENSATION FLANGE
21	51357	90° GAS CONNECTION
22	51358	STRAIGHT GAS CONNECTION
23	51359	GAS SELECTION VALVE
24	51360	GAS VALVE
25	51361	GAS VALVE BRACKET
26	51460	LP/NG BRACKET
27	51461	GAS VALVE POWER CORD

NOTE: Not all parts available. For questions contact manufacturer.

⚠WARNING: Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this heater may result in property damage or personal injury.

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**PARTS LIST AND DIAGRAM
HSP400ID-G (Sub-Assembly B)**



NEVER LEAVE THE HEATER UNATTENDED WHILE BURNING!

PARTS LIST AND DIAGRAM
HSP400ID-G (Sub-Assembly B)

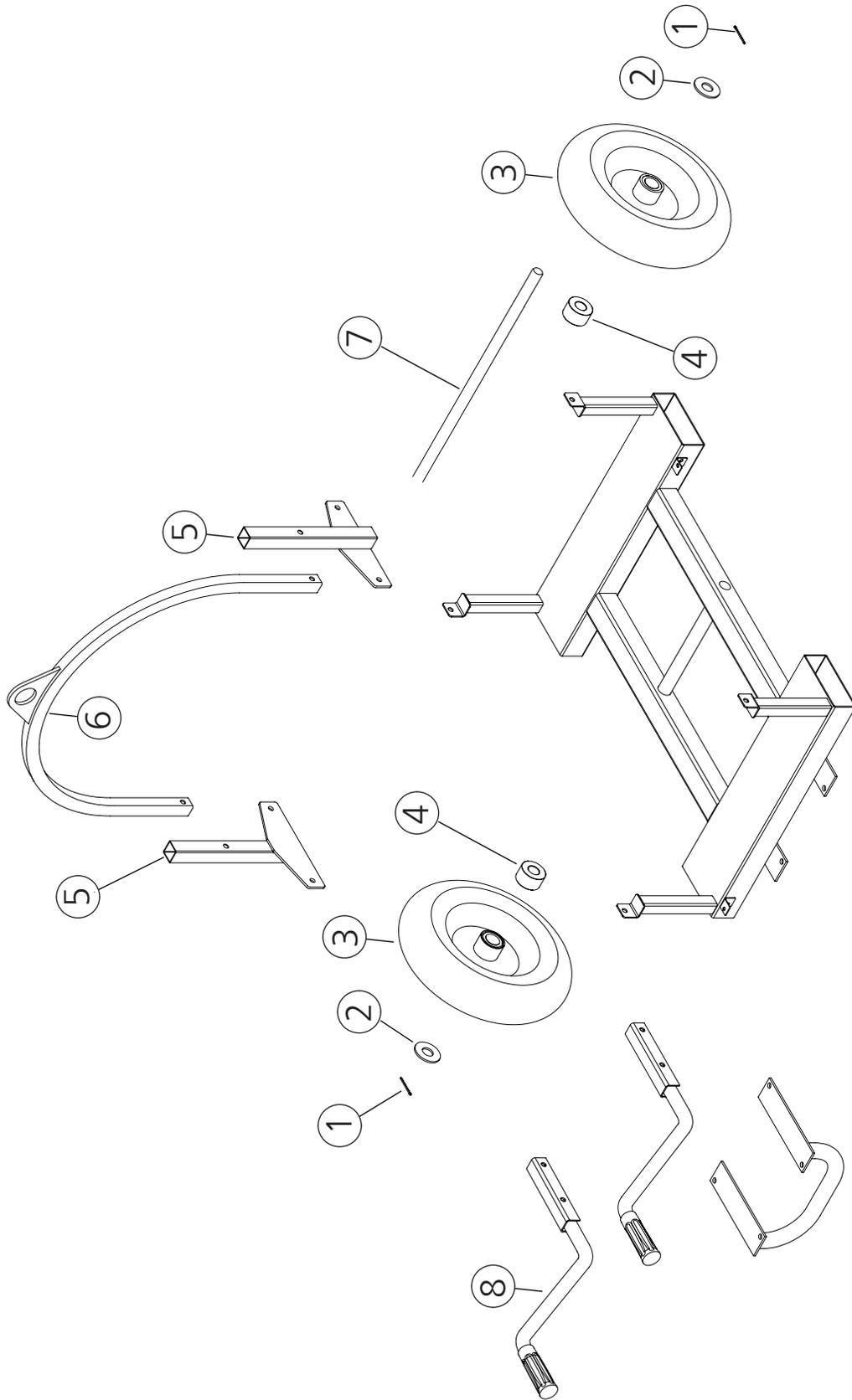
#	P/N	PART DESCRIPTION
1	51363	PC BOARD
2	51083	RELAY
3	51368	LED PC BOARD
4	51369	LED PC BOARD WIRES
5	51370	ROOM T-STAT WIRES
6	51114	SAFETY THERMOSTAT
7	51138	TERMINAL BLOCK
8	51374	AUTOMATIC SWITCH
9	51376	BURNER WIRES
10	51377	90° SOCKET
11	51119	THERMOSTAT RESET CAP
12	51379	LIGHT CAP
13	51190	THERMOSTAT SOCKET
14	51193	THERMOSTAT CAP
15	51191	PLUG, ROOM, TSTAT
16	51385	POWER CORD
17	51389	WIRES FOR MOTOR
18	51390	SOCKET

NOTE: Not all parts available. For questions contact manufacturer.

⚠WARNING: Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this heater may result in property damage or personal injury.

NEVER LEAVE THE HEATER UNATTENDED WHILE BURNING!

PARTS LIST AND DIAGRAM
HSP400ID-G



NEVER LEAVE THE HEATER UNATTENDED WHILE BURNING!

PARTS LIST AND DIAGRAM
HSP400ID-G

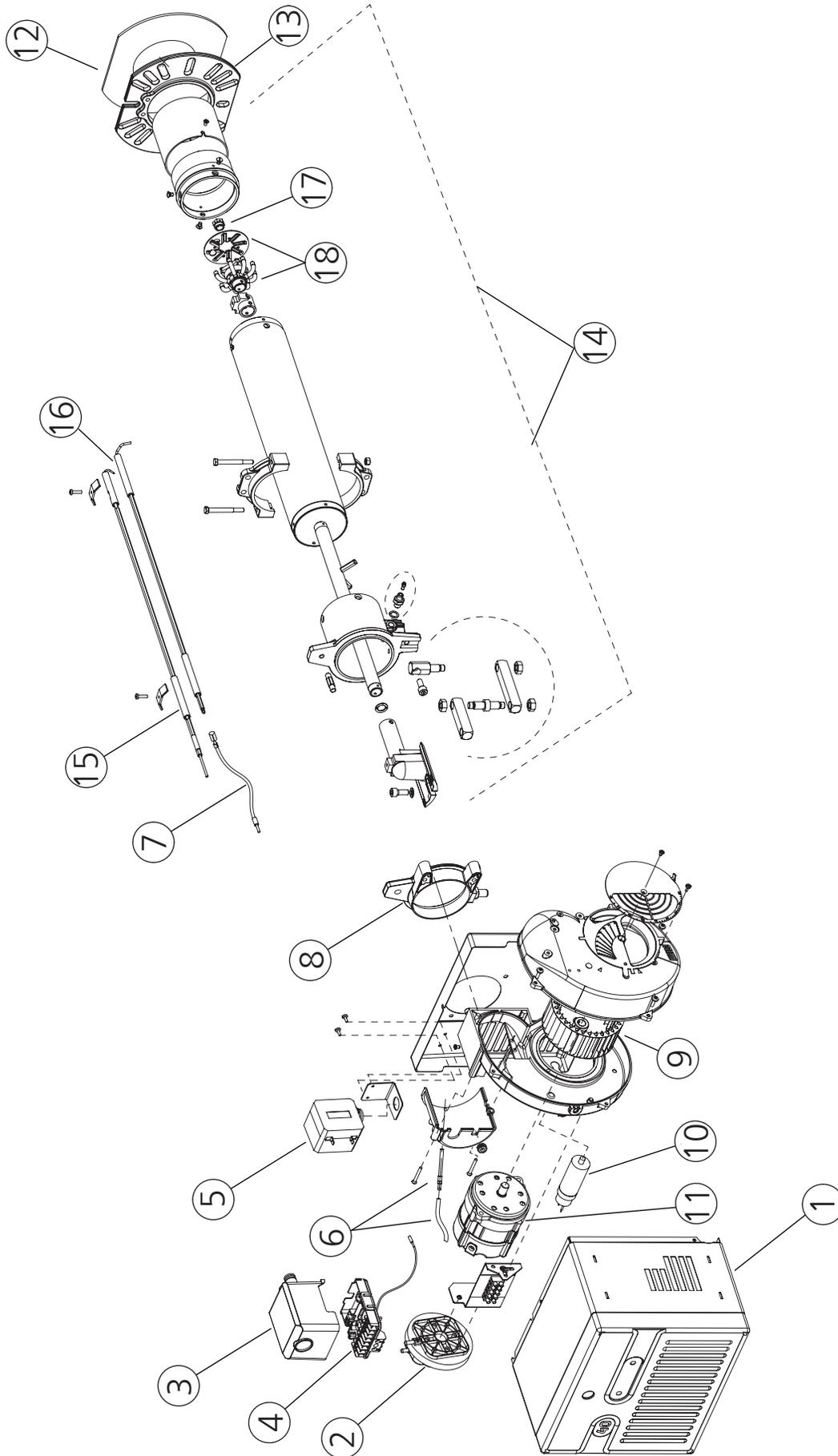
#	P/N	PART DESCRIPTION
1	51391	COTTER PIN
2	51392	WHEEL WASHER
3	51128	PNEUMATIC WHEEL
4	51091	WHEEL BUSHING
5	51462	LIFTING ARC FOOT
6	51463	LIFTING ARC
7	51090	WHEEL AXLE
8	51086	HANDLE

NOTE: Not all parts available. For questions contact manufacturer.

⚠WARNING: Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this heater may result in property damage or personal injury.

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PARTS LIST AND DIAGRAM
HSP400ID-G



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PARTS LIST AND DIAGRAM
HSP400ID-G

#	P/N	PART DESCRIPTION
1	51262	BURNER BACK COVER
2	51302	AIR PRESSURE SWITCH
3	51303	PRIMARY CONTROL BOX
4	51330	CONTROL BOX BASE
5	51332	120/24 VOLT TRANSFORMER
6	51342	AIR SWITCH TUBE & CONNECTOR
7	51349	IONIZATION LEAD
8	51355	CHASSIS MOUNTING COLLAR
9	51371	FAN
10	51372	COMPACITOR
11	51373	MOTOR
12	51378	MOUNTING GASKET
13	51538	MOUNTING FLANGE
14	51539	HEAD ASSEMBLY
15	51540	ELECTRODE
16	51382	PROBE
17	51403	DIFFUSER
18	51404	DISTRIBUTOR DIFFUSER DISK

NOTE: Not all parts available. For questions contact manufacturer.

⚠WARNING: Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this heater may result in property damage or personal injury.

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PARTS LIST: ACCESSORY CHART

PART #	DESCRIPTION
F105126	16" Single Duct adapter
F150040	Flex Heat Duct 12" x 25'
F150050	Flex Heat Duct 16" x 25'
F105127	Adapter Ring for Air Recycling System
F105128	24" x 25' Duct & 24" Clamp for Air Recycling System
F105106	Digital Thermostat 33 ft
F105108	Remote Analog Thermostat 33 ft

PARTS ORDERING INFORMATION:

PURCHASING: Accessories may be purchased at any HEAT STAR local dealer or direct from the factory
FOR INFORMATION REGARDING SERVICE

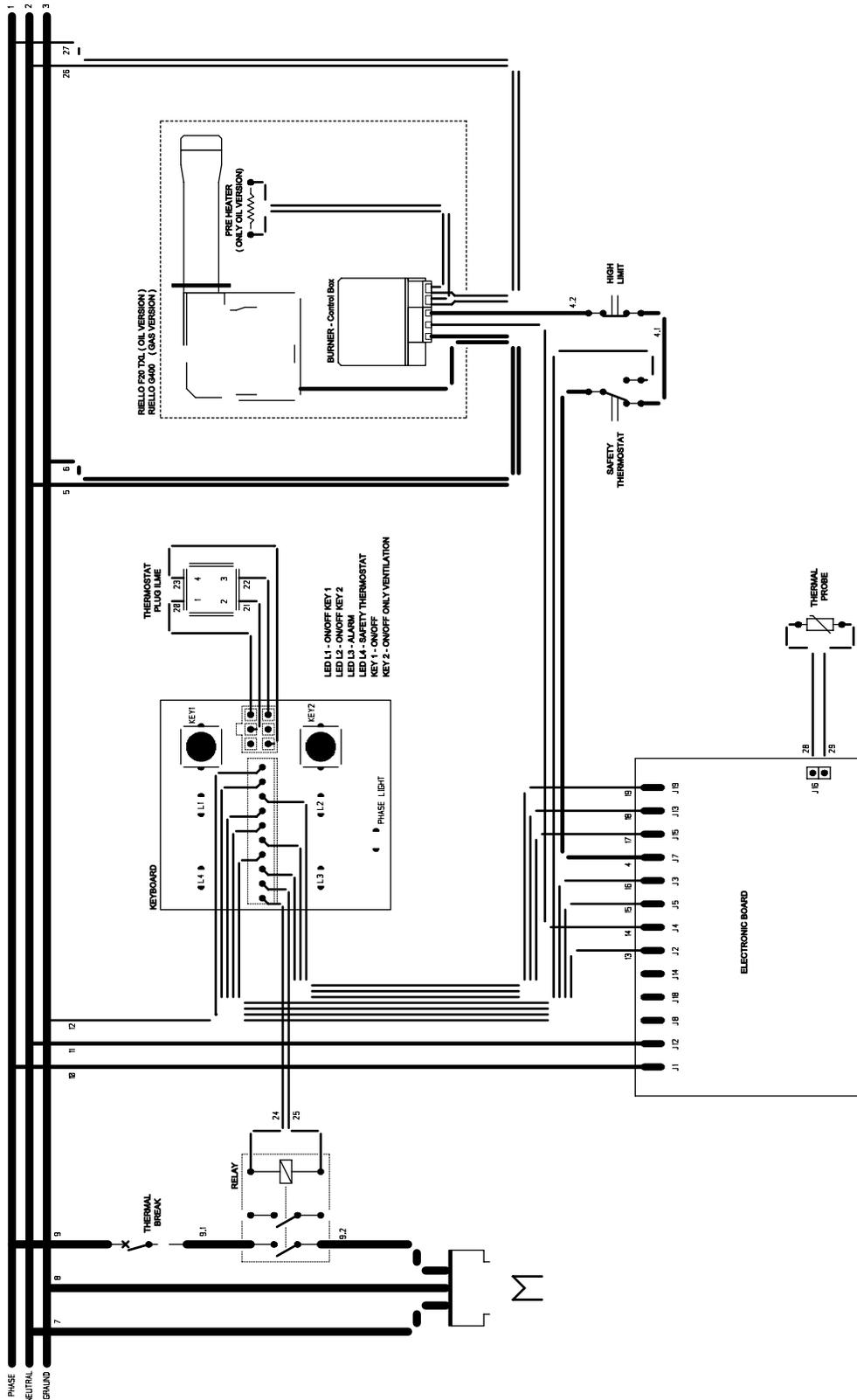
Please call Toll-Free 866-447-2194 • www.heatstarbyenerco.com

Our office hours are 8:00 AM – 5:00 PM, EST, Monday

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

NEVER LEAVE THE HEATER UNATTENDED WHILE BURNING!

WIRING DIAGRAM



CABLE #	TYPE CABLE
1	PHASE
2	NEUTRAL
3	GROUND
4	BURNER PHASE
5	BURNER NEUTRAL
6	BURNER GROUND
7	FAN NEUTRAL
8	FAN GROUND
9	FAN PHASE
10	ELECTRONIC BOARD PHASE
11	ELECTRONIC BOARD NEUTRAL
12	KEYBOARD GROUND
13	KEYBOARD NEUTRAL
14	BURNER SIGNAL LOCK
15	COMMAND ON/OFF
16	KEYBOARD PHASE
17	ALARM LIGHT
18	COMMAND RELAY FAN
19	24VDC
20	THERMOSTAT NEUTRAL
21	THERMOSTAT PHASE
22	THERMOSTAT CONTACT
23	THERMOSTAT GROUND
24	RELAY FAN
25	RELAY FAN
26	PRE HEATER NEUTRAL
27	PRE HEATER PHASE
28	NTC SENSOR
29	NTC SENSOR

NEVER LEAVE THE HEATER UNATTENDED WHILE BURNING!



OPERATING INSTRUCTIONS AND OWNER'S MANUAL

MODEL#
HSP400ID-G

READ INSTRUCTIONS CAREFULLY: YOUR SAFETY IS IMPORTANT TO YOU AND TO OTHERS. 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.



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.

REPLACEMENT PARTS ORDERING INFORMATION:

PURCHASING: Accessories may be purchased at any HEATSTAR by Enerco local dealer or direct from the factory

FOR INFORMATION REGARDING SERVICE

Please call Toll-Free 866-447-2194

WWW.HEATSTARBYENERCO.COM

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

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 866-447-2194. Address any Warranty Claims to the Service Department, Enerco Group, Inc., 4560 W. 160TH ST., Cleveland, Ohio 44135. Include your name, address, telephone number, serial number off heater 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.

