### **OPERATING INSTRUCTIONS AND OWNER'S MANUAL**

#### MR. HEATER

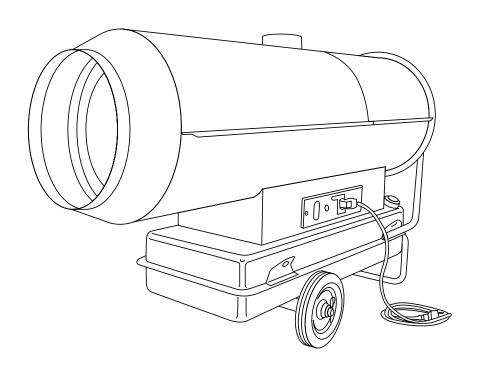
MODEL

1000ID, 2000ID 3000ID **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.

#### HEATSTAR BY ENERCO



1000ID, 2000ID 3000ID, 4000ID



# 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 a vented portable heater. It uses air (oxygen) from the area in which it is used. Adequate combustion air and ventilation must be provided. Refer to page 5.

#### **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.
- ① 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 MA-TERIALS, 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 UN-KNOWN 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.

- DO NOT USE GASOLINE, NAPHTHA OR VOLATILE FUELS.
- 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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#### **IMPORTANT**

Before using the heater, read and understand all instructions and follow them carefully. The manufacturer is not responsible for damages to goods or persons due to improper use of units.

#### **GENERAL RECOMMENDATIONS**

This indirect-fired heater runs on diesel fuel. Those with direct combustion send hot air and the combustion products into the room, while those with indirect combustion are fitted with a flue to take the fumes away through the chimney.

Always follow local ordinances and codes when using this heater:

- Read and follow this owner's manual before using the heater.
- Use only in places free of flammable vapors or high dust content.
- Never use heater in immediate proximity of flammable materials (the minimum distance must be 6 ft.).
- Make sure fire fighting equipment is readily available.
- Make sure sufficient fresh outside air is provided according

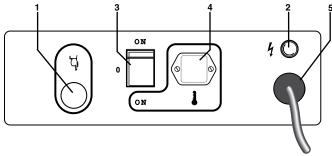
- to the heater requirements. Direct combustion heaters should only be used in well vented areas in order to avoid carbon monoxide poisoning.
- The heater is installed near a chimney to take away the fumes (see "Ventilation" on page 5) and connected to an electrical switchboard.
- When the heater is connected to a flue pipe, the flue pipe shall terminate in a vertical section at least two feet long and sufficient draft shall be created to assure safe and proper operation of the heater.
- Never block air inlet (rear) or air outlet (front).
- In case of very low temperatures add kerosene to the heating oil.
- Make sure heater is always under surveillance and keep children and animals away from it;
- Before starting the heater always check free rotation of ventilator fan.
- Indirect fired units only can be connected to air ducts to distribute warm air, with respect to the max. static pressure declared (see "TECHNICAL SPECIFICATION" sheet).
- · Unplug heater when not in use.

TECHNICAL SPECIFICATIONS			MH 1000ID HS 1000ID	MH 2000ID HS 2000ID	MH 3000ID HS 3000ID	HS 4000ID
Heat input [kBT		[kBTU/h]	110	205	300	400
Air flow		[cfm]	880	1,530	2,500	2,760
Fuel Type				Diesel/Kerosen	ie/#1-2 Fuel Oil	-
Heat output		[kBTU/h]	91.9	174.9	254.4	335.6
F 1 .:		[gal/h]	0.80	1.48	2.28	2.82
Fuel consumptio	n	[lb/h]	5.53	10.35	15.07	20.07
	Phase		1	1	1	1
Power supply	Voltage	[V]	120	120	120	120
	Frequency	[Hz]	60	60	60	60
Electric consumption		[W]	520	785	1.240	1.440
		[A]	5.76	8.30	11.40	13.20
Nozzle		[USgal/h]	0.60-80° S	1.00-45° W	1.20-45° W	1.50-45° W
		r	167	P1: 137	P1: 160	P1: 203
Pump pressure		[psi]	167	P2: 239	P2: 350	P2: 348
Max static pressu	ure	[in WC]	0.5	0.5	0.5	0.5
Recommended r	nax. temp. in the air	[°F]	250	250	250	250
		[in]	a=0.32	-	-	-
Adjustment of combustion air flap		N°	-	A=1.02	A=1.50	B=1.14
Flue diameter		[in]	5.9	5.9	5.9	5.9
Compulsory flue draft		[in WC]	0.05	0.05	0.05	0.05
Tank capacity		[gal]	10.8	17.2	27.7	35.7
Dimensions, L x	WxH	[in]	49.3x20.0x30.5	56.5x23.2x37.60	68.5x27.6x37.7	66.3x27.6x45.6
Net Weight		[lb]	94	176	264	330

#### **OPERATION**

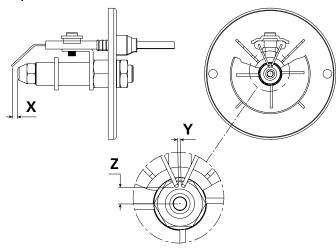
Before any attempt of starting the heater is made, check that your electrical supply conforms to the data on the model plate.

#### **Control Board**



- 1 RESET BUTTON WITH CONTROL LAMP
- 2 CONTROL LAMP
- **3** MAIN SWITCH
- 4 ROOM THERMOSTAT PLUG
- 5 POWER CORD

#### **Gap of Electrodes**



Models	Х	Υ	Z
ID1000	.079 in	.118 in	.256 in
<b>ID2000</b> .158 in		.098 in	. 158 in
<b>ID3000</b> .158 in		.098 in	.158 in
<b>ID4000</b> .158 in		.098 in	.158 in

#### Clearances

The following minimum safety clearances from materials or objects in the surroundings of the heater must be ensured:

Sides	2.5 ft.	Air Inlet	2.5 ft.
Тор	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 postion.
- It is forbidden to connect direct-fired heaters to air ducts.

#### **MARNING**

- DO NOT USE GASOLINE, NAPHTHA OR VOLATILE FUELS.
- STOP HEATER BEFORE ADDING FUELS.
- ALWAYS FILL OUTDOORS AWAY FROM OPEN FLAME
- DO NOT USE EXTERNAL FUEL SOURCE.
- DO NOT OPERATE HEATER WHERE FLAMMABLE LIQUIDS OR VAPORS MAY BE PRESENT.
- DO NOT START HEATER WHEN CHAMBER IS HOT
- DO NOT START HEATER WHEN EXCESS FUEL HAS ACCUMU-LATED IN THE CHAMBER.
- DO NOT PLACE COOKING UTENSILS ON TOP OF THE HEATER.
- PLUG ELECTRICAL CORD INTO A PROPERLY GROUNDED THREE-PRONG RECEPTACLE.

The heater can only work automatically when a control device, such as for example a thermostat or a timer, is connected to the heater. Connection to the heater is made by removing the socket cover(4) and inserting the thermostat plug.

To start the machine you must:

- •If connected to the thermostat, turn the switch to (ON + 1);
- •If not connected to the thermostat, turn the switch to (ON).

When unit is started for the first time or is started after the oil tank has been totally emptied, the flow of oil to the burner may be impaired by air in the circuit. In this case the control box will cut out the heater and it might be necessary to renew the starting procedure once or twice by depressing the reset button (1).

Should the heater not start, check that oil tank is full and depress reset button (1).

Should the heater still not work, please refer to chapter "OBSERVED FAULTS, CAUSES AND REMEDIES".

#### STOPPING THE HEATER

Set main switch (3) on "0" position or turn thermostat or other control device on lowest setting.

The flame goes out and the fan continues to work for approx. 90sec. cooling the combustion chamber.

#### **SAFETY DEVICES**

The unit is fitted with an electronic flame control box. In case of malfunction this box will cut in and stop the heater, at the same time the pilot lamp in the control box reset button (1) will light up.

Heaters are also equipped with an overheat thermostat safety cutout which will stop the heater in case of overheating. This thermostat will reset automatically but you will have to depress button (1) on control box before being able to restart the heater.

#### **TRANSPORT**

#### WARNING

• Before making any attempt to restart heater find and eliminate reason of overheating.

Before heater is moved it must be stopped and unplugged. Before moving the heater wait till it has totally cooled off and make sure oil tank cap is securely fixed.

The hot air heaters with wheels must be wheeled. The suspended version which has no wheels must be transported with adequate machinery.

#### **MAINTENANCE**

Preventive and regular maintenance will ensure a long trouble free life to your heater.

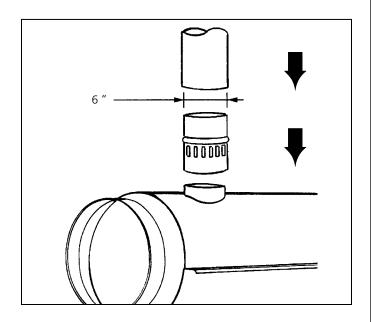
#### **MARNING**

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

Every 50 hours of operation: disassemble filter and wash with clean oil, remove upper body parts and clean inside and ventilator with compressed air, check correct attachment of H.T. connectors to the electrodes and check H.T. cables, remove burner assembly, clean and check electrode settings, adjust according to scheme "GAP OF ELECTRODES".

#### Flue Connections Diagram

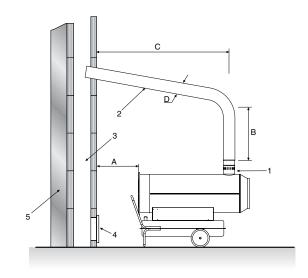
#### **VENTILATION**

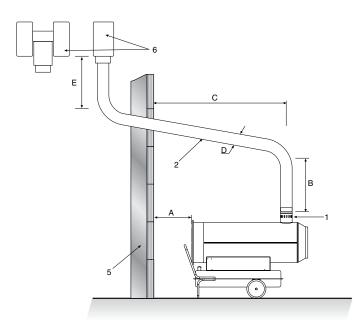


#### Description

- A) Minimal 39"
- B) Minimal 39"
- **C)** The shortest
- D) The same or bigger than the smokes outlet diameter of heater
- E) Minimal 1m
- 1) Anti-wind device provided with the heater
- 2) Horizontal crossing with minimal upside angle pitch of 5°
- 3) Chimney 8" x 8" of minimal inside measure
- 4) Chimney anti-explosion flap door
- 5) External seating wall
- 6) Chimney ending H shape

N.B. Above recommendation indicative only. Have your installation checked by local authority.



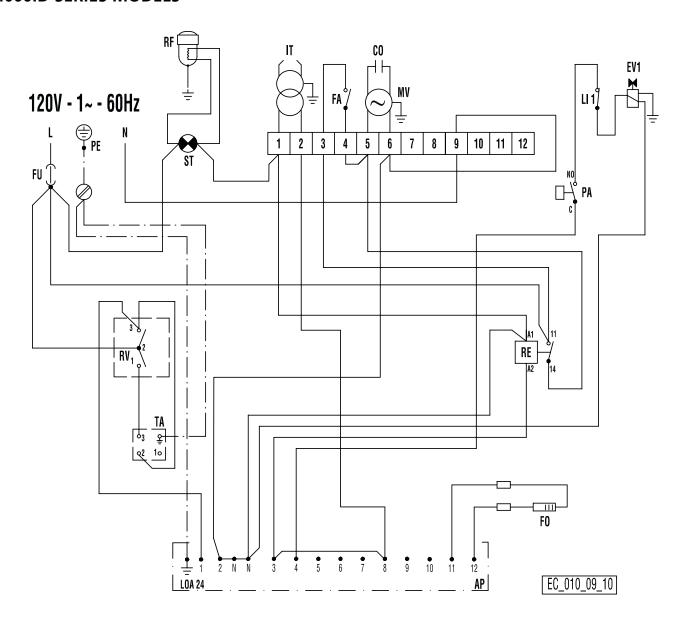


#### **TROUBLESHOOTING**

TROUBLE	CAUSE	SOLUTION
Motor does not start, no ignition	No electrical current	Check mains (should be 120 V – $1\sim$ – 60 Hz)
		Check proper positioning and functioning of switch
		Check fuse
	Wrong setting of room ther- mostat or other control	Check correct setting of heater control. If thermostat, make sure selected temperature is higher than room temperature
	Thermostat or other control defective	Replace control device
	Electrical motor defective	Replace electrical motor
	Electrical motor bearings defective	Replace electrical motor bearings
	Burned out condenser	Replace condenser
Motor starts, no ignition or cuts out	Electric ignitor defective	Check connection of H.V. leads to electrodes and transformer
		Check electrodes setting (see scheme "GAP OF ELECTRODES")
		Check electrodes for cleanliness
		Replace H.V. transformer
	Flame control box defective	Replace control box
	Photocell defective	Clean or replace photocell
	Not enough or no fuel at all	Check state of motor-pump plastic coupling
	at burner	Check fuel line system including fuel filter for possible leaks
		Clean or replace oil nozzle
	Solenoid defective	Check electrical connection
		Check thermostat LI
		Clean or replace solenoid
Motor starts, heater emits smoke	Not enough combustion air	Make sure air inlet and outlet are free
		Check setting of combustion air flap
		Clean burner disc
	Too much combustion air	Check setting of combustion air flap
	Fuel contaminated or con-	Drain fuel in tank with clean fuel
	tains water	Clean oil filter
	Air leaks in fuel circuit	Check the seals on the ducts and the diesel filter
	Not enough fuel at burner	Check pump pressure
		Clean or replace fuel nozzle
	Too much fuel at burner	Check pump pressure
		Replace nozzle
Heater does not stop	Solenoid	Replace solenoid coil or complete solenoid

If heater still not working properly, please revert to nearest authorized dealer.

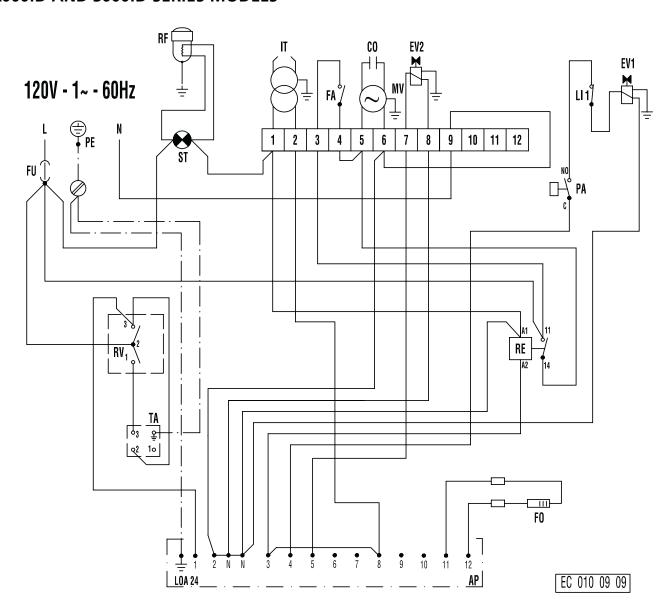
#### WIRING DIAGRAM 1000ID SERIES MODELS



#### DRAWING LEGEND

FU	Fuse	RV	Control
IT	Transformer H.V.	TA	Room Thermostat
LI1	Overheat Thermostat	RE	Relays
EV1	Solenoid Valve 1°	AP	Control Box
FO	Photocell	PA	Air pressure control
со	Condenser	RF	Heater filter
MV	Fan Motor	FA	Fan thermostat
ST	Electric pilot	PE	Ground

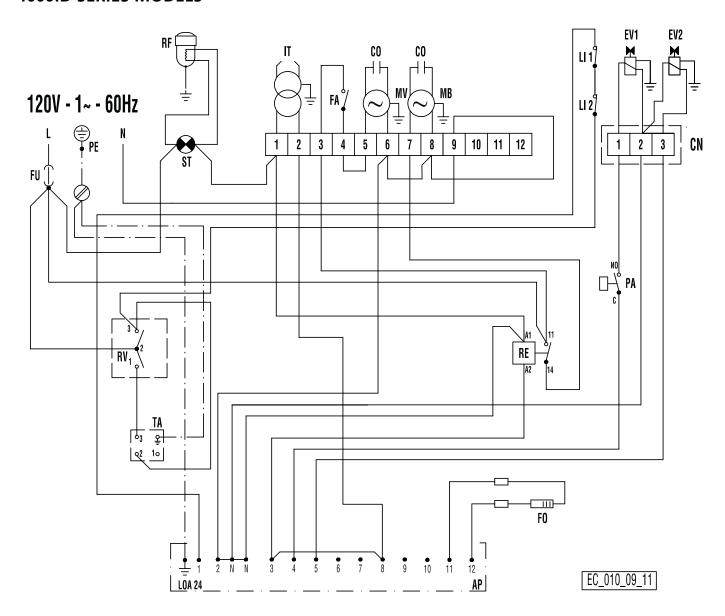
## WIRING DIAGRAM 2000ID AND 3000ID SERIES MODELS



#### **DRAWING LEGEND**

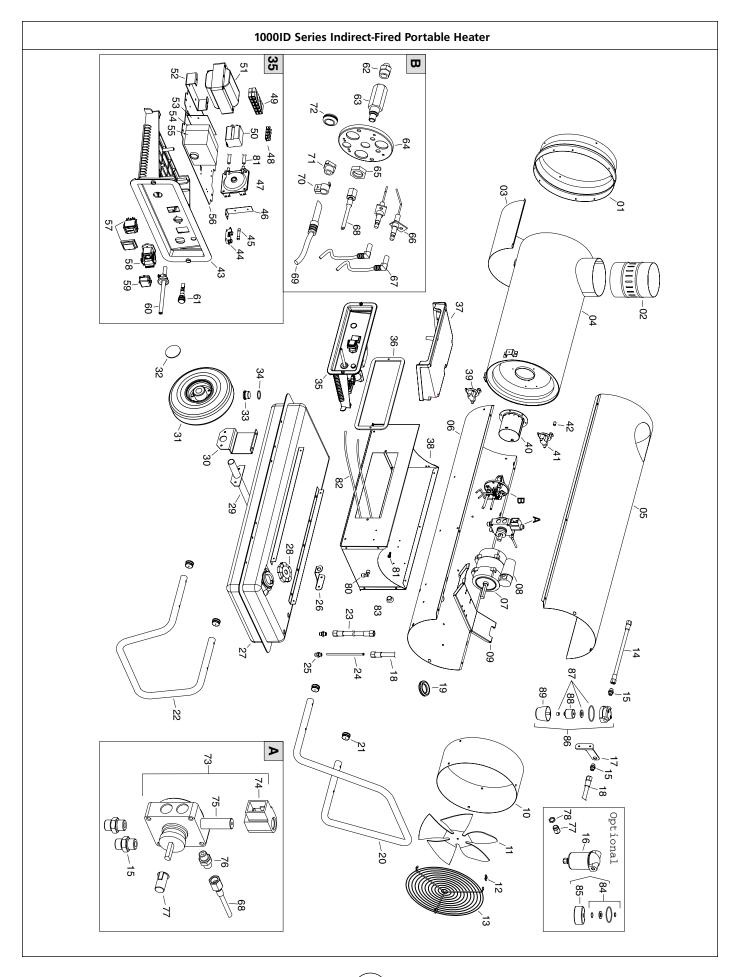
FU	Fuse 20A	RV	Control
IT	Transformer H.V.	TA	Room Thermostat plug
LI1	Overheat Thermostat	RE	Relay
EV1	Solenoid Valve 1°	AP	Control Box
EV2	Solenoid Valve 2°	FA	Fan thermostat
FO	Photocell	PA	Air pressure control
CO	Condenser	RF	Heated filter
MV	Fan Motor	PA	Air pressure switch
ST	Electric pilot lamp	PE	Ground

#### WIRING DIAGRAM 4000ID SERIES MODELS



#### **DRAWING LEGEND**

FU	Fuse 20A	TA	Room Thermostat plug
IT	Transformer H.V.	RE	Relay
LI1	Overheat Thermostat	AP	Control Box
EV1	Solenoid Valve 1°	FA	Fan thermostat
EV2	Solenoid Valve 2°	RF	Heated filter
FO	Photocell	CN	Connector
CO	Condenser	LI2	Overheat safety
MV	Fan Motor		thermostat
ST	Electric pilot lamp	PE	Ground
RV	Control		



#### **1000ID Series Indirect-Fired Portable Heater Parts List**

NO.	STOCK NO.	DESCRIPTION	
01	G06075-9010	OUTLET CONE	
02	G06077	CHIMNEY Ø 150	
03	G06079	COMBUSTION CHAMBER SUPPORT	
04	G06081	COMBUSTION CHAMBER	
05	G06083-9010	UPPER BODY	
06	G06085-9010	LOWER BODY	
07	E10677-110	MOTOR 200WWITH CONDENSER	
08	E11208	CONDENSER 20 µF	
09	G06067	MOTOR FLANGE	
10	G06070-9010	FAN PROTECTION RING	
11	T10207	FAN Ø300 18°	
12	M20402	ELASTIC PLATE U42-032	
13	P30165	INLET GRILLE	
14	140330	TUBE BP 1/4" FF L.420MM	
15	120104	NIPPLE FE 1/4" MM	
16	T20239	FILTER WITH CARTRIDGE	
17	G06104-9005	FILTER SUPPORT	
18	140329	TUBE BP 1/4"FF L.260MM	
19	C30307	PROTECTION CABLE Ø 35	
20	P20174-9005	HANDLE	
21	C30319	PLUG Ø25	
22	P20175-9005	FOOT	
23	140331	TUBE BP 1/4" F L.580MM	
24	130695	PASCANTE L.150MM	
25	130737	NIPPLE OT 1/4" M - M12X1.75M	
26	G06068-9005	POWER LEAD HOOK	
27	G06099-9005	FUEL TANK	
28	C30356	DRAIN PLUG	
29	G06105-9005	WHEEL AXLE	
30	G06106-9005	WHEELS AXLE SUPPORT	
31	C10546	WHEEL Ø 260 - Ø 25	
32	M20202	SPRING WASHER Ø20	
33	125019	FUEL TANK	
34	C30350	OR Ø30 X 2.62	
35	G00212	EL. COMPONENTS DRAWER	
36	C30425	SEAL	
37	P50127	CONTROL BOX COVER	
38	G06108-9010	BASE	
39	E50101	LIMIT THERMOSTAT	
40	G06087	BLAST TUBE	
41	E50102	FAN THERMOSTAT	
42	G06072	SLEEVE Ø8 X Ø6 X 9.5	
43	P50126	ELECTR. COMPONENTS DRAWER	
44	E20508	FUSE HOLDER	
45	E10308	FUSE (6X30) 10A	

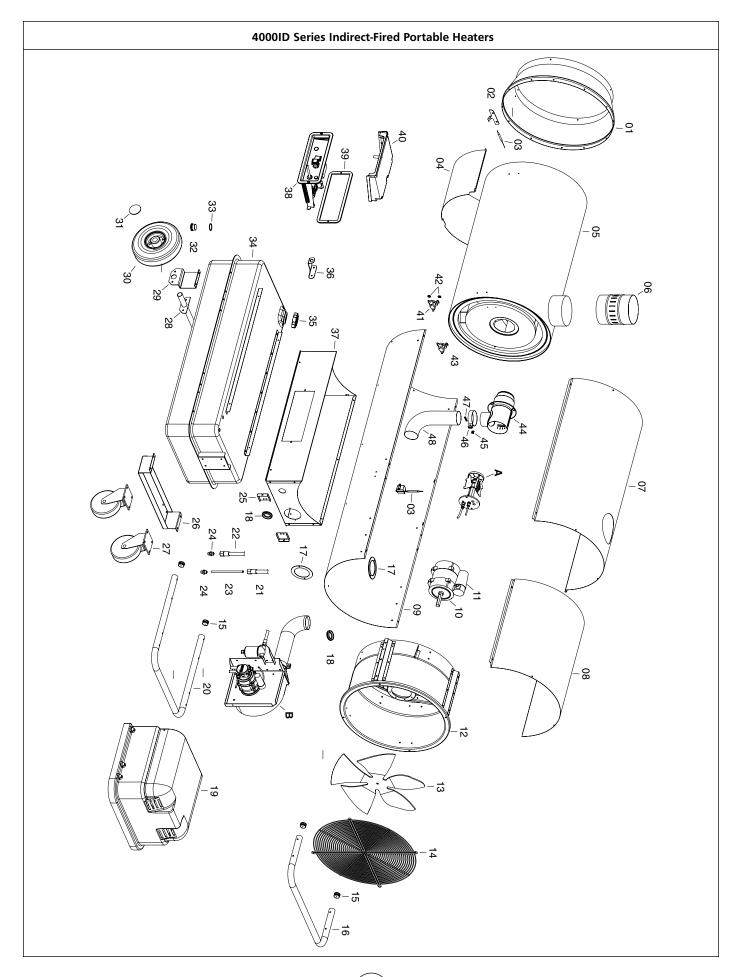
NO.	STOCK NO.	DESCRIPTION		
46	G06102	SWITCH SUPPORT		
47	E50437	PRESSURE SWITCHES HONEYWELL		
48	E20319	TERMINAL BOARD		
49	E20305	TERMINAL BOARD		
50	E11125	RELAY FINDER 65.31 AC		
51	E10917-2	TRANSFORMER H.T. 818C 110V		
52	G06109	TRANSFORMER H.T. FLANGE		
53	G06103	SUPPORT		
54	E40107	LANDIS LOA 21-24 BASE		
55	E40113	CONTROL BOX LANDIS LOA 21-24		
56	G06073	PLATE FOR ELECTRICAL COMPONENTS		
57	E10102-P	SWITCH 0 - 1		
58	E20640	THERMOSTAT PLUG 3P+T		
59	E20665	DRAIN PLUG		
60	E30443	EL. WIRE WITH PLUG AND CABLE		
		FASTENER		
61	E11030	LAMP 230V		
62	T20339	NOZZLE 0.60 GPH 80° S		
63	133001	NOZZLE SUPPORT		
64	P20526	BURNER FLANGE Ø 80MM		
65	I31034	NUT M14		
66	E10248	ELECTRODE		
67	G02076	H.T. CABLE CONNECT 90°		
68	140192	MICRO PIPE		
69	E50306	LD. PH. UNITL&G QRB1A		
70	E50307	FIXING CLAMP		
71	E50308	PHOTO RESISTANCE FLANGE		
72	C30352	CABLE PROTECTION Ø15		
73	T20429-1	PUMP DANFOSS BFP01		
74	T20118	SOLENOID SPOOL BFP11-21 DANFOSS		
75	T20117	SOLENOID VALVE DANFOSS		
76	120115	NIPPLE FE 1/8" MM		
77	E10513	COUPLING K1		
78	E20953	CABLE HOLDER PG11		
79	E20954	RING NUT PG11		
80	120325	CONNECTION1/8"		
81	I31130	CONN. STRAIGHT Ø6 1/8"		
82	140332	SILICONE PIPE Ø5X9		
83	C30319	RUBBER TAP		
84	T20241	OR KIT OIL FILTER		
85	T20242	FILTER CARTRIDGE		
86	T20201	OIL FILTER 1/4"		
87	T20234	OR KIT OIL FILTER		
88	T20206	FILTER CARTRIDGE		
89	T20212	FILTER HOUSING		

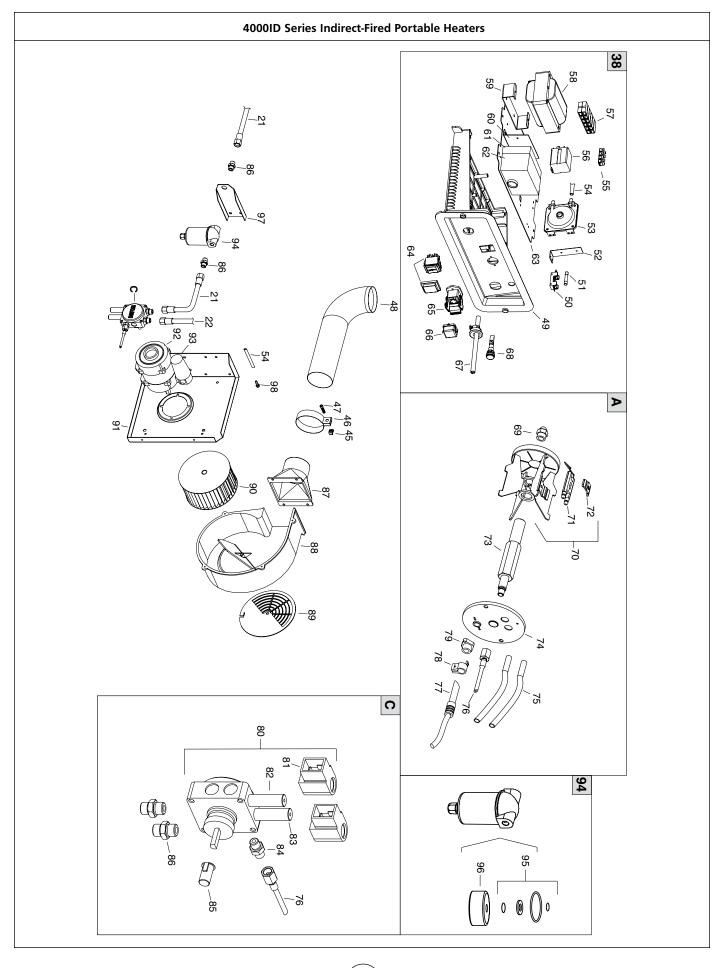
# 2000ID/3000ID Series Indirect-Fired Portable Heaters 33 ₩ ) 30 41 38 23 22 17 15

#### 2000ID/3000ID Series Indirect-Fired Portable Heater Parts List

NO.	STOCK NO.	2000	3000	DESCRIPTION
01	G06113-9010	•		OUTLET CONE
	G06114-9010			
02	G06077	•		CHIMNEY Ø 150
03	G06115	•		COMBUSTION CHAMBER SUPPORT
	G06116			
04	G06117			COMBUSTION CHAMBER
	G06118			
05	G06119-9010			UPPER BODY
	G06120-9010			
06	G06121-9010			COVER INSPECTION
	G06122-9010			
07	G06123-9010	•		LOWER BODY
	G06124-9010			
08	E10678-110			MOTOR 450W WITH CONDENSER
	E10679-110			MOTOR 750W WITH CONDENSER
09	E11230			CONDENSER 40µF
	E11229			CONDENSER 40µF
10	G06125-9010	•		MOTOR FLANGE
	G06126-9010			
11	T10260			FAN Ø356 18°
	T10261			FAN Ø500 23°
12	P30169			INLET GRILLE
	P30129			
13	140330			TUBE BP 1/4" FF L.420MM
14	120104			NIPPLO FE 1/4" MM
15	T20239			OIL PRE-HEATERS FILTER 1/4"
16	G06104-9005			FILTER SUPPORT
17	140329			TUBE BP 1/4" FF L.260MM
18	P20174-9005			HANDLE
	P20176-9005			
19	C30319			PLUG Ø25
20	P20175-9005			FOOT
	P20177-9005			
21	140331			TUBE BP 1/4" F L.580MM
22	130696			PASCANTE L.220MM
23	130737			NIPPLO OT 1/4" M - M12X1.75M
24	G06068-9005	•		POWER LEAD HOOK
25	G06127-9005			FUEL TANK 65 L
	G06128-9005			FUEL TANK 105 L
26	C30367			DRAIN PLUG
27	G06105-9005			WHEEL AXLE
	G06129-9005			WHEELS AXLE SUPPORT
28	G06106-9005			WHEEL Ø 260 - Ø 25
29	C10546			SPRING WASHER Ø 25
30	M20202			FUEL TANK
31	125019			OR Ø30 X 2.62
32	C30350	•		EL. COMPONENTS DRAWER
33	G00213			SEAL SEAL
34	C30425			CONTROL BOX COVER
35	P50127			BASE
36	G06130-9010			
	G06131-9010			CONN. STRAIGHT Ø6 1/8"
37	131130			SILICONE PIPE Ø5X9
38	140332	•	•	CONNECTION 1/8"
39	130325-1			CONNECTION 1/8"
40	120325	•	•	CONNECTION 1/8"
	120323			CONTRECTION 1/0

NO.	STOCK NO.	2000	3000	DESCRIPTION
41	131130	•	•	CONN. STRAIGHT Ø6 1/8"
42	E20953	•	•	CABLE HOLDER PG11
43	E20954	•	•	RING NUT PG11
44	C30307		•	PROTECTION CABLE 035
45	E50102		•	LIMIT THERMOSTAT
46	M20107		•	WASHER Ø5 X Ø15 X 1.5
47	E50101			FAN THERMOSTAT
	E50104		•	
48	G06132		•	BLAST TUBE
49	G06133		•	CLIP FOR FLEXIBLE DUCTS
50	140801			DOPPELMATERIAL-SCHLAUCH L=170 MM
	140802		•	DOPPELMATERIAL-SCHLAUCH L=170 MM
51	G06134			AIR FLAP
52	P50126		•	ELECTR. COMPONENTS DRAWER
53	E20508			FUSE HOLDER
54	E10313			FUSE (6X30) 20A
55	G06102			SVVITCH SUPPORT
56	E50437			PRESSURE SWITCHES HONEYWELL
57	E20319			TERMINAL BOARD
58	E11125			RELAY FINDER 65.31 AC
59	E20305			TERMINAL BOARD
60	E10917-2	٠.		TRANSFONNER H.V. 818C 110V
61	G06109	١.		TRANSFONNER H.V. FLANGE
62	G06103	٠.		SUPPORT
63	E40107			LANDIS LOA 21-24 BASE
64	E40113		•	CONTROL BOX LANDIS LOA 21-24
65	G06073	· ·	•	PLATE FOR ELECTRICAL COMPONENTS
66	E10102-P		•	SWITCH 0 -1
67	E20640	H.	•	THERMOSTAT PLUG 3P+T
68	E20645	+ :	·	DRAIN PLUG
69	E30443	+ -	•	EI. WIRE WITH PLUG AND CABLE FASTENER
70	E11030	+ •	•	LAMP 230V
71	T20354	+ <del>·</del>	•	NOZZLE 1,00 GPH 45° W
	T20354	+ -		NOZZLE 1,20 GPH 45° W
72	P10137		_	BURNER'S HEAD WITH ELECTRODES
12	P10137	+ •	•	BURNER'S HEAD WITH ELECTRODES
72		+ .		
73	E10254	· ·	•	ELECTRODES STIRRUIR
74 75	P10134	•	•	NOZZLE SUPPORT
	133002	•	<u> </u>	WASHER DIAM. 14
76	130685	•	•	BURNER FLANGE 0 102MM
77	P20529	+ -	<u> </u>	H.T. CABLE CONNECT. 90°
78	G02076	•	•	
79	140192	•	•	MICROPIPE
80	E50306	•	•	LD PH. UNIT L&G QRB1A
81	E50307	•	•	FIXING CLAMP
82	E50308	•	•	PHOTORESISTANCE FLANGE
83	T20439-1	•		PUMP DANFOSS BFP 52E R3
	T20440-1	+	•	PUMP DANFOSS BFP 52E R5
84	T20118		•	SOLENOID SPOOL BFP 52E DANFOSS
85	T20129	•	•	SOLENOID VALVE DANFOSS (NO)
86	T20117	٠.	•	SOLENOID VALVE DANFOSS (NC)
87	120115	•	•	NIPPLO FE 118" MM
88	E10513			COUPLING K1
	E10514	1	•	COUPLING K2
89	T20241		•	OR KITOIL FILTER
90	T20242	•	•	FILTER CARTRIDGE





#### **4000ID Series Indirect-Fired Portable Heater Parts List**

NO.	STOCK NO.	DESCRIPTION
01	G06156-9010	Outlet cone
02	G06157	Centrifuge air fan
03	E50767	Thermostat TY95A 105°C Campini
04	G06171	Combustion chamber support
05	G06158	Combustion chamber
06	G06077	Chimney 0 150
07	G06159-9010	Upper body
08	G06160-9010	Cover inspection
09	G06161-9010	Lower body
10	E10679-110	Motor 750W with condenser
11	E11229	Condenser 80 µF
12	G06172-9010	Motor flange
13	T10261	Fan 0500 23°
14	P30129	Inlet grille
15	C30328	Plug 030
16	P20182-9005	Handle
17	G06162-9010	Washer for Air duct
18	C30307	Protection cable 0 35
19	P50133	Crankcase
20	P20181-9005	Wheels frame
21	140333	Tube BP 1/4" FF L.200mm
22	140330	Tube BP 1/4" FF L.420mm
23	130696	Pascante L.290mm
24	130737	Nipplo OT 1/4" M - M12x1,75 M
25	G06163-9005	Stirrup
26	G06164-9005	Wheels support
27	C10547	Pivotal wheel
28	G06129-9005	Wheel axle
29	G06151-9005	Wheels axle support
30	C10546	Wheel 0 260 - 0 25
31	M20202	Spring washer 025
32	125019	Drain plug
33	C30350	OR 030 x 2,62

NO.	STOCK NO.	DESCRIPTION
34	G06165-9005	Fuel tank 135 I
35	C30367	Drain plug
36	G06068-9005	Power lead hook
37	G06166-9010	Base
38	G00214	EI. componets drawer
39	C30425	Seal
40	P50127	Control box cover
41	E50102	Limit Thermostat
42	M20107	Washer 05 x 015 x 1,5
43	E50104	Fan Thermostat
44	G06167	Blast tube
45	M20408	Nut M5
46	G06133	Clip for flexible ducts
47	M10244	Screw TCEI M5x14
48	140803	Air duct L=600 mm
49	G06153	Electr. componets drawer
50	E20508	Fuse holder
51	E10313	Fuse (6x30) 20A
52	G06102	Switch support
53	E50437	Pressure switchesHONEYWELL
54	140332	Silicone pipe 05x9
55	E20319	Terminal board
56	E11125	Relay Finder 65.31 AC
57	E20305	Terminal board
58	E10917-2	Transformer H.T. 818C 110V
59	G06109	Transformer H.T. flange
60	G06103	Support
61	E40107	LANDIS LOA 21-24 base
62	E40113	Control box LANDIS LOA 21-24
63	G06073	Plate for electrical components
64	E10102-P	Switch 0-1
65	E20640	Thermostat plug 3P+T
66	E20665	Drain plug

#### **4000ID Series Indirect-Fired Portable Heater Parts List**

NO.	STOCK NO.	DESCRIPTION
67	E30443	EI. wire with plug and cable fastener
68	E11030	Lamp 230V
69	T20353	Nozzle 1,50 GPH 45° W
70	P10137	Burner's head with electrodes
71	E10254	Electrodes
72	P10134	Electrodes stirrup
73	133002	Nozzle support
74	P20529	Burner flange 0 102mm
75	G02076	H.T. Cable connect. 90°
76	140193	Micropipe L=800 mm
77	E50306	Ld ph. Unit L&G QRB1A
78	E50307	Fixing clamp
79	E50308	Photoresistance flange
80	T20439-1	Pump Danfoss BFP 52E R3
81	T20118	Solenoid spool BFP 52E Danfoss
82	T20129	Solenoid valve Danfoss (NO)
83	T20117	Solenoid valve Danfoss (NC)
84	120115	Nipplo FE 1/8" MM
85	E10513	Coupling K1
86	120104	Nipplo FE 1/4" MM
87	C10328	Leitungskanal
88	C10326	Spiral fan
89	G06168	Shutter for air regulation
90	T10262	Fan AP 160x55 F12,7
91	G06169-9005	Support fan and motor
92	E10677-110	Motor 200W with condenser
93	E11233	Condenser 20 IJF
94	T20239	Oil pre-heaters filter 1/4"
95	T20241	OR KIToil filter
96	T20242	Filter cartridge
97	G06170-9005	Filter support
98	131121	Conn. Straight 04,5 M5

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#### **OPERATING INSTRUCTIONS AND OWNER'S MANUAL**

#### MR. HEATER

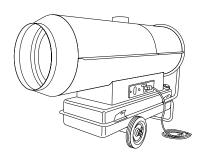
MODEL

1000ID, 2000ID 3000ID **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.

#### HEATSTAR BY ENERCO

MODE

1000ID, 2000ID 3000ID, 4000ID



#### **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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