

# HEAT MASTER ENGLISH 2404.16

### 1. Introduction

HEAT MASTER is exclusively designed for electronically controlled boilers and home heaters that contains electronic control circuitry and electric water pump. Featuring with dynamic voltage regulator, this device can ensure stable power to connected loads as utility. Equipped with LCD digital display, it provides real-time system vitals to users. The built-in DC start function enables the HEAT MASTER to be started up without a supply of AC power. The main features of this HEAT MASTER are listed below:

- Microprocessor control guarantees high reliability.
- Built-in enhanced boost & buck AVR
- Fast charger
- Green power function for energy saving
- Auto restart during AC recovery
- Comprehensive LCD display
- External battery connection available for long-term operation

### 2. Product Overview

- **1** Power switch
- **2** Output receptacles
- AC input
- 4 Circuit breaker
- **6** External battery connector





#### LCD Panel:

- 1 Input voltage
- 2 Output voltage
- 3 AC mode indicator
- 4 Battery mode indicator
- 5 Load level indicator, flashing indicates overload
- 6 Battery capacity indicator, flashing indicates low battery

## 3. Important Safety Warning (SAVE THESE INSTRUCTIONS)

**CAUTION** To prevent the risk of fire or electric shock, install in a temperature and humidity controlled indoor area free of conductive contaminants. (See the specifications for the acceptable temperature and humidity range.) To reduce the risk of overheating the HEAT MASTER, do not cover the HEAT MASTER cooling vents and avoid exposing the unit to direct sunlight or installing the unit near heat emitting appliances such as space heaters or furnaces. Do not allow liquids or any foreign object to enter the HEAT MASTER. Do not place beverages or any other liquid-containing vessels on or near the unit.

**CAUTION** Do not plug the HEAT MASTER input into its own output. Connection to any other type of receptacle other than a two-pole, three-wire grounded receptacle may result in shock hazard.

**CAUTION** In the event of an emergency, press the "OFF" button and disconnect the power cord from the AC power supply to properly disable the HEAT MASTER.

Attention hazardous through electric shock. Even after disconnecting this unit from AC Line, there might be dangerous voltage due to supply from battery. Therefore, battery should be disconnected from plus and minus pole at the quick connectors of the battery when maintenance or service work inside the HEAT MASTER is necessary.

**CAUTION** Servicing of batteries should be performed or supervised by personnel knowledgeable of batteries and the required precautions. Keep unauthorized personnel away from batteries.

CAUTION Internal battery voltage is 12VDC. Its technology is sealed, free-maintenance, lead-acid battery.

**CAUTION** Do not dispose of batteries in a fire. The battery may explode. Do not open or mutilate the battery or batteries. Released electrolyte is harmful to the skin and eyes.

**CAUTION** Unplug the HEAT MASTER prior to cleaning and do not use liquid or spray detergent. It does not require internal cleaning.

### 4. Installation and Initial Startup

#### **Placement Conditions**

Install the HEAT MASTER in a protected area that is free of excessive dust and has adequate air flow. Do not place the HEAT MASTER below other equipment can drop water over it. Do NOT operate the HEAT MASTER where the temperature and humidity is outside the specific limits. (Please check the specs for the limitations.)

#### Wall Mount the Unit

The unit can be mounted to a wall surface.

- 1. Refer to Chart 1 to mark 6 black dot on the wall.
- 2. Use a sharp nail to puncture the center of each black dot.
- 3. Mount the unit by positioning the key-hole slots over the mounting nails. (see chart 2)

#### **Connect to Utility and Charging**

Plug in AC input cord to the wall outlet. The unit charges its battery while connecting to the utility.

#### **Connect the Loads**

Simply plug in the motor-typed load to output receptacles on the side of the HEAT MASTER. Simply turn on the power switch of HEAT MASTER unit. Then, the device connected to the HEAT MASTER will be protected by HEAT MASTER unit.

#### Turn On/Off the Unit

Turn on the HEAT MASTER unit by pressing the power switch. Turn off the HEAT MASTER unit by pressing again the power switch.



If additional runtime is required connect Heat Master to external battery pack.

- WARNING!!!! Battery connection does not accept reverse polarity.
- Left terminal (+) in Heat Master must be connected to left terminal (+) in Ext. Battery
- Right terminal (-) in Heat Master must be connected to right terminal (-) in Ext. Battery



# 5. Trouble Shooting

Problem	Possible Cause	Solutions	
HEAT MASTER cannot be turned on	Low battery.	Charge at least 4-6 hours.	
after pressing the power switch.	Battery fault.	Replace the battery with the same type	
LCD flashes and alarm beeps continuously when utility power is normal.	HEAT MASTER is overloaded.	Remove some loads first. Before reconnecting equipment, verify that the load matches capacity specified in the specs.	
	Circuit breaker trip.	Reset the breaker.	
	Battery fault.	Replace the battery with the same type of battery.	
When power fails, back-up time is shortened.	HEAT MASTER is overloaded.	Remove some critical load.	
	Battery voltage is too low.	Charge Heat Master at least 4-6 hours.	
	Battery fault. It might be due to high temperature operation environment, or improper operation to battery.	Replace battery with same type of battery.	
Main is normal but it is battery mode.	Power cord is loose.	Reconnect the power cord properly.	

# 6. Specifications

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Rated Output Capacity / Capacidad Nominal	250 VA / 200 W			
Peak Capacity / Capacidad Pico	800 VA / 640 W (< 6 s)			
Input - Entrada				
Voltage / Voltaje - Frequency / Frecuencia	230V (162-268 Vac) - 50Hz			
Output - Salida				
Voltage / Voltaje - Frequency / Frecuencia	230V (+/-10%) - 50Hz			
Auto-restart / Auto-arranque	Yes / Si			
Internal Batteries - Baterías Internas				
Туре / Тіро	Maintenance Free VRLA-AGM / Sellada Sin Mantenimiento			
Backup Time / Autonomía (*)	Heater Mode:	Domestic hot water "ON" (80W)	Central heating circuit "ON" (120W)	
Heat Master:		75min	60min	
Heat Master + 1 EXBATT:		260min	180min	
Recharge Time / Tiempo de Recarga	4-6 hours to 90% capacity / 4-6 Horas hasta 90%			
Protections / Protecciones				
Overloads / Sobre-Cargas	Circuit Breaker with Manual Reset / Disyuntor Rearmable			
Surge/Spikes Protection / Protección contra Picos	MOV protection L-N / Protección MOV entre L-N			
Product Features / Características del Producto				
Power Outlets / Tomas	1 x FRENCH or 1 x SCHUKO (CEE 7/4)			
Product Size-Weight / Dimensiones-Peso Producto	319 x 190 x 150 - (9 Kg)			
Operating / Condiciones de Operación	< 95% RH (non condensing) / $<$ 40 dB / 0-40°C			
Technical specs can be modified to comply with special project requirements / Las especificaciones se pueden ajustar para provectos.				

Specifications may change without further notice / Las especificaciones pueden cambiar sin previo aviso.

(\*) Backup tests based on gas boiler. "ROCA SARA 24/24" dual domestic hot water & central heating functions (20.700Kcal/h; 24KWmax)

(\*) Autonomía con una caldera ROCA SARA 24/24 en modo de agua caliente y calefacción central (20.700Kcal/h; 24KWmax)