

OPERATING & MAINTENANCE MANUAL



SPACE HEATERS

E3

E10

E15

E22

E30

Electric Space Heater

Not for domestic use - Space Heating Only

Made in Italy for:

Spitwater Australia Pty Ltd T/A Ottico Equipment
953 Metry Street, Albury NSW 2640 Australia
spitwater.com.au



CREATORS OF

SPITWATER



WARNING: Read and understand this instruction manual before operating this unit and retain for future reference. Failure to follow operating, safety and maintenance instructions outlined in this manual releases the manufacturer from any responsibility for any accidents or damage incurred and may render any warranty void.

INTRODUCTION

Spitwater Australia is proudly Australian owned and operated since 1982. Our promise is to provide our customers with superior quality portable industrial heaters built to the highest of standards that will see many years of reliable service.

The JETFIRE range of portable industrial heaters are designed to give safe, efficient, and reliable service when the correct operating and safety instructions are followed, and proper attention is given to all required maintenance procedures in order to maintain the unit in peak operating condition.

This manual provides the up-to-date information necessary for the user to operate the unit and carry out regular inspection and maintenance.

Please note that the information given within this manual may be subject to revision in compliance with Spitwater Australia's policy of continual improvement.

The JETFIRE range of heaters should only be used in the manner and purpose for which they were intended and in accordance with the recommendations and safety precautions detailed in this manual and in operating instructions and stickers on the unit itself.

All JETFIRE heaters undergo rigorous safety and operational tests before being dispatched into the marketplace however it is still imperative that prior to used, all operators have read and understood all information and instructions provided and are aware of possible hazards.

GENERAL DESCRIPTION & INTENDED USE

JETFIRE Heaters are specifically designed to solve all problems relating to heating drying and desiccating in commercial and industrial applications. Some examples of applications are in warehouse and factory heating, animal husbandry and greenhouse applications.




GENERAL DESCRIPTION & INTENDED USE

Spitwater has an extensive range of spare parts and accessories to suit all your heating needs. For spare parts, accessories and service please contact **1800 SPITWATER (1800 774 892)** and to view Spitwater's extensive range of JETFIRE industrial heaters online visit www.spitwater.com.au



TECHNICAL SPECIFICATION -			E3	E10	E15	E22	E30	
Heat power		[kW]	3	10	15	22	30	
Power supply	Phase		1	3			3	
	Voltage -	[V]	230	400			400	
	Frequency	[Hz]	50	50			60	
Control options		[kW]	1,5 / 3,0	6,66 / 10,0	10,0 / 15,0	14,7 / 22,0	20,0 / 30,0	
Electric current		[A]	MAX					
			13,0	13,5	21,0	30,0	43,0	
Air flow rate		[m ³ /h]	450	1500	2000	3050	5100	
Electrical protection level			IPX4					
Noise level at 1 m		dBA	67	68	70	71	69	
- Dimensions -	L x W x H	[mm]	367x 180x 280	505x 277x 511	575x 277x 511	700x 317x 538	899x 558x 706	
Weight		[kg]	5	13	15	21	41	


DESCRIPTION OF SYMBOLS

The following symbols are used throughout this instruction booklet in order to mark important paragraphs or sections that are due particular attention. Their meaning is listed next to them for your attention.

	<p>WARNING Failure to follow instruction could result in injury or death</p>		<p>WARNING Failure to follow instruction could result in damage to machine</p>		<p>These are tips and instructions to ensure safe and proper operation</p>
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The following symbols are used on the machine in order to warn user of potential injury if not cautious. Their meaning is listed next to them for your attention.

	<p>WARNING Hot surface Do not touch, will result in injury</p>		<p>WARNING Electric shock Disconnect power before removing cover</p>
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	<p><u>IMPORTANT SAFETY INSTRUCTIONS AND PRECAUTIONS</u> WARNING: This heater shall only be used by persons instructed in its use and who have been authorized to do so. Before using this heater, please pay attention to the following safety warnings as failure to do so could result in serious injury or even death.</p>
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SAFETY LABELS



Always pay attention to the safety instructions provided on each label. Do not alter or remove safety labels

IMPORTANT SAFETY INSTRUCTIONS AND PRECAUTIONS

GENERAL

- This heater must only be operated by authorized persons.
- THIS HEATER IS APPROVED FOR INDUSTRIAL USE ONLY.
- NOT FOR DOMESTIC USE. Space heating only.
- DO NOT SPRAY AEROSOLS IN THE VICINITY OF THIS APPLIANCE WHILST INOPERATION
- DO NOT USE OR STORE FLAMMABLE MATERIALS IN OR NEAR THIS APPLIANCE
- DO NOT MODIFY THIS APPLIANCE
- DO NOT PLACE ARTICLES ON OR AGAINST THIS APPLIANCE
- USE IN A WELL-VENTILATED SPACE.
- Do not operate the heater if it is damaged.
- This heater must be positioned and operated on flat stable ground, not exposed to the elements (rain, hail etc.) and must be operated in an upright position.
- Never leave the heater unattended while operating.
- Make sure you have read and understood the whole instruction manual before installing, operating or carrying out any maintenance on the unit.
- Warnings and data plates on the unit provide important directions and information on the safe use of the unit.
- In addition to these operating and safety instructions, all accident prevention regulations as well as any standards relating to the installation and operation of heaters applicable in your country must be strictly followed.
- This unit is not intended for use by children. Children must always be supervised when in the vicinity and ensure that they DO NOT play with the unit. Further, it is not intended for use by persons with reduced physical, sensory or mental capabilities, or lack of experience or knowledge.
- The heater is not to be installed in an area where there is a risk of fire or explosions;
- Never operate this heater in basements or below ground level because of gas stagnation.
- Do not use the heater on floors made with flammable materials.
- Do not store flammable materials in the vicinity of the heater (minimum distance: 3m);
- Ensure no overheating of walls, or ceilings made of flammable materials,
- Ensure all precautions have been taken to prevent fires;
- Ensure the premises in which the heater is installed are sufficiently ventilated for the burner requirements; in particular, limits regarding air quality in the room to be heated must conform to applicable laws;
- Ensure nothing is obstructing the aspiration and expulsion of air; movement of air may be obstructed in various ways including placing covers or other objects on the heater or positioning the heater too near a wall or other large object;
- Never direct the hot air flow from the heater towards the gas cylinder
- Ensure the heater is regularly monitored during operation and checked before being started;
- Ensure at the beginning of each use, a check is made that the fan moves freely before plugging the heater into the electrical power supply;
- Ensure at the end of each use, the mains switch is disengaged and supply power cord removed, main gas stopcock is closed and gas tube disengaged and sealed.



1. GENERAL ADVICE

The heater must be installed, set up and used in accordance with the applicable regulations and relating to the use of such equipment. Minimum distance from surrounding walls and/or ceiling: 2m.

2. ELECTRICAL CONNECTION

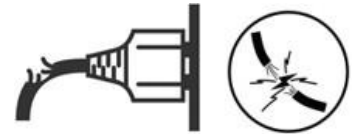


- The voltage, hertz rating and number of phases on the data plate must correspond to that of the electrical mains outlet that the unit is being connected to.
- Only connect the unit to electrical installations made by **certified electricians and in keeping with local electrical regulations and requirements.**
- Its recommended that the electrical supply to this unit should include either a residual current device that will interrupt the supply if the leakage current to earth **exceeds 30mA for 30 ms** or a device that will prove the earth circuit.
- This Class 1 Appliance must only be connected to an earthed power supply fitted with an appropriately sized fuse.
- The heater may be connected to a room thermostat by connecting to the thermostat plug (10). Other accessories such as a timer may also be connected.



3. POWER CORD

- Make sure before every use that the power cord assembly is not damaged or cut. If it is **DO NOT** connect the unit, have it replaced by an electrician or authorized service technician. **(Type Y attachment)**
- **DO NOT** pull on the power cord in order to unplug the unit, remove the plug from the power outlet.



4. EXTENSION CORD

- If using an extension cord, make sure it is a maximum length of 10 meters and sized according to cross section requirements as shown to the right.
- Inadequate extension cords can be dangerous. If an extension cord is used, it must be suitable for outdoor use and the connection must be kept dry and off ground.
- Make sure the extension cord is fully unrolled, kept dry, away from traffic, sharp edges and heat to avoid damage or cuts.
- If using an extension cord, make sure it is not connected to mains voltage when connecting / disconnecting to the unit's power cord.

LENGTH	
0-10m	
<10A	1.5mm ²
<15A	2.5mm ²
<25A	4.0mm ²



5. TRIP HAZARD

- Loose extension cords and power cables provide a potential trip hazard, especially when they cross pathways.
- Take safety measures like placing traffic cones along the cord or tape the cord to the floor with duct tape.



6. FIRE PREVENTION AND HOT SURFACE CAUTION

- Use only in areas free from flammable materials (flammable vapors, high dust concentrations etc.)
- Keep combustible materials a safe distance from this unit (minimum 3m)
- An external guard should be placed 1m away from the heater outlet to prevent the approach of combustible material.



- Make sure firefighting equipment is readily available
- To avoid burns, be cautious of hot components like the chimney or the Hot Air outlet and its vicinity.
- Do not under any circumstances restrict the air inlet or outlet of the unit. Always allow a clearance of 3m in front (air outlet), 1 m above and behind (air inlet) and 600mm on the sides.
- Do not operate this heater with the top cover removed.



7. EXHAUST & FLUE GASES

- Unit exhaust fumes (which contain carbon monoxide) can lead to death if allowed to build up. Make sure the unit is operated in an area where permanent ventilation to the outside atmosphere is provided. Mandatory minimum room size: 350 Meters Squared (M3)
- Allow a minimum room size as listed in the technical specifications.
- Ensure that any exhaust emissions are not in the vicinity of air intakes.



8. FUEL AND LUBRICANTS

- DO NOT smoke or allow flames or sparks in your work area. LPG is extremely flammable and explosive under certain conditions.

9. TRANSPORT

- Disconnect the unit from the power supply and allow it to cool off before moving between work areas.
- Always use the handle to lift and move the unit.
- If transporting the unit make sure it is appropriately strapped to avoid hazards.

10. MAINTENANCE AND SERVICE

- The heater must be checked that it is safe and in proper working order before putting into service and before every use. If the unit is damaged do not use it.
- Always disconnect the unit from the power supply and allow it to cool off before carrying out any inspection, service task or disassembling any part of the heater.
- Never carry out any maintenance work not expressly outlined in this booklet and never make any modifications to this unit.
- Never tamper with any settings of the unit (sealed or unsealed) and make sure that a Spitwater authorized service agent carries out all servicing as required as this usually include checking the correct functioning and setting of all safety devices as well as the correct combustion of the unit.
- Always use original Spitwater spare parts when parts replacements are required.
- Inspect the unit each day before use. Follow “Daily inspection check list” guide *Table-B* in the Maintenance section.
- Service the unit regularly based on its usage. Follow “Usage vs Service frequency” Table (*Table-A*) in the MAINTENANCE section. Always use a Spitwater authorized service agent where requested to.
- Failure to follow the maintenance guidelines in this booklet releases Spitwater from any responsibility in reference to injuries and damages to both persons and goods and may also render any warranty given with the unit void.

CONTROL BOARD

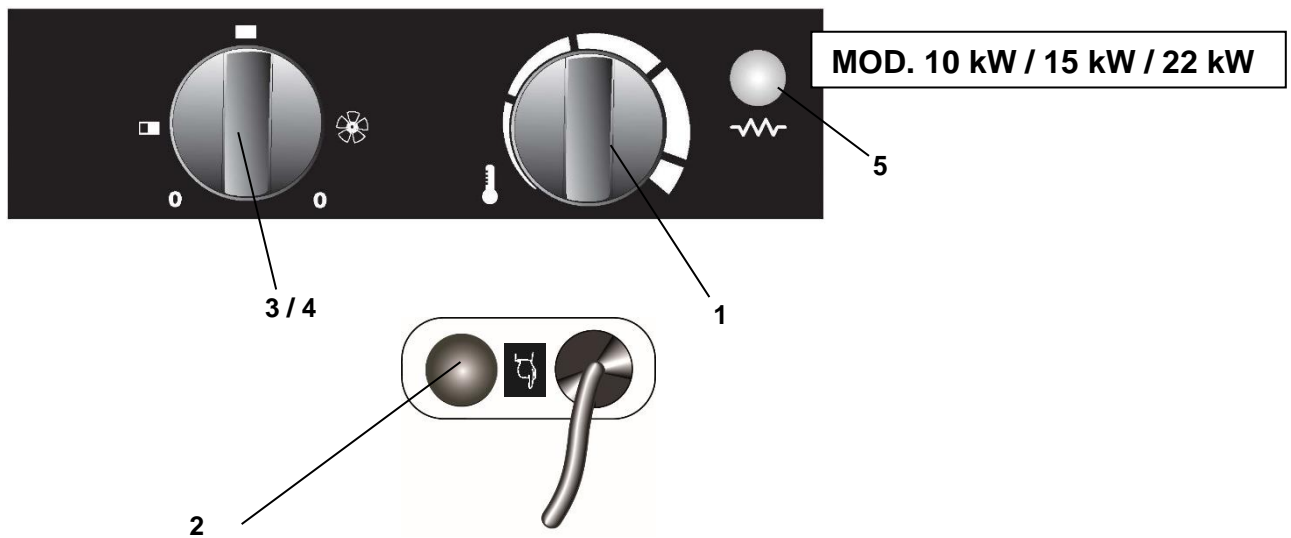
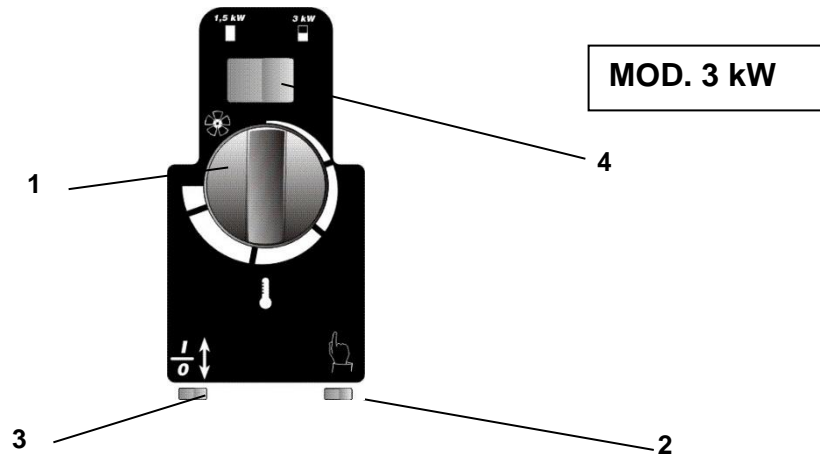


Fig. 1

- 1 ROOM THERMOSTAT
- 2 OVERHEATING THERMOSTAT MANUAL RESET
- 3 MAIN SWITCH
- 4 POWER SWITCH
- 5 LAMP

CONTROL BOARD

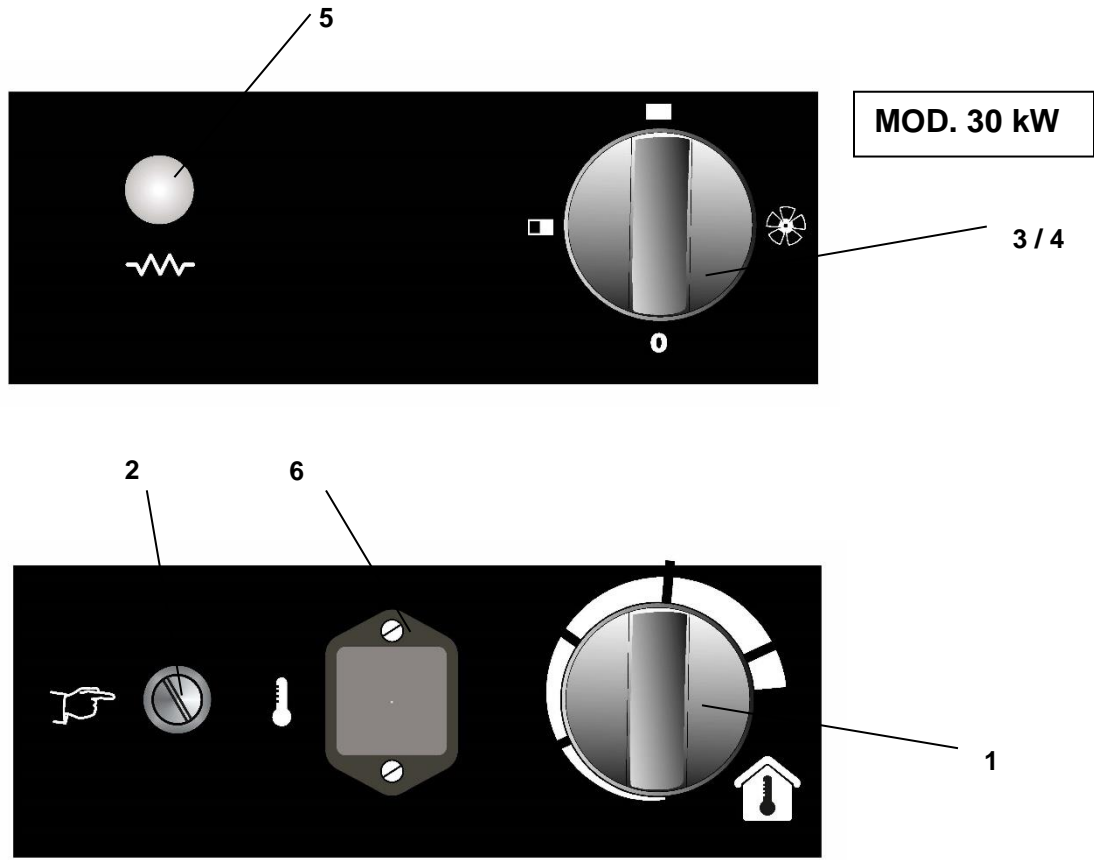


Fig. 1

1 ROOM THERMOSTAT

2 OVERHEATING THERMOSTAT MANUAL RESET

3 MAIN SWITCH

4 POWER SWITCH

5 LAMP

6 ROOM THERMOSTAT PLUG

IMPORTANT

Before using the space heater, please read carefully all the instructions for use described below and follow the indications scrupulously.

The manufacturer cannot be held responsible for damage to persons and/or property caused by improper use of the equipment.

This instruction manual is an integral part of the equipment and must therefore be kept carefully and passed on with the unit in the event of a change of ownership.

Description

The mobile electrical space heaters have been designed to heat industrial and/or civil places such as warehouses, building yards, shops, homes, and public places, and can be used in damp and wet environments.

Air is taken from the environment through a fan and heated by armour-plated resistance and then released back into the environment to be heated.

Space heaters are made of steel sheets and provided with a double wall to enhance the machine efficiency and to limit the external walls temperatures,

They are also predisposed only for use on the floor.

General advice

Installation, setting up and use of the hot air generator must be affected in accordance with the applicable regulations and laws relating to the use of such equipment.

Few general guidelines should be followed:

- the instructions in this manual are carefully followed;
- do not install the heater near showers, bathtubs, or swimming pools, and in any case so that the controls and switches are not accessible by the person who is in contact with water;
- do not place the heater immediately under a fixed wall socket;
- the heater must be placed on a firm surface to avoid overturning;
- no flammable materials are stored in the vicinity of the heater;
- the heater must not be covered;

Warning



do not cover the heater, it may overheat

- make sure heater is always under surveillance and keep children and animals away from it;
- at the end of each working period the main switch is disengaged.

Warning



this unit may not be used by persons with reduced physical, sensorial or mental capacities or with limited experience and familiarity unless they are under supervision or instructed on how to use the equipment by the person responsible for its safety.

Installation instructions

Warning



the installation must only be performed by professional and skilled personnel.

Before switching on the heater, and therefore, before plugging it into the electrical power supply, a check must be made that the power supply specifications are the same as those stated on the identification plate.

Warning



- **the power line of the generator must be fitted with an earth lead and a residual current circuit breaker.**
- **unit plug must be linked to a socket with a mains switch.**

Heaters, that are not provided with electric plug, shall be connected to main supply line by means of a section switch in accordance with national rules.

Before switching on the heater, and therefore, before plugging it into the electrical power supply, a check must be made that the power supply specifications are the same as those stated on the identification plate.

Warning



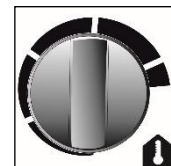
for the 30-kw model, the first time it is turned on, check that the direction of rotation of the fan is correct and if necessary, reverse the sequence of connection of the phases of the power cable



Operating instructions - mod 3 kw

To start the machine:

- Press the button (3): the fan starts immediately.
- Turn the knob (1) on the room thermostat to the desired temperature: the electric heaters start and continue running until the set temperature has been reached



- Select the electric power output by pressing the button (4):
 - **heating to minimum power**
 - Press the switch in position
 - **Heating to maximum power**
 - press the switch in position

Warning



in heating mode, the fan starts while the heating elements heat up.

To turn off the machine:

- Turn the knob (1) on the room thermostat to the minimum temperature: the heating elements turn off and the fan continues running.
- Press the button (3): the fan stops immediately.

Warning



starting: the fan starts immediately while the heating elements heat up gradually. Shutdown: the fan is turned off only by pressing the button (3), and only after the heating elements have cooled down

Warning



this model does not have an automatic power off cooling ventilation function. Remember, wait for the residual heat accumulated by the heating elements to dissipate before completely turning off and removing the unit or before setting any objects nearby.

Operating instructions

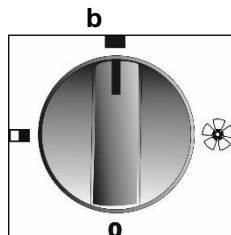
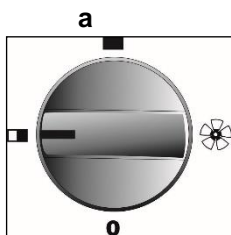
Mod. 10 kw / 15 kw / 22 kw / 30 kw

• Heating mode

Start

To start operation:

- Turn the knob (3) until it reaches position a for heating to **minimum power** or position b for heating to **maximum power** — the fan starts running immediately.



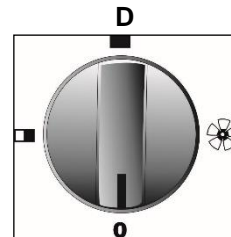
- Turn the knob (1) on the room thermostat to the desired temperature: the electric heaters also start and continue running until the set temperature has been reached while the lamp (5) lights up



Shutdown

To stop operation and turn off the machine:

- Turn the knob (1) on the room thermostat to the minimum temperature: the heating elements shut down and the fan continues running while the lamp (5) goes off.
- Turn the knob (3) until it reaches position d for complete shutdown: the fan runs until the heating elements have cooled down completely and then it stops.



Warning



This model has an automatic power off cooling ventilation function.

Starting: the fan starts immediately while the heating elements heat up gradually.

Shutdown: after turning the switch (3) to position d, the fan shuts down only when the heating elements have cooled down sufficiently.

Warning

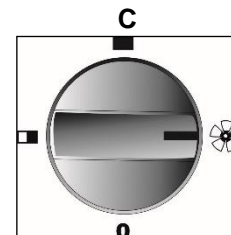


however, wait until the residual heat accumulated by the heating elements has been completely dissipated before shutting down and removing the unit or before setting any objects nearby.

• Ventilation mode (without heating)

Start

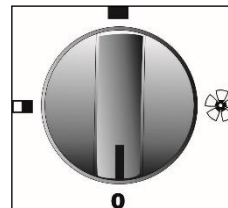
To start operation, turn the knob (3) on the main switch until it reaches position c.



Shutdown

To stop operation and shut down the machine, turn the knob (3) on the main switch until it reaches position a.

D



A temperature-limit thermostat will stop power feeding in case of overheating. If the thermostat releases, disconnect fan electricity, wait until the fan has cooled and fix the problem causing overheating.

To reset the temperature-limit thermostat, remove the cover and press the switch (2).

Maintenance

Warning



before carrying out any maintenance operation you must:

- stop the heater;
- turn off the disconnecting switch on the electric switchboard;
- wait until the heater has cooled down.

Safety thermostat manual reset

Cleaning

For the heater to operate efficiently, cleaning operations must be carried out regularly. Dust and dirt may result in overheating and fire.

Disposal

At the end of its useful life, you have to scrap and dispose of this product by taking it to a local differentiated waste collection center in conformity to law.

Before scrapping the unit, check the machine data plate: if it bears the symbol, it means that disposal is regulated by the Italian legislative decree 151 of 25/07/2005 and directive 2002/96/ec on waste electrical and electronic equipment (waee).


The user must inquire about the local electrical and electronic waste collection system and follow its instructions.

Illegal disposal of this product with normal domestic waste can seriously harm the environment and health and is subject to administrative penalties.

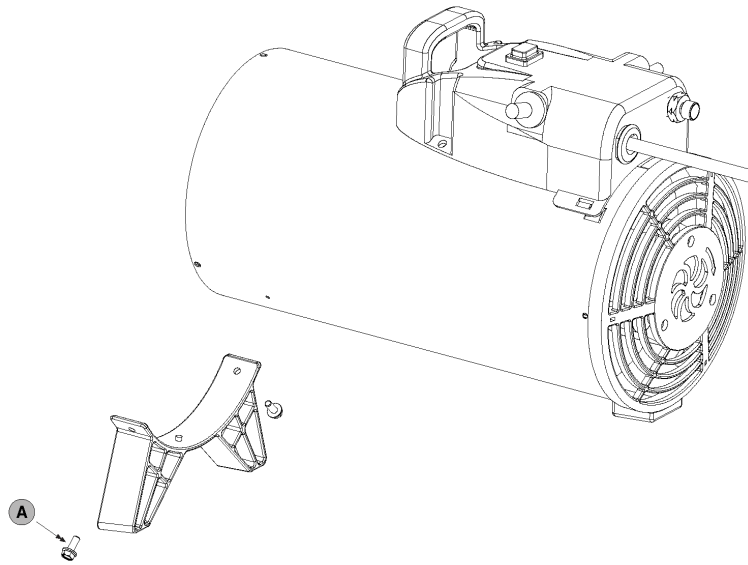
OBSERVED FAULTS, POSSIBLE CAUSES AND REMEDIES

OBSERVED FAULT	CAUSE	REMEDY
• The fan doesn't start	• No electrical current	• Check mains, it should be
	• Winding of motor burnt or interrupted	• Check proper positioning and functioning of switch
• The fan starts but there is not enough heat	• Wrong setting of room thermostat	• Replace motor
	• Defective room thermostat	• Check correct setting of room thermostat
• The space heaters stops	• Safety thermostat intervenes	• Replace room thermostat
		• Identify the problem that caused the overheating




FOOT / HANDLE ASSEMBLY INSTRUCTION

			N°
A		TEFR 10x1/2"	2

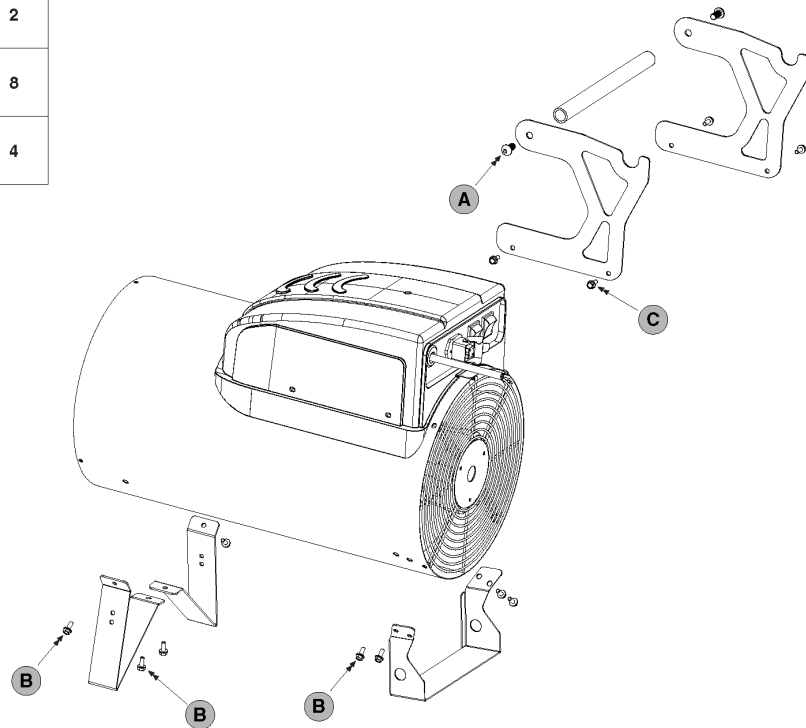
MOD. 3 kW



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			N°
A		TBEI M10x20	2
B		TE FR M5x12	8
C		TE FR M5x20	4

MOD. 10 kW / 15 kW / 22 kW

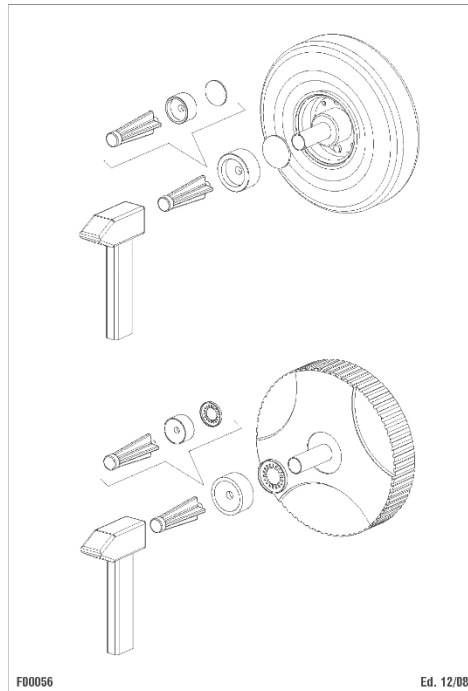
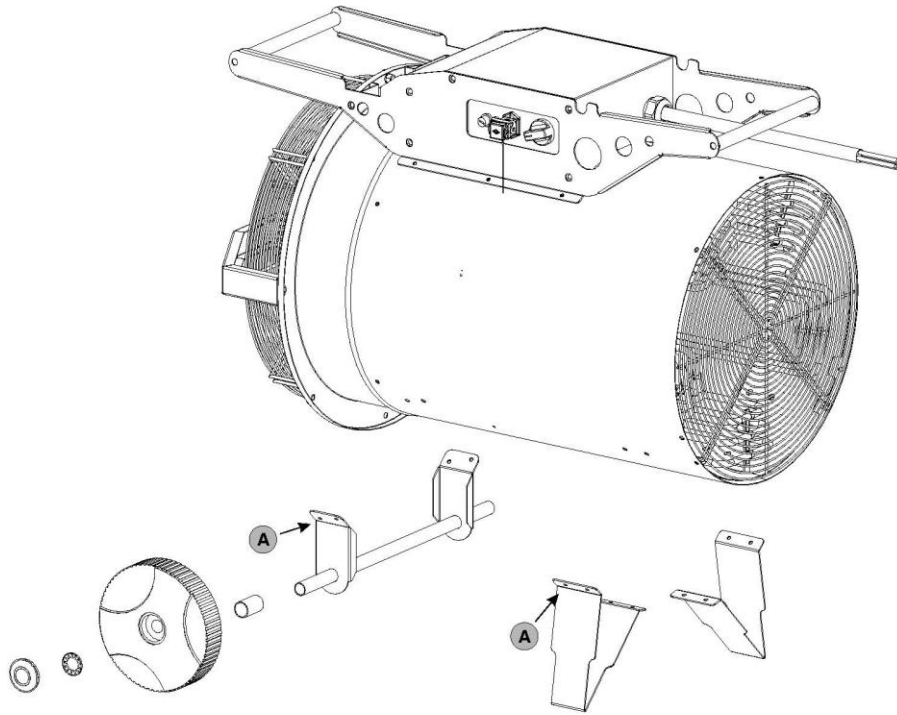


F00120-BM.00

FOOT / HANDLE ASSEMBLY INSTRUCTION

		N°
A	 TE FR M5x12	12

MOD. 30 kW



NOTES:

