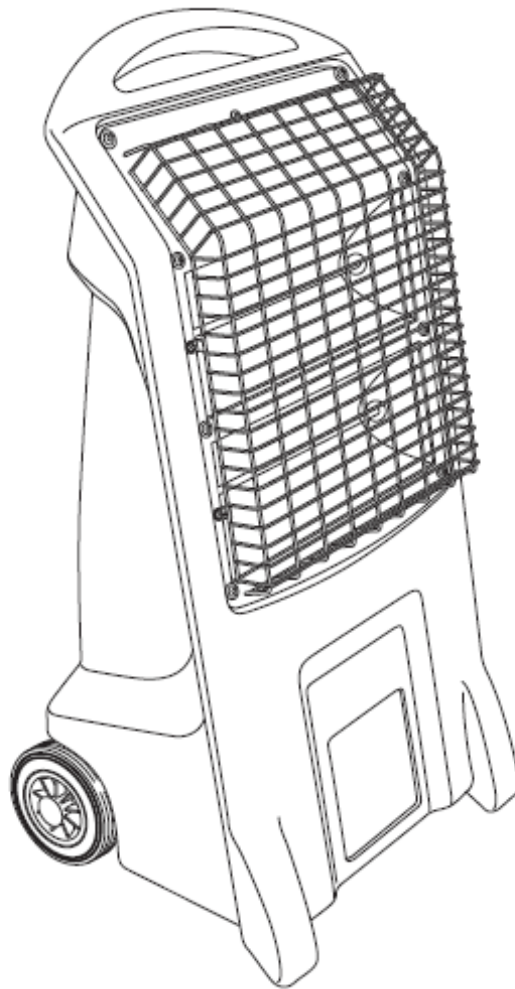


# **RHINO TQ3 INFRA-RED HEATER**

User Instructions, Spares and  
Declaration of Conformity.

Part Number: H029300 – 110V

Part Number: H029400 – 240V





# RHINO TQ3 -RADIANT HALOGEN HEATER

SAFETY, OPERATION & MAINTENANCE INSTRUCTIONS  
FOR H029300 (110V) & H029400 (230V)

Control Doc. No. UI 0534/1106/ Issue 04 09/08/10

## IMPORTANT SAFETY INSTRUCTIONS

This instruction booklet contains vital information for the safe use and efficient operation of the Rhino TQ3. Carefully read and understand all instructions before operating, maintaining or cleaning the heater. Failure to adhere to the instructions could result in fire, electric shock, serious personal injury or property damage.

**KEEP THIS BOOKLET FOR FUTURE REFERENCE.**

## HEATER IDENTIFICATION



- |                             |                 |
|-----------------------------|-----------------|
| 1. Heater Cassette          | 4. Heater Body  |
| 2. Safety Guard             | 5. Handle       |
| 3. Wheels for easy mobility | 6. Switch Plate |

## GENERAL SAFETY INFORMATION

1. **Ensure** power supply is correct voltage for heater by checking the Rating Plate on the rear of the heater cassette.
2. **Ensure** infrared lamps are correct voltage, i.e. 110V power input – 110V lamp, 230V power input – 230V lamp (check Rating Plate as above).  
**NOTE:** Using infrared halogen lamps of different voltage to the heater can increase risk of damage to heater or personal injury.
3. **Replace** damaged power cord immediately.
4. **Replace** damaged reflectors or safety guard immediately.
5. **Refer** all servicing of electrical parts to a qualified electrician.
6. **Protect** power cord from contact with sharp objects, chemicals or hot surfaces.
7. This product is designed for **indoor** usage only and should not be used outdoors, near or immersed in water.
8. Ensure no object/material/surface is within the minimum safe distance (see 'General Operational Information').
9. If an extension power cord is required, use maximum of one only, 14 Metre 3G 4.0mm<sup>2</sup> for 110V or 3G 1.5mm<sup>2</sup> for 230V. The extension power cable must be fully unwound. Ensure that correct variant is used.
10. Only use the heater in the upright position.

## CAUTION

1. **Ensure** that heater body is positioned on a firm, horizontal dry surface.
2. **Keep away** from flammable objects/materials/surfaces. This product gets very hot during use. Mount or use in a location where accidental contact (particularly by children) is unlikely.
3. **Ensure** on/off switches are set to 'off' before connecting power cord to power supply.
4. **Do Not** move heater whilst switched on.
5. **Do Not** move heater by pulling on power cord.
6. **Do Not** locate the heater directly below a socket outlet.
7. **Do Not** remove plug from mains supply by pulling on power cord.
8. **Always** switch off heater, disconnect from power supply and allow cooling for at least **one** hour before attempting to touch heater cassette or lamps.
9. **Do Not** remove safety guard whilst heater is switched on. Turn off and allow cooling (as above) before servicing.
10. **Do Not** operate heater without safety guard.

11. **Do Not** operate heater without lamps.
12. **Do Not** look directly at illuminated lamp(s).
13. **Do Not** place any object on the safety guard of the heater cassette at any time.
14. **Do Not** use this heater with a thermal/programme control, timer or any other device that switches the heater on automatically as a fire risk exists if the heater is accidentally moved or covered.
15. **Do Not** leave the heater unattended at any time whilst switched on.
16. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

## INSPECT YOUR NEW HEATER

The package should include the following items which should be removed from the packaging carefully and inspected for damage;

### Rhino TQ3 Radiant Halogen Heater

(with power cord, plug & 2 x 1.4kW infrared halogen heater lamps)

## GENERAL OPERATIONAL INFORMATION

**WARNING:** This heater is not fitted with a device to control the room temperature. Do not use this heater in small rooms when they are occupied by persons not capable of leaving the room on their own unless constant supervision is provided.

The Rhino TQ3 may be used with an electrical supply of 110V or 230V dependant on the model (see Rating Plate).

If your model is the 110V variant, Rhino recommend the use of the Defender 3.0kVA Heater Transformer with 32A outlet (Part No. E205062).

The maximum permitted lamps are 2 x 1.4kW. For lamp fitting refer to 'Installation of Infrared Halogen Lamp' on page 2.

The heater can be operated with either one lamp or both lamps illuminated as desired, but ensure two lamps are fitted at all times.

## IMPORTANT: DURING RELOCATION, THE HEATER SHOULD REMAIN SWITCHED OFF AND DISCONNECTED FROM THE POWER SUPPLY.

In the event of the heater being knocked over, a safety cut-out switch, which activates at an angle of 35° (±10°), will disable the heater. Follow above steps to re-start the heater.

- switch 'off' the heater at the on/off switches
- disconnect the power cord from the power supply
- return the heater to a standing position as described in the 'Caution' section
- check lamps are inserted correctly into lamp holders ensuring cooling time has been adhered (you may need to remove the safety guard, see 'Installation of Infrared Halogen Lamp')
- if no damage has occurred to lamps or lamp holders, replace safety guard if applicable, re-connect power cord to the power supply and switch the heater back on.

Should the power cord require replacement, a complete wiring loom should be purchased and fitted by the manufacturer, his agent or a suitably qualified person in order to avoid a hazard.

## IMPORTANT: THE MINIMUM SAFE DISTANCE FOR THE HEATER FROM ANY OBJECT, MATERIAL OR SURFACE IS 2M. THIS MUST BE ADHERED TO AT ALL TIMES.

## INSTALLING INFRARED HALOGEN HEATER LAMPS

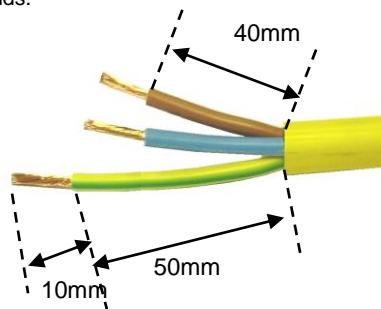
- Ensure that the lamps are:
  - the correct voltage rating for the power input, i.e. 110V power input – 110V lamp
  - maximum of 1.4kW
- Remove safety guard on front of heater cassette by loosening and removing all 5 screws and lifting guard in an upward direction.
- Remove tube from outer packaging carefully leaving it in its protective wrapping (see 'About The Infrared Halogen Lamps' on page 2). Expose the end caps of the tube and insert one end into one of the lamp holders. Push tube carefully against lamp holder until other end of tube can be lowered into other lamp holder.
- Remove protective wrapping from lamp.
- Repeat steps 4 and 5 for other lamp.
- Replace safety guard by locating the 3 slots on the bottom of the guard and secure all 5 screws. **Do not over tighten.**

## REPLACEMENT PLUG WIRING INSTRUCTIONS

In the event of the plug requiring re-wiring or replacing, please follow these instructions;

**110V** – Rhino recommend the use of a 32Amp Yellow Plug that conforms to BS 60309.

- Unscrew the screws holding the plug rear cover with the yellow plug housing and pull apart.
- Insert a suitable power cord (as recommended in 'General Operational Information' on page 1) through the rear cover.
- Loosen the two screws on the strain relief (situated on the rear of the yellow plug housing) and remove it.
- Strip the outer power cord insulation approx. 50mm to expose the three cores.
- Reduce the live and neutral cores by 10mm to ensure the earth core is 10mm longer.
- Strip the insulation of the three cores approx. 10mm to expose the copper strands.



- Insert the **BROWN** (live) core into the correct terminal (manufacture symbols may differ) and loosely tighten both screws.
  - Insert the **BLUE** (neutral) core into the correct terminal (manufacture symbols may differ) and loosely tighten both screws.
  - Insert the **YELLOW/GREEN** (earth) core into the correct terminal (manufacture symbols may differ) and loosely tighten both screws.
- Ensure all copper wire is fully inserted into correct terminal positions before fully tightening all terminal screws.
  - Clamp the strain relief over the outer insulation of the power cord (leaving at least 5mm of insulation above the strain relief on the exposed three cores side) and then fix it in place with the two screws.
  - Push the plug rear cover together with yellow plug housing and fully tighten with the 2 screws. **Do not over tighten.**

**230V** – Rhino recommend the use of a 13Amp UK 3 Pin Fused Re-wireable Plug that conforms to BS 1363/A.

### IMPORTANT: IF USING THE 13AMP FUSED PLUG, A 13AMP FUSE, CONFORMING TO BS 1362, MUST BE USED.

- Unscrew the single centre screw holding the plug rear cover with the plug housing and pull apart.
- Loosen the two screws on the strain relief (situated on the rear of the plug housing) and remove it.
- Using a suitable power cord (as recommended in 'General Operational Information' on page 1), strip the outer power cord insulation as recommended on the plug wiring card or on the underneath of the plug housing itself to expose the three cores. **IMPORTANT:** Ensure that the **YELLOW/GREEN** (earth) core is the longest of the three cores to ensure that it will be the last to be 'pulled out' in the case of excessive force applied to power cord.
- Strip the insulation of the three cores approx. 6mm to expose the copper strands.

- Insert the **BROWN** (live) core into the terminal connected to the fuse housing and finger tighten screw.
  - Insert the **BLUE** (neutral) core into the terminal to the bottom left of the live terminal and finger tighten screw.
  - Insert the **YELLOW/GREEN** (earth) core into the top centre terminal and finger tighten screw.
- Ensure all copper wire is fully inserted into correct terminal positions before fully tightening all terminal screws.
  - Clamp the strain relief over the outer insulation of the power cord (leaving at least 3mm of insulation above the strain relief on the exposed three cores side) and fix in place with the two screws.
  - Push the plug rear cover together with plug housing and fully tightened the single centre screw.

If requirement is for a 230V 16Amp or 32Amp Blue Plug, ensure conformity to BS 60309. For wiring instructions, please follow 110V wiring instructions where relevant.

## ABOUT THE INFRARED HALOGEN HEATER LAMPS

Rhino recommends the use of Toshiba Infrared Halogen Heater Lamps (Slim Ruby type) with this product (obtainable from Rhino).

**Do Not** touch halogen lamp quartz glass with bare hands. Quartz tube material could deteriorate by salt to lose mechanical strength. Sweat on fingers contain salt components and have unfavourable influence on quartz tubes.

Hold the tube using the protective wrapping provided in its package or with a piece of clean dry cloth. If the tube glass surface is touched, clean cold tube with alcohol and a soft cloth.

**Do Not** touch a lamp just after switching 'off' its power supply. Temperature of a halogen lamp surface can exceed 600°C during its operation.

## ELECTRICAL TEST, MAINTENANCE & STORAGE WARNING: THIS IS A CLASS 1 TESTED APPLIANCE

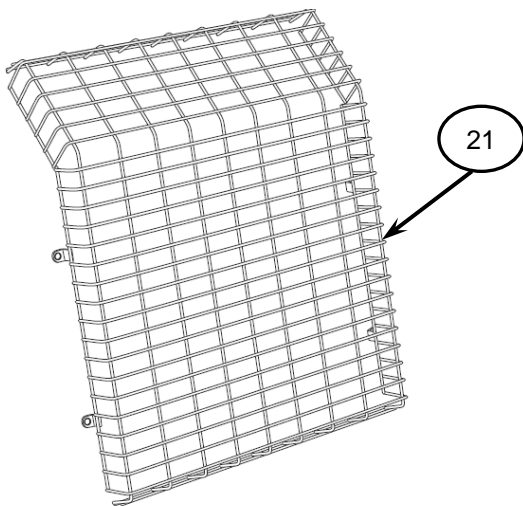
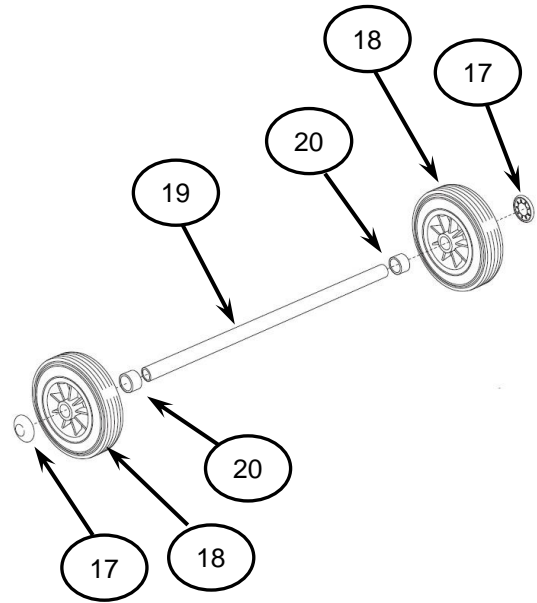
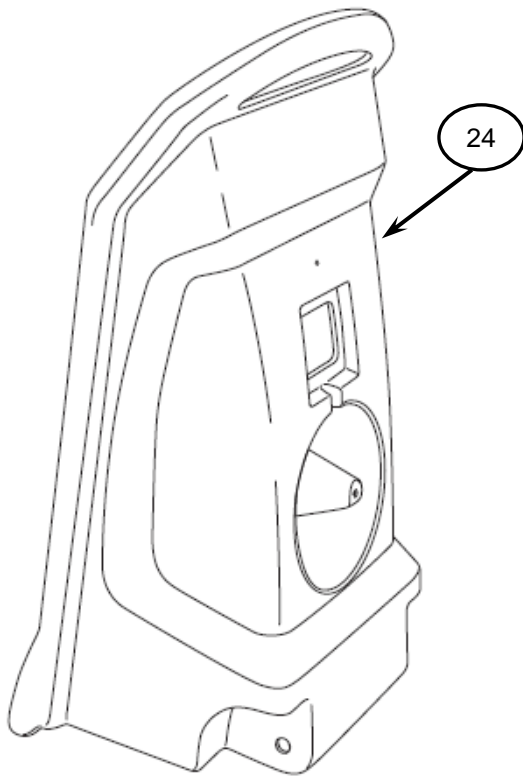
- When earth bond testing, the readings should be 0.10Ω and below.
- Do Not** perform a flash test, as this will reduce the life of the lamps.
- Do Not** use abrasive cleaners or polishes.
- Always switch 'off', disconnect the heater from the power supply and allow cooling for recommended time before cleaning. Clean the heater with a damp cloth.
- When not in use, store in a dry suitable environment (preferably in the original carton to prevent damage).

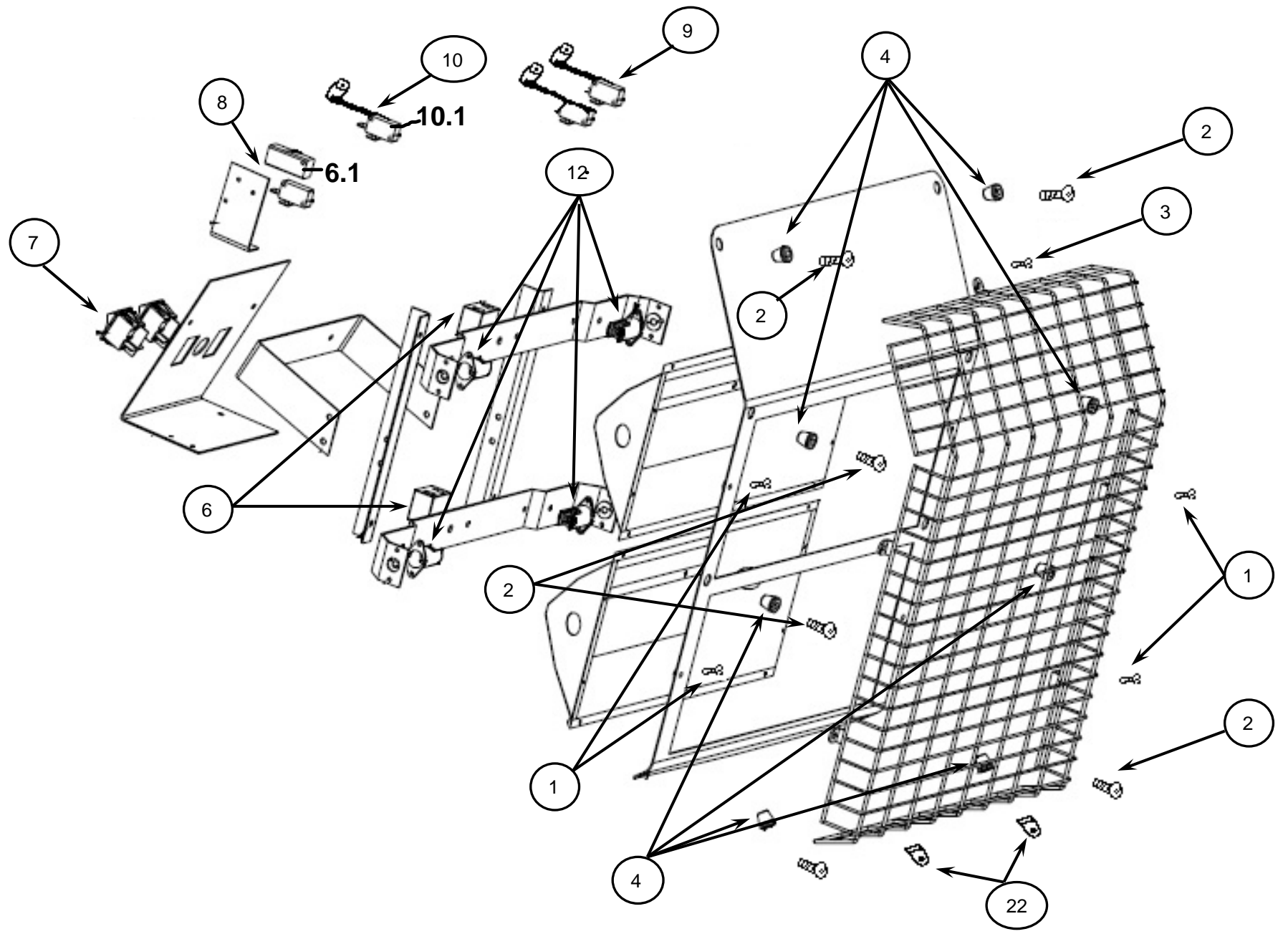
## TROUBLE SHOOTING

FAULT DESCRIPTION	SUGGESTED SOLUTION
HEATER DOES NOT OPERATE	<ul style="list-style-type: none"> <li>Check power supply.</li> <li>Check lamp(s) for damage or misalignment.</li> <li>Check all wiring connections.</li> </ul>
OTHERS	Consult a qualified electrician or contact Rhino (contact details opposite).

## SPECIFICATION DATA

PART NUMBER	110V - H029300 230V - H029400
POWER REQUIREMENT	110V~ or 230V~, 50Hz
INFRARED HALOGEN LAMP (110V & 230V)	Wattage - 2 x 1.4kW (± 5%) Overall Length - 349mm Average Life - 1000Hrs
POWER CORD LENGTH	3 Metres
PLUG	110V - 32A (BS 4343/ BS 60309) 230V - 13A UK 3 pin (BS 1363/A) with 13A fuse (BS 1362)
POWER CORD	110V - Yellow 3G 4.0mm <sup>2</sup> H07 VV-F 230V - Black 3G 1.5mm <sup>2</sup> H07 RN-F
DIMENSIONS (LxWxH – Heater cassette in upright position, inc. wheels & cass. adj. knob)	500 x 460 x 1000mm
WEIGHT	14.3Kg
OPERATING TEMPERATURE	-20°C to +40°C





Addition\*

6.1 Tilt Switch Pressure Block RHN-TQ3-6.1 1  
 10.1 Tilt Switch - New Style 110v & 240v RHN-TQ3-11 1

New Item Number	Description	Part Number	Pack Quantity
<b>Screws &amp; Fixings</b>			
1	M6 X 12mm Button Socket Head Black	RHN-TQ3-1	1
2	M6 X 25mm Button Socket Head Black	RHN-TQ3-2	1
3	M5 X 12mm Button Socket Head Black	RHN-TQ3-3	1
4	Rubber Grommets - Large	RHN-TQ3-4	1
5	Rubber Grommets - Small	RHN-TQ3-5	1
<b>Switches &amp; Terminals</b>			
6	Ceramic Terminal Block	RHN-TQ3-6	1
7	Lamp On/Off Switch illuminated	RHN-TQ3-7	1
8	Tilt Switch - Old Style (2 Prong)	RHN-TQ3-8	1
9	Tilt Switch - New Style 110V (2 Prong)	RHN-TQ3-9	1
10	Tilt Switch - New Style 240V (3 Prong)	RHN-TQ3-10	1
<b>Lamps &amp; Lampholders</b>			
11	Lamp - 110V	RHN-TQ3-12	1
11	Lamp - Old Style (Gold) 110V	RHN-TQ3-14	1
11	Lamp - 240V	RHN-TQ3-13	1
11	Lamp - Old Style (Gold) 240V	RHN-TQ3-15	1
12	Lamp Holder	RHN-TQ3-16	1
<b>Cabling &amp; Plugs</b>			
13	Defender 32A 110V plug	E884260	1
14	Defender 13A 240V plug	E882613	1
15	4.0mm 3mtr H05-VVF yellow cable	RHN-TQ3-19	1
16	1.5mm 3mtr H05-VVF black cable	RHN-TQ3-20	1
<b>Wheels &amp; Axle</b>			
17	Locking dome hub cap	RHN-TQ3-21	1
18	Wheel	RHN-TQ3-22	1
19	Wheel Axle	RHN-TQ3-23	1
20	Wheel Spacer	RHN-TQ3-24	1
<b>Body</b>			
21	Front Grill	RHN-TQ3-25	1
22	Grill Bracket	RHN-TQ3-26	1
23	Label - Safety instruction set	RHN-TQ3-27	1
24	TQ3 Body	RHN-TQ3-28	

# RHINO

Birch Park, Park Lodge Road, Giltbrook, Nottingham. NG16 2AR. UK.  
Tel: +44 (0)115 9389000 Fax: +44 (0)115 9389010

## EC CERTIFICATE OF CONFORMITY

### The EU Directives covered by this Declaration:

2006/95/EEC Low Voltage Directive

### The products covered by this Declaration:

RHINO TQ3 HEATERS H029300 & H029400

A safe, robust and highly efficient heater available in 110V and 230V supply. These units comprise dual heat setting, automatic cut-out switch for safety and integrated lifting handle.

### The Basis on which conformity is being declared:

The product identified above complies with the requirements of the above EU Directives by meeting the following standard:

BS EN 60335-1:2002, Household and similar electrical appliances. Safety. General requirements

BS EN 60335-2-30:2009, Specification for safety of household & similar electrical appliances.  
Particular requirements for room heaters

The technical documentation required to demonstrate that the product meets the requirements of the Low Voltage Directive has been compiled by the signatory below and is available for inspection by the relevant enforcement authorities.

The CE mark was first applied in 2005.

The product described above complies with the essential requirements of the directives specified.

Signed:



Paul Nieduszynski - Managing Director

DATE: 23/08/2010

### ATTENTION:

The attention of the specifier, purchaser, installer, or user is drawn to special measures and limitations to use, which must be observed when the product is taken into service to maintain compliance with the above directives. Details of these special measures and limitations to use are available on request, and are also contained in the Product Technical Files.



Registered Office: Fleet House, Lee Circle, Leicester LE1 3QQ  
Registered No. 60987 England



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The information provided within this document and as outlined above is based on the specifications provided by the OEM. These specifications are liable to change from time to time and is therefore provided for general guidance only. The Hirer should check the relevant OEM specification before using the serial number of the equipment where precise data is required. Sunbelt Rentals shall hold no liability (howsoever arising) in respect of and does not confirm the accuracy of any information set out above.