

**Grant-bio**

# **Rocker PMR-30**

*Operating instructions*





# Contents

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# 1. Safety















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The following symbols mean:-



Caution: Read these operating instructions fully before use and pay particular attention to sections containing this symbol

Always observe the following safety precautions

-  Use only as specified by the operating instructions, or the intrinsic protection may be impaired.
-  After transport or storage in humid conditions, dry out the unit before connecting it to the supply voltage. During drying out the intrinsic protection may be impaired.
-  Connect only to a power supply with a voltage corresponding to that on the serial number label.
-  Ensure that the mains switch and isolating device (power supply connector) are easily accessible during use.
-  Connect only to a power supply which provides a safety earth (ground) terminal.
-  Before moving, disconnect at the power supply socket.
-  If liquid is spilled inside the unit, disconnect it from the power supply and have it checked by a competent person.
-  It is the user's responsibility to carry out appropriate decontamination if hazardous material is spilled on or inside the equipment.
-  Do not switch on Shaker when the upper lid of the body removed;
-  Do not carry out the operation in premises with aggressive and explosive chemical mixtures;
-  Do not place a load exceeding 0.5 kg on Shaker.
-  As the unit is producing shaking or rotational movement, be aware of the surface that the unit will be placed upon.
-  Before using any cleaning or decontamination method except those recommended by the manufacturer, user should check with the manufacturer that the proposed method will not damage the equipment.
-  Clean the unit only with a damp cloth, do not use chemical cleaning agents.

## 2. General Information

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- 2.1 The mini-rocker PMR-30 is designed for soft mixing of components in chemical, biochemical and immuno-reactions.
- 2.2 The device is for use in all areas of medicine, biotechnology and microbiology laboratory research.
- 2.3 PMR-30 is designed for operation in bioincubators and closed laboratory premises at temperatures from +5° to +40°C.
- 2.4 Mini-rocker PMR-30 consists of:**
- A body;
  - A crankshaft-connecting mechanism with reducing gear and electric motor drive;
  - A removable platform;
  - A digital timer
- 2.5 The principle of operation of the PMR-30, is based on the transformation (with reduction) of the rotational movement created by the electric motor into the rocking movement of the platform with a constant amplitude during the set time interval. This ensures soft mixing of the reagents.

# 3. Getting started

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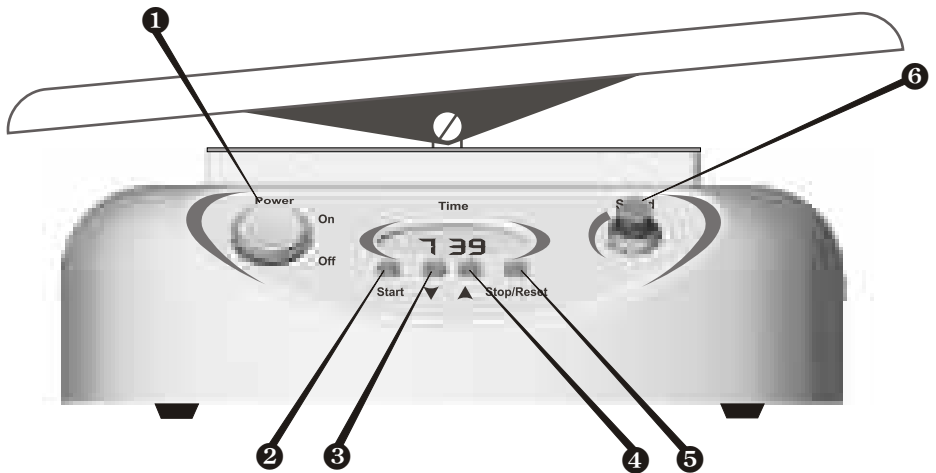
## 3.1 Unpacking

Remove packing materials carefully, and retain for future shipment or storage of the unit


## 3.1 The PMR-30 set includes:

- Mini-rocker PMR-30 .....1 piece
- Removable platform .....1 piece
- Rubber pad .....1 piece
- Power adapter .....1 piece
- Specifications; Operating Manual; CE Certificate .....1 copy

## 4. Operation of PMR-30



- 4.1 Connect the PMR-30 to the AC/DC adapter and the adapter to the main power supply.
- 4.2 Mount the platform if necessary.
- 4.3 Place plates on the platform.
- 4.4 Press the switch (❶) to the **ON** position, the indicator of the timer will illuminate.
- 4.5 Using up and down buttons (❸ and ❹) set the necessary working time with the help of the display. The set time is displayed in hours and minutes (hh:mm).
- 4.6 Press **START** button (❷). The platform begins rocking movement and the timer starts counting up the set time interval (time interval less than 1 hour is displayed in minutes and seconds (min:sec), more than 1 hour - in hours and minutes (hh:mm)).
- 4.7 Using **SPEED** knob (❺) set the frequency of the platform rocking motion.

- 4.8 After the set time interval has expired the platform movement stops and the set working time is shown on the display.
- 4.9 To repeat the procedure with the same operating time and frequency press the **START** button.
- 4.10 If necessary the Shaker can be stopped before the set time has expired by pressing the **STOP** button (⏹). For 20 seconds the display will show the elapsed time, after that the set time.
- 4.11 If the **STOP** button is pressed for more than 3 seconds the set time will be deleted.
- 4.12 If the operating time has not been set or has been deleted and the indicator shows  pressing the **START** button will cause the Shaker to operate continuously until the **STOP** button is pressed.
- 4.13 After use, turn the **POWER** switch to the **OFF** position.

# 5. Specifications

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## 5.1 Rocker should provide:

- soft rocking of the platform with a constant amplitude;
- smooth regulation of the rocking speed;
- indication and setting of the operating time;
- Interruption of the operation at any moment;
- the display of the current operation time.

## 5.2 Specifications

- Speed range .....7.5-30 rpm
- Sloping angle of the platform .....7°
- Platform working area .....200 x 200 mm
- Max. load on the platform .....0.5 kg
- Time setting range .....1 min - 23 h 59 min
- Working voltage ..... external power source in accordance with local standards  
12 V, 300 - 500 mA
- Weight .....2 kg
- Dimensions .....220 x 205 x 120 mm
- The product is designed for operation indoors in a laboratory at altitudes up to 2000m, with ambient temperature from +5°C to +40°C and maximum relative humidity 80% for temperatures up to 31°C, decreasing linearly to 50% relative humidity at 40°C.

# 6. Guarantee and Service

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## 6.1 **Guarantee**

When used in laboratory conditions and according to these working instructions, this product is guaranteed for TWO YEARS against faulty materials or workmanship.

## 6.2 **Service**

For service, return for repair to our Service Department in the UK or, in other countries, to our distributor.

# Declaration of Conformity

Manufacturer:-	GRANT INSTRUMENTS (CAMBRIDGE) LTD, Shepreth, Cambridgeshire SG86GB
Equipment name/type number:-	PMR-30
Description of Equipment:-	Rocker
Directives:-	EMC Directive 2004/108/EC Low Voltage Directive 2006/95/EC

I confirm that this apparatus conforms to the requirements of the above Directive(s)

Applied Standards:-	
Harmonized Standards:-	<u>EN 61326:</u> Electrical equipment for measurement, Control and laboratory use - EMC requirements <u>Part 1:</u> General requirements <u>EN 61010:</u> Safety requirements for electrical equipment for measurement, control and laboratory use. <u>Part 1:</u> General requirements

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