

**Grant bio**

# Platform Rocker PMR-100

*Operating instructions*

*For version V.1GW*





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# 1. Safety







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The following symbol means:









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








## GENERAL SAFETY

-  Operation of the unit must be carried out according to the given operating manual.
-  The unit should not be used if dropped or damaged.
-  The unit must be stored and transported only in a horizontal position (see marking on the package).
-  After transport or storage dry out the unit (2-3 hrs) before connecting it to the supply voltage.
-  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.
-  Do not attempt to modify the unit.


## ELECTRICAL SAFETY

-  Connect only to a power supply with voltage corresponding to that on the serial number label.
-  Do not plug the unit into the main outlet without grounding, and do not use extension lead without grounding.
-  Only use the external power supply unit provided with this product.
-  Ensure that the external power supply connector is easily accessible during use.
-  Before moving, disconnect from the mains. To turn off the unit, disconnect the external power supply from the mains outlet.
-  If liquid is spilled inside the unit, disconnect it from the mains and have it checked by a competent person.

## DURING OPERATION

-  Do not impede the platform motion during operation.
-  No objects or body parts can be placed between the platform and shaker body at any time.
-  Do not operate the unit in environments with aggressive or explosive chemical mixtures.
-  Do not operate the unit if it is faulty or been incorrectly installed.
-  For indoor use only.
-  Do not use outside laboratory rooms.
-  Do not place a load exceeding maximum loading mentioned in ref p9 Specifications.

## BIOLOGICAL SAFETY

-  It is the user's responsibility to carry out appropriate decontamination if hazardous material is spilt on or inside the equipment.

## 2. General Information

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Platform Rocker PMR-100 provides adjustable soft (intensive) biological media or solutions mixing in vessels or single use plastic bags located on the platform.

Regulated speed and angle of the platform allow flexible mixing processes according to the method required.

Ideal for gel washing, staining/destaining after DNA/RNA or protein electrophoresis. Optimal for biomolecular hybridization on strips and for staining/distaining procedures. The PMR-100 can be installed inside an incubator, ideal for cell growth in single use plastic bags (working volumes of bags 5 litres).

Platform Rocker PMR-100 is equipped with a system of platform overload automatic detection. In the case of overload an error message is shown on the unit's display accompanied by the sound signal. This feature ensures long-term safe operation.

# 3. Getting started

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## 3.1. Unpacking

Remove packaging, and retain for future shipment or storage of the unit.

## 3.2. The PMR-100 set includes:

- Platform Rocker PMR-100.....1 piece
- Detachable platform .....1 piece
- Rubber pad .....1 piece
- Four screws and a hex key .....1 set
- External power supply unit .....1 piece
- Operating instructions; Declaration of conformity .....1 copy

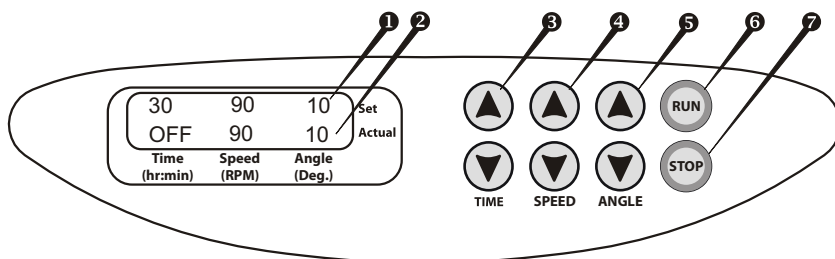
## 3.3. Set up:

- place the unit on an even firm stable horizontal surface;
- connect the power cord to the external power supply;
- plug the external power supply unit into the 12 V socket at the rear side of the unit.

## 3.4. Platform installation:

- install the platform on the unit and remove the rubber pad;
- secure the platform on the supporting platform on top of the unit with the four supplied screws;
- cover the platform with the rubber mat.

## 4. Operation of PMR-100



**Fig.1. Control panel**

- 4.1. Connect external power supply plug to the grounded mains.
- 4.2. The display will turn on with the upper line showing time, RPM and tilt angle set earlier (fig. 1/1) and the lower line showing current readings of the same parameters (fig. 1/2).

How to set the necessary parameters.

Use the readings in the upper line of the display, while setting the necessary parameters.

### 4.3. Time set (Time hr:min)

With the help of the “▲” and “▼” TIME keys (Fig. 1/3) set the required working time interval in hours and minutes (increment - 1 min). If the button is pressed for longer time the speed of increment becomes bigger.

**Note!** If the operation time is not set and the timer indicator shows 0:00, pressing RUN key (Fig. 1/6) will allow continuous use until the STOP key (Fig. 1/7) is pressed again.

### 4.4. Speed set (Speed RPM)

With the help of the “▲” and “▼” SPEED keys (Fig. 1/4) set the required rocking intensity in revolutions per minute (increment 1 oscill/min). If the button is pressed for longer time the speed of increment becomes bigger.

### 4.5. Tilt angle set (Angle Deg.)

With the help of the “▲” and “▼” ANGLE keys (Fig. 1/5) set the necessary angle (increment 1°). If the button is pressed for longer time the speed of increment becomes bigger.

The set parameters can also be changed during operation.

### Program execution

- 4.6. Place samples on the platform. When loading arrange symmetrically to the turning axis to give the unit even balance during operation.



**Caution!** Do not place any items between the platform and the shaker body as this could cause breakage or injury.

- 4.7. Press the RUN key (Fig. 1/⑤). The platform will start rocking and the timer indicator will start counting up the time interval (with 1 min precision).
- 4.8. If the platform is overloaded, the operation process tries to restart rocking three times (indication: DRIVER ERROR), if this operation fails, the display shows the flashing reading OVERLOAD accompanied by the repetitive sound signal until the STOP key (Fig. 1/⑦) is pressed. Eliminate the causes of overload before restarting operation (see p. 4.6).
- 4.9. After the set time elapses the platform motion stops and the timer shows the flashing reading STOP accompanied by the repetitive sound signal until the STOP key is pressed.
- 4.10. If necessary the unit can be stopped at any time during operation before the set time has elapsed by pressing the STOP key. In this case the platform motion stops when the platform achieves horizontal position. Pressing the RUN key again will start the program from the beginning (timer will be restarted).
- 4.11. At the end of operation disconnect the external power supply unit from the mains.



# 5. Specifications

The product is designed for operation indoors in a laboratory at altitudes up to 2000 m, with ambient temperature from +4°C to +40°C and maximum relative humidity 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C.

- Speed control range .....1-99 oscill/min
- Speed setting range .....1 oscill/min
- Tilt angle range
  - for 1-50 oscill/min range .....0 - 9°
  - for 51-99 oscill/min range .....10°
- Digital time setting .....1 min - 99 hrs 59 min / non-stop
- Time setting resolution .....1 min
- Maximum continuous operation time .....168 hrs
- Maximum loading .....5 kg
- Platform working area .....480 x 380 mm
- Dimensions .....400x480x250 mm
- Input current/power consumption .....12V, 1,1 A / 13W
- External power supply ..... input AC 100-240 V 50/60Hz, output DC 12V
- Weight, not more .....13 kg

Replacement parts	Description
PP-480	Flat platform with non-slip rubber mat

Grant is committed to a continuous programme of improvement, specifications may be changed without notice.

## 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 & Maintenance**

There are no user-serviceable parts inside the unit. For all maintenance and repairs (except as defined below) return to our service department in the UK or in other countries, our distributor.

### 6.3. **Cleaning & Disinfection**

Cleaning liquids that do not contain concentrated organic solvents, alkali or acid can be used for cleaning the device. Standard ethanol (75%) can be used for disinfection. Before using any other cleaning or decontamination method, check with the manufacturer or supplier to make sure that the proposed method will not damage the equipment.

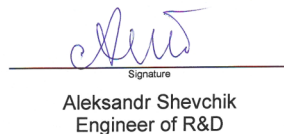
# Declaration of Conformity

Manufacturer:	BIOSAN SIA Ratsupites 7, build.2, Riga, LV-1067, Latvia
Equipment name/type number:	PMR-100
Description of Equipment:	Platform Rocker
Directives:	EMC Directive 2004/108/EC Low Voltage Directive 2006/95/EC

Applied Standards	<b>EN 61326-1:</b> Electrical equipment for measurement, control and laboratory use - EMC requirements. General requirements
Harmonized Standards:	<b>EN 61010-1:</b> Safety requirements for electrical equipment for measurement, control and laboratory use. General requirements
	<b>EN 61010-2-051:</b> Particular requirements for laboratory equipment for mixing and stirring

We declare that this product conforms to the requirements of the above Directive(s)

  
\_\_\_\_\_  
Signature  
Svetlana Bankovska  
Managing director

  
\_\_\_\_\_  
Signature  
Aleksandr Shevchik  
Engineer of R&D

17.04.2013.  
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Date

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