# In vitro shaker Wave-PR/SI/SI slim, In vitro shaker 2 Wave-PR2/SI2

Compact sized and easy to use for bench tops and inside refrigerators. The mild shaking as if shaked by hand. Optimum for Immuno Precipitation and Western Blotting at a low-temperature room.

•CO<sub>2</sub> Incubators that can be inside this unit --> P.154-156

#### **Features**

- Mild shaking (Wave shaking) [PR/PR2]
- Seesaw shaking [SI/SI2/SI slim]
- Can be used even inside refrigerators with 4°C [All models]
- Digital display and settings are standardized,
   Optional functions are also available [PR2/SI2]

### **Applications**

- Mild shaking of Centrifuge tubes and Large-size trays [PR/PR2]
- Mild shaking of Petri dish and Plastic containers, etc. [SI/SI2/SI slim]
- Staining/Decolorization, ImmunoPrecipitation, Western Blotting, and Trypsin, etc.



A Sticky sheet is included, but other parts are optional.

Model	Wave-PR	Wave-PR2	Wave-SI	Wave-SI2	Wave-SI slim
Shaking motion	Wave shaking (Mild	shaking)	Seesaw shaking		
Speed/Angle range (*1)	5 to 50 r/min, 2 to 6°		5 to 50 r/min, 2 to 10°		10 to 60 r/min, 6° (fixed)
Platform dimensions	300 × 200 mm				180 × 120 mm
Ambient temp. range	0°C to 50°C				
Maximum load	Approx. 2 kg (SI slim: Ap	pprox. 1 kg *Optional platform and ves	sel holders are not includ	ed)	
Speed display/Setting	- / Volume adjustment	Digital display/Input	- / Volume adjustment	Digital display/Input	-
Option① Timer operation function	Not available	Available as an option  • Timer mode (1 min to 99 h 59 min)  * When the timer function is not being used, it can count the time.  •ON-OFF  •OFF-ON  •ON-OFF-ON (Repeat)  •Integral timer display (0 to 99 h 59 min or after: 100 h to 9999 h)	Not available	Available as an option  • Timer mode (1 min to 99 h 59 min)  • When the timer function is not being used, it can count the time.  •ON-OFF  •OFF-ON  •ON-OFF-ON (Repeat)  •Integral timer display (0 to 99 h 59 min or after: 100 h to 9999 h)	Not available
Option② Transmission output	Not available	Available as an option  • Additional transmission output (1-5 V) terminal	Not available	Available as an option  • Additional transmission output (1-5 V) terminal	Not available
Safety devices/functions	Motor protection circui	Motor protection circuit at overload, Fuse			
Dimensions (W×D×H)	300 × 235 × 163 mm		300 × 235 × 167 mm		180 × 130 × 110 mm
Weight	Approx. 5.1 kg		Approx. 5.5 kg		Approx. 1.8 kg
Power supply	AC100V/0.5A (Need a step-down transformer)	AC100V-240V/0.5A (universal power supply)	AC100V/0.5A (Need a step-down transformer)	AC100V-240V/0.5A (universal power supply)	AC100V/0.5A (Need a step-down transformer)
Standard accessories	Sticky sheet (ST-2030	for SI/PR, Dedicated type for SI slim	) × 1 pc (*2)		

<sup>(&</sup>quot;1)The maximum value may not be met depending on the optional platforms and vessels. ("2)Shaking platforms and vessel holders are also available as an option except SI slim (see the right figure).

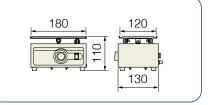
#### **Dimensions Wave-PR/PR2**

300

## Dimensions Wave-SI/SI2

# 300 200

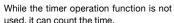
#### **Dimensions Wave-SI slim**



# **Additional optional functions (For PR2/SI2)**

## **Option 1: Timer operation function**

The shaker can be "stopped" by turning it ON-OFF after the set time has elapsed and "started" by turning it OFF-ON. In addition, the operation can be "stopped and started repeatedly" by pressing ON-OFF-ON, thus preventing sedimentation of samples in the vessel and enabling work to proceed when the user is absent, such as after returning home or doing other work.





Wave-SI2 + Option(1)

#### Option(2): Transmission output terminal extension

Attach a female terminal on the back of the main unit that can be connected to a recorder, etc.

From the terminal, the signal 1 to 5 [V] is output, which is corresponding to the speed display of 0 to 50 [r/min] for Wave-PR2/SI2. Since it can be connected to a recorder, etc., it is recommended for customers who need to record the operation of equipment used in the work process.





A connector for connection is included. Connect to the signal wiring (AWG22 to 24) from the target

# **Optional shaking platform**

#### Sticky sheet (PR/PR2/SI/SI2) ◀•

A white-colored non-slip sheet that is used by placing it on the platform. Eco-friendly special silicon material is adopted. Adhesion is weakened with dust and dirt can be recovered by washing with water.



Model	ST-2030
Applicable models	Comes in Wave-PR/PR2/SI/SI2
Dimension	195 × 295 × 2H mm

<sup>•</sup>Use any speed and angle where the vessels do not fall.

#### ••••••• Centrifuge tube holder for ST-2030 (additional option)

Holder for Disposable centrifuge tubes, etc. that are placed on sticky sheets for use. Can place one. Recommended to place in the direction of photo.



Model	PR-1808	PR-3504
Applicable models	Suitable for Wave-SI/SI2	Wave-PR/PR2/SI/SI2
Vessels/ Capacity	Vessels with \$\phi16.5\$ to 20 mm and approx. 150 mm in length (15 mL Disposal centrifuge tubes) × 8 pcs	Vessels with φ29 to 35 mm and approx. 150 mm in length (50 mL Disposal centrifuge tubes) × 4 pcs

#### Horizontal clamp for Centrifuge tube (PR/PR2/SI/SI2) ◀•

This securely holds the Centrifuge tube, Stoppered test tube, or Water-compliant 100 mL Color comparison tube. Optimal for Extraction experiment. Mounted on MT-2030 for use.



Model	AT-0004
Vessels	Diameter 10 to 37 mm, 4 pcs in 1 set
Capacity	With 1 set: Vessels with 75 to 240 mm in length such as 100 mL Color comparison tube. (*) With 2 sets: Vessels with 75 to 110 mm in length such as 50 mL Centrifuge tube.

<sup>(\*)</sup>Vessels longer than 110 mm are recommended for use in Wave-SI/SI2

## Large-sized shaking platform (PR/PR2/SI/SI2)

Large sized culture trays and TC flasks can be mounted. Comes with 1 pc Dedicated Sticky sheet. Remove the standard platform to replace it.



Model	WR-3636
Dimension	364 × 364 × 12H mm

<sup>•</sup>Use any speed and angle where the vessels do not fall.

#### ►Universal shaking platform (PR/PR2/SI/SI2)

This is required when using Horizontal clamps for Centrifuge tubes on the left. Be sure to use the clamps so that the vessels can be securely held.



Model	MT-2030
Applicable models	Wave-PR/PR2/SI/SI2
Dimension	200 × 300 × 23H mm

#### Two-tier shaking platform (SI/SI2)

It is designed to be fixed on the top of the platform, making it two-tiered. Convenient to stain multiple Electrophoresis gel. Convenient to stain Mini Gel. Comes with 1 pc of Sticky sheet ST-2030.



Model	WR-2030
Applicable models	Suitable for Wave-SI/SI2
Dimension	204 × 304 × 168H mm

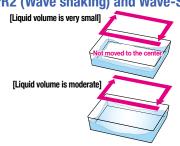
<sup>•</sup>Use any speed and angle where the vessels do not fall. •Maximum load should be 1.2 kg when using this.

#### Features for Wave-PR/PR2 (Wave shaking) and Wave-SI/SI2 (Seesaw shaking)

#### Wave-PR/PR2

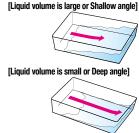
less variation in the motion that enables constant mild stirring. Please note that when a liquid volume is very small compared to the capacity of container/tray, the liquid may not move to the center of the tray.

Wave-PR/PR2 (Wave shaking) has



#### Wave-SI/SI2

By making the longitudinal direction of the tray inclined and reducing the liquid volume, the momentum and distance of liquid can be gained. Also, even if the liquid volume is small, it can be spread all over the container/tray. Please note that when shaking thin samples such as PAGE, the gel might be rounded at the end of the plates depending on the tilt angle.



#### The angles of platform for Wave-PR/PR2 and Wave-SI/SI2

#### Wave-PR/PR2

The indicator and Adjuster for the tilt angle are located on the right. 2° to 6° can be adjusted horizontally.





#### **Wave-SI slim**

The body is about half the size of the Wave-SI, but the platform size is the same for 1 pc of Well plate. The tilt angle is fixed at 6°.

