

NEW

# In vitro shaker Shake-LR/XR, In vitro shaker 2 Shake-LR2/XR2

*Compact sized and easy to use for bench tops and inside refrigerators. Can shake the samples largely and securely. Wide range of options for various applications.*

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

## Features

- Switchable Reciprocal and Orbital shaking [LR/LR2]
- Swing in figure 8 [XR/XR2]
- Can be used even inside refrigerators with 4°C [All models]
- Digital display and settings are standardized, Optional functions are also available [LR2/XR2]

## Applications

- Erlenmeyer flasks, Centrifuge tubes, Color comparison tubes, etc. [LR/LR2]
- Trays, Erlenmeyer flasks, TC flasks, etc. [XR/XR2]
- Cultivation, Extraction [LR/LR2], Dispersion, and Trypsinization [XR/XR2]



Shake-LR



Shake-LR2



Shake-XR



Shake-XR2

Optional shaking platform not included

Model	Shake-LR	Shake-LR2	Shake-XR	Shake-XR2
Shaking motion	Switchable Reciprocal/Orbital shaking		Swing in figure 8	
Shaking speed/width	15 to 160 r/min (*), 25 mm		15 to 100 r/min* (*), 20 mm   *One (1) figure-8 motion per 1 r/min	
Platform dimensions	300 × 200 mm			
Ambient temp. range	0°C to 50°C			
Maximum load	Approx. 2 kg (Optional platform and vessel holders are not included)			
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)
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
Safety devices/functions	Current limiter, Internal overheat detection, Fuse			
Dimensions (W×D×H)	300 × 270 × 152 mm		300 × 235 × 155 mm	
Weight	Approx. 7.8 kg		Approx. 7.7 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)

(\*The maximum value may not be met depending on the optional platforms and vessels.

### The features of Swing in figure 8 and the shaker that can swing in figure 8

Vertical and Horizontal waves occur alternately in the figure 8. In shaking the gel, the efficiency of dye decolorization is heightened as the solution moves firmly while the gel stays at any position (①). The wider the vertical and horizontal waves alternately occur, the easier the vessels can be checked (②). In Erlenmeyer flasks, high aeration and dispersion efficiency like motion of liquid in the shaking flasks can be obtained (③, 50/100/150 mL in 500 mL from the left).



### USER'S VOICE

I think there should be some effective applications for figure 8 other than this. Also, I am interested in the High-end model NR-80 with more capacity than that of Shaker-XR/XR2.



← NR-80 (P.076)  
6 pcs of 500 mL Erlenmeyer flask, Switchable Reciprocal/Orbital, and Figure 8

# Additional optional functions (For LR2/XR2)

## Option①: 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.

While the timer operation function is not used, it can count the time.



Shake-LR2 + Option①

## Option②: 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 respectively to the speed display of

0 to 160 [r/min] for Shake-LR2 and

0 to 100 [r/min] for Shake-XR2.

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.



Option② Transmission output terminal



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

# Optional shaking platform

## Sticky sheet (LR/LR2/XR/XR2)

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	Shake-LR/LR2/XR/XR2
Dimension	195 × 295 × 2H mm

•Use below 100 r/min (or any speed the vessels not fallen) with Shake-LR/LR2.

## Two-tier shaking platform (LR/LR2/XR/XR2)

It is designed to be fixed on the top of the platform, making it two-tiered.

Convenient to stain multiple Electrophoresis gel. Comes with 1 pc of Sticky sheet ST-2030.

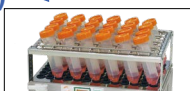


Model	WR-2030
Applicable models	Shake-LR/LR2/XR/XR2
Dimension	204 × 304 × 168H mm

•Use below 100 r/min (or any speed the vessels not fallen) with Shake-LR/LR2. •Maximum load should be 1.2 kg when using this. •Purchase separately ST-2030 as necessary.

## Spring net shaking platform (LR/LR2)

Convenient when shaking different sizes of vessels together. Tilt the vessels slightly with approx. 20% of the liquid volume.



Model	MR-2030
Applicable models	Suitable for Shake-LR/LR2
Dim./Cap.	W 200 × D 300 × H 95 mm, Up to 24 pcs when 50 mL Disposable centrifuge tube

•It can be also mounted to Shake-XR/XR2.  
•Recommended to use with Conical bottom centrifuge tube.

## Double spring net for MR-2030 (additional option)

This doubles the spring net of MR-2030. Enhances the fixed accuracy with this when using vessels that cannot be dropped into the bottom hole.



Model	SP-2030
Dimension	200 × 300 × 12H mm

•Be careful in the shaking speed when [if] the spring net is doubled.

## Universal shaking platform (LR/LR2/XR/XR2)

This is required when using the clamps for Erlenmeyer flasks or Centrifuge tubes. Be sure use the clamps so that the vessels can be fixed.



Model	MT-2030
Applicable models	Shake-LR/LR2/XR/XR2
Dimension	200 × 300 × 23H mm

## Large-sized shaking platform (LR/LR2/XR/XR2)

Large sized culture trays and TC flasks can be mounted. 1 pc of Sticky sheet is included and can be replaced by removing Standard platform.

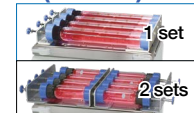


Model	WR-3636LR (For Shake-LR/LR2)
Model	WR-3636 (For Shake-XR/XR2)
Dimension	364 × 364 × 12H mm

•Use below 100 r/min (or any speed the vessels not fallen).

## Horizontal clamp for Centrifuge tube (LR/LR2)

This makes Centrifuge tubes, Stoppered test tubes, or Water-compliant 100 mL Color comparison tubes securely fixed. 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 tubes. With 2 sets: Vessels with 75 to 110 mm in length such as 50 mL Centrifuge tubes.

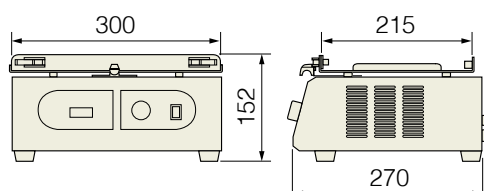
## Clamps for Erlenmeyer flasks (LR/LR2/XR/XR2)

Mounted on MT-2030 for use.



Model	CF-0100	CF-0250	CF-0300	CF-0500
Vessels	100 mL	250 mL	300 mL	500 mL
Capacity	12 pcs	6 pcs	6 pcs	3 pcs

## Dimensions Shake-LR/LR2



## Dimensions Shake-XR/XR2

