

# 15

## LABORATORY INSTRUMENTS

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












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# ICONS

	Code No.		Qty in bag
	Material		Qty in box
	Volume capacity		Qty in case for glass tube
	Additive		Qty in case for PET tube
	Drop volume		Qty in case
	Outer dimension		Sterile by irradiation
	Colour		Sterile by ethylene oxide
	Specification		Detailed information
	Temperature range		

# MATERIALS

PE =	Polyethylene	COC =	Cycloolefin copolymers
PET =	Polyethylene terephthalate	HIPS =	High impact polystyrene
HDPE =	High Density Polyethylene	TPE =	Thermoplastic Elastomer
LDPE =	Low Density Polyethylene	GPPS =	General purpose polystyrene
PP =	Polypropylene	PC =	Polycarbonate
PS =	Polystyrene	P.O.M. =	Polyoxymethylene
PVC =	Polyvinyl chloride		
ABS =	Acrylonitrile Butadiene Styrene		

# Shaker

## >>> DSR-10 Digital Shaking Rotator

### Features:

- With multiple types of fixing clips, it can carry out the mixing and shaking for vessels of different shape and size.
- Two operation methods for choice: circling and reciprocating.
- Compact structure. With BLDCM (Brushless DC Motor), the equipment can run smoothly with little noise for long time.
- LCD with backlight can display the current speed, time and operation mode, convenient for reading and setting.
- Precise digital time and speed setting can easily carry out the continuous operation mode.
- Safe operating protection function adopted.
- Maximum load reaches 7.5KG.
- Wide voltage design avoids the impact of unstable voltage on the equipment.



**DSR-10**  
Flatbed platform (Type A)



**DSR-10**  
Securing bars platform (Type B)



**DSR-10**  
Four clamp platform (Type C)

### Optional components:



Flatbed platform, with silicon non-slip pad, adapted to softly mixing petri dish, culture flask, Test card, etc.



Securing bars platform, can clamp different kind of container by adjusting the position of bars.



Plain spring platform, used together with spring clamp.



Spring clamp model:  
25mL/50mL/100mL/200mL/500mL.

### Technical Data:

Operation method:	Circling or Reciprocating
Shaker diameter:	10mm
Maximum loading weight (incl. Fixing clips):	7.5kg
Equipment input power:	35W
Motor output power:	10W
Motor type:	BLDC
Speed range:	100-500rpm / 40-350rpm
Speed display:	LCD
Timer display:	LCD
Time setting range:	1-19h59min
Operation mode:	Timing/Continuous
Shaking table lock:	Yes
Dimensions (W×H×D):	420×360×100mm
Weight:	13kg
Permissible ambient temperature:	5-50°C
Permissible relative moisture:	80%
Protection class according to DIN EN 60529:	IP21
Analog output:	Yes
Voltage:	AC 100-240V
Frequency:	50/60Hz

## Shaker

### >>> DSR-22 Digital Orbital Shaker

#### Features:

- DSR-22 is the upgraded version of the traditional orbital shaker, used for screening and testing of syphilis RPR, TRUST, VDRL, among other applications. It can be also widely used in mixing for various kinds of flat type labwares, such as: petri dish, culture plate, etc.
- Equipped with Brushless motor, it can run smoothly and quietly, thus guarantee a long service life.
- LCD with backlight can display the current speed, time and operation mode, convenient for reading and setting.
- Precise digital time and speed setting can easily carry out the continuous operation mode.
- Safe operation protection function adopted.
- Wide voltage design avoids the impact of unstable voltage on the equipment.



DSR-22 (No transparent cover)



DSR-22 (With transparent cover)

#### Technical Data:

Operation method:	Circling
Circling diameter:	22mm
Max. Loading weight:	2kg
Speed range:	40-350rpm
Timing range:	1-19h59min
Running mode:	Timing / Continuous
Input voltage(frequency):	AC100-240V (50/60Hz)
Input power:	20W
Working plate size:	Common type: 315×315mm With cover: 255×255mm
Protective class:	IP21
Permissible ambient temperature:	5-50°C
Permissible relative moisture:	80%
Dimensions:	Common type: 420×360×125mm With cover: 420×360×145mm
Net. Weight:	Common type: 7.0kg With cover: 7.8kg

### >>> KJ-201BD / KJ-201BS Orbital Shaker

#### Features:

- Designed for screening and testing of syphilis RPR, TRUST, VDRL.
- High quality DC motor, actual life > 1000h.
- Tight and reasonable structure makes it run stably, Suitable for various applications.
- Adjustable Analog dial design, easy to make it stepless speed adjustment and running at any time within 15min/60min.

#### Technical Data:

	KJ-201BD	KJ-201BS
Operation method:	Circling	Circling
Circling diameter:	20mm / 22mm	20mm / 22mm
Max. Loading weight:	1kg	1kg
Speed range:	20-210rpm	20-230rpm
Timing range:	0-15min / 0-60min	0-15min / 0-60min
Running mode:	Timing / Continuous	Timing / Continuous
Working plate size:	315×218mm	224×152mm
Input voltage(frequency):	AC 220V±10%(50/60Hz)	AC 220V±10%(50/60Hz)
Input power:	10W	10W
Protective class:	IP21	IP21
Permissible ambient temperature:	5-50 C	5-50 C
Permissible relative moisture:	80%	80%
Dimensions:	320×320×130mm	240×165×120mm
Net. Weight:	3.2Kg	2.5Kg



KJ-201BD



KJ-201BS

# Shaker

## >>> KJ-201BE / KJ-201BX / KJ-201BH Orbital Shaker

### Features:

- ⊙ Designed for screening and testing of syphilis RPR, TRUST, VDRL, also can be used for mixing of various kinds of petri dish, elisa plates etc.
- ⊙ High performance DC motor, Quiet, Stable and long lifetime.
- ⊙ Digital time and speed set makes the control more accurate, except KJ-201BH.
- ⊙ KJ-201BX, Fixed transparent cover type or Non-cover type available.
- ⊙ LED screen for time and speed display, easy for reading and operation, except KJ-201BH.
- ⊙ Wide voltage design avoids the impact of unstable voltage on the equipment.


**KJ-201BE**

**KJ-201BX**  
 (With transparent cover)

**KJ-201BH**

### Technical Data:

	KJ-201BE	KJ-201BX	KJ-201BH
Operation method:	Circling	Circling	Circling
Circling diameter:	20mm / 22mm	20mm / 22mm	20mm / 22mm
Max. Loading weight:	1kg	1kg	1kg
Speed range:	20-230rpm	20-230rpm	20-210rpm
Timing range:	1-999min	1-999min	0-15min/0-60min
Running mode:	Timing/Continuous	Timing/Continuous	Timing/Continuous
Input voltage(frequency):	AC100-240V(50/60Hz)	AC100-240V(50/60Hz)	AC 220V±10%(50/60Hz)
Input power:	10W	10W	10W
Working plate size:	302×212mm	280×210 (Common type) 245×167 (With cover)	302×212mm
Protective class:	IP21	IP21	IP21
Permissible ambient temperature:	5-50°C	5-50°C	5-50°C
Permissible relative moisture:	80%	80%	80%
Dimensions:	330×320×110mm	320×315×120mm	330×320×110mm
Net. Weight:	4.2Kg	4.5Kg	4.6Kg

## >>> KJ-201BA Digital Microplate Shaker

### Features:

- ⊙ Suitable for thorough mixing of various PCR plates and ELISA plates.
- ⊙ Capable of simultaneously mixing four PCR plates or ELISA plates.
- ⊙ Driven by a high-performance, low-noise DC motor to ensure thorough and efficient mixing.
- ⊙ Digital display for speed and time, with easy parameter modification using buttons for convenient operation, leading to more accurate experimental results.
- ⊙ Designed with a rational structure, featuring high-quality silicone work boards that facilitate the easy loading and unloading of ELISA plates, eliminating the risk of tilting or shifting.

### Technical Data:

Operation method:	Rapid orbital motion
Eccentric diameter:	3mm
Rating speed:	200-1500rpm
Running mode:	Timing/Continuous
Timing range:	0-99h59min
Max. loading:	2/4 pcs microplate
Input voltage(frequency):	AC 100-240V (50/60Hz)
Permissible relative moisture:	80%
Input power:	40W
Protective class:	IP21
Permissible ambient temperature:	5-50°C
Dimensions:	330×320×110mm
Net. Weight:	6.5Kg


**KJ-201BA**

## Shaker

### >>> KJ-201A / KJ-201B / KJ-201C Microplate Shaker

#### Features:

- Elastic silicon plate, easy to clean and wear-resisting. It can fit various kinds of microplates.
- High performance & low noise AC motor to make rapid and thorough mixing.
- Adjustable Analog dial design can ensure stepless speed adjustment, and constant run within set time.



KJ-201A (1 plate)



KJ-201B (4 plate)



KJ-201C (6 plate)

#### Technical Data:

	KJ-201A	KJ-201B	KJ-201C
Operation method:	Rapid orbital motion	Rapid orbital motion	Rapid orbital motion
Eccentric diameter:	8.5mm	3.2mm	9mm
Rating speed:	800-2600rpm	600-2200rpm	200-2800rpm
Max. loading:	1 pcs microplate	1-4 pcs microplate	1-6 pcs microplate
Running mode:	Timing/Continuous	Timing/Continuous	Timing/Continuous
Timing range:	0-60min	0-60min	0-15min
Permissible relative moisture:	80%	80%	80%
Input voltage(frequency):	AC 220V±10%(50/60Hz)	AC 220V±10%(50/60Hz)	AC 220V±10%(50/60Hz)
Output power:	20W	10W	10W
Protective class:	IP21	IP21	IP21
Permissible ambient temperature:	5-50°C	5-50°C	5-50°C
Dimensions:	185×185×135mm	240×250×135mm	310×280×225mm
Net. Weight:	1.5Kg	3.8Kg	6.2Kg

### >>> KJ-202 Powder Shaker

#### Features:

- Reasonable design, the machine will be stable, No shifting or noise while running.
- Different types of plates can carry out rapid mixing of powder drug and liquid based cells.
- High performance AC motor, with wind cooling device to ensure long-time and safe running.



KJ-202

#### Technical Data:

Operation method:	Rapid orbital motion
Eccentric diameter:	3.4mm/4mm
Rating speed:	1000rpm/1200rpm
Running mode:	Continuous
Input voltage(frequency):	AC 220V±10%(50/60Hz)
Permissible relative moisture:	80%
Output power:	12W / 24W
Protective class:	IP21
Permissible ambient temperature:	5-50°C
Dimensions:	235×160×160mm
Net. Weight:	2.3Kg

#### Optional plates:



Standard plate: Height 30mm.  
O-ring well included: Ø37×1, Ø35×2,  
Ø28×8, Ø25×8



Standard plate: Height 37mm  
O-ring well included: Ø33×12



Standard plate: Height 30mm  
O-ring well included: Ø25×20



Standard plate: Height 30mm  
O-ring well included: Ø28×20



Standard plate: Height 45mm.  
O-ring well included: Ø33×12



Standard plate: Height 30mm.  
O-ring well included: Ø33×6, Ø37×6

Recommended bottles: Diameter: 1-3mm less than the O-ring.  
Height: Double of the working plate.

# Shaker

## >>> KJ-201ZT Multifunction Shaker

### Features:

- ⊙ Reasonable design, the machine will be stable, No shifting or noise while running.
- ⊙ High performance, low noise DC motor to ensure rapid and thorough mixing.
- ⊙ Adjustable Analog dial design can ensure stepless speed adjustment.
- ⊙ Customized plate available to meet different test requirements.



KJ-201ZT

### Technical Data:

Operation method:	Rapid orbital motion
Eccentric diameter:	4mm
Rating speed:	200-2800rpm
Running mode:	Continuous
Max. loading:	15 pcs 50mL centrifuge tubes or 50 pcs 3-10mL tubes
Input voltage(frequency):	AC 220V±10%(50/60Hz)
Permissible relative moisture:	80%
Output power:	10W
Protective class:	IP21
Permissible ambient temperature:	5-50°C
Dimensions:	260×200×260mm
Net. Weight:	2.2Kg



# Shaker

## >>> KJ-201MT / KJ-201MTA Multifunction Shaker

### Features:

Suitable for whole-rack mixing of racks for various tubes. Driven by a high-performance, low-noise DC motor for more thorough and efficient mixing. Well-designed with high-quality cushioning mat, featuring dual-layer clamping for stable and non-shifting performance during prolonged use.

### KJ-201MT Overview and Features

- ◆ Adjustable Analog dial design, easily achieve timed operation and stepless speed regulation.



KJ-201MT

### KJ-201MTA Overview and Features

- ◆ Digital display speed and time, button to modify parameters, convenient operation, making the experimental results more accurate.
- ◆ Pulse shaking mode can be used to mix viscous samples.



KJ-201MTA

### Technical Data:

	KJ-201MT	KJ-201MTA
Running mode	Rapid orbital motion	Rapid orbital motion
Eccentric diameter:	4mm	4mm
Rated speed	400—2800rpm	500-2500rpm
Running mode	continuous, timed	Continuous, timed, jog, pulse
Timing time setting range	0—15min	1S—99min
Pulse mode gap stop timing range	-	1S—99S
Pulse mode gap operation timing range	-	1S—20min
Maximum cycles times in pulse mode	-	99 times
Work surface size	340×220 mm	340×220 mm
Input power	100W	200W
Input voltage	AC220V±10% (50/60Hz)	AC100—240V (50/60Hz)
Allowable relative humidity	80%	80%
Shell protection grade	IP21	IP21
Allowable ambient temperature	5—50°C	5—50°C
Dimensions	440×290×480mm	440×290×480mm
Net weight	16.5Kg	17Kg



Working example 1:  
 Batch mixing: 10mL sampling tubes,  
 vacuum blood collection tubes, 10mL,  
 15mL centrifuge tubes or test tubes, etc.



Working example 2:  
 Batch mixing: 30mL sampling tubes,  
 50mL centrifuge tubes.

### Optional Accessories:



Ø29mm 15-hole adapter, suitable for  
 Tubes with diameter of 28-32mm



Ø25mm, 15-hole adapter, suitable for  
 Tubes with diameter of 24-27mm



Ø20mm, 50-hole adapter, suitable for  
 Tubes with diameter of 18-21mm



Ø15mm, 50-hole adapter, suitable for  
 Tubes with diameter of 14-17mm



Ø12mm, 50-hole adapter, suitable for  
 Tubes with diameter of 11-13mm



Ø10mm, 50-hole adapter, suitable for  
 Tubes with diameter of 9-10mm

# Rocker

## >>> KJ-201BYA / KJ-201BYA-S Digital Rocking Mixer

### Features:

- It can achieve a rocking motion with a swing angle of 7 degrees (the swing angle can be customized as needed), causing gentle undulating movements of the liquid within the container.
- Equipped with a specially designed silicone non-slip pad, along with fastening straps, it can accommodate various types of culture bottles and dishes.
- Driven by an efficient DC motor, it operates smoothly with low noise and has a long service life.
- LCD with backlight can display the current speed, time and operation mode, convenient for reading and setting.
- Digital display for adjusting time and speed, easily achieving timed, speed-controlled, and continuous operation modes.
- Wide voltage design avoids the impact of unstable voltage on the equipment.


**KJ-201BYA**

**KJ-201BYA-S**

### Technical Data:

	<b>KJ-201BYA</b>	<b>KJ-201BYA-S</b>
Operation method:	Swing up and down	Swing up and down
Angle of tilt:	9°(Customized from 7°-12°)	9°(Customized from 7°-12°)
Max. Loading weight:	10kg	5kg
Motor type:	DC motor	DC motor
Speed range:	10-80rpm	10-80rpm
Timing range:	1-19h59min	1-999min
Running mode:	Timing/Continuous	Timing/Continuous
Input voltage(frequency):	AC100-240V(50/60Hz)	AC100-240V(50/60Hz)
Input power:	40W	20W
Working plate size:	280×320mm	230×318mm
Protective class:	IP21	IP21
Permissible ambient temperature:	5-50°C	5-50°C
Permissible relative moisture:	80%	80%
Dimensions:	420×355×180mm	350×320×175mm
Net. Weight:	11.5Kg	5.3Kg


**KJMR-VA**

**KJMR-VA-S**

## >>> KJMR-VA / KJMR-VA-S Digital 3D Rocking Mixer

### Features:

- Capable of three-dimensional circular rotation with a fixed tilt angle, particularly suitable for low-foam oscillation, DNA extraction, staining, and decolorization processes.
- Equipped with a specially designed silicone non-slip pad, along with fastening straps, it can accommodate various types of culture bottles and dishes.
- Driven by an efficient DC motor, it operates smoothly with low noise and has a long service life.
- Digital display for adjusting time and speed, easily achieving timed, speed-controlled, and continuous operation modes.
- Wide voltage design effectively prevents interference from unstable power sources.

### Technical Data:

	<b>KJMR-VA</b>	<b>KJMR-VA-S</b>
Operation method:	3D nutating motion	3D nutating motion
Angle of tilt:	9°(Customized from 7°-12°)	1°-12°
Max. Loading weight:	5Kg	2Kg
Motor type:	DC motor	DC motor
Speed range:	10-80rpm	10-80rpm
Timing range:	1-19h59min	1-999min
Running mode:	Timing/Continuous	Timing/Continuous
Input voltage(frequency):	AC100-240V(50/60Hz)	AC100-240V(50/60Hz)
Input power:	40W	20W
Working plate size:	280×320mm	230×318mm
Protective class:	IP21	IP21
Permissible ambient temperature:	5-50°C	5-50°C
Permissible relative moisture:	80%	80%
Dimensions:	420×355×190mm	350×320×175mm
Net. Weight:	12Kg	5.3Kg

## Rocker

### >>> KJMR-V 3D Rocking Mixer

#### Features:

- It can carry out the action of 3D circling rotation with 20° tilt angle (can be customized), especially adapted to mixing of samples with low froth, And in process of DNA extracting, staining and decoloration.
- Driven by High performance AC Motor, Running stable, No noise, Long lifetime.
- Tight and reasonable structure makes it running stable. adapted to various environment.
- Specified anti-slip dimpled pad is adapted to mixing of multiple types of test tubes, centrifuge tubes and tubular container.



KJMR-V

#### Technical Data:

Operation method:	3D nutating motion	Input power:	6W
Angle of tilt:	20°	Working plate size:	240×170mm
Max. Loading weight:	1kg	Protective class:	IP21
Motor type:	AC motor	Permissible ambient temperature:	5-50°C
Speed range:	20rpm	Permissible relative moisture:	80%
Running mode:	Continuous	Dimensions:	200×160×160mm
Input voltage(frequency):	AC220V±10%(50/60Hz)	Net. Weight:	2.5Kg

### >>> KJ-201BY Rocking Mixer

#### Features:

- It can carry out an action of waving swing up and down of 25 degree, which can make the liquid in the container to move mild like the wave.
- Driven by High performance AC Motor, Running stable, No noise, Long lifetime.
- Tight and reasonable structure makes it running stable, adapted to various applications.
- Specially made serrated anti-slip silicone pad, suitable for shaking various tubes, centrifuge tubes, and other tubular containers.



KJ-201BY

#### Technical Data:

Operation method:	Swing up and down
Angle of tilt:	20°
Max. Loading weight:	1kg
Motor type:	AC Motor
Speed range:	15rpm
Running mode:	Continuous
Input voltage(frequency):	AC 220V±10% (50/60Hz)
Input power:	6W
Working plate size:	252×170mm
Protective class:	IP21
Permissible ambient temperature:	5-50°C
Permissible relative moisture:	80%
Dimensions:	346×196×95mm
Net. Weight:	2.5Kg

# Rocker

## >>> KJMR-III Multifunction Rotator

### Features:

- ☉ Three selectable mixing program modes, suitable for mixing blood samples, urine, injections, plasma, and other substances.
- ☉ Driven by an efficient DC stepper motor, it operates smoothly with low noise and has a long service life.
- ☉ Specially designed silicone ring fixture, suitable for various types of test tubes and centrifuge tubes.
- ☉ Compact structure, less space occupation, suitable for a variety of places
- ☉ Digital control of time and speed for more precise control.
- ☉ LCD liquid crystal display for speed, time, and operating mode, facilitating easy reading and operation.
- ☉ Touch-sensitive membrane switch panel design for easier operation.

### Technical Data:

Operation method:	Rotation: 360°clockwise 360°anticlockwise 360°clockwise-anticlockwise cross Shaking: Forward-backward reciprocating action with <5°angle Vortex: Forward-backward reciprocating action with <5°angle+360°clockwise rotation
Speed range:	5-40rpm
No.1 working plate:	1.5mL-15mL test tube or centrifuge tube 22pcs
No.2 working plate:	50mL centrifuge tube 6pcs, 1.5mL-15mL test tube or centrifuge tube 4pcs
Running mode:	Timing
Timing range:	1min-60h
Input voltage(frequency):	AC 220V±10%(50/60Hz)
Input power:	15W
Protective class:	IP31
Permissible ambient temperature:	5-50°C
Permissible relative moisture:	80%
Dimensions:	380×182×190mm
Net. Weight:	3 kg



#### Working plate 1:

Suitable for holding Ø12, Ø13, Ø16 test tubes and all types of centrifuge tubes between 1.5 mL and 15 mL.

KJMR-III



#### Working plate 2:

Suitable for holding Ø12, Ø13, Ø16 test tubes and all types of centrifuge tubes between 1.5 mL and 50 mL.

## Rotator

### >>> KJMR-IV Rotator Mixer

#### Features:

- 360 degree mild rotation mixing can keeps sample in suspension. Adapted to mixing of blood, urinary samples etc.
- Driven by High performance DC declaration Motor, Running stable, No noise, Long lifetime.
- Compact and reasonable structure makes it running stable. Adapted to various applications.
- Four types elastic clip could be randomly combined for use. Adapted to 1.5mL, 15mL, 50mL centrifuge tubes and test tubes with Ø8, Ø9, Ø12, Ø13, Ø16mm diameter.



KJMR-IV

### >>> KJMR-IVA Rotator Mixer

#### Features:

- 360 degree mild rotation mixing can keeps sample in suspension. Adapted to mixing of blood, urinary samples etc.
- Driven by High performance DC declaration Motor, Running stable, No noise, Long lifetime.
- Compact and reasonable structure makes it running stable. Adapted to various applications.
- LED with backlight can display the current speed, time and operation mode, convenient for reading and setting.
- Precise digital time and speed setting can easily carry out the continuous operation mode.
- Wide voltage design avoids the impact of unstable voltage on the equipment.
- Four types elastic clip could be randomly combined. Adapted to 1.5mL, 15mL, 50mL centrifuge tubes and test tubes with Ø8, Ø9, Ø12, Ø13, Ø16mm diameter.



KJMR-IVA

#### Technical Data:

	KJMR-IV	KJMR-IVA
Operation method:	360° rotation	360° rotation
Tilt angle of the plate:	38°	38°
Speed range:	6-32rpm	5-35rpm
Timing range:	—	0-999min
Clip Qty:	Large size 12pcs Medium size 24pcs Small size 24pcs	Large size 12pcs Medium size 24pcs Small size 24pcs
Running mode:	Continuous	Timing/Continuous
Plate diameter:	Ø300mm	Ø300mm
Input voltage(frequency):	AC 220V±10%(50/60Hz)	AC 100-240V(50/60Hz)
Input power:	10W	10W
Protective class:	IP31	IP31
Permissible ambient temperature:	5-50°C	5-50°C
Permissible relative moisture:	80%	80%
Dimensions:	310×300×420mm	310×300×420mm
Net. Weight:	4.3Kg	4.0Kg

#### Available plates:



Large size clip, for 50mL centrifuge tubes.



Medium size clip, for Ø16mm test tubes and 10mL, 15mL centrifuge tubes.



Small size clip, for Ø13mm test tube, Ø12mm test tube, 1.5mL centrifuge tube.



Extra small size clip, for Ø8-9mm test tube and 0.5mL centrifuge tube.

# Rotator

## >>> KJMR-IVD Rotator Mixer

### Features:

- ⊙ Digital adjustment of speed and time.
- ⊙ LED display of speed and time.
- ⊙ Speed range from 5 to 35rpm.
- ⊙ Rotating motion, gives gentle but effective mixing.
- ⊙ Adjustable mixing angle from 0 to 90°.
- ⊙ A wide variety of accessories are available.



Suitable for widely tubes ,such as 50mL, 15mL, 10mL centrifuge tubes, Ø16mm, Ø13mm, Ø12mm, Ø8-9mm test tubes and the others.



The mixing angle can be easy adjusted by adjusting handle.



LED with backlight can display the current speed, time and operation mode, convenient for reading and setting.



Silicone rubber feet, for more stable running.



**KJMR-IVD**

### Technical Data:

Operation method:	360° rotation
Tilt angle of the plate:	0-90°
Speed range:	5-35rpm
Timing range:	0-999min
Clip Qty:	Large size 8 pcs Medium size 16 pcs Small size 60 pcs
Running mode:	Timing/Continuous
Plate diameter:	Ø280mm
Input voltage(frequency):	AC 100-240V(50/60Hz)
Input power:	10W
Protective class:	IP31
Permissible ambient temperature:	5-50°C
Permissible relative moisture:	80%
Dimensions:	280×210×300mm
Net. Weight:	4.0Kg

## Roller

### >>> KJMR-I Roller Mixer

#### Features:

- It can carry out two functions (Roll and Swing) at same time, adapted to mixing of blood samples, adhesive materials and Liquid - solid suspensions.
- Driven by High performance AC Motor, Running stable, No noise, Long lifetime.
- 5 rolls, compact structure makes it less space occupation. It can be put in cold closet or incubators, suitable for various applications.
- Reasonable space between the rolls makes it fit for different size tubes.



KJMR-I

### >>> KJMR-II Roller Mixer

#### Features:

- It can carry out two functions (Roll and Swing), adapted to mixing of blood samples, adhesive materials and Liquid - solid suspensions.
- Driven by High performance DC declaration Motor, Running stable, No noise, Long lifetime.
- 7 rolls, compact structure makes it less space occupation, suitable for various applications.
- Reasonable space between the rolls makes it fit for different size tubes.
- According to actual requirements, We can customize the bidirectional Cross Rolling Mode. The roller can be extended within a certain range to fit for more tubes.



KJMR-II

### >>> KJMR-IIA Roller Mixer

#### Features:

- It can carry out two functions (Roll and Swing), adapted to mixing of blood samples, adhesive materials and Liquid - solid suspensions.
- Driven by High performance DC declaration Motor, Running stable, No noise, Long lifetime.
- 7 rolls, compact structure makes it less space occupation, suitable for various applications.
- LED with backlight can display the current speed, time and operation mode, convenient for reading and setting.
- Precise digital time and speed setting can easily carry out the continuous operation mode.
- Wide voltage design avoids the impact of unstable voltage on the equipment.
- Reasonable space between the rolls makes it fit for different size tubes.
- According to actual requirements, We can customize the bidirectional Cross Rolling Mode. The roller can be extended within a certain range to fit for more tubes.



KJMR-IIA

#### Technical Data:

	KJMR-I	KJMR-II	KJMR-IIA
Operation method:	Roll+swing	Roll+swing	Roll+swing
Swing angle:	±11°	22mm±1mm	22mm±1mm
Rating speed:	36rpm	20-80rpm	20-100rpm
Max. Loading weight:	0.8Kg	1.5Kg	1.5kg
Running mode:	Continuous	Continuous	Continuous, Timing
Timing range:	—	—	0-999min
Input voltage (frequency):	AC 220V±10% (50/60Hz)	AC 220V±10% (50/60Hz)	AC100-240V(50/60Hz)
Permissible relative moisture:	80%	80%	80%
Output power:	6W	10W	10W
Roll length:	230mm	Standard 236mm, customizable	Standard 236mm, customizable
Protective class:	IP21	IP21	IP21
Permissible ambient temperature:	5-50°C	5-50°C	5-50°C
Dimensions:	260×155×140mm	410×270×100mm	410×270×100mm
Net. Weight:	3Kg	4.5Kg	4.0kg

## Vortex Mixer

### >>> XH-B Vortex Mixer



XH-B

**Features:**

- Wide application range: Can be used for mixing samples in Test tubes, Centrifuge tubes, flasks etc.
- High performance & low noise AC motor to make rapid and thorough mixing.
- Specified designed operation panel, easy to clean and wear-resisting.
- Shaking speed can be adjusted automatically based on the pressure.



XH-C

### >>> XH-C Vortex Mixer

**Features:**

- Adapted to the mixing of finger tip blood sample. It can fit different types of centrifuge tubes and mix the sample thoroughly without damaging the blood cells.
- High performance & low noise AC motor to make rapid and thorough mixing.
- Continuous and jog model available, easy to operate.
- Reasonable design, compact structure and stable performance.

### >>> XH-D Vortex Mixer



XH-D

**Features:**

- Suitable for resuspending particles, vortexing cell suspensions or drug extractions, mixing tissue samples, ELISA, and RIA tests.
- Multiple plates available, can be used for various kinds of test tubes and small containers.
- High performance & low noise AC motor to make rapid and thorough mixing.
- Continuous and jog model available, easy to operate. Analog dial design makes it easy carry out stepless speed regulating.
- Reasonable design, compact structure and stable performance.

**XH-D Available adapters:**



Multi-well plates, for 1.5mL and 2mL Micro centrifuge tubes.



Silicon anti-slip plate, for test tubes or containers with bottom diameter less than 99mm.



Standard Silicon head: For test tubes or containers with bottom diameter less than 30mm .



Standard plastic head: For 10-50mL conical end centrifuge tubes and various kinds of test tubes.

**Technical Data:**

	XH-B	XH-C	XH-D
Operation method:	Rapid orbital motion	Rapid orbital motion	Rapid orbital motion
Eccentric diameter:	3.6mm	3mm / 4mm	4.4mm
Rating speed:	2600rpm	2800rpm	1000-2800rpm
Running mode:	Continuous	Continuous, Jog	Continuous, Jog
Working plate size:	Ø100mm	Ø55mm	Ø55mm
Input voltage (frequency):	AC 220V±10% (50/60Hz)	AC 220V±10% (50/60Hz)	AC 220V±10% (50/60Hz)
Permissible relative moisture:	80%	80%	80%
Output power:	12W	30W	30W
Protective class:	IP21	IP21	IP21
Permissible ambient temperature:	5-50°C	5-50°C	5-50°C
Dimensions:	100×130×135mm	Ø110×150mm	180×120×180mm
Net. Weight:	2.3Kg	2.5Kg	4.5Kg



## Vortex Mixer

### >>> XH-E / XH-F Vortex Mixer

#### Features:

- Suitable for resuspending particles, vortexing cell suspensions or drug extractions, mixing tissue samples, ELISA, and RIA tests.
- Seven optional adapters, suitable for various centrifuge tubes, ranging from 0.2mL to 50mL, and other containers such as test tubes and flasks.
- Precisely adjustable speed, powerful yet stable.
- Rational design, stable performance, flexible and easy operation.

#### XH-E Optional adapters:



Rubber non-slip mat, suitable for test tubes or containers with a diameter less than 99mm



Silicone standard head, suitable for test tubes and small containers with a diameter less than 30mm



4-well adapter, suitable for 50mL centrifuge tube



8-well adapter, suitable for 5mL, 10mL, 15mL centrifuge tubes



24-well adapter, suitable for 1.5mL and 2mL centrifuge tubes



37-well adapter, suitable for 0.5mL centrifuge tube



88-well adapter, suitable for 0.2mL centrifuge tube



XH-E

XH-F

### >>> XH-S / XH-SA Vortex Mixer

#### Features:

- For small amount of sample mix;
- Touch operation;
- Fixed speed: 3000rpm;
- Small and beautiful;
- DC brushless motor, stable performance.



XH-S

XH-SA

#### Technical Data:

	XH-E	XH-F	XH-S	XH-SA
Operation method:	Rapid orbital motion	Rapid orbital motion	Rapid orbital motion	Rapid orbital motion
Eccentric diameter:	4.4mm	4mm	4.5mm	4.5mm
Rating speed:	0-2800rpm	200-3000rpm	3000rpm	0-3000rpm
Running mode:	Continuous, Jog	Timing, Continuous, Jog	Jog	Continuous, Jog
Working plate size:			For small containers with diameter < 30 mm	For small containers with diameter < 30 mm
Input voltage(frequency):	AC 220V±10% (50/60Hz)	AC 100-240V (50/60Hz)	AC100-240V (50/60Hz)	AC100-240V (50/60Hz)
Permissible relative moisture:	80%	80%	80%	80%
Output power:	60W	40W	5W	5W
Protective class:	IP21	IP21	IP43	IP43
Permissible ambient temperature:	5-50°C	5-50°C	5-50°C	5-50°C
Dimensions:	130×160×155mm	130×160×155mm	Ø100×90mm	Ø100×90mm
Net. Weight:	2.5Kg	2.5Kg	0.6kg	0.6kg

# Centrifuge

## >>> KJLC-I Centrifuge

### Brief Introduction:

⊙ KJLC-I Centrifuge with brushless DC motor and microcomputer. It has LCD display, standard equipped rotor, time setting function and features like stepless speed change, etc. It's the ideal equipment applicable for clinic test, biochemistry, immunology, etc. which is mostly chosen by the in-stitution like medical health, food, environment, scientific research, teaching and biochemical test, etc.

### Features:

#### 1. Outstanding performance:

- ⊙ CPU precise controlling, high performance brushless DC motor, maintenance free.
- ⊙ Highly accurate speed control.
- ⊙ Timing begins after speed steady to guarantee a more precise centrifuge time.
- ⊙ Two kinds of acceleration curves, three kinds of deceleration curves, free match and combinations between acceleration and deceleration, makes the specimen separation better.

#### 2. Reliable safety:

- ⊙ Full 304 stainless steel made rotor chamber guarantees much more safety for the rotor running.
- ⊙ Closed centrifuge chamber can much reduce biological contamination risk.
- ⊙ Aluminum material rotor ensures long service life.
- ⊙ Four important safety functions: Lid interlock, monitor for lid open / close condition, over-speed protection, automatic internal diagnosis, which can highly protect operation staff and the centrifuge.

#### 3. User-friendly design:

- ⊙ Time and speed display simultaneously, convenient for monitoring the running condition of the centrifuge.
- ⊙ Three kinds of operating mode: 10s-99min59s timing, continuous run and short run.
- ⊙ G-force (RCF) and speed (RPM) switch displayed, convenient for reading.
- ⊙ 10 groups operating parameter memory makes the working efficiency highly improved.
- ⊙ Quiet running with noise lower than 65dB.



### Technical Data:

Rated speed:	300-4500rpm, increment: 10rpm / 100rpm (fast turning the SPEED dial)	Output power:	90W
Maximum RCF:	Rotor 1: 2558×g increment: 10×g / 100×g (fast turning the SPEED dial) Rotor 2: 2200×g increment: 10×g / 100×g (fast turning the SPEED dial)	Input power:	300W
Speed accuracy:	±20rpm	Input voltage (Frequency):	AC100-240V (50-60Hz)
Maximum capacity:	240mL	Noise level:	< 65dB
Running mode:	Timing / Continuous / Joy	ACC/DEC: Acceleration:	Fast(Accelerate to Max. speed < 23S) Slow(Accelerate to Max. speed < 66S)
Timing range:	10s-99min59s increment: 1S/1min(fast turning the SPEED dial)	Deceleration:	Fast(Decelerate to stop < 23S) Slow(Decelerate to stop < 66S) Normal (according to the specimen mass)
Rotor type:	12-bore angle rotor / 24-bore angle rotor	Dimension:	450×340×230mm
Safety function:	Lid interlock, monitor for lid open / close condition, over-speed protection, automatic internal diagnosis	Net weight:	10kg
Driving motor:	Brushless DC motor		

### Rotor:



24-bore angle rotor, Ø16×85 colour adapter



12-bore angle rotor, Ø17×105 adapter



48mm Rubber cushion



23mm Rubber cushion

Rotor NO.	Rotor Description	Tube Specifications	Tube Quantity	Tube Size (diameter×length)	Max. Speed	Max. RCF	Adapter Size (diameter×length)	Accessory (Rubber Cushion)
1	24-Bore Angle Rotor	8.5-10mL (Test tube)	24	Ø15×107 mm	4500rpm	2558 × g	Ø16×85mm	—
		4-7mL (Test tube)	24	Ø13×106 mm		2558 × g		—
		1.5-5mL (Test tube)	24	Ø13×82 mm		2264 × g		23mm
		4-7mL (Test tube)		Ø15×75 mm				
2	12-Bore Angle Rotor	8.5-10mL (Test tube)	12	Ø16×107 mm	4000rpm	1968 × g	Ø17×105mm	23mm
		4-7mL (Test tube)	12	Ø13×106 mm		1968 × g		23mm
		1.5-5mL (Test tube)	12	Ø13×82 mm		1681 × g		48mm
		15mL (Culture tube)	8	Ø17×120 mm		2200 × g		—

## Centrifuge

### >>> KJLC-II Mini Centrifuge

#### Features:

- High-performance DC motor, powerful engine, quiet when running, noise <math>\leq 52\text{dB}</math>.
- Closed-loop control technology, accurate speed control.
- Wide-voltage design to prevent interference to the running accuracy by mains fluctuation.
- Clear LED display to show time and speed.
- Speed and time adjustable for various lab experiments.
- Big volume design, max. capacity up to 8×2mL micro centrifuge tube or 16×0.2mL PCR tube.
- Rapid speed up and down. Less than 10s required to reach 10000rpm, and stop within 5s from 10000rpm.
- Easy rotor switching without any tools.
- Cover opening and closing supervision system ensures safe running.
- Five colors available for the safety cover.

### >>> KJLC-II-S1 Mini Centrifuge

#### Features:

- Ideal for microfiltration and quick spin-downs.
- Easy-to-use with dual start / stop function.
- 6000rpm fixed speed.
- Compatible with 2mLx8 and PCR8x2 rotors.
- Quiet running, noise level <math>\leq 52\text{dB}</math>.
- Rotor change without tools.
- Accelerates and brakes in seconds.



#### Rotor:



#### Technical Data:

	KJLC-II	KJLC-II-S1
Rated speed:	3000-10000rpm(1000rpm/step)	6000rpm
Maximum RCF:	5460×g	3280×g
Adapted tube:	1) 8×0.2mL / 8×0.5mL / 8×1.5mL / 8×2mL centrifuge tube 2) 2×0.1mL PCR-8 strip tube, 2×0.2mL PCR-8 strip tube	1) 8×0.2mL / 8×0.5mL / 8×1.5mL / 8×2mL centrifuge tube 2) 2×0.1mL PCR-8 strip tube, 2×0.2mL PCR-8 strip tube
Running mode:	Timing/Continuous	Continuous
Timing range:	1s-99min	-
Safety performance:	Lid opening/closing supervision	Lid opening/closing supervision
Motor:	DC motor	DC motor
Input power:	40W	20W
Output power:	16W	5W
Power supply:	Single-phase 100-240V (50-60Hz)	Single-phase 100-240V (50-60Hz)
Noise range:	<math>\leq 52\text{ dB}</math>	<math>\leq 52\text{ dB}</math>
Dimension:	195(L)×170(W)×135(H)	195(L)×170(W)×135(H)
Net weight:	0.8kg	0.6kg

# Colony Counter

## >>> J-2 & J-3 Colony Counter

### Features:

- Compact structure makes it less space occupation. Adapted for various applications.
- The LED light can be adjusted to make an ideal perspective for the operator.
- It will beeps while counting, which can avoid wrong counting.
- Unique Up-light source makes it convenient to count bacteria that is hard to observe.
- Specified designed counting pen to ensure no omit of the cells.
- Wide voltage design avoids the impact of unstable voltage on the equipment.

### Technical Data:

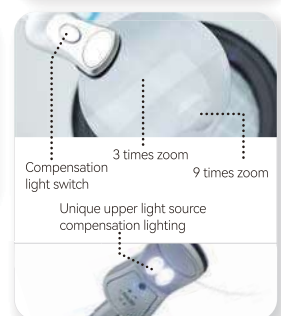
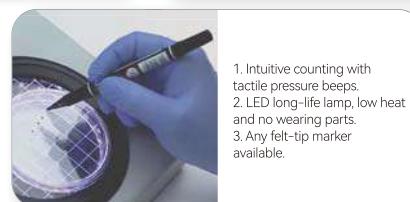
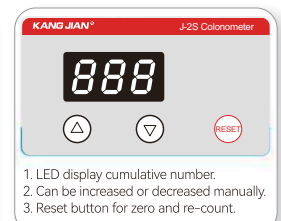
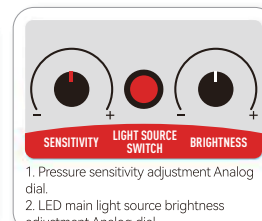
	J-2	J-3
Lighting:	White LED array	White LED array
Digital display:	3-digit LED display	3-digit / 4-digit LED display
Counting range:	0-999	0-999 or 0-9999
Compatible petri dish:	Ø50-90mm	Ø50-150mm
Input voltage(frequency):	AC 100-240V (50/60Hz)	AC 100-240V (50/60Hz)
Input power:	20W	40W
Magnification:	3-9 Times	3-9 Times
Protective class:	IP21	IP21
Permissible relative moisture:	80%	80%
Permissible ambient temperature:	5-50°C	5-50°C
Dimensions:	255×210×160mm	360×300×180mm
Net. Weight:	2.2Kg	4.0Kg



## >>> J-2S Colony Counter

### Features:

- J-2S is a high-tech colony counter, known for its user-friendly functions and excellent ergonomics. It can accurately count all the culture media (culture dishes, filters) used in microbiology.
- Place the petri dish on the pressure-sensitive glass surface, and you can use any felt-tip marker to press and count, and there will be a pleasant beep when counting, and the accumulated data will be displayed on the LED screen immediately. The touch sensitivity of the pressure sensor can be adjusted to adapt to different culture vessels and user habits. With the function of manually increasing or decreasing the counting button, the repeated counting or missing counting can be corrected during operation.
- The internal LED lighting system is glare-free and the luminosity is adjustable, which makes the colony form a sharp contrast view to adapt to the difficult-to-observe microorganisms in the culture container. The grid size is moderate, which is convenient for accurate counting by blocks.
- The large frameless magnifying glass (which can achieve magnification of 3 times or 9 times of observation and counting) and the unique upper light source compensation illumination make the microbial appear completely, and the counting operation to be much easier.


**J-2S**


### Technical Data:

Lighting	White LED array	Magnification	3 times / 9 times
Digital display	3-digit LED display	Protection class	IP21
Counting range	0-999	Allowable relative humidity	80%
Counting method	Pressure sensitive	Allowable ambient temperature	5-50°C
Applicable petri dish	Ø50-90mm	Dimensions	255×210×160mm
Input voltage (Frequency)	AC 100-240V (50-60Hz)	Loupe size	Ø90mm / Ø20mm
Input power	20W	Net weight	2.8Kg

## Timer & Hemocytometer

### >>> DSZ-II LCD Digital Timer

#### Features:

- ⊙ 15 groups timing at the same time, 12 pieces of melody for choice.
- ⊙ Any one second could be forecasted.
- ⊙ Display the date and time.
- ⊙ With features of memory protection after power failure.
- ⊙ High definition, high brightness VALCD display.

#### Technical Data:

Working Temperature:	-5°C→50°C
Relative Humidity:	<80%
Timing group:	15 groups
Timing range:	1s-100h
Time Accuracy:	Daily error <3s
Voltage:	AC 100-240V (50-60Hz)



DSZ-II

### >>> JSQA Hemocytometer

#### Features:

⊙ This instrument is a microcomputer-controlled counter that integrates counting, statistics, and display functions. It features ten groups of two-digit decimal counting systems, allowing for the simultaneous display of ten sets of data along with the total count. The counting is accurate and reliable, fulfilling the manual counting needs for routine blood tests in clinical laboratories. The device boasts an aesthetically pleasing design with a logical structure. Its data is clear and easy to read, and the instrument is user-friendly. It is particularly suitable for medium and small-sized hospitals for the clinical microscopic examination and classification counting of blood cells.

#### Technical Data:

Voltage:	AC 100-240V (50/60Hz)
Power rating:	5W
Maximum count category:	10 groups
Count capacity of every group:	0-99
External Dimension:	220×166×78 mm



JSQA

## Capper and Decapper

### >>> KJMC-I Decapper for Vacuum Blood Collection Tubes

#### Features:

- It would be simpler and more convenient by using the automatic machine to reduce medical staff's labor intensity and improve the work efficiency.
- Effectively avoid being infected by skin scratch when the staff open the cap of cracked glass tube by hand.
- Due to the negative pressure inside the tube, too much force during the cap opening will cause blood spatter. The machine successfully solves the danger of cross infection and avoid the trouble of frequent hand washing.
- Radically preclude the danger of potential biological contamination caused by residual aerosol inside the tube during manual operation.
- Technicians can expect a throughput of approximately 60 tubes per minute and free their time to tackle more productive activities.

#### Technical Data:

Voltage:	AC 220V±10% (50/60Hz)
Power rating:	45W
Speed:	60pcs/min
Carousel capacity:	24 tubes
Carousel sizes:	Ø13×75mm (Included), Ø13×100mm (Included) Ø16×100mm (Optional)
External dimension:	420×250×200mm



KJMC-I

#### Optional Carousels:



For Ø16×100mm vacuum tube



For Ø13×100mm vacuum tube



For Ø13×75mm vacuum tube

### >>> KJMC-II Automatic Capping and Decapping Machine

#### Features:

- The KJMC-II automatic capping and decapping machine adopts a stepper motor servo control system, capable of precisely controlling the torque and angle of rotation. Specifically designed for sampling tube capping and decapping, it is suitable for use in hospitals, disease control centers, customs, and other environments. The machine effectively reduces the risk of cross-infection among laboratory personnel, alleviates workload, and improves testing efficiency.
- Efficient and quick:** Automatically senses the presence of tubes, allowing for one-handed operation and completing the capping and decapping action in 3 seconds.
- User-friendly design:** Freely switch between automatic and manual control modes, with three selectable operating modes to accommodate various work habits and environments.
- Safety and stability:** Utilizes a 24V DC input and advanced servo control design to eliminate electric leakage or unintended shutdown caused by liquid leakage.
- Quiet and portable:** Compact dimensions of 250×140×370mm make it suitable for various types of applications.
- Wide Applicability:** Multiple clamp heads available, compatible with screw-capped tubes ranging from 12mm to 35mm in diameter.

#### Technical Data:

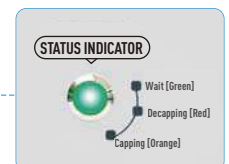
Input Voltage:	AC100-240V (50/60Hz)
Operating Mode:	①Continuous decapping ②Continuous capping ③Decapping and capping
Operation mode:	Automatic or Manual
Decapping speed:	≤ 2 seconds/pc
Capping speed:	≤ 2 seconds/pc
Applicable Tube Diameter:	Ø12-35mm
Dimensions:	250×140×370 mm
Net weight:	6.5kg



KJMC-II



Three types of action design, capable of continuous execution: decapping, capping, or both decapping and capping.



The machine's operational states are indicated by tri-color LEDs, offering operators clear and immediate insight.



Compatible with various cap diameters and can be upgraded with different chucks as needed, suitable for a wide range of applications.



In manual mode, the device employs a foot pedal for momentary switching between capping and decapping actions



In automatic mode, the system automatically senses and identifies tube placement for more smooth operation.

## Capper and Decapper

### >>> KJMC-V Automatic 96-channel Capper/Decapper

#### Overview & Features:

The KJMC-V automatic Capper/Decapper is designed for decapping and capping on full racks of SBS cryovials. It is applicable in areas such as biological research, new pharmaceuticals development, biobanking, assisted reproductive technology, conservation of flora and fauna, stem cell and regenerative medicine, and immunocellular therapy, particularly in environments where there is a substantial need for sample handling. The device incorporates advanced Internet of Things (IoT) principles, enabling connectivity with various types of automated production lines and providing remote maintenance services. It aims to offer an automated, standardized, controllable, user-friendly, and reliable operation, reducing the workload of staff, enhancing everyday work efficiency, and lowering the uncontrollable risks associated with fatigue and repetitive tasks. It is an ideal complementary product for all kinds of biological specimen banks and research institutions.

- ⦿ **Efficient and Fast:** The entire process of decapping and capping takes less than 20 seconds, minimizing the risk of sample exposure and enhancing work efficiency.
- ⦿ **Controllable Torque:** Uniform torque distribution settings are used, reducing the uncertainty associated with manual cap opening and closing.
- ⦿ **Modular Design:** This device is adaptable to various brands of cryotubes available in the market by replacing with customized screwdriver heads.
- ⦿ **Compact Size:** Suitable for multiple application scenarios.
- ⦿ **Easy Operation:** Equipped with a touchscreen for control and display of the working process, making the operation more intuitive and controllable.
- ⦿ **Real-Time Alarm Function:** Features data management and alarm systems to reduce sample damage due to human error.
- ⦿ **Integration Capability:** Can be integrated into automated systems based on specific application needs.



#### Technical Data:

#### KJMC-V

Compatible Tube:	SBS standard 96-well cryovials
Decapping Time:	<10s
Capping Time:	<10s
Decapping Torque:	9.5 N/cm
Capping Torque:	5.5 N/cm
Operation Mode:	Touch control input
Positioning Accuracy:	±0.05mm
Power Input:	200W
Input Voltage:	AC100-240V (50/60Hz)
Communication Interface:	RS232
Baud Rate:	115200
Parity:	8n1
Operating Temperature:	5-40°C
Permissible Relative Humidity:	80%
Enclosure Protection Rating:	IP30
Transportation and Storage Temperature:	5-50°C
Dimensions:	400×230×380mm
Net Weight:	18.5Kg
Alert Functions:	Error alerts, operation guidance, equipment status notifications

## Capper and Decapper

### >>> KJMC-III 6-Channel Electric Decapper KJMC-IV 8-Channel Electric Decapper

#### Features:

- A handheld multi-channel automatic capper provides a more lightweight and convenient way to batch open screw caps on tubes. The screwdriver heads follow the SBS layout, enabling the simultaneous opening/closing of 6/8 tube caps in a single row. The capper incorporates a torque-limiting structure to ensure complete sealing of the caps while avoiding damage to the sealing rings due to excessive torque. The flexible and efficient consumable storage solution meets your needs.
- Completes the opening or closing of 6/8 tube caps within 3 seconds, enhancing efficiency.
- Prevents laboratory personnel from coming into contact with samples or reagents when opening or closing caps, reducing safety hazards associated with biochemical reagents and biological samples.
- Currently the lightest product among all handheld cap openers, avoiding fatigue from prolonged use.
- Large-sized cap release button in the center, with separate buttons for cap rotation and cap removal.
- Powered by a high-capacity lithium battery with a USB charging interface.
- The 8-channel automatic decapper is suitable for both internally and externally threaded tubes.
- The 6-channel model is designated as KJMC-III for use with 48-well SBS tube boxes, while the 8-channel model is designated as KJMC-IV for use with 96-well SBS tube boxes.



Application scenarios



KJMC-III



KJMC-IV

#### Technical Data:

	KJMC-III	KJMC-IV
Number of Channels:	6 channels	8 channels
Decapping/Capping Speed:	4 seconds	4 seconds
Charging Time:	90 minutes	90 minutes
Permissible Ambient Temperature:	2-50°C	2-50°C
Permissible Relative Humidity:	80%	80%
Adapter Input Power:	AC 100-240V, 50/60Hz	AC 100-240V, 50/60Hz
Adapter Output Power:	DC 3V, 0.5A	DC 3V, 0.5A
Device Input Power:	10W	10W
Weight:	380g	380g

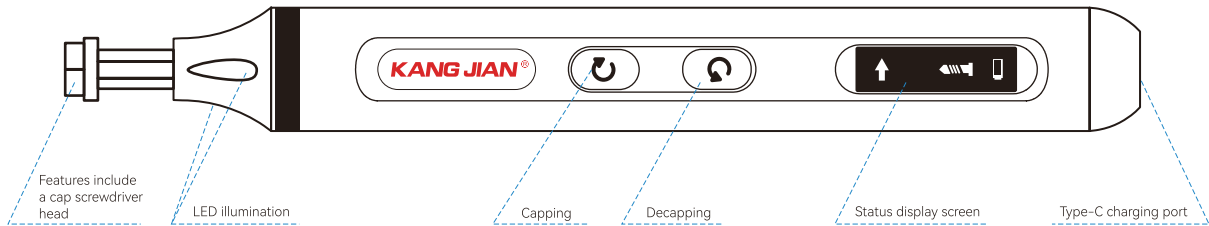


## Capper and Decapper

### >>> KJMC-VI Single Channel Electric Decapper

#### Overview:

This product is designed for use with **MINIPLAST** comprehensive range of SBS and 2D barcode cryovials, featuring a pen-style portable design for enhanced flexibility and convenience. It offers a customizable cap screwdriver head to accommodate various sample tubes. Suitable for a wide range of applications including biobanks, research institution labs, and inspection and quarantine facilities.



#### Features:

- **Efficient and safe:** Electric rotating cover, higher efficiency and safer pollution prevention compared to manual operation.
- **Humanized design:** Ergonomic design for long-lasting and comfortable use.
- **Wide application range:** Supporting the full range of frozen storage tubes for healthcare.
- **Safety and stability:** Unified torque to ensure the sealing performance of the cover and prevent damage to the frozen storage tube.
- **Simplicity and portability:** Simple operation, user-friendly dynamic display of power, operation actions, and rotation direction.

#### Application Scenarios:



#### Technical Data:

KJMC-VI	
Material:	Aluminum alloy
Screwdriver head material:	Cr12 (Nickelate)
Non-load speed:	170rpm
Actual torque:	3.5 N · M
Electric torque:	0.3 N · M
Battery specification:	350mAh Lithium battery
Rated voltage:	DC3.7V
Charging parameters:	5V 2A
Charging time:	60 minutes
Battery life:	Standby for 90 days / Continuous operation for 180 minutes
Size and weight:	Ø17×134.5mm, 52g

## Barcode Reader

### >>> KJSC-I Barcode Reader

#### Product Introduction:

- Broad applicability for centralized scanning and recognition of 2D barcodes on 48, 96, 196-well SBS and 100-well standard cryo boxes.
- High efficiency with full-box scan time within 2 seconds.
- Superior recognition capability, easily identifying blurred barcodes on tube bottoms.
- Elevated camera positioning reduces error rates in recognizing frosted cryo tubes..
- Compact design suitable for a variety of application scenarios.
- Fast data transfer with USB 3.0, minimizing delays.
- Expandable interfaces, with options to add side barcode scanners or cameras.
- Minimum operating temperature of -20 °C , thus ensuring reliable identification quality..
- User-friendly software for marking issues like missing, duplicate, or barcodes reading failure.
- SDK software package interface for easy integration with various system software.



#### Technical Data:

#### KJSC-I

Reading Rate:	< 2 seconds
Framing Mode:	Industrial camera
Resolution:	2592×1944
Applicable Specifications:	48/96/100/196-well cryobox
Interface Type:	USB 3.0
Data Storage Type:	Formats such as JPG, TXT, EXCEL, etc.
Supported QR code Types:	Data Matrix ECC200, GS1 Aztec Code, GS1 DataMatrix, GS1 QR Code, Micro QR Code, PDF417, QR Code, etc.
Dimensions:	232×185×187 mm
Weight:	6Kg

# Cell Thawing System

## >>> KJCT-I Dry Cell Thawing System

### Product Overview

The KJCT-I Dry Cell Thawing system provides automated, controllable, and standardized thawing treatment for cell samples in cryogenic tubes. Utilizing dry heat technology and multiple sensors to determine the revival endpoint, this device eliminates the uncertainties associated with non-controlled systems and manual operations. Integrated with dedicated control software, it can provide complete batch electronic records, making it suitable for fields such as biological research, new drug development, biobanks, assisted reproduction, conservation of animal and plant species, stem cell and regenerative medicine, and immunocyte therapy.

### Performance Features

- ◆ Dry revival effectively avoids cross-contamination associated with water bath revival.
- ◆ Automatic control of revival temperature and time, reducing variability from manual operations.
- ◆ Compact size, suitable for various application scenarios.
- ◆ Magnetic suction lid with a built-in disinfection function, making cleaning more convenient.
- ◆ TFT LCD dynamic display of the revival process, making the process more intuitive and controllable.
- ◆ Real-time alarm function, reducing cell viability impact due to human error through data control and alarms.
- ◆ Energy-efficient, with a working power of less than 40W per channel, and capable of selective control of each channel's working status based on experimental needs.
- ◆ Data export capability, allowing for electronic batch record formation.
- ◆ Can be integrated into automated cell culture equipment according to specific application requirements.

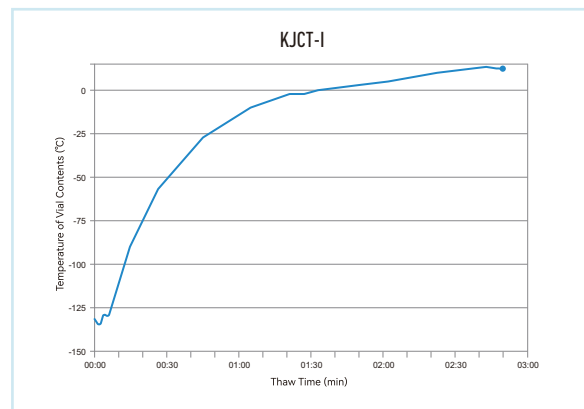
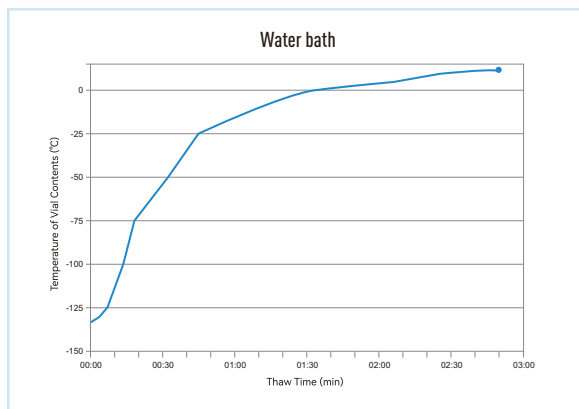


KJCT-I

### Basic Operation Process



### Thawing Effect Comparison



### Technical Parameters

Throughput	2 pc	End Temperature	15°C (Tube temperature)
Thawing Time	<3min	Input Power	200W
Thawing Temperature	<-70°C	Heating Method	PI Heating Film
Temperature Display Accuracy	0.1°C	Single Channel Heating Power	40W
Temperature Resolution	0.5°C	Input Voltage	AC100-240V(50/60Hz)
Allowable Start Temperature	0°C	Allowable Relative Humidity	80%
Applicable Tubes	2mL SBS Cryostorage tube	Enclosure Protection Rating	IP43
Time Display	TFT LCD	Allowable Ambient Temperature	5-50°C
Temperature Display	TFT LCD	Dimensions	205×200×151mm
Tube Temperature Detection Method	Thermopile (Thermal Infrared Sensor)	Net weight	2.9 Kg
Heating Module Detection Method	NTC Thermistor (PT1000)	Alert Function	Alerts for Preheating, Thawing, Incorrect Operation, Equipment Status