

# 1 Thermo Shaker Incubator Series

# **II** MS-3000 / MSC-3000 Thermo Shaker Incubator

MS-3000 / MSC-3000 is an upgrade of the existing thermo shaker incubator operation mode. Different from the common instrument parameter setting through membrane keys, MS-3000 / MSC-3000 uses 4.3-inch color LCD screen combined with the graphical operation interface to give users a better experience. Various program editing options, such as shaking start time, cycle steps, heating rate, etc., help to find the best experimental conditions.

Convenient block replacement method, only need to flip the block handle to quickly replace. In addition, thermo lid accessories with a magnetic port design can effectively improve the temperature uniformity in the test tube, avoid changes in the concentration of reagents in the test tube caused by liquid evaporation and condensation, and ensure the stability of the reaction conditions.



MSC-3000 / MS-3000



Toggle handle to replace block

## **Features**

#### Stable performance and long service life

- Microprocessor control, good temperature control linearity, accurate shaking speed, small fluctuation
- DC brushless motor drive, long service life, maintenance free
- Built-in over-temperature protection device, more reliable
  to use

## **Excellent performance, precise temperature control**

- Full power heating or other heating rate gears can be chosen to prevent the experiment from failing due to uneven temperature changes
- Optional thermo lid accessories can effectively improve the temperature uniformity in the test tube
- · Optional full power cooling and other cooling rate gears

### Multiple block choices, faster loading and unloading

- Various blocks are available, and can be customized
- New designed method of block loading and unloading, blocks can be replaced without tools

#### Open design, more comprehensive program settings

- Various heating methods can be chosen according to the experimental needs
- Shaking method can be set according to requirements, and both forward and reverse rotation can be set
- Program continuous operation function, multiple programs are connected to each other, no need to set repeatedly
- MSC-3000 low-temperature storage function, the program is completed, and the samples can be automatically stored in low-temperature

#### Smarter and easier to use

- 4.3-inch color LCD screen display, intuitive and easy to operate
- Power failure self-recovery function, the device can automatically resume operation according to the originally set procedure after power failure recovery
- Various standard sample blocks are available, and the blocks can be automatically identified

# **Optional Performance Component: ThermoLid**

When incubating test tubes, PCR plates, etc., condensation will form on the tube walls and caps. Allsheng new generation of temperature control and mixing instrument with ThermoLid technology that reliably prevents condensation inside the tube, allowing consistent sample concentrations over the incubation time.

Therefore, the ThermoLid facilitates further improvements in temperature uniformity, allowing the sample to obtain optimal reaction conditions that yield the best results.

## Thermo Lid



## **Installation and Wiring**



Magnet port, easy and fast installation; stable data transmission to ensure thermo lid performance

# **Height Adjustment**



Compatible with various specifications of centrifuge tubes; can be used for up to 5 mL centrifuge tubes

# **Specification**

## MSC-3000

### MS-3000

Temp. control range	0 °C~105 °C	RT. +5 °C~105 °C	
Time setting	99 h59 min/99 min59 s	99 h59 min/99 min59 s	
Temp. control accuracy @20 °C~50 °C	±0.5 °C	±0.5 °C	
Temp. uniformity @20 °C~50 °C	±0.5 °C	±0.5 °C	
Display accuracy	0.1 °C	0.1 °C	
Heating time 20 °C~100 °C	≤15 min	≤15 min	
100 °C~20 °C Cooling time 25 °C~4 °C [1] 20 °C~0 °C [2]	≤15 min ≤20 min ≤20 min		
Heating rate gear [3]	5 gears can be set	5 gears can be set	
Cooling rate gear [4]	4 gears can be set		
Speed [5]	100~3000 rpm	100~3000 rpm	
Mixing orbit	3 mm	3 mm	
Program number	50	50	
A single program can be divided into number	5	5	
Cycle number	99	99	
Block identification function	Yes	Yes	
Display	4.3 inch touch screen	4.3 inch touch screen	
Port	USB (program related); 4-pin plug (thermo lid related)	USB (program related); 4-pin plug (thermo lid related)	
ThermoLid	Yes (optional)	Yes (optional)	
Thermo lid Temp. range	RT+5 °C~110 °C	RT+5 °C~110 °C	
Maximum power	200 W	200 W	
Net weight (including blocks)	≤10 Kg	≤9 Kg	
Size (W×D×H) mm	2 <mark>20×318×154</mark>	220×318×154	

<sup>[1]</sup> Indicates detection at ambient temperature ≤ 25 °C

<sup>[3] 5</sup> gears including: MAX, 3 °C/min, 2 °C/min, 1 °C/min, 0.1 °C/min

<sup>[5]</sup> The maximum speed varies according to the block used

<sup>[2]</sup> Indicates detection at ambient temperature  $\leq$  20 °C

<sup>[4] 4</sup> gears including: MAX, 1 °C/min, 0.5 °C/min, 0.1 °C/min

## MS-3000 / MSC-3000 Suitable Block: MateB Series

According to different needs, Allsheng has designed their own modules for consumables such as 0.2 mL to 50 mL centrifuge tubes, MTP, DWP, 96 / 384 PCR plates and so on.

All modules are equipped with a convenient replacement mechanism, making module replacement quick and easy. No tools required, just press the handle on the rear of the module to remove the module in seconds. In addition, the thermal insulation module considers the user's safety and effectively prevents burning fingers.



# **Ordering Information**

Code	Description
AS-02080-00	MSC-3000 thermo shaker incubator (heating and cooling type), 100~240 VAC, 200 W
AS-02090-00	MS-3000 thermo shaker incubator (heating type), 100~240 VAC, 200 W

Code	Туре	Description	Max. speed	Max. Temp.	Thermo lid available	
AS-02081-01	MateB 0.5 mL	24×0.5 mL tube	2000 rpm	105 °C	~	
AS-02081-02	MateB 1.5 mL	24×1.5 mL tube	2000 rpm	105 °C	~	
AS-02081-03	MateB 2.0 mL	24×2.0 mL tube	2000 rpm	105 °C	<b>✓</b>	
AS-02081-04	MateB 0.5 mL+1.5 mL	15×0.5 mL+20×1.5 mL tube	2000 rpm	105 °C	<b>✓</b>	
AS-02081-05	MateB 5.0 mL	8×5 mL tube	1000 rpm	105 °C	~	
AS-02081-06	MateB 12 mm	24×φ12 mm tube	2000 rpm	105 °C	-	
AS-02081-08	MateB Cryo	24×1.5 mL / 2.0 mL cryovial	2000 rpm	105 °C	-	
AS-02081-09	MateB 15 mL	8×15 mL tube	1000 rpm	105 °C	-	
AS-02081-10	MateB 50 mL	4×50 mL tube	1000 rpm	105 °C	-	
AS-02081-11	MateB Plate-1	96×0.2 mL microplate	3000 rpm	105 °C	<b>✓</b>	
AS-02081-12	MateB Plate-2	96×2 mL deepwell plate	1000 rpm	105 °C	-	
AS-02081-13	MateB PCR 96	96×0.2 mL PCR plate	2000 rpm	105 °C	~	
AS-02081-14	MateB PCR 384	384-well PCR plate	3000 rpm	105 °C	~	
AS-02081-15	MateB DWP 500	96/500 μL deepwell plate	1600 rpm	105 °C	~	
AS-02081-16	MateB DWP 1000	96/1,000 μL deepwell plate	1600 rpm	105 °C	~	
AS-02081-17	MateB L-Lid	L-Lid transparent lid (low) is suitable for MateB 0.5 mL, 1.5 mL, 2.0 mL, 5 mL, Plate-1, Plate-2, PCR96 and PCR384				
AS-02081-18	MateB H-Lid	H-Lid transparent lid (high) is suitable for MateB DWP 500/1000				
AS-02081-26	ThermoLid	Thermo lid				