

# MSC-3000 / MS-3000

## Thermo Shaker Incubator



### Product Introduction

MSC-3000 / MS-3000 is an upgrade of the existing thermo shaker incubator operation mode. Different from the common instrument parameter setting through membrane keys, MSC-3000 / MS-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.

### Features

#### ■ Stable Performance and Long Service Life

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

#### ■ Excellent Performance, Precise Temperature Control

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

#### ■ Multiple Block Choices, Faster Loading and Unloading

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

#### ■ Open Design, More Comprehensive Program Settings

1. Various heating methods can be chosen according to the experimental needs
2. Shaking method can be set according to requirements, and both forward and reverse rotation can be set
3. Program continuous operation function, multiple programs are connected to each other, no need to set repeatedly
4. 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

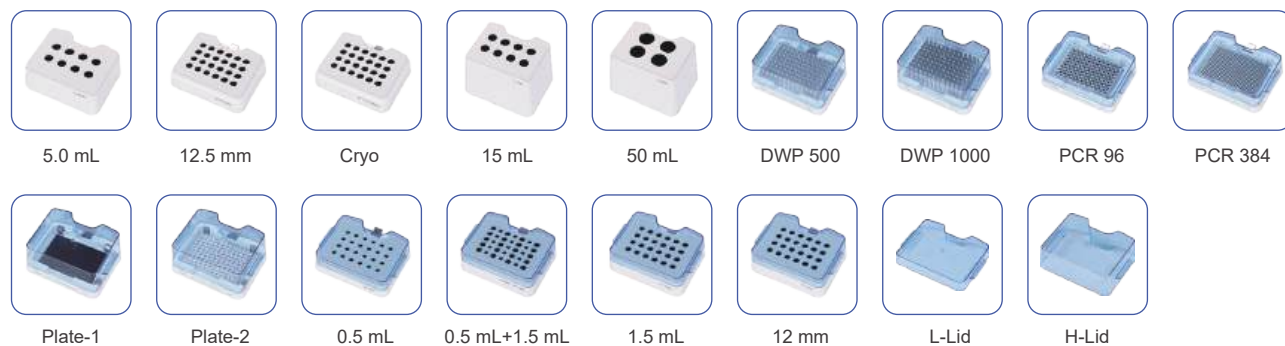
1. 4.3-inch color LCD screen display, intuitive and easy to operate
2. Power failure self-recovery function, the device can automatically resume operation according to the originally set procedure after power failure recovery
3. Various standard sample blocks are available, and the blocks can be automatically identified

## 01

### Suitable Block: MateB Series

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

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



## 02

### Optional Performance Component: ThermoLid

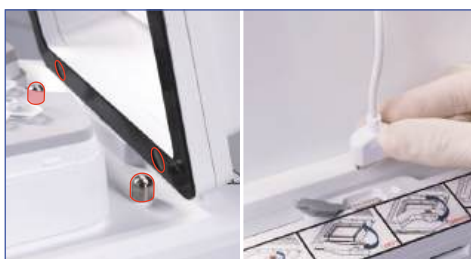
When incubating test tubes, PCR plates, etc., condensation will form on the tube walls and caps. Allsheng new generation of temperature control and mixing instrument with ThermoLid technology that reliably prevents condensation inside the tube, allowing consistent sample concentrations over the incubation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

#### Thermo Lid



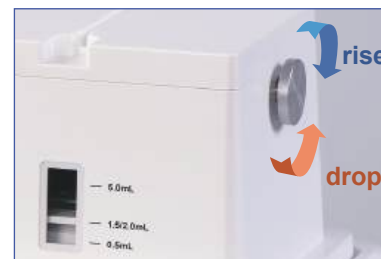
Effectively prevent reagent evaporation, improve the uniformity of concentrations

#### 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

1. ThermoLid has height-adjustable technology, which makes the thermal lid fit on the top of the sample tube and closely contact with the sample, providing more precise temperature control, enabling better heat transfer anywhere in the sample tube, and improving temperature uniformity for safe sample heating
2. Links with automatic identification and user-friendly operation
3. Obtain constant reaction conditions for best results
4. ThermoLid can be used with various blocks that load tubes below 5 mL, such as 0.5 mL, 1.5 mL, 5 mL and 96 PCR plates.

## Specification

Model	MSC-3000	MS-3000
Type	heating / cooling / mixing	heating / mixing
Temp. control range	0 °C ~ 105 °C	RT. +5 °C~105 °C
Time setting	99 h 59 min / 99 min 59 s	99 h 59 min / 99 min 59 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	≤ 15 min	----
Cooling time 25 °C ~ 4 °C [1]	≤ 20 min	----
20 °C ~ 0 °C [2]	≤ 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)
Thermo lid	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
Dimension (W×D×H) mm	220×318×154	220×318×154

[1] Indicates detection at AT. ≤ 25 °C

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

[2] Indicates detection at AT. ≤ 20 °C

[5] The maximum speed varies according to the block used

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

## Ordering Information

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

## Suitable Blocks

Code	Type	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	✓
AS-02081-04	MateB 0.5 mL+1.5 mL	15×0.5 mL+20×1.5 mL tube	2000 rpm	105 °C	✓
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	✓
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	-	-	-