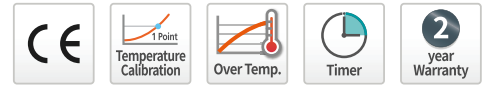


# Heating Block



## Precise feedback temperature control up to 130°C

### Structural Functional Features

- Optimal heat transfer is achieved by the tight coupling design of the main body.
- Transparent and durable polycarbonate lid protects the sample and provides improved temperature distribution.
- Compact design makes it easy to move and use space.
- Polypropylene (PP) material with excellent chemical resistance.
- Two extractors for easy removal block are provided as standard.
- Aluminum blocks with excellent thermal conductivity. (option)
- Two models with different cover heights are provided depending on the block (tube size) used.

### Use Convenience Features

- The temperature can be set accurately in units of 0.1°C.
- Feedback control enables precise temperature control.
- Calibration function minimizes temperature difference.
- Easy to operate with clear VFD display, touch keys and control knobs.
- Provides operating elapsed time check.
- Count-down timer provided. (up to 99 hours and 59 minutes)

### Outstanding Safety

- Structure with minimal inflow of reagent or sample.
- Convenient and safe operation by notifying the status of heating condition.
- Overheating temperature prevention function. (heating panel, control unit)
- Over-current prevention function.



**CHB-350S**  
with Exchangeable Block  
(option)

**CHB-350T**  
with Exchangeable Block 2ea  
(option)



with Extractor 2ea  
(standard)

## Specification

Model	CHB-350S	CHB-350T
<b>Temperature</b>		
Range (°C / °F)	Amb. +5 ~ 130 / Amb +41 ~ 266	Amb. +5 ~ 130 / Amb +41 ~ 266
Fluctuation at 80°C (±°C / ±°F)	0.1 / 0.18	0.1 / 0.18
Variation at 80°C (±°C / ±°F)	0.5 / 0.9	0.5 / 0.9
Display	Up to 130°C, 0.1°C resolution	Up to 130°C, 0.1°C resolution
Heat up time Ambient to 130°C (min)	15	15
Control	Feedback control	Feedback control
Timer	1min to 99hrs 59min	1min to 99hrs 59min
Safety device	Over temperature protection, Over current protection	
<b>Material</b>		
Body	PP, Powder coated steel	PP, Powder coated steel
Cover	PC	PC
Block	Black hard anodized Aluminum	Black hard anodized Aluminum
<b>Dimensions</b>		
Exterior (W x D x H, mm / inch)	249 x 330 x 125 / 9.8 x 12.99 x 4.92	249 x 330 x 250 / 9.8 x 12.99 x 9.84
Net weight (kg / lbs)	3.9 / 8.6	4.3 / 9.48
<b>Electrical Requirements (230V, 50/60Hz, A)</b>	3.5	3.5
<b>Cat. No.</b>	<b>AAHJ1015K</b>	<b>AAHJ1115K</b>
<b>Electrical Requirements (120V, 60Hz, A)</b>	6.7	6.7
<b>Cat. No.</b>	<b>AAHJ1013U</b>	<b>AAHJ1113U</b>

# Heating & Cooling Block



## Convenient use thanks to easy temperature control with 10 programs and 10 steps

### Structural Functional Features

- 10 Programs & 10 steps program control.
- Program can be set to 99 repetitions or unlimited repetitions.
- Optimal heat transfer is achieved by the tight coupling design of the main body.
- Transparent and durable polycarbonate lid protects the sample and provides improved temperature distribution.
- Compact design makes it easy to move and use space.
- Polypropylene (PP) material with excellent chemical resistance.
- Two extractors for easy removal block are provided as standard.
- Aluminum blocks with excellent thermal conductivity. (option)



**CCB-350**  
with Exchangeable Block (option)

### Use Convenience Features

- The temperature can be set accurately in units of 0.1°C.
- Feedback control enables precise temperature control.
- Calibration function minimizes temperature difference.
- Easy to operate with clear VFD display, touch keys and control knobs.
- Provides operating elapsed time check.
- Count-down timer provided. (up to 99 hours and 59 minutes)

### Outstanding Safety

- Structure with minimal inflow of reagent or sample.
- Convenient and safe operation by notifying the status of heating condition.
- Overheating temperature prevention function. (heating panel, control unit)
- Over-current prevention function.



## Specification

Model	CCB-350
<b>Temperature</b>	
Range (°C / °F)	Amb. -20 ~ 95 / Amb. -36 ~ 203
Fluctuation at 37°C (±°C / ±°F)	0.1 / 0.18
Variation at 37°C (±°C / ±°F)	0.5 / 0.9
Display	Up to 95°C, 0.1°C resolution
Control	Feedback control
Timer	1min to 99hrs 59min
Safety device	Over temperature protection, Over current protection
<b>Material</b>	
Body	PP, Powder coated steel
Cover	PC
Block	Black hard anodized Aluminum
<b>Dimensions</b>	
Exterior (W x D x H, mm / inch)	249 x 330 x 168 / 9.8 x 12.99 x 6.61
Net weight (kg / lbs)	5 / 11.02
<b>Electrical Requirements (220V, 50/60Hz, A)</b>	2
<b>Cat. No.</b>	<b>AAHJ5015K</b>
<b>Electrical Requirements (120V, 60Hz, A)</b>	4
<b>Cat. No.</b>	<b>AAHJ5013U</b>

# Heating Shaker



## Up to 100°C, 1500rpm, and program control

### Structural Functional Features

- Three specialized interval mix programs are provided. (45/55/65°C & 1,000rpm, 1 minute operation/stop)
- 10-step temperature and shaking control set.
- Program can be set to 99 repetitions or infinite repetitions.
- Optimal heat transfer is achieved by the tight coupling design of the main body.
- Compact design makes it easy to move and use space.
- Polypropylene (PP) material with excellent chemical resistance.
- Improved durability with integrated shaking module. (registration KR 10-1429256)
- Aluminum block with excellent thermal conductivity and block cover (option) made of polypropylene.



**CBS-350**  
with Block (option)

### Use Convenience Features

- The temperature can be set accurately in units of 0.1°C.
- Feedback control enables precise temperature control.
- Calibration function minimizes temperature difference.
- Protecting the sample by starting with soft shaking.
- Easy to operate with clear VFD display, touch keys and control knobs.
- Provides operating elapsed time check.
- Count-down timer provided. (up to 99 hours and 59 minutes)

### Outstanding Safety

- Structure with minimal inflow of reagent or sample.
- Convenient and safe operation by notifying the status of heating condition.
- Overheating temperature prevention function. (heating panel, control unit)
- Over-current prevention function.

## Specification

Model		CBS-350
<b>Temperature</b>		
Range (°C / °F)		Amb. +5 ~ 100 / Amb. +41 ~ 212
Fluctuation at 80°C (±°C / ±°F)		0.3 / 32.54
Variation at 80°C (±°C / ±°F)		0.7 / 33.26
Display		Up to 100°C, 0.1°C resolution
Control		Feedback control
<b>Shaking System</b>		
Motion type		Orbital
<b>Speed range (rpm)</b>	96-well tube block	150 to 1500
	0.5 ml tube block	150 to 1000
	1.5 ml/2.0 ml tube block	150 to 1000
	15 ml tube block	150 to 900
	Ø12 tube block	150 to 850
	Ø13 tube block	150 to 850
50 ml tube block		150 to 800
Amplitude, Orbital size (mm, dia.)		2
<b>Timer</b>		1min to 99hr 59min
<b>Safety device</b>		Over temperature protection, Over current protection
<b>Material</b>		
Body		PP, Powder coated steel
Cover		PP
Block		Black hard anodized Aluminum
<b>Dimensions</b>		
Exterior (W x D x H, mm / inch)		249 x 325 x 120 / 9.8 x 12.79 x 4.72
Net weight (kg / lbs)		8.25 / 18.19
<b>Electrical Requirements (230V, 50/60Hz, A)</b>		1.7
<b>Cat. No.</b>		<b>AAHJ4015K</b>
<b>Electrical Requirements (120V, 60Hz, A)</b>		3.4
<b>Cat. No.</b>		<b>AAHJ4013U</b>

Accessories **Page 165** Heating Block

# Accessories

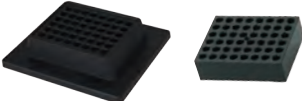
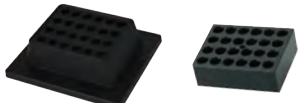
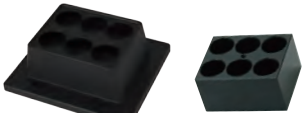

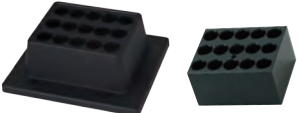
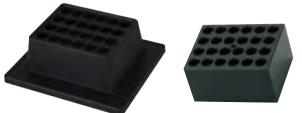
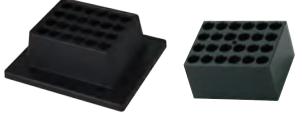
## Accessories for Heating Block, Heating & Cooling Block

Image	Model	Description	Max. Mountable Tube	Dimensions (W x D x H, mm / inch)	Mountable Capacity of Blocks		
					CHB-350S	CHB-350T	CCB-350
	00CHB0000028	1.5 / 2.0 ml Tube block (micro-tube)	48	153 x 98 x 41 / 6.02 x 3.86 x 1.61	1	1	-
	00CHB0000045	1.5 / 2.0 ml Tube block (micro-tube)	30	98 x 76.5 x 41 / 3.86 x 3.01 x 1.61	2	2	1
	00CHB0000029	0.5 ml Tube block (micro-tube)	48	98 x 76.5 x 41 / 3.86 x 3.01 x 1.61	2	2	1
	00CHB0000030	0.2 ml Tube block (micro tube / strips / 96-well plate)	96	153 x 98 x 41 / 6.02 x 3.86 x 1.61	1	1	-
	00CHB0000031	15 ml Tube block (conical tube)	15	98 x 76.5 x 51 / 3.86 x 3.01 x 2.01	2*	2	1*
	00CHB0000032	50 ml Tube block (conical tube)	6	98 x 76.5 x 51 / 3.86 x 3.01 x 2.01	2*	2	1*
	00CHB0000033	50 ml Tube block (conical tube)	6	98 x 76.5 x 87 / 3.86 x 3.01 x 3.42	2*	2	1*
	00CHB0000034	Φ10 mm Tube block	35	98 x 76.5 x 51 / 3.86 x 3.01 x 2.01	2*	2	1*
	00CHB0000035	Φ12 mm Tube block	24	98 x 76.5 x 51 / 3.86 x 3.01 x 2.01	2*	2	1*
	00CHB0000036	Φ13 mm Tube block	24	98 x 76.5 x 51 / 3.86 x 3.01 x 2.01	2*	2	1*
	00CHB0000037	Φ15 mm Tube block	20	98 x 76.5 x 51 / 3.86 x 3.01 x 2.01	2*	2	1*
	00CHB0000038	Φ16 mm Tube block	16	98 x 76.5 x 51 / 3.86 x 3.01 x 2.01	2*	2	1*
	00CHB0000039	Φ18 mm Tube block	12	98 x 76.5 x 51 / 3.86 x 3.01 x 2.01	2*	2	1*
	00CHB0000040	Φ20 mm Tube block	12	98 x 76.5 x 51 / 3.86 x 3.01 x 2.01	2*	2	1*

※ It can be equipped when the lid is opened.



## Accessories for Heating Shaker

Image	Model	Description	Max. Mountable Tube	Dimensions (W x D x H, mm / inch)	Mountable Capacity of Blocks	
					CBS-350	
	AAAJ4501	0.5 ml Tube block with block cover	48	98 x 76.5 x 30 / 3.86 x 3.01 x 1.18	1	
	AAAJ4502	1.5 / 2.0 ml Tube block with block cover	24	98 x 76.5 x 41 / 3.86 x 3.01 x 1.61	1	
	AAAJ4503	50 ml Tube block with block cover	6	98 x 76.5 x 51 / 3.86 x 3.01 x 2.01	1	
	AAAJ4504	0.2 ml Tube block with block cover	96	111 x 76.5 x 15 / 4.37 x 3.01 x 0.59	1	
	AAAJ4505	15 ml Tube block with block cover	15	98 x 76.5 x 51 / 3.86 x 3.01 x 2.01	1	
	AAAJ4506	Φ12 mm Tube block with block cover	24	98 x 76.5 x 51 / 3.86 x 3.01 x 2.01	1	
	AAAJ4507	Φ13 mm Tube block with block cover	24	98 x 76.5 x 87 / 3.86 x 3.01 x 3.42	1	

※ Both block cover for AAAJ4506 and AAAJ4507 is the same specification.