

Dry Bath

- Designed for Multi-functional Dry Block Heater
- User Self-Compensation Function to Control Difference between Real Temperature and Indicated Temperature ($\pm 10.0^{\circ}\text{C}$)
- Various kind of Blocks are offered (Optional)
- Over Temperature & Over Current Protection and Sensor Error Detection
- Patented Jog-Shuttle Control System and Digital LCD with Back-Light Function
- PL(Product Liability) Insurance

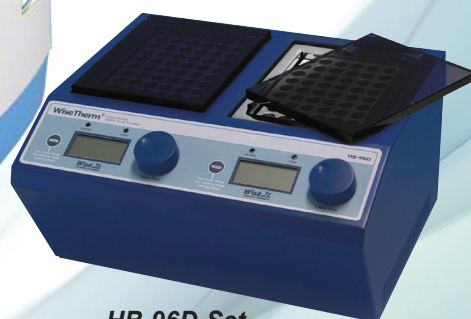
- **High-performance Dry Bath-Heating**..... P. 57~58
- **High-performance Dry Bath-Heating & Cooling**..... P. 59~60

❖ Dry Bath - Heating & Cooling

❖ Dry Bath - Heating



HB-48-Set



HB-96D-Set
-Dual type



HB-R48-Set

witeg® High-performance Dry Bath, Heating, “HB”, up to 150°C, ±0.1°C, with Certi. & Traceability with Digital Fuzzy Control, Touch-button Controller, Modular Blocks Acrylic Lid, Anodized Aluminium Block

- with Certificate & Traceability :
 - Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Designed for Multi-functional Dry Block Heater
- Patented Jog-Dial Control System and digital LCD with Back-light
- Jog-Dial and Main Touch Button - Best Durability, Best Mobility, Best Convenient to Operate (HB-48 model)
- High-performance Molding Heater ensures Best Temperature Accuracy.
- Internal Bath Materials (PPS) ensures complete Insulation (HB-48 model)
- CE Certified ■ PL(Product Liability) Insurance

- * Ideal for Enzyme Reactions, Inactivation of Sera, Incubation and Other Laboratory Procedures
- * Precise Temperature Control : ±0.1°C at 37°C, ±0.2°C at 90°C, ±0.4°C at 135°C
- * User Self-Compensation Function to Control Difference between Real Temperature and Indicated Temperature (±10.0°C)
- * Over Temperature & Over Current Protection and Sensor Error Detection
- * Digital Timer Included : up to 99hr 59min (Operation Time + Delay Time)
- * Storage Function of Temperature and Timer setting values
- * Alarm Function : Error Status and Timer-end
- * Various kind of Blocks are offered (Optional), * Modular Block
- * Locking Mode Supported for Experimental Safety (Input to Jog-Shuttle can be Disabled)
- * The Block Extraction Tongs and Included for Easy Handling



(a) Single Control System, Dry Bath, Heating Package-Set “HB-48-Set” with Block “BLC548” for 1.5/2ml Centrifuge Tube x 48 holes

Specification

Models	Single Control System	Dual Control System
	“HB-48-Set”	“HB-96D-Set”
Controller	Single Digital Fuzzy Controller	Dual Digital Fuzzy Controller
Capacity (1.5/2ml Tube)	48 Holes x 1.5/2ml Tube	96 Holes x 1.5/2ml Tube
Heater	300W(Molding Heater)	
Dimension	Block (mm)	(90 x 120 x h60) x 2ea
	Unit (mm)	285 x 250 x h155
Temp. Range, & Accuracy	Ambient +5°C to 150°C, ±0.1°C at 37°C, ±0.2°C at 90°C, ±0.4°C at 135°C	
Heat-Up Speed & Sensor	Approx. 5°C/min, PT100	
Safety Circuit	Over Temp. and Over Current Protector, Sensor Error Detector	
Timer with Alarm	99hr 59min, Alarm (Error Status and Timer -end)	
Display	Digital LCD with Back-Light Function	
Material	Internal & External	Stainless Steel (#304), and Powder Coated Steel
	Block	Anodized Aluminum
Included Standard Acce.	Block “BLC548” for 1.5/2ml Tubes, and Block Tong “BLE101”	
Packing Size	400 x 270 x h200 mm	
Gross Weight	4 kg	6 kg
Power Consumption	300 W	600 W
Power plug type	Hybrid E+F	
Power Supply*	AC 230V, 1N~, 50/60Hz	

* Other Specifications are available upon Customer’s Request.

Ordering Information

(a) Single Control System, available 1 Block

- DH.WHB00349 Dry Bath, Heating, 230V, “HB-48-Set”
- DH.WHB00348 , “HB-48 Unit”

(b) Dual Control System, available 2 Blocks

- DH.WHB00199 Dry Bath, Heating, 230V, “HB-96D-Set”
- DH.WHB00198 , “HB-96D Unit”



Patented Jog-Dial Control System with Touch Button



(b) Dual Control System, Dry Bath, Heating Package-Set “HB-96D-Set” with 2 x Block “BLC548” for 1.5/2ml Centrifuge Tube x 48 holes

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(a) Single Control System, Dry Bath, Heating Package-Set
"HB-48-Set" with Block "BLC548"
for 1.5/2ml Centrifuge Tube x 48 holes

Optional Interchangeable Blocks

DH.WHB510596	(1) Block, "BLC596", for 0.2ml PCR Tube, 96 holes
DH.WHB510570	(2) Block, "BLC570", for 0.5ml Centrifuge Tube x 63 holes
DH.WHB511548	(3) , "BLC548", for 1.5/2ml Centrifuge Tube x 48 holes
DH.WHB521248	(4) Block, "BLT248", for Ø12mm Test Tube, 48 holes
DH.WHB521335	(5) , "BLT335", for Ø13mm Test Tube, 30 holes
DH.WHB521535	(6) , "BLT535", for Ø15mm Test Tube, 30 holes
DH.WHB521628	(7) , "BLT628", for Ø16.5mm Test Tube, 24 holes
DH.WHB521828	(8) , "BLT828", for Ø18mm Test Tube, 24 holes
DH.WHB531515	(9) Block, "BLC515", for 15ml Conical Tube, 15 holes
DH.WHB535008	(10) , "BLC008", for 50ml Conical Tube, 8 holes

DH.WHB500101 Spare Block Extraction Tong, "BLE101"



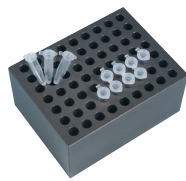
Validation (IQ, OQ) Service

DH.WHB30148 Validation Service(IQ, OQ), "DBV148", for "HB-48"
DH.WHB30198 , "DBV198", for "HB-96D"

The Details of 10 Optional Blocks



(1) "BLC596"
0.2ml PCR Tube x 96 holes



(2) "BLC570"
0.5ml Centrifuge Tube x 63 holes



(3) "BLC548"
1.5/2ml Centrifuge Tube x 48 holes
Included in the Package-Set



(4) "BLT248"
Ø12mm Tube x 48 holes



(5) "BLT335"
Ø13mm Tube x 30 holes



(6) "BLT535"
Ø15mm Tube x 30 holes



(7) "BLT628"
Ø16.5mm Tube x 24 holes



(8) "BLT828"
Ø18mm Tube x 24 holes



(9) "BLC515"
15ml Conical Tube x 15 holes



(10) "BLC008"
50ml Conical Tube x 8 holes

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witeg® High-performance Dry Bath–Heating & Cooling, “HB-R”, -5°C~95°C, ±0.15°C with Digital PID Control, Acrylic Lid, Precise Temperature Control, Modular Blocks, Anodized Aluminum Block

- **with Certificate & Traceability :**
Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- **Designed for Multi-Function :** Enzyme Reactions, Inactivation of Sera, Incubation and Other Laboratory Procedures.
- **Patented Jog-Shuttle Control System** and Digital LCD with Back-Light Function
- **CE Certified** ■ **PL(Product Liability) Insurance**
- * User Self-Compensation Function to Control Difference between Real Temperature and Indicated Temperature
- * Storage Function of Temperature and Timer setting values
- * Locking Mode Supported for Experimental Safety (Input to Jog-Shuttle can be Disabled)

Specification

Model	Heat/Cool Package-Set “HB-R48-Set”
Capacity (1.5/2ml Tube)	48 holes x 1.5/2ml Centri. Tubes
Dimension : Unit & Block	185 x 230 x h220mm, and 90 x 120 x h60mm
Cooling	Two Peltier Modules
Cool-Down Speed	2.3°C/min. between 95°C to 25°C, 0.5°C/min. between 25°C to -5°C
Heater and Sensor	300W (Molding Heater), PT100
Temp. Range, & Accuracy	-5°C to 95°C, and ±0.1°C at 37°C, ±0.2°C at 90°C
Heat-Up Speed	Approx. 5°C/min
Safety Device	Over Temp. and Over Current Protector, Sensor Error Detector
Timer with Alarm	99hr 59min, Alarm (Error Status and Timer - end)
Display	Digital LCD with Back-Light Function
Controller	Digital PID Controller
Material	Internal & External
	Block
Included Standard Acce.	Block BLC548 for 1.5/2ml Tubes, and Block Tong BLE101
Packing Size, Gross Weight	350 x 220 x h310mm, 9 kg
Power Consumption	450 W
Power plug type	Hybrid E+F
Power Supply*	AC 230V, 1N~, 50/60Hz

* Other Specifications are available upon Customer's Request.

Ordering Information

Dry Bath-Heating & Cooling Package-Set, with 1.5/2ml Block

DH.WHB00249 Dry Bath, Heat/ Cool, “HB-R48-Set”, 230V, with 1.5/2ml Block

Dry Bath-Heating & Cooling Unit Only, without Block

DH.WHB00248 Dry Bath, Heat/ Cool, “HB-R48-Unit”, 230V, without Block

Optional Interchangeable Blocks

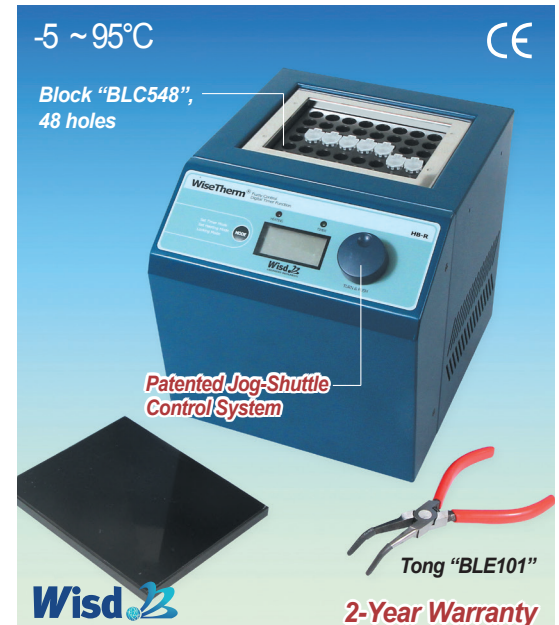
- DH.WHB510596** (1) Block, “BLC596”, for 0.2ml PCR Tube, 96 holes
DH.WHB510570 (2) Block, “BLC570”, for 0.5ml Centrifuge Tube x 63 holes
DH.WHB511548 (3) , “BLC548”, for 1.5/2ml Centrifuge Tube x 48 holes
DH.WHB521248 (4) Block, “BLT248”, for Ø12mm Test Tube, 48 holes
DH.WHB521335 (5) , “BLT335”, for Ø13mm Test Tube, 30 holes
DH.WHB521535 (6) , “BLT535”, for Ø15mm Test Tube, 30 holes
DH.WHB521628 (7) , “BLT628”, for Ø16.5mm Test Tube, 24 holes
DH.WHB521828 (8) , “BLT828”, for Ø18mm Test Tube, 24 holes
DH.WHB531515 (9) Block, “BLC515”, for 15ml Conical Tube, 15 holes
DH.WHB535008 (10) , “BLC008”, for 50ml Conical Tube, 8 holes

DH.WHB500101 Spare Block Extraction Tong, “BLE101”



Validation (IQ, OQ) Service

DH.WHB30248 Validation Service(IQ, OQ), “DBVR248”, for “HB-R48”



Heat/Cool Package-Set “HB-R48-Set” with Block “BLC548” for 1.5/2ml Centrifuge Tube x 48 holes

Included Block in the Package-Set



(3) “BLC548”
1.5/2ml Centrifuge Tube x 48 holes

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The Details of 10 Optional Blocks



(1) "BLC596"
0.2ml PCR Tube x 96 holes



(2) "BLC570"
0.5ml Centrifuge Tube x 63 holes



(3) "BLC548"
1.5/2ml Centrifuge Tube x 48 holes
Included in the Package-Set



(4) "BLT248"
Ø12mm Tube x 48 holes



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Ø16.5mm Tube x 24 holes



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Ø18mm Tube x 24 holes



(9) "BLC515"
15ml Conical Tube x 15 holes



(10) "BLC008"
50ml Conical Tube x 8 holes