



- Exceptional temperature uniformity and stability
- Optional external temperature probe
- Holds interchangeable modular blocks

Designed for applications that require repeatable results and superior temperature stability. These multi-purpose units are ideal for incubation and activation of cultures, enzyme reactions, immunoassays, melting/boiling points, and a wide variety of other laboratory procedures. Integral support rod holder with locking knob accepts optional External Temperature Probe Kit. Optional External Temperature Probe Kit monitors actual block or sample temperature. Each of the five models accepts separate interchangeable modular blocks, accommodating various tube sizes from 0.2mL micro-tubes to 50mL centrifuge tubes. Each block has a thermometer well for measuring block temperature. Efficient heating due to close tube-and-block contact for maximum heat retention. Heaters require Talboys modular heating blocks for operation. Modular blocks are sold separately (see pages 75–77).

Operating Features:

Microprocessor Control: PID temperature control, with optional external RTD probe, offers a temperature stability as low as $\pm 0.1^\circ\text{C}$ with a temperature uniformity as low as $\pm 0.1^\circ\text{C}$. Samples are heated to temperature quickly and accurately. Temperature is adjusted in $\pm 0.1^\circ\text{C}$ increments.

LED Display: Touch pad controls with easy-to-read, independent LED displays for temperature, and time. Provides repeatable and accurate results every time and is easily visible across lab benches. Shows set-point and actual temperature. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

Audible Alarm: In timed mode, alarm will sound when time reaches zero and when unit reaches set-point temperature.

Temperature Calibration Mode: Allows user to calibrate unit to an external temperature device.

Safety Features:

Caution Hot Indicator: Hot warning symbol light is illuminated when the temperature is above 40°C .

Overshoot Protection: If the unit exceeds the set temperature by 10°C the unit will automatically stop heating.

CAUTION! To avoid possible electrical hazard, do not fill well or block opening with water or other fluids. Unit is designed as a dry bath/incubator.

Operating Conditions:

Units can be run in conditions from 18 to 33°C (64 to 91°F), 20% to 80% relative humidity, non-condensing.

Applications:

Denaturing proteins, DNA applications, ELISA and other immunoassay studies.



Ordering Information:

Units include a 92" (234cm) detachable, 3-wire cord and plug (230 volt units are supplied with Euro type plug). Modular blocks are sold separately (see pages 75–77). **5 year limited warranty on parts and labor.**

Optional NIST Traceable Calibration Certificate provided by Troemner's ISO/IEC 17025 accredited laboratory. Multiple data points within the temperature range and time function are reported on the certificate with the associated uncertainties.

Size	Temperature Range	Temperature Stability @ 37°C	Uniformity Within the Block @ 37°C	Uniformity Across Similar Blocks @ 37°C	Heat-Up Time to 100°C
1 block	Ambient $+5^\circ\text{C}$ to 120°C	120 volt units: $\pm 0.1^\circ\text{C}$	120 volt units: $\pm 0.1^\circ\text{C}$	N/A	45 minutes
2 block				$\pm 0.1^\circ\text{C}$	50 minutes
3 block		230 volt units: $\pm 0.2^\circ\text{C}$	230 volt units: $\pm 0.2^\circ\text{C}$	$\pm 0.15^\circ\text{C}$	55 minutes
4 block				$\pm 0.2^\circ\text{C}$	60 minutes
6 block				$\pm 0.3^\circ\text{C}$	65 minutes

Advanced Dry Block Heaters

Advanced Dry Block Heaters				
Block Capacity	Dimensions (L x W x H)	Electrical (50/60 Hz)	Ship Weight	Part Number
1	12.4 x 8 x 3.5" (31.5 x 20.3 x 8.9cm)	120V 0.9 amps 110 watts	5.8lbs (2.6kg)	949500
1	12.4 x 8 x 3.5" (31.5 x 20.3 x 8.9cm)	230V 0.5 amps 110 watts	5.8lbs (2.6kg)	949501
2	15.4 x 8 x 3.5" (39.1 x 20.3 x 8.9cm)	120V 1.7 amps 210 watts	6.4lbs (2.9kg)	949502
2	15.4 x 8 x 3.5" (39.1 x 20.3 x 8.9cm)	230V 0.9 amps 210 watts	6.4lbs (2.9kg)	949503
3	18.4 x 8 x 3.5" (46.7 x 20.3 x 8.9cm)	120V 1.7 amps 210 watts	8.0lbs (3.6kg)	949504
3	18.4 x 8 x 3.5" (46.7 x 20.3 x 8.9cm)	230V 0.9 amps 210 watts	8.0lbs (3.6kg)	949505
4	16.9 x 8 x 3.5" (42.9 x 20.3 x 8.9cm)	120V 2.6 amps 310 watts	8.5lbs (3.9kg)	949506
4	16.9 x 8 x 3.5" (42.9 x 20.3 x 8.9cm)	230V 1.3 amps 310 watts	8.5lbs (3.9kg)	949507
6	20.9 x 8 x 3.5" (53.1 x 20.3 x 8.9cm)	120V 3.4 amps 410 watts	10.0lbs (4.5kg)	949508
6	20.9 x 8 x 3.5" (53.1 x 20.3 x 8.9cm)	230V 1.7 amps 410 watts	10.0lbs (4.5kg)	949509

Advanced Dry Block Heaters with NIST Traceable Certificate				
Block Capacity	Dimensions (L x W x H)	Electrical (50/60 Hz)	Ship Weight	Part Number
1	12.4 x 8 x 3.5" (31.5 x 20.3 x 8.9cm)	120V 0.9 amps 110 watts	5.8lbs (2.6kg)	949700
1	12.4 x 8 x 3.5" (31.5 x 20.3 x 8.9cm)	230V 0.5 amps 110 watts	5.8lbs (2.6kg)	949701
2	15.4 x 8 x 3.5" (39.1 x 20.3 x 8.9cm)	120V 1.7 amps 210 watts	6.4lbs (2.9kg)	949702
2	15.4 x 8 x 3.5" (39.1 x 20.3 x 8.9cm)	230V 0.9 amps 210 watts	6.4lbs (2.9kg)	949703
3	18.4 x 8 x 3.5" (46.7 x 20.3 x 8.9cm)	120V 1.7 amps 210 watts	8.0lbs (3.6kg)	949704
3	18.4 x 8 x 3.5" (46.7 x 20.3 x 8.9cm)	230V 0.9 amps 210 watts	8.0lbs (3.6kg)	949705
4	16.9 x 8 x 3.5" (42.9 x 20.3 x 8.9cm)	120V 2.6 amps 310 watts	8.5lbs (3.9kg)	949706
4	16.9 x 8 x 3.5" (42.9 x 20.3 x 8.9cm)	230V 1.3 amps 310 watts	8.5lbs (3.9kg)	949707
6	20.9 x 8 x 3.5" (53.1 x 20.3 x 8.9cm)	120V 3.4 amps 410 watts	10.0lbs (4.5kg)	949708
6	20.9 x 8 x 3.5" (53.1 x 20.3 x 8.9cm)	230V 1.7 amps 410 watts	10.0lbs (4.5kg)	949709

External Temperature Probe Kit

Enables the unit to read actual block or sample temperature and display that temperature on the control panel. The optional External Temperature Probe Kit includes a stainless steel RTD PT100 probe, 18" (45.7cm) stainless steel support rod, thermometer/temperature probe extension clamp and hook connector. The PT100 RTD probe is designed to fit perfectly in to the thermometer well of each modular block.



Description	Part Number
Optional External Temperature Probe Kit	949520

Standard Dry Block Heaters

- Multi-purpose use
- Holds interchangeable modular blocks
- Analog controls

High wattage, constant-temperature Dry Block Heaters are economical, versatile and compact. These multi-purpose units are ideal for incubation and activation of cultures, enzyme reactions, immunoassays, melting/boiling points and a wide variety of other laboratory procedures. Each of the five models accept separate interchangeable modular blocks, accommodating various sample enclosures such as micro-tubes, centrifuge tubes, vials, microplates, and PCR strips or tubes. Each block has a thermometer well for measuring block temperature. Anodized aluminum modular blocks provide superior temperature stability and heat transfer. Heaters require Talboys modular heating blocks for operation. Modular blocks are sold separately (see pages 75–77).

Operating Features:

High wattage, constant-temperature Dry Block Heaters are economical, versatile and compact.

Microprocessor Control: PID temperature controller maintains precise temperature control. Samples are heated to temperature quickly and accurately.

Adjustment Knobs: Dual temperature control knobs with dial markings from 1 to 10 for low temperature and high temperature adjustments. Low range knob adjusts from ambient to 100°C and high range knob adjusts from 75°C to 150°C.

CAUTION! To avoid possible electrical hazard, do not fill well or block opening with water or other fluids. Unit is designed as a dry bath/incubator.

Operating Conditions:

Units can be run in conditions from 18 to 33°C (64 to 91°F), 20% to 80% relative humidity, non-condensing.

Applications:

Coagulation and RH Studies.

Ordering Information:

Units include a 92" (234cm) detachable, 3-wire cord and plug (230 volt units are supplied with Euro type plug). Modular blocks are sold separately (see pages 75–77). **5 year limited warranty on parts and labor.**



949512

Size	Temperature Range	Uniformity Within the Block @ 37°C	Temperature Stability @ 37°C	Uniformity Across Similar Blocks @ 37°C	Heat-Up Time to 100°C
1 block	Low Range: Ambient +5°C to 100°C High Range: 75°C to 150°C	120 volt units: ± 0.1°C 230volt units: ± 0.2°C	120 volt units: ± 1.0°C 230 volt units: ± 1.5°C	N/A	45 minutes
2 block			120 volt units: ± 1.5°C 230 volt units: ± 2.0°C	± 0.1°C	50 minutes
3 block			120 volt units: ± 2.0°C 230 volt units: ± 2.0°C	± 0.15°C	60 minutes
4 block			120 volt units: ± 2.0°C 230 volt units: ± 2.5°C	± 0.2°C	70 minutes
6 block			120 volt units: ± 2.0°C 230 volt units: ± 2.5°C	± 0.3°C	75 minutes

Standard Dry Block Heaters

Standard Dry Block Heaters				
Block Capacity	Dimensions (L x W x H)	Electrical (50/60 Hz)	Ship Weight	Part Number
1	12.4 x 8 x 3.5" (31.5 x 20.3 x 8.9cm)	120V 0.9 amps 110 watts	5.8lbs (2.6kg)	949510
1	12.4 x 8 x 3.5" (31.5 x 20.3 x 8.9cm)	230V 0.5 amps 110 watts	5.8lbs (2.6kg)	949511
2	15.4 x 8 x 3.5" (39.1 x 20.3 x 8.9cm)	120V 1.7 amps 210 watts	6.4lbs (2.9kg)	949512
2	15.4 x 8 x 3.5" (39.1 x 20.3 x 8.9cm)	230V 0.9 amps 210 watts	6.4lbs (2.9kg)	949513
3	18.4 x 8 x 3.5" (46.7 x 20.3 x 8.9cm)	120V 1.7 amps 210 watts	8.0lbs (3.6kg)	949514
3	18.4 x 8 x 3.5" (46.7 x 20.3 x 8.9cm)	230V 0.9 amps 210 watts	8.0lbs (3.6kg)	949515
4	16.9 x 8 x 3.5" (42.9 x 20.3 x 8.9cm)	120V 2.6 amps 310 watts	8.5lbs (3.9kg)	949516
4	16.9 x 8 x 3.5" (42.9 x 20.3 x 8.9cm)	230V 1.3 amps 310 watts	8.5lbs (3.9kg)	949517
6	20.9 x 8 x 3.5" (53.1 x 20.3 x 8.9cm)	120V 3.4 amps 410 watts	10.0lbs (4.5kg)	949518
6	20.9 x 8 x 3.5" (53.1 x 20.3 x 8.9cm)	230V 1.7 amps 410 watts	10.0lbs (4.5kg)	949519

Advanced Dry Block Heater with Heated Lid

- Exceptional uniformity, stability, and regulation of temperature
- Heated lid reduces condensation on sample lids
- Optional external temperature probe

Talboys Advanced Dry Block Heaters with Heated Lid are designed for applications that require repeatable results and superior temperature stability. These multi-purpose units are ideal for isothermal incubation, enzyme reactions, immunoassays, nucleic acid denaturation and a wide variety of other laboratory procedures. Integral support rod holder with locking knob accepts optional External Temperature Probe Kit. Optional External Temperature Probe Kit monitors actual block or sample temperature. Block heater accepts one microplate block or two separate interchangeable modular blocks, accommodating various tube sizes from 0.2mL micro-tubes to test tubes or vials up to 85mm in height. Each block has a thermometer well for measuring block temperature. Efficient heating due to close tube-and-block contact with a low density design for exceptional temperature uniformity. The heated lid helps to regulate the temperature and reduce the amount of condensation on sample lids. Heaters require Talboys modular heating blocks for operation. Modular blocks are sold separately (see pages 75–77).

Operating Features:

Microprocessor Control: PID temperature control, with optional external RTD probe, offers a temperature stability as low as $\pm 0.1^\circ\text{C}$ with a temperature uniformity as low as $\pm 0.1^\circ\text{C}$. Samples are heated to temperature quickly and accurately. Temperature is adjusted in $\pm 0.1^\circ\text{C}$ increments.

LED Display: Touch pad controls with easy-to-read, independent LED displays for temperature, and time. Provides repeatable and accurate results every time and is easily visible across lab benches. Shows set-point and actual temperature. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

Audible Alarm: In timed mode, alarm will sound when time reaches zero and when unit reaches set-point temperature.

Temperature Calibration Mode: Allows user to calibrate unit to an external temperature device.

Safety Features:

Caution Hot Indicator: Hot warning symbol light is illuminated when the temperature is above 40°C .

Overshoot Protection: If the unit exceeds the set temperature by 10°C the unit will automatically stop heating.

CAUTION! To avoid possible electrical hazard, do not fill well or block opening with water or other fluids. Unit is designed as a dry bath/incubator.



949502HL

Operating Conditions:

Units can be run in environments from 18 to 33°C (64 to 91°F), 20% to 80% relative humidity, non-condensing.

Applications:

Isothermal incubation, enzyme reactions, immunoassays and nucleic acid denaturation and a wide variety of other laboratory procedures.

Ordering Information:

Units include a 92" (234cm) detachable, 3-wire cord and plug (230 volt units are supplied with Euro type plug). For optional temperature probe kits see page 71. Modular blocks sold separately (see pages 75–77). **5 year limited warranty on parts and labor.**

Optional NIST Traceable Calibration Certificate provided by Troemner's ISO/IEC 17025 accredited laboratory. Multiple data points within the temperature range and time function are reported on the certificate with the associated uncertainties.

Size	Temperature Range	Temperature Stability @ 37°C	Uniformity Within the Block @ 37°C	Uniformity Across Similar Blocks @ 37°C	Heat-Up Time to 100°C
2 block	Ambient $+5^\circ\text{C}$ to 100°C	120 volt units: $\pm 0.1^\circ\text{C}$ 230 volt units: $\pm 0.2^\circ\text{C}$	120 volt units: $\pm 0.1^\circ\text{C}$ 230 volt units: $\pm 0.2^\circ\text{C}$	$\pm 0.1^\circ\text{C}$ $\pm 0.2^\circ\text{C}$	50 minutes

Advanced Dry Block Heaters					
Block Capacity	Dimensions (L x W x H)	Electrical (50/60 Hz)		Ship Weight	Part Number
2	15.4 x 8 x 7" (39.1 x 20.3 x 17.8cm)	120V	3.0 amps 400 watts	7lbs (3.2kg)	949502HL
2	15.4 x 8 x 7" (39.1 x 20.3 x 17.8cm)	230V	1.65 amps 400 watts	7lbs (3.2kg)	949503HL

Advanced Dry Block Heaters with NIST Traceable Certificate					
Block Capacity	Dimensions (L x W x H)	Electrical (50/60 Hz)		Ship Weight	Part Number
2	15.4 x 8 x 7" (39.1 x 20.3 x 17.8cm)	120V	3.0 amps 400 watts	7lbs (3.2kg)	949702HL
2	15.4 x 8 x 7" (39.1 x 20.3 x 17.8cm)	230V	1.65 amps 400 watts	7lbs (3.2kg)	949703HL

Modular Blocks & Accessories

Modular blocks are constructed from a solid anodized aluminum block. The close contact of tubes-to-block walls allow for maximum heat retention. Each block has a thermometer well for measuring block temperature. **CAUTION!** To avoid possible electrical hazard, do not fill well or block with water or other fluids. Units are designed as a dry bath/incubator.

Single block dimensions (L x W x H): 3.75 x 3 x 2" (9.5 x 7.6 x 5.1cm)

Double block dimensions (L x W x H): 6 x 3.75 x 2.25" (15.2 x 9.5 x 5.7cm)

Microcentrifuge Tube Blocks

Single block.

Brand/Sample Type	No. of Wells	Well Dia.	Well Depth	Part Number
0.5mL Tube	30	7.9mm	27.6mm	949108
1.5mL Tube	20	11.1mm	39.1mm	949110
1.5mL Eppendorf™ Tube	20	11.5mm	36.9mm	949113
2mL Eppendorf™ Tube	20	11.5mm	38.1mm	949151
2mL Corning™ Tube	20	10.9mm	38.1mm	949152



Titer Plate Block

Double block. Fits 2/4/6 block Dry Block Heaters. Ideal for 96-well or 384-well titer plates. Recessed well for better stability, flat surface good for flat and round bottom plates.

Sample Type	Well Depth	Part Number
Titer Plate	13.5mm	949115



Conical-Bottom Centrifuge Tube Blocks

Single block.

Sample Type	No. of Wells	Well Dia.	Well Depth	Part Number
15mL Tube	12	17.1mm	44.5mm	949131
50mL Tube	5	29.0mm	47.6mm	949127



Standard Test Tube Blocks

Single block.

Sample Type	No. of Wells	Well Dia.	Well Depth	Part Number
6mm Tube	30	8.3mm	48.4mm	949109
10mm Tube	24	10.7mm	48.4mm	949102
12/13mm Tube	20	13.9mm	48.4mm	949103
12/13mm Tube	16	13.9mm	48.4mm	949116
15/16mm Tube	12	17.5mm	48.4mm	949104
17/18mm Tube	12	19.1mm	48.4mm	949155
20mm Tube	8	21.0mm	48.4mm	949105
25mm Tube	6	26.2mm	48.4mm	949106
35mm Tube	4	35.0mm	47.6mm	949126



Combination Blocks

Single block. These blocks have been designed for variable sized samples.

Sample Type		No. of Wells	Well Dia.	Well Depth	Part Number
Test Tube Combination:	6mm	6	8.3mm	48.4mm	949107
	12/13mm	5	13.8mm	48.4mm	
	25mm	3	26.2mm	48.4mm	
Centrifuge Tube Combination:	1.5mL	4	11.1mm	39.1mm	949153
	15mL	3	17.1mm	44.5mm	
	50mL	2	29.0mm	47.6mm	
Micro-Tube Combination:	0.5mL	6	7.9mm	27.6mm	949154
	1.5mL	10	11.1mm	39.1mm	
	2mL	5	11.5mm	38.1mm	



Vial Blocks

Single block. Designed for sample/serum and scintillation vials.

Sample Type	No. of Wells	Well Dia.	Well Depth	Part Number
12mm Vial	20	12.7mm	30mm	949142
15mm Vial	20	15.8mm	35mm	949143
16mm Vial	15	16.4mm	45mm	949150
17mm Vial	12	17.8mm	45mm	949144
19mm Vial	12	19.7mm	45mm	949145
21mm Vial	9	21.7mm	45mm	949146
23mm Vial	8	23.8mm	45mm	949147
25mm Vial	8	25.8mm	45mm	949148
28mm Vial	6	28.8mm	45mm	949149



PCR - Plate, Tube, Strip Blocks

Single and double block. Tapered tube wells for 0.2mL tubes. Spaced for easy access and removal.

Sample Type	Block Size	No. of Wells	Well Dia.	Well Depth	Part Number
96-well PCR Plate	Double	96	6.4mm	15.5mm	949130
10 x 8 Tube Strips	Single	80	6.4mm	15.5mm	949128
Individual Tubes	Single	64	6.4mm	20.2mm	949129



Cuvette Block

Single block. Two parallel slots fit 6 cuvettes in each slot, side-by-side.

Sample Type	No. of Wells	Well Depth	Part Number
(12) 12.5mm Cuvettes	2	25.4mm	949112



Modular Blocks & Accessories

Solid Blocks

Single and double block. For use as a low-temperature hotplate, slide drying, or for custom drilling to make a custom block.

Block Size	Dimensions (L x W x H)	Part Number
Single	3.75 x 3 x 2" (9.5 x 7.6 x 5.1cm)	949111
Double	6 x 3.75 x 2.25" (15.2 x 9.5 x 5.7cm)	949117



Stainless Steel Sand Baths

Ideal for irregular vessels. Stainless steel construction for superior corrosion resistance. Designed to hold sand, stainless steel shot or non-volatile fluids.

For Unit	Dimensions (L x W x H)	Part Number
1 Block Dry Block Heater	3.8 x 3.0 x 2.5" (9.5 x 7.6 x 6.4cm)	949132
2 Block Dry Block Heater	3.8 x 5.9 x 2.5" (9.5 x 14.9 x 6.4cm)	949133
3 Block Dry Block Heater	3.8 x 8.8 x 2.5" (9.5 x 22.4 x 6.4cm)	949134
4 Block Dry Block Heater	5.8 x 7.5 x 2.5" (14.7 x 19.1 x 6.4cm)	949135
6 Block Dry Block Heater	5.8 x 11.3 x 2.5" (14.7 x 28.7 x 6.4cm)	949136

Accessories	Part Number
Sand, 1lb (0.45kg)	949137
Stainless Steel Shot, 1lb (0.45kg)	949138



Low Temperature Covers

Plexiglass cover reduces air flow for additional temperature stability in low-temperature applications. Two sides are open 0.25" (6.4mm).

Block Size	Dimensions (L x W x H)	Part Number
2 Block Cover	6.5 x 6.5 x 1.6" (16.5 x 16.5 x 4.1cm)	949139
4 Block Cover	8.5 x 8.5 x 1.6" (21.6 x 21.6 x 4.1cm)	949140
6 Block Cover	12.5 x 8.5 x 1.6" (31.8 x 21.6 x 4.1cm)	949141

