# 2019-2020 Catalogue









# **Dry Bath Incubator**



# Mini Heating Dry Bath Incubator

#### **MD-MINI**

The Mini Heating Dry Bath Incubator incorporates innovative ideas of compactness, performance and versatility. This palm-sized yet powerful device is designed to maximize benchtop space and enhance research productivity with ultra-precise temperature control. The interchangeable ability of heating blocks in various size permits accommodation of versatile tube sizes. Moreover, turn it into a water bath or bead bath with optional metallic thermal beads.



Clear block cover ensures temperature uniformity





MD-MINI-LID

MD-MINI-CAR-ADAPTER



#### **Features**

- Small size, fits in your palm
- User temperature calibration
- Single molded chamber, no cracks or welds
- PTFE coated chamber resists stains
- Can be used as a mini water bath or bead bath
- · Outstanding heating rate
- · Different sizes of heating block available for selection
- · Clear cover to ensure temperature uniformity
- Optional in-car power adaptor provides portability on the road



| Cat. No.                  | MD-MINI   |  |
|---------------------------|---|--|
| Display                   | LED   |  |
| Power                     | 50W   |  |
| Dimension (WxLxH)         | Approx. 6"x4.9"x3.8" (153x125x97mm)               |  |
| Controller                | Digital microprocess controller                   |  |
| Heating Chamber           | Molded waterproof aluminum alloy coated with PTFE |  |
| Temperature Control Range | 5°C above ambient to 100°C                        |  |
| Temperature Increment     | 0.1°C   |  |
| Temperature Uniformity    | ± 0.20°C at 37°C                                  |  |
| Temperature Accuracy      | ± 0.25°C at 37°C                                  |  |
| Temperature Calibration   | Yes   |  |
| Timer                     | 9999 (min) / Continuous                           |  |
| Safety                    | Leak proof heating chamber                        |  |
|                           | Over temperature protection                       |  |
| Operating Temperature     | Ambient to 40°C                                   |  |
| Special Feature           | Used as water bath or bead bath                   |  |
| Block Material            | Aluminum alloy                                    |  |
| Block Type                | Standard and customized type are available        |  |
| Rated Voltage             | 100V-240V~  |  |
| Weight                    | Approx. 1.3lb (0.6kg)                             |  |
| Blocks                    |   |  |
| Block Material            | Aluminum alloy                                    |  |
| Dimension (Mydydd)        | Approx. 1.9"x2.8"x1.3" (47x71x32mm) /             |  |
| Dimension (WxLxH)         | Approx. 1.9"x2.8"x3" (47x71x75mm)                 |  |
| Block Lifter Well         | Yes   |  |
| Thermometer Well          | Yes   |  |

#### **Ordering Information**

| at. No. I | Product Description                            |
|-----------|--|
| D-MINI I  | Mini Heating Dry Bath Incubator; without block |

| Product Description  |
|--|
| For 0.2ml tube (PCR strip tube), 32 wells, φ6.35mm, depth 19mm,            |
| (WxLxH) 47x71x32mm   |
| For 1.5ml tube, 12 wells, φ10.8mm, depth 28.5mm, (WxLxH) 47x71x32mm        |
| For 15ml tube, 6 wells, φ17.3mm, depth 70mm, (WxLxH) 47x71x75mm            |
| For 50ml tube, 2 wells, φ29.2mm, depth 72mm, (WxLxH) 47x71x75mm            |
| For 0.5ml tube, 12 wells, φ8.0mm, depth 25mm, (WxLxH) 47x71x32mm           |
| For 2.0ml or 1.5ml tube, 12 wells, φ11.0mm, depth 30mm, (WxLxH) 47x71x32mm |
| For 1.5ml tube, 12 wells, φ10.9mm, depth 30mm, (WxLxH) 47x71x32mm          |
| Block Lifter, 95mm length, with E-type retaining rings                     |
|  |
| MD-MINI lid, (WxLxH) 83x58.5x31.5mm  |
| Car adapter for MD-MINI and MC-0203, 1.5M                                  |
|  |

<sup>\*</sup> For a complete list of accessories, please refer to Page 68-71

# Mini Cooling Dry Bath Incubator

#### MC-0203

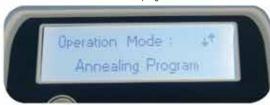
The product line Mini Cooling Dry Bath Incubator is the mini-series of our ultimate dry bath. It is designed to meet the requirement of accurate temperature control, ease of data transferring and programming, small foot print and ease of use. Experience the exceptional heating/cooling rate with quick start feature and the portability to work your sample on the road! Perfect instrument can be used in QC process such as in food industry.



Can be used as a bead bath



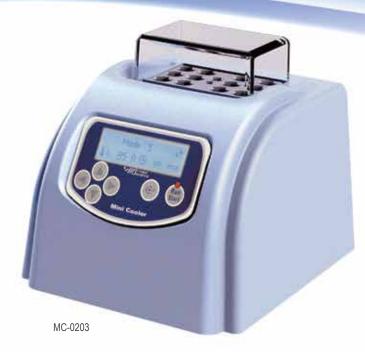
Quick start program



Annealing program

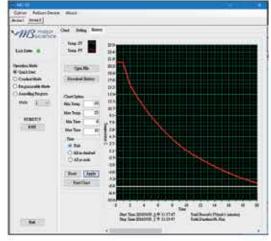
#### Features

- · Small size, fits in your palm
- · User temperature calibration
- Single molded chamber, no cracks or welds
- PTFE coated chamber resists stains
- Can be used as a mini water bath or bead bath
- · Outstanding heating and cooling rate
- Different sizes of aluminum alloy block available for selection
- · Clear cover to ensure temperature uniformity
- Quick start / Constant mode / programmable mode / Annealing program operation mode
- · Optional in car power adaptor provides portability on the road



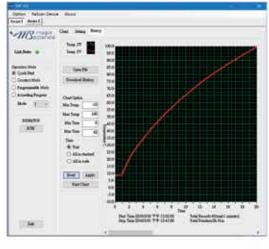
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#### Functional control software



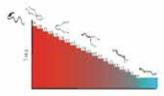
■ Temp. set value: -6°C
■ Initial temp. value: 20.6°C
Block type: MD-MINI-B02
Process time: Approx. 20mins

#### Functional control software for cooling and heating models



- Temp. set value: 100°C
- Initial temp. value: 9°C Block type: MD-MINI-B02 Process time: Approx. 20mins

| Cat. No.                  | MC-0203   |  |
|---------------------------|---|--|
| Display                   | LCD   |  |
|                           |   |  |
| Power                     | max. 60W  |  |
| Dimension (WxLxH)         | Approx. 5.3"x6"x7.3" (135x152x185mm) (excluding lid)      |  |
| Controller                | High performance 32 bits microprocessor                   |  |
| Heating /Cooling Chamber  | Molded waterproof aluminum alloy coated with PTFE         |  |
| Temperature Control Range | 30°C below ambient temperature (minimum -10°C) to 100°C   |  |
| Temperature Increment     | 0.1°C   |  |
| Temperature Uniformity    | ± 0.2°C at 37°C   |  |
| Temperature Accuracy      | ± 0.25°C at 37°C  |  |
| Temperature Calibration   | Yes   |  |
| Heating Rate              | Max. 5°C per min  |  |
| Cooling Rate              | Max. 4°C per min  |  |
| Timer                     | 9999 (min)  |  |
| Cooling/ Heating Parts    | Peltier / Heating element                                 |  |
| Operation Mode            | Constant operation: constant temperature (-10°C to 100°C) |  |
|                           | Program operation: 1-4 steps and up to 9 cycles           |  |
|                           | Annealing program   |  |
|                           | Quick start program: 4°C, 16°C, 37°C, 56°C, 95°C pre-set  |  |
| Safety                    | Leak proof heating chamber                                |  |
| Operating Temperature     | Ambient to 40°C   |  |
| Special Feature           | Can be used as water bath or bead bath incubator          |  |
| Block Material            | Aluminum alloy  |  |
| Block Type                | Standard and customized type are available                |  |
| PC Connection             | USB   |  |
| Weight                    | Approx. 2.9lb (1.3kg)                                     |  |



Annealing Program

| Initial Temp.    | 95.0 |
|------------------|------|
| Descending Temp. | 5.0  |
| Holding Time.    | 5    |
| Final Temp.      | 4.0  |
|                  |      |



As a water bath



MD-MINI-LID

# Ordering Information

| Cat. No. | Product Description  |
|----------|--|
| MC-0203  | Mini Cooling Dry Bath Incubator, programmable cooling and heating; without block |

| Cat. No.            | Product Description  |
|---------------------|--|
| MC-0200-SW          | Functional control software for Mini Cooling Incubator including a USB cable       |
|                     |  |
| MD-MINI-B01         | For 0.2ml tube (PCR strip tube), 32 wells, φ6.35mm, depth 19mm, (WxLxH) 47x71x32mm |
| MD-MINI-B02         | For 1.5ml tube, 12 wells,φ10.8mm, depth 28.5mm, (WxLxH) 47x71x32mm                 |
| MD-MINI-B03         | For 15ml tube, 6 wells, φ17.3mm, depth 70mm, (WxLxH) 47x71x75mm                    |
| MD-MINI-B04         | For 50ml tube, 2 wells, φ29.2mm, depth 72mm, (WxLxH) 47x71x75mm                    |
| MD-MINI-B05         | For 0.5ml tube, 12 wells, φ8.0mm, depth 25mm, (WxLxH) 47x71x32mm                   |
| MD-MINI-B06         | For 2.0ml or 1.5ml tube, 12 wells, φ11.0mm, depth 30mm, (WxLxH) 47x71x32mm         |
| MD-MINI-B07         | For 1.5ml tube, 12 wells, φ10.9mm, depth 30mm, (WxLxH) 47x71x32mm                  |
| MS-BL95-E           | Block Lifter, 95mm length, with E-type retaining rings                             |
|                     |  |
| MD-MINI-LID         | MD-MINI lid, (WxLxH) 83x58.5x31.5mm  |
| MD-MINI-CAR-ADAPTER | Car adapter for MD-MINI and MC-0203, 1.5M  |

<sup>\*</sup> For a complete list of accessories, please refer to Page 68-71



MD-MINI-CAR-ADAPTER



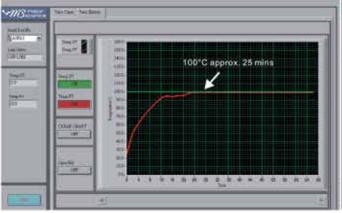
## **Genius Dry Bath Incubator**

#### **MD** series

The Genius Dry Bath Incubators come in either single or dual block models, along with a complete set of interchangeable blocks. It is designed for a variety of applications, including restriction digest, denaturing DNA melting agar, coagulation studies, hybridization and hot start thermo-cycled reaction. The microprocessor controller offers highly accurate temperature control, rapid heating and excellent stability. The temperature can be set in increments of 0.1°C from 5°C above ambient to 150°C. An optional temperature probe is available to place directly in samples. A timer can be set from 1- 999mins. The MD series can be used as a mini water bath or bead bath. Optional function control software allows the dry bath incubator to perform real-time data recording through a PC.

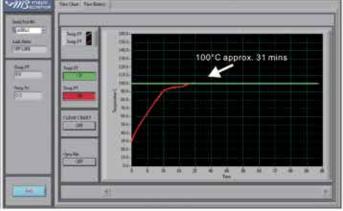


#### **MD-01N**



■ Temp. set value:100°C Initial temp. value:25°C Block model: MD-B1.5 Process time: Approx. 25mins

#### **MD-02N**



■ Temp. set value:100°C Initial temp. value:30°C Block model: MD-B1.5 Process time: Approx. 31mins

#### **Features**

- · Digital microprocessor offers precise performance control
- · Highly accurate temperature control and broad control range
- Rapid heating rate
- · Digital LED display & timer
- User temperature calibration
- · Molded aluminum alloy chamber
- · Function control software available



Can be used as a water bath



with beads



with water







MD-01N / MD-02N with MD-P01



MD-P01

| Cat. No.                  | MD-01N (Single Block)                            | MD-02N (Dual Block)        |  |
|---------------------------|--|----------------------------|--|
| Display                   | LED  |                            |  |
| Power                     | 125W 200W  |                            |  |
| Dimension (WxLxH)         | Approx. 7.9"x11.7"x3.2" (200x298x80mm)           |                            |  |
| Controller                | Digital microprocess controller                  |                            |  |
| Heating Chamber           | Molded Waterproof alumin                         | um alloy coated with PTFE  |  |
| Temperature Control Range | 5°C above am                                     | bient to 150°C             |  |
| Temperature Increment     | 0.1  | °C                         |  |
| Temperature Uniformity    | ±0.2°C at 37°C                                   |                            |  |
| Temperature Accuracy      | ±0.2°C at 37°C                                   |                            |  |
| Temperature Calibration   | Yes  |                            |  |
| Timer                     | 999 (min) / Continuous                           |                            |  |
|                           | Leak proof heating chamber                       |                            |  |
| Safety                    | Over temperature protection                      |                            |  |
|                           | SSR failure detection                            |                            |  |
| Operating Temperature     | Ambient to 40°C                                  |                            |  |
| Special Feature           | Can be used as water bath or bead bath incubator |                            |  |
| Block Material            | Aluminum alloy                                   |                            |  |
| Block Type                | Standard and customized types are available      |                            |  |
| PC Connection             | R\$232   |                            |  |
| Rated Voltage             | 110V / 220V~                                     |                            |  |
| Weight                    | Approx. 4.6lb (2.1kg) Approx. 6.2lb (2.8kg)      |                            |  |
| Blocks                    |  |                            |  |
| Block Material            | Aluminum alloy                                   |                            |  |
| Dimension (WxLxH)         | Approx. 3.1"x4.1"x2" (79x1)                      | 04x50mm) for standard type |  |
| Block Lifter Well         | Y  | es                         |  |
| Thermometer Well          | Yes (except microplate blocks)                   |                            |  |

## Ordering Information

| Cat. No.       | Product Description  |
|----------------|--|
| MD-01N-110/220 | Genius Dry Bath Incubator (One block unit); without block  |
| MD-02N-110/220 | Genius Dry Bath Incubator (Dual block unit); without block |

| Cat. No.    | Product Description   |
|-------------|---|
| MD-P01      | Thermocouple  |
| MD-RS232    | RS 232 cable  |
| MD-PCSW     | Data record and function control software package   |
| MD-PCSW-R   | Data record and function control software package, including a RS232 cable                                |
| MD-MP01-S   | For microplate; titerplate (Plain Block for Single Block unit only)                                       |
| MD-MP01-D   | For microplate; titerplate (Dual Block unit only)   |
| MD-MP02-S   | For 96 wells deep microplate or PCR plate ( for Single Block unit only)                                   |
| MD-MP02-D   | For 96 wells deep microplate or PCR plate ( for Dual Block unit only)                                     |
| MD-B0.2     | For 0.2ml tube, 64 wells (or 0.2ml PCR strip tube for 8 wells x 8)  |
| MD-B0.5     | For 0.5ml tube, 20 wells  |
| MD-B1.5     | For 1.5ml tube, 20 wells  |
| MD-B0.5+1.5 | Combination: for 0.5ml tube, 12 wells; and for 1.5ml tube, 12 wells (on the same side)                    |
| MD-B0.5/1.5 | One side for 1.5 or 2.0ml tube, 20 wells and another side for 0.5ml tube, 30 wells (on the opposite side) |
| MD-B13      | Well size 13mm, 20 wells  |
| MD-B17      | For 15ml centrifuge tube, 12 wells  |
| MD-B20      | Well size 20mm, 12 wells  |
| MD-B25      | Well size 25mm, 6 wells   |
| MD-B29      | For 50ml centrifuge tube, 4 wells   |

<sup>\*</sup> For a complete list of accessories, please refer to Page 68-71

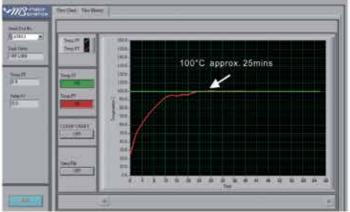
# Elite Dry Bath Incubator

#### **EL** series

The Elite Dry Bath Incubator comes in single or dual block modes along with a comprehensive set of interchangeable blocks. It is designed for a variety of applications, including restriction digest, denaturing DNA, BUN, melting agar, coagulation studies, hybridization and hot start thermo-cycled reaction. Elite Dry Bath is recognized as the finest, fastest heating and smallest foot print dry bath incubator. In addition, the aluminum blocks can be removed for the use of a mini water bath or a bead bath. The temperature setpoint can be set in increments of 0.1°C from 5°C above ambient to 150°C. Optional PC control software allows the dry bath incubator to perform real time data recording through a PC.

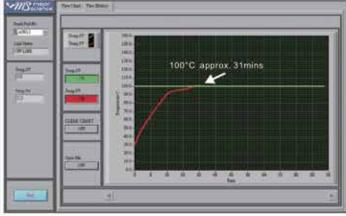


#### **EL-01**



- Temp. set value:100°C
   Initial temp. value:25°C
  Block model: MD-B1.5
  - Process time: Approx. 25mins

#### **EL-02**



- Temp. set value:100°C
- Initial temp. value:30°C Block model: MD-B1.5

Process time: Approx. 31mins

#### **Features**

- · Digital microprocessor controller confers performance and precise control
- · Broad temperature control range & guaranteed uniformity
- · Excellent heating rate
- · Large LCD screen for instant observation
- User temperature calibration
- Can be used as a water bath or bead bath
- · Molded aluminum alloy chamber
- Optional PC control software available



Can be used as a bead bath



with beads



with water



with block

| Cat. No.     EL-01 (Single Block)     EL-02 (Dual Block)       Display     LCD       Power     125W     200W       Dimension (WxLxH)     Approx. 6"x5.9"x5.3" (152x150x135mm)     Approx. 6"x9.1"x5.3" (152x230x135mm)       Controller     Digital microprocess controller       Heating Chamber     Molded Waterproof aluminum alloy coated with PTFE       Temperature Control Range     5°C above ambient to 150°C       Temperature Increment     0.1°C       Temperature Uniformity     ± 0.2°C at 37°C       Temperature Accuracy     ± 0.2°C at 37°C       Temperature Calibration     Yes       Timer     99 (hr): 59 (min) / Continuous       Leak proof heating chamber       Safety     Over temperature protection       SSR failure detection       Operating Temperature     Ambient to 40°C       Special Feature     Used as water bath or bead bath incubator       Block Material     Aluminum alloy       Block Type     Standard and customized type are available  |
|--|
| Power 125W 200W  Dimension (WxLxH) Approx. 6"x5.9"x5.3" (152x150x135mm) Approx. 6"x9.1"x5.3" (152x230x135mm)  Controller Digital microprocess controller  Heating Chamber Molded Waterproof aluminum alloy coated with PTFE  Temperature Control Range 5°C above ambient to 150°C  Temperature Increment 0.1°C  Temperature Uniformity ± 0.2°C at 37°C  Temperature Accuracy ± 0.2°C at 37°C  Temperature Calibration Yes  Timer 99 (hr): 59 (min) / Continuous  Leak proof heating chamber  Safety Over temperature protection  SSR failure detection  Operating Temperature  Molded Waterproof aluminum alloy  5°C above ambient to 150°C  Temperature Uniformity  ± 0.2°C at 37°C  Temperature Calibration Yes  Timer 99 (hr): 59 (min) / Continuous  Leak proof heating chamber  Over temperature protection  SSR failure detection  Operating Temperature Used as water bath or bead bath incubator  Block Material Aluminum alloy  |
| Dimension (WxLxH)  Approx. 6"x5.9"x5.3" (152x150x135mm)  Approx. 6"x9.1"x5.3" (152x230x135mm)  Controller  Heating Chamber  Molded Waterproof aluminum alloy coated with PTFE  Temperature Control Range  5°C above ambient to 150°C  Temperature Increment  0.1°C  Temperature Uniformity  ± 0.2°C at 37°C  Temperature Accuracy  Temperature Calibration  Yes  Timer  99 (hr): 59 (min) / Continuous  Leak proof heating chamber  Safety  Over temperature protection  SSR failure detection  Operating Temperature  Block Material  Aluminum alloy  |
| Controller  Digital microprocess controller  Heating Chamber  Molded Waterproof aluminum alloy coated with PTFE  Temperature Control Range  5°C above ambient to 150°C  Temperature Increment  0.1°C  Temperature Uniformity  ± 0.2°C at 37°C  Temperature Accuracy  1 ± 0.2°C at 37°C  Temperature Calibration  Yes  Timer  99 (hr): 59 (min) / Continuous  Leak proof heating chamber  Safety  Over temperature protection  SSR failure detection  Operating Temperature  Ambient to 40°C  Special Feature  Used as water bath or bead bath incubator  Block Material  |
| Heating Chamber  Temperature Control Range  Temperature Increment  Temperature Uniformity  Temperature Accuracy  Temperature Calibration  Timer  Safety  Molded Waterproof aluminum alloy coated with PTFE  5°C above ambient to 150°C  0.1°C  1.1°C  1.2°C at 37°C  1.2°C at 37°C |
| Temperature Control Range 5°C above ambient to 150°C  Temperature Increment 0.1°C  Temperature Uniformity ± 0.2°C at 37°C  Temperature Accuracy ± 0.2°C at 37°C  Temperature Calibration Yes  Timer 99 (hr): 59 (min) / Continuous  Leak proof heating chamber  Safety Over temperature protection  SSR failure detection  Operating Temperature Ambient to 40°C  Special Feature Used as water bath or bead bath incubator  Block Material Aluminum alloy   |
| Temperature Increment         0.1°C           Temperature Uniformity         ± 0.2°C at 37°C           Temperature Accuracy         ± 0.2°C at 37°C           Temperature Calibration         Yes           Timer         99 (hr): 59 (min) / Continuous           Leak proof heating chamber           Safety         Over temperature protection           SSR failure detection           Operating Temperature         Ambient to 40°C           Special Feature         Used as water bath or bead bath incubator           Block Material         Aluminum alloy   |
| Temperature Uniformity         ± 0.2°C at 37°C           Temperature Accuracy         ± 0.2°C at 37°C           Temperature Calibration         Yes           Timer         99 (hr): 59 (min) / Continuous           Leak proof heating chamber           Safety         Over temperature protection           SSR failure detection           Operating Temperature         Ambient to 40°C           Special Feature         Used as water bath or bead bath incubator           Block Material         Aluminum alloy   |
| Temperature Accuracy         ± 0.2°C at 37°C           Temperature Calibration         Yes           Timer         99 (hr): 59 (min) / Continuous           Leak proof heating chamber         Safety           Safety         Over temperature protection           SSR failure detection         SSR failure detection           Operating Temperature         Ambient to 40°C           Special Feature         Used as water bath or bead bath incubator           Block Material         Aluminum alloy   |
| Temperature Calibration  Timer  99 (hr): 59 (min) / Continuous  Leak proof heating chamber  Safety  Over temperature protection  SSR failure detection  Operating Temperature Ambient to 40°C  Special Feature Used as water bath or bead bath incubator  Block Material  Aluminum alloy   |
| Timer 99 (hr): 59 (min) / Continuous  Leak proof heating chamber  Safety Over temperature protection  SSR failure detection  Operating Temperature Ambient to 40°C  Special Feature Used as water bath or bead bath incubator  Block Material Aluminum alloy   |
| Leak proof heating chamber  Over temperature protection  SSR failure detection  Operating Temperature  Ambient to 40°C  Special Feature  Used as water bath or bead bath incubator  Block Material  Aluminum alloy   |
| Safety Over temperature protection SSR failure detection Operating Temperature Ambient to 40°C Special Feature Used as water bath or bead bath incubator Block Material Aluminum alloy   |
| SSR failure detection  Operating Temperature Ambient to 40°C  Special Feature Used as water bath or bead bath incubator  Block Material Aluminum alloy   |
| Operating Temperature     Ambient to 40°C       Special Feature     Used as water bath or bead bath incubator       Block Material     Aluminum alloy  |
| Special Feature Used as water bath or bead bath incubator Block Material Aluminum alloy  |
| Block Material Aluminum alloy  |
|  |
| Block Type Standard and customized type are available  |
| Standard and determined type and definition  |
| PC Connection RS232  |
| Rated Voltage 110V / 220V~   |
| Weight Approx. 4.6lb (2.1kg) Approx. 6.1lb (2.8kg)   |
| Blocks   |
| Block Material Aluminum alloy  |
| Dimension (WxLxH) Approx. 3.1"x4.1"x2" (79x104x50mm) for standard type   |
| Block Lifter Well Yes  |
| Thermometer Well Yes (except microplate blocks)  |

## Ordering Information

| Cat. No.      | Product Description   |
|---------------|---|
| EL-01-110/220 | Elite Dry Bath Incubator ( One block unit ); without block  |
| EL-02-110/220 | Elite Dry Bath Incubator ( Dual block unit ); without block |

| Cat. No.    | Product Description   |
|-------------|---|
| MD-RS232    | RS 232 cable  |
| MD-PCSW     | Function control software package   |
| MD-PCSW-R   | Function control software package; including a RS232 cable  |
|             |   |
| MD-MP01-S   | For microplate; titerplate (Plain Block for Single Block unit only)                                       |
| MD-MP01-D   | For microplate; titerplate (Dual Block unit only)   |
| MD-MP02-S   | For 96 wells deep microplate or PCR plate ( for Single Block unit only)                                   |
| MD-MP02-D   | For 96 wells deep microplate or PCR plate ( for Dual Block unit only)                                     |
| MD-B0.2     | For 0.2ml tube, 64 wells (or 0.2ml PCR strip tube for 8 wells x 8)  |
| MD-B0.5     | For 0.5ml tube, 20 wells  |
| MD-B1.5     | For 1.5ml tube, 20 wells  |
| MD-B0.5+1.5 | Combination: for 0.5ml tube, 12 wells; and for 1.5ml tube, 12 wells (on the same side)                    |
| MD-B0.5/1.5 | One side for 1.5 or 2.0ml tube, 20 wells and another side for 0.5ml tube, 30 wells (on the opposite side) |
| MD-B13      | Well size 13mm, 20 wells  |
| MD-B17      | For 15ml centrifuge tube, 12 wells  |
| MD-B20      | Well size 20mm, 12 wells  |
| MD-B25      | Well size 25mm, 6 wells   |
| MD-B29      | For 50ml centrifuge tube, 4 wells   |

<sup>\*</sup> For a complete list of accessories, please refer to Page 68-71

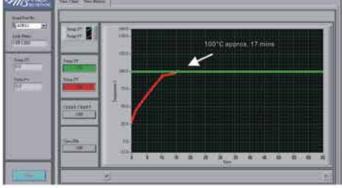
# Ultimate Dry Bath Incubator

#### **MC-01N**

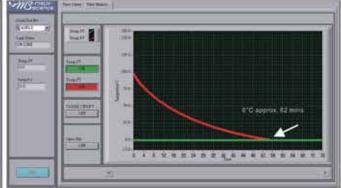
Ultimate Dry Bath Incubator is available with different heating and cooling profiles, along with a broad selection of interchangeable blocks. The model is designed for a variety of applications including ligation, restriction digest, denaturing DNA, BUN, melting agar, coagulation studies, hybridization and hot start thermo-cycled reaction. The built-in 2.6" LCD screen permit instant viewing and selection of operation modes: constant, programmable and annealing. The microprocessor controller offers performance, precise control as well as rapid heating and cooling efficiency with excellent stability. The temperature can be set in 0.1°C increments, from -10°C to 100°C. Optional PC control software is available for real time data logging.

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- Temp. set value:100°C ■ Initial temp. value:25°C
- Block model: MC-B0.2+0.5+1.5 Process time: Approx. 17mins

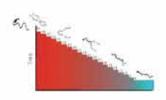


- Temp. set value:0°C
- Initial temp. value:100°C
  Block model: MC-B0.2+0.5+1.5

Process time: Approx. 62mins

#### Features

- Digital microprocessor offers performance and precise control
- Broad temperature control range & guaranteed uniformity
- Highly efficient heating & cooling rates
- · Large LCD screen for easy selection of operation modes and setting inputs
- User temperature calibration
- · Also a mini water bath and bead bath
- Optional PC recording software available



#### Annealing Program

| Initial Temp.    | 95. |
|------------------|-----|
| Descending Temp. | 5.0 |
| Holding Time.    | 5   |
| Final Temp.      | 4.0 |



with water



with beads



with block

| Cat. No.                  | MC-01N   |  |
|---------------------------|--|--|
| Chamber Dimension (WxLxH) | amber Dimension (WxLxH) Approx. 5.1"x3.5"x2" (130x90x50mm)                     |  |
| Display                   | 2.6" LCD   |  |
| Power 400W                |  |  |
| Dimension (WxLxH)         | Approx. 7.9"x11.6"x5.5" (200x295x140mm)  |  |
| Controller                | Digital microprocess controller  |  |
| Heating Chamber           | Molded Waterproof aluminum alloy coated with PTFE                              |  |
| Temperature Control Range | 30°C below ambient temperature ( minimum -10°C ) to 100°C                      |  |
| Temperature Increment     | 0.1°C  |  |
| Temperature Uniformity    | ± 0.2°C at 37°C  |  |
| Temperature Accuracy      | ± 0.2°C at 37°C  |  |
| Temperature Calibration   | Yes  |  |
|                           | Constant operation: constant temperature ( -10°C to 100°C ); Timer: 9999 (min) |  |
| Operation Mode            | Program operation: 1-4 steps and up to 9 cycles; timer: 9999 (min)             |  |
|                           | Annealing program  |  |
| Safety Device             | Leak proof heating chamber   |  |
| Operating Temperature     | Ambient to 40°C  |  |
| Special Feature           | Can be used as water bath or bead bath incubator                               |  |
| Block Material            | Aluminum alloy   |  |
| Block Type                | Standard and customized type are available                                     |  |
| PC Connection             | RS232  |  |
| Rated Voltage             | 110V / 220V~   |  |
| Weight                    | Approx. 17.6lb (8kg)   |  |
| Blocks                    | Ultimate MC Block  |  |
| Dimension (WxLxH)         | Approx. 3.5"x5.1"x1.8" (89x129x46mm)   |  |
| Block Material            | Aluminum alloy   |  |
| Block Lifter Well         | Yes  |  |
| Thermometer Well          | Yes ( except microplate blocks )   |  |

## Ordering Information

| Cat. No.       | Product Description                        |
|----------------|--|
| MC-01N-110/220 | Ultimate Dry Bath Incubator; without block |

| Cat. No.        | Product Description   |
|-----------------|---|
| MC-RS232        | RS 232 cable  |
| MC-PCSW         | Function control software package   |
| MC-PCSW-R       | Function control software package; including a RS232 cable  |
| MC-MP01         | For microplate; titerplate ( Plain Block )  |
| MC-MP02         | For 96 wells deep microplate or PCR plate   |
| MC-B0.5         | For 0.5ml, 30 wells   |
| MC-B1.5         | For 1.5 or 2.0ml, 30 wells  |
| MC-B0.5+1.5     | Combination: for 1.5ml or 2.0ml tube, 15 wells and 0.5ml tube, 15 wells (on the same side)  |
| MC-B0.2+0.5+1.5 | Combination: 0.2ml tube (or strip tube for 8 wells ), 24 wells; 1.5ml or 2.0ml tube, 10 wells and 0.5ml tube, 10 wells (on the same side) |
| MC-B13          | Well size 13mm, 30 wells  |
| MC-B17          | For 15ml centrifuge tube, 15 wells  |
| MC-B20          | Well size 20mm, 15 wells  |
| MC-B25          | Well size 25mm, 6 wells   |
| MC-B29          | For 50ml centrifuge tube, 6 wells   |
| MC-B0.2H        | (1/2) half block for 0.2ml tube, 40 wells ( or 0.2ml PCR strip tube for 8 wells x 5)  |
|                 | One Ultimate Dry Bath Incubator can insert 2ea of half block  |
| MC-B0.5H        | (1/2) half block for 0.5ml tube, 15 wells   |
|                 | One Ultimate Dry Bath Incubator can insert 2ea of half block  |
| MC-B1.5H        | (1/2) half block for 1.5 or 2ml tube, 15 wells  |
|                 | One Ultimate Dry Bath Incubator can insert 2ea of half block  |

<sup>\*</sup> For a complete list of accessories, please refer to Page 68-71

# Dry Bath Block & Beads

## Metallic Thermal Beads Mini Dry Bath Blocks Dry Bath Blocks Ultimate Dry Bath Blocks

#### For Beads

Major Science offers you the Metallic Thermal Beads as an alternative to the dry bath aluminum blocks. The beads are dry metallic thermal alloy designed to replace water in a water bath and ice in an ice bucket. Compared to a water bath, using the metallic thermal beads could reduce the risk of contamination and allow you to get rid of antibiotics usage. In addition, the beads are also recyclable and energy efficient. The metallic thermal beads also help to reduce maintenance works such as emptying, cleaning, monitoring, and refilling the water bath to give you a more hasslefree environment in the lab. We specifically supply the beads in a standard pack for you.

#### For Blocks

The Dry Bath Blocks are designed for the MS Thermoblock Dry Bath Incubator. The precisely machined aluminum alloy blocks deliver efficient heat transfer and are suitable for microplate and various sizes of test tubes and centrifuge tubes ranging from 0.2ml to 50ml. In addition to the standard blocks, customized blocks are also available according to user's requirements.



Product may be used up to 300°C without loss in thermal performance, but product fluidity may be reduced.

# beads

#### Thermal Beads Specifications

| Cat. No.                  | Beads  |
|---------------------------|--|
|                           | Metal composition  |
| Droportion                | Moisture and gas impermeable                                   |
| Properties                | High thermal conductivity                                      |
|                           | Smooth, rounded surface  |
| Working Temperature Range | -80°C to 180°C   |
| Size                      | Diameter 5-8mm, Height 1-2mm                                   |
| Weight                    | 3.6lbs per liter   |
|                           | Recyclable   |
| Environment               | Non-toxic, non-vaporizing material                             |
| EHVITOTITIETIL            | No daily requirement for biocide use - no gray water           |
|                           | Improves energy efficiency of standard water baths by over 50% |

#### **Ordering Information**

| Cat. No.     | Product Description   |
|--------------|---|
| MD-MINI-BD00 | Metallic thermal beads for Mini dry bath incubator, for MD-MINI, 170g (Beads only)                      |
| MD-BD00      | Metallic thermal beads for Genius and Elite dry bath incubator, for MD-01N and EL-01, 700g (Beads only) |
| MC-BD00      | Metallic thermal beads for Ultimate dry bath incubator, for MC-01N, 900g (Beads only)                   |

#### Features (for beads)

- · Fully compatible with MS Dry Bath Incubators
- · Keeps your equipment dry and protected from water-borne microbial contaminants
- 50% more energy efficient than water bath
- High efficiency to warm, thaw, incubate and chill samples at constant temperatures
- Eliminates the hassle of emptying, cleaning and refilling water baths or changing blocks
- · Support all shapes of labwares
- · Stays clean easily

#### Features (for blocks)

- Precisely CNC machined aluminum alloy blocks
- R -curve edged block design
- Through Sand Blast Anodizing Surface treatment, it ensure a nice & smooth surface block with a longer durability
- Laser marked on the selected blocks

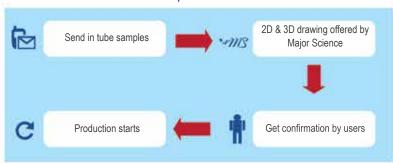


#### Aluminum alloy blocks Specifications

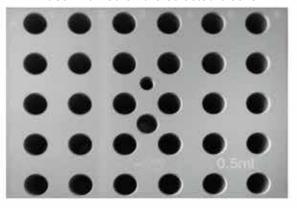
| Cat. No.              | Mini Dry Bath Blocks   | Dry Bath Blocks   | Ultimate Dry Bath Blocks  |
|-----------------------|--|---|---|
| Photo                 |  | EFFE  |   |
| Used For              | MD Mini Page 59 , MC-0203 Page 60  | EL series Page 64, MD series Page 62  | MC-01 series Page 66  |
| Block Lifter          |  | included  |   |
| Product Description   | The Mini Bry Bath Blocks are designed for both mini heating or cooling dry bath incubators. The precisely machined aluminum alloy blocks deliver efficient heat transfer and are suitable for PCR tubes in strip and various size of test tubes and centrifuge tubes ranging from 0.2ml to 50ml. | The Dry Bath Blocks are designed for the Elite Dry Bath Incubator and the Genius Dry Bath Incubator. The precisely machined aluminum alloy blocks deliver efficient heat transfer and are suitable for microplate and various size of test tubes and centrifuge tubes ranging from 0.2ml to 50ml. | The Ultimate Dry Bath Blocks are designed for the Ultimate Dry Bath Incubators. The precisely-machined aluminum alloy blocks, which are suitable for microplate and different sizes of test tubes and centrifuge tubes ranging from 0.2ml to 50ml, deliver efficient heating and cooling performance. In addition to the standard blocks, customized blocks are also available requirements. MC Blocks are designed for Ultimate plus Dry Bath Incubator to provide more efficient heating and cooling speed. Two standard block modes and customized blocks are available. |
| Block Material        | Aluminum alloy   |   |   |
| Dimension<br>( WxLxH) | Approx. 1.9"x2.8"x1.3" (47x71x32mm)<br>for MD-MINI-B01/02/05/06/07<br>Approx. 1.9"x2.8"x3" (47x71x75mm)<br>for MD-MINI-B03/04  | Approx. 3.4"x5"x2.5" (87x128x62.3mm) for MD-MP01-S  Approx. 4.1"x6.2"x2" (104x158x50mm) for MD-MP01-D/ MD-MP02-D  Approx. 3.4"x5"x2.7" (87x128x69.5mm) for MD-MP02-S  Approx. 3.1"x4.1"x2" (79x104x50mm) for standard blocks  | Approx. 3.5"x5.1"x1.8" (89x129x46mm) for standard blocks  Approx. 2.5"x3.5"x1.8" (64.5x89x46mm) for MC-B0.2H/0.5H/1.5H  Approx. 3.5"x5.1"x1.2" (89x129x30mm) for MC-BS0.2+0.5/0.5+1.5   |
| Weight                | Approx. 0.5lb (0.24kg)<br>for MD-MINI-B01/02/05/06/07  | N/A   |   |
|                       | Approx. 1.0lb (0.46kg)<br>for MD-MINI-B03/04   | ı   | N/A   |
| Block Lifter Well     |  | Yes   |   |
| Thermometer Well      | Yes  | Yes (except m   | nicroplate blocks)  |

<sup>\*</sup>Customized blocks available.

#### Flow chart for customization process:



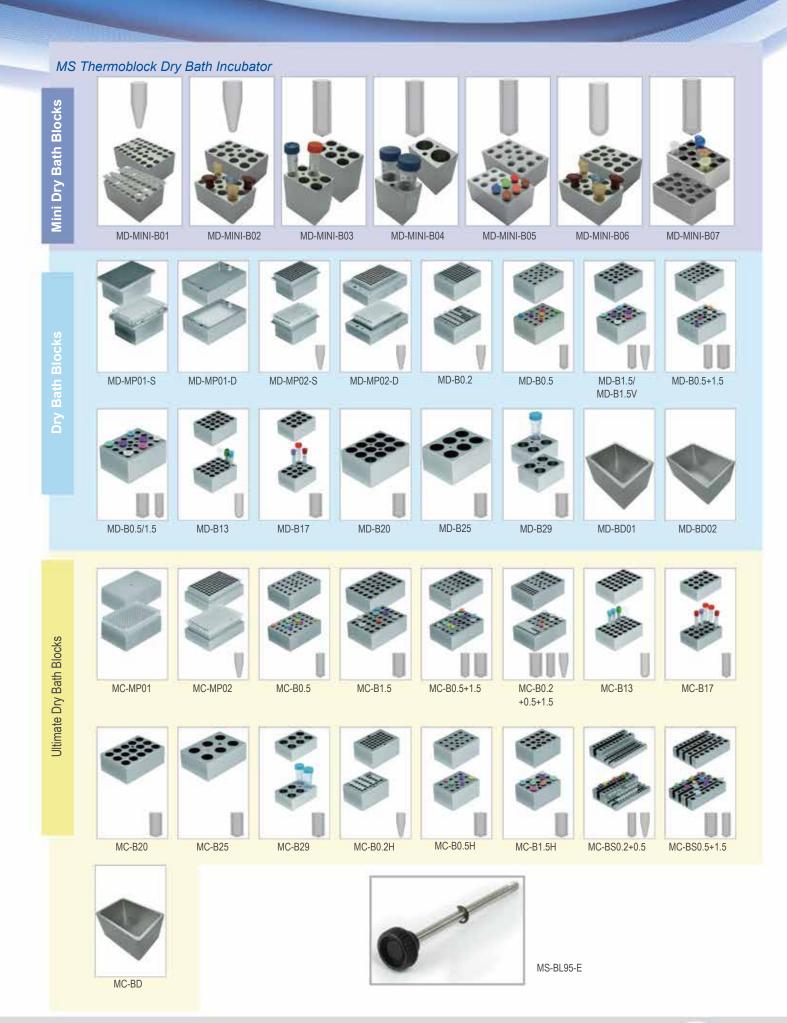
#### Laser marked on the selected blocks



## Ordering Information

| Cat. No.                |                 | Product Description   |
|-------------------------|-----------------|---|
|                         | MD-MINI-B01     | For 0.2ml tube (PCR strip tube), 32 wells, Ø6.35mm, depth 17mm, (WxLxH) 47x71x32mm  |
| Mini Dry Bath<br>Blocks | MD-MINI-B02     | For 1.5ml tube, 12 wells, Ø10.88mm, depth 30mm, (WxLxH) 47x71x32mm  |
|                         | MD-MINI-B03     | For 15ml tube, 6 wells, Ø17.3mm, depth 70mm, (WxLxH) 47x71x75mm   |
|                         |                 | For 50ml tube, 2 wells, Ø29.0mm, depth 70mm, (WxLxH) 47x71x75mm   |
|                         | MD-MINI-B05     | For 0.5ml tube, 12 wells, Ø7.9mm, depth 25mm,(WxLxH) 47x71x32mm   |
|                         | MD-MINI-B06     | For 2.0ml or 1.5ml tube, 12 wells, Ø11.0mm, depth 30mm, (WxLxH) 47x71x32mm  |
|                         | MD-MINI-B07     | For 2.0ml or 1.5ml tube, 12 wells, Ø11.0mm, depth 30mm, (WxLxH) 47x71x32mm  |
|                         | MS-BL95-E       | Block Lifter, 95mm length with E-type retaining rings   |
|                         |                 |   |
|                         | MD-MP01-S       | For microplate; titerplate (Plain Block for Single Block unit only)   |
|                         | MD-MP01-D       | For microplate; titerplate (Dual Block unit only)   |
|                         | MD-MP02-S       | For 96 wells deep microplate or PCR plate ( for Single Block unit only)   |
|                         | MD-MP02-D       | For 96 wells deep microplate or PCR plate ( for Dual Block unit only)   |
|                         | MD-B0.2         | For 0.2ml tube, 64 wells (or 0.2ml PCR strip tube for 8 wells x 8)  |
|                         | MD-B0.5         | For 0.5ml tube, 20 wells  |
|                         | MD-B1.5         | For 1.5ml or 2.0ml tube, 20 wells   |
|                         | MD-B1.5V        | For 1.5ml or 2.0ml V-shaped tube, 20 wells  |
| Dry Bath                | MD-B0.5+1.5     | Combination: for 0.5ml tube, 12 wells; and for 1.5ml tube, 12 wells (on the same side)  |
| Blocks                  | MD-B0.5/1.5     | One side for 1.5 or 2.0ml tube, 20 wells and another side for 0.5ml tube, 30 wells (on the opposite side)                                 |
|                         | MD-B13          | Well size 13mm, 20 wells  |
|                         | MD-B17          | For 15ml centrifuge tube, 12 wells  |
|                         | MD-B20          | Well size 20mm, 12 wells  |
|                         | MD-B25          | Well size 25mm, 6 wells   |
|                         | MD-B29          | For 50ml centrifuge tube, 4 wells   |
|                         | MD-BD01         | Single bead MD dry bath block, (WxLxH) 79x104x76mm  |
|                         | MD-BD02         | Dual bead MD dry bath block, (WxLxH) 104x158x76mm   |
|                         | MS-BL95-E       | Block Lifter, 95mm length with E-type retaining rings   |
|                         | MC-MP01         | For Microplate; titerplate (Plain Block)  |
|                         | MC-MP02         | For 96 wells deep microplate or PCR plate   |
|                         | MC-B0.5         | For 0.5ml, 30 wells   |
|                         |                 |   |
|                         | MC-B1.5         | For 1.5 or 2.0ml, 30 wells  |
|                         | MC-B0.5+1.5     | Combination: for 1.5ml or 2.0ml tube, 15 wells and 0.5ml tube, 15 wells (on the same side)  |
|                         | MC-B0.2+0.5+1.5 | Combination: 0.2ml tube (or strip tube for 8 wells ), 24 wells; 1.5ml or 2.0ml tube, 10 wells and 0.5ml tube, 10 wells (on the same side) |
|                         | MC-B13          | Well size 13mm, 30 wells  |
|                         | MC-B17          | For 15ml centrifuge tube, 15 wells  |
|                         | MC-B20          | Well size 20mm, 15 wells  |
|                         | MC-B25          | Well size 25mm, 6 wells   |
| Ultimate Dry            |                 | ,   |
| Bath Blocks             |                 | For 50ml centrifuge tube, 6 wells   |
|                         | MC-B0.2H        | (1/2) half block for 0.2ml tube, 40 wells ( or 0.2ml PCR strip tube for 8 wells x 5)  |
|                         |                 | One Ultimate Dry Bath Incubator can insert 2ea of half block  |
|                         | MC-B0.5H        | (1/2) half block for 0.5ml tube, 15 wells   |
|                         |                 | One Ultimate Dry Bath Incubator can insert 2ea of half block  |
|                         | MC-B1.5H        | (1/2) half block for 1.5 or 2ml tube, 15 wells  |
|                         |                 | One Ultimate Dry Bath Incubator can insert 2ea of half block  |
|                         | MC-BS0.2+0.5    | Combination: 0.2ml tube, 36 wells; 0.5ml, 20 wells  |
|                         | MC-BS0.5+1.5    | Combination: 0.5ml tube, 18 wells; 1.5ml, 14 wells  |
|                         | MC-BD           | Ultimate bead bath block, (WxLxH) 90x127x76mm   |
|                         | MS-BL95-E       | Block Lifter, 95mm length with E-type retaining rings   |
|                         |                 |   |

<sup>\*</sup> For the tube bottom type (round, conical or flat), please refer to the pictures on page 71.



#### **US Office**

19959 Sea Gull Way Saratoga, CA 95070 U.S.A. T/ +1-408-366-9866 F/ +1-408-446-1107

#### **Taiwan**

#### **Head Office:**

No. 156, Sec. 1, Guoji Rd., Taoyuan Dist., Taoyuan City 33061, Taiwan T/+886-3-3762802 F/+886-3-3761310

#### Factory:

No.19, Ln. 207, Huakang St. Bade Dist., Taoyuan City 33464 Taiwan T/ +886-3-3623319 F/ +886-3-3623133

#### **Shanghai Office**

Room 612, International business exhibition center, 9300 Hunan Road, Pudong, Shanghai, China National toll-free No.:400-823-9177 T/ +86-21-50795277 F/ +86-21-50795277

#### **India Office**

D. No. 12-13-99, Satguru Apts. Extn. Street. No. 3, Lane No.1, Tarnaka Secunderabad – 500 017. India T/ +91-40-27001515
T/ +91-40-27001586



www.majorsci.com info@majorsci.com



