

CHILLING/HEATING DRY BATHS



EchoTherm™ Model SC20 Orbital Mixing Chilling/Heating Dry Bath - The Ideal Molecular Biology Tool For Your Lab

Now you can mix your samples as you heat or chill them with a variable speed orbital mixer.

Model SC20 Features:

- Orbital mixing with speeds from 200 to 1000 rpm
- Energy efficient Peltier design
- Digital control to 1°C from -10°C to 100°C
- Control at room temperature
- 30-day count down timer with audible alarm and user settable Auto-Off
- RS232 I/O port for control or data collection
- Built-in data logger
- Electronic calibration
- Small compact size uses very little bench space
- 12 volt DC operation. Universal power supply provided
- UL, CSA and CE compliant

Some SC20 Applications

- Mixing samples in centrifuge tubes, assay plates, PCR plates, vials, test tubes or other containers while heating or chilling
- Maintaining 14°C for ligation reaction
- Maintaining 17°C for storing oocytes
- Storing samples at ice bucket temperatures without the mess
- Incubating samples at 37°C
- Storing enzyme or DNA libraries at your workstation
- Enzyme reactions and deactivations

Product Description:

Torrey Pines Scientific, Inc. Model SC20 Orbital Mixing Chilling/Heating Dry Baths are compact, completely solid state, versatile, reliable, and easy to use. They feature a built-in orbital mixer with 9 digitally preset speeds varying incrementally from 200 to 1000 rpm. The orbital mixer is designed with friction free hardened, blued, tempered steel leaf spring bearings that support the plate and sample

blocks. The units have a temperature range from -10°C to 100°C at the plate surface. They have an I/O port for recording data or for controlling the unit from a computer. The built-in data logger can store 8110 data points in 1 second, 1 minute or 5 minute intervals. The units also have a built-in 30-day timer with alarm and a user settable Auto-Off function that will turn off the chiller/heater after any count down timed event.

The SC20 has simple digital controls and a backlit two-line alphanumeric display for easy viewing. The display shows target and actual temperature and orbital mixing speed. The display will add the timer readout if in use. The SC20 chilling/heating surface is 2.875" (7.3 cm) x 4.375" (11.1 cm) aluminum plate that is very flat for good contact with the sample blocks. When unloaded the plate will reach below 0°C in under two minutes and will heat to 37°C in under one minute. These chilling /heating rates will vary with load. For instance, temperatures to 4°C can be reached on sample blocks as large as 4" (10.2 cm) x 3" (7.6 cm) x 6" (15.2 cm) in about a half hour.

The units are complete with instruction manual, universal bench top power supply for use anywhere in the world and AC line cord for the country of use. Sample blocks and covers are available as accessories.

Product Specification:

Orbital Mixing:	
Range	200 to 1000 rpm in increments of 100 rpm
Readability	0 through 9 digitally in increments on 1
Temperature:	
Range	-10°C to 100°C
Readability	1 °C
Accuracy	±1 °C
Stability	±1 °C
Sensor	Platinum RTD
Controller Type	PID
Uniformity	±0.5 °C
Timer:	
Range	00:01 to 30 days
Readability	1 second
Audible Alarm	Yes, sounds for 1 minute. Timer counts up until turned off.
Auto-Off	Yes, user settable.
Data Logger:	
Sample times	1 sec, 1 min, or 5 minutes per data point
Capability	8110 data points
Electrical:	

Heater/Chiller	50 Watts
Operating Voltages	100 to 265 VAC, 50/60 Hz input to power supply. 12 VDC into instrument
Power Consumption	50 watts
Power Switch	Yes

Dimensions:

Chilling/Heating Module	
Width	7.75" (3.05 cm)
Depth	14.5" (5.7 cm)
Height	4.25" (1.67 cm) tall without sample block
Weight	10 pounds (4.5 kg)
Power Supply	
Length	6.5" (16.5 cm)
Height	3.2" (8.1 cm)
Width	2.2" (5.6 cm)
Weight (power supply & chiller/heater module)	12 pounds (5.4 kg)

Accessories Available:

- 620-5012 Block, aluminum, 40 holes for 0.5 ml centrifuge tubes.
- 620-5013 Block, aluminum, 30 holes for 1.5 ml centrifuge tubes.
- 620-5014 Block, aluminum, 40 holes for 0.5 ml and 15 holes for 1.5 ml
- 620-5015 Block, aluminum, 96 holes for 0.2 ml PCR tubes spaced for 8 and 12 tube strips.
- 620-5016 Block, aluminum, for "V" bottom 96-well assay plates
- 620-5017 Block, aluminum, for round bottom 96-well assay plates
- 620-5018 Block, aluminum, 24 holes for 2.0 ml vials
- 620-5019 Block, aluminum, 384 holes for 384-well assay plates
- 620-5020 Block, aluminum, for flat bottom 96 and 384-well assay plates
- 620-5021 Block, aluminum, 24 holes for 10 mm test tubes
- 620-5022 Block, aluminum, 12 holes for 15/16 mm test tubes
- 620-5023 Block, aluminum, 20 holes for 12/13 mm test tubes
- 620-5024 Block, aluminum, mixed holes for various sized test tubes
- 620-5025 Block, aluminum, 8 holes for 20 mm test tubes
- 620-5026 Block, aluminum, 30 holes for 6 mm test tubes
- 620-5027 Block, aluminum, 12 holes for 15ml centrifuge tubes
- 620-5028 Block, aluminum, 12 holes for 20ml scintillation vials
- 620-5030 Block, aluminum, 6 holes for 50ml centrifuge tubes
- 620-5031 Block, Aluminum, 4-slides for hybridizations, with black cover
- 620-5032 Block, Aluminum for 30-2.0ml Eppendorf centrifuge tubes
- 720-0008 Cover, assay plates and all assay plate blocks, 1.75" high
- 720-0009 Cover, aluminum blocks, 3.25" high

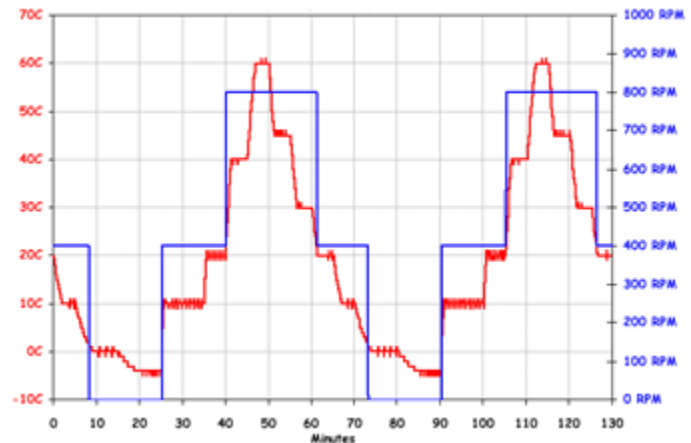


EchoTherm™ Model SC25 Fully Programmable Orbital Mixing Chilling/Heating Dry Bath – The Ideal Molecular Biology Tool For Your Lab

Now Mix, Chill, Freeze, or Heat **and** Run Unattended Temperature/Mixing Profiles Automatically with Precise Control.

Model SC25 Features:

- Orbital mixing from 200 to 1000 rpm
- 5-program memory
- Energy efficient Peltier design
- Digital control to 1°C from -10°C to 100°C
- Control at room temperature
- 30-day count down timer with audible alarm and user settable Auto-Off
- Built-in data logger
- RS232 I/O port for control and data collection
- Electronic calibration
- Small, compact size uses very little bench space
- 12 volt DC operation. Universal power supply provided
- UL, CSA, and CE compliant



SC25--10 Step Sample Program,
2 Cycle, Orbital Shaker Enabled

Some SC25 Applications

- Unattended restriction digestions or ligations at elevated temperatures then reducing temperature to 4°C automatically to reduce non-specific nuclease digestion of the target DNA
- Automatically stopping reactions by having the unit reduce sample temperature after a specific reaction time
- Produce denatured probes or single stranded DNA molecules by heating to 90°C to 95°C for a given time and rapidly reducing temperature to 4°C to prevent renaturation
- Automatic temperature/mixing profiles to grow bacteria at 37°C, then increasing temperature to induce events, and then lowering temperature to 4°C to prevent degradation
- Maintain 14°C for ligation reactions
- Maintain 17°C for storing oocytes
- Store samples at ice bucket temperatures without the mess
- Incubate samples at 37°C in 96-well assay plates, PCR plates, aluminum blocks for 0.2, 0.5, 1.5, 15ml centrifuge tubes, vials and test tubes
- Store enzyme or DNA libraries at your work station
- Enzyme reactions and deactivations

Product Description:

The Torrey Pines Scientific, Inc. Model SC25 Fully Programmable Orbital Mixing Chilling/Heating Dry Baths are compact, completely solid state, versatile, reliable, and easy to use. They feature 5-program memory where each program can have as many as 10 steps. Each step is a mixing speed, temperature, and timed event. Additionally, any program can be made to repeat itself from 1 to 99 times automatically.

The built-in orbital mixer has 9 digitally preset mixing speeds varying from 200 to 1000 rpm. The orbital mixer is designed with friction free hardened, blued, tempered steel leaf spring bearings that support the plate and sample blocks. The units have a temperature range from -10°C to 100°C at the plate surface. They have an I/O port for recording data or for controlling the unit from a computer. The built-in data logger can store 7825 data points in 1 second, 1 minute or 5 minute intervals. The units also have a built-in 30-day timer with alarm and user settable Auto-Off function that will turn off the chiller/heater/mixer after any count down timed event.

The SC25 has simple digital controls and a backlit two-line alphanumeric display for easy viewing. The display shows target and actual temperature and orbital mixing speed when not running a program. When running a program it additionally displays the program number, step, and cycle. The timer can also be made to display when in use. The SC25 chilling/heating surface is a 2.875" (7.3 cm) x 4.375" (11.1 cm) aluminum plate that is very flat for good contact with the sample blocks. When unloaded the plate will reach below 0°C in under 2 minutes and will heat to 37°C in under one minute. The chilling/heating rates will vary with load. For instance, temperatures to 4°C can be reached on sample blocks as large as 4" (10.2 cm) x 3" (7.6 cm) x 6" (15.2 cm) in about half an hour.

The units are complete with instruction manual, universal bench top power supply for use anywhere in the world, and AC line cord for the country of use. Sample blocks and covers are available as accessories.

Product Specification:

Orbital Mixing:	
Range	200 to 1000 rpm In increments of 100 rpm
Readability	0 through 9 digitally in increments of 1
Temperature:	
Range	-10°C to 100°C
Readability	1 °C
Accuracy	±1 °C
Stability	±1 °C
Sensor	Platinum RTD
Controller Type	PID
Uniformity	±0.5 °C

Timer:	
Range	00:01 to 30 days
Readability	1 second
Audible Alarm	Yes, sounds for 1 minute. Timer counts up until turned off.
Auto-Off	Yes, user settable.
Programming:	
Programs Stored	5
Individual Program Capacity	10 steps
Program Repeat	1 to 99 times
Memory Backup	Yes, in CMOS
Data Logger:	
Sample times	1 sec., 1 min., or 5 minutes per data point
Capability	7825 data points
Electrical:	
Heater/Chiller	50 Watts
Operating Voltages	100 to 265 VAC, 50/60 Hz input to power supply. 12 VDC into instrument
Power Consumption	50 watts
Power Switch	Yes
Dimensions:	
Chilling/Heating Module	
Width	7.75" (3.05 cm)
Depth	14.5" (5.7 cm)
Height	4.25" (1.67 cm) tall without sample block
Weight	10 pounds (4.5 kg)
Power Supply	
Length	6.5" (16.5 cm)
Height	3.2" (8.1 cm)
Width	2.2" (5.6 cm)
Weight (power supply & chiller/heater module)	12 pounds (5.4 kg)
Accessories Available:	
<p>620-5012 Block, aluminum, 40 holes for 0.5 ml centrifuge tubes. 620-5013 Block, aluminum, 30 holes for 1.5 ml centrifuge tubes. 620-5014 Block, aluminum, 40 holes for 0.5 ml and 15 holes for 1.5 ml 620-5015 Block, aluminum, 96 holes for 0.2 ml PCR tubes spaced for 8 and 12 tube strips. 620-5016 Block, aluminum, for "V" bottom 96-well assay plates 620-5017 Block, aluminum, for round bottom 96-well assay plates 620-5018 Block, aluminum, 24 holes for 2.0 ml vials</p>	

620-5019 Block, aluminum, 384 holes for 384-well assay plates
 620-5020 Block, aluminum, for flat bottom 96 and 384-well assay plates
 620-5021 Block, aluminum, 24 holes for 10 mm test tubes
 620-5022 Block, aluminum, 12 holes for 15/16 mm test tubes
 620-5023 Block, aluminum, 20 holes for 12/13 mm test tubes
 620-5024 Block, aluminum, mixed holes for various sized test tubes
 620-5025 Block, aluminum, 8 holes for 20 mm test tubes
 620-5026 Block, aluminum, 30 holes for 6 mm test tubes
 620-5027 Block, aluminum, 12 holes for 15ml centrifuge tubes
 620-5028 Block, aluminum, 12 holes for 20ml scintillation vials
 620-5030 Block, aluminum, 6 holes for 50ml centrifuge tubes
 620-5031 Block, Aluminum, 4-slides for hybridizations, with black cover
 620-5032 Block, Aluminum for 30-2.0ml Eppendorf centrifuge tubes
 720-0008 Cover, assay plates and all assay plate blocks, 1.75" high
 720-0009 Cover, aluminum blocks, 3.25" high



ECHOtherm™ Model IC20
 Digital, Electronic Chilling/Heating Plate

Chill and heat biological samples from -10 °C to 100 °C with precise control, even at ambient, in your lab or in the field on a compact, versatile, portable, and inexpensive electronic chilling/heating plate.

Model IC20 Features:

- Energy efficient Peltier design
- Digital control to 1°C from -10 to 100°C
- Control at ambient
- Count down timer (up to 30 days) with alarm and user settable Auto-Off
- RS232 I/O port for control and data collection
- Control software available for use with computer
- Built-in data logger
- Electronic calibration. User resettable to any local standard
- Small, compact size uses very little bench space
- Field operation using cigarette lighter jack in any car or truck
- 12 volt dc operation. Requires no agency safety approvals
- External power supply provided is UL, CSA, and CE approved
- Twelve month warranty

Some IC20 Applications

- Maintaining 14°C for ligation reactions
- Maintain 17°C for storing oocytes
- Store samples at ice bucket temperatures
- Incubate samples in 96-well assay plates, or in aluminum blocks holding 0.2, 0.5, or 1.5 ml centrifuge tubes
- Cool blood samples prior to coagulation testing

- Store enzymes or DNA libraries at your work station
- Transport samples from the field at exactly the right temperature
- Chill or heat samples in the field
- Enzyme reactions and deactivations
- Freeze and store most any small sample at your work station

Product Description:

Torrey Pines Scientific's Model IC20 Digital, Electronic Chilling/Heating plates are very compact, completely solid state, versatile, reliable, and easy to use. They run from a 12VDC power supply provided.

The IC20 has simple digital controls and a two line alphanumeric digital display that is backlit for easy reading. The display normally shows the target and actual temperatures. Additionally, it is used to display the target and actual temperatures and the count down timer. To set a temperature just push the UP or DOWN arrow until the display shows the desired target temperature. The unit then will go to that temperature. Calibration is factory set, but calibration is settable by the user in the field to any local standard. It is electronic and simple to do.

Also, there are power and buffer lamps on the front panel. The power lamp indicates when the unit is turned on. The buffer lamp flashes when the buffer is collecting data. The lamp illuminates constantly when the buffer is full of data to be downloaded. The buffer can be set to collect temperature data in 1 second, 1 minute, or 5 minute intervals to a total of 8110 data points.

The IC20 also is provided with an RS232C interface. This can be used to record data for monitoring agencies, and for controlling the unit via a computer. With the computer the unit can be made to run ramp and soak cycles of any frequency or duration.

The chilling/heating surface is a 2.875" (7.3 cm) x 4.375" (11.1 cm) aluminum plate that is very flat for good contact with the sample. This size is perfect for seating a 96-well assay plate. When unloaded, the plate surface will reach below 0 °C in under two minutes. It will heat to 37 °C in less time. This rate of chilling or heating will change with the load on the plate. For instance, temperatures to 4.0 °C can be reached on a solid aluminum block as large as 4" (10.2 cm) x 3" (7.6 cm) x 6" (15.2 cm) in less than one hour. When insulated, these large blocks can be driven below 0 °C. Temperature gradients from the center to the edge of any aluminum block mentioned will be less than 0.5 °C at any temperature.

Two sample covers are available: one for 96-well assay plates, and a larger one for covering aluminum blocks that will hold centrifuge tubes or other samples. These blocks are available.

Product Specification:

Temperature:	
Range	-10°C to 100°C
Readability	1 °C
Accuracy	±1 °C
Stability	±1 °C
Sensor Type	Solid State IC

Controller Type	PID
Uniformity	±0.5 °C
Timer:	
Range	00:01 to 30 days
Readability	1 second
Audible Alarm	Yes, sounds for 1 minute. Timer counts up until turned off.
Auto-Off	Yes, user settable.
Data Logger:	
Sample times	1 sec, 1 min, or 5 minutes per data point
Capability	8110 data points
Electrical:	
Heater/Chiller	Peltier, 50 watts
Operating Voltages	100, 115, or 230 VAC, 50/60 Hz input to universal power supply. 12 VDC output to chiller/heater module.
Power Consumption	50 watts maximum
Power Switch	Yes, for 12 VDC into heater/chiller module
Dimensions:	
Chilling/Heating Module	
Width	6.5" (16.5 cm)
Depth	8.75" (22.23 cm)
Height	3.5" (8.9 cm)
Power Supply	
Length	6.5" (16.5 cm)
Height	3.2" (8.1 cm)
Width	2.2" (5.6 cm)
Weight (power supply & chiller/heater module)	6.5 pounds (2.9 kgs)
Accessories Available:	
<p>620-5012 Block, aluminum, 40 holes for 0.5 ml centrifuge tubes. 620-5013 Block, aluminum, 30 holes for 1.5 ml centrifuge tubes. 620-5014 Block, aluminum, 40 holes for 0.5 ml and 15 holes for 1.5 ml 620-5015 Block, aluminum, 96 holes for 0.2 ml PCR tubes spaced for 8 and 12 tube strips. 620-5016 Block, aluminum, for "V" bottom 96-well assay plates 620-5017 Block, aluminum, for round bottom 96-well assay plates 620-5018 Block, aluminum, 24 holes for 2.0 ml vials 620-5019 Block, aluminum, 384 holes for 384-well assay plates 620-5020 Block, aluminum, for flat bottom 96 and 384-well assay plates 620-5021 Block, aluminum, 24 holes for 10 mm test tubes 620-5022 Block, aluminum, 12 holes for 15/16 mm test tubes 620-5023 Block, aluminum, 20 holes for 12/13 mm test tubes 620-5024 Block, aluminum, mixed holes for various sized test tubes</p>	

620-5025 Block, aluminum, 8 holes for 20 mm test tubes
620-5026 Block, aluminum, 30 holes for 6 mm test tubes
620-5027 Block, aluminum, 12 holes for 15ml centrifuge tubes
620-5028 Block, aluminum, 12 holes for 20ml scintillation vials
620-5030 Block, aluminum, 6 holes for 50ml centrifuge tubes
620-5031 Block, Aluminum, 4-slides for hybridizations, with black cover
620-5032 Block, Aluminum for 30-2.0ml Eppendorf centrifuge tubes
720-0008 Cover, assay plates and all assay plate blocks, 1.75" high
720-0009 Cover, aluminum blocks, 3.25" high



ECHOtherm™ Model IC25 Digital, Programmable, Electronic Chilling/Heating Plate

Your Fully Programmable Personal Bench Top Incubator/Chiller/Freezer

Model IC25 Features:

- 5-program memory
- Energy efficient Peltier design
- Digital control to 1°C from -10°C to 100°C
- Control at ambient
- Built-in data logger
- Count down timer (up to 30 days) with audible alarm and user settable Auto-Off
- RS232 I/O port for data collection
- Electronic calibration. Factory set, but user settable to any local standard
- Small, compact size. Uses very little bench space
- 12 volt DC operation. External power supply provided
- 12 month warranty
- UL, CSA and CE compliant

Some IC25 Applications:

- Unattended restriction digestions or ligations at elevated temperatures then reducing temperature to 4°C automatically to reduce non-specific nuclease digestion of target DNA
- Automatically stopping reactions by having the unit reduce sample temperature after a specific reaction time
- Produce denatured probes or single stranded DNA molecules by heating to 90°C to 95°C for a given time and rapidly reducing temperature to 4°C to prevent renaturation
- Automatic temperature profiles to grow bacteria at 37°C, then increasing temperature to induce events, and then lowering temperature to 4°C to prevent degradation
- Maintain 14°C for ligation reactions
- Maintain 17°C for storing oocytes
- Store samples at ice bucket temperatures without the mess

- Incubate samples at 37°C in 96-well assay plates or in aluminum blocks holding 0.2, 0.5, 1.5 ml centrifuge tubes, vials, and test tubes
- Store enzyme or DNA libraries at your work station
- Enzyme reactions and deactivations
- Cool blood samples prior to coagulation testing
- Freeze and store most any sample at your work station

Product Description:

Torrey Pines Scientific’s Model IC25 Programmable, Digital, Electronic Chilling/Heating Plates are compact, completely solid state, versatile, reliable, and easy to use. They run from a manufacturer supplied 12 volt dc power supply. The IC25 has simple digital controls and a two-line alphanumeric display that is backlit for easy reading. The display normally shows the target and actual temperatures. Additionally, it is used to display temperature, timer, and all programming functions.

To set a target temperature, simply push the UP or DOWN arrows until the display shows the desired target temperature. The unit will then go to that temperature. Writing programs is simple as well and done through the UP and DOWN arrows on the membrane switch. Calibration is factory set, but calibration is settable by the user to any local standard.

Calibration is electronic and accessed through the keyboard and stored in CMOS.

There are POWER and BUFFER lamps on the front panel. The POWER lamp indicates when the unit is turned on. The BUFFER lamp flashes when the buffer is collecting data. The lamp illuminates constantly when the buffer is full and needs to be downloaded. The buffer can be set to collect temperature data points in 1 second, 1 minute or 5 minute intervals to 7825 data points equivalent to 130 minutes at 1 point/second, 130 hours at 1 point/minute and 27 days at 1 point/every 5 minutes. The IC25 is provided with an RS232C interface. This can be used to record data for monitoring agencies.

The chilling/heating surface is a 2.875” (7.3 cm) x 4.375” (11.1 cm) aluminum plate that is very flat for good contact with the sample. When unloaded, the plate will go below 0°C in under two minutes. It will heat to 37°C even faster. Generally, the unloaded surface will decrease temperature at about 3°C/minute. Heating rates on the unloaded plate are usually about 5°C/minute. The blocks sold as accessories range in size and mass depending upon the samples used. The unit can drive the biggest block from ambient to 4°C in less than 30 minutes. When used with an accessory cover these blocks can be driven below 0°C. Temperature gradients from the center to the edge of any accessory block will be less than 0.5°C at any temperature.

Product Specification:

Temperature:	
Range	-10°C to 100°C (minimum temperature possible is 30°C below ambient)
Readability	1 °C
Accuracy	±1 °C

Stability	±1 °C
Sensor Type	Solid State IC
Controller Type	PID
Uniformity	±0.5 °C
Timer:	
Range	00:01 to 30 days
Readability	1 second
Audible Alarm	Yes, sounds for 1 minute. Timer counts up until UP or Down key is touched
Programming:	
Programs Stored	5
Individual Program Capacity	10 Steps
Program Repeat	1 to 99 times
Memory Backup	Yes, in CMOS
Data Logger:	
Sample times	1 sec, 1 min, or 5 minutes per data point
Capability	7825 data points
Electrical:	
Heater/Chiller	Peltier, 50 watts
Operating Voltages	From 90 to 265 volts AC into universal power supply. 12 VDC output to chiller/heater module.
Power Consumption	50 watts maximum
Power Switch	Yes
Dimensions:	
Chilling/Heating Module	
Width	6.5" (16.5 cm)
Depth	8.75" (22.23 cm)
Height	3.5" (8.9 cm)
Power Supply	
Length	6.5" (16.5 cm)
Height	3.2" (8.1 cm)
Width	2.2" (5.6 cm)
Weight (power supply & chiller/heater module)	8 pounds (3.6 kgs)
Accessories Available:	
620-5012 Block, aluminum, 40 holes for 0.5 ml centrifuge tubes.	
620-5013 Block, aluminum, 30 holes for 1.5 ml centrifuge tubes.	
620-5014 Block, aluminum, 40 holes for 0.5 ml and 15 holes for 1.5 ml	

620-5015 Block, aluminum, 96 holes for 0.2 ml PCR tubes spaced for 8 and 12 tube strips.
 620-5016 Block, aluminum, for "V" bottom 96-well assay plates
 620-5017 Block, aluminum, for round bottom 96-well assay plates
 620-5018 Block, aluminum, 24 holes for 2.0 ml vials
 620-5019 Block, aluminum, 384 holes for 384-well assay plates
 620-5020 Block, aluminum, for flat bottom 96 and 384-well assay plates
 620-5021 Block, aluminum, 24 holes for 10 mm test tubes
 620-5022 Block, aluminum, 12 holes for 15/16 mm test tubes
 620-5023 Block, aluminum, 20 holes for 12/13 mm test tubes
 620-5024 Block, aluminum, mixed holes for various sized test tubes
 620-5025 Block, aluminum, 8 holes for 20 mm test tubes
 620-5026 Block, aluminum, 30 holes for 6 mm test tubes
 620-5027 Block, aluminum, 12 holes for 15ml centrifuge tubes
 620-5028 Block, aluminum, 12 holes for 20ml scintillation vials
 620-5030 Block, aluminum, 6 holes for 50ml centrifuge tubes
 620-5031 Block, Aluminum, 4-slides for hybridizations, with black cover
 620-5032 Block, Aluminum for 30-2.0ml Eppendorf centrifuge tubes
 720-0008 Cover, assay plates and all assay plate blocks, 1.75" high
 720-0009 Cover, aluminum blocks, 3.25" high



ECHOtherm™ Model IC22
 2-Position Electronic Chilling/Heating Dry Bath

Chill, heat or freeze 2 separate sets of samples at 2 separate temperatures with individual control from -10°C to 100°C

Model IC22 Features:

- Energy efficient Peltier design
- Digital control to 1°C from -10 to 100°C
- 2 separate temperatures on separate plates
- Sample blocks for 0.2, 0.5 and 1.5 ml centrifuge tubes, 96-well and 384-well assay plates, 2ml vials, various sizes of test tubes and more.
- Control at room temperature
- 2 count-down timers (up to 30 days each) with alarm
- RS232 I/O port for control or data collection
- 2 data loggers
- Electronic calibration.
- Compact size. Small footprint on the bench
- UL, CSA, and CE approvals
- 12 month warranty

Some IC20 Applications

- Maintaining 14°C for ligation reactions
- Maintain 17°C for storing oocytes
- Storing samples at ice bucket temperatures
- Incubate samples at 37°C
- Cooling blood samples prior to coagulation testing
- Storing enzymes or DNA libraries at your workstation
- Enzyme reactions and deactivations
- Freeze and store most any small sample at your workstation

Product Description:

Torrey Pines Scientific's Model IC22 Digital Chilling/Heating Dry Baths are compact, completely solid state, versatile, reliable, and easy to use. Each heating/chilling station has its own Peltier module. The entire unit has only two moving parts: the fans. Each plate can be set separately for any temperature within the range of unit without interaction between the plates. The IC22 has simple digital controls and a two-line alphanumeric digital display that is backlit for easy viewing. The display shows the target and actual temperatures of both plates. Additionally, the display can be made to show the countdown timers. There are power and buffer lamps on the front panel to indicate when the unit is turned on and when the buffer is collecting data points for the data logger.

The chilling/heating surfaces is a 2.875" (7.3 cm) x 4.375" (11.1 cm) aluminum plates that are very flat for good contact with the sample blocks. When unloaded, the plates will reach below 0 °C in under two minutes. They will heat to 37 °C in under a minute. The chilling and heating rates will change with loads. For instance, temperatures to 4.0 °C can be reached on sample blocks as large as 4" (10.2 cm) x 3" (7.6 cm) x 6" (15.2 cm) in about half an hour.

The units are complete with instruction manual and AC line cord. Sample blocks and covers are available as accessories and are shown on the price list.

Product Specification:

Temperature:	
Range on each plate	-10°C to 100°C
Readability	1°C
Accuracy	±1°C
Stability	±1°C
Sensor	Platinum RTD
Controller Type	PID
Uniformity	±0.5°C

Timers:	
Range	00:01 seconds to 30 days
Readability	1 second
Audible Alarm	Yes, sounds for 1 minute. Timer counts up until turned off.
Auto-Off	Yes, user settable.
Data Logger:	
Sample times	1 sec, 1 min, or 5 minutes per data point
Capability	8110 data points
Electrical:	
Heater/Chiller	50 watts each station. 100 watts total.
Operating Voltages	100 VAC, 50/60 Hz, 2 amp. 115VAC, 50/60 Hz, 2 amp. 230 VAC, 50/60 Hz 1 amp
Power Consumption	115 watts
Power Switch	Yes
Dimensions:	
Chilling/Heating Module	
Width	6.5" (16.5 cm)
Depth	20" (50.8 cm)
Height	3.5" (8.9 cm)
Weight	13 lbs. (5.85 kgs)
Accessories Available:	
<p>620-5012 Block, aluminum, 40 holes for 0.5 ml centrifuge tubes. 620-5013 Block, aluminum, 30 holes for 1.5 ml centrifuge tubes. 620-5014 Block, aluminum, 40 holes for 0.5 ml and 15 holes for 1.5 ml 620-5015 Block, aluminum, 96 holes for 0.2 ml PCR tubes spaced for 8 and 12 tube strips. 620-5016 Block, aluminum, for "V" bottom 96-well assay plates 620-5017 Block, aluminum, for round bottom 96-well assay plates 620-5018 Block, aluminum, 24 holes for 2.0 ml vials 620-5019 Block, aluminum, 384 holes for 384-well assay plates 620-5020 Block, aluminum, for flat bottom 96 and 384-well assay plates 620-5021 Block, aluminum, 24 holes for 10 mm test tubes 620-5022 Block, aluminum, 12 holes for 15/16 mm test tubes 620-5023 Block, aluminum, 20 holes for 12/13 mm test tubes 620-5024 Block, aluminum, mixed holes for various sized test tubes 620-5025 Block, aluminum, 8 holes for 20 mm test tubes 620-5026 Block, aluminum, 30 holes for 6 mm test tubes 620-5027 Block, aluminum, 12 holes for 15ml centrifuge tubes 620-5028 Block, aluminum, 12 holes for 20ml scintillation vials 620-5030 Block, aluminum, 6 holes for 50ml centrifuge tubes 620-5031 Block, Aluminum, 4-slides for hybridizations, with black cover 620-5032 Block, Aluminum for 30-2.0ml Eppendorf centrifuge tubes 720-0008 Cover, assay plates and all assay plate blocks, 1.75" high 720-0009 Cover, aluminum blocks, 3.25" high</p>	



ECHOtherm™ Model IC10 Electronic Ice Cube

Model IC10 Features:

- Energy Efficient Peltier Design
- Sub-zero Plate Temperatures
- Small, Compact Size
- Field Operation Using a Cigarette Lighter Receptacle in any Car or Truck
- Twelve-Month Warranty
- UL, CSA, and CE Approved

Some IC10 Applications:

- Freeze 96-Well Assay Plates
- Freeze or Chill Centrifuge Tubes in Aluminum Blocks
- Freeze Samples in the Field for Later Analysis
- Chilled Microscope Stage
- Freeze or Chill Any Small Sample

Product Description:

Torrey Pines Scientific's Model IC10 Electronic Ice Cube is a compact, completely solid state, reliable bench top or field chilling device that is versatile and simple to use.

The IC10 is Peltier driven with no controls and, as such, will chill to its maximum capability when in use. The chilling surface is a 2.875" (7.3cm) x 4.375" (11.1cm) aluminum plate that will reach temperatures below 0°C a few minutes after turn on. The temperature that is maintained is load dependent. Sub-zero temperatures can be reached on solid aluminum blocks as large as 4" (10.2cm) x 3" (7.6cm) x 2" (5.1cm). Blocks 4" (10.2cm) x 6" (15.2cm) x 2" (5.1cm) can be driven below 4.0°C in less than an hour. When insulated, these large blocks can be driven below 0.0°C.

The IC10 comes complete with the chilling module, 12-volt DC power supply with AC line cord, and interconnect cable for connecting the power supply to the chiller module. The interconnect cable is detachable from the power supply and the chiller module. The end that plugs into the power supply is an automobile cigarette lighter plug. Since the chiller module uses 12 volts DC, using the interconnect cable can connect the chiller module to a car or truck cigarette lighter jack, and the chiller can be used in the field.

Two sample covers are available: one for 96-well assay plates, and a larger one for covering aluminum blocks that will hold centrifuge tubes or other samples. These blocks also are available as accessories.

Product Specifications:

Plate Temperature Range Unloaded:	From ambient to better than 30.0°C below ambient.
Uniformity of Plate at Sub-zero Temperatures:	+ 0.5°C from center to any edge, even better on large aluminum blocks.
Electrical:	100, 115, or 230VAC input at less than 1 amp. Power supply is 50 watts at 12 volts DC.
Chilling Module Size:	6.5" (16.5cm) side to side. 4.75" (12cm) deep. 3.5" (8.9cm) high.
Power Supply Size:	6.5" (16.5cm) long. 3.2" (8.1cm) tall. 2.2" (5.6cm) high.
Weight (Power Supply and Chilling Module):	6 pounds (2.7kg).
Accessories Available:	
<p>IC10-600 Cable for using units with auto cigarette jacks 620-5012 Block, aluminum, 40 holes for 0.5 ml centrifuge tubes. 620-5013 Block, aluminum, 30 holes for 1.5 ml centrifuge tubes. 620-5014 Block, aluminum, 40 holes for 0.5 ml and 15 holes for 1.5 ml 620-5015 Block, aluminum, 96 holes for 0.2 ml PCR tubes spaced for 8 and 12 tube strips. 620-5016 Block, aluminum, for "V" bottom 96-well assay plates 620-5017 Block, aluminum, for round bottom 96-well assay plates 620-5018 Block, aluminum, 24 holes for 2.0 ml vials 620-5019 Block, aluminum, 384 holes for 384-well assay plates 620-5020 Block, aluminum, for flat bottom 96 and 384-well assay plates 620-5021 Block, aluminum, 24 holes for 10 mm test tubes 620-5022 Block, aluminum, 12 holes for 15/16 mm test tubes 620-5023 Block, aluminum, 20 holes for 12/13 mm test tubes 620-5024 Block, aluminum, mixed holes for various sized test tubes 620-5025 Block, aluminum, 8 holes for 20 mm test tubes 620-5026 Block, aluminum, 30 holes for 6 mm test tubes 620-5027 Block, aluminum, 12 holes for 15ml centrifuge tubes 620-5028 Block, aluminum, 12 holes for 20ml scintillation vials 620-5030 Block, aluminum, 6 holes for 50ml centrifuge tubes 620-5031 Block, Aluminum, 4-slides for hybridizations, with black cover 620-5032 Block, Aluminum for 30-2.0ml Eppendorf centrifuge tubes 720-0008 Cover, assay plates and all assay plate blocks, 1.75" high 720-0009 Cover, aluminum blocks, 3.25" high</p>	