

MRC5000 Bath Medium Refrigeration Controller

OTS5000 Refrigerated Tray

INSTRUMENTATION AND MICROELECTRODES FOR NEUROSCIENCE RESEARCH

The MRC5000 Medium Refrigeration Controller and provided OTS5000 Refrigerated Tray add refrigerated medium capabilities to the OTS5000. The controller 3 digit LED displays the current temperature of the bath medium in degrees Celcius (°C). The temperature is maintained within .5°C. User controlled temperature of between 0°C to 10°C is available.

The OTS Refrigerated Tray is fitted with a Peltier heat exchange unit. A cold water source is circulated through the assembly to transfer heat. The tubing is connected to the tray with quick connect fittings. No tools are necessary for installation. The fittings are self sealing to prevent leaking during installation. The tray fits directly to the mounting platform of the OTS5000.



Ordering Information

The following Items are included under the following catalog numbers:

1 ea. Cat. #**85-20-0** MRC5000 Medium Refrigeration

1 ea. Cat. # **85-20-1** OTS Refrigerated Tray
Includes: Refrigerated Tray
Tubing

Features

- ◆ Temperature range of 0°C to 10°C.
- ◆ Temperature of medium maintained to .5 degree.
- ◆ 3 digit LED display of current bath medium temperature.
- ◆ Cooling cold water source attaches to the tray with quick –connect, self-sealing fittings. No tools required.
- ◆ Tray is easily removed for cleaning and specimen preparation.
- ◆ CLT5000 water tank available soon for closed loop system option.
- ◆ MRC5000 Controller compatible with OTS4000 and OTS3000 refrigerated trays.

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ILLUSTRATIVE PROCEDURE

Note: It is recommended that the bath medium solution be refrigerated previous to, and between, use to reduce the “cooling down” time.

1. Ensure that the water tubing is installed correctly.
2. Circulate cold water from the tap at a rate of 250/300mL/min. The exact flow rate is not critical as long as it exceeds 250 mL/min (no air bubbles visible in the line).
3. Ensure that no air pockets are trapped in the cooling unit and that water is flowing from the outlet tube.
4. Connect the output cable from the tray to the jack on the back panel of the MRC5000.
5. Fill the tray to within 5-6mm of the top with chilled bath medium.
6. With water circulating through heat exchanger from the tap, turn on the MRC5000 via the back panel switch..
7. Set the temp control to a goal temperature (commonly 3). This is the temperature that the bath will cool to over a period of time from the initial temperature. In most cases, it is not necessary to wait until the bath has reached the target temperature before performing the slice procedure.

OPERATING ENVIRONMENT

The MRC5000 is designed to be operated in a typical laboratory environment. The unit should be set up in a location to conveniently monitor the temperature reading.

Specifications:

Temperature Control Range: 0°-10°C.

Temperature Indication: 3 Digit LED display indicates temperature in .1 degrees Celsius with negative sign indicator.

Power Requirements: 115/230V AC 50-60Hz auto ranging fused at 1amp max current

Dimensions: Control Module: 8.25” X 6.25” X 5.5” (20.9cm X 15.9cm X 13.9cm)

Cooling Tray: 4.25” X 3.5” X 2.625” (10.8cm X 8.9cm X 6.7cm) with 3’ (91.4cm) cable.



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