



## Delta T Heated Culture Dish Lid with Perfusion Ports Instructions

### Description:

The Bioptechs Delta T® Heated Lid w/ Perfusion is a device, which will provide a condensate free optical surface on the top of a Delta T® Dish through which specimens can be trans-illuminated on an inverted microscope. It also provides a port for the introduction of gas above the specimen as well as perfusion ports for the exchange of media.

### Instructions:

When preparing to use the heated lid, it should be pre-warmed by either placing it in an incubator or connecting it to the heated lid output socket in the back of the controller for about 15 minutes. Connection is made to the Heated Lid through a three pin 0.1 pin header. Both of the outer pins are earth ground, the center pin carries current. Therefore, orientation of the connector does not matter. The controller end of the connector wire is a standard 5.5mm DC coaxial plug.

After the Heated Lids is warmed, it can be mounted to the Delta T® dish by applying a combination of downward and slight rotational force to the lid in such a manner to compress the o-ring seal to seat the lid on the dish. Removal also requires a slight rotating motion. It is powered by a 2.5-volt adjustable power supply located on the back of the Delta T®4 Controller. The voltage should be adjusted to a point where the temperature of the glass surface of the lid prevents condensation in the dish. The controller is factory set to 2.5 volts. However, It may be necessary to adjust the voltage depending on ambient conditions. An adjustment screw for this setting is provided adjacent to the Heated Lid Socket on the back of the Delta T4 controller. Alternate power supplies can be used including a DC battery or an AC adapter.

**Note:** A heat filter set is recommended in the transmitted light path. (Reflection filter before absorption filter).

### Cleaning:

The heating lid can be cleaned with mild laboratory soap and water, rinsed and dried. If sterilization is a concern it can be placed in an autoclave bag and autoclaved on a short cycle of about 15 minutes. Exercise extreme care in handling.

**Note:** After autoclaving it must be thoroughly dry on the outside surface before use.

### Important!

Do not apply electrical power to the lid if liquids are present on the coated surface of the lid (same surface as contacts). Make sure the lid is dry before use.

### Perfusion

Specimens can be perfused by attaching perfusion tubing to the ports provided. It is recommended to use the Bioptechs Micro-Perfusion Pump with the dual perfusion tubing for this purpose. A diagram of this configuration is available at: [http://www.bioptechs.com/Products/Delta\\_T/D\\_Perf/d\\_perf.html](http://www.bioptechs.com/Products/Delta_T/D_Perf/d_perf.html).

