OPERATION MANUAL FOR VP 742D HEATING BLOCK

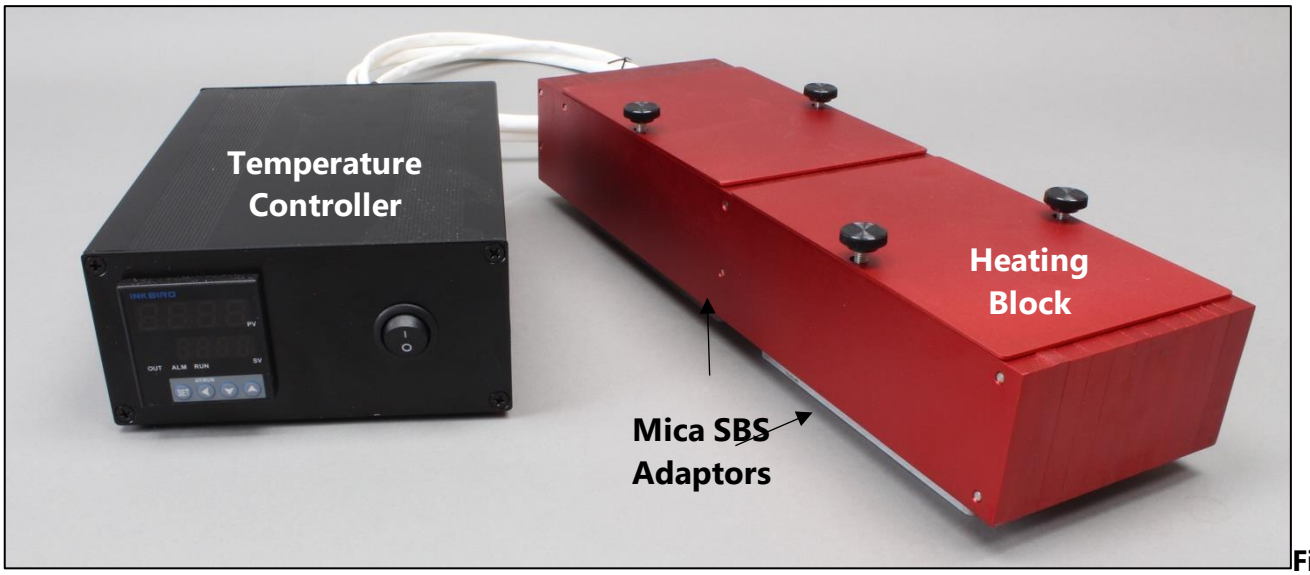

Figure 1. Parts of VP 742D Heating Block.

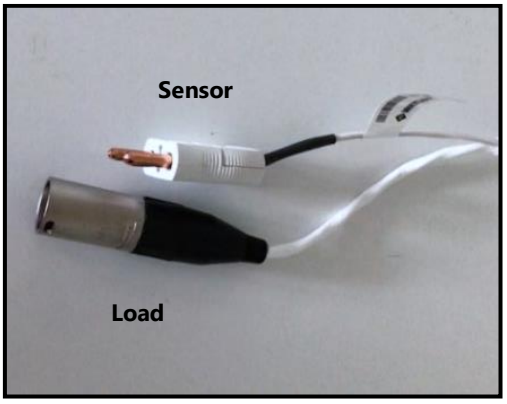

Figure 2. Back of Temperature Controller (left). Cable and plugs (right) for connecting Heating Block to Temperature Controller.

WARNING!!!!!

The VP 742D Heating Block will be very hot when operating, so exercise caution. Do not handle red aluminum heating portion of the unit while it is operating, it will be HOT!!

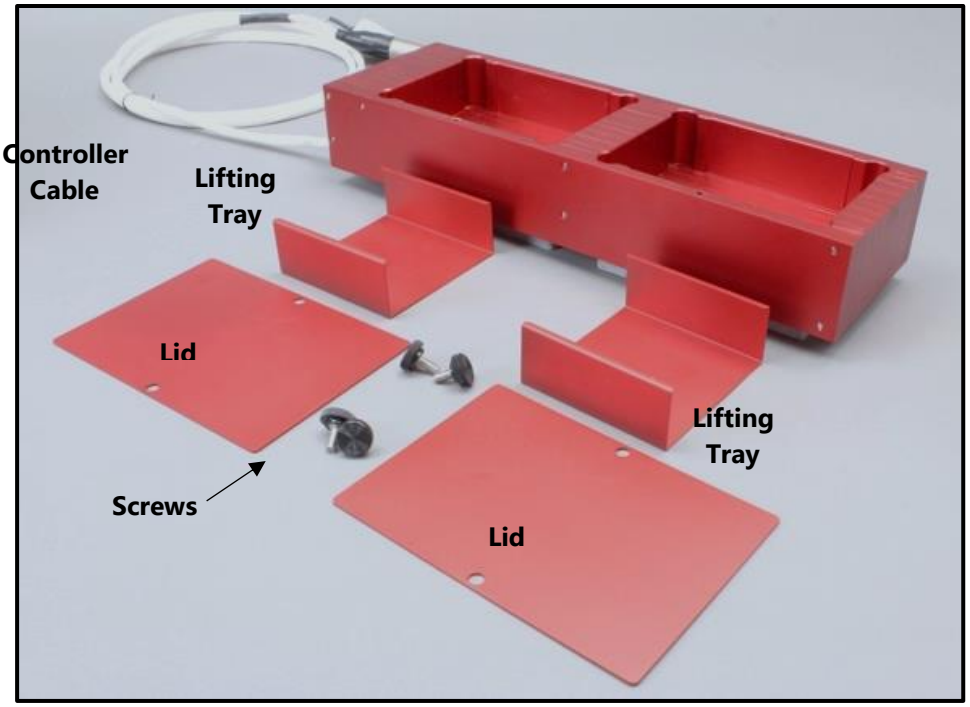

Figure 3. Aluminum lid (with securing screws), lifting tray and silicone sealing pad (not shown) for preventing evaporation.

SET-UP

HEAT BLOCKING INSTALLATION

1. Carefully remove Heating Block and Temperature Controller from packaging inside shipping box. Place the Heating Block on a working surface that is clear of heat sensitive items, such as paper or equipment, or heat conducting material. The Temperature Controller can be placed next to the Heat Block or up to 6 feet away with Connector Cable.

2. ***Important Note:*** Make sure to use Heating Block and PID Controller that have matching serial number (S/N). Once a Heating Block is calibrated using the PID Controller, this is important for maintaining that calibration. If Heating Block and Temperature Controller are mismatched, calibration must be carried out again. Heating Block serial number is found by turning over the block while the serial number for the Temperature Controller in on a label on its side.

3. The Heating Block Connector Cable, which is attached to the block, has two plugs on the free end for connecting to the Temperature Controller (refer to Figure 2). Connect the round 3-pin plug of the Connector Cable into the receptacle marked "Load" on the back of the Temperature Controller as shown in Figure 2. Also on the back of the Controller, connect the 2-prong plug of the Connector Cable into the receptacle marked "Sensor".

4. Connect power cord into the power receptacle on the back of the Temperature Controller. Connect the power cord to a 120 V outlet (VP 742ABZ-R-MB).

OPERATION

HEATING BLOCK OPERATION USING THE TEMPERATURE CONTROLLER

1. Turn on the Temperature Controller using the on/off power switch. The Controller already has a temperature programmed so the Heating Block will immediately begin to heat. The red number in the upper display is the current temperature of the Heating Block. The green number in the lower display is the set point during operation. See the Temperature Controller Operating Instructions (Appendix) for more details on features of the display.

2. To turn off the Heating Block without turning the power switch off, press the down arrow key until green lower display reads "OFF".

Figure 4. TEMPERATURE Controller Display for the VP 741D Series Heat Block

3. Although the center of the Heating Block will be at the temperature on the display, the actual temperature of samples in the microplate wells or tubes will be 3°C to 5°C below this temperature depending upon the efficiency of heat transfer. It is recommended that the temperature in one or more samples be measured directly to determine appropriate setting for a particular application.

4. For faster heat transfer, use a Heating Block Insert such as one that conforms to the bottom of a plate (for example, VP 741I6B or VP 741I6C) or an insert that holds tubes or vials. Contact V&P Scientific for information on these items.

5. The upper limit temperature on the Temperature Controller is set to 120°C at the factory. Temperatures higher than 120°C should not be used with polypropylene tubes or microwell plates. Polypropylene will melt at temperatures greater than 130°C. To operate at temperatures above 120°C, use of glass or other high temperature-stable containers is recommended.

OPERATION WITH A MAGNETIC TUMBLE STIRRER

If using with a V&P Scientific Magnetic Tumble Stirrer, please also follow the instructions for the Stirrer. It is recommended that only V&P Heating Block models with the special design to minimize Eddy currents be used for magnetic stirring applications. Please contact V&P Scientific for more information.

Product Maintenance

GENERAL PRODUCT CARE

When not in use, turn the power switch off.

Do not place the Temperature Controller in chambers with temperatures above 40°C.

Do not submerse Heating Block or Temperature Controller into liquid or allow liquid to come into contact with any openings. Clean up any spills quickly.

Do not fill Heating Block chamber with water as the anti-Eddy Current feature of the VP 742D is not completely watertight. Contact V&P if a water bath style of Heating Block is needed.

Do not for any reason open the Temperature Controller enclosure or the heating element compartment of the Heating Block. This will void the warranty.

For any other questions regarding the Controller, please refer to the INKBIRD Temperature Control Instructions (Appendix).

If technical assistance is required, contact: V&P Scientific, Inc. at 858-455-0643 or sales@vp-sci.com

WARRANTY

V&P Scientific, Inc. warrants this product to be free from defects in material and workmanship when used under normal laboratory conditions for one year. This warranty begins on the date of delivery from V&P Scientific.

In the event this product fails under normal laboratory conditions within the specified period of time because of a defect in material or workmanship, V&P Scientific will, at its option, repair or replace the product. Damage to the product caused by user negligence is not covered.

Please keep the special shipping carton in case the unit needs to be shipped back to V&P Scientific. Please contact V&P Scientific at the above address for return authorization and shipping instructions.

This warranty is made in lieu of other warranties expressed or implied including the warranties of merchantability and fitness for a particular purpose. V&P Scientific shall not be liable for loss or damages arising from the use of these products nor for consequential damages of any kind.

APPENDIX

INKBIRD Controller Operating Instructions: Supplied as an attached document TN 387-1.