



Temperature Control Unit

#171-48: Single Unit, 115 Volt
#171-48-1: Single Unit, 230 Volt
#171-48-4: Four Unit, 115 Volt
#171-48-4-1: Four Unit, 230 Volt

Instruction Manual

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Ver. 2

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Intro

The OFITE Temperature Control Unit is a convenient tool for precisely controlling the temperature of an electrical heating device. Simply plug the heating device into the back of the Temperature Control Unit and the built-in Eurotherm 2123 controller will regulate the power output to the heater. The controller can be set with either a simple temperature setpoint or an advanced timer.

The Temperature Control Unit is ideal for use with thermocups, hot plates, and heating jackets for filter presses.

Components

#141-17	Clip for Graduated Cylinder; Qty: 2
#152-37	AC Power Cord; 3-Conductor (115-volt Only)
#152-38	AC Power Cord; 3-Conductor; International (Continental Europe) (230-Volt Only)
#163-27	Medium Clip
#165-14-11	Fuse Holder
#171-48-2	Type J Thermocouple with 60" Coil Cord
#171-48-3	Plug Receptacle
#172-09	10 Amp Fuse; Box of 5
#172-24	Solid State Relay; 240V; 25 amp
#174-03	Electronic Controller

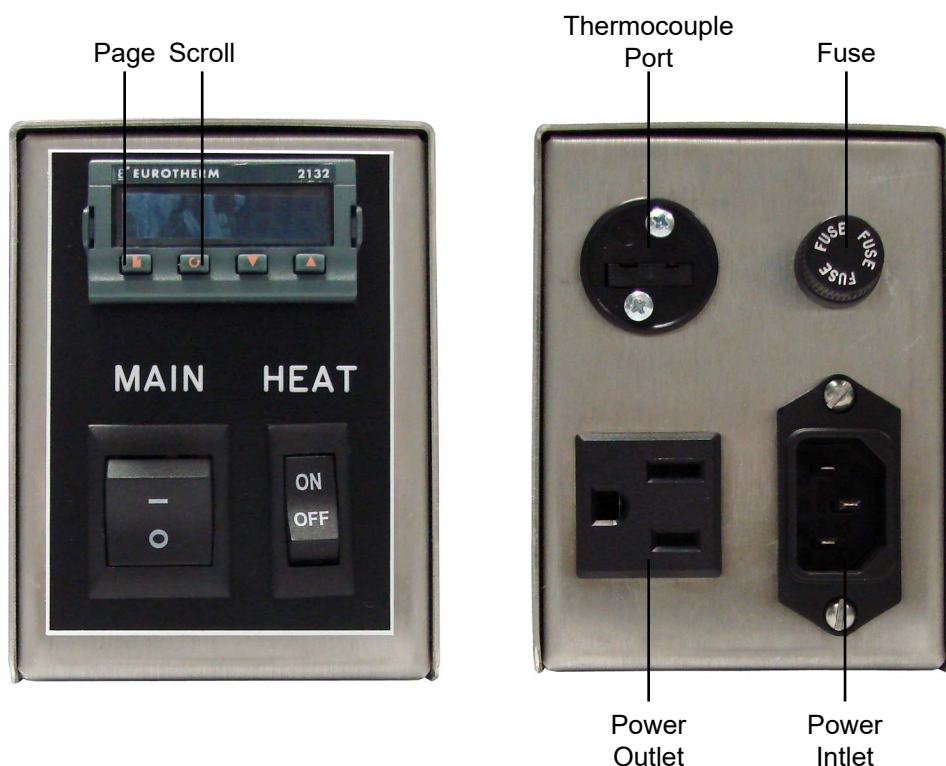
Specifications

- Maximum Temperature: 450°F (232.2°C)
- Maximum Power: 10 amps
- Temperature Controller: Eurotherm 2132 - Detailed instructions available from Eurotherm:
<http://www.eurotherm.com/support/manuals/2132.htm>

Basic Operation

1. Plug the Temperature Control Unit into an appropriate power outlet.
2. Plug the heating device into the back of the Temperature Control Unit.
3. Plug the thermocouple into the designated port on the back of the Temperature Control Unit.
4. Turn the “Main” power switch on. The Eurotherm controller will run through a short series of self tests. At the end of the tests the display will show the current ambient temperature. This is the home screen.
5. Use the “Up” and “Down” arrows to select a temperature setpoint. The “OP1” light in the upper left-hand corner of the display will illuminate when the controller is sending power to the heating device.
6. Turn the “Heat” switch on.

The “Heat” switch controls power to the outlet on the back of the unit. If the “Heat” switch is off, the heating device will not receive any power from the Temperature Control Unit, regardless of the reading on the display.



Timer Operation

1. Use the “Up” and “Down” arrows to select a temperature setpoint.
2. Press the “Page” button until the display reads “SP”.
3. Press the “Scroll” button until the display reads “tm.OP”.
4. Use the “Up” and “Down” arrows to select one of the five timer programs:
 - Opt. 1 - The controller will engage the heater up to the temperature set point **before** the timer starts. When the timer times out, the controller will turn off the heater. The display will flash “END” to signal that the timed program is complete.
 - Opt. 2 - The controller will engage the heater up to the temperature set point **before** the timer starts. When the timer times out, the display will flash “END” and leave the heat on indefinitely.
 - Opt. 3 - The controller will engage the heater up to the temperature set point **while** the timer is running. When the timer times out, the controller will turn off the heater. The display will flash “END” to signal that the timed program is complete.
 - Opt. 4 - The controller will engage the heater up to the temperature set point **while** the timer is running. When the timer times out, the display will flash “END” and leave the heat on indefinitely.
 - Opt. 5 - The controller will engage the heater up to the temperature set point **after** the timer times out. The heater will remain on indefinitely and the controller will return to normal operation.
5. Press the “Scroll” button until the display reads “tmr”. Use the “Up” and “Down” arrows to set the time (in minutes) that you want the timer program to run.
6. Press the “Page” and “Scroll” buttons simultaneously to return to the home screen. The timer program will now begin to run.
7. When the timer times out, the controller will enter standby mode (unless Opt. 5 is used). You must exit standby mode before using the timer again.
 - a. If the display is flashing “End”, press the “Page” and “Scroll” buttons simultaneously to return to the home screen.
 - b. If the “MAN” light is on, press the “Scroll” button until the display reads “M-A”. Press the “Up” arrow until the display reads “AUTO”. Press the “Page” and “Scroll” buttons simultaneously to return to the home screen.

Fuse Replacement

If the Temperature Control Unit does not power up when the “Main” switch is turned on, replace the fuse on the back of the unit.

1. Make sure the unit is unplugged from the power source.
2. Press the fuse holder in and turn it counter-clockwise $\frac{1}{4}$ turn.
3. Remove the fuse holder and replace the fuse.
4. Push the fuse holder back into the receptacle and turn it clockwise $\frac{1}{4}$ turn to lock it in place.
5. Plug the unit back into the power source and turn on the “Main” switch.

Warranty and Return Policy

Warranty:

OFI Testing Equipment, Inc. (OFITE) warrants that the products shall be free from liens and defects in title, and shall conform in all respects to the terms of the sales order and the specifications applicable to the products. All products shall be furnished subject to OFITE's standard manufacturing variations and practices. Unless the warranty period is otherwise extended in writing, the following warranty shall apply: if, at any time prior to twelve (12) months from the date of invoice, the products, or any part thereof, do not conform to these warranties or to the specifications applicable thereto, and OFITE is so notified in writing upon discovery, OFITE shall promptly repair or replace the defective products. Notwithstanding the foregoing, OFITE's warranty obligations shall not extend to any use by the buyer of the products in conditions more severe than OFITE's recommendations, nor to any defects which were visually observable by the buyer but which are not promptly brought to OFITE's attention.

In the event that the buyer has purchased installation and commissioning services on applicable products, the above warranty shall extend for an additional period of twelve (12) months from the date of the original warranty expiration for such products.

In the event that OFITE is requested to provide customized research and development for the buyer, OFITE shall use its best efforts but makes no guarantees to the buyer that any products will be provided.

OFITE makes no other warranties or guarantees to the buyer, either express or implied, and the warranties provided in this clause shall be exclusive of any other warranties including ANY IMPLIED OR STATUTORY WARRANTIES OF FITNESS FOR PURPOSE, MERCHANTABILITY, AND OTHER STATUTORY REMEDIES WHICH ARE WAIVED.

This limited warranty does not cover any losses or damages that occur as a result of:

- Improper installation or maintenance of the products
- Misuse
- Neglect
- Adjustment by non-authorized sources
- Improper environment
- Excessive or inadequate heating or air conditioning or electrical power failures, surges, or other irregularities
- Equipment, products, or material not manufactured by OFITE
- Firmware or hardware that have been modified or altered by a third party
- Consumable parts (bearings, accessories, etc.)

Returns and Repairs:

Items being returned must be carefully packaged to prevent damage in shipment and insured against possible damage or loss. OFITE will not be responsible for equipment damaged due to insufficient packaging.

Any non-defective items returned to OFITE within ninety (90) days of invoice are subject to a 15% restocking fee. Items returned must be received by OFITE in original condition for it to be accepted. Reagents and special order items will not be accepted for return or refund.

OFITE employs experienced personnel to service and repair equipment manufactured by us, as well as other companies. To help expedite the repair process, please include a repair form with all equipment sent to OFITE for repair. Be sure to include your name, company name, phone number, email address, detailed description of work to be done, purchase order number, and a shipping address for returning the equipment. All repairs performed as "repair as needed" are subject to the ninety (90) day limited warranty. All "Certified Repairs" are subject to the twelve (12) month limited warranty.

Returns and potential warranty repairs require a Return Material Authorization (RMA) number. An RMA form is available from your sales or service representative.

Please ship all equipment (with the RMA number for returns or warranty repairs) to the following address:

OFI Testing Equipment, Inc.
Attn: Repair Department
11302 Steeplecrest Dr.
Houston, TX 77065
USA

OFITE also offers competitive service contracts for repairing and/or maintaining your lab equipment, including equipment from other manufacturers. For more information about our technical support and repair services, please contact techservice@ofite.com.