



Dependable Products From People You Trust



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. 1.1

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Table of Contents

Introduction.....	2
Components.....	2
Specifications	2
Basic Operation	3
Timer Operation	4
Fuse Replacement.....	5

Introduction

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, retorts 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

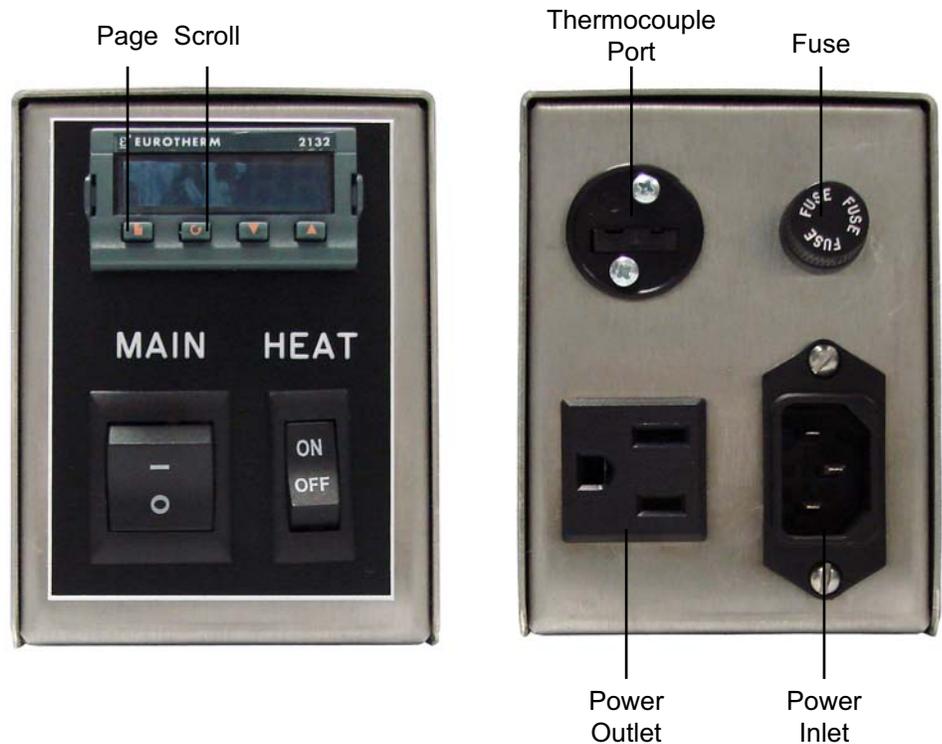
Specifications

- 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.