

Filter Oven with Controller 101FRDC00-50 / 101FRDC00-CTRL



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PRODUCT IDENTIFICATION

Part Number: _____

Serial Number: _____

Date Tested: _____

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DESCRIPTION

The DC Temperature Controller is designed to regulate the temperature of an optical filter, to keep the wavelength from varying with fluctuation in ambient temperature. It consists of an oven, extension cable and controller, which are all detachable. A digital display on the controller reads the internal temperature of the oven in degrees Celsius.

SUPPLIED EQUIPMENT

- 1 Oven
- 1 Controller
- 1 Extension Cable
- 1 Transformer with Adapters: USA, EUR, AUS and UK
- 1 Manual

FEATURES

- Regulation Accuracy: $\pm.2^{\circ}\text{C}$
- Display Accuracy: $\pm 1^{\circ}\text{C}$ to 35°C
- Min. Regulated Temperature: 36°C
- Max. Regulated Temperature: 60°C

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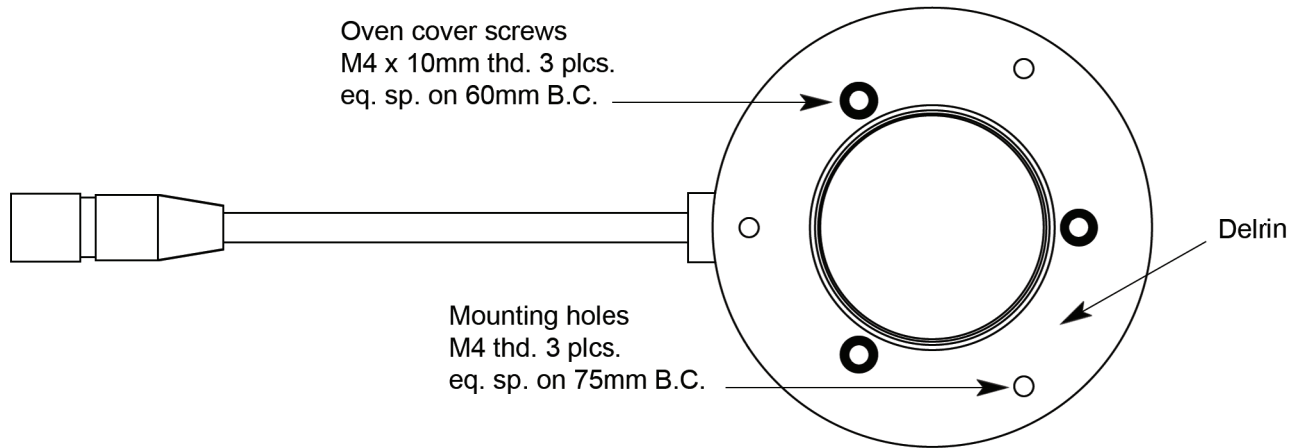
SPECIFICATIONS

ELECTRICAL	
Parameter	Description
Input Voltage	90-264 VAC
Input Frequency	47-63 Hz
Input Current	0.7 A Max.
Inrush Current	50 A Max. at 264 VAC

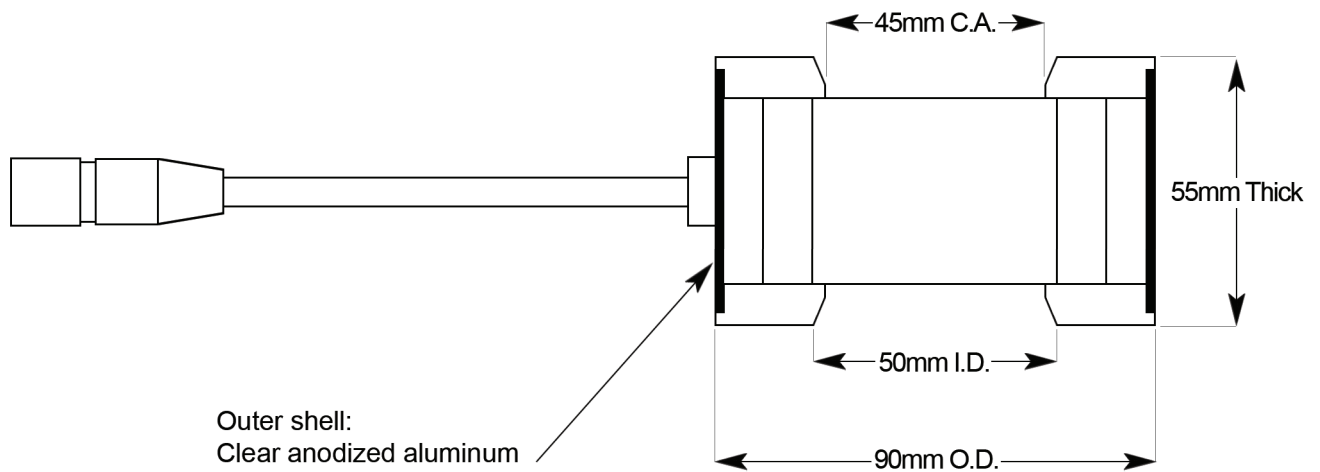
MECHANICAL / PHYSICAL	
Oven	Description
Dimensions	90mm DIA x 55mm thick (3.54" DIA. x 2.17" thick)
Weight	403 Grams (0.89 Pounds)
Connection	Circular 10-Pin Male Push-Pull Connector
Controller	Description
Dimensions	146mm x 107mm x 62mm (5.75" x 4.21" x 2.44")
Weight	400 Grams (0.88 Pounds)
Connection	2.1mm x 5.5mm Power Jack
	2 Tip Jacks
	Circular 10-Pin Female Push-Pull Connector
Extension Cable	Description
Length	1.24m (4' 1")
Connection	Circular 10-Pin Female Push-Pull Connector
	Circular 10-Pin Male Push-Pull Connector

Oven Mechanical Drawings: Top and Side Cross-Section Views

Top View

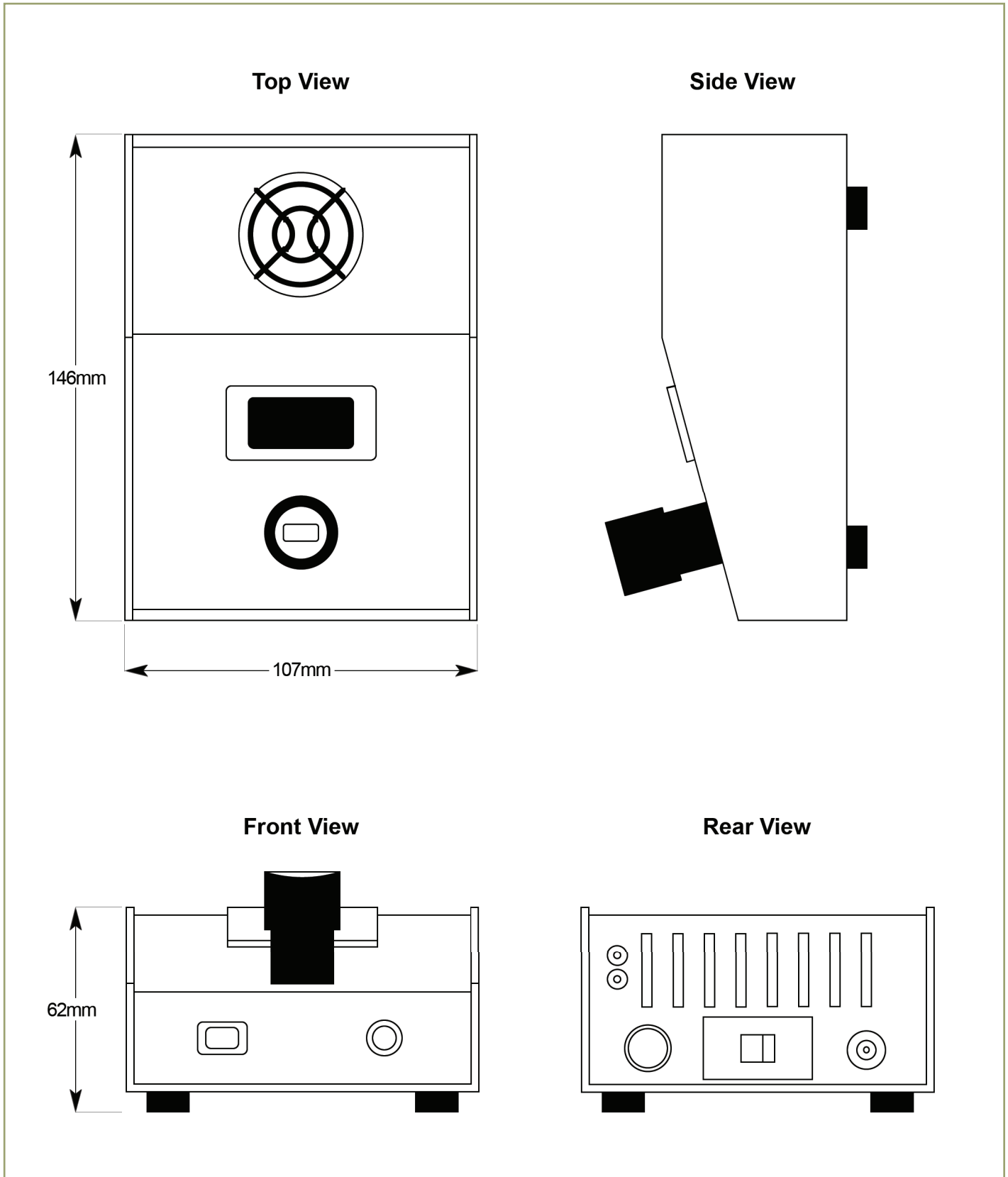


Side Cross-Section View



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Controller Mechanical Drawings: Top, Side, Front and Rear Views



OPERATION

- Plug 2.1 x 5.5mm plug into controller.
- Attach desired adapter to transformer and plug transformer into outlet.
- Plug filter oven into controller, either directly into the port on the rear of the controller or by using the extension cable in between.
- Make sure the red selector switch on the rear of the controller is in the right hand position, then turn on the unit by flipping the switch on the front of the controller. The indicator light and fan should come on, and the temperature display should show the current internal temperature of the oven.
- To adjust temperature, turn the knob. Turning it clockwise increases the temperature setting and turning it counter-clockwise decreases the temperature setting. The numerical readout on the knob indicates desired temperature in degrees Celsius. Allow approximately 10 minutes for the temperature to settle before adjusting the temperature again.

NOTE: Andover Corporation recommends having surge suppression on the input power to the transformer for best results.

TROUBLESHOOTING

Problem

Solution

Unit will not power on.

1) Make sure that transformer is securely plugged into both the outlet and the controller.

Temperature display reads “LO”.

1) Make sure that the oven, controller and extension cable and all of its cables are securely plugged in.

2) Make sure that the red selector switch is in the right hand position.

For all other problems, please contact Andover Corporation at (603) 893-6888.



CAUTION: Filter oven can operate at high temperatures. Use caution while handling to avoid bodily harm. Do not attempt to disassemble. Internal repairs should only be conducted by a trained Andover Corporation technician.

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CALIBRATION / TIP JACKS

By moving the red slider switch to the left and measuring the resistance across the tip jacks on the rear of the controller, the following table can be referenced if necessary.

TEMPERATURE VS. RESISTANCE		
Temperature (Celcius)	Resistance (kΩ)	Temperature (Fahrenheit)
36.0	6.314	96.8
36.5	6.189	97.7
37.0	6.067	98.6
37.5	5.946	99.5
38.0	5.829	100.4
38.5	5.713	101.3
39.0	5.600	102.2
39.5	5.489	103.1
40.0	5.325	104.0
40.5	5.274	104.9
41.0	5.170	105.8
41.5	5.067	106.7
42.0	4.967	107.6
42.5	4.869	108.5
43.0	4.772	109.4
43.5	4.678	110.3
44.0	4.585	111.2
44.5	4.494	112.1
45.0	4.368	113.0
45.5	4.276	113.9
46.0	4.196	114.8
46.5	4.117	115.7
47.0	4.039	116.6
47.5	3.963	117.5
48.0	3.889	118.4
48.5	3.815	119.3
49.0	3.744	120.2
49.5	3.673	121.1
50.0	3.603	122.0
50.5	3.536	122.9
51.0	3.470	123.8
51.5	3.404	124.7
52.0	3.340	125.6
52.5	3.277	126.5
53.0	3.216	127.4
53.5	3.155	128.3
54.0	3.096	129.2
54.5	3.038	130.1
55.0	2.988	131.0
55.5	2.924	131.9
56.0	2.870	132.8
56.5	2.817	133.7
57.0	2.766	134.6
57.5	2.715	135.5
58.0	2.665	136.4
58.5	2.616	137.3
59.0	2.568	138.2
59.5	2.521	139.1
60.0	2.491	140.0

REGULATORY

As required by the WEEE (Waste Electrical and Electronic Equipment Directive) of the European Community and the corresponding national laws, Andover Corporation offers all end users in the EC the possibility to return “end of life” units without incurring disposal charges.

- This offer is valid for Andover Corporation electrical and electronic equipment that is:
- Sold after August 13th 2005
- Sold to a company or institute within the EC
- Currently owned by a company or institute within the EC
- Still complete, not disassembled and not contaminated

As the WEEE directive applies to self contained operational electrical and electronic products, this end of life take back service does not refer to other Andover Corporation products, such as:

- Pure OEM products, that means assemblies to be built into a unit by the user (e. g., OEM laser driver cards)
- Components
- Mechanics and optics
- Left over parts of units disassembled by the user (PCB's, housing's etc.)

If you wish to return a unit for waste recovery, please contact Andover Corporation or your nearest dealer for further information.

Waste Treatment is Your Own Responsibility

If you do not return an “end of life” unit to Andover Corporation, you must hand it to a company specialized in waste recovery. Do not dispose of the unit in a litter bin or at a public waste disposal site.

Ecological Background

It is well known that WEEE pollutes the environment by releasing toxic products during decomposition. The aim of the European RoHS directive is to reduce the content of toxic substances in electronic products in the future.

The intent of the WEEE directive is to enforce the recycling of WEEE. A controlled recycling of end of life products will thereby avoid negative impacts on the environment.

LIMITED WARRANTY

Andover warrants that all Products shall conform to the Product specifications and shall be free from defects in materials and workmanship for a period of one year from date of purchase. This Limited Warranty shall not apply in the event of any failure caused by accident, misuse, neglect, alteration or improper installation or repair by the Purchaser.

DISCLAIMER OF OTHER WARRANTIES – THE LIMITED WARRANTY SET FORTH ABOVE IS IN PLACE OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND ANDOVER EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SPECIFICALLY, IT IS THE PURCHASER’S RESPONSIBILITY TO TEST AND DETERMINE THE SUITABILITY OF THE PRODUCTS FOR PURCHASER’S INTENDED USE WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE PURCHASER.

LIMITATION OF REMEDIES AND DAMAGES - Andover’s sole obligation and the Purchaser’s sole and exclusive remedy under the Limited Warranty set forth above shall be limited to (a) replacement of defective Products provided that written claim of the defect is sent to Andover within the Limited Warranty Period, the original product is returned with transportation prepaid, and Andover’s inspection establishes the existence of such defect; or (b) in the sole discretion of Andover, return of the original purchase price received by Andover from the Purchaser.

Andover shall in no event be liable for any damages, including without limitation, lost profits, incidental or consequential damages by reason of or in connection with the purchase or use of the Products.

INDEMNIFICATION – The Purchaser agrees to indemnify and hold Andover harmless from and against any claim, loss, cost or expense resulting from Purchaser’s use of the Products, whether such claim arises in contract, tort or otherwise.

GOVERNING LAW – All matters arising under this Limited Warranty and other terms and conditions of sale shall be governed by the laws of the State of New Hampshire. The Purchaser consents to the exclusive jurisdiction of the courts of the State of New Hampshire in all matters relating to the purchase, sale and use of the Products.

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