

Column Oven
ATC-700
User's Manual

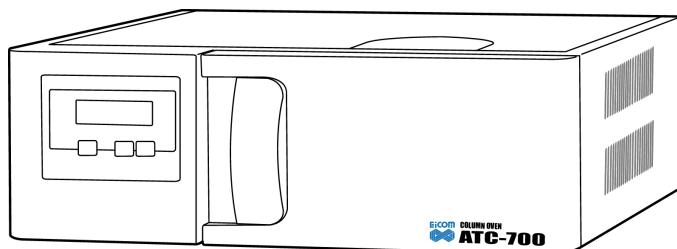


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Introduction

Thank you for your purchase of Eicom Column Oven Model ATC-700.

This equipment is suitable for the temperature control of HPLC columns and Eicom Electrochemical Detector Model ECD-700 near the room temperature. The ATC-700 performs best when using with Eicom HPLC Pumps System EP-700 and Eicom ECD-700.

The ATC-700 has a Peltier device to heat and cool the air inside the chamber by convection. At the normal setting temperature range near room temperature, the temperature regulation will be at the $\pm 0.1^{\circ}\text{C}$ accuracy. It works exceptionally well to stabilize the temperature of the mobile phase and the electrochemical detector cell.

Safety Precautions

Operation of the ATC-700 should only be performed by personnel trained in laboratory work, and who are aware of the possible dangers involved in chemical reagents and other possibilities. Read this manual carefully and in full. All safety and operating instructions should be read prior to operation.

In this User's Manual, the items that the users need to pay attention to are denoted as the below.



Warning; This mark indicates “a potential hazardous situation which, if not avoided, could result in death or serious personal injury.

Caution

Caution. This mark indicates “a potentially hazardous situation which, if not avoided, could result in minor or moderate personal injury, or property damage.

Note; This indicates reference information.



Use of Hazardous Material

When using the ATC-700, the use of hazardous materials, such as chemical reagents, is necessary. If you do not handle these materials appropriately, it may result in your death or serious injury.

When necessary, safety gloves, safety masks, and safety glasses should be worn. The instruments can be placed under a ventilated laboratory hood, if needed..



Flammable Material

When using the ATC-700, you may use flammable liquids such as organic solvents. These materials have a high risk of fire or explosion. Do not use them near possible sources of ignition, such as flame or electric sparks.

Caution

If you are using a non-Eicom recommended analytical condition, please contact Eicom and check if the condition meets to the product specification before setting up the experiment. If you do not check with Eicom and the product is damaged, the cost of the repairs and associated costs will be charged to you regardless of the warranty period.

Caution

Do not cover the ventilation slits on the back and side pannel of the ATC-700. If you do so, the electronic parts may overheat and be damaged. Please keep a distance of at least 10 cm between objects and the ATC-700.

Caution

Please take care not to spill any fluids on the ATC-700. This includes any liquid that may leak from loose tube fittings. If any solution comes into contact with the mechanical or electric parts, the ATC-700 will be damaged, possibly beyond repair..

2. Specification

Method of temperature control convection	Heating and cooling with a Peltier device by
Setting Temperature Range	1°C~5°C (1°C increment)
Practical Setting Temp. Range	20°C~4°C when ambient is 25°C
Accuracy of Temp. Regulation	±0.1°C
Maximum Column Length	25 cm
Column Clips	2 pcs
Dimensions	400W x 400D x 145H mm
Weight	approx. 10 kg
Power Supply	AC100~240V 50/60Hz 210W

3. Setup

3.1 A list of the parts in the package

When you open the box, please confirm if the package contains the following accessory parts.

List of Accessory Parts included in the ATC-700 package

Item	Code	Qty	Remarks
User's Manual		1	
Main Product	ATC-700	1	
Ventilation Duct		1	ECD-700
Power Cable		1	
Power Cable Adapter		1	3 Pins to 2 Pins
Grounding Wire		1	

3.2 Installation

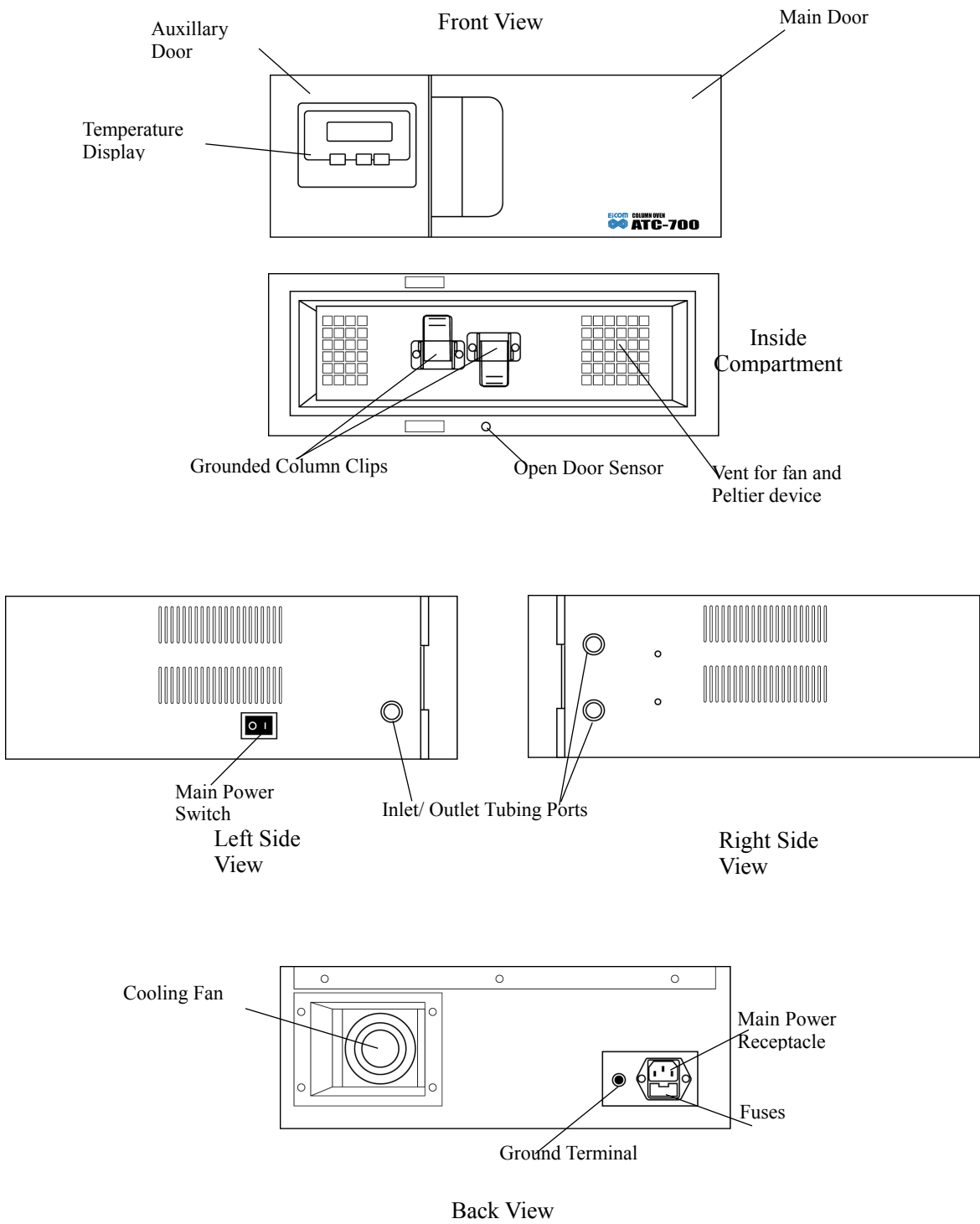
Make sure the installation location meets the following requirements.

Please keep objects away at least 10 cm for the side, front and back panels. Do not put something other than another Eicom 700 series component on top of the ATC-700.

Place the ATC-700 on a level and sturdy bench top in an indoor laboratory which meets the following requirements.

1. The room temperature during the operation needs to be in the range of 15~30C.
2. No high humidity environments where condensation may form on the equipment..
3. Not exposed to direct sunlight.
4. Away from air conditioning or heating vents.
5. No vibration.
6. Clean environment with a minimum of dust.
7. Not near any other device that can generate strong electromagnetic fields.
8. Not exposed to any corrosive or flammable gas.

3.3 Parts Names



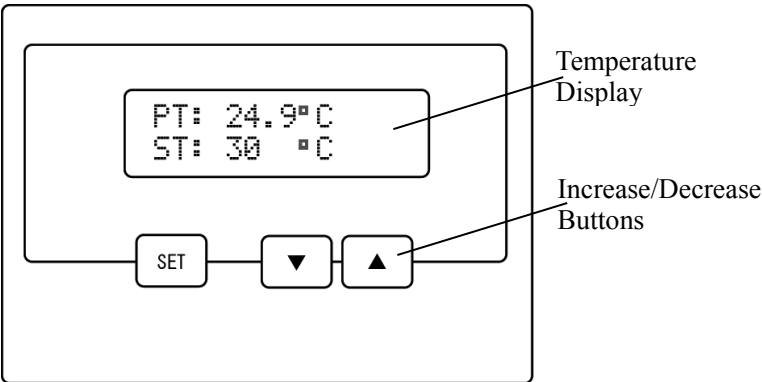
3.4 Power Supply

Always use the power cable came with the machine.

Power Voltage : AC 100V~240V (±10V)
Frequency : 50-60 Hz
Consumption : 210 W




4. Operation

4.1 Display Panel



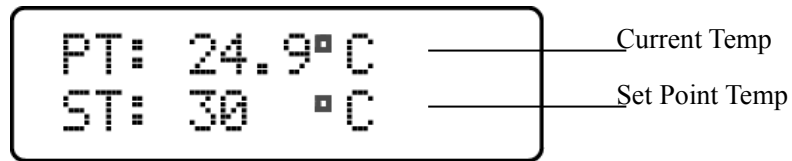
Display Panel

4.2 Operation Keys

Key	Name	Function
	Set	• Enter the setting temperature
 	Arrows	• Choosing setting temperature

4.3 Display

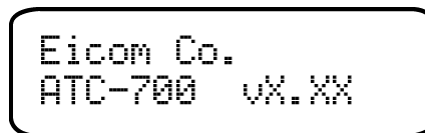
PT displays the current temperature and ST displays the set point temperature.



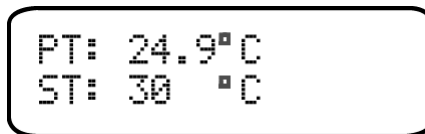
4.4 Main Power ON/OFF

The main power ON/OFF is located on the left side as you face the instrument. After the initial display, the display will show the status.

< Initial Display >



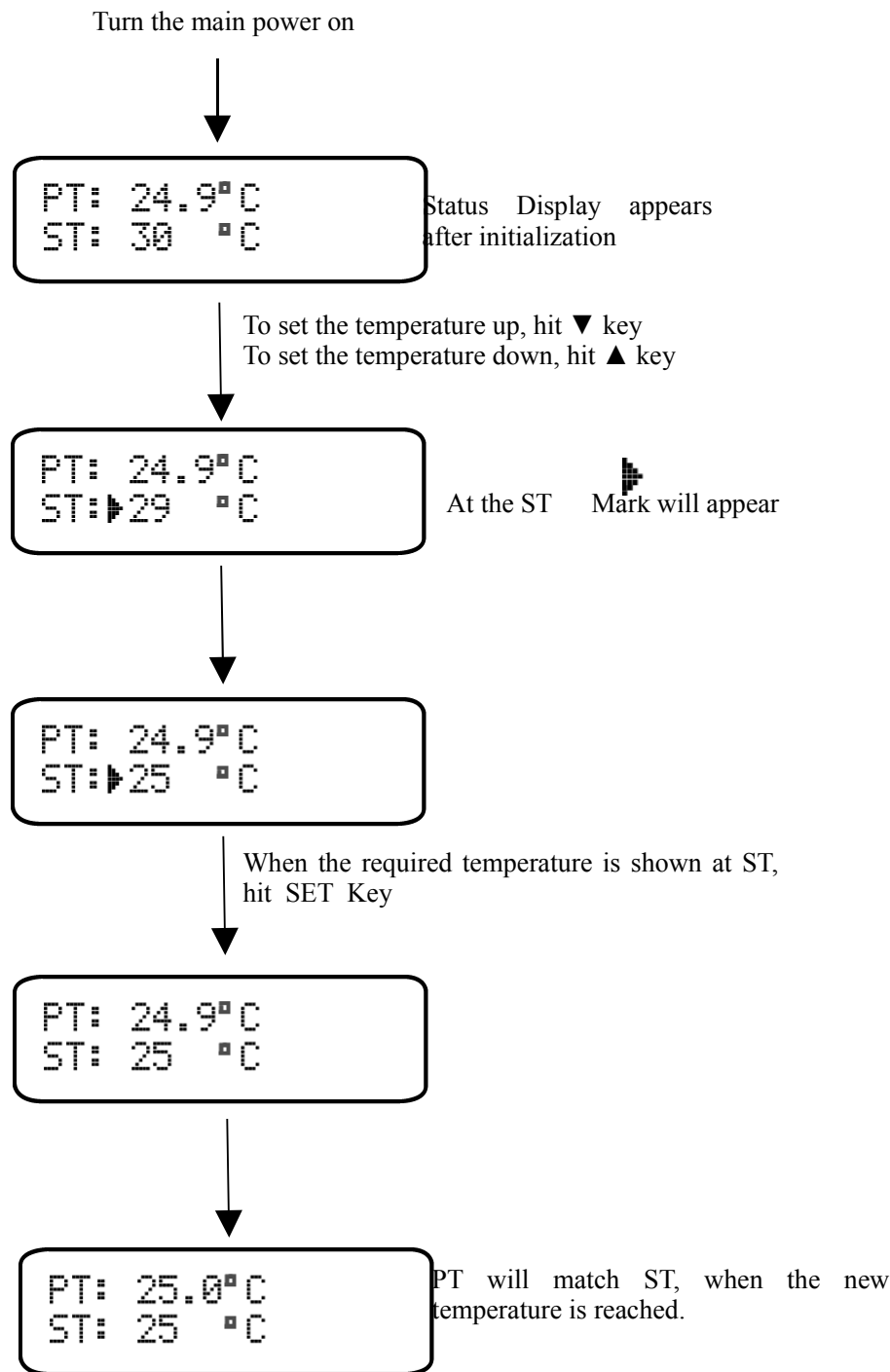
< Status Display >



* Set Point temperature is stored.

4.5 Operation

How to change the setting temp



5. Error Messages

< Error Messages and Solution >

Error	Cause	Solution
OPEN	Front Door Open	Close firmly. While OPEN is display, the temperature control is turned off.
ERROR 2 (with beep)	Temperature Sensor Error	Turn of the main power and wait 15 sec. Then turn on again. If the error persists, please contact us.
ERROR 3 (with beep)	Peltier Unit Error	Turn of the main power and wait 15 sec. Then turn on again. If the error persists, please contact us.

6. Ventilation Duct

This ventilation duct comes with the ATC-700 and can be installed according you your needs. If you need to attach the duct by yourself, please contact us.

Limited Warranty

Warranty Period: One year from the original purchase date as defined by the date of your Eicom invoice.

Warranty Information: During the warranty period, this Eicom product is covered by a limited liability warranty covering manufacturer defects. In the case that the machine is defective, it will be repaired or replaced free for charge.

Void of Warranty: The manufacturer's warranty will be voided under the following conditions:

- 1 Failure to follow instructions and warnings relating to product's use.
- 2 Repair or alteration by anyone other than Eicom.
- 3 Damage during shipping or transit, or any other accidental damage.
- 4 Damage due to use with hazardous voltages.
- 5 Damage due to improper connection of equipment.
- 6 Damage due to any act of God.
- 7 Any other inappropriate usage of parts or consumables that is not authorized by Eicom.

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