

WATER-I.D.[®]

WATER TESTING EQUIPMENT ● ● ●

THERMOLAB 1.0

USER MANUAL



V10

QUALITY REAGENTS
MADE IN GERMANY

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Introduction

1. INTRODUCTION

1.1. Product description

The Thermolab 1.0 is a programmable heating block for up to 12 x 16 mm glass vials (tube tests).

It offers six pre-set temperatures (70 / 100 / 120 / 148 / 150 / 160 °C) plus the option to enter an individual target temperature.

The heating time can be selected from the four pre-set heating times (30 / 60 / 90 / 120 min) or it can be entered individually.

1.2. Technical Specifications

Capacity	max. 12 x 16mm glass vials
Screen	colored 3.5 inch, 480*320 resolution touch.screen
Operation	icon based touch menu
Temperature Range	70 / 100 / 120 / 148 / 150 / 160 °C/ individ. temp.
Temperature Stability	± 1 °C
Warm-up Time	from 25 °C to 160 °C within 15 min
Heating Times	30 min, 60 min, 90 min, 120 min, individual
Safety	by a temperature protection module (built in)
Enviromental Conditions	10 °C - 40 °C, RH 80% non condensing
Power Supply	200 - 230 V (AC), 50 Hz
Power Consumption	max. 350 Watt
Dimensions	15 x 27 x 11 cm (5.9 x 10.6 x 4.3 inch)
Weight	2 kg (4.40 lbs)
Warranty	2 years

Safety information

2. SAFETY INFORMATION

The manufacturer is not responsible for any damages due to misapplication or misuse of this product including, without limitation, direct, incidental and consequential damages, and disclaims such damages to the full extent permitted under applicable law. The user is solely responsible to identify critical application risks and install appropriate mechanisms to protect processes during a possible equipment malfunction.

Please read this entire manual before unpacking, setting up or operating this device. Pay attention to all danger and caution statements.

Failure to do so could result in serious injury to the operator or damage to the equipment.



2.1. General warnings

Please observe the following safety instructions:

Follow the safety information and instructions in this user manual and take notice of the labels and notices on the device.

Do not open the device! Any warranty claims will be invalidated in the event of non-compliance.

The operation of this unit may require the use of hazardous chemicals or biologically harmful samples.

Before handling these substances, observe all hazard warnings and safety information printed on the labels of the original solution and in the safety data sheet.

All used solutions must be disposed in accordance with national regulations and laws. The type of protective equipment must be appropriate to the concentration and quantity of the hazardous substance at the workplace.

Always keep the safety cover(s) closed during operation.



2.2. Risk of burns / electrical shock

The safety cover must be installed to avoid personal injury .

The sample cuvettes are hot. Wear suitable protective equipment (e.g. thermally insulating gloves). Do not remove the sample cuvettes until the temperature is $> 80^{\circ}\text{C}$.



Test cuvettes may contain corrosive and hazardous substances. When working with the cuvettes, wear suitable protective equipment. Observe the safety data sheet (SDS) of the test kit used.

Cuvettes can overheat! Risk of burns, chemical burns and cuts. Check the digestion conditions. Observe the notes and instructions in the operating manual of the test kit used. Pay particular attention to the digestion temperatures and digestion times specified there.

Cuvettes can be damaged during the digestion process. Do not use cuvettes that are damaged or have fallen down. Look for damage to the cuvettes before inserting them into the thermoblock.

Safety information

The thermoblock becomes very hot, there is a risk of burns. Do not put your fingers into the holes of the heating block. Close the protective cover during operation and keep the cover closed during the entire heating and cooling phase.

Do not clean the appliance when it is still hot. Do not use flammable cleaning agents or organic solvents to clean the appliance.

The safety cover must be installed, to prevent personal injury.



2.3. Risk of injury

Place the appliance on a flat surface. Do not stack the unit. Set up the unit in a laboratory or laboratory-like environment (recommended location: fume cupboard).

Only set up the unit in a designated place. Make sure the surface is dry, clean, level and horizontal to prevent the unit from overheating.

If possible, place the unit on a flame-retardant surface (e.g. laboratory bench).

Before working with the appliance, familiarise yourself with it and read this document carefully.

Do not use the appliance unless you have been instructed in its use.

Defects in the power supply and the housing can lead to a malfunction of the unit. If the unit has an apparent break in the housing or a damaged power supply, it must be taken out of operation.

Use only the power cable supplied.

If the cuvettes cool down quickly, there is a risk that the cuvettes will break and cause cuts. Do not cool hot cuvettes with cold water unless explicitly instructed to do so. Allow the cuvettes to cool in the air or in the thermoblock.

When performing digestion in an open system (e.g. digestion with attachment cooler), harmful vapours may escape.

When carrying out a digestion with open cuvettes (digestion with attachment cooler), the thermoblock must be operated under a fume hood.

Contaminated holes can damage the cuvettes used. Check the cleanliness of the boreholes at regular intervals and during maintenance. Contaminated boreholes must not be used for sample digestions. Clean the dirty boreholes.

The use of parts not approved by the manufacturer may result in personal injury and damage or malfunction to the unit or equipment. Only approved spare parts may be used and installed by trained personnel designated by the manufacturer.

Safety information / Disclaimer / Warranty/Disposal



2.4. Risk of damage to the device

The unit is designed for indoor use only. Operate the unit in a clean and dry environment.

Be careful not to overload the mains socket. There is a risk of overload and fire.

Make sure that the mains cable is not damaged.

Check the suitability of the power source used for the appliance.

Contaminated cuvettes can damage the thermoblock. Clean the outside of the clean the outside of the cuvette before inserting it into the holes of the thermoblock.

Whenever cleaning is carried out, the unit must be switched off and disconnected from the power supply.

3. DISCLAIMER

The manufacturer is not responsible for any direct, indirect, incidental or consequential damages arising from errors or omissions in this manual.

The manufacturer reserves the right to make improvements to this manual and the product described herein at any time without prior notice or obligation. Revised editions of the operating instructions are available on the manufacturer's website (www.water-id.com).

The ThermoLab 1.0 is a device for stationary use in the laboratory. It is used for sample preparation using colourimetric test kits and digestion chemicals.

4. WARRANTY

The warranty for this device is 24 months from the date of purchase. The original invoice serves as proof and must be presented when making a claim. Improper handling and / or maintenance of the unit will void the warranty. It does not cover defects caused by an external power supply other than the one supplied.

The warranty is limited to the repair of defective parts or - at the discretion of Water-i.d. GmbH - to the supply of a proper replacement unit. The warranty period of 24 months is not affected by a claim under warranty. There is no right of withdrawal. Further claims are excluded. This includes in particular all claims for damages resulting from consequential or indirect damage. In addition, our general terms and conditions of sale and delivery apply in the respective valid version, as published on www.water-id.com.

5. DISPOSAL

According to EU Directive 2012/19/EU, the disposal of this device via the public disposal systems is prohibited.

In accordance with the EU Directive 2012/19/EU, Water-i.d. GmbH will take back your old device and dispose of it free of charge.

Please contact your local Water-i.d. partner.



Installation / Delivery content / Appearance

6. INSTALLATION

6.1. Installation location

The ThermoLab 1.0 may only be set up in a suitable location. The installation location should be dry and clean. Also, the ventilation slots located under the unit, should not be blocked. Blocking these slots can cause the unit to overheat.

6.2. Delivery content

Open the box carefully with a sharp object. Be careful not to damage the unit when opening it. Check the carton, the unit and the accessories for any damage. If any item is damaged, please contact our support team immediately.

Delivery content

1. Thermolab 1.0 Thermoreactor with protective cover
2. Power cable (EU socket)
3. Printed user manual

6.3. Appearance



1. Touch screen
2. Protective cover
3. Heating block
4. Power on/off switch
5. Fuse
6. Power-in socket

Operation

7. OPERATING INSTRUCTIONS

7.1. Switching on

Remove the ThermoLab 1.0 and all accessories from the packaging box. Place the device at room temperature on a dry and level surface that is protected from direct sunlight. Connect the heating block to the mains and switch the unit on with the main switch on the back.



Info: Model and firmware version are displayed

Note: Never put any object other than designated analysis vials into the heating holes

7.2. Display

The ThermoLab 1.0 is equipped with an illuminated colour touch screen display. The display is operated by touching certain icons. Familiarise yourself with the functions of the touch screen by tapping the icons with your finger or a special pen. After touching an icon, the corresponding function is activated. Do not use sharp or pointed instruments to operate the touch screen. Clean the touchscreen display with a microfibre cloth when the unit is switched off. Do not use any cleaning agents for cleaning.



Main screen

Operation

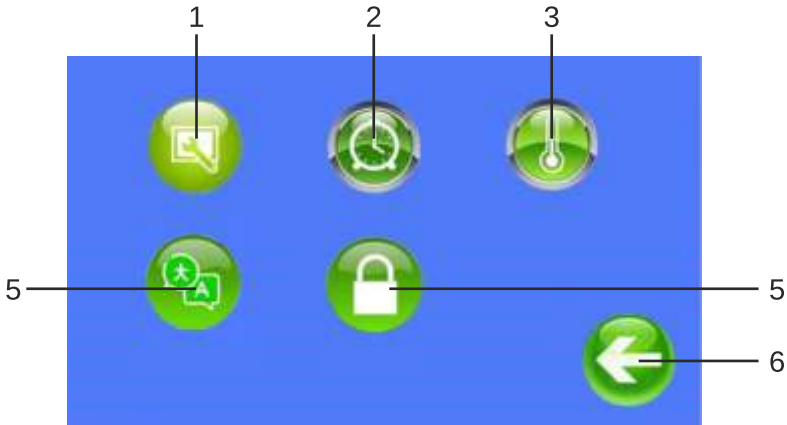
7.3. Settings



Enter the Settings menu by tapping this icon.

In the Settings menu you can:

- Calibrate the temperature
- Adjust the brightness of the display
- Set date and time
- Perform a temperature calibration



Settings

1. Display settings
2. Date/Time settings
3. Temperature calibration
4. Language settings
5. Service menu
6. Back to main screen

7.3.1. Display settings

You can adjust the display brightness by sliding the slider left or right.

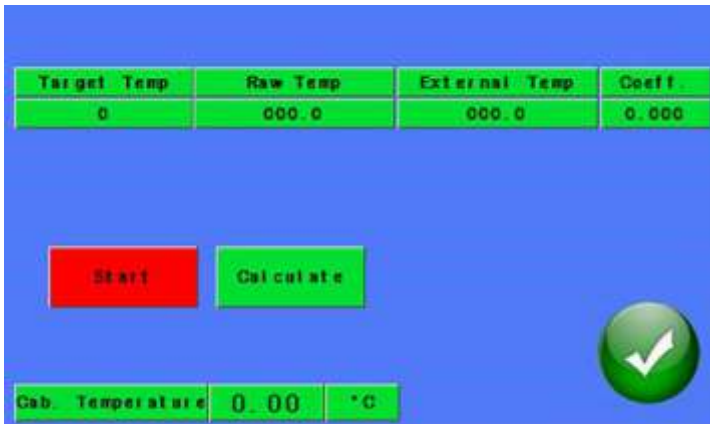
7.3.2. Date / Time settings

You can adjust the date and time by tapping on the "+" and "-" symbols.

Operation

7.3.3. Temperature calibration

After tapping on the Temperature calibration button, a password needs to be entered to reach the calibration screen. The default password is “1234”.



Calibration screen

To perform a temperature calibration, enter the temperature value in the target temperature field and tap on the „Start“ icon. The unit starts to heat. You need a calibrated external thermometer to check the temperature. Insert the external thermometer into the opening on the heating block. Wait until the unit reaches the target temperature and stabilises. You can read the current temperature in the 'Raw temperature' section. After the unit has stabilised, you should enter the value shown by the external thermometer into the "External Temp." field. After doing so, tap on the "Calculate" icon. The ThermoLab 1.0 starts the calibration process and displays the new temperature coefficient in the "Coeff." field.

The ThermoLab 1.0 is now calibrated. Tap on the Check icon to save this settings.

7.3.4. Language settings

Tap on the language settings icon and select the desired language. Tap on the Back icon to save the selected language as the one to be used from now on.

7.3.5. Service menu

The service menu is password protected and can only be used by designated service personnel.

Operation

7.4. Heating

Use the following icons to set the heating temperature, the heating time and to start the heating process:



By tapping on this icon, you enter the heating time menu in which you can either choose from one of the pre-defined heating times (30 min, 60 min, 90 min, 120 min) or you can enter an individual heating time.



By tapping on this icon, you enter the heating temperature menu in which you can either choose from one of the pre-defined heating temperatures (70 / 100 / 120 / 148 / 150 / 160 °C) or you can enter an individual temperature.



After the heating time and the heating temperature have been selected, tap on the „Start“ icon to start the heating process. Once tapped, the screen will display the analysis screen.



To abort the heating process you can tap on the „Stop“ icon. Your ThermoLab 1.0 will stop heating and will start to cool down.



Analysing screen

Target temperature, Actual Temperature, Remaining Time and Temperature Time graphic can be observed from the analysing screen. The ThermoLab 1.0 will heat up to the target temperature and will send an audio feedback once the targeted temperature is reached. The time recording will start once the targeted temperature is reached. Once the defined heating time elapsed, there will be another audio feedback and the ThermoLab 1.0 will stop the heating process / start to cool down.



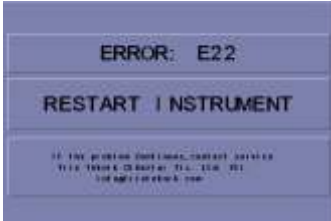



During heating process, heater block holes may be hot. For preventing burns do not touch the block when it is hot and don't move instrument before it cools.

Service

8. Service

8.1. Error messages

The unit may issue error messages when there is a malfunction or a warning. These error messages may be caused by a user error or a malfunction of the device. If you cannot solve the issue, please contact our support center.

Error Message	Reason	Solution
	<p>High temperature ($> 200\text{ }^{\circ}\text{C}$)</p>	<p>Switch the device off. Wait 10 minutes. Switch on again. If the issue persists, contact our service team.</p>
	<p>No temperature value entered</p>	<p>Tap on the temperature icon and enter a valid target temperature</p>
	<p>No heating time entered</p>	<p>Tap on the clock icon and enter a valid heating time</p>
	<p>ThemoLab 1.0 cannot reach the targeted temperature on time</p>	<p>Heating hardware might have a defect. Please contact our service team</p>

Service / RoHS declaration

8.2. Cleaning

Make sure your ThermoLab 1.0 has cooled down. Clean the surface of the device with a soft, moist cloth and a weak soap solution. Make sure that no water leaks into the device!

If the liquid reagent in a sample cell spills or a sample cell breaks:

1. Turn the instrument off and disconnect the power cord.
2. Let the temperature of the heating block and sample cell(s) decrease until both have cooled down.
3. Remove glass pieces by using tweezers.
4. Remove spoiled liquid with a pipette. Do not let the liquid touch your skin.
5. Dispose the collected liquid in a proper way (see MSDS).

9. RoHS declaration of conformity

“Directive 2011/65/EU (the RoHS Directive) OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment” superseding “Directive 2002/95/EC (the RoHS Directive) OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003. The Certificate of Compliance includes Directive 2015/863 published in 2015 by the EU (often referred as RoHS 3) and Directive 2017/2102/EU published by the EU November 17, 2015.


Based on the information provided by our supply lines, and our certain knowledge pertaining to our own processes, products supplied by Water-i.d. GmbH are RoHS compliant for orders placed on or after the January 1, 2006. Products supplied on or after January 3, 2013 are also RoHS compliant according the Directive 2011/65/EU, Directive 2015/863 and Directive 2017/2102/EU from the moment the respected directive came into force.

The confirmation of compliance status by our supply lines is granted for products which do not contain any of the restricted substances referred to in Annex VI in the RoHS Directive 2011/65/EU & Directive 2015/863 with a higher than maximum concentration values tolerated by weight in homogeneous materials.

Water-i.d. GmbH has taken all reasonable steps to verify the supply line information regarding the absence of restricted substances.

CE-certification

10. CE-certification



Attestation of Conformity

Name and Address of Attestation Holder: Water-I.D. GmbH Daimlerstraße 20, 76344 Eggenstein - Germany	Document Number SE-1112-01-261222
Name and Address of Manufacturer: Trio Teknik Cihazlar Tic. Ltd. Şti. OSB Mah. Giyim Sanatkarları Sitesi 4A Blok Kat:5 No:503 Başakşehir, İstanbul - TURKEY	Date of Issue: 26.12.2022
Brand: WATER-I.D. WATER TESTING EQUIPMENT	Expiration Date: 26.12.2023
Product Name: Heater / Digestor Block	Test Report Number: LVD-1112-01 EMC-1112-01
Product Model: ThermoLab 1.0	Test Required: EN IEC 61326-1:2021 EN IEC 61000-3-2:2019/A1:2021 EN 61010-1:2010/A1:2019


CE


The product meets the technical requirement of the above standards as mentioned in the reference test reports and hence fulfils the technical requirements of the following directives


2014/35/EU Low Voltage Directive
2014/30/EU Electromagnetic Compatibility Directive

This document is only valid for the equipment and configuration described, in conjunction with the test data detailed above reference test reports. Document was issued on voluntary basis and does not imply meeting Notified Body conformity assessment procedure for the product.
The CE Mark, under the responsibility of the manufacturer or the importer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives.

SIGNATURE







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www.cgstestmerkezi.com
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Certificate of Compliance

11. Certificate of compliance

We hereby certify that the device

ThermoLab 1.0

with it's serial number as stated below,
has passed intensive visual and technical checks
as part of our QM documentation.
We confirm the device has been factory-calibrated.



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Water-i.d.[®] is certified according to ISO 9001:2015