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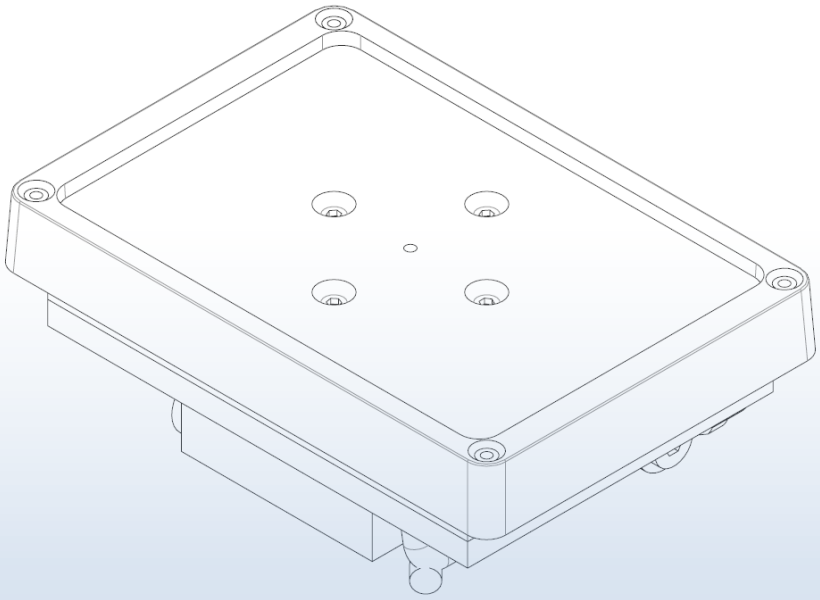

CPLC Ultraflat MTC

Heating and Cooling Unit

Part No.: 7100115, 7100117

► **User´s Manual**

Doc ID: 900410-001
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Version 1.0

INHECO Industrial Heating and Cooling GmbH continuously works on improving and enhancing the quality and performance of its products. Please note that such modifications may not be documented in this manual.

Modifications to the Heat Exchanger Liquid cooling small will be reflected in further revisions of this document – available from INHECO.

This manual and the information herein have been assembled with due diligence.

INHECO GmbH does not assume liability for any misprints or cases of damage resulting from misprints in this manual. If there are any uncertainties, please feel free to contact insidesales@tekmatic.com → How to contact Tek-Matic, page 5.

TABEL OF CONTENT

1. IMPORTANT NOTES

1.1. General Information

Read the user instructions completely. The manual explains how to operate and handle the CPLC Ultraflat and CPLC Ultraflat HT 2-TEC.

INHECO GmbH accepts no liability for damage resulting from improper use of the products or software.

Missing or insufficient knowledge of the manual leads to loss of liability against INHECO GmbH.

This manual is part of the CPLC devices and must be retained until the unit is disposed of and must be passed on with the CPLC when the device is taken over by a new user.

Failure to follow the instructions and steps described in our user manuals can result in injury or even death.

Security-related warnings in this manual are classified into three hazard levels:

- The word WARNING indicates hazards which – without precautionary measures – can result in serious injury or even death.
- The word CAUTION is given to indicate hazards which – without precautionary measures – can result in minor to moderate injuries or could impair functioning.
- The word NOTE indicates important steps or measures that need to be followed to ensure the correct function of the unit.

Contact INHECO in case there are any uncertainties of how to operate or how to handle the unit.

Your opinion about this manual provides us with valuable insights on how we can improve this document. Please do not hesitate to direct your comments to insidesales@tekmatic.com

1.2. Explanation of Symbols

Symbol	Explanation
	Potential danger of serious injury or death → signal word WARNING or CAUTION indicate the severity.
	Caution: Potential danger of hot surface.
▪	Bullet points indicates an instruction.
-	Hyphens refer to enumerations.
→	indicates refer to and are mostly an active link

1.3. Explanation of Abbreviations and Glossar

The following items are used in this document	
°C	Degree Celsius
Hz	Hertz [1/s]
K	Kelvin
kg	Kilogram
rh	relative humidity
TEC	Thermo- Electric- Cooler (Thermoelectric Module, Peltier Element)
Vdc	Voltage direct current
Adc	Ampere direct current
W	Watt
IVD	In Vitro Diagnostic
FDA	Food and Drug Administration
ALP	Automated Labware Positioner from Beckman Coulter
MTC	Multi TEC Control controls up to 6 INHECO devices individually
STC	Single TEC Control controls 1 INHECO device
Offset	The difference between the set temperature and actual value once the temperature is stable.
liquid cooled MTC/STC devices	All devices cooled with the “Heat Exchanger Liquid cooling”

1.4. Warranty

The warranty period starts on the date of shipment. Any damage caused by operating the Heat Exchanger outside the specifications and guidelines leads to the loss of warranty. Broken seals on INHECO devices lead to the loss of warranty as well.

INHECO will only accept parts / devices for return that do not pose a threat to the health of our staff. In particular, the devices may not have been used in Biosafety Level 3 and 4 environments or have been exposed to radioactive or radiation materials. → Decontamination and Cleaning, page 20.

Devices exposed to Biosafety level 3 and 4 Environments or radioactive materials are not accepted by INHECO for return.

1.5. How to contact Tek-Matic

2. PRODUCT DESCRIPTION

2.1. Intended Use

The CPLC device is a compact heated and cooled position built into the deck or ALP of a liquid handling system with compact footprint and overall height. Most disposables with ANSI/SLAS (formerly SBS) format can be fitted. The system is also suited for heating and cooling of tubes and other sample carriers. The devices with name extension HT 2-TEC are optimized for high temperature & temperature cycling with temperature change within minutes (→ Technical Data, page 9). For cycling within seconds, we refer to the Thermal Cycling data sheet.

A wide range of thermal adapter plates (inserts, nests) to match the required disposable are available. Adapter plates and positioner can be easily taken down for cleaning or changed to another configuration within minutes.

The CPLC device is mostly used on robotic platforms and systems in Lab Automation.

The CPLC devices can be operated with two types of precise temperature controllers with integrated power supply (MTC or STC). The units are plug-and-play high performance heating devices with CE and UL certification.

The CPLC devices are designed specifically for use in Life Science and In Vitro Diagnostics. The CPLC devices are prepared for easy integration into IVD applications, but the final IVD validation must be performed by the first marketer (IVD application).

When using the devices of the CPLC family in a Biosafety Laboratory Environment, the user is responsible for labeling the devices according to the WHO Laboratory Biosafety Manual (ISBN 92 4154650 6) and for operating the devices according to this Biosafety Manual.

The CPLC must be used exclusively by laboratory professionals trained in laboratory techniques with labautomation systems and having studied the instructions for use of this instrument as well as the instructions of the workstation the device is used in.

2.2. Scope of Delivery

Before initial operation, make sure that the shipment of your unit and its scope of supply is complete, and no parts are damaged. No traces of leaking liquid on the surface or packaging.

In case of parcel or product damages, make photos of the damaged boxes and products and email them to insidesales@tekmatic.com without delay.

Transportation damages must be reported to INHECO within 7 days of delivery.

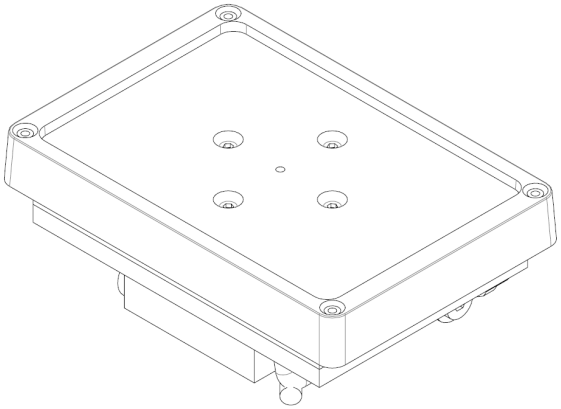


Figure 1: Scope of delivery.

2.3. Functional Elements

The functional elements of the CPLC devices are the temperature-controlled contact surface. The devices must be controlled via a TEC Control Unit (MTC or a STC).

2.4. Labels and Serial Numbers

The identification label with part number and serial number also contains important technical indications. The electrical specification on the label must meet your local situation. The label is placed on the bottom panel of the CPLC device. The identification label must not be removed. If it has become illegible or falls off, it must be replaced by a new identification label. New labels can be ordered at INHECO. In case the label is missing and you do not know the part number and serial number, they can also be read out with the software (MTC/STC Demo Tool) which can be downloaded from INHECO´ login section on www.inheco.com. →Trouble Shooting and Support, page 19.

Figure 2: Examples of identification label.

Caution Hot

Figure 3: Label an instrument.

2.5. Technical Data

Technical Data incl. Dimensions		
CPLC type	Ultraflat 7100115	Ultraflat HT 2-TEC 7100117
Input voltage / max. current	12Vdc / 5.0A	24Vdc / 4.08A
Temperature range	+4°C to +70°C [+39.2°F to +158°F]	+4°C to + 105°C [+39.2°F to +221°F]
Temperature cycling	no	yes
Max reachable temperature difference in the **heating** mode	up to 66K	up to 80K
Max. reachable temperature difference in the **cooling** mode	up to 22K	up to 30K
Sensor type	two PT100	
Inlet and outlet hose connection in mm	outer diameter 8 inner diameter 6	outer diameter 12.7 inner diameter 7.6
Outer dimensions for length x width in mm	128.9 x 89.1	128.9 x 89.1
Outer dimensions for height in mm	53.3	66.1
Weight incl. cord	approx. 0.73 kg [1.61 lbs]	approx. 1.10 kg [2.43 lbs]
Noise	0dB(A) (max)	

Environmental Conditions		
Tolerable relative humidity	Operation	30-80% relative (non-condensing*)
	Transportation and storage	10-80% relative (non-condensing)
Temperature	Operation	+15°C to +32°C [+59°F to +90°F]
	Transportation and storage	-20°C to +60°C [-4°F to +140°F], (non-condensing)

*Condensate can prevent the CPLC from operating properly and can damage the CPLC. Condensate should be eliminated on a daily basis or more often, for example by heating cycles in between cooling cycles.

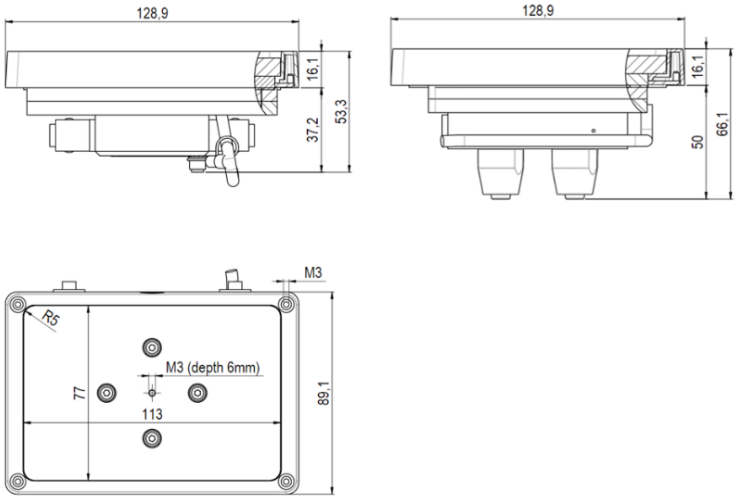


Figure 4: Drawing of the device CPLC Ultraflat 7100115 (left) and 7100117 (right); the top view is the same for both variants; values are shown in mm.

3. SAFETY INSTRUCTIONS

3.1. Product-Specific Risks

WARNING
Follow the safety instructions given below in order to avoid danger for user.

General

- The CPLC devices (“the device”) do not require any maintenance, except of the refilling of the cooling liquid → Manual of the Heat Exchanger
- The unit must be placed in an upright position.
- At the outside of the unit and its accessories must not encounter water or chemicals.
- The main power switch must always be accessible.
- Do not exceed minimum or maximum ambient temperature and humidity conditions during operation or storage of the unit → Technical Data, page 9.
- The unit must not be used in environments with risk of explosion.
- The unit is for indoor use only.
- Make sure there is no other electronic device installed next to the device or it´s tubes that could be damaged by leaking coolant.
- Do not run any liquid cooled MTC/STC devices without ensuring that cooling liquid is flowing through the cooling system.
- When switching on the liquid cooled MTC/STC device, always make sure that the pump and the fans of the Heat Exchanger are working. If not the function of the cooled MTC device might be impaired.
- Do not run the unit if the cooling liquid circuit is blocked. The pump of the Heat Exchanger or the cooling circuit could be damaged.
- Please note when tightening the connectors or fittings, no tools such as screwdrivers, pliers, or wrenches should be used. All plastic products or metal threaded connections, which are linked with plastic parts, are easily over-loaded with tools. Cracking or other damages incurred in this way, as well as damage from leaking coolant, are not covered under the warranty!
- Use only the recommend cooling liquid MANNOL Antifreeze AG11 (-40) Longterm or pure distilled or osmosis filtered water. Damage caused by unsuitable coolant is not covered by the warranty!
- Please follow the instructions in the Safety Data Sheets of the cooling liquid.

Burning Hazard:

- Devices can burn your skin. Even after switching off the TEC Control unit, the connected devices can still be hot and could seriously burn your skin as the material temperature can reach up to +110°C [+230°F]. It takes a while to cool down after the device has been used.

Electric Shock Hazard

- The unit must not be used if the unit itself or the power cable shows visible signs of damage.
- You can suffer an electric shock and injuries, if the unit is not connected properly or if you do not disconnect the unit from the wall power outlet before opening the housing.
- Never connect or remove the power plug of the power supply with wet hands.
- Original power cable provided by INHECO must be used to guarantee safe and proper operation.
- The wall power outlet must have a ground earth connection (Safety Class 1).
- Make sure that the electrical specification on the identification label at the side panel of the unit meets the specification of the power supply. → Labels and Serial Numbers, page 8.
- Use only from INHECO recommended power supply.

Biosafety Laboratory Environment

- When using the unit in a Biosafety Laboratory Environment, the user is responsible for labeling it according to the WHO Laboratory Biosafety Manual (ISBN 92 41546506) and for operating the devices in accordance with the Biosafety Level Regulations of the WHO Laboratory Biosafety Manual.

Electromagnetic field

- The unit is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

3.2. Technical Alterations

- Do not alter the product. Any modification or change which is not approved by INHECO leads to the loss of warranty. Broken seals on INHECO devices lead to the loss of warranty as well.
- Use only original parts provided by INHECO. Parts provided by other suppliers can impair the functionality of the unit.
- Damages due to the use of non-original parts are excluded from INHECO's liability.

3.3. Malfunctions

- In case of a malfunction, switch off and disconnect the device immediately. Make sure to inform the authorized person in charge.
- Make sure that the malfunctioning unit is not accidentally re-installed and used before the malfunction is effectively eliminated. → Trouble Shooting and Support, page 19.

4. HARDWARE INSTALLATION

4.1. Scope of Supply

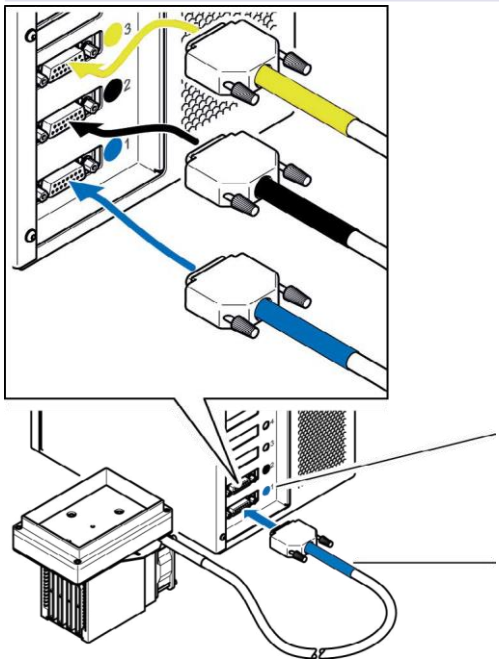
Before initial operation, make sure that the shipment of your unit is complete and neither packaging nor parts are damaged → Scope of Delivery, page 8.

4.2. Initial Operation

4.2.1. How to connect device to the MTC/STC

In order to connect an INHECO heating/cooling/shaking device, the TEC Control Unit has to be equipped with the corresponding Slot Module. There are blue, black, and yellow Slot Modules available. The following table shows the appropriate Slot Module for each heating/cooling/shaking device.

Product	Color	Article No.	Heating/cooling/shaking Device
Black Slot Module	black	2400125	CPAC HT 2-TEC, HeatPAC, Heated Lid, Teleshake 95, Thermoshake, CPLC, CPLC HT 2-TEC
Blue Slot Module	blue	2400128	CPAC (only 7000190, 700193 & 7000179)
Yellow Slot Module	yellow	2400211	Thermoshake AC



For clear identification, all Slot Modules and connectors are marked in blue, black or yellow.

When connecting a new device, the color code must be strictly respected.

In case of wrong connection, interaction will not be possible and an error message will be issued

The color coding of the Slot Modules is visible from the outside through small round windows.

At the connectors, the sleeve must be marked in the same color as the Slot Module.

Figure 5: Connecting a heating/cooling/shaking device (image shows CPAC).

- Disconnect the power cord of the TEC Control Unit.
- Connect the heating/cooling/shaking device to the appropriate Slot Module and lock the connector. The Heated Lid must be connected to a Black Slot Module.
- Connect the power cord of the TEC Control Unit.
- Switch the TEC Control Unit on: The touchscreen display of the TEC Control Unit shows the name (or abbreviation) of the currently connected device. When multiple devices are installed, you can switch between the devices by touching the arrow left

or arrow right button of the touch screen.

NOTE
Never plug in our plug out a device while the Controller is running. Always turn off the Controller before disconnecting or connecting a device.

4.3. Labware Use

Each labware needs an adapter to ensure uniform heat exchange. INHECO offers several standard adapters (→ chapter 8) and also to design and manufacture customized adapter.

NOTICE
Optimized temperature settings require a temperature off-set value adjusted to the thermal characteristics of the disposable. → Manual MTC/STC for further details.

4.4. Installation of Adapter Plates

Custom-fit adapters are required for all tubes, reservoirs and plates without flat bottoms, to ensure temperature transfer into the disposable/assay and to ensure safe positioning as well as easy robotic handling of the plate.

Visit **www.inheco.com** to find the adapter which fits your tube, reservoir or plate. In case you do not find your disposable on the list of adapters, ask insidesales@tekmatic.com for a custom design.

4.4.1. Installation of PCR Adapter

The mounting frame for PCR Adapter is already fixed on the CPAC devices when they are purchased directly from INHECO. A different set up might be delivered if the CPAC devices were ordered from your workstation provider. In this case the PCR Adapter or another adapter might already be pre-installed.

- Unscrew the 4 screws at the edge for assembling the PCR Adapter (must be ordered separately, → chapter 8).

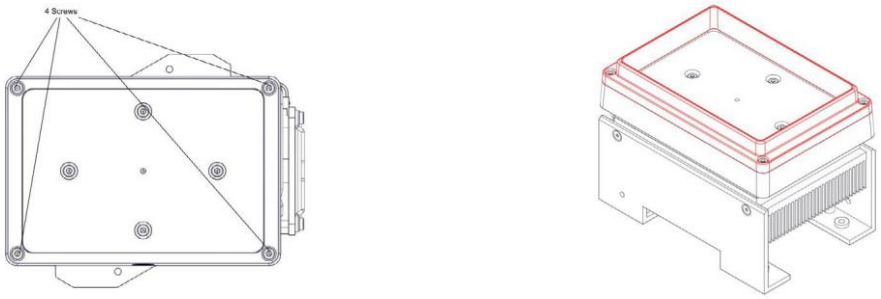


Figure 6: Mounting frame (red) screwed to CPAC device.

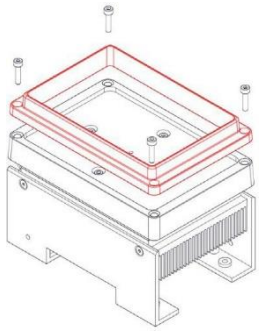


Figure 7: Unscrew the 4 screws at the corner and remove mounting frame.

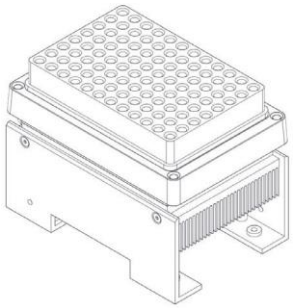


Figure 8: Place the PCR Adapter without frame.

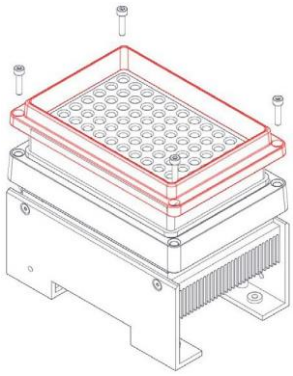


Figure 9: Assemble PCR Adapter with mounting frame (to enclose the PCR Adapter) and 4 screws and tighten the four screws at the corner finger tight (respectively with 0,25Nm).

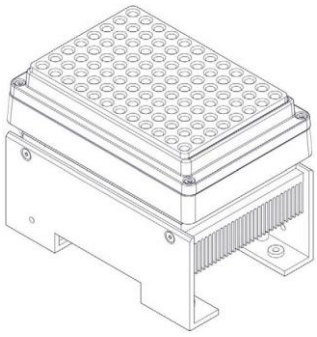


Figure 10: PCR-Adapter placed on CPAC with mounting frame.

4.4.2. Installation of Flat Bottom Adapter

The Flat Bottom Adapter is delivered with a frame which has to be fixed on top of the CPAC with two screws at the edge and the adapter plate itself has to be fixed with one screw in the middle.

NOTICE
If another Adapter or the PCR mounting frame is pre-assembled, please disassemble this first.

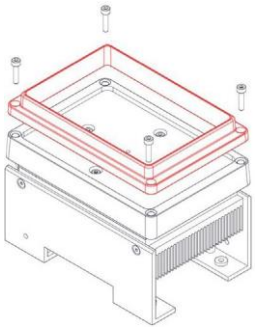


Figure 11: Unscrew the 4 screws at the corner and remove mounting frame.

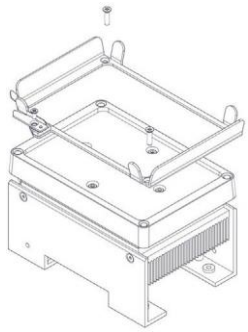


Figure 12: Assemble the outer frame of flat bottom adapter with 2 screws.

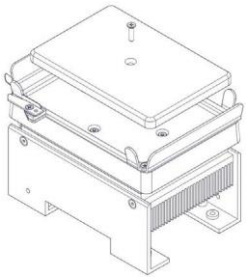


Figure 13: Assemble the plate of flat bottom adapter with 1 screw in the middle.

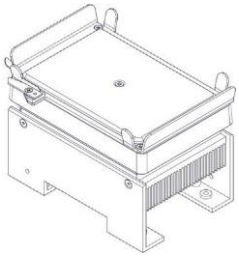


Figure 14: Assembled flat bottom adapter.

4.4.3. Installation of other Adapter

All other Adapter (excluding PCR-Adapter and Flat Bottom Adapter) do not need a frame they are just fixed with one screw in the hole in the middle of the CPAC.

NOTICE
If another Adapter is pre-assembled, please disassemble this adapter first.

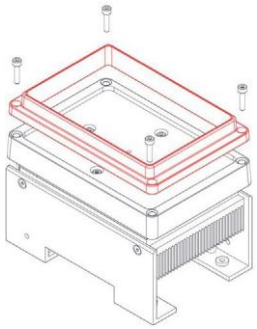


Figure 15: Unscrew the 4 screws at the corner and remove mounting frame.

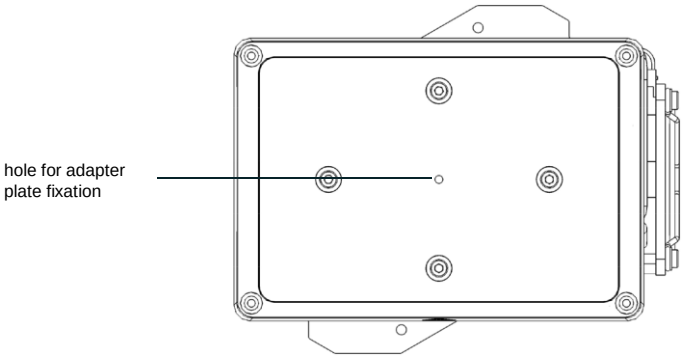


Figure 16: Screw holes for other adapter.

4.5. Mechanical Integration

The CPLC devices are usually integrated into liquid handling workstations. The way of fixation depends on the hardware provided by the automation platform manufacturer. The mounting surface must be firm and even.

CAUTION
Make sure there is no other electronic device installed next to the device or it´s tubes that could be damaged by leaking coolant.

Drilling schematic for secure mounting of the CPLC unit on a working table is shown in the following figure.

- for CPLC Ultraflat 4 screws are necessary

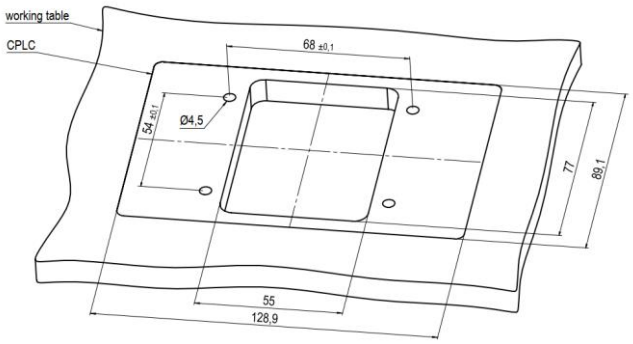


Figure 17: Drilling Scheme for CPLC Ultraflat

Contact INHECO for further information how to place the devices onto the working table to prevent damage from the device or/and to assure that the CPLCs are working with the given specifications.

5. SOFTWARE INSTALLATION

INHECO offers a software called Demo Tool to provide limited functional control (also possible via touchscreen of the MTC/STC) and the opportunity to send manually entered firmware commands to the devices.

We recommend contacting your workstation provider for integration (including software integration) of the MTC/STC with devices into your workstation.

6. DAILY USE

The devices can be operated by touchscreen at the front panel of the MTC/STC, by the Demo Tool software delivered by INHECO or by the software of your liquid handling workstation. The INHECO Demo Tool software and the touchscreen allow programming basic temperature and shaking sequences. More complex control sequences can be performed with the software of your robotic platform provider or if you write your own software based on our Firmware Command Set and DLL.

For more information consult the following documents:

- for touch-screen operation: MTC/STC Manual
- for software operation: Demo Tool Manual
- for firmware commands: MTC/STC Firmware Command Set

These documents can be downloaded from INHECO login section on www.inheco.com.

6.1. Safety Instruction for Operation

Note
Do not operate the unit in an ambient temperature of more than +32°C [+90°F]. Otherwise, the devices may not work properly or may even get damaged.

Warning
Devices can burn your skin. Even after switching off the TEC Control Unit, the connected devices can still be hot and could seriously burn your skin as the material temperature can reach up to +110°C [+230°F]. It takes a while to cool down after the device has been used.

Before starting the operation of the liquid cooled MTC/STC device make sure that the Heat Exchanger is working properly, and the cooling circuit is not leaking or blocked.

It is important for trouble free operation of the pump that there is always enough liquid in the reservoir, since dry run damages the bearing and leads to reduced flow or interruption of the pumping operation. Air in the system will cause audible noise and therefore can be easily detected.

Note
If there is not sufficient cooling liquid running through the liquid loop the function of the cooled MTC device might be impaired. When switching on the liquid cooled MTC/STC device, always make sure that the pump and the fans of the unit are working.

6.2. Labware use

Note
As the temperature can be selected up to +110°C [+230°F] check whether your labware is suited for the selected temperature. If the temperature is too high for the material of your labware, the labware might get squashy or even melt.

7. MAINTENANCE

7.1. Refilling

7.1.1. Refill Tools

- cooling liquid MANNOL Antifreeze AG11 (-40) Longterm
- funnel or fill bottle to fill the reservoir
- screwdriver 0.8x5.5mm to open filling nozzle

Warning
We only recommend as cooling liquid MANNOL Antifreeze AG11 (-40) Longterm or pure distilled or osmosis filtered water. The components of the liquid circuit can be damaged.

CAUTION
Please follow the instructions in the Safety Data Sheets of the cooling liquid.

7.2. Software Updates

For updates of the Demo Tool Software, contact: insidesales@tekmatic.com → How to contact Tek-Matic, page 6.

7.3. Trouble-Shooting & Support

In case of an operation failure follow the trouble-shooting instructions of this chapter. INHECO needs the below mentioned information including the serial numbers of your devices and the error code report. With this information INHECO can help you to trouble-shoot the reason for the operation failure.

Please provide the following when contacting INHECO for support:

- INHECO product number of the device (shown on device label)
- INHECO product name of the device (shown on device label)
- INHECO serial number of the device (shown on device label or via software)
- Detailed error description
- Information about setup of devices:
  - integrated in workstation
  - controlled by MTC or STC (incl. part number and serial number)
  - controlled by workstation software or INHECO software

Serial numbers are shown on the device labels of the TEC Control Unit and connected devices, but you can also read them out by using INHECO's software “MTC/STC Demo Tool” (Demo Tool). The Demo Tool must also be used to generate the above mentioned report of error codes for the TEC Control Unit and all connected devices → Manual Demo Tool.

Based on the above information, INHECO’s Techhotline decides about the requirement of a return. → Return for Repair only with RMA Number, page 20.

7.3.1. Installation of the Software “MTCISTC Demo Tool”

The Demo Tool can be downloaded from INHECO Login section on www.inheco.com. In this section you will also find the Demo Tool Manual with detailed instructions of the software.

Download the MTC/STC Demo Tool and the DLL file into the same folder. Both files must be saved **into the same folder, otherwise it is impossible to run the Demo Tool.**

7.4. Decontamination and Cleaning

CAUTION
Before cleaning the device, disconnect the power supply. Make sure that no liquid enters the inside of the device.

NOTE
During decontamination, make sure that no liquid enters the inside of the device. As this might lead to damages of the interior parts.

The unit can be decontaminated by disinfection with formaldehyde or ethylene oxide gas. It is recommended that the unit is running during decontamination as the ventilation is needed to distribute the decontamination gas within the device and for at least 5 minutes afterwards in order to purge the atmosphere inside.

The surface decontamination and cleaning can include a wipe-down of the housing with a moistened cloth. Ethanol (70%) can be used, where it is effective against target organisms.

7.5. Calibration / Verification

For proper performance of the CPLC devices, it is recommended to verify the thermal performance at least once a year. Depending on the application, shorter verification intervals may be required. INHECO recommends to use the INHECO Measurement Plate (IMP) to perform the verification.

Please contact **insidesales@tekmatic.com** in case of performance deviations from set values.

NOTE
Please note that the set Heater Offset has an impact on the temperature verification of the device. Make sure that the Heater Offset is considered when performing the temperature verification.

7.6. Return to INHECO only with RMA Number

INHECO devices must be repaired by INHECO only. Parts must not be exchanged by the user. Exchange of parts or broken seals can lead to the loss of warranty. Spare Parts must be ordered from INHECO.

INHECO will only accept parts / devices for return that do not pose a threat to the health of our staff. In particular, the devices may not have been used in Biosafety Level 3 and 4 environments or have been exposed to radioactive or radiation materials. → Decontamination and Cleaning, page20.

Devices which were exposed to biosafety level 3 and 4 environments or radioactive materials are not accepted by INHECO for return.

Please contact insidesales@tekmatic.com or visit http://www.inheco.com/service/returns-rma.html for the return procedure before returning the device to INHECO. Do not return any devices without INHECO's RMA number. INHECO's RMA number must be shown on the outside of the return package. Returns without RMA number are not being processed by INHECO.

Devices should be returned in the original packaging. If not possible, ensure that devices are protected and cannot move within the package to avoid transportation damage or contact INHECO for a new packaging.

7.7. Transportation and Storage

It is recommended to keep the original packaging. INHECO devices should be shipped and stored in their original packaging with all accessories. Adhere to required environmental conditions for transportation and storage →Technical Data, page 9.

7.8. Disposal

INHECO devices must be disposed off in accordance with environmental and biosafety directives. You must arrange for correct electric waste disposal following actual safety regulations for your country.
INHECO devices are RoHS and WEEE compliant.

8. Accessories

8.1. Multi TEC Control (MTC) / Single TEC Control (STC)

Product Name	Description	Part Number
Multi TEC Control	controls up to 6 INHECO devices individually	8900030
Single TEC Control	controls 1 INHECO device	8900031

8.2. Slot Modules

Product Name	Description	Part Number
Black Slot Module	connects CPAC HT 2-TEC, HeatPAC, Teleshake 95, Thermoshake, Heated Lid with MTC/STC	2400125
Blue Slot Module	connects CPAC with MTC/STC	2400128

8.3. Thermal Adapter for Temperature Transfer

All standard adapter can be downloaded from INHECO´ webpage **www.inheco.com** or requested from **insidesales@tekmatic.com**

8.4. Miscellaneous

Product Name	Description	Part Number
INHECO Measurement Plate (IMP)	verification of temperature and shaking performance	7901000
Heated Lid	heating up to +135°C	8900033

8.5. Heat Exchanger

Product Name	Description	Part Number
Heat Exchanger	Transfers heat load from the cooling liquid to the	2300110

Liquid Cooling small	ambient air

8.6. Cooling Liquid

Product Name	Description	Part Number
MANNOL Antifreeze AG11 (-40) Longterm	Transfers heat load from the liquid cooled MTC/STC device to the Heat Exchanger Liquid Cooling small	2300104

9. Appendix

9.1. EC Declaration

inheco
industrial heating & cooling

EC - Declaration of Conformity

in accordance with Directive 93/68/EEC (CE), 2014/30/EU (EMC), 2014/35/EU (LVD) and 2011/65/EU (RoHS II)

Product:	Single TEC Control (STC), Single TEC Control Compact (STCC), Multi TEC Control (MTC), Multi TEC Control Compact (MTCC) (with Slots 2400125 + 2400128 + 2400211 + 2400205) connected with corresponding MTC/STC devices: CPAC Microplate, CPAC Ultraflat, Thermoshake or Teleshake, HeatPAC, Heated Lid, Accessory for use with MTC/STC devices: Heat Exchanger Liquid small
Part No:	STC/MTC: 8900029, 8900030, 8900031, 8900036, 8900033 STC/MTC devices: 7000163, 7000168, 7000179, 7000190, 7000166, 7100117, 7100136, 7100146, 7100144, 7100160, 7100161, 7100150, 7100151, 7900046 Accessory: 2300110
Standards (Safety):	EN 61010-1:2010 + A1:2019 + A1:2019/AC:2019 EN 61010-2-010:2014 EN 61010-2-101:2017
Standards (EMC):	EN 55011:2016 EN 61326-1:2013 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 61000-4-2:2009 EN 61000-4-3:2006 A1:2009 A2: 2010 EN 61000-4-4.2004 A1.2010 EN 61000-4-5: 2006 EN 61000-4-6:2009 EN 61000-4-8:2010 EN 61000-4-11:2004

This product complies with the essential requirements of the Low Voltage Directive (LVD) and Electromagnetic Compatibility (EMC) directive, when used for its intended use.

International Standards	For international standards please see UL certificate U8 046515 0033 Rev.00, U8 046515 0034 Rev.00 and U8 046515 0042 Rev. 00 Download UL certificat: http://www.inheco.com/service/certificates.html
Manufacturer address:	INHECO Industrial Heating and Cooling GmbH Fraunhoferstr. 11 82152 Martinsried Germany

Martinsried, June 2021

Place and date of issue

Günter Tenzler, Managing Director

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9.2. Document history

Version	Date	Comment
0.1	March 2021	First release
0.2	March 2021	2.5 Technical Data: Temperature range adjusted
0.3	March 2021	2.5 Technical Data: max. current adjusted
0.4	April 2021	Safety Instructions in chapter 3.1, 4.5 and 7.1 extended
0.5	April 2021	4.5 4.5. Mechanical Integration: Pictogram corrected
1.0	June 2021	EC Declaration added