

## ODTC<sup>®</sup> Verification Tool (OVT)

Set Part No.: 790200X

► [Quick Installation Guide](#)

# 1 IMPORTANT NOTES

Security-related warnings are stated in the OVT Manual and ODTC Manual.

Contact INHECO ( [techhotline@inheco.com](mailto:techhotline@inheco.com) ) in case there are any uncertainties of how to operate or how to handle the OVT device.

## 2 PRODUCT DESCRIPTION

### 2.1. Intended Use

The OVT is designed for use as a verification tool to verify the temperature specifications of fully functional ODTC®. Mechanical / Hardware and Firmware defects / problems cannot be detected by the OVT. The OVT is not intended to be used to verify other Thermal Cycler systems.

### 2.2. Components - scope of supply

- OVT measuring Head and OVT Data Logger tightly connected with a cable (cable longer than shown in the image)
- USB flash drive with OVT Control Software and Data Logger driver
- USB cable ( 1.5m length and 3.0m length)
- RJ45 Ethernet cable
- Socket wrench ( 1.5 mm ) for Sealing Cover removal
- Certificate
- Transport case

### 2.3. Functional Elements

The OVT set primarily consist of the Measurement Head and the Data Logger. Measurement Head (including 5 Sensing Elements for the Mount and 2 Sensing Elements for the lid) and Data Logger are connected by a 1.5m cable with Gap Closure.

#### NOTE

Never unplug the connector of the Measurement Head from the OVT Data Logger. It is secured with a calibration void label. INHECO will not take any liability for quality of the measurement performed with the OVT if the Measurement Head was disconnected before.

## 3 SAFETY INSTRUCTIONS



#### WARNING

Follow the safety instructions given in the OVT Manual in order to avoid danger for the user. Also follow the safety instructions of the ODTC Manual.

## 4 COMMUNICATION WITH THE OVT

Install all application (OVT 1.xx Setup.exe and install drivers.exe) provided on the USB flash drive following the installation routine.

### 4.1. Network configuration

- Installation of OVT control software is supported on Windows 10 operating system.
- OVT and ODTC® need to be directly connected to a LAN connector of the PC. Do NOT use a hub, a USB to LAN Adapter or something similar.
- The IP address type (dynamic/static) of ODTC® and PC need to match.

### 4.2. Network configuration

For proper functionality of OVT Control Software the energy saving settings and lock screen settings of the connected PC need to be set to at least 30 min.

## 5 HARDWARE INSTALLATION / OPERATION

The OVT is designed for the temperature verification of the ODTC® devices only. The OVT must be used exclusively by laboratory professionals or technical support personnel who are familiar with the instructions of this manual as well as the ODTC® manual.

### 5.1. Remove the pre-installed Sealing Cover:

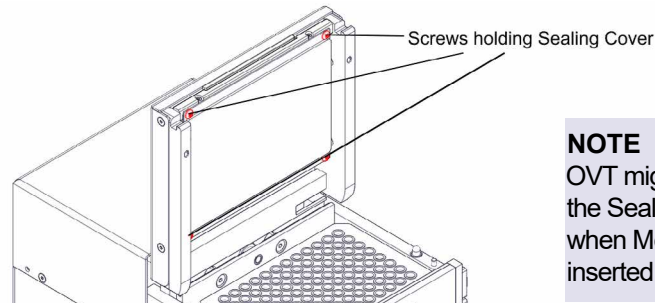


Fig.1: Remove integrated Sealing Cover

#### NOTE

OVT might get damaged when the Sealing Cover is still installed when Measurement Head is inserted and ODTC® Lid is closed.

### 5.2. Start Verification



Fig.2: Open OVT software icon on desktop (image may vary depending on monitor resolution)

Please follow the instruction prompted by the software:

#### 5.2.1. Connect the OVT Data Logger to the PC

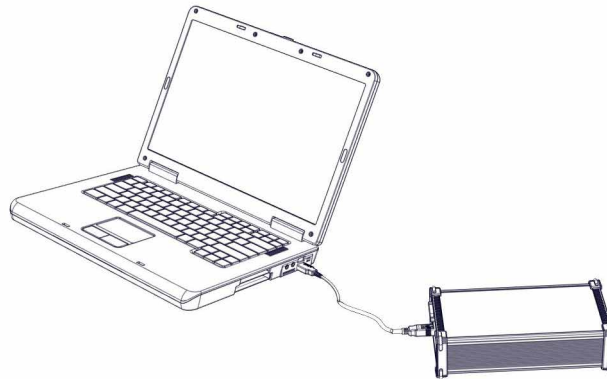


Fig.3: Connect the OVT® Data Logger with PC (connected Measurement Head not shown in this image).

#### 5.2.2. Connect the ODTC® with the PC

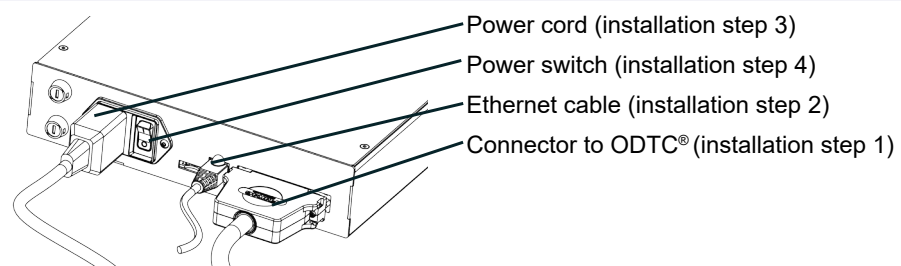
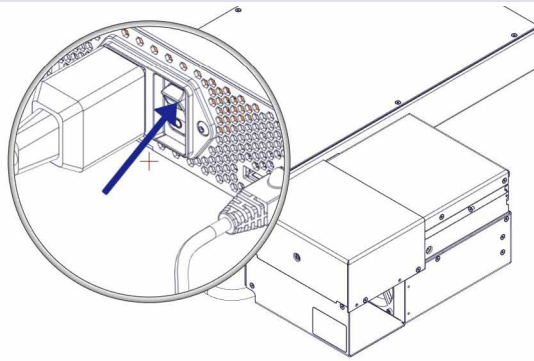


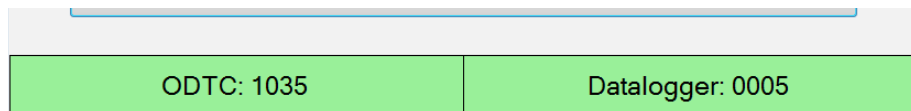
Fig.4: Connect the ODTC® Power & Control Unit with PC and ODTC® as shown in step 1-4



After switching ON the initialization of the ODTC may take 1 to 3 minutes

**Fig.5:** switch on the Power of the ODTC® Power & Control Unit

- The ODTC® Power & Control Unit will boot and the lid of the ODTC® will open. The OVT software will start automatically connecting to the ODTC® as soon as the PCU is powered on. This will be shown at the bottom of the software window:



**Fig.6:** Connection established (this might take several minutes)

**NOTICE**

In case the ODTC® does not connect after several minutes please restart OVT control software and ODTC® (power off and on). If this does not help please check whether network configuration are set correctly → Network configuration, page 16.

**Place the Measurement Head in the ODTC®**

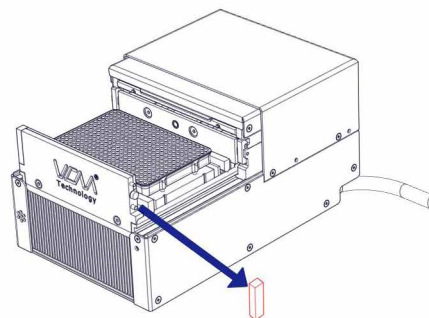
As soon as the ODTC® is opened and cooled down to ambient temperature you can insert the Measurement Head into the ODTC®.



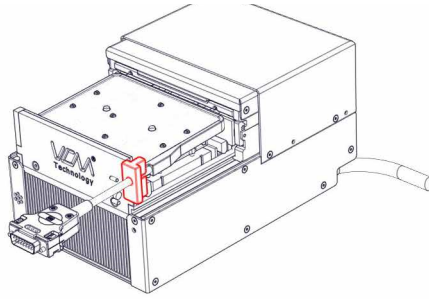
**Crushing Hazard**  
(When inserting/removing the Measurement Head into/ out of the ODTC®)



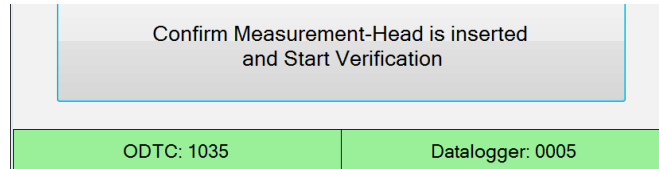
**Burning Hazard**  
(When inserting/removing the Measurement Head into/ out of the ODTC®)



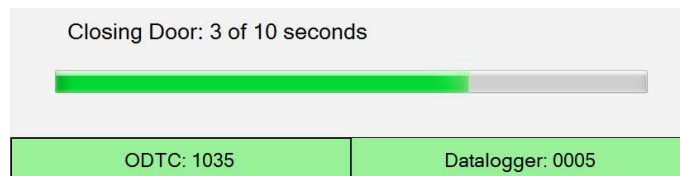
**Fig.7:** Remove the magnetci block on the right side of the ODTC®



**Fig.8:** Insert OVT Measurement Head using both hands in the open ODTc® and attach Gap Closure



**Fig.9:** Confirm the Measurement Head is inserted to start verification by using the software button

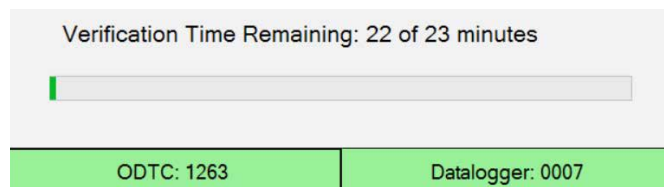


**Fig.10:** ODTc® will close

- Measurement will start and a progress bar is displayed showing the remaining time of the verification process. Verification time is about 23 minutes (time might vary depending on device type ODTc® 384 or ODTc® 96).

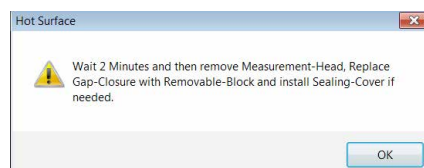
### NOTICE

During the measurement do NOT disconnect any cable as this will eventually lead to a system crash without specific error message.



**Fig.11:** Status information about verification runtime

- During the verification, the following temperature profile shown on the front page will be run on the ODTc®
- The software automatically opens the ODTc® after the measurement is finished.
- The Measurement Head can be removed after the cool down time of at least 2 minutes.

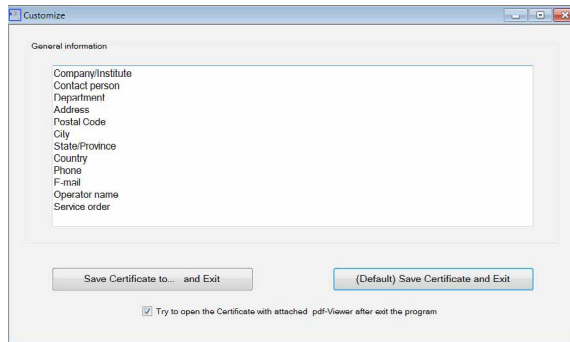


**Fig.12:** Information to remove the Measurement Head and reinstall the removed parts (e.g. Sealing Cover and Removable Block)

## NOTICE

Remove the Measurement Head with both hands in vertical direction, as otherwise the Sensing Elements might get damaged.

- A window is popping up that allows to edit general information that will be imported into the certification document.
- General information can be fully adapted according to the needs. But mutated vowels are not allowed. The inserted content of the general information will be automatically displayed in the next verification process.



**Fig.13: Image of software to edit general information which can be fully adapted to the needs.**

- In case you want to view the certificate after saving please check "Try to open the Certificate with attached pdf-Viewer after exit the program"
- Reinstall Sealing Cover (if necessary)
- The certificate is automatically saved into the default directory (last used folder) using the [Save Certificate and Exit](#). Alternatively, the directory can be user defined using the [Save Certificate to... and Exit](#).

## Certificate of Temperature Verification

		Testing equipment		
ODTC Verification Tool SN	Software Version	Calibration date	Calibration due date	Analysis Rules Version
0008 (FW 2.0.7)	0.9.32.0	2017-05-08	2018-05-08	M323 LSN

**Fig.14: Certificate**

The certificate will show the overall performance summary as result: PASS on the first page.

ODTC overall performance summary
Result
PASSED

As long as each result of page 2 is set to PASS the overall performance summary on page 1 will show the PASS result also.

In case of a FAILED result please clean the wells and the Sensing Elements for contaminations (→ Cleaning, page 24) and repeat the measurement.

## NOTICE

Please make sure that you only start the measurement when the ODT<sup>®</sup>C and OVT are on ambient conditions.

In case the FAILED result is showing up again please contact [techhotline@inheco.com](mailto:techhotline@inheco.com).