IKA

designed for scientists

OVEN 125 basic - dry
OVEN 125 basic - dry glass

Operating instructions   EN

Device setup

Fig. 1

Item	Designation
1	Mains switch
2	Door handle
3	Device foot
4	Operator Panel and display
5	USB interface and temperature limit
6	Mains socket
7	Venting flap

Dangerous parts
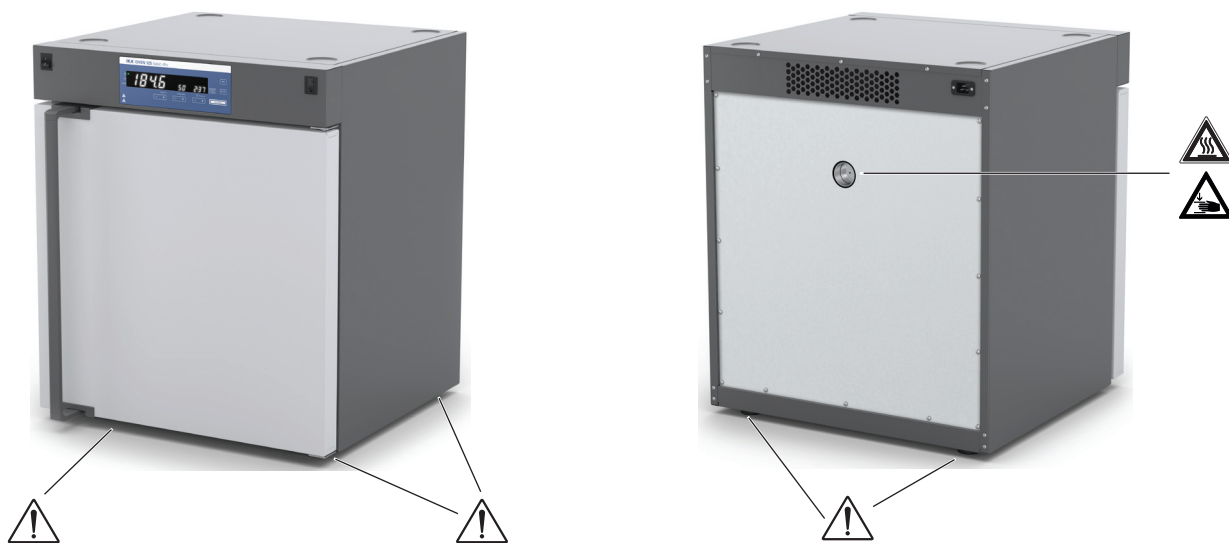
Fig. 2

Contents

EU Declaration of conformity

We declare under our sole responsibility that this product corresponds to the regulations 2006/42/EG, 2014/35/EU, 2014/30/EU and 2011/65/EU and conforms with the standards or other normative documents: EN 61010-1, EN 61010-2-010, EN 61326-1, EN 60529, EN ISO 12100 and DIN 12880.

A copy of the complete EU Declaration of Conformity can be requested at sales@ika.com.

Explication of warning symbols

⚠ **DANGER**	Indicates an (extreme) hazardous situation, which, if not avoided, will result in death, serious injury.
⚠ **WARNING**	Indicates a hazardous situation, which, if not avoided, can result in death, serious injury.
⚠ **CAUTION**	Indicates a potentially hazardous situation, which, if not avoided, can result in injury.
⚠ **NOTICE**	Indicates practices which, if not avoided, can result in equipment damage.
⚠ **CAUTION**	Indicates a hazardous situation that cause from a hot surface!
⚠ **CAUTION**	Indicates crushing risk to fingers/hand.

Safety instructions

General information:
- **Read the operating instructions completely before starting up and follow the safety instructions.**
- Keep the operating instructions in a place where they can be accessed by everyone.
- Ensure that only trained staff work with the device.
- Follow the safety instructions, guidelines, occupational health and safety and accident prevention regulations.

Transport and installation:

⚠ **CAUTION**

- Ensure that your fingers do not get crushed when setting down the device.

- Beware of the high dead weight of the device when transporting.
- Insufficient ventilation may result in the formation of explosive mixtures. Only use the device in well ventilated areas.
- Disconnect the mains plug before cleaning, maintenance and transportation of the unit

Device setup:

⚠ **DANGER**

- Do not use the device in explosive atmospheres, it is not EX-protected.
- To avoid bodily injury and property damage, observe the relevant safety and accident prevention measures when processing hazardous materials.

⚠ **WARNING**

- Please pay attention to the dangerous spots of the device in Fig. 2.

⚠ **CAUTION**

- Media may only be processed or heated with this device in safe operation without monitoring if their flash point lies above the set working temperature limit. The set working temperature limit must be at least 25°C below the flash point of the medium in use (EN 61010-2).
- The working temperature limit must be set in such a way that the maximum permitted temperature is not exceeded. Check the working temperature limit regularly.

⚠ CAUTION

- There is a crushing risk when opening or closing the door. Keep your hands away from squeezing edges.

- Set up the device in a spacious area on an even, stable, clean, non-slip, dry and fireproof surface.
- Secure the device with the anti-tilt device to ensure stability while loading and unloading shelves and during operation. Ensure the anti-tilt bracket is properly fixed, in particular when the device is stacked.
- The feet of the equipment must be clean and undamaged.

Work with the device:

⚠ WARNING

- Do not start up the device if:
  - it is damaged
  - cable is damaged.
- The device must have cooled down before loading/unloading.
- Do not move any loaded racks.
- Heavy loads can lead to tilting of the device. Observe loading recommendations for the shelves.
- Never use the device for:
  - heating food
  - drying living beings
  - heating room
- The device has a temperature limiter (TB) class 1 acc. DIN 12880. This means that in case of a single failure the device is switched off at 270°C. The temperature may be higher for a short time in the area of the heater and on the walls. So beware of risk of fire or explosion of unsuitable load.

⚠ CAUTION

- The area around the air outlet nozzle can get very hot at high operating temperatures.

Power supply/Switching off the device:
- The voltage stated on the type plate must correspond to the mains voltage.
- The device can only be disconnected by pulling out the mains plug.
- Socket must be earthed.
- The device will automatically restart in mode B and C following any interruption to the power supply.
- Protect the power cable against kinks.
- Check power cables at regular intervals for possible material fatigue.
- Power cable should not come into contact with hot parts.

Heating:

⚠ CAUTION

- When high operating temperatures are used, the device may get very hot, particularly at the openings at the back.
- Risk of burns caused by vapour or hot surfaces. Pay attention to the residual heat after switching off.

Accessories:

⚠ NOTICE

- Use the locking brake when using the roller frame or roller stand.
- Safe operation is only guaranteed with the accessories described in the "Accessories" section
- Only use IKA approved accessories!
- Use only original IKA spare parts!
- Check the device and accessories for damage before each use. Do not use damaged components.
- Protect the device and accessories from blows and impacts.

Maintenance:
- The device must only be opened by trained specialists, even during repair. The device must be unplugged from the power supply before opening. Live parts inside the device may still be live for some time after unplugging from the power supply.

Disposal instructions:
- The device, accessories and packaging must be disposed of in accordance with local and national regulations.

Intended use

Use:

The **OVEN 125 basic - dry** / **OVEN 125 basic - dry glass** is a drying oven for a wide range of heating, drying and heating application.

The device may only be used for heating up non-explosive and non-flammable substances and objects. Do not process substances or objects that might cause explosive vapor.

Range of use:

Indoor environments similar to that a laboratory of research, teaching, trade or industry.

The safety of you cannot be guaranteed:
- If the device is operated with accessories that are not supplied or recommended by **IKA**.
- If the device is operated improperly or in contrary to the **IKA** specifications.
- If the device or the printed circuit board are modified by third parties.

Useful information

Calibration and adjustment:

This menu shows how offset values can be entered after the respective temperatures are approached and with an external measuring device cross-checked (calibrated).
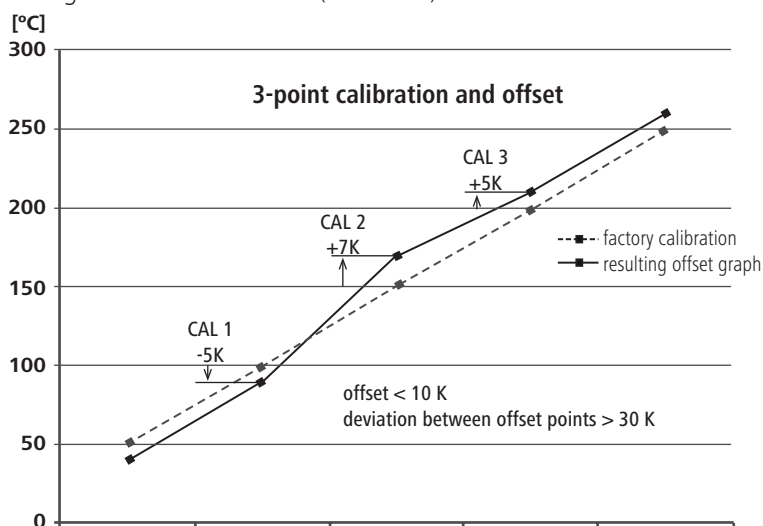
Individual load and ambient condition might influent the temperature behaviour of the chamber. To compensate that influence there's the option to neutralize by using the 3-point calibration and offset function. This function allows the temperature to be calibrated and adjusted at three different temperature values.

Use a calibrated reference measuring device in case of adjustment.
The operation can be done at a single, or up to three temperature levels:
CAL 1: Temperature calibration and adjustment at low value of temperature.
CAL 2: Temperature calibration and adjustment at medium value of temperature.
CAL 3: Temperature calibration and adjustment at high value of temperature.

Temperature control detection:

During operating, accidental door openings could cause an unexpected temperature drop and activate the "door" message and also an alarm tone sounds.

Switch off the display message and stop the alarm sound by pressing any key.

Note: The alarm and key tone can be deactivated at the menu settings.

Transportation and storage

⚠️ **NOTICE** | Transport the device only by qualified persons with suitable handling facilities, such as pallet truck and fork truck!

The device must be protected against mechanical impact, vibrations, dust deposits and corrosive ambient air during transportation and storage. It is also important to ensure that the relative humidity does not exceed 80 %.
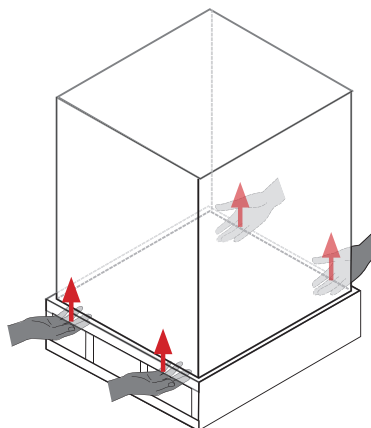The device must be completely emptied before transportation and storage.

The device can be transported:

- with pallet truck.
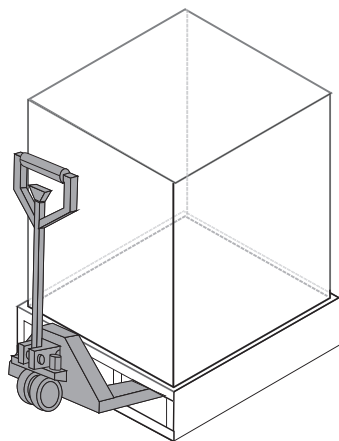
- by hands / unaided (4 persons).

Unpacking

Unpacking:
- Please unpack the device carefully.
- In the case of any damage a detailed report must be sent immediately (post, rail or forwarder).

Delivery scope:
- **OVEN 125 basic - dry** or
  OVEN 125 basic - dry glass
- 2 shelves
- Screwdriver (for adjustment of temperature limit)
- Tilt protection
- Power cord set
- USB cable
- User guide
- Calibrating certification
- Warranty card

Installation

Moving the device:

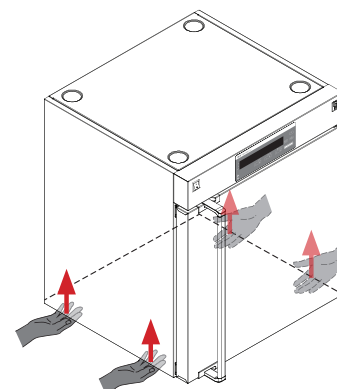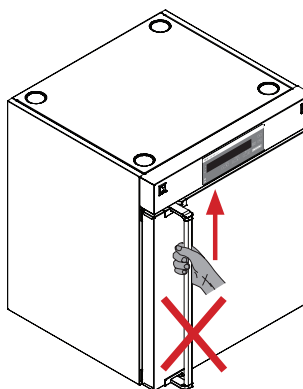⚠️ **NOTICE** | When transporting the device do not use the door handle. This may damage the device.

The device can be moved:
- with optional accessory (roll stand).
- on a pallet (transport straps).
- by hands (4 persons at least).

Setting up:

⚠ WARNING	**Fixation against the wall is compulsory!**

- Place the device on and even, clean, dry and fireproof surface in well-ventilated environment.
- Keep sufficient distance to radiators and other heat sources.
- Keep at least 150 mm between walls and the device.

Fixing the device to the wall:

⚠ NOTICE	The screws used for fixing is selected according to the wall conditions and is not included.

As indicated in following figures, attach the device to a wall with the tilt protections included with the device.
Fasten the tilt protections to the rear side of the device.
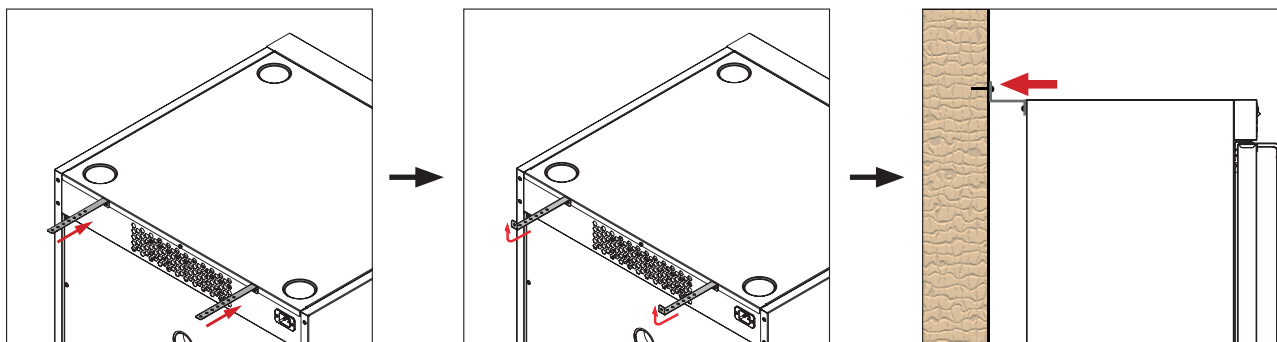
Inserting the shelves:
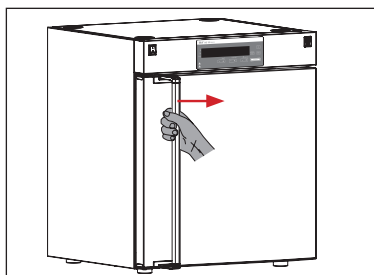
- Open the door.   - Insert the shelves.   - Load shelves evenly.
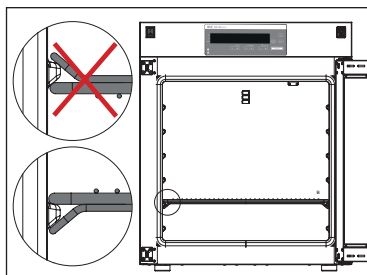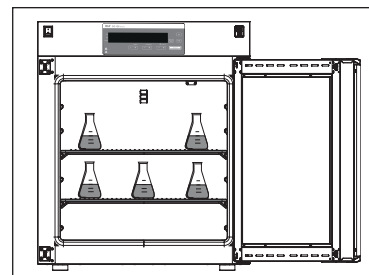
Note: Keep distance between samples and hot inner surface. Temperature of the inner wall may be much higher than set temperature!

Stacking the device:

⚠ **NOTICE**	Never stack more than two devices. When stacking the device, four persons are required to lift it. In order to keep enough space, please use stacking adapter recommend by **IKA**.

< 150 mm

Stacking adapter

> 150 mm
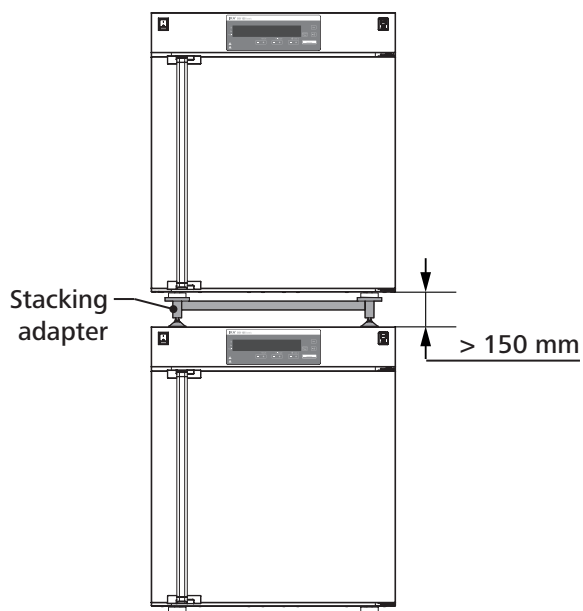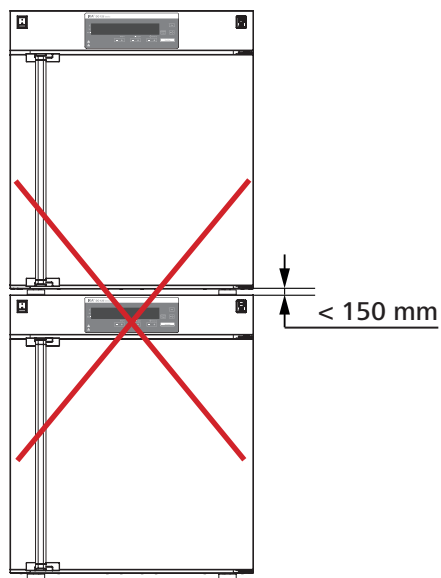
Changing the door opening direction:

⚠ **WARNING** | **When changing the door opening direction, two persons are required due to the heavy (about 15 kg) of the door.**

❶ Open the door.
❷ Hold the door and loosen the hinge pin with a suitable tool.
❸ Remove the door carefully.
❹ Alternate the position of the keepers and hinges with 4 mm hexagonal wrench.
❺ Reverse and assemble the door. Make sure that the pin is in the correct position during assembling the door.
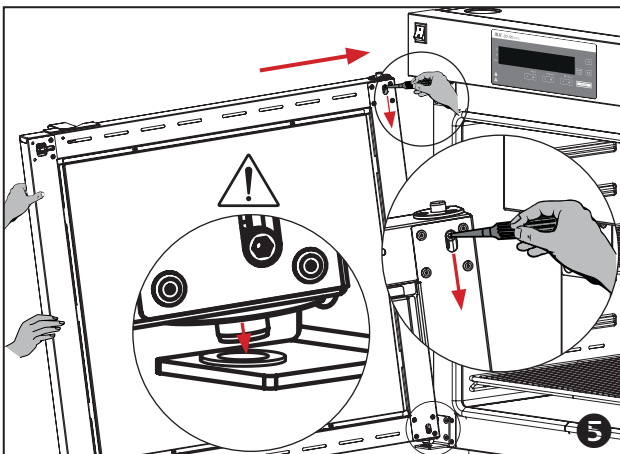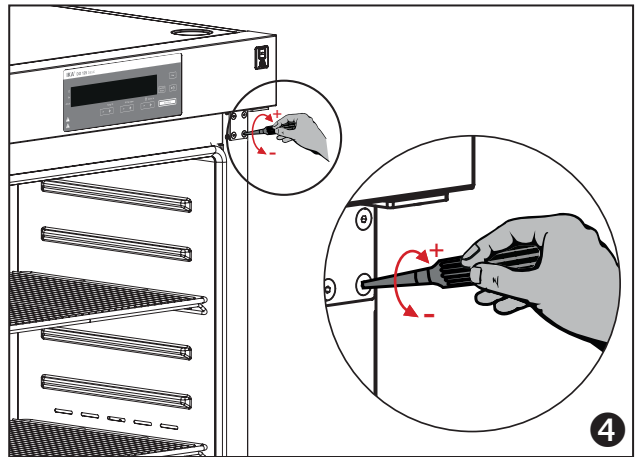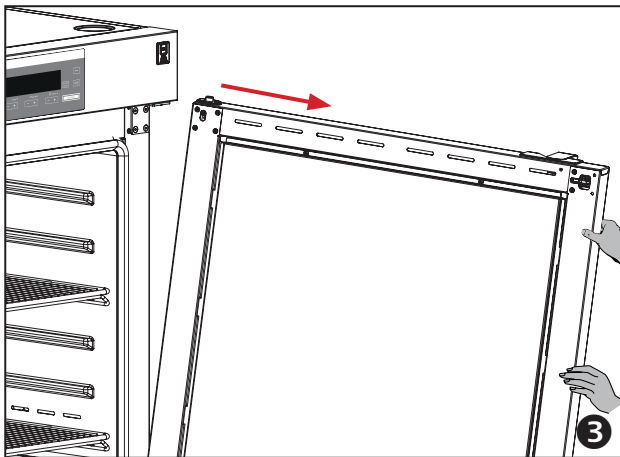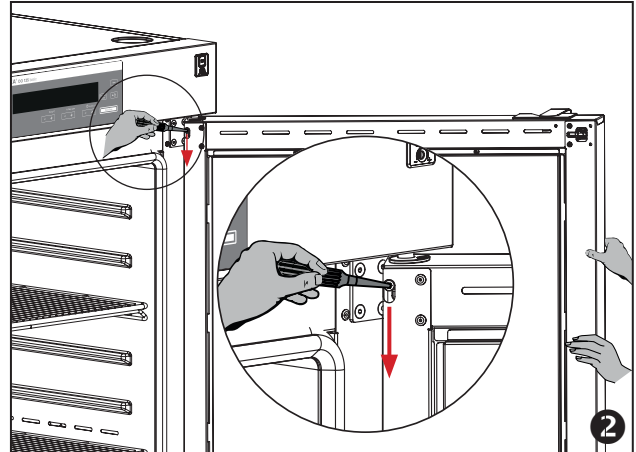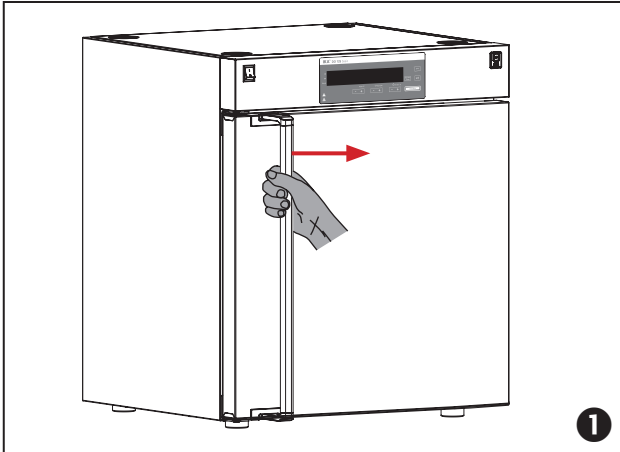
Operator panel and display
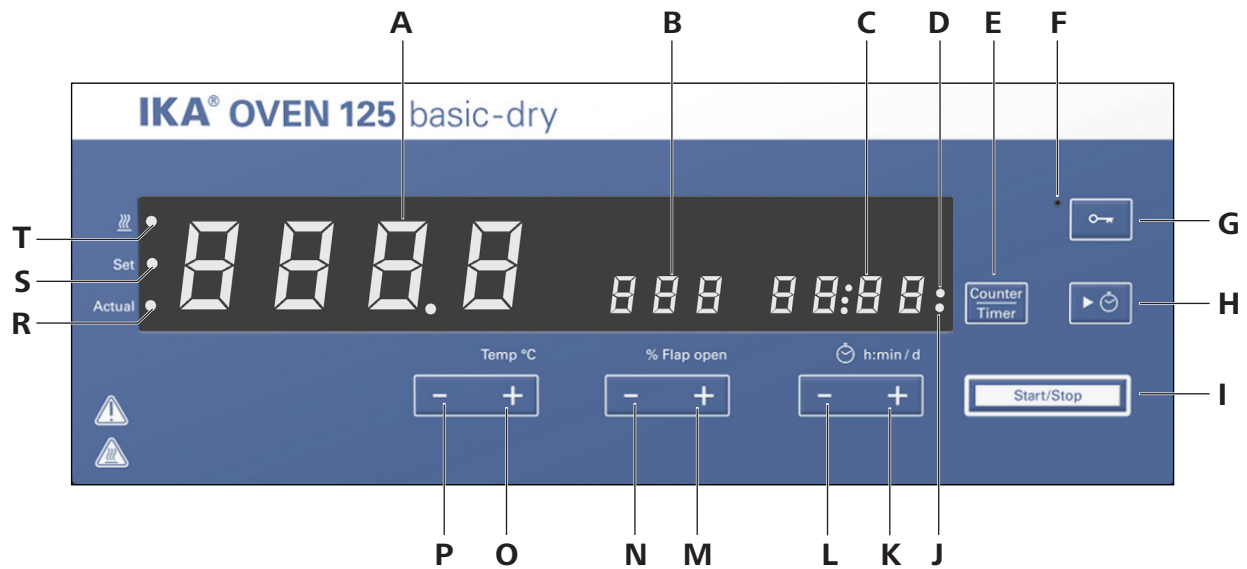
Item	Designation	Function
A	LED display (temperature):	Display the temperature.
B	LED display (flap):	Display the air flap opening percentage of the venting.
C	LED display (Timer/Counter):	Display the timer/counter value.
D	LED indicator (Counter):	Indicate the counter function is activated.
E	"Counter/Timer" key:	Switch between counter and timer function.
F	LED indicator (lock):	Indicates that the function of keys is deactivated.
G	Lock Key:	Lock/unlock keys.
H	Timer key:	Start the timer function.
I	"Start/Stop" key (heating):	Start/Stop the heating function.
J	LED indicator (Timer):	Indicate the timer function is activated.
K	"Timer (+)" key:	Increase the timer setting value.
		Navigation, selecting the settings in the menu.
L	"Timer (-)" key:	Decrease the timer setting value.
		Navigation, selecting the settings in the menu.
M	"Flap open (+)" key:	Open the flap vent in 10 % increments.
N	"Flap open (-)" key:	Close the flap vent in 10 % increments.
O	"Temp (+)" key:	Increase the temperature setting value.
		Change the setting in the menu.
P	"Temp (-)" key:	Decrease the temperature setting value.
		Change the setting in the menu.
R	LED indicator (Actual):	The LED lights up at the same time as the actual value is displayed.
S	LED indicator (Set):	The LED lights up at the same time as the set value is displayed.
T	LED indicator (heating):	Indicate the heating function is activated.

Setting the temperature limit

Adjust the temperature limit (increase the value by clockwise / decrease the value by counterclockwise) with screwdriver delivered with the device.
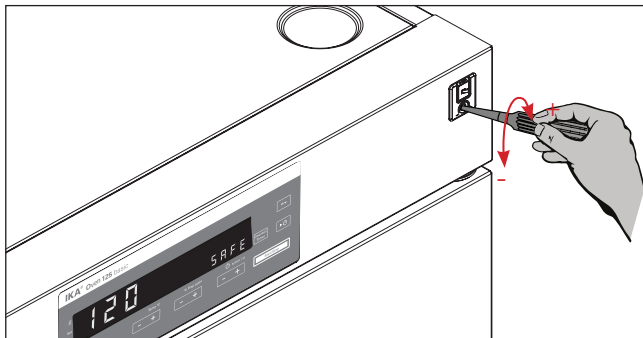
The temperature limit setting will appear on the display.

Temperature limit

Factory setting: approximate max. value
Adjustment range: see "Technical data".

⚠ **WARNING** **The device may only be used for heating up non-explosive and non-flammable substances and objects.**

Commissioning

Check whether the voltage specified on the type plate matches the mains voltage available.

 The power socket used must be earthed (protective earthing).

If above conditions are met, the device is ready for operation after plugging in the mains plug.

If these conditions are not met, safe operation is not guaranteed and the device could be damaged.

Observe the ambient conditions (temperature, humidity, etc.) listed under "Technical data".

Switch on:
After switching on the mains switch (1), all LED segments light up during the self test.

①

Starting

②

Device type *Operating mode (A)* *Software version*

③

Temperature limit

After that, following two screens appear alternatively.

④

⑤

Room temperature

Then the device enters standby status and is ready for operation.

Heating function:
The heating function can be started or stopped by pressing the "Start/Stop" key (I).

When the heating function is activated by pressing the "Start/Stop" key (I), the heating indicator (T) lights up.

Then, the target temperature and the actual temperature appears on display (A) alternately. Accordingly, setting value indicator (S) or actual value indicator (R) lights up alternately. The heating temperature can be adjusted by pressing the "Temp (+)" key (O) or "Temp (-)" key (P).

By pressing the "Temp (+)" key (O) or "Temp (-)" key (P), the temperature increase or decrease in 0.1 °C steps.

For changing the temperature more quickly, Keep pressing on "Temp (+)" key (O) or "Temp (-)" key (P).

The value could be changed in standby or operation process.

Flap open function:
Change the position of the flap by pressing the falp open +/- keys (in 10 % increments).

Counter and timer function:
Counter function:
If the "T mode" is deactivated, when the heating function is started by pressing "Start/Stop" key (I), the counter will start automatically and counter indicator (D) lights up. The counter value shows on display (C).

When the operating time is less than 1 day (24 hours), the counter work with hour/minute (hh:mm) mode.

When the operating time is more than 1 day (24 hours), the display switches from hour/minute mode to day mode. In the day mode, the display show the day and hour/minute (hh:mm) alternatively.

When the heating function is stop by pressing "Start/Stop" key (I), the counter value appear on display (C).

When the heating function is started again, the counter will re-start from 00:00.

Note: The maximum counter value is 100 days (d: 99/23:59). During counter mode, the "Timer" key is invalid.

Switching between "Counter" and "Timer" function:
The "Counter" function could be switch to "Timer" function by pressing the "Counter/Timer" key (E)". The timer indicator (J) lights up to indicate the "Timer" function is activated. Press the "Counter/Timer" key (E) again, the "Counter" function will be activated and counter indicator (D) lights up.

Timer function:
The "Timer" can be adjusted by pressing "Timer (+)" key (K) or "Time (-)" key (L).
During operating, the "Timer" start increase with hour/minute (hh:mm) mode.
When the timer value reach 24 hours, the display switch to day mode. The display show the day and hour/minute (hh:mm) alternatively.
For changing the timer more quickly, Keep pressing on "Timer (+)" key (K) or "Timer (-)" key (L).
After setting, the timer can be started by pressing "Timer" key (H). The heating function stops automatically once this time has expired. The display (C) blinks "00:00" until you press any key.

Note: The maximum timer value is 100 days (d: 99/23:59). The timer value could be changed in standby or operation process. When timer function is activated, starting or closing the heating function by pressing "Start/Stop" key (I) doesn't influence of the timer function.

Locking the control elements:
The control elements of the device allow to be locked by pressing the lock key (G) about 2 seconds, so no accidental changes during operation are possible (LED (F) lights up).
By pressing the lock key (G) about 2 seconds again, the control elements are released (LED (F) no longer lights up).

Menu settings

Menu structure:

				Factory setting
Mode	A			activated
	B			-
	C			-
Alarm and key tone	On			activated
	Off			-
Factory reset	No			activated
	Yes			-
Info calibration ❶	Edit (Edit CALI) ❷	Calibration and adjustment ❸	C0	activated
			C1	-
			C2	-
			C3	-
T mode	On			-
	Off			activated

Menu

❶ **Info calibration:**
In this menu, the current offset values can be viewed.

❷ **Edit calibration:**
In this menu, the offset values can be entered directly.

❸ **Calibration and adjustment:**
This menu shows how offset values can be entered after the respective temperatures are approached and with an external measuring device cross-checked (calibrated).

Navigation in the menu:
☞ Enter/leave the menu by pressing "Counter/Timer" key (E) and "Timer" key (H).
☞ Press the"Timer (+)" key (K) or "Timer (-)" key (L) to switch the menu options.
☞ Change the menu setting by pressing "Temp (+)" key (O) or "Temp (-)" key (P).
☞ Save the setting by pressing the "Start/Stop" key (I).

Operating mode:

A̅ o̅ d E

Mode A: The device doesn't restart again after power on/power failure. The setting of heating temperature is adjustable.

b o̅ d E

Mode B: The device restart again after power on/power failure. The setting of heating temperature is adjustable.

C o̅ d E

Mode C: The device restart again after power on/power failure. The setting of heating temperature is not adjustable.

Alarm and key tone:

On bEEP

Beep on: alarm and key tone is activated.

oFF bEEP

Beep off: no alarm and key tone.

Factory reset:

no rE5

No reset.

YE5 rE5

Reset.

Calibration and adjustment:

The device is calibrated and adjusted in the factory.
Individual sample loading and ambient condition might influent the temperature behaviour of the chamber. You can select and make 1-point, 2-point or 3-point calibration and adjustment as necessary.
By using 3-point calibration to compensate that influence, the device can get the optimal result. This function allows the temperature to be calibrated and adjusted to three different temperature values.
When calibration, locate a calibrated reference measuring sensor at the center of the cabinet.

Calibration information:
In this menu option, you can review the calibration information in the device:

InFo CALI

Enter the calibration information by pressing "Start/Stop" key (I) and following screens appear:

0 tYP CALI

If the device is selected 3-point calibration, following calibration information screen will appear:

3 tYP CALI

By pressing "Timer (+)" key (K) or "Timer (-)" key (L), you can switch between following three screens and review relate calibration information:

99.2 C1 100.0

151.2 C2 150.0

251.8 C3 250.0

Back to calibration information screen by pressing "Start/Stop" key (I).

Edit calibration parameters:
In this menu option, you can edit the calibration parameter in the device:

Edit CALI

Confirm to edit the setting values by pressing "Start/Stop" key (I) and following screen appear:

0 tYP CALI

By pressing "Temp (+)" key (O) or "Temp (-)" key (P), you can select following types calibration:

0 tYP CALI

(no adjustment)

1 tYP CALI

(1-point calibration)

2 tYP CALI

(2-point calibration)

3 tYP CALI

(3-point calibration)

Confirm the selected calibration type by pressing "Start/Stop" key (I).
Switch to the first point calibration screen by pressing "Timer (+)" key (K).

```
0.0        Ct1Edit
```

Set the calibration temperature value by pressing "Temp (+)" key (O) or "Temp (-)" key (P).

```
100.0      Ct1Edit
```

Confirm the setting by pressing "Start/Stop" key (I) and then the screen switches to reference temperature screen.

```
0.0         C1Edit
```

Change the reference temperature value by pressing "Temp (+)" key (O) or "Temp (-)" key (P).

```
99.2        C1Edit
```

Confirm the setting by pressing "Start/Stop" key (I), the screen switches to next point calibration.

The other points parameter can be set in the same way.
Back to edit calibration screen by pressing "Start/Stop" key (I) again after confirming the settings.

Calibrate the device:
In this menu option, you can calibrate the device.
Before starting the calibration, locate a reference measuring temperature sensor at the centre of the cabinet.

Example: 2-point calibration:
Switch to calibration screen by pressing "Temp (+)" key (O) or "Temp (-)" key (P):

```
CAL          CALI
```

Confirm to calibrate the device by pressing "Start/Stop" key (I) and following screen appear:

```
0          tYP CAL
```

Select 2-point calibration by pressing "Temp (+)" key (O). Following screen appear:

```
2          tYP CAL
```

Switch to the first point calibration screen by pressing "Timer (+)" key (K).

```
0.0       SEt CAL 1
```

Set the first point temperature (e.g. 100 °C) by pressing "Temp (+)" key (O) or "Temp (-)" key (P).

```
100.0     SEt CAL 1
```

Confirm the setting by pressing "Start/Stop" key (I). The device start to heat. The set temperature value changes to the right side of the screen and actual temperature appears on the left side of the screen:

```
58.8      CAL 100.0
```

Wait about 1–2 hours until temperature is stable (e.g. reach about 98.8 °C) and "Set" LED (S) no longer flashes and the following screen appear:

```
0.0        CAL  98.8
```

Input the calibration value from the reference measuring device (e.g. 98.6 °C) with "Temp (+)" key (O) or "Temp (-)" key (P):

```
98.6       CAL  98.8
```

Confirm the value by pressing "Start/Stop" key (I). Then, following screen appear:

```
CAL            OK
```

Press "Start/Stop" key (I) again to finish the first point calibration.
The other point calibration can be performed in the same way.

T mode:

```
On          tmodE
```

T mode on: the counter / timer starts to count when the set temperature is reached.

```
OFF         tmodE
```

T mode off: the counter / timer starts to count when the heating function is activated.

Interface and output

The device can be connected to a PC and operated with the laboratory software labworldsoft® through USB interface (5).

Note: Please observe the system requirements as well as the operating instruction and help section of the software.

USB interface:

The Universal Serial Bus (USB) is a serial bus for connecting the device to the PC. Equipped with USB devices can be connected to a PC during operation (hot plugging). Connected devices and their properties are automatically recognized.
Use the USB interface in conjunction with labworldsoft® for operation in "Remote" mode and also to update the firmware.

USB device drivers:

First, download the latest driver for **IKA** devices with USB interface from:
http://www.ika.com/ika/lws/download/usb-driver.zip.
Install the driver by running the setup file. Then connect the **IKA** device through the USB data cable to the PC.
The data communication is via a virtual COM port.

Command syntax and format:

The following applies to the command set:
- Commands are generally sent from the computer (Master) to the device (Slave).
- The device sends only at the computer's request. Even fault indications cannot be sent spontaneously from the device to the computer (automation system).
- Commands are transmitted in capital letters.
- Commands and parameters including successive parameters are separated by at least one space (Code: hex 0x20).
- Each individual command (incl. parameters and data) and each response are terminated with Blank CR LF (Code: hex 0x20 hex 0x0d hex 0x20 hex 0x0A) and have a maximum length of 80 characters.
- The decimal separator in a number is a dot (Code: hex 0x2E).

The above details correspond as far as possible to the recommendations of the NAMUR working party (NAMUR recommendations for the design of electrical plug connections for analogue and digital signal transmission on individual items of laboratory control equipment, rev. 1.1).
The NAMUR commands and the additional specific **IKA** commands serve only as low level commands for communication between the device and the PC. With a suitable terminal or communications programme these commands can be transmitted directly to the device. The **IKA** software package, Labworldsoft®, provides a convenient tool for controlling the device and collecting data under MS Windows, and includes graphical entry features, for motor speed ramps for example.

Commands	Function
IN_PV_2	Read the internal actual temperature
IN_SP_2	Read the internal setting temperature
IN_SP_3	Read the safety setting temperature
IN_SP_4	Read the flap setting
OUT_SP_2 X	Set the internal setting temperature, X = 0 to 250
OUT_SP_12@n	Setting WD safety limit temperature with set value echo
OUT_SP_4 X	Set the flap setting, X = 0 to 100
OUT_WD1@m	Watchdog mode 1: if event WD1 should occur, the heating functions are switched off and PC1 is displayed. Set watchdog time to m (20 - 1,500) seconds, with watchdog time echo. This command launches the watchdog function and must be transmitted within the set watchdog time.
OUT_WD2@m	Watchdog mode 2: if event WD2 should occur, the temperature target value is changed to the WD safety temperature limit value. The warning PC2 is displayed. The WD2 event can be reset with OUT_WD2@0 - this also stops the watchdog function. Set watchdog time to m (20 - 1,500) seconds, with watchdog time echo. This command launches the watchdog function and must be transmitted within the set watchdog time.
START_2	Start the heating function
STOP_2	Stop the heating function
RESET	Switches off the device function

Note: when disconnecting the USB cable while the device is running, the device stays in PC mode. To reset to function without PC, switch the device off and on again.

"Watchdog" function, monitoring the serial data flow:
The following applies to situations where the watchdog function is enabled (see Namur instructions). If no new transmissions of these commands from the PC take place within the preset watchdog time, the heating function will be shutdown according to the watchdog mode selected or will be controlled using the preset setpoints. An operating system crash, a PC power failure or a fault in the connecting cable to the device can cause an interruption in data transmission.

"Watchdog"– Mode 1

If an interruption in data transmission occurs which is longer than the preset watchdog time, the heating function will be shutdown and the error message PC 1 will be displayed.
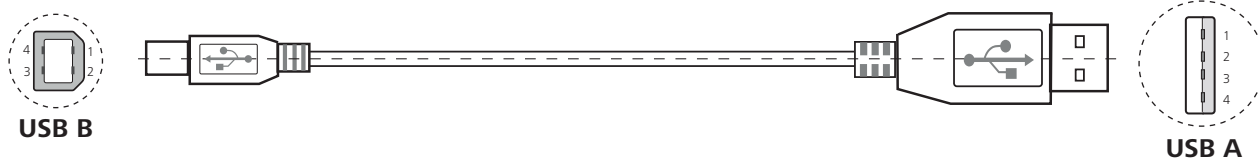
"Watchdog"– Mode 2
If an interruption in data transmission occurs which is longer than the preset watchdog time, the temperature setpoint will be set to the WD safety temperature setpoint. The PC 2 warning message will be displayed.

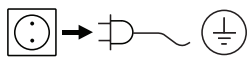**Connections between device and external devices:**
USB 2.0 cable (A - B):
This cable is required to connect USB interface to a PC.

USB B

USB A

Maintenance and cleaning

The device is maintenance-free. It is only subject to the natural wear and tear of components and their statistical failure rate.

Cleaning:

 For cleaning disconnect the mains plug!

Use only cleaning agents which have been approved by **IKA** to clean **IKA** devices: Water containing surfactant / isopropyl alcohol.

- Wear protective gloves while cleaning the device.
- Electrical devices may not be placed in the cleansing agent for the purpose of cleaning.
- Do not allow moisture to get into the device when cleaning.
- If a different cleaning or decontamination method than the method defined by **IKA** is planned, you must ascertain with **IKA** that this method does not damage the device.

Spare parts order:
When ordering spare parts, please give:
- Machine type.
- Serial number, see type plate.
- Item and designation of the spare part, see **www.ika.com**, spare parts diagram and list.

Repair:
Please send the device for repair only after it has been cleaned and is free from any materials which may constitute a health hazard.
For repair, please request the "Decontamination Certificate" from **IKA**, or download printout of it from the **IKA** website **www.ika.com**.
If you require servicing, return the device in its original packaging. Storage packaging is not sufficient. Please also use suitable transport packaging.

Error codes

Any malfunctions during operation will be identified by an error message on the display.
Proceed as follows in such cases:
☞ Switch off device using the main switch at front of the device.
☞ Carry out corrective measures.
☞ Restart device.

Error code	Cause	Effect	Solution
Er 03	Temperature inside device (PCB power) too high	Heating off	- Switch off device and allow it to cool down.
Er 06	Set temperature limit exceeded	Heating off	- Contact **IKA** service department.
Er 21	Safety relay does not open	Heating off	- Contact **IKA** service department.
Er 25	Heater1 error	Heating off	- Contact **IKA** service department.
Er 26	Heater2 error	Heating off	- Contact **IKA** service department.
Er 27	No internal sensor	Heating off	- Contact **IKA** service department.

If the actions described fails to resolve the fault or another error code is displayed then take one of the following steps:
- Contact the service department
- Send the device for repair, including a short description of the fault.

Accessories

USB 2.0 cable A - B   **Labworld*soft*®**

See more accessories on ***www.ika.com.***

Warranty

In accordance with **IKA** warranty conditions, the warranty period is 24 months. For claims under the warranty please contact your local dealer. You may also send the machine direct to our factory, enclosing the delivery invoice and giving reasons for the claim. You will be liable for freight costs.

The warranty does not cover worn out parts, nor does it apply to faults resulting from improper use, insufficient care or maintenance not carried out in accordance with the instructions in this operating manual.

Technical data

		OVEN 125 basic - dry	OVEN 125 basic - dry glass
Operating voltage	**VAC**	230 ± 10 % 115 ± 10 % 100 ± 10 %	
Frequency	**Hz**	50 / 60	
Max. input power	**W**	2450 (230 V) 1550 (115 V) 1200 (100 V)	
Heating power	**W**	2400 (230 V) 1500 (115 V) 1150 (100 V)	
Working temperature range	**°C**	RT + 5 ... + 250	
Working temperature limit, safety class TB1 (270°C)	**°C**	+ 50 ... + 270	
Resolution of temperature adjusting	**K**	0.1	
Temperature stability (at 150 °C)	**K**	± 0.5 (center, standard door) *	
Temperauture display		LED	
Timer / countuer function		Yes	
Timer / countuer display		LED	
Max. timer / counter		100 days (d: 99/23:59 [hh:mm])	
Max. number of tray		6	
Max. load for one tray	**kg**	30	
Interface		USB	
Permissible ambient temperature	**°C**	+ 5 ... + 40	
Permitted ambient humidity	**%**	80	
Permitted on-time	**%**	100	
Protection class according to EN 60529		IP 20	
Protection class		I	
Overvoltage category		II	
Contamination level		2	
Dimensions (W x D x H)	**mm**	700 x 650 (+ 75 with hand grip) x 825	
Inside dimensions (W x H x D)	**mm**	550 x 525 x 450	
Internal volume	**l**	125	
Weight	**kg**	74	81
Operation at a terrestrial altitude	**m**	max. 2000	

Note: Complies to EN61000-3-11 subject to conditional connection: Zmax = 0.362 Ω. If necessary, consult your electricity supplier.

* Further data on request.

Subject to technical changes!

IKA

designed for scientists

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