

Quick Start Guide

Top Loaders

Top ..
HO ..
F ..

M01.1089K ENGLISCH

Original instructions

■ Made
■ in
■ Germany

www.nabertherm.com

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1 Important

This operating instructions summary is a shortened version of the full operating instructions to give you an initial orientation. Read the operating instructions completely before initial start-up.

You can obtain the operating instructions for the kiln via the following link or by scanning this QR code: Apps to scan QR codes can be downloaded from the corresponding sources (app stores).



<https://nabertherm.com/en/downloads/instructions>

Keep a printed or stored version for later use. You may also request a printed version of the operating instructions. Contact us, stating the kiln model and serial number (see typeplate).

2 More information and tutorials



<https://nabertherm.com/en/downloads/video-tutorials>

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3 Defined Application

Kilns in the **Top loader Top** and **Top loader HO** series are electrically heated kilns for firing ceramics, glass fusing, glass and porcelain painting.









Top loaders Top are ideal for working temperatures between 900 °C and 1230 °C.

Kilns in the **F** series are for glass fusing, glass and porcelain painting.

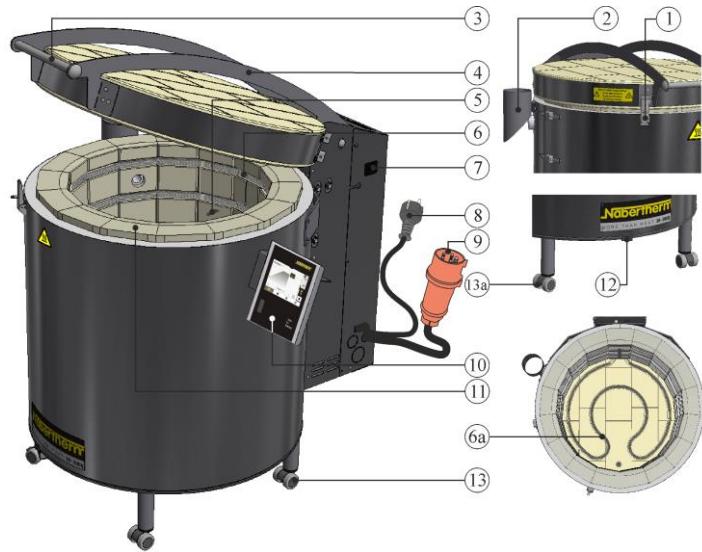
This kiln may be used by children aged 8 years and above and by persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge, provided they are supervised or have received instructions in using the kiln safely and they understand the hazards involved.

4 Safety precautions

Below is a list of safety precautions in the highest danger level, which, if not observed, may result in serious personal injury. A complete overview of all safety precautions can be found in the kiln operating instructions. It is important that you read the operating instructions before initial start-up and use.

 	<ul style="list-style-type: none"> • Danger of electric shock • Risk of fatal injury <p>Work on the electrical equipment may be performed only by qualified electricians or by specialists authorized by Nabertherm.</p> <p>Before starting work, disconnect the plug.</p> <p>The device must not get wet</p> <p>Do not insert objects into openings in the kiln housing, exhaust holes or cooling slits of the switchgear or kiln.</p>
	<ul style="list-style-type: none"> • Fire danger to health • Risk of fatal injury <p>Observe the installation conditions</p> <p>Adequate ventilation must be ensured at the installation location to remove exhaust heat and exhaust gases.</p>
	<p>Do not open when hot</p> <p>Opening the kiln when it is above 200 °C (392 °F) can cause burns.</p> <p>No liability is assumed for damage to products or kiln.</p>
 	<p>For all kiln systems</p> <p>This kiln system has no safety technology for processes in which flammable mixtures can form</p> <p>Operation with explosive gases or mixtures or the formation of explosive gases or mixtures during the process is not permitted.</p> <p>Do NOT place any potentially explosive dusts or solvent mixtures inside the device.</p> <p>Do NOT operate the device in areas where there is a risk of explosion.</p>
	<p>Bypass connection/exhaust duct, lid and kiln housing are hot when the kiln is in operation.</p> <p>Risk of burning.</p> <p>Bypass connection/exhaust duct, lid and housing must NOT be touched during operation.</p>
	<p>Risk of fire if using an extension cable</p> <p>Risk of fatal injury</p> <p>For all kiln models with a plug-in connection, ensure that the distance between the circuit breaker and the power socket to which the kiln is connected is as short as possible.</p> <p>NO power board or extension cable is used between the power socket and the kiln.</p>

5 System components



No.	Name	No.	Name
1	Adjustable lid lock	7	Power switch (switch kiln on/off)
2	Bypass connection (only Top + HO model)	8	Power plug (up to 3600 watts)
3	Handle	9	Power plug (from 5500 watts)
4	Lid	10	Controller
5	Thermocouple	11	Insulation
6	Heating elements protected in grooves	12	Fresh-air inlet
6a	Floor heating (additional equipment)	13/13a	Castor with locking brake

The following must be observed before each application:

- Before starting any production run, check and ensure that only authorized personnel are in the work area, that no one can be injured when the system is in operation, and that all safety devices are working properly (for example, contact safety switch switches the heating off when the lid is opened).
- Also check the kiln for obvious damage and ensure that it is operated only in a perfect condition.
- Remove material that is not required for production from the working area of the kiln.

6 Transporting the device



Note

Wear protective gloves when installing the kiln.
The kiln should be transported by at least two people.

- When the kiln is delivered, check the transport packaging for possible damage. Remove straps from the transportation packaging.
- Compare the delivered items with the delivery note and the purchase order documents.
- Carefully lift the cardboard box. The pallet contains a packaging unit with accessories (e.g., power cable, bypass connection, ceramic shelves and castors).
- To carry the kiln, place your hands beneath the sides (near the feet) and make sure that you have a good grip. Lift the kiln from the pallet and carefully lower it at the point where it is to be installed.
- The packaging material inside and around the kiln must be removed completely. All packaging material can be recycled.

7 Requirements for the installation location

When choosing a place to install the kiln, make sure that the room is dry. Temperatures should be between +5 °C and +40 °C, with maximum 80% humidity. The surface (floor or bench) where the kiln is to be installed must be level to enable the kiln to stand upright. Place the kiln on a non-flammable surface. The load-bearing capacity of the bench must be suitable to take the weight of the kiln plus accessories.

Flammable materials must be kept at least 1 m from the kiln on all sides. In some cases, the distance must be greater in order due to local conditions. The minimum distance between the kiln and non-flammable materials may be reduced to 0.2 m at the sides. If the charge emits gases or vapors, ensure adequate ventilation at the installation site and/or a suitable exhaust gas venting system. If required, the customer must provide a suitable extraction system for exhaust air.

8 Assembly, Installation, and Connection

Installing the castors

The castors that are delivered can be attached to the kiln feet. We recommend that the castors with the locking brake are attached to the front of the kiln. The number of castors depends on the number of feet and varies depending on the kiln model. Kiln model Top 16/R (tabletop model) is delivered without castors. Only lift the kiln from the bottom.



Note

The kiln must NOT be placed on its side as this will damage the insulation/heating elements and thus destroy the kiln. Wear protective gloves when assembling the castors or when lifting the kiln.

Installing the controller

Attach the supplied controller with holder to the kiln. At the controller position, there are screws to attach the holder; these must be unscrewed beforehand.

- Place the controller holder with the screws loosened on to the correct position on the kiln and fasten it with suitable tools.
- Tighten the screws of the holder and check that it sits properly.
- Place the controller in the holder on the kiln.

Installing the bypass connection

The bypass connection that is part of the delivery is fixed to the side of the kiln. Depending on the model, the ventilation is in the middle of the lid or on the side of the stove. The bypass socket included in the scope of delivery must be mounted on the lateral ventilation. The bracket on the bypass connection can be adapted to suit the respective kiln model (housing circumference).

- Carefully bend the bracket at the slits using pliers until the bracket fits the shape of the kiln housing
- Undo the two screws where the bypass connection will be installed
- Place the bypass connection with the screws loosened on to the correct position on the kiln and fasten it with suitable tools
- When the bypass connection has been attached to and aligned on the kiln, you can then install an exhaust gas system if this is required

9 Venting Exhaust Fumes

When ceramics are fired, depending on the quality of the clay and/or glaze, they can emit gases and vapors that are harmful to health. It is therefore necessary to make sure that the exhaust gases emitted from the exhaust air opening are directed outdoors in a suitable manner (ventilate the working area). If adequate ventilation cannot be ensured at the working area, the “exhaust gases” must be removed via suitable heat-resistant ducting. For detailed information and detailed requirements for exhaust ducting, refer to the kiln operating instructions.

10 Connecting the kiln to the power supply



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Made in Germany		
www.nabertherm.com		
Top 160	SN 123456	2022
TOP1603BN1	1320 °C	-
-	400 V 3/N/PE~	-
50/60 Hz	13,0/13,0/13,0 A	9,0 kW
CE		

Power supply with power cable:

Insert the plug into a suitable socket. Pay attention to the information on the type plate as regards voltage, supply type and max. power consumption. The distance between the kiln and the socket should be as short as possible; therefore avoid using extension cables. The power plug must be accessible at all times when the kiln is operating so that it can be pulled out quickly in case of an emergency.

Power supply without power cable:

The power cable must be a fixed connection in the control cabinet, either at the prepared terminals or, in models with a separate switchgear, directly at the main switch. When carrying out this work, pay attention to the information on the type plate as regards voltage, supply type and max. power consumption. The fuse protection and the cross-section of the required power connection depend on local conditions, the length of the cable and how it is installed. For this reason, the type of protection and how it should be installed must be decided by a qualified electrician.

- The power cable must not be damaged. Do not place any objects on the power cable. Lay the cable in such a way that no one can stand on it or trip over it.
- Power cables may be replaced only with similar, approved cables.
- Ensure that the connection cable of the kiln is protected.

11 Initial Start-Up and Initial Heating

Before starting the kiln for the first time, allow it to acclimatize at its installation location for 24 hours.

When the kiln is put into operation, the following safety information must be observed to prevent serious injury and damage to property.

- Make sure that the instructions and information in the operating manual and the controller instructions are observed and followed.
- Before starting the kiln for the first time, make sure that all tools, foreign parts, and transportation securing equipment have been removed.
- Before you switch on the kiln, make sure that you know what to do in case of faults or emergencies.

Before placing materials in the kiln, check whether they could harm or destroy the insulation or the heating elements. Materials that could damage the insulation include: alkalis, alkaline earths, metal vapors, metal oxides, chlorine compounds, phosphorous compounds, and halogens. **If applicable, read the labels and instructions on the packaging of materials that you use.**




Heat the kiln to dry out the insulation and to get a protective oxide coating on the heating elements. **The life of the heating elements is dependent on obtaining a good oxide coating.** There may be some unpleasant odors while the kiln is heating. This is due to binder being emitted from the insulation material. It is advisable to ventilate the room in which the kiln is located well during the first heating phase.

1. Fully open the fresh-air slider.
2. Close the lid and secure it with the lid lock
3. Switch on the kiln/controller at the power switch
4. Run the pre-set program “Program 01”
5. When the program ends, allow the kiln to cool naturally

The insulation materials and furniture have natural residual moisture. During the first firings, condensation may accumulate and drip from the housing.



12 Operation

Switch on the controller			
	Procedure	Display	Comments
	Switch on the power switch		Set the power switch to "I". (Power switch type varies according to design/ kiln model)
	The kiln status is displayed. After a few seconds, the temperature is displayed. The first time you switch on the kiln, a wizard is displayed that enables you to enter some basic settings, such as language.		When the temperature is shown on the controller, the controller is ready for operation.



Note

See the separate operating instructions for a description of how to enter temperatures and times and to "start" the furnace.

13 What to do in case of emergency

In case of unexpected events in the kiln (e.g., a lot of smoke, odors or fire), switch the kiln off immediately by disconnecting the power plug and keeping the lid closed. Wait until the kiln has cooled naturally to room temperature. **The electrical socket must be accessible at all times when the kiln is operating.**



14 Loading the kiln

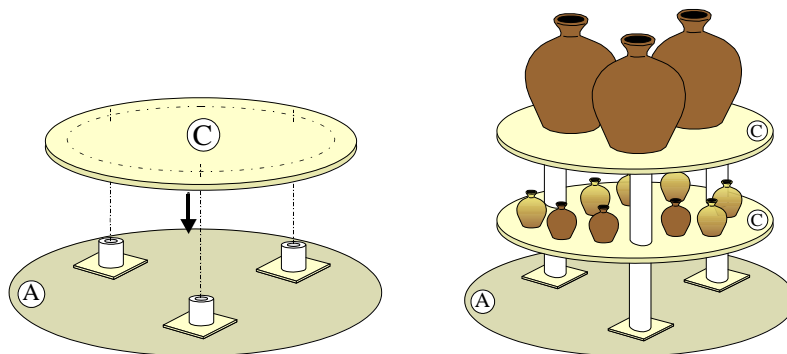
Three ceramic shelves are included with the delivery to stabilize the props and the shelves. We recommend that you use this three-point setup for good firing results.



Note

The positioning of the ceramic shelves and props and the load have a considerable influence on the result of the firing. A proper set-up also ensures a long service life for the furniture and the kiln.

Therefore, please observe the operating instructions.



Pre-defined programs

Several programs are pre-set on the controller and can be started directly. The example programs for ceramic applications are stored in the factory in programs “P02 - P05”.

- For example, for a biscuit firing (950°C), choose the stored program “P02” from the overview.
- The program is now loaded and can be started.
- Acknowledge the subsequent security prompt with “Yes”.

15 Cleaning products

To clean the kiln, it is important that the plug is pulled out and that the kiln has cooled completely. Pay attention to the labeling and information on the cleaning product packaging. Wipe the housing surface with a damp, lint-free cloth. You may also use the following cleaning products:

Component and position	Cleaning product
Metal surface	Stainless steel cleaner
Interior	Carefully clean with a vacuum cleaner (pay attention to the heating elements)
Insulation brick (e.g., lid)	Carefully clean with a vacuum cleaner (pay attention to the heating elements)
Instrument field on the controller	Wipe the surface with a damp, lint-free cloth (e.g., glass cleaner)

After cleaning, remove all cleaning products residue with a damp, lint-free cloth and check all cables, connections, heating elements, and insulation for damage. Do not, under any circumstances, use a high-pressure cleaner.

