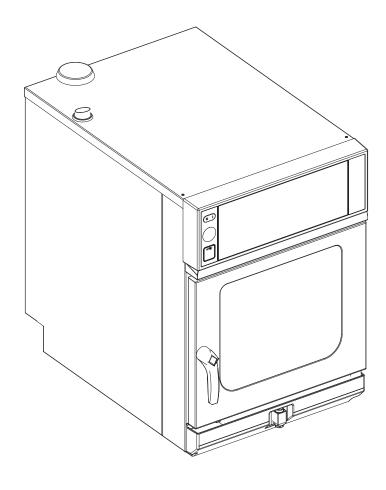




Read the operating instructions prior to commissioning

Installation instructions

Combisteamer



Unit	Energy type	Type of unit	Model
SpaceCombi	Electric	Countertop unit	SKECOD 610 TG2
MagicPilot		Built-in unit	

Manufacturer

MKN Maschinenfabrik Kurt Neubauer GmbH & Co. KG Halberstädter Straße 2a 38300 Wolfenbüttel Germany

Phone +49 5331 89-0 Fax +49 5331 89-280 Internet www.mkn.com

Copyright

All rights to text, graphics and pictures in this documentation are held by MKN Maschinenfabrik Kurt Neubauer GmbH & Co. KG. Distribution or duplication is only permitted with the prior written consent of MKN.

Copyright by MKN Maschinenfabrik Kurt Neubauer GmbH & Co. KG.



Directory of contents

8 Checking operation	44
8.1 Checking the controls	44
8.2 Checking the monitoring of the cooking zone door	44
8.3 Heating the unit up and rinsing it out	45
9 Putting the unit into service	46
9.1 Nameplate	46
9.2 Filling out the Commissioning report	47



1 Introduction

1.1 About this manual

The instruction manual is part of the unit and contains information on safe installation of the unit.

Observe and adhere to the following instructions:

- Read the instruction manual in its entirety prior to installation.
- Make the instruction manual available to the installer at the operating site at all times.
- Preserve the installation manual throughout the service life of the
- Insert any supplements from the manufacturer.
- Pass on the installation manual to any subsequent operator of the

Target group The target group for the installation manual is trained technical personnel that is familiar with installing and operating the unit.

Figures All figures in this manual are intended as examples. Discrepancies between these and the actual unit can arise.



1.1.1 Explanation of signs



DANGER

Imminent threat of danger

Failure to comply will lead to death or very severe injuries.



WARNING

Possible threat of danger

Failure to comply can lead to death or very severe injuries.



CAUTION

Dangerous situation

Failure to comply can lead to slight or moderately severe injuries.

ATTENTION

Physical damage

Failure to comply can cause physical damage.



Notes for better understanding and operation of the unit.

Symbol / sign	Meaning
•	Listing of information.
\rightarrow	Action steps, which can be performed in any sequence.
1.	Action steps, which must be performed
2.	in the specified sequence.
└ →	Result of an action performed or additional information about it.



1.2 Staff qualification

Explanation of qualification

Skilled staff	Skilled staff are those, who due to their professional training, knowledge and experience as well as their knowledge of the relevant standards can assess the tasks given to them and recognize any
	possible dangers.

Type of activity	Qualification	
Power connection	ElectricianSpecific professional trainingEmployee of the specialist company concerned	
Water connection	Plumber Specific professional training Employee of the specialist company concerned	
Wastewater connection	Wastewater specialist Specific professional training Employee of the specialist company concerned	

1.3 Use of the unit

This unit is intended to be used solely for commercial purposes, particularly in commercial kitchens.

The use of the unit is prohibited in the following countries:

- USA
- Canada

1.4 Warranty

The warranty is void and safety is no longer assured in the event of:

- · Improper conversion or technical modifications of the unit,
- Improper use,
- Incorrect startup, operation or maintenance of the unit,
- Problems resulting from failure to observe these instructions.



2 Safety information

The unit complies with applicable safety standards. Residual risks associated with operation or risks resulting from incorrect operation cannot be ruled out and are mentioned specifically in the safety instructions and warnings.

The installer must be familiar with regional regulations and observe them.

The installer must observe the safety instructions in these mounting instructions and in the "Safety information" chapter of the operating instructions.

Ensuring conformity with Observe applicable international, European and national laws, standards regulations, standards and directives for the unit when transporting, setting up and connecting it.

Improper installation Risk of property damage and personal injury from improper installation

- Install the unit only as specified in these installation instructions.
- Do not add anything to the unit or modify the unit.
- Use only original spare parts.

Transportation and storage Risk of personal injury and property damage from improper transportation and improper storage

- Store the unit in a dry, frost-free environment.
- Observe the safety regulations for the lifting gear used.
- Attach the unit to the lifting gear securely during transport and setup, and prevent it from dropping.
- Transport the unit in an upright position, do not tilt or stack.
- Pay attention to protruding parts when transporting the unit without packaging.

Fire prevention Risk of fire from combustible surfaces

Observe general fire prevention regulations.

Organisational measures Risk of property damage and personal injury from lack of organizational measures

- Identify hazard areas when transporting, setting up and connecting the unit.
- Prior to starting the installation work, notify any operators present about the procedure.
- Prior to starting the installation work, discuss how to behave in an emergency.
- Use equipment and protective gear suitable for the activity.
- Brace housing components to prevent them from falling over and dropping.



Setup Risk of property damage and personal injury from improper setup

Wear safety shoes and protective gloves.

Electrical connection Risk of fire from improper connection

- Observe applicable regional regulations of the electrical utility.
- Ensure that only electricians licensed by the electric utility connect the unit.
- Ensure that the electrical system is earthed by a protective earthing conductor.
- Note the information on the nameplate.

Risk of electric shock from live components.

- Prior to working on the electrical system, switch off the unit, disconnect the electrical system from the mains and prevent power from being switched on again. Check to ensure absence of voltage.
- · Use only insulated tools.

Unit on casters Risk of a line breaking if subjected to high tensile load

 Secure the unit to the building with a chain for strain relief on the connection lines, so that there is no stress on the connection lines, if the unit moves. The strain relief must be designed for a tensile load of at least 0.6 kN.

Commissioning Risk of property damage and personal injury from improper commissioning

- Read the operating instructions prior to commissioning. Observe the safety instructions in this installation manual and in the "Safety information" chapter of the operating instructions.
- Put the unit into service only after a successful function test following assembly.
- Put the unit into service only after it has reached room temperature.
- Observe the units during operation.



3 Description of the unit

3.1 Overview of the unit

3.1.1 Countertop unit

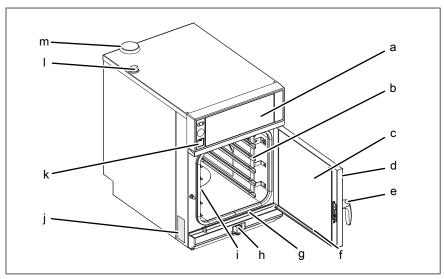


Image: Countertop unit

- a Control unit
- Support rack
- Insulated window
- d Cooking zone door
- e Door handle
- f Drain channel, door
- g Drain channel, unit

- h Hand shower (optional)
- Core temperature sensor (covered)
- j Nameplate
- k USB port
- Steam outlet
- m Air inlet

3.1.2 Built-in unit

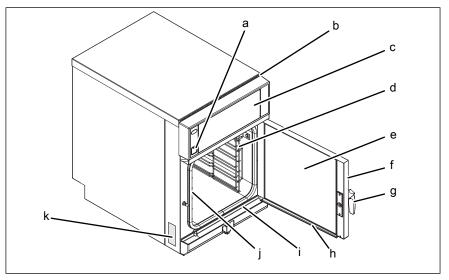


Image: Built-in unit

- a USB port
- b Ventilation grille
- c Control unit
- d Support rack
- e Insulated window
- f Cooking zone door

- g Door handle
- h Drain channel, door
- i Drain channel, unit
- j Core temperature sensor (covered)
- k Nameplate

3.2 Equipment and connection data



- All voltages listed below are technically available.
- For some voltages, however, the implementation must be agreed with the manufacturer.
- The voltage for which the device is designed is indicated on the nameplate.

Size	610		
Dimensions			
Unit Length x width x height (mm)	787 x 550 x 784		
Built-in unit Length x width x height (mm)	788 x 550 x 800		
Weight			
Unit ≈(kg)	68		
Emissions			
Sound level (db(A))	< 65		
Steam output (g/h)	2070		
Steam output (m³/h)	3,5		
Latent heat (W)	1404		
Sensible heat (W)	936		



Size	610		
With HoodIn			
Steam output (g/h)	620		
Steam output (m³/h)	1,1		
Latent heat (W)	421		
Sensible heat (W)	936		
With MagicHood			
Steam output (g/h)	620		
Steam output (m³/h)	1,1		
Latent heat (W)	421		
Sensible heat (W)	936		
	unts are determined in Germany on the voltage of 400 V. Regulations applying in		
Operating environment			
Temperature (°C)	5 — 40		
Relative humidity (%) non-condensing	95		
Cooking chamber light			
Illuminant	LED module 406 mmX 12 mm		
Energy efficiency class	A++		
Power connection			
Protection class	IPX5		
Type of connection	3PE AC 50/60Hz, 3NPE AC 50/60Hz		
Voltage (V)	200		
Connected load (kW)	7		
Fuse (A) 25			
Voltage (V)	208		
Connected load (kW)	7.4		
Fuse (A)	25		
Voltage (V)	220		
Connected load (kW)	8.4		
Fuse (A)	25		
Voltage (V)	230		
Connected load (kW)	9.1		
Fuse (A)	25		
Voltage (V)	240		
Connected load (kW)	9.8		
Fuse (A)	25		

Size	610		
Voltage (V)	380		
Connected load (kW)	7.4		
Fuse (A)	16		
Connected load (kW)	10.1		
Fuse (A)	16		
Voltage (V)	400		
Connected load (kW)	7.8		
Fuse (A)	16		
Connected load (kW)	11.2		
Fuse (A)	20		
Voltage (V)	415		
Connected load (kW)	8.1		
Fuse (A)	16		
Connected load (kW)	12		
Fuse (A)	20		
Voltage (V)	440		
Connected load (kW)	7.9		
Fuse (A)	16		
Type of connection	2PE AC 50/60Hz		
Voltage (V)	208		
Connected load (kW)	5.3		
Fuse (A)	35		
Voltage (V)	240		
Connected load (kW)	6.9		
Fuse (A)	35		
Type of connection	1NPE AC 50/60Hz		
Voltage (V)	220		
Connected load (kW)	5.8		
Fuse (A)	35		
Voltage (V)	230		
Connected load (kW)	6.4		
Fuse (A)	35		
Voltage (V)	240		
Connected load (kW)	6.9		
Fuse (A)	35		

Size	610			
Softened tap water connection				
Water type	Softened tap water, cold			
Residual hardness CaCO ₃ (mmol/I (°dH))	< 1 (5,6)			
Chloride CI (mg/I)	< 100			
Iron Fe (mg/l)	< 0.2			
Connection pressure (kPa (bar))	200 (2) — 600 (6)			
Connection (")	R 3/4 male thread			
Tap water connection				
Water type	Tap water, cold			
Carbonate hardness CaCO ₃ (mmol/I (°dH))	< 4 (22,2)			
Connection pressure (kPa (bar))	200 (2) — 600 (6)			
Connection (")	R 3/4 male thread			
Water consumption, steaming				
Softened tap water (I/h)	10			
Water consumption, combistea	ming			
Softened tap water (I/h)	2,2			
Water consumption, WaveClear	n cleaning program			
Softened tap water (I)	1,3			
Tap water (I)	17,7			
Wastewater connection				
Wastewater type	Dirty water			
Maximum length (m)	1 with a drop of at least 5% or 3°			
Temperature resistance (°C)	95			
Connection (mm)	40			
Maximum volume flow (I/min)	10			

Floor fastening

Mandatory for the following types of unit		
SKECOD610G2	Only in conjunction with base frame including MagicHood	



Basic control setting

Basic setting	Parameter s	Standard value	Adjustment range	Explanation
Actual voltage	14	400	100 — 500 V	Set the local, mean voltage between the line conductors.
Date/time			yyyy - mm - dd	Year - Month - Day
			hh : mm	Hour : Minute
Altitude	2	0 — 999	0 — 999 m	Request the altitude above sea level from the closest weather station. If the altitude is unknown, set 0 — 999 m.
			1000 m — 1999 m	
			2000 m — 2499 m	
			2500 m or higher	
Volume of audible signal		Medium	Individual	Sets the volume.
Temperature unit	1	°C	°C	Celsius (°C)
setting			°F	Fahrenheit (°F)
Unit of volume	34	ml	(ml)	Millilitre (ml)
			(fl.oz.)	Fluid ounce (fl.oz.)
	35	Imperial	Imperial (fl.oz.)	Imperial fluid ounce
		(fl.oz.)	U.S. (fl.oz.)	U.S. fluid ounce
Water filter maintenance	44	0	0 — 99900 I	Water quantity up to the maintenance message.
				0 = No maintenance message
Network		DHCP	Network address and DHCP	Select and set interface.
Kitchen control system	652	Disabled	0 = Disabled 1 = Active	Indicates whether the Kitchen management system is being used.
	659	Ethernet	0 = Ethernet	Type of signal transmission (interface)
			1 = Serial	
	653	1188	0 — 65535	TCP port setting
	654	254	0 — 254	Unit address
80 % power	3	100	80 %	Power can be limited to 80 % (for special
			100 %	applications).
Power optimisation	42	Off	On	If an energy optimization system is
system (LOA)			Off	connected, "On" must be selected for the unit to heat.
Settings parameters				 Set parameters via the roller. Tap the "Read" button to display the set value. Specify another value via the button panel. Press the "Write" button to save the new value.

Basic control setting (Advanced)

Basic setting	Parameter s	Standard value	Adjustment range	Explanation
Generator operation	45	0	0 = No	If a generator is used to supply electricity
			1 = Yes	
HoodIn (Vapour elimination)	48	1	0 = Lower water consumption, large amount of steam in the unit when the cooking chamber door is opened	Setting of the strength of the vapour elimination level . Depending on the setting, cooking method and cooking product, water consumption may be increased.
			1 = Normal	
			2 = Higher water consumption, greatly reduced amount of steam in the unit when the cooking chamber door is opened	
Time format	675	0	0 = 24 h	Sets the 12 h or 24 h time format
			1 = 12 h	
Format for cooking program times	676	0	0 = hh:mm 1 = mm:ss 2 = Automatic	Display format for cooking program times

4 Transporting the unit



CAUTION

Risk of property damage and personnel injury from tipping equipment

- · Do not linger next to or behind raised equipment.
- · Move raised equipment carefully.

ATTENTION

Risk of physical damage from improper transport

- Transport the unit upright.
- · Do not tilt or stack the unit.
- Pay attention to protruding parts when transporting the unpacked unit.

Prior to transporting the unit to the installation site, ensure that:

- The roadway has adequate load-bearing capacity.
- · Wall openings are large enough.

4.1 Transporting the unit to the installation site

→ Use suitable transport means to move the unit to the installation site

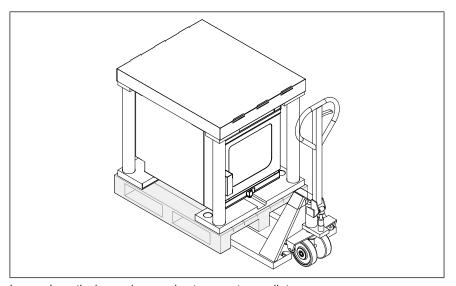


Image: Lengthwise and crosswise transport on pallet

4.2 Unpacking the unit



CAUTION

Risk of injury from sharp edges

· Wear protective gloves.



When unpacking the unit, inspect it for transport damage.

Do not install damaged units or put into service.

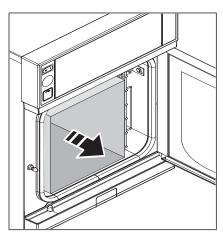


Image: Unpacking the unit

- 1. Remove the packaging.
- 2. Pull the protective film off the unit.
- 3. Remove the packaging material from the cooking zone completely.
- 4. Clean the unit (See Operating instructions).
- 5. Enter the information from the nameplate into the Commissioning report.
- 6. Enter the information from the nameplate into the Operating instructions.



5 Setting up the unit



CAUTION

Risk of crushing from improper setup

Protect the unit and work area during setup and alignment.



CAUTION

Risk of fire from failure to observe applicable regional fire prevention regulations

Observe applicable regional fire prevention regulations.

ATTENTION

Risk of physical damage from overheating of the unit

Do not set up the unit close to heat sources.

ATTENTION

Property damage caused by overturning equipment during extreme heeling of a vessel.

When installing on ships, it must be ensured that the device cannot slip or tip due to the movements of the ship.

The different operating conditions of each ship must be taken into account.

If necessary, the device must be additionally fixed to the wall or ceiling.

Planning drawing

The planning drawing and additional documents are available on the manufacturer's Internet page by entering the equipment number (see Impressum).



5.1 Minimum clearances

The following clearances from walls, ceilings or other equipment must be maintained when installing the unit:

• Left, right and rear at least 50 mm.

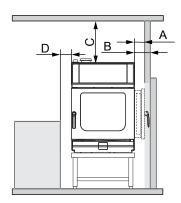


Image: Minimum clearances to walls, ceiling or units

Α	В	C *	D
50	100		50

All dimensions in mm

ATTENTION

Material damage to the device control due to excessive ambient temperatures

Minimum distance to devices with large heat radiation 510 mm.

These include, for example:

- Gas stoves
- Gas griddle plates
- Grills
- Deep fryers

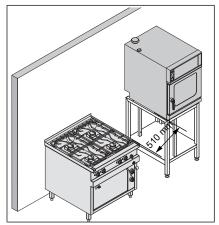


Image: Minimum distance to devices with high heat radiation



^{*} Depending on the kitchen ventilation system and the material composition of the ceiling

5.2 Setting up the unit on a work surface or base frame



CAUTION

Danger due to heavy weight of the unit (over 60 kg)

- Erect the unit with several people.
- Raise / lower the unit with suitable lifting equipment.

Requirement Work surface/base frame must bear the weight of the unit

Work surface/base frame is level

Base frame is set up in accordance with the planning drawing

- 1. Lift the unit.
- 2. Place the unit on the work surface or on the stud bolts of the base frame.

5.2.1 Attaching shelf height warning sign



CAUTION

Risk of scalding due to spillage of hot cooked food

Attach sticker if the upper slide-in rails are higher than 1,6 m.

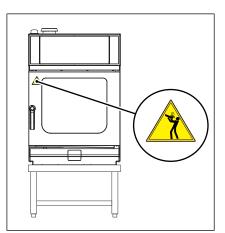


Image: Attaching the shelf height warning sign

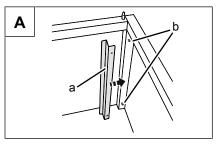
- 1. Clean the adhesive surface for the sticker.
- 2. Attach the sticker to the cooking zone door at a height of 1,6 m.



5.2.2 Installing the support rack

Depending on the version, the base frame can be equipped with a support rack.

The support rack is used to hold containers, metal trays and grates.



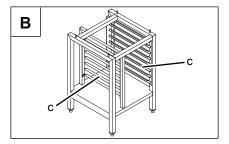


Image: A Stop profile, B Support rack

- a Stop profile
- b Pin

c Support rack

Requirement Pins installed in the uprights of the base frame

- 1. Place the stop profiles on the pins (at the back).
- 2. Install the support racks.

5.3 Fastening the unit to the floor

5.3.1 Securing the unit against tilting



WARNING

Risk of accidents from inadequate fastening

The unit may tip over

- The unit must be fastened to the floor by suitable methods depending on the type of unit.
- Observe the requirements for the condition of the floor.
- Observe the requirements for the type of fastening.
- Note the instructions from the manufacturer of the fastenings.

Depending on the size, it is mandatory that certain types of Combisteamers are secured against tilting, and this also applies to Combisteamers in conjunction with a stacking kit, air recirculation hood, base frame or base cabinet.

Types of units, which must be secured against tilting (see "Unit and connection data").



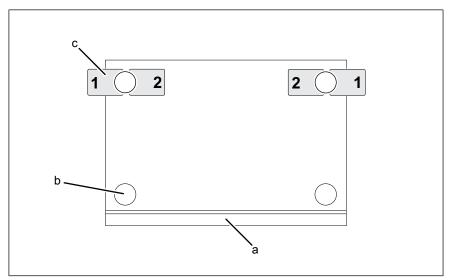


Image: Arrangement of the base plates (view from above)

- a Cooking zone door
- c Base plates
- b Equipment leg or base frame

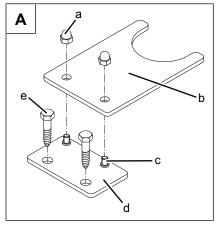
A special fastening set, which secures the unit against tilting, is supplied by the manufacturer or is available as an accessory.

The fastening set comprises two floor fastenings and all the necessary components for screwing or bonding them to the floor.

The unit or base frame is fastened with two floor fastenings as shown in the drawing.

Floor without steam barrier

In the case of floors without a steam barrier, the floor plates are screwed to the floor with the enclosed screws.



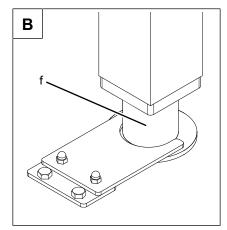


Image: A: Position of the floor plate; B: Floor plate screwed to the floor

- a Cap nut
- b Holding plate
- c Stud bolt

- d Floor plate
- e Wood screw
- f Equipment leg

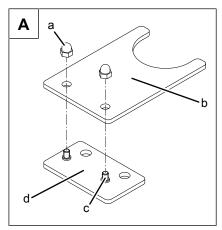
Requirement The floor must be capable of taking the weight of the unit The floor must be clean and suitable for the type of fastening The unit is set up and levelled in accordance with the planning drawing

- 1. Insert the base plate of the fastening set into the holding plate in accordance with the drawing.
- 2. Screw the cap nuts on hand-tight.
- 3. Align the floor fastening in accordance with the drawing in position 1-1 or 2-2 on the equipment leg or base frame and then mark the fastening holes on the floor.
- 4. Mark the position of all the equipment legs or base frame on the floor.
- 5. Using suitable lifting equipment, move the unit away until the drill holes can be made in the floor.
- 6. Drill the holes in the diameter of the dowel sufficiently deep into the floor.
- 7. Carefully move the unit to the installation position.
- 8. Unscrew the cap nuts and remove the holding plate from the base plate.
- 9. Screw the base plate to the floor using the enclosed dowels and fastening screws.
- 10. Ensure that, after the fastening screws have been inserted, the floor seal is restored again.
- 11. Put the holding plate onto the base plate and fasten it with the cap nuts.
- 12. Fill out the Commissioning report.



Floor with steam barrier

In the case of floors with a steam barrier, the floor plates are not screwed to the floor but glued with the enclosed adhesive.



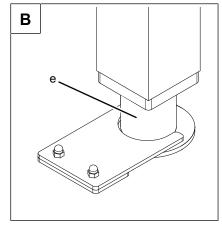


Image: A: Position of the floor plate; B: Floor plate glued to the floor

- a Cap nut
- b Holding plate
- c Stud bolt

- d Floor plate
- e Equipment leg

Requirement The floor must be capable of taking the weight of the unit The floor must be clean and suitable for the type of fastening The unit is set up and levelled in accordance with the planning drawing

- 1. Insert the base plate of the fastening set into the holding plate in accordance with the drawing.
- 2. Screw the cap nuts on hand-tight.
- 3. Align the floor fastening in accordance with the drawing in position 1-1 or 2-2 on the equipment leg or base frame and then mark it on the floor.
- 4. Unscrew the cap nuts and remove the holding plate from the base plate.
- 5. Fasten the base plates to the floor with the enclosed adhesive.
 - → Note the manufacturer's instructions for the adhesive.
 - → Apply the adhesive in accordance with the manufacturer's instructions.
 - → Observe the drying time in accordance with the manufacturer's instructions.
- 6. Put the holding plate onto the base plates and fasten with the cap
- 7. Fill out the Commissioning report.



6 Connecting the unit



DANGER

Risk of personal injury and physical damage from electric shock

- Prior to working on the unit, ensure that the unit has been disconnected from the mains.
- Do not operate the unit with the housing open.



CAUTION

Risk of injury from sharp edges

· Wear protective gloves.

ATTENTION

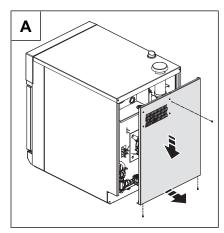
Risk of physical damage from damage to the lines

Remove and attach housing components carefully.

6.1 Opening and closing the housing

6.1.1 Removing and attaching the rear panel

Removing the rear panel



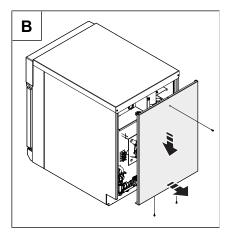


Image: Remove the rear panel, A Countertop unit, B Built-in unit

- 1. Undo the screws on the rear panel.
- 2. Carefully pull the bottom of the rear panel downwards and then forwards.



Attaching the rear panel

ATTENTION

Risk of physical damage from leaky housing

- Check seals when attaching the housing parts.
- · Replace damaged gaskets.
- 1. First attach the rear panel at the top and then press it onto the seal at the bottom.
- 2. Slide the rear panel upwards.
- 3. Screw in the screws on the rear panel.
- → The rear panel must make contact on all sides of the unit.

6.1.2 Removing and attaching the unit cover

Removing the unit cover on a countertop unit

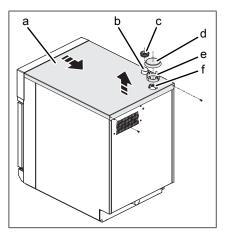


Image: Removing the equipment cover

- a Equipment cover
- b Steam outlet
- c Seal

- d Lid
- e Ventilation ring
- f Air inlet
- 1. Unscrew the lid from the air inlet.
- 2. Remove the ventilator ring.
- 3. Unscrew the screws on the unit cover.
- 4. Carefully remove the unit cover.



Attaching the unit cover on a countertop unit

ATTENTION

Risk of physical damage from leaky housing

- Check seals when attaching the housing parts.
- · Replace damaged gaskets.
- 1. Brush the seal on the steam outlet with an acid-free slip agent.
- 2. Carefully push the unit cover over the steam outlet and air inlet.
 - → The air inlet must be pushed through the cut-outs on the unit cover.
- 3. Press the unit cover onto the housing.
- 4. Screw in the screws on the unit cover.
 - → The unit cover must be in contact with the unit on all sides.
- 5. Put the ventilator ring on with the cut-outs facing upwards and ensure that it can not be rotated.
- 6. Screw the lid onto the air inlet.

Removing the unit cover on an installation unit

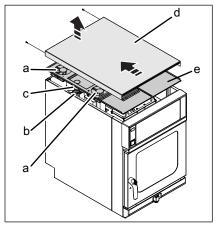


Image: Removing the equipment cover

- a Fan
- b Seal
- c Steam outlet

- d Equipment cover
- e Air diverter
- 1. Undo the screws on the equipment cover.
- 2. Carefully remove the equipment cover.

Attaching the unit cover on an installation unit

ATTENTION

Risk of physical damage from leaky housing

- · Check seals when attaching the housing parts.
- · Replace damaged gaskets.
- 1. Check that the seal on the steam outlet is located correctly.
- 2. Coat the seal on the steam outlet with an acid-free slip agent.
- 3. Slide the equipment cover forwards.
- 4. Carefully attach the equipment cover flush with the steam outlet.
- 5. Screw in the screws on the equipment cover.
 - → The equipment cover must make contact on all sides of the unit.

6.2 Making the electrical connection

Electrical installation work

Electrical installation work on the electric system and the unit may only be performed by a specialist company, which is approved by the electric utility company in the particular region. The applicable regional regulations, standards and guidelines must be observed, as well as the connection conditions imposed by the electric utility company responsible.

Professional qualification for electrical installation work

Electrical installation work on the electrical system and the unit may only be carried out by an electrician from the specialist company assigned to the work.

The unit must be connected on the basis of the information on the nameplate and this manual.

Wiring diagram

The wiring diagram is included with the unit.

The wiring diagram and additional documents are available on the manufacturer's Internet page by entering the serial number of the unit (see Impressum).

Power connection cable

Minimum requirements for the unit's power connection cable to the electric mains:

Connection	Power connection cable	
Permanent connection for fixed installation with a cable from the unit to a separate connection box.	Rubber sheath cable, oil-resistant, shrouded and flexible in accordance with IEC 60245-57 (for example: H05RN-F).	
Connection of the unit with a plug.		

Permanent connection



CAUTION

Risk of property damage and personal injury from improper installation

 In the case of a permanent electrical connection, install an all-phase disconnect switch with at least 3 mm contact opening before the unit.

Install an all-phase disconnect switch if the unit will be connected permanently to the electric mains.



CAUTION

Risk of property damage and personal injury from improper installation

The plug-in connection must be readily accessible.



Plug-in connection

If the unit is connected with a plug to the power-supply mains, use plugs and sockets according to IEC60309.

The socket must be readily accessible so that the unit can be disconnected from the electric mains at any time.

Insulation monitoring

If there is an unearthed network (IT network), the unit can be incorporated into the insulation monitoring.

Fault current device

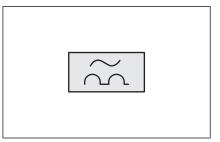


Image: RCD switch type A, circuit symbol

The unit can be connected to a fault current device.

If a fault current device is used, a fault current device type A (RCD type A) must be installed, to ensure that AC fault currents and pulsating DC currents are detected.

If the unit is connected to an electric mains system without a neutral conductor, a type B fault current circuit breaker (RCD type B), which is sensitive to all types of current, must be installed.

Due to special electronic components, the unit generates a small fault current. To ensure that the residual current device does not trip during normal operation, each unit must have its own residual current device.

Potential equalisation

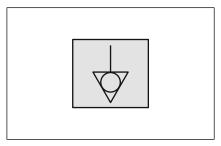


Image: Symbol for potential equalisation

The unit can be included in a potential equalisation system by means of appropriately sized wiring.



6.2.1 Connecting the power connection cable



DANGER

Risk of personal and physical damage through electric

- Before connecting, ensure that the connection point in the building is not live.
- Ensure that the connection line is undamaged.



DANGER

Risk of personal injury and physical damage from electric

- Before connecting, ensure that the power connection cable has been disconnected from the power supply.
- Ensure that the power connection cable is undamaged.

Requirement Electrical connection point in the building is not live

The voltage corresponds with the information on the nameplate

- 1. Connect the power connection cable to the connection point in the building in accordance with the wiring diagram.
 - → The power connection cable can also be equipped with a suitable plug.
- 2. Fill out the commissioning report.

Connecting the connection line available at the installation site

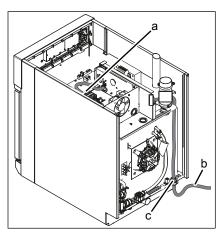


Image: Power connection cable

- a Connection terminals
- Power connection cable
- c Cable passage



If a connection cable is already available at the installation site, the minimum requirements for the power connection cable must be observed and complied with.



Requirement The power connection cable meets the minimum requirements

Power connection cable not live

Rear panel removed

Unit cover removed

- 1. Disconnect the factory connection cable and carefully pull it out of the device.
 - → Note the routing position of the connection cable.
- 2. Pull the power connection cable into the unit through the cable passage.
- 3. Route the connection cable so that it corresponds exactly to the factory routing.
- 4. Secure the connection cable with cable ties.
- 5. Connect the connection line in accordance with the wiring diagram.
- 6. Firmly tighten the cable gland for strain relief.
- 7. Close the housing (see "Opening and closing the housing").
- 8. Fill out the commissioning report.

6.2.2 Connecting the power optimisation system (LOA)



DANGER

Risk of personal injury and physical damage from electric shock

Before working on the unit, ensure that the unit has been disconnected from the power supply.



DANGER

Risk of personal injury and physical damage from electric shock

- Before connecting, ensure that the power connection cable has been disconnected from the power supply.
- Ensure that the power connection cable is undamaged.



When integrating the unit into a power optimisation system, observe the information in the operating manual of the power optimisation system.

The unit can be connected to a power optimisation system designed according to DIN 18875 with a potential-free contact. The dry contact is used for logging the unit onto the control system. The required cable length in the unit for the power optimisation system corresponds to the height of the unit.



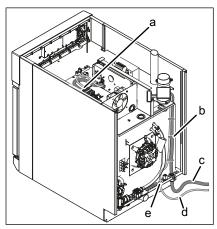


Image: Connect energy optimization system

- a Connection terminals X2 Power optimisation system
- Cable tie
- c Power connection cable
- d Connection line power optimisation system
- e Cable passage

Requirement Unit is disconnected

Connection line dead

Equipment cover opened

Rear panel opened

- 1. Press out a suitable opening in the bottom.
- 2. Screw in a suitable cable gland.
- 3. Guide the connection line through the cable gland into the unit.
- 4. Lay the connection line in parallel with the power connection cable as far as the connection terminals.
- 5. Connect the connecting cable according to the circuit diagram.
- 6. Fix the connection line with cable ties.
- 7. Tighten the cable gland securely to provide strain relief.
- 8. Close the housing.
- 9. Log on the power optimisation system in the basic control setting (see "Making the basic control setting").
- 10. Fill in the commissioning report.



6.2.3 Connecting to the potential equalisation circuit

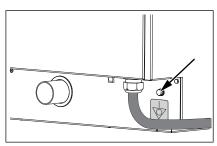


Image: Connecting to the potential equalisation circuit

- 1. Run and attach potential equalisation line to the identified terminal.
- 2. Fill out the commissioning report.

6.3 Connecting the kitchen management system

The units can be connected with a RJ45 plug to a kitchen management system.

Minimum requirements for the network cable

Type of network	Ethernet
Cable quality	4-pair, shrouded patch cable Cat-5 S/FTP
Connection to unit	Shrouded RJ45 plug

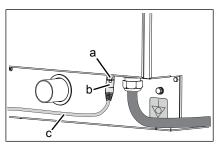


Image: Connecting the Kitchen management system

- a RJ45 socket
- b RJ45 plug

- c Network cable
- 1. Connect the network cable to the unit with the RJ45 plug.
- 2. Log the network on with the basic control setting (see "Making basic control setting").
- 3. Fill out the Commissioning report.



6.4 Making the basic control setting

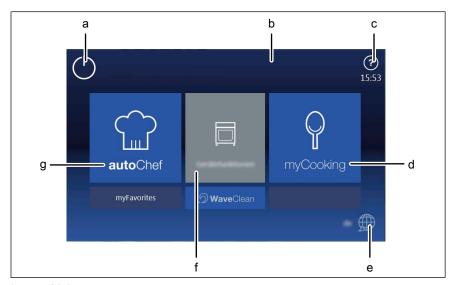


Image: Main menu

- a Stand-by button
- b Information bar
- c FlexiHelp button
- d "myCooking" button
- e Language selection button
- f "Equipment functions" button
- "autoChef" button

6.4.1 Changing the basic control setting

By entering the password "2100", the basic settings for the installation can be displayed and changed.



The basic settings are made in the dialogue.

Advanced settings are made via the parameters for the settings.

Requirement The unit is switched on

The Main menu is displayed

- 1. Tap the "Equipment functions" button.
 - → The *Equipment functions* menu is displayed.
- 2. Tap the "Equipment settings" field.
 - \hookrightarrow The *PIN* window opens.
- 3. Enter the password.
- 4. Tap the Confirm button.
 - → The *Equipment settings* menu is displayed.
 - → The basic settings can be changed (see "Equipment and connection data").
- 5. Fill out the Commissioning report.



6.5 Making the water connection

Installation work with tap water

Installation work on tap water lines and the unit may only be performed by a specialist company, which is approved by the water utility company in the particular region. The applicable regional regulations, standards and guidelines must be observed, as well as the connection conditions imposed by the water utility company responsible.

Professional qualification for tap water installation work

Installation work on the tap water lines and the unit may only be carried out by a plumber from the specialist company assigned to the work.

The unit has a connection for permanent attachment the drinking water system.

The unit is equipped with a permanent connection for:

- Softened drinking water for steam generation
- Drinking water for cooling, rinsing and cleaning



CAUTION

Hygiene risk from contaminated drinking water

- In the UK: For the drinking water installation, the specifications of the EN 1717 must be observed.
- Other countries: The connection to the drinking water supply must be equipped with a backflow preventer type EA.

ATTENTION

Risk of physical damage from the wrong water quality

 Ensure that the water quality complies with the equipment and connection data.



The unit can be connected to a reverse osmosis system.

The material of the connection line from the reverse osmosis system to the unit must be suitable.



Always connect both water connections to the unit.



6.5.1 Connecting the tap water connection line

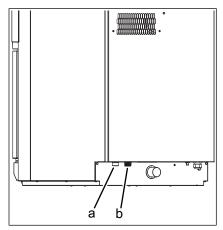


Image: Water connection

a Tap water connection

b Softened tap water connection

Requirement Water pressure complies with the specified range (see "Equipment and connection data")

Backflow preventer installed

The connection lines are pressure-tight and suitable for tap water

- 1. Connect the connection lines to the tap water valves using seals.
- 2. Flush the connection lines thoroughly.
- 3. Insert dirt filters into the water connections on the unit.
- 4. Connect the tap water connection line to the unit.
- 5. Connect the soft water connection line to the unit.
- 6. Open the tap water valves and check the threaded connectors for leaks.
- 7. Fill out the Commissioning report.



6.5.2 Connecting softened tap water to both connections

If only softened tap water is available at the installation site, use a Tpiece to connect both water connections on the unit to each other.

Requirement Water pressure complies with the specified range (see "Equipment and connection data")

Backflow preventer installed

The connection line is pressure-tight and suitable for tap water

- 1. Connect the connection line to the tap water valve for soft water using a seal.
- 2. Flush the connection line thoroughly.
- 3. Insert dirt filters into the water connections on the unit.
- 4. Connect the T-piece to the unit.
- 5. Connect the connection line for soft water to the T-piece using a seal.
- 6. Open the tap water valve and check the threaded connectors for leaks.
- 7. Fill out the Commissioning report.

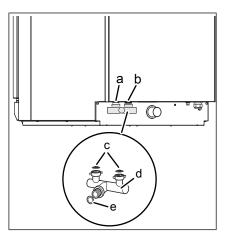


Image: Connecting double softened tap water

- a Tap water connection
- d T-piece
- Softened tap water connection
- e Seal

c Dirt filter



6.6 Making the wastewater connection

ATTENTION

Overflow of the device through an externally mounted siphon

Combi steamers have an integrated siphon.

An additional, external siphon without ventilation of the drain line will cause the unit to overflow in these combi steamers.

Therefore, do not connect an external siphon without ventilation to the waste water connection.

The wastewater connection needs a free outlet or vent.

The only exception:

- FlexiCombi Classic without WaveClean

Installation work with wastewater

Installation work on wastewater lines and the unit may only be performed by a specialist company, which is responsible for wastewater systems. The applicable regional regulations, standards and guidelines must be observed, as well as the connection conditions imposed by the wastewater system operator responsible.

Professional qualification for wastewater specialist

Installation work on wastewater lines and the unit may only be carried out by a wastewater specialist from the specialist company assigned to the work.



6.6.1 Connecting the wastewater line to a permanent connection

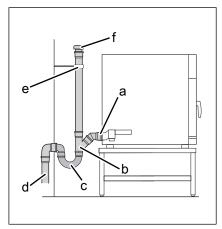


Image: Wastewater line to a permanent connection

- Wastewater connection
- Wastewater line
- c Siphon

- d Wastewater system
- Pipe clamp
- f Vacuum breaker



If a waste trap is installed in the wastewater system, a vacuum breaker must be installed in the wastewater line.

Requirement Wastewater line complies with the specifications (see "Equipment and connection data")

- 1. Install the wastewater line up to the connection at the sewer system.
- 2. Secure the wastewater line with pipe clamps.
- 3. Fill the waste trap on the unit with tap water.
- 4. Fill out the Commissioning report.

6.6.2 Connecting a wastewater line with an unobstructed discharge

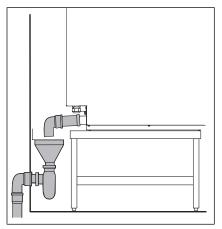


Image: Connecting the wastewater line to the discharge funnel

- a Wastewater connection
- b Wastewater line
- c Funnel waste trap
- d Sewer system
- e Sewer system waste trap
- f Discharge funnel

Requirement Wastewater line complies with the specifications (see "Equipment and connection data")

- 1. Connect the discharge funnel with waste trap to the sewer system.
- 2. Connect the wastewater line to the unit and route it as far as the discharge funnel.
- 3. Secure the wastewater line with pipe clamps.
- 4. Install the outlet of the wastewater line 20 mm above the discharge funnel.
- 5. Fill the discharge funnel with tap water.
- 6. Fill out the Commissioning report.



7 Installing the unit



CAUTION

Danger due to heavy weight of the unit (over 60 kg)

- Erect the unit with several people.
- Raise / lower the unit with suitable lifting equipment.



CAUTION

Risk of crushing from improper setup

Protect the unit and work area during setup and alignment.



CAUTION

Risk of crushing fingers and hands when lifting and lowering the unit on the shelf plate

Always lift and lower the unit (with suitable lifting equipment) carefully with two people.

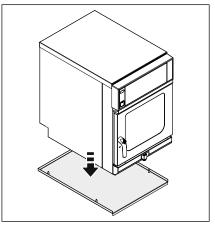


Image: Placing unit on slot-in plate

Requirement Power connection made

Water connection made or prepared

Wastewater connection made or prepared

Housing closed

- 1. Place the unit over the stud bolts and onto the slot-in plate.
 - → The angle of bend on the slot-in plate should be at the front.
- 2. Lift the unit with the slot-in plate and slide it into the installation.
- 3. Carry out the remaining work for the connection of the unit (see "Connecting the unit").
- 4. Fill out the Commissioning report.



8 Checking operation



DANGER

Risk of personal injury and physical damage from unsuccessful operational check

- · Do not put the unit into service.
- Contact customer service.

Requirement Power connection made

Water connection made

Wastewater connection made

Unit is aligned

Unit cleaned

8.1 Checking the controls

- 1. Switch on the unit and start any cooking program (see Operating instructions).
 - → Set the cooking zone temperature to a higher temperature than the current cooking zone temperature.
 - → The unit heats up.
 - → Once the set temperature is reached, heating switches off.
 - → The temperature no longer increases.
 - → The controls are functioning.
- 2. Switch off the unit.
- 3. Fill out the Commissioning report.

8.2 Checking the monitoring of the cooking zone door

- 1. Switch on the unit and start any cooking program (see operating instructions).
 - → The unit starts to heat.
 - → The fan wheel is turning.
- 2. Open the cooking zone door during operation.
 - → The unit shuts off the heating function.
 - → The fan wheel comes to a stop.
 - → The monitoring of the cooking zone door is functioning.
- 3. Close the cooking zone door.
- 4. Switch off the unit.
- 5. Fill out the commissioning report.



8.3 Heating the unit up and rinsing it out

- 1. Switch on the unit.
- 2. Tap the "Manual cooking" button.
 - → Manual cooking menu is displayed.
- 3. Run the "Steaming" cooking mode for 15 minutes at 100 °C.
- 4. Rinse out the cooking zone thoroughly with clear water.
- 5. Run the Convection cooking mode for 5 minutes at 180 °C.
- 6. Open the cooking zone door and leave it open with a slight gap until the unit is used again.
- 7. Fill out the commissioning report.

9 Putting the unit into service



If the unit is not put into service immediately after being connected and the function check, all inspections must be repeated.

Requirement Power connection made

Water connection established

Wastewater connection established

Exhaust connection made (if required by the customer)

Operation successfully checked

Housing closed

- 1. Instruct the operator.
- 2. Fill out the commissioning report.

9.1 Nameplate

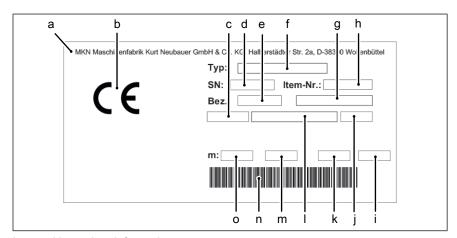


Image: Nameplate information

- a Manufacturer
- b CE mark
- c Electrical connected load
- d Serial number
- Equipment abbreviation
- Type number
- Equipment designation
- h Item number

- i Frequency
- Barcode
- Country of destination
- I Type of connection
- m Protection class
- Barcode
- o Weight



9.2 Filling out the Commissioning report

General		Yes	No
Enter the data on the nameplate.			
SN: Type			
Electrical connection			
Designation			
Item no.: (if avail	ilable)		
Obvious damage to the unit? What and where?			
Unit levelled?			
Ger	neral	Yes	No
Is it necessary to secure the unit against tipping or s	slipping?		
If so, how was it secured?			
Secured against tilting	Secured against sliding		
Floor screw fitting	Floor screw fitting		
Floor bonding	Floor bonding		
Power connection			No
Power connection made properly?			
Equipotential bonding	Power optimisation system (LOA)		
Floating contact		-	
Electrical connections made properly?			
Residual-current protective device connected immediately before this unit?			
Kitchen mana	gement system	Yes	No
Has the kitchen management system been connected properly?			
Basic control setting		Yes	No
Set unit of temperature	T	_	
□°C	∏°F		
Have date and time been set?			
current software version			
set installation altitude			
□ 0 — 999 m	☐ 1000 m — 1999 m		
2000 m — 2499 m	2500 m or higher		
80 % power set?			
□ 100 % □ 80 %			



Putting the unit into service

Basic control setting		Yes	No
Voltage set in the control.			
Voltage:V			
Set volume unit			
ml fl.oz. (Ir	mperial)		
fl.oz. (U.S.)			
Power optimisation system (LOA) set?			
□ On □ Off			
Set water filter maintenance			
No maintenance message mainten	nance message at		
Has kitchen management system been set?			
Unit address:			
Water connection		Yes	No
Connection pressure within indicated range?			
Connection pressure: () kPa (bar)		_	ш
Water connection made properly?			
Lines and connections leak-tight?			
Only connect to softened tap water Only co	onnect to tap water		
Water connections connected with T-piece?			
Wastewater connection		Yes	No
Wastewater connection made in a technically correct manner?			
	n breaker	_	Ш
Funnel drain Floor g	utter		
Diameter of the sewage pipe	mm		
Function check			No
		Yes	No
Set steaming at 90 °C. Start cooking process. Unit reaches the preset values.			Ш
Start the convection heating.			
Open the cooking zone door. Does the fan stop if you open the cooking zone door while the unit is running?			
Unit heated up and rinsed out?			



Was the unit put into service? Comments: Operator trained? Electrical installation was provided by: Installate The connection to a kitchen magement system was made by: The water and wastewater installation was provided by: The function check was performed by: The function check was performed by: Company Installate Coly, date Coly, date Signature Signature Signature Signature Signature Signature Signature Coly, date		Final notes			Yes	No
Operator trained? Company Installer Insta	Was the unit put into service?)				
Electrical installation was provided by: Company Installer City, date The connection to a kitchen management system was made by: Company Installer City, date The water and wastewater installation was provided by: Company Installer City, date	Comments:					
Electrical installation was provided by: Company Installer City, date The connection to a kitchen management system was made by: Company Installer City, date The water and wastewater installation was provided by: Company Installer City, date						
Electrical installation was provided by: Company Installer City, date The connection to a kitchen management system was made by: Company Installer City, date The water and wastewater installation was provided by: Company Installer City, date	Operator trained?					
Company Installer City, date The connection to a kitchen management system was made by: Company Installer City, date The water and wastewater installation was provided by: Company Installer City, date Signature Signature Signature Signature Company Installer City, date	Operator trained:				Ш_	Ш
The connection to a kitchen management system was made by: Company Installer City, date Signature Signature Company Installer City, date The water and wastewater installation was provided by: Company Installer City, date Signature Signature Signature City, date Operator training was provided by:	Electrical installation was pro-	vided by:				
The connection to a kitchen management system was made by: Company Installer City, date Signature Signature Company Installer City, date The water and wastewater installation was provided by: Company Installer City, date Signature Signature Signature City, date Operator training was provided by:						
The connection to a kitchen management system was made by: Company Installer City, date Signature Signature Signature Signature Company Installer City, date City, date				Signature		
Company Installer City, date The water and wastewater installation was provided by: Company Installer City, date Signature Signature Signature Company Installer City, date Operator training was provided by:	Company	Installer	City, date			
Company Installer City, date The water and wastewater installation was provided by: Company Installer City, date Signature Signature Company Installer City, date Operator training was provided by:	The connection to a kitchen n	nanagement system was made	by:			
Company Installer City, date The water and wastewater installation was provided by: Company Installer City, date Signature Signature Signature Company Installer City, date						
The water and wastewater installation was provided by: Company Installer City, date Signature Signature Signature Operator training was provided by:				Signature		
Company Installer City, date The function check was performed by: Company Installer City, date Signature Signature Operator training was provided by:	Company	Installer	City, date			
Company Installer City, date The function check was performed by: Company Installer City, date Signature Operator training was provided by:	The water and wastewater ins	stallation was provided by:				
Company Installer City, date The function check was performed by: Company Installer City, date Signature Operator training was provided by:						
The function check was performed by: Company Installer City, date Operator training was provided by:				Signature		
Company Installer City, date Operator training was provided by:	Company	Installer	City, date			
Company Installer City, date Operator training was provided by:	The function check was performed by:					
Company Installer City, date Operator training was provided by:						
Operator training was provided by:				Signature		
	Company	Installer	City, date			
Signature	Operator training was provided by:					
Signature						
Company Installer City date				Signature		

www.mkn.com

