

Install Manual Multifunction Device MKH MKH



Table of Contents

1	U	JSER MANUAL					
	1.1	Haz	zard symbols	3			
	1.2	Data	a plate	4			
	1.3	Moo	dification of the device	4			
	1.4	EC	declaration of conformity	5			
2	D	EVIC	CE DESCRIPTION	6			
	2.1	Pur	pose	6			
	2.2	Inte	ended use	6			
	2.3	Prec	dictable incorrect use	6			
	2.4	Gua	arantee	6			
	2.5	Tec	hnical data	7			
	2.6	Safe	e operation	8			
	2.	.6.1	Safety advice / residual risks	8			
3	Т	RAN	SPORT AND INSTALLATION	.10			
	3.1	Han	ndling and unpacking of MKH	.10			
	3.	.1.1	Package dimensions and minimum through width	.10			
	3.2	Inst	allation site and areas around the device	.12			
	3.3	Act	ions before installing the device	.12			
	3.4	Fixt	tures	.12			
	3.	.4.1	Electrical connection	.13			
3.4.2 Aligning th		.4.2	Aligning the device to a horizontal position	.15			
3.4.3 Wa		.4.3	Water supply connection	.16			
). 3	.4.4 45	Setting the parameters of the flow meter Drain connection	.10			
	35	Δct ²	ions before commissioning	10			
	3.6	Acc	vess to the service level 1	20			
	3.0	End	l positions of drives parameters	21			
	3.8	Fine	al inspection	25			
	3.0	20 IIDA MKH IIMD drawings fixtures					
	5.7						



1 USER MANUAL

This device is a machine within the meaning of the Machinery Directive 2006/42/EC. The manual instructs the user on safe operation that corresponds to the intended purpose and contains important information about a safe, professional and economic operation of the device. Follow these instructions before you start to operate the device.

The illustrations of the products may slightly differ, depending on the type of design. The manual includes the operating instructions for the controls.

By following this manual, you can avoid danger, improve and speed up the work with the device, reduce repair costs and downtime and increase reliability and durability of the device.

This user manual is an essential part of the device and must be available to the operator at any time for possible inspection. Before the operating personnel uses the device, they must be acquainted with this manual.

1.1 Hazard symbols



General warning



Fire risk



Risk of burning or scalding



Risk of accident



Risk of explosion



Important user instructions







Control button – indication of critical fault = STOP cooking

Control button – alert indication = cooking ALLOWED

1.2 Data plate



The data plate contains the most important information about the device. The plate is situated on the inner side of the right support. Another plate is situated on the inner bottom side of the sliding electrical block.

1.3 Modification of the device

The MKH multifunction device is delivered in the following modifications:

MKH 101	DS	2 x GN 1/1	two pans x 29 liters,	pan depth 170 mm
MKH 101	D	2 x GN 1/1	two pans x 40 liters,	pan depth 220 mm
MKH 101		2 x GN 1/1	100 liters,	pan depth 280 mm
MKH 101	F	2 x GN 1/1	pan 75 liters,	pan depth 220 mm
MKH 101	Ρ	2 x GN 1/1	pan 100 liters,	pan depth 280 mm, pressure
MKH 101	FP	2 x GN 1/1	pan 75 liters,	pan depth 220 mm, pressure
MKH 151		3 x GN 1/1	pan 150 liters,	pan depth 280 mm
MKH 151	F	3 x GN 1/1	pan 110 liters,	pan depth 220 mm
MKH 151	Ρ	3 x GN 1/1	pan 150 liters,	pan depth 280 mm, pressure
MKH 151	FP	3 x GN 1/1	pan 110 liters,	pan depth 220 mm, pressure
MKH 201		4 x GN 1/1	pan 200 liters,	pan depth 280 mm
MKH 201	F	4 x GN 1/1	pan 150 liters,	pan depth 220 mm
MKH 251		4 x GN 1/1	pan 250 liters,	pan depth 340 mm







EC DECLARATION OF CONFORMITY

Manufacturer: JIPA CZ s.r.o.

U Stadionu 138; 503 03 Smiřice; Czech Republic

Product: Multifunction Pan

Type / Model: MKH 101D, MKH 101DS, MKH 101, MKH 101F, MKH 101P, MKH 101FP, MKH 151, MKH 151F, MKH 151P, MKH 151 FP, MKH 201, MKH 201F

Product Description: Equipment for thermal treatment of food in catering operations

The manufacturer declares it is solely responsible for ensuring that the aforementioned devices comply, under normal conditions of use specified by the manufacturer, with the provisions of the below-mentioned legal regulations:

Directive 2006/42/EC (Government Decree No 176/2008) – Machinery Directive 2014/30/EU (Government Decree No 117/2016) – EMC Directive 2014/35/EU (Government Decree No 118/2016) – Low Voltage

Harmonised standards applied:

ČSN EN ISO 12100:2011 ČSN EN 60335-1 ed.3:2012 ČSN EN 60335-2-39 ed.3:2003+A1:2005+A2:2009 ČSN EN 55011 ed.3:2010, ČSN EN 55014-2 ed.2:2015 ČSN EN ISO 14159

TÜV SÜD Czech s.r.o. carried out certification of the concerned product and issued a type certificate reg. no. 10.649.266, revision 1 of 22.01.2018.

This declaration becomes invalid if any changes are made that have not been unauthorized by us.

In Smiřice 8. 12. 2017

Name, surname, function and signature of the person authorized to prepare the declaration on behalf of the manufacturer:

Jiří Pavlík, Managing Director



2 DEVICE DESCRIPTION

2.1 Purpose

MKH multifunction device may only be used for commercial cooking in catering services. The device offers all kinds of heat treatment of food, such as boiling, frying, stewing, grilling, roasting and low-temperature overnight treatment. Modification with pressure equipment is used for pressure cooking.

2.2 Intended use

The device may be used only together with suitable cooking accessories. The device is not intended for household use.

Any extensions and modifications without prior permission of the manufacturer are forbidden.

2.3 Predictable incorrect use

Following usage is strictly forbidden:

- Drying or curing of any objects or materials
- Storing food
- Heating any chemicals

2.4 Guarantee

The users of the device and any operating personnel must follow all instructions given in this manual.

They also must comply with all local regulations for work safety, health, and fire protection.

The JIPA CZ s.r.o. company is not liable for damages resulting from non-compliance with the instructions given in the manual, from maintenance, repair or use that is not consistent with the intended purpose.

In such cases, the manufacturer's warranty and the safety of the device are not guaranteed.

Use original spare parts only. The JIPA CZ s.r.o company is not liable for damages caused using non-original spare parts.



IMPORTANT USER INSTRUCTION:

Installation, commissioning, and service work may be only carried out by employees of sales and service partners that were trained and authorized by the manufacturer.



2.5 Technical data

model		MKH 101 DS	MKH 101 D	MKH 101	MKH	MKH	MKH
				<u></u>	101 F	101 P	101 FP
capacity GN 1/1		2	2	2	2	2	2
bottom	mm	2x355x561	2x375x580	713x580	713x58	713x58	713x5
dimension					0	0	80
useful area	dm2	2x20	2x22	43	43	43	43
pan depth	mm	170	220	280	220	280	220
pan volume according DIN	I	2x29	2x40	100	75	100	75
18857							
pressure	bar	-	-	-	-	0,48	0,48
voltage	V	3N AC 400V	3N AC 400V	3N AC 400V	3N AC	3N AC	3N AC
-					400V	400V	400V
short circuit	А	3x32	3x32	3x32	3x32	3x32	3x32
protection							
installed supplied	kW	22,5	22,5	24,6	24,6	24,6	24,6
tomporoturo		20 250	20 250	20 250	20	20	20
rance	°C	20 - 250	20 - 250	20 - 250	20 - 250	20 - 250	20 - 250
Width	mm	1280	1546	1350	1350	1350	1350
depth	mm	850	850	850	850	950	950
height	mm	500	1030	1030	1030	1044	1044
temperature of	°C	+8 - +35	+8 - +35	+8 - +35	+8 -	+8 -	+8 -
environment					+35	+35	+35
weight	kg	220	475	460	460	570	570
cold water supply	"	3/4	3/4	3/4	3/4	3/4	3/4
water supply	kPa	200-600	200-600	200-600	200-	200-	200-
pressure					600	600	600
disposal	mm	DN 50	DN 50	DN 50	DN 50	DN 50	DN 50

model		MKH 151	MKH 151 F	MKH 151 P	MKH 151 FP	MKH 201	MKH 201 F	MKH 251
capacity GN 1/1		3	3	3	3	4	4	4
bottom dimension	mm	1071x580	1071x580	1071x580	1071x580	1429x580	1429x580	1429x580
useful area	dm2	63	63	63	63	83	83	83
pan depth	mm	280	220	280	220	280	220	340
pan volume	I	150	110	150	110	200	150	250
according DIN 18857								
pressure	bar	-	-	0,48	0,48	-	-	-
voltage	V	3N AC	3N AC	3N AC	3N AC	3N AC	3N AC	3N AC
		400V	400V	400V	400V	400V	400V	400V
short circuit	А	3x50	3x50	3x50	3x50	3x63	3x63	3x63
protection								
installed supplied	kW	36,9	36,9	36,9	36,9	49,2	49,2	49,2
capacity								
temperature range	°C	20 - 250	20 - 250	20 - 250	20 - 250	20 - 250	20 - 250	20 - 250
Width	mm	1707	1707	1707	1707	2065	2065	2065
depth	mm	850	850	950	950	850	850	850
height	mm	1030	1030	1044	1044	1030	1030	1030
temperature of	°C	+8 - +35	+8 - +35	+8 - +35	+8 - +35	+8 - +35	+8 - +35	+8 - +35
environment								
weight	kg	560	560	710	710	660	660	660
cold water supply	"	3/4	3/4	3/4	3/4	3/4	3/4	3/4
water supply	kPa	200-600	200-600	200-600	200-600	200-600	200-600	200-600
pressure								
disposal	mm	DN 50	DN 50	DN 50	DN 50	DN 50	DN 50	DN 50



2.6 Safe operation

MKH devices are manufactured according to current technical knowledge. Before they leave the production facility, they undergo a careful final inspection. Despite all possible safety measures, unprofessional treatment can cause danger or serious damage to health of operating personnel or other persons or damage to property.

The manufacturer of MKH devices is not liable for damage to health, property or environment caused by incorrect use of the device by untrained personnel, contrary to the manual for use and maintenance and contrary to relevant safety regulations.

The MKH devices must not be operated by children or persons with physical, mental or sensory disabilities. The device must not be operated by persons under the influence of alcohol and other drugs.

Before the operating personnel starts to work with the device, they must be acquainted with the manual and must follow relevant instructions.

2.6.1 Safety advice / residual risks



Observe the general applicable occupational health, safety and fire protection regulations when working on the device.



Fire hazard

To not attach any foils, papers, stickers etc. to the device. Remove all foils from the device prior to commissioning. Do not use the device to dry or cure any objects or materials. Do not store food supplies in the device. Do not heat any alcoholic, flammable or explosive materials.



Risk of scalding or burn

Wear suitable gloves when working with the baskets, basket arm or hot food.

Do not touch the probe for temperature measurement with bare hands and always place it into the holder after use.

Take extra care while emptying liquids by lowering the pan.

Allow the device to cool sufficiently before cleaning it.

Before filling the frying oil, dry the pan and remove any residual water from the groove of the cover seal.

Before frying remove ice pieces from the frozen semi-finished products and dry wet products.

Never exceed the maximum filling level.

Do not touch or lean over the excess steam outlet.

Keep away from the device. Hot steam escapes when the cover is opened.





Risk of injury

Risk of bruising by the pan cover. Before closing the cover to the end position by the closing button, make sure that neither you nor another person has hands in the gap between the pan and the cover.



Risk of explosion Before the start of frying, remove any liquid (water) from the groove of the cover seal. Never extinguish burning or hot oil with water. Never put water in the oil.



3 TRANSPORT AND INSTALLATION

3.1 Handling and unpacking of MKH



All activities done during transport and handling shall take into consideration the weight of the machine concerned.

Before unpacking and handling, thoroughly check the equipment delivered for damage, if any, during transport. In the event of damage, make a list with a hauler, take photo documentation, and contact the supplier.



If damaged, the device can never be put in operation!

MKH is delivered packaged in a cardboard box on a wooden transport frame. A fork of a fork-lift truck may be placed underneath the transport frame.



We recommend using the original package (transport frame and cardboard) throughout the transport to the installation site.

3.1.1 Package dimensions and minimum through width

Device	Package dimensions w x d x h (mm)	Package weight (kg)	Through width (mm)
MKH 101 DS	1280x850x500	240	870
MKH 101/101F	1400x905x1100	495	925
MKH 101P/101FP	1400x995x1100	605	1015
MKH 101 D	1600x905x1100	510	925
MKH 151/151F	1760x905x1100	596	925
MKH 151P/151FP	1760x995x1130	746	1015
MKH 201/201F	2120x905x1100	699	925
MKH 251	2120x905x1100	699	925

Install Manual JIPA MKH JUMP



After the device is transported to the installation site, the transport frame can be disassembled, the device placed on adjustable legs, and then the crossbeams removed.



For handling at the installation site (exact location), if any, it is possible to use a pallet truck from the side without the need for reinforcements. The pallet truck must be long enough to support both legs.



This method cannot be used for long distance transport. In such a case, use crossbeams.



Never transport the device by picking up the bottom of the pan.







3.2 Installation site and areas around the device



The device must be put on a solid, horizontal foundation with a floor loadbearing capacity that corresponds to the weight of the device.

The design of the device allows the back side to be pushed close to a wall.

The device can be placed between other devices. However, high heat sources must not be installed directly next to the foot with the electronic installation (with the control panel), or a suitable heat shield must be used.

3.3 Actions before installing the device

Perform the following steps before installation:

- •Remove all foils from the device.
- •Check the load-bearing capacity of the floor.
- •Inspect the device for visible damage.
- •Check whether the required power supply is available see <u>3.4.1</u>.
- •Check the correct implementation of the water supply and drain connection.

3.4 Fixtures

All fixtures – power and water supply, drain connection and equipotential bonding (earthing) are led all together in the installation bridge. An opening is prepared in the installation bridge for the inlets from the rear wall, the inlets from the floor are made through the open underside of the installation bridge.







Install Manual JIPA MKH JUMP



Drawings with dimensions of installation points are attached at the end of this document.

3.4.1 Electrical connection



Installation, commissioning, and service works may only be carried out by the manufacturer's trained and authorized employees of sales and service partners. The electrical connection of the device and all interventions in the electrical equipment may only be carried out by suitably qualified personnel in accordance with local regulations.



Before starting the installation, make sure that the power cord is properly disconnected from the mains. Secure the upstream disconnecting device (main switch) against unauthorized connection.

The connection point must comply with applicable standards, ordinances and regulations of the country of installation.

The requirements for the connection point for individual device modifications are given in the diagram below:



For the supply cable, we recommend the use of a flexible rubber cable (e.g. H07RN-F) of appropriate cross-section. We do not recommend using fixed cables to facilitate handling.

The device must be connected to the equipotential bonding system by a wire with a corresponding cross-section via an earth terminal.

The power cable is connected to the terminal block in the right foot of the device. To access the terminal box, it is necessary to remove the corresponding covers and slide out the control cabinet.





Loosen the screw on the back of the control panel cover and on the bottom of the right foot cover.



First, lift the top cover of the control panel slightly on the back (there is a risk of damaging the front edge of the cover if it is tilted excessively) and slide it towards you. Then remove the front and side covers. Unscrew the cabinet locking angle.



Slide out the control cabinet carefully. When sliding out, avoid damaging the connected wires and thermocouples. The power terminal block is now accessible, and the power cable can be connected. To only commission control and linear motors (also the demo mode), only single-phase power supply can be connected to the "L2" terminal.



3.4.2 Aligning the device to a horizontal position

Once precisely positioned at the installation site and connected to the mains, the device must be perfectly aligned in the horizontal direction.

To perform the alignment, it is necessary to open the lid of the pan. After switching on the device with the button on the control panel and after starting the system, select the lid control (1) and press the arrow to open the lid (2) on the displayed lid control panel.



The alignment is measured at the bottom of the pan in both axes perpendicular to each other. It is advisable to use a car jack to adjust the legs.



After aligning the tub to a horizontal position, close the pan lid, check the evenness of the gap between the tub and the lid, and matching of the side edges of the lid with the pan edges. Any deviations must be compensated using the adjusting screws under the tub, and then re-level the bottom of the tub to a horizontal position.



After aligning the deviation via adjustable screws under the pan, you must comply the minimal range 6 mm behind the upper edge of pan and cover.



3.4.3 Water supply connection

We recommend a separate, operator-accessible water tap for every device. Water is connected through a built-in braided hose with a screw connection with an internal thread $\frac{3}{4}$ ".

The connection must be made with a pressure hose approved for contact with drinking water.

We recommend the connection via a suitable mechanical filter. For water hardness higher than 6° DH, we recommend using a softener.



Malfunctioning of a solenoid valve of the device due to dirt or limescale cannot be claimed under the warranty.

The water filling system and the hand shower comply with EN 1717: 2001-05 and do not require special precautions against re-suction of contaminated water during installation. The free outlet of the water filling system is completely outside the tub of the device. The winding drum of the shower does not lock and does not allow leaving the hand shower in the tub of the device, or e.g. on a dirty floor.

The connection must be made with a pressure hose approved for contact with drinking water.

We recommend the connection via a suitable mechanical filter. For water hardness higher than 6° DH, we recommend using a softener.

Thoroughly flush the supply line before connecting to the water supply.

3.4.4 Setting the parameters of the flow meter

When shipped from a factory, the default values of the flow meter are set in service level 1 in the parameters table. These depend on the actual conditions (pressure, flow) at the installation site and we recommend checking or adjusting the values during commissioning. The settings are made in the service level 1 parameters. See access to the service level.





When the value of the water pressure in the pipe is stabilized, start manual pouring of

water without entering the required amount with the button on the water control panel,



measure the time T in which 20 liters were poured in and at the same time, read the value of the poured amount V on the water control panel

000 | 0019.0 |

Example: 20 liters poured in time T = 120 s, and the control panel shows that V = 19 liters were poured.

Therefore, the flow meter has sent to the control unit V x 407 (impulses per 1 liter, see the set parameters) = $19 \times 407 = 7733$ impulses.

In fact, 20 liters were poured => 7733 / 20 = 386.65 impulses per 1 liter. In the parameter "Water-number of impulses per 1 liter", it is necessary to set the value 387 instead of the original value 407.







At the same time, the value of the parameter "Water-number of impulses per 1 second" needs to be adjusted.

For the time T = 120 s, the flow meter has sent 7733 impulses to the control unit. 7733 impulses / 120 s = 64.44 impulses per second. In the parameter "Water-number of impulses per 1 second", it is necessary to set the value 64 instead of the original value 84.

3.4.5 Drain connection

The design of the device allows direct connection to drainpipes. The connection to the drainpipe must be made via an odor trap. The odor trap is not included. The drain line must be made of solid pipes resistant to high temperatures (HT system - PP).

If necessary, the maximum liquid temperature at which the drain plug can be opened can be set in service level 1 (see access to service level 1).

The nominal diameter of the drainpipe must be observed. Reducing the nominal diameter of the drainpipe is not permitted.

The drainpipe must maintain a minimum gradient of 3% along its entire length.

When the drainpipe is led into the floor drain, the need for an odor trap is eliminated, the pipe must have a minimum slope of 3% and must open at least 20 mm above the grate of the floor drain.



3.5 Actions before commissioning

Perform the following steps on the device before commissioning:

•Inspect the power cord for obvious defects.

 \rightarrow Devices with a defective electrical cable must not be put into operation.

 \rightarrow Repair of a defective electrical cable may only be carried out by an authorized and trained technician.

•For pressure equipment, check that the condenser drain valve is closed.



•Make sure that the water tap is open.

- •Check the water supply for leaks.
- •Check the tightness of the drainpipe.

•After switching on the device and booting up the system, go to service level 1.



3.6 Access to the service level 1







3.7 End positions of drives, parameters





After installing the device, problems with the movement of the individual drives may occur due to the loss of information on the end positions. Therefore, after installation, all drives (pans, lids, baskets and plugs) must be moved into both end positions using the service control.











On the first screen of the service level 1 - Parameters, it is necessary to check and set, if required, the correct values for serial number, maximum pan volume, altitude (only with deviation greater than 300 m), and maximum temperature for opening the stopper. The keyboard for entering the corrected value is displayed after pressing the corresponding parameter field.







Any changed values must be saved by pressing, holding, and then confirming the calibration save button.



3.8 Final inspection

When the drives are moved to end positions, parameters are modified and stored, the device needs to be switched off, re-started and a final inspection carried out.

After booting up the system, check the function of all drives (lids, tubs, baskets, and stoppers) from the start screen. Then switch to manual control - cooking mode, fill with water at least 3 cm above the filling temperature sensor, start cooking, and check cooking evenness over the entire area.

For pressure equipment, perform a complete pressure-cooking test:

Securing the lid of the pressure equipment



Before starting pressure cooking, it is necessary to secure the lid of the pressure device.



Before closing the lid, check the cleanliness of the seal, check the seal and the lid locking elements for mechanical damage, see the figure, positions 5, 6, 7.

Check the cleanliness of the pressure and vacuum valve, see the figure, position 1, 3.

Check the pressure valve cover, see the figure, position 2, the multifunction device cannot be operated without the cover.

Fill the pan with water as required (min. amount 30 liters), check the amount on the line on the back of the pan.

Do not operate the pressure device without the minimum amount of water, i.e. 30 liters.

Install Manual JIPA MKH JUMP



Close the cover of the multifunction device with the lid control button all the way down.



To lock the lid, press the locking lever on the front of the lid, see the figure, position 4, downwards as far as it will go, and hold it until the acoustic signal is heard and the START button lights up!!!

After the acoustic signal is heard, the lid is properly locked **____** and it is possible to

START

start the pressure cooking with the button _____. If the acoustic signal does not

sound when locking the lid, you must end the locking process with the button and try to lock the lid again as described above.

Heating of the pressure device to the required temperature

Heating of the pressure device to the required temperature is carried out by pressing



Press START

to activate pressure cooking memory



The heating and its regulation are only switched on after entering the required pressure-cooking time. Set for at least 10 minutes.

Completion of pressure cooking and depressurization of the device

Pressure cooking is ended when the required pressure-cooking time has elapsed.

Pressure cooking is also ended when is pressed.

When the pressure cooking is completed, the required time disappears and the safety valve on the pan opens automatically. By opening the safety valve, the device is gradually depressurized and the temperature in the pan drops. During this process, the information panel shows the indication that the sensor of steam flow to the

condenser 🕍 is switched on.

When the depressurization is completed, the lid is automatically unlocked



In the event of a fault in the automatic depressurization (warning, error message), move the lid locking lever, see the figure, position 4, upwards, hold it continuously until the device is depressurized. After the condition of a temperature drop below 98 °C and zero steam flow is met, the pressure device will be opened automatically.

Before handover to a customer, operators must be trained by a training chef authorized by the manufacturer.



3.9 JIPA MKH JUMP drawings, fixtures





Stand MKH 101DS



Install Manual JIPA MKH JUMP





















Install Manual JIPA MKH JUMP



