RoboChef

MSS 400 PRO
User Manual

Reading Guide

Document Objectives:

This document mainly provides operation instructions for the AI cooking robot products provided by Federal Hospitality Equipment Pty Ltd, so that product users can have a basic understanding of the product's functions, performance and features, and master the usage and maintenance methods of the product.

Reading Target:

This manual is written for the users of the AI cooking robot product. It mainly covers installation, operation and maintenance. Its main purpose is to provide installation guidance and operation process for the installers and operators as well as the users.

[CAUTION] This product does not take into account the following situations:

----------use of the product by unattended children and disabled persons

----------misuse of the product by children for fun

[WARNING] To ensure safe use and avoid injury and property damage, please be sure to observe the following safety precautions. Failure to observe the safety precautions and improper use of the product may result in an accident.

Sign Definition:

MANDATORY PROHIBITION WARNING CAUTION

	This product must be effectively grounded.

❗	The air inlet and outlet of the product must be kept clear and must not be covered or blocked.
❗	This product is equipped with a special pot. It is strictly prohibited to remove the original pot and use another pot on this product without permission.
❗	Liquid seasonings must be placed in the order in which the product is shipped from the factory.
❗	Be sure to add the appropriate seasonings to the liquid seasoning containers according to their labels.
⃠	Untrained personnel are prohibited from operating this product.
⃠	Non-professionals are prohibited from disassembling the electrical box and start-stop switch.
⃠	Non-professionals are prohibited from operating the product when the left and right panels are disassembled.
⃠	It is prohibited to rinse the machine body directly with a water gun.
⃠	Keep any part of your body away from the rotating pot or other moving parts to avoid accidental injuries.
⃠	Dry-burning of the pot is prohibited to avoid damage to the pot and ignition of the stirrer by continuous high temperature.
⃠	It is prohibited to pour the water starch directly into the water starch tank when the water starch is not fully mixed and there is still precipitation.

⃠	It is prohibited to use the water starch tank without a stirrer to avoid starch precipitation in the tank.
⚠	This product is for indoor use only.
⚠	If the product is not used to feed liquid seasoning for a long time, please empty and clean the container of liquid seasoning, etc., and then clean the pipes.
⚠	If the liquid seasoning is not used up for a long time, please check whether the seasoning inside the container has deteriorated; and if the seasoning has deteriorated, please be sure to clean it up before further use.
⚠	Some models are equipped with a spray gun for rinsing the inner guts of the pot and the sink of the worktop. Do not use it to rinse the pot or other parts of the machine.
⚠	When the product malfunctions, an alert message will appear on the display. Follow the instructions on the display.
⚠	When using the product for cooking, please keep a proper distance to avoid burns caused by hot oil splashing due to impurities.
⚠	Note that the various seasonings to be added must be free from other impurities.
⚠	Note that only when the machine is turned on and the well-mixed, unsettled water starch is placed inside the machine in time, can effective stirring be performed all the time.

⚠	Note that when the machine is turned on again after shutdown, you need to open the machine to check the water starch and manually assist the stirring to make it evenly mixed.
⚠	Be sure to clean all seasoning containers and liquid seasoning pipes regularly according to the product maintenance requirements.
⚠	Users of cardiac pacemakers should consult with the manufacturer before operating the product.
⚠	The installation and maintenance of this product involves disassembly and assembly work, which must be operated by our after-sales personnel or trained personnel.
⚠	Any damaged power cord must be replaced by a professional from the manufacturer, its maintenance department or the like to avoid danger.
⚠	This manual is not intended for persons (including children) who are physically, sensually or mentally impaired, or who have deficiencies in experience and knowledge.
⚠	All illustrations shown in this manual are for illustrative purposes and for indication. Please refer to the actual appearance of the product.

1. Basic Equipment Composition

1.1 Equipment Dimensions

Button Introduction	Function
Power (Left)	Startup: Turn the black button clockwise once to power on Shutdown: Turn the black button counterclockwise once to power off
Antenna (Center)	Wi-Fi signal receiver
Emergency stop (Right)	In emergencies: Lift the protective cover and press the red button to cut off all power. After resolving the issue, rotate the red button clockwise to release the E-Stop and reboot automatically. Note: Do not press it unless it is an emergency

1.3 Basic Parameters

Product name	MSS 400 PRO
Rated voltage	380V
Maximum power	14000W（3500W per head）
Pot matching size	240*70mm
Capacity/Output quantity	600g per time

Size	1100*800*835/1008/1206mm

2. Basic operations and Settings

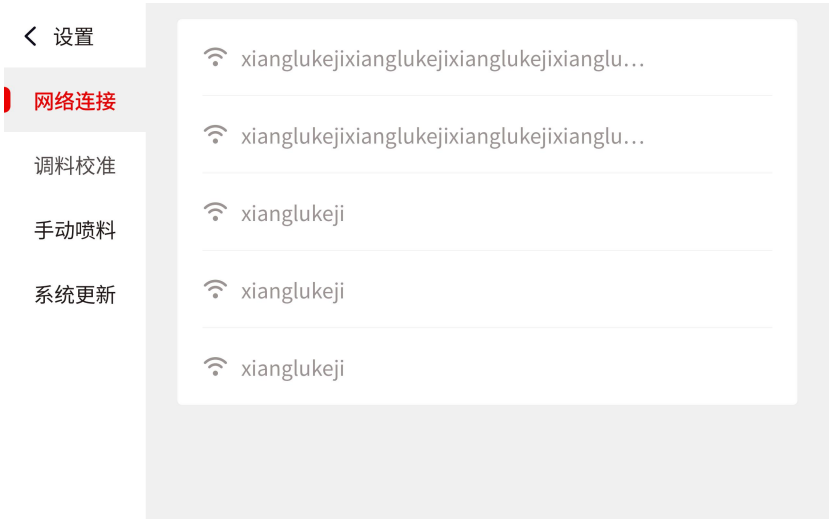
2.1 Introduction to the operation screen

2.1.1 Home page introduction

Function introduction	Function
Stir-fry manually	When there is no recipe or other automatic stir-frying function cannot be used, the chef will manually complete the stir-frying of the dish in an emergency.
Menu development	You can record and stir-fry dishes, adjust the steps of dishes, and try stir frying. After the R&D is completed, it needs to be launched in the merchant center or mini program and distributed to the machine for use
Recipe lists	The dishes in the list on the home page are the dishes that have been developed and delivered to the current machine, and you can long press the recipe to sort the recipe locally.
Set up	Basic machine function settings, including network connection, manual spraying, spice calibration, system update, about the machine, general settings.

2.2 Network Settings

Settings: App Home Page - Settings - Network Connection. Select an available WiFi and enter the correct password for successful connection.

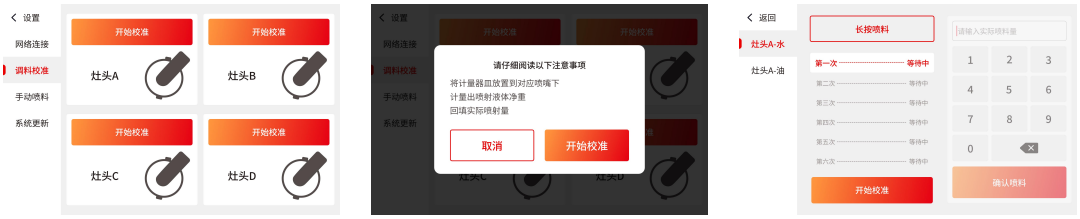


2.3 Seasoning Calibration

2.3.1 Manual spraying

Operation entrance: App Home - Settings - Manual Spraying, select the corresponding burner and seasoning, enter the gram weight you want to spray, and click to confirm the spraying (please clear the corresponding utensils on the electronic scale before spraying)

2.3.2 Calibration process and instructions



Procedure

A total of 5 times/nozzle is calibrated for the seasoning that is pumped forward, and 6 times/nozzle for the seasoning that needs to be pumped backwards, such as flavored water and water starch

- Click Settings - Seasoning Calibration on the operation screen, and select the seasoning tube corresponding to the burner that needs to be calibrated
- A guide pop-up window appears, pay attention to the pop-up description, and click "Start Calibration" after confirmation.
- Click "Fill the Barrel" to discharge the air in the barrel to ensure that the nozzle can spray the seasoning normally
- Click "Start Calibration" on the machine screen to enter the calibration process
- Place the container under the nozzle to be sprayed, and be sure to catch all the sprayed seasonings
- After the seasoning is sprayed, the container is weighed on the kitchen scale and entered on the screen
- Click the spraying button on the machine screen again, and the machine will start spraying
- Weigh the weight in turn and enter it on the screen, and after entering the weight, the current weight will be cleared to zero on the electronic scale before the next spraying
- After the calibration is completed, a pop-up window will prompt the calibration success or failure, and you can select other burners or spices for calibration

2.3.3 Mandatory calibration

Mandatory calibration needs to be set up by the Group Administrator or the Store Administrator After setting, 3 days before entering the forced calibration, a pop-up window will prompt when the machine is turned on, and the calibration record of the corresponding seasoning will be cleared after x days. For example, if the mandatory calibration cycle is 10 days, then a reminder of mandatory calibration will appear on the 8th day, and a reminder will appear on the 11th day that it must be calibrated before it can be fried.

There are three states in the seasoning calibration interface:

- Calibrated (black font): Indicates that the mandatory calibration reminder period has not yet been entered
- Expired (yellow font): Indicates that the device will be forcibly locked within 3 days
- Not calibrated (red font): It means that the seasoning is not calibrated or the calibration data has been cleared because the forced calibration exceeds the cycle, and the material can only be sprayed after calibration

2.3.4 EVT seasoning accuracy problem

The accuracy test of the current flagship EVT machine is as follows:

- Aqueous seasonings (such as water, brine and other low-viscosity seasonings) are currently within 10% of the accuracydeviation
- The current accuracy deviation of oil seasonings (such as lard and oil) is within 10%.
- Particularly viscous seasonings (such as oyster sauce) with a small gram weight of less than 10g are currently within 20% of the current accuracy
- The small gram weight of the pumped seasoning (cornstarch water and flavored water) is less than 10g, and the current accuracy deviation is within 20%.
- At present, the content of spraying is optimized in the pipeline arrangement and calibration, and it is recommended that small gram weights such as oyster sauce and cornstarch water can be set less than 1g when setting the gram weight, so as to ensure that you can spray less but not more

2.3.5 Seasoning replacement

Operation entrance: App home page - Settings - general settings, click the corresponding nozzle to modify and change the seasoning

Barrel	Seasoning	Whether it can be replaced or customized	Illustrate
Nozzle No.1	Watery seasoning	Replaceable,Support customization	1. Support water, stock and other seasonings, the current default is water 2. Support liquid level detection 3. At present, the waterway can support automatic water replenishment 4. The seasoning bin, material pipe, and pump all support high temperature scenarios of 80-100 degrees 5. Support custom seasoning name

			6. Pay attention to the situation that there is residue in the seasoning, and it is necessary to apply for the installation of the filter screen to prevent the material pipe from being blocked
Nozzle No.2	Oily dressing	Replaceable,Support customization	1. Support all kinds of oil, lard and other seasonings, the current default is oil, and it can be set to lard according to needs 2. Support liquid level detection 3. Heat with external heating plate and control the temperature at 60-80 degrees 4. The material pipe is heated to prevent blockage 5. The seasoning bin, material pipe and pump all support high temperature scenarios of 80-100 degrees 6. Support custom seasoning name 7. If lard is used, the lard residue needs to be filtered before use 8. Pay attention to the situation that there is residue in the seasoning, and it is necessary to apply for the installation of the filter screen to prevent the material pipe from being blocked

Nozzle No.3	Suspension	Replaceable,Support customization	1. Support water starch and flavored water, and only support switching between flavored water and water starch 2. Support stirring, no precipitation in the boot state, and no shutdown of stirring 3. Support back-pumping, and the material pipe is not blocked 4. Support contact after-sales personnel to close the backpipe 5. Pay attention to the situation that there is residue in the seasoning, and it is necessary to apply for the installation of the filter screen to prevent the material pipe from being blocked
Nozzle No.4	Spice of your choice	Replaceable,Support customization	1. Support watery seasoning, oily seasoning, compound sauce, diluted viscous sauce, you can choose from six official recipes (vinegar, salt water, dark soy sauce, oyster sauce, light soy sauce, rapeseed oil), you can also customize 2. Support custom seasoning name 3. Liquid level detection is not supported 4. Pay attention to the situation that there is residue in the seasoning, and

			it is necessary to apply for the installation of the filter screen to prevent the material pipe from being blocked
Nozzle No.5	Spice of your choice	Replaceable,Support customization	1. Support watery seasoning, oily seasoning, compound sauce, diluted viscous sauce, you can choose from six official recipes (vinegar, salt water, dark soy sauce, oyster sauce, lightsoy sauce, rapeseed oil), you can also customize 2. Support custom seasoning name 3. Liquid level detection is not supported 4. Pay attention to the situation that there is residue in the seasoning, and it is necessary to apply for the installation of the filter screen to prevent the material pipe from being blocked

2.3.6 Barrel cleaning

There is currently no barrel cleaning function, but the DVT stage will be perfected, and it can now be cleaned using the manual spraying function

- Prepare a basin of clean water, and submerge the bottom end of the spice tube that needs to be cleaned into the water
- Click on the name of the corresponding spice of the corresponding cooker, enter the gram weight to spray water, and switch the cooker in turn
- Take out the material tube from the clean water, click the name of the corresponding seasoning of the corresponding cooker, enter the grammage air spray to spray out all the water in the feed tube, and switch the cooker in turn
- Put the tube back into the box full of spices, click on the name of the seasoning corresponding to the corresponding cooktop, and enter the grammage filling line
- Since the current flagship version has 20 pumps and 8 barrels, it is impossible to clean all the spices at one time, so it is recommended to clean one spice at a time

2.3.7 Oil circuit heating

If the customer uses lard or mixed oil with lard, there is a risk of solidification, and it is necessary to turn on the oil pipe heating switch in [Settings] - [General Settings], and turn on the oil pipe heating at least half an hour before the normal use of the machine to ensure that the seasoning oil is in a liquid state when in use.

Note: The heating plate is only used for heat preservation, if you use a high proportion of lard or oil with solids, you need to heat and melt it yourself, reduce the temperature to 60-80 degrees, and then pour it into the oil drum for use.

2.3.8 Seasoning supplement

- It is recommended to open the black silicone sheet and use a funnel and other utensils to feed the plugging barrel to prevent air from entering the pipeline after pulling the insertion bucket
- After the barrel is plugged and unplugged, it needs to be pushed to the bottom to hear the sound of magnetic suction
- After re-reinstalling, you need to spray out some of the corresponding seasoning of thecorresponding stove to refill the material tube before use

3. Recipe Cooking

3.1 Recipe stir-fry restrictions

Since the current machine has not yet been online for temperature collection, in order to ensure the life of the potbody and stirrator, it is necessary to pay attention to the stir-fry type of dishes, and the hot pan hot oil time isrecommended to refer to the following configuration:

- **Use 3500w of hot oil and about 20g of oil in a hot pan**

The hot oil time is within 15 seconds, the hot oil time is within 6 seconds, and the hot oil time can be added orsubtracted by about 1-2 seconds according to the amount of oil

- **Use 3000w of hot oil and about 20g of oil in a hot pan**

The hot oil time is within 17 seconds, the hot oil time is within 7 seconds, and the hot oil time can be added or subtracted by about 1-2 seconds according to the amount of oil.

3.2 The whole process of recipe stir-frying

Cooking in progres

After clicking

Pause,the[Continue Cooking] and [End Cooking] buttons appear

Manual feeding prompt, click [Feeding Completed] after feeding is completed

Out of the pot prompt, it will disappear automatically after

the countdown ends

- **Prepare the dishes in advance:** Prepare the ingredients that need to be stir-fried in advance
- **Select the dish to be stir-fried**: Select the dish to be stir-fried in the menu list
- **Select the burner**: Select the corresponding burner and click Start cooking

- **Stir-frying**: The equipment automatically puts seasoning according to the developed process, and can "pause cooking" in the middle, and after pause, you can replenish ingredients or end cooking
- **Manual feeding:** Voice prompts and copywriting prompts will appear when the user needs to throw vegetables during the stir-frying, and the user will click the [Feeding Completed] button to continue frying after the delivery is completed
- **Serving:** After the cooking is completed, there will be a voice and interface prompt for the cooking completion, you can click [Cooking Completed] to confirm the completion, or you can wait for the countdown to be completed automatically

3.3 Precautions for stir-frying

- For automatic cooking, please ensure that the pot is cooled after cleaning and then start cooking, as the starting pot temperature will affect the effect of the dish
- Please prepare the ingredients before cooking, as the difference in the time of serving will affect the effect of the product

4. Manual Cooking

Function Description

When no recipe is available or the automatic cooking function cannot be used, the chef can complete dish cooking manually in an emergency situation.

Workflow of manual cooking

- **Prepare the dishes in advance:** Prepare the ingredients that need to be stir-fried in advance
- **Enter the manual frying page**: click on the home page - manual cooking, select the burner that needs to be cooked manually, and adjust the heat and pot speed
- **Heat & Stirring Adjustment:** You can adjust the speed and mode of heat and stirring according to the gear on the page
- **Putting ingredients:** Click “Open the lid” to put the ingredients, and you can freely choose whether you need to “close the lid” after putting it

- **Seasoning**: Click the oil injection or water spray button to set the gram weight that needs to be sprayed, and click to confirm the spraying after entering to spray the material immediately
- **Cooking:** Click “End Cooking” in the upper right corner and confirm the end of cooking to turn off manual cooking, note that the motor needs to "end cooking" after cooking, or confirm to turn off the heat before leaving
- **Interface collapse and return:** Click the back button during cooking to automatically collapse the current cooking interface, and click the “return operation” button of the corresponding burner to return to the current interface

5. Automatic hydration

Feature description

- When the machine is equipped with an automatic water reloading switch, it can be turned on in the settings, and the following scenarios will automatically replenish the water after it is turned on
- When entering automatic cooking, the current recipe needs to use water, and if it detects that there is not enough water, it will automatically replenish the water
- After entering the manual cooking, the user's motor sprays water, and when it detects that the water is not enough, it will automatically replenish the water
- Automatic cooking: After spraying water during manual cooking, it will automatically detect whether the water level is low again, and if the water level is low, it will replenish the water in advance to prevent no water in the next cooking

Start the process

- Set the entrance: App home page - settings - automatic hydration, click the switch to turn on
- After opening, please set the automatic water filling rate according to the store equipment, and the set time value can ensure that the corresponding time can be filled with 2/3 of the water bucket

No.	Cleaning Module	Recommended Cleaning Frequency	Tool Preparation

1	Pot	After each use	Dish cloth, scouring pad, detergent
2	Stirrer	After each use	Dish cloth, scouring pad, detergent
3	Feeding port	Once per half day, once per day	Dish cloth, scouring pad, detergent
4	Wetted cassette	Once per half day, once per day	Dish cloth, scouring pad, detergent
5	Liquid spice bin	Before changing the sauce brand, 1 week/time	Clean water (or 60°C hot water preferred), water starch use cold water.
6	Liquid Feed Pipe	After switch to a new sauce brand, in case of sauce clogging, two weeks/time	Clean water (or 60°C hot water preferred), water strch use cold water.

In order to ensure the efficiency of the device, please be sure to clean it according to the above cleaning frequency, so that the operation of the device will not be affected by improper cleaning.

5.1 Pot Cleaning

5.1.1 Tool Preparation

Dish cloth, scouring pad, detergent

5.1.2 Completion Time

Estimated completion time: 5 minutes

5.1.3 Operation Steps

5.1.3.1 Automatic pot washing after cooking (the current software function is not online, and it is expected to be launched at the end of August)

- In Settings - General Settings, turn on automatic pot washing and confirm the pot washing parameters
- After cooking, the automatic pot wash button will appear, put the pot back to the corresponding stove, and click it to enter the automatic automatic pot wash.

5.1.3.2 Thoroughly clean after the end of business

- Put the pot in clean water
- Rinse off any debris from the pot with water
- Pour in the detergent and use a scouring pad to clean the dead corners
- After rinsing, wipe off any excess water with a wrung out rag
- Pay attention to the cleaning force to protect the coating of the pot

5.2 Stirrer Cleaning

5.2.1 Tool Preparation

Dish cloth, scouring pad, detergent

5.2.2 Completion Time

Estimated completion time: 3 minutes

5.2.3 Operation Steps

5.2.3.1 Cleaning after cooking (the current software function is not online, it is expected to be online by the end of August)

- In Settings - General Settings, turn on automatic pot washing and confirm the pot washing parameters
- After cooking, the automatic pot wash button will appear, put the pot back to the corresponding stove, and click it to enter the automatic automatic pot wash

5.2.3.2 Thoroughly clean after the end of business

- Remove the stir bar and put it in clean water
- Rinse off with water and remove any residue from the stirrer
- Pour in the detergent and use a scouring pad to clean the dead corners
- After rinsing, wipe off any excess water with a wrung out rag

5.3 Feeding port Cleaning

5.3.1 Tool Preparation

Dish cloth, scouring pad, detergent

5.3.2 Completion Time

Estimated completion time: 2 minutes

5.3.3 Operation Steps

- Use a wring out scouring pad with detergent to wipe the grease near the spray port
- Use a scouring pad to clean the stubborn oil stains on the surface
- Use a wrung out rag to wipe off excess moisture and keep the spout clean

5.4 Wetted box Cleaning

5.4.1 Tool Preparation

Dish cloth, scouring pad, detergent

5.4.2 Completion Time

Estimated completion time: 2 minutes

5.4.3 Operation Steps

Step 1 (2 minutes)

- Observe the volume of the liquid receiving box, remove all the liquid receiving boxes, and pour the dish residue into the “kitchen waste” bin
- Rinse the liquid receiving cartridge and put it back in its corresponding position

5.5 Liquid seasoning bin

5.5.1 Tool Preparation

Dish cloth, scouring pad, detergent, warm water

5.5.2 Completion Time

Estimated completion time: 4 minutes

5.5.3 Operation Steps

- Take the barrel out of the spice bin to facilitate the emptying of the barrel

- Within the machine settings – click on Spice Calibration
- Find the barrel that needs to be cleaned and press "Barrel Filling"
- Click eject until the barrel is completely emptied
- Pour the original seasoning in the spice bin into the trash can of "kitchen waste", rinse it with warm water, and the special seasoning bin can be cleaned with a detergent
- Pour in the detergent, use a scouring pad to clean the dead corners, rinse with clean water and wipe off the excess water with a rag
- After replenishing the seasoning, put the silo back to the corresponding position

5.6 Liquid Feed Pipe Cleaning

5.6.1 Tool Preparation

Empty container, warm water

5.6.2 Completion Time

Estimated completion time: 4 minutes

5.6.3 Operation Steps

Step 1 (2 minutes)

- Prepare an empty container and fill it with water.
- Insert the feed pipe into clean water.

Step 2 (2 minutes)

- In the Machine Settings page, click Seasoning Calibration.
- Locate the feed pipe to be cleaned and press "Press and Hold to Spray".
- Press and hold to spray until clean water is sprayed from the feed pipe.
- Check whether the feed pipe is clean.
- Remove the feed pipe from clean water, and then press "Press and Hold to Spray" until all the water comes out of the pipe. Note: After cleaning is completed, calibrate the feed pipe again.

6. Troubleshooting

Symptom	Cause	Solution
The feed pipe cannot spray out seasoning.	Insufficient seasoning	Add more seasoning.
	The feed pipe is clogged.	Spray clean water to clean the feed pipe repeatedly.
The feed rack is stuck.	The feed rack is stuck in manual movement.	When the power is off, check whether there is any foreign matter in the feeding rack.
Abnormal dish deliver	Seasonings are not prepared according to standard ratios.	Prepare seasonings according to the requirements in Seasoning Preparation.
	Improper cutting and preparation of ingredients	Cut and prepare ingredients according to the corresponding recipe.
Cooking cannot be stopped during manual cooking.	There isn't a Stop Cooking button during manual cooking.	Stop the cooking task by adjusting the fire and speed to 0 at the same time.
The stirrer is stuck.	The stirrer malfunctions.	After the stirring stops, manually turn the stirrer to check whether the rotation is smooth and there is no abnormal noise. If there is any abnormality, report it for repair and upload the video.

7. Safety Warnings

7.1 Precautions

- When the machine is heated, please do not touch the pot and other operating parts of the machine. Overheating of the pot may cause burns; in case of emergency, press the red emergency stop button.

- After cooking, it is necessary to use cold water to rinse the pot to return to room temperature before cooking, so as to prevent continuous frying from affecting the life of the pot
- Do not place any flammable or combustible substances near the device.
- Do not block the movement of the upper feeding system during any process, as this may cause damage to the device.
- Please follow the cleaning and maintenance schedule after using the device.

7.2 Prohibitions

- It is prohibited to block the delivery parts of the device.
- It is prohibited to squeeze or tap the touch panel with force.
- It is forbidden to flush or spray the touch screen, turn on the key, and emergency stop switch
- It is prohibited to click on a command to execute the next action while the current action of the device is not completed.
- It is prohibited to step on the device or place heavy objects on it.
- It is prohibited to disassemble, modify, repair or clean the internal parts of the device without authorization.
- It is prohibited to use corrosive chemicals to clean the device.

8. Contact Us

- If you encounter any operation problem or any other abnormality during use, please contact us .

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