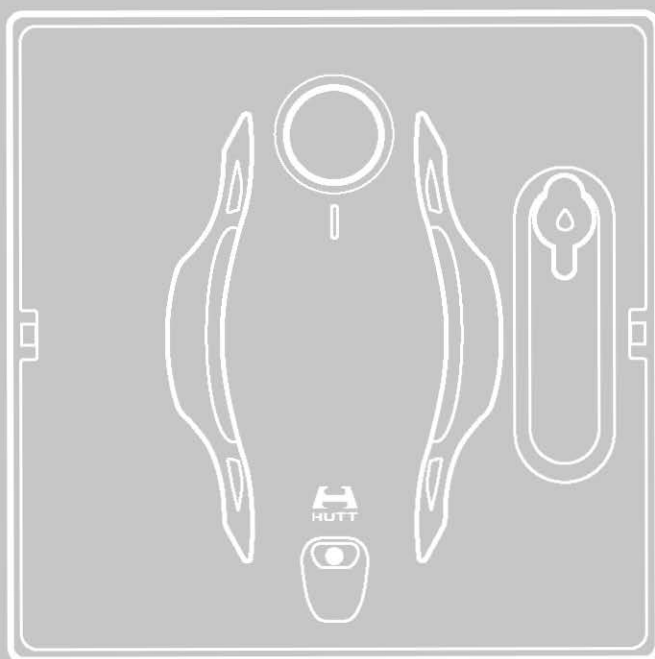


W8

Variable Frequency Window Cleaning Robot

User Manual



Thank you for choosing HUTT W8 Window Cleaning Robot.

Please read this manual carefully before usage so as to protect your safety and allow you to make full use of your HUTT cleaning product.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

This appliance contains batteries that are non-replaceable.

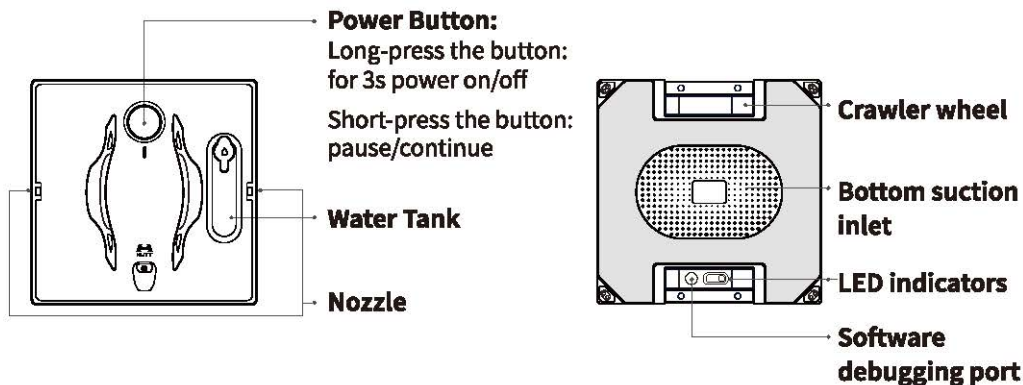
WARNING: For the purposes of recharging the battery, only use the detachable supply unit provided with this appliance.

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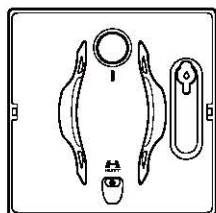
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1. Product Overview

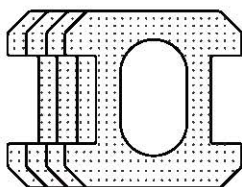
1.1 Components and Functions



1.2 Parts List



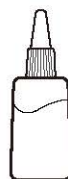
Main Unit



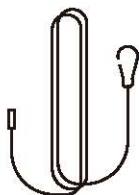
Cleaning pad



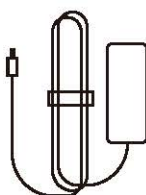
Remote control



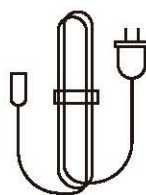
Water bottle



Safety rope



Power adapter



Plug



User manual

1.3 Introduction to standard operation

Item	Method	Operating Steps
01	Dry-wiping	The machine is default by wet-wiping mode. Use the remote to turn the "Water Spray" off after the machine is turned on and with a dry cleaning pad installed.
02	Wet-wiping	Turn on the machine to start the wet-wiping mode directly with a dry cleaning pad installed. ※Be sure to use the original cleaning pad, otherwise, it will affect the performance of the machine.
03	Washing the cleaning pad	Soak the cleaning pad in clean water and brush away the dirt from the surface, reuse it after drying off. ※It is forbidden to rub the cleaning pad by hand in case of any deforming.
04	Cleaning the crawler wheels	Initiate the crawler wheel cleaning function. Hold the machine in your hand and turn it over with the bottom suction inlet upwards, press and hold the power button for 3s, the crawler wheels will rotate slowly, then use a wet tissue to wipe off the dirt on the crawler wheels. ※It is forbidden to clean the crawler wheels with a cleaning cloth or dry towel.
05	Removing extra moisture of the cleaning pad in the front and rear areas of crawler wheels	Absorb the areas of cleaning pad in the front and rear of the crawler wheels with a dry paper towel to ensure that the areas of the cleaning pad in the front and rear of the two crawler wheels are dry.
06	Cleaning dirty glass that has larger particles	When cleaning such windows, there is a risk of scratch. It is recommended to wipe it manually first. If manual cleaning is not possible, it is recommended to wipe with the machine twice. Replace the cleaning pad in time when it turns dirty.
07	Method of filling the water tank	Remove the plug of the water tank, fill an appropriate amount of tap water or glass cleaner in a bottle, pour it into the water tank, and then tighten the water tank plug. ※The filling content must be non-corrosive liquid. For example: tap water, pure water, special glass cleaner, etc. ※ It is forbidden to fill corrosive liquid into the water tank.
08	Storing the machine	After the cleaning is completed, drain water from the water tank of the machine. Replace the used cleaning pad with a clean and dry one, or leave the machine without cleaning pad. After working under wet-wiping mode, the machine should be placed in a dry, ventilated and cool place for 1-2 days to dissipate the moisture inside the machine.
09	Method of controlling water spray	The water tank controls the water spray time and speed through the pump pressure software. And water spray On/Off is controlled by the remote control.

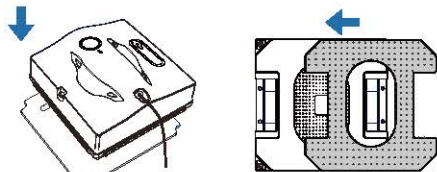
1.4 Introduction to Installation

① Installing the cleaning pad

(1) Stick the white side of the cleaning pad to the machine and keep it smooth to avoid air leakage.

(2) Requirements for sticking the cleaning pad: the cleaning pad shall be placed onto the correct position smoothly, and avoid covering the detection holes at four corners.

※ Be sure to use a dry cleaning pad, otherwise, there is a risk of falling.

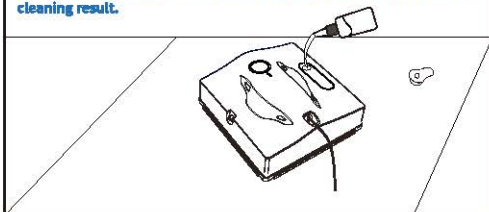


② Filling water into the water tank

(1) Remove the water tank plug, fill an appropriate amount of pure water or special glass cleaner into the water bottle, pour it into the water tank, and tighten the water tank plug.

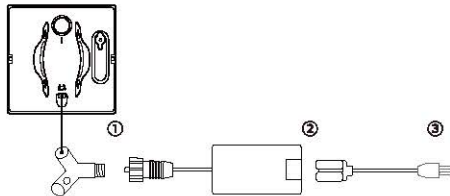
※ The filling content must be non-corrosive liquid.

For example: distilled water, special glass water, pure water, etc. It is recommended to use distilled water or special glass water for a better cleaning result.



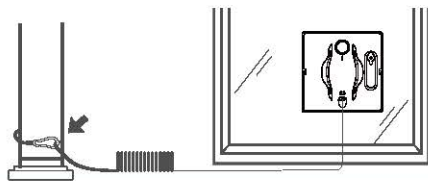
③ Connecting to the power supply

- (1) Connect the power cord on the machine to the adapter.
- (2) Connect the power cord of the plug to the adapter.
- (3) Insert the plug into a power socket.



④ Fixing the safety rope

- (1) Check whether the safety rope is damaged. If the safety rope is intact and undamaged, perform the following operations.
- (2) Fix the safety rope on a solid, reliable and immovable object, leaving an appropriate length for the machine to work.
- (3) It is recommended to circle the object for 1-2 more rounds to ensure the safety.



⑤ Cleaning the wheels

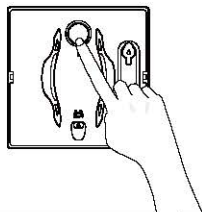
- (1) Do not put the machine directly on the floor after use, particles or other substances on the floor will stick onto the cleaning pad or crawlers, which will scratch the glass easily when the machine is putting back into use.
- (2) If the wheels of the machine are dirty, please enable the wheel cleaning function.
- (3) Hold the machine in your hand and turn it over with the bottom suction inlet upwards, press and hold the power button for 3s, the crawler wheels will rotate slowly, then use a wet tissue to wipe off the dirt on the crawler wheels.



⑥ Starting the machine

- (1) It is recommended to spray some window cleaner to the window before use.
- (2) Hold the Power button for more than 3s to start the machine.
- (3) Make sure the machine has attached to the glass, then release the machine and press the power button for 1s, and the machine starts to work.

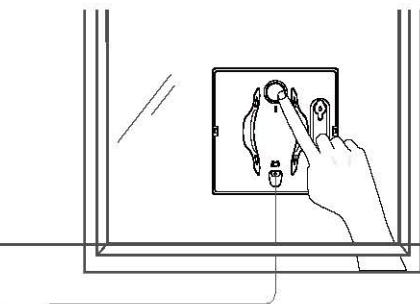
Hold the Power button for more than 3s



⑦ Removing the machine

(1) After the wiping work is completed, hold the safety rope with one hand, hold the machine with the other hand and press the power button. Remove the machine after the working sound of the machine is reduced.

※Note: If the machine is without your reach after wiping the window, please use the remote control to maneuver the machine to a place that is convenient to access by hands, then take down the machine according to the above steps.



1.5 Maintenance

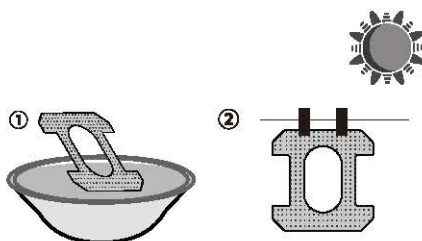
When wipe-cleaning the area beneath the cleaning pad, please unplug and turn off the machine.

1.5.1 Washing the cleaning pad

Remove the cleaning pad, soak it in water at about 20°C for 2 minutes, then brush it with a soft brush, do not rub or twist it, please let it dry naturally before use.

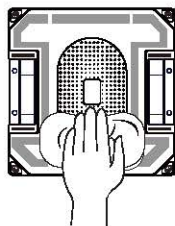
※Do not directly use the wet cleaning pad to avoid the machine slipping during the work.

※Good maintenance will help prolong the life of the cleaning pad. When the cleaning pad is aged and cannot be closely attached to the Velcro, please replace it in time to achieve the best cleaning effect.

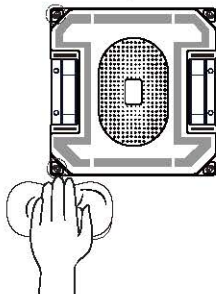


1.5.2 Cleaning the bottom component

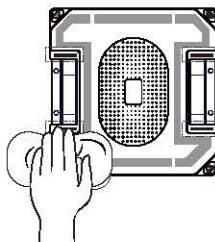
Bottom suction inlet:
Wipe with a cleaning cloth to avoid blockage to the suction inlet.



Anti-drop sensor:
Wipe with a cleaning cotton swab to maintain the sensitivity.

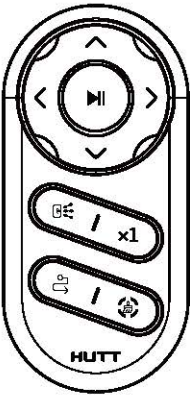


Water removing blades:
Wipe with a cleaning cloth to keep them clean.



1.6 Instruction to the Remote Control

※Note: Take out the battery of the remote control when the machine will not be used for a long time to avoid battery aging and causing damage to the remote control attached to the Velcro, please replace it in time to achieve the best cleaning effect.

		Move to the top, bottom, leftmost, rightmost.
		Water spray ON/OFF (ON by default)
		Wipe downwards from the current position
		Start/Pause/Continue
		Restart wiping
		Fixed point wiping

2. Safety Precautions

Item	Classification	Content
01	Environmental Precautions	1. Do not use it in rainy conditions or when the glass is wet or misty.
		2. Only use it for cleaning at 0-40 degrees Celsius.
		3. When the ambient temperature is low or below 0°C, it is recommended to use the antifreeze glass cleaner.
		4. If external high-altitude operation is required, ground safety warnings must be set in place to prevent accidental personal injury.
02	Precautions for the Cleaned Surface	1. Do not use it on cracked or damaged glass.
		2. Please use it where the window frame is at least as thick as 6mm.
		3. Please make sure that the window size is larger than 40*60cm(height), and check whether the window has an ultra-narrow frame, bevel frame, ultra-thin frame, beveled glass, no frame, or whether the glass glue has unevenness, bumps, leaks, gaps, etc. ※Under the above circumstances, it is not recommended to use the product, or it must be used under close supervision in case of falling.
03	Storage Precautions	1. The product should not be exposed to water.
		2. Keep the machine and accessories out of the reach of children.
		3. Do not place this product in direct sunlight outdoors, or in places with high temperature, humidity or water.
		4. Do not place this product together with flammable materials, such as oil, gas or flammable paints.

Item	Classification	Content
04	Operation Precautions	1. Be sure to check whether the safety rope is damaged, and fix the safety rope onto something immovable.
		2. Please use a dry cleaning pad.
		3. Please use it on vertically surfaces, be cautious when using it on obliquely surfaces with supervision. If necessary, use the remote control to control the machine.
		4. Make sure to shut down the machine before cleaning the machine surface to avoid danger during machine operation.
		5. When the machine is turned on, do not approach the rotating parts and openings of this product with finger and any body part. The power plug should be unplugged after use and during maintenance.
		6. Please use this product in accordance with the User Manual. If the fault cannot be fixed, please contact our customer service, and do not fix it by yourself to avoid danger.
		7. Children are not allowed to operate this product.
05	Battery and charging precautions	1. Be sure that the battery is well-charged before use.
		2. Do not use third-party chargers or disassemble or modify the main machine, battery or charger by yourself.
		3. Do not continue to use the charger if it is damaged or broken, please contact our customer service.
		4. Keep the charger away from heat sources.
		5. When transporting the machine, it is recommended to use the original packaging and make sure the machine is shut off.
		6. If the product will not be used for a long time, please charge it fully and turn off the machine, and place it in a cool and dry place. During storage, charge it at least once every two weeks to avoid battery failure due to over-discharge.

3. Troubleshooting

Item	Problem Description	Solutions
01	The machine slides downwards during operation.	Abnormal movement caused by excessive moisture in the cleaning pad, absorb the moisture in the cleaning pad with a paper towel repeatedly. Replace the cleaning pad with a dry and clean one. Wipe off the water on the crawler wheels and the areas of the pad in the front and rear of the crawler wheels. Help the machine resume normal operation.
02	The machine is hold on to the edge	The machine is detecting the resistance, which is a normal phenomenon, please wait patiently.

Item	Problem Description	Solutions
03	Possible reasons why the machine is not moving smoothly	Replace with a new cleaning pad.
		Check whether there is something sticky on the glass.
04	When trying to remove an out-of-reach machine, and there is no remote control.	Pull the safety rope against the glass, slowly pull the machine to where you can reach it by hand and then remove the machine.
05	The machine does not automatically stop after wiping the entire window.	Please remove the machine directly.
06	Unexpected power failure.	The battery inside the machine can enable it to get attached to the window for at least 20 minutes and it will set off the alarm.
		Please remove the machine or restore power supply as soon as possible.

4. LED Indicators and Voice Prompts

LED Indicators	Voice Prompts	Solutions
Red indicator is always ON	Connected to the power	Check whether the socket and each interface of the adapter are normal. Start after charging for 20 minutes.
	Low pressure	Check whether the cleaning pad is installed in place: the cleaning pad should be flat; the sticking side is correct and not reversed. Whether the glass is protuberant: The surface for placing the machine should be smooth and not protuberant. Check whether the suction opening is blocked. Check whether the glass is arc-shaped. Air will leak when wiping the arc-shaped glass.
Red indicator is always ON	No	If the machine runs normally, the machine has been adjusted automatically. If it occurs frequently, remove the cleaning pad and stick it again or replace the cleaning pad.
Red indicator is always ON	No	Check whether the power plug is loose or damaged, causing power failure or poor contact.
Red/blue indicator flashes cyclically	The wheels stop rotating Please clean the wheels	Check whether the crawler wheel is blocked or contact our customer service staff.
	The crawler wheel is abnormal Please check the crawler wheel	

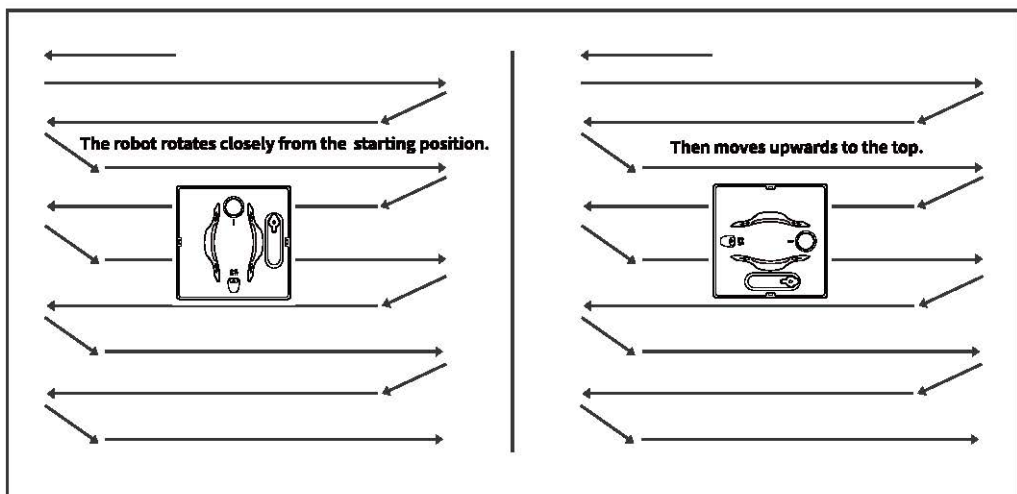
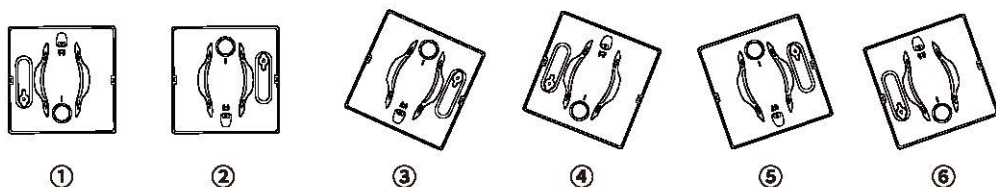
LED Indicators	Voice Prompts	Solutions
Red/blue indicator flashes cyclically	The glass friction is too small	Remove the water or oil stains from the crawler wheels. Remove the water or oil stains from the contact area of the crawler wheels. Check whether there are stickers or other attachments on the glass.
	The glass friction is too large	
	Gyroscope error, reconnect the device and restart	Unplug the adapter and restart the machine, if it still does not work normally, please contact our customer service.
	Barometer error, reconnect the device and restart	
	Fan error, reconnect the device and restart	
	Wireless module error, reconnect the device and restart	
	Edge detector error, reconnect the device and restart	Check whether the cleaning pad is installed correctly and does not block the four corners of the machine. Check whether there are dirty things on the detectors at the four corners of the machine facing to the glass. Check whether the sunlight is too strong. If the detectors at the four corners of the machine facing to the glass surface are exposed to the strong light directly, the machine may not work normally. Unplug the adapter, and restart the machine. If it cannot be restored to normal, please contact our customer service.
	The machine is hold up to the edge of the window	The machine is checking the resistance level, please wait patiently.

5. Technical Parameters

Item	Parameters	Item	Parameters
Model No.	W8	Capacity of the back up battery	650mAh
Rated Voltage	24V==	Machine remains attached when the power is off	20 minutes
Rated Power	90W	Variable Frequency Suction Range	1850-3800Pa
Noise Level	65dB	Capacity of the Water Tank	80ml
Machine Dimensions	241*241*83mm	Cleaning Speed	0.05m/s
Charging Current	300mA	Minimum applicable area	400*600mm
Remote Control Operation Frequency	2450Mhz	Remote Control Maximum Output Power	4mW

6. Path Planning Description

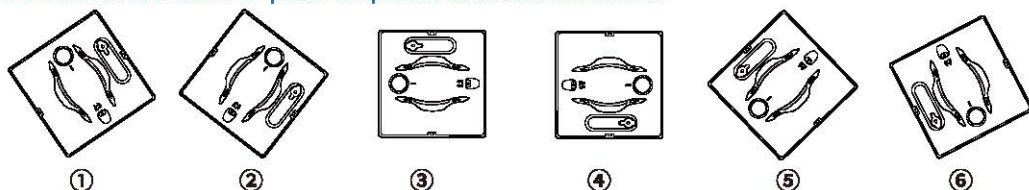
When the robot is placed "upright", the robot will wipe in a "Z" pattern. For example, the following positions are all considered as 'upright' placements.

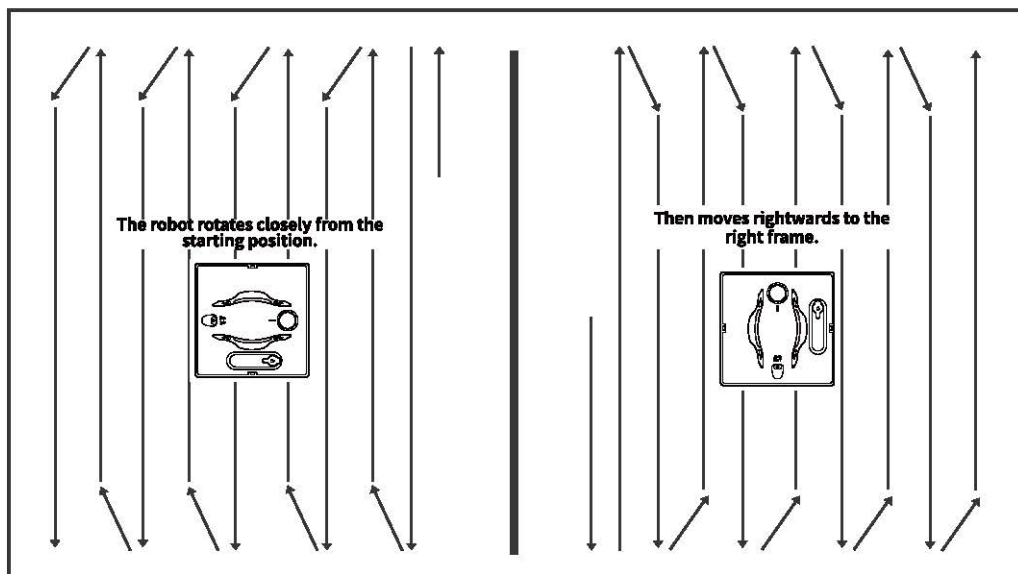


1. The machine moves from the upper left corner to the upper right corner, meanwhile it measures the width of the window and moves to the next line when touching the rightmost edge.
2. The machine continues to wipe along the next line, and starts spraying water intermittently. The space of each line is $\frac{1}{3}$ of the machine length.
3. The machine wipes line by line until cleaning up the entire window.

When the robot is placed "horizontally", the robot begins wiping in a "N" pattern. For example, the following positions are considered to be placed "horizontally".

It is recommended to use the "N" pattern to wipe the windows with a narrow frame.





1. After reaching the right frame, the robot rotates and moves upwards, and starts to wipe the window along the line close to the right frame.
2. After wiping upwards and downwards along the right frame, the robot moves leftwards to the next line.
3. The robot continues to wipe along the next line and starts spraying water intermittently. The water spraying function will be paused if slippage occurs.
4. After finished wiping the entire window, the robot returns to the starting area in an upright position.

Note:

If the machine encounters an abnormal frame, it will cause data errors when detecting the distance between edges, resulting in a slight error of position where the robot returns to the starting point, which will not affect the normal use.

Description of the water spraying function

- ① The machine is powered on with the default wet-wiping mode.
- ② If dry wipe mode is required, directly press the water spray button on the remote control to turn off the water spray function.
- ③ Under wet wiping mode, the machine sprays water once every 10-15 seconds, and doesn't spray water during the edge detection process and the line changing process.
- ④ Under the command of the remote control, the machine does not spray water when it moves upwards/downwards/leftwards/rightwards.

7. Fault List

Parts	Content
Main Machine	The machine is unable to turn on when connecting to the power supply
	The machine can not be controlled by the remote control
Charger	Unable to supply power to the main machine normally

8. WEEE Information



All products bearing this symbol are waste electrical and electronic equipment (WEEE as in directive 2012/19/EU) which should not be mixed with unsorted household waste. Instead, you should protect human health and the environment by handing over your waste equipment to a designated collection point for the recycling of waste electrical and electronic equipment, appointed by the government or local authorities. Correct disposal and recycling will help prevent potential negative consequences to the environment and human health. Please contact the installer or local authorities for more information about the location as well as terms and conditions of such collection points.

9. Conformity

We Beijing Hutt Wisdom Technology Co., Ltd, hereby declare that this device corresponds to the basic requirements and relevant regulations outlined in guidelines 2014/53/EU, 2011/65/EU.

The CE declaration of conformity for this product can be found on the following link:

<https://us.huttwisdom.com/certificate>

FCC Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.



**Pursue the ultimate window
cleaning experience**

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