# **AlfaBot**

# WINDOW CLEANING ROBOT WITH DUAL SPRAY



# **User Manual for AlfaBot GLS400**

Thanks for your purchase. Any questions please don't hesitate to contact us, we will handle all your problem ASAP. Your feedback is vital to us! And we will always try to do better. For more details, please contact us by email alfabotus@hotmail.com(Write your order #on the subject of the email, so that we can find your order and better assist your issue).

# 1. Important Safety Precautions

Always read all instructions carefully before use and keep this manual for future reference.

# 1.1 About the Scope of Product Application

The product is suitable for cleaning all kinds of smooth surfaces, including glass, floor, ceramic tile, marble, etc.

\* Do not use it on windows with broken silicone/rubber edges to prevent the window washing robot from losing suction and falling. The place and safety of use must be judged and responsible by the user.

# 1.2 Safety Information & Warning Before Use

- Fasten the safety rope and tie to an indoor fixture before operating the device.
- Check if the safety rope is broken or the knot is loose before operating the device.
- A power cord must be used for the ROBOT to function properly.
- For windows with no balcony, a warning area must be established on the ground below to prevent people from coming near it.
- The battery must be fully charged (green light ON) before using.
- Do not use on rainy or humid days.
- Turn power on before putting device onto window.
- When placing the appliance onto window, make sure it sticks to the surface before removing the supporting hand.
- Remove the device before turning the power off.
- Make sure to put the cleaning cloth onto the device correctly to avoid air leakage.
- Do not spray or pour water onto the device.
- Prohibit children from using this device.
- Remove any obstructions on window. Do not use on cracked window. Reflective or coated window may be scratched during operation by dirt on the window.
- Keep hair, loose clothing, fingers, and all body parts away from the openings and moving parts.
- Do not use in areas containing flammable or combustible liquids or gases.
- Only fill the water tank with fresh water or ROBOT window detergent, Other detergents are not allowed.
- Empty the water tank before putting the device away.
- Retain the safety and operating instructions for future reference.
- Follow all operating and use instructions.
- Do not expose your device to rain or excess humidity, and keep it away from liquids (such as beverages, faucets, and so on).
- Avoid exposing your device to direct sunlight or sources of intense light, and keepit away from sources of heat (such as radiators, space heaters, stoves, and so on).
- Do not place the device in the vicinity of strong magnetic fields.
- Keep the device and accessories away from children.
- Product operating temperatures: 0°C~40°C (32°F~104°F).
- Product storage temperatures: -10°C~50°C (14°F~122°F).



# 1.3 Safety Information About Adapter/Battery

- Use only the original adapter supplied with this device. Use of other types of power adapters will result in malfunction and/or danger.
- Please use a proper electrical outlet and make sure no heavy objects are placed on the power adapter or the power cord.
- Allow adequate ventilation around the adapter when using it to operate the device.
- Do not cover the power adapter with objects that will reduce ventilation and cooling.
- Do not use the adapter in a humid environment. Never handle the adapter with wet hands.
- Connect the adapter to a proper power source. The voltage requirements are listed on the adapter.
- Do not use a broken adapter, power cord, or plug.
- Do not attempt to service the adapter by yourself. There are no service parts included.
- The battery used in this device may present a risk of fire or chemical burn if mistreated.
- Do not disassemble, short the contacts, heat above 60°C (140°F), or incinerate.
- If you have to dispose of old equipment, please take it to the local recycling center for recycling electrical and electronic parts.
- Please charge the battery every 3 months to conserve the battery life.

# 2. Product Informations

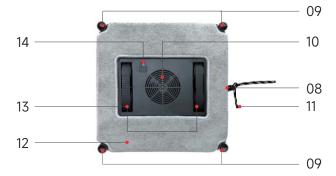
AlfaBot GLS400 window cleaning robot has Al Technology embedded that calculates paths and auto-detects window edges; you can clean your windows as easy as in one touch. The robot also brings revolutionary bio-mimicry technology into play! The new patented invention carries double water tank along with an ultrasonic water spray nozzle which nebulizes water to 7µm mists then sprays it evenly on glass like the effect of human exhales on glass surface. And it is very water-conservation and eco-friendly, it can clean more than one square meter area withjust one milliliter water or detergent. Additionally, the easily-replaceable microfiber cloth not only attracts dirt into fibers but also absorbs water to offer smear-free finish.



# 2.1 Product Structure Introduction

- 1. Button: Start / Stop
- Blue light: normal status
   Red light: abnormal status
   Orange light: charging
   Green light: full-charged
- 3. Water tank cover
- 4. Water tank
- 5. Ultrasonic nozzle
- 6. Handle
- 7. DC power jack
- 8. Hanging hole
- 9. Anti-slip casters
- 10. Suction area
- 11. Safety rope
- 12. Cleaning pad
- 13. Wheels
- 14. LED indicator





# 2.2 Product and Accessories

- Robot x 1
- Adapter x 1
- AC power cord x 1
- DC extension cord x 1
- Remote control x 1

- Water filling bottle x 1
- Replacement mopping pads x 3
- Safety rope x 1
- User manual x 1

# 2.3 Product main features

- For any kind thickness glass
- Al Technology
- 3 kinds of automatic operation modes for cleaning entire window
- UPS (Un-interrupted Power System) support 40mins after power outage
- Anti-dropping control algorithm, safty rope double protection
- Auto detect edges of window
- Micro-fiber cloth for deep cleaning different surfaces
- High strength safety rope (150Kgf)
- Return to start postion after finishing cleaning
- Tuya smart app control, operate it conveniently
- OTA Upgrade the firmware version
- Super low noise won't affect daily life
- Ultra-thin body could working on narrow outside windows
- Walking belt-cleaning modes make users maintain the robot clean better
- Dual-side water spray make robot sprays in front of it when any modes
- Water spray modes support auto or manual, eco-friendly design

# 2.4 Specifications

Model:	AlfaBot GLS400		
Product size	245 mm x 245 mm x 89 mm (LWH) (9.6 in x 9.6 in x 3.5 in)		
Product weight	1.3 Kg (2.8 lbs)		
Gift box size	320 mm x 255 mm x 105 mm (LWH) (12.6 in x 10.0 in x 4.1 in)		
Total gift box weight	2.5 Kg (5.5 lbs)		
Input Voltage	100~240VAC, 50Hz~60Hz		
Adapter output	Minimum 24V/3.0A		
Power consumption	72 W		
AC power cord length	1.2 m (3.9 feet)		
DC extension cord length	4.0 m (13.1 feet)		
Safety rope length	4.5 m (14.8 feet), Strength:150 Kgf		
Water tank capacity	50 ml (left 25ml + right 25ml)		
Nozzle type	Ultrasonic, 160±5 Khz (Kilo Hertz)		
Water particle size	7-8 µm (Micrometer)		
Battery	Li-lon, 4x3.7V		
Battery working time	>40 minutes		
Battery life	2 years		
Cleaning speed	1.1 min/m² (6.6 sec/ feet2)		
Noise	64 dB		
Maximum cleaning area Height: 6.0 m (20 feet) Width: 6.0 m (20 feet)			

# 2.5 Remote Control Instructions

The remote control is equipped with 2.4G wireless technology. Be sure to insert AAA batteries before using it. Just pull down the cover to replace the battery.

Button Icon	Button	Features	
	Auto spray switch	Press it to switch the auto and manual spray modes.	
$\bigcirc$	Manual spray button	Press it to spray water in manual, spraying once for each press.	
$\triangle$	Upward cleaning button	Press it to move upward and stops at the edge.	
$\nabla$	Downward cleaning button	Press it to move downward and stops at the edge.	
	Left cleaning button	Press it to move left and stops at the edge.	
$\triangleright$	Right cleaning button	Press it to move right and stops at the edge.	STOP (STOP)
DII	Switch button	Press it to start the Auto-N mode, to stop or to continue cleaning.	
STOP	Stop button	Press it to stop cleaning.	
	Wheel belt cleaning Mode button	When the machine is on and working, press this button and the machine will start this mode. Press this button again to stop this mode.	
Z	Auto-Z cleaning mode	The robot goes up and down the "Z" cleaning path automatically and returns to the starting point after finishing cleaning.	
N	Auto-N cleaning mode	The robot goes up and down in the "N" cleaning path automatically and returns to the starting point after finishing cleaning.	
ZN	Auto Z&N Cleaning mode	The robot goes up and down in "Z" mode and then moves left and right in "N" mode, returns to the starting point after finishing cleaning.	

# 2.6 LED Indication

Situation	LED indication/Sound	Sound
Auto-Spraying function is on	Blue LED is flashing	/
Manual Spraying function is on	Blue LED is always ON	/
Battery charging	Orange LED is ON	/
Battery charged full	Green LED is ON	/
No electrical power	Red LED flashing Sound: repeat beep	Repeat beep
Hardware error	Red-LED flashing Sound: beep 3-8 times	Beep 3-8 times
Robot stops / standby	Blue light flashing	/
Wheel belt cleaning mode	Blue light flashing	/
Difficulty working	Red and blue lights will flash alternately	
Gyroscope failure	Red light flashes 5 times	
2.4G connection failure	Red light flashes 7 times	
Switch failure	Red light flashes 8 times	

# 2.7 UPS (Uninterruptible Power System) Function

- (1) The UPS function will be enabled automatically when no electric power is supplied. The backup time of this UPS is 40 minutes.
- (2) If no electric power is supplied, the device will stop automatically, sound an alert, and flash a red light. The user should take the device down from the glass as soon as possible.
- (3) The safety rope can be used to pull the device back. Gently pull the safety rope at an angle close to the glass to prevent it from falling off.



# 3. Steps for Usage

To work properly, the robot must always be connected to the power supply in the process of using.

# 3.1 Put the Cleaning Pad on the Robot.

Make sure to put the cleaning pad onto the device correctly to avoid air leakage. Robot has 4 detective sensors for detecting glass edge. Put cleaning pad onto device flatly and do not let pad cover the caterpillar wheel and these four sensors.

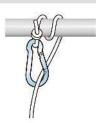






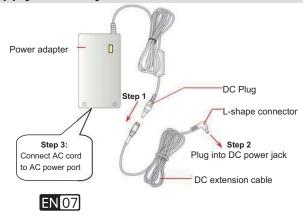
# 3.2 Connect the Safety Rope.

- (1) For glass doors and windows without a balcony, a hazard warning area must be set up on the ground downstairs, and people are prohibited from approaching.
- (2) Please check whether the safety rope is damaged and the knot is loose before use.
- (3) Be sure to fasten the safety rope before use, and tie the safety rope to the fixed objects in the house to avoid danger.



# 3.3 Connect the Power Supply Correctly.

- 1. Connect the adapter to the DC extension cord.
- 2. Connect the DC extension cord to the robot.
- 3. Plug into the socket.



# 3.4 Charge the Back-Up Battery.

The machine has a built-in battery for backup power in case of power failure. Before use, please make sure that the battery is fully charged (green light is on).

- (1) Plug it into a power source. Orange light ON means charging.
- (2) Green light ON means the battery is fully charged.

#### 3.5 Fill in Pure Water.

Fill the two water tanks with clean water and tighten the tank lids fully after filling. Only use clean water or clean solutions with pure water.

#### 3.6 Attach the Machine to the Window.

- (1) Turn on the machine and confirm the fan is working.
- (2) Put the machine onto the glass, and keep 10 cm away from the window frame.
- (3) Confirm that the machine can be attached to the glass before releasing it.

Warning: the robot must be placed on a window with an orientation of 15 to 90  $^{\circ}$ . Otherwise it could get into error and not work.

# 3.7 Automatic Cleaning Mode and Manual Cleaning Mode.

- (1) Press the switch button on the robot o the button (  $\boxed{\mathbb{N}}$  ) to start the "N" automatic mode with auto spray mode.
- (2) Press the 3 auto mode buttons " Z " " N " " ZN "by remote control to automatically clean the window.
- (3) Press the 4 arrow buttons (  $\triangleleft \triangleright$  ) to control cleaning in manual mode.

# 3.8 Finish the Cleaning and Remove the Machine from the Window.

- (1) After complete cleaning, make the robot move to low edge.
- (2) Grasp the window cleaner with one hand and turn off the power with the other hand.
- (3) Remove the window cleaner.

# 4. How to Clean Windows

# 4.1 Dry Wipe First

- The first time you wipe, you must "dry wipe" (turn off the water spray function and do not spray any water), and first remove the wind and sand on the glass surface.
- If you spray some water on the cleaning cloth or glass first, the water will mix with the sand and turn into yellow muddy water, and the wiping result will be poor.
- \* If it's slipping on the glass, you can spray a little water on the cleaning pads \*

## 4.2 Then Wet Wipe

Replace the clean cleaning pad, turn on the automatic water spray function. Spray a little water on the cleaning pad or on the window. Do not make it too wet, the completely wet cleaning pad will affect the machine Running.

# 4.3 Cleaning Tips

- 1. Wipe with a dry pad first, then wipe with a damp pad for best results. For the dirtiest glasses, you can wipe them several times to ensure the cleaning effect.
- 2. Dusty windows must be cleaned with a dry-cleaning pad or with the device without turning on the spraying function.
- 3. Use the machine in sunny or low-humidity weather, dry wiping works best.
- 4. The surface of window with water molecules becomes slippery and has white streaks left on the window so it is not suggested using the device to clean exterior windows on rainy or high humidity days.
- 5. Do not get the cleaning pad completely wet during normal use.
- 6. If the machine runs slowly, please replace the cleaning pad.

# 5. Cleaning and Maintenance

#### 5.1 Mainstenance for robot

- When the device easily slips on the surface of window, it is because belts are stained with accumulation of dust after using. Please follow 3 steps below.
- Step 1: Turn the device upside down.
- Step 2: Press remote control button , the device's caterpillar belts continually rotate for your better clean up the dirts and dusts on the belts.
- Step 3: Use cloth clean caterpillar belts and keep cloth in the middle of belts to avoid cloth being jammed in the belts. If cloth is jammed, users can press the same button to stop and draw it out.



- Clean the four corner detective sensors
  - Use a clean and dry soft cloth to clean these four sensors. Frequency: Before each use
- Replace or wash the pads when the pad is too dirty
   Make sure when you use it next time it won't too dirty or too wet (after wash it should dried before use).

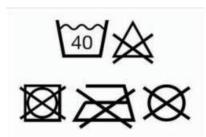


# 5.2 Cleaning Cloth Laundry Instructions

Washing instructions for the cleaning cloth.

- Washing under 40°C (104°F)
- Do not bleach
- Do not tumble-dry
- Do not iron
- Do not dry clean

Maintenance frequency: after each use.



# 6. Frequently Asked Questions (FAQ)

Q1: When the power switch is turned on, the fan does not rotate, and no any beep sounds.

Case	LED indication / Sound	Situation and Solution
1. Battery voltage is too low	Blue: flash Red: off Orange: on Sound: no beep	It means battery charge is too low. Wait for battery to fully charge (green light is on). If machine still can't be used after charging for 5 hours, the battery should be replaced.
2. Hardware failure	Blue: flash Red: flash Sound: beep	Machine hardware failure. Please contact a local retailer or local authorized dealer for repairs.

Q2: When the power switch is turned on, the fan is rotating, Blue-LED is lighting, Red-LED is flashing, with repeat beep sounds.

**Ans:** No electrical power supplied. Please check power cord, adapter, and the device, and connect again the power supply to normal working.



Q3: When the power switch is turned on, ROBOT can't start up by remote control.

Case	LED indication / Sound	Situation and Solution
1. Pressure not enough	Blue: on Red: flash one time Sound: single beep	The vacuum pressure is not enough. User could re-attach cleaning cloth onto device again, or change a new cleaning cloth.
2. Remote control failure Blue: on Red: off Sound: no beep whe press remote key		Remote control failure. Please contact a local retailer or local authorized dealer for repairs.

# Q4: The Robot slips and cannot detect the upper frame of window in "N" mode.

Ans: Press | or (stop) to stop the robot, switch to manual mode to lower the half of the device and then switch to "N" mode again, or switch to "Z" or "Z/N" mode.

## Q5: The robot cannot finish cleaning the whole window and stops in the middle area.

# Q6: The robot slips and cannot reach the top of window. Ans:

- (1) The cleaning pad already got heavy dirt or too wet. It shall change cleaning pad.
- (2) The caterpillar belt might be too wet or got heavy dust. It shall clean caterpillar belt.
- (3) Spray two or three times water to the mop or on the window surface in front of the robot running.

# Q7: The robot does not move smoothly, or it moves irregularly. Ans:

- (1) Cleaning pad is too dirty. Please change a clean-cleaning pad and clean again.
- (2) Window surface has different friction factor areas due to glass stickers, window film, and so on. Please limit use the robot to certain areas of the window.

# Q8: What to do if the robot stops due to a power outage?

- (1) User can pull the robot back with the safety rope. Gently pull the safety rope at an angle close to the glass to prevent it from falling off the window.
- (2) Switch the power switch to "off".
- (3) Check whether there is a poor connection or broken cord.

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# Q9: What to do if the robot unexpectedly stops and the red light is flashing, with no alarm sounding?

#### Ans:

- (1) User can move the robot to safe area by remote control, or pull the robot back with the safety rope. Gently pull the safety rope at an angle close to the glass to prevent it from falling off the window.
- (2) Remove obstacles on the window surface.
- (3) Check whether there is air leakage caused by a gap or uneven window frame.

#### Q10: The robot cannot spray water.

#### Ans:

- (1) Check if you have turned on the spraying function.
- (2) Clean the surface of the ultrasonic nozzle with a soft, dry and clean cloth.

# 7. Warranty

If the product does not work properly due to internal component problems within one year from the date of sale, you can contact the seller to repair it for free.

# **Not Covered By Warranty**

- Normal wear and tear (e.g. cleaning cloth, safety rope, water tank, etc).
- Reduction in battery discharge time due to battery age or use.
- Damage caused by assembly or installation that is not in accordance with the instructions included with the AlfaBot.
- Damage caused by using the window cleaning robot for anything other than normal domestic household purposes.
- Damage caused by using parts and accessories which are not specified by AlfaBot.
- Damage caused by accidents, abuse, or misuse.

#### Contact us

If you receive a defective item or have any problems with this item, please email us at **alfabotus@hotmail.com** 

- Amazon Order ID
- Short description or videos of the defect

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.

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

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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment complies with RF radiation exposure limits set forth for an uncontrolled environment.

The device has been evaluated to meet general RF exposure requirement.

The device can be used in portable exposure condition without restriction.

