

User's Manual

LG CLOi UV-C Bot

Please make sure to read the "IMPORTANT SAFETY INSTRUCTIONS" before use to use the product correctly. After reading the User Manual, keep it in a readily accessible place for the users.

Model:

RDIIM10 FY28816000 (Charger) B1

Exposure to UV-C (ultraviolet-C) can cause serious skin and eye damage. Do not expose your skin to UV-C and never look towards the source of UV-C light.

During UV processing, please control the space so that people and animals cannot access it, and operate only when people and animals do not enter."

"Please use it by experienced workers who are fully aware of the risk of UV-C."

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IMPORTANT SAFETY INSTRUCTIONS

READ ALL INSTRUCTIONS BEFORE USE

"IMPORTANT SAFETY INSTRUCTIONS" are for your safe and correct use of the product and to prevent unexpected dangers or damages in advance.

The precautions are categorized into "WARNING" and "CAUTION." Their meanings are as follo



WARNING: This indicates a situation where serious injury or death may occur if you v iolate the instructions.



CAUTION: This indicates a situation where minor personal injury or product damag e may occur if you violate the instructions.

▲ : This symbol is intended to call attention to matters and operations that may pose a danger. You must carefully read the section marked with this symbol and follow the directions to avoid danger.

&: This symbol indicates a forbidden action.

WARNING

y Exposure to UV-C (ultraviolet-C) can cause serious skin and eye damage. Do not expos e your skin to UV-C and never look towards the source of UV-C light.

y During UV processing, please control the space so that people and animals cannot acce ss it, and operate only when people and animals do not enter.

y Please use it by experienced workers who are fully aware of the risk of UV-C.

y UV-C 광선은 식물의 성장에 영향을 끼칠 수 있습니다. 작업 중에 UV-C 광선이 식 물에 과도하게 노출되지 않도록 주의해 주세요.

y If you have to enter the UV processing target area with the robot having its UV-C lamp on, ne ver forget to wear protective equipment before entering.

y After pressing the UV processing start button, the timer (default 20 seconds) starts and " UV-C lamp will turn on. Evacuate now." Even though a countdown warning is issued from 10 seconds to 1 second after the announcement, if the user does not follow the instructi ons, they may be exposed to UV-C light.

INSTALLATION

yy Use a genuine battery and the charger provided with the product.

- Non-genuine products may cause a battery charging problem or fire.

yy Do not pull the power cable.

- Doing so may cause electric shock or failure.

y Do not allow persons to approach the robot during its setup or installation.

- Doing so may cause injury or other accidents.

y Do not plug multiple power cables into one outlet.

- Overheating may cause a fire.
- y Keep packaging materials (vinyl, styrofoam, etc.) out of the reach of children. These mat erials can pose a suffocation risk to children.
- y Do not insert conductors, such as chopsticks, into the grooves on the other side while the p ower cable is connected to an outlet. Do not touch the power plug immediately after unpl ugging it from the outlet.
 - There is a risk of electric shock.

y Do not damage or bend the power plug or the power cable.

- Damage to the power cable may cause electric shock or fire.

y Handle the power plug with dry hands.

- There is a risk of electric shock.

y Use only with the designated power and voltage.

- There is a risk of electric shock or fire.

y Unplug the charger before moving it.

- There is a risk of electric shock or fire.

y Connect the power plug to a grounded outlet.

- y Do not insert or drop metal objects (coins, hairpins, ironware, etc.) or flammable objects (matches, paper, etc.) into the charger or the product's vent hole.
 - There is a risk of electric shock or fire.
- y Do not insert or drop metal objects (coins, hairpins, ironware, rods, etc.), rods, fingers or fla mmable objects (matches, paper, etc.) into the holes on the lamp protection net.
 - There is a risk of electric shock or fire.
 - Lamp breakage may cause injuries.
- y 램프에 수은이 포함되어 있으므로 램프가 깨졌을 경우 즉시 자리를 이탈하고 한 시 간 이상 충분히 환기 후 깨진 유리를 치우세요.
- y Do not install, store or operate the product or the charger in highly humid places (85% relative humidity or higher).
 - Doing so may cause fire or malfunction.
- y Do not place the product or the charger near fire equipment, explosives or flammable subs tances.
 - Doing so may cause a fire.

y Do not use products that use high- voltage electricity near the robot.

- Electric shock may cause a failure.

y Install the charger in a safe place to prevent persons, children and animals from bum ping into it and get injured.

- Failure to do so may cause an accident.
- y If you are not using the robot for a long time, turn off its power and disconnect the power plug from the outlet to protect the product and its battery.
 - Electric shock or leakage may cause fire or other accidents.
 - 로봇과 충전기 보관 시 물이나 먼지가 많은 환경을 피해 주시고 커버를 씌운 후 보관해 주세요.

y Do not let water or dust get into the robot or the charger.

- There is a risk of fire or product damage.

y Do not charge the robot where there is water.

y Do not pour liquids onto the product or expose it to foreign substances.

- Doing so may cause mis-detection or malfunction.

y Keep the robot and the charger from getting wet with water, lubricants or other simil ar substances.

- There is a risk of electric shock, fire, failure or injury.

y Do not stop the robot or leave it on standby on a slope.

- The robot may tumble down or fall, resulting in failure or injury.

y Store the robot on a flat place with no slope.

- y When opening or closing the UV-C lamp protection net, do not forcefully pull or incomplet ely close the net. Doing so may cause the protection net to fall off while the robot is movi ng. Make sure to remove and fit the parts correctly according to the manual. (See page 73)
 - Dislodged protection net may cause damage or accident.
 - If the robot continues to operate with the protection net incompletely closed, the UV-C lamp may break and cause injury.
 - 로봇 이동시에는 램프 비산 방지를 위하여 커버를 씌운 후 이동해 주세요.

OPERATION

- y Mirrors, transparent objects and completely black objects which is placed 20cm from the gro und may hinder the robot's ability to recognize obstacles. Remove or move such objects fro m within the robot's travel range.
- y Transparent obstacles (glass, transparent acrylic, etc.) have limitations in sensing dete ction, so make sure there are no transparent obstacles in the robot's driving space..
 - Transparent obstacles in the robot's travel range may cause safety accidents or injur
 ies.

- y The robot may not be able to move normally in places where illumination of the light reflected on it by the floor or surrounding objects (glossy floor, mirror, etc.) is too high or low. M aintain a proper illumination level within the robot's travel range.
 - Failure to do so may cause an accident due to a traveling error or mis-detection of obst
- y In an urgent situation where an accident seems likely and sudden braking is necessary, pres s the emergency stop button to stop the robot. LG does not guarantee quality of the product damaged due to a collision, etc. that may occur during an emergency stop.

y Do not push or pull the robot while it is traveling or waiting.

- Doing so may cause the robot to fall over, failure or accident.
- y Children, the elderly and animals within the robot's travel range are at risk of collision and injury. Please be mindful.
 - The robot is not intended for use by young children or invalids.

y Do not allow children to hang on or climb on the robot.

- It may cause injury due to falling or collision.

y Do not push or pull the lamp guard while the robot is traveling or waiting.

- Danger of UCV exposure and injury.

y Do not lean on the lamp while the robot is traveling or waiting.

y Make sure that the lamp does not break while the robot is being moved manually.

- y Stop using the robot and the charger when there is a smoke or an unusual smell. Turn off th e power and unplug the power cable.
 - If you continue to use the product, there is a risk of electric shock or fire.
- y A person who lacks physical, sensory, mental abilities, or experience and knowledge (inc luding children) cannot safely use this product. For safe use, supervision of the supervis or is required to ensure that only pre-trained personnel can use the robot.
 - There is a risk of electric shock, burns or injury.

y Do not disassemble or attempt to repair the robot on your own.

- Doing so may cause electric shock, fire or damage.
- y Slopes, stairs and high places are not suitable places for the robot to operate on. Use the r obot only on a flat ground.
 - The robot may fall, causing product damage or accident.
- y Obstacles at low heights such as wallets, rods and boxes within in the robot's travel path m ay not be detected. The robot may move over such obstacles, which can cause damage or injury. Remove any obstacles on the robot's path.

- y The robot may fail to recognize or avoid thin and long obstacles (banners, guide posts, etc.) and collide into them. For safe traveling, remove such obstacles from the robot's travel pat h.
 - Failure to do so may cause an accident due to a traveling error or mis-detection of obst
- y Using a lamp other than the one recommended by LG may generate ozone. For product pe rformance and safety, only use a component recommended by LG. (Philips TUV 36W/ G3 6 T8)
- y LG is not responsible for any problems that occur when using a product other than the door sensor provided by LG..
- y To detect that people and animals enter the sterilization workspace, install a door sens or inside the door and proceed with UV processing.
- y If there are multiple doors, lock all doors except for the door where the door sensor will be installed, or if the door cannot be locked, install door sensors on all doors.

y **BATTERY**

- y Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.
- y Prevent unintentional starting. Ensure the switch is in the off position before connecting to the battery pack, picking up or carrying the robot. Carrying the robot with your finger on the switch or energizing an robot that has the switch on invites accidents.
- y Do not use a battery pack or robot that is damaged or modified. Damaged or modified batte ries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.
- y Follow all charging instructions and do not charge the battery pack or robot outside of the t emperature range specified in the instructions. Charging improperly or at temperatures ou tside of the specified range may damage the battery and increase the risk of fire.
- y Never use the battery, adapter, or charging station from other robots with this robot. Use only the battery and the charging station provided by LG Electronics.
- y Never use the battery, adapter, or charger from this robot with other robots.
- y Under abusive conditions, liquid may be ejected from the battery. If this happens, avoid c ontact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
- y Do not disassemble, remove or short-circuit the battery.
- y Do not apply heat or shock to the battery.
- y Have the battery replaced when it is no longer able to hold a charge.
- y When disposing of this robot, follow regulations for disposal of rechargeable lithium- ion batteries.

- y Follow all local ordinances and regulations when handling or disposing of the battery.
- y Have servicing performed by a qualified repair person using only identical replacement par ts. This will ensure that the safety of the product is maintained.
- y Do not modify or attempt to repair the robot or the battery pack (as applicable) except as ind icated in the instructions for use and care.
- y In case rechargeable battery is included in this robot, the entire device should be recycled in compliance with rechargeable battery recycling standards because of the internal battery. To dispose of properly, call (800) 822-8837 or visit www.call2recycle.org
- y For parts replacement, only the designated parts may be used. Repair work must only be p erformed by a qualified worker. This is to maintain the product's safety.
- y When restarting the battery, turn it off and wait for 5 seconds before turning it on again.
- y There is a small coin-type battery inside, so be careful not to swallow it.
- y Do not arbitrarily disassemble and assemble the battery. Damage to the product and high current can cause injury. If you need to decompose, please contact the service center.

A CAUTION

INSTALLATION

y Do not hit or apply shock to the robot.

- Doing so may cause damage to the robot.

y Do not press the LCD screen too hard.

- Doing so may lead to product failure.
- y Do not cover a part (sensor, etc.) or the entire body of the robot with a cloth or table cloth.
 - Doing so may make the robot unable to travel properly or cause a traveling error, whi ch may lead to failure or accident.
- y Do not operate the robot in an environment outside the temperature range 0° C 40° C (32°F 104° F).
 - It may cause robot malfunction. The robot may stop when it is out of a certain tem perature range. After returning to the normal temperature range, normal operatio n is possible.

y Store the robot at room temperature.

- Failure to do so may cause malfunctioning and shorten the product life.

y Do not install the charger in an environment outside the temperature range $0^{\circ}C^{\sim}35^{\circ}C$ (32°F $^{\sim}95^{\circ}F$) It is recommended to use the charger at room temperature.

- Failure to do so may cause charging failure or malfunctioning. If it is out of a certain tempe rature range, charging may not work properly. After returning to the normal temperature range, normal charging is possible automatically.
- y It is not appropriate to drive the robot on a wet floor or where an electric or electro magnetic device is installed. Also, avoid places with severe vibration.
 - Before using the robot, remove all objects that may cause a problem.

y Use the robot in places free of electromagnetic interference for proper operation

- Failure to do so may cause failure, malfunctioning or other accidents.
- y Robots can only be replaced directly with UV-C lamps. If the rest of the parts fail, do not ar bitrarily dismantle/assemble them, and contact the enclosed service contact information

OPERATION

y The robot is only for indoor use. Do not use it outdoors.

- Doing so may cause damage or malfunction.
- y Do not load fragile objects, liquids or objects that can deform or deteriorate by tem perature change, vibration, etc. onto the robot.
 - Doing so may cause damage or accident
- y The continuous operating time is 6 hours. If the actual operation time of the robot is expected to exceed 6 hours, charge it frequently to avoid battery discharge.
- y The robot can travel most optimally on a flat marble, cement ground or carpet. It may have difficulties in moving or be entirely unable to travel in other environments.
- y Set the robot's travel path, there are no fixed objects longer than 1cm, such as threshold an d electrical wiring, on the floor or remove the electric wires from the floor before driving.
- y The robot may fall over, causing damage or injury.
- y It is recommended to secure a passage width of 74 cm or more so that the robot can travel stably.
- y Do not operate the robot on a dangerous place such as stairs, slope and cliff.
 - If you have to use it in an environment with stairs or cliffs, please install a protective fence for safety. Robots can be overturned.
- y Obstacles between 2cm and 3.5cm in height are not allowed during operation
- Y It cannot be used on slopes where golf balls, ping-pong balls, etc. can roll.
 - Doing so may cause malfunctioning.
- y During charging, if the robot status is not displayed as charging, check the LED color to see if the charger is properly connected.

- y Do not put your foot or hand under the robot while the robot is moving or rotating.
 - You may get caught in the wheel or injured by sharp edges inside.
- y Dispose of the lamp in compliance with the disposal regulations for UV-C lamps and fluor escent lamps.
- y The robot is so heavy. If the operation is not performed according to the manual in the desi gnated place, there is a risk of injury when falling or overturning.
- y When replacing the lamp, be aware of safety accidents caused by detachment/falling of the lamp and the lamp protection cover.
- y When moving manually, it may be difficult to secure a forward view due to the height of the robot (160cm). To prevent safety accidents, please move carefully while looking ahead.
- y The robot is not equipped with any anti-theft devices. Be careful with storage and care.
- y This robot is intended for indoor use. We are not responsible for use outside the oper able area.
- y If two or more robots are operated in the same space at the same time, UV processing may be excessive or may not operate normally due to mutual interference.
- y If you are injured as a result of using a robot, seek immediate medical attention.
- y Operating air conditioners or fans can cause malfunction in the robot's human body detection function. When operating the robot, it is recommended to turn off the device and proceed.

Product Features

This product is intended for UV processing of personal or public spaces (rooms), so do not use it for industrial, medical or laboratory purposes.

UV processing

The product uses the UV processing lamp to kill bacteria indoor spaces.

Notes

Symbols used in this User Manual

,Note

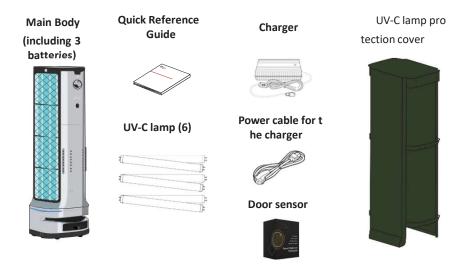
Indicates a special note on a feature.

>Warning

Indicates an alert on risk of injury or danger.

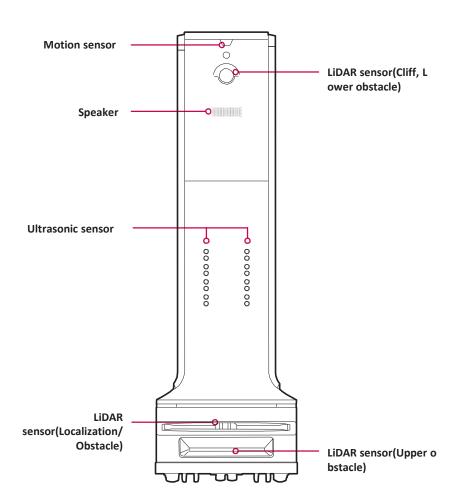
Components and Accessories

Check the supplied components and accessories.



Part Names and Descriptions

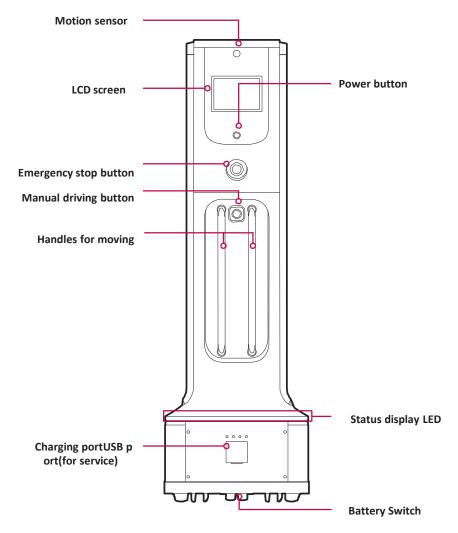
Main body front



Door sensor



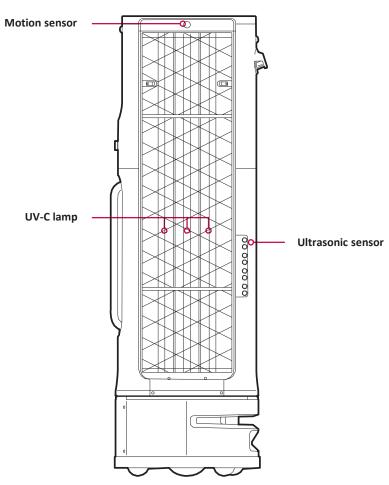
Main body rear







Main body sides (left/right)



* Product appearance is subject to change without prior notice depending on the manufacturer's circumstance.

About Emergency Stop

In an emergency situation, use the emergency stop button to stop the robot.

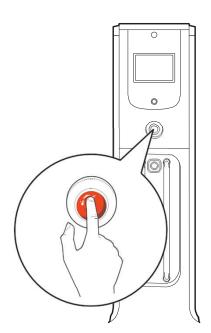
Emergency stop situations

In the following emergencies, immediately press the emergency stop button. Approach the robot doing your best to protect your eyes from the light and press the emergency stop but ton.

y When you want to immediately stop the robot's motion (UV Processing and driving) y When the robot's UV processing works in a place where there are people. y Wh en the robot starts UV processing in a place where a person is present y When the robot seems likely to damage persons or objects around

y When the robot malfunctions unexpectedly

Emergency stop

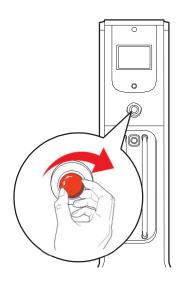


Press the emergency stop button above the handle.

_ ,Note

y Use this button only in emergency sit uations.

Clearing emergency stop



- 1 Turn or pull the emergency stop but ton on the handle to the right.
- 2 Press the "Activate Driving" button on the robot screen.

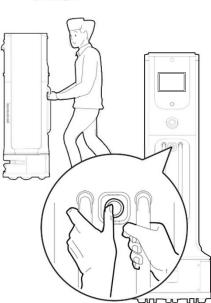
,Note

- y If the emergency stop button is pressed, traveling is disabled.
- y When the emergency stop button is pr essed, an emergency message is displ ayed on the screen.



Moving Robot Manually





For manual moving, mount the cover for s afety before moving.

Use the Aided Driving function to move a round for convenience.

 Attach the UV-C lamp protection co ver and fasten the buckles to secure the cover to the robot.

,Note

y The purpose of the UV-C lamp prote ction cover is to protect the lamp fr om external impact and to prevent the scattering of glass shards in cas e of breakage.

2 Press and hold the manual driving button with the power turned on. Then you will be able to move the robot manually. Keep the manual driving button pressed when moving, and remove your hand from the button to stop.

>CAUTION

- y When moving the robot manually, be careful not to let go of the brake relea se button.
- y Be careful not to overturn the robot w hile moving it manually.
- y The robot is tall, so be careful when m oving it.

Moving Robot Aided Driving

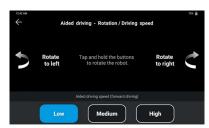


3 Press the manual driving button twice until you hear a "snap" sound twice to perform aided forward driving. Releas e the button to stop the robot and go back to the pr evious screen.

,Note

- y To press the manual driving button t wice, press it once, pause for a mom ent, and press it again.
- y A guide screen appears to inform you w hether the aided forward driving functi on works and what speed the robot is moving at.
- y The guide screen does not appear and the speed is set to 'Low' during mapp
- y For convenience during aided driving, t he standby screen does not appear.
- y Aided driving is not activated in the standby screen, password input scr een, system error screen, disinfecti on process, or the initialization scre

y If you are using the aided driving, mo ve carefully while looking at the for ward direction to avoid collision.



- 4 Press and release the manual driving bu tton once to display the Aided Rotation /Speed Setting screen.
 - ① Aided Rotation: Press the button fo r the direction you want to rotate to rot ate the robot round at the spot. Releas e the button to stop the rotation.
 - ② Speed Setting: Sets the speed for aided forward driving.

Low = 40cm/s (default) M edium = 55cm/s High = 65cm/s

,Note

y If there is no user input for 5 seconds or more, the Aided Rotation/Speed Settin g screen goes back to the previous scre en.

Charging

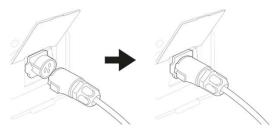
You can charge the battery manually when using the robot for the first time or when char ging is necessary while you are operating the robot.

The low battery message will appear according to the previously set battery level for charging (20%, 30%, 40%).

- 1 Move the robot to the desired position for charging. (See page 18.)
- 2 Connect the adapter and the power cord.
- 3 Open the terminal cover on the rear side of the robot.



4 Connect the adapter cable to the charging terminal.



5 Connect the power plug to an outlet.

,Note

- y Make sure to use the adapter provided with the robot. Using other adapters may lead to product failure and will void the product warranty.
- y If there are foreign substances on the charger terminal, the product may not be char ged normally. Clean the it with a soft cloth.
- y Charging time may vary depending on the condition of the battery.
- y If the battery is left uncharged for a long time, battery failure may occur.
- y Use the charger at 0°C 35°C (32°F 95°F).
- y Install and use the charger in a well-ventilated place.
- y Do not charge the robot in wet places.

Door sensor: Power on

When using the door sensor for the first time, turn the power on.



 Turn on: Long press the button for 3.6 sec, till the blue light flashes for a s econds (3 times), the device turns on.

Door sensor: Charging

You can charge the battery manually when using the sensor for the first time or when char ging is necessary while you are operating the sensor.

Red light being on means the battery is low and needs to be charged.



- 1 Take out the magnetic suction charging wire and plug in the adapter.
- Place the magnetic suction wire close to the bottom charging port, which will be automatically and mutually fixed, then g reen light is on for charging.
- 3 Until the green light is off, it is fully charged.
- 4 The battery charging current is about 65 mA, so if you want to charge multiple se nsors at once, consider the charger's current

Status LED

The LED colors tell you the status of the robot.

Normal operation

Robot Status	LED Color	LED Status	Condition for Clearance
On standby	Green	Stays on	When the robot statushas changed
UV processingin progress	Off	Off	When UV processing iscomplete
Charging	Green	Brightens and dims	When charging is complete
Low battery	Green	Blinks	When charging starts

Abnormal operation

Robot Status	LED Color	LED Status	Condition for Clearance
Stopped due to error, emergency stop, etc.	Red	Stays on	When the error is resolved
Detected person	Red	Blinks	When absence of persons is confirmed

Initial Setup

When you turn on the power of the robot for the first time or turn on the power after initia lization, the initial setting of the robot is performed..



1 After selecting the country, and click [Next].



2 Select a month with </> and select a date from the on-screen calendar. After setting the date, press [Next].



3 After setting the time, press [Next].

[AM/PM]

Choose between AM and PM.

[1 ~ 12] (Hour)

Select a hour from 1 to 12.

[00 ~ 59] (Minutes)

Select a minute from 00 to 59.

Reference

y Press [Previous] to move to the previous scr



4 After selecting a language, click [Next]. Appears on the screen in the selected language and speaks the instructions.

,Reference

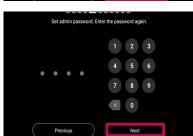
y Press [Previous] to move to the previous screen.



5 Enter the 4-digit password to set as the administrator password and press [Next].

,Reference

y Press [Previous] to move to the previous screen.



6 Re-enter the 4-digit password for confirmation and press [Next]. An administrator password is set.

,Reference

y Press [Previous] to move to the previous screen.



7 Enter the 4-digit password to set as the user password and press [Next].

,Reference

y Press [Previous] to move to the previous screen.



8 Re-enter the 4-digit password for confirmation and press [Next]. A user password is set.

,Reference

y Press [Previous] to move to the previous screen.



9 Please check our terms and conditions. After reading the terms and conditions, select Agree, then click [Next].



10 Please check the user license agreement.

After reviewing the user license
agreement, select Agree and click [Next].



11 After turning on the network, a list of available networks appears, select a network to connect to. (See page 30) After connecting to the network, click [Next].

,Reference

y Press [Skip] to go to the next without connecting to a network.

y You can browse the list of networks again or add them. (See page 30)



12 Enter the robot name and click [Next].

,Reference

y Press [Previous] to move to the previous screen.



13 The OTP number for robot registration appears on the mobile device. Enter the OTP number on the mobile device where the control app is installed. Press [Next].

,Reference

- y To move to the next without having to register your robot on a mobile device, then press the [Skip].
- y Press [Previous] to move to the previous screen.



14 Press [Complete].

The initial setup of the robot is complete.

Entering user settings mode



1 Press [;] (Settings) at the top right of the screen.

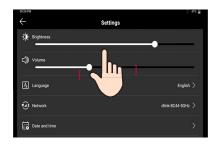
The Settings screen will appear.



2 Press the desired setting item on the screen.

A menu will appear for the item.

Setting brightness



You can set brightness of the LCD screen. Adjust the brightness control bar left and ri ght to set the LCD screen's brightness.

3 마 약 씨 개

Setting volume

You can set the volume of the robot's voice and notification sound.



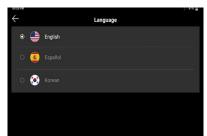
Adjust the volume control bar left and right to se t the volume.

Setting language

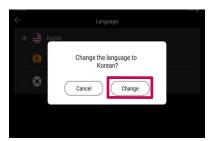
You can change the language for the display menus and messages.



1 Select [Language].



2 Select a desired language [Español] and [Korean].



3 When a pop-up appears asking for your confirmation, press [Change]. The display language will be reset ac cordingly.

,Note

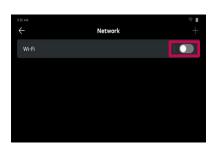
y The default language is English.

y If you do not want to apply the setting, pr ess [Cancel].

y Press [A] (Previous) to go back to the Sett ings menu.

Setting network

Make network settings to use the robot in linkage with the app. Select [Network] from the Settings menu. The Network window will appear.



Enabling or disabling network

You can enable or disable network.

When you enable network, a list of networks w ill appear.

>] Enable **Disable**

Selecting network



1 Enable network. A list of available networks will appear.



2 Select the network you want to connec to. $_{\mbox{\scriptsize t}}$





3 For a secured network, enter the netw password and press [Connect]. The robot will be connected to the will be connected to the selected network.



[Refreshing network list]

Press [O] (Refresh) to update the network

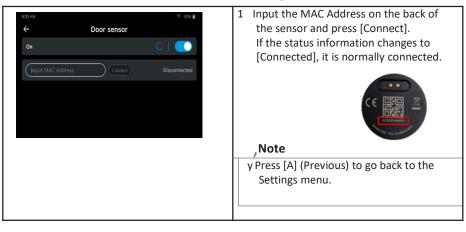


[Adding network]

To add a network, press [+] (Add).

Setting door sensor

To use the door sensor, select [Door sensor] in the Settings menu.



자 양 마 한

The Settings menu includes locked items that are available to the administrator only. To cha nge the administrator settings, enter Admin Settings as follows.



1 Select [Admin Settings]. The administrator password input window will appear.



2 Enter the 4-digit password.

제 양 교 한



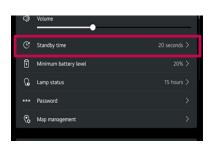
3 The Admin Settings menu will open.

,Note

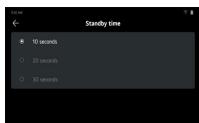
y Press [A] (Previous) to go back to the Settings menu.

Setting standby time

Before starting UV processing, set the standby time until the lamp is turned on so that the u ser can leave the working area.



1 Select [Standby Time] from the Admin Settings menu.



2 Select the desired standby time from [10 seconds], [20 seconds] and [30 seconds].

,Note

y Press [A] (Previous) to go back to the Settings menu. The change will be saved.

마 양 마 한

Setting battery level for battery status notifi cation

You can set the battery level to trigger the low battery notification when reached.



1 Select [Minimum battery level] from the Admin Settings menu.



Battery is low. charge the battery. Select the battery level at which to display the low battery notification. You can select from [20%], [30%] and [40%].

,Note

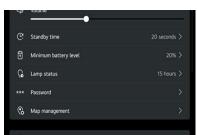
- y When the set battery level is reached, the low battery notification pop-up window will appear.
- y When linked with the APP, the lowbattery notification generated by the robot is also displayed in the APP.
- y If UV processing is in progress, the notification will be displayed after UV processing is complete.
- y Press [A] (Previous) to go back to the Settings menu. The change will be saved.

3

<u>수</u> 메 <u>수</u> 마 야

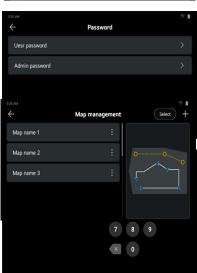
Setting password

You can set access passwords for users and administrators.

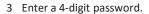


1 Select [Password] from the Admin Settings menu and press the set password.

Password setting options will appear.



2 Select [User Password] or [Admin Password] as desired.





4 Re-enter the 4-digit password to confirm. The password will be newly set.

[User password]

Required to enter the menu screen from the standby screen.

[Admin password]

Required to enter the admin mode to make various administrator settings.

3 마 양 한 한

Map Management (UV processing paths)

Adding map of robot's UV processing paths

You can add UV processing paths for a specific space such as banquet hall.



1 Select [Map Management] from [Admin Settings].



2 Press [+] (Add map). This will start creating a map of the space to be killed bacteria.





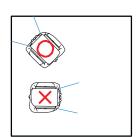
3 Enter the name of the map to create and press [Next].

,Note

y To cancel, press [Previous]. A window will appear asking if you want to cancel the process. Press [Yes] to cancel the process. Press [Cancel] to continue the process.







4 Manually move the robot around within the UV processing target space and scan the ent ire place with the robot so that it can register the layout and obstacles using its sensor. (See page 18.)

,Note

y You can use two fingers to pinch zoom-in and zoomout within the map area.

y When you create a map

y Put the robot on the corner facing the wall and start.

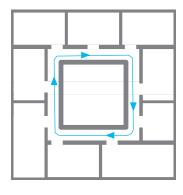
y Avoid transparent or reflecting objects (e.g., glass, full-body mirrors, etc.) 20 cm from the y floor.

y When creating a map of a large area, scan the map of the entire area and scan the detailed map..

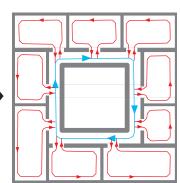
y Map creation can only be completed normally in an environment where walls or specific objects can be detected within a radius of 8m in the front and side of the y-robot.

If the map is not created properly, you can calibrate the map by moving 2m more after creating the map to the point where you started creating the map.

- A map can be created more accurately if it is created at the speed at which a person walks slowly (especially when changing directions).
- Driving may not be completed if there are obstacles in the path. Set the driving route in an area free of obstacles.











5 Set up a virtual wall on the scanned map to li mit the robot's movement within a certain r ange.

Touch spots on the map to set up the virtu al wall. Multiple virtual walls can be set.

,Note

y You can use the robot without setting up a vi rtual wall. If you do not want to set up a virt ual wall, press [Next].

[5 Undo]

Undo the spot for virtual wall if you have misplaced it or to return to the previous st ate.

[Redo]

Redo the undone change to recover the la test spots.

[Save]

Save the virtual wall set by the selected spots . If you input a new touch after saving the virt ual wall, it is identified as the next virtual wall

The Save button is only active when there ar e changes on the screen.

[Delete]

Delete the selected virtual wall. Use this opt ion to reset the virtual wall. The Delete butt on is activated only when a saved virtual wal I is selected.

6 Once you have set up the virtual wall, press [Next].

,Note

y To cancel, press [Previous]. A window will appear asking if you want to cancel the p rocess. Press [Yes] to cancel the process. Press [Cancel] to continue the process.



7 Set a path for UV processing by touching spot s on the map.

,Note

y The first touch point becomes the star ting position, and the Start icon is dis played. If you press Done after specif ying the path, the End icon is display ed.

[5 Undo]

Undo the spot for UV processing path if yo u have misplaced it or to return to the pre vious state.

[Redo]

Redo the undone change to recover the la test spots.

[Delete]

The entire path is deleted.

8 Once you have set the UV processing path, press [Done]. A map will be generated with the settings ap plied.

,Note

y To cancel, press [Previous]. A window will appear asking if you want to cancel the p rocess. Press [Yes] to cancel the process. Press [Cancel] to continue the process.

Renaming map

You can rename the map created.



1 On the [Map Management] screen, press [] (See More) for the desired map on the map list.

A menu list will appear.

2 Press [Change Name]. The Edit Map Name window will appear.







3 Enter a new name for the map and press []

This will rename the map and direct you back to the Map Management screen.

Editing map

You can edit the traveling paths and the virtual wall on a map created.



1 On the [Map Management] screen, press [] (See More) for the map to edit on the map li

A menu list will appear.



2 Press [Edit]. The map editing screen will appear.







- 3 You can delete, move or add spots for the virtual wall.
- To delete a spot, select the spot and press [Delete].
- -To add a spot, tap on the desired point.

Undo the spot for virtual wall if you have misplaced it or to return to the previous st

[Redo]

Redo the undone change to recover the la test spots.

Save the virtual wall set by the selected s pots.

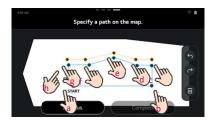
[Delete]

Delete the selected virtual wall. Use this o ption to reset the virtual wall.

4 Once you have set up the virtual wall, press [Next].

,Note

y To cancel, press [Previous]. A window will appear asking if you want to cancel the p rocess. Press [Yes] to cancel the process. Press [Cancel] to continue the process.



5 Set a path for UV processing by touching spot s on the map.

,Note

y The first spot becomes the starting po

[5 Undo]

Undo the spot for UV processing path if yo u have misplaced it or to return to the pre vious state.

[Redo]

Redo the undone change to recover the la test spots.

6 Once you have set the UV processing path, press [Done]. A map will be generated with the settings ap plied.

,Note

y To cancel, press [Previous]. A window will appear asking if you want to cancel the $\ensuremath{\mathsf{p}}$ rocess. Press [Yes] to cancel the process. Press [Cancel] to continue the process.

You can delete the maps created.

Deleting multiple maps

You can delete multiple maps at the same

1 Press [Select] on the [Map Management]

Check boxes will appear on the map list.



2 Select the maps to delete. Checkmarks will appear next to the selected maps.

,Note

y Press [All] to select the entire list.



3 Press [Delete]. A pop-up will appear for confirmation.

,Note

y To cancel, press [Cancel].



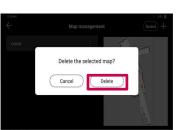
4 Press [Delete] on the pop-up window. The selected maps will disappear from the

,Note

y To cancel, press [Cancel].



마 야 한 한



Deleting one map

You can select and delete a desired map.





1 On the [Map Management] screen, press [] (See More) for the map to delete on the map list.

A menu list will appear.

2 Press [Delete]. A pop-up will appear for confirmation.

,Note

y To cancel, press [Cancel].

3 Press [Delete] on the pop-up window. The selected map will disappear from the list.

, Note

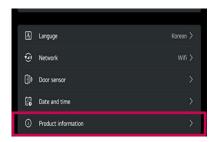
y To cancel, press [Cancel].

3

제 양 구 한

Viewing product information

You can view various types of information of the robot.



Select [Product Information] from the Admin Se ttings menu. The Product Information window will appear.

[Robot Information]

View the HW and SW information of the ro

[Legal Information]

View detailed legal information.

- Terms and Conditions
- Open Source License
- Software License Agreement

[Initialization]

Initializes the robot.

,Note

y To cancel, press [Cancel].

y Press [A] (Previous) to go back to the Sett ings menu.

3

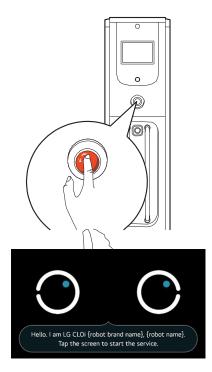
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UV processing

General UV processing along the wall

You can use this feature to kill bacteria in enclosed places(ex) room, meeting room). The rob ot operates the target space while detecting walls and obstacles.



- 1 Move the robot to the UV processing tar get space. (See page 17.)
- 2 The robot drives along the left wall. In ord er to recognize the starting position norma lly and not stop near the door when UV Pr ocessing is finished, place it at a distance of at least 1m from the door and 20~30cm close to the left wall.
- 3 Touch the screen on the robot. Enter the password, then an OTP number for registering the robot on your mobile device will appear.



4 Enter the OTP number on the mobile device where the control app is installed. Once the robot is registered on the mobile device, a screen will appear for you to set the UV processing target space.

,Note

y Press [Skip] to proceed to UV processing without registering the robot on the mobile device.





5 Enter a name for the target space and press [OK].

,Note

- y For the target space name, you can enter the room number, place name, etc.
- y Press [← (Previous) to move back to the previous screen.
- A warning about UV-C will appear. Check for presence of persons and obstacles on the floor within the UV processing target space and press [OK].

>Warning

y Since UV-C is harmful to the human body, you must check for presence of any persons or obstacles on the floor in

the UV processing target space. If there is any person or animal within the UV processing target space, move them out of the space before starting UV processing.

, Note

y Press (Previous) to move back to the previous screen.



7 Set the intensity of UV processing. You can select the UV processing intensity level from [Normal], [High].

[NORMAL]

It takes about 15 minutes for UV processing of a 25 square meter space.

[HIGH

UV processing ability is higher than NORMAL mode. It takes about 30 minutes for UV processing of a 25 square meter space.

,Note

y Press [(Previous) to move back to the previous screen.

8 Before starting UV processing, install the door sensor on the door handle and press [OK]. If the door sensor is turned off or not paired, the guidance screen is displayed as shown below.





9 Press [Start].

The UV processing-ready screen will appear.

The robot waits for the set amount of time to allow the user and all other persons to exit the target space before starting UV processing.

Preparing for UV processing Standby time



>Warning

- y UV processing started by entering a room n umber will take up to 30 minutes. If you have selected a mapped space for UV processing, UV processing will take u p to 2 hours. If the robot is not linked to a mobile device, never enter the UV pro cessing target space before the maximu m UV processing time has passed.
- y If the robot is connected to the APP, you ca n check the start time, room number, and UV strength in the APP as well.
- y UV processing can be stopped with the AP P during operating.

Note

- y You can adjust the standby time in the Se ttings menu. (See page 30.) The default value is 20 seconds.
- y Pausing standby will stop the countdown ti mer and initialize the standby time.
- y Press [Previous) to cancel the operation and move back to the previous screen.
- y If you need to stop UV processing due to an urgent reason and the robot is not linked to a mobile device, press [Stop] on t he screen. UV processing will stop. Press [C ancel] to close the pop-up.

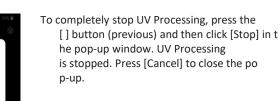






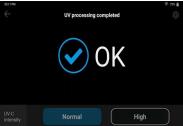
10 To stop UV Processing, press the emergenc y stop button, or press the pause button if it is not on the standby screen.







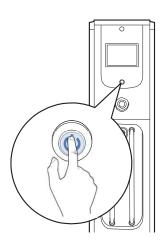
11 After UV processing is complete, click [OK].



12 To continue UV processing, move the robot to the next target space. To end UV processing, turn off the robot, a ttach and fasten the UV-C lamp protective covers and store the robot in a safe place.

UV processing mapped location

You can use this feature to disinfect mapped locations. The robot disinfects the paths designated on the map.



- 1 Move the robot to the UV processing tar get space. (See page 17.)
- 2 Remove the UV-C lamp protection covers fro m the robot. (See page 17.)
- 3 Turn on the robot.



4 Touch the screen on the robot.

An OTP number for registering the robot on your mobile device will appear.



5 Enter the OTP number on the mobile device where the control app is installed. Once the robot is registered on the mobile device, a s creen will appear for you to set the UV proc essing target space.

,Note

y Press [Skip] to proceed to UV processing without registering the robot on the mobile device.



6 Press [View the places with map]. A list of set maps will appear.

,Note

y Press [] (Previous) to move back to the previous screen.

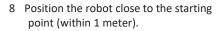




7 Select the map of the UV processing target space from the map list. The selected map will appear.

,Note

y Press [Previous) to move back to the previous screen.



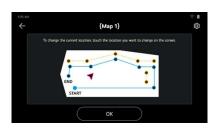
9 Once you position the robot, the spot is marked on the map. Select the robot's current position on the map. The robot's current position will be reset.

,Note

y Press [Previous) to move back to the previous screen.







10 Press [OK] and move away from the robot.

The robot will rotate to find its current position.

>Warning

y If the robot hits a person while it rotates, the person may be injured, and the robot

may be damaged. Stay away from the robot while it locates itself.



,Note

y If the robot fails to find the current location, position the robot to face a wall structure with peculiarity, and try again. (Avoid areas surrounded with glass sheets.)

11 A warning about UV-C will appear. Check for presence of persons and obstacles on the floor within the UV processing target space and press [OK].

>Warning

y UV-C 파장은 인체에 유해합니다. 사람이 나 동물이 진입하지 않도록 주의해 주 세요.

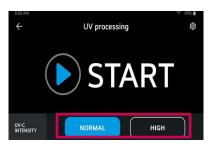


Note

y Press [Previous) to move back to the previous screen.



- 12 Before starting UV processing, install the door sensor on the door handle and press [OK].
- If the door sensor is turned off or not paired, the guidance screen is displayed as shown below.



13 Set the intensity of UV processing. You can select the UV processing intensity level from from [Normal] and [High].

[Normal]

It takes about 15 minutes for UV processing of a 25 square meter space.

[HIGH]

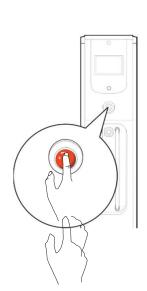
UV processing ability is higher than NORMAL mode. It takes about 30 minutes for UV processing of a 25 square meter space.

,Note

y Press [← (Previous) to move back to the pre vious screen.

Preparing for UV processing

Standby time



14 Press [Start].

The UV processing-ready screen will ap pear.

The robot waits for the set amount of ti me to allow the user and all other persons to exit the target space before sta rting UV processing.

>Warning

Y UV processing started by entering a room number will take up to 30 minutes.

If you have selected a mapped space for UV processing, UV processing will take up to 2 hours. If the robot is not linked to a mo bile device, never enter the UV processin g target space before the maximum UV p rocessing time has passed.

y If the robot is connected to the APP, you c an check the start time, room number, a nd UV strength in the APP as well.

y UV processing can be stopped with the AP P during operating.

,Note

y You can adjust the standby time in the Se ttings menu. (See page 30.)

y Pausing standby will stop the countdown ti mer and initialize the standby time.

y Press [(Previous) to cancel the operation and move back to the previous screen.

y If you need to stop UV processing due to an urgent reason and the robot is not linked to a mobile device, press [Stop] on t he screen. UV processing will stop. Press [C ancel] to close the pop-up.

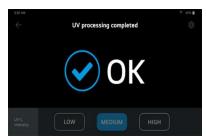
15 To stop UV Processing, press the emergency stop button, or press the pause button if it is not on the standby screen.



To completely stop UV Processing, press the
[] button (previous) and then click [Stop] in the
pop-up window. UV Processing
is stopped. Press [Cancel] to close the pop-up.



16 After UV processing is complete, click [OK].



17 To continue UV processing, move the robot to the next target space.

To end UV processing, turn off the robot, attach and fasten the UV-C lamp protective covers and store the robot in a safe place.

Opera

Using Control App

Installing app

Install the control app on your mobile device. The control app is provided by the seller wit h the robot.

For information on installing the app, please contact the seller.

Initial setup of app

When using the app for the first time, check the terms and conditions and register the robot in the app.

> 1 Log in to the control app using the ID and pass word given by the administrator.

,Note

y Only administrators can assign IDs and pa sswords.

2 A notice on the access rights will appear. Rea d the notice and press [OK].

,Note

y Depending on the OS of the mobile devic e, the access rights notice may or may n ot appear.

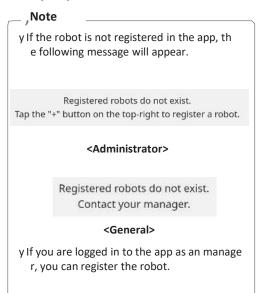
y For iOS, a message for allowing push notific ations will appear. You may choose to (or n ot to) receive push notifications.

iOS pop-up message for allowing push notifications





3 Accept the terms and conditions and pre ss [Next].





Registering robot in app

You can register and manage multiple robots on the control app.



1 Press [+]. The OTP input screen will appear.

,Note

y Only administrators can register robots.



2 Turn on the robot you want to register, enter the OTP displayed on the robot screen into the app and press [OK]. The robot will be registered in the app.



4 Operation

Deleting registered robot from app

You can delete robots from the list of robots registered in the control app.





1 Press [>] for the robot you want to delete from the robot list.The robot information screen will appear.

,Note

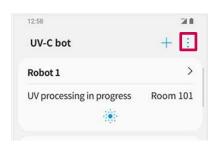
- y Only administrators can delete robots from the robot list.
- 2 Press [iii]. A pop-up will appear for confirmation.

3 Press [Delete] on the pop-up window. The selected robot will disappear from the list.

,Note

y To cancel, press [Cancel].





Adding app user

1 Press [:] (See More). A menu list will appear.

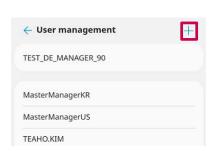
,Note

y Only administrators can manage app users.

2 Press [User Management]. The app user management screen will appear.



3 Press [+]. The user creation screen will appear.





4 Select a user type between [Manager] an d [User]. When you select the user type, an ID is automatically generated.

,Note

- y IDs are automatically created according to t he ID rule and the selected user type and c annot be modified.
- y An ID can contain English and special ch aracters as well as numbers.
- y ID rule: Store name _Taget_Manager or u ser_N (e.g. CES_AA_Manager_1, CES_ AA _User_2, ...)
- 5 Enter a password to use for the ge nerated ID.

Note

- y A password must contain at least 8 characte rs including at least three of the following t ypes: English uppercase letters (26), English lowercase letters (26), numbers (10) and sp ecial characters (32).
- 6 Press [Save]. The ID will be created according to the set tings.

,Note

y To cancel, press [Cancel].



Deleting app user

1 Press [;] (See more). A menu list will appear.

,Note

y Only administrators can manage app users.

Press [User Management].
 The app user management screen will appear.



3 Press the ID of the user you want to delete from the user ID list.



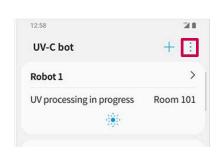
4 Press [Delete]. A pop-up will appear for confirmation.

,Note

y The ID currently using the robot cannot be deleted.

5 Press [Delete]. The ID will be deleted.





Editing user password

1 Press [] (See more). A menu list will appear.

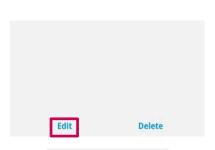
,Note

- y Only administrators can manage app users.
- 2 Press [User Management]. The app user management screen will appear.



3 Press the ID of which the password you want to change.





4 Press [Edit]. A pop-up will appear for confirmation.



5 Enter a new password.

,Note

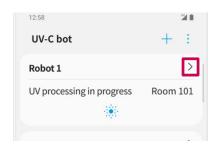
- y A password must contain at least 8 characters including at least three of the following types: English uppercase letters (26), English lowercase letters (26), numbers (10) and special characters (32)
- 6 Press [Save]. The password will be changed.

,Note

y To cancel, press [Cancel].

Viewing information of robots registered in app

You can view various types of information of the robots registered in the control app such as their versions, S/N, battery levels and lamp use times.

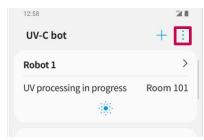


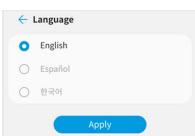
From the robot list, press [] For the desired ro bot to view its information.

The robot information screen will appear. You c an view various types of information.

,Note

y Only administrators can delete robots fr om the robot list.





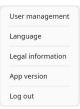




Using See More menu

You can use this menu to select the app lang uage, view legal information, check the app v ersion or log out.

Press [] (See More). A menu list will appear.



Note

y You can access [User Management] only if y ou are logged in as an administrator.

[Language]

Select the language for the app from [E nglish], [Espa \tilde{n} ol] and [Korean].

[Legal Information]

View the legal information.

[App Version]

View the app version. If an updated version i s available, you can upgrade the app.

[Log out]

Log out of the app.

Checking robot start time

You can check the start time for UV-C robot dis infection.

Checking the number of the room bei ng disinfected

You can check the number of the room that th e UV-C robot is disinfecting.

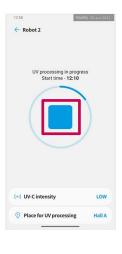
Checking the disinfection intensity

You can check the intensity of UV-C di sinfection.

You can see [Normal] or [High] as disinfection int ensity..

,Note

y You must use the control screen on the robo t's body to start / resume UV processing. Y ou cannot use the app for this.



Pausing UV processing

If you need to pause the robot during UV proc essing, press $\left[\blacksquare \right]$ (Pause). The robot will pause UV processing..



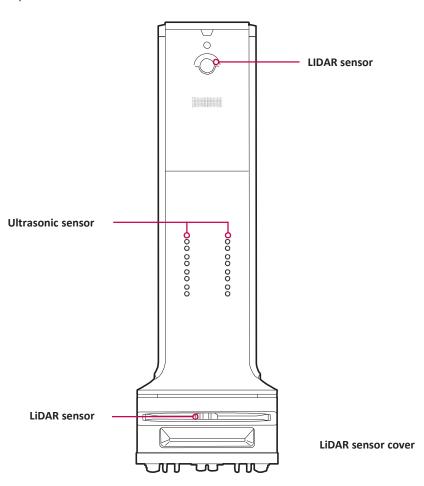
Cleaning Robot

If there are foreign matters on the robot's LCD screen, sensor or charging terminal, the robot may not operate properly.

Spray the cleaner and wipe the LCD screen, sensor or charging terminal with a dry cloth.

Where to clean

Main body front



When cleaning robot

Use a soft, dry cloth to clean the product. If the surface is too dirty, use a little detergent or a soft wet cloth. Do not use strong chemicals such as alcohol, benzene and thinner as they may cause the product surface to deteriorate.

Keeping robot surface clean

y Do not use volatile liquids such as pesticides.

y Wiping the product surface hard can damage the product.

v장시간 동안 플라스틱 제품이나 고무 등이 제품에 닿지 않게 보관해 주세요.

Storing Robot

When storing the robot, check the following.

y Check the storage space. Do not store the robot in the following places.

- Place with excessively high or low temperature or humidity
- Dusty place

y If you are storing the robot for a long time, charge the battery periodically (every 6 mon ths) to protect the battery.

y Attach and fasten the UV-C lamp protection covers before storing the robot.

y 장기 보관 시에는 배터리를 완전히 충전하고 배터리 스위치를 끈 후 보관하시고, 주기 적(6개월) 으로 충전해 주세요.

Maintenance

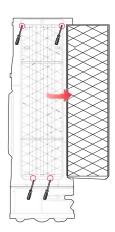
Replacing UV-C Lamp

The guaranteed use hours of the UV-C lamp is 4,000 hours.1

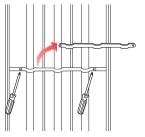
However, this is based on continuous use, and the actual life span of the lamp in the use envi ronment may be different. It is recommended to replace the lamp every 1 to 1.5 years to mai ntain the illumination level necessary to secure UV processing power.

Replace the UV-C lamp according to the replacement cycle or when an error occurs.

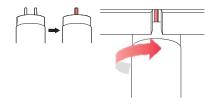
제품 규격에 명시된 램프(Philips TUV 36W/G36 T8) 로만 교체 바랍니다.



1 Remove the UV-C lamp protection net. Loos en the two fixing screws on each of the upp er and lower parts of the UV-C lamp protect

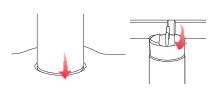


2 Remove the two fixing pins from the upper a nd lower parts of the UV-C lamp. Loosen th e screws on the left and right of the pins fixi ng the UV-C lamp.

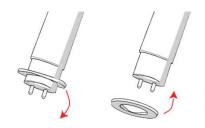


3 Turn the UV-C lamp to align the pins and the upper grooves.

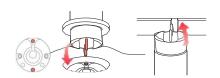
_____ 실사용 환경에 따라서 차이가 있을 수 있습 니다.



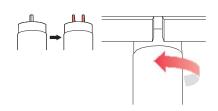
4 Press down on the lower part of the UV-C lamp, align the UV-C lamp pin with th e upper groove, and then remove it.



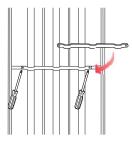
5 Remove the rubber ring and insert it into the UV-C lamp to be replaced.



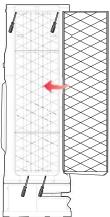
6 Fit a UV-C lamp pin into the groove on the lo wer connector and then the other one into t he groove on the upper part of the UV-C la mp.



7 Turn the UV-C lamp to fix it.



8 Fix the UV-C lamp using the two fixing pins on the upper and the lower parts. Tighten the pins with screws.



9 Attach the UV-C lamp protection net and fix it with screws.

소프트웨어 업데이트

최신 소프트웨어 배포 시 업데이트가 진행됩니다.

소프트웨어 업데이트는 아래와 같은 조건이 만족되었을 때 자동으로 진행됩니다.

- 1 Wi-Fi 연결이 필요합니다.
- 2 충전 중이고, 배터리 잔량이 30% 이상이어야 합니다.업데이트가 완료된 후에는 화면의 안내에 따라 로봇을 다시 시작해 주세요.

[주의]

- 업데이트 중에는 로봇을 끄거나 충전기를 분리하지 말아 주세요.

5

Emergency Situations and Measures







Situation & Measures

- y The robot's emergency stop button is pressed.
 - Turn the red emergency stop button toward RESET to release it.
 - Press the Activate Travel button on the robot's LCD screen.

- y The robot is unable to drive due to a problem in itself.
 - After moving the robot to a safe place according to the on-screen guide, turn off the robot's power and turn it on again after 10 minutes to check normal operation. If the problem persists, please contact the service center.





Situation & Measures

- y Unable to charge due to a problem with the battery
 - 1. When charging, disconnect the robot from the power cable first.
 - 2. If it's not a battery temperature issue, Turn off the battery switch, then turn it on again after 10 minutes.
 - 3. If the problem persists, contact customer service.



Status Title
Charger enor Check the charger for proper connection.

BASE force Proper operation is not available due to hattery faul

- y Charging failed due to a problem with the battery
 - 1. When charging, disconnect the robot from the power cable first.
 - 2. Turn off the battery switch, then turn it on again after 10 seconds.
 - 3. If the problem persists, contact customer service.

Emergency Message	Situation & Measures	
The previous version has been restored. Robot will restart soon. Update could not be completed. Contact the customer service center.	y Charging failed due to some other problem 1. When charging, disconnect the robot from the power cable first. 2. Turn off the power switch and turn it on after 10 seconds to see if it works normally. 3. If the problem persists, contact customer service.	
	y The robot's software update failed. - The previous version has been restored. Robot will restart soon	
	 If restoration is failed, Contact the customer service center. 	

Troubleshooting

Before reporting a malfunction, check the following.

Symptom	Cause & Solution		
If the product does	y Turn the device on and off again.		
not operate normally	y Check the battery level of this device. If the battery is discharged, charge it before use.		
If the power cannot be turned on	y Check the battery level of this device. If the battery is discharged, charge it before use.		
	y Check the power switch of the device. If the switch is off, turn it on.		
If the device cannot be charged	y Check the power cable of the charger. If the cable is not connect well, reconnect and start charging again.		
	y Check the connection and response of the charging terminal and recharge the robot manually.		
If robot does not travel at all	y Make sure the Emergency stop button is pressed. Release the Emergency stop button by turning right or pulling it, press the driving activation button on the screen, and then start driving again.		
	y Check if there are any obstacles around, and if there is any, remove all.		
If the robot travels abnormally	y Wipe off foreign matters on the Ultrasonic sensor, LiDAR.		
Robot was left without charging for a long time	y Charge it first and then turn it on. If the robot still does not turn on, please refer to the below guide.		
	1. Find the Battery Switch 2. Switch OFF 3. Wait for 5 sec. 4. Switch ON Button 5. Press Power Button		
If door sensor does not detect door open	y Turn the sensor on and off again.		
	y Check the battery level of the sensor. If the battery is discharged, charge it before use.		
If door sensor does not turned on	y Check the battery level of the sensor. If the battery is discharged, charge it before use.		
If pairing with door sensor is not possible	y Check the setting in the user settings mode and re-pairing again.		
If door sensor dose not charge	y Check the connection of charging cable with the sensor. If it is not connect well, reconnect and charging again.		
	y Check whether the charger is 5V USB Charger.		

Product Specifications

Robot

Item	Sp	pecifications
Model		LG CLOi UV-C Bot
Basic specifications	Dimensions (W x L x H)	51 x 53 x 161 cm
	Weight	75 kg
	Lamp	Philips TUV 36W/ G36 T8
	Lamp operating voltage	103 V
	Lamp operating current	0.44 A
	Lamp operating power	36 W
	Maximum speed	5 cm/s
	Operation voltage	DC 25 V
	Speaker output	< 6 W
Battery	Capacity	69Ah(MIN)
	Rated voltage	DC 25 V
	Continuous driving	About 6 hours
	Battery type	Rechargeable lithium battery
	Number of battery cells	56 (7S8P)
	Cell manufacturer	LG Chem
	Charging time	About 5 hours 30 minutes
	Charging method	Manual charging
Driving	Basic use	For indoors
environment	Floor material	Carpet, marble, wood, tile
	Maximum projection/(cliff) height for driving	2 cm/10 cm
	Illumination (Min - Max)	20 – 2000 lx
	Operation temperature (Min - Max)	0°C - 40°C (32°F - 104°F)
	Operating humidity (Max)	Relative humidity 85 %
Storage	Storage temperature (Min	-20 °C – 40 °C (-4 °F – 104 °F)
environment	- Max)	
	Storage humidity (Max)	Relative humidity 85 %

WARNING - RISK OF PERSONAL INJURY

FINS EQUIPMENT IS DESIGNED FOR USE WITH GERMICIOAL LAMPS OR UY SOURCES AND MUST BE INSTALLED IN COMPLIANCE WITH COMPETENT TECHNICAL DIRECTIONS TO PREVENT THE USER'S EYE AND BARE SKIN FROM EXPOSURE TO HARMFUL UY OR OPTICAL RADIATION DO NOT USE THIS EQUIPMENT IN A DIVELLING.

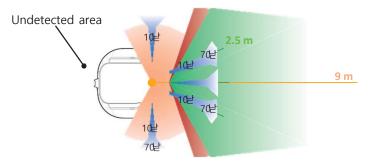


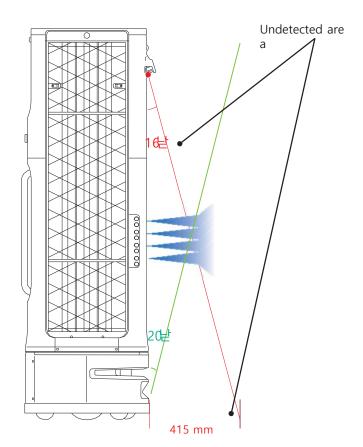
Exposure to UV-C (ultraviolet-C) can cause serious skin and eye damage. Do not expos e your skin to UV-C and never look towards the source of UV-C light.

During UV processing, please control the space so that people and animals cannot acces s it, and operate only when people and animals do not enter."

"Please use it by experienced workers who are fully aware of the risk of UV-C."

The robot ensures safety of operation by checking the surrounding with its sensor. However, the sensor has dead angles and undetectable ranges depending on the r obot's position. This could be a cause of collision or overturn.





8

LIMITED WARRANTY – USA LG CLOi UV-C Bot RDIIM10 ("Product")

ARBITRATION NOTICE: THIS LIMITED WARRANTY CONTAINS AN ARBITRATION PR OVISION THAT REQUIRES YOU AND LG ELECTRONICS ("LG") TO RESOLVE DISPUTES BY BINDING ARBITRATION INSTEAD

OF IN COURT, UNLESS YOU CHOOSE TO OPT OUT. IN ARBITRATION, CLASS ACTI ONS AND JURY TRIALS ARE NOT PERMITTED. PLEASE SEE THE SECTION TITLED " PROCEDURE FOR RESOLVING DISPUTES" BELOW.

Should your LG Product fail due to a defect in materials or workmanship under no rmal and proper use, during the warranty period set forth below, LG will, at its sol e discretion, repair or replace the Product. This limited warranty is valid only to the original retail purchaser of the Product and applies only when lawfully purchase d and used within the United States including U.S. Territories.

WARRANTY PERIOD	How Service is handled
One (1) year parts* and labor costs from the date of the original retail purchase.	Please call (888) 865-3026 for instructions on obtaining Warranty Service for your Product.
*Internal and functional parts only.	Retain a copy of your proof of purchase to validate your warranty.
	Have your model and serial number available.

y Replacement Products and parts are warranted for the remaining portion of the origina I warranty period or ninety (90) days, whichever is greater.

y Any replaced Product and/or parts will be the property of LG.

EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THE PRODUCT IS LIMIT ED IN DURATION TO THE DURATION OF THE ABOVE LIMITED WARRANTY. UNDER NO CIR CUMSTANCES SHALL LG OR ITS

U.S. DISTRIBUTORS/DEALERS BE LIABLE FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL, OR PUNITIVE DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST GOOD WILL, L OST REVENUES OR PROFITS, WORK STOPPAGE, IMPAIRMENT OF OTHER GOODS, COST OF REMOVAL AND REINSTALLATION OF THE PRODUCT, LOSS OF USE, OR ANY OTHER DAMAG ES WHETHER BASED IN CONTRACT, TORT, OR OTHERWISE. LG'S TOTAL LIABILITY, IF ANY, S HALL NOT EXCEED THE PURCHASE PRICE PAID BY YOU FOR THE PRODUCT.

y Replacement Products and parts may be new, reconditioned, refurbished, or other wise factory remanufactured or authorized.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSE QUENTIAL DAMAGES OR LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE EXCLUSIONS OR LIMITATIONS MAY NOT APPLY TO YOU. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS THAT V ARY FROM STATE TO STATE.

THIS LIMITED WARRANTY DOES NOT COVER:

- y Service trips to deliver, pick up, install, educate how to operate, correct wiring, or corr ect unauthorized repairs. Costs and expenses associated with removal and reinstallati on of your Product for repairs.
- y Damage or failure of the Product to perform during power failures and interrupted or inad equate electrical service.
- y Damage or failure of the Product resulting from operating the product in a corrosive atmos phere, or abnormal conditions where the temperature or humidity is not adequately controlled
- y Damage or failure of the Product caused by accidents, pests and vermin, lightning, wi nd, fire, floods, acts of nature, or any other causes beyond the control of LG.
- y Damage or failure of the Product caused by unauthorized modification or alteration to Pr oduct, incorporation into any other product or system component, including "rooting" or other modifications to control the behavior of Product or its operating system.
- y Damage or failure of the Product caused by incorrect electrical current or voltage (including power surge), power failures, interruptions or inadequate electrical service, including incorrect or insufficient AC supply.
- y Damage or failure of the Product caused by transportation and handling, including scratc hes, dents, chips, and/or other damage to the finish of the Product, unless such damage is reported within one (1) week of delivery (Call: 1-888-865-3026).
- y Damage or failure resulting from misuse, abuse, improper installation, improper repair, or i mproper maintenance. Improper repair includes use of parts not authorized by LG. Imprope r installation or maintenance includes installation or maintenance contrary to the Product o wner's manual.
- y Damage or failure of your Product caused by the use of detergents, cleaners, chemicals o r tools other than those recommended in instructions supplied with this Product.
- y Damage or failure of the Product arising from use other than the normal and proper use as specified in the Owner's Manual.
- y Increases in utility costs and additional utility expenses.
- y Refurbished Product or any Product sold "As Is", "Where Is", "With all Faults", or similar disclaimer.
- y Products with original serial numbers that have been removed, altered, or cannot be readily determined.
- y Damage or missing items to any display, open box, or discounted Product.
- y Any noises associated with normal operation.
- y Any consumable parts or accessories.
- y Minor imperfections that do not materially alter or affect functionality.

The cost of repair or replacement in these excluded circumstances shall be borne by consumer.

TO OBTAIN WARRANTY SERVICE AND ADDITIONAL INFORMATION:

Call 888-865-3026 and select the appropriate option from the menu, or visit our website at https://www.lg.com/us/business

Or by mail: LG Electronics Alabama, Inc. Attn: B2B Support P.O. Box 240007, 201 James Record Road, Huntsville, AL 35824.

PROCEDURE FOR RESOLVING DISPUTES:

ALL DISPUTES BETWEEN YOU AND LG ARISING OUT OF OR RELATING IN ANY WA Y TO THIS LIMITED WARRANTY OR THE PRODUCT SHALL BE RESOLVED EXCLUSIV ELY THROUGH BINDING ARBITRATION, AND NOT IN A COURT OF GENERAL JURIS DICTION. BINDING ARBITRATION MEANS THAT YOU AND LG ARE EACH WAIVING THE RIGHT TO A JURY TRIAL AND TO BRING OR PARTICIPATE IN A CLASS ACTION

Definitions. For the purposes of this section, references to "LG" mean LG Electronics U.S.A., Inc., its parents, subsidiaries and affiliates, and each of their officers, director s, employees, agents, beneficiaries, predecessors in interest, successors, assigns and suppliers; references to "dispute" or "claim" shall include any dispute, claim or contr oversy of any kind whatsoever (whether based in contract, tort, statute, regulation, ordinance, fraud, misrepresentation or any other legal or equitable theory) arising o ut of or relating in any way to the sale, condition or performance of the product or this Limited Warranty.

Notice of Dispute. In the event you intend to commence an arbitration proceeding, vou must first notify LG in writing at least 30 days in advance of initiating the arbit ration by sending a letter to LG at LG Electronics U.S.A., Inc. Attn: Legal Departme nt- Arbitration 111 Sylvan Ave, Englewood Cliffs 07632. You and LG agree to enga ge in good faith discussions in an attempt to amicably resolve your claim. The noti ce must provide your name, address, and telephone number; identify the product that is the subject of the claim; and describe the nature of the claim and the relief being sought. If you and LG are unable to resolve the dispute within 30 days, eith er party may proceed to file a claim for arbitration.

Agreement to Binding Arbitration and Class Action Waiver. Upon failure to resolve the d ispute during the 30 day period after sending written notice to LG, you and LG agr ee to resolve any claims between us only by binding arbitration on an individual b asis, unless you opt out as provided below. Any dispute between you and LG shall not be combined or consolidated with a dispute involving any other person's or en tity's product or claim. More specifically, without limitation of the foregoing, any di spute between you and LG shall not under any circumstances proceed as part of a class or representative action. Instead of arbitration, either party may bring an indi vidual action in small claims court, but that small claims court action may not be b rought on a class or representative basis.

Arbitration Rules and Procedures. To begin arbitration of a claim, either you or LG m ust make a written demand for arbitration. The arbitration will be administered by

American Arbitration Association ("AAA") and will be conducted before a single arbi trator under the AAA's Consumer Arbitration Rules that are in effect at the time the arbitration is initiated (referred to as the "AAA Rules") and under the procedures se t forth in this section. The AAA Rules are available online at www.adr.org/consumer. Send a copy of your written demand for arbitration, as well as a copy of this provisi on, to the AAA in the manner described in the AAA Rules. You must also send a co py of your written demand to LG at LG Electronics, USA, Inc. Attn: Legal Departmen t- Arbitration 111 Sylvan Avenue Englewood Cliffs, NJ 07632. If there is a conflict b etween the AAA Rules and the rules set forth in this section, the rules set forth in t his section will govern.

This arbitration provision is governed by the Federal Arbitration Act. Judgment may be entered on the arbitrator's award in any court of competent jurisdiction. All issues are for the arbitrator to decide, except that issues relating to the scop e and enforceability of the arbitration provision and to the arbitrability of the di spute are for the court to decide. The arbitrator is bound by the terms of this pr ovision.

Governing Law. The law of the state of your residence shall govern this Limited War ranty and any disputes between us except to the extent that such law is preempte d by or inconsistent with applicable federal law.

Fees/Costs. You do not need to pay any fee to begin an arbitration. Upon receipt of your written demand for arbitration, LG will promptly pay all arbitration filing f ees to the AAA unless you seek more than \$25,000 in damages, in which case th e payment of these fees will be governed by the AAA Rules. Except as otherwise provided for herein, LG will pay all AAA filing, administration and arbitrator fees f or any arbitration initiated in accordance with the AAA Rules and this arbitration provision. If you prevail in the arbitration, LG will pay your attorneys' fees and ex penses as long as they are reasonable, by considering factors including, but not I imited to, the purchase amount and claim amount. Notwithstanding the foregoin g, if applicable law allows for an award of reasonable attorneys' fees and expense s, an arbitrator can award them to the same

extent that a court would. If the arbitrator finds either the substance of your claim or the relief sought in the demand is frivolous or brought for an improper purpose (as measured by the standards set forth in Federal Rule of Civil Procedure 11(b)), th en the payment of all arbitration fees will be governed by the AAA Rules. In such a situation, you agree to reimburse LG for all monies previously disbursed by it that a re otherwise your obligation to pay under the AAA Rules. Except as otherwise provided for, LG waives any rights it may have to seek attorneys' fees and expenses from you if LG prevails in the arbitration.

Hearings and Location. If your claim is for \$25,000 or less, you may choose to have t he arbitration conducted solely on the basis of (1) documents submitted to the arbitrator.

(2) through a telephonic hearing, or (3) by an in-person hearing as established by the AAA Rules. If your claim exceeds \$25,000, the right to a hearing will be det ermined by the AAA Rules. Any in-person arbitration hearings will be held at a location within the federal judicial district in which you reside unless we both agree to another location or we agree to a telephonic arbitration.

Opt Out. You may opt out of this dispute resolution procedure. If you opt out, nei ther you nor LG can require the other to participate in an arbitration proceeding. To opt out, you must send notice to LG no later than 30 calendar days from the date of the first consumer purchaser's purchase of the product by either: (i) send ing an e-mail to optout@lge.com, with the subject line: "Arbitration Opt Out" or (ii) calling 1-833-660- 0245. You must include in the opt out e-mail or provide by telephone: (a) your name and address; (b) the date on which the product was purchased; (c) the product model

name or model number; and (d) the serial number (the serial number can be foun d (i) on the product; or (ii) online by accessing https://www.lg.com/ us/support/rep air-service/ schedule-repair continued and clicking on "Find My Model & Serial Number).

You may only opt out of the dispute resolution procedure in the manner described above (that is, by e-mail or telephone); no other form of notice will be effective to opt out of this dispute resolution procedure. Opting out of this dispute resolution procedure will not affect the coverage of the Limited Warranty in any way, and you will continue to enjoy the full benefits of the Limited Warranty. If you keep this product and do not opt out, then you accept all terms and conditions of the arbitration provision described above..

FCC NOTICE

Federal Communications Commission (FCC) Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Caution: Any changes or modifications in construction of this device are not expressly approved by the party responsible for compliance could void the user's authority to operate the 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.

Any changes or modifications in construction of this device which are not expressly approv ed by the party responsible for compliance could void theuser's authority to operate the e quipment.

FCC Radio Frequecy Interference Requirements

High power radars are allocated as primary users of the 5.25 to 5.35GHz and 5.6 5 to 5.85GHz bands. These radar stations can cause interference with and/or da mage this device. This device cannot be co-located with any other transmitter.

FCC RF Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontr olled environment. This transmitter must not be co-located or operating in conjunct ion with any other antenna or transmitter.

This equipment should be installed and with minimum distance 20 cm (7.8 inches) b etween the antenna & your body. Users must follow the specific operating instructi ons for satisfying RF exposure compliance.

Supplier's Declaration of Conformity

F-mail

Trade Name Responsible Party Address

LG LG Electronics USA, Inc. 111 Sylvan Avenue, North Building, Englewood Cliffs, NJ 07632 Ig.environmental@Ige.com

Disposal of the old appliance



- This crossed-out wheeled bin symbol indicates that waste electrical and electonic produ cts(WEEE) should be disposed of separately from the municipal waste stream.
- Old electrical products can contain hazardouse substances so correct disposal of your
 old appliance will help prevent potential negative consequences for the
 environment and human health. Your old appliance may contain reusable parts that could
 be used to repair other products, and other valuable materials that can be recycled to con
 serve limited resources.
- You can take your appliance either to the shop where you purchased the product, or con tact your local government waste office for details of your nearest authorised WEEE coll ection point. For the most up to date information for your country please see www.lg.co m/global/recycling.

Disposal of the UV-C Lamp

The EPA recommends that lamps that contain mercury go to a local recycling cent er and dispose of them. Please check the state's disposal requirements for mercury -containing lamps at the following site and dispose of them.

<u>EPA Recommendations and State Regulations :https://www.epa.gov/cfl/recycling-and-</u> disposal-cfls-and- other-bulbs-contain-mercury

FDA Disclaimer

- LGE's robot is not intended to process medical devices and medical equi pment surfaces.
- LGE's robot is a self-contained, open chamber UV radiation disinfection device that is intended to be used for whole room disinfection in a healthcare environ ment

Open Source Software Notice Information

To obtain the source code under GPL, LGPL, MPL, and other open source licenses, that is contained in this product, please visit http://opensource.lge.com.

In addition to the source code, all referred license terms, warranty disclaime rs and copyright notices are available for download.

LG Electronics will also provide open source code to you on CD-ROM for a charge covering the cost of performing such distribution (such as the cost of media, shipp ing, and handling) upon email request to opensource@lge.com. This offer is valid for a period of three years after our last shipment of this product. This offer is valid to anyone in receipt of this information.

Laser Safety Statement

FDA Notice

Complies with 21 CFR 1040.10 and 1040.11 except for conformance with IEC 6082 5-1 Ed. 3., as described in Laser Notice No. 56, dated May 8, 2019.Caution!This product employs a laser system. To ensure proper use of this product, please read this owner's manual carefully and retain for future reference. Should the unit require maintenance, contact a LG Authorized Service Center. Use of controls, adjustments, or the performance of procedures other than those specified herein may result in hazardous radiation exposure. To prevent direct exposure to laser beam, do not try to open the enclosureor make direct contact with the laser.



CLASS 1 LASER PRODUCT
KLASSE 1 LASER PRODUKT
LUOKAN 1 LASER LAITE
KLASS 1 LASER APPARAT
CLASSE 1 PRODUIT LASER

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