



DEEBOT **N20** PRO PLUS
DEEBOT **N20** PLUS
Instruction Manual

For the Instruction Manual in further languages, visit: <https://www.ecovacs.com>.

Important Safety Instructions

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical Appliance, basic precautions should always be followed, including the following:

READ ALL INSTRUCTIONS BEFORE USING THIS APPLIANCE SAVE THESE INSTRUCTIONS

1. This Appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the Appliance in a safe way and understand the hazards involved. Children shall not play with the Appliance. Cleaning and user maintenance shall not be made by children without supervision.
2. Clear the area to be cleaned. Remove power cords and small objects from the floor that could entangle the Appliance. Tuck rug fringe under the rug base, and lift items such as curtains and tablecloths off the floor.
3. If there is a drop off in the cleaning area due to a step or stairs, you should operate the Appliance to ensure that it can detect the step without falling over the edge. It may become necessary to place a physical barrier at the edge to keep the unit from falling. Make sure the physical barrier is not a trip hazard.
4. Only use as described in this manual. Only use attachments recommended or sold by the manufacturer.
5. Please make sure your power supply source voltage matches the power voltage marked on the Auto-Empty Station.
6. For INDOOR household use ONLY. Do not use the Appliance in outdoor, commercial or industrial environments.
7. Use only the original rechargeable battery and Auto-Empty Station provided with the Appliance from the manufacturer. Non-rechargeable batteries are prohibited. For battery information, please refer to Specifications section.
8. Do not use without dust bin and/or filters in place.
9. Do not operate the Appliance in an area where there are lit candles or fragile objects.
10. Do not use in extremely hot or cold environments (below -5°C/23°F or above 40°C/104°F).
11. Keep hair, loose clothing, fingers, and all parts of body away from any openings and moving parts.
12. Do not operate the Appliance in a room where an infant or child is sleeping.
13. Do not use Appliance on wet surfaces or surfaces with standing water.
14. Do not allow the Appliance to pick up large objects like stones, large pieces of paper or any item that may clog the Appliance.
15. Do not use Appliance to pick up flammable or combustible materials such as gasoline, printer or copier toner, or use in areas where they may be present.

16. Do not use Appliance to pick up anything that is burning or smoking, such as cigarettes, matches, hot ashes, or anything that could cause a fire.
17. Do not put objects into the suction intake. Do not use if the suction intake is blocked. Keep the intake clear of dust, lint, hair, or anything that may reduce air flow.
18. Take care not to damage the power cord. Do not pull on or carry the Appliance or Auto-Empty Station by the power cord, use the power cord as a handle, close a door on the power cord, or pull power cord around sharp edges or corners. Do not run Appliance over the power cord. Keep power cord away from hot surfaces.
19. If the power cord is damaged, it must be replaced by the manufacturer or its service agent in order to avoid a hazard.
20. Do not use with a damaged power cord or receptacle. Do not use the Appliance or Auto-Empty Station if it is not working properly, has been dropped, damaged, left outdoors, or come in contact with water. It must be repaired by the manufacturer or its service agent in order to avoid a hazard.
21. Do not use with a damaged power cord or receptacle. Do not use the Appliance or Auto-Empty Station if it is not working properly, has been dropped, damaged, left outdoors, or come in contact with water. It must be repaired by the manufacturer or its service agent in order to avoid a hazard.
22. Turn OFF the power switch before cleaning or maintaining the Appliance.
23. The plug must be removed from the receptacle before cleaning or maintaining the Auto-Empty Station.
24. Remove the Appliance from the Auto-Empty Station, and turn OFF the power switch to the Appliance before removing the battery for disposal of the Appliance.
25. The battery must be removed and discarded according to local laws and regulations before disposal of the Appliance.
26. Please dispose of used batteries according to local laws and regulations.
27. Do not incinerate the Appliance even if it is severely damaged. The batteries can explode in a fire.
28. When not using the Auto-Empty Station for a long period of time, please unplug it.
29. The Appliance must be used in accordance with the directions in this Instruction Manual. ECOVACS ROBOTICS cannot be held liable or responsible for any damages or injuries caused by improper use.
30. The robot contains batteries that are only replaceable by skilled persons. To replace the robot's battery, please contact Customer Service.
31. If the robot will not be used for a long time, power OFF the robot for storage and unplug the Auto-Empty Station.
- 32. WARNING:** For the purposes of recharging the battery, only use the detachable supply unit CH2403 provided with the Appliance.

Device Update








Typically, some devices are updated bi-monthly, but not always so specific.

Some devices, especially those that went on sale more than three years ago, will only be updated if a critical vulnerability is found and fixed.

To satisfy RF exposure requirements, a separation distance of 20 cm or more should be maintained between this device and persons during device operation.

To ensure compliance, operations at closer than this distance is not recommended. The antenna used for this transmitter must not be co-located in conjunction with any other antenna or transmitter.

Ensure the robot is always connected to a network, for smart features to function properly.

	Class II
	Short-circuit-proof safety isolating transformer
	Switch mode power supply
	For indoor use only
	Direct current
	Alternating current
	Read all instructions before using (this appliance)

For EU Countries

For EU Declaration of Conformity information, visit <https://www.ecovacs.com/global/compliance>



Correct Disposal of this Product

This marking indicates that this product should not be disposed of with other household waste throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To recycle your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can safely recycle this product.

European Union Compliance Statement Information on Disposal for Users of Waste Electrical & Electronic Equipment



This symbol on the product or on its packaging indicates that used electrical and electronic products should not be mixed with unsorted municipal waste.

For proper treatment, it is your responsibility to dispose of your waste equipment by arranging to return it to designated collection points.

Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling.

To return your used device, please use the return and collection systems or contact the retailer where the product was purchased, which is free of charge, please contact your local authority for further details of your nearest designated collection point.

Penalties may be applicable for incorrect disposal of this waste, in accordance with your national legislation.

Restriction of the use of certain hazardous substances (RoHS) Directive

Ecovacs Home Service Robotics Co., Ltd. hereby declares the whole product including parts (cables, cords, and so on) meets the requirements of RoHS Directive 2011/65/EU and amendment Commission Delegated Directive (EU) 2015/863 on the restriction of the use of certain hazardous substances in electrical and electronic equipment ("RoHS recast" or "RoHS 2.0").

Radio Equipment Directive

Ecovacs Home Service Robotics Co., Ltd. hereby declares that the product listed in this section comply with the essential requirements and other relevant provisions of the Radio Equipment Directive 2014/53/EU.

Europe Authorised Representative:

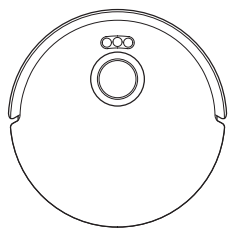


ECOVACS Europe GmbH
Holzstrasse 2 | D-40221 Düsseldorf | Germany

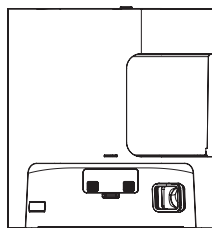
Ecovacs Home Service Robotics Co., Ltd. hereby declares that the product comply with the essential requirements and other relevant provisions of the RoHS Directive 2011/65/EU and amendment Commission Delegated Directive (EU) 2015/863, the Radio Equipment Directive 2014/53/EU.

The declaration of conformity can be viewed at the following address: <https://www.ecovacs.com/global/compliance>.

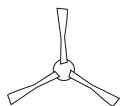
PACKAGE CONTENTS



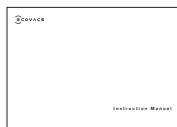
Robot



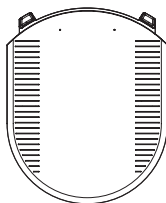
Auto-Empty Station



Side Brush



Instruction Manual



Base

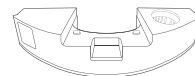
OZMO Pro 2.0 Vibrating Mopping System and Vacuum Module (DKX55)



OZMO Pro 2.0 Vibrating
Mopping System

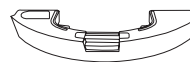


Washable
Mopping Pad

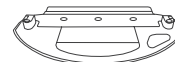


Vacuum Module
(pre-installed)

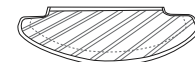
Water Tank and Mopping Pad Module (DKX56)



Reservoir
(pre-installed)



Mopping Pad Plate

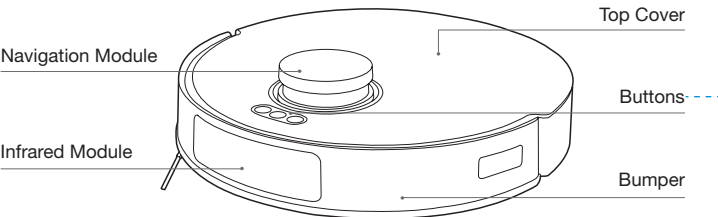


Washable
Mopping Pad

Note: Figures and illustrations are for reference only and may differ from actual product appearance. Product design and specifications are subject to changes without notice.

PRODUCT DIAGRAM

Robot

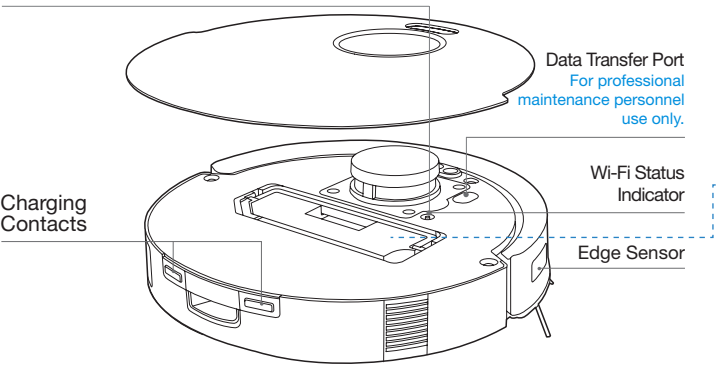


Buttons

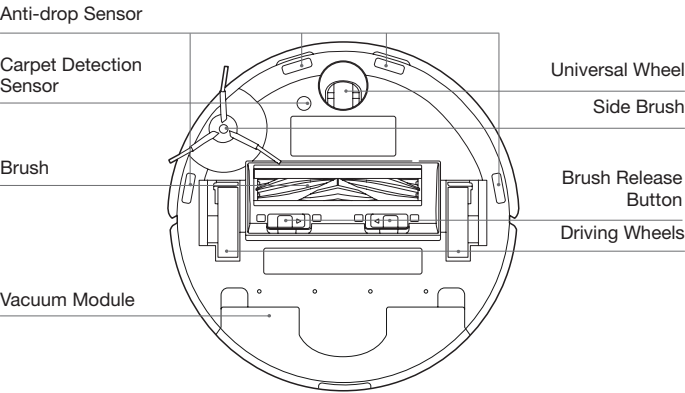
- Short Press: Return to charge
- Short Press: Start/Pause/Continue Long Press: Power on/off
- Short Press: Start/End Spot Clean Long Press: Child Lock

RESET Button

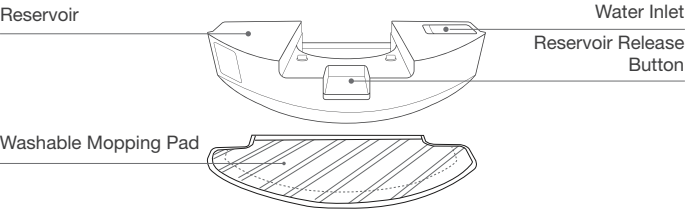
Connect APP: Short press RESET button and follow voice prompts to connect to the App.
Restore to default settings: Press and hold RESET Button for 5 s. After you hear the voice prompt, the startup music will be played and the robot will be restored to default settings.



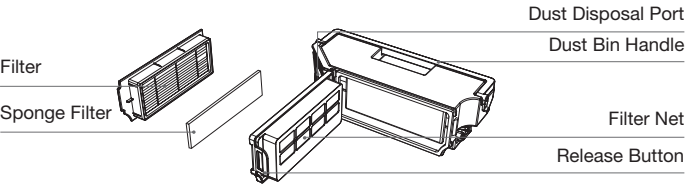
Bottom View (DKX55)



OZMO Pro 2.0 Vibrating Mopping System



Dust Bin



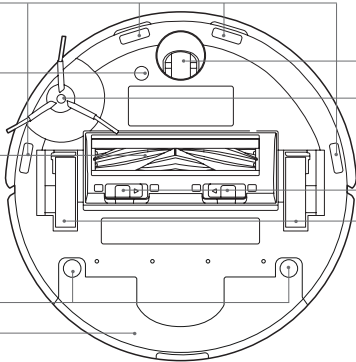
Bottom View (DKX56)

Anti-drop Sensor

Carpet Detection
Sensor

Brush

Mounting Slots for
Mopping Pad Plate
Reservoir



Universal Wheel

Side Brush

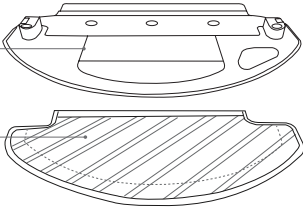
Brush Release
Button

Driving Wheels

Mopping Pad Module

Mopping Pad Plate

Washable Mopping Pad



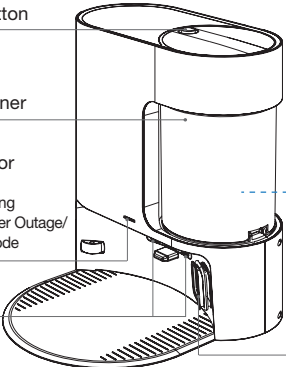
Auto-Empty Station

Container
Release Button

Dust Container

LED Indicator
Solid White:
Standby/Running
Goes out: Power Outage/
Deep Sleep Mode

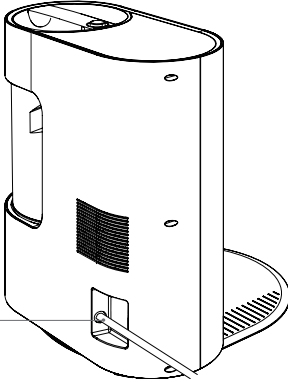
Charging
Contacts



Dust Release
Toggle

Auto-Empty Inlet

Power Cord

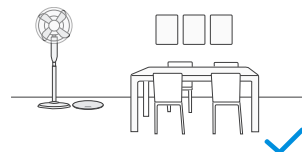


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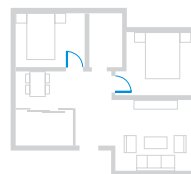
SENSORS

Name	Functional Description
Navigation Module	By utilizing the principle of triangulation, which involves emitting and receiving laser beams reflected by surrounding objects, precise distance measurement information between the DEEBOT and nearby objects can be calculated through algorithms. When the DEEBOT moves within a certain environment, the positions of surrounding objects are determined to create a spatial map of the DEEBOT's surroundings. The measurement range is 0.8 m.
Infrared Module	Use line laser to scan objects and capture images with a monocular camera, then generate the three-dimensional coordinates of the object through image algorithms, thus identify the spatial size of the object. The measurement range is approx. 0.35 m.
Anti-drop Sensor	With infrared distance measurement, the infrared sensor can detect the distance between the bottom of DEEBOT and ground. DEEBOT will not move forward when there are stairs in front or the identified distance exceeds the preset threshold, realizing the Anti-drop. The trigger distance is approx. 60 mm.
Carpet Detection Sensor	The ultrasound probe can emit ultrasonic waves with a frequency of 300KHZ. The energy of the ultrasonic waves is absorbed by the carpet. If the reflected energy is below the threshold, the DEEBOT recognizes the presence of the carpet. According to ECOVACS lab tests, currently, over 50 types of carpets available on the market can be identified.
Edge Sensor	With infrared distance measurement, DEEBOT can detect the distance between itself and objects on its right side. When there is a wall or obstacle on the right side, DEEBOT will perform edge cleaning to avoid missing spots or collisions.
Anti-collision Sensor	When the transmitted signal is blocked by an obstacle, the signal receiver will not be able to receive the signal. With this principle, the robot will avoid obstacles when colliding with them.

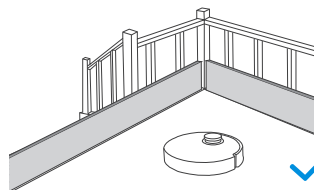
NOTES BEFORE CLEANING



Tidy up the area to be cleaned by putting furniture, such as chairs, in their proper place.



During the first use, make sure each room door is open to help DEEBOT fully explore your house.



It may be necessary to place a physical barrier at the edge of a drop to stop the unit from falling over the edge.



Put away objects including cables, cloths and slippers, etc. on the floor to improve the cleaning efficiency.



Before using the product on a rug with tasseled edges, please fold the rug edges under.



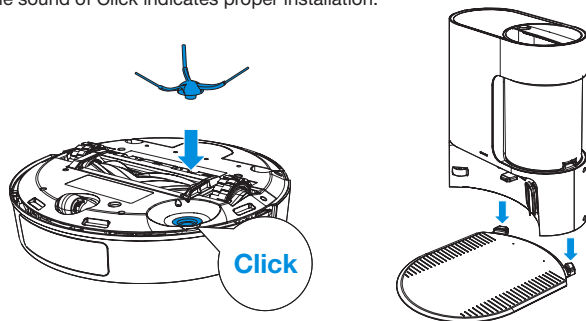
Please do not stand in narrow spaces, such as hallways, and make sure not to block sensors.

QUICK START

Please remove all protective materials before use.

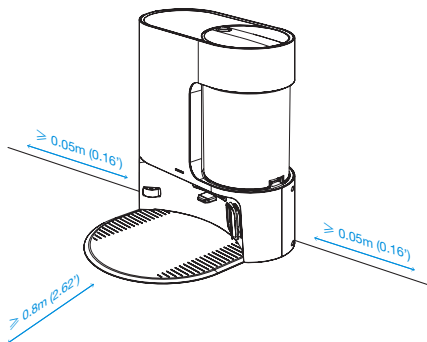
1 Installation

The sound of Click indicates proper installation.



2 Place the Auto-Empty Station

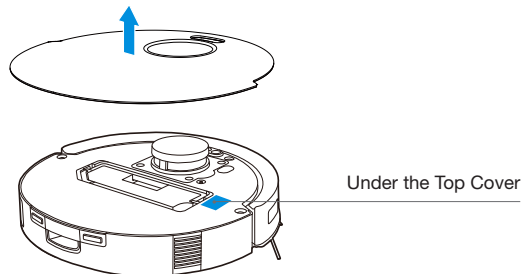
Keep the area around the Auto-Empty Station clear of objects, especially objects with reflective surfaces.



DOWNLOAD THE ECOVACS HOME APP

To enjoy all available features, it is recommended to control your DEEBOT via the ECOVACS HOME App.

1. Scan the QR Code under the Top Cover to download the App.

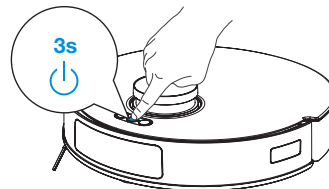


2. Search ECOVACS HOME to download the App.



POWER ON DEEBOT

Press and hold  for 3 seconds to power on DEEBOT.




CONNECT DEEBOT WITH APP

Wi-Fi Network Requirements:

- You are using a 2.4 GHz or 2.4/5 GHz mixed network.
- Your router supports 802.11b/g/n and IPv4 protocol.
- Do not use a VPN (Virtual Private Network) or Proxy Server.
- Do not use a hidden network.
- WPA and WPA2 using TKIP, PSK, AES/CCMP encryption.
- WEP EAP (Enterprise Authentication Protocol) is not supported.
- Use Wi-Fi channels 1-11 in North America and channels 1-13 outside North America (refer to local regulatory agency).
- If you are using a network extender/repeater, the network name (SSID) and password are the same as your primary network.
- Please enable the WPA2 on your router.

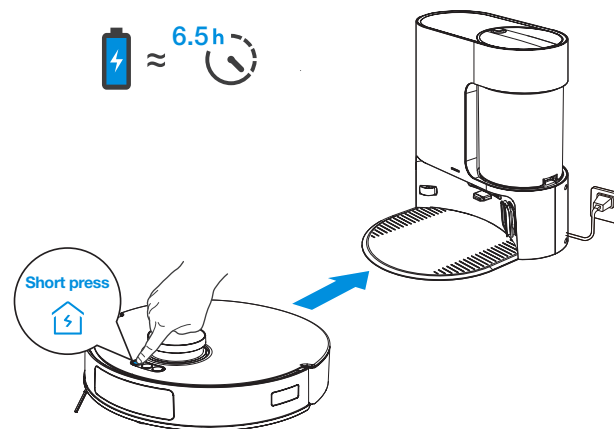
Wi-Fi Indicator

	Flashing slowly	Connecting the App
	Flashing quickly	Disconnected to Wi-Fi
	On	Connected to Wi-Fi

Please be aware that the realization of intelligent functions such as remote startup, voice interaction, 2D/3D map display and control settings, and personalized cleaning (depending on different products) requires users to download and use the ECOVACS HOME App, which is constantly updated. You need to agree to our Privacy Policy and User Agreement before we can process some of your basic and necessary information and enable you to operate the product. If you do not agree with our Privacy Policy and User Agreement, some of the aforementioned intelligent functions cannot be realized through the ECOVACS HOME App, but you can still use the basic functions of this product for manual operation.

CHARGE DEEBOT

Short press to recall DEEBOT back to the Auto-Empty Station to charge.




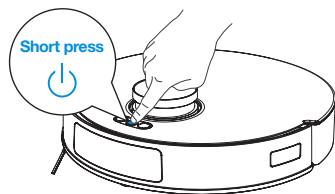
OPERATE DEEBOT

Remove the Mopping Pad Plate/Module before mapping. When creating a map for the first time, please follow DEEBOT to help eliminate some minor issues.

For example, DEEBOT may get stuck under the furniture. Please refer to the following solutions:

- ① Raise your low sitting furniture if possible;
- ② Cover the bottom of the furniture;
- ③ Set up Virtual Boundary via the App.

Before first vacuuming, please make sure DEEBOT is in the Charging Station and fully charged. Short press  to start cleaning and mapping.



Note:

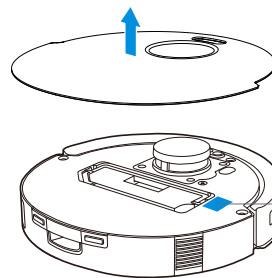
- Do not frequently remove washable mopping pads.
- Do not use a rag or any other object to scratch the Moping Pad Plate.
- When the ECOVACS HOME App prompts that the mops need to be replaced, please replace them in time. Explore more accessories at ECOVACS HOME App or at <https://www.ecovacs.com/global>.

TECHNICAL SPECIFICATIONS

Model	DKX55/DKX56		
Rated Input	20 V === 1 A	Charging Time	6.5 h
Auto-Empty Station	CH2403		
Rated Input	220-240 V ~ 50-60 Hz		
Rated Input Current (Charging)	0.3 A	Rated Output	20 V === 1 A
Power (Emptying)	1000 W		
DEEBOT Dimensions (L*W*H mm)	353*351*96		
Auto-Empty Station Dimensions (L*W*H mm)	356*451*380		

Output power of the Wi-Fi module is less than 100 mW.

Note: Technical and design specifications may be changed for continuous product improvement. Explore more accessories at <https://www.ecovacs.com/global>.



Please use the mobile camera to scan the QR code and obtain the user guide.

Ecovacs Home Service Robotics Co., Ltd.

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451-2406-0038