

# Maintenance Manual

## Vacuum 40

Technical Service and Operation & Maintenance Center

# Gaussian Robot Maintenance Manual

GAUSSIAN ROBOTICS

Gaussian is the only commercial company on service robot in the cleaning industry which has received ISO9001 international certification, China Robot CR certification, UL security certification from America, and CE security certification from Europe. By far, Gaussian has provided over 2000 customers from 40 countries and regions globally with cleaning services over 200 million kilometers, as among the most outstanding enterprises in the marketability of commercial mobile robot and unmanned equipment.

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## Revision Record

Rev.	Revised Content	Revised by	Revision Date	Reviewed or not	Reviewed by	Review Date
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[Switch machine mode to manual]  
Click the floating button in the bottom right corner and choose manual operation.

1



[Push the machine to maintenance point]

2



[Scrub Appearance]  
Use non-shedding wet cloth to scrub the machine appearance (do not scrub the camera and the sensor).

3

# Maintenance Manual-Appearance cleaning

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## [Scrub the exterior sensor]

Use non-shedding clean soft cloth to scrub the laser, camera, and sensor gently.

4



## [Scrub the horizontal view laser]



## [Scrub the top view camera and screen]

Use non-shedding clean soft cloth to scrub the top view camera gently. At last, press the AOD button and scrub the screen.

6

# Maintenance Manual-Dust push cloth cleaning

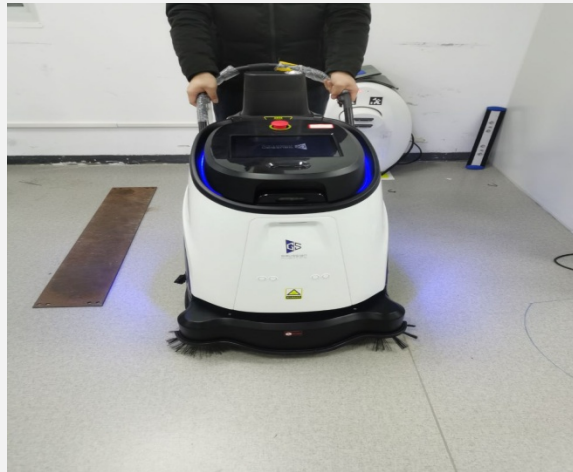
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## [Switch machine mode to manual]

Click the floating button in the bottom right corner and choose manual operation.

1



## [Push the machine to maintenance point]

2



## [Remove the dust push plate]

Open the rear shell of the machine and remove the dust push plate and dust push cloth.

3



## [Dust push cloth washing]

Wash the dust push cloth in the barrel and dry it.

4



## [Install new dust push cloth]

Fetch new dust push cloth and mount it on the dust push plate. Mount the dust push plate on the machine, and the dust push cloth cleaning is complete.

5

# Maintenance Manual-Dust box and deflector cleaning

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## [Switch machine mode to manual]

Click the floating button in the bottom right corner and choose manual operation.

1



## [Push the machine to maintenance point]

2



## [Open the side buckle and pull out the bottom shell]

Extract the dust box and pour the waste into the garbage bag. Press down the deflector to remove it, and clean the deflector

3

# Maintenance Manual-Dust box and deflector cleaning



**[Dust box]**

Insert the clean dust box, close the bottom shell, and buckle it up.

# Maintenance Manual-Roller brush cleaning

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**[Open the side buckle and pull out the bottom shell]**

1



**[Remove the roller brush]**

Unscrew the roller brush bolt, and then the roller brush cover plate will pop up. Press it down to fetch the roller brush plug to extract the roller brush.

2



**[Clean the roller brush]**

Clean the roller brush plug and remove the hair wound on the brush. After cleaning, mount the roller brush back.

3

# Maintenance Manual-Side brush cleaning

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## [Remove the side brush]

Push the machine to maintenance point, and remove it by pressing down the side brush with both hands.

Remove the other side brush in the same way.

1



## [Clean the side brush]

Remove the hair on the side brush with hand, and then align it to the locating pin. Push up (with magnet) to install the side brush properly.

2

# Maintenance Manual-Charging pile appearance cleaning

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## [Push the machine away from the charging pile]

Switch the machine to manual mode, and push the machine away from the charging pile manually.

1



## [Scrub the charging pile]

Pull out the plug of the charging pile, and scrub the appearance with wrung wet towel. Do not scrub the charging electrode. Insert the plug after the scrubbing is complete.

2

# Maintenance Manual-Air filter replacement

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## [Push the machine to maintenance point]

Switch the machine to manual and push it to the maintenance point.

1



## [Open the head cover and the dust box cover]

Open the head cover and the dust box cover. Remove the dust bag and air filter

2



## [Mount the air filter back]

After cleaning the removed air filter, mount it back. Do follow the arrow indication on the air filter, and do not mount it upside down. Mount back the filter bag, and put on the dust box cover and head cover.

3

# Maintenance Manual-Dust bag replacement

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## [Push the machine to maintenance point]

Switch the machine to manual and push it to the maintenance point.

1



## [Open the head cover and the dust box cover]

Open the head cover and the dust box cover. Remove the dust bag.

2



## [Mount back the filter bag]

After cleaning the removed dust bag, mount it back, and put on the dust box cover and head cover.

3

# Maintenance Manual-Roller brush replacement

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**[Open the side buckle and pull out the bottom shell]**

1



**[Remove the roller brush]**

Unscrew the roller brush bolt, and then the roller brush cover plate will pop up. Press it down to fetch the roller brush plug to extract the roller brush.

2



**[Replace the roller brush]**

Take out the new brush with the dented end facing inward. Mount the roller brush and close the cover plate. Screw down the roller brush bolt, and close the bottom shell.

3

# Maintenance Manual-Side brush replacement

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## [Remove the side brush]

Push the machine to maintenance point, and remove it by pressing down the side brush with both hands.

Remove the other side brush in the same way.

1



## [Replace the side brush]

Take out the new side brush and align it to the locating pin. Push up (with magnet) to install the side brush properly.

2

# Maintenance Manual-Dust push cloth replacement

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## [Push the machine to maintenance point]

Switch the machine to manual and push it to the maintenance point.

1



## [Remove the dust push plate]

Open the rear shell of the machine and remove the dust push plate and dust push cloth.

2



## [Install new dust push cloth]

Take out the new dust push cloth and mount it on the dust push plate. Mount the dust push plate on the machine, and the dust push cloth replacement is complete.

3

# Attachment-periodic table of consumable replacement

Scenario Description	Power Consumption Level	High Consumption Scenario	Medium Consumption Scenario	Low Consumption Scenario
	Scenario Description	<ul style="list-style-type: none"> <li>•Work 4-6H every day for supermarket, logistics, etc.</li> <li>•Work 3-4H on cement, rubble, and other rough grounds</li> <li>•A large amount of stain on the ground</li> </ul>	<ul style="list-style-type: none"> <li>•Work 3-4H on wearproof cement, waterstone, and other mildly rough grounds</li> <li>•Scenario of using 1-2H on rough ground</li> <li>•Scenario of long-term operation of 3-5H on smooth ground</li> <li>•A small amount of stain on the ground</li> </ul>	<ul style="list-style-type: none"> <li>•Epoxy floor level, PVC, and other plastic ground cleaned by dust push or soft brush</li> <li>•Marble, artificial tile, and other smooth-surface ground</li> <li>•Clean ground</li> </ul>
General consumable	Air filter	Twice/month	Once/month	Once/month
	Filter bag	Twice/month	Once/month	Once/month
	Dust push cloth	Once/six months	Once/six months	Once/six months
Roller brush consumable	Roller brush	Once/six months	Once/six months	Once/six months
Side brush consumable	Side brush	Twice/quarter	Once/quarter	Once/quarter

# Attachment- maintenance spot checklist

GS40 Robot-daily cleaning spot checklist																																		
Equipment Name	GS40 Robot	Responsible Person		Operator		User		Spot Check Year and Month	MM, 2022																									
Spot Check Item		Spot Check Cycle	Spot Check Date																															
Part	Content	Daily	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Workstation	Power contact is normal																																	
	QR code is not stained																																	
	There is no sundries around																																	
	Scrub the workstation shell (power off)																																	
Exterior	All air switches are on																																	
	Scrub the disinfection backpack																																	
	Scrub the machine shell																																	
	Scrub the machine screen																																	
	Scrub all cameras of the machine																																	
	Scrub the horizontal view laser																																	
Interior	Clean the air filter																																	
	Clean the filter bag																																	
	Clean the dust box and deflector																																	
	Clean the side brush																																	
Bottom	Clean the side brush																																	
	Wash the dust push cloth																																	
Spot Check Marking	Complete/Fine: √ Incomplete/Exceptional: x	Spot Checker																																
Repair Channel	In case of equipment exception or impossibility of daily cleaning during daily spot check, report for repair in the first place. [1]Repair hotline: 400-888-3065 [2] WeChat account for repair: WeChat service group for the item.																																	

Let service robots serve every corner of  
the world