ROBO-TEK

C3mini Product Manual

Robo-Tek styled operator and support guide

ALLYBOT-C3mini / Model C53P2DV1

Prepared for	Robo-Tek Australia
Source reference	Based on the manufacturer C3mini Product Manual V1.0 (English internal version)
Primary use	Installation, operation, maintenance and troubleshooting
Intended users	Operators, supervisors and service support personnel

Document positioning

- This version keeps the manufacturer technical content but presents it in a cleaner Robo-Tek format for local use.
- Where sales, warranty or service terms differ, the agreed Robo-Tek sale and support terms should take precedence.
- Before first use, review the safety notes, charging station layout and module installation steps.

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1. Product overview

A compact commercial cleaning robot designed for sweeping, vacuuming and scrubbing across smooth indoor hard floors.

The C3mini is a lightweight commercial cleaning robot designed to combine sweeping, vacuuming and scrubbing in one platform. Its modular cleaning system allows operators to configure the robot for vacuum-only work, scrub-only work or combined scrub-and-vacuum operation, depending on the site and floor condition.

It is best suited to indoor commercial areas such as retail spaces, education facilities, offices, corridors, lobbies and other smooth hard-floor environments where autonomous routine cleaning can reduce manual labour and improve consistency.

At a glance

- Vacuuming runtime: around 2 hours
- Vacuuming coverage per charge: approximately 600 sqm
- Scrubbing runtime: around 2.5 hours
- Combined scrub and vacuum runtime: around 1 hour
- Cleaning efficiency: approx. 200 sqm/h scrubbing or 300 sqm/h combined mode
- Narrowest pass width: 65 cm
- Recommended surfaces: marble, ceramic tile, PVC, epoxy and similar smooth hard floors

2. Unboxing and included items

Confirm all components are present before setup.

Item	What is included
Robot body	Includes clean water tank, wastewater tank, wastewater HEPA box, scrubbing brush assembly, scrubbing squeegee assembly, dust box, vacuum HEPA, vacuum squeegee, vacuum brush and dust bag
Charging station	Dock body for charging and automatic return
Charging station base plate	Base plate for station installation
Charging power cord	Power lead for the station
5 x countersunk screws	For fastening the charging station to the base plate
Remote controller	Single-handle controller for local operation and mapping
Remote controller charging cable	Includes controller storage bag
2 x side brushes	Snap-in side brushes for vacuuming modes

3. Product details

Front and rear views from the source manual are included below for quick reference.

Front and operating side view

Rear and service side view

- Key external components include the lidar set, structured light camera, emergency stop button, clean water tank, wastewater tank, charging contacts, side brush mounts and the dust / scrubbing module access doors.
- The main switch and SIM card slot sit behind the side cover. The soft switch powers the upper computer after the main power is turned on.
- The robot uses a compact single-handle remote controller with power, auto / remote mode change and high / low speed switching.

4. Technical specifications

Core figures most commonly referenced by operators, sales teams and support staff.

Item	Value	Item	Value
Size	400 x 400 x 410 mm	**Dust bag**	0.7 L
Weight	30 kg empty / 35 kg full clean water	**Cleaning width**	310 mm scrubbing / 530 mm vacuuming
IP rating	IP33	**Suction power**	Max 15 kPa
Working temperature	0 to 40 C	**Vacuum runtime**	Around 2 hours
Drive system	Two-wheel drive differential	**Scrub runtime**	Around 2.5 hours
Max obstacle height	5 mm	**Combined runtime**	Around 1 hour
Max climbing angle	5 degrees	**Coverage per charge**	Approx. 500 sqm scrubbing / 600 sqm vacuuming
Battery	LFP 25.6V 15Ah	**Connectivity**	4G and Wi-Fi
Charging time	Around 2 hours	**Navigation sensors**	2D lidar, 6-axis IMU, 2 x ultrasonic radar, structured light camera, 3 x linear lidar
Charging cycles	More than 80% retention after 1500 cycles	**Single-pass mapping area**	Up to 2000 sqm
Clean water tank	4.5 L	**Narrowest pass width**	65 cm
Wastewater tank	2.8 L	**Noise**	<= 65 dB in standard scrubbing mode

Charging station specifications

Station size	548 x 453 x 374 mm including base
Rated input	100-240V 50/60Hz 5A
Rated output	29.2V 10A
Weight	5.3 kg
Altitude	For use below 2000 metres

5. Safety and site limitations

These points should be treated as operating rules, not optional notes.

- Use the robot only as instructed. Non-removable components and sensors must not be disassembled by untrained personnel.
- Do not operate or park the robot on slopes of 5 degrees or more.
- Do not use the robot on soil, grass, artificial turf or rough surfaces with potholes and major level changes.
- Do not rinse the robot with water, splash the robot or expose it to heavy moisture.

- Do not allow children, pets or stored items to ride on the machine.
- Do not use the robot to collect burning objects, glass, nails or sharp construction debris.
- Glass walls and highly transparent boundaries can affect sensor performance. Extra caution is required in those environments.
- Always use the original charging station and a properly grounded power source.
- If the robot will be stored for an extended period, fully charge it, switch it off and recharge at least once every three months.

6. Initial setup and first use

A recommended first-day sequence based on the manufacturer workflow.

Step	What to do
1. Install the charging station	Fasten the station to its base plate, place it against a wall on a level surface and leave at least 1 metre clearance on both sides and 1.5 metres in front.
2. Turn on main power	Open the left side cover and switch on the rocker main power switch.
3. Turn on the upper computer	Open the right side cover and press the round soft switch until the robot completes startup.
4. Install cleaning modules	Fit the required brush, squeegee and dust box components for the planned cleaning mode.
5. Install side brushes	Fit both side brushes before vacuum-only or combined cleaning.
6. Fill clean water tank	Fill, close and reinsert the clean water tank, ensuring it self-locks correctly.
7. Check wastewater tank	Empty and reinstall the wastewater tank and confirm the HEPA box is fitted.
8. Install SIM card if needed	Power the robot off before installing the SIM card. Do not hot-swap.
9. Pair the remote	Use the pairing button inside the side cover if the remote is not already matched.
10. Connect app or web tool	Log in through the AllyBot app or connect by browser to the robot tool software for setup and mapping.

Charging station fixed to base plate

Charging station placed against the wall

Main switch, pairing and service access area

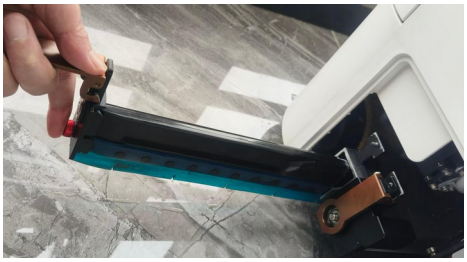
SIM / pairing area behind the side cover

7. Module installation

Use the combinations below to match the cleaning task.

- Scrubbing mode: fit the scrubbing brush, scrubbing squeegee, clean water tank and wastewater tank.
- Vacuuming mode: fit the dust box, both side brushes and the dust collection components.
- Combined scrub and vacuum mode: confirm the correct modules for both water recovery and dust collection are in place before starting.
- If a component does not slide fully home, remove it and re-align it rather than forcing the latch.

Scrubbing brush installation



Scrubbing squeegee installation

Dust box installation and locking

Side brush installation

Removing and filling the clean water tank

Wastewater tank handling

8. Operation basics

Key actions most operators will use each day.

Function	Operator note
Power on	Main switch on first, then press the soft switch until the robot announces startup.
Power off	Shut down with the soft switch first, then turn off the main switch.
Remote control	Turn the controller on, switch the robot from auto to remote mode and drive with the joystick.
Speed modes	Remote mode defaults to high speed. Switch to low speed for tighter areas and mapping precision.
Emergency stop	Press the emergency stop to halt the robot immediately. Reset by pressing once, then holding for more than 2 seconds.
Wi-Fi	Use General Settings > Wi-Fi Settings in the tool software. Only 2.4 GHz Wi-Fi is supported.
4G fallback	If Wi-Fi drops out, the robot can switch to 4G if a SIM card is installed.
Manual cleaning	In remote / manual state, start manual cleaning and adjust cleaning mode or intensity through the interface.
Auto return	The robot returns to the charging station when battery is low or when one-key return is selected.

9. Mapping, planning and task control

The C3mini relies on correct mapping and task setup for reliable autonomous cleaning.

- Mapping with station: place the robot about 1 metre in front of the station and let the robot recognise the station before recording starts.

- Mapping without station: align the front lower base with the floor marker for the charging point position before you start recording.
- To improve mapping accuracy, the recording path should close back on itself and cover the full working area.
- Fine marking allows no-go zones, slope zones and passable zones to be added in the app or web tool.
- The map should contain only one charging point. If the station moves, update the charging point on the map.
- Cleaning areas can be created by drawing zones in the app or by recording routes with the remote controller.
- Tasks can be started immediately or scheduled as timed tasks with cleaning mode, area and repeat count.
- If battery level is below the low-battery threshold, a task will not start until the robot is charged.
- During timed task execution, a scheduled task can override the current task when its start time is reached.

What the app and web tool are used for

- Robot status viewing
- New map creation and map editing
- Fine marking and spot marking
- Planning management and zoned cleaning
- Task creation, issue and pause / continue / terminate
- Cleaning records and report download
- Advanced settings, maintenance prompts and fault alerts

10. Maintenance schedule

The table below condenses the maintenance intervals listed in the source manual.

Component	Routine maintenance	Replacement guide
Scrubbing brush	Clean weekly	Replace every 3 to 6 months
Scrubbing squeegee	Clean after daily scrubbing tasks	Replace monthly
Vacuum brush	Clean weekly	Replace every 3 months
Vacuum squeegee	Clean weekly	Replace monthly
Dust bag	Clean after daily vacuuming tasks	Replace monthly
Dust box HEPA	Clean every 2 weeks	Replace every 3 months
Side brushes	Clean weekly	Replace monthly
Wastewater tank	Drain daily	Clean weekly
Wastewater tank filter	Clean after daily scrubbing tasks	Replace monthly
Wastewater HEPA	Clean every 2 weeks	Replace every 3 months
Clean water tank filter	Inspect regularly	Clean when blocked

11. Daily maintenance procedures

Selected visual references for the tasks most likely to be carried out by site staff.

- Remove tangled hair, fibres and debris before they affect motor load or cleaning performance.
- Rinse washable filters and allow them to dry fully before refitting where applicable.
- Confirm latches, clips and module locking points are seated correctly after every maintenance task.
- If performance drops sharply, check for blocked air ducts, worn squeegees and full dust or wastewater capacity before escalating the fault.

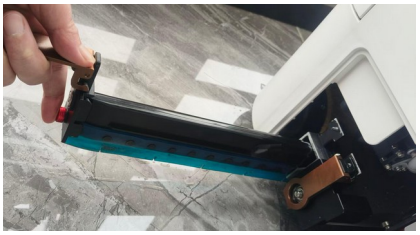
Remove the scrubbing brush

Check the brush for smooth rotation

Clear debris and wrapped hair

Clean or replace the scrub squeegee

Squeegee component parts and orientation



Refit the scrub squeegee assembly

Practical maintenance reminders

- The scrubbing squeegee can generally be flipped once front-to-back before final replacement.
- Keep the wastewater HEPA, dust box HEPA and clean water filter on a regular inspection cycle, especially in dusty environments.
- When noise rises or pickup drops, inspect the brush bearings, ducts, squeegees and side brushes before assuming a motor fault.

12. Common troubleshooting

This summary reflects the main fault table in the source manual.

Issue	Likely cause	Recommended action
Will not turn on	Battery depleted or battery lead not fully inserted	Charge for at least 1 hour and re-check the battery connection
Charging malfunction	Dock moved, contacts dirty, QR area blocked or power not on	Reposition the dock, clean contacts and QR area, then confirm power supply
Stops during work	Universal wheel blocked or sensor issue	Inspect wheels and wipe lidar / camera / sensor surfaces
Poor scrubbing	Wastewater tank not sealed, HEPA blocked, squeegee or brush worn	Check tank fitment, clear blockage and reinstall or replace worn scrubbing parts
Poor vacuuming	Dust bag full, HEPA blocked, side brushes or vacuum brush worn	Empty bag, clean or replace filters and inspect vacuum wear parts
App connection fails	Poor network or permissions not enabled	Check Wi-Fi / 4G connectivity and confirm account permissions
Excessive scrub noise	Brush entanglement, poor fitment or transmission problem	Clean the brush area, reinstall correctly and escalate if noise remains
Excessive vacuum noise	Brush or bearing entanglement, dust box fitment issue	Clean the mechanism, refit the dust box and inspect wear parts

- Always power the robot off before troubleshooting or tilting the machine.
- Remove the water tanks before tilting the robot for inspection.
- If the problem remains after the basic checks above, escalate to Robo-Tek support.

13. Support note

User-facing service terms should follow the agreed Robo-Tek quotation, sales order or support agreement.

This guide is a branded operational document. Warranty coverage, on-site service response, freight responsibilities and consumable supply terms should be confirmed against the final Robo-Tek sale documentation for the installed machine.

Recommended handover checklist

- Confirm the robot powers on and returns to charge correctly.
- Confirm the correct cleaning modules are installed for the intended site use.
- Record dock location and save the working map before handover.
- Show the operator how to drain wastewater, refill clean water and empty the dust bag.
- Demonstrate emergency stop, remote mode and one-key return.
- Leave the site with a simple maintenance rhythm agreed with the customer.