



Instructions Manual

C40R

Cat® Auto Ride-On Floor Scrubber, 40"
Cleaning Path



Model 641747



AVAILABLE EXCLUSIVELY AT GLOBAL INDUSTRIAL
GLOBALINDUSTRIAL.COM
US: 1-800-645-2986
Canada: 888-645-2986

WARNINGS

PLEASE READ THE INSTRUCTIONS CAREFULLY PRIOR TO USING THIS PRODUCT.

⚠ WARNING - to reduce the risk of fire, electrical shock, and/or injury/damage to persons or property:

- DO NOT operate the machine unless trained and authorized
- Keep away from sparks and fire from batteries at all times. Batteries emit hydrogen gas and an explosion or fire can occur.
- This unit must be plugged into 3-Prong grounded outlet
- Flammable materials can cause an explosion or fire. DO NOT use flammable materials in tank or as cleaning agent in machine.
- Flammable materials or reactive metals can cause explosion or fire. DO NOT use to clean up flammable or combustible spills
- Always turn off and unplug the machine prior to assembling, performing routine maintenance, or when not in use.
- This machine is intended for commercial and indoor use.
- DO NOT operate the unit if the cord/plug is damaged.
- DO NOT place objects on the unit or allow objects to obstruct the inlets or outlets.
- To reduce the risk of electric shock, DO NOT expose unit or power cord to moisture.
- DO NOT attempt to fix the machine by yourself. All repairs must be made by authorized personnel.
- DO NOT modify the machine.
- DO NOT touch moving parts. DO NOT wear loose fitting clothing while using or servicing the machine.
- Empty the Solution and Recovery tank before storing the machine.
- Always empty Recovery tank before filling solution tank
- DO NOT use acid solutions. Acid solutions may damage the machine and operator.
- Store the machine indoors only.
- DO NOT operate on inclines.
- DO NOT use an extension cord
- DO NOT use your fingers to remove debris from the squeegee blades, as injury may occur.
- Foam must not enter the float shut-off screen, or damage can occur to the vacuum motor. Foam will not activate the machine's float shut-off device.

TECHNICAL SPECIFICATIONS

Clean width	40"
Squeegee Width	47"
Work capacity	73490 sq. Ft/hr.
Brush RPM	220
Brush motor	36 V/ 550W*2
Pressure on the brushes	55 ~187 lbs.
Traction motor	36v /800w
Drive speed	0-4miles/hr.
Suction motor	36v / 738w
Solution tank	39.6 gallons
Recovery tank	44.9 gallons
Machine dimensions (Excluding squeegee)	65.7"x40.2"x51.6" (L x W x H)
Battery weight	3 x 190 ah
Machine weight	1056 lbs.

ORDER YOUR CLEANING CHEMICALS & PADS

CLEANING CHEMICALS				PADS (Case of 5)
				
Floor Cleaner Model	Floor Stripper Model	Multi Purpose Cleaner/Degreaser	Heavy-Duty Cleaner/Degreaser Model	

MACHINE COMPONENTS



- 1) Seat
- 2) Recovery tank cover switch
- 3) Steering wheel
- 4) Solution tank
- 5) Bumper
- 6) Drive wheel
- 7) Recovery tank
- 8) Solution tank cap

- 9) Water level indicator
- 10) Recovery tank hose
- 11) Charging connector
- 12) Brush head assembly
- 13) Drive pedal
- 14) Water filter
- 15) Water flow valve
- 16) Squeegee Assembly

- 17) Horn switch
- 18) Mobile phone holder
- 19) Emergency stop button
- 20) Power
- 21) USB charger
- 22) LCD control
- 23) Cup holder



MACHINE SET UP

Package Contents:

- | | |
|----------------------|------------|
| 1. Machine | 2. Battery |
| 3. Squeegee Assembly | 4. Charger |
| 5. Pad Driver | 6. Ramp |

Machine Set-up/Operation Prior to each use

- 1) Be sure to connect the 36V battery
- 2) Check that squeegee assembly is properly installed
- 3) Check that Pad Driver is properly installed
- 4) The working surface is sufficient to support the weight of the machine
- 5) Always close Recovery Tank cover fully before use

Screw clamp Installation

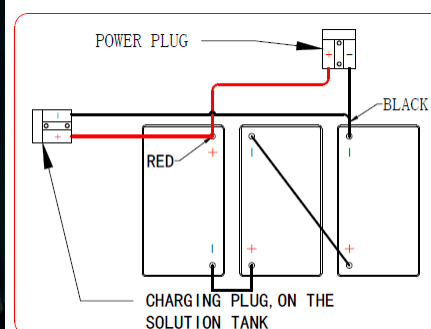
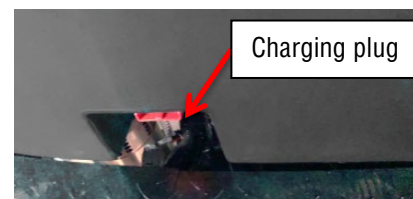
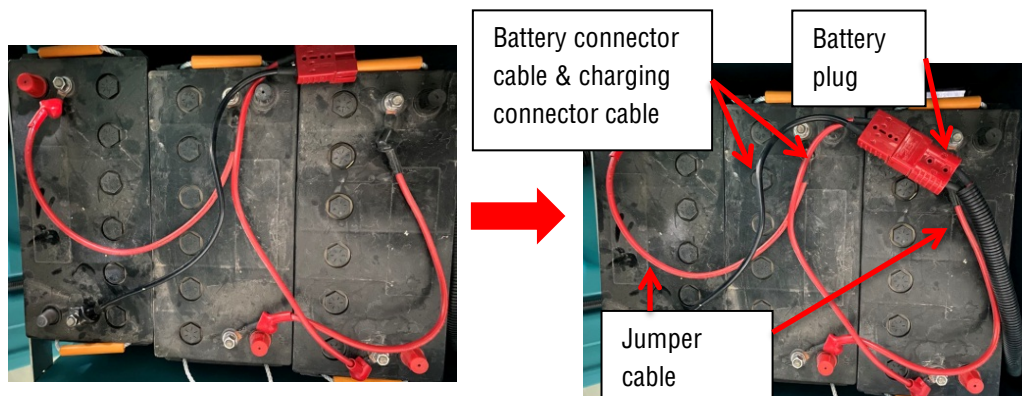
Use hardware (screw M5X16, lock washer M5 zinc, and washer 5X15X1.2) to fix the screw clamp on the inlay at the rear of the recovery tank. Fix the drainage pipe on the screw clamp.



CONNECTING THE BATTERIES

1. Connect the battery connector cable & charging connector cable according to the wiring diagram
2. Connect the power plug and the battery plug

Note: Charging plug is on the solution tank, under the seat



Charging the battery

1. Connect the charging plug to the charger (power plug doesn't need to be disconnected from the battery plug);

2. Connect the charger to the wall outlet.

- Red On or Flashes = Fault
- Yellow On = Charging
- Yellow Flashes = No connection
- Green On = Full charge

⚠ WARNING

RISK OF EXPLOSION: A highly explosive gas mixture is produced when charging batteries. Avoid fire, sparks, smoke, and short circuits.

Use only approved chargers with the following specifications

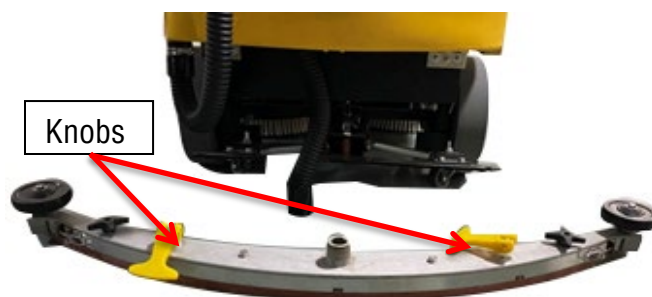
- Automatic shut off circuit
- Output current of 23 amps
- Deep cycle charging
- Output voltage of 36 volts
- Wear eye protection while charging.
- Keep the battery compartment left open while charging the machine.
- For the best performance, keep batteries charged at all times. Do not let them sit in a discharged condition.
- Do not place battery charger on wet surface or in a puddle when operating charger.
- Battery acid is highly caustic, always wear protective gloves and eye protection.
- Do not tilt battery as acid may flow out of the vent openings.

Squeegee Installation


1. Loosen the 2 knobs on the squeegee assembly.
2. Connect the vacuum hose to the Vacuum hole in the squeegee assembly
3. Align the knobs with the slots and tighten the knobs






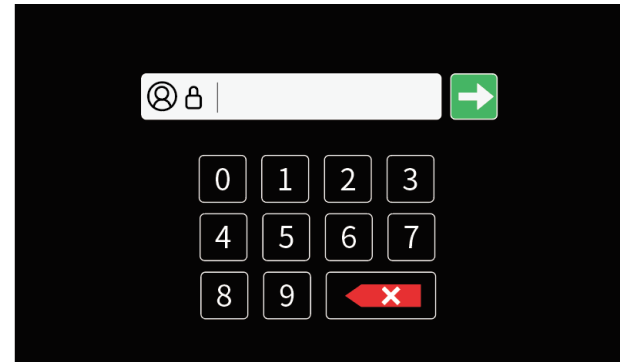
When transporting through narrow spaces, remove the squeegee assembly and hang it on the hook at the rear of the tank. Fix the vacuum hose to the screw clamp at the rear of the tank.



Powering On and Off

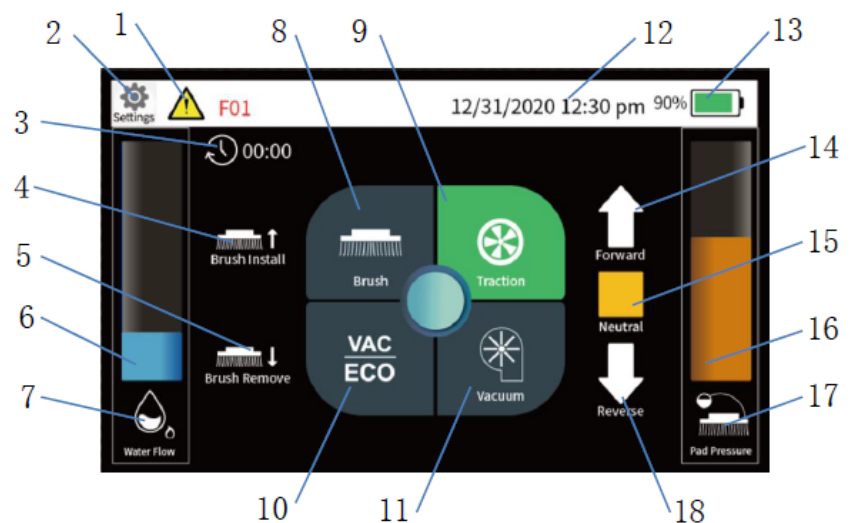
Pressing the power button for three second . The touch screen will start with a flash and a password screen will display.

1. Enter the password on the LED panel (default password: 0000). then press enter  to log in
2. If needed, press backspace  to delete or re-enter the password. When the password is incorrect, a pop-up will notify you the entered password is wrong. If the wrong password is entered five times, the system will be locked for 300 seconds.
3. If you don't remember the password, please contact Global Industrial at 1-800-645-1232; Press the power button  for 3 seconds to turn off the machine.



LED control panel

1. Fault/Error display
2. Settings button
3. Running time display
4. Automatically brush assembly button
5. Automatically brush disassembly button
6. Water volume display
7. Water volume switch button
8. Brush on and off button
9. Drive situation display
10. Eco model button
11. Vacuum on and off button
12. Date and time display
13. Remaining battery percentage
14. Forward button
15. Neutral button
16. Brush pressure display
17. Brush pressure switch button
18. Reverse button



Pad Driver/Brush uncoupling

1. Turn on the machine.
2. Press the auto brush disassembly button for 5 seconds.
3. The brush motor will begin the brush disassembly process.

**Pad Driver/Brush coupling**

1. Place the brush/Pad driver under the head assembly.
2. Press the auto brush assembly button.
3. The brush motor will push the brush motor downward slowly.
4. After the brush coupling is completed, the brush motor will rise off the ground.

**SOLUTION TANK**

Remove the solution tank cap and fill with clean water for regular cleaning surface. For deep and dirty surface, Contact Global Industrial (1-800-645-1232) for recommendations on proper Cleaning Solutions.





Check water level indicator for water level.



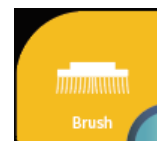
Operation Instructions

Traction Drive (This machine is equipped with electronic traction control)

- Press the Forward button  and step on the electronic accelerator pedal to drive the machine forward.
- Put the machine in Neutral to switch between Forward or Reverse. Press the Neutral button to park the machine. Always leave the machine on Neutral when not using the machine to prevent accidents.
- Press the Reverse button  to drive backwards. The safety buzzer will go off. Press the left and right drive switches to drive the machine.
- The machine can't move backwards when the squeegee is down. If the squeegee is on the ground, the squeegee will be lifted automatically when the machine goes backwards.

Using the Pad Driver/Brush:

- Press the Brush button to lower the brush and turn on the brush motor. If the Brush button is lit up yellow, the brush motor is on. If the button is grey, the brush motor is off.
- The brush motor will activate when the machine goes forward or backwards. Press the Brush switch again to deactivate and lift up the brush.

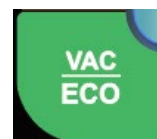


Using the Vacuum:

- Press the Vacuum button to lower the squeegee and activate the vacuum motor. Pressing the Vacuum switch again will turn it off in 15 seconds.

Energy Saver Mode:

- Press the VAC ECO button to reduce power consumption and noise of the vacuum motor. Press the VAC ECO button again to turn it off.



Water Flow:

- Press the Water Flow button or slide your finger along the Water Display Section to adjust the level of the water flow. There are 6 levels for the water flow. The solenoid valves and pumps will start when the brush motor starts.
- If there is no water volume on the Water Display, the solenoid valves and pumps are closed.
- You can also adjust the water flow with the ball valve.




Brush pressure adjustment

- Press the Pad Pressure button or slide your finger along the Pad Pressure Display Section to adjust the pressure of the pad to the ground. There are 5 levels for the pad pressure.



Errors

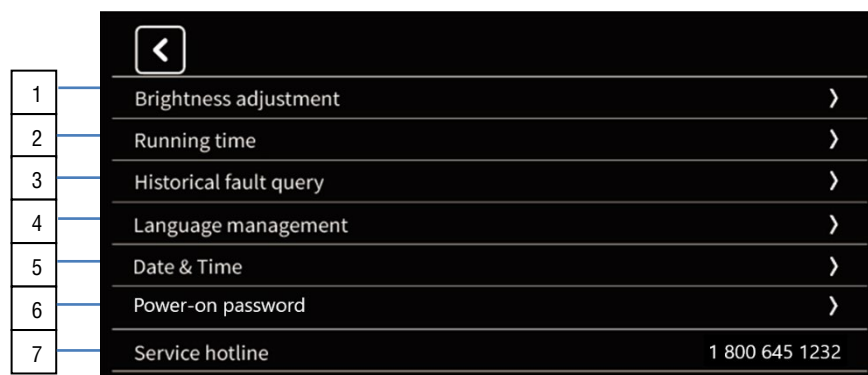
A yellow triangle  and an error code will show up on the top left of the touch screen when the machine has a problem. Press on the yellow triangle to see the error.

Before turning off the machine, complete the following steps:

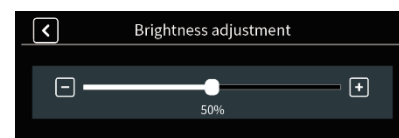
- Shut off the brush motor and raise the brush off the floor by using the Brush button. If the Brush button is lit up yellow, the brush motor is on. Press the Brush button to turn it off. If the button is grey, the brush motor is off.
- Shut off the vacuum and raise the squeegee assembly off the floor by using the Vacuum button. If the Vacuum button is lit up yellow, the vacuum is on. Press the Vacuum button to turn it off. If the button is grey, the vacuum is off. The vacuum motor shuts off within 15 seconds after deactivating the Vacuum button.
- Empty and clean the Recovery tank.

Settings

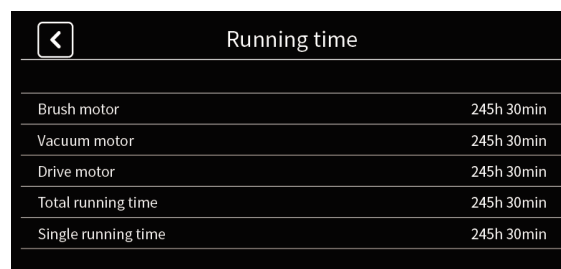
Press the Settings button to adjust or view any of the below features.



- Press Brightness adjustment to change the brightness of the screen.



- Press Running time to check the total running time of the machine and its motors.



3. Press Historical fault query to see all the past errors that have occurred on this machine.

Error code	Error description	Error time
F1	Ems active	
F2	Brush Error	
F3	Vacuum Error	
F4	Brush Open	
F5	Vacuum Open	

Search bar: Error code

Buttons: 0-9, Q, W, E, R, T, Y, U, I, O, P, A, S, D, F, G, H, J, K, L, Z, X, C, V, B, N, M, X

Buttons: Delete, 1, 2, 3, ...

Press the search button to enter an error code and check the date and time it occurred.

3. Press Language management to change the language

4. Press Date & Time to change the date or time.

Press the right arrow button next to “Date” to change the date. Press the Save button to set the date.

Press the right arrow next to “Time” to change the time.

Press the button next to the “24-Hour Time” to toggle between 12-hour or 24-hour display.

Press to set the time.

Language management

Language: English

Date & Time

Date:

Time:

Date & Time

Date: 23 / 10 / 2019

Time: 9 : 35 AM

24-Hour Time:

Buttons: Save

5. Press Password to change the login password used to access the machine

- To change the password, input the same password twice and press Save.
- Note that the default password is “0000”.
- To disable passwords, leave the password field blank and press Save. The next time the machine is rebooted, the machine will enter the warning page instead of the lock screen.

Password change

Power-on password

Change: Enter 4 digit alphabetic login password

Re-enter: Enter 6 digit alphabetic login password

Buttons: 0-9, X

MACHINE STORAGE

1. Store the machine indoor in a dry location with the squeegee and pad/driver raised off the floor. Turn off the brush and vacuum using the touch screen before shutting off the machine.
2. Always drain the solution and recovery tank fully before storing, especially when storing in a cold location.

DAILY MAINTENANCE

WARNING

Before performing any maintenance on the machine, make sure that the power is turned off or the batteries are disconnected. Repairs are to be completed by authorized service centers only. Any repairs by unauthorized persons will void warranty.

1. Wipe the whole machine with a clean/damp cloth
2. Empty the solution tank by opening the solution tank drain pipe. Note that the solution will rush out of the drain pipe.
3. Drain and rinse out recovery tank with clean water.
4. Clean the vacuum filter by removing the vacuum intake cap. Remove the Pad and Squeegee assembly and clean with clean water.
5. Check the remaining battery percentage and charge it if the battery is low.

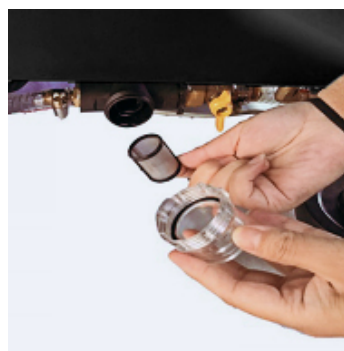


Vacuum intake cap

MONTHLY MAINTENANCE

Monthly maintenance

1. Flush out solution tank with clean water
2. Remove the clear cap and the solution tank filter. Clean the filter with clean water.
3. Clean the rubber skirt on the brush head assembly by removing the spring lock.
4. Motors should be checked every 250 hours. Turn on/off both Pad/Brush and Vacuum motor to ensure the motors are working properly.



Spring lock

BATTERY MAINTENANCE

- Keep the top of the battery and the terminals free from corrosion. A mix of baking soda and water solution helps keep the batteries corrosion free. **DO NOT ALLOW THE BAKING SODA/WATER SOLUTION TO ENTER THE BATTERY CELLS.**
- Use a wire brush with the baking soda solution to properly clean the battery posts and connections.
- Check battery connections for wear and loose terminals. Replace if necessary.

Disposal

:

- Old batteries must be disposed of in compliance with the local specific regulations.
- Never dispose of old batteries with municipal waste.

SQUEEGEE RUBBER BLADE REPLACEMENT

Squeegee rubber blade replacement

1. Remove the squeegee assembly from the unit (refer to the squeegee installation instructions).
2. Unlock the spring lock and slide out the blades.
3. Replace with a new blade and re-assemble.



TROUBLESHOOTING

PROBLEM	Cause	Solution
No power	<ul style="list-style-type: none"> • Not connected to the power. 	<ul style="list-style-type: none"> • Connect to the battery.
Little or no water yield	<ul style="list-style-type: none"> • Water valve closed. • The filter is clogged. • The water tank is empty. 	<ul style="list-style-type: none"> • Open the water valve. • Clean the filter. • Add the water into the water tank.
Poor water absorption	<ul style="list-style-type: none"> • The suction hole of squeegee is blocked. • The squeegee blade is abraded • The suction squeegee is not installed correctly • The suction hose is abraded or loose. • The suction hose is blocked. • The cap of the drain pipe is loose. • The cover of drain tank is opened. • The drain tank is full. • Vacuum motor inlet is blocked. • Vacuum motor is loose. 	<ul style="list-style-type: none"> • Clean the suction squeegee. • Replace the squeegee blade. • Make sure the suction squeegee is installed correctly. • Replace the suction hose or re-install the suction hose and tighten it. • Check the hose and remove the blocked things. • Tighten the cover of the drain pipe. • Make sure the cover of the drain tank is closed and sealed. • Empty the drain tank. • Check the vacuum motor inlet, remove the blocked things and clean the filter cotton. • Tighten the mounting screws of the motor. Overtightening the screws can damage the motor.

TROUBLESHOOTING ERROR CODES

Error code	Problem	Solution
F1	Ems active	Release the emergency stop switch.
F2	Brush Error	1. Check the brush motor and related circuits. 2. Replace the controller.
F3	Vacuum Error	1. Check the vacuum motor and related circuits. 2. Replace the controller.
F4	Brush Open	Brush motor not connected or open circuit.
F5	Vacuum Open	Suction motor not connected or open circuit.
F6	Dirty Water Full	Release the waste water.
F7	Clean Water Empty	Fill the water.
F8	Battery Low	Need to charge the battery.
F9	Battery Very Low	Must charge the battery.
F10	Traction Error	1. Check the drive motor and related circuits. 2. Replace the electromagnetic brake.
F11	Traction SRO	1. Restart the machine and do not press the accelerator. 2. Check the foot accelerator.
F12	Brake Open	The electric brake is not connected or has an open circuit.
F13	Brake Error	1. Check the electromagnetic brake. 2. Replace the electromagnetic brake.
F14	Valve Error	1. Check the solenoid valve and water pump 2. Replace the solenoid valve and water pump.
F15	Pump Error	Check the pump.
F16	Valve Open	The drain valve or pump is not connected or has an open circuit.
F17	Pump Open	Check the pump.
F20	Comm. Error	1. Check the communication line; 2. Update the program; 3. Replace the controller.

Error code	Problem	Solution
F21	Self-Test NG	<ol style="list-style-type: none"> 1. Check the wiring. 2. Check the accelerator. 3. Update the program. 4. Replace the controller.
F22	Over Temp	<ol style="list-style-type: none"> 1. Controller temperature is too high (higher than 70C) 2. Check the load, the current is too high
F23	EEPROM Error	<ol style="list-style-type: none"> 1. Parameter error and update parameter; 2. Replace the controller.
F24	Battery High	<ol style="list-style-type: none"> 1. Battery voltage is too high. 2. Parameter error, update parameter. 3. Replace the controller.
F25	Tract Carbon	<ol style="list-style-type: none"> 1. The use time of drive motor exceeds the set time of carbon brush replacement. 2. Do not reset the motor time after replacing the carbon brush of the drive motor.
F26	M-Brush Carbon	<ol style="list-style-type: none"> 1. The use time of the main brush motor exceeds the set time to replace the carbon brush. 2. Do not reset the motor time after replacing the carbon brush of the main brush motor.
F27	Blow. Carbon	<ol style="list-style-type: none"> 1. The use time of the suction motor exceeds the set time to replace the carbon brush. 2. Do not reset the motor time after replacing the carbon brush of the suction motor.
F28	Sit in Seat	Stay seated while operating the machine.
F29	Beeper Open	The loudspeaker is not connected or has an open circuit.
F30	Beeper Error	The loudspeaker has a short circuit or overcurrent occurred.



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