

WEDA W50

OPERATING MANUAL

EDITION 1



Table of Content

1	Weda Poolclener AB and Pool Vacuums
2	Delivery specification
3	Technical specification
4	Installation
5	Operating Instructions
6	Service and Maintenance

1 Weda Poolcleaner AB and Pool Vacuums

Weda Poolcleaner AB has produced pool vacuums for public pools since the mid-1970's. Today the products are distributed world wide through own subsidiaries and a distributor network.

The product program consists of fully-automatic or semi-automatic pool vacuums (pool cleaners) for all kinds of public pools.

Today's market puts a great demand on the pool vacuums since pools are nowadays designed and built in various shapes and forms and in a wide variety of sizes and depths. Pool types vary from regular swimming pools to wave pools, lazy rivers etc.

Since there is a strong connection between chlorination levels in the pool water and the efficiency of the pool vacuuming it is very important to optimise the pool vacuum for each individual pool. This is not only based on the pool size but factors like the number of users and environmental issues in and around the pool play an important role.

Since there is a common demand to decrease the usage of chlorine in pools Weda strives to design better and more flexible pool vacuums so that we can optimize the vacuum for each pool and meet the customers' high demands.

The latest product in the Weda range is the W50. W50 is the smallest fully-automatic and semi-automatic pool vacuum in the Weda range. It is still designed to meet the needs of large public pools with a large amount of users. And it includes the Weda reliability and more then 30 years experience from pool-vacuum-design, usage and servicing.

The automatic function is reached by using the latest laser detection system and the most up-to-date PLC technology available. The W50 uses no moving parts for wall detection.

The fully-automatic function is combined with a remote control option that allows for fast and reliable movement control all over the pool bottoms.

The W50 is offered in two various basic models: The standard version and the "Super Auto" version with the possibility to select a number of various cleaning programs. The two models are described in detail below.

We wish you many good years of reliable pool cleaning with your new W50.

Klas Lange, Managing Director
Weda Poolcleaner AB

Description

The W50 Standard is designed to clean bottoms in rectangular shaped pools. The user has the option to choose between manual drive with a remote radio control or fully automatic “one-way” cleaning. “One way” cleaning makes the cleaner clean the bottom in parallel runs making a U-type turn as it hits the wall. This is a most efficient way to clean most regular pools. A built-in timer allows for setting of the start time from 0-9 hours and the running time also up to 9 hours.

2. Delivery specification

- Pool Vacuum with 25 or 40 meter floating cable (umbilical) (75 or 120 Ft)
- Filter, 50 or 125 micrometer
- Control Box for wall mounting with power cable
- Four (4) Channel Radio remote control
- Tool kit
- Manuals and other documentation
- Optional equipment 1: Trolley for cleaner, control box and floating cable
- Optional equipment 2: Hose discharge connection

3 Technical specifications

3.1 Vacuum Cleaner

Length x width x height	650x500x300 mm	26 x 20 x 12 inches
Weight in air	25 kg	62 lbs
Weight in water	12 kg	26 lbs
Cleaning width	500 mm	20 inches
Maximum suction capacity	600 liters/min	150 Gallons/min
Speed	0.2 meters/second	0.6 Feet/Second
Maximum Water temperature	40 Degrees Celsius	110F
Motor	Single-phase 50 Hz	230 VAC
	Single-phase 60 Hz	110 VAC
Power Consumption	1300 W	
Max Noise level	70 dB	
Water Protection	IP 68	
Filter bag	PE	50-125 micron mesh
Sensor system	24 VDC 2 Ea.	

3.2 Control Box

Length x Width x Height	270x380x120 mm	11 x 15 x 5 inches
Water protection	IP 67	
Primary Voltage	110/230 VAC	
Amperage primary side	10/4.9 A	
Motor protection setting	11/5.9A	
Fuses	16A/10A	

3.3 Floating Cable (Umbilical)

Dimension and Length	25 mm x 25 or 40 meters	1 inch x 75 or 120 ft
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3.4 Trolley

Width x Depth x Height	700 x 500 x 110 mm	28 x 20 x 43 inches
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4 Installation

The vacuum cleaner must be connected via a **Ground Fault Circuit Interruptor (GFCI)** or an **Earth Leakage Circuit Breaker (ELCB)** or a **Residual Current Device (RCD)** having a rated residual operating current not exceeding 30 mA in accordance with Standard EN 60335-2-41 or for the market valid laws and regulations

Before connecting to power make sure that the wall outlet has:

The correct voltage

The correct fuses

The correct frequency (50 or 60 Hz) and

A GFCI, ELCB or RCD with correct setting (see above)

The power cable (the cable between the control box and the wall outlet) shall be connected so that the control box cannot be pulled closer to the water than 2 meters (7 ft). This is normally achieved by cutting the power cable to the desired length before connecting the power plug (see also any local restrictions since this may vary from location to location).

Read the manual and note the warning signs on the cleaner and the control box.

5. Operating Instructions

5.1 The Control Box

The control panel is located on the top of the control box and has the following controls and options:

ON/OFF

Button with light

Program selector

Button With two (2) Positions,

Man/Auto

Timer 1 Time before start 0-9 Hrs

Timer 2 Operating time 0-9 Hrs

On the bottom of the control box you will find:

The power cable connection

Reset for the over current protection

The 16 pole plug for the floating cable (umbilical) is located on the right hand side of the control box

Inside the control box you find the shunt for setting of:

Turning cycle time for turn to the left 0-12 seconds

Turning cycle time for turn to the right 0-12 seconds

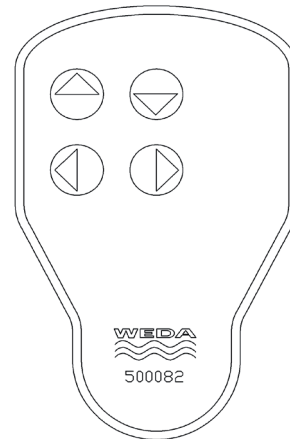


5.2 The radio remote control

The remote control is normally placed on top of the Control Box. Select MAN control on the control box.

The remote control is a four (4) channel radio transmitter with the following functions:

1. Forwards movement. Press once on forward button.
To stop press forward again or once on the backward button
2. Backwards movement.
Press once on backward button.
To stop press backward or once on the forward button
3. Left Turn
4. Right Turn



5.3 Running the vacuum in the pool

First make sure that nobody is in the pool.

If a trolley with the control box is used leave the trolley at a minimum of 2 meters (7 ft) from the edge of the pool (Check any local regulations that may apply).

Roll out the floating cable (umbilical) and straighten it out as much as possible.

Check the outlet to make sure that the voltage that will be used corresponds to that of the pool vacuum. Make sure that the outlet is equipped with a **GFCI**, **ELCB** or **RCD** (See above). Contact a local electrician if you have any hesitations about this prior to connecting the power cable!

Fit the filter on the vacuum.

Connect the power cable

Turn the power on and drive the cleaner carefully into the pool. It is important to place the floating cable into the pool since it is cooled by the pool water.

To avoid over heating do not drive the pool vacuum out of the pool for more than 5 minutes per hour.

5.4 Manual Cleaning

Start by driving the pool vacuum around the walls in the pool and clean thereafter the entire pool bottom at any pattern you may prefer.

5.5 Automatic Cleaning

Use the radio remote control to drive the pool vacuum to the selected starting position in the pool along the right hand shorter wall side. The pool vacuum is set from the factory to work from the right to the left side of the pool bottom. The turning time is set at the factory and does not normally need to be changed. If however this is necessary there are two (2) potentiometers inside the controlbox for this purpose. Please contact Weda or an authorized service centre for assistance set the desired delay time and running time using the buttons on the control box. Set the program selector in position AUTO.

The W50 is equipped with multiple laser sensors to detect the oncoming wall and initiate a turn and to detect the side wall at the far end of the pool.

5.6 Recovering the W50 from the pool

Set the program selector in position MANUAL.

Drive the vacuum towards the wall where it will be taken out of the pool.

Put down the radio remote control.

Pull the pool vacuum in the floating cable slowly upwards towards you until you can reach and grab it in the handle bar. Pull the W50 onto the pool side.

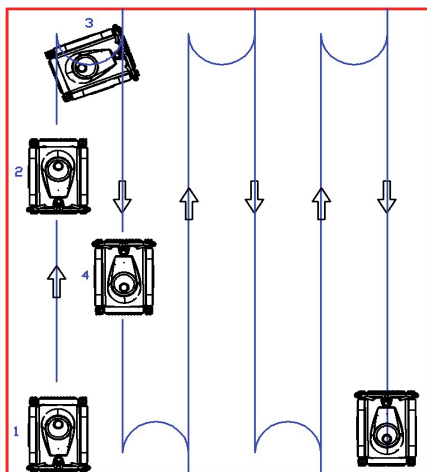
Drive the cleaner to its storage or onto the trolley.

Turn off the power and disconnect the power cable from the outlet.

Remove the filter bag and flush it with clean water. Allow it to dry off before next cleaning if possible.

Flush the cleaner with fresh water (also under the cover)

Look into the suction intake to make sure that no larger particles are caught in the pump



One-way

6. Service and Maintenance

6.1. Routine maintenance after use

Check that the drive tracks are free from obstacles like hair, chewing gum, rubber bands or whatever else that may have got stuck there during cleaning.

Flush the cleaner with fresh water. Make sure to reach also under the cover.

Check the lenses in front of the sensors to make sure that they are clean.

Roll up the floating cable.

Clean the filter bag by turning it inside out. Flush with fresh water.

Allow the filter to dry off completely.

If the cleaning has been performed deeper than 5 meters (15 ft) add grease in the shaft seal after approximately every 10th hour of cleaning.

6.2 Monthly service and maintenance (after approximately 200 hours)

Greasing of the shaft seal.

For vacuums working no deeper than 5 meters (15 ft) depths the shaft seal should be greased after every 200 hours of cleaning. Use only food approved white grease Weda Part No WP 740388. Use the grease gun supplied with the cleaner. Remove the side plate on the left side to reach the nozzle on the vacuum. Remove the grease nozzle cap, fix the gun to the nozzle and give approx 5 pushes with the gun to add the correct amount of grease. Avoid overfilling.

Dry off eventual grease that has leaked out and put the nozzle cap back on.

Check:

Drive track tension (see figure)

Brush drive belts (see figure)

General appearance of tracks and belts.

Make sure that there is no damage to the floating cable (umbilical)

6.3 Annual service and maintenance

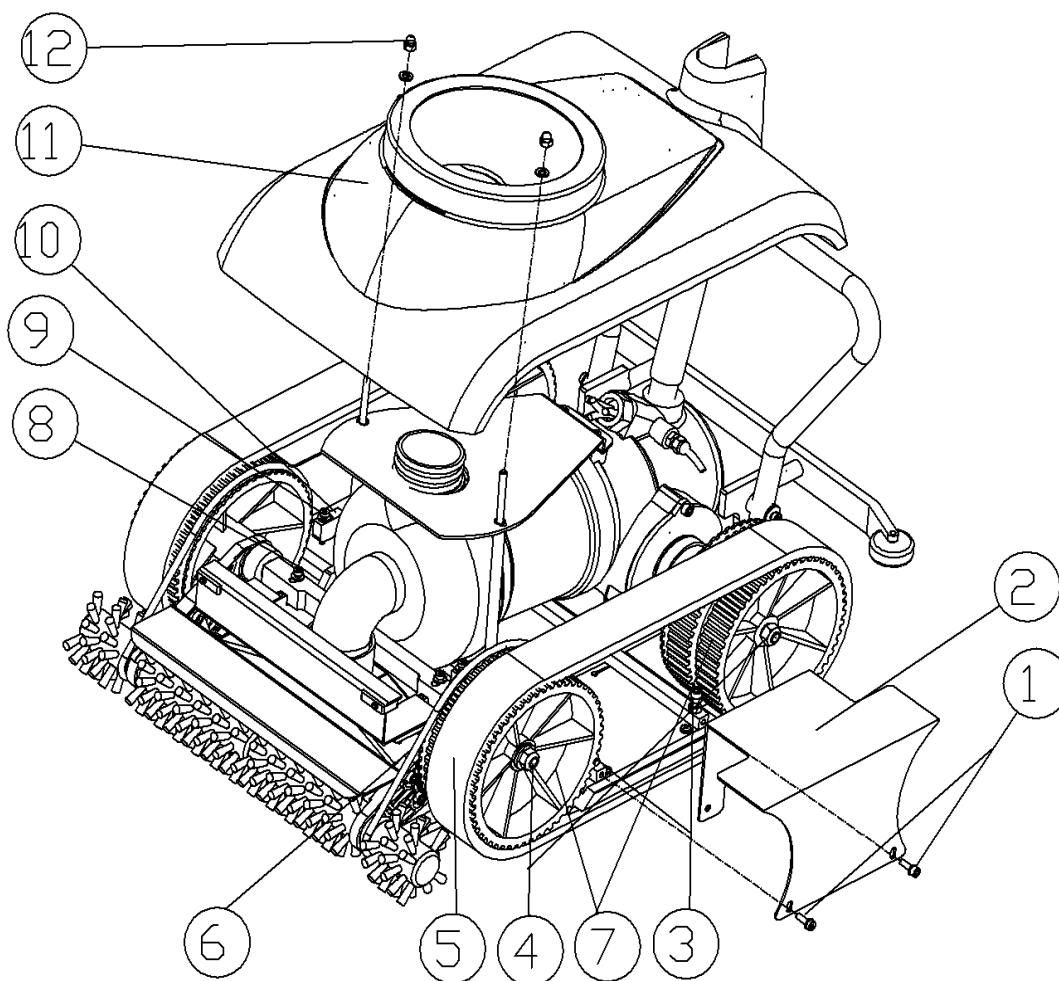
Must be performed by Weda authorized service personnel only.

For details please refer to the Service Manual for Authorized Weda Service personnel.

6.4 Straight moving path settings

To set a straight moving path the drive track tensions is adjusted on both sides of the cleaner (please see figure below).

Release the 2 screws (1) and (2) and take off the side plate. Thereafter the slide rails can be adjusted by turning the screws number (3).



6.5 Replacing the drive tracks, brush arms and brush drivbelts

Loosen the domed nuts (12) and lift off the covers (11).

Loosen the wheel bolts (4), the track tension bolts (9) and (10) and the front shaft (8).

Pull off the wheels and the tracks. Now the belts and the arms may be replaced.

Reassemble in reversed order.

6.6 NOTE

Do not drive the pool vacuum outside the pool water for more than 5 minutes per hour.

The vacuum and the floating cable are cooled by the pool water.

Use only WEDA Original parts for service at all times. One incorrectly used O-ring may cause costly damage to the pool vacuum.

Do not pull in the power cable at any time.

Do not pull the cables along the ground. This may cause unnecessary wear on the cable covers.

Straighten out the floating cable regularly. The easiest way to do this is to run the vacuum in circles in the pool.

Always disconnect the vacuum from the outlet before making any service and maintenance.

The control box, being 110/230 V may only be serviced by authorized electricians. It is your responsibility to know the local laws and regulations.

The pool vacuum can only be used in water filled pools.

Do not use the pool vacuum in explosive atmospheres.

Flush the cleaner with fresh water after usage. Also under the cover.

6.7 Wear Parts

500 019	Filter 125 micron
500 009	Brush, right side
500 003	Brush, left side
741 297	Drive belt for brush
740 388	Grease, Non-toxic
740 209	Oil for gear
	Batteries for radio remote, 3 ea. 1,5 V AAA



6.8 Problem handling

Problem

The vacuum does not pump or move

Reason / Remedy

1. Fuse broken/Replace
2. GFCI or EFCB has shut off the power.
3. Over current relay has released and is not reset
4. Impeller blocked. Remove obstacle (Disconnect the power first)
5. Contactor burnt. Replace contactor
6. Stator burnt. Replace stator

The over current relay shuts off

1. Impeller blocked / remove obstacle (Disconnect the power first).
2. Incorrect power feed/ Check incoming voltage.
3. Over current relay set too low./ Increase the set value.
4. Stator burnt/Replace
5. Water in the pump motor. /Empty and dry off.
6. Motor overloaded./Check for possible reasons.

The pump motor runs but the vacuum will not move.

1. Make sure that the radio remote control is not broken.
2. The DC converter is broken/ Replace
3. The clutches are sliding./Clean them and check the sealing.

The vacuum turns poorly

1. Drive track tension needs to be adjusted
2. Oil or water on the magnetic clutches.

Clean them off and check the sealing.

The vacuum only moves in one direction and/or it stops when it reaches a wall or another obstacle.

1. Defect or incorrectly adjusted laser
2. Cables to sensors broken/Replace sensors. Check and make corrections

OPERATING MANUAL

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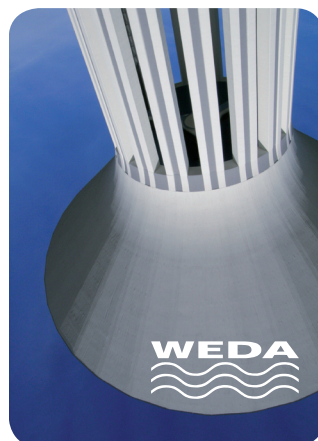
www.weda.se

about Weda



Weda, founded in Sweden, in 1919 is one of the oldest companies in the world in the pool cleaning industry. The range today consists of cleaners to fit everything from the smallest public pool up to large outdoor reservoirs for collection of water for whatever reasons and automatic and semi automatic cleaners for drinking water towers and tanks in industrial tanks of various kinds. Weda is active on most major markets world wide through its own subsidiaries, distributors and partners.

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underwater
cleaning
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