

WEDA W50 R

# OPERATING MANUAL

EDITION 1

110 V / 230 V - 60Hz  
230 V - 50Hz



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## 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 today are 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 which 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 than 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 three different basic models: Beside the W50 R a standard version and a "Super Auto" version are available with the possibility to select a number of various cleaning programs.

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

Klas Lange, Managing Director  
Weda Poolcleaner AB

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## 2. Delivery Specification

Pool Vacuum with 25 or 40 m (75 or 120 ft) floating cable (umbilical)

Filter bag, 120 micron mesh

Control Box for wall mounting with power cable

Four 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	26 x 20 x 12 inches	650 X 500 X 300 mm
Weight in air	62 lbs	28 kg
Weight in water	26 lbs	12 kg
Cleaning width	20 inches	500 mm
Maximum suction capacity	150 Gallons/min	600 l/mn
Speed	0.6 Feet/Second	0,2 m/s
Maximum Water temperature	110° F	40°C
Motor	Single-phase 50/60 Hz	110/230 VAC
Power Consumption	1300 W	
Max Noise level	70 dB	
Water Protection	IP 68	
Filter bag	PE 50/12 micron mesh	
Sensor system	24 VDC 4 ea + (beach control) air sensor	
	One in each direction( Forward, Backward, left, right)	

### 3.2 Control Box

Length x Width x Height	11 x 15 x 5 inches	270 X 380 X 120 mm
Water protection	IP 67	
Primary Voltage	110 V	230 V
Amperage primary side	10 A	4,9 A
Motor protection setting	15 A	5,9 A
Fuses	16 A	16 A

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## 3.3 Floating Cable (Umbilical)

Dimension and Length                      Ø 1 inch , 76 or 120 ft                      Ø25 mm, 30 or 40 m

## 4 .Installation

The vacuum cleaner must be connected through a Ground Fault Circuit Interrupter (GFCI) or Earth Leakage Circuit Breaker (ELCB) or a Residual Current Device (RCD) having a rated residual operating current not exceeding 30 mA in accordance with 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 - 60 Hz and

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

The power supply cable (the cable from the control box to the wall outlet ) shall be connected in such way 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 on the control box.

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## 5 Operating Instructions

### 5.1 The control box

The control panel has the following controls and options:

Switch On/Off (with light)

Switch Manual/automatic

On the bottom of the control box you find:

The power cable connection (Connect via a GFCI or ELCB or RCD)

Reset for the over current protection

Reset button

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



*Control Box*

**R**



*Trolley*

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## 5.2 The radio remote control

The remote control overrides the automatic function

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

1. Forwards. Press once for forward movement  
To STOP press forward button again or backward button.
2. Backwards. Press once for backward movement.  
To STOP press backwards or forwards button.
3. Left Turn
4. Right Turn



To set the cleaner in manual mode use the switch on the control box.

When this is done the sensors are de-activeted.

## 5.3 Running the vacuum in the pool

**First make sure that nobody is in the pool.**

If the 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 stretch it out as straight as possible.

Check the electrical 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 vacuum cleaner out of the pool for more than 5 minutes per hour.

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## 5.4 Manual Cleaning

Make sure that the switch on the control box is set to manual.

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 .

Five seconds after the last use of any button the cleaner goes back into automatic mode.

The cleaner works in fully automatic mode for three(3) hours.

The cleaner is controlled by the PLC in cooperation with laser and air sensors in combination with built in timers

## 5.6 Recovering the W50 from the pool

Switch to manual mode on the control box.

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 towards you until you can reach the rope and later on 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.

**The cleaner should not at any time be left unattended during operation.**



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## 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 deeper than 5 meters (15 ft) add grease in the shaft seal after approximately every 10th hour of cleaning. (see 6.2 for details).

### 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.

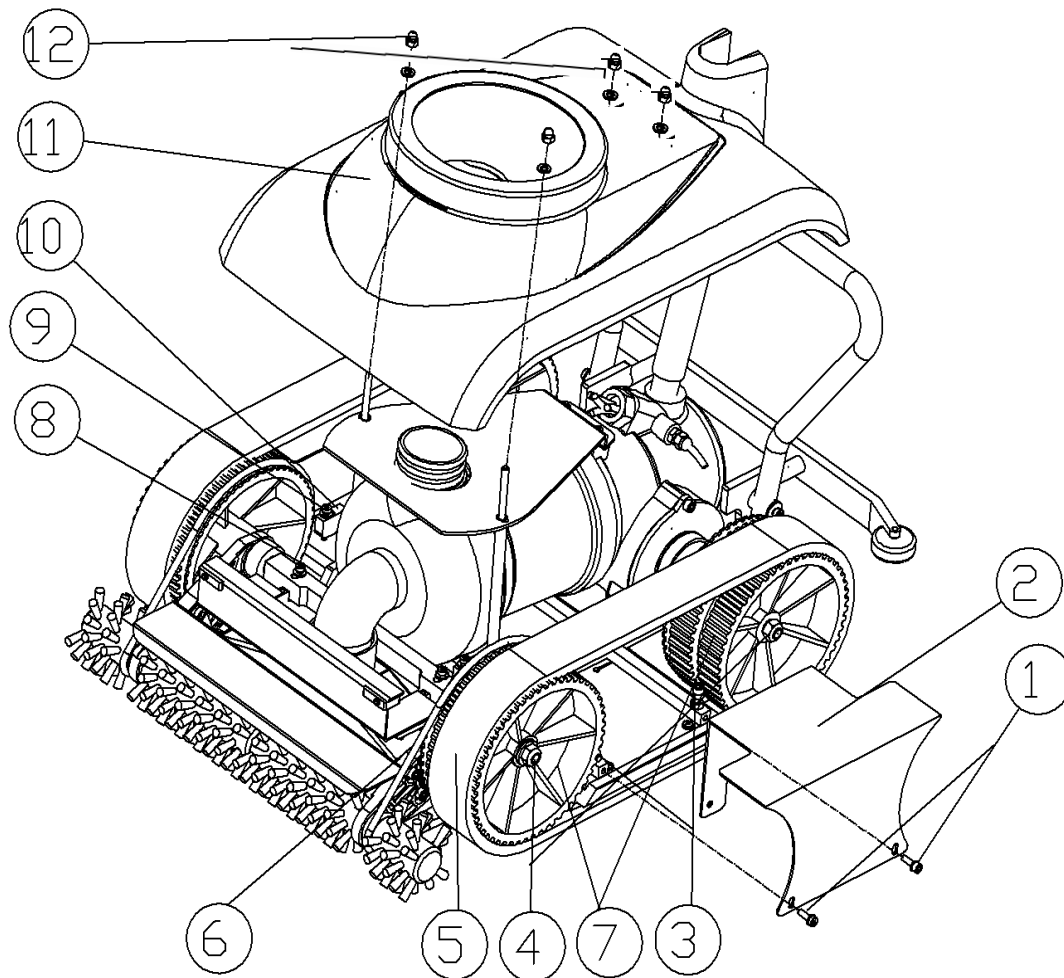
Make sure that there is no damage to the floating cable (umbilical)

### 6.3 Annual service and maintenance

Shall be performed by authorized Weda service personnel.

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

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## 6.4 Replacing the drive tracks, brusharms and belts

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.

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## 6.5 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.

## 6.6 Wear Parts

500 019 Filter 120 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



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## 6.7 Q and A's

### Problem

The vacuum does not pump or move

### Reason / Remedy

1. Fuse broken/ Replace fuse
2. GFCI, EFCB or RCD has shut off the power.
3. Over current relay has released and not reset/Reset the relay
4. Impeller blocked. Release obstacle
5. Contactor burnt/ Replace.
6. Stator burnt/ Replace

The over current relay shuts off

1. Impeller blocked / remove obstacle.
2. Incorrect power feed/ Check incoming voltage.
3. Stator burnt./ Replace
4. Water in the pump motor. /Empty and dry off.
5. 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 off 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 any other obstacle.

1. Defect or incorrectly adjusted sensors/ Check and make corrections.
2. Sensors broken/Replace sensors