



## Automatic Pool Cleaner

# Installation and Operating Instructions



Please pass these instructions on to the operator of this equipment.



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## Automatic Pool Cleaner

Congratulations on the purchase of your Davey LeafWIZARD® automatic pool cleaner. Your new LeafWIZARD® has been designed to keep your swimming pool clean and free of dust, leaves and debris, whilst you simply relax and enjoy swimming in a clean pool!

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**IMPORTANT NOTE: PLEASE READ THESE INSTALLATION & OPERATING INSTRUCTIONS.** To get the best performance from your LeafWIZARD® it is essential that you set up the pool cleaner properly.

### PACKING LIST:

Included with your LeafWIZARD® are the following parts:

1. LeafWIZARD® Head Unit
2. 11 x Hose Sections
3. 1 x Leader Hose
4. Hose Weight Ring
5. Hose Protector Ring
6. Speed Control Valve
7. ~~of Saw~~ Profile Tyres for tiled & slippery pool finishes

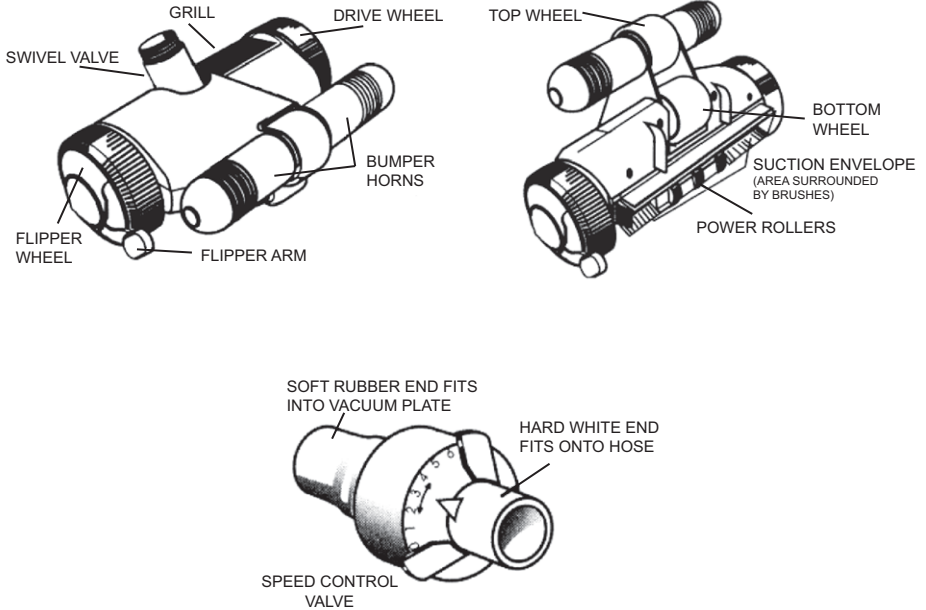
# Flow Rate Requirement

For optimum cleaning performance, your LeafWIZARD® automatic pool cleaner requires 140-200 litres per minute (lpm) of flow from the pool pump.

## Your LeafWIZARD® Pool Cleaner

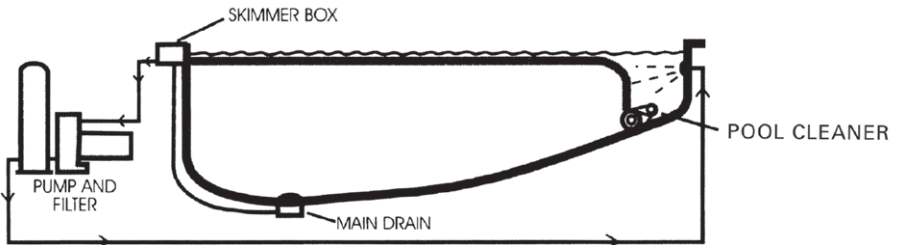
- 1. LeafWIZARD® Head Unit:** The LeafWIZARD® operates using vacuum from the pump flow to drive a simple turbine inside the head unit. This drives the wheels of the cleaner whilst vacuuming debris off the floor of your pool. The LeafWIZARD® has reversing gears to turn and move the cleaner in a random fashion, so that it cleans your pool thoroughly and quickly.
- 2. Drive Wheel:** Is the (left) wheel powered by the turbine that drives the cleaner forward.
- 3. Flipper Wheel:** This wheel includes the “flipper arm” and reverses randomly to turn the LeafWIZARD® around.
- 4. Flipper Arm:** is designed to lift and reverse the LeafWIZARD® away from obstacles on the pool floor.
- 5. Powered Rollers:** The three powered rollers assist in overcoming obstacles which are commonly found in swimming pools such as main drains, transition ledges and convex curves on steps or swim-outs. They are also helpful for high spots in the floor of the pool.
- 6. Swivel Valve Connection:** The swivel connects to the hose and allows the LeafWIZARD® head unit to turn and move randomly around the pool.
- 7. Suction Envelope / Brushes:** The suction envelope is the area under the cleaner where the vacuum action takes place. It is surrounded by brushes that gently sweep dirt and debris into the large suction opening.
- 8. Top / Bottom Wheels:** These wheels allow the LeafWIZARD® to negotiate pool walls and also provide counter-weights to keep the cleaner in contact with the floor.
- 9. Bumper Horns:** These horns prevent the LeafWIZARD® from getting trapped in difficult positions such as corners, stairs and ladders.
- 10. Grill (Turbine Cover):** This grill can be removed to allow easy access to the turbine for the purpose of fine-tuning the performance of your cleaner.
- 11. Speed Control Valve:** The speed control allows you to adjust your LeafWIZARD® to the flow rate of your pump for optimum cleaning performance.

**LeafWIZARD® Head Unit:  
Top & Bottom View -**



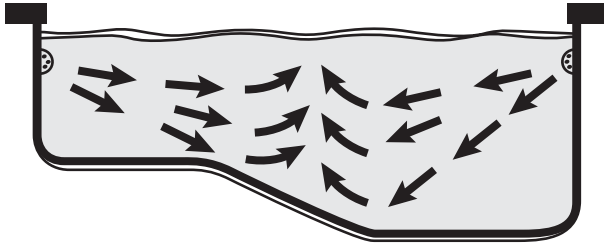
**Step 1: Pre-installation of your  
LeafWIZARD® Pool Cleaner**

Before you begin to install the LeafWIZARD it is important you have a basic understanding of how the pool water flows from the skimmer, through the pool pump and filter returning to the pool. Below is a diagram of a typical pool with standard equipment showing how the water usually flows. If you are still unsure, simply refer to your local Davey Dealer for assistance.



## Step 2: Prepare your pool for the LeafWIZARD®

1. Clean the filter and empty the skimmer baskets
2. Completely close off main drain and / or second skimmer box
3. Ensure the pool water is chemically balanced
4. Adjust water returns jets downwards to minimise turbulence which can influence the hose, and the free movement of the LeafWIZARD®.

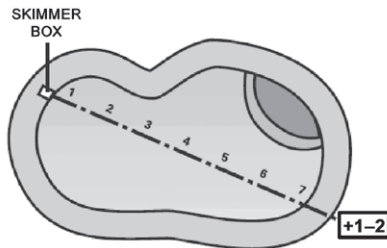


**NOTE:** Some skimmer boxes require the use of an expanding or threaded plug to effectively close off the main drain line. If you are unsure, simply ask your local pool professional.

## Step 3: Setting up the Hoses

The LeafWIZARD® is supplied with 11 Main hoses and 1 Leader hose.

1. Firmly connect the Main hose sections together with enough lengths to reach from the skimmer box to the furthest point in the pool, plus an additional 1-2 lengths.



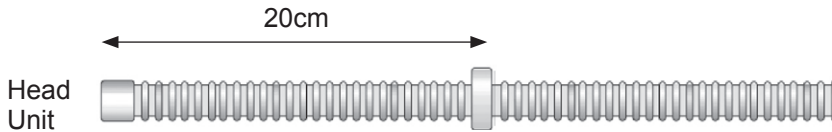
- NOTES:**
- a. If you require extra lengths, please contact your LeafWIZARD® dealer. See Spare Parts section for part code.
  - b. To disassemble two hose lengths, firmly squeeze the joint and bend down to release the joint.

Female cuff

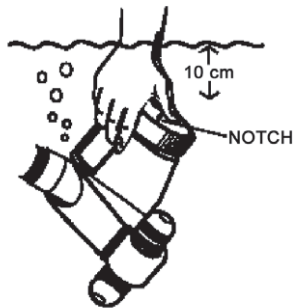
Male cuff



- Slide the hose weight over the Leader hose that will connect onto the head unit and position it approximately 20cm from the head unit. Push the female cuff end of the hose firmly into the swivel socket on the head of the LeafWIZARD®.



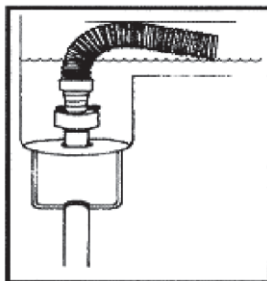
- Attach the last (male) end of the hose to the speed control valve by simply pushing the hose firmly over the hard spigot end of the valve.
- Submerge the LeafWIZARD® head unit under water (while the pump is OFF) and rotate it to release any air in the head.



- Feed the cleaner hose vertically in to the pool so that it fills with water. (Do not run the cleaner while air is in the hose)

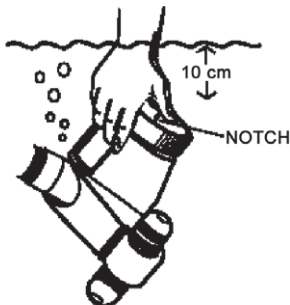
**Helpful Tip:** Place the end of the hose over a return jet to quickly fill the hose with water.

- Place the speed control valve on the '0' setting and push the rubber end of the valve firmly into the vacuum plate on your skimmer box or into a dedicated vacuum port (if applicable).



## Step 4: Starting the LeafWIZARD®

1. Place the LeafWIZARD® in your pool and switch the pool pump 'ON'
2. Turn the body of the Speed Control Valve clockwise from the '0' (Fast) position until the pool cleaner is moving along at approximately 9 metres per minute. At this speed the drive wheel is turning at approximately 24 revolutions per minute (rpm), or 6 revolutions per 15 seconds.
3. Check the revolutions by holding the pool cleaner under the water with the drive wheel facing up, and count the number of revolutions of the raised notch on the drive wheel.

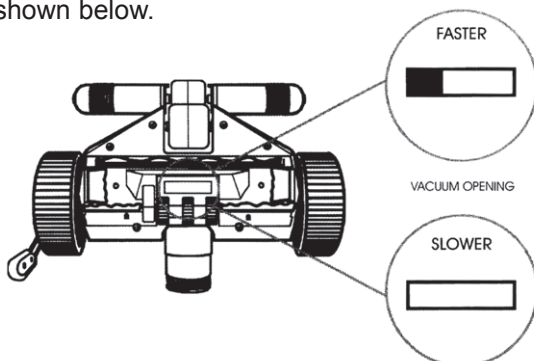


**TIP:** The LeafWIZARD can continue to operate effectively at speeds as low as 6-7 metres per minute. **DO NOT** exceed 24 rpm of the left hand drive wheel. Check as per instructions above. If the LeafWIZARD travels too fast it will tend to brush light debris aside and may rear up, reducing vacuum power. If it travels too slowly, the LeafWIZARD may stall or take too long to clean the pool.

## Step 5: Fine Tuning

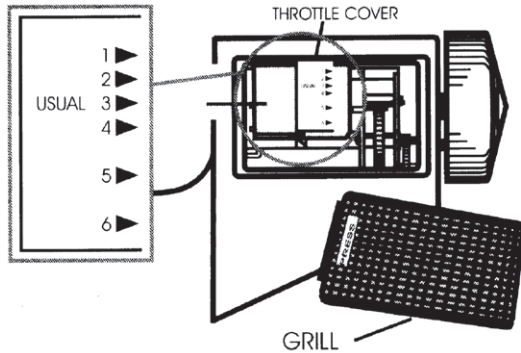
**If the LeafWIZARD® is running slowly:**

1. If the Speed Control Valve is in the "O" position but the pool cleaner is moving too slowly (the main drain line and second skimmers are fully closed. All leaf baskets clear and the filter clean), the speed can be increased by closing the size of the vacuum opening underneath the cleaner as shown below.



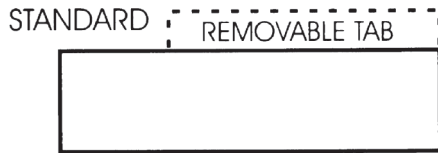
2. If after adjusting the vacuum opening the LeafWIZARD® is still travelling too slowly, the speed can be increased by changing the position of the red turbine throttle located under the grill to 4 or 5. The factory setting is 3.

To access the turbine, simply push firmly on the grill at the location labelled "PRESS" and the grill will flip open.



**Variable size vacuum opening:**

To enable the LeafWIZARD® to remove palm nuts, acorns or similar types of debris, the shape of the vacuum opening can be altered by removing the tab on the swivel valve vacuum opening and adjusting the moveable tab as shown.





**Not enough traction:**

1. If the LeafWIZARD® is losing traction and not turning correctly, the traction can be increased by adjusting the red turbine throttle to position 1 or 2, and then resetting the forward speed to 24 revolutions per minute. This will provide more traction to the wheels.
2. The finish on some pools can make it difficult to maintain suction and traction such as fully tiled pools or fibreglass pools. The LeafWIZARD® is equipped with a spare set of low profile tyres (light grey) designed for such pools. Remove the standard tyres and replace with the low profile tyres if traction is a problem.

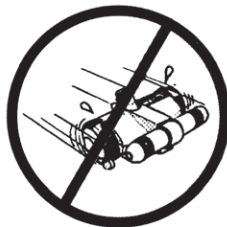
To remove the tyres simply pull the rubber tyre off the wheel, and roll it over until it is released. The word "OUT" on the wall of the (light grey) high profile tyres should be facing outwards / away from the head unit.

**NOTE:** You must remove the original tyre before fitting the alternative tyre. You should not fit the alternative tyre over the original one, as this will reduce the performance of the cleaner.

## Caring for your LeafWIZARD®

**DO NOT EVER:**

1. Remove the LeafWIZARD® from the pool while the pump is running as this will introduce air to the pump and cause it to lose Prime.
2. Put any oil, grease or other lubricants on the LeafWIZARD® Body or moving parts. Water is the only lubricant required.
3. Store cleaner hose in a coiled position. It is manufactured using special materials which enables hose memory and may cause the hose to lie awkwardly in the water preventing the LeafWIZARD® from moving freely around the pool.
4. Operate the LeafWIZARD® constantly at a forward speed above 24 rpm. This drives the LeafWIZARD® much harder than required and may cause unnecessary wear and tear not covered by warranty.



## Maintenance & Service Tips

**Operating Time:** It is good practice to operate your LeafWIZARD® for the amount of time required to clean your pool only, to maximise the life of the product.

**Flipper Arm:** The flipper arm boot should be replaced when worn to prevent damage to the pool surface and to ensure best turning performance.

**Brushes:** The brushes that surround the vacuum opening create the suction envelope and are important for sweeping the floor and for providing optimum suction at the envelope. These parts will wear over time. Monitor these brushes and replace if they are clearly worn.

**Tyres:** It is important to monitor the tread wear on the tyres. If the tyres are balding replace them to ensure best traction and movement around the pool floor.

**Ladder (Above Ground Pools):** To prevent LeafWIZARD® being caught behind ladders in above ground pools, the ladder could be removed when the LeafWIZARD® is operating, or an obstacle placed on pool floor on both sides of the ladder feet to prevent LeafWIZARD® moving behind the ladder.

**Remove LeafWIZARD® pool cleaner when backwashing:** To allow optimum flow rate through filter and to avoid debris clogging the filter backwash system.

**Protect the LeafWIZARD®:** When not in use, store in a safe, shaded area. If “shocking” your pool with chemicals, remove the cleaner to avoid chemical damage.

**Avoid sand & debris entering the top GRILL:** If the pool surrounds are not grassed or paved, utilise your LeafWIZARD® only when your pool requires vacuuming and remove LeafWIZARD® from the pool when vacuuming is complete. Sand and debris is easily vacuumed from the floor of the pool, however if sand falls on top of the LeafWIZARD® from around an unfinished pool, and enters via the grill it may cause the wheels to lock. If this occurs, first turn off the pump and disconnect the head unit. Then remove the grill and try unlocking the wheels by rotating the large gear wheel inside whilst hosing the turbine with a jet of water from a garden hose.

**Vacuum Opening:** Dirt may lock the adjustment over time. Clean periodically.

**Spare Parts:** If any of the parts above require replacing please see replacement part codes on page 13.

# Troubleshooting

<b>Problem 1: LeafWIZARD® slows down or stops:</b>	
<b>Cause</b>	<b>Solution / Action</b>
<b>Not enough suction or blockage in the system</b>	Clear skimmer and pump baskets
	Ensure the cleaner hose is assembled tightly
	Ensure the filter is clean / backwashed
	Ensure the vacuum plate is correctly seated
	Ensure the speed control valve is seated correctly in vacuum plate
	Ensure that the main drain and / or second skimmer are closed
	Check for obstruction in the hose or head unit. Remove cleaner grill and gently flush turbine with water from a garden hose
Refer to pump Flow Rate Requirements on page 3	
<b>Not enough traction</b>	Algae on bottom of pool. Chemically balance pool water
	Tyres are worn. Replace with new tyres
	Pool may have slippery surface such as tiles or fibreglass. Fit low profile tyres with 'slippery surface' tread
<b>Problem 2: LeafWIZARD® will not turn away from wall or clean all of pool floor:</b>	
<b>The hose is too short, or tangled</b>	Add more lengths as required (refer pg 5, Setting up the Hoses)
	Swivel is jammed. Flush swivel valve with garden hose to remove debris
	Hose been stored in coiled position, straighten hose and pour hot water over it to relieve hose memory
<b>The swivel connection may be jammed with debris</b>	Flush swivel valve with garden hose to remove debris
<b>Not enough traction</b>	Algae on bottom of pool. Chemically balance pool water
	Tyres are worn. Replace with new tyres
	Pool may have slippery surface such as tiles or fibreglass. Fit low profile tyres with 'slippery surface' tread

## Troubleshooting continued

<b>Problem 3:</b> LeafWIZARD® operates with wheel off the ground or floats off the pool floor:	
<b>Forward speed too fast</b>	Fine tune as per instructions
<b>Pool in excess of 2m deep</b>	Add an extra length of hose
<b>Weights are not being used</b>	Add hose weight to leader hose, and ensure lead weights are inside the flipper side wheel cap
<b>Air trapped in Head unit</b>	Rotate head unit underwater to release trapped air

## Accessories

Part	Description	Davey Code
In-line Leaf Snatcher	Is installed on the hose line and catches large leaves and debris before they get to the pump, preventing build up in the pump basket. This is ideal for pools with heavy leaf litter and where the cleaner is connected to a dedicated (unfiltered) vacuum port.	M32534
Skimmer Spring	Is made from marine grade stainless steel and will provide internal strength to your vacuum hose where the hose is required to bend through a tight 90 degrees to fit into the skimmer vacuum plate	MK602210

# Spare Parts

<b>Part</b>	<b>Davey Code</b>
Replacement Main Hose x 1M	401628
Replacement Leader Hose x 1M (Dark Grey)	401813
Pair of LeafWIZARD® Standard Tyres (Dark Grey) plus flipper boot	401805
Pair of LeafWIZARD® High Profile Tyres Plus Flipper Boot	401806
Hose Weight	M5963
Hose Protector	M5964
Speed Control valve	MK602644
Lead Wheel Weights	MK602604
Replacement Brush Kit	MK602602

# Davey® Repair or Replacement Guarantee

In the unlikely event in Australia or New Zealand that this Davey product develops any malfunction within warranty periods beginning from the date of original purchase due to faulty materials or manufacture, Davey will at our option repair or replace it for you free of charge, subject to the conditions below.

## Davey Guarantee Period

Cleaner - Two Years

Rubber tyres, Boot & Float - One Year only

Should you experience any difficulties with your Davey product, we suggest in the first instance that you contact the Davey Dealer from which you purchased the Davey product. Alternatively you can phone our Customer Service line on 1300 367 866 in Australia, or 0800 654 333 in New Zealand, or send a written letter to Davey at the address listed below. On receipt of your claim, Davey will seek to resolve your difficulties or, if the product is faulty or defective, advise you on how to have your Davey product repaired, obtain a replacement or a refund.

Your Davey Guarantee naturally does not cover normal wear or tear, replacement of product consumables (i.e. mechanical seals, bearings or capacitors), loss or damage resulting from misuse or negligent handling, improper use for which the product was not designed or advertised, failure to properly follow the provided installation and operating instructions, failure to carry out maintenance, corrosive or abrasive water or other liquid, lightning or high voltage spikes, or unauthorized persons attempting repairs. Where applicable, your Davey product must only be connected to the voltage shown on the nameplate.

Your Davey Guarantee does not cover freight or any other costs incurred in making a claim. Please retain your receipt as proof of purchase; you **MUST** provide evidence of the date of original purchase when claiming under the Davey Guarantee.

Davey shall not be liable for any loss of profits or any consequential, indirect or special loss, damage or injury of any kind whatsoever arising directly or indirectly from Davey products. This limitation does not apply to any liability of Davey for failure to comply with a consumer guarantee applicable to your Davey product under the Australian or New Zealand legislation and does not affect any rights or remedies that may be available to you under the Australian or New Zealand Consumer Legislation.

In Australia, you are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Should your Davey product require repair or service after the guarantee period; contact your nearest Davey Dealer or phone the Davey Customer Service Centre on the number listed below.

For a complete list of Davey Dealers visit our website ([davey.com.au](http://davey.com.au)) or call:



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\* Installation and operating instructions are included with the product when purchased new. They may also be found on our website.