

## **Automatic Pool Cleaner**

## Installation and Operating Instructions



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



### **Rainbow Pool Products**

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Congratulations on the purchase of your Davey Frill-NeckWIZARD<sup>®</sup> automatic pool cleaner. Your new Frill-NeckWIZARD<sup>®</sup> has been designed for hassle-free surface maintenance of all popular above and below ground pools, so you can 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 Frill-NeckWIZARD® it is essential that you set up the pool cleaner properly.

#### PACKING LIST:

Included with your Frill-NeckWIZARD® are the following parts:

- 1. Frill-NeckWIZARD® Head Unit
- 2. 12 x Hose Sections
- 3. Surface Cleaning Frill
- 4. Deflector Ring
- 5. Bumper
- 6. Hose Weight Ring
- 7. Hose protector Ring
- 8. Alternative 'Slippery Surface' Footpad
- 9. Automatic Weir Valve
- 10. 2 x 45° Angle Joints
- 11. Universal Weir Adaptor
- 12. Flow Meter

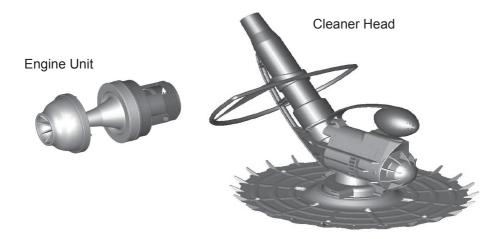
## **Flow Rate Requirement**

For optimum cleaning performance, your Frill-NeckWIZARD<sup>®</sup> automatic pool cleaner requires 60-70 litres per minute (lpm) of flow from the pool pump.

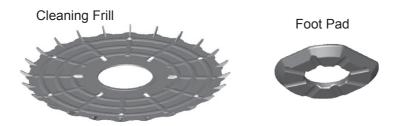
## Your Frill-NeckWIZARD® Pool Cleaner

#### 1. Frill-NeckWIZARD® Cleaner Head and Engine Unit:

The Frill-NeckWIZARD<sup>®</sup> utilises a unique piston-action engine in the cleaner head that propels the pool cleaner in a strong and constant forward motion. Suction from your pool pump draws up dirt and small debris off the pool floor, through the throat of the head unit, and then via the hose to the filter.



**2. Surface Cleaning Frill and Footpad:** Captures debris from the pool floor in the vacuum field whilst scrubbing the pool floor clean.



- **3. Deflector Ring:** Assists the Frill-NeckWIZARD<sup>®</sup> in negotiating steps, tight corners and ladders. Can be set at different heights on the bumper.
- **4. Bumper:** Protects the extension pipe from damage whilst providing provision for the attachment of the deflector wheel.



- 5. Flow Meter: Allows you to determine the basic flow of your pump.
- **6.** Automatic Weir Valve: Allows you to regulate the flow rate through the cleaner for best performance in your pool.

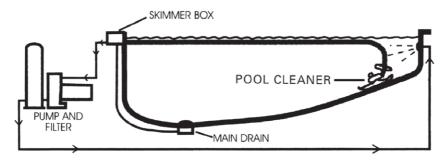
Flow Meter





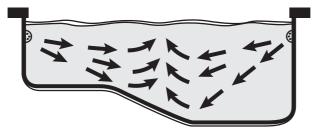
## Step 1: Pre-installation of your Frill-NeckWIZARD<sup>®</sup> Pool Cleaner

Before you begin to install the Frill-NeckWIZARD<sup>®</sup> 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 pool professional for assistance.



## Step 2: Preparing your Pool for the Frill-NeckWIZARD<sup>®</sup>

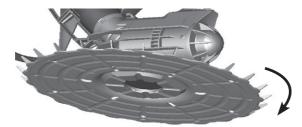
- A. Clean the filter and empty the skimmer baskets
- B. Completely close off main drain and / or second skimmer box
- C. Ensure the pool water is chemically balanced
- D. Adjust water returns jets sideways to minimise turbulence which can influence the hose, and the free movement of the Frill-NeckWIZARD®



**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 to your local pool professional.

## Step 3: Assembling the Cleaning Head

- A. Fit the Cleaning Frill over the base and footpad of your Frill-NeckWIZARD<sup>®</sup>. Ensure that the word "TOP" is facing upwards.
- B. Make sure that the Frill rotates freely once fitted.

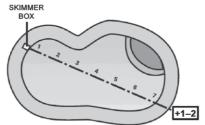


## **Step 4: Setting Up the Hoses**

A. Firmly connect the hose sections together with enough lengths to reach from the skimmer box to the furthest point in the pool, plus additional 1-2 lengths. For a secure fit the female socket must cover the 4th ring (corrugation) of the male end.

If the furthest point from the skimmer box is the steps, use the lowest step as the furthest point.

**NOTE:** If you require extra lengths, please contact your Frill-NeckWIZARD<sup>®</sup> dealer and refer to spare parts code on page 15.



#### Female cuff

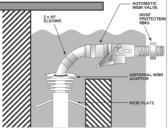
Male cuff

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B. Slide the hose weight ring over the first hose (that will connect onto the cleaner head) and position it approximately 30cm up from the male end.



C. Place the hose protector ring approximately 10cm from the female end of the last hose (closest to the skimmer box). The position can be adjusted later for best hose protection.



## Step 5: Setting Up the Weir (Skimmer Box Connection)

- A. Ensure that the pump is switched OFF.
- B. Place the Universal Weir Adaptor firmly into the weir / skimmer plate.
- C. Connect 2 x 45 elbows to the weir adaptor and insert the weir valve into it. Ensure the "Water Flow" arrow on the side of the valve is pointing towards the skimmer plate and the valve bypass flap is pointing downwards.

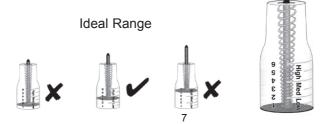
## Step 6: Checking the Flow

Use the flow meter supplied to measure the flow going through your Frill-NeckWIZARD® before you attach the cleaning head.

- A. Attach the flow meter to the first length of hose (that connects to the cleaning head).
- B. Feed the cleaner hose vertically in to the pool so that it fills with water.

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

- C. Connect female cuff (fitted with hose protector) to the weir valve.
- D. Submerge the flow meter and switch ON the pool pump.
- E. Read the location of the black disc. For optimum cleaning performance the reading on the flow meter scale should be 3-4 (MEDIUM).
- F. If flow is too high or too low, refer to Step 8 Correct Speed and Performance.
- **NOTE:** If flow is too low, it will affect the performance of your cleaner. If flow is too high, premature failure of the engine unit may occur.



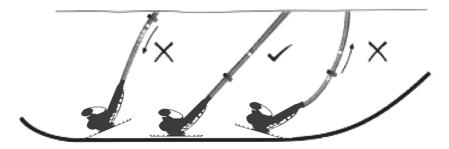
## Step 7: Connecting the Frill-NeckWIZARD®

- A. Feed the cleaner hose vertically in to the pool so that it fills with water.
- B. Submerge the Frill-NeckWIZARD<sup>®</sup> cleaner head under water and rotate to allow any air to escape (bubbles will be released)
- C. Push the male cuff end of the hose firmly onto the outer extension pipe of the cleaner head of the Frill-NeckWIZARD<sup>®</sup>.
- D. Connect female cuff (fitted with hose protector) to the weir valve.
- E. Lower the cleaner head gently and gradually into the pool
- F. Switch the pump on and watch the WIZARD clean like magic!

## **Step 8: Fine Tuning**

#### Correcting the Angle of the Cleaner Head

- A. The pool cleaner must be angled so that the Cleaning Frill is flush with the pool surface.
- B. The hose weight is used to neutralise the buoyancy of the pool hoses.
- C. Correcting the angle of the head must be done in the deepest area of the pool.
- D. Adjust the hose weight up or down to ensure that the Cleaning Frill sits flush with the pool surface.



#### **Correct Speed and Performance**

- A. The auto weir valve has 3 settings high, medium or low.
- B. The auto weir valve is preset at the factory to achieve maximum cleaning ability on the medium setting.
- C. Only adjust the auto weir valve setting if dissatisfied with pool cleaner performance see table on page 9.

PERFORMANCE	CAUSE	CORRECTION
The WIZARD is moving too fast and / or is climbing above water level	Too much suction	Adjust springs on automatic weir valve to Low setting
The WIZARD is moving too slowly and / or not climbing the low walls	Not enough suction	Adjust springs on automatic weir valve to High setting

LEFT RIGHT VIEW VIEW	LEFT VIEW	RIGHT VIEW	LEFT VIEW	RIGHT VIEW
	1		1	
LOW SETTING	MEDIUM SETTING		HIGH SETTING	
Both springs are connected to the button on the free end of the rotating arm (both springs are at minimum stretch)	The left spring is connected to the free end of the rotating arm and the right spring is connected to the fixed button (one spring is short and one spring is long).		connected buttons of arms (both	to the fixed the rotating springs are um stretch)

#### Fitting the Deflector Ring

- A. The deflector ring enables the pool cleaner to manoeuvre itself away from pool steps and severe pool wall angles.
- B. Position the deflector ring by clipping it into one of the three positions on the bumper below the lowest step of the pool.



#### **Improving Suction Performance**

Your Frill-NeckWIZARD<sup>®</sup> has been supplied with an alternative footpad (Dark Silver / without channels) that is designed to give better suction on slippery pool surfaces such as fibreglass, gel coat, vinyl liners and tiles. Simply remove the standard footpad and fit the alternative footpad for better suction performance.

#### **Correcting Pool Surface Coverage**

All return jets should be adjusted sideways however it is sometimes possible to adjust the flow from your return jets so as to guide the Frill-NeckWIZARD<sup>®</sup> away from steps, ladders and corners.

## Caring for your Frill-NeckWIZARD®

#### DO NOT EVER:

- 1. Remove the Frill-NeckWIZARD<sup>®</sup> 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 engine unit. Water is the only lubricant required.
- 3. Leave the pool cleaner in the pool when "shocking" it with aggressive chemical treatments. This could lead to chemical damage.
- 4. 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 on the water preventing the Frill-NeckWIZARD<sup>®</sup> from moving freely around the pool.

# Maintenance & Service Tips



**Operating Time:** It is good practice to operate your Frill-NeckWIZARD<sup>®</sup> for the amount of time required to clean your pool only, to maximise the life of the product.

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

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

**Protect the Frill-NeckWIZARD®:** When not in use, store in a safe, shaded area with the hoses laid straight.

**Removing trapped debris from the Engine Unit:** Removing trapped debris is simple.

- A. Recover the cleaner head and rotate it while still submerged in the water to show the underside and throat.
- B. Check for large, trapped debris in the throat of the cleaner. If there is trapped debris, remove it by using your finger to move the rubber ball back and forth until the obstruction is removed.



**Removing and replacing the Engine Unit:** The engine unit is the heart of the Frill-NeckWIZARD<sup>®</sup> and the ball beats up to 7 times per second as it propels the cleaner around your pool.

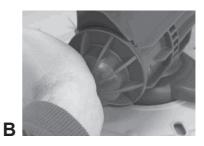
The engine unit or just the rubber ball may require replacement if:

- It has wear from many years of operation
- It has been running at too high a speed
- · Has suffered from attack from unbalanced water chemistry
- · Has been damaged by large debris such as sticks

#### ENGINE UNIT REMOVAL

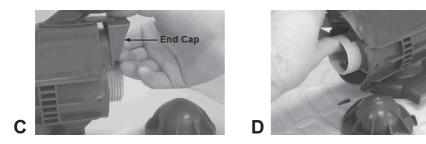
- A. Unscrew the back nut two full turns in an anticlockwise direction.
- B. Firmly hit the back nut with the palm of your hand forcing it towards the main body. Remove the back nut by continuing to unscrew it.





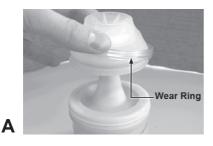
C. Remove the end cap.

D. Use your finger to angle the engine unit slightly down and then remove it.



#### RUBBER BALL REPLACEMENT

- A. Pull the clear Fastening / Wear Ring down, away from the ball. Be careful not to damage the ring.
- B. Peel the ball off the engine unit by lifting it from the seal lip.
- C. Replace the rubber ball if necessary and then slip the fastening ring back over the top. The four small pins should be facing towards the engine unit.





#### ENGINE UNIT REPLACEMENT

- A. Rinse the engine unit with water before refitting.
- B. Align the two side nipples of the engine unit with the holes in the sides of the main body.
- C. Insert the engine unit and snap two nipples in to the holes.
- D. Refit the end cap.
- E. Firmly screw the back nut back onto the engine unit in a clockwise direction.

## Troubleshooting

Problem 1: Frill-NeckWIZARD <sup>®</sup> is not working/moving too slowly:			
Cause	Solution / Action		
Pump not switched on	Check if the pump is ON and / or primed. If not, turn ON and wait for it to prime		
	Remove obstruction from engine unit. See maintenance tips on page 11 and 12		
	Ensure the cleaner hose is assembled tightly		
Lack of suction	Adjust the automatic weir valve to medium or high setting		
or engine unit	Clean the filter and empty the skimmer baskets		
obstruction	Ensure the universal weir adaptor is seated properly in the skimmer vacuum plate		
	Ensure the vacuum plate is correctly seated in the skimmer		
	Check that pump is in good working order		
Problem 2: Frill-N	eckWIZARD <sup>®</sup> is moving too fast/always up the walls:		
Pump suction too high	Adjust automatic weir valve to a lower setting		
Problem 3: Frill-N	Problem 3: Frill-NeckWIZARD <sup>®</sup> will not climb walls:		
Pump suction	Adjust automatic weir valve to a higher setting		
too low	Clean the filter and empty the skimmer baskets		
Problem 4: Frill-N	leckWIZARD <sup>®</sup> does not clean the whole pool:		
	Add more hose sections. Refer to Step 4 of instructions		
Turbulence from return jets affecting free movement of hose	Adjust the return jet flow sideways so it doesn't influence the direction of the hoses		
Problem 5: Frill-NeckWIZARD <sup>®</sup> moves in a repetitive pattern:			
The hose may be influencing	Adjust the return jet flow sideways so it doesn't influence the direction of the hoses		
direction	Twist each hose a half-turn in the opposite direction to each connection point		
Hose is set in a coiled position	Straighten hose and pour hot water over it to relieve hose memory		
Flow too high	If water flow is too high it may stiffen the hoses. Change automatic weir valve to a lower setting.		

## Troubleshooting continued

Problem 6: Air bubbles are noticeable in return jets:		
Cause	Solution / Action	
	Ensure the cleaner hose is assembled tightly	
Air has been introduced into the system	Ensure cleaner head is not removed from the water while pump is running	
	Ensure the automatic weir valve flap points towards the bottom of the pool and is under water.	
	Ensure the hoses are not damaged.	

### Accessories

Part	Description	Davey Code
Large Deflector Ring	Is installed on to the hose and is designed to assist the Frill-NeckWIZARD in avoiding stairs, difficult corners or ladders in above ground Pools.	32605
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.	M5975

## **Spare Parts**

Part	Davey Code
Surface Cleaning Frill	401819
Standard Footpad (Silver)	401820
Footpad for slippery surfaces (Dark Silver)	401821
Bumper	401822
Deflector Ring	401827
Engine Unit	M5958
Engine Rubber Ball	M5959
Ball Ring	M5970
Grey Cleaner Hose x 12	M5910ST
Grey Cleaner Hose x 1	M5911ST
Hose Protector Ring	M5963
Hose Weight Ring	M5964
Weir Elbow x 45 degrees	M5966
Automatic Weir Valve	M5967
Universal weir Adaptor	M5972

#### NOTES

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### 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 Head - Three Years

Cleaner Hose - 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) or call:



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