

Robotic Pool Cleaner

Model: ERA™ 820

TYPE EN27--, TYPE EN37--

WARNING

FOR YOUR SAFETY – For anything other than the routine cleaning and maintenance described in this guide, this product must be serviced by a qualified professional with sufficient experience in pool equipment installation and maintenance so that all of the instructions in the product's complete installation and operations manual can be followed exactly. All safety instructions in the complete manual must be followed explicitly in order to prevent injury hazards. Improper installation and/or operation may void the warranty. Never turn the cleaner on unless it is fully submerged in the water. Doing so may void the warranty and may cause severe damage to the cleaner motors.

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FCC Statement

This device complies with Part 15 of the FCC Rules and IC license-exempt RSS standard. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

- NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception which can be determined by turning the equipment off and on, the user is encouraged to try to correct interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
 - Increase the separation between the equipment and receiver.
 - Connect the equipment into an outlet on circuit different from that to which the receiver is connected.
 - Consult the dealer or an experienced radio/TV technician for help.

CAUTION

Any changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

- NOTE:** This device complies with FCC and IC RF radiation exposure limits set forth for general population. This device must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions: (1) This device may not cause interference. (2) This device must accept any interference including interference that may cause undesired operation of the device.

SAVE THESE INSTRUCTIONS

THANK YOU FOR PURCHASING THIS POLARIS CLEANER.

YOUR POLARIS ROBOTIC CLEANER HAS BEEN DESIGNED AND MANUFACTURED TO BE EASILY INSTALLED AND TO PROVIDE LOW MAINTENANCE OPERATION. PRIOR TO INSTALLING YOUR NEW POLARIS CLEANER, PLEASE DO THE FOLLOWING:

- 1) Complete and return the warranty registration card.
- 2) Record your purchase information on the spaces provided below.
- 3) Attach your invoice (or a copy) to this page.

Taking these steps will help ensure prompt warranty service, should it be required. If service is required, please contact your original dealer. If the original dealer does not perform warranty service, please visit polarispool.com to locate an independent service company near you.

If you are unable to locate a service company, please call our Technical Support department at 1.800.822.7933.

RECORD YOUR POLARIS CLEANER DATA HERE:

Date of Purchase _____ Purchased From _____ Serial Number _____
(located on robot head)

City _____ State/Province _____ Zip/Postal Code _____

Section 1. Important Safety Instructions

READ AND FOLLOW ALL INSTRUCTIONS

Please read through the entire manual before installing your new robotic pool cleaner. The cleaner must be installed and operated as specified.

WARNING

Failure to comply with the following warnings can result in permanent injury, electrocution or death.

PREVENT ELECTRICAL SHOCK

To reduce risk of electrical shock:

- Please read the manual carefully, especially the safety instructions, and make sure you understand them fully before using the product. Only use the equipment for the purposes specifically intended by the manufacturer. Carefully follow the instructions on operation, maintenance and repair.
- This Cleaner is not suitable for use by children and people with reduced physical, sensory or mental capabilities or inexperienced people who are not familiar with the product. Children should be supervised to ensure that they do not play with the appliance, even when it is not in operation
- Operators who perform maintenance must be fully conversant with its special features and safety regulations. Before using the cleaner, carefully read the operating manual and make sure you understand the instructions.
- Only use original spare parts, do not change the design of the Cleaner, do not remove, bypass or tamper with the safety devices installed. The manufacturer shall not be held liable if non-original spare parts are used. Failure to comply with this requirement may seriously endanger the health and safety of people.
- Ensure the cleaner is turned off before performing any adjustment or maintenance that the user is authorized to perform. Cleaning and maintenance must not be performed by children.
- Do not use the cleaner if the top cover or brushes are damaged.
- Never use the cleaner in explosive and/or flammable environments.
- Connect unit to receptacle protected by a ground fault circuit interrupter (GFCI). Such a GFCI receptacle should be provided by a qualified installer and should be tested on a routine basis. To test the GFCI, push the test button. The GFCI should interrupt power. Push the reset button. Power should be restored. If the GFCI fails to operate in this manner, the GFCI is defective. If the GFCI interrupts power to the pump without the test button being pushed, a ground current is flowing, indicating the possibility of an electric shock. Do not use this product. Disconnect the cleaner and have the problem corrected by a qualified service representative before using.
- Per the United States National Electrical Code® (NEC®), keep the control box at least five (5) feet from the edge of the (pool/spa) water. In Canada, the Canadian Electrical Code (CEC) requires a minimum distance of 3 m (10 ft) to be maintained between the pool edge and the control box. Never submerge the control box.
- Do not enter pool while the cleaner is in water.
- Do not bury cord. Locate cord so as to prevent it from being damaged by lawn mowers, hedge trimmers and other equipment.
- To reduce the risk of electrical shock, do not use the robotic cleaner or control box if the cord is worn or damaged. Contact Zodiac Pool Systems LLC. Technical Support immediately for proper servicing and replacement of the damaged cord.
- Double insulation—For continued protection against possible electric shock, use only identical replacement parts when servicing. Do not attempt repair of the robotic cleaner, control box, power cord, or floating cable.
- NEVER OPEN CONTROL UNIT.
- DO NOT USE AN EXTENSION CORD TO CONNECT THE UNIT TO ELECTRIC SUPPLY; PROVIDE A PROPERLY LOCATED GFCI RECEPTACLE. THE CONTROL BOX SHOULD BE PLUGGED INTO THE GFCI RECEPTACLE BOX.

PREVENT CHILD INJURY AND DROWNING

- To reduce the risk of injury, do not permit children to operate this product.
- Do not let anyone, especially small children, sit, step, lean, or climb on any equipment installed as part of your pool's operational system.

WARNING

- **INGESTION HAZARD:** This product contains a button cell or coin battery.
- DEATH or serious injury can occur if ingested.
- A swallowed button cell or coin battery can cause Internal Chemical Burns in as little as 2 hours.
- KEEP new and used batteries OUT OF REACH of CHILDREN.
- Seek immediate medical attention if a battery is suspected to be swallowed or inserted inside any part of the body.
- This product contains non-replaceable batteries.
- Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate.
- Even used batteries may cause severe injury or death.
- Call a local poison control center for treatment information.
- Compatible with Panasonic BR1632A. Battery voltage: 3V.
- Non-rechargeable batteries are not to be recharged.
- Do not force discharge, recharge, disassemble, heat above 125°C or incinerate. Doing so may result in injury due to venting, leakage, or explosion, resulting in chemical burns.



CAUTION

Failure to comply with the following warnings could cause damage to pool equipment or personal injury.

- The cleaner must be installed and operated as specified.
- This product is intended for use with permanently-installed pools. Do not use with storable pools. A permanently-installed pool is constructed in or on the ground or in a building such that it cannot be readily disassembled for storage. A storable pool is constructed so that it is capable of being readily disassembled for storage and reassembled to its original integrity.
- Clean the filter canister in the cleaner after each use.
- Do not use the product in your pool if the water temperature is above 95° F (35° C) or below 55° F (13° C).

USE OF THE ROBOTIC CLEANER IN A VINYL LINER POOL

- Certain vinyl liner patterns are particularly susceptible to rapid surface wear or pattern removal caused by objects coming into contact with the vinyl surface, including pool brushes, pool toys, floats, fountains, chlorine dispensers, and automatic pool cleaners. Some vinyl liner patterns can be seriously scratched or abraded simply by rubbing the surface with a pool brush. Ink from the pattern can also rub off during the installation process or when it comes into contact with objects in the pool. Zodiac Pool Systems LLC is not responsible for, and the Limited Warranty does not cover, pattern removal, abrasion or markings on vinyl liners.

SAVE THESE INSTRUCTIONS

Section 2. Cleaner Specifications

2.1 Technical Specifications

The general specifications for the cleaner are as follows:

Control Box Supply Voltage	EN27--100-130 VAC, 50/60 Hz EN37--100-240 VAC, 50/60 Hz
Supply Voltage	30 V DC
Installed Load	150 W max

The cleaner is a double-insulated product.

A double-insulated electrical appliance is one which has been designed in such a way that it does not require a safety connection to ground. The basic requirement for double-insulation is that no single failure can result in dangerous voltage becoming exposed so that it might cause an electric shock and that this is achieved without relying on an earthed (grounded) metal casing. This is achieved by having two (2) layers of insulating material surrounding live parts or by using reinforced insulation. Therefore, devices having double-insulated construction, such as this cleaner, do not utilize a grounded (three-prong) cord/plug.

Section 3. Getting Started

3.1 Contents

The packaging should contain the following items:

- Robotic cleaner and floating cable
- Control box
- Transport and Storage Caddy

3.2 Connect to a Power Source

WARNING

Failure to comply with the following warnings can result in permanent injury, electrocution or drowning.

PREVENT ELECTRICAL SHOCK

U.S.: Per NEC® requirements, keep the control box at least 5 ft. (1.5 m) from the edge of the pool.

CANADA: Per CEC requirements, keep the control box at least 3 m (10 ft) from the edge of the pool.

Only connect the control box to a receptacle protected by a ground fault circuit interrupter (GFCI). Contact a certified electrician if you cannot verify that the receptacle is protected by a GFCI.

Do not use an extension cord to connect the control box.

Do not allow anyone to swim while the cleaner is in the pool.

The control box is water-resistant, not waterproof. In order to prevent electrocution, never submerge the control box or leave exposed to inclement weather.

1. Firmly insert power cord connector (with TOP shown facing up) until you hear a “click”.

NOTE: The “click” indicates the power cord is connected correctly.

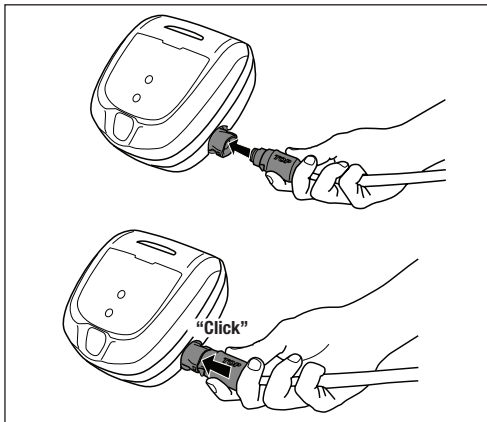


Figure 1. Connect Power Cable

2. To disconnect, firmly grip the power cord connector on each side, press the two tabs, and pull out.

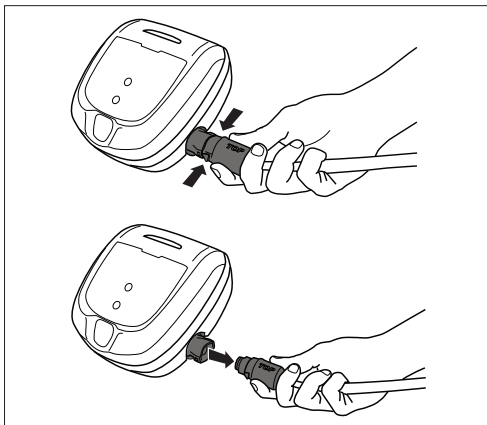


Figure 2. Disconnect Power Cable

Section 4. General Cleaner Operation

⚠ CAUTION

To prevent damage to the cleaner, to adhere to the following guidelines:

- Remove the cleaner from the pool after the cleaning cycle is completed.
- Store out of direct sunlight or inclement weather.
- Never lift the cleaner out of the pool by the floating cable.
- Take additional care when lifting the cleaner out of the pool. It becomes heavier when filled with water.
- Always remove the cleaner from pool when super chlorinating or adding acid.
- Do not handle cleaner while it is in operation.

IMPORTANT

- Always fully submerge the cleaner head before you begin operation.
- Clean the filter canister after each cleaning cycle.
- Do not leave your cleaner in the pool on a permanent basis.
- At the end of each cycle, remove the cleaner from the pool.
- Start at the cleaner head and untangle any coils in the cable before storing the cleaner.

The robotic cleaner includes a safety feature that automatically stops the cleaner if a cleaning cycle starts but it is not submerged in water. For pools equipped with a beach area, this safety feature is programmed to drive the cleaner in reverse and back into the pool when the impeller is out of the water.

4.1 Install and Submerge the Cleaner

1. With the control box plugged into a power outlet, spread the floating cable across the pool deck until you reach the middle of the pool length.

⚠ WARNING

DO NOT USE AN EXTENSION CORD TO CONNECT THE CONTROL BOX TO THE ELECTRIC SUPPLY; PROVIDE A PROPERLY LOCATED GFCI RECEPTACLE.

2. At the center point, submerge the cleaner in the pool and hold in the vertical position to release any air trapped inside.

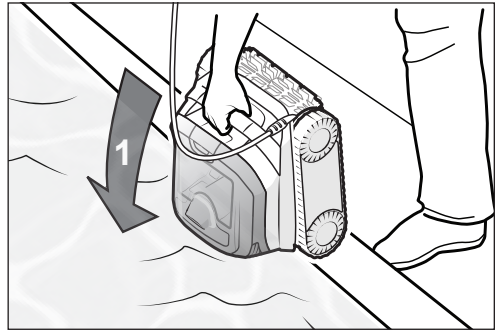


Figure 3. Submerge the Cleaner Vertically

3. Ensure the unit sinks to the bottom of the pool and does not float.

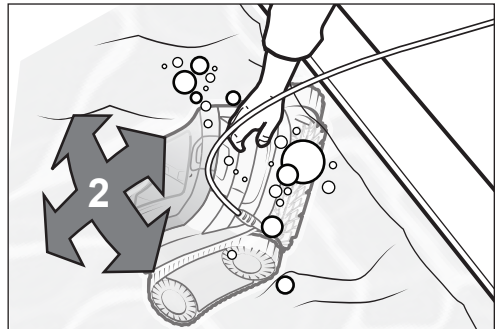


Figure 4. Cleaner Sinking to the Bottom of the Pool

4. Place all of the floating cable in the water to allow free movement in your pool from the central point. Spread out the floating cable ensuring there are no kinks or coils in the cable.

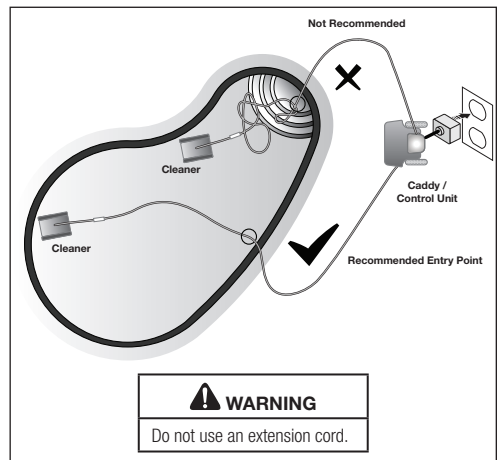



Figure 5. Pool Entry Point for Optimal Patterning

4.2 Start / Stop Cleaning

With the cleaner submerged in the water, press  to begin operation.

Press again to interrupt and cancel an in-progress cleaning cycle.

4.3 Removal from Pool

Pull gently on the floating cable to bring the cleaner handle within arm's reach.

Use the handle to lift the cleaner from the water and hold the cleaner vertically over the pool surface to drain (Figure 6). Never lift the cleaner out of the pool by the floating cable.



Figure 6. Always Remove Cleaner Using the Handle

Section 5. Maintenance

WARNING

To avoid electric shock and other hazards which could result in permanent injury or death, disconnect (unplug) the cleaner from the power source before performing any cleaning and maintenance.

5.1 Cord Tangling

Tangling can occur more frequently when the cleaner is not attended to after each cleaning cycle. Proper installation, general maintenance and the following troubleshooting steps can help to avoid cable challenges.

IMPORTANT

Cleaner power cable may become tangled if correct procedure is not followed after each cleaning cycle.

NOTE: Place all of the floating cable in the water to allow free movement in your pool from the central point. Spread out the floating cable ensuring there are no kinks or coils in the cable.

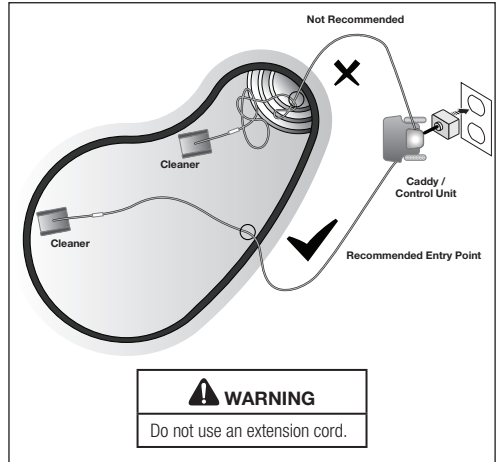


Figure 7. Optimal Entry Point in Pool

If tangling occurs, follow these steps:

1. Remove the cleaner from the pool. When the cleaner is within arm's reach, use the handle to remove from the water. Never lift the cleaner out of the pool by the floating cable.
2. Hold the cleaner vertically to drain.

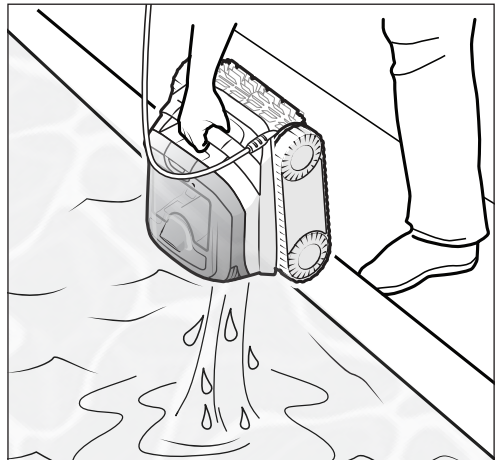


Figure 8. Keep Cleaner Vertical to Drain Water

3. Unplug power to the cleaner at the control box.

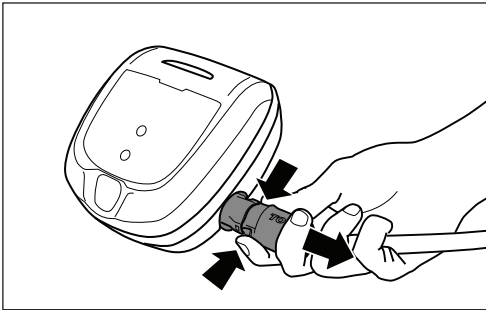


Figure 9. Unplug

4. Remove the cleaner from the pool and untangle all kinks and coils in the power cable. Start at the cleaner head. Lay the cable in the sun to loosen any tangling memory.

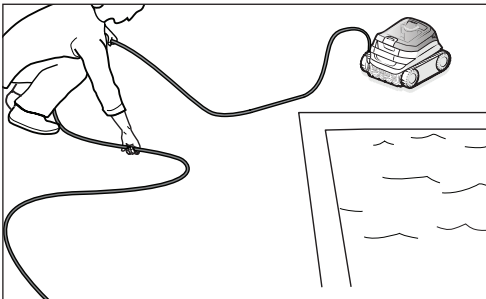


Figure 10. Untangle the power cable

5.2 Clean the Filter Canister

The filter canister should be cleaned at the end of each cycle.

1. Remove the cleaner from the water and let the remaining water drain.
2. Unlatch the cleaner cover to access the canister.

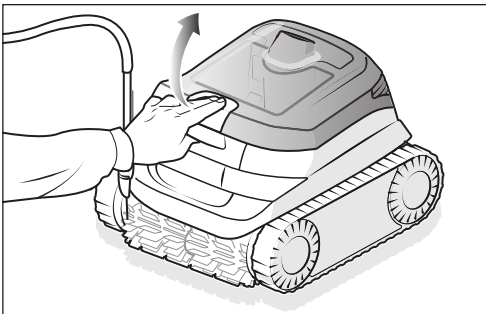


Figure 11. Lift Cleaner Cover

3. Remove the filter canister from the body.

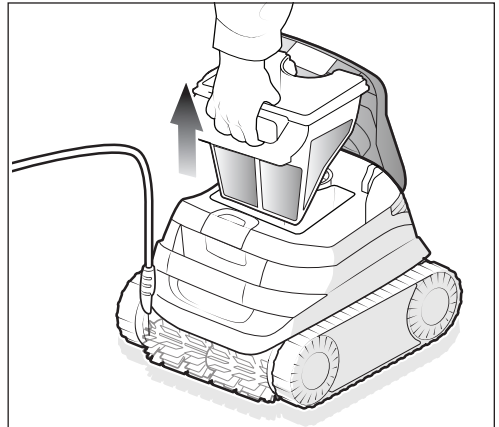


Figure 12. Remove Filter Canister

4. Empty all debris from the filter canister, then rinse the canister and the cleaner using a hose.

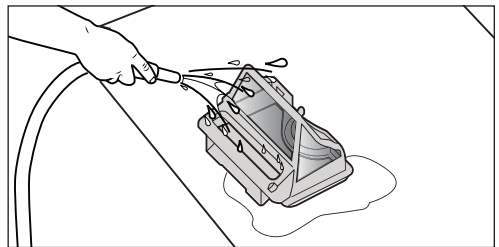


Figure 13. Wash Filter Canister

NOTE: Periodically, deep-clean the filter canister with soapy water and a soft bristle brush to prevent clogging.

5.3 Store the Cleaner When Not in Use

The cleaner should be cleaned regularly using slightly soapy water. Do not use solvents such as trichlorethylene or its equivalent. Rinse the cleaner generously using clean water. Do not let your cleaner dry in direct sunlight.

1. Disconnect cleaner from the power source.
2. Starting at the cleaner head, remove all twists and tangles from the cable. Lay the cable in the sun to loosen any tangling memory.
3. Loosely coil the cable into a loop for storage near the cleaner or on the caddy hook (not available with all models).
4. Disconnect the cable from the control box.

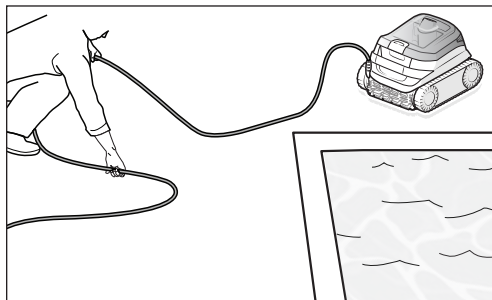


Figure 14. Untangle the Power Cable

5.4 Replacing Worn Parts

Replacing Brushes

The cleaner is fitted with brushes with a “wear” indicator.

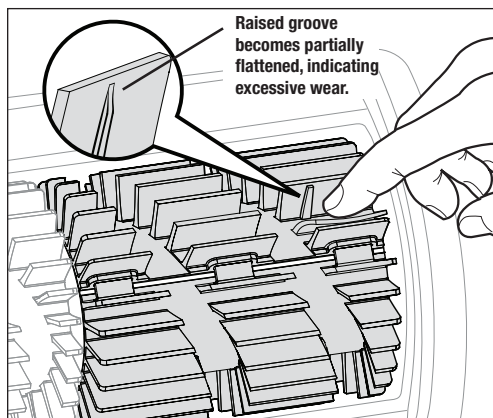


Figure 15. Worn Brush Indicator

To maintain cleaner performance at its best, replace the brushes as soon as one of the wear indicators is reached (even if the wear is not even). It is recommended that you replace the brushes when the rubber is worn down to the top of the wear indicator (or every two years, whichever comes first).

To replace a worn brush:

1. Stand the cleaner on its end in a vertical position.

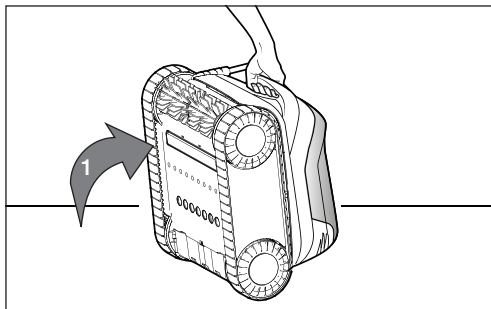


Figure 16. Cleaner in Upright Position

2. Separate the edges of the brush and undo the tabs. Remove the worn brush.

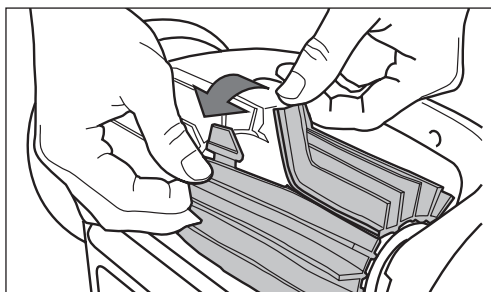


Figure 17. Undo the Tabs of the Brush

3. Position the new brush underneath the roller with the bristles facing downwards.

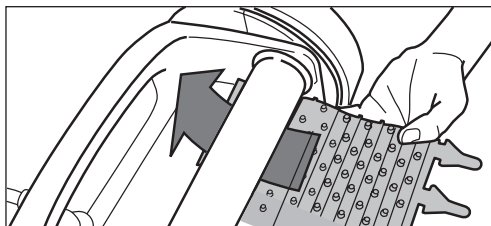


Figure 18. Position the New Brush on Roller

4. Thread each tab into the slot provided and gently feed it through until the heel comes out at the other side of the slot.

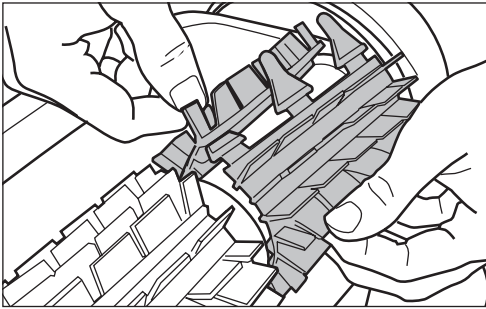


Figure 19. Pull Tabs Through Each Slot

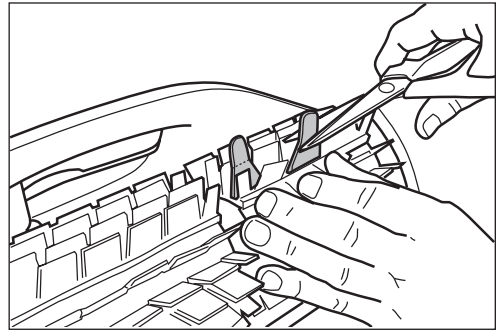


Figure 20. Cut Tabs

5. Use a pair of scissors to cut the tabs 3/4 inch from the heel so that they are no higher than the cleaning blade.

Section 6. Troubleshooting

• If the status indicator on the control box flashes to alert the user, follow the recommended troubleshooting tips below.

6.1 Error Codes

Flashing LED	Error	Solutions
<p>1 flash / 1 second pause</p>	Communication	<ul style="list-style-type: none"> • Disconnect and reconnect the cleaner. • Check that the cable is properly connected to the control box. • Check that nothing is interfering with the cable connection area. • If this does not resolve the problem, contact your local retailer for a diagnostic review or call customer service.
<p>2 flash / 1 second pause</p>	Right traction motor Left traction motor Right traction motor consumption Left traction motor consumption	<ul style="list-style-type: none"> • Check that debris or the cable is not preventing the brushes or the tracks from rotating freely. • Check that nothing is interfering with the cable connection area. • Rotate the track by a quarter of a turn in the same direction until it rotates smoothly • If this does not resolve the problem, contact your local retailer for a diagnostic review or call customer service.
<p>3 flash / 1 second pause</p>	Cleaner out of the water	<ul style="list-style-type: none"> • Turn the cleaner off. • Clean the filter thoroughly. • Put it back in the water, shaking to release the air bubbles. • Restart the cycle. • If this does not resolve the problem, contact your local retailer for a diagnostic review or call customer service.
	Pump motor Pump motor consumption	<ul style="list-style-type: none"> • Check that no debris or hair is blocking the impeller. • Clean the filter thoroughly. • If this does not resolve the problem, contact your local retailer for a diagnostic review or call customer service.

Deleting an error code:

After following the troubleshooting solutions, press start/stop button to delete the error code.

6.2 General Troubleshooting

The following list provides some helpful hints for troubleshooting common challenges when using the cleaner.

User Issue	Possible Cause	Suggested Solution
The cleaner does not stay on the pool surface or is floating excessively	There is air trapped inside the cleaner housing	<ul style="list-style-type: none"> Remove cleaner from pool and re-submerge (see <i>Install and Submerge the Cleaner</i>).
	The filter canister is full or dirty	<ul style="list-style-type: none"> Dispose of debris and thoroughly clean the filter canister with mild soap and a soft brush. Then, re-submerge the cleaner (see <i>Clean the Filter Canister</i>).
The cleaner is not climbing walls	The filter canister is full or dirty	<ul style="list-style-type: none"> Dispose of debris and thoroughly clean the filter canister with mild soap and a soft brush. Then, re-submerge the cleaner (see <i>Clean the Filter Canister</i>).
	Confirm appropriate pool chemistry	<ul style="list-style-type: none"> Speak with your pool service professional. Do not leave cleaner in the pool during any chemical treatments.
The cleaner is not moving	Not connected to electricity	<ul style="list-style-type: none"> The outlet the control box is connected to, is not supplying electrical power. Check that the outlet to which the control box is connected is receiving electricity.
	Cycle not started	<ul style="list-style-type: none"> Press the Start button to initiate a cleaning cycle.
	Reset needed	<ul style="list-style-type: none"> Disconnect the unit power and reconnect after 20 seconds. If the problem is not resolved, contact your local retailer to request a diagnostic review or contact Technical Support at 1-800-822-7933.
Cable is tangling in the pool	Cable is not spread evenly in the water	<ul style="list-style-type: none"> Verify the floating cable enters the water near the middle of the pool length. Spread all of the floating cable carefully in the pool, ensuring there are no kinks or coils. Ensure the cable is not too tightly wrapped or coiled when storing. If the problem persists, lay the cable straight in the sun to relax it and remove kinks. Follow the procedure in <i>Cord Tangling</i> to avoid and correct tangled cord.
The cleaner is not cleaning the pool effectively	Filter canister is full or dirty	<ul style="list-style-type: none"> Dispose of debris and thoroughly clean the filter canister with mild soap and a soft brush. Then, re-submerge the cleaner (see <i>Clean the Filter Canister</i>).
	Brushes are worn	<ul style="list-style-type: none"> Check the wear indicator(s). Contact your local dealer for spare parts.
	Cable is excessively tangled	<ul style="list-style-type: none"> Untangle the twisted cord and lay in sun to reduce memory (see <i>Cord Tangling</i>).