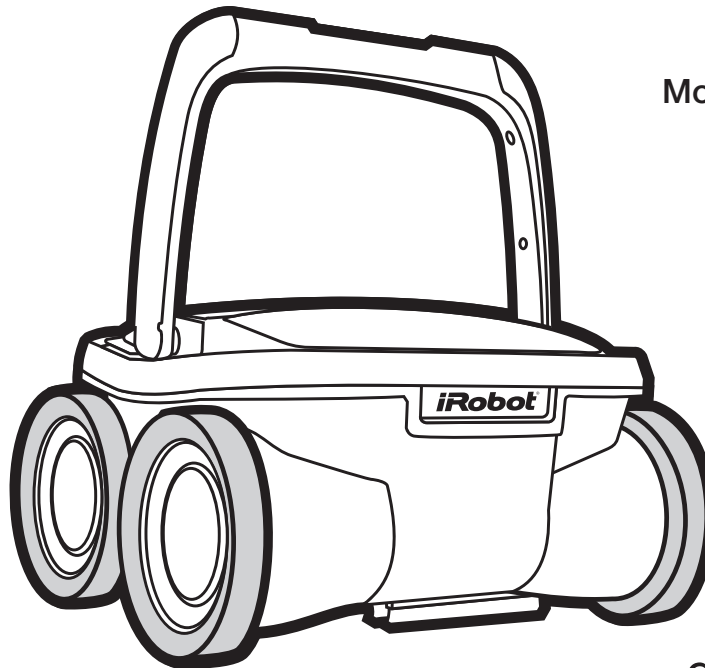


# ***iRobot***<sup>®</sup>

## **Mirra**<sup>™</sup>

### Pool Cleaning Robot

Model 530 Owner's Manual



[global.irobot.com](http://global.irobot.com)

## IMPORTANT SAFETY INSTRUCTIONS

### READ AND FOLLOW ALL THE INSTRUCTIONS

**CAUTION:** Do not plug the power supply into a grounded outlet or do not switch the pool cleaner “ON” if it is not fully immersed in water.

Operating the cleaner out of water will cause severe damage immediately and will result in loss of warranty.

Allow the cleaner to remain in the pool for 15 to 20 minutes following the end of its cleaning cycle. This will allow the motors to cool adequately. Do not leave the cleaner in the pool all the time. Always remember to turn the power supply “OFF” and unplug it from the power outlet before removing the cleaner from the pool.

**WARNING:** The cleaner must not be used when people are in the water. For use with swimming pool only.

#### *Safety Note*

- The unit must be supplied through a residual current device (RCD or GFCI) having a rated residual operating current not exceeding 30 mA
- The connection to the branch circuit should be consistent with the local and national wiring rules (electrical code).
- Mishandling of the unit can result in leakage of lubricants.
- If the supply cord is damaged, it must be replaced by the manufacturer's service agent or a qualified and trained person in order to avoid hazards.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.



**WARNING:** A Ground Fault Current Interrupter (GFCI-USA) or a Residual Current Device (RCD-EUROPE) must be installed to protect your electric outlet and prevent any possible electric shock.

#### **SAVE THESE INSTRUCTIONS**

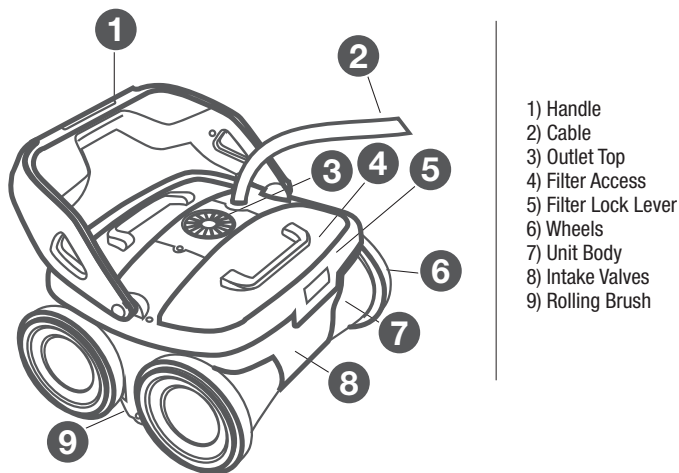
Please read this manual completely before operating your pool cleaner.

## Registration and Warranty

Please visit [www.irobot.com/register](http://www.irobot.com/register) to register your product and activate your warranty.

## Components

While the appearance of your cleaner and some of its components may differ from those shown here, the function of the cleaner, operating procedures and maintenance practices are the same.



Your new automatic pool cleaner contains:

- The robotic pool cleaner with its floating cable.
- The Power Supply (transformer).

# Welcome

Dear Mirra Owner,

Thank you for choosing a new generation iRobot Mirra pool cleaning robot. You're joining a very special community of people - 13 million worldwide and growing - who are discovering just how useful, convenient and straightforward having a home robot is. In fact, owners tend to like their robots so much they've even given them nicknames.

We're passionate about our robots too. Not surprisingly, given that making robots is all we've ever done in the 25 odd years of our existence.

Now, you're probably itching to give your Mirra a go, but it's worth having a quick read of this manual first. That way it will be even easier to use and save you even more time.

I hope you will have many enjoyable experiences with your Mirra and on behalf of all the team thank you for choosing iRobot.

Best Wishes,

A stylized, handwritten signature in black ink, consisting of two main loops.

Colin Angle  
Chairman, CEO and Co-Founder  
iRobot Corporation

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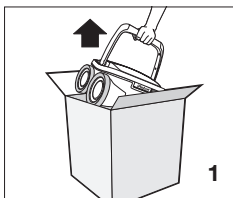
# Helpful Tips

Mirra is designed to help keep your pool clean so that you can do more enjoyable things. However, there are a few things we would like to explain in more detail so that you know your Mirra is working correctly.

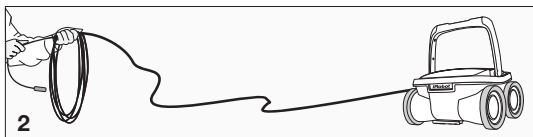
- 1.) Mirra will spend a few moments calibrating the size and shape of your pool at the start of each cleaning cycle. It will do this by making a few passes in a straight line and then turning and making a few passes in the perpendicular direction. This will happen at the beginning of every cycle and will take a few minutes.
- 2.) Mirra does not make perfect 90 degree turns. It will do its best to make a 90-degree turn but due to its four-wheel base and the resistance of the water the turns are not perfect. Not to worry, over the full cleaning cycle Mirra should turn enough to cover your entire pool for a thorough cleaning.
- 3.) Mirra turns by alternating its pump and drive motors. This behavior may cause the front wheels to lift off of the pool floor periodically. This is normal.
- 4.) Mirra is programmed to spend more time cleaning the pool floor, where the majority of dirt, leaves and other debris settle. Mirra will also clean the pool walls periodically, at predetermined intervals. Therefore, Mirra will not always climb all the way to the water line when it hits the pool wall.
- 5.) After descending from a pool wall, Mirra may pause momentarily to recalibrate its gyro and position. This will take a few seconds. This is normal.
- 6.) If Mirra does not seem to cover your entire pool, try starting a new cleaning cycle from the other end of the pool.

If you have any questions please call us at  
**1-800-845-4856 or (973) 857-2700**

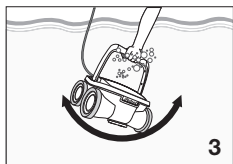
# Getting Started



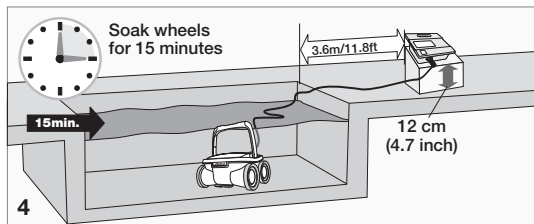
Step 1 – Pull Mirra out of the box and attach the foam wheels that come with the robot.



Step 2 – Uncoil the floating power cord to make sure it is not tangled.

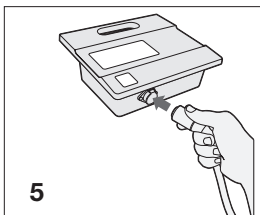


Step 3 – Holding the robot underwater, ensure all air bubbles escape, then let the robot float to the bottom of the pool.

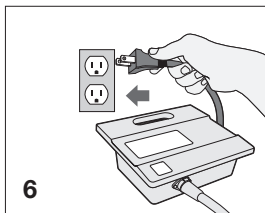


Step 4 – Let the robot soak for 15 minutes at the bottom of the pool before starting a cleaning cycle. This allows the sponge wheels to get soft for better traction. Ensure the power supply is a safe and proper distance away from the edge of the pool.

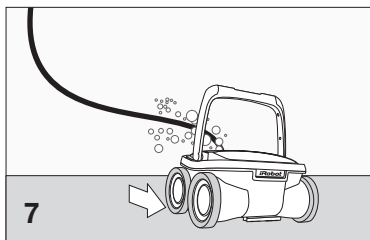
# Getting Started



Step 5 – Plug the floating power cord into the power supply.



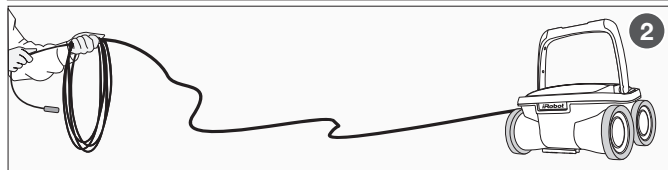
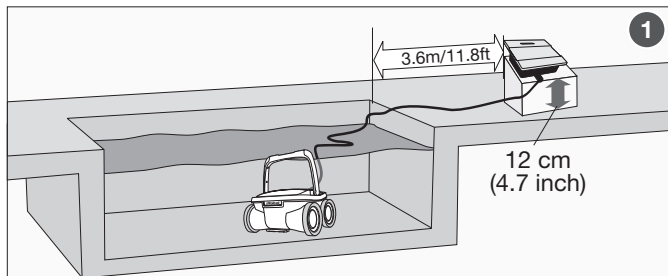
Step 6 – Plug the power supply into an outdoor rated GFCI outlet.



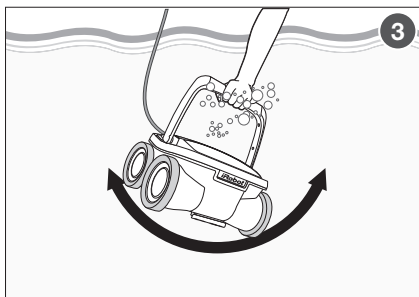
Step 7 – Push the CLEAN button and send Mirra on its way. It will run a 3-hour cleaning cycle.

# Operating Your Pool Cleaner - Set Up

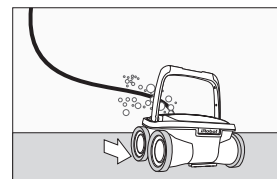
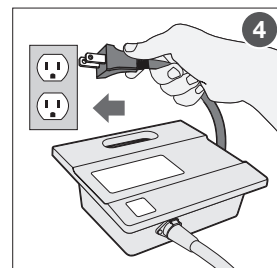
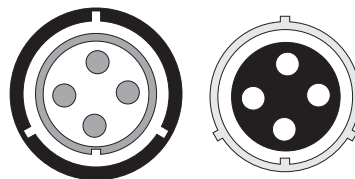
1. Place the power supply (transformer) at least 3.6 meters / 11.8 feet from the pool and at least 12 cm / 4 inch above the surface. The transformer will supply low voltage to the cleaner.
2. Uncoil the cable.



3. Place the unit in the water. Turn the unit side to side in the water to allow air to escape from the body and then let the cleaner sink to the bottom of the pool. Then, spread the cable over the surface of the pool as evenly as possible.



4. Plug the cable into the power supply. Make sure the key on the plug corresponds exactly with the key slot on the socket of the power supply. (See details on the next page)
5. Plug the power supply into a grounded outlet. Ensure that the electric outlet has been properly grounded.
6. Press the CLEAN button and the light will glow indicating that the system is "ON" and the pool cleaner will start the cleaning cycle.



## IMPORTANT:

Please be sure to always keep your pool cleaner properly stored anywhere between 10 to 40 degrees Celsius (50 to 104 degrees Fahrenheit). This will keep the motors, plastics and seals protected.

Robot can be used in water with temperatures ranging from 13°C to 35°C (55°F to 95°F). However, the recommended optimal temperature is between 22°C and 32°C (72°F and 90°F)

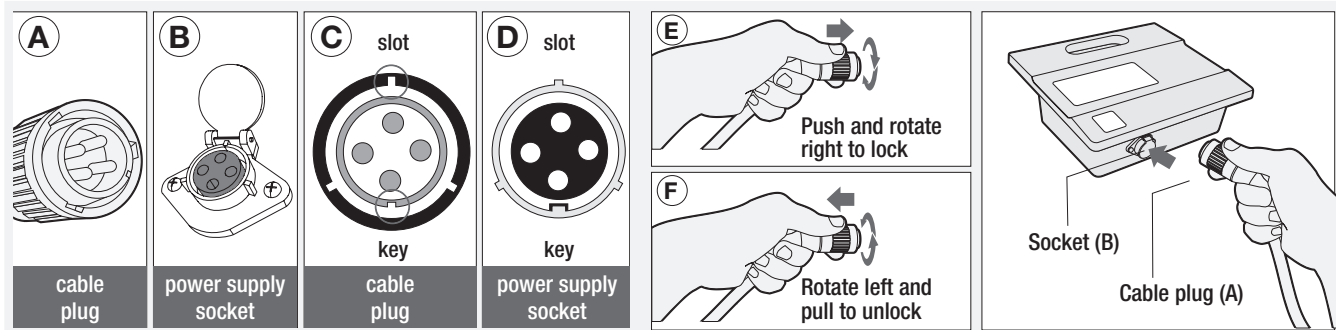


# Operating Your Pool Cleaner - Plugging the Cable

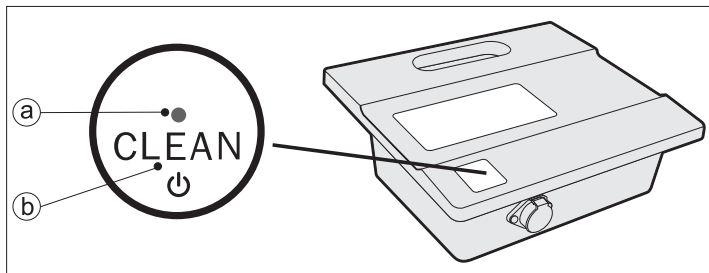
## Plug Type

To plug the cable (Fig. A) into the socket on the power supply (Fig. B), please do the following:

1. Prepare the plug as seen in (Fig. C) with the key and 3 outside slots exactly as shown.
2. Fit exactly the key and the slots from cable plug with the corresponding key and slots from the power supply socket. (Fig. D)
3. Push the plug all the way into the socket of the power supply.
4. Once the plug is in, rotate the plug to the right to lock it into place (Fig. E).
5. To remove the plug, first rotate the plug to the left to unlock it, then pull it out (Fig. F).



# Operating Your Pool Cleaner - Power Button



## a. Power LED

The blue LED flashes when the power supply is in standby mode and lights continuously when the pool cleaner is operating.

## b. "CLEAN" button

The button switches between "ON" and "STANDBY".

**IMPORTANT-** After every cycle the pool cleaner will automatically go to "standby". In case you want to turn the machine off during the working cycle, press the CLEAN button once and the LED will start flashing, indicating that the machine has stopped running.

## Maintenance Tips

- Shut off and unplug the power supply every time you remove the cleaner from the water.
- It is recommended to clean the filter after every cycle.
- Periodically straighten out the floating power cord.
- Save your cleaner's packaging for off-season storage or for shipping the unit to your dealer if service is required.
- Do not leave your cleaner in direct sunlight when not in use.
- Never leave the power supply in direct sunlight and avoid leaving it in the rain.
- Occasionally, you should rinse your cleaner in clean, fresh water.  
This will lengthen the service life of your cleaner.
- Clean the propeller once a month.

# Cleaning the Filter

It is recommended to clean the filter after each working-cycle.



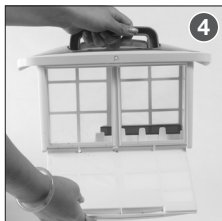
Step 1 – Lift the handle latch to remove the filter from the robot.



Step 2 – Pull the filter basket out of the robot.

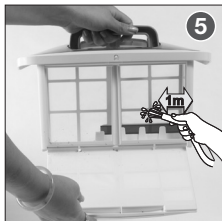


Step 3 – Open the filter basket door with the handle latch.



Step 4 – Open the filter basket door fully in order to thoroughly clean out all debris.

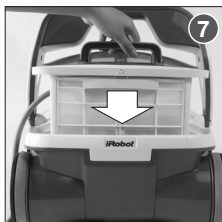
## Cleaning the Filter (Continued)



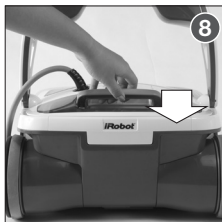
Step 5 – Wash the inside of the filter thoroughly with clean water. Ensure all debris is removed for proper cleaning performance.



Step 6 – Be sure to close the filter basket door until it latches shut.



Step 7 – Slide the filter basket back into the body of the robot.

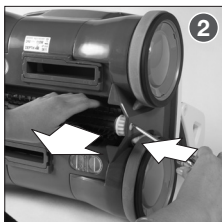


Step 8 – Be sure the filter basket handle latch is tightly closed and the filter basket is properly locked in place.

# Changing & Cleaning the Rolling Brush



Step 1 – Turn Mirra over to check the rolling brush. The rolling brush should spin when you turn the wheels.



Step 2 – The rolling brush should be removed and cleaned if it is stuck on debris. The rolling brush should be removed and replaced if it is broken. To remove the rolling brush use a screw driver to press the side pin inward and slide the brush out of the robot.



Step 3 – Once the rolling brush is removed, inspect the area and make sure it is clear of debris.



Step 4 – Re-install the cleaned or replaced rolling brush. Load one side into the pin, then slide the other side into the pin location. The pin will click into place and the brush will be locked into the robot.

## Accessing and Cleaning the Propeller



**DISCONNECT THE ROBOT FROM THE POWER-SUPPLY BEFORE PERFORMING THIS ACTION**

Clean the propeller if experiencing poor suction.



Step 1 – Remove both filter canisters from the robot.

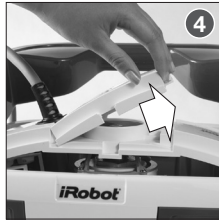


Step 2 – The robot should look like this.

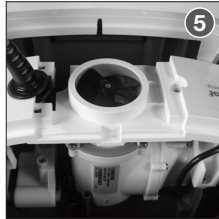


Step 3 – Unscrew the screw on the plastic cover over the propeller.

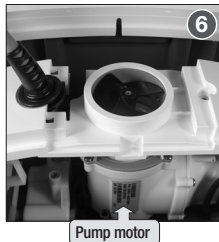
## Accessing and Cleaning the Propeller (Continued)



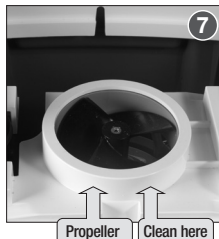
Step 4 – Remove the plastic cover by lifting the side where the screw was and then sliding the rest of the cover off the robot.



Step 5 – The robot should look like this when the cover is removed. You should have access to the propeller.

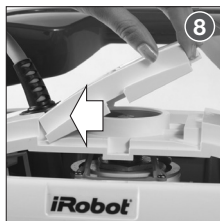


Step 6 – Remove any debris around the propeller and make sure it can rotate freely. The propeller is located directly above the pump motor.



Step 7 – Clean the housing around the propeller as shown in the picture.

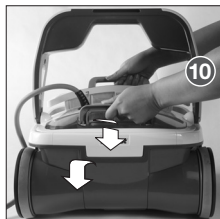
## Accessing and Cleaning the Propeller (Continued)



Step 8 – Replace the propeller cover the same way it was removed. Slide one side into the robot housing first. Then slide the other side in place.



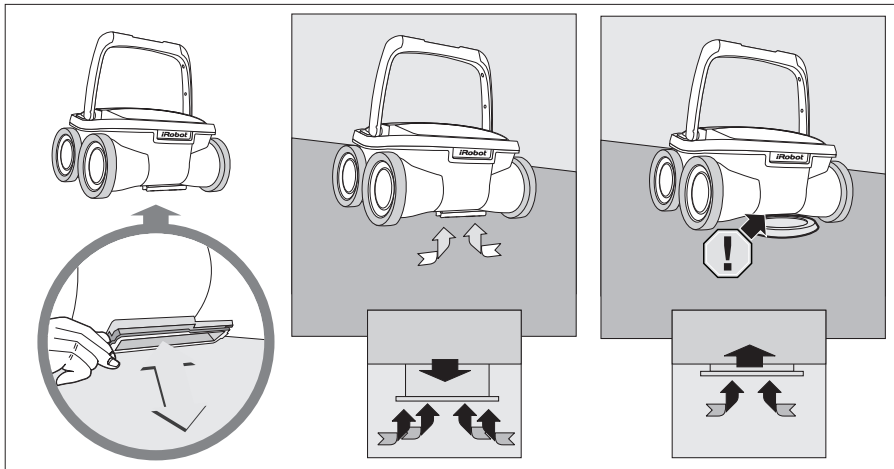
Step 9 – Screw the screw back into place to lock down the propeller cover.



Step 10 – Replace the filter canisters back into the robot. You can now resume use.



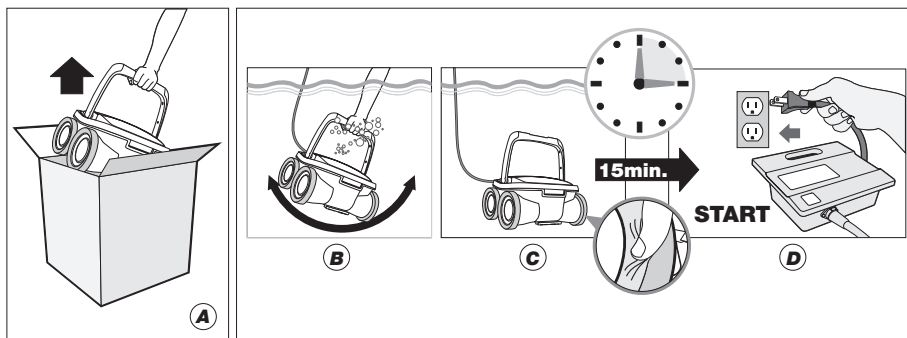
# Maintenance and Adjustment



## Intake Valve Adjustment:

- The intake valves have a plastic neck that can be adjusted up and down.
- Try adjusting the intake neck down to get better suction for cleaning up fine debris off the pool floor.
- Conversely, try adjusting the intake neck up if Mirra is getting stuck on your pool floor filters. Adjusting the intake neck up will give Mirra better ground clearance.

## Maintenance and Adjustment (Continued)



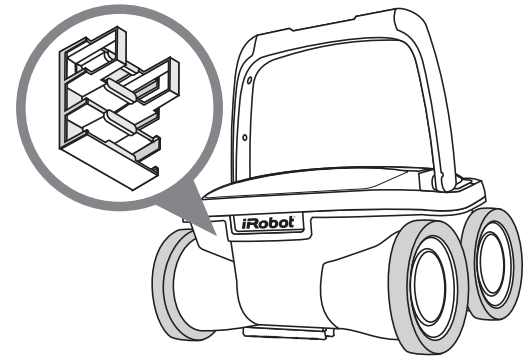
### PVA Wheel Soaking:

- The PVA sponge wheels can dry out and become hard after long periods of storage.
- The PVA sponge wheels must be wet and soft in order to provide traction for driving around the pool and up the pool walls.
- Allow the robot to rest at the bottom of the pool and let the PVA sponge wheels soak for at least 15 minutes before starting a cleaning cycle. This will ensure Mirra has optimal traction and you get best performance out of the robot.

# Maintenance and Adjustment (Continued)

## Float Blocks

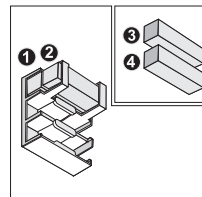
- Mirra has a gyro that helps it navigate and turn in the pool.
- Mirra also uses a “Float to Turn” technique to make turns which causes Mirra to do “wheelies” and drive on 2 wheels when it turns. This is normal.
- Sometimes due to slippery pool surfaces or steep pool wall slopes Mirra can still have hard times making turns. If this behavior is noticed it is recommended to adjust the number of float blocks inside the Mirra.
- The float blocks are located in a plastic holding rack inside the body of the Mirra (seen in the picture to the right).
- To access the float blocks first remove the filter canisters. Then find the float block holder located inside the body of the robot and mounted on the side wall.



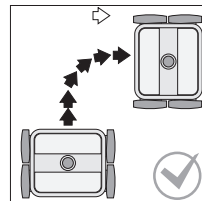
# Maintenance and Adjustment (Continued)

## Float Block Adjustment:

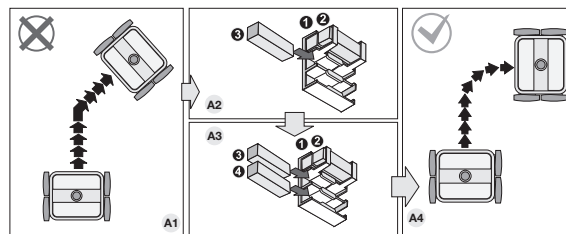
- Mirra comes with 2 float blocks already installed into the float block holder (#1 & #2 seen in the picture). Mirra also comes with 2 additional float blocks for manual adjustment (#3 & #4 seen in the picture).



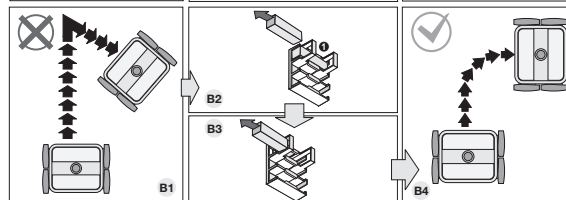
- When the ideal number of float blocks are installed, Mirra should perform a “Float and turn” maneuver and make approximately a 90° turn. The 90° is soft and will occur in the shape of an arch but when Mirra has finished its turning maneuver it should be traveling in a perpendicular direction.



- If Mirra completes its turning maneuver and has turned less than 90° then the robot is too heavy and not buoyant enough (Picture A1). This is wrong. Add one float block and test the robot again (picture A2). Continue to add float blocks (picture A3) until Mirra performs a soft arching 90° turn (picture A4).



- If Mirra completes its turning maneuver and has turned more than 90° then the robot is too light and too buoyant (picture B1). This is wrong. Remove one float block and test the robot again (picture B2). Continue to remove float blocks (picture B3) until Mirra performs a soft arching 90° turn (picture B4).



## PLEASE CHECK THE FOLLOWING BEFORE CALLING YOUR SERVICE CENTER

Before troubleshooting, the pool cleaner must be disconnected from the power supply and the power supply must be unplugged from the electrical outlet to prevent damage to the unit and possible personal injury.

### 1. Unit does not pump water or move:

- Check to see if electric outlet has power.
- Check if transformer is plugged into a grounded outlet and the cable assembly is plugged into the transformer.\*
- Switch the power supply "OFF" and "ON" a few times.  
Allow 45 seconds between "ON" and "OFF".
- Check for and remove any debris such as hair, string, or leaves that may be obstructing the free movement of the wheels.

### 2. Unit does not pump water at all, or pumps slowly but moves:

- Check to see if propeller is seized due to accumulation of hair or debris on the propellers. Remove the top screw on the outlet top and clean the propeller. When reassembling the top cover, do not overtighten the screw.
- Check to see if the filter canisters are thoroughly clean. Clean as necessary.
- After following all of the above, if there is still a problem, visit [global.irobot.com](http://global.irobot.com) or call **1-800-845-4856** or **(973) 857-2700**.

### 3. Unit does not move but does pump water:

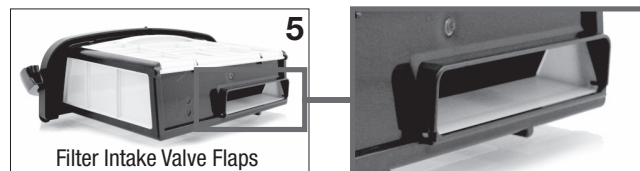
- Check to see if forward/reverse motion is obstructed by foreign matter; hair, debris, etc. on wheels or there is an entanglement with the power cord.
- Check there is no debris stuck inside the wheel between gears
- Verify if the rolling brush is properly positioned and not broken.  
The brush is transferring the rotation to the wheels and - if broken- the robot will not move properly.
- After following all of the above, if there is still a problem, visit [global.irobot.com](http://global.irobot.com) or call **1-800-845-4856** or **(973) 857-2700**.

### 4. Unit does not climb the wall:

- Check to see if the filter canisters are thoroughly clean. Clean as necessary.

### 5. Unit does not pick up dirt and debris:

- Check 2a and 2b of this guide.
- Extend the water intake (see page 16)
- Check the Filter Intake Valve Flaps on the underside of your unit (see image below). The Flaps should move freely to open and close. Clean and free the Valve Flaps if necessary.



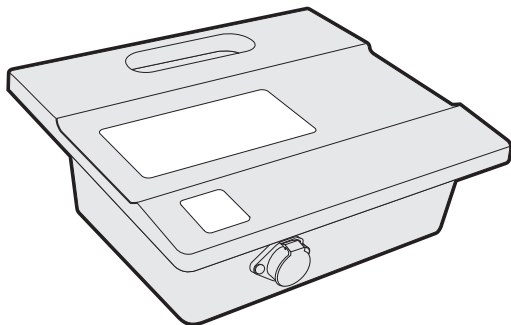
### 6. Unit does not seem to cover the entire pool:

- Most likely a thorough cleaning of the filter is needed.
- Verify that the unit rotates by 90 degrees on the first turn of a new cycle.  
If not - add or remove floats according to the instructions on page 18 & 19.
- Check to see that the floating cable is properly spread out and is untangled.
- Allow the unit to run in the pool for the entire cleaning cycle.
- Check that the Motor is operating.
- After following all of the above, if there is still a problem, visit [global.irobot.com](http://global.irobot.com) or call **1-800-845-4856** or **(973) 857-2700**.

### 7. Debris Comes Out Of The Unit When Removing It From Pool

- Filter lock handle (Top Access Lid Does Not Close Properly) -  
Check that the Lock handle release mechanism is not damaged. The lid edges should be aligned with the unit's body and the top filter is properly locked.
- Intake Valves - Check that the Filter Intake Valve Flaps (see image above) move freely to open and close. Clean flaps if necessary.

## Power Supply



### Physical

Dimensions (W \* D \* H) \_\_\_\_\_ 273mm \* 242mm \* 90mm  
10.75in \* 9.53in \* 3.54in

Weight \_\_\_\_\_ 1.9 Kg / 4.19 lbs

### Electrical

Input rating \_\_\_\_\_ 100-240V~, 50/60Hz, 210W

Output rating \_\_\_\_\_ 29V, 6.3A

Storage temperature \_\_\_\_\_ -10°C - 60°C (14°F - 140°F)

Operating temperature \_\_\_\_\_ 0°C - 45°C (32°F - 113°F)

Ingress protection \_\_\_\_\_ IP54

### Grounding

The power supply must be connected to a grounded 3 conductor socket. The main power supply must be connected via a GFCI (ground fault circuit interrupter) or RCD (residual current device) having a rated residual operating current not greater than 30mA.

### Maintenance and safety

The cover should not be removed except by an authorized service agent or trained and qualified person. No internal adjustment or component replacement can be carried out by the user. The power cable must be disconnected before removing the cover. If the power supply cord is damaged, it must be replaced by an authorized service agent or trained and qualified person. Do not operate the supply if the cord is damaged.

### Environmental conditions

The power supply is designed to work both indoors and outdoors. However, the unit should not be operated in direct sunlight or be exposed to water. The power supply should not be operated in an ambient temperature in excess of 40°C/104°F.

# Declaration of Conformity

## Test Standards

**EN60335-1** Household and similar electrical appliances-Safety Part 1: General requirements

**EN60335-2-41** Household and similar electrical appliances-Safety Part 2 Particular requirement for pumps

**EN62233** Electromagnetic fields-Methods for evaluation and measurement

**FCC Notice:** 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 instructions, 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 the 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 a circuit different from that to which the receiver is connected.
- Consult the manufacturer, dealer, or an experienced radio/TV technician for help.

**⚠ WARNING: Changes or modifications not expressly approved by iRobot could void your warranty.**

## Get Robot Updates

Register your Robot! Go to [global.irobot.com](http://global.irobot.com)

## iRobot Customer Care USA

**If you have questions or comments about this product please contact iRobot before contacting a retailer.**

Please visit the iRobot home support site at [www.irobot.com/support](http://www.irobot.com/support) for support tips, frequently asked questions, or information about accessories and other iRobot products.

### Should you still need assistance:

Call our Customer Care team at **1-800-845-4856** or **(973) 857-2700**.

### iRobot Customer Care Hours:

- Monday – Friday 9AM – 7PM Eastern Time
- Saturday 9AM – 6PM Eastern Time

## iRobot Customer Care Outside USA & Canada

Visit [global.irobot.com](http://global.irobot.com) to:

- Learn hints and tips to improve the performance of your robot
- Get answers to questions
- Download a detailed product manual
- Contact your local distributor