



# HAYWARD®

## AquaVac® 500 Troubleshooting Guide



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# Safety



## Warning - Risk of Injury

Failure to follow the safety warnings below may result  
in severe injury, death or property damage.

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- Always place the machine in the water before connecting it to the electrical supply.
- Always connect the power supply to an approved GFCI, ground fault circuit interrupter.
- Do not handle machine while it is plugged into the electrical supply.
- Do not use an extension cord.
- Immediately remove the cleaner from the water after cleaning.
- Never allow swimmers in the pool while the cleaner is operating.
- Never allow plug or power supply unit to enter pool.
- Keep the power supply unit a safe distance from the pool edge and water.
- Keep the power supply unit dry and away from rain or other water spray.

# Service Tools

Pin Removal Tool

Torque Driver



Torx Bit  
T10 & T20

Spanner Tool

Torx Driver  
T10 & T20

Flat Head &  
Phillips Head  
Screwdrivers  
(not shown)

# Power Supply Control



Power Cord  
(To GFCI Outlet)

Cord Assembly w/Swivel  
(To Cleaner)

On/Off Power Button

Power Indicator Lights

Cleaning  
Cycle  
Mode  
Lights

Cleaning  
Schedule  
Mode  
Lights

Cleaner  
Schedule  
Button

Cleaner  
Mode  
Button

# Motor Unit

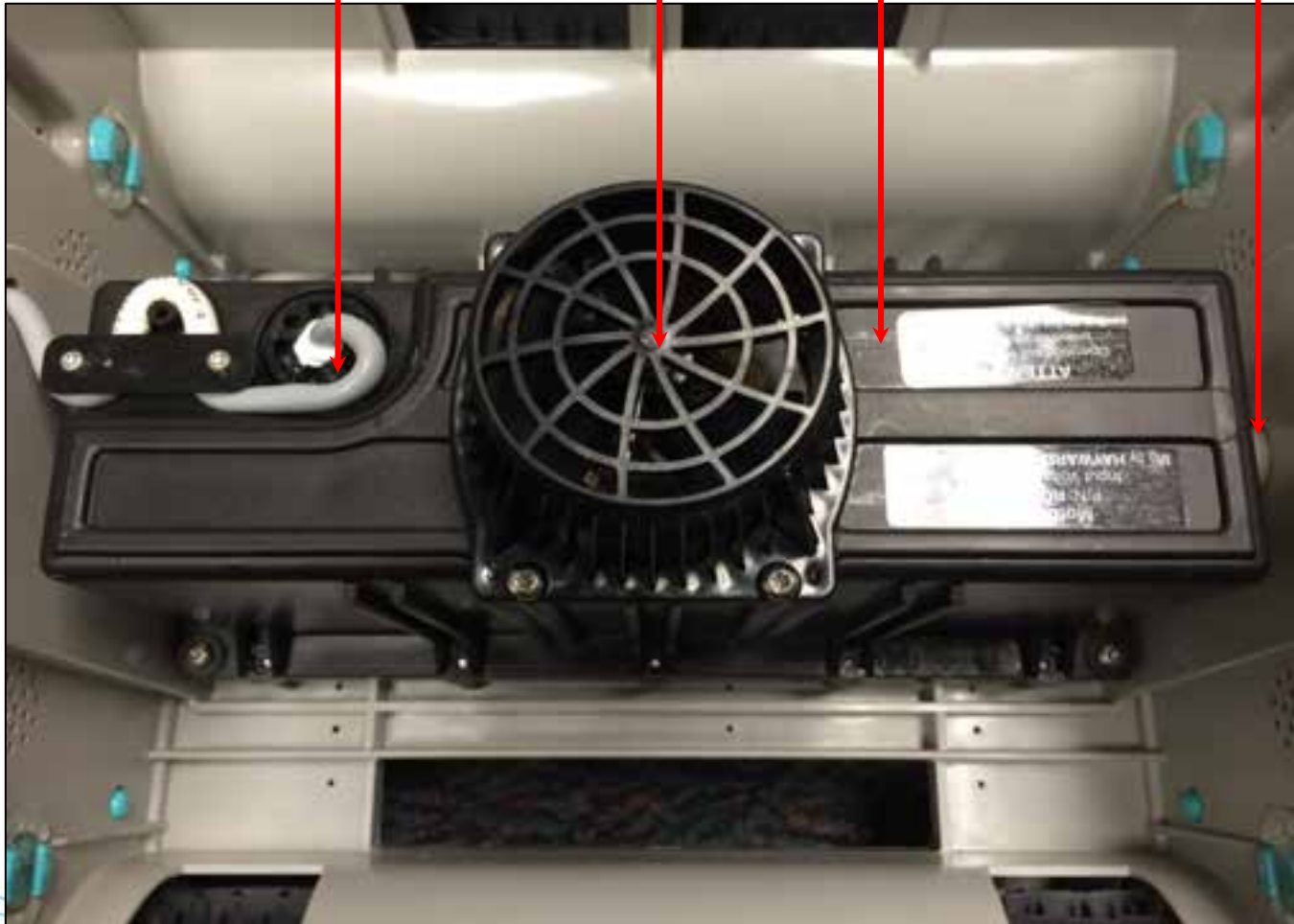
Top view with filter assembly removed.

Cord to Power  
Supply

Impeller  
Cover

Motor assembly

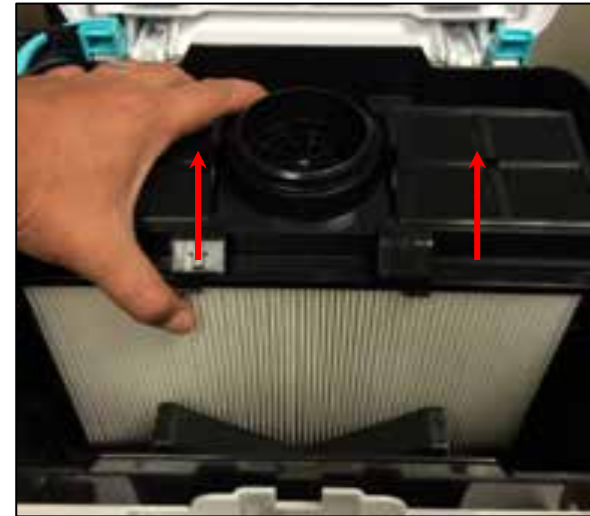
Motor output shaft.  
Drive end.



# Filter Removal



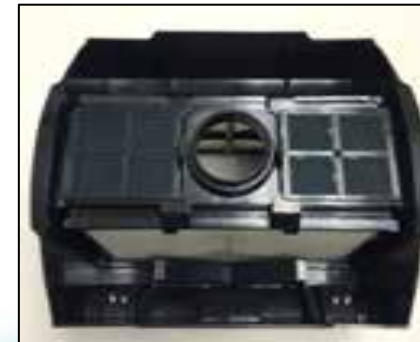
**Step 1:** Press Dome Button to lift Dome for filter removal.



**Step 2:** Lift to remove Filter Bucket Housing.

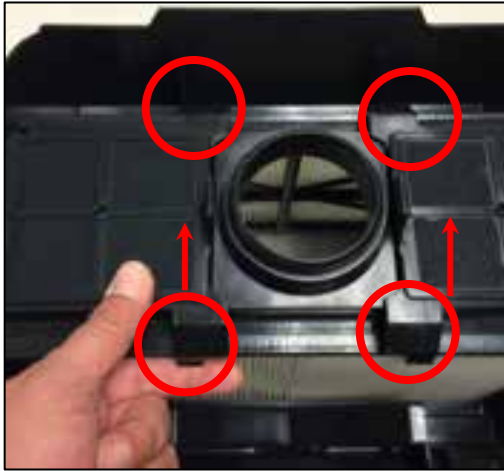


Filter Bucket Housing removed



Filter Bucket Housing

# Filter Removal



**Step 3:** Open filter doors by unsnapping and lifting up both filter door latches.

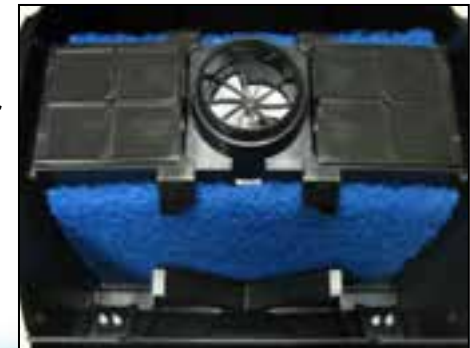


**Step 4:** Lift filter cartridges out.



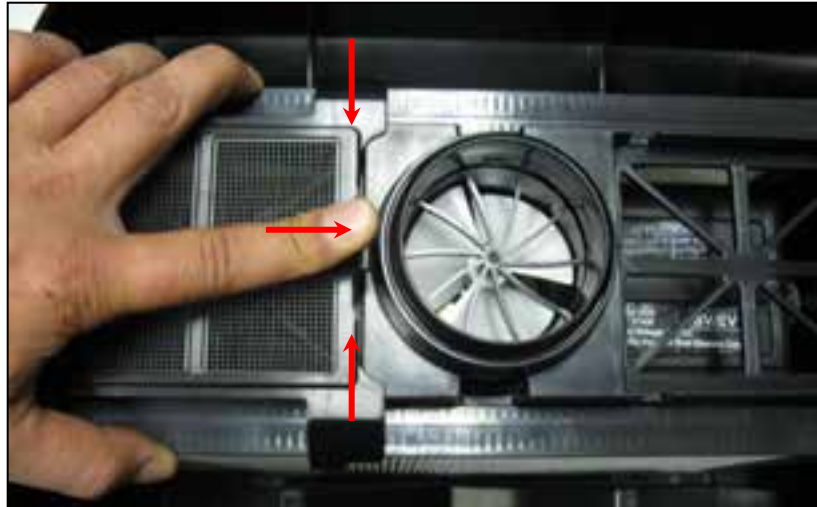
**Note:** Elements can be cleaned by gently spraying with a garden hose. Be careful not to use high pressure or this may damage the element. Elements can be cleaned within Filter Housing or after being removed as shown in Step 4.

Spring cleanup filter elements.  
For temporary use in heavy spring cleaning.





# Filter Replacement



Hold both cartridges toward center. Push down cover and press tab towards fan to lock cartridges in place.



Make sure cover snaps in place.

# Wheel and Tire Removal

**Step 1:** Remove snap retainers by unsnapping from Side Cover.



**Step 2:** Remove Side Cover from Cleaner Base.



**Step 3:** Remove wedge from wheel bushing



**Step 4:** Remove wheel from wheel bushing and cleaner base.



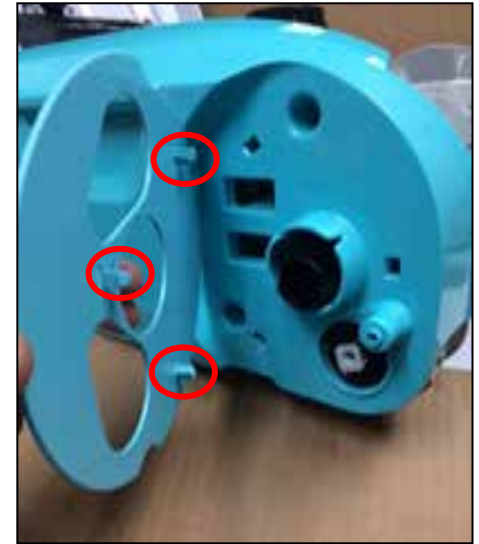
# Side Cover Disassembly



**Step 1:** Remove T20 screw and Wheel Drive Gear.



**Step 2:** Remove black cover and idler gear.



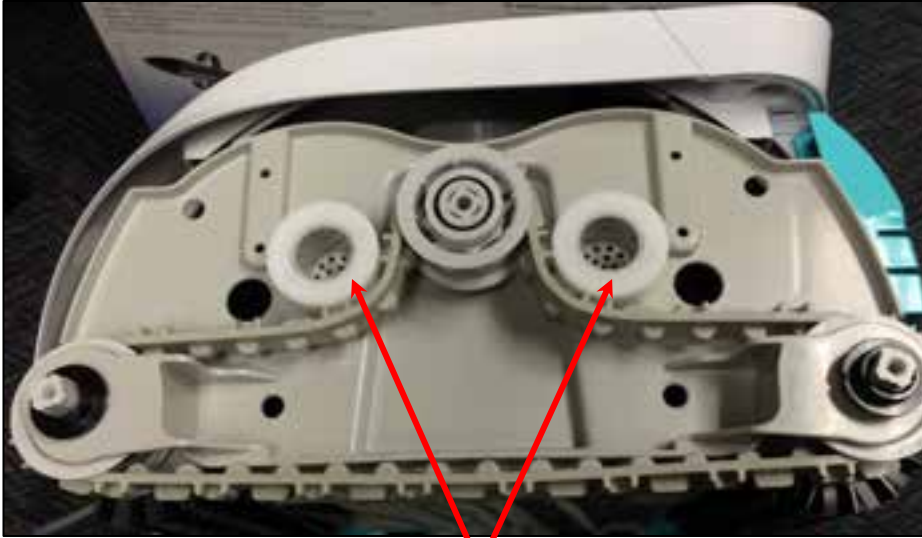
**Step 3:** Remove Wheel Shield by unsnapping tabs from Side Cover.

With Cover Removed



# Drive Track & Pulley Bearing Removal

Drive Side



Pulley Bearings



Check for missing/broken drive cogs on inner loop of belt and also for cracks in belt.

Bearings should rotate smoothly and freely.

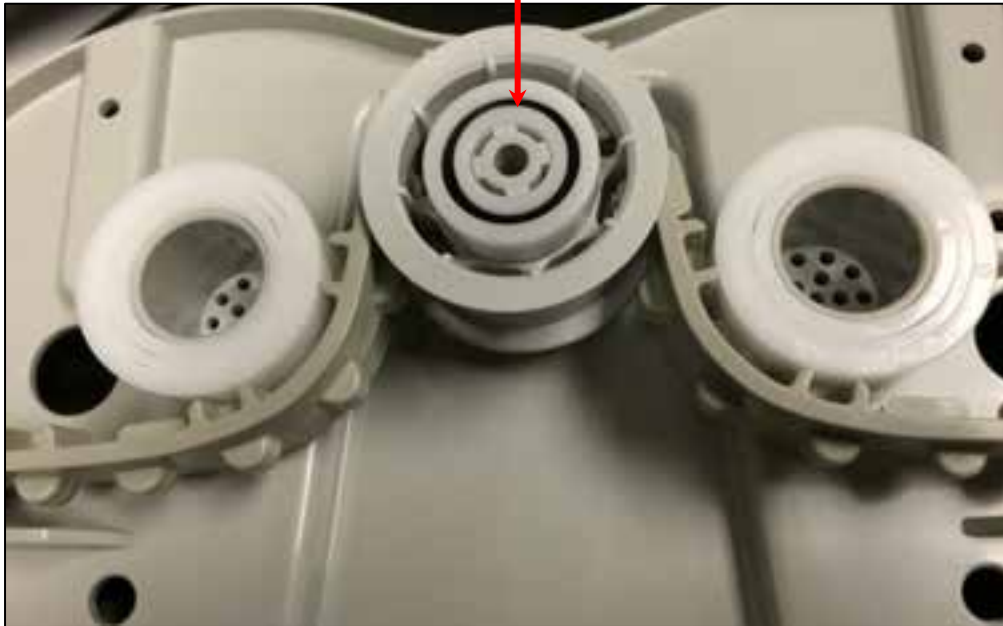


Note that flange faces inward.

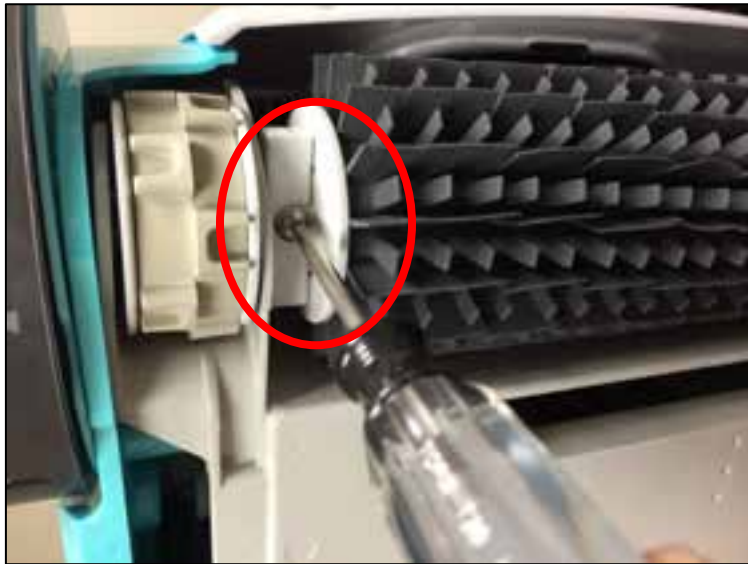
# Drive Shaft Pulley Removal

Drive Shaft Pulley, motor output side only.  
Remove by pulling away from Cleaner Base.

Note drive 'key' in pulley and  
how it mates to the output  
shaft drive pin of the motor.



# Wheel Tube & Drive Wheel Removal



**Step 1:** Unscrew T20 screw from each side of roller.



**Step 2:** Carefully pull wheel tube away from wheel axles.



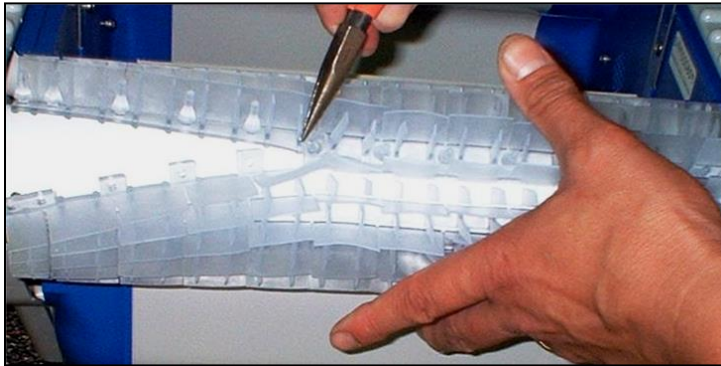
**Step 3:** Remove Roller bushing from Roller Wheel Shaft.



**Step 4:** Slide Roller Wheel Shafts away from the Roller Wheels.

# Wheel Tube Brush

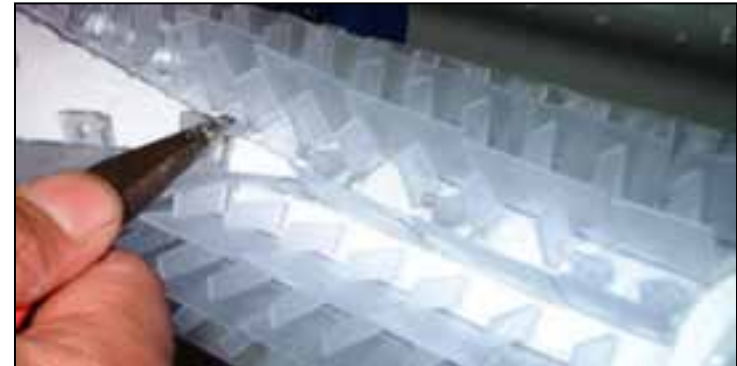
## Removal



Brush replacement can be done with the cleaner assembled or broken down. Unsnap the tabs that run length wise of the brush.



## Replacement



Start in the center of the brush and put the post through the hole in the tab with the aid of a pair of needle nose pliers. Pull post slightly till taught then push down on tab until it locks into post. Spraying the post with soap and water sparingly will aid in assembly.

# Power Cord Removal



**Step 1:** Remove Cord Assembly holder from Right Side Cover.



**Step 2:** Remove strain relief cover plate.



Plate removed showing strain relief system.

**Step 3:** Use Spanner Wrench and Torque driver to remove threaded plug.



Threaded plug removed



# Power Cord Installation



**Note:** Connector must be installed with tab on connector placed in mating hole of motor assembly.

**Step 1:** After connector is installed, apply RTV 162 Sealant to Motor connection.



**Note** the order of the seals and washers. Remember to mate the taper of the seal to the threaded plug.

**Step 2:** Use the Torque driver and spanner wrench to install the threaded plug. Tighten the threaded plug until you feel the Torque wrench click or slip.



# Motor Box Removal



Remove 4 T20 screws securing motor to base.



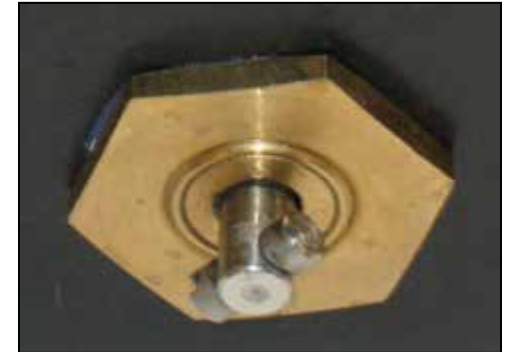
When removing motor assembly without complete removal of side cover, gently separate motor output shaft from keyed drive gear using a screwdriver. The drive gear will remain in place. Be sure to remove all 4 motor securing screws.

# Motor Box Removal

Rotate motor slightly to remove drive output shaft from side of unit, then lift out motor assembly.



Output shaft key on motor, mates with drive gear.



Impeller removal

**Note:** The motor assembly is a sealed unit and cannot be serviced, only replaced. It does not contain oil and is water cooled. The impeller can be replaced.

# Testing Power Supply

**Note:** Make sure the Power Supply is plugged in and on prior to proceeding. If power LEDs are pulsing, the output voltage is disabled on the power supply. You must press the power button and wait for the power LEDs to light up solid before taking the voltage measurement

**Step 1:** Set the multimeter to measure DC volts.

**Step 2:** Disconnect floatation cord from power supply and check power supply for 30-38 VDC on the holes shown.

If voltage is not correct, verify proper line voltage from GFCI outlet. If line voltage is correct, replace Power Supply.



# Flotation Cord / Motor box Testing



**Step 1:** Set the multimeter to measure DC volts.



**Step 2:** With the floatation cord disconnected from the power supply for at least 30 seconds, measure the voltage on the floatation connector pins.

If the voltage is more than 0.1VDC, there is likely water in the Cord or Motor Assembly. Continue to Step 3.

**Step 3:** Set the multimeter to measure continuity.



**Step 4:** Remove cord from motor box and check ohm's reading between each pin and the other end of each. .4 to .8 ohm's is acceptable. If resistance is greater, replace the Cord. Otherwise, replace the Motor Assembly.

Note: Pins by the notches on each end signify same wire.



# Troubleshooting

## ➤ Navigation

- The unit navigates itself primarily by running in a diagonal direction at the water line.
- This is the key to complete pool coverage.

## ➤ Shutdown

- The power supply will continue to supply low voltage to the unit and the diagnostic memory will continue to record hours until the power switch is turned off.

## ➤ Cleaner flips upside down and continues to run

- The machine should correct itself and flip upright.
- Replace motor.

# Troubleshooting

## ➤ Runs only a few seconds or minutes

- Make sure the machine is submerged in the water. An out of water detection within a few minutes will cause the machine to stop if not completely submerged.
- Check electrical source for proper voltage.
- If using an extension cord, test for proper voltage. An extension cord is not recommended.
- Check for missing or broken impeller blades.
- Check for pump impeller obstruction.
- Check pump impeller for hard rotation and pump motor binding.

## ➤ Cord twisting

- Be sure machine is not getting caught on obstructions in the pool such as raised drains, in floor cleaning heads, toys, etc.

# Troubleshooting

## ➤ No movement but impeller turns

- Drive motor pin or drive motor is broken possible due to overload during use. To avoid repeat failure, follow-up with the customer for obstructions in the pool such as a ladder.
- Check for belt or roller obstruction
- Check for broken impeller
- Check for missing roller tube bearing screw.

## ➤ No movement and no pump discharge

- Check for impeller obstruction.
- Check for broken blades.
- Check electrical source for proper voltage range of 115-125v, including extension cord if used.



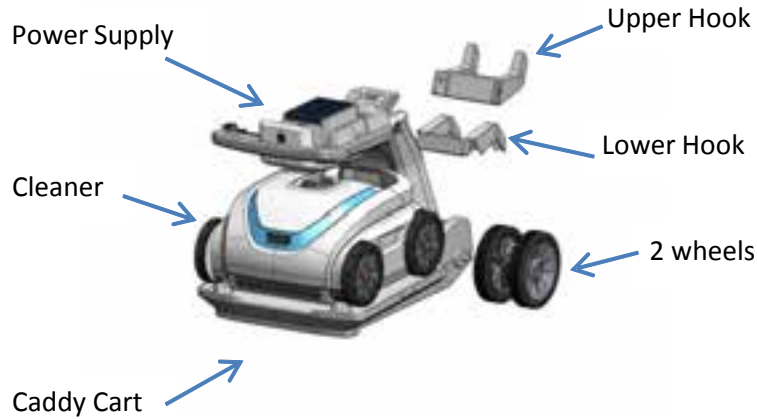
# Troubleshooting

## ➤ Debris falls from unit when removed from pool

- Filter overload, increase frequency of filter cleaning.
- Large debris blocking intake. Remove large debris from pool before using machine.
- Drain flaps out of place on bottom lid. Snap flaps back into place.

# Caddy Cart Assembly

**Step 1:** Remove cleaner, power supply, 2 hooks, 2 wheels and caddy cart kit from caddy cart before installing parts.



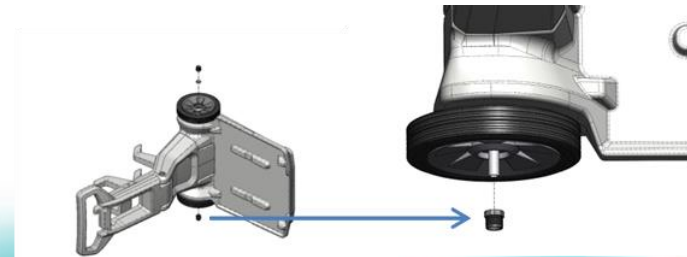
**Step 3:** Install upper hook using 2 self-tapping screws.



**Step 2:** Insert lower hook using 2 self-tapping screws.

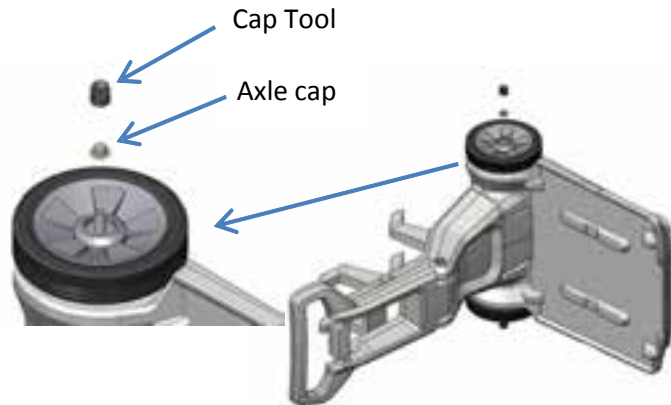


**Step 4:** Remove plastic caps from axle. Lay cart on side, slide both wheels onto axle and attach the first Cap Tool to the axle bottom end to support it.

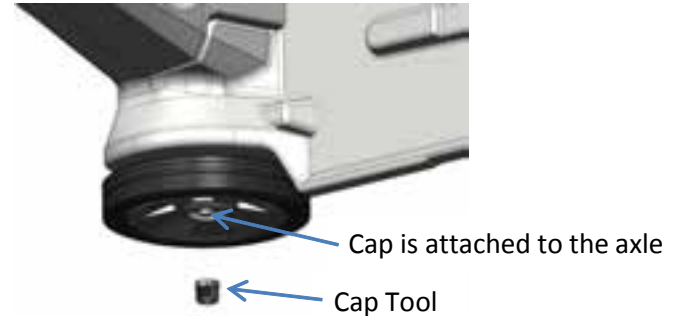


# Caddy Cart Assembly

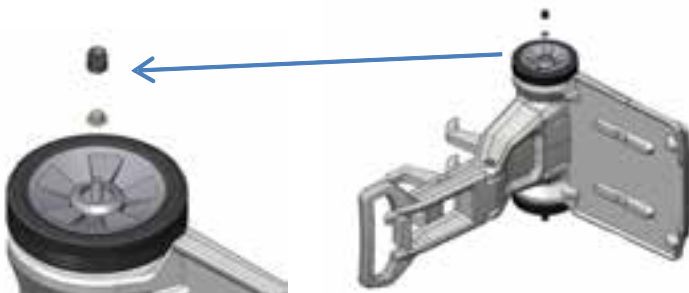
**Step 5:** Use the second Cap Tool to tap axle cap on the axle top.



**Step 6:** Turn caddy cart over and support the axle cap at the bottom with the Cap Tool.



**Step 7:** Install remaining axle cap as described in Step 5.



**Step 8:** Replace Cleaner and Power Supply.

