

# CHRONO 600 OPERATOR Manual



# OPERATION MANUAL

Dear Customer,

Congratulations on your purchase of a CHRONO 600 robotic pool cleaner and we trust you will enjoy the benefits of your new state of the art robotic cleaner.

The CHRONO 600 has been designed, manufactured and checked with the utmost care so that you will be completely satisfied with it.

Please read this Operation Manual before you use your new CHRONO 600 robotic pool cleaner.

This manual contains all the necessary information required to ensure the optimum and safety operation of your CHRONO 600 cleaner.

For any other additional information, contact Aquatron Inc. in relation to the utilization and maintenance of your cleaner.

Their service technicians are available for any questions, support or training necessary to ensure the normal operation of your Robot.

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## 1. How to install your CHRONO Robot

### A - Unpacking

Your CHRONO robotic pool cleaner consists of the following.

- The CHRONO Robot and its power cable
- The Caddy Cart
- The Control Box
- The Remote Control
- An envelope containing the operation manual, warranty certificate and screws for the Trolley

**(IMPORTANT)** We recommend that you keep the packing materials for the future purpose.

### B – Electrical Connections

For your safety and the best operation of your CHRONO 600 follow the instructions below:

- Place the Control Box at least 11.5 feet / 3.5 meters away from the edge of the pool and avoid direct exposure to the sun light and to the rain.
- Connect the blue floating cable to the Electronic Control Box and latch the locking clip.
- Make sure that the red ON / OFF switch on the side of the box is in the «**OFF**» position.
- Connect the Control Box to a power outlet with a ground fault Current Interrupter (GFCI) This MUST Be Installed To Protect Your Electric Outlet and Prevent Any Possible Electric Shock.

If you use an extension cord to connect your Robotic cleaner, ensure that the Caddy Cart is located at least 11.5 feet / 3.5 meters away from the edge of the pool.

**Caution! Serious damage can be done to the Robot if it is turned on outside of the water!**

## 2 – How To Use Your CHRONO Robot

### A – Pool entry of the Robot

**Attention: Do not allow anyone to swim when the CHRONO is in the pool.**

- The Caddy Cart must be positioned in such a way that the Robot can reach all the surfaces of the pool while the minimum distance between the trolley and the edge of the pool is kept at 11.5 feet / 3.5m.
- Unroll the floating cable on the pool's side to avoid any kinks before placing the Robot in the water.

- Place the cable and the Robot in the water and wait for all of the trapped air to escape.
- It is essential that the Robot sinks down on to the bottom of the pool by itself.

**IMPORTANT : Do not turn on the CHRONO Robot out of the water as this could cause damage to the pump and motor seals and thus automatically cancel the Manufacturer's warranty.**

## **B – Start Up**

You can turn on your CHRONO 600 either in Automatic or Manual Mode.  
In Automatic Mode the Robot will operate for 3 – 4 hours as set by the factory.

- Connect the electric plug to an outlet which is protected by a (GFCI) circuit-breaker.
- Push the red (ON) / (OFF) switch located on the side of the Control Box to the «**On**» position. The indicator light will illuminate indicating that the power is on.

### ***Automatic Operation: Random Mode***

In the random mode your Robot will move according to a predefined sequence of the microprocessor, allowing it to detect the walls and change directions in relation to the dimensions of your pool. The program is designed to suit most pools. However, if this configuration does not suit the size or the shape of your pool, contact your dealer so that the program can be modified to the specific conditions of your pool. There is a black 3 hour time-delay switch located on the Electronic Control Box that can delay the start of the Robot by pressing it to the **(ON)** position.

- Press the «**Start** »button to start the Robot.
- The Robot starts after a few seconds. The **{Start}** indicator light comes on.
- At the end of the program the Robot stops. Never pull the cable to retrieve the Robot.
- Push the ON / OFF switch to the «**OFF**» position and unplug the power cable from the mains.

**IMPORTANT: The Automatic Mode cannot be used for some pools due to their shape or some unusual design feature of the pool (central island, raised water inlet...) or some environmental parameter such as temperature (e.g. water at 50°F/ 10°C...) or the chemical nature of the water (.e.g. very high salinity, permanent algae proliferation). If this is the case please contact us for more information.**

### ***Automatic Option: Systematic Mode***

In this program your Robot will move according to a predefined cycle so that the pool will be cleaned within an optimal delay. This kind of cleaning must be used with pools having a rectangular shape with a flat floor or small slopes.

How to use it:

**Put the cleaner in water at its starting point (explained in (A) – Pool entry of the Robot ).**

- Press the «**STOP**» button and release it.
- To start without delay, press automatic button on the remote control and the robot turns (ON) directly (after warming up).
- To start with delay: push the « **timer**» button to activate it and then press automatic button on the remote control. The robot will start after the delay

In every program, the cleaner needs to warm up (approximately 5 minutes).

### ***Manual Operation***

In this mode your Robot will move in the direction indicated by the Remote Control.

- Push the red ON / OFF switch located on the side of the Electronic Control Box in the «**ON**» position.
- There are 8 buttons on your Remote Control.
  - The 4 direction arrows are used to change the direction of the Robot. Use the buttons to move forward, backward, right or left.
  - The « **Up** » arrow corresponds to the forward motion of the Robot. The stainless steel plate on the Cover and the front black handle represent the front of the Robot.
  - The circular button in the middle of the Remote Control will pause the Robot with the pump running, this allows spot cleaning to be performed.
  - The « **STOP** » button completely stops the Robot either for removal of the robot from the water or switching to Automatic Mode.
  - The « **IN / OUT** » button is used to switch the pump off, allowing the Robot to enter or exit the water.
  - The « **AUTO**» button on the lower right is used to start the automatic program. Once this is engaged the remote control is disabled.
  - When cleaning is finished, put the ON/OFF switch into the «**OFF**» position and disconnect the power cable from the mains.

**IMPORTANT: You cannot change from Automatic to Manual Mode, you need to switch off the Robot using the on/off switch and then restart in Manual Mode.**

## **Cleaning and Maintenance**

### **(A) Cleaning of Filter Bag**

**IMPORTANT: It is essential to clean the filter bag at the end of each cycle.**

- Make sure the robot is unplugged from the power receptacle.

- Unlock by turning the black locking ring ¼ turn counter clockwise on top of the robot. Remove the dome and place it upside down on the ground, not on the seal.
- Remove the filter bag by lifting the filter plate completely with filter bag up over the pump. Take care not to damage either pump or plate. Remove the bag at the bottom of plate to access the debris.
- Empty the bag and clean with running water or if necessary lightly with soapy water. Make sure that bag is fully rinsed clean by turning the bag inside out. Do not wring out the bag, machine wash, or use a high pressure water hose.
- Rinse the filter plate and remove any dirt trapped underneath components.
- Re-install the bag and its holder and ensure that the elastic is correctly positioned on the filter plate.
- Reinstall the filter plate and the dome, making sure to lock it in place.

It is recommended to replace the filter bag once a year for optimum cleaning.

**IMPORTANT: Never start the Robot if the bag is damaged or if the elastic is loose.**

### **(B) Cleaning of the Robot**

The Robot must be cleaned regularly with clean water and you must check and remove dirt from the drive mechanism and the pump.

The external mechanical components don't need lubricating or specific maintenance.

### **(C) Preventive Maintenance**

To ensure normal operation of your CHRONO Robot, you need to check the following weekly:

- The wear and tension of the drive belts. Foreign matter in the drive pulley wheels and roller grooves.
- The correct tension of the dragging straps which could cause the machine to stop unexpectedly.
- The wear of the Brushes or foam to avoid damage to the Rollers or the lining of the pool.
- Remove twists and loops in the floating cable by laying it out straight on the ground.
- The general condition of the Robot, all screws, tire pressure of the caddy cart, condition of the filter bag, any evidence of impact on the body, battery of the Remote Control.

## **(D) Replacing Used Parts**

The Belts are crucial elements for the correct operation of the robot. Life of the belts are dependant on how many hours you run the robot each day.

We recommend that you replace the belts every 3 to 6 months.

It is recommended that you replace the Brushes and the Tracks at the end of each season or when the surfaces become damaged or worn.

The recommend replacement for the PVA foam is every 2 years.

## **4. Tips and Troubleshooting**

For your safety:

Your CHRONO Robot has been manufactured according to the most rigorous standards. To ensure safety operation, follow the instructions below:

- Only connect the Electronic Control Box to a power outlet with a grounded residual current circuit-breaker of 30mA maximum.
- Maintain a minimum distance of 11.5 ft / 3.5m between the Control Box and the edge of the pool and avoid direct exposure to sunlight.
- **Never allow anyone to swim while the Robot is in the water.**
- To avoid electric shocks, never open the Control Box. Call a qualified service technician.
- Never attempt to repair a damaged power cable. Contact your dealer for a replacement cable to avoid any injury.

### **Tips:**

- Use your Robot regularly to maintain the pool and the filter bag will last longer.
- If an area of the pool has not been completely cleaned at the end of an automatic program, use the Manual Mode to complete the cleaning.
- Never put the Robot in the pool if the water temperature is less than 59° F /15° C or greater than 95° F / 35°C.
- Never put the Robot in the pool if you cannot see the bottom of the pool or in the presence of too much algae.
- Never use the Robot in water with salinity  $\geq$  3000 ppm or with sulfur content.
- Store the Robot in a well ventilated area away from sunlight, chemicals, and acid.

### **Troubleshooting:**

### **(A) The Robot does not sit flush on the bottom of the pool**

Air is trapped inside the Robot. Place your robot in the pool, (see section (2-A) Pool Entry of the Robot in this manual). Turn the Robot up side down and compress the foam under water to release all the trapped air.

### **(B) The Robot does not Climb up the Walls**

There are 3 possibilities:

- The filter bag is clogged or full. Clean the filter bag.
- The water may be clear but microscopic algae make the walls slippery. **Remove the Robot from the water and treat the algae problem and then restart with robot.**
- The Robot may not climb wall due to very slippery surface or some other variable.

**Note:** This problem does not effect the normal cleaning of the pool which is mainly done on the bottom surface. The normal operation of the CHRONO 600 Robot is to clean the **bottom** surface of the pool.

### **(C) The Robot Does Not Move**

- Make sure the power outlet for the control box is providing power.
- Check that you have:
  - Correctly connected the floating cable to the Electronic Control Box.
  - Make sure that the red switch located on the side of the Electronic Control Box is in the «**ON**» position and that the indicator light is illuminated.
  - Make sure the delayed timer is not switched «**ON**».

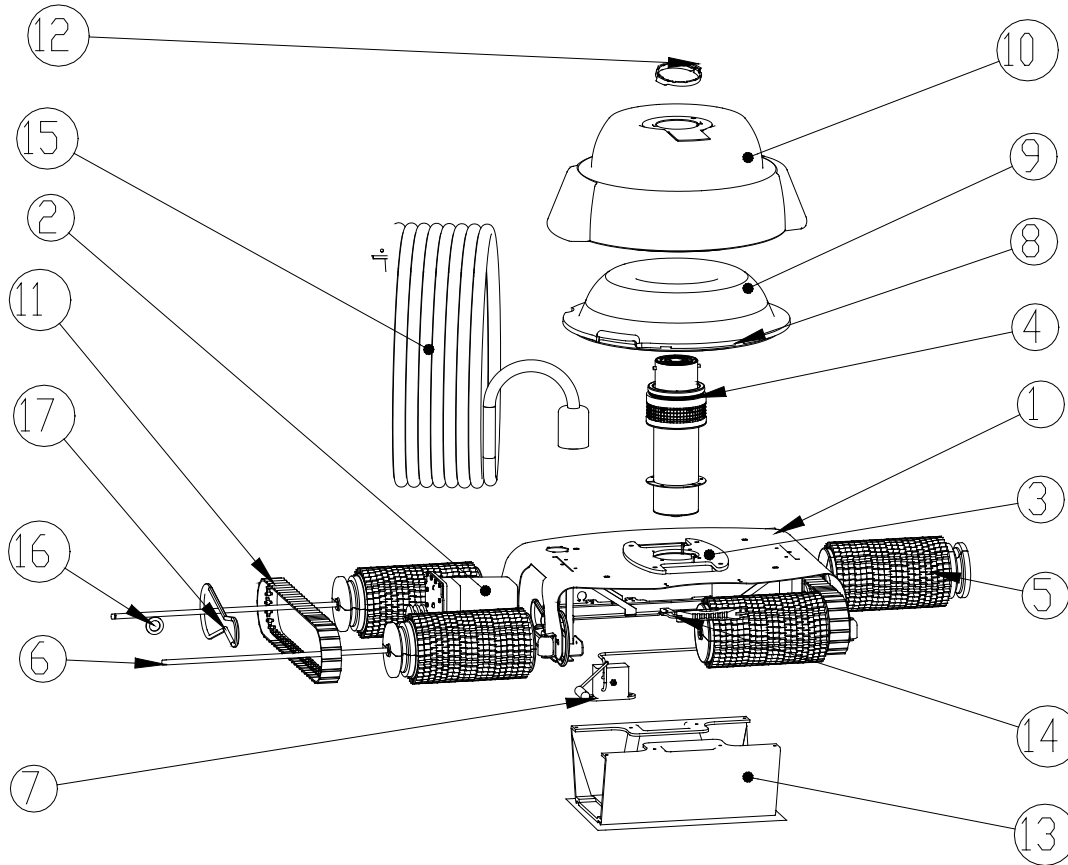
If the problem persists, contact your dealer.

### **(D) The Efficiency Of The Cleaning Seems To Be Decreasing**

- Check that the filter bag is not clogged.
- Ensure that the pump is working.
- Check to see that the Brushes, Tracks, and Belts are all in place.
- Ensure that the cable is not twisted during operation.

## 6 - Exploded View And Parts List

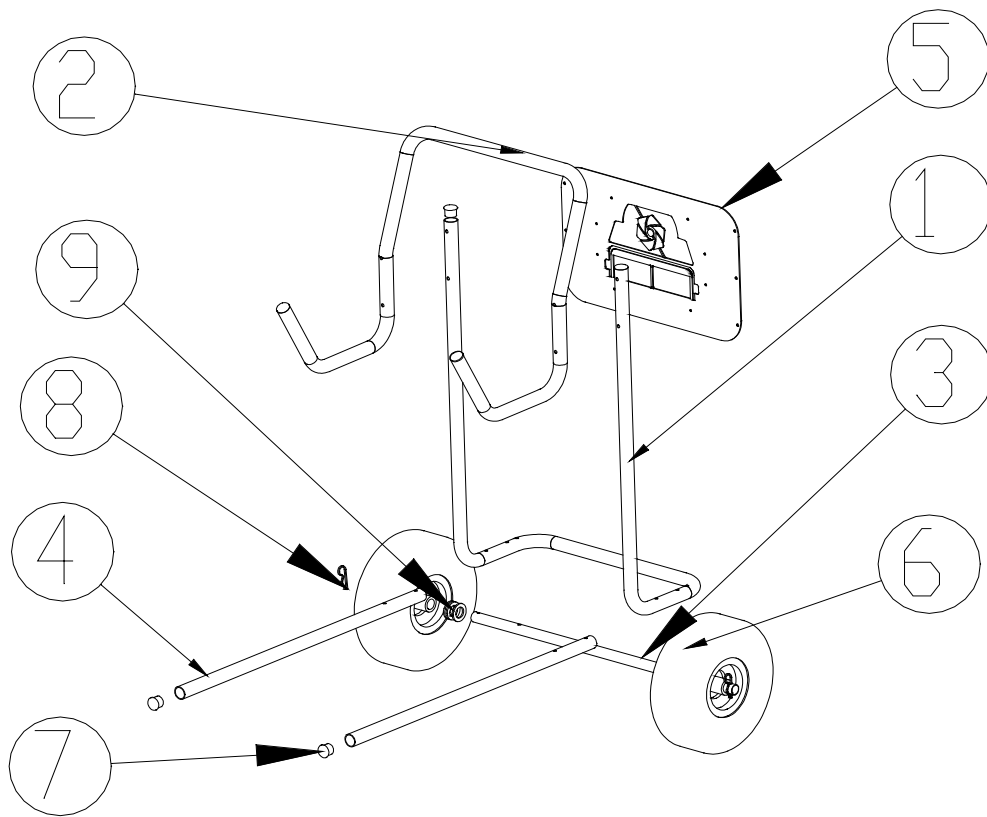
### A - Robot



ITEM No.	QUANTITY	PART NUMBER
1	1	<b>AA0105 CHRONO 600 Plate</b>
2	2	M00015 CHRONO 600 Motor Housing
		<b>CHRONO Bare Plastic Motor Housing</b>
3	1	FB0092 Filtration Centering Device 590-590
4	1	<b>P00013 CHRONO 600 Pump</b>
5	4	D00038 CHRONO 600 Roller with PVC
6	2	<b>DF0032 CHRONO 600 Roller Axle</b>
7	1	EF0036 CHRONO 600 Complete Angle Detector with 2 Infra red
	1	<b>EF0002 gyroscope box IT IS AN OPTION WHEN SYSTEMATIC</b>
8	1	FB0091 CHRONO 600 Complete Filtration Plate
9	1	<b>F00022 CHRONO 600 Filter, 105 micron</b>
	1	<b>F00025 CHRONO 600 Filter , 20 micron</b>
	1	<b>F00028 CHRONO 600 Filter , 200 micron</b>
10	1	H00008 CHRONO 600 Cover
11	2	<b>DB0011 CHRONO 600 Track</b>
12	1	QP0018 CHRONO/JNR Polished Handle
13	1	<b>AA0001 CHRONO Hood handle</b>
14	1	QP0004 Flexible Handle
15	1	<b>C05932 CHRONO 600 Cable 32m</b>

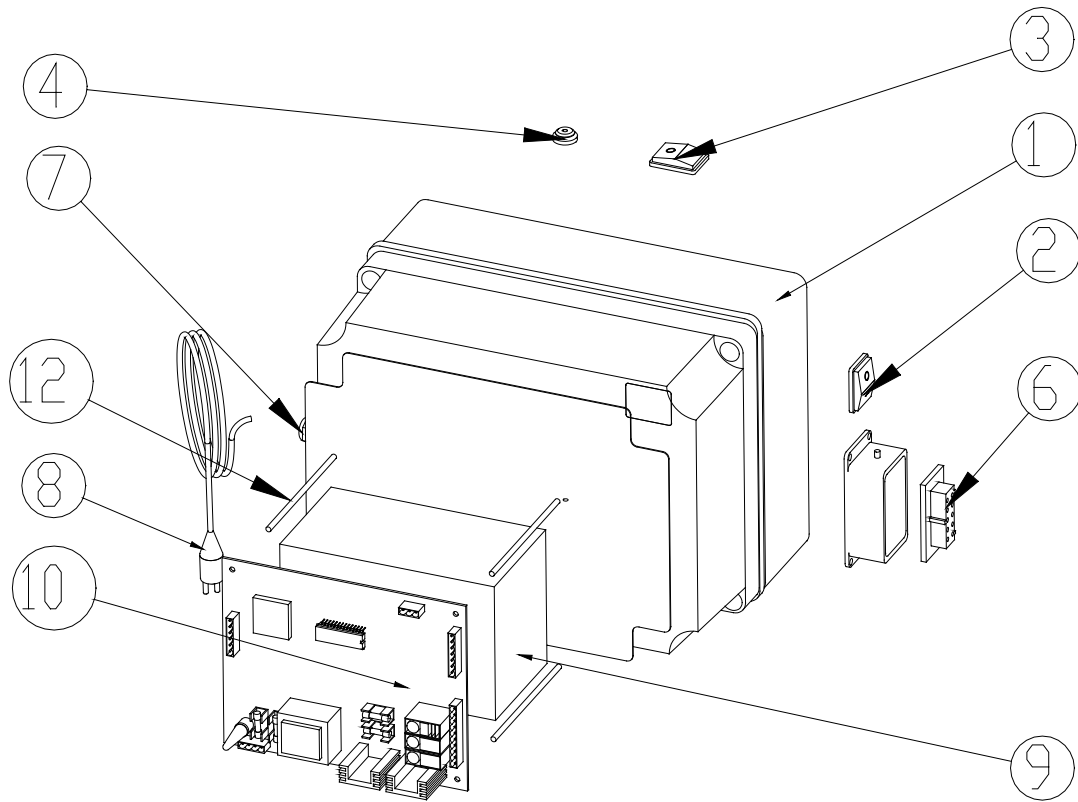
16	4	VR0012 CHRONO 600 Trolley Wheel Thrust Washer (VR0004)
17	4	DB0014 Belt diameter 8 (DB0002)

## B – Caddy Cart



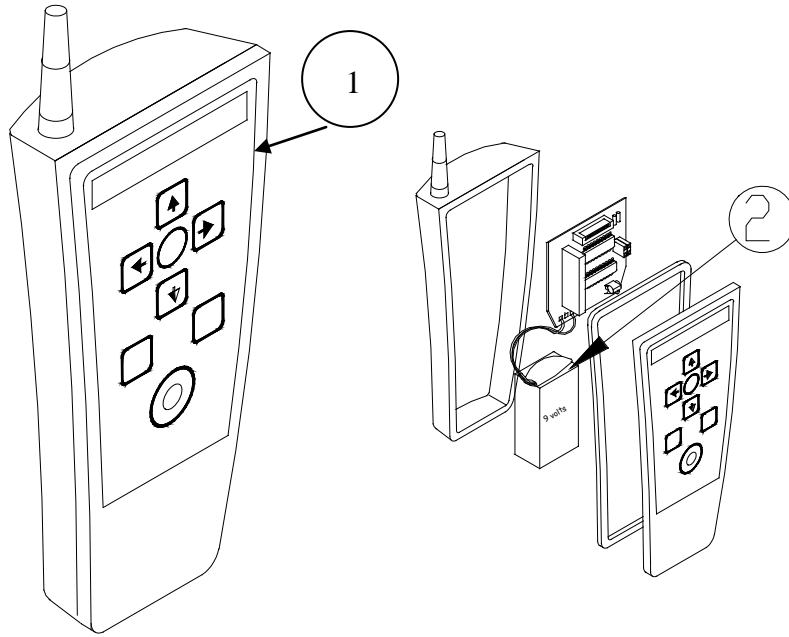
ITEM No.	QUANTITY	PART No.
1	1	KA0116 Caddy Cart Upright Frame
2	1	KA0114 CHRONO Caddy Cart Handle
3	1	KA0118 CHRONO Caddy Cart Axis
4	2	KA0117 CHRONO Caddy Cart Fork
5	1	KA0120 CHRONO Caddy Cart Control Box Plate
6	2	DD0024 CHRONO Caddy Cart Wheel (DD0004)
7	6	QX0016 Caddy Cart end Plug Dia. 25mm Black
8	2	QY0004 Stainless Steel Retaining Pin A2 2.5mm
9	6	VR0021 CHRONO 600 Caddy Cart Wheel Spacing Washer (VR0004)

## C - Electronic Control Box



ITEM No.	QUANTITY	PART No.
1	1	<b>QW0010 CHRONO Control Box</b>
2	1	EEF018 Red ON / OFF Switch IP65
3	1	<b>EEF019 Black Delayed Timer Switch IP65</b>
4	1	EEF002 Red Auto Mode Push-Button IP65
5	1	<b>EEI015 10 Pin Plug Housing</b>
6	1	CA0014 Female 10 pin socket
7	1	<b>JB0014 Metallic Cable Gland</b>
8	1	CA0016 Power Cord
9	1	<b>EEG010 Robot Electronic Power Supply</b>
10	1	EC0009 EXPERT Circuit Board
11	1	<b>EEI149 CHRONO Back Plate for Electrical Box</b>
12	4	VTF4L120 Nylon spacers

## D – Remote Control



ITEM No.	QUANTITY	PART No.
1	1	EG0002 Remote Control
2	1	EAA039 Remote Control Battery 9V