

# WAVE 200 XL Pool Cleaner

## User Instructions



8151457 Rev. 02



# WAVE 200 XL

## User Instructions

### Table of Contents

1. IMPORTANT SAFETY INSTRUCTIONS .....	2
2. FCC STATEMENT.....	3
3. SPECIFICATIONS AND WATER CONDITIONS.....	3
4. INTRODUCTION .....	3
5. CONTENTS.....	4
6. ASSEMBLY INSTRUCTIONS.....	4
7. GENERAL NOTES.....	5
8. MMI ALERTS .....	5
9. MMI FUNCTIONS .....	6
10. CHOOSING ADDITIONAL POOL PROFILES.....	7
11. SETTINGS .....	7
12. DAILY OPERATION .....	9
13. REMOTE CONTROL UNIT USAGE.....	10
14. CLEANING THE FILTER .....	11
15. TROUBLESHOOTING .....	11

# 1. IMPORTANT SAFETY INSTRUCTIONS

## READ AND FOLLOW ALL INSTRUCTIONS.

Please adhere strictly to the following **WARNINGS**:



WARNING

Take the Robot Pool Cleaner out of the pool before allowing people to enter the pool.



WARNING

When examining the Robot Pool Cleaner, disconnect the main power supply.



WARNING

Ensure that children do not attempt to access Robot Pool Cleaner while it is operating.



WARNING

Keep the Robot Pool Cleaner out of the reach of children or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.



WARNING

Only an original power cable must be used, at all times. Replaced by a Robot Pool Cleaner certified technician, in case of need to avoid hazard.



WARNING

The unit must be connected only to a supply circuit that is protected by a ground-fault circuit interrupter (GFCI). This GFCI 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 power unit without the test button being pushed, a ground current may be flowing, indicating the possibility of an electric shock. Do not use the power unit. Disconnect the power unit and contact the manufacturer for assistance.



WARNING

To reduce the risk of electric shock replace damaged cord immediately. Do not use extension cord to connect unit to electric supply; provide a properly located outlet.

Please ensure that the following **PRECAUTIONS** are implemented:



CAUTION

Only a trained operator should operate the Robot Pool Cleaner.



CAUTION

Operator should keep hands away from driving belt mechanism.



CAUTION

Position the Caddy and power supply at least 3.5m/12ft from pool's edge – during operation.



CAUTION

For continued protection against possible electric shock, the power supply unit should be placed at least 11cm / 4" above ground.



When lifting the Robot Pool Cleaner, take care to prevent back injury.



Do not bury cord – locate cord to minimize abuse from lawn mowers, hedge trimmers and other equipment.



This Robot is 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 building such that it cannot be readily disassembled for storage and reassembled to its original integrity.

## SAVE THESE INSTRUCTIONS

### 2. FCC STATEMENT

**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 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 dealer or an experienced radio/TV technician for help.

Changes or modifications to this equipment not expressly approved by the party responsible for compliance (Maytronics Ltd.) could void the user’s authority to operate the equipment.

### 3. SPECIFICATIONS AND WATER CONDITIONS

- Motor protection: IP 68
  - Minimum depth: 0.40 m / 1.3 ft
  - Maximum depth: 7 m / 22.96 ft
- Power supply**
- Input - 100-250 AC Volts
  - 50-60 Hertz
  - Output - <30 VDC
  - IP 54

Use the Pool Cleaner in the following water conditions only:

Chlorine	Max 4 ppm
pH	7.0 - 7.8
Temperature	6°-35°C / 43°-95°F
NaCl	Maximum = 5000 ppm

### 4. INTRODUCTION

This user guide describes how to operate your WAVE 200 XL and how to use your MMI console. The interactive, state-of-the-art MMI (Maytronics Machine Interactive) control console enables full control of the robot and allows you to determine the cycle time, operation delay, and cleaning scan that the robot performs. It also enables diagnosis of various technical functions and parameters. The console houses a remote control unit for manual operation and the temporary override of automatic cleaning operations.

The WAVE 200 XL is designed to handle four different swimming pool configurations and when these are set by your Maytronics dealer, the pool configurations are stored in the MMI’s memory. The robot is preset in the factory with specific default pool settings, which can be reset.

## 5. CONTENTS

Carefully remove all the items from the shipping box and check them against the packing list. You should have:

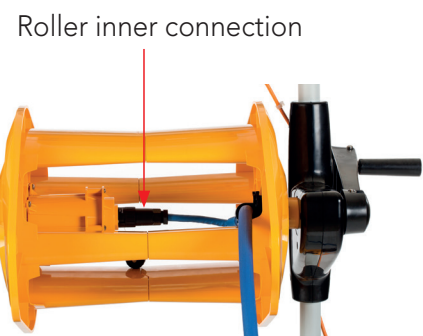
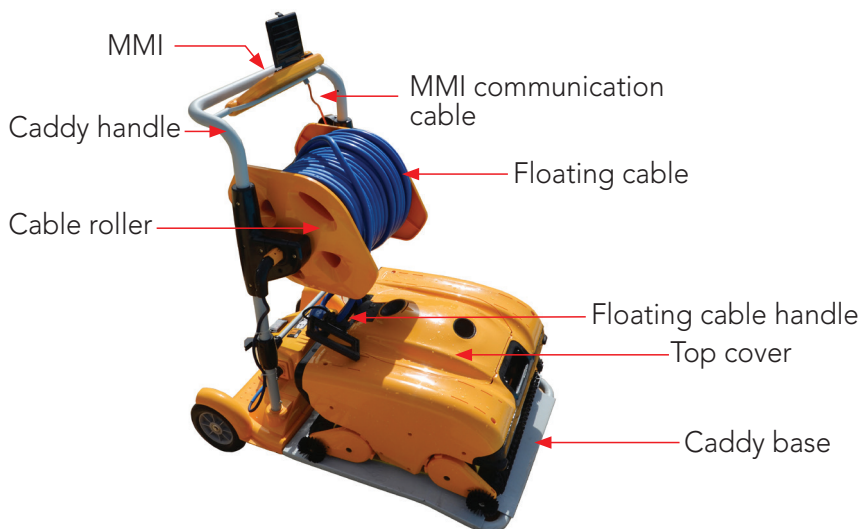
- Documentation and accessories
- Un-assembled Caddy for storing and carrying the WAVE 200 XL
- MMI console (includes remote control unit) assembled to the Caddy's handle
- WAVE 200 XL and floating cable rolled on the cable roller
- Power supply unit assembled to the Caddy base

## 6. ASSEMBLY INSTRUCTIONS

1. Attach the Caddy handle to the Caddy base and fasten with the four screws and four nuts provided.
2. Attach the cable roller in its designated place, and fasten with two screws.  
Note that the connection cable is located between the power supply and cable roller.
3. Connect the MMI communications cable to the power supply unit.
4. Connect the connection cable between the power supply and the cable roller.



- MMI
- Remote control unit MMI
- Cable roller handle
- Connection cable between power supply and cable roller
- Power supply
- Main power supply cable



Roller inner connection

## 7. GENERAL NOTES

- In this user manual, the term “press Start” means to simultaneously press both green buttons on the MMI console (see buttons marked 2 and 3 in the figure below).
- The MMI is equipped with a screensaver that is displayed after 5 minutes of idle time. Press the **POOL** and **HOME** buttons (see buttons marked 5 and 6 in Figure 1) to exit the screensaver mode.
- Some options in the MMI (pool profile setup) menus are blocked with a code to prevent erred setting changes. The code sequence for unblocking these options is: 3, 2, and 1.



Figure 1: Maytronics Machine Interactive (MMI) console

## 8. MMI ALERTS

The WAVE 200 XL has the following alert LEDs:

- **FILTER CHAMBER:** This LED lights up when the filter is full and needs to be cleaned at the end of the cleaning cycle. If this LED lights up mid-cycle, you do not need to immediately stop the operation, and can wait until the cycle is completed. This LED indicator will automatically reset when the robot starts a new cycle with a clean filter.
- **ALERT:** This LED lights up to indicate an error that stops the robot from functioning. In such cases, inspect the robot to locate the problem and if it can be fixed, start the robot again. If the error repeats itself, then details of the specific error will be displayed on the MMI screen. If this occurs, contact your Maytronics dealer immediately.

## 9. MMI FUNCTIONS

Command	Description
<b>Menu</b>	From the <i>Wave</i> screen, press Menu to access the <i>Main Menu</i> screen
▲	Scroll up
▼	Scroll down
↵ <b>Start</b> ↵	Press both green buttons simultaneously to start pool cleaning
<b>Select</b>	Press Select to confirm your selection after using the scrolling buttons
<b>Modify</b>	Press Modify to change settings after making a selection
<b>Back</b>	Press Back to return to the previous screen
<b>Exit</b>	Press Exit to return to the <i>Wave</i> screen

### To define the WAVE 200 XL parameters:

1. Switch on the power supply. The MMI Wave screen is displayed in the home window.
2. Press **Menu** to access the *Main Menu* screen (Figure 2).

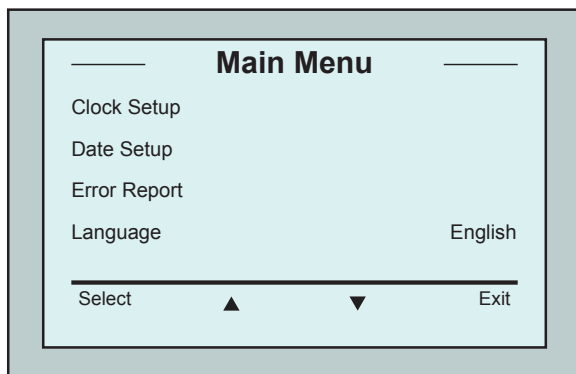


Figure 3: Second *Main Menu* screen

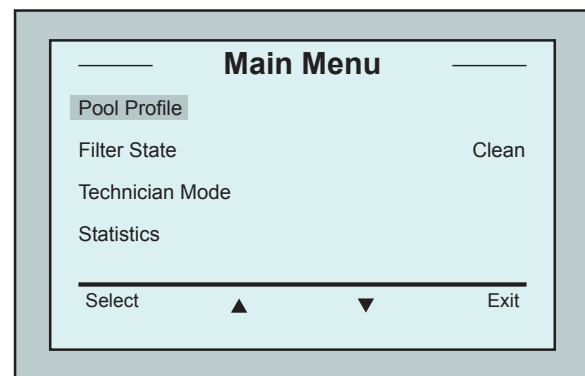


Figure 2: *Main Menu* screen

There are two *Main Menu* screens. To access the second screen, press the scroll down arrow ▼. Scroll down to the second *Main Menu* screen (Figure 3).

### Main Menu Parameters

The following table includes information about the *Main Menu* parameters:

Parameter	Description
<b>Pool Profile</b>	Press <b>Select</b> to access the <i>Pool Profile</i> screen. The <i>Pool Profile</i> screen displays the four different configured <i>Pool Profiles</i> .  Note: The WAVE 200 XL comes with a default pool profile parameter. To change the pool profile parameter, reference Figure 6.
<b>Filter State</b>	Reports on the filter's condition: <ul style="list-style-type: none"> <li>• <b>Clean</b>: Filter is ready for use</li> <li>• <b>Full</b>: Clean filter</li> </ul> The filter warning light on the console also indicates when the filter needs cleaning.
<b>Technician Mode</b>	Technician screen with restricted access.
<b>Statistics</b>	Press <b>Select</b> to review data on the WAVE 200 XL's usage.



## Second Main Menu Screen Parameters

Parameter	Description
Clock Setup	Press <b>Select</b> to access the <i>Clock Setup</i> screen and 12/24 hour mode.
Date Setup	Press <b>Select</b> to access the <i>Date setup</i> screen.
Error Report	Displays information for service technicians.
Language	Language interface mode.



In order to return to English from any other language, press and hold the Menu button on the Wave screen for 3-4 seconds.

## 10. CHOOSING ADDITIONAL POOL PROFILES

The WAVE 200 XL can be configured for four different pool profiles by your dealer. The configured settings are stored in the MMI's memory. This section describes how to choose additional pool settings.

### To add a new pool configuration:

1. Go to the Wave screen. Pool A is displayed as the currently defined setting as shown in Figure 4.
2. Press Pool A to access the *Pool Profile* screen. The *Pool Profile* screen is displayed (Figure 5).
3. Choose one of the additional pool profiles (Pool B, Pool C, or Pool D) and press Select. The Wave screen is automatically displayed with the selected pool profile.

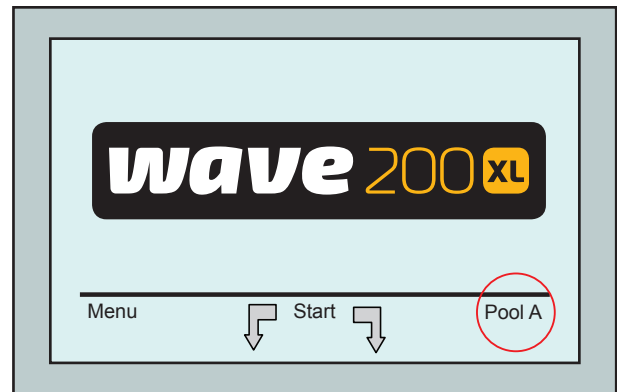


Figure 4: Wave screen showing Pool A as default setting

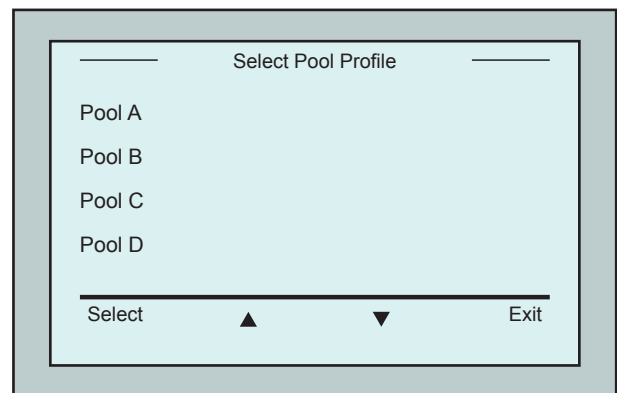


Figure 5: Pool Profile screen

## 11. SETTINGS

The WAVE 200 XL is controlled from the MMI console. Four different swimming pool configurations can be defined and stored in the MMI's memory. You can customize the settings to match the specific type of swimming pool (A,B,C,D) to be cleaned.

Note: the configuration of additional pool profiles can only be done by an official Maytronics WAVE technician. In case permission for configuration is granted - select the pool you want to program (A, B, C, D). (Figure 6).

# Manual Configuration of Pool Profiles

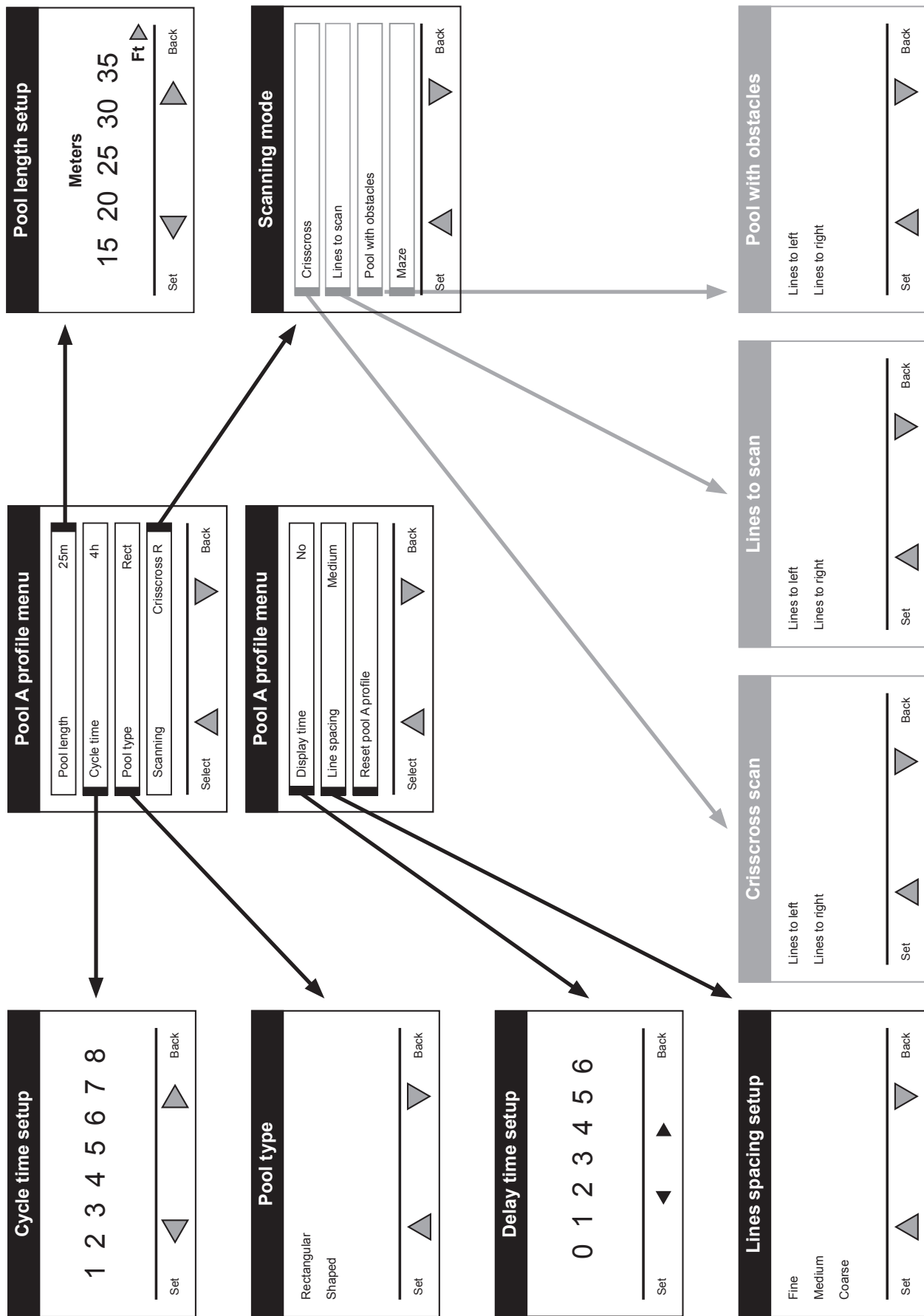


Figure 6: Manual configuration of pool profiles

## 12. DAILY OPERATION

To operate the WAVE 200 XL:

1. On the MMI, press the POOL button. The robot will start moving towards the pool, while pulling the floating cable, and enter it and position itself on the pool floor. Make sure it straightens itself vertically to the wall of the starting point and that the angle from the wall is less than 45°.
2. Wait for the WAVE 200 XL screens to appear. Press Start (i.e. press the two green buttons simultaneously). The cleaning session will begin.
3. To stop the cleaning session at any time, press the right grey button on the MMI console (see the button marked 4 in the figure on page 5).
4. Press the HOME button. The robot will start to move in the direction of the floating cable. Roll the floating cable neatly on the cable roller using the cable roller handle. Holding the floating cable, gently pull the robot upwards and towards the Caddy. As it reaches the side of the pool, pull the cable gently until the floating cable handle emerges. Grasp the handle and pull the robot out of the water. The robot will shut down automatically.
5. You can use the remote control to drive the WAVE 200 XL to the Caddy. Outside the pool, do not pull the robot towards the Caddy by rolling up the floating cable with the cable roller handle.
6. Clean the filter as needed. When the MMI displays Filter Full, you should clean before the next operating cycle.

**Note:** It is not necessary to stop the WAVE 200 XL in the middle of the cycle when the Filter Full indicator appears. Clean the filter before the next cycle.

7. Before each operating cycle, clean the robot body, brushes and driving belt area and remove foreign objects, rubber bands, hair, etc.
8. Once a week clean the impeller area:

**⚠ Make sure the power supply is switched off and unplugged before service.**

- Remove the four screws securing the cover of the impellers using a No. 2 Philips manual screwdriver.
  - Open and remove the cover of the impellers.
  - Remove foreign objects from the impellers.
  - Close the cover of the impellers and reassemble the four securing screws.
9. Make sure the floating cable is not tangled so it can be rolled up easily.  
**Important:** Every two or three cleaning sessions, disconnect the floating cable from the roller inner connection, unroll the entire cable and re-arrange it on the roller as required.
  10. A warning message to perform Preventive Maintenance will appear on the MMI screen, when applicable. It is obligatory that Preventive Maintenance service be performed in a timely manner. Please contact your dealer. Failure to perform the Preventive Maintenance service will void the warranty.

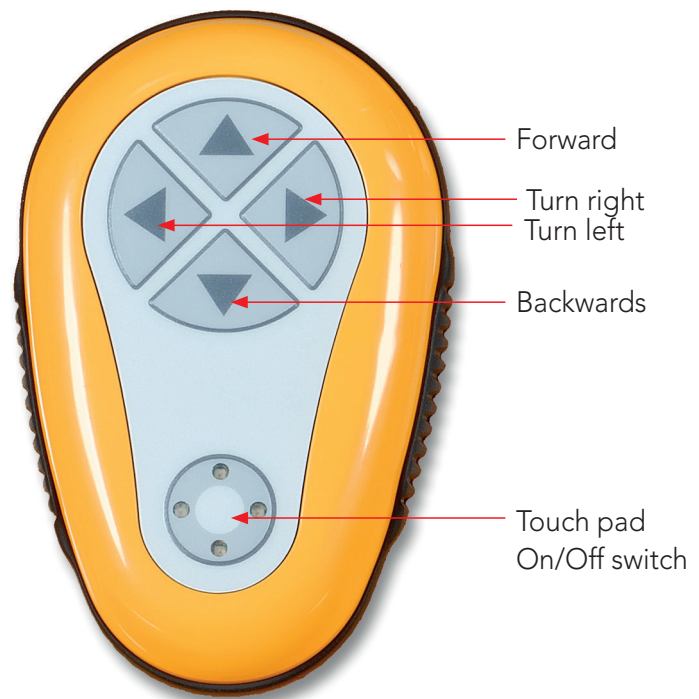
## 13. REMOTE CONTROL UNIT USAGE

The remote control unit enables you to manually control the WAVE 200 XL to clean those hard-to-reach spots or places that were skipped during the standard cleaning cycle.

Use only with non-rechargeable alkaline LR03 batteries 1.5V AAA. Do not charge non-rechargeable batteries. Do not mix old and new batteries. Insert batteries in correct polarity. Exhausted batteries are to be removed from the appliance and safely disposed of. If the appliance is to be stored unused for a long period, the batteries should be removed. The supply terminals are not to be short-circuited.

### To use the remote control unit:

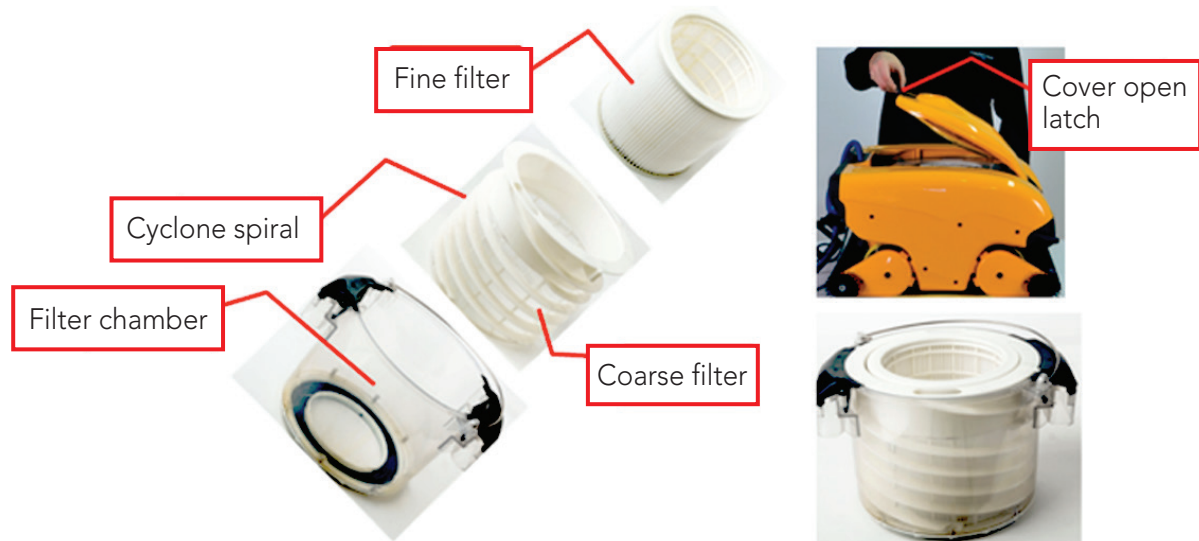
1. Press Start on the MMI to start the automatic operations of the WAVE 200 XL.
2. Press the On/Off button to activate the remote control.
3. Press the Forward or Backward buttons to maneuver the WAVE 200 XL forwards or backwards at a faster speed.
4. Press the Forward or Backward buttons again to maneuver the WAVE 200 XL forwards or backwards at the standard cleaning speed.
5. To stop the WAVE 200 XL, press the button showing the opposite direction to the direction in which the robot is currently moving.
6. When the robot is idle (standing still) and you press the Turn Left or Turn Right buttons, the robot will turn left or right by moving one belt forward and one belt backward.
7. If you press the Turn Left or Turn Right buttons while the robot is driving forward or backward, the robot will turn left or right by turning one belt and stopping the opposite belt.



## 14. CLEANING THE FILTER

Clean the WAVE 200 XL filter after every cleaning cycle as follows:

1. Press the latch on the top of the WAVE 200 XL to open the top cover.
2. Remove the filter chamber from the robot and separate its parts (cyclone spiral and fine filter cartridge).
3. Wash the fine filter cartridge with water pressure from the inside out.
4. Wash the cyclone spiral from the inside out and the chamber.
5. Return all of the filter parts to the filter chamber and put the chamber back in the WAVE 200 XL.
6. The robot is ready for a new cleaning cycle.



## 15. TROUBLESHOOTING

To save a log file to a USB memory stick if required by a technician, from the main Wave screen, press on the green buttons in sequence – right-left-right-left and follow the instructions displayed on the screen.

Error Message	Possible Cause	Action
Imp overload	Is there dirt or other foreign matter in the impeller?	Disconnect the robot from the mains electricity, remove the screws and remove the impeller cover. Remove any dirt from around the impeller. Reassemble the impeller cover.
Imp overload	Does the problem reoccur with every operation?	Contact your Maytronics dealer.
Imp underload	Does the problem reoccur with every operation?	Contact your Maytronics dealer.
Drive overload	Is there any interfering dirt in the driving belts, brushes, or drive axles?	Remove any dirt or foreign bodies that might have become entangled with the driving belts, brushes, or drive axles.

Error Message	Possible Cause	Action
Drive overload	Does the problem reoccur with every operation?	Contact your Maytronics dealer.
Drive under load	Does the problem reoccur with every operation?	Contact your Maytronics dealer.
DC input	Is there an electrical short, or a partial or complete disconnection?	Contact your Maytronics dealer.
Robot is stuck on wall	Has the robot stopped in a vertical position of more than 45°? Is the robot stuck on an obstacle?	Move the robot from its position and remove the obstacle. Reactivate. If this reoccurs, contact your Maytronics dealer.
Out of water	Was the robot operated out of the water for an extended time?	Check that the impeller is in order and that its blades are not broken. Reactivate. If this reoccurs, contact your Maytronics dealer.
Robot is stuck	Is the robot stuck on an obstacle? Is there an obstruction in the water channel or in the robot's driving belts?	Move the robot from its position and remove the obstacle. Reactivate. If this reoccurs, contact your Maytronics dealer.
Navigation System	Does the problem reoccur with every operation?	Contact your Maytronics dealer.
No Communication	Does the problem occur when pressing POOL or HOME on the MMI?	Contact your Maytronics dealer.  <b>Step 1:</b> Disconnect the floating cable from the roller inner connection and connect the cable direct to the power supply. If this reoccurs - go to Step 2.  <b>Step 2:</b> You can work temporarily without using the MMI. Disconnect it from the power supply thus disabling the Pool/Home function and use the remote control.
Over Current	Does the problem occur when pressing POOL or HOME on the MMI?	Contact your Maytronics dealer.  Disconnect the floating cable from the roller inner connection and connect the cable directly to the power supply.



# WAVE 200 XL Pool Cleaner

8151457 Rev. 02



[www.maytronics.com](http://www.maytronics.com)