

Hydro Wizard® ECM 63



Operating manual



PANTARHEI
Aquaristik im Rhythmus der Natur



PANTARHEI
Natural Aquarium Technology

Panta Rhei GmbH
Geschäftsführer: Matthias Kählig
Pappelweg 4
30179 Hannover

Telefon +49 (0) 5130-60 957 27
MAIL: info@panta-rhei-aquatics.com
WEB: www.panta-rhei.shop
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Hydro Wizard®

ECM 63



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Thank you very much for choosing this product! The Hydro Wizard® ensures the exact simulation of natural movements in the aquaculture and in aquaria. What is special about the Hydro Wizard® compared to other products is that a laminar flow – and not a turbulent flow – is produced by the Hydro Wizard®. A turbulent flow is not good for the fish. As a result of the exact calculation of all components in the flow simulation, the Hydro Wizard® is unrivalled until today within the area of efficiency and the environmentally friendly scope of services.

Before the first commissioning, please read this operating manual carefully – for your own safety, the safety of others and your animals. Store this manual in a safe place, so that you can access the information at any time.



01) Scope of delivery

- Hydro Wizard® ECM 63 (1 piece)
- Controller (1 piece)
- Touchscreen pen (1 piece)
- Power supply (1 piece)
- Power cord (1 piece)
- Magnet holder (3 piece)
- Operating manual (1 piece)

02) Safety guidelines

a) General safety guidelines

Only connect the device in aquaria, garden ponds and in their protection zones to an electrical outlet with residual current device (earth leakage circuit breaker) with a rated current of not more than 30 mA an (DIN VDE 0100). If you have any questions concerning this, please contact an electrically skilled person. If persons are in the tanks or ponds, the pump must not be operated.



Before installation and commissioning, please observe the following instructions:

- The electrical connection is made to a safety socket outlet with a mains voltage of 100-240 V~ 50/60 Hz; fuse at least 10 A.
- Only use in closed rooms for aquarist applications! 
- The controller and the power supply must not come into contact with water. 
- In case of visible damage to the cables, the drive must not be operated. Do not attempt to repair the cable yourself. 
- Do not use the cable for carrying or pulling the drive. The cable must not be used for mounting the drive.
- The pump must only be operated underwater. Dry running will destroy the bearings. In the



event of non-compliance, warranty and liability claims will expire.

- This device is not intended to be used by persons (including children) with reduced physical, sensory or mental capabilities or a lack of experience and/or knowledge – unless these persons are supervised by a person responsible for their safety or they receive instructions by this person on how to use the device.
- The operator is responsible for the compliance of local safety regulations.
- Within the working area, the user is liable to third parties for damages caused by the use of the device.
- The pump is exclusively suitable for pumping seawater and freshwater. Pumping corrosive, flammable or explosive liquids is not permitted. The temperature of the pumped liquid must not exceed 35 °C (95 °F).
- The working temperature of the device is between 5 °C and 35 °C (41 - 95 °F).
- Do not work with a device that is damaged, incomplete or modified (without the permission of the manufacturer). Before commissioning, ensure by an expert that the required electrical protective measures are available.
- Please read the instructions in the operating manual concerning the topic “Cleaning and maintenance”. All measures beyond this, opening the pump and the switchboards in particular, are not permitted. Always contact the manufacturer in the event of repair.



b) Protection against electric shock

After setting up the pump, the mains plug must be freely accessible at any time during the operation.



Before commissioning your new pump, have an expert checked whether the

- ***grounding, protective multiple earthing and residual current-operated protective circuit work properly following the latest safety regulations***
- ***electrical plug connections are kept dry***



- Do not use the cables to remove the plug from the socket. Protect the cables against heat, oil and sharp edges. Do not bend the cables.
- Protect the cable and the electrical connections against humidity. Make sure that the cable and the electrical connections are in an area that cannot be flooded.
- When working on the device, remove the mains plug from the socket.
- The minimum immersion depth depends on the set pumping capacity.
- The maximum operating depth is limited by the cable length.



03) Safety hints for handling magnets



- The enclosed magnets are much stronger than for example pin board magnets.
- Keep the magnets away from objects, which react sensitively to magnetism (e.g. credit cards and EC carts, computers). There is the danger of irreparable damage. Maintain a safe distance of at least 75 cm (30 ").
- The enclosed neodymium magnets may cause crushing injuries on fingers and other extremities due to their enormous force. Never take your hands, ferrous materials or other magnets between the magnets.
- Keep the magnets away from pacemakers!
- As a result of the high magnetic force, surrounding objects (e.g. knives) may be attracted in an uncontrolled manner.
- Never put the holding magnet in direct contact with the magnets on the "Hydro Wizard® housing". The magnets move towards each other in such a strong way that the collision can hardly be controlled. Always keep the "Hydro Wizard® housing" and the magnet support separately.

04) Intended use and scope of application

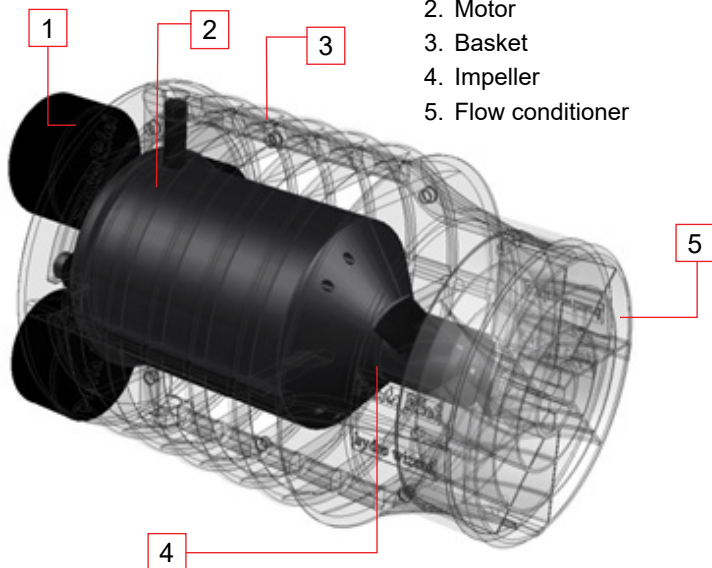
The Hydro Wizard® is used to generate laminar flows in aquaria, ponds and similar waters. Energy-efficient circulating of water is a basic function in this connection. „Dead zones“ can thus be avoided. With the controller (or the optional USB interface) it is possible to generate wave simulations, in which both, wave height and length, can be adjusted. Thereby, wave height and wave length can be adjusted. This is used to simulate courses of rivers, tides and breakers. The Hydro Wizard® is designed for use in freshwater and seawater.



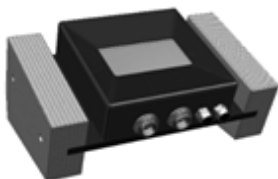
05) General description

Hydro Wizard®

1. Magnet support
2. Motor
3. Basket
4. Impeller
5. Flow conditioner



Controller



Power supply



a) Functional description

By rotation of the impeller, an area of low pressure is generated which sucks in the medium from behind through the fins of the basket and – past the flow conditioner – ejects it again at the front.



06) Commissioning

a) Checks before commissioning

- Is there a ground fault circuit interrupter connected upstream of the device?
- Are all cables free from damage? Cables must neither be bent nor rolled up!
- Is the flow conditioner installed? The flow conditioner also protects fingers from getting injured by the impeller. Never use the pump without finger protection!
- Are there any objects in the drive that may block the impeller?
- Before starting your Hydro Wizard® please make sure, that there are no people inside the tank!
- Make sure that the mains plug was disconnected before installing the drive in the tank!
- Pay attention to the safety instructions on pages 7 to 10.

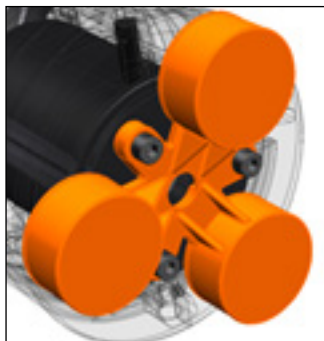


b) Installation of the pump

1. Installation step:

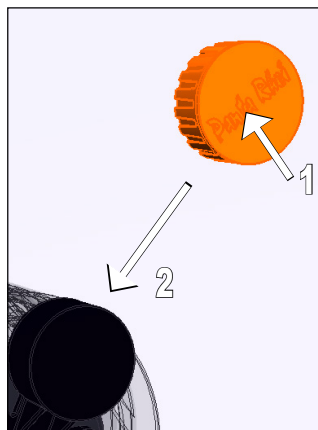
- Attach the pump to the inside of the pane – please exclusively on the intended points of attachment of the pump.

In order to do so, use either the enclosed magnet support or the three threaded holes M5, on which the magnet mount is mounted. The dimensions can be found in the dimension drawing on page 43.



2. Installation step:

- In order to fix the pump, take the small magnet and attach it to outside of the pane – on the point where it meets the magnet support of the inside of the pane. For attaching the outer magnet, we recommend you to put the magnet far away from the magnet support on the pane (1) and then slide it carefully towards the magnet support (2).



the magnet support on the pane (1) and then slide it carefully towards the magnet support (2).

Important notes:

- Putting the magnet directly on the magnet support may lead to crushing of the hand and may possibly damage the tank! Furthermore, the outer single magnets are not intended for use in water. Water may penetrate, which leads to the corrosion (rusting) of the magnets.

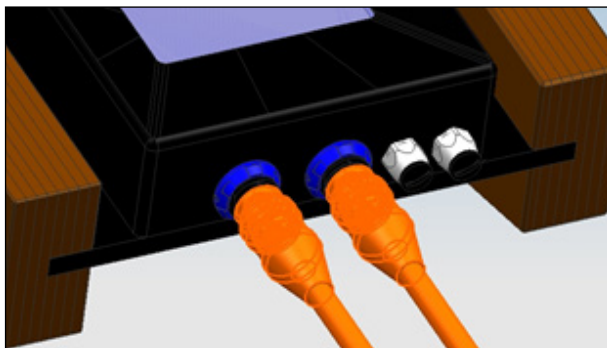


- Appropriate mounting material can be purchased directly from Panta Rhei. Information on this can be found on page 44 of this operating manual. The dimensions can be found in the dimension drawing on page 43. The Hydro Wizard® itself generates very high axial forces. In addition, there are the inertia forces of the moving water masses in the tank. If you do not use Panta Rhei equipment for mounting, please pay attention that the support, on which the Hydro Wizard® is assembled, can safely absorb a force of approx. 80 N.
- During operation, the pump must be completely immersed into water. The drive should be assembled in such a depth below the water surface that no air is sucked in from the surface during operation. Please pay attention that the height of the water level is changing during wave simulation.
- The drive can be directly assembled via a solid ground in the tank. In case of a sandy ground, a vacuum effect may be the result. In order to avoid that, increase the distance to the ground. Objects sucked in may emerge from the flow conditioner at high speed and cause damage.
- It must be ensured that the intake basket is not covered by plants and similar objects.
- The cable must be protected against animals which are able to damage the cable.
- It is advisable to remove, from the inside, algae and biofilms from the aquarium pane on the point, where the Hydro Wizard® is to attached, in order to ensure better grip.



3. Installation step:

- Connect the plug of the pump (right) and the power supply (left) with the controller.



- Now connect the power cable with the power supply and subsequently with a socket.

Important notes:

- When switching on for the first time, the speed of the drive should be increased slowly and, while doing so, observing the flow effects in the tank. Is something sucked in or are decorative items or plants blown away? If this is the case, choose a different location of the pump or reduce the performance
- Choosing the wrong wave length (resonance) in any aquarium can cause severe damage and even break the tank. Further information see page 23





07) Controller instructions

a) Controlling the Hydro Wizard®

The controller can be programmed with your finger, or a non abrasive touch screen pen. All touch surfaces can be easily reached with your finger. When activating a field it will be displayed with a black background. When the finger is removed it will be confirmed.

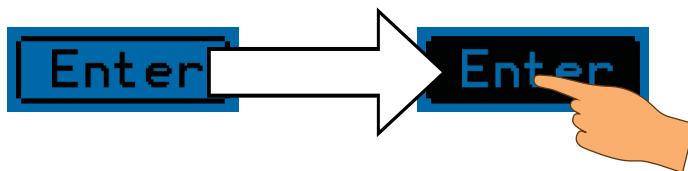


Figure 1: Touch screen surface confirmation

The following will explain the most important fields of the touch screen.



Caution: For maintenance **ALWAYS** disconnect the Hydro Wizard® from the power grid.

Do not use any of the following stop functions to perform maintenance on the Hydro Wizard®!



b)The information screen

The information screen displays information about the flow status of the Hydro Wizard®.

The upper part of the screen displays the flow mode. The center part of the screen will display the most important data about the flow mode.

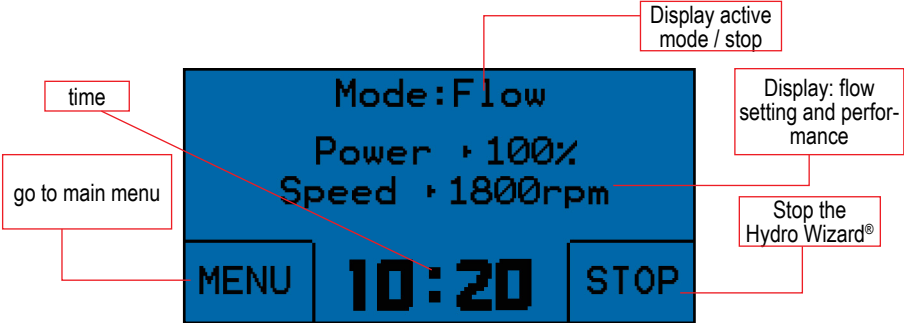


Figure 2: Information screen in flow mode

*When shipped the Hydro Wizard® will arrive in **STOP** mode after it has been plugged in.*



The **STOP** field on the screen will stop the Hydro Wizard®. The display will blink when stopped. Pushing this field again will restart the Hydro Wizard®.

The **MENU** field will call up the main menu.

The center of the screen will allow you to quickly access the settings in the mode that has been selected.

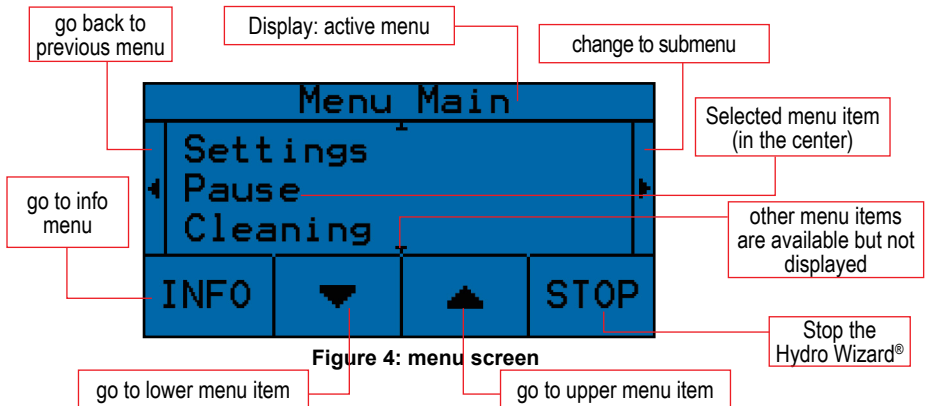


Figure 3: quick access to the settings



c) The menu screen

The menu screen is used to change and display the settings of the Hydro Wizard®.



The upper portion of the screen displays the flow menu. The center portion shows the available sub-menus. The middle one of the submenus has been selected. To select a different submenu use the arrows at the bottom of the screen. The arrow at the right enters that submenu, the arrow button on the left returns to the menu above. To confirm this selection this item will get bigger to make them more visible.

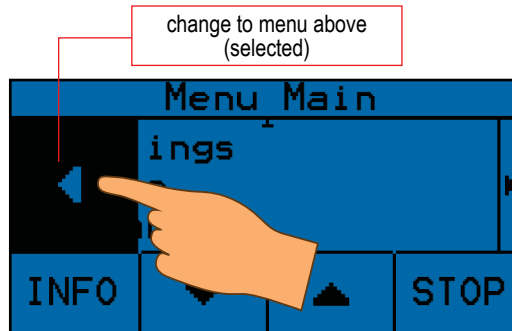


Figure 5: confirmed return button

The **INFO** button returns back to the info screen. The **STOP** button will stop the Hydro Wizard®.



d) The „make changes“ screen

This screen is used to make changes to most of the settings.

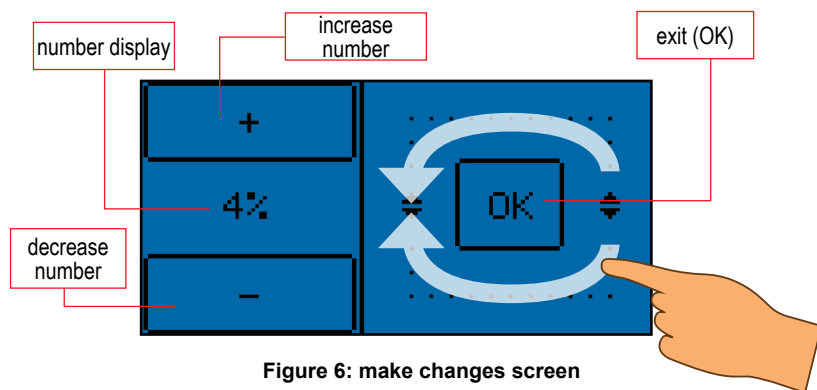


Figure 6: make changes screen

The left center field displays the flow value. Above and below are buttons to increase or decrease the number by the smallest step possible.

On the right side is a field that can be used like wheel, it is used to increase or decrease the value smoothly with no steps. The **OK** field in the center of the wheel is used to exit the make changes to settings screen.



e) Menu structure

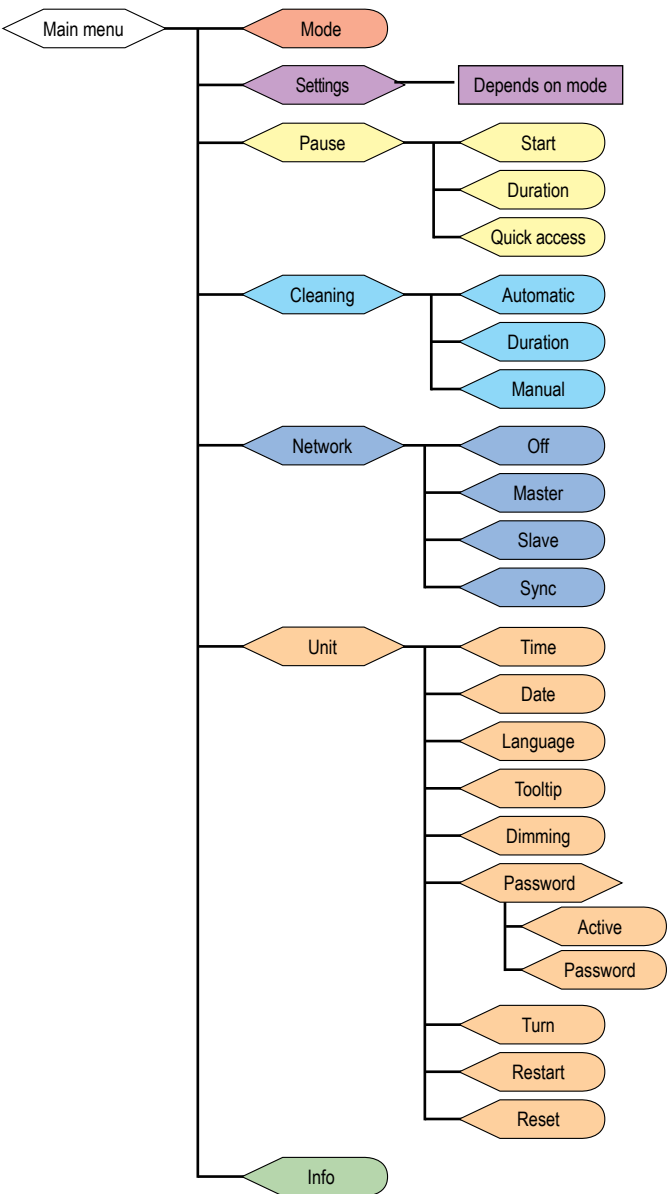


Figure 7: menu structure with original display settings



Figure 8: settings in flow mode

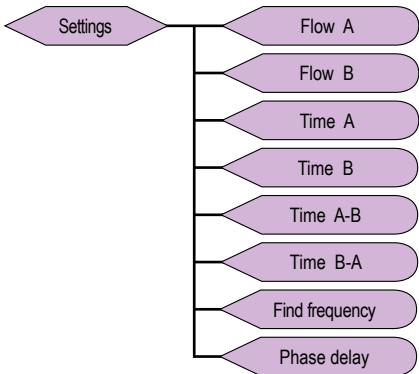


Figure 9: settings in wave mode, enter time

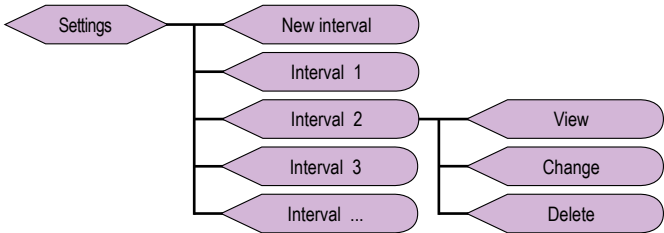


Figure 10: settings in profil mode



f) Operation

Initial start up

After the Hydro Wizard® is plugged in for the first time you must set the language, time and date.



These settings can be changed later in the info menu.

Selecting the mode

Select the desired mode in the main menu, in the change mode screen.



Changing the mode on the screen will change it without confirmation. The mode will operate with the flowly active settings.



In case of a power failure the pump will not restart on its own. The settings are saved and will be available after a power failure. When power is re-established the Hydro Wizard® will be stopped.

Flow mode

Flow mode will generate an even flow (current) in the tank. After selecting flow mode select the strength of the flow (in %) in the settings menu, or the quick change field in the info menu. If the pump is stopped (blinking **STOP** field in the info menu) the settings will take effect after the **STOP** button is pressed again. If not they will take effect right away. It is best to change the flow while the pump is running, and it is easier to observe the changes in the aquarium. You can stop the pump by selecting a flow of 0% or pushing the **STOP** field in the menu or info screen.



Always increase the flow slowly and carefully observe the changes for some time.



The flow mode is selected as a default for the first time you are using the pump, or in case of a reset. At 1% the pump is already running at 500 revolutions a minute, a lower value is not possible.



Wave mode

The wave mode is used to generate waves in the aquarium. After changing into the wave mode you can change the parameters in the settings menu or the quick change menu from the info screen. If the pump is stopped (**STOP** button in the info or menu screen is blinking) your settings will take effect when the pump is restarted after you push the **STOP** button again. Otherwise they will take effect immediately.

The Hydro Wizard® generates waves by changing between two flow intensities. The flow intensities A and B can be varied between 1% and 100%.

The Parameters „Time A“ and „Time B“ are used to select the duration of each action.

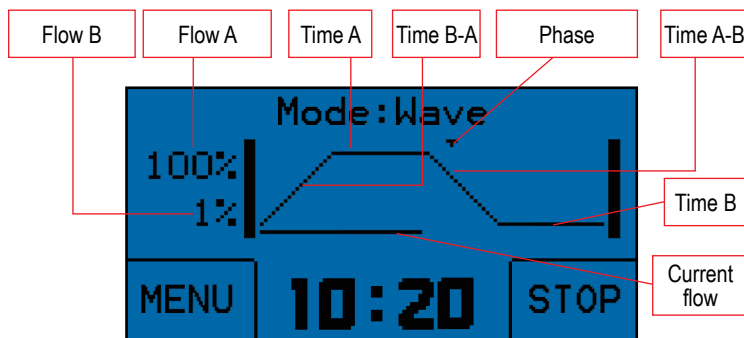


Figure 11: information screen in wave mode

The parameter „Time A-B“ defines the duration of the interval when the flow changes from „Flow A“ to „Flow B“.

The parameter „Phase delay“ is used when several controller and pumps are working in sync. It defines the delay in which the controllers wave is started later than the **MASTER** controller.

More information on connection several controller can be found under the chapter: „Connecting to the Panta Rhei CAN-Bus“.



To find the ideal frequency in your aquarium select **FIND FREQUENCY** in the settings menu. Now select the maximum flow strength. The wave frequen-



cy will then be lowered slowly. When the waves have reached an optimal frequency it can be accepted by pushing **SELECT** on the display.



Caution: depending on the layout of your aquarium waves can damage the contents, or spill water over the sides.

Profile mode

The profile mode is used to start or stop the wave or flow mode automatically. This allows waves or flow to be controlled individually for different time intervals.



To best understand the function of the wave and flow modes please read the sections „Flow mode“ and „Wave mode“.

After selecting the profile mode you can add, change or delete intervals in the settings menu (or the quick access menu from the info screen).

When adding a new interval the start and end time must be entered first. After this select the mode during this time period and the parameters.



Remember that the Hydro Wizard® will change from one mode to another when it changes the interval. Make sure large waves do not splash water over the sides or destroy the aquarium.



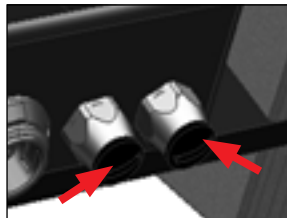
ALWAYS test each of the settings for each mode you will use before adding it as an interval in profile mode.



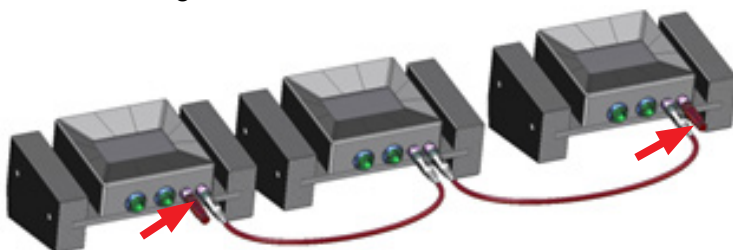
Connecting to the Panta Rhei CAN-Bus

Proceed as follows to connect several controller together:

1. Remove the protective caps from the Panta Rhei CAN-Bus sockets.



2. Connect one controller to the next as shown in the figure below.



Each socket can be used for „in“ or „out“ so the order in which they are connected is not important!



3. Connect a Terminating resistor to the open socket of the first and last controller (red arrows).

There are four options for the Panta Rhei CAN-Bus connection:

„OFF“, „SYNC“, „SLAVE“ and „MASTER“

When connecting several controller, one must be configured as **MASTER**. The controller will control the others (depending on their option setting).

If a controller is configured as **MASTER**, a small crown will be in the time display.



Figure 12: MASTER-Symbol in the time display



If a controller is set to **SLAVE**, it will take the settings of the **MASTER** automatically. The information screen will display **SLAVE** and the settings transmitted by the **MASTER**. If the connection is interrupted the controller will continue to operate in this mode.



Figure 13: SLAVE-Modus

If a controller is set to **SYNC**, it will copy the exact time and start/stop wave settings of the **MASTER**, but will otherwise function independently. Complex settings of the wave or profile mode can be reproduced with this setting (i.e. wave phases, of time dependent flows). If a controller is set to **SYNC** and connected to a **MASTER** the time display will show an **S**.



Figure 14: SYNC-Symbol in the time display



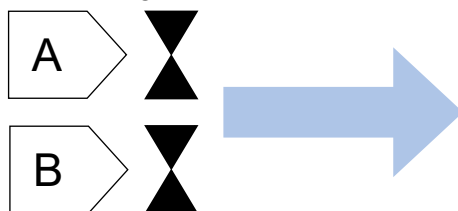
Application example:

The following examples are shown with just two pumps to simplify the diagrams, but the same programming applies for any number of connected pumps. Panta Rhei CAN-Bus system makes adding additional controller very easy.

Flow and wave mode with several Hydro Wizard®:

In this example the parallel usage of two Hydro Wizard® are used to generate a stronger flow or wave. The **SLAVE** setting is used to achieve this pattern.

Required settings:



Hydro Wizard® A: Connection → Master
 Mode → Flow
 Settings → Flow → 55%

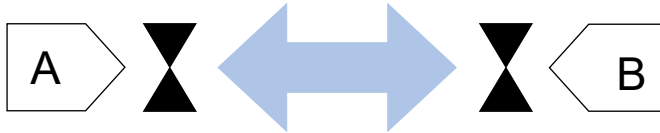
Hydro Wizard® B: Connection → Slave

In this configuration the flow of Hydro Wizard® A can be changed and Hydro Wizard® B will reproduce the same settings, wave or flow. The master controller can be set to flow, wave or profile mode.

**Back and forth wave action:**

In this example two opposing Hydro Wizard® are used to generate a wave. Hydro Wizard® A should run in the first half of the time segment with 100% power, and Hydro Wizard® B in the second segment with the same power.

To achieve this use the phase synchronization in **SYNC** mode.

Required settings:

Hydro Wizard® A: Connection → *Master*

Mode → *Wave*

Settings → *Flow A* → *100%*

Settings → *Flow B* → *1%*

Settings → *Time A* → *2.0s*

Settings → *Time B* → *2.0s*

Settings → *Time A-B* → *0.1s*

Settings → *Time B-A* → *0.1s*

Hydro Wizard® B: Connection → *Sync*

Mode → *Wave*

Settings → *Flow A* → *100%*

Settings → *Flow B* → *1%*

Settings → *Time A* → *2.0s*

Settings → *Time B* → *2.0s*

Settings → *Phase delay* → *2.0s*

Settings → *Time A-B* → *0.1s*

Settings → *Time B-A* → *0.1s*

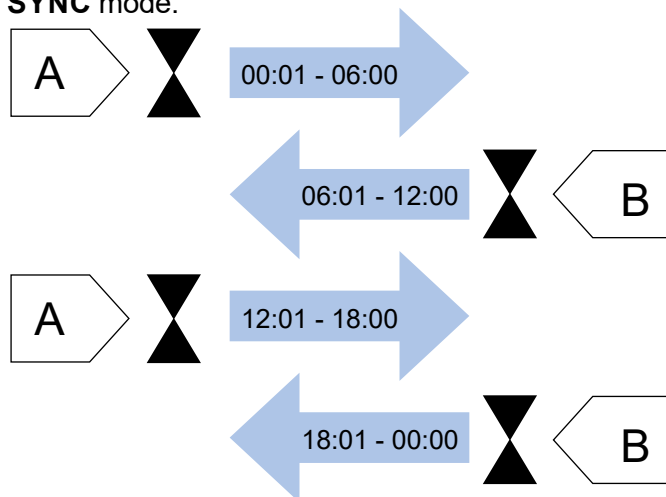
If several Hydro Wizard® are connected in wave mode with a phase delay it is important that the sum of Time A, Time B, Time A-B, and Time B-A are equal. The individual values can be changed as long as this rule is followed.



Tide Simulation:

In this example Hydro Wizard® are used to simulate the natural flow of tides. Hydro Wizard® A will run with one set of parameters from 00:01 to 06:00 and from 12:01 until 18:00, while Hydro Wizard® B will run from 06:01 until 12:00 and from 18:01 until 00:00.

To achieve this, the time must be synchronized in the **SYNC** mode.



Required settings:

Hydro Wizard® A:	Connection	→	Master
	Mode	→	Profile
	Settings	→	New interval
	Start	→	00:01
	End	→	06:00
	Flow	→	100%
Hydro Wizard® B:	Connection	→	Sync
	Mode	→	Profile
	Settings	→	New interval
	Start	→	06:01
	End	→	12:00
	Flow	→	100%



<i>Hydro Wizard® A: Connection</i>	➔	<i>Master</i>
<i>Mode</i>	➔	<i>Profile</i>
<i>Settings</i>	➔	<i>New interval</i>
<i>Start</i>	➔	<i>12:01</i>
<i>End</i>	➔	<i>18:00</i>
<i>Flow</i>	➔	<i>100%</i>
<i>Hydro Wizard® B: Connection</i>	➔	<i>Sync</i>
<i>Mode</i>	➔	<i>Profile</i>
<i>Settings</i>	➔	<i>New interval</i>
<i>Start</i>	➔	<i>18:01</i>
<i>End</i>	➔	<i>00:00</i>
<i>Flow</i>	➔	<i>100%</i>



08) Cleaning function

The cleaning function is reached from the main menu.

The cleaning function will help to clean off debris (like plants) that has stuck to the intake of the pump.

To achieve this, the pump will spin in the opposite direction for a short time.

The frequency of the automatic cleaning function can be set in the menu. It is also possible to change from short time to long time cleaning.

The manual cleaning function allows you to select forward and reverse flow strength.

Caution: *Using the cleaning mode for other purposes can damage the Hydro Wizard®!*



Caution: *The cleaning mode does not replace the regular cleaning!*





09) The pause / feed timer

The pause / feed timer stops the Hydro Wizard® and automatically resumes the programmed settings after an elapsed time (i.e. during feeding).

The feed timer function can be reached from the main menu. Select the beginning of the pause, stop the pause, and duration of the pause. The quick access menu can active a quick access button that will be displayed during a **STOP** in the info screen.



Caution: *Never use the pause / feed timer to perform maintenance or cleaning the Hydro Wizard®!*



10) Unit settings

Selecting **UNIT** in the main menu controls the settings for the display.

The menu selection **TOOLTIP** is used to active the display of other information from a selected menu. The tooltips are displayed at the bottom of the screen.

The menu item **DIMMING** is used to lower the brightness of the display when the touchscreen is activated.

The menu selection **PASSWORD** is used to protect the settings from unauthorized persons. By activating this mode a password must be entered to change from the info screen to the menu screen. The quick change menu to change the settings of the flow mode can no longer be accessed. The factory default password is **1111**.

The menu item **ORIENTATION** is used to turn the orientation of the display by 180 degrees.

The menu selection **RESET** returns all settings to the factory default.

The menu item **RESTART** is used to determine the action after power is restored. If set to **ON** the Hydro Wizard® will start with the last entered settings. Set to **OFF** the pump will not restart by itself when power is established (factory setting).

Caution: Pump will automatically restart when connected to power supply if **RESTART** is set to **ON**!





11) Cleaning and maintenance

The Hydro Wizard® operates largely maintenance free. Should it increase its energy consumption the cause is usually calcium deposits on the bearings. Depending on the water chemistry this effect can vary greatly.

To clean the bearings they must be submerged in Panta Clean solution:

- Mix 35 g of Panta Clean with 10 l of water in a bucket.
- Fully submerge the pump in the solution.
- Set the pump in flow mode at 2% power.
- Leave the pump running for one hour.
- Now discard the solution and run the pump one more hour in clean fresh water.

This protocol should be performed **twice a year** as a precaution.

Frequently check the condition of the cable to make sure that movement or animals have not damaged it.

a) General cleaning

Remove plants or other objects that have been sucked onto the intake at least once a week (or if needed more often). Sediment that has settled on the housing can be removed with a soft brush.

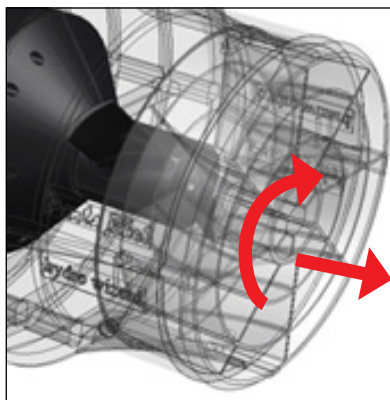


Do not clean the pump, or parts in the dish washer. The plastics are not dish washer safe!

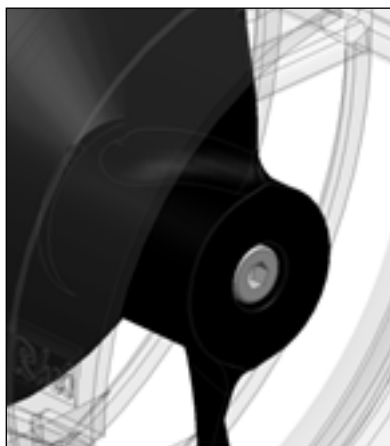


12) Assembly and disassembly

When carrying out assembly and disassembly, always disconnect the mains plug in advance!



The flow conditioner is attached to the front of the housing with a bayonet lock. To remove it spin it clockwise and pull it forward.



To change the impeller use an four (4) mm Allan key. Hold the impeller with your hand and loosen the screw counter clockwise.

(locked torque max. 100 Ncm)



13) Troubleshooting

Problem	Possible Cause	Solution
pump will not start	no power	• plug the pump in • check house/GFI fuse
	speed display says „zero“	read the manual section for the controller
	the impeller is blocked	• unplug the pump • remove the blockage
	pump is not plugged	plug the pump into the controller
	After a power failure, the speed is set to “zero”	Up-regulate the speed again
pump suddenly stops	the impeller is blocked	• unplug the pump • remove the blockage
	power failure	check GFI/ house fuse
	After a power failure, the speed is set to “zero”	Up-regulate the speed again
the pump is no longer generating a flow	the intake basket is clogged	clean the intake basket
loud noise	a wing of the impeller has broken off	unplug the pump and replace the impeller
display impeller fault	Hydro Wizard® operates outside the water	Operate Hydro Wizard® inside the water
	Impeller defect	unplug the pump and replace the impeller



For any other problems please get in contact with Panta Rhei Service. Repairs can be made only by Panta Rhei or authorized dealers!



14) Disposal and environmental protection

The pump should not be discarded with the regular trash, it should be disposed of according to local regulations, please check with your local authority. [RICHTLINIE 2002/96/EG].





15) Warranty provisions

a) Extent of warranty

This limited warranty is applicable from the date of purchase for all new products from Pantarhei GmbH purchased for your own normal use and not for reselling. Pantarhei GmbH guarantees that a product covered by this warranty, apart from the exceptions listed below, is free from material and manufacturing defects.

b) Warranty period

The warranty period is limited to one (1) year and starting from the date of purchase. The exact warranty period depends on when and where the product was purchased. A valid purchase receipt is required to prove a warranty entitlement.

c) Warranty exclusions

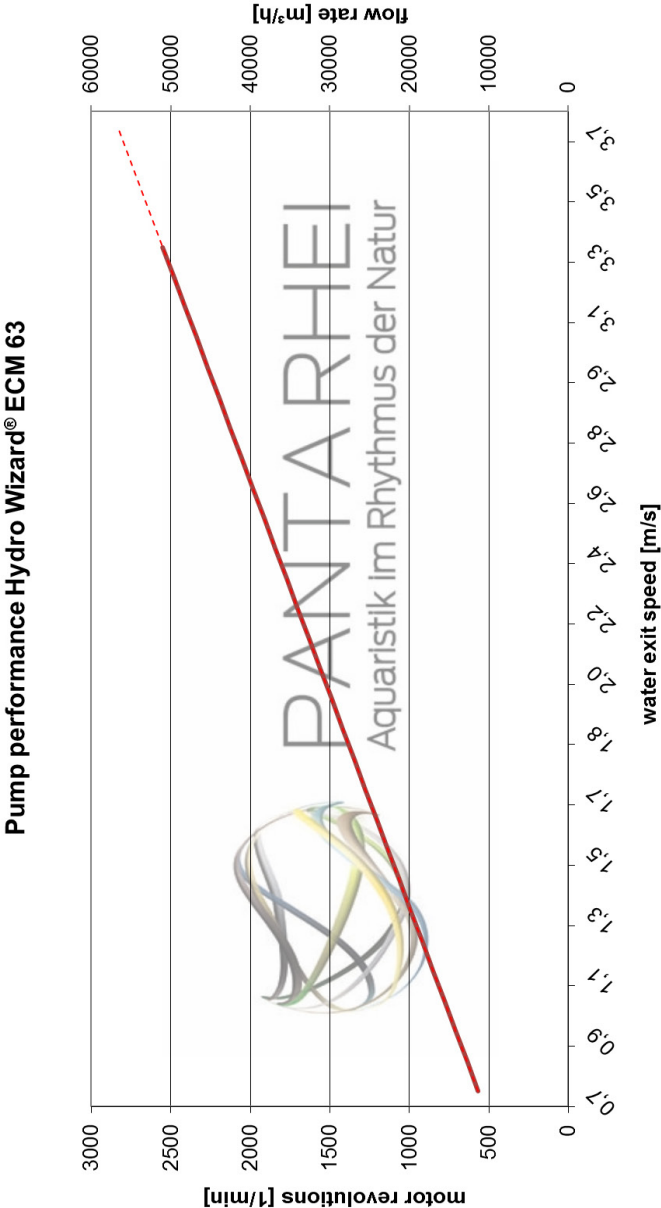
The following are not covered by this warranty: use for other than the intended purpose, accidents or changes to the hardware or software, unauthorized modifications, an unsuitable physical or operational environment which does not meet the product specifications, inexpert maintenance or defects caused by a product for which Pantarhei GmbH is not responsible. There is no warranty entitlement for products whose nameplate has been removed or modified. Pantarhei GmbH offers no other guarantees whatsoever, including, but not limited to, implied agreements of conditions relating to the merchantability or suitability for a particular purpose. In some jurisdictions a restriction of implied agreements is not admissible so this restriction may not be applicable to you. Pantarhei GmbH is not obliged to replace products which are not covered by this limited warranty.





16) Technical data

a) Pump characteristic curve



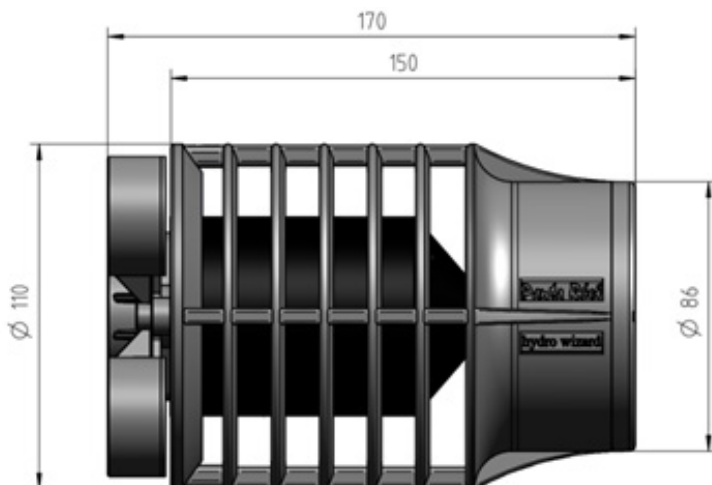


b) Pump technical data

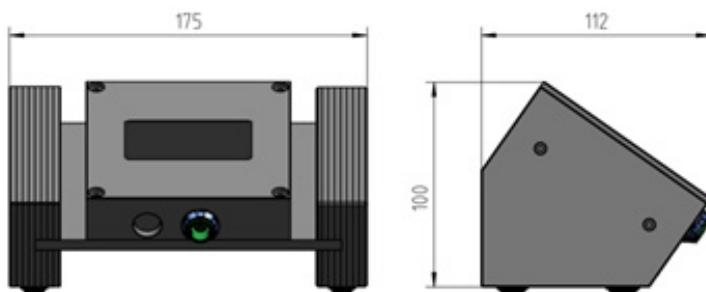
Type	Hydro Wizard® ECM 63
Rated input voltage	100-240 V~, 50/60Hz
max. power consumption	120 W
min. speed	500 rpm
max. speed	1,800 rpm
max. flow rate	51,000 l/h
max. medium velocity	3.3 m/s
Axial thrust	~25 N
max. operating depth	conditioned by cable length
Weight (motor + basket)	1,050 g
Total weight	3,530 g
max. medium temperature	35 °C / 95 °F
max. ambient temperature	40 °C / 104 °F



c) Dimensions (all dimensions in mm)

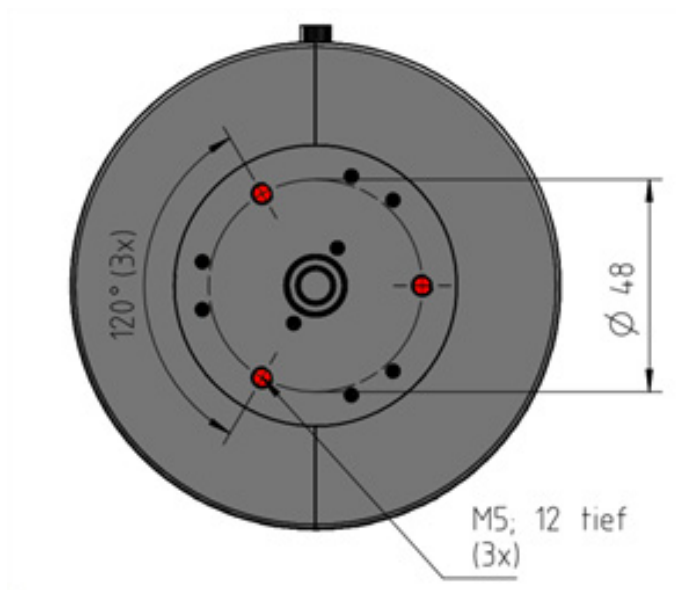


Controller





d) Mount dimensions



*Do not cover the holes in the back of the Hydro Wizard®.
Use adapter ring 11053221 or the adjustable bracket
429786 from accessories*





17) Optional accessories

- Quick Mounting Bracket (Order no. 429821)
- Adapter Ring (Order no. 11053221)
- Flexible Mount (Order no. 429786)
- Flow Conditioner Long (Order no. 428815)
- Spacer (Order no. 11054593)
- Stand Acrylic Glass (Order no. 429806)
- Honey Comb Basket (Order no. 11053125)
- Sponge-Filter Attachment (Order no. 11052166)
- USB Adapter Kit (Order no. 11054197)
- Panta Clean (Order no. A122736297158150)

For further details please contact our Sales Management or get information at:

<https://www.panta-rhei.shop>



18) Spare parts

- Single Magnet (Order no. 428230)
- Flow Conditioner Short (Order no. 428199)
- Impeller (Order no. 428200)
- Power Cord EU (Order no. 429642)

All Spare Parts for Hydro Wizard® are available directly from Panta Rhei.

For further details please contact our Sales Management or get information at:

<https://www.panta-rhei.shop>





Hydro Wizard® ECM 63

A product of



PANTARHEI
Natural Aquarium Technology

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