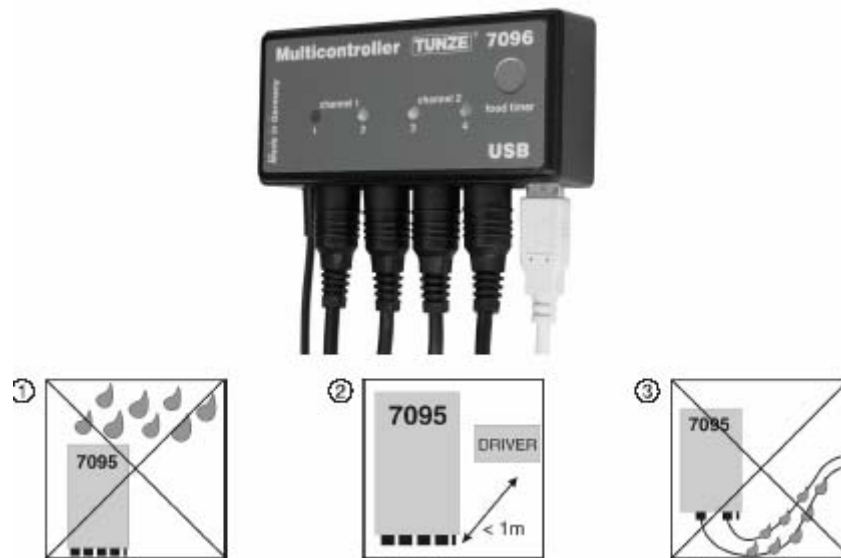# Tunze Aquarientechnik Multicontroller 7096

General aspects

TUNZE® Multicontroller 7096 is a control device for all Turbelle® pumps fitted with an electronic motor, which can be adjusted and programmed by computer when attached by USB cable. The controller has been fitted with an 8-bit high-performance micro-processor and a memory module, which keeps the settings stored even in case of a power failure:
For adjustment by computer, the Multicontroller does not need a connection to the pumps in the tank.
After adjustment by and saving on the computer, the data remain saved in the Multicontroller as well.
TUNZE® Multicontroller 7096 comprises the functions of Multicontroller 7095 and Wavecontroller 6091 as well as some other new control possibilities. It simulates various marine flow conditions in the aquarium and has been fitted with an especially bright LED moonlight.

Scope of delivery: Multicontroller with photo-electric cell, moonlight, holder and 5 m (196.8 in.) USB cable, four connection cables, CD with Windows compatible control program.
Suitable for MS-Windows 98, 2000, XP, Vista and Win7.
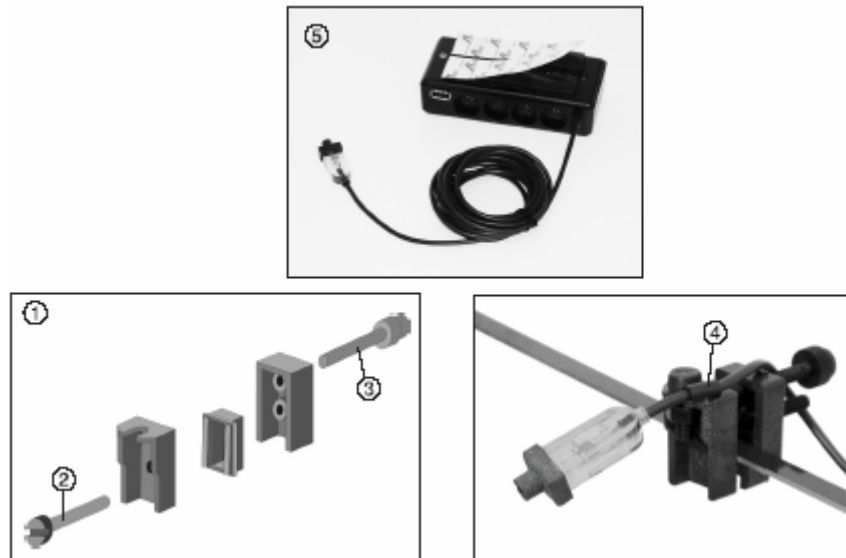
Selecting the position

(1) The suitable wall has to be dry and protected against splashing water and humidity. By no means attach above the aquarium !

(2) Observe the cable length of the units because connecting cables or photo-electric cells may not be extended.
Control lamps should be visible; the Foodtimer should be easily accessible !

(3) Place the cable connections in such a way that water cannot run down the cables and enter the Multicontroller.
Place any connected photo-electric cell in the illuminated area under the aquarium lighting.

Attachment

Multicontroller 7096
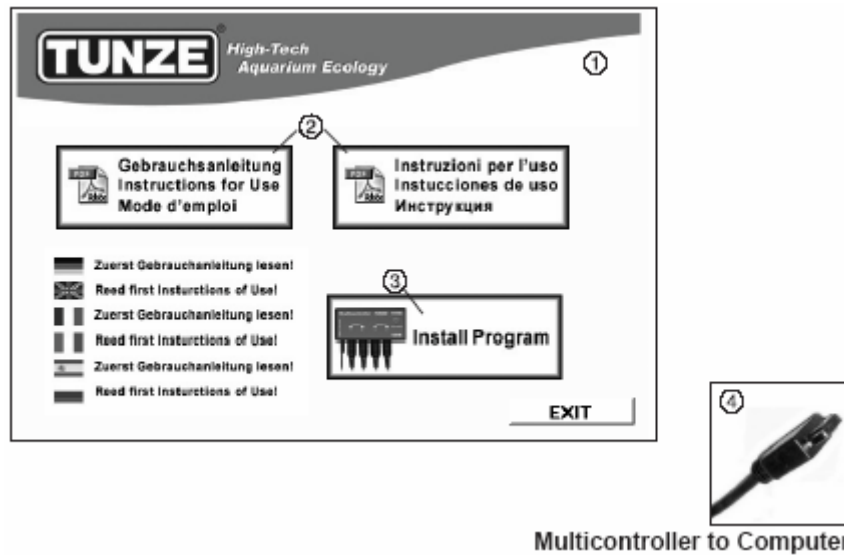Use hook-and-loop strips for smooth plastic surfaces, for example.

Adhere the strip on to the housing (5); for this purpose remove the protective foil and press on.
Prior to adhering the strip, please make sure that the surface is clean, free from grease and smooth. Subsequently, remove the second protective foil and then position and adhere the Multicontroller at the requested position.

Photo-electric cell / moonlight
Use the hose clamp, the screw, the nut and the separate holder to attach the photo-electric cell / moonlight to the clamp holder.

(1) Premount the holding device.
(2) Use the lower retaining screw to set the glass thickness (max. 19 mm (.74 in.)).
(3) Tighten the clamping screw. Ensure a tight fit.
(4) Use the screw and the nut to fasten the hose clamp.
Place the photo-electric cell connected in the light cone of the aquarium lighting; see chapter titled „Night mode" - operation in night mode".

Multicontroller 7096

Multicontroller to Computer

Installation - connection to computer

Insert the CD-ROM supplied along with the unit and a menu (1) will appear automatically permitting the selection either of the instructions for use (2) as a PDF file or the installation of the program (3) for Multicontroller 7096.

After having read the instructions for use, install the program by clicking on the „Install program" button causing a link to be placed on the desktop.
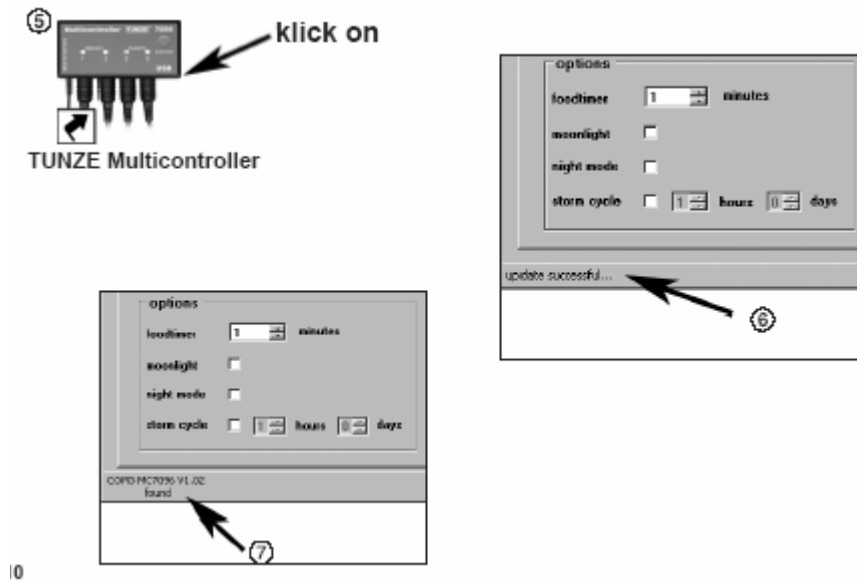
First of all a window will be appear displaying the following text: "Do you want to install TUNZE Multicontroller ?" Click "Yes"." Subsequently a black "TUNZE Setup" window will appear with a flashing cursor; wait for about three minutes until "Software installed" is displayed, and then press any key.

Quit the CD menu by clicking "Exit".

The Multicontroller program 7096 should have been installed in the „C:\TUNZE\Multicontroller7096" folder.

The Multicontroller program must not be installed on network drives. The program should be installed on the local HDU C:\ !

(4) Use the USB cable supplied to connect the TUNZE® Multicontroller 7096 to the USB port of the computer; then wait for 10 seconds. The USB cable of the Multicontroller may be up to 8 m (315 in.) in length without repeater. An extension in excess of this length should only be set up with a USB repeater.

Multicontroller 7096

(5) Double-click the „TUNZE Multicontroller" icon on the desktop of your computer.
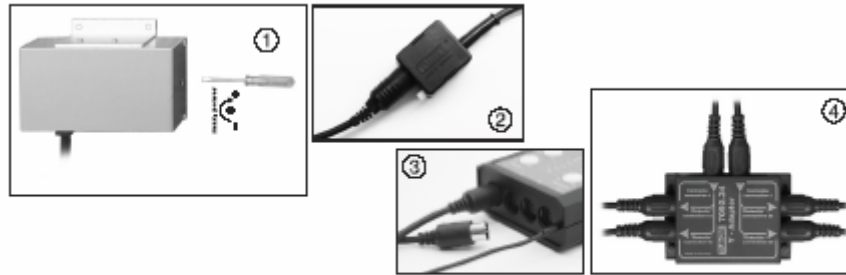
Caution !

During the installation process the USB connection between Multicontroller 7096 and computer must not be interrupted and the computer must not be switched off. Otherwise, an incomplete hardware update may result causing damage to Multicontroller 7096 !

An "AVRootloader" window appear briefly after first installation or re-installation.

"update successful …" (6) will be displayed in the bottom left-hand corner of the Multicontroller program. Subsequently close the program and double-click the "TUNZE Multicontroller" icon again to run the program.

The Multicontroller 7096 window will open; the connection to Multicontroller 7096 is established within a few seconds which can be checked by the following bottom left message: "COMx MC7096 Vy,y.yy,y found" (7), whereby x indicates the port number on your computer and y renders the program version number, such as "COM4MC7096 V1.0.10.0 found". If no connection has been established, „no unit found" will be displayed instead ! Quit the program and check the USB cable on the PC and the Multicontroller for correct connection. Make sure that all other applications have been closed. Run the Multicontroller program again !

In case of some PC systems running WLAN (Wi-Fi), Bluetooth or other devices connected up to the system, it may be necessary to switch them off prior to running the Multicontroller program. Otherwise it may be possible that the Multicontroller program does not find the COM interface.
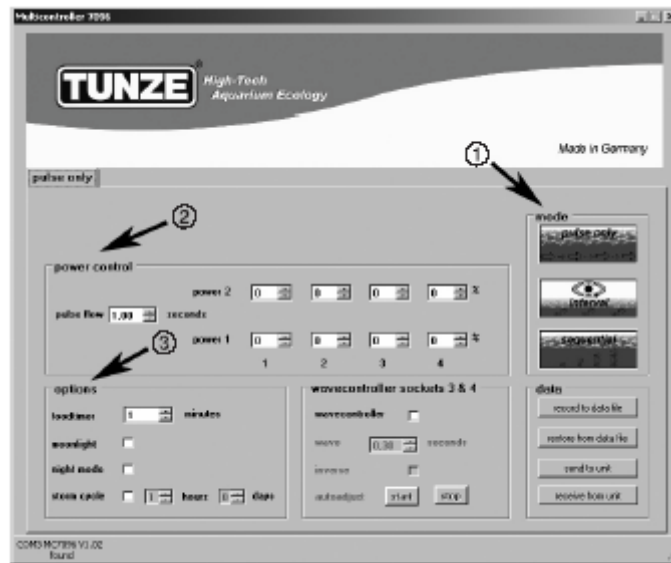
Multicontroller 7096

Connection to Turbelle® pumps

Multicontroller 7096 has been designed for operation with Turbelle® drivers 7240.26 / 7240.27 (1) or Turbelle® pumps with electronic motor 5001/5005, 6055, 6105, 6205, 6305 (2). Elder drivers, such as 240.24 or 7240.25, must not be connected.

Connections: Always disconnect the power supply unit of the Turbelle® from the socket or de-energise the system (3) before dis/connecting the connecting cables to the pump. Multicontroller 7096 is connected to the driver 7240.26 / 7240.27 or to the Turbelle® pump with the five-pole connecting cable, which is also used for power supply. By using the branch adapter 7092.34 (4), two pumps can be connected to each output, which means that up to eight pumps can be operated.

Software update for Multicontroller 7096 In order to update the software for Multicontroller 7096, please access our website at www.tunze.com/download, and then click on "update 7096". The current version number is indicated below picture 7096. If your unit is connected up to the computer, your previous version number will be indicated in the bottom left section of the Multicontroller 7096 program. If a new version is available, you can determine this by means of the version number, and can then download, if and when required.Unpack the zip file and then click on "CD_Start.exe". The installation is carried out as rendered in the chapter titled "Installation - connection to computer".

Multicontroller 7096

Short description of the display

The display has been designed to ensure easy programming of the Multicontroller:

"Mode" field(1)
In this field, a simple click on the icon will select the mode of operation of the pumps, which will also be indicated in the upper left-hand section of the field.

„Pulse only" - wave simulation only.

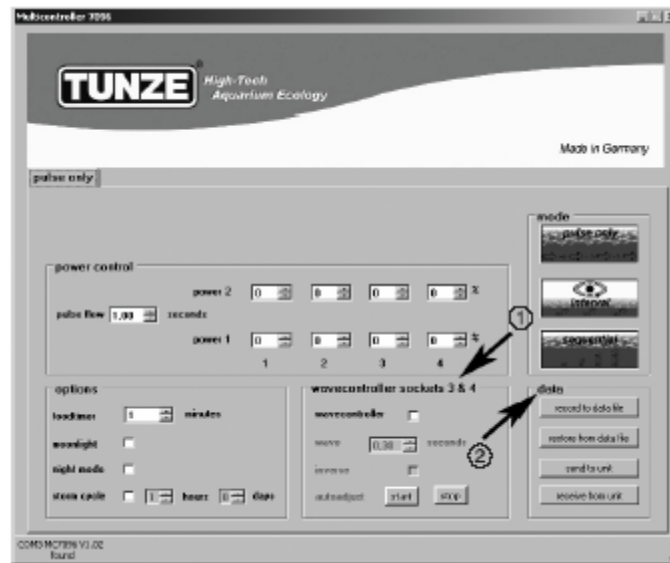„Interval" - low and high tide simulation.

„Sequential" - sequential pump circuit / random flow.

„Power control" field(2)
This field is used to set the outputs of the various pumps as well as the time basis for wave action, high and low tide or sequential pump circuit / random flow.

"Options" field(3)
This field is used to set the important options of the Multicontroller, such as feeding operation, moon phase simulation, operation in night mode, storm for desedimentation.

Multicontroller 7096

Short description of the display

„Wavecontroller socket 3 & 4" field(1)

Independent of the Wavecontroller function, the outputs 3 and 4 can be switched in every mode. This function has been designed specifically for the use of Nano Wavebox / Wavebox, but in case of the electronically controlled TUNZE® stream pumps it may be an interesting option as well. This field is used to activate the function as well as the automatic search of the wave frequency and the direct or alternate switching action of the Waveboxes.
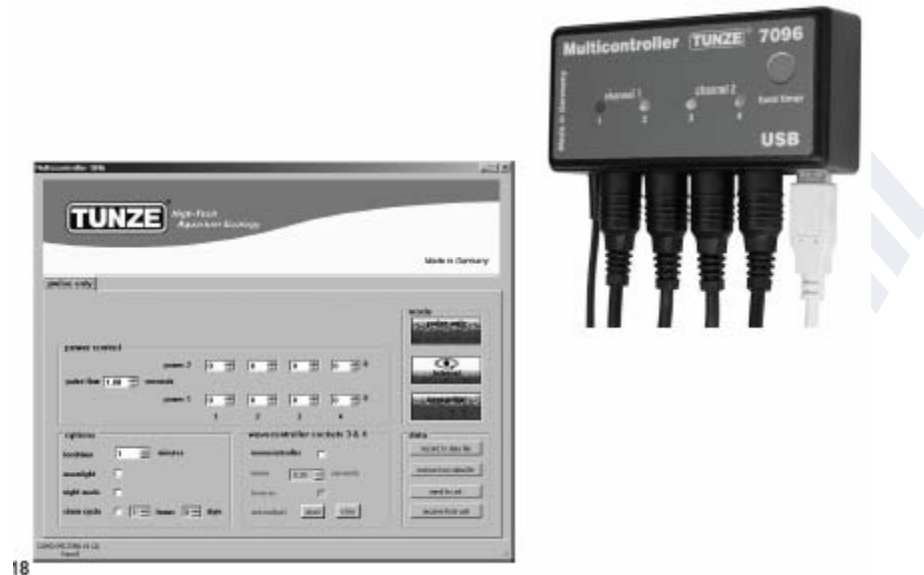
"Data" field(2)

This field is used to activate the connections between Multicontroller 7096 and the computer.

"Record to data file" = saves the settings of the Multicontroller in a file on the computer.

"Restore from data file" = the saved data are restored to the Multicontrollers.

"Sent to unit" = send the computer settings to the Multicontroller.

"Receive from unit" = Multicontroller settings are sent to the computer.

Multicontroller 7096

Initial operation

Prior to the initial operation, please ensure a good attachment of the pumps / Wavebox in the aquarium !

Position the pumps in the aquarium in such a way that the settings on the Multicontroller cannot cause any water damage by excessive currents !

Use the connecting cables to connect the pumps to the Multicontroller 7096 (cf. chapter titled "Connection to Turbelle® pumps").
Use the USB cable to connect the Multicontroller 7096 to the computer (cf. chapter titled "Installation - connection to computer").

During the initial operation, all parameters are freely set on the computer display; it is only after clicking on "Send to unit" that they activate the Multicontroller 7096.
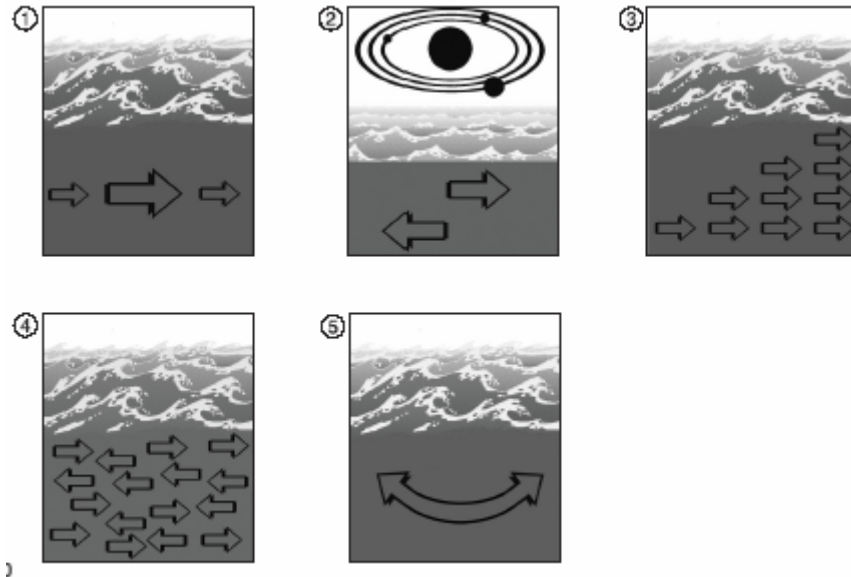In order to retrieve the settings of the Multicontroller 7096 subsequently, the data can be sent from the Multicontroller 7096 to the computer by clicking on "Receive from unit".
Saving – restoring the settings

The data and settings of the Multicontroller 7096 can be saved to a file very easily and subsequently they can be restored again. Thus, several flow patterns and versions can be removed during different periods of the aquarium, which can be restored again in the Multicontroller 7096 at any time.
For this purpose, click on "Record to data file" to open the "Save data" window. Name the file, such as "01_02_2009.txt" and click on "Save".

In order to restore this file, click on „Restore from data file" to open the „Restore data" window, then click the corresponding file to open.

Multicontroller 7096

Various natural currents in the aquarium

(1) The combination of Turbelle® pumps with electronic motor and Multicontroller 7096 permits the generation of the following flow patterns in the aquarium:

(2) Wave simulation („Pulse only")
By setting the two pump outputs maximum and minimum as well as the pulse duration, high and low water velocities can be produced generating a natural wash of waves under a one-metre water column.

(3) Simulation of tidal currents ("Interval")
The pump channels 1 and 2 are switched on or off alternately. The water flows through the reef from both sides at an adjustable switching time from 1 minute up to 12 hours.
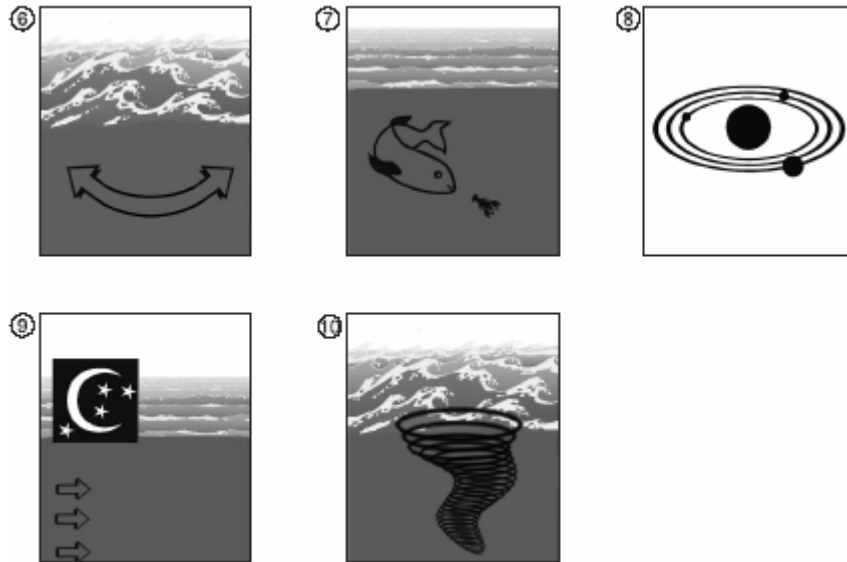
(4) Sequential pump circuit (sequential)
The pumps (up to four outputs) are started up one after the other, which produces a swelling current. The time up to the next pulse can be adjusted.

(4) Random flow (sequential)
Random flow is generated by wave simulation and sequential pump operation. For quite a number of special reef zones (surf) this combination may produce an interesting water movement.

(5) Oscillating current using Nano Wavebox / Wavebox (Wavecontroller)
The pump channels 3 and 4 can be used as a Wavecontroller for the direct or alternating Nano Wavebox / Wavebox. This function comprises the automatic search of the resonance frequency, which can be combined with wash of waves or high and low tide simulation.

Multicontroller 7096

Various natural currents in the aquarium

(6) Oscillating current using Turbelle® pumps (Wavecontroller)
The pump channels 3 and 4 can be used as Wavecontroller for the operation of Turbelle® stream pumps. This function comprises the automatic search of the resonance frequency, which can be combined with wash of waves or high and low tide simulation.

(7) Operation in feeding mode (Foodtimer)
By pressing a button on the Multicontroller 7096, the pumps can be stopped completely during feeding. After about one to fifteen minutes (adjustable), a restart is carried out automatically.
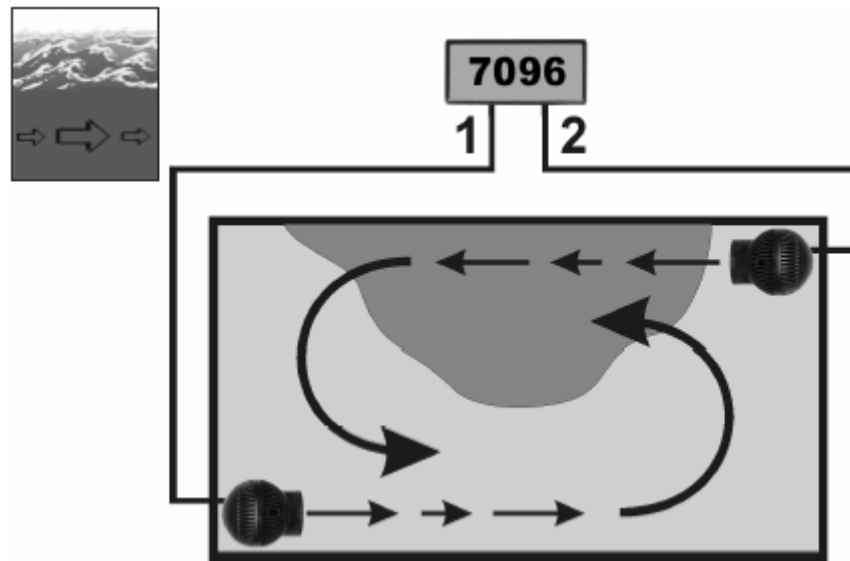
(8) Moon-phase simulation (moonlight)
Moon simulation in a reef aquarium using white LED light and an adjustable 29-day moon phase.

(9) Operation in night mode
A photo-electric cell can be used to lower the pumping power during the night. Like in a reef, small animals and plankton can rise in the aquarium to take the habitat of diurnal animal.

(10) Storm for desedimentation (storm cycle)
Like in nature, sediment should be removed from a reef aquarium in regular intervals. This function can be programmed in Multicontroller 7096 to be carried out automatically; the pumps connected are controlled on the basis of an efficient and precise rhythm.

Multicontroller 7096

Settings in practice

Prior to the initial operation, please ensure a secure attachment of the pumps / Wavebox in the aquarium !
Position the pumps in the aquarium in such a way that the settings on the Multicontroller cannot cause any water damage due to excessive currents !
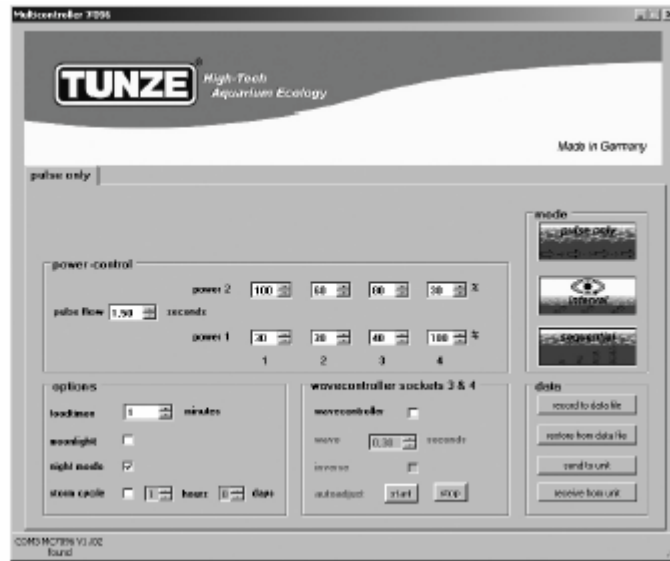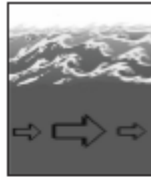
„Pulse only" - wave simulation

The pulse operation produces biologically active current pulses (=waves); thus simulating the wash of waves. The larger the difference is between the performances of the pumps set, the larger the wave characteristic of the current.
Click the "Pulse only" button in the "Mode" field.
Click „Power 1" and „Power 2" pump outputs in the „Power control" field to set channels 1 to 4. Figure "0" indicates that the pump is not operational. The lowest possible setting is 30 per cent which can be increased to 100 per cent.
Set the "Pulse flow" pulse frequency from 0.30 to 8.00 seconds. This pulse frequency is precise and can also be used as Wavecontroller.
Up to four pumps can be connected directly. By using two branch adapters 7092.34, an extension to a maximum of eight pumps is possible.

Multicontroller 7096

„Pulse only" - wave simulation

„Pulse only" - example
Output 1, set "Power 1" to 30 per cent and "Power 2" to 100 per cent.
Output 2, set "Power 1" to 30 per cent and "Power 2" to 60 per cent.
Output 3, set "Power 1" to 40 per cent and "Power 2" to 80 per cent.
Output 4, set "Power 1" to 100 per cent and "Power 2" to 30 per cent.
Set "Pulse flow" pulse frequency to 1.5 seconds.
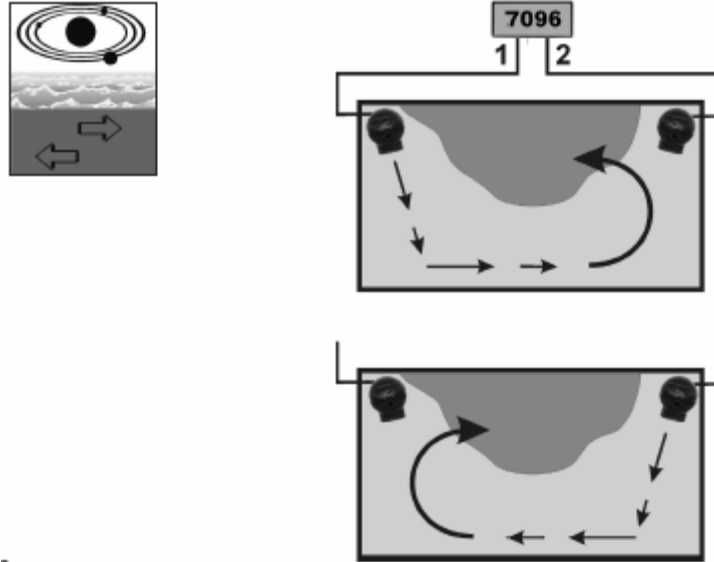Connect one pump each to each port of the channels.

Result:
The pump on output 1 varies your output between 30 per cent and 100 per cent.
The pump on output 2 varies your output between 30 per cent and 60 per cent.
The pump on output 3 varies your output between 40 per cent and 80 per cent.
The pump on output 4 varies your output between 100 per cent and 30 per cent.
The pulse frequency has been defined at 1.5 seconds.

When activated, the "night mode" function interrupts the pulse operation as soon as the aquarium lighting goes off; all pumps remain in "Power 1" setting. In the morning, when the light is switched on again, the selected pulse operation of the pumps will start again.
"Pulse only" - other options
This function can also be very useful as Wavecontroller for Nanobox / Wavebox or Turbelle® stream pumps. "Power 1" (set to 0 per cent or 100 per cent) and "Power 2" (set to 100 per cent or 0 per cent) can be used to control the four channels directly or alternately; the resonance frequency should be set to "Pulse flow" in this case. If "Power 1" is set to 100 per cent for one of the four channels, the "night mode" function should not be activated !

Multicontroller 7096

„Interval" - low and high tide simulation

The interval operation alternating between low tide (pump outputs 1 /2) and high tide (pump outputs 3 /4) permits two-way circular currents in the aquarium. The reef rocks are flooded from both sides in regular intervals causing the sediment to be washed away, and the invertebrates are perfused from all directions. We recommend that the same pumping capacity is set for both channels, if possible.
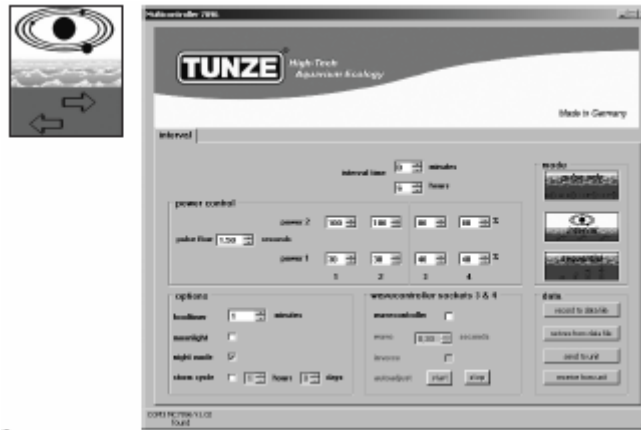
Click the "Interval" button in the "Mode" field.

Click the "Interval time" field to set a time between 1 minute and 12 hours; six hours would be ideal, like a natural tidal interval.

Click „Power 1" and „Power 2" pump outputs in the „Power control" field to set channels 1 to 4. Figure "0" indicates that the pump is not operational. The lowest possible setting is 30 per cent which can be increased to 100 per cent.

Set the "Pulse flow" pulse frequency from 0.30 to 8.00 seconds. This pulse frequency is precise and can also be used as Wavecontroller. Wave simulation on a pump output can also be switched off by identical setting of "Power 1" and "Power 2". Both values are set to 60 per cent, for example; the pump on this port has a continuous output and pulse operation is deactivated.

Up to four pumps can be connected directly. By using two branch adapters 7092.34, an extension to a maximum of eight pumps is possible.

Multicontroller 7096

„Interval" - low and high tide simulation

"Interval" - example
Output 1, set "Power 1" to 30 per cent and "Power 2" to 100 per cent.
Output 2, set "Power 1" to 30 per cent and "Power 2" to 100 per cent.
Output 3, set "Power 1" to 40 per cent and "Power 2" to 80 per cent.
Output 4, set "Power 1" to 40 per cent and "Power 2" to 80 per cent.
Set "Interval time" time to six hours.
Set "Pulse flow" pulse frequency to 1.5 seconds.
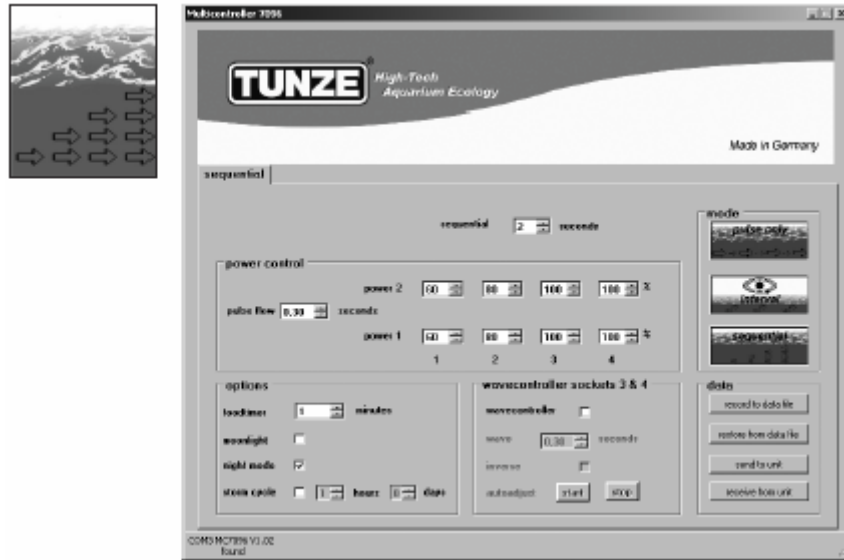Connect one pump each to each port of the channels.

Result:
Pumps 1 and 2 operate for six hours and vary their output between 30 per cent and 100 per cent.
After six hours, the pumps 1 and 2 are switched off, instead pumps 3 and 4 are operational now and vary their output between 40 per cent and 80 per cent.

After another six hours, pumps 1 and 2 are switched on again, et cetera.
When activated, the "night mode" function interrupts the pulse operation as soon as the aquarium lighting goes off; all pumps remain in "Power 1" setting. However, the "Interval" low and high tide simulation continuous to be operational.

Multicontroller 7096

„Sequential" - sequential pump circuit

The sequential pump operation is recommended for long tanks in particular and should be used with at least three pumps as otherwise no pump sequence can be recognised clearly. The Turbelle® pumps should be arranged in one line, thus generating a strong wave front with swelling water movement.

Click the "Sequential" button in the "Mode" field.

Set the "Sequential" switching time by clicking 1 to 10 seconds.

Set „Power 1" and "Power 2" pump output in the "Power control" field of one output by clicking the same value (between 30 per cent and 100 per cent). In order to deactivate wave simulation on each port, the above has to be set for the other three outputs as well. Set the "Pulse flow" pulse frequency to below 1 second.

"Sequential" - example

Output 1, set "Power 1" to 60 per cent and "Power 2" to 60 per cent.

Output 2, set "Power 1" to 80 per cent and "Power 2" to 80 per cent.

Output 3, set "Power 1" to 100 per cent and "Power 2" to 100 per cent.

Output 4, set "Power 1" to 100 per cent and "Power 2" to 100 per cent.

Set the "Sequential" switching time to 2 seconds.

Connect one pump each to each port of the outputs.

Result:

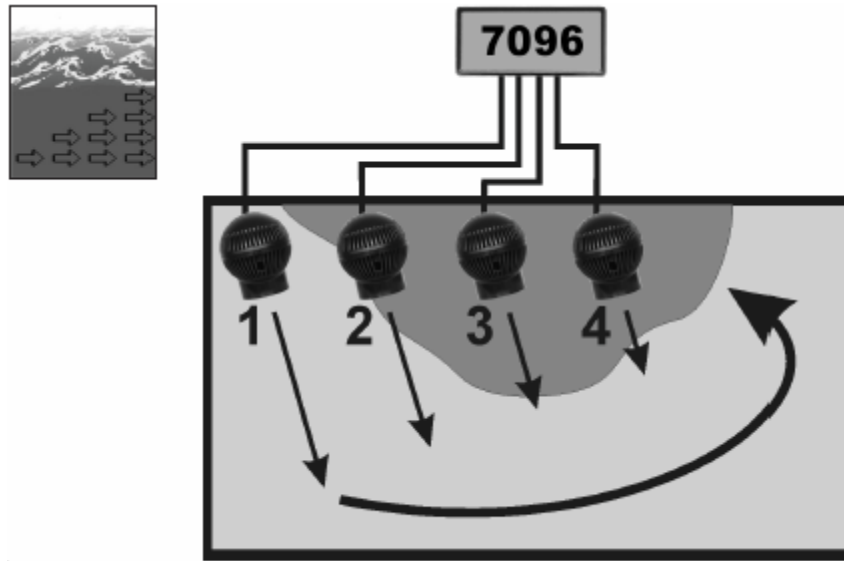Pump 1 starts operating with an output of 60 per cent.

Two seconds later, pump 2 starts operating with an output of 80 per cent.

Two seconds later, pump 3 starts operating with an output of 100 per cent.

Two seconds later, pump 4 starts operating with an output of 100 per cent.
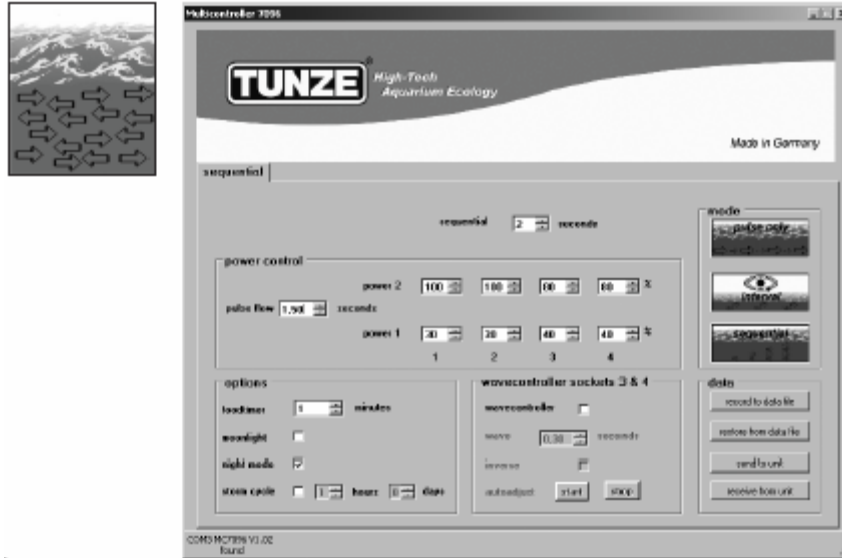
Two seconds later all four pumps stop.

Two seconds later, pump 1 starts operating again, et cetera.

Multicontroller 7096

„Sequential" - sequential pump circuit

When activated, the "night mode" function interrupts the pulse operation as soon as the aquarium lighting goes off; all pumps remain in "Power 1" setting permanently. In the morning when the light is switched on again, the pulse operation will start again.

When activated, the "Wavecontroller" function uses the outputs 3 and 4 whilst the "Sequential" pump operation is active only for outputs 1 and 2.

„Sequential" - random flow

Random flow is produced when sequential pump operation and pulse operation are switched on at the same time.
Click the "Sequential" button in the "Mode" field.
Set the "Sequential" switching time by clicking 1 to 10 seconds.
Click „Power 1" and „Power 2" pump outputs in the „Power control" field to set channels 1 to 4. Figure "0" indicates that the pump is not operational. The lowest possible setting is 30 per cent which can be increased to 100 per cent.
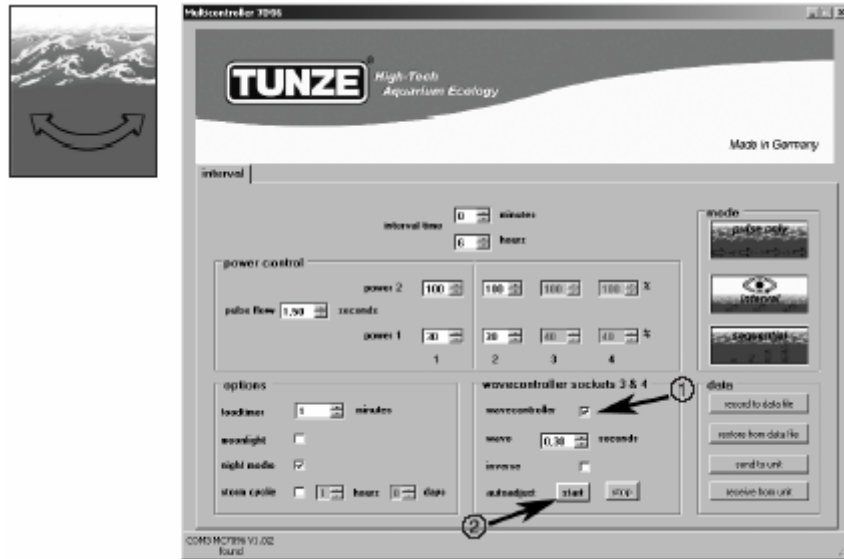Set the "Pulse flow" pulse frequency from 0.30 to 8.00 seconds.

Result:
The pumps connected up to the ports 1, 2, 3 and 4 operate randomly, producing an irregular flow pattern.

When activated, the "night mode" function interrupts the random flow operation as soon as the aquarium lighting goes off; all pumps remain in "Power 1" setting permanently. In the morning when the light is switched on again, the pulse operation will start again.

When activated, the "Wavecontroller" function uses the outputs 3 and 4 whilst the "Sequential" random flow is active only for outputs 1 and 2.

"Wavecontroller" - oscillating current using Wavebox

This function has been designed specifically for use with TUNZE® Nano Wavebox / Wavebox, but in case of the electronically controlled TUNZE® stream pumps it may be an interesting option as well. In order to produce maximum wave movement, the frequency of the Nano Wavebox / Wavebox has to be set to the resonance frequency of the aquarium.

Every kind of water current can be selected in the "Mode" field (please refer to the previous chapter).

Click the "Wavecontroller" function in the "Wavecontroller sockets 3 & 4" field(1). The various fields are than marked as being active, but the pump outputs 3 and 4 in the "Power control" field are not active only for the Wavecontroller function.

Set the "Wave" resonance frequency to the known frequency or determine the frequency by means of several trials.

The „Inverse" function is clicked when at least two Waveboxes are placed opposite each other (visible setting of „Power 1" and „Power 2"). If the Waveboxes are placed next to each other, this function should remain deactivated.

„Autoadjust" (2)

A click on „Start" initiates an automatic and easy search of the perfect resonance frequency for the Wavebox in the tank. Pulse operation then starts at 0.30 seconds and increases every three seconds. The intervals starts at 0.01 second and increases to the highest value of 2.50 seconds. During this period of time the aquarium should be watched closely. As soon as the resonance frequency is made, a water movement can be seen. The „Autoadjust" function can be stopped by clicking on „Stop". In addition, the „Wave" value can be fine-adjusted manually by setting „Seconds".

"Wavecontroller" - oscillating current using Wavebox (1)

When activated, the „Night mode" function interrupts the Wavecontroller when the aquarium lighting is switched off, and the Nano Wavebox / Wavebox remains off. In the morning when the light is switched on again, the oscillating operation will start again.

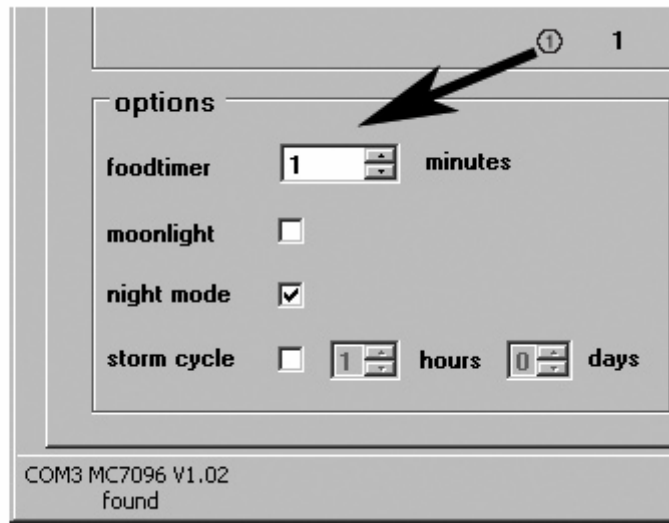„Wavecontroller" - miscellaneous possibilities.

This function can be combined with any setting in the „Mode" field.

The resonance frequency can also be entered in „Pulse flow"; in this case the circulation pumps support the oscillating current in the aquarium.

„Wavecontroller" - oscillating current using Turbelle® pumps only (2)

The Wavecontroller function can also be used for Turbelle® stream pumps without Wavebox. However, we recommend to always position two Turbelle®stream opposite each other; the „Inverse" function should be active.
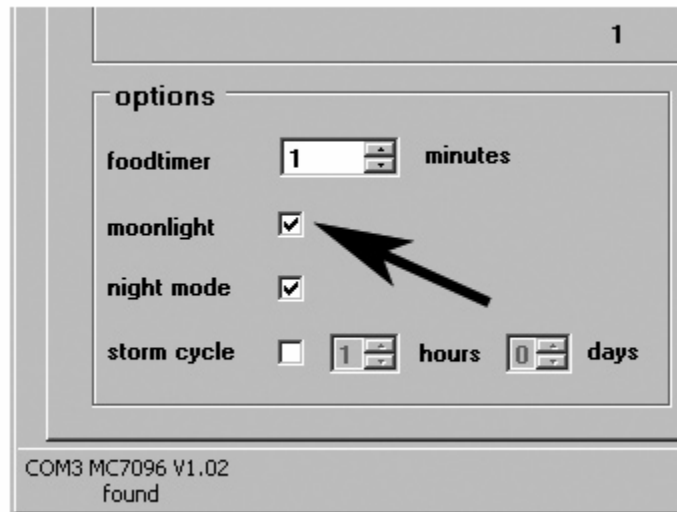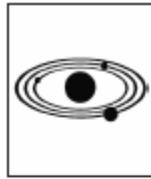
Adjustment: cf. chapter titled „"Wavecontroller" - oscillation current using Nano Wavebox / Wavebox"

„Foodtimer" - operating in feeding mode

Pressing the „Foodtimer" button on Multicontroller 7096 will switch off the pumps connected to enable the fish to consume the food in calm waters. After the break period has run down, the unit will switch on the pumps again automatically. This function ensures that the connected pumps are operating again after feeding. The „Foodtimer" prevents up to 40 per cent of food from penetrating the filter system.

In the „Options" field, this function can be set from 1 to 15 minutes(1).
When the feeding break is activated, the green LEDs for the pump outputs 1 to 4 on Multicontroller 7096 go off, and will light up again automatically after the pumps have started operating again.

Multicontroller 7096

„Moonlight" - moon-phase simulation

The moon phase depends on the phases of the sun relative to the moon. New moon positions occur every 29.53 days on average. Multicontroller 7096 offers a simplified moon phase of twenty-nine days which is operated by a special LED on the photo-electric cell which is placed above the water surface. The moon phase has been programmed in such a way that the moon cycle is reproduced from full moon to new moon.
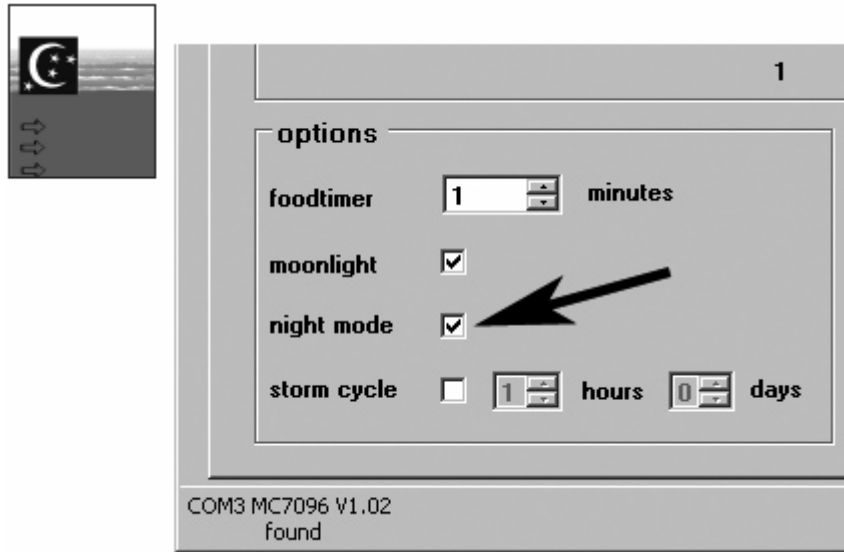
This cycle can also be harmonised to the natural moon phase by turning back the Multicontroller at full moon. This adjustment is carried out by a reset, which is done by disconnecting all connected pumps from the mains socket, be sure the USB cable is not connected. The „Moonlight" LED is lit only when the photo-electric picks up no or very little light. Thus, it is adapted to the light cycle of the aquarium.

This function can be activated in the „Options" field.
The internal moon cycle in Multicontroller 7096 continues to operate, even if the „Moonlight" function has been switched off.

Caution ! During the night the aquarium light or another strong source of light should not be switched on. Otherwise the cycle of the moon phase set is advanced by a day.
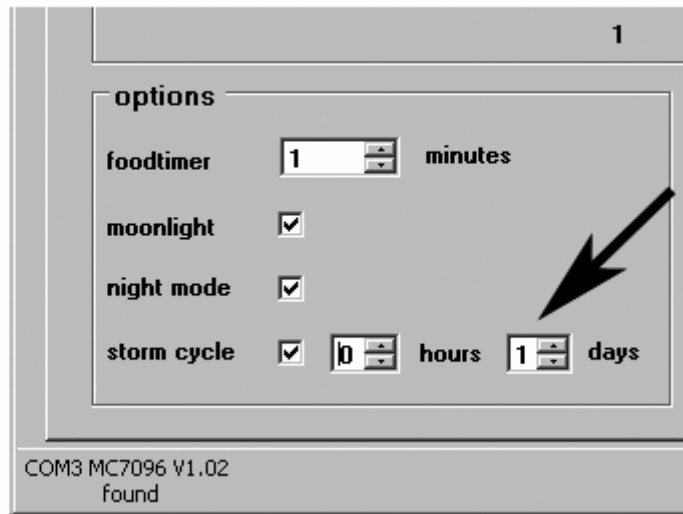Attachment: cf. chapter titled „ Attachment of the photo-electric cell / moon light".

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„Night mode" - operation in night mode

This function can be activated in the „Options" field. By placing the photo-electric cell in the illuminated area of the aquarium lamp, the pulse operation of the connected pumps is also interrupted when the lamp is switched off. The pumps continue to operate with „Power 1" output.
In the morning, when the light is switched on again, the selected pulse operation of the pumps will start again. Operation in night mode is possible with every flow programme of Multicontroller 7096.
This function can be activated in the „Night mode" field.

For test purposes hold the photo-electric cell in the beam area of the aquarium lamp until the pumps start pulse operation. Keep a minimum distance of 30 cm (11.8 in.) from HQI lamps as otherwise damage caused by light and heat is unavoidable !
Use a clamp holder to permanently fix the photo-electric cell to the tested position in the aquarium - cf. chapter titled „Attachment of the photo-electric cell / moon light"".

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„Storm cycle" - storm for desedimentation

As in nature and similar to the random current, the „Storm cycle" is used to desediment the reef structures in the aquarium. The storm-like current is not in operation permanently, but only several times a day or a week, which can be programmed correspondingly.
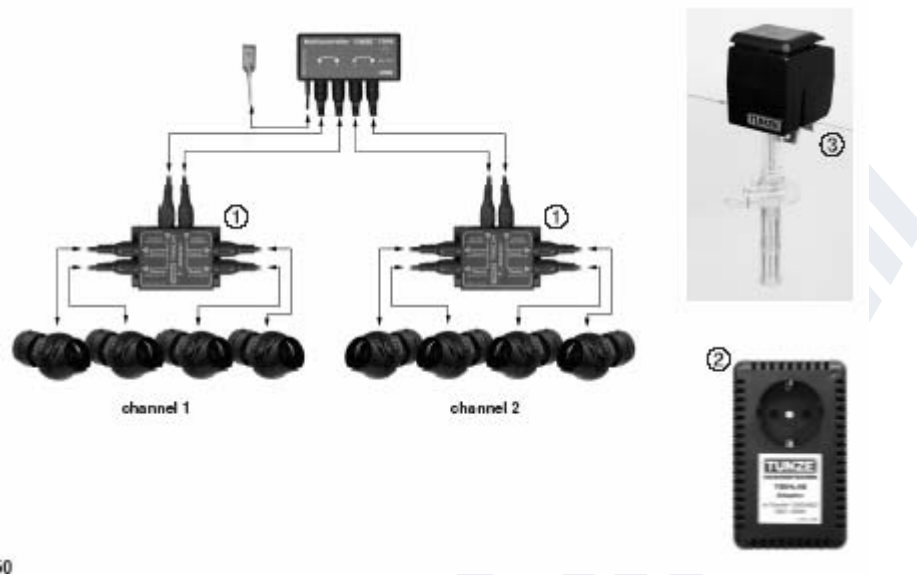This function can be activated in the „Options" field.

The frequency of the „Storm cycle" can be set from one hour to seven days.
The „Storm cycle" is based on a fixed and precise pump cycle which controls all four pump outputs for five minutes according to the following programme:

Pump 1 -> 20 seconds
Pump 2 -> 20 seconds
Pump 3 -> 20 seconds
Pump 4 -> 20 seconds
Pumps 1 +2 -> 20 seconds
Pumps 3 + 4 -> 20 seconds
Pumps 1 + 3 -> 20 seconds
Pumps 2 + 4 -> 20 seconds
Pumps 1 + 2 + 3 + 4 -> 20 seconds
Pumps 1 + 2 -> 30 seconds
Pumps 3 + 4 -> 30 seconds
Pump 1 -> 10 seconds
Pump 2 -> 10 seconds
Pump 3 -> 10 seconds
Pump 4 -> 10 seconds
Pumps 1 + 2 + 3 + 4 -> 20 seconds

Position the pumps in the aquarium is such a way that the „Storm cycle" cannot cause any water damage!

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Accessories

Branch adapter 7092.34(1)
The branch adapter extends a pump output of Multicontroller 7096 to two additional outputs. Thus, two Turbelle® pumps can be connected to one socket and can be operated in parallel. For this reason, up to six pumps can be connected to Multicontroller 7096 fitted with a branch adapter 7092.34; using two branch adapter will permit operation of up to eight pumps.

Pump adapter 7094.40(2)
Pump adapter 7094.40 acts like a pump driver. It is for use only with the asynchronous motor of Turbelle® classic 2002 and 4002(3). A pump adapter can be operated at a maximum of up to 300 W ! Using commercially available distributors up to four Turbelle® classic can be connected to a pump adapter. For this reason, only two pump adapters are required to control up to eight Turbelle® classic to ensure low and high tide control with two channels. The guarantee is void pumps of other manufacturers are operated.

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Guarantee

The unit manufactured by TUNZE® Aquarientechnik GmbH carries a limited guarantee for a period of twenty-four (24) months after the date of purchase covering all defects in material and workmanship. Within the framework of the corresponding laws, your remedies in case of a violation of the guarantee obligation shall be limited to returning the unit manufactured by TUNZE® Aquarientechnik GmbH for repair or replacement at the discretion of the manufacturer. Within the framework of the corresponding laws, the said shall be the only remedies. Consequential damage and/or other damage shall be excluded therefrom explicitly. Defective units shall have to be shipped to the dealer or the manufacturer in the original packaging together with the sales slip in a pre-paid consignment. Unpaid consignments will not be accepted by the manufacturer.

Exclusion from guarantee shall exist also in case of damage caused by inexpert handling (such as water damage), technical modification carried out by the buyer or by connection to devices, which have not been recommended, as well as damage to the computer caused by the software of the Multicontroller 7096.

Subject to technical modifications, especially those which further safety and technical progress.

Disposal:

(in keeping with RL2002/96/EU)
The device and the battery may not be disposed of in normal domestic waste; it has to be disposed of in an expert manner.
Important for Europe: Device and battery can be disposed of through your community's disposal area.

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