ProfiLux Light/Mini WiFi

Instruction Manual

Valid from firmware-version 1.10

as of 2019-04-24

Table of Contents

Congratulations on your Purchase

Thank you for purchasing our product and allowing us to help support your path to successful fishkeeping!

With a GHL *ProfiLux Light/Mini WiFi*, you now own a highly professional piece of equipment that will assist in your daily monitoring and maintenance routines.

We are confident that our product will help make your hobby more effective, safe, and help you spend more time enjoying your aquarium or terrarium.

Enjoy Your Passion!

GHL Takes Care of the Rest.

This guide describes the basic start-up and connection, but does not deal with the settings that need to be made to achieve a desired functionality.

All further information, in particular details on the operation and the comprehensive setting options can be found in the *Programming Manual*, which you can download from our homepage www.aquariumcomputer.com/downloads/ in the download area.

1 Safety Instructions

Please read these instructions and the enclosed sheet *Operating and Safety Instructions / Warranty* carefully before operating the *ProfiLux Light/Mini WiFi*.

GHL products are built with maximum security and safety in mind. However, product safety for this device can only be guaranteed if you follow these guidelines.

Anyone who uses this device must become familiar with the following safety instructions and the operation of the device.

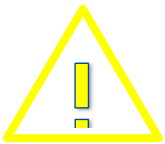
Failure to follow these instructions will void any warranty claims.

Be sure to also observe the safety instructions in the ProfiLux manual and the respective manuals of other equipment manufacturers.

In this manual, the following symbols are used:

TIP

General note, tip or advice.



WARNING

Important note for operation, to avoid damage to the equipment, and for your safety.

DANGER

Warning that non-compliance can result in injury or damage to the device.

For your own safety, please look at the hazard prevention and safety instructions in the chapters that follow.

2 General

2.1 About this Manual

These instructions apply to the Controllers *ProfiLux Light/Mini WiFi*. The functionality of your *ProfiLux Light/Mini WiFi* is determined by the connections on the specific device.

2.2 Features

Features of all controllers at a glance:

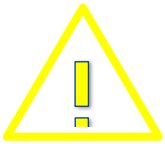
- Illuminated blue graphical display with 6 operation keys
- 1 x USB Port
- 1 x Connection for *Powerbar* (Red Western socket)
- 4 x 1-10V interfaces (Yellow Western sockets, double allocation)
- 1 x Multifunction port (Black Western socket, on the right next to power supply input)
- 1 x Connection for power supply unit (12V DC hollow socket*)*
- 1 x Input for *pH-Sensors*, white BNC connector on the right (*Mini* only)
- 1 x Input for *Digital Temperature Sensor*, white BNC connector to the left of the USB connector *(Mini* only)

2.3 Scope of Delivery

Please check the contents of this box. The following items should be included:

- Controller *ProfiLux Light/Mini WiFi*
- *Digital Temperature Sensor* (*Mini* only*)*
- USB-cable
- Power supply
- Supplementary sheet: *Operating and Safety Instructions / Warranty*

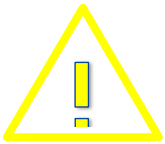
Please check to make sure all items are in perfect condition. In case of damage, immediately contact the dealer from whom you purchased the *ProfiLux Light/Mini WiFi*.



WARNING

Damaged *controllers* or components may not be put into operation under any circumstances.

2.4 Important Operating Instructions



WARNING

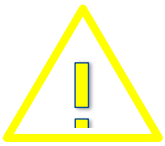
To ensure safe operation, the following guidelines must be followed.

Disregarding these safety guidelines, will result in voiding your warranty. In which case, the manufacturer rejects any responsibility or liability for damage!

3 Connections of the ProfiLux Light/Mini WiFi

3.1 General

Applies to all connections:



WARNING

- Connect only original accessories from GHL.
- Do not use force when plugging connectors. If a plug contact does not fit, it is imperative to check that you have chosen the correct socket.

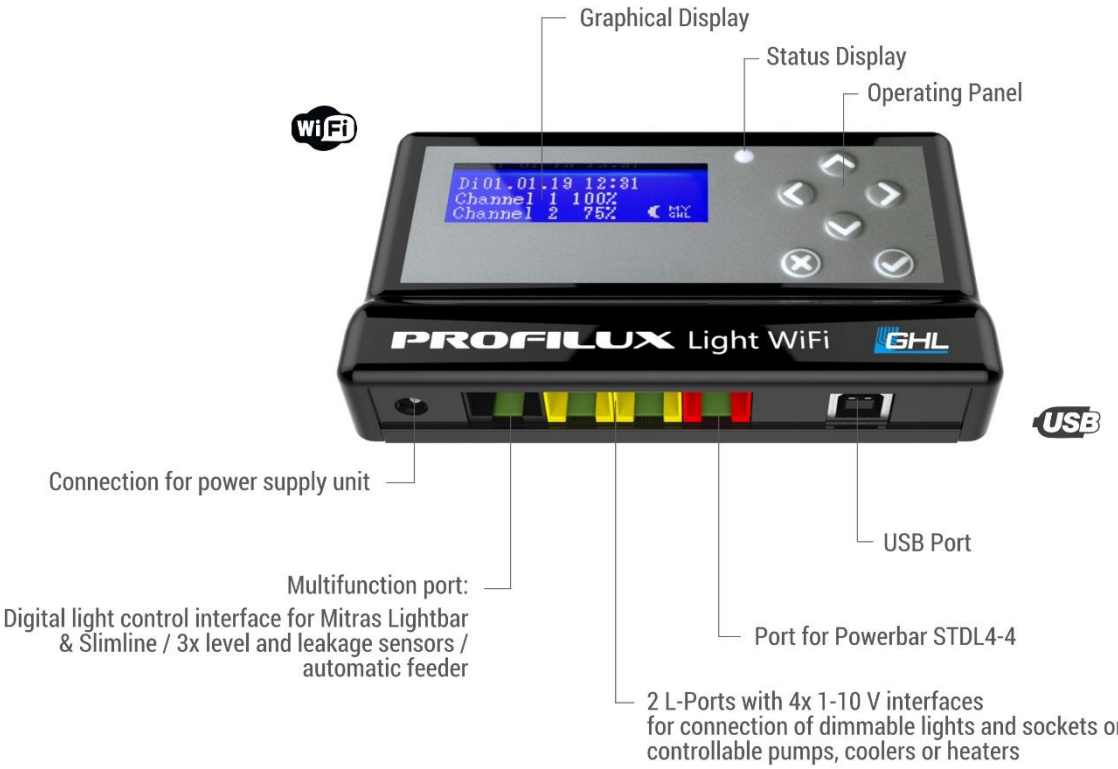
DANGER

- Incorrect connection (For example, plugging a lighting unit plug into a *PAB* connection) can lead to damaging the *ProfiLux Mini/Light/Terra* and/or the light bar!
- A repair caused by this, is not covered under warranty and will therefore incur repair charges.

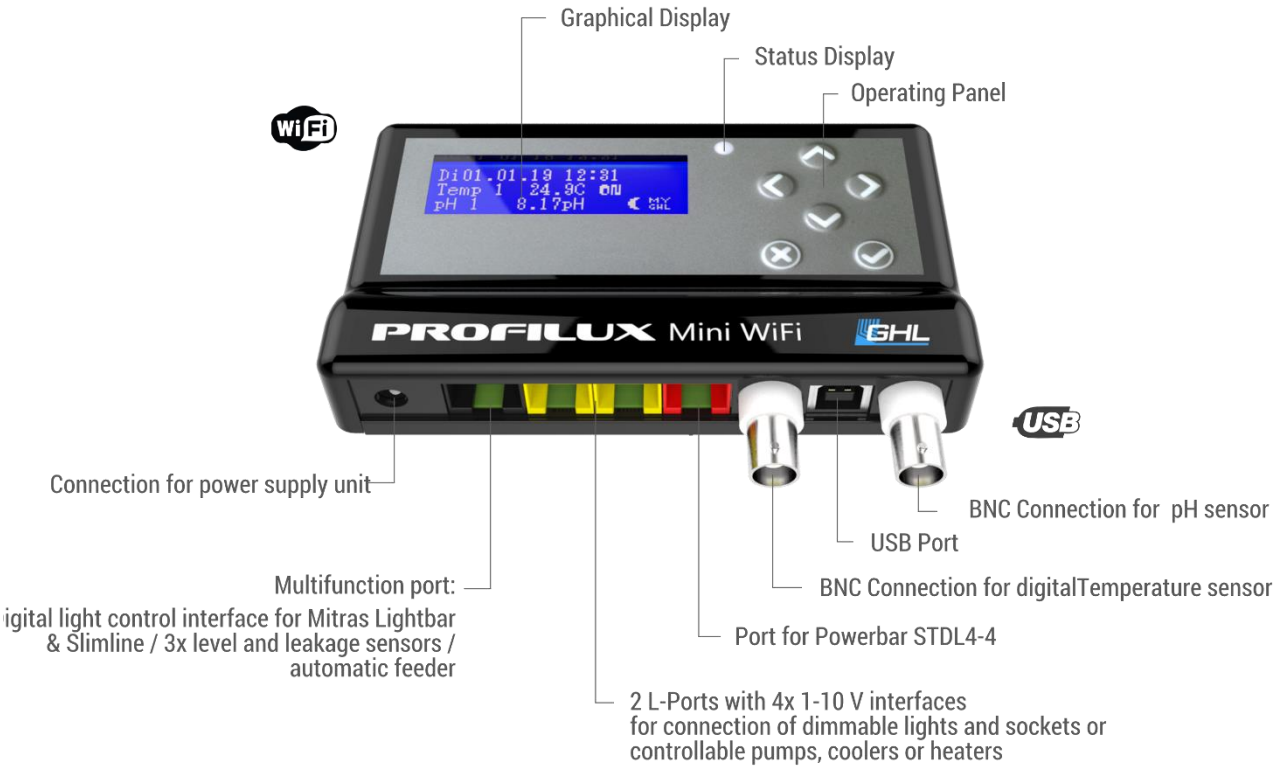
3.2 Connection Overview

The *ProfiLux Light/Mini WiFi* Controllers have the following connections:

ProfiLux Light WiFi:



ProfiLux Mini WiFi:



3.2.1 Sensor Inputs

The following sensors can be connected to the white BNC sockets of the ProfiLux *Mini WiFi*:

- pH-Sensor (Right BNC socket)
- Digital Temperature Sensor (Left BNC socket)

The Humidity-Temp dual sensor on the ProfiLux *Terra* connects to the first black RJ12 Western socket on the far right.

3.2.2 USB Connection

The *ProfiLux Light/Mini WiFi* Controller can be connected to a PC via USB cable. This means that all settings can be configured comfortably using *GHL Control Center*. *GCC* software can be downloaded free of charge from our website's download area.

3.2.3 Powerbar Connection

The control cable of the required *Powerbar* is connected to the red RJ12 Western socket.

3.2.4 1-10 V Interfaces

Devices that use 1-10 V interfaces are connected to the two yellow RJ12 Western sockets L1 / L2 (Left socket) or L3 / L4 (Right socket).

1-10V interface devices include:

- Dimmable tubular GHL *Lightbars ALB*
- Dimmable Effect-LED-Light *Mitras-Simu-Stick*
- Dimmable sockets
- Controllable heating or cooling (e.g. *Propeller Breeze)*
- Controllable stream pumps

Each of these ports includes two independent 1-10V interfaces and associated relay control outputs. If necessary, each port can be extended with the splitter cable -*YL2*, available in different lengths.

3.2.5 Multifunction Port

To the black Mitras RJ45 Western modular port can be connected:

- One or more *Mitras Lightbar* or Mitras Slimline, which have a digital interface
- Level-/ Leakage Sensors*)
- a Feeder*)

*) optional available splitter necessary

3.2.6 Power Supply Input

12V DC hollow socket for connection to the power supply. Use only the original power supply for supplying power to the *ProfiLux Light/Mini WiFi* Controller.

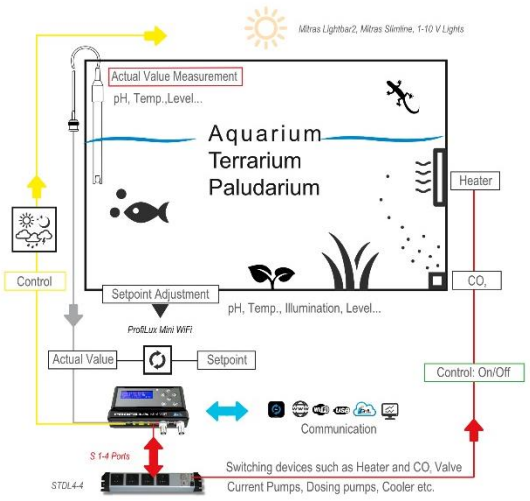
4 Functions of the ProfiLux Light/Mini WiFi

4.1 Functionality of the ProfiLux Light/Mini WiFi

ProfiLux Light WiFi can be used to control dimmable and non-dimmable lighting units as well as control 1-10V compatible stream pumps.

ProfiLux Mini WiFi can help you maintain the sensitive biological balance of your aquarium by reliably and accurately measuring and controlling pH and temperature.

The controller monitors and controls heater, ground heater and cooling operations. The sequence control with intelligent and self-learning intermittent wipers always ensures optimal heating with pinpoint accuracy. If desired, a nightly temperature decrease can be programed.



How ProfiLux Mini WiFi works

The highly accurate pH control electronics can down regulate (sour, e.g. CO2 supply) or up regulate (alkalization) based on the programming that is made. Disabling pH control during the night can be programed.

For measuring and controlling you need the following items in addition to the controllers:

- GHL power bars e.g. *STDL4-4* or switching on and switching off consumers such as Solenoid valves, heating, cooling and pumps.
- GHL pH-Electrode.

4.2 Functions

The range of functions depends on the respective controller model and the available accessories.

- Simple and intuitive menu-driven operation
- Extensive lighting control:
  - 16 dimmable channels
  - Simulation of Moon phases, Thunderstorms, Clouds and Cloud cover
  - Seasonal lighting
  - Acclimation program
  - Weekday-dependent programs

  – Temperature-dependent light reduction (*Mini WiFi*)
- Measurement and control of pH Values (*Mini WiFi* only)
- Measurement and control of temperature (*Mini WiFi* only)
- Control of variable speed current pumps via 1-10 V ports
- Feed Pause and maintenance programs
- Therapy Program for sick fishes (*Mini WiFi* only)
- Programmable reminders
- Universal timers and dosing programs
- Control of a tubular heater, substrate heater and CO2 solenoid (*Mini WiFi* only)
- Child protection via PIN code
- Settings are stored during power loss in nonvolatile memory (EEPROM)
- Operation via App, Web interface, Cloud my GHL convenient PC software (Free of charge)
- No coding required
- Virus proof
- GHL-developed operating system for aquatics, ProfiLuxOS

5 Activation

5.1 Installing the ProfiLux Light/Mini WiFi

These devices must be protected from water at all times!

ProfiLux Light/Mini WiFi can be mounted on the wall via the eyelets at the back. Mount the controller in a water-protected area. When selecting the mounting material, make sure that you have adequate sizing and stability. Make sure that the unit cannot fall into the water during assembly.

If the device is placed inside an aquarium cabinet, make sure it is placed in an area where is no splashing water; moisture or liquids that can penetrate.

ProfiLux Light/Mini WiFi as well as their accessories (e.g. *Powerbar*) are destroyed by excess moisture or too high atmospheric humidity - please observe the technical data and notes below!

To ensure safety and safe operation, the following regulations must be followed! In the case of non-compliance, warranty claims expire, the manufacturer also rejects any responsibility or liability for damage!

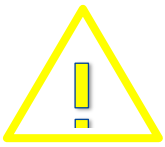
Powered equipment and water can become a dangerous combination if precautions are not taken. It is therefore essential to supply power to all mains-operated devices which are operated in the aquarium or in the vicinity of the device via a residual current circuit breaker!

The *Powerbar* is operated with mains voltage and is not waterproof. This means that the *Powerbar* must be protected against moisture and splashing water! Please take note of this when choosing the installation location.

In order to avoid any danger, all mains-operated devices must be disconnected from the mains; all plugs must be disconnected! When working in the basin. It can never be ruled out that a heating element, a pump, or a luminaire is defective.

TIP

- Please ensure good access to the connections of the device
- Please consider the maximum cable lengths of the connected *PAB* cables, sensors, *Light Bar* etc. when selecting the installation site
- Additional sensor cable extensions (*BNC2* or *VTN cables*) and PAB cables are available in different lengths to fit your needs. They are available online in our *GHL Store* (For US customers, *GHL USA Store*).



WARNING

- To ensure proper operation, the connection cables should never be kinked, crimped, or positioned in an unsuitable way.

DANGER

Products that are already powered should never be pulled by the cable. This may cause malfunction or damage the connected products and the *ProfiLux Light/Mini WiFi*.
They should only be pulled by the plug connected to the power socket.

ProfiLux Light/Mini WiFi and its accessories are destroyed by moisture or excessive humidity.

5.2 Connection to the Power Supply

Connect *ProfiLux Light/Mini WiFi* using the supplied power adapter to the power supply. Insert the DC plug into the designated 12 V DC hollow socket on the rear panel and connect the power connection cable with the plug to the power outlet

5.3 Connecting the Sensors

Plug the sensor connection cables into the connector sockets provided for this purpose.

DANGER

- Sensor plugs must not be wet or damp when connecting to the socket.
- Do not use force.
- Only connect *Digital Temperature Sensors* from GHL to the temperature sensor socket of *ProfiLux Mini WiFi*.
- Always connect the sensors to the respective jacks, as this could damage the device or the sensors.
- A repair caused by this is not a guarantee and is therefore subject to a charge.

TIP

- Place the sensors in an area where water can constantly circulate around them.
- To prevent algae growth, it is best to place the sensors in a dark spot. For mounting, an open external filter would be a good place.
- To ensure proper sensor measurement, attach the sensors perpendicular to the water surface.
- Make sure that the cable connection of the sensor is not immersed in water under any circumstances.
- Many sensors are very susceptible to interference due to their low level signals. To provide the most accurate measurements, please have enough distance between the sensors/cables and sources of interference. These can include: Electronic ballasts, power lines, pumps, consumer electronics, etc. False readings can be avoided by following these precautions.
- Please also refer to the instruction manual for the individual sensors.

5.4 Connecting the Powerbar to ProfiLux Light/Mini WiFi

For switching electrical loads with the *Light/Mini WiFi*, you need a *Powerbar STDL4-4*, which is not included in the scope of delivery of the controllers.

Plug the connection cable of the *Powerbar STDL4-4* into the red RJ12 Western socket.

ProfiLux Light/Mini WiFi can manage up to 4 switchable outputs (sockets), which are numbered 1-4

All sockets are freely programmable in their function. The exact procedure can be found in the supplementary "*Programming manual ProfiLux Light/Mini WiFi*" for download in the download area of our homepage www.aquariumcomputer.com.

5.5 Connection of Luminaires

5.5.1 Connection of Dimmable Luminaires or Lightbars

The control cables of dimmable luminaires (*GHL ALB tubular light bar*, *Mitras-Simu-Stick* or respectively the *Mitras-Simu-Driver,* that is required for operation*)* are plugged into the yellow Western sockets of the *ProfiLux Light/Mini WiFi.*

GHL luminaires do not need to be connected to the *STDL4-4 Powerbar*, they are instead connected to a permanently live socket since the on/off switching of GHL luminaires takes place via the control cable.

5.5.2 Connecting the Mitras Lightbar and Mitras Slimline

The control cable of the respective Mitras LED bar is plugged directly into the black Mitras Lightbar RJ 12 socket provided for this purpose.

Illumination Runs as well as lighting projects can be conveniently programmed via *GHL Connect App* or *GHL-Control-Center (GCC)*. The software is free of charge and can be downloaded from our homepage in the download area.

5.6 Connection of Stream Pumps or Fans

The control lines of adjustable flow pumps and/or variable fans (e.g., *Propeller Breeze*) are plugged into the yellow RJ12 Western sockets L1/L2 or L3/L4.

For this purpose, you must set the function of the corresponding 1-10 V interface accordingly.

The exact procedure can be found in the "*Programming manual ProfiLux Light/Mini WiFi*" for download in the download area of our homepage www.aquariencomputer.com.

5.7 Connection of Level Sensors

The level sensors are connected to the Multifunction port (black RJ 12 socket). If Mitras Lightbar or Slimline or a feeder are to be operated in parallel, this can be done via a splitter.

5.8 Status Indicator of the ProfiLux Light/Mini WiFi

ProfiLux Light/Mini WiFi is equipped with a status indicator, located to the right of the display.

Status	Meaning
LED is off	No Alarm, *ProfiLux Light/Mini WiFi* is not online*
Status-LED flashes red	Alarm (*Mini WiFi* only) -> Check the system immediately.
Status-LED is green	*ProfiLux Light/Mini WiFi* is online*
Status LED flashes alternately red and green	Alarm (*Mini WiFi* only) and *ProfiLux Light/Mini WiFi* is online*-> Check the system immediately.

*) Online means that ProfiLux is connected via Wi-Fi or PC to a terminal device (such as a smartphone or PC).

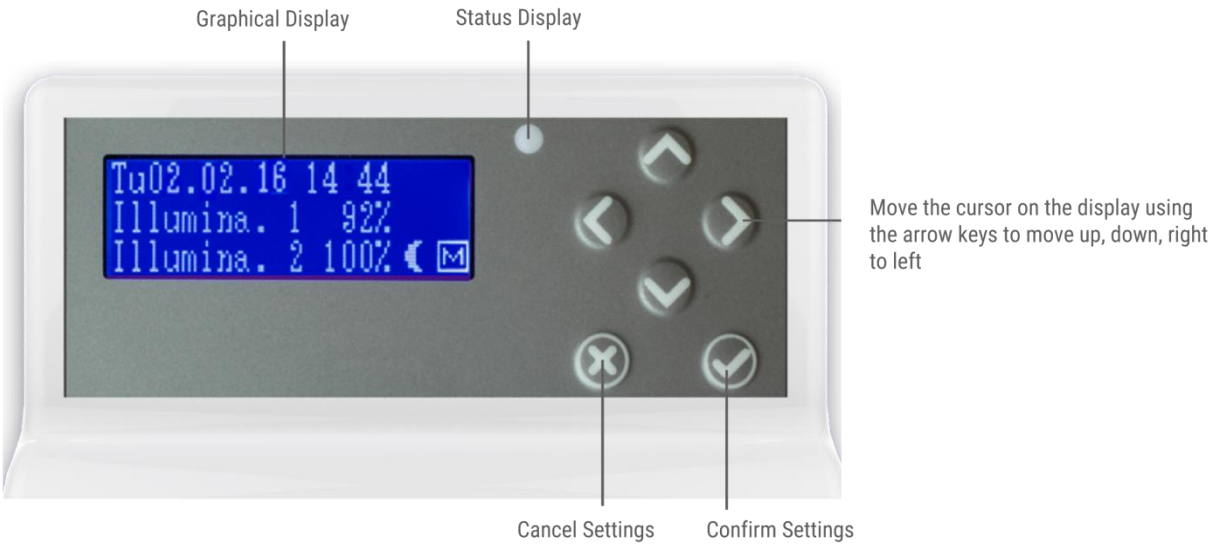
DANGER

- Never leave your aquarium or terrarium unsupervised for an extended amount of time.
- The *ProfiLux-System* can assist you with many tasks and inform you about error conditions (For example, via email or SMS) - it can in no-way, replace regular personal supervision and on-site checks-ins.
- The maximum amount of time without personal view depends on how long your aquarium, terrarium, or pond can survive without significant damage, even when errors occur.
- Always remember that each technology can fail and malfunctions can never be ruled out!
  Power failures, incorrect settings, damage (For example, by water or overvoltage) or simply an unexpected operating situation can lead to fatal damage.
- The manufacturer disclaims any liability for (consequential) damages or losses which might arise in connection with the use of the *ProfiLux System* extent legally permissible.

6 Operation

6.1 Operation on the Device

Use the navigation buttons (arrow keys) on the device to make settings or desired changes to your settings.



Set the time and date first.

Press any arrow key to enter. You can move up and down from the right to the left with the arrow keys in the menu.

The operation of the device is very simple. Use the up and down arrow keys to navigate through the menus and make a selection.

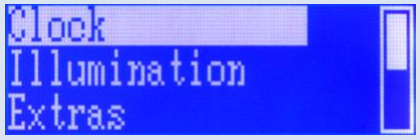
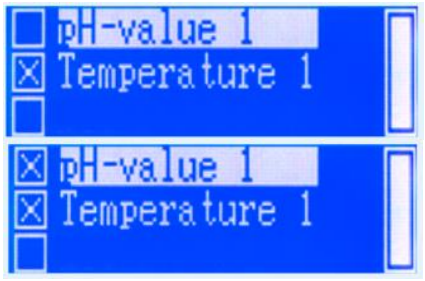
To confirm the selection of a menu item, press the confirmation key (Check mark button: Confirm input = **Return**). This will take you to the submenus.

Make the desired changes and save them with the confirmation key. Press the Cancel key (Cross mark button: Cancel input = **Escape**) to abort entries.

After each setting process, you are asked if you want to save the changed settings. Only after confirmation with Yes, the new settings are accepted and saved. These settings are also stored in the nonvolatile memory (EEPROM, independent of the mains voltage) and are restored after voltage interruption.

The following types of dialogs are used when operating the device:

Dialog type	Display*	Operation
Select Yes / No		Use the left-arrow key to select *Yes,* use the right-arrow key to select *No.* The current selection is marked with a frame. Confirm with *RETURN*.
Enter a number (0-9)		Use the up-arrow to increase the number, decrease with down-arrow. Confirm with *RETURN.*
Enter a value, date or time		Use left and right arrow keys to select the digit of the number you want to change. The cursor shows the currently selected location. Use arrow up to increase the position, decrease with arrow down. Confirm the set number with *RETURN*.
Text input, e.g. Memory text		Use left-arrow and right-arrow to select the location in the text you want to change. Use up and down-arrow to change the character. Confirm the set text with *RETURN*.

Simple selection- Selection of an option or a menu point		Use the up and down-arrow to select an entry, confirm with *RETURN*.
Multiple selection - Several options can be selected at the same time		Use up and down-arrow to select an entry. Use right arrow key to select the entry (then the box is displayed checked). Deselect the entry with the left arrow key (empty box is displayed). Confirm with *RETURN*.

* The illustrations are exemplary and can differ from the respective computer models.

6.1.1 Menu Structure

The menu structure is determined by the functional scope of the respective computer model. The operating menu is structured as follows:

Menu Structure*

Clock:	Time & Date Reminder Timer
Illumination:	Illumination run Shift curves Manual illumination Clouds Moon Rainy days Burning in Operating hours Storms Temperature-dependent light reduction Variable illumination Mitras Lightbar Light-demo Time lapse Acclimation

Extras:	Maintenance Feeding pause Internal time Info and Support Current Display Language
Sensor settings:	pH-value Temperature
System:	Factory settings PIN Socket outlet functions 1-10 V interface Alarm

* The menu structure can differ slightly from the one shown here. It depends on the range of functions and the firmware of the respective computer model.

6.1.2 Display Indications

If there is no alarm, the display shows the day, date and time in the upper line. On the right side of the display, different symbols are displayed depending on the operating state:

Display	Meaning
	*ProfiLux Mini WiFi* displays an alarm. Check immediately the system!
	Maintenance mode active
	Feeding pause active
	Current lunar phase
	Reminder
	Manual operation for lighting or sockets active

The lower lines display current values, e.g. brightness of an illumination channel or lunar phase, state of stream pumps or temperature.

Which values should be displayed can be set. The basic setting does not display all the values described below. However, you can adjust the display settings accordingly.

Display*	Meaning
	Displays the current *brightness of a lighting channel* in percent.
	Displays the current power of two *current pumps* in percent.
	Display the current *moon phase* in percent (0% = new moon, 100% = full moon).
	Display of the current *sensor values (-)*: When the minus symbol is displayed, the control has activated the corresponding switching socket (if present) to reduce the pH value.
	Display of the current *sensor values(+)*: When the plus symbol is displayed, the corresponding switching socket (if present) has activated the control to increase the pH value.
	When the *cooling symbol (*)* is displayed, the control has activated the corresponding switching socket (if present) to lower the temperature.
	When the *substrate heater* and *tubular heater* symbols are displayed, the control has activated the corresponding switch sockets (if present) to increase the temperature.

* The illustrations are exemplary and can differ from the respective computer models.

6.1.3 Standard Display

During normal operation, the following information is displayed on the display:

Upper line: Date with weekday and time.

Right side: current moon phase

Lower lines depending on the setting, e.g. light intensity of the individual channels or current water temperature and pH as well as activity of the controllers.

When the default display is shown, the device is in the main menu.

If you are in a submenu without setting anything the device automatically returns to the main menu after a certain period of time.

6.1.4 Feeding Pause

Feed Pauses can be activated by using the ***Esc*** key at the standard display. When the ***Esc*** key is pressed during the standard display, the pumps (or the powerbar sockets whose function is set to the filter) are deactivated.

Once the set time has elapsed, the pumps are automatically reactivated. During the feed pause, the FP symbol flashes and the display shows FP as well as the remaining pause time.

The feed pause can be interrupted by pressing the ***Esc*** key again.

6.2 Operating the Device via the App GHL Connect

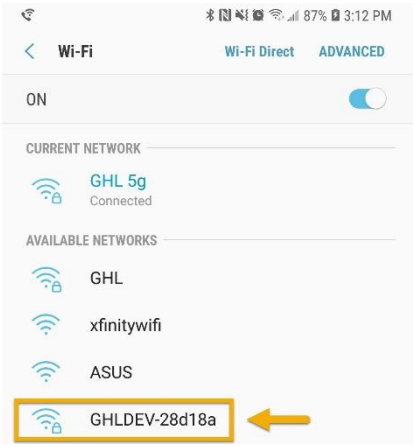
6.2.1 Requirements

Step 1: Download the GHL Connect app on your smartphone or tablet.

GHL Connect is a free app available for download on the Google Play Store (Android) or Apple iTunes (iOS). Search: GHL CONNECT

Download the app, but do not open it just yet.

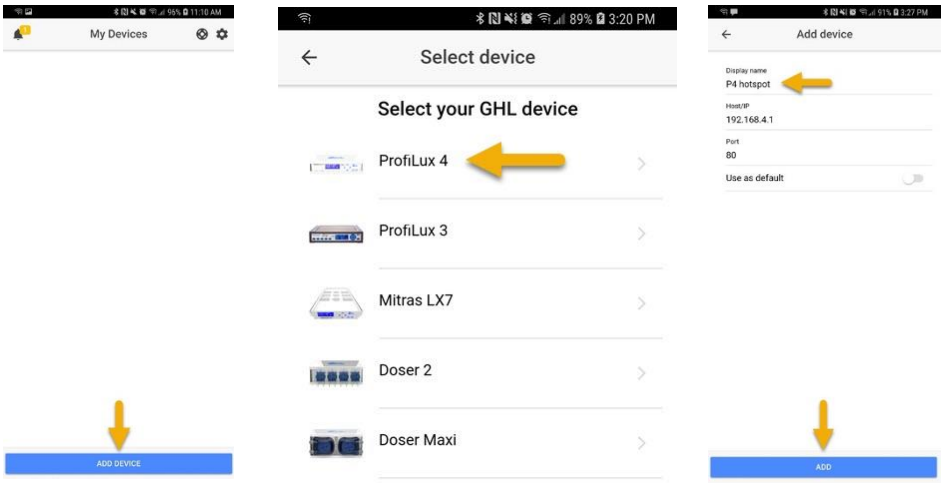
Step 2: Power ON controller, wait for controller to fully boot up, then use your device to search for nearby Wi-Fi networks. Select **GHLDEV**, enter password **Starfish** and wait for your device to connect to this network.



NOTE: GHLDEV network should show within a few seconds of powering ON the *ProfiLux*. If not, power cycle the controller, wait 15-30 seconds and try again.

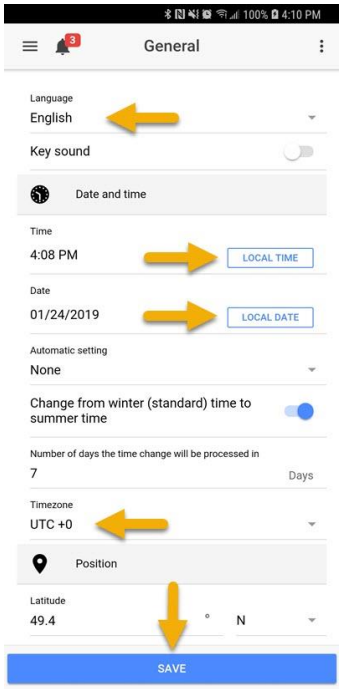
TIP: Every time you connect to the *ProfiLux*'s hotspot, the status light on the *ProfiLux* itself will turn ON. This indicates that a device has connected to its hotspot signal. Some flashing of this LED is normal.

Step 3: Open GHL Connect app, select **Add device**, select the *ProfiLux*, give this connection any name (*Profilux-xxx hotspot*), leave other fields as-is, press **Add**, select the newly made connection.



6.2.2 General Settings Setup

Step 4: Press the menu icon (top left), select **General**. Change language to **English**, set date and time, set time zone, press **Save**.



NOTE: When setting time zone, be sure to choose the correct option for accurate probe measurement data logging. Example, EST -> **UTC is (-5)**

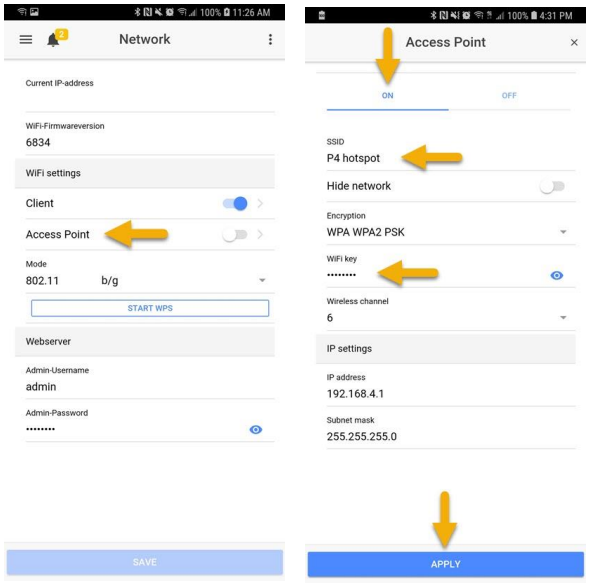
OPTIONAL: If you wish to have an audible alarm only at certain times of the day, you can activate that feature in the Alarm section.

If you wish to set a custom PIN to prevent unauthorized access, you can do so in the Security section.

(Pictures exemplary)

6.2.3 Hotspot Setup

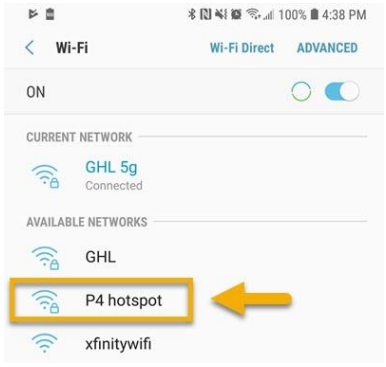
Step 5: Press menu icon (top left), select **Network**, select **Access Point**, select **ON** to enable. In the SSID field, type-in any name you wish to give to your *ProfiLux* hotspot (this will be the new name of your hotspot signal, *no longer GHLDEV*).
Type-in the password you wish to give to this hotspot network; *minimum 8 characters or digits*.
Press **Apply**, press **Save**, then confirm by pressing **YES**.



NOTE: After saving your settings and confirming, you will be disconnected from the default *ProfiLux* hotspot signal (GHLDEV). This is normal as the Wi-Fi module must reset itself in order to display the **new** name of the hotspot network.

(Pictures exemplary)

- Use your device to search again for nearby networks,
- select the NEW name of the hotspot network and connect to it.
- Enter the password you assigned when prompted. Once connected, open the GHL Connect app and connect to your device.



NOTE: When searching for nearby Wi-Fi networks, you should now see the new name of your *ProfiLux* hotspot network. In step 5, we called the new name of this network, *P4 hotspot*. See illustration (Left).

TIP: Now that you've setup your *ProfiLux* hotspot, anytime you wish to connect via the app, you can do so by connecting directly to the hotspot signal.

6.3 Operating the Device via the Software GCC

All settings of the device can also be made via the software *GHL Control Center (GCC)*, which is available for download free of charge in the download area (support-> downloads) of our homepage www.aquariumcomputer.com.

6.3.1 Requirements

You need the appropriate *GHL Control Center* for the firmware of the respective ProfiLux.

It runs on the operating systems Microsoft Windows Vista® and Windows 7®, Windows 8®, Windows 10®.

The connection to the *ProfiLux* can be established via USB:

After successful installation, connect *ProfiLux Light/Mini WiFi* to your PC using the USB cable. The driver is installed automatically.

6.3.2 GCC General Information

With the *Load* button, the settings of the *ProfiLux Light/Mini WiFi* are read out and the program displays are updated. With *Save*, the settings you have made in the program are transferred to the device.

6.3.3 What can be set via *GCC*

With the PC program you can make almost all settings via mouse and keyboard, which otherwise are carried out directly on the device.

There are the following exceptions:

- Therapy program
- Sensor calibration

6.4 Connection between the ProfiLux Light/Mini WiFi and PC

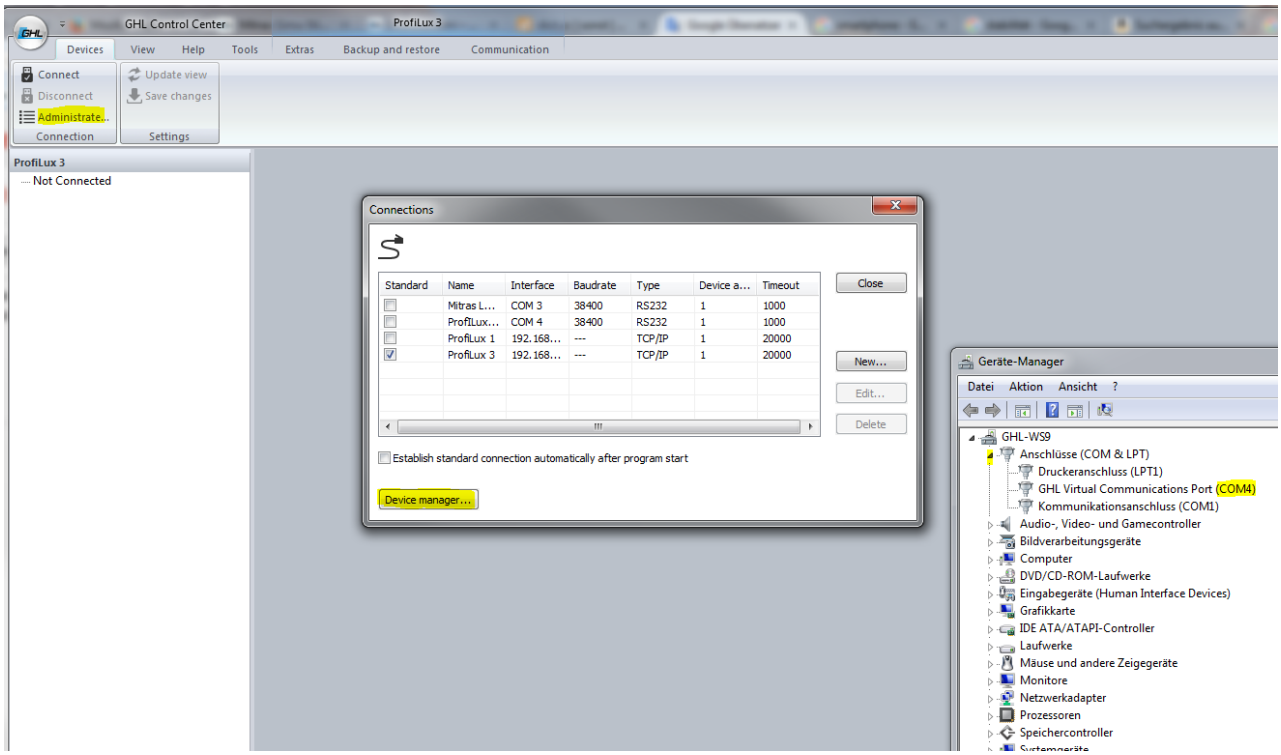
Two steps must be taken before your ProfiLux device can be operated with a PC:

- PC and ProfiLux must be connected with a cable via USB
- The PC program *GCC* must be set up

Open the application and connect to your device.

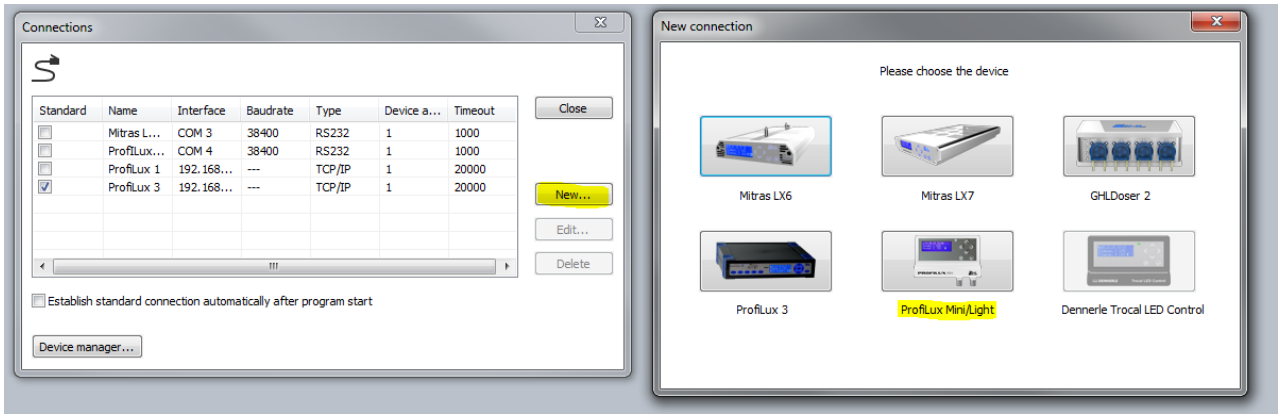
Via "Administration" -> "Connections" -> "Device Manager" you first get the "GHL Virtual Communications Port" for your device.

In the illustrated example, this is "*COM4*".

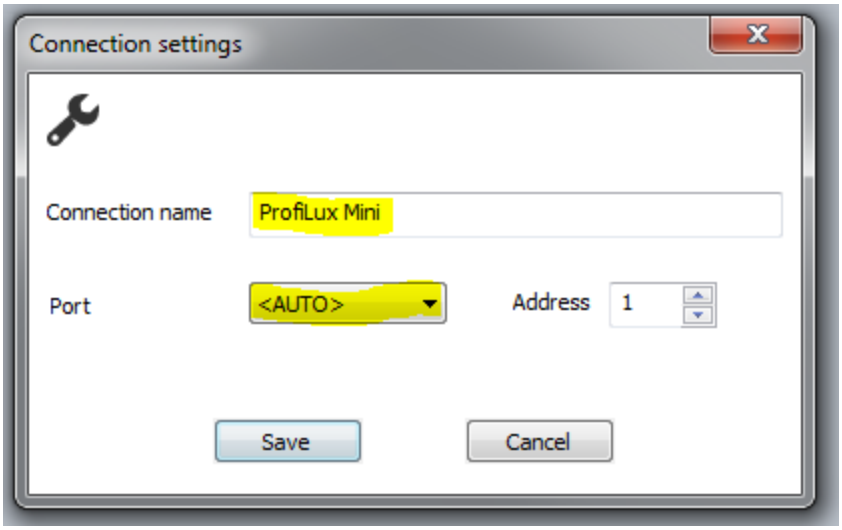


Close the "*Device Manager window*" and click "*New*".

Then select your device.



The "*Connection settings*" window pops up automatically.

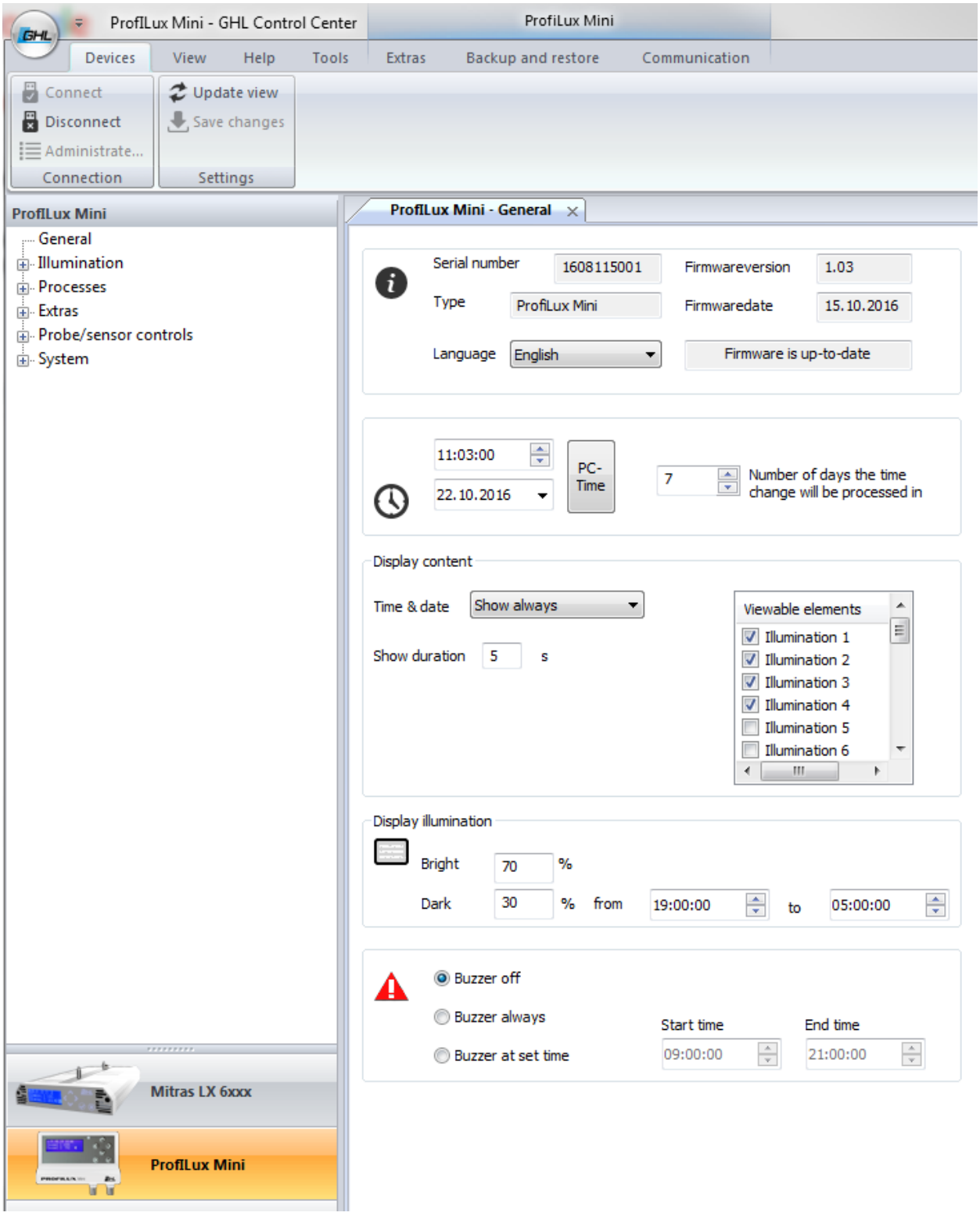


Now enter any connection name (for example "ProfiLux Mini") and set the previously determined port (*COM4*) via the selection window (<Auto>). Press "*Save*".

ProfiLux Light/Mini WiFi is now visible in the sidebar. By double-clicking the device or by pressing the "*Connect*" button in the upper ribbon bar, the connection between the device and your PC is established.

Once connected, you can view the menus of the respective *ProfiLux Controller*, in which you can make all desired settings.

For further settings and programming, e.g. of the *Powerbar*, please refer to the "*Programming manual for aquarium computers model Light/Mini/Terra* " which you can download in the download area *(Support-> Downloads*) of our homepage www.aquariumcomputer.com.



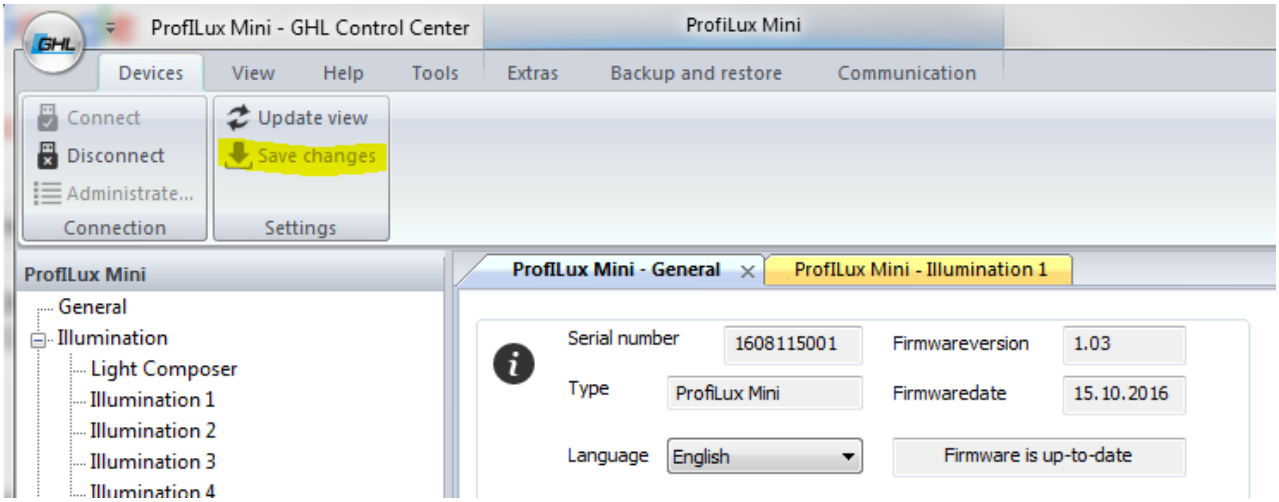
Once successfully established, *GHL Control Center* examines the connected Controller and displays the start screen.

The available setting options are displayed in a tree structure in the sidebar.

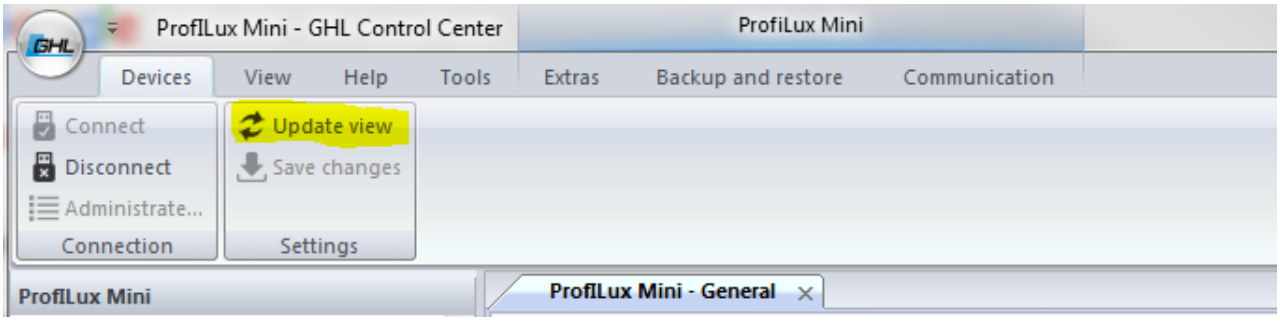
The connection can be disconnected by pressing the "*Disconnect*" button in the upper ribbon bar.

DANGER

- If you have made or changed settings for your device via the *GCC*, you have to save them using the "Save changes" button, **before you disconnect your device**. Otherwise your changes will not be transferred to the device.



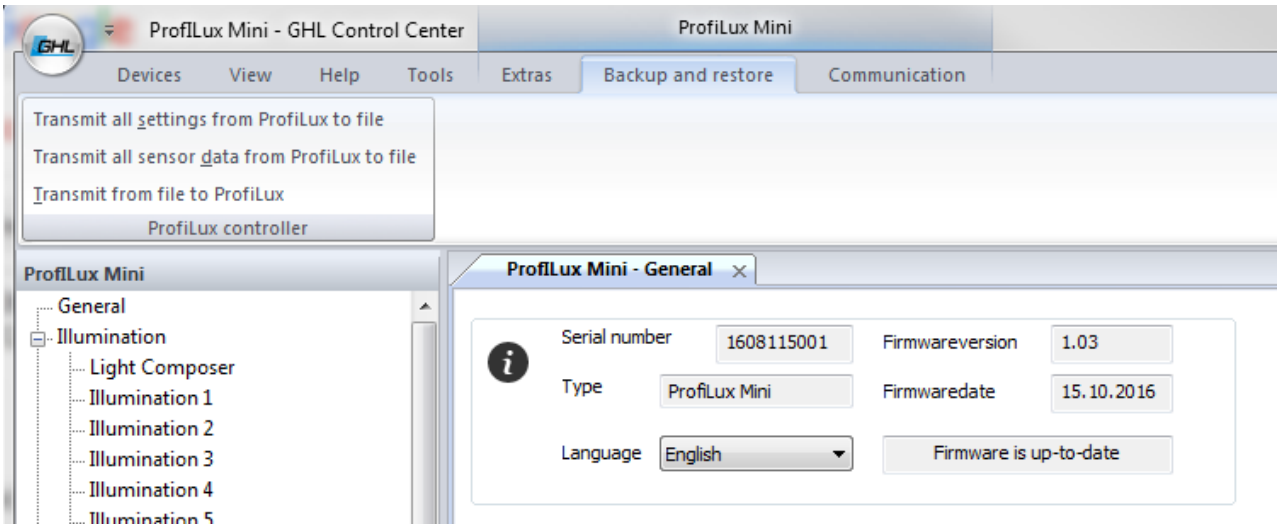
If your ProfiLux is connected to *GCC* and you make settings directly on your ProfiLux Light/Mini WiFi at the same time, you have to transfer these to the GCC by pressing the "*Update view*" button



6.5 Save and Load Settings

If you want to back up your settings to restore them after a firmware update for example, there are the following functions provided under "*Backup and restore*" in the ribbon bar.

The option to load and save settings is also interesting for retailers who make the initial startup for their customers. So the once found settings can be replicated quickly and safely for a certain tank type.



6.5.1 Saving Settings

Settings of the connected *Light/Mini/Terra* or sensor data (= settings of the controllers and calibration data) of *Light/Mini/Terra* are stored in a file (File name .par).

- How to read the settings or sensor data from the ProfiLux?

The PC program uses parameter definition files (file extension *.def*) to know which settings should be available or read out in the connected ProfiLux Controller. These files are located in the *GHL Control Center* program directory.

The appropriate parameter definition file must exist for the firmware version of the respective device. For the firmware version 1.02 of the *ProfiLux Mini*, for example, the file is called *ParaList_V102_ProfiluxMini.def*.

6.5.2 Loading Settings

Settings or sensor data are loaded from a file (file extension *.par*) and transferred to the respective device. If the file comes from a ProfiLux with a different firmware version as the target device, a warning is issued.

Settings that originate from a device with a firmware version older than the firmware version of the target device can be loaded without problems. Conversely, problems can occur.

If a problem occurs during the transfer of the settings to the respective device, a message is displayed. If the message is ignored, the transmission of the remaining settings is continued.

If the device type does not fit, the operation is aborted completely.

When loading sensor data, the serial number is also checked. If these are not identical, only the controller settings, but not the calibration data, can be loaded. This prevents accidental calibration data from another device being loaded. The remaining sensor data can be loaded.

Basically, all settings found in the file are transferred to the connected aquarium computer.

If only some of the settings should be transferred, the file can be edited accordingly. The lines in the file containing entries with settings that are not to be transferred may be deleted via a text editor for example.

7 Warranty/Liability

You have a 2-year warranty beginning from invoice date. This applies to material and manufacturing defects.

We guarantee that the supplied products correspond to the specifications outlined and that the products do not have material resp. manufacturing defects. For the accuracy of the manuals, we do not guarantee damages of any kind which result from improper usage or from an unsuitable environment. Furthermore, we do not accept warranty claims for damages that are caused by a false connection or excessive humidity. We assume no liability for direct damages, indirect damages, consequential damages and third party damages as far as it is legally permitted. We do not take over guarantee that our product package corresponds to the requirements of the buyer. Our warranty expires if the delivered original product is damaged or modified.

8 Additional Information

8.1 Help and Information

For help or further information, please visit our *Support Forum* at www.aquariumcomputer.com or contact your retailer.

8.2 Firmware-Update

The firmware of your *ProfiLux Light/Mini WiFi* controller is constantly being further developed. If you want to use new features that are not supported by your current firmware, you can update your controller.

DANGER

- Be sure to back up your data **before** updating!

  You can use the menu item
  "*Backup and Restore*" -> "*Transfer all settings from ProfiLux to file*" and load them again after the successful update via "*Transfer from file to ProfiLux*".

For the update, you need the latest firmware and the PC program *GHL Control Center*, both of which can be downloaded free of charge from our homepage www.aquariumcomputer.com in the download area (*Support-> Downloads*), as well as our USB cable.

Instructions for updating firmware can be found from our homepage.

9 Technical Data

The device and its accessories may only be used indoors. Moisture or excessive humidity can lead to malfunctions or damage.

Power supply	Wide range power supply 100 – 240 VAC (50 – 60 Hz), < 0,6 A RMS
Input voltage	12 VDC
Environmental conditions	Operating temperature: 0°C - 40°C / 32°F – 104°F Humidity: Max 80% rel. Humidity non-condensing
Current consumption	350 mA
pH- measurement	BNC input for pH sensor, accuracy 0.1 pH, pH range 3.0 to 10.5 pH
Temperature measurement	BNC input for the supplied digital temperature sensor, accuracy 0.1°C (33.8°F), Measuring range 0.0°C to 40°C (32°F – 104°F)
Humidity-Temp measurement	RJ12 socket
Mitras Lightbar port	RJ45 socket
PC-connection	USB Port

L-ports	2 RJ12 sockets with 2x 1-10 V-interfaces and 2 relay signals each
Powerbar control	RJ12 socket
Dimensions	B x T x H = 130 mm (5,11”) x 85 mm (3,35”) x 25 mm (0,98”)

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