User manual

for

Powerbar6D-PAB

Valid for Firmware version 1.01 and later

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1 Preface

1.1 Concerning this manual

This manual is valid for the switchable powerbars *Powerbar6D-PAB*.

1.2 Characteristics

We thank you for your trust in our ProfiLux products!

You have herewith acquired a powerbar for your aquarium computer *ProfiLux 3* or *ProfiLux 3 eX*. With this powerbar you are able to switch on or switch off electrical loads with a *ProfiLux 3 (eX)* aquarium computer.

Overview of the characteristics:

- 6 independent switching sockets
- Every socket is fused separately (only D, CH, F/B and AUS model)
- Free programmable initial state for the sockets after 30 seconds without communication
- Root mean square measurement of the load at every socket
- Several powerbars could be daisy-chained

In order to be able to use our products optimally, you should take your time to read through this manual. Please pay especially attention to the operating and warranty instructions.

1.3 Included in delivery

Before you start, you should check if the delivery is complete.

The following articles belong to the shipment:

- *Powerbar6D-PAB*
- This manual

PAB connection cables, as well as all miscellaneous devices are not part of the shipment of the powerbar and have to be ordered separately.

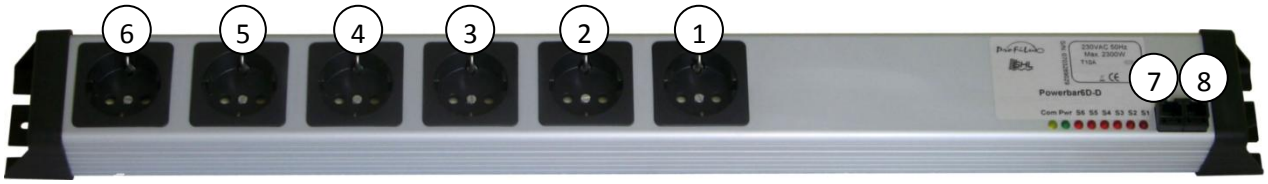
1.4 Important operating instructions

To guarantee a safe and riskless operation, the mentioned instructions in the ProfiLux manual have to be absolutely followed! If they are ignored, the warranty expires resp. the manufacturer rejects any responsibility resp. liability for damages!

Also please take notice of the safety instructions in the ProfiLux manual and of these of the respective manufacturer.

1.5 Connections

On the picture below you can see the powerbar *Powerbar6D-PAB.*



(1) – (6)	S1 – S6	Switching sockets 1 – 6
(7), (8)	PAB	Connections for *ProfiLux Aquatic Bus* (PAB)

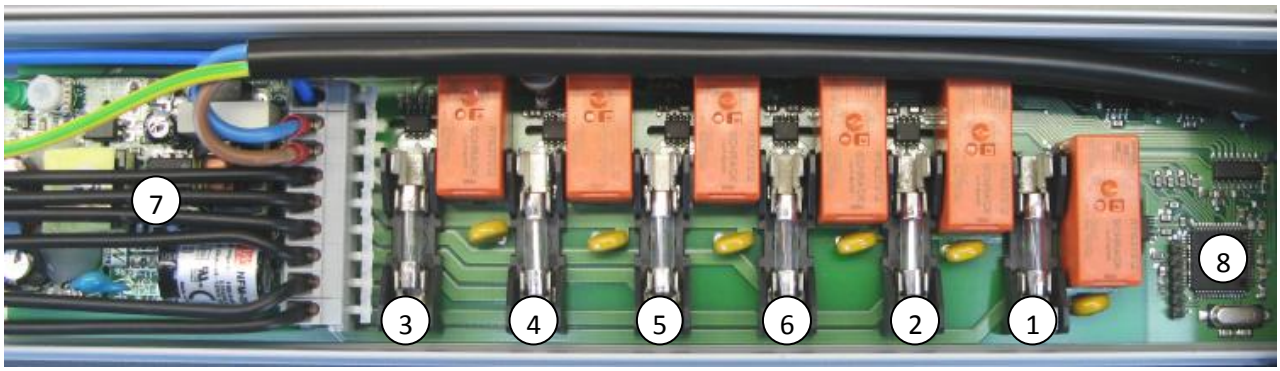
1.6 Fuses (only D, CH, F/B and AUS model)

Each socket has its own fuse. The fuses of the corresponding sockets are located inside the powerbar. A blown fuse can be replaced by opening the housing.

Attention	Replace fuses only when mains supply is completely disconnected! Replace fuses only with new ones of the same type.

Be careful and don't damage the electronics when opening the housing and replacing a fuse! If you remove the screws shown in the pictures the powerbar can be pulled open on the black attachments until the fuses can be accessed.

The following picture shows the inside of the powerbar:



(1) – (6)	10 A time lag / 250 V	Fuses for Socket S1 – S6 (only D, CH, F/B and AUS model)
(7)		Power supply
(8)		Microcontroller

2 Installation

2.1 Installation of the powerbar

The powerbar is not protected against water must never get in touch with it. Avoid sprinkling water and a too high humidity, select a safe mounting place. The powerbar can be fixed with the help of the lugs on the side.

Each mounting position is generally allowed but you should pay attention that the connections can be reached easily and that the display LEDs can be seen.

Selecting the mounting place please keep also in mind the maximum cable lengths of the PAB connection cables and the cable lengths of the devices to be connected.

Don’t use the powerbar outdoors!

2.2 Connection of the powerbar

The connection cable of the powerbar is connected to a socket that is permanently supplied with voltage.

2.2.1 D, CH, F/B and AUS Models

This socket for the connection cable of the *Powerbar6D-PAB* may be fused with max. 16 A. You can connect consumer loads up to 10 A per socket. In total, the sum of all loads (all sockets together) may be up to 16 A.

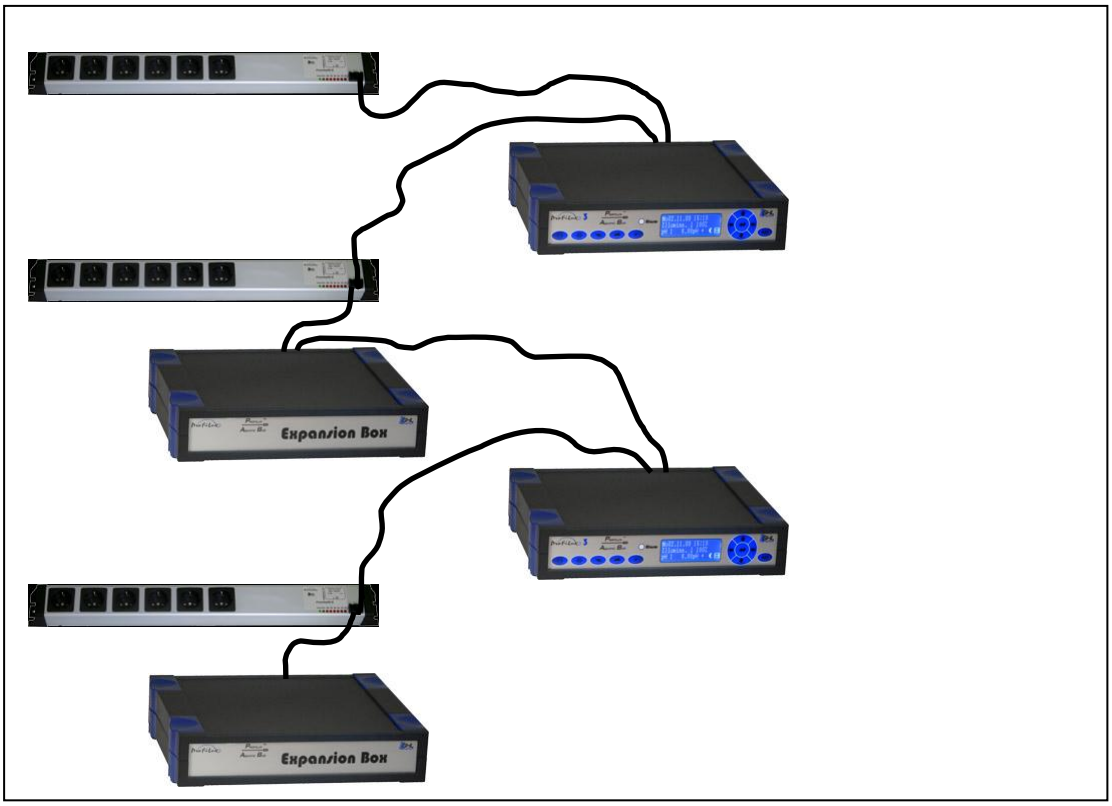
2.2.2 USA/CD Model

This socket for the connection cable of the *Powerbar6D-PAB* may be fused with max. 15 A. You can connect consumer loads up to 15 A per socket. The sum of all loads (all sockets together) mustn’t exceed 15 A in total.

2.3 Connection of the PAB

Devices with *ProfiLux Aquatic Bus* – in short PAB – are connected to the corresponding RJ45 sockets. Several PAB devices are so to say daisy-chained. This means that the first PAB device is connected via a PAB connection cable with one of the PAB ports of the *ProfiLux 3*. The next PAB device is either connected to the free PAB port at the *ProfiLux 3* or at the free PAB port of the preceding PAB device. A further PAB device is then connected to free PAB port of the preceding PAB device and so on. Also several ProfiLux computers can be connected to this bus. The last PAB devices therefore have always one free PAB port. Trough this, the PAB-bus represents a line connection via the single participants from one end to the other.

Example:



Attention

Never connect the last two PAB devices through an additional PAB connection cable in order to get a ring connection. Such a ring connection will lead to malfunctions. The last devices at the PAB must always have one free PAB port.

2.4 Status display of the powerbar

The powerbar has two light-emitting diodes for the status display and for the switch state of the sockets six red light-emitting diodes. The state LED (Pwr) is the green one, the communication LED (Com) is the yellow one.

Display	Meaning
Pwr-LED flashing fast	Powerbar boots, Firmware-Update
Pwr-LED glows	Powerbar is ready
Pwr-LED flashes in a second cycle	Powerbar receives since more than 30 seconds no PAB commands from ProfiLux
Com-LED flashing	Powerbar receives PAB commands
Com-LED and Pwr-LED are both off	Powerbar has no power supply
S1, S2, S3, S4, S5, S6	Shows the actual switch state of the respective socket

3 Assign the Powerbar to the ProfiLux

3.1 Requirements

Before the powerbar can be assigned to the ProfiLux, all PAB connections to the ProfiLux have to been made and the powerbar is powered up.

3.2 Assign the powerbar

If all PAB connections have been made and power supplied to all devices at the PAB, the Powerbar can be assigned. Therefore select menu item ***Assign devices*** in ProfiLux system menu ***Config PAB***. The ProfiLux scans all devices connected at the PAB and afterwards the serial numbers of the found devices are displayed. Then select **all** the serials you want to assign to this ProfiLux and accept with the ***Return***-key.

After this the switching outputs of the powerbar are available.

Further information can be found at *Description PAB*.

4 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 and that the products do not have material resp. manufacturing defects. For the accuracy of the programming manual we do not take over a guarantee. For damages of any type which result from an improper operation or from a not suited surrounding of the aquarium computer or accessory we are not liable. Furthermore we do not take over warranty for damages that are caused through a false connection. 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.

5 Further information

5.1 Help and information

You will get from your specialist retailer. If you dispose of an Internet access, you can get tips and helpful suggestions on our website www.aquariumcomputer.com. Please also note the links to several forums there.

5.2 Firmware update

The firmware of our Powerbar and ProfiLux aquarium computer is continuously further developed. If you would like to use new functions or modules which are not yet supported by your current firmware, you can program your aquarium computer with the newest firmware.

For this, there are several options:

- You send your *Powerbar6d-PAB* to your specialist retailer or to GHL and let it be newly programmed (at cost price).
- You do the update by yourself. Therefore you need the newest firmware and the PC program *ProfiLuxControl*, both can be downloaded free of charge from our website, as well as our USB cable or serial connection cable. On the website also the instruction for the firmware update can be found.

Hint

Before updating the firmware there must be made sure that only one PAB device (this powerbar) is connected directly to the ProfiLux. Other PAB devices at the ProfiLux during the update are **not** allowed!

6 Technical data

Type	USA/CD	D, UK, CH, F/B	AUS
Input voltage	110 – 130 VAC	220 – 240 VAC	220 – 240 VAC
Max. load of all sockets together	15 A / 1800 VA	16 A / 3600 VA	16 A / 3600 VA
Max. switchable load per socket	15 A / 1800 VA	10 A / 2300 VA	10 A / 2300 VA
Fuses	Not fused	Time lag 10 A / 250 V	Time lag 10 A / 250 V
Dimensions	H x B x L = 58 mm x 70 mm x 572 mm	H x B x L = 58 mm x 70 mm x 685 mm	H x B x L = 58 mm x 70 mm x 640 mm

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