Pacific Sun Triton R2 Bali Revision 9channel LED aquarium Iamp

1 Table of Contents

Contents

TABLE OF CONTENTS	2
.a General	3
.b Firmware update	3
.1 Initial start	
.2 Daylight settings	
.3 Colour settings	
.4 PAR Table	13
.5 Moonlight settings	15
.6 Custom scenario	
.7 Service tab	

1.a

General

Pacific Sun lamps' firmware update instruction & manual.

Caution: Switching off the power supply during updating process may damage your lamp. Recomended distance between the lamp and the computer that you are using to update your lamp is between 1-2 meters. If you are using laptop with bluetooth module build-in – please use external, USB bluetooth module for better signal strenght. Its very important for upgrade process!

Choose the appropriate firmware, compatible with your lamp model. **Uploading wrong firmware may damage your lamp and void your warranty**. The damage my require returning the lamp to our service department to restore its original functionality.

To check if your lamp is compatibile with our newest firmware, contact our customers service – info@pacific-sun.eu Make sure that your computer's BlueTooth (built-in or external, USB) operates correctly and the connection between the computer and the lamp is not interupted.

1. b

Firmware update process:

Download the application on the computer that you are going to use to update your lamp's firmware. If you already have the Pacific Sun software installed on your computer – uninstall it and download the newest version available on http://www.pacific-sun.eu/index.php?option=com_content&view=article&id=89:8-channel-lamps-metispandora-hyperion-r2

If using Bluetooth protocol:

Check on which **COM** port your lamp is installed. You can check this via Navigation Panel (in Winows) – <u>Bluetooth</u> <u>Manager</u> – **COM** ports.

Before clicking Connect to the lamp – restart the lamp – by disconnecting its power supply for a few seconds. Switch on the lamp – select the appropriate **COM port** – and click **Connect to the lamp** button.

Click Connect to the lamp button.

Connection Settings Daylightsettings Coloursettings PAR table Cu	stom scenario Moonlight settings Service tab
BlueTooth COM port COM22 - Choose protocol -	
Before selecting Connect to the lamp, chose the appropriate communication port. Port settings information can be found in the Navigation Panel.	Compatible with 9ch Triton R2 mode
Pacific Sun Triton R2 - Bali Revision	
	.Pacific-Sun.eu
Attempting to connect the lamp has been completed successfully Firmware version: TritonR2_v3_H1 Choose firmware file for uploading Firmware image choosed. CRC calculating	Actual 100°C Highest 37,6°C

Within a few seconds your computer should establish connection with your lamp (you will see "Transmission Status Connected" in the Status window.)

If the error occurs during transmission of the CRC and the firmware will not load properly - lamp will go to safe mode.

The screen appears:

Memory Erased. Upload firmware.

This means that the transmission process is not finished successfully.

To restore full functionality of the lamp you must perform the following steps:

a) Reduce the distance between the lamp and the computer to an absolute minimum - or use an external BlueTooth module.

b) restart the lamp by disconnecting it for a few seconds after the voltage

c) re-run the application, select the correct COM port (do not press on Connect to the lamp!)

d) go to the Service Tab - click Firmware upgrade - and then select the correct firmware for your lamp

- At this point, the firmware update process should start the status bar will show the current progress update.
- If you need additional information please contact our service:
- service@pacific-sun.eu

Connection Settings	Daylightsettings	Coloursettings	PAR table	Custom scenario	Moonlight settings	Service tab
Lamp management	Firmware upg	grade				
Default settings	Firmwa	re upgrade				
Clean memory]					
Soft reset]					
Emergency Connect]					
Delete firmware						
Firmware upgrade progress	bar			× 1	LED temperature Actual	

Next, select the Service tab

Click Firmware Upgrade – and select the firmware for your type of lamp (firmware file extension is .bin).

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(🖉 💭 🗢 🕌 🕨 tablet	▼ 4; Prze	eszukaj: tablet
	Organizuj 🔻 Nowy fo	older	:= - □
	🔶 Ulubione	Nazwa	Data mody
	🔄 Ostatnie miejsca	Triton_R2_I_Bali_revision.bin	2012-09-03
	Dobrane	Hyperion_r2_v3_2i.bin	2012-09-03
	📃 Pulpit	firmware_3ch_7 Typ: Plik BIN	2012-08-30
		20.bin Rozmiar: 28 5 KB	2012-08-28
	🥽 Biblioteki	firmware_3ch_2 Data modyfikacji: 2012-09-0	3 18:31 2012-08-27
	Dokumenty	wentyle.bin	2012-08-27
	🍶 Muzyka 🛛 🛓	firmware_3ch_2_1test.bin	2012-08-27
	Solution Contraction Contracti	firmware_3ch_2_6a.bin	2012-08-24
	🚼 Wideo	firmware_3ch_2_6.bin	2012-08-14
-		firmware_3ch_2_2-22_03.bin	2012-08-09
Fir	🍓 Grupa domowa	Hyperion_r2_v3_2m.bin	2012-08-09
	CONCERNMENT OF THE PARTY OF THE	Tritonr2_I_Bali_revision.bin	2012-08-02
	Komputer	Hyperion_r2_v3_2h.bin	2012-07-15
	🏭 Dysk lokalny (C:)	Hyperion_r2_v3_2.bin	2012-07-16
	1000	Hyperion_r2_v3_2_beta_moon.bin	2012-07-16 -
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Cance	Nazw	va pliku: Hyperion_r2_v3_2i.bin 🔹 Pacif	fic SUN LED flash files (*.bit 👻
Choo	Nazv		twórz Anuluj

Your lamp's firmware is being updated. When the process is completed, you will see "Firmware updated" displayed in the status window.

Connection Settings [Daylightsettings Coloursettings	PAR table Custom scenar	o Moonlight settings	Service tab
Lamp management	Firmware upgrade			
Default settings	Firmware upgrade			
Clean memory				
Soft reset				
Emergency Connect				
Delete firmware				
Firmware upgrade progress b				
	Firmware upgr	ade progress bar		
and see the loss of the				

1.1 Initial start

Connection Settings Daylightsettings Colours	ettings PAR table Custom scenario Moonlight settings Service tab
Date/time settings	Light intensity in Manual Override mode
2012-08-02 🔻 🔲 User time	30 % Read Set Test
15:36:35 Set date/time	To check the light intensity in Manual Override mode - click the Test button.
Tunze Control panel	GHL/Neptune/Apex control
Channel 1 Set	Control enabled Set
Select a radio channel and Options use advanced settings	Use this option to control your lamp via an external computer, like GHL /Apex/Neptune or any other device that controls 1-10 V signal.
	Acclimatization program
	HQI 150W + T5(LPS tank) HQI 250W + T5(mixed - LPS/SPS tank) HQI 400W + T5(SPS dominated tank) T5 lights - SPS corals dominated tank T5 lights - mixed corals(LPS/SPS) tank T5 lights - fish only aquarium Other LED fixture(low power - up to 0.3W/liter) Other LED fixture(low power - above 0.4W/liter)
	Choose from the menu above most similar lighting setup used so far. The method of acclimatization - and its time depends on the previously used light.
Attempting to connect Pacific Sun lamp Attempting to connect the lamp has been completed	successfully Actual 100°C
Firmware version: TritonR2_v3_H1 Choose firmware file for uploading Firmware image choosed. CRC calculating	Highest 37,6°C

Set your local date and time in the **Date/time settings** fields. Select your lamp model in the Software initialization field and confirm your selection clicking Save Settings button.

Light Intensity in Manual Override mode – here you can check and select the intensity of light your lamp will emit while operating in the Manual Override mode.

Manual Override button – additional options

How to use it? Its very simple.

You have to push back button(this originally used to Manual override) - and have it pushed until you will see on screen interested menu.

First will be:

Quick Menu

after 1s: Quick Menu Manual Override after next 1s: Quick Menu Lamp turn off and the last: Quick Menu Lamp turn on

You have to release button in the moment when proper menu option is showed on the screen. Thats all.

GHL/Neptune/Apex control – if you set this option, your lamp switches to a passive mode, ready for external signals controlling the power of individual channels. The fans are controlled by an independent systems, and their speed depends on the current temperature of the LED panels (the fans do not work in the night cycle). Tunze Control Panel – external Tunze pumps controller – you can coordinate the work of up to 4 Tunze pumps (with adjustable rotational speed) and control the pumps via your lamp's built-in computer. This feature allows parallel simulation of tides, storms and variable circulation with other phenomena simulated by your lamp.

Acclimatization program

Specifically implemented acclimatization program - used to acclimate corals to LED lighting. Based on user-defined existing lighting computer automatically selects the initial power output and color of light from the lamp, and the interval, which is changed every day lamp power, allowing corals in a gradual get used to new sources of light (as amended by the spectrum of light) and to its intensity. The computer controls the power and change the color of light in the range from 15 to almost 90 days (range automatic - depending on the acclimation). This option eliminates the situation of "overexposure" aquarium and coral bleaching, which is a very common symptom in the transition from other type of lighting(t5/hqi) to LEDs . At the end of the acclimation program automatically switches off and the lamp goes to the mode previously set, such as Basic Mode or Par Table.

1.2 Daylight settings

Connection Settings Daylightsettings Coloursettings PAR ta	ble Custom scenario Moonlight settings Service tab
Basic settings Sunrise start time 08:00 ↓ Sunset start time 20:24 ↓ Max. lamp power 100 ↓ T5 settings Atmospheric phenomena Switch-on time 10:00 ↓ Switch-off time 21:02 ↓ Probe settings Save settings	Week-Tweak Monday ① Tuesday ① Wednesday ① Wednesday ① Thursday ① Friday ① *Time prefix in hours
Attempting to connect Pacific Sun lamp Attempting to connect the lamp has been completed successfully Firmware version: TritonR2_v3_H1 Choose firmware file for uploading Firmware image choosed. CRC calculating	▲ LED temperature Actual 100°C Highest 37,6°C

Here you can configue basic settings for your lamp.
Sunrise start time – the beginning of sunrise simulation
Sunset start time – the beginning of sunset simulation
Duration – duration of sunrise/sunset
Max. lamp power – maximum power (between the end of sunrise simulation and the beginning of sunset simulation)

Atmospheric phenomena

Seasons simulation – simulation of seasonal changes in light intensity. You can adjust your lamp's brightness and colour temperature according to the chosen season. The lamp reaches its maximum brightness in dry season's months. During wet season lamp's brightness and colour temperature are gradually lowered.

T5 lighting - This option is available only for lamps with T5 lighting(Pandora Hyperion R2) . You can select the T5 lighting switch on/off time as well as their brightness (if your lamp supports option "dimmable"). Week-Tweek

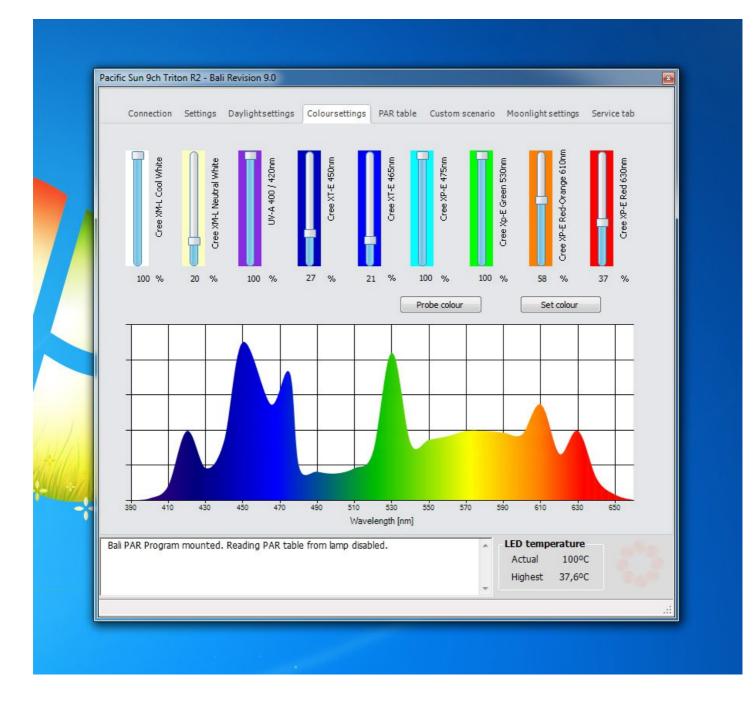
Very often it happens that at the weekend we have the ability (and willingness) longer sit watching our aquarium .. However, it also often happens that in the late evening, when social life in our house is just beginning, the light in the aquarium "fades" and the only view we can enjoy the moonlight. To enable the "extension" - or "offset" the time of the lamp at the weekend for a few hours ahead - it was written-Tweak Week program. How does it work? Let's take an example: "standard" we have set the lamp on the east side at 10 am and the west (the start time of sunset) at 18:00.

Time of sunrise / sunset set to 2 hours. So - at 20.00 ends in "day". If you want to watch the Saturday and Sunday, not expanded our aquarium of light - is set for those days Time Shift for example, (-3).

This means that for a tube that, in those days, the time is "withdrawn" for 3 hours. So - if you've east began at 10 - so now the light "thinks" that it is 7 am and the actual east starts at 13:00 (real time) and sunset at 21:00 and runs until 23:00 ...

Next so the "day" lasts the same - but "slightly" later it started .. Monday everything is back to "normal" - and we have the opportunity to enjoy a weekend in our aquarium simply "more" ...

1.3 Colour settings



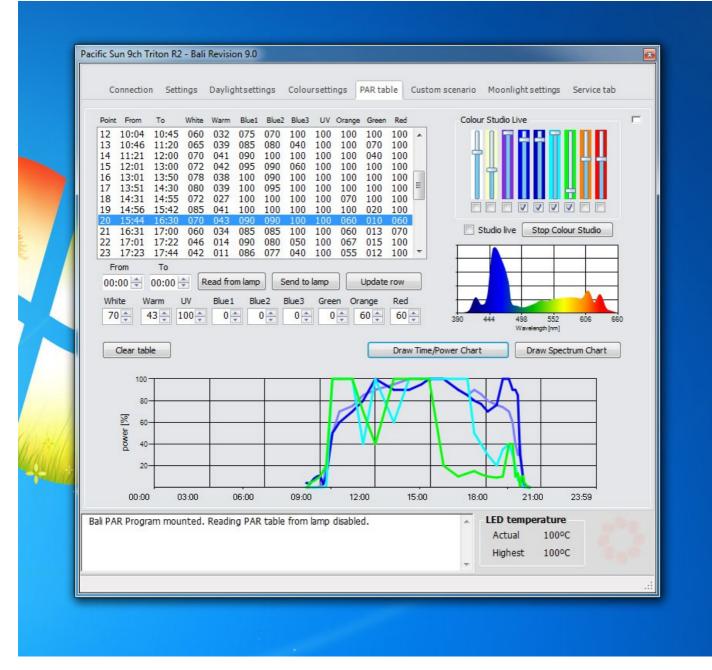
The latest firmware version has been refined to draw of the current system of dynamic spectrum of light emitted by the lamp. By making multiple measurements with a spectrometer, we managed to save the drawing algorithm is closest to the actual wave spectrum chart of light (accident) emitted by the lamp. In this way we know what a light emitting lamp - and gives us further opportunities to experiment - it's as if each had its own spectrometer. A setting powers of each channel can attempt to recreate such as the spectrum of light emitted by fluorescent T5 favorite sets. Or HQI + T5? You can also see how a change in the specified range of wavelengths, increases / color of corals in your tank.

Set all to 100% - set all channel power up to 100%

Set all to 0% - decrease all channels power to 0%

Probe colour - load actual lamp settings

Set colour – save spectrum settings to lamp memory



Advanced simulation of day light.

With Linear PAR simulation option switched on – your lamp will gradually switch from Basic light settings to more advanced simulations selected in the PAR table(without short flash between mode changing).

First, set the hours of sunset/sunrise in **Daylight tab.**

Adjusting the individual parameters in PAR table, you can influence the intensity and colour of light for multiple timeperiods.

For example:

Select the duration of sunrise from 10.00 a.m. to 10.30 a.m. in the first row of the PAR table. Next, adjust the intensity of selected light colours e.g. White 6%, Blue 1 10%, Orange 75% etc.

Click Update Row buton and the table settings will be updated(selected Row)

Next, select subsequent time-period in the second row of the PAR table, e.g. from 10.30 to 11.45 and adjust light intensity for this period e.g. White 10%, Blue 10% and click Update to save your settings.

This feature allows you to adjust colour temperature in various time-periods – you can simulate "warm" sunrise (adjusting only White colour and adding some reds/orange) and "cold" sunset (adjusting Blue colour with violet).

Table PAR is quite powerful tool to create your own lighting programs: you have the ability to set independent power for each channel at different times of the day (and night). In addition, you can generate a graph showing changes in light intensity for each channel during the day. To set the color of light in a "live" - use "Colour Studio Live", by which

we you able to "live" watch how it will look like a light in each time interval and modify them as needed and recognition. And then you can update the record in a table. This sounds quite complicated - but really - in fact within a few minutes you will be able to do this is automatically. Especially that the application itself fills the necessary fields in the table as the start time for the next "record" in the table, etc.

There is added also option for light spectrum preview for each row of PAR table.

1.5 Moonlight settings

Connection Settings Daylightsettings Colour	settings PAR table	Custom scenario	Moonlight settings Se	ervice tab
Basic settings		Current m	oon phase	
Moonlight intensity %	Read		and the second se	
Date of the last full moon 2012-04-17 -	Save			
Moon cycle simulation			and the second se	
Overcast nights (random)				
Moon on/off time			vg. V	
Moon time program				
Moonlight time-on	Read		and the second s	
Moonlight time-off 06:00 🚖	Save	<u></u>		
	Unite		cle information	
Moonlight channel colour settings		Day of th	ast full moon 2012-04 ne moon cycle 20	
Uv channel 👻	Save	Moon ph	ase 3rd quar	ter
	Jave			
Bali PAR Program mounted. Reading PAR table from I	amp disabled.	^	Actual 100°C	
			Highest 37,6°C	
		T		

To set night light and moonlight simulation.

Basic settings

Moonlight intensity % - to set moonlight intensity (with maximum intensity for full moon)

Date of the last full moon – to set the date of the last full moon. The preset date is 2011-09-12(date of the actual full moon)

Moon cycle simulation – to swich on/off moonlight simulation

With moonlight simulation switched off – you will get constant, invariable intensity selected via Moonlight intensity option.

With moonlight simulation switch on – light intensity will be gradually changing following the natural moon cycle (Current moon phase displays the current moon phase simulated by the lamp).

Moonlight channel colour settings – customer can choose which LED channel will be used to moonlight simulation.

Moon on/off time – there can be set time for moonlight sunrise and sunset.

Connection Settings Daylightsettings	Coloursettings	DAD table	Custom scenario	Moonlight settings	Convigentels
Connection Settings Daylightsettings	Coloursettings	PARtable	custom scenario	Mooningnesettings	Service Lab
Export/Import					
Load PAR scenario from file					
Send scenario to lamp memory					
Save PAR scenario to file					
Get PAR scenario from WWW					
PAR scenario online sharing					
Loaded to temporary memory					
Loaded to temporary memory					
Natural BALI Sun program					
Start BALI program					
Unmount BALI program					
Natural Bali Sun enabled					
Progress bar					
Bali PAR Program mounted. Reading PAR table	from lamp disab	led.	*	LED temperature	-
				Actual 100%	
			-	Highest 37,6%	c o
1					

It is used for upload / grabbing lighting programs sent by the other users or shared at the library on-line scenarios. At the moment there is program Hawaii, which is characterized by beautiful, natural-looking sunset and the changing light during the day (reflecting the passing of the day the clouds in the sky), etc.

BALI Natural Sun program

It's basically the essence of this firmware update. Last year we had the opportunity (and a pleasure) to be in Bali, near the town of Candidasa, where the main objective was to measure the physicochemical parameters of water and light around the coral farms, which are imported from our friendly suppliers. During our stay we made a series of measurements of light (spectrum and intensity) during the day, so we were able to sketch the curve of the spectrum and intensity changes of light - from sunrise until sunset. These measurements were performed both on the surface and under water. Thus lighting up a program called BALI Nautral Sun. With sewn in firmware procedures, as well as by the fact that the lamps Hyperion / Triton have at least eight independent LED channels we have a very large extent reflect these changes during the day. And thus, our lamp is lit in a "similar" to the sun around the the island of Bali.

Of course - should be emphasized that the graphs are compared to light (spectrum) measured by us (natural sunlight) and those reflected by the light emitted by the lamp. Through the technical limitations of the LED technology can not be 100% commitment to the natural conditions but I can proudly say that this has been over 90%! It is a unique solution so far adopted by the professional manufacturer of LED lamps.

Installation procedure is very simple: just one button "Start Bali Program" and can be uninstalled through the Unmount button.

Export/Import

Load scenario from file – uploads a chosen lighting scenario file on your lamp's temporary memory, e.g a scenario sent by other user.

Before uploading new lighting scenario to your lamp's temporary memory, we recommend saving the previous scenario, using Save Scenario to file (in case you would like to return to the previous settings).

Send scenario to lamp memory – configures your lamp with the settings of your chosen secenario uploaded in your lamp's temporary memory.

Save PARscenario to file – saves a chosen PAR scenario as a backup copy or to share it with other users.

Get PAR scenario from WWW – used to browse PAR scenarios database available on the Pacific Sun server.

PAR scenario online sharing – sending PAR scenarios from lamp's memory to the Pacific Sun server.

1.7 Service tab

Connection Settings	Daylightsettings	Coloursettings	PAR table	Custom scenario	Moonlight settings	Service tab
.amp management	Firmware upg	grade				
Default settings	Firmwa	re upgrade				
Clean memory] [
Soft reset]					
Emergency Connect]					
Delete firmware]					
Firmware upgrade progress	s bar					
					LED temperature	
					Actual Highest	

Buttons description:

Clean memory – deletes the content of your lamp's memory including firmware – without the firmware your lamp will not work properly and you will have to upload the appropriate firmware. Dont use it without Pacific Sun Service confirmation!.

Defualt settings - restores preset default settings (power, sunrise/sunset time etc.)

Firmware upgrade – to update firmware

Soft reset – to safely reset firmware