

VARYTEC

Manual



Beam R2

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1. Safety instructions



- This Device is suitable for indoor use only.
- All modifications will void the warranty.
- Repairs have to be carried out by skilled personnel only.
- Only use fuses of the same type and original parts as spare parts.
- Protect the Unit from rain and humidity to avoid fire and electric shocks.
- Make sure to unplug the power supply before opening the housing.

1.1. Instructions for a safe and efficient operation

Please read careful through this manual before the first start-up.

All persons which are entrusted with installation, start-up, operation, maintenance and repair of this device have to:

- Show a corresponding competence.
- Follow the lines of this manual.
- Face this manual as part of the product.
- Keep this manual over the lifetime of the product.
- Pass this manual to new owners of the device.

Be careful with heat and extreme temperature

Only use the device in a place where no extreme temperatures will occur.

Do not keep it in a temperature bellow 32°F (0°C), or exceeding 104°F (40°C).

Avoid exposing it to direct rays of the sun or near a heating appliance.

You have to attend that with an ambient temperature von 40°C it is not allowed that the relative humidity exceeds 50%.

Keep away from humidity, water and dust

Do not place it in a location with high humidity or lots of dust.

Containers with liquid should not be placed on or near the device.

Avoid placing it on un-stable location

Select a level and stable location to avoid vibration.

Do not use chemicals or volatile liquids for cleaning

Use a clean dry cloth to wipe off the dust. Metall Parts can be cleaned with a wet soft cloth for stubborn dirt. Before cleaning the device make sure you disconnect the powerplug.

If out of work, contact sales agency soon

If any troubles occurs, remove the power plug immediately, and contact with an engineer for repairing, do not open the cabinet by yourself, it might result in a danger of electric shock.

Take care with the power cable

Never pull the power cable to remove the plug from the receptacle, be sure to hold the plug itself.

Make sure that it isn't possible to squeeze or damage the power cable with sharp edges. Assure yourself with regular checks that there are no damages to the power cable or the device itself.

When not using the device for an extended period of time, be sure to disconnect the plug from the receptacle.

IMPORTANT:

Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems. Make sure the electrical connection is carried out by qualified personnel. All electrical and mechanical connections have to be carried out according to the European safety standards.

1.2. Further safety instructions**IMPORTANT!**

**Handle with the dangerous electric voltages carefully.
With this voltage there is the danger to get a life-threatening electric shock.**

After taken the device from a cold room to a warm room, it is not allowed to activate the device. It is possible that thereby emerged condensed water damages the device. Do not activate the device until it reached ambient temperature.

Make sure that the voltage which it is connected to does not exceed the specified values.

Don't switch the device in short time intervals (e.g. in second cycle) on or off.

Keep away children and laymen off the device.

**Health risk!**

Don't look directly into the light source. At certain circumstances it is possible that some people get epileptic seizures. This is especially true for individuals whose epilepsy was determined by a doctor.

1.3. Designated use

This device was developed for professional use on stages, in discos, theatres etc. The device is only approved for a connection up to 230V 50/60 Hz AC voltage.

Regular breaks during operation increase the lifetime of your device.

Avoid vibrations or any form of forceful impact during the installation, the start-up or Operation of the device.

Make sure that the device is not exposed excessive heat, humidity or dust at the place of installation.

Take care that no cables are lying around. You would endanger your own safety and also the safety of a third party.

It is not allowed to operate or store the device in an environment in which spray water, rain, humidity or fog is expected. Humidity or very high atmospheric humidity could reduce the isolation of the device and could cause deathly electric shocks. If you use fog devices the device may not be exposed to a direct smoke jet. There has to be a safety distance of at least 0.5m between this device and the fog machine. Make sure that the saturation of the fog has to enable a visibility of at least 10m.

Do not operate the device during thunderstorms. Surge voltages could destroy the device. Unplug the device from the power supply during thunderstorms.

For installation the use of the mounting bracket is obligatory.

Surrounding objects or surfaces should not be in contact with the device.

Make sure that during the installation and removal of the device the area below the place of installation is basically cordoned off. This also applies to implementation of service.

The device has to be protected by a suitable safety cord.

Make yourself familiar with the functions of the device before start-up. People without the experience should not handle the device. The most cause of functional disorder is inappropriate handling.

Use the original packing or designated accessory for transport to avoid damages.

For reasons of safety unauthorized changes are forbidden.

A usage of the device which differs from usages which are described in this manual can cause damages of the device. In that case the warranty expires. Additionally you should notice that every differed usage is related with dangers and can cause e.g. an electrical short, fire, electric shock or crash.

1.4. Overhead installation



Danger of life!

You have to observe the regulations of BGV C1 (formerly VBG 70) and EN60598-2-17. If there are more regulations for the area of designated use they have to be adhered, too. Therefore installations are to carry out by skilled personnel only.

The suspension devices have to be build and measured so they can withstand the tenfold of the payload for one hour without suffering a permanent detrimental deformation.

Basically installation has to be done by using a second separate suspension. This can be e.g. a suitable net. The second suspension must be designed and attached so no part of the installation can fall down in case of failure.

During construction, reconstruction and deconstruction unnecessary stay in the range of moving areas, on lightning bridges, under elevated work stations or any other danger zones is forbidden.

The operator is obliged to following safety-related and mechanical facilities:

- Before the first start-up or after critical changes before restarting it has to be checked by an expert.
- Review in the frame of the inspection test at least all four years by an expert. .
- Review by a qualified person at least once a year.

How to carry out the overhead installation:

If possible you should install the device out of areas where people are able to stay.

IMPORTANT! Overhead installation requires a high level of experience. This includes knowledge of calculating the payload, used installation material and safety inspections of the used material and the projector whereas the required experience is not limited to this. Do not try to carry out installation yourself under any circumstances if you are not qualified. Contact a qualified installer. An inappropriate installation can lead to injuries and/or damaged properties.

It is not allowed to install the device in the grip area of people.

If the device may hang from the ceiling or from high beams, the use of truss systems is mandatory. The device may not be installed so it can swing freely in the room.

Please note: Crashing down items can cause serious injuries! Do not install the projector, if you doubt the safety of a possible installation form!

Mount the device with the mounting-bracket to your trussing system using an appropriate clamp.

During overhead installation the device must be always secured by a safety rope which is designed to hold the twelvefold weight of the device. Only safety ropes with chain link elements may be used. Hang up the safety rope in the designated hole attached to the device or in the mounting bracket. Direct the rope over the truss or an appropriate fastening point. Hang up the end in the fastening element and tie up the locking nut.

The maximum drop exceed must not exceed 20cm.

A safety rope once exposed to failing load or damaged may not be used furthermore.

Adjust the desired inclination angle via the mounting bracket and tighten the screw.

2. Statement

When we send out the goods, they are well packaged and also at best condition. Every product was tested before delivery. If you recognize mistakes or damages please contact the delivery agent or the supplier. Please read this manual faithful. In this manual you can find information about the handling and the safety regulations of this product. If you disregard this manual we cannot give a warranty for it. Technical changes, which are for progress, may be possible at any time. They are not mentioned particularly in this manual, but affixed extra.

2.1. Product description

Thank you for choosing the Beam R2. This device is on the current state of technology and has a range of features and meets the requirements of the DMX512 USITT 1990 standard. This device was developed for many different purposes e.g. TV studios, discos, nightclubs, bars and concerts.

2.2. Introduction to the product

2.2.1. Technical Data

Power supply	
Voltage	110V - 240V / 50-60HZ
Lightsource	
Lamp type	Philips R2 200W
Wattage	232W
Color temperature	8000K
Optics	
Zoom	0 - 3.8°
Focus	yes
Connections	
Power in	Powercon
Power out	no
DMX in/out	XLR 3pin / 5pin
Functions	
Pan	540°
Tilt	250°
Colors	Color wheel (14 colors)
Gobo wheel	17xstatic
Prism	8-way
Frostfilter	yes
Operation	
Sound-to-light	yes
Automatic	yes

Master-Slave	yes
DMX	15 channels
Artnett	no
RDM	no
Hardware	
Protection class	IP20
Skill	indoor
Measruements (LxWxH)	272 x 279 x 415 mm
Weight	11.85 kg
Material	Plastic

3. Packaging

3.1. Contents

The device could be packed in carton, in a single case or in twin case.

To every device belong the following accessories, which you have to multiply with the number of devices.

Per device:

Material	Quantity
Manual	1 pcs.
Hangig Brackets	2 pcs.
Cable	1 pcs.

3.2. Transport lock

To protect the device there is a transport lock. Before connecting the device to the power supply system you have to open the transport lock. If you want to transport you have to close the transport lock, so that the head of the device is not able to swing freely.

3.3. Lamp types

Please do not use other types as these which are mentioned in this manual.

Type	Wattage	Lifetime	Color temperature
Philips R2	132 W	6000 h	8000 K

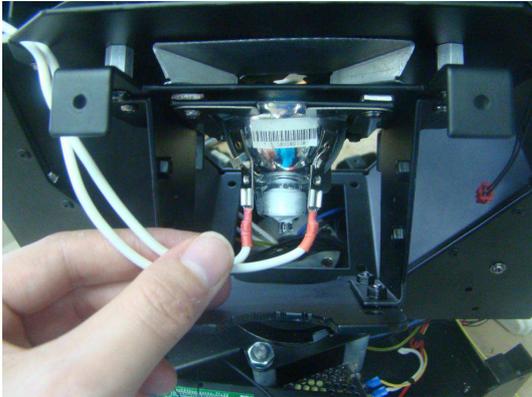
Please change always the lamp when lifetime runs out. If you do not it could be possible that the lamp implodes and damages the device.

3.3.1. Changing the lamp

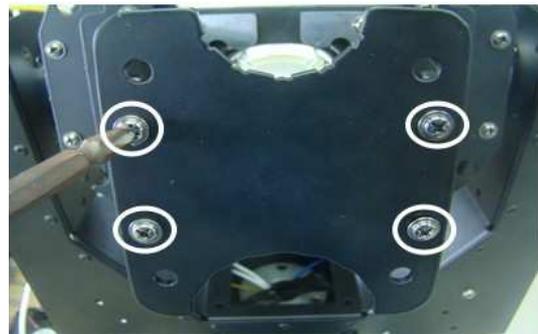
Important! If you change the lamp it is not allowed to touch the lamp with bare fingers. The body fat layer remains in the lamp and could damaged it or brand.

1. Interrupt the current supply. Wait at least 20min before you open the device, so that the old lamp can cool down.
2. Use a cross-tip screwdriver to open the cover

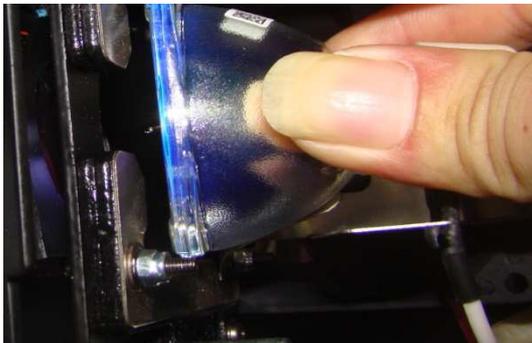
3. Loose the Lamp wires:



4. Loose the screws of the metal pieces:



5. Loose the screws of the lamp holders next to the lamp and remove it:



6. Install the new lamp in reverse

4. Control

4.1. Description of the display section

Every menu is controlled by the jogwheel on the right of the display.

Rotation changes the values if you push it you confirm the value. You can exit the menu with point of menu EXIT; there you have to push the wheel again.

4.1.1. Structure of the menu

Main Menu	Submenu 1	Submenu 2	Function SET	Function description	
DMX	Address		1-512	Address number set	
	Mode		Smal	Simplify mode	
			Stan	Standard mode	
			Exte	Extended	
Display	ShowReve		Natu	Normal	
			Revl	Reverse 180°	
	BrigSett		000-007	Brightness set	
	Backligh		60S	Backlight close after delay 60s	
			Ligh	Backlight light always	
	MenuBack		90S	Menu back to main menu after delay 90s	
	Return		Off	Menu back not automatically	
Feature	XY Setup	Xreverse	Off	Pan scan normal	
			Open	Pan scan reverse	
		Yreverse	Off	Tilt scan normal	
			Open	Tilt scan reverse	
		XY Speed	Fast	Pan/Tilt fast speed	
			NORM	Pan/Tilt normal	
			Solw	Pan/Tilt slow	
		X Angle	360, 360	Pan angle 360°	
			540, 540	Pan angle 540°	
			630, 630	Pan angle 630°	
		XY Fback	Off	Pan/Tilt optical sensor testing off	
			Open	Pan/Tilt optical sensor testing on	
		Return		▲	Return
		Shortcut		Off	Shortcut off for colors and gobos
			Open	Shortcut open for colors and gobos	
	FullColr		Off	Half color function	
			Open	Full color function	
	ReceMode		DMX, DMX	Accept DMX	
			Wire	Accept Wireless	
			Auto	AutoRun	
	RunMode		Slve	Accept other signal control	

			Muse	Sound active	
			Auto	Inside program run automatically	
			SigClear	Off	keep signal data
			Open	clear signal data	
	Return		▲	Return	
LampSett	Default		Wink	Lamp off	
			Ilum	Lamp on	
	Control		Wink	Lamp off by manual	
			Ilum	Lamp on by manual	
	DmxLamp		Off	Close other signal control the lamp	
			On	open other signal control the lamp	
	LampTime		0000-9999	Lamp time	
	ClearTim		*	Password input enter	
			Ilum	Clear lamp time	
	LampStat		Wink	Lamp off	
Ilum			Lamp on		
Return			▲	Return	
InfoSee	WorkHour		0000-9999	working hours memo for connect power	
	Times		0000-9999	Open times memo	
	Fan1Rota		0000-9999	Fan rotation speed 1	
	Fan2Rota		0000-9999	Fan rotation speed 2	
	Version		V0.0	Version	
	ChanLevel		Chan 00- Chan40	DMX value number	
	Return			▲	Return
Control			Chan 00- Chan40	Control the channels	
AssiTool	Factory		*	Password input enter	
			Fold	Recover factory set	
			Save	Save factory set	
	Defaults		*	Password input enter	
			Fold	Recover to default	
	DMXReset		Off	Close other signal control reset	
			Open	Open other signal control reset	
	Redress		*	Password input enter	
			00-10	Set motors	
	Brightne		*	Password input enter	
			TimeLimi	0000-9999	Open fixture time limit
			TimsLimi	0000-9999	Fixture times limit
			Passwor1	000-255	Revise password 1
			Passwor2	000-255	Revise password 2
Passwor3			000-255	Revise password 3	
Passwor4			000-255	Revise password 4	
X Drivin			000-255	Pan main drive gear	
X Driven	000-255	Pan slave drive gear			

		Y Drivin	000-255	Tilt main drive gear
		Y Driven	000-255	Tilt slave drive gear
		LampPowe	Off	Ballast earthed
			total 5V, Open	Ballast 5V
		Y Angle	000-255	Tilt angle rotation set
	Return	000-255	Return	
	Checksum	01-10		Check cabrilate data
Return		▲	Return	
Reset			Annu	Cancel
			Exec	Reset
ExitMenu			▲	Exit

4.2. DMX Chart

Channel		Value from	Value to	Description
1	PAN	0	255	Pan
2	PAN f	0	255	Pane fine
3	TILT	0	255	Tilt
4	TILT f	0	255	Tilt fine
5	PT Speed	0	255	PT speed from fast to slow
6	COLOR	0	4	Open white
		5	9	Open white + Color 1
		10	14	Color 1
		15	19	Color 1 + Color 2
		20	24	Color 2
		25	29	Color 2 + Color 3
		30	34	Color 3
		35	39	Color 3 + Color 4
		40	44	Color 4
		45	49	Color 4 + Color 5
		50	54	Color 5
		55	59	Color 5 + Color 6
		60	64	Color 6
		65	69	Color 6 + Color 7
		70	74	Color 7
		75	79	Color 7 + Color 8
		80	84	Color 8
85	89	Color 8 + Color 9		
90	94	Color 9		
95	99	Color 9 + Color 10		
100	104	Color 10		
105	109	Color 10 + Color 11		
110	114	Color 11		

		115	119	Color 11 + Color 12
		120	124	Color 12
		125	129	Color 12 + Color 13
		130	134	Color 13
		135	139	Color 13 + Color 14
		140	144	Color 14
		145	149	Color 14 + Weiß
		150	200	Color rotation from slow to fast clockwise
		201	204	Stop at any position
		205	255	Color rotation from fast to slow counterclockwise
7	Gobo	0	4	Gobo offen
		5	9	Gobo 1
		10	14	Gobo 2
		15	19	Gobo 3
		20	24	Gobo 4
		25	29	Gobo 5
		30	34	Gobo 6
		35	39	Gobo 7
		40	44	Gobo 8
		45	49	Gobo 9
		50	54	Gobo 10
		55	59	Gobo 11
		60	64	Gobo 12
		65	69	Gobo 13
		70	74	Gobo 14
		75	79	Gobo 15
		80	84	Gobo 16
		85	89	Gobo 17
		90	94	Gobo 1 Shake
		95	99	Gobo 2 Shake
		100	104	Gobo 3 Shake
		105	109	Gobo 4 Shake
		110	114	Gobo 5 Shake
		115	119	Gobo 6 Shake
		120	124	Gobo 7 Shake
		125	129	Gobo 8 Shake
		130	134	Gobo 9 Shake
		135	139	Gobo 10 Shake
		140	144	Gobo 11 Shake
		145	149	Gobo 12 Shake
		150	154	Gobo 13 Shake
		155	159	Gobo 14 Shake
		160	164	Gobo 15 Shake
		165	169	Gobo 16 Shake
170	174	Gobo 17 Shake		

		175	210	Gobo wheel rotation slow to fast clockwise
		211	224	Stop at any position
		225	255	Gobo wheel rotation slow to fast counterclockwise
8	Shutter	0	19	Off
		20	39	Open
		40	59	Random strobe from slow to fast
		60	79	Open
		80	99	Ramp up from slow to fast
		100	119	Open
		120	139	Ramp down from slow to fast
		140	249	Strobe standard from slow to fast
250	255	Open		
9	Dimmer	0	255	Linear dimmer
10	Frost	0	255	Linear frost
11	Focus	0	255	Linear Focus
12	Prism	0	19	No effect
		20	99	Indesing prism 360°
		100	149	Prism rotation from slow to fast clockwise
		150	159	Stop at any position
		160	209	Prism rotation from slow to fast counterclockwise
		210	255	Prism rotation clockwise/counterclockwise altering from slow to fast
13	Reset	0	33	No function
		34	36	Lamp off after 3 seconds when dimmer and shutter are at 255
		37	79	No function
		80	89	Lamp on after 3 seconds when dimmer and shutter are at 255
		90	99	No function
		100	109	Motor reset after 3 seconds
		110	129	No function
		130	139	Reset complete after 3 seconds
		140	255	No function
14	Macros functions	0	14	Open
		15	32	Effect 1
		33	46	Effect 2
		47	63	Effect 3
		64	79	Effect 4
		80	95	Effect 5
		96	110	Effect 6
		111	125	Effect 7
		126	143	Effect 8
		144	159	Effect 9
		160	175	Effect 10
		176	191	Effect 11

		192	207	Effect 12
		208	223	Effect 13
		224	239	Effect 14
		240	255	Effect 15
15	Speed	0	255	Speed for macro effects

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