STAIRVILLE

Bowl Beam 604Z Zoom LED MKII
Bowl Beam 604 LED MKII RGBW

moving head

th•mann
MUSIC IS OUR PASSION

user manual

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1 General notes

This manual contains important instructions for the safe operation of the unit. Read and follow the safety instructions and all other instructions. Keep the manual for future reference. Make sure that it is available to all those using the device. If you sell the unit please make sure that the buyer also receives this manual.

Our products are subject to a process of continuous development. Thus, they are subject to change.

1.1 Further information

On our website (*www.thomann.de)* you will find lots of further information and details on the following points:

Download	This manual is also available as PDF file for you to download.
Keyword search	Use the search function in the electronic version to find the topics of interest for you quickly.
Online guides	Our online guides provide detailed information on technical basics and terms.
Personal consultation	For personal consultation please contact our technical hotline.
Service	If you have any problems with the device the customer service will gladly assist you.

1.2 Notational conventions

This manual uses the following notational conventions:

Letterings

The letterings for connectors and controls are marked by square brackets and italics.

Examples: *[VOLUME]* control, *[Mono]* button.

Displays

Texts and values displayed on the device are marked by quotation marks and italics.

Examples: *'24ch'*, *'OFF'*.

1.3 Symbols and signal words

In this section you will find an overview of the meaning of symbols and signal words that are used in this manual.

Signal word	Meaning
DANGER!	This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided.
WARNING!	This combination of symbol and signal word indicates a possible dangerous situation that can result in death or serious injury if it is not avoided.
CAUTION!	This combination of symbol and signal word indicates a possible dangerous situation that can result in minor injury if it is not avoided.
NOTICE!	This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided.

Warning signs	Type of danger
	Warning – high-voltage.
	Warning – suspended load.
	Warning – danger zone.

2 Safety instructions

Intended use

This device is intended for use as a freely moving multifunctional spotlight. The device is designed for professional use and is not suitable for use in households. Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

Extend the operating life of the device by regular breaks and by avoiding frequent switching on and off. The device is not suitable for continuous operation.

Safety

DANGER!

Danger for children

Ensure that plastic bags, packaging, etc. are disposed of properly and are not within reach of babies and young children. Choking hazard!

Ensure that children do not detach any small parts (e.g. knobs or the like) from the unit. They could swallow the pieces and choke!

Never let children unattended use electrical devices.

DANGER!

Electric shock caused by high voltages inside

Within the device there are areas where high voltages may be present. Never remove any covers.

There are no user-serviceable parts inside.

Do not use the device if covers, protectors or optical components are missing or damaged.

DANGER!

Electric shock caused by short-circuit

Always use proper ready-made insulated mains cabling (power cord) with a protective contact plug. Do not modify the mains cable or the plug. Failure to do so could result in electric shock/death or fire. If in doubt, seek advice from a registered electrician.

WARNING!

Eye damage caused by high light intensity

Never look directly into the light source.

WARNING!

Risk of epileptic shock

Strobe lighting can trigger seizures in photosensitive epilepsy. Sensitive persons should avoid looking at strobe lights.

WARNING!

Risk of injury caused by falling objects

Make sure that the installation complies with the standards and rules that apply in your country. Always secure the device with a secondary safety attachment, such as a safety cable or a safety chain.

The load capacity of trusses or other fixtures must be sufficient for the intended number of devices. Not that the movement of the head places additional loads on the load-bearing parts.

CAUTION!

Risk of injury due to movements of the device

The head of the device can move quickly (pan, tilt) and can produce very bright light. This is also valid immediately after you turn on the device, when the device operates in automatic mode or under remote control and when you turn off a DMX controller that is connected to the device. Persons staying near the device could be injured or frightened.

Before you turn on the device and during the operation, always ensure that nobody stays close to the device. If work has to be performed in the area of movement or in the near vicinity of the device, it must remain turned off.

NOTICE!

Risk of fire

Do not block areas of ventilation. Do not install the device near any direct heat source. Keep the device away from naked flames.

NOTICE!

Operating conditions

This device has been designed for indoor use only. To prevent damage, never expose the device to any liquid or moisture. Avoid direct sunlight, heavy dirt, and strong vibrations.

Only operate the device within the ambient conditions specified in the chapter 'Technical specifications' of this user manual. Avoid heavy temperature fluctuations and do not switch the device on immediately after it was exposed to temperature fluctuations (for example after transport at low outside temperatures).

Dust and dirt inside can damage the unit. When operated in harmful ambient conditions (dust, smoke, nicotine, fog, etc.), the unit should be maintained by qualified service personnel at regular intervals to prevent overheating and other malfunction.

The device must not be moved during use.

NOTICE!

Power supply

Before connecting the device, ensure that the input voltage (AC outlet) matches the voltage rating of the device and that the AC outlet is protected by a residual current circuit breaker. Failure to do so could result in damage to the device and possibly injure the user.

Unplug the device before electrical storms occur and when it is unused for long periods of time to reduce the risk of electric shock or fire.

NOTICE!

Possible staining

The plasticiser contained in the rubber feet of this product may possibly react with the coating of your parquet, linoleum, laminate or PVC floor and after some time cause permanent dark stains.

In case of doubt, do not put the rubber feet directly on the floor, but use felt-pad floor protectors or a carpet.

NOTICE!

Risk of overheating

The distance between light output and the illuminated surface must be more than 1.5 m (19.7in).

Provide sufficient ventilation.

The ambient temperature must always be below 40 °C (104 °F).

3 Features

The moving head is particularly suitable for professional lighting tasks, for example at events, on rock stages, in theatres and musicals or in night clubs.

Bowl Beam 604Z Zoom LED MKII (item # 414151)

- Multifunction Wash Beam Moving Head with motorized zoom
- 60 W COB RGBW-LED, ambient effect ring with eight 0.5 W RGB LEDs
- Control via DMX (19, 21 or 35 channels) and via buttons and multi-colour display on the unit
- Rotation (pan) from 0° to 540° or endless
- Inclination (tilt) from 0° to 270° or endless
- Preprogrammed automatic show programmes
- Sound control
- Master / Slave mode
- Strobe effect
- Electronic dimmer
- Robust housing
- Power cable and Omega Bracket with quick locks included

Bowl Beam 604 LED MKII RGBW (item # 434927)

- Multifunction Beam Moving Head
- 60 W COB RGBW-LED, ambient effect ring with eight 0.5 W RGB LEDs
- Control via DMX (17, 19 or 33 channels) and via buttons and multi-colour display on the unit
- Rotation (pan) from 0° to 540° or endless
- Inclination (tilt) from 0° to 270° or endless
- Preprogrammed automatic show programmes
- Sound control
- Master / Slave mode
- Strobe effect
- Electronic dimmer
- Robust housing
- Power cable and Omega Bracket with quick locks included

For technological reasons, the light output of LEDs decreases over their lifetime. This effect increases with higher operating temperature. You can extend the service life of the illuminants by providing adequate ventilation and operating the LEDs with the lowest possible brightness.

4 Installation

Unpack and carefully check that there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the device against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.

Lift the device only at the base. When lifted at the rotatable mounting, the device may be damaged.

You can install the device standing or hanging. When in use, the device must be mounted at a solid surface or clamped to an approved truss.

Work from a stable platform whenever you install or move the device or when you perform any kind of maintenance. Block access under the work area.

WARNING!

Risk of injury caused by falling objects

Make sure that the installation complies with the standards and rules that apply in your country. Always secure the device with a secondary safety attachment, such as a safety cable or a safety chain.

The load capacity of trusses or other fixtures must be sufficient for the intended number of devices. Not that the movement of the head places additional loads on the load-bearing parts.

NOTICE!

Risk of overheating

The distance between light output and the illuminated surface must be more than 1.5 m (19.7in).

Provide sufficient ventilation.

The ambient temperature must always be below 40 °C (104 °F).

NOTICE!

Possible data transmission errors

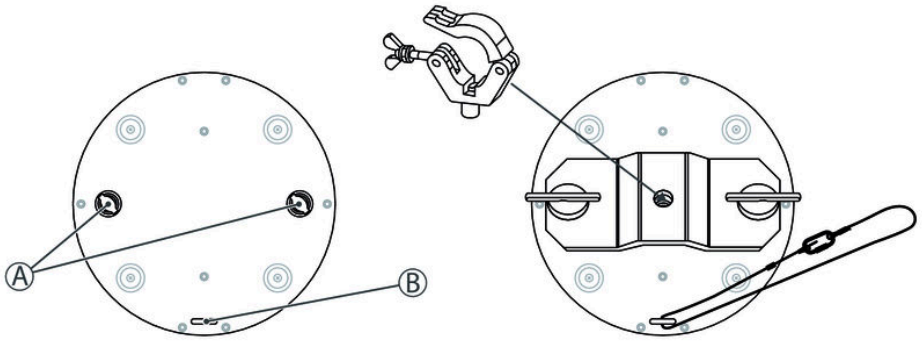
For error-free operation make use of dedicated DMX cables and do not use ordinary microphone cables.

Never connect the DMX input or output to audio devices such as mixers or amplifiers.

Please note that this device must not be connected to a dimmer.

Mounting options

The quick lock openings on the housing bottom are used for secure attachment of Omega brackets. To these, the flight adapters (half coupler, trigger clamps, C-hooks, etc.) are attached. The safety cable must be threaded through the safety eyelet on the bottom side.



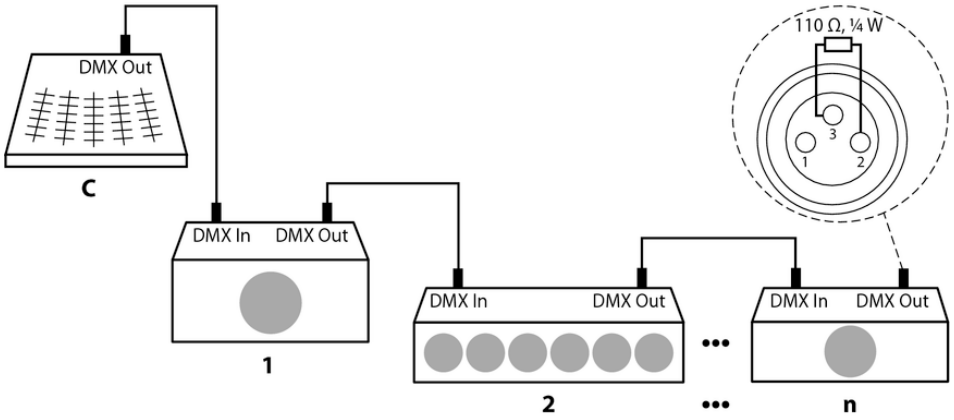
A	Quick lock openings for Omega brackets
B	Safety cable eyelet.

5 Starting up

Create all connections while the device is off. Use the shortest possible high-quality cables for all connections. Take care when running the cables to prevent tripping hazards.

Connections in DMX mode

Connect the DMX input of the device to the DMX output of a DMX controller or another DMX device. Connect the output of the first DMX device to the input of the second one, and so on to form a daisy chain. Always ensure that the output of the last DMX device in the daisy chain is terminated with a resistor (110 Ω, ¼ W).

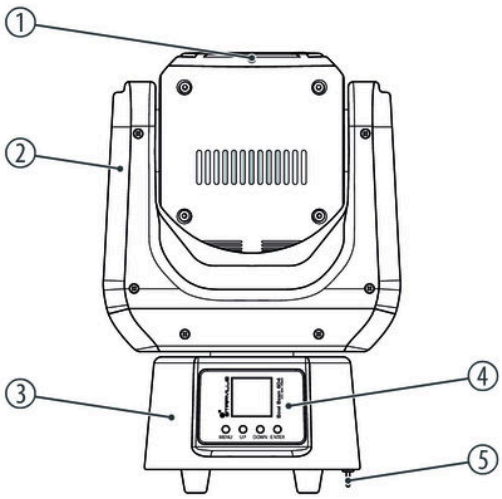


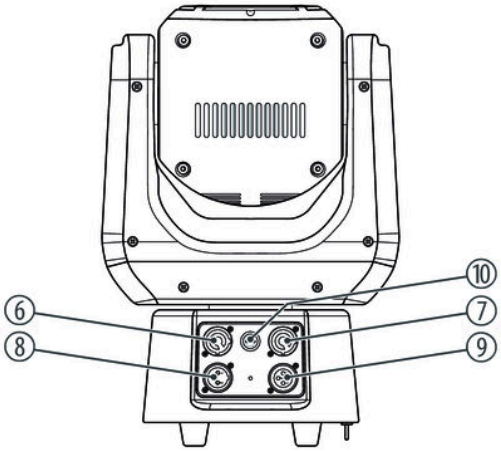
In the top line of the display the status of the data transmission is indicated by a coloured dot behind the word *'Dmx'*. A green dot indicates that data is being received. A red dot indicates a missing or disturbed connection.

Connections in master/slave mode

When you configure a group of devices in master/slave mode, the first unit will control the other units for an automatic, sound-activated, synchronized show. This function is ideal when you want to start a show immediately. Connect the DMX output of the master device to the DMX input of the first slave device. Then connect the DMX output of the first slave device to the DMX input of the second slave device and so on.

6 Connections and controls





1	Spotlight head with LED and ambient effect ring
2	Rotatable mounting
3	Device base
4	Operating elements
	Display. When the main menu is activated, the display shows the current menu item and the set option. When the main menu is closed, it shows the current operating mode. The display is dimmed a few seconds after the last keystroke.
	[MENU] Activates the main menu and toggles between menu items. Closes an open submenu without saving any changes.
	[UP] Increases the displayed value by one.
	[DOWN] Decreases the displayed value by one.
	[ENTER] Selects an option of the respective operating mode.
5	Safety cable eyelet.
6	*[POWER IN]* Lockable input socket (Power Twist) for power supply.
7	*[POWER OUT]* Lockable output socket (Power Twist) for the power supply of further units.

8	*[DMX OUT]* DMX output
9	*[DMX IN]* DMX input.

7 Operating

7.1 Starting the device

CAUTION!

Risk of injury due to movements of the device

The head of the device can move quickly (pan, tilt) and can produce very bright light. This is also valid immediately after you turn on the device, when the device operates in automatic mode or under remote control and when you turn off a DMX controller that is connected to the device. Persons staying near the device could be injured or frightened.

Before you turn on the device and during the operation, always ensure that nobody stays close to the device. If work has to be performed in the area of movement or in the near vicinity of the device, it must remain turned off.

Connect the device to the power supply to start operation. After a few seconds, the fans start to work, the head moves to the home positions for rotation (pan) and inclination (tilt), the screen displays a start message. After a few more seconds, the device operates in the last set mode.

7.2 Main menu

Press *[ENTER]* to activate the main menu. Use the buttons *[UP]* or *[DOWN]* to select a submenu. When the display shows the desired submenu, press *[ENTER]* to open it. To close the main menu, press *[MENU]*. The stored values are displayed in white in the display. Changed values are displayed in red until they are confirmed by *[ENTER]* .

All previously made settings are retained even when you disconnect the device from the power grid. To restart with default values, use the function *'Factory Reset'* .

Selecting DMX mode

Press *[ENTER]*, then *[UP]* or *[DOWN]* until the display shows *'DMX MODE'*. Press *[ENTER]*. With the buttons *[UP]* or *[DOWN]* you can choose between the following DMX operating modes: Basic, Standard or Extended. This setting is only relevant when the device is controlled via DMX.

When the display shows the desired value press *[ENTER]* to save the settings. Press *[MENU]* to close the menu.

DMX address

Press *[ENTER]*, then *[UP]* or *[DOWN]* until the display shows *'ADDRESS'*. Press *[ENTER]*. The display shows *'DMX Address'*. Press *[ENTER]*. Now you can set the number of the first DMX channel to be used by the device (DMX address). Use the buttons *[UP]* or *[DOWN]* to select a value between 1 and 512.

When the display shows the desired value press *[ENTER]* to save the settings. Press *[MENU]* to close the menu.

Make sure that the DMX address matches the configuration of your DMX controller. The following table shows the highest possible DMX address for the various DMX modes.

Tab. 1: Bowl Beam 604Z Zoom LED MKII (item # 414151)

Mode	Highest possible DMX address
Basic (19 channels)	494
Standard (21 channels)	492
Extended (35 channels)	478

Tab. 2: Bowl Beam 604 LED MKII RGBW (item # 434927)

Mode	Highest possible DMX address
Basic (17 channels)	496
Standard (19 channels)	494
Extended (33 channels)	480

Selecting the operating mode

Press *[ENTER]*, then *[UP]* or *[DOWN]* until the display shows *'INTRO'*. Press *[ENTER]*. Press *[UP]* or *[DOWN]* until the display shows *'Run'*. Press *[ENTER]*. With the buttons *[UP]* or *[DOWN]* you can select an operating mode:

- *'DMX512'*: The device is controlled via DMX
- *'Slave'*: The device is controlled by another device, which is configured as master.
- *'Sound1'*: Sound-controlled automatic show 1
- *'Sound2'*: Sound-controlled automatic show 2
- *'Auto 1'*: Automatic show 1
- *'Auto 2'*: Automatic show 2

When the display shows the desired value press *[ENTER]* to save the settings. Press *[MENU]* to close the menu.

In the modes *'Sound1'*, *'Sound2'*, *'Auto 1'*, *'Auto 2'*, the device can serve as master in a master-slave combination.

Pan inversion

Press *[ENTER]*, then *[UP]* or *[DOWN]* until the display shows *'SET'*. Press *[ENTER]*. Press *[UP]* or *[DOWN]* until the display shows *'Pan'*. Press *[ENTER]*. With the buttons *[UP]* or *[DOWN]* you can select between *'Normal'* (normal rotation direction) and *'Reverse'* (inverted rotation direction).

When the display shows the desired value press *[ENTER]* to save the settings. Press *[MENU]* to close the menu.

Tilt inversion

Press *[ENTER]*, then *[UP]* or *[DOWN]* until the display shows *'SET'*. Press *[ENTER]*. Press *[UP]* or *[DOWN]* until the display shows *'Tilt'*. Press *[ENTER]*. With the buttons *[UP]* or *[DOWN]* you can select between *'Normal'* (normal direction of inclination) and *'Reverse'* (inverted direction of inclination).

When the display shows the desired value press *[ENTER]* to save the settings. Press *[MENU]* to close the menu.

Default settings

With this function, you can reset the device to factory default settings.

Press *[ENTER]*, then *[UP]* or *[DOWN]* until the display shows *'SET'*. Press *[ENTER]*. Press *[UP]* or *[DOWN]* until the display shows *'FactoryReset'*. Press *[ENTER]*.

Press *[UP]* or *[DOWN]* until the display shows *'YES'*. Press *[ENTER]*. The device performs a reset.

Fan control

Press *[ENTER]*, then *[UP]* or *[DOWN]* until the display shows *'SET'*. Press *[ENTER]*. Press *[UP]* or *[DOWN]* until the display shows *'Fan Control'*. Press *[ENTER]*. With the buttons *[UP]* or *[DOWN]* you can select between *'Auto'* (automatic fan speed control), *'High'* (continuous high fan speed control) and *'Low'* (continuous low fan speed control).

When the display shows the desired value press *[ENTER]* to save the settings. Press *[MENU]* to close the menu.

Setting the display off time

Press *[ENTER]*, then *[UP]* or *[DOWN]* until the display shows *'SET'*. Press *[ENTER]*. Press *[UP]* or *[DOWN]* until the display shows *'Disp. Setting'*. Press *[ENTER]*. Press *[UP]* or *[DOWN]* until the display shows *'Shut off'*. Press *[ENTER]*.

With the buttons *[UP]* or *[DOWN]* you can set a value between 2 and 60 minutes. If no button is pressed during this period, the display automatically switches off until the next keystroke.

When the display shows the desired value press *[ENTER]* to save the settings. Press *[MENU]* to close the menu.

Display reversal

Press *[ENTER]*, then *[UP]* or *[DOWN]* until the display shows *'SET'*. Press *[ENTER]*. Press *[UP]* or *[DOWN]* until the display shows *'Disp. Setting'*. Press *[ENTER]*. Press *[UP]* or *[DOWN]* until the display shows *'Flip display'*. Press *[ENTER]*.

With the buttons *[UP]* or *[DOWN]* you can choose between *'ON'* (display is rotated by 180°) and *'OFF'* (normal display).

When the display shows the desired value press *[ENTER]* to save the settings. Press *[MENU]* to close the menu.

Locking the buttons

Press *[ENTER]*, then *[UP]* or *[DOWN]* until the display shows *'SET'*. Press *[ENTER]*. Press *[UP]* or *[DOWN]* until the display shows *'Disp. Setting'*. Press *[ENTER]*. Press *[UP]* or *[DOWN]* until the display shows *'Key lock'*. Press *[ENTER]*.

Press *[UP]* or *[DOWN]* until the display shows *'ON'*. Press *[ENTER]*. The buttons of the device are now locked against unintended or unauthorized operation.

Unlocking the buttons

Press *[ENTER]* for three seconds. The key lock is now temporarily cancelled, but it is automatically re-activated if you do not press any buttons. To permanently deactivate the key lock, press *[MENU]*, then *[UP]* or *[DOWN]* until the display shows *'SET'*. Press *[ENTER]*. Press *[UP]* or *[DOWN]* until the display shows *'Disp. Setting'*. Press *[ENTER]*. Press *[UP]* or *[DOWN]* until the display shows *'Key lock'*. Press *[ENTER]*.

Press *[UP]* or *[DOWN]* until the display shows *'OFF'*. Press *[ENTER]*. The buttons of the device are unlocked again.

DMX display

Press *[ENTER]*, then *[UP]* or *[DOWN]* until the display shows *'SET'*. Press *[ENTER]*. Press *[UP]* or *[DOWN]* until the display shows *'Disp. Setting'*. Press *[ENTER]*. Press *[UP]* or *[DOWN]* until the display shows *'Disp flash'*. Press *[ENTER]*.

With the buttons *[UP]* or *[DOWN]* you can choose between *'ON'* (display flashes when no DMX signal is present and remains dark) and *'OFF'* (normal display).

When the display shows the desired value press *[ENTER]* to save the settings. Press *[MENU]* to close the menu.

Operating hours display

Press *[ENTER]*, then *[UP]* or *[DOWN]* until the display shows *'INFO'*. Press *[ENTER]*. Press *[UP]* or *[DOWN]* until the display shows *'Time info'*. Press *[ENTER]*. With the buttons *[UP]* or *[DOWN]* you can select the value to be displayed:

- *'Power on'*: Time since last power up
- *'Ttl Life Hrs'*: Total operating hours
- *'Last Run Hrs'*: Duration of last run

Press *[ENTER]*. The display shows the corresponding value in hours.

To end the display and return to the parent menu, press *[ENTER]*.

Temperature display

Press *[ENTER]*, then *[UP]* or *[DOWN]* until the display shows *'INFO'*. Press *[ENTER]*. Press *[UP]* or *[DOWN]* until the display shows *'Temp info'*. Press *[ENTER]*. The display shows the LED temperature.

To end the display and return to the parent menu, press *[ENTER]*.

Software version

Press *[ENTER]*, then *[UP]* or *[DOWN]* until the display shows *'INFO'*. Press *[ENTER]*. Press *[UP]* or *[DOWN]* until the display shows *'Software Ver'*. Press *[ENTER]*. The software version of the device will now appear on the display.

To end the display and return to the parent menu, press *[ENTER]*.

Self test

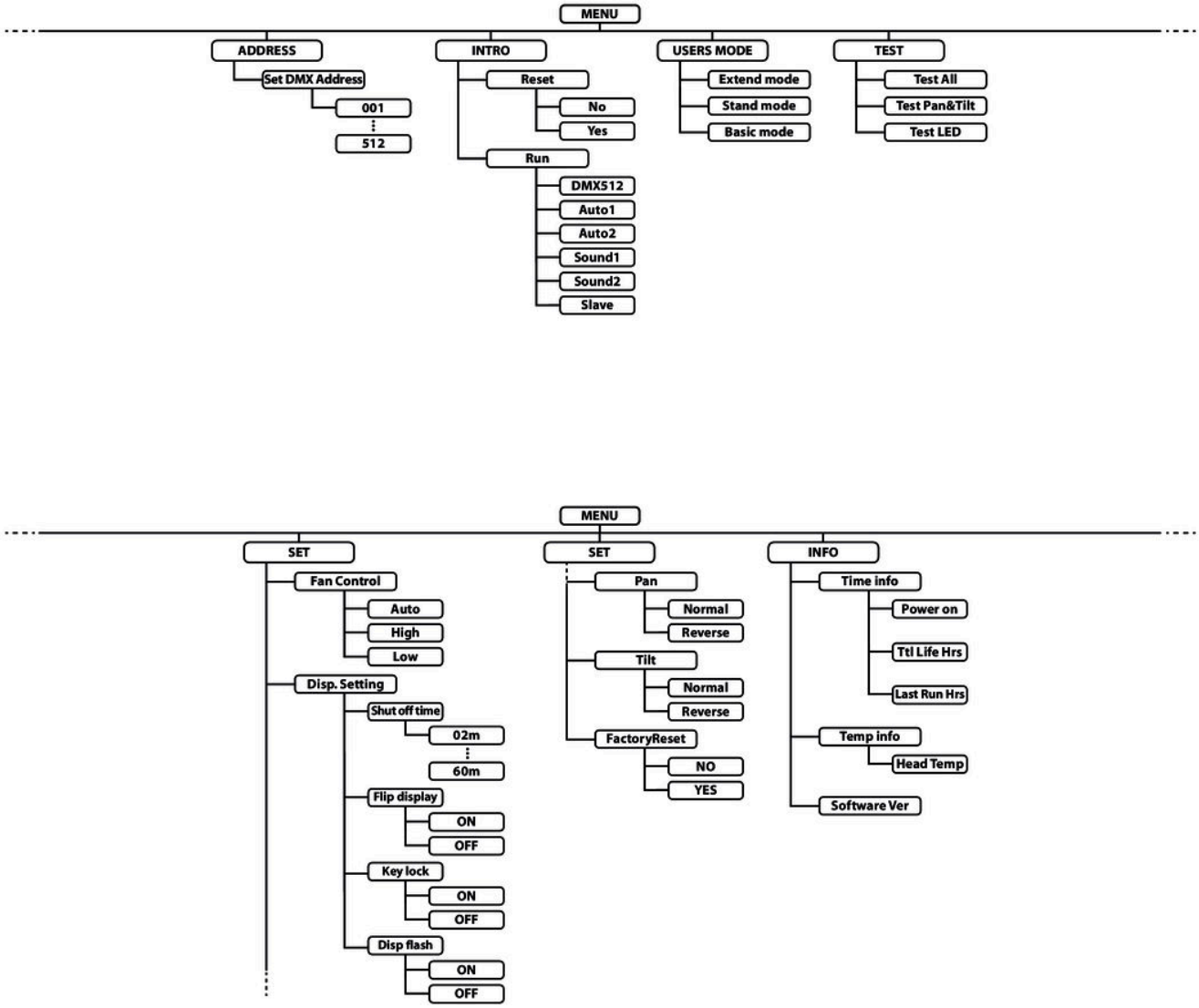
Press *[ENTER]*, then *[UP]* or *[DOWN]* until the display shows *'TEST'*. Press *[ENTER]*. With the buttons *[UP]* or *[DOWN]* you can select the test to be performed:

- *'Test All'*: Test of all functions
- *'Test Pan&Tilt'*: Tests rotation and inclination
- *'Test LED'*: Tests the LED and the ambient effects ring

Press *[ENTER]* to start the selected test.

To end the running test and return to the parent menu, press *[ENTER]*.

Overview



7.3 Functions in DMX mode (Bowl Beam 604Z Zoom LED MKII, (item # 414151)

7.3.1 Functions in DMX mode Basic (19 channels)

Channel	Value	Function
1	0…255	Rotation (pan) (0° to 540°)
2	0…255	Inclination (tilt) (0° to 270°)
3	0…225	Speed of rotation (pan) and inclination (tilt), fast to slow
	226…235	Blackout during pan and tilt movement

Channel	Value	Function
	236…255	Not assigned / no function
4	Endless pan movement	
	0…127	Not assigned / no function
	128…189	Rotation in positive direction, decreasing speed
	190…193	No rotation
	194…255	Rotation in negative direction, increasing speed
5	Endless tilt movement	
	0…127	Not assigned / no function
	128…189	Inclination in positive direction, decreasing speed
	190…193	No inclination
	194…255	Inclination in negative direction, increasing speed
6	0…255	Zoom (45°…5°)
7	0…255	Zoom speed, decreasing
8	0…255	Intensity red (0 % to 100 %)
9	0…255	Intensity green (0 % to 100 %)
10	0…255	Intensity blue (0 % to 100 %)
11	0…255	Intensity white (0 % to 100 %)
12	Strobe effect	
	0…31	No strobe effect, LED off
	32…63	No strobe effect, LED on
	64…95	Strobe effect, increasing speed
	96…127	No strobe effect, LED on
	128…159	Pulse effect in individual sequences
	160…191	No strobe effect, LED on
	192…223	Strobe effect, random speed
	224…255	No strobe effect, LED on
13	0…255	Dimmer (0 % to 100 %)
14	Stepless colour mixing	
	0…7	No function
	8…39	From red to yellow
	40…71	From yellow to green
	72…103	From green to cyan

Channel	Value	Function
	104…135	From cyan to blue
	136…167	From blue to magenta
	168…199	From magenta to red
	200…231	From red to white
	232…255	Automatic colour transition, increasing speed
15	Fixed colour	
	0…4	No function
	5…9	White (2700 K)
	10…14	White (3200 K)
	15…19	White (4200 K)
	20…24	White (5600 K)
	25…29	White (6500 K)
	30…34	White (8000 K)
	35…39	Yellow
	40…44	Magenta
	45…49	Cyan
	50…54	Salmon-coloured
	55…59	Turquoise
	60…64	Light green
	65…69	Dark blue
	70…74	Orange
	75…79	Light yellow
	80…84	Lavender
	85…89	Pink
	90…94	Red
	95…99	Green
	100…104	Blue
	105…109	White
	110…255	Not assigned / no function
16	0…255	Dimmer for fixed colour (0 % to 100 %)
17	Reset	
	0…79	Not assigned / no function

Channel	Value	Function
	80…84	Reset
	85…255	Not assigned / no function
18	Automatic programmes (ambient ring)	
	0…7	LEDs off (blackout)
	8…38	Automatic programme 1
	39…69	Automatic programme 2
	70…100	Automatic programme 3
	101…131	Automatic programme 4
	132…162	Automatic programme 5
	163…193	Automatic programme 6
	194…224	Automatic programme 7
	225…255	Automatic programme 8
19	0…255	Automatic programme speed from slow to fast

7.3.2 Functions in DMX mode Standard (21 channels)

Channel	Value	Function
1	0…255	Rotation (pan) (0° to 540°)
2	0…255	Fine adjustment for rotation (pan)
3	0…255	Inclination (tilt) (0° to 270°)
4	0…255	Fine adjustment for inclination (tilt)
5	0…225	Speed of rotation (pan) and inclination (tilt), fast to slow
	226…235	Blackout during pan and tilt movement
	236…255	Not assigned / no function
6	Endless pan movement	
	0…127	Not assigned / no function
	128…189	Rotation in positive direction, decreasing speed
	190…193	No rotation
	194…255	Rotation in negative direction, increasing speed
7	Endless tilt movement	
	0…127	Not assigned / no function
	128…189	Inclination in positive direction, decreasing speed

Channel	Value	Function
	190…193	No inclination
	194…255	Inclination in negative direction, increasing speed
8	0…255	Zoom (45°…5°)
9	0…255	Zoom speed, decreasing
10	0…255	Intensity red (0 % to 100 %)
11	0…255	Intensity green (0 % to 100 %)
12	0…255	Intensity blue (0 % to 100 %)
13	0…255	Intensity white (0 % to 100 %)
14	Strobe effect	
	0…31	No strobe effect, LED off
	32…63	No strobe effect, LED on
	64…95	Strobe effect, increasing speed
	96…127	No strobe effect, LED on
	128…159	Pulse effect in individual sequences
	160…191	No strobe effect, LED on
	192…223	Strobe effect, random speed
	224…255	No strobe effect, LED on
15	0…255	Dimmer (0 % to 100 %)
16	Stepless colour mixing	
	0…7	No function
	8…39	From red to yellow
	40…71	From yellow to green
	72…103	From green to cyan
	104…135	From cyan to blue
	136…167	From blue to magenta
	168…199	From magenta to red
	200…231	From red to white
	232…255	Automatic colour transition, increasing speed
17	Fixed colour	
	0…4	No function
	5…9	White (2700 K)
	10…14	White (3200 K)

Channel	Value	Function
	15…19	White (4200 K)
	20…24	White (5600 K)
	25…29	White (6500 K)
	30…34	White (8000 K)
	35…39	Yellow
	40…44	Magenta
	45…49	Cyan
	50…54	Salmon-coloured
	55…59	Turquoise
	60…64	Light green
	65…69	Dark blue
	70…74	Orange
	75…79	Light yellow
	80…84	Lavender
	85…89	Pink
	90…94	Red
	95…99	Green
	100…104	Blue
	105…109	White
	110…255	Not assigned / no function
18	0…255	Dimmer for fixed colour (0 % to 100 %)
19	Reset	
	0…79	Not assigned / no function
	80…84	Reset
	85…255	Not assigned / no function
20	Automatic programmes (ambient ring)	
	0…7	LEDs off (blackout)
	8…38	Automatic programme 1
	39…69	Automatic programme 2
	70…100	Automatic programme 3
	101…131	Automatic programme 4
	132…162	Automatic programme 5

Channel	Value	Function
	163…193	Automatic programme 6
	194…224	Automatic programme 7
	225…255	Automatic programme 8
21	0…255	Automatic programme speed from slow to fast

7.3.3 Functions in DMX mode Extended (35 channels)

Channel	Value	Function
1	0…255	Rotation (pan) (0° to 540°)
2	0…255	Fine adjustment for rotation (pan)
3	0…255	Inclination (tilt) (0° to 270°)
4	0…255	Fine adjustment for inclination (tilt)
5	0…225	Speed of rotation (pan) and inclination (tilt), fast to slow
	226…235	Blackout during pan and tilt movement
	236…255	Not assigned / no function
6	Endless pan movement	
	0…127	Not assigned / no function
	128…189	Rotation in positive direction, decreasing speed
	190…193	No rotation
	194…255	Rotation in negative direction, increasing speed
7	Endless tilt movement	
	0…127	Not assigned / no function
	128…189	Inclination in positive direction, decreasing speed
	190…193	No inclination
	194…255	Inclination in negative direction, increasing speed
8	0…255	Zoom (45°…5°)
9	0…255	Zoom speed, decreasing
10	0…255	Intensity red (0 % to 100 %)
11	0…255	Intensity green (0 % to 100 %)
12	0…255	Intensity blue (0 % to 100 %)
13	0…255	Intensity white (0 % to 100 %)
14	Strobe effect	

Channel	Value	Function
	0…31	No strobe effect, LED off
	32…63	No strobe effect, LED on
	64…95	Strobe effect, increasing speed
	96…127	No strobe effect, LED on
	128…159	Pulse effect in individual sequences
	160…191	No strobe effect, LED on
	192…223	Strobe effect, random speed
	224…255	No strobe effect, LED on
15	0…255	Dimmer (0 % to 100 %)
16	Stepless colour mixing	
	0…7	No function
	8…39	From red to yellow
	40…71	From yellow to green
	72…103	From green to cyan
	104…135	From cyan to blue
	136…167	From blue to magenta
	168…199	From magenta to red
	200…231	From red to white
	232…255	Automatic colour transition, increasing speed
17	Fixed colour	
	0…4	No function
	5…9	White (2700 K)
	10…14	White (3200 K)
	15…19	White (4200 K)
	20…24	White (5600 K)
	25…29	White (6500 K)
	30…34	White (8000 K)
	35…39	Yellow
	40…44	Magenta
	45…49	Cyan
	50…54	Salmon-coloured
	55…59	Turquoise

Channel	Value	Function
	60…64	Light green
	65…69	Dark blue
	70…74	Orange
	75…79	Light yellow
	80…84	Lavender
	85…89	Pink
	90…94	Red
	95…99	Green
	100…104	Blue
	105…109	White
	110…255	Not assigned / no function
18	0…255	Dimmer for fixed colour (0 % to 100 %)
19	Reset	
	0…79	Not assigned / no function
	80…84	Reset
	85…100	Not assigned / no function
20	0…255	Intensity red (0 % to 100 %), ambient effect segment 1
21	0…255	Intensity green (0 % to 100 %), ambient effect segment 1
22	0…255	Intensity blue (0 % to 100 %), ambient effect segment 1
23	0…255	Intensity red (0 % to 100 %), ambient effect segment 2
24	0…255	Intensity green (0 % to 100 %), ambient effect segment 2
25	0…255	Intensity blue (0 % to 100 %), ambient effect segment 2
26	0…255	Intensity red (0 % to 100 %), ambient effect segment 3
27	0…255	Intensity green (0 % to 100 %), ambient effect segment 3
28	0…255	Intensity blue (0 % to 100 %), ambient effect segment 3
29	0…255	Intensity red (0 % to 100 %), ambient effect segment 4
30	0…255	Intensity green (0 % to 100 %), ambient effect segment 4
31	0…255	Intensity blue (0 % to 100 %), ambient effect segment 4
32	Strobe effect of the ambient effect ring	
	0…31	No strobe effect, ambient effect ring off
	32…250	Strobe effect (20 Hz)
	251…255	No strobe effect, ambient effect ring on

Channel	Value	Function
33	0…255	Dimmer for ambient effect ring (0 % to 100 %)
34	Automatic programmes (ambient ring)	
	0…7	LEDs off (blackout)
	8…38	Automatic programme 1
	39…69	Automatic programme 2
	70…100	Automatic programme 3
	101…131	Automatic programme 4
	132…162	Automatic programme 5
	163…193	Automatic programme 6
	194…224	Automatic programme 7
	225…255	Automatic programme 8
35	0…255	Automatic programme speed from slow to fast

7.4 Functions in DMX mode (Bowl Beam 604 LED MKII RGBW, item # 434927)

7.4.1 Functions in DMX mode Basic (17 channels)

Channel	Value	Function
1	0…255	Rotation (pan) (0° to 540°)
2	0…255	Inclination (tilt) (0° to 270°)
3	0…225	Speed of rotation (pan) and inclination (tilt), fast to slow
	226…235	Blackout during pan and tilt movement
	236…255	Not assigned / no function
4	Endless pan movement	
	0…127	Not assigned / no function
	128…189	Rotation in positive direction, decreasing speed
	190…193	No rotation
	194…255	Rotation in negative direction, increasing speed
5	Endless tilt movement	
	0…127	Not assigned / no function
	128…189	Inclination in positive direction, decreasing speed
	190…193	No inclination

Channel	Value	Function
	194…255	Inclination in negative direction, increasing speed
6	0…255	Intensity red (0 % to 100 %)
7	0…255	Intensity green (0 % to 100 %)
8	0…255	Intensity blue (0 % to 100 %)
9	0…255	Intensity white (0 % to 100 %)
10	Strobe effect	
	0…31	No strobe effect, LED off
	32…63	No strobe effect, LED on
	64…95	Strobe effect, increasing speed
	96…127	No strobe effect, LED on
	128…159	Pulse effect in individual sequences
	160…191	No strobe effect, LED on
	192…223	Strobe effect, random speed
	224…255	No strobe effect, LED on
11	0…255	Dimmer (0 % to 100 %)
12	Stepless colour mixing	
	0…7	No function
	8…39	From red to yellow
	40…71	From yellow to green
	72…103	From green to cyan
	104…135	From cyan to blue
	136…167	From blue to magenta
	168…199	From magenta to red
	200…231	From red to white
	232…255	Automatic colour transition, increasing speed
13	Fixed colour	
	0…4	No function
	5…9	White (2700 K)
	10…14	White (3200 K)
	15…19	White (4200 K)
	20…24	White (5600 K)
	25…29	White (6500 K)

Channel	Value	Function
	30…34	White (8000 K)
	35…39	Yellow
	40…44	Magenta
	45…49	Cyan
	50…54	Salmon-coloured
	55…59	Turquoise
	60…64	Light green
	65…69	Dark blue
	70…74	Orange
	75…79	Light yellow
	80…84	Lavender
	85…89	Pink
	90…94	Red
	95…99	Green
	100…104	Blue
	105…109	White
	110…255	Not assigned / no function
14	0…255	Dimmer for fixed colour (0 % to 100 %)
15	Reset	
	0…79	Not assigned / no function
	80…84	Reset
	85…255	Not assigned / no function
16	Automatic programmes (ambient ring)	
	0…7	LEDs off (blackout)
	8…38	Automatic programme 1
	39…69	Automatic programme 2
	70…100	Automatic programme 3
	101…131	Automatic programme 4
	132…162	Automatic programme 5
	163…193	Automatic programme 6
	194…224	Automatic programme 7

Channel	Value	Function
	225…255	Automatic programme 8
17	0…255	Automatic programme speed from slow to fast

7.4.2 Functions in DMX mode Standard (19 channels)

Channel	Value	Function
1	0…255	Rotation (pan) (0° to 540°)
2	0…255	Fine adjustment for rotation (pan)
3	0…255	Inclination (tilt) (0° to 270°)
4	0…255	Fine adjustment for inclination (tilt)
5	0…225	Speed of rotation (pan) and inclination (tilt), fast to slow
	226…235	Blackout during pan and tilt movement
	236…255	Not assigned / no function
6	Endless pan movement	
	0…127	Not assigned / no function
	128…189	Rotation in positive direction, decreasing speed
	190…193	No rotation
	194…255	Rotation in negative direction, increasing speed
7	Endless tilt movement	
	0…127	Not assigned / no function
	128…189	Inclination in positive direction, decreasing speed
	190…193	No inclination
	194…255	Inclination in negative direction, increasing speed
8	0…255	Intensity red (0 % to 100 %)
9	0…255	Intensity green (0 % to 100 %)
10	0…255	Intensity blue (0 % to 100 %)
11	0…255	Intensity white (0 % to 100 %)
12	Strobe effect	
	0…31	No strobe effect, LED off
	32…63	No strobe effect, LED on
	64…95	Strobe effect, increasing speed
	96…127	No strobe effect, LED on

Channel	Value	Function
	128…159	Pulse effect in individual sequences
	160…191	No strobe effect, LED on
	192…223	Strobe effect, random speed
	224…255	No strobe effect, LED on
13	0…255	Dimmer (0 % to 100 %)
14	Stepless colour mixing	
	0…7	No function
	8…39	From red to yellow
	40…71	From yellow to green
	72…103	From green to cyan
	104…135	From cyan to blue
	136…167	From blue to magenta
	168…199	From magenta to red
	200…231	From red to white
	232…255	Automatic colour transition, increasing speed
15	Fixed colour	
	0…4	No function
	5…9	White (2700 K)
	10…14	White (3200 K)
	15…19	White (4200 K)
	20…24	White (5600 K)
	25…29	White (6500 K)
	30…34	White (8000 K)
	35…39	Yellow
	40…44	Magenta
	45…49	Cyan
	50…54	Salmon-coloured
	55…59	Turquoise
	60…64	Light green
	65…69	Dark blue
	70…74	Orange
	75…79	Light yellow

Channel	Value	Function
	80…84	Lavender
	85…89	Pink
	90…94	Red
	95…99	Green
	100…104	Blue
	105…109	White
	110…255	Not assigned / no function
16	0…255	Dimmer for fixed colour (0 % to 100 %)
17	Reset	
	0…79	Not assigned / no function
	80…84	Reset
	85…255	Not assigned / no function
18	Automatic programmes (ambient ring)	
	0…7	LEDs off (blackout)
	8…38	Automatic programme 1
	39…69	Automatic programme 2
	70…100	Automatic programme 3
	101…131	Automatic programme 4
	132…162	Automatic programme 5
	163…193	Automatic programme 6
	194…224	Automatic programme 7
	225…255	Automatic programme 8
19	0…255	Automatic programme speed from slow to fast

7.4.3 Functions in DMX mode Extended (33 channels)

Channel	Value	Function
1	0…255	Rotation (pan) (0° to 540°)
2	0…255	Fine adjustment for rotation (pan)
3	0…255	Inclination (tilt) (0° to 270°)
4	0…255	Fine adjustment for inclination (tilt)
5	0…225	Speed of rotation (pan) and inclination (tilt), fast to slow

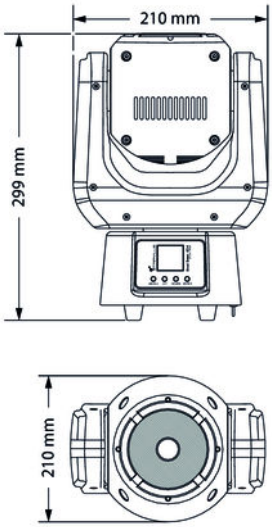
Channel	Value	Function
	226…235	Blackout during pan and tilt movement
	236…255	Not assigned / no function
6	Endless pan movement	
	0…127	Not assigned / no function
	128…189	Rotation in positive direction, decreasing speed
	190…193	No rotation
	194…255	Rotation in negative direction, increasing speed
7	Endless tilt movement	
	0…127	Not assigned / no function
	128…189	Inclination in positive direction, decreasing speed
	190…193	No inclination
	194…255	Inclination in negative direction, increasing speed
8	0…255	Intensity red (0 % to 100 %)
9	0…255	Intensity green (0 % to 100 %)
10	0…255	Intensity blue (0 % to 100 %)
11	0…255	Intensity white (0 % to 100 %)
12	Strobe effect	
	0…31	No strobe effect, LED off
	32…63	No strobe effect, LED on
	64…95	Strobe effect, increasing speed
	96…127	No strobe effect, LED on
	128…159	Pulse effect in individual sequences
	160…191	No strobe effect, LED on
	192…223	Strobe effect, random speed
	224…255	No strobe effect, LED on
13	0…255	Dimmer (0 % to 100 %)
14	Stepless colour mixing	
	0…7	No function
	8…39	From red to yellow
	40…71	From yellow to green
	72…103	From green to cyan
	104…135	From cyan to blue

Channel	Value	Function
	136…167	From blue to magenta
	168…199	From magenta to red
	200…231	From red to white
	232…255	Automatic colour transition, increasing speed
15	Fixed colour	
	0…4	No function
	5…9	White (2700 K)
	10…14	White (3200 K)
	15…19	White (4200 K)
	20…24	White (5600 K)
	25…29	White (6500 K)
	30…34	White (8000 K)
	35…39	Yellow
	40…44	Magenta
	45…49	Cyan
	50…54	Salmon-coloured
	55…59	Turquoise
	60…64	Light green
	65…69	Dark blue
	70…74	Orange
	75…79	Light yellow
	80…84	Lavender
	85…89	Pink
	90…94	Red
	95…99	Green
	100…104	Blue
	105…109	White
	110…255	Not assigned / no function
16	0…255	Dimmer for fixed colour (0 % to 100 %)
17	Reset	
	0…79	Not assigned / no function
	80…84	Reset

Channel	Value	Function
	85…100	Not assigned / no function
18	0…255	Intensity red (0 % to 100 %), ambient effect segment 1
19	0…255	Intensity green (0 % to 100 %), ambient effect segment 1
20	0…255	Intensity blue (0 % to 100 %), ambient effect segment 1
21	0…255	Intensity red (0 % to 100 %), ambient effect segment 2
22	0…255	Intensity green (0 % to 100 %), ambient effect segment 2
23	0…255	Intensity blue (0 % to 100 %), ambient effect segment 2
24	0…255	Intensity red (0 % to 100 %), ambient effect segment 3
25	0…255	Intensity green (0 % to 100 %), ambient effect segment 3
26	0…255	Intensity blue (0 % to 100 %), ambient effect segment 3
27	0…255	Intensity red (0 % to 100 %), ambient effect segment 4
28	0…255	Intensity green (0 % to 100 %), ambient effect segment 4
29	0…255	Intensity blue (0 % to 100 %), ambient effect segment 4
30	Strobe effect of the ambient effect ring	
	0…31	No strobe effect, ambient effect ring off
	32…250	Strobe effect (20 Hz)
	251…255	No strobe effect, ambient effect ring on
31	0…255	Dimmer for ambient effect ring (0 % to 100 %)
32	Automatic programmes (ambient ring)	
	0…7	LEDs off (blackout)
	8…38	Automatic programme 1
	39…69	Automatic programme 2
	70…100	Automatic programme 3
	101…131	Automatic programme 4
	132…162	Automatic programme 5
	163…193	Automatic programme 6
	194…224	Automatic programme 7
	225…255	Automatic programme 8
33	0…255	Automatic programme speed from slow to fast

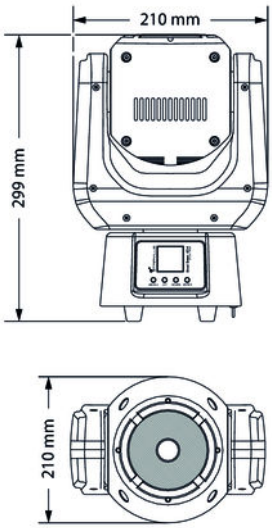
8 Technical specifications

Bowl Beam 604Z Zoom LED MKII (item # 414151)



Number of DMX channels	19, 21 or 35 channels, depending on operating mode
Illuminant	60 W COB RGBW-LED, ambient effect ring with eight 0.5 W RGB LEDs
Beam angle	4°…30°
Maximum rotation angle (pan)	540° or endless
Maximum inclination angle (tilt)	270° or endless
Dimmer	electronic, 0 … 100 %
Operating supply voltage	100 – 240 V ~ 50/60 Hz
Power consumption	120 W
Protection class	IP20
Fuse	5 × 20 mm, 2 A, 250 V, slow-blow
Dimensions (W × H × D)	210 mm × 210 mm × 299 mm
Weight	5.1 kg

Bowl Beam 604 LED MKII RGBW (item # 434927)



Number of DMX channels	17, 19 or 33 channels, depending on operating mode
Illuminant	60 W COB RGBW-LED, ambient effect ring with eight 0.5 W RGB LEDs
Beam angle	5°
Maximum rotation angle (pan)	540° or endless
Maximum inclination angle (tilt)	270° or endless
Dimmer	electronic, 0 … 100 %
Operating supply voltage	100 – 240 V ~ 50/60 Hz
Power consumption	120 W
Protection class	IP20
Fuse	5 × 20 mm, 2 A, 250 V, slow-blow
Dimensions (W × H × D)	210 mm × 210 mm × 299 mm
Weight	5.1 kg

Environmental conditions

Temperature range	0 °C…40 °C
Relative humidity	50 %, non-condensing

9 Plug and connection assignments

Introduction

This chapter will help you select the right cables and plugs to connect your valuable equipment so that a perfect light experience is guaranteed.

Please take our tips, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into a socket, the result of an incorrect connection may be a destroyed DMX controller, a short circuit or 'just' a not working light show!

DMX connections

The unit offers a 3-pin XLR socket for DMX output and a 3-pin XLR plug for DMX input. Please refer to the drawing and table below for the pin assignment of a suitable XLR plug.

Pin	Configuration
1	Ground, shielding
2	Signal inverted (DMX–, 'cold signal')
3	Signal (DMX+, 'hot signal')

10 Troubleshooting

NOTICE!

Possible data transmission errors

For error-free operation make use of dedicated DMX cables and do not use ordinary microphone cables.

Never connect the DMX input or output to audio devices such as mixers or amplifiers.

In the following we list a few common problems that may occur during operation. We give you some suggestions for easy troubleshooting:

Symptom	Remedy
The unit does not work, no light, the fan does not run	Check the mains connection and the main fuse.
No response to the DMX controller	1. In the top line of the display the status of the data transmission is indicated by a coloured dot behind the word *'Dmx'*. A green dot indicates that data is being received. A red dot indicates a missing or disturbed connection.
	2. If a green dot appears in the display but there is still no response, check the address settings and the DMX polarity.
	3. Try using another DMX controller.
	4. Check whether the DMX cables run near or parallel to high-voltage cables that may cause damage or interference to a DMX interface circuit.

If the procedures recommended above do not succeed, please contact our Service Center. You can find the contact information at *www.thomann.de*.

11 Cleaning

Optical lenses

Clean the optical lenses, that are accessible from the outside, regularly in order to optimize the light output. The frequency of cleaning depends on the operating environment: wet, smoky or particularly dirty surroundings can cause more accumulation of dirt on the optics of the device.

- Clean with a soft cloth using our lamp and lens cleaner (item no. 280122).
- Always dry the parts carefully.

Fan grids

The fan grids of the device must be cleaned on a regular basis to remove dust and dirt. Before cleaning, switch off the device and disconnect AC-powered devices from the mains. Use a lint-free damp cloth for cleaning. Never use solvents or alcohol for cleaning.

12 Protecting the environment

Disposal of the packaging material

For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling.

Ensure that plastic bags, packaging, etc. are properly disposed of.

Do not just dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the notes and markings on the packaging.

Disposal of your old device

This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE) in its currently valid version. Do not dispose with your normal household waste.

Dispose of this device through an approved waste disposal firm or through your local waste facility. When discarding the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.

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