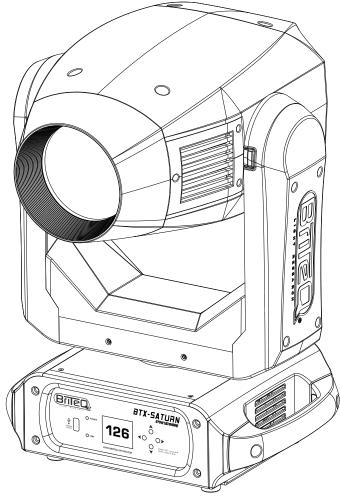
BTX-SATURN 270W LED ENGINE



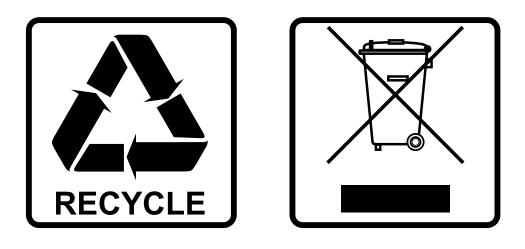
ENGLISH Operation Manual

Other languages can be downloaded from: WWW.BRITEQ-LIGHTING.COM





Version: 1.3 (firmware >V1.3)



EN - DISPOSAL OF THE DEVICE

Dispose of the unit and used batteries in an environment friendly manner according to your country regulations.

FR - DÉCLASSER L'APPAREIL

Débarrassez-vous de l'appareil et des piles usagées de manière écologique Conformément aux dispositions légales de votre pays.

NL - VERWIJDEREN VAN HET APPARAAT

Verwijder het toestel en de gebruikte batterijen op een milieuvriendelijke manier conform de in uw land geldende voorschriften.

DU - ENTSORGUNG DES GERÄTS

Entsorgen Sie das Gerät und die Batterien auf umweltfreundliche Art und Weise gemäß den Vorschriften Ihres Landes.

ES - DESHACERSE DEL APARATO

Reciclar el aparato y pilas usadas de forma ecologica conforme a las disposiciones legales de su pais.

PT - COMO DESFAZER-SE DA UNIDADE

Tente reciclar a unidade e as pilhas usadas respeitando o ambiente e em conformidade com as normas vigentes no seu país.

OPERATION MANUAL

Thank you for buying this Briteq[®] product. To take full advantage of all possibilities and for your own safety, please read these operating instructions very carefully before you start using this unit.

FEATURES

- High efficiency moving head projector based on a powerful 270W LED engine!
- Wide range electronic zoom, from 8° to 45° + motorized focus.
- Silence mode for theater applications.
- Fast 540° pan and 270° tilt movements.
- 16bit resolution pan/tilt resolution with position correction and pan/tilt speed channel.
- CMY color mixing to create lots of saturated and pastel colors.
- 9 extra fixed colors including 2 CTO, one CTB and UV.
- 7 replaceable rotating gobos with fine indexing.
- 9 fixed static gobos for gobo morphing.
- Rotating 3 facets prism.
- Iris module for dynamic effect.
- Variable frost filter for perfect wash effect.
- Aperture diaphragm for excellent logo projection.
- Opening/closing pulse, ramp and random effects on zoom, iris and frost channels.
- Four dimmer curves: linear, square, inverse square, S-curve, fast and slow dimming mode.
- Accurate strobe with built in random, pulse and burst effects.
- 3 focus compensate distances to always keep the focus according to the zoom opening.
- Uses 25 or 27 DMX channels + RDM-functionality for easy remote setup.
- Easy USB firmware update to keep the moving head up-to-date at all times.
- The matrix LCD-display assures easy navigation in the different setup menus
- 3 & 5pin DMX in/outputs + Neutrik PowerCON TRUE1 in/outputs for easy daisy chaining.
- Equipped with omega brackets for fast installation.

BEFORE USE

- Before you start using this unit, please check if there's no transportation damage. Should there be any, do not use the device and consult your dealer first.
- **Important:** This device left our factory in perfect condition and well packaged. It is absolutely necessary for the user to strictly follow the safety instructions and warnings in this user manual. Any damage caused by mishandling is not subject to warranty. The dealer will not accept responsibility for any resulting defects or problems caused by disregarding this user manual.
- Keep this booklet in a safe place for future consultation. If you sell the fixture, be sure to add this user manual.

Check the contents:

Check that the carton contains the following items:

- English operating instructions, other languages can be downloaded from our website.
- BTX-SATURN
- 2 Omega brackets
- PowerCON TRUE1[®] mains cable

Safety instructions:

CAUTION

RISK OF ELECTRIC SHOCK

DO NOT OPEN



CAUTION: To reduce the risk of electric shock, do not remove the top cover. No user-serviceable parts inside. Refer servicing to qualified service personnel only.

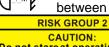
The lightning flash with arrowhead symbol within the equilateral triangle is intended to alert the use or the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

The exclamation point within the equilateral triangle is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying this appliance.

This symbol means: indoor use only

This symbol means: Read instructions

This symbol determines: the minimum distance from lighted objects. The minimum distance between light-output and the illuminated surface must be more than 1 meters



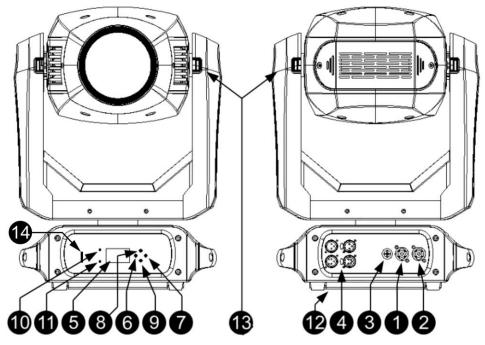
CAUTION: Do not stare at operating lamp. May be harmful to the eyes.

Do not stare at operating lamp

- To protect the environment, please try to recycle the packing material as much as possible.
- To prevent fire or shock hazard, do not expose this appliance to rain or moisture.
- To avoid condensation to be formed inside, allow the unit to adapt to the surrounding temperatures when bringing it into a warm room after transport. Condense sometimes prevents the unit from working at full performance or may even cause damages.
- This unit is for indoor use only.
- Don't place metal objects or spill liquid inside the unit. Electric shock or malfunction may result. If a foreign object enters the unit, immediately disconnect the mains power.
- Locate the fixture in a well ventilated spot, away from any flammable materials and/or liquids. The fixture must be fixed at least 50cm from surrounding walls.
- Don't cover any ventilation openings as this may result in overheating.
- Prevent use in dusty environments and clean the unit regularly.
- Keep the unit away from children.
- Inexperienced persons should not operate this device.
- Maximum safe ambient temperature is 40°C. Don't use this unit at higher ambient temperatures.
- Make sure the area below the installation place is free from unwanted persons during rigging, de-rigging and servicing.
- Allow the device about 10 minutes to cool down before to start servicing.
- Always unplug the unit when it is not used for a longer time or before to start servicing.
- The electrical installation should be carried out by qualified personal only, according to the regulations for electrical and mechanical safety in your country.
- Check that the available voltage is not higher than the one stated on the unit.
- The power cord should always be in perfect condition. Switch the unit immediately off when the power cord is squashed or damaged. It must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Never let the power-cord come into contact with other cables!
- This fixture must be earthed in order to comply with safety regulations.
- Don't connect the unit to any dimmer pack.
- Always use an appropriate and certified safety cable when installing the unit.
- In order to prevent electric shock, do not open the cover. Apart from the mains fuse there are no user serviceable parts inside.
- Never repair a fuse or bypass the fuse holder. Always replace a damaged fuse with a fuse of the same type and electrical specifications!
- In the event of serious operating problems, stop using the fixture and contact your dealer immediately.
- The housing and the lenses must be replaced if they are visibly damaged.
- Please use the original packing when the device is to be transported.
- Due to safety reasons it is prohibited to make unauthorized modifications to the unit.

Important: Never look directly into the light source! Don't use the effect in the presence of persons suffering from epilepsy.

DESCRIPTION:



- 1. MAINS INPUT: equipped with original Neutrik PowerCON TRUE1[®]. Connect the supplied mains cable or any PowerCON TRUE1[®] extension cable here.
- 2. MAINS OUTPUT: used to daisy chain the power to several other projectors. Always pay attention to the maximum load while adding projectors! Special Multi cables (PowerCON TRUE1[®] + DMX XLR-cables are optionally available: see our website!)
- 3. MAINS FUSE: protects the unit in case of electrical problems, always use the prescribed fuse!
- 4. DMX IN/OUT: both 3pin and 5pin in/outputs are available to daisy chain the projector with other units that will be controlled by a DMX-controller.
- 5. DISPLAY: shows the various menus and the selected functions.
- 6. **-button:** used to enter and exit the setup menu or to jump to a higher level in the setup menu (if the display is inverted, this buttons acts as a ENTER button).
- 7. ►-button: used to select a menu option or confirm a setting (if the display is inverted, this buttons acts as a MENU button).
- 8. ▲-button: used to go to the previous menu option or to increase a parameter value.
- 9. **V**-button: used to go to the next menu option or to decrease a parameter value.
- 10. POWER LED: shows that the unit is powered.
- 11. DMX LED: shows that unit receives DMX signal.
- **12. MOUNTING BASE:** the strong metal base is designed to be used with 2pcs "OMEGA BRACKET BIG" (included) and an optional safety cable (use the safety eye).
- 13. TILT LOCK : locks and releases the tilt axis every 45°.
- 14. USB-input: only used for software updates, see further in this user manual.

!!! IMPORTANT: the arm must be unlocked before operation !!!

OVERHEAD RIGGING

<u>Important:</u> The installation must be carried out by qualified service personal only. Improper installation can result in serious injuries and/or damage to property. Overhead rigging requires extensive experience! Working load limits should be respected, certified installation materials should be used, the installed device should be inspected regularly for safety.

- 1. Make sure the area below the installation place is free from unwanted persons during rigging, de-rigging and servicing.
- 2. Locate the fixture in a well ventilated spot, far away from any flammable materials and/or liquids. The fixture must be fixed at least 50cm from surrounding walls.
- **3.** The device should be installed out of reach of people and outside areas where persons may walk by or be seated.
- **4.** Before rigging make sure that the installation area can hold a minimum point load of 10 times the device's weight.
- **5.** Always use a certified safety cable that can hold 12times the weight of the device when installing the unit. This secondary safety attachment should be installed in a way that no part of the installation can drop more than 20cm if the main attachment fails.
- 6. The device should be well fixed; a free-swinging mounting is dangerous and may not be considered!
- **7.** Don't cover any ventilation openings as this may result in overheating.
- 8. The operator has to make sure that the safety-relating and machinetechnical installations are approved by an expert before using them for the first time. The installations should be inspected every year by a skilled person to be sure that safety is still optimal.

SETUP MENU / HOW TO SETUP

With the setup menu you can fully configure the projector. All settings are preserved when the unit is disconnected from the mains.

General instructions for setup.

The SETUP-menu has three logically structured levels, see the menu structure.

- Press the < button to enter the SETUP-menu.
- Press the ▲/▼ buttons to browse the different functions of the setup menu until the required function is shown on the display.
- Press the ► button to access the function and change its parameters.
- Use ▲/▼ buttons to change the value.
- Press the ► button again confirm.
- To jump to a higher menu level: press the ◀ button.
- To exit the SETUP-menu: press the MENU button several times until the standard display is shown.

Remark: to make things easier you will always enter the SETUP-menu at the last used location.

DMX FUNCTION

Used to configure the DMX parameters of the projector.

DMX Address

Used to set the desired DMX-address. (on RDM-compatible controllers this option can be set remotely)

- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed
- Use ▲/▼ buttons to select the desired DMX512 address.
- Once the correct address shows on the display, press the ► button to confirm.

DMX Channel Mode

Used to set the desired channel mode. (on RDM-compatible controllers this option can be set remotely)

- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed
- Use ▲/▼ buttons to select the desired mode:

- 25Ch : full control with 16bit pan and tilt, dimmer, focus and gobo indexing.
- 27Ch : full control with 16bit pan/tilt, 16bit zoom, 16bit iris, dimmer, focus and gobo indexing.
- Once the correct option shows on the display, press the ► button to confirm.

NO DMX Mode

Used to set how the projector reacts when the DMX-signal disappears.

- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed
- Use ▲/▼ buttons to select the desired mode:
 - **BLACKOUT:** output turns black while no DMX is detected.
 - FREEZE: output based on the last valid DMX-signal is kept on the projector.
- Once the correct option shows on the display, press the ► button to confirm.

Note: as soon as the input detects a DMX-signal, blackout or freeze mode will be cancelled. When no DMX signal is detected, the display start blinking and the DMX LED is off.

LEVEL 1	LEVEL 2	LEVEL 3
	DMX Address	001 - XXX
	DMX Channel	25 CH
DMX FUNCTION	Mode	27 CH
		Blackout
	NO DMX Mode	FREEZE
	Pan Inverse	Yes/No
	Tilt Inverse	Yes/No
	P/T Feedback	Yes/No
	BL.O. P/T Move	Yes/No
	BL.O. Color Move	Yes/No
	BL.O. Gobo Move	Yes/No
		Linear
		Square Law
FIXTURE	Dimmer Curve	Inv SQ Law
SETTINGS		S Curve
		Fast
	Dimmer Mode	Slow
	Silent Mode	Yes/No
		Disable
		Near
	Focus Compensate	Medium
		Far
	Display Inverse	Yes/No
	Backlight Switch	Yes/No
DISPLAY	Backlight Intensity	1 - 10
SETTINGS		°C
	Temperature Unit	°F
	Auto Test	
FIXTURE TEST	Manual Test	List of all the DMX channels
	Fixture Use Time	ххх
	Temperature	Led / processor A, B, C, D, E
FIXTURE	-	Select the firmware
INFORMATION	USB Upgrading File	on your USB key
	Firmware Version	Processor A, B, C, D, E
	Pan & Tilt	Yes/No
RESET FUNCTION	Effect	Yes/No
	All	Yes/No
SPECIAL FUNCTION	Factory Settings	Yes/No

FIXTURE SETTINGS

Used to configure different parameters of the projector.

Pan Inverse

Used to select if the Pan movements are inverted or not.

- Press the \blacktriangle/∇ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.
- Use ▲/▼ buttons to toggle between Yes and No.
- Press the ► button to confirm.

Tilt Inverse

Used to select if the Tilt movements are inverted or not.

- Press the \blacktriangle/∇ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.
- Use ▲/▼ buttons to toggle between Yes and No.
- Press the ► button to confirm.

P/T feedback

This function corrects the PAN/TILT positions automatically if someone bumps into the machine.

- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.
- Use ▲/▼ buttons to toggle between Yes and No.
- Press the ► button to confirm.

BL.O P/T Move

Used to turn off the LED while Pan/tilt movements.

- Press the \blacktriangle/∇ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.
- Use ▲/▼ buttons to toggle between Yes and No.
- Press the ► button to confirm.

BL.O. Color Move

Used to turn off the LED while changing the position of the fixed color wheel.

- Press the \blacktriangle/∇ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.
- Use ▲/▼ buttons to toggle between Yes and No.
- Press the ► button to confirm.

BL.O. Gobo Move

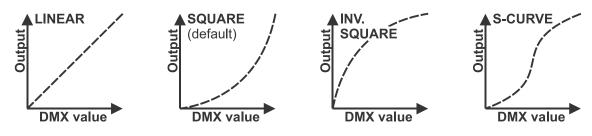
Used to turn off the LED while changing the position of the gobo wheels.

- Press the \blacktriangle/∇ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.
- Use ▲/▼ buttons to toggle between Yes and No.
- Press the ► button to confirm.

Dimmer Curve

Used to set the dimmer curve of the master dimmer.

- Press the \blacktriangle/∇ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.



• Once you have the desired curve, press the ► button to save it.

Silent Mode

Used to turn on the silent mode. When this mode is enabled, the light output is reduced to 80% of the maximum intensity.

- Press the \blacktriangle/∇ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.
- Use ▲/▼ buttons to toggle between Yes and No.
- Press the ► button to confirm.

Focus Compensate

Used to adjust the focus according to the zoom setting.

- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed between Disable, Near, Medium and Far to adjust the focusing distance or to disable this feature.
- Use ▲/▼ buttons to select the desired option
- Once you have the desired option selected, press the ► button to save it.

Display Settings

This level contains all display related settings.

Display Inverse

Used to turn the display over 180°: Yes = display is upside-down.

- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.
- Use ▲/▼ buttons to toggle between Yes and No.
- Press the ▶ button to confirm. **Note:** to quickly invert the display, hold down and at the same time the ▲ and ▼ buttons. When the display is inverted, the function of each button is inverted as well to allow easy navigation in the menus.

Backlight Switch

Used to adjust if the display stays lit after the last time it was used. No = display is always lit.

- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.
- Use ▲/▼ buttons to toggle between Yes and No.
- Press the ► button to confirm.

Backlight Intensity

Used to adjust the display's intensity between 1 (low intensity) and 10 (high intensity).

- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.
- Use ▲/▼ buttons to set the backlight's intensity.
- Press the ► button to confirm.

Temperature Unit

Used to select if the LED-temperature is shown in degrees Celcius °C or Fahrenheit °F.

- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed
- Use ▲/▼ buttons to to toggle between °C and °F.
- Press the ► button to confirm.

FIXTURE TEST

This level controls all the testing functions.

Auto Test

Used to start the automatic test function: all functions will be tested.

- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the automatic test sequence will begin. When the sequence is over, the display comes back to the FIXTURE TEST menu.

Manual Test

Used to test a particular function of the moving head. When entering in this menu, the pan and tilt will be set in the center position, the intensity will be maximum and the shutter will be open.

- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the display shows all features of the moving head that can be tested.
- Use ▲/▼ buttons to navigate to the feature to be tested.
- Press the ► button to select the required feature.
- Use ▲/▼ buttons to set the parameter between 0 and 255.

• Press the ► button to store the value and come back to the features of the moving head.

Note: exit this menu and the moving head will listen again to its DMX signal or go back to the default position if no DMX signal.

FIXTURE INFORMATION

This level shows all the information relative to the moving head.

Fixture Use Time

Shows how long the projector has been used (in hours).

Temperature

Used to monitor the temperature of the moving head.

- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the display shows the LED and processors temperatures.

USB Upgrade File

Used to upgrade the moving head with a USB key.

- First plug a USB key with the firmware V0.0 (initial firmware) AND the latest firmware V0.xx. The files MUST be located at the root of the USB key.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the display shows the 2 firmware versions present on the USB key.
- Use the ▲/▼ buttons to select the firmware V0.0.
- Press the ► button and select Yes to downgrade the moving head to its initial version. The display shows the progression of the installation. Once the downgrade process is finished the moving head resets.
- Use the ▲/▼ buttons to select the new firmware V0.xx.
- Press the ► button and select Yes to upgrade the moving head to the latest version. The display shows the progression of the installation. Once the upgrade process is finished, the moving head resets and is up to date.

Firmware Version

Used to monitor the temperature of the moving head.

- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the display shows the version of each processor.

RESET FUNCTION

Used to reset certain functions of the projector. When the reset is done the display shows the RESET FUNCTION menu again.

Pan & Tilt

Used to reset pan and tilt only.

- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: select Yes to reset the pan & tilt.
- Press the ► button to confirm.

Effect

Used to reset color and beam functions only.

- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: select Yes to reset the effect section.
- Press the ► button to confirm.

<u>All</u>

Used to reset the entire moving head.

- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: select Yes to reset the moving head.
- Press the ► button to confirm.
 Note: to quickly reset the entire moving head, press at the same time the
 ▲ ► buttons for 3 seconds.

SPECIAL FUNCTION

Used to set special functions.

Factory Settings

This is your emergency exit if you really messed up the settings: just return to the Factory Settings.

- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: select Yes to restore factory settings
- Press the ► button to confirm.

Set of Factory default settings:

PARAMETER name	FACTORY defaults
DMX address	001
DMX Channel Mode	25Ch
DMX State	Blackout
Pan Inverse	No
Tilt Inverse	No
P/T Feedback	Yes
BL.O. P/T Moving	No
BL.O. Color Moving	No
BL.O. Color Moving	No
Dimmer Curve	Square Law
Dimmer Mode	Fast
Silent Mode	No
Focus Compensate	Disable
Display Inverse	No
Backlight Switch	Yes
Backlight Intensity	10
Temperature Unit	C

CALIBRATION MENU

This is a hidden menu where you can fine-tune the offset of several functions. To access this menu do as follows: press the \blacktriangleright button for about 3 seconds while you are in the main menu (any option, not important). Now the display shows all the features that can be adjusted:

- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the **>** button to select the feature to be calibrated.
- Use ▲/▼ buttons to adjust the value between -128 and 127.
- Press the button to confirm the changes.
- Press the *d* button to exit the hidden menu.

90~120 ohm

resistor

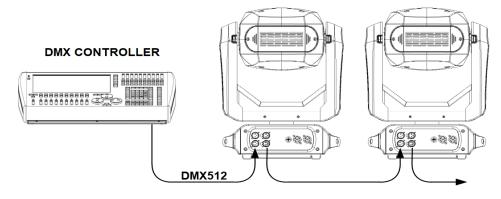
ELECTRICAL INSTALLATION



Important: The electrical installation should be carried out by qualified personal only, according to the regulations for electrical and mechanical safety in your country.

Electrical installation for two or more units in DMX-mode:

- The DMX-protocol is a widely used high speed signal to control intelligent light equipment. You need to "daisy chain" your DMX controller and all the connected units.
- Pin layout XLR-3pin: Pin1 = GND ~ Pin2 = Negative signal (-) ~ Pin3 = Positive signal (+)
- To prevent strange behavior of the light effects, due to interferences, you must use a 90Ω to 120Ω terminator at the end of the chain. Never use Y-splitter cables, this simply won't work!
- Make sure that all units are connected to the mains.
- Each unit in the chain needs to have its proper starting address so it knows which commands from the controller it has to decode.



RDM FUNCTIONS / REMOTE SETUP

RDM means "Remote Device Management". This projector works with a brief set of RDM-functions which means that it can setup a bi-directional communication with an RDM-compatible DMX-controller. Some of these functions are briefly explained below, others will be added in the future.

- The DMX-controller sends out a "discovery command", all RDM devices respond and send their unique device ID.
- The DMX-controller asks each RDM device for some basic data so it knows which devices are connected. The projector will respond:
 - Device name: **BTX-SATURN** • Briteg®
 - Manufacturer: •
 - Category: •
 - Firmware: x.x.x.x (firmware version of the projector)
 - DMX address: xxx (current DMX start address of the projector)

Moving Yoke

- **DMX footprint:** xx (number of DMX-channels used by the projector) .
- Mode: xx (current personality or DMX-working mode used by the projectors)
- The DMX-controller can send certain commands to each RDM device which allow remote setup of the units. Thanks to this the projector can be setup remotely.

The following functions can be managed remotely:

No more need to take a ladder and set all units one by one!

- DMX START ADDRESS: The start address can be set remotely from 001 to xxx.
- **PERSONALITY:** The DMX working mode (DMX-chart) can be set remotely.

These 2 functions make it possible to prepare a complete DMX-patch of all projectors on the DMXcontroller and send these data to all projectors at once. More functions will be added later.

OPERATING INSTRUCTIONS

- Connect all units together. Refer to the chapter "Electrical installation for two or more units in DMX-mode" to learn how to do this (don't forget to address all units properly!)
- Connect all units to the mains and turn on the DMX controller.
- Since each unit has its own DMX-address, you can control them individually. Remember that each unit can use a different number DMX-channels, depending on the DMX-mode you have selected in the menu. See the different DMX charts:

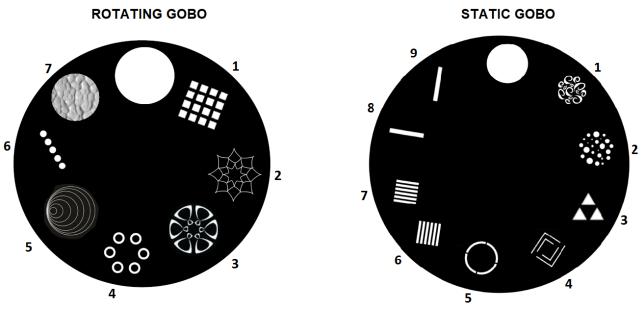
DMX Chart for the 25Ch + 27ch DMX-Mode

25 CH	27 CH	VALUE	FUNCTION
1	1	000-255	Pan
2	2	000-255	Pan Fine
3	3	000-255	Tilt
4	4	000-255	Tilt Fine
5	5	000-255	Pan / Tilt Speed (000 = fast ~ 255 = slow)
			Special Functions
		000-019	Null
		020-029	BlackOut Pan/Tilt Move Enable
		030-039	BlackOut Pan/Tilt Move Disable
		040-049	BlackOut Color Move Enable
		050-059	BlackOut Color Move Disable
		060-069	BlackOut Gobo Move Enable
		070-079	BlackOut Gobo Move Disable
		080-089	Linear dimmer curve
		090-099	Square law dimmer curve
		100-109	Inverse Square law dimmer curve
		110-119	S dimmer curve
6	6	120-129	Fast dimmer mode
		130-139	Slow dimmer mode
		140-149	Silent Mode Enable
		150-159	Silent Mode Disable
		160-169	Focus Compensate Disable
		170-179	Focus Compensate Near
		180-189	Focus Compensate Medium
		190-199	Focus Compensate Far
		200-219	Null
		220-229	Reset All
		230-239	Reset Effect
		240-249	Reset Pan/Tilt
		250-255	Null
			Color Wheel
		000-006	Open
		007-012	Red
		013-018	Aqua Marine
		019-025	Orange
		026-031	Green
		032-037	CTB 8000K
7	7	038-044	CTO 5600K
		045-050	CTO 3200K
		051-056	Lime Green
		057-063	UV
		064-127	Color Index
		128-190	Clockwise color wheel rotation (fast \rightarrow slow)
		191-192	Stop
		193-255	Counter-clockwise color wheel rotation (slow \rightarrow fast)
8	8	000-255	Cyan
9	9	000-255	Magenta
10	10	000-255	Yellow

r		
	000.000	Color Macro
	000-009	CMY color mixing using channels 8 to 10
	010-014	LEE 790 - Moroccan pink
	015-019	LEE 157 - Pink
	020-024	LEE 332 - Special rose pink
		LEE 328 - Follies pink
	030-034	LEE 345 - Fuchsia pink
		LEE 181 - Congo Blue
		LEE 071 - Tokyo Blue
		LEE 120 - Deep Blue
		LEE 079 - Just Blue
		LEE 132 - Medium Blue
		LEE 200 - Double CT Blue
		LEE 161 - Slate Blue
		LEE 201 - Full CT Blue
		LEE 202 - Half CT Blue
		LEE 117 - Steel Blue
		LEE 353 - Lighter Blue
		LEE 118 - Light Blue
11 11		LEE 116 - Medium Blue Green
	105-109	LEE 124 - Dark Green
		LEE 139 - Primary Green
		LEE 089 - Moss Green
		LEE 122 - Fern Green
		LEE 738 - JAS Green
		LEE 088 - Lime Green
		LEE 100 - Spring Yellow
		LEE 104 - Deep Amber
	145-149	LEE 179 - Chrome Orange
		LEE 105 - Orange
		LEE 021 - Gold Amber
	160-164	LEE 778 - Millennium Gold
	170-174	LEE 164 - Flame Red
	175-179	Open
	180-201	Clockwise color macro rotation (fast \rightarrow slow)
	202-207	Stop (this will stop wherever the color is at the time)
	208-229	Counter-clockwise color macro rotation (slow \rightarrow fast)
	230-234	Open
	235-249	Random color macro (fast \rightarrow slow)
	250-255	Open
		Gobo wheel 1 – select (rotating gobos)
	000-007	Open
	008-015	Gobo 1
	016-023	Gobo 2
	024-031	Gobo 3
	032-039	Gobo 4
	040-047	Gobo 5
	048-055	Gobo 6
	056-063	Gobo 7
12 12		Gobo 1 Shaking (slow \rightarrow fast)
	073-081	Gobo 2 Shaking (slow \rightarrow fast)
· ·	082-090	Gobo 3 Shaking (slow \rightarrow fast)
	091-099	Gobo 4 Shaking (slow \rightarrow fast)
	091-099 100-108	Gobo 4 Shaking (slow \rightarrow fast) Gobo 5 Shaking (slow \rightarrow fast)
	091-099 100-108 109-117	Gobo 4 Shaking (slow \rightarrow fast)Gobo 5 Shaking (slow \rightarrow fast)Gobo 6 Shaking (slow \rightarrow fast)
	091-099 100-108 109-117 118-127	Gobo 4 Shaking (slow \rightarrow fast)Gobo 5 Shaking (slow \rightarrow fast)Gobo 6 Shaking (slow \rightarrow fast)Gobo 7 Shaking (slow \rightarrow fast)
	091-099 100-108 109-117 118-127 128-190	Gobo 4 Shaking (slow \rightarrow fast)Gobo 5 Shaking (slow \rightarrow fast)Gobo 6 Shaking (slow \rightarrow fast)Gobo 7 Shaking (slow \rightarrow fast)Clockwise gobo wheel rotation (fast \rightarrow slow)
	091-099 100-108 109-117 118-127	Gobo 4 Shaking (slow \rightarrow fast)Gobo 5 Shaking (slow \rightarrow fast)Gobo 6 Shaking (slow \rightarrow fast)Gobo 7 Shaking (slow \rightarrow fast)

r			
		000 107	Gobo wheel 1 - rotation
		000-127	Indexed positioning : 0 - 360
13	13	128-190	Clockwise gobo rotation (fast \rightarrow slow)
		191-192	Stop rotation
		193-255	Counter-clockwise gobo rotation (slow \rightarrow fast)
14	14	000-255	Gobo wheel 1 – rotation fine
			Gobo wheel 2 – select (static gobos)
		000-006	Open
		007-012	Gobo 1
		013-018	Gobo 2
		019-025	Gobo 3
		026-031	Gobo 4
		032-037	Gobo 5
		038-044	Gobo 6
		045-050	Gobo 7
		051-056	Gobo 8
		057-063	Gobo 9
15	15	064-070	Gobo 1 Shaking (slow \rightarrow fast)
		071-077	Gobo 2 Shaking (slow \rightarrow fast)
		078-084	Gobo 3 Shaking (slow \rightarrow fast)
		085-091	Gobo 4 Shaking (slow \rightarrow fast)
		092-098	Gobo 5 Shaking (slow \rightarrow fast)
		099-105	Gobo 6 Shaking (slow \rightarrow fast)
		106-112	Gobo 7 Shaking (slow \rightarrow fast)
		113-119	Gobo 8 Shaking (slow \rightarrow fast)
		120-127	Gobo 9 Shaking(slow \rightarrow fast)
		128-190	Clockwise gobo wheel rotation (fast \rightarrow slow)
		191-192	Stop rotation
		193-255	Counter-clockwise gobo rotation (slow \rightarrow fast)
			Prism
		000-010	No Effect
		011-127	Prism
		128-135	Macro 1
		136-143	Macro 2
		136-143 144-151	Macro 2 Macro 3
		136-143 144-151 152-159	Macro 2 Macro 3 Macro 4
		136-143 144-151 152-159 160-167	Macro 2 Macro 3 Macro 4 Macro 5
		136-143 144-151 152-159 160-167 168-175	Macro 2 Macro 3 Macro 4 Macro 5 Macro 6
16	16	136-143 144-151 152-159 160-167 168-175 176-183	Macro 2 Macro 3 Macro 4 Macro 5 Macro 6 Macro 7
16	16	136-143 144-151 152-159 160-167 168-175 176-183 184-191	Macro 2 Macro 3 Macro 4 Macro 5 Macro 6 Macro 7 Macro 8
16	16	136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199	Macro 2 Macro 3 Macro 4 Macro 5 Macro 6 Macro 7 Macro 8 Macro 9
16	16	136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207	Macro 2 Macro 3 Macro 4 Macro 5 Macro 6 Macro 7 Macro 8 Macro 9 Macro 10
16	16	136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215	Macro 2Macro 3Macro 4Macro 5Macro 6Macro 7Macro 8Macro 9Macro 10Macro 11
16	16	136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223	Macro 2Macro 3Macro 4Macro 5Macro 6Macro 7Macro 8Macro 9Macro 10Macro 11Macro 12
16	16	136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231	Macro 2Macro 3Macro 4Macro 5Macro 6Macro 7Macro 8Macro 9Macro 10Macro 11Macro 12Macro 13
16	16	136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239	Macro 2Macro 3Macro 4Macro 5Macro 6Macro 7Macro 8Macro 9Macro 10Macro 11Macro 12Macro 13Macro 14
16	16	136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247	Macro 2Macro 3Macro 4Macro 5Macro 6Macro 7Macro 8Macro 9Macro 10Macro 11Macro 12Macro 13Macro 14Macro 15
16	16	136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239	Macro 2Macro 3Macro 4Macro 5Macro 6Macro 7Macro 8Macro 9Macro 10Macro 11Macro 12Macro 13Macro 14Macro 15Macro 16
16	16	136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255	Macro 2Macro 3Macro 4Macro 5Macro 6Macro 7Macro 8Macro 9Macro 10Macro 11Macro 12Macro 13Macro 14Macro 15Macro 16Prism – rotation
		136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255	Macro 2Macro 3Macro 4Macro 5Macro 6Macro 7Macro 8Macro 9Macro 10Macro 11Macro 12Macro 13Macro 16Prism - rotationIndexed positioning : 0 - 360
16	16	136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255 000-127 128-190	Macro 2Macro 3Macro 4Macro 5Macro 6Macro 7Macro 8Macro 9Macro 10Macro 11Macro 12Macro 13Macro 15Macro 16Prism - rotationIndexed positioning : 0 - 360Clockwise prism rotation (fast \rightarrow slow)
		136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255 000-127 128-190 191-192	Macro 2Macro 3Macro 4Macro 5Macro 6Macro 7Macro 8Macro 9Macro 10Macro 12Macro 13Macro 16Prism - rotationIndexed positioning : 0 - 360Clockwise prism rotation (fast \rightarrow slow)Stop rotation
		136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255 000-127 128-190	Macro 2Macro 3Macro 4Macro 5Macro 6Macro 7Macro 8Macro 9Macro 10Macro 12Macro 13Macro 15Macro 16Prism - rotationIndexed positioning : 0 - 360Clockwise prism rotation (fast \rightarrow slow)Stop rotationCounter-clockwise prism rotation (slow \rightarrow fast)
		136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255 000-127 128-190 191-192 193-255	Macro 2Macro 3Macro 4Macro 5Macro 6Macro 7Macro 8Macro 9Macro 10Macro 11Macro 12Macro 13Macro 16Prism - rotationIndexed positioning : 0 - 360Clockwise prism rotation (fast \rightarrow slow)Stop rotationCounter-clockwise prism rotation (slow \rightarrow fast)Zoom (manual control + effects)
		136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255 000-127 128-190 191-192 193-255 000-129	Macro 2Macro 3Macro 4Macro 5Macro 6Macro 7Macro 8Macro 9Macro 10Macro 11Macro 12Macro 13Macro 16Prism - rotationIndexed positioning : 0 - 360Clockwise prism rotation (fast \rightarrow slow)Stop rotationCounter-clockwise prism rotation (slow \rightarrow fast)Zoom (manual control + effects)Narrow \rightarrow Wide (manual)
		136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255 000-127 128-190 191-192 193-255 000-129 130-154	Macro 2Macro 3Macro 4Macro 5Macro 6Macro 7Macro 8Macro 9Macro 10Macro 11Macro 12Macro 13Macro 16Prism - rotationIndexed positioning : 0 - 360Clockwise prism rotation (fast \rightarrow slow)Stop rotationCounter-clockwise prism rotation (slow \rightarrow fast)Zoom (manual control + effects)Narrow \rightarrow Wide (manual)Pulse opening effect (fast \rightarrow slow)
		136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255 000-127 193-255 000-129 130-154 155-159	Macro 2Macro 3Macro 4Macro 5Macro 6Macro 7Macro 8Macro 9Macro 10Macro 11Macro 12Macro 13Macro 16Prism - rotationIndexed positioning : 0 - 360Clockwise prism rotation (fast → slow)Stop rotationCounter-clockwise prism rotation (slow → fast)Zoom (manual control + effects)Narrow → Wide (manual)Pulse opening effect (fast → slow)Wide
		136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255 000-127 193-255 000-129 130-154 155-159 160-184	Macro 2Macro 3Macro 4Macro 5Macro 6Macro 7Macro 8Macro 9Macro 10Macro 11Macro 12Macro 13Macro 15Macro 16 Prism - rotation Indexed positioning : 0 - 360Clockwise prism rotation (fast → slow)Stop rotationCounter-clockwise prism rotation (slow → fast) Zoom (manual control + effects) Narrow → Wide (manual)Pulse opening effect (fast → slow)WidePulse closing effect (fast → slow)
17		136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255 000-127 193-255 000-129 130-154 155-159 160-184 185-189	Macro 2Macro 3Macro 4Macro 5Macro 6Macro 7Macro 8Macro 9Macro 10Macro 11Macro 12Macro 13Macro 15Macro 16 Prism - rotation Indexed positioning : 0 - 360Clockwise prism rotation (fast → slow)Stop rotationCounter-clockwise prism rotation (slow → fast) Zoom (manual control + effects) Narrow → Wide (manual)Pulse opening effect (fast → slow)WidePulse closing effect (fast → slow)Wide
17		136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255 000-127 128-190 191-192 193-255 000-129 130-154 155-159 160-184 185-189 190-214	Macro 2Macro 3Macro 4Macro 5Macro 6Macro 7Macro 8Macro 9Macro 10Macro 11Macro 12Macro 13Macro 15Macro 16Prism – rotationIndexed positioning : 0 - 360Clockwise prism rotation (fast → slow)Stop rotationCounter-clockwise prism rotation (slow → fast)Zoom (manual control + effects)Narrow → Wide (manual)Pulse opening effect (fast → slow)WidePulse closing effect (fast → slow)WideRamp effect (fast → slow)
17		136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255 000-127 128-190 191-192 193-255 000-129 130-154 155-159 160-184 185-189 190-214 215-219	Macro 2Macro 3Macro 4Macro 5Macro 6Macro 7Macro 8Macro 9Macro 10Macro 11Macro 12Macro 13Macro 15Macro 16Prism – rotationIndexed positioning : 0 - 360Clockwise prism rotation (fast → slow)Stop rotationCounter-clockwise prism rotation (slow → fast)Zoom (manual control + effects)Narrow → Wide (manual)Pulse opening effect (fast → slow)WidePulse closing effect (fast → slow)WideRamp effect (fast → slow)Wide
17		136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255 000-127 128-190 191-192 193-255 000-129 130-154 155-159 160-184 185-189 190-214	Macro 2Macro 3Macro 4Macro 5Macro 6Macro 7Macro 8Macro 9Macro 10Macro 11Macro 12Macro 13Macro 15Macro 16Prism – rotationIndexed positioning : 0 - 360Clockwise prism rotation (fast → slow)Stop rotationCounter-clockwise prism rotation (slow → fast)Zoom (manual control + effects)Narrow → Wide (manual)Pulse opening effect (fast → slow)WidePulse closing effect (fast → slow)WideRamp effect (fast → slow)

	18	000-255	Zoom Narrow \rightarrow Wide (manual)
	19	000-255	Zoom fine Narrow \rightarrow Wide (manual)
19	20	000-255	Focus
20	21	000-255	Focus Fine
		000-099	Frost No frost \rightarrow frost (linear)
		100-124	Pulse opening effect (fast \rightarrow slow)
		125-129	No frost
		130-154	Pulse closing effect (fast \rightarrow slow)
		155-159	No frost
21	22	160-184	Ramp effect (fast \rightarrow slow)
		185-189	No frost
		190-214	Random effect (fast \rightarrow slow)
		215-219	No frost
		220-244	depth of field enable
		245-255	depth of field disable
			Iris (manual control + effects)
		000-129	$Open \rightarrow Closed$
		130-154	Pulse opening effect (fast \rightarrow slow)
		155-159	Big
22		160-184	Pulse closing effect (fast \rightarrow slow)
22		185-189	Big
		190-214	Ramp effect (fast \rightarrow slow)
		215-219	Big
		220-244	Random effect (fast \rightarrow slow)
		245-255	Big
	23	000-255	Iris
	23	000-255	Iris Fine
		000-255	Iris Fine Strobe / Shutter effect
		000-255	Iris Fine Strobe / Shutter effect Shutter closed (no output)
		000-255 000-019 020-024	Iris Fine Strobe / Shutter effect Shutter closed (no output) Shutter open
		000-255 000-019 020-024 025-064	Iris Fine Strobe / Shutter effect Shutter closed (no output) Shutter open Strobe 1: fast → slow
		000-255 000-019 020-024 025-064 065-069	Iris Fine Strobe / Shutter effect Shutter closed (no output) Shutter open Strobe 1: fast → slow Open
		000-255 000-019 020-024 025-064 065-069 070-084	Iris FineStrobe / Shutter effectShutter closed (no output)Shutter openStrobe 1: fast \rightarrow slowOpenStrobe 2: opening pulse, fast \rightarrow slow
		000-255 000-019 020-024 025-064 065-069 070-084 085-089	Iris Fine Strobe / Shutter effect Shutter closed (no output) Shutter open Strobe 1: fast → slow Open Strobe 2: opening pulse, fast → slow Open
		000-255 000-019 020-024 025-064 065-069 070-084 085-089 090-104	Iris FineStrobe / Shutter effectShutter closed (no output)Shutter openStrobe 1: fast \rightarrow slowOpenStrobe 2: opening pulse, fast \rightarrow slowOpenStrobe 3: closing pulse, fast \rightarrow slow
		000-255 000-019 020-024 025-064 065-069 070-084 085-089 090-104 105-109	Iris FineStrobe / Shutter effectShutter closed (no output)Shutter openStrobe 1: fast \rightarrow slowOpenStrobe 2: opening pulse, fast \rightarrow slowOpenStrobe 3: closing pulse, fast \rightarrow slowOpen
		000-255 000-019 020-024 025-064 065-069 070-084 085-089 090-104 105-109 110-124	Iris FineStrobe / Shutter effectShutter closed (no output)Shutter openStrobe 1: fast \rightarrow slowOpenStrobe 2: opening pulse, fast \rightarrow slowOpenStrobe 3: closing pulse, fast \rightarrow slowOpenStrobe 4: random strobe, fast \rightarrow slow
23	24	000-255 000-019 020-024 025-064 065-069 070-084 085-089 090-104 105-109 110-124 125-129	Iris FineStrobe / Shutter effectShutter closed (no output)Shutter openStrobe 1: fast \rightarrow slowOpenStrobe 2: opening pulse, fast \rightarrow slowOpenStrobe 3: closing pulse, fast \rightarrow slowOpenStrobe 4: random strobe, fast \rightarrow slowOpen
23		000-255 000-019 020-024 025-064 065-069 070-084 085-089 090-104 105-109 110-124 125-129 130-144	Iris FineStrobe / Shutter effectShutter closed (no output)Shutter openStrobe 1: fast \rightarrow slowOpenStrobe 2: opening pulse, fast \rightarrow slowOpenStrobe 3: closing pulse, fast \rightarrow slowOpenStrobe 4: random strobe, fast \rightarrow slowOpenStrobe 5:random opening pulse, fast \rightarrow slow
23	24	000-255 000-019 020-024 025-064 065-069 070-084 085-089 090-104 105-109 110-124 125-129 130-144 145-149	Iris FineStrobe / Shutter effectShutter closed (no output)Shutter openStrobe 1: fast \rightarrow slowOpenStrobe 2: opening pulse, fast \rightarrow slowOpenStrobe 3: closing pulse, fast \rightarrow slowOpenStrobe 4: random strobe, fast \rightarrow slowOpenStrobe 4: random strobe, fast \rightarrow slowOpenStrobe 5:random opening pulse, fast \rightarrow slowOpen
23	24	000-255 000-019 020-024 025-064 065-069 070-084 085-089 090-104 105-109 110-124 125-129 130-144 145-149 150-164	Iris FineStrobe / Shutter effectShutter closed (no output)Shutter openStrobe 1: fast \rightarrow slowOpenStrobe 2: opening pulse, fast \rightarrow slowOpenStrobe 3: closing pulse, fast \rightarrow slowOpenStrobe 4: random strobe, fast \rightarrow slowOpenStrobe 5:random opening pulse, fast \rightarrow slowOpenStrobe 5:random opening pulse, fast \rightarrow slowOpenStrobe 5:random opening pulse, fast \rightarrow slowOpenStrobe 6:random closing pulse, fast \rightarrow slow
23	24	000-255 000-019 020-024 025-064 065-069 070-084 085-089 090-104 105-109 110-124 125-129 130-144 145-149	Iris FineStrobe / Shutter effectShutter closed (no output)Shutter openStrobe 1: fast \rightarrow slowOpenStrobe 2: opening pulse, fast \rightarrow slowOpenStrobe 3: closing pulse, fast \rightarrow slowOpenStrobe 4: random strobe, fast \rightarrow slowOpenStrobe 5:random opening pulse, fast \rightarrow slowOpen
23	24	000-255 000-019 020-024 025-064 065-069 070-084 085-089 090-104 105-109 110-124 125-129 130-144 145-149 150-164 165-169	Iris FineStrobe / Shutter effectShutter closed (no output)Shutter openStrobe 1: fast \rightarrow slowOpenStrobe 2: opening pulse, fast \rightarrow slowOpenStrobe 3: closing pulse, fast \rightarrow slowOpenStrobe 4: random strobe, fast \rightarrow slowOpenStrobe 5:random opening pulse, fast \rightarrow slowOpenStrobe 5:random opening pulse, fast \rightarrow slowOpenStrobe 6:random closing pulse, fast \rightarrow slowOpenStrobe 6:random closing pulse, fast \rightarrow slowOpen
23	24	000-255 000-019 020-024 025-064 065-069 070-084 085-089 090-104 105-109 110-124 125-129 130-144 145-149 150-164 165-169 170-184 185-189 190-204	Iris FineStrobe / Shutter effectShutter closed (no output)Shutter openStrobe 1: fast \rightarrow slowOpenStrobe 2: opening pulse, fast \rightarrow slowOpenStrobe 3: closing pulse, fast \rightarrow slowOpenStrobe 4: random strobe, fast \rightarrow slowOpenStrobe 5:random opening pulse, fast \rightarrow slowOpenStrobe 5:random opening pulse, fast \rightarrow slowOpenStrobe 6:random closing pulse, fast \rightarrow slowOpenStrobe 7:burst pulse, fast \rightarrow slow
23	24	000-255 000-019 020-024 025-064 065-069 070-084 085-089 090-104 105-109 110-124 125-129 130-144 145-149 150-164 165-169 170-184 185-189 190-204 205-209	Iris FineStrobe / Shutter effectShutter closed (no output)Shutter openStrobe 1: fast \rightarrow slowOpenStrobe 2: opening pulse, fast \rightarrow slowOpenStrobe 3: closing pulse, fast \rightarrow slowOpenStrobe 4: random strobe, fast \rightarrow slowOpenStrobe 5:random opening pulse, fast \rightarrow slowOpenStrobe 6:random closing pulse, fast \rightarrow slowOpenStrobe 6:random closing pulse, fast \rightarrow slowOpenStrobe 7:burst pulse, fast \rightarrow slowOpenStrobe 8:random burst pulse, fast \rightarrow slowOpenStrobe 8:random burst pulse, fast \rightarrow slowOpen
23	24	000-255 000-019 020-024 025-064 065-069 070-084 085-089 090-104 105-109 110-124 125-129 130-144 145-149 150-164 165-169 170-184 185-189 190-204 205-209 210-224	Iris FineStrobe / Shutter effectShutter closed (no output)Shutter openStrobe 1: fast \rightarrow slowOpenStrobe 2: opening pulse, fast \rightarrow slowOpenStrobe 3: closing pulse, fast \rightarrow slowOpenStrobe 4: random strobe, fast \rightarrow slowOpenStrobe 5:random opening pulse, fast \rightarrow slowOpenStrobe 6:random closing pulse, fast \rightarrow slowOpenStrobe 6:random closing pulse, fast \rightarrow slowOpenStrobe 7:burst pulse, fast \rightarrow slowOpenStrobe 8:random burst pulse, fast \rightarrow slow
23	24	000-255 000-019 020-024 025-064 065-069 070-084 085-089 090-104 105-109 110-124 125-129 130-144 145-149 150-164 165-169 170-184 185-189 190-204 205-209 210-224 225-229	Iris FineStrobe / Shutter effectShutter closed (no output)Shutter openStrobe 1: fast \rightarrow slowOpenStrobe 2: opening pulse, fast \rightarrow slowOpenStrobe 3: closing pulse, fast \rightarrow slowOpenStrobe 4: random strobe, fast \rightarrow slowOpenStrobe 5:random opening pulse, fast \rightarrow slowOpenStrobe 6:random closing pulse, fast \rightarrow slowOpenStrobe 6:random closing pulse, fast \rightarrow slowOpenStrobe 7:burst pulse, fast \rightarrow slowOpenStrobe 8:random burst pulse, fast \rightarrow slowOpenStrobe 8:random burst pulse, fast \rightarrow slowOpenStrobe 9:sine wave, fast \rightarrow slowOpenStrobe 9:sine wave, fast \rightarrow slowOpen
23	24	000-255 000-019 020-024 025-064 065-069 070-084 085-089 090-104 105-109 110-124 125-129 130-144 145-149 150-164 165-169 170-184 185-189 190-204 205-209 210-224 225-229 230-244	Iris FineStrobe / Shutter effectShutter closed (no output)Shutter openStrobe 1: fast \rightarrow slowOpenStrobe 2: opening pulse, fast \rightarrow slowOpenStrobe 3: closing pulse, fast \rightarrow slowOpenStrobe 4: random strobe, fast \rightarrow slowOpenStrobe 5:random opening pulse, fast \rightarrow slowOpenStrobe 5:random opening pulse, fast \rightarrow slowOpenStrobe 6:random closing pulse, fast \rightarrow slowOpenStrobe 7:burst pulse, fast \rightarrow slowOpenStrobe 8:random burst pulse, fast \rightarrow slowOpenStrobe 8:random burst pulse, fast \rightarrow slowOpenStrobe 9:sine wave, fast \rightarrow slowOpenStrobe 9:sine wave, fast \rightarrow slowOpenStrobe 10:burst, fast \rightarrow slow
	24 25	000-255 000-019 020-024 025-064 065-069 070-084 085-089 090-104 105-109 110-124 125-129 130-144 145-149 150-164 165-169 170-184 185-189 190-204 205-209 210-224 225-229 230-244 245-255	Iris FineStrobe / Shutter effectShutter closed (no output)Shutter openStrobe 1: fast \rightarrow slowOpenStrobe 2: opening pulse, fast \rightarrow slowOpenStrobe 3: closing pulse, fast \rightarrow slowOpenStrobe 4: random strobe, fast \rightarrow slowOpenStrobe 5:random opening pulse, fast \rightarrow slowOpenStrobe 6:random closing pulse, fast \rightarrow slowOpenStrobe 6:random closing pulse, fast \rightarrow slowOpenStrobe 7:burst pulse, fast \rightarrow slowOpenStrobe 8:random burst pulse, fast \rightarrow slowOpenStrobe 8:random burst pulse, fast \rightarrow slowOpenStrobe 9:sine wave, fast \rightarrow slowOpenStrobe 9:sine wave, fast \rightarrow slowOpenStrobe 10:burst, fast \rightarrow slowOpen
23	24	000-255 000-019 020-024 025-064 065-069 070-084 085-089 090-104 105-109 110-124 125-129 130-144 145-149 150-164 165-169 170-184 185-189 190-204 205-209 210-224 225-229 230-244	Iris FineStrobe / Shutter effectShutter closed (no output)Shutter openStrobe 1: fast \rightarrow slowOpenStrobe 2: opening pulse, fast \rightarrow slowOpenStrobe 3: closing pulse, fast \rightarrow slowOpenStrobe 4: random strobe, fast \rightarrow slowOpenStrobe 5:random opening pulse, fast \rightarrow slowOpenStrobe 5:random opening pulse, fast \rightarrow slowOpenStrobe 6:random closing pulse, fast \rightarrow slowOpenStrobe 7:burst pulse, fast \rightarrow slowOpenStrobe 8:random burst pulse, fast \rightarrow slowOpenStrobe 8:random burst pulse, fast \rightarrow slowOpenStrobe 9:sine wave, fast \rightarrow slowOpenStrobe 9:sine wave, fast \rightarrow slowOpenStrobe 10:burst, fast \rightarrow slow



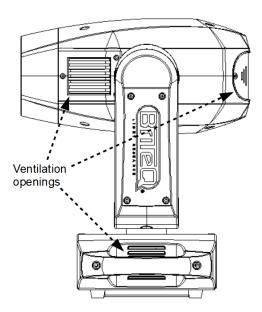
MAINTENANCE

- Make sure the area below the installation place is free from unwanted persons during servicing.
- Switch off the unit, unplug the mains cable and wait until the unit has been cooled down.

During inspection the following points should be checked:

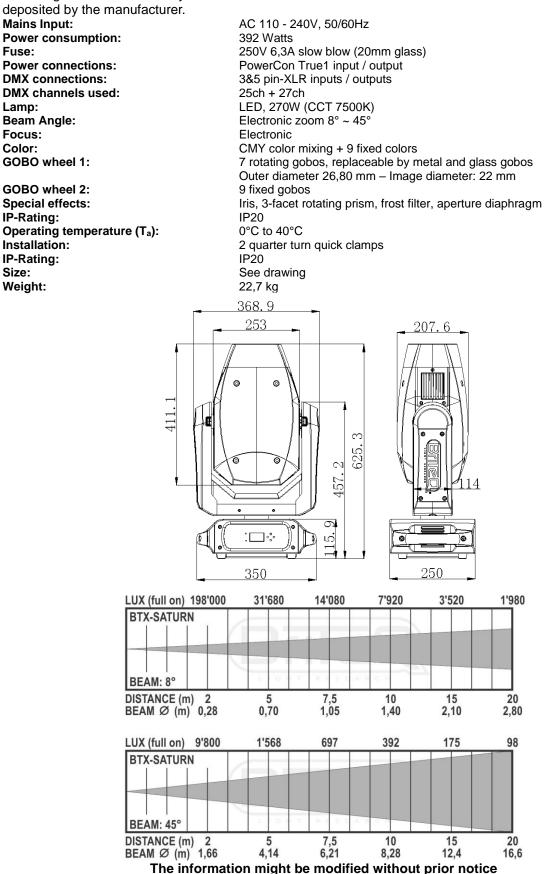
- All screws used for installing the device and any of its parts should be tightly fastened and may not be corroded.
- Housings, fixations and installations spots (ceiling, truss, suspensions) should be totally free from any deformation.
- When an optical lens is visibly damaged due to cracks or deep scratches, it must be replaced.
- The mains cables must be in impeccable condition and should be replaced immediately when even a small problem is detected.
- In order to protect the device from overheat the cooling fans (if any) and ventilation openings should be cleaned monthly.
- The interior of the device should be cleaned annually using a vacuum cleaner or air-jet.
- The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surroundings can cause greater accumulation of dirt on the unit's optics.
 - Clean with a soft cloth using normal glass cleaning products.
 - Always dry the parts carefully.

Attention: We strongly recommend internal cleaning to be carried out by qualified personnel!



SPECIFICATIONS

This unit is radio-interference suppressed. This product meets the requirements of the current European and national guidelines. Conformity has been established and the relevant statements and documents have been deposited by the manufacturer



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