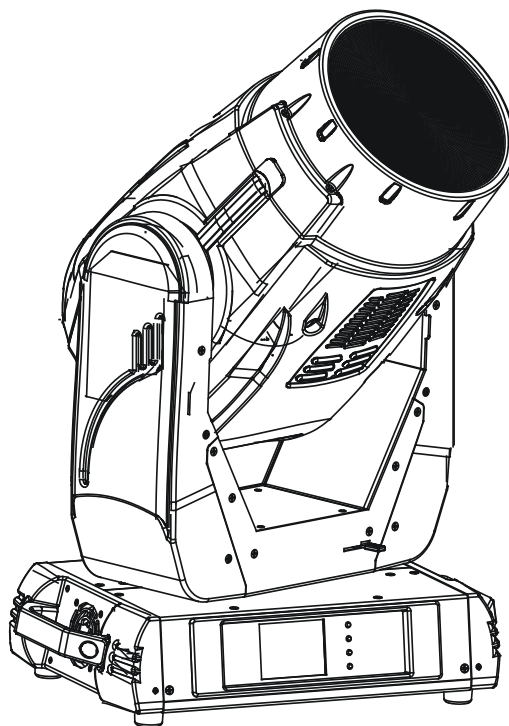

ROBE

ROBIN[®] 600E

Beam

ROBIN[®] 600E

**Beam Wireless DMX
CRMX[™]**



 **ROBIN[®]**
Innovative Technology

USER MANUAL

Version 1.4

ROBE[®] lighting s.r.o. • Czech Republic • www.robe.cz

Robin 600E Beam

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CAUTION!
Keep this device away from rain and moisture!
Unplug mains lead before opening the housing!

**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY
BEFORE YOU INITIAL START - UP!**

1. Safety instructions

Every person involved with installation and maintenance of this device have to:

- be qualified
- follow the instructions of this manual

CAUTION!
Be careful with your operations.
With a high voltage you can suffer
a dangerous electric shock when touching the wires!

This device has left our premises in absolutely perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Important:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

Never let the power-cord come into contact with other cables! Handle the power cord and all connections with the mains with particular caution!

Make sure that the available voltage is not higher than stated on the rear panel.

Always plug in the power plug least. Make sure that the power-switch is set to off-position before you connect the device to the mains. The power plug has to be accessible after installing the device.

Make sure that the power-cord is never crimped or damaged by sharp edges. Check the device and the power-cord from time to time.

Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power-cord by the plug. Never pull out the plug by tugging the power cord.

This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.

The electric connection, repairs and servicing must be carried out by a qualified employee. Do not connect this device to a dimmer pack.

Do not switch the fixture on and off in short intervals as this would reduce the lamp's life.

During the initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective.

Do not touch the device's housing bare hands during its operation (housing becomes hot)! For replacement use lamps and fuses of same type and rating only.

CAUTION ! EYE DAMAGES !
Avoid looking directly into the light source
(meant especially for epileptics) !

2. Operating determination

This device is a moving head for creating decorative effects and was designed for indoor use only.

If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.

Never run the device without lamp!

Before switching the fixture OFF, turn the lamp OFF and allow the fixture to cool for a while.

Do not shake the device. Avoid brute force when installing or operating the device.

Never lift the fixture by holding it at the projector-head, as the mechanics may be damaged. Always hold the fixture at the transport handles.

When choosing the installation-spot, please make sure that the device is not exposed to extreme heat, moisture or dust. There should not be any cables lying around. You endanger your own and the safety of others!

The minimum distance between light output and the illuminated surface must be more than 7 meters.

Make sure that the area below the installation place is blocked when rigging, derigging or servicing the fixture.

Always fix the fixture with an appropriate safety rope. Fix the safety rope at the correct holes only.

Only operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.

The lamp must never be ignited if the objective-lens or any housing-cover is open, as discharge lamps may explode and emit a high ultraviolet radiation, which may cause burns.

The maximum ambient temperature 45°C must never be exceeded.

CAUTION!
The lens has to be replaced when it is obviously damaged, so that its function is impaired, e. g. due to cracks or deep scratches!

Operate the device only after having familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation!

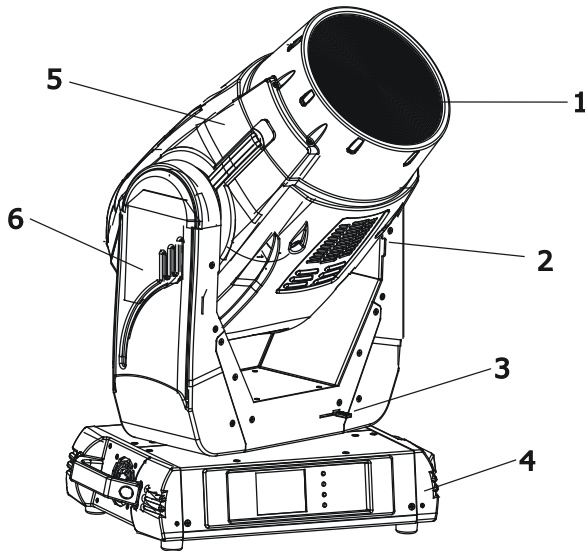
CAUTION!
The lamp has to be replaced when it is damaged or deformed due to the heat!

Please use the original packaging if the device is to be transported.

Please consider that unauthorized modifications on the device are forbidden due to safety reasons!

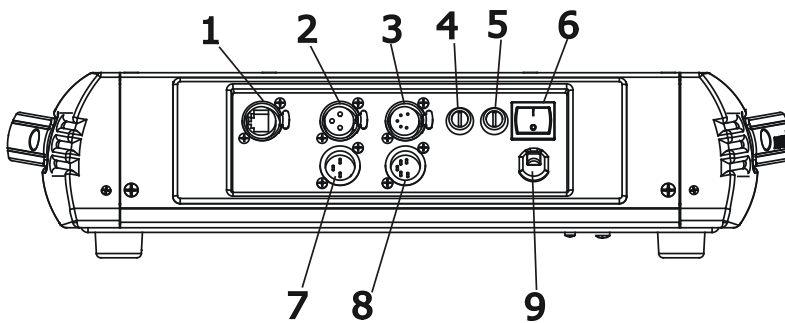
If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to dangers like short-circuit, burns, electric shock, burns due to ultraviolet radiation, lamp explosion, crash etc.

3. Fixture exterior view



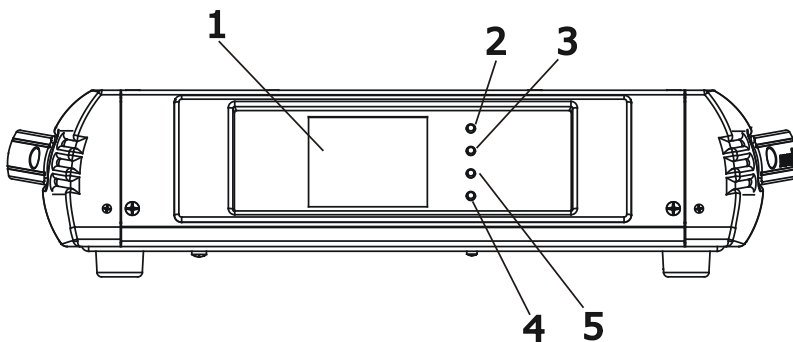
- 1 - Front lens
- 2 - Tilt lock
- 3 - Pan lock
- 4 - Base
- 5 - Moving head
- 6 - Arm

The head should be locked for transportation- the tilt lock latch (2) and the pan lock latch (3) have to be in the locked positions. To unlock the head, move these latches to unlock positions before operating the fixture.



Rear panel of the base:

- 1 - Ethernet input-RJ45
- 2 - 3-pin DMX output
- 3 - 5-pin DMX output
- 4 - Fuse holder-neutral
- 5 - Fuse holder-live
- 6 - Power switch
- 7 - 3-pin DMX input
- 8 - 5-pin DMX input
- 9 - Power cord



Front panel of the base:

- 1 - QVGA touch screen
- 2 - ESCAPE button
- 3 - NEXT button
- 4 - ENTER/DISPLAY ON button
- 5 - PREV button

The ENTER/DISPLAY ON button also serves for switching the display on when the fixture is disconnected from the mains.

4. Installation



Fixtures must be installed by a Qualified electrician in accordance with all national and local electrical and construction codes and regulation.

4.1 Connection to the mains

For protection from electric shock, the fixture must be earthed!

The Robin 600E Beam is equipped with auto-switching power supply that automatically adjusts to any 50/60Hz AC power source from 100-240 Volts.

For use with 100-120 V supplies, both main 5 A fuses has to be exchanged for 8 A fuses which are enclosed in the packing.

To install the 8 A fuses:

1. Disconnect the fixture from AC power.
2. Unscrew the "live" fuse holder on the rear panel of the base with a flat-tip screwdriver from the housing (anticlockwise).
3. Remove the 5 A fuse from the fuse holder.
4. Put the 8 A fuse in the fuse holder.
5. Replace the fuse holder in the housing and screw it fully clockwise.
6. Repeat steps 2-5 for the "neutral" fuse holder

Install a suitable plug on the power cord, note that the cores in the power cord are coloured according to the following table. The earth has to be connected!

If you have any doubts about proper installation, consult a qualified electrician.

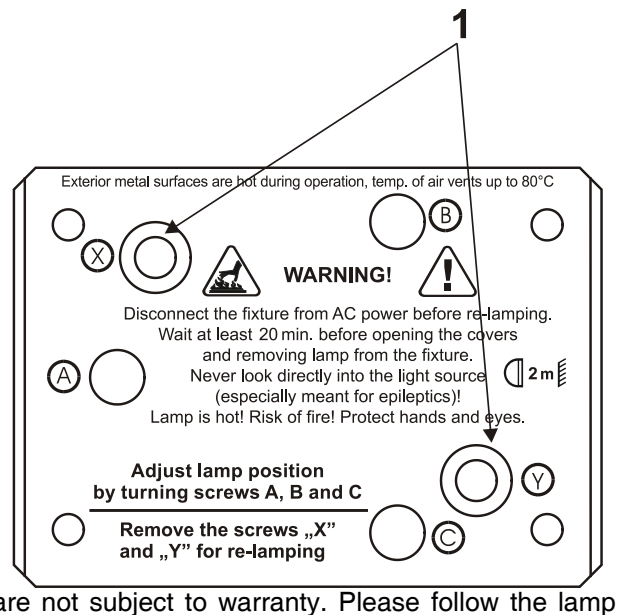
| Core (EU) | Core (US) | Connection | Plug Terminal Marking |
|--------------|-----------|------------|-----------------------|
| Brown | Black | Live | L |
| Light blue | White | Neutral | N |
| Yellow/Green | Green | Earth | |

4.2 Installing the lamp

**DANGER ! Install the lamp with the device switched off only.
Unplug from mains before !**

To insert the new lamp.

1. Disconnect the fixture from power and allow it to cool at least 15 minutes.
2. Make sure that the fixture's head is in the position as shown on the picture (notices on the lamp cover are in readable position) .Loosen the two quarter-turn fasteners (1) marked "X,Y" on the lamp cover to open this cover.
3. Holding the lamp by its ceramic base, carefully turn the lamp to the left to loosen the lamp from the lamp holder.
Gently pull the lamp out of the lamp holder
4. Holding the new lamp by its ceramics base, gently insert the lamp to the lamp socket and turn the base to the right. Make sure that the lamp is installed tightly into the lamp socket.
Do not install a lamp with a higher wattage! A lamp like this generates temperatures the device is not designed for. Damages caused by non-observance are not subject to warranty. Please follow the lamp manufacturer's notes! Do not touch the glass bulb bare hand during the installation!
5. Re-insert the lamp cover and tighten the two quarter-turn fasteners (1).
6. Switch on the fixture.
7. Align the lamp (see instructions below)
8. Reset the "Lamp On Time" and "Lamp Strikes" counters in the menu "Information".



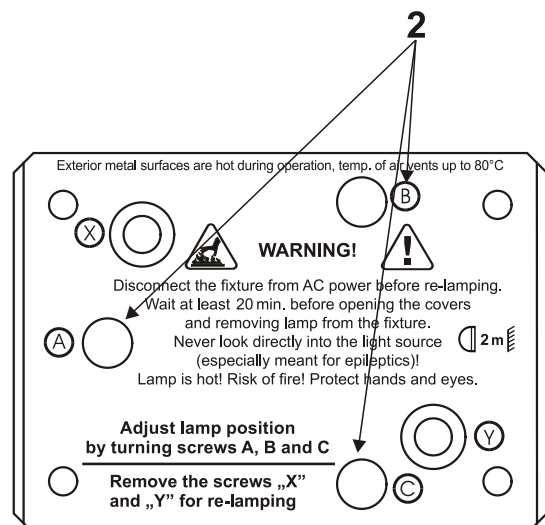
Do not operate this fixture with open lamp cover!

4.3 Lamp adjustment

The lamp holder is aligned at the factory. Due to differences between lamps, the fine adjustment may improve light performance:

To adjust the lamp in the fixture.

1. Switch on the fixture and after its reset turn on the lamp.
2. Go to the "Service" menu and select the item "Adjust Lamp" to project the light beam on the wall.
3. Use items in this menu to focus the light beam on the wall.
4. Turn adjustment screws marked "A, B, C" (2) one after another a quarter-turn clockwise until you reach a max. light output.
5. Center the hot-spot (the brightest part of the beam) using these 3 adjustment screws (2).

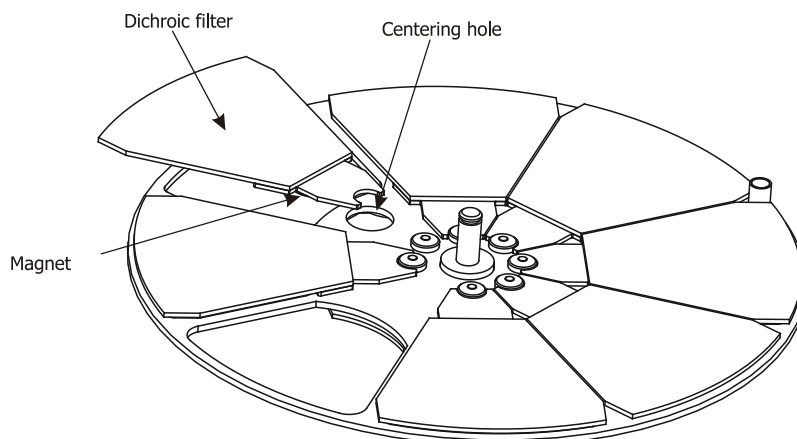


4.4 Replacing the colour filters and gobos

DANGER!
Install the colour filters or gobos with the device switched off only.
Unplug from mains before!

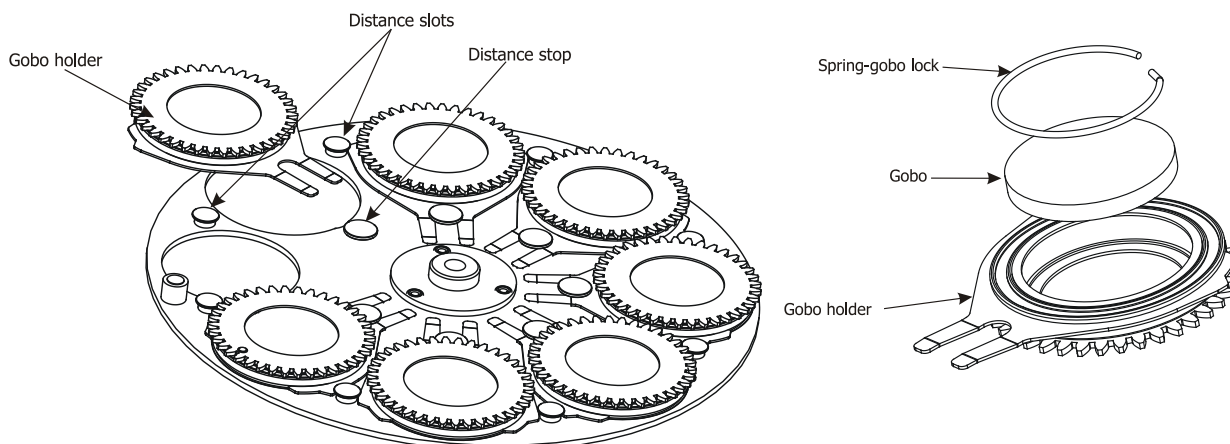
Colour filters

1. Disconnect the fixture from mains and allow it to cool.
2. Remove the top plastic cover of the head by loosening the 4 quarter-turn fasteners on the cover.
3. Turn the colour wheel to the desired position. The dichroic filters are fixed on the colour wheel by the magnets.
4. Release the dichroic filter from the colour wheel by inclining it from its position to break the power of the magnet. Protect the glass filter with a piece of paper or clout.
5. Insert a new dichroic filter into the colour wheel.
6. Place the top cover back before applying power.



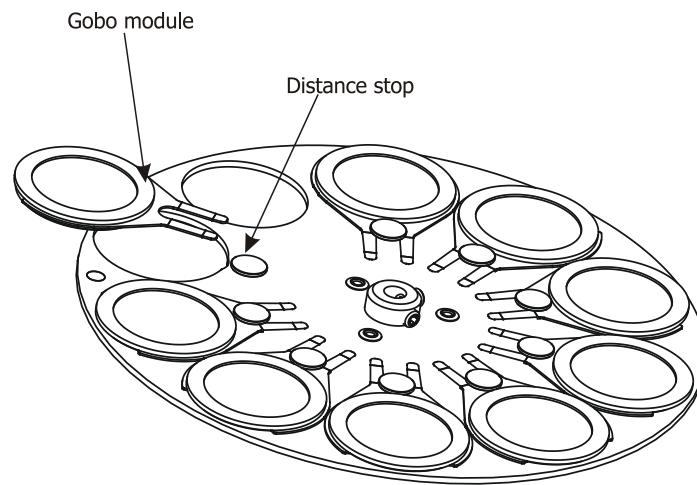
Rotating gobos

1. Disconnect the fixture from mains and allow it to cool.
2. Remove the bottom plastic cover of the head by loosening the 4 quarter-turn fasteners on the cover.
3. Gently pull up the gobo holder from the rotation gobo wheel.
4. Remove the spring gobo-lock with an appropriate tool (e.g. small-bladed screwdriver) and remove it. Do not touch the surface of the pattern of the glass gobo.
5. Remove the original gobo and insert the new one (glazy side towards the lamp). Insert the spring-gobo lock to secure it in the gobo holder.
6. Insert the gobo holder back under the distance slots into rotating gobo wheel.
5. Replace the bottom cover before applying power.



Static gobos

1. Disconnect the fixture from mains and allow it to cool.
2. Remove the top plastic cover of the head by loosening the 4 quarter-turn fasteners on the cover.
3. Gently skew the gobo module to release it from the hole in the static gobo wheel and pull it up.
4. Insert the new gobo module spring holder under the distance stop and push the gobo module into hole in the static gobo wheel.
5. Replace the top cover before applying power.



4.5 Rigging the fixture

The installation of the fixture has to be built and constructed in a way that it can hold 10 times the weight for 1 hour without any harming deformation.

The installation must always be secured with a secondary safety attachment, e.g. an appropriate catch net. This secondary safety attachment must be constructed in a way that no part of the installation can fall down if the main attachment fails.

When rigging, derigging or servicing the fixture staying in the area below the installation place, on bridges, under high working places and other endangered areas is forbidden.

The operator has to make sure that safety-relating and machine-technical installations are approved by an expert before taking into operation for the first time and after changes before taking into operation another time.

The operator has to make sure that safety-relating and machine-technical installations are approved by an expert after every four year in the course of an acceptance test.

The operator has to make sure that safety-relating and machine-technical installations are approved by a skilled person once a year.

The projector should be installed outside areas where persons may walk by or be seated.

IMPORTANT! OVERHEAD RIGGING REQUIRES EXTENSIVE EXPERIENCE, including (but not limited to) calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the fixture. If you lack these qualifications, do not attempt the installation yourself, but instead use a professional structural rigger. Improper installation can result in bodily injury or damage to property.

The fixture has to be installed out of the reach of people.

If the fixture shall be lowered from the ceiling or high joists, professional trussing systems have to be used. The fixture must never be fixed swinging freely in the room.

Caution: Fixtures may cause severe injuries when crashing down! If you have doubts concerning the safety of a possible installation, do not install the moving head!

Before rigging make sure that the installation area can hold a minimum point load of 10 times the fixture's weight.

Danger of fire !
When installing the device, make sure there is no highly inflammable material (decoration articles, etc.) in a distance of min. 1m.

CAUTION!
Use 2 appropriate clamps to rig the fixture on the truss.
Follow the instructions mentioned at the bottom of the base.
Make sure that the device is fixed properly! Ensure that the structure (truss) to which you are attaching the fixtures is secure.

The fixture can be placed directly on the stage floor or rigged in any orientation on a truss without altering its operation characteristics .

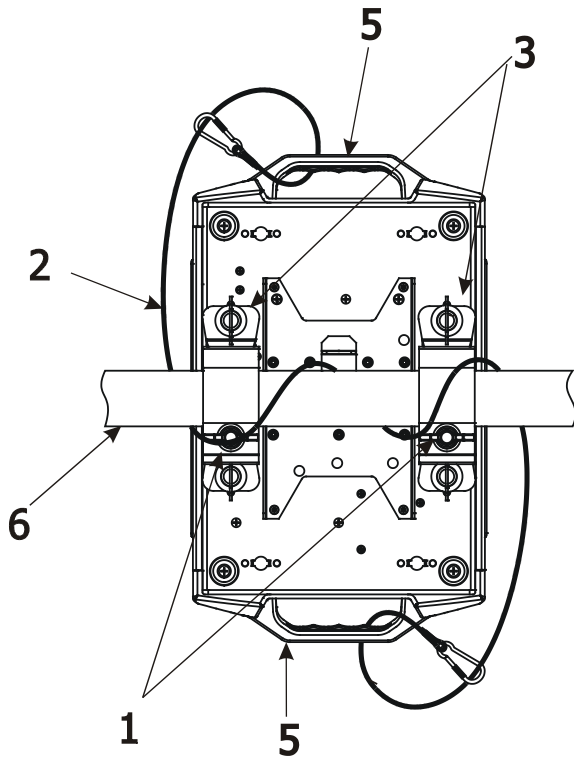
For securing a fixture to the truss install a safety wire that can hold at least 10 times the weight of the fixture. Use only safety wire with screw-on carabine. Pull the safety wire through the carrying handles and around the truss as shown on the pictures below.

Note: If the safety wire is too long, whip it several times around the trusses in order to attach the fixture tight. In case of an accident, the way of the falling fixture will be short.

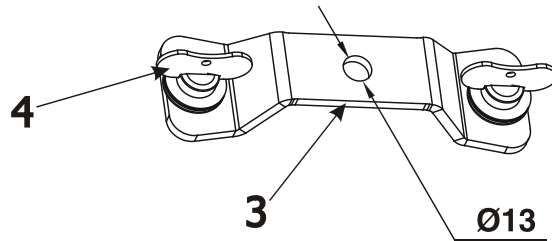
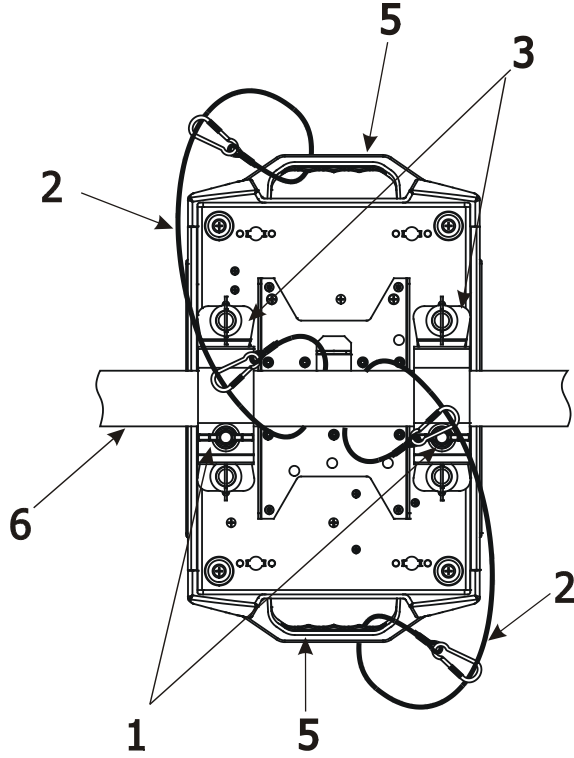
Truss installation

1. Bolt each clamp (1) to the omega holder (3) with M12 bolt and lock nut through the hole in the holder.
2. Fasten the omega holders on the bottom of the base by inserting both quick-lock fasteners (4) into the holes of the base and tighten fully clockwise.
3. Pull the safety wire (2) through the carrying handles (5) and around the truss (6) as shown on the pictures below.

Securing the fixture via one safety wire



Securing the fixture via two safety wires



- 1-Clamps
- 2-Safety wire
- 3-Omega holder
- 4-Quick-lock fastener
- 5-Carrying handles
- 6-Truss

**When installing fixtures side-by-side,
avoid illuminating one fixture with another!**

DANGER TO LIFE!
**Before taking into operation for the first time, the installation has to be approved
by an expert!**

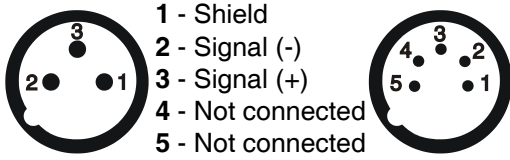
4.6 DMX-512 connection

The fixture is equipped with both 3-pin and 5-pin XLR sockets for DMX input and output. The sockets are wired in parallel.

Only use a shielded twisted-pair cable designed for RS-485 and 3-pin or 5-pin XLR-plugs and connectors in order to connect the controller with the fixture or one fixture with another.

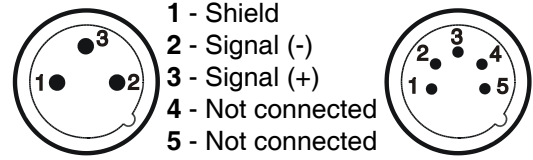
DMX - output

XLR mounting-sockets (rear view):



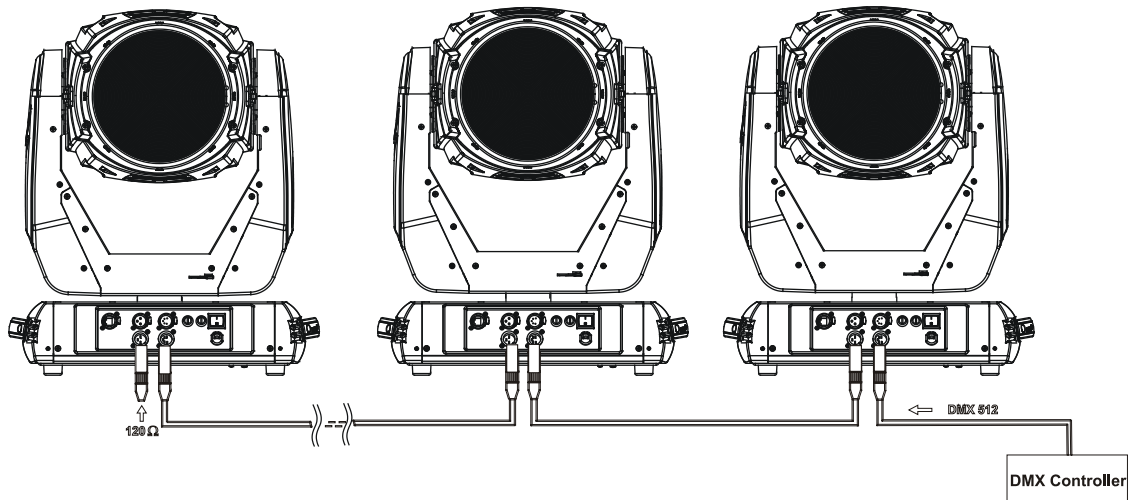
DMX-input

XLR mounting-plugs (rear view):



If you are using the standard DMX controllers, you can connect the DMX output of the controller directly with the DMX input of the first fixture in the DMX-chain. If you wish to connect DMX-controllers with other XLR-out-puts, you need to use adapter-cables.

Building a serial DMX-chain:



Connect the DMX-output of the first fixture in the DMX-chain with the DMX-input of the next fixture. Always connect one output with the input of the next fixture until all fixtures are connected.

Caution: At the last fixture, the DMX-cable has to be terminated with a terminator. Solder a 120 Ω resistor between Signal (-) and Signal (+) into a 3-pin XLR-plug and plug it in the DMX-output of the last fixture.

4.7 Ethernet connection

The fixtures on a data link are connected to the Ethernet with ArtNet communication protocol. The control software running on your PC (or light console) has to support Art-Net protocol.

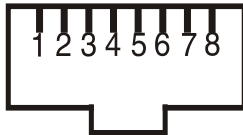
Art-Net communication protocol is a 10 Base T Ethernet protocol based on the TCP/IP. Its purpose is to allow transfer of large amounts of DMX 512 data over a wide area using standard network technology.

IP address is the Internet protocol address. The IP uniquely identifies any node (fixture) on a network.

The Universe is a single DMX 512 frame of 512 channels.

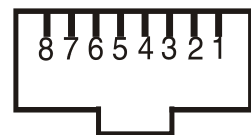
The Robin 600E Beam is equipped with 8-pin RJ-45 socket for Ethernet input. Use a network cable category 5 (with four "twisted" wire pairs) and standard RJ-45 plugs in order to connect the fixture to the network.

RJ-45 socket (front view):



- | | |
|------------------|------------------|
| 1- TD+ | 5- Not connected |
| 2- TD- | 6- RX- |
| 3- RX+ | 7- Not connected |
| 4- Not connected | 8- Not connected |

RJ-45 plug (front view):




Patch cables that connect fixtures to the hubs or LAN sockets are wired 1:1, that is, pins with the same numbers are connected together:

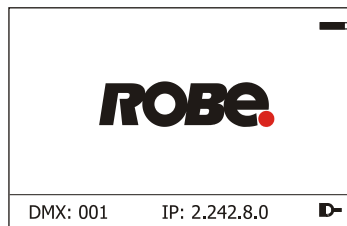


If only the fixture and the computer are to be interconnected, no hubs or other active components are needed.

A cross-cable has to be used:



If the fixture is connected with active Ethernet socket (e.g. switch) the network icon  will appear at the bottom right corner of the screen:



Direct Ethernet operation

Connect the Ethernet inputs of all fixtures with the Ethernet network.

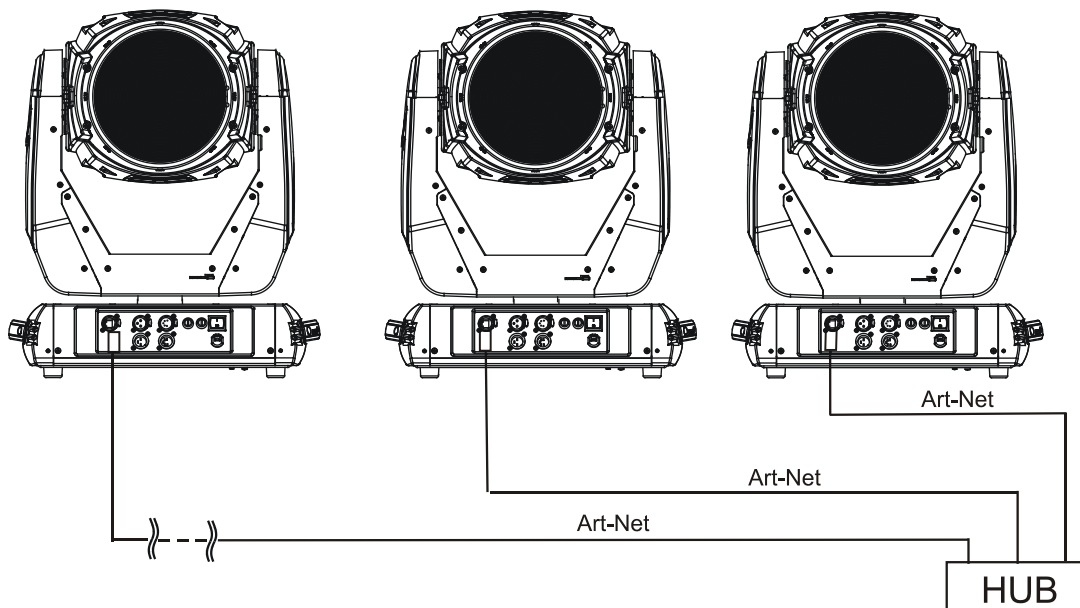
Option "Artnet (gMal or gMA2)" has to be selected from "Ethernet Mode" menu on the fixture.

Set IP address (002.xxx.xxx.xxx / 010.xxx.xxx.xxx) and the Universe.

(DMX address=131)
IP address=002.168.002.004
Universe=1

(DMX address=27)
IP address=002.168.002.003
Universe=1

(DMX address=1)
IP address=002.168.002.002
Universe=1



An advised PC setting: IP address: 002.xxx.xxx.xxx / 010.xxx.xxx.xxx (Different from fixture IP addresses)
NET mask: 255.0.0.0

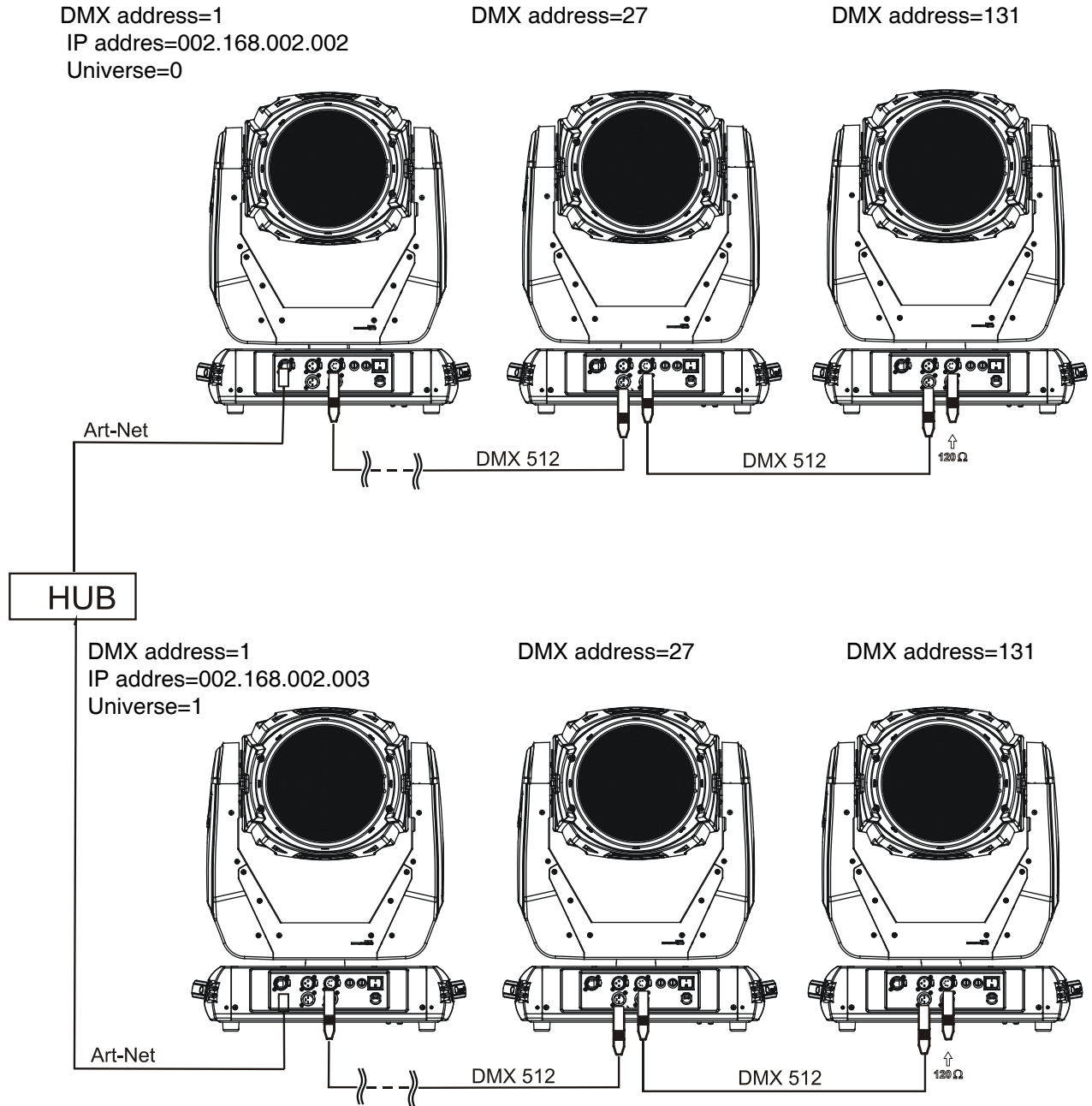
Ethernet / DMX operation

Options "Art2DMX" has to be selected from the "Ethernet Mode" menu on the first fixture (connected to the Ethernet) in the fixture chain, next fixtures have standard DMX setting.

Connect the Ethernet-input of the first fixture in the data chain with the network. Connect the DMX output of this fixture with the input of the next fixture until all fixtures are connected to the DMX chain.

Caution: At the last fixture, the DMX chain has to be terminated with a terminator. Solder a 120 Ω resistor between Signal (-) and Signal (+) into a XLR-plug and connect it in the DMX-output of the last fixture.

Example:



5. Remotely controllable functions

Lamp

The Robin 600E Beam is to be operated with a Philips MSR Gold 575/2 MiniFastFit .

Note: It is also important to note, that the discharge lamp is cold restrike types, that means, that they have to be cold before re-striking. For this reason, you have to wait 5 minutes after having switched the lamp off before you can switch it on again. If you try to switch on the lamp within 5 minutes after having switched it off, the Robin 600E Beam will store this information and automatically ignite the lamp when the 5 minutes period has expired.

Colour wheel

This wheel contains 7 replaceable 'SLOT&LOCK' dichroic filters + open. The colour wheel can be positioned between two adjacent colours in any position. It is also possible to rotate the colour wheel continuously at different speeds ("Rainbow effect" in both directions).

CMY colour mixing system

The CMY color mixing system is based on graduated cyan, magenta, and yellow colour filters. A continuous range of colors may be achieved by varying the amount of each filter from 0 to 100%.

Static gobo wheel

The static gobo wheel includes 7 gobos. Gobo positioning and continual gobo positioning is available as well as a gobo-shake function.

Rotating gobo wheel

The rotating gobo wheel includes 7 gobos rotating in both directions, indexable, replaceable "SLOT&LOCK" glass gobos + open position. Gobo positioning and gobo selection speed is available as well as a gobo-shake function.

Iris

Motorized adjustable iris, wide range of variable pulse effects.

Frost

Frost module provides variable frost for fine frosting.

Focus

Motorized focus unit enables to focus the beam from approximately 7 meters to infinity.




Dimmer/Shutter unit

Smooth 0 - 100 % dimming is provided by the mechanical dimmer /shutter unit. This unit is also used for strobe effects with variable speed.

6. Control menu map

Default settings=**Bold print**

| Tab | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 | Level 6 | |
|---|-------------------|----------------------|----------------------|---------------------|--------------------|---------|--|
| Addressing | Settings | DMX Address | 001-255 | | | | |
|  | | Ethernet Settings | Ethernet Mode | Disable | | | |
| | | | | ArtNet | | | |
| | | | | gMA1 | | | |
| | | | | gMA2 | | | |
| | | | | ArttoDMX | | | |
| | | | | IP Address/Net Mask | Default IP Address | | |
| | | | | | Custom IP Address | | |
| | | | | | Net Mask | | |
| | | | | ArtNet Universe | 0-255 | | |
| | | | | MANet settings | MANet Universe/II | | |
| | | | | | MANet Session ID | | |
| Information | Fixture Times | Power On Time | Total Hours | | | | |
|  | | | Resetable Hours | | | | |
| | | Lamp On Time | Total Hours | | | | |
| | | | Resetable Hours | | | | |
| | | Lamp Strikes | Total Strikes | | | | |
| | | | Resetable Strikes | | | | |
| | | Air Filters | Elapsed Time | | | | |
| | | | Alert Period | 10-300 | | | |
| | | Fixture Temperatures | Head Temperature | Current | | | |
| | | | | Maximum NonRes. | | | |
| | | | | Maximum Res. | | | |
| | | | Ambient Temperature | Current | | | |
| | | | | Maximum NonRes. | | | |
| | | | | Maximum Res. | | | |
| | | | Base Temperature | Current | | | |
| | | | | Maximum NonRes. | | | |
| | | | | Maximum Res. | | | |
| | | DMX Values | Pan | | | | |
| | | : | | | | | |
| | | Dimmer Fine | | | | | |
| | Software Versions | Display System | | | | | |
| | | Module M | | | | | |
| | | Module S | | | | | |
| | | Module O | | | | | |
| | | Module C | | | | | |
| | Product IDs | Mac Address | | | | | |
| | | RDM UID | | | | | |
| | | RDM Label | | | | | |
| | View Logs | Fixture Errors | Pan Errors | | | | |
| | | | : | | | | |
| | | | Temp.Sensor Errors | | | | |
| | | Fixture States | Power On | | | | |
| | | | Power Off | | | | |
| | | | Lamp On | | | | |
| | | | Lamp Off | | | | |
| | | Fixture Position | | | | | |
| | | Fixture Temperatures | Head Temperatures | | | | |
| | | | Ambient Temperatures | | | | |

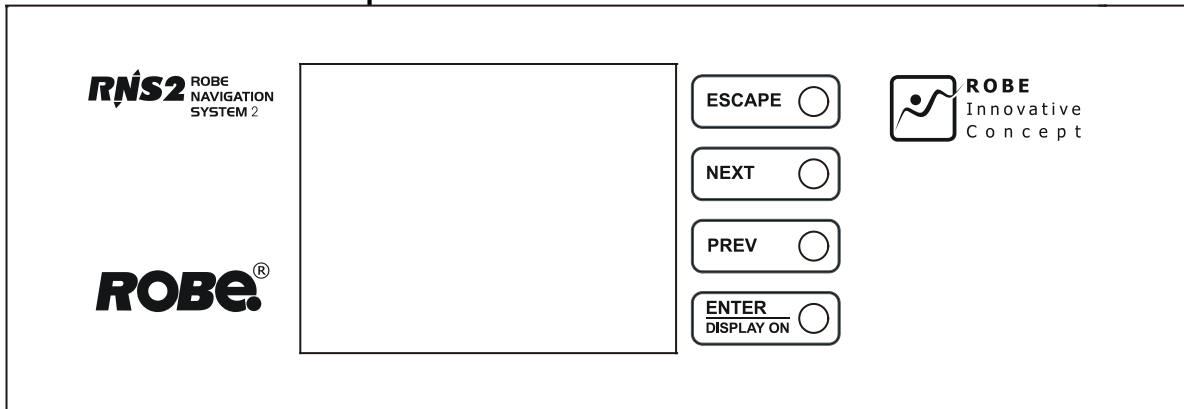
| Tab | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 | Level 6 |
|---|---------------------------|-------------------------|------------------------|---------|---------|---------|
| | | | Base Temperatures | | | |
| Personality | User Mode | User A Settings | | | | |
|  | | User B Settings | | | | |
| | | User C Settings | | | | |
| | DMX Presets | Mode 1 | | | | |
| | | Mode 2 | | | | |
| | | Mode 3 | | | | |
| | | View Selected Preset | | | | |
| | Pan/Tilt Settings | Pan Reverse | Off, On | | | |
| | | Tilt Reverse | Off, On | | | |
| | | Pan/Tilt Feedback | Off, On | | | |
| | | Pan/Tilt mode | Time | | | |
| | | | Speed | | | |
| | Microphone Sensitivity | 1-10-20 | | | | |
| | Blackout Settings | Blackout During M.C. | Off, On | | | |
| | | Blackout while: | Pan/Tilt moving | Off, On | | |
| | | | Colour Wheel Moving | Off, On | | |
| | | | Gobo Wheels Moving | Off, On | | |
| | Init Effect Positions | Pan | 0-255 | | | |
| | | : | | | | |
| | | Dimmer Fine | 0-255 | | | |
| | Screen Settings | Display Intensity | 1-10 | | | |
| | | Screen Saver Delay | Off-10min. | | | |
| | | Touchscreen Lock | Off-10min. | | | |
| | | Recalibrate Touchscreen | | | | |
| | | Display Orientation | Normal | | | |
| | | | Inverted | | | |
| | | | Auto | | | |
| | Temperature Unit | °C, °F | | | | |
| | Fan Mode | Auto | | | | |
| | | High | | | | |
| | | Silent | Fan Noise Level | 0-100% | | |
| | Date & Time Settings | | | | | |
| | Unlink Wireless Adapter * | | | | | |
| | Default Settings | | | | | |
| Manual Control | Reset Functions | Reset All Systems | | | | |
|  | | Pan/Tilt reset | | | | |
| | | Colour System Reset | | | | |
| | | Gobo System Reset | | | | |
| | | Strobe Reset | | | | |
| | | Optics/Frost Res. | | | | |
| | | Iris Reset | | | | |
| | Preset Effect Control | Pan | Position 1-Position 5 | | | |
| | | : | | | | |
| | | Dimmer | Position 1- Position 5 | | | |
| | Manual Effect Control | Pan | 0-255 | | | |
| | | : | | | | |
| | | Dimmer Fine | 0-255 | | | |
| Stand -Alone | Test Sequences | Dynamic Mode | | | | |
|  | | Static Mode | Pan | 0-255 | | |
| | | | Tilt | 0-255 | | |
| | | | Focus | 0-255 | | |
| | MusicTrigger | Off, On | | | | |

| Tab | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 | Level 6 |
|---|-------------------|---------------------------|--------------------|----------|-------------|-------------|
| | Preset Playback | None | | | | |
| | | Test | | | | |
| | | Prg. 1 | | | | |
| | | Prg. 2 | | | | |
| | | Prg. 3 | | | | |
| | Play Program | Play Program 1 | | | | |
| | | Play Program 2 | | | | |
| | | Play Program 3 | | | | |
| | Edit Program | Edit Program 1 | Start Step | 1-100 | | |
| | | | End Step | 1-100 | | |
| | | | Edit Program Steps | Step 1 | Pan | 0-255 |
| | | | | : | : | |
| | | | | : | Dimmer Fine | 0-255 |
| | | | | : | Step Time | 0-25,5 sec. |
| | | | | Step 100 | Pan | 0-255 |
| | | | | | : | |
| | | | | | Dimmer Fine | 0-255 |
| | | | | | Step Time | 0-25,5 sec. |
| Service | Adjust DMX Values | Pan | 0-255 | | | |
|  | | : | | | | |
| | | Dimmer Fine | 0-255 | | | |
| | Adjust Lamp | Pan | 0-255 | | | |
| | | Tilt | 0-255 | | | |
| | | Focus | 0-255 | | | |
| | Calibrations | Calibrate Effects | Pan | 0-255 | | |
| | | | : | | | |
| | | | Dimmer 2 | 0-255 | | |
| | | Load Default Calibrations | | | | |
| | Update Software | | | | | |

7. Control menu

The Robin 600E Beam Light is equipped with the QVGA Robe touch screen with battery backup which allows to set the fixture's behaviour according to your needs, obtain information on its operation, test its various parts and lastly program it, if it has to be used in a stand-alone mode. The fixture's menu can be controlled either by the control buttons or directly by touching the icon.

Control buttons on the front panel:



[ESCAPE] button used to leave the menu without saving changes.

[NEXT] , [PREV] buttons for moving between menu items and symbols, adjusting values.

[ENTER/Display On] button used to enter the selected menu (menu item) and to confirm adjusted value.

If the fixture is disconnected from mains, the button switches the touch screen on.

Icons used in the touch screen menu:



- [back arrow] used to move back to the previous screen (menu).



- [up arrow] used to move up on the previous page.



- [down arrow] used to move down on the next page.



- [confirm] used to save adjusted values, to leave menu or to perform desired action.



- [cancel] used to leave menu item without saving changes.



- [confirm+copy] used to save adjusted values and copy them to the next prog. step.



- [warning icon] used to indicate some error which has occurred in the fixture.



- [lamp menu] used to switch on/off the lamp and to set lamp functions.



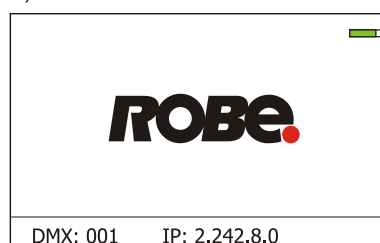
- [Ethernet] used to indicate Ethernet connected.



- [display turn] used to turn the display by 180°.

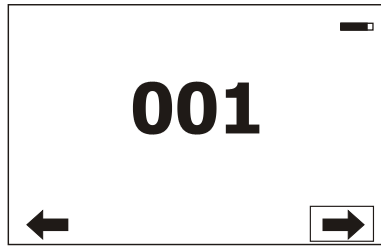
The menu page displays icons for each function that you can perform from the touch screen.

After switching the fixture on, the touch screen shows the screen with the ROBE logo:



The green icon at the top right corner of the screen indicates the level of the display battery charging. If the whole icon is green, the battery is fully charged while the red icon indicates exhausted battery. The battery charges during fixture operation.

Touch any part of the screen or press the [ENTER/Display On] button to display the initial screen with the current stored DMX address:



Touch the green arrow at the bottom right corner of the screen or press the [ENTER/Display On] button to enter the "Address" menu.

An item (such as a Tab, menu item, text box, icon) may be selected from a screen by simply touching the item in the list or by pressing the [NEXT] or [PREV] buttons to scroll through list items. With each press, the next item is highlighted. Press [ENTER/Display On] to select the highlighted item.

Before first fixture operation, set current date and time in the menu "Date & Time Settings" (menu path: Personality--> Date & Time Settings).

7.1 Tab "Address"



Settings - Select the menu to set desired fixture address setting.

DMX Address - Select the menu to set the DMX start address.

Ethernet Settings - The menu allows all needed settings for the Ethernet operation

Disable - The option disables Ethernet operation.

Artnet - Fixture receives Artnet protocol

gMAI - Fixture receives MANet 1 protocol

gMA2 - Fixture receives MANet 2 protocol

Art2DMX - Fixture receives Artnet protocol from the Ethernet input and sends DMX data to its DMX output (fixture works as an "Artnet/DMX converter", next fixture can be connected to its DMX output and you can build a standard DMX chain by connecting another fixtures. Only one fixture has to be connected to the Ethernet.

IP Address/Net Mask - Select this menu to set IP address. IP address is the Internet protocol address. The IP uniquely identifies any node (fixture) on a network. There cannot be 2 fixtures with the same IP address on the network!

Default IP Address - Preset IP address, you can set up only first byte of IP address (2 or 10) e.g. **002.019.052.086**.

Custom IP Address - The option enables to set up all bytes of IP address.

Net Mask - The option enables to set up all bytes of Net Mask.

ArtNet Universe - Use this item to set a Universe (0-255). The Universe is a single DMX 512 frame of 512 channels.

MANet Settings - Use this menu to set parameters for MANet operation.

MANet Universe I/II - The value of this item can be set in range 1-64.

MANet Session ID - The value of this item can be set in range 1-32.

7.2 Tab "Information"



Fixture Times - The menu provides readouts of fixture and lamp operation hours.

Power On Time Hours - Select this menu to read the number of fixture operation hours.

Total Hours - The item shows the total number of the operation hours since the Robin 600E Beam has been fabricated.

Resetable Hours - The item shows the number of the operation hours that the Robin 600E Beam has been powered on since the counter was last reset.

In order to reset this counter to 0, touch the text box next to the item "Resetable Hours:"

Lamp On Time Hours - Select this menu to read the number of the operation hours with the lamp on.

Total Hours - The item shows the total number of the operation hours with the lamp on since the Robin 600E Beam has been fabricated.

Resetable Hours - The item shows the number of the operation hours with the lamp on that the Robin 600E Beam has been powered on since the counter was last reset.

In order to reset this counter to 0, touch the text box next to the item "Resetable Hours:"

Lamp Strikes - Select this menu to read the number of lamp strikes.

Total Strikes - The item shows the total number of the lamp strikes since the Robin 600E Beam has been fabricated.

Resetable Strikes - The item shows the number of the lamp strikes since the counter was last reset.

In order to reset this counter to 0, touch the text box next to the item "Resetable Strikes:"

Fixture Temperatures - The menu is used to view temperatures of the fixture's inside.

Head Temperature - The menu shows temperatures in the fixture head near the lamp.

Current - A current temperature of the fixture head.

Maximum NonRes. - A maximum temperature of the fixture head since the fixture has been fabricated.

Maximum Res. - A maximum temperature of the fixture head since the counter was last reset.

In order to reset this counter to 0, touch the text box next to the item "Maximum Res."

Note: if the "Head Temperature" exceeds 85°C, the lamp will be switched off.

Base Temperature - The menu shows temperature in the fixture base (on the display PCB).

Current - A current temperature in the fixture base.

Maximum NonRes. - A maximum temperature in the fixture base since the fixture has been fabricated.

Maximum Res. - A maximum temperature in the fixture base since the counter was last reset.

In order to reset this counter to 0, touch the text box next to the item "Maximum Res."

Ambient Temperature - The menu shows temperature of the induced air on the fan in the fixture base .

Current - A current temperature of the induced air in the fixture base.

Maximum NonRes. - A maximum temperature of the induced air in the fixture base since the fixture has been fabricated.

Maximum Res. - A maximum temperature of the induced air in the fixture base since since the counter was last reset.

In order to reset this counter to 0, touch the text box next to the item "Maximum Res."

Air Filters - Regular cleaning of the air filters is very important for the fixture's life and performance.

Build-up of dust, dirt and fog fluid residues reduces the fixture's light output and cooling ability.

The two items of this menu help you to keep cleaning period of the air filters.

Alert period - Cleaning schedule for the fixture depends on the operating environment.

It is therefore impossible to specify accurate cleaning interval. This item allows you to change the cleaning interval of the air filters. This "alert" value is 300 hours and it is set as default. Inspect the fixture within its 300 hours of operation to see whether cleaning is necessary. If cleaning is required, clean all air filters and change the value in this menu on acceptable level. Min. level of alert period is 10 hours, max. is 300 hours.

Elapsed Time - The item allows you to read the time which remains to cleaning air filters. The time period is set in the menu mentioned above.

Expired time period is signalled by a negative mark (-) at the time value and a warning icon on the display.

Clean the filters and reset this menu item (by touching the text box next to the item "Elapsed Time").

DMX Values - The menu is used to read DMX values of each channel received by the fixture.

Wireless State - The menu serves for reading of the wireless operation status (only for Wireless DMX version).

Software Version - Select this item to read the software version of the fixture modules:

Display System - A display processor on the display board in the fixture base

Module M - A pan/Tilt processor on the main board in the fixture arm

Module S - A strobe/colour/stat.gobo processor on the board in the fixture head.

Module O - A focus/frost/rot. gobo processor on the board in the fixture head.

Module C - CMY processor on the board in the fixture head.

Product IDs - The menu is used to read the MAC Address ,RDM UID and RDM Label.

View Logs - Use this menu to read fixture's data which have been recorded during fixture operation. This collected data allows easier troubleshooting.

Fixture Errors - Use this menu to read fixture errors which have occurred during fixture operation.

There is a list of error folders:

Pan Errors

Tilt Errors

Dimmer 1 Errors

Dimmer 2 Errors

Colour Errors

Yellow Errors

Gobo Carousel Errors

Lamp is Too Hot

Active Lamp Timer

Temp. Sensor Errors

Focus Errors

Static Gobo Errors

Frost Errors

Cyan Errors

Magenta Errors

Gobo Errors

Clean Air Filters

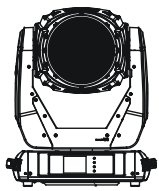
Overheated

Lamp Errors

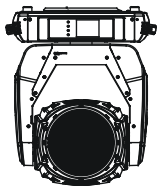
Iris Errors

Fixture States - Recorded following actions: Fixture On, Fixture Off, Lamp On, Lamp Off.

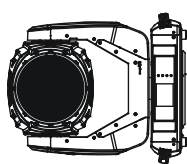
Fixture Position - Recorded installation positions of the fixture:



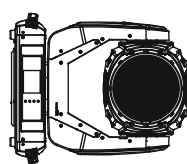
Disp-FN



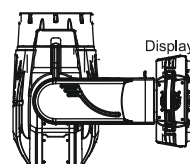
Disp-FI



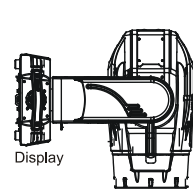
Disp-ST



Disp-SB



Disp-T



Disp-B

Fixture Temperatures - Recorded temperatures which have exceeded defined levels.

Note: The log buffer can contain 8000 records max. If the buffer is full, old data will be overwritten.

7.3 Tab "Personality"



User mode - The Robin 600E Beam allows you to recall up to 3 user settings. After switching the fixture on for the first time, the User A settings is active. Now all changes made in the "Personality" menu , "Addressing" menu and the "Music Trigger" and "Preset Playback" items from the "Stand-alone" menu are saved to the User A settings. If you now select the User B settings, from this moment the changes made in these menus will be saved to the User B settings. After switching the fixture off and on, the User B setting is active. In this way you may use the 3 fixture operating behaviours.

User A Settings - the function recalls the user A settings.

User B Settings - the function recalls the user B settings.

User C Settings - the function recalls the user C settings.

DMX Preset - Use the menu to select desired channel mode.

Mode 1 - 26 control channels

Mode 2 - 20 control channels

Mode 3 - 18 control channels

View Selected Preset - Use the menu to display channels included in the selected mode.

Pan/Tilt Settings - Use the menu set behaviour of both pan and tilt movements.

Pan Reverse - The item allows to invert pan movement.

Tilt Reverse - The item allows to invert tilt movement.

Pan/Tilt Feedback - The item allows to return the moving head to the required pan/tilt position after changing the position by an external force if this option is set on.

Note. Be careful, the Pan/Tilt Feedback should be permanent On, the option Off is not suitable for standard operation and the head of the fixture can be damaged!

Pan/Tilt mode - Use this menu to set the mode of the pan/tilt movement

Time mode – The pan and tilt will move with different speeds and they will come at the same time to the end point of their tracks (pan and tilt use their optimal speeds).

Time of the pan/tilt movement (25.5 sec. max.) is set by the channel "Pan/Tilt speed, Pan/Tilt time".

Speed Mode - Both Pan and tilt will move with the same speed as adjusted at the channel "Pan/Tilt speed, Pan/Tilt time".

Microphone Sensitivity - Enter the menu if you want to adjust the microphone sensitivity from 1 (max.) to 20 (min.).

Blackout Settings - Use the menu if you need to close the light output under certain conditions which are described below

Blackout DMC - Blackout during movement correction. Set this option On if you wish to close light output during the time when the head goes to its correct position, which has been changed by an external force.

Active Blackouts - Use this menu if you wish to close the light output during effect changes.

Pan/Tilt Moving - The menu item enables to close light output while the pan/tilt coordinates are changing.

Colour Wheel Moving - The menu item enables to close light output while the colour wheel is moving.

Gobo Wheel Moving - The menu item enables to close light output while the rot. gobo wheel or the static gobo wheel is moving.

Init Effect Positions - Use the menu to set all effects to the desired positions at which they will stay after switching the fixture on without DMX signal connected.

Screen Settings - Use this menu to change the touch screen settings.

Display Intensity - The item allows to control the intensity of the screen (1-min., 10-max.).

Screen saver Delay - The item allows you to keep the screen on or to turn it off automatically after 1-10 minutes after last touch (or pressing any button on the control panel).

Touchscreen Lock - The item allows you to lock the screen after last touch (or pressing any button on the control panel). The time delay can be set in range of 1-10 minutes. To unlock the screen, press the [ENTER/Display On] button.


Recalibrate Touchscreen - The item starts calibration of the touchscreen. Follow the instructions on the screen.

Display Orientation - The menu allows to change display orientation.

Normal - Standard display orientation if the fixture is placed horizontally (e.g. on the ground).

Inverted - Inverted orientation (needed if the fixture is hanging on the truss).

Auto - The option activates a gravitation sensor for automatic screen orientation.

Note: **Auto** option is set as default. You change the display orientation by touching the icon  on the display, and the option set in the "Display Orientation" menu is temporarily overridden.

Temperature unit - Use the menu item to change temperature unit from °C to °F.

Fan Mode - Use the menu to set the fixture fans to max. power mode ("**High**") or to auto-control mode ("**Auto**"). The third mode ("**Silent**") allows to set desired noise of the fixture fans and the adjusted noise level is kept during fixture operation. The "**Fan Noise Level**" menu serves for adjusting fans power from min. to max. To switch the fixture to the "Silent" mode can be also realized by DMX value from range of 241-255 on the "power/Special functions channel".

Note: the light output near min. level of the fan noise is reduced.

Date & Time Settings - Use this menu to set current date and time for the fixture log system (menu "**View Logs**"). Set this menu item before first fixture operation.

Unlink Wireless Adapter - The menu serves for unlinking the fixture from the transmitter (only WDMX version)

Default Settings - The menu item allows to set all fixture parameters to the default (factory) values.

7.4 Tab "Manual Control"



Reset Functions - The menu allows to reset the fixture either per function modules or all modules together.

Total Reset - The item resets all function modules.

Pan/Tilt Reset - The item resets a pan and tilt movement.

Colour System Reset - The item resets a colour wheel and CMY flags.

Gobo System Reset - The item resets a static/rotating gobo wheel.

Strobe Reset - The item resets strobe lamellas.

Optics/Frost Res. - The item resets a focus and a frost module.

Iris Reset - The item resets an iris.

Preset Effect Control - Use the menu to show preset positions of each channel effect.

Manual Effect control - Use the menu to control all fixture channels by means of the control panel.

7.5 Tab "Stand-alone"



Test Sequences - Use the menu to run a test/demo sequences without an external controller, which will show you some possibilities of using Robin 600E Beam.

Dynamic Mode - This mode uses all Robin 600E Beam functions including pan/tilt movement and therefore

is good for a complete introduction of the fixture.

Static Mode - This mode is suitable for projections on the wall, ceiling or ground without any pan/tilt movement. Adjust the pan, tilt, and focus to desired positions and start test sequences by touching the green ► icon.

Music Trigger - Use the item to activate the sound control of the running program via the built-in microphone.

Preset Playback - This menu allows you to select the program which will be played in a loop after switching the fixture on (the option is commonly used in a stand-alone operation without an external controller).

None - The option disables "Presetting playback" function.

Test - The option starts the test sequences.

Prog. 1 - The option starts user program No. 1.

Prog. 2 - The option starts user program No. 2.

Prog. 3 - The option starts user program No. 3.

Play program - Use the menu to run desired program in a loop.

Play Program 1 - The option starts user program No.1.

Play Program 2 - The option starts user program No. 2.

Play Program 3 - The option starts user program No. 3.

Edit Program - Use the menu to create or to edit desired program. The Robin 600E Beam offers 3 free programs, each up to 100 steps.

Edit Program 1 - The option allows to edit user program No.1.

Edit Program 2 - The option allows to edit user program No.2.

Edit Program 3 - The option allows to edit user program No.3

To edit program:

1. Touch the item which you want to edit ("Edit Program 1" - "Edit Program 3").
2. Touch the item "Edit Program Steps".
3. Touch the item "Step 1".
4. From the list of effects touch desired effect and set its value. Browse through the list by touching the [up arrow]

and [down arrow] and set all desired effects.

An item "Step Time" (value of 0-25.5 sec.) is the time during which effects last in the current step

5. Save adjusted effects to the current step by touching the [confirm] or save and copy them to the following step by touching the [confirm+copy]. By touching the text box "Preview" next to the current program step you can view created scene.

6. Repeat the steps 4 and 5 for next program steps.

7. After editing desired program steps, adjust the length of the program by touching the text boxes "Start Step" and "End Step".

Meaning of the icons used in the "Edit Program" menu:

↓ - moves down on the next page

✓ - saves adjusted values and leaves menu

↑ - moves up on the previous page

✓ - saves values to the current step and copy them to the following prog. step

✗ - leaves menu without saving values

There is a chart describing behaviour of items "Pan/Tilt Macro" and "P./T. Macro Speed".

| | |
|------------|--|
| DMX | Pan/Tilt Macro |
| 0 - 9 | Disabled pan/tilt macro |
| 10 - 31 | Reserved |
| 32 - 63 | Figure of circle (from small to large) |
| 64 - 95 | Figure of horizontal eight (from small to large) |
| 96 - 127 | Figure of vertical eight (from small to large) |
| 128 - 159 | Figure of rectangle (from small to large) |
| 160 - 191 | Figure of triangle (from small to large) |
| 192 - 223 | Figure of star (from small to large) |
| 224 - 255 | Figure of cross (from small to large) |
| | Pan/Tilt Macro Speed |
| 0 | No macro generation |
| 1 - 127 | Macro generation from fast to slow-forwards |
| 128 - 129 | No macro generation |
| 130 - 255 | Macro generation from slow to fast-backwards |

7.6 Tab "Service"



Adjust DMX Values - The menu allows you to set all effects to desired positions before fine calibration of the effects .

Adjust Lamp - This item opens the light output of the fixture and enables to focus the light beam on the wall to perform the fine lamp adjustment.

Calibrations - This menu enables fine calibration of fixture effects and download default calibration values.

Calibrate Effects - The menu allows the fine adjustment of effects. The menu contains list of effects which can be calibrated:

Pan- a fine pan movement

Tilt - a fine tilt movement

Colour Wheel - a colour wheel

Focus - a focus module

Static Gobo - a static gobo wheel

Rot. Gobo Wheel - a carousel of rotating gobos

Iris - fine iris movement

Cyan - cyan flags

Magenta - magenta flags

Yellow - yellow flags

R. Gobo Index - an indexing of rotating gobo

Dimmer 1 - a dimmer lamella 1

Dimmer 2- a dimmer lamella 2

By using these items you can calibrate and adjust effects to their right positions.

Calibration via the control board

1. Disconnect DMX controller from the fixture and enter the "Calibrate Effects" menu.

2. Use the [up arrow] and [down arrow] to find desired effect and touch it to enter the fine effect adjustment screen.

3. Set desired value and save it by touching the [confirm].

4. Repeat steps 2 and 3 for the next effects.
5. After calibrating all effects, touch the [confirm] to save all adjusted values and reset the fixture.

Calibration via the DMX controller

1. Connect DMX controller to the fixture and set fixture effects to the desired positions before fine calibration.
2. Enter the "Calibrate Effects" menu and now you can exactly calibrate desired effects by DMX controller.

There is a calibration protocol:

| Effect | Mode 1 | Mode 2 | Mode 3 |
|-------------------|------------|------------|------------|
| Pan | channel 27 | channel 21 | channel 19 |
| Tilt | channel 28 | channel 22 | channel 20 |
| Colour wheel | channel 29 | channel 23 | channel 21 |
| Cyan | channel 30 | channel 24 | channel 22 |
| Magenta | channel 31 | channel 25 | channel 23 |
| Yellow | channel 32 | channel 26 | channel 24 |
| Static Gobo wheel | channel 33 | channel 27 | channel 25 |
| Rot. Gobo Wheel | channel 34 | channel 28 | channel 26 |
| Rot. Gobo Index. | channel 35 | channel 29 | channel 27 |
| Iris | channel 36 | channel 30 | channel 28 |
| Focus | channel 37 | channel 31 | channel 29 |
| Dimmer 1 | channel 38 | channel 32 | channel 30 |
| Dimmer 2 | channel 39 | channel 33 | channel 31 |

After having calibrated all effects, touch the [confirm] to save adjusted values and reset the fixture.

Load Default Calibrations - The item loads default (factory) calibration values.

Updating software - The menu item allows you to update software in the fixture via either serial or USB port of PC.

The following are required in order to update software:

- PC running Windows 95/98/2000/XP or Linux
- DMX Software Uploader
- Flash cable RS232/DMX No.13050624 (if you want to use a serial port of PC)
- Robe Universal Interface (if you want to use a USB port of PC)

Note 1: Software update should execute a qualified person. If you lack qualification, do not attempt the update yourself and ask for help your ROBE distributor.

Note 2: DMX address, IP address, programs 1-3 and all items in the menu "Personality" will be set to their default (factory) values.

To update software in the fixture:

I. Installation of the DMX Software Uploader.

1. DMX Software Uploader program is available from the ROBE web site at WWW.robe.cz.
2. Make a new directory (e.g. Robe_Uploader) on your hard disk and download the software to it.
3. Unpack the program from the archive. If the Robe fixture is produced in both magnetic and electronic ballast version, name of DMX Software Uploader is the same for both versions.

II. Fixture software updating.

1. Determine which of your ports is available on your PC and connect it:
 - with the DMX input of the fixture if you using the flash cable RS232/DMX
 - with the DMX output of the Robe Universal Interface if you using the USB cable.
 Disconnect the fixture from the other fixtures in a DMX chain. Turn both the computer and the fixture on. Make sure the lamp is switched off (only if the fixture involves a lamp).

2. Switch the fixture to the updating mode by touching the "Updating Software " item

Note: If you do not want to continue in software update, you have to switch off and on the fixture to escape from this menu.

We recommend to cancel all running programs before starting the Software Uploader.

3. Run the Software Uploader program. Select desired COM and then click on the Connect button. (Select COM if the serial port is used or DreamBox1 if the USB port is used).

If the connection is OK, click on the "Start Uploading button" to start uploading. It will take several minutes to perform software update.

If the option "Incremental Update" is not checked, all processors will be updated (including processors with the same software version).

If you wish to update only later versions of processors, check the "Incremental Update box".

Avoid interrupting the process. Update status is being displayed in the Info Box window.

When the update is finished, the line with the text "The fixture is successfully updated" will appear in

this window and the fixture will reset with the new software.

Note: In the case of an interruption of the upload process (e.g. power cut), the fixture keeps the updating mode and you have to repeat the software update again.

7.7 Icon "Lamp menu"



Lamp Status - The item enables to switch the lamp on/off. The MSR Gold 575/2 MiniFastFit lamp is a cold restrike type, that means, that it has to be cold before striking.

Settings - The menu offers many items for setting of lamp behaviour.

Lamp Ignition Delay - The item allows to set the time delay (0-90sec.) before igniting the lamp by DMX command. If the lamp is started directly from the control panel, the time delay will be ignored.

Lamp Light Sensor - Select this item to switch the light sensor off. The option "On" is intended for a standard operation. The option "Off" is for "emergency operation" only! If the lamp light sensor is switched off, the fixture will still try to ignite the lamp (even when the lamp is damaged or absent), on this account some electronics parts of the fixture can be damaged!

Lamp On/Off Settings - Use the menu to set rules for automatic switching on/off the lamp.

Lamp On Power On - If the item is on, the lamp will be automatically turn on after switching the fixture on.

Lamp Off via DMX - The item enables to switch the lamp off via DMX command from DMX controller.

Lamp On if DMX Present - The item allows you to strike the lamp automatically after 26 seconds if DMX signal is present on the fixture's DMX input.

Lamp Off if not DMX - The item allows you to switch off the lamp automatically after 2 minutes if DMX signal is missing on the fixture's DMX input.

8. RDM

This fixture supports RDM operation. RDM (Remote Device Management) is a bi-directional communications protocol for use in DMX512 control systems, it is the new open standard for DMX512 device configuration and status monitoring.

The RDM protocol allows data packets to be inserted into a DMX512 data stream without adversely affecting existing non-RDM equipment. By using a special „Start Code,“ and by complying with the timing specifications for DMX512, the RDM protocol allows a console or dedicated RDM controller to send commands to and receive messages from specific moving lights.

RDM allows explicit commands to be sent to a device and responses to be received from it.

The list of commands for Robin 600E Beam is the following.

| Parameter ID | Discovery command | SET command | GET command |
|--------------------------|-------------------|-------------|-------------|
| DISC_UNIQUE_BRANCH | * | | |
| DISC_MUTE | * | | |
| DISC_UN_MUTE | * | | |
| DEVICE_INFO | | | * |
| SUPPORTED_PARAMETERS | | | * |
| SOFTWARE_VERSION_LABEL | | | * |
| DMX_START_ADDRESS | | * | * |
| IDENTIFY_DEVICE | | * | * |
| DEVICE_MODEL_DESCRIPTION | | | * |
| MANUFACTURER_LABEL | | | * |
| DEVICE_LABEL | | * | * |
| SENSOR_DEFINITION | | | * |
| SENSOR_VALUE | | | * |
| DISPLAY_INVERT | | * | * |
| DISPLAY_LEVEL | | * | * |
| PAN_INVERT | | * | * |

| Parameter ID | Discovery command | SET command | GET command |
|-----------------------------|-------------------|-------------|-------------|
| TILT_INVERT | | * | * |
| DEVICE_RESET | | * | |
| DMX_PERSONALITY | | * | * |
| DMX_PERSONALITY_DESCRIPTION | | | * |
| STATUS_MESSAGES | | | * |
| STATUS_ID_DESCRIPTION | | | * |
| LAMP_STATE | | * | * |
| LAMP_ON_MODE ¹ | | * | * |
| DEVICE_HOURS ² | | | * |
| LAMP_HOURS ² | | | * |
| LAMP_STRIKES ² | | | * |

¹...Another options for this command (only for Robe´s fixtures):

value PARAMETER_DATA=0x84 - lamp OFF by DMX value on DMX channel

value PARAMETER_DATA=0x88 - lamp OFF if DMX is not present

²...Commands relative resetable values

9. Wireless DMX operation

The wireless version of the Robin 600E Beam is equipped with the Lumen Radio CRMX module and antenna for receiving DMX signal. CRMX module operates on the 2.4 GHz band.

To link the fixture with DMX transmitter.

The fixture can be only linked with the transmitter by running the link procedure at DMX transmitter .

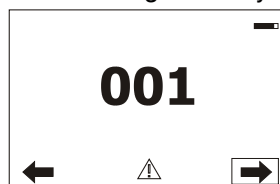
After linking , the level of DMX signal (0-100 %) is displayed in the menu item “Wireless State“ (Information -->Wireless State)

To unlink the fixture from DMX transmitter.

The fixture can be unlinked from receiver via the menu item “ Unlink Wireless Adapter“ (Personality--> Unlink Wireless Adapter.-->).

10. Error and information messages

Occurred errors during fixture operation are signalled by the yellow warning icon at the bottom line of the screen:



Touch the warning icon or press the [ESCAPE] button to display error messages.

List of error and information messages:

Active Lamp Timer

This message appears if you try to switch on the lamp within 5 minutes after having switched it off. The fixture will store the attempt to ignite the lamp and automatically ignites the lamp when the 5 minutes period will expire.

Lamp Error

If the ignition of the lamp is 4 times unsuccessful (the “Active Lamp Timer” message appeared 3 times before), the display shows “Lamp Error”, meaning that the lamp could be damaged or even missed or there could be a failure on the igniter or ballast.

Overheated

This message informs that the fixture had been overheated and the lamp was switched off by means of the head temperature sensor.

Lamp is too hot

The message will appear on the display if the lamp doesn't ignite within 5 seconds.

Temper.Sensor Error

The message informs you that the communication between the head temperature sensor and the main processor failed and the lamp has been switched off.

Tilt Error 1 (Tilt Error 2)

This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet is missing) or the stepping motor is defective or its driving IC on the PCB. The head is not located in the default position after the reset.

Pan Error 1 (Pan Error 2)

This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunctions (sensor failed or magnet is missing) or the stepping motor is defective or its driving IC on the PCB. The yoke is not located in the default position after the reset of the fixture.

Colour Wheel Error 1(Colour Wheel Error 2)

The messages will appear after the reset of the colour wheel if this wheel is not located in the default position.

Cyan Lamella Error 1 (Cyan Error 2)

The messages will appear after the reset of the cyan flag if the flag is not located in the default position.

Magenta Lamella Error 1 (Magenta Error 2)

The messages will appear after the reset of the magenta flags if the flag is not located in the default position.

Yellow Lamella Error 1 (Yellow Error 2)

The messages will appear after the reset of the yellow flags if the flag is not located in the default position.

Strobe 1 Error 1 (Strobe 1 Error 2)

The messages will appear after the reset of the dimmer/strobe module if the strobe lamella 1 is not located in the default position.

Strobe 2 Error 1 (Strobe 2 Error 2)

The messages will appear after the reset of the dimmer/strobe module if the strobe lamella 2 is not located in the default position.

Prism Error 1 (Prism Error 2)

The messages will appear after the reset of the prism wheel if this wheel is not located in the default position.

Focus Error 1 (Focus Error 2)

The messages will appear after the reset of the focus module if the focus lens is not located in the default.

Gobo Carousel Error 1 (Gobo Carousel Error 2)

The messages will appear after the reset of the rotating gobo wheel if this wheel is not located in the default position.

Gobo rotation Error 1 (Gobo Rotation Error 2)

The messages will appear after the reset of the rotating gobo wheel if the rotating gobos are not located in the default positions.

Static Gobo Error 1 (Static Gobo Wheel Error 2)

The messages will appear after the reset of the static gobo wheel if this wheel is not located in the default position.

Clean Air Filters

The message informs that the item "Elapsed Time" in the "Fixture Information" menu is at 0 value. Clean air filters and reset this counter.

11. Technical Specifications

Electrical:

Power supply:.....electronic auto-ranging
Input voltage range:..... supply 100-240V, 50/60Hz
Live Fuse:.....T 8 A@230V, T 15A@120V
Neutral Fuse:.....T 8 A@230V,T 15A@120V
Power consumption*:.....770 VA@230V (750W, power factor 0.976)
*Allow for a deviation of +/-10%

Lamp:

Approved model: MSR Gold 575/2 MiniFastFit (37000 Lm, 7500K, 750 hrs lamp life)
Base:PGJX 28

Ballast:

Electronic

Optical System:

High luminous-efficiency glass reflector
Beam angle: 6.5°-1.5°

Colour wheel:

7 replaceable 'SLOT&LOCK' dichroic filters (including UV filter)

CMY mixing module

Smooth CMY colour mixing system
30 colour macros

Static gobo wheel:

7 metal gobos
Gobo wheel continuous rotation

Rotating gobo wheel:

7 glass gobos can be indexed and rotated in both directions at different speeds
Gobo wheel continuous rotation
Glass gobos: outside diameter=26.8 mm, max. thickness=4 mm, high temperature borofloat or better glass
"Slot&lock" system for easy replacement of gobos

Iris:

Motorized iris for different beam diameters

Frost filter:

Separate,variable frost filter

Focus

Motorized focus: from 7m to infinity

Strobe:

Strobe effect with variable speed (max.15 flashes/sec.)
Electronic strobbing (max. 33 flashes/sec.)

Dimmer:

Smooth dimmer from 0 - 100 %

Electronics:

Graphic touch screen for fixture setting and addressing
Gravitation sensor for auto screen positioning
Battery backup of the touch screen
Readout fixture and lamp usage, receiving DMX values, temperatures, etc
Built-in analyzer for easy fault finding, error messages
Remotely switching on/off the lamp
Built-in demo sequences

- Black-out while head moving, colour or gobo changing
- Silent fans cooling,
- Self-resetable thermo-fuse
- Stand-alone operation
- 3 user editable programs, each up to 100 steps
- Supported protocols: USITT DMX 512, RDM, ArtNet, MANet, MANet2
- Support of RDM (Remote Device Management)
- 3 DMX modes (18, 20, 26 control channels)

Wireless DMX/RDM module (only for WDMX version)

- Compliance with USITT DMX-512 (1986 & 1990) and 512-A
- Full DMX fidelity and frame integrity
- Auto sensing of DMX frame rate and frame size
- <5ms DMX latency
- Operational frequency range of 2402-2480 MHz
- Producer: LumenRadio

Pan/Tilt

- Pan movement range 540°
- Tilt movement range 260°
- 16 bit movement resolution
- Automatic Pan/Tilt position correction
- Remotely controllable speed of pan/tilt movement for easy programming
- Movement control: tracking and vector
- Pan/tilt-lock mechanism

Rigging

- Mounting points: 2 pairs of 1/4-turn locks
- Mounting horizontally or vertically via 2 Omega brackets

Temperatures

- Maximum ambient temperature : 45° C
- Maximum housing temperature : 100° C

Minimum distances

- Min. distance from flammable surfaces: 1 m
- Min. distance to lighted object: 7 m

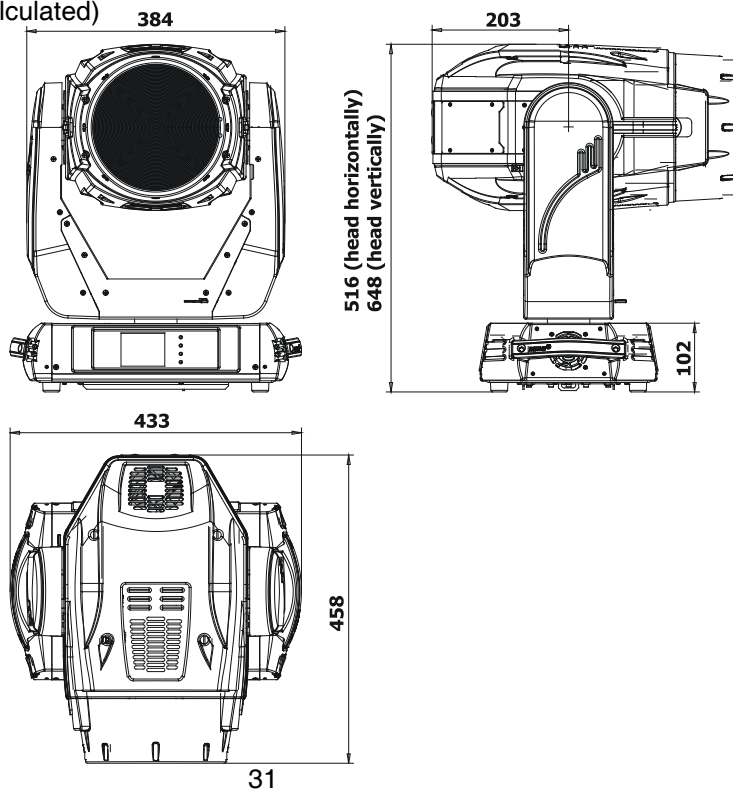
Total heat dissipation

2508 BTU/h (calculated)

Weight (net):

19.6 kg

Dimensions (mm)



Accessories

- Omega holder (No.99010420).....2 pcs

Optional Accessories

- Flash cable RS232/DMX (No.13050624)

12. Maintenance and cleaning

It is absolutely essential that the fixture is kept clean and that dust, dirt and smoke-fluid residues must not build up on or within the fixture. Otherwise, the fixture's light-output will be significantly reduced. Regular cleaning will not only ensure the maximum light-output, but will also allow the fixture to function reliably throughout its life. A soft lint-free cloth moistened with any good glass cleaning fluid (except front objective lens) is recommended, under no circumstances should alcohol or solvents be used!

DANGER !
Disconnect from the mains before starting any maintenance work

The front objective lens (plastic) will require monthly cleaning as smoke-fluid tends to building up residues, reducing the light-output very quickly. For its cleaning, use a dry clout or an air-jet only. Never use water or any other cleaning fluid. The cooling-fans should be cleaned monthly also.

The interior of the fixture should be cleaned at least annually using a vacuum-cleaner or an air-jet. Dichroic colour filters, CMY lamellas, gobo wheels and the internal lenses should be cleaned monthly. Remove dust and dirt from the fans and cooling vents using a soft brush and vacuum-cleaner.

Important! Check the air filters periodically and clean before they become clogged!

Clean the air filters placed in the fixture's covers. Use a vacuum cleaner, compressed air or you can wash them and put back dry.

After replacing the air filters, reset the elapsed time counter in the menu "Information" (Information--->Air Filters---> Elapsed Time).

13. ChangeLog

This section summarizes all types of changes in the user manual.

| Version of the manual | Date of issue | Description of changes |
|-----------------------|---------------|---|
| 1.4 | 24/09/2012 | Chapter "Maintenance and cleaning", added notice: The front objective lens (plastic) will require monthly cleaning as smoke-fluid tends to building up residues, reducing the light-output very quickly. For its cleaning, use a dry clout or an air-jet only |

*Specifications are subject to change without notice.
September 24, 2012*

DMX protocol

| Robin 600E Beam - DMX protocol, version 1.2 | | | | | | |
|---|---|---|-----------|---|-----------------|--|
| Mode/channel | | | DMX Value | Function | Type of control | |
| 1 | 2 | 3 | | | | |
| 1 | 1 | 1 | | Pan | | |
| | | | 0 - 255 | Pan movement by 540° | proportional | |
| 2 | 2 | * | | Pan Fine | | |
| | | | 0 - 255 | Fine control of pan movement | proportional | |
| 3 | 3 | 2 | | Tilt | | |
| | | | 0 - 255 | Tilt movement by 260° | proportional | |
| 4 | 4 | * | | Tilt fine | | |
| | | | 0 - 255 | Fine control of tilt movement | proportional | |
| 5 | 5 | 3 | | Pan/Tilt speed , Pan/Tilt time | | |
| | | | 0 | Max. speed (tracking mode) | step | |
| | | | | <i>P./T. speed-set Speed Mode in menu: Pan/Tilt Mode</i> | | |
| | | | 1 - 255 | Speed from max. to min. (vector mode) | proportional | |
| | | | | <i>P./T. time - set Time Mode in menu: Pan/Tilt Mode</i> | | |
| | | | 1 - 255 | Time from 0.1 s to 25.5 sec. | proportional | |
| 6 | 6 | 4 | | Power/Special functions | | |
| | | | 0 - 49 | Reserved | | |
| | | | | <i>To activate following junctions, stop in DMX value for at least 3 s and shutter must be closed at least 3 sec. („Shutter,Strobe“ channel 24/19/17 must be at range: 0-31 DMX). Corresponding menu items are temporarily overridden).</i> | | |
| | | | 50 - 59 | Pan/Tilt speed mode | step | |
| | | | 60 - 69 | Pan/Tilt time mode | step | |
| | | | 70 - 79 | Blackout while pan/tilt moving | step | |
| | | | 80 - 89 | Disabled blackout while pan/tilt moving | step | |
| | | | 90 - 99 | Blackout while colour wheel moving | step | |
| | | | 100 - 109 | Disabled blackout while colour wheel moving | step | |
| | | | 110 - 119 | Blackout while gobo wheel moving | step | |
| | | | 120-129 | Disabled blackout while gobo wheel moving | step | |
| | | | | <i>To activate following functions, stop in DMX value for at least 3 seconds.</i> | | |
| | | | 130 - 139 | Lamp On,reset(total reset except pan/tilt reset) | step | |
| | | | 140 - 149 | Pan/Tilt reset | step | |
| | | | 150 - 159 | Colour system reset | step | |
| | | | 160 - 169 | Gobo wheels reset | step | |
| | | | 170 - 179 | Dimmer/Shutter reset | step | |
| | | | 180 - 189 | Focus/frost reset | step | |
| | | | 190 - 199 | Iris reset | | |
| | | | 200 - 209 | Total reset | step | |
| | | | 210 - 229 | Reserved | | |
| | | | 230 - 239 | Lamp Off | step | |
| | | | 240 | Disabled "Silent" mode of fans | step | |
| | | | | <i>To activate the "Silent mode", stop in range of 241-255 at least 3 sec.</i> | | |
| | | | 241-255 | Silent mode of fans: Fans noise fom min. to max | proportional | |
| 7 | 7 | 5 | | Colour wheel | | |
| | | | | <i>Continual positioning</i> | | |
| | | | 0 | Open/white | proportional | |
| | | | 16 | Deep red | proportional | |
| | | | 32 | Deep blue | proportional | |
| | | | 48 | Orange | proportional | |

DMX protocol

| Mode/channel | | | DMX Value | Function | Type of control |
|--------------|-----------|----------|-----------|--|-----------------|
| 1 | 2 | 3 | | | |
| | | | 64 | Green | proportional |
| | | | 80 | 3200K temperature filter | proportional |
| | | | 96 | Amber | proportional |
| | | | 112 | UV filter | proportional |
| | | | 128-129 | White | step |
| | | | | Positioning | |
| | | | 130-137 | Deep red | step |
| | | | 138-145 | Deep blue | step |
| | | | 146-153 | Orange | step |
| | | | 154-163 | Green | step |
| | | | 164-171 | 3200K temperature filter | step |
| | | | 172-181 | Amber | step |
| | | | 182-189 | UV filter | step |
| | | | 190 - 215 | Forwards rainbow effect from fast to slow | proportional |
| | | | 216 - 217 | No rotation | step |
| | | | 218 - 243 | Backwards rainbow effect from slow to fast | proportional |
| | | | 244 - 249 | Random colour selection by audio control (Set microphone sensitivity in menu „Personality“) | step |
| | | | 250 - 255 | Auto random colour selection from fast to slow | proportional |
| 8 | * | * | | Colour wheel - fine positioning | |
| | | | 0 - 255 | Fine positioning | proportional |
| 9 | 8 | 6 | | Cyan | |
| | | | 0 - 255 | Cyan (0-white, 255-full cyan) | proportional |
| 10 | 9 | 7 | | Magenta | |
| | | | 0 - 255 | Magenta (0-white, 255-full magenta) | proportional |
| 11 | 10 | 8 | | Yellow | |
| | | | 0 - 255 | Yellow (0-white, 255-full yellow) | proportional |
| 12 | 11 | 9 | | CMY colour macros | |
| | | | 0 - 7 | No function | step |
| | | | 8 - 15 | Macro 1 | step |
| | | | 16 -23 | Macro 2 | step |
| | | | 24-31 | Macro 3 | step |
| | | | 32-39 | Macro 4 | step |
| | | | 40-47 | Macro 5 | step |
| | | | 48-55 | Macro 6 | step |
| | | | 56-63 | Macro 7 | step |
| | | | 64-71 | Macro 8 | step |
| | | | 72-79 | Macro 9 | step |
| | | | 80-87 | Macro 10 | step |
| | | | 88-95 | Macro 11 | step |
| | | | 96-103 | Macro 12 | step |
| | | | 104-111 | Macro 13 | step |
| | | | 112-119 | Macro 14 | step |
| | | | 120-127 | Macro 15 | step |
| | | | 128-135 | Macro 16 | step |
| | | | 136-143 | Macro 17 | step |
| | | | 144-151 | Macro 18 | step |
| | | | 152-159 | Macro 19 | step |
| | | | 160-167 | Macro 20 | step |
| | | | 168-175 | Macro 21 | step |

DMX protocol

| Mode/channel | | | DMX Value | Function | Type of control |
|--------------|-----------|-----------|-----------|---|-----------------|
| 1 | 2 | 3 | | | |
| | | | 176-183 | Macro 22 | step |
| | | | 184-191 | Macro 23 | step |
| | | | 192-199 | Macro 24 | step |
| | | | 200 - 207 | Macro 25 | step |
| | | | 208 - 215 | Macro 26 | step |
| | | | 216 - 223 | Macro 27 | step |
| | | | 224 - 231 | Macro 28 | step |
| | | | 232 - 239 | Macro 29 | step |
| | | | 240 - 243 | Macro 30 | proportional |
| | | | 244 - 249 | Random macro selection by audio control (Set microphone sensitivity in menu "PErsonality") | step |
| | | | 250 - 255 | Auto random macro selection from fast to slow | proportional |
| 13 | 12 | 10 | | Effect Speed | |
| | | | | <i>Speed of CMY movement and Rot. Gobo selection</i> | |
| | | | 0-255 | Speed of CMY movement from max. to min. | proportional |
| | | | 0 - 255 | Speed of Rot. Gobo Selection from max. to min. (0-25.5sec.) | proportional |
| 14 | 13 | 11 | | Static gobo wheel | |
| | | | | <u>Continual Positioning</u> | |
| | | | | <i>In range 0-64 DMX is possible fine gobo positioning - set value on channel 15</i> | |
| | | | 0 | Open/hole | proportional |
| | | | 7 | Gobo 1 | proportional |
| | | | 14 | Gobo 2 | proportional |
| | | | 21 | Gobo 3 | proportional |
| | | | 28 | Closed | proportional |
| | | | 35 | Gobo 4 | proportional |
| | | | 42 | Gobo 5 | proportional |
| | | | 49 | Gobo 6 | proportional |
| | | | 56 | Gobo 7 | proportional |
| | | | 64 | Open/hole | proportional |
| | | | | <u>Positioning</u> | |
| | | | 65 - 71 | Gobo 1 | step |
| | | | 72 - 78 | Gobo 2 | step |
| | | | 79 - 85 | Gobo 3 | step |
| | | | 86 - 91 | Gobo 4 | step |
| | | | 92 - 97 | Gobo 5 | step |
| | | | 98 - 103 | Gobo 6 | step |
| | | | 104 - 109 | Gobo 7 | step |
| | | | | <u>Shaking gobos from slow to fast</u> | |
| | | | 110 - 123 | Gobo 1 | proportional |
| | | | 124 - 135 | Gobo 2 | proportional |
| | | | 136 - 149 | Gobo 3 | proportional |
| | | | 150 - 161 | Gobo 4 | proportional |
| | | | 162 - 175 | Gobo 5 | proportional |
| | | | 176 - 187 | Gobo 6 | proportional |
| | | | 188 - 199 | Gobo 7 | proportional |
| | | | 200 - 201 | Open/hole | step |
| | | | 202 - 221 | Forwards gobo wheel rotation from fast to slow | proportional |
| | | | 222 - 223 | No rotation | |
| | | | 224 - 243 | Backwards gobo wheel rotation from slow to fast | proportional |

DMX protocol

| Mode/channel | | | DMX Value | Function | Type of control |
|--------------|-----------|-----------|-----------|---|-----------------|
| 1 | 2 | 3 | | | |
| | | | 244 - 249 | Random gobo selection by audio control <i>(Set microphone sensitivity in menu „Personality“)</i> | step |
| | | | 250 - 255 | Auto random gobo selection from fast to slow | proportional |
| 15 | * | * | | Static gobo wheel-fine | |
| | | | 0 - 255 | Fine positioning | proportional |
| 16 | 14 | 12 | | Rotating gobo wheel <i>In the range of 0-59 DMX the gobo selection speed is controlled by the Effect Speed channel.</i> | |
| | | | | <i>Index - set indexing on channel 17/15/13</i> | |
| | | | 0-3 | Open/hole | step |
| | | | 4-7 | Gobo 1 | step |
| | | | 8-11 | Gobo 2 | step |
| | | | 12-15 | Gobo 3 | step |
| | | | 16-19 | Gobo 4 | step |
| | | | 20-23 | Gobo 5 | step |
| | | | 24-27 | Gobo 6 | step |
| | | | 28-31 | Gobo 7 | step |
| | | | | <i>Rotation - set rotation on channel 17/15/13</i> | |
| | | | 32-35 | Gobo 1 | step |
| | | | 36-39 | Gobo 2 | step |
| | | | 40-43 | Gobo 3 | step |
| | | | 44-47 | Gobo 4 | step |
| | | | 48-51 | Gobo 5 | step |
| | | | 52-55 | Gobo 6 | step |
| | | | 56-59 | Gobo 7 | step |
| | | | | <i>Shaking gobos from slow to fast</i> | |
| | | | | <i>Index - set indexing on channel 17/15/13</i> | |
| | | | 60 - 69 | Gobo 1 | proportional |
| | | | 70 - 79 | Gobo 2 | proportional |
| | | | 80 - 89 | Gobo 3 | proportional |
| | | | 90 - 99 | Gobo 4 | proportional |
| | | | 100 - 109 | Gobo 5 | proportional |
| | | | 110 - 119 | Gobo 6 | proportional |
| | | | 120 - 129 | Gobo 7 | proportional |
| | | | | <i>Shaking gobos from slow to fast</i> | |
| | | | | <i>Rotation - set rotation on channel 17/15/13</i> | |
| | | | 130 - 139 | Gobo 1 | proportional |
| | | | 140 - 149 | Gobo 2 | proportional |
| | | | 150 - 159 | Gobo 3 | proportional |
| | | | 160 - 169 | Gobo 4 | proportional |
| | | | 170 - 179 | Gobo 5 | proportional |
| | | | 180 - 189 | Gobo 6 | proportional |
| | | | 190 - 199 | Gobo 7 | proportional |
| | | | 200 - 201 | Open/hole | step |
| | | | 202 - 221 | Forwards gobo wheel rotation from fast to slow | proportional |
| | | | 222 - 223 | No rotation | step |
| | | | 224 - 243 | Backwards gobo wheel rotation from slow to fast | proportional |
| | | | 244 - 249 | Random gobo selection by audio control <i>(Set microphone sensitivity in menu „Personality“)</i> | step |
| | | | 250 - 255 | Auto random gobo selection from fast to slow | proportional |

DMX protocol

| Mode/channel | | | DMX Value | Function | Type of control |
|--------------|-----------|-----------|-----------|---|-----------------|
| 1 | 2 | 3 | | | |
| 17 | 15 | 13 | | Rot. gobo indexing and rotation | |
| | | | | <i>Gobo indexing - set position on channel 16/14/12</i> | |
| | | | 0 - 255 | Gobo indexing | proportional |
| | | | | <i>Gobo rotation - set position on channel 16/14/12</i> | |
| | | | 0 | No rotation | step |
| | | | 1 - 127 | Forwards gobo rotation from fast to slow | proportional |
| | | | 128 - 129 | No rotation | step |
| | | | 130 - 255 | Backwards gobo rotation from slow to fast | proportional |
| 18 | * | * | | Rot. gobo indexing/rotation - fine | |
| | | | 0-255 | Fine indexing (rotation) | proportional |
| 19 | 16 | 14 | | Frost | |
| | | | 0 | Open | step |
| | | | 1 - 179 | Frost from 0% to 100% | proportional |
| | | | 180 - 189 | 100% frost | step |
| | | | 190 - 211 | Pulse closing from slow to fast | proportional |
| | | | 212 - 233 | Pulse opening from fast to slow | proportional |
| | | | 234 - 255 | Ramping from fast to slow | proportional |
| 20 | 17 | 15 | | Iris | |
| | | | 0 | Open | step |
| | | | 1 - 179 | From max.diameter to min.diameter | proportional |
| | | | 180 - 191 | Closed | step |
| | | | | <i>Pulse effects with Iris blackout:</i> | |
| | | | 192 - 219 | Pulse opening from slow to fast | proportional |
| | | | 220 - 247 | Pulse closing from fast to slow | proportional |
| | | | 248 - 249 | Random pulse opening (fast) | step |
| | | | 250 - 251 | Random pulse opening (slow) | step |
| | | | 252 - 253 | Random pulse closing (fast) | step |
| | | | 254 - 255 | Random pulse closing (slow) | step |
| 21 | * | * | | Iris - fine | |
| | | | 0 - 255 | Fine iris movement | proportional |
| 22 | 18 | 16 | | Focus | |
| | | | 0 - 255 | Continuous adjustment from far to near | proportional |
| 23 | * | * | | Focus - fine | |
| | | | 0- 255 | Fine focusing | proportional |
| 24 | 19 | 17 | | Shutter/ strobe | |
| | | | 0 - 31 | Shutter closed, Lamp power reduced to 260 W | step |
| | | | 32 - 63 | Shutter open, Full lamp power | step |
| | | | 64 - 95 | Strobe-effect from slow to fast | proportional |
| | | | 96 - 127 | Shutter open, Lamp power reduced to 260 W | step |
| | | | 128 - 143 | Opening pulse in sequences from slow to fast | proportional |
| | | | 144 - 159 | Closing pulse in sequences from fast to slow | proportional |
| | | | 160 - 191 | Shutter open, Electronic strobing „ZAP“ from slow to fast | proportional |
| | | | 192 - 223 | Random strobe-effect from slow to fast | proportional |
| | | | 224 - 255 | Shutter open, Full lamp power | step |
| 25 | 20 | 18 | | Dimmer intensity | |
| | | | 0 - 255 | Dimmer intensity from 0% to 100% | proportional |
| 26 | * | * | | Dimmer intensity - fine | |
| | | | 0 - 255 | Fine dimming | proportional |