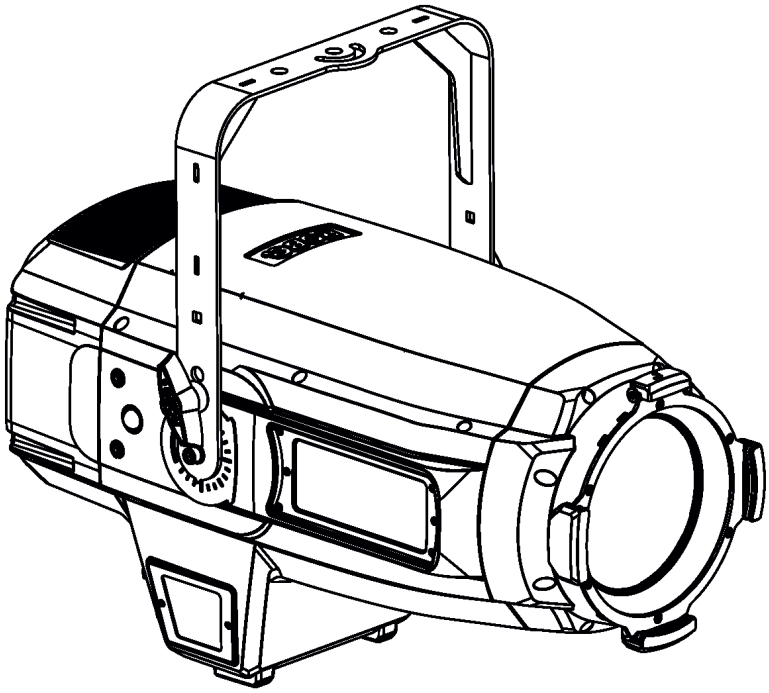
ROBIN iT12 Profile™



ROBE Innovative Technology

QR code for user manual

USER MANUAL

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

Version 1.9

Robin iT12 Profile

Table of contents

1. Safety instructions and operating determinations 3
2. Fixture exterior view 6
3. Installation 7
3.1 Connection to the mains 7
3.2 Replacing the frost 8
3.3 Replacing gobos 9
3.4 Fresnel lens/PC lens/Profile lens module installation 13
3.5 Installing Drop-in modules 14
3.6 Rigging the fixture 17
3.7 DMX-512 connection 20
3.8 Ethernet connection 21
3.9 Wireless DMX operation 23
4. Checking the IP65 integrity of the fixture 24
5. Operating the fixture at ambient temperatures below 0°C 26
6. Standby mode 27
7. Remotely controllable functions 28
7.1 Colour influencing functions 28
7.2 Effect functions 31
8. Control menu map 32
9. Control menu 36
9.1 Tab " Address" 39
9.2 Tab "Information" 39
9.3 Tab "Personality" 42
9.4 Tab "Manual Control" 44
9.5 Tab "Stand-alone" 44
9.6 Tab "Service" 45
10. RDM 50
11. Error and information messages 51
12. NFC 54
13. Maintenance 55
13.1 Fixture watertight covers and torques of covers screws 57
13.2 Changing the LED light source 60
13.3 Checking and replacing the silica gel desiccants 64
13.4 Disposing of the product 66
14. Obtaining information about the LED light source by mobile phone 67
15. Robe Ethernet Access Portal (REAP) 69
16. Technical Specifications 77
17. ChangeLog 81

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

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 warnings in this manual.

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.

The Robin iT12 Profile was designed for outdoor use and it is intended for professional application only. It is not for household use.

1. Safety instructions and operating determinations

CAUTION!
Disconnect the fixture from mains before removing any cover of the fixture. With a high voltage you can suffer a dangerous electric shock when touching alive wires and electrical parts under covers!

Make sure that the available voltage is not higher than stated on the rear panel of the fixture.
This fixture should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied, consult your authorized distributor or local power company.

Always disconnect the fixture from AC power before cleaning, removing or servicing any part of the fixture.

The power plug has to be accessible after installing the fixture. Do not overload wall outlets and extension cords as this can result in fire or electric shock.

Do not allow anything to rest on the power cord. Do not locate this fixture where the cord may be damaged by persons walking on it.

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

Refer servicing to qualified service personnel.

This fixture falls under protection class I. Therefore this fixture has to be connected to a mains socket outlet with a protective earthing connection.

Do not connect this fixture to a dimmer pack.

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 focus the fixture beam onto flammable surfaces.The minimum distance between the front lens of the device and the illuminated surface must be greater than 3 meters.

LED light emission. Risk of eye injury.
Do not look straight at the fixture´s LED source during operation. The intense light beam may damage your eyes. Sensitive persons may suffer an epileptic shock. Provide advance notice that strobe lighting is in use.

CAUTION! Risk group 2, RG-2
Avoid looking directly into the light source.



WARNING! This unit does not contain an ON/OFF switch. Always disconnect the power input cable from mains to completely remove power from unit when not in use or before cleaning or servicing the unit.

When choosing the installation spot, please make sure that the fixture is not exposed to extreme heat or dust.

Do not block the front glass cover with any object when the fixture is under operation.

The fixture becomes very hot during operation. Allow the fixture to cool approximately 60 minutes prior to manipulate with it.

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

Always use a safety wire for overhead installation.

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

The maximum ambient temperature must never be exceeded.

CAUTION!
The front glass cover has to be replaced when it is obviously damaged, 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.

CAUTION!
To avoid damage of the internal parts of the fixture head, never let the sunlight (or other light source) lights directly to the front glass cover, even when the fixture is not in operation !

Please use only an original ROBE packaging (paper box, loader case or foam shell) for transporting the device, otherwise potential damage of the device during its transport will not subject to warranty.

Do not touch the device's housing bare hands during its operation (housing becomes hot)!

For replacement use fuse of the same type and rating only.

The fixture housing never must be covered with cloth or other materials during its operation. Do not block fans or fans ventilation slots with any object. Fans and ventilation slots must remain clean.

The fixture must not come into contact with sea water (salt water). Damages or corrosion issues resulting from salt water will void the manufactures warranty and will not be subject to any warranty claims or repairs.

The product (covers and cables) must not be exposed to a high frequency electromagnetic field higher than 3V/m.

Immunity of the equipment is designed according to the standard EN 55035 Electromagnetic compatibility of multimedia equipment - Immunity requirements.

Emission of the equipment complies with the standard EN55032 Electromagnetic compatibility of multimedia

equipment – Emission Requirements according to class B.

Contains FCC ID: 2A6PL-DMXRDMRW001
Contains IC: 29573-DMXRDMRW001

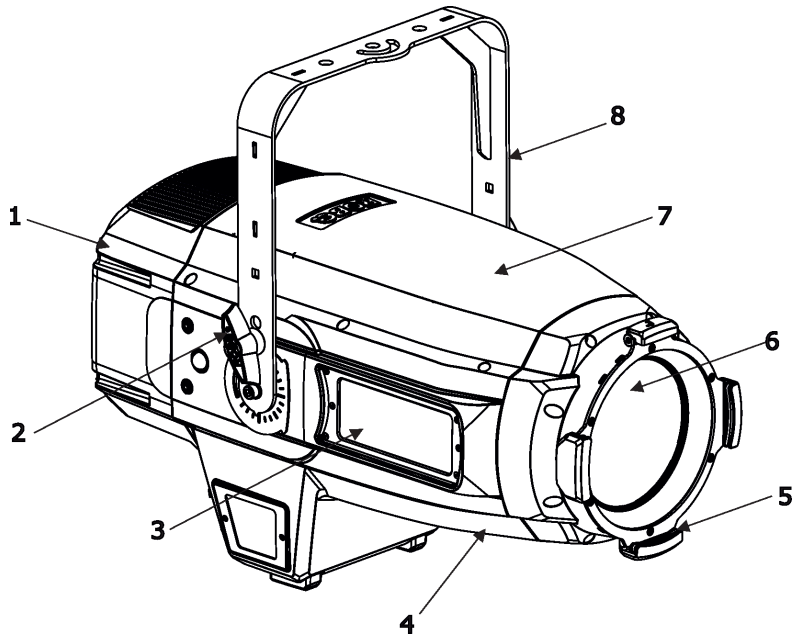
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

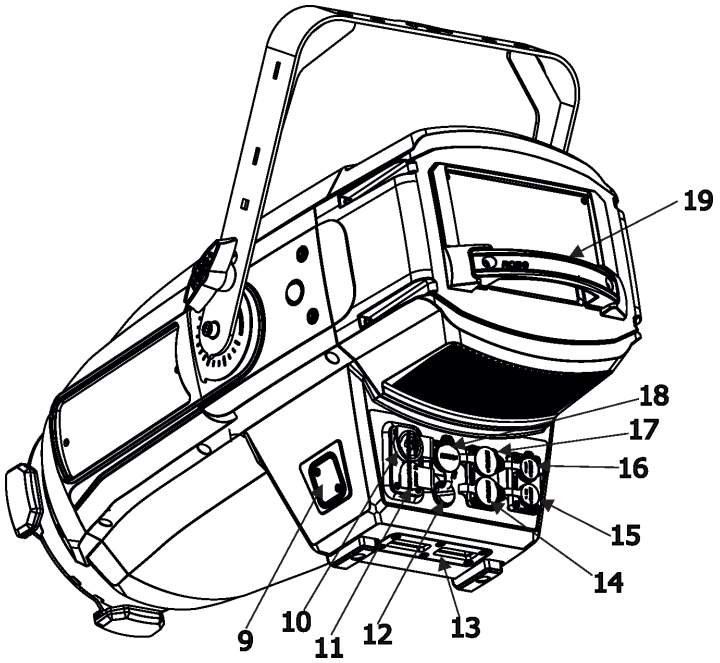
The [Device] wireless operation is safe and complies to RF Exposure requirements

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

2. Fixture exterior view



1 - Rear cover
2 - Tilt lock
3 - Control board
4 - Bottom cover
5 - Gel frame adaptor
6 - Front lens
7 - Top cover
8 - Yoke



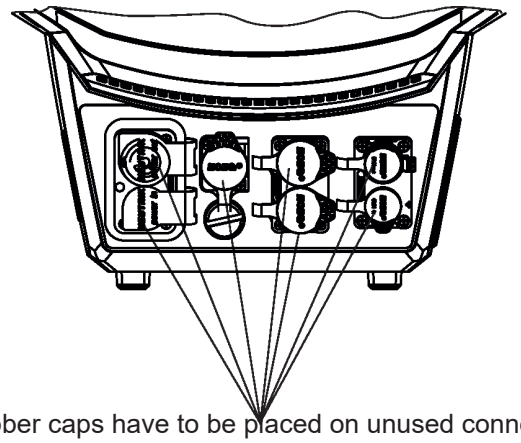
9 - Battery cover
10 - Power Out
11 - Power In
12 - Fuse cover
13 - Attachment point for safety wire
14 - Ethernet In
15 - 5-pin DMX In
16 - 5-pin DMX Out
17 - Ethernet Out
18 - USB
19 - Rear handle

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

3. Installation

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

The Robin iT12 Profile´s panel connectors are dust and water protected according to IP 65 by mating with related cable connectors. They cannot stay disconnected outdoor.
All unused panel connectors have to be sealed by the rubber caps.
Visually check panel connectors on accidental water leaks before connecting related cable connectors.
If some water will appear in panel connectors, do not connect cable connectors, especially power!



The rubber caps have to be placed on unused connectors.

The fixture must not come into contact with sea water (salt water).

3.1 Connection to the mains

For protection from electric shock, the fixture must be earthed!
The fixture has to be connected to an electric outlet which is equipped with a residual-current device (residual-current circuit breaker)!

Wiring and connection work must be carried out by a qualified electrician.
The Robin iT12 Profile is equipped with auto-switching power supply that automatically adjusts to any 50-60Hz AC power source from 100-240 Volts.
Mains cable with powerCON TRUE1 In/open ended is enclosed to the fixture. We recomend to install cord end-sleeves 1.5 x 8 (cross section in mm^2 x length in mm) on the cords of the mains cable. If you need to install a power plug on the mains cable to allow connection to power outlets, install a grounding-type (earthed) plug, following the plug manufacturer's instructions. If you have any doubts about proper installation, consult a qualified electrician. Connection to mains has to keep IP 65 protection rating.

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

This device falls under class one and must be earthed (grounded).
Ensure all connections and the power plug on the cable are properly sealed.

Design of the ROBIN iT12 Profile allows you to connect several fixtures to AC mains power in one interconnect-

ed daisy chain using power input and throughput connectors. Needed daisy cables are stated in the chapter “Technical specifications “

Maximum number of linked fixtures depends on input voltage:
5 fixtures at 230V/16A circuit breaker;
2 fixtures at 120V/16 A circuit breaker)

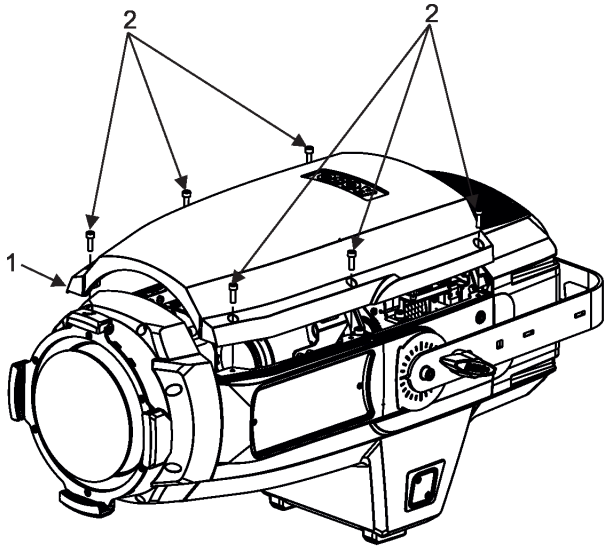
Real numbers of fixtures may differ from values stated above as you have to take into account the length of supply cables, circuit breaker etc. at projecting the fixtures installation Do not overload the supply line and connecting leads.

3.2 Replacing the frost

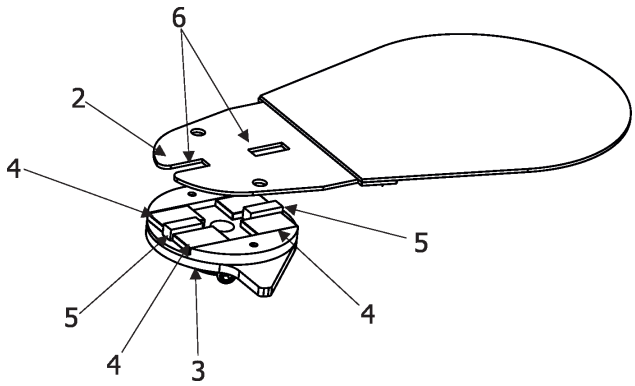
Unplug the fixture from mains before replacing frost!
Do not replace frost in a damp environment (e.g. rain, snowfall)!
Do not remove fixture covers in smoky or particularly dirty environment (e.g. with fog machines)

IMPORTANT: The fixture should be uncovered as short time as possible (about 1-2 hours depending on air humidity) otherwise silica gel in the small boxes in the fixture may become damp.
If you have removed top cover and you need to interrupt your work for long time (hours, days), we recommend to place the top cover on the fixture and fasten it provisionally by means of two screws, next possibility is unscrewing boxes and tubes with silica gel from the fixture and put it to a sealed container with limited access of air (e.g. sealed plastic bag).

Procedure
1. Close a light output of the fixture, disconect it from mains and allow the fixture to cool about 60 minutes.
2. Remove top cover (1) of the fixture by unscrewing 6 hex socket head screws M5x16 (2) on the cover to get access to the frost module.



3. The holder (2) of the frost foil is fastened to the frost holder (3) by means of four magnets (4). Grip the holder (2) and carefully tilt it out to break a force of magnets (4) on the frost holder (3).



5. After replacing frost, check silica gel desiccants in the fixture head before placing top cover back on the fixture.
6. Place the top cover back on the fixture and screw it by means of the six hex socket head screws M5x16 before applying power. Keep required tightening torque as stated in the chapter Maintenance. Do not forget to connect grounding wire between chassis and top cover.

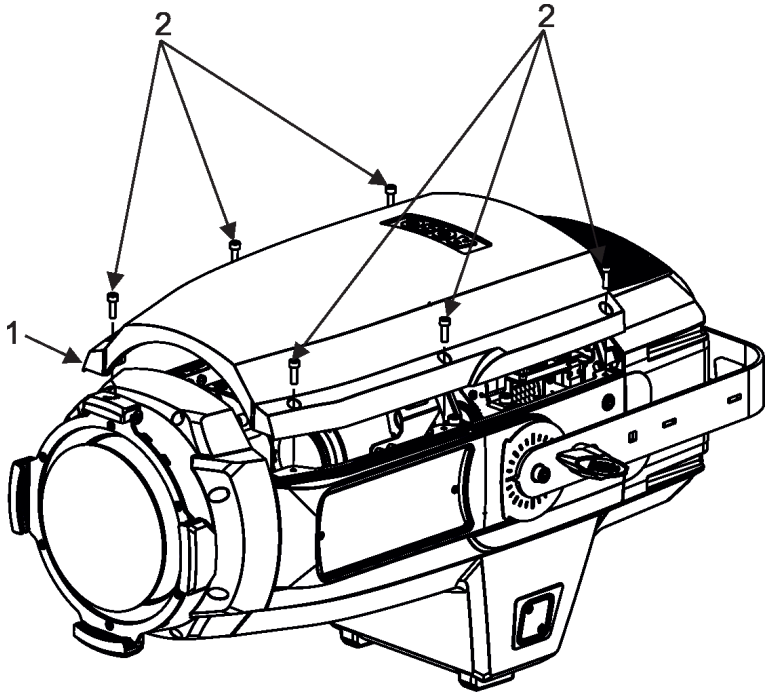
7.**Run the procedure Pressure Test (Service -->Pressure Test).**

3.3 Replacing gobos

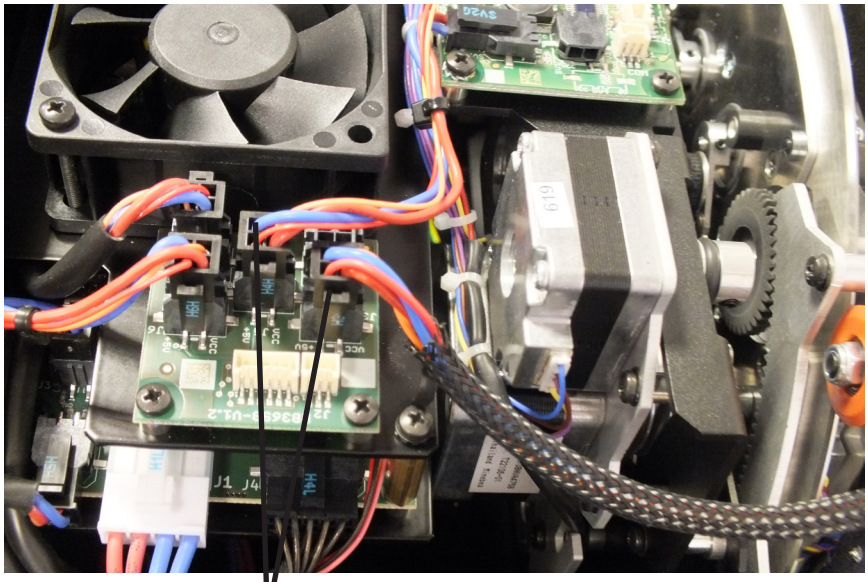
Unplug the fixture from mains before replacing gobos
Do not replace gobos in a damp environment (e.g. rain, snowfall)!
Do not remove fixture covers in smoky or particularly dirty environment (e.g. with fog machines)

IMPORTANT: The fixture should be uncovered as short time as possible (about 1-2 hours depending on air humidity) otherwise silica gel in the small boxes in the fixture may become damp.
If you have removed top cover and you need to interrupt your work for long time (hours, days), we recommend to place the top cover on the fixture and fasten it provisionally by means of two screws, next possibility is unscrewing boxes and tubes with silica gel from the fixture and put it to a sealed container with limited access of air (e.g. sealed plastic bag).

Procedure
1. Close a light output of the fixture, disconect it from mains and allow the fixture to cool about 60 minutes.
2. Remove top cover (1) of the head by unscrewing 6 hex socket head screws M5x16 (2) on the cover.

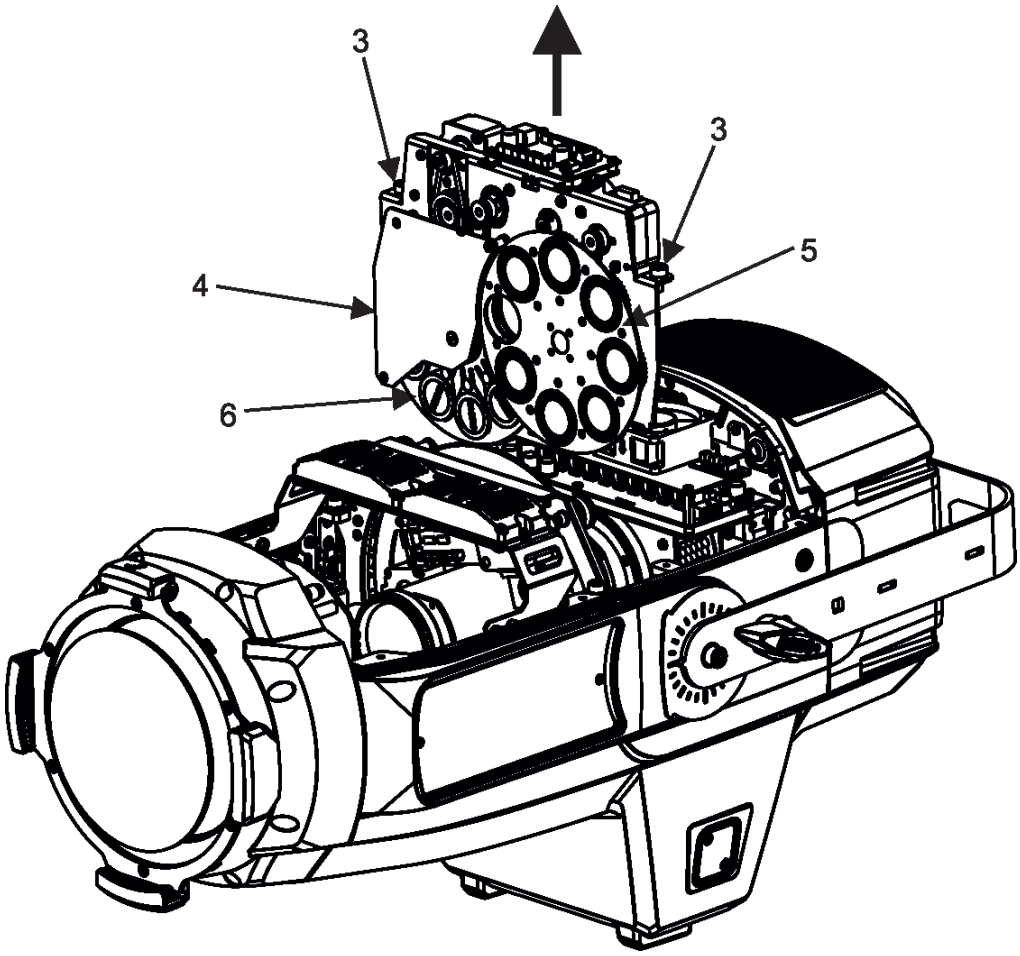


3. Disconnect two cables from DPS RB3698.



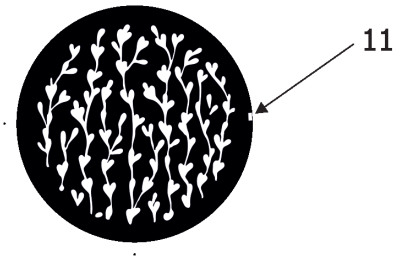
Disconnect the two cables

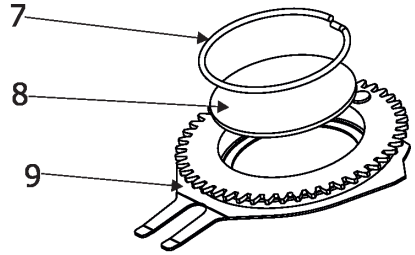
4. Unscrew two screws (3) and take the Drop-in gobo and animation wheel module (4) out of the chassis in order to get access to the rotating gobo wheel (5) and to the static gobo wheel (6).

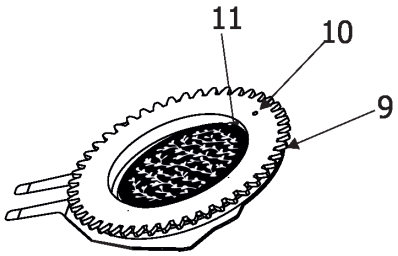


Rotating gobos

- Gently pull the gobo holder (9) up from the rotation gobo wheel.
- Remove the spring lock (7) with an appropriate tool (e.g. small-bladed screwdriver). Do not touch the surface of the glass gobo with bare fingers.
- Remove the original gobo (8) and insert the new one (glossy side towards the light source). The Robe gobo has a small position point (11) at its edge which has to aim at the position point (10) on the gobo holder (9). Insert the spring lock (1) to secure correct position of gobo in the gobo holder.





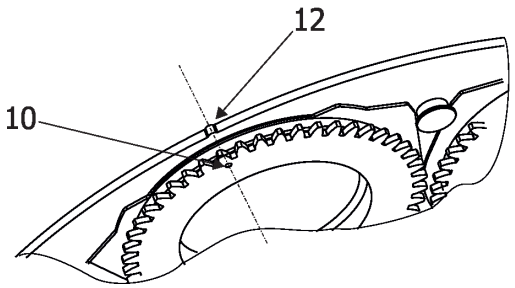


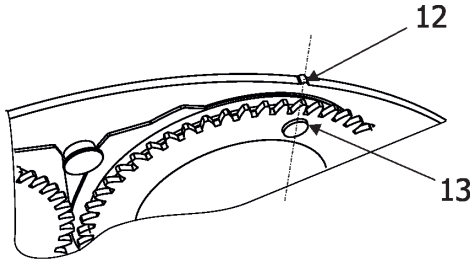
- Insert he gobo holder back to the rotating gobo wheel in this way, that its position point (10) has to aim at a small toothlike projection (12) on the edge of the rotating gobo wheel.

Important! When inserting the gobo holder back to the rotating gobo wheel, one of the adjacent gobo holder has to be oriented according to the same rule, it means that its position point (10) has to aimed at the toothlike projection (12) on the edge of the rotating gobo wheel. You have to keep both marks (10) and (12) side by side when rotating the gobo wheel to the position allows inserting the gobo holder back.

.

Note. The magnet (13) of the gobo holder has the same function as the position point (10) on the rest of gobo holders.



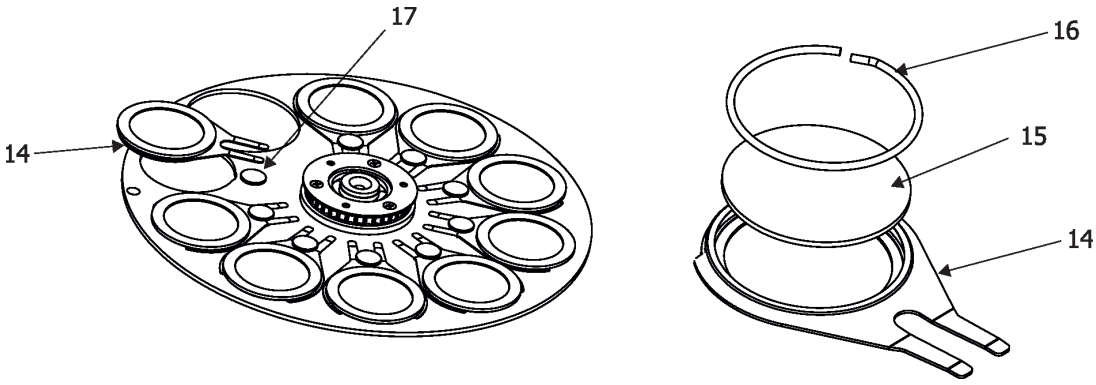


- **After replacing desired gobos and inserting the drop-in gobo and animation wheel module (4) back to the chassis of the fixture and securing it by means of two screws (3), connect the fixture to mains and light on changed gobo holders (or gobos) with max. intensity (shutter/dimmer=255 DMX) approximately 10 minutes per each changed gobo position to evaporate potential grease from gobo holders and gobos.** During this procedure, the fixture has to be in a horizontal position without top cover and the gobo has to rotate.

Note: this step you can leave out if you use original gobo holders from the fixture and you sure that new glass gobos are clean.

Static gobos

- Gently pull up the gobo holder (14) from the static gobo wheel.
- Remove the spring gobo-lock (16) with an appropriate tool (e.g. small-bladed screwdriver) and remove it. Do not touch the surface of the glass gobo with bare fingers.
- Remove the original gobo (15) and insert the new one (glossy side towards the light source). Insert the spring-gobo lock (16) to secure gobo in the gobo holder (14).
- Insert the gobo holder back to the static gobo wheel until it reaches the stop (17) in the static gobo wheel.



5. After changing desired gobos, insert the Drop-in gobo and animation wheel module (4) back to the chassis of the fixture and tighten two screws (3).
6. Connect two cables back to DPS RB 3698.
7. Check silica gel desiccants in the fixture before placing top cover back on the fixture.
8. Place the top cover back on the fixture and screw it by means of the six hex socket head screws M5x16 before applying power. Keep required tightening torque as stated in the chapter Maintenance.
   Do not forget to connect grounding wire between chassis and top cover.

9.**Run the procedure Pressure Test (Service -->Pressure Test).**

3.4 Fresnel lens/PC lens/Profile lens module installation

Unplug the fixture from mains before replacing front lens module!
Be careful, the front lens module is heavy!

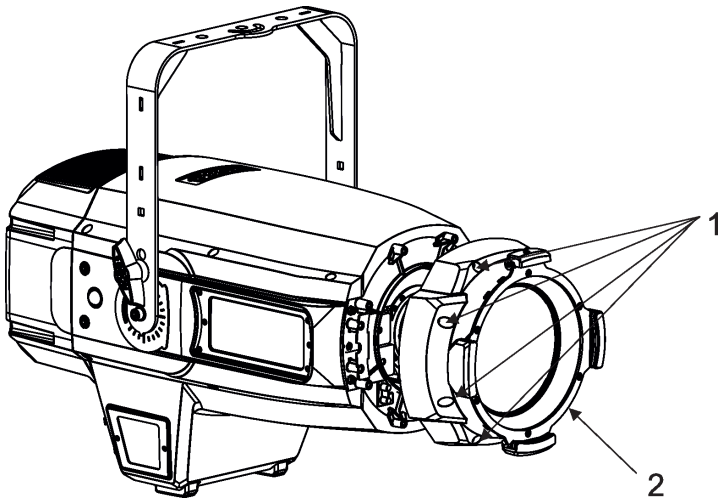
Do not replace front lens module in a damp environment (e.g. rain, snowfall)!
Do not replace front lens module in smoky or particularly dirty environment (e.g. with fog machines)

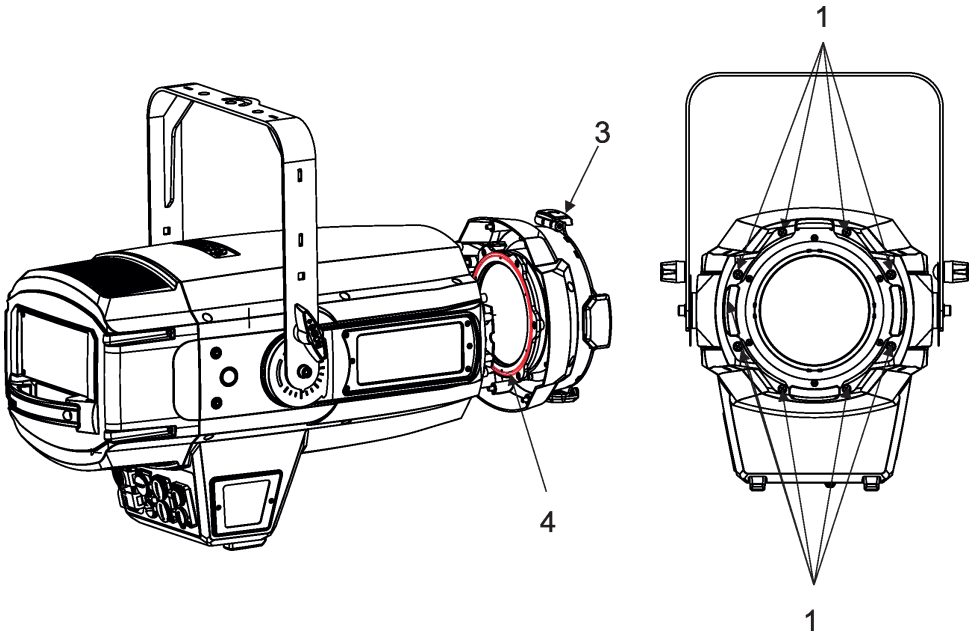
IMPORTANT: The fixture should be uncovered as short time as possible (about 1-2 hours depending on air humidity) otherwise silica gel in the small boxes in the fixture may become damp.
If you have removed front lens module and you need to interrupt your work for long time (hours, days), we recommend to place the front lens module on the fixture and fasten it provisionally by means of four screws, next possibility is unscrewing boxes and tubes with silica gel from the fixture and put it to a sealed container with limited access of air (e.g. sealed plastic bag).

Procedure

1. Close a light output of the fixture, disconect the fixture from mains and allow it to cool about 30 minutes.
2. Unscrew 8 captive screws (1) on fixture head and remove the front lens module (2).
   Be careful, the front lens module is heavy!
3. Place the new front lens module (3) (e.g. Fresnel lens or PC lens) on the head and fasten it by means of the 8 captive screws (1). Tighten the screws crosswise and keep required tightening torque as stated in the chapter Maintenance.
4. Carefully check the gasket (4) for signs of deformities or damages and if it is correctly placed before screwing the front lens module on the fixture.
5. **Run the procedure Pressure Test (Service -->Pressure Test).**

.





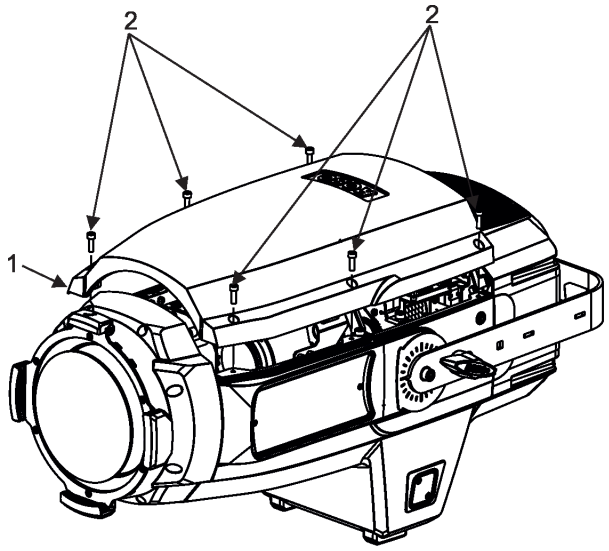
3.5 Installing Drop-in modules

Unplug the fixture from mains before installing Drop-in modules!

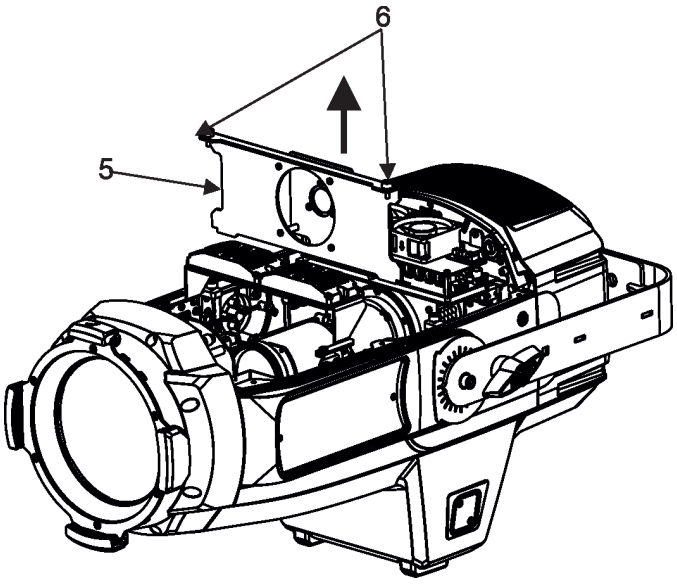
Do not replace Drop-in modules in a damp environment (e.g. rain, snowfall)! Do not replace front lens module in smoky or particularly dirty environment (e.g. with fog machines)

IMPORTANT: The fixture should be uncovered as short time as possible (about 1-2 hours depending on air humidity) otherwise silica gel in the small boxes in the fixture may become damp.
If you have removed top cover and you need to interrupt your work for long time (hours, days), we recommend to place the top cover on the fixture and fasten it provisionally by means of two screws, next possibility is unscrewing boxes and tubes with silica gel from the fixture and put it to a sealed container with limited access of air (e.g. sealed plastic bag).

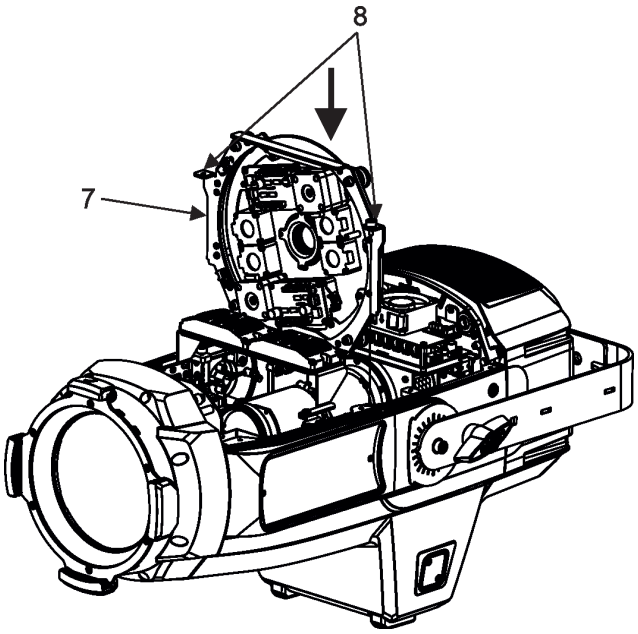
Procedure.
1. Close a light output of the fixture, disconect it from mains and allow the fixture to cool about 60 minutes.
2. Remove top cover (1) of the head by unscrewing 6 hex socket head screws M5x16 (2) on the cover.



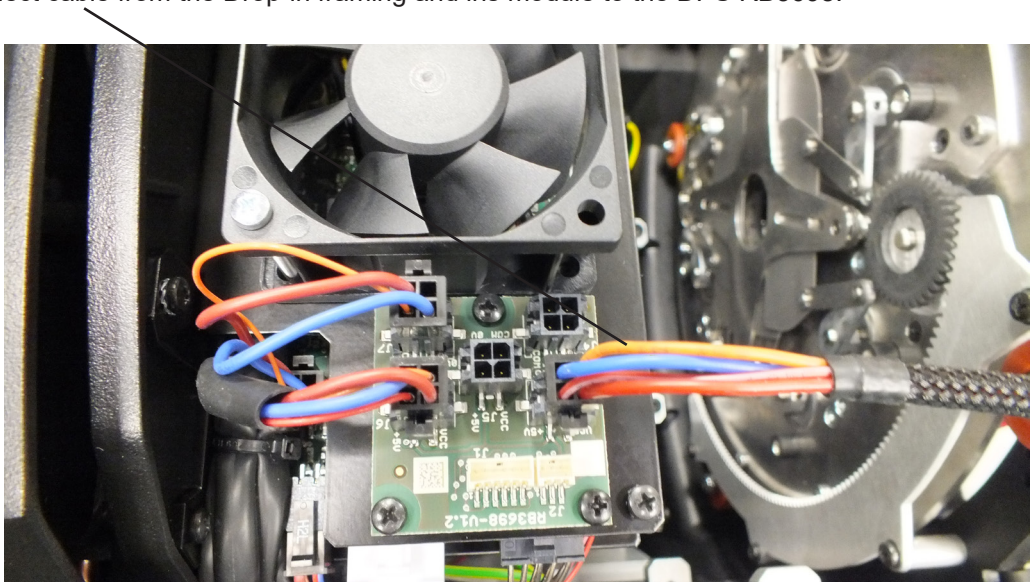
Drop-in framing and iris module.
3. Unscrew two screws (6) and remove the Drop-in module open gate (5).
Note: The Drop in module open gate or the Drop-in framing and iris module has to be installed in this position.
The fixture cannot be used with this position empty.



4. Insert the Drop-in framing and iris module (7) to the fixture and tighten two screws (8).

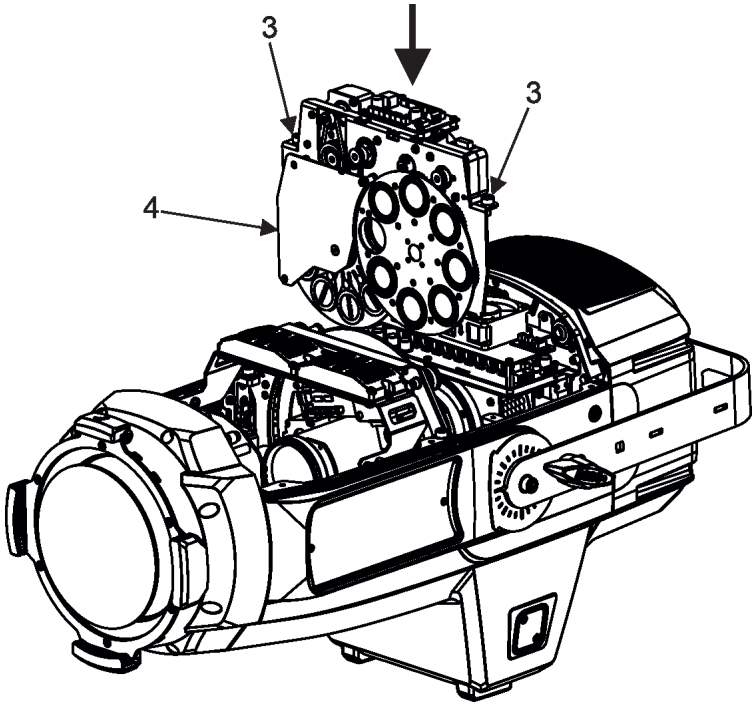


5. Connect cable from the Drop-in framing and iris module to the DPS RB3698.

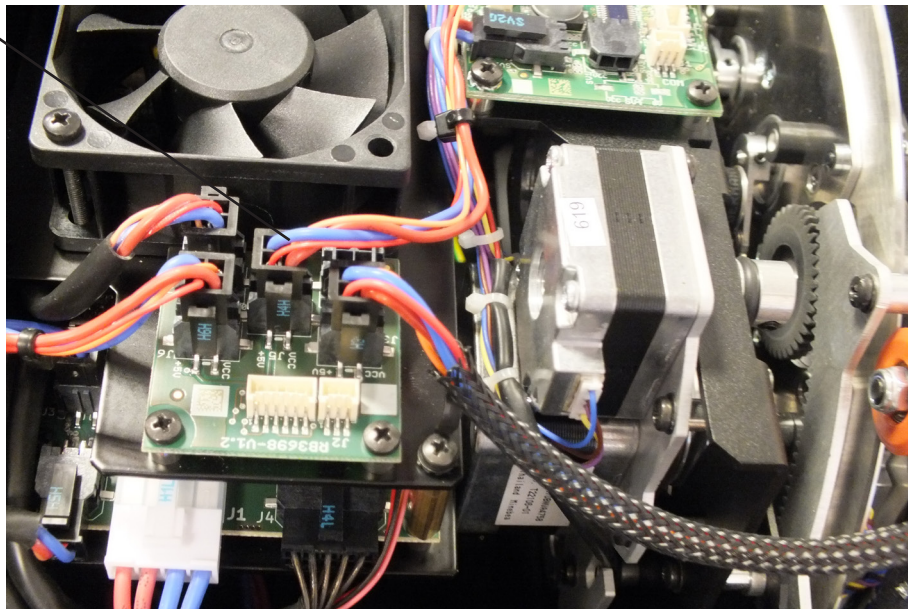


Drop-in gobo and animation wheel module

6. insert the Drop-in gobo and animation wheel module (4) to the empty position in the fixture and tighten two screws (3).



7. Connect cable from the Drop-in gobo and animation wheel module module to the DPS RB3698.



8. Check silica gel desiccants in the fixture before placing top cover back on the fixture.
9. Place the top cover back on the fixture and screw it by means of the six hex socket head screws M5x16 before applying power. Keep required tightening torque as stated in the chapter Maintenance.
   Do not forget to connect grounding wire between chassis and top cover.
10.**Run the procedure Pressure Test (Service -->Pressure Test).**

3.6 Rigging the fixture

A structure intended for installation of the fixture(s) must safely hold weight of the fixture(s) placed on it. The structure has to be certificated to the purpose.

The fixture (fixtures) must be installed in accordance with national and local electrical and construction codes and regulations.

For overhead installation, the fixture must be always secured with a safety wire that can bear at least 10 times the weight of the fixture.

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 a skilled person once a year.

Allow the fixture to cool for ten minutes before handling.

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

IMPORTANT! OVERHEAD RIGGING REQUIRES EXTENSIVE EXPERIENCE, including calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the projector. If you lack these qualifications, do not attempt the installation yourself, but use a help of professional companies.

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

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

The fixture must never be fixed swinging freely on the truss.

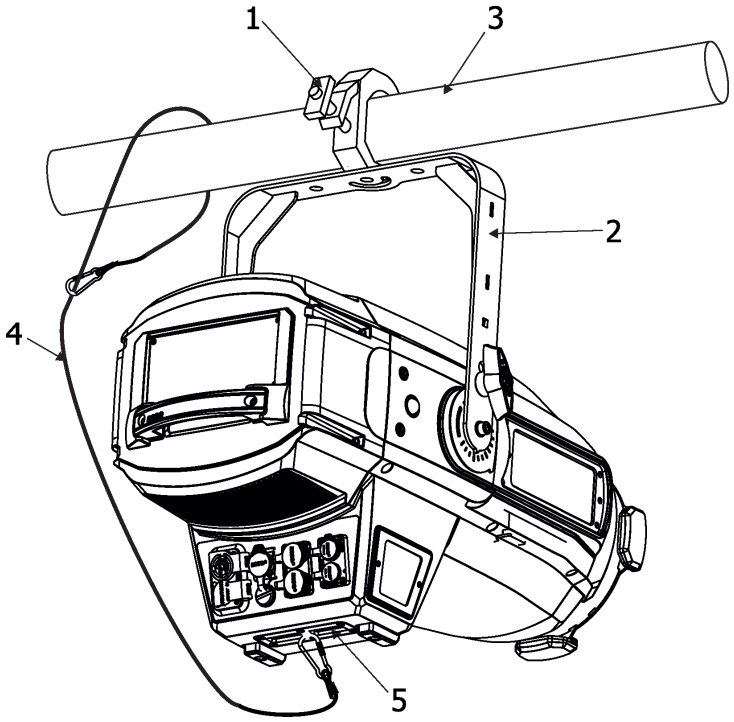
Danger of fire !
When installing the device, make sure there is no highly inflammable material (decoration articles, etc.) in a distance of min. 0.5 m.

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.

For securing the fixture to the truss, install a safety wire which can hold at least 10 times the weight of the fixture. Use only the safety wire with a snap hook with screw lock gate.

Truss installation

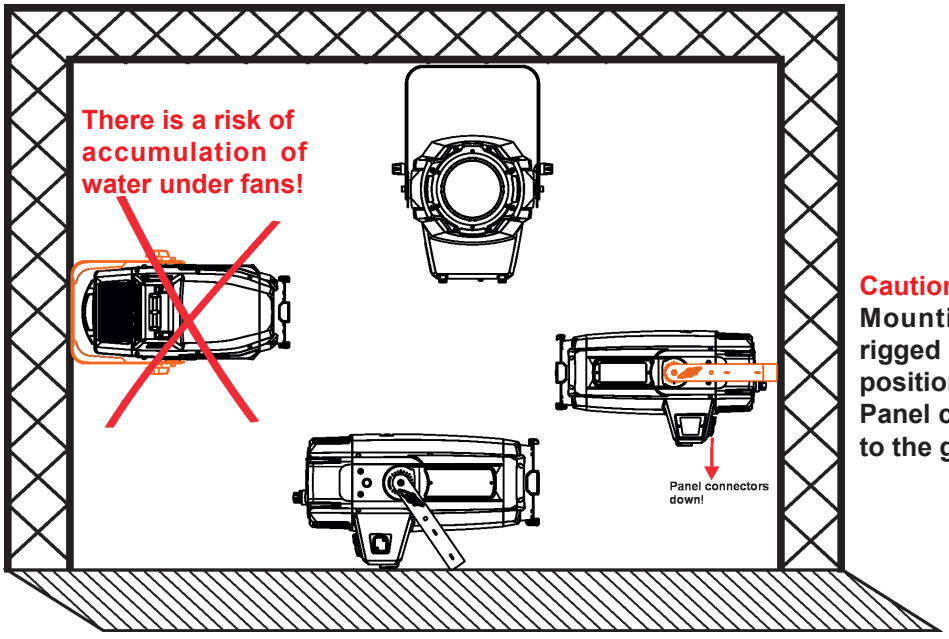
1. Bolt clamp (1) to the yoke (2) with M12 bolt and lock nut through the hole in the yoke.
3. Clamp the fixture on a truss (3) and tighten the rigging clamp (1).
4. Pull one safety wire (4) around the truss (2) and lock it. Lock the second end of the safety wire in the attachment point (5) as shown on the picture below. Use only the safety wire with a snap hooks with screw lock gates.



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

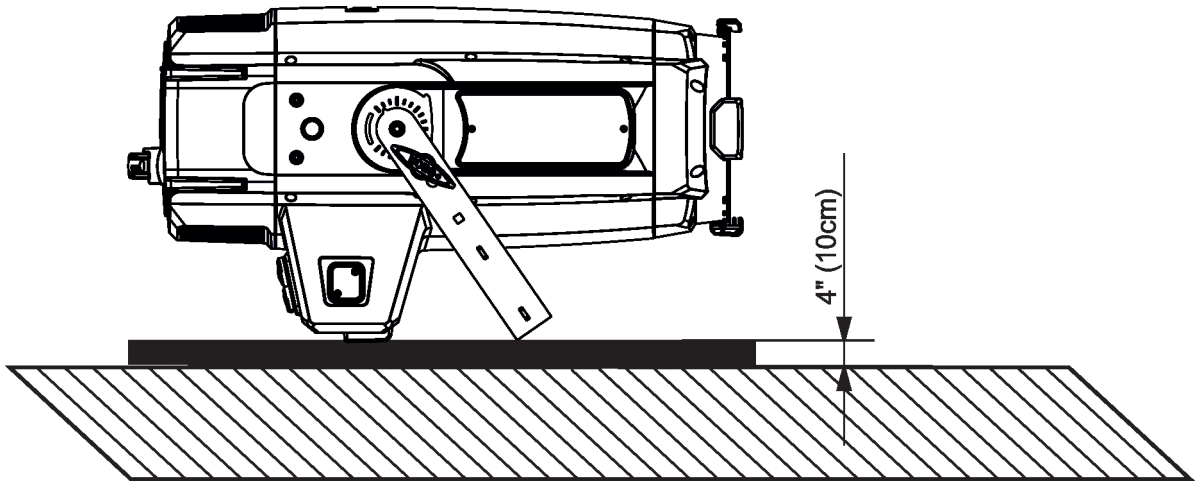
DANGER TO LIFE!
Before taking into operation for the first time,the installation has to be approved by an expert!

Allowed installation positions of the iT12 Profile - open-air installation.



Caution for side mounting!
Mounting yoke has to be rigged in a horizontal position only.
Panel connectors must face to the ground.

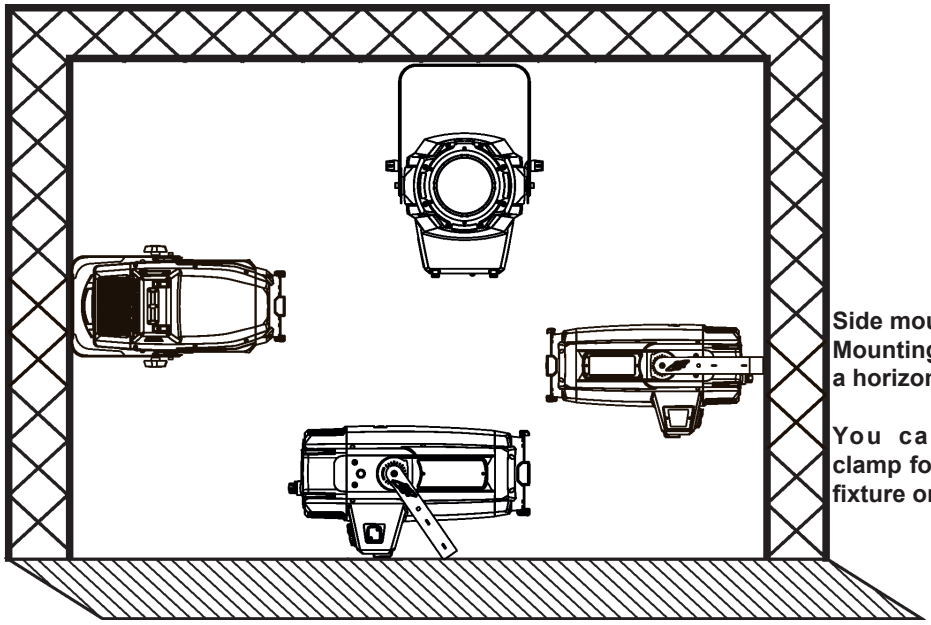
Note for open-air installation: if the fixture stands on the ground, min. distance of 4" (10cm) between the fixture base and the ground has to be kept.



Allowed installation positions of the iT12 Profile - indoor installation.

Side mounting. Mounting yoke in a vertical position.

Use two clamps for rigging the fixture on the truss.



Side mounting. Mounting yoke in a horizontal position.

You can use one clamp for rigging the fixture on the truss.

3.7 DMX-512 connection

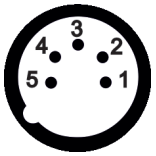
The fixture is equipped with 5-pin XLR sockets for DMX input and output.The sockets are wired in parallel. Only use a shielded twisted-pair cable designed for RS-485 and 5-pin XLR-plugs and connectors in order to connect the controller with the fixture or one fixture with another.

DMX output
XLR socket (female)



1 - Shield
2 - Signal (-)
3 - Signal (+)
4 - Not connected
5 - Not connected

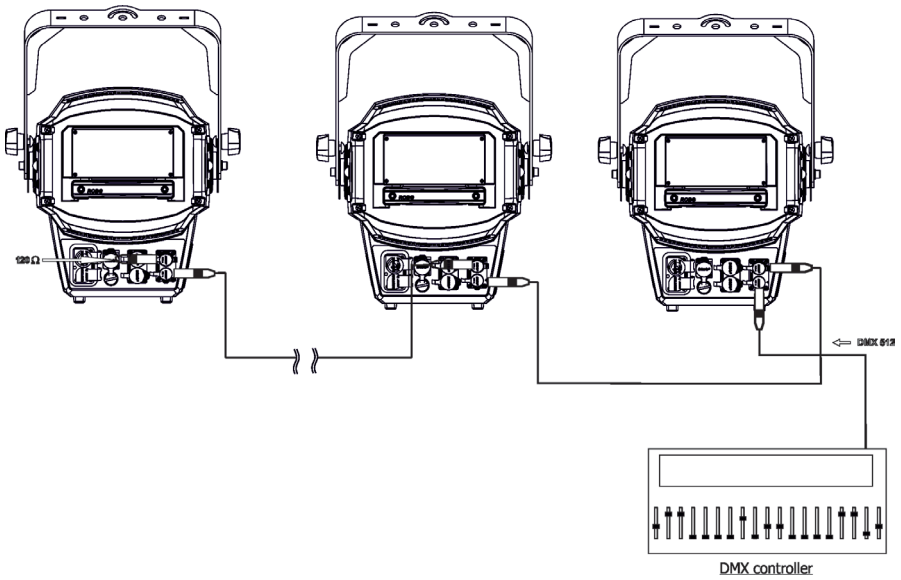
DMX input
XLR socket (male)



1 - Shield
2 - Signal (-)
3 - Signal (+)
4 - Not connected
5 - Not connected

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 outputs, 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. Up to 32 fixtures can be conected.
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 5-pin XLR-plug and plug it in the DMX output of the last fixture.

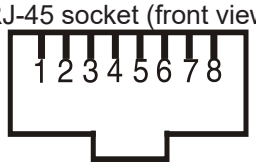


3.8 Ethernet connection

The fixtures on a data link are connected to the Ethernet with appropriate communication protocol (e.g. Art-Net). 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.

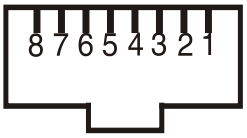
IP address is the Internet protocol address.The IP uniquely identifies any node (fixture) on a network.
The Universe is a single DMX 512 frame of 512 channels.
The Robin iT12 Profile is equipped with 8-pin RJ- 45 sockets for Ethernet in/out.Use a network cable category 5 (with four “twisted” wire pairs) and standard RJ-45 plugs in order to connect the fixture to the network.

RJ-45 socket (front view):



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

RJ-45 plug (front view):



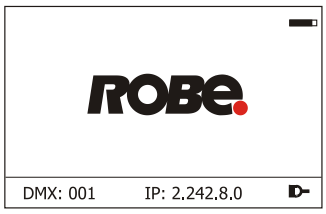
Patch cables that connect fixtures to the hubs or LAN sockets are wired 1:1,that is,pins with the same numbers are connected together:

1-1	2-2	3-3	4-4	5-5	6-6	7-7	8-8

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:

1-3	2-6	3-1	4-8	5-7	6-2	7-5	8-4

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:



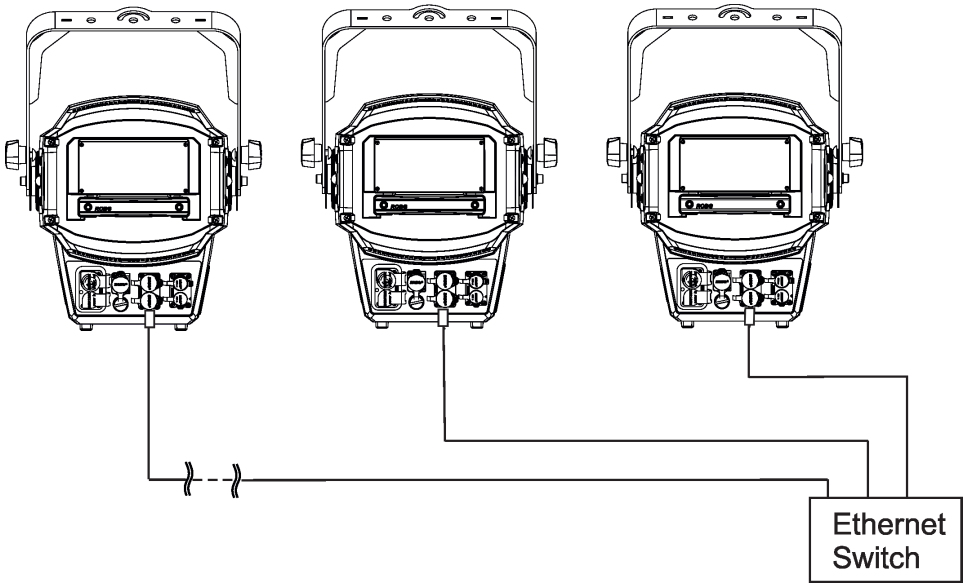
Ethernet operation

Connect the Ethernet inputs of all fixtures with the Ethernet network.
Option “ Artnet" (gMaI or gMA2 or sACN) has to be selected from “Ethernet Mode” menu at each fixture.
Set IP address (002.xxx.xxx.xxx / 010.xxx.xxx.xxx) and the Universe at each fixture.
Example:

(DMX address=157)
IP addres=002.168.002.004
Universe=1

(DMX address=53)
IP addres=002.168.002.003
Universe=1

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



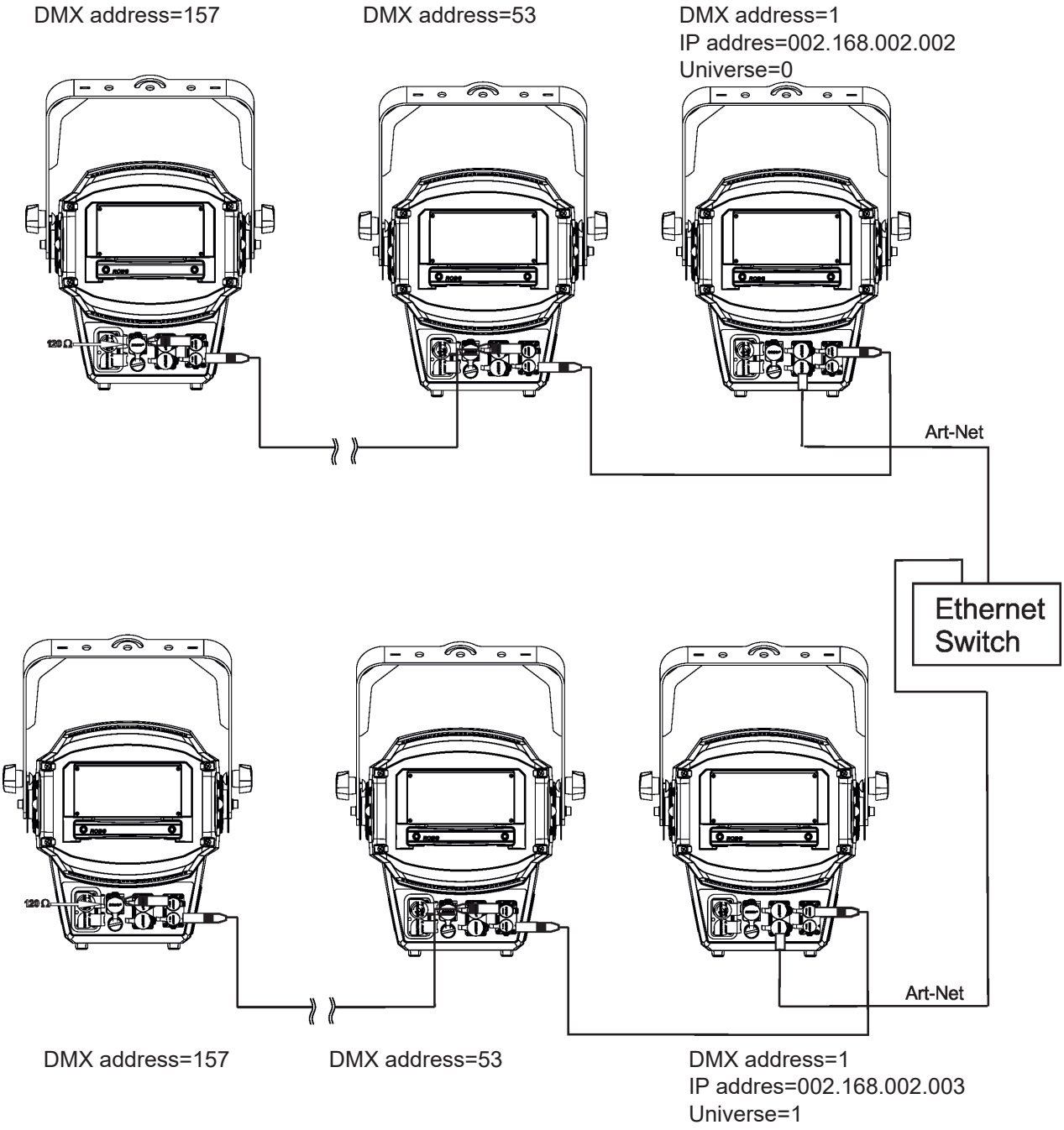
Advised PC setting: IP address: 002.xxx.xxx.xxx (Different from fixture IP addresses), NET mask: 255.0.0.0

The fixture is equipped with Ethernet Pass Through Switch which sustains Ethernet integrity, when the fixture has no power, it automatically maintains network connectivity.
If you use the Ethernet IN-OUT way for the Ethernet connection, max. 8 fixtures can be connected in the IN-OUT line.

Ethernet / DMX operation

Option “ Artnet" (gMaI or gMA2 or sACN) has to be selected from “Ethernet Mode” menu at first fixture.
Option “Ethernet To DMX” has to be selected from the “Ethernet Mode” menu at 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:



3.9 Wireless DMX operation

The wireless DMX version of the fixture is equipped with the wireless DMX/RDM module which has full support for wireless communication protocols at entertainment market. The module is based on well known Lumen-Radio RF technology, with implemented wire interface for connection with Robe products. RF output for MCX interface antenna as standard output.

The item " Wireless " from the menu "DMX Input" allows you to activate receiving of wireless DMX (Personality--> DMX Input -->Wireless.). First two options from the "DMX Input" menu are stated in DMX chart as well (channel Power/Special functions , range of 10-19 DMX). If DMX input option is changed by DMX command, the change is permanently written into fixture´s memory.

DMX range of 10-19 switching fixture to the wired/wireless operation is active only during first 10 seconds after switching the fixture on.

After switching the fixture on, the fixture checks both modes of receiving DMX in the following order:

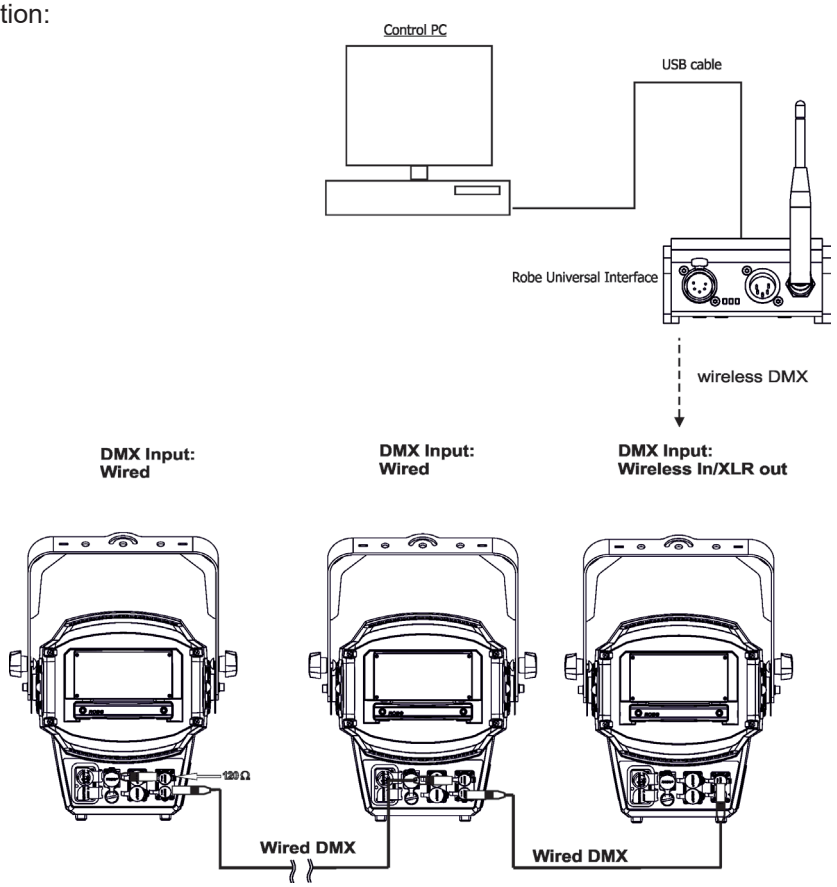
1. For the first five seconds, the fixture receives DMX signal from the wired input. If the Power/Special functions channel is set at some DMX input option, the fixture will receive DMX value according to this option. If DMX input option is set to the wired input , this option is saved and checking procedure is finished. If DMX input option is not set, the fixture continues next 5 seconds in scanning wireless DMX signal-see point 2.

2. For the next 5 seconds the fixture receives wireless DMX signal and again detects if the Power/Special functions channel is set at some DMX input option, if not, the fixture will take option which is set in the fixture menu "DMX Input".

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 transmitter via the menu item “ Unlink Wireless Adapter“ (Information--> Wireless State --> Unlink Wireless Adapter).

Example of connection:



4. Checking the IP65 integrity of the fixture.

The Robin iT12 Profile is IP65 rated lighting fixture which has been designed to be protected against the ingress of dust and pressure water jets from any direction.

1. Smart pressure test - for this test serves the function "Pressure Test" in the tab Service. Unique testing procedure allows you easy testing of the IP65 integrity of the fixture. You do not need any external device connected to the fixture for running the test.
The fixture has to be connected to mains (must not be in Standby mode) and a head temperature (at pressure sensor) cannot be higher than 55°C. The pressure test takes about 8 minutes and can be run at earliest 10 minutes after closing light output of the fixture. The pressure test can be repeated at earliest 2 minutes after last pressure test.

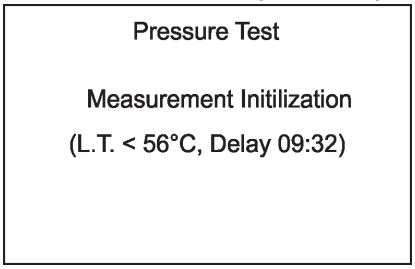
The function "Pressure Test" should be run after the following actions:

- **unscrewing/screwing back any watertight cover** (e.g. due to gobos or frosts change)
- **replacing LED light source or replacing front lens module**
- **replacing desiccants in the fixture (tubes or boxes with silica gel)**

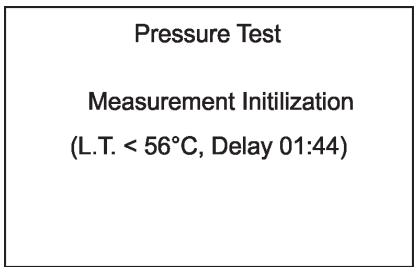
The pressure test can be also run by DMX command (channel Power/Special function) or from web interface REAP (Robe Ethernet Access Portal). During the pressure test fixture does not respond to DMX commands (except DMX values 45-49 on the channel Power/Special functions).

Examples of screens (front panel display) of the smart pressure test:

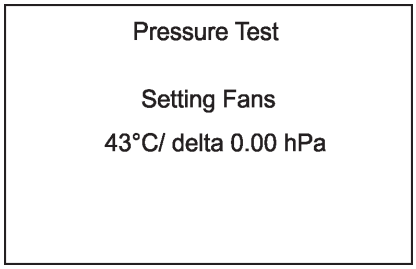
Fixture waits for 10 minutes period elapsing (inside of the fixture is too hot)



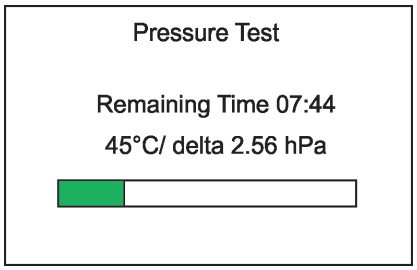
Fixture waits for 2 minutes period elapsing (pressure test was repeated too early)



Setting fans



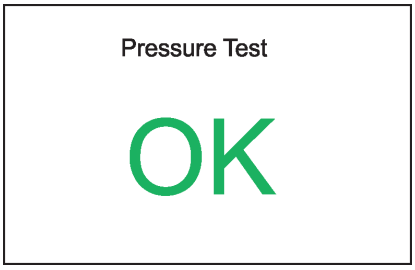
Test in progress



Legend:

07:44 .....Remaining Time (minutes) to finish of pressure test.
45°C.....Temperature at pressure sensor.
delta 2.56 hPa...Pressure difference.
The pressure difference has to be >7 hPa for successful test.

Test passed

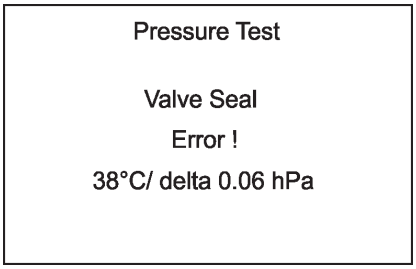


Test failed

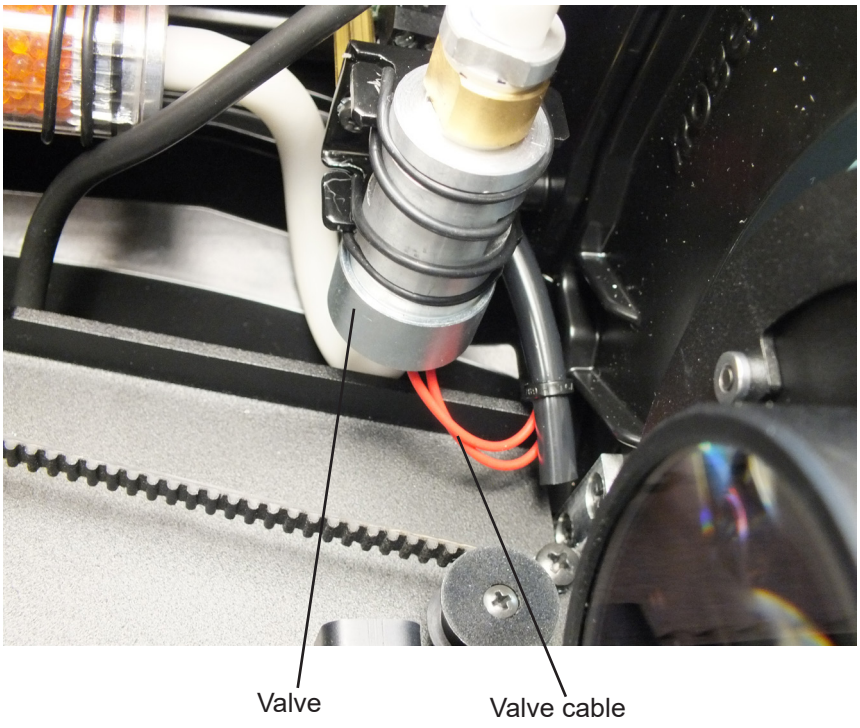


If the first pressure test failed an the second is OK, the fixture complies with IP65 integrity.
If the pressure test twice fails despite checking of correct tightening of the cover screws and gaskets under covers, the fixture has to be tested by means of "Enhanced pressure test**".** For this type of pressure test is needed the Pressure IP Testing Set ROBE (P/N 10980659). Please ask your ROBE distributor for help.

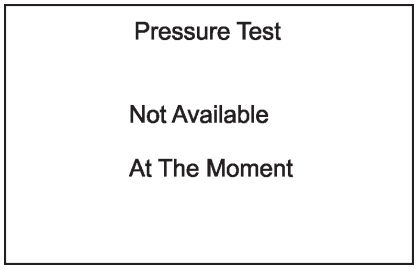
The message "Valve Seal Error" means that valve or coil in the valve is defective or there is a connection problem.



Check the cable between the valve and control DPS. Other reason can be faulty coil in the valve or faulty valve.

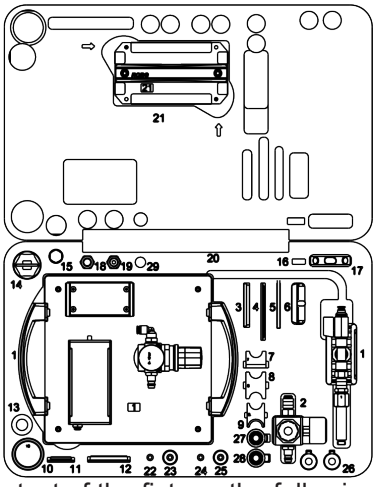


The message "Not Available At The Moment" means that the fixture is not connected to mains.



2. Enhanced pressure test - a special equipment Pressure IP Testing Set ROBE (P/N 10980659) is intended for this kind of pressure test. Only trained technician should handle the equipment.

Pressure IP Testing Set ROBE in case:



If this equipment is used for pressure test of the fixture, the following values of pressure have to be kept:

Underpressure test.
300 mbar for 1 minute, pressure fall can be to 10 mbar maximally.

Overpressure test
150 mbar maximally!

5. Operating the fixture at ambient temperatures below 0°C

Design of the iT12 Profile allows its operation at ambient temperature up to -30°C, but you have to take some specific into account before operating the fixture.

1.Fixture is not in Standby mode.

iT12 Profile - ambient temperatures from 0°C to -10°C.
The fixture can be switched off but after powered it on, fixture reset can be delayed in range of 0 - 30 minutes depending on ambient temperature (max. delay is at low ambient temperature).This delay is caused by heating fixture effects on operating temperature. The fixture does not respond to DMX during heating the fixture on operating temperature.
We recommend to switch the fixture on at least 30 minutes before show.

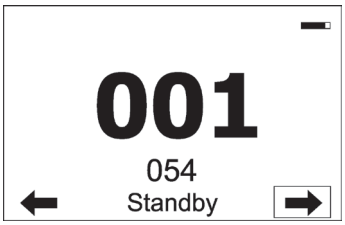
iT12 Profile - ambient temperatures from -11°C to -30°C.
The fixture should be permanently powered on in order to keep operating temperature of fixture´s effects.
If the fixture is switched off, reset of the fixture will last long time (up to 1 hour depending on ambient temperature) until fixture effects reach their operating temperature.

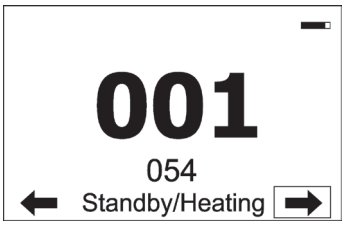
iT12 Profile is in Standby mode.
If the fixture is switched to the Standby mode (fixture has to be connected to mains), the fixture keeps internal temperature on a level suitable for operation of fixture´s effects without delay, heating up of the fixture inside is done automatically.

6. Standby mode

The fixture can be switched to Standby mode by means of web interface REAP or DMX command (channel Power/Special functions, DMX values 6-7).
Standby mode can be cancelled by means of web interface REAP, DMX command (channel Power/Special functions, DMX values 8-9) or by switching the fixture off and on.

Standby mode helps conserve power when a fixture is not in use, without fully powering it off. The max. power consumption of the fixture in Standby mode does not exceed 20 W (if the fixture is heated, power consumption is higher). Standby mode is indicated by a notice on the fixture display.





In the Standby mode, the fixture display is functional and can be used for setting of the fixture, but all motors and fans are deactivated, light output is closed.
As the fixture motors are deactivated, the fixture does not respond to DMX values controlling effects but the channel Power /Special functions can be used for fixture settings.
The fixture in Standby mode provides information for RDM and REAP and also can be set its behaviour by means of the RDM and REAP.

Main benefits of Standby mode:
- there is not time delay of fixture reset at ambient temperatures below 0°C.
- By means of REAP user has current information about fixture (settings, temperatures, state of desiccants in the fixture.

7. Remotely controllable functions

7.1 Colour influencing functions

Factory setting of menu functions (channels) which influence behaviour of colour channels is the following:

Function	Factory setting	Function	Factory setting
DMX mode	1	Uniformity	Off
Colour calibration mode	On	Colour mix control	0 DMX
Colour mixing mode	CMY	CTO	110 DMX (5600K)
Dimmer curve	Square law	CRI Selection	Standard (80)
Tungsten effect simulation	Off	Green correction	Uncorrected
Chromatic white	Off	Shutter/Strobe	Open (32 DMX)
Light output stability	Off	Dimmer	Closed (0 DMX)

Colour calibration mode *(menu tab "Personality")*

The function switches on/off an internal control of colours. For a standard operation of the fixture the option should be switched on. Option off has to be set during colour calibration of the fixture (in this mode some functions e.g. Tungsten effect, Virtual colour wheel are disabled).

Colour mixing system *(menu tab "Personality", DMX channel "Colour functions")*

This item allows selection between RGB and CMY mode. In all 3-colour controlling modes (Mode 1,Mode 3, Mode 5, Mode 7) all internal 5 colours are always utilized where possible.

Dimmer curve *(menu tab "Personality", DMX channel "Colour functions")*

The fixture allows you to select a linear dimmer curve or a square law curve.

Tungsten effect simulation *(menu tab "Personality", DMX channel "Colour functions")*

The function simulates behaviour of a halogen lamp during dimming at calibrated white colours 2700K - 4200K. You can select from various lamp wattage simulation: 750W, 1000W, 1200W, 2000W, 2500W.
If the function Chromatic white is on, the Tungsten effect will influence also mixed colours.

Saving user colours ***(DMX channel "Colour functions")***
To save user colours:
1.Set the function White Point to off (Channel Colour Mix Control, range 70-79 DMX).
1.Mix desired colour on colour channels.
2.Stay in desired position of user colours (216-235 DMX) on the Virtual colour wheel for 1 sec.
3.Leave the range of user colours (216-235 DMX) on the Virtual colour wheel.
4. Repeat steps 2-4 for next user colour.
5.To permanently save user colours, stay for 3 sec. at DMX range of 110-114 on the channel Colour functions. After that the colour system will be reset (this action can last about 2 minutes). Previous user colours will be overwritten.

Chromatic white ***(menu tab "Personality", DMX channel "Colour functions")***
If the function is on, the CTC channel influences calibrated white colours and mixed colours (also colours on Virtual colour wheel).
If the function is off, the CTC channel influences calibrated whites only.

Light output stability ***(menu tab "Personality", DMX channel "Colour functions")***
If the function is on, the light output from the fixture is immediately reduced to a value corresponding to a thermal drop of the light intensity from the LED engine (the thermal drop of light intensity - decreasing of the light intensity on circa 90 % of starting level after first 5 minutes, then is the thermal drop of light intensity inconsiderable).

Output Uniformity ***(menu tab "Personality", DMX channel "Colour functions")***

If the function is on, the light intensity from the fixture is corrected in order to get approximately the same light intensity as from another fixture which has also the function on. Thanks to the function, light outputs from more fixtures will have approximately the same light intensity.

Colour Mix control *(DMX channel "Colour Mix control")*

The Colour Mix control channel defines relation between colour channels (Cyan, Magenta, Yellow, Red, Green, Blue, Amber, Lime Green and CTO) and the colours on the virtual colour wheel:

DMX value	Function
0 - 9	Virtual colour wheel has priority over colour channels (default setting)
10-19	Maximum mode (highest values have priority)
20-29	Minimum mode (lowest values have priority)
30-39	Multiply mode (multiply virtual colour wheel and colour channels)
40-49	Addition mode (virtual colour wheel + colour channels)
50-59	Subtraction mode (virtual colour wheel – colour channels)
60-69	Inverted Subtraction mode (virtual colour wheel – colour channels)
70-79	White Point Off (CTC+green correction+virtual col. wheel deactivated)
80-128	Reserved
129	Crossfade Virtual colour wheel only
130-254	Crossfade between virtual colour wheel and colour channels
255	Crossfade colour channels only

CTO *(DMX channel " Colour temperature correction")*

The CTO channel allows you to change a colour temperature of calibrated white colours in range of 8000K-2700K and also can influence mixed colours including colours on the Virtual colour wheel.

For correct function of the CTO channel on calibrated white colours, the following conditions have to be kept:

1.The Colour calibration mode has to be set on.
If the Chromatic white is set off, the CTO channel influences white colours only.
If the Chromatic white is set on, the CTO channel influences white colours and mixed colours including colours on the Virtual colour wheel.

2. The following channels have to be set at:
Virtual colour wheel at 0 DMX
Green correction at 128 DMX
Colour mix control channel at 0 DMX

3. Colour channels have to be set depending on the colour mixing mode and the DMX mode.
CMY colour mixing mode.
DMX mode 1, DMX mode 3, DMX mode 5, DMX mode 7:
Channels Cyan/Red, Magenta/Green and Yellow/Blue (both 8-bit and 16-bit channels for each colour) have to be set at 0 DMX or at the same DMX value (except 255 DMX).
DMX mode 2, DMX mode 4, DMX mode 6 and DMX mode 8:
The modes are not intended for CMY colour mixing mode.

RGB(A,LG) colour mixing mode
DMX mode 1, DMX mode 3, DMX mode 5, DMX mode 7:
Channels Cyan/Red, Magenta/Green and Yellow/Blue (both 8-bit and 16-bit channels for each colour) have to be set at 255 DMX or at the same DMX value (except 0 DMX).
DMX mode 2, DMX mode 4, DMX mode 6 and DMX mode 8:
Channels Red, Green, Blue, Amber, Lime Green (both 8-bit and 16-bit channels for each colour) have to be set at 255 DMX or at the same DMX value (except 0 DMX).

4. Shutter and dimmer have to be open.

CRI correction *(DMX channel " CRI Selection")*

The channel allows you to set CRI from Standard (85) to High (95+). Default setting is to 0 DMX (Standard CRI).

Green correction *(DMX channel "Green correction ")*

The channel allows you a fine correction of colours (whites, mixed colours, colours on the Virtual colour wheel). E.g. white colour from red to green tint.

Virtual colour wheel *(DMX channel " Virtual colour wheel")*

The virtual colour contains 67 preset colours and 10 user colours.

Dimmer/Shutter ***(DMX channels " Shutter/Strobe" and "Dimmer Intensity")***
Smooth 0 - 100 % dimming is provided by the electronic control unit of the light source. The control of the light source also allows strobe effects with variable speed.

7.2 Effect functions

Effect wheel (optional)
The wheel rotates in both directions with variable speed which creates wide spectrum of graphic effects.

Gobo wheels (optional)
The fixture includes rotating gobo wheel with 7 glass gobos rotating in both directions, indexable, replaceable "SLOT&LOCK" system and one static gobo wheel with 9 gobos. The gobos are also replaceable by means of the "SLOT&LOCK" system.

Frost
Two frost filters (light 1°and medium 5°) provide variable frost for fine frosting. The medium frost is replaceable.

Iris (optional)
Motorized adjustable iris, wide range of variable pulse effects.

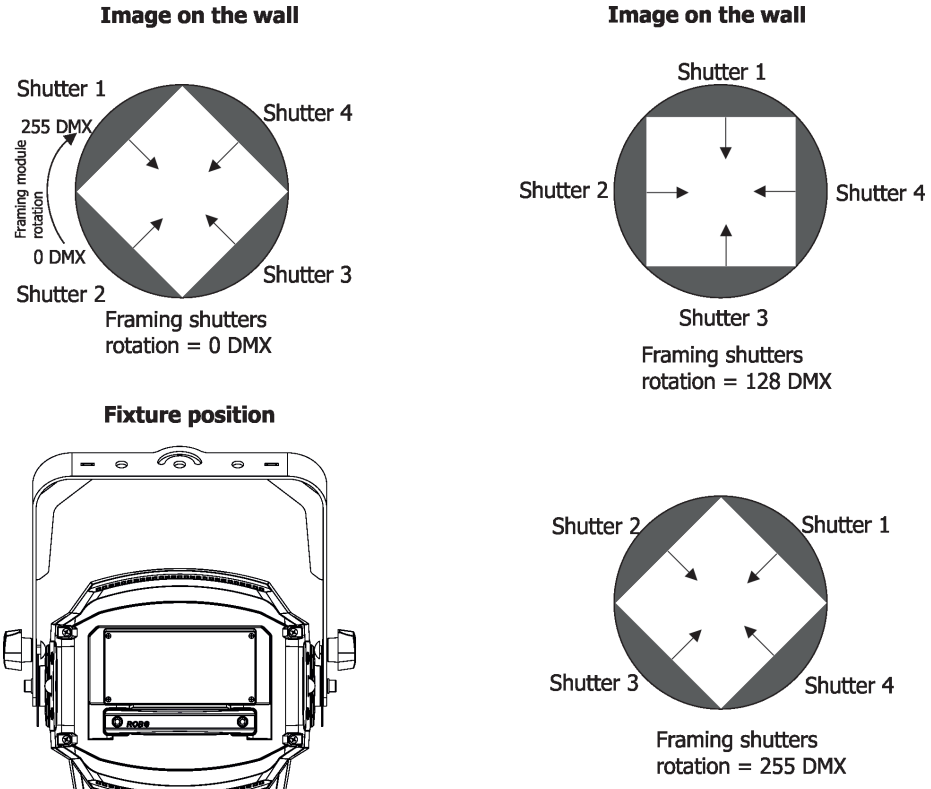
Zoom
Motorized zoom unit enables zoom range of 5.5 °- 50°.

Focus
Motorized focus allows to focus beam from approx. 2 meters to infinity.

The Robin iT12 Profile also includes Brake Attribute Retention System (BARS**)**, which allows **r**emote locking and releasing individual motorised zoom and focus. It allows motors to be locked securely in place and only released on command.

Framing system (optional)
Framing system consists of four framing shutters. There is individual control of each shutter blade position and angle, together with rotation of the complete framing module. As well as providing a sharp precise or soft frame for the projected image.

Framing system orientation:



8. Control menu map

Default settings=Bold print

Tab	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Addressing	Settings	DMX Address	001-512			
	DMX Presets	**Mode 1**				
		:				
		Mode 8				
		View Selected Preset				
	Ethernet Settings	Ethernet Mode	Disable			
			ArtNet			
			gMAI			
			gMA2			
			sACN			
		Ethernet To DMX	**Off**, On			
		IP Address/Net Mask	Default IP Address			
			Custom IP Address			
			Net Mask			
		ArtNet Universe	0-255			
		MANet settings	MANetI/II Universe	01-256		
			MANet Session ID	01-32		
		sACN Settings	sACN Universe	00001-32000		
Information	Fixture Times	Power On Time	Total Hours			
			Resetable Hours			
		LEDs On Time	Red			
			Amber			
			Green			
			Lime			
			Blue			
	Fixture Temperatures	LEDs Temperature	Cur.			
			Max.			
			Max.Res.			
		LEDs Brd. 1 Temperature	Current			
			Maximum NonRes.			
			Maximum Res.			
		LEDs Brd. 2 Temperature	Current			
			Maximum NonRes.			
			Maximum Res.			
		PSU Temperature	Current			
			Maximum NonRes.			
			Maximum Res.			
		Base Temperature	Current			
			Maximum NonRes.			
			Maximum Res.			
		RAINS Status				
		Sensor Info				
	DMX Values	Special Functions				
		:				
		Dimmer Fine				
	Wireless State	Signal Quality				
		Unlink Wireless Adapter				
	Power Channel state					
	Colour functions state					

Tab	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
	Software Versions	Display System				
		Module M				
		Module L1				
		Module L2				
		Module L3				
		Module O				
		Module F-A				
		Module F-B				
		Module G				
		Module DL				
		Wireless				
	Product IDs	Mac Address				
		RDM UID				
		RDM Label				
	LED Module info	First Module Assembly				
		Assembly History				
	LED Modules History					
	View Logs	Fixture Errors				
		Fixture States	Power On			
			Power Off			
		Fixture Position				
		Fixture Temperatures	LEDs B.1 Temperature			
			LEDs B.2 Temperature			
		Sensor Logs				
		Pressure Test Logs				
Personality	DMX Presets	**Mode 1**				
		:				
		Mode 8				
		View Selected Preset				
	DMX Input	**Wired**				
		Wireless				
		Wireless In/XLR Out				
	Optics Brake	**Off**,On				
	Blackout Settings	Blackout while	Gobo Wheel Moving	**Off**, On		
	Colour Calibration Mode	**On,** Off				
	Colour Mixing Mode	**CMY**, RGB				
	Chromatic White	**Off**, On				
	Light Output Stability	On, **Off**				
	Output Uniformity	On, **Off**				
	Frequency Setup	300 Hz				
		600Hz				
		1200Hz				
		2400Hz				
		High				
		Frequency Adjust				
	User Colours	View User Colours	View User Colour 1.. View User Colour 10			
		Distribute User Colours				
	Thungsten Eff. Sim.	**Off**				
		750W				
		1000W				
		1200W				
		2000W				
		25000W				
	Init Effect Positions	Special Functions	0-255			

Tab	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
		:				
		Dimmer Fine	0-255			
	Reset effect Positons	On, **Off**				
	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 Settings	Fan mode	**Auto**			
			High			
			Quiet			
		Quiet mode-Blackout Fan Off	On, **Off**			
	Dimmer Curve	Linear				
		Square Law				
		Super square Law				
	Gobo Indexing	**Max. Speed &ShortCut**				
		Follow Speed & Direction				
		Max. Speed &Follow Dir.				
	Date & Time Settings					
	Focus tracking	**Off,** On				
	Default Settings					
	Password Protection	**Off,** On				
	Reset Web Password					
Manual Control	Reset Functions	Total System Reset				
		Gobo/Eff. Wh. Reset				
		Optics/Prism/Frost Res.				
		Iris/framing Sh. Reset				
	Manual Effect Control	Special Functions	0-255			
		:				
		Dimmer Fine	0-255			
Stand -Alone	Cue Playback	Preset Playback				
		Play Cue				
		Edit Cue	Special Functions	0-255		
			:			
			Dimmer Fine	0-255		
	Test Sequences	Zoom	0-255			
		Focus	0-255			
	Preset Playback	**None**				
		Test				
		Prog. 1				
		Prog. 2				
	Play Program	Play Program 1				
		Play Program 2				
	Edit Program	Edit Program 1	Start Step	1-68		
		Edit Program 2	End Step	1-68		
			Edit Program Steps	Step 1	Pan	0-255
				:	:	
				:	Dimmer Fine	0-255
				:	Step Time	0-25,5 sec.
				Step 68	Pan	0-255
					:	

Tab	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
					Dimmer Fine	0-255
					Step Time	0-25.5 sec.
Service	Pressure Test					
	Adjust DMX Values	Special Functions	0-255			
		:				
		Dimmer Fine	0-255			
	Calibrations	Calibrate Effects	Effect Wheel	0-255		
			Static Gobo Wheel	0-255		
			Rot. Gobo Wheel	0-255		
			R. Gobo Index 1	0-255		
			:			
			R. Gobo Index 7	0-255		
			Zoom	0-255		
			Focus	0-255		
			Iris	0-255		
			Frost 1/1	0-255		
			Frost 1/2	0-255		
			Frost 2/1	0-255		
			Frost 2/2	0-255		
			Fr. Shutters rot.	0-255		
			Fr. Shutter 1 Move	0-255		
			Fr. Shutter 1 Swiv	0-255		
			Fr. Shutter 2 Move	0-255		
			Fr. Shutter 2 Swiv	0-255		
			Fr. Shutter 3 Move	0-255		
			Fr. Shutter 3 Swiv	0-255		
			Fr. Shutter 4 Move	0-255		
			Fr. Shutter 4 Swiv	0-255		
		Calibrate Fr. Hysteresis	Framing Lamella 1	0-8		
			Framing Lamella 2	0-8		
			Framing Lamella 3	0-8		
			Framing Lamella 4	0-8		
		Calibrate colours	Red Calibration	X, Y, Int, Temp		
			Green Calibration	X, Y, Int, Temp		
			Blue Calibration	X, Y, Int, Temp		
			Amber Calibration	X, Y, Int,, Temp		
			Lime Calibration	X, Y, Int,, Temp		
		Green Corrections	2700K CRI 70	2700K CRI 70		
			3200 K CRI 70	3200 K CRI 70		
			4200K CRI 70	4200K CRI 70		
			5600K CRI 70	5600K CRI 70		
			8000K CRI 70	8000K CRI 70		
			2700K CRI 90	2700K CRI 90		
			3200K CRI 90	3200K CRI 90		
			4200K CRI 90	4200K CRI 90		
			5600K CRI 90	5600K CRI 90		
			8000K CRI 90	8000K CRI 90		
		Load Default Calibrations				
		LEDs Current Calibration				
	LEDs HW Version					
	LEDs Measure					
	Update Software					

9. Control menu

The Robin iT12 Profile is equipped with the QVGA screen with battery backup and four control buttons which allow you to set the fixture´s behaviour according to your needs, obtain information on its operation, test its various parts and program it, if it has to be used in a stand-alone mode.
The fixture supports NFC (Near-Field Communication).

Control panel



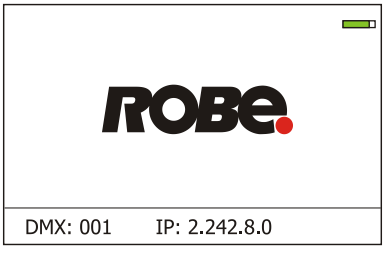
Control buttons on the front panel:

- [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 item and to confirm adjusted value. If the fixture is disconnected from mains, the button switches the screen on (for a while).

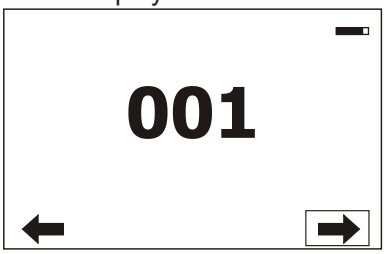
Icons used in the touch screen menu:

- [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.
- [Ethernet] used to indicate Ethernet connected.
- [menu rotation] used to rotate menu 180 degrees from current orientation.
- [slider control] used to recall slider system for setting desired value.
- [keyboard control] used to recall keyboard system for setting desired value.

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



Press the [ENTER/Display On] button to display the initial screen with the current stored DMX address:

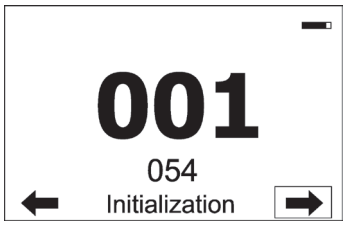


Note: The green icon at the top right corner of the screen indicates the level of the display battery charging. If the whole icon is green, the battery is fully charged while the red icon indicates exhausted battery. The battery charges during fixture operation, its charging lasts cca 6 hours.
We recommend that the fixture should be in operation at least 7 hours per week to keep the battery fully charged. If you switch the fixture on and this screen will not appear till 1 minute, switch the fixture off and on again. If the screen lights, the battery is exhausted. In case the screen still does not light, the battery is faulty.
This is also indicated by an error message "Faulty battery" and if such an error message appears the battery should be replaced immediately. The lifetime of the battery is highly dependent on ambient temperature (and consequently on base temperature). If the maximum ambient temperatures (as recorded and displayed in menu: Information -> Fixture Temperatures -> Ambient Temperature -> Maximum NonRes.) are kept within the specified limits, the battery should last for at least two years. Shell the ambient temperatures exceed the specified maximum temperature, the lifetime of the batteries could be considerably shortened even up to just one year or less and also result in physical damage (battery leakage) or unreliable fixture functions.
Damage caused by batteries failed due to exceeded maximum ambient temperature cannot be claimed under warranty terms.

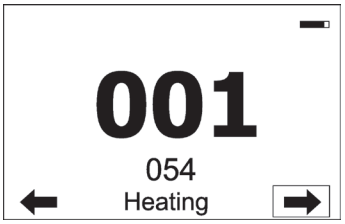
Press the [ENTER/Display On] button to enter the " Address" menu.
An item may be selected from a screen by pressing the [NEXT] or [PREV] buttons to scroll through list items. Press [ENTER] to select the highlighted item.

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

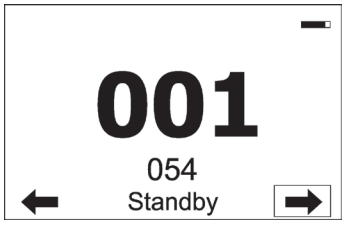
As the fixture can be operated at wide range of ambient temperatures, suitable environment has to be maintained in inside of the fixture. The following messages under DMX address inform you about fixture status.



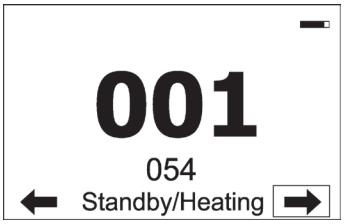
The fixture is waiting for finishing all reset procedures.
Fixture does not respond to DMX.



The fixture is waiting for reaching operating temperature of the fixture inside (inside temperature is below 0°C).
Fixture does not respond to DMX.



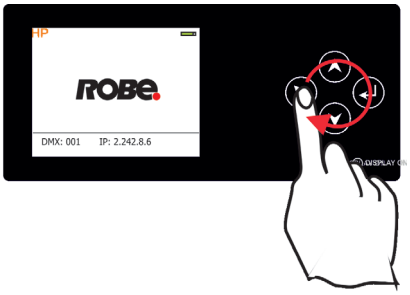
The fixture is in standby mode.
Fixture effects does not respond to DMX, but display is active. Fixture sends its statuses and recorded physical values (temperature, humidity, pressure) to the REAP.

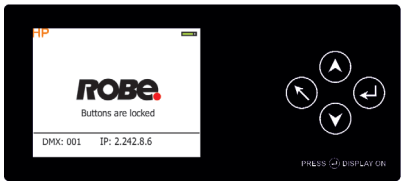


The fixture is in standby mode and inside of the fixture is heated (ambient temperature is below 0°C).
Fixture does not respond to DMX, but display is active. Fixture sends its statuses and recorded physical values (temperature, humidity, pressure) to the REAP.

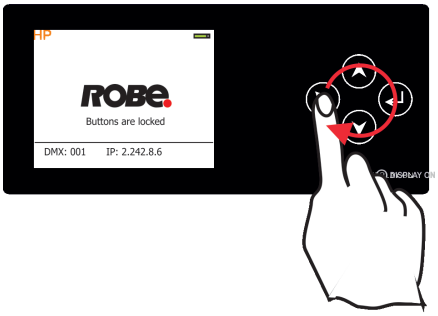
Locking/unlocking the screen.

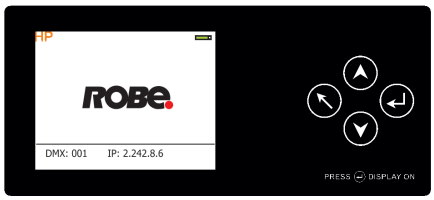
To lock the screen, display the screen with ROBE logo, touch the [ESCAPE] button and slide your finger clockwise in a circular track of 360° across buttons [ESCAPE] --> [NEXT] --> [ENTER/Display On] -->[PREV]--> [ESCAPE].
The sign "Buttons are locked" will appear on the screen. If this sign will not appear, repeat finger sliding again with a different speed.





To unlock the screen, touch the [ESCAPE] button and slide your finger clockwise in a circular track of 360° across buttons [ESCAPE] --> [NEXT] --> [ENTER/Display On] -->[PREV]--> [ESCAPE].
The sign "Buttons are locked" will disappear from the screen. If this sign still remains on the screen, repeat finger sliding again with a different speed.





9.1 Tab " Address"



DMX Address - Select the menu to set the DMX start address**.**
Blinking DMX address means that the fixture is either not receiving DMX data or that the set DMX address is higher then allowed, exceeding the DMX footprint of the set DMX mode.

DMX Preset - Use the menu to select desired channel mode.
DMX Preset - Use the menu to select desired channel mode.
View Selected Preset - Use the menu to display channels included in the selected mode.

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

Ethernet Mode
Disable - The option disables Ethernet operation.
Artnet - Fixture receives Artnet protocol
gMAI - Fixture receives MANet I protocol
gMA2 - Fixture receives MANet 2 protocol
sACN - Fixture receives sACN protocol
Ethernet To DMX - Fixture receives protocol from the Ethernet input and sends DMX data to its DMX output (fixture works as an "Ethernet/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 1-256.
MANet Session ID - The value of this item can be set in range 1-32.

sACN Settings - Use this menu to set parameters for sACN operation.
sACN Universe - The value of this item can be set in range 1-32000.

9.2 Tab "Information"



Fixture Times - The menu provides readouts of fixture and LED module 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 iT12 Profile has been fabricated.
Resetable Hours - The item shows the number of the operation hours that the Robin iT12 Profile 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:"

LEDs On Time - Select this menu to read the number of operation hours for red, amber, green, lime and blue LEDs.

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

LEDs temperatures - The menu shows temperature on the LED PCBs in the light source.

Cur. - A current temperature of the LED PCBs.

Max. - A maximum temperature of the LED PCBs since the fixture has been fabricated.

Max. Res. - A maximum temperature of the LED PCBs since the counter was last reset.

In order to reset some counter to 0, touch desired text box under item "Max.Res."

LEDs Brd.1 Temperature - The menu shows temperature on the LEDs control PCB.

Current - A current temperature on the LEDs control PCB.

Maximum NonRes. - A maximum temperature on the LEDs control PCB since the fixture has been fabricated.

Maximum Res. - A maximum temperature on the LEDs control PCB since the counter was last reset.

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

LEDs Brd.2 Temperature - The menu shows temperature on the LEDs control PCB

Current - A current temperature on the LEDs control PCB.

Maximum NonRes. - A maximum temperature on the LEDs control PCB since the fixture has been fabricated.

Maximum Res. - A maximum temperature on the LEDs control PCB since the counter was last reset.

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

PSU Temperature - The menu shows temperature of power supply unit.

Current - A current temperature of power supply unit.

Maximum NonRes. - A maximum temperature of power supply unit since the fixture has been fabricated.

Maximum Res. - A maximum temperature of power supply unit since the counter was last reset.

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

Base Temperature - The menu shows temperature on the display PCB.

Current - A current temperature on the display PCB.

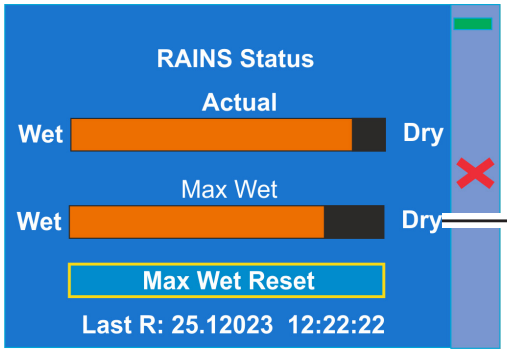
Maximum NonRes. - A maximum temperature on the display PCB since the fixture has been fabricated.

Maximum Res. - A maximum temperature on the display PCB since the counter was last reset.

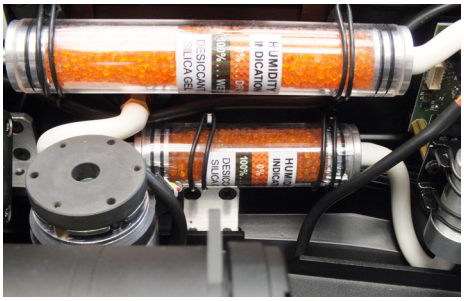
In order to reset this counter to 0, touch the text box next to the item "Maximum Res."

RAINS Status - The menu item gives you information about environment in the fixture.

RAINS (Robe Automatic Ingress Neutralization System) manages humidity, temperature and pressure control using an active monitoring system to automatically remove any moisture detected within the fixture and provides permanent monitoring to ensure peak performance of the fixture.



Silica gel desiccants in the fixture



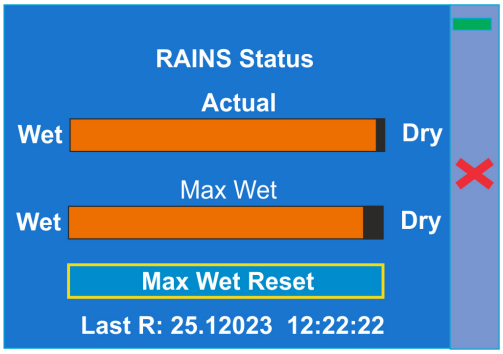
The bar chart **Actual** informs you about current humidity in the fixture. The bar chart changes depending on humidity, temperature and pressure in the fixture. The bar chart depends on current conditions in the fixture and can be different at start of fixture operation, after 10 minutes of its operating, after closing fixture dimmer etc.

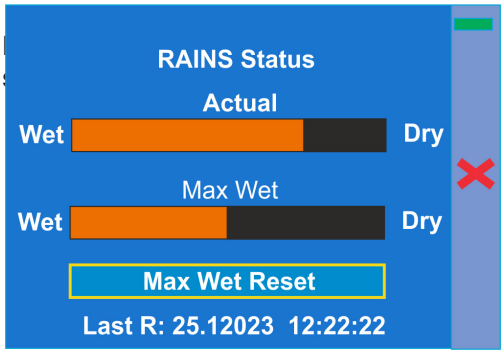
The bar chart **MAX WET** informs you about maximum humidity achieved in the fixture since the chart was last

reset. The bar chart also informs you about saturation of silica gel desiccants in the fixture arm with water and is deciding indicator for their checking and replacement.

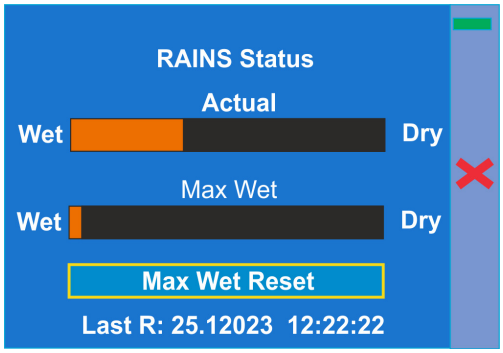
The option **MAX WET reset** resets the bar chart MAX WET. Date and time of last reset is displayed below the option.

Examples of RAINS statuses:





Desiccants in the fixture fully saturated with water



Silica gel desiccants in the fixture are saturated with water and should be replaced.
After replacing desiccants, reset the item MAX WET.

Sensors Info - The menu items shows you current conditions in the fixture head (at pressure sensor): temperature, relative humidity and pressure.

DMX Values - The menu items allows you to read DMX values of each channel received by the fixture.

Wireless State - The menu serves for reading of the wireless operation status.
Unlink Wireless Adapter - The item serves for unlinking the fixture from a DMX transmitter.
If the wireless module is not installed in the fixture, message" Wireless Module Not Installed" will appear.

Power Channel State - Select this item to see current setting of the functions, which can be set by menu items in "Personality" as well as by DMX command at channel "Power/Special functions".

Colour Functions State - Select this item to see current setting of the colour functions, which can be set by menu items in "Personality" as well as by DMX command at channel "Colour functions".

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

Display System - A display processor on the display board in the fixture base
Module M - UART converter
Module L1 - LEDs control processor 1
Module L2 - LEDs control processor 2
Module L3 - LEDs control processor 3
Module O - Focus/Zoom control processor
Module F-A -Framming shutters control processor
Module F-B - Framming shutters + Iris control processor
Module G - Rot. gobo/Effect wheel control processor
Module DL- Datalogger
Wireless- Wireless DMX module

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

LED Module Info - Use this menu to read LEDs module information.
First Module Assembly - Use the item to read initial information about the LEDs module installed in the fixture. The fixture has to be connected to mains to read the values in the menu items.
Serial Number/ Device UID - a serial number of the LEDs module/RDM UID of the fixture.
Installation Date/Time - a date/time of the first installation of the LEDs module to a some Forte device.
LED Modules History - Use the item to read a history of the LEDs module installed in the fixture (its serial number, RDM UID of fixture at which was installed and date/time of installation).
Up to 31 records can be saved in the menu item.

View Logs - Use this menu to read fixture´s data which have been recorded during fixture operation. This colected data allows easier troubleshooting.
Fixture Errors - Use this menu to read fixture errors which have occured during fixture operation.
Fixture States - In the menu are recorded fixture states as power on and power off.
Fixture Positions - In the menu are recorded installation positions of the fixture:
Fixture Temperatures - In the menu are recorded temperatures on functional units.
Sensor Logs - In the menu item are recorded physical values in the fixture: temperature, relative humidity and pressure.
Pressure Test Log - In the menu item are recorded values related to executed pressure tests: date and time, temperature,pressure difference, duration of pressure test and its result.

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

9.3 Tab "Personality"



DMX Preset - Use the menu to select desired channel mode.
Mode 1 - 24 control channels
Mode 2 - 28 control channels
Mode 3 - 35 control channels
Mode 4 - 39 control channels
Mode 5 - 32 control channels
Mode 6 - 36 control channels
Mode 7 - 43 control channels
Mode 8 - 47 control channels
View Selected Preset - Use the menu to display channels included in the selected mode.

DMX Input- Use the menu to select mode of DMX signal receiving.
Wired - DMX signal is received by means of the standard DMX cable.
Wireless - DMX signal is received by means of the inbuilt wireless module.
Wireless In/XLR Out- the fixture receives wireless DMX and sends the signal to its wired DMX output. The fixture behaves as " Wireless/Wired" adapter.
The options "Wired" and "Wireless" are also stated in DMX chart (channel Power/Special functions).
Note. If the wireless module is not installed in the fixture, the following message will appear:
DMX Input Set to Wired
Wireless Module Missing
If the fixture is not connected to mains, the message "Not Available In Off line Mode" will appear after entering the menu DMX Input. To enter this menu, the fixture has to be connected to mains.

Optics Brake - If the function is switched to the option On, the zoom and focus will be blocked and will not respond to DMX values. After switching the fixture off and on, the zoom and focus will stay in the original positions. (position at moment of activation the brake).

Note: the optics brake can be also activated/deactivated by DMX command (channel Power/Special function). Setting by DMX comand will be permanently saved to the fixture.

Blackout Settings - Use the menu if you need to close the light output under certain condition.
Active Blackouts - Use this menu if you wish to close the light output during effect changes.
Gobo Wheel Moving - The menu item enables to close light output while the rot. gobo carousel is moving.

Colour Calibration Mode - the function switches on/off an internal control of colours. For a standard operation of the fixture the option should be switched on. Option off has to be set during colour calibration of the fixture.

Colour Mixing Mode - This item allows selection between RGB and CMY mode. In all 3-colour controlling modes (Mode 1,Mode 3, Mode 5, Mode 7) all internal 5 colours are always utilized where possible

Chromatic White - If this function is on, the CTO channel influences colours and calibrated white colours. If this function is off, the CTO channel influences calibrated whites only.
Light Output Stability - If the function is on, the light output from the fixture is immediately reduced to a value corresponding to a thermal drop of the light intensity from the LED engine (the thermal drop - decreasing of the light intensity on 87 % of a starting level after first 5 minutes, then is the thermal drop inconsiderable).

Output Uniformity - if the function is on, the light intensity from the fixture is corrected in order to get approximately the same light intensity as from another fixture which has also the function on. Thanks to the function, light outputs from more fixtures will have approximately the same light intensity.

Frequency Setup - The function allows you to set the PWM (Pulse Width Modulation) output frequency of LEDs to 300Hz, 600Hz, 1200Hz, 2400Hz or high.
Frequency Adjust - The menu item allows you fine adjustment of the LED frequency around selected frequency.

User Colours - Use this menu to change the touch screen settings.
View User Colours - The item allows you to read DMX values of colour channels for each user colour (1-10).
Distribute User Colour - The item allows you to "send" user colours from this fixture to all connected Robin iT12 fixtures by means of RDM protocol. User colours in the fixtures will be overwritten.

Tungsten effect simulation - This function simulates behaviour of a halogen lamp during dimming at calibrated whites 2700K-4200K. You can select from various lamp wattage simulation: 750W, 1000W, 1200W, 2000W, 2500W.

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 received.

Reset Effect Positions - Use the menu item to reset effects in the menu "Init Effect Positions" to default (factory) values.

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 touch screen. 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, an the option set in the "Display Orientation" menu is temporarily overriden.

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

Fan Settings - Use the menu to set fans operation mode.
Fan Mode - Use the menu to set the fixture fans to max. power mode (option "**High**") or to the auto-control mode (option "**Auto**"). The third option "**Quiet**" allows you to set desired fan noise. The light output of the fixture is reduced at low speeds of fans.
Quiet Mode- Blackout Fan Off - The menu item allows you to stop all fans in the fixture (option "**On**")

when its light output is closed (shutter in range of 0-31 DMX, or dimmer in 0 DMX or colours in 0 DMX).

Dimmer Curve - Use the menu to select desired dimmer curve: Linear, Square Law, Super Square Law.

Gobo Indexing - The following three options define transition from gobo rotation to gobo indexing.

Max. Speed & Shortcut - Gobo goes from its rotation to desired indexed position with max. speed and via shortest track.

Follow Speed & Direction - Gobo goes from its rotation to desired indexed position with current speed and keeps a direction of rotation.

Max. Speed & Follow Dir. - Gobo goes from its rotation to desired indexed position with max. speed and keeps a direction of rotation.

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

Focus Tracking - This feature provides automatic sharpness re-adjustment during zoom movement, after an initial sharpness has been set by the operator by setting the focus channel and enabling the Focus Tracking. The Focus Tracking feature is done via automatic movement of focus element, taking into account several internal parameters, zoom position being one of them. To utilize the Focus Tracking, make sure to enable the Focus Tracking, set the Zoom to value 200 and adjust Focus to desired sharpness. Then, while keeping focus value untouched, you can move the Zoom. Fixture will automatically keep the projection at the desired sharpness as much as possible. You can also re-adjust the focus value over time if needed. When switching between Static gobo wheel, Rotating gobo wheel and an empty aperture, the Tracking Focus will adjust the internal parameters, therefore providing desired sharpness by adjusting the Focus might be required. If you use both Static gobo wheel and Rotating gobo wheel without further adjusting the focus value, Rotating gobo wheel will be automatically used for Focus Tracking 's focusing.

Default Settings - The menu item allows to set all fixture parameters in this menu to the default (factory) values except items "DMX Input".

Password Protection - allows to enter password in order to prevent unauthorized person from changing setting of the fixture. Password is set to 7623 and cannot be changed.

Reset Web Password - The menu item allows you to reset a password for access to the Web interface REAP (default password: 2479, user: robe).

9.4 Tab "Manual Control"



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

Total System Reset - The item resets all function modules.

Gobo/Eff. Wh. Reset - The item resets static and rotating gobo wheel and an effect wheel.

Optics/Prism/Frost Res. - The item resets a zoom, focus, prism and a frost module.

Iris/Framing Sh. Reset - The item resets an iris module and framing shutters.

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

9.5 Tab "Stand-alone"



Cue Playback – This feature allows you to play cue recorded from DMX console which can be further edited on the display. This cue can also be created manually on the display. It´s very useful for applications such as exhibition stands, galleries, car shows, museums and as a key light for illuminating presenters in ball rooms and auditoriums. The cue can be automatically initiated every time the fixture is turned On.

Preset Playback - This menu allows you to select a program which will be played in a loop after switching the fixture on.

None - The option disables “Preset playback” function.
Cue - The option starts saved cue.
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.

The cue playback can be also activated by DMX command on the channel "Power/Special functions" ,values 140 -141 DMX and deactivated by values 142-143 DMX.
Play cue - The option starts playing of saved cue.
Edit cue - The option allows you to edit cue. The cue can be also created by saving current DMX values by DMX command on the channel "Power/Special functions" (values 138 -139 DMX).

Test Sequences -Use the menu to run a test/demo sequences without an external controller, which will show you some possibilities of using Robin iT12 Profile.
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.

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.

Edit Program - Use the menu to create or to edit desired program. The Robin iT12 offers 2 free programs, each up to 68 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.

To edit program:
1. Touch the item which you want to edit (“Edit Program 1” - “Edit Program 2”).
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 throw 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
- moves up on the previous page
- saves adjusted values and leaves menu
- saves values to the current step and copy them to the following prog. step
- leaves menu without saving values

9.6 Tab "Service"



Pressure Test - The menu item runs a procedure which checks the IP65 integrity of the fixture. The fixture has to be connected to mains and the head temperature (at pressure sensor) cannot be higher than 55°C. The pressure test lasts about 8 minutes and can be run at earliest 10 minutes after closing light output (shutter closed) of the fixture. The pressure test can be repeated at earliest 2 minutes after last pressure test.
For more details of pressure test please see the chapter Checking the IP65 integrity of the fixture.

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

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

Calibrate Effects - The menu allows the fine adjustment of effects.

Effect Wheel - an effect wheel position fine adjustment (value range: 0-255)
Static Gobo - a static gobo wheel fine adjustment (value range: 0-255)
Rot. Gobo Wheel - a carousel of rotating gobos fine movement (value range: 0-255)
R. Gobo Index 1 - a fine movement of the rotating gobo 1 (value range: 0-255)
R. Gobo Index 2 - a fine movement of the rotating gobo 2 (value range: 0-255)
R. Gobo Index 3 - a fine movement of the rotating gobo 3 (value range: 0-255)
R. Gobo Index 4 - a fine movement of the rotating gobo 4 (value range: 0-255)
R. Gobo Index 5 - a fine movement of the rotating gobo 5 (value range: 0-255)
R. Gobo Index 6 - a fine movement of the rotating gobo 6 (value range: 0-255)
R. Gobo Index 7 - a fine movement of the rotating gobo 7 (value range: 0-255)
Zoom - a zoom module fine movement (value range: 0-255)
Focus - a focus module fine movement (value range: 0-255)
Iris - an iris fine movement (value range: 0-255)
Frost 1/1 - a light frost fine position movement 1
Frost 1/2 - a light frost fine position movement 2
Frost 2/1 - a medium frost fine position movement 1
Frost 2/2 - a medium frost fine position movement 2
Fr. Shutters.rot- a framing shutters module fine rotation (value range: 0-255)
Fr. Shutter 1 Move - a Fram. lamella 1 fine moving
Fr. Shutter 1 Swiv. - a Fram. lamella 1 fine swivelling
Fr. Shutter 2 Move - a Fram. lamella 2 fine moving
Fr. Shutter 2 Swiv.- a Fram. lamella 2 fine swivelling
Fr. Shutter 3 Move - a Fram. lamella 3 fine moving
Fr. Shutter 3 Swiv. - a Fram. lamella 3 fine swivelling
Fr. Shutter 4 Move - a Fram. lamella 4 fine moving
Fr. Shutter 4 Swiv. - a Fram. lamella 4 fine swivelling

Calibration of the effects 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 "Ef. wheel" 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 next item
5. After calibrating all effects, touch the [confirm] to save all adjusted values and reset the fixture.

Calibration of the effects via the DMX controller

1. Connect DMX controller to the fixture and enter the "Calibrate Effects" menu.

Calibration protocol:

Effect	**Mode 3**	**Mode 4**	**Mode 7**
Ef. wheel	channel 36	channel 40	channel 44
Static Gobo	channel 37	channel 41	channel 45
Rot. Gobo Wheel	channel 38	channel 42	channel 46
R. Gobo Index 1	channel 39	channel 43	channel 47
R. Gobo Index 2	channel 40	channel 44	channel 48
R. Gobo Index 3	channel 41	channel 45	channel 49
R. Gobo Index 4	channel 42	channel 46	channel 50
R. Gobo Index 5	channel 43	channel 47	channel 51
R. Gobo Index 6	channel 44	channel 48	channel 52
R. Gobo Index 7	channel 45	channel 49	channel 53
Zoom	channel 46	channel 50	channel 54
Focus	channel 47	channel 51	channel 55
Iris	channel 48	channel 52	channel 56
Frost 1/1	channel 49	channel 53	channel 57
Frost 1/2	channel 50	channel 54	channel 58
Frost 2/1	channel 51	channel 55	channel 59
Frost 2/2	channel 52	channel 56	channel 60
Fr. Shutters rot.	channel 53	channel 57	channel 61
Fr. Shutter 1 Move	channel 54	channel 58	channel 62
Fr. Shutter 1 swiveling.	channel 55	channel 59	channel 63
Fr. Shutter 2 Move	channel 56	channel 60	channel 64
Fr. Shutter 2 swiveling	channel 57	channel 61	channel 65

Fr. Shutter 3 Move	channel 58	channel 62	channel 66
Fr. Shutter 3 swiveling	channel 59	channel 63	channel 67
Fr. Shutter 4 Move	channel 60	channel 64	channel 68
Fr. Shutter 4 swiveling	channel 61	channel 65	channel 69

Calibrate Fr. Hysteresis

Framing Lamella 1 - a framing lamella 1 reverse movement (value range: 0-8)
Framing Lamella 2 - a framing lamella 1 reverse movement (value range: 0-8)
Framing Lamella 3 - a framing lamella 1 reverse movement (value range: 0-8)
Framing Lamella 4 - a framing lamella 1 reverse movement (value range: 0-8)
The value set for every framing lamella gives a value at which the lamella reacts to its reverse movement promptly (without movement hysteresis).

Calibrate Colours - The menu serves for calibration of white colours in a factory. User should not change values in the menu.

Green Corrections - The menu allows you to correct calibrated whites 2700K, 3200K, 4200K, 5600K and 8000K. Both shutter and dimmer have to be open during the correction.

LEDs Current Calibration - This process waits about 5 minutes and after its finishing the sign "Current Calibration DONE" will apear on the display. The procedure should be run if some colour nonuniformity has occurred during fixture operation.
I**mportant. The procedure must be run after LEDs module changing or LEDs driver PCB (RB 3407) changing**, otherwise damage of LEDs module may occur! This calibration of LEDs curent must be run before dimmer activation!
Note: Calibration of LEDs current can be also run by means of the RDM manager ver. 1.0.12 and higher (LED Driver -->Start Current Calibration).

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

LEDS HW Version - The item shows a hardware information and states of LED modules of the LED engine.
LEDs R/A HW Info – The red and amber LED module hardware information and its state.
LEDs G/Y HW Info – The green and light green LED module hardware information and its state.
LEDs B HW Info – The blue LED module hardware information and its state.
Example of information saved in the menu item "LEDs R/A HW Version". The LED module has correct colour calibration and opto correction.

ROBE_D7805F8C
Factory Calibration
Default Calibration Stored
Has Default Opto Correction

If some information is missing, the notice "Information is not yet" is displayed.

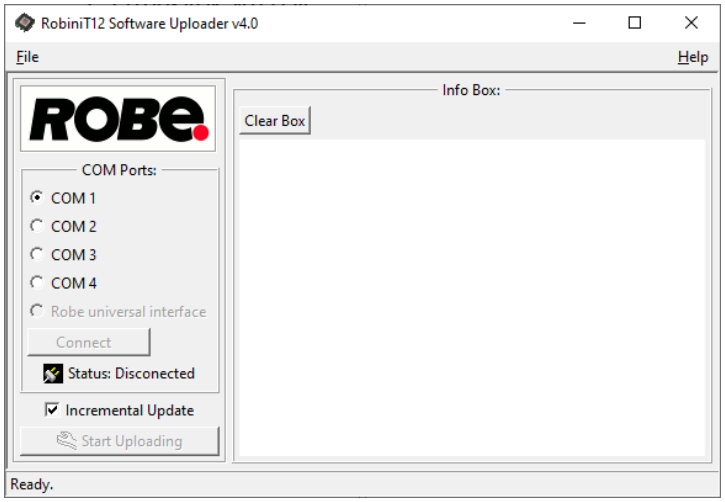
LEDs Measure - This menu item runs a procedure which measures a light intensity of the LEDs module installed in the fixture. This procedure takes about 1 minute (message " LEDs Module Measurement" is displayed on the screen"). During the procedure the fixture does not receive DMX signal, shutter is open and dimmer is set at max. light intensity (255 DMX). All effects are taken out from the light beam.
The measured light intensity is recorded in the item Intensity in the menu LED Module Info:
Tab Information --> Actual Module Info --> Intensity
Tab Information --> Intensity History --> Intensity
The light intensity in the menu item Intensity is displayed in percentages in relation to the initial intensity of the new LEDs module (initial intensity=100%).
The LEDs Measure procedure should be run after every change of the LED light source.
Note: The fixture has to be connected to mains in order to run LEDs Measure procedure.

Update software - The menu item allows you to update software in the fixture.
The following items are required in order to update software:
- PC running Windows or Linux or macOS
- DSU file
- Flash cable RS232/DMX, P/N13050624 (if you want to use a serial port of PC)
- Robe Universal Interface or Robe Universal interface WTX (if you want to use an USB port of PC)

After the software updating the fixture will be set to default values.

To update software in the fixture:

1. DSU file is available from Robe web site at WWW.robe.cz.
   File with extension zip is intended for Windows (used and tested from XP to W10 on 32/64bit systems).
   File with extension tbz is intended for Linux (used and tested on Debian and Ubuntu 32/64bit).
   File with extension dmg is intended for macOS (used and tested on OSX up to Sierra) XQuartz required, install it from https://www.xquartz.org/
   Save the download file to a folder on your computer.
   In case that you use windows, extract files in the zip file (e.g. DSU_RobiniT12_18100828.zip)
2. Disconnect the fixture from DMX controller.
3. If you use the flash cable RS232/DMX, connect a serial port of your computer with DMX input of the fixture by means of the cable.
   If you use the Robe Universal Interface, connect a USB port of your computer with the Robe Universal Interface by means of the USB cable and DMX input of the fixture with the DMX output of the Robe Universal Interface via a DMX cable.
4. Switch the fixture to the update mode (tab "Service" --> Update Software).
   Note: If you do not want to continue in the software update, you have to switch off and on the fixture to escape from the updating mode.
   We recommend to cancel all running programs on your computer before starting the software update.
5. Double-click the software uploader file (e.g. DSU_RobiniT12_18100828.exe) in the extracted files. The Software Uploader program will start to run.

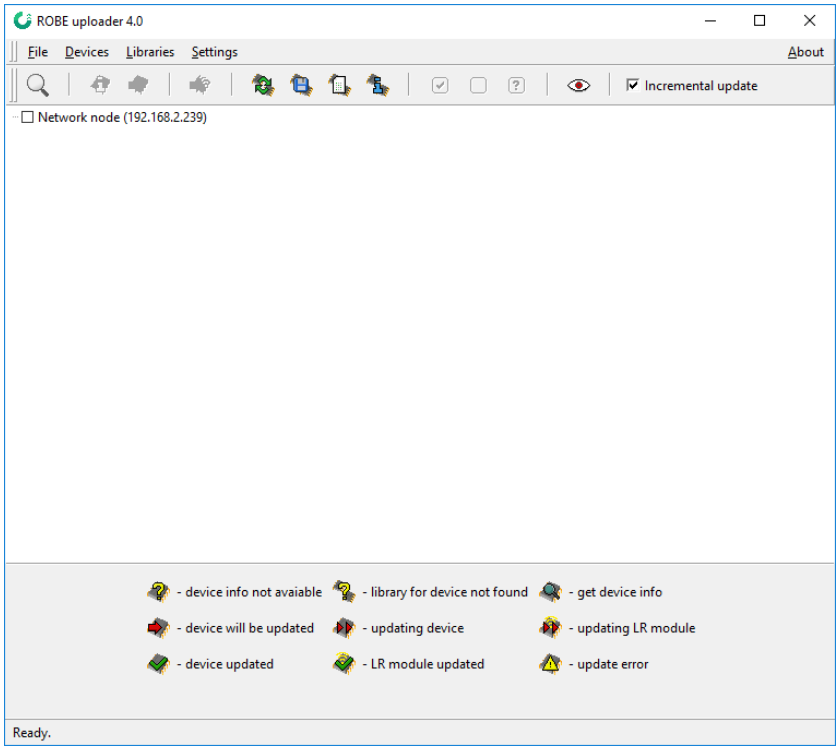


6. Select correct "COM " number if you use a Flash cable RS232/DMX or select "Robe Universal Interface " if you use the Robe Universal Interface/Robe Universal Interface WTX and then click on the "Connect" button.
7. If the connection is OK, click the “Start Uploading" button to start software uploading. 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 processors with new version of software, 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 “Fixture is successfully updated“ will appear in this window.

In case upload process is interrupted (e.g. power loss), the fixture stays in “Updating mode” and you will have to repeat the software update again.

Another way, how to update software in the fixtures (especially large installation of fixtures) is to use the ROBE Uploader. It is a software for automatized software update of Robe fixtures. It takes advantage of RDM support).

For more information please see https://www.robe.cz/robe-uploader/.



10. RDM

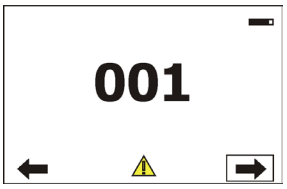
This fixture supports RDM operation. RDM (Remote Device Management) is a bi-directional communications protocol for use in DMX512 control systems, it is the new open standard for DMX512 device configuration and status monitoring.
The RDM protocol allows data packets to be inserted into a DMX512 data 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 iT12 Profile 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		*	*
DEVICE_RESET		*	
DMX_PERSONALITY		*	*
DMX_PERSONALITY_DESCRIPTION			*
STATUS_MESSAGES			*
STATUS_ID_DESCRIPTION			*

RDM model ID for the Robin iT12 is 0x013d.

11. Error and information messages

Error in the fixture is signalled by the yellow warning icon at the bottom line of the screen.



List of error and information messages:

Iris Error 1
Impact to the mechanical end of the iris track was not detected.

Iris Error 4
Incorrect detection of a iris track. Impact to a mechanical obstruction was detected within running of the iris.

Frost 1 Error 1
Impact to the mechanical end of the frost track was not detected.

Frost 1 Error 4
Incorrect detection of a frost track. Impact to a mechanical obstruction was detected within running of the frost.

Frost 2 Error 1
Impact to the mechanical end of the frost track was not detected.

Frost 2 Error 4
Incorrect detection of a frost track. Impact to a mechanical obstruction was detected within running of the frost.

Zoom Error 1
Impact to the mechanical end of the zoom track was not detected.

Zoom Error 4
Incorrect detection of a zoom track. Impact to a mechanical obstruction was detected within running of the zoom.

Focus 1 Error 1
Impact to the mechanical end of the focus module track was not detected.

Focus Error 4
Incorrect detection of a focus track. Impact to a mechanical obstruction was detected within running of the focus module.

Gobo Carousel Error 1
Magnetic/optic sensor was not detected.

Gobo Carousel Error 2
Magnetic/optic sensor permanently detects gobo carousel.

Gobo Rotation Error 1
Magnetic/optic sensor was not detected on the rotating gobo on the gobo carousel.

Gobo Rotation Error 2
Magnetic/optic sensor permanently detects rotating gobo on the gobo carousel.

Static Gobo Error 1
Magnetic/optic sensor was not detected.

Static Gobo Error 2
Magnetic/optic sensor permanently detects static gobo wheel.

Effect Wheel Error 1
Impact to the mechanical end of the effect wheel track was not detected.

Effect Wheel Error 4
Incorrect detection of an effect wheel track. Impact to a mechanical obstruction was detected within running

of the effect wheel.

Fr. Shutters Rot. Error 1
Impact to the mechanical end of the framing shutters wheel was not detected.

Fr. Shutters Rot. Error 2
Incorrect detection of the framing shutters wheel. Impact to a mechanical obstruction was detected within running of the framing shutters wheel.

Fr. Shutter 1 Error 1
Impact to the mechanical end of the framing shutter 1 was not detected.

Fr. Shutter 1 Error 4
Incorrect detection of the framing shutter 1. Impact to a mechanical obstruction was detected within running of the framing shutter 1.

Fr. Shutter 2 Error 1
Impact to the mechanical end of the framing shutter 2 was not detected.

Fr. Shutter 2 Error 4
Incorrect detection of the framing shutter 2. Impact to a mechanical obstruction was detected within running of the framing shutter 2.

Fr. Shutter 3 Error 1
Impact to the mechanical end of the framing shutter 3 was not detected.

Fr. Shutter 3 Error 4
Incorrect detection of the framing shutter 3. Impact to a mechanical obstruction was detected within running of the framing shutter 3.

Fr. Shutter 4 Error 1
Impact to the mechanical end of the framing shutter 4 was not detected.

Fr. Shutter 4 Error 4
Incorrect detection of the framing shutter 4. Impact to a mechanical obstruction was detected within running of the framing shutter 4.

EEprom Error
Hardware error of the EEprom.

Recharge The battery
The battery on the display board needs to be charged. Let the fixture on for cca 6 hrs.

Battery Faulty. Replace it.
The battery on the display board is exhausted and should be replaced immediately.

Internal Error 1
Communication error between PCBs (error or noise was detected on communication wires)

Internal Error 2
Communication error (some PCB has failed or is disconnected (this PCB will show as N/A in menu --> Information --> Software versions) or error/noise was detected on communication wires).

Blue 1 Short Error/ Blue 2 Short Error/ Blue 3 Short Error/ Blue 4 Short Error/ Blue 5 Short Error
Some blue LEDs in the light source have short circuit or are disconnected.

Green 1 Short Error/ Green 2 Short Error
Some green LEDs in the light source have short circuit or are disconnected.

Light Green 1 Short Error/ Light Green 2 Short Error/ Light Green 3 Short Error/ Light Green 4 Short Error
Some light green LEDs in the light source have short circuit or are disconnected.

Amber 1 Short Error/ Amber 2 Short Error/ Amber 3 Short Error/ Amber 4 Short Error
Some amber LEDs in the light source have short circuit or are disconnected.

Red 1 Short Error/ Red 2 Short Error/ Red 3 Short Error/ Red 4 Short Error
Some red LEDs in the light source have short circuit or are disconnected.

LEDs Colour Cal. Missing
Colour calibration of the light source was not done, e.g. after MSL light source change.

LEDs Current Cal. Missing
LEDs current calibration was not done. Go to the tab Service and run the item LEDs Current Calibration.
Note: Calibration of LEDs current can be also run by means of the RDM manager ver. 1.0.12 and higher (LED Driver -->Start Current Calibration).

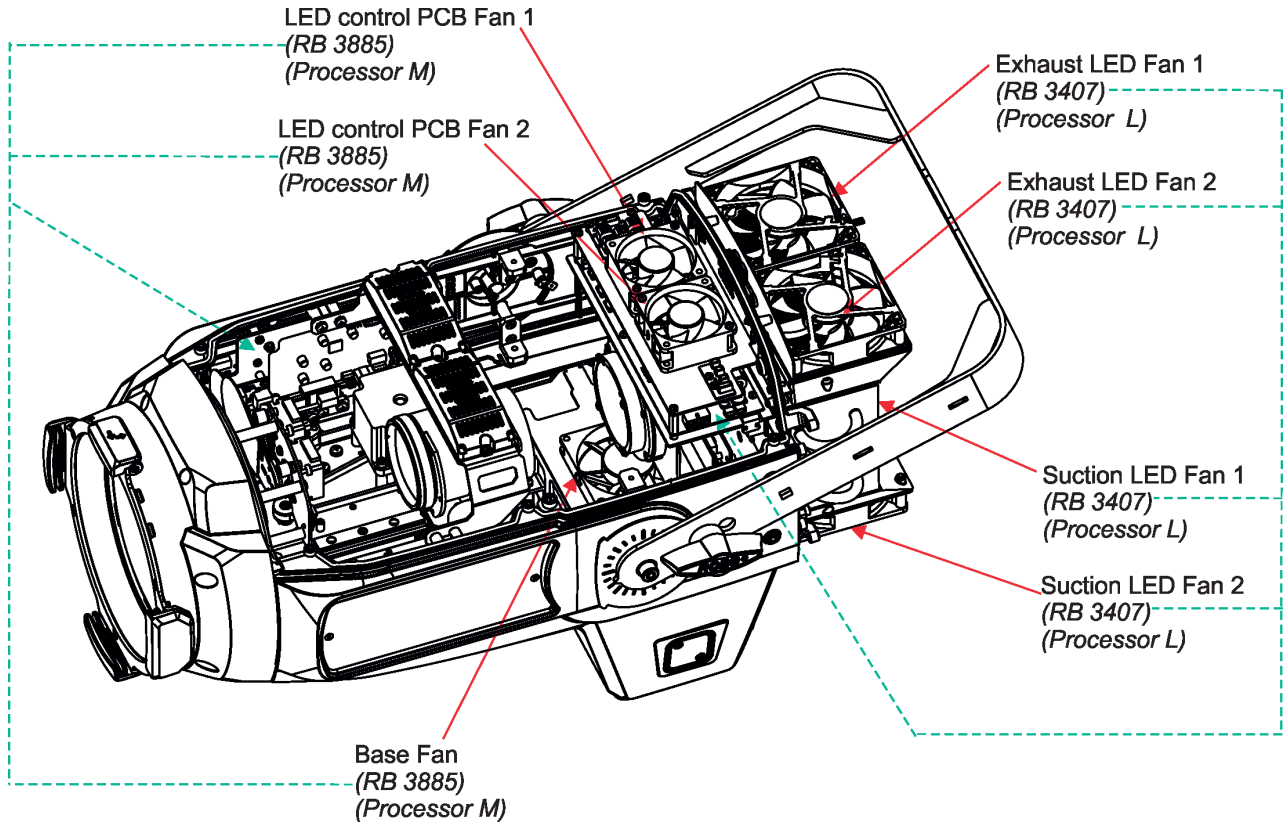
Base Fan Bad
The fan in the fixture base above power supply unit is disconnected from its control PCB or is faulty and should be replaced.

Suction LED Fan 1 Bad/ Suction LED Fan 2
The suction fan 1 (fan 2) at the LED engine is disconnected from its control PCB or is faulty and should be replaced.

Exhaust LED Fan 1 Bad/ Exhaust LED Fan 2 Bad
The exhaust fan 1 (fan 2) at the LED engine is disconnected from its control PCB or is faulty and should be replaced.

LED control PCB Fan 1 Bad/ LED control PCB Fan 2 Bad
The LED control PCB fan 1 (fan 2) which cools LED control PCB in the fixture head is disconnected from its control PCB or is faulty and should be replaced.

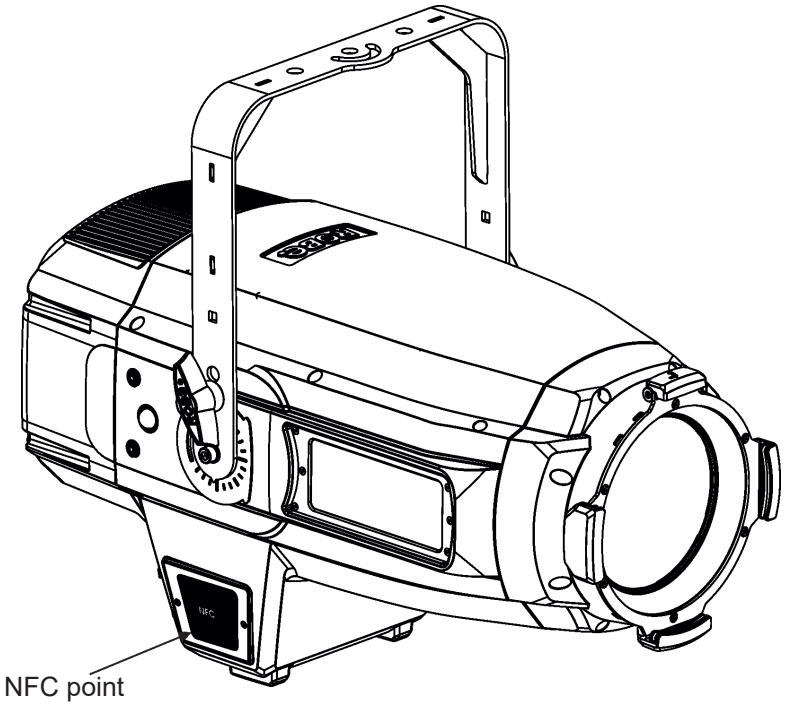
Positions of fans (and their control PCBs):



12. NFC

The fixture supports NFC. Using the mobile phone application ROBE COM you can read and set the Robin iT12 parameters (DMX address, IP address...etc.), get information about temperatures, operation hours, RDM identification etc.

The NFC point is situated on the side of the fixture.



Download and install the ROBE COM from Google Play (for Android 5.0 and higher) or App Store (for iOS 12.0 and higher) to your mobile phone. Your mobile phone has to support NFC (Near-Field Communication).

Hold the mobile phone on the side of the fixture base, if NFC connection is OK, discovered fixture will appear on the screen, after touching the fixture name the following the following menu items will appear:

- DMX/RDM settings
- Ethernet settings
- Blackout settings
- Colour settings
- Display settings
- Other settings
- Software versions
- Device hours
- Device temperatures

Touch desired menu item to enter its submenu.

13. Maintenance

DANGER !
Do not do maintenance in a damp environment (e.g. rain, snowfall)!
Always disconnect the fixture from mains before starting any maintenance work.

In order to ensure the fixture remains in good condition and does not fail prematurely, we recommend regular maintenance.
The following points have to be considered during fixture inspection:

- All outside covers and screws should be checked for damages, scratches or corrosion.
- All connectors and its rubber caps should be checked for damages or sediments.
- All screws and fasteners has to be securely tightened. Check for any deformation on the housing and rigging points. Damaged rigging points or unsecured rigging could cause the fixture to fall and seriously injure people.
- Electric power supply cable must not show any damage or material fatigue.
- Fans and heatsink should be checked for sediments or dirt/debris accumulation.

User can do the folloving operations:

- Gobo replacement
- Frost replacement
- LEDs module replacement
- Silica gel desiccants replacement
- Main fuse replacement
- Battery replacement
- Lubrication of internal parts of the fixture

Another maintenance and service operations should be carried out by trained technician only. If you need any spare parts, please order genuine parts from your local Robe distributor.

Fixture metal covers are made of material resistant to corrosion, potential damages of covers (like scratches, abrasions) are only appearance defects and will not cause corrosion of covers.
To repair small damages of fixture metal covers (e.g. scratches), you can use a paint intended for non-rusting metal surfaces (like aluminium, copper…). The paint can be applied to surface by means of a small brush or by spraying.
Use the paint with the same colour and sheen as has your cover. The paint can perform as undercoat or top-coat, it doesn´t matter.

Do not remove fixture covers in smoky or particularly dirty environment (e.g. with fog machines).

IMPORTANT The fixture should be uncovered as short time as possible (about 1-2 hours depending on air humidity) otherwise silica gel in the fixture may become damp.
If you have removed fixture cover and you need to interrupt your work for longer time (hours, days),we recommend to place the cover on the head and fasten it provisionally by means of two screws, next possibility is unscrewing boxes with silica gel from the fixture and put it to a sealed container with limited access of air (e.g. sealed plastic bag).

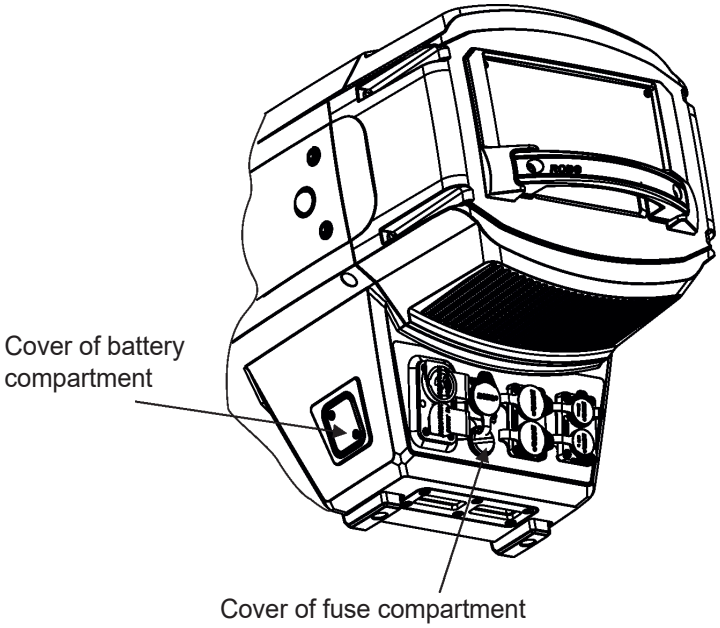
Replacing the fuse.
Before replacing the fuse, disconnect the fixture from mains.

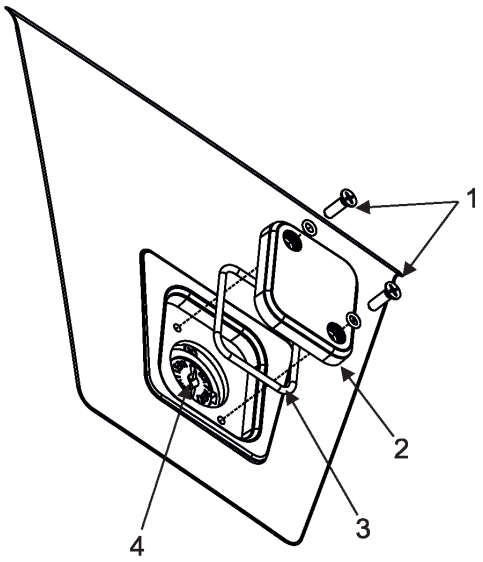
1. Using a flat-blade screwdriver, unscrew (anti-clockwise) the metal cover of the fuse compartment from the rear panel of the fixture.
2. Unscrew the fuse holder (anti-clockwise) and remove the blown fuse from the fuse holder.
3. Place a good fuse (only the same type and rating) into the fuse holder and screw the fuseholder back.
4. Screw the metal cover of the fuse compartment back to the rear panel, use a tightening torque 2.5Nm.

Replacing the battery.
Before replacing the battery, disconnect the fixture from mains.

1. Remove the cover (2) of the battery and fuse compartment by unscrewing two screws (1) with sealing rings .
2. Loosen (anti-clockwise) the battery holder cap (4).
3. Remove the exhausted battery from the battery holder.

4. Place a new battery (only the same type) into the battery holder (Negative (-) inside, Plus (+) outside).
5. Place and tighten the battery holder cap (4) back.
6. Place the cover (2) with gasket (3) back on the rear panel of the fixture and fasten it by means of two screws (1) with sealing rings (3). Tighten screws in two steps:
   Step 1 - use tightening torque 0.5Nm (pre-tightening)
   Step 2- use tightening torque 2.5Nm (final tightening)



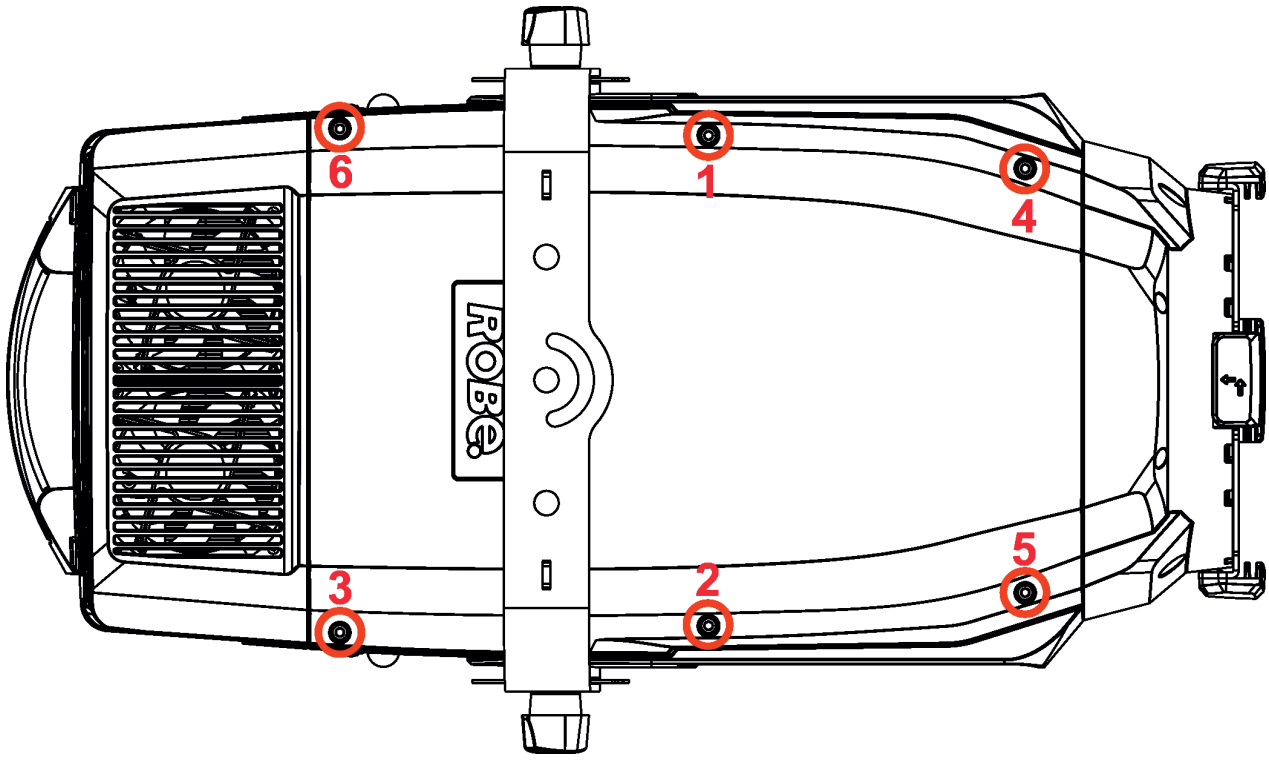


13.1 Fixture watertight covers and torques of covers screws

Keep values of torques as stated on pictures below otherwise leakage issues can occur!

Run the procedure Pressure Test (Service --> Pressure Test) after replacing any watertight cover!

Top cover



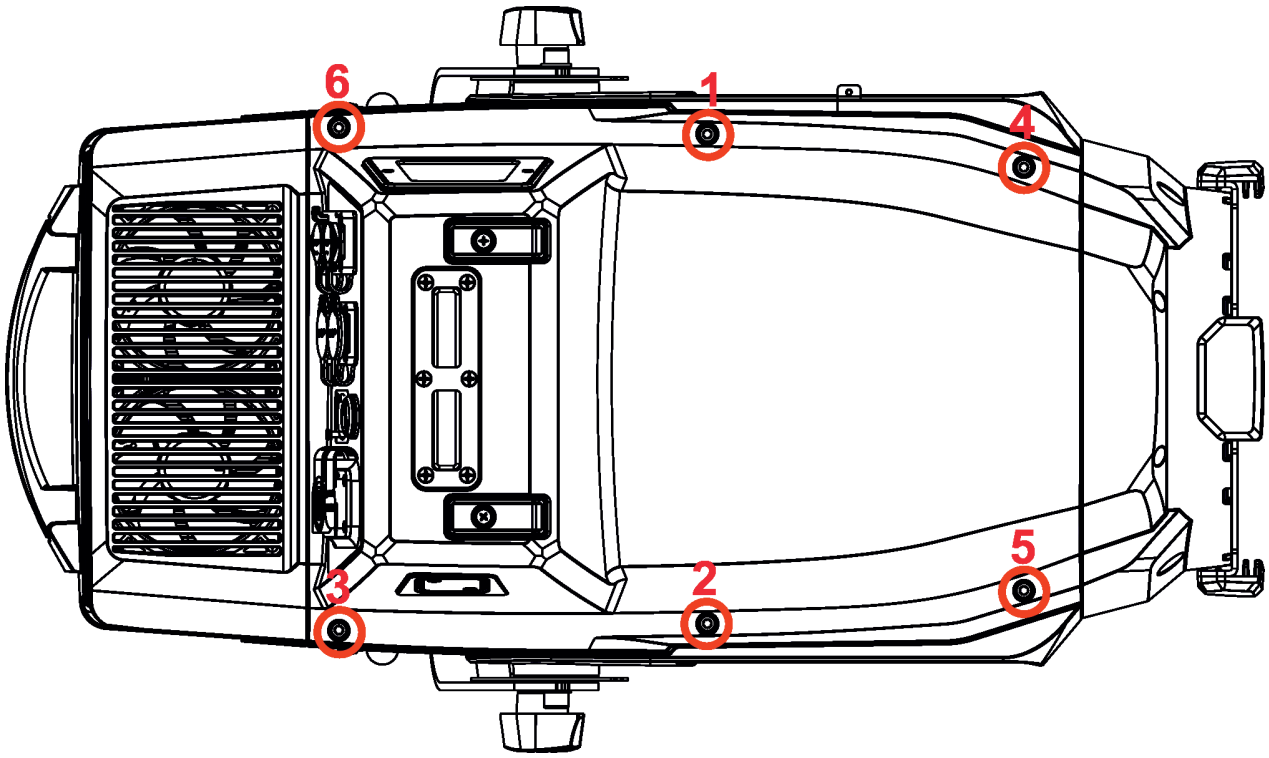
Screws must be tightened
in the order 1-->6

6 x hex socket head screw M5x16
Tightening torque*: 2.5 Nm

* Tighten all screws in two steps:
Step 1 - use tightening torque 0.5Nm (pre-tightening)
Step 2- use tightening torque 2.5Nm (final tightening)

Carefully check the gasket for signs of deformities or damages and if it is correctly placed before screwing the top cover back. The gasket is part of the top cover.
Do not forget to connect grounding wire between chassis and top cover.

Bottom cover



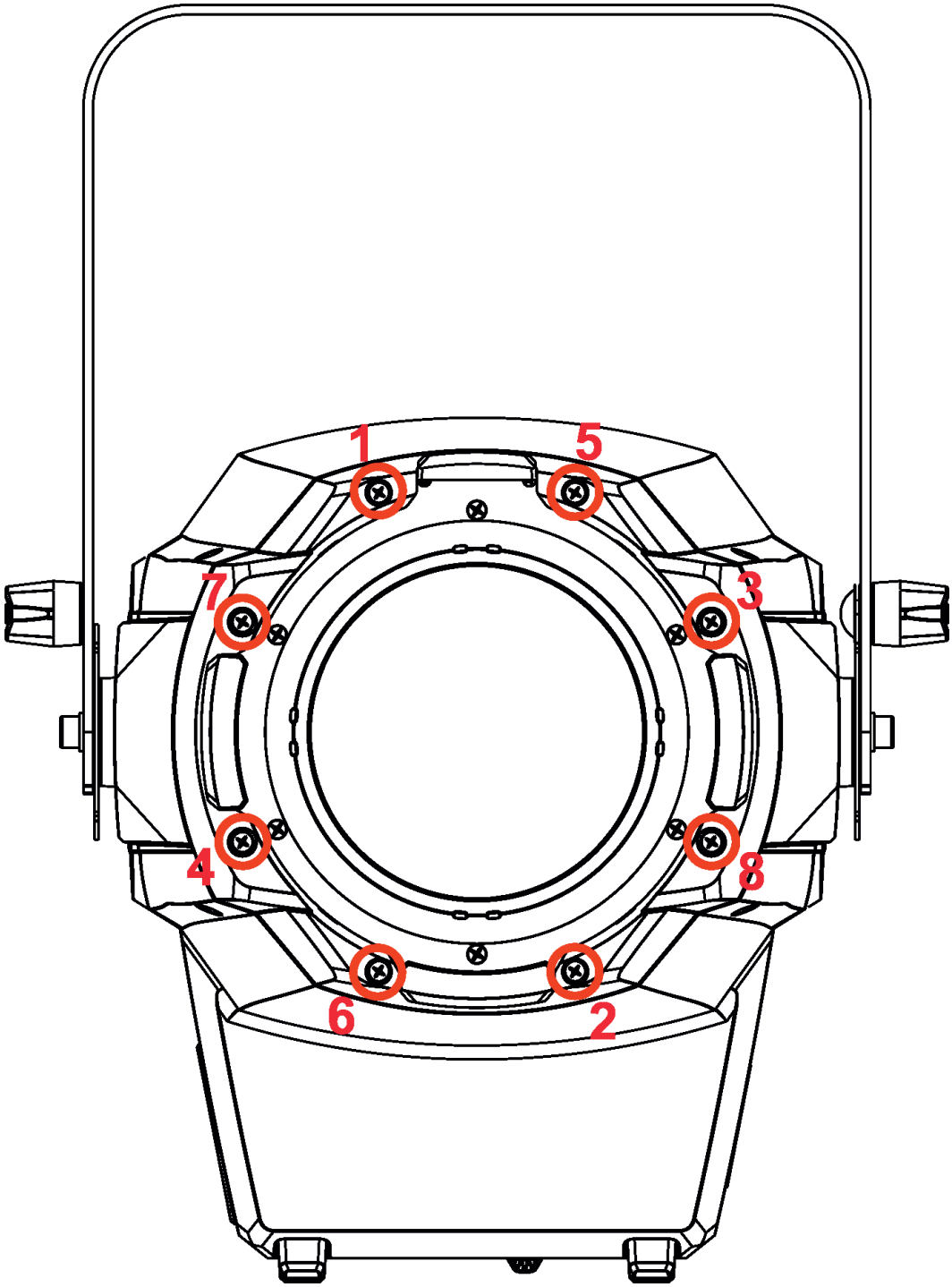
Screws must be tightened
in the order 1-->6

6 x hex socket head screw M5x16
Tightening torque*: 2.5 Nm

* Tighten all screws in two steps:
Step 1 - use tightening torque 0.5Nm (pre-tightening)
Step 2- use tightening torque 2.5Nm (final tightening)

Carefully check the gasket for signs of deformities or damages and if it is correctly placed before screwing the top cover back. The gasket is part of the bottom cover.
Do not forget to connect grounding wire between chassis and bottom cover.

Front lens module



Screws must be tightened
in the order 1-->8

8 x captive screw (Phillips head)
Tightening torque*: 2.5 Nm

* Tighten all screws in two steps:
Step 1 - use tightening torque 0.5Nm (pre-tightening)
Step 2- use tightening torque 2.5Nm (final tightening)

Carefully check the gasket for signs of deformities or damages and if it is correctly placed before screwing the front lens module on the fixture. The gasket is part of the front lens module.

13.2 Changing the LED light source

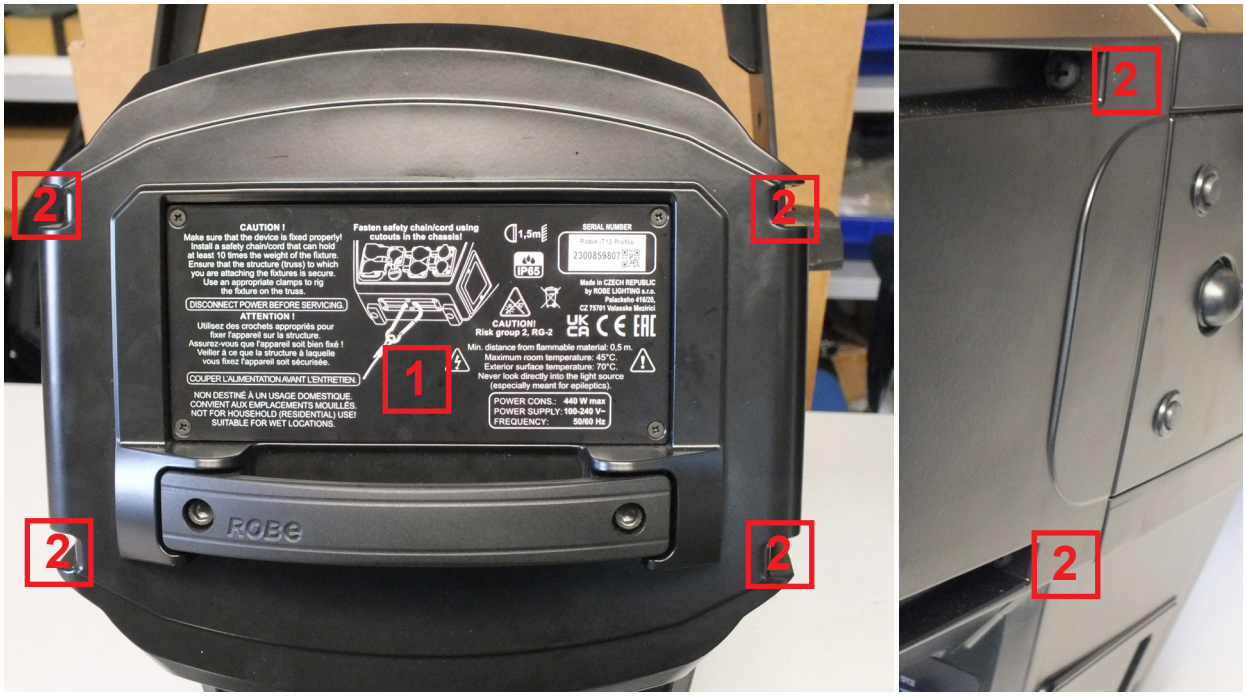
The Robin Forte allows you to change the LED light source and this way keep a high performance of the fixture.

Unplug the fixture from mains before replacing LED light source!
Do not change LED light source in a damp environment (e.g. rain, snowfall)!

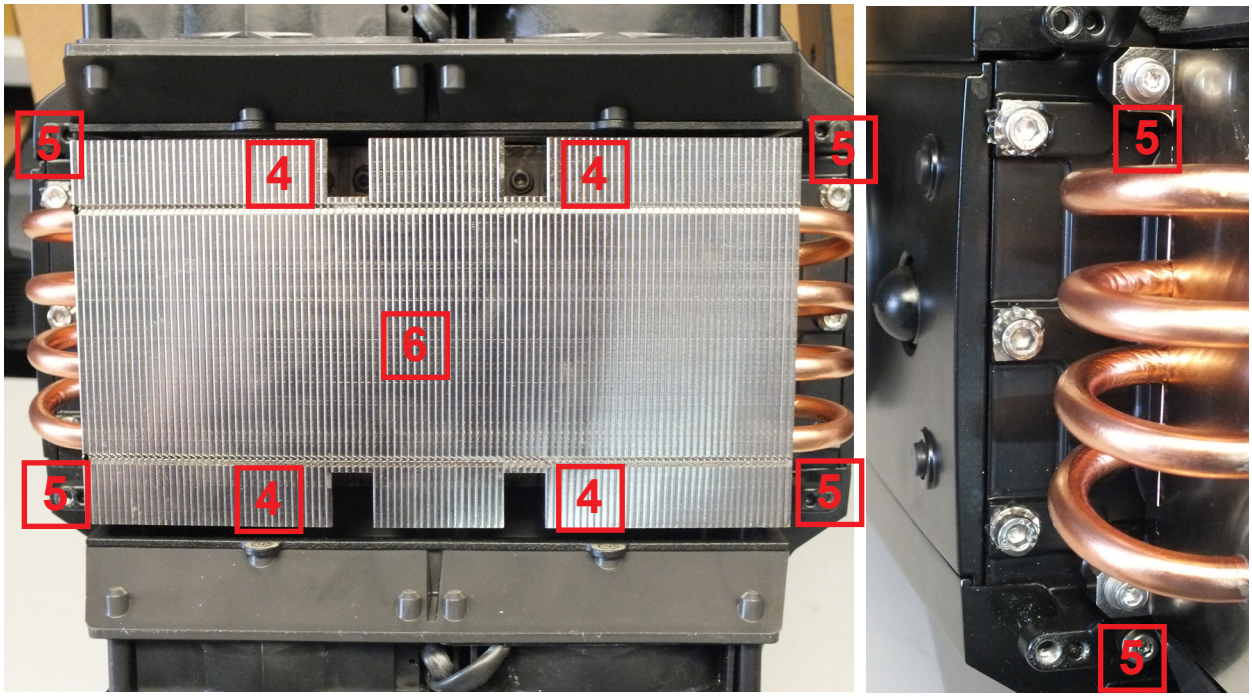
To change the LED light source.

1. Disconnect the fixture from mains and allow it to cool about 60 minutes.

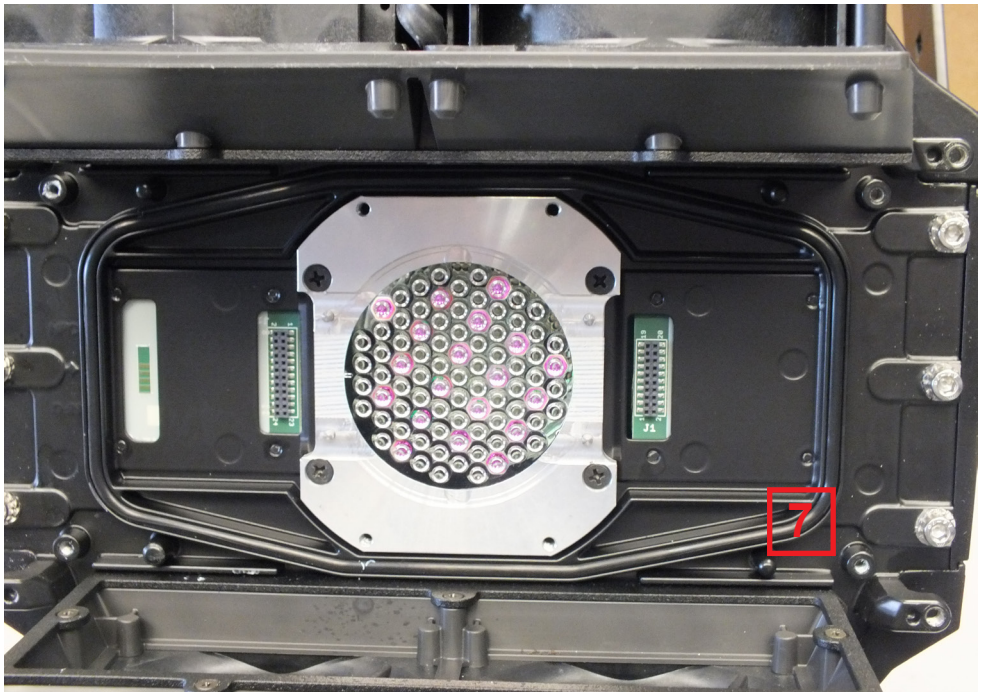
2. Remove the rear cover (1) of the fixture by unscrewing two screws M5x20 (2) on each side of the cover.



3. Unscrew the four screws M4x16 (4) and the four screws M4x14 (5) and remove the LED light source (6) from the head. Be careful, the LED light source is heavy.

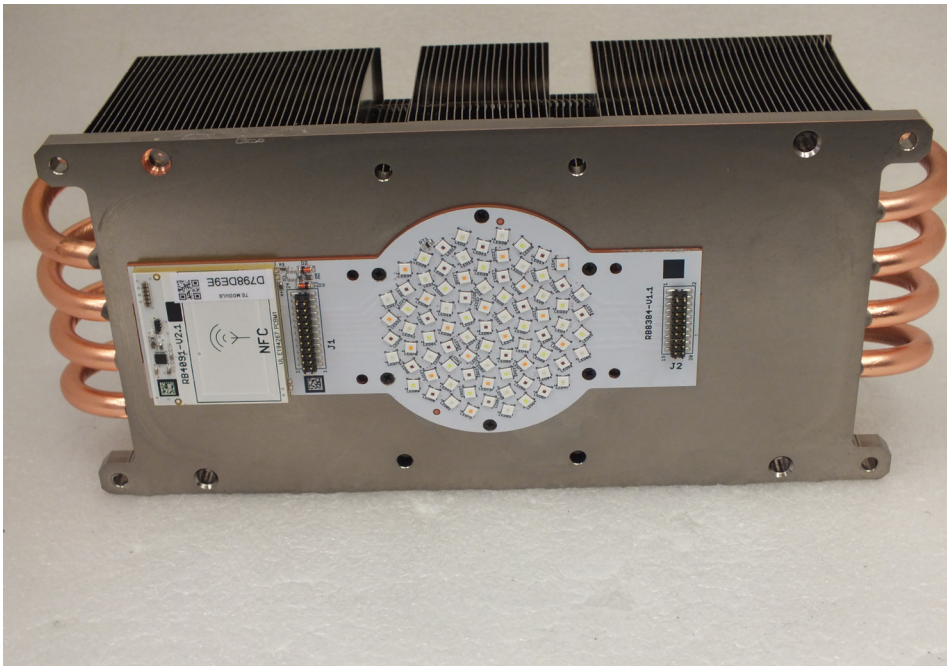


Fixture without the LED light source.

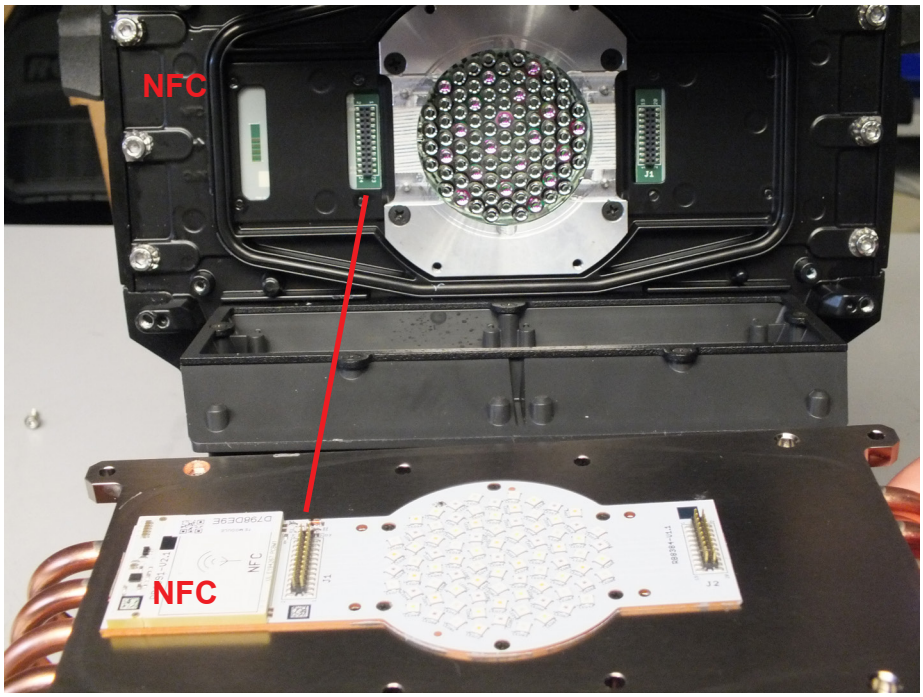


Important: Carefully check the gasket (7) for signs of deformities and if it is correctly placed in the chassis of the fixture before inserting the new LED light source.

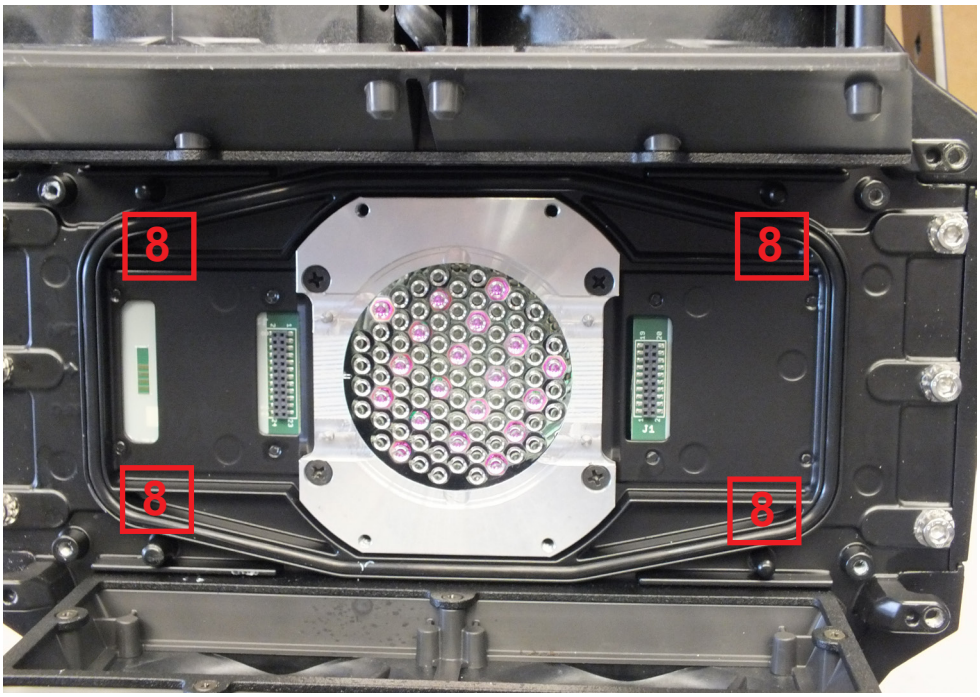
The new LED light source includes PCB with LEDs and heat sink. Handle with care. Do not touch LEDs with bare hands.



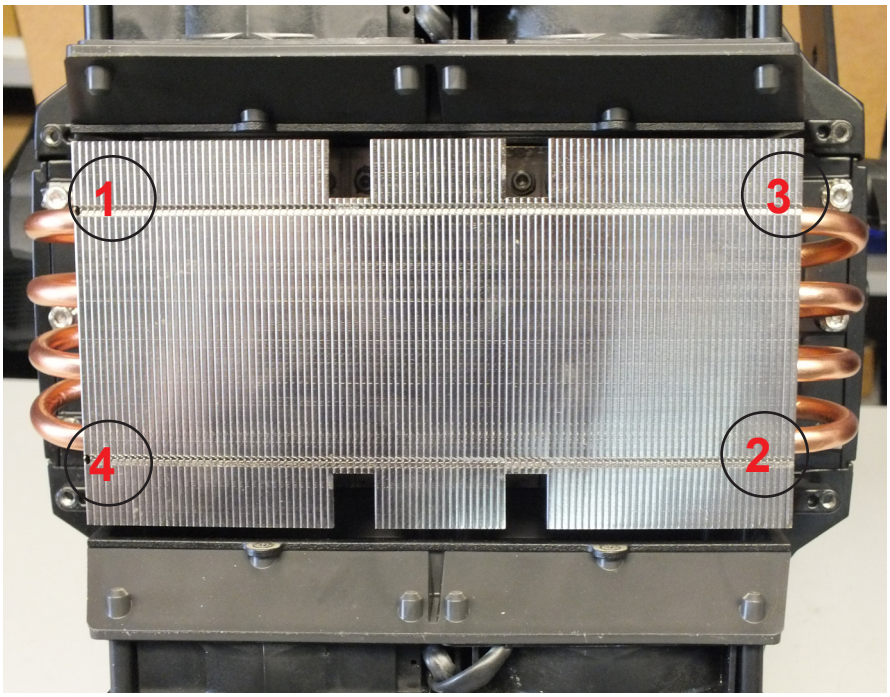
4. Carefully insert the new LED light source to the head. **Keep the correct orientation of the LED light source towards the head chassis as shown on the picture below. The NFC module on LEDs PCB has to be oriented towards the sign NFC on the fixture chassis.**



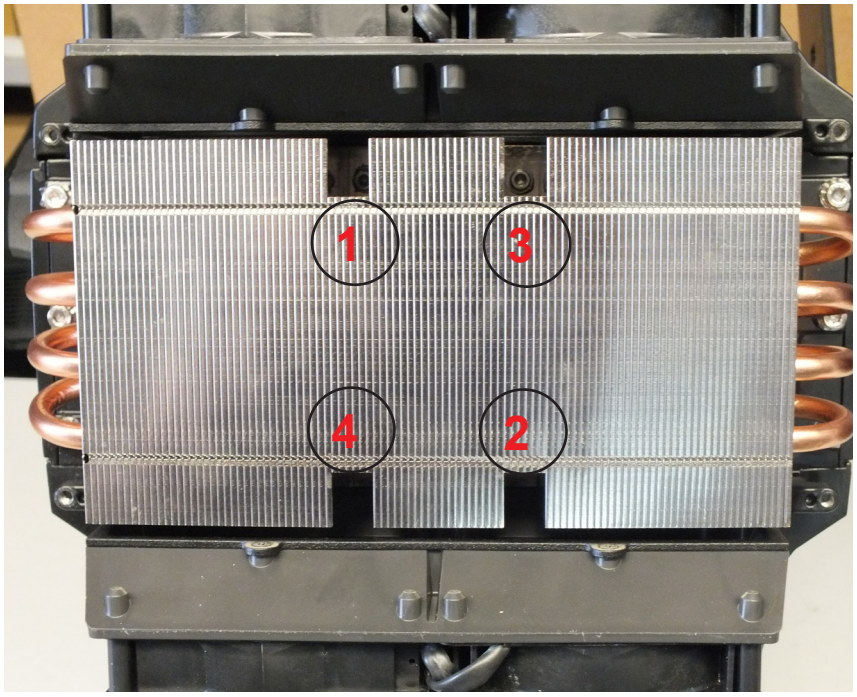
The four guide pins (8) secure correct position of the LED light source.



5. Tighten the four outside fastening screws M4x14 (4) in the order 1-->4. Use tightening torque 2.5 Nm. Do the tightening of screws in two steps, in the first step use tightening torque 0.5 Nm and in the second step 2.5 Nm.



Tighten the four fastening screws M4x16 (5) in the order 1-->4. Use tightening torque 2.5 Nm. Do the tightening of screws in two steps, in the first step use tightening torque 0.5 Nm and in the second step 2.5 Nm.



Note: Check that all screws are firmly tightened. Fastening of the LED light source has to be watertight.

6. Screw the rear cover (1) of the fixture head by means of four screws M5x20 (2).

7. Connect the fixture to mains and run calibration of LEDs current (menu path: Special --> Adjust --> Calib --> LEDs Cur) before activating dimmer of the fixture.

8. **Run the procedure Pressure Test (Service -->Pressure Test).**
If the pressure test is not OK, check tightening of the LED light source and run the pressure test again.

13.3 Checking and replacing the silica gel desiccants

The silica gel desiccants are used for humidity indication in the fixture. Dry silica gel has an orange colour, if it is saturated with water, its colour changes to dark grey. If most of silica gel changed colour to dark grey, it has to be replaced.

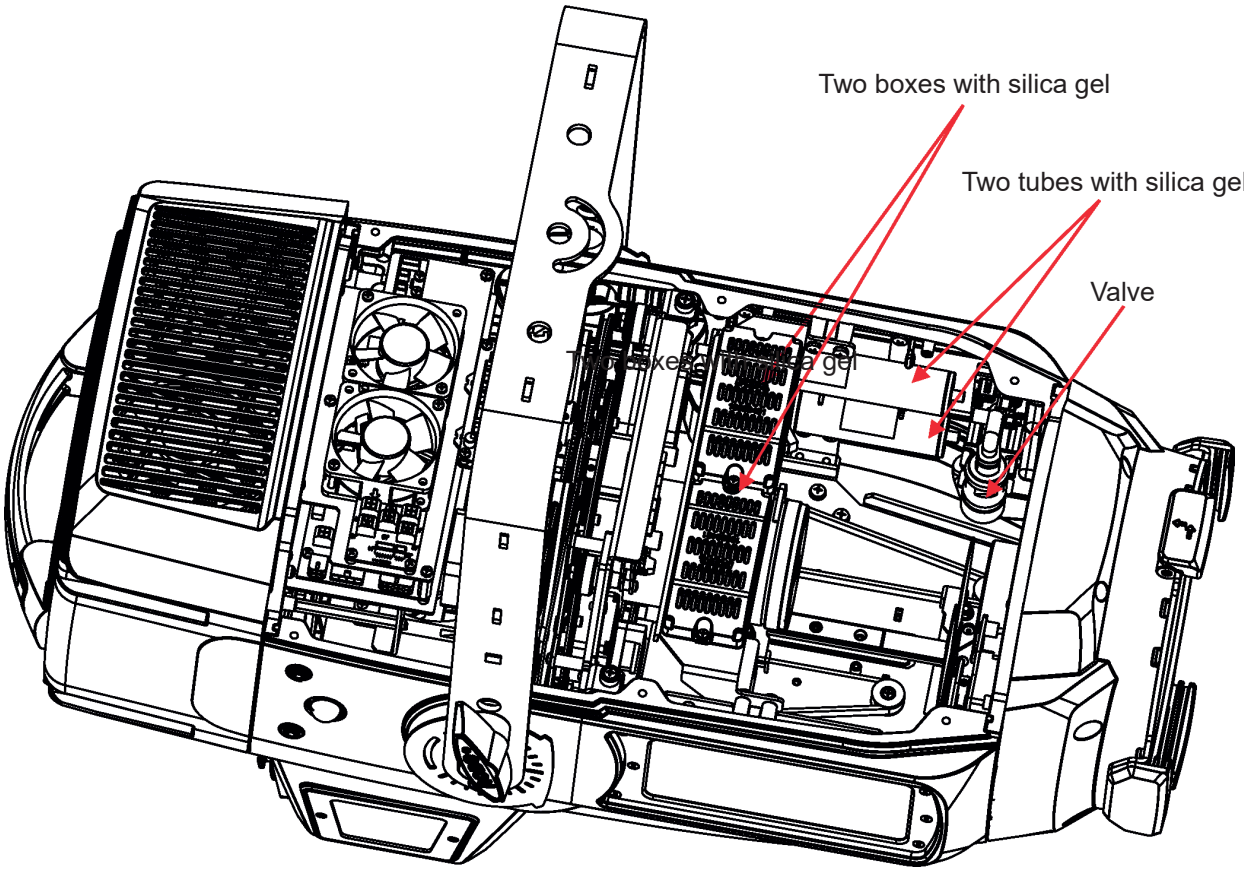
Unplug the fixture from mains before checking/replacing silica gel desiccant!
Do not check/replace silica gel desiccant in a damp environment (e.g. rain, snowfall)!

Spare desiccants from factory are packaged in a protective foil. Take desiccants out of the protective foil immediately before replacing them in the fixture!
Silica gel may become damp if it is exposed to wet air for longer time.

Silica gel is not under warranty!

The following dfesiccants are placed in the fixture:

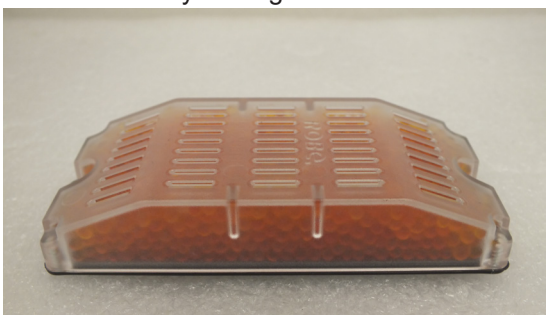
2 x box with silica gel
2 x tube with silica gel



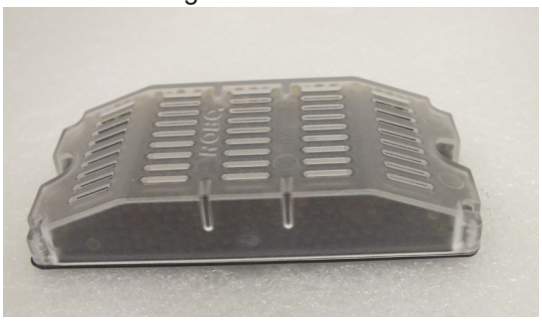
Each silica gel box is fastened in the fixture by means of two screws.

Example:

Dry silica gel



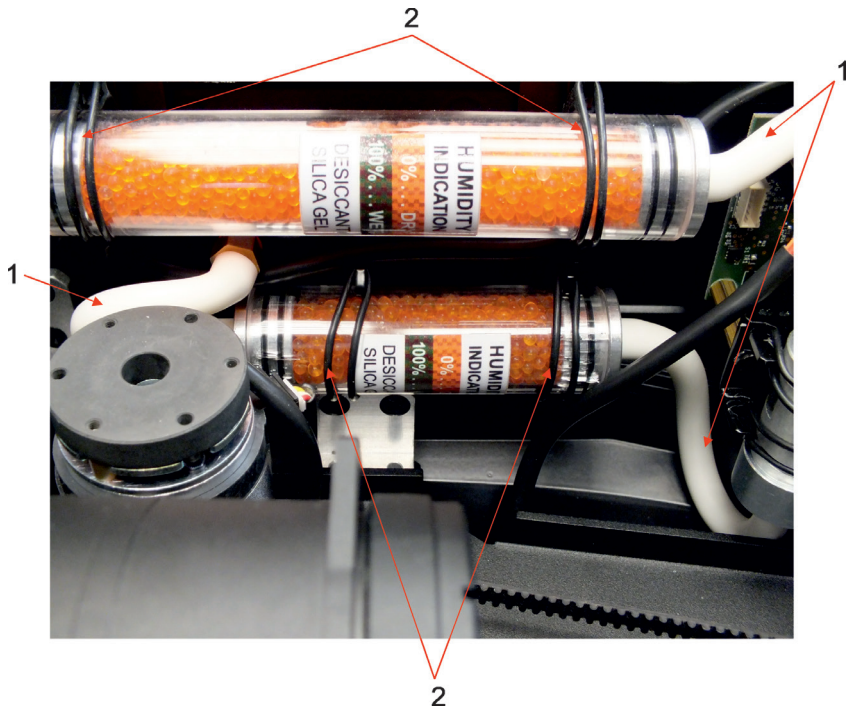
Silica gel saturated with water



The silica gel desiccants in the fixture should be checked (and alternatively replaced) at removing head covers, e.g. at gobos change or some service intervention.

After checking/replacing desiccants do not forget to connect grounding wire between chassis and top cover at placing the top cover back on the fixture.
After checking/replacing desiccants, run the procedure Pressure Test (Tab Service -->Pressure Test). If the pressure test is not OK, check if all screws of top cover are correctly tightened and repeat the pressure test again.

Changing tubes with silica gel



1. Disconnect the fixture from mains.
2. Remove the top cover of the fixture.
3. Disconnect the hosepipe(s) (1) from the tube with silica gel.
4. Stick out the rubber rings (2) and remove the tube with silica gel.
5. Insert the new tube with silica gel and secure it by means of the rubber rings (2).
6. Connect the hosepipe(s) (1) to the tube with silica gel.
7. Screw the top cover back on the fixture.Keep required tightening torque as stated in the chapter Maintenance. Do not forget to connect grounding wire between chassis and top cover.
8. **After connecting the fixture to mains, reset the MAX WET chart (tab Information-->RAINS Status) and run the procedure Pressure Test (tab Service -->Pressure Test).**
   If the pressure test failed, check if hose-pipes are correctly put on the tubes with silica gel.

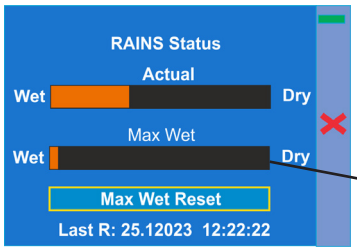
Example of dry silica gel and silica gel saturated with water:



Silica gel saturated with water

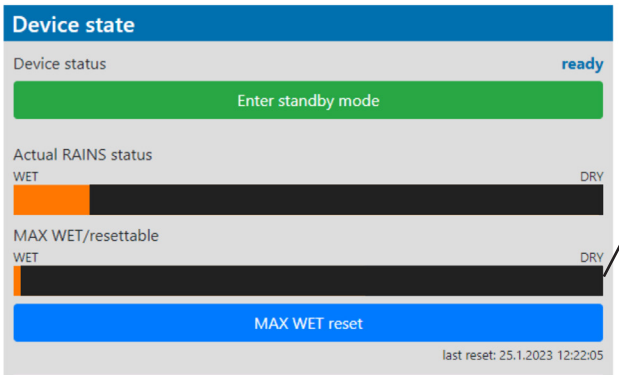
Dry silica gel

State of desiccants in the fixture can be checked:
- visually by unscrewing the top cover of the fixture
- via fixture display (tab Information, option RAINS Status)



The chart MAX WET is decisive for replacing dessicants in the fixture.
If the chart has changed to black colour, dessicants have to be replaced.

- remotely by means of the Robe Ethernet Access Portal (REAP)



In case that silica gel in the fixture is fully saturated with water, the warning message " **Too Much Humidity in Device**" will appear on the fixture display (yellow warning icon) and also in the Robe Ethernet Access Portal (Logs screen).

Example



13.4 Disposing of the product

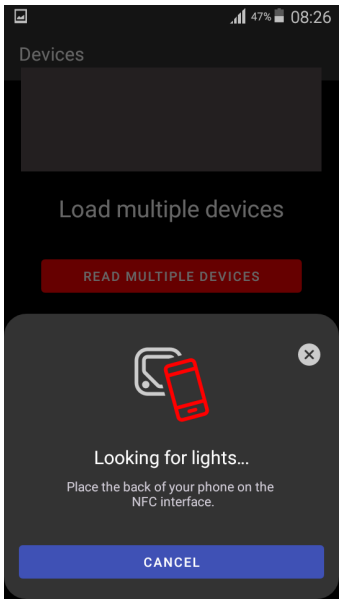
To preserve the environment please dispose or recycle this product at the end of its life according to the local regulations and codes.

14. Obtaining information about the LED light source by mobile phone

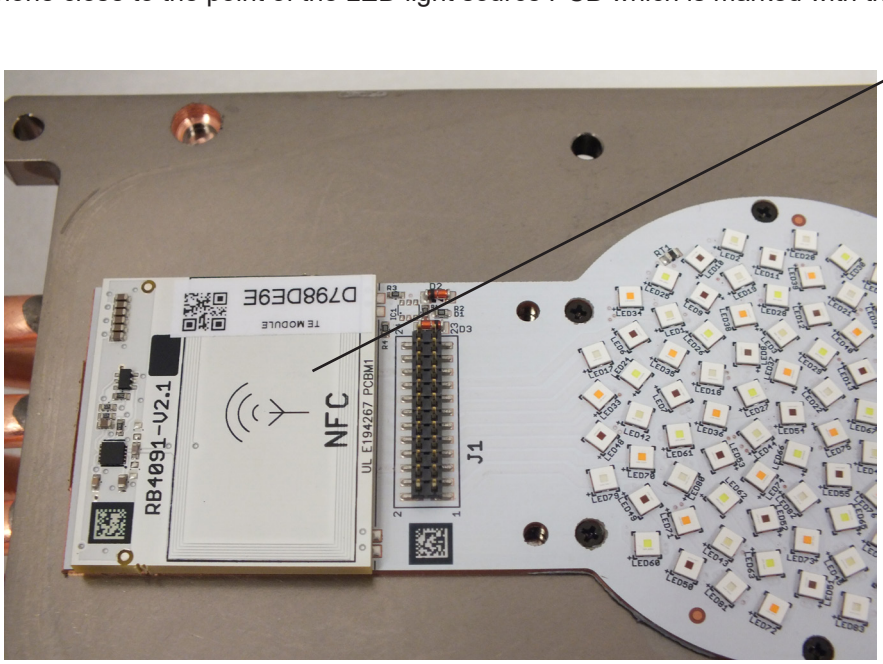
You can read information about the LED light source by means of the mobile application ROBE COM. The LED light source has to be outside of the fixture.

Download and install the application ROBE COM from Google Play (for Android 5.0 and higher) or App Store (for iOS 12.0 and higher) to your mobile phone. Your mobile phone has to support NFC (Near-Field Communication).

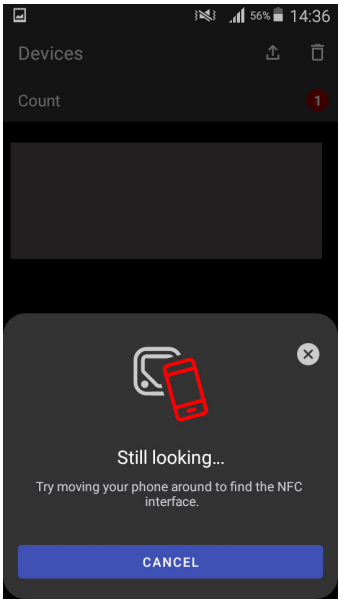
After installing the ROBE COM, run the application by touching the icon .
The following screen will appear:

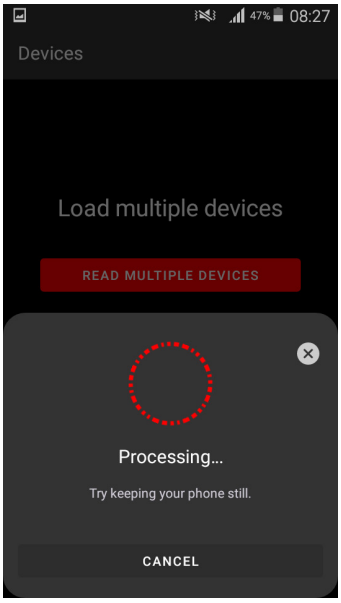


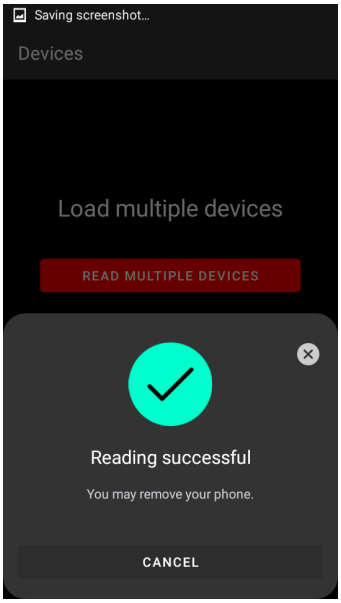
Hold the mobile phone close to the point of the LED light source PCB which is marked with the symbol NFC.



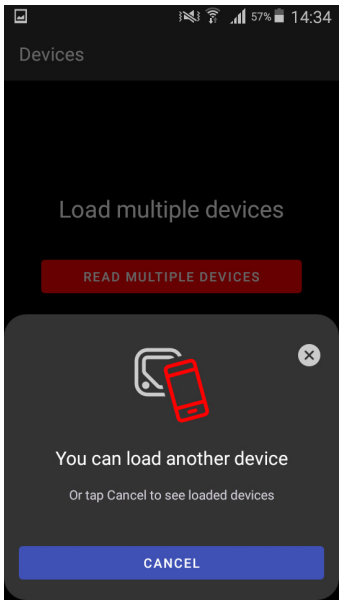
If NFC connection is OK, the screen with RDM UID of the LED light source will appear.



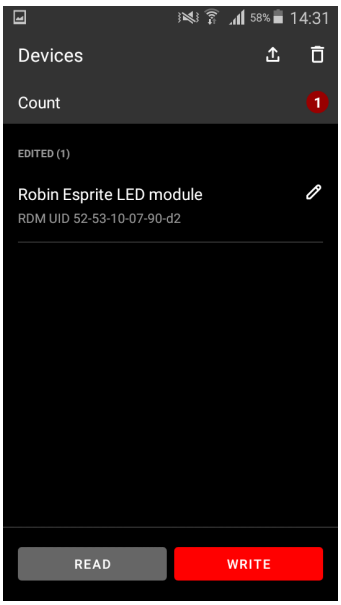


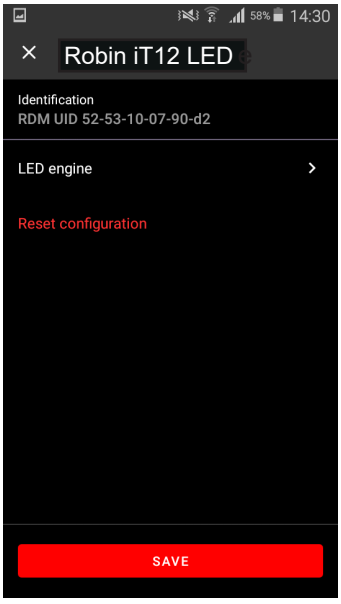


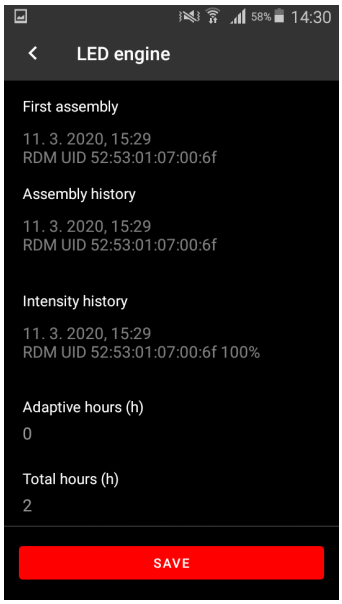
When the following screen will appear, touch the button CANCEL.



Touch the found LED module ("Robin iT12 LED module") and than touch "LED engine" to read information about found LED module.



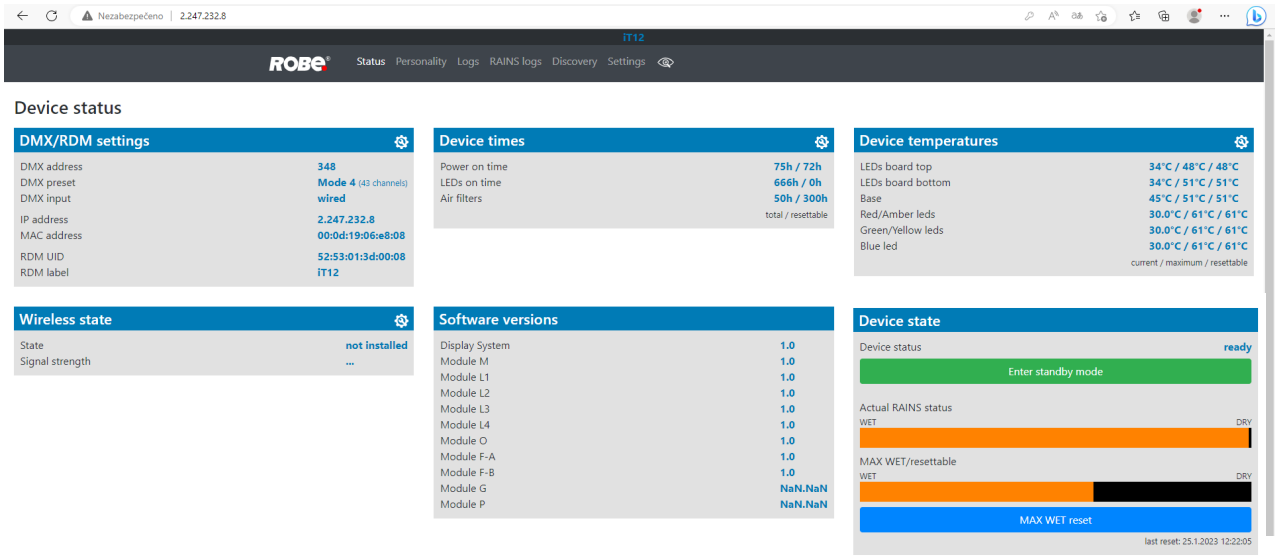




15. Robe Ethernet Access Portal (REAP)

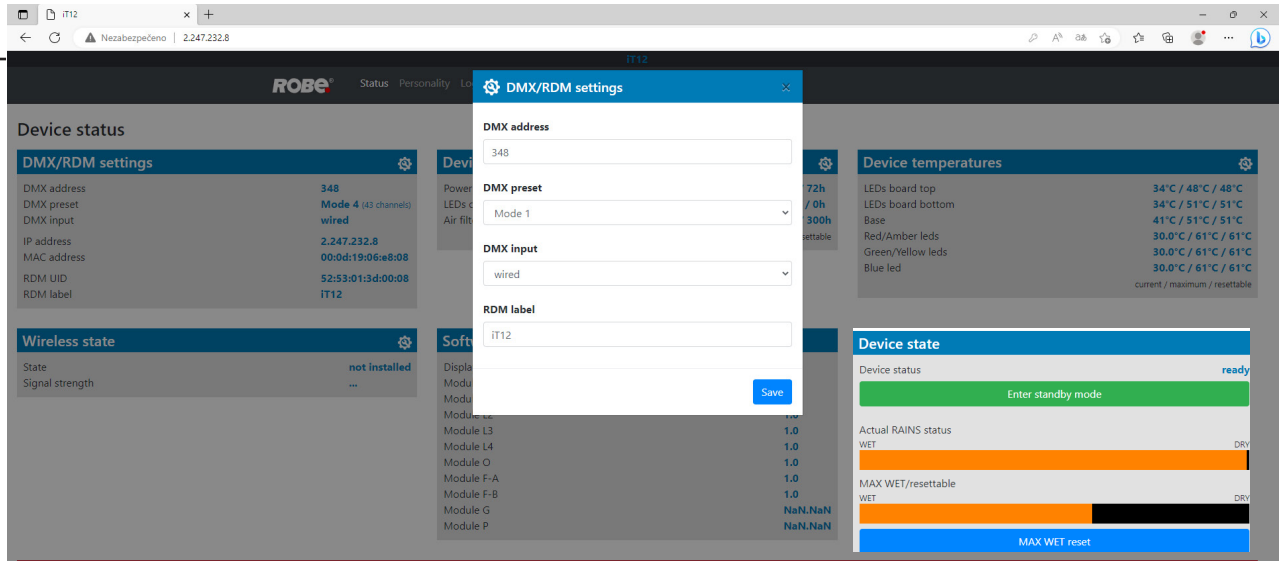
Before running the REAP, your computer needs to be connected to the fixture (s) through the means of Ethernet wired network and a network switch. The computer needs to have configured network settings in order to be able to communicate with the fixture(s) through the network. The Ethernet network connection (Local LAN) typically needs to be set to 2.x.x.x address, the computer IP address has to be set to 2.x.x.x (for example 2.247.136.20) with netmask 255.0.0.0. On the fixture make sure to use the default 2.x.x.x IP address as provided You do not need change any IP settings on the fixture, there is no need to set the fixture into Art-Net mode.

Type the IP address of the iT12 to your web browser, e.g. http://2.247.232.8, enter the user name: **robe** and the password: **2479**, the **Status screen** of the iT12 will appear.



This screen gives you a fast overview of fixture settings and environment in the fixture. The icon  allows you to change some values in a corresponding table.

Example for DMX/RDM settings:



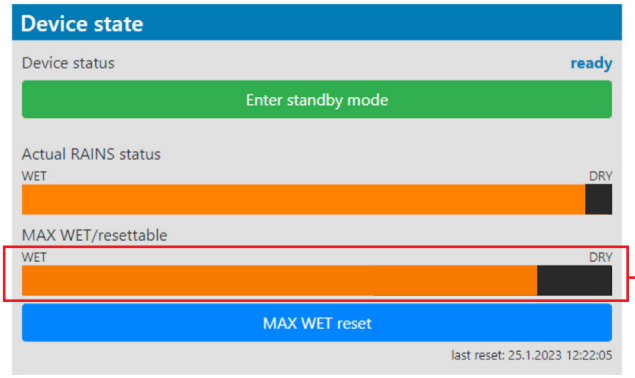
Note.
The background colour of the top raw of the Status screen with the name and RDM label of the fixture denotes state of the fixture:

fixture is ready for operation
fixture does not communicate with computer
fixture with error message(s)

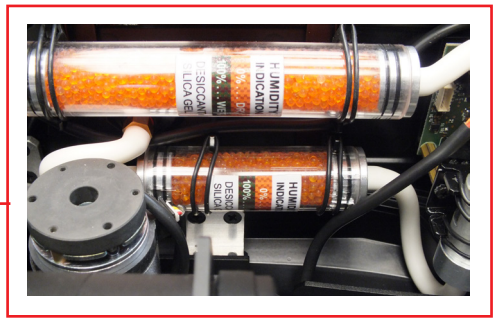
The table "Device state" gives you information about fixture and environment in the fixture.
Device status: **ready** - all fixture resets successfully passed and the fixture is ready for operation.
initialization - fixture is waiting for fixture reset
heating - fixture is waiting for reaching operating temperature of the fixture inside (temperature in the fixture is below 0°C).
standby - the fixture is in standby mode
standby/heating - the fixture is in standby mode and inside of the fixture is heated
The bar chart **Actual RAINS status** informs you about current humidity in the fixture. The bar chart changes depending on humidity, temperature and pressure in the fixture. The bar chart depends on current conditions in the fixture and can be different at start of fixture operation, after 10 minutes of its operating, after closing fixture dimmer etc.
RAINS (Robe Automatic Ingress Neutralization System) manages humidity, temperature and pressure control using an active monitoring system to automatically remove any moisture detected within the fixture and provides permanent monitoring to ensure peak performance of the fixture.

The bar chart **MAX WET/resettable** informs you about maximum humidity achieved in the fixture since the chart was last reset. The bar chart also informs you about saturation of silica gel desiccants in the fixture with water and is deciding indicator for their checking and replacement.

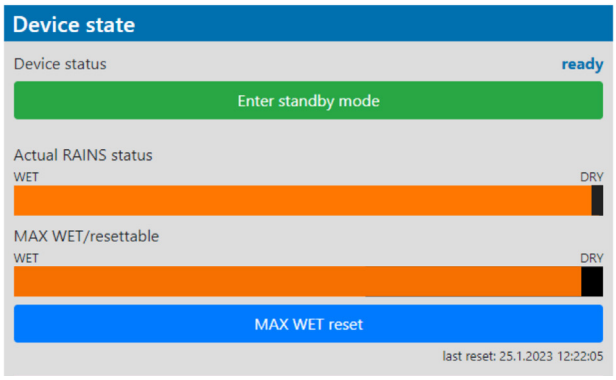
The blue button **MAX WET reset** resets the bar chart MAX WET/resettable. Date and time of last reset is displayed below this button.



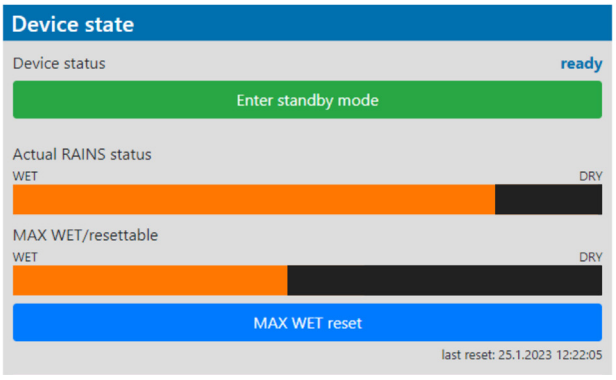
Silica gel desiccants
in the fixture



Examples of the table "Device state":

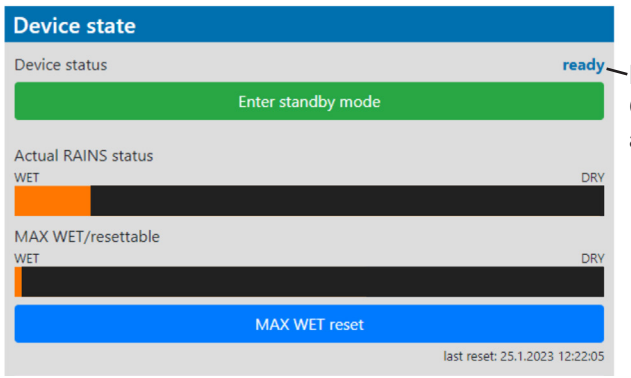


Dry desiccants



Desiccants partially saturated with water

Desiccants saturated with water

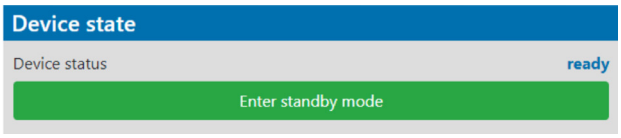


Device status **ready** means, that all fixture resets are OK and the fixture is ready for operation. It does not assess state of desiccants or result of pressure test!

Desiccants fully saturated with water

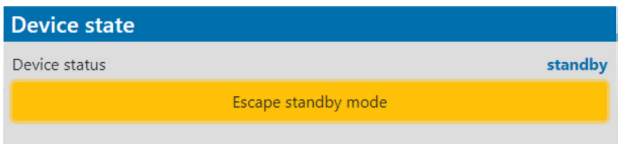
Silica gel desiccants in the fixture should be replaced.
After replacing them, reset MAX WET resettable bar chart.

The option **Enter standby mode** allows you to switch the fixture to Standby mode.

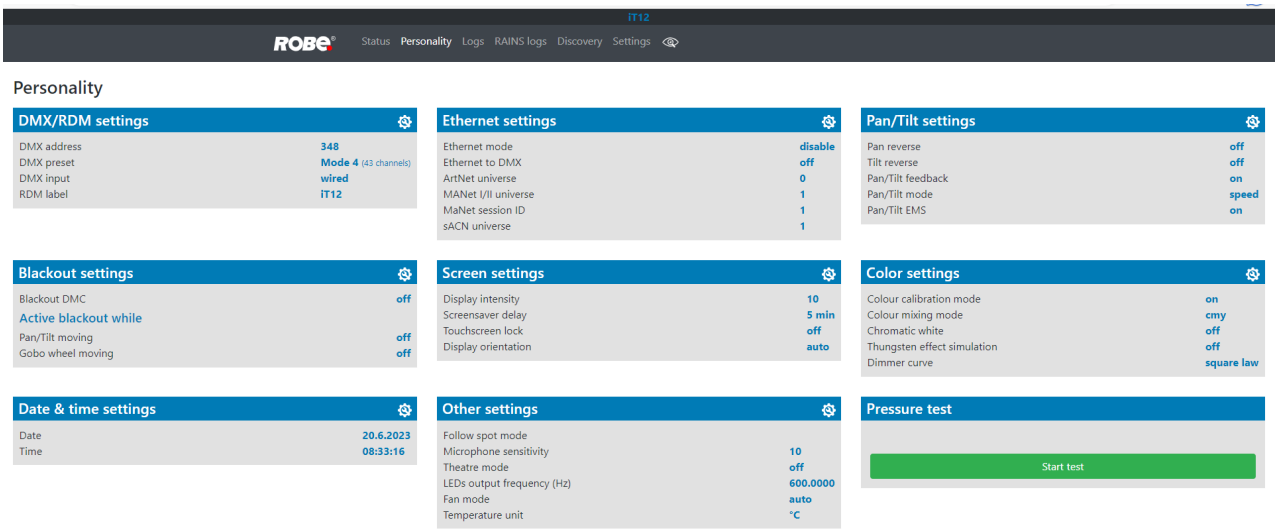


Note: Standby mode helps conserve power when a fixture is not in use, without fully powering it off.
In the Standby mode, all fixture motors and fans are deactivated and light output is closed.
For more information about Standby mode please see the chapter Standby mode.

The option **Escape standby mode** allows you to switch the fixture to standard operating mode.

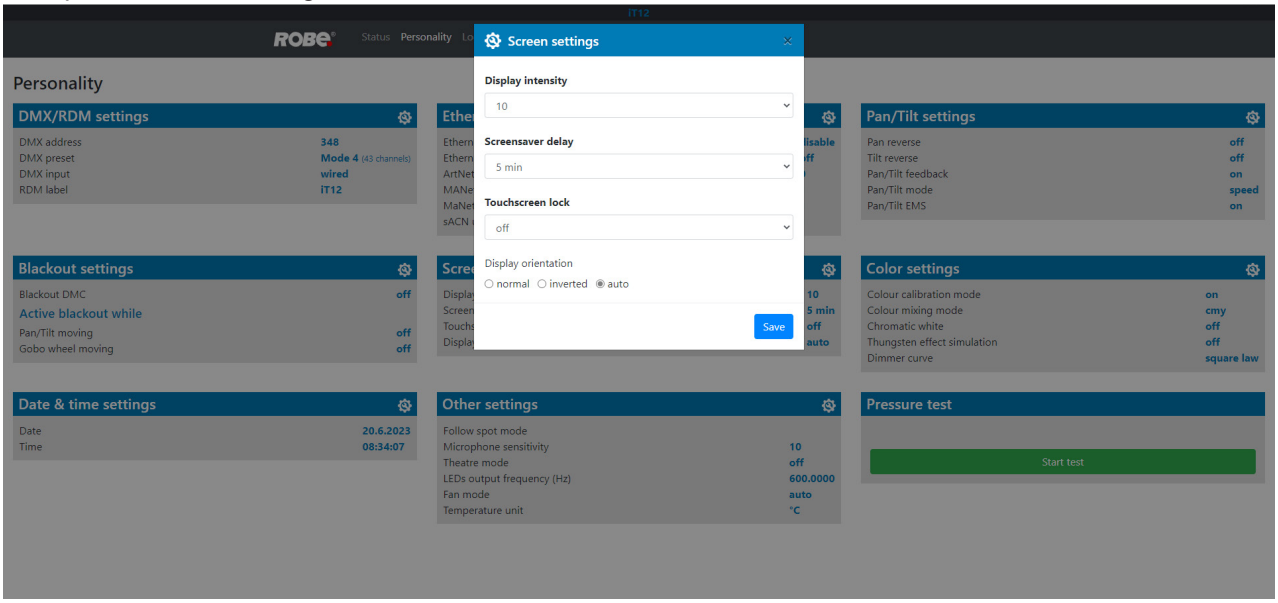


The **Personality screen** allows you to set fixture behaviour and run a pressure test.

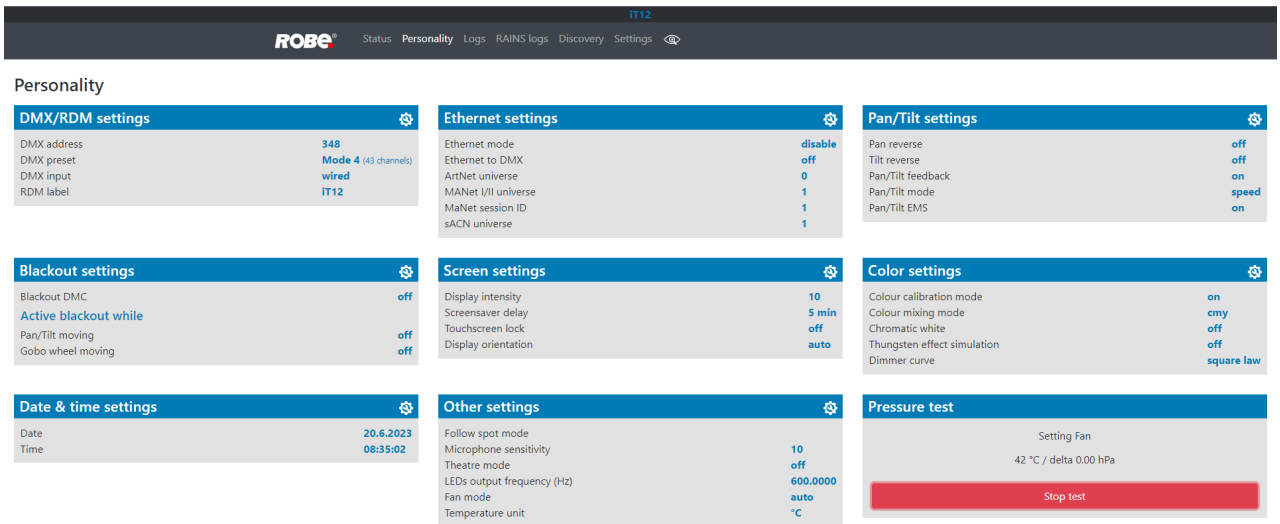


The icon  allows you to change values in a corresponding table.

Example for Screen settings:

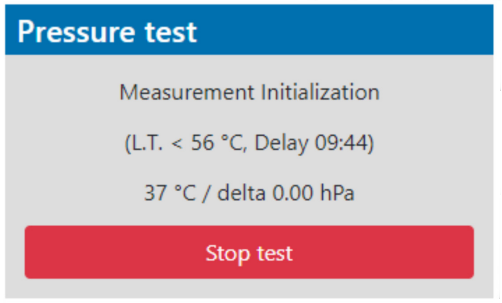


The table "Pressure test " with green button **Start test** allows you to run a procedure which checks IP65 integrity of the fixture. The fixture has to be connected to mains and the head temperature (at pressure sensor) cannot be higher than 55°C. The pressure test lasts about 5 minutes and can be run at earliest 10 minutes after closing light output (shutter closed) of the fixture. The pressure test can be repeated at earliest 2 minutes after last pressure test.

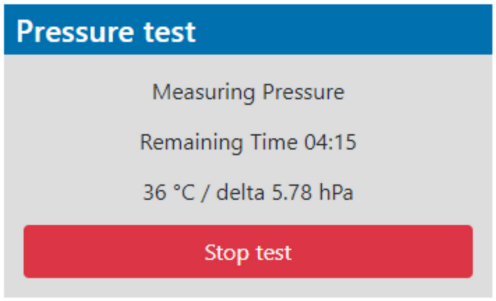


Examples of pressure test messages:

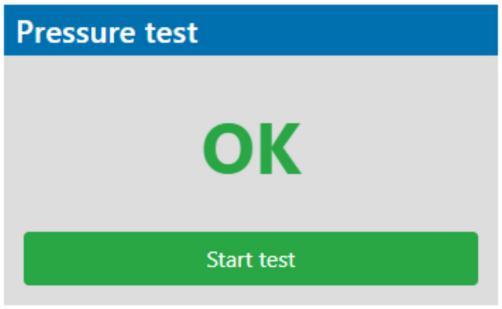
Pressure test is 10 minutes delayed due to fixture cooling



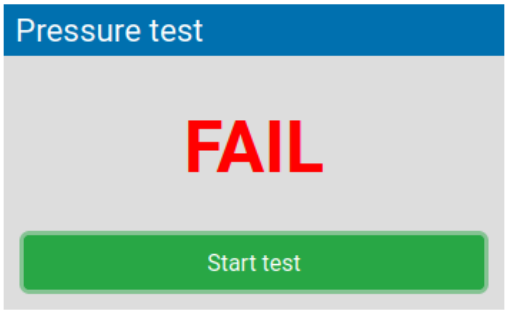
Pressure test is running



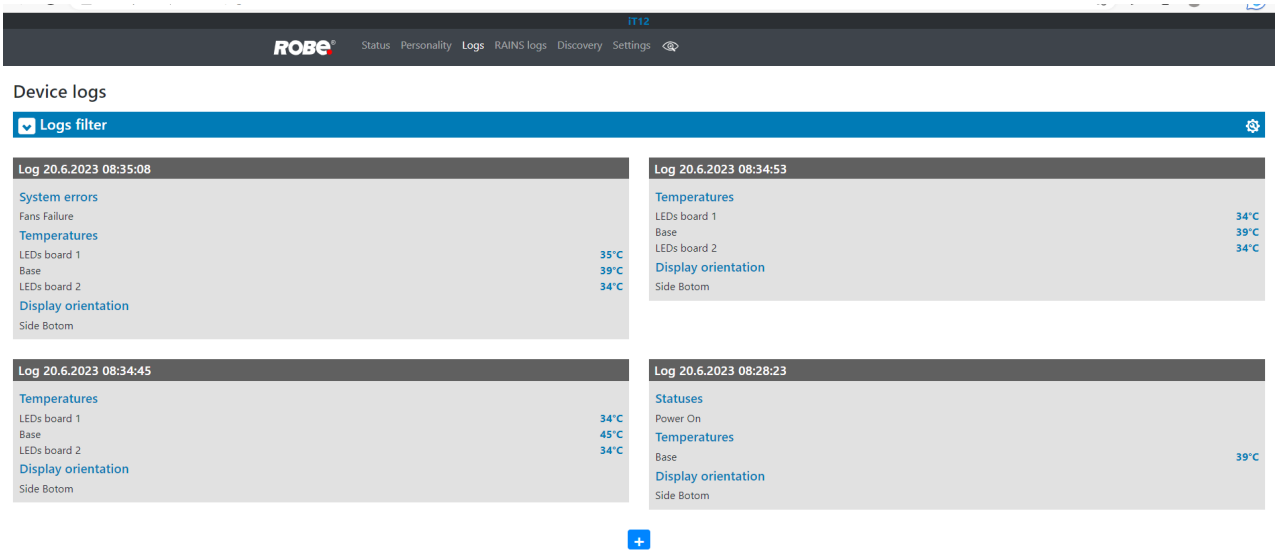
Pressure test passed



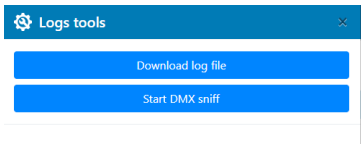
Pressure test failed



The **Logs screen** displays operating information of the fixture which have been saved.



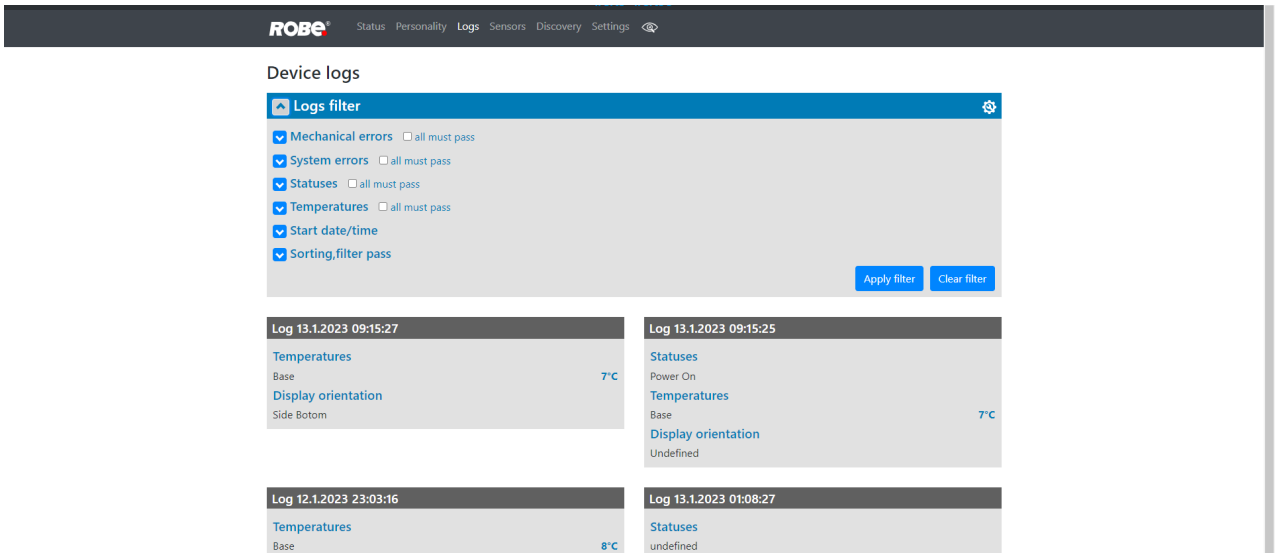
The icon  offers you two options:



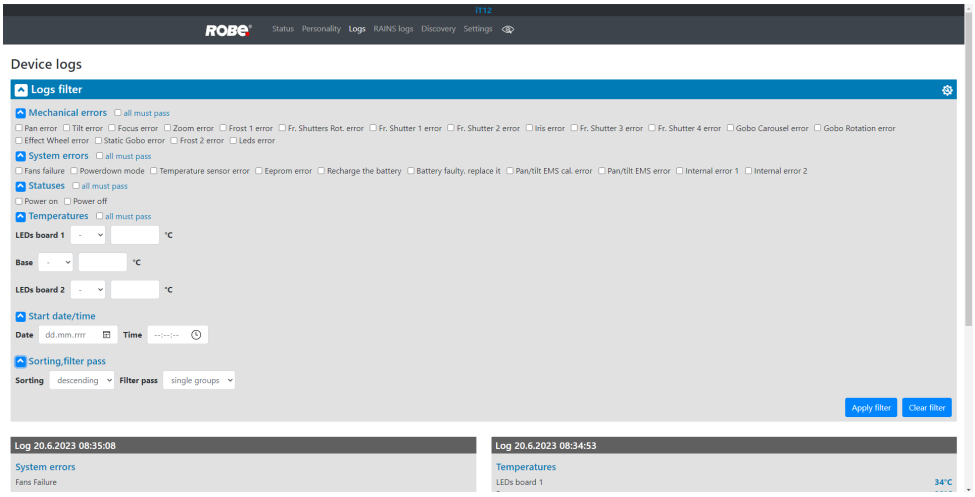
"Download log file" - the option allows you to download the log file to computer, name of the log file is: file-abcd.log, where abcd is a fixture ID (e.g. file-015e.log).

"Start DMX sniff" - the option starts saving coming DMX values to the file, the file name is DMX_sniffer.log).

The option **Logs filter** allows you to select desired group of recorded errors and recorded operating values.

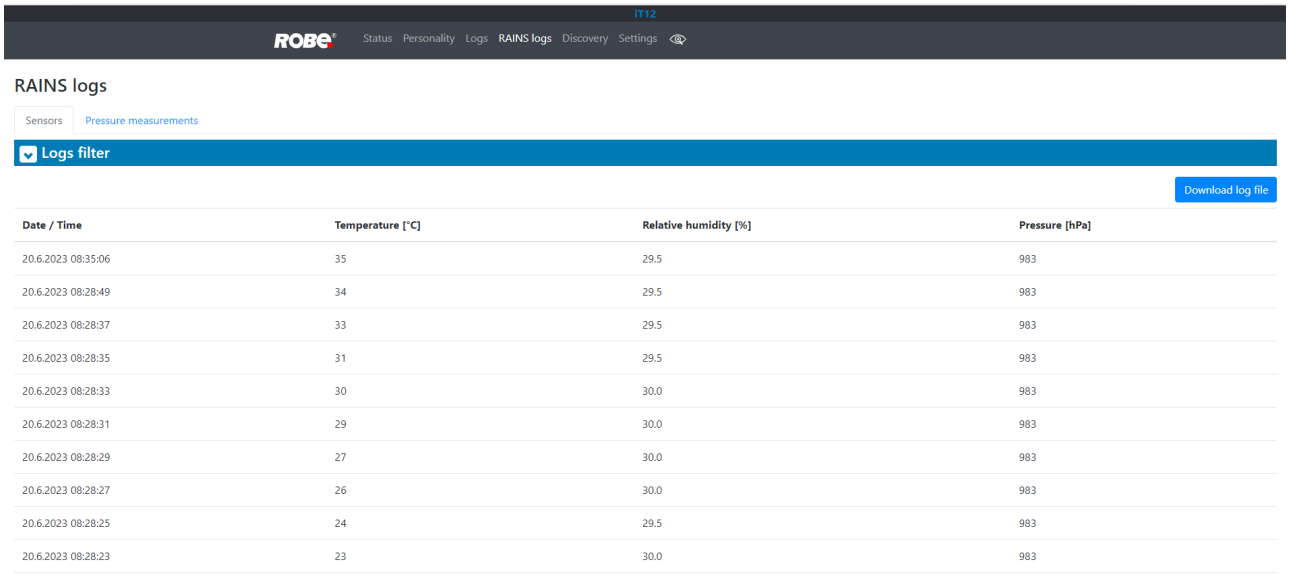


Expanded menu **Logs filter**



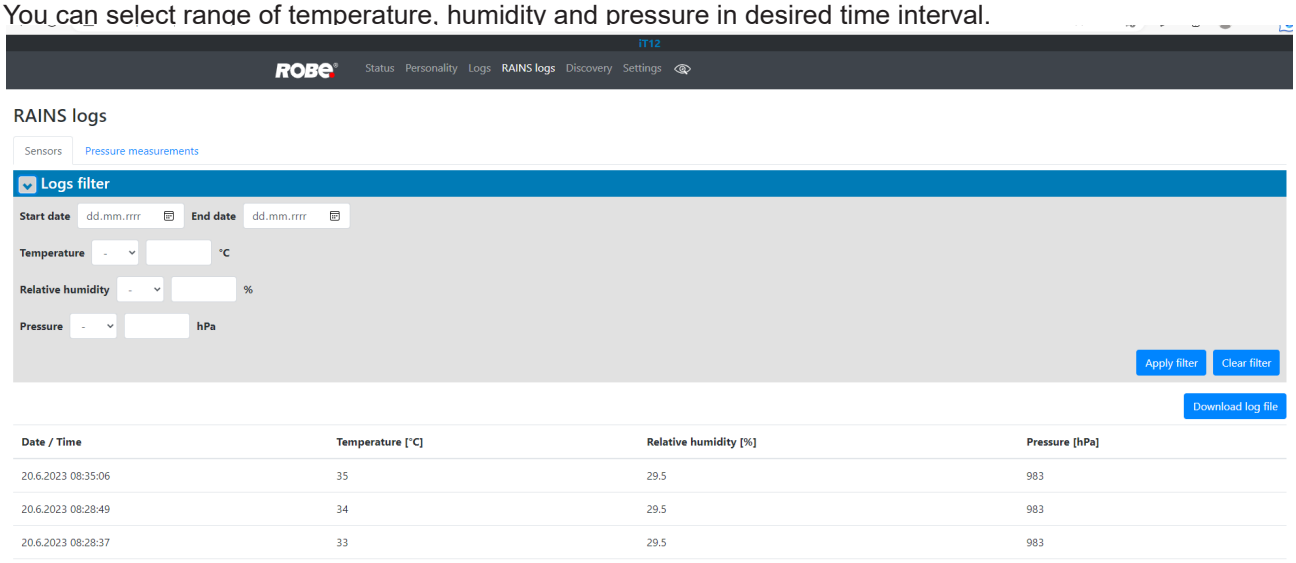
If the option "all must pass" is checked, only logs which contain all selected errors will be displayed.
Menu "Sorting filter pass" --> option "single groups" means that logs which contain at least one selected error will be displayed.
Menu "Sorting, filter pass" option "all groups" means that logs which contain all selected error will be displayed.

The **screen RAINS Logs** offers you a list of physical values recorded by sensors inside the head.

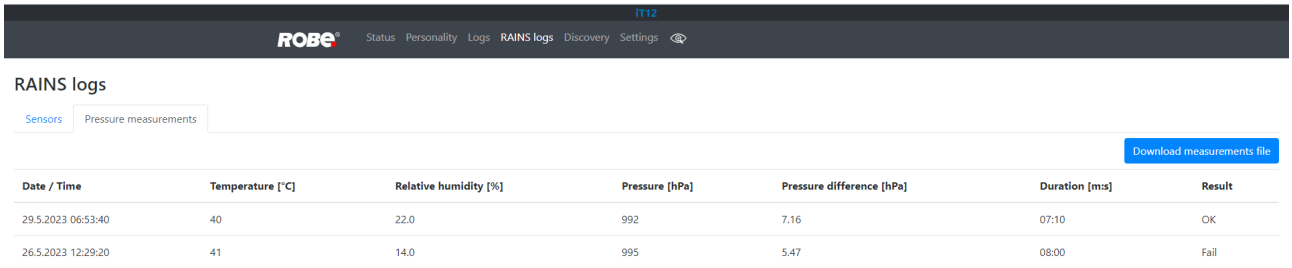


Date / Time	Temperature [°C]	Relative humidity [%]	Pressure [hPa]
20.6.2023 08:35:06	35	29.5	983
20.6.2023 08:28:49	34	29.5	983
20.6.2023 08:28:37	33	29.5	983
20.6.2023 08:28:35	31	29.5	983
20.6.2023 08:28:33	30	30.0	983
20.6.2023 08:28:31	29	30.0	983
20.6.2023 08:28:29	27	30.0	983
20.6.2023 08:28:27	26	30.0	983
20.6.2023 08:28:25	24	29.5	983
20.6.2023 08:28:23	23	30.0	983

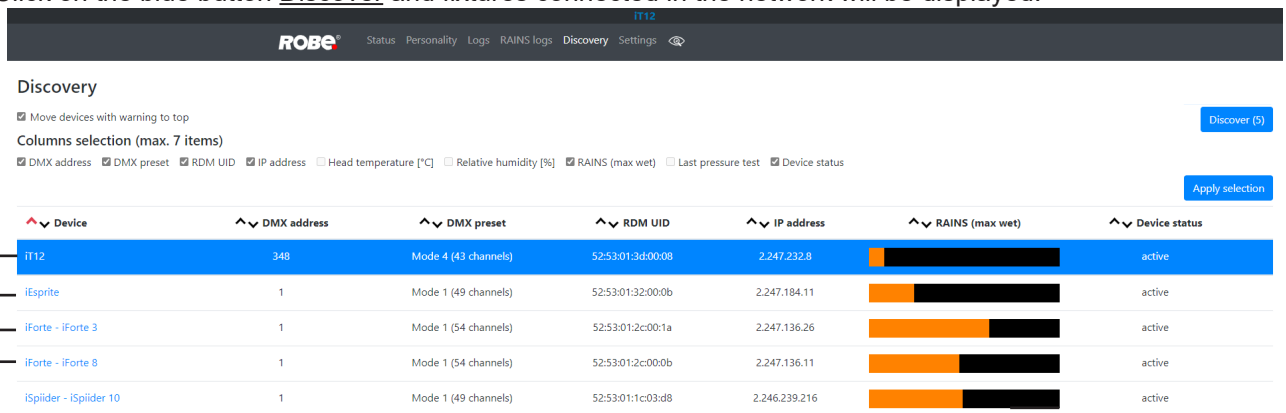
You can select range of temperature, humidity and pressure in desired time interval.



Tab Pressure measurements shows history of pressure tests.



If you have two and more iT12s, the **Discovery screen** allows you to show all connected iT12 fixtures in network. Click on the blue button Discover and fixtures connected in the network will be displayed.



The background colour in the device row denotes state of the fixture:

indicates "server fixture"(fixture of which IP address you have written to your WEB browser).

indicates fixture ready for operation.

indicates fixture which does not communicate with computer or "server fixture".

indicates fixture with error messages.

If the option Move devices with warning to top is checked, fixtures with some error will be displayed on the top of fixture list.

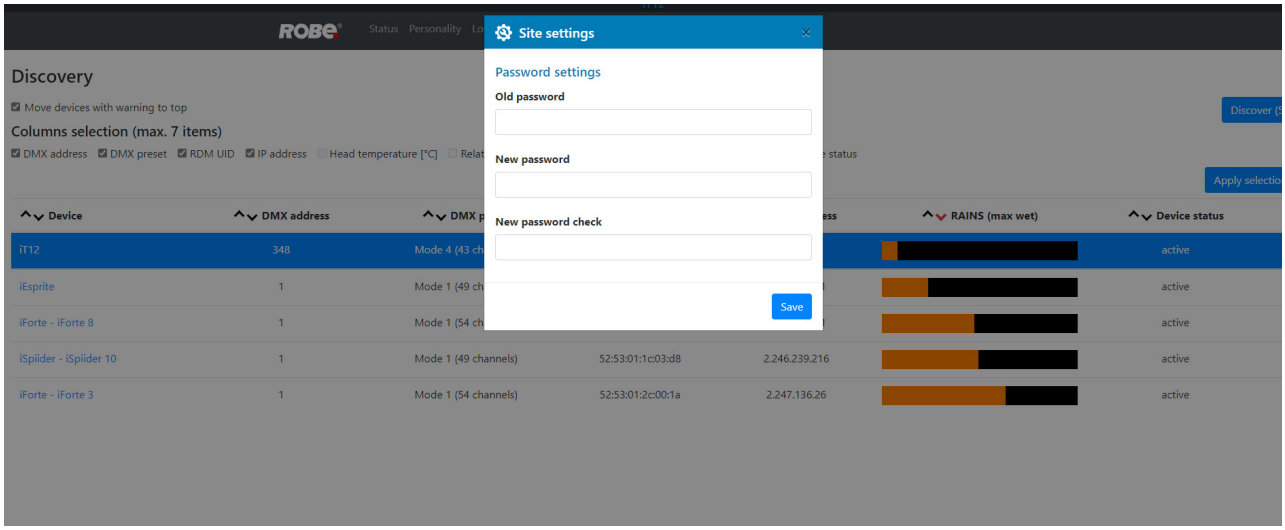
The option Columns selection allows you to check desired items which will be displayed in columns. Max. 6 items can be selected. After checking desired items, click on the blue button Apply selection to activate selection.
Icons ^v allows you to order values in the column in descending or ascending order.
Note: The values of the fixture in the first blue row ("server fixture") will not be included into ordering.

Example.



Item **ready** in the column Device status does not assess state of desiccants or result of pressure test!

The **screen Settings** allows you to change password to REAP.



The icon  serves for identification of the fixture in a group of fixtures. After clicking on the icon, the fixture´s head will start to flash.

16. Technical Specifications

Electrical specification

Power supply: electronic auto-ranging
Input voltage range: 100-240V, 50-60Hz
Fuse: T 6.3 A
Max. power consumption: 640W (power factor: 0.97)
Max Inrush Current (Cold Start) < 18A @ 230 Vac
Mains output: max. 10A

Optical system

Light source: MSL-TE™ 500W LED engine (Red, Green, Blue, Amber, Lime)
CMY/RGB/RGBAL colour mixing
CRI setting range: Standard (85) - High (90+)
Typical lumen maintenance: L70/B50 @ 40.000 hours
Light source warranty: 4 years or 20.000 hours

Virtual colour wheel

67 preset colours
10 user colours
Rainbow effect with variable speed

CTC

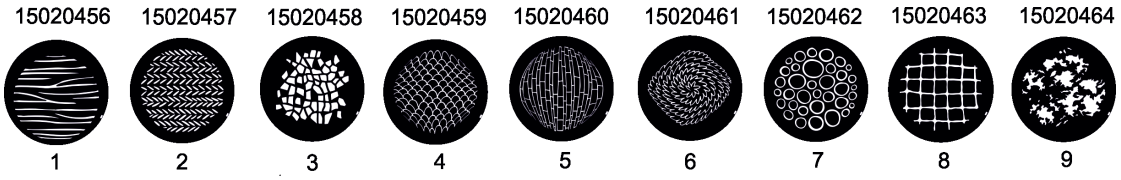
White light: Variable CCT 2700K – 8000K
Halogen lamp effect at whites 2700K- 4200K

Effect wheel (optional)

Aluminium effect wheel rotating in both directions with variable speed

Static gobo wheel (optional)

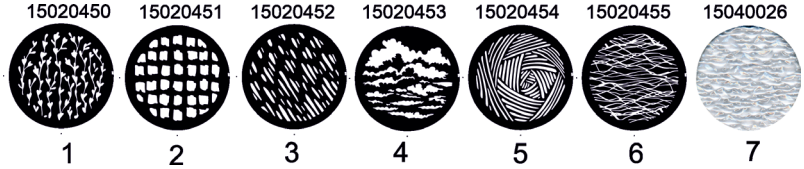
9 replaceable gobos, outside diameter: $26.8^{+0,1}$ mm, image diameter=22 mm, high temperature borofloat or better glass, thickness=1.1 mm
Gobo wheel continuous rotation
Gobos order:



Note. Steel (or aluminium) gobos cannot be used due to thermal stress.

Rotating gobo wheel (optional)

7 glass gobos can be indexed and rotated in both directions at different speeds,
gobo wheel continuous rotation
Gobos: outside diameter= $26.8^{+0,1}$ mm, image diameter=23.5 mm, thickness=1-3.5 mm, high temperature borofloat or better glass. Do not use steel gobos 0.15mm
"Slot&lock" system for easy replacement of gobos
Gobos order:



Note. Steel (or aluminium) gobos cannot be used due to thermal stress.

Frost filters

2 separate,variable frost filters (light (1°) and medium (5°))
The medium filter is replaceable

Iris (optional)

Motorized iris for different beam diameters

Framing shutters module (optional)

4 individually positionable shutters plus rotation of the complete frame system +/- 60°
Each framing shutter can be swiveled

Zoom

Linear motorized zoom
Min. beam angle :5.5°
Max. beam angle: 50°

Focus

Motorized focus

Strobe

Strobe effect with variable speed (0.3 - 20Hz)

Dimmer

Smooth dimmer from 0 - 100 %

Control

Graphic screen for fixture setting and addressing
Gravitation sensor for auto screen positioning
Battery backup of the touch screen
BARS system for zoom and focus
Readout fixture and LEDs usage, receiving DMX values, temperatures, etc
Built-in analyzer for easy fault finding, error messages
Silent fans cooling,
Stand-alone operation
2 user editable programs, each up to 68 steps
Supported protocols: USITT DMX 512, RDM, ArtNet, MANet, MANet2, sACN
Support of RDM (Remote Device Management)
8 DMX modes (24, 28, 35, 39, 32, 36, 43,47 control channels)

Wireless DMX/RDM module type RW 001

Supported protocols: full RDM support, CRMX , W-DMX™ G2, G3,G4 and G4S
Operational frequency range: 2402-2480 MHz
Output power: 100 mW
Receiver sensitivity (0.1% BER): -93 dBm
Crystal Clock Frequency : 16.0 MHz

Max. number of fixtures in Ethernet IN/Out line

8

Connection

DMX data IN/OUT: 2 x IP65 Locking 5-pin XLR connector Seetronic
AC power IN/OUT: 2 x IP 65 power connector Seetronic
Ethernet In/Out: 2 x IP65 RJ45 Seetronic

Rigging

Via mounting bracket

Temperatures

Maximum/Minimum ambient operating temperature : +45°C/-30°C
Maximum housing temperature : 70° C

Minimum distances

Min. distance from flammable surfaces: 0.5 m
Min. distance to lighted object: 2 m

Total heat dissipation

1125 BTU/hr (calculated)

Weight

27 kg (59.52 lbs) fully equipped
24.7 kg (54.45 lbs) with optional Drop-in gobo animation module
25.3 kg (55.77 lbs) with optional Drop-in framing and iris module

Protection factor

IP65

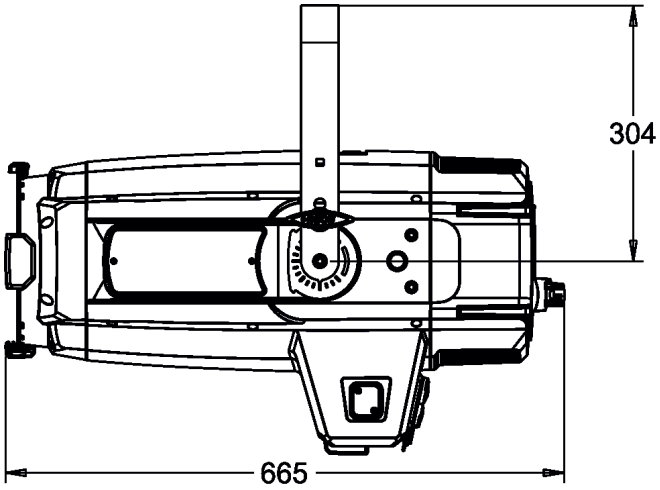
Accessories

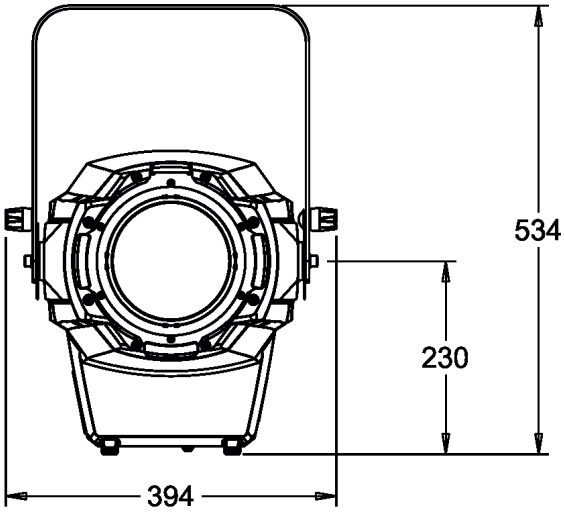
Gel frame adaptor
Power cord (open ended) including powerCON TRUE1 In connector (IP65)

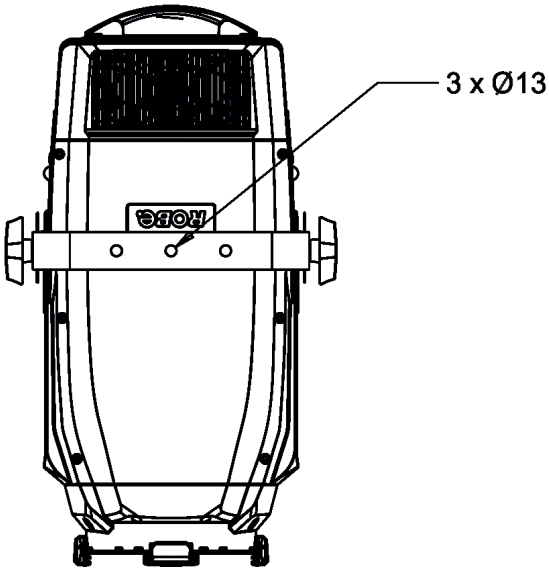
Optional accessories

Frost 0.5° (exchange) (P/N 10980583)
Frost 3.5° (exchange) assembled (P/N 10980668)
Frost 10° (exchange) (P/N 10980497)
Frost 20° (exchange) (P/N 10980574)
Frost 30° (exchange) (P/N 10980584)
Mains Cable powerCON TRUE1 In/open ended, EU 2m, Outdoor (P/N 13052276)
Mains Cable powerCON TRUE1 In/open ended, US 2m, Outdoor (P/N 13052277)
Mains Cable powerCON TRUE1 In/open end, 2m, out. w/conn. (P/N 13053983)
Daisy Chain powerCON TRUE1 In/Out, EU, 0,75m, Outdoor (P/N 13052278)
Daisy Chain powerCON TRUE1 In/Out, US, 0,75m, Outdoor (P/N 13052279)
Daisy Chain powerCON TRUE1 In/Out, EU, 2m, Outdoor (P/N 13052280)
Daisy Chain powerCON TRUE1 In/Out, US, 2m, Outdoor (P/N 13052281)
Doughty Trigger Clamp (P/N 17030386)
Safety wire 36 kg (P/N 99011963)
Drop-in gobo and animation wheel module iT12 (P/N 10980968)
Drop-in framing and iris module iT12 (P/N 10980969)
Drop-in module open gate: (P/N 10981008)
iT12 Profile: iSE-MSL-TE™ 500W LED Engine (P/N 14080098)
Floor Stand T11, T15, iT12 (P/N 10981014)
iT12 PC lens module (P/N 10981028)
iT12 Fresnel lens module (P/N 10981029)
iT12 Profile lens module (P/N 10981030)

Dimensions (mm)







17. ChangeLog

This section summarizes changes in the user manual.

Version of the manual	Date of issue	Description of changes
1.1	18/09/2023	Optional accessories changed
1.2	09/11/2023	Gobo change procedure changed
1.3	13/12/2023	Error messages changed
1.4	19/04/2024	DMX chart ver. 1.1
1.5	03/07/2024	Max Inrush Current added to Technical Spec.
1.6	13/11/2024	Fixture installation positions changed, fixture power con. changed
1.7	03/12/2024	LEDs current calibration described
1.8	04//12/2024	Indoor installation position added
1.9	31/03/2025	Rot.gobo number changed

March 31, 2025
Copyright © 2023 -2025 Robe Lighting - All rights reserved
All Specifications subject to change without notice
Made in CZECH REPUBLIC by ROBE LIGHTING s.r.o. Palackeho 416/20 CZ 75701 Valasske Mezirici

Robin iT12™/Robin iT12 Fresnel™/Robin iT12 PC™ - DMX protocol

Version 1.1 (8 modes)

Short Description of DMX modes

Mode	Description
1	16-bit CMY/RGB, 24 channels
2	16-bit RGBAL, 28 channels
3	16-bit CMY/RGB + Framing module, 35 channels
4	16-bit RGBAL + Framing module, 39 channels
5	16-bit CMY/RGB + Gobo module, 32 channels
6	16-bit RGBAL + Gobo modue, 36 channels
7	16-bit CMY/RGB +Gobo module + Framing module, 43 channels
8	16-bit RGBAL +Gobo module + Framing module, 47 channels

Quick overview of default DMX values for each channel

Mode/Channel				Default DMX value	Function
1	2	3	4		
1	1	1	1	0	Power/Special functions
2	2	2	2	10	LED frequency selection
3	3	3	3	128	LED frequency fine adjusting
4	4	4	4	0	Colour functions
5	5	5	5	0	CRI selection
6	6	6	6	0	Virtual colour wheel
7	*	7	*	0/255	Cyan/Red (8 bit) (0=default for CMY mode, 255=default for RGB mode)
8	*	8	*	0/255	Cyan/Red (16 bit) (0=default for CMY mode, 255=default for RGB mode)
9	*	9	*	0/255	Magenta/Green (8 bit) (0=default for CMY mode, 255=default for RGB mode)
10	*	10	*	0/255	Magenta/Green (16 bit) (0=default for CMY mode, 255=default for RGB mode)
11	*	11	*	0/255	Yellow/Blue (8 bit) (0=default for CMY mode, 255=default for RGB mode)
12	*	12	*	0/255	Yellow/Blue (16 bit) (0=default for CMY mode, 255=default for RGB mode)
*	7	*	7	255	Red (8 bit)
*	8	*	8	255	Red (16bit)
*	9	*	9	255	Green (8 bit)
*	10	*	10	255	Green (16bit)
*	11	*	11	255	Blue (8 bit)
*	12	*	12	255	Blue (16bit)
*	13	*	13	255	Amber (8 bit)
*	14	*	14	255	Amber (16bit)
*	15	*	15	255	Lime (8 bit)
*	16	*	16	255	Lime (16bit)
13	17	13	17	110	CTO
14	18	14	18	128	Green correction
15	19	15	19	0	Colour mix control
16	20	16	20	0	Stat. gobo/Rot. Gobo carousel/Framing shutters/Zoom/Focus/Frost time
17	21	17	21	0	Frost
*	*	18	22	0	Iris

Mode/Channel				Default DMX value	Function
1	2	3	4		
*	*	19	23	0	Iris - fine
18	22	20	24	128	Zoom
19	23	21	25	0	Zoom - fine
20	24	22	26	128	Focus/Edge correction
21	25	23	27	0	Focus/Edge correction - fine
*	*	24	28	128	Framing shutters module rotation
*	*	25	29	0	Framing shutter 1- movement
*	*	26	30	128	Framing shutter 1- swivelling
*	*	27	31	0	Framing shutter 2- movement
*	*	28	32	128	Framing shutter 2- swivelling
*	*	29	33	0	Framing shutter 3 movement
*	*	30	34	128	Framing shutter 3- swivelling
*	*	31	35	0	Framing shutter 4 movement
*	*	32	36	128	Framing shutter 4- swivelling
22	26	33	37	32	Shutter/ strobe
23	27	34	38	0	Dimmer intensity
24	28	35	39	0	Dimmer intensity - fine

Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
1	**1**	**1**	**1**		**Power/Special functions**	
					Factory display menu setting: DMX Input-Wired ,Graphic display-On, Fans mode-Auto, Dimmer Curve- Square law	
				0 -5	Reserved (0=default)	
					To activate following functions, stop in DMX value for at least 3 s and shutter must be closed at least 3 sec. („Shutter,Strobe" channel 22/26/33/37 must be at range: 0-31 DMX). Corresponding menu items are temporarily overriden.	
				6-7	Standby mode: On (fixture effects are deactivated, light output is closed)	step
				8-9	Standby mode: Off	step
				10-14	DMX input: Wired DMX *	step
				15-19	DMX input: Wireless DMX *	step
					* function is active only 10 seconds after switching the fixture on	
				20-24	Graphic display: On	step
				25-29	Graphic display: Off	step
				30-34	Focus Tracking: On	step
				35-39	Focus Tracking: Off	step
				40-44	Pressure test: On (fixture does not respond to DMX during the test except values 45-49 (Pressure test Off))	step
				45-49	Pressure test: Off	step
				50-60	Reserved	
				60-64	Blackout while gobo wheel moving: On	step
				65-69	Blackout while gobo wheel moving: Off	step
				70-74	Fans mode: Auto	step
				75-79	Fans mode: High	step
				80-84	Quiet mode: Fans On at blackout	step

Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
				85-89	Quiet mode: Fans Off at blackout	step
				90-129	Reserved	
					To activate following functions, stop in DMX value for at least 3 seconds. Brake options (130-133 DMX) and Cue options (138-143 DMX) are permanently saved to fixture memory and corresponding menu items are overriden	
				130-131	Optics Brake On	step
				132-133	Optics Brake Off	step
				134-137	Reserved	
				138-139	Cue Playback - saving current DMX values	step
				140-141	Preset Cue playback On - fixture playes the Cue automaticaly after every switching On	step
				142-143	Preset Cue playback Off - fixture listens to DMX, but only this channel and DMX values 142-143	step
				144-174	Reserved	
				175 - 179	Gobo wheels/effect wheel reset	step
				180 - 189	Zoom/focus/frost reset	step
				190 - 199	Iris/framing shutters reset	step
				200 - 209	Total fixture reset	step
				210 - 218	Reserved	
					The following three commands define transition from gobo rotation to gobo indexing:	
				219 - 220	Gobo indexing: Maximum speed and shortcut	step
				221 - 222	Gobo indexing: Follow speed and direction	step
				223 - 224	Gobo indexing: Maximum speed and follow direction	step
					The following RoboSpot related commands are only applicable when the RoboSpot is connected:	
				225-239	Reserved	
				240	Disabled "Quiet mode"	step
				241 - 255	Quiet mode - fan noise control from min. to max.	proportional
2	**2**	**2**	**2**		**LED frequency selection**	
					Factory display menu setting: 600Hz	
					Select PWM output frequency of LEDs. Selected PWM frequency can be fine adjusted in 127 steps up/down around selected PWM frequency on the channel below. Corresponding menu item (Frequency Setup) is temporarily overriden.	
				0-4	PWM frequency from Display menu (fixture utilizes PWM	step
					frequency set in the display menu item Frequency Setup).	
				5-9	300 Hz	step
				10-14	600 Hz (10=default)	step
				15-19	1200 Hz	step
				20-24	2400 Hz	step
				25-29	High	step
				30-255	Reserved (fixture utilizes PWM frequency set in the display menu item	
					Frequency Setup).	
3	**3**	**3**	**3**		**LED frequency fine adjusting**	
					Factory display menu setting: 600Hz	
					Select desired PWM output frequency of LEDs on the channel above.	
				0-1	Selected LED Frequency	step

Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
				2	LED Frequency (step -126)	step
				3	LED Frequency (step -125)	step
				4	LED Frequency (step -124)	step
				:		
				125	LED Frequency (step -3)	step
				126	LED Frequency (step -2)	step
				127	LED Frequency (step -1)	step
				128	Selected LED Frequency (128=default)	step
				129	LED Frequency (step +1)	step
				130	LED Frequency (step +2)	step
				131	LED Frequency (step +3)	step
				:		
				252	LED Frequency (step +124)	step
				253	LED Frequency (step +125)	step
				254	LED Frequency (step +126)	step
				255	Selected LED Frequency	step
4	**4**	**4**	**4**		**Colour functions**	
					Factory display menu setting: Colour mixing mode-CMY, Dimmer Curve-Square Law, Tungsten effect simulation-Off, Chromatic white-Off, Light output stability-Off, Uniformity-Off	
				0	No function (0=default)	step
					To activate following functions, stop in DMX value for at least 3 seconds. Corresponding menu items are temporarily overriden	
				1-39	Reserved	
				40-44	Colour mixing mode: CMY (DMX Mode 1 ,3 only)	step
				45-49	Colour mixing mode: RGB (DMX mode 1,3), RGBAL (DMX mode 2,4)	step
				50-54	Dimmer curve: Square law	step
				55-59	Dimmer curve: Linear	step
				60-64	Dimmer curve: Super square law	step
				65-79	Raw DMX	proportional
					Tungsten effect simulation for whites 2700K-4200K only:	
				80-84	Tungsten effect simulation (750W/80V): On	step
				85-89	Tungsten effect simulation (1000W/240V): On	step
				90-94	Tungsten effect simulation (1200W/240V): On	step
				95-99	Tungsten effect simulation (2000W/230V): On	step
				100-104	Tungsten effect simulation (2500W/230V): On	step
				105-109	Tungsten effect simulation: Off	step
				110-114	Save user colour (see user manual, chapter Colour influencing functions)	step
				115-119	Chromatic white: On	step
				120-124	Chromatic white: Off	step
				125-129	Light output stability On	step
				130-134	Light output stability Off	step
				135-139	Uniformity On	step
				140-144	Uniformity Off	step
				145-255	Reserved	
5	**5**	**5**	**5**		**CRI selection**	

Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
				0-255	CRI selection from Standard (85) to High (90+) (0=default)	proportional
6	6	6	6		**Virtual colour wheel**	
				0	No function (0=default)	step
				1-2	Filter 4 (Medium Bastard Amber)	step
				3-4	Filter 10 (Medium Yellow)	step
				5-6	Filter 19 (Fire)	step
				7-8	Filter 26 (Bright Red)	step
				9-10	Filter 58 (Lavender)	step
				11-12	Filter 68 (Sky Blue)	step
				13-14	Filter 71 (Tokyo Blue)	step
				15-16	Filter 79 (Just Blue)	step
				17-18	Filter 88 (Lime Green)	step
				19-20	Filter 90 (Dark Yellow Green)	step
				21-22	Filter 100 (Spring Yellow)	step
				23-24	Filter 101 (Yellow)	step
				25-26	Filter 102 (Light Amber)	step
				27-28	Filter 103 (Straw)	step
				29-30	Filter 104 (Deep Amber)	step
				31-32	Filter 105 (Orange)	step
				33-34	Filter 106 (Primary Red)	step
				35-36	Filter 111 (Dark Pink)	step
				37-38	Filter 115 (Peacock Blue)	step
				39-40	Filter 116 (Medium Blue-Green)	step
				41-42	Filter 117 (Steel Blue)	step
				43-44	Filter 118 (Light Blue)	step
				45-46	Filter 119 (Dark Blue)	step
				47-48	Filter 120 (Deep Blue)	step
				49-50	Filter 121 (Filter Green)	step
				51-52	Filter 128 (Bright Pink)	step
				53-54	Filter 131 (Marine Blue)	step
				55-56	Filter 132 (Medium Blue)	step
				57-58	Filter 134 (Golden Amber)	step
				59-60	Filter 135 (Deep Golden Amber)	step
				61-62	Filter 136 (Pale Lavender)	step
				63-64	Filter 137 (Special Lavender)	step
				65-66	Filter 138 (Pale Green)	step
				67-68	Filter 139 (Primary Green)	step
				69-70	Filter 141 (Bright Blue)	step
				71-72	Filter 147 (Apricot)	step
				73-74	Filter 148 (Bright Rose)	step
				75-76	Filter 152 (Pale Gold)	step
				77-78	Filter 154 (Pale Rose)	step
				79-80	Filter 157 (Pink)	step
				81-82	Filter 158 (Deep Orange)	step
				83-84	Filter 162 (Bastard Amber)	step
				85-86	Filter 164 (Flame Red)	step

Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
				87-88	Filter 165 (Daylight Blue)	step
				89-90	Filter 169 (Lilac Tint)	step
				91-92	Filter 170 (Deep Lavender)	step
				93-94	Filter 172 (Lagoon Blue)	step
				95-96	Filter 179 (Chrome Orange)	step
				97-98	Filter 180 (Dark Lavender)	step
				99-100	Filter 181 (Congo Blue)	step
				101-102	Filter 197 (Alice Blue)	step
				103-104	Filter 201 (Full C.T. Blue)	step
				105-106	Filter 202 (Half C.T. Blue)	step
				107-108	Filter 203 (Quarter C.T. Blue)	step
				109-110	Filter 204 (Full C.T. Orange)	step
				111-112	Filter 205 (Half C.T. Orange)	step
				113-114	Filter 206 (Quarter C.T. Orange)	step
				115-116	Filter 247 (Filter Minus Green)	step
				117-118	Filter 248 (Half Minus Green)	step
				119-120	Filter 281 (Three Quarter C.T. Blue)	step
				121-122	Filter 285 (Three Quarter C.T. Orange)	step
				123-124	Filter 352 (Glacier Blue)	step
				125-126	Filter 353 (Lighter Blue)	step
				127-128	Filter 715 (Cabana Blue)	step
				129-130	Filter 778 (Millennium Gold)	step
				131-132	Filter 793 (Vanity Fair)	step
				133-215	Reserved	
				216-217	User colour 1	step
				218-219	User colour 2	step
				220-221	User colour 3	step
				222-223	User colour 4	step
				224-225	User colour 5	step
				226-227	User colour 6	step
				228-229	User colour 7	step
				230-231	User colour 8	step
				232-233	User colour 9	step
				234-235	User colour 10	step
				236-245	Rainbow effect (with fade time) from slow-> fast	proportional
				246-255	Rainbow effect (without fade time) from slow-> fast	proportional
7	*	**7**	*		**Cyan/Red (8 bit)**	
				0 - 255	Colour saturation control - coarse 0-100% (0=default for CMY mode, 255=default for RGB mode)	proportional
8	*	**8**	*		**Cyan/Red (16 bit)**	
				0 - 255	Colour saturation control - fine (0=default for CMY mode, 255=default for RGB mode)	proportional
9	*	**9**	*		**Magenta/Green (8 bit)**	
				0 - 255	Colour saturation control - coarse 0-100% (0=default for CMY mode, 255=default for RGB mode)	proportional
10	*	**10**	*		**Magenta/Green (16 bit)**	

Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
				0 - 255	Colour saturation control - fine (0=default for CMY mode, 255=default for RGB mode)	proportional
11	*	**11**	*		**Yellow/Blue (8 bit)**	
				0 - 255	Colour saturation control - coarse 0-100% (0=default for CMY mode, 255=default for RGB mode)	proportional
12	*	**12**	*		**Yellow/Blue (16 bit)**	
				0 - 255	Colour saturation control - fine (0=default for CMY mode, 255=default for RGB mode)	proportional
*	**7**	*	**7**		**Red (8 bit)**	
				0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	**8**	*	**8**		**Red (16bit)**	
				0 - 255	Colour saturation control - fine (255=default)	proportional
*	**9**	*	**9**		**Green (8 bit)**	
				0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	**10**	*	**10**		**Green (16bit)**	
				0 - 255	Colour saturation control - fine (255=default)	proportional
*	**11**	*	**11**		**Blue (8 bit)**	
				0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	**12**	*	**12**		**Blue (16bit)**	
				0 - 255	Colour saturation control - fine (255=default)	proportional
*	**13**	*	**13**		**Amber (8 bit)**	
				0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	**14**	*	**14**		**Amber (16bit)**	
				0 - 255	Colour saturation control - fine (255=default)	proportional
*	**15**	*	**15**		**Lime (8 bit)**	
				0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	**16**	*	**16**		**Lime (16bit)**	
				0 - 255	colour saturation control - fine (255=default)	proportional
13	**17**	**13**	**17**		**CTO**	
				0-1	8000 K	step
				2-64	Colour temperature changing 7978 K ->6622 K (22 K /1 DMX)	proportional
				65	6600 K	step
				66-109	Colour temperature changing 657 8K ->5622 K (22 K/1 DMX)	proportional
				110	5600 K (110=default)	step
				111-179	Colour temperature changing 5580 K ->4220 K (20 K/1 DMX)	proportional
				180	4200 K	step
				181-229	Colour temperature changing 4180 K ->3220 K (20 K/1 DMX)	proportional
				230	3200 K	step
				231-254	Colour temperature changing 3180 K ->2720 K (20K /1 DMX)	proportional
				255	2700K	step
14	**18**	**14**	**18**		**Green correction**	
				0	Uncorrected white	step
				1-127	Minus green --> uncorrected white	proportional
				128	Uncorrected white (128=default)	step
				129-255	Uncorrected white --> Plus green	proportional
15	**19**	**15**	**19**		**Colour mix control**	

Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
					Defines relation between Virtual Colour wheel and colour channels	
					"Virtual" = Virtual Colour Wheel	
					"Colour mix" = Colour channels (CMY/RGBALight Green/CTO)	
				0-9	"Virtual " has priority over "Colour mix" (0=default)	
				10-19	Maximum mode (highest values have priority)	step
				20-29	Minimum mode (lowest values have priority)	step
				30-39	Multiply mode (multiply "Virtual" and "Colour mix")	step
				40-49	Addition mode ("Virtual" + "Colour mix")	step
				50-59	Subtraction mode ("Virtual" – "Colour mix")	step
				60-69	Inverted Subtraction mode ("Colour mix"-"Virtual")	step
				70-79	White Point Off (CTO+Green Cor.+Virtual Colour Wheel deactivated)	step
				80-128	Reserved	
				129	Crossfade "Virtual" only	step
				130-254	Crossfade between "Virtual" and "Colour mix"	proportional
				255	Crossfade "Colour mix" only	step
16	**20**	**16**	**20**		**Framing shutters/Zoom/Focus/Frost time**	
				0	Function is off (0=default)	step
				1 - 255	Time of framing shutters, zoom, focus and frost movement (0.1 sec-->25.5 sec.)	proportional
17	**21**	**17**	**21**		**Frost**	
				0	Open (0=default)	step
					Frost cannot stay in intermediate position, it will auto-move to full/open position.	
					Light Frost	
				1-50	Light Frost from 0% to 100%	proportional
				51-53	100% Light Frost	step
				54-63	Pulse closing from slow to fast	proportional
				64-73	Pulse opening from fast to slow	proportional
				74-83	Ramping from fast to slow	proportional
				84-86	Open	step
					Medium Frost	
				87-136	Medium Frost from 0% to 100%	proportional
				137-139	100% Medium Frost	step
				140-149	Pulse closing from slow to fast	proportional
				150-159	Pulse opening from fast to slow	proportional
				160-169	Ramping from fast to slow	proportional
				170-172	Open	step
					Combined Frost	
				173-222	Medium Frost from 0% to 100% (Light Frost inserted)	proportional
				223-225	100% Medium Frost (Light Frost inserted)	step
				226-235	Pulse closing from slow to fast	proportional
				236-245	Pulse opening from fast to slow	proportional
				246-255	Ramping from fast to slow	proportional
*	*	**18**	**22**		**Iris**	
				0	Open (0=default)	step
				1 - 179	From max.diameter to min.diameter	proportional

Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
				180 - 191	Closed	step
					Pulse effects with Iris blackout	
				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
*	*	**19**	**23**		**Iris - fine**	
				0 - 255	Fine iris movement (0=default)	proportional
18	**22**	**20**	**24**		**Zoom**	
				0 - 255	Zoom from max. to min.beam angle (128=default)	proportional
19	**23**	**21**	**25**		**Zoom - fine**	
				0-255	Fine zooming (0=default)	proportional
20	**24**	**22**	**26**		**Focus**	
				0 - 255	Continuous adjustment from far to near (128=default)	proportional
21	**25**	**23**	**27**		**Focus - fine**	
				0- 255	Fine focusing (0=default)	proportional
*	*	**24**	**28**		**Framing shutters module rotation**	
				0-127	Rotation from right (0°) to 60°	proportional
				128	Center (128=default)	step
				129-255	Rotation from 60° to left (120°)	proportional
*	*	**25**	**29**		**Framing shutter 1- movement**	
				0-255	Movement from Outward to Inward (0=default)	proportional
*	*	**26**	**30**		**Framing shutter 1- swivelling**	
				0-127	Swivelling towards 0 degrees	proportional
				128	0 degrees (128=default)	step
				129-255	Swivelling from 0 degrees	proportional
*	*	**27**	**31**		**Framing shutter 2- movement**	
				0-255	Movement from Outward to Inward (0=default)	proportional
*	*	**28**	**32**		**Framing shutter 2- swivelling**	
				0-127	Swivelling towards 0 degrees	proportional
				128	0 degrees (128=default)	step
				129-255	Swivelling from 0 degrees	proportional
*	*	**29**	**33**		**Framing shutter 3 movement**	
				0-255	Movement from Outward to Inward (0=default)	proportional
*	*	**30**	**34**		**Framing shutter 3- swivelling**	
				0-127	Swivelling towards 0 degrees	proportional
				128	0 degrees (128=default)	step
				129-255	Swivelling from 0 degrees	proportional
*	*	**31**	**35**		**Framing shutter 4 movement**	
				0-255	Movement from Outward to Inward (0=default)	proportional
*	*	**32**	**36**		**Framing shutter 4- swivelling**	
				0-127	Swivelling towards 0 degrees	proportional
				128	0 degrees (128=default)	step
				129-255	Swivelling from 0 degrees	proportional

Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
22	**26**	**33**	**37**		**Shutter/ strobe**	
				0 - 31	Shutter closed	step
				32 - 63	Shutter open (32=default)	step
				64 - 95	Strobe-effect from slow to fast	proportional
				96 - 127	Shutter open	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	step
				192 - 223	Random strobe-effect from slow to fast	proportional
				224 - 255	Shutter open	step
23	**27**	**34**	**38**		**Dimmer intensity**	
				0 - 255	Dimmer intensity from 0% to 100% (0=default)	proportional
24	**28**	**35**	**39**		**Dimmer intensity - fine**	
				0 - 255	Fine dimming (0=default)	proportional

Copyright © 2024 Robe Lighting s.r.o. - All rights reserved

All Specifications subject to change without notice

Robin iT12™/Robin iT12 Fresnel™/Robin iT12 PC™ - DMX protocol

Version 1.1 (8 modes)

Quick overview of default DMX values for each channel

Mode/Channel				Default DMX value	Function
5	6	7	8		
1	1	1	1	0	Power/Special functions
2	2	2	2	10	LED frequency selection
3	3	3	3	128	LED frequency fine adjusting
4	4	4	4	0	Colour functions
5	5	5	5	0	CRI selection
6	6	6	6	0	Virtual colour wheel
7	*	7	*	0/255	Cyan/Red (8 bit) (0=default for CMY mode, 255=default for RGB mode)
8	*	8	*	0/255	Cyan/Red (16 bit) (0=default for CMY mode, 255=default for RGB mode)
9	*	9	*	0/255	Magenta/Green (8 bit) (0=default for CMY mode, 255=default for RGB mode)
10	*	10	*	0/255	Magenta/Green (16 bit) (0=default for CMY mode, 255=default for RGB mode)
11	*	11	*	0/255	Yellow/Blue (8 bit) (0=default for CMY mode, 255=default for RGB mode)
12	*	12	*	0/255	Yellow/Blue (16 bit) (0=default for CMY mode, 255=default for RGB mode)
*	7	*	7	255	Red (8 bit)
*	8	*	8	255	Red (16bit)
*	9	*	9	255	Green (8 bit)
*	10	*	10	255	Green (16bit)
*	11	*	11	255	Blue (8 bit)
*	12	*	12	255	Blue (16bit)
*	13	*	13	255	Amber (8 bit)
*	14	*	14	255	Amber (16bit)
*	15	*	15	255	Lime (8 bit)
*	16	*	16	255	Lime (16bit)
13	17	13	17	110	CTO
14	18	14	18	128	Green correction
15	19	15	19	0	Colour mix control
16	20	16	20	0	Stat. gobo/Rot. Gobo carousel/Framing shutters/Zoom/Focus/Frost time
17	21	17	21	0	Effect wheel positioning
18	22	18	22	128	Effect wheel rotation
19	23	19	23	0	Effect wheel animations
20	24	20	24	0	Static gobo wheel
21	25	21	25	0	Rotating gobo wheel
22	26	22	26	0	Rot. Gobo wheel -fine positioning
23	27	23	27	128	Rot. gobo indexing and rotation
24	28	24	28	0	Rot. gobo indexing/rotation - fine
25	29	25	29	0	Frost
*	*	26	30	0	Iris
*	*	27	31	0	Iris - fine
26	30	28	32	128	Zoom
27	31	29	33	0	Zoom - fine

Mode/Channel				Default DMX value	Function
5	6	7	8		
28	32	30	34	128	Focus/Edge correction
29	33	31	35	0	Focus/Edge correction - fine
*	*	32	36	128	Framing shutters module rotation
*	*	33	37	0	Framing shutter 1- movement
*	*	34	38	128	Framing shutter 1- swivelling
*	*	35	39	0	Framing shutter 2- movement
*	*	36	40	128	Framing shutter 2- swivelling
*	*	37	41	0	Framing shutter 3 movement
*	*	38	42	128	Framing shutter 3- swivelling
*	*	39	43	0	Framing shutter 4 movement
*	*	40	44	128	Framing shutter 4- swivelling
30	34	41	45	32	Shutter/ strobe
31	35	42	46	0	Dimmer intensity
32	36	43	47	0	Dimmer intensity - fine

Mode/channel				DMX Value	Function	Type of control
5	6	7	8			
1	**1**	**1**	**1**		**Power/Special functions**	
					Factory display menu setting: DMX Input-Wired ,Graphic display-On, Blackout while gobo wheel moving-Off, Fans mode-Auto, Dimmer Curve-Square law	
				0 -5	Reserved (0=default)	
					To activate following functions, stop in DMX value for at least 3 s and shutter must be closed at least 3 sec. („Shutter,Strobe" channel 30/34/41/45 must be at range: 0-31 DMX). Corresponding menu items are temporarily overriden.	
				6-7	Standby mode: On (fixture effects are deactivated, light output is closed)	step
				8-9	Standby mode: Off	step
				10-14	DMX input: Wired DMX *	step
				15-19	DMX input: Wireless DMX *	step
					* function is active only 10 seconds after switching the fixture on	
				20-24	Graphic display: On	step
				25-29	Graphic display: Off	step
				30-34	Focus Tracking: On	step
				35-39	Focus Tracking: Off	step
				40-44	Pressure test: On (fixture does not respond to DMX during the test except values 45-49 (Pressure test Off))	step
				45-49	Pressure test: Off	step
				50-60	Reserved	
				60-64	Blackout while gobo wheel moving: On	step
				65-69	Blackout while gobo wheel moving: Off	step
				70-74	Fans mode: Auto	step
				75-79	Fans mode: High	step
				80-84	Quiet mode: Fans On at blackout	step
				85-89	Quiet mode: Fans Off at blackout	step
				90-129	Reserved	

Mode/channel				DMX Value	Function	Type of control
5	6	7	8			
					To activate following functions, stop in DMX value for at least 3 seconds. Brake options (130-133 DMX) and Cue options (138-143 DMX) are permanently saved to fixture memory and corresponding menu items are overriden	
				130-131	Optics Brake On	step
				132-133	Optics Brake Off	step
				134-137	Reserved	
				138-139	Cue Playback - saving current DMX values	step
				140-141	Preset Cue playback On - fixture playes the Cue automaticaly after every switching On	step
				142-143	Preset Cue playback Off - fixture listens to DMX, but only this channel and DMX values 142-143	step
				144-174	Reserved	
				175 - 179	Gobo wheels/effect wheel reset	step
				180 - 189	Zoom/focus/frost reset	step
				190 - 199	Iris/framing shutters reset	step
				200 - 209	Total fixture reset	step
				210 - 218	Reserved	
					The following three commands define transition from gobo rotation to gobo indexing:	
				219 - 220	Gobo indexing: Maximum speed and shortcut	step
				221 - 222	Gobo indexing: Follow speed and direction	step
				223 - 224	Gobo indexing: Maximum speed and follow direction	step
					The following RoboSpot related commands are only applicable when the RoboSpot is connected:	
				225-239	Reserved	
				240	Disabled "Quiet mode"	step
				241 - 255	Quiet mode - fan noise control from min. to max.	proportional
2	**2**	**2**	**2**		**LED frequency selection**	
					Factory display menu setting: 600Hz	
					Select PWM output frequency of LEDs. Selected PWM frequency can be fine adjusted in 127 steps up/down around selected PWM frequency on the channel below. Corresponding menu item (Frequency Setup) is temporarily overriden.	
				0-4	PWM frequency from Display menu (fixture utilizes PWM	step
					frequency set in the display menu item Frequency Setup).	
				5-9	300 Hz	step
				10-14	600 Hz (10=default)	step
				15-19	1200 Hz	step
				20-24	2400 Hz	step
				25-29	High	step
				30-255	Reserved (fixture utilizes PWM frequency set in the display menu item	
					Frequency Setup).	
3	**3**	**3**	**3**		**LED frequency fine adjusting**	
					Factory display menu setting: 600Hz	
					Select desired PWM output frequency of LEDs on the channel above.	
				0-1	Selected LED Frequency	step
				2	LED Frequency (step -126)	step
				3	LED Frequency (step -125)	step

Mode/channel				DMX Value	Function	Type of control
5	6	7	8			
				4	LED Frequency (step -124)	step
				:		
				125	LED Frequency (step -3)	step
				126	LED Frequency (step -2)	step
				127	LED Frequency (step -1)	step
				128	Selected LED Frequency (128=default)	step
				129	LED Frequency (step +1)	step
				130	LED Frequency (step +2)	step
				131	LED Frequency (step +3)	step
				:		
				252	LED Frequency (step +124)	step
				253	LED Frequency (step +125)	step
				254	LED Frequency (step +126)	step
				255	Selected LED Frequency	step
4	**4**	**4**	**4**		**Colour functions**	
					Factory display menu setting: Colour mixing mode-CMY, Dimmer Curve-Square Law, Tungsten effect simulation-Off, Chromatic white-Off, Light output stability-Off, Uniformity-Off	
				0	No function (0=default)	step
					To activate following functions, stop in DMX value for at least 3 seconds. Corresponding menu items are temporarily overriden	
				1-39	Reserved	
				40-44	Colour mixing mode: CMY (DMX Mode 5 , 7 only)	step
				45-49	Colour mixing mode: RGB (DMX mode 5, 7), RGBAL (DMX mode 6, 8)	step
				50-54	Dimmer curve: Square law	step
				55-59	Dimmer curve: Linear	step
				60-64	Dimmer curve: Super square law	step
				65-79	Raw DMX	proportional
					Tungsten effect simulation for whites 2700K-4200K only:	
				80-84	Tungsten effect simulation (750W/80V): On	step
				85-89	Tungsten effect simulation (1000W/240V): On	step
				90-94	Tungsten effect simulation (1200W/240V): On	step
				95-99	Tungsten effect simulation (2000W/230V): On	step
				100-104	Tungsten effect simulation (2500W/230V): On	step
				105-109	Tungsten effect simulation: Off	step
				110-114	Save user colour (see user manual, chapter Colour influencing functions)	step
				115-119	Chromatic white: On	step
				120-124	Chromatic white: Off	step
				125-129	Light output stability On	step
				130-134	Light output stability Off	step
				135-139	Uniformity On	step
				140-144	Uniformity Off	step
				145-255	Reserved	
5	**5**	**5**	**5**		**CRI selection**	
				0-255	CRI selection from Standard (85) to High (90+) (0=default)	proportional
6	**6**	**6**	**6**		**Virtual colour wheel**	

Mode/channel				DMX Value	Function	Type of control
5	6	7	8			
				0	No function (0=default)	step
				1-2	Filter 4 (Medium Bastard Amber)	step
				3-4	Filter 10 (Medium Yellow)	step
				5-6	Filter 19 (Fire)	step
				7-8	Filter 26 (Bright Red)	step
				9-10	Filter 58 (Lavender)	step
				11-12	Filter 68 (Sky Blue)	step
				13-14	Filter 71 (Tokyo Blue)	step
				15-16	Filter 79 (Just Blue)	step
				17-18	Filter 88 (Lime Green)	step
				19-20	Filter 90 (Dark Yellow Green)	step
				21-22	Filter 100 (Spring Yellow)	step
				23-24	Filter 101 (Yellow)	step
				25-26	Filter 102 (Light Amber)	step
				27-28	Filter 103 (Straw)	step
				29-30	Filter 104 (Deep Amber)	step
				31-32	Filter 105 (Orange)	step
				33-34	Filter 106 (Primary Red)	step
				35-36	Filter 111 (Dark Pink)	step
				37-38	Filter 115 (Peacock Blue)	step
				39-40	Filter 116 (Medium Blue-Green)	step
				41-42	Filter 117 (Steel Blue)	step
				43-44	Filter 118 (Light Blue)	step
				45-46	Filter 119 (Dark Blue)	step
				47-48	Filter 120 (Deep Blue)	step
				49-50	Filter 121 (Filter Green)	step
				51-52	Filter 128 (Bright Pink)	step
				53-54	Filter 131 (Marine Blue)	step
				55-56	Filter 132 (Medium Blue)	step
				57-58	Filter 134 (Golden Amber)	step
				59-60	Filter 135 (Deep Golden Amber)	step
				61-62	Filter 136 (Pale Lavender)	step
				63-64	Filter 137 (Special Lavender)	step
				65-66	Filter 138 (Pale Green)	step
				67-68	Filter 139 (Primary Green)	step
				69-70	Filter 141 (Bright Blue)	step
				71-72	Filter 147 (Apricot)	step
				73-74	Filter 148 (Bright Rose)	step
				75-76	Filter 152 (Pale Gold)	step
				77-78	Filter 154 (Pale Rose)	step
				79-80	Filter 157 (Pink)	step
				81-82	Filter 158 (Deep Orange)	step
				83-84	Filter 162 (Bastard Amber)	step
				85-86	Filter 164 (Flame Red)	step
				87-88	Filter 165 (Daylight Blue)	step
				89-90	Filter 169 (Lilac Tint)	step

Mode/channel				DMX Value	Function	Type of control
5	6	7	8			
				91-92	Filter 170 (Deep Lavender)	step
				93-94	Filter 172 (Lagoon Blue)	step
				95-96	Filter 179 (Chrome Orange)	step
				97-98	Filter 180 (Dark Lavender)	step
				99-100	Filter 181 (Congo Blue)	step
				101-102	Filter 197 (Alice Blue)	step
				103-104	Filter 201 (Full C.T. Blue)	step
				105-106	Filter 202 (Half C.T. Blue)	step
				107-108	Filter 203 (Quarter C.T. Blue)	step
				109-110	Filter 204 (Full C.T. Orange)	step
				111-112	Filter 205 (Half C.T. Orange)	step
				113-114	Filter 206 (Quarter C.T. Orange)	step
				115-116	Filter 247 (Filter Minus Green)	step
				117-118	Filter 248 (Half Minus Green)	step
				119-120	Filter 281 (Three Quarter C.T. Blue)	step
				121-122	Filter 285 (Three Quarter C.T. Orange)	step
				123-124	Filter 352 (Glacier Blue)	step
				125-126	Filter 353 (Lighter Blue)	step
				127-128	Filter 715 (Cabana Blue)	step
				129-130	Filter 778 (Millennium Gold)	step
				131-132	Filter 793 (Vanity Fair)	step
				133-215	Reserved	
				216-217	User colour 1	step
				218-219	User colour 2	step
				220-221	User colour 3	step
				222-223	User colour 4	step
				224-225	User colour 5	step
				226-227	User colour 6	step
				228-229	User colour 7	step
				230-231	User colour 8	step
				232-233	User colour 9	step
				234-235	User colour 10	step
				236-245	Rainbow effect (with fade time) from slow-> fast	proportional
				246-255	Rainbow effect (without fade time) from slow-> fast	proportional
7	*	**7**	*		**Cyan/Red (8 bit)**	
				0 - 255	Colour saturation control - coarse 0-100% (0=default for CMY mode, 255=default for RGB mode)	proportional
8	*	**8**	*		**Cyan/Red (16 bit)**	
				0 - 255	Colour saturation control - fine (0=default for CMY mode, 255=default for RGB mode)	proportional
9	*	**9**	*		**Magenta/Green (8 bit)**	
				0 - 255	Colour saturation control - coarse 0-100% (0=default for CMY mode, 255=default for RGB mode)	proportional
10	*	**10**	*		**Magenta/Green (16 bit)**	
				0 - 255	Colour saturation control - fine (0=default for CMY mode, 255=default for RGB mode)	proportional

Mode/channel				DMX Value	Function	Type of control
5	6	7	8			
11	*	**11**	*		**Yellow/Blue (8 bit)**	
				0 - 255	Colour saturation control - coarse 0-100% (0=default for CMY mode, 255=default for RGB mode)	proportional
12	*	**12**	*		**Yellow/Blue (16 bit)**	
				0 - 255	Colour saturation control - fine (0=default for CMY mode, 255=default for RGB mode)	proportional
*	**7**	*	**7**		**Red (8 bit)**	
				0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	**8**	*	**8**		**Red (16bit)**	
				0 - 255	Colour saturation control - fine (255=default)	proportional
*	**9**	*	**9**		**Green (8 bit)**	
				0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	**10**	*	**10**		**Green (16bit)**	
				0 - 255	Colour saturation control - fine (255=default)	proportional
*	**11**	*	**11**		**Blue (8 bit)**	
				0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	**12**	*	**12**		**Blue (16bit)**	
				0 - 255	Colour saturation control - fine (255=default)	proportional
*	**13**	*	**13**		**Amber (8 bit)**	
				0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	**14**	*	**14**		**Amber (16bit)**	
				0 - 255	Colour saturation control - fine (255=default)	proportional
*	**15**	*	**15**		**Lime (8 bit)**	
				0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	**16**	*	**16**		**Lime (16bit)**	
				0 - 255	colour saturation control - fine (255=default)	proportional
13	**17**	**13**	**17**		**CTO**	
				0-1	8000 K	step
				2-64	Colour temperature changing 7978 K ->6622 K (22 K /1 DMX)	proportional
				65	6600 K	step
				66-109	Colour temperature changing 657 8K ->5622 K (22 K/1 DMX)	proportional
				110	5600 K (110=default)	step
				111-179	Colour temperature changing 5580 K ->4220 K (20 K/1 DMX)	proportional
				180	4200 K	step
				181-229	Colour temperature changing 4180 K ->3220 K (20 K/1 DMX)	proportional
				230	3200 K	step
				231-254	Colour temperature changing 3180 K ->2720 K (20K /1 DMX)	proportional
				255	2700K	step
14	**18**	**14**	**18**		**Green correction**	
				0	Uncorrected white	step
				1-127	Minus green --> uncorrected white	proportional
				128	Uncorrected white (128=default)	step
				129-255	Uncorrected white --> Plus green	proportional
15	**19**	**15**	**19**		**Colour mix control**	
					Defines relation between Virtual Colour wheel and colour channels	
					"Virtual" = Virtual Colour Wheel	

Mode/channel				DMX Value	Function	Type of control
5	6	7	8			
					"Colour mix" = Colour channels (CMY/RGBALight Green/CTO)	
				0-9	"Virtual " has priority over "Colour mix" (0=default)	
				10-19	Maximum mode (highest values have priority)	step
				20-29	Minimum mode (lowest values have priority)	step
				30-39	Multiply mode (multiply "Virtual" and "Colour mix")	step
				40-49	Addition mode ("Virtual" + "Colour mix")	step
				50-59	Subtraction mode ("Virtual" – "Colour mix")	step
				60-69	Inverted Subtraction mode ("Colour mix"-"Virtual")	step
				70-79	White Point Off (CTO+Green Cor.+Virtual Colour Wheel deactivated)	step
				80-128	Reserved	
				129	Crossfade "Virtual" only	step
				130-254	Crossfade between "Virtual" and "Colour mix"	proportional
				255	Crossfade "Colour mix" only	step
16	**20**	**16**	**20**		**Stat. gobo/Rot. Gobo carousel/Framing shutters/Zoom/Focus/Frost time**	
				0	Function is off (0=default)	step
				1-255	Time of stat. Gobo and rot. Gobo carousel movement (0.1 sec-->25.5 sec.)	proportional
				1 - 255	Time of framing shutters, zoom, focus and frost movement (0.1 sec-->25.5 sec.)	proportional
17	**21**	**17**	**21**		**Effect wheel positioning**	
				0-19	No function (0=default)	step
				20-127	Proportional indexing (73-center)	proportional
				128-170	Ramping from open to full position (max--->min. speed)	proportional
				171-213	Ramping from open to half position (max. --->min. speed)	proportional
				214-255	Ramp. from half position to full position (max. --->min. speed)	proportional
18	**22**	**18**	**22**		**Effect wheel rotation**	
				0	No rotation	step
				1 - 127	Forwards rotation from fast to slow	proportional
				128	No rotation (128=default)	step
				129 - 255	Backwards rotation from slow to fast	proportional
19	**23**	**19**	**23**		**Effect wheel animations**	
				0-7	No animation (0=default)	
					Note : *Set suitable DMX value at* ***Focus*** *channel to get desired animation. All animations were created at distance of 5 m from screen with zoom=88 DMX, Focus value is different for each effect (focus value is stated in parentheses for this distance)*	
					The following channels are blocked: Effect wheel positioning, Effect wheel rotation, Rotating gobo wheel, Rot. Gobo indexing and rotation.	
				8-9	Macro 1 (Focus=170)	step
				10-11	Macro 2 (Focus=160)	step
				12-13	Macro 3 (Focus=172)	step
				14-15	Macro 4 (Focus=172)	step
				16-17	Macro 5 (Focus=174)	step
				18-19	Macro 6 (Focus=173)	step
				20-21	Macro 7 (Focus=181)	step
				22-23	Macro 8 (Focus=174)	step
				24-25	Macro 9 (Focus=174)	step

Mode/channel				DMX Value	Function	Type of control
5	6	7	8			
				26-27	Macro 10 (Focus=180)	step
				28-255	Reserved	
20	**24**	**20**	**24**		**Static gobo wheel**	
				0-8	Open/hole (0=default)	step
				9-17	Gobo 1	step
				18-26	Gobo 2	step
				27-35	Gobo 3	step
				36-44	Gobo 4	step
				45-53	Gobo 5	step
				54-62	Gobo 6	step
				63-71	Gobo 7	step
				72-80	Gobo 8	step
				81-91	Gobo 9	step
					Shaking gobos from slow to fast	
				92-103	Gobo 1	proportional
				104-115	Gobo 2	proportional
				116-127	Gobo 3	proportional
				128-139	Gobo 4	proportional
				140-151	Gobo 5	proportional
				152-163	Gobo 6	proportional
				164-175	Gobo 7	proportional
				176-187	Gobo 8	proportional
				188-199	Gobo 9	proportional
				200 - 201	Open/hole	step
				202 - 222	Forwards gobo wheel rotation from fast to slow	proportional
				223 - 243	Backwards gobo wheel rotation from slow to fast	proportional
				244 - 249	reserved	
				250 - 255	Auto random gobo selection from fast to slow	proportional
21	**25**	**21**	**25**		**Rotating gobo wheel**	
					Index - set indexing on channel 23/27/23/27	
				0-3	Open/hole (0=default)	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
					Rotation - set rotation on channel 23/27/23/27	
				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

Mode/channel				DMX Value	Function	Type of control
5	6	7	8			
					Continual positioning	
					Index - set indexing on channel 23/27/23/27	
				60	Open/hole	proportional
				68	Gobo 1	proportional
				76	Gobo 2	proportional
				84	Gobo 3	proportional
				92	Gobo 4	proportional
				100	Gobo 5	proportional
				108	Gobo 6	proportional
				116	Gobo 7	proportional
				124	Open/hole	proportional
					Continual positioning	
					Rotation - set rotation on channel 23/27/23/27	
				125	Open/hole	proportional
				133	Gobo 1	proportional
				141	Gobo 2	proportional
				149	Gobo 3	proportional
				157	Gobo 4	proportional
				165	Gobo 5	proportional
				173	Gobo 6	proportional
				181	Gobo 7	proportional
				189	Open/hole	proportional
				190-201	Open/hole	step
				202 - 222	Forwards gobo wheel rotation from fast to slow	proportional
				223 - 243	Backwards gobo wheel rotation from slow to fast	proportional
				244 - 249	Reserved	
				250 - 255	Auto random gobo selection from fast to slow	proportional
22	**26**	**22**	**26**		**Rotating gobo wheel - fine positioning**	
				0 - 255	Fine positioning (0=default)	proportional
23	**27**	**23**	**27**		**Rot. gobo indexing and rotation**	
					Gobo indexing - set position on channel 21/25/21/25	
				0 - 255	Gobo indexing	proportional
					Gobo rotation - set position on channel 21/25/21/25	
				0	No rotation	step
				1 - 127	Forwards gobo rotation from fast to slow	proportional
				128	No rotation (128=default)	step
				129 - 255	Backwards gobo rotation from slow to fast	proportional
24	**28**	**24**	**28**		**Rot. gobo indexing/rotation - fine**	
				0-255	Fine indexing/rotation (0=default)	proportional
25	**29**	**25**	**29**		**Frost**	
				0	Open (0=default)	step
					Frost cannot stay in intermediate position, it will auto-move to full/open position.	
					Light Frost	
				1-50	Light Frost from 0% to 100%	proportional
				51-53	100% Light Frost	step

Mode/channel				DMX	Function	Type of
5	6	7	8	Value		control
				54-63	Pulse closing from slow to fast	proportional
				64-73	Pulse opening from fast to slow	proportional
				74-83	Ramping from fast to slow	proportional
				84-86	Open	step
					Medium Frost	
				87-136	Medium Frost from 0% to 100%	proportional
				137-139	100% Medium Frost	step
				140-149	Pulse closing from slow to fast	proportional
				150-159	Pulse opening from fast to slow	proportional
				160-169	Ramping from fast to slow	proportional
				170-172	Open	step
					Combined Frost	
				173-222	Medium Frost from 0% to 100% (Light Frost inserted)	proportional
				223-225	100% Medium Frost (Light Frost inserted)	step
				226-235	Pulse closing from slow to fast	proportional
				236-245	Pulse opening from fast to slow	proportional
				246-255	Ramping from fast to slow	proportional
*	*	**26**	**30**		**Iris**	
				0	Open (0=default)	step
				1 - 179	From max.diameter to min.diameter	proportional
				180 - 191	Closed	step
					Pulse effects with Iris blackout	
				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
*	*	**27**	**31**		**Iris - fine**	
				0 - 255	Fine iris movement (0=default)	proportional
26	**30**	**28**	**32**		**Zoom**	
				0 - 255	Zoom from max. to min.beam angle (128=default)	proportional
27	**31**	**29**	**33**		**Zoom - fine**	
				0-255	Fine zooming (0=default)	proportional
28	**32**	**30**	**34**		**Focus**	
				0 - 255	Continuous adjustment from far to near (128=default)	proportional
29	**33**	**31**	**35**		**Focus - fine**	
				0- 255	Fine focusing (0=default)	proportional
*	*	**32**	**36**		**Framing shutters module rotation**	
				0-127	Rotation from right (0°) to 60°	proportional
				128	Center (128=default)	step
				129-255	Rotation from 60° to left (120°)	proportional
*	*	**33**	**37**		**Framing shutter 1- movement**	
				0-255	Movement from Outward to Inward (0=default)	proportional
*	*	**34**	**38**		**Framing shutter 1- swivelling**	
				0-127	Swivelling towards 0 degrees	proportional

Mode/channel				DMX Value	Function	Type of control
5	6	7	8			
				128	0 degrees (128=default)	step
				129-255	Swivelling from 0 degrees	proportional
*	*	35	39		**Framing shutter 2- movement**	
				0-255	Movement from Outward to Inward (0=default)	proportional
*	*	36	40		**Framing shutter 2- swivelling**	
				0-127	Swivelling towards 0 degrees	proportional
				128	0 degrees (128=default)	step
				129-255	Swivelling from 0 degrees	proportional
*	*	37	41		**Framing shutter 3 movement**	
				0-255	Movement from Outward to Inward (0=default)	proportional
*	*	38	42		**Framing shutter 3- swivelling**	
				0-127	Swivelling towards 0 degrees	proportional
				128	0 degrees (128=default)	step
				129-255	Swivelling from 0 degrees	proportional
*	*	39	43		**Framing shutter 4 movement**	
				0-255	Movement from Outward to Inward (0=default)	proportional
*	*	40	44		**Framing shutter 4- swivelling**	
				0-127	Swivelling towards 0 degrees	proportional
				128	0 degrees (128=default)	step
				129-255	Swivelling from 0 degrees	proportional
30	34	41	45		**Shutter/ strobe**	
				0 - 31	Shutter closed	step
				32 - 63	Shutter open (32=default)	step
				64 - 95	Strobe-effect from slow to fast	proportional
				96 - 127	Shutter open	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	step
				192 - 223	Random strobe-effect from slow to fast	proportional
				224 - 255	Shutter open	step
31	35	42	46		**Dimmer intensity**	
				0 - 255	Dimmer intensity from 0% to 100% (0=default)	proportional
32	36	43	47		**Dimmer intensity - fine**	
				0 - 255	Fine dimming (0=default)	proportional

Copyright © 2024 Robe Lighting s.r.o. - All rights reserved

All Specifications subject to change without notice