ANOLiS

ArcWash Recessed 136 RGB
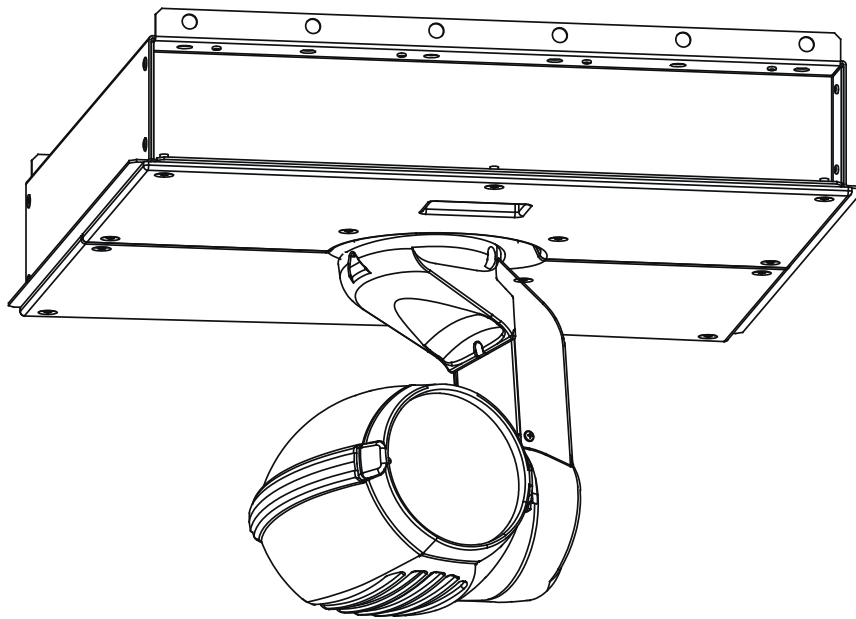
ArcWash Recessed 136 RGB

Table of contents

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

1. Safety instructions

Every person involved with installation and maintenance of this device have to:
- be qualified
- follow the instructions of this manual

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

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

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

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

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

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

Always disconnect from the mains, when the device is not in use or before cleaning it.

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

The electric connection, repairs and servicing must be carried out by a qualified employee.

Do not connect this device to a dimmer pack.

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

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

> *CAUTION ! EYEDAMAGES !*
> *Avoid looking directly into the light source (meant especially for epileptics) !*

2. Operating determinations

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

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

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

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

The minimum distance between light-output and the illuminated surface must be more than 0.8 meter.

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

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

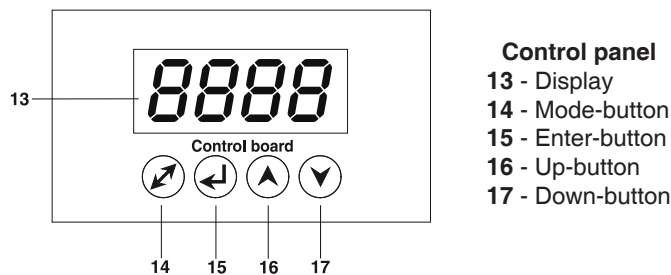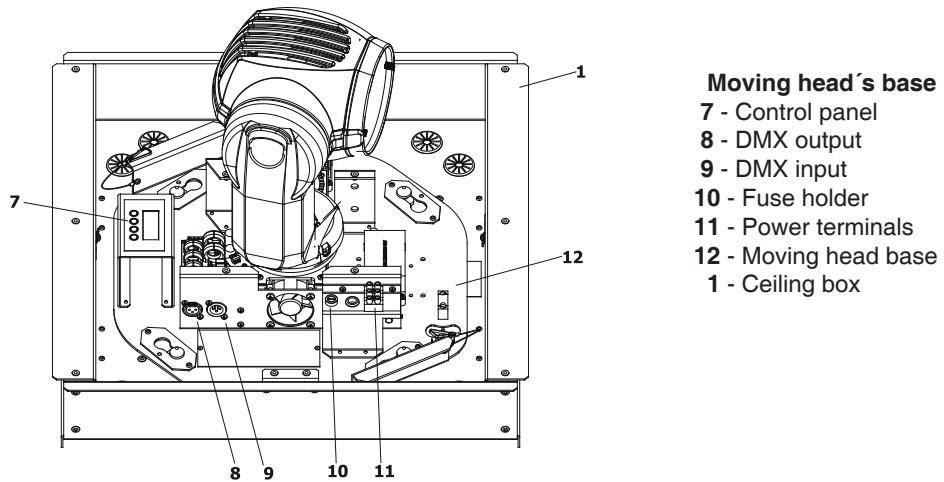The maximum ambient temperature 40° C must never be exceeded.

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

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

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

DANGER TO LIFE!
For protection from dangerous electric shock,the fixture must be
installed in ceiling box and covered with box covers before applying power!

3. Description of the device

1 - Ceiling box
2,3 - Box covers
4 - Arm
5 - Front glass
6 - Moving head

Moving head´s base
7 - Control panel
8 - DMX output
9 - DMX input
10 - Fuse holder
11 - Power terminals
12 - Moving head base
1 - Ceiling box

Control panel
13 - Display
14 - Mode-button
15 - Enter-button
16 - Up-button
17 - Down-button

Control board
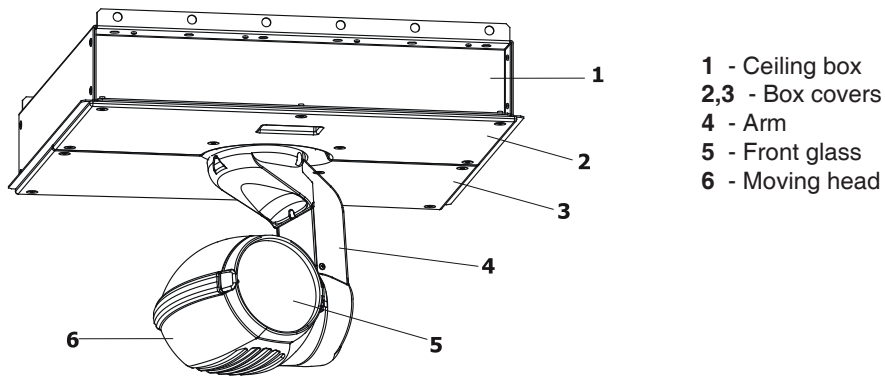
4. Installation

4.1 Mounting the fixture

The moving head is designed for ceiling mounting.

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

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

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

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

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

The moving head 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.Improper installation can result in bodily injury and (or) damage to property.

The moving head should be installed out of the reach of people.

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

> **CAUTION!**
> **Make sure that the device is fixed properly! Ensure that the structure (truss)**
> **to which you are attaching the fixtures is secure.**

The ArcWash Recessed 136 RGB includes a moving head and a ceiling box for mounting to the lower ceiling.

Installation:
1.Fix the recessed ceiling box (8) to the lower ceiling.Be careful the mounting grid can hold the moving head installation!
The ceiling box must be fixed properly ,otherwise the vibration of the mounting structure can occur during the operation of the moving head. Pull the power cable (5) and data cables through the apertures (1) on the bottom of the box.

2.Put the moving head base (4) on the 4 fixative pins (6) in the bottom of the ceiling box (8) and turn the base gently to the right. Insert and tighten clockwise the 2 quick-lock fasteners (7) to secure the moving head in the ceiling box.
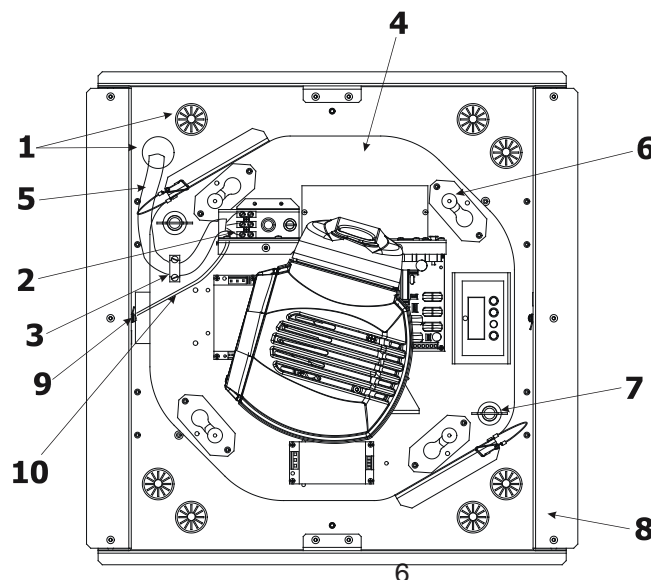
3.Use the 3-wired power cable (the wires with cross-sectional area of 1.5mm^2) to connect the power.
Pull the power cable through a cable holder (3) and connect it into the connection terminals (2) as follows:

live → L
neutral → N
ground → ⏚
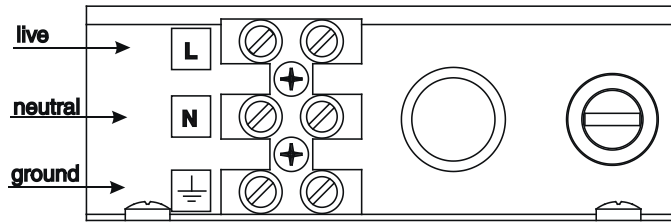
Possible pin identification schemes:

Cable (EU)	Cable (US)	Pin	International
Brown	Black	Live	L
Liht blue	White	Neutral	N
Yellow/ Green	Green	Earth	⏚

Connect the earth-wire (10) with the earth-terminal (9) on the ceiling box (8).
If you have any doubts about proper installation,consult a qualified electrician!
Make sure the wires are securely connected.Tighten 2 screws in the cable holder to secure the power cable in it.

> *For protection from electric shock,the fixture must be grounded!*

4.Connect the data cables to the fixture DMX input/output.

**5**.Fasten 2 covers on the ceiling box by 14 screws.

> *DANGER TO LIFE!*
> *For protection from dangerous electric shock,the fixture must be*
> *installed in ceiling box and covered with box covers before applying power!*
> *Before taking into operation for the first time,the installation has to be*
> *approved by an expert!*

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

4.2 Fitting the frost filtr

The ArcWash Recessed 136 RGB is supplied with clear front glass (factory fitted) and two types of frost filters (films). If you wish to use a diffusive light ,follow the steps to install desired frost filter:

1.Remove the ring (1) from the forefront of the head by loosening both fastening screws (2).
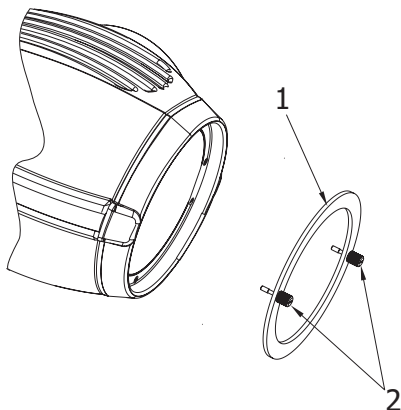
2.Put the frost film on the front glass and centre the holes in the film on the holes in the holder of the glass.
3.Put the ring carefully back and tighten both fastening screws.
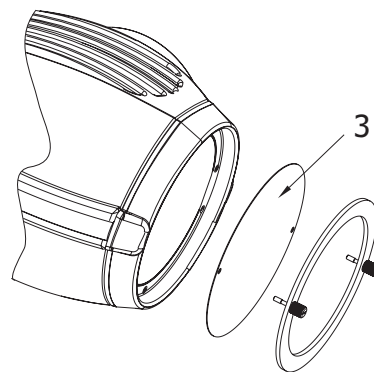
4.3 DMX-512 connection/connection between fixtures

The fixture is equipped with 3-pin XLR sockets for DMX input and output. Only use a shielded twisted-pair cable designed for RS-485 and 3-pin XLR-plugs and connectors in order to connect the controller with the fixture or one fixture with another.

Occupation of the XLR-connection:

DMX - output
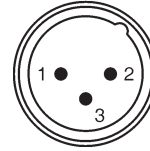**XLR mounting-sockets (rear view):**

DMX-input
XLR mounting-plugs (rear view):

1 - Shield
2 - Signal (-)
3 - Signal (+)

Building a serial DMX-chain:
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.
Connect the DMX-output of the first fixture in the DMX-chain with the DMX-input of the next fixture. Always connect output with the input of the next fixture until all fixtures are connected.
Caution: At the last fixture, the DMX-cable has to be terminated with a terminator. Solder a 120 Ohm resistor between Signal (–) and Signal (+) into a 3-pin XLR-plug and plug it in the DMX-output of the last fixture.

Building a master/slave-chain:
Connect the DMX-output of the master fixture in the data-chain with the DMX-input of the first slave. Always connect output with the input of the next slave until all slaves are connected (up to 32 fixtures).

Caution: It's necessary to insert the XLR termination plug (with 120 Ohm) into the input of the master fixture and into the output of the last slave fixture in the link in order to ensure the proper transmission on the data link.

DMX operation

Master/slave operation
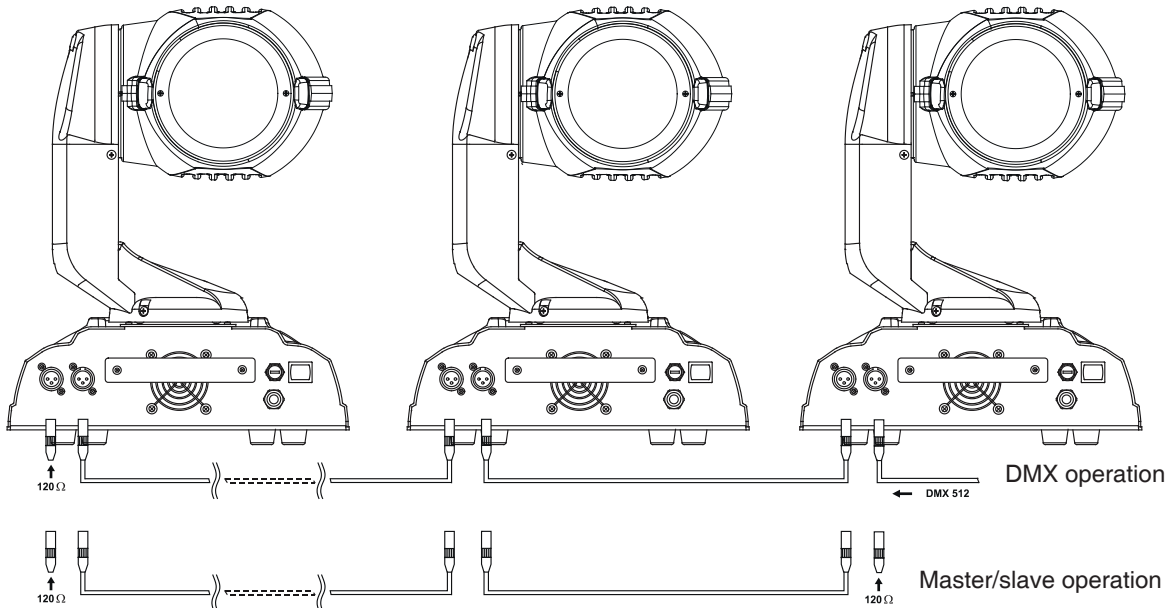
5. ArcWash Recessed 136 RGB - DMX protocol,version 1.0

Mode 1 Channel	Mode 2 Channel	Value	Function	Type of control
1	1	0 - 255	**Pan** Pan movement by 530°	proportional
2		0 - 255	**Pan Fine** Fine control of pan movement	proportional
3	2	0 - 255	**Tilt** Tilt movement by 280°	proportional
4		0 - 255	**Tilt fine** Fine control of tilt movement	proportional
5	3	0 1 - 255 1 - 255	**Pan/Tilt speed, Pan/Tilt time** Max. speed (tracking mode) *P./T. speed-set Speed Mode in menu: P./T. Mode* Speed from max. to min. (vector mode) *P./T. time - set Time Mode in menu: Pan/Tilt Mode* Time from 0.1 s to 25.5 s.	step proportional proportional
6		0 - 9 10 - 31 32 - 63 64 - 95 96 - 127 128 - 159 160 - 191 192 - 223 224 - 255	**Pan/Tilt macro selection** Disabled pan/tilt macro Reserved Figure of circle (from small to large) Figure of horizontal eight (from small to large) Figure of vertical eight (from small to large) Figure of rectangle (from small to large) Figure of triangle (from small to large) Figure of five-pointed star (from small to large) Figure of cross (from small to large)	step step proportional proportional proportional proportional proportional proportional proportional
7		0 1-127 128-129 130-255	**Pan/Tilt macro speed** *Set pan/tilt speed (channel 5) at 0 DMX* No macro generation Macro generation from fast to slow-forwards No macro generation Macro generation from slow to fast-backwards	step proportional step proportional
8		0 - 129 130 - 139 140 - 255	**Special functions** Reserved Pan/tilt reset Reserved	step
9	4	0-255	**Red LED** Red LED saturation control (0-100%)	proportional
10	5	0-255	**Green LED** Green LED saturation control (0-100%)	proportional
11	6	0-255	**Blue LED** Blue LED saturation control (0-100%)	proportional
12		0-7 8-15 16-23 24-31 32-39 40-47 48-55 56-63 64-71 72-79 80-87 88-95 96-103 104-111 112-119 120-127 128-135	**Colour MACRO SELECTION** No function Macro 1 Macro 2 Macro 3 Macro 4 Macro 5 Macro 6 Macro 7 Macro 8 Macro 9 Macro 10 Macro 11 Macro 12 Macro 13 Macro 14 Macro 15 Macro 16	 step step step step step step step step step step step step step step step step step

Mode 1 Channel	Mode 2 Channel	Value	Function	Type of control
12		136-143	Macro 17	step
		142-151	Macro 18	step
		152-159	Macro 19	step
		160-167	Macro 20	step
		168-175	Macro 21	step
		176-183	Macro 22	step
		184-191	Macro 23	step
		192-199	Macro 24	step
		200-207	Macro 25	step
		208-215	Macro 26	step
		216-223	Macro 27	step
		224-231	Macro 28	step
		232-239	Macro 29	step
		240-247	Macro 30	step
		248-255	Macro 31-Rainbow effect	step
13	**7**		**SHUTTER/STROBE**	
		0-31	Shutter closed	step
		32-63	Shutter open	step
		64-95	Strobe-effect from slow to fast	proportional
		96-127	Shutter open	step
		128-143	Opening pulses in sequences slow--> fast	proportional
		144-159	Closing pulses in sequences fast --> slow	proportional
		160-191	Shutter open	step
		192-223	Random strobe-effects from slow to fast	proportional
		224-255	Shutter open	step
14	**8**		**DIMMER**	
		0-255	Dimmer intensity from 0% to 100%	proportional

6. ArcWash Recessed 136 RGB - Control menu map

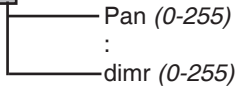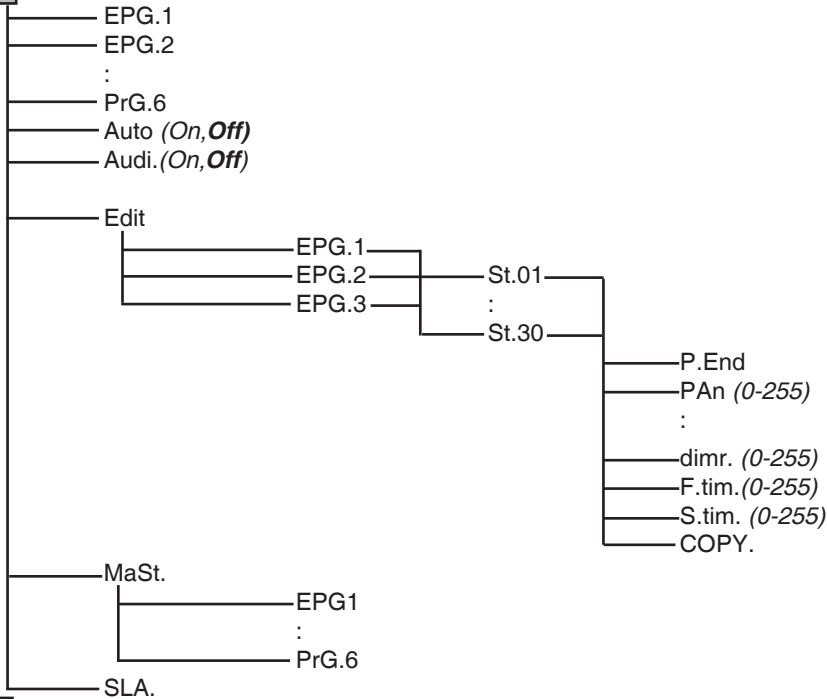**Default settings=Bold print**

A001 *(001-498)*

InFo
- tEMP.
- VErS.
  - IC1.b.
  - IC2.b.

PErS.
- r.PAn *(On,**Off**)*
- r.tilt *(On,**Off**)*
- MI.SE *(1...**10**...20)*
- dM.Pr. *(**Mod.1**,Mod 2)*
- FEEd. *(**On**,Off)*
- P.t.Mo. *(**SP.Mo.**,ti.Mo.)*
- bL.Co. *(On,**Off**)*
- bl.P.t. *(On,**Off**)*
- BALA. *(On,**Off**)*
- C.bAL.
  - rEd.b. *(0..**200**..255)*
  - GrE.b. *(0...**255**)*
  - bLu.b. *(0..**215**..255)*
- l.bli. *(**On**,Off)*
- dFSE

MAn.C.
- Pan *(0-255)*
  :
- dimr *(0-255)*

tESt

St.AL.
- EPG.1
- EPG.2
  :
- PrG.6
- Auto *(On,**Off**)*
- Audi. *(On,**Off**)*
- Edit
  - EPG.1
  - EPG.2
  - EPG.3
    - St.01
      :
    - St.30
      - P.End
      - PAn *(0-255)*
        :
      - dimr. *(0-255)*
      - F.tim. *(0-255)*
      - S.tim. *(0-255)*
      - COPY.
- MaSt.
  - EPG1
    :
  - PrG.6
- SLA.

rESE.

SPEC.
- uPd.M. *(**No**,Yes)*

11
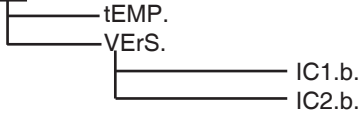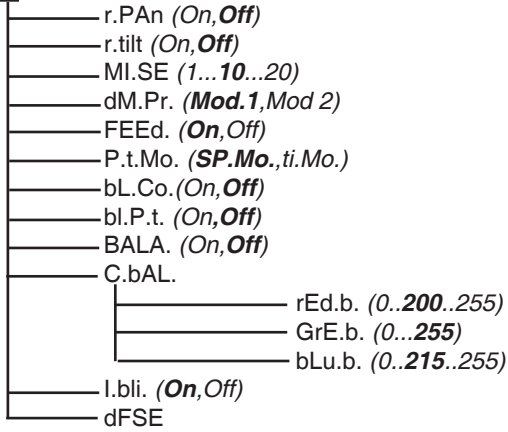
7. Functions of the control panel

The control panel situated on the front panel of the base offers several features. You can simply set the DMX address, run programs, make a reset and also use many functions for setting the fixture behaviour.

Control elements on the control board:
[MODE] button-leaves menu without saving changes.
[ENTER] button- enters menu,confirms adjusted values and leaves menu.
[UP] button and[DOWN] button- moves between menu items on the the same level, sets values.
After switching the fixture on,the display shows the initial screen:

A001

Use [UP],[DOWN] to browse through the menu. To select a function or submenu,press [ENTER].

7.1 Fixture Address

A001

Use this menu to set the DMX start address of the fixture, which is defined as the first channel from which the ArcWash Recessed 136 RGB will respond to the controller.
If you set, for example, the address 15, the ArcWash Recessed 136 RGB will use the channel 15 to 28 for control (if Mode 1 is selected).
Please, be sure that you don't have any overlapping channels in order to control each ArcWash Recessed 136 RGB correctly and independently from any other fixture on the DMX data link.
If two, three or more ArcWash Recessed 136 RGB are addressed similarly, they will work similarly.
After having addressed all ArcWash Recessed 136 RGB, you may now start operating these via your lighting controller.
Note: After switching on, the ArcWash Recessed 136 RGB will automatically detect whether DMX 512 data is received or not.
        If there is no data received at the DMX-input, the display will start to   ash „**A001**" with actually set address.
This situation can occur if:
- the 3 PIN XLR plug (cable with DMX signal from controller) is not connected with the input of the ArcWash Recessed 136 RGB.
- the controller is switched off or defective, the cable or connector is defective or the signal wires are swaped in the input connector.

7.2 Fixture informations

InFo

Use this menu to read an useful information about the fixture.

tEMP ---**Fixture temperature**.The function shows the temperature in the fixture head (°C).Please note that the outside temperature should not exceed 40° C.

VErS. --- **Software version**.Select this function to read the software version of processors:
        IC1.b.--- Main processor on the main board in the fixture base
        IC2.b.--- Pan/tilt processor on the main board in the fixture base

7.3 Personality

PErS.

Use this menu to to modify the ArcWash Recessed 136 RGB operating behavior.

r.PAn --- **Pan reverse**.Select this function to invert the pan movement.

r.tilt --- **Tilt reverse**.Select this function to invert the tilt movement.

DM.Pr. --- **DMX preset**.Select this item to choose desired DMX mode.Please refer to the chapter "DMX protocol" for detail description.

Mi.SE. --- **Microphone sensitivity**.Select this function to adjust the microphone sensitivity from 1(maximum) to 20(minimum).If the sensitivity is correctly adjusted,the upper segment of the first digit blinks in the bass beat.
Examples:

_ 1 2	⁻ 1 2	⁻ 1 2
underexited	right level	overexited
	(upper segment blinks)	

FEEd --- **Pan/Tilt feedback**.This function allows to return the mowing head to the required pan/tilt position after changing the position by external force (e.g.by stroke).
Be careful, the Pan/Tilt Feedback OFF is not the standard operation and the head of the fixture can be demaged!
Note: If the feedback was switched off ,the pan/tilt-position is changed by an external force and the feedback is switched on again,the moving head might not to be synchronized with the DMX signal.You have to make a reset in order to synchronize the moving head with the DMX signal.

P.t.Mo. --- **Pan/tilt movement mode**.Use this menu to set the character of the pan/tilt movement.
> **ti.Mo. --- Time mode**.Pan and tilt will move with different speeds and they will come at the same time to end point (pan and tilt sets its optimal speed).
> **SP.Mo. --- Speed mode**.Pan and tilt will move with the same speed as adjusted at the channel 5 (Pan/Tilt speed).E.g. pan will come to the end point and wait for tilt,which has longer track.

bL.Co. --- **Blackout during movement correction**.Select this function to enable the blackout during the head movement correction (if the moving head lost its right pan/tilt position for a short moment).

bl.P.t. --- **Active Blackout while Pan/Tilt moving:** - Use this function if you wish to close the light output during pan/tilt changes.

bALA. --- **Balance**.Select this function to enable (On) or disable (OFF) the white balance which is set in "White colour balance" menu below.If this function is set OFF,ArcWash Recessed 136 RGB will use maximum values (255) of saturation for red, green and blue channel.

C.bAL. --- **White colour balance.** Using this menu you can set the white balance:
1. Browse through the menu by pressing the [UP] and [DOWN] buttons until the display shows "**C.bAL.**" menu.Press [ENTER] button and **"rEd.b."** will appear on the display.
2.Press [ENTER] button again and use [UP] and [DOWN] buttons to adjust the new maximum value required for the red channel.Confirm your choice by pressing [ENTER].Use the [UP] and [Down] buttons to select next colour.
3.Repeat step 2 for green channel "**GrE.b.**" and for blue channel "**bLu.b**".

i.bLi. --- **Initial blink**.If this function is on,ArcWash 136 RGB makes auto-calibration (All LEDs light on 100% for a short time) after switching the fixture on.If this function is set off,you have to set manually every colour on max.brightness after switching on the driver before starting regular operating.This action should last min. one second for every colour.

dF.SE. --- **Default Settings** .Select this option to reset all fixture personalities to the factory values.

7.4 Manual mode

Select this menu to control channel effects by control buttoms on the control board without an external controller.

PAn	a coarse pan movement	**GrEE**	a green LED saturation
F.PAn	a fine pan movement	**bLuE**	a blue LED saturation
tilt	a coarse tilt movement	**MACr**	a colour macros
F.tilt	a fine tilt movement	**Stro.**	a strobe,shutter
SpEd	a pan/tilt speed	**dimr**	a dimmer
P.t.SE.	a pan/tilt macro selection		
P.t.SP.	a pan/tilt speed		
Func.	a special function		
rED	a red LED saturation		

7.5 Test sequences

```
tESt
```

Use this menu to to run a demo-test sequences without an external controller, which will show you some possibilities of using ArcWash Recessed 136 RGB.

7.6 Stand-alone setting

```
St.AL.
```

The fixtures on a data link are not connected to the controller but can execute pre-set programs which can be different for every fixture. "Stand-alone operation" can be applied to the single fixture or to multiple fixtures operating synchronously. Synchronous operation of multiple fixtures requires that they must be connected on a data link and one of them is set as a master ("MSt") and the rest as the slaves ("SLA"). Up to 32 fixtures can be connected in master/slave chain.Only one fixture can be set as the master.
Note: Disconect the fixtures from the DMX controller before master/slave operating, otherwise data collisions can occur and the fixtures will not work properly!
It's necessary to insert the XLR termination plug (with 120 Ohm) into the input of the master fixture and into the output of the last slave fixture in the data link in order to ensure proper transmission on the data link.

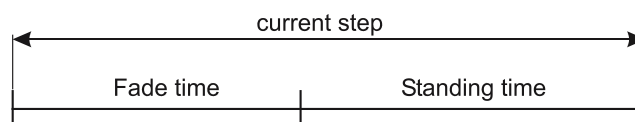### Operating multiple fixtures in stand-alone mode.
1.Select one fixture and set it as a master and select a program which is to be played (Menu path: "St.AL."--->"MASt.").
2.The rest of the fixtures set as slaves (Menu path: "St.AL."--->"SLA.").
3.Build the master/slave chain.(See chapter "DMX-512 connection and Master/Slave connection").

Audi --- **Music trigger**.Select this function to enable the sound control of the running programs via the built-in microphone.

EPG1-PrG.6 --- **Fixture programs.**By pressing [ENTER] selected program will run in a loop.

Auto. --- **Automatically playback.** If this function is on, the fixture in DMX mode remembers last running program and this program will run after switching the fixture on .

Edit --- **Editing program.**The fixture includes 6 built-in programs (PrG.1-PrG.6) and 3 free editable programs (EPG.1-EPG.3) each up to 30 steps.Every program step has a fade time-the time during which effects (except pan/tilt) go to the current step and a standing time-the time,during which effects last in the current step.

```
                              current step
          |<----------------------------------------------->|
          |                   |                              |
          |     Fade time     |        Standing time         |
          |                   |                              |
```

Programming procedure:
1. Enter "Edit." menu
2. Press [UP] or [DOWN] to select the desired program which you wish to edit and press [ENTER].
3. Press [UP] or [DOWN] to select the desired program step ("St.01" - "St.30") and press [ENTER].
4. Press [UP] or [DOWN] to select the desired item and press [ENTER] button.Now you can edit by using [UP] or [DOWN] buttons the DMX values of selected item:

P.End. - a total number of the program steps (value 1-30).This value must be set before start programming(e.g. if you want to create program with 10 steps,set P.End=10).

PAn	a coarse pan movement	**GrEE**	a green LED saturation
F.PAn	a fine pan movement	**bLuE**	a blue LED saturation
tilt	a coarse tilt movement	**MACr**	a colour macros
F.tilt	a fine tilt movement	**Stro.**	a strobe,shutter
SpEd	a pan/tilt speed	**dimr**	a dimmer
P.t.SE.	a pan/tilt macro selection		
P.t.SP.	a pan/tilt speed		
rED	a red LED saturation		
F.tim.	- fade time,value 0-255 *		
S.tim.	- standing time,value 0-255 *		
COPY.	- copying the current prog. step to the next prog. step.		

Press [ENTER]-button to confirm adjusted value.
5.Repeat steps 3 and 4 for next prog.step.If you want to copy current prog. step to the next prog.step, select option "COPY."and confirm it by pressing [ENTER].

*Both Fade time and Standing time use the same conversion table in order to convert DMX value to the time value:

DMX	Time [sec.]	DMX	Time [min.]	DMX	Time [min.]	DMX	Time [min.]	DMX	Time [min.]
1	0.1	50	4.2	105	18.4	160	42.7	215	77
2	0.4	55	5	110	20.2	165	45.4	220	80.7
5	2.5	60	6	115	22	170	48.2	225	84.4
10	10	65	7	120	24	175	51	230	88.2
15	22.5	70	8.2	125	26	180	54	235	92
20	40	75	9.4	130	28.2	185	57	240	96
25	62.5	80	10.7	135	30.4	190	60.2	245	100
30	90	85	12	140	32.7	195	63.4	250	104
35	122.5	90	13.5	145	35	200	66.7	255	108
40	160	95	15	150	37.5	205	70		
45	202.5	100	16.7	155	40	210	73.5		

Exact expression of the time value follows the formula: $time[sec.]=(DMX\ value)^2/10$.

MASt. --- **Master.**Enter this menu if you want to set the the fixture as a master.Use [UP] and [DOWN] buttons to select desired program and press [ENTER] to confirm selection.
SLA. --- **Slave.**Select this menu if you want to set the the fixture as a slave.

7.6 Reset function

This option enables the ArcWash Recessed 136 RGB to index all effects and return them to their standard positions.

7.7 Special functions

Use this menu for special services like software update.

uPd.M. ---**Updating mode.**Using this function you can update software in the fixture via PC and serial link.
The following are required in order to update software:
- PC running Windows 95/98/2000/XP or Linux
- DMX Software Uploader
- Flash cable RS232/DMX (No.13050624)
Note1:Software update should execute a qualified person.If you lack qualification, do not attempt the update yourself and ask for help your ROBE distributor.
Note 2:DMX address, IP address ,programs 1-3 and all functions in menu "PErS" will be set to their default values.

To update software in the fixture:
1.Installation of DMX Software Uploader.
       1.DMX Software Uploader program is available from the ROBE web site at WWW.robe.cz.
       2.Make a new directory (e.g. Robe_Uploader) on your hard disk and download the software to it.
       3.Unpack the program from the archive. If the Robe fixture is produced in magnetic and electronic
       ballast version, name of DMX Software Uploader is the same for both versions.
2.Fixture software updating.
       1.Determine which of your COM port is available on your PC and connect it with to the DMX input
       of the fixture using the uploading cable. Do not extend this cable! Disconnect the fixture from the
other fixtures in DMX chain! Turn on the computer and the fixture. Make sure the lamp is
       switched off.
       2.Switch the fixture to the update mode by selecting the option Updating mode in menu Special
       Functions on the fixture control panel:SPEC-->UPd-->yES.(From this option you cannot return back
       to the main menu. If you do not want to continue in software update, you have to switch off and on the fixture
       to leave this option!)

3.It is recommended that you exit all programs before running the Software Uploader.
4.Start the Software Uploader program. Select desired COM and then click Connect button.
If the conection is OK, click Start Uploading button to start uploading. It will take several minutes to
 perform software update. If the option "Incremental Update"isn´t checked ,all processors will be
updated (including processors with the same software version).
If you wish to update only later versions of processors, enable the Incremental Update check box.
Avoid interrupting the process. Update status is being displayed in the list window.
When the update is finished, the line with the text "The fixture is successfuly updated' will appear in
 this window and the fixture will reset with the new software.

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

For example: The fixture was switched off before finishing software upload. After switching the fixture on again, the fixture is still in the update mode and the display is dark. Restart the Software Uploader program and repeat software update from your PC.

8. Power down mode

This mode omits fixture reset after switching the fixture on and lowers motor powers of the fixture. „Power down mode" is useful in special casech. g. if the fixture is in a   ight case and you want to set its DMX address without taking it out from the case. To enter „Power down mode", press and hold [UP] and [DOWN] and at the same time switch on the Power switch. The following message appears on the display: "P.d.Mo**."**

Press [ENTER] to activate „Low power mode" without fixture reset. Now you can set features and behaviour of the fixture by using "Pers.**"** menu. If you want to go „normal operation mode", execute fixture reset.

Note: All motors in "Power down mode" are deactivated.

9. Error and information messages

PA.Er. (Pan-yoke movement error)

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

ti.Er. (TILT-head   movement error)

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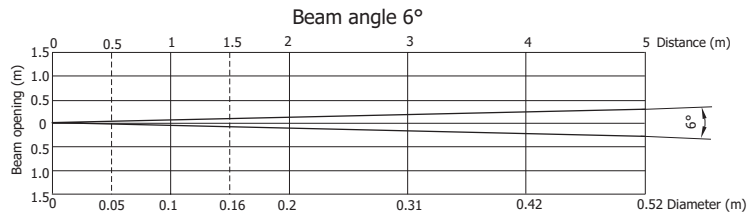
10. Technical specifications

Power supply
- Input Voltage:100-240V AC, 50/60 Hz
- Fuse:T 2 A
- Max.Pover Consumption:100 VA

Optical system
- 36 RGB LEDs
- Standard 6° beam angle lenses
- Optional 25° beam angle lenses

Beampath

Beam angle 6°

Distance (m)	0.5	1.0	1.5	2.0	3.0	4.0	5.0	
Red	9152/850	2288/213	1016/94	572/53	254/24	143/13	92/6	
Green	18688/1736	4672/434	2076/193	1168/109	519/48	292/27	187/17	Intensity (center) Lux/Footcandles
Blue	1984/184	496/46	220/20	124/12	55/5	31/3	20/2	
White	32576/3026	8144/757	3620/336	2036/189	905/84	478/44	306/28	
Diameter (m)	0.05	0.1	0.16	0.2	0.31	0.42	0.52	

Distance=4m
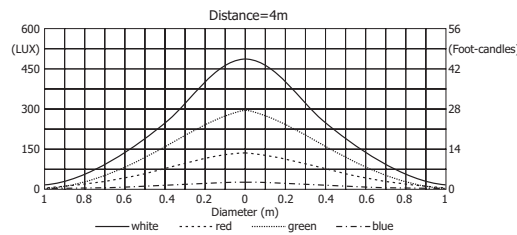
Strobe
- Strobe effect with variable speed (max. 25 ashes per second)
- Preprogrammed random strobe pulse-effects

Dimmer
- Smooth dimmer from 0 - 100 %

Motors
- 2 high quality stepping motors controlled by microprocessors

Electronics
- Addressing, special functions setting, manual control via control panel with 4-digit LED display
- Built-in analyzer for easy fault finding, error messages
- Bilt-in demo sequences
- Black-out while head moving
- Silent fans cooling
- Digital serial input DMX-512
- Master/slave operation
- DMX-control via every standard DMX controller
- control channels: 8 or 14

Pan/Tilt
- Pan movement range 530°
- Tilt movement range 280°
- 8/16 bit movement resolution
- Automatic pan/tilt position correction
- Remotely controllable speed of pan/tilt movement for easy programming

Rigging
-Ceiling box for 600x600 or 625x625 mm grid mounting or version for plaster-boards
-Integral attachment points for wire hangers or all-thread support

Data input/output
- 3-pin XLR male socket for DMX data input
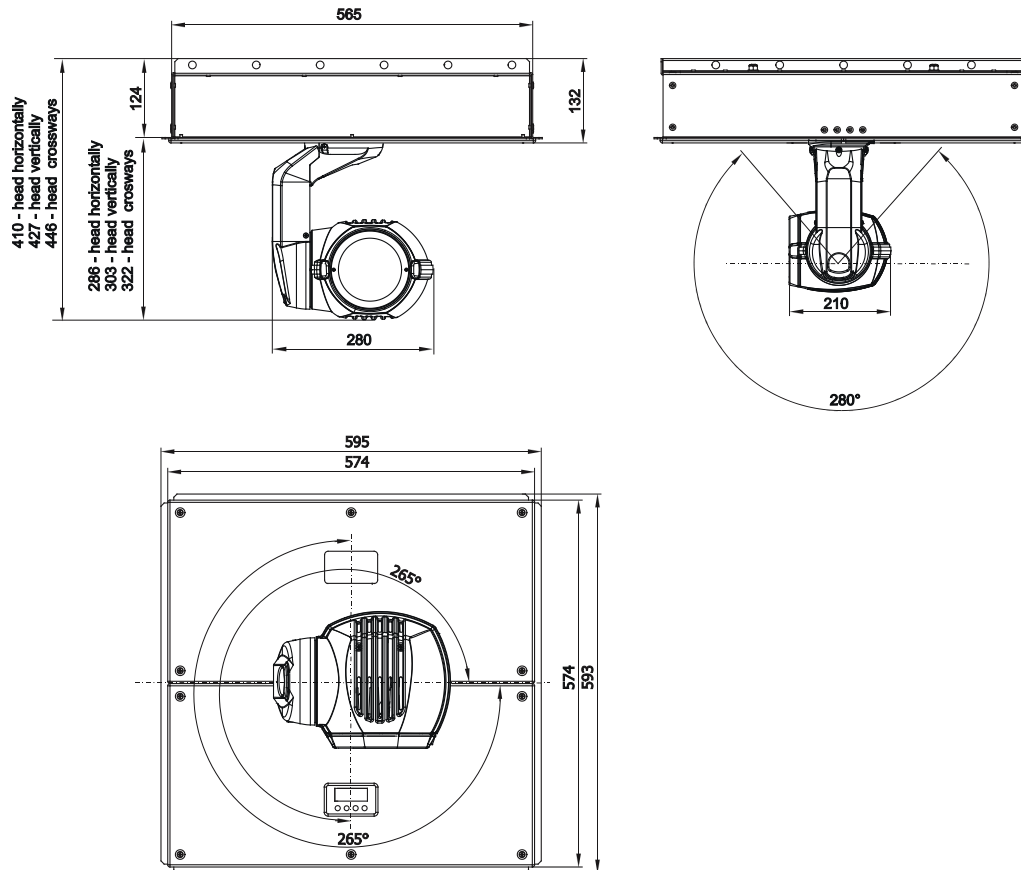- 3-pin XLR female socket for DMX data output

Temperatures
- Maximum ambient temperature: 40° C
- Maximum housing temperature: 55° C

Minimum distances
- Min. distance from ammable surfaces: 0.5 m
- Min. distance to lighted object: 0.5 m

Dimensions (mm) -version for 600x600mm mounting grid:

Weight - moving head:
8.8 kg

Weight -ceiling box:

7.0 kg

Accessories
- Frost film filter (soft)...No. 14060091
- Frost film filter (dense)..No. 14060092

Optional accessories:
- Flash cable RS232/DMX No.13050624

11. Maintenance and cleaning

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

> *DANGER !*
> *Disconnect from the mains before starting any maintenance work*

The front objective glass will require weekly cleaning as smoke- uid tends to building up residues, reducing the light-output very quickly. The cooling-fans should be cleaned monthly.

The interior of the fixture should be cleaned at least annually using a vacuum-cleaner or an air-jet.

More complicated maintenance and service operations are only to be carried out by authorized dealers.

Replacing the fuse
If the lamp burns out, the fine-wire fuse of the device might fuse, too. Only replace the fuse by a fuse of same type and rating. Before replacing the fuse, unplug mains lead.

Procedure:
1) Unscrew the fuseholder on the rear panel of the base with a fitting screwdriver from the housing (anti clockwise).
2) Remove the old fuse from the fuseholder.
3) Install the new fuse in the fuseholder.
4) Replace the fuseholder in the housing and fix it.

12. Ceiling boxes - versions and dimensions
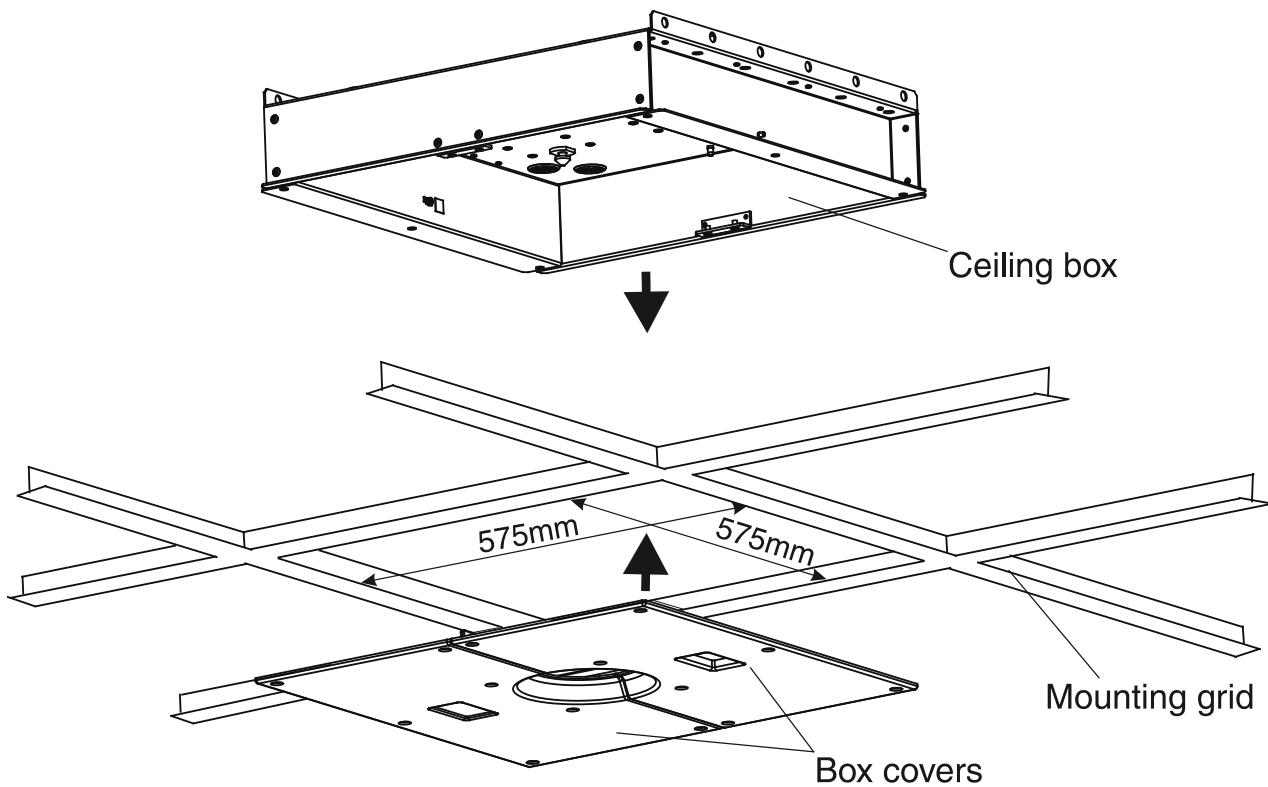
Version for 600x600mm mounting grid

Ceiling box
99010551
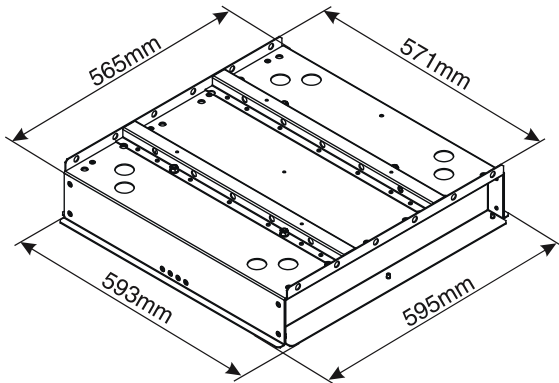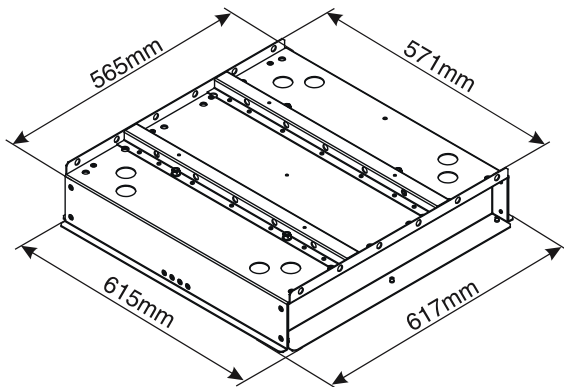
Box covers
19010084   19010083

565mm

571mm

593mm

595mm

574mm

574mm

Installation
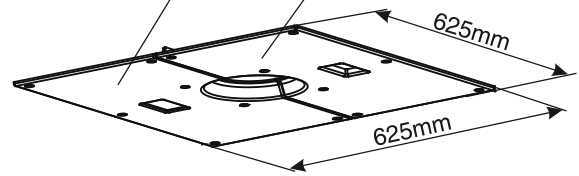
Ceiling box

575mm   575mm
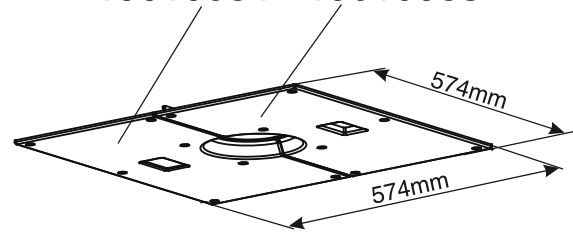
Box covers

Mounting grid

Version for 625x625mm mounting grid
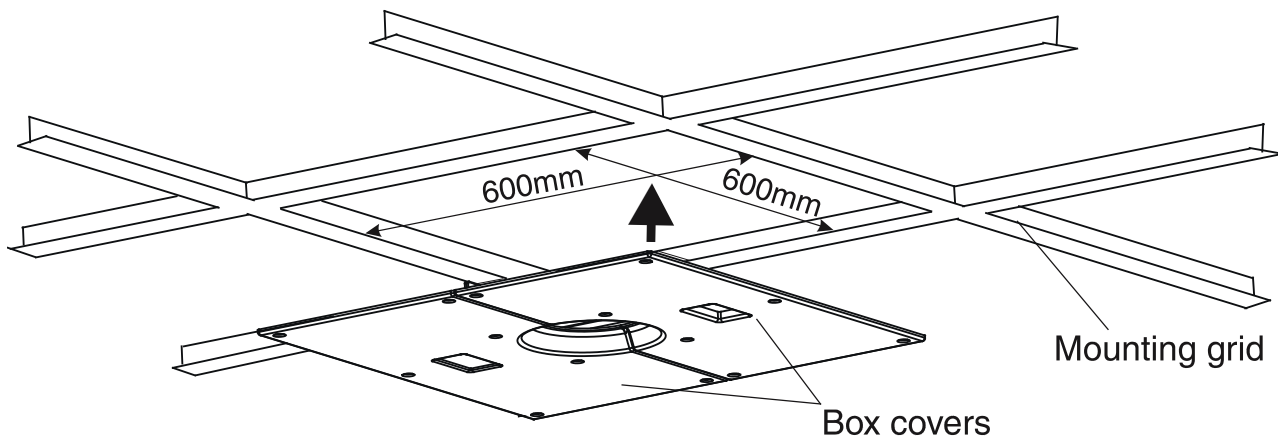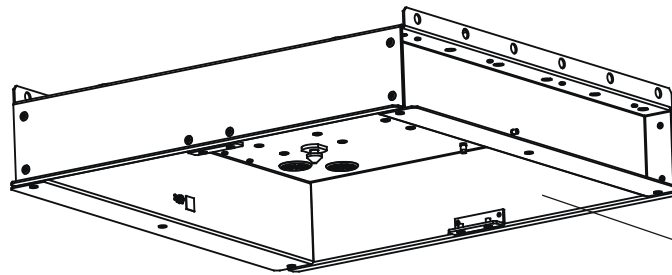
Ceiling box
99010691

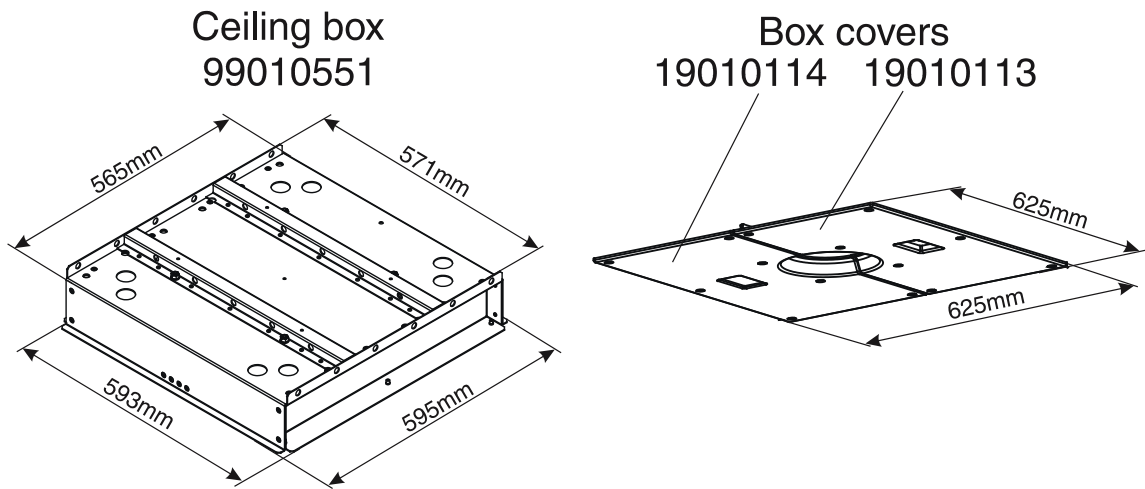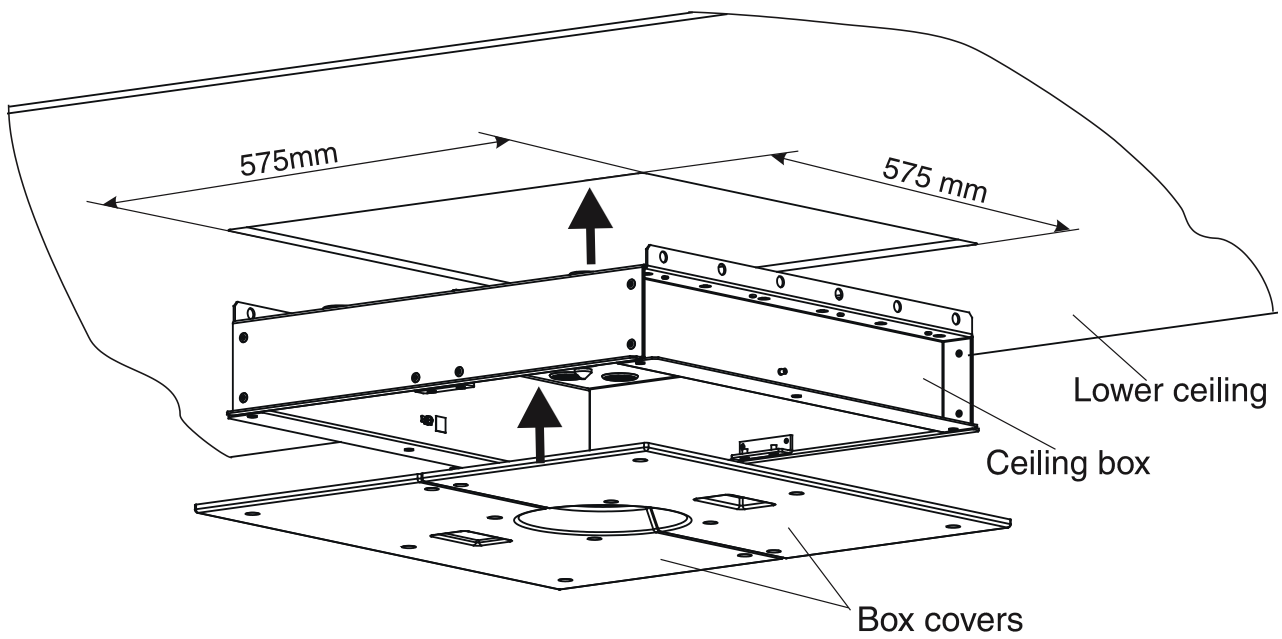Box covers
19010112   19010111

565mm

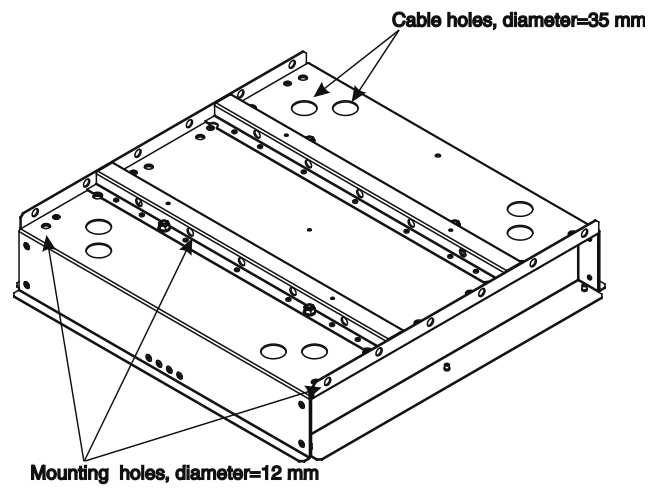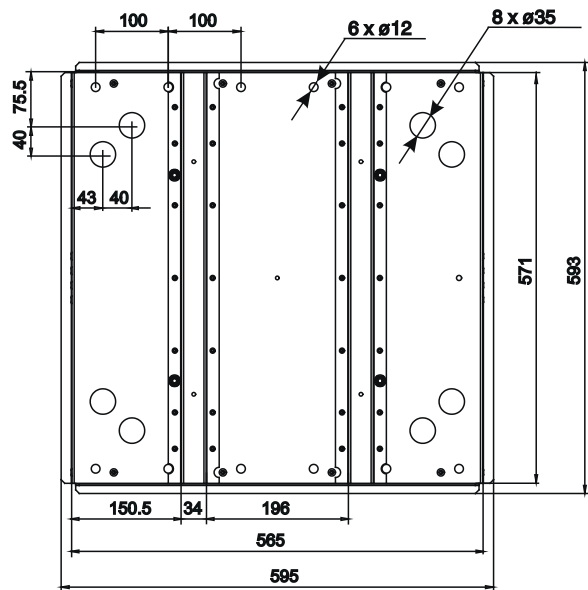571mm

625mm

615mm

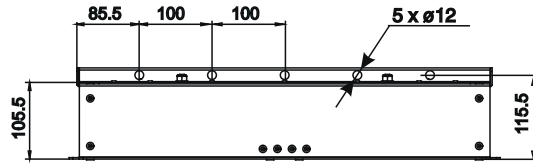617mm

625mm

Installation

Ceiling box

600mm   600mm

Mounting grid

Box covers

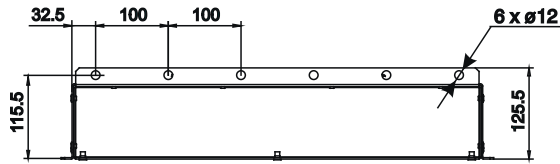# Version for lower ceiling from plaster-boards

Ceiling box
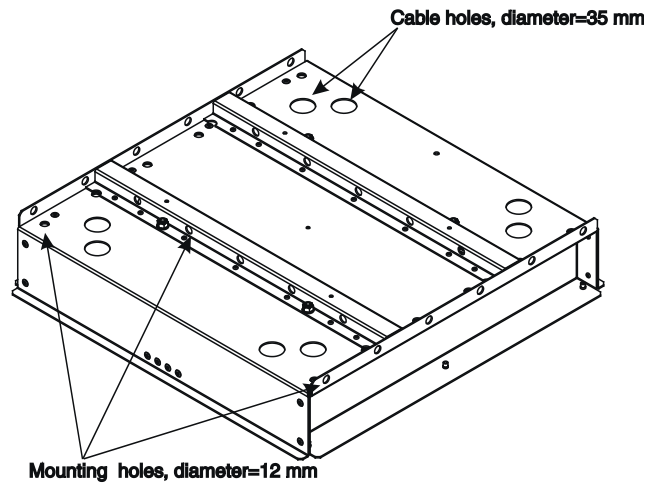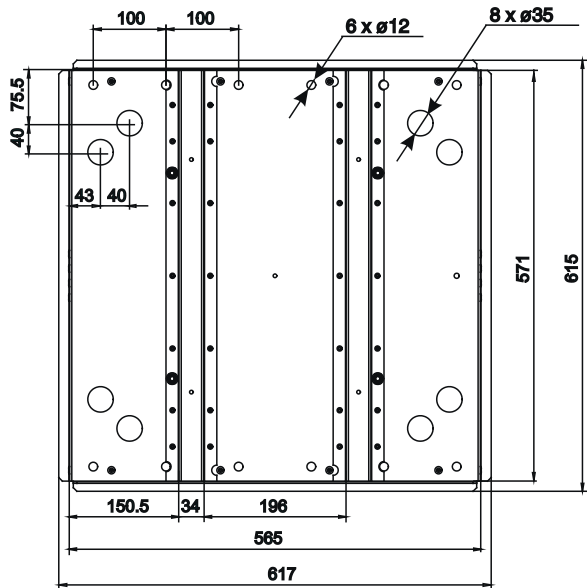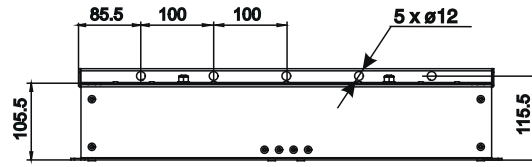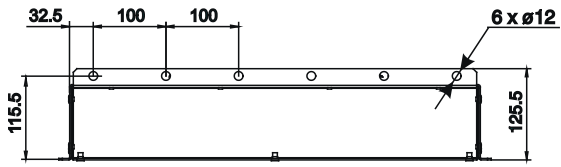99010551

Box covers
19010114   19010113

565mm

571mm

593mm

595mm

625mm

625mm

Installation

575mm

575 mm

Lower ceiling

Ceiling box

Box covers

Ceiling box No.99010551

32.5 **100** **100** **6 x ø12** **115.5** **125.5**

85.5 **100** **100** **5 x ø12** **105.5** **115.5**

100 **100** **6 x ø12** **8 x ø35** **75.5** **40** **43** **40** **571** **593** **150.5** **34** **196** **565** **595**

Cable holes, diameter=35 mm

Mounting holes, diameter=12 mm

All dimensions are in mm

Specifications are subject to change without notice.

Ceiling box No.99010691

6 x ø12

32.5 100 100

115.5 125.5

5 x ø12

85.5 100 100

105.5 115.5

100 100

6 x ø12 8 x ø35

40 75.5

43 40

571 615

150.5 34 196

565

617

Cable holes, diameter=35 mm

Mounting holes, diameter=12 mm

All dimensions are in mm