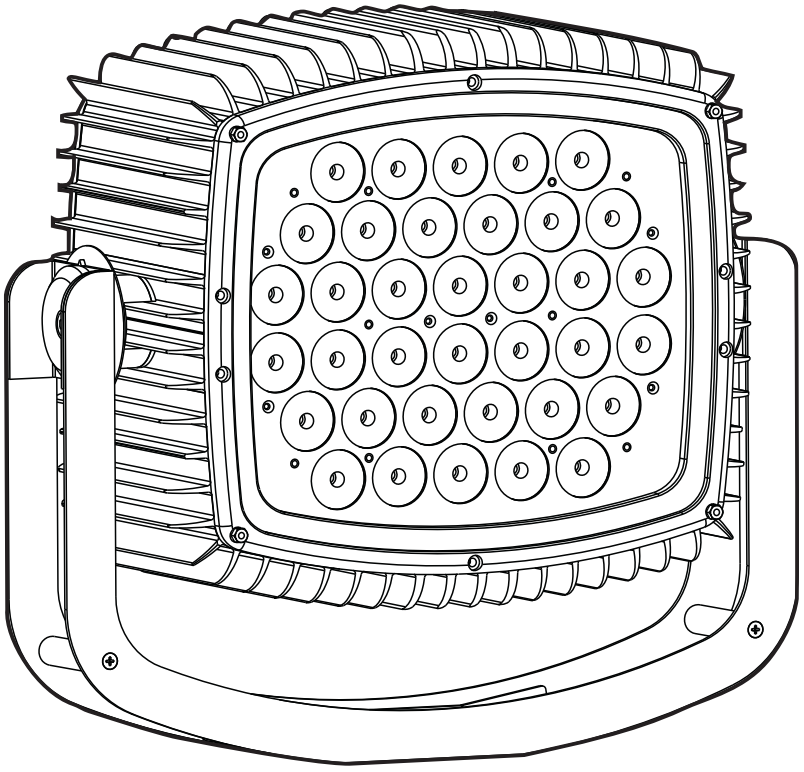
STROKER

Instructions manual



GRIVEN

world lighting challenge

1.0 Introduction

1.1 Safety information

Warning!
This unit is suitable for professional use only, not for domestic use.

1.1.1 Protecting against electric shock
- Disconnect the unit from mains supply before servicing it or performing any other action.
- Always ground/earth the unit electrically.
- Before connecting the unit to power supplies, verify that operating voltage and frequency are compatible.
- Do not handle the unit with wet hands or in the presence of water.
- Check regularly that the power supply cable is not damaged or crushed.
- Apply to a qualified technician for any regular maintenance action not described in this manual.

1.1.2 Installation
- Fix the unit with screws, hooks or any other support able to bear the weight of the unit itself.
- If the unit is fixed onto a suspended structure, this structure is supposed to bear at least ten times the weight of all devices to be fixed.
- Use a secondary fixing tool, as prescribed by in force rules.
- The unit installation actions must be performed by a qualified staff.

1.1.3 Protection against burns and fire
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Suitable to be installed onto normally inflammable surfaces.
- The unit is not to be installed in places where the ambient temperature exceeds 40° (104°F).

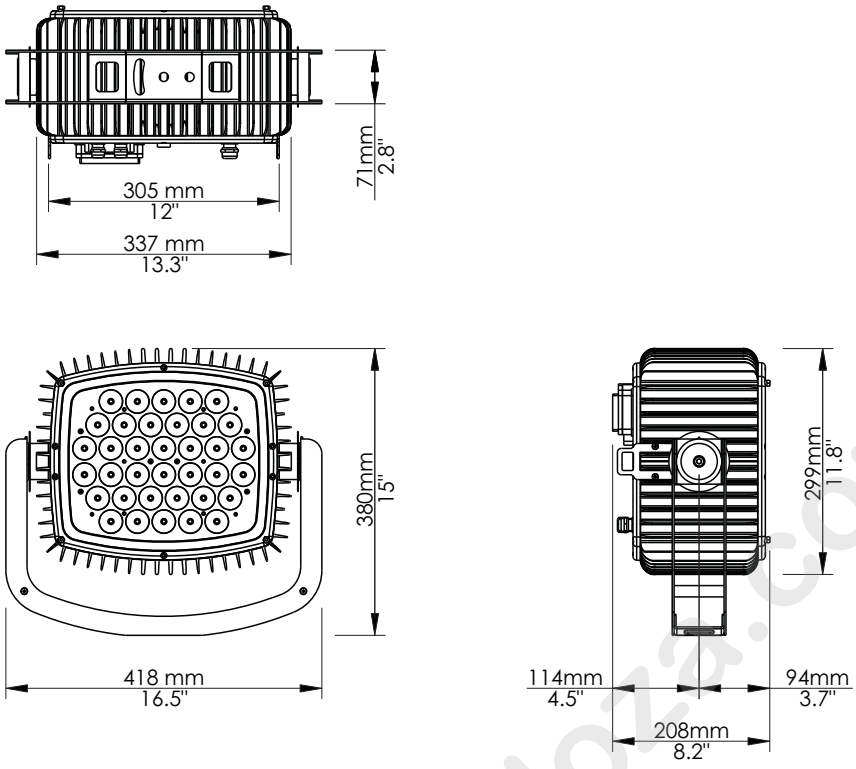
1.1.4 Weather protection
The unit is classified as device with an IP65 weather protection rate.

1.2 Warranty conditions
- Each product manufactured by GRIVEN srl of Italy is assembled and built in accordance to current CE conformity rules and regulations.
- Every single product and component has been tested before the final assembling and all products must pass the in-house quality control before they are shipped.
- GRIVEN srl of Italy guarantees the good quality and manufacture of the products and undertakes to repair or supply again, according to his opinion and free of charge, within the shortest time possible, any part that shows - during the guarantee period - defects of constructions, manufacture or material.
- The guarantee is valid for 12 (twelve) months starting from the delivery date of the products.
- GRIVEN srl of Italy does not respond for damages occurred to the units during transport and for irrational use and inaccuracy in regular maintenance of the products.
- The guarantee excludes all consumables.
- The customer will take care of the return of the faulty parts to GRIVEN srl of Italy, at his own charge and risk.
- The parts which have been repaired or replaced are sent by GRIVEN srl of Italy ex-factory.
- For any dispute, the Court of Mantova (Italy) will be competent and in conformity with relevant jurisdiction the Italian Law is enforced for any controversy.

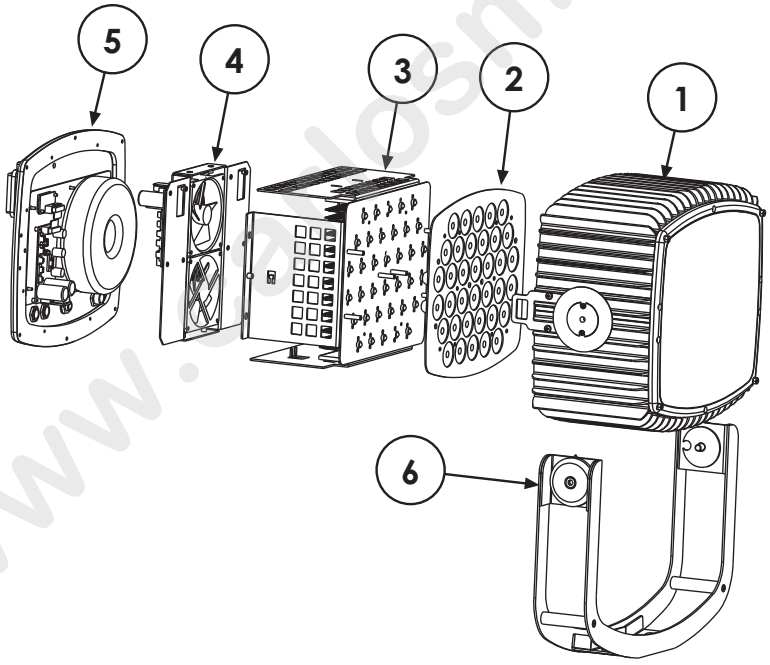
1.3 Compliance

- Product in compliance with EN60598-1 EN60598-2-17.
- Product in compliance with 2002/95/CE (RoHS).

2.0 Size



3.0 Components of the unit

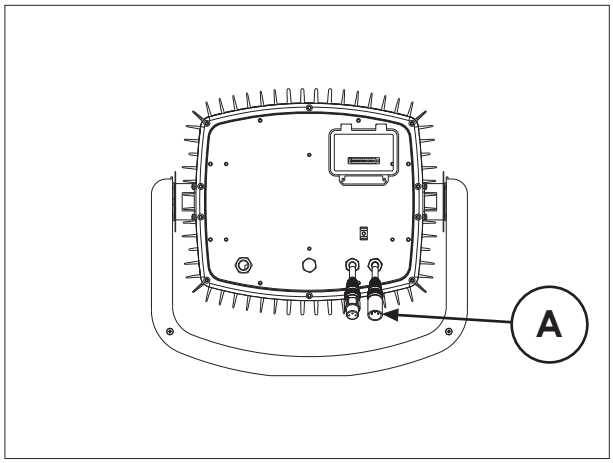


Components description:
1. Body
2. Lens group
3. Led group
4. Fan group
5. Rear panel
6. Bracket

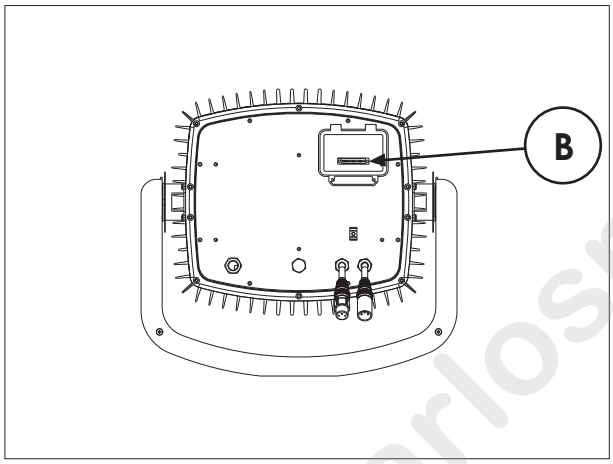
4.0 Quick turn on

In this chapter brief essential instructions for an immediate use of the unit are listed. These instructions are necessary to connect and power up the unit, but they will not describe in complete details the functions of the unit itself. All other chapters in this manual are therefore supposed to be read, in order to learn all pieces of necessary information relevant to the unit.

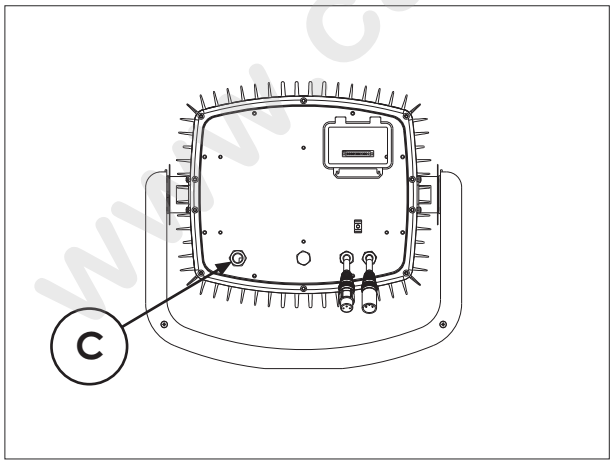
1. Open the box and check the content.
2. Install the unit.



3. Connect the DMX signal by using connectors **"A"** in the rear panel of the unit.
Use the XLR3 connectors supplied together with the unit, in order to preserve the IP65 protection rate.



4. Adjust the DMX address and the operating mode by using the dip-switch set **"B"** in the rear panel of the unit.



5. Power up the unit by using the cable **"C"** in the rear panel.

5.0 Packaging and transport

5.1 Packaging

Check carefully the content of the box and, in case of damage, contact your forwarder immediately. The following items are included in the box of this unit:

n° 1 **STROKER** unit
n° 1 owner's manual
n° 2 DMX connectors XLR3 IP65

Warning!

- **Griven S.r.l. liability will cease upon consignment of goods to the forwarder: claims for damage due to transport must be addressed directly to the forwarder.**
- **Griven S.r.l. will accept claims for broken or missing goods only within seven days of receipt of the goods.**
- **Returns of equipment will not be accepted without prior authorization granted by Griven S.r.l. and if not duly accompanied by relevant shipping documents.**

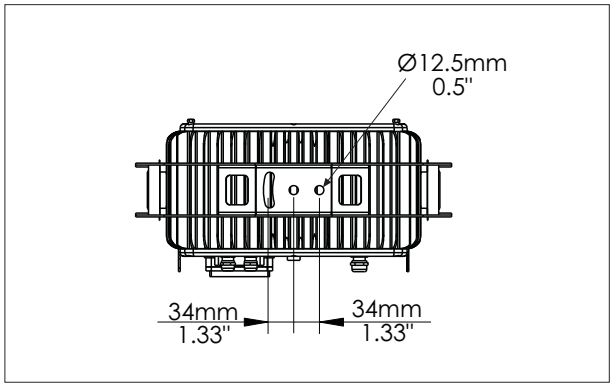
5.2 Transport

The carton box has not been designed to be used more than once, therefore, it is recommended to use one of our flight cases to transport the unit.

6.0 Installation

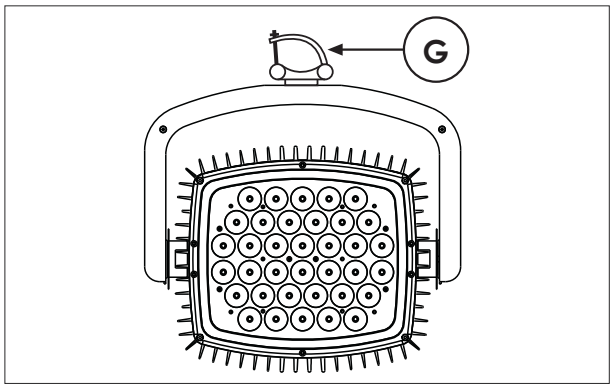
6.1 Fixing

The unit can be used both rested on floor and fixed onto a structure. The unit can operate in any position.



6.1.1 Fixed Installation

Use the three holes Ø12.5 (1/2") in the bracket to fix the unit.



6.1.2 Installation onto a mobile structure (truss)

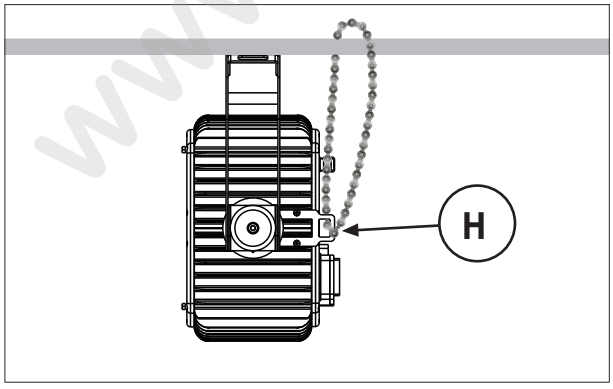
To fix the unit onto a supporting structure or truss, it is suggested to use hooks **"G"** type "Aliscaff". The hooks are to be fitted to the unit through the holes in the bracket, as shown in the picture.

Warning!

Check that the fixing hook is not damaged
and is able to bear at least 10 times the weight of the unit.
Check that the structure can bear at least 10 times the weight of
the unit, the hooks, the additional equipments, etc.
If the unit must be raised, block out the access under the working area.
Operate in safe conditions on a stable platform.

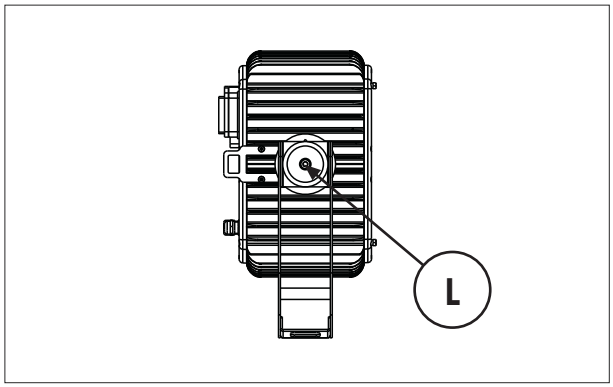
6.2 Safety chain

If hooking **STROKER** up to a truss or a supporting structure, a safety chain must be installed. This safety chain must be able to bear at least 10 times the weight of the unit, as prescribed by in force rules.

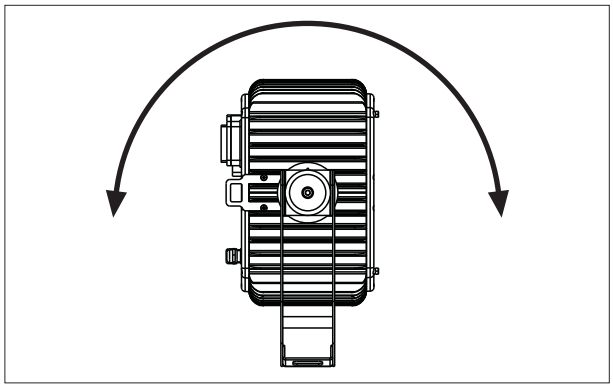


Hook the safety chain **"H"** as shown in the picture.

6.3 Adjusting light beam direction



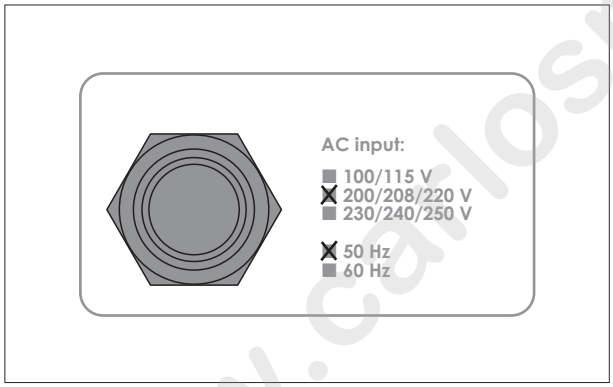
1. Untighten the lateral screw **"L"**, rotate the body of the unit towards desired direction and tighten the knobs.



2. Rotate the body of the unit towards desired direction and tighten the screw **"L"**.

6.4 Connection to mains power

The unit can operate with voltage from 100 to 115Vac and from 200 to 250Vac and with frequency of 50 and 60Hz, according to the preset by Griven.

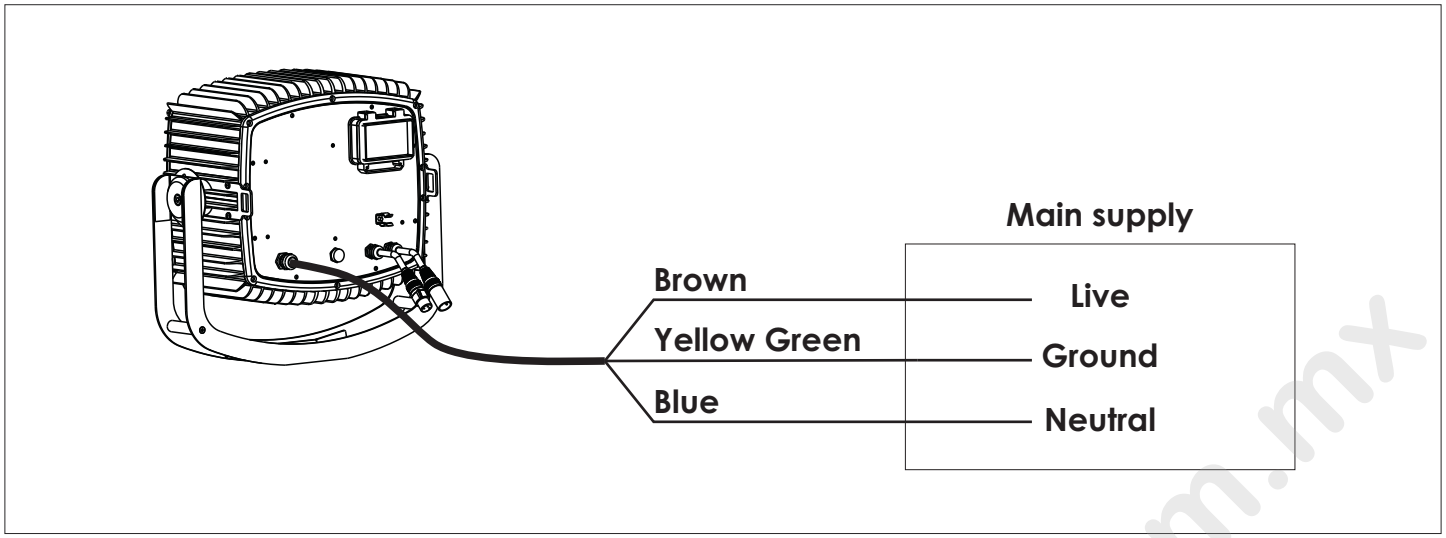


Refer to the serigraphy onto the rear side of the unit to check the preset.

Warning!

- **Before connecting the unit, verify that power supplies features are compatible with the unit features.**
- **The unit must never be installed if not grounded electrically.**
- **It is suggested to use a magnetothermic switch along the power supply line, as prescribed by in force rules.**
- **The unit must not be powered up through a dimmer power device.**
- **Wiring and connection actions are to be performed by a qualified staff.**

For the connection use main cable on the rear panel of the fixture and connect as shown below.

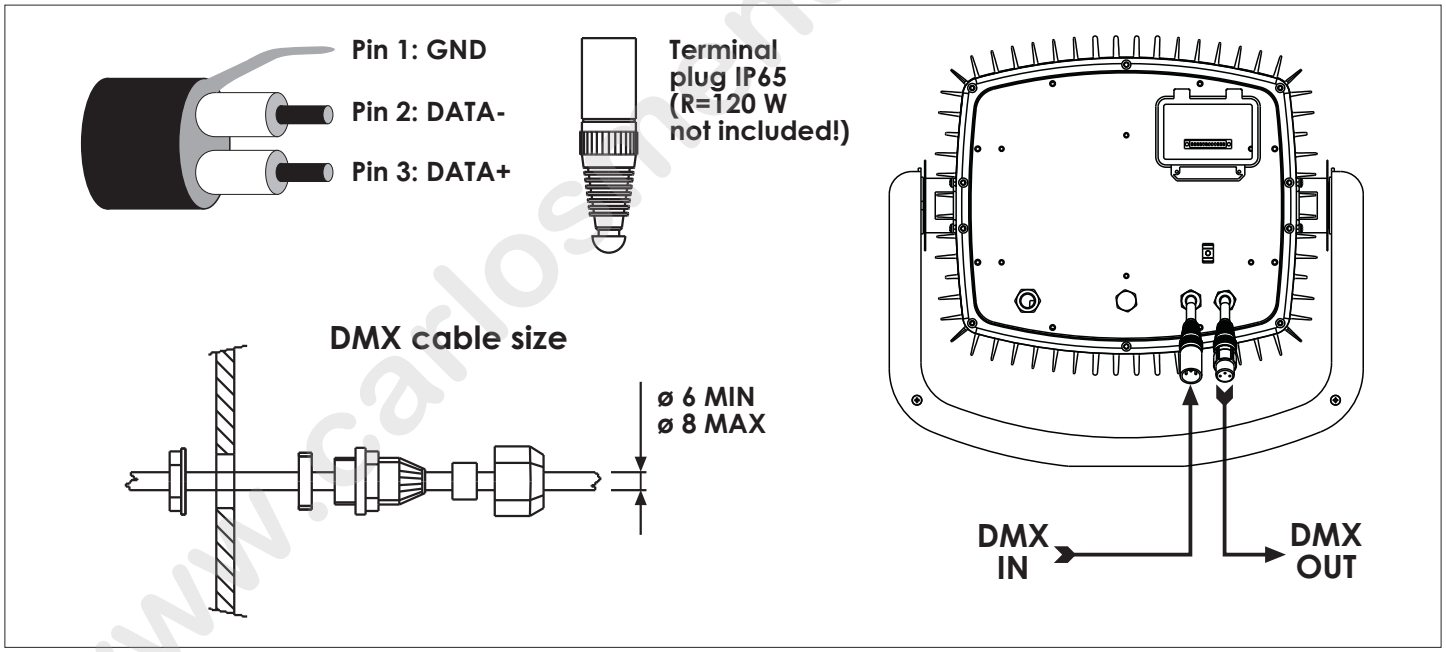


6.5 Connection to DMX signal

The unit is fitted with sockets XLR3 IP65 for DMX input and output. These sockets are located in the rear side of the unit. The DMX signal is to be connected by using a shielded cable designed for devices RS-485.

The signal cable must be connected according to the following table:
pin 1 = GND
pin 2 = data -
pin 3 = data +

For DMX devices with 5 poles connectors, pins 4 and 5 are not to be connected.

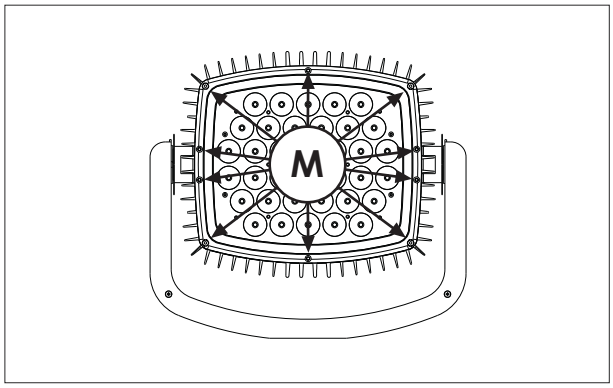


Warning!

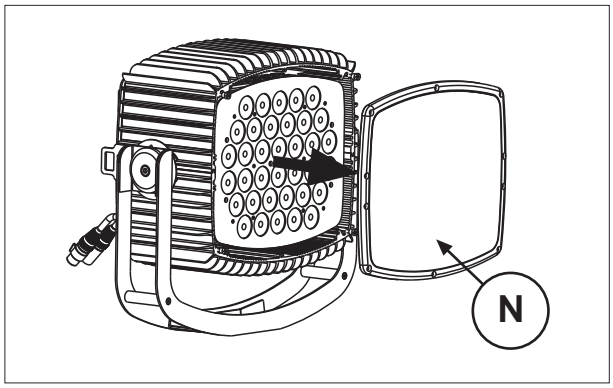
A standard microphone cable cannot transmit safely the control data.
All data wires must be isolated one from another, from the shield and from the metal housing of the connectors.
Pin number 1 of the housing is not to be connected to the electric ground of the unit.
Insert a terminal plug with a 120 Ω resistor connected to pins 2 and 3 in the last unit.
To connect the DMX signal or the line terminal plug, EXCLUSIVELY the XLR3 IP65 connectors enclosed to this manual are to be used, in order to preserve the IP65 weather protection rate.

6.6 Replacing the optic groups

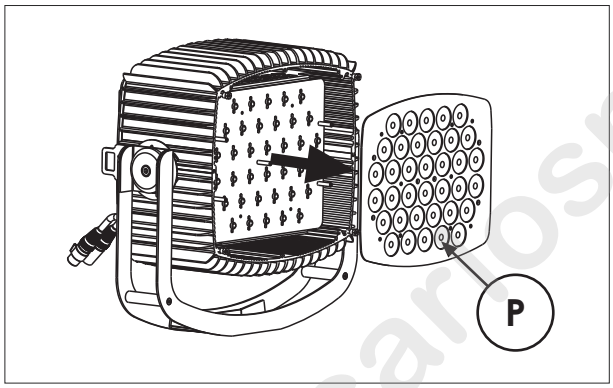
The unit can be fitted with different optic groups according to application requirements.
The standard optics is 12°, but 22° and 34° optics are available on request.
Necessary actions to replace the optic groups are shown in the following pictures:



1. Untighten the 10 front screws **"M"**.



2. Remove the front panel **"N"**.



3. Untighten the 6 screws and replace the lens group **"P".**

4. Close the unit again.

Warning!
Make sure that the front panel gasket is properly positioned in order to avoid water infiltrations into the unit.

6.7 Powering up the unit

Once performed all actions described in the previous paragraphs, you can proceed and power up the unit.
The green led next to the dip switch panel will turn on.
In the presence of DMX signal, the red led will remain constantly on, in the absence of DMX signal the yellow led will remain off, while in Master mode the red led will flash.

7.0 Use of the unit

7.1 Setting operating mode

By the dip-switch set it is possible to select one of the following operating modes:

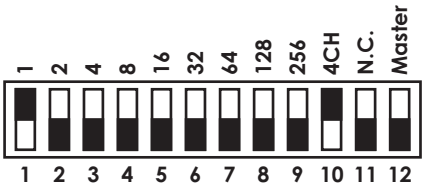
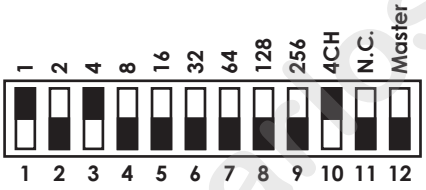
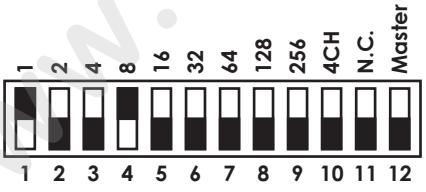
- **using DMX512 signal control mode**
  Each fixture is controlled from DMX512 signal control.
- **MASTER-SLAVE or AUTOMATIC mode**
  The projector operates independently, without DMX512 signal control.

7.2 Setting DMX address

The number of DMX channels used by the unit to operate will depend from value of dip-switch n°10, that active the function **4CH**.

- **Dip-switch 10 = OFF (function 4CH not active)**
  Each unit will use **6** DMX channels.
- **Dip-switch 10 = ON (function 4CH active)**
  Each unit will use **4** DMX channels.

In case of more units operating in normal mode (**4CH = OFF**), the first unit will be set with address 001, the second unit with address 007, the third unit with address 013, etc.
In case of more units operating in **4CH** mode, the first unit will be set with address 001, the second unit with address 005, the third unit with address 009, etc.
The number of the DMX address is to be calculated by summing the values corresponding to the activated dip-switches, which are written in the upper side of the dip-switch set (1, 2, 4, 8, 16, etc.).

	Example Unit n°1 with address 001 (dip-switch n°1 = ON) and 4CH function actived
	Example Unit n°2 with address 005 (dip-switch n°1 and 3 = ON) and 4CH function actived
	Example Unit n°3 with address 009 (dip-switch n°1 and 4 = ON) and 4CH function not actived

7.3 DMX functions

7.3.1 DMX functions in 4CH mode

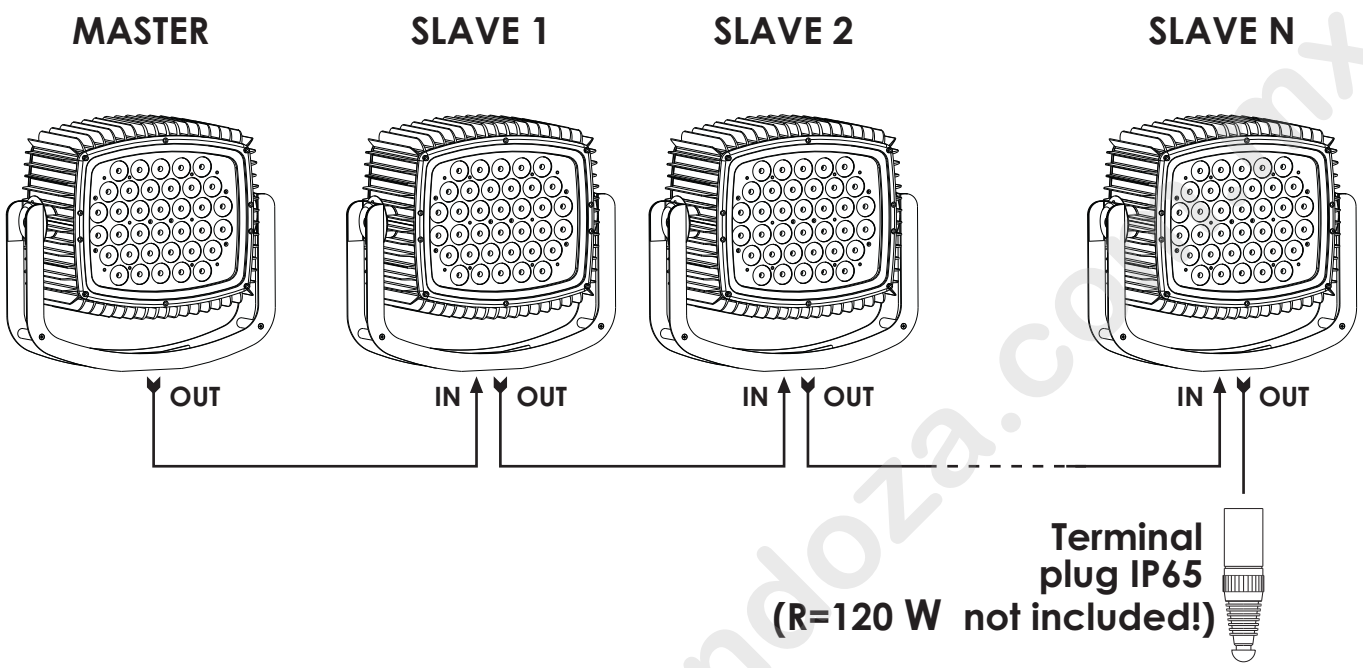
Channel	Function	Value	Description
1	Red	0-255	Proportional control 0-100% of the Red color
2	Green	0-255	Proportional control 0-100% of the Green color
3	Blue	0-255	Proportional control 0-100% of the Blue color
4	Strobe	0-15	Luminous output intensity 100%
		16-255	Proportional control of the strobe effect 0-100%

7.3.2 DMX functions in normal mode

Channel	Function	Value	Description
1	Red	0-255	Proportional control 0-100% of the Red color
2	Green	0-255	Proportional control 0-100% of the Green color
3	Blue	0-255	Proportional control 0-100% of the Blue color
4	Strobe	0-15	Luminous output intensity 100%
		16-255	Proportional control of the strobe effect 0-100%
5	Dimmer	0-255	Proportional control of the dimmer 0-100%
6	Preset Colours	0-255	62 preset colours + White (255)

8.0 Master-Slave and Automatic function

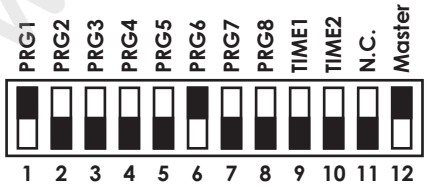
Stroker can operate without DMX signal (in AUTOMATIC mode) and can be set so that a single MASTER unit will command a series of SLAVE units. This function is particularly useful when more units are desired to execute the same programme in synchrony.
The following picture shows an example of a Master-Slave layout.



8.1 MASTER configuration

8.1.1 Execution of preset programmes
To execute a preset programme set the dip-switch Master to ON and choose the type of programme to be executed. **If the unit is properly set up as Master, the red led next to the dip-switch panel will flash.**

The following pictures show some examples of MASTER units configuration.

	Unit set as Master (Master = ON) program 1 running (PRG1= ON)
	Unit set as Master (Master = ON) program 1 and 6 running (PRG1 and PRG6 = ON)

Warning!
It is possible to select more programmes which will be executed in sequence.
If MASTER-SLAVE mode is being used, no other DMX control device must be present along the line!!

The following table shows the light output colour effect according to the programme.

Program N°	Effect
1	Red - Magenta - Yellow
2	Red - Magenta - Yellow - White
3	Green - Cyan - Yellow
4	Green - Cyan - Yellow - White
5	Blue - Cyan - Magenta
6	Blue - Cyan - Magenta - White
7	Base colours
8	Base colours - White

It possible to adjust the length of the programmes by using the dip-switches Time1 and Time2.
According to the combination of the two dip-switches, the length of each colour scene can range from 5 to 40 seconds, as shown in the following table.

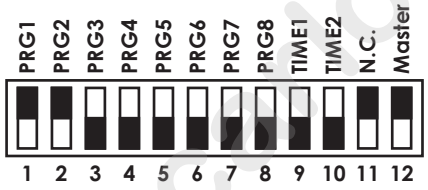
Time1	Time2	Wait time (second)
OFF	OFF	5
ON	OFF	10
OFF	ON	20
ON	ON	40

8.1.2 Projection of fixed colours
To project fixed colours set the dip-switches 11 and 12 to ON and choose the type of colour by using the dip-switches 1, 2 and 3 according to the following table.

Switch	Colour
1	Red
2	Green
3	Blue

It is possible to select more than one colour per time.
All the selected colours will be projected.

The following picture shows an example of configuration of units MASTER with fixed colours.

	Unit set as Master (Master = ON) with fixed colurs actived (dip-switch 11 and 12 = ON) Red and green led are lighted (dip-switch 1 e 2 = ON)

8.2 SLAVE configuration

To set up the unit as SLAVE adjust all the dip-switches to OFF.
If the unit is properly set up as SLAVE and the signal is present, the red led next to the dip-switch panel will constantly remain on.

The following picture shows an example of configuration of SLAVE units.

	Slave unit (All witch = OFF)

8.3 AUTOMATIC configuration

To set up the unit as AUTOMATIC the same instructions for the set up as MASTER must be followed (see paragraph 8.1 MASTER configuration). Adjust the dip-switch Master to ON and choose the programme to be executed.
If the unit is properly set up as Automatic, the red led next to the dip-switch panel will flash.

Warning!
If the DMX connectors in the rear panel of the unit are not used,
they are to be connected one with each other, in order to preserve the IP65 protection rate.

9.0 Thermal protection

An internal temperature sensor prevents the unit from overheating. The temperature sensor will limit the current to leds, protecting their integrity, if the ambient temperature exceeds the one allowed.

10.0 Maintenance

Attention!
Always remove mains power prior to opening up the fixture.

To ensure maximum functionality and light output it is recommended to follow these instructions:

10.1 Cleaning the unit

The unit must be cleaned regularly. Cleaning regularity will depend especially on the environment where the unit will operate: deposits of dust, smokes or other wastes will reduce the light output performances.
- Clean regularly the glass of the unit.
- Be careful when cleaning the components. Operate in a clean, properly illuminated environment.
- Do not use solvents which could damage painted surfaces.
- Remove left particles by a cotton towel dampened with a glass-cleaning liquid or distilled water.
- Remove smoke and other wastes by a cotton towel dampened with isopropyl alcohol.
- Dry out by a clean, soft, non-scratching towel or by compressed air.

10.2 Regular checks

- Check electrical connections, especially the ground wiring and the power supply cable.
- Check that the unit is not damaged mechanically. Replace those components which have got deteriorated.

11.0 Spare parts

All components of the unit are available as spare parts at **Griven** dealers.
Exploded views, wiring diagrams, electronic layouts and advertising brochures are available on request.
To make the job of assistance centres easier, specify serial number and model of the unit which spare parts are requested for.

12.0 Troubleshooting

Inconvenience	Possibile Cause	Action
The led next to the dip-switch set will not turn on.	Unit not powered up.	Check that the power supply cable is connected and the unit is powered.
	Out of order PCB	Check the PCB functions.
The unit does not respond properly to the DMX control.	Incorrect DMX cable connection.	Check connections and wires. Rectify inefficient connections. Repair or replace damaged wires.
	Unfinished data connection.	Insert a terminal plug in the output jack of the last unit of the connection.
	Incorrect address assignment to the units.	Check the addresses of the units and the protocol settings.
	One of the unit is faulty and it is affecting the data transmission along the connection.	Short-circuit units singularly, one by one, since regular working is restored.
The unit is set to Master or Automatic, but is not running any programs.	In addition to setting the Master dip-switch to ON, it is necessary to also select a program number.	Select a program number.
The unit is set to Slave, but does not respond properly to the Master.	There more than a unit is set to Master.	Check that amongst the interconnected fixtures, only one has been set to Master.
	Conflict in signals.	Ensure that there is no incoming DMX signal.

13.0 Disposal

The European Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE), requires that old lighting fixtures must not be disposed of the normal unsorted municipal waste stream. Old appliances must be collected separately in order to optimise the recovery and recycling of the materials they contain and reduce the impact on human health and the environment.

The crossed out "wheeled bin" symbol on the product reminds you of your obligation, that when you dispose of the appliance it the must be separately collected.

Consumer should contact their local authority or retailer for information concerning the correct disposal of their old appliance.

14.0 Technical specifications

Mechanical features

Height . . . . . .380mm (15")
Width . . . . . .418mm (16.5")
Depth . . . . . .208mm (8.2")
Weight 15.6Kg (34.2Lbs)

Thermal features

Maximum ambient temperature . . . . . .40°C (104°F)
Maximum surface temperature . . . . . <60°C (<140°F)

Electrical features

Voltage . . . . . .100-115 Vac / 200-250 Vac 50/60Hz
Nominal current . . . . . 1.2A @ 230V
Maximum power 150W
Thermal protection . . . . . Electronic

Light output source

Type of light output source . . . . . 36 Leds RGB x 3W

Optics

Optical system . . . . . Lenses
Available optics . . . . . 10° cod.AL1600-AL1630 / 22° cod.AL1602-AL1632 / 34° cod.AL1604-AL1634

Control

Protocol . . . . . USITT DMX-512
Control channel . . . . . 4 channels in 4CH mode / 6 channels in normal mode

Construction

Unit body . . . . . Iron/Aluminium
Treatment . . . . . Scratch resistant black paint
Weather protection rate IP65

GRIVEN
world lighting challenge

Via Bulgaria, 16 - 46042 CASTEL GOFFREDO (MN) - Italy
Telefono 0376/779483 - Fax 0376/779682 - 0376/779552
http://www.griven.com/ e-mail griven@griven.com
http://www.griven.it/ e-mail griven@griven.it

User's manual rel. 2.00