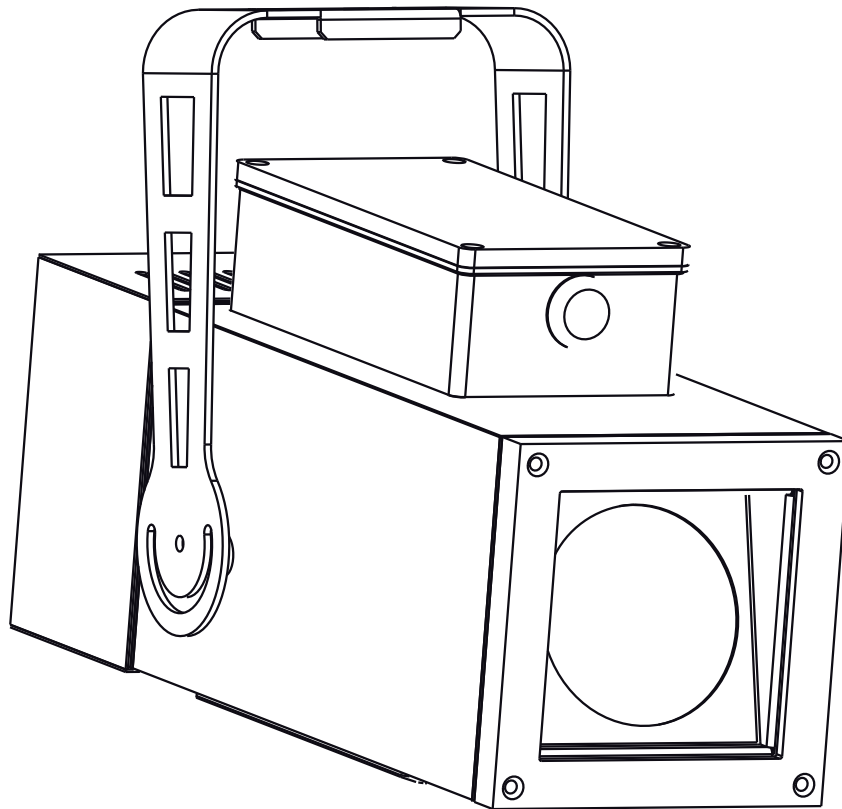


GoboLED 80 D

AL2502



Manuale di istruzioni
Instructions manual

 **GRIVEN**
world lighting challenge

INDEX

1.0 Introduction	20
1.1 Safety information	20
1.1.1 Protecting against electric shock	20
1.1.2 Installation	20
1.1.3 Protection against burns and fire	20
1.1.4 Weather protection	20
1.1.5 Forced ventilation	20
1.2 Compliance	20
2.0 Size	21
3.0 Packaging and transport	21
3.1 Packaging	21
3.2 Transport	21
4.0 Installation	22
4.1 Fixing	22
4.2 Adjusting light beam direction	22
4.3 Connection to mains power	23
4.4 Connection to DMX signal	24
4.5 Gobo installation	25
4.6 Focus and zoom	27
5.0 Use of the unit	28
5.1 Setting operating mode	28
5.2 Setting DMX address	28
5.3 DMX functions	29
5.3.1 DMX functions in CH mode = 1	29
5.3.2 DMX functions in CH mode = 2	30
5.3.3 DMX functions in CH mode = 3	30
5.3.4 DMX functions in CH mode = 4	30
6.0 Master-Slave and Automatic function	31
6.1 MASTER configuration	31
6.2 SLAVE configuration	32
6.3 AUTOMATIC configuration	32
7.0 Thermal protection	33
8.0 Maintenance	33
8.1 Cleaning the unit	33
8.1.1 Fixture body	33
8.1.2 Fans and air passages	33
8.2 Regular checks	33
9.0 Spare parts	33
10.0 Troubleshooting	34
11.0 Disposal	35
12.0 Technical specifications	35

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.
- The unit installation actions must be performed by a qualified staff.

1.1.3 Protection against burns and fire



- Suitable to be installed onto normally inflammable surfaces.
- Damaged fuses are always to be replaced with working fuses as per type and rate specified.
- 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.

The cooling system is classified as device with an IP55 weather protection rate.

1.1.5 Forced ventilation

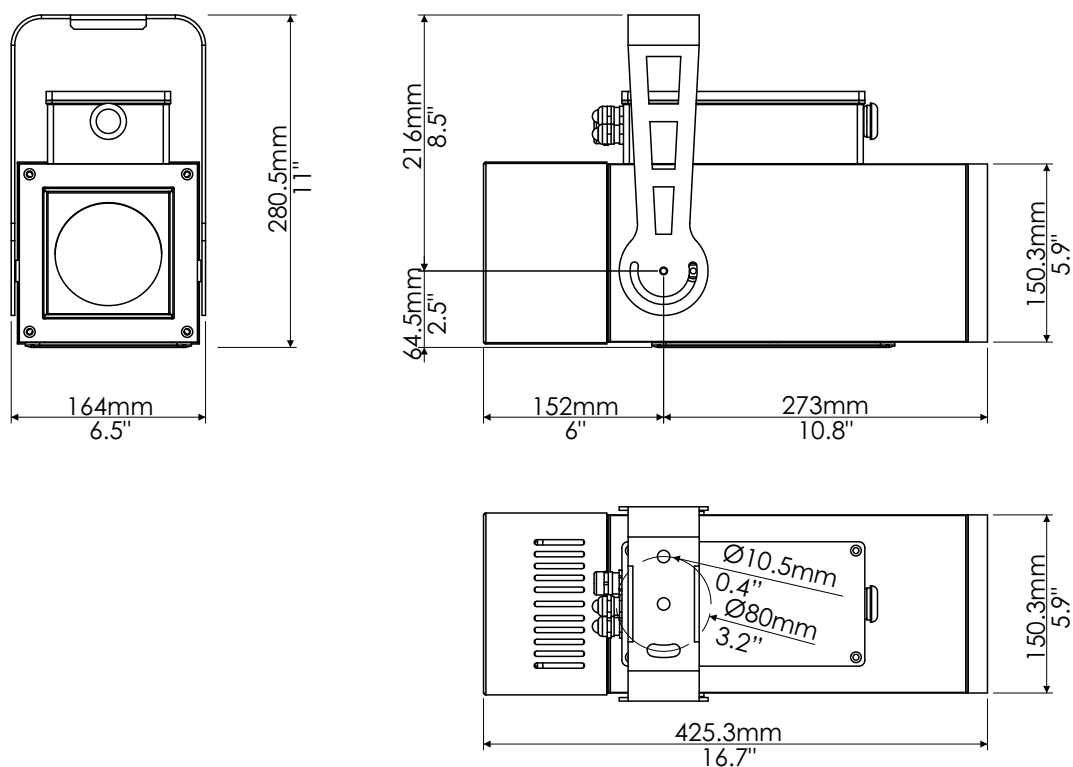
You will note several air vents on the body of the projector. To avoid any problems associated with overheating, clean air vent periodically.

1.2 Compliance



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

2.0 Size



3.0 Packaging and transport

3.1 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 **Goboled 80 D** unit
- n° 1 owner's manual

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.

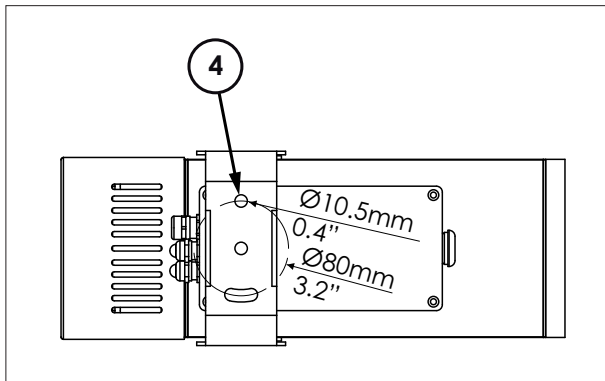
3.2 Transport

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.

4.0 Installation

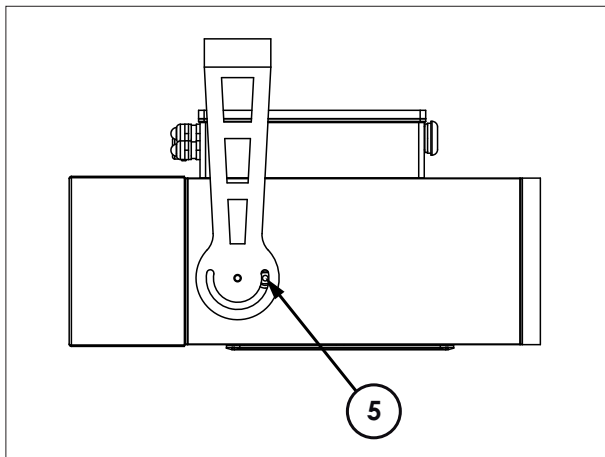
4.1 Fixing

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

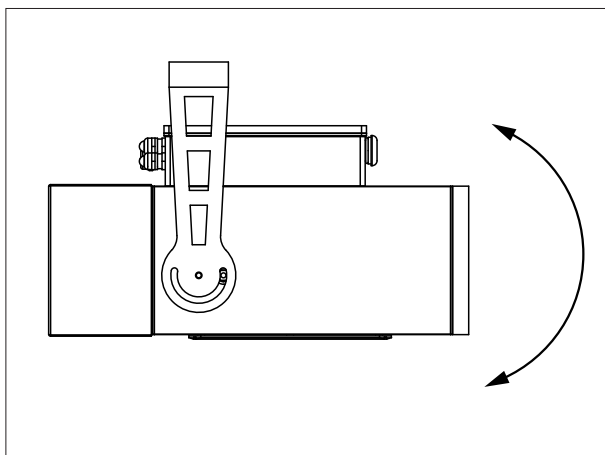


Use the holes "4" $\text{Ø}10.5$ (0.4") in the bracket to fix the unit.

4.2 Adjusting light beam direction



A. Untighten the lateral screw "5".



B. Rotate the bodies of the unit towards desired direction and tighten the screw "5".

4.3 Connection to mains power

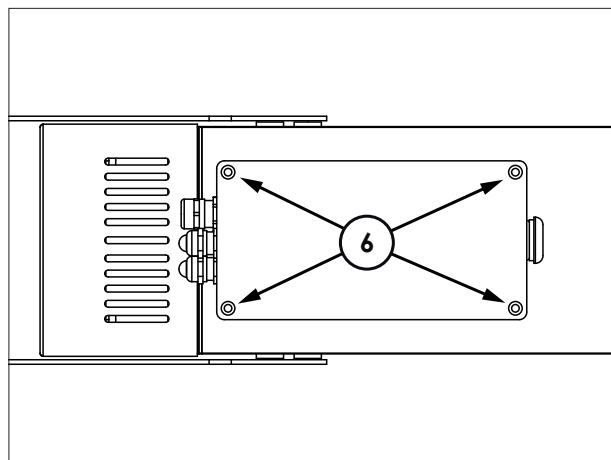
The unit can operate with voltage from 100 to 240Vac and with frequency of 50 and 60Hz.

It is not necessary to effect any setup procedures. The fixture will automatically adjust its operation to suit any frequency or voltage within this range.

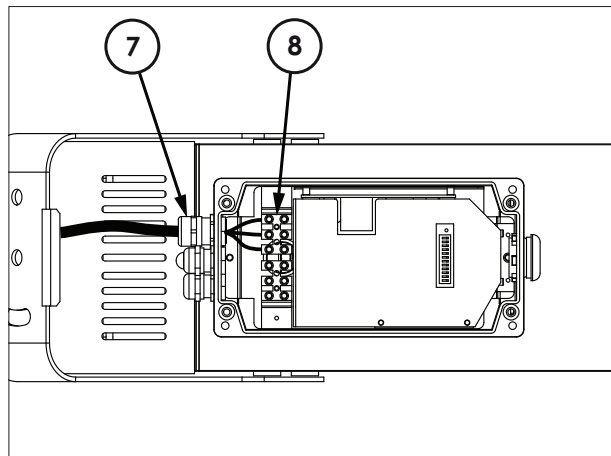
Warning!

- 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.

The unit is fitted with internal pins for the connection of the of the main cable, as shown in the following pictures.



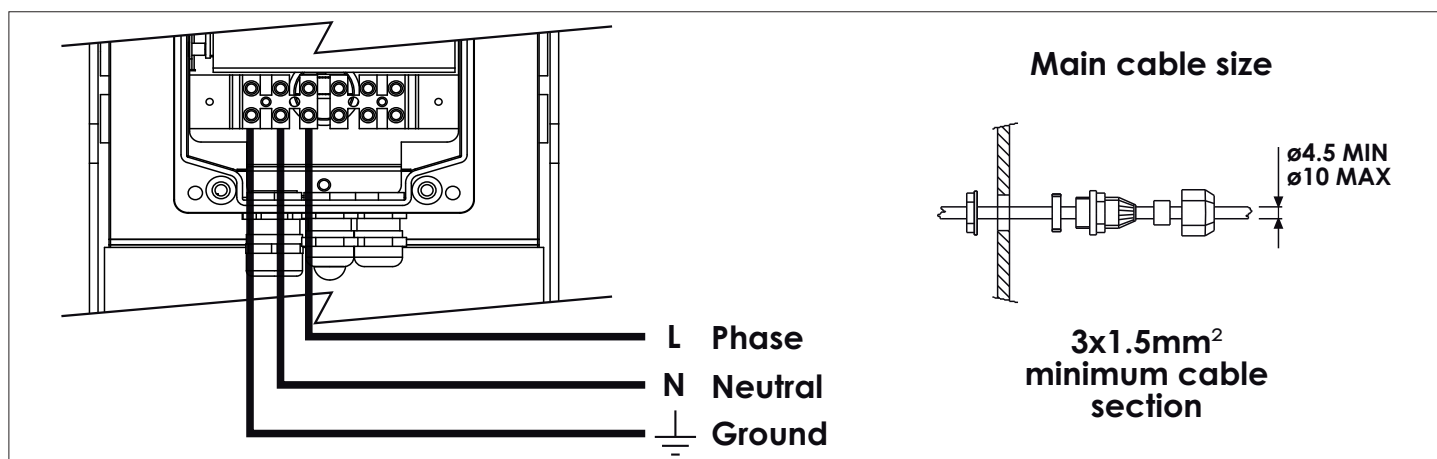
A. Untighten the screw “6” and remove the box cover.

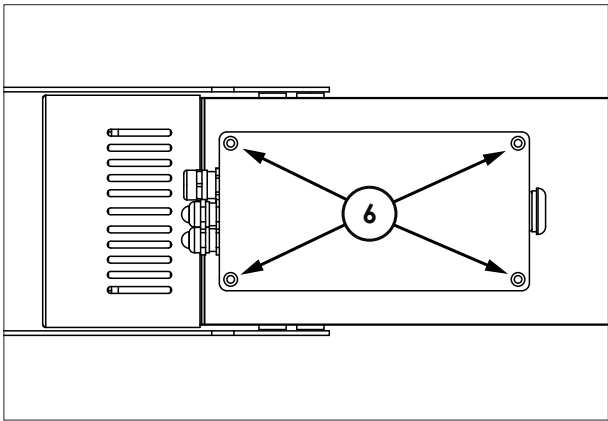


B. Let the signal cables pass through the cable glands “7” located onto the unit body and connect the main cables to the pin “8”.

The connection of the cable to the unit must be performed respecting the label next to the terminal box.

Size and connection scheme of the main cable are shown in the following picture.

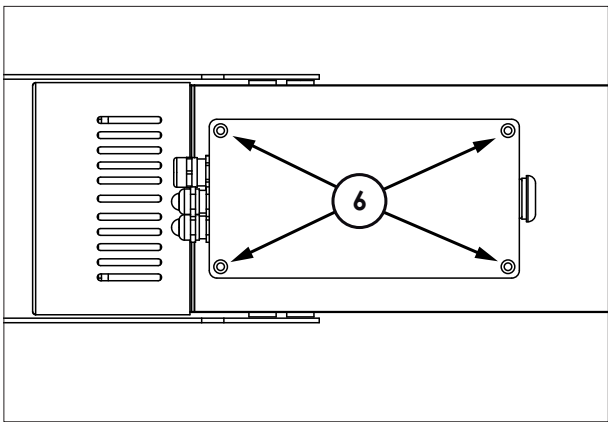




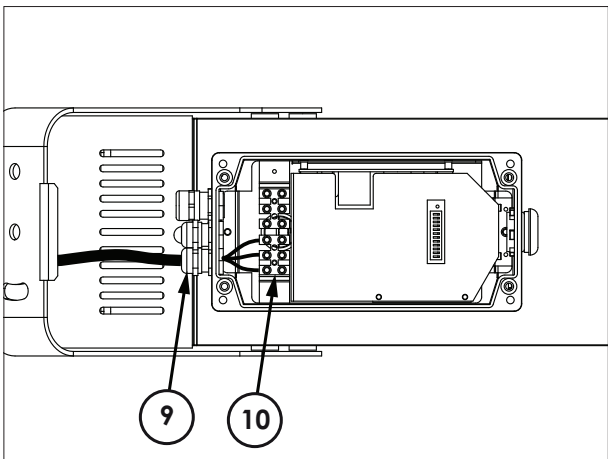
C. Close the unit again by tighten the screw "6" previously removed.

4.4 Connection to DMX signal

The DMX signal is to be connected by using a shielded cable designed for devices RS-485. The unit is fitted with internal pins for the connection of the of the DMX signal cable, as shown in the following pictures.



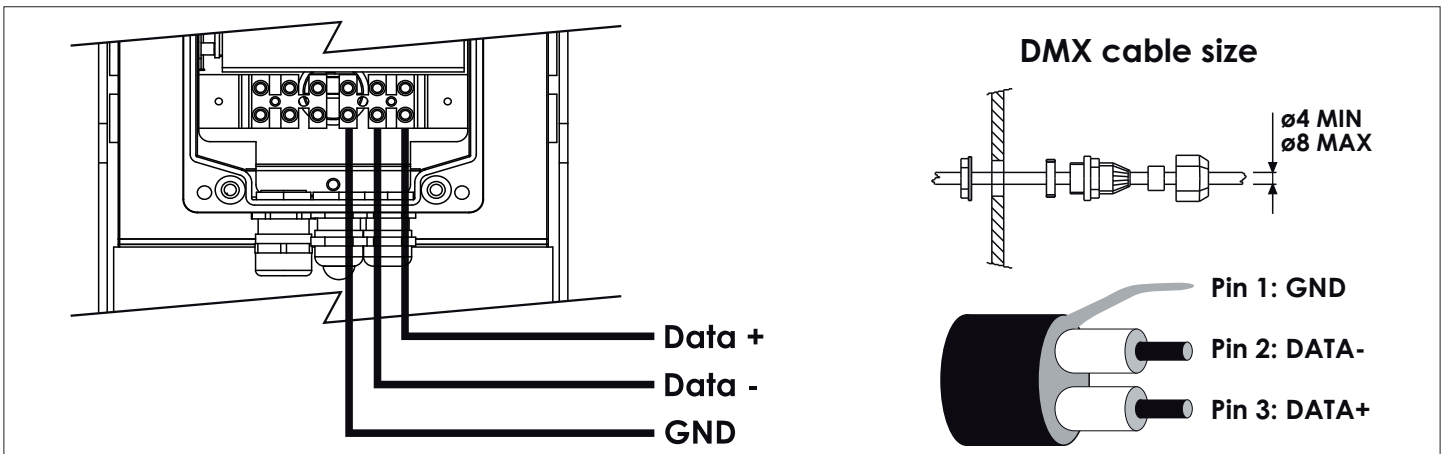
A. Untighten the screw "6" and remove the box cover.



B. Let the signal cables pass through the cable glands "9" located onto the unit body and connect the DMX signal cables to the pin "10". The connection of the cable to the unit must be performed respecting the label next to the terminal box, while from the end of the DMX controller the connection must respect the following table:

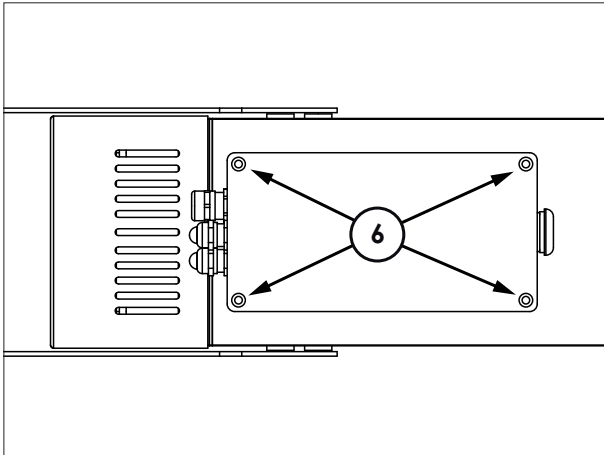
- pin 1 = GND
- pin 2 = data -
- pin 3 = data +

Size and connection scheme of the DMX cable are shown in the following picture.



Warning!

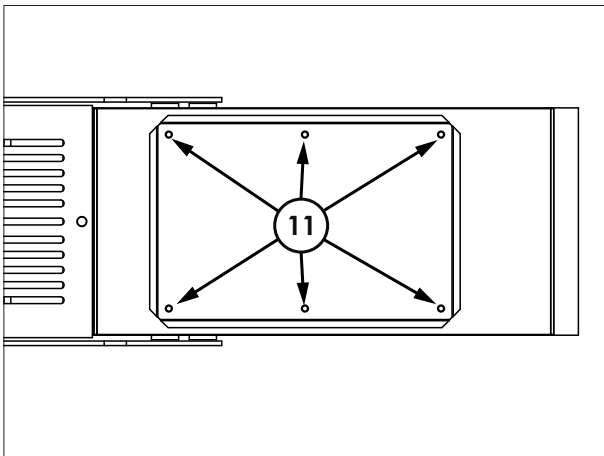
All data wires must be isolated one from another, from the shield and from the metal housing of the connectors.
Pin number 1 of the housing is not to be connected to the electric ground of the unit.
Insert a 120 Ω resistor connected to Data+ and Data- in the last unit.



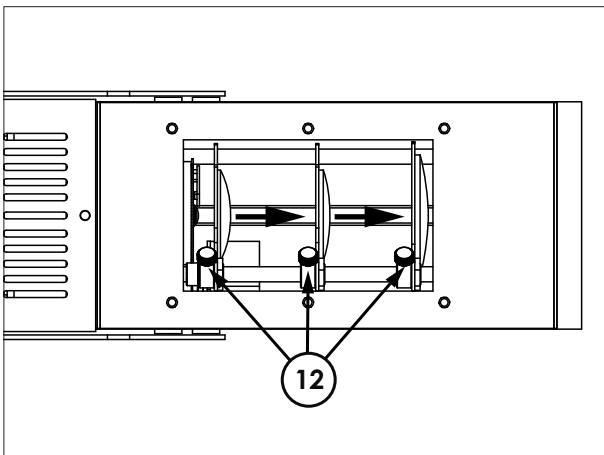
C. Close the unit again by tighten the screw "6" previously removed.

4.5 Gobo installation

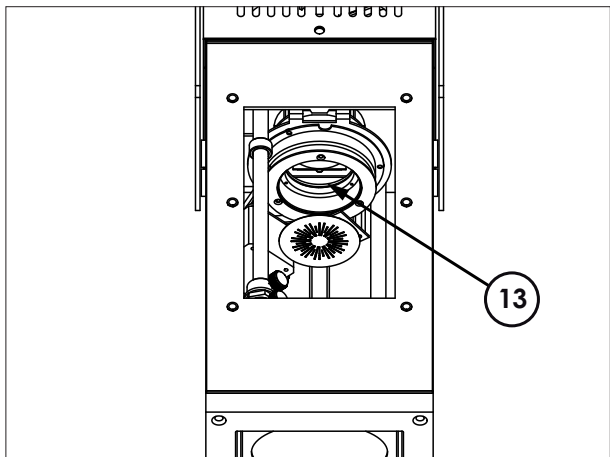
The gobo size is $\text{Ø}53.3$ mm with image $\text{Ø}40$ mm.
The size is compatible with standard "D size".



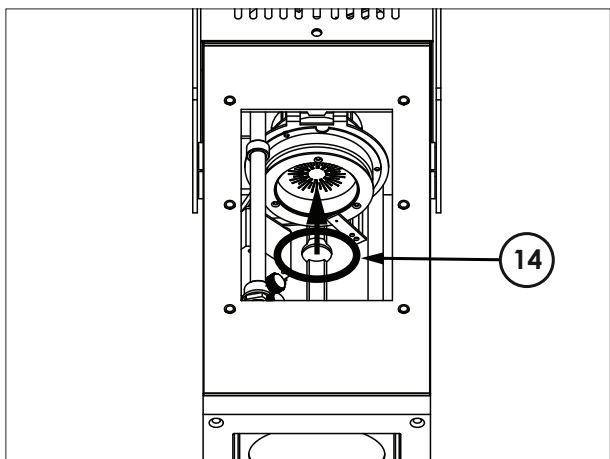
A. Untighten the screw "11" and remove the lower cover.



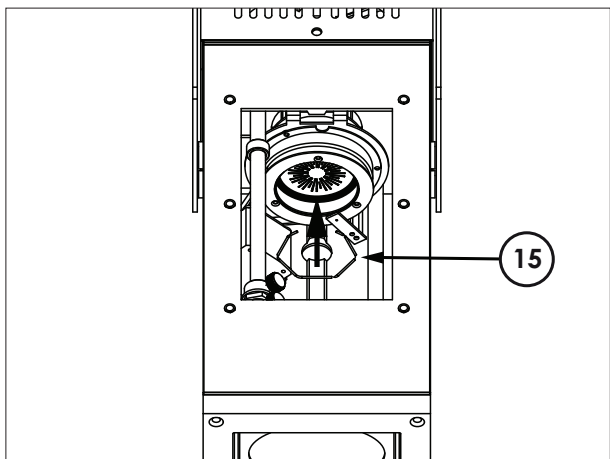
B. Untighten the knob "12" and move sideways the lenses.



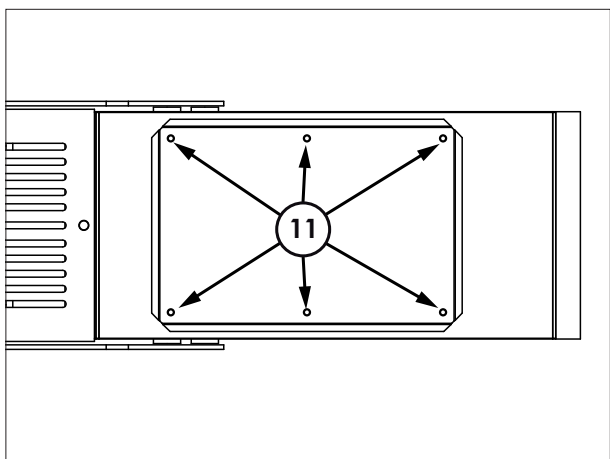
C. Insert the gobo in the gear "13".



D. Insert the rubber gobo holder "14".

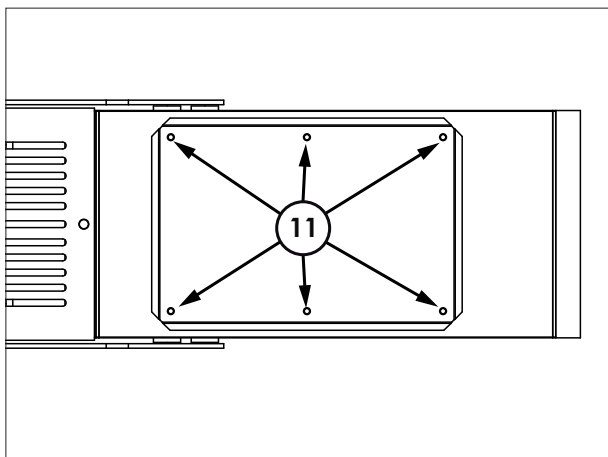


E. Block the gobo by using the spring "15".

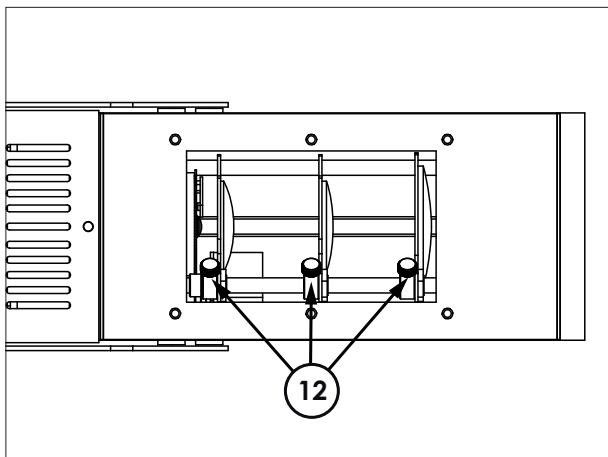


F. Close the unit again by tighten the screw "11" previously removed.

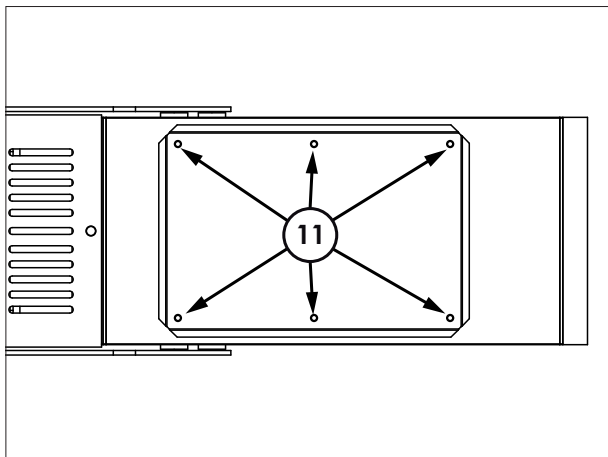
4.6 Focus and zoom



A. Untighten the screw “11” and remove the lower cover.



B. Move the lenses on order to adjust the beam angle and then tighten the knob “12”.



C. Close the unit again by tighten the screw “11” previously removed.

Goboled 80 D produces an manually adjustable beam between 19° and 35°.

5.0 Use of the unit

5.1 Setting operating mode

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

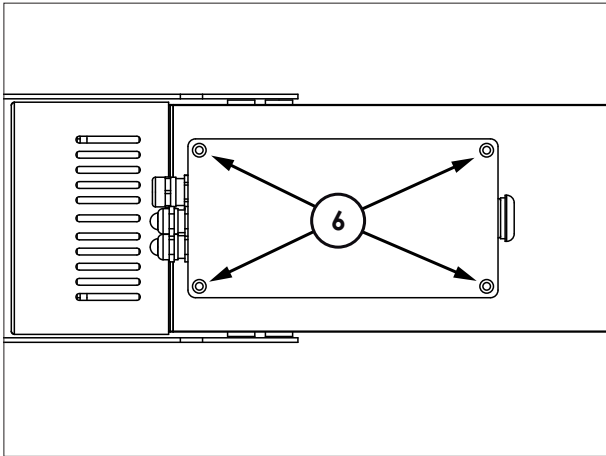
- **using DMX512 signal control mode**

Each fixture is controlled from DMX512 signal control.

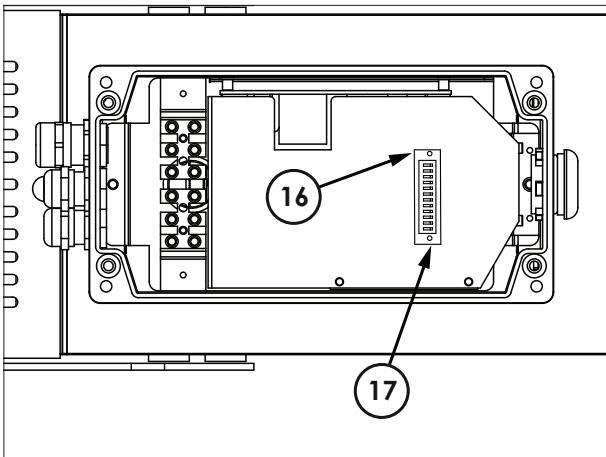
- **MASTER-SLAVE or AUTOMATIC mode**

The projector operates independently, without DMX512 signal control.

5.2 Setting DMX address



To access to the dip-switch panel it is necessary untighten the screw "6" and remove the box cover.



One led is next to the dip-switch panel to notify the status of the unit.

In the presence of DMX signal, the red led "16" will be steady on, when the projector functions as master, the red led will flash, while in the absence of the signal the led will remain off.

When power is connected, the green LED "17" will always be on.

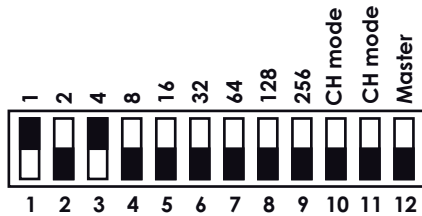
The number of DMX channels used by the unit to operate will depend from the selected operating mode.

DIP 10	DIP 11	DMX MODE	DMX CHANNELS USED BY THE UNIT
OFF	OFF	1	3
OFF	ON	2	4
ON	OFF	3	1
ON	ON	4	2

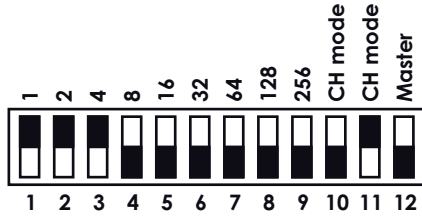
In case of more units operating in mode **CH MODE = 1**, the first unit will be set with address 001, the second unit with address 004, the third unit with address 007, etc.

In case of more units operating in **CH MODE = 2** 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 with address 005
 (dip-switch n°1 and 3= ON)
 and **CH MODE = OFF**



Example
 Unit with address 007
 (dip-switch n°1, 2 and 3 = ON)
 and **CH MODE = ON**

5.3 DMX functions

Attention!

- In absence of DMX signal the led will remain OFF.
- If required by DMX, at the end of the reset operation, the LED will light up.
- When channel 2 is in the active range (8-248), it takes precedence over channel 1.

5.3.1 DMX functions in CH mode = 1

Channel	Function	Value	Description
1	Gobo rotation	0-15	No rotation
		16-150	Proportional control 0-100% of the clockwise rotation
		151-160	No rotation
		161-255	Proportional control 0-100% of the counterclockwise rotation
2	Indexing	0-7	No effect
		8-248	360° gobo indexing
		249-255	No effect
3	Blackout Dimmer Strobo	0-15	Luminous output intensity 100%
		16-150	Proportional control of the luminous output intensity 100-0%
		151-160	Luminous output intensity 100%
		161-255	Proportional control of the Strobo effect

5.3.2 DMX functions in CH mode = 2

Channel	Function	Value	Description
1	Gobo Rotation	0-15	No rotation
		16-150	Proportional control 0-100% of the clockwise rotation
		151-160	No rotation
		161-255	Proportional control 0-100% of the counterclockwise rotation
2	Indexing	0-7	No effect
		8-248	360° gobo indexing
		249-255	No effect
3	Dimmer	0-5	Luminous output intensity 0%
		6-250	Proportional control of the luminous output intensity 0-100%
		251-255	Luminous output intensity 100%
4	Strobo	0-5	Strobe frequency 0%
		6-250	Proportional control of the strobe frequency 0-100%
		251-255	Strobe frequency 100%

5.3.3 DMX functions in CH mode = 3

Channel	Function	Value	Description
1	Blackout Dimmer Strobo	0-15	Luminous output intensity 100%
		16-150	Proportional control of the luminous output intensity 100-0%
		151-160	Luminous output intensity 100%
		161-255	Proportional control of the Strobo effect

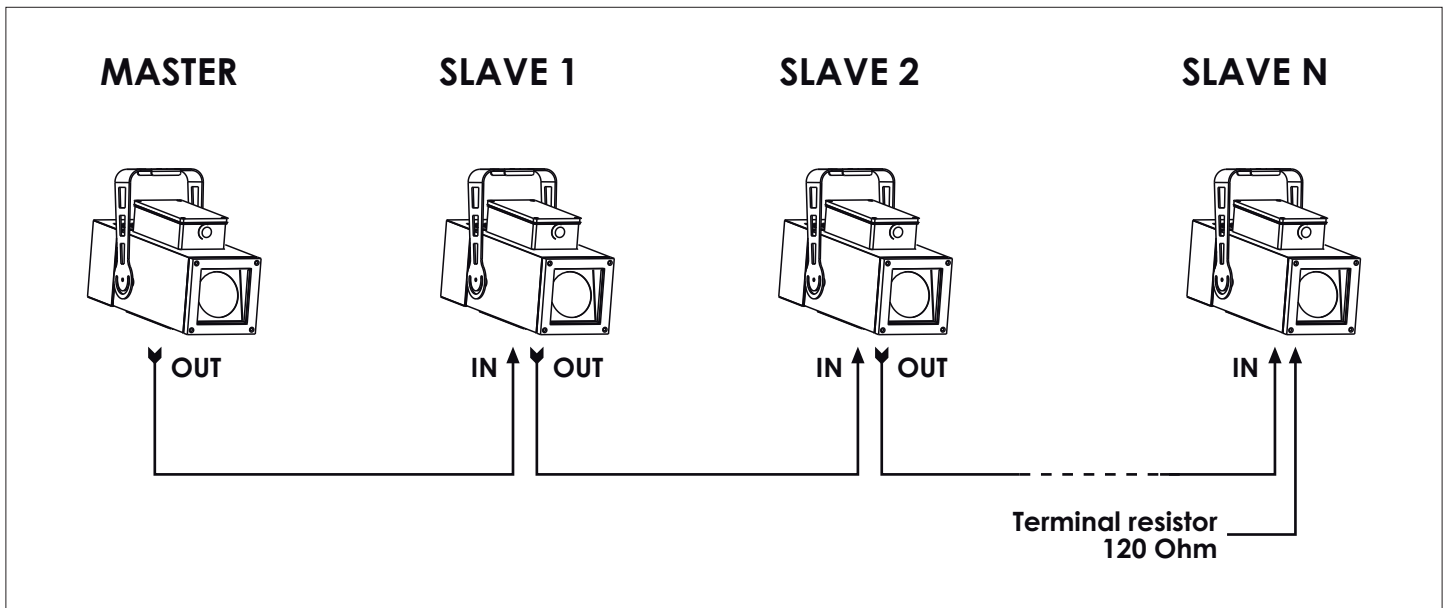
5.3.4 DMX functions in CH mode = 4

Channel	Function	Value	Description
1	Dimmer	0-5	Luminous output intensity 0%
		6-250	Proportional control of the luminous output intensity 0-100%
		251-255	Luminous output intensity 100%
2	Strobo	0-5	Strobe frequency 0%
		6-250	Proportional control of the strobe frequency 0-100%
		251-255	Strobe frequency 100%

6.0 Master-Slave and Automatic function

Goboled 80 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.



6.1 MASTER configuration

To execute a preset programme set the dip-switch Master to ON and choose the type of programme to be executed.

The following pictures show some examples of MASTER units configuration.

<p>1° SPEED DX 2° SPEED DX 3° SPEED DX 4° SPEED DX 1° SPEED SX 2° SPEED SX 3° SPEED SX 4° SPEED SX RANDOM Ch. Mode Ch. Mode MASTER</p> <p>1 2 3 4 5 6 7 8 9 10 11 12</p>	<p>Unit set as Master (Master = ON) program 1° SPEED DX (right) running (dip-switch 1 = ON)</p>
--	---

<p>1° SPEED DX 2° SPEED DX 3° SPEED DX 4° SPEED DX 1° SPEED SX 2° SPEED SX 3° SPEED SX 4° SPEED SX RANDOM Ch. Mode Ch. Mode MASTER</p> <p>1 2 3 4 5 6 7 8 9 10 11 12</p>	<p>Unit set as Master (Master = ON) program 1° SPEED SX (left) running (dip-switch 5 = ON)</p>
--	--

Attention!

If MASTER-SLAVE mode is being used, no other DMX control device must be present along the line!!

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

Dip-switch	Effect
1	Clockwise rotation speed 1
2	Clockwise rotation speed 2
3	Clockwise rotation speed 3
4	Clockwise rotation speed 4
5	Counterclockwise rotation speed 1
6	Counterclockwise rotation speed 2
7	Counterclockwise rotation speed 3
8	Counterclockwise rotation speed 4
9	Random rotation

Warning!

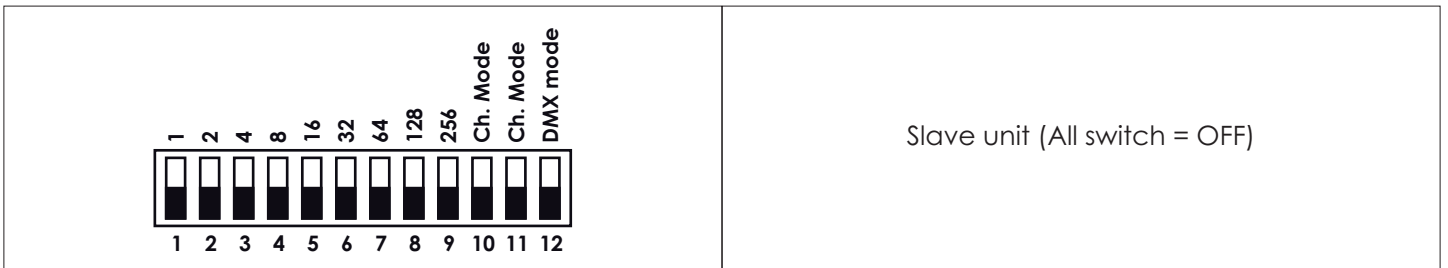
Set the dip-switches 1-9 to OFF to stop the rotating movement.

6.2 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.



6.3 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.

7.0 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.

Attention!
Goboled 80 D features a smart ventilation system.
The fan will turn on only when necessary.

8.0 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:

8.1 Cleaning the unit

8.1.1 Fixture body

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.

8.1.2 Fans and air passages

The fans and air passages must be cleaned approximately every 6 weeks; the period for this periodic cleaning will depend, of course, upon the conditions in which the projector is operating. Suitable instruments for performing this type of maintenance are a brush and a common vacuum cleaner or an air compressor.

8.2 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.

9.0 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.

10.0 Troubleshooting

Inconvenience	Possible Cause	Action
The fixture 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 120Ω resistor connected to pins Data+ and Data- 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.
	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.

11.0 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 must be separately collected. Consumer should contact their local authority or retailer for information concerning the correct disposal of their old appliance.

12.0 Technical specifications

Mechanical features

Height	280.5mm (11")
Width	164mm (6.5")
Depth	425.3mm (16.7")
Weight	8.7Kg (19.2Lbs)

Thermal features

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

Electrical features

Voltage	100-240 Vac 50/60Hz
Nominal current	0.5A @ 230V
Maximum power	100W
Power factor	cos φ = 0.87
Thermal protection	Electronic

Light output source

Type of light output source	1 Led x 80W
-----------------------------	-------------

Optics

Optical system	Lenses
Available optics	19° - 35°

Control

Protocol	USITT DMX-512
Control channel	1, 2, 3, 4

Construction

Unit body	Iron/Aluminium
Treatment	Scratch resistant black paint
Weather protection rate	
Fixture body	IP65
Cooling system	IP55



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. 1.40