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## 1 Getting started

The following points are important for safety as well as for the smooth installation and performance of the unit

- Unpack carefully and be sure that no damage has occurred during shipping.
- It is very important to ground the yellow/green conductor in order to meet regulations for safety.
- Do not connect the device to any dimmer pack.
- The electrical work that is necessary for installation must be done by qualified personnel.
- Be sure to locate the unit in a place with adequate ventilation at least 15 cm from the walls. Be sure that no ventilation slots are blocked.
- Be careful that no liquids or other objects can enter the unit. If this ever happens, disconnect the main power immediately.
- In the event of serious operating problems, turn off the unit immediately. Never try to repair the unit yourself. Repairs carried out by non-qualified personnel can lead to serious damage or malfunction. Please contact your dealer about authorized technical assistance. Always use genuine spare parts.
- Occasional breaks are necessary to prevent breakdowns. This unit is not designed to be used non-stop.
- Always remember to unplug the unit from the power mains before any service is done.
- Please recycle the packaging.

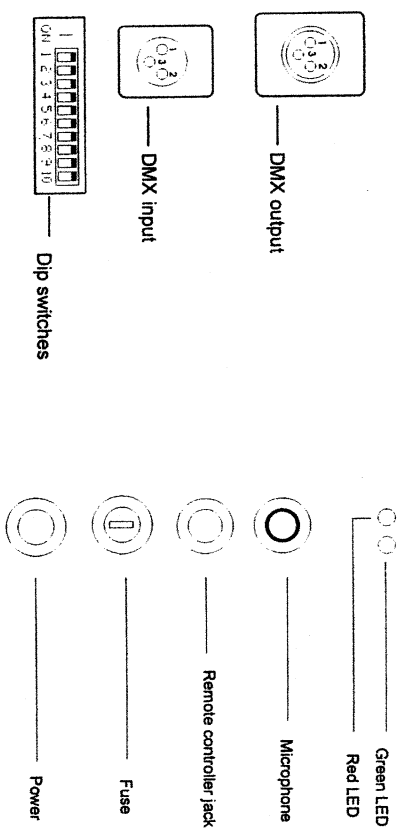
## 2 Main features

- Voltage: 110V 60Hz or 230V 50Hz
- Bulb: ELC 24V 250W or EXY 82V 250W
- With 3 stepper motors controlled via internal microprocessor.
- With Gobo/Color Wheel. 9 gobos plus shutter and 5 one-color, 2 two-color and 1 four-color plus clear.
- High quality dichroic mirrors.
- Strobe frequency from 1 to 7 fps.
- With blackout function and lamp saving switch-off function. When the unit receives a blackout signal from an easy controller or a universal DMX controller, it will blackout immediately and switch the lamp off after 10 seconds, extending the lamp's lifetime.
- Adjustable focus.
- Easy access door to bulb.
- Standard DMX-512 control and address by DMX linking and XLR cable.
- These units can be linked together in a master/slave combination and run by built-in programs.
- Movement and speed controlled by automatic sound sensing.
- DMX signal pass-through device (relay) in case of unit failure.
- Compatible with easy controller or universal DMX controller.
- DMX signal / sound activation indication LED.
- Efficient axial fan cooling.
- Dimension: 435 x 200 x 160 mm
- Weight: 8.5 kg.

## 3 Lamp

1. Do not touch the bulb with bare hands. If this happens, clean the lamp with denatured alcohol and wipe it with a lint free cloth before installation.
2. Make sure the lamp is located in the center of the reflector or lamp-holder for the best spot.

## 4 DMX linking and controls

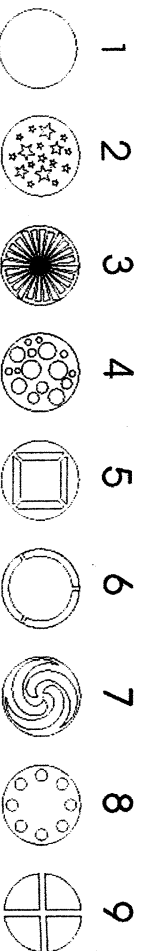


1. **DMX output:** pin 1: comm., pin 2: DMX-, pin 3: DMX+.
  2. **DMX input:** pin 1: comm., pin 2: DMX-, pin 3: DMX+. If you are using a controller with 5 pins DMX output, you will need to use a 5 to 3 pin adapter.
  3. **Dip switches.** Dip switches 1-9 set the DMX channel that the unit will respond to. Channel 1 is the start address. If all switches 1-9 are off, the unit will automatically set its own DMX channel. Switch 10 sets the master/slave in 'group' of all the units. Please refer to the diagram on setting the dip switches.
  4. **Green LED:** DMX signal / Sound activation. This LED is always on when DMX signal is being received and off when DMX is not received. If the LED is not lit, then the unit is in master/slave mode and the LED will flash when sound activation is in working.
  5. **Red LED:** Power on / off.
  6. **Built-in microphone for sound activation.**  
Connect the units together in a 'daisy chain' by XLR plug from the output of the first unit to the input of the next unit. The cable can not be branched or split to a 'Y' cable. DMX512 is a very high-speed signal. Inadequate or damaged cables solder joints or corroded connectors can easily distort the signal and shut down the system.
- The DMX input and output connectors are pass-through by a relay to maintain the DMX circuit, when power is disconnected to the unit.

## DMX configuration

	Channel 1	Channel 2	Channel 3	Channel 4
Product	Barrel/Flat	Barrel reflector	Flat reflector	Barrel/Flat
DMX values	Pan	Tilt	Tilt	Shutter
0	Left	Stop	Bottom	Blackout
10		Fastest speed clockwise		White
16				Open
26			Yellow / Gobo 1	
43			Red / Gobo 2	
59			Blue / Gobo 3	
75			Green & Yellow / Gobo 4	
91			Magenta & Cyan / Gobo 5	
108			Green / Gobo 6	
115		Slowest speed clockwise		
124			Pink / Gobo 7	
128	Center	Stop	Center	
138		Slowest speed counter-clockwise		
140			Multicolor / Gobo 8	
156			Green / Gobo 6	
173			Magenta & Cyan / Gobo 5	
189			Green & Yellow / Gobo 4	
205			Blue / Gobo 3	
221			Red / Gobo 2	
224			Strobe	Strobe
245		Fastest speed counter-clockwise		
255	Right	Stop	Top	Fast strobe

• Intermediate value gives split colors



## How to control the unit

You can operate the unit in three ways:

- A. By master/slave built-in preprogrammed function
- B. By easy controller
- C. By universal DMX controller

No need to turn the unit off when you change the dip switches, as new dip switches setting will be effected at once. Every time you turn the unit on, it will move all the motors to their 'home' position and you may hear some noise for about 20 seconds. After that the unit will be ready to receive DMX signal or sound activation.

### A. By master/slave preprogrammed function

By linking the units in master/slave connection, the first unit will control the other units to give an automatic, sound activated, synchronized light show. This function is good when you want an instant show. You will know which unit is the master because its DMX input jack will have nothing plugged into it and its green LED will flash to the music. The other units (slaves) will have DMX cables plugged into the DMX input jacks (daisy chain) and the LED lights will be constantly on, not flashing. The master/slave mode overrides all dip switch settings except 10. Dip switches are *not used in master/slave mode*.

### • 2-channel show

Dip switch 10 "off" means the unit works normally and "on" means inversion. In order to create a great light show, you can set dip switch 10 "on" on the second unit to get contrast movement to each other, even if you have two units only. With four units, set dip switch 10 to "on" on unit four as well. Dip switch 10 on the first unit is not used in the DMX linking as it is the master unit that operates the light show.

# 7 Troubleshooting

## B. By easy controller

The easy remote control is used only in master/slave mode. By connecting to the 1/4" microphone jack of the first unit (its DMX input plug is not used), you will find that the remote control on the first unit will control all the other units for blackout, strobe and slow function. Strobe mode is only effective while the button is held down. If you hold the button down for a prolonged period of time, the unit may stop strobing automatically.

## C. By universal DMX controller

If you use a universal DMX controller to control the units, you have to set dip switches from 1 to 9 of the channel so that all the units will receive their DMX signals. Please refer to the following diagram to know how to address your DMX512 system in the binary code.

Dip	#1	#2	#3	#4	#5	#6	#7	#8	#9
Value	1	2	4	8	16	32	64	128	256

Examples:

Channel 5 = dip switches #1 & #3 on (value= 1+ 4= 5)

Channel 9 = dip switches #1 & #4 on (value= 1+ 8= 9)

Please refer to this diagram for setting the dip switches for DMX512 linkage.

Channel	Dip switch setting
1	↓ <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ON 1 2 3 4 5 6 7 8 9 10
5	↓ <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ON 1 2 3 4 5 6 7 8 9 10
9	↓ <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ON 1 2 3 4 5 6 7 8 9 10
13	↓ <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ON 1 2 3 4 5 6 7 8 9 10
17	↓ <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ON 1 2 3 4 5 6 7 8 9 10
21	↓ <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ON 1 2 3 4 5 6 7 8 9 10
25	↓ <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ON 1 2 3 4 5 6 7 8 9 10
29	↓ <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ON 1 2 3 4 5 6 7 8 9 10

If you want two units to behave exactly the same, you can set the dip switches for both units to the same channel.

Following are a few common problems that may occur and suggestions as to how to solve them.

### A. No light

1. Check the power on LED and fuse
2. Check if the lamp is functional (The lamp may turn off, when the unit is in blackout).

### B. Not responding to DMX

1. Check if green LED is on, if not, check DMX connectors, cables and linking.
2. If the green LED is on and there is no response to the channel, check the dip switch settings and DMX polarity.
3. If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit and the previous one in the chain.
4. Try to use another DMX controller.
5. Check if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

### C. Some units don't respond to the controller

You may have a break in the DMX cabling. The unit receiving no DMX signal will begin its own light show. Check the green LED for the response of the DMX signal.

### D. No response to the sound

1. Check if the unit is not receiving DMX signal (green LED will be off)
2. Check if the unit is not set to display mode
3. Check microphone to see if it is functioning by tapping it.

The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surroundings can cause greater accumulation of dirt on the unit's optics.

- Clean with a soft cloth using normal glass cleaning products.
- Always dry the parts carefully.
- Clean the external optics at least once every 20 days. Clean the internal optics at least every 30/60 days.

For further requirements, contact the nearest authorized technical assistance center.