

**BL-100 / SC-100**

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**Owner's Manual**

# **MATRIXx DMX LED EFFECT**



**Congratulations** on your purchase of this LED Effect Light.  
To get the most from your equipment you must read all of this manual before using it first time.

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**EC Declaration of Conformity**

We declare that our products (lighting equipment) comply with the following specification and bears the CE mark in accordance with the provision of the Electromagnetic Compatibility (EMC) Directive 89/336/EEC.

EN55014-2: 1997 A1:2001, EN61000-4-2: 1995;  
EN61000-4-3:2002;  
EN61000-4-4: 1995; EN61000-4-5: 1995, EN61000-4-6:1996,  
EN61000-4-11: 1994.

&

**Harmonized Standard**

EN 60598-1: 2000 +ALL: 2000+A12: 2002  
Safety of household and similar electrical appliances,  
Part 1: General requirements.

# 1. Safety Instruction

You have to carefully read the instruction, which includes important information about the installation, operation and maintenance.



- Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that he also receives this instruction booklet thus giving them the necessary information about the use and general warnings regarding the unit.
- Unpack and check carefully there is no transportation damage before using the unit.
- Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit as stated in this manual.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- The unit is for indoor use only. Use it only in a dry location. Exposing the device to rain or moisture would cause the risk of electrical shock or fire.
- The unit must be installed in a location with adequate ventilation, at least 15 cm from adjacent surfaces. Be sure that no ventilation slots are blocked. The electrical work that is necessary for installation must be done by qualified personnel.
- Check the surrounding area and make sure there are no flammable liquids, water or metal objects that could enter the fixture. If a foreign object or substance enters the unit, immediately disconnect the mains power.
- Disconnect the device from the mains power before any servicing or maintenance.
- In the event of a serious operating problem, stop using the unit immediately. Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance centre. Always use the same type spare parts.
- There are no user serviceable parts inside the fixture. Do not open the housing or attempt any repairs by yourself. If the fixture shows any visible damage or in the unlikely event, that your fixture may require service, please contact your nearest dealer. Always use genuine spare parts.

## 2. Technical Specification

### 1. Power supply

Input Voltage: AC 230V 50HZ  
Power consumption: aprox. 40W

### 2. LED

Total 52 pcs, (16 x red, 12 x green, 12 x blue, 12 x white)

### 3. Dimension

420 x 140 x 171mm

### 4. Weight

BL-100: 3.5 kg • SC-100: 3.0 kg

- The unit is a DMX512 scanner. It features full DMX512 control, stepper motor with blackout feature.
- It can be operated by DMX512 control or can be used as an individual unit without controller.
- It can be linked together as many as required in master/slave mode, and perform the great built-in programmed lighting shows triggered by music.
- Please use a 3 pin XLR cable/plug when connecting them together.
- It features different pre-programmed chase patterns.

## 3. How To Control The Unit

### (1) Master/Slave operation

The unit can be linked together in daisy chain as many as you need in master/slave mode to perform the great built-in pre-programmed lighting shows triggered by music.

#### In Master/Slave mode refer to the DMX settings below:

Master unit: DMX start address MUST be set to 001. (first DIP switch = ON, all others are OFF)

Slave units: DMX start address may have any value EXCEPT 001 (example: set the first 3 DIP switches to ON)

\*2-light show





Dipswitch 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 any unit that is linking to the master unit to get contrast movement

## (2) Easy controller (POCKET-MASTER I)

Stand by	Blackout the unit		
Function	1. Sync. Strobe 2. Two light Strobe 3. Sound Strobe	Select pattern	Select Chase
Mode	Sound (LED OFF)	Pattern (LED ON)	Chase (LED Slow Strobe)

When using a universal DMX controller to control the chain of units, you have to set DMX address by Dip switches from 1 to 9 to make sure all the units will receive its DMX signal. Please refer to the following diagram to know how to address your DMX 512 system in the binary code:

Dip-switches	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Value	1	2	4	8	16	32	64	128	256	2-light show

- | Channel | Dip switches setting  |
|---------|---|
| 1       |  |
| 5       |  |
| 9       |  |
| 13      |  |



The DMX 512 is widely used in intelligent lighting control, with a maximum of 512 channels.

1. A DMX512 system requires a controller, lighting equipment and cable. These are connected together in a “daisy chain” with the terminator at the end. The cable cannot be branched or split into a “Y” cable.
2. The terminator requires a 90-120 Ohm 1/4 Watt resistor soldered between two signal cables.
3. The DMX512 uses a very high-speed signal. Inadequate or damaged cables, bad solder joints or corroded connectors can easily distort the signal and shut down the system. A reliable DMX512 system starts with good quality cables.
4. Each lighting unit needs to have an address set to receive the data sent by the controller. The address number is between 0-511. The end of the DMX512 system should be terminated reducing signal errors.
5. 3 pin XLR connectors are more popular than 5 pins XLR.  
3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)  
5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+).

## 6. Troubleshooting

Following we're listing a few common problems that may occur during operation. Here you also find some suggestions for easy troubleshooting:

### A. The unit does not work, no light

1. Let a technician check the mains power supply and mains fuse.
2. Let a technician check the mains outlet for proper functioning.

### B. Not responding to DMX controller

1. The DMX LED should be on. If not, check DMX connectors and cables to see if they link properly.
2. If the DMX LED is on and no response to the channel, check the address settings and the DMX polarity.
3. If you have intermittent DMX signal problems, let a technician check the pins on connectors or on PCB of the unit or the previous one.
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 easy controller

1. You may have a break in the DMX cabling. Check the LED for the response of the master/slave mode signal.
2. Wrong DMX address in the unit. Set the proper address.

#### **D. No response to the sound**

1. Make sure the unit does not receive DMX signal.
2. Check the microphone to see if it is working by tapping on the mic.

#### **E. One of the channels is not working well**

1. The stepper motor might be damaged or the cable connected to the PCB is broken.
2. The motor's drive IC on the PCB might be out of condition.

### **7. Fixture Cleaning**

The cleaning of internal must be carried out periodically to optimise light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the fixture's optics.

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

### **8. Disposal**

**Do not dispose of the device at the end of his operating life in your normal domestic waste. This device is subject to the European Guidelines 2002/96/EC.**



- Have the product disposed of by a professional disposal company or by your communal disposal facility.
- Observe the currently applicable regulations. In case of doubt contact your disposal facility.
- Dispose of packaging materials in an environmentally responsible manner.

