



USER MANUAL

Any questions? Contact us at www.eventservicesgroup.co.uk
Telephone: 03333 442062

WARNING

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

**CAUTION!**

**Keep this equipment away from rain,
moisture and liquids.**

**SAFETY INSTRUCTIONS**

Every person involved with the installation, operation & maintenance of this equipment should:

- Be competent
- Follow the instructions of this manual



**CAUTION! TAKE CARE USING THIS EQUIPMENT!
HIGH VOLTAGE-RISK OF ELECTRIC SHOCK!!**



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- Never let the power-cable come into contact with other cables. Handle the power-cable and all mains voltage connections with particular caution!
- Never remove warning or informative labels from the equipment.
- Do not open the equipment and do not modify the equipment.
- Do not connect this equipment to a dimmer-pack.
- Do not switch the equipment on and off in short intervals, as this will reduce the system's life.
- Only use the equipment indoors.
- Do not expose to flammable sources, liquids or gases.
- Always disconnect the power from the mains when equipment is not in use or before cleaning! Only handle the power-cable by the plug. Never pull out the plug by pulling the power-cable.
- Make sure that the available voltage is between 220v/240v.
- Make sure that the power-cable is never crimped or damaged. Check the equipment and the power-cable periodically.
- If the equipment is dropped or damaged, disconnect the mains power supply immediately. Have a qualified engineer inspect the equipment before operating again.
- Only use fuses of same type and rating

OPERATING DETERMINATIONS

If this equipment is operated in any other way, than those described in this manual, the product may suffer damage.

Incorrect operation may lead to danger e.g.: short-circuit, burns, electric shocks, lamp failure etc.

Do not endanger your own safety and the safety of others!

Incorrect installation or use can cause serious damage to people and property.

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Introduction

CONTROL FEATURES

- 4-channel DMX-512 LED Par Can
- Blackout/Dimmer/Strobe
- Individual control of Red, Green and Blue LED's

Features

- 183 LED's: - Red (60), Green (60), and Blue (63)
- Ultra bright 10mm LED's
- RGB colour mixing
- Built-in colour change programs
- Low power consumption
- Up to 100,000-hour LED life span
- Master/Slave mode
- Programmable: Any universal DMX-512 controller

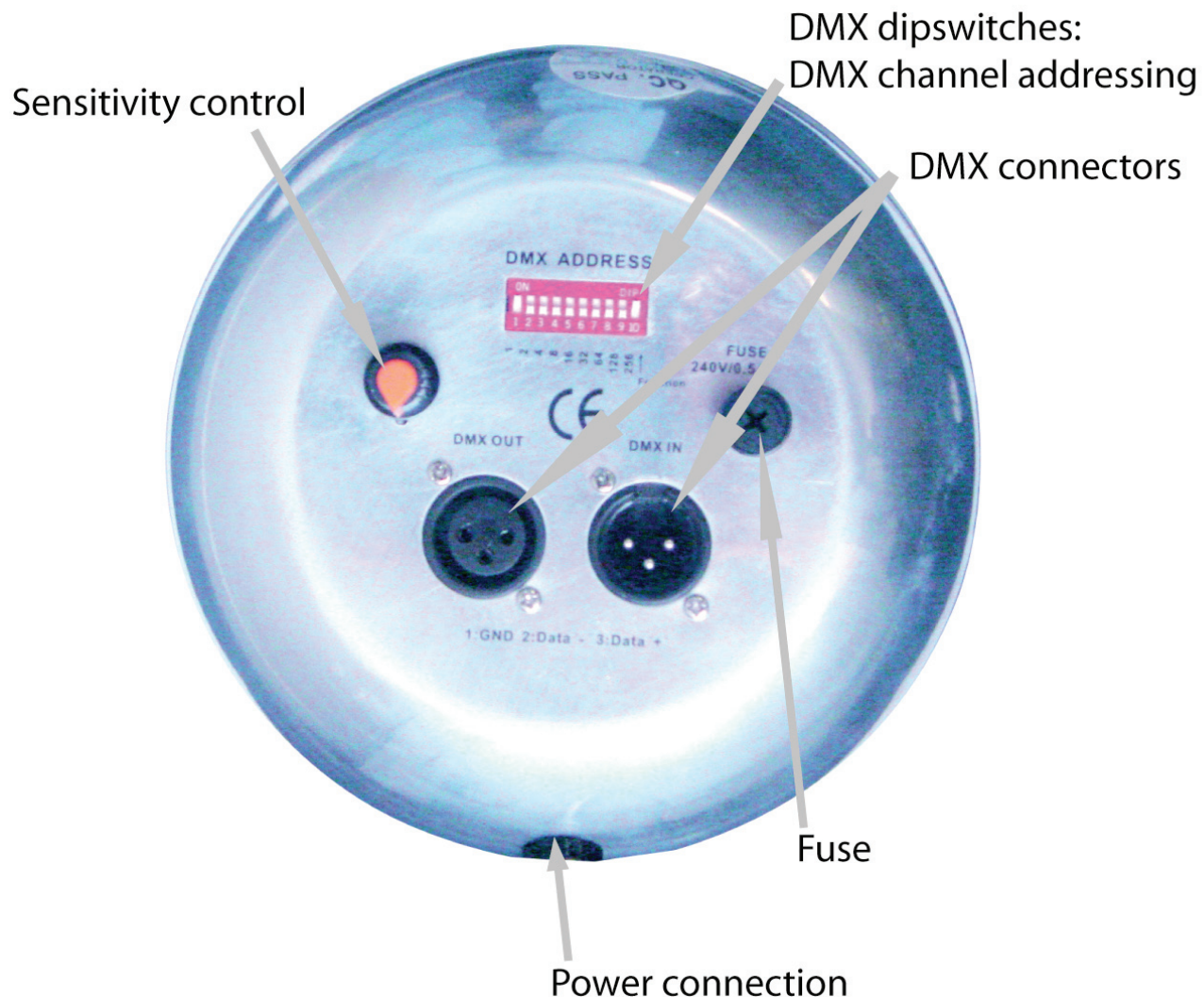
OPTIONS

DMX Channel Summary

Channel	Function
1	RED 0-100%
2	Green 0-100%
3	Blue 0-100%
4	Shutter/Strobe/Dimmer Blackout: 000 Intensity: 001<>189 Strobe: 190<>250 Full on: 251<>255

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Product Overview



Setup

Operating Instructions

The LED-64 is a DMX-512 controllable, full RGB colour mixing Par Can made up of high efficiency and super bright LED's. There are three colour groups (red, blue and green) whose intensity can be controlled individually allowing the creation of an unlimited range of colours.

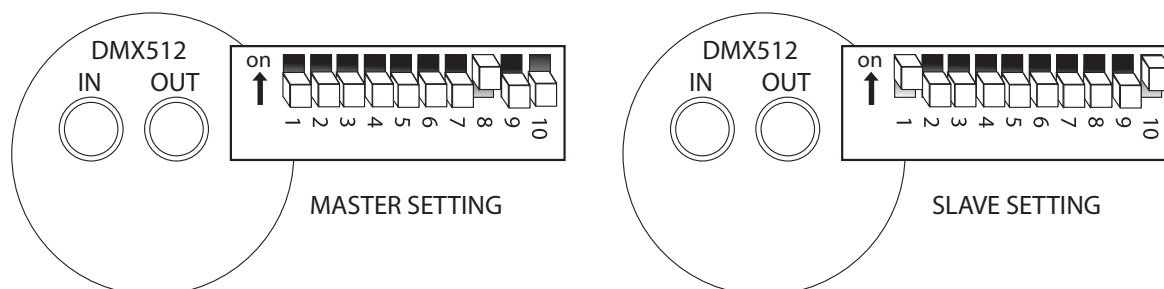
The LED-64 will operate in stand-alone, Master/Slave, sound activated and via DMX-512 control.

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Master/Slave

The Master/Slave mode will allow you to link up as many units as you want in a daisy chain fashion. In this mode, the first unit in the daisy chain will control the following units.

- 1) Connect all units in a daisy chain as described in the section following.
- 2) For master unit in Auto mode: Set **dip switch 8** to **ON** and all others to **OFF**
- 3) For master unit in Sound Activation mode: Set **dip switch 8+9** to **ON** and all others to **OFF**
- 4) For Slave mode: set **dip switches 10+1** to **ON** and all others to **OFF**

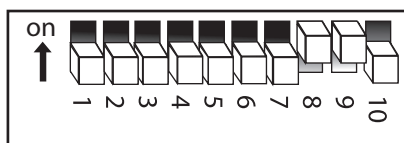


Stand-Alone Mode

- You can run the fixtures in an automatic stand-alone mode by simply setting all fixtures to run as master units. (set dip switch #8 to on and all others off).

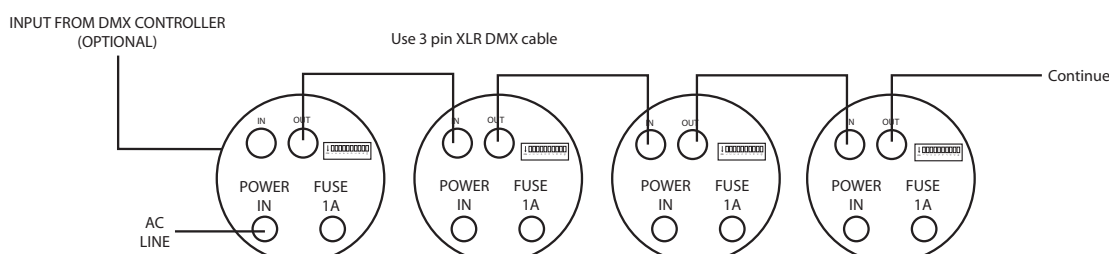
Sound Activation

The LED Par Can has a built-in microphone which enables it to operate in Sound to Light mode. Set the sensitivity control to the desired level, and the Par Cans will change colour to the beat of the music. Set **dip switch 8+9** to **ON** to activate Sound Mode.



Daisy Chain Connection

- 1) Connect the (male) 3 pin connector side of the DMX cable to the output (female) 3 pin connector of the first fixture
- 2) Connect the end of the cable coming from the first fixture which will have a (female) 3 pin connector to the input connector of the next fixture consisting of a (male) 3 pin connector. Proceed to connect from the output as stated above to the input of the following fixture and so on.



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Manual Control Options

Colour Selection

- With Dip Switch 1 only set to **ON** you obtain static RED
 - With Dip Switch 2 only set to **ON** you obtain static GREEN
 - With Dip Switch 3 only set to **ON** you obtain static BLUE
- You can have any combination of switches 1,2,3 to obtain static colour mix.

Flashing Mode

Once you have selected a static colour you can make it flash by using Dip Switches 4,5,6, 4 is slow flash, 4&5 is medium flash and 4,5 & 6 is fast flash.

For example if you wish to obtain a purple wash with a medium speed flash you would put dipswitches 1 and 3 (red & blue) to **ON** to obtain purple, and the Dip switches 4 & 5 to **ON** to obtain a medium speed flash.

With all the Dip switches set to off this activates an internal slow colour mixing change and fade programme.

Blackout Mode

With only dipswitch #10 set to **ON** the LED-64 will blackout.

DMX Control Mode

Operating in a DMX control mode environment gives the user the greatest flexibility when it comes to customising or creating a show. In this mode you will be able to control each individual trait of the fixture and each fixture independently. The LED Par 64 uses 4 channels of control.

Enable the DMX control by setting dipswitch No: 10 to the **ON** position. Use dipswitches 1 – 9 to address each fixture accordingly.

Setting the DMX address

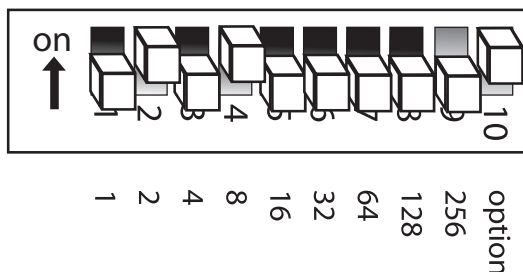
The DMX mode enables the use of a universal DMX controller. Each fixture requires a “start address” from 1- 511. A fixture requiring one or more channels for control begins to read the data on the channel indicated by the start address. For example, a fixture that occupies or uses 7 channels of DMX and was addressed to start on DMX channel 100, would read data from channels: 100,101,102,103,104,105 and 106. Choose a start address so that the channels used do not overlap. E.g. the next unit in the chain starts at 107.

Set the start address using the group of dip switches located usually on the back of the fixture. Each dipswitch has an associated value. Adding the value of each switch in the ON position will provide the start address. Determining which switches to toggle ON given a specific start address can be accomplished in the following manner. By subtracting the largest switch value possible from the selected start address until zero is achieved.

EXAMPLE STARTING ADDRESS

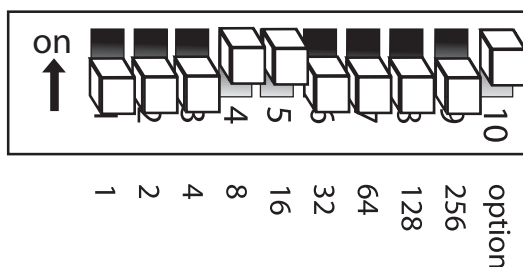
Address 10

Pin NO: 4 = 8
Pin NO: 2 = 2
Total = 10



Address 24

Pin NO: 5 = 16
Pin NO: 4 = 8
Total = 24



DMX address using simple maths

233 - (128 = 105, Turn on dip No: 8
105 - (64) = 41, Turn on dip No: 7
41 - (32) = 9, Turn on dip No: 6
9 - (8) = 1, Turn on dip No: 4
1 - (1) = 0, Turn on dip No: 1

You will most likely use the first available number which may be Number 1. This number was selected for example purposes

DIP SWITCH	(DMX VALUE)
1	1
2	2
3	4
4	8
5	16
6	32
7	64
8	128
9	256
10	

DMX-512:

- DMX (Digital Multiplex) is a universal protocol used as a form of communication between intelligent fixtures and controllers. A DMX controller sends DMX data instructions from the controller to the fixture. DMX data is sent as serial data that travels from fixture to fixture via the DATA "IN" and DATA "OUT" XLR terminals located on all DMX fixtures (most controllers only have a data "out" terminal).

DMX Linking:

- DMX is a language allowing all makes and models of different manufactures to be linked together and operate from a single controller, as long as all fixtures and the controller are DMX compliant. To ensure proper DMX data transmission, when using several DMX fixtures try to use the shortest cable path possible. The order in which fixtures are connected in a DMX line does not influence the DMX addressing. For example; a fixture assigned to a DMX address of 1 may be placed anywhere in a DMX line, at the beginning, at the end, or anywhere in the middle. When a fixture is assigned a DMX address of 1, the DMX controller knows to send DATA assigned to address 1 to that unit, no matter where it is located in the DMX chain.

DATA Cable (DMX cable) requirements (for DMX operation):

- The Par Can 64 can be controlled via DMX-512 protocol. The DMX address is set on the back of the unit. Your unit and your DMX controller require a standard 3-pin XLR connector for data input/output (figure 1).

Figure 1



Also remember that DMX cable must be daisy chained and cannot be split.