7. Fixture Cleaning

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 surrounding can cause greater accumulation of dirt on the unit's optics.

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

EC - Declaration of Conformity

We declare that our products (lighting equipments) comply with the following specification and bears 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,
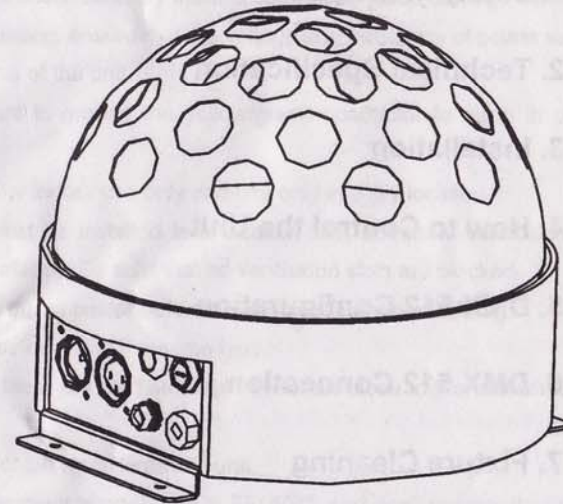
EN61000-4-11: 1994.

&

Harmonized Standard

EN60598-1: 2000+ALL: 2000+A12: 2002

Safety of household and similar electrical appliances

Part 1: General requirements

Innovation, Quality, Performance

ASTRO

User Manual

Professional Entertainment Technology

2. Technical Specification

- Voltage: AC 100V-240V 50/60Hz
- 2 Channels
    Channel 1 = Dimmer/Strobe
    Channel 2 = Rotation
- 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.
- Fan cooled.
- Dimension: 210 x 210 x 179 mm
- Weight: 1.8kg

3. Installation

You can install the unit on the truss or ceiling, Use clamps to fix the unit to truss. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. Always ensure that the structure to which you are attaching the unit is secure and is able to support a weight of 10 kg for each unit.

4. How To Control The Unit

Three ways to operation:
   A. Master/Slave operation
   B. Easy controller CA-8
   C. Universal DMX controller

A. 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 other are OFF)

Slave units: DMX start address may have any value but NOT 001 (example: set the first 3 DIP switches to ON)

 * Dipswitch 2 "ON" has two functions:
1. Perform the built-in pre-programmed by music.
2. Auto mode: Eight Chase(At this mode press dip switch 3 will change the direction of rotation, press dip switch 4,5,6 will change the speed)
 * 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 to the master unit, even if you have two units only. Dipswitch 10 on the first (Master) unit is no use for the 2-light show as it is the master unit that operates the light show.

B. Easy Controller (by CA-8)

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 all the first unit will control all the other units for Stand by, Function and Mode. Built-in lighting shows triggered by Easy Controller:

Stand by	Blackout the unit	
Function	1. Synchronous Strobe 2. Two light Strobe	Eight Chase
Mode	Strobe (LED OFF)	Chase (LED ON)
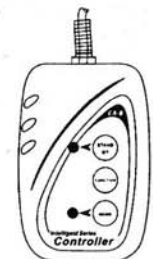
C. Universal DMX controller

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.

DMX 512 Address Chart:

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

- Examples:

Channel 1: dip / on: #1 (=1)

Channel 3: dip / on: #1, #2 (1+2=3)

Channel 5: dip / on: #1, #3 (1+4=5)
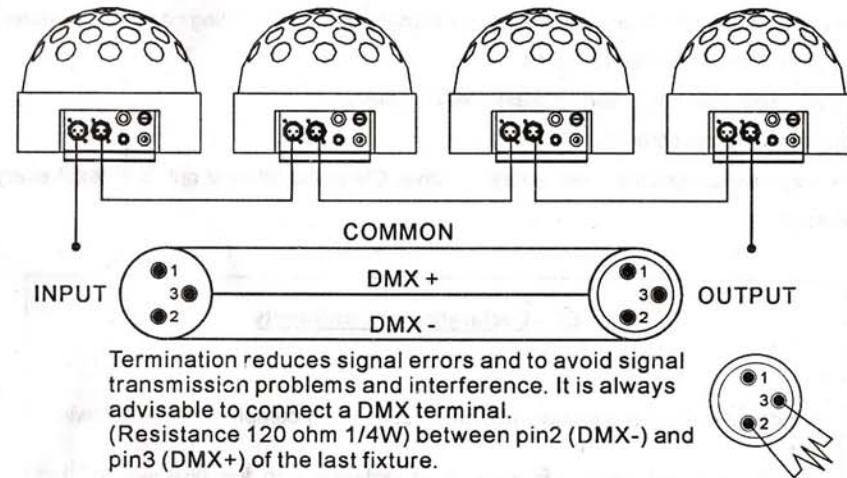
Channel 7: dip / on: #1, #2, #3 (1+2+4=7)

Channel	Dip switches setting
1	ON 1 2 3 4 5 6 7 8 9 10
3	ON 1 2 3 4 5 6 7 8 9 10
5	ON 1 2 3 4 5 6 7 8 9 10
7	ON 1 2 3 4 5 6 7 8 9 10

5. DMX 512 Configuration

DMX512 Configuration	
Ch1	Ch2
Dimmer/Strobe	Rotation
248-255 OPEN Fast	246-255 Stop
200-247	135-245 Fast / Slow
Slow	121-134 Stop
8-199	10-120 Slow / Fast
0-7 CLOSED	0-9 Stop

6. DMX 512 Connection

The DMX 512 is widely used in intelligent lightings and with a maximum of 512 channels.

COMMON

INPUT — DMX + / DMX - — OUTPUT

Termination reduces signal errors and to avoid signal transmission problems and interference. It is always advisable to connect a DMX terminal.
(Resistance 120 ohm 1/4W) between pin2 (DMX-) and pin3 (DMX+) of the last fixture.

1. If you using a controller with 5 pins DMX output, you need to use a 5 to 3 pin adapter-cable.
2. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120 ohm 1/4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.
3. Connect the unit together in a 'daisy chain' by XLR plug from the output of the unit to the input of the next unit. The cable can not be branched or split to a 'Y' cable. DMX 512 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.
4. The DMX output and input connectors are pass-through to maintain the DMX circuit, when power is connected to the unit.
5. Each lighting unit needs to have an address set to receive the data sent by the controller. The address number is between 0-511 (usually 0 & 1 are equal to 1).
6. The end of the DMX 512 system should be terminated to reduce signal errors.
7. 3 pin XLR connectors are more popular than 5 pin 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 (+)