ACME ®

CHEETAH

LED-GF50

User Manual

Professional Entertainment Technology

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## 1. Safety Instruction

⚠️ **WARNING**

> **Please read the instruction carefully which including important information about the installation, operation and**

- Please keep this User Manual for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.
- 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.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- The unit is for indoor use only and use only in a dry location.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces. Be sure that no ventilation slots are blocked.
- Disconnect mains power before fuse replacement or servicing.
- Replace fuse only with the same type.
- Make sure there are not flammable materials close to the unit while operating as it is fire hazard.
- Use safety cable when fixes this unit.
- Maximum ambient temperature is TA: 40℃ and don't operate it where the temperature is higher than this.
- Unit surface temperature may reach up to 60℃. Don't touch the housing bare-hand during its operation.
- There are no user serviceable parts inside the fixture. Do not open the housing or attempt any repairs by yourself. In the unlikely event your fixture may require service, please contact the nearest authorized technical assistance center and always use the same type spare parts.
- Don't connect the device to any dimmer pack or power pack.
- Do not look directly at the LED light beam while the fixture is on.
- The housing must be replaced if they are visibly damaged.
- Do not touch any wire during operation as high voltage might be causing electric shock.

> If using a 230Vac 50Hz power supply, do not connect in series more than 7 units, use another mains supply for the next 7 units.
> If using a 120Vac 60Hz power supply, do not connect in series more than 4 units, use another mains supply for next 4 units.

2. Technical Specification

- It can be operated by DMX512 control or can be used as an individual unit without controller.
- Please use a 3 pin XLR cable/plug when link in master/slave mode.
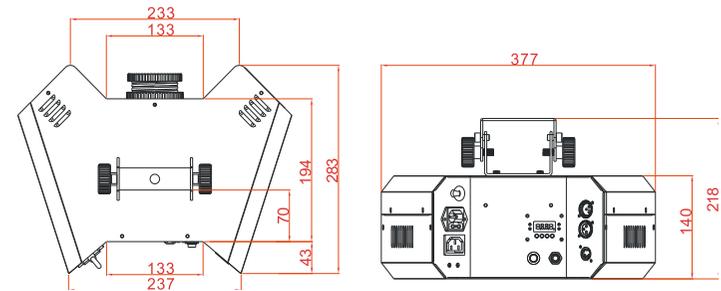
- **LED:** 50W white LED
- **Voltage:** AC 100~240V, 50Hz/60Hz
- **Fuse**: T 6.3 A
- **Power Consumption:** 89.2 W
- **Dimension:** 283 x 377 x 218 mm
- **Weight:** 5.2kgs

3. Installation

The unit should be mounted via its screw holes on the bracket. 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 times of the unit's weight. Also always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture.

The equipment must be fixed by professionals. And it must be fixed at a place where is out

of the touch of people and has no one pass by or under it.

4. How To Set The Unit

4.1 Control Panel
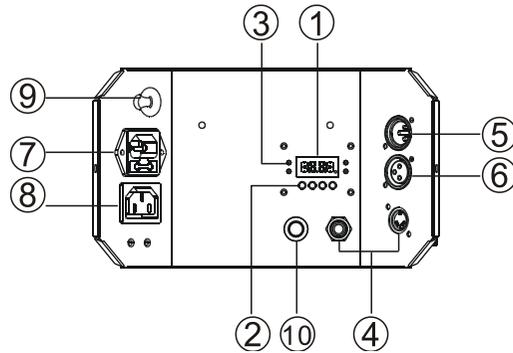
1. **Display**: To show the various menus and the selected functions

2. **Button**

MENU	To select the programming functions
DOWN	To go backward in the selected functions
UP	To go forward in the selected functions
ENTER	To confirm the selected functions

3. **LED**

DMX	On	DMX input present
MASTER	On	Master Mode
SLAVE	On	Slave Mode
SOUND	Flashing	Sound activation

4. **Only for remote control**

By connect to the 1/4'' microphone jack (CA-8) or 5-pin (CA-9) to control the unit for Stand by, Function and Mode function.

5. **DMX input**

For DMX512 link, use 3-pin XLR plug cable to link the unit together.

6. **DMX output**

For DMX512 link, use 3-pin XLR plug cable to link the unit together.

7. **Mains input**

IEC socket and integrated fuse holder, connect to main power cable.

8. **Power output**

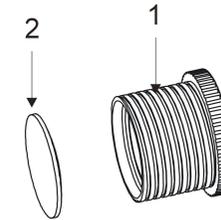Connect to supply power for the next unit.

9. **Safe ring**

Keep the installation safe.

10. Microphone: Receive music for the sound active.
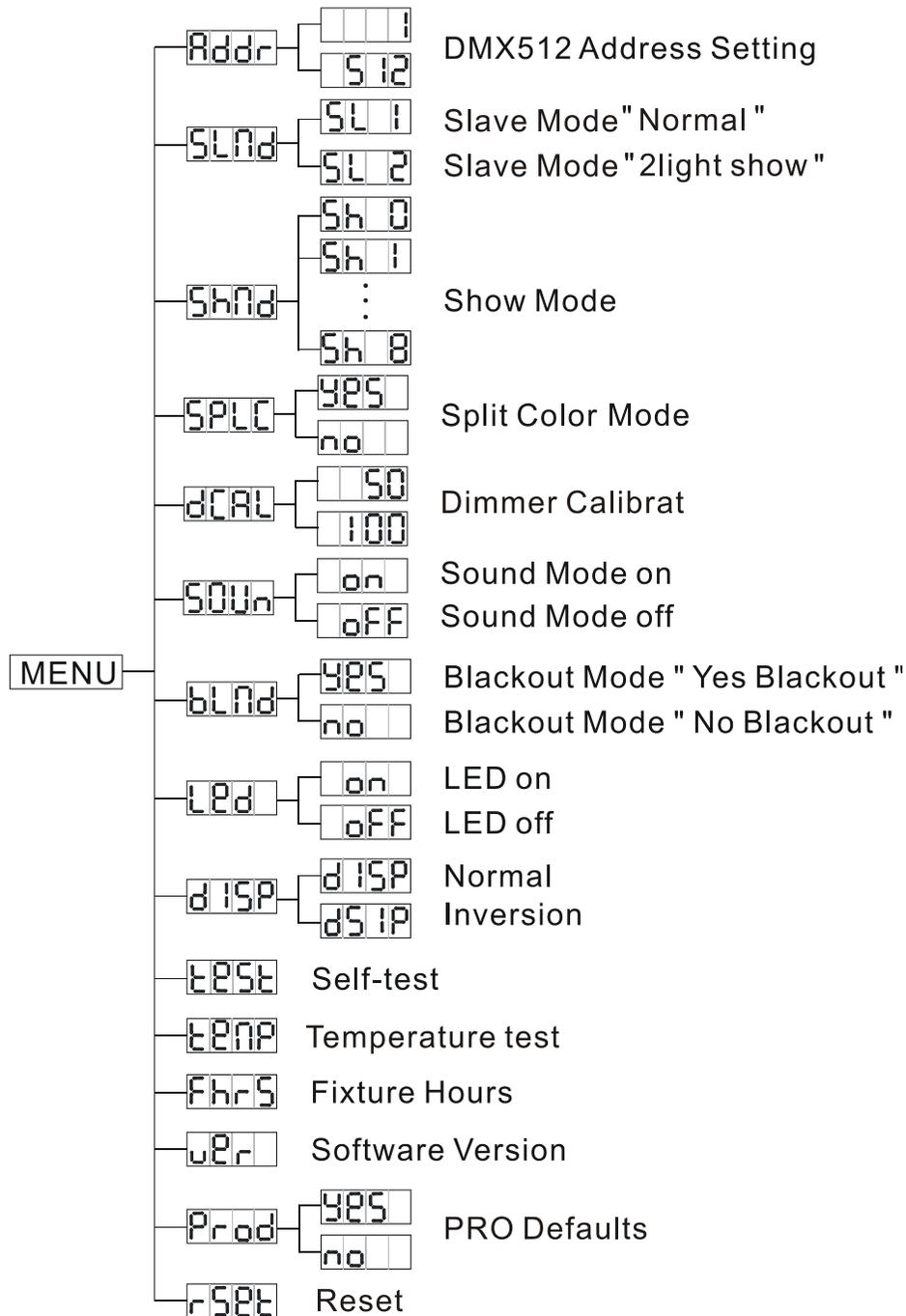
4.2 Replace the lens

You could replace the other lens if you want to, as following picture.

You should screw the lens roller to take it down as NO.1, and bring the lens out as No.2. Then you could replace the lens that you want to.

4.3 Main Function

To select any of the given functions, press the **MENU** button up to when the required one is showing on the display. Select the function by **ENTER** button and the display will blink. Use **DOWN** and **UP** button to change the mode. Once the required mode has been selected, press the **ENTER** button to setup or it will automatically return to the main functions without any change after idling 60 seconds. To go back to the functions without any change press the **MENU** button. The main functions are showing below:

Addr	`1` / `512`	DMX512 Address Setting
SLNd	`SL 1`	Slave Mode "Normal"
	`SL 2`	Slave Mode "2light show"
ShNd	`Sh 0` / `Sh 1` ... `Sh 8`	Show Mode
SPLC	`yes` / `no`	Split Color Mode
dCAL	`50` / `100`	Dimmer Calibrat
SOUn	`on`	Sound Mode on
	`oFF`	Sound Mode off
bLNd	`yes`	Blackout Mode " Yes Blackout "
	`no`	Blackout Mode " No Blackout "
LEd	`on`	LED on
	`oFF`	LED off
dISP	`dISP`	Normal
	`dSIP`	Inversion
tESt		Self-test
tENP		Temperature test
FhrS		Fixture Hours
uEr		Software Version
Prod	`yes` / `no`	PRO Defaults
rSEt		Reset

MENU

Addr DMX 512 Address Setting

Press the **MENU** button up to when the `Addr` is showing on the display. Pressing **ENTER** button and the display will blink. Use **DOWN** and **UP** button to change the DMX512 address. Once the address has been selected, press the **ENTER** button to setup. To go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about 2 seconds or wait for 60 seconds to exit the menu mode.

SLNd Slave Mode

Press the **MENU** button up to when the `SLNd` is showing on the display. Pressing **ENTER** button and the display will blink. Use **DOWN** and **UP** button to select the `SL 1` (Slave 1) or `SL 2` (slave 2) mode. Once the mode has been selected, press the **ENTER** button to setup. To go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about 2 seconds or wait for 60 seconds to exit the menu mode..

ShNd Show Mode

Press the **MENU** button up to when the `ShNd` is shown on the display. Pressing the **ENTER** button, Use the **DOWN** and **UP** buttons to select the `Sh 0` (Random show) or `Sh 1` (show 1) or `Sh 2` (Show 2) or … or `Sh 8` (show 8). Once the mode has been selected, press the **ENTER** button to setup. To go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about 2 seconds or wait for 60 seconds to exit the menu mode.

SPLC Split Color Mode

Press the **MENU** button to show `SPLC` on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to select the `yes` (Split color mode) or `no` (normal) mode. Once the mode has been selected, press the **ENTER** button to setup. To go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about 2 seconds or wait for 60 seconds to exit the menu mode.

dCAL Dimmer Calibrate

Press the **MENU** button to show `dCAL` on the display. Press the **ENTER** button and the

display will blink. Use the **DOWN** and **UP** button to calibrate the dimmer for a maximum output from ⬜⬜5̄0̄ (limited to 50% of the really max. output) to ⬜1̄0̄0̄ (maximum output is not limited). Once the mode has been selected, press the **ENTER** button to setup. To go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about 2 seconds or wait for 60 seconds to exit the menu mode.

5̄0̄Ūn̄ Sound Mode

Press the **MENU** button to show 5̄0̄Ūn̄ on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to select the ⬜ōn̄ (sound on) or ⬜ōF̄F̄ (sound off) mode. Once the mode has been selected, press the **ENTER** button to setup. To go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about 2 seconds or wait for 60 seconds to exit the menu mode.

b̄L̄n̄d̄ Blackout Mode

Press the **MENU** button to show b̄L̄n̄d̄ on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to select the ȳĒS̄ (yes blackout) or n̄ō (no blackout) mode. Once the mode has been selected, press the **ENTER** button to setup. To go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about 2 seconds or wait for 60 seconds to exit the menu mode.

L̄Ēd̄ Led Display

Press the **MENU** button to show L̄Ēd̄ on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to select the ⬜ōn̄ (Led on) or ⬜ōF̄F̄ (Led off) mode. Once the mode has been selected, press the **ENTER** button to setup. To go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about 2 seconds or wait for 60 seconds to exit the menu mode.

d̄ĪS̄P̄ Display Inversion

It is good for you to install the unit on the floor or under ceiling. Press the **MENU** button to show d̄ĪS̄P̄ on the display. Press the **ENTER** button to change to the mode d̄ĪS̄P̄ (display normal), It will automatically store after 8 seconds. Or press the **ENTER** button again return to the mode d̄S̄ĪP̄ (display inversion). To go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about 2 seconds or wait for 60 seconds to exit the menu mode.

d̄ĪS̄P̄ Display normal mode for the fixture putting on the floor.
d̄S̄ĪP̄ Display inversion mode for the fixture fixing under ceiling.

t̄ĒS̄t̄ Self-Test

Press the **MENU** button to show t̄ĒS̄t̄ on the display. Press the **ENTER** button and the unit will run self-test by built-in program. To go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about 2 seconds or wait for 60 seconds to exit the menu mode.

t̄Ēn̄P̄ Temperature Test

Press the **MENU** button to show t̄Ēn̄P̄ on the display. Press the **ENTER** button and the display will show the temperature of the unit. To go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about 2 seconds or wait for 60 seconds to exit the menu mode.

F̄h̄r̄S̄ Fixture Hours

Press the **MENU** button to show F̄h̄r̄S̄ on the display. Press the **ENTER** button and the display will show the number of working hours of the unit. To go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about 2 seconds or wait for 60 seconds to exit the menu mode.

ūĒr̄ Software version

Press the **MENU** button to show ūĒr̄ on the display. Press the **ENTER** button and the display will show the version of software of the unit. To go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about 2 seconds or wait for 60 seconds to exit the menu mode.

P̄r̄ōd̄ PRO Defaults

Press the **MENU** button to show P̄r̄ōd̄ on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to select the ȳĒS̄ (run built-in program to set the fixture to PRO Defaults settings) or n̄ō. Press the **ENTER** button to setup. To go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about 2 seconds or wait for 60 seconds to exit the menu mode.

r̄S̄Ēt̄ Reset

Press the **MENU** button to show ⌐5Ɛ⌐ on the display. Press the **ENTER** button and all channels of the unit will return to their standard position.

5. How To Control The Unit

You can operate the unit in three ways:

1. Master/slave built-in preprogram function

2. Easy controller

3. Universal DMX controller

No need to turn the unit off when you change the DMX address, as new DMX address setting will be effect at once. Every time you turn the unit on, it will show ⌐F5⌐ on the display and move all the motors to their 'home' position and you may hear some noises for about 20 seconds. After that the unit will be ready to receive DMX signal or run the built in programs.

5.1 Master/Slave Built In 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. Its DMX input jack will have nothing plugged into it, and Its master LED will be constantly on and sound LED will flash to the music. The other units will have to set in slave mode 5L⌐d and select 5L⌐1 (Slave 1) or 5L⌐2 (slave 2) mode, Their DMX cables plugged into the DMX input jacks (daisy chain) and the slave led lights will constantly on.

2-light show

In 5L⌐d (slave mode), 5L⌐1 means the unit works normally and 5L⌐2 means 2-light show. In order to create a great light show, you can set 5L⌐2 on the second unit to get contrast movement to each other, even if you have two units only.

5.2 Easy Controller (by CA-8/CA-9/CA-9RTX)

The easy remote control is used only in master/slave mode. By connecting to the 4-pin jack of the first unit, you will find that the remote controller on the first unit will control all the other units for Stand by, Function and Mode selection
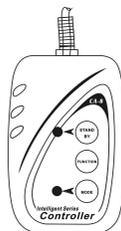
Stand By	Blackout the unit		
Function	1. Sync. Strobe	Show	1. Press to select color
	2. Async strobe	1-8	2. Hold to select gobo
	3. Sound Strobe		
Mode	Sound (LED OFF)	Show (LED Slow Blinking)	LED ON

5.3 DMX Controller

By using a universal DMX controller to control the units, you have to set DMX address from 1 to 512 channel so that the units can receive DMX signal.

Press the **MENU** button up to when the Addr is showing on the display. Pressing **ENTER** button and the display will blink. Use **DOWN** and **UP** button to change the DMX512 address. Once the address has been selected, press and keep **ENTER** button pressed up to when the display stops blinking or storing automatically 8 seconds later. To go back to the functions without any change press the **MENU** button again. If you use please refer to the following diagram to address your DMX512 channel for the first 4 units：

6 Channel Mode: 1   7   13   19

6. DMX 512 Configuration

6 Channel mode						
Ch1	Ch2	Ch3	Ch4		Ch5	Ch6
Dimmer	Strobe	Gobo	Color Wheel (Normal)	Color Wheel (Split Color Mode)	Reflectro Rotation	Function
255 — 100% 0 — 0%	248-255 Open 240-247 Random Strobe 232-239 Open 190-231 Fast Open Slow Close 182-189 Open 140-181 Fast Close Slow Open 132-139 Open 16-131 ⚡⚡⚡ ⚡⚡ ⚡ 8-15 Open 0-7 Blackout	255 Rotation Fast 128 Rotation Slow 124-127 Gobo15 Shaking 120-123 Gobo14 Shaking 116-119 Gobo13 Shaking 112-115 Gobo12 Shaking 108-111 Gobo11 Shaking 104-107 Gobo10 Shaking 100-103 Gobo9 Shaking 096-099 Gobo8 Shaking 092-095 Gobo7 Shaking 088-091 Gobo6 Shaking 084-087 Gobo5 Shaking 080-083 Gobo4 Shaking 076-079 Gobo3 Shaking 072-075 Gobo2 Shaking 068-071 Gobo1 Shaking 064-067 Open Shaking 060-063 Gobo15 056-059 Gobo14 052-055 Gobo13 048-051 Gobo12 044-047 Gobo11 040-043 Gobo10 036-039 Gobo9 032-035 Gobo8 028-031 Gobo7 024-027 Gobo6 020-023 Gobo5 016-019 Gobo4 012-015 Gobo3 008-011 Gobo2 004-007 Gobo1 000-003 Open	255 Rotation Fast 128 Rotation Slow 120-127 Color11 109-119 Color10 099-108 Color9 088-098 Color8 078-087 Color7 067-077 Color6 057-066 Color5 047-056 Color4 036-046 Color3 026-035 Color2 015-025 Color1 000-014 White	255 Rotation Fast 128 Rotation Slow 125-127 Color22 119-124 Color21 114-118 Color20 109-113 Color19 104-108 Color18 099-103 Color17 093-098 Color16 088-092 Color15 083-087 Color14 078-082 Color13 073-077 Color12 067-072 Color11 062-066 Color10 057-061 Color9 052-056 Color8 047-051 Color7 041-046 Color6 036-040 Color5 031-035 Color4 026-030 Color3 021-025 Color2 015-020 Color1 000-014 White	255 246-255 Stop Rotation Fast 136-245 Rotation Slow 121-135 Stop Rotation Slow 010-120 Rotation Fast 000-009 Stop 0	250-255 Stand-Alone 210-249 No Function 200-209 Reset All 130-199 No function 120-129 Disable blackout while Gobo change 110-119 Enable blackout while Gobo change 100-109 Disable blackout while Color change 090-099 Enable blackout while Color change 000-089 No Function

7. DMX 512 Connection

The DMX 512 is widely used in intelligent lightings and with a maximum of 512 channels.
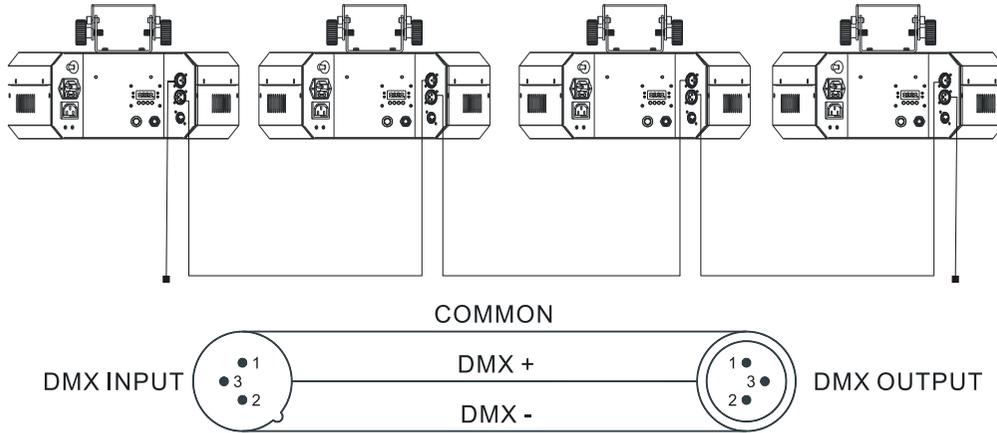
Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminal. (Resistance 120 ohm 1/4W)between pin2(DMX-)and pin3(DMX+) of the last fixture.

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 0-512 (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 (+)

Pin 4/5: Not used.

8. Troubleshooting

Following are a few common problems that may occur during operation. Here are some suggestions for easy troubleshooting:

A. The fixture does not work, no light

1. Check the connection of power and main fuse.

2. Measure the mains voltage on the main connector.

B. Not responding to DMX controller

1. DMX LED should be on. If not, check DMX connectors, cables to see if link properly.

2. If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.

3. If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the fixture 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 fixtures don't respond to the easy controller

1. Check the LED for the response of the master/ slave mode signal.

2. Check if the unit is receiving DMX signal and cut it off.

D. No response to the sound

1. Make sure the fixture does not receive DMX signal.

2. Check microphone to see if it is good by tapping the microphone.

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.

8. 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.