SD card Animation Laser

Instructions Manual

CE   RoHS

Security warning

1. When unpacking and before disposing of the carton, check if there is any transportation damage before using the product. Should there be any damage caused by transportation, consult your dealer and do not use the apparatus.

2. This equipment is not waterproof, keep it from rain, moisture and liquids.

3. Do not install the product or project the beam onto inflammable surfaces. Minimum distance is 5 M   D 5M ∬

4. The product is only intended for installation, operation and maintenance by qualified personnel.

5. Product should install in a cool place. Keep away from the wall 50cm

6. Avoid direct exposure to the light from the lamp. The light is harmful to eyes.

7. Keep the optical system clean. Do not touch the laser reflect lens with bare hands. Do not use any alcohol liquid or any other liquit to clean the optical system. Use medicinal absorbent cotton to clean it.

8. Please do not attempt to dismantle and/or modify the product inner structure. Otherwise, would not provide 1 year of free warranty.

9. Electrical connection must only be carried out by qualified personnel.

10. Before installation, ensure that the voltage and frequency of power supply match the power requirement of the product.

11. It is essential that each product is correctly earthed and that electrical installation conforms to all relevant standards.

12. Do not connect this device to any other types of dimmer apparatus.

13. Make sure that the power-cord is never crimped or damaged by sharp edges. Never let the power-cord come into contact with other cables. Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.

14. There is no user serviceable parts inside the product, do not open the housing and never operate the product with the cover removed.

Power Connections Method

Please connect power as following ：
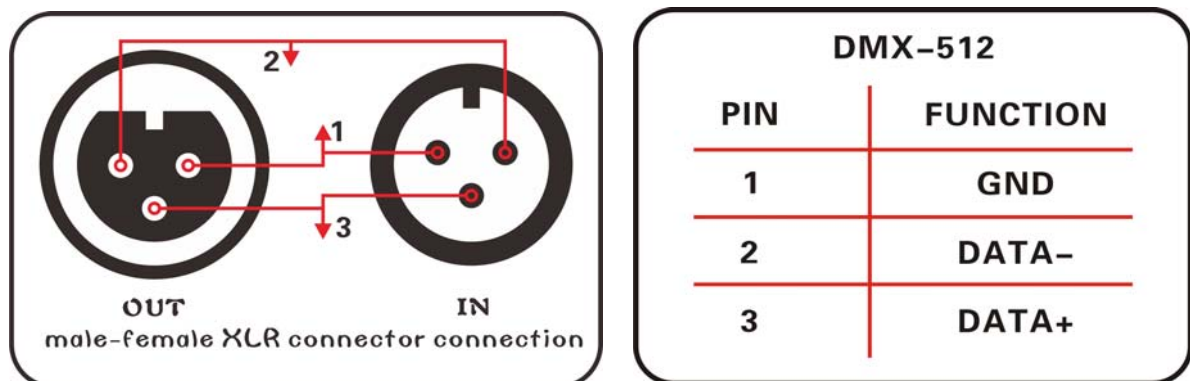L（live wire ） =brown wire
E（earth wire）=yellow/green double color wire
N（null line ） =blue wire
When connecting,ensure that the voltage and frequency of power supply match the power requirement of the product.
This product is Class 1 protection equipment.The yellow-green double colors wire must be earthed by qualified personnel. Before installation,ensure that the voltage and frequency of power supply match the power requirements of product.In power supply and voltage fluctuation large areas,we suggest you to use 110V or 220V or use voltage regulator to supply power.After electrical connection,this product will have a few seconds self-check action, self-check finished can be used.
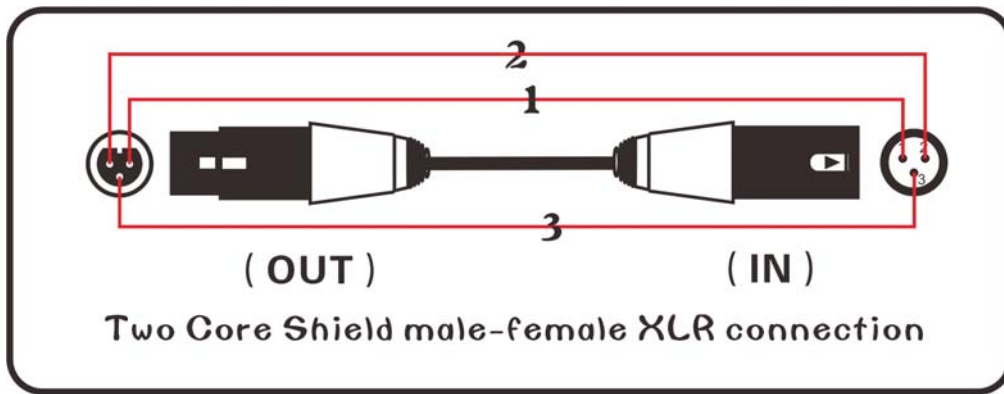
Important:It is essential that Yellow/green double color wire is correctly earthed and that electrical installation conforms to all relevant standards
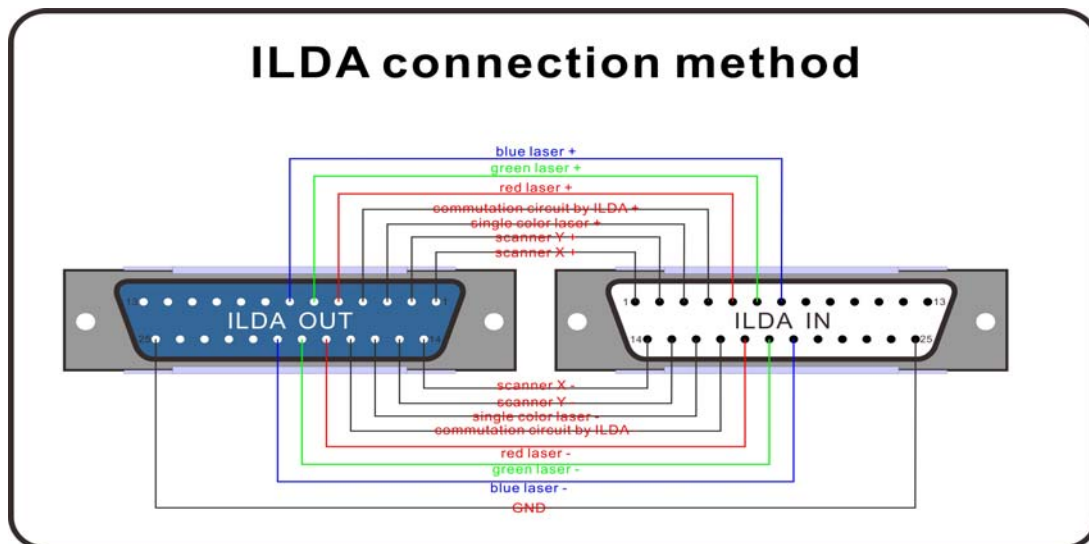
DMX Connection method

DMX control signal connection must be made with a two core-screened cable,with each core having at least a 0.5mm diameter.Please use the product's signal cable OUT and IN as connection.The signal OUT and IN cables connection shown as above picture.
Note:Please do not connect the signal cable OUT and IN in other way except above shown.

(OUT)   **(IN)**

Two Core Shield male-female XLR connection

This product accepts digital control signals in protocol DMX512(1990).The amount of lighting fixtures connected in parallel is no more than 32.Connect the DMX controller's **Output** to the first lighting fixture's **Input** cable with a 2 core XLR signal cable(Shown as above),connect the first lighting fixture's **Output** cable to the second lighting fixture's **Input cable** and connect the rest light fixtures in the same way.Eventually,connect the last lighting fixture's Output cable to a DMX terminator

Under DMX-512 signal control mode,the last lighting fixture's DMX Output must be connected with a DMX terminator.This prevents electrical noise from disturbing and corrupting the DMX control signals.The DMX terminator is simply an XLR connector with a 120Ω(ohm) resistor connected across pins 2 and 3,which is then plugged into the output socket on the last projector in the chain.Then connections are illustrated above.

ILDA connection method

blue laser +
green laser +
red laser +
commutation circuit by ILDA +
single color laser +
scanner Y +
scanner X +

ILDA OUT   ILDA IN

scanner X -
scanner Y -
single color laser -
commutation circuit by ILDA -
red laser -
green laser -
blue laser -
GND

ILDA control signal connection method:
Connection built through product male/female DB 25 degree socket.Like above picture. In addition to the above connections, ILDA signal cannot be connected in any other way.

LCD Menu and function introduction

Choose function by press " UP" and" Down" buttons

Press " ENTER" to cofirm the function

Press " RETURN" back to last menu.

●LCD setting of menu：

First grade menu	Second grade menu	3rd grade menu
1. DMX-512 DMX-512 mode	1. Address 001 Choose light DIP	
2. Iplay	1. Show Choose effect	Show 001
	2. Music Sound	1. OFF 2. ON
3. SDplay	1. Play	1. 001 ild
		2. FileName
	2. List	1. 001 eff
		2. ListName
	3. Mode	1.PlayOne 2.PlayAll
	4. Music	1. OFF 2. ON
4. Testing	1. Scan	1. Scan 2. 30KPPS
	2. Color	1.Single1-7 2.RGY 3.RBP 4.GBA 5.RGB 6.WYAP
5. Setting	1. Light	1. ON 2. ON 5S

	2. OneBeam	1. OFF 2. ON
	3. Master	1. OFF 2. ON
	4. Channel	1. 13CH 2. 5CH
	5. TTLMode	1. OFF 2. ON
6. Default	1. Yes 2. No	

●DMX-512 Channel function

1. DMX chnnel function

Channel		Value	Content
	Laser off	0～29	Laser off
CH1	IPLAY	30～59	1. Auto manual control
		60～89	2. Auto
		90～119	3. Sound manual control
		120～149	4. Sound
	SDPLAY	150～179	5. Auto manual control
		180～209	6. Auto play
		210～239	7. Sound manual control
		240～255	8. Sound control

2. IPLAY mode 13CH :

Channel		Value	Content of control
CH1	Laser off	0～29	Laser off
	IPLAY	30～59	Auto manual control
		60～89	Auto
		90～119	Sound manual control
		120～149	Sound manual control
CH2	Patterns	0～255	Every 3 value choose one pattern
CH3	Patterns rotation	1～127	Rotary angle choose
		128～159	30 degree rotary speed choose
		160～191	180 degree rotary speed choose
		192～223	Rotary speed in opposite direction
		224～255	Rotary speed in positive direction
CH4	Patterns flip horizontal	1～127	Flip horizontal position selection
		128～159	Flip horizontal speed selection
		160～191	
		192～223	
		224～255	

		1～127	Flip vertical position selection
CH5	Pattern flip vertical	128～159	Flip vertical speed selection
		160～191	
		192～223	
		224～255	
CH6	Patterns horizontal moving	1～127	Horizontal moving position selection
		128～159	Horizontal moving speed selection
		160～191	
		192～223	
		224～255	
CH7	Pattern vertical moving	1～127	Vertical moving position selection
		128～159	Vertical moving speed selection
		160～191	
		192～223	
		224～255	
CH8	Pattern size	1～127	Pattern size selection
		128～159	Zoom out speed selection
		160～191	Zoom in speed selection
		192～223	Zoom in speed selection
		224～255	
CH9	Pattern zoom in/out	1～255	Pattern size selection
CH10	Patterns gradually drawing	1～127	Gradually drawing speed selection
		128～255	
CH11	Hot spot effects	1～127	Pattern scanning speed selection
		128～255	
CH12	Color	0～63	Fixed color
		64～95	Color selection
		96～127	
		128～159	Color change rotation speed selection
		160～191	
		192～223	
		224～255	Gradually drawing speed selection
CH13	Full RGB	1～255	255 color

3. IPLAY mode 25CH :

Channel		Value	Content
CH1	Laser off	0～29	Laser off
	IPLAY mode	30～59	Auto manual control
		60～89	Auto play
		90～119	Sound manual control
		120～149	Sound control
CH2	Patterm A choice	0～255	Every 3 value choose one pattern
CH3	Pattern A slection	1～127	Rotation angle selection
		128～159	30 degree rotation speed selection
		160～191	180 rotation speed slection
		192～223	Rotary speed in opposite direction
		224～255	Rotary speed in positive direction
CH4	Patterns A horitional rotation	1～127	Horizon rotation angle selection
		128～159	Horitional pattern rotation selection
		160～191	
		192～223	
		224～255	
CH5	Pattern A Vertical rotation	1～127	Vertical rotaion angle selection
		128～159	Vertical rotation speed slection
		160～191	
		192～223	
		224～255	
CH6	Patterns A horizition moving	1～127	Horizition rotation position selection
		128～159	Horizontal moving speed selection
		160～191	
		192～223	
		224～255	
CH7	Patterns A vertical moving	1～127	Vertical moving position selection
		128～159	Vertical moving speed selection
		160～191	
		192～223	
		224～255	
CH8	Pattern A zoom in/out	1～127	Pattern size slection
		128～159	Zoom in speed selection
		160～191	Zoom out speed selection
		192～223	Zoom speed slection
		224～255	
CH9	Pattern A zoon size	1～255	Pattern zoom in/out size selection
CH10		1～127	gradually drawing selection

	Patterns gradually drawing	128～255	
CH11	Pattern A hot pot	1～127	Scanning speed selection
		128～255	
CH12	Patter A color mode	0～63	Fixed color slection
		64～95	Chaning color speed selection
		96～127	
		128～159	Effect speed selection
		160～191	
		192～223	
		224～255	Gradually drawing speed selection
CH13	Patter A full color	1～255	255 colors selection
CH14	Pattern B slection	0～255	Choose one patter every 2 value
CH15	Pattern B rotation	1～127	Rotation angle slection
		128～159	30 degree rotation angle selection
		160～191	180 rotary speed slection
		192～223	Rotary speed in opposite direction
		224～255	Rotary speed in positive direction
CH16	Patter B horizitonal rotation	1～127	Horizontal angle selection
		128～159	Horizontal speed selection
		160～191	
		192～223	
		224～255	
CH17	Pattern B vertical rotation	1～127	Vertical angle selection
		128～159	Vertical speed selection
		160～191	
		192～223	
		224～255	
CH18	Pattern B horizontal rotation	1～127	Horizontal moving direction slection
		128～159	Horizontal moving speed selection
		160～191	
		192～223	
		224～255	
CH19	Pattern B vertical	1～127	Vertical moving direction selection
		128～159	Vertical moving speed selection
		160～191	
		192～223	
		224～255	
CH20	Pattern B Zoom	1～127	Pattern size selection
		128～159	Zoom in speed selection

		160～191	Zoom out speed selection
		192～223	Zoom speed selection
		224～255	
CH21	PatternB size	1～255	Pattern size selection
CH22	Pattern B gradually drawing	1～127	gradually drawing speed selection
		128～255	
CH23	Pattern B pot	1～127	Scan speed selection
		128～255	
CH24	Pattern B color mode	0～63	Fixed color selection
		64～95	Changing color effect selection
		96～127	
		128～159	Water effect selection
		160～191	
		192～223	
		224～255	gradually drawing speed selection
CH25	Pattern B full color	1～255	255 color selection

4. SDPLAYmode list

Channel		Value	Content
CH1	Laser on/off	0～29	Laser off
	SDPLAY mode	150～179	Auto manual control
		180～209	Auto play control
		210～239	Sound manual control
		240～255	Sound control
CH2	Effect list	0～255	Every 28 value choose one effect library
CH3		0～255	Every 10 value choose one effect library
CH4	Patterns selection	0～255	Every 28 value choose one pattern library
CH5		0～255	Every 10 value choose one pattern library
CH6	Play control	0～127	Auto, sound all play
		128～255	Single cue loop, Auto, Sound control
	Patterns rotation	1～127	Rotation Z
		128～159	30° angle speed adjustment
		160～191	180 °angle speed adjustment
		192～223	Invert rotation speed adjustment
		224～255	Rotation speed adjustment
CH7	HR	1～127	Rotation X
		128～159	Rotation speed adjustment
		160～191	
		192～223	
		224～255	

CH8	VR	1～127	Rotation Y
		128～159	Rotation speed adjustment
		160～191	
		192～223	
		224～255	
CH9	HB	1～127	Position X
		128～159	Position speed adjustment
		160～191	
		192～223	
		224～255	
CH10	VB	1～127	Position Y
		128～159	Position speed adjustment
		160～191	
		192～223	
		224～255	
CH11	SI	1～127	Scale
		128～159	Scale down speed adjustment
		160～191	Scale up speed adjustment
		192～223	Scale up & down adjustment
		224～255	
CH12	DR	1～127	Visible point speed adjustment
		128～255	
CH13	BE	1～127	Scanner rate speed adjustment
		128～255	
CH14	CO	0～63	Static color
		64～95	Color shift speed adjustment
		96～127	
		128～159	Rainbow speed adjustment
		160～191	
		192～223	
		224～255	Write in speed adjutment

●**Preparing SD card files:**
Create a "PESLASER" folder, then create "ddrfiles", "ildfiles", "Playlist" folder in "PESLASER". See Fig.1
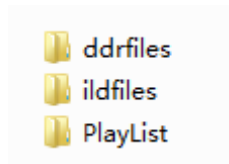

Fig. 1

1.Put the ishow ddr format document in "ddrfiles" folder. (Caution: The name limited 8 character). For example fig.2.

Fig. 2

Note: You could create a new folder for saving DDR format document, but the folder name limited 8 character. For example fig. 3.

Fig. 3

2.Put the ild format document in "ildfiles" folder. (Caution: The name limited 8 character). For example fig.4
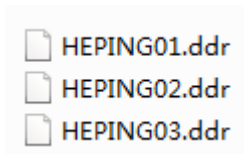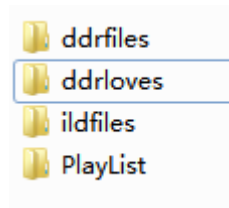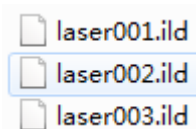

Fig. 4

Note: You could create a new folder for saving ild format document, but the folder name limited 8 character. For example fig. 5.
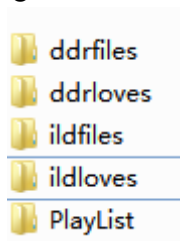

Fig. 5

3.Put the eff and pla format document in "PlayList" folder. Eff and pla format can edit by notepad. For example fig. 6.
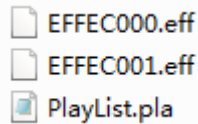
Fig. 6

● **Edit effect**

1.Put new ild or ddr format document in "ildfiles" or "ddrfiles" folder.

2.Copy a EFFEC000.eff-> Paste it-> rename it (for example: "loves001.eff)->edit it by notepad, see fig. 7.

```
1, (ddrfiles/HEPING12. ddr, TI=5,  SI=180,  CO=150, )
2, (ddrfiles/HEPING06. ddr, TI=10, SI=180,  CO=80,  )
3, (ddrfiles/HEPING12. ddr, TI=5,  SI=150,  CO=250, )

6, (ildfiles/Aurora9. ild,  TI=5,  )
7, (ildfiles/Aurora18. ild, TI=5,  )
8, (ildfiles/Aurora19. ild, TI=5,  )
```

Composed by four parts： effect number + file path + time + effect, see below:

Effect number	File path	Time	Effect
1，	ddrfiles/heping12.ddr,	TI=5,	SI=180, CO=150,
2，	ddrfiles/heping06.ddr,	TI=10,	SI=180, CO=80,
3，	ddrfiles/heping12.ddr,	TI=5,	SI=150, CO=250,
6，	ildfiles/Aurora9.ild,	TI=5,	
7，	ildfiles/Aurora18.ild,	TI=5,	
8，	ildfiles/Aurora19.ild,	TI=5,	

(1) Time in seconds, for example TI=5, play it 5s.

(2)That have night effect: RO(Rotation Z),HR(Rotation x),VR(Rotation Y),HB(Position X),VB(Position Y),SI(Scale),DR(Visible point),BE(Scanner rate),CO(Color).

Note: The character "," and "()" must be use.

●**Add the effect to "PlayList.pla" list, see Fig. 8.**

```
1, (EFFEC000. eff)
2, (EFFEC001. eff)
3, (EFFEC002. eff)
4, (EFFEC003. eff)
4, (loves001. eff)
```

Fig. 8

Maintenance

To prolong the life of the product, it is very important to do maintenance work. The environment is hash outdoors, or if the product is idle for a long time, damp, smoke or particularly dirty surroundings can cause greater accumulation of dirt on its cover and housing. So it should be cleaned to maintain an optimum light output and at the same time to prevent it from corrupted by acid gas.

Cleaning frequency depends on the environment in which the fixture operates. Soft cloth and typical glass cleaning products should be used for cleaning. It is recommended to clean product at least once every 20 days.

Friendly notice: Do not use any organic solvent, e.g. alcohol to clean housing of the apparatus.

Troubleshooting

Problems	Action
The product doesn't switch on	Power connection is not correct. Re-connect the power.
	Power supply is damaged or abnormal. Call a qualified personnel to fix it.
	Connection of control board is not correct. Call a qualified personnel to fix it.
The product can turn on, but no light coming out.	Control mode is wrongly setting up. Resetting it according to instruction book
	Control section is damaged. Call a qualified personnel to fix it.
The beam appears dim	The product is too hot. Take ventilation measures to make it cool.

Note: This product is under warranty for 1 year(From the date of delivery), 1 years after can provide paid maintenance services. But if it is because of natural disasters or user's operation not according to manual. We won't provide warranty.