



SY-328 MANUAL

Version: 3.0.1

Model: SY-328-N1
SY-328B-N1

2024-7

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1. FUNCTION OVERVIEW

1. When the controller is controlled by DMX512 console, it can also receive the volume of sound source or drum rhythm for playing effect.
2. 8-channel output signal (data-independent). It can drive 3,840 channels of single port, and the use of amplifiers is to achieve parallel multiple luminaires with the same protocol.
3. It supports controlling a variety of SPI luminaires.
4. Specialized software of making animation is included, user can make their own effects.
5. Support for controller binding specified project code.
6. The controller can read a SD card with a maximum capacity of 32GB. (The maximum animation file support is 3.5GB.)

2. TECHNICAL PARAMETERS

2.1. PRODUCT INFORMATION

Cover material: Iron

Input voltage: AC 100V~240V

Output signal: TTL * 8 ports (Supports six parallel lamps in one channel.)

Driven: SPI chip: 3840 ×8 ports

Output power: < 3W

Working temperature: -15°C ~60°C

Relative humidity: ≤50% RH

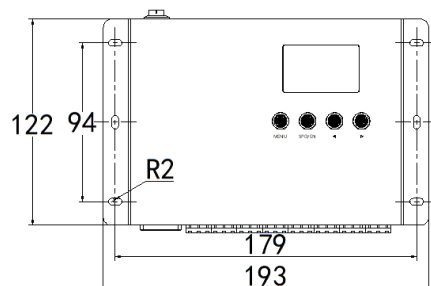
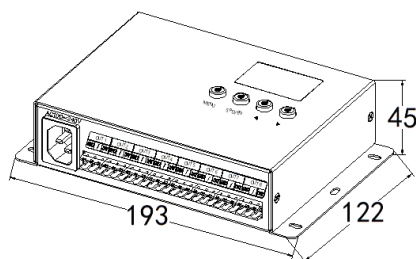
IP grade: IP20 (Prevent people from touching the components inside electrical appliance, prevent object which diameter is more than 12.5mm from getting in, no special protection to water or moisture.)

- Working environment:
1. Only indoor light screens can be controlled.
 2. Please do not install the controller in magnetic, high pressure, high temperature or seriously wet environment.
 3. Please do connect the earth safely in order to reduce risks of fire and damage which cause by short circuit.
 4. Please ensure AC100-240V power supply is used, and same polarity is connected between transformer and controller in order to guarantee the proper supply voltage.
 5. No waterproof function in the control system, please pay attention on rainproof and waterproof during installing.

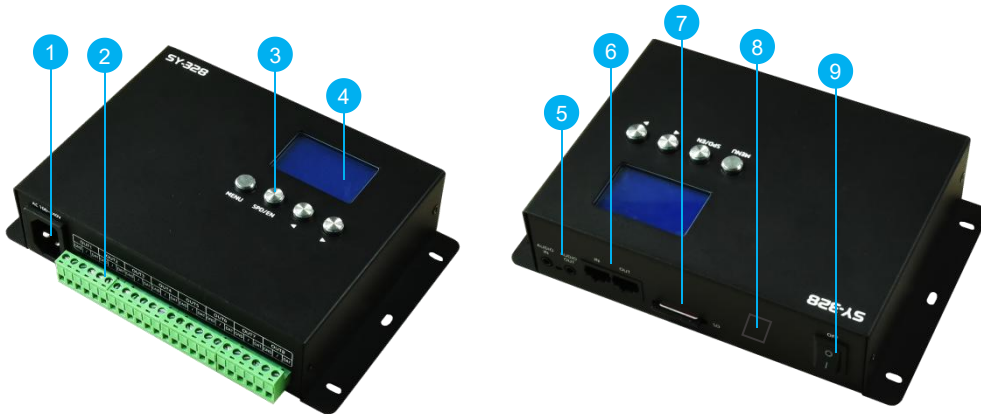
Net weight: 0.65 kg

Size: L193*W122*H45

(Unit mm)



2.2. COMPONENT



- | | | |
|--------------------------|----------------------------|------------------------------------|
| ① Power input AC100-240V | ② Output control luminaire | ③ Button |
| ④ LCD display | ⑤ 3.5 audio wire socket | ⑥ Uplink port and DMX control port |
| ⑦ SD card port | ⑧ KTV light control panel | ⑨ Power switch |

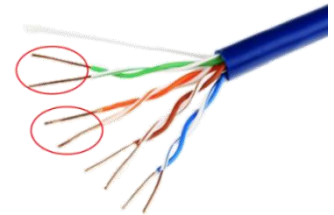
Note, KTV lighting control needs to be customized.

3. CONNECTION INSTRUCTION

3.1. OUTPUT WIRING

★ Signal cables connection cautions:

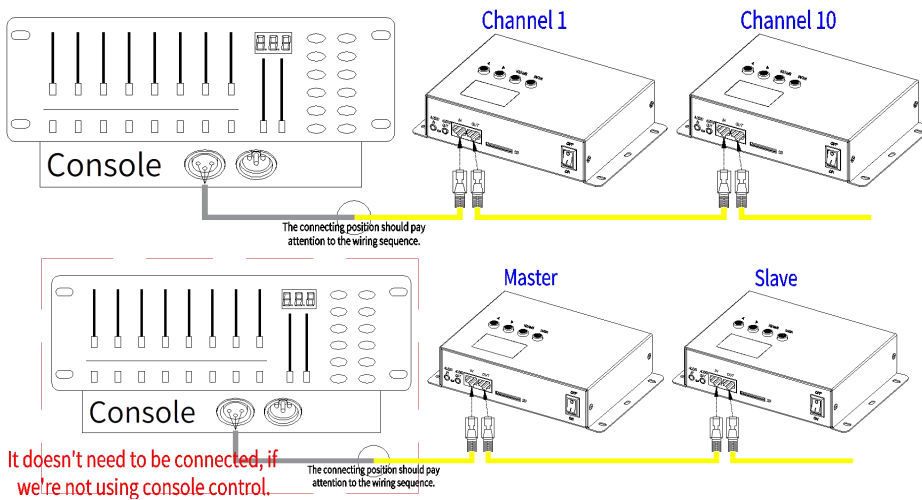
1. Use UTP—Unshielded Twisted Pair (resistance per 100M<10Ω), low quality Ethernet cables, telephone cables and copper wires are unavailable.
2. Use one group twisted pair, suggest green + green white or orange + orange white. The quality and color of the cable are very important. Blue and brown wires greatly influence the signal transmission. Please don't use several groups of twisted pairs together.
3. Controller signal output GND must connect directly with input GND of lighting fixture. **Cannot connect with lighting fixture through power supply.**
4. Switch on the controller after all hardware signal and power cables are connected. Please *don't CONNECT / DISCONNECT* the signal cables while the controller is power on; avoid back-flow current burning circuit and components of output port.



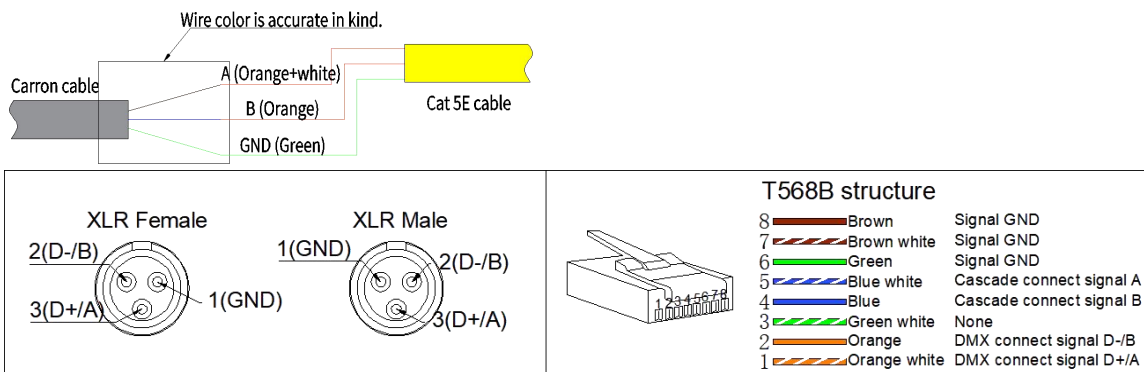
Transmission distance:

Transmission Type	Signals	Medium	Distance (M)	Remark
Master/slave control → SW lighting fixture	TTL	UTP-Unshielded Twisted Pair	30-50	
		Two core wire	5-30	
Master/slave control → Single-wire lighting fixture	TTL	UTP-Unshielded Twisted Pair	5-20	
		Two core wire	1-5	
Master/slave control → SW lighting fixture	TTL	UTP-Unshielded Twisted Pair	5-20	Controllable pixels reduce if wire is over 5m.
		Two core wire	1-5	
		Three core wire	1-5	
Single-wire lighting fixture → Single-wire lighting fixture	TTL	UTP-Unshielded Twisted Pair	1-2	Controllable pixels reduce if wire is over 1m.
		Two core wire	0.1-1	

3.2. DMX CONNECTION



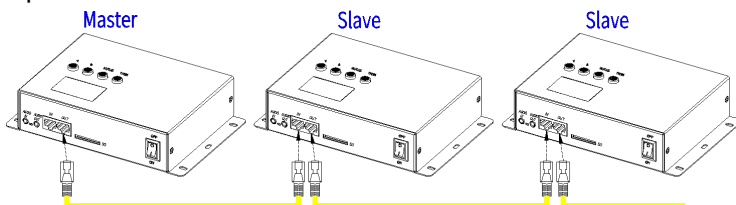
3.3. SIGNAL GUIDANCE FOR CANNON AND CASCADE LINES



The pin position of The XLR is for reference only, and the final signal shall be subject to the actual XLR and DMX512 controller.

3.4. CASCADE CONNECTION

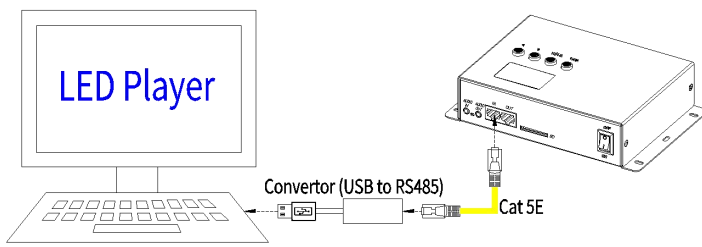
When the project needs to be controlled by multiple cascading controllers, connect the host with slave controllers by cables to make the whole project synchronous. The distance must be no more than 50M. User can extend the cables based on real requirement (cable extension should follow T568B method). Operation refers to the “CASCADE CONTROL” section.



After the slave is connected to the master, we can view the slave receiving signals from the master on the screen. If it shows that no signal has been received, please check that the cable is connected correctly.

If two hosts are to be configured in the link, disconnect the primary/secondary signal from the primary/secondary network cable connected to the host.

3.5. SINGLE PIXEL CLOTH AND LIGHTS UP IN REAL TIME



Some computers will automatically identify the com port and install the driver.

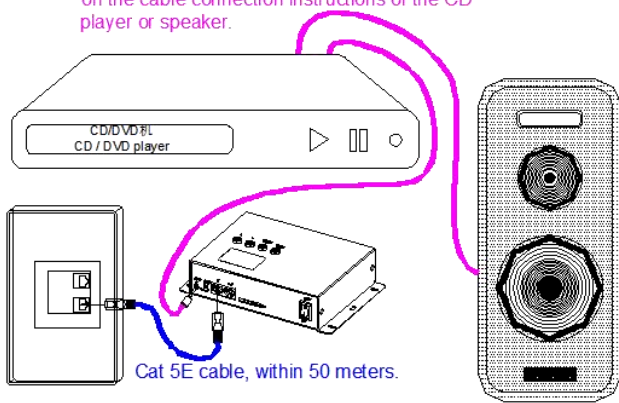
If the com port is not displayed, please click this link

(<http://www.swdoc.cn/f/479f92af828545f99d5c/>) to download and install driver.

3.6. KTV LIGHTING CONTROL PANEL WIRING

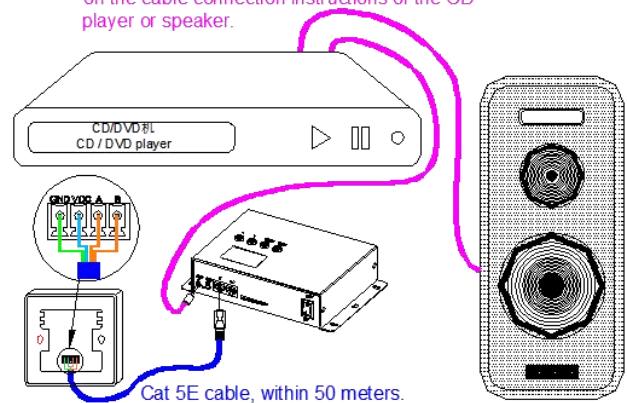
Panel A, we can connect either of the two RJ45 ports on the panel.

Audio cable. The actual cable connection is based on the cable connection instructions of the CD player or speaker.



Panel N,

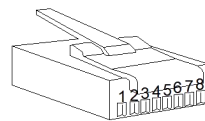
Audio cable. The actual cable connection is based on the cable connection instructions of the CD player or speaker.



1. The port sequence of the network cable must be clamped according to T568B.
2. Do not use crossover cables to avoid burning the panel or controller ports.

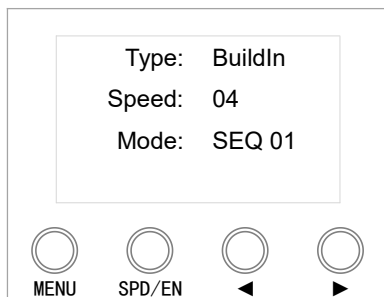
T568B structure

8	Brown	None
7	Brown white	None
6	Green	GND
5	Blue white	DC 12V
4	Blue	DC 12V
3	Green white	Signal GND
2	Orange	Signal D+/A
1	Orange white	Signal D-/B



4. BASIC OPERATION

4.1. INTERFACE INTRODUCTION



Selection	Instruction
Type	The type of playback.
Speed	Speed.
D Mode	The play mode. When the controller is connected to the DMX512 console, D Mode is displayed.

4.2. BUTTON

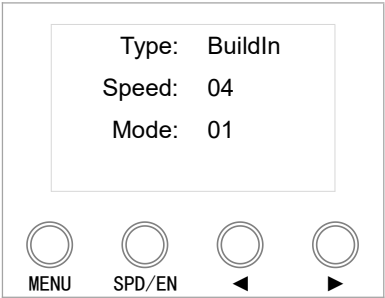
Button	Operation	Introduction
MENU	Short press	Set the control type and switch down the parameter settings.
	Long press	Enter/exit the "parameter setting" interface.

Button	Operation	Introduction
SPD/EN	/	Set the effect speed and switch up the parameter settings.
◀	Short press	Decrease, suitable for changing effect and setting parameters.
	Long press	Quickly decrease the value of the effect/parameter.
▶	Short press	Increase, suitable for changing effect and setting parameters.
	Long press	Quickly increase the value of the effect/parameter.

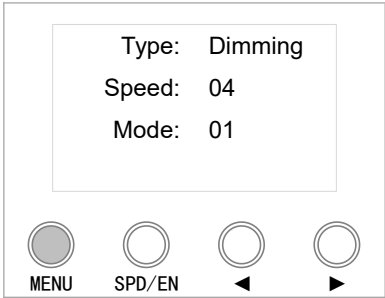
4.3. CONTROL SETTING

4.3.1. CONTROL MODE SWITCHING

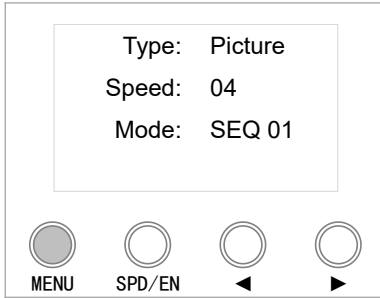
Press MENU to switch the control type. There are Build-in, Sound, Music, Picture.



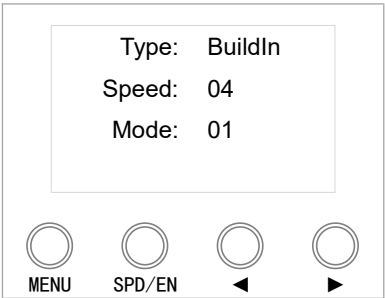
Initial interface



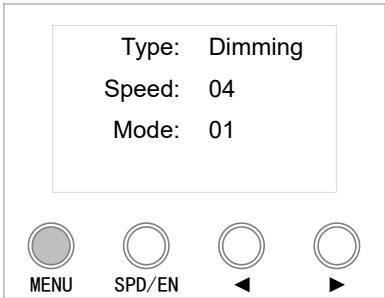
Press MENU to be "Dimming".
(Only control from Bluetooth app)



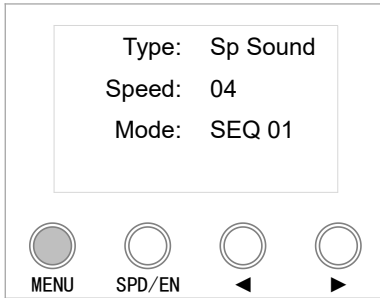
Press MENU again to be "Picture" if there is not any audio control animation.



Initial interface



Press MENU to be "Dimming".
(Only control from Bluetooth app)



Press MENU again to be "Sp Sound" if there are some audio control animation.

4.3.2. SPEED

Press button "SPD/EN" on control panel to select play speed, the less the rate, the quicker the speed.

Parameters	Speed																	
Interface	02	03	04	05	06	07	08	09	10	11	12	15	20	30	50	80	99	
Frame Rate(ms)	20	30	40	50	60	70	80	90	100	110	120	150	200	300	500	1000	2000	
(fps)	50	33	25	20	17	14	13	11	10	9	8	7	5	3	2	1	0.5	

5. MENU SETTING

M/S: Master DMX - ADDR: 001 DMX - CH: 10 TO 1 DMX - MODE: STD	DMX Cache: OFF Total BRI: 100% R BRI: 100% G BRI: 100%	B BRI: 100% W1BRI: NULL W2BRI: NULL W3BRI: NULL	Speed Up: 1.5 Sequence: RAN CE BP QTY: 01 CF BP QTY: 01
Page 1	Page 2	Page 3	Page 4

BP Sen: 05
 Mute Mode: Black
 Mute Val: 10%
 Mute Time: NoDelay

Page 5

MODBUS Addr: NULL
 Debug Addr: 01
 EX - CTRL: DMX
 language: 英文/EN

Page 6

Run Stats:
 Reset: NO
 Version: N01
 Motion Set: LIN

Page 7

AutoBackup: N
 Reset: NO

Page 8

Menu	Introduction
M/S	M: Master, S: Slave Set it to master or slave. Only one master can exist on a link.
DMX - ADDR	The address value of the controller when it is controlled by the DMX console. The value can be set from 001 to 503.
DMX - CH	The numerical definition of each control channel when it is controlled in the DMX console. We can choose "1 to 1" or "10 to 1". For details, see DMX512 CONSOLE CHANNEL DEFINITION.
DMX - MODE	The mode when it is controlled in the DMX console. We can choose STD (standard) or COM (compatible). For details, see DMX512 CONSOLE CHANNEL DEFINITION.
DMX Cache	The receive console type. OFF is digital display console. ON is push-rod console.
BRI (R/G/B/W/Total)	The brightness of luminaire, The value can be set from 1% to 100%. 1. When the software program sets the luminaire to three channel, W channel does not work. 2. The overall luminance is multiplied by the luminance of a single channel. If the overall brightness and R channel are set to 50% respectively, and the G/B/W channel is set to 100%, then the RGBW brightness of the luminaire is 25%/50%/50%/50% respectively. 3. Only the overall brightness value can be set when "COM And Point Parameter Adjustment" is set in LED Player.
Speed Up	The controller under sound control to adjust the acceleration rate of the animation playback based on the detected music rhythm (optional off or 1.5-6.0 multiplier).
Sequence	The playing mode of the effect: sequential and random.
CE BP QTY	Change effect Beat Point Quantity The animation material is changed only after the number of drumbeats is sensed (optional random, 1-32 values).
CF BP QTY	Change frame Beat Point Quantity Change animation direction or color only after the number of drumbeats is sensed (optional 1-16). Off indicates that the function is disabled.
BP Sen	Beat Point Sensitivity Under sound control, detect the sensitivity of the drum (5 to 50 can be selected). The smaller the number, the higher the sensitivity.
Mute Mode	An animation that plays after no sound is detected under sound control. We can choose black, multi loop, pattern effect. If Mute Time is set to Disable, this option cannot be set.
Mute Val	After setting Mute Mode, we need to set this threshold to transition the ambient noise. Greater than the threshold to effectively output music effect. 10% is recommended for Audio control. And if Sound Control is selected, set an

Menu	Introduction																																																															
	appropriate value based on the ambient noise.																																																															
Mute Time	The controller switches to the Image mode after collecting no sound for a specified period of time. Disable: The mute switching function is disabled. No delay: switch immediately after no sound is detected. 01 to 10 seconds: Switch to x seconds after no sound is detected.																																																															
MODBUSAddr	The reservation function.																																																															
Debug Addr	The address value of the controller when the light debugging function is used.																																																															
EX-CTRL	External Control Shows that the controller is currently using DMX console functions.																																																															
language	Chinese and English display.																																																															
RunStats	View controller running statistics.																																																															
Version	The program version of the controller.																																																															
Motion Set	When the controller is controlled by the KVT panel and presses the audio control button on the KTV panel, this setting is to determine whether the audio control function of the controller is controlled by the ambient sound or the audio source control of the audio line.																																																															
AutoBackup	In set it is "Y" (enable state), the SD card file is copied to the controller without pop-up prompt when the controller is powered on. In the disable state (N), when the controller is powered on, a pop-up prompts you whether to back up SD card files.																																																															
Reset	Restore to factory Settings. The reset parameters of setting 1 and setting 2 are different. Belows, <table border="1" data-bbox="379 1160 1182 2042"> <thead> <tr> <th>Parameters</th> <th>Reset 1</th> <th>Reset2</th> </tr> </thead> <tbody> <tr> <td>M/S</td> <td colspan="2">Master</td> </tr> <tr> <td>DMX - ADDR</td> <td colspan="2">1</td> </tr> <tr> <td>DMX - CH</td> <td colspan="2">1 to 1</td> </tr> <tr> <td>DMX - MODE</td> <td>Standard</td> <td>Compatible</td> </tr> <tr> <td>DMX Cache</td> <td colspan="2">OFF (digital display console)</td> </tr> <tr> <td>BRI</td> <td colspan="2">All 100%</td> </tr> <tr> <td>Speed Up</td> <td colspan="2">2.0</td> </tr> <tr> <td>Sequence</td> <td colspan="2">Random (play)</td> </tr> <tr> <td>CE BP QTY</td> <td colspan="2">4</td> </tr> <tr> <td>CF BP QTY</td> <td>1</td> <td>Disabled</td> </tr> <tr> <td>BP Sen</td> <td colspan="2">18</td> </tr> <tr> <td>Mute Mode</td> <td colspan="2">Black</td> </tr> <tr> <td>Mute Val</td> <td colspan="2">10%</td> </tr> <tr> <td>Mute Time</td> <td>No deley</td> <td>2S</td> </tr> <tr> <td>MODBUSAddr</td> <td colspan="2">/</td> </tr> <tr> <td>Debug Addr</td> <td colspan="2">1</td> </tr> <tr> <td>EX-CTRL</td> <td>KTV N03</td> <td>KTV N02</td> </tr> <tr> <td>language</td> <td colspan="2">中文/CN</td> </tr> <tr> <td>AutoBackup</td> <td colspan="2">LIN</td> </tr> <tr> <td>Reset</td> <td colspan="2">No</td> </tr> </tbody> </table>	Parameters	Reset 1	Reset2	M/S	Master		DMX - ADDR	1		DMX - CH	1 to 1		DMX - MODE	Standard	Compatible	DMX Cache	OFF (digital display console)		BRI	All 100%		Speed Up	2.0		Sequence	Random (play)		CE BP QTY	4		CF BP QTY	1	Disabled	BP Sen	18		Mute Mode	Black		Mute Val	10%		Mute Time	No deley	2S	MODBUSAddr	/		Debug Addr	1		EX-CTRL	KTV N03	KTV N02	language	中文/CN		AutoBackup	LIN		Reset	No	
Parameters	Reset 1	Reset2																																																														
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language	中文/CN																																																															
AutoBackup	LIN																																																															
Reset	No																																																															

6. SOUND AND AUDIO CONTROL

Press [MENU] to switch the sound control, audio control and other types. The effect number should be less than 50.

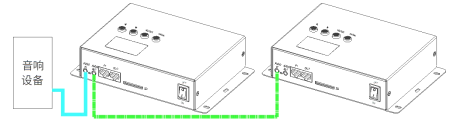
※ It is recommended that the audio control function is preferred. Because audio-controlled animation is more smooth, prominent and rhythmic than sound-controlled animation.

※ When exporting SD card files, ensure that animation files are in *.smel/*.emel/*.smin/*.emin format; otherwise, the sound control function cannot be enabled.

Audio control,

Connect the controller to the audio output device using the "audio cable" and manually switch to the audio control mode.

※ Audio devices (such as MP3 players, CD players, computers, mobile phones, multimedia consoles, and sound mixing stations) are prohibited from directly accessing the power player.



Sound control,

Controller with built-in microphone, put the controller near sound equipment and make the sound clear. Manually adjust to sound control mode.



Type	Introduction	
Sound control	Read the drum sound of the sound source for animation speed up/slow down/switch. Animation speed up (toggle) condition,	
Audio control	A. A drumbeat appears in a noisy environment. B. Sound appears in a quiet environment. C. The volume is greater than the mute threshold set by the controller.	

7. DMX512 CONSOLE CHANNEL DEFINITION

[Standard] One to one. (Channel values are incremented by ones.)

CH	01		02		03			04			05			06			07			08	09		10				
	Animation	Speed	Brightness_all		Brightness_CH1		Brightness_CH2		Brightness_CH3		Brightness_CH4		Control mode	Loop													
	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value					
V a l u e	97	97 ~ 255	99	18 ~ 255	100	100 ~ 255	100	100 ~ 255	100	100 ~ 255	100	100 ~ 255	100	100 ~ 255	100	100 ~ 255	100	100 ~ 255	空	Dyna mic Audio	4	~	255	Rand om	2	~	255
	96	96 ~ 96	80	17 ~ 17		Dyna mic Soun d	3	~	3		Full	1	~	1
	95	95 ~ 95	50	16 ~ 16	78	78 ~ 78	78	78 ~ 78	78	78 ~ 78	78	78 ~ 78	78	78 ~ 78	78	78 ~ 78	78	78 ~ 78		Spect rum Audio	2	~	2	Singl e		0	~	0
	30	15 ~ 15		imag e	0	~	0				
	...	...	20	14 ~ 14	50	50 ~ 50	50	50 ~ 50	50	50 ~ 50	50	50 ~ 50	50	50 ~ 50	50	50 ~ 50	50	50 ~ 50									
	...	...	15	13 ~ 13	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	10	10 ~ 10	12	12 ~ 12	38	38 ~ 38	38	38 ~ 38	38	38 ~ 38	38	38 ~ 38	38	38 ~ 38	38	38 ~ 38	38	38 ~ 38									
	9	9 ~ 9	11	11 ~ 11	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	8	8 ~ 8	10	10 ~ 10	8	8 ~ 8	8	8 ~ 8	8	8 ~ 8	8	8 ~ 8	8	8 ~ 8	8	8 ~ 8	8	8 ~ 8									
	7	7 ~ 7	9	9 ~ 9	7	7 ~ 7	7	7 ~ 7	7	7 ~ 7	7	7 ~ 7	7	7 ~ 7	7	7 ~ 7	7	7 ~ 7									
	6	6 ~ 6	8	8 ~ 8	6	6 ~ 6	6	6 ~ 6	6	6 ~ 6	6	6 ~ 6	6	6 ~ 6	6	6 ~ 6	6	6 ~ 6									
	5	5 ~ 5	7	7 ~ 7	5	5 ~ 5	5	5 ~ 5	5	5 ~ 5	5	5 ~ 5	5	5 ~ 5	5	5 ~ 5	5	5 ~ 5									
	4	4 ~ 4	6	6 ~ 6	4	4 ~ 4	4	4 ~ 4	4	4 ~ 4	4	4 ~ 4	4	4 ~ 4	4	4 ~ 4	4	4 ~ 4									
	3	3 ~ 3	5	5 ~ 5	3	3 ~ 3	3	3 ~ 3	3	3 ~ 3	3	3 ~ 3	3	3 ~ 3	3	3 ~ 3	3	3 ~ 3									
	2	2 ~ 2	4	4 ~ 4	2	2 ~ 2	2	2 ~ 2	2	2 ~ 2	2	2 ~ 2	2	2 ~ 2	2	2 ~ 2	2	2 ~ 2									
	1	1 ~ 1	3	3 ~ 3	1	1 ~ 1	1	1 ~ 1	1	1 ~ 1	1	1 ~ 1	1	1 ~ 1	1	1 ~ 1	1	1 ~ 1									
0	0 ~ 0	3	0 ~ 3	0	0 ~ 0	0	0 ~ 0	0	0 ~ 0	0	0 ~ 0	0	0 ~ 0	0	0 ~ 0	0	0 ~ 0										

[Standard] Ten to one. (Channel values are incremented by tens.)

CH	01		02		03		04		05		06		07		08		09		10																									
	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value																								
V a l u e	90	90	~	255	9	90	~	255	99	240	~	255	100	200	~	255	100	200	~	255	100	200	~	255	Dyna mic Audio	40	~	255	Rand om	20	~	255												
	80	80	~	89	8	80	~	89	50	220	~	229	99	198	~	199	99	198	~	199	99	198	~	199									99	198	~	199	99	198	~	199				
	70	70	~	79	7	70	~	79	30	210	~	219	97	194	~	195	97	194	~	195	97	194	~	195									97	194	~	195	97	194	~	195	97	194	~	195
	60	60	~	69	6	60	~	69	20	200	~	209	96	192	~	193	96	192	~	193	96	192	~	193									96	192	~	193	96	192	~	193	96	192	~	193
	50	50	~	59	5	50	~	59	15	150	~	159	95	190	~	191	95	190	~	191	95	190	~	191									95	190	~	191	95	190	~	191	95	190	~	191
	40	40	~	49	4	40	~	49	12	120	~	149
	30	30	~	39	3	30	~	39	11	110	~	117
	20	20	~	29	2	20	~	29	10	100	~	109
	10	10	~	19	1	10	~	19	9	90	~	99	7	14	~	15	7	14	~	15	7	14	~	15									7	14	~	15	7	14	~	15	7	14	~	15
	00	0	~	0	0	0	~	0	8	80	~	89	6	12	~	13	6	12	~	13	6	12	~	13									6	12	~	13	6	12	~	13	6	12	~	13

[Compatible] One to one. (Channel values are incremented by ones.)

CH	01		02		03		04		05		06		07		08	09																
	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value		Target	Push rod value															
a n i m a t i o n	100	253	~	255	100	253	~	255	100	253	~	255	100	253	~	255	2	151	~	255	96	96	~	255	Dyna mic Audio	4	~	255				
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	141	~	150	95	95	~	95					...	...	...	...
	78	197	~	198	78	197	~	198	78	197	~	198	78	197	~	198	4	131	~	140	94	94	~	94					...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	121	~	130	...	...	...	...					...	...	...	...
	50	125	~	127	50	125	~	127	50	125	~	127	50	125	~	127	6	111	~	120	...	...	...	...					...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	101	~	110	...	...	...	...					...	...	...	...
	38	95	~	96	38	95	~	96	38	95	~	96	38	95	~	96	8	91	~	100	10	10	~	10					...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	81	~	90	9	9	~	9					...	...	...	...
	8	18	~	20	8	18	~	20	8	18	~	20	8	18	~	20	10	71	~	80	8	8	~	8					...	...	...	...
	7	16	~	17	7	16	~	17	7	16	~	17	7	16	~	17	11	61	~	70	7	7	~	7					...	...	...	...

[Compatible] Ten to one. (Channel values are incremented by tens.)

CH	01		02		03		04		05		06		07		08		09																			
	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value	Target	Push rod value																		
a n i m a t i o n	100	253	~	255	100	253	~	255	100	253	~	255	100	253	~	255	2	151	~	255	90	90	~	255	9	90	~	255	Dyna mic Audio	201	~	255				
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	141	~	150	...	...	...	...	...	...	...	...
	78	197	~	198	78	197	~	198	78	197	~	198	78	197	~	198	4	131	~	140	80	80	~	89	8	80	~	89					...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	121	~	130	...	...	...	...	...	...	...	...
	50	125	~	127	50	125	~	127	50	125	~	127	50	125	~	127	6	111	~	120	70	70	~	79	7	70	~	79					...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	101	~	110	...	...	...	...	...	...	...	...
	38	95	~	96	38	95	~	96	38	95	~	96	38	95	~	96	8	91	~	100	60	60	~	69	6	60	~	69					...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	81	~	90	...	...	...	...	...	...	...	...
	8	18	~	20	8	18	~	20	8	18	~	20	8	18	~	20	10	71	~	80	50	50	~	59	5	50	~	59					...	...	...	...
	7	16	~	17	7	16	~	17	7	16	~	17	7	16	~	17	11	61	~	70	40	40	~	49	4	40	~	49					...	...	...	...

When DMX512 console control is selected, animation is played with the last control instruction.;

“00” is loop all animations. Letter D indicates that the system is connected to the console correctly.

If the mode exceeds the animations in the SD card, it will be no light in the image mode. If the mode exceeds the animations in the SD card, it will play the last animation in the sound/audio control mode.

Type:	Picture
Speed:	04
D Mode:	01

8. WIRELESS CONTROL

8.1. BLUETOOTH REMOTE CONTROL

When the controller supports the Bluetooth remote control function, it can use the remote control of Bluetooth signal to call effect and speed within 10 meters.

- 【AUTO】 Short press, switch from single cycle to multi-cycle.
- 【MODE+】/【MODE-】 Short press, effect increase/decrease 1.
- 【SPD+】 / 【SPD-】 Short press, speed increase/decrease 1.
- 【BRI-】 / 【BRI+】 Short press, brightness increase/decrease 10%.
- 【A/V/P】 Tap to switch pattern/built-in/Sound control/Dimming playback mode



8.2. CONTROLLED BY BLUETOOTH

When the controller enables the Bluetooth signal, the effect, speed and other operations of the controller can be called through the Eseeker applet of the phone. The operation below.

The controller that supports GPS does not support Bluetooth control.

1. Power on the controller.


Type:	BuildIn
Speed:	04
Mode:	01


2. Turn on Bluetooth and scan the sunflower code.



3. Select the device to connect.



4. When the applet is successfully connected, a Bluetooth icon  is displayed on the controller screen. At the same time, the luminaires is connected to the controller flicker s 5 second.

 Type:	BuildIn
Speed:	04
Mode:	01

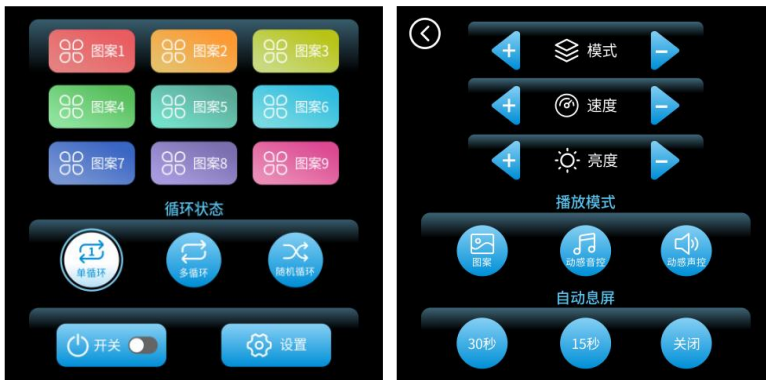
9. CONTROLLED BY PANEL

Use the audio cable to connect the controller and the audio device. After select the dynamic audio (动感音控) on the panel, the controller will read the drum sound of the sound source to accelerate / decelerate / change the effect when play music.

Please ensure there are *.smel/*.emel/*.smin/*.emin format effects in the software before merging files in SD card.

9.1. CONTROLLED BY PANEL A

After the panel is properly connected to the controller, enable the COM external control mode in the menu setting. That is, we can switch animations, speeds and other functions through the panel.



Options	Instructions												
图案 1-9	Select mode 1-9.												
单循环/多循环/随机循环	Select single loop(单循环), multiple loop(多循环), random loop(随机循环)												
开关	Turn on /off the luminaires.												
设置	Enter the settings interface.												
	<table border="1"> <thead> <tr> <th>Options</th> <th>Illustrate</th> </tr> </thead> <tbody> <tr> <td>模式/速度/亮度</td> <td>Mode / Speed / Brightness</td> </tr> <tr> <td>图案</td> <td>Image</td> </tr> <tr> <td>动感音控</td> <td>Dynamic Audio</td> </tr> <tr> <td>动感声控</td> <td>Dynamic Sound</td> </tr> <tr> <td>自动息屏</td> <td>Time to sleep without operating.</td> </tr> </tbody> </table>	Options	Illustrate	模式/速度/亮度	Mode / Speed / Brightness	图案	Image	动感音控	Dynamic Audio	动感声控	Dynamic Sound	自动息屏	Time to sleep without operating.
	Options	Illustrate											
	模式/速度/亮度	Mode / Speed / Brightness											
	图案	Image											
	动感音控	Dynamic Audio											
动感声控	Dynamic Sound												
自动息屏	Time to sleep without operating.												

9.2. CONTROLLED BY PANEL N

After the panel is properly connected to the controller, enable the “Panel 3” external control mode in the menu setting. That is, we can switch animations, speeds and other functions through the panel.

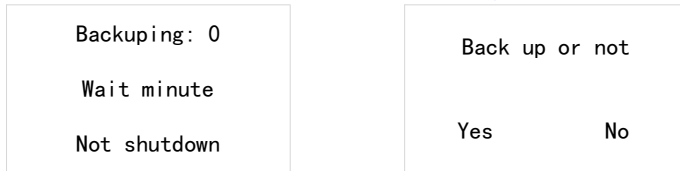


Options	Instructions
情景 1	multiple loop play mode 1 to 5.
情景 2	multiple loop play mode 6 to 10.
情景 3	multiple loop play mode 11 to 15.
情景 4	multiple loop play mode 16 to 20.
情景 5	multiple loop play mode 21 to 25.
情景 6	multiple loop play mode 26 to 30.
柔和	multiple loop play mode 31 to 35.
明亮	multiple loop play mode 36 to 40.
动感音控	Dynamic Audio
温馨	multiple loop play mode 41 to 45.
模式	single loop play the designated mode. (Select the “情景**” option to switch the multiple loop.)
关灯	Turn on /off the luminaires.
自动	Sequential/random playback according to the control mode set by the controller
亮度	Brightness: 0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%

10. BACK UP OR REPAIR EFFECTS FILE

In order to avoid SD card damage, file damage, and no SD card, you can switch the effect of playing the storage disk. We need to back up the files in the SD card to the controller in advance.

- When “Auto back up” is ON of the controller (set in the menu parameter), the SD card files are automatically backed up to the controller each time the controller is powered on.
- If “Auto back up” is OFF, the display will pop up every time we turn it on.



If necessary, we need to select “Yes” for backup and repair.

If not, we can select “No”. Or wait for 3 seconds, the controller will automatically cancel the backup, and enter the basic operation interface.

Note: No backup operation is displayed when the number of SD card files exceeds 450M, the SD card files are the same as the backup file, or an error (such as E01 displayed) is reported during startup.

11. THE BUILT-IN TEST ANIMATION

Press MENU to set the "built-in effects" control mode.

Note: This built-in effect control mode cannot be invoked when there is no card.

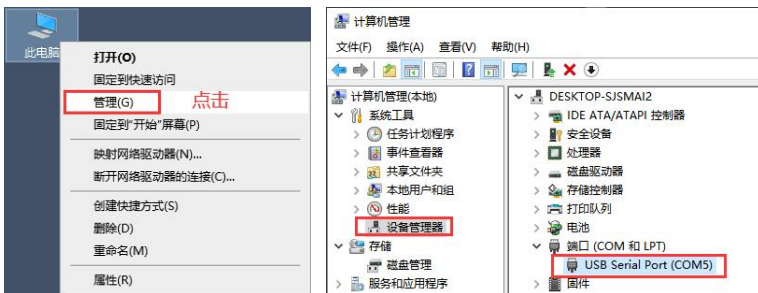
Channel Effect Mode	1 Channel	2 Channel	3 Channel	4 Channel	5 Channel	6 Channel
1.	Lightless	Lightless	Light-up CH1	Light-up CH1	Light-up CH1	Light-up CH1
2.	Always light	Always light	Light-up CH2	Light-up CH2	Light-up CH2	Light-up CH2
3.	Trailing	Trailing (CH1)	Light-up CH3	Light-up CH3	Light-up CH3	Light-up CH3
4.	Chasing	Trailing (CH2)	Light-up CH1+CH2	Light-up CH1+CH2	Light-up CH1+CH2	Light-up CH1+CH2
5.	Flicker	Chasing (CH1+2)	Light-up CH2+CH3	Light-up CH2+CH3	Light-up CH2+CH3	Light-up CH2+CH3
6.	Breathing	Flicker	Light-up CH1+CH3	Light-up CH1+CH3	Light-up CH1+CH3	Light-up CH1+CH3
7.		Full color gradually turn	Lightless	Lightless	Lightless	Lightless
8.			Always light	Always light	Always light	Always light
9.			Trailing (CH1)	Light-up CH4	Light-up CH4	Light-up CH4
10.			Trailing (CH2)	Trailing (CH1)	Light-up CH5	Light-up CH5
11.			Trailing (CH3)	Trailing (CH2)	Trailing (CH1)	Light-up CH6
12.			Full color trailing	Trailing (CH3)	Trailing (CH2)	Trailing (CH1)
13.			Chasing (CH1)	Trailing (CH4)	Trailing (CH3)	Trailing (CH2)
14.			Chasing (CH2)	Chasing (CH1)	Trailing (CH4)	Trailing (CH3)
15.			Chasing (CH3)	Chasing (CH2)	Trailing (CH5)	Trailing (CH4)
16.			Full color chasing	Chasing (CH3)	Chasing (CH1)	Trailing (CH5)
17.			Flicker	Chasing (CH4)	Chasing (CH2)	Trailing (CH6)
18.			Flicker (CH1/2/3)	Flicker	Chasing (CH3)	Chasing (CH1)
19.			Colorful flowing water	Flicker (CH1/2/3)	Chasing (CH4)	Chasing (CH2)
20.			7 color gradually turn	Colorful flowing water	Flicker	Chasing (CH3)
21.			Colorful gradually turn	7 color gradually turn	Flicker (CH1/2/3)	Chasing (CH4)
22.			7 color breathing	Colorful gradually turn	Colorful flowing water	Flicker

Channel Effect / Mode	1 Channel	2 Channel	3 Channel	4 Channel	5 Channel	6 Channel
23.				7 color breathing	7 color gradually turn	Flicker (CH1/2/3)
24.					Colorful gradually turn	Colorful flowing water
25.					7 color breathing	7 color gradually turn
26.						Colorful gradually turn
27.						7 color breathing

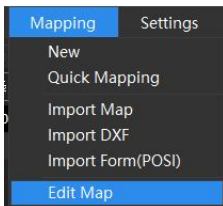
12. LIGHTING UP WHILE CABLING PIXEL

After the controller is connected to the computer through the "USB to RS-485 converter", the corresponding luminaires can be light up while the LED Player is laying pixels.

1. Controller is connected to the computer through the "USB to RS-485 converter". For details, refer to SINGLE PIXEL CLOTH AND LIGHTS UP IN REAL TIME.
2. Some computers will automatically identify the com port and install the driver.
3. Right click PC icon, and click "Management" - "Equipment Management" in turn. We can check the USB port (example COM 5).
4. If the com port is not displayed, please click this link (<http://www.swdoc.cn/f/479f92af828545f99d5c/>) to download and install driver.



5. Click "Edit Map" of "Mapping" in the LED Player to open the Mapping Tools.



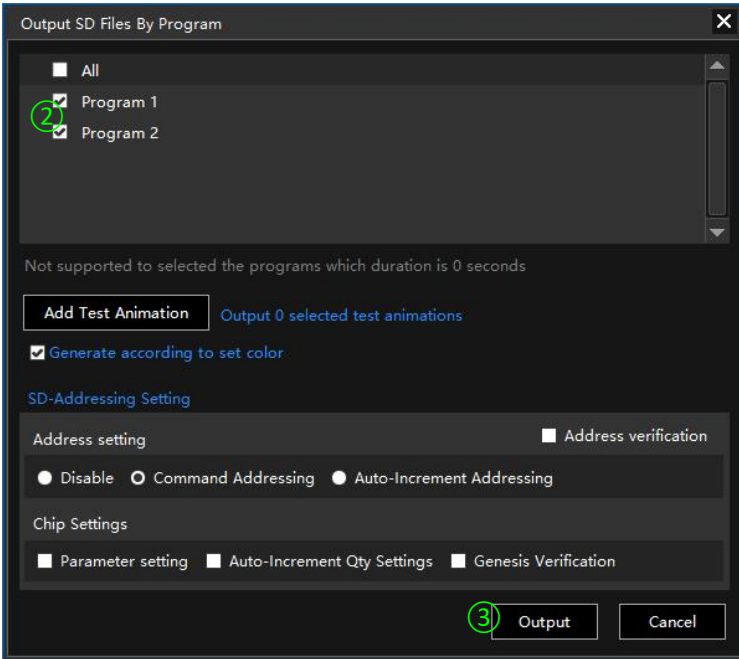
6. Under the Common bar, check "Light test" and select the COM number.



7. Operate according to normal wiring.

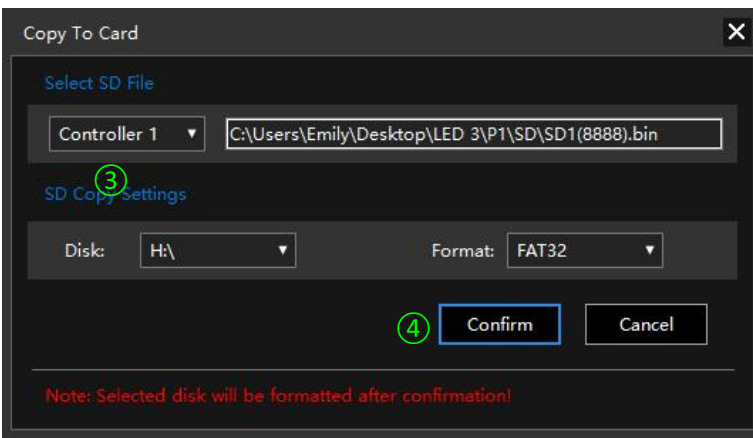
13. OUTPUT AND COPY THE SD CARD FILE

13.1. OUTPUT THE SD CARD FILE



1. Click “SD” of Output, and open the windows.
1. Select the program (less than 96) be out-put. The frame rate of a single program shall not exceed 65000 frames.
2. Click Output.

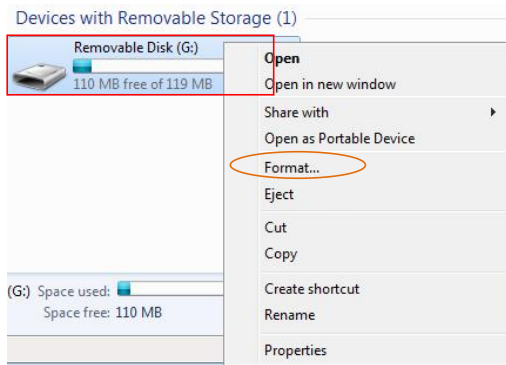
13.2. COPY THE SD FILE BY LED PLAYER



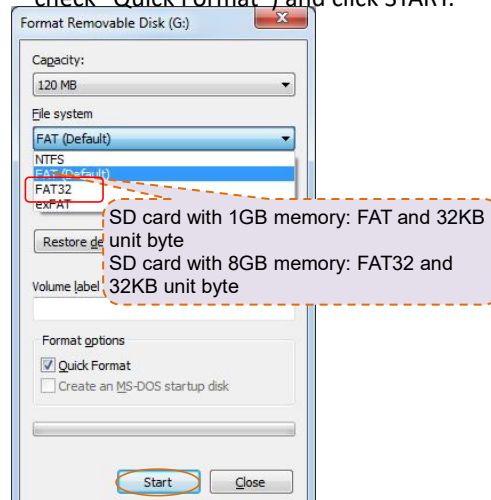
1. Input the SD card.
2. Click “Copy to SD” of Output, and open the windows.
3. Select the controller number be copied.
4. Click Confirm.

13.3. MANUAL FORMAT AND COPY CARD

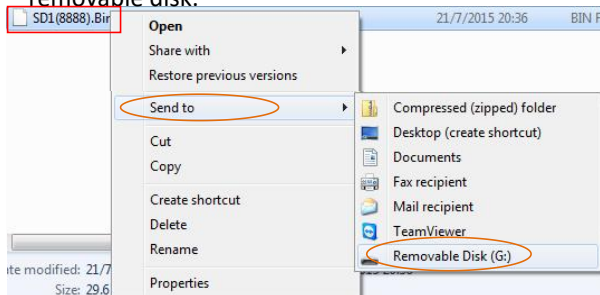
1) Right click the disk where the SD card locates.



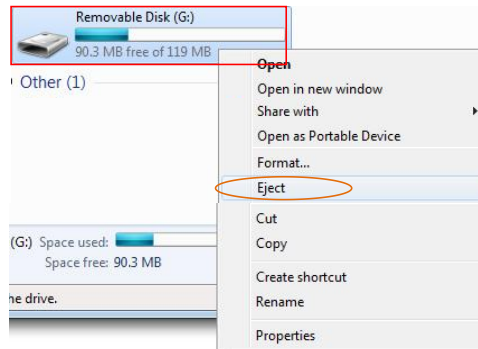
2) Set File system and 32KB unit byte (can check "Quick Format") and click START.



3) Right click SD1(8888).Bin file, send the file to removable disk.



4) Right click removable disk and click "Eject".








14. ERROR CODE

Error	Reason	Measure
E01.**.**	No SD card or SD card port is broken.	Insert the SD card. If an error occurs when inserting the SD card, the SD card holder is damaged. Contact us.
E02.**.**	SD card no response or breakdown.	Please replace the new SD card. If an error occurs when inserting the SD card, the SD card holder is damaged. Contact us.
E03.**.**	There is no file in the SD card or SD card is breakdown.	Copy SD card file again.
E05.**.**	Cannot read part of the card or bad connection.	Please replace the new SD card .
E07.**.**	SD card file sequence doesn't match the controller.	SD card file error. or unfinished video merging.Please open the corresponding code to output the SD card file and copy again.
E18.**.**	The number of loaded pixels exceeds the upper limit.	Please reduce the number of project pixels.
E24.**.**	Fail to update firmware.	Please use the correct updated file to update.
E25.**.**	There is no update file in SD card.	Please copy the update file into SD card and operate

Error	Reason	Measure
		again.
E26.**.**	Fail to generate UID confirmation.	Check whether an SD card is inserted into the controller; Please replace the SD card and generate the UID code again.
E27.**.**	The SD card has too many bad areas.	Please replace the new SD card.

Description: The code is 6 digits. The first two digits are the fault code, and the last four digits are the subarea code to facilitate us to analyze the specific problem.

15. FITTINGS

Shows	Item	Number	Remark
	SD Card	1	
	3P Terminal	8	
	Audio Cable	1	
	straight screwdriver	1	
	Bluetooth remote controller	1	Selected